

STARK COUNTY ROAD DEPARTMENT DATA MANAGEMENT

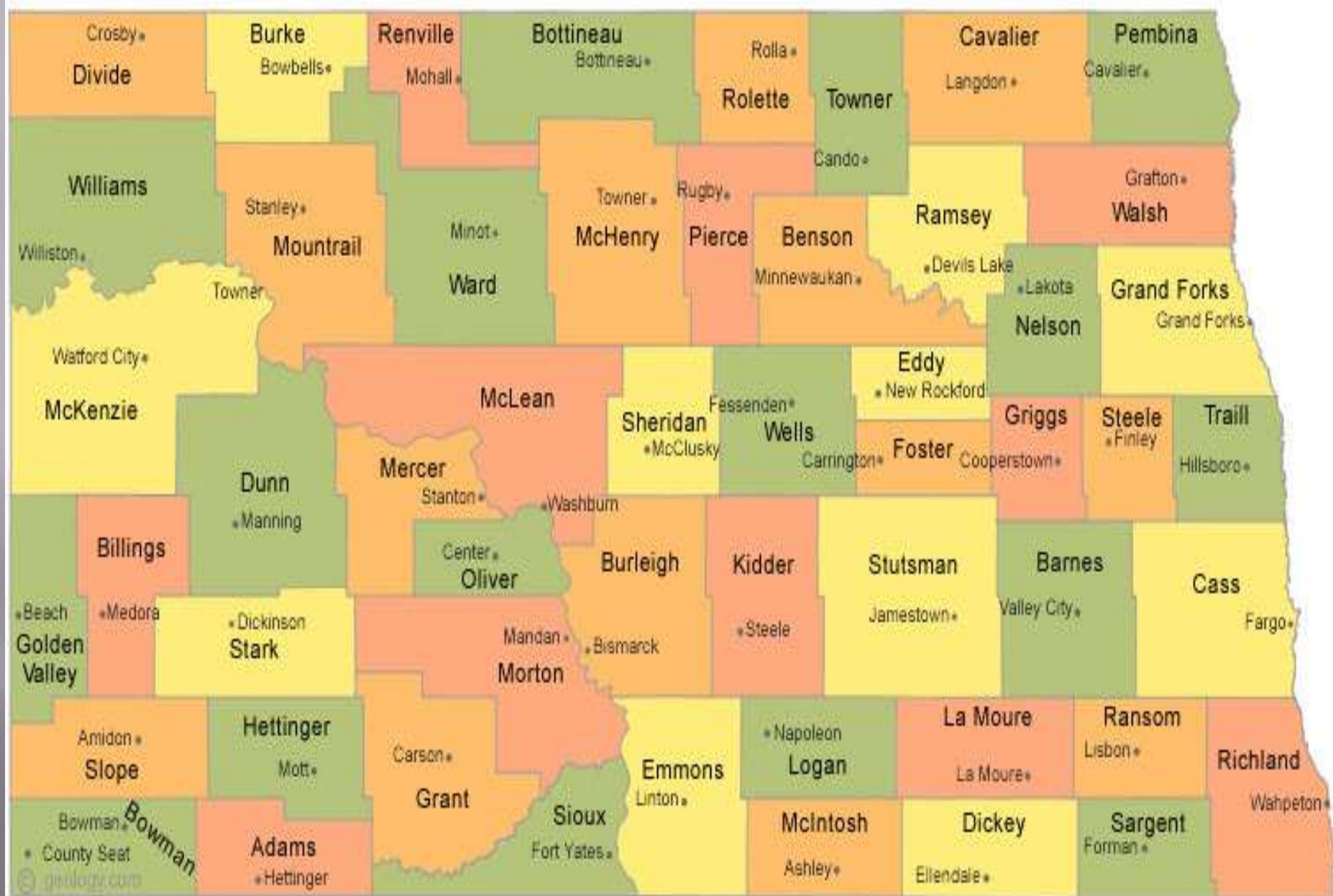
AL HEISER, ROAD SUPERINTENDENT

52 30th Ave. West

Dickinson, North Dakota 58601

701-290-8429

aheiser@starkcountynd.gov



What is happening in Stark County?

- ▣ TRAFFIC! TRAFFIC! TRAFFIC!
- ▣ POPULATION INCREASE
- ▣ OIL ACTIVITY
- ▣ CONSTRUCTION
- ▣ ROAD REPAIRS
- ▣ DATA MANAGEMENT



Endless traffic from the oil fields into town.

Traffic South Heart Road North



Repair Work to South Heart Road









ROAD COMPLETE



ROAD COMPLETE

Mag Chloride



Collection of Data

- ▣ PHOTOS
- ▣ ACTIVITIES
- ▣ TIME CARDS
- ▣ INVOICES
- ▣ DATA SOFTWARE (Microcomputer Data Management System from NDLTAP)
- ▣ Microsoft Word and Excel
- ▣ Reports
- ▣ Mapping (ESRI ArcGIS)
- ▣ Traffic Data Software (METRO Count)

ACTIVITY WORK CODES

Stark County Road Department Activity Work Codes

001 Approach Building	025 Flood Work	049 Road Inspection
002 Backhoe/Excavator Work	026 Funeral Pay	050 Sanding/Ice Control
003 Blacktop Patching	027 General Labor	051 Scraper Work
004 Blacktop Chip Sealing	028 Gravel Prospecting	052 Servicing Equipment
005 Blade/Spread Gravel	029 Hauling Material	053 Shoulder Discing
006 Blading Roads	030 Hauling Water	054 Sick Leave
007 Bridge Inspection	031 Holiday Pay	055 Signing Inspection
008 Bridge Repair/Maint.	032 Lawn Mowing	056 Signing Installation
009 Brooming/Sweeping	033 Laying/Repair Culverts	057 Signing Repair
010 Building Repair Maint.	034 Loader Work	058 Snow Removal
011 Clean Shop/Yard	035 Mailbox Repair	059 Sod Mulching Work
012 Cleaning Vehicles	036 Mechanical Work	060 Spraying Weeds
013 Computer Work	037 Meeting/Training	061 Survey Work
014 Construction Staking	038 Mix Salt/Sand	062 Travel
015 Courthouse Work	039 Motorgrader Work	063 Tree Trimming
016 Crack Sealing	040 Moving Equipment	064 Vacation Leave
017 Culvert Checking	041 Packer/Roller Work	065 Weed Mowing
018 Culvert Cleaning	042 Snow Equip. Install/Removal	066 Welding
019 Culverts Load/Stack	043 Parts Running	067 Grass Seeding
020 Dead Deer/Garbage	044 Picking Rocks	068 Erosion/Sediment Control
021 Family Leave	045 Pulling Shoulders	069 Drug Testing
022 Fence Work	046 Repair Equipment	070 Durapatching
023 Jury Duty	047 Repair/Change Tires	071 Laying Rock
024 Flagman Work	048 Replace Cutting Edges	GPS Global Positioning System

TIME CARD EXAMPLES

Stark County Road Department

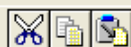
Name: Beto Puentes
 Month 11 Day 10 Year 09 Employee No.: _____

Activity Code	Street Address	Bridge	Employee Hours	Equipment Number	Equip. Hrs.	Miles	Comments
			10	1107	10		
029			10	1803	10		

MATERIALS USED

Activity Code	Street Address	Bridge	Gravel Pit and/or Materials Used	Load/Material Count
			VALVE RA	3
			HOIF	5
			HOFF	1

Project Name
114 AVE
30 ST
Richardson



North Dakota State University (NDSU)

North Dakota's Local Technical Assistance Program (LTAP)

Microcomputer Data Management System (MDMS) for County Road or City Street Departments

Special Version Developed For The Stark County Highway Department, February 2008.

Previous Years Data Files

Old User Database File Transfer

Use Previous Years Data

Transfer Last Years Data

Current Years Data Files



Daily Job, Fuels And Garage Database



Set Up Databases



Set Equipment Mtce. Codes

Special Reports

Activity Budget Report

Equipment Use Report

Todd's Special Applications

Backup \ Restore

Backup Restore Procedure

Set Report Title



OK



EXIT To The Desktop

DATA BASE

MDMS71 - [THE MDMS SETUP DATABASES]

Fuel Road Emp. Matr. GpIt Equip Acts Proj. Dept Dist. Exit

SETUP DATABASES INCLUDE:

Fuels	(Menu Item "Fuel"
Roads	(Menu Item "Road"
Employees	(Menu Item "Emp."
Materials	(Menu Item "Matr."
Equipment	(Menu Item "Equip."
Activities	(Menu Item "Acts"
Project	(Menu Item "Proj."
Department	(Menu Item "Dept"
District	(Menu Item "Dist"

The reports are displayed on screen. For a printed report, click the printer icon on the toolbar while the report remains displayed.

Note: Click a menu item to Append, Browse, Print or Pack any of the above databases. (Choose Pack to remove records marked for deletion).

Enter Daily Time Card

MDMS71 - [DAILY JOB DATABASE APPEND SCREEN - MDMS PROGRAM DATA]

File Edit Form Window Help



APPEND SCREEN EMPLOYEE DAILY TIME CARD RECORD (Page 1 of 3)

Date 10/15/2012	Employee D04	Hours 10.00	Overtime Hours 2.00	Total Employee Cost 366.0000
Hour Rate 21.05	Overtime Rate 31.58	Hourly And Overtime Benefit Rates Hourly Rate: 8.75 Overtime Rate: 2.42		
Equipment 11-27	Hours or Miles 12.00	Hr. / Mi. Rate 70.16	Total Equipment Cost 841.92	
Road/Street	Surface Type	Section Length 0.000	Search	
Activity 029	Project Number 121	Project Description 121st AVENUE SW		
District S	Department ROAD DEPT	Hours/Miles And Rates For Billing Purposes Only Hrs./Mi.: 0.00 Rate: 0.00		

Name\Description Of Coded Entries STARK COUNTY ROAD DEPT.

Save\Cont.

Save\Exit

Employee Materials Fuel\Garage

Dayjob.dbf

Excl

Rec 6108/6108

Ins



Microsoft PowerPo...

MDMS71 - [DAILY ...

8:06 AM

Enter Daily Material

MDMS71 - [DAILY JOB DATABASE APPEND SCREEN - MDMS PROGRAM DATA]

File Edit Form Window Help

APPEND SCREEN

ROADWAY MATERIALS (Page 2 of 2)

Note: Date, Emp., Road\Street Codes
Are Repeated From Page #1.

Date

Employee

Road\Street

/ /

Note: Only one Material Pit or Stockpile is allowed per record. Therefore, if an entry is made in the Matr.
Pit or Stockpile Code cell, only one material type is allowed. Material cells 2, 3, 4 and 5 must remain
blank.

If the Matr. Pit or Stockpile Code cell entry is a Stockpile, the material type 1 field is computer generated.
Material cells 2, 3, 4 and 5 must remain blank.

Matr. Pit or Stockpile Code

SPR

Pit or Stockpile Description

DENNIS REICH PIT

Material #1

GRAVEL

Quantity:

200.00

Unit Cost:

4.170

Material #2

Quantity:

0.00

Unit Cost:

0.000

Material #3

Quantity:

0.00

Unit Cost:

0.000

Material #4

Quantity:

0.00

Unit Cost:

0.000

Material #5

Quantity:

0.00

Unit Cost:

0.000

Material Descriptions:

✓ Search

Total Material Cost

834.000

▶ Save\Cont.

✗ Save\Exit

Employee

Materials

Fuel\Garage

Dayjob.dbf

Excl

Rec 6108/6108

Ins

start

Microsoft PowerPo...

MDMS71 - [DAILY ...

8:05 AM

Enter Invoices

MDMS71 - [DAILY JOB DATABASE APPEND SCREEN - MDMS PROGRAM DATA]

File Edit Form Window Help



APPEND SCREEN Daily Fuel Usage And Equipment Repairs (Page 3 of 3)

Note: Date, Emp., Eqp. Codes Are Repeated From Page #1.

Date: 10/15/2012 Employee: Equipment:

Hour\Mile Reading	Fuel #1	Quantity	Unit Cost	Fuel #1 Cost
0.00		0.0	0.000	0.00
	Fuel #2	Quantity	Unit Cost	Fuel #2 Cost
		0.0	0.000	0.00
	Fuel #3	Quantity	Unit Cost	Fuel #3 Cost
		0.0	0.000	0.00

Fuel Code Descriptions:

Search

Enter Equipment Maintenance And Repairs Below.

Work Order No.	Parts - Shop	Parts - Invoice	Parts - Contractor	Contract Labor	Total Parts Cost
	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Work Description, Details, Etc..

Save\Cont.

Save\Exit

Employee Materials Fuel\Garage

Dayjob.dbf

Excl

Rec 6108/6108

Ins



Microsoft PowerPo...

MDMS71 - [DAILY ...

8:08 AM

Generate Reports

- ▣ Employee
- ▣ Project
- ▣ Data Base
- ▣ Activities
- ▣ Repairs
- ▣ Fuel Usage (optional)
- ▣ Materials

Projects for Unpaved Reimbursement

- ▣ Stark County allocated \$1,600,000.00 from Oil impact funds
- ▣ Must submit Data to NDDOT to receive reimbursement for Projects
- ▣ Using MDMS for Project Reports
- ▣ Word, Excel, and ArcGis for Maps

Stark County, North Dakota

OFFICE OF THE AUDITOR

PO Box 130

Dickinson, North Dakota 58602-0130

Phone: (701) 456-7630

www.starkcountynd.com

BOARD OF COMMISSIONERS

PETE KLINTZ
RUSS HOFF
KEN ZANDER
JAY ELKIN
DUANE WOLF

AUDITOR
KAY HAAG

DEPUTY AUDITOR
LYNN BETLAF

9/04/2012

Mr. Francis Ziegler
North Dakota Department of Transportation
608 East Boulevard Avenue
Bismarck, North Dakota 58505-0700

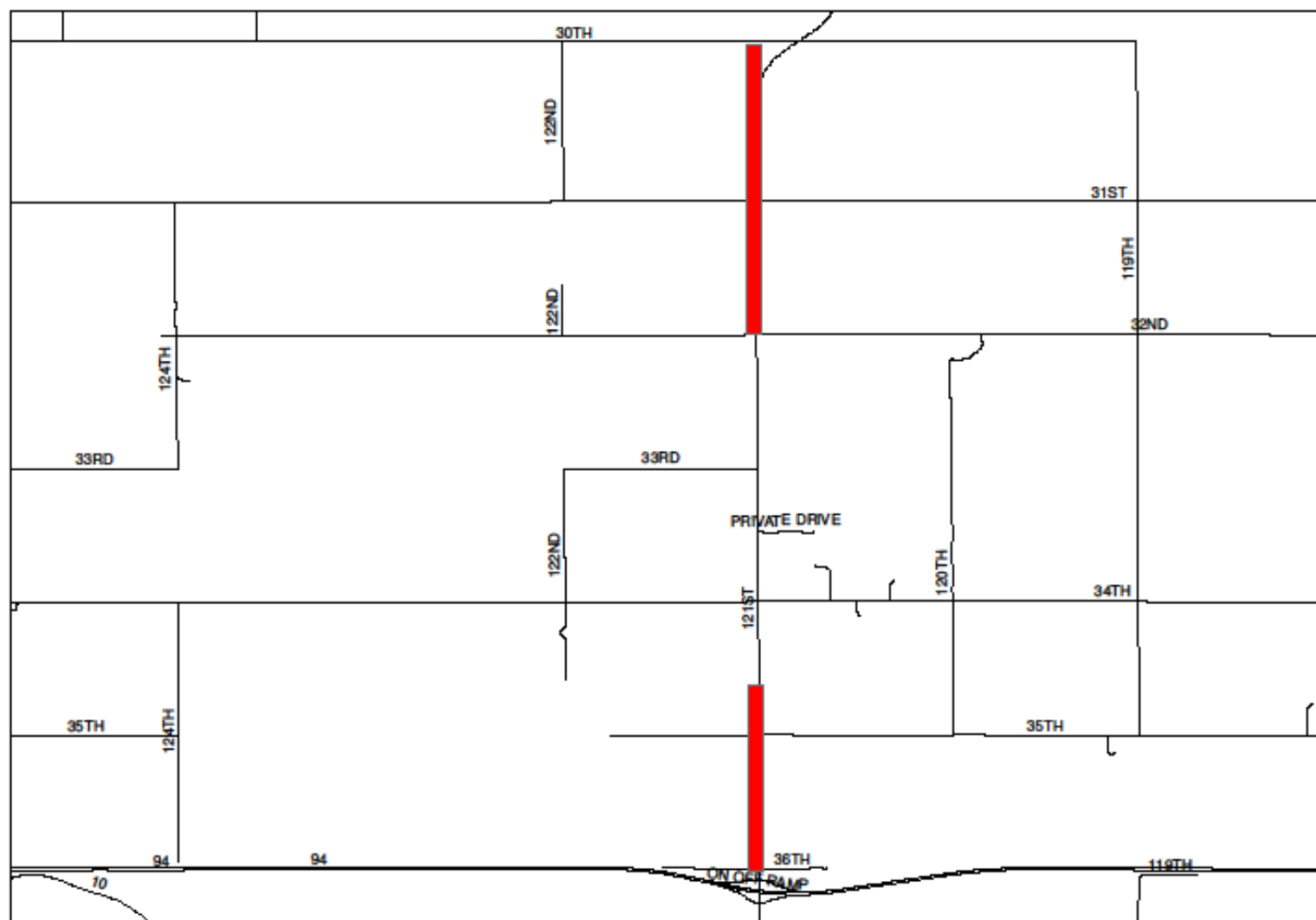
UNPAVED ALLOCATION REQUEST - COUNTY & TOWNSHIP ROAD PROGRAM PROJECT COI-0045(050)

Stark County is requesting reimbursement on the above referenced project. Stark County is requesting \$246,101.19; which is 90% of the total cost (\$273,445.77) we have spent on this project from 2/01/2012 to 8/31/2012.

Attached is the breakdown of the invoices for the following described Stark County Project name 121 and mapped location in red highlight.

If there are any questions call Todd Miller, Crew Leader Stark County Road Department 701-456-7662.

Chairperson, Stark County Commission



STARK COUNTY ROAD DEPARTMENT
121st ST SW PROJECT
NORTH OF THE
SOUTH HEART AREA



**STARK COUNTY ROAD DEPARTMENT
121st AVE SW
NORTH OF SOUTH HEART AREA**

COMPANY	EXPENSES	MATERIAL CREDIT
STARK COUNTY ROAD DEPARTMENT	\$211,934.92	
Deduction of Stockpiled Gravel		-\$8,885.40
MARTIN CONSTRUCTION	\$13,196.25	
NORTHERN IMPROVEMENT	\$46,675.00	
NORTHERN IMPROVEMENT	\$5,235.00	
NORTHERN IMPROVEMENT	\$1,207.50	
JURGENS TRUCKING	\$4,082.50	
TOTALS	<u>\$282,331.17</u>	<u>-\$8,885.40</u>
GRAND TOTAL		<u>\$273,445.77</u>

PAGE: 1
DATE: 9/4/2012

DJ4_Sum Rpt

STARK COUNTY ROAD DEPT

DAILY JOB DATABASE SUMMARY REPORT (EQUIPMENT & LABOR)

Searching for the following information:

First Date : 2/1/2012 Last Date : 8/31/2012

Employee Code & Name	: All Emp	*	*	*	*
Equipment Code & Description	: All Units	*	*	*	*
Road Code & Description	: All Roads	*	*	*	*
Surface Type & Description	: All Surfs	*	*	*	*
Activity Code & Description	: All Acts	*	*	*	*
Material Code & Description	: All Matrls	*	*	*	*
Project Code	: 121		-	121st AVENUE SW	*
Dept. Code & Description	: All Depts	-			
District Code & Description	: All Dists	-			

REPORT SUMMARY

Regular Hours	=	1,498.50
Over Time Hours	=	59.25
Equipment Miles/Hours	=	2,323.25
Rdwy. Length (Miles)	=	25.00
* Material Quantity	=	17,597.00
Labor Cost (Regular Time)	=	\$42,633.25
Labor Cost (Overtime)	=	\$2,095.47
Labor Cost (Total)	=	\$44,728.72
Equipment Cost	=	\$105,823.86
Material Cost	=	\$61,382.34
Total Cost	=	\$211,934.92

* Material quantities are meaningful only if the report is limited to a single material type.

EQUIPMENT AND LABOR FULL REPORT

Next 3 Slides are examples of this
detailed 28 page report

PAGE: 1
DATE: 9/ 4/2012

DayJob5.Rpt

STARK COUNTY ROAD DEPT

Daily Job Database Report (Equipment, Labor & Material Costs) With Subtotals By Project & Activity

<u>Date</u> <u>Dept</u> <u>District</u>	<u>Employee</u> <u>Reg. Time</u> <u>Overtime</u>	<u>Equipment</u> <u>Hr/Mi</u> <u>Eqm. Rate</u>	<u>Road/St.</u> <u>Activity</u> <u>Project</u>	<u>Type</u>	<u>Length</u>	<u>Emp. Cost</u> <u>Eqm. Cost</u> <u>Matr. Cost</u>	<u>TOTAL</u> <u>COST</u>
Project 121							
Activity 002							
3/28/2012	D08	17-05				124.04	\$295.00
ROAD DEPT	4.00	4.00	002			170.96	
S	0.00	42.74	121			0.00	
5/22/2012	D11	17-05				88.65	\$216.87
ROAD DEPT	3.00	3.00	002			128.22	
S	0.00	42.74	121			0.00	
Subtotal Activity 002							
Reg. Time	7.00	Equipment Hr./Mi.	7.00			Employee Cost	\$212.69
Overtime	0.00					Equipment Cost	\$299.18
						Material Cost	\$0.00
						Total Cost	\$511.87
Activity 005							
3/28/2012	D10	15-15	121 Av	All		267.50	\$1,177.60
ROAD DEPT	10.00	10.00	005			910.10	
S	0.00	91.01	121			0.00	
5/15/2012	D10	15-15				284.32	\$1,239.93
ROAD DEPT	10.00	10.50	005			955.61	
S	0.50	91.01	121			0.00	
5/16/2012	D10	15-15				284.32	\$1,239.93
ROAD DEPT	10.00	10.50	005			955.61	
S	0.50	91.01	121			0.00	
5/17/2012	D10	15-15				284.32	\$1,239.93
ROAD DEPT	10.00	10.50	005			955.61	
S	0.50	91.01	121			0.00	
5/21/2012	D10	15-15				284.32	\$1,239.93
ROAD DEPT	10.00	10.50	005			955.61	
S	0.50	91.01	121			0.00	
5/22/2012	D01	15-13				286.10	\$1,192.20
ROAD DEPT	10.00	10.00	005			906.10	
S	0.00	90.61	121			0.00	
5/22/2012	D10	15-15				284.32	\$1,239.93
ROAD DEPT	10.00	10.50	005			955.61	
S	0.50	91.01	121			0.00	
5/23/2012	D01	15-13				286.10	\$1,192.20
ROAD DEPT	10.00	10.00	005			906.10	
S	0.00	90.61	121			0.00	
5/23/2012	D10	15-15				284.32	\$1,239.93
ROAD DEPT	10.00	10.50	005			955.61	
S	0.50	91.01	121			0.00	

STARK COUNTY ROAD DEPT

Daily Job Database Report (Equipment, Labor & Material Costs) With Subtotals By Project & Activity

<u>Date</u> <u>Dept.</u> <u>District</u>	<u>Employee</u> <u>Reg. Time</u> <u>Overtime</u>	<u>Equipment</u> <u>Hr/Mi.</u> <u>Eqm. Rate</u>	<u>Road/St.</u> <u>Activity</u> <u>Project</u>	<u>Type</u>	<u>Length</u>	<u>Emm. Cost</u> <u>Equip. Cost</u> <u>Matr. Cost</u>	<u>TOTAL</u> <u>COST</u>
4/ 2/2012 ROAD DEPT S	D05 10.00 0.00	15-14 10.00 91.01	121 Av 059 121			273.20 910.10 0.00	\$1,183.30
4/ 2/2012 ROAD DEPT S	D05 0.00 0.00	27-10 10.00 40.00	121 Av 059 121			0.00 400.00 0.00	\$400.00
4/ 3/2012 ROAD DEPT S	D05 0.00 0.00	27-10 10.00 40.00	121 Av 059 121	All		0.00 400.00 0.00	\$400.00
4/ 3/2012 ROAD DEPT S	D05 10.00 0.00	15-14 10.00 91.01	121 Av 059 121			273.20 910.10 0.00	\$1,183.30
4/ 4/2012 ROAD DEPT S	D05 10.00 0.50	15-14 10.50 91.01	121 Av 059 121			290.42 955.61 0.00	\$1,246.03
4/ 4/2012 ROAD DEPT S	D05 0.00 0.00	27-10 10.50 40.00	121 Av 059 121			0.00 420.00 0.00	\$420.00
<u>Subtotal Activity 059</u> Reg. Time 30.00 Equipment Hr./Mi. 61.00 Overtime 0.50							Employee Cost \$836.82 Equipment Cost \$3,995.81 Material Cost \$0.00 <u>Total Cost \$4,832.63</u>
<u>Activity 061</u>							
7/16/2012 ROAD DEPT S	102 4.00 0.00	0.00 0.00	061 121			135.24 0.00 0.00	\$135.24
8/30/2012 ROAD DEPT S	102 4.50 0.00	10-01 4.50 15.00	061 121			152.15 67.50 0.00	\$219.65
<u>Subtotal Activity 061</u> Reg. Time 8.50 Equipment Hr./Mi. 4.50 Overtime 0.00							Employee Cost \$287.39 Equipment Cost \$67.50 Material Cost \$0.00 <u>Total Cost \$354.89</u>
<u>Subtotals Project 121</u> Reg. Time 498.50 Equipment Hr./Mi. 2,323.25 Overtime 59.25							Employee Cost \$44,728.72 Equipment Cost \$105,823.86 Material Cost \$61,382.34 <u>Total Cost \$211,934.92</u>

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DATE: 9/ 4/2012

DayJob5.Rpt

STARK COUNTY ROAD DEPT

Daily Job Database Report (Equipment, Labor & Material Costs) With Subtotals By Project & Activity

<u>Date</u>	<u>Employee</u>	<u>Equipment</u>	<u>Road/St.</u>	<u>Type</u>	<u>Length</u>	<u>Emp. Cost</u>	<u>TOTAL</u>
<u>Dept.</u>	<u>Reg. Time</u>	<u>Hr/Mi.</u>	<u>Activity</u>			<u>Eqp. Cost</u>	<u>COST</u>
<u>District</u>	<u>Overtime</u>	<u>Eqm. Rate</u>	<u>Project</u>			<u>Matr. Cost</u>	
GRAND TOTALS							
Reg. Time	1,498.50	Equipment Hr./Mi.	2,323,250			Employee Cost	\$44,728.72
Overtime	59.25	Rdwy. Miles	25,000			Equipment Cost	\$105,823.86
						Material Cost	\$61,382.34
						Total Cost	\$211,934.92

STARK COUNTY ROAD DEPT

SPECIAL MATERIALS SUMMARY REPORT - Stark County

(Use only if roadway materials = Gravel, Scoria or Shale)

Searching for the following information:

First Date : 2/ 1/2012 Last Date : 2/13/2012

Employee Code & Name : All Emp
Equipment Code & Description: All Units
Road Code & Description : All Roads
Surface Type & Description : All Surf
Activity Code & Description : All Acts
Material Code & Description : All Matrls
Gravel Pit Name : All Gravel Pits
Project Code : 121
Dept. Code & Description : All Depts
District Code & Description : All Dists

REPORT SUMMARY

Regular Hours	=	226.00
Over Time Hours	=	42.25
Equipment Miles/Hours	=	442.25
Rdwy. Length (Miles)	=	0.00
** Material Quantity (Total)	=	2,492.00
Gravel (Yards)	=	2,320.00
Scoria (Yards)	=	0.00
Shale (Yards)	=	172.00
Labor Cost (Regular Time)	=	6,476.28
Labor Cost (Overtime)	=	1,494.12
Labor Cost (Total)	=	\$7,970.40
Equipment Cost (Total)	=	\$17,367.79
Material Cost (Total)	=	\$8,885.40

Grand Total Gravel, Scoria, and Shale Yard: = 2,492.00

Grand Total Cost = \$34,223.59

** Material Quantity (Total) is meaningful only if the report is limited to a single material type.

**IMPROVEMENT COMPANY**PO Box 1035
Dickinson, ND 58602-1035Phone: 701-225-5197
Fax: 701-225-0207
email: dickinson@piend.com**Invoice**

Date	Invoice #
6/30/2012	D7812

Customer #:
28195 28109

Bill to:
Attn: AL HEISER
STARK COUNTY
PO BOX 130
DICKINSON, ND 58602 0130

PO #:	Terms	Project/GL#:
	Net 30	12112
		Cost Code#:
		8200

Description	Comments	Quantity	Unit	Unit Price	Amount
1-HAUL	HAULING CLASS 5 - 121ST STREET				
1-Hauling	06/12/12 - 13 Trucks	112.0	HR	\$115.00	\$12,880.00
1-Hauling	06/13/12 - 13 Trucks	139.0	HR	\$115.00	\$14,835.00
1-Hauling	06/14/12 - 13 Trucks	146.5	HR	\$115.00	\$16,847.50
1-Hauling	06/15/12 - 8 Trucks	67.5	HR	\$115.00	\$7,762.50
2-HAUL	HAULING CLASS 5 - 38TH ST SW				
2-Hauling	06/18/12 - 12 Trucks	114.5	HR	\$115.00	\$13,167.50
2-Hauling	06/19/12 - 9 Trucks	80.5	HR	\$115.00	\$9,257.50
2-Hauling	06/20/12 - 9 Trucks	99.5	HR	\$115.00	\$11,442.50
				Subtotal:	\$85,192.50
				Total City and State Tax:	\$0.00

Dickinson			
City Sales Tax on:	City Sales Tax Amount:	State Sales Tax:	GRAND TOTAL:
\$0.00	\$0.00	\$0.00	\$85,192.50

A finance charge of 1 1/2 % per month will be charged on all past due accounts. This is an annual percentage rate of 18% per year. The minimum finance charge is \$1.00. Our billing cycle closes on the last day of each month.

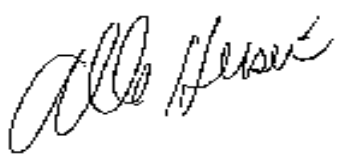
DP-000001 6/5/12 2012

JURGENS TRUCKING LLC
 315 1st ST W Main
 PO BOX 204
 TAYLOR ND, 58656

Invoice

Date	Invoice #
6/27/2012	2981

Bill To
Stark County Auditor PO Box 130 Dickinson, ND 58602

Quantity	Description	Rate	Amount
11.5	Daryl 6/11/2012 13 lds from Walter Pit on Sheffield Rd 1 ld of shale rock to shop	115.00	1,322.50
11	Daryl 6/12/2012 17 lds from Walter Pit on Sheffield Rd	115.00	1,265.00
11.5	Daryl 6/13/2012 6 lds Ververka Pit 7 lds Walter Pit Sheffield Rd	115.00	1,322.50
11	Daryl 6/14/2012 6 lds Reich Pit 121 S Stock pile	115.00	1,265.00
			
Thank you for choosing Jurgens Trucking		Total	\$5,175.00













DUNCAN OIL

Marathon Oil
Corporation

ConocoPhillips

Citation
Energy Services





Notice the trailers?



People are desperate for housing.













