### Nebraska Information Technology Commission

# **Project Proposal Form**

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

Project TitleNebraska eLearning ProjectAgency/EntityNebraska Department of Education

#### Notes about this form:

- 1. USE. The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel..." Neb. Rev. Stat. § 86-516(8). "Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions." Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
- WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM? See NITC 1-202 available at <u>http://nitc.ne.gov/standards/</u>. Attachment A to that document establishes the minimum requirements for project submission.
- 3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each "IT Project Proposal" created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.
- 4. QUESTIONS. Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

Nebraska Information Technology Commission

#### Project Proposal Form 2015-2017 Biennial Budget

#### **General Information**

Project Title	Nebraska eLearning Project
Agency (or entity)	Nebraska Department of Education
Contact Information for this Project:	
Name	Brent Gaswick
Address	301 Centennial Mall S
City, State, Zip	Lincoln, Ne 68509
Telephone	402-471-3503
E-mail Address	Brent.gaswick@nebraska.gov

#### **Executive Summary**

Provide a one or two paragraph summary of the proposed project. This summary will be used in other externally distributed documents and should therefore clearly and succinctly describe the project and the information technology required.

#### Goals, Objectives, and Projected Outcomes (15 Points)

#### Project Overview: Nebraska eLearning Project

The Nebraska eLearning Project would center on the creation and procurement of high quality electronic learning objects for distribution to PreK-12 public schools at no cost to schools, in support of the statewide BlendEd Initiative, the NITC committee's digital education goals and as an enhancement to the Data Dashboard currently being developed by NDE, while providing an in-depth, hands-on professional development process for Nebraska teachers, pre-service teachers and content specific undergraduate students.

The eLearning Project would be led by the Nebraska Department of Education in partnership with ESUs, NET, the University of Nebraska System, State College system, PreK-12 schools and additional State of Nebraska agencies.

This program is an investment to help reduce costs for Nebraska PreK-12 school districts by providing a high quality, extensive library of electronic learning objects to schools at no cost.

Provide real-world job experience for college students from multiple disciplines.

Make available intense real-world professional development activities for fellowshipped teachers.

Facilitate coordination and expansion of exemplar projects and resources already being done in individual or regional settings to provide equitable educational opportunities statewide.

#### Participants:

Certified preK-12 educators

Pre-service education majors Undergraduate computer science students/ IT students Undergraduate graphic design students Content specialists

#### **Anticipated Partners:**

NDE ESUs NET University of Nebraska System Nebraska State College System Private College System Community College System Nebraska State Historical Society Nebraska Library Commission Nebraska Game and Parks Network Nebraska

#### **Goals:**

- Successfully integrate access to instructional content and professional development activities to student assessment data as part of an individualized learning platform. (Integrate the Data Dashboard with content).
- Provide high quality learning objects, lessons or books equally to all Nebraska preK-12 schools at low cost or free of charge.
- Develop and provide high quality professional development to current preK-12 Nebraska Educators and Pre-service education students.
- Establish long term partnerships between preK-12 education, state agencies, post secondary institutions and ESUs

#### Measures of success:

Successful integration of a statewide Learning Object Repository system into the Data Dashboard system Successful adoption of a state wide LOR system as part of Network Nebraska Production and adoption of Nebraska aligned content for preK-12 schools Successful adoption of statewide Meta tagging standardization guidelines Explore utilization of a third party evaluation model such as Bright Bytes statewide

#### **Deliverables:**

Statewide Learning Object Repository Nebraska specific Metadata standards guidelines Nebraska specific Open Education Resources High quality professional development resources

High quality learning objects Post secondary internship experiences Free learning objects, courses and instructional tools 24/7 365 access to learning equity of access

#### Project Justification / Business Case (25 Points)

#### **Project Breakdown**

#### eLearning Project Director

To ensure the success of this project, it is proposed that 1.0 FTE be created and assigned to NDE as part of the Technology Learning Center Team. The eLearning Project Director would be the only position added to NDE as part of this project and would be responsible for oversight of the project in cooperation with the Director of the Network, Education and Technology team currently employed by NDE. Responsibilities of this position would include coordination with partner agencies, oversight of funding awarded to contracting agencies and project management. This position is a critical role in the project, because they will be charged with fostering and maintaining partnerships that will ultimately determine the success or failure of the project.

#### **Tier 1 - Content Creation and procurement**

This component of the project would need a physical office work

space dedicated to content creation

vork OER adoption Meta tagging standardization Produced Content Procurement Content Creation

- Gamification research and development
- Master course shells
- Learning objects
- Individual concept lessons

Content Creation Team

- 1 Fellowship teacher leader
- 1 Classroom teacher \$500 incentive per item
- 1 Programing intern \$10 per hour x  $\hat{5}$  hours avg. = \$50
- 1 Design intern \$10 per hour x 5 hours avg. = \$50
- 2 Pre-service intern \$10 per hour x 5 hours avg. = 100

Average cost per content item = \$700

#### **Tier 2 - Professional Development**

Fellowship program

- Partnership with post secondary institution(s), ESUs and school districts
- 5 or 6 Nebraska educators seeking a Master's degree

and on active sabbatical

- Duration of one year
- Each person receives \$40,000 per year fellowship
- Help supervise content creation teams, develop
- professional development courses and provide

in-person professional development trainings

Training development and inservice

- Develop high-quality Nebraska-focused professional development content for use by any Nebraska PreK-12 school, free of charge
- Provide on-site or regional professional development opportunities for educators at no cost to them or the district
- Money will go to site fees, stipends for teachers attending, materials and content development and hosting

#### **Tier 3 - Integration and Support**

Dashboard Integration:

Develop a process of integrating instructional content for students and educators into the Dashboard Single sign-on support and adoption Write customized API codes to allow communication between Dashboard and LOR Identify and deploy hardware required to support successful integration Statewide help desk support or development

Learning Object Repository:

Creation of advisory team to explore and recommend a statewide content repository solution (NDE, NET, ESUCC, PreK-12, Post-secondary)

Partner with Network Nebraska to provide the selected solution as a service of Network Nebraska to help develop a sustainable LOR system.

#### **Technical Impact (20 Points)** Current Projects this will support:

Teacher/Principal Evaluation A QuESTT- school accountability Statewide Longitudinal Data system Early Childhood initiatives, including Step Up to Quality NeSA - state accountability BlendEd Initiative Career and Technical Education

\*This list is just a small sample of the projects that would benefit from the Nebraska eLearning project. Ultimately, this project, if funded and deployed successfully, has the potential to impact all Nebraska learners, PreK-20, public, private or homeschool.

#### **Cost savings:**

Reducing the number of LOR systems being implemented will result in cost savings to PreK-12 schools, ESUs and Nebraska State Agencies by allowing for single-point negotiations and reduction of per-user cost due to the scale of the project.

Development of a statewide LOR and high-quality content will reduce the need for school districts to purchase devices for students, as the access this project provides will allow for an expansion of "Bring your own device" programs. Students can access learning with their own devices anytime, anywhere.

With access to the LOR, schools will have access to a wide variety of high-quality, digital learning objects, ranging from digital textbooks to royalty-free graphics. This will save schools money by the reduction in the need to purchase these resources from a third party provider.

High quality digital professional development resources will reduce cost to districts in multiple ways; the first is the overall cost for the professional development content and instruction, second, it will allow the teacher to participate in high-quality professional content without leaving their classroom, which reduces district cost for substitutes.

In time, the State of Nebraska will build capacity for sustainability through a cadre of highly effective master teachers trained to effectively create Individualized Learning Environments for students which will provide their school districts with a local expert to help mentor other teachers without the need for bringing in expensive outside experts.

#### **Preliminary Plan for Implementation (10 Points)**

#### **Proposed Project Timeline\***

\*The timeline anticipates one year of lead time prior to receiving actual funding. All dates are estimates and subject to change.

#### Prior to 2016:

Begin establishing needed partnerships for successful implementation of the eLearning project upon receiving funding.

#### 2016-2017:

July

Hire Project Director at NDE Make initial Fellowship awards Award contracts to partnering agencies

#### August

Establish physical location for content creation and professional development activities Establish LOR, OER and Metadata advisory groups

#### September

Begin work on OER, Meta tagging projects Initial internship positions filled for content creation teams Establish work group for data dashboard Integration work

October - May

Development of custom content Development of professional development content Work on OER adoptions Work on Meta tagging standards Research on LOR

June

Select statewide LOR and begin deployment

#### 2017-2018:

August

Provide Meta Tagging standards document statewide Provide LOR system statewide Deliver first round of OER, custom content and professional development on LOR

September - June

Continue OER, content creation, and professional development activities Provide training to all partners on the new LOR, Meta tagging standards and content Begin work on integration of LOR content with the Data Dashboard Maintenance of support on LOR Complete initial project evaluation

#### 2018-2019:

Continue professional development activities and content development Continue OER, content creation and adoption projects Continue LOR utilization Begin integrating LOR content with the Data Dashboard Expand and complete second project evaluation

#### 2019-2020:

Continue professional development activities and content development Continue OER, content creation and adoption projects Continue LOR utilization Expand integration of LOR content with the Data Dashboard Expand and complete third year project evaluation Complete new project objectives and goals to guide the next four year project cycle.

12. Describe the ongoing support requirements.

#### Risk Assessment (10 Points)

LOR adoption has several risks associated with it. The first is reaching a consensus among the committee on a centralized solution which could cause the whole project to fail or a continuation of an environment where multiple LORs are adopted on a regional or local level. The careful selection of committee members from a variety of organizations, clearly defining that this system needs to be a statewide solution that is part of Network Nebraska and the direction of the Department of Education's eLearning Project Leader will help ensure that this project does in fact succeed.

The cost of the LOR system is another area of risk as unforeseen problems and costs could be pushed outside the budgeted amount. The committee's provision of clear expectations for the system and adherence to the proper NITC RFP protocols will keep the cost of the system in line with expectations and ensuring that the system is effective.

Successfully creating and sustaining a partnership between all parties needed for this project will be a major risk. The need for a single person to coordinate and lead this partnership will be essential to this project. The NDE eLearning Project director position will be charged with making sure that this risk is mitigated and the project is successful by sharing a single vision with all partners and overseeing and reporting on the project at all levels

#### Financial Analysis and Budget (20 Points)

15. Financial Information

The "Financial" information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.)



Worksheet in Project Proposal Form.xls

#### Nebraska Information Technology Commission Project Proposal Form Section 8: Financial Analysis and Budget

(Revise dates as necessary for your request.)

	Estimated Prior		Request for		Request for		Request for		Request for	Futuro	Total
	Expended	F١	(2016 (Year 1)	F١	(2017 (Year 2)	F١	(2018 (Year 3)	FΥ	(2019 (Year 4)	Future	Totai
1. Personnel Costs		\$	88,000.00	\$	90,000.00	\$	92,000.00	\$	94,000.00		\$ 364,000.00
2. Contractual Services										•	
2.1 Design											\$ -
2.2 Programming											\$ -
2.3 Project Management											\$ -
2.4 Other											\$ -
3. Supplies and Materials											\$ -
4. Telecommunications											\$ -
5. Training											\$ -
6. Travel											\$ -
7. Other Operating Costs		\$	2,500,000.00	\$	2,500,000.00	\$	2,500,000.00	\$	2,500,000.00		\$ 10,000,000.00
8. Capital Expenditures											
8.1 Hardware											\$ -
8.2 Software											\$ -
8.3 Network											\$ -
8.4 Other											\$ -
TOTAL COSTS	\$-	\$	2,588,000.00	\$	2,590,000.00	\$	2,592,000.00	\$	2,594,000.00	\$-	\$ 10,364,000.00
General Funds		\$	2,607,000.00	\$	2,607,000.00	\$	2,607,000.00	\$	2,607,000.00		\$ 10,428,000.00
Cash Funds											\$ -
Federal Funds											\$ -
Revolving Funds											\$ -
Other Funds											\$ -
TOTAL FUNDS	\$-	\$	2,607,000.00	\$	2,607,000.00	\$	2,607,000.00	\$	2,607,000.00	\$-	\$ 10,428,000.00

# Nebraska eLearning Project



Systems of Support for all Nebraska learners



# Nebraska <u>eLearning Project</u>

# A cooperative effort to support personalized learning for all Nebraska learners

The Nebraska Department of Education is requesting additional budget authority to support the Technology Learning Center's mission under Nebraska statutory authority: Sections 79-1302, 79-1303, 79-1304, 79-1305, 79-1306, 79-1307 and 79-1310.

The Technology Learning Center was established to serve the State of Nebraska's PreK-12 schools with the following goals, and objectives:

- To provide clearinghouse services for information concerning current technology projects as well as software and hardware development
- To serve as a demonstration site for state-of-the-art hardware appropriate to an educational setting
- To provide technical assistance to educators in working with hardware and software
- To provide in-service and pre-service training for educators, in conjunction with other public and private educational entities, in the use of computers, telecommunications, and other electronic technologies appropriate to an educational setting
- To sponsor activities which promote the use of technology in the classroom
- To serve as a liaison between business and education interests in technology communication
- To experiment with various applications or technology in education
- To assist schools in planning for and selecting appropriate technologies
- To design, implement, and evaluate pilot projects to assess the usefulness of technologies in school management, curriculum, instruction, and learning
- To seek partnerships with the Nebraska Educational Telecommunications Commission, the University of Nebraska, the state college system, educational service units, the Nebraska Library Commission, and other public and private entities in order to make effective use of limited resources
- To encourage sharing among school districts to deliver cost-efficient and effective distance learning
- To establish an electronic data network and access to appropriate databases for learners and educators through purchase of necessary hardware, software, and licenses for national data bases. The center shall provide assistance to schools for training communication costs and, through work with Nebraska educators and learners, shall develop state-level databases
- To identify, evaluate, and disseminate information on school projects which have the potential to enhance the quality of instruction or learning.

The Technology Learning Center exists in statute and with 1.5 staff members, there is no funding assigned to the Technology Center to carry out any work. The Nebraska eLearning Project proposal is intended to provide the Technology Center with funding to work with partners in order to carry out its charge.



### Project Overview: Nebraska eLearning Project

The Nebraska eLearning Project would center on the creation and procurement of high quality electronic learning objects for distribution to PreK-12 public schools at no cost to schools, in support of the statewide BlendEd Initiative, the NITC committee's digital education goals and as an enhancement to the Data Dashboard currently being developed by NDE, while providing an in-depth, hands-on professional development process for Nebraska teachers, pre-service teachers and content specific undergraduate students.

The eLearning Project would be led by the Nebraska Department of Education in partnership with ESUs, NET, the University of Nebraska System, State College system, PreK-12 schools and additional State of Nebraska agencies.

- This program is an investment to help reduce costs for Nebraska PreK-12 school districts by providing a high quality, extensive library of electronic learning objects to schools at no cost.
- Provide real-world job experience for college students from multiple disciplines.
- Make available intense real-world professional development activities for fellowshipped teachers.
- Facilitate coordination and expansion of exemplar projects and resources already being done in individual or regional settings to provide equitable educational opportunities statewide.

#### Participants:

- Certified preK-12 educators
- Pre-service education majors
- · Undergraduate computer science students/ IT students
- Undergraduate graphic design students
- Content specialists

#### **Anticipated Partners:**

- NDE
- ESUs
- NET
- University of Nebraska System
- Nebraska State College System
- Private College System
- Community College System
- Nebraska State Historical Society
- Nebraska Library Commission
- Nebraska Game and Parks
- Network Nebraska



NEBRASKA DEPARTMENT OF EDUCATION

# **NeBooks Project**

The current NeBooks Project that is being facilitated by NDE is just one example of the content creation that can be achieved through this project. Currently, the NeBooks Project is an unfunded voluntary effort on the part of multiple state agencies, ESUs, and schools.

The participants create custom eBooks and provide them free of charge to anyone in the state that would like to use them. If the eLearning project was funded, this program could be quickly expanded to provide additional high quality eBooks to Nebraska schools free of charge. This funding would result in cost savings for districts in material procurement costs, and also provide a rich source of learning objects for students to explore and learn from independently.

To find out more visit: http://www.education.ne.gov/nebooks/

### **Goals:**

- Successfully integrate access to instructional content and professional development activities to student assessment data as part of an individualized learning platform. (Integrate the Data Dashboard with content).
- Provide high quality learning objects, lessons or books equally to all Nebraska preK-12 schools at low cost or free of charge.
- Develop and provide high quality professional development to current preK-12 Nebraska Educators and Pre-service education students.
- Establish long term partnerships between preK-12 education, state agencies, post secondary institutions and ESUs

# **Intel Teach Elements**

The Nebraska Department of Education and the ESUCC cooperatively obtained a grant from Intel to implement the Intel Teach Elements courses in Nebraska. The grant was provided by Intel for the customization of the courses to fit Nebraska standards, to deploy the courses in an LMS environment accessible across the state, and to develop a cadre of trainers. These courses are free professional development courses for Nebraska educators provided in multiple formats from facilitated to self-paced online. Through the eLearning Project, NDE would work with multiple partners to individualize free content and develop Nebraska content for teachers to learn how to effectively implement personalized learning in their

#### **Measures of success:**

•Successful integration of a statewide Learning Object Repository system into the Data Dashboard system

Successful adoption of a state wide LOR system as part of Network Nebraska

•Production and adoption of Nebraska aligned content for preK-12 schools

•Successful adoption of statewide Meta tagging standardization guidelines

•Explore utilization of a third party evaluation model such as Bright Bytes statewide

#### **Deliverables:**

- Statewide Learning Object Repository
- •Nebraska specific Metadata standards guidelines
- •Nebraska specific Open Education Resources
- •High quality professional development resources •High quality learning objects
- •Post secondary internship experiences
- •Free learning objects, courses and instructional tools
- •24/7 365 access to learning

•equity of access





## **Organizational Structure of Project:**

# **Open Educational Resources**

(**OER**) are freely accessible, openly

licensed documents and media that are useful for teaching, learning, and assessing as well as for research purposes. Although some people consider the use of an open file format to be an essential characteristic of OER, this is not a universally acknowledged requirement.

The OER portion of this project will be to find high quality OER content already available and align it to Nebraska State Standards and brand it as a Nebraska resource to help students connect with it.

## Anticipated Costs:

#### Year 1 (2016-2017)

eLearning Director	\$88,000
Metadata Standardization	\$75,000
OER Adoption	\$180,000
Content Creation	\$250,000
Content Procurement	\$110,000
Professional Development	\$300,000
LOR Project	\$1.2 million
Dashboard Integration	\$300,000
Project Offices	\$90,000
Mise	\$14,000
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#### Year 2 (2017-2018)

eLearning Director	\$90,000
Metadata Standardization	\$10,000
OER Adoption	\$180,000
Content Creation	\$285,000
Content Procurement	\$150,000
Professional Development	\$320,000
LOR Project	\$700,000
Dashboard Integration	\$800,000
Project Offices	\$50,000
Evaluation	\$10,000
Misc	\$12,000



#### Year 3 (2018-2019)

eLearning Director	\$92,000
Metadata Standardization	\$5,000
OER Adoption	\$175,000
Content Creation	\$290,000
Content Procurement	\$150,000
Professional Development	\$300,000
LOR Project	\$300,000
Dashboard Integration	\$1.2 million
Project Offices	\$50,000
Evaluation	\$30,000
Misc	\$15,000

#### Year 4 (2019-2020)

(complete revaluation of project needs would be done during this vear)\* eLearning Director.....\$94,000 Metadata Standardization......\$0 OER Adoption.....\$180,000 Content Creation.....\$300,000 Content Procurement.....\$260,000 Professional Development.....\$300,000 LOR Project......\$150,000 Dashboard Integration.....\$1.2 million Project Offices.....\$50,000 Evaluation......\$60,000 Misc.....\$13,000

\*Yearly reports will be made available to the public as to the use of funds as part of this project. An advisory group made up of representatives from the project partners will meet yearly to discuss project directions and to adjust goals, budgets and needs to be met as part of the project.

## Hardware vs. Content

Nebraska schools have made an effort to purchase devices for students to use as indicated in the graphics showing Instructional Devices per student and 1:1 adoptions in the state.

Often times for schools, after spending money for the hardware, they don't have enough money for content to use with the devices. Free content, while widely available, is often difficult to find and organize for teachers and students. The Nebraska eLearning Project would help solve this by providing high quality digital content free of charge to the district in a single location.





#### One to One and Bring Your Own Device

## Project Breakdown

### eLearning Project Director

To ensure the success of this project, it is proposed that 1.0 FTE be created and assigned to NDE as part of the Technology Learning Center Team. The eLearning Project Director would be the only position added to NDE as part of this project and would be responsible for oversight of the project in cooperation with the Director of the Network, Education and Technology team currently employed by NDE. Responsibilities of this position would include coordination with partner agencies, oversight of funding awarded to contracting agencies and project management. This position is a critical role in the project, because they will be charged with fostering and maintaining partnerships that will ultimately determine the success or failure of the project.



### Tier 1 - Content Creation and procurement

- This component of the project would need a physical office space dedicated to content creation work
- OER adoption
- Meta tagging standardization
- Produced Content Procurement
- Content Creation
  - Gamification research and development
  - Master course shells
  - Learning objects
  - Individual concept lessons

#### Content Creation Team

- 1 Fellowship teacher leader
- 1 Classroom teacher \$500 incentive per item
- 1 Programing intern \$10 per hour x 5 hours avg. = \$50
- 1 Design intern \$10 per hour x 5 hours avg. = \$50
- 2 Pre-service intern \$10 per hour x 5 hours avg. = \$100 Average cost per content item = \$700

#### **Tier 2 - Professional Development**

- Fellowship program
  - Partnership with post secondary institution(s), ESUs and school districts
  - 5 or 6 Nebraska educators seeking a Master's degree and on active sabbatical
  - Duration of one year
  - Each person receives \$40,000 per year fellowship
  - Help supervise content creation teams, develop professional development courses and provide in-person professional development trainings



- Training development and inservice
  - Develop high-quality Nebraska-focused professional development content for use by any Nebraska PreK-12 school, free of charge
  - Provide on-site or regional professional development opportunities for educators at no cost to them or the district
  - Money will go to site fees, stipends for teachers attending, materials and content development and hosting

#### **Tier 3 - Integration and Support**

Dashboard Integration:

- Develop a process of integrating instructional content for students and educators into the Dashboard
- Single sign-on support and adoption
- Write customized API codes to allow communication between Dashboard and LOR
- Identify and deploy hardware required to support successful integration
- · Statewide help desk support or development

Learning Object Repository:

## Personalized learning is the

tailoring of pedagogy, curriculum, and learning environments by learners or for learners in order to meet their different learning needs and aspirations. Typically, technology is used to facilitate personalized learning environments.

- Creation of advisory team to explore and recommend a statewide content repository solution (NDE, NET, ESUCC, PreK-12, Post-secondary)
- Partner with Network Nebraska to provide the selected solution as a service of Network Nebraska to help develop a sustainable LOR system.

#### **Proposed Project Timeline\***

\*The timeline anticipates one year of lead time prior to receiving actual funding. All dates are estimates and subject to change.

#### Prior to 2016:

• Begin establishing needed partnerships for successful implementation of the eLearning project upon receiving funding.

#### 2016-2017:

July

- Hire Project Director at NDE
- Make initial Fellowship awards
- Award contracts to partnering agencies

#### August

- Establish physical location for content creation and professional development activities
- Establish LOR, OER and Metadata advisory groups



#### September

- Begin work on OER, Meta tagging projects
- Initial internship positions filled for content creation teams
- Establish work group for data dashboard
- Integration work

#### October - May

- Development of custom content
- Development of professional development content
- Work on OER adoptions
- Work on Meta tagging standards
- Research on LOR

#### June

· Select statewide LOR and begin deployment

#### 2017-2018:

#### August

- Provide Meta Tagging standards document statewide
- Provide LOR system statewide
- Deliver first round of OER, custom content and professional development on LOR

#### September - June

- · Continue OER, content creation, and professional development activities
- · Provide training to all partners on the new LOR, Meta tagging standards and content
- Begin work on integration of LOR content with the Data Dashboard
- Maintenance of support on LOR
- Complete initial project evaluation

### Content Creation Priorities

- 2018-2019:
- Continue professional development activities and content development
- Continue OER, content creation and adoption projects
- Continue LOR utilization
- Begin integrating LOR content with the Data Dashboard
- Expand and complete second project evaluation
- . STEM Content
- 2. Nebraska Studies
- 3. Core curriculum
- 4. All other areas

#### 2019-2020:

- Continue professional development activities and content development
- Continue OER, content creation and adoption projects
- Continue LOR utilization
- Expand integration of LOR content with the Data Dashboard
- Expand and complete third year project evaluation
- Complete new project objectives and goals to guide the next four year project cycle.

## **Curricular Benefits**

The content creation and procurement money will be able to provide instructional content ranging from early childhood to college and specific to Nebraska state standards and needs for all subject areas from core curriculum areas, high needs areas, special education, and gifted education.



#### Current Projects this will support:

- Teacher/Principal Evaluation
- A QuESTT- school accountability
- Statewide Longitudinal Data system
- · Early Childhood initiatives, including Step Up to Quality
- NeSA state accountability
- BlendEd Initiative
- Career and Technical Education

\*This list is just a small sample of the projects that would benefit from the Nebraska eLearning project. Ultimately, this project, if funded and deployed successfully, has the potential to impact all Nebraska learners, PreK-20, public, private or homeschool.

#### Cost savings:

Reducing the number of LOR systems being implemented will result in cost savings to PreK-12 schools, ESUs and Nebraska State Agencies by allowing for single-point negotiations and reduction of per-user cost due to the scale of the project.

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High quality digital professional development resources will reduce cost to districts in multiple ways; the first is the overall cost for the professional development content and instruction, second, it will allow the teacher to participate in high-quality professional content without leaving their classroom, which reduces district cost for substitutes.

In time, the State of Nebraska will build capacity for sustainability through a cadre of highly effective master teachers trained to effectively create Individualized Learning Environments for students which will provide their school districts with a local expert to help mentor other teachers without the need for bringing in expensive outside experts.

# **Dashboard Integration**

Each component of this project is essential in having a long-term and lasting impact on student learning and success in Nebraska. The content creation and procurement portion of the project is important to assure all students and educators have equitable access to quality educational content to learn with and from. The LOR is imperative to help provide this equity of access regardless of geographical location or size of school. The dashboard integration is the final piece of the puzzle for school personnel trying to make learning truly personal for students. It will connect student assessment data with school level data and content tailored to the individual student's learning needs, into one location in real time for the teachers to see and provide to students.





#### Risk Assessment

LOR adoption has several risks associated with it. The first is reaching a consensus among the committee on a centralized solution which could cause the whole project to fail or a continuation of an environment where multiple LORs are adopted on a regional or local level. The careful selection of committee members from a variety of organizations, clearly defining that this system needs to be a statewide solution that is part of Network Nebraska and the direction of the Department of Education's eLearning Project Leader will help ensure that this project does in fact succeed.

The cost of the LOR system is another area of risk as unforeseen problems and costs could be pushed outside the budgeted amount. The committee's provision of clear expectations for the system and adherence to the proper NITC RFP protocols will keep the cost of the system in line with expectations and ensuring that the system is effective.

Successfully creating and sustaining a partnership between all parties needed for this project will be a major risk. The need for a single person to coordinate and lead this partnership will be essential to this project. The NDE eLearning Project director position will be charged with making sure that this risk is mitigated and the project is successful by sharing a single vision with all partners and overseeing and reporting on the project at all levels

# **Definitions:**

#### **Open Educational Resources (OER)**

Freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing, as well as for research purposes. Although some people consider the use of an open file format to be an essential characteristic of OER, this is not a universally acknowledged requirement.

#### Metadata

The main purpose of metadata is to facilitate in the discovery of relevant information, more often classified as resource discovery. Metadata also helps organize electronic resources, provide digital identification, and helps support archiving and preservation of the resource. Metadata assists in resource discovery by "allowing resources to be found by relevant criteria, identifying resources, bringing similar resources together, distinguishing dissimilar resources, and giving location information."

#### Learning Object Repository (LOR)

A type of digital library that enables educators to share, manage and use educational resources.

#### **Application Programming Interface (API)**

An API is a software intermediary that makes it possible for application programs to interact with each other and share data. It's often an implementation of REST that exposes a specific software functionality while protecting the rest of the application.

For further information Contact:

Brent Gaswick Director Network, Education and Technology Team NDE (402) 471-3503 <u>brent.gaswick@nebraska.gov</u>

#### Nebraska Information Technology Commission

# **Project Proposal Form**

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

Project TitleEducation Data Systems Capacity BuildingAgency/EntityNebraska Dept. of Education

#### Notes about this form:

- USE. The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel..." Neb. Rev. Stat. § 86-516(8).
  "Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions." Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
- 2. WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM? See NITC 1-202 available at <u>http://nitc.ne.gov/standards/</u>. Attachment A to that document establishes the minimum requirements for project submission.
- 3. COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS). Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each "IT Project Proposal" created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.
- 4. QUESTIONS. Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

Nebraska Information Technology Commission

#### Project Proposal Form 2015-2017 Biennial Budget

#### **General Information**

Project Title E Agency (or entity) N

tle Education Data Systems Capacity Building

Contact Information for this Project:

Name	Dean Folkers
Address	301 Centennial Mall South
City, State, Zip	Lincoln, NE 68509
Telephone	402-471-4740
E-mail Address	Dean.folkers@nebraska.gov

#### **Executive Summary**

The recent <u>Nebraska Education Data Systems study</u>, in response to Legislative Resolution 264, found that Nebraska spends an estimated \$100 million annually for technology systems, software systems, and accountability data submissions by the public school districts and the Nebraska Department of Education (NDE). The systems and applications are largely focused on satisfying Federal and State accountability reporting requirements and do not directly contribute to supporting teaching and learning. The districts submit annual collections of data to support accountability to the state using a combination of automated and manual methods. An estimated 655,200 hours are spent by districts preparing the required collections for each year's accountability data submission.

Each district has selected its own set of administrative, teaching and learning, and back office applications and there is a large disparity in the number of applications available in small districts versus larger districts due to budget, staff, and capacity. Outside of Nebraska's largest districts, the digital tools are poorly integrated, there is little support for data-driven decision-making, and modern tools are not available to support instructional improvement necessary for the state's education initiatives of blended learning, teacher and principal evaluation, career readiness, and continuous school improvement.

Nebraska's network of Educational Service Units (ESUs), the ESU Coordinating Council (ESUCC), and Network Nebraska are all contributing to improving the capabilities and the efficiencies of the data systems for the districts. However, the coordination, support, and access for systems can be dramatically improved and serves as the basis for this multi-faceted approach to develop a statewide data system that builds long-term capacity, efficacy, and efficiency for the system of education. The study established 10 recommendations that included five work streams; leverage work conducted using the federal \$4.3 million SLDS grant scheduled to end June 2015.

The proposed implementation roadmap for the Nebraska Education Data System estimates a three-year investment of \$41,960,110, roughly evenly split across the three years. The rollout plan targets a phase in process over three years that could include 50 districts the first year, 150 the second year, and 245 during the third year resulting in cost savings and efficiencies that will also provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts. The projected cumulative net return for the investment over five years is \$44.8 million. However, the primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success.

Nebraska Information Technology Commission

#### Project Proposal Form 2015-2017 Biennial Budget

#### Goals, Objectives, and Projected Outcomes (15 Points)

- 1. Describe the project, including:
  - Specific goals and objectives;

The following goals are established based on the recommendations from the Education Data System study and provide the basis for the creation of the five work streams.

Goal 1: Make security, privacy, transparency, and the proper use of data the core of the Nebraska Education Data System implementation.

Districts should continue to "own" their data within the statewide system. The ESU hosting must support enterprise-grade security with yearly independent security audits. The following tenets are recommended to protect privacy while ensuring proper use of student data:

- 1. Ensure that all agencies, organizations, contractors, and vendors that have access to student education records provide the same strength of protection, control, and transparency as codified in appropriate policies, contracts, and data sharing agreements.
- 2. Ensure that all persons that have access to student education records have training and certification (micro credentials) on the proper use and protection of education records.
- 3. Limit access to individual student education records to the minimal set of personnel essential for legitimate education purposes, for the shortest period of time required for that purpose, and to the smallest set of data required for that purpose.
- 4. To the maximum extent possible, use aggregate data and de-identified data in place of individual student education records.
- 5. Provide parents transparency into the sources and uses of student data.
- 6. Provide parents control of the child's education record to the maximum extent that is possible while preserving legitimate educational use of that data.

# Goal 2: Unify the data collection requirements into the Nebraska Education Data Standards (NEDS) to minimize the reporting burden on districts.

Replace the current system of accountability data submissions by instead deriving accountability data from an extended set of data sent securely by district systems into the Nebraska Education Data System (NEDS). The system would move the computations and business rule checks to the state level for better efficiency and consistency while also providing a transparent facility for district review and approval.

# Goal 3: Require application vendors and other sources to provide data in a standard form specified by NDE directly into the NEDS. Adopt a Nebraska Education Data Standard in collaboration with the NITC.

Native vendor interfaces are required for sustainability. Ed-Fi defined CEDS-compliant data standard adopted in 24 states that can be extended for Nebraska-specific requirements. Ed-Fi adoption preserves district choice while maintaining data standardization at the state level. A governance process will be required to maintain the Nebraska-extended version of Ed-Fi year-to-year.

Note that to ensure continued vendor participation, the data interface requirement needs to be in policy or legislation to ensure vendor compliance.

# Goal 4: Leverage and strengthen Nebraska's ESU network, the ESUCC, and Network Nebraska to host, maintain, and sustain the Nebraska Education Data System, to support a statewide virtual help desk, and to train the educators in it is use.

Provide an enterprise-grade, efficient and economical technology platform through which applications and services are delivered to improve school performance and learner outcomes. The statewide system of support would leverage the resources at NDE, ESUCC, ESUs and districts to provide help desk support to districts and professional development coordination.

# Goal 5: Leverage the state-level market to influence vendors, negotiate lower prices through competition, provide consistent functions and pricing across large and small districts, and expand the number and quality of instructional applications.

Facilitate "economies of scale" and cooperative purchasing at the state and/or ESU level and centralized services that lower costs without sacrificing the quality of products and services. Use this leverage to greatly expand the number and quality of instructional improvement applications.

The strategy is to create essentially an "application store" for school districts to choose from that leverages the collective bargaining advantage of 245 schools districts, 300,000 students, ESU resources and the Nebraska Department of Education.

# Goal 6: Invest in providing education intelligence - access to actionable insight - through a warehouse, business intelligence tools, and increased internal capacity for districts, policy makers, and researchers.

Leverage the Ed-Fi K-12 statewide longitudinal date warehouse for use by districts, administrators, and researchers to support analysis of student performance, college and career readiness and success, instructional improvement initiatives, teacher evaluations, student intervention and professional development effectiveness. Integrate finance data, early childhood, postsecondary and workforce data.

# Goal 7: Invest in an integrated data system that spans the districts, the ESUs, and NDE to support continuous education improvement.

The resulting Nebraska Education Data System (NEDS) should build upon the ongoing SLDS project to leverage the Ed-Fi data standards and technologies for the data system and dashboards. The system should adopt and build upon the ESUCC project for Single Sign-On (SSO). While the system will initially focus on serving the districts, it should ultimately be expanded to reach students and parents, community service organizations, and researchers.

# Goal 8: Integrate staff data from district and state data sources, link teachers to student performance and success, and add additional data to better support teacher evaluation and professional development.

This will require integration of both the HR and SIS at the district level with the Teacher Certification and NPERS at the state level. Teachers will be linked to students to assess their contribution to student performance and growth. Additional data will be integrated for teacher evaluations and observations, survey data, and professional development.

# Goal 9: Invest in the licensing, integration and training of an Instructional Improvement System that is cost-effective for districts of all sizes.

The system will include the critical digital assets and tools to support areas like learning management systems, content management systems, blended and online learning, teacher/principal evaluation system, school improvement and climate tools, career readiness and discovery, local assessment systems, and other tools to enhance the educational opportunities and experiences.

# Goal 10: Develop the staff and processes necessary to sustain the Nebraska Education Data System.

Additional leadership positions are recommended and include a K-12 Chief Information Officer and Chief Privacy Officer at NDE. The recommended initiative will expand an emerging project management office. Additional data governance processes will be required. Additional technical staff will be required at NDE and in the ESUs to meet the statewide help desk and support requirements.

Overall, the goals have been organized into five work streams:

1. Nebraska Education Infrastructure / Leveraged Capacity -

Leverage an open-source education data standard along with accompanying technical assets – studentlevel dashboards for teachers and secure data warehouses for reporting. Developing the Nebraska Education Data Standard – will mean a set of data standards for interoperability of systems. This work will also include the infrastructure to support a major data system, including a single sign on offering from the ESUCC. leverage the Ed-Fi infrastructure to connect source systems and drive down costs.

2. Automated Collections -

Reduce reporting burden by providing efficiency and automation for data submissions through the leveraged secure data infrastructure and support. The implementation of the transactional API among the applications significantly reduces the reporting burden.

3. NDE Education Intelligence System / Actionable Insight --

Targeted resources, once expended on data submission, can be directed to effectively using Nebraska's data system and ensuring privacy and security of the data. The educational insight will include the ADVISER Dashboard, data warehouse, and other longitudinal analysis that would inform both policy and practice. to provide access to actionable insight – through a warehouse, business intelligence tools, and increased internal capacity.

4. Help Desk & Support –

Collaborate to include Training and Help Desk support around the systems—statewide. The cooperative support would provide opportunities for NDE, ESUCC and others to coordinate assistance using a tiered ticketing system, knowledge transfer, and professional development for data use.

5. Nebraska Instructional Improvement System -

Leverage the interoperability of the data standard and the state "buying power" to support an Instructional Improvement System. The creation of an "app store" would provide low cost or free options for school districts to choose applications that support digital system access and data integration—for all districts in Nebraska.

#### • Expected beneficiaries of the project; and

School Districts and local communities, Educational Service Units, Multiple Government Agencies, postsecondary education, and ultimately students are the primary beneficiaries of the projects. Reducing the reporting burden of districts, provided secure and near real time access to insightful metrics and information assist school districts required to submit and use data daily. The support systems and coordination of the ESUCC and NDE provide wrap around efforts to efficiently provide resources to schools in Nebraska. Increasing the data quality and timeliness of the data collection provides opportunities for research and evaluation into policy and supports innovative understanding of practice. Alignment to postsecondary education, P-20, workforce, and other critical systems in Nebraska provide unique opportunities to effectively provide insight that support opportunities for secure management of the information ensuring the protection of student privacy while empowering access for all Nebraska students to thrive.

#### • Expected outcomes.

An integrated, sustainable, and comprehensive systems approach to support local control while leveraging the capacity of continuity, efficiency, and equitable access to technological tools of efficiency is primary overarching expected outcomes.

In addition, the reduction of reporting burden using the current methods of collection, while increasing the quality and timeliness of the data increases the opportunities to effectively use information for all schools in Nebraska.

Lower costs, leveraging the capacity of the state for systems is an outcome realized for all districts.

Integrated data systems that support a Nebraska Education Data Standard provide a clear expectation for districts and third party vendors what the expectations are in Nebraska support a base of continuity and allow for innovation and cost savings.

Increased focus on student data privacy, security and transparency.

2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

The multiple aspects of the systems include a number of measurements to ensure completion and ongoing continuous improvement and evaluation. The primary measures will be a reduced burden of reporting data for the use at the lowest level and an increase in the use of the data to inform policy and practice.

In addition, the following measurements are examples of metrics established to measure and assess the project outcomes.

- 1. Security audit, policies, practices, and supports for school districts conducted annually to ensure system and mechanisms adhere to established expectations, rules, and policies.
- 2. A Nebraska Education Data Standard is established and adopted. Supporting mechanisms for oversight and governance
- 3. Decrease the number of human-hours on process of submitting data by 50% over three years through automated API secure technologies.

4. By year 3 of the implementation, all 245 school districts are connected to the system and have secure access to the resources created.

Additional multiple measures and metrics that included the comprehensive integration and of the entire project will a mission critical focus of the project work and connected to the performance management system of staff associated with the projects.

3. Describe the project's relationship to your agency comprehensive information technology plan.

The project is at the core of the information agencies technology plan and represents a critical path moving forward to support effective schools, changes in Nebraska accountability, and efficiencies to ensure effective use of financial and human resources while at the same time ensuring equitable opportunities for all school districts in Nebraska.

#### Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

#### ESTIMATED FINANCIAL RETURNS

The primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success. However the proposed approach also results in cost savings and efficiencies that will provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts.

#### REDUCED ACCOUNTABILITY COSTS

Accountability costs will be reduced by unifying and moving accountability computations to state from a single fine-grained data collection. An estimated 455 FTEs are involved in the current data collection process at districts, representing an annual cost of \$22.75 million. NDE spends an additional \$2.5M per year on licensing, IT personnel and help desk supporting the accountability submissions. The recommended NEDS, when fully implemented, can re-direct at an estimated 50% of the district FTE time related to accountability submissions to focus on other initiatives that impact can more directly improve student performance and success. This value is estimated at 12.6 million annually once fully implemented.

It should be noted that the remaining 50% will be involved in a larger mission of improving data quality across the all types of data (not just accountability) that are more directly contributing to the mission of continuous education improvement.

#### REDUCED TECHNOLOGY COSTS FOR DISTRICTS

Technology costs will be reduced for districts as a result of several factors, including:• Reduced investment in data system costs by having a centralized capability that uses valuable Ed-Fi components obtained without license costs• Negotiated statewide costs for licensing to allow pricing as with largest districts – "cooperative purchasing"

 Reduced integration costs because vendors are supporting native Ed-Fi interfaces to the statewide system

- Reduced number of different systems reduces integration and maintenance costs
- · Increased stability of systems over time, reducing transition costs
- · Reduced costs to increased competitiveness because of reduced vendor lock-in
- Reduced district costs maintaining their own data warehouse
- · Savings on procurement and contract costs

	Year 1 FY 2016 SY 2015-2016	Year 2 FY 2017 SY 2016-2017	Year 3 FY 2018 SY 2017-2018	Year 4 FY 2019 SY 2018-2019	Year 5 FY 2020 SY 2019-2020
Investment	\$(14,149,128)	\$(13,905,490)	\$(13,905,492)		
Returns					
Reduced accountability costs		\$1,524,169	\$7,590,361	\$12,600,000	\$12,600,000
Reduced technology costs		\$3,755,020	\$11,265,060	\$18,700,000	\$18,700,000
Yearly net investment/return	\$(14,149,128)	\$(8,626,301)	\$4,949,930	\$31,300,000	\$31,300,000
Cumulative investment/return	\$(14,149,128)	\$(22,775,429)	\$(17,825,499)	\$13,474,501	\$44,774,501

5. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

A number of strategies were considered as possibilities to address the challenges facing Nebraska schools, but the opportunity to leverage the federal investment through SLDS, take advantage of an emerging royalty free open source technology that is supported through a network of a number of states, and meet the needs of school districts as reporting through surveys, focus groups, phone interviews and data the proposed approach provides the most systemic approach to the future.

Some states have chosen to purchase a single vendor solution, but the short and long term weaknesses of this approach include challenges with integration, risks associated with sustainability, and the long term financial commitment to a vendor to support the systems. This approach has not provided advantages to states and limits the options to embrace new and emerging technologies. Some states have completely relied on internal customization and development. The investment and management of staff to have the capacity for this approach limits the opportunities to embrace private company innovation and is extremely challenging with the currently available personnel services limitation. Ultimately, the approach to embrace the support of contractors, enhance the personnel to support the systems, and leveraging the capacity and market forces allows all of the options to benefit Nebraskans.

Doing nothing continues to undermine the opportunities available for Nebraska schools, reduces the effectiveness of the technology and systems investments made in Nebraska, and continues to impact the number of resources to target student achievement. The requirements of data collection along with the increasing uses of data require leadership from the state to support school districts, protect student privacy, and provide access to resources and tools to take advantage of the technologies available. Finally, doing nothing has the highest level of risk moving forward for Nebraska. This option is not acceptable for Nebraska and can be addressed through the efforts of this comprehensive and visionary series of work streams.

6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

There are multiple mandates at the state and federal level for school accountability, data reporting, and the use of what should be quality data. The Elementary and Secondary Education Act (ESEA) often referred to as No Child Left Behind, 30+ federal programs, state accountability, state aid calculations, and

a significant number of other data requirements are mandated. Most recently, LB438, requires using data to identify the lowest performing schools and provide support for those schools. Quality data and systems are a critical resource to achieve this requirement as well. The proposed approach creates an opportunity to effectively achieve these mandates and at the same time provide systems of support to benefit Nebraska schools.

#### **Technical Impact (20 Points)**

 Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

Primarily the multiple projects create a systems approach to the planning and infrastructure for Nebraska schools and capitalize on the collaboration among NDE, ESUCC, and ESU systems to support Nebraska schools. The approach creates a unique opportunity to leverage federal, state, and local investment to achieve efficiencies. The process primarily creates an opportunity to change the way data is collected, used, stored, and ultimately accessed. In addition, the opportunity to focus on privacy, security, and transparency are critical elements considered through the work streams presented in the project

The technical aspects of the multiple stream project include a variety of technologies, but primarily are Microsoft based technologies including .Net, SQL, SSIS, SSRS, and the following expectations for staff and contractors to achieve:

# USER INTERFACE DEVELOPER

This user interface will maintain the C# codebase for the dashboard. Troubleshoot display issues and errors in the dashboards; Helps analyze incorrect data displays to help identify the source of the defect (i.e. data load issue or UI display bug); create extensions to the dashboard: adjusting metric rendering, add elements to other pages through extensions, add new pages as they may be needed, add drilldown extensions. Maintain and troubleshoot REST API issues, add extensions to the REST API, and work with Business Analyst and districts to understand requirements for new features or enhancements.

Tools, Skills, Knowledge Areas
C#
ASP.NET MVC 3 with razor views
Visual Studio 2012 or Higher
Dependency Injection/Inversion of Control (Castle is used in the dashboards for IoC)
Git
jQuery
HTML
javascript
CSS
nunit
TDD/BDD
moq and/or rhino mocks
WebApi (for 2.0)

REST (for vNext)

# DATABASE/ETL DEVELOPER

The person that will maintain the SSIS packages that transform data between data sources. Trouble shoot data calculation (transform) issues in the SSIS packages. Maintain any custom data mapping/exports. Troubleshoot SSIS package failures. Create new extension packages as needed for new data to be displayed in the dashboards. Analyze source data that will be loaded into ODS. Work with district Data Stewards during statewide rollout. Trouble shoot bulk load XML issues. maintain Accountability Data mart loads. Work with Data owner to maintain and develop extension ETL for ODS DW and Accountability Data mart.

#### Tools, Skills, Knowledge Areas

Microsoft SQL Server

MSSQL SSIS

Sql Data Tools/Visual Studio/ SSRS

XML

XML Editor like XML Spy

Mapping Tool like MapForce

## Infrastructure

The person that will maintain the Continuous Integration and deployment environment. Maintain TeamCity builds. Troubleshoot TeamCity failures or errors. Maintain and troubleshoot API and dashboard deployments. Maintain different environments (e.g. Development, Test, Production). Work with SIS vendors; Integration of SIS vendors and data feeds for pilot testing, Integration of SIS vendor data feeds to the production environment during statewide rollout, Identify and resolve production issues with data feeds via the batch and/or API interfaces. Work with districts during statewide rollout; Integration of any batch data feeds at the district level (e.g. HR system loads). Address issues with pilot testing as it relates to data loads, builds and integration of new districts.

#### Tools, Skills, Knowledge Areas

Powershell

TeamCity

IIS

Continuous Integration

# Data Steward/Data Owner/DBA or Data Architect

The Data Steward/ODS owner will be responsible for the long term maintenance of the Ed-Fi Operational Data Store (ODS). They will have responsibility for the ODS schema and accuracy of the data loaded and stored in the database. Additionally, they will have responsibility for understanding and supporting Nebraska specific ODS, Ed-FI LDW, and Accountability Data Mart extensions and extending the ODS, Ed-FI LDW, and Accountability Data Mart extensions and extending the ODS, Ed-FI LDW, and Accountability Data Mart as required to support future enhancements. Maintain ODS, Ed-Fi LDW, and Accountability Data Mart schema. Change ODS, Ed-FI LDW, and Accountability Data Mart schema. Change ODS, Ed-FI LDW, and Accountability Data Mart schema. Change ODS, Ed-FI LDW, and Accountability Data Mart schema. Support issues with data feeds from the ODS to the Data Warehouse and Accountability Data Mart. Work with SIS Vendors; Assist with understanding the Ed-Fi xml standard, Assist with understanding the REST API interface to the ODS, Production issues with data feeds via the API interface. Work with Districts that utilize batch data load to the ODS; Statewide rollout integration and support, Coordinate with vendors and districts that are adding new batch data feeds to the ODS, Identify and resolve data quality/load issues. Work with district Data Stewards during statewide rollout; To identify and resolve data issues, Step up user claims mappings to district roles.

Nebraska Information Technology Commission

#### **Project Proposal Form** 2015-2017 Biennial Budget

Tools, Skills, Knowledge Areas
Ed-Fi standard
DBA Skills
Nebraska Specific data requirements

Through the resources provided by the initial federal SLDS grant, training and capacity building of staff has started to increase the capabilities, skills, and knowledge in the areas required to support the efforts of long-term engagement and statewide rollout of the work associated with the strategies.

The implementation and coordination with the capacity provided through the ESUCC and the technical collaboration between NDE and ESUCC create an unprecedented opportunity to support the systemic integration and work of the broader vision for Nebraska. A pilot project utilizing JitBit support management is serving as a basis for testing statewide integration and support for new technology implementation.

The strengths of the proposal include engagement of an open source educational data standard framework and schema adopted by 24 states that creates a unique opportunity to leverage the investments and approaches of other states to enhance the resource in Nebraska. An significant example already realized during the pilot is the implementation of the early warning system, developed in Pennsylvania that identifies students likely on a path to dropping out of school. The "extension" was added to the core open source engagement and will be available for Nebraska schools that choose to implement as a resource.

The perceived weakness of the implementation is the increased human capacity required to sustain the efforts, but given the overarching advantages gained the small legitimate investment in staff capacity creates a unique opportunity for Nebraska heretofore has never existed.

The following is the high-level technical systems architecture approach to achieve a core of the systems:

# Nebraska Building Capacity Approach



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- 8. Address the following issues with respect to the proposed technology:
  - Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.

All efforts focus on reliability of the system to ensure security of the systems. The use of the federated single sign on solution, industry standard API technology, encryption strategies, role based authentication for access and integration into the applications provide to school districts all provide an opportunity to increase the level of security and ensure ultimately the scalability of the systems for the state.

 Address conformity with applicable NITC technical standards and guidelines (available at http://nitc.ne.gov/standards/) and generally accepted industry standards.

All NITC technical standards and guidelines would continue to be critical resources for the planning and support of the system and integration. In addition, the ITIL standards, the Ed Fl data standards, built from the Common Education Data Standards (CEDS) create a unique opportunity for synergy to ensure best practice is deployed through the process. In addition, the Project Management Book of Knowledge along with use of both the waterfall and agile techniques are supported through a current daily SCRUM approach to assist in the development work to achieve the baseline in preparation for the work ahead.

• Address the compatibility with existing institutional and/or statewide infrastructure.

The primary goal of the project is to create a baseline for compatibility and reframe the statewide infrastructure for the future. The initial process for collecting student data established in 2006 has served a function to achieve the minimums required by districts, but overtime with added data requirements, increased expectations to use data to inform instruction, and technological advances it is now time for Nebraska to leap frog into a more efficient and effective system of supports for Nebraska education. The opportunity to learn from and build on the reputation of the national envy of Network Nebraska and create tools and infrastructure that support sound industry standard technology to create efficiency and effectiveness for Nebraska schools creates a significant window to save significant resources and provide a sound foundation for years to come in Nebraska education.

#### Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Leveraging the current federal SLDS grant to begin the process the project sponsors moving forward include the Nebraska Dept. of Education and the ESUCC. As part of the initial study and plan development the Nebraska Council of School Administrators, the Nebraska State Education Association, the Educational Service Unit Coordinating Council, the Nebraska Educational Technology Association, and most recently the Nebraska School Boards Association all have demonstrated commitment to communicate, support and align the priorities around building the capacity for quality secure data and ensure the unique opportunity of access to resources for teachers and students.

The project team and roles are outlined in the budget and integrate new positions for sustainability and development with existing staff and personnel to ensure continuity through the transition.
#### Project Proposal Form 2015-2017 Biennial Budget

10. List the major milestones and/or deliverables and provide a timeline for completing each.

### 1, 3, AND 5 YEAR ROADMAP

The roadmap builds upon key pilot activities that underway this fiscal year (identified as Year 0, SY 15):

- Install, customize, integrate, pilot, and prove the Ed-Fi data system (www.ed-fi.org ) consisting of an operational data store with transactional and batch data interfaces.
- Develop, pilot and prove the single-sign-on system under development by the ESUCC.
- Develop, pilot, and prove an accountability data mart, deriving accountability data from transactional data streams from the district student information systems. Accountability data will be submitted on dual paths from pilot districts, allowing the automatically derived data to be compared with their actual submissions.
- Install, customize, integrate, pilot, and prove the Ed-Fi longitudinal data warehouse and student performance dashboard.

• Use the dashboard pilots to also pilot the NDE-ESU virtual help desk to support the pilots. These pilot activities will provide the base infrastructure to simultaneously expand and rollout the new Nebraska Education Data System over the next three years. The rollout plan targets the total districts being operational of approximately 50, 150, and ultimately 245 across years 1 through 3. The major 1, 3, and 5-year milestones are summarized below.



<b>Year O</b> School Year 2015 Pilot	Year 1 School Year 2016 50 Districts	Year 2 School Year 2017 150 Districts	Year 3 School Year 2018 249 Districts	Year 4 School Year 2019 249 Districts	Year 5 School Year 2020 249 Districts
Nebraska					
Pilot data infrastructure	Integrate HR systems	Integrate Career Readiness	Intra-state data mobility	Interstate data mobility	
Pilot Ed-Fi dashboards	Ex	pand and extend dashboa	rds		
Pilot ESUCC Single sign-on	Integrate identity mgmt	Mature & scale d	Mature & scale data infrastructure Integrate financial systems		
	Procure state-sponsored SIS'	Transition & support	Transition & support state-sponsored SIS'		
NDE Accountabi	lity Data System				
Unify NSSRS data collection	Unify CDC collection				
SIS vendors pilot data to API	Define NE Data Standard				
Pilot data mart	Build business rules	Develop state and	Federal reporting	Add/modify state & Fede	ral collections as required
	Review & approval system	Dual sub	missions	Deprecate old systems	
NDE Education In	ntelligence System	I			
Install K12 data warehouse	E	Expand warehouse to P20V	v		
	Build district security	Pilot distict data marts		Develop program ef	fectiveness analytics
		Mature & scale	data warehouse	Integrate financial data	Integrate financial analytics
Help Desk & Supp	port				
Pilot virtual help desk	Expand cap	acity for ESUs + NDE Virtu	al Help Desk		

In addition, the major activities associated with the work include the following by work stream and year:

Nebraska Instructional Improvement System

Define IIS require	IIS requirements		Procure, deploy & tra	in IIS tools	Student data backpack	
	Write group	procurements	Develop, pilo	Develop, pilot & mature PD		
				App store		

#### 11. Describe the training and staff development requirements.

Training and development is a critical need throughout the entire process and the collaborative relationship with the ESUCC, ESU's, Districts and the Department of Education provide a unique opportunity for coordination, support and efficiency around common standards and resources while at the same time provide opportunities for private companies to ensure innovation and advancement continues.

Continuing to build the capacity of internal staff along with contracting for specialized skills in the interim makes up the balanced approach to the work and serves as an opportunity to focus on sustainability and support for the systems in the future.

#### 12. Describe the ongoing support requirements.

Upon the initial strategic investment and work, a core group of staff to support the continuous improvement and access to resources will be important. Through leveraging the resources saved, the potential for generating targeted service fees for software as a service (SaaS) resources through the app store and coordination within the educational system the sustainability requirements would be significantly

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less than the costs associated with maintaining a status quo. In addition, through the leveraged approach, third party assets continue to ensure that innovation is available, yet coordinated to support districts.

#### **Risk Assessment (10 Points)**

13. Describe possible barriers and risks related to the project and the relative importance of each.

A detailed risk analysis was conducted with the current implementation of the ADVISER dashboard and related Ed Fi technologies. Many of these risks are germane to the proposed work.

#### Risks

The following risk areas are identified to focus the management team on proactively taking steps to mitigate those risks. For a detailed description of project risks with associated risk mitigation strategies and contingency plans, please reference the project risk log.

- The coordination between multiple groups involved in making the project a success: DLP, SIS Vendors, Network Nebraska, NDE staff, ESUs, ESUCC and districts.
- Dependencies upon external projects, specifically, SIS Vendor interfaces, ESUCC Identity Management project. Any delays in these projects or unexpected issues may impact the schedule.
- Statewide support for technical assistance on the dashboard and Identity Management System (SSO) is being developed and staffed.
- The Nebraska Dashboard project will be developed in parallel with the DLP Tennessee Infrastructure Beta (TIB) project. There is a possibility that some rework will be required as a result.
- Student Information System (SIS) Vendor development, integration and support
- The project is dependent upon vendor commitment to develop and support interfaces within a desired time period. If vendors are unable to meet the proposed schedule, NDE may choose to extend the integration and pilot periods to accommodate the vendor's schedule.
- A staged pilot may impact the planned training and knowledge transfer activities. Training will be most effective if it is completed just prior to the start of pilot activities. The current plan assumes all training is completed prior to the start of the first pilot. If additional training sessions to be added to the current plan, additional funding may be required.
- If SIS vendors have any delays in activities, the project schedule will be impacted. The mitigation strategy is to stage the pilot rollout based upon a revised vendor date.
- SIS vendors may have conflicting priorities which impacts their responsiveness to defects and defect corrections. This could result in delays in planned activities and possible delay to the start of pilot for those districts that use the associated SIS.
- If pilot districts have developed extensions for the Student Information Systems (SIS), there is a risk that these SIS extensions will not be correctly identified and will be omitted from the initial vendor interfaces and Dashboard implementation.
- The project is dependent upon vendor commitment to develop and support interfaces within a desired time period. If vendors are unwilling or unable to meet the desired schedule, then adjustments to schedule, pilot start or pilot district participation may be required.
- If there are delays in SIS vendor development or integration, there could be an increase project costs due to extended resource involvement.

Nebraska ESUCC Identity Management Project

- The ESUCC Identity Management Project is being developed in parallel with the Nebraska Dashboard project. Any delays in the project may impact planned integration and pilot activities.
- The level of effort required for integration of the Identity Management and single sign on (SSO) is an estimate due to the number of pending design decisions and strategy for home realm.

Potential Rewards

- Access for Nebraska schools to an online resource that provides educators with real time data visualization to support continuous school improvement and support the instructional improvement process for Nebraska's students.
- Integration and implementation of a systemic database infrastructure supporting future expansion and efficiencies.
- The potential for an efficient methodology of collecting student and staff information freeing up
  resources to focus on improving the quality of data and the effective use of data for continuous
  school improvement.
- An identity management process that can be utilized in multiple ways in emerging and supporting digital resources for Nebraska's educators.
- Staff capacity created to support elements of sustainability.

14. Identify strategies that have been developed to minimize risks.

Multiple approaches to mitigate risk include some of the following:

- Establishing the Nebraska Education Data Standard and requirements for adoption and use in Nebraska is a critical path
- Maintaining strong governance and oversight for entire project.
- Transparency on progress and issues
- Effective use of Project Management Office
- Communication plan and Change Management implementation
- Effective hiring and procurement processes.

#### Financial Analysis and Budget (20 Points)

15. Financial Information

The "Financial" information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.)

Attached is the budget request summary submitted in the Nebraska Budget Request and Reporting System. The budget requests include both resources for contractors as well as key personnel and positions to support the creation, coordination, collaboration and continuation of the systems approach among Nebraska school districts.



#### Project Proposal Form 2015-2017 Biennial Budget

		Nebraska Depart	nent of Education Infrastructure Activities			
			Biennium Budget Request			
		Year 0 FY 2015		Year 1 FY 2016	Year 2 FY 2017	Year 3 FY 2018
		SY 2014-2015		SY 2015-2016	SY 2016-2017	SY 2017-2018
1	Nebraska Education Infrastructure	9 Districts	Activities and Objectives	50 Districts	150 Districts	245 Districts
		Pilot initial SIS vendor Ed-Fi interfaces	Identify and collectively procure state-sponsored SIS(s)			
	NOE will loverage the Ed. Ei	Pilot assessment vendor interfaces	Support SIS Vendor Ed-Fi Interfaces	\$ 166,667	\$ 166,667	\$ 166,667
	infrastructure to connect source		Other source system interfaces to Ed-Fi (HR,SRS, applications)	250,000	250,000	250,000
	systems and drive down costs.		Support transfer to state supported systems in years 2 and 3	166,667	166,667	166,667
			Develop identity management solution for statewide single sign-on	100,000	100,000	100,000
			Infrastructure scaling and security audit activities	250,000	250,000	250,000
			Total Contractual Expenditures	1,600,000	1,600,000	1,600,000
			New Positions			
			Chief of Staff Chief Technology Officer	60,523	60,523	60,523
			Lead	60,523	60,523	60,523
			Senior	55,047	55,047	55,047
			Analyst	50,099	50,099	50,099
			Total Salary Expenditures	344,793	344,793	344,793
			Benefits Expenditures	165,264	165,264	165,264
			Operating Expenditures	23,805	23,805	23,805
			Equipment Expenditures	60.360	10,395	10,395
			Nebraska Education Infrastructure Total	\$ 2,204,617	\$ 2,144,257	\$ 2,144,257
-	NOT Data Callesting South an		Objection			
2	NDE Data Collection System	Accountability Pilot - integrate CDC_Staff_NSSRS	Objectives Statewide rollout with dual submissions (rollout plan based on SIS vendor)	\$ 500.000	\$ 500,000	\$ 500,000
	NDE will reduce the burden of	,,,	Develop and validate state accountability reports	500,000	500,000	500,000
	accountability data submissions on		Develop business rules and validation for automatic accountability submissions	250,000	250,000	250,000
	aistricts through automated process		Develop and validate tederal accountability report submissions	500,000	250,000	250,000
			Total Contractual Expenditures	2,000,000	2,000,000	2,000,000
			New Positions			
			Director, Accountability Data Systems	68,502	68,502	68,502
			Database Analyst Lead	55,047	55,047	55,047
			Database Analyst Senior	55,047	55,047	55,047
			Database Analyst	50,099	50,099	50,099
			Database Analyst Total Salary Exponditures	50,099	50,099	50,099
			Benefits Expenditures	164,380	164,380	164,380
			Operating Expenditures	23,805	23,805	23,805
			Travel Expenditures	14,070	14,070	14,070
			NDE Accountability Data System Total	\$ 2,579,252	\$ 2,541,572	\$ 2,541,572
3	NDE Education Intelligence System	Dilat CLDC Cauda at Laws Death and	Objectives	ć 200.000	ć 200.000	ć 200.000
		Phot SEDS Student-Lever Dashboard	Dashboard updates and extensions	5 200,000	500.000	500.000
			District data warehouses and reporting layer	333,333	333,333	333,333
			District data warehouse security layer (with and without de-identification)	250,000	250,000	250,000
			NDE data warehouse cubes and Bi layer Total Contractual Expenditures	166,667	166,667	166,667
			New Positions	1,450,000	1,430,000	1,450,000
	NDE will create education intelligence -		Chief Privacy Officer	79,873	79,873	79,873
	access to actionable insight - through a		Director, Data Research and Evaluation	68,502	68,502	68,502
	and increased internal capacity.		Database Analyst Lead	55.047	55.047	55.047
			Database Analyst	50,099	50,099	50,099
			Database Analyst	50,099	50,099	50,099
			Total Salary Expenditures Benefits Expenditures	364,143	364,143	364,143
			Operating Expenditures	24,510	35,510	35,510
			Travel Expenditures	17,680	17,680	17,680
			Equipment Expenditures	60,360	¢ 2.025.720	¢ 2.025.720
				\$ 2,083,080	\$ 2,033,720	\$ 2,033,720
4	Help Desk & Support					
	NDC along with the SCUCC and SCUC	Virtual Help Desk Pilot - Dashboards	Expand help-desk support to include Year 1,2 & 3 systems	\$ 50,000	\$ 50,000	\$ 50,000
	will provide technical support for	PD Curriculum	Develop protessional development curriculum on Year 1,2 & 3 systems Integrate statewide ticketing system for "virtual help desk"	50,000	50,000	50,000
	Nebraska education data systems		Level 4 Support and Contracts	500,000	500,000	500,000
	through a virtual help desk and		Total Contractual Expenditures	766,667	766,667	766,667
	coorainatea knowledge transfer.		New Positions Director, Project Management Office	£9 E00	60 500	60 500
			IT Help Desk Specialist Senior	50,099	50,099	50,099
			IT Help Desk Specialist	41,706	41,706	41,706
			II HEIP DESK Specialist Project Manager	41,706	41,706	41,706
			Project Manager	50,099	50,099	50,099
			Total Salary Expenditures	302,211	302,211	302,211
			Benetits Expenditures	158,393	158,394	158,395
			Travel Expenditures	10,395	20,555	10,397
			Equipment Expenditures	43,350	-	-
			Help Desk & Support Total	\$ 1,304,821	\$ 1,264,223	\$ 1,264,225
			Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,985,772	\$ 7,985,774
IIS	NE Instructional Improvement System	I de estific han anata ana	Objectives			
	NDE will build the capacity of Nebroska	- learning management	Support vendors in integrating with SSO and state data system	\$ 166.667	\$ 166.667	\$ 166.667
	educators to continuously improve the	- blended learning	Provide PD for districts	83,333	83,333	83,333
	quality of instruction for students	- teacher/principal evaluation	System licenses paid by state	5,000,000	5,000,000	5,000,000
	This will serve as an application store	- school climate	App store Survey Resources and Tools			
			Total Contractual Expenditures	5,250,000	5,250,000	5,250,000
			New Positions			
			Director, Instructional Improvement System	68,502	68,502	68,502
			Program Specialist IV	60.523	60.523	60.523
			Applications Developer Lead	60,523	60,523	60,523
			Applications Developer Senior	55,047	55,047	55,047
			Applications Developer	50,099	50,099	50,099
			Total Salary Expenditures	413,295	413,295	413,295
			Benefits Expenditures	194,588	194,588	194,588
			Operating expenditures Travel Expenditures	28,360	39,360	39,360
			Equipment Expenditures	66,640	-	
			NE Instructional Improvement System Total	\$ 5,975,358	\$ 5,919,718	\$ 5,919,718
				6 14 140 120	¢ 12.005.400	¢ 13 005 403

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### **Project Proposal Form**

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

Project TitleInstructional Improvement SystemsAgency/EntityNebraska Dept. of Education

#### Notes about this form:

- USE. The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel..." Neb. Rev. Stat. § 86-516(8).
   "Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions." Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
- WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM? See NITC 1-202 available at <u>http://nitc.ne.gov/standards/</u>. Attachment A to that document establishes the minimum requirements for project submission.
- 3. COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS). Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each "IT Project Proposal" created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.
- 4. QUESTIONS. Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

#### Project Proposal Form 2015-2017 Biennial Budget

#### **General Information**

Project TitleInstructional Improvement SystemsAgency (or entity)Nebraska Dept. of Education

Contact Information for this Project:

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#### **Executive Summary**

The recent Nebraska Education Data Systems study, in response to Legislative Resolution 264, found that Nebraska spends an estimated \$100 million annually for technology systems, software systems, and accountability data submissions by the public school districts and the Nebraska Department of Education (NDE). The systems and applications are largely focused on satisfying Federal and State accountability reporting requirements and do not directly contribute to supporting teaching and learning. The districts submit annual collections of data to support accountability to the state using a combination of automated and manual methods. An estimated 655,200 hours are spent by districts preparing the required collections for each year's accountability data submission.

Each district has selected its own set of administrative, teaching and learning, and back office applications and there is a large disparity in the number of applications available in small districts versus larger districts due to budget, staff, and capacity. Outside of Nebraska's largest districts, the digital tools are poorly integrated, there is little support for data-driven decision-making, and modern tools are not available to support instructional improvement necessary for the state's education initiatives of blended learning, teacher and principal evaluation, career readiness, and continuous school improvement.

Nebraska's network of Educational Service Units (ESUs), the ESU Coordinating Council (ESUCC), and Network Nebraska are all contributing to improving the capabilities and the efficiencies of the data systems for the districts. However, the coordination, support, and access for systems can be dramatically improved and serves as the basis for this multi-faceted approach to develop a statewide data system that builds long-term capacity, efficacy, and efficiency for the system of education. The study established 10 recommendations that included five work streams; leverage work conducted using the federal \$4.3 million SLDS grant scheduled to end June 2015.

The proposed implementation roadmap for the Nebraska Education Data System estimates a three-year investment of \$41,960,110, roughly evenly split across the three years. The rollout plan targets a phase in process over three years that could include 50 districts the first year, 150 the second year, and 245 during the third year resulting in cost savings and efficiencies that will also provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts. The projected cumulative net return for the investment over five years is \$44.8 million. However, the primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success.

#### Goals, Objectives, and Projected Outcomes (15 Points)

- 1. Describe the project, including:
  - Specific goals and objectives;

The following goals are established based on the recommendations from the Education Data System study. Using the strategies and infrastructure of the building capacity project the opportunity to build and use the foundation to provide access and support for school districts through and Instructional Improvement System.

For purposes of context the goals associated the Education Data Systems Building Capacity project are provided as well.

# Goal 1: Make security, privacy, transparency, and the proper use of data the core of the Nebraska Education Data System implementation.

Districts should continue to "own" their data within the statewide system. The ESU hosting must support enterprise-grade security with yearly independent security audits. The following tenets are recommended to protect privacy while ensuring proper use of student data:

- 1. Ensure that all agencies, organizations, contractors, and vendors that have access to student education records provide the same strength of protection, control, and transparency as codified in appropriate policies, contracts, and data sharing agreements.
- 2. Ensure that all persons that have access to student education records have training and certification (micro credentials) on the proper use and protection of education records.
- 3. Limit access to individual student education records to the minimal set of personnel essential for legitimate education purposes, for the shortest period of time required for that purpose, and to the smallest set of data required for that purpose.
- 4. To the maximum extent possible, use aggregate data and de-identified data in place of individual student education records.
- 5. Provide parents transparency into the sources and uses of student data.
- 6. Provide parents control of the child's education record to the maximum extent that is possible while preserving legitimate educational use of that data.

# Goal 2: Unify the data collection requirements into the Nebraska Education Data Standards (NEDS) to minimize the reporting burden on districts.

Replace the current system of accountability data submissions by instead deriving accountability data from an extended set of data sent securely by district systems into the Nebraska Education Data System (NEDS). The system would move the computations and business rule checks to the state level for better efficiency and consistency while also providing a transparent facility for district review and approval.

# Goal 3: Require application vendors and other sources to provide data in a standard form specified by NDE directly into the NEDS. Adopt a Nebraska Education Data Standard in collaboration with the NITC.

Native vendor interfaces are required for sustainability. Ed-Fi defined CEDS-compliant data standard adopted in 24 states that can be extended for Nebraska-specific requirements. Ed-Fi adoption preserves district choice while maintaining data standardization at the state level. A governance process will be required to maintain the Nebraska-extended version of Ed-Fi year-to-year.

Note that to ensure continued vendor participation, the data interface requirement needs to be in policy or legislation to ensure vendor compliance.

Goal 4: Leverage and strengthen Nebraska's ESU network, the ESUCC, and Network Nebraska to host, maintain, and sustain the Nebraska Education Data System, to support a statewide virtual help desk, and to train the educators in it is use.

Provide an enterprise-grade, efficient and economical technology platform through which applications and services are delivered to improve school performance and learner outcomes. The statewide system of support would leverage the resources at NDE, ESUCC, ESUs and districts to provide help desk support to districts and professional development coordination.

Goal 5: Leverage the state-level market to influence vendors, negotiate lower prices through competition, provide consistent functions and pricing across large and small districts, and expand the number and quality of instructional applications.

Facilitate "economies of scale" and cooperative purchasing at the state and/or ESU level and centralized services that lower costs without sacrificing the quality of products and services. Use this leverage to greatly expand the number and quality of instructional improvement applications.

The strategy is to create essentially an "application store" for school districts to choose from that leverages the collective bargaining advantage of 245 schools districts, 300,000 students, ESU resources and the Nebraska Department of Education.

Goal 6: Invest in providing education intelligence - access to actionable insight - through a warehouse, business intelligence tools, and increased internal capacity for districts, policy makers, and researchers.

Leverage the Ed-Fi K-12 statewide longitudinal date warehouse for use by districts, administrators, and researchers to support analysis of student performance, college and career readiness and success, instructional improvement initiatives, teacher evaluations, student intervention and professional development effectiveness. Integrate finance data, early childhood, postsecondary and workforce data.

Goal 7: Invest in an integrated data system that spans the districts, the ESUs, and NDE to support continuous education improvement.

The resulting Nebraska Education Data System (NEDS) should build upon the ongoing SLDS project to leverage the Ed-Fi data standards and technologies for the data system and dashboards. The system should adopt and build upon the ESUCC project for Single Sign-On (SSO). While the system will initially focus on serving the districts, it should ultimately be expanded to reach students and parents, community service organizations, and researchers.

Goal 8: Integrate staff data from district and state data sources, link teachers to student performance and success, and add additional data to better support teacher evaluation and professional development.

This will require integration of both the HR and SIS at the district level with the Teacher Certification and NPERS at the state level. Teachers will be linked to students to assess their contribution to student performance and growth. Additional data will be integrated for teacher evaluations and observations, survey data, and professional development.

# Goal 9: Invest in the licensing, integration and training of an Instructional Improvement System that is cost-effective for districts of all sizes.

The system will include the critical digital assets and tools to support areas like learning management systems, content management systems, blended and online learning, teacher/principal evaluation system, school improvement and climate tools, career readiness and discovery, local assessment systems, and other tools to enhance the educational opportunities and experiences.

# Goal 10: Develop the staff and processes necessary to sustain the Nebraska Education Data System.

Additional leadership positions are recommended and include a K-12 Chief Information Officer and Chief Privacy Officer at NDE. The recommended initiative will expand an emerging project management office. Additional data governance processes will be required. Additional technical staff will be required at NDE and in the ESUs to meet the statewide help desk and support requirements.

- Overall, the goals have been organized into five work streams: The fifth work stream, instructional improvement system (IIS), is the primary focus of this project, but the others are provided for context and understanding the integration to support the IIS.
- 1. Nebraska Education Infrastructure / Leveraged Capacity -

Leverage an open-source education data standard along with accompanying technical assets – studentlevel dashboards for teachers and secure data warehouses for reporting. Developing the Nebraska Education Data Standard – will mean a set of data standards for interoperability of systems. This work will also include the infrastructure to support a major data system, including a single sign on offering from the ESUCC. leverage the Ed-Fi infrastructure to connect source systems and drive down costs.

2. Automated Collections -

Reduce reporting burden by providing efficiency and automation for data submissions through the leveraged secure data infrastructure and support. The implementation of the transactional API among the applications significantly reduces the reporting burden.

3. NDE Education Intelligence System / Actionable Insight --

Targeted resources, once expended on data submission, can be directed to effectively using Nebraska's data system and ensuring privacy and security of the data. The educational insight will include the ADVISER Dashboard, data warehouse, and other longitudinal analysis that would inform both policy and practice. to provide access to actionable insight – through a warehouse, business intelligence tools, and increased internal capacity.

4. Help Desk & Support –

Collaborate to include Training and Help Desk support around the systems—statewide. The cooperative support would provide opportunities for NDE, ESUCC and others to coordinate assistance using a tiered ticketing system, knowledge transfer, and professional development for data use.

5. Nebraska Instructional Improvement System -

Leverage the interoperability of the data standard and the state "buying power" to support an Instructional Improvement System. The creation of an "app store" would provide low cost or free options for school districts to choose applications that support digital system access and data integration—for all districts in Nebraska.

#### Expected beneficiaries of the project; and

School Districts and local communities, Educational Service Units, Multiple Government Agencies, postsecondary education, and ultimately students are the primary beneficiaries of the projects. Reducing the reporting burden of districts, provided secure and near real time access to insightful metrics and information assist school districts required to submit and use data daily. The support systems and coordination of the ESUCC and NDE provide wrap around efforts to efficiently provide resources to schools in Nebraska. Increasing the data quality and timeliness of the data collection provides opportunities for research and evaluation into policy and supports innovative understanding of practice. Alignment to postsecondary education, P-20, workforce, and other critical systems in Nebraska provide unique opportunities to effectively provide insight that support opportunities for secure management of the information ensuring the protection of student privacy while empowering access for all Nebraska students to thrive.

In addition, the primary focus of the IIS is to provide school districts access to integrated digital systems at a free or low cost. The "application store" that supports the IIS provides districts choice of a suite of applications that are aligned and connected to the priorities of Nebraska Education Data Standards, API automation, educational insight and security, and the help desk and training systems as part of the core expectations associated with the technical approach from the IIS.

#### • Expected outcomes.

An integrated, sustainable, and comprehensive systems approach to support local control while leveraging the capacity of continuity, efficiency, and equitable access to technological tools of efficiency is primary overarching expected outcomes.

In addition, the reduction of reporting burden using the current methods of collection, while increasing the quality and timeliness of the data increases the opportunities to effectively use information for all schools in Nebraska.

Lower costs, leveraging the capacity of the state for systems is an outcome realized for all districts.

Integrated data systems that support a Nebraska Education Data Standard provide a clear expectation for districts and third party vendors what the expectations are in Nebraska support a base of continuity and allow for innovation and cost savings.

Increased focus on student data privacy, security and transparency.

2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

The multiple aspects of the systems include a number of measurements to ensure completion and ongoing continuous improvement and evaluation. The primary measures will be a reduced burden of reporting data for the use at the lowest level and an increase in the use of the data to inform policy and practice.

In addition, the following measurements are examples of metrics established to measure and assess the project outcomes.

- 1. Suite of applications available to school districts to select and in cases provide a fee for services.
- 2. Vendor engagement and management systems developed and deployed.
- 3. Implementation and integration of a district user services governance board.

Additional multiple measures and metrics that included the comprehensive integration and of the entire project will a mission critical focus of the project work and connected to the performance management system of staff associated with the projects.

3. Describe the project's relationship to your agency comprehensive information technology plan.

The project is at the core of the information agencies technology plan and represents a critical path moving forward to support effective schools, changes in Nebraska accountability, and efficiencies to ensure effective use of financial and human resources while at the same time ensuring equitable opportunities for all school districts in Nebraska.

#### Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

Overall, the instructional improvement system (IIS) and the estimates associated with the work for economic impact can be extrapolated

#### ESTIMATED FINANCIAL RETURNS

The primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success. However the proposed approach also results in cost savings and efficiencies that will provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts.

#### REDUCED TECHNOLOGY COSTS FOR DISTRICTS

Technology costs will be reduced for districts as a result of several factors, including:• Reduced investment in data system costs by having a centralized capability that uses valuable Ed-Fi components obtained without license costs• Negotiated statewide costs for licensing to allow pricing as with largest districts – "cooperative purchasing"

Reduced integration costs because vendors are supporting native Ed-Fi interfaces to the statewide system

- Reduced number of different systems reduces integration and maintenance costs
- · Increased stability of systems over time, reducing transition costs
- Reduced costs to increased competitiveness because of reduced vendor lock-in
- Reduced district costs maintaining their own data warehouse
- · Savings on procurement and contract costs

#### REDUCED ACCOUNTABILITY COSTS

Accountability costs will be reduced by unifying and moving accountability computations to state from a single fine-grained data collection. An estimated 455 FTEs are involved in the current data collection process at districts, representing an annual cost of \$22.75 million. NDE spends an additional \$2.5M per year on licensing, IT personnel and help desk supporting the accountability submissions. The recommended NEDS, when fully implemented, can re-direct at an estimated 50% of the district FTE time

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related to accountability submissions to focus on other initiatives that impact can more directly improve student performance and success. This value is estimated at \$12.6 million annually once fully implemented.

It should be noted that the remaining 50% will be involved in a larger mission of improving data quality across the all types of data (not just accountability) that are more directly contributing to the mission of continuous education improvement.

	Year 1 FY 2016 SY 2015-2016	Year 2 FY 2017 SY 2016-2017	Year 3 FY 2018 SY 2017-2018	Year 4 FY 2019 SY 2018-2019	Year 5 FY 2020 SY 2019-2020
Investment	\$(14,149,128)	\$(13,905,490)	\$(13,905,492)		
Returns					
Reduced accountability costs		\$1,524,169	\$7,590,361	\$12,600,000	\$12,600,000
Reduced technology costs		\$3,755,020	\$11,265,060	\$18,700,000	\$18,700,000
Yearly net investment/return	\$(14,149,128)	\$(8,626,301)	\$4,949,930	\$31,300,000	\$31,300,000
Cumulative investment/return	\$(14,149,128)	\$(22,775,429)	\$(17,825,499)	\$13,474,501	\$44,774,501

5. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

A number of strategies were considered as possibilities to address the challenges facing Nebraska schools, but the opportunity to leverage the federal investment through SLDS, take advantage of an emerging royalty free open source technology that is supported through a network of a number of states, and meet the needs of school districts as reporting through surveys, focus groups, phone interviews and data the proposed approach provides the most systemic approach to the future.

Some states have chosen to purchase a single vendor solution, but the short and long term weaknesses of this approach include challenges with integration, risks associated with sustainability, and the long term financial commitment to a vendor to support the systems. This approach has not provided advantages to states and limits the options to embrace new and emerging technologies. Some states have completely relied on internal customization and development. The investment and management of staff to have the capacity for this approach limits the opportunities to embrace private company innovation and is extremely challenging with the currently available personnel services limitation. Ultimately, the approach to embrace the support of contractors, enhance the personnel to support the systems, and leveraging the capacity and market forces allows all of the options to benefit Nebraskans.

Doing nothing continues to undermine the opportunities available for Nebraska schools, reduces the effectiveness of the technology and systems investments made in Nebraska, and continues to impact the number of resources to target student achievement. The requirements of data collection along with the increasing uses of data require leadership from the state to support school districts, protect student privacy, and provide access to resources and tools to take advantage of the technologies available. Finally, doing nothing has the highest level of risk moving forward for Nebraska. This option is not

acceptable for Nebraska and can be addressed through the efforts of this comprehensive and visionary series of work streams.

The opportunity to create an instructional improvement from a systems level perspective and coordinate access to tools and resources provides a unique advantage for districts to meet their unique and individual needs while at the same time ensuring equity of access of the tools to districts. There is no single vendor solution for an IIS and the opportunity for Nebraska to work with educators, leverage ESUCC, and the ESU's to connect a comprehensive and cost effective approach for Nebraska.

6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

There are multiple mandates at the state and federal level for school accountability, data reporting, and the use of what should be quality data. The Elementary and Secondary Education Act (ESEA) often referred to as No Child Left Behind, 30+ federal programs, state accountability, state aid calculations, and a significant number of other data requirements are mandated. Most recently, LB438, requires using data to identify the lowest performing schools and provide support for those schools. Quality data and systems are a critical resource to achieve this requirement as well. The proposed approach creates an opportunity to effectively achieve these mandates and at the same time provide systems of support to benefit Nebraska schools.

While not a specific mandate the instructional improvement system incorporates the tools and resources that support the mandates, including the teacher principal evaluation work and the professional development associated with educator effectiveness.

#### **Technical Impact (20 Points)**

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

Primarily the multiple projects create a systems approach to the planning and infrastructure for Nebraska schools and capitalize on the collaboration among NDE, ESUCC, and ESU systems to support Nebraska schools. The approach creates a unique opportunity to leverage federal, state, and local investment to achieve efficiencies. The process primarily creates an opportunity to change the way data is collected, used, stored, and ultimately accessed. In addition, the opportunity to focus on privacy, security, and transparency are critical elements considered through the work streams presented in the project

The implementation and coordination with the capacity provided through the ESUCC and the technical collaboration between NDE and ESUCC create an unprecedented opportunity to support the systemic integration and work of the broader vision for Nebraska. A pilot project utilizing JitBit support management is serving as a basis for testing statewide integration and support for new technology implementation.

The perceived weakness of the implementation is the increased human capacity required to sustain the efforts, but given the overarching advantages gained through small legitimate investment in staff capacity creates a unique opportunity for Nebraska heretofore that has never existed.

The following is the high-level architecture approach to achieve a core of the instructional improvement systems





- 8. Address the following issues with respect to the proposed technology:
  - Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.

All efforts focus on reliability of the system to ensure security of the systems. The use of the federated single sign on solution, industry standard API technology, encryption strategies, role based authentication for access and integration into the applications provide to school districts all provide an opportunity to increase the level of security and ensure ultimately the scalability of the systems for the state.

• Address conformity with applicable NITC technical standards and guidelines (available at http://nitc.ne.gov/standards/) and generally accepted industry standards.

All NITC technical standards and guidelines would continue to be critical resources for the planning and support of the system and integration. In addition, the ITIL standards, the Ed FI data standards, built from the Common Education Data Standards (CEDS) create a unique opportunity for synergy to ensure best practice is deployed through the process. In addition, the Project Management Book of Knowledge along with use of both the waterfall and agile techniques are supported through a current daily SCRUM approach to assist in the development work to achieve the baseline in preparation for the work ahead.

• Address the compatibility with existing institutional and/or statewide infrastructure.

The primary goal of the project is to create a baseline for compatibility and reframe the statewide infrastructure for the future. The initial process for collecting student data established in 2006 has served a function to achieve the minimums required by districts, but overtime with added data requirements, increased expectations to use data to inform instruction, and technological advances it is now time for Nebraska to leap frog into a more efficient and effective system of supports for Nebraska education. The opportunity to learn from, build on the reputation of the national envy of Network Nebraska, and create tools and infrastructure that support sound industry standard technology to create efficiency and effectiveness for Nebraska schools creates a significant window to save significant resources and provide a sound foundation for years to come in Nebraska education.

#### Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Leveraging the current federal SLDS grant to begin the process the project sponsors moving forward include the Nebraska Dept. of Education and the ESUCC. As part of the initial study and plan development the Nebraska Council of School Administrators, the Nebraska State Education Association, the Educational Service Unit Coordinating Council, the Nebraska Educational Technology Association, and most recently the Nebraska School Boards Association all have demonstrated commitment to communicate, support and align the priorities around building the capacity for quality secure data and ensure the unique opportunity of access to resources for teachers and students.

The project map would look like the following from the North Carolina Department of Public Instruction:



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The project team and roles are outlined in the budget and integrate new positions for sustainability and development with existing staff and personnel to ensure continuity through the transition.

10. List the major milestones and/or deliverables and provide a timeline for completing each.

### 1, 3, AND 5 YEAR ROADMAP

The roadmap builds upon key pilot activities that underway this fiscal year (identified as Year 0, SY 15):

- Install, customize, integrate, pilot, and prove the Ed-Fi data system (www.ed-fi.org ) consisting of an operational data store with transactional and batch data interfaces.
- Develop, pilot and prove the single-sign-on system under development by the ESUCC.
- Develop, pilot, and prove an accountability data mart, deriving accountability data from transactional data streams from the district student information systems. Accountability data will be submitted on dual paths from pilot districts, allowing the automatically derived data to be compared with their actual submissions.
- Install, customize, integrate, pilot, and prove the Ed-Fi longitudinal data warehouse and student performance dashboard.

• Use the dashboard pilots to also pilot the NDE-ESU virtual help desk to support the pilots. These pilot activities will provide the base infrastructure to simultaneously expand and rollout the new Nebraska Education Data System over the next three years. The rollout plan targets the total districts being operational of approximately 50, 150, and ultimately 245 across years 1 through 3.

The major 1, 3, and 5-year milestones are summarized below.



In addition, the major activities associated with the work include the following by work stream and year:

#### **Project Proposal Form** 2015-2017 Biennial Budget

Year O School Year 2015 Pilot	Yea School Y 50 Dis	a <b>r 1</b> ear 2016 stricts	Year 2 School Year 2017 150 Districts	Year 3 School Year 2018 249 Districts	Year 4 School Year 2019 249 Districts	Year 5 School Year 2020 249 Districts
Nebraska						
Pilot data infrastructure	Integrate H	IR systems	Integrate Career Readiness	Intra-state data mobility	Interstate data mobility	
Pilot Ed-Fi dashboards		Ex	pand and extend dashboa	rds		
Pilot ESUCC Single sign-on	Integrate ide	entity mgmt	Mature & scale d	ata infrastructure	Integrate financial systems	
	Procure state-s	sponsored SIS'	Transition & support	state-sponsored SIS'		
NDE Accountabi	lity Data	System				·,
Unify NSSRS data collection	Unify CDC	collection				
SIS vendors pilot data to API	Define NE Da	ata Standard				
Pilot data mart	Build busi	ness rules	Develop state and	Federal reporting	Add/modify state & Federal collections as require	
	Review & app	oroval system	Dual sub	missions	Deprecate old systems	
NDE Education Ir	ntelligenc	e System	I			
Install K12 data warehouse		E	Expand warehouse to P20V	v		
	Build distri	ct security	Pilot distict data marts		Develop program ef	fectiveness analytics
			Mature & scale	data warehouse	Integrate financial data	Integrate financial analytics
Help Desk & Sup	port					
Pilot virtual help desk		Expand cap	acity for ESUs + NDE Virtu	al Help Desk		
Nebraska Instruc	tional Imp	orovemer	nt System			
Define IIS require	ments		Procure, deploy & tra	in IIS tools	Student dat	ta backpack
	Write group p	procurements	Develop, pilo	t & mature PD		

#### 11. Describe the training and staff development requirements.

Training and development is a critical need throughout the entire process and the collaborative relationship with the ESUCC, ESU's, Districts and the Department of Education provide a unique opportunity for coordination, support and efficiency around common standards and resources while at the same time provide opportunities for private companies to ensure innovation and advancement continues.

Continuing to build the capacity of internal staff along with contracting for specialized skills in the interim makes up the balanced approach to the work and serves as an opportunity to focus on sustainability and support for the systems in the future.

#### 12. Describe the ongoing support requirements.

Upon the initial strategic investment and work, a core group of staff to support the continuous improvement and access to resources will be important. Through leveraging the resources saved, the potential for generating targeted service fees for software as a service (SaaS) resources through the app store and coordination within the educational system the sustainability requirements would be significantly less than the costs associated with maintaining a status quo. In addition, through the leveraged approach, third party assets continue to ensure that innovation is available, yet coordinated to support districts.

#### **Risk Assessment (10 Points)**

13. Describe possible barriers and risks related to the project and the relative importance of each.

A detailed risk analysis was conducted with the current implementation of the ADVISER dashboard and related Ed Fi technologies. Many of these risks are germane to the proposed work.

#### Risks

The following risk areas are identified to focus the management team on proactively taking steps to mitigate those risks. For a detailed description of project risks with associated risk mitigation strategies and contingency plans, please reference the project risk log.

- The coordination between multiple groups involved in making the project a success: SIS Vendors, Network Nebraska, NDE staff, ESUs, ESUCC and districts.
- Statewide support for technical assistance on the dashboard and Identity Management System (SSO) is being developed and staffed.
- The project is dependent upon vendor commitment to develop and support interfaces within a desired time period. If vendors are unable to meet the proposed schedule, NDE may choose to extend the integration and pilot periods to accommodate the vendor's schedule.
- If pilot districts have developed extensions for the Student Information Systems (SIS), there is a risk that these SIS extensions will not be correctly identified and will be omitted from the initial vendor interfaces and Dashboard implementation.

Nebraska ESUCC Identity Management Project

- The ESUCC Identity Management Project is being developed in parallel with the Nebraska Dashboard project. Any delays in the project may impact planned integration and pilot activities.
- The level of effort required for integration of the Identity Management and single sign on (SSO) is an estimate due to the number of pending design decisions and strategy for home realm.

Potential Rewards

- Access for Nebraska schools to an online resource that provides educators with real time data visualization to support continuous school improvement and support the instructional improvement process for Nebraska's students.
- Integration and implementation of a systemic database infrastructure supporting future expansion and efficiencies.
- The potential for an efficient methodology of collecting student and staff information freeing up resources to focus on improving the quality of data and the effective use of data for continuous school improvement.
- An identity management process that can be utilized in multiple ways in emerging and supporting digital resources for Nebraska's educators.
- Staff capacity created to support elements of sustainability.

14. Identify strategies that have been developed to minimize risks.

Multiple approaches to mitigate risk include some of the following:

- Establishing the Nebraska Education Data Standard and requirements for adoption and use in Nebraska is a critical path
- Maintaining strong governance and oversight for entire project.

- Transparency on progress and issues
- Effective use of Project Management Office
- Communication plan and Change Management implementation
- Effective hiring and procurement processes.

#### Financial Analysis and Budget (20 Points)

15. Financial Information

The "Financial" information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.)

Attached is the budget request summary submitted in the Nebraska Budget Request and Reporting System. The budget requests include both resources for contractors as well as key personnel and positions to support the creation, coordination, collaboration and continuation of the systems approach among Nebraska school districts.



#### Project Proposal Form 2015-2017 Biennial Budget

		Nebraska Depart	nent of Education Infrastructure Activities			
			Biennium Budget Request			
		Year 0 FY 2015		Year 1 FY 2016	Year 2 FY 2017	Year 3 FY 2018
		SY 2014-2015		SY 2015-2016	SY 2016-2017	SY 2017-2018
1	Nebraska Education Infrastructure	9 Districts	Activities and Objectives	50 Districts	150 Districts	245 Districts
		Pilot initial SIS vendor Ed-Fi interfaces	Identify and collectively procure state-sponsored SIS(s)			
	NOE will loverage the Ed. Ei	Pilot assessment vendor interfaces	Support SIS Vendor Ed-Fi Interfaces	\$ 166,667	\$ 166,667	\$ 166,667
	infrastructure to connect source		Other source system interfaces to Ed-Fi (HR,SRS, applications)	250,000	250,000	250,000
	systems and drive down costs.		Support transfer to state supported systems in years 2 and 3	166,667	166,667	166,667
			Develop identity management solution for statewide single sign-on	100,000	100,000	100,000
			Infrastructure scaling and security audit activities	250,000	250,000	250,000
			Total Contractual Expenditures	1,600,000	1,600,000	1,600,000
			New Positions			
			Chief of Staff Chief Technology Officer	60,523	60,523	60,523
			Lead	60,523	60,523	60,523
			Senior	55,047	55,047	55,047
			Analyst	50,099	50,099	50,099
			Total Salary Expenditures	344,793	344,793	344,793
			Benefits Expenditures	165,264	165,264	165,264
			Operating Expenditures	23,805	23,805	23,805
			Equipment Expenditures	60.360	10,395	10,395
			Nebraska Education Infrastructure Total	\$ 2,204,617	\$ 2,144,257	\$ 2,144,257
-	NOT Data Callesting Southan		Objection			
2	NDE Data Collection System	Accountability Pilot - integrate CDC_Staff_NSSRS	Objectives Statewide rollout with dual submissions (rollout plan based on SIS vendor)	\$ 500.000	\$ 500,000	\$ 500,000
	NDE will reduce the burden of	,,,	Develop and validate state accountability reports	500,000	500,000	500,000
	accountability data submissions on		Develop business rules and validation for automatic accountability submissions	250,000	250,000	250,000
	aistricts through automated process		Develop and validate tederal accountability report submissions	500,000	250,000	250,000
			Total Contractual Expenditures	2,000,000	2,000,000	2,000,000
			New Positions			
			Director, Accountability Data Systems	68,502	68,502	68,502
			Database Analyst Lead	55,047	55,047	55,047
			Database Analyst Senior	55,047	55,047	55,047
			Database Analyst	50,099	50,099	50,099
			Database Analyst Total Salary Exponditures	50,099	50,099	50,099
			Benefits Expenditures	164,380	164,380	164,380
			Operating Expenditures	23,805	23,805	23,805
			Travel Expenditures	14,070	14,070	14,070
			NDE Accountability Data System Total	\$ 2,579,252	\$ 2,541,572	\$ 2,541,572
3	NDE Education Intelligence System	Dilat CLDC Cauda at Lawy Death and	Objectives	ć 200.000	ć 200.000	ć 200.000
		Phot SEDS Student-Lever Dashboard	Dashboard updates and extensions	5 200,000	500.000	500.000
			District data warehouses and reporting layer	333,333	333,333	333,333
			District data warehouse security layer (with and without de-identification)	250,000	250,000	250,000
			NDE data warehouse cubes and Bi layer Total Contractual Expenditures	166,667	166,667	166,667
			New Positions	1,450,000	1,430,000	1,450,000
	NDE will create education intelligence -		Chief Privacy Officer	79,873	79,873	79,873
	access to actionable insight - through a		Director, Data Research and Evaluation	68,502	68,502	68,502
	and increased internal capacity.		Database Analyst Lead	55.047	55.047	55.047
			Database Analyst	50,099	50,099	50,099
			Database Analyst	50,099	50,099	50,099
			Total Salary Expenditures Benefits Expenditures	364,143	364,143	364,143
			Operating Expenditures	24,510	35,510	35,510
			Travel Expenditures	17,680	17,680	17,680
			Equipment Expenditures	60,360	¢ 2.025.720	¢ 2.025.720
				\$ 2,083,080	\$ 2,033,720	\$ 2,033,720
4	Help Desk & Support					
	NDC along with the SCUCC and SCUC	Virtual Help Desk Pilot - Dashboards	Expand help-desk support to include Year 1,2 & 3 systems	\$ 50,000	\$ 50,000	\$ 50,000
	will provide technical support for	PD Curriculum	Develop protessional development curriculum on Year 1,2 & 3 systems Integrate statewide ticketing system for "virtual help desk"	50,000	50,000	50,000
	Nebraska education data systems		Level 4 Support and Contracts	500,000	500,000	500,000
	through a virtual help desk and		Total Contractual Expenditures	766,667	766,667	766,667
	coorainatea knowledge transfer.		New Positions Director, Project Management Office	£9 E00	60 500	60 500
			IT Help Desk Specialist Senior	50,099	50,099	50,099
			IT Help Desk Specialist	41,706	41,706	41,706
			II HEIP DESK Specialist Project Manager	41,706	41,706	41,706
			Project Manager	50,099	50,099	50,099
			Total Salary Expenditures	302,211	302,211	302,211
			Benetits Expenditures	158,393	158,394	158,395
			Travel Expenditures	10,395	20,555	10,397
			Equipment Expenditures	43,350	-	-
			Help Desk & Support Total	\$ 1,304,821	\$ 1,264,223	\$ 1,264,225
			Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,985,772	\$ 7,985,774
IIS	NE Instructional Improvement System	Internet 6 . Inc. and a more	Objectives			
	NDE will build the capacity of Nebroska	- learning management	Support vendors in integrating with SSO and state data system	\$ 166.667	\$ 166.667	\$ 166.667
	educators to continuously improve the	- blended learning	Provide PD for districts	83,333	83,333	83,333
	quality of instruction for students	- teacher/principal evaluation	System licenses paid by state	5,000,000	5,000,000	5,000,000
	This will serve as an application store	- school climate	App store Survey Resources and Tools			
			Total Contractual Expenditures	5,250,000	5,250,000	5,250,000
			New Positions			
			Director, Instructional Improvement System	68,502	68,502	68,502
			Program Specialist IV	60.523	60.523	60.523
			Applications Developer Lead	60,523	60,523	60,523
			Applications Developer Senior	55,047	55,047	55,047
			Applications Developer	50,099	50,099	50,099
			Total Salary Expenditures	413,295	413,295	413,295
			Benefits Expenditures	194,588	194,588	194,588
			Operating expenditures Travel Expenditures	28,360	39,360	39,360
			Equipment Expenditures	66,640	-	
			NE Instructional Improvement System Total	\$ 5,975,358	\$ 5,919,718	\$ 5,919,718
				6 14 140 120	¢ 12.005.400	¢ 13 005 403

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### **Project Proposal Form**

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

Project Title	Mainframe Migration
Agency/Entity	Department of Roads

#### Notes about this form:

- 1. USE. The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel..." Neb. Rev. Stat. § 86-516(8). "Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions." Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
- WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM? See NITC 1-202 available at <u>http://nitc.ne.gov/standards/</u>. Attachment A to that document establishes the minimum requirements for project submission.
- 3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each "IT Project Proposal" created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.
- 4. QUESTIONS. Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

#### Project Proposal Form 2015-2017 Biennial Budget

#### **General Information**

Project Title	Mainframe Migration
Agency (or entity)	Department of Roads
Contact Information for this Project:	
Name	Bill Wehling
Address	1500 Highway 2
City, State, Zip	Lincoln, NE 68516
Telephone	402-479-3986
E-mail Address	Bill.wehling@nebraska.gov

#### **Executive Summary**

The mainframe has been a valuable tool for the NDOR over the last 40 years. But as with all technologies, things change over time and organizations should evaluate the state of their applications; are we providing our users the functionality they need, are we doing it in a cost-effective manner and are we able to support these needs not just over the next few years but in the next 10 years or possibly longer.

That is what the NDOR is doing. We talked with our users about their current systems and their future needs and then looked at our current workforce and the ability to support this environment in the future as we face retirements and the ability to find the skills necessary to support the environment. We determined that the best course of action for the NDOR is to migrate our applications off of the mainframe to a platform we believe provides the functionality our users are looking for and also something that we are able to support in the future. Our plan is to create an RFP to hire an outside source either re-host or convert our mainframe applications to a technology centered on Microsoft and hosted by the Office of the CIO. An RFI has been completed that received two responses, which helped us in determining what we should budget for this project.

#### Goals, Objectives, and Projected Outcomes (15 Points)

#### 1. Describe the project, including:

- The goal of this project is to award an RFP to a vendor who will migrate applications from the mainframe to technology centered on Microsoft operating system, application servers and development tools. The specific objectives are;
  - Elimination of all IBM ZOS COBOL programs
  - Elimination of all IBM ZOS COBOL Batch and Report programs
  - Elimination of all IBM CICS systems
  - Elimination of all IBM DB2 and RACF
  - Elimination of dependency on IBM TSO

There are currently multiple mainframe systems / applications consisting of approximately 1500 CICS programs with 1500 BMS maps, 1500 COBOL batch programs with 1500 procs and related 1500 JCL. There are 1300 DB2 tables which will be migrated to SQL Server 2012. We use MicroFocus tools including AppMaster Builder to generate the COBOL and BMS Maps.

- The beneficiaries of this project are the users at the NDOR who will gain additional functionality that is not available on a mainframe system and also the development team at the NDOR who will have one less development platform that they must support and maintain their skill set.
- The expected outcome of this project is all mainframe applications to be moved off the mainframe and to a Microsoft environment that will be hosted by the Office of the CIO (OCIO). We have not determined if this will be a re-host or conversion of the mainframe applications. We have not decided if we prefer to re-host the applications, convert them to Microsoft .NET framework or utilize a Commercial off the Shelf (COTS) system for a portion of the applications.

# 2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

Business Technology Support Division (BTSD) development staff and database staff will work with the vendor who is awarded the RFP to determine testing strategies and implementation schedules. Testing will need to be done not only by BTSD staff but also by users on the business side to compare output from various reports and if transactions are processed correctly. Comparisons will be done to the existing mainframe systems and once all parties are satisfied with the results we will work with the OCIO to eliminate the mainframe applications.

# 3. Describe the project's relationship to your agency comprehensive information technology plan.

This was included in our Agency IT plan which was submitted to the OCIO. It was included in previous versions as well but discussed as a future project. Within the past year we were able to complete and RFI to obtain more information on possible solutions. Our goal has been to reduce the number of tools our development, network and database staff must support to simplify their jobs and reduce their workload as well as reduce the time required to keep staff up-to-date on all the technologies that we currently support.

#### Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers). Intangible benefits will depend on the direction we want to go with the movement of the applications off the mainframe. Utilizing a COTS system would provide functionality that users currently do not have but may be a more expensive option. Re-hosting the applications would meet our goal of moving off the mainframe, but the current functionality would still exist until we were able to rewrite the applications. Converting the applications to the Microsoft .NET framework would have the applications in a language we want to support, but we would still have to rewrite the applications to provide new or additional functionality. This would give us a leg up on a re-hosting option but still require us to rewrite applications, just not as much time should be required. Either way it will move us off the mainframe and allow our IT staff to lessen the number of tools they are required to support and keep current in their skill set.

Data will be converted to SQL server tables instead of maintaining DB2 on the LAN. This will require some programming changes if we decide to choose a re-hosting option, which may increase the cost. Another one of our goals is to eliminate the need for DB2 and standardize on SQL for our database.

A large part of the justification is the cost savings. From our analysis, we see a savings of approximately \$350,000 per year once we have moved our applications off the mainframe. I have attached the document showing how we came up with the calculation based off our current mainframe payments and what we would be charged by the OCIO for servers off the mainframe.

# 5. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

We are still trying to decide what option we want to pursue. Re-hosting the applications moves us off the mainframe quicker and we begin to see cost savings sooner, but to provide additional functionality for users would take a longer time. Converting the applications to the Microsoft .NET framework would get us off the mainframe not as quickly as re-hosting, but would be faster for us to provide additional functionality for users. Utilizing COTS system(s) would take longer than the other two but the functionality for users would be faster.

As mentioned earlier, we have processed an RFI which resulted in two responses. The cost range from these responses were \$1.4 million to \$2.5 million, with re-hosting on the low end and a proposed COTS solution on the high end. We are still evaluating which direction we would like to proceed.

# 6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

This project is not the result of any mandate.

#### Technical Impact (20 Points)

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

When completed, this project will have accomplished one of our goals to move away from the mainframe and be in a Microsoft .NET framework that we are able to support now and into the future. C# will be the main programming language and the data will also be converted to SQL from DB2, which will match another one our goals which is to standardize on one database platform.

Internally, we have already converted a few applications from the mainframe to our .NET framework. Our users are very happy with the added functionality, such as the ability to create a "spreadsheet look and feel" for our Accounting section with our Controller Division. Also, we have replaced other mainframe applications with COTS systems because our users wanted a more modern system that is more flexible.

The argument can be made that the mainframe is a solid platform—which I will agree with—and will be around for years to come. But what we foresee is resources will be lacking and the ability to acquire them will become costly in the future. Unless something is done either with training or teaching as part of a curriculum in universities and colleges, this could be a problem for a number of agencies in my opinion.

#### 8. Address the following issues with respect to the proposed technology:

- Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.
- Address conformity with applicable NITC technical standards and guidelines (available at http://nitc.ne.gov/standards/) and generally accepted industry standards.
- Address the compatibility with existing institutional and/or statewide infrastructure. The applications and related data will be moved from one platform supported by the OCIO to another platform which is also supported by the OCIO, so therefore it will comply with all NITC standards and guidelines. The OCIO is also very flexible when it comes to future growth and

provides the redundancy and backups that we requested. We are requesting a demo, QA and production environment and will utilize our change management system to track changes as well.

#### Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Project Sponsor – Bill Wehling, BTSD Division Head

Project Manager – Maurice Vonasek

Technical Leads – Rodney Gonnerman and Chuck Hanson

Data Lead – Lou Anne Daugherty

QA Lead - Cody Lusero

Team members from the OCIO will be determined once we have awarded an RFP.

Stakeholders are not only members of BTSD but also the users in each Division and District offices throughout the State. We will be working with them to setup test scenarios as well as signing off on project completion

#### 10. List the major milestones and/or deliverables and provide a timeline for completing each.

Since we have not completed the RFP I cannot give any dates but are key milestones will be;

- All IBM ZOS COBOL programs moved off the mainframe.
- All IBM ZOS COBOL Batch and Report programs moved off the mainframe.
- All IBM CICS systems moved off the mainframe.
- All IBM DB2 and RACF moved off the mainframe.
- Mainframe accessed removed for NDOR

These are the major milestones and once we have a contract signed, we will work with the vendor to refine these milestones and determine a better set of milestones taking into account the various applications and workload of the stakeholders, which will determine when they are available to assist us.

#### 11. Describe the training and staff development requirements.

Training will depend partially on the solution that we decide on and also the vendor we choose. For example, the vendor may have software that we must utilize for some time if we go with a re-hosting option and this will require some training to use their tool. Since the majority of our development staff is already well versed in the Microsoft .NET framework, very little training will be required. We do have a three developers that will need to be trained on the .NET tools.

As for our stakeholders, our goal is that if we re-host or convert to the .NET framework the "look and feel" will be the same as their mainframe applications.

#### 12. Describe the ongoing support requirements.

Again, this will depend on the option that we will pursue which has not yet been determined. There may be software that we must utilize for some time or there may not. Support and maintenance of the applications and data will continue by BTSD staff until the applications are no longer used.

#### **Risk Assessment (10 Points)**

#### 13. Describe possible barriers and risks related to the project and the relative importance of each.

- 1. Selected vendor did not have a complete understanding of the project
- 2. Vendor does not supply enough resources or their resources do not meet expectations
- 3. Resources are unavailable from the stakeholders, BTSD or the OCIO

#### **Project Proposal Form** 2015-2017 Biennial Budget

- 4. Personnel changes for various reasons such as promotions, transfers or personal issues
- 5. Issues with data conversion
- 6. Applications identified after the RFP process that were not part of the RFP

14. Identify strategies which have been developed to minimize risks.

- 1. Try to have well defined requirements in the RFP that are specific along with other expectations.
- 2. Have the required skills defined in the RFP and as part of the response require experience of those who will be involved in the project. If problems occur after vendor selection then meet with the vendor to discuss possible changes.
- Move responsibilities around within our own division and work with other divisions to determine when resources will be available and coordinate activities to best fit with the stakeholder's workload.
- 4. This may require a change in schedule in order to get someone up to speed and also reassigning of duties.
- 5. Work with the vendor to develop a solution. We should also do our best to map out a data migration plan as part of the RFP. Worst case scenario is we have to convert to DB2 and then move to SQL after the project is complete.
- 6. Create a change request to add additional tasks or if tools are utilized by the vendor that we must purchase, do the conversion ourselves once the initial RFP is complete.

#### Financial Analysis and Budget (20 Points)

15. Financial Information

The "Financial" information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.)



Worksheet in Project Proposal Form.xls

#### Nebraska Information Technology Commission Project Proposal Form Section 8: Financial Analysis and Budget

	Prior Expended	FY2015 Appr/Reappr	FY2016 Request	FY2017 Request	Future	Total
1. Personnel Costs						\$-
2. Contractual Services						
2.1 Design			\$ 300,000.00	\$ 300,000.00		\$ 600,000.00
2.2 Programming			\$ 700,000.00	\$ 700,000.00		\$ 1,400,000.00
2.3 Project Management			\$ 200,000.00	\$ 200,000.00		\$ 400,000.00
2.4 Other						\$-
3. Supplies and Materials						\$-
4. Telecommunications						\$-
5. Training						\$-
6. Travel						\$-
7. Other Operating Costs						\$-
8. Capital Expenditures						
8.1 Hardware			\$ 25,000.00	\$ 25,000.00		\$ 50,000.00
8.2 Software			\$ 25,000.00	\$ 25,000.00		\$ 50,000.00
8.3 Network						\$-
8.4 Other						\$-
TOTAL COSTS	\$-	\$ -	\$ 1,250,000.00	\$ 1,250,000.00	\$ -	\$ 2,500,000.00
General Funds						\$-
Cash Funds			\$ 1,250,000.00	\$ 1,250,000.00		\$ 2,500,000.00
Federal Funds						\$-
Revolving Funds						\$-
Other Funds						\$ -
TOTAL FUNDS	\$ -	\$ -	\$ 1,250,000.00	\$ 1,250,000.00	\$ -	\$ 2,500,000.00

## Mainframe Data and Application Cost Estimate

### **CURRENT COST ESTIMATE:**

	TOTAL CURRENT COST	=	\$384,000
Cost per Year:	(\$32,000/month) X (12 months)	=	\$384,000
Assumption:	\$32,000 per month for mainframe usage		
Average Month	nly Mainframe Expenses for last 24 months	=	\$ 32,454

### FUTURE COST ESTIMATE:

		_	¢ 71				
	TOTAL FUTURE COST	=	\$ 18	3,756			
	(12 Servers) X (\$127.50/Server) X (12 Months)	=	\$ 18	3,360			
Cost per Year:	(165 GB) X (\$0.20/GB/Month) X (12 Months)	=	\$	396			
Assumption:	12 Servers (4GB) will be required						
Space Requirement:	165 GB (55 GB X 3 Environments)						
Assumption:	Each environment is 55GB and we need PROD,	QA and	DEM	0			
Converted to GB:	106.22 GB (This is for both production and test)						
Current Units on Mainframe:	134,461.67 cylinders (This is both data and applications)						

### ASSUMED COST SAVINGS ESTIMATE PER YEAR:

\$384,000 - \$20,000	=	\$364,000
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### **Project Proposal Form**

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

<b>Project Title</b>	Stock Supply System	
Agency/Entity	Department of Roads	

#### Notes about this form:

- 1. USE. The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel..." Neb. Rev. Stat. § 86-516(8). "Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions." Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
- WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM? See NITC 1-202 available at <u>http://nitc.ne.gov/standards/</u>. Attachment A to that document establishes the minimum requirements for project submission.
- 3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each "IT Project Proposal" created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.
- 4. QUESTIONS. Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

#### Project Proposal Form 2015-2017 Biennial Budget

#### **General Information**

Project litle	Stock Supply System
Agency (or entity)	Department of Roads
ontact Information for this Project:	
Name	Bill Wehling
Address	1500 Highway 2
City, State, Zip	Lincoln, NE 68502
Telephone	402-479-3986
E-mail Address	Bill.wehling@nebraska.gov

#### **Executive Summary**

The existing supply system application is mainframe based and has been in production for over 15 years. This has been a useful tool for the Procurement section of the Operations Division and it has made it easier for all Divisions and District to order supplies necessary for them to do their day to day operations.

As with all software applications and with hands on day-to-day operations, there comes a time when users determine new needs, see opportunities to make improvements and take advantage of newer technologies. Moving applications off of the mainframe is but one of the Business Technology Support Division's (BTSD) goals. NDOR is a Microsoft based shop utilizing newer technologies such as C#/.NET and SQL Server 2012 while our software development methodology follows the Agile practice.

The goal of this project is finding or developing a system to provide for a warehouse management system (WMS) of supplies that will replace the legacy Supply Inventory System (SUP). The goal is to have a system that will allow for inventory control/monitoring of stock, ordering, receiving, picking, replenishments, shipping and returns while utilizing Radio Frequency Identification (RF) devices or other similar electronic scanning functionality. The WMS should also provide substantial reporting features that will help with overall WMS management. I have attached a Business Process Modeling report produced in-house which outlines the current Stock Supply system and describes what NDOR had envisioned to be a suitable replacement for the current system.

#### Goals, Objectives, and Projected Outcomes (15 Points)

#### 1. Describe the project, including:

- Specific goals;
  - Eliminate as much paper as possible
  - Utilize electronic/digital signatures
  - A new and improved equation to determine how much should be ordered when a stock item needs to be replenished.
- and objectives;
  - The system shall allow ease of use for end users when they are entering orders of product(s) to be fulfilled and delivered to their division, district or other entity in a timely manner.
  - The system shall allow for ease of use with open-order modification or order cancellation.
- ↔ The system shall provide for an application program interface (API) with NDOR's Cost (CST) & Roads Financial Edit (RFE) systems. When orders are processed or a return of merchandise back to inventory or return back to a supplier is necessary; the API will exchange information about the order. At minimum, the information sent to the CST/RFE systems; Item Number, Quantity, Unit of Measure, Activity Code, Account Code, Unit Cost, Highway Number, Beginning Reference Post, Ending Reference Post, Project Number, Structure Number (if applicable), Organizational Element (OE). This will allow NDOR to reflect inventory adjustments within the Cost Accounting system.
- The system shall be able to track multiple locations of an item in the Warehouse (tracking quantities for each location) and be able to allow multiple items in a bin location. (Includes locations for low units of measure (LUM), case and bulk items)
- The system shall allow for the use of barcode readers, bar code/label printing and accept the download of data from hand-held devices for such activities as receiving, puts, picks, cycle counts and shipping verification.
- The system shall be capable to allow for use of RF/RFID and bar coding technologies for retrieval or count purposes. (voice recognition technology is not required)
- System shall be able to direct "put aways" to a matching location otherwise allow for random storage based on physical item type with the system allowing for manual override. (Refer to storage policy/assignments listed in Current Environment overview)
- The system shall handle receiving/replenishment processes.
- The system will queue open purchase orders and allow for prompt by item number.
- The system shall provide the ability to create "pick" and "put away" event tasks with location, dates and stock numbers and associated bar code labels.
- The system will allow pickers to scan/fulfill orders with hand-held directed picking in various warehouse locations as well as those for the out-of doors yard locations.
- The system should have the ability to track and report product expiration and shelf life left.
- The system will provide the capability to manage pre-receipt shipments including those for pre-receipt rejected items which are awaiting resolution.
- The system shall provide the ability to track product being inspected before it is formally received including first article inspections. System should track all inspection data including stock number, quantity, inspection requirement and date of inspection.
- The system shall provide the ability to create, in an optimized geographic order, picks, puts away and cycle counts and allow for operator override.
- The system will not allow back orders. Orders are to be limited to available stock on hand.
- o The system will allow for ease of maintenance of packing slips.
- The system shall be able to handle units of measure conversion processes as necessary.
- The system shall be able to process cycle counts by item or item location.
- The system must be able to operate all warehouse functions during the cycle count process.
- The system shall support user-friendly ad-hoc report writing and querying capabilities.
- The system will provide an on-line transaction trail of the various automated activities with search and review features.
- The system shall have the ability to track purchasing history to assist in determining stock replenishment needs.
- o The system shall provide for measurement and reporting of employee productivity.
- o The system shall provide authorization/security integration options.
- The system shall provide for ease of handling product returns from the Divisions/Districts.
- o The system shall be able to print out packing slips for returns to vendors.
- The system shall provide for optimization of order fulfilment, picking, receiving, replenishing and shipping processes.
- The system will provide for substantial reporting features to aid in the management and administration of all WMS functions.
- System will be required to support 300+ concurrent users which include supervisors and clerks with an anticipated three system administrators.

#### • Expected beneficiaries of the project

Users will be able to see the products they want to acquire while they are ordering. Currently, if they want to see what they want to order, the must go to a folder on one of our servers and find the item number so they can see a picture to make sure they are ordering the correct item. The pickers will be able to utilize scanners so they can minimize errors when taking items out of stock. Our procurement section will be able to monitor our supply easier and have more reporting capabilities than the current system.

#### • Expected outcomes.

A system that will decrease the number of errors in our deliveries, allow us to do a better job of coordinating purchase, simplify the purchasing experience for our users, and make it easier to track supplies.

## 2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

Track the number of calls received that orders were incorrect. After the system has been in place for three to six months, survey the users to see how they like the new system. Spot inventories to make sure items are located where they should be and the number of items matches what is shown in the inventory. How many times paper copies of the orders must be printed in order to complete an order. Over a period of one year, see how close our item inventories match with purchases based off the new equation that is developed for restocking our system and track the number of times items have been out of stock.

# 3. Describe the project's relationship to your agency comprehensive information technology plan.

The NDOR has a goal of migrating what they have on a mainframe environment to a Microsoft based environment utilizing the Microsoft .NET framework and SQL Server for our database. We want to decrease the number of tools we have to maintain and support in our technology area. This RFP will look at purchasing a system that will allow us to eliminate a number of mainframe applications and databases without having to spend the time and effort converting them off of the mainframe.

#### Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

A new system that takes advantage of current technology will allow us to;

- 1. Save money by taking less time to create orders
- 2. Less time in correcting orders,
- 3. Save money when the wrong items are ordered
- 4. Save money so we do not order too many items which may run out of warranty and cannot be used.
- 5. Save money so we do not order too few items which may run out and then cause delays in projects or maintenance repairs, which could lead to safety issues.
- 6. Make it easier for the pickers to find their items and pick the correct amount by using scanners.
- 7. Better user interface so people can see what they are ordering and see how many are in stock.

# 5. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

We cannot do nothing because our users are not satisfied with the current system. There are a number of issues and they do not like the current interface or the fact they must go to multiple screens to accomplish a single task. It is also part of our technology plan to move away from the mainframe environment.

We considered rewriting the application but we do not have experience in scanner technology. This would take a considerable amount of time to get developers up to speed. We also talked with DAS about the current JD Edwards system and we believe that JD Edwards will be responding to our RFP once it is ready for publishing.

6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

This project is not the result of a state or federal mandate, but it is part of the NDOR's technology plan to move away from the mainframe environment.

#### **Technical Impact (20 Points)**

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

The project will replace a mainframe system which has a number of issues and is not user friendly. Reporting is a problem as well, with users not being able to run certain reports until a specific time or it will cause problems with the database and data must be recovered. Bar code scanners for the pickers to collect the items on orders will be new technology for us. We do utilize bar code scanners now to hardware inventory, but this will not only track but also work with orders as well and make sure they are completed properly. Depending on the solution, hardware and software may be required and we will utilize the OCIO server environment as needed. We will also need to purchase wireless access points to be placed in various places at our Operations location. These will need to be secured and we will work with the appropriate security teams as needed.

The look and feel of the application will be a plus for our users and our Procurement section in the Operations Division. Being able to see what you are buying instead of having to open an explorer window to go to a server folder and lookup an item picture will save time. When talking with users, the look and feel of sites such as Amazon.com and Cornhusker State Industries were brought up as examples of what they would like to see in a new system.

The new system will also need to communicate with our financial systems. Interfaces will need to be developed to send information back and forth between the systems such as purchase, unit costs, and report discrepancies if they are found.

- 8. Address the following issues with respect to the proposed technology:
  - Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.
  - Address conformity with applicable NITC technical standards and guidelines (available at http://nitc.ne.gov/standards/) and generally accepted industry standards.
  - Address the compatibility with existing institutional and/or statewide infrastructure. The applications and related data will be moved from one platform supported by the OCIO to another platform which is also supported by the OCIO, so therefore it will comply with all NITC

standards and guidelines. If a web-based solution is selected we may need to get an exception to the web policies if there is a conflict or see if the vendor can modify their website. The OCIO is also very flexible when it comes to future growth and provides the redundancy and backups that we requested.

#### Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Project Sponsors – Tom Sands, Operations Division Head Project Manager – Maurice Vonasek, BTSD Project Management Officer Business Team Leader – Steve Biltoft, NDOR Materiel Control Manager Data Team Leader – Lou Anne Daugherty, NDOR Data Warehouse Manager or one of her staff Other stakeholders include; Procurement section in Operations, warehouse staff and pickers, accounting clerks in our Controller Division, and users of the system in Division and District offices.

10. List the major milestones and/or deliverables and provide a timeline for completing each. This one is difficult since we just completed an RFI and have not yet determined how we want to write the RFP. Speaking on a high level, major milestones after the RFP is awarded;

System overview Identification of data and data sources Review of current system Development of user interface Development of system interfaces Conversion of data Bar code system developed Bar codes added to inventory items Training and Implementation plans developed Complete training Shut off the mainframe system and go live

#### 11. Describe the training and staff development requirements.

A number of training sessions will need to occur. Learning how to use the bar code scanners may take some time. Users will need to be trained on using the new system as well, but it should be limited if we can have a look and feel similar to other purchasing experiences they have had. We may have some who need a little more assistance but that can be done on a case by case basis.

#### 12. Describe the ongoing support requirements.

Frontline support will be done by members of the Procurement section in Operations Division. Anything that they cannot figure out will be sent to the vendor as part of an ongoing maintenance and support agreement. Issues with bar code scanners will need to be handled by the vendor. Interfaces that must be written could be handled by the vendor or by BTSD staff, depending on the cost and the language they are written in.

#### Risk Assessment (10 Points)

#### 13. Describe possible barriers and risks related to the project and the relative importance of each.

- 1. Selected vendor did not have a complete understanding of the project
- 2. Vendor does not supply enough resources or their resources do not meet expectations
- 3. Resources are unavailable from the stakeholders, BTSD or the OCIO
- 4. Personnel changes for various reasons such as promotions, transfers or personal issues
- 5. Issues with data conversion
- 6. Applications identified after the RFP process that were not part of the RFP

#### 14. Identify strategies which have been developed to minimize risks.

- 1. Try to have well defined requirements in the RFP that are specific along with other expectations.
- Have the required skills defined in the RFP and as part of the response require experience of those who will be involved in the project. If problems occur after vendor selection then meet with the vendor to discuss possible changes.
- 3. Move responsibilities around within our own division and work with other divisions to determine when resources will be available and coordinate activities to best fit with the stakeholder's workload.
- 4. This may require a change in schedule in order to get someone up to speed and also reassigning of duties.
- 5. Work with the vendor to develop a solution. We should also do our best to map out a data migration plan as part of the RFP. Worst case scenario is we have to convert to DB2 and then move to SQL after the project is complete.
- 6. Create a change request to add additional tasks or if tools are utilized by the vendor that we must purchase, do the conversion ourselves once the initial RFP is complete.

#### Financial Analysis and Budget (20 Points)

15. Financial Information

The "Financial" information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.)



Worksheet in Project Proposal Form.xls

## Nebraska Information Technology Commission Project Proposal Form Section 8: Financial Analysis and Budget

	Prior Expended	FY2015 Appr/Reappr	FY2	2016 Request	FY2	017 Request	Future	Total
1. Personnel Costs								\$ -
2. Contractual Services								
2.1 Design			\$	75,000.00	\$	75,000.00		\$ 150,000.00
2.2 Programming			\$	75,000.00	\$	75,000.00		\$ 150,000.00
2.3 Project Management			\$	30,000.00	\$	30,000.00		\$ 60,000.00
2.4 Other								\$ -
3. Supplies and Materials								\$ -
4. Telecommunications								\$ -
5. Training								\$ -
6. Travel								\$ -
7. Other Operating Costs								\$ -
8. Capital Expenditures								
8.1 Hardware			\$	20,000.00	\$	20,000.00		\$ 40,000.00
8.2 Software			\$	100,000.00	\$	100,000.00		\$ 200,000.00
8.3 Network								\$ -
8.4 Other								\$ -
TOTAL COSTS	\$-	\$ -	\$	300,000.00	\$	300,000.00	\$-	\$ 600,000.00
General Funds								\$ -
Cash Funds			\$	300,000.00	\$	300,000.00		\$ 600,000.00
Federal Funds								\$ -
Revolving Funds								\$ -
Other Funds								\$ -
TOTAL FUNDS	\$ -	\$ -	\$	300,000.00	\$	300,000.00	\$ -	\$ 600,000.00

# NDOR SUPPLY SYSTEM BUSINESS PROCESS MODELING



## **TEAM MEMBERS:**

DARCY MELBYE JOHN LOCHNER CHUCK HAGEN JIM LAUGHLIN MIKE MATTISON LINDA SOULLIERE RANDY JONES

STEVE BILTOFT GLORIA RYKEN TERESA VANOVER RITA KUCERA TOM RENNINGER CYNDY ROTH BILL WEHLING

JUNE 27, 2014

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#### **EXECUTIVE SUMMARY**

The existing supply system application has been in production for over 15 years. While it has been a useful tool for not only the Procurement section of the Operations Division, but made it easier for all Divisions and District to order supplies necessary for them to do their day to day operations. But as with all software applications, there comes a time when users determine new needs and see opportunities to make improvements and take advantage of new technologies. Another factor to consider is the goal of BTSD to move all applications off of the mainframe. BTSD is looking at either rewriting applications or attempting to buy Commercial Off the Shelf (COTS) products.

So a team has spent the last year going over the existing applications and reviewing existing processes. Discussions also included the needs and goals of the system as well. The team then spent time developing how they want the processes to work in their new application. Mockups of certain screens were developed by the team to give either a vendor or development team an idea of what we are looking for in a new system.

### SYSTEM GOALS AND NEEDS

Three ultimate goals were identified;

- 1) Eliminate as much paper as possible
- 2) Utilize electronic/digital signatures
- 3) A new and improved equation to determine how much should be ordered when a stock item needs to be replenished.

The first two goals are tied together. There are numerous copies of purchase orders and other documents that must be routed and signed off by a number of people. We want to be able to utilize workflow capabilities to rout documents for approval and allow supervisors and others to sign documents electronically.

The final goal is a new equation for replenishing stock items. This equation was developed a number of years ago, and is used to determine how much of an item should be ordered when the quantity on hand is at or below the minimum allowable. Appendix A shows the equation. As you can see, it utilizes the amounts issued, the minimum and maximum allowable amounts for the item and takes into account the time of year as well. The Operations Division, specifically the procurement unit, will need to come up with a new equation before any work can be done on the Ordering and Receiving Supplies process.

Appendix B is a list of needs that the team developed during their first meeting and into the second as well. This was a brainstorming list and there may be some similarities, but there are a number of great ideas that can improve their business and make life a lot easier for those who order supplies, maintain the supply base manage the warehouse. One of those ideas is to utilize scanning devices for when orders are taken from the warehouse, shipped and eventually delivered. Utilizing either bar codes or RFID (Radio Frequency Identification) tags could possibly help improve the picking process in the warehouse as well as ensuring deliveries are correct.

### FIELD ORDERS/STOCK ORDERS: CURRENT AND FUTURE PROCESS

Appendix C is the existing process. In order to create an order, you must either search through the items in the system or look through a server folder (<u>\\dorimage3\operations\Stockphotos</u>) to view pictures of the items. Then they can place the order. The supervisor has to be told that they have an order to approve; there is no automatic notification. The only way that Stock Control knows orders have been submitted is by checking batch job submittals every fifteen minutes. A number of copies are made of each order with information being written on each order. Orders must be modified to show when they have been shipped, returned or back ordered.

The new system will allow users to view what it is they want to order while they are ordering it. Appendix D shows the new workflow. Notifications will be done using e-mail instead of having to print orders and giving to supervisors or calling them to let them know there are orders they must approve. The utilization of scanners will allow the verification that items that have been ordered, loaded and shipped to the proper locations. Mockups of screens were developed and will be discussed in a future section.

Consideration must also be given to external agencies that will be ordering supplies from us as well. The difference for them is they will be limited on what they can order and will not be allowed to return items.

#### **ORDERING SUPPLIES: CURRENT AND FUTURE PROCESSES**

Appendix E shows the existing process. This process involves creating a report to show how much of each stock item is on hand and then determining if it is time to replenish certain stock items. If the decision is yes, then there are multiple manual entries in the existing system and paper copies that are routed around. Phone calls or e-mails must be sent to various individuals who are responsible for checking orders or testing stock items to ensure they meet specifications.

The new system will notify them automatically when they are at or below the minimum number of items for each stock item. A decision will need to be made as to using just the defined minimum amount or a percentage within the minimum amount (e.g., within 10% of minimum) when notifications will start. A workflow component will be built in so when tasks are completed notification is sent automatically to the person who must complete the next task and so on. The M&R notification will not always be the same person or persons; it varies depending on what item needs to be tested. Having the M&R forms in the system as well would be a "nice to have" or the ability to upload and save them. The ability to save any e-mails would be needed as well. Appendix F shows the new process.

### **RETURNS: CURRENT AND FUTURE PROCESSES**

Appendix G shows the current review process. There is a lot of manual entry into the system and notifications are done by phone or manually sending e-mails. Stock Control is not aware of any returns until they check batch job submittals, which is done every 15 minutes. Paper copies of the purchase orders are sent back and forth between Stock Control, Buyers and Controller as well. The process is the same for all types of returns.

The new process is slightly different depending on the type of return. Appendix H shows the process. It will show the previous orders of an individual and allow them to return all or parts of the order(s). Notifications to Stock Control will be automatic and routing of information will be electronic instead of shuffling paper. Another key notification is an e-mail to the person submitting the return if the item(s) have not been returned in fifteen days. If they have not returned the item(s) in thirty days, then they will be notified that the return will be deleted and Stock Control will be notified of the deletion as well.

#### **BACK ORDERS: CURRENT AND FUTURE PROCESSES**

Appendix I shows the current back order process. Reports must be printed off in order to see what is still on back order and the status of the inventory. As stock items are received, a decision needs to be made on what orders to fill. Then the system needs to be modified to finalled, shipped or still on back order.

The new process for back orders is that there will be no back orders. The goal is for the system to show the person ordering the amount that is on hand and not allowing any orders over the amount on hand. The system will also need to be dynamic so if two people are ordering it will update the amount if one person completes an order before the other. For example, there are 100 units on hand and two people are ordering. Person 1 needs 75 and person 2 needs 50. Person one completes their order for 75. When person 2 goes to submit their order, the system should tell them that there are now only 25 so they can only order 25 and must check back when more is on hand.

#### SIGN ORDERS: CURRENT AND FUTURE PROCESSES

Appendix J is the current Sign Order process. This process is only for signs that are not kept in stock by Stock Control and are special ordered through Cornhusker State Industries (CSI). This process will continue to be used. The only change they would like to implement would be to utilize bar codes or RFID tags to track the arrival and delivery of the signs to various offices. The process could be improved utilizing a workflow solution such as the State's enterprise process management system OnBase, but that would be a separate project after implementation of a new supply system.

Signs that are kept in stock will be purchased using the new process outlined in the "Field Orders/Stock Orders..." section on page 2.

#### **INVENTORY MAINTENANCE FUNCTIONS**

The ability to add, delete and modify stock items will be a requirement. This capability should only be done by Stock Control. Screen SUPX110 (Appendix K) is the screen used in the current mainframe system to update the inventory.

The team spent some time looking at the current inventory process as well. The process was mapped out in Appendix L. The process involves the printing and review of a number of reports and a person(s) physically counting inventory. Even with the improvements of a new system, there will still be a need to count inventory to ensure we have the proper amounts that are shown in the system. So the current process will remain in place. The only difference will be the generation of the reports. They may be done on demand and with no restrictions as to when the reports are generated. As with the old system, when it is time to do an inventory the system must be locked to not allow any purchases on items that are within the inventory area.

#### **CONNECTIONS WITH FINANCIAL SYSTEMS**

When requisitions are filled and marked as finalled, the information about what was purchased is sent to the Cost system. At a minimum, the information sent to the Cost system is the activity code, account code, the cost and the OE. Further investigation will be required to find out the exact information that is required by the cost system. We also discovered a connection to a PDS (Payroll Detail System) program. The Department is beginning a project to replace PDS with KRONOS and once that implementation is complete, we do not see a need for a connection to any payroll system. Further investigation should be completed to make sure this is a correct decision.

One requirement of the old system was the need to input Highway number and reference post when purchasing items. If certain activity or account codes were used, the person filling out the requisition was required to enter a Highway number and reference post (beginning/ending or only beginning). The team does not see a need for this requirement. When supplies are ordered, they are ordered in bulk because at that time, they do not know where they will be using those supplies. So when they are required to put in this information, it may not be used at the location listed or it is partially used at the location listed. If this information is transferred from the cost system to our Highway maintenance system (IHI), it is not accurate information; higher costs at one location and zero costs at other locations where the items may have been used. Another factor is the majority of costs in the supply system are not charged to a highway and reference post. Over the past year, only 6% of the \$3.2 million spent out

of the supply system was charged in that manner. Therefore, the team recommends not requiring a Highway number and reference post for the supply system. If this information is required, it should be input on crew cards when the supplies are actually being used at the correct location.

### **REPORTING**

The old system had a number of reports that were used and also a number that are no longer useful. Some of the reports were dependent on shutting the system down so no transactions can occur while the report is generated. This needs to be changed so reporting can be done at any time. The use of the NDOR reporting system, SQL Server Reporting Services (SSRS) should be looked at for reporting as well. The reports could be scheduled to generate on a schedule so users will not need to manually create the reports. The ability to create ad hoc reports is desired as well. Accessing the data to generate any type of report that could be used to help in making decisions about purchasing, budgeting, etc. are an important part of any system.

Appendix M contains examples of the various reports that are created in the current system. The first two pages of the appendix is a list of those reports, including if they are still required in the new system and additional information that they would like to have on various reports as well. The final three pages of the appendix is a process that is run by Controller Division to determine if there are any discrepancies between what was paid and what was charged. If discrepancies are found, Controller Division works with the Buyers in Operations Division to make the necessary corrections. Page M-31 is the JCL that Controller runs in order to generate the report on the final two pages.

In between the first two pages and the last three pages are the reports from the system. First is the back order report, which will no longer be needed with the new system but was included in the report for information only. The rest is divided between the daily, weekly, monthly and yearly reports. Some reports are found in multiple groups, such as SUPB290 is in both the monthly and yearly batch jobs as well as SUPB230, which is found in the daily and monthly reports.

### **ADMINISTRATIVE FUNCTIONS**

There needs to be an administration portion that will allow the administrators of the system to add, remove or modify users of the system. They will need to allow users to create, modify and/or approve requisitions. The administrators of this application need to be determined. Someone or some group from Operations Division should be the administrators and that determination should be made by the Operations Division Manager.

### **MOCKUPS OF APPLICATION SCREENS**

A number of mockups for new screens were developed. Appendix N shows the various screens that the team believes would make it easier for not only Stock Supply and Buyers but also the users throughout the Department.

The first page is two logon screens; one for internal and the other for external users. For the external users, their login limits them to what they are able to order out of the system. They are also not allowed to return items. Internal users will login and then select their location. Each user may be ordering for multiple locations or only one location. Their selection will determine where the order will be delivered.

Page two is the mockup of the new maintenance screen. In the mockup, pull-downs are used instead of typing in values and the ability to add a photo of the item instead of keeping a separate folder on a server which contains all the item photos. Also, an input field for the description that allows them more characters than the current system so they do not have to use abbreviations.

Pages three and four of the mockups show the screens for the ordering of supplies. Page three allows the user either search by entering keywords or picking a category and scrolling through the items. A thumbnail of the pictures can be hovered over to bring up a full scale copy of the image. They will be shown the amount on hand and then allowed to enter the quantity they want. They can click on the cart button and a drop down will show the items in their cart. When completed, they will click on the "Proceed to Checkout" which will take them to the screen on page four.

The screen on page four is the summary page and also where they would pick the activity code for each item. They can also change the number of items ordered as well and delete items before submitting their order.

The screens on pages five and six are for returns when items have been damaged. The page five screen allows them to choose a range of dates of their previous orders. Retention rules allow only three years of orders to be stored in the system. For all returns they must enter a reason for the return. When they click on "Process Return" they are taken to the screen on Page six.

The screen on page six shows the information on the return and generates a bar code that will be scanned when the item(s) are picked up and then when they are dropped off back at the warehouse in Lincoln. This form will be printed off and kept with item(s) being returned.

The screens on pages seven and eight are similar to the screens on page five and six with the exception that they are for surplus instead of damages. As with the previous screens, they must have a reason for wanting to surplus the items and print off the form with the bar codes to be returned with the items.

## **APPENDIX A – Stock Replenishment Equation**

# July month 12 I yourd last + Irsud this & month (22) 7 = what we need to order  $V \neq 3 = minimum amount$ 2(V  $\neq 3$ ) = maximum amount

## **APPENDIX B – Supply System Needs**

- 1) A better ordering process for Districts, Divisions and Procurement (including vendors)
- 2) Eliminate the requirement of a Highway Number and Reference Post for ordering certain stock items.
- 3) Improved delivery process
- 4) Utilize bar codes for individual items and groups (bundles, boxes, etc.)
  - a. Match a manufacturer number/code with our number/code or
  - b. Send manufacturer our bar code
  - c. Would this allow us to eliminate class numbers and stock numbers?
- 5) Purchase orders include the vendor names, class numbers and stock numbers.
- 6) A search button on home screen and various item screens.
- 7) Back button on screens so you don't have to leave one to go to another then back.
- 8) A system similar to a Shopping Cart such as the CSI Nebraska website or NDOR Storefront.
  - a. Order as many items as needed (Currently limited to six items per screen but unlimited number of pages as needed.)
  - b. Tabs for each class code with items listed below with a brief description
  - c. Click on an item gives a full description, picture, cost, unit-of-measure and if it is on back order
  - d. Needs to have a back button to go back to the main screen
- 9) Need to have keywords for every item and must be able to modify them. Multiple keywords for each item to make it easier to find what you need.
- 10) User has the ability to change the quantity they want when selecting the items or during checkout.
- 11) Prices fluctuate so must be able to update prices during checkout and track different prices for similar items
  - a. Example: Have 50 "X" at \$5 each then order 100 "X" at \$6 each. Need to keep them separate and not average the costs for all items.
- 12) Login process since orders are not only internal but by Cities and Counties as well.
  - a. Allows us to differentiate between NDOR and Cities/Counties
- 13) Supervisors still must approve orders and returns internally
  - a. Cities and Counties do not need approvals

## **APPENDIX B – Supply System Needs**

- 14) Administrator function to add the people who order items and approvers including setting privileges.
- 15) Should we be charging shipping and handling on Cities and Counties?
- 16) Eliminate the need for a Back Order process.
- 17) Ability to check and uncheck items to allow them to be available or unavailable for purchasinga. Mainly for Cities and Counties so needs of Districts and Divisions are filled first
- 18) Items that have been deleted or modified must be archived according to the Operations Division's retention schedule
- 19) Can we setup procurement cards for Cities and Counties? Or use PayPal like we do for Storefront?
- 20) Automate the "Ship To" address
  - a. Able to modify the address if needed
  - b. Tied to the DOR number of City/County Name who logs in
- 21) System notifies Stock Control that orders are below the required amount
- 22) Ability to track purchase history to assist in determining stock needs
- 23) Ability to take into account seasonal factors for ordering
- 24) Tracking and notification of products which have a shelf life
- 25) Ability to override the maximum amount that can be ordered when replenishing what is kept in stock.
- 26) Credit given back to Districts and Divisions when they do returns and items are placed back in stock
  - a. What if items are not placed back in stock?
- 27) Users have the ability to look at existing orders and mark as returning if needed
  - a. Generate a return label for them
  - b. Notify Stock Control about the return
  - c. Credit is given at the purchase price
  - d. Cities and Counties able to return items?

## **APPENDIX B – Supply System Needs**

- 28) Notification sent to users that items must be returned within X days or the return will be cancelled
- 29) Ability to create on-demand reports
  - a. Inventory value by class
  - b. KP List Report for Controller Division
  - c. Any item in stock by date, O.E., radio call number and stock number (or bar code)
  - d. Sign orders and inventory
  - e. History report on units of measure changes by item
  - f. Daily and monthly adjustments
  - g. History on items ordered individually or multiple items



Note 2: Notification is done by direct contact or e-mail. If an order has not been approved within a week, Stock Control either calls or sends out e-mails.

Note 3: Supervisor must exit from approval screen and look up the requisition to review before he can approve.

Note 4: Sometimes calls are made to double-check the amount; this could be one out of every ten.

APPENDIX C

**APPENDIX C** 





## **APPENDIX C**



e not ordered or more of an item was received than what was ordered.

ere not received or less of an item was received than what was ordered.

ceeps the items and Stock Control does not find out until they do an inventory and see a discrepancy.

nouse for the item; could be in the staging area, forgot to load it, dropped at the wrong spot or just plain gone.

ocess a new order and the existing order will be changed to a return.

l Orders / Stock Orders – Page 3 d	District sends items back to Stock Control. 37	From Page 34 Missing 34 Not		: Additional items is defined as items that wer	Missing items is defined as items ordered we This rarely happens. Normally, the District k	: This would be a physical check of the Wareh	: If no one can find the item the District can pr
Field	різткіст	STOCK CONTROL	Эгионаяам	Note 5:	Note 6:	Note 7:	Note 8:



They must enter estimated begin and end dates then go through all requisitions to find the item and see what was ordered.

## **APPENDIX C**



lable and if they are on back order as well. If they need more than what is available they can still

itrol of the back order so they can order more.

here should be an area on the screen that shows they have items in their cart and they can hover over it and see everything in their shopping cart.

e items. They would also add coding information such as Highway number, Begin Ref. Post and End Ref. Post. Ref. Post must be validated.

## **APPENDIX D**

Orders / Stock Orders – Page 1 of	Logs into the system. Main Menu appears. 1 Note 1 2 Note 2	on back order No Vi or below Minimum? Yes	Notification sent to Stock Control 15	Need to distinguish between internal and extern Once logged in, this should display the availab This needs to show how many items are availal order them but system must notify stock contro When items are added to the shopping cart the Here they would modify quantities or remove it
Field	DISTRICT	ЭЅЏОНЭЯАѠ	STOCK CONTROL	Note 1: Note 2: Note 3: Note 4: Note 5:

က





Note 9: When the bar code is scanned, this should stop the timer for the 30 day period that is allowed for returns.



က

Note 10: When bar code is scanned, this should adjust the inventory and send notification to Stock Control about the change.



ecause it updates tables in the system when it is run.

he Buyer receives the IBT from CSI and sends to Controller Division.



Note 3: Various units in M&R perform the testing depending on the item that is ordered. Some send an e-mail and others send a form to denote if the item does or does not pass.



Note 5: This is done by checking what is entered on the Purchase Order with what is entered into the Supply System, RPS and E1 or NIS.

**APPENDIX E** 









on what item will be tested. Each item tested needs to have the technician stored as part of the metadata.

APPENDIX F



Note 10: Controller views the P/O data and the scanned invoice along with what has been entered into E1 and RPS. Possible to view E1 and RPS data in the system without having to open those apps separately?

**APPENDIX F** 

**APPENDIX G** 









**APPENDIX G** 

						d the iten I be zero.
			Stock Control informs Warehouse and Districts to check inventory for defective items. 39	Note 6 Stock Control fills out requisition for surplus. Change codes to OE = 904 and Activity = 4701. 34 SUPX130	<ul> <li>Buyer informs Stock</li> <li>Control the item will not be replaced.</li> <li>33</li> </ul>	rrough all requisitions to fin d to/Received from" box. k order requisition.
			No Items been Yes Shipped out to Districts?		Wrong Item or Defective damaged, wrong damaged, wrong a32	lated begin and end dates then go th 130 so they are put into the "Shippe then creating a new field order/stocl
3 of 3			Note 5 Stock Control runs a requisition history. SUPX150; Job 2 37		Buyer checks to see if item is under warranty, the wrong item was shipped, the item was damaged or if item is 31 defective.	e consuming. They must enter estim area for comments on Screen SUPX Districts as a return requisition and items thev are thrown away and noth
rning Inventory – Page (			Stock Control informed the item will be replaced. 36	From Page 1 of 3 Step 10 29 Item is Defective	Buyer is contacted. 30	This is very hard to do and time As stated in Note 4, there is no This could also be done by the If the vendor does not take the i
Retu	DISTRICT	Эгионаяам	вирегу	STOCK	влуея	Note 5: Note 6: Note 7: Note 8:





deleted.

G

F new return.

**APPENDIX H** 


**APPENDIX H** 



**APPENDIX H** 







Note 3: Since the Daily Report can only be run once a day, the changes made in steps 7 and 11 will not be seen in the daily report until the next day.









**APPENDIX J** 

### **APPENDIX K**

SUPX110	SUPPLY INVENTORY S INVENTORY MASTER	QUERY	06/05/13 15:50:44
FUNCTION: Q QUERY			
CLASS/STOCK NUMBER: 85 -	43200		
KEY WORD. ITEM DESCRIPTION. PART NUMBER. UNIT OF MEASURE. SPECIAL CODING. ACCOUNT CODE. MONTHS LEAD TIME. MINIMUM BALANCE. MAXIMUM BALANCE. QUANTITY ON HAND. DATE LAST ISSUED (MDY). BEGINNING YEAR QUANTITY. QUANTITY ISSUED THIS YR. QUANTITY ISSUED LAST YR. UNIT AVERAGE PRICE. TOTAL VALUE. TOTAL BACK ORDER REQ QTY. WEEKS ON BACK ORDER. TIMES ON BACK ORDER. PRINT BIN LABEL.	REFLECTOR DELINEATOR YELLOW 3 KEEP MAX=3000 EA (EACH) T 4344 1 1,500 3,000 3,640 06-05-2013 4,360 6,480 17,200 0.5339 1,943.40 0 0 3 N (Y=YES N=NO)	B" DIAMETER 40/RL,6	40/CS
TOTAL QTY ON P.O.'S P.O. NUMBERS ISSUED P.O. QUANTITIES P.O. DUE IN DATE	0		
LAST UPDATE ID/DATE: DR11	026 02-14-2013		
PF1 = PF2 = PF7 = PF8 =	PF3 =SUPMENU PF4 = PF9 = PF10=	PF5 = PF11=	PF6 = PF12=CLEAR
QUERY COMPLETE			
lA + a			05/013





Note 4: Running this job releases the Supply System so requisitions can be added, closed, modified or printed. Note 2: This report can also be printed from Screen SUPX150 and selecting Job Number 02. Note 3: Call Joel is when the only adjustment that can be made is to fix the database.



REPORT	REPORT DESCRIPTION	STATUS	COMMENTS
SUPB100	Back Order Report	Not Needed.	
SUPB140	Unfilled Requisitions Older than 7 Days	Not Needed.	
SUPB150	Purchase Orders Due In List	On Demand Report.	Add Original Due In Date. Keep Every Date Change. Comments are Optional. May not be needed if Dashboard works.
SUPB180	Inventory Master List	Not Needed.	
SUPB200	Inventory Value by Class Report	On Demand Report.	No Changes
SUPB210	Purchase Order Back Order Report	Not Needed.	Create a Vendor Performance Report
SUPB220	Outstanding Purchase Order Report	Not Needed.	Create a Vendor Performance Report
SUPB230	Purchase Orders Received Report	Auto Generate Report.	Print Daily. Don't Need "Thru" Dates. Eliminate the Date Received Column.
SUPB240	Stock Status Detail Report	Not Needed.	lt Never Worked.
SUPB250	Need to Order Report	Not Needed.	If within 10% of Minimum Generate P/O Automatically.
SUPB260	Multiple Locations Report	Not Needed.	
SUPB280	Requisition/Returns Expense Report by OE	Waiting on Tom R.	On Demand? Ability to Print.
SUPB290	Class/Stock Products Added/Deleted Report	On Demand Report.	No Changes
SUPB300	Sales Dollars by Class Report	Auto Generate Report.	Yearly Report
SUPB310	Stock Products Not Issued Since Report	On Demand Report.	No Changes
SUPB360	Negative Quantity On Hand List	Possibly Needed.	More Analysis Needed During Application Development.
SUPB370	Back Order Requisition List	Not Needed.	

REPORT	REPORT DESCRIPTION	STATUS	COMMENTS
SUPB380	Requisition/Returns Report	Auto Generate Report.	Print Daily. Don't Need "Thru" Dates. Eliminate "Shipped Date" Column.
SUPB390	Print Shop Need to Order Report	Used by Print Shop	
SUPB400	Outsides Stock Requisitions/Returns	Districts & Divisions receive this monthly showing their purchases and returns	New system should allow them to generate their own report or review on-line.
SUPB430	Accounts Payable Report	Auto Generate Report.	End of Month Report

	SU	PB100 APPI	ENDIX	M st	оск	IDOR SI REQUIS	JPPL SITI	Y I ON	NVEN - ST	TORY OCK C	SYS ONT	TEM Rol (	OP	Y			Ś	$\hat{)}$	
	SH ALI ALI	IP TO NAME LIANCE SHOI LIANCE NE	& ADDI P	RESS:		1	BA	CK	ori	DER		REQU COST RADI	IIS IN 0	ITI G O CAL	ON .E.	NO . NO NO .	D.	:1305 :650 :514	708
. (	CL	ASS-STOCK		PIE	CES	SHIPPE	ED:	10,	X		-		- 1	LOCA	ΑΤΙ	(ON			
		U/M	REQUES	STED.		SHIPPE	D	)	BACK	ORDE	R	BAS	E.	SE	C	BAY	1	BIN	FCP
	01	18-25500 CN	CLEAN	ER 12	C	BIOI 12	DEGR.	ADE/ )	ABLE (	DEGR	EASI )	ER,NO (101	N .	TOX: OL	ıc, -	12. 03	50 -	)Z/12/ 104)	∕CS F
(	02	18-29800 CS	URINAL	- BLO 1	CK (	ENZY 1	ME 1	BACT	CERIA C	AL KI	LLEF )	R W/S (101	CRI	EEN 0G	, 1 -	2/C 04	:s -	102)	F
(	3	18-50990 EA	MOP HE	AD 2	(	WET 2	20 (	0 Z )	(		)	(101	-	он	-	00	- 0	040)	F
(	)4	80 <b>=27000</b> EA	FIRST	AID 5	KIT (	TEN 2	UNI	т т <b>у</b> )	(PE (		)	(103	-	0 A	-	07	-	001)	Р
C	)5	60-00320 EA	FLAG,	NATI 5	ONAL (	OFFI 5	CIAL	- UN )	IITED (	STAT	res )	NYLO (103	N_4	'X 0 A	6' -	01	_	002)	F
	6	60-00300 EA	FLAG,	STATI 5	E , (	OFFI 5	CIAL	- NE )	BRAS (	KA NY	(LON )	3'X (103	5' -	0 A 0	-	04	-	080)	F
6	7	80-27000 EA	FIRST	AID I 3	KIT (	3	UNIT	Г Т Ү )	PE (		)	(103	-	0 A 0	-	07	-	001)	B

REQUESTED BY: APPROVED BY: CHARLES MILES PAUL HOWARD DATE:06-05-2013 DATE:06-05-2013

DATE/TIME PRINTED: 06-05-13 AT: 14:03

FILLED BY: SJ DATE:06-05-2013

**RECEIVED BY:** DATE: -PAGE: 1 OF 1

SUPBIOD APPENDIX M

04

05

06

NDOR SUPPLY INVENTORY SYSTEM STOCK REQUISITION - STOCK CONTROL COPY



		• • • • • • • • • • • • • • • • • • • •	
SHIP TO NAME TURK BLAKE DISTRICT 8 AINSWORTH	& ADDRESS:	1 Bund	REQUISITION NO. :1400128 COSTING O.E. NO.:903 RADIO CALL NO. :811
	PIECES	SHIPPED:	
CLASS-STOCK	REQUESTED	QUANTITY	LOCATION
U/M		SHIPPED BACK ORDER	BASE SEC BAY BIN FCP
01 45-12000	BLADE MOWER	LEFT WING FOR SCHULTE	MOWER 1/2" X 4" X 25" CW
EA	3 (		(105 - 0A - 03 - 100)
02 45-12300	BLADE MOWER	RIGHT WING FOR SCHULTE	MOWER 1/2" X 4" X 25" CCW
EA	3 (	C ( ) ( )	(105 - 0B - 04 - 200)
03 45-12500	BLADE MOWER	CENTER FOR SCHULTE MOW	ER 1/2" X 4" X 28" CW
EA	3 (		(105 - 0A - 03 - 101)
04 45-12000	BLADE MOWER	LEFT WING FOR SCHULTE I	MOWER 1/2" X 4" X 25" CW
EA	3 (		(105 - 0A - 03 - 100)
05 45-12300	BLADE MOWER	RIGHT WING FOR SCHULTE	MOWER 1/2" X 4" X 25" CCW
EA	3 (		(105 - 0B - 04 - 200)
06 45-12500	BLADE MOWER	CENTER FOR SCHULTE MOWE	ER 1/2" X 4" X 28" CW
EA	3 (		(105 - 0A - 03 - 101)

**REQUESTED BY:** SUSAN HOOVER DATE:06-26-2013 **APPROVED BY:** CHARLES OSBORN DATE:06-27-2013



RECEIVED BY: DATE: --PAGE: 1 OF 1

DATE/TIME PRINTED: 06-27-13 AT: 07:07

### APPENDIX M SUPPLY INVENTORY SYSTEM SUPX151 08/04/2006

BATCH JOB SUBMITTAL

06/27/14 07:06:58

JOB NUM DAILY BATCH JOB SUBMITTAL SELECTIONS	
21 PURCHASE ORDERS DUE IN LIST	SUPB150
22 UNFILLED REQUISITIONS OLDER THAN 7 DAYS LIST	SUPB140
23 NEGATIVE QUANTITY ON HAND LIST	SUPB360
24 BACK-ORDERED REQUISITIONS LIST	SUPB370
25 PURCHASE ORDERS RECEIVED REPORT SELECT BY FROM/THRU DATES	SUPB230
26 REQUISITIONS/RETURNS REPORT SELECT BY FROM/THRU DATES	SUPB380

JOB SELECTION:

S

DATES (M-D-Y) FROM: THRU:

PRINTER SELECTION: 2297

PF1 =JOBMENU PF2 = PF3 =SUPMENU PF4 = PF5 = PF6 =PF7 =DAILY PF8 =WEEKLY PF9 =MONTHLY PF10=YEARLY PF11=PHY INV PF12=CLEAR

ENTER JOB SELECTION - PRESS ENTER

DATE: 06-; SUPB150	27-14	UN d	OR SUPPLY I URCHASE ORD	NVENTORY SYS ERS DUE-IN L	TEM IST	PAGE: 1	
CLASS & STOCK ND	KEYWORD	W/N	P.O. NUMBER	QUANTITY ORDERED	DATE DUE - IN	NOTES	
10-07500	BOLT/SPACER	BX	4263009	10	06-30-2014		
10-21050	POST GUARD RAIL	ЕA	4264341 4264332	20 100	07-30-2014 08-14-2014		
16-14000	PAINT	GL	4265718	10	06-30-2014		
18-00500	HI-DRI	BG	4264303	100	07-01-2014		
18-25000	CLEANER	CN	4264326	19	07-01-2014		
24-10200	CHAIN HOOK	EA	4265726	50	06-30-2014		
45-11126	BIT, MILLING	CN	4265727	40	07-07-2014		
45-13615	STROBE LIGHT	EA	4264323	25	05-30-2014		
45-13620	STROBE LIGHT	EA	4265665	36	06-30-2014		
45-13630	STROBE LIGHT	EA	4264317	30	08-14-2014		
52-02140	CONTROLLER, NEW	EA	0526139	ß	06-14-2014		
52-12090	LOAD PACK	EA	4265699	50	06-30-2014		
52-17060	CAP POLE	EA	4265661	9	06-30-2014		
52-17124	TRANS BASE, NEW	EA	4265662	10	07-30-2014		
58-00900	SAMPLE, CAN	EA	4264293	450	06-30-2014		
58-17650	PAINT MARKING	cs	4264339	95	07-30-2014		
58-36950	SAMPLE, JAR	EA	4264343	288	07-14-2014		
50-0032 <b>0</b>	FLAG, NATIONAL	EA	4263730	6	05-15-2014		
60-0032 <b>0</b>	FLAG, NATIONAL	EA	4263521	7	03-14-2014		
70-08970	ENVELOPE, CARD	BD	4265656	35	9102-91-90		
70-26000	FRAME, CERTIF	EA	5260816	10	08-14-2014		
30-14030	RAIN SUIT	EA	4264319	20	06-25-2014		
30-14051	RAIN SUIT	EA	4264301	15	06-25-2014		
30-27240	GARMENT, PANTS	EA	0533781	100	07-01-2014		
30-27330	GARMENT, SHIRT	EA	0533781	200	07-01-2014		
80-2/8/U	GLASSES, SAFETY	PR	5260809	72	07-14-2014		

M-6

DATE: 06- SUPB140	27-14	NDOR SUPPLY INVENTORY SYSTEM UNFILLED REQUISITIONS OLDER THAN 7 DAYS			PAGE: 2
REQUISITIO NUMBER	N CLASS & STOCK NO	PRODUCT DESCRIPTION	ΩTY	OE	REDITCTTION
1405975	80-80625	SAFETY YELLOW/GREEN LARGE CHEST 48"	2	02)	DATE
1405983	80-80625	SAFETY YELLOW/GREEN LARGE CHEST 48"	o (		U6-05-2014
1405998	58-00900	1/2 GALLON, METAL, WITH LID		060	06-05-2014
1406015	58-00900	1/2 GALLON, METAL, WITH LID		650	06-06-2014
1406019	80-14051	RAIN SUIT, ELASTIC WAIST PANT, LARGE	, <sup>2</sup>	069	06-09-2014
1406024	80-14051	RAIN SUIT, ELASTIC WAIST PANT, LARGE	-	0/0	u6-09-2014
1406032	58-00900	1/2 GALLON, METAL, WITH LID	N C	019	06-09-2014
1406042 1406042	80-80625 80-80775	SAFETY YELLOW/GREEN LARGE CHEST 48" ORANGE SAFETY, X-LARGE, CHEST 52"	01 01	63U 680	06-09-2014 06-10-2014
1406058	85-19300	EXTRUDED ALUMINUM, 12', USE W/85-19400		000	102-11-2014
1406088 1406088	86-00590 86-00598	DO NOT PASS 24X30 PASS WITH CARE 24X30	13 13	040	06-11-2014
1406089 1406089	86-00590 86-00598	DO NOT PASS 24X30 PASS WITH CARE 24X30	15 15	640	06-11-2014 06-11-2014
1406090	58-00900	1/2 GALLON, METAL, WITH LID		640	06-11-2014
406123	80-80775	ORANGE SAFETY, X-LARGE, CHEST 52"	0 I	040	06-11-2014
.406125	85-19300	EXTRUDED ALUMINUM, 12', USE W/85-19400	ب م	670	06-13-2014
.406137	85-89650	PORTABLE W/DETACHABLE BASE			u6-13-2014
.406143	85-89740	TELSPAR, RECEIVER, REDI - TORQUE, W/85-89720&85-89730	2 O 2	000	U6-16-2014
406149	58-00900	1/2 GALLON, METAL, WITH LID	20	680 680	U6-16-2014 D6-16-2014
				222	hTn7_ot_on

### **APPENDIX M**

∪AIE: 06-27 SUPB140	7-14	NDOR SUPPLY INVENTORY SYSTEM UNFILLED REQUISITIONS OLDER THAN 7 DAYS			PAGE: 3
REQUISITION NUMBER	CLASS & STOCK NO	PRODUCT DESCRIPTION	дту	OE	REQUISITION
1406165	58-00900	1/2 GALLON, METAL, WITH LID	50	027	DATE
1406175 1406175	86-80215 86-80410	REDUCE SPEED-LOOSE GRAVEL ON SURF 48X48 ORANGE NO PASSING ZONES NOT MARKED 48X48 ORANGE		650 650	06-17-2014 06-17-2014
1406193	58-00900	1/2 GALLON, METAL, WITH LID	° ,	0.00	u6-17-2014
1406200	86-50300	OBJECT MARKER TYPE 3-LEFT 3 STRIPE MIN 12X36		680	06-17-2014
1406207	86-80600	DETOUR 24X12 ORANGE	61 .	019	06-18-2014
1406212	58-00900	1/2 GALLON, METAL, WITH LID	10	630	06-18-2014
1406216	80-80625	SAFETY YELLOW/GREEN LARGE CHEST 48"	40	640	06-18-2014
406235	85-37800	TEMPORARY WHITE 4" X 50YD, 2RL/BX	9 0	610	06-19-2014
.406238	86-50510	ROAD WORK I MILE 48X48 ORANGE	N ·	640	06-20-2014
N			4	650	06-20-2014



DATE: 06-27 SUPB370	-14	NDOR SUPPLY INVENTORY SYSTEM BACKORDERED REQUISITIONS			PAGE: 2
REQUISITION NUMBER	CLASS & STOCK ND	PRODUCT DESCRIPTION	ACK	OE	REQUISITION
1405975	80-80625	ORDERE SAFETY YELLOW/GREEN LARGE CHEST 48"	ED QTY 6	630	DATE 06-05-2014
1405983	80-80625	SAFETY YELLOW/GREEN LARGE CHEST 48"	2	390	06-05-2014
1405998	58-00900	1/2 GALLON, METAL, WITH LID	12	630	06-06-2014
1406015	58-00900	1/2 GALLON, METAL, WITH LID	40	650	06-09-2014
1406019	80-14051	RAIN SUIT, ELASTIC WAIST PANT, LARGE	ı	670	06-09-2014
1406024	80-14051	RAIN SUIT, ELASTIC WAIST PANT, LARGE	2	610	06-09-2014
1406032	58-00900	1/2 GALLON, METAL, WITH LID	30	630	06-09-2014
1406042 1406042	80-80625 80-80775	SAFETY YELLOW/GREEN LARGE CHEST 48" ORANGE SAFETY, X-LARGE, CHEST 52"	20 10	680 680	06-10-2014 06-10-2014
1406058	85-19300	EXTRUDED ALUMINUM, 12', USE W/85-19400	10	640	06-10-2014
1406088 1406088	86-00590 86-00598	DO NOT PASS 24X30 PASS WITH CARE 24X30	13 5	640 640	06-11-2014 06-11-2014
406089  406089	86-00590 86-00598	DO NOT PASS 24X30 PASS WITH CARE 24X30	15 12	640 640	06-11-2014 06-11-2014
406090	58-00900	1/2 GALLON, METAL, WITH LID	50	640	06-11-2014
.406123	80-80775	ORANGE SAFETY, X-LARGE, CHEST 52"	ß	670	06-13-2014
.406125	85-19300	EXTRUDED ALUMINUM, 12', USE W/85-19400	10	650	06-13-2014
.406137	85-89650	PORTABLE W/DETACHABLE BASE	22	660	06-16-2014
406143	85-89740	TELSPAR, RECEIVER, REDI-TORQUE, W/85-89720&85-89730	8	670	06-16-2014
406149	58-00900	1/2 GALLON, METAL, WITH LID	20	680	06-16-2014

M-11

DATE: 06-; SUPB230	27-14		FOR P	NDOR SUPPLY INVEN URCHASE ORDERS RE ERIOD: 06-26-2014	VTORY SYSTEM ECEIVED REPORT THRU: D6-26-2014			PAGE
PURCHASE ORDER NO	CLASS & STOCK NO	KEY WORD	P/O TYPE	DATE RECEIVED	QUANTITY RECEIVED	X	FINAL/CANCEL	DOLLAR
0529620	18-36900	TRASH BAG	DOR	06-26-2014	60	CS S	FARITAL CUDE	AMOUNT
11276315					PURCHASE	ORDER 0	529620 TOTAL:	1,287.60
	00600-01	BLOCK GD RAIL	DOR	06-26-2014	70	EA	Ľ	924.00
1264342	24-06000	CAN, GAS	DOR	06-26-2014	r urchase 6	UKDER 4	263815 TOTAL: -	924.00
					PURCHASE	ORDER 4	г 264342 TOTAL:	175.74
							GRAND TOTAL:	2,387.34

2,387.34

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DATE: 0 SUPB380	6-27-14		NDC SHIPPED REQU FOR PERIO	R SUPF ISITIC D: 06-	<sup>9</sup> LY INVENTORY SY DNS / RECEIVED RI 26-2014 THRU: D	STEM Eturns report 5-26-2014			PAGE: 1
RDO CALL NUMBER	REQ NUMBER	CLASS & STOCK ND	KEYWORD	REQ TYP	SHIPPED DATE	QUANTITY SHIPPED	WЛЛ	AVERAGE PRICE	TOTAL
642	1406187-01	85-89505	POST SIGN	RTN	06-26-2014 Totals:	2- 2-*	EA	611.0783	1,222.16-
413	1406237-01	16-40000	REPELLENT TNOCT						
413	1406237-02	85-89796	POST STGN		06-26-2014	12	EA	5.1567	61.88
413	1406237-03	85-89710	POST SIGN		06-26-2014 06-26-2014	50	EA	22.3800	1,119.00
				ľ	TOTALS:	112 ×	EA	7.3399	367.00 1.547 88 *
445	1406252-01	86-00115	SIGN	REQ	06-26-2014 Totals:	* 7 7	EA	21.5000	86.00
413	1406260-01	12-08538	OIL, MOTOR	REQ	06-26-2014	9	v	12 276	* 00.00
					TOTALS:	e *	3	16/2.01	97.65 *
445	1406261-01	85-10120	BOLT, SIGN	REQ	06-26-2014 Totals:	* N N	EA	1.0646	2.13
445	1500015-01	80-28090	GLOVES, LEATHER	REQ	96-26-2016	,			* 61.2
440 777	1500015-02	85-10120	BOLT, SIGN	REQ	06-26-2014	° -	х <	5.0482	30.29
644	1500015-03	80-27974	GLOVES, NITRILE	REQ	06-26-2014	м с	RY	1.0646	10.65
					TOTALS:	19 *	<b>K</b>	11/2.0	24.81 65.75 *
375	1500026-01	00600-09	BOX, PACKING	REQ	06-26-2014	25	EA	4500	11 25
					TOTALS:	25 *			11.25 *
444	1500028-01	45-16240	MUD FLAP	REQ	06-26-2014 Torres	80	EA	19.1612	153.29
					IUIALS:	* 80			153.29 *
012	1500029-01	80-23700	FILTER MASK	REQ	06-26-2014	20	EA	.6018	12 06
					TOTALS:	20 ×			12.04 *
412 412	1500030-01 1500030-02	45-04700	BLADE PLOW	REQ	06-26-2014	ß	EA	93.1415	12 377
			BLADE PLOW	REQ	06-26-2014	2	EA	93.1415	11.604
					TOTALS:	10 *			931.42 *
442	1500035-01	85-89715	POST SIGN	REQ	06-26-2014	11	EA	16. חנחח	22 221
M-14					TOTALS:	11 *			176.44 *
ŀ	1500048-01	70-89028	FORM DR-4	REQ	06-26-2014	12	PD	1.2399	08 21
					TOTALS:	12 *			14.00 14.88 *

DATE: 00 SUPB380	6-27-14	×	NDO SHIPPED REQU FOR PERIO	R SUPP ISITIO D: 06-	LY INVENTORY SY: NS / RECEIVED RI 26-2014 THRU: 00	STEM Eturns report 5-26-2014	*		PAGE: 3
RDO CALL NUMBER	REQ NUMBER	CLASS & STOCK ND	KEYWORD	REQ TYP	SHIPPED DATE	QUANTITY SHIPPED	W/N	AVERAGE	TOTAL
555	1500060-02	80-28090	GLOVES, LEATHER	RED	21UC-3C-3U	Ň			INCOME
444	1500060-03	80-27850	GLASSES, SAFETY	RFO	+T02-02-00	0 ( -	х и и	5.0482	30.29
644	1500060-04	80-27860	GLASSES, SAFETY	RED	9102-92-90	21	х с х с	1.8261	21.91
					hT02-02 00	77	ЪК	2.0610	24.73
					TOTALS:	36 *			106.85 *
341	1500061-01	80-00900	BANDAGE	REO	06-26-2014	м	70		
341	1500061-02	80-28080	GLOVES, LEATHER	REO	06-26-2014	с [		0069.	2.07
341	1500061-03	80-28090	GLOVES, LEATHER	RFO	100-90-90	21	2 1	4.98/4	59.85
341	1500061-04	80-80750	VEST. MFSH		hTD2-02-00	77	РК	5.0482	60.58
341	1500061-05	85-38500	PAVEMENT MADKED		97 92 - 20 50 50	9	EA	6.3000	37.80
341	1500061-06	85-38525	PAVEMENT MADVED		97-26-2014	1	BX	138.0000	138.00
			AVENUE HARVER	KEU	06-26-2014	1	BX	123.0000	123.00
					TOTALS:	35 *			421.30 *
311	1500062-01	80-27860	GLASSES, SAFETY	REQ	06-26-2014	61	dd		
					TOTAL S.	1 1 × 1	4	0100.2	24.73
						× J7			24.73 *
<b>M-</b> :	1500063-01 1500063-02	24-46502	PADLOCK	REQ	06-26-2014	9	EA	11.4491	68.69
15		0KN71-76	LUMINAIRE	REQ	06-26-2014	1	EA	186.8882	186 80
					TOTALS:	7 *			255.58 *
651	1500066-01								
651	1500064-02	86 - 20000 86 - 80400	SIGN	REQ	06-26-2014	ю	EA	70.6000	211.80
651	1500064-03	86-8021E	NOTO	KEO	06-26-2014	6	EA	108.5256	651.15
651	1500064-06	G1000-00	NOTO	REQ	06-26-2014	9	EA	108.5000	651.00
651	1500064-05	86-50520	NOTO	REQ	06-26-2014	9	EA	108.5561	651.34
			NOTO	REQ	06-26-2014	9	EA	108.5000	651.00
					TOTALS:	27 *			2,816.29 *
101	1500068-01	80-52410	POISON IVY-DINT	REQ	06-26-2014	s	70		
101	1500068-02	80-68400	STING KILL	REQ	06-26-2014		2 2	C/1G*1	6.07
101	1500068-03	58-17650	PAINT MARKING	RFO	110-36-30	Γ 、	2 0	0004.1	6.00
				1	HT07-07-00	0	cs	28.2086	169.25
					IUIALS:	14 *			181.32 ×
723	1500070-01	70-26000	FRAME, CERTIF	REQ	06-26-2014	N	EA	15.0000	30.00
					TOTALS:	2 *			30.00 *
131	1500076-01	45-13630	STROBE LIGHT	RFO	2106-36-30	c	L		
				r 1	HTOT OF OF	2 0	EA	125.0000	250.00
					IUIALS:	* 7			250.00 *
					TOTALS:	* 0			* 00 .

PAGE: 4	TOTAL AMOUNT	392.80 392.80 *	12,640.89 *
24 2	AVERAGE PRICE	9.8200	<b>ΙΚΤ ΤΟΤΑ</b>
	W/N	BK	REPC
/STEM Returns report 16-26-2014 <sup>.</sup>	QUANTITY SHIPPED	40 *	
Y INVENTORY SY IS / RECEIVED F 16-2014 THRU: 0	SHIPPED DATE	06-26-2014 Totals:	
NDOR SUPPL REQUISITION ERIOD: 06-2	REQ TYP	PRT	
SHIPPED   FOR PI	KEYWORD	MANUAL	
	CLASS & STOCK ND	70-61155	
-27-14	REQ NUMBER	5260822-01	
JATE: 06- SUPB380	RDO CALL NUMBER		

SUPX152 APPENDIX M 08/04/2006 SUPPLY INVENTORY SYSTEM BATCH JOB SUBMITTAL

06/27/14 07:05:58

JOB		
NUM	WEEKLY BATCH JOB SUBMITTAL SELECTIONS	
===		
41	STOCK STATUS DETAIL REPORT Did Not Print Onythin	SUPB240
42	NEED-TO-ORDER REPORT	SUPB250
43	PURCHASE ORDER BACK-ORDER REPORT	SUPB210
44	INVENTORY VALUE BY CLASS REPORT	SUPB200
45	MULTIPLE LOCATIONS REPORT	SUPB260
<b>X</b> 46	PRINT SHOP NEED-TO-ORDER REPORT	SUPB390

JOB SELECTION:

PRINTER SELECTION: 2297

PF1=JOBMENUPF2=PF3=SUPMENUPF4=PF5=PF6=PF7=DAILYPF8=WEEKLYPF9=MONTHLYPF10=YEARLYPF11=PHYINVPF12=CLEAR

ENTER JOB SELECTION - PRESS ENTER

1	MOS LEAD TIME	N	1	
PAGE:	MAXIMUM BALANCE	200	16	
	MINIMUM BALANCE	100	ω	
	BACK ORDER QUANTITY ON REQS		0	
Ψ	QUANTITY ON HAND	09	ы	
RY SYST EPORT	LAST ISSUE MO-YR	06-14	06-14	
PLY INVENTO -TO-ORDER RI	QUANTITY ISSUED LAST YEAR	378 W/HARDWARE	42 Reakaway	
NDOR SUP NEED	QUANTITY ISSUED THIS YEAR	55 30X BRACKET	5 FOR MARION B	
	W/N	PK , MAIL I	C FLANGE F	
3-14	PART NUMBER KEYWORD/DESCRIPTION	MAIL BOX PKG SINGLE	NUT 5/16"	
DATE: 06-2 SUPB250	CLASS & Stock No	10-07100	10-07600	

ATTE CON

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"We due

2	MOS LEAD TIME	1	1	1	1	A ٦	PPEN	DIXI	M	I
PAGE:	MAXIMUM BALANCE	130	50	70	24	80	84	28	12	1,260
	MINIMUM BALANCE	65	25	35	12	4	42	14	9	360
	BACK ORDER QUANTITY ON REQS	o	D	0	0	0	D	٥	2	D
Σ	QUANTITY ON HAND	52 ONLY 62	23 IGE NUT	31	9 ETING	1	20	/BX 9	٥	300
JRY SYSTE REPORT	LAST ISSUE MO-YR	06-14 'E, PLANK	06-14 T W/FLAN	06-14	06-14 TUBE/SHE	06-14	06-14	06-14 9300, 10.	06-14	06-14
PLY INVENTO -TO-ORDER P	QUANTITY ISSUED LAST YEAR	363 :T/6" STRIF	120 Flange Bol	212	134 LEX NO SQ	23 , HEX HEAD	195 D HEX HEAD	54 USE W/85-1	28 2RL/BX	4,000 DL
NDOR SUP NEED	QUANTITY ISSUED THIS YEAR	0 3e & White 8f	0 ' USS PLATED	7 /ET W/WASHER	8 ' TOP, SHUR-F	4 W/NUT PLATED	D W/NUT, PLATE	D T HARDWARE,	8 E 4" X 50YD,	100 X 10', 25/B
	W/Л	EA III ORANO	с " Х 2 1/2'	C DRIVE RIV	BX BLACK, 13'	C X 1" USS	c X 3" USS	BX Elspar pos	BX IRARY WHIT	EA AR, 2" OD
	RIPTION	ТҮРЕ	5/16	3/8"	TOR 48"	1/4"	1/4"	N 2" TE	KER TEMPC	TELSP
3-14	PART NUMBER KEYWORD/DESC	BP-HIDF BARRICADE	BOLT, SIGN	RIVET	25 PER/BOX POST DELINEA	BOLT, SIGN	BOLT, SIGN	BRACKET, SIG	PAVEMENT MAR	POST SIGN
DATE: 06-23 SUPB250	CLASS & STOCK ND	85-07100 1	85-10110	85-10220	85-14200	85-16200	85-17400	85-19400	85-37800	85-89796

"TUNNER"

TANKING ...

M-19

MJUTA ..

	ON Rder								APF	PEND
1	TIMES BACK D	0	0	1	4	0	0	ю	Г	6
PAGE	WEEKS ON BACK ORDER	•	٥	0	1	O	0	0	0	٥
	TOTAL BACK ORDER VALUE	19	2,811	78	880	22,500	852	169	458	1,831
Т	UNIT D PRICE	1.6500	33.0800	39.3300	88.0000	3,750.0000	7.1000	14.1100	6.3700	36.6200
FORY SYSTEM ORDER REPOR	QUANTITY BACK ORDERE	12	85	2	10	9	120	12	72	50
UPPLY INVENT ORDER BACK	DUE IN DATE	03-29-2013	03-15-2013	03-27-2013	04-15-2013	03-30-2013	03-27-2013	04-01-2013	03-30-2013	03-15-2013
NDOR S PURCHASE	PURCHASE ORDER DATE	03-11-2013	02-28-2013	03-13-2013	03-07-2013	10-29-2012	03-13-2013	03-04-2013	02-27-2013	02-15-2013
	PURCHASE ORDER NO	3261617	0461300	3262571	3262560	0444077	0463533	3262552	3262535	3261528
	W/N	9L	CS	EA	EA	EA	RM	EA	РК	EA
-18-13	KEYWORD	FLUID, WASHER	RAG WIPING	WRENCH, PIPE	STROBE LIGHT	CONTROLLER, NEW	PAPER	COVERALL	GLOVES, LEATHER	SIGN
DATE: 03 SUPB210	CLASS & STOCK NO	12-05050	18-59050	24-82250	45-13645	52-02140	70-40484	80-20330	80-29400	01000 - 98M-20

IX M

# DATE: 05-20-13 SUPB200

NDOR SUPPLY INVENTORY SYSTEM

	INVENTORY VALUE BY CLA	ASS
CLASS	NUMBER OF INVENTORY PRODUCTS	INVENTO
10	31	83,656
12	32	82,996
16	20	12,889
18	65	47,172
24	58	39,508
45	60	1,241,894
50	3	3,143
52	92	256,412
58	47	58,972
	č	

I	
PAGE:	

I NVENTORY VALUE	83,656.58	82,994.47	12,889.31	47,172.05	39,508.02	241,894.12	3,143.53	256,412.96	58,972.60	13,980.64	44,175.10	69,087.41	317,605.92	202,259.07	.00	473,751.78
NUMBER OF NTORY PRODUCTS	31	32	20	65	58	60 1,	3	92	47	21	110	174	117	252	Ю	.,085 2,
CLASS INVE	10	12	16	18	24	45	50	52	58	60	70	80	85	86	66	TOTAL 1

## **APPENDIX M**

2,473,751.78

1,085

## DATE: 06-09-14 SUPB260

NDOR SUPPLY INVENTORY SYSTEM STOCK NUMBERS WITH MULTIPLE LOCAT

JEFLY INVENIURY SYSIEM	RS WITH MULTIPLE LOCATIONS	

PAGE	

-••

BIN	104 001
ВАҮ	05 FL
SECTION	0E CC
BASE	101 104
W/N	EA
QUANTITY ON HAND	173 0
KEY WORD	SIGN
CLASS & STOCK ND	86-50090 86-50090

ч	MOS LEAD TIME	1	1	1	1	
PAGE:	MAXIMUM BALANCE	20	20	25	20	50
	MINIMUM BALANCE	10	10	ы	ß	20
	BACK ORDER QUANTITY ON REQS	٥	O	4	0	۵
EM ORT	QUANTITY ON HAND	6	8	0	3 JST/BD	6
NDOR SUPPLY INVENTORY SYST PRINT SHOP NEED-TO-ORDER REF	ER ISSUED ISSUED ISSUED ISSUE ESCRIPTION U/M THIS YEAR LAST YEAR MO-YR	BX 06-14 MAILING, BROWN SELF-SEAL 10" X 13" (500/BX)	BK 3 26 06-14 BRIDGE PLAN READING ANSWER BOOK	BD 6-14 JA JAN 02-HIGHWAY SAFETY USE ONLY, 100SS/BD	BD 06-14 70 DEC 07-MOTOR POOL VEH REQUEST & TRIP RPT, 5	PK 04-14 72 Feb 98-Fire ext monthly insp data 50/PK
VTE: 06-27-14 JPB390	ASS & PART NUMBE OCK NO KEYWORD/DE	I-09900 Envelope	-61150 Manual	-88915 Form Dr-40/	-89213 Form Dr-170	-89215 Form Dr-172

SUPX153 A	<b>PPENDIX M</b> SUPPLY INVENTORY SYSTEM BATCH JOB SUBMITTAL	06/27/14 07:06:14
JOE NUM	MONTHLY BATCH JOB SUBMITTAL SELECTIONS	
61	REQUISITIONS/RETURNS EXPENSE REPORT BY OE SELECT BY FROM/THRU DATES	► SUPB280
62	PURCHASE ORDERS RECEIVED REPORT SELECT BY FROM/THRU DATES	SUPB230
63	OUTSTANDING PURCHASE ORDER REPORT	SUPB220
64	CLASS-STOCK PRODUCTS ADDED/DELETED REPORT SELECT BY FROM/THRU DATES	SUPB290
<b>√</b> 65	OUTSIDE STOCK REQUISITIONS/RETURNS SELECT BY FROM/THRU DATES OR STOCK REQUISITION/RETURN NO.	SUPB400

JOB SELECTION:		
DATES (M-D-Y)	FROM:	THRU:
REQ./RETURN NO.	:	

PRINTER SELECTION: 2297

PF1 =JOBMENU PF2 = PF3 =SUPMENU PF4 = PF5 = PF6 = PF7 =DAILY PF8 =WEEKLY PF9 =MONTHLY PF10=YEARLY PF11=PHY INV PF12=CLEAR

ENTER JOB SELECTION - PRESS ENTER

ORGANIZA	ION CODE:	904 TITLE:	: ADMINSTRATIVE						
RDO CALL NUMBER	REQ	CLASS &		REQ	SHIPPED	QUANTITY		AVERAGE	TOTAL
	NUNDER	STUCK NO	KEYWORD	ТҮР	DATE	SHIPPED	W/N	PRICE	AMOUNT
	1301073	85-89553	POST SIGN	REO	08-29-2012		i		
	1301100	80-80625	VEST, MESH	REO	08-29-2012	2007		11.0600	1,106.00
	1301100	80-80675	VEST, MESH	RFO	08-29-2012	9 6	E A	6.3000	18.90
	1301105	18-36800	TRASH BAG		2102 02 00	ο,	EA	6.3000	18.90
	1301105	18-37000	TRASH BAG		2102-62-00	- <i>.</i>	CS	21.0471	21.05
054	1301109	52-02150	CONTROL 1 ER NEW		2102-67-00	-	CS	28.2988	28.30
054	1301109	52-10000	ISOLATOR		08-50-2012		EA	3,784.4286	3,784.43
054	1301109	52-12090	LOAD PACK		2102-02-00 2102-06-00	2	EA	39.0000	78.00
054	1301109	52-22010	STGNAL HEAD		7107-0C-00	2	EA	33.9982	68.00
054	1301109	52-22075	STGNAL HEAD		08-50-2012	2	EA	385.9500	771.90
	1301175	80-80625	VEST. MESH		2102-06-80	4	EA	589.1975	2,356.79
	1301175	80-80675			2102-40-60	3-	EA	6.3000	18.90
	1301176	80-79900			2102-60-60	3-	EA	6.3000	18.90
	1301201	85-14100	POST DEL TNEATOR		2102-60-60	9	EA	3.8526	23.12
	1301226	70-60680	PAPED		09-07-2012	400	EA	4.5900	1,836.00
054	1301353	52-02015	CONTROLLED MELL	KEQ 010	09-07-2012	100	RM	3.2181	321.81
054	1301353	52-02160	CONTROLLER, NEW		09-17-2012	1	EA	1,899.2200	1,899.22
054	1301353	52-02142	CONTROLLER, NEW		09-17-2012	I	EA	3,750.0000	3,750.00
054	1301353	52-03080	DETECTOD		09-17-2012	1	EA	425.7921	425.79
054	1301353	52-03085	DETECTOD		09-17-2012	3	EA	92.9500	278.85
054	1301353	52-10000	TSOLATOR		00 17 2012	4	EA	268.0000	1,072.00
054	1301353	52-12090			2102-11-60	1	EA	39.0000	39.00
	1301399	18-56000	TOWEL . PAPER		2102-11-60	9	EA	33.9982	203.99
	1301470	12-08525	OIL, MOTOR		00-25-2012	1,	cs	14.1107	14.11
	1301470	12-08541			7107-67-60	1	DR	439.9750	439.98
	1301476	60-00200	COLD PATCH		00 25 2012	5	DR	451.0000	902.00
	1301485	52-17131	PHOTO ELEC CONT		2102-62-60	63	BG	8.0000	504.00
	1301487	18-36900	TRACH BAC		2102-62-60	ъ	EA	15.7632	63.05
	1301487	18-57000	TOWEL PAPED		09-25-2012	9	CS	21.0514	126.31
	1301487	18-59000	RAG WIPING		00 05 2012	8	CS	18.6952	149.56
	1301487	80-28080	CI DVFS I FATUED		2102-62-60	ю	BX	16.0000	48.00
	1301487	80-29400	CIDVES LEAIDER	х л л	09-25-2012	12	РК	3.8691	46.43
			GLUVES, LEAINER	KEU	09-25-2012	12	PR	4.7319	56.78

58

PAGE:

9

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NDOR SUPPLY INVENTORY SYSTEM \* REQUISITIONS/RETURNS EXPENSE REPORT BY OE FOR PERIOD: 08-29-2012 THRU: 09-25-2012

904

ORGANIZATION CODE:

DATE: 09-26-12 SUPB280

M-25

56.78

DATE: 09- SUPB280	26-12 s		NDC * REQUISITIC FOR PERIC	DR SUPPL DNS/RETL DD: 08-2	Y INVENTORY S JRNS EXPENSE RI 9-2012 THRU:	YSTEM EPORT BY OE 09-25-2012	œ	e	PAGE:	59
ORGANIZATI	ON CODE:	904 TITLE:	: ADMINSTRATIVE							
RDO CALL NUMBER	REQ NUMBER	CLASS & STOCK NO	KEYWORD	КЕQ ТҮР	SHIPPED DATE	QUANTITY SHIPPED	W/N	AVERAGE PRICE	TOTAL	
	1301488	18-56000	TOWEL, PAPER	REQ	09-25-2012	4	CS	14.1107	56	44
							TOTAL REQU TOTAL RETU	ISITIONS: RNS :	20,508	.71 .80-
							ORGANIZATI	ON TOTAL:	20,470.	16

t,

DATE: 05 SUPB230	- 29 - 13		FOR P	NDOR SUPPLY INVENT URCHASE ORDERS REC ERIOD: 04-25-2013	ORY SYSTEM EIVED REPORT THRU: 05-28-20	13		PAG
PURCHASE ORDER NO	CLASS & STOCK ND	KEY WORD	P/O TYPE	DATE RECEIVED	QUANTITY RECEIVED	E E	FINAL/CANCEL	DOLLAR
0458247 0458247	10-07700 10-07800	POST MAIL BOX POST MAIL BOX	DOR DOR	05-14-2013 05-14-2013	400 400 PURCHASI	EA EA DRDEP DAE		1,548.00 1,548.00
0466427 0466427	85-89710 85-89796	POST SIGN POST SIGN	DOR	05-09-2013 05-09-2013	1,200 1,200 PURCHASE	EA EA EA E ORDER 046	6427 TDTAL:	3,096.00 8,808.00 26,856.00 35 224,00
0466429	85-89730	POST SIGN	DOR	05-02-2013	60 PURCHASE	EA : ORDER 046	F 6429 TOTAL:	5,505.00 5,505.00
0467248 0467248	80-80550 80-80640	VEST, MESH VEST, MESH	DOR DOR	05-01-2013 05-01-2013	25 40 Purchase	EA EA ORDER 046	F F 7248 TOTAL:	157.50 252.00 409.50
508/950 M-27	85-89740	POST SIGN	DOR	05-02-2013	50 PURCHASE	BX ORDER 0467	F 7804 TOTAL:	4,422.00 4,422.00
0126940	85-89745	POST SIGN	DOR	05-02-2013	150 PURCHASE	BG ORDER 0469	F 9210 TOTAL:	2,358.00 2,358.00
1920/90	70-40482	PAPER	DOR	04-30-2013	55 PURCHASE	RM ORDER 0470	F 1241 TOTAL:	248.33 248.33
6420740 2207230	60-00200	COLD PATCH	DOR	05-01-2013	882 PURCHASE	BG ORDER 0470	F 1245 TOTAL:	7,056.00 7,056.00
2420740	0,0200-00	COLD PATCH	DOR	04-30-2013	882 PURCHASE	BG ORDER 0470	F 246 TOTAL:	7,056.00 7,056.00
)470349	10000-01 85-80720	IRASH BAG	DOR	05-03-2013	10 Purchase	CS ORDER 0470	F 247 TOTAL:	208.70 208.70
2920291		LUSI STGN	DOR	05-02-2013	50 PURCHASE	EA ORDER 0470	F 349 TOTAL:	4,587.50 4,587.50
140047	70-40484 70-40484	PAPER PAPER	DOR DOR	04-25-2013 04-30-2013	80 70 PURCHASE	RM RM ORDER 04706	P F 647 TOTAL:	568.00 497.00 1,065.00

AGE:

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SUPB230	61-62-		PU FOR PE	VDOR SUPPLY INVENTG JRCHASE ORDERS RECE ERIOD: 04-25-2013 7	JRY SYSTEM EIVED REPORT THRU: 05-28-201	3		PAG
PURCHASE ORDER NO	CLASS & STOCK ND	КЕҮ МОКD	P/O TYPE	DATE RECEIVED	QUANTITY RECEIVED	FINA D/M PART	AL∕CANCEL FIAL CODE	DOLLAR
3261610	85-44000	DELINEATOR	DOR	05-15-2013	1,600 PURCHASE	EA ORDER 326161	F LO TOTAL:	2,324.80 2,324.80
3261636	86-80475	SIGN	DOR	04-30-2013	25 PURCHASE	EA ORDER 326163	F 6 TOTAL:	1,210.00 1,210.00
3261637	52-10000	ISOLATOR	DOR	05-01-2013	40 PURCHASE	EA ORDER 326163	F 7 TOTAL:	1,680.00 1,680.00
3261646	85-96600	WASHER	DOR	04-25-2013	15 PURCHASE	C ORDER 326164	F 6 TOTAL:	30.45 30.45
3261647	52-03085	DETECTOR	DOR	04-29-2013	20 PURCHASE	EA ORDER 326164	F 7 TOTAL:	5,500.00 5,500.00
3261648 W-28	85-35400	PAVEMENT MARKER	DOR	04-29-2013	500 PURCHASE	EA ORDER 3261648	F 8 TOTAL:	550.00 550.00
3261660 3261660 3261660	86-50320 86-50320 86-50320	SIGN SIGN SIGN	DOR DOR DOR	04-30-2013 05-21-2013 05-20-2013	760 19 401 Purchase	EA EA EA ORDER 3261660	Р F Р ТОТАІ ·	2,128.00 53.20 1,122.80
3261663	52-03080	DETECTOR	DOR	05-09-2013	20 PURCHASE	EA ORDER 3261663	F F TOTAL:	1,919.00 10
3261665	85-89501	POST SIGN	DOR	05-15-2013	18 PURCHASE	EA ORDER 3261665	F 5 TOTAL:	2,107.01 2,107.01
5261672	12-00575	ANTIFREEZE, DRUM	DOR	05-15-2013	12 PURCHASE 0	DR ORDER 3261672	F : TOTAL:	385.50 385.50
3261681 3261681 3261681 3261681	86-03600 86-50030 86-50300	SIGN SIGN	DOR DOR DOR	05-03-2013 05-03-2013 05-03-2013	100 1 50 1 100 1 PURCHASE 0	EA EA EA Srder 3261681	н н н г г г г г г г г г г г г г г г г г	160.00 2,020.00 1,940.00
3261692	10-07600	NUT	DOR	04-25-2013	25 PURCHASE C	C 261692	F TOTAL:	4,120.00 117.80 117.80

E: 3

05-29-13

DATE:
29-13			FOR	NDOR SUPPLY INVEN PURCHASE ORDERS REU PERIOD: 04-25-2013	TORY SYSTEM CEIVED REPORT THRU: D5-28-201	M		PAG
CLASS & STOCK NO KEY WO	KEY WO	RD	P/0 TYPE	DATE RECFIVED	QUANTITY	c FIN	AL/CANCEL	DOLLAF
45-19680 WAFER	WAFER	FILLER	DOR	04-29-2013	RECEIVED 1,400	U/M PAR EA	TIAL CODE F	
24-48625 SHOVEL,	SHOVEL ,	DIRT	DOR	05-02-2013	PURCHASE 11	ORDER 32626	35 TOTAL:	9,109.80
45-13610 STROBE	STROBE	LIGHT	DOR	05-10-2013	PURCHASE	ORDER 32626	36 TOTAL:	265.10 265.10
80-52100					PURCHASE	CRDER 326263	F 37 TOTAL:	3,520.00 3,520.00
AUAPIER	AUAPIER		DOR	05-06-2013	30 Purchase	EA ORDER 326263	F 8 TOTAL:	680.70 680.70
ou-zusqu COVERAL	COVERAL	Ļ	DOR	05-07-2013	12 PURCHASE	EA ORDER 326264	F D TOTAL:	182.88 182.88
00-2/020 FIRST A]	FIRST AI	ID KIT	DOR	05-07-2013	30 PURCHASE	EA ORDER 326264	P 1 TOTAL:	539.70 539.70
			DOR	05-03-2013	32 PURCHASE	GL ORDER 326264:	F 3 TOTAL:	1,197.76 1,197.76
58-08600 CAUDIT	HUSE, BR	ЕАКАМАҮ	DOR	05-15-2013	12 PURCHASE	EA ORDER 3262640	F 4 TOTAL:	1,020.00 1,020.00
12-0000 SAMFLE, L	SAMPLE, L	NA	DOR	05-14-2013	400 E PURCHASE C	EA JRDER 3262646	F 5 TOTAL:	988.00 988.00
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	FLUID, DI	LESEL	DOR	05-09-2013	80 E PURCHASE C	8X 1RDER 3262647	F * TOTAL:	1,368.40 1,368.40
E-12100 SAMPLE,	SAMPLE,	JAR LID	DOR	05-13-2013	500 E PURCHASE D	A RDER 3262649	F TOTAL:	11,000.00 11,000.00
0,00000 BOLT BLAI	BOLT BLAI	DE	DOR	05-15-2013	12 E PURCHASE O	A RDER 3262650	F TOTAL:	190.22 190.22
0-11820 ENVELOPE	ENVELOPE		DAS	04-29-2013 04-29-2013	21 B 21 B: PURCHASE OI	X X RDER 3290341	F F Total:	853.65 826.35 1,680.00
						GRAND	TOTAL:	231.517 47

GE: 8

PAGE: 2	ITEM	252.00	252.00 4.422.00	4,422.00 2,131.20	2,131.20	2,358.00	1,548.00 1,548.00	1,548.00	1,548.00 220.83	220.83 7,056.00	7,056.00	7,056.00	208.70	208.70 18,360.00	18,360.00
	W/N	EA	TOTAL BX	TOTAL EA	TOTAL	TOTAL	EA TOTAL	EA		I U I A L BG	TOTAL	TOTAL	CS	F0TAL EA	TOTAL
	QUANTITY ORDERED	40	P.O. 50	P.O. 288	P.O. 150	P.O.	400 P.O.	400	55 B	882	P.O. 882	P.O.	10	P.0.	P.O. 1
SYSTEM DER REPORT	DATE DUE IN	05-03-2013	05-31-2013	05-13-2013	05-15-2013		05-31-2013	05-31-2013	05-07-2013	05-07-2013	05-07-2013		05-07-2013	05-31-2013	
PPLY INVENTORY NG PURCHASE OR	DATE ORDERED	04-04-2013	04-08-2013	04-15-2013	04-16-2013		61U2-22-4U	04-22-2013	04-22-2013	04-22-2013	04-22-2013		14-22-2013	14-24-2013	
NDOR SU OUTSTANDI	Р.О. ТҮРЕ	DOR	DOR	DOR	DOR	aur	200	DOR	DOR	DOR	DOR		DOR	DOR	
	KEY WORD	VEST, MESH	POST SIGN	CAP, BASEBALL	POST SIGN	POST MAIL BOX		POST MAIL BOX	PAPER	COLD PATCH	COLD PATCH		IKASH BAG	POST DELINEATOR	
-25-13	CLASS & STOCK NO	80-80640	85-89740	80-17640	85-89745	10-07700		10-07800	70-40482	60-00200	60-00200	18-36800		85-14100	
DATE: 04 SUPB220	PURCHASE ORDER NO		0467804	0468741	0469210	0470187			0470241 <b>0</b>	0470245	0470246	0470247		0470345	

PAGE: 8	ITEM	464.00	464.00	597.80 597.80	9,125.20	9,125.20	265.10 265.10	3,520.00	3,520.00	680.70	680.70	182.88 182.88
	QUANTITY ORDERED UZM	4 KL	P.O. TOTAL	20 EA P.O. TOTAL	1,400 EA	T.U. IUIAL	11 BO EA P.O. TOTAL	40 EA	P.O. TOTAL	30 EA	P.O. TOTAL	12 EA P.O. TOTAL
Y SYSTEM RDER REPORT	DATE DUE IN	04-26-2013		05-07-2013	05-15-2013		6102 - 10 - 60	05-15-2013		05-07-2013		05-20-2013
SUPPLY INVENTOR DING PURCHASE O	DATE ORDERED	04-17-2013		S1U2-22-4U	04-23-2013	2106-22-20		04-23-2013		04-24-2013		04-24-2013
NDOR	Р.О. ТҮРЕ	DOR	aur	200	DOR	DOR		DOR		DOR		DOR
	KEY WORD	сготн	CASTER		WAFER FILLER	SHOVEL, DIRT		STROBE LIGHT		ADAPTER		CUVERALL
- 25 - 13	CLASS & STOCK NO	80-18000	24-09400		45-19680	24-48625		45-13610		80-6/100	80-20260	
DATE: 04 SUPB220	PURCHASE ORDER NO	3262632	3262633		6692926	3262636		3262637	0276762	0007070	₹ 3262640	31

283,855.33

TOTAL OUTSTANDING

PAGE:		UPDATE	DATE	04-22-2013	04-11-2013	04-17-2013	04-22-2013	04-22-2013	04-22-2013	04-04-2013	04-22-2013	04-22-2013	04-22-2013	04-04-2013	04-22-2013	04-22-2013	04-22-2013	04-04-2013	04-22-2013	04-22-2013	
		UPDATE	10	DR11026	DR19042	DR19042	DR19042	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	DR11026	
NDOR SUPPLY INVENTORY SYSTEM CLASS-STOCK PRODUCTS ADDED & DELETED REPORT FOR PERIOD: 03-27-2013 THRU: 04-24-2013			HEAVY DUTY PLASTIC SEALS		PARKER-KALFON 1/4" X 2 1/2" GALVANIZED 100 PER BX MOUNDS CITY STANDAPD ENCLISED 2000	6" X 6" X 6", CARDBOARD	FUEL SYMBOL	DIVIDED HWY SYMBOL 48X48 VELLOW	CONTROLLED ACCESS HWY 24X24	TRUCK 24X12	ALT 24X12	ALTERNATE 24X12	NO HWY LITTERING 48X48	BUCKLE UP/HELMET LAW 60X48	VEHICLE TOWING MOBILE HOME 36X36	SPEED LIMIT 50 MPH 48X60	BRIDGE MAY BE ICY 48X48 HINGEN	WHEEL CHAIR SYMBOL	2 HEAD STRAIGHT - SLANT RIGHT (WHITE) 21VIE		
		W/П	EA	2	БA	EA	EA	EA	EA	EA	EA	EА	EA	EA	EA	EA	EA	EA	EA		
		KEY WORD	SECURITY SEAL	NATI . MASONDV	ROD FIBERGLASS	BUX, PACKING	SIGN	SIGN	NULS	STON	STON	STON	Noton Ston	NOTO	STCN	STCN	016N	NOTO	NUL		
04-25-13 90	CLASS &	STOCK ND	58-24000	58-17200	58-21100	91100-08 86-00155	20100 00 86-00163	86-02200	86-02203	86-02207	86-02210	86-NKNN1	10000 20	81000 00	86-48N5N	86-50405	01009-98	86-90410			07
DATE: SUPB2	ADD/	DEL	ADD	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL	DEL		M	-32

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**APPENDIX M** 

SUPX154 <b>A</b>	PPENDIX M SUPPLY INVENTORY SYSTEM	06/27/14
	BATCH UUD DUBMITTAL	07.00.23
JOE		
NUM	YEARLY BATCH JOB SUBMITTAL SELECTIONS	
==:		
81	SALES DOLLARS BY CLASS REPORT	SUPB300
	SELECT BY FROM/THRU DATES	
82	STOCK PRODUCTS NOT ISSUED SINCE REPORT	SUPB310
	SELECT BY NOT ISSUED SINCE DATE	
83	CLASS-STOCK PRODUCTS ADDED/DELETED REPORT	SUPB290

SELECT BY FROM/THRU DATES

JOB SELECTION: DATES (M-D-Y) FROM:

THRU:

PRINTER SELECTION: 2297

PF1 =JOBMENU PF2 = PF3 =SUPMENU PF4 = PF5 = PF6 = PF7 =DAILY PF8 =WEEKLY PF9 =MONTHLY PF10=YEARLY PF11=PHY INV PF12=CLEAR

ENTER JOB SELECTION - PRESS ENTER

DATE: 06-18-14 SUPB180

NDOR SUPPLY INVENTORY SYSTEM YEARLY PERIOD END TABLE UPDATES NUMBER OF INVENTORY MASTER RECORDS READ 1,021 NUMBER OF INVENTORY MASTER RECORDS UPDATED 1,021 **APPENDIX M** 

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IVENTORY SYSTEM S BY CLASS 13 THRU: 06-17-2014	SALES DOLLARS	149,857.26	199,156.76	24,910.15	180,793.58	66,586.13	1,395,304.76	12,067.30	229,846.50	88,553.01	156,227.51	102,845.72	167,026.26	918,151.87	706,000.49	4,397,327.30
NDOR SUPPLY IN SALES DOLLAR FOR PERIOD: 06-19-20	CLASS	10	12	16	18	24	45	50	52	58	60	70	80	85	86	TOTAL

DATE: 06-18-14 SUPB300

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# NDOR SUPPLY INVENTORY SYSTEM STOCKED PRODUCTS NOT ISSUED SINCE 06-19-2013

PAGE: 1

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CLASS &				DATE LAST	qτΥ	
STUCK NU KEY WUKD	U/M PART	NUMBER	PRODUCT DESCRIPTION	ISSUED	ON HAND	LOCATION
10-01000 BOLT GUARD RAIL	EA F-3 (	("4/11	5/8" X 1 1/4" BUTTON HEAD BOLT & RECESS NUT	05-20-2013	275	101-05-00-078
10-21055 POST GUARD RAIL	EA		STEEL W6" X 4" X 6', 8.5LB	06-17-2013	69	107-05-02-006
12-55900 PUMP GAS	EA 91520		W/METER 3/4 HP 10 GPM GASBOY	07-06-2010	5 M	101-06-FI-009
24-18000 BIT JACK HAMMER	EA BOSH	S2167	ASPHALT CUTTER 6" X 1 1/8" HEX SHANK, BOSH S2167	08-17-2012	2	101-0F-00-071
24-35500 HOSE, WHIP	EA		3/4" X 8" FOR GAS PUMPS	03-12-2013	Ц	101-0F-00-066
24-49000 CLAMP CABLF	EA TO BE	DELETE	GALVANIZED 5/16" FOR WIRE ROPE	03-22-2013	62	101-0F-00-063
24-49200 CLAMP CABLE	EA TO BE	DELETE	GALVANIZED 3/8" FOR WIRE ROPE	03-01-2013	34	101-0F-00-119
24-49600 CLAMP CABLE	EA TO BE	DELETE	GALVANIZED 1/2" FOR WIRE ROPE, 50/PK	03-08-2013	25	101-0F-00-065
24-50000 CLAMP CABLE	EA TO BE	DELETE	GALVANIZED 5/8" FOR WIRE ROPE, 25/PK	03-01-2013	31	101-0F-00-057
52-04050 FLASHER	EA		2 CIR IN METAL CABINET	04-11-2013	£	. 101-06-03-202
52-04100 FLASHER	EA		2 CIRCUIT METAL CABINET, TIME CLOCK	08-06-2012	2	101-06-05-201
22-1/134 WASHER	ST		RECT GALV STEEL, 4/SET (FOR TBI-17 MOD)	05-07-2013	47	105-08-04-302
52-33110 TRANS BASE, USED	EA	1	TB1-20 11"-13" BC TOP, 13"-15" BC BOTTOM	05-16-2013	3	109-0A-01-005
52-33460 LUMINAIRE USED	EA		LUMINAIRE 1000 WATT HPS OFFSET	04-29-2013	S	106-0A-03-003
52-33610 COVERS NUT USED	KT 2127		4 NUT COVERS/KIT SOME DRILLING REQUIRED	04-20-2012	19	105-08-04-401
52-40002 POLE LIGHT USED	EA	2	POLE SHAFT 10' 4"X4" BLACK FOR REST	10-23-2012	12	107-0E-01-006
52-40115 POLE LIGHT USED	EA		35' 12-131/2 BC 30" SIMPLEX W/12'MASTARM	05-28-2013	2	109-0A-02-000
52-40120 POLE LIGHT USED	EA	_	POLE SHAFT 45' 12 1/2"-13 1/2" BC TENON TOP	12-18-2012	29	109-0A-03-001
58-01460 BAG, PAPER	BD		NO 8 EXTRA HEAVY DUTY 6 1/2" X 12 1/2" 500/BD	05-22-2012	3	103-0A-05-010
58-08650 DRIVER REBAR	EA SHOP	JOB	FOR DRIVING 5/8" REBAR (SHOP JOB)	05-16-2013	7	101-0F-00-115
60-00100 BOX, PACKING	EA		4"X4"X4", CARDBOARD	06-12-2013	50	101-0J-02-203
70-11975 ENVELOPE, POLY P	A :-		7" X 5 1/2" BACK LOADING (FOR PACKING SLIP)	10-28-2011	47	103-0A-08-026
70-45675 PAPER, LTR HEAD F	X		DOR LETTER HEAD W/DIST 6 RETURN ADDRESS 100 PER PK	08-06-2012	4	103-0A-10-018
70-45690 PAPER, LTR HEAD F	X	-	DOR LETTER HEAD W/DIST 8 RETURN ADDRESS 100 PER PK	08-21-2012	2	103-0A-10-019
70-60927 PLAN BAG	EA		5 3/8" X 3 5/8" X 38" MAILING FOR ROLLS OF PLANS	03-15-2013	125	103-0A-12-030
70-89010 FORM-ORM F	K 4-02-	21 (	OFC OF RISK MGT VEHICLE ACCIDENT REPORT 25ST/PK	08-10-2007	12	103-0A-11-029
/U-89210 FORM DR-169 F	D TO BE	DELETE ,	JUL 06 FORKLIFT OPERATOR'S CHECKLIST	12-02-2011	21	103-0A-11-019
80-11000 RAIN SUIT E	A. NO-RE	-ORDER F	RAIN SUIT, JACKET SMALL W/REFLECTIVE	02-05-2013	4	103-0A-11-015
80-11006 RAIN SUIT E	A NO-RE	-ORDER F	RAIN SUIT, PANTS SMALL W/REFLECTIVE	02-05-2013	6	103-0A-11-016
80-1/850 CHINSTRAP E	A WILLS	DN HC42 F	FOR V-GUARD MSA HELMET	05-01-2013	18	103-0A-06-011
8U-2U525 COVERALL F	R TO BE	DELETE	MED WHITE ZIP FRONT TYVEK CHEMICAL RESISTANT 12/BX	12-12-2012	ŝ	103-0A-03-035
80-20340 COVERALL E	A		4XL, WHITE ZIP FRONT TYVEK CHEM RESISTANT 12/BX (	04-25-2013	21	103-0A-01-030
8U-ZUSSU COVERALL F	R KLP774	417 L	-RG WHITE ZIP FRONT TYVEK CHEMICAL RESISTANT 12/BX ]	12-06-2012	7	103-0C-04-017
80-2/900 GLOVES, RUBBER F	R EDMONI	[ 29-86 E	3LACK RUBBER HD LONG MED SZ 9 (TREAT PLANT/CHEM) (	05-20-2013	12	103-08-01-029
8U-SI5UU HARD HAT ADAPTR K	T WILLSO	DN HC34 F	OR KWIP KLIP HEADGEAR, FOR SLOTTED V-GARD HELMET	10-15-2012	12	103-0A-06-015

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DATE: SUPB2	06-18-14 90		10	NDOR SUPPLY INVENTORY SYSTEM ASS-STOCK PRODUCTS ADDED & DELETED REPORT FOR PERIOD: 06-19-2013 THRU: 06-17-2014	,	PAGE:
ADD/	CLASS &				UPDATE	UPDATE
DEL	STOCK NO	KEY WORD	W/Л	PRODUCT DESCRIPTION	ID	DATE
ADD	58-00900	SAMPLE, CAN	EA	1/2 GALLON, METAL, WITH LID	DR11026	05-21-2014
ADD	60-00900	BOX, PACKING	EA	7"X5"X8 1/2" CARDBOARD	DR11026	05-21-2014
ADD	80-28280	GLOVES, NITRILE	BX	DISPOSABLE NITRILE, 2XL, 50/BX	DR11026	07-25-2013
ADD	86-00002	SIGN	EA	HONOR TO THE VETERANS	DR11026	05-12-2014
ADD	86-11111	SIGN	EA	DRINKING WATER PROTECTION 30X36	DR11026	01-29-2014
ADD	86-11112	SIGN	EA	DRINKING WATER PROTECTION 24X30	DR11026	01-29-2014
DEL	10-07410	BOLT	BX	5/16"X21/4" FRANKLIN BOLT KIT 200/BX	DR11026	08-21-2013
DEL	10-13500	POST FENCE	EA	END WOOD TREATED ROUND 6"X8"	DR19042	10-02-2013
DEL	12-08417	OIL, GEAR	DR	SAE 85W-140 MULTI-PURPOSE 120 LB DRUM (16 GALLON)	DR11026	01-29-2014
DEL	12-08522	OIL, MOTOR	CS	SAE 5W30 APT/SM 6/CS	DR19042	02-03-2014
DEL	16-01000	FERTILIZER	BG	FOR SEEDING SPRING & FALL 16-48-0 OR 18-46-0 50LB/	DR19042	03-03-2014
DEL	16-19000	PAINT	GL	ORANGE LEAD FREE DUPONT CENTARI LF31A	DR19042	04-11-2014
DEL	16-26200	PAINT	GL	LEAD FREE BUTTERSCOTCH IMRON 5000 (04-07 STERLING)	DR19042	04-14-2014
DEL	16-41375	TRICHLOR	DR	OETHYLENE TECH GRADE 30 GL DRUM TEST LAB ONLY	DR19042	07-02-2013
DEL	16-41425	DRUM	DR	NEW I7E 55GL (18GA) FOR USED TCE BLK/W/WH TOP	DR19042	07-09-2013
DEL	45-13621	STROBE LIGHT	EA	SELF CONTAINED, 12V CLEAR	DR11026	12-17-2013
DEL	45-18140	CHAIN TIRE	FΤ	CROSS CHAIN TWIST LINK 5/16	DR19042	09-25-2013
DEL	45-18360	CHAIN TIRE	PR	11.00-22, 12.00-20, 12-24.5 (NACM 2255)	DR11026	12-17-2013
DEL	52-01230	BULB	EA	USE FOR 8" WARNING & WALK, DON'T WALK PEDEST HEADS	DR19042	03-10-2014
DEL	52-01240	BULB	EA	USE FOR ALL RED & GRN 12" VEH HEADS EXCEPT CTR BLK	DR19042	03-10-2014
DEL	52-02025	CONTROLLER, USED	EA	USED TRAFFIC SIGNAL	DR19042	05-12-2014
DEL	52-02145	CONTROLLER, USED	EA	USED TRAFFIC SIGNAL	DR19042	05-12-2014
DEL	52-13100	FIXTURE, LIGHT	EA	HUBBELL, KEMLUX KS, 35 WATT HPS, 120 VOLT	DR19042	03-20-2014
DEL	52-14000	MOUNTING	EA	ASSY SINGLE HEAD FOR 4 1/2" OD PEDESTAL POLE	DR19042	03-10-2014
DEL	52-16025	PED POLE	ST	ANCHOR BOLTS, 3/4", W/WASHERS AND NUTS, SET OF 4	DR11026	01-27-2014
DEL	52-29010	VISOR	EA	8" TUNNEL TYPE	DR19042	03-10-2014
DEL	52-33330	FOUND PWR USED	EA	SCREW IN FOUNDATION 6'	DR11026	09-23-2013
DEL	52-33420	LUMINAIRE USED	EA	250 WATT HPS W/FLAT LENS & RECEPTICLE FOR P.C.	DR19042	03-26-2014
DEL	52-33470	LUMINAIRE USED	EA	400 WATT POWER SPOT LIGHT	DR19042	03-20-2014
DEL	52-40005	POLE LIGHT, NEW	EA	POLE SHAFT 40', 13.5" BC, W/6' SINGLE MAST ARM	DR19042	03-20-2014
DEL	52-40010	POLE LIGHT USED	EA	POLE 27', BC 27" SIMPLEX	DR19042	03-20-2014
DEL	52-40030	POLE LIGHT USED	EA	POLE 33', BC 27" SIMPLEX 13 1/2 BC	DR11026	03-25-2014
DEL	52-40035	POLE LIGHT USED	EA	POLE SHAFT 33'-7", 27' SIMPLEX W/MAST ARM	DR11026	03-25-2014
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	REPOR	-2014	
SYSTEM	DELETED	: 06-17	
SUPPLY INVENTORY	PRODUCTS ADDED &	): 06-19-2013 THRU	
NDOR	CLASS-STOCK	.FOR PERIOL	

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PAGE:

UPDATE DATE	09-23-2013 04-01-2014 02-26-2014 09-05-2013 08-30-2013 12-30-2013 11-12-2013
UPDATE ID	DR11026 DR19042 DR19042 DR11026 DR11026 DR11026 DR11026
PRODUCT DESCRIPTION	HORIZONTAL ALIGNMENT LEFT TURN 30X30 HORIZONTAL ALIGNMENT RIGHT TURN 30X30 1/2 MILE BLUE FRESH OIL ORANGE 30X30 UNEVEN LANES YELLOW EAST (BLUE) 24X12 TO (BLUE) 24X12
WЛU	Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч Ч
KEY WORD	SIGN SIGN SIGN SIGN SIGN SIGN SIGN
CLASS & STOCK ND	86-50000 86-50020 86-60030 86-60030 86-90050 86-90050 86-90050 86-90110
ADD/ DEL	DEL DEL DEL DEL DEL DEL

**APPENDIX M** 





# PGM: KPLIST

PAGE: 1	DATION NET 07-01-13	APLETE PAYABLE DIFFERENCE			22500.00- 22500.00-		50	2	0 22950.00		~					
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INVENTORY S	VOUCHER	LNOOM	22500.00	27EAA 44	00.00622	1073.00 164.50-	908.50			1073.00 164.50-	908.50	246.50 37.80-	208.70	2116.40	2116.40	
CA DEPARTMENT SLE - SUPPLY	VOUCHER		0545499			0548384 0548384				0548385 0548385		0548386 0548386		0548219		
NEBRASY ACCOUNTS PAYAE	AMOUNT					908.50	908.50	22950.00	22950.00	908.50	908.50	208.70	208.70	2116.40	2116.40	
	CLASS & STOCK NO.					18 36900		85 14100		18 36900		18 36800		80 17645		
	BATCH NO.															-
	RETURNED GOODS NO.															
	P.O.	0444077		0444077		0458268 0458268 0458268	0458268	0462157	0462157	0463491 0463491 )463491	463491	463498 463498 463498	463498	464187 164187	464187	66431
	CODE		11.1.1.000 - CTURE - 11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	TOTAL		90	TOTAL	90	TOTAL	90	TOTAL	000	TOTAL 0	00 00	TOTAL 0	06 04

# **APPENDIX M**

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PAGE: 2 DATE: 07-01-13	DIFFERENCE	0												
ST ST DEPARTMENT OF ROADS ACCOUNTS PAYABLE - SUPPLY INVENTORY SYSTEM	NET PAYABLE	553.0												
	LIQUIDATION IS COMPLETE	ON		YES			YES		XES		SIY		NES VES	
	VOUCHER		2146.00	2146.00	10.00- 90.30 248.33		328.63	7056.00	7056.00	1597.00	1597.00	7340.00	7340.00	3120.00
	VOUCHER NUMBER		0548845		J306020 0546395 0546395			0547867		0548387		0548838		0548839
	TNUOME	553.00	2146.00	2146.00		248.33 80.30	328.63	7056.00	7056.00	1597.00	1597.00	7340.00	7340.00	3120.00
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	P.O. NUMBER	0466431	0468741 0468741	0468741	0470241 0470241	0470241 0470241 0470241	0470241	0470246 0470246	0470246	0470773	0470773	0472280 0472280	0472280	0472282 0472282
PGM: KPLI	TRANS	TOTAL	06	TOTAL		06 06	TOTAL	90	TOTAL	90	TOTAL	90	TOTAL	90

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# NOTE: We will have external customers as well who are limited Create Order Welcome, you are placing an order for; LANCASTER COUNTY on what they can order. Review Orders NOTE: When the user opens the application, they are verified by Active Directory. The first thing they should see is Damaged Return V Surplus Solvent Other Welcome Teresa, select a location Beatrice (selected) Create Order O Pawnee City O Dorchester O Fairbury what is shown below. Review Orders





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e search	From: 01/01/2012	To: 12/3	1/2014
ITEM Requisition	No. DATE ORDERED	QUANTITY	-
Gloves 1402693	10/24/2012	20	Î
Gloves	10/22/2013	15	10
Plow Blades	11/18/2012	5	3
Plow Blades	11/08/2013	10	
🗖 Sign	10/24/2012	2	
Toilet Paper	01/14/2014	3	¥
Return to Login	Process Return		Exit



(search	From: 01/01/2012	To: 12/31	/2014
ITEM Requisition No.	DATE ORDERED	QUANTITY ORDERED	
Gloves 1402693	10/24/2012	20	Î
Gloves	10/22/2013	15	10 🌲
Plow Blades	11/18/2012	5	3
Plow Blades	11/08/2013	10	
Sign	10/24/2012	2	
Toilet Paper	01/14/2014	3	¥
Return to Login	Process Surplus		Exit



#### Nebraska Information Technology Commission

### **Project Proposal Form**

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

<b>Project Title</b>	ARMS ENHANCEMENTS
Agency/Entity	Department of Roads

#### Notes about this form:

- 1. USE. The Nebraska Information Technology Commission ("NITC") is required by statute to "make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel..." Neb. Rev. Stat. § 86-516(8). "Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions." Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
- WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM? See NITC 1-202 available at <u>http://nitc.ne.gov/standards/</u>. Attachment A to that document establishes the minimum requirements for project submission.
- 3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. ALSO NOTE that for each "IT Project Proposal" created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.
- 4. QUESTIONS. Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

Nebraska Information Technology Commission

#### Project Proposal Form 2015-2017 Biennial Budget

#### **General Information**

Project Title	ARMS Enhancements
Agency (or entity)	Department of Roads
Contact Information for this Project:	
Name	Bill Wehling
Address	1500 Highway 2
City, State, Zip	Lincoln, NE 68502
Telephone	402-479-3986
E-mail Address	Bill.wehling@nebraska.gov

#### **Executive Summary**

ARMS stands for Automated Right-of-Way Management System. In the late 90s, the head of our Rightof-Way (ROW) Division had this idea of a workflow solution to handle the ROW process from the time preliminary plans came to the Division until the purchasing of ROW had been completed and the project was to be archived. They worked with developers at NDOR to design a system that used Lotus Notes as the base, since at that time it was the e-mail system that was used by most State Agencies. In 2008, the Office of the CIO (OCIO) began to implement a statewide e-mail system based on Microsoft Outlook. Agencies were to eliminate other mail systems, which meant NDOR had to get rid of Lotus Notes. That being the case, we began work on developing an RFP to find a vendor who could provide a Commercial off the Shelf (COTS) system to replace ARMS. All of this, including the award of the RFP, was completed prior to the decision to implement OnBase as the Enterprise Content Management System (ECMS) for the State.

As with a number of software implementations, as the work was being done a number of enhancements arose once the ROW Division began testing the software. We also discovered a number of items that we overlooked in the RFP that should have been included. Also, change in leadership along with other key members in the Division has led to changes in their processes which need to be taken into account in the system. The implementation has been going on for over two years and final sign-off for the RFP is planned in June, 2015. Once that is done, we will be in maintenance mode and any enhancements or additional work must be done as separate statements of work. That is the reason for this project.

#### Goals, Objectives, and Projected Outcomes (15 Points)

#### 1. Describe the project, including:

#### • Specific goals;

Provide the ROW Division with a system that will process projects from inception until completion and eventually archived once final payments have been made on the project contract.

#### • and objectives;

- o Implement enhancement as a result of items that were overlooked in the RFP
- Implement enhancements that arose once the ROW Division began testing the software
- Implement changes in business processes due to changes in management with ROW
- Implement a process to move records from ARMS to OnBase once they are in a completed status so the archiving function can be accomplished using the State ECMS.

#### • Expected beneficiaries of the project

ROW Division employees who will have one system from beginning to end of a project. ROW management, the Administration, Division Heads and District Engineers will be able to see the status of projects from beginning to end of a project.

#### • Expected outcomes.

A one stop shop for ROW projects from beginning to end and then interfacing with OnBase to transfer records for archiving and records retention.

# 2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

For each statement of work that will need to be created, there will be specific deliverables identified that must be completed in an acceptable manner. For example, one of these enhancements is a set of documents that must be created. The assessment method for those will be the ROW information is correct, it is formatted properly and it can be printed on one or two pages depending on the form.

3. Describe the project's relationship to your agency comprehensive information technology plan.

The NDOR has a goal of standardizing on a Microsoft based environment utilizing the Microsoft .NET framework and SQL Server for our database. We want to decrease the number of tools we have to maintain and support in our technology area. The ARMS software runs in the .NET framework and on SQL server.

#### Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

A new system that takes advantage of current technology will allow us to; The addition of the missing RFP items, enhancements and changes to workflow will allow members of the ROW Division to automate a number of additional tasks and documents which will decrease the amount of time that is needed in the process. This will not only complete projects sooner but also provide information to other Divisions and Districts in a timely matter so they can complete their work as well. Currently with the new system being used on some projects, not having some of these completed is causing a delay in project delivery.

The integration with OnBase will ensure that records retention policies will be followed as well, so we are not keeping any records longer than what they should be kept.

5. Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

As stated earlier, an RFP was developed and awarded to a company. This company is in the process of implementing the solution, which we hope to have completed by June, 2015 and then move on to maintenance mode. This project is to enhance the current system.

6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

Since all agencies were directed to move away from their current e-mail systems to Microsoft Outlook, it could be said that it was a state mandate that had to be addressed with the RFP that was awarded.

#### Technical Impact (20 Points)

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

This project is to build on the ARMS that we are planning on completing implementation by June, 2015. There should be no additional hardware required and software will be modified, with additional code required for some enhancements that were identified. This is a COTS solution and will be maintained by the vendor under our current agreement. One weakness of this arrangement is the definition of a change; is it an enhancement or a bug fix? We have struggle with that on a number of issues with the vendor and it takes time to resolve, which means work is not getting done or is delayed.

- 8. Address the following issues with respect to the proposed technology:
  - Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.
  - Address conformity with applicable NITC technical standards and guidelines (available at http://nitc.ne.gov/standards/) and generally accepted industry standards.
  - Address the compatibility with existing institutional and/or statewide infrastructure. The applications and related data is hosted on infrastructure supported by the OCIO, so therefore it will comply with all NITC standards and guidelines. The OCIO is also very flexible when it comes to future growth and provides the redundancy and backups that we requested.

#### Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Project Sponsors – Bob Frickel, ROW Division Head

Project Manager – Keil Wilson, BTSD Project Manager

Business Team Leader – Dave Ells, Jim Hertzel & Kurt Svoboda, ROW Division Data Team Leader – Lou Anne Daugherty, NDOR Data Warehouse Manager or one of her staff Other stakeholders include the various sections in ROW Division; Appraisal, Negotiation, Highway Beautification, Design and Property Management.

**10.** List the major milestones and/or deliverables and provide a timeline for completing each. Since the current project has not been completed, we have not determined any milestones or timelines for the completion of the identified enhancements and other items.

#### 11. Describe the training and staff development requirements.

Most of our ROW Division has already been trained on the system as part of the requirements for system testing. As enhancements are completed there will need to be short training sessions on how to use the new functionality. Those will be handled by the ROW Division leaders along with the Business Team Leaders.

#### 12. Describe the ongoing support requirements.

Frontline support will be done by members of the ROW Division support team. Anything that they cannot figure out will be sent to the vendor as part of an ongoing maintenance and support agreement.

#### Risk Assessment (10 Points)

#### 13. Describe possible barriers and risks related to the project and the relative importance of each.

- 1. Selected vendor did not have a complete understanding of the project
- 2. Vendor does not supply enough resources or their resources do not meet expectations
- 3. Resources are unavailable from the stakeholders or BTSD
- 4. Personnel changes for various reasons such as promotions, transfers or personal issues
- 5. Issues with data conversion

#### 14. Identify strategies which have been developed to minimize risks.

- 1. Try to have well defined requirements in each statement of work that are specific along with other expectations.
- 2. Have the required skills defined in each statement of work and as part of the response require experience of those who will be involved in the project. If problems occur after vendor selection then meet with the vendor to discuss possible changes.
- 3. Move responsibilities around within our own division and work with other divisions to determine when resources will be available and coordinate activities to best fit with the stakeholder's workload.
- 4. This may require a change in schedule in order to get someone up to speed and also reassigning of duties. We may need to reevaluate the workflow solutions if a new manager takes over and wants to change things.
- 5. Work with the vendor to develop a solution. We should also do our best to map out a data migration plan as part of the RFP. Worst case scenario is we have to convert to DB2 and then move to SQL after the project is complete.

#### Financial Analysis and Budget (20 Points)

15. Financial Information

The "Financial" information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.)



Worksheet in Project Proposal Form.xls

#### Nebraska Information Technology Commission Project Proposal Form Section 8: Financial Analysis and Budget

	Prior Expended	FY2015 Appr/Reappr	FY2016 R	equest	FY2	017 Request	Future	Total
1. Personnel Costs								\$ -
2. Contractual Services								
2.1 Design			\$ 75,	00.00	\$	75,000.00		\$ 150,000.00
2.2 Programming			\$ 100,	00.00	\$	100,000.00		\$ 200,000.00
2.3 Project Management			\$ 75,	00.00	\$	75,000.00		\$ 150,000.00
2.4 Other								\$ -
3. Supplies and Materials								\$ -
4. Telecommunications								\$ -
5. Training								\$ -
6. Travel								\$ -
7. Other Operating Costs								\$ -
8. Capital Expenditures								
8.1 Hardware			\$	-	\$	-		\$ -
8.2 Software			\$	-	\$	-		\$ -
8.3 Network								\$ -
8.4 Other								\$ -
TOTAL COSTS	\$ -	\$-	\$ 250,	00.00	\$	250,000.00	\$-	\$ 500,000.00
General Funds								\$ -
Cash Funds			\$ 250,	00.00	\$	250,000.00		\$ 500,000.00
Federal Funds								\$ -
Revolving Funds								\$ -
Other Funds								\$ -
TOTAL FUNDS	\$ -	\$ -	\$ 250,	00.00	\$	250,000.00	\$ -	\$ 500,000.00