

An aerial photograph of a highway construction site. The road is partially closed, with orange traffic barrels and signs indicating a 'ROAD CLOSED' area. A yellow concrete mixer truck is parked on the left side of the road. A white semi-trailer truck is parked in the center. A red pickup truck is parked on the right side. In the background, a large crane is visible. The surrounding area is lush green forest.

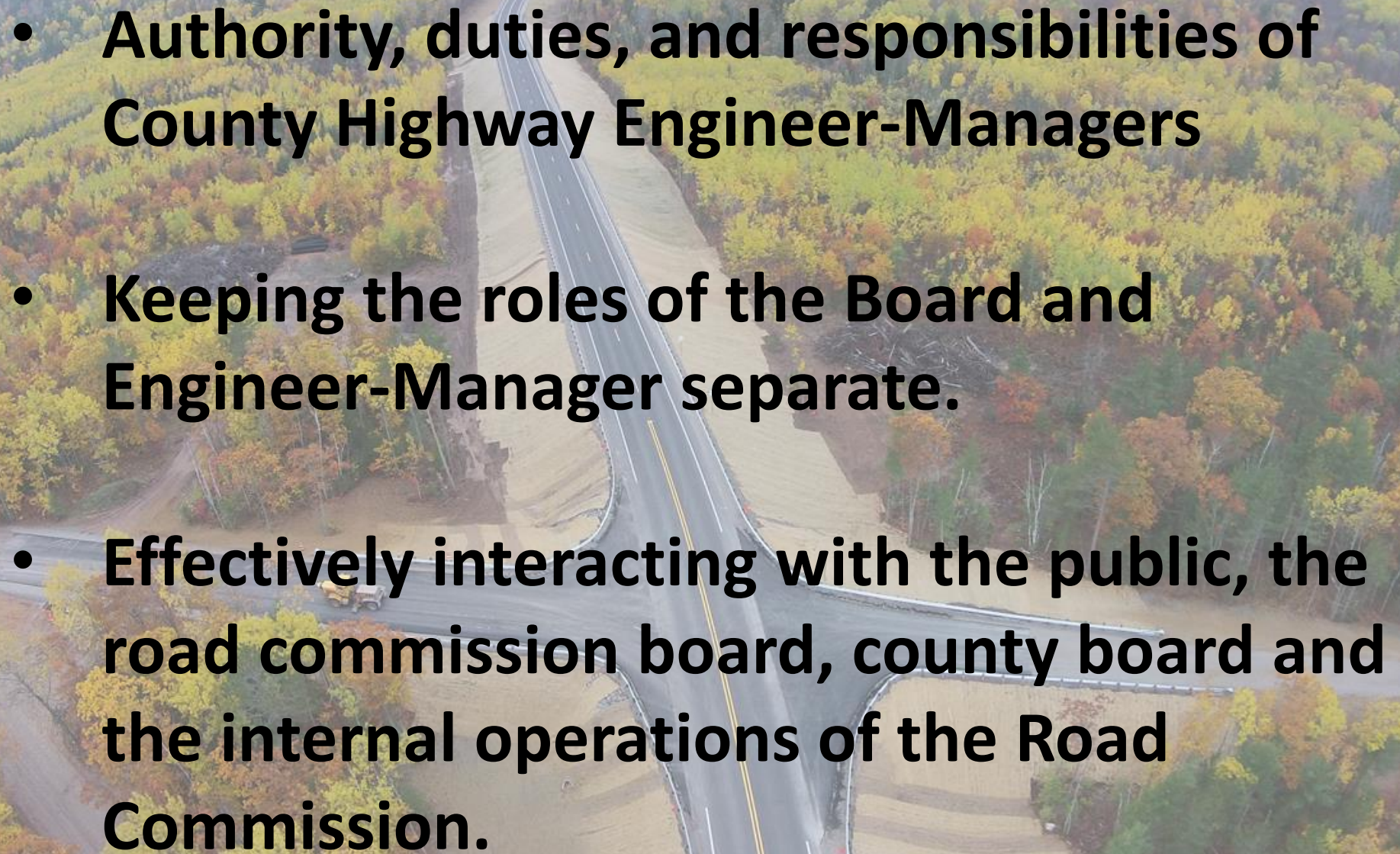
Authority, Duties, & Responsibilities of County Highway Engineer-Managers

2016 County Engineers Workshop

James M. Iwanicki, P.E.

Engineer – Manager

Marquette County Road Commission

- 
- An aerial photograph of a multi-lane highway interchange with a central overpass, surrounded by dense forest with autumn foliage in shades of yellow, orange, and green. The road surface is dark asphalt with white lane markings. A few vehicles are visible on the roads.
- **Authority, duties, and responsibilities of County Highway Engineer-Managers**
 - **Keeping the roles of the Board and Engineer-Manager separate.**
 - **Effectively interacting with the public, the road commission board, county board and the internal operations of the Road Commission.**

Engineer – Manager

Great Title!

**So What in the Hell Is
Your Job!**



CALCULUS

With Analytic Geometry

SECOND EDITION

**The Engineer - Manager's Job
Can Be Described As A Simple
Mathematic Function**

ROBERT ELLIS

DENNY GULICK

1.6 COMBINING FUNCTIONS

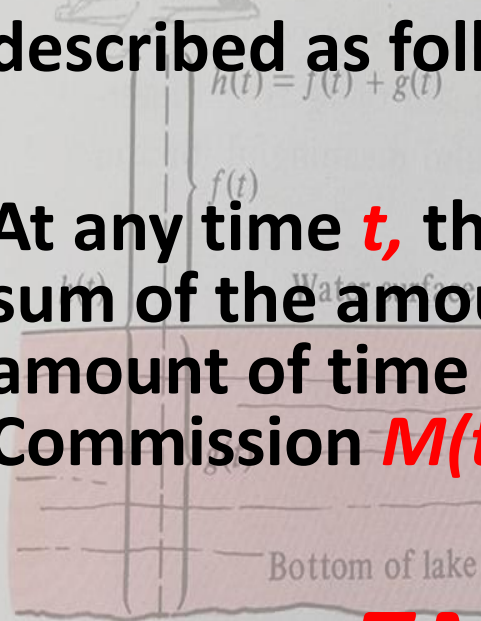
Many mathematical functions are combinations of several functions. Therefore, an Engineer-Manager (**EM**) can be described as follows:

At any time t , the Engineer-Manager's day **EM**(t) is the sum of the amount of time spent engineering **E**(t) and the amount of time spent managing other areas of the Road Commission **M**(t). In other words,

$$EM(t) = E(t) + M(t)$$

Where t is in hours/day

$$8 \leq t \leq 24$$



Sums, Differences, Products, and Quotients of Functions

Let f and g be functions. We define the sum $f + g$, the difference $f - g$, and the product fg to be the functions whose domains consist of all numbers in the domains of both f and g and whose rules are given by

$$(f + g)(x) = f(x) + g(x)$$

$$(f - g)(x) = f(x) - g(x)$$

A Pictorial Representation of the Equation

$$E(t) + M(t) = EM(t)$$



+



=



+



=



$$\text{Engineer} + \text{Manager} = \text{Superhuman}$$

A Pictorial Representation of the Equation

$$E(t) + M(t) = EM(t)$$



+



=



+



=



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$$\text{Engineer} + \text{Manager} = \text{Magician}$$

Engineer – Manager's

Authority

Duties

Responsibilities



We Can Find Answers In Michigan's County Road Law





**PUBLIC HIGHWAYS AND PRIVATE
ROADS (EXCERPT) Act 283 of 1909**

**MCL 224.9 (3) ... The board shall
appoint a competent superintendent,
skilled in road building, who may be
an engineer and who shall supervise
road building operations in the county
under the direction of the board. ...**

PUBLIC HIGHWAYS AND PRIVATE ROADS (EXCERPT) Act 283 of 1909

MCL 224.10 (2) The board of county road commissioners shall employ a competent county highway engineer who shall make surveys ordered by the board, prepare plans and specifications for roads, bridges, and culverts, and exercise general supervision over construction to insure that the plans and specifications are strictly followed. Two or more adjoining counties may employ the same engineer, if the work in 1 or more of the counties is not enough to employ the whole time of the engineer. The engineer employed by the board shall be known as the county highway engineer.

PUBLIC HIGHWAYS AND PRIVATE ROADS (EXCERPT) Act 283 of 1909

MCL 224.19(3) The construction, improvement, and maintenance of roads, bridges, and culverts, shall be in accordance with plans and specifications furnished or approved by the county highway engineer, who shall have supervision of the construction....

Board Assigned Duties

“RESOLVED, by the Board of County Road Commissioners of Marquette County, Michigan that the Engineer-Manager is designated as the Chief Administrative Officer

BE IT FURTHER RESOLVED, that the Chief Administrative Officer is hereby authorized to transfer up to 5%, but not to exceed \$15,000, on certain line items in the Program Budget without prior approval within the Board’s General Appropriation Act for normal 2016 Road Commission operations, and

BE IT FURTHER RESOLVED, that the Chief Administrative Officer shall report the line item transfer to the said Board for approval at the next regular meeting of said Board following the transfer.”

E(t) – Engineering Functions

- Professionally responsible for the planning and execution of construction and reconstruction programs.
- Responsible for countywide road and bridge maintenance programs involving road commission work force and private contractors
- Meets with federal, state & local agencies, businesses, constituents, utilities and consultants to discuss and solve road and bridge program problems and issues.
- Under the general direction of the Board

M(t) – Management Functions

- **Chief-Executive Officer (CEO)**
- **Responsible for planning, developing & executing programs and policies to achieve organizational goals within budgetary, workforce & time allowances.**
- **Responsible for planning, developing & operating administrative and fiscal programs and policies.**
- **Meets with federal, state & local agencies, businesses, constituents, utilities and consultants to discuss and solve administrative and organizational problems and issues.**
- **Under the general direction of the Board**

Knowledge

A cartoon illustration of a brown owl with large, light blue eyes and a yellow beak. The owl is wearing blue-rimmed glasses and is holding a large, open book with orange pages. The owl is positioned in the background, centered behind the text.

Professional Engineer (Road and Bridge Design & Construction)

Road and Bridge Maintenance

Building Maintenance

Equipment & Equipment Maintenance

Accounting/Financing

Budgeting

Local, State and Federal laws (Act 51, Opening Meetings Act, FOIA, Labor, Liability)

Public Relations

People Management

Human Resource

Marketing

Skills

Public Relation
Labor Relations
Public speaking
Negotiating
Listening
People Skills
Management
Risk Management

Supportive
Marketing
Leadership
Politician
Counselor
Coach
Referee
Disciplinarian



Engineer Manager's Goal:

Strive to have positive interact with constituents, the business community, employees, local, state and federal government officials, and the media.



**I could do my job if it wasn't
for all the interruptions.**

My job is the interruptions!

Engineering

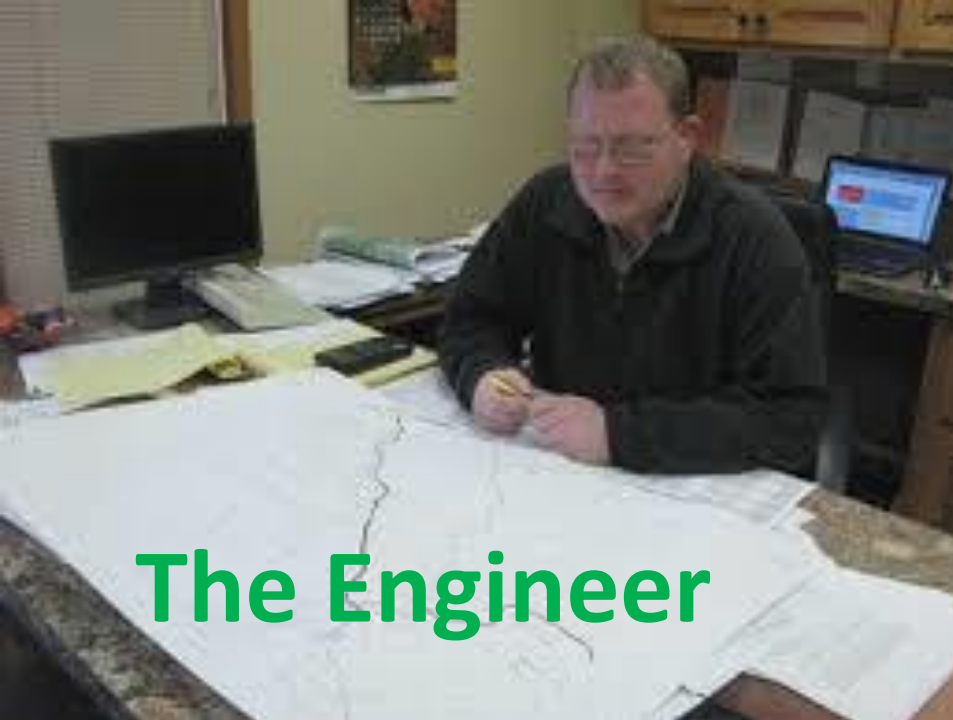
Standards

Verse

Political

Consideration





The Engineer



The Board

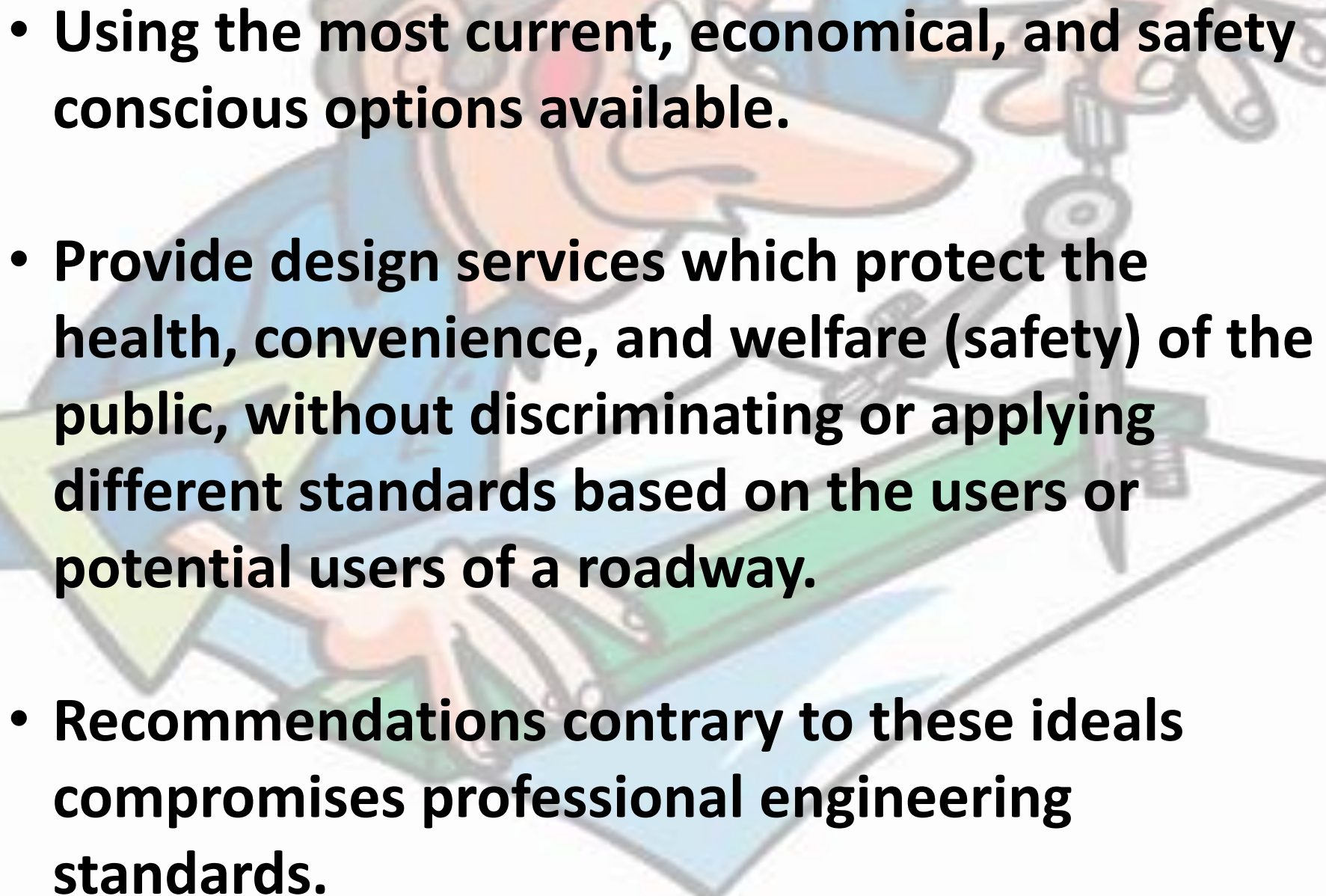
The role and responsibility of the **Engineer and the **Board** are very different.**

Engineer's Responsibility:

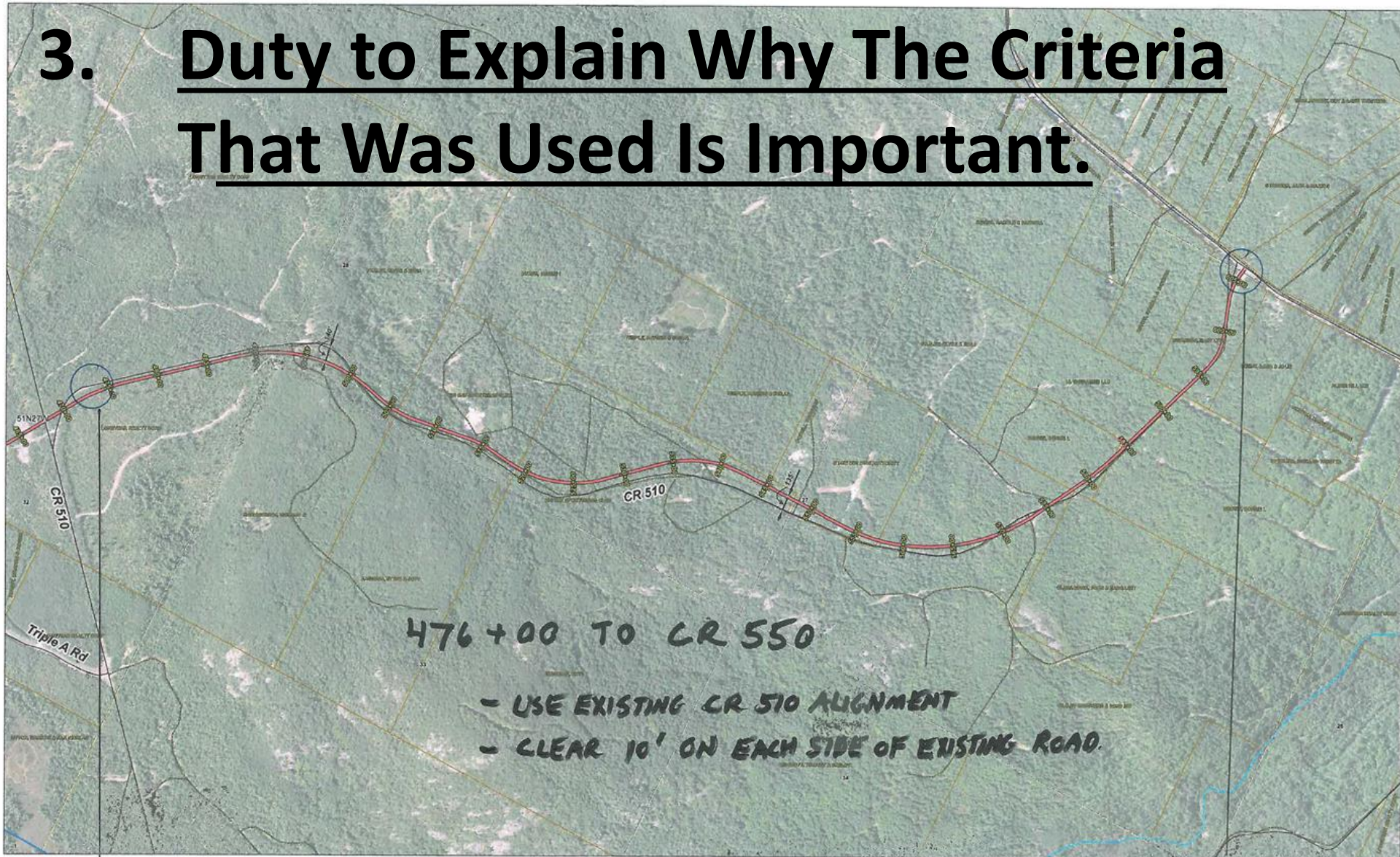
**Making Recommendations to the Board
Which Take Into Consideration the
Following:**

- 1. MCRC Mission Statement - To provide a safe and efficient system of county roads and bridges with responsive and dependable customer service by continually improving both the system and the service.**

2. Application of Professional Engineering Standards

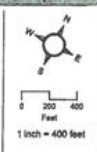
- **Using the most current, economical, and safety conscious options available.**
 - **Provide design services which protect the health, convenience, and welfare (safety) of the public, without discriminating or applying different standards based on the users or potential users of a roadway.**
 - **Recommendations contrary to these ideals compromises professional engineering standards.**
- 
- A cartoon illustration of a man with a long nose, wearing a blue suit and glasses, sitting at a desk. He is holding a pair of compasses in his right hand and a pencil in his left hand, appearing to be working on a large sheet of paper or a blueprint. The background is light blue and green.

3. Duty to Explain Why The Criteria That Was Used Is Important.



MARQUETTE COUNTY ROAD COMMISSION
Proposed Triple A Road / County Road 510
Marquette County, Michigan

Symbol Legend	
Rivers and Streams	Active Railroads
Station Points	County Boundary
Proposed Centerline Alignment	PLSD Town-Range
Local Roads	PLSD Sections
3-Track Peaks and Trails	Parcel Lines



Project Number: 13308
Drawn: GK
Map Date: 09/2013
Figure No: Sheet 4 of 4





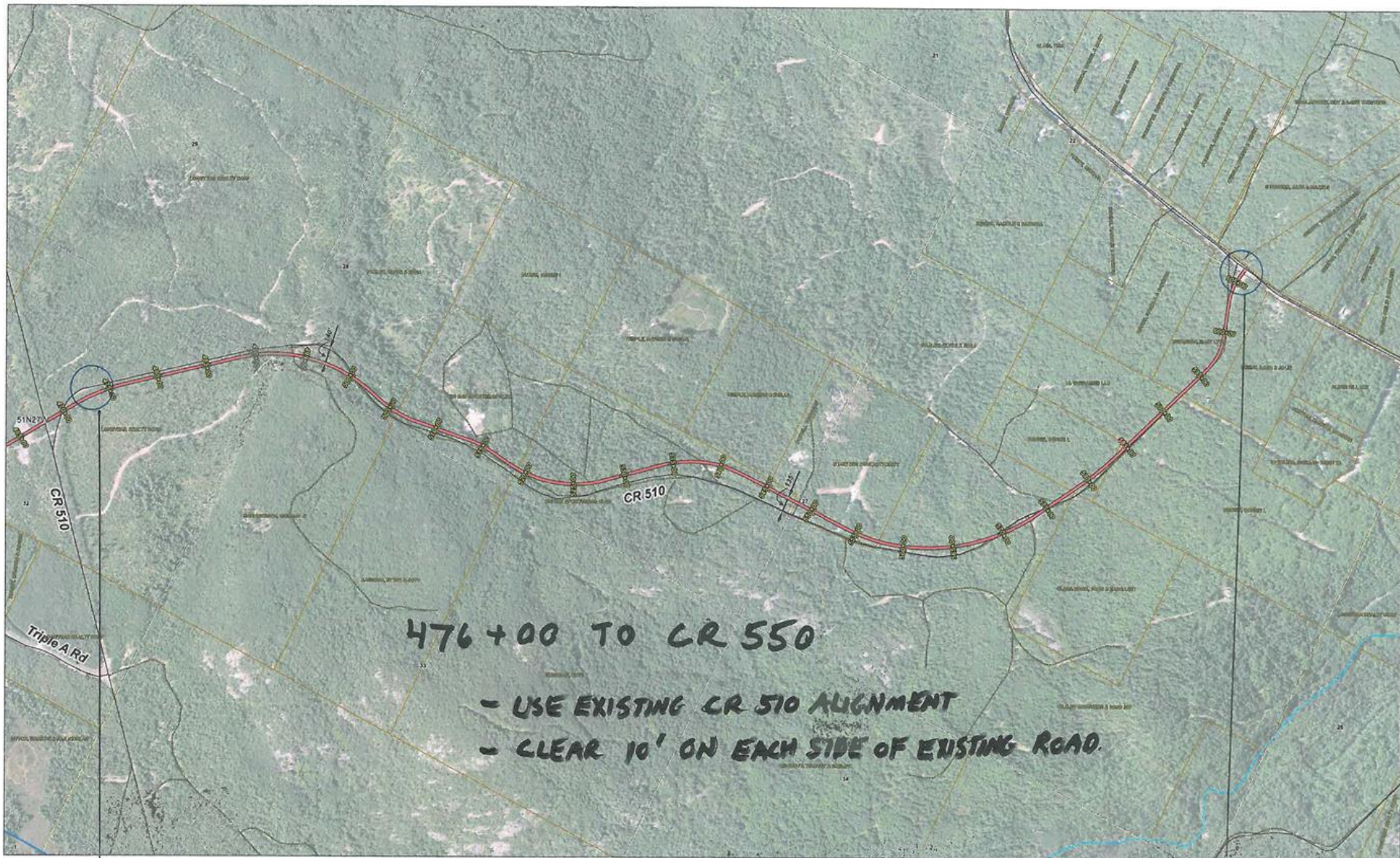
The Board should expect and require their Engineer to present his “professional” recommendation, even if it contradicts the popular opinion.

Board's Political Responsibility

- **Review /Consideration of Professional Engineer's Recommendation**
- **Apply The Mission Statement**
- **Take Public Comment and Weigh It Against the Professional Engineer's Recommendation**
- **The Board's Privileges Include the Ability to Direct the Engineer to Consider Alternative Design Options, or Set Design Parameters that the Engineer Must Meet. (i.e. cost, right of way width, clearing, design speed, etc.)**

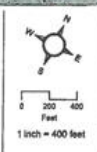






MARQUETTE COUNTY ROAD COMMISSION
Proposed Triple A Road / County Road 510
Marquette County, Michigan

Symbol Legend	
	Rivers and Streams
	Station Points
	Proposed Centerline Alignment
	Local Roads
	3-Track Peaks and Trails
	Active Railroads
	County Boundary
	PLSD Town-Range
	PLSD Sections
	Parcel Lines

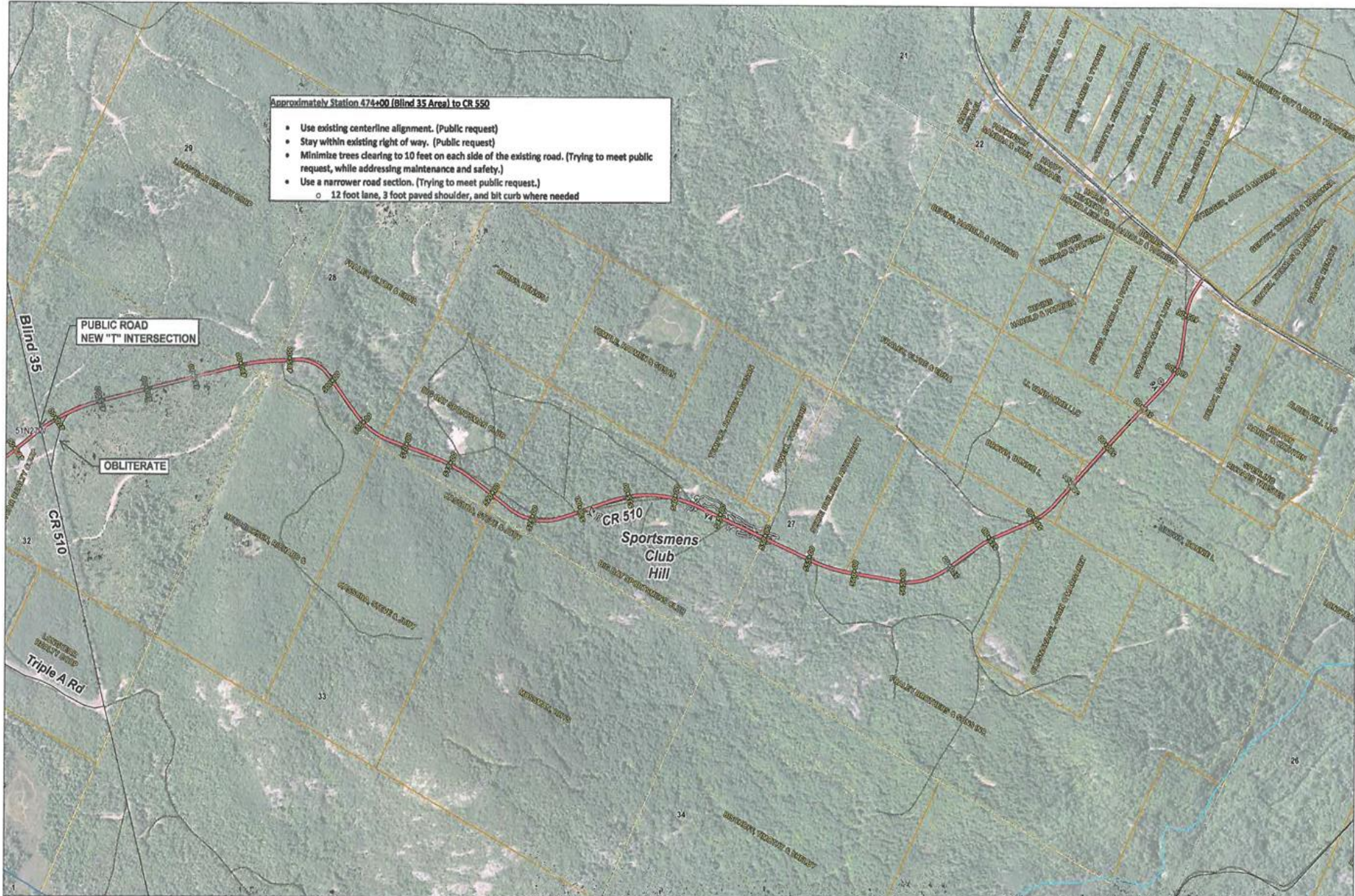


Project Number: 13308
 Drawn: GK
 Map Date: 09/2013
 Figure No: Sheet 4 of 4



Triple A West Of Salmon Trout Bridge



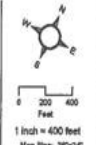


MARQUETTE COUNTY ROAD COMMISSION

Proposed Triple A Road - Nov. 14th, 2013 Alignment

Marquette County, Michigan

Symbol Legend	
	Station Points
	Delinquent Wetland Boundary
	Rivers and Streams
	Proposed Centerline Alignment
	Local Roads
	2-Track Roads and Trails
	Active Railroads
	County Boundary
	PLAD Town-Range
	PLAD Section
	Parcel Line



Project Number: 13308
 Drawn: GH
 Map Date: 10/01/13
 Figure No: Sheet 4 of 4





CR 510

East of Blind 35

October 2014



Separation of Duties Board and Manager

As The Manager

Manage – Lead - Make Decisions

Follow Policy

Less is More (Stay out if the Weeds)

Use Phrases like:

I recommend

Staff has discussed

Policy States

Accountability = Credibility (You and the Board need to agree on what the standard is)

No Surprises

If you let your Board Manage - They Will

Separation of Duties Board and Manager

As The Board

**Set policy – Set Course
Set the political agenda**

Board Meetings

Information Items and Action Items



Interactions with the Public

- **Honest – Strait forward – Upfront**
- **Respectful**
- **Don't pass the buck!**
- **If you don't know you don't know. Find the answer and get back to them. Don't Make Shit Up.**
- **Follow Policy – Don't Like it go to Board**
- **Don't throw your people under the bus.**
- **Finally, Have a how can we do this attitude – Don't be the no because I said so Guy**

County Board

- Don't ignore them
- If it is political let your Board make the call
- Follow policy
- Have a how can we do this attitude
- Be positive
- Don't throw your Board or staff under the bus.

Politicians have big egos – They will summon you to chew your ass to make political hay. Take your ass chewing – Turn it into a positive.



Internal Communications

Management Makeup and Style

Manager – Contact Employee to the Board

3 Department Heads – Non-Union

Finance and Office Manager

Engineering

Operations and Maintenance

**Senior
Management**

**Management
Team**

Additional Key Management Areas

KI Foremen

Ishpeming Foremen

Shop Foreman

**Operational
Management**



Marquette County Road Commission

Organizational Chart

December 1, 2015

50 Total Full Time Employees
 1 Contract Employee (Manager)
 13 Non-Union Employees
 36 Bargaining Unit Employees

23 Winter Temps
 7 Summer Temps

Eligible Retirements

2016 - 2 Union 2 Non Union
 2017 - 2 Union
 2018 - 3 Union 1 Non Union
 2019 - 5 Union 1 Non Union
 2020 - 1 Union
 2021 - 1 Union 1 Non Union
 2022 - 2 Union 2 Non Union
 2023 - 2 Union 1 Non Union
 2024 - 5 Union

Board of Road Commissioners

Dave Hall , Chairman
 Joe Valente, Vice-Chairman
 Russell Williams , Member
 Ray Roberts, Member
 Rodger Crimmins, Member

Group	Ave Age	Ave Years of Service
Union	47	14
Non Union	49	17
Combined	48	15

Engineer – Manager
 Jim Iwanicki, P.E.

Operations & Maintenance
 Mike Harrington

Finance & Office Manager
 Mary Herman, Clerk

Engineering
 Kurt Taavola

Ishpeming District
 Bob O’Neill, Foreman
 Jim Chaperon, Lead person
 +13 Road Crew

Equipment Maintenance
 Berle (Mike) Lapin, Foreman
 4 Mechanics Ishpeming
 Dave King, Shop Clerk

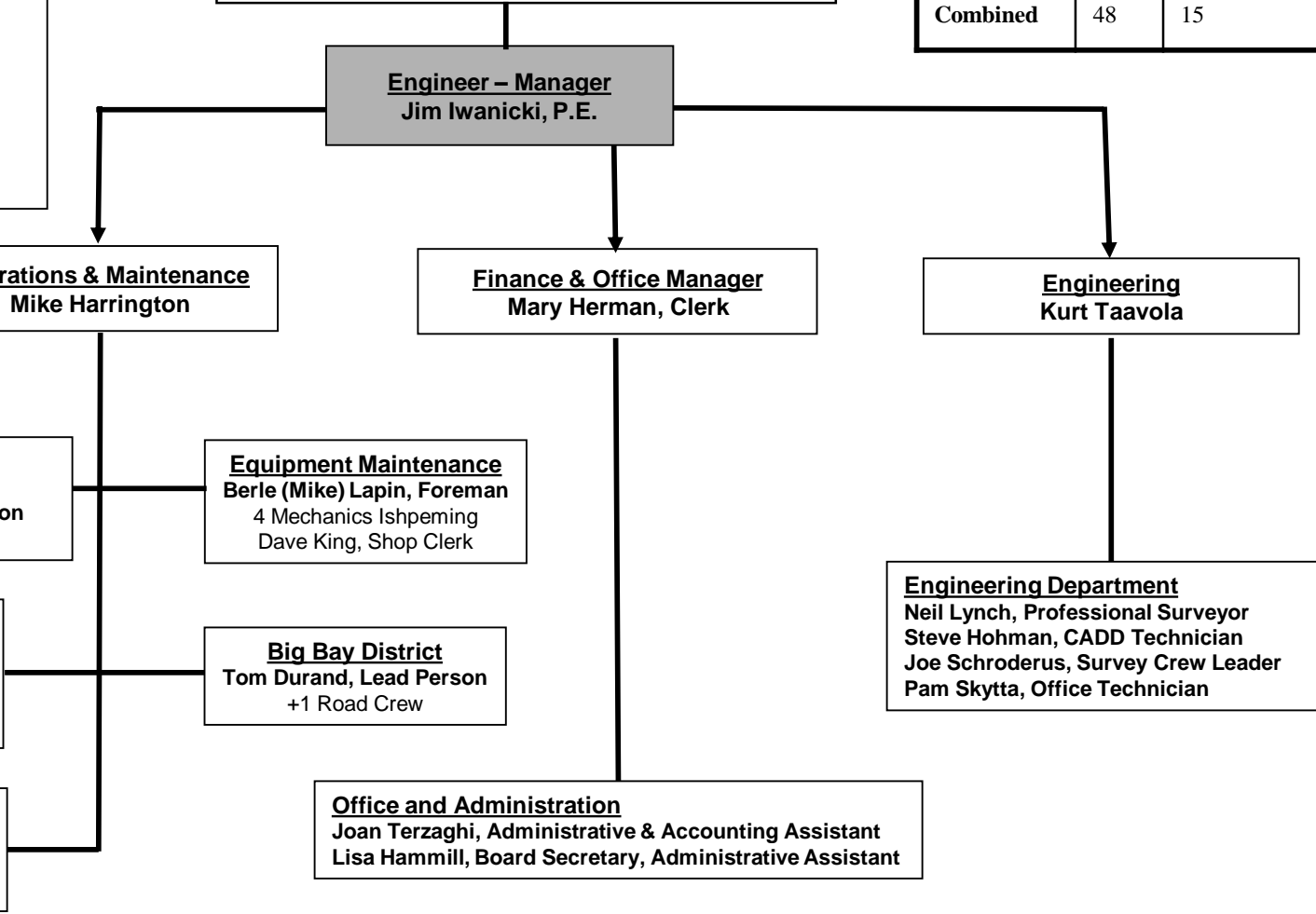
Sawyer District
 Ross Olsen, Foreman
 Gary Revord, Lead Person
 +9 Road Crew
 3 Mechanics

Big Bay District
 Tom Durand, Lead Person
 +1 Road Crew

Engineering Department
 Neil Lynch, Professional Surveyor
 Steve Hohman, CADD Technician
 Joe Schroderus, Survey Crew Leader
 Pam Skytta, Office Technician

Republic District
 Mark Kaminen, Lead Person
 +2 Road Crew

Office and Administration
 Joan Terzaghi, Administrative & Accounting Assistant
 Lisa Hammill, Board Secretary, Administrative Assistant



Team Management Style (Information Exchange) 3 Key Meetings

Senior Management Team

- Meets at least once a week to discuss organizational planning, goals, issues and accomplishments (Tuesday Mornings)

Management Team

- Meets weekly to discuss Planning, Goals, Employee Issues, and Objectives.(Wednesday Morning @ 9)
- (Wire our Head with our Tail)

Individual Team Meetings (Thursday Mornings)

- Ishpeming District
- Ishpeming Shop
- KI District
- Republic District
- Big Bay District
- Office
- Engineering

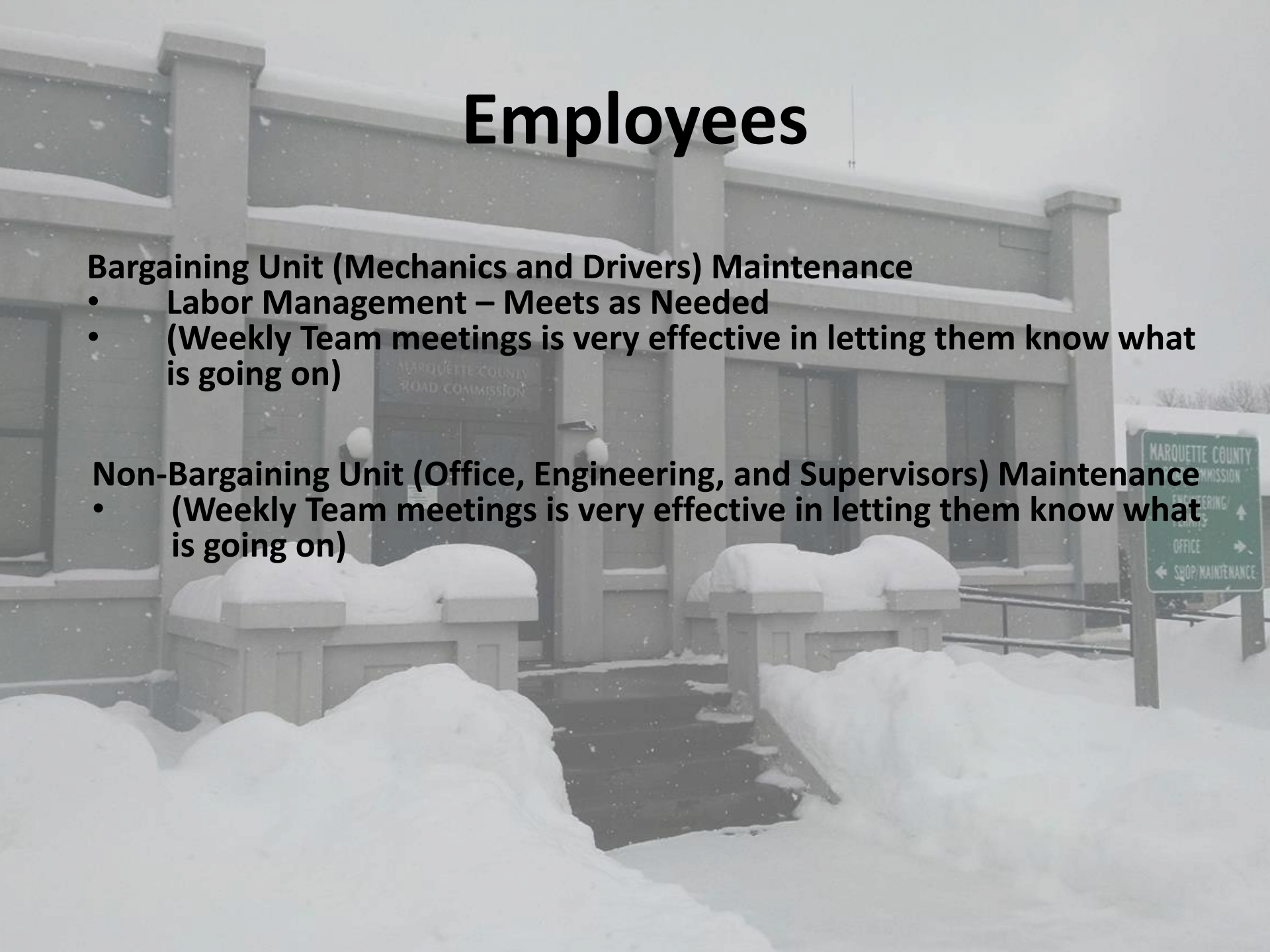
Employees

Bargaining Unit (Mechanics and Drivers) Maintenance

- Labor Management – Meets as Needed
- (Weekly Team meetings is very effective in letting them know what is going on)

Non-Bargaining Unit (Office, Engineering, and Supervisors) Maintenance

- (Weekly Team meetings is very effective in letting them know what is going on)



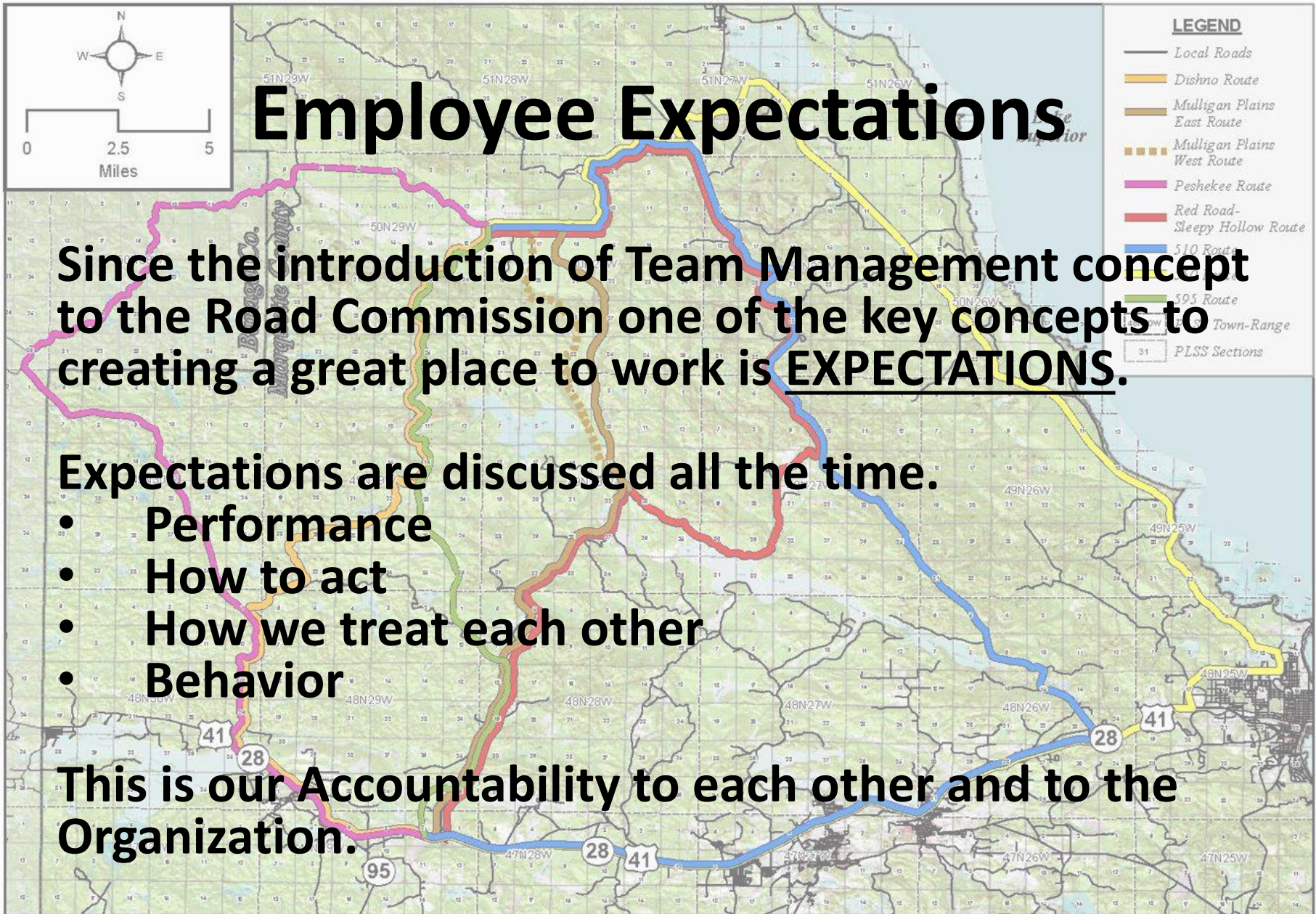
Employee Expectations

Since the introduction of Team Management concept to the Road Commission one of the key concepts to creating a great place to work is EXPECTATIONS.

Expectations are discussed all the time.

- Performance
- How to act
- How we treat each other
- Behavior

This is our Accountability to each other and to the Organization.



Owner:
MARQUETTE COUNTY

King & MacGregor
Environmental Inc.
40595 Koopemick Road
Canton, MI 48107
(734) 354-0594

GOLEMAN ENGINEERING
COMPANY
676 CIRCLE DRIVE
IRON MOUNTAIN, MICHIGAN 49801
(908) 774-9840

FIGURE 4-2
Other Routes Considered in the CR 595 Assessment

Drawn By:	Approved By:	Revision:
CEC	MG	6-13-11
Date:	Project No.	Figure No.
9-22-11	11017	4-2

HIGH Employee Morale

Why is it High? – It's a Team

- Expectations are talked about and are clear.
- Employees know why we are doing what we are doing. (Team Meetings – they understand the organization)
- Employees are accountable to each other. (Worker to Supervisor, Supervisor to Worker, Worker to Worker, Supervisor to Supervisor)
- Employees are encouraged to make decisions.



Questions?