M.A.P. Project

Money Final Report

Table of Contents

Acronyms and Definitions:

“B.A.S.” shall means Business Application Software and refers to a previous software project which commenced in 2016.

“DRI” shall mean the Directly Responsible Individual and refers to a member of SMT responsible for a M.A.P. stream

“EOL” refers to the phase when a product or system is no longer supported or maintained by its manufacturer, typically leading to the cessation of updates and technical support.

“M.A.P.” shall mean Money, Assets, People which are three streams spawned from the Perry Group report on Municipal Modernization.

“PGR” shall mean the Perry Group Report titled "IT and Business Application Software (BAS) Review”

“PMI” shall mean the Project Management Institute.

“S.M.E.” shall means Subject Matter Expert who is an individual with deep knowledge and expertise in a particular domain, subject, or area. SMEs are often relied upon for their specialized understanding and insights, and they contribute to projects, processes, or training by offering expert guidance.

“**Technical Debt**” shall mean the implied cost and/or inefficiencies incurred when businesses do not fix problems that will affect them in the future. Accruing technical debt causes existing problems to get worse over time. The longer debt builds up, the more costly it becomes to rectify.

References:

1. Perry Group Consulting
    - IT and Business Application Review

2. WSCS Consulting Inc
    - Project Charter – Appendix A

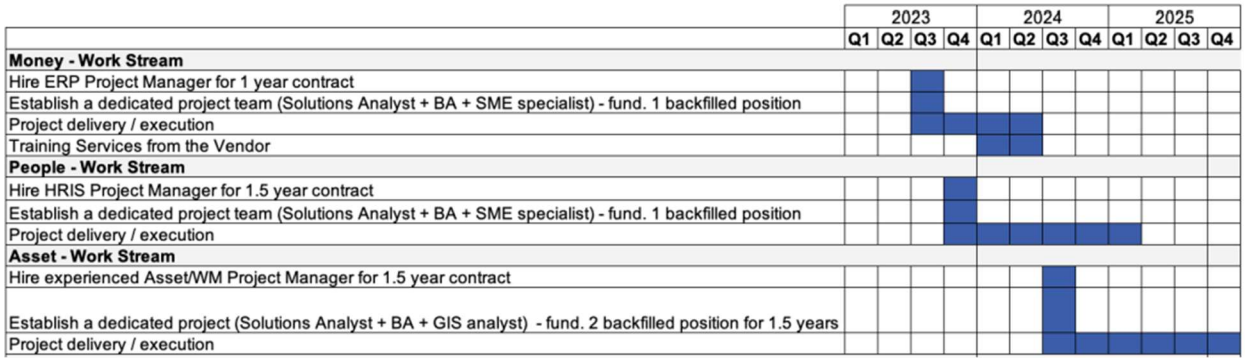
3. Endeavour Solutions Inc
    - GP “Way Forward” Recommendations for Haldimand County – Appendix B

Purpose and Overview

Business Application Software (B.A.S) Project:

As a final output of the B.A.S. project (2017 to 2023), and in an effort to mitigate stalled processes as part of the original B.A.S. project scope, the GM of Capital Works initiated the Money, Assets, and People project (report ECW-02-2023) as a go-forward plan to continue business system and process improvements. Each of the three streams of the project would subsequently be funded, and time boxed to deliver rapid improvements to core functionality.

Money, Assets, and People (M.A.P.) Overall Timeline



The M.A.P. project is proceeding with three separate streams split into three separate phases with overlapping timelines spread over 2 years. The overall project started in Q3 2023 and will be completed in Q2 of 2026.

As of Q3 2024, the Money stream of the M.A.P. project has been completed as scheduled. This report will focus on a review of the inputs, processes, and outcomes of the Money stream. Future reports will follow for the People stream (Q4 2023- Q2 2025) and the Assets stream (Q3 2024 – Q2 2026).

Initial Scope

As a result of the IT and Business Application Review completed in April 2023, the Perry Group recommended the following for the scoping of the 'Money' stream:

- Get the core financial functions (Accounts Receivable, Accounts Payable, General Ledger, reporting) working as effectively as possible.

The external consultant we contracted for the Money stream of the project, WSCS Consulting Inc, presented the following key project scoping items as follows:

- Create a project plan based on consultations and identify priority areas.
- Determine and implement a decision on the general ledger vs. Job-Activity-Object structure.
- Identify and implement better, quicker access to data and reporting.
- Consult with users to assess current processes, system utilization, gaps, and requirements.
- Address system bugs by assessing processes and providing solutions.
- Develop a list of priorities for project direction based on the Pareto principle (80/20).
- Provide appropriate access to systems and data through a security role assessment.
- Assess system performance, speed, and 'hanging' of batches to determine root causes and provide recommendations.
- Develop a process training strategy to integrate new functionality and processes.
- Provide project status and results, including areas in scope and items for future consideration, with a focus on alignment with the People and Assets projects.
- Develop and deliver root cause analysis reports, process maps for current and future states, and training documentation.
- Recommend changes to configurations and access/security profiles.
- Implement changes to JAO/GL structure if required, ensuring the system and process adjustments are carried out.
- Reduce IT tickets, system issues, and duplication of efforts through streamlined processes and bug fixes.
- Create a future-based workplan for areas to be reviewed after the conclusion of the "Money" project.

Refined Scope

Refinement to the project scope organically occurred to focus on milestone-driven outcomes rather than smaller, process-focused deliverables. Previously, deliverables served as incremental steps toward success, but this updated approach embraced a more agile/hybrid project management style, allowing flexibility by emphasizing key milestones over predefined processes along the way.

- Upgrading financial systems to the latest software version to reduce technical debt (security, enhancements, bug fixes etc.)
- Development and implementation of new Chart of Accounts structure across corporate systems.
- P-Card program planning and execution to bring increased value to the 'pay process' of procure to pay.
- Improve performance issues with GP.
- 'Basic' financial reporting that fits the needs of user divisions and finance (actuals, budgets, forecasting, variance).
- Process mapping and recommendations for future enhancements; execution of enhancements will be balanced with timelines and resource requirements.

Approach and Resources

Approach

The PGR titled "IT and Business Application Software (BAS) Review" spoke specifically to the project approach to ensure success. Notable callouts include favoring action over analysis, getting the basics up and running, keeping it simple, and reviewing existing processes where possible.

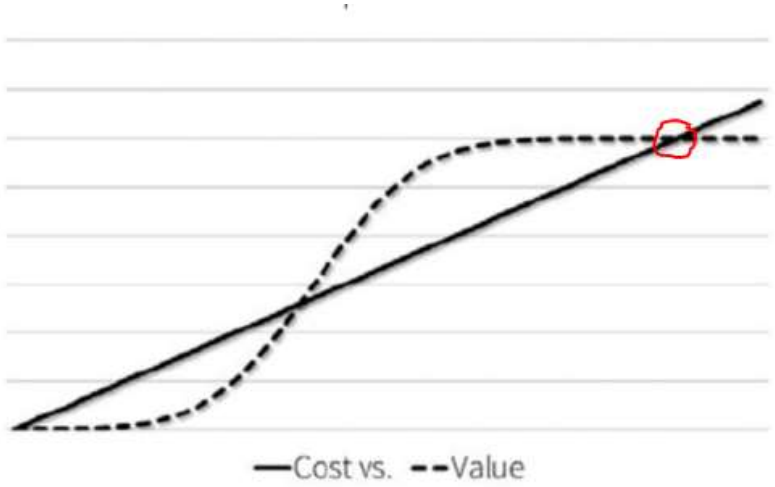
Resources

To lead this project, the PGR recommended it would be beneficial for the County to contract a "highly experienced external Project Manager that is a hands-on ERP implementation expert." The Project Manager would be supported by a small internal Subject Matter Expert (SME) team, including Samuel Koppeser as the designated Analyst, a Solutions Analyst, a business SME, and the Directly Responsible Individual (DRI). *See the Resource section of this report for a list of positions involved*.

Contract Management

- Time & Material Contract – This contract type is the most flexible, making it well-suited for ITS projects where project scopes are often initially broad, and details can change as the project progresses. The T&M model allows the project team to engage external consultants only, when necessary, effectively filling gaps in knowledge or resources. This approach also helps keep the project within budget by providing options to discontinue services if the costs begin to outweigh the benefits. By using this model, the team can adapt to changing project needs without

overcommitting financially, maintaining control over the budget and ensuring resources are used efficiently. The figure below helps to illustrate this concept using an 'S curve'.



Business Goals, Outcomes, & Impacts

Business Goals	Outcomes	Impacts
✔ Accurate, timely reporting for decision making	Updates to Questica • Version updates • Cloud hosting • Report refinement • Creation of new data integration	• Robust reporting is now possible for end users and decision makers. • Reporting provides near real-time insights with daily data updates which allows for easier budget to actuals tracking.
✔ Timely, easy access to data to support department heads, timely response to calls from customers and agencies	Changes to Role Security • Paramount Workplace • Questica	• Data can now be viewed cross-divisionally based on users' needs. • Report suite is significantly more comprehensive to fit user needs.

✔ Create Chart of Account structure that reflects the County's long-term requirements ✔ Deploy GL structure across corporate applications.	• Complex and detailed enough Chart of Accounts for financial reporting • Flexible and allows for future growth • Simplified for entry purposes • Technical limitations and best practices • Resources • One Structure with no subledger	• Staff able to view data more effectively based on permissions leveraged from the account structure. • Product Owners able to effectively manage software with reduced maintenance requirements and 'one off' configurations. • Reduced complexity for staff having to understand two GL structures.
✔ Address technical debt found in software solutions	• Address six-year technical debt to upgrade Paramount Workplace. • Questica upgraded and moved to cloud. • Untangle weave of custom integrations and workarounds built over six years of BAS project.	• Reduced system issues • Better support from software vendors • Improved system performance • System functionality, enhancements realized for user experience
✔ Process Mapping with current state and desired future state	• WSCS Consulting Inc. produced a comprehensive report identifying process improvements to GP 2018.	• Finance staff possess a report outlining where process improvements may generate value in day-to-day operations for further validation.
✔ ITS support departments and ensure integrations are working as intended	• Integrations Mapping to identify current state • Deprecation of unused integrations	• Faster system performance • Mapping allows for understanding of divisions data

		• Untangling allows for deployment of new solutions in a more effective way
❌ Procurement Card migration from US Bank to Bank of Montreal as sole provider.	• Discovery of improper account setup from BMO representatives to reflect contract.	• Legal & Support Services have engaged BMO for workaround to still achieve project goals outside of Money stream

Major Project Risks & Mitigations

First Recorded	Risk	Severity/ Probability	Remediation
Q3 2023 (Project Start)	Entanglement of system integrations	High / High	Mitigate - TFT contract staff member acquired to remediate integrations with planned path forward
Q3 2023 (Project Start)	Inadequate planning and resource allocation leading to overextended timeframes.	High/ High	Mitigate - Used agile project methodologies to rank and prioritize work in accordance with end user requirements. Regular review and adjustment of plans based on project progress and external factors.
Q3 2023 (Project Start)	Technical Knowledge required to complete project	High/ High	Transfer - Engage multiple external third parties (WSCS Consulting, Endeavour Solutions, Euna, Pairsoft, Corporate Renaissance Group, Stargarden).
Q3 2023 (Project Start)	External Software consultant's service level	High/ Medium	Mitigate - Engaged early in project to plan for success of key deliverables and reduce likelihood of triggering risk event.
Q3 2023 (Project Start)	Inadequate logistics, role clarification	Medium/ Medium	Mitigate - Utilized project management tools to formalize processes, people, and technology harmoniously.

Q1 2024	Project Team turnover	High/ Low	Accept - The Haldimand PMBA assigned to the project moved to a new role. Outgoing PMBA helped transition knowledge transfer to new incumbent.
Q3 2024	Agile project approach readiness of corporation	Medium/ Medium	Mitigate- Explain rationale of project approach and apply more traditional project management approaches where possible.
Q3 2024	Incongruent project tools (see Microsoft Projects)	Low/ High	Accept – Plans were laid to export data into systems which could be accessed by non-project team members.
Q3 2024	Weak User Acceptance Testing (UAT) Environment	Medium/ High	Mitigate – Created UAT environment from the ground up.

Strengths and Weakness

Strengths:

- Significant institutional knowledge was retained from the B.A.S. project which lent itself to high project delivery on a flatter learning curve.
- The project was sufficiently financially supported which allowed for:
    - The onboarding of an integration's specialist;
    - The procurement of key software tools (GL Changer, and GL Re-formatter);
    - Consulting services (WSCS, Endeavour);
    - Software configurations (Paramount Workplace); and
    - Migration to hosted solutions and implementation of new modules (Questica)
- The adoption of an agile leaning project management mindset which allowed for rapid deployment and iterations of highly technical solutions.
- Project is underpinned by a strong governance framework, which includes a Steering Committee for high-level strategic oversight and a Governance Committee responsible for ensuring adherence to project objectives and organizational policies.
- Regular status updates are provided as part of our performance reporting process.

- Project Management tools made available (Microsoft Projects)
- Models and frameworks available from the Project Management Institute (PMI)
- Change management less crucial as no significant transformational changes to systems (which aligns with PGR)

Weaknesses:

- No on demand project status updates for users and stakeholders.
- Some task responsibilities remained unclear, particularly for non-seconded team members.
- Vendor Accountability – Given the complexities of the project and the technical solutions involved, the project team structure recommended by the Perry Group did not align with the critical factors needed for the project's success. Specifically, appointing an external consultant as the lead project manager proved ineffective, considering the intricate technical requirements, the wide range of software products, and the significant number of staff impacted. Additionally, our ITS policies regarding external vendor access were and still are under development, creating challenges in balancing system security with the consultants' need for flexible, independent system access. A more integrated approach, led by internal resources with a comprehensive understanding of both the organization and its systems, would establish a stronger foundation for success.

Resources

Internal Resources

Corporate Governance/ Oversight Committee:

M.A.P Steering Committee

- General Manager of Financial & Data Services
- General Manager of Corporate & Social Services
- General Manager of Engineering & Capital Works
- Chief Information Officer
- Manager of Financial Services
- Manager of Legal & Support Services
- Manager of Human Resources
- Supervisor of Business Solutions, GIS & Data

- Supervisor of Taxation & Revenue
- Supervisor of Budgets & Revenue
- Project Manager, Continuous Improvement, CAO's Office
- Project Manager, Business Solutions, GIS & Data (two)
- WSCS Consulting Inc.

IT Governance Committee

- General Manager of Financial & Data Services
- General Manager of Corporate & Social Services
- General Manager of Engineering & Capital Works
- General Manager of Community Development & Services
- General Manager of Public Works Operations
- Chief Information Officer
- Manager of Customer Experience & Communications
- Supervisor of Business Solutions, GIS & Data
- Supervisor of Taxation & Revenue
- Project Manager, Continuous Improvement, CAO's Office
- Project Manager, Business Solutions, GIS & Data (two)

Seconded to the Money Project (budgeted)

- Tania Commeau (from Financial Analyst)

Other Internal Resources (unbudgeted)

Financial & Data Services

- General Manager and DRI

Innovation and Technology Services

- Chief Information Officer, Manager
- Supervisor of Business Solutions, GIS & Data
- Project Manager, Business Analyst
- Senior Network & Technology Analyst
- Solutions Analyst
- DBA & Solutions Analyst

Legal and Support Services

- Manager of Legal and Support Services

- Procurement Advisors
- Purchasing Clerk

Financial Services

- Treasurer, Manager
- Supervisor of Revenue and Taxation
- Supervisor of Budget & Financial Planning
- Supervisor of Accounting Services
- Senior Financial Analyst from Budget & Financial Planning
- Senior Accounting Clerk

Engineering Services

- Business Services Assistant
- Project Manager, Municipal Infrastructure

Facilities and Capital Asset Management

- Project Manager, Asset Management

External Resources & Project Consultants

Company Name	Project Role	Effectiveness
WSCS Consulting Inc.	Defined as Project Manager.	Highly credentialed consultant with high focus and skill in change management and GP 2018. Project management skillset was not as effective as presented. Technical Chart of Account transformation was centered around a tool that they could not procure which forced our hand in securing another consultant (see Endeavour Solutions). Ultimately services were focused on process improvements with the focus being on GP 2018 which is entering EOL. Significant detail on final process improvement reporting.
Endeavour Solutions	Engaged initially to procure third party tool for GL change as WSCS unable to	Highly effective consulting firm that was able to assist on demand. Project would not have been as successful

	do so due to not being an authorized vendor. Later turned into consulting role to assist with knowledge gaps.	without their assistance in not only providing GL Re-formatter but also consulting expertise.
Pairsoft (Paramount Workplace)	Engaged to remove configurations for subledger structure.	Very responsive but the vendor ran into last minute technical/ software programming problems that forced us to find a workaround solution.
Euna Solutions (Questica)	Engaged to configure for new Chart of Account structure. Necessitated move to cloud solution as on-prem solution was EOL.	Very responsive and capable. The Project Manager assigned to assist was instrumental in the quick deployment of Questica to cloud with Chart of Account reconfiguration.
Corporate Renaissance Group (CRG Re-formatter and CRG Changer)	Software provider of GP third party application. Application was instrumental in WSCS' GL transformation plan.	Third party tool initially had software bugs which led to excessive ITS staff time in troubleshooting. Software patch was provided by the vendor in a timely manner but instructions on its use were inconsistent.
Central Square	Consultant for current financial suite and software provider of Diamond for GP 2018.	Engaged to assist but showed no interest in supporting without being awarded as external project management firm. Past performance created hesitancy to follow their directive.

Next Steps/ Continuous Improvement

Continual Improvements Post Project Completion

The development and implementation of a new Chart of Accounts structure across corporate systems provides a foundational basis for future enhancements related to financial reporting, budget development and monitoring. The new Chart of Accounts will be used to improve recording, reporting, and performance measurements across the organization, providing staff, Council, and residents, with detailed financial reporting and budget data, at a level that was not possible in previous periods.

The completion of the Money stream of the M.A.P. project is a major milestone which will assist the organization in improving data consistency, granularity, and integration across

the system landscape. It will also enable more effective consolidations and create confidence in the uniformity and visibility of financial data. As an example of a tangible benefit, the new Chart of Accounts structure will support management reporting and the ability to perform financial planning and analysis necessary to set corporate strategy and measure operating performance, as we work towards providing Council with regular variance reporting, within the current fiscal period.

WSCS Consulting Inc. identified a few continuous improvement opportunities, related to our financial operations (i.e. A/R & A/P). However, services were primarily focused on process improvements within our financial system, Microsoft Dynamics Great Plains 2018, which is entering end-of-life and will have its product support ended in Q3 2029. We expect we will need to begin a transition exercise away from this product within the next three years. Staff will be looking at potentially implementing a segment of the identified continuous improvements, if a material benefit would be derived in the short term and/or if the benefit would carry forward into future system generations.

The Money project also provided updates and associated improvements to our budgeting software, Questica. One of the continuous improvements identified and implemented, as part of the Money stream, was the integration of Budget Book Studio, which is module within Questica that takes all our budget book needs and consolidates them into a single, easy-to-use editor, that will enable us to effortlessly publish our annual budget book online. Budget Book Studios will provide Haldimand County with enhanced functionality, an improved ability to adhere to legislated obligations (i.e. AODA), financial savings, from improved workflows.

Backlog and Issue Register

Financial Services, in consultation with Innovation and Technology Services, are maintaining a backlog of identified issues to be addressed post project completion. This register is actively being ranked and explored for feasibility by the internal product owners for each component within our financial systems. As above, not all issues identified have significant enough materiality to warrant a change in advance of our next major financial system transition as they are inherently tied to our technical solution. Nevertheless, and where possible, process changes which can support more effective Corporate business regardless of technical system continue to be explored for feasibility.

Innovation and Technology Services engaged Endeavour Solutions Inc as part of the Money stream as a technical consultant to mitigate or resolve the significant number of on-going technical challenges County staff have experienced with GP. Many of these recommendations have already been completed with additional changes being considered weighing the above considerations for materiality vs time to deliver change.

Financials

M.A.P. Project Budget & Spend Status		Committments/Projection				
	Approved Budget	2023	2024	2025	3 Year Total	Actuals to Date
Money Stream Costs	**$ 410,000.00**	**$100,000**	**$234,500**	**$0**	**$334,500**	**$ 254,882**
External Consulting		100,000	60,000	-	160,000	174,320
Context Expert (Money)			110,000		110,000	31,350
Questica Cloud Migratio			37,000		37,000	24,969
Questica Budget Book Studio			27,500		27,500	18,505
Other Capital Costs						5,738
People Stream Costs	**$ 500,000.00**	**$0**	**$260,000**	**$100,000**	**$360,000**	**$ 158,932**
External Consultant			100,000	100,000	200,000	101,048
Context Expert (People)			110,000		110,000	56,528
Stargarden Cloud			50,000		50,000	
Other Capital Costs						1,356
Assets Stream Costs	**$ 590,000.00**	**$0**	**$50,000**	**$410,000**	**$460,000**	**$ 1,356**
External Consultant			50,000	150,000	200,000	
Context Expert (Assets)				110,000	110,000	
Work Order Solution				150,000	150,000	
Other Capital Costs						1,356
Shared Costs	**$ -**	**$0**	**$100,000**	**$100,000**	**$200,000**	**$ -**
Integrations Developer		-	100,000	100,000	200,000	53,170
Total	**$ 1,500,000.00**	**$100,000**	**$644,500**	**$610,000**	**$1,354,500**	**415,170**

Lessons Learned

Money Stream Retrospective & Lessons Learned – Internal Resources

Internal resources involved with the project were engaged to provide lessons learned from their experiences working on the project over the past year. Their feedback was sought in three categories: what went well, what we should do differently next time, and what still puzzles us. Their feedback is summarized below:

What Went Well 😄

- Enhanced Financial Structure & Reporting:
    - A new General Ledger (GL) structure was successfully implemented, integrating Questica for better reporting of operating actuals. This upgrade, along with Questica's move to the Cloud, significantly improved system performance and addressed technical debt.
- Improved Project Focus & Execution:

    - The project's streamlined scope and clear objectives facilitated a more focused approach. Effective resource allocation and leveraging in-house expertise (e.g., Jason and Paramount) helped overcome constraints, ensuring goals were met within tight timelines.
- Effective Project Management:
    - A dedicated Project Manager, who was not a content expert, kept project planning on track. The use of agile methodology allowed flexible adjustments, such as prioritizing the Questica Cloud move, enhancing project adaptability and decision-making speed.
- Collaboration & Communication:
    - Consistent and correctly sequenced communication enabled stakeholders to make timely decisions, promoting efficient progress. User Acceptance Testing (UAT) was effectively integrated, ensuring system readiness before launch.

Areas for Improvement (Lessons Learned) 😣

- Defining Scope & Resourcing:
    - Early stages lacked defined deliverables and clear timelines, causing misalignment with consulting capabilities and resource availability. Future projects should establish clear scopes aligned with market capabilities and internal resources.
- Clarifying Roles & Enhancing Communication:
    - Unclear roles and responsibilities for consultants and internal staff created delays. Implementing a RACI chart would aid in clarifying roles. Improved communication, particularly for end-user impact, would enhance understanding and engagement.
- Consultant Selection & Market Assessment:
    - Engaging a consultant with broader software experience could improve adaptability to project needs. Future consultant selection should focus on solution-oriented expertise rather than issue diagnosis post-selection.
- User Feedback Integration:
    - Engaging users at key stages would reduce operational quality issues and align project outcomes with user needs. Smaller, incremental deliverables could foster momentum and quicker successes.

Ongoing Challenges & Questions 🤔

- Decision-Making Bottlenecks:

    - Delays in formalizing decisions slowed progress despite prior awareness of pending items. A more responsive decision-making structure would support smoother project flow.
- Vendor Performance & Responsiveness:
    - GP performance concerns and slow responses from Central Square raised questions about service quality. Exploring alternative vendors, such as Endeavour, may be worth considering.
- Role Confusion Among Stakeholders:
    - Ambiguities in accountability versus consultation roles led to confusion and delays. Future projects would benefit from clearer accountability frameworks to ensure efficient collaboration and project progression.

Project Name **Haldimand County – Enterprise Resource Planning System – Money Project**	Project Acronym or No. **HC-23-01_ERP$**	
Project Sponsor(s) Mark Merritt, General Manager, Financial and Data Services	Target Project Completion Date 2024/10	
Project Manager Leads: Tammy Carruthers (WSCS Consulting Inc.)	Version No. 1.1	Version Date 2023/10 /25

Project Background

For a number of years, Haldimand County (the County) has been working to update its key core technology systems with an integrated 'enterprise system'. This work has been challenging in the face of evolving technology, personnel changes, impacts of staff secondments and it has become clear that the original program objectives, while valid, were overly ambitious relative to capacity to deliver it.

Staff recently completed a review of the Business Application Software (BAS) project with the support of Perry Group Consulting Ltd. Based on their report and internal discussions regarding initial scope for the project, it was clear that the project would not meet the County's original goals, and that the design as it was first envisioned was no longer suitable. In order to address this deficit, the County has determined that the best approach to move the project forward and build upon the successes to date, is to divide it into three separate project streams, each to be completed independently (albeit integrated and integral to each other) with a dedicated project manager/project team and for a given duration. The three separate, but integrated project streams are as follows:

· Money – Finance, Procurement, Property Tax and Financial Reporting (maximum duration of 12 months)

· People – Human Resources, Payroll, Time/Attendance, Disability and Talent Management (maximum duration of 18 months)

· Assets – Asset and Work Management (maximum duration of 12 months)

It is expected that this approach will deliver a functional system that will meet the County's needs over the short to medium term. This project charter outlines the expectations and deliverables for the "Money" project, as led by WSCS Consulting Inc.

Project Scope

The scope of the project includes the continuing implementation of financial software components for a twelve month duration – Great Plains, Questica, Paramount and Virtual City Hall (VCH) – as the County's core Finance, Tax and Procurement system with the goal of ensuring the core financial functions (AR, AP, GL, reporting) work as effectively as possible, while simplifying processes and system configurations. A key decision regarding the JAO account structure as opposed to general account utilization is required early in the project.

Key Principles as outlined by the County:

- *Use the systems as intended to be used.*
- *Follow "good enough" model (not every internal control needs automation).*
- *Favour action over over-analysis – review and consider options, decide, commit, and go.*
- *Focus on getting the basics up and running, implementing "good enough" solutions to manage the process – avoid seeking perfection.*

Project Background

- *Keep it simple, design for the 90%, don't get distracted by edge cases, exceptions, and process quirks – focus on building the solutions to address the majority of the need.*
- *Where possible, review existing processes, challenge the status quo, and simplify before implementing.*

Project Purpose and Problem Statement	
*Explain the purpose of this project by describing, at a high-level, **what** will be done. What is this project aiming to achieve? What is its vision? What need or opportunity will it address? What problem will it solve?*	The purpose of this project is to assess the current state of the three financial systems/processes and gather customer requirements (internal and external) to determine the gaps in functionality/utilization, identify root causes of issues and ultimately improve service provision. Problem Statement: The County has been experiencing a problem with its Financial software implementation since inception. In 2017, it awarded the ERP RFP to Diamond Software, now Central Square, for an integrated solution. It had high hopes and promise to deliver the needs of the County but has fallen quite short of the expectations. Customers, internal and external, have expressed frustration with respect to functionality, bugs, reporting. Overall, there is a lack of confidence in information, and significant issues with respect to timeliness and access to information. Much of the work that is undertaken outside of the system resulting in duplication of effort and an over-reliance on the Financial Analysts. This is having a significant impact/delay in the ability for managers and staff to make evidence-based decisions. It is estimated that this is costing approximate $500k per year in duplicated effort.

Strategic Alignment	
*Provide an indication of the project's strategic importance by describing the **linkages** to government priorities or organizational strategies. Also, show how this initiative is supported.*	Supports the Council priorities to 'Update to Core Business Enterprise Software' Key to improving financial sustainability is having accurate, timely access to information.

Project Benefits	
*Identify specific **results-based** benefits that can be expected as a result of completing this project. List specific metrics and targets to be achieved, if known.*	• Improved information management and confidence in the systems. • Better, faster evidence-based decision making as well as reporting to management and Council. • Improved internal controls and functionality as all data will be captured at the time reducing risk of error and omissions. • Improved accountability by putting more information and more sophisticated information in the hands of Managers will better understand their workload, cost and impact. • Staff will be able to spend more time on serving customers through analytics as opposed to data entry. Increase value-added activities and less time duplicating effort. • Customers will be better served as data and information will be more readily available for both the staff, managers and the public.

Goals, Objectives & Performance Measures

Goals	Objectives/Deliverables	Performance Measures
Goals to be achieved by the project and alignment with project purpose.	*Specific objectives and/or deliverables that will signify achievement of goal when finished.*	*Measures that will be used to evaluate success of results achieved.*
1. Create a project plan based upon the consultations and priority areas. 2. Determine best road forward with respect to general ledger vs JAO 3. Identify and implement better, quicker access to data and reporting. 4. Consult with users to assess current state of processes, system utilization, gaps and requirements.	A. Project Charter and Project Management Plan. B. Report recommending JAO/GL structure as well as implications for process/system changes. C. Identify reporting/data requirements and how to best achieve through system changes and access/security. D. Summary of consultations and priorities for workplan. E. Root Cause Analysis	• Acceptance of Project Charter by MAP Steering Committee. • Improvements to the processes with an understanding of each role and elimination of duplication of data entry. • Improved sophistication and analysis of information and time spent delivering services • Customer satisfaction and reduced duplication, IT tickets and system issues.

Goals	Objectives/Deliverables	Performance Measures
5. Address 'bugs' through assessment of processes.	F. FMEA – Failure Modes Effect Analysis G. Process maps illustrating current state with current costs. H. Future state process maps with savings to be realized by implementing recommended changes. I. Communication plan for internal and external stakeholders	• Reduced lost time due to issues/bugs in system. • Reduced tickets and first response 'chat' issues. • Accuracy of data and timeliness.
6. Develop list of priorities for focus during project direction based upon the Pareto principle (80/20) 7. Provide appropriate access to systems and data through security role assessment.	J. Workplan with associated resources. K. Security profiles updates	• Improved robust and leveraging of all application features • Improved audit and control • Improved tracking, integrity, paperless improvements
8. Assess system performance, speed and 'hanging' of batches to determine root causes and options/recommendations.	L. Root Cause Analysis and Recommendations	• Reduced IT tickets, complaints and hanging batches.
9. Process training strategy	M. Integrated training strategy of new functionality as well as processes. N. Documentation including job aids, modules etc	• High employee acceptance of system, self service functionality and increased satisfaction.

Goals	Objectives/Deliverables	Performance Measures
10. Provide project status and results including areas that are included in scope and additional items for future consideration. Ensure that other 'projects – HR and Assets' are contemplated in any recommendations.	O. Report with recommendations on best practices to operationalize the management, monitoring and future improvements to these core software components/solutions.	• Future based workplan for areas to be reviewed after the "Money" project is 'concluded'.

Project "IN" & "OUT" of Scope Items

In and out of scope items to be updated following the development of the priority items.

"IN" Scope	"OUT" of Scope
Describe specific items that WILL be included as part of the work performed by this project.	*Describe specific items that WILL NOT be included as part of the work performed by this project.*
• Assessment of the Financial systems, its utilization, functionality, issues from the customer perspective. • Recommended JAO/GL structure. • Process assessment and recommendations. • Technology solutions to improve access, reporting and services. • Recommendations with respect to possible integration issues for the People/Assets.	Integrations with systems not included in the Project Charter (HR, Assets).

Project Timelines

High-Level Milestones	Target Completion Dates
• Project Charter	• November 15, 2023
• Presentation – JAO-GL structure – Recommended go forward	• November 15, 2023
• Preliminary List of Priorities	• November 15, 2023
• Change Management Strategy	• December 31, 2023
• Changes to JAO-GL if required – system changes	• December 31, 2023 (dependent upon access and decision)
• Consultations and Process Mapping Sessions	• February 1, 2024
• Process Maps – Current State	• March 31, 2024
• Recommended Future State	• April 30, 2024
• Changes to Configurations as required	• Ongoing to Sept 2024
• System and Process Training	• May 30, 2024
• Report with next steps	• September 30, 2024

Project Team

Team Member, Organization	Role on the Project	Required Involvement	
		Estimated Duration	Level of Effort
Provide names and/or titles of core project team members.	*Describe the role & responsibility of each core project team member.*	*Indicate target dates or no. of weeks /months*	*Indicate F/T or days per week/month – To be updated ongoing as detailed GANTT chart completed and accepted*
• Mark Merritt	• Project Sponsor, County	• 12 months	• 2hrs/week
• Tammy Carruthers	• Project Manager, WSCS	• 12 months	• 21hrs/week
• Kelly Stilling	• IT Consultant, WSCS	• 12 months	• 14 hrs/week
• Mike Brosseau	• CIO, County	• 12 months	• 2hrs/week
• Sam Koppeser	• PM/BA, IT, County	• 12 months	• 3hrs/week
• Jerri Whiting	• PM/EA, CAO, County	• 12 months	• 2hrs/week
• Cheryl Judson	• Supervisor, IT, County	• 12 months	• 3hrs/week
• Megan Jamieson	• GM, Corporate SS, County	• 12 months	• 1hr/week
• Teri Trewolla	• Treasurer, County	• 12 months	• 4hrs/week
• Tyson Haedrich	• GM, Eng and Cap, County	• 12 months	• 1hr/week
• Kasey Whitwell	• Admin Coord, Fin/Data, County	• 12 months	• 2hrs/week

Project Partners

Partners	Common Interests & Priorities	Roles & Responsibilities
• Departments	• Improved reporting and access to information.	• Work together on process analysis, testing solutions and improving system utilization.

Project Stakeholders

Stakeholders *are individuals or organizations that have a vested interest in the initiative. They are either affected by, or can have an affect on, the project. Anyone whose interests may be positively or negatively impacted by the project, or anyone that may exert influence over the project or its results is considered a project stakeholder. See separate Stakeholder Register.*

Stakeholders	Interests & Needs	Management Strategies
Identify your stakeholders. List names, groups or organizations.	*Why are they stakeholders? How are they involved? List interests.*	*How will the project manage expectations & meet their needs and requirements?*
• Department Heads • Administrative Staff • Other Department Staff • Customer Service Reps • Customers, Vendors, • Taxpayers • Finance Staff • IT Staff • HR Staff	• Accurate, timely reporting for decision making • Timely, easy access to data to support department heads, Timely response to Calls from customers and agencies • Ability to access systems, provide information, take payments and issue requests for payments to vendors. • Access customer information, make payments, outstanding balances • Undertake all financial transactions and reporting in a timely fashion. • Support departments • Ensure integrations are working as intended. • Ensure alignment with HR systems • Training	• Consultations • Document issues and priorities • Project plan and updates • System changes and process impacts. • Change management strategy. • Joint training • Communications will be developed and sent to all stakeholders

Other Related Projects & Initiatives

Project/Initiative	Interdependency & Impact
• People Project • Assets Project	• Improved process, procedures and technology integrations.

Project/Initiative	Interdependency & Impact

People & Organization Change Impacts

Description of Impact	Impact Management Strategies
• **All finance and other departmental staff and management will be impacted due to the roll-out possible changes in JAO/GL structure, access to reporting and data entry at source. Current system access may change as well as securities.**	• **The main strategy to handle this change will be handled via comprehensive communication and training for all staff. Staff will be involved in process assessment, developing the changes and therefore fully aware of the implications.**

Project Communications

Audience	Information Needs	Format & Timing	Responsible
• Monthly Status Reports – MAP Steering Committee	• Project Status • Tracking and resolution of risks and issues	• Monthly Status Report – to be sent with invoice and day prior to MAP meeting commencing October 25, 2023	• Project Manager, WSCS

Project Risks

Risk	Likelihood	Impact	Risk Response
• System functionality	• Moderate	• High	• Work through issues, try different options in the lab environment
• Access when issues occur	• Moderate	• High	• Work with staff to identify issues as occur – hop on to a GOTO meeting
• Willingness to change business processes	• Moderate	• High	• Change management plan – Communications, Training

Critical Success Factors

- To successfully implement changes that will improve access to data and reporting.
- Reduced duplication, improved confidence in the products.
- Simplified systems integration.
- Seamless processes for the customer.

Assumptions & Constraints

Assumptions	Constraints
• Access to systems and staff in a timely manner • No customizations are required • Project will be done with existing staff and consultants • All operational key resources will be available – internal/external	• Timing and access to live systems – will work through these • Resource utilization requirements include IT resources.

Sign-Off

Project Sponsor

Name & Organization	Signature	Date
Mark Merritt, GM Financial and Data Services		2023/11/16

Project Manager

Name & Organization	Signature	Date
Tammy Carruthers, WSCS Consulting Inc.		**2023/11/15**

APPENDIX B: Endeavour Solutions - GP "Way Forward" Recommendations

Mark Dowe, Endeavour Solutions

Introduction:

As the adage says, 'time is money', and this as true with Dynamics GP as it is with anything else. Everyone wants to get the most out of their software and hardware investments, and also to have the ability to run needed applications with as few problems and irritants as possible. This document contains information on the performance and maintenance of GP and makes generalized recommendations that I hope will help your organization make informed decisions regarding their present system any future choices of a Dynamics GP computing environment.

Background:

Before I begin, I'd like to point out that Microsoft published an official optimization and performance white paper last revised in September of 2017. Although it may already be a little dated, it still covers many topics at a level I couldn't hope to duplicate in this document -- which is a simple, non-authoritative, compilation of knowledge from forum postings and accumulated personal experience (and a touch of personal opinion). Most of the white paper is as relevant as it ever was. While I can't avoid some overlap, as it is one of the direct sources used for this document, I am for the most part going to not going to try to just reiterate it. It is available at the following link, and should certainly be consulted directly on matters of GP performance – particularly by technically minded IT personnel looking for specifics: https://learn.microsoft.com/en-us/dynamics/se/gp/mdgp2010_whitepaper_performance

Hardware:

Background:

- It shouldn't be surprising that the only official requirements documentation for Dynamics GP comes from Microsoft, and I will present that as the basis of my recommendations. However, the focus of Microsoft's recommendations is largely on real physical hardware. Virtual environments are mentioned as working, but requirements for underlying hardware are not entirely clear, and some recommendations don't make much sense once removed from physical hardware. I'll explore this matter a little more later in this document, but for now I'll just present the information as is with that caveat.
- Microsoft's recommended hardware specifications for different business and load scenarios can be found at the following URL:

https://learn.microsoft.com/en-us/dynamics/s-e/gp/mdgp2018_system_requirements

Recommendations:

Good:

- You should align the needs of your business with their scenarios and choose hardware that least meets their recommendations.

Better:

- Choose server hardware that meets the needs of a business scenario more demanding than your own.

Best

Microsoft's hardware recommendations tend to not always reflect the latest in hardware. At the time of this writing, the CPU power and memory specifications in their document tend to be quite modest by today's standards, and the availability of hardware like fast non-volatile disk technologies are not mentioned at all. Minimally, you should meet Microsoft's recommendations, but choose a server that leverages broadly compatible, but relatively modern technology at the time of purchase (this is, of course, always changing!). There is always going to be some nominal risk that new hardware will have compatibility issues with old software, but I know of know of no specific examples where GP was so affected (operating system updates seem to be pose a bigger risk.) Even so, there have certainly been times when top spec hardware could be excessive for Dynamics GP, or at least for SQL. For example, the edition of SQL Server you choose still constrains the CPU hardware the database can use (much less than it used to), but still

consider this when choosing hardware to avoid wasting money. For example, the current limits on CPU cores by edition is shown below:

SQL Server edition	Maximum compute capacity for a single instance (SQL Server Database Engine)	Maximum compute capacity for a single instance (AS, RS)
Enterprise edition: Core-based licensing [1]	Operating system maximum	Operating system maximum
Developer	Operating system maximum	Operating system maximum
Standard	Limited to lesser of 4 sockets or 24 cores	Limited to lesser of 4 sockets or 24 cores
Express	Limited to lesser of 1 socket or 4 cores	Limited to lesser of 1 socket or 4 cores

One final point that blurs the distinction between hardware and software relates to memory usage in SQL Server (not specific to GP). To date at least Microsoft's SQL Server tends to allocate as much memory as it can over time. In doing so it can go past the point of diminishing returns, and to a point where it competes with the operating system and other programs dramatically decreasing performance (and leaving IT personnel with the impression it requires far more memory that it really does). In my experience you should always cap the amount memory SQL server can allocate, and keep this in mind when choosing hardware! This issue is discussed here at the following URL: https://www.brentozar.com/blitz/max-memory/

Software:

Background (Backups)

SQL Database Maintenance Plans: Backups

Database backups and other maintenance are often covered together, but with some overlap, they generally serve slightly different purposes. Respectively, that is data safety vs database performance. I'll largely cover them separately, but it should be self-apparent that every company's 'maintenance plan' should first and foremost includes regular database backups. No disaster recovery plan would be worth much without backups. Also, database backups may also serve as a layer of protection against some kinds of potentially serious day to day mistakes, and or even some deterrent against some kinds of insider fraud: the later because (depending on retention) it can make some alterations possible to trace. I'm most just going to explain technical options, but I will

take a moment to state the obvious: database backups going to the same *physical drive* of the same computer, and at the same location as the active databases isn't as safe as having them backed to a different drive, and then copied to a different physical location.

Types of backups available for Microsoft's SQL Server

While this document is being created in part to help rank technical recommendations, the types of backups Microsoft's SQL server can make is really another example where what is 'good', 'better', and 'best' is probably better viewed of as making different trade-offs appropriate to the needs of your organization. Unfortunately, Microsoft chose the terminology "Recovery Model" and the names "Simple" and "Full", and of course it is human nature to just assume "Full" is always better than "Simple". In reality, it just isn't that *simple*. I'll start by explaining roughly what the difference is between the two.

1. The "Simple" recovery model is probably what most people immediately think of when we use the term back up. It is basically taking a complete copy of a database into a file which is usually compressed, and more rarely, encrypted. The typical nightly back-up that allows a restoration of the database to the state the data was in at the time of the backup is this kind of backup. It is generally called a 'full' backup (which is rather confusing in the context of a discussion of "simple" vs "full" recovery models!) While taking these backups isn't exactly light weight, it is usually scheduled outside of business hours when it has little consequence. They may also be manually initiated whenever work is about to involve a broadly scoped or potentially risky change to the databases.

2. For the "Full" recovery model, there is more to unpack. When a database has "full" recovery enabled, it is not just rewriting changes back to the database, but also keeping track of changes made to the database in a separate file call the "transaction log". Then, in addition to a "Simple" backup that still forms the starting point of any restore, we take transaction log backups at periodically throughout the day as users work (these are logs of changes!). These have a performance cost, but it is much lower than doing the complete and comprehensive 'full' backups of the Simple recovery model type. Together with the 'full' backup file, the transaction log backups then allow a database to be restored to a specified time during the day when those backups were taken. A separate function must be run periodically (generally) daily or weekly to trim the SQL

transaction logs back to the point where they were backed up, so they don't grow infinitely (this is called 'shrinking' the logs).

This additional functionality of the 'Full' recovery backup comes at the cost of some 'during the day' performance and additional space for the backups. Of more consequence than the extra diskspace is the added complexity in configuring the backup plan. Probably the most common backup-related issue I encounter with our customers involve misconfigured combinations of 'Full' recovery model databases and incomplete backup plans that result in no shrinkage of logs occurring. In this case transaction logs grow until they eventually consume all disk space on a drive, and eventually SQL throws an error as it can't continue with no space. For organizations with full IT departments and experienced SQL system administrators this generally less of a concern.

Whether or not the "Full" recovery model system provides any real gain depends on the needs of the organization. Certainly, smaller companies with light usage have essentially little to nothing to gain, and if key GP users are accustomed to requesting backups before they make sensitive changes (usually they are) then this is likely true for many medium and larger organizations as well. Organizations with heavy database usage that feel the potential of having to revert back an entire day in a worst-case scenario is an unacceptable risk, or they have other reasons for providing the option of a partial-days restoration, this is worthwhile functionality.

Recommendations:

Good:

- "Simple" recovery model based backup plans are fine for most organizations.

Better:

- Organizations with speciality IT can implement "Full" recovery model solutions for that small gain of functionality it provides.

Best:

- For smaller companies or those with light database usage, "Simple" recovery is probably best. For large organizations with heavy database usage and suitable IT, or those organizations that (for whatever reason) have specific requirements for it, the best option is "Full" recovery.

Background (Database maintenance)

SQL Database Maintenance Plans: Integrity and Performance

Like most things in life, the performance of a database may degrade somewhat with time, particularly if it is not maintained. Outside of regular backups which I've already discussed, the bulk of the maintenance plans with SQL (and thus GP) are mostly aimed at recovering performance. This maintenance typically amounts to a few typically automated procedures that may reorganize or re-index stored data. There is one notable exception, Check Database Integrity, with is used to detect, and sometimes fix, problems with databases.

Information on database maintenance in SQL and GP can be found online in Microsoft's own documentation and in various forums and blog postings, and as perhaps you'd expect recommendations don't always fully agree. I'm not going to attempt to adjudicate opinions on these matters, but just present a rough consensus of the information. Performance differences with regular maintenance tends to be very subtle anyway, so I don't think it would be realistic to expect some nuances to dramatically change outcomes anyway.

The non-backup related maintenance tasks are:

Check Database Integrity: The is the DBCC CHECKDB command. It's a primarily a check of the integrity of objects (e.g. Tables) in a specified database. It can repair some problems should they occur, but mostly it is diagnostic, and thus much less useful if nobody periodically checks the logs! Fortunately, real problems tend to be rare.

Reorganizing Indices – Reorganizing database indices is many ways analogous to defragmenting a hard disk. Reorganizing an index is a relatively light weight 'online' operation that doesn't take the database offline. It can theoretically help with space and performance, and probably makes the most sense when databases are under heavy use between index rebuilds.

Rebuilding Indices -- As the name implies, this operation rebuilding indices completely. While it serves a similar purpose to a reorganization it is more comprehensive than reorganizing, and it an 'offline' operation.

Updating Statistics – When SQL is issued a query, under the covers it compiles a query plan to fulfil that query. The query plan constructed is influenced by collected statistics – which are to some degree collected automatically and can qualify distributions of data (e.g. like making a histogram). Distributions may be approximated with a sample of the data. A way to perform the query can be chosen that works better on data with a given

type of distribution. Updating statistics ensures query plans are compiled using up-to-date statistics. Microsoft recommends "not updating statistics too frequently" because recompiling queries has a performance cost (so there is a trade-off). In general, it is recommended to update statistics after doing either of the operations on indexes rather than before.

Rebuilding stored procedures – This last one is a task once provided as a script with DynamicsGP and is still buried in the GP menus. I can't say I was more than vaguely aware of it before compiling this document. Under the covers, it involves the use of the SQL *sp_recompile* stored procedure with forces some SQL objects (stored procedures, triggers, etc.) to be recompiled on their next execution. Microsoft's own documentation for SQL states, "proactive execution of this stored procedure is usually unnecessary" and I don't personally see what this offers over just allowing it to be done via the indexing and statistics functionality of the previously outlined tasks. I've included it for thoroughness, but I'm not going to recommend it for a general maintenance plan.

Maintenance requirements for any organization are to some degree a reflection of how intensively the databases are being used, so it isn't entirely sensible to make universal pronouncements, but in general:

Recommendations:

Good:

- For light usage in small organizations, a plan that does daily backups and perhaps checks database integrity occasionally is probably enough.

Better:

- A maintenance plan that does the above, and occasionally (say weekly or monthly) rebuilds indices and perhaps updates statistics would like serve databases in moderate use. A plan that combines all the maintenance procedures will serve those with heavier usage.

Best:

- Optimized maintenance plans designed by people generally regarded as experts are available online (e.g. https://ola.hallengren.com/) and certainly could be adapted by organizations with IT that is moderately familiar with SQL.

Background (Antivirus programs)

Antivirus/Antimalware Software

There are two common ways antivirus software and antimalware software, which for simplicity I'm simply going to refer to as antivirus software, may function. Antivirus software may run as a scan of files on a filesystem and memory at a scheduled time or when initiated by an administrator. This kind of scan does not typically cause any specific issues with Dynamics GP and SQL server, as it tends to be done only as needed and when the impact will be minimal. However, background antivirus software which scans files "on access" may have performance implications, and it has long become a ubiquitous feature of most computing environments. Usually, the performance losses this may cause are within acceptable limits, but at times some Antivirus suites have been found to cause very significant performance degradation. Microsoft suggests configuring antivirus software to exclude the location of SQL database and log files, and to exclude files with database extensions ('.mdf' and '.ldf'). Some virus checkers have also been known to cause functional issues with Dynamics GP. Even very recently I've encountered issues Sentinel One (for example). In these cases, the Dynamics Installation directory on the terminal server (or workstation) and '.dic' files types should be excluded as well. I will also add what I hope is an obvious point – installing multiple 'on-access' security software packages on the same computer (even when possible), is likely to add a significant performance penalty while giving diminishing returns in safety.

Recommendations:

Good:

- Virtually every organization has some virus checking package installed, and in most cases significant loses of performance or functional issues are not a problem. For these organizations, an "if it isn't broken, don't fix it" approach is reasonable.

Better:

- Generally, the exclusions mentioned aren't especially difficult to implement and long as security hasn't been totally undercut -- with users all running with administrative privileges or filesystem permissions being altered to be hopelessly permissive for example -- any additional risk is probably insignificant.

Best:

- This next point would not apply to most organizations so perhaps 'best' isn't the right term, but if implementing the recommended exclusions as a pre-emptive performance tune is itself problem (perhaps due to organization-wide rules), contacting technical support of the Virus Checker vendor and asking for their specific recommendations might at least be an avenue that could be pursued should their product be suspected causing issues.

Background (VM hosts)

Virtualized Hardware Environments

The use of virtual machines as servers – often leased through a hosting provider rather than run on purchased hardware -- has increasingly become the norm in recent years. In my experience, it is now *far* more common than using 'real' dedicated (one OS layer on hardware, non virtual) servers. When dealing with non-virtual hardware and physical drives, some modest performance gains could be achieved by delegating the load in SQL to multiple drives. Even in the absence of a RAID system, databases, log files, and the temporary database might be divided over different physical drives. Often the 'disks' in a VM environment are not physical drives but rather partitions or even large files on a single physical non-volatile medium of some kind. Thus, this once common strategy won't really help performance any more than would for partitions on the same drive of an actual computer. There may be other reasons to continue to use this strategy for SQL installations, be it organization, aesthetics, or honestly -- simply because the layout is familiar – but unless you know the actual hardware layout under the VM, probably not performance. Note that this same reality could also undermine the precaution of trying to put SQL backups and databases on different drives (makes little difference if it all the same physical drive), emphasizing that it can be important to understand your backup plans.

Specifying cores and memory in virtual systems is typically more matter of allocating and prioritizing computing resources than rigidly mapping specific cores or memory to a specific VM. Thus, it doesn't *necessarily* follow that a VM with impressive sounding specifications is going to run your program faster, or the reverse. Obviously, the real underlying hardware including the speed of the processor and its suitability for parallelism, the speed and seeking ability of the non-volatile storage (newer technology has a big advantage over older spinning disks/moving head hard-drives of the past in this second category), the entire load that system is under (how many VMs are running on that server, and what resource are they using?), etc., still ultimately defines the limits of the speed at which any given software application is going to run. However, in the case of hardware

running virtual machines an adequate system could underperform expectations simply because resources are being allocated inappropriately. The point here that you should monitor the demands (CPU, Memory, I/O, network throughput, being put on your VMs) and put your resources where they matter.

This all said, to my knowledge Microsoft doesn't yet give a lot of *VM-specific* recommendations for Dynamics GP, and I'm not familiar enough with the capabilities of current systems to do so either. As such I won't specify good/better/best recommendations, but I can at least offer a few general commonsense recommendations.

Recommendations:

- As I already said indirectly, avoid trying to optimize the performance of modern VM systems using concepts that no longer apply.
- One big advantage of virtual machines is the ability to adjust and reallocate resources. If leasing VMs from a hosting provider start with modest VM specs that would seem comparable to a suitable, traditional physical server, and then engage your provider to adjust them up or down to meet your needs.
- If buying a server to host your own virtual machines, I can only suggest gauging your new system requirements using the performance of your current hardware as a reference, or that failing simply by asking a knowledgeable hardware vendor. GP is an old application with what are now modest requirements, and this isn't likely to change into the future. In general, dedicated GP infrastructure may well not require the absolute bleeding-edge of hardware to adequately meet your organization's needs.