

# Appendix 8

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*Final Report*  
*Joint ARHCA/AIT Committee on “Work Planning”*

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## 1 Background

The committee met four times between July 17 and November 27, 2007 to achieve the following goals:

- a) Improve overall performance within accelerating budgets.
- b) Improve management of resources and finances in the short term.
- c) Strategically plan and organize maintenance activities provincially, long term.
- d) Improve overall effectiveness with better work identification and management process.
- e) Improve overall "Highway Maintenance Work" effectiveness.

There were several major issues that the Committee needed to address:

- Where are We Going?
- Getting Resources to Get the Work Done
- Getting the Work Done to Budget
- Facilitating the Required Resources
- Sustaining Highway Maintenance Work

The following are recommendations and discussion around these five major issues:

## 2 Where are We Going?

It is important that both parties actively manage long term priorities of overall provincial highway maintenance.

While it is recognized the owner, Alberta Transportation (henceforth referred to as the "Department"), has the right to manage strategies and priorities of work, the work must also be successfully executed. Therefore a joint effort of both parties is needed, with consideration given to the capacities and capabilities of the Highway Maintenance Contractors (henceforth referred to as the "Contractor") and the lead times required to obtain additional resources.

Therefore, the budget should be developed on a three year cycle. This maximizes the probability that Contractors will have sufficient time to "gear up" or "recruit" resources in time for the actual work delivery. Sometimes work will be simply "undeliverable" in a particular year. With good planning, work can be "spread out" to increase the likelihood that it will be deliverable in mutually agreeable timeframes.

## **2.1 Standards & Constants**

The Provincial Operations Managers forum (known as the Operations Process Management Committee – OPMC), has a sub-committee called the Budget Allocation Task Group (BATG).

Each year BATG prepares the annual maintenance budget for all the Provincial Highways and other operating budgets in Alberta. Calculating the financial “splits” between the Department’s operational jurisdictions and Contract Management Areas (CMA’s) based primarily on needs is a complicated task.

To identify the needs accurately, BATG each year identifies its “Standards & Constants” that set the overall level of work at the individual Activity level.

A good example of provincial standards is “Line Painting”. BATG defines the standards for line painting for each major class of roadway and then each CMA is allocated sufficient funds to meet those standards. The standards for line painting are defined in terms of specific lines to be painted and frequency of repainting/year.

Historically, BATG has undertaken this task separately in close consultation with OPMC. When budgets are relatively constant, the annual changes tend to be minor and the work activity remains steady.

However, when budgets increase or fall rapidly, the effect of “Standards & Constants” becomes dramatic on the individual maintenance activities province wide. It is understood that the budget information provided in the “Standards and Constants” is potentially subject to change based on the current objectives of the Alberta Government.

### **Recommendation 2.1: Standards and Constants**

- a) The Department BATG will provide the provisional “Standards and Constants” to the Alberta Roadbuilders and Heavy Construction Association (ARHCA)/Alberta Transportation (AT) Joint Steering Committee (AHRCA/AT JSC) for the upcoming 3 year period by August of the year prior to the relevant fiscal year.
- b) If the information is not available by the end of August, the BATG will inform the ARHCA/AT JSC and provide a proposed schedule. Because this information is also required for the budgets, it is a critical item, and excessive delays will delay the provision of the budget information to the Contractors, which will also impact the Contractor’s ability to obtain additional resources, especially equipment and subcontractors.

- c) The ARHCA/AT JSC will provide the information to the Contractors. The Contractors will provide feedback back through the ARHCA/AT JSC regarding potential issues with deliverability and resource constraints that they see with the proposed "Standards and Constants".
- d) The ARHCA/AT JSC will provide the feedback from the Contractors to the BATG. BATG will then incorporate the feedback into the Standards and Constants.
- e) If the feedback from the Contractors does not achieve Department objectives, it can be brought back to the Contractors for further input until agreement is achieved, or at least mutual understanding.

## **2.2 Provincial Roll-up in the Three Year Cycle**

In preparing the initial maintenance budget for future years at the ARHCA/AT JSC level, presentation to the Contractors provincially should be "rolled-up" into a provincial level and not broken down into specific contracts or individual CMA's. This provincial roll-up document will be reviewed by the ARHCA/AT JSC, which will calculate the impact of the "Standards and Constants" on the budgeted work versus resources. The strategy of work achievement and deliverability will be key components in those discussions.

The strategy should be primarily based on provincial needs, priorities and resource considerations rather than on an interest or issue that may be localized within an individual contract or is Contractor specific. It is intended that the budget would be a three-year rolling cycle.

### **Recommendation 2.2: Three Year Provincial Budget Cycle**

- a) The BATG will provide three year rolling budget information to the ARHCA/AT JSC. The three year cycle would include one year of specific provincial budget information for the upcoming fiscal year and two years of preliminary budget planning for subsequent years.
- b) The ARHCA/AT JSC will provide the provincial information to the Contractors.
- c) The BATG will target provision of this information by August of the fiscal year prior to the relevant initial year of the three year budget period.
- d) The budget cycle will follow the process shown in the attached Appendix A1

## **2.3 Contract Specific Budget Information**

It is intended that the role of the ARHCA/AT JSC would be to direct the joint provincial financial strategy for maintenance activities. The local contract areas will be responsible

for developing the local budgets in accordance with the general principles developed by the OPMC BATG in consultation with the ARHCA/AT JSC.

### **Recommendation 2.3: Contract Specific Budgets**

- a) The BATG will target provision of the contract specific budget to the Department Operations Managers by September of the year prior to the fiscal year in which the work is to be delivered. The initial contract specific budgets will be based on the agreed "Standards and Constants".
- b) The Department Operations Managers will provide the information to their Contractors in September of the year prior to the fiscal year in which the work is to be delivered.
- c) The Department and Contractor forces will work together to develop the specific detailed CMA budgets, including estimated quantities, for their CMA's by February prior to the fiscal year the work is to be delivered in.
- d) The detailed CMA budgets will be developed in accordance with the principles established by the OPMC BATG for the work through the Standards and Constants. Consideration may be given to local issues not covered by the general principles.
- e) Budgets for work not covered within the CMA budgets (Special Programs) will also be established by February prior to the fiscal year the work is to be delivered in.

### **2.4 Role of the Provincial Steering Committee**

It is intended that the role of the ARHCA/AT JSC would be to direct the big financial picture of maintenance activities overall and through the upcoming years.

### **Recommendation 2.4: Budget Role of Provincial Steering Committee**

- a) This group should review the budget plans to ensure the following:
  - ❖ The budget plan is deliverable with available resources or at least procurable resources.
  - ❖ Identify impediments or roadblocks that may exist that could result in failure to deliver the planned work, either within the desired timeframe or within a given fiscal year.
  - ❖ Review and recommend the long term budget plan that will actually deliver the long term objectives and goals of the Department and Contractors.
  - ❖ Recommend new strategies, methods and/or innovative technologies that would assist the Department and Contractors in the achievement of their mutual long term goals and priorities.

- ❖ Provide feedback between the Contractors and the Department regarding the achievement of long term goals and objectives.

For example, the Department may wish to invest additional funding in the future for a more durable crack treatment, such as rout and seal, which may or may not increase the quantity of cracksealing. While rout and seal exists in the current Contracts, its wide spread implementation provincially is currently a challenge for the industry to deliver. The move to increase rout and seal would need to be "orchestrated" so that the work demand can be matched with available resources. It may also be necessary to increase resources. Overall, provincial capacity needs to grow dramatically from the current provincial levels for a number of maintenance Activities. The ARHCA/AT JSC should advise on potential issues with increasing the Work programmed for these Activities. It should also establish acceptable guidelines to maximize the likelihood that the overall maintenance program is deliverable.

## **2.5 Special Programs and Projects**

Currently the Department manages several special programs, for example, the programs for upgrading and repairing guardrail and culvert infrastructure. In the future durable line marking and other initiatives will likely arise.

It is important that these "special" programs be included within the long range budget planning discussions at the Steering Committee level, both in terms of deliverability and expectation of achievement that these programs are intended to deliver.

### **Recommendation 2.5: Special Programs and Projects**

- a) The BATG will target provision of provincial funding information to the ARHCA/AT JSC for Special Programs and Projects by September of the year in advance of the Department fiscal year the work is to be delivered in.
- b) The BATG will target provision of the detailed (location/quantity) information on Contract specific Special Programs and Projects to the Department Operations Managers by February prior to the Department fiscal year the work is to be delivered in.
- c) The Department Operations Managers will provide the detailed (location/quantity) information on Contract specific Special Programs and Projects to the Contractor by February prior to the Department fiscal year the work is to be delivered in.
- d) If there are "cost implications" or "completion/timeliness implications" for special programs, the Contractor shall identify these as early as possible, so that the best possible solution can be found.

## **2.6 Detailed Work Planning**

There are a number of Activities which can be planned and for which the Contractors can provide reasonably detailed information regarding scheduling. It is important that the major Activities are included in the Detailed Work Plan, as they are the ones that have the largest impact on the provincial budget. They also have the largest impact on public perception of the highway maintenance work and perception of the Department and Contractors responsible for implementing it.

### **Recommendation 2.6: Detailed Work Planning**

- a) Department contract forces will provide the initial budget information to the Contractors regarding the quantities of work and other critical parameters (priority, influence of other highway work, etc.) the Department seeks to achieve in terms of timing and delivery of the work. This information should be provided by September of the previous year, to the extent reasonably possible.
- b) It is recommended that Contractors work together with the Department to identify the quantities of work for the major critical Activities. For some Activities, the Department has the primary responsibility for identifying the Work, especially for Activities such as line painting where there is a defined inventory and the Work is undertaken on an ongoing basis. Contractors would be expected to provide feedback regarding scheduling and other issues. For other Activities such as Paver Patching, the Contractor has significant knowledge regarding the deterioration of the highway and can provide feedback regarding the potential Work. It is recommended that Department and Contractor forces look at the potential Work together and develop the yearly program for these Activities together.
- c) Contractors will work with the detailed budget information for the Contract and CMA's and develop a Work Plan for the critical items. This Work Plan will be submitted to the Department for review and revision as required until it is mutually satisfactory and meets mutual objectives.
- d) The following "major" Activities will require a detailed Work Plan unless otherwise mutually agreeable.
  - ❖ Sand Supply & Stockpiling
  - ❖ Cracksealing
  - ❖ Surface Patching
  - ❖ Line Painting
  - ❖ Regravelling
  - ❖ Mowing
- e) The following Activities may require a detailed Work Plan if quantities are significant and/or as otherwise mutually agreed.
  - ❖ Spray Patching
  - ❖ Asphalt Surface Treatment



- ❖ Roadway and Raised Median Cleaning
  - ❖ Pavement Markings
  - ❖ Dust Abatement
  - ❖ Chemical Vegetation Control
  - ❖ Guardrail
  - ❖ Bridge Washing
- f) Detailed Work Plans supplied by the Contractor will provide the following information at the CMA level:
- ❖ Estimated schedule for the work, based on estimated time required given available resources for a given quantity of work under conditions that can reasonably be predicted to occur in a given year.
  - ❖ Work Plans should provide a reasonable consideration for lost time due to weather or other factors. The Work Plan should not be based on ideal work conditions and the ideal operation of the crew. On the other hand, if there are exceptional factors, such as severe weather, emergency response or other significant issues, these could be considerations for extending the timeframe required to complete.
  - ❖ **Completion Dates:** Contractors will provide a requested timeframe for the Work Order completion date. Due consideration is to be given for Department priorities and relevant factors influencing timing of work versus Contractor resource capabilities.
  - ❖ Other information as required by Contract.
  - ❖ Contractors may optionally provide scheduling information in the form of graphs or charts (Gantt charts or other graphical means) to assist with the evaluation and discussion of the Contractor's Work Plan for each Activity. This is an especially useful tool when used to compare the Work Plan against the actual progress.
  - ❖ Once the Work Planning function is available in PMA (Program Management Application), this function should be used to create the Work Plan.
- g) Detailed work plans must also include specific details of any cost implications, where known. Changes in cost for UPS work and negotiation of pricing in "Extra Work" is not a quick process and should be identified well in advance of the detailed work plan, to avoid delays later on.
- h) Tracking the work and adjusting the Work Plan is discussed in further detail in **Section 4.2: Work Management.**

## **2.7 PMA Budget and Work Planning Module**

Currently the Department's Contract management software, the Program Management Application (PMA) has a maintenance budget preparation module. This module will enable preparation of the maintenance contract budget in the future, given that changes to

the system are made to allow input and access of relevant Budget and Work Planning information.

PMA software should be developed for presentation of the upcoming budget year and proposed three year budget information. It should enable the following:

**Recommendation 2.7: PMA Budget & Work Planning Module**

- a) That PMA provide for entry by the Department for an "Initial Fiscal Year Budget" (IFYB) for each CMA (or other major equivalent budget breakdown) which will be the reference point for Work Planning and comparison of Work Accomplishment versus Budget. This budget will be entered into PMA by the end of March by Department forces (no later than early April) prior to the fiscal year the work is to be accomplished in. Even if there is a "Revised Fiscal Year Budget" (RFYB) developed by the Department, both the RFYB and the Work Planning (and Work Accomplishment) information would continue to be compared to the IFYB.
- b) If the Department is undertaking a significant amount of "extra work" and/or "UPS adjusted price work (for example "additional beyond provisional"), then those arrangements should be principally agreed upon before the implementation of the IFYB into PMA.
- c) That the PMA Budget Module be set up for the Department to budget each Activity either on an Activity level or at the Bid Item level if required by the Department, and ultimately rolled up to a final dollar value for the Activity. Either method of data entry is acceptable to the Contractors for budgeting as long as the Work Planning information required is limited to the Activity level or a limited (mutually agreed) breakdown beyond the Activity level.
- d) That Contractors have at least 'read only' access to the budget module of the PMA program for their contract so that they can access the detailed information regarding the budget values for each Activity and/or Bid Item(s) and quantities as appropriate.
- e) That if Contractors are provided access (at least read only) to the PMA budget information, they are also prepared to provide and enter information on Work Planning into PMA, when such a module is developed. The recommendation is that the Work Planning information be provided based on accumulated planned expenditures (dollars) per month for each Activity for the entire Department fiscal year. Exact data entry format needs to be determined in consultation between Department and Contractor representatives in coordination with the PMA development team so that the data entry is as simple as reasonably possible for the Contractors. (A proposed format shown in Appendix A2.)
- f) That Work Planning in PMA be restricted to an Activity level as much as possible (barring agreement for items in (e) above.) as long as the information required by PMA is limited and data entry is kept simple.

- g) That a mutually agreed format for representing (graphing) the budget, Work Planning, and expenditure information be developed for PMA. (A proposed format is attached in Appendix A2.)
- h) That all other detailed Work Planning be done outside of PMA. Contractors seek to keep their proprietary information, such as resource requirements and productivities, secure and confidential, and would prefer to use their own internal and/or proprietary systems for the Work Planning.
- i) Contractors will provide information on Work Accomplishment as long as the information required is limited in a similar manner and format to the Work Planning information, i.e. primarily at the Activity level. Further discussion of tracking Work Accomplishment is included in **Recommendation 4.1; PMA Reporting - Work Tracking**.

One suggestion discussed was that the Work Planning information be reported in terms of % of budget. While it was agreed that this would work well for most Activities, it becomes a problem if the Initial Fiscal Year Budget for an Activity is initially \$0.00 and work is subsequently added afterwards as the season progresses. (\$0.00 x any percentage is still \$0.00.) It is recognized that Contractors are likely to think about Work Accomplishment in terms of % accomplished, at least until the work is finished and the exact dollar value of work completed is known.

Another suggestion was that the Work Planning information be entered by quantity. The downside of this from a Contractor perspective is that it substantially increases the complexity of the data entry as it would require bid item level data entry for many items. Several Activities have many associated bid items (i.e. say Paver Patching in tonnes, haul in tonne\*kms, Supply of Aggregate items, etc.) and would require calculations to convert quantities to values of work. Contractors would prefer to keep data entry very simple, so dollars are considered to be the best way to enter the information with the least complications, and it has the additional benefit of allowing the information to be summarized at many levels.

If the information is entered as dollars, then all of the information from all the Activities can be summarized together and accumulated on a CMA, Contract, District and Provincial level. Dollar entry is acceptable although it should also be expressed as a percentage of complete for that activity, even if the percentage exceeds 100%. Consideration then needs to be made for calculations for division by zero if the initial budget for an Activity is zero.

## **2.8 Pavement Preservation**

The Department has a major initiative to extend pavement life and lower overall highway life cycle costs. As this initiative proceeds, it needs to be managed at a provincial level.

Resources and strategies need to be balanced to maximize the likelihood that Work is deliverable in the year that it is planned for.

Selective pavement rehabilitation sections may or may not be included with the Maintenance Contracts.

With good long term budget planning, Departmental expectations can be balanced from year to year allowing the Department to adjust allocation to a deliverable level of expenditure. Industry growth capacity can also be encouraged and measured.

**Recommendation 2.8: Pavement Preservation**

- a) That the Department target the provision of Budget information and reasonably detailed project information for Pavement Preservation Work by the September preceding the fiscal year in which the Work is to be done. Given that the industry is presently working at a very intense level, it is important to have the information as early as reasonably possible so the Contractor can obtain the required resources.

The earlier the Contractors have the information, the more likely they are to be able to complete the work in a given season. Identifying the information in September of the previous year is ideal, but it may take the Department some time to assemble and complete the analysis and prioritization of the information. The earlier the information is provided, the greater the likelihood the Contractors can obtain necessary resources, either their own or that of subcontractors.

If the Department identified the work required in the following year, it is incumbent upon the Contractor to identify any UPS pricing adjustments or "Extra Work pricing", as soon as possible, for pavement preservation work. Contractors will need sufficient details regarding the work to obtain and submit pricing to the Department.

Another factor to consider is that the Contractors need to have a reasonably consistent quantity of work in order to obtain additional resources for an increased workload. It becomes far more difficult, potentially impossible, to maintain the resources if the amount of work varies significantly beyond the Contractor's ability to obtain resources. Sustainability also becomes an issue if the workload varies excessively beyond the Contractor's resource capacity from year to year, especially if it goes through a cycle of increasing substantially in one year and decreasing substantially in the next, either for an Activity or the work as a whole.

## **2.9 Transfer Work from Pavement Rehab Programs**

To expedite the efficiency of the paving, some minor components of asphalt rehabilitation contracts are being stripped out. The extent and process for Contractors to assume this work on a sole source basis needs to be managed on a consistent basis.

Contractors will need early and timely information regarding this work so they can make arrangements for delivery of the work.

### **Recommendation 2.9: Pavement Rehabilitation Program – Work Transfer**

- a) That the Department/Contractors develop a clear and consistent Provincial or Regional process for the transfer of work out of the Pavement Rehabilitation program to the Contractors.

## **2.10 Provincial Bridge Maintenance**

Overall, it is agreed that improvements could be made to the delivery of bridge maintenance work throughout the province. In some areas, the process works reasonably well. In other areas, there is a real or perceived degree to which Regional Bridge staff direct the sourcing and delivery of projects. This tends to increase the difficulty for Contractors to arrange and sustain resources and accomplish as much bridge maintenance work as would otherwise be feasible to undertake at a fair and competitive cost.

### **Recommendation 2.10: Provincial Bridge Maintenance**

- a) That the Department/Contractors develop a process to improve the bridge maintenance delivery and Contractor ability to sustain Bridge maintenance resources for completion of the work.

## **3 Getting Resources to Get the Work Done**

### ***Introduction***

By September of each year, the previously approved long term budget for the next fiscal year should be provided to the Contractor by the Department, at the individual contract level, with the information broken down by CMA. This allows at least six months of preparation in each contract for the upcoming season, at least in general terms.

### **3.1 Pre-season Schedule & Preparations**

Prior to the commencement of the fiscal year the Contractor develops a "Detailed Work Plan" for the critical Activities for the upcoming work season. This Detailed Work Plan should be developed with considerable consultation and feedback from the Department. While this process already exists, it is envisioned that the longer "lead time" for provision of budget information will allow for better preparation by the Contractors. Included in this detail should be better "location" information for proposed work with details worked out in conjunction with Department staff for the various Activities as required (and down to Bid Item level if necessary).

With better information of locations and quantities, the quality and the detail contained within the Contractor's Detailed Work Plan, and the better the plan, the easier the execution will likely be later on. It also needs to be recognized that there are factors beyond the Contractor's control which will influence the delivery of the plan (i.e. significant weather issues, special provincial programs {Olympics, G8, etc.}, industry capacity, variable workloads, restrictions to material supply, and other factors).

Also included in the Detailed Work Plan should be the identification of "efficiencies" that may become an opportunity to reduce the Contractor's costs. Often work can be organized to maximize the productivity of the crews. When work is "bundled" into areas, travel time and mobilization time is reduced.

Historically, quantities and budgets are allocated by CMA's, however, for some Activities it may be more effective to group the work into larger "bundles" so it can be managed or changed to be more economical. For example, planned guardrail post replacement can be grouped into a larger area rather than individual CMA components, especially if the work is reasonably close together. This minimizes traveling time, increases productivity, and reduces requirements for crews to be on expenses.

The Detailed Work Plan should be split and developed at an Activity level, for the critical Activities (and others as agreed) or at a bid item level where appropriate and agreed (say for rout and seal versus conventional cracksealing).

During the development of the Contractor's work plan, it is important to consider both schedule and cost. If additional costs are likely to be incurred, due to resource scarcity, schedule, or both, those need to be discussed with the Department prior to submission of the "Detailed Work Plan". A Work Plan that is not reasonably likely to be deliverable, due to Department timeframes required to obtain necessary approvals and/or known/unknown Contractor resource constraints, is not desirable. Both the Department and Contractor need to communicate well and work together to minimize the likelihood of this occurring.

There have been many situations where late season funding has not been spent as Contractor's schedules are full, critical resources (material, equipment and subcontractors) are not available, or Contractor's manpower resources are decreasing and/or committed to winter preparation. The reciprocal situation for the Department is where funding or sole source approvals are required prior to commencing the planning for the work. Delays in securing approvals in a timely manner may result in an inability for the Contractor to secure resources. The time to secure approvals may delay the work, or result in resource shortages, which in either case may result in a situation where the work cannot be completed or will be significantly delayed.

While no formal referral or approval process is planned, it is intended that both Contractor and Department staff will be fundamentally involved in its development. Approval of the "Detailed Work Plan" should be a technicality, after the development of the Work Plan, by March 31<sup>st</sup> of the season preceding the work.

### **Recommendation 3.1: Pre-season Schedule and Preparation**

Preparations should include but not be limited to the following:

- a) That the Contractors are provided all relevant budget and quantity information required for the Work Planning in a timely manner from the Department.
- b) That Contractors prepare the Detailed Work Plan and identify any issues which affect resource requirements, including but not limited to identifying specific Activities which may be of concern due to rising inflationary pressures. The Contractors will work with the Department to develop the Work Plan. Activities with cost issues should be identified and resolved.
- c) That the PMA software should be populated with budget information and "work order details", such as quantity and work location information, as much as possible prior to the fiscal year. Contractors should participate in this process as much as possible with the Department.
- d) That Contractors identify if the provision of resources (manpower, equipment, materials, costs, subcontractors, etc.) is going to be a problem given the requested quantity of work that is proposed for the upcoming fiscal year. If the Contractor has issues with providing the necessary resources and the costs of these resources, they should work with the Department to identify alternative delivery methods. If they cannot identify or mobilize resources or materials in order to undertake the work for the upcoming fiscal year, other alternatives such as Extra Work or tendering can be arranged. With the long lead time and all the options available, requirements for external tendering should be relatively rare.
- e) Extra Work projects should be identified, negotiated and approved as required.

### **3.2 Teamwork and Partnering**

In order for both Contractor and Department staff to achieve a proper Detailed Work Plan a high degree of Teamwork and Partnering is needed. Additional Teamwork and Partnering training on both sides is recommended. The degree of Teamwork and Partnering exhibited by the Department and/or Contractor forces is noted to be variable between the organizations. At the senior levels of the organizations, the relationship tends to be good to very good. At lower levels the relationships become progressively more variable, ranging from excellent in some CMA's to being counter-productive in others. The issues are primarily related to the extent that the Department and/or Contractor forces understand and are committed to Partnering principles at each level.

The topic was well covered in the ARHCA/AT Annual Meeting held November 14, 2007. A copy of the meeting report is included in the appendix. (See Appendix A3)

#### **Recommendation 3.2: Teamwork and Partnering**

- a) That the Department/Contractors seek to identify and develop training which improves Teamwork and Partnering, especially as it relates to Work Planning. It is recommended that training be developed and provided by the end of the 2008/09 fiscal year.
- b) That the Contract Administration manual be updated to include more information on successfully implementing Work Planning by the end of the 2008/09 fiscal year.

### **3.3 Cost Escalation**

There are times that Contractors find that cost increases are such that there are major implications for them to be able to expand and undertake work for projects within the terms of the Unit Price Schedule, especially when the major bid item for that activity has exceeded the contract provisional quantity overall. Given the current economic climate in Alberta and worldwide, there are a significant number of inflationary issues affecting the supply of resources for undertaking highway maintenance work. These issues range from the cost of materials (such as asphalt, fuel, aggregates) to cost increases for labour due to a "hot" market, to cost increases for the supply and repair of equipment, to increases in the costs of purchasing land and developing facilities. All of these items have seen significant cost increases since the beginning of 2005, a year in which many of the contracts were retendered.

It is also recognized that there are potentially forces acting on the world economy which may slow these inflationary factors.



Although cost escalation is not a direct component of Work Planning per se, the ARHCA/AT JSC should closely monitor the situation provincially to ensure that overall Contractor cost concerns are being addressed for projects exceeding provisional quantities, or in other exceptional circumstances. Global economic issues may be a concern as well if the costs for input resources increase significantly above reasonable expectations of inflation for the industry as a whole.

**Recommendation 3.3: Cost Escalation**

- a) That the Department/Contractors develop a mutually agreed procedure to deal with cost increases that result in significant cost implications to either party.

**3.4 Procurement of Additional Resources**

Included in the Contract Administration Manual are general provisions for negotiations of Extra Work. Extra Work is a potential tool to be utilized on a widespread basis to facilitate the recruitment of additional resources to compliment the Contractor's current resources. Extra Work is of value to both the Department and the Contractors as it allows for work to be undertaken in a manner which automatically accounts for increases in the costs of resources.

Contractors need to ensure that they will have a large enough volume of work in each Activity to justify the provision of additional resources. Additional equipment can cost tens to hundreds of thousands of dollars. Both Contractors and potential subcontractors need to have reasonable assurance of adequate quantities of continuing work so that they can justify the capital expenditures and so that they can commit to obtaining manpower and other resources that will be necessary to complete the work on a yearly basis.

**Recommendation 3.4: Procurement of Additional Resources**

- a) The use of "Extra Work" option should be utilized as a tool to encourage and support the growth of our industry.

**3.5 Winter Sand & Salt Stockpiling in the Fall**

Over the past year, the Department developed a system of "drop dead dates" for the completion of winter sand supply and sand stockpiling/freeze proofing. The beginning date of truck availability (usually October 15<sup>th</sup>, but can vary between CMAs or within a CMA) is considered to be the beginning of winter and the last day the Department will allow for winter material stockpiling without imposing penalties.

Contractors and many Department representatives believe that the Department's interpretation of "drop dead" is an extreme risk aversion strategy that has a number of negative inadvertent consequences given the current provincial economic circumstances. Given the current push for increased summer work program, Contractors indicate that the diversion of summer resources for material stockpiling operations can be counter productive to the Department's greater need to accomplish other "summer" work. Contractors do recognize that there is an obligation not to compromise public safety which is a mutual objective of both parties

**Recommendation 3.5: Winter Sand & Salt Stockpiling**

- a) That the Department and Contractors jointly review the issue of "drop dead dates" for winter sand and salt supply and consider an approach that allows for some flexibility in supply of sand and salt as long as there is judged to be minimal impact on overall public safety.
- b) The latest sand mixing and delivery specifications, developed by the recent joint winter sand committee, is being adopted into the existing maintenance contracts. The new specifications will substantially increase the likelihood that the sand supply will be more readily available locally for Contractor supply (faster, easier, and cheaper).

## **4 Getting the Work Done to Budget**

### ***Introduction***

A key component of the Work delivery process is management and administration of the Activity during the Work and immediately after Work completion. Items considered by the committee were:

- Tracking work, to evaluate what is done or not being done relative to the Work Plan. This allows comparison of Work Accomplishment against the Work schedule.
- Changes/adjustment of Work schedule to accommodate the actual situation encountered during the season and still maximize desired Work Accomplishment and achieve mutual objectives.

#### **4.1 PMA Reporting – Work Tracking**

By April 1, the Contractor should have a completed and approved Detailed Work Plan, which has been developed with significant consultation with Department forces.

This plan should be available and used in the provision of the Work Planning information into PMA. If the Work Planning information is entered into PMA, then the Work tracking (Work Accomplishment) information could also be entered into PMA throughout the season.

There is a module in PMA that has been developed to track current expenditures as they occur and accept updated expenditures during the work season. It should be reviewed to ensure that it is set up in a manner to easily enter data and compare Work Accomplishment information versus the Work Plan.

##### **Recommendation 4.1: PMA Reporting – Work Tracking**

- a) Contractors will track and report all the Activities using the PMA system, with an emphasis on the major Activities.
- b) Contractors will report on all Activities on a monthly basis (accumulated dollars of work completed per month) given that the PMA system is set up to make data entry reasonably simple. (Data entry requirements should be determined between the Department, Contractor and PMA development team.) Suggested reporting formats attached in Appendix A2.
- c) Information reported in terms of accumulated dollars of work accomplished per month per Activity is believed to have the greatest potential to provide information that is reasonably accurate, timely and simple for Contractors to provide and enter and will be supported by Contractor staff.
- d) Details of reporting frequency and accuracy expectation need to be worked out in consultation with the Department, Contractor and the PMA development team.
- e) Information reported in terms of dollars and calculated overall % complete by activity, can be summed up at the CMA, Contract, District, Region and/or Provincial level as required for some or all Activities. Access to this accumulated data needs to be secure and restricted to those with the appropriate authority level to ensure security and confidentiality.
- f) It is recommended that this information be available to Department and Contractor forces (at the Contract level) for ongoing review to assist with the assessment of how the Work Plan is being accomplished and evaluating whether changes are required to ensure that mutual objectives are being achieved.
- g) It is recommended that this information be available in a graphical format which will allow comparison of the Work Plan against actual Work Accomplishment. (Suggested graphical format attached in Appendix A2.)

If the Work Planning and Work Accomplishment information is not tracked in PMA, then an equivalent system can be used for each CMA and Contract, at least for the major Activities. This system can be one developed and mutually agreed to on a local level.

## **4.2 Work Management**

During the critical summer and fall work seasons, close monitoring of Work Accomplishment must be followed to ensure that the Work Plan is being achieved and that any shortcomings in the actual Work Accomplished are being addressed.

### **Recommendation 4.2: Work Management**

- a) Joint Contract management (Department/Contractor) should meet monthly, or as otherwise agreed, to review the Detailed Work Plan versus the actual Work Accomplished. (Joint meetings become increasingly critical from June to the end of October.) Emerging issues should be identified, especially if the work accomplished is falling short of the Detailed Work Plan. Emergency and urgent issues should be addressed and coordination of the required changes in the Detailed Work Plan should be made throughout the work season. Regular review of the Detailed Work Plan should be undertaken during management meetings to ensure there is a common understanding and expectation of achievement.
- b) The Detailed Work Plan should be a report compiled by the Contractor, which provides information on the major Work Activities, or as otherwise agreed (additional minor Activities could be included). A simplified version of this information should be provided to and easily accessible from PMA in an agreeable format. (Requires joint Department, Contractor and PMA development team input.)
- c) This plan should show the Contractor's proposed schedule, given the identified resources that are identified to undertake the work, from now until the end of the current work season. The plan should show the designated Work Activities that are able to be planned (major and identified minor ones). (Work Planning for "Highway Maintenance Work" is addressed in Section 5.)
- d) **Resource Limiting and Work Plan Changing Factors:** Department and Contractor forces need to be aware that the Detailed Work Plan can change for a number of different reasons, and they need to be prepared to make reasonable adjustments in the Work Plan and schedule or take other reasonable measures to account for the issues. Some issues are as follows:
  - ❖ **Significant Weather Issues:** Weather impact depends on type of work and highway. Heavy rains, continuous rainfall, flooding, winds, etc., can cause significant issues. The ability of the Contractor to adjust depends

on the extent to which the problem is localized in a CMA or affects all CMA's in the Contract.

- ❖ **Significant Resource Problems:** Subcontractors may fill their schedule and become unavailable to complete work that they indicated they would be able to complete for the contract or may choose not to do specific projects. Significant weather issues can be a complicating factor, as delays in one area can result in delays getting to the next area, causing a cascade of Work Planning issues. Material availability can be an issue, especially if it is in high demand and becomes rationed, the supplier temporarily runs out, or manufacture of the material is delayed.
- ❖ **Unplanned Quantity Increases:** If quantities of work are added to an Activity by the Department for one reason or another (changes to the Work Plan, additional funding, funding transfers, etc.) in the middle of the summer/fall work season, and they weren't in the original Detailed Work Plan, then it may significantly impact the Contractor's ability to complete the work as resources may be committed elsewhere. The Contractor and Department need to discuss this, as it is important to consider that increasing quantities in one area may affect delivery of the work in another area. It needs to be determined whether it makes sense to continue working in one area on the Activity or to move to another area and complete the increased quantities later.
- ❖ **Seasonal Resource Issues:** Resource issues increase as the season progresses. Towards the end of the season, it can be especially difficult to obtain resources to do additional unplanned work, especially as the Contractor and/or subcontractors try to get their scheduled work done before winter or other adverse weather conditions arrive. It becomes much more of a problem if the quantities of work have been added late in the season. Contractors will also need to complete winter preparation work prior to the end of the summer/fall work season, which will reduce their ability to do late season work. Even at the beginning of the season there can be issues, as potential subcontractors fill up their schedule with work they may reach a point where they are unable or unwilling to do additional work for the Contractor.

- e) **Contingencies:** Contractors need to consider and have contingencies for a reasonable level of change that can occur to the Detailed Work Plan. In some cases, they may simply be able to move resources from one area to another until conditions improve in the first one. In other cases, it may be advantageous to the Department and the Contractor to continue work in one area and defer in another if better conditions prevail. For some Activities, there are limited options to address emerging issues (i.e. Mowing and ongoing rainy weather through the area), which need to be waited out. Some contingencies will generally be put into the schedule, but they can only account for a certain amount of issues before the Work is at risk of being late.

- f) **Work Prioritization:** If some of the factors that change Work Plans occur, it is extremely helpful for the Department to provide information regarding the priority of a given portion of the Work to the Contractor. If it becomes clear that delaying factors may result in a risk that some of the Work will not be done that season, and no additional resources or alternative methods can be obtained, then it is best that the Contractor complete the highest priority work first so that the work that is deferred and at risk of not being completed is the lower priority work. This may require moving some of the Contractor resources around to focus on priorities. It will also require communication with the affected parties.
- g) **Adjustment to Completion Dates:** If the factors that are affecting the completion of the work are particularly severe, or the Contractor and Department agree that the Work Plan should change to achieve mutual objectives then the Contractor may request a change to the Completion date. The Department will evaluate the reasonableness of the request based on the extent to which the Contractor has sought to minimize the impact, has used other reasonably available options to complete the work, and the severity of the factors affecting Work Accomplishment.
- h) Graphical methods of displaying the Work Planning information are considered worthwhile, and are recommended. ("Gantt charts" showing the overlap and sequence of work execution are one option. Other options are possible, based on mutual agreement, such as charts showing the dollar value of the Work Plan versus the dollar value of Work Accomplished.)
- i) Highway Maintenance Work (HMW) is considered in more detail in Section 5.

### **4.3 Activity Guidelines**

The use of "Activity Guidelines" for major maintenance Activities will permit consistent management and/or administration of specific maintenance Activities. This will allow for a provincial methodology and process for each Activity.

Activity guidelines are not necessary for all Activities. However, benefits can be derived for a common or shared process for all the major Activities, specifically:

#### **Recommendation 4.3: Activity Guidelines**

- a) That Activity Guidelines be developed for the major Activities that can be planned, as listed below:
  - ❖ Line Painting
  - ❖ Surface Patching
  - ❖ Regravelling
  - ❖ Mowing

- ❖ Snow & Ice Control Materials
- ❖ Cracksealing
- b) That other Activity Guidelines may be developed by the Department/Contractor where it is agreed that there is sufficient value to do so. These guidelines should be developed by the end of the 2008/09 fiscal year.
- c) That the Activity Guidelines include at least the following information:
  - ❖ Relevant Specification
  - ❖ Applicable Bid Items
  - ❖ Work Order – Time to Complete
  - ❖ Work Order – Due Dates
  - ❖ Work Planning Considerations
  - ❖ Planned/Reactive/Urgent Work
  - ❖ Work Prioritization
  - ❖ Operational Efficiencies
  - ❖ Contingencies
  - ❖ Work Identification Guidelines
  - ❖ Changing Work Quantities
- d) That an Activity Guideline be developed for the "Highway Maintenance Work" Activity. It is acknowledged that this Activity has a significant component of reactive work, but that there are components that can be planned. Additional information regarding HMW is in Section 5.
  - ❖ Highway Maintenance Work (see attached Appendix A4).
- e) That the jointly agreed (Department/Contractor) Activity Guidelines be included in the "Highway Maintenance Contract Administration Manual". This will allow management of change in the future. There will be a shared common process.
- f) Proposed Activity Guidelines are in Appendix A4 of this document.

#### **4.4 Highway Appurtenances**

In the future, the Department is working towards the completion of an extensive database of highway pavement and appurtenance information that can be sustained/maintained through an inventory work activity. The information will support work planning.

##### **Recommendation 4.4: Highway Appurtenances**

- a) That Contractors be given the option to provide support for the collection and input of appurtenance information into the Department database {TIMS}, as well as support the ongoing maintenance of the database as the information changes.

- b) That Contractors be given access for training for the data entry hardware and software.
- c) That Contractors have access to the database so they can review the information for Work Planning purposes.
- d) That the database has reporting tools developed so that the information can be used in Work Planning in an efficient and effective manner. Given that appurtenances have information regarding their current condition status, the reports should be able to identify potential work in an area, which can then be reconciled to the available budget.

## **5 Sustaining Highway Maintenance Work**

### ***Introduction***

Highway Maintenance Work (HMW) is a significant component of the Contractor's Work. HMW does provide a number of benefits for the Contractor and the Department:

- ❖ HMW provides for regular inspections that permit the Contractor and Department to maintain a regular and continuous documented status of the highway network.
- ❖ HMW inspections are an important factor in allowing the Contractor and Department to identify potential maintenance work Activities requiring action. Critical items, especially those affecting public safety, must be dealt with as always, in a spirit of urgency.
- ❖ HMW has many Activities that have "flexibility"; Contractors can schedule other work Activities around HMW and vice versa. This can provide an opportunity to sustain the work force in productive work during periods of poor weather or temporary gaps in other work.

HMW does allow the Contractor some opportunities to sustain larger work crews in a productive manner, when combined with other work Activities. Such opportunities are maximized with proper planning and coordination.

Contractors depend on "core staffing" at the shop locations to sustain a minimum level of manpower at each shop location. When the Department increases the number of "additional operators", this increases the core staffing and allows more skilled and experienced workers to be retained year round, enabling the Contractor to undertake more work, both winter and summer. An increase in "additional operators", where appropriate for winter service levels, provides other additional benefits to both the Contractor and the Department.



## **5.1 Work Identification**

During HMW inspections, Contractors have opportunities to identify potential Work. Improved work identification can provide benefits to the overall effectiveness of Work Planning and accomplishing highway maintenance Activities. Some of the benefits are listed below:

- ❖ Inspection information can be used to identify and develop work lists for Activities that can be planned, as well as for HMW work that can be planned. Reactionary work will continue to be undertaken based on urgency and public safety considerations.
- ❖ Contractor and/or Department developed Work lists will continue to be used to help with the development of the Detailed Work Plan. This will help focus our mutual efforts on Work of greatest need to the travelling public for the current and upcoming fiscal years. Specific quantities and locations can be included in the Work lists. Having this information regarding potential future Work increases the likelihood that Contractors will be able to make a better assessment of required resources more effectively. For some Work that isn't so seasonally dependent, Work not completed in the summer may be able to be "picked-up" during the winter.
- ❖ Updated Work lists can be compared over time to help identify any "chronic shortfalls" from Work that remains uncompleted on the list for a long period of time.

### **Recommendation 5.1: Work Identification**

The organization of required work and the frequency/extent of updates were discussed by the committee. The following recommendations were made:

- a) Scheduled daily to weekly inspections and inspection reports will continue to be required from the Contractors.
- b) That a more detailed annual or semi-annual inspection be undertaken by the Contractors for each highway in the network. A proposed check list for this inspection is included with this document. (See Appendix A5)
- c) That there would be a value in posting inspection information and potential work lists on the Internet. It is recommended that the Department/Contractors investigate options to develop a system of reporting and tracking identified work. (Recommended to be a PMA function. If developed in PMA, there is a requirement for agreement on the format of information reporting by the

Department, Contractors and the PMA development team.) One option would be that new inspection reports could be done by simply updating the previous inspections, with a new inspection date and/or inspector. Allowing both Department and Contractor forces to enter the information will encourage working together and partnership.

- d) That the Contractor be encouraged by the Department to identify and summarize potential additional work for specific Activities and provide a Work list that can be jointly evaluated to determine Work priorities. Work priorities will then be evaluated relative to the budget and the agreed Work then authorized by the Department. It should be noted that Contractors will not want to identify a lot of work if the Department has no serious intent to approve a reasonable portion of it to be undertaken in the near future.
- e) That information on undertaking Work Identification be provided in each of the Activity Guidelines developed for the agreed upon Activities.

It is thought that updating and sharing of these "work lists" and the details regarding who will provide the information is not a committee issue but rather a Contract specific issue. Local processes will differ in individual Contracts due to staffing, overall work levels and meeting frequency. If a work identification process is implemented in PMA, then this process will become standardized.

## **5.2 HMW Detailed Work Plan**

To help improve efficiency and coordination of Work Ordering, the addition of HMW work into the Detailed Work Plan is recommended. This provides the following potential benefits:

- ❖ The Contractor will improve their ability to identify and take advantage of gaps in Work and to turn slow periods of crew time into productive time undertaking HMW.
- ❖ Contract Inspectors and Contractor supervisory personnel will develop a clear mutual understanding of when minor Activity and HMW work will be completed.
- ❖ When long delays occur in HMW work, it is likely that Department public service parameters for the Work will fall below expectations, albeit usually in a non-critical, but still required, Activity. Planning will allow re-scheduling of this work, rather than having it perceived by the Department as being "forgotten".
- ❖ It is understood that non-critical items will commonly be delayed, however with good communication both sides can address priorities that will minimize the overall effect to the travelling public.

**Recommendation 5.2: HMW Detailed Work Plan**

- a) That CMA forces continue to have monthly meetings to review planned HMW work and also review the actual Work completion based on work identified at the previous month's meeting. The planned and accomplished Work should be recorded on a form that is consistent between the CMA's in the Contract. Changes to the schedule for various HMW activities should be noted. Plans should also be made to address shortcomings in the upcoming month(s).
- b) There are a number of HMW sub-Activities that are required at specific times within the year that can be scheduled and planned. Where appropriate the contractor would provide a plan for such items as:
- ❖ sign straightening,
  - ❖ culvert inspection and culvert end cleanout,
  - ❖ debris removal,
  - ❖ traffic signal inspection, cleaning, summer preparation and winterizing,
  - ❖ frost probe inspection and repair,
  - ❖ etc.
- Many of these items have schedules identified in the specifications or Special Provisions for guidance for the Work Plan.
- c) Reactive aspects of HMW do not require a Work Plan as the Work needs to be done as issues emerge with the highway infrastructure.
- d) Contractors may optionally provide scheduling information in the form of graphs or charts (Gantt charts or other graphical means) to assist with the evaluation and discussion of the Contractor's Work Plan for each HMW Activity. This is an especially useful tool when used to compare the Work Plan against the actual progress.

In the end, the Department expectation is that all HMW Work required by the Contract must be completed, and in a reasonable timeframe. It is not considered acceptable by the Department to have some activities, like "debris removal" ignored for long periods of time, even though the work is primarily undertaken for visual or aesthetic purposes, rather than significant safety reasons.

Good Work Planning is an important tool to ensure that no significant HMW Work will be forgotten and that no specific Work items "fall through the cracks".

### **5.3 Staff Training**

#### **Recommendation 5.3: Staff Training**

Staff on both sides need training in the following areas:

- a) Additional PMA training for all staff will be needed for the proposed new "Budget, Work Planning and Work Accomplishment" module. This includes the PMA version of the Work Plan and Work progress reporting.
- b) Staff training and guidelines for the proposed new inspection process and forms prior to implementation. Additional information in the Contract Administration Manual would be of value.
- c) Additional training and information on the best implementation of Extra Work would be helpful to accomplish mutual objectives for completing the Work successfully. It is suggested that additional information be included in the Contract Administration Manual.

### **5.4 HMW Auditing**

One of the items that the Contract Administration Manual (CAM) should address is the issue of an audit process for HMW activities.

#### **Recommendation 5.4: HMW Auditing**

Specific activities recommended for auditing guidelines are:

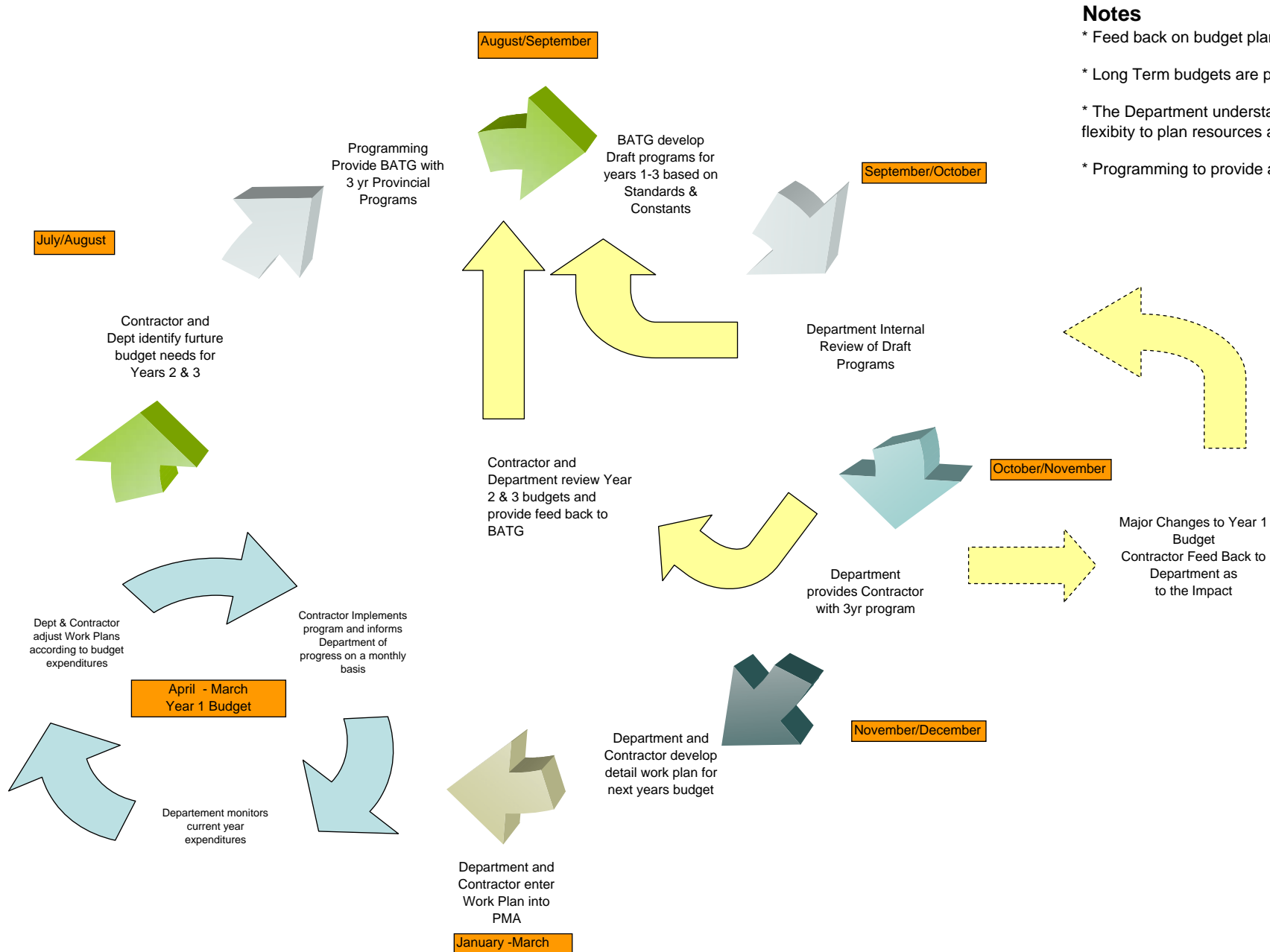
- a) Inspections, including 'inspection reporting'.
- b) Highway Maintenance Work Reporting Accuracy.
- c) Other HMW activities identified by the CAM committee.

### **5.5 Non-compliance of HMW**

Chronic non-compliance of HMW was not considered to be a work planning issue and was not addressed by the committee.

It is thought that improved reporting processes and documentation of actual HMW deficiencies can be made readily available for management discussion, which will result in better management of HMW and increased likelihood of achieving HMW goals and objectives.

# Annual Operations Budget Planning Cycle



## Notes

- \* Feed back on budget plans is done through the Joint Steering Committee
- \* Long Term budgets are preliminary. Budgets may change due to a number of factors, one being political.
- \* The Department understands that more stable long term budgets permit the Contractors more flexibility to plan resources and ultimately deliver work more timely and effectively.
- \* Programming to provide all Operations Programs to BATG

# **Proposal for Integrating Budgeting, Work Planning, and Expenditure Reporting Into PMA**

## **1. Work Planning/Budget and Expenditure Process**

It is recognized that there would be advantages to having a common process for the Department (Alberta Transportation) and Contractors (ARHCA Highway Maintenance Contractors) to review the budget, to undertake Work Planning and to report expenditures.

Using the PMA system potentially allows for this to be undertaken in a format that is accessible to both parties and allows for a relatively detailed view of the information (but not too detailed). These views could be undertaken on an Activity level, on a CMA level, on a contract level, on a District/Regional level and on a provincial level if properly implemented.

## **2. Advantages**

### **2.1. Department**

- 2.1.1. **Ensure Budget Allocation:** Improve Department budgeting process to ensure all funds are allocated.
- 2.1.2. **Improve Knowledge of Work Authorized vs. Completed:** Improve Department knowledge of work authorized versus work completed.
- 2.1.3. **Improve Expenditure Knowledge and Multiple Levels:** Improve Department knowledge of current and potential highway maintenance expenditures at CMA, Contract, District and provincial level. This will allow the province to better estimate if there are or will be funds that could be available for doing additional work before the end of and during the season (summer/winter). Depending on approval levels, the information can be accumulated at the appropriate level for review to make plans regard expenditure versus budget and whether additional work should be authorized or the quantity of work reduced.
- 2.1.4. **Improve Department Ability to Correct Shortcomings:** This degree of information should allow for corrections on a timely basis through joint reviews between Department and Contractors.
- 2.1.5. **Activity Level Work Status:** Improve Department knowledge of status of work relative to Work Plan for the entire province for any given Activity. It will provide the ability to look at any given Activity, say line painting, and determine whether the work is proceeding according to plan, and if falling short provide the ability to review the work with the Contractor, and potentially address shortcomings before the work can no longer be reasonably completed.
- 2.1.6. **Near Real-Time Expenditure Knowledge:** Within a couple of weeks (subject to discussion) after the end of the month, the Department should have up to date and

greatly improved knowledge regarding the current expenditures and projected expenditures to make decisions from.

## **2.2. Contractor**

- 2.2.1. **Budget Information:** Provide direct access to budget information.
- 2.2.2. **Client Feedback:** Provide monthly feedback to Department on the progress of work by Activity, CMA and contract for review and discussion.
- 2.2.3. **Work Progress and Payment Information:** Provide information for the Contractor's management and financial people regarding work progress and payment.
- 2.2.4. **Progress Measurement:** Provide a measurement of where progress is expected to be relative to where it actually turns out to be.
- 2.2.5. **Shortfall Identification and Correction:** Identify where work plans are falling short so that additional measures can be undertaken by the Contractor and/or the Department.
- 2.2.6. **Optimize Data Entry Requirements:** If the process in PMA is defined appropriately, the information that the Contractors need to provide is limited and should be relatively easy for all Contractors to provide while providing maximum benefit in terms of monitoring expenditures on all levels.
- 2.2.7. **Work Planning Obligations:** This process would ensure that all Contractors meet their contractual work planning obligations.

## **3. Budget Process**

It is anticipated that the Department would work with the Contractor regarding the detailed allocation of funds as early as possible. Ideally this would be done, at least in a general overview sense (Activity level, and certain critical Bid Items) for each CMA by the fall of the previous year. The final detailed budget would need to be entered in PMA by February or March (beginning of April at the latest) prior to the new fiscal year starting.

- 3.1. **Budget Allocation:** The Department, ideally working in conjunction with the Contractor, allocates the budget for the contract, either on an Activity basis (preferred for most items) and/or a Bid Item basis for each CMA. (It may be useful to have the option to provide the ability to enter the information either way for specific Activities so that the Department forces can break the work down in detail where required, or just enter a lump sum value for each Activity where detail isn't required. Traffic Control could probably be entered on an Activity level, Surface patching may be budgeted better from a bid item level.)
- 3.2. **Budget Timing:** The earlier this budget is allocated, the better. From the perspective of work planning, it wouldn't be too early to have the budget information in the fall of the previous year (this allows contractors to obtain additional resources early in their yearly budget cycle, although the information wouldn't necessarily need to be in PMA at this time.). From the perspective of PMA, the budget information for the upcoming year should

be entered no later than February or March (April latest) prior to the beginning of the fiscal year.

- 3.3. **Budget Funds Allocated:** All of the funds should be allocated into the budget, either on a bid item basis or on an Activity level (preferred) in PMA. To the extent that there is a “reserve” fund for unanticipated work, the “reserve” fund should be shown in the budget, using an agreed process for all CMA’s.
- 3.4. **Reserve Funds:** A process should be developed for budget funds held in reserve. Department forces may wish to hold some funds in reserve in the CMA budgets to deal with unanticipated work or other late season requirements, but this could cause a problem managing the budget and for work planning if there isn’t a reasonably consistent process for dealing with these funds. (i.e. Contractors may have trouble completing work using reserve funds if they are authorized late in the season when there is a rush to get other work done.) One suggestion would be to allocate any “reserve” funds at the Activity level. Department forces may desire to have some “reserve” funds to take care of activities such as late season patching, in which case, it would be appropriate to have these funds available in the patching Activity. If they are still unexpended by the end of August say, and there is no reasonable likelihood that there will be work to be done with them, then they should be reallocated to other work, either in the CMA to which they are assigned or other CMA’s where worthwhile work can be accomplished.
- 3.5. **Budgeting – Major Work Activities:** From a budget perspective, Contractors would prefer to be able to look at the larger Activities at the Bid Item level as much as possible, using the estimated quantities for the work. This provides a way for the Contractor to establish specific requirements for resources (manpower, equipment and materials). As far as work planning and expenditure reporting goes for CMA’s, Contractors would prefer to work in dollars of work accomplished on an Activity level, although there may be some items which are worthwhile to break into smaller detail, (say sub-Activity) although not necessarily down to the bid item. (ie., Snow & Ice Control Materials, in which it may be worthwhile to accumulate the costs for the bid items for sand supply, salt supply, sand mixing, etc., so that the progress may be reviewed through the year and discussed by the Contractor and Department.)
- 3.6. **Budgeting – Minor Work Activities:** For minor Activities, it would be acceptable to budget on an Activity level, as many of them are highly reactionary (i.e. Traffic Control), in which the actual work by bid item could differ significantly from that originally anticipated. The actual work undertaken depends on emergent needs for the network.

#### 4. Work Planning Process

- 4.1. **Contractor Detailed Work Plan (non-PMA version):** The Contractor takes the budget and completes his yearly work plan, ideally working with the Department to set the plan and deal with priorities and balancing resources. The yearly work plan would cover the anticipated work in each of the Activities. The Contractor could use whichever format they choose to use for their detailed work plan at whatever level of detail they choose (CMA, shop, Activities, Bid Items, etc.), using whichever software they are most comfortable with or available to them. (Most of this detailed information would not be entered into PMA.)



- 4.2. **Contractor Work Plan (PMA version):** For the work planning information entered into PMA, the Contractor would provide information on the anticipated expenditures for each Activity in each CMA. As proposed, the Contractor would enter the planned dollars expected to be completed for each Activity (or designated sub-Activity), by the end of each month in the upcoming fiscal year.
- 4.3. **Work Planning Data Entry Detail:** From a Work Planning and expenditure progress reporting perspective, Contractors would prefer to report the information on an Activity level. Entering the Work Planning data on a bid item level can be very difficult for the Contractor to enter consistently for the whole Work Plan.
- 4.4. **Work Planning Data Entry (Finer Detail):** It may be worthwhile to consider some finer detail level of breakdowns for some (limited and agreed upon number of) Activities in terms of sub-Activity level for a group of bid items. (For the most part reporting specific bid items wouldn't be necessary or desirable.) One breakdown that would seem worth considering is to look at "Variable" work items and "Fixed" work items {Fixed items are the winter "Availability" items, "Highway Maintenance Work", and "Indirect Operating Costs".} Another sub-Activity group of bid items that seems worthwhile to consider are Sand supply, Salt supply and Mixing/Stacking expenditures.)
- 4.5. **Data Entry Format:** There are at least three options for data entry for Work Planning which are options. Some work with the PMA development group will be required to determine the best ones.
- 4.5.1. **Single Data Entry Screen/CMA:** One preferred option would be for the Work Planning data to be entered by the Contractor on a screen which would show the entire fiscal year and all of the Activities in one screen (very spreadsheet-like as shown in the sample spreadsheets) per CMA. If there are 4 CMA's there would be 4 screens with all of the months and all of the Activities. If there was one data entry screen per CMA it allows the Contractor to see all of the data and helps in the completion of the screen data entry. For example, if there are 4 CMA's using a yearly data entry form with all months and all Activities there are only 4 data entry screens to work with. Using this model for Work Planning, there are approximately 1900 data points to enter for the Work Plan for 4 CMA's (a little less than 500/CMA), so the fewer data entry screens the better. (It isn't entirely clear what the impact of having this type of data entry screen would be in PMA.)
- 4.5.2. **Monthly Data Entry Screen/CMA:** If this isn't reasonably achievable, then a second, albeit less desirable option for the Contractors would be to see this on a screen where data can be entered for each month for each CMA, although this vastly increases the screens on which data needs to be entered. If the data is entered on a monthly screen, and a Contractor has 4 CMA's, then there are 4 x 12 data entry screens = 48 data entry screens to complete, which is harder to work with and keep track of. Number of data points remains the same.
- 4.5.3. **Data Entry Screen by Activity/CMA:** The third option would be to enter the data for each Activity per CMA, with all of the months shown. However, this increases the screen required to approximately 35 to 40 per CMA, depending on the number of Activities and sub-Activities which are allocated to the CMA and the desired

breakdown. This increases the number of screens for a 4 CMA contract to  $4 \times 40 = 160$  data entry screens. It does have the same advantage as option 1 of seeing the entries for all of the months for each Activity in the CMA. This won't work all that well for the entry of the expenditure information as it would seem to require one data entry screen per entry. (Although this problem could be somewhat resolved if CMA information for one Activity was provided on one data entry screen.)

4.5.4. **Other Options:** There are likely other options. The ideal is to find one that requires the minimum effort for the maximum gain in terms of information provided. This is worthy of further discussion with the stakeholders to determine the best option.

4.5.5. **Data Entry Principles:** There is a need to consider making the data entry as simple as possible for the Contractors. Even with 35 to 40 Activities and sub-Activities, there is a lot of data, especially when looked at over 12 months. For work planning, the information required, even using this simplified format is in the order of 450 to 500 pieces of information/CMA. In some cases, such as patching, this isn't as bad as it seems, for after November 1<sup>st</sup>, it is unlikely that there would be any additional planned patching and the planned and accomplished expenditures would remain constant or nearly constant from November to March.

## 5. Expenditure Reporting Process

The Contractor can provide information on the current status of the work by reporting the following things:

5.1. **Estimated Work Completed:** The Contractor could provide an estimate of the work completed to the end of the month in dollars for each Activity. This estimate, while not necessarily being an exact number, is most likely the most accurate information available on expenditures as the Contractor knows, within reasonable limits, where the work progress actually is. Information from PMA, such as Crew Sheets or information from Progress Estimates will be less accurate, as they will tend to lag somewhat from the actual work completed for various reasons. In some cases, the lag can be considerable, especially if there are issues or questions with the work. (ie., questions about measurement, timing of measurement, quality issues, warranty issues, etc., that slow up approval of the work, and therefore the Crew Sheet. Progress Estimates will necessarily lag behind Crew Sheets, as the system accepts approved Crew Sheets, and the Contractor may not have been able to get the Crew Sheet in and approved by the MCI prior to the creation of the Progress Estimate. Also, this Estimated Work Completed would show where verbal authorization has been given to increase or decrease the quantity as authorized on a Work Order, but no change has yet been made to the Work Order.) If it is agreed to do this, the Contractor would typically be expected to enter this data by a specified agreed date. (say the 15<sup>th</sup> of the following month.)

5.2. **Estimated Total Yearly Work:** The Contractor could also provide an estimate regarding the anticipated total yearly work for the CMA by Activity on a month by month basis. Initially, this number will be the budget number. However, as the year progresses, this number will change somewhat, potentially significantly for a number of reasons. The Contractors are typically aware of these changes, or reasons for the changes through the progress of the work and in the discussions with Department forces. (ie., examples include

changes to gravel quantities due to wet or dry years, changes in quantities due to budget increases or decreases, changes in quantities either due to needed work either being estimated high or low relative to actual work quantities, or work added to the program as the year progresses; say culvert repair or asphalt surface work, etc. The reasons for changes to actual quantities versus estimated quantities are numerous.) There would also be a requirement to enter this data by a specified date (say the 15<sup>th</sup> of the following month, as with the “Estimated Work Completed.”) This would need to be agreed to between the Department and Contractors.

- 5.3. **Data Entry Format:** While a yearly data entry screen is very worthwhile option for the Work Planning, it isn't quite so critical for the Expenditure reporting as the data is only required monthly. It is preferable to report this on a yearly screen if possible in order to compare current entries to previous ones if that is possible. (this could be subject to further discussion to achieve the optimum for data entry.)

## 6. Expenditure and Allocation Information – PMA Generated

PMA has a substantial amount of information in it. Reports could be generated that sum the existing information inside of PMA regarding the funds that are allocated, those that have been reported as expended and those that have been reported as being paid. This information could be compared to the Work Plan and would provide a check on the information provided by the Contractor. The following information would seem to be reasonable as far as information to generate from PMA.

- 6.1. **Crew Sheets Submitted:** PMA could provide a monthly report for Crew Sheets submitted to a specified date. The report would provide information on the costs of the work submitted by the Contractor up to the specified date and could be accumulated for each month. (This number will generally lag somewhat behind the “Estimated Work Completed”, for various reasons as explained in the previous section.)
- 6.2. **Work Authorized:** PMA should be able to summarize the work authorized in each CMA for each Activity up to that point in time. As the work is authorized, this value of work should tend to approach the budgeted quantity, unless there are changes made throughout the year, either increases or decreases. In most cases, the “Work Authorized” will be close to the budgeted value (+/-), and will be greater than or equal to the “Estimated Work Completed”, “Crew Sheets” and “Progress Estimate”. In some cases this might not be true where work has been given a verbal authorization (say for emergency work or other reasons) and no Work Order has yet been provided.
- 6.3. **Progress Estimate:** PMA can summarize the dollars that have been approved and submitted through the Progress Estimate on any given month. (This number will lag behind the Crew Sheets, as it only pays for Crew Sheets approved by the time the Progress Estimate is submitted.) It is likely that there will need to be parameters set (i.e. Date) for the program to understand which Progress Estimates should be allocated to which month. (for example, if the Progress Estimate is typically submitted by the 5<sup>th</sup> of the month, the parameter could be set to the 10<sup>th</sup> of the month to ensure that the Progress Estimate is captured.) The Progress Estimate summary would use the total of the “Amount” portion for each Activity or sub-Activity.

## 7. Reports

The total information could be reported in a spreadsheet type format and as a chart to show the information for the year to date and estimated for the year. The reports can show all of the information reported or recorded, or whatever subset is required.

- 7.1. **Activity Level Reports:** The information can be summarized and accumulated for each Activity on a CMA level, on a contract level, on a District level, on a Regional level and on a provincial level.
- 7.2. **Activity Reports (Potential Problems):** It may be that not all contracts have the same breakdown of work by the same Activities. There would need to be some function in the program that understands that Activities with different numbering systems are actually the same Activities. The Activity numbers have changed in the past, and they may change in the future. As Contractors, we would recommend that the Activities be standardized for the contracts to ensure that it is easy to accumulate the information. If more detailed information is reported, it will also be necessary to adjust for differences in bid items.
- 7.3. **Variable and Fixed Costs:** If these items are separated in the budgeting and Work Planning, then it will be possible to provide reports based on the variable and fixed costs. Variable work items can be planned. Fixed cost items are not “plannable” in the sense that the revenue is constant regardless of work undertaken in a given month. (Although they do have an effect on resources. I.e. the resources used for Highway inspections differ in winter versus summer. While the revenue is constant and predictable, the cost of the activity and the resource requirements are quite different).
- 7.4. **Winter and Summer Activities:** The work can be separated also into activities that are primarily winter, primarily summer or both. Two items that would seem highly worthwhile to consider are the progress of “Summer Variable” Activities and the “Winter Variable” Activities as a whole. It would also be worthwhile to look at the Winter Variable Activities in more detail, especially when looking at the sand and salt supply and the degree to which the winter snowplowing expenditures are being accumulated. There are also items in the Activities for “Inspections” and “Indirect Operating Costs” that are variable items but pretty much equally split into both summer and winter seasons.
- 7.5. **Winter Activities:** As noted, there may be some value in breaking down winter Activities into the following items:
  - 7.5.1. **Sand Supply**
  - 7.5.2. **Salt Supply**
  - 7.5.3. **Sand Mixing**
  - 7.5.4. **Snowplowing**

If this was done, it would provide a format to review winter maintenance progress throughout the CMA, Contract, District and province. It would also be beneficial towards the end of the year when getting near March 31<sup>st</sup> to have knowledge of winter maintenance budget unexpended which may have some value for other work; ie., additional winter maintenance resources (sand, salt, etc.) or otherwise.

- 7.6. **Highway Maintenance Categories:** This process also has the potential of providing the ability to break the work down into a number of categories which may be reasonable for the Department and/or Contractors to track. These would need to be defined in PMA to be reported. Some potential categories as follows:
- 7.6.1. **Winter Maintenance:** Snow Removal & Ice Control (Truck), Snow Removal & Ice Control (Grader), Snow Fence, Ice Control Materials
  - 7.6.2. **Asphalt Surface Maintenance:** Cracksealing, Surface Seals, Pothole Patching, Surface Patching, Asphalt Surface Treatment, Deep Patching, Roadway & Raised Median Cleaning (this one is kind of ambiguous)
  - 7.6.3. **Gravel Surface Maintenance:** Grading Gravel Surfaces, Regravelling, Excavation, Dust Abatement
  - 7.6.4. **Traffic Control Maintenance:** Line Painting, Pavement Markings, Traffic Control, Milled Rumble Strips, Sign Maintenance, Guardrail Maintenance, Guidepost Maintenance
  - 7.6.5. **Highway Maintenance Work:** Inspections, Highway Maintenance Work
  - 7.6.6. **Roadside Maintenance:** Livestock Guard Maintenance, Mowing, Chemical Vegetation Control, Line Fence, Highway Cleanup
  - 7.6.7. **Drainage Maintenance:** Culvert Maintenance, Culvert Installation/ Rehabilitation/ Replacement; Beaver Control; Environment Canal Maintenance
  - 7.6.8. **Bridge Maintenance:** Bridge Maintenance/ Rehabilitation/ Repair
  - 7.6.9. **Ferry Operation & Maintenance:** Ferry Operation & Maintenance
  - 7.6.10. **Indirect Operating Costs:** Indirect Operating Costs, Miscellaneous
- 7.7. **% Work Complete:** As proposed, the reports are set up to show \$ of work complete, which is the recommended format. They could also show % complete. (This would be better as a calculated value rather than an entered value.) While this would work in most cases, there is a problem when the initial budget value for an Activity is \$0. The calculation then tries to calculate value of work complete over \$0, which won't compute. This is typically only a problem for a few Activities which weren't planned to have work at the start of the year, then work is authorized later in the year. As far as work on a Contract level, this tends not to be an issue, because the budget is a combination of multiple Activities, and there will always be a budget value for the Contract as a whole.
- 7.8. **Other Reports:** There are a number of other options for reports that would be worthwhile to consider. If there is interest, these could be discussed with the PMA Development team.
- 7.9. **Bid Item Level Reports:** Interest has been expressed for the PMA program to provide a summary of bid item level information regarding work accomplished in a given Activity for a CMA. One option would be to provide the quantity of work completed and the total value of the work completed. (There is some sensitivity to this type of report, as there is with Progress Estimates, as it provides a detailed record of information that Contractors consider very sensitive, especially when bidding is taking place.)

## 8. Security

If the PMA program is capable of providing this level of information, it is also critical that it provide a high level of security for generating these reports. The access needs to be restricted so that Contractors can only see their own information. Access also needs to be limited so that the higher level information can only be seen at the appropriate level. (for example, CMA's should see CMA information, Districts should see District information and there should be a provincial level of access. The precise detail and requirements for this security requirement needs to be established.)

## 9. Parameters

- 9.1. **Reported Information Format (Accumulated Dollars):** All of the Work Planning, budget and expenditure information are proposed to be reported in dollars. The dollars would be the accumulated dollars to that point. (ie., the end of the month. While the dollars could be reported as dollars spent in a given month, this does require some calculation, and could accumulate errors if there is a problem with a previous month's data. Accumulated dollars are largely self correcting, as any errors from the previous month are corrected in the current month. If it is desired to know what the dollars expended or planned for a given month are, it is better to calculate this from the accumulated dollars reported.) Providing the information in terms of dollars allows all of the information to be aggregated in multiple ways as previously noted. Quantity information cannot be aggregated in this manner. It is also not especially desirable to have dollars and quantities in close association, except for a limited range of users, due to the potential security implications.
- 9.2. **Quantity Information:** Under this proposal, the Contractor would not report quantity information as far as the expenditure reporting, work planning or estimated total yearly value of work is concerned. It is anticipated that this would require too much detail as it would force the information to be pretty much reported at a bid item level, and would not have the advantages of reporting the work by dollar value. (eg. Dollar values can be accumulated across all Activities, while quantities and bid items generally cannot.) The information already in PMA budget module should be sufficient if this information is desired to be summarized by the Department.
- 9.3. **Budgeting Levels:** From a Contractor level, it is preferable to report the work planning and expenditure information on a CMA (or major functional division), by Activity. Reporting on finer details such as job numbers could become very onerous, although some breakdown to sub-Activities would be worth considering. (this would be somewhat similar to the previous consideration of "Child" activities.) Reporting on a job number level may be reasonable for work added on above the CMA budgets.
- 9.4. **Starting Budget:** Once the starting CMA budget for the year is entered, it should be restricted from changing (except potentially if it is agreed that there is some error in the starting budget). This means that all of the expenditures will be compared against a consistent starting point. If the expenditures are compared to a constantly changing revised budget, it can become very difficult to evaluate their meaning. In the main report this is known as the Initial Fiscal Year Budget (IFYB).

- 9.5. **Revised Budgets:** Once the starting budget is set, then additional changes could be made to a “revised” budget if the Department desired to do this. This would allow for changes throughout the year if it was thought necessary to track them. Details of how this would fit into the proposed process would need to be determined. This budget is called the RFYB; Revised Fiscal Year Budget.
- 9.6. **Yearly Work Plan:** Once the Contractor provides the yearly Work Plan, it should be left as is for comparison purposes. Comparisons of work accomplished versus Work Plan can become effectively meaningless if the plan can fluctuate and be continually adjusted throughout the year.

Terry Hood  
Operations Manager  
Volker Stevin Contracting Ltd.

## **Budgeting, Work Planning, Expenditure Reporting Spreadsheets**

The information shown is based on a fictitious contract and CMA's. The fictitious contract is 9999/99 and the CMA's are 96, 97, 98 and 99.

### 1. **Data Entry Spreadsheets**

There are 3 spreadsheets which show some concepts regarding how the information could be entered (or reported). The 3 sheets are:

- 1.1. **CMA (96-99) Work Plans – 07-11-02.xls** This spreadsheet provides the information on the Work Plan for all of the activities in each of the CMA based on the budget information that has been provided by the Department. The Work Plan is then set up for each activity for each month. The values used are only the accumulated dollar values of work planned to be completed by the end of each month. Once the Work Plan is completed for the CMA for the year, it would be left as is to use as a comparison between the work planned, the work authorized and the work actually accomplished by the end of each month in the fiscal year.
- 1.2. **CMA (96-99) Estimated Work Completed – 07-11-02.xls** This spreadsheet shows the estimate of work completed to the end of each month. In this proposal, the information would be provided by the Contractor. I believe that this makes sense because the Contractor has a pretty good idea regarding where the work status is at any given time, particularly after month end when they have submitted the Crew Sheets for payment. Even if they haven't submitted a Crew Sheet for payment, they have a pretty good idea where the work is relative to the budget. It is proposed that this information would be provided on a monthly basis. In the example, the estimate only goes to the end of October. (From that point it just takes the last value entered and extends it to year end.)
- 1.3. **CMA (96-99) Estimated Total Yearly Work – 07-11-02.xls** As proposed, this spreadsheet shows the Contractor's estimate of the Total work that will be accomplished in any given Activity for the year. In some cases this is a reasonable guess. In other cases it is clear that the value of work completed will be different from that authorized, either +/- . The Contractors have a range of information to predict the value of the work that will be done. (ie., perhaps a dry year will result in less gravelling.) Some of this comes from the Department and some of this comes from actual information regarding the work itself and information regarding resource availability at any given time. Say for late season work, it might not be possible to get the resources or to get them in time to undertake the work before winter hits.

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A few other features of the spreadsheets to consider are listed below.

- 1.4. **Fixed vs. Variable Costs:** The spreadsheets, as set up break down the work and summarize it by Fixed and Variable Costs. In general, Variable costs are "plannable", while Fixed costs are typically not – in the sense that their payment is fixed for any given period. (They do have impacts on resources, and while the Contractors need to consider



that in their internal Work Planning, it doesn't impact what happens with the information provided to or from the Department.)

1.5. **Winter vs. Summer Season Work:** In general, work can be broken into Winter vs. "Summer" work. While there could be some overlap in the season in which the work is done, the primary season for which the work is undertaken is typically clear. (Winter work is related to preparation for and undertaking work for winter highway maintenance. ie., sand provision and stacking is undertaken primarily during the summer, even though it's purpose is for winter maintenance.) It may make some sense to break the winter work into a little finer detail to summarize some of the activities for supply of snow and ice control materials such as provision of sand, provision of salt and mixing operations.

1.6. **Maintenance Categories:** I would also propose that it would make sense to summarize the work in accordance with some broader categories; ie., Asphalt Surface Maintenance, which would summarize all of the work on asphalt surfaces say, versus items like Gravel Surface Maintenance.

## 2. Activity Level Summary Spreadsheets

Two spreadsheets are attached which show a summary of information for the Line Painting Activity. These summarize the information for each CMA and for the 4 CMA's in total.

The two sample spreadsheets are:

2.1. **CMA (96-99) Line Painting Summary – 07-11-02.xls** This spreadsheet summarizes the information provided by the Contractor. It compares reported work accomplished with the Work Plan and also provides information regarding the Contractors estimate regarding the quantity of work that will actually get done for the year.

2.2. **CMA (96-99) Line Painting Summary {w PMA data} – 07-11-02.xls** This spreadsheet provides the same information as the first, however, it also adds some sample information regarding the data that could potentially be obtained from PMA, if so desired by the Department. The PMA information provides a good reference and check on information provided by the Contractor.

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Some of the information that can be gathered by looking at the information provided and the included graphs are as follows:

2.3. **CMA 96 Line Painting:** Is ahead of the Work Plan by the end of June. However, from this point, there is no work accomplished until September. (For instance the lack of line painting could possibly due to weather related reasons or the line painting crew was required elsewhere.) Then the line painting is pretty much completed in September with a small amount of work to be done in October. Provisional quantities were pretty much completed by the end of September, so the October work was likely due to late season work requested by the Department or some outstanding surface work to be completed.

- 2.4. **CMA 97 Line Painting:** CMA 97 is pretty much on schedule with a similar hiatus in July. Once the work resumes, the line painting is completed pretty much as scheduled.
- 2.5. **CMA 98 Line Painting:** CMA 98 is well ahead of schedule so that most of the work is completed by the end of June. Even though there is a similar lack of work in July as with the other CMA's, there isn't much impact to the overall work schedule. A small amount of work is completed in October, potentially due to waiting for surface work to be completed and for the line painter to finish in CMA 96 and 99.
- 2.6. **CMA 99 Line Painting:** CMA 99 is well behind the work plan. Potentially the wet weather and other issues affected the completion of the work. In this case, it seems to be agreed or understood that the quantity of expected line painting work will be reduced, as indicated at the end of September. This may be because resources to paint this are no longer available or that it is agreed by AIT/Contractor that the critical work has been done, and it isn't necessary to finish the balance of the painting (perhaps all roads have been painted at least once.)
- 2.7. **CMA 96-99 Line Painting:** In summary for the CMA's, the Work Plan shows steady progress throughout the summer painting season. The actual work completed shows that very little line painting was done in July (for whatever reasons, as noted above; weather, other priorities, etc.) The work progress has pretty much caught up with the Work Plan by the end of September. Both the Work Plan and the work completed show that there is a small amount of work that gets completed in October when the work is done for the season. The final quantity of work anticipated to be completed by the end of the fiscal year is less than that budgeted and planned by a small amount, but this seems primarily due to the issues with the work in CMA 99.

The summary for Line Painting for CMA 96-99 could similarly be extended to summarize the work for the Contract, District, Region, and Province as desired, given a suitable set-up of the information in PMA.

### **3. Higher Level Summary Spreadsheet**

One spreadsheet shows a higher level summary. In this case it summarizes the "Summer Variable" work. This spreadsheet is:

- 3.1. **CMA (96-99) Summer Variable Work Summary – 07-11-02.xls** This spreadsheet is an example of the information that can be obtained as indicated for the various Contracts, Districts, Regions and Provincially for various ways of looking at the information. It could be done for the Fixed Costs, all Costs, or by various other Categories as defined and agreed to. The Summer Variable information sums up all of the Activities under that category. A look at the information by CMA shows the following:

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This information is easiest to determine by looking at the graphs.

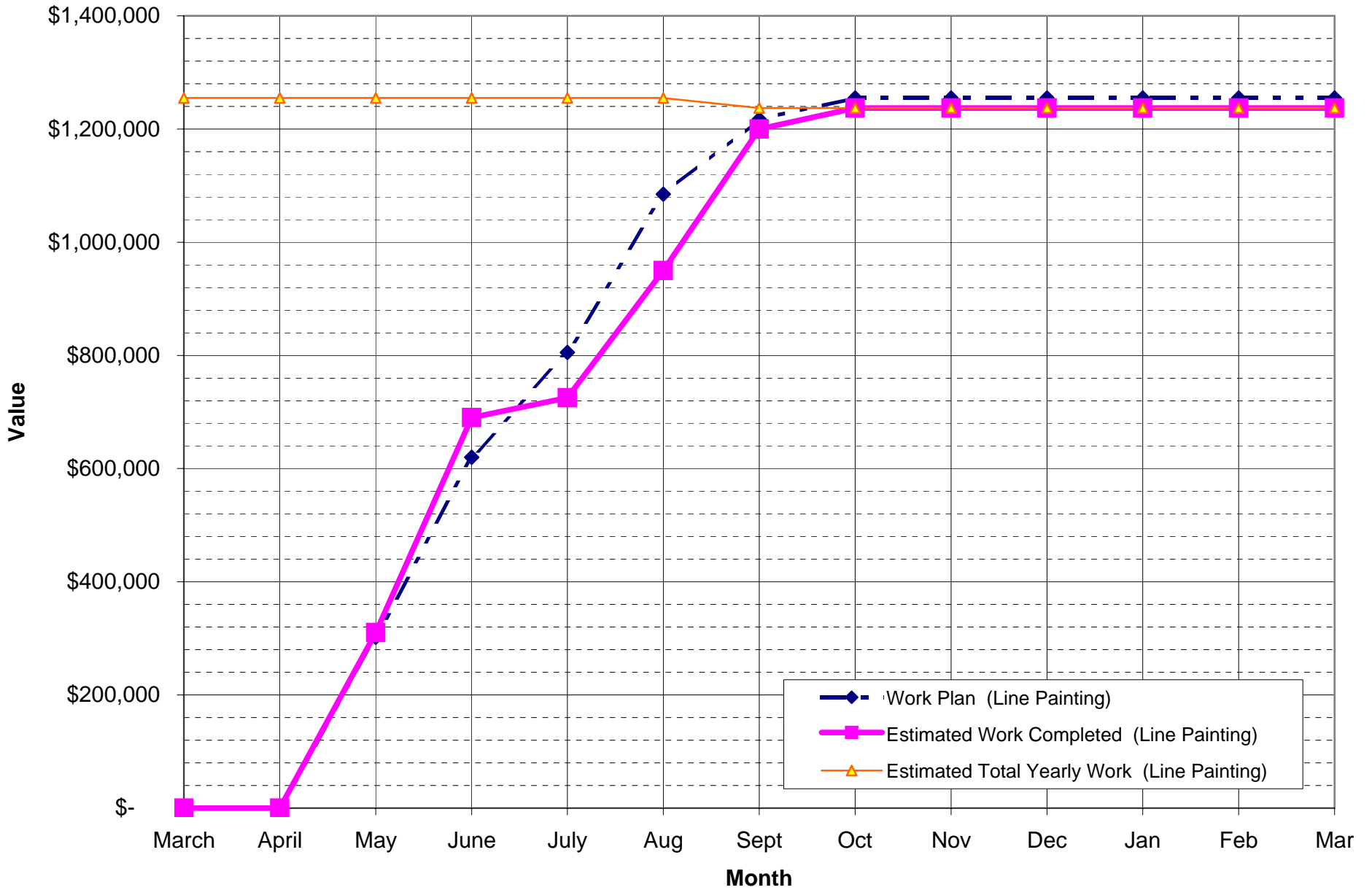
- 3.2. **CMA 96 Summer Variable Work:** Progress varies throughout the year, but by the end of October, the Summer Variable Work completion is well ahead of the Work Plan. Anticipated value of work has also increased.
- 3.3. **CMA 97 Summer Variable Work:** CMA 97 is ahead of schedule by the end of October and shouldn't have any problem achieving budget for Summer Variable Work.
- 3.4. **CMA 98 Summer Variable Work:** Work accomplished tracks the Work Plan pretty well until the end of the year when the work accomplished gets ahead of the Work Plan. Anticipated Total Yearly Work also increases somewhat.
- 3.5. **CMA 99 Summer Variable Work:** CMA 99 is well behind the Work Plan. As with Line Painting, potentially there are wet weather problems, maybe flooding issues, and other problems that affected the completion of the work. In this case, it seems to be agreed or understood that it the quantity of expected Summer Variable Work will be reduced, as indicated by gradually diminishing expectations through August, September and October. This may be because resources to complete the summer variable work are no longer available or that it is agreed by the Department/Contractor that the critical work has been done and/or the other work due to weather related issues was more important.
- 3.6. **CMA 96-99 Summer Variable Work:** Looking at the 4 CMA's as a whole, even with the presumed problems in CMA 99, the work accomplished pretty much tracks the Work Plan. By the end of October, it is even slightly ahead. Overall, it looks like adjustments have been made to the other CMA's, potentially to accommodate the shortfall in progress made in CMA 99. This reflects Work Planning in the ideal, with both the Department and the Contractor looking at and using the information and making appropriate adjustments accordingly.

Terry Hood  
Operations Manager  
Volker Stevin Contracting Ltd.

	CMA	Contract	District																
	96-99	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ -	\$ 302,000	\$ 620,000	\$ 805,000	\$ 1,085,000	\$ 1,217,300	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ -	\$ 310,000	\$ 690,000	\$ 725,000	\$ 950,000	\$ 1,200,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)

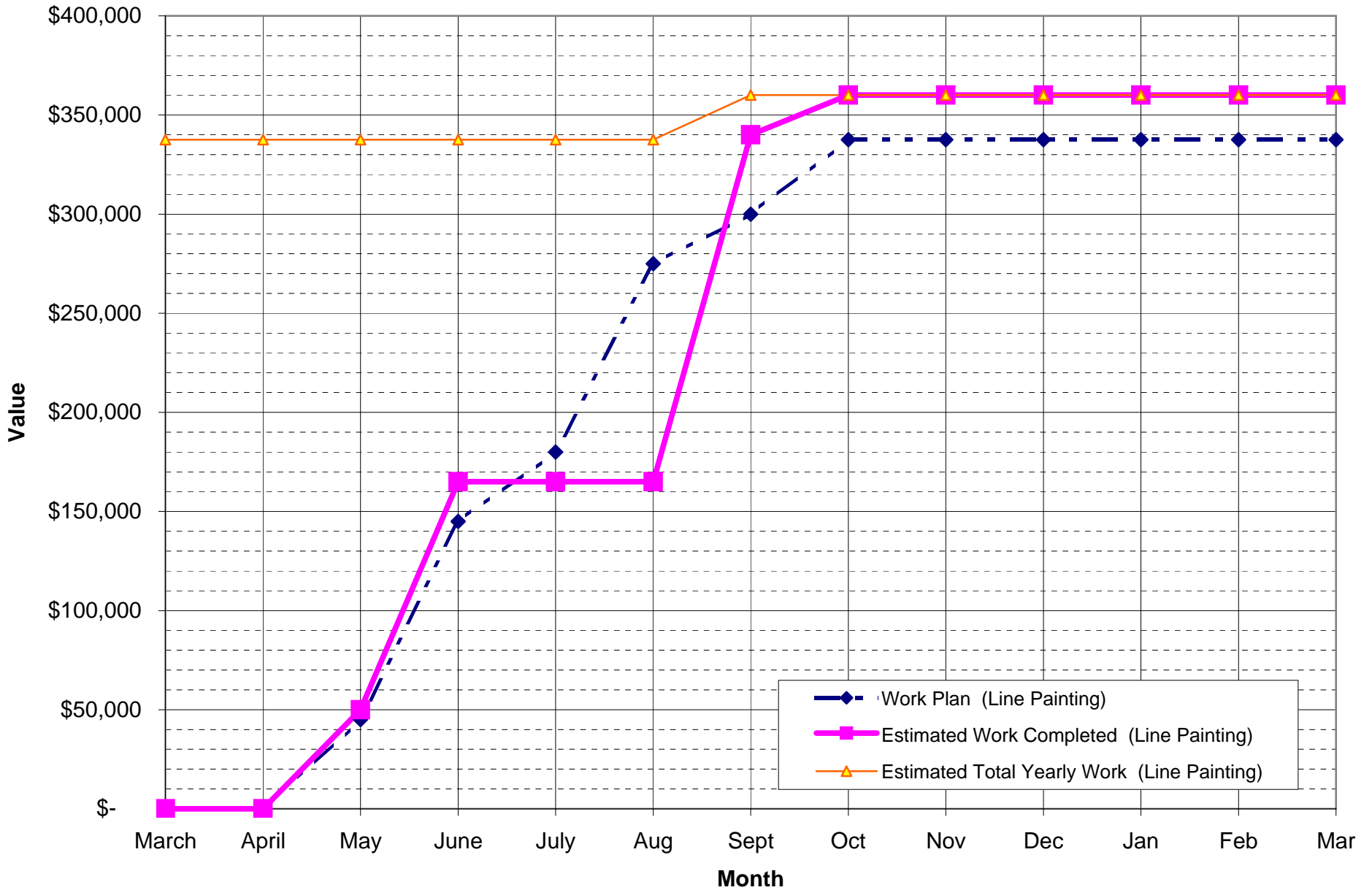
**Work Progress**  
**CMA 96-99 - Line Painting**



	CMA	Contract	District																	
	96	9999/99	Lethbridge																	
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ 45,000	\$ 145,000	\$ 180,000	\$ 275,000	\$ 300,000	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ 50,000	\$ 165,000	\$ 165,000	\$ 165,000	\$ 340,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)

**Work Progress**  
**CMA 96 - Line Painting**

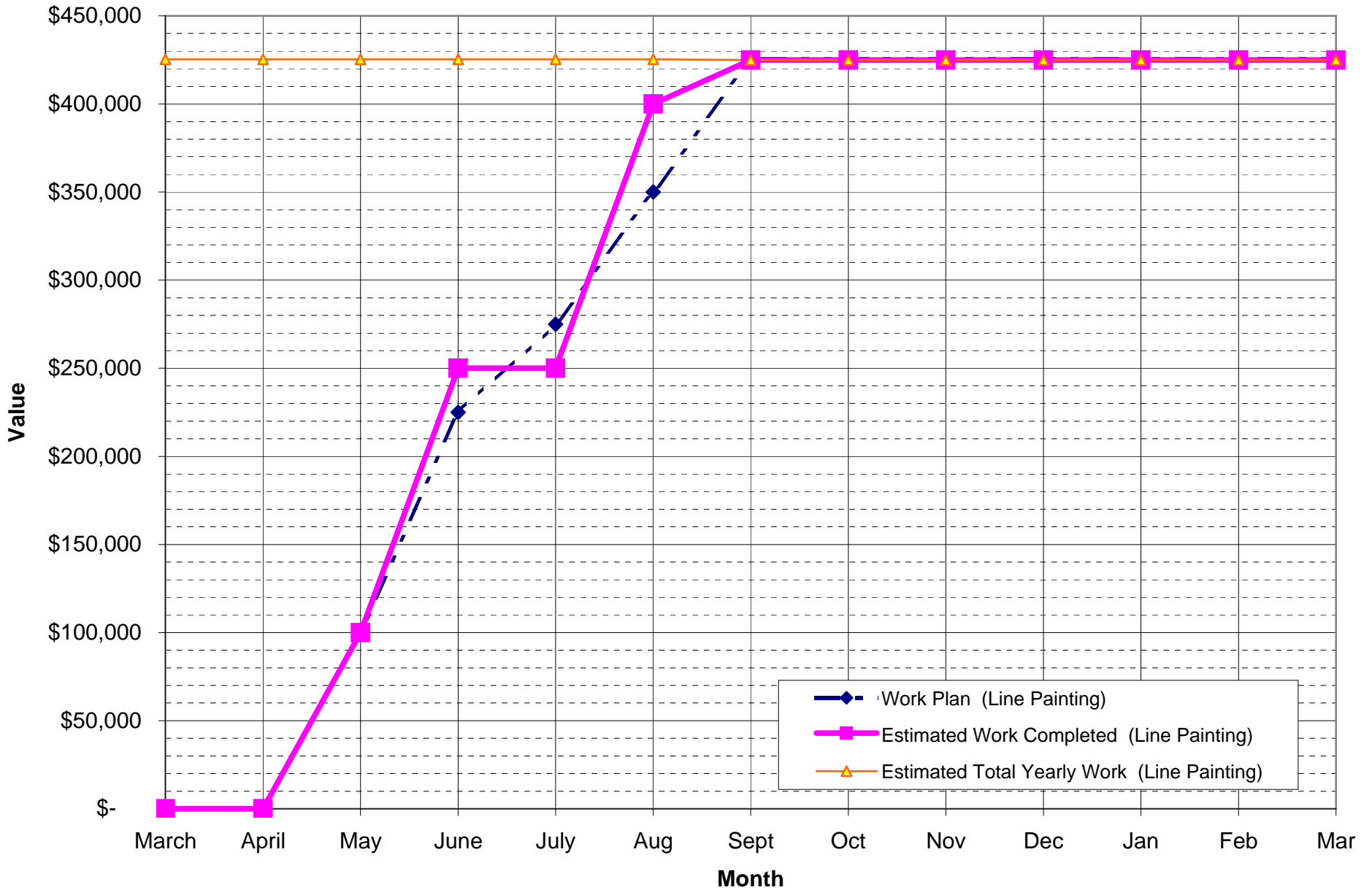


	CMA	Contract	District																
	97	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ -	\$ 100,000	\$ 225,000	\$ 275,000	\$ 350,000	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ -	\$ 100,000	\$ 250,000	\$ 250,000	\$ 400,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)



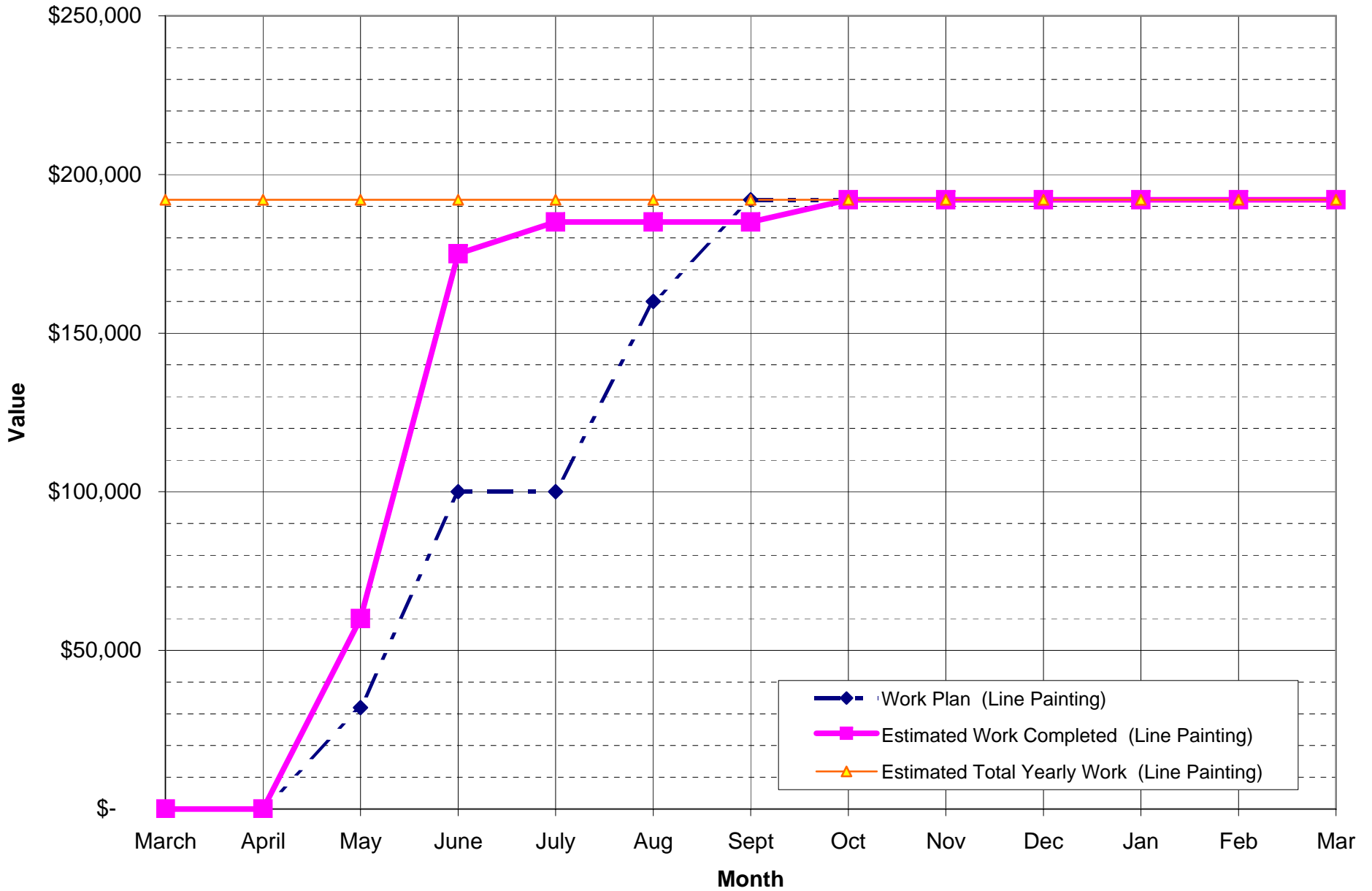
**Work Progress**  
**CMA 97 - Line Painting**



	CMA	Contract	District																
	98	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ -	\$ 32,000	\$ 100,000	\$ 100,000	\$ 160,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ -	\$ 60,000	\$ 175,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)

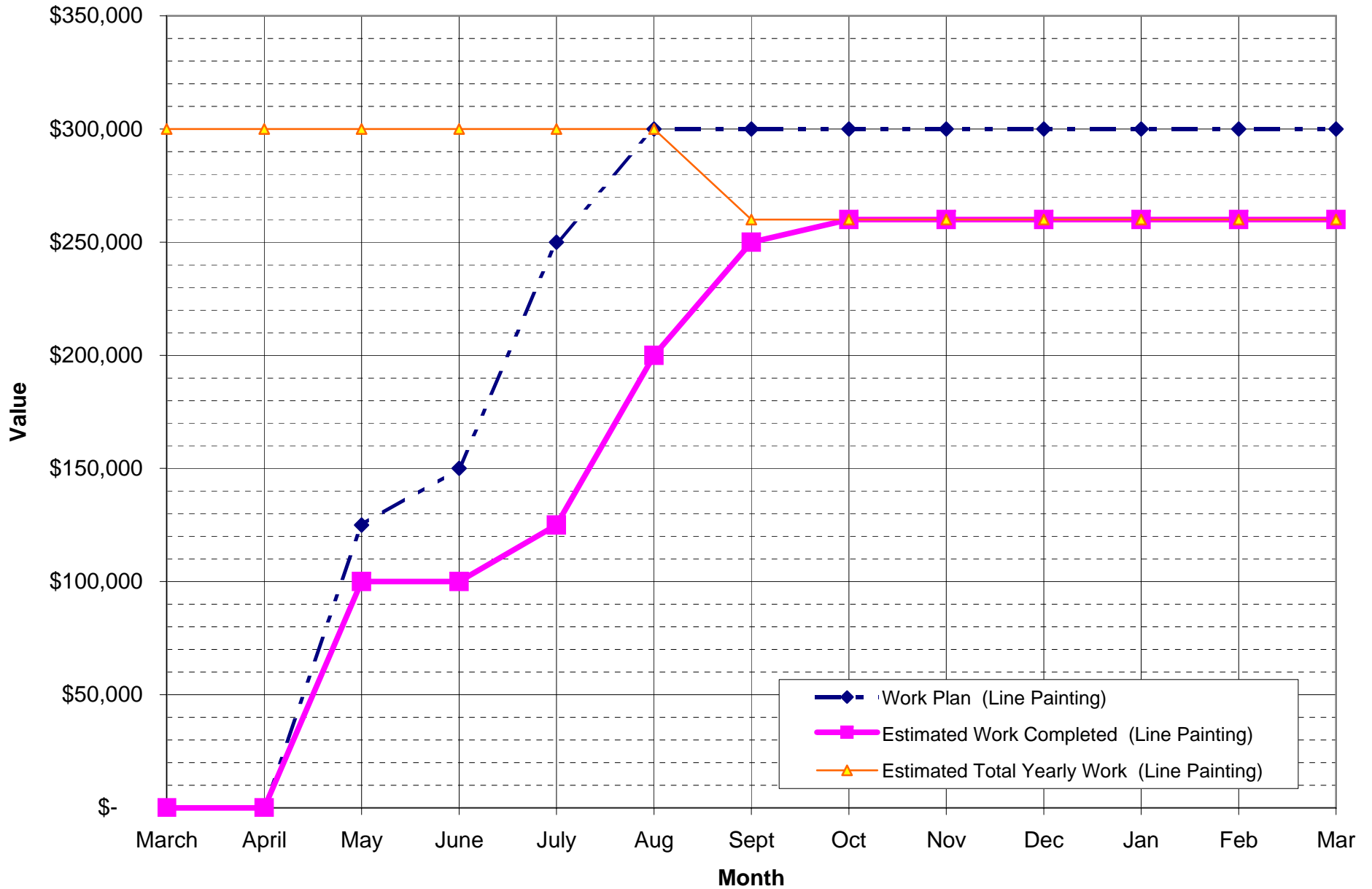
**Work Progress**  
**CMA 98 - Line Painting**



	CMA	Contract	District																
	98	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ -	\$ 125,000	\$ 150,000	\$ 250,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ 125,000	\$ 200,000	\$ 250,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)

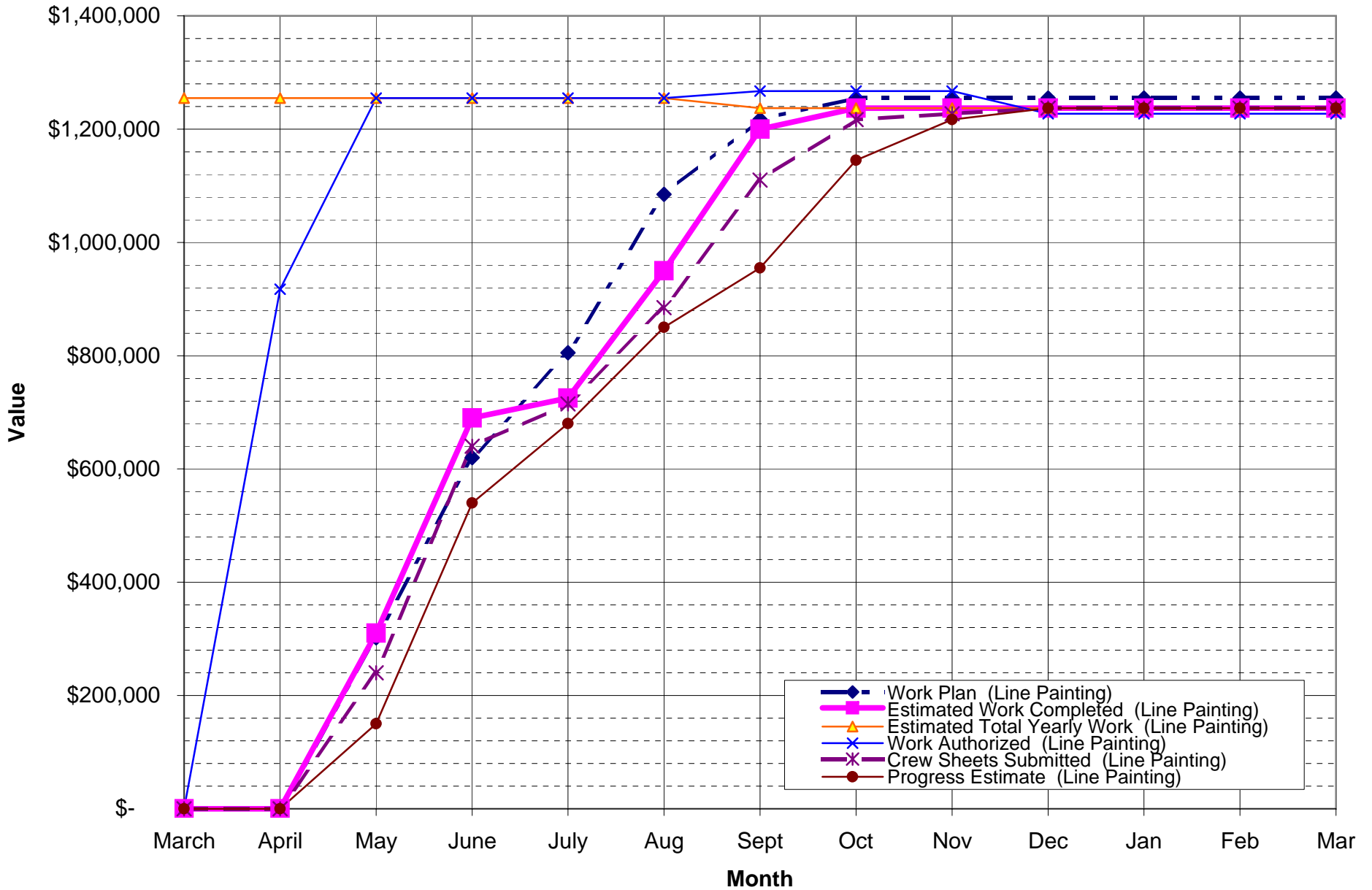
**Work Progress**  
**CMA 99 - Line Painting**



	CMA	Contract	District																
	96-99	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ -	\$ 302,000	\$ 620,000	\$ 805,000	\$ 1,085,000	\$ 1,217,300	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ -	\$ 310,000	\$ 690,000	\$ 725,000	\$ 950,000	\$ 1,200,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000
Work Authorized	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ 917,300	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,254,800	\$ 1,267,300	\$ 1,267,300	\$ 1,267,300	\$ 1,227,300	\$ 1,227,300	\$ 1,227,300	\$ 1,227,300
Crew Sheets Submitted	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ -	\$ 240,000	\$ 640,000	\$ 715,000	\$ 885,000	\$ 1,110,000	\$ 1,217,000	\$ 1,227,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000
Progress Estimate	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 1,254,800	\$ -	\$ -	\$ 150,000	\$ 540,000	\$ 680,000	\$ 850,000	\$ 955,000	\$ 1,145,000	\$ 1,217,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000	\$ 1,237,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)
Work Authorized (Line Painting)
Crew Sheets Submitted (Line Painting)
Progress Estimate (Line Painting)

## Work Progress CMA 96-99 - Line Painting

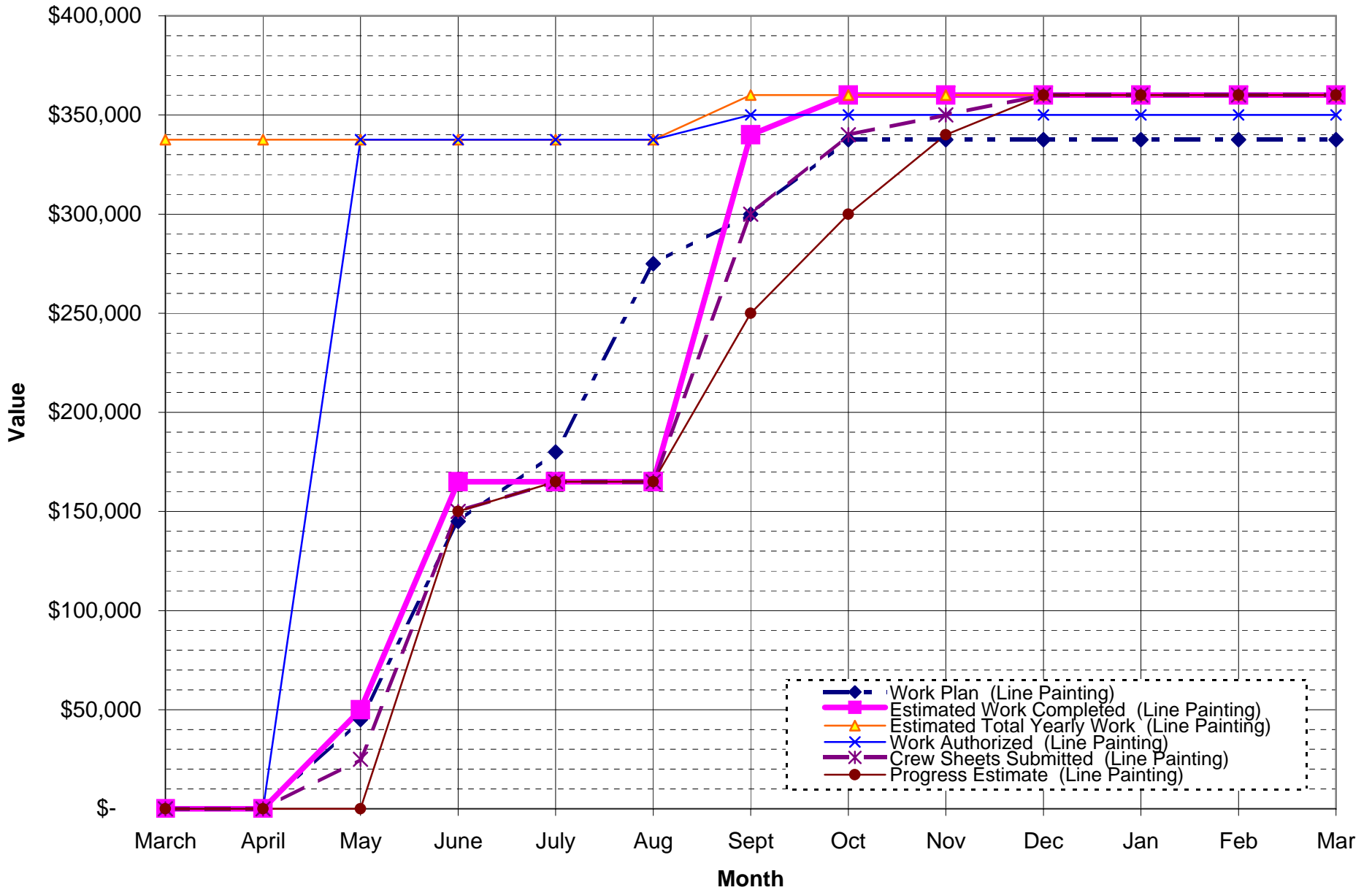


	CMA	Contract	District																
	96	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ 45,000	\$ 145,000	\$ 180,000	\$ 275,000	\$ 300,000	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ 50,000	\$ 165,000	\$ 165,000	\$ 165,000	\$ 340,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000
Work Authorized	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ 337,500	\$ 337,500	\$ 337,500	\$ 337,500	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000
Crew Sheets Submitted	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ 25,000	\$ 150,000	\$ 165,000	\$ 165,000	\$ 300,000	\$ 340,000	\$ 350,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000
Progress Estimate	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 337,500	\$ -	\$ -	\$ -	\$ 150,000	\$ 165,000	\$ 165,000	\$ 250,000	\$ 300,000	\$ 340,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)
Work Authorized (Line Painting)
Crew Sheets Submitted (Line Painting)
Progress Estimate (Line Painting)



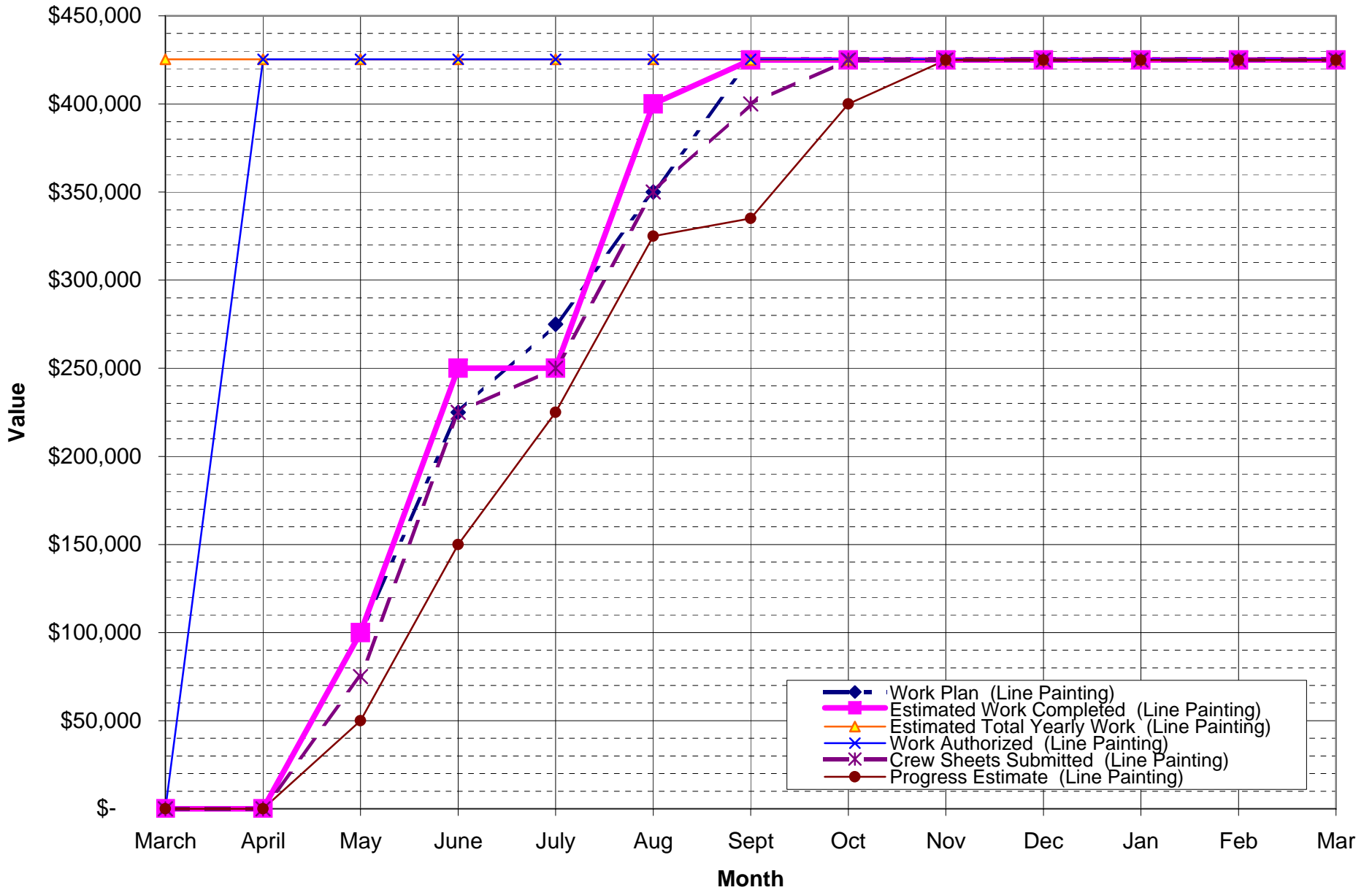
## Work Progress CMA 96 - Line Painting



	CMA	Contract	District																
	97	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ -	\$ 100,000	\$ 225,000	\$ 275,000	\$ 350,000	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ -	\$ 100,000	\$ 250,000	\$ 250,000	\$ 400,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000
Work Authorized	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300	\$ 425,300
Crew Sheets Submitted	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ -	\$ 75,000	\$ 225,000	\$ 250,000	\$ 350,000	\$ 400,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000
Progress Estimate	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 425,300	\$ -	\$ -	\$ 50,000	\$ 150,000	\$ 225,000	\$ 325,000	\$ 335,000	\$ 400,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)
Work Authorized (Line Painting)
Crew Sheets Submitted (Line Painting)
Progress Estimate (Line Painting)

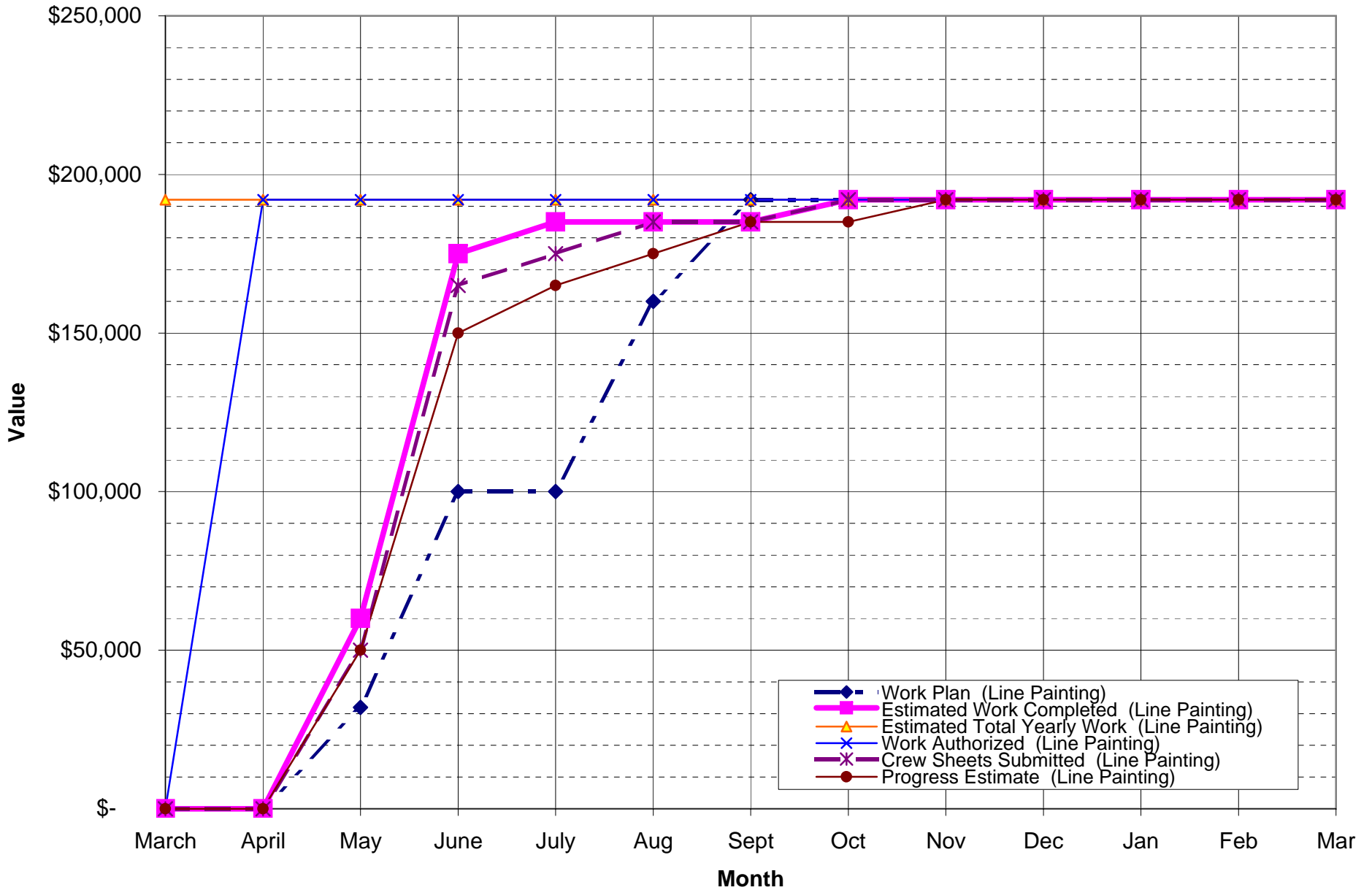
## Work Progress CMA 97 - Line Painting



	CMA	Contract	District																
	98	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ -	\$ 32,000	\$ 100,000	\$ 100,000	\$ 160,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ -	\$ 60,000	\$ 175,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Work Authorized	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Crew Sheets Submitted	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ -	\$ 50,000	\$ 165,000	\$ 175,000	\$ 185,000	\$ 185,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Progress Estimate	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 192,000	\$ -	\$ -	\$ 50,000	\$ 150,000	\$ 165,000	\$ 175,000	\$ 185,000	\$ 185,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)
Work Authorized (Line Painting)
Crew Sheets Submitted (Line Painting)
Progress Estimate (Line Painting)

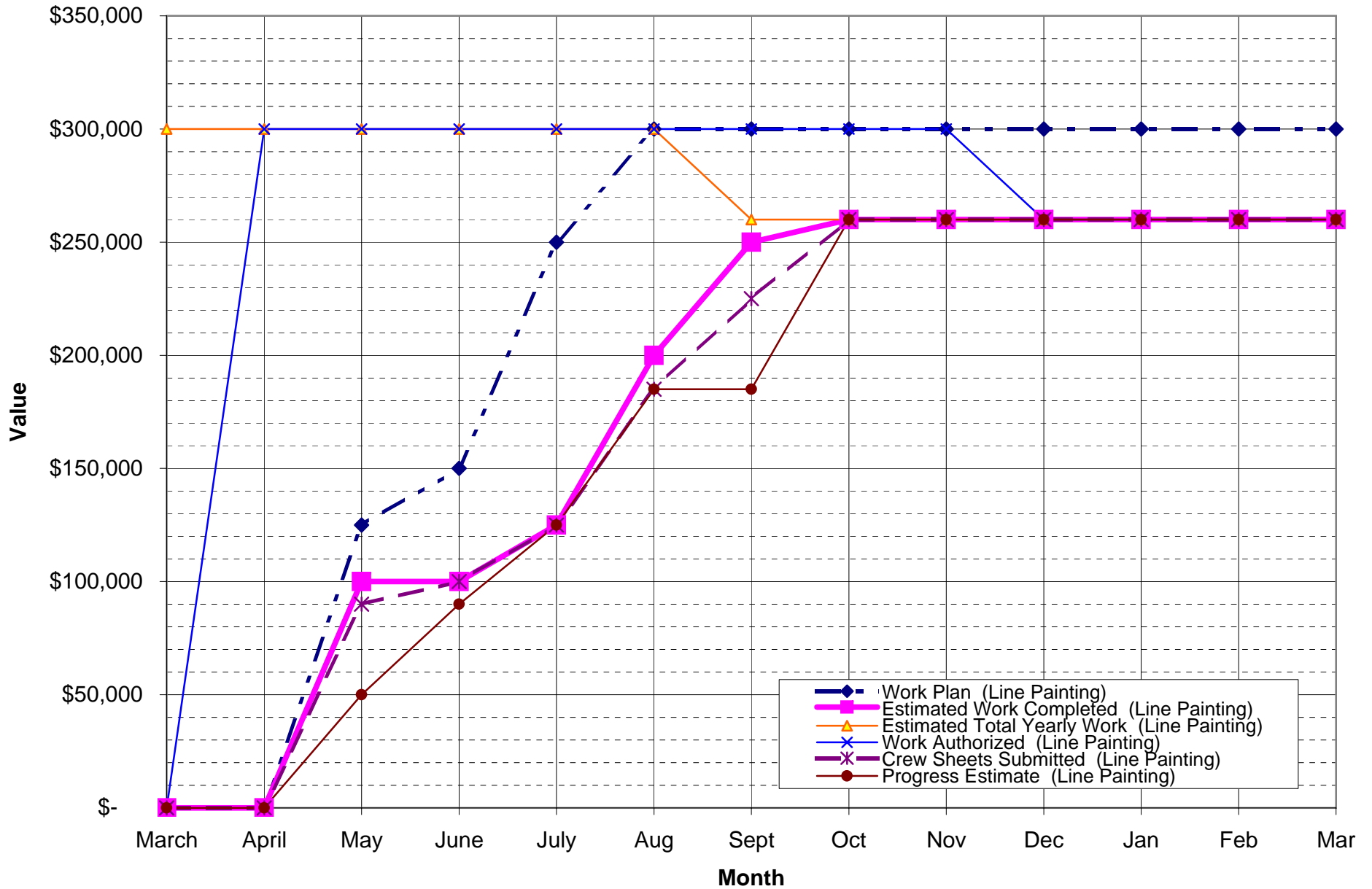
**Work Progress**  
**CMA 98 - Line Painting**



	CMA	Contract	District																
	98	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ -	\$ 125,000	\$ 150,000	\$ 250,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000
Estimated Work Completed	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ 125,000	\$ 200,000	\$ 250,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000
Estimated Total Yearly Work	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000
Work Authorized	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000
Crew Sheets Submitted	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ -	\$ 90,000	\$ 100,000	\$ 125,000	\$ 185,000	\$ 225,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000
Progress Estimate	2300	Line Painting	Traffic Control Maintenance	Variable	Summer	\$ 300,000	\$ -	\$ -	\$ 50,000	\$ 90,000	\$ 125,000	\$ 185,000	\$ 185,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000

Chart Labels
Work Plan (Line Painting)
Estimated Work Completed (Line Painting)
Estimated Total Yearly Work (Line Painting)
Work Authorized (Line Painting)
Crew Sheets Submitted (Line Painting)
Progress Estimate (Line Painting)

## Work Progress CMA 99 - Line Painting







CMA	Contract	District																			
96-99	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	All				\$ 17,072,800	\$ -	\$ 1,388,800	\$ 3,016,300	\$ 5,592,100	\$ 7,951,100	\$ 10,076,200	\$ 11,972,900	\$ 12,889,400	\$ 13,917,900	\$ 14,739,700	\$ 15,512,200	\$ 16,268,800	\$ 17,072,800

Chart Labels
Totals (Variable All)

	Totals	All	Fixed	Winter	\$ 3,069,600	\$ -	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 392,700	\$ 928,100	\$ 1,463,400	\$ 1,998,800	\$ 2,534,200	\$ 3,069,600
	Totals	All	Fixed	Both	\$ 6,319,800	\$ -	\$ 526,700	\$ 1,053,300	\$ 1,580,000	\$ 2,106,600	\$ 2,633,300	\$ 3,159,900	\$ 3,686,600	\$ 4,213,200	\$ 4,739,900	\$ 5,266,500	\$ 5,793,200	\$ 6,319,800	\$ 6,319,800	\$ 6,319,800	\$ 6,319,800
	Totals	All	Fixed	All	\$ 9,389,400	\$ -	\$ 794,400	\$ 1,321,000	\$ 1,847,700	\$ 2,374,300	\$ 2,901,000	\$ 3,427,600	\$ 4,079,300	\$ 5,141,300	\$ 6,203,300	\$ 7,265,300	\$ 8,327,400	\$ 9,389,400	\$ 9,389,400	\$ 9,389,400	\$ 9,389,400

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter	\$ 3,069,600	\$ -	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 267,700	\$ 392,700	\$ 928,100	\$ 1,463,400	\$ 1,998,800	\$ 2,534,200	\$ 3,069,600
	Totals	Winter Maintenance	Variable	Winter	\$ 4,610,200	\$ -	\$ 444,800	\$ 657,400	\$ 870,000	\$ 1,082,600	\$ 1,295,300	\$ 1,507,900	\$ 1,768,600	\$ 2,421,900	\$ 2,969,000	\$ 3,516,100	\$ 4,063,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200
	Totals	Asphalt Surface Maintenance	Variable	Summer	\$ 3,616,400	\$ -	\$ 507,700	\$ 1,127,800	\$ 1,910,300	\$ 2,512,000	\$ 3,205,500	\$ 3,587,800	\$ 3,592,600	\$ 3,597,300	\$ 3,602,100	\$ 3,606,900	\$ 3,611,700	\$ 3,616,400	\$ 3,616,400	\$ 3,616,400	\$ 3,616,400
	Totals	Gravel Surface Maintenance	Variable	Summer	\$ 2,828,200	\$ -	\$ 72,200	\$ 224,800	\$ 936,300	\$ 1,647,100	\$ 2,160,600	\$ 2,682,100	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200
	Totals	Traffic Control Maintenance	Variable	Summer	\$ 3,220,100	\$ -	\$ 124,800	\$ 565,400	\$ 1,106,800	\$ 1,448,100	\$ 1,992,100	\$ 2,427,500	\$ 2,556,500	\$ 2,689,300	\$ 2,821,900	\$ 2,954,700	\$ 3,087,300	\$ 3,220,100	\$ 3,220,100	\$ 3,220,100	\$ 3,220,100
	Totals	Highway Maintenance Work	Fixed	Both	\$ 2,487,000	\$ -	\$ 207,300	\$ 414,500	\$ 621,800	\$ 829,000	\$ 1,036,300	\$ 1,243,500	\$ 1,450,800	\$ 1,658,000	\$ 1,865,300	\$ 2,072,500	\$ 2,279,800	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000
	Totals	Highway Maintenance Work	Variable	Both	\$ 267,200	\$ -	\$ 16,700	\$ 50,100	\$ 83,500	\$ 116,900	\$ 150,300	\$ 183,700	\$ 217,100	\$ 227,100	\$ 237,200	\$ 247,100	\$ 257,200	\$ 267,200	\$ 267,200	\$ 267,200	\$ 267,200
	Totals	Roadside Maintenance	Variable	Summer	\$ 1,049,800	\$ -	\$ 14,100	\$ 39,300	\$ 253,600	\$ 678,200	\$ 695,000	\$ 868,900	\$ 979,500	\$ 993,600	\$ 1,007,600	\$ 1,021,700	\$ 1,035,700	\$ 1,049,800	\$ 1,049,800	\$ 1,049,800	\$ 1,049,800
	Totals	Drainage Maintenance	Variable	Summer	\$ 973,500	\$ -	\$ 138,300	\$ 155,600	\$ 155,600	\$ 155,600	\$ 232,200	\$ 335,200	\$ 532,500	\$ 721,500	\$ 816,100	\$ 863,300	\$ 894,700	\$ 973,500	\$ 973,500	\$ 973,500	\$ 973,500
	Totals	Bridge Maintenance	Variable	Summer	\$ 182,200	\$ -	\$ 45,600	\$ 136,700	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200
	Totals	Ferry Operation & Maintenance	Variable	Summer	\$ 150,000	\$ -	\$ 10,000	\$ 30,000	\$ 50,000	\$ 70,000	\$ 90,000	\$ 110,000	\$ 130,000	\$ 140,000	\$ 144,000	\$ 146,000	\$ 148,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
	Totals	Indirect Operating Costs	Fixed	Both	\$ 3,832,800	\$ -	\$ 319,400	\$ 638,800	\$ 958,200	\$ 1,277,600	\$ 1,597,000	\$ 1,916,400	\$ 2,235,800	\$ 2,555,200	\$ 2,874,600	\$ 3,194,000	\$ 3,513,400	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800
	Totals	Indirect Operating Costs	Variable	Both	\$ 175,200	\$ -	\$ 14,600	\$ 29,200	\$ 43,800	\$ 58,400	\$ 73,000	\$ 87,600	\$ 102,200	\$ 116,800	\$ 131,400	\$ 146,000	\$ 160,600	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200
	Totals	All	All	All	\$ 26,462,200	\$ -	\$ 2,183,200	\$ 4,337,300	\$ 7,439,800	\$ 10,325,400	\$ 12,977,200	\$ 15,400,500	\$ 16,968,700	\$ 19,059,200	\$ 20,943,000	\$ 22,777,500	\$ 24,596,200	\$ 26,462,200	\$ 26,462,200	\$ 26,462,200	\$ 26,462,200

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)



CMA	Contract	District																			
96	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter			\$ 1,219,600	\$ -	\$ 119,400	\$ 175,600	\$ 231,900	\$ 288,100	\$ 344,400	\$ 400,600	\$ 465,900	\$ 639,100	\$ 784,200	\$ 929,400	\$ 1,074,500	\$ 1,219,600	
	Totals	All	Variable	Summer			\$ 2,334,700	\$ -	\$ 166,000	\$ 398,400	\$ 936,300	\$ 1,299,500	\$ 1,658,800	\$ 1,921,100	\$ 2,061,100	\$ 2,127,800	\$ 2,183,300	\$ 2,233,200	\$ 2,281,100	\$ 2,334,700	
	Totals	All	Variable	Both			\$ 84,000	\$ -	\$ 6,000	\$ 15,000	\$ 24,000	\$ 33,000	\$ 42,000	\$ 51,000	\$ 60,000	\$ 64,800	\$ 69,600	\$ 74,400	\$ 79,200	\$ 84,000	
	Totals	All	Variable	All			\$ 3,638,300	\$ -	\$ 291,400	\$ 589,000	\$ 1,192,200	\$ 1,620,600	\$ 2,045,200	\$ 2,372,700	\$ 2,587,000	\$ 2,831,700	\$ 3,037,100	\$ 3,237,000	\$ 3,434,800	\$ 3,638,300	

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)
Totals (Variable All)

	Totals	All	Fixed	Winter			\$ 660,000	\$ -	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 110,000	\$ 220,000	\$ 330,000	\$ 440,000	\$ 550,000	\$ 660,000	
	Totals	All	Fixed	Both			\$ 1,500,000	\$ -	\$ 125,000	\$ 250,000	\$ 375,000	\$ 500,000	\$ 625,000	\$ 750,000	\$ 875,000	\$ 1,000,000	\$ 1,125,000	\$ 1,250,000	\$ 1,375,000	\$ 1,500,000	
	Totals	All	Fixed	All			\$ 2,160,000	\$ -	\$ 180,000	\$ 305,000	\$ 430,000	\$ 555,000	\$ 680,000	\$ 805,000	\$ 985,000	\$ 1,220,000	\$ 1,455,000	\$ 1,690,000	\$ 1,925,000	\$ 2,160,000	

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter			\$ 660,000	\$ -	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 110,000	\$ 220,000	\$ 330,000	\$ 440,000	\$ 550,000	\$ 660,000	
	Totals	Winter Maintenance	Variable	Winter			\$ 1,219,600	\$ -	\$ 119,400	\$ 175,600	\$ 231,900	\$ 288,100	\$ 344,400	\$ 400,600	\$ 465,900	\$ 639,100	\$ 784,200	\$ 929,400	\$ 1,074,500	\$ 1,219,600	
	Totals	Asphalt Surface Maintenance	Variable	Summer			\$ 626,300	\$ -	\$ 72,200	\$ 172,600	\$ 310,600	\$ 413,000	\$ 539,600	\$ 619,600	\$ 620,700	\$ 621,800	\$ 622,900	\$ 624,100	\$ 625,200	\$ 626,300	
	Totals	Gravel Surface Maintenance	Variable	Summer			\$ 357,400	\$ -	\$ 4,700	\$ 14,500	\$ 188,800	\$ 278,600	\$ 313,000	\$ 347,700	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	
	Totals	Traffic Control Maintenance	Variable	Summer			\$ 834,000	\$ -	\$ 39,500	\$ 114,000	\$ 264,500	\$ 338,000	\$ 502,500	\$ 581,000	\$ 641,000	\$ 679,600	\$ 718,200	\$ 756,800	\$ 795,400	\$ 834,000	
	Totals	Highway Maintenance Work	Fixed	Both			\$ 540,000	\$ -	\$ 45,000	\$ 90,000	\$ 135,000	\$ 180,000	\$ 225,000	\$ 270,000	\$ 315,000	\$ 360,000	\$ 405,000	\$ 450,000	\$ 495,000	\$ 540,000	
	Totals	Highway Maintenance Work	Variable	Both			\$ 48,000	\$ -	\$ 3,000	\$ 9,000	\$ 15,000	\$ 21,000	\$ 27,000	\$ 33,000	\$ 39,000	\$ 40,800	\$ 42,600	\$ 44,400	\$ 46,200	\$ 48,000	
	Totals	Roadside Maintenance	Variable	Summer			\$ 247,000	\$ -	\$ 4,500	\$ 11,000	\$ 71,100	\$ 168,600	\$ 172,400	\$ 204,000	\$ 224,500	\$ 229,000	\$ 233,500	\$ 238,000	\$ 242,500	\$ 247,000	
	Totals	Drainage Maintenance	Variable	Summer			\$ 210,000	\$ -	\$ 30,100	\$ 41,300	\$ 41,300	\$ 41,300	\$ 71,300	\$ 108,800	\$ 157,500	\$ 180,000	\$ 191,300	\$ 196,900	\$ 200,600	\$ 210,000	
	Totals	Bridge Maintenance	Variable	Summer			\$ 60,000	\$ -	\$ 15,000	\$ 45,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	
	Totals	Ferry Operation & Maintenance	Variable	Summer			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Totals	Indirect Operating Costs	Fixed	Both			\$ 960,000	\$ -	\$ 80,000	\$ 160,000	\$ 240,000	\$ 320,000	\$ 400,000	\$ 480,000	\$ 560,000	\$ 640,000	\$ 720,000	\$ 800,000	\$ 880,000	\$ 960,000	
	Totals	Indirect Operating Costs	Variable	Both			\$ 36,000	\$ -	\$ 3,000	\$ 6,000	\$ 9,000	\$ 12,000	\$ 15,000	\$ 18,000	\$ 21,000	\$ 24,000	\$ 27,000	\$ 30,000	\$ 33,000	\$ 36,000	
	Totals	All	All	All			\$ 5,798,300	\$ -	\$ 471,400	\$ 894,000	\$ 1,622,200	\$ 2,175,600	\$ 2,725,200	\$ 3,177,700	\$ 3,572,000	\$ 4,051,700	\$ 4,492,100	\$ 4,927,000	\$ 5,359,800	\$ 5,798,300	

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)



CMA	Contract	District																			
97	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter		\$ 1,285,000	\$ -	\$ 123,200	\$ 183,600	\$ 243,900	\$ 304,300	\$ 364,700	\$ 425,100	\$ 487,500	\$ 671,100	\$ 824,600	\$ 978,000	\$ 1,131,500	\$ 1,285,000		
	Totals	All	Variable	Summer		\$ 3,220,800	\$ -	\$ 333,200	\$ 761,900	\$ 1,346,000	\$ 1,794,300	\$ 2,192,000	\$ 2,630,900	\$ 2,783,700	\$ 2,921,600	\$ 3,012,100	\$ 3,079,100	\$ 3,138,000	\$ 3,220,800		
	Totals	All	Variable	Both		\$ 161,300	\$ -	\$ 11,300	\$ 29,000	\$ 46,600	\$ 64,300	\$ 81,900	\$ 99,500	\$ 117,200	\$ 126,000	\$ 134,900	\$ 143,600	\$ 152,400	\$ 161,300		
	Totals	All	Variable	All		\$ 4,667,100	\$ -	\$ 467,700	\$ 974,500	\$ 1,636,500	\$ 2,162,900	\$ 2,638,600	\$ 3,155,500	\$ 3,388,400	\$ 3,718,700	\$ 3,971,600	\$ 4,200,700	\$ 4,421,900	\$ 4,667,100		

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)
Totals (Variable All)

	Totals	All	Fixed	Winter		\$ 909,600	\$ -	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 248,100	\$ 413,400	\$ 578,800	\$ 744,200	\$ 909,600
	Totals	All	Fixed	Both		\$ 2,079,000	\$ -	\$ 173,300	\$ 346,500	\$ 519,800	\$ 693,000	\$ 866,300	\$ 1,039,500	\$ 1,212,800	\$ 1,386,000	\$ 1,559,300	\$ 1,732,500	\$ 1,905,800	\$ 2,079,000		
	Totals	All	Fixed	All		\$ 2,988,600	\$ -	\$ 256,000	\$ 429,200	\$ 602,500	\$ 775,700	\$ 949,000	\$ 1,122,200	\$ 1,295,500	\$ 1,634,100	\$ 1,972,700	\$ 2,311,300	\$ 2,650,000	\$ 2,988,600		

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter		\$ 909,600	\$ -	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 82,700	\$ 248,100	\$ 413,400	\$ 578,800	\$ 744,200	\$ 909,600
	Totals	Winter Maintenance	Variable	Winter		\$ 1,285,000	\$ -	\$ 123,200	\$ 183,600	\$ 243,900	\$ 304,300	\$ 364,700	\$ 425,100	\$ 487,500	\$ 671,100	\$ 824,600	\$ 978,000	\$ 1,131,500	\$ 1,285,000		
	Totals	Asphalt Surface Maintenance	Variable	Summer		\$ 1,042,100	\$ -	\$ 207,500	\$ 429,200	\$ 677,100	\$ 809,800	\$ 955,100	\$ 1,035,800	\$ 1,036,900	\$ 1,037,900	\$ 1,039,000	\$ 1,040,000	\$ 1,041,100	\$ 1,042,100		
	Totals	Gravel Surface Maintenance	Variable	Summer		\$ 387,300	\$ -	\$ 10,500	\$ 32,800	\$ 105,000	\$ 203,500	\$ 283,600	\$ 364,900	\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300
	Totals	Traffic Control Maintenance	Variable	Summer		\$ 1,013,100	\$ -	\$ 38,100	\$ 182,000	\$ 370,700	\$ 461,300	\$ 615,600	\$ 803,300	\$ 829,500	\$ 866,300	\$ 902,900	\$ 939,700	\$ 976,300	\$ 1,013,100		
	Totals	Highway Maintenance Work	Fixed	Both		\$ 819,000	\$ -	\$ 68,300	\$ 136,500	\$ 204,800	\$ 273,000	\$ 341,300	\$ 409,500	\$ 477,800	\$ 546,000	\$ 614,300	\$ 682,500	\$ 750,800	\$ 819,000		
	Totals	Highway Maintenance Work	Variable	Both		\$ 100,800	\$ -	\$ 6,300	\$ 18,900	\$ 31,500	\$ 44,100	\$ 56,700	\$ 69,300	\$ 81,900	\$ 85,700	\$ 89,500	\$ 93,200	\$ 97,000	\$ 100,800		
	Totals	Roadside Maintenance	Variable	Summer		\$ 337,800	\$ -	\$ 5,600	\$ 14,300	\$ 73,900	\$ 200,400	\$ 205,800	\$ 274,500	\$ 310,000	\$ 315,600	\$ 321,100	\$ 326,700	\$ 332,200	\$ 337,800		
	Totals	Drainage Maintenance	Variable	Summer		\$ 377,500	\$ -	\$ 55,700	\$ 56,300	\$ 56,300	\$ 56,300	\$ 68,900	\$ 89,400	\$ 157,000	\$ 251,500	\$ 298,800	\$ 322,400	\$ 338,100	\$ 377,500		
	Totals	Bridge Maintenance	Variable	Summer		\$ 63,000	\$ -	\$ 15,800	\$ 47,300	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000
	Totals	Ferry Operation & Maintenance	Variable	Summer		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Totals	Indirect Operating Costs	Fixed	Both		\$ 1,260,000	\$ -	\$ 105,000	\$ 210,000	\$ 315,000	\$ 420,000	\$ 525,000	\$ 630,000	\$ 735,000	\$ 840,000	\$ 945,000	\$ 1,050,000	\$ 1,155,000	\$ 1,260,000		
	Totals	Indirect Operating Costs	Variable	Both		\$ 60,500	\$ -	\$ 5,000	\$ 10,100	\$ 15,100	\$ 20,200	\$ 25,200	\$ 30,200	\$ 35,300	\$ 40,300	\$ 45,400	\$ 50,400	\$ 55,400	\$ 60,500		
	Totals	All	All	All		\$ 7,655,700	\$ -	\$ 723,700	\$ 1,403,700	\$ 2,239,000	\$ 2,938,600	\$ 3,587,600	\$ 4,277,700	\$ 4,683,900	\$ 5,352,800	\$ 5,944,300	\$ 6,512,000	\$ 7,071,900	\$ 7,655,700		

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)



CMA	Contract	District																				
98	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	
	Totals	All	Variable	Winter	\$ 993,600	\$ -	\$ 95,200	\$ 141,200	\$ 187,200	\$ 233,200	\$ 279,200	\$ 325,200	\$ 373,200	\$ 515,700	\$ 635,200	\$ 754,700	\$ 874,200	\$ 993,600				
	Totals	All	Variable	Summer	\$ 3,063,700	\$ -	\$ 171,500	\$ 460,800	\$ 1,038,000	\$ 1,661,400	\$ 2,232,800	\$ 2,728,200	\$ 2,878,200	\$ 2,921,700	\$ 2,959,200	\$ 2,993,700	\$ 3,027,200	\$ 3,063,700				
	Totals	All	Variable	Both	\$ 69,100	\$ -	\$ 5,000	\$ 12,300	\$ 19,700	\$ 27,000	\$ 34,400	\$ 41,800	\$ 49,100	\$ 53,100	\$ 57,100	\$ 61,100	\$ 65,200	\$ 69,100				
	Totals	All	Variable	All	\$ 4,126,400	\$ -	\$ 271,700	\$ 614,300	\$ 1,244,900	\$ 1,921,600	\$ 2,546,400	\$ 3,095,200	\$ 3,300,500	\$ 3,490,500	\$ 3,651,500	\$ 3,809,500	\$ 3,966,600	\$ 4,126,400				

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)
Totals (Variable All)

	Totals	All	Fixed	Winter	\$ 660,000	\$ -	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 180,000	\$ 300,000	\$ 420,000	\$ 540,000	\$ 660,000			
	Totals	All	Fixed	Both	\$ 1,180,800	\$ -	\$ 98,400	\$ 196,800	\$ 295,200	\$ 393,600	\$ 492,000	\$ 590,400	\$ 688,800	\$ 787,200	\$ 885,600	\$ 984,000	\$ 1,082,400	\$ 1,180,800				
	Totals	All	Fixed	All	\$ 1,840,800	\$ -	\$ 158,400	\$ 256,800	\$ 355,200	\$ 453,600	\$ 552,000	\$ 650,400	\$ 748,800	\$ 847,200	\$ 945,600	\$ 1,044,000	\$ 1,142,400	\$ 1,240,800	\$ 1,339,200	\$ 1,437,600	\$ 1,536,000	

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter	\$ 660,000	\$ -	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 180,000	\$ 300,000	\$ 420,000	\$ 540,000	\$ 660,000				
	Totals	Winter Maintenance	Variable	Winter	\$ 993,600	\$ -	\$ 95,200	\$ 141,200	\$ 187,200	\$ 233,200	\$ 279,200	\$ 325,200	\$ 373,200	\$ 515,700	\$ 635,200	\$ 754,700	\$ 874,200	\$ 993,600					
	Totals	Asphalt Surface Maintenance	Variable	Summer	\$ 968,000	\$ -	\$ 98,000	\$ 241,000	\$ 446,600	\$ 647,200	\$ 852,800	\$ 958,400	\$ 960,000	\$ 961,600	\$ 963,200	\$ 964,800	\$ 966,400	\$ 968,000					
	Totals	Gravel Surface Maintenance	Variable	Summer	\$ 1,076,000	\$ -	\$ 32,000	\$ 100,000	\$ 290,000	\$ 560,000	\$ 784,000	\$ 1,012,000	\$ 1,076,000	\$ 1,076,000	\$ 1,076,000	\$ 1,076,000	\$ 1,076,000	\$ 1,076,000	\$ 1,076,000				
	Totals	Traffic Control Maintenance	Variable	Summer	\$ 603,000	\$ -	\$ 20,200	\$ 80,400	\$ 200,600	\$ 240,800	\$ 354,000	\$ 441,200	\$ 461,000	\$ 489,400	\$ 517,800	\$ 546,200	\$ 574,600	\$ 603,000					
	Totals	Highway Maintenance Work	Fixed	Both	\$ 528,000	\$ -	\$ 44,000	\$ 88,000	\$ 132,000	\$ 176,000	\$ 220,000	\$ 264,000	\$ 308,000	\$ 352,000	\$ 396,000	\$ 440,000	\$ 484,000	\$ 528,000					
	Totals	Highway Maintenance Work	Variable	Both	\$ 38,400	\$ -	\$ 2,400	\$ 7,200	\$ 12,000	\$ 16,800	\$ 21,600	\$ 26,400	\$ 31,200	\$ 32,600	\$ 34,100	\$ 35,500	\$ 37,000	\$ 38,400					
	Totals	Roadside Maintenance	Variable	Summer	\$ 261,500	\$ -	\$ 1,500	\$ 7,000	\$ 63,600	\$ 176,200	\$ 180,800	\$ 225,400	\$ 254,000	\$ 255,500	\$ 257,000	\$ 258,500	\$ 260,000	\$ 261,500					
	Totals	Drainage Maintenance	Variable	Summer	\$ 136,000	\$ -	\$ 15,000	\$ 18,000	\$ 18,000	\$ 18,000	\$ 42,000	\$ 72,000	\$ 108,000	\$ 120,000	\$ 126,000	\$ 129,000	\$ 131,000	\$ 136,000					
	Totals	Bridge Maintenance	Variable	Summer	\$ 19,200	\$ -	\$ 4,800	\$ 14,400	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200					
	Totals	Ferry Operation & Maintenance	Variable	Summer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -					
	Totals	Indirect Operating Costs	Fixed	Both	\$ 652,800	\$ -	\$ 54,400	\$ 108,800	\$ 163,200	\$ 217,600	\$ 272,000	\$ 326,400	\$ 380,800	\$ 435,200	\$ 489,600	\$ 544,000	\$ 598,400	\$ 652,800					
	Totals	Indirect Operating Costs	Variable	Both	\$ 30,700	\$ -	\$ 2,600	\$ 5,100	\$ 7,700	\$ 10,200	\$ 12,800	\$ 15,400	\$ 17,900	\$ 20,500	\$ 23,000	\$ 25,600	\$ 28,200	\$ 30,700					
	Totals	All	All	All	\$ 5,967,200	\$ -	\$ 430,100	\$ 871,100	\$ 1,600,100	\$ 2,375,200	\$ 3,098,400	\$ 3,745,600	\$ 4,049,300	\$ 4,457,700	\$ 4,837,100	\$ 5,213,500	\$ 5,589,000	\$ 5,967,200					

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)





CMA	Contract	District																				
99	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	
	Totals	All	Variable	Winter	\$ 1,112,000	\$ -	\$ 107,000	\$ 157,000	\$ 207,000	\$ 257,000	\$ 307,000	\$ 357,000	\$ 442,000	\$ 596,000	\$ 725,000	\$ 854,000	\$ 983,000	\$ 1,112,000				
	Totals	All	Variable	Summer	\$ 3,401,000	\$ -	\$ 242,000	\$ 658,500	\$ 1,274,500	\$ 1,938,000	\$ 2,474,000	\$ 2,913,500	\$ 3,078,500	\$ 3,181,000	\$ 3,247,500	\$ 3,297,000	\$ 3,341,500	\$ 3,401,000				
	Totals	All	Variable	Both	\$ 128,000	\$ -	\$ 9,000	\$ 23,000	\$ 37,000	\$ 51,000	\$ 65,000	\$ 79,000	\$ 93,000	\$ 100,000	\$ 107,000	\$ 114,000	\$ 121,000	\$ 128,000				
	Totals	All	Variable	All	\$ 4,641,000	\$ -	\$ 358,000	\$ 838,500	\$ 1,518,500	\$ 2,246,000	\$ 2,846,000	\$ 3,349,500	\$ 3,613,500	\$ 3,877,000	\$ 4,079,500	\$ 4,265,000	\$ 4,445,500	\$ 4,641,000				

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)
Totals (Variable All)

	Totals	All	Fixed	Winter	\$ 840,000	\$ -	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 140,000	\$ 280,000	\$ 420,000	\$ 560,000	\$ 700,000	\$ 840,000				
	Totals	All	Fixed	Both	\$ 1,560,000	\$ -	\$ 130,000	\$ 260,000	\$ 390,000	\$ 520,000	\$ 650,000	\$ 780,000	\$ 910,000	\$ 1,040,000	\$ 1,170,000	\$ 1,300,000	\$ 1,430,000	\$ 1,560,000				
	Totals	All	Fixed	All	\$ 2,400,000	\$ -	\$ 200,000	\$ 330,000	\$ 460,000	\$ 590,000	\$ 720,000	\$ 850,000	\$ 1,050,000	\$ 1,320,000	\$ 1,590,000	\$ 1,860,000	\$ 2,130,000	\$ 2,400,000				

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter	\$ 840,000	\$ -	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 140,000	\$ 280,000	\$ 420,000	\$ 560,000	\$ 700,000	\$ 840,000				
	Totals	Winter Maintenance	Variable	Winter	\$ 1,112,000	\$ -	\$ 107,000	\$ 157,000	\$ 207,000	\$ 257,000	\$ 307,000	\$ 357,000	\$ 442,000	\$ 596,000	\$ 725,000	\$ 854,000	\$ 983,000	\$ 1,112,000				
	Totals	Asphalt Surface Maintenance	Variable	Summer	\$ 980,000	\$ -	\$ 130,000	\$ 285,000	\$ 476,000	\$ 642,000	\$ 858,000	\$ 974,000	\$ 975,000	\$ 976,000	\$ 977,000	\$ 978,000	\$ 979,000	\$ 980,000				
	Totals	Gravel Surface Maintenance	Variable	Summer	\$ 1,007,500	\$ -	\$ 25,000	\$ 77,500	\$ 352,500	\$ 605,000	\$ 780,000	\$ 957,500	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500				
	Totals	Traffic Control Maintenance	Variable	Summer	\$ 770,000	\$ -	\$ 27,000	\$ 189,000	\$ 271,000	\$ 408,000	\$ 520,000	\$ 602,000	\$ 625,000	\$ 654,000	\$ 683,000	\$ 712,000	\$ 741,000	\$ 770,000				
	Totals	Highway Maintenance Work	Fixed	Both	\$ 600,000	\$ -	\$ 50,000	\$ 100,000	\$ 150,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 350,000	\$ 400,000	\$ 450,000	\$ 500,000	\$ 550,000	\$ 600,000				
	Totals	Highway Maintenance Work	Variable	Both	\$ 80,000	\$ -	\$ 5,000	\$ 15,000	\$ 25,000	\$ 35,000	\$ 45,000	\$ 55,000	\$ 65,000	\$ 68,000	\$ 71,000	\$ 74,000	\$ 77,000	\$ 80,000				
	Totals	Roadside Maintenance	Variable	Summer	\$ 203,500	\$ -	\$ 2,500	\$ 7,000	\$ 45,000	\$ 133,000	\$ 136,000	\$ 165,000	\$ 191,000	\$ 193,500	\$ 196,000	\$ 198,500	\$ 201,000	\$ 203,500				
	Totals	Drainage Maintenance	Variable	Summer	\$ 250,000	\$ -	\$ 37,500	\$ 40,000	\$ 40,000	\$ 40,000	\$ 50,000	\$ 65,000	\$ 110,000	\$ 170,000	\$ 200,000	\$ 215,000	\$ 225,000	\$ 250,000				
	Totals	Bridge Maintenance	Variable	Summer	\$ 40,000	\$ -	\$ 10,000	\$ 30,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000				
	Totals	Ferry Operation & Maintenance	Variable	Summer	\$ 150,000	\$ -	\$ 10,000	\$ 30,000	\$ 50,000	\$ 70,000	\$ 90,000	\$ 110,000	\$ 130,000	\$ 140,000	\$ 144,000	\$ 146,000	\$ 148,000	\$ 150,000				
	Totals	Indirect Operating Costs	Fixed	Both	\$ 960,000	\$ -	\$ 80,000	\$ 160,000	\$ 240,000	\$ 320,000	\$ 400,000	\$ 480,000	\$ 560,000	\$ 640,000	\$ 720,000	\$ 800,000	\$ 880,000	\$ 960,000				
	Totals	Indirect Operating Costs	Variable	Both	\$ 48,000	\$ -	\$ 4,000	\$ 8,000	\$ 12,000	\$ 16,000	\$ 20,000	\$ 24,000	\$ 28,000	\$ 32,000	\$ 36,000	\$ 40,000	\$ 44,000	\$ 48,000				
	Totals	All	All	All	\$ 7,041,000	\$ -	\$ 558,000	\$ 1,168,500	\$ 1,978,500	\$ 2,836,000	\$ 3,566,000	\$ 4,199,500	\$ 4,663,500	\$ 5,197,000	\$ 5,669,500	\$ 6,125,000	\$ 6,575,500	\$ 7,041,000				

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)



CMA	Contract	District																			
<b>96-99</b>	<b>9999/99</b>	<b>Lethbridge</b>	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Totals		Winter Maintenance	Fixed	Winter	\$ 3,069,600	\$ -	\$ 255,800	\$ 255,800	\$ 255,800	\$ 255,800	\$ 255,800	\$ 255,800	\$ 255,800	\$ 255,800	\$ 255,800	\$ 511,600	\$ 511,600	\$ 511,600	\$ 511,600	\$ 511,600	\$ 511,600
Totals		Winter Maintenance	Variable	Winter	\$ 4,610,200	\$ -	\$ 177,600	\$ 252,600	\$ 547,600	\$ 882,600	\$ 1,157,600	\$ 1,357,600	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700	\$ 1,573,700
Totals		Asphalt Surface Maintenance	Variable	Summer	\$ 3,616,400	\$ -	\$ 533,300	\$ 1,046,500	\$ 1,996,200	\$ 2,540,800	\$ 3,039,500	\$ 3,569,100	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800	\$ 3,703,800
Totals		Gravel Surface Maintenance	Variable	Summer	\$ 2,828,200	\$ -	\$ 90,000	\$ 212,800	\$ 772,800	\$ 1,481,500	\$ 2,226,500	\$ 2,574,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300	\$ 2,724,300
Totals		Traffic Control Maintenance	Variable	Summer	\$ 3,220,100	\$ -	\$ 124,700	\$ 568,400	\$ 1,194,500	\$ 1,419,000	\$ 1,959,500	\$ 2,502,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500	\$ 2,703,500
Totals		Highway Maintenance Work	Fixed	Both	\$ 2,487,000	\$ -	\$ 207,300	\$ 414,500	\$ 621,800	\$ 829,000	\$ 1,036,300	\$ 1,243,500	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800	\$ 1,450,800
Totals		Highway Maintenance Work	Variable	Both	\$ 267,200	\$ -	\$ 15,400	\$ 51,200	\$ 75,000	\$ 107,000	\$ 132,000	\$ 168,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 209,000	\$ 209,000
Totals		Roadside Maintenance	Variable	Summer	\$ 1,049,800	\$ -	\$ 13,500	\$ 69,000	\$ 334,100	\$ 731,600	\$ 765,400	\$ 910,000	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500	\$ 1,013,500
Totals		Drainage Maintenance	Variable	Summer	\$ 973,500	\$ -	\$ 109,700	\$ 127,900	\$ 127,900	\$ 215,900	\$ 260,900	\$ 418,900	\$ 556,600	\$ 556,600	\$ 556,600	\$ 556,600	\$ 556,600	\$ 556,600	\$ 556,600	\$ 556,600	\$ 556,600
Totals		Bridge Maintenance	Variable	Summer	\$ 182,200	\$ -	\$ 42,800	\$ 172,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000
Totals		Ferry Operation & Maintenance	Variable	Summer	\$ 150,000	\$ -	\$ 5,000	\$ 25,000	\$ 45,000	\$ 65,000	\$ 85,000	\$ 100,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000
Totals		Indirect Operating Costs	Fixed	Both	\$ 3,832,800	\$ -	\$ 319,400	\$ 638,800	\$ 958,200	\$ 1,277,600	\$ 1,597,000	\$ 1,916,400	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800	\$ 2,235,800
Totals		Indirect Operating Costs	Variable	Both	\$ 175,200	\$ -	\$ 14,600	\$ 25,200	\$ 35,800	\$ 46,400	\$ 57,000	\$ 67,600	\$ 78,200	\$ 78,200	\$ 78,200	\$ 78,200	\$ 78,200	\$ 78,200	\$ 78,200	\$ 78,200	\$ 78,200
Totals		All	All	All	\$ 26,462,200	\$ -	\$ 1,909,100	\$ 3,859,700	\$ 7,151,700	\$ 10,039,200	\$ 12,759,500	\$ 15,270,700	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800	\$ 17,067,800

Chart Labels
Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)



CMA	Contract	District																			
96	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter			\$ 1,219,600	\$ -	\$ 26,000	\$ 76,000	\$ 76,000	\$ 186,000	\$ 261,000	\$ 311,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000
	Totals	All	Variable	Summer			\$ 2,334,700	\$ -	\$ 184,100	\$ 457,300	\$ 1,074,900	\$ 1,259,700	\$ 1,632,000	\$ 2,068,600	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300
	Totals	All	Variable	Both			\$ 84,000	\$ -	\$ 6,000	\$ 15,000	\$ 24,000	\$ 33,000	\$ 42,000	\$ 51,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
	Totals	All	Variable	All			\$ 3,638,300	\$ -	\$ 216,100	\$ 548,300	\$ 1,174,900	\$ 1,478,700	\$ 1,935,000	\$ 2,430,600	\$ 2,689,300	\$ 2,689,300	\$ 2,689,300	\$ 2,689,300	\$ 2,689,300	\$ 2,689,300	\$ 2,689,300

Chart Labels	
Totals (Variable Winter)	
Totals (Variable Summer)	
Totals (Variable Both)	
Totals (Variable All)	

	Totals	All	Fixed	Winter			\$ 660,000	\$ -	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000
	Totals	All	Fixed	Both			\$ 1,500,000	\$ -	\$ 125,000	\$ 250,000	\$ 375,000	\$ 500,000	\$ 625,000	\$ 750,000	\$ 875,000	\$ 875,000	\$ 875,000	\$ 875,000	\$ 875,000	\$ 875,000	\$ 875,000
	Totals	All	Fixed	All			\$ 2,160,000	\$ -	\$ 180,000	\$ 305,000	\$ 430,000	\$ 555,000	\$ 680,000	\$ 805,000	\$ 985,000	\$ 985,000	\$ 985,000	\$ 985,000	\$ 985,000	\$ 985,000	\$ 985,000

Totals (Fixed Winter)	
Totals (Fixed Both)	
Totals (Fixed All)	

	Totals	Winter Maintenance	Fixed	Winter			\$ 660,000	\$ -	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000
	Totals	Winter Maintenance	Variable	Winter			\$ 1,219,600	\$ -	\$ 26,000	\$ 76,000	\$ 76,000	\$ 186,000	\$ 261,000	\$ 311,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000	\$ 433,000
	Totals	Asphalt Surface Maintenance	Variable	Summer			\$ 626,300	\$ -	\$ 90,000	\$ 240,000	\$ 396,000	\$ 437,000	\$ 618,000	\$ 714,000	\$ 720,000	\$ 720,000	\$ 720,000	\$ 720,000	\$ 720,000	\$ 720,000	\$ 720,000
	Totals	Gravel Surface Maintenance	Variable	Summer			\$ 357,400	\$ -	\$ 5,000	\$ 10,000	\$ 215,000	\$ 225,800	\$ 305,800	\$ 360,800	\$ 370,800	\$ 370,800	\$ 370,800	\$ 370,800	\$ 370,800	\$ 370,800	\$ 370,800
	Totals	Traffic Control Maintenance	Variable	Summer			\$ 834,000	\$ -	\$ 39,500	\$ 110,000	\$ 291,500	\$ 327,000	\$ 404,500	\$ 621,000	\$ 663,500	\$ 663,500	\$ 663,500	\$ 663,500	\$ 663,500	\$ 663,500	\$ 663,500
	Totals	Highway Maintenance Work	Fixed	Both			\$ 540,000	\$ -	\$ 45,000	\$ 90,000	\$ 135,000	\$ 180,000	\$ 225,000	\$ 270,000	\$ 315,000	\$ 315,000	\$ 315,000	\$ 315,000	\$ 315,000	\$ 315,000	\$ 315,000
	Totals	Highway Maintenance Work	Variable	Both			\$ 48,000	\$ -	\$ 3,000	\$ 9,000	\$ 15,000	\$ 21,000	\$ 27,000	\$ 33,000	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000	\$ 39,000
	Totals	Roadside Maintenance	Variable	Summer			\$ 247,000	\$ -	\$ 4,500	\$ 11,000	\$ 71,100	\$ 168,600	\$ 172,400	\$ 204,000	\$ 224,500	\$ 224,500	\$ 224,500	\$ 224,500	\$ 224,500	\$ 224,500	\$ 224,500
	Totals	Drainage Maintenance	Variable	Summer			\$ 210,000	\$ -	\$ 30,100	\$ 41,300	\$ 41,300	\$ 41,300	\$ 71,300	\$ 108,800	\$ 157,500	\$ 157,500	\$ 157,500	\$ 157,500	\$ 157,500	\$ 157,500	\$ 157,500
	Totals	Bridge Maintenance	Variable	Summer			\$ 60,000	\$ -	\$ 15,000	\$ 45,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
	Totals	Ferry Operation & Maintenance	Variable	Summer			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Totals	Indirect Operating Costs	Fixed	Both			\$ 960,000	\$ -	\$ 80,000	\$ 160,000	\$ 240,000	\$ 320,000	\$ 400,000	\$ 480,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000
	Totals	Indirect Operating Costs	Variable	Both			\$ 36,000	\$ -	\$ 3,000	\$ 6,000	\$ 9,000	\$ 12,000	\$ 15,000	\$ 18,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000
	Totals	All	All	All			\$ 5,798,300	\$ -	\$ 396,100	\$ 853,300	\$ 1,604,900	\$ 2,033,700	\$ 2,615,000	\$ 3,235,600	\$ 3,674,300	\$ 3,674,300	\$ 3,674,300	\$ 3,674,300	\$ 3,674,300	\$ 3,674,300	\$ 3,674,300

Totals (Winter Maintenance - Fixed Winter)	
Totals (Winter Maintenance - Variable Winter)	
Totals (Asphalt Surface Maintenance - Variable Summer)	
Totals (Gravel Surface Maintenance - Variable Summer)	
Totals (Traffic Control Maintenance - Variable Summer)	
Totals (Highway Maintenance Work - Fixed Both)	
Totals (Highway Maintenance Work - Variable Both)	
Totals (Roadside Maintenance - Variable Summer)	
Totals (Drainage Maintenance - Variable Summer)	
Totals (Bridge Maintenance - Variable Summer)	
Totals (Ferry Operation & Maintenance - Variable Summer)	
Totals (Indirect Operating Costs - Fixed Both)	
Totals (Indirect Operating Costs - Variable Both)	
Totals (All - All All)	



CMA	Contract	District																			
97	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Totals	All	All	Variable	Winter	\$ 1,285,000	\$ -	\$ 57,400	\$ 57,400	\$ 227,400	\$ 227,400	\$ 377,400	\$ 452,400	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500
Totals	All	All	Variable	Summer	\$ 3,220,800	\$ -	\$ 373,200	\$ 747,900	\$ 1,400,000	\$ 2,058,400	\$ 2,494,500	\$ 2,763,800	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900
Totals	All	All	Variable	Both	\$ 161,300	\$ -	\$ 10,000	\$ 30,100	\$ 40,100	\$ 60,200	\$ 70,200	\$ 90,200	\$ 115,300	\$ 115,300	\$ 115,300	\$ 115,300	\$ 115,300	\$ 115,300	\$ 115,300	\$ 115,300	\$ 115,300
Totals	All	All	Variable	All	\$ 4,667,100	\$ -	\$ 440,600	\$ 835,400	\$ 1,667,500	\$ 2,346,000	\$ 2,942,100	\$ 3,306,400	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700	\$ 3,514,700
Totals	All	All	Fixed	Winter	\$ 909,600	\$ -	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600
Totals	All	All	Fixed	Both	\$ 2,079,000	\$ -	\$ 173,300	\$ 346,500	\$ 519,800	\$ 693,000	\$ 866,300	\$ 1,039,500	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800	\$ 1,212,800
Totals	All	All	Fixed	All	\$ 2,988,600	\$ -	\$ 249,100	\$ 422,300	\$ 595,600	\$ 768,800	\$ 942,100	\$ 1,115,300	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400	\$ 1,364,400

Chart Labels	
Totals (Variable Winter)	
Totals (Variable Summer)	
Totals (Variable Both)	
Totals (Variable All)	
Totals (Fixed Winter)	
Totals (Fixed Both)	
Totals (Fixed All)	

Totals	Winter Maintenance	Fixed	Winter	\$ 909,600	\$ -	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 75,800	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600	\$ 151,600
Totals	Winter Maintenance	Variable	Winter	\$ 1,285,000	\$ -	\$ 57,400	\$ 57,400	\$ 227,400	\$ 227,400	\$ 377,400	\$ 452,400	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500	\$ 464,500
Totals	Asphalt Surface Maintenance	Variable	Summer	\$ 1,042,100	\$ -	\$ 240,300	\$ 380,500	\$ 706,600	\$ 972,600	\$ 1,023,700	\$ 1,024,700	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800	\$ 1,025,800
Totals	Gravel Surface Maintenance	Variable	Summer	\$ 387,300	\$ -	\$ 35,000	\$ 56,300	\$ 76,300	\$ 247,700	\$ 367,700	\$ 389,000	\$ 409,000	\$ 409,000	\$ 409,000	\$ 409,000	\$ 409,000	\$ 409,000	\$ 409,000	\$ 409,000	\$ 409,000
Totals	Traffic Control Maintenance	Variable	Summer	\$ 1,013,100	\$ -	\$ 41,000	\$ 170,000	\$ 401,000	\$ 477,000	\$ 717,000	\$ 849,000	\$ 909,000	\$ 909,000	\$ 909,000	\$ 909,000	\$ 909,000	\$ 909,000	\$ 909,000	\$ 909,000	\$ 909,000
Totals	Highway Maintenance Work	Fixed	Both	\$ 819,000	\$ -	\$ 68,300	\$ 136,500	\$ 204,800	\$ 273,000	\$ 341,300	\$ 409,500	\$ 477,800	\$ 477,800	\$ 477,800	\$ 477,800	\$ 477,800	\$ 477,800	\$ 477,800	\$ 477,800	\$ 477,800
Totals	Highway Maintenance Work	Variable	Both	\$ 100,800	\$ -	\$ 5,000	\$ 20,000	\$ 25,000	\$ 40,000	\$ 45,000	\$ 60,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000
Totals	Roadside Maintenance	Variable	Summer	\$ 337,800	\$ -	\$ 5,000	\$ 40,000	\$ 115,000	\$ 220,000	\$ 245,000	\$ 295,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000	\$ 335,000
Totals	Drainage Maintenance	Variable	Summer	\$ 377,500	\$ -	\$ 36,100	\$ 36,100	\$ 36,100	\$ 76,100	\$ 76,100	\$ 141,100	\$ 191,100	\$ 191,100	\$ 191,100	\$ 191,100	\$ 191,100	\$ 191,100	\$ 191,100	\$ 191,100	\$ 191,100
Totals	Bridge Maintenance	Variable	Summer	\$ 63,000	\$ -	\$ 15,800	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000
Totals	Ferry Operation & Maintenance	Variable	Summer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals	Indirect Operating Costs	Fixed	Both	\$ 1,260,000	\$ -	\$ 105,000	\$ 210,000	\$ 315,000	\$ 420,000	\$ 525,000	\$ 630,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 735,000	\$ 735,000
Totals	Indirect Operating Costs	Variable	Both	\$ 60,500	\$ -	\$ 5,000	\$ 10,100	\$ 15,100	\$ 20,200	\$ 25,200	\$ 30,200	\$ 35,300	\$ 35,300	\$ 35,300	\$ 35,300	\$ 35,300	\$ 35,300	\$ 35,300	\$ 35,300	\$ 35,300
Totals	All	All	All	\$ 7,655,700	\$ -	\$ 689,700	\$ 1,257,700	\$ 2,263,100	\$ 3,114,800	\$ 3,884,200	\$ 4,421,700	\$ 4,879,100	\$ 4,879,100	\$ 4,879,100	\$ 4,879,100	\$ 4,879,100	\$ 4,879,100	\$ 4,879,100	\$ 4,879,100	

Totals (Winter Maintenance - Fixed Winter)	
Totals (Winter Maintenance - Variable Winter)	
Totals (Asphalt Surface Maintenance - Variable Summer)	
Totals (Gravel Surface Maintenance - Variable Summer)	
Totals (Traffic Control Maintenance - Variable Summer)	
Totals (Highway Maintenance Work - Fixed Both)	
Totals (Highway Maintenance Work - Variable Both)	
Totals (Roadside Maintenance - Variable Summer)	
Totals (Drainage Maintenance - Variable Summer)	
Totals (Bridge Maintenance - Variable Summer)	
Totals (Ferry Operation & Maintenance - Variable Summer)	
Totals (Indirect Operating Costs - Fixed Both)	
Totals (Indirect Operating Costs - Variable Both)	
Totals (All - All All)	





CMA	Contract	District																			
98	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter			\$ 993,600	\$ -	\$ 38,200	\$ 38,200	\$ 163,200	\$ 288,200	\$ 338,200	\$ 363,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200
	Totals	All	Variable	Summer			\$ 3,063,700	\$ -	\$ 148,700	\$ 449,400	\$ 1,074,600	\$ 1,636,200	\$ 2,209,800	\$ 2,815,400	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000
	Totals	All	Variable	Both			\$ 69,100	\$ -	\$ 5,000	\$ 12,300	\$ 17,700	\$ 21,200	\$ 27,800	\$ 35,400	\$ 42,900	\$ 42,900	\$ 42,900	\$ 42,900	\$ 42,900	\$ 42,900	\$ 42,900
	Totals	All	Variable	All			\$ 4,126,400	\$ -	\$ 191,900	\$ 499,900	\$ 1,255,500	\$ 1,945,600	\$ 2,575,800	\$ 3,214,000	\$ 3,452,100	\$ 3,452,100	\$ 3,452,100	\$ 3,452,100	\$ 3,452,100	\$ 3,452,100	\$ 3,452,100

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)
Totals (Variable All)

	Totals	All	Fixed	Winter			\$ 660,000	\$ -	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000
	Totals	All	Fixed	Both			\$ 1,180,800	\$ -	\$ 98,400	\$ 196,800	\$ 295,200	\$ 393,600	\$ 492,000	\$ 590,400	\$ 688,800	\$ 688,800	\$ 688,800	\$ 688,800	\$ 688,800	\$ 688,800	\$ 688,800
	Totals	All	Fixed	All			\$ 1,840,800	\$ -	\$ 153,400	\$ 251,800	\$ 350,200	\$ 448,600	\$ 547,000	\$ 645,400	\$ 798,800	\$ 798,800	\$ 798,800	\$ 798,800	\$ 798,800	\$ 798,800	\$ 798,800

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter			\$ 660,000	\$ -	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 55,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000
	Totals	Winter Maintenance	Variable	Winter			\$ 993,600	\$ -	\$ 38,200	\$ 38,200	\$ 163,200	\$ 288,200	\$ 338,200	\$ 363,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200	\$ 375,200
	Totals	Asphalt Surface Maintenance	Variable	Summer			\$ 968,000	\$ -	\$ 88,000	\$ 206,000	\$ 487,600	\$ 564,200	\$ 694,800	\$ 996,400	\$ 998,000	\$ 998,000	\$ 998,000	\$ 998,000	\$ 998,000	\$ 998,000	\$ 998,000
	Totals	Gravel Surface Maintenance	Variable	Summer			\$ 1,076,000	\$ -	\$ 25,000	\$ 69,000	\$ 154,000	\$ 438,000	\$ 808,000	\$ 962,000	\$ 1,062,000	\$ 1,062,000	\$ 1,062,000	\$ 1,062,000	\$ 1,062,000	\$ 1,062,000	\$ 1,062,000
	Totals	Traffic Control Maintenance	Variable	Summer			\$ 603,000	\$ -	\$ 17,200	\$ 119,400	\$ 286,000	\$ 337,000	\$ 408,000	\$ 491,000	\$ 557,000	\$ 557,000	\$ 557,000	\$ 557,000	\$ 557,000	\$ 557,000	\$ 557,000
	Totals	Highway Maintenance Work	Fixed	Both			\$ 528,000	\$ -	\$ 44,000	\$ 88,000	\$ 132,000	\$ 176,000	\$ 220,000	\$ 264,000	\$ 308,000	\$ 308,000	\$ 308,000	\$ 308,000	\$ 308,000	\$ 308,000	\$ 308,000
	Totals	Highway Maintenance Work	Variable	Both			\$ 38,400	\$ -	\$ 2,400	\$ 7,200	\$ 10,000	\$ 11,000	\$ 15,000	\$ 20,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
	Totals	Roadside Maintenance	Variable	Summer			\$ 261,500	\$ -	\$ 1,500	\$ 11,000	\$ 103,000	\$ 205,000	\$ 207,000	\$ 241,000	\$ 273,000	\$ 273,000	\$ 273,000	\$ 273,000	\$ 273,000	\$ 273,000	\$ 273,000
	Totals	Drainage Maintenance	Variable	Summer			\$ 136,000	\$ -	\$ 15,000	\$ 22,000	\$ 22,000	\$ 70,000	\$ 70,000	\$ 103,000	\$ 122,000	\$ 122,000	\$ 122,000	\$ 122,000	\$ 122,000	\$ 122,000	\$ 122,000
	Totals	Bridge Maintenance	Variable	Summer			\$ 19,200	\$ -	\$ 2,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000
	Totals	Ferry Operation & Maintenance	Variable	Summer			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Totals	Indirect Operating Costs	Fixed	Both			\$ 652,800	\$ -	\$ 54,400	\$ 108,800	\$ 163,200	\$ 217,600	\$ 272,000	\$ 326,400	\$ 380,800	\$ 380,800	\$ 380,800	\$ 380,800	\$ 380,800	\$ 380,800	\$ 380,800
	Totals	Indirect Operating Costs	Variable	Both			\$ 30,700	\$ -	\$ 2,600	\$ 5,100	\$ 7,700	\$ 10,200	\$ 12,800	\$ 15,400	\$ 17,900	\$ 17,900	\$ 17,900	\$ 17,900	\$ 17,900	\$ 17,900	\$ 17,900
	Totals	All	All	All			\$ 5,967,200	\$ -	\$ 345,300	\$ 751,700	\$ 1,605,700	\$ 2,394,200	\$ 3,122,800	\$ 3,859,400	\$ 4,250,900	\$ 4,250,900	\$ 4,250,900	\$ 4,250,900	\$ 4,250,900	\$ 4,250,900	

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)



CMA	Contract	District																			
99	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter		\$ 1,112,000	\$ -	\$ 56,000	\$ 81,000	\$ 81,000	\$ 181,000	\$ 181,000	\$ 231,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000
	Totals	All	Variable	Summer		\$ 3,401,000	\$ -	\$ 213,000	\$ 567,000	\$ 1,108,000	\$ 1,686,500	\$ 2,187,500	\$ 2,614,000	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500
	Totals	All	Variable	Both		\$ 128,000	\$ -	\$ 9,000	\$ 19,000	\$ 29,000	\$ 39,000	\$ 49,000	\$ 59,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000	\$ 69,000
	Totals	All	Variable	All		\$ 4,641,000	\$ -	\$ 278,000	\$ 667,000	\$ 1,218,000	\$ 1,906,500	\$ 2,417,500	\$ 2,904,000	\$ 3,213,500	\$ 3,213,500	\$ 3,213,500	\$ 3,213,500	\$ 3,213,500	\$ 3,213,500	\$ 3,213,500	\$ 3,213,500

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)
Totals (Variable All)

	Totals	All	Fixed	Winter		\$ 840,000	\$ -	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000
	Totals	All	Fixed	Both		\$ 1,560,000	\$ -	\$ 130,000	\$ 260,000	\$ 390,000	\$ 520,000	\$ 650,000	\$ 780,000	\$ 910,000	\$ 910,000	\$ 910,000	\$ 910,000	\$ 910,000	\$ 910,000	\$ 910,000	\$ 910,000
	Totals	All	Fixed	All		\$ 2,400,000	\$ -	\$ 200,000	\$ 330,000	\$ 460,000	\$ 590,000	\$ 720,000	\$ 850,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000

Totals (Fixed Winter)
Totals (Fixed Both)
Totals (Fixed All)

	Totals	Winter Maintenance	Fixed	Winter		\$ 840,000	\$ -	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 70,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000
	Totals	Winter Maintenance	Variable	Winter		\$ 1,112,000	\$ -	\$ 56,000	\$ 81,000	\$ 81,000	\$ 181,000	\$ 181,000	\$ 231,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000	\$ 301,000
	Totals	Asphalt Surface Maintenance	Variable	Summer		\$ 980,000	\$ -	\$ 115,000	\$ 220,000	\$ 406,000	\$ 567,000	\$ 703,000	\$ 834,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000
	Totals	Gravel Surface Maintenance	Variable	Summer		\$ 1,007,500	\$ -	\$ 25,000	\$ 77,500	\$ 327,500	\$ 570,000	\$ 745,000	\$ 862,500	\$ 882,500	\$ 882,500	\$ 882,500	\$ 882,500	\$ 882,500	\$ 882,500	\$ 882,500	\$ 882,500
	Totals	Traffic Control Maintenance	Variable	Summer		\$ 770,000	\$ -	\$ 27,000	\$ 169,000	\$ 216,000	\$ 278,000	\$ 430,000	\$ 541,500	\$ 574,000	\$ 574,000	\$ 574,000	\$ 574,000	\$ 574,000	\$ 574,000	\$ 574,000	\$ 574,000
	Totals	Highway Maintenance Work	Fixed	Both		\$ 600,000	\$ -	\$ 50,000	\$ 100,000	\$ 150,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000
	Totals	Highway Maintenance Work	Variable	Both		\$ 80,000	\$ -	\$ 5,000	\$ 15,000	\$ 25,000	\$ 35,000	\$ 45,000	\$ 55,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000
	Totals	Roadside Maintenance	Variable	Summer		\$ 203,500	\$ -	\$ 2,500	\$ 7,000	\$ 45,000	\$ 138,000	\$ 141,000	\$ 170,000	\$ 181,000	\$ 181,000	\$ 181,000	\$ 181,000	\$ 181,000	\$ 181,000	\$ 181,000	\$ 181,000
	Totals	Drainage Maintenance	Variable	Summer		\$ 250,000	\$ -	\$ 28,500	\$ 28,500	\$ 28,500	\$ 28,500	\$ 43,500	\$ 66,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000	\$ 86,000
	Totals	Bridge Maintenance	Variable	Summer		\$ 40,000	\$ -	\$ 10,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
	Totals	Ferry Operation & Maintenance	Variable	Summer		\$ 150,000	\$ -	\$ 5,000	\$ 25,000	\$ 45,000	\$ 65,000	\$ 85,000	\$ 100,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000	\$ 120,000
	Totals	Indirect Operating Costs	Fixed	Both		\$ 960,000	\$ -	\$ 80,000	\$ 160,000	\$ 240,000	\$ 320,000	\$ 400,000	\$ 480,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000	\$ 560,000
	Totals	Indirect Operating Costs	Variable	Both		\$ 48,000	\$ -	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
	Totals	All	All	All		\$ 7,041,000	\$ -	\$ 478,000	\$ 997,000	\$ 1,678,000	\$ 2,496,500	\$ 3,137,500	\$ 3,754,000	\$ 4,263,500	\$ 4,263,500	\$ 4,263,500	\$ 4,263,500	\$ 4,263,500	\$ 4,263,500	\$ 4,263,500	\$ 4,263,500

Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)
Totals (All - All All)

Main data table with columns: CMA, Contract, District, Activity, Description, Activity Category, Activity Type, Primary Season, Starting Budget, March, April, May, June, July, Aug, Sept, Oct, Nov, Dec, Jan, Feb, Mar. Rows include various activities like Snow Removal, Cracksealing, etc.

Summary table with 'Chart Labels' column and corresponding activity names like 'Snow Removal & Ice Control (Truck) (Fixed)', 'Totals (Fixed)', etc.

CMA	Contract	District																			
96-99	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Totals		Winter Maintenance	Fixed	Winter	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600	\$ 3,069,600
Totals		Winter Maintenance	Variable	Winter	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200	\$ 4,610,200
Totals		Asphalt Surface Maintenance	Variable	Summer	\$ 3,616,400	\$ 3,616,400	\$ 3,614,400	\$ 3,614,400	\$ 3,679,400	\$ 3,710,800	\$ 3,703,300	\$ 3,703,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300	\$ 3,698,300
Totals		Gravel Surface Maintenance	Variable	Summer	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,828,200	\$ 2,802,200	\$ 2,765,900	\$ 2,765,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900	\$ 2,790,900
Totals		Traffic Control Maintenance	Variable	Summer	\$ 3,220,100	\$ 3,220,100	\$ 3,220,100	\$ 3,220,100	\$ 3,220,100	\$ 3,220,100	\$ 3,213,100	\$ 3,232,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900	\$ 3,267,900
Totals		Highway Maintenance Work	Fixed	Both	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000	\$ 2,487,000
Totals		Highway Maintenance Work	Variable	Both	\$ 267,200	\$ 267,200	\$ 267,200	\$ 267,200	\$ 267,200	\$ 267,200	\$ 267,200	\$ 267,200	\$ 291,400	\$ 336,400	\$ 336,400	\$ 336,400	\$ 336,400	\$ 336,400	\$ 336,400	\$ 336,400	\$ 336,400
Totals		Roadside Maintenance	Variable	Summer	\$ 1,049,800	\$ 1,049,800	\$ 1,049,800	\$ 1,049,800	\$ 1,052,800	\$ 1,065,800	\$ 1,070,000	\$ 1,071,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500	\$ 1,073,500
Totals		Drainage Maintenance	Variable	Summer	\$ 973,500	\$ 973,500	\$ 973,500	\$ 973,500	\$ 973,500	\$ 979,700	\$ 982,700	\$ 962,100	\$ 853,100	\$ 853,100	\$ 853,100	\$ 853,100	\$ 853,100	\$ 853,100	\$ 853,100	\$ 853,100	\$ 853,100
Totals		Bridge Maintenance	Variable	Summer	\$ 182,200	\$ 182,200	\$ 182,200	\$ 182,200	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000	\$ 187,000
Totals		Ferry Operation & Maintenance	Variable	Summer	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000
Totals		Indirect Operating Costs	Fixed	Both	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800	\$ 3,832,800
Totals		Indirect Operating Costs	Variable	Both	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200	\$ 175,200
Totals		All	All	All	\$ 26,462,200	\$ 26,462,200	\$ 26,460,200	\$ 26,460,200	\$ 26,533,000	\$ 26,557,600	\$ 26,514,000	\$ 26,538,900	\$ 26,516,900	\$ 26,516,900	\$ 26,516,900	\$ 26,516,900	\$ 26,516,900	\$ 26,516,900	\$ 26,516,900	\$ 26,516,900	

Chart Labels
Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)



CMA	Contract	District																			
96	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter		\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600
	Totals	All	Variable	Summer		\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,359,700	\$ 2,432,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200
	Totals	All	Variable	Both		\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000
	Totals	All	Variable	All		\$ 3,638,300	\$ 3,638,300	\$ 3,638,300	\$ 3,638,300	\$ 3,638,300	\$ 3,638,300	\$ 3,638,300	\$ 3,638,300	\$ 3,663,300	\$ 3,735,800	\$ 3,730,800	\$ 3,730,800	\$ 3,730,800	\$ 3,730,800	\$ 3,730,800	\$ 3,730,800

	Totals	All	Fixed	Winter		\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000
	Totals	All	Fixed	Both		\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000
	Totals	All	Fixed	All		\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000	\$ 2,160,000

	Totals	Winter Maintenance	Fixed	Winter		\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	
	Totals	Winter Maintenance	Variable	Winter		\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	\$ 1,219,600	
	Totals	Asphalt Surface Maintenance	Variable	Summer		\$ 626,300	\$ 626,300	\$ 626,300	\$ 626,300	\$ 626,300	\$ 626,300	\$ 626,300	\$ 626,300	\$ 651,300	\$ 701,300	\$ 696,300	\$ 696,300	\$ 696,300	\$ 696,300	\$ 696,300	\$ 696,300	\$ 696,300
	Totals	Gravel Surface Maintenance	Variable	Summer		\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400	\$ 357,400
	Totals	Traffic Control Maintenance	Variable	Summer		\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	\$ 834,000	\$ 856,500	\$ 856,500	\$ 856,500	\$ 856,500	\$ 856,500	\$ 856,500	\$ 856,500	\$ 856,500
	Totals	Highway Maintenance Work	Fixed	Both		\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	\$ 540,000	
	Totals	Highway Maintenance Work	Variable	Both		\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000
	Totals	Roadside Maintenance	Variable	Summer		\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000	\$ 247,000
	Totals	Drainage Maintenance	Variable	Summer		\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000	\$ 210,000
	Totals	Bridge Maintenance	Variable	Summer		\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000
	Totals	Ferry Operation & Maintenance	Variable	Summer		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Totals	Indirect Operating Costs	Fixed	Both		\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000
	Totals	Indirect Operating Costs	Variable	Both		\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000
	Totals	All	All	All		\$ 5,798,300	\$ 5,798,300	\$ 5,798,300	\$ 5,798,300	\$ 5,798,300	\$ 5,798,300	\$ 5,798,300	\$ 5,798,300	\$ 5,823,300	\$ 5,895,800	\$ 5,890,800	\$ 5,890,800	\$ 5,890,800	\$ 5,890,800	\$ 5,890,800	\$ 5,890,800	\$ 5,890,800

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)

( )
Totals (Fixed Winter)
Totals (Fixed Both)

( - )
Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)





CMA	Contract	District																			
97	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter		\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000
	Totals	All	Variable	Summer		\$ 3,220,800	\$ 3,220,800	\$ 3,218,800	\$ 3,218,800	\$ 3,223,800	\$ 3,238,400	\$ 3,241,800	\$ 3,273,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500
	Totals	All	Variable	Both		\$ 161,300	\$ 161,300	\$ 161,300	\$ 161,300	\$ 161,300	\$ 161,300	\$ 161,300	\$ 161,300	\$ 185,500	\$ 200,500	\$ 200,500	\$ 200,500	\$ 200,500	\$ 200,500	\$ 200,500	\$ 200,500
	Totals	All	Variable	All		\$ 4,667,100	\$ 4,667,100	\$ 4,665,100	\$ 4,665,100	\$ 4,670,100	\$ 4,684,700	\$ 4,688,100	\$ 4,744,000	\$ 4,728,000	\$ 4,728,000	\$ 4,728,000	\$ 4,728,000	\$ 4,728,000	\$ 4,728,000	\$ 4,728,000	

	Totals	All	Fixed	Winter		\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600
	Totals	All	Fixed	Both		\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000	\$ 2,079,000
	Totals	All	Fixed	All		\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	\$ 2,988,600	

	Totals	Winter Maintenance	Fixed	Winter		\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600	\$ 909,600
	Totals	Winter Maintenance	Variable	Winter		\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000	\$ 1,285,000
	Totals	Asphalt Surface Maintenance	Variable	Summer		\$ 1,042,100	\$ 1,042,100	\$ 1,040,100	\$ 1,040,100	\$ 1,040,100	\$ 1,048,500	\$ 1,031,000	\$ 1,031,000	\$ 1,031,000	\$ 1,031,000	\$ 1,031,000	\$ 1,031,000	\$ 1,031,000	\$ 1,031,000
	Totals	Gravel Surface Maintenance	Variable	Summer		\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300	\$ 387,300	\$ 391,300	\$ 405,000	\$ 405,000	\$ 419,000	\$ 419,000	\$ 419,000	\$ 419,000	\$ 419,000	\$ 419,000
	Totals	Traffic Control Maintenance	Variable	Summer		\$ 1,013,100	\$ 1,013,100	\$ 1,013,100	\$ 1,013,100	\$ 1,013,100	\$ 1,013,100	\$ 1,016,100	\$ 1,061,400	\$ 1,061,400	\$ 1,061,400	\$ 1,061,400	\$ 1,061,400	\$ 1,061,400	\$ 1,061,400
	Totals	Highway Maintenance Work	Fixed	Both		\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000	\$ 819,000
	Totals	Highway Maintenance Work	Variable	Both		\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 100,800	\$ 125,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000
	Totals	Roadside Maintenance	Variable	Summer		\$ 337,800	\$ 337,800	\$ 337,800	\$ 337,800	\$ 340,800	\$ 340,800	\$ 345,000	\$ 345,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000	\$ 350,000
	Totals	Drainage Maintenance	Variable	Summer		\$ 377,500	\$ 377,500	\$ 377,500	\$ 377,500	\$ 377,500	\$ 379,700	\$ 379,700	\$ 366,100	\$ 316,100	\$ 316,100	\$ 316,100	\$ 316,100	\$ 316,100	\$ 316,100
	Totals	Bridge Maintenance	Variable	Summer		\$ 63,000	\$ 63,000	\$ 63,000	\$ 63,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000
	Totals	Ferry Operation & Maintenance	Variable	Summer		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Totals	Indirect Operating Costs	Fixed	Both		\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	\$ 1,260,000	
	Totals	Indirect Operating Costs	Variable	Both		\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500	\$ 60,500
	Totals	All	All	All		\$ 7,655,700	\$ 7,655,700	\$ 7,653,700	\$ 7,653,700	\$ 7,658,700	\$ 7,673,300	\$ 7,676,700	\$ 7,732,600	\$ 7,716,600	\$ 7,716,600	\$ 7,716,600	\$ 7,716,600	\$ 7,716,600	

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)

( )
Totals (Fixed Winter)
Totals (Fixed Both)

( - )
Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)



CMA	Contract	District																			
98	9999/99	Lethbridge	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
	Totals	All	Variable	Winter		\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600
	Totals	All	Variable	Summer		\$ 3,063,700	\$ 3,063,700	\$ 3,063,700	\$ 3,063,700	\$ 3,066,500	\$ 3,106,500	\$ 3,124,500	\$ 3,128,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000
	Totals	All	Variable	Both		\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100	\$ 69,100
	Totals	All	Variable	All		\$ 4,126,400	\$ 4,126,400	\$ 4,126,400	\$ 4,126,400	\$ 4,129,200	\$ 4,169,200	\$ 4,187,200	\$ 4,190,700	\$ 4,257,700	\$ 4,257,700	\$ 4,257,700	\$ 4,257,700	\$ 4,257,700	\$ 4,257,700	\$ 4,257,700	\$ 4,257,700

	Totals	All	Fixed	Winter		\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000
	Totals	All	Fixed	Both		\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800	\$ 1,180,800
	Totals	All	Fixed	All		\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800	\$ 1,840,800

	Totals	Winter Maintenance	Fixed	Winter		\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000	\$ 660,000
	Totals	Winter Maintenance	Variable	Winter		\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600	\$ 993,600
	Totals	Asphalt Surface Maintenance	Variable	Summer		\$ 968,000	\$ 968,000	\$ 968,000	\$ 968,000	\$ 991,000	\$ 1,006,000	\$ 1,006,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000	\$ 1,001,000
	Totals	Gravel Surface Maintenance	Variable	Summer		\$ 1,076,000	\$ 1,076,000	\$ 1,076,000	\$ 1,076,000	\$ 1,081,000	\$ 1,081,000	\$ 1,081,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000	\$ 1,077,000
	Totals	Traffic Control Maintenance	Variable	Summer		\$ 603,000	\$ 603,000	\$ 603,000	\$ 603,000	\$ 603,000	\$ 603,000	\$ 603,000	\$ 680,000	\$ 680,000	\$ 680,000	\$ 680,000	\$ 680,000	\$ 680,000	\$ 680,000	\$ 680,000	\$ 680,000
	Totals	Highway Maintenance Work	Fixed	Both		\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000	\$ 528,000
	Totals	Highway Maintenance Work	Variable	Both		\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400	\$ 38,400
	Totals	Roadside Maintenance	Variable	Summer		\$ 261,500	\$ 261,500	\$ 261,500	\$ 261,500	\$ 269,500	\$ 269,500	\$ 271,000	\$ 283,000	\$ 283,000	\$ 283,000	\$ 283,000	\$ 283,000	\$ 283,000	\$ 283,000	\$ 283,000	\$ 283,000
	Totals	Drainage Maintenance	Variable	Summer		\$ 136,000	\$ 136,000	\$ 136,000	\$ 136,000	\$ 140,000	\$ 143,000	\$ 145,000	\$ 132,000	\$ 132,000	\$ 132,000	\$ 132,000	\$ 132,000	\$ 132,000	\$ 132,000	\$ 132,000	\$ 132,000
	Totals	Bridge Maintenance	Variable	Summer		\$ 19,200	\$ 19,200	\$ 19,200	\$ 19,200	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000	\$ 22,000
	Totals	Ferry Operation & Maintenance	Variable	Summer		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Totals	Indirect Operating Costs	Fixed	Both		\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800	\$ 652,800
	Totals	Indirect Operating Costs	Variable	Both		\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700	\$ 30,700
	Totals	All	All	All		\$ 5,967,200	\$ 5,967,200	\$ 5,967,200	\$ 5,967,200	\$ 5,970,000	\$ 6,010,000	\$ 6,028,000	\$ 6,031,500	\$ 6,098,500	\$ 6,098,500	\$ 6,098,500	\$ 6,098,500	\$ 6,098,500	\$ 6,098,500	\$ 6,098,500	\$ 6,098,500

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)

( )
Totals (Fixed Winter)
Totals (Fixed Both)

( - )
Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)



CMA	Contract	District																
99	9999/99	Lethbridge																
Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Totals	All	All	Variable	Winter	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000
Totals	All	All	Variable	Summer	\$ 3,401,000	\$ 3,401,000	\$ 3,401,000	\$ 3,401,000	\$ 3,466,000	\$ 3,436,000	\$ 3,346,000	\$ 3,239,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000
Totals	All	All	Variable	Both	\$ 128,000	\$ 128,000	\$ 128,000	\$ 128,000	\$ 128,000	\$ 128,000	\$ 128,000	\$ 128,000	\$ 158,000	\$ 158,000	\$ 158,000	\$ 158,000	\$ 158,000	\$ 158,000
Totals	All	All	Variable	All	\$ 4,641,000	\$ 4,641,000	\$ 4,641,000	\$ 4,641,000	\$ 4,706,000	\$ 4,676,000	\$ 4,586,000	\$ 4,479,000	\$ 4,411,000	\$ 4,411,000	\$ 4,411,000	\$ 4,411,000	\$ 4,411,000	\$ 4,411,000

Chart Labels
Totals (Variable Winter)
Totals (Variable Summer)
Totals (Variable Both)

Totals	All	All	Fixed	Winter	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000
Totals	All	All	Fixed	Both	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000	\$ 1,560,000
Totals	All	All	Fixed	All	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000

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Totals (Fixed Winter)
Totals (Fixed Both)

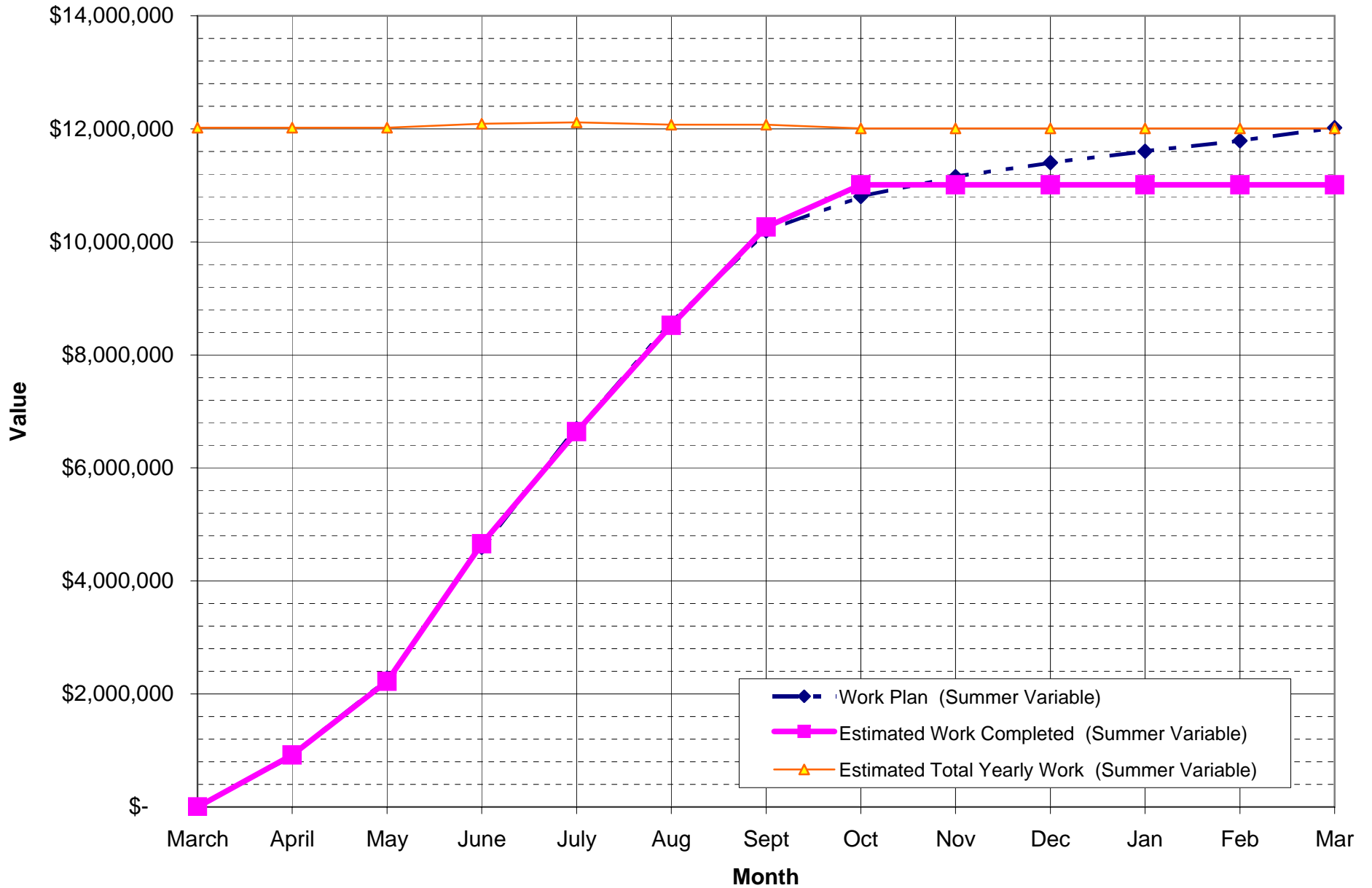
Totals	Winter Maintenance	Fixed	Winter	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000	\$ 840,000
Totals	Winter Maintenance	Variable	Winter	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000	\$ 1,112,000
Totals	Asphalt Surface Maintenance	Variable	Summer	\$ 980,000	\$ 980,000	\$ 980,000	\$ 980,000	\$ 1,045,000	\$ 1,045,000	\$ 1,015,000	\$ 965,000	\$ 970,000	\$ 970,000	\$ 970,000	\$ 970,000	\$ 970,000	\$ 970,000	\$ 970,000
Totals	Gravel Surface Maintenance	Variable	Summer	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500	\$ 1,007,500	\$ 972,500	\$ 922,500	\$ 922,500	\$ 937,500	\$ 937,500	\$ 937,500	\$ 937,500	\$ 937,500	\$ 937,500	\$ 937,500
Totals	Traffic Control Maintenance	Variable	Summer	\$ 770,000	\$ 770,000	\$ 770,000	\$ 770,000	\$ 770,000	\$ 770,000	\$ 760,000	\$ 712,000	\$ 670,000	\$ 670,000	\$ 670,000	\$ 670,000	\$ 670,000	\$ 670,000	\$ 670,000
Totals	Highway Maintenance Work	Fixed	Both	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
Totals	Highway Maintenance Work	Variable	Both	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000
Totals	Roadside Maintenance	Variable	Summer	\$ 203,500	\$ 203,500	\$ 203,500	\$ 203,500	\$ 203,500	\$ 208,500	\$ 208,500	\$ 208,500	\$ 193,500	\$ 193,500	\$ 193,500	\$ 193,500	\$ 193,500	\$ 193,500	\$ 193,500
Totals	Drainage Maintenance	Variable	Summer	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 241,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000	\$ 195,000
Totals	Bridge Maintenance	Variable	Summer	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
Totals	Ferry Operation & Maintenance	Variable	Summer	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000	\$ 135,000
Totals	Indirect Operating Costs	Fixed	Both	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000	\$ 960,000
Totals	Indirect Operating Costs	Variable	Both	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000	\$ 48,000
Totals	All	All	All	\$ 7,041,000	\$ 7,041,000	\$ 7,041,000	\$ 7,041,000	\$ 7,106,000	\$ 7,076,000	\$ 6,986,000	\$ 6,879,000	\$ 6,811,000	\$ 6,811,000	\$ 6,811,000	\$ 6,811,000	\$ 6,811,000	\$ 6,811,000	\$ 6,811,000

( - )
Totals (Winter Maintenance - Fixed Winter)
Totals (Winter Maintenance - Variable Winter)
Totals (Asphalt Surface Maintenance - Variable Summer)
Totals (Gravel Surface Maintenance - Variable Summer)
Totals (Traffic Control Maintenance - Variable Summer)
Totals (Highway Maintenance Work - Fixed Both)
Totals (Highway Maintenance Work - Variable Both)
Totals (Roadside Maintenance - Variable Summer)
Totals (Drainage Maintenance - Variable Summer)
Totals (Bridge Maintenance - Variable Summer)
Totals (Ferry Operation & Maintenance - Variable Summer)
Totals (Indirect Operating Costs - Fixed Both)
Totals (Indirect Operating Costs - Variable Both)

	CMA	Contract	District																	
	96-99	9999/99	Lethbridge																	
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	
Work Plan Estimated Work Completed	All	All	All	Variable	Summer	\$ 12,020,200	\$ -	\$ 912,700	\$ 2,279,600	\$ 4,594,800	\$ 6,693,200	\$ 8,557,600	\$ 10,193,700	\$ 10,801,500	\$ 11,152,100	\$ 11,402,100	\$ 11,603,000	\$ 11,787,800	\$ 12,020,200	
Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 12,020,200	\$ -	\$ 919,000	\$ 2,221,600	\$ 4,657,500	\$ 6,640,800	\$ 8,523,800	\$ 10,261,800	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	
	All	All	All	Variable	Summer	\$ 12,020,200	\$ 12,020,200	\$ 12,018,200	\$ 12,018,200	\$ 12,091,000	\$ 12,115,600	\$ 12,072,000	\$ 12,072,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	

Chart Labels
Work Plan (Summer Variable)
Estimated Work Completed (Summer Variable)
Estimated Total Yearly Work (Summer Variable)

**Work Progress**  
**CMA 96-99 - Summer Variable Work**

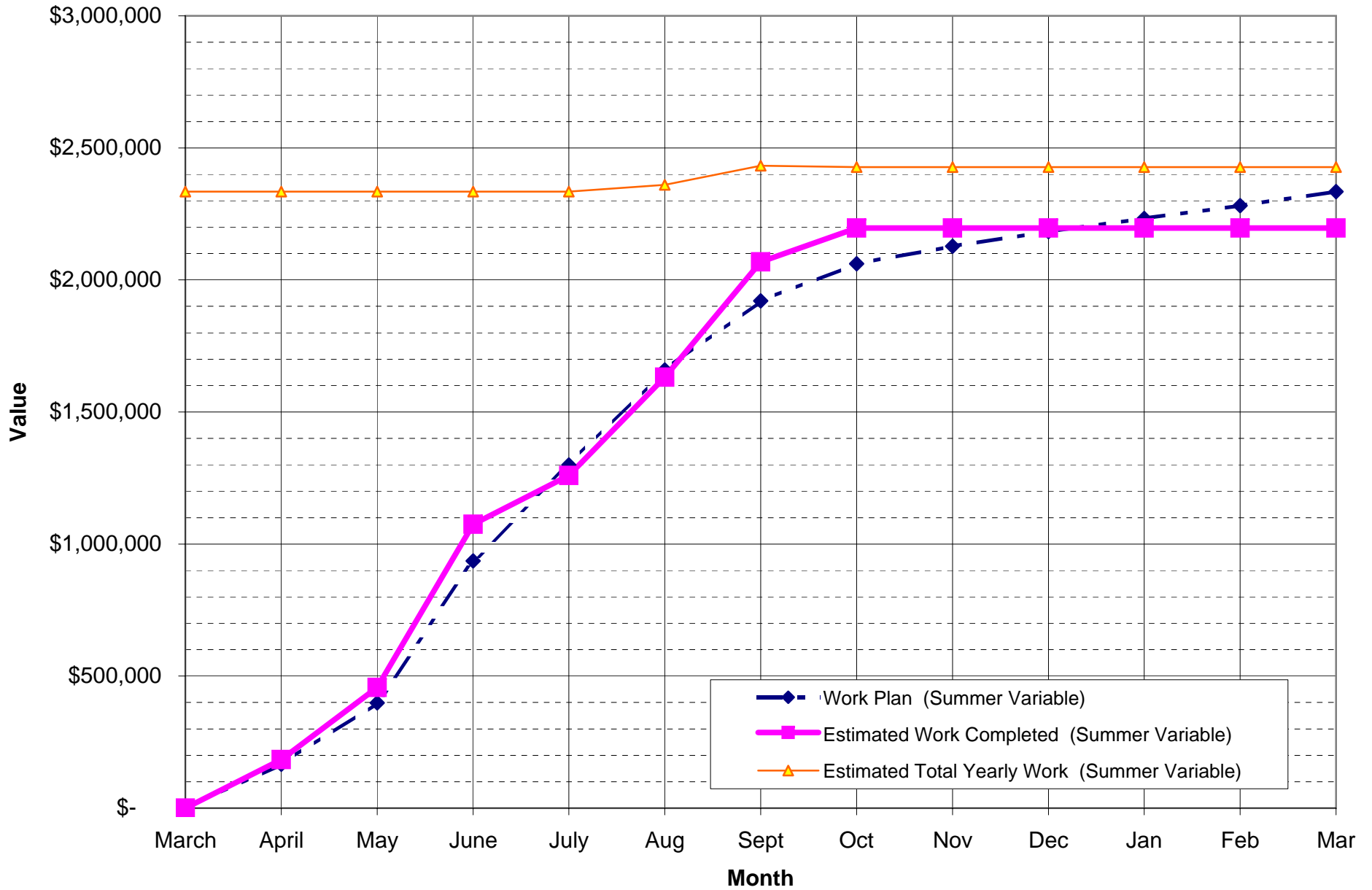


	CMA	Contract	District																			
	<b>96</b>	<b>9999/99</b>	<b>Lethbridge</b>	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	All	All	All	Variable			Summer	\$ 2,334,700	\$ -	\$ 166,000	\$ 398,400	\$ 936,300	\$ 1,299,500	\$ 1,658,800	\$ 1,921,100	\$ 2,061,100	\$ 2,127,800	\$ 2,183,300	\$ 2,233,200	\$ 2,281,100	\$ 2,334,700	
Estimated Work Completed	All	All	All	Variable			Summer	\$ 2,334,700	\$ -	\$ 184,100	\$ 457,300	\$ 1,074,900	\$ 1,259,700	\$ 1,632,000	\$ 2,068,600	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	
Estimated Total Yearly Work	All	All	All	Variable			Summer	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,359,700	\$ 2,432,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200

Chart Labels
Work Plan (Summer Variable)
Estimated Work Completed (Summer Variable)
Estimated Total Yearly Work (Summer Variable)



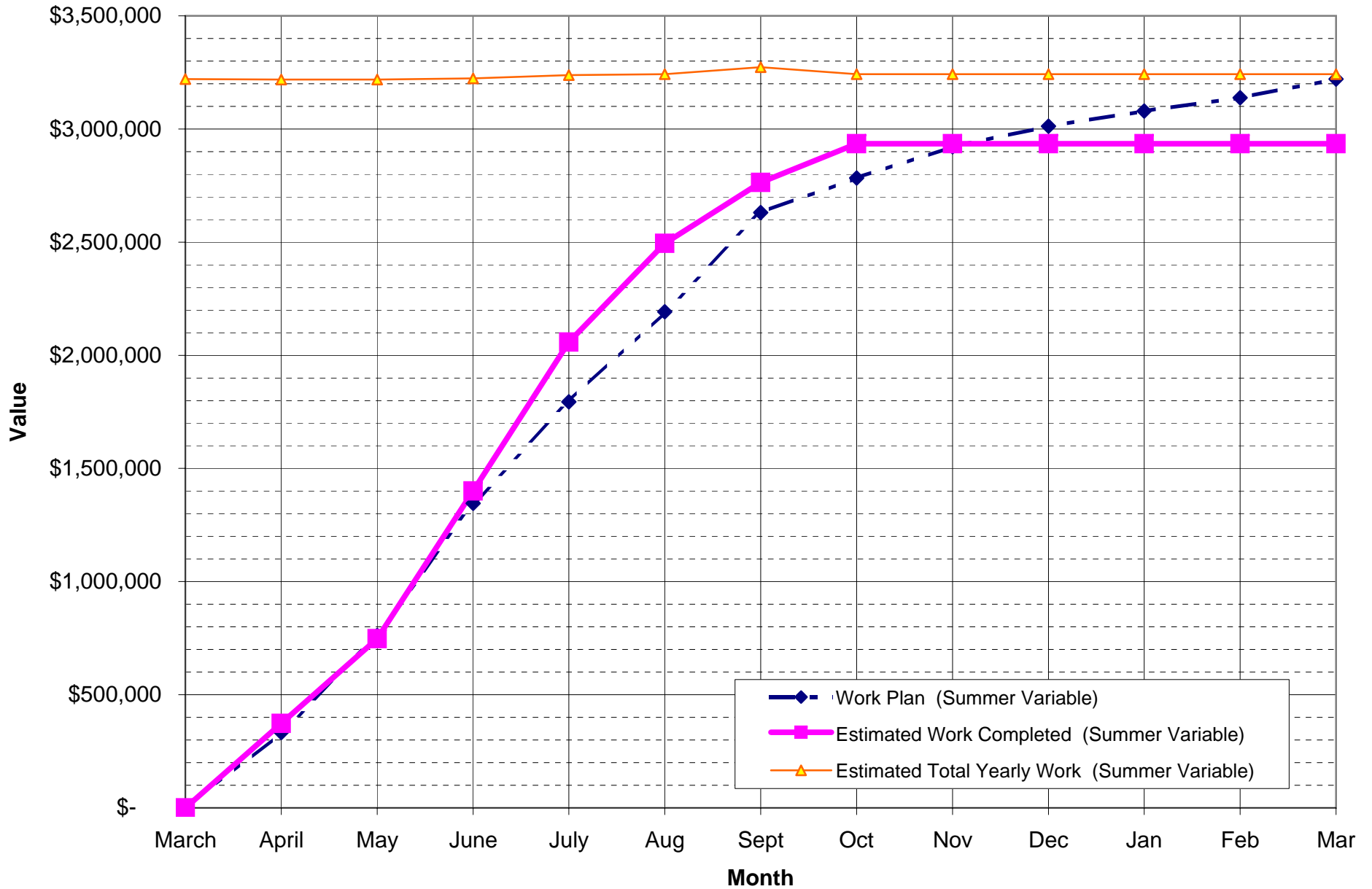
**Work Progress**  
**CMA 96 - Summer Variable Work**



	CMA	Contract	District																			
	<b>97</b>	<b>9999/99</b>	<b>Lethbridge</b>	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	All	All	All	Variable	Summer	\$ 3,220,800	\$ -	\$ 333,200	\$ 761,900	\$ 1,346,000	\$ 1,794,300	\$ 2,192,000	\$ 2,630,900	\$ 2,783,700	\$ 2,921,600	\$ 3,012,100	\$ 3,079,100	\$ 3,138,000	\$ 3,220,800			
Estimated Work Completed	All	All	All	Variable	Summer	\$ 3,220,800	\$ -	\$ 373,200	\$ 747,900	\$ 1,400,000	\$ 2,058,400	\$ 2,494,500	\$ 2,763,800	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900	\$ 2,934,900
Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 3,220,800	\$ 3,220,800	\$ 3,218,800	\$ 3,218,800	\$ 3,223,800	\$ 3,238,400	\$ 3,241,800	\$ 3,273,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500	\$ 3,242,500

Chart Labels
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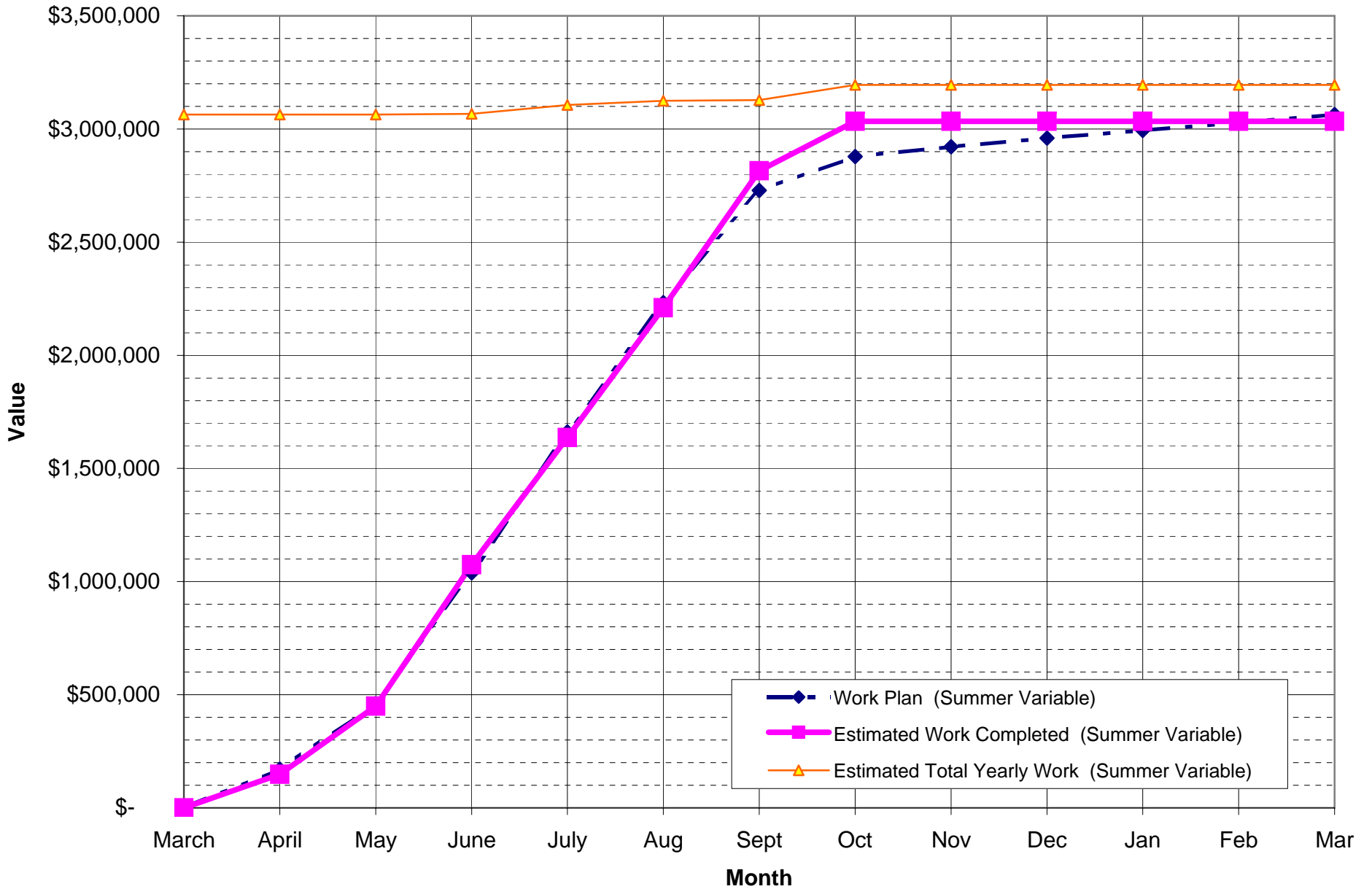
**Work Progress**  
**CMA 97 - Summer Variable Work**



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Work Plan	All	All	All	Variable	Summer	\$ 3,063,700	\$ -	\$ 171,500	\$ 460,800	\$ 1,038,000	\$ 1,661,400	\$ 2,232,800	\$ 2,728,200	\$ 2,878,200	\$ 2,921,700	\$ 2,959,200	\$ 2,993,700	\$ 3,027,200	\$ 3,063,700				
Estimated Work Completed	All	All	All	Variable	Summer	\$ 3,063,700	\$ -	\$ 148,700	\$ 449,400	\$ 1,074,600	\$ 1,636,200	\$ 2,209,800	\$ 2,815,400	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000	\$ 3,034,000
Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 3,063,700	\$ 3,063,700	\$ 3,063,700	\$ 3,063,700	\$ 3,066,500	\$ 3,106,500	\$ 3,124,500	\$ 3,128,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000

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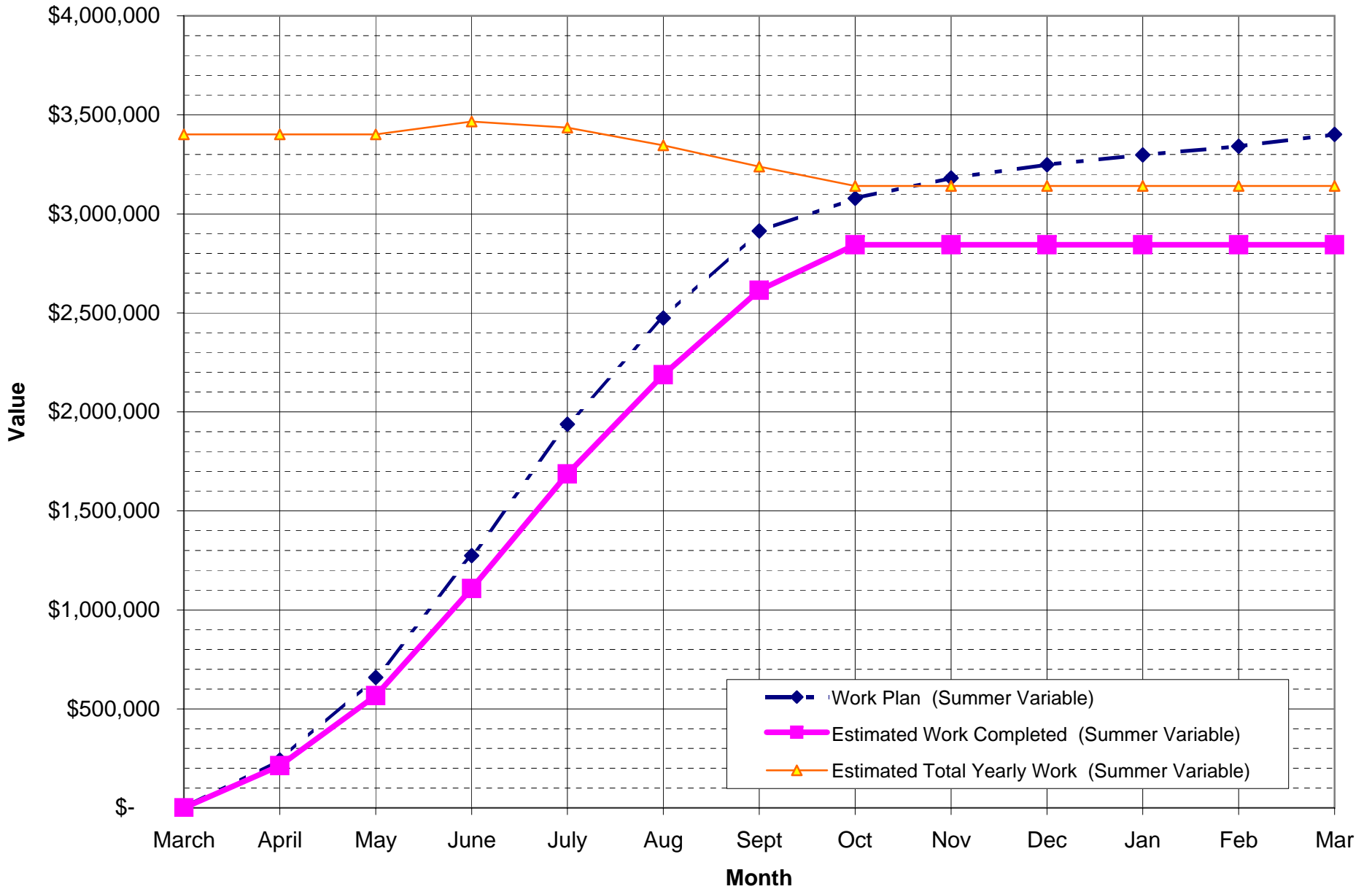
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	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	All	All	All	Variable	Summer	\$ 3,401,000	\$ -	\$ 242,000	\$ 658,500	\$ 1,274,500	\$ 1,938,000	\$ 2,474,000	\$ 2,913,500	\$ 3,078,500	\$ 3,181,000	\$ 3,247,500	\$ 3,297,000	\$ 3,341,500	\$ 3,401,000
Estimated Work Completed	All	All	All	Variable	Summer	\$ 3,401,000	\$ -	\$ 213,000	\$ 567,000	\$ 1,108,000	\$ 1,686,500	\$ 2,187,500	\$ 2,614,000	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500	\$ 2,843,500
Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 3,401,000	\$ 3,401,000	\$ 3,401,000	\$ 3,401,000	\$ 3,466,000	\$ 3,436,000	\$ 3,346,000	\$ 3,239,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000

Chart Labels
Work Plan (Summer Variable)
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**Work Progress**  
**CMA 99 - Summer Variable Work**

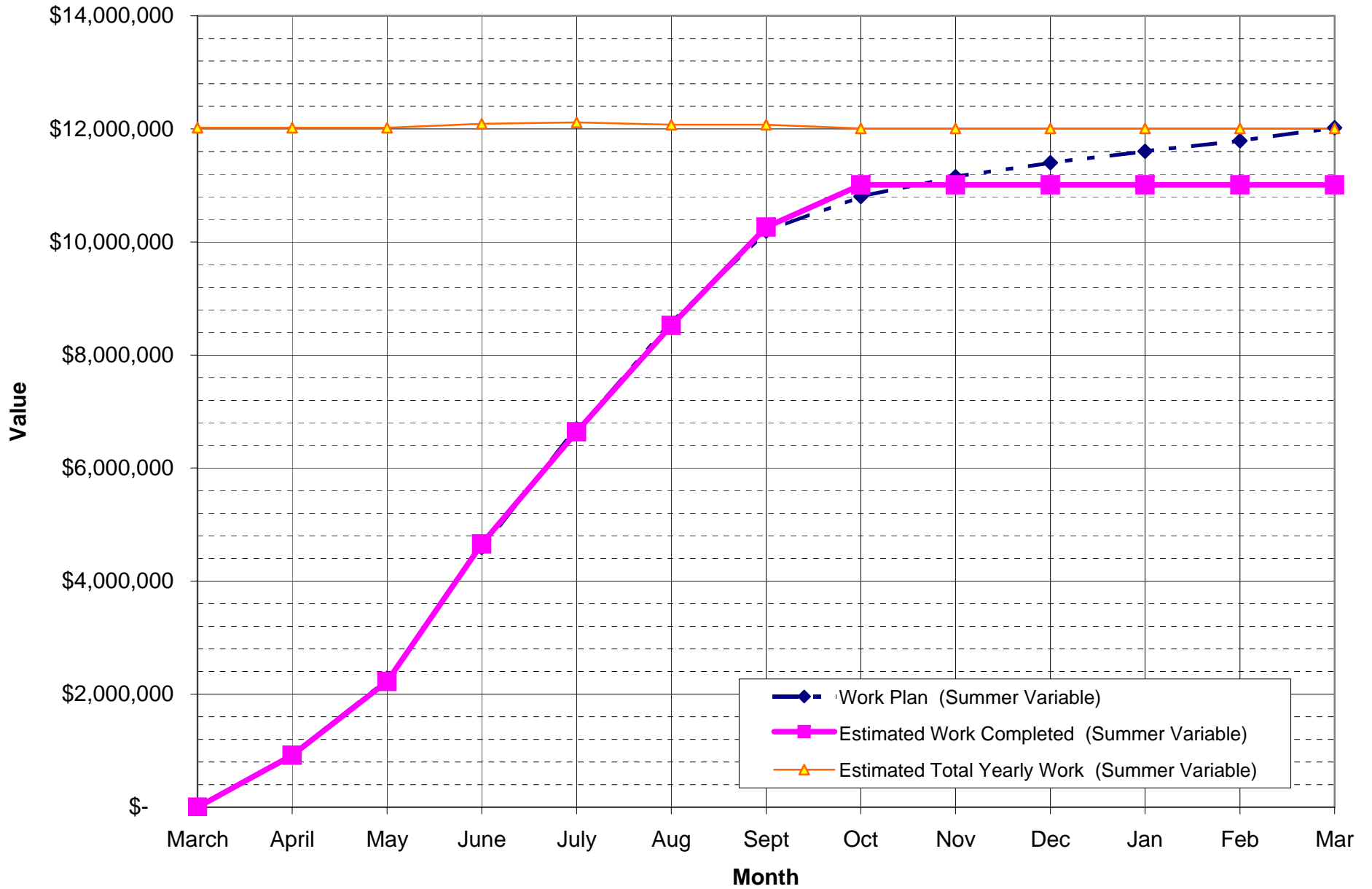


	CMA	Contract	District																	
	96-99	9999/99	Lethbridge																	
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	
Work Plan Estimated Work Completed	All	All	All	Variable	Summer	\$ 12,020,200	\$ -	\$ 912,700	\$ 2,279,600	\$ 4,594,800	\$ 6,693,200	\$ 8,557,600	\$ 10,193,700	\$ 10,801,500	\$ 11,152,100	\$ 11,402,100	\$ 11,603,000	\$ 11,787,800	\$ 12,020,200	
Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 12,020,200	\$ -	\$ 919,000	\$ 2,221,600	\$ 4,657,500	\$ 6,640,800	\$ 8,523,800	\$ 10,261,800	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	\$ 11,008,700	
	All	All	All	Variable	Summer	\$ 12,020,200	\$ 12,020,200	\$ 12,018,200	\$ 12,018,200	\$ 12,091,000	\$ 12,115,600	\$ 12,072,000	\$ 12,072,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	\$ 12,005,700	

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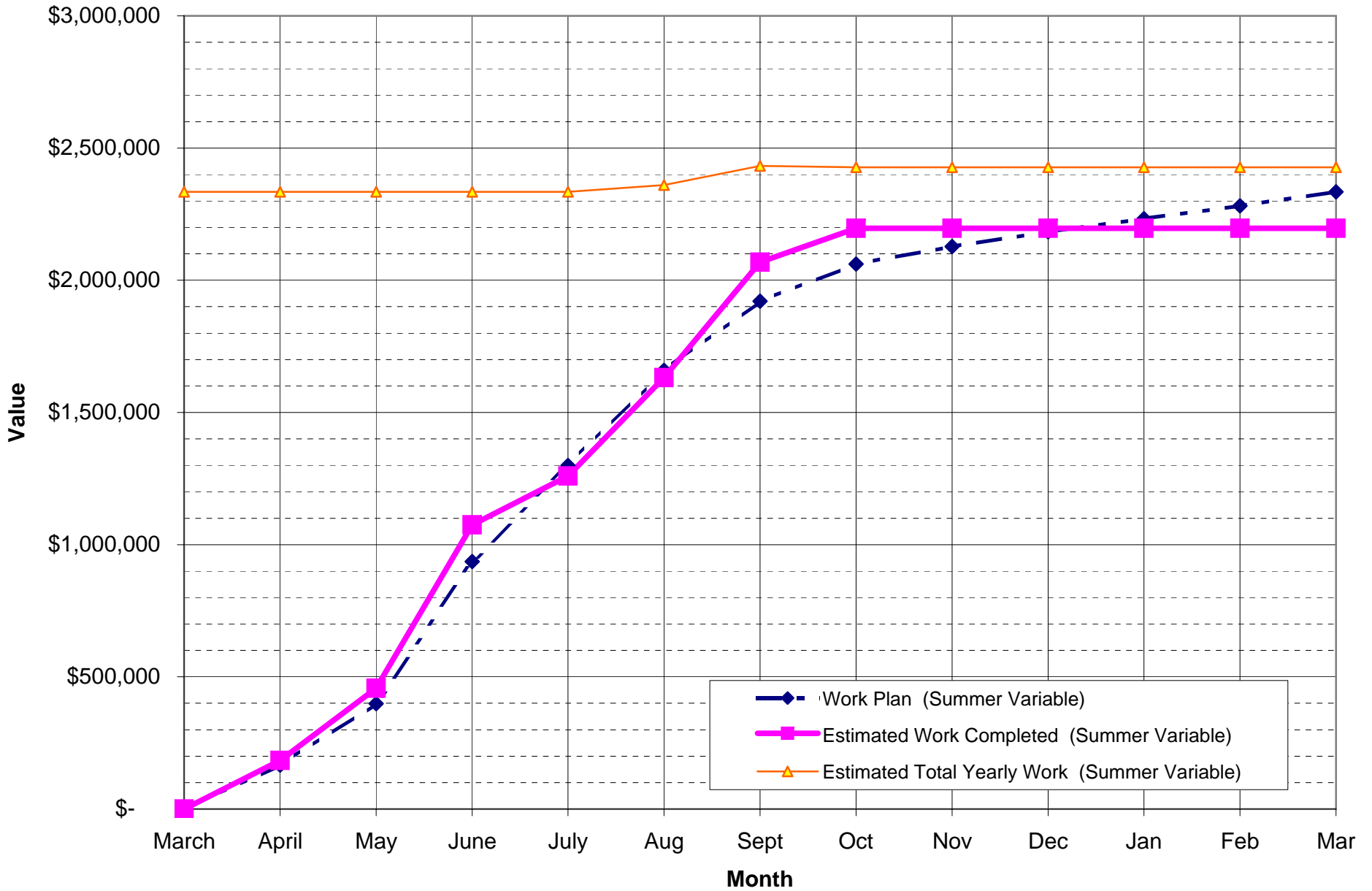
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**CMA 96-99 - Summer Variable Work**



	CMA	Contract	District																
	96	9999/99	Lethbridge																
	Activity	Description	Activity Category	Activity Type	Primary Season	Starting Budget	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Work Plan	All	All	All	Variable	Summer	\$ 2,334,700	\$ -	\$ 166,000	\$ 398,400	\$ 936,300	\$ 1,299,500	\$ 1,658,800	\$ 1,921,100	\$ 2,061,100	\$ 2,127,800	\$ 2,183,300	\$ 2,233,200	\$ 2,281,100	\$ 2,334,700
Estimated Work Completed	All	All	All	Variable	Summer	\$ 2,334,700	\$ -	\$ 184,100	\$ 457,300	\$ 1,074,900	\$ 1,259,700	\$ 1,632,000	\$ 2,068,600	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300	\$ 2,196,300
Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,334,700	\$ 2,359,700	\$ 2,432,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200	\$ 2,427,200

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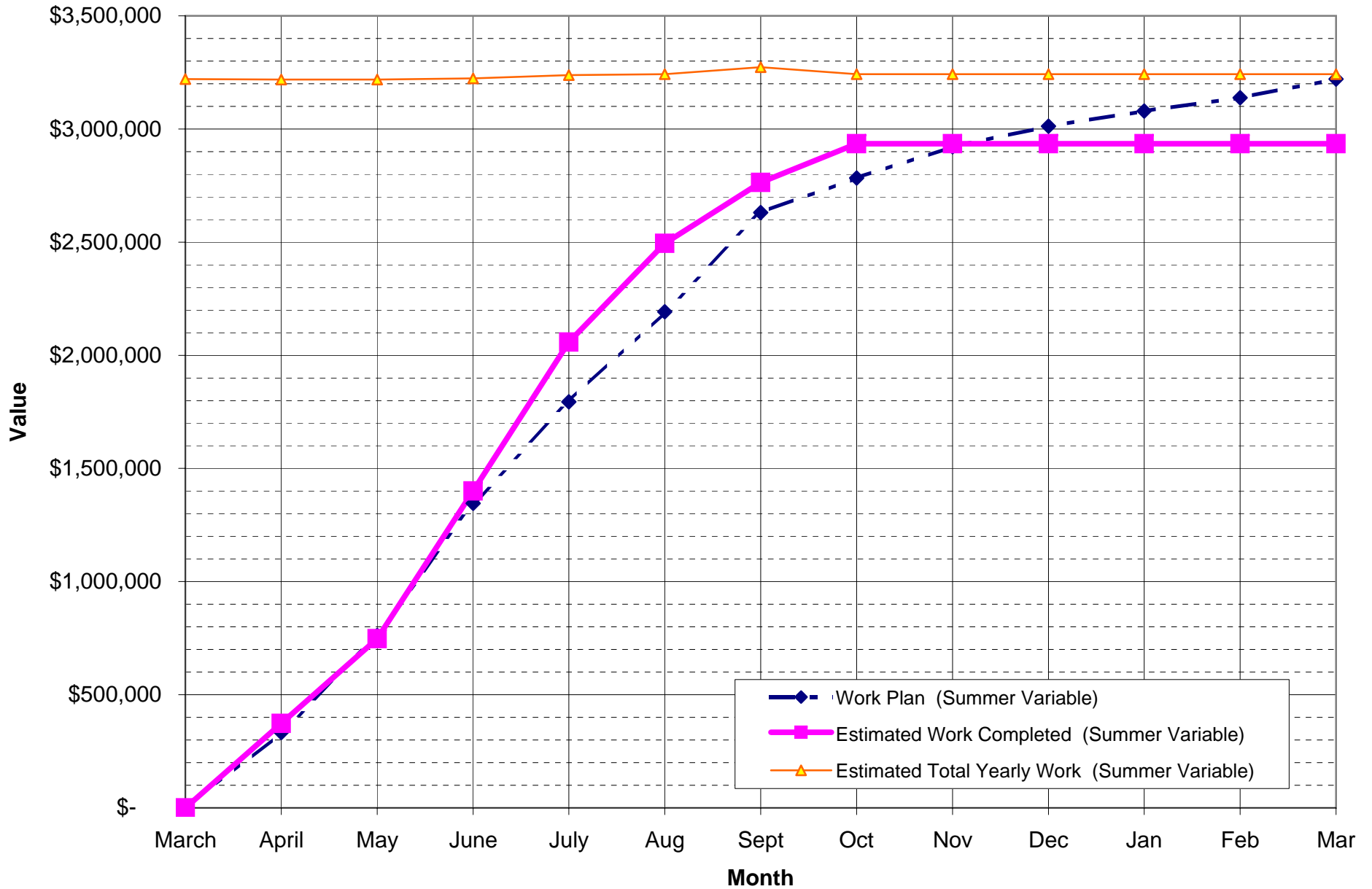
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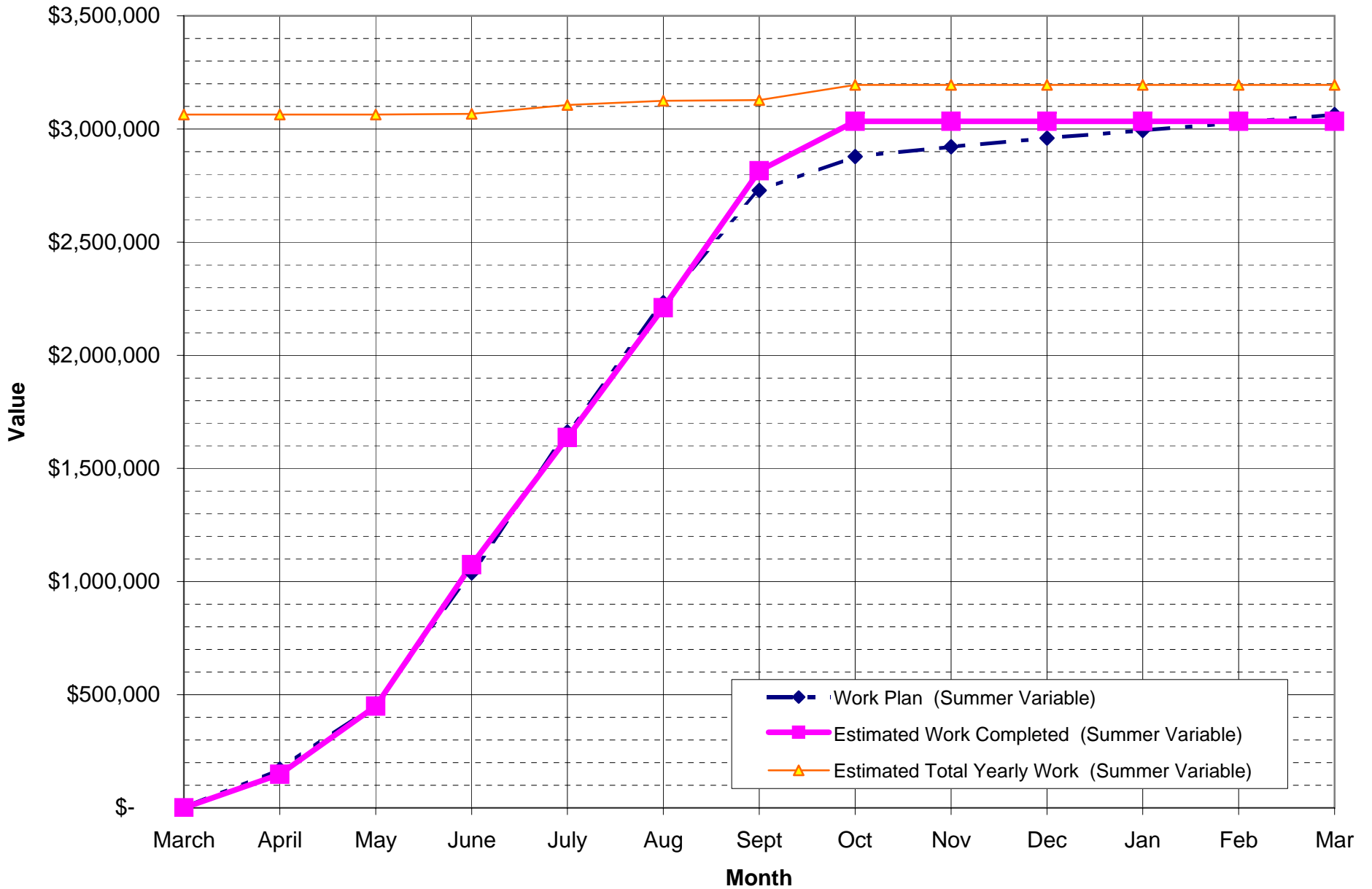
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Estimated Total Yearly Work	All	All	All	Variable			Summer	\$ 3,063,700	\$ 3,063,700	\$ 3,063,700	\$ 3,063,700	\$ 3,066,500	\$ 3,106,500	\$ 3,124,500	\$ 3,128,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000	\$ 3,195,000

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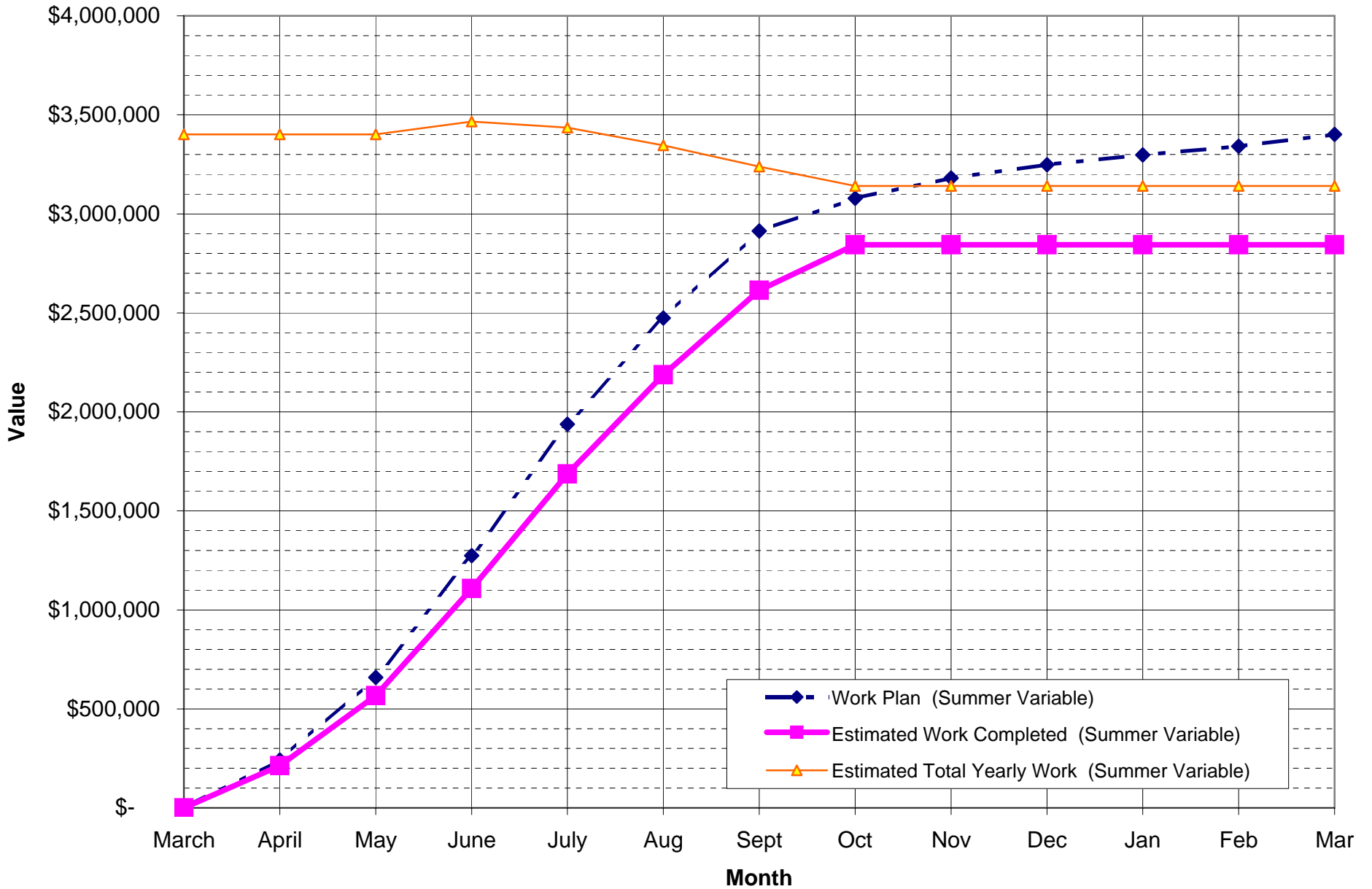


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Estimated Total Yearly Work	All	All	All	Variable	Summer	\$ 3,401,000	\$ 3,401,000	\$ 3,401,000	\$ 3,401,000	\$ 3,466,000	\$ 3,436,000	\$ 3,346,000	\$ 3,239,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000	\$ 3,141,000		

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**Work Progress**  
**CMA 99 - Summer Variable Work**





**AIT & ARHCA Highway Operations Annual Meeting  
Executive Royal Inn Leduc Nisku  
November 14, 2007 MEETING REPORT**

**AGENDA**

<b>9:30 am</b>	<b>Registrations and continental breakfast</b>
<b>10:00 am</b>	Welcome and opening comments
<b>10:10 am</b>	Introductions
<b>10:40 am</b>	Work Planning Presentation
<b>11:10 am</b>	Performance Measures Presentation
<b>11:40 am</b>	Workshop Introductory Comments
<b>12:00 noon</b>	Lunch
<b>12:45 pm</b>	Workshop 1 – Work Planning/Work Accomplishment – <i>Lancaster A</i> Workshop 2 – Communications – <i>Gulfstream</i> Workshop 3 – Partnering – <i>Cessna</i>
<b>2:15 pm</b>	Break
<b>2:30 pm</b>	Workshop Presentations
<b>3:30 pm</b>	Additional Concerns/Issues Discussions
<b>4:00 pm</b>	Social
<b>6:00 pm</b>	Social ends

**ATTENDEES**

<b>Name</b>	<b>Organization</b>
1. Rob Lonson	AIT
2. Moh Lali	AIT
3. Moh Ashraf	AIT
4. Sharla Griffiths	AIT
5. Bill Gish	AIT
6. Tom Williams	AIT
7. Terry Carter	AIT
8. Bill Heaslip	AIT
9. Alan Griffith	AIT
10. Tas Kollias	AIT
11. Terry Becker	AIT
12. Steve Otto	AIT
13. Tony Chelick	AIT
14. Paula Campbell	AIT
15. Dave Gray	AIT
16. Henry Surowaniec	AIT
17. Olivier Lahey	AIT
18. Alan Snow	AIT
19. Rick Kowalik	AIT
20. Ron Fraser	AIT
21. Nick Bucyk	Alberta Highway Services
22. Kurt Wilkie	Alberta Highway Services
23. John Carter	Alberta Highway Services
24. Dale Martin	Alberta Highway Services
25. Les Kwiatkowski	Carillion Canada Inc.
26. Sudar Stanislus	Carillion Canada Inc.
27. Gary Brooks	Carmacks Enterprises
28. Phonse Morgan	Carmacks Enterprises
29. Carl LaPrairie	LaPrairie Group
30. Bob Grant	LaPrairie Group
31. Gary Mayhew	Ledcor
32. Brad Papirny	Ledcor
33. Lonnie McCook	Ledcor
34. Vern Plamondon	TSM
35. Matt Marano	TSM
36. Fred Desjarlais	Volker Stevin Contracting
37. Jack Brown	Volker Stevin Contracting
38. Terry Hood	Volker Stevin Contracting
39. Len Fleckenstein	Volker Stevin Contracting
40. Scot McLean	Volker Stevin Contracting
41. Allan Lowe	Facilitator

## **WORK PLANNING PRESENTATION**

Terry Hood of Volker Stevin Contracting made a presentation on Work Planning.

## **PERFORMANCE MEASURES PRESENTATION**

Bill Gish of Alberta Infrastructure and Transportation made a presentation on Performance Measures

## **WORKSHOPS**

### **I. Work Planning/Work Accomplishment [Workshop Leader – Terry Hood]**

The workgroup started off with the following questions:

- 1. What issues do AIT/ARHCA forces see regarding work planning and work accomplishment for next year?**
- 2. How should AIT/ARHCA work together to ensure that the work is accomplished in future years in the best possible manner?**
- 3. How should AIT/ARHCA address increased work quantities in a fiscal year?**
- 4. How should budget information be determined, provided and presented between AIT/ARHCA?**
- 5. What do AIT/ARHCA forces need to know regarding limitations for completing the work?**  
*(Resources, equipment, material limitations. Time and budgetary limitations. Overheated economy and construction industry. Escalating costs, etc.)*
- 6. What factors are affecting costs and completion of the work? How should cost increases to contractors affect the costs to the department? Large increases? Small increases?**
- 7. How should AIT/ARHCA deal with them?**
- 8. Is additional training required for work planning?**
- 9. How should critical items like line painting, supply and mixing of ice control materials be dealt with between AIT/ARHCA if the work is not getting done as anticipated?** *(Value of and/or negative implications of “drop dead dates”? Other strategies?)*

**The Workgroup made the following presentation:****Issues**

- Manpower – problems with hiring staff and turnover within contractors' forces
- Quantity of work, by activity, and the schedule – especially with increased budgets. Some activities have large “swing” in the work AIT wants to do.
- Related issue – contractors have existing equipment and staff, which drives the amount of work that can get done. Tie this into provisional quantities.
  
- Question – will contractors be able to ramp up for increased quantities next year?

**Increased Productivity**

- Need to coordinate between the department and contractors to keep productivity up and get priority work completed
- Don't keep changing the plan
- Concentrate the work in areas

**Increased Budget**

- Don't keep changing the plan
- Concentrate the work in areas
- Equipment purchases – contractors have to justify capital investment
- Possible option – to increase the numbers of contractor employees – through availability or spec change (i.e. dedicated shifts) – can lead to year-round employment
- This links to hours of work, shift work planning
- Additional operators is a small step in this direction, but isn't really enough to make a difference

**What do contractors need to hear from AIT in order to make increases in their equipment?**

- Forecast the quantity of work in annual budgets, or better yet, in 3 year forecasts
- AIT willing to change ordered work (especially if it comes in part way through the season) to let contractors have full use of under utilized equipment
- Consistent work planning

**Can contractors increase productivity?**

- Better detail work planning, without changes by AIT
- More work concentrated in one area
- Contractors haven't had a problem delivering planned work, it is the unplanned work that causes more problems
- Contractors generally supported AIT developing standard procedures to change the plans after seasonal work plan is set-up – early and good communications will help

**Unanticipated funding for more work generally comes into the maintenance contract, since it is already set up and ready to do the work.**

- AIT needs to hear if the contractor can't handle the additional work so other means can be set up (again, comes down to communications)
- Fiscal approval process takes lots of time when work is over \$50,000
- Contractors' estimates can take time – not sure of the “magic number” of how much work would justify hiring more staff

**Costs**

- “Generic inflation” or “spikes”- as costs increase beyond “generic inflation”, some activities become extremely unprofitable – this affects the work plan, as no one wants to deliver at a financial loss
- AIT commits to quantities in work plans, can’t back out on dollars
- Need to communicate with AIT on progress
  
- Winter sand is an example of possible savings
  - Address the issue of sand production and still keep maximum summer production
  - Spring and late winter would be a good time to stockpile winter sand

**Order two years of sand**

1 year in stockpile, 1 year remains “untreated”

Will help other areas of summer work achievement

**Training**

- AIT is not consistent in doing work planning.
- Contractors may benefit from more “management support” – planner, estimator

**Use of Sub-contractors - how to handle in work planning**

- AIT normally doesn’t need to know what parts of work plan are done by subs.
- Can cause a lack of work being completed
- Similar for “work for others”

**Information Needed for Change**

- September ➔ annual budget details to quantities by activity +/- 20%
  
- September ➔ three year forecast totals provincially

**II. Communications [Workshop Leader – Tony Chelick]****1. How do we improve our communication between AIT/ARHCA forces?**

Share information as early as possible:

- b) Financial resources from Alberta Infrastructure & Transportation.
- c) Work progress from Alberta Roadbuilders & Heavy Construction Association.

**2. How do we improve our internal communication within our organizations?**

All groups capture discussion (minutes: verbal distribution) and distribute down:

- d) Chair’s responsibility to capture discussion
- e) Manager’s responsibility to distribute

### 3. How do we provide relevant information to all levels of our organizations?

Standing item on ops meeting agenda to discuss decisions made at higher levels.

### 4. How do we ensure that lower levels receive the information when decisions are made?

*Sometimes the information doesn't seem to get to lower level AIT forces at all. (I'll acknowledge that this might happen occasionally with the Contractors too.)*

Standing item on ops meeting agenda to discuss decisions made at higher levels.

### 5. Where should the decisions be made? (Steering Committee, OPMC, ARHCA Maintenance Committee? Locally?)

- Operation Managers should have more latitude to make decisions that apply to their district: may not apply to other parts of the province.
- Problems should be sorted out at the lowest possible level, by the person with the appropriate authority: sub-committee may be formed (AIT/ARHCA/Sub's) to help make the decisions.
- If more than one contract/district has the same problem, the issue should be escalated in a timely manner to resolve consistently.
- Refer to Contract Administration Manual for the most recent decisions/information.
  - Currently under review
  - Should ensure both sides knows about this manual

### 6. What is the role of the joint AIT/ARHCA committees that are set up between the two organizations?

- Collaboration
- Group representative should be knowledgeable to make the decision
- Binding decisions reached

### 7. How should their decisions be implemented and communicated?

- Maintenance bulletins
  - Quickly captures decisions
- Contract Administration Manual
  - Takes longer to distribute information
  - Does not form part of the contract, but is mentioned in it
  - Is only a reference/help with interpretation
- Buy-in required from all group members after initial consultation
  - It would help buy-in if people were given more details on decision and/or given resources for more information (if guys know how the group got to the decision, they may be more receptive to follow it).

### 8. How should decisions and issue resolutions be communicated generally? (It isn't always clear, especially when decisions are made by OPMC or DEC without entirely clear communication to ARHCA members and/or limited solicitation of feedback on the final decision. i.e., "drop dead" dates for winter maintenance and other work.)

- Maintenance bulletins
  - Quickly captures decisions
- Contract Administration Manual
  - Takes longer to distribute information
  - Does not form part of the contract, but is mentioned in it
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- Buy-in required from all group members after initial consultation
  - It would help buy-in if people were given more details on decision and/or given resources for more information (if guys know how the group got to the decision, they may be more receptive to follow it).

### **9. Is additional training required for communication?**

Read the following:

- Minutes
- Bulletins

“Thou shalt”

- Contract Administration Manual
  - Direction processes
- Other relevant documentation (ie: contract specifications, Emails)

Training session for implementation of Contract Administration Manual (AIT & ARHCA):

- Highlight the changes from last version
- Outline some of the “thou shalt do” items

**Communication/Partnership Tied Together** Perceptions:

- Fairness
- Consistency

**How are contract decisions communicated to the province?**

- Seems that if one contract has an issue that results in a decision, that decision is forced on the whole province.
- Common sense needs to be captured and communicated appropriately across the province.

## **III. Partnering [Workshop Leader – Alan Griffith]**

### **1. How does AIT/ARHCA ensure buy-in to partnering by all relevant members of their respective teams?**

- Needs to remain voluntary
- Need to trust one another
- Members should identify their goals to prospective partners



- Make all persons part of the decision process
- Communicate
- Joint committee
- Partnering sessions with “paint ball”
- Ongoing discussion of concerns → encourage communication on front-line levels

## **2. How can AIT/ARHCA improve the resolution of existing issues in the Partnerships?**

- Track issues, document success/failure
- Clear dispute resolution process including timeliness
- Handle at lowest possible level
- Open discussions/mutual resolution
- Need to address items in a timely manner
  - Each party may have different priorities on items
- Enable participants to make decisions that will be supported
- External referee?
- More understanding and clear direction on the issues
- More whole group developments

## **3. What happens if a member of AIT/ARHCA isn't interested in buying in to Partnering – is it an option? Are there consequences? Who determines this?**

- Partnership is a leadership issue
- Should not be an option – Yes (Team Building) – unknown (R.D.)
- Partnering relationship must be developed jointly, also consequences
- Partnership incorporated in all charters meaning it's not an option → need more consequences on both sides

## **4. How do we best resolve issues and minimize the likelihood of them occurring again?**

- Learn from other partnerships
- Best resolve issues at provincial level and roll out to general pop
- Communicate success and failures with all provincial partnerships
- At a contract level senior management on both sides need to communicate the same message to their staff
- Graduated escalation → solve at source
- Understanding issues fully on both sides at lower levels (ie: price negotiations)
- Keep focus of discussions on specific issue/problem resolution (keep money out of talks if possible)

**5. Is additional training for partnering required? If so, to what level?**

Yes, additional training for partnering is required at all levels.

- Many of the foremen and field support technologists have had no training
- Partnering is like a marriage, they need to be worked on → training at all levels is working on partnering
- Yes – need for regular workshops/meeting that focus *only* on partnering issues – no contract/money issues
- Partnering is something that happens once you get all parties working together. If we are not willing to work together, training will do no good
- Expectations of partnering need to be realistic

**6. Does partnering mean the same to both parties?**

- Not a crutch/excuse
- Does not override specifications etc.
- Partnering is not the same for both parties that's where "interest" bases training is a good thing
- Each group would have different views since their basic focus is different (i.e.: government agency – private sector business)
- Understanding and appreciating need of both partners
- Two sides to each argument
- Achieving goals (each others – goals are not the same)
- Need to have the same goals to achieve the safer roads

**WRAP-UP Moh Lali made closing remarks on behalf of AIT, and Carl LaPrairie made comments on behalf of the ARHCA members. The participants also commented on the day and the value of getting together to discuss issues of mutual concern. All parties expressed that the workshop had been a valuable experience.**

## **ARHCA/AIT - Work Planning Guideline**

### **Activity:**

3080 – Highway Maintenance Work (HMW)

Specification(s) 53.39

Bid Item(s) 3080 series

Work Order - Time to Complete:

- Varies by HMW activity
- Seasonal philosophy does not apply to this activity

**Draft**

### **Issue:**

HMW is a critical component of the overall highway maintenance effort. With regard to “work planning”, the inspections completed under the umbrella of HMW, identify various issues which are addressed immediately, or are added to the HMW or seasonal work plan.

The need to complete all HMW identified and included in the work plan is an expectation of AIT.

### **Recommendation:**

Included as part of the ongoing HMW planning process:

- The Maintenance Contractor (MC) shall prepare a monthly HMW work plan which identifies and prioritizes each month's HMW goals. The plan shall meet the expectations of the Operations Manager (OM).
- The MC shall report progress monthly.

### **Key issues:**

- AIT - HMW encompasses a number of activities, some of which are “high risk” and others of lesser consequence. The HMW work plan and the MC's resources should be sufficient to complete all required work.
- ARHCA - two report (work plan) formats will be necessary to summarize the short and long term work. One to identify “reactive work” which would typically be addressed in short order (weekly, monthly), and another for “remedial work” which would address quarterly or annual items. With regards to work identification and ordering, a high level of communication between the Foremen and MCI is viewed as critical.

**Work Planning Considerations:**

The plan(s) shall define the quantity or scope of the identified work and expected completion date(s).

Reporting and plan up-date frequency for the various activities should be determined, and where appropriate, agreed to provincially.

The level of risk associated with each HMW activity should be determined. The level of risk will/may impact both the reporting frequency and the priority which various HMW activities are undertaken.

Ultimately, resources shall be available to complete all identified HMW in a timely manner with due consideration for variations in the contractor's work load.

## **ARHCA/AIT - Work Planning Guideline**

### **Activity:**

1400 – Snow and Ice Control Materials  
Specification(s) 52.5-52.8  
Bid Item(s) 1400 series

Work Order - Time to Complete:

- Sodium Chloride Treated Sand - 30 days
- Calcium Chloride Treated Sand - 60 days
- Supply and Stockpile Sand - 60 days
- Supply of Sodium Chloride (Salt) - Salt available throughout the winter months.
- Seasonal philosophy applies to this activity. April 1 to Oct 15. Contractors can request or write proposed work orders. If necessary MCIs will issue work orders to meet October 15 due date. Failing to stockpile the planned quantity of treated sand, by the due date is considered “compromising the safety of the traveling public”.

Draft

### **Issue:**

As a critical activity, directly related to the safety of the traveling public, a process shall be in place to ensure (agreed to) minimal amounts of snow and ice control materials are available for use throughout the winter months.

### **Recommendation:**

As part of the annual work planning process, the Maintenance Contractor and Operations Manager shall define the details related to the availability of each snow and ice control material planned for use in the winter season. Critical information will include; material type(s), locations, quantities and due dates for each activity. The plan will be developed by May 31 of each calendar year.

### **Key issues:**

- AIT, a defined quantity of material, is to be available to address early winter snow and ice control activities as well as minimum quantities throughout the winter season.
- ARHCA, allowing contractors the opportunity to complete a portion of this work in October and November, supports the continuation of summer work activities.

### **Work Planning Considerations:**

The plan shall define quantities and date(s) that materials are to be in place:

- Delivery of sand
- Mixing of Sand
- Staged delivery dates and required tonnages

A re-supply threshold for each location and material type shall be established. This will include defining who is responsible to monitor on-site quantities.

The level of risk associated with the supply and re-supply of material shall be clearly understood and documented. The approved plan should reflect the intent of the protocol for Winter Readiness – Sand and Salt Supply, in the Sever Winter Storm Management report.

Where it is agreed to, and practical, multi-year plans can be implemented. For example a contractor may propose to stockpile all material necessary for a contract.

**ARHCA/AIT - Work Planning Guideline**  
**1900 – Surface Patching**

**Activity: 1900 – Surface Patching**

Specification(s): 52.5-52.8

Bid Item(s) 1400 series

Work Order - Time to Complete:

- Sodium Chloride Treated Sand - 30 days
- Calcium Chloride Treated Sand - 60 days
- Supply and Stockpile Sand - 60 days
- Supply of Sodium Chloride (Salt) - Salt available throughout the winter months.
- Seasonal philosophy applies to this activity. April 1 to Oct 15. Contractors can request or write proposed work orders. If necessary MCIs will issue work orders to meet October 15 due date. Failing to stockpile the planned quantity of treated sand, by the due date is considered “compromising the safety of the traveling public”.

Draft

**Issue:**

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**Recommendation:**

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The plan shall define quantities and date(s) that materials are to be in place:

- Delivery of sand
- Mixing of Sand
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Where it is agreed to, and practical, multi-year plans can be implemented. For example a contractor may propose to stockpile all material necessary for a contract.



Inspection Sheet

**Highway Inspection & Work Identification - Checklist**

Hwy		Surface Type:	Inspection Date:	
From km:		To km:	Inspector:	
Item	Category	Question (some questions apply to more than one type of road surface.)	Potential Work Activities (General Description, General Location, Extent of Issue, Proposed Work, Identified Hazards, etc.) [Use additional sheets if not enough room in form. More information is required if maintenance work will be required by the Department.]	Estimated Quantity (#, length, quantity or % of Road or Infrastructure)
1.RS.01	Road Surface/ Grade Issues	<b>Potholes:</b> Are there potholes in the road?		
1.RS.02	Road Surface/ Grade Issues	<b>Washboards:</b> Are there sections of washboard on the road?		
1.RS.03	Road Surface/ Grade Issues	<b>Soft Spots:</b> Are there soft spots or other failures in the road?		
1.RS.04	Road Surface/ Grade Issues	<b>Roughness:</b> Are there areas where the road has roughness that would negatively impact traffic? Do they require bump markings or signage?		
1.RS.05	Road Surface/ Grade Issues	<b>Rutting:</b> Are there sections where the road is rutted? How significant is the rutting?		
1.RS.06	Road Surface/ Grade Issues	<b>Cracking:</b> Are there areas with alligator cracking or other cracking issues require repair? Depressed cracks? Raised cracks?		
1.RS.07	Road Surface/ Grade Issues	<b>Ravelling:</b> Are there areas where the road surface is ravelling? Chip seal or other surface seal failures?		
1.RS.08	Road Surface/ Grade Issues	<b>Road Width:</b> Are there areas where the road exceeds design width? (Design roadwidth = ?)		

Inspection Sheet

Item	Category	Question (some questions apply to more than one type of road surface.)	Potential Work Activities (General Description, General Location, Extent of Issue, Proposed Work, Identified Hazards, etc.) [Use additional sheets if not enough room in form. More information is required if maintenance work will be required by the Department.]	Estimated Quantity (#, length, quantity or % of Road or Infrastructure)
1.RS.09	Road Surface/ Grade Issues	<b>Crown:</b> Are there areas where the road crown is consistently less than design (2% paved, 3% gravel)		
1.RS.10	Road Surface/ Grade Issues	<b>Superelevation:</b> Are there areas where the superelevation on curves is not as originally designed? (flattened out or otherwise changed)		
1.RS.11	Road Surface/ Grade Issues	<b>Horizontal &amp; Vertical Alignment:</b> Are there potential issues with horizontal or vertical alignment?		
1.RS.12	Road Surface/ Grade Issues	<b>Slumping/Slides:</b> Is the road grade slumping or are there slides with the potential to affect the road grade or other infrastructure?		
1.RS.13	Road Surface/ Grade Issues	<b>Intersections/Approaches:</b> Are there problems with intersections or approaches that require work?		
1.RS.14	Road Surface/ Grade Issues	<b>Gravel Surface:</b> Is the quantity of gravel on the road adequate? Is it greater than necessary?		

Inspection Sheet

Item	Category	Question (some questions apply to more than one type of road surface.)	Potential Work Activities (General Description, General Location, Extent of Issue, Proposed Work, Identified Hazards, etc.) [Use additional sheets if not enough room in form. More information is required if maintenance work will be required by the Department.]	Estimated Quantity (#, length, quantity or % of Road or Infrastructure)
2.BR.01	Bridges	<b>Bridges:</b> Are there any obvious issues with the condition of the bridge?		
2.BR.02	Bridges	<b>Bridge Approaches:</b> Are there any issues with the condition of the bridge approaches?		
2.BR.03	Bridges	<b>Bridge Joints:</b> Are there issues with bridge joints that would cause an issue to snowplows or the public?		
2.DR.01	Drainage	<b>Erosion:</b> Are there areas in the R/W that are eroded?		
2.DR.02	Drainage	<b>Ponding:</b> Are there areas where water is ponding excessively?		
2.DR.03	Drainage	<b>Beaver Control:</b> Are there areas where beaver control is required?		
2.DR.04	Drainage	<b>Culverts:</b> Are there any culverts identified requiring repair or replacement?		

Inspection Sheet

Item	Category	Question (some questions apply to more than one type of road surface.)	Potential Work Activities (General Description, General Location, Extent of Issue, Proposed Work, Identified Hazards, etc.) [Use additional sheets if not enough room in form. More information is required if maintenance work will be required by the Department.]	Estimated Quantity (#, length, quantity or % of Road or Infrastructure)
3.TC.01	Traffic Control Devices	<b>Stop Signs &amp; Yield Signs:</b> Are all the stop and yield signs in place and in good condition?		
3.TC.02	Traffic Control Devices	<b>Sign Straightening:</b> Are there signs that require straightening?		
3.TC.03	Traffic Control Devices	<b>Sign Replacement:</b> Are there signs that require replacement? Are there missing or damaged signs?		
3.TC.04	Traffic Control Devices	<b>Sign Removal:</b> Are there signs that should be removed from the R/W?		
3.TC.05	Traffic Control Devices	<b>Lighting &amp; Signals:</b> Is there any lighting or signals that are not functioning as designed or otherwise need work?		
3.TC.06	Traffic Control Devices	<b>Delineators:</b> Are there damaged or missing delineators requiring replacement?		
3.TC.07	Traffic Control Devices	<b>Reflective Strips:</b> Are there reflective strips requiring replacement?		
3.TC.08	Traffic Control Devices	<b>Guardrail:</b> Are there sections of guardrail requiring repair or replacement?		
3.TC.09	Traffic Control Devices	<b>Guardrail Warrants:</b> Are there sections of road where the steepness of the sideslope or hazards in the R/W would recommend guardrail?		
3.TC.10	Traffic Control Devices	<b>Barriers:</b> Are there barriers (Jersey Barriers, medians, etc.) that require repair or replacement?		

Inspection Sheet

Item	Category	Question (some questions apply to more than one type of road surface.)	Potential Work Activities (General Description, General Location, Extent of Issue, Proposed Work, Identified Hazards, etc.) [Use additional sheets if not enough room in form. More information is required if maintenance work will be required by the Department.]	Estimated Quantity (#, length, quantity or % of Road or Infrastructure)
4.HM.01	Highway Maintenance Work	<b>Highway Cleanup:</b> Are there areas requiring additional effort for cleanup?		
5.VC.01	Vegetation Control	<b>Brushing:</b> Are there areas along the road requiring brushing?		
5.VC.02	Vegetation Control	<b>Weed Control:</b> Are there areas along the road that have weeds where weed control is required?		
5.VC.03	Vegetation Control	<b>Other Vegetation:</b> Are there areas along the road where vegetation is causing an issue with sight distances or other issues?		

## Appendix A5

### Highway Inspection and Work Identification – Checklist Explanation

This form is intended to provide the following:

- a) An annual general overview of a given section of highway. It could be done at a greater frequency (say bi-annually) with the mutual agreement of the Department and the Contractor.
- b) It is a means for the Contractor to identify work that may be required to the road and that the Department may wish to undertake in the future. (short term – as in to be done within the year, or long term – to be done at some time in the future beyond the upcoming year.)
- c) It is a means of allowing the Contractor to identify a concern with a given section of highway once only, rather than with every scheduled inspection.
- d) This form is not intended to provide a report in detail, only a general indication. (i.e., for potholes it would say something like – “numerous potholes from km 15.6 to km 18.0”)
- e) If the information is captured by SCR (Surface Condition Rating), then the information on this form need not be detailed. It only needs to provide an indication of the issue, with more detail provided by the SCR.
- f) If more detailed information is required, say to do maintenance work for a specific item or Activity, the detailed information should be collected separately. This needs to be worked out between the Department and the Contractor to ensure the right amount of information is collected. (i.e., for a patching program.) The Contractor does not want to spend a lot of time working to collect information for a work program with minimal chance of being undertaken. It also makes sense to prioritize the work if there is more work than can be done with the available budget.
- g) A recommended time to undertake this inspection would be in the spring (or late winter) prior to spring work commencing. This information can be collected during the course of regular inspections or when collecting information for specific Activities.
- h) It is a form of due diligence for the inspections of the highways and demonstrates that the condition of the highway and infrastructure is evaluated in a reasonable level of detail.

**GUIDELINES FOR HIGHWAY INSPECTION REPORTING**

Item	Daily/Weekly	Monthly	Bi-Annually	Yearly
<p><b>ROAD SURFACE GRAVEL</b></p>	<p>Washboard and Soft Spots</p> <p>Areas of erosions, lack of gravel and loose gravel</p> <p>Pick-up and remove debris and road kill from road surface.</p>		<p>Crown and width</p> <p>Super elevation</p>	<p>Surface Regravelling</p> <p>Slumping and slides (if they are directly affecting travel lanes they should be noted in the daily/weekly inspections when first observed.)</p>
<p><b>ROAD SURFACE PAVED</b></p>	<p>Potholes &amp; Breakouts</p> <p>Placing hazard markings and/or signage/barricades for unsafe pavement conditions</p> <p>Pick-up and remove debris and road kill from road surface.</p> <p>Identify road conditions during winter months using AMA Road Report inspection forms</p>			<p>Surface Condition Rating (Note this is a paid inspection, and is not mandatory in all areas. Refer to Contract)</p> <p>Slumping and slides (if they are directly affecting travel lanes they should be noted in the daily/weekly inspections when first observed.)</p> <p>Erosion (unless directly affecting driving lanes, then it should be noted in the daily/weekly inspections when first observed.)</p>

**GUIDELINES FOR HIGHWAY INSPECTION REPORTING**

Item	Daily/Weekly	Monthly	Bi-Annually	Yearly
SIGNS	<p>Downed signs, particularly regulatory.</p> <p>Sign face cleanliness during winter months.</p>	<p>Sign Straighten</p> <p>Sign Removal – Non Conforming</p> <p>Sign face cleanliness during summer months.</p>		<p>Reflectivity on all Signs within Shop Area.</p>
GUARDRAIL	<p>Guardrail that requires fixing as a result of accident damage</p>	<p>Reflective Strips on Guardrail</p>		<p>Guardrail that doesn't meet current department specification for height, alignment or guardrail warrants.</p> <p>Guardrail that is beyond it's reasonable service life.</p> <p>Are there any areas that require guardrail?</p>
DELINEATORS	<p>Note damaged or missing Delineators</p>	<p>Reflective Strips on Delineators</p>		<p>Delineators that aren't installed to specifications.</p>



**GUIDELINES FOR HIGHWAY INSPECTION REPORTING**

Item	Daily/Weekly	Monthly	Bi-Annually	Yearly
SIGNAL LIGHTS	<p>Resetting signals if the lights are in flash mode</p> <p>Replacing burnt-out bulbs</p> <p>When lights are completely out of service set up portable STOP signs for all directions.</p>		<p>Summerize &amp; Winterize Traffic Control boxes. (Check timing of lights to ensure no conflicts)</p>	
OVERHEAD LIGHTING	<p>Note power failures to section of lights on nightly inspections.</p> <p>Report damaged poles from accidents</p>	<p>Note burnt out individual lights on nightly inspections</p>		<p>Check condition of poles for fatigue.</p> <p>May require additional testing that would be paid for separately.</p>
CULVERTS	<p>Drainage problems including blockages, erosion or lack of capacity of ditches, culverts and drainage grates</p>			<p>Condition of culvert ends (Fall Cleaning)</p> <p>Culvert Barrel inspection for blockages.</p> <p>Culvert Barrel condition inspection .</p> <p>Grading around Culvert ends</p>

**GUIDELINES FOR HIGHWAY INSPECTION REPORTING**

Item	Daily/Weekly	Monthly	Bi-Annually	Yearly
BRIDGES	Damage to bridges or hazards to motorists			<p>Damage to bridges or hazard to motorists or snowplows. Ongoing issues affecting Highway Maintenance. Obvious issues should be noted.</p> <p>Drift and other debris blocking channel or obstructing culvert.</p> <p>Detailed bridge inspections are arranged and scheduled by Bridge Branch separately.</p>
NON SURFACE ROW	<p>Large Debris or Road Kill in ROW</p> <p>Weed outbreaks</p>	Line Fence Repair		<p>Snow Fence Repair</p> <p>Brushing requirements for visibility</p>

# GUIDELINES FOR HIGHWAY INSPECTION REPORTING

Item	Daily/Weekly	Monthly	Bi-Annually	Yearly
<b>THIRD PARTY INCIDENTS (ACCIDENTS &amp; NATUAL DISASTERS)</b>	<p>Placing of “Police Emergency Ahead” signs at the scene of collisions, spill or obstructions on the highway.</p> <p>Apply absorbent material for minor spills. (if not dangerous materials to health and safety.)</p> <p>Provide Traffic control for accidents if resources are available.</p>			