

WHITEWATER TOWNSHIP BOARD
AGENDA FOR 1st REGULAR MEETING – DECEMBER 13, 2016
7:00 p.m. at the Whitewater Township Hall
5777 Vinton Road, Williamsburg, MI 49690
Phone 231-267-5141/Fax 231-267-9020

At this time, the board invites everyone to silence their electronic devices.

A. Call to Order/Pledge of Allegiance

B. Roll Call of Board Members

C. Set/Adjust Meeting Agenda

D. Declaration of Conflict of Interest

E. Public Comment

Any person shall be permitted to address a meeting of the township board. Public comment shall be carried out in accordance with the following board rules and procedures:

1. Comments shall be directed to the board, with questions directed to the chair.
2. Any person wishing to address the board shall speak from the lectern and state his or her name and address.
3. Persons may address the board on matters that are relevant to township government issues.
4. No person shall be allowed to speak more than once on the same matter, excluding the time needed to answer board members' questions. The chair shall control the amount of time each person shall be allowed to speak, which shall not exceed five (5) minutes.

F. Public Hearing

G. Reports/Presentations/Announcements/Comments

1. County Board of Commissioners Report
2. County Road Commissioner Report
3. Mobile Medical Response Report
4. Planning Commission Report
5. Parks & Recreation Advisory Committee Report

H. Consent Calendar

Receive and File

1. Supervisor's Report for November 2016 (none)
2. Clerk/Park & Recreation Administrator's Report for November/December 2016
3. Zoning Administrator's Report (none)
4. Mobile Medical Response November 2016 Activity Reports
5. Grand Traverse Rural Fire Chief's Activity Report 10/13/2016 to 11/10/2016
6. Approved 09/14/2016 Historical Society Minutes
7. Approved 10/05/2016 Planning Commission Minutes

Correspondence

1. Grand Traverse County Sheriff Department Statistics (none)
2. Grand Traverse Rural Fire Board DRAFT Minutes of 10/19/2016
3. Letter 11/03/2016 Kim Mangus re: Willingness to Extend Planning Commission Service
4. Letter 11/04/2016 Charter Communications re: Changes to Channel Lineup

5. East Bay Charter Township Notice of Public Hearing - Master Plan Amendment #1-16
6. Letter 12/06/2016 Charter Communications re: Pricing Changes

Minutes

1. Recommend approval of 11/10/2016 regular meeting minutes and 11/22/2016 special meeting minutes

Bills for Approval

1. Approval of Alden State Bank vouchers # 41237 through 41320
2. Approval of First Community Bank Miami Beach voucher # 1183

Budget Amendments (none)

Revenue & Expenditure Report (none)

I. Unfinished Business

1. Review Emergency Services Building Renovations (discuss GTC plan review, temporary electrical service proposals)
2. Review Whitewater Township Planning & Zoning Fees (changes in process)
3. Rural Fire Update (review/discuss consultant's draft report)
4. Ordinance 28 Miami Beach Sewer Project (no updates at this time)
5. Selection of Zoning Administrator

J. New Business

1. Baggs Road 2017 Project Commitment
2. Planning Commission Request for RFP re: Recodification
3. Appointments to Planning Commission, Zoning Board of Appeals, Board of Review, and Parks & Recreation Advisory Committee
4. Planning Commission Recommendation to Rescind General Ordinance 32
5. Review/Approve Boat Launch/Pavilion Bathroom Facility Design

K. Tabled Items

1. Review Administrative Policy Section 5 (tabled 10/14/2014)
2. Rural Fire Station Lease (tabled 08/11/2015)
3. Review Ordinance 22 Pension Plan (tabled 10/25/2016)

L. Board Comments/Discussion

M. Announcements

1. Next regular meeting date is January 10, 2017, at 7:00 p.m.

N. Public Comment

O. Adjournment

Whitewater Township will provide necessary reasonable auxiliary aids and services to individuals with disabilities who are planning to attend. Contact the township clerk at 231-267-5141 or the TDD at 800-649-3777.

To: Township Board Members

From: Cheryl A. Goss, Township Clerk

Date: 12/09/2016

Re: Consent Calendar for 12/13/2016 Township Board Meeting

Receive and File

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Budget Amendments (none)

Revenue & Expenditure Report (none)

An appropriate motion would be: Motion to approve Consent Calendar items as presented.

Moved by _____, seconded by _____. Roll call vote:

Clerk/Parks & Recreation Administrator's Report for November/December 2016

To: Whitewater Township Board Members

From: Cheryl A. Goss, Township Clerk/Parks & Recreation Administrator

Date: 12/09/2016

This report details activity in the Clerk/Parks & Recreation Administrator office since my last report dated 11/04/2016

Meetings Attended (In Addition to Township Board Meetings):

1. 11/07 – Election Precinct Setup/Local Inspector meeting
2. 11/17 - Meeting with Tim Tinker (Excel Site Rentals) and Nick Bernelis (MMR) at 8380 Old M-72 re: placement of extended stay trailer and electric/water/sewer/radio details
3. 11/21 – Meeting with Kuhns Electric at 8380 Old M-72 re: estimate to provide electrical service to extended stay trailer
4. 12/6 – Recount Orientation
5. 12/7 – Mobile Medical Response Advisory Board
6. 12/8 – Meeting with Alpine Electric at 8380 Old M-72 re: estimate to provide electrical service to extended stay trailer

Elections: The November 8th General Election went well. There were 1,062 voters in the precinct and 622 absentee voters, which translates into a 78% turnout. A statewide recount of the presidential race got underway on 12/5. Grand Traverse County's recount was set to begin on Saturday, 12/10. However, much legal wrangling took place in the Michigan Court of Appeals and the Federal District Court on the issue, and late on 12/7 the federal judge ruled that the person requesting the recount was not entitled to it, thus halting the process.

Whitewater Township Park: We had some vandalism at the park recently. On the morning of 11/16, Park Ranger Brian Cobb reported finding that someone had attempted to remove one of the posts at the entrance to the campground. See pictures attached. The damage was repaired.

On 11/29, Park Ranger Brian Cobb reported finding a bait pile in the additional parking area, as well as deer parts a few feet into the woods at that location. The park is posted no hunting. These findings were reported to the DNR. The conservation office questioned whether the township has an ordinance specifically against hunting there, how the public knows it is no hunting, and who is charged with enforcing it. A check of the township's general ordinances reveals that there is no general ordinance regulating hunting at Whitewater Township Park. I will look into this further.

Hi Pray Park: There has also been new vandalism at Hi Pray Park. On 11/9, holes in the diamond dust of the Little League field were discovered. These were created by some kind of ATV. See picture attached. In an effort to make it harder to access this area in the off season, posts, chain and a sign have been erected at the Old M-72 entrance to this park. If we continue to have further vandalism, we may want to investigate fencing this end of the park.

Update to last month's report of a homeless person sleeping in a tent near the Little League field: It turns out this person was a fugitive from justice out of Benzie County and was wanted on a criminal sexual conduct charge. Last I knew, he was being accommodated at the Benzie County Jail.

(continued)

Other News: I am awaiting the supervisor supplying pictures of the surplus ambulance cot before listing it for sale. This action was approved by the board on 11/22/2016.

#







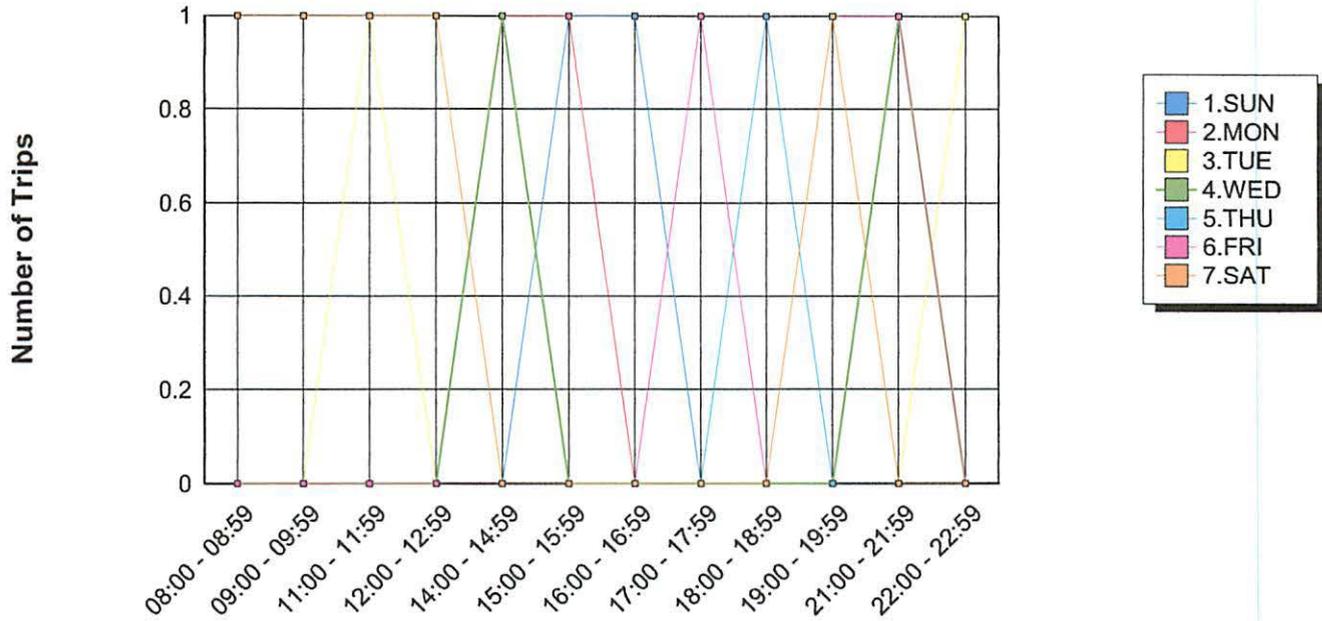
Demand Analysis by Day of Week for Whitewater Twp

From 11/01/2016 to 11/30/2016

| <i>TIME OF DAY</i> | 1.SUN | 2.MON | 3.TUE | 4.WED | 5.THU | 6.FRI | 7.SAT | Total |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 08:00 - 08:59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 09:00 - 09:59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 11:00 - 11:59 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| 12:00 - 12:59 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 14:00 - 14:59 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 15:00 - 15:59 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 16:00 - 16:59 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 17:00 - 17:59 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 18:00 - 18:59 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 19:00 - 19:59 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 21:00 - 21:59 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 22:00 - 22:59 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Total | 2 | 2 | 2 | 2 | 1 | 3 | 5 | 17 |

Demand Analysis by Day of Week for Whitewater Twp

From 11/01/2016 to 11/30/2016



Requests by Nature of Call in Whitewater Twp

From 11/01/2016 to 11/30/2016

| | Total |
|--|-----------|
| Abdominal Pain/Problems | 1 |
| Cardiac or Respiratory Arrest/Death | 1 |
| Chest Pain (Non-Traumatic) | 1 |
| Falls | 4 |
| Headache | 1 |
| Psychiatric/ Abnormal Behavior/Suicide Attempt | 2 |
| Sick Person (Specific Diagnosis) | 4 |
| Standby Non-Dedicated | 1 |
| Stroke (CVA) | 2 |
| Total | 17 |

Fractile Response Time

Trip Date IS BETWEEN 11/01/2016 AND 11/30/2016; AND Dispatch Zones IS GT-Whitewater; AND the time 'Save' was clicked

MOBILE MEDICAL RESPONSE

| | Call Count | Cumulative Call Count | Percent of Total Calls | Cumulative Percent of Total Calls |
|---------------|------------|-----------------------|------------------------|-----------------------------------|
| 00:00 - 01:59 | 3 | 3 | 18% | 18% |
| 03:00 - 03:59 | 2 | 5 | 12% | 29% |
| 05:00 - 05:59 | 1 | 6 | 6% | 35% |
| 06:00 - 06:59 | 3 | 9 | 18% | 53% |
| 07:00 - 07:59 | 1 | 10 | 6% | 59% |
| 10:00 - 10:59 | 2 | 12 | 12% | 71% |
| 11:00 - 11:59 | 1 | 13 | 6% | 76% |
| 14:00 - 14:59 | 1 | 14 | 6% | 82% |
| 19:00 - 19:59 | 1 | 15 | 6% | 88% |
| 20:00 - 24:59 | 1 | 16 | 6% | 94% |
| 45:00 + | 1 | 17 | 6% | 100% |

Total Calls for MOBILE MEDICAL RESPONSE: 17

Fractile Response Time

Trip Date IS BETWEEN 01/01/2016 AND 11/30/2016; AND Dispatch Zones IS GT-Whitewater; AND the time 'Save' was clicked

MOBILE MEDICAL RESPONSE

| | Call Count | Cumulative Call Count | Percent of Total Calls | Cumulative Percent of Total Calls |
|---------------|------------|-----------------------|------------------------|-----------------------------------|
| 00:00 - 01:59 | 30 | 30 | 19% | 19% |
| 02:00 - 02:59 | 9 | 39 | 6% | 25% |
| 03:00 - 03:59 | 13 | 52 | 8% | 33% |
| 04:00 - 04:59 | 15 | 67 | 9% | 42% |
| 05:00 - 05:59 | 12 | 79 | 8% | 50% |
| 06:00 - 06:59 | 13 | 92 | 8% | 58% |
| 07:00 - 07:59 | 14 | 106 | 9% | 67% |
| 08:00 - 08:59 | 12 | 118 | 8% | 74% |
| 09:00 - 09:59 | 12 | 130 | 8% | 82% |
| 10:00 - 10:59 | 5 | 135 | 3% | 85% |
| 11:00 - 11:59 | 4 | 139 | 3% | 87% |
| 12:00 - 12:59 | 3 | 142 | 2% | 89% |
| 13:00 - 13:59 | 3 | 145 | 2% | 91% |
| 14:00 - 14:59 | 1 | 146 | 1% | 92% |
| 15:00 - 15:59 | 2 | 148 | 1% | 93% |
| 16:00 - 16:59 | 3 | 151 | 2% | 95% |
| 17:00 - 17:59 | 1 | 152 | 1% | 96% |
| 19:00 - 19:59 | 1 | 153 | 1% | 96% |
| 20:00 - 24:59 | 3 | 156 | 2% | 98% |
| 25:00 - 29:59 | 1 | 157 | 1% | 99% |
| 45:00 + | 2 | 159 | 1% | 100% |

Total Calls for MOBILE MEDICAL RESPONSE: 159

RescueNet™ Reporting

Transport Count by Month

| | 1/2016 | 2/2016 | 3/2016 | 4/2016 | 5/2016 | 6/2016 | 7/2016 | 8/2016 | 9/2016 | 10/2016 | 11/2016 | Total |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Village of Elk Rapids | 3 | 7 | 7 | 9 | 11 | 8 | 13 | 20 | 11 | 10 | 6 | 105 |
| Elk Rapids Twp | 2 | 4 | 4 | 5 | 5 | 7 | 4 | 3 | 4 | 11 | 5 | 54 |
| Milton Twp | 5 | 5 | 5 | 6 | 5 | 5 | 10 | 10 | 12 | 7 | 8 | 78 |
| Whitewater Twp | 14 | 3 | 13 | 9 | 13 | 10 | 9 | 14 | 10 | 5 | 11 | 111 |
| Torch Lk Twp | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| Kalkaska County | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| GT County | 2 | 2 | 2 | 3 | 3 | 5 | 1 | 2 | 3 | 3 | 2 | 28 |
| Total | 28 | 21 | 31 | 32 | 37 | 35 | 41 | 49 | 40 | 36 | 32 | 382 |



GRAND TRAVERSE RURAL FIRE DEPARTMENT

2266 EM113 Suite B ~ Kingsley, MI 49649
Phone: (231) 263-7875 Fax: (231) 263-0506 ~ Website: www.gtfire.org Email: Info@gtfire.org

Memorandum

From the desk of Chief Theo Weber

To: Fire Board
Ref: Chiefs Activity Report
Date: 11-10-2016

October 13th to Present,

This month's activities included the voluntary MIOSHA inspection of our Stations, Coordination of interviews with township board members & CPSM and Community Round Table meetings.

October is also Fire prevention month which included school visits, smoke detector installs and participation in the many community Halloween festivities.

During October the department consultant activities have intensified, with community meetings, data collections, data review, interviews with staff and was expanded to include more interviews with neighboring Fire Departments.

Apparatus & Equipment:

E6 continues to have drivability issues, Spartan / Spencer feels they have no obligation or liability to repair this truck. Ultimately I believe we will need to replace the front axle assembly (Approx. \$15,000.00). This is a work in progress.

All trucks are in service at this time.

Annual SCBA operational testing is in progress

October Calls for Service

- 1) Fires
- 6) EMS
- 5) Hazard
- 3) Service Calls
- 7) Good Intent
- 6) False Alarm
- 2) Weather Related

30 Total Calls



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Memorandum

From the desk of Chief Theo Weber

Meetings:

GTRFD Officers – See detailed notes attached

LEPC / LPT -This month's meeting included all our community partners. There was a very broad discussion on many topics concerns related to each agency's needs.

Training Committee- Discussion of year ending requirements and deadlines

Safety Committee – Discussion of the MIOSHA recommendations and developing a timeline to have them completed.

Communication Planning Committee / Central Board - Discussion of special events, it was decided that we will no longer loan public assets (radios) to these privately run events such as the Iceman ,VASA and other festivals. They will have to provide their own radios and communication plan.

Training:

EMS introduction to HAZMAT and Confined space entry awareness is the focus of this month's training.

Chief attended the “Michigan associations of Fire Chiefs “Leadership Conference

FEMA Grant Training

A joint training was held with Manton Fire, South Boardman Fire and Rural Station 6 focusing on water supply operations utilizing the Turbo Draft

Notable Items:

Work has begun on the minor corrections that have been recommended by the MIOSHA voluntary inspection.

GRANDTRAVERSERURA

Monthly Incident Counts By Station

Alarm Date Between {01/01/2016} And {10/31/2016}
and Station In "002", "003", "004", "006"

| Station # | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | Percent |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|---------|
| 002 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | 9 | 8 | 5 | 0 | 0 | 66 | 19.87% |
| 003 | 6 | 6 | 9 | 12 | 7 | 3 | 10 | 1 | 4 | 6 | 0 | 0 | 64 | 19.27% |
| 004 | 7 | 6 | 7 | 9 | 12 | 11 | 8 | 19 | 7 | 12 | 0 | 0 | 98 | 29.51% |
| 006 | 13 | 9 | 9 | 9 | 8 | 9 | 16 | 14 | 10 | 7 | 0 | 0 | 104 | 31.32% |

| Total Runs by Month | | | | | | | | | | | |
|---------------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|
| Jan | 32 | Feb | 27 | Mar | 32 | Apr | 37 | May | 33 | Jun | 29 |
| Jul | 40 | Aug | 43 | Sep | 29 | Oct | 30 | Nov | 0 | Dec | 0 |

Grand Total Runs: 332

GRANDTRAVERSERURA

Monthly Incident Counts By Station

Alarm Date Between {01/01/2015} And {10/31/2015}
and Station In "002", "003", "004", "006"

| Station # | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | Percent |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|---------|
| 002 | 9 | 12 | 7 | 8 | 8 | 6 | 7 | 11 | 4 | 7 | 0 | 0 | 79 | 20.68% |
| 003 | 2 | 12 | 3 | 6 | 8 | 2 | 14 | 36 | 3 | 5 | 0 | 0 | 91 | 23.82% |
| 004 | 10 | 12 | 11 | 10 | 9 | 11 | 18 | 17 | 14 | 6 | 0 | 0 | 118 | 30.89% |
| 006 | 9 | 10 | 8 | 12 | 8 | 7 | 14 | 8 | 11 | 7 | 0 | 0 | 94 | 24.60% |

| Total Runs by Month | | | | | | | | | | | |
|---------------------|----|-----|----|-----|----|-----|----|-----|----|-----|----|
| Jan | 30 | Feb | 46 | Mar | 29 | Apr | 36 | May | 33 | Jun | 26 |
| Jul | 53 | Aug | 72 | Sep | 32 | Oct | 25 | Nov | 0 | Dec | 0 |

Grand Total Runs: 382

GRANDTRAVERSERURA

Incident Type Report (Summary)

Alarm Date Between {10/01/2016} And {10/31/2016}
and Station In "002", "003", "004", "006"

| Incident Type | Count | Pct of Incidents | Total Est Loss | Pct of Losses |
|--|----------|------------------|----------------|---------------|
| 1 Fire | | | | |
| 113 Cooking fire, confined to container | 1 | 3.33% | \$0 | 0.00% |
| | <u>1</u> | <u>3.33%</u> | <u>\$0</u> | <u>0.00%</u> |
| 3 Rescue & Emergency Medical Service Incident | | | | |
| 322 Motor vehicle accident with injuries | 3 | 10.00% | \$0 | 0.00% |
| 324 Motor Vehicle Accident with no injuries | 1 | 3.33% | \$0 | 0.00% |
| 341 Search for person on land | 1 | 3.33% | \$0 | 0.00% |
| 360 Water & ice-related rescue, other | 1 | 3.33% | \$0 | 0.00% |
| | <u>6</u> | <u>20.00%</u> | <u>\$0</u> | <u>0.00%</u> |
| 4 Hazardous Condition (No Fire) | | | | |
| 412 Gas leak (natural gas or LPG) | 1 | 3.33% | \$0 | 0.00% |
| 413 Oil or other combustible liquid spill | 1 | 3.33% | \$0 | 0.00% |
| 424 Carbon monoxide incident | 2 | 6.66% | \$0 | 0.00% |
| 444 Power line down | 1 | 3.33% | \$0 | 0.00% |
| | <u>5</u> | <u>16.66%</u> | <u>\$0</u> | <u>0.00%</u> |
| 5 Service Call | | | | |
| 531 Smoke or odor removal | 1 | 3.33% | \$0 | 0.00% |
| 550 Public service assistance, Other | 1 | 3.33% | \$0 | 0.00% |
| 561 Unauthorized burning | 1 | 3.33% | \$0 | 0.00% |
| | <u>3</u> | <u>10.00%</u> | <u>\$0</u> | <u>0.00%</u> |
| 6 Good Intent Call | | | | |
| 611 Dispatched & cancelled en route | 5 | 16.66% | \$0 | 0.00% |
| 631 Authorized controlled burning | 1 | 3.33% | \$0 | 0.00% |
| 661 EMS call, party transported by non-fire | 1 | 3.33% | \$0 | 0.00% |
| | <u>7</u> | <u>23.33%</u> | <u>\$0</u> | <u>0.00%</u> |
| 7 False Alarm & False Call | | | | |
| 745 Alarm system activation, no fire - | 6 | 20.00% | \$0 | 0.00% |
| | <u>6</u> | <u>20.00%</u> | <u>\$0</u> | <u>0.00%</u> |
| 8 Severe Weather & Natural Disaster | | | | |

GRANDTRAVERSERURA

Incident Type Report (Summary)

Alarm Date Between {10/01/2016} And {10/31/2016}
and Station In "002", "003", "004", "006"

| Incident Type | Count | Pct of Incidents | Total Est Loss | Pct of Losses |
|--|----------|------------------|----------------|---------------|
| 8 Severe Weather & Natural Disaster | | | | |
| 8001 Severe Weather - Tree Removal from | 2 | 6.66% | \$0 | 0.00% |
| | <u>2</u> | <u>6.66%</u> | <u>\$0</u> | <u>0.00%</u> |

Total Incident Count: 30

Total Est Loss: \$0

GRANDTRAVERSERURA

Incidents by Township (Summary)

Alarm Date Between {01/01/2016} And {10/31/2016}

| Township | | Count | Pct of Incidents | Est Losses | Pct of Losses |
|------------------------------|-------------------------|------------|------------------|--------------------------|--------------------|
| BLAR | BLAIR TWP | 21 | 6.30 % | \$60,000 | 4.01 % |
| BOAR | BOARDMAN TWP - KAL CO | 10 | 3.00 % | \$0 | 0.00 % |
| CLEA | CLEARWATER TWP | 1 | 0.30 % | \$0 | 0.00 % |
| EBAY | EAST BAY TWP | 2 | 0.60 % | \$0 | 0.00 % |
| FFLK | FIFE LAKE TWP | 38 | 11.41 % | \$28,500 | 1.90 % |
| FLVL | FIFE LAKE VILLAGE | 13 | 3.90 % | \$0 | 0.00 % |
| GAR | GARFIELD TWP - KALKASKA | 3 | 0.90 % | \$0 | 0.00 % |
| GRLK | GREEN LAKE TWP | 64 | 19.21 % | \$15,000 | 1.00 % |
| GRNT | GRANT TWP | 12 | 3.60 % | \$120,000 | 8.01 % |
| INLD | INLAND TWP | 1 | 0.30 % | \$0 | 0.00 % |
| KING | VILLAGE OF KINGSLEY | 8 | 2.40 % | \$185,000 | 12.35 % |
| LGLK | LONG LAKE TWP | 3 | 0.90 % | \$0 | 0.00 % |
| LIBY | LIBERTY TWP | 1 | 0.30 % | \$0 | 0.00 % |
| MAYF | MAYFIELD TWP | 19 | 5.70 % | \$0 | 0.00 % |
| PARA | PARADISE TWP | 36 | 10.81 % | \$336,500 | 22.46 % |
| SPRI | SPRINGFIELD TWP | 30 | 9.00 % | \$77,000 | 5.14 % |
| UNIO | UNION TWP | 10 | 3.00 % | \$300,000 | 20.03 % |
| WHWT | WHITEWATER TWP | 61 | 18.31 % | \$376,000 | 25.10 % |
| Total Incident Count: | | 333 | | Total Est Losses: | \$1,498,000 |



GRAND TRAVERSE RURAL FIRE DEPARTMENT

CHIEF THEO WEBER

2266 E. M-113, Suite B ~ Kingsley, MI 49649
Phone: (231) 263-7875 Fax: (231) 263-0506~ Website: www.gtfire.org Email: Info@gtfire.org

Grand Traverse Rural Fire Department Officer's Meeting November 2, 2016 6:00 p.m. Meeting Overview

Meeting opened promptly at 6:00 p.m. by Chief Weber

| | | | |
|---|---------------------------------------|---|-----------------------------------|
| Station 2: Capt. Fritz Lt. Bugai | Station 3: Capt. Arbenowske | Station 4: Captain Stinson Lt. Fak | Station 6: Lt. Melancon |
| Safety Officer Stiner Training Officer Gibson (Absent) | | | |
| Also Present: FF Alworden FF Killingsworth | | | |

Chief's Report:

Pagers and Radios: A recent meeting with Jason Torrey of Central Dispatch brought forward some new issues regarding accessibility for Metro Stations. Chief Weber shared with Mr. Torrey that the "town" area of Kingsley is also experiencing dead spots. FF Killingsworth also stated there are issues near Fife Lake. Captain Stinson shared with the group that a member of Station 4 has been using an amplifier (on loan from Central Dispatch) and it has worked well to boost signal. Chief Weber will look into purchasing amplified bases for those with receiving issues.

In addition Chief Weber thanked the Officers for utilizing the special event zones and utilizing the open channel for communication on scene.

MIOSHA Voluntary Walk-through:

Both Chief Weber and Captain Fritz thanked Safety Officer Stiner for coordinating and spending the day touring the stations with the MIOSHA Inspector. The highlights of the review follow on the next page and should be shared at each station.

MIOSHA Review - October 31, 2016

Over all items.

1. SOP's for the following
 - a. Meth Labs
 - b. accountability
 - c. lock out
2. Part 33 PPE assessment.
3. Right to know hand book. Printed by the state, (small book) one per station.
4. Eye protection for all fire fighters at a rating of Z87 or better. Helmet shield is for face protection only.
5. Station air compressors need to have the moisture remove from the tank and the pressure relief valve tested on a monthly bases and documented at the compressor. (Station 4 is the only one that had documentation at the compressor).
6. All station ladders (fiber glass) should be rated for 300lbs or more. Just need to watch who uses them and replace when need to.
7. Tires on all apparatus need to be checked for tire depth and wear. Tony feels they should have deeper tread depth, Will pass the tread depth but.
8. Check with Fire board on Grow operations in our county and Twp.

Individual Station Action Items:

Station 2

1. Ladder to the mezzanine that is fixed to the wall or a stair case going up. (Spring Field roofing does this type of work 231-263-5300 in Kingsley.)
2. Hammer on work bench needs new handle or replaced.
3. Battery Charger 110 plug needs to be reworked.
4. To get up to the mezzanine until a permanent solution is done the ladder needs to extend 3ft about mezzanine floor.

Station 3

1. Axe on rescue needs to be mounted and pick part protected, (right now towel covers head and it is just sitting in compartment.)

Station 4

1. Blue 6ft fiber glass ladder needs new warning stickers or replace. Should be able to call manufactory for new stickers. (Batavia ladder inspections could also help.)
2. Weight machine is blocking door way a bit. (This was taken care of while on site by Captain Stinson),

Station 6

1. All building and apparatus fire extinguisher were out of date. (Kyle did try calling Northern Fire to get them out there. Has tried for a couple of weeks now.)
2. O2 tank in ambulance bay was not secured in the cage.

Many of the violations noted have already been corrected. Sometimes, as firefighters, we miss the obvious and must start checking extinguishers. We can check internally once a month and have them checked by an external agency once a year. Chief Weber will order a stock of tags for each station to place with their extinguishers. Reminder we are only responsible for apparatus based extinguishers, the townships are responsible for station based.

The need for **written policies & procedures** in the following areas were discussed:

Accountability tags. Safety Officer Stiner was thanked for maintaining the accountability board at the recent Buckley fire. Everyone understands the importance of the role in our department as well as the need for cooperation with mutual aid partners.

Meth Labs. An official policy will be developed and shared with members

Chemical Suicide. This has become a trend in the last year and a formal policy procedure will be developed. Members responding should access the situation for hazmat containment, utilize SCBA gear and vent within current procedure. Do not transport contaminated victim in an ambulance.

Chief Weber reminded the members that OSHA is funded through fines and we are safer if we just do it right.

Water Points/Turbo Draft Training/Maintenance

A review of the Miller Road, Buckley incident was held. On scene a tank malfunction was thought to have occurred, however water levels in the cistern is also under review. Officers are reminded to schedule routine checks at access points. It was also discussed that turbo-draft training should be on-going at each station. Station 6 is hosting training in November and once a date/time is set the information will be broadcast Department wide.

Deer Hunting

Officers should conduct a member call for availability during the upcoming deer hunting season. Always call on other stations for help, whenever needed.

Firehouse Report Writing

It was recently discovered that NFIRS data was two years behind in reporting to the State of Michigan. This has been resolved. Chief Weber did ask that incident reports be completed as soon as possible to enable the cost recovery agency to process claims more efficiently. Approximately \$60,000 has been recovered by the company and these are dollars that are invested back into the department for gear and equipment. An incomplete incident list will be generated each Friday and emailed to station officers. The recovery agency downloads their data on Monday and if not completed a delay in processing occurs, which also means a delay in payment to the Department.

Apparatus/Air Packs:

Chief Weber reminded the members that Firehouse Software is not compatible with the Windows10 operating system, please do not upgrade Department devices.

Whitewater Township asked that Box Alarms be reviewed.

Lt. Bugai provided an update on airpack checks noting Station 6 is not yet complete. Lt. Melancon will begin the process next week and Chief Weber asked that they request help if it is needed to get this completed. OSHA needs records of testing for all members. Lt. Bugai will provide a monthly report to Chief Weber of airpack check statuses.

Captain Arbenowske reported Engine 3 is still experiencing issues with foam.

Captain Fritz said Engine 2 and Air 2 both have light issues. Members agreed that over the counter bulbs can be used as replacements and a stock should be kept on hand.

Firefighter Participation & Activity Levels:

Roundtable discussion was held to determine an acceptable metric for participation. Everyone agreed the flexibility is needed and a hard percentage would be tough, but some level of off-peak participation standard needs to be adhered to. This will also apply to leave of absence members. Captain Stinson added that when a streak of hazard or auto calls are received its tough to get members motivated. Captain Arbenowske disagreed that is an issue at Station 3, noting a recent car/deer had 5 members respond to the scene. Under the subject, Captain Fritz shared frustration that the evening of the Buckley fire only 5 members were able to attend training that evening, but 8 were available to respond to the incident. Beginning in November a monthly activity level report will be generated, station specific, for the officers to review. It is hoped the data will help to develop future standards for participation.

Ice Man Weekend:

Captain Arbenowske may need additional member volunteers for the annual event. A department wide email will be broadcast if needed.

Consultant Report:

Chief Weber reported we had received a rough draft report which was solely departmental data. When the actual recommendations are received, the findings will be first presented to the Board then made available to the public. Some data and Board discussions have concluded the money, personnel and equipment are currently available to support 2 persons at each station 24/7. This could also allow reinstatement of a medical director, inspector, public education and most important could introduce our own ECHO response vehicle, all positives for the community. The format will still be dependent on volunteers for full staffing.

November 2016 Training:

Chief Weber was to provide Firehouse Training on Incident Completion but do to a technical issue he shared report status and gave an overview of two often missed areas: Vehicles must have staff member assigned (can't remove a vehicle from station without someone operating); and the EMS area is often used during motor vehicle accidents and members should not list 1, 2, 3 patients if no one was treated and a reminder to watch the transfer section as we do not have transport vehicles.

Other Business:

Captain Fritz and Lieutenant Bugai were presented with new helmets recognizing their recent promotions. The members in attendance congratulated them and also asked why they would want such a role, with sarcasm of course!

This could have been a great picture but I couldn't get the newly appointed officers to let us take one!



Adjourned. 7:20 p.m.
M. Barck, scribe

Approved
11-9-2016
JMS

Whitewater Township Historical Society
Minutes of the Meeting held on September 14, 2016

Call to Order:

-Meeting was called to order by Snider at 7:17 p.m. at the Whitewater Township Hall, 5777 Vinton Road, Williamsburg, Michigan.

Roll Call:

-Members Present: Birks/Yes, Snider/Yes.

-Members Absent: Lake

Set / Adjust Agenda:

-No Changes.

Approval of Minutes:

-Birks made the motion to approve the (August 10, 2016) minutes and Snider seconded the motion.

-all in favor: 2 / Opposed 0

Motion carried.

Public Comment:

-Roger Apap came to the meeting and wanted some information about two families White and Heiniman, Snider will let him know if she finds any information.

Correspondence:

-None.

Unfinished Business:

-School reunion: We will be doing a fall theme with pumpkins for decorations, we will be doing eleven \$5.00 gift drawings and one \$30.00 door prize. We have 56 guests coming so far, and eleven of them are from Basil Grays family as a tribute to him.

-There are four people that would like to do an oral interview at the reunion, we will be using a shorter list of questions that are different than the list that was sent with their reunion papers.

New Business:

-Checking on getting a plaque for historical society members that are no longer with us but not forgotten.

Public Comment:

-None

Adjournment:

-Birks made the motion to adjourn the meeting and Snider seconded the motion.

-The meeting was adjourned by Snider at 8:37p.m.

Respectfully submitted,

Luann Snider

Historical Society Recording Secretary

WHITEWATER TOWNSHIP PLANNING COMMISSION
MINUTES FOR REGULAR MEETING
October 5, 2016

Call to Order at 7:00 p.m.

Roll Call: Link, Dean, Mangus, Lyons, Hooper, Lawson

Absent: Miller

Also in attendance: Recording Secretary MacLean

Set / Adjust Agenda: None

Declaration of Conflict of Interest: None.

Public Comment: None.

Public Hearing: None.

Approval of Minutes:

Motion to approve September 7, 2016, Regular Meeting Minutes by Hooper, second by Dean. All in favor. Motion carried.

Correspondence: None

Reports:

Zoning Administrator Report: Josh Vey has resigned as ZA

Chair's Report, Link: Last meeting board directed us to consider fee schedule – that is tabled until we have a ZA.

Township Board Representative, Lawson: ZBA minutes to be sent to PC.

ZBA Representative, Lyons: No meetings.

Committee Reports: None.

Additional Items: None.

Old Business

1. Private Road Article: Discussion: Interpretations by the attorney with the Supervisor. Attorney report was delivered just before the last meeting. Still need to meet with the Supervisor for discussion with the attorney. We are doing a full deliberation on Private Roads.

Motion by Hooper, second by Lawson, to recommend to the Board that we do not have a private road ordinance.

Discussion:

Subdivision Act roads, who controls them and how they are addressed?

There could be fees defending this private road ordinance.

Other regulations in place address the issue.

Maintain without pushing unrealistic guidelines.

Notification and acknowledgement.

Is it necessary for the township to regulate?

Sometimes the ordinance can make it more difficult for people to get financing rather than easier.

Master Plan states that we look out for the public's health, safety and welfare.

Abandoning a long standing ordinance that has not been enforced.

Private Road ordinance is not the appropriate place to control land splits.

County roads upgrades and quality do not necessarily match our Ordinance.

It is a General Ordinance so appeals would be directed to the PC via the Board.

Difference between subdivisions (platted and numbered) and sub-dividing land?

Is it covered adequately in General Ordinance 16?

Are we making a recommendation to the Board for something that could be inadequate?

Restate to rescind General Ordinance #32. Lawson agrees with the change to the motion.

Restate of motion:

Motion by Hooper, second by Lawson, to recommend the Board rescind General Ordinance #32.

Roll call: Dean-Yes; Link-No; Mangus-Yes; Lyons-Yes; Hooper-Yes; Lawson-Yes. Motion carried.

Chair to send a brief memo to the Board.

2. Recodification of Zoning Ordinance (awaiting scheduling)

New Business:

1. Regulating short term home rentals. Skegemog Point Road residents have expressed concerns. Looking for input for the Board.
 - More than one location?
 - Have current options been utilized ie: the police for noise, etc.?
 - Can the township reach out to the property owner?
 - This is a police issue.
 - The township does not regulate.
 - Supervisor Popp: Homes that sleep 18 people, 8 – 9 cars, boats, drunkenness, noise, trash.
 - How do we protect a residential area from becoming commercial areas?
 - Three of the complaints are not part of the established resorts.
 - Has communication been opened up with the owners? – Yes.
 - How many bedrooms? Septic systems adequate to handle the additional use?
 - Can we get information from Elk Rapids, who is dealing with the same type of thing?
 - Do we want the authority to regulate?
 - Are short term rentals addressed in our ordinance?
 - Use by right is addressed in our ordinance. Everything else is considered special use.
 - Possibly have the ZBA come up with an interpretation of the ordinance.
 - This will be on the next Board Agenda.

2. Next regular meeting, October 5, 2016

Public Comment: None.

Commission Discussion/Comments: Hooper to be absent next month.

Continuing Education: None.

Adjournment: 8:20 p.m.

Respectfully Submitted
Lois MacLean,
Recording Secretary



GRAND TRAVERSE RURAL FIRE BOARD MEETING

Paradise Township Hall
2300 E. M-113
Kingsley, MI 49649

*October 19, 2016
Regular Meeting held at 6:00 p.m.*

Chairman Tim Trudell Vice-Chair Linda Forwerck Treasurer Doug Moyer

Members: Fife Lake -Linda Forwerck, Grant - Doug Moyer, Green Lake- Paul Biondo, Paradise- Tim Trudell, Springfield- Tom Gonyer, Union- Doug Mansfield, Whitewater- Ron Popp

Any interested person or group may address the Grand Traverse Rural Fire Board on any agenda item when recognized by the presiding Chairman or upon request of any Board Member. Also, any interested person or group may address the Grand Traverse Fire Board on any matter of Fire Department concern not on the Agenda during the agenda item designated Public Comment. The comment of any member of the public or any special interest group may be limited in time. Such limitation shall not be less than five minutes unless otherwise explained by the presiding Chairman, subject to appeal by the Grand Traverse Rural Fire Board.

I. Roll Call

Grant (present), Green Lake (present), Paradise (present), Springfield (present), Union (present), Whitewater (present) and Fife Lake (present).

II. Approval of Agenda

The Chairman asked for a motion or any additions or deletions to the agenda. Whitewater asked for the addition of item A1). Futuring, to be included under New Business. Paradise asked that Item B). November Meeting be added as well as Item C). Payroll, the Board approves Payroll #18 for September 8, 2016 in the amount of \$10,060.99 and Payroll #19 in the amount of \$6,174.55 for September 22, 2016, and lastly Item D). Accounts Payable, the Board approves Pre-authorized claims for October 3, 2016 in the amount of \$158.79 and Vendor's Payable in the amount of \$39,474.52 for October 19, 2016. Motion by Green Lake, supported by Whitewater to accept the agenda with additional items A1, B, C and D whose detail is noted above, to be approved as discussed. **Motion carried unanimously.**

III. Conflict of Interest

No conflicts of interest were reported by members.

IV. Consent Calendar

The purpose of the consent calendar is to expedite business by grouping non-controversial items together to be dealt with by one Board motion without discussion. Any member of the Board, staff or the public may ask that any item on the consent calendar be removed therefrom and placed elsewhere on the agenda for individual consideration by the Board; and such requests will be automatically respected. If an item is not removed from the consent calendar, the action noted in parentheses on the agenda is approved by a single Board action adopting the consent calendar.

- a. Minutes - The Board approves the minutes of Grand Traverse Rural Fire Board meeting dated September 21, 2016.
- b. Reports and Communications –The Board directs the staff to receive, file and respond to communications as necessary. (Financial, Chief's, RTC, Attorney).

Motion by Fife Lake, supported by White to approve the Consent Agenda as presented. Motion carried unanimously.

V. Public Comment

Ron Popp, 6237 Elkview Drive, Williamsburg, MI. Mr. Popp wished to comment on the packet stating it was wonderful. The minutes were terrific and the information from the Officer's Meeting was very informative. He hopes his Board takes the time to read through the packet. More information was welcome. Chief Weber thanked him for his comments and for letting us know.

VI. Unfinished Business

- a. Station Leases (postponed)
- b. Organizational Consultant update
Chief Weber provided the members an update of the most recent visit of the CPSM consultant Tom Wieczorek held during the week of October 10, 2016. Mr. Wieczorek was able to meet with members of many of the township Boards and also with local area Fire Chiefs. The final component to the plan, the public meetings, have been scheduled for October 25, 2016 in three townships; Fife Lake, Whitewater and Williamsburg. The media has been apprised of all meeting dates/times and have assisted with sharing on their resources. Whitewater told the members they were able to send the flyer and press release to 497 registered voters in the township as well as it has been posted on their website. Grant Township was not able to meet during the last visit, we will work with consultant to arrange time during his next visit. At the request of the members, meetings will also be scheduled with the Boardman Fire Chief and Garfield Township (Kalkaska County) Fire Chief. It was also asked if Chief Weber could coordinate a meeting with the Grand Traverse Band of Ottawa Chippewa Indians. Union

Township stated he has also not had an opportunity to meet one-on-one with Mr. Wieczorek. During further discussion the members agreed that CPSM should also be providing an analysis of the remaining townships and their ability to maintain both volunteer and full-time departments in their report.

VII. New Business

a.(1). Futuring. Whitewater opened the discussion by stating that it was apparent during the last regular meeting the members felt the direction of their departments should be more metro than rural and also host ambulance service. After developing budget scenarios, Whitewater believes the 3 person per station model may be out of reach at the present, but should be considered in future modeling. The three remaining townships who host stations, Paradise, Fife Lake and Whitewater were contacted for their operating budgets for fire and ambulance service. After analyzing the budget figures, excluding labor and then refactoring in labor at \$18.00 per hour and 24/7 staffing times 2 individuals per station the budget for a combined EMS/Fire service would be \$1.4 million annually, a figure Whitewater believes is do-able. The figures presented do not include any revenues or recoverable costs, those would have to be included and should off-set the annual expense. Whitewater further shared the total increase to each township:

| | |
|-------------|---|
| Fife Lake | \$137,000 |
| Paradise | \$265,000 |
| Whitewater | \$ 69,000 (due to high cost of current service) |
| Springfield | \$ 87,000 |
| Union | \$ 42,000 |

With these numbers in mind, could the townships listed swing the extra dollars per year for a combined and staffed service? Paradise commented this would be about 2 mills extra per year for the township residents.

Whitewater made note that the expense numbers also do not reflect efficiencies of scale into the process, noting savings in billing services and equipment as an example. This could potentially take 10% off the number noted easily. Paradise commented the level of ambulance service ALS/BLS under Public Act 57 could also wrap police into the service. Whitewater further added the body could technically become an authority overseeing emergency services in the region.

Downtimes with a lower wage was discussed, perhaps saving maybe a \$1.00 per hour, but the members agreed they may not get qualified staff with a reduced wage. From the audience Firefighter/EMS Andrew Killingsworth commented that calls are hit and miss and there really is no "downtime." Union shared that ala-carte features would not work, individuals want what they are paying for when they call, regardless of day of week or time of day. The primary concern for Union Township residents is the remoteness of many of the residents – the distance to the nearest station. Recent discussions included a remote station, between Whitewater and Fife Lake, is that still an option? When asked by an audience member about the cost of such a station, Union replied it would be a basic pole structure with restroom, probably \$200,000 to \$250,000.

Whitewater added that the department has gotten into this situation due to frugality and not keeping up with rising costs. Metro is at 2.3 mills and have a \$4 million budget. Chief Weber shared that Blair is at 4 mills. Whitewater responded their residents are under the impression they are getting Blair level services at 1 mil. Whitewater agrees the Chief's recommendation of staffing three individuals per station is what they need, but that is a big jump initially and may be more difficult for each of the townships to promote to their residents.

Union inquired if there was any data available on cost recovery. Whitewater stated theirs continues to rise, they have an outside agency handling the billing. The members then round-tabled who bills for service and which townships allow residents service for free.

Union and Springfield both commented this is the time to do it and both added it might be tough to sell, with Springfield adding the Pugsley situation hasn't helped. Now they will need to find a way to double the millage, that's quite a bit to ask. Springfield did add that everyone wants this type of service so it's primarily an educational process. Union said immediately it would cut that 10 minute response time just to get to the station.

Chief Weber believes there is enough money in the system now, factoring in the economies of scale. The personnel and equipment are already in place and with a change in the model a lot of the equipment is duplicated and would no longer be needed. A roving medical director would reduce the budget. Also we could save \$35,000 per month by coordinating our own ALS intercepts, no longer paying Blair or other departments for the service. We would still be able to partner with our neighbors, flex when we need to and maintain a higher standard of service to the region.

a.(2). Resignation Letter Chairman Tim Trudell. Paradise stated that with the new, incoming supervisors, he would like to resign now as Chairman. Motion by Whitewater supported by Paradise to accept the resignation of Chairman Trudell. Motion carried unanimously. Union wished to add thanks to Chairman Trudell for the good job he delivered during very hard times. Whitewater stated that with the resignation of the Chairman, the Vice-Chairman would fill the position until January elections. Union stated that is only during an absence and a vote should be taken to fill the role. Motion by Whitewater, supported by Green Lake to nominate Fife Lake, Linda Forwerck as Chairman of the Grand Traverse Rural Fire Board. Paradise nominated Union, Doug Mansfield as Chairman but received no support. On the first motion of nomination of Fife Lake, Linda Forwerck as Chairman of the Grand Traverse Rural Fire Board, a roll call vote was taken; Fife Lake, (yea); Grant (yea); Green Lake (yea); Paradise (nay), Union (yea); Springfield (yea). Motion carried. Discussion regarding the filling of the Vice Chairman position was held with a motion by Whitewater, supported by Grant to nominate Union, Doug Mansfield as Vice Chairman of the Grand Traverse Rural Fire Board. With no other nominations on the table, a roll call vote was taken; Fife Lake, (yea); Grant (yea); Green Lake (yea); Paradise (nay), Union (yea); Springfield (yea). Motion carried.

(* Ms. Linda Forwerck assumed the role of Chairman for the remainder of the meeting.

b). November Meeting Date. Paradise shared with the members the November meeting currently falls on November 16 and new officers are not sworn in until November 22. Do the members wish to change the date of the scheduled meeting to allow new officers to attend? Whitewater commented the new date would fall on the eve of Thanksgiving and may effect attendance. After discussion the members agreed to leave the meeting on its scheduled date of November 16, 2016.

c). Payroll – The Board approves Payroll #18 for September 8, 2016 in the amount of \$10,060.99 and Payroll #19 in the amount of \$6,174.55 for September 22, 2016. Motion by Union, supported by Paradise to approve Payroll #18 for September 8, 2016 in the amount of \$10,060.99 and Payroll #19 in the amount of \$6,174.55 for September 22, 2016. Motion carried with Whitewater voting nay.

d). Accounts Payable – The Board approves Pre-authorized claims for October 3, 2016 in the amount of \$158.79 and Vendor's Payable in the amount of \$39,474.52 for October 19, 2016. Motion by Paradise, supported by Union to approve Pre-authorized claims for October 3, 2016 in the amount of \$158.79 and Vendor's Payable in the amount of \$39,474.52 for October 19, 2016. Fife Lake asked why the payables were so high this month. Mr. Milliron responded the expense is primarily Emergency Vehicles Plus with pump testing and repairs. Also included is \$8,000.00 to the townships for the quarterly station lease payments. Motion carried with Whitewater voting nay.

VIII. Second Public Comment

Neil Haycraft, 4209 E. M-113, Fife Lake. Mr. Haycraft asked Union the cost to develop a station in his township. Union responded approximately \$200,000 to \$250,000 for a basic pole type structure. However he added that he cannot promote the building without promoting an increased level of service to the residents. Mr. Haycraft believes the \$18.00 per hour is a very fair wage that will help recruit younger persons into the service. He has done and is still doing it for the good of his community but younger people need to be able to support themselves and their families. Mr. Haycraft agrees with the Board on their direction and appreciates that they are now working as a team to improve service. He is proud of the progress.

Linda Forwerck, Fife Lake, commented on Whitewater's presentation this evening asking if adding benefits to the scenario would help attract qualified candidates. Whitewater had considered the benefit structure (health insurance) but the cost could add up to \$20,000 annually to each staff member. However he did add they may not have a choice if hours exceed 36 per week. She also asked if the members could see a model which includes Green Lake and Grant as they have not officially left yet.

IX. Adjournment

Motion by Union, supported by Paradise to adjourn the meeting at 7:15 p.m. All in favor. Motion carried.

Linda Forwerck, Chairman

Mary Jo Barck, Recording Secretary

DRAFT

Kim Mangus

1214 Cerro Dr., Traverse City, MI | 231-631-2326 | skmangus@ymail.com

November 3, 2016

Ron Popp
and the Whitewater Township Board
Whitewater Township Supervisor
5777 Vinton Road,
Williamsburg, MI 49690

**Dear Ron Popp
and the Whitewater Township Board:**

I would like to express my willingness to extend my service on the Whitewater Township Planning Commission. I am deeply vested in the townships both as my chosen home and financially in the form of real estate. Over the last ten years of study and review I have become intimately familiar with our Whitewater Township Zoning Ordinance and the challenges therein. I believe that this experience will be a great asset to our township over the next several years as we endeavor to make this ordinance a more coherent and functional document that can better serve our community. Please contact me if you have any questions about my service either past or present. Thank you for your consideration.

Sincerely,

Kim Mangus



November 4, 2016

RECEIVED
11/7/16



T7 P1 472 *****AUTO**ALL FOR AADC 496
Whitewater Township
5777 Vinton Rd.
P.O. Box 159
Williamsburg, MI 49690-9776

Dear Franchise Official:

Charter Communications ("Charter") is making changes to our channel lineup for customers in Whitewater Township. Effective on or after December 6, 2016:

- New to Charter Digital Tier 1 — **FM** featuring music, comedy, culture and lifestyle programming on channel 143 and 885 (HD)
- Added to Charter Digital Tier 1 — **ESPNews** channels 209 and 772 (HD)
- On the Latino View: **HTV** (*Hispanic TV*) channel 322 and **Infinito** on channel 344 will no longer be available. The networks will cease distribution in North America.

As always, please feel free to contact me by phone at (906) 401-0616 or by email at Don.Gladwell@Charter.com should you have any questions on this matter.

Sincerely,

Don Gladwell

Don Gladwell
Manager, State Government Affairs, Michigan
Charter Communications

Glen Lile, Supervisor
Susanne M. Courtade, Clerk
Tracey Bartlett, Treasurer



Matt Courtade, Trustee
Craig R. Goodrich, Trustee
Bryan Marrow, Trustee
Beth Friend, Trustee

**EAST BAY CHARTER TOWNSHIP
LEGAL NOTICE
Master Plan Amendment #1-16
Public Hearing**

Notice is hereby given that the East Bay Charter Township Planning Commission will be holding a public hearing at its regular meeting on Tuesday, December 6, 2016 at 6:30 p.m., in the East Bay Township Hall, South Meeting Room at 1965 N. Three Mile Road, Traverse City, Michigan, phone (231) 947-8647, for the purpose of considering an amendment to the East Bay Charter Township Master Plan:

Specifically, the Planning Commission will be considering a change to the Future Land Use Map on an approximate 28 acre parcel (parcel #28-03-230-005-00) commonly known as 200 E. Hammond Road, from its current designation of **Industrial** to **Residential-Medium to High Density (5-8 Dwelling Units per Acre)**. The subject site is located at the southeast corner of Hammond & Townline Roads in Section 30 of the Township.

Information regarding the amendment may be examined at the Office of Planning & Zoning, East Bay Township Hall, 1965 N. Three Mile Road, Traverse City, Michigan 49696, during regular business hours of 7:00 a.m. and 5:30 p.m., Monday through Thursday. Comments may be made in writing addressed to Rick Brown, AICP, CBSP, East Bay Charter Township, 1965 N. Three Mile Road, Traverse City, Michigan 49696; via e-mail at rbrown@eastbaytpw.org; or they may be made in person at the hearing.

If you are planning to attend this hearing and are handicapped requiring any special assistance, please notify the Township Clerk by calling at (231) 947-8647 as soon as possible.

Robert Tubbs, Chairman
East Bay Charter Township
Planning Commission

Rick Brown, AICP, CBSP
Office of Planning and Zoning
(231) 947-8681

RECEIVED
11-15-16
CB

RECEIVED
12-7-16
C

December 6, 2016



T7 P1 495 *****AUTO**ALL FOR AADC 496
Whitewater Township
5777 Vinton Rd.
P.O. Box 159
Williamsburg, MI 49690-9776

Re: Charter Communications - Upcoming Changes

Dear Franchise Official:

At Charter, we continue to enhance our services, offer more of the best entertainment choices and deliver the best value. We are committed to offering our customers products and services we are sure they will enjoy. In an effort to align pricing for service fees, pricing for residential customers will be adjusted and notified as follows:

Effective on or after January 10, 2017

Residential Unreturned Equipment:

- Digital Receiver (any type) will be standardized at \$123
- CableCARD will be standardized at \$22
- Tuning Adapter will be standardized at \$130
- Digital Terminal Adapter will be standardized \$40

Miscellaneous:

- Computerized change of service fee will be standardized to \$0

We remain committed to providing an excellent experience for our customers, in your community and in each of the communities we serve. If you have any questions about this change, please feel free to contact me at (906) 401-0616 or via email at Don.Gladwell@Charter.com.

Sincerely,

Don Gladwell

Don Gladwell
Manager, State Government Affairs, Michigan
Charter Communications - Michigan

**Whitewater Township Board
Minutes of Regular Meeting held November 10, 2016**

Call to Order/Pledge of Allegiance

Popp called the meeting to order at 7:03 p.m. at the Whitewater Township Hall, 5777 Vinton Road, Williamsburg, Michigan, followed by the Pledge of Allegiance.

Roll Call of Board Members

Board Members present: Benak, Goss, Hubbell, Lawson, Popp

Board Members absent: None

Others present: County Commissioner Carol Crawford, MMR Supervisor John Lata, and 4 others

Set/Adjust Meeting Agenda

Benak would like to add Excel Site Rentals under New Business. A handout was provided, with a copy for the public.

Added as New Business #5.

Declaration of Conflict of Interest

None

Public Comment

None

Public Hearing

None

Reports/Presentations/Announcements/Comments

County Board of Commissioners Report

Carol Crawford gave the following report:

- The budget will be hopefully coming out in early December, a little delayed due to some IT difficulties.
- The bell downtown is going to be on the next agenda.
- Next week, they are going to interview people for the DHS board and the Road Commission. Interviews for Parks & Rec are coming up as well.
- They have two new commissioners, Tom Mair and Cheryl Follette.

There were no questions for Crawford.

County Road Commissioner Report - No one is present from the Road Commission. The annual road tour was held today.

Mobile Medical Response Report

John Lata, MMR Supervisor, gave the following report:

- For October, there were 8 calls. One fell outside the response time. It was a call to the casino; the crew forgot to call on scene. Technically, they were 100% on time. Nature of the calls was described.
- From January 1 to October 31, there were 142 transports, with contractual response time at 91%.
- One year has passed since MMR took over in Whitewater Township. Next month, they will provide a year-to-date report.
- The Halloween party went well. There was huge turnout.

Planning Commission Report

Lawson reported that there was no Planning Commission meeting this month.

Parks & Recreation Advisory Committee Report

Goss reported that the PRAC does not meet until next Monday.

Consent Calendar

Receive and File

1. Supervisor's Report for October 2016
2. Clerk's Report for October-November 2016
3. Zoning Administrator's Report for October 2016 (no report)
4. Grand Traverse Rural Fire Chief's Activity Report 09/09/2016 to 10/13/2016
5. Mobile Medical Response October 2016 Activity Reports
6. Approved 09/12/2016 Parks & Recreation Advisory Committee Minutes

Correspondence

1. Grand Traverse County Sheriff Department Statistics (no report)
2. Grand Traverse Rural Fire Board DRAFT Minutes of 09/21/2016
3. Letter 10/13/2016 to Tom Cosgrove re: Donation to Hi Pray Park Sign

Minutes

1. Recommend approval of 10/11/2016 and 10/25/2016 regular meeting minutes

Bills for Approval

1. Approval of Alden State Bank voucher #s 41165 through 41236
2. Approval of First Community Bank Miami Beach voucher # 1182
3. Approval of First Community Bank WMDLS voucher # (none)

Budget Amendments (none)

Revenue & Expenditure Report (none)

Motion by Hubbell, second by Lawson, to approve the Consent Calendar as presented.

There was no further discussion. **Roll call vote: Benak, yes; Goss, yes; Hubbell, yes; Lawson, yes; Popp, yes. Motion carried.**

Unfinished Business

Review Emergency Services Building Renovations

Popp stated the septic permit shows approval of the plan B location, not plan A. The plan B location is in the parking lot.

Discussion followed. Popp will give them a call.

Popp stated the price of the MDOT property has been set at \$17,500.

Discussion followed.

Motion by Benak, second by Lawson, to authorize the supervisor to negotiate with MDOT on the parcel of land behind the fire station, railroad property, up to the asking price of \$17,500. There was no further discussion. **Roll call vote: Goss, yes; Hubbell, yes; Lawson, yes; Popp, yes; Benak, yes. Motion carried.**

Popp stated he has suspended application for the soil erosion permit and has gotten permission from Construction Code to submit, and has submitted, the drawings for the plan review so we can get a biddable set of prints. Before a building permit is issued, a soil erosion permit will have to be obtained. Within two weeks, we should know.

Discussion followed.

Hubbell noted the elements of the weather are not going to hold us up.

Popp will notify the board when plan review is done so that a special meeting can be scheduled.

Review Whitewater Township Planning & Zoning Fees

Changes are still in process. This agenda item was not discussed.

Rural Fire Update

Popp stated he listened to the audio of the 10/11 meeting and got the impression that an assessment increase from Rural Fire to include EMS service is not supported by the board.

Benak and Lawson confirmed Popp's impression.

Popp quoted Hubbell as saying the time for cross trained fire and EMS personnel has come and gone; a combination fire/EMS service is not in Whitewater Township's short-term 3- to 5-year future, but a well operating Rural Fire system could be a reason to re-evaluate a combination system.

Hubbell stated his personal preference is to keep MMR, perhaps do something to the north eventually, but keep all avenues open.

Popp stated Rural is moving toward a single entity offering both fire and EMS.

Goss noted that Rural Fire would not have the economy of scale that MMR does.

Hubbell said he does not want to go down that road (adding ambulance service) with Rural Fire. If they want to make fire work and be affordable, great.

Benak stated she wants a well operating Rural Fire system but not a Rural Fire system with an ambulance.

Audience member Andrew Jeurink, 8601 Church Street, stated he is required by Rural Fire to get his MFR. This is the only place he has heard, in 2-3 years with Rural, with an ambulance service. This is news to him. He does not see Rural going as an ambulance. They struggle enough as it is providing fire service. He stated he enjoys being a volunteer.

John Lata stated they have looked at providing an MFR class for all the local fire departments. If they can get enough students to make it worthwhile to bring an instructor up, between Milton, Elk Rapids, Whitewater Township, they would be happy to provide a low-cost, if not free, class for the fire departments.

Popp stated he will project at the Rural Fire meetings that Whitewater Township is not interested in Rural providing ambulance service for us.

Ordinance 28 – Miami Beach Sewer Project

Popp stated Grand Traverse County DPW is currently administering the operation and maintenance of this system. DPW is controlled by BPW, Board of Public Works. Under section 2 of the agreement, Whitewater will own all of the infrastructure and land once the bond is paid off.

Benak confirmed that the bond is paid off.

Popp noted the agreement continues until the township decides to terminate or the BPW decides to terminate. They have to give 6 months' notice.

Section 4 says the township shall bear the entire cost of operation, maintenance, and administration of the system. The township has no more authority to collect from the users of the system, but they bear 100% of the costs. Popp said we need to change that situation; we need to be able to collect from those folks.

Benak stated, like other townships with sewer and water systems, we would need to have a utility set up. If we turn it over to them, they would have to internally create their own organization, their own set of rules and their own user fees, and it would become their liability.

Discussion followed regarding:

- Whether Miami Beach residents have an organization.
- Should the township have a sewer/water authority?

- Treasurer's office would have to bill and collect.
- Whether a general law township can create an authority.
- Residents are getting bills from the county.
- The township is paying 0.5% of the DPW's annual budget to administer the billing, vehicles to respond, equipment, etc.

Popp inquired which way the board wants him to look, potentially forming an authority or selling all the infrastructure.

After some discussion, Hubbell stated we should ask the attorney.

The second issue is that there is only one copy of the "black book." Benak stated the clerk is the designated keeper of documents and it is up to Clerk Goss to get a copy made.

After some discussion, Goss stated the black book needs to be returned to her office so she can check into getting it copied.

Short-Term Rentals

Popp stated there are people here who are interested in this process. Popp introduced the township board, and stated that although this topic arose from a single entity, the discussion has grown; it is about the future of R1 property.

Popp provided information as to the regulation or lack of regulation of short-term rentals in Milton, Torch Lake, and Clearwater townships.

Discussion followed regarding:

- Where does the township get the authority to regulate it?
- We should look to see how widespread the problem is, perhaps with a survey of all waterfront owners, and then turn it over to the Planning Commission for their recommendations.

Cliff Pixler, 245 Lorraine Street, Glen Ellyn, Illinois, stated he owns the property at 9294 Skegemog Point Road. Pixler provided a short history of how he came to own property on Skegemog Lake. He is aware that his neighbors have issues with the rentals and the way he uses his property. He passed out copies of a letter to all board members responding to the allegations and read the letter out loud. He noted there were issues the first year they rented, but they have taken steps to remedy those. They have tried to be good neighbors. He offered to answer any questions.

John Karwoski, 9268 Skegemog Point Road, stated he was here at the last meeting when Popp was not here. He wrote the document up because he was the secretary for all the various neighbors in the area that have problems. Karwoski refuted Pixler's comments that everything is going fine. Having a rental for the whole summer season has destroyed the residential character of their neighborhood. The issues are the number of vehicles and people coming and going and the number of people in the house, up to 16 at one time. Things go late into the night. Karwoski has been at that address since 1979. They have never had anything like this in the neighborhood.

It has totally changed the character of the neighborhood. He stated we need to have some sort of rules for rentals, what the term is and how many people are in the house.

Lengthy discussion followed, including board member questions.

Benak stated she would like the neighbors to write their own letters, to see what their specific issues are. It would have more impact than a spokesperson coming in.

Goss noted that the first course of action in dealing with loud, rowdy, drunk people is likely to call the police.

Lawson stated we are stepping into the boundaries of police power, which we may not have the authority to go that far.

Hubbell commented that if letters are written by the neighbors, Mr. Pixler should get copies of them. He stated he is not taking sides, but does not want to have ordinances telling him he cannot rent a house out.

Lynn Didier, 9268 Skegemog Point Road, stated you asked for letters from the people. We met with Ron once and then again a year later. We had this room filled. Each individual person made their complaint. Now you're saying that's not good enough. She stated this is the fourth time they have been here in less than a year and a half trying to get something accomplished. There are 80-year-old people who do not sit out in the front yard anymore because of the renters. They are not going to come here and make an issue, but if need be, we will have them write a letter, and get the rest of the neighbors to write a letter.

Benak reiterated that when they were having meetings with Popp here at the township, the rest of the board knew nothing about it.

Discussion followed concerning the timeline of the complaints regarding the Pixler property.

Popp stated this is an ongoing process. People have a right to use their property. You may not like the use. This is a very sensitive issue that will not be settled overnight. Popp apologized that it is taking a long time, but there are lots of interests that we need to look out for.

Pixler stated they provide a contact person. If there are issues, come and talk to us. They have made changes based on feedback they have been given. Certainly, you can call the police, but the first call should be to him or the property manager. The neighbors have that contact information. They have rules in place for dealing with this type of stuff.

Goss commented to Pixler that his neighbors should not have to call a contact number and wake somebody up. The police are up 24 hours a day. The neighbors deserve to have it quiet during certain times. They should not have to put up with loudness, drunkenness or rudeness.

Chad Brown, 1711 Pergola Avenue, Traverse City, stated he sold Pixlers the lot. There was no intention to rent when they bought. He and his wife manage the property; it is the only rental

they manage. Since the time they have been rental managers, they have received one call about any of the renters. The neighbors have their contact information. He elaborated on a few incidents with the neighbors and urged that the township not institute an ordinance based on this one property. He also stated it looks like the local realtors' association is in favor of some reasonable ordinance that would prevent an owner from abusing the privilege of renting their property.

The board then discussed:

- Whether to pass this issue to the Planning Commission with thoughts of a survey of lakefront property owners.
- Whether to ask the ZBA for some type of determination or definition.
- Whether it would be a zoning ordinance or regular ordinance.
- The process of obtaining public input, township attorney involvement, drawing up an ordinance, public hearing, etc.

Popp stated what he has going back to the PC is to write a survey, find out the scope of the problem, if it exists outside of this corridor, and do they see it as being a future problem.

New Business

Zoning Administrator Résumés

Goss would like to interview Weinzapfel and McElyea. Benak would like to interview Weinzapfel, McElyea, and Reid. Popp would like to interview Weinzapfel and McElyea. Lawson would like to interview McElyea, Reid, and Weinzapfel. Hubbell stated he is good with Weinzapfel and McElyea.

It was agreed that interviews will be conducted on Tuesday, 11/22/2016, starting at 3:00 p.m. Interviews will be scheduled 1 hour 15 minutes apart.

Popp will set up each interview.

Winter Maintenance Bids

Motion by Goss, second by Popp, to hire 365 Outdoor to do the 2016-2017 winter snowplowing for the township. There was no further discussion. **Roll call vote: Hubbell, yes; Lawson, yes; Popp, yes; Benak, yes; Goss, yes. Motion carried.**

Application to Grand Traverse Band for Sewer Capacity

Popp introduced Paul Brady, who is looking at Whitewater Township for a rental housing development. He has looked at parcels along several roads. He is asking the township to write a letter to see if the tribe is interested in selling capacity.

Paul Brady, 10008 Amos Wood, Williamsburg, stated he is proposing to build a multi-family development, townhouses, but they need to figure out the utilities first.

Lengthy discussion took place along the following lines:

- Lack of details about the proposed project.
- Whether the developer should go directly to the tribe instead of through the township.

- A development of this type would encourage young people to come to the township.
- Whether the township would be financially involved in the costs of any infrastructure.
- Wording of the proposed letter from the township to the tribe.
- The tribe would be the owner of the infrastructure.
- The water system to Mill Creek School was given by grant.
- The money to build a system would pass through the township, but the township would not be spending taxpayer money.
- Who else would benefit from this grant.
- Eliminating the words “community partnership” from the letter.
- Brady stated he is expecting the tribe to pay for the infrastructure for his project.
- Comparison was made with the DTE natural gas project. People would not be required to hook up.
- If there is any grant writing, it would be a pass-through. The township would not be incurring the cost.

Motion by Popp, second by Hubbell, to send the letter as written to Chairman Thurlow McClellan, Grand Traverse Band of Ottawa and Chippewa Indians. There was no further discussion. **Ayes: Benak, Hubbell, Popp. Opposed: Goss, Lawson. Motion carried.**

Popp will remove the word “Tribe” in the address line.

2% Grant Application for Ambulance Services

Popp’s memo on this topic proposes submitting a request “to assist with costs associated with maintaining the MMR ambulance service.”

It was determined that the ambulance millage covers all but \$1,358 of the annual subsidy.

Discussion turned to submitting a 2% grant application to cover the costs of remodeling the current ambulance station.

Benak related that she spoke to a member of the band at the community Halloween party, who made sure Benak understood that community building was a high priority to them. Benak understood it to mean that they want to be a part of this community and they want to contribute. The atmosphere might be changing with their new change of guard.

Popp stated he is available to help somebody with the application but cannot take on the full task.

Popp and Benak agreed to meet next Monday.

It was agreed that a 2% grant application will be submitted to assist with the costs of the renovation/addition at 8380 Old M-72.

Excel Site Rentals (added)

Benak provided information on an extended stay trailer for use by MMR personnel during the renovation/addition of 8380 Old M-72.

Discussion followed concerning various details.

Motion by Lawson that we move forward and rent the trailer/portable for the MMR staff during the construction project and rent the one with the holding tanks, not to exceed \$1400 per month.

Discussion followed regarding rental properties that might be available and where to park an extended stay trailer.

Goss seconded the motion.

There was further discussion regarding electrical installation costs and proposed locations for placement of the trailer.

Roll call vote: Lawson, yes; Popp, no; Benak, yes; Goss, yes; Hubbell, yes. Motion carried.

Tabled Items

Review Administrative Policy Section 5 (tabled 10/14/2014)

This agenda item will remain tabled.

Rural Fire Station Lease (tabled 08/11/2015)

This agenda item will remain tabled.

Review Ordinance 22 Pension Plan (tabled 10/25/2016)

This agenda item will remain tabled.

Board Comments/Discussion

None

Announcements

Next regular township board meeting is 12/13/2016, with a special meeting on 11/22/2016.

Public Comment

None

Adjournment

Motion by Lawson, second by Popp, to adjourn. On voice vote, all those present voted in favor, none opposed. Meeting adjourned at 10:30 p.m.

Respectfully submitted,

Cheryl A. Goss
Whitewater Township Clerk

**Whitewater Township Board
Minutes of Special Meeting held November 22, 2016**

Call to Order

Supervisor Popp called the meeting to order at 3:20 p.m. at the Whitewater Township Hall, 5777 Vinton Road, Williamsburg, Michigan.

Roll Call of Board Members

Board Members present: Benak, Goss, Hubbell, Lawson, Popp

Board Members absent: None

Others present: None

Set/Adjust Meeting Agenda

Goss would like to add the following items to the agenda: Information regarding the extended stay trailer, sewage permit approval for option B, listing of the power cot on Craigslist, and a request from a firefighter to buy some flashlights from 3A2.

With all board members present, these items were added to the agenda.

Declaration of Conflict of Interest

None

Public Comment

None

Placement of Extended Stay Trailer / Sewage Permit Approval for Option B (added)

Goss stated she met last Thursday at the fire station with Tim Tinker from Excel Site Rentals and Nick Bernelis from Mobile Medical Response to discuss locations for the extended stay trailer as well as providing, electrical, water, sewer, and radio signal to the unit. Two locations were discussed, one on the east side of the fire station along the cemetery fence and another across the road in front of the tennis nets. The preferred site would be along the east side of the station due to availability of electrical and water. In either location, a sewer skid would have to be brought in.

Further details were provided as to accessibility of infrastructure.

Goss also met at the job site yesterday with Chris Kuhns, Excel's electrician. He is to provide a quote for the cost of running electrical to the east side of the building.

Measurements were taken to determine how the trailer would fit into the east side location and how far past the south wall of the building it would extend.

Goss stated she also contacted Eric Burt at the Health Department regarding the option B versus option A drain field location. Burt responded with his reasons for approving the option B location.

Discussion followed.

Popp proposed that the drain field could be placed south of the radio tower, but stated he has not heard back from the railroad people.

Number of parking spaces, land-locking, and a possible U turn were discussed.

Popp proposed the Lucsy building be considered to house the ambulance and MMR personnel.

Discussion followed, with other board members preferring to utilize the extended stay trailer rather than the Lucsy building.

Goss also raised the issue of where to park the Expedition, trailer, and snowmobile trailer.

There was agreement that they can be parked in front of the tennis courts, with an area to be plowed for that purpose.

There was consensus that the trailer should be brought in as soon as possible.

Brief discussion occurred regarding moving Arbenowske's office, provision of a dumpster for cleaning out of the loft, disposition of equipment/assets.

Goss will get the electrical price. Potential price was discussed.

Goss stated she would like to get the attorney going on bid documents so that final documents are available at the first meeting in January. Then the bid package can go out, with 30 days allowed for contractors to respond.

Brief discussion followed regarding the bid process and engineer involvement in that process.

Popp will contact Eric Burt again regarding drain field location, as well as contact MDOT.

Power Cot Listing on Craigslist (added)

Goss inquired whether the board would like her to list the power cot on Craigslist.

Discussion followed regarding the missing second charger and whether to buy a charger or sell as is, and the fact that MMR is using the battery that belongs to it as a spare battery for the other cot. There is one charger, which is currently being used by MMR.

Popp will provide pictures.

Motion by Goss, second by Benak, to sell the Stryker Power Cot on Craigslist, with no chargers or batteries, listing price of \$7,900. There was no further discussion. **Ayes: Benak, Goss, Hubbell, Lawson. Nays: Popp. Motion carried.**

Streamlight Flashlights – Offer to Purchase (added)

Firefighter Dave Tilley contacted Goss and inquired about purchasing the two Streamlight flashlights and offered \$100 for both.

Brief discussion followed.

Motion by Popp, second by Lawson, to sell the flashlights for \$100 a pair. There was no further discussion. **Ayes: Benak, Goss, Hubbell, Lawson, Popp. Opposed: None. Motion carried.**

Agenda Items as Listed in Special Meeting Notice**Zoning Administrator Interview – Christopher Weinzapfel**

At 4:17 p.m., the Weinzapfel interview began. Numerous questions were directed to Mr. Weinzapfel.

He is full-time at Milton Township, more than 40 hours every week. He does a lot of committee meetings. He goes to all the other meetings they have there. He has talked to the Milton board whether they have any problems with him working here 4-8 hours per week (in the office); they were fine with that.

He also does a staff report in Milton for what goes on at the planning commission, ZBA, and other things.

It was clarified that the job description says a flexible schedule, up to 24 hours a week, with at least 4 hours per week of office hours.

Weinzapfel stated he is available all the time by phone and email communication out of both offices.

He will be able to attend Whitewater Township Planning Commission meetings.

He lives in Milton Township, about a 15- to 20-minute drive from the Whitewater Township Hall.

He just retired from the fire department and is no longer on EMS either. He has 17 years in as the Milton Township zoning administrator.

He stated he is dedicated to Milton as full time, but feels if he is hired here, he can do a very fine job here. Ron is bringing him up to date on the computer side and uploading electronically. He does not do that in Milton; it is on paper. Whitewater's filing system is similar to Milton's.

Milton is the only township he has worked with as a zoning administrator.

He graduated in 1972 from Elk Rapids High School.

He still needs Ron's help with uploading onto the computer. He states he is probably half familiar with the zoning ordinance.

He feels he can pick up where Josh Vey left off with reviewing the zoning ordinance but has not been involved with that yet.

He has been working on dealing with the land use permits and land divisions that are backed up, contacting people. He has been skimming through the zoning ordinance quite a bit to find things.

He stated he is willing to submit to the required driver record check, criminal background check, and physical exam, all done at the township's expense.

His "extensive knowledge in planning and zoning" has been obtained through his employment with Milton Township.

In response to an inquiry concerning particularly difficult zoning decisions he has had to make, he responded that the biggest working issue is probably with the weekly rentals. It was a 5-year process (to adopt the ordinance in Milton Township). He has never issued a rental ordinance citation. He works with the 3-notice issue. Usually by then it is taken care of.

He believes he obtained the zoning administrator certificate from MSU in approximately 2007, 2008. It consisted of five full days of class work.

He does not have other jobs in addition to the Milton Township position.

He confirmed that his schedule would allow him to attend Whitewater Township Planning Commission and Zoning Board of Appeals meetings.

He understands that, as the zoning administrator, it would be up to him, perhaps with the assistance of the township attorney, to interpret the Whitewater Township Zoning Ordinance, and that it is not the function of township board members to interpret the ordinance.

He understands that zoning decisions he makes could cost township residents/taxpayers hundreds of dollars or more.

With regard to regulations, or lack of regulations, that would entice young families to live in Whitewater Township, he stated he has read a lot about it, but Milton has not had to deal with it. There is not a school in Milton Township.

He stated the main demographic in Milton is retired people. Milton has a lot of lakefront with high-end homes, with agricultural in the center of the township. It is predominantly turning more into retirement or higher end homes. They have lost a lot of the farmers.

He understands that the Whitewater Township Zoning Ordinance must be applied equally to all residents and taxpayers in the township regardless of their socio-economic status.

In response to the question “what would you do if any member of the township board asked you to deviate from the zoning ordinance or show some type of favoritism toward any of their property or property owned by their family or friends,” he answered that he wouldn’t be able to do it. He would direct them in a course toward the planning commission or the zoning board of appeals or the direction that it is referred to.

With respect to working in Whitewater Township, he stated he enjoys zoning; it is a job opportunity for him; it is a different area, a different type of people. It is the opposite of the majority of Milton Township. “Your thought here is more independent thinking in land and so forth versus what Milton is. They get a little bit more restrictive, I guess.”

In Milton Township, a 3-member committee from the planning commission and Weinzapfel worked with Williams & Works on the zoning ordinance. They went through the whole ordinance and rewrote certain areas. It was a pretty big overhaul at that time. A handful of people showed up at their public hearings.

Mr. Weinzapfel was asked about tracking of time spent on Whitewater zoning duties.

This year, 63 land use permits have been issued so far in Milton Township. Whitewater Township is at 38 so far this year. There have been 4 or 5 land divisions or lot line adjustments this year in Whitewater. Milton has had 2 or 3 so far this year. There are a lot of homes being built right now in Milton.

Popp stated he has had an opportunity to work with Chris, see his interactions with people, hear his interactions on the telephone, seen some of his reactions to certain articles in our zoning ordinance, and thinks he is a good fit and has no questions.

Hubbell stated he has known Chris his whole life and went to the same training with him in 2000. He has no other questions.

At 4:53 p.m., the interview concluded.

General discussion followed.

Zoning Administrator Interview - Kevin McElyea

At 5:28 p.m., the McElyea interview began. Numerous questions were directed to Mr. McElyea.

He stated he would have no problem whatsoever submitting himself to the required driver record check, criminal background check, and physical exam, all done at the township’s expense.

He would like to attend the MSU Land Use Institute program to become a certified zoning administrator, the cost of which is \$1,000, which he intends to pay for himself. There is a prerequisite that you attend or pass some planning and development classes. Transcripts from his licensed landscape architect education will satisfy that prerequisite. He further stated that Linda Forwerck, supervisor in Fife Lake Township, would like to send him to an MTA training

school. He stated he will do whatever Whitewater Township wants and pay whatever it takes. Forwerck expressed interest in cost sharing.

When asked to explain what he means in his letter when he says “government agencies should be a place where public employees take pride in their stewardship of the natural and built environments,” he stated he has lived here since 1980; in Northern Michigan people are very passionate about their property rights; he respects that. On the flip side, people are very passionate about the resources that make the quality of life up here. So you can’t be overzealous in one or the other; it is a real balancing act. That is what he is trying to sum up in that statement, that they can be stewards and passionate about balancing that.

He stated he understands that a lot of people struggle with what they see as overregulation, but on the flip side, if we did not have zoning, then you have incompatible uses and lower property values. What he has enjoyed in his years in this field is helping people get through the myriad of regulations, using his various abilities.

He was recently hired by Fife Lake Township as their zoning administrator. His weekly commitment of hours there is flexible. He is in the office right now Monday and Wednesday from 9:00 to 1:00. He operates remotely from his home office as well, answering questions via cell phone and e-mail.

He is still the Grand Traverse County Drain Commissioner until January 1. Due to the season, permits are pretty much done and call volume is way down. The weekly commitment there is very minimal now. He will finish attending the once-per-month meetings of the Board of Public Works and the Parks & Rec Commission. He maintains the water levels on Silver Lake and Duck Lake, and those are good to go.

He lives in Peninsula Township.

He has noticed that zoning administrators seem to move around a lot, but he is not currently looking for other employment. Without asking him first, he has discovered that Lisa Leedy has recommended him to be the Fife Lake Village zoning administrator. If he did Fife Lake Township, Whitewater Township, and Fife Lake Village, that would take him to 40 hours a week.

His job as Grand Traverse County Drain Commissioner is full-time. What he likes most about that job is helping people solve their flooding problems. The political nature of the job was an eye-opener.

He does not believe he has any scheduling conflicts with the first Wednesday of the month (Planning Commission meeting date) or with the fourth Thursday of the month (Zoning Board of Appeals meeting date).

He understands, if he were selected to fill this position, that it would be up to him, perhaps with the assistance of the township attorney, to interpret the Whitewater Township Zoning Ordinance,

and that it is not the function of township board members to interpret the zoning ordinance on a day-to-day basis.

With regard to making it more affordable to live in Whitewater Township, especially for young families, and McElyea's experience with the types of regulations or lack of regulations which could affect that issue, he stated the first thing that comes to mind is dwelling sizes. In Fife Lake, they have a minimum 1,000 (square feet). Some people would like to reduce that to 750 or so. There is a movement on tiny homes. He noticed that the township is looking at its fee schedules, probably to make the office self-sufficient, but yet you don't want to charge those fees to your citizens. He thinks those two levels would help in that regard.

He understands that the zoning ordinance must be applied equally to all residents and taxpayers in the township regardless of their socio-economic status.

Goss briefly supplied information to McElyea about the 2015 Master Plan revision and the current state of the zoning ordinance.

In response to the question "what would you do if any member of the township board asked you to deviate from the zoning ordinance or show some type of favoritism toward any of their property or property owned by their family or friends," he said there would be immediately a red flag. Unless it is justifiable and defensible and it has precedence in the past or something, it could be costly to the township in lawsuits. That is why he wants the ZA certification. It can be expensive if your zoning administrator makes a mistake and you end up in court.

He applied for Whitewater Township zoning administrator because he likes the rural community; the drive out here is immediately blood-pressure lowering; the folks in the rural communities are a wonderful kind of people, along with his original mission statement of helping people get through the myriad of regulations and change their opinion with government. He stated he has heard loud and clear about property rights and property values and sees that the township is struggling with a rental ordinance and understands he may have to dive into that.

There was brief discussion of the township's noise ordinance, as well as soil erosion and storm water ordinances.

Benak stated she is looking for somebody who will be here long-term. McElyea is working with Fife Lake now as a first-time zoning administrator. His strength is really in drain commission and landscape architecture.

McElyea says he graduated from MSU school of urban planning and landscape architecture. A lot of his work was in Saudi Arabia doing town planning, Fleis & VandenBrink doing streetscaping. He stated he has mostly focused on large projects.

He believes his minor in urban planning will be a strength to the ZA office. Regarding long-term, he stated he is not going anywhere. He is happy where he is at in Peninsula Township; he does not want to move; he loves this community.

He has done a lot of site visits for his drain commissioner work.

Hubbell and Lawson had no questions.

Popp stated we like the rural community and it is something we kind of want to keep. Our last community-wide survey was a very long time ago. Keeping the rural character was high on the priority list. How do we do that? How do you strike the balance?

McElyea stated he noticed the township outlawed chain-link fences in the commercial district in the front yard setback. That really maintains the rural character. His philosophy when he was dealing with storm water issues was to promote green infrastructure, underground storage, rain gardens, permeable pavement. His bottom line would be how can we incentivize and promote low impact development versus regulatory urban character. He stated he does not have a solution as to how to maintain the rural character except he thinks it is best to incentivize it somehow.

He stated he was awarded a \$100,000 SAW grant. One component was to go around to all the townships and advocate for low impact development.

He has experience with lake levels and dams.

In answer to McElyea's question regarding what qualities the board sees in a successful zoning administrator, board members responded with ability to handle people well, good communication skills, good organizational skills, length of service.

McElyea asked why the board thinks zoning administrators have been moving through here so much lately.

Popp replied that there is a lot of work here, issues that have not been dealt with in a timely fashion. The zoning ordinance was thought of as being airtight, bulletproof, and it is not, because of the discrepancies that are in there. The amount of work is frustrating.

Benak described the reasons that Meyers, Habedank, and Vey left the township.

McElyea stated he is detail oriented, hates cutting corners, and does things pretty much 100%, even though it can slow you down.

At 6:23 p.m., the interview concluded.

The board discussed the two candidates. It was agreed that a decision will be made at the next regular meeting on 12/13/2016.

Board Comments/Discussion

None

Public Comment

None

Adjournment

Motion by Lawson, second by Hubbell, to adjourn. Meeting adjourned at 6:44 p.m.

Respectfully submitted,

Cheryl A. Goss
Whitewater Township Clerk

DRAFT

**Bills for Approval
December 13, 2016**

| | | |
|-------------------------|----------------------|--------------------------|
| ALDEN STATE BANK | 41237 - 41320 | |
| PAYROLL 11/10 | 41237 - 41245 | Gross Payroll \$4,658.69 |
| ELECTION PAYROLL 11/16 | 41246 - 41257 | Gross Payroll \$2,222.50 |
| ACCTS PAYABLE 11/16 | 41258 - 41274 | Grand Total \$4,155.34 |
| VOIDED CHECKS | 41275 - 41276 | |
| ACCTS PAYABLE 11/16 | 41277 - 41282 | Grand Total \$1,782.44 |
| PAYROLL 11/25 | 41283 - 41297 | Gross Payroll \$5,183.23 |
| ACCTS PAYABLE 11/29 | 41298 - 41311 | Grand Total \$8,621.96 |
| PAYROLL 12/9 | 41312 - 41320 | Gross Payroll \$4,378.47 |

| | | |
|---|-------------|---------------------|
| FIRST COMMUNITY BANK - MIAMI BEACH | 1183 | |
| ACCTS PAYABLE 11/29 | 1183 | Grand Total \$37.85 |

FIRST COMMUNITY BANK - WMDLS

ALDEN STATE BANK - MONEY MARKET

Check Register Report

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:09 pm

Page: 1

Whitewater Township

BANK: ALDEN STATE BANK

| Check Number | Check Date | Status | Void/Stop Date | Vendor Number | Vendor Name | Check Description | Amount |
|--------------------------------|------------|---------|----------------|---------------|--------------------------|--------------------------------|----------|
| ALDEN STATE BANK Checks | | | | | | | |
| 41258 | 11/16/2016 | Printed | | ACE | ACE HARDWARE | FLUORESCENT BULBS | 170.10 |
| 41259 | 11/16/2016 | Printed | | AMERICAN | AMERICAN WASTE | 11/01-11/30/2016 | 30.00 |
| 41260 | 11/16/2016 | Printed | | AT&T-PARK | AT&T | | 58.56 |
| 41261 | 11/16/2016 | Printed | | BLUE WATER | BLUE WATER INK AND TONER | TONER CARTRIDGE | 125.00 |
| 41262 | 11/16/2016 | Printed | | CHRIS W | CHRISTOPHER WEINZAPFEL | 10/21-10/27/2016 | 39.96 |
| 41263 | 11/16/2016 | Printed | | CONSUMERS | CONSUMERS ENERGY | 10/01-10/31/2016 | 77.98 |
| 41264 | 11/16/2016 | Printed | | EFTPS | EFTPS | 10/28/2016 PAYROLL | 1,716.27 |
| 41265 | 11/16/2016 | Printed | | ELECT | ELECTIONSOURCE | 3-Table Top Voting Booths | 65.82 |
| 41266 | 11/16/2016 | Printed | | FAHEY | FAHEY SCHULTZ BURZYCH | MTT BOROVICH | 133.00 |
| | | | | | RHODES | | |
| 41267 | 11/16/2016 | Printed | | GILL-ROY | GILL-ROY'S HARDWARE 6737 | Return of Non-Working Keys | 23.99 |
| 41268 | 11/16/2016 | Printed | | GMOSE | GMOSE'S SEPTIC SERVICE | Final pumping of Pit Toilets | 102.10 |
| | | | | | LLC | | |
| 41269 | 11/16/2016 | Printed | | GOLF CARS | GREAT LAKES GOLF CARS | Winterize Golf Cart | 117.08 |
| 41270 | 11/16/2016 | Printed | | HURST | HURST MECHANICAL | Shut down water system at | 575.00 |
| 41271 | 11/16/2016 | Printed | | KELLY B | KELLY JO BOWMAN | REFUND LUP FEE | 50.00 |
| 41272 | 11/16/2016 | Printed | | LAWN-N | LAWN-N-ORDER | Final mowing of interior of | 780.00 |
| 41273 | 11/16/2016 | Printed | | CULLIGAN | MCCARDEL CULLIGAN WATER | NOV RENT AND BOTTLED WATER | 32.50 |
| | | | | | COND | | |
| 41274 | 11/16/2016 | Printed | | NORTHWDS | NORTHWOODS PRINTERS LLC | AP AND PAYROLL ENEVELOPES | 57.98 |
| 41277 | 11/16/2016 | Printed | | STATE TAX | STATE OF MICHIGAN - | 11/10/16 PAYROLL | 260.77 |
| | | | | | TREASURY | | |
| 41278 | 11/16/2016 | Printed | | TC RENT | TC RENTALS | 1- 1/2 Day Rental Wood Chipper | 270.00 |
| 41279 | 11/16/2016 | Printed | | RECORD-TC | TRAVERSE CITY RECORD | Legal NTC for Public Accuracy | 468.50 |
| | | | | | EAGLE | | |
| 41280 | 11/16/2016 | Printed | | VISA | VISA | Supr/Trustee/Clerk and | 346.56 |
| 41281 | 11/16/2016 | Printed | | STAPLES | STAPLES CREDIT PLAN | CLERK/TWP BOARD | 164.87 |
| 41282 | 11/16/2016 | Printed | | STATE WS | STATE OF MICHIGAN | Annual DEQ Fee HPP Public | 271.74 |
| 41298 | 11/29/2016 | Printed | | ALPINE | ALPINE ELECTRIC | Troubleshoot & Repair all | 480.48 |
| | | | | | CORPORATION | | |
| 41299 | 11/29/2016 | Printed | | ARDELLA | ARDELLA BENAK | 6/14-8/18/2016 | 413.10 |
| 41300 | 11/29/2016 | Printed | | CHARTER | CHARTER COMMUNICATIONS | 12/01-12/31/2016 | 357.21 |
| 41301 | 11/29/2016 | Printed | | CHERRYLANI | CHERRYLAND ELECTRIC COOP | M72 & COOK RD | 43.12 |
| 41302 | 11/29/2016 | Printed | | CONSUMERS | CONSUMERS ENERGY | 10/13-11/14/2016 | 880.79 |
| 41303 | 11/29/2016 | Printed | | D & W MECH | D & W MECHANICAL | Lochinvar 100 Gallon | 5,227.00 |
| 41304 | 11/29/2016 | Printed | | DTE ENERGY | DTE ENERGY | 10/19-11/17/2016 | 52.72 |
| 41305 | 11/29/2016 | Printed | | FAST SIGNS | FAST SIGNS TRAVERSE CITY | PARK CLOSED SIGN FOR HPP | 168.00 |
| 41306 | 11/29/2016 | Printed | | FUELMAN | FUELMAN | FUEL FOR EXPEDITION | 33.05 |
| 41307 | 11/29/2016 | Printed | | GBS | GBS INC | MEMORY CARD CODING FOR | 280.00 |
| 41308 | 11/29/2016 | Printed | | GILL-ROY | GILL-ROY'S HARDWARE 6737 | TWP HALL | 188.82 |
| 41309 | 11/29/2016 | Printed | | INDUSTRIAL | INDUSTRIAL COVERT | ITEMS FOR VIDEO CAMERA IN | 84.00 |
| | | | | | UNLIMITED | | |
| 41310 | 11/29/2016 | Printed | | NORTHWDS | NORTHWOODS PRINTERS LLC | PURCHASE ORDER FORMS | 326.25 |
| 41311 | 11/29/2016 | Printed | | UNIFI EQ | UNIFI EQUIPMENT FINANCE, | COLOR COPIER LEASE | 87.42 |
| | | | | | INC. | | |

Total Checks: 37

Checks Total (excluding void checks):

14,559.74

Total Payments: 37

Bank Total (excluding void checks):

14,559.74

Check Register Report

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:09 pm

Page: 2

Whitewater Township

BANK: FIRST COMMUNITY BANK MB

| Check Number | Check Date | Status | Void/Stop Date | Vendor Number | Vendor Name | Check Description | Amount |
|--------------|------------|--------|----------------|---------------|-------------|-------------------|--------|
|--------------|------------|--------|----------------|---------------|-------------|-------------------|--------|

FIRST COMMUNITY BANK MB Checks

| | | | | | | | |
|------|------------|---------|--|---------|--------------------------------|------------------------------|-------|
| 1183 | 11/29/2016 | Printed | | COTREAS | GRAND TRAVERSE CO TREASURER | Sewer Expenses for Oct. 2016 | 37.85 |
|------|------------|---------|--|---------|--------------------------------|------------------------------|-------|

| | | |
|------------------------|--|--------------|
| Total Checks: 1 | Checks Total (excluding void checks): | 37.85 |
|------------------------|--|--------------|

| | | |
|--------------------------|--|--------------|
| Total Payments: 1 | Bank Total (excluding void checks): | 37.85 |
|--------------------------|--|--------------|

| | | |
|---------------------------|---|------------------|
| Total Payments: 38 | Grand Total (excluding void checks): | 14,597.59 |
|---------------------------|---|------------------|

INVOICE APPROVAL LIST BY FUND REPORT

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:10 pm

Page: 1

Whitewater Township

| Fund/Dept/Acct | Vendor Name | Invoice # | Invoice Desc. | Check # | Due Date | Check Date | Amount |
|---------------------------------|---|-----------|---|---------|------------|------------------------------------|---------------|
| Fund: 101 GENERAL FUND | | | | | | | |
| Dept: 000 | | | | | | | |
| 101-000-476 | Licenses & Permits KELLY JO BOWMAN | | REFUND LUP FEE | 41271 | 11/01/2016 | 11/16/2016 | 50.00 |
| | | | | | | | <u>50.00</u> |
| | | | | | | Total Dept. 000: | 50.00 |
| Dept: 101 Township Board | | | | | | | |
| 101-101-727 | Office Supplies & Exp NORTHWOODS PRINTERS L STAPLES CREDIT PLAN | 862 | AP AND PAYROLL ENEVELOPE CLERK/TWP BOARD | 41274 | 11/02/2016 | 11/16/2016 | 57.98 |
| | | | | 41281 | 11/08/2016 | 11/16/2016 | 136.75 |
| | | | | | | | <u>194.73</u> |
| 101-101-880 | Education & Training VISA | | Supr/Trustee/Clerk and | 41280 | 10/28/2016 | 11/16/2016 | 101.00 |
| | | | | | | | <u>101.00</u> |
| 101-101-901 | Publishing TRAVERSE CITY RECORD E | 10162055 | Legal NTC for Public Accuracy | 41279 | 10/31/2016 | 11/16/2016 | 389.00 |
| | | | | | | | <u>389.00</u> |
| 101-101-940 | Equipment Rental UNIFI EQUIPMENT FINANCE | 256590 | COLOR COPIER LEASE | 41311 | 11/20/2016 | 11/29/2016 | 87.42 |
| | | | | | | | <u>87.42</u> |
| | | | | | | Total Dept. Township Board: | 772.15 |
| Dept: 171 Supervisor | | | | | | | |
| 101-171-880 | Education & Training VISA | | Supr/Trustee/Clerk and | 41280 | 10/28/2016 | 11/16/2016 | 101.00 |
| | | | | | | | <u>101.00</u> |
| | | | | | | Total Dept. Supervisor: | 101.00 |
| Dept: 195 Elections | | | | | | | |
| 101-195-727 | Office Supplies & Exp ELECTIONSOURCE GBS INC | 35591 | 3-Table Top Voting Booths | 41265 | 11/03/2016 | 11/16/2016 | 65.82 |
| | | 16-29160 | MEMORY CARD CODING FOR | 41307 | 11/21/2016 | 11/29/2016 | 280.00 |
| | | | | | | | <u>345.82</u> |
| 101-195-901 | Publishing TRAVERSE CITY RECORD E | 10162055 | Legal NTC for Public Accuracy | 41279 | 10/31/2016 | 11/16/2016 | 79.50 |
| | | | | | | | <u>79.50</u> |
| | | | | | | Total Dept. Elections: | 425.32 |
| Dept: 210 Attorney | | | | | | | |
| 101-210-801 | Legal Services FAHEY SCHULTZ BURZYCH | 34302 | MTT BOROVICH | 41266 | 11/02/2016 | 11/16/2016 | 133.00 |
| | | | | | | | <u>133.00</u> |
| | | | | | | Total Dept. Attorney: | 133.00 |
| Dept: 215 Clerk | | | | | | | |
| 101-215-727 | Office Supplies & Exp BLUE WATER INK AND TONE NORTHWOODS PRINTERS L NORTHWOODS PRINTERS L STAPLES CREDIT PLAN | 11612 | TONER CARTRIDGE | 41261 | 11/09/2016 | 11/16/2016 | 125.00 |
| | | 984 | CHECK STOCK FOR | 41310 | 11/16/2016 | 11/29/2016 | 155.40 |
| | | 1049 | PURCHASE ORDER FORMS | 41310 | 11/18/2016 | 11/29/2016 | 170.85 |
| | | | CLERK/TWP BOARD | 41281 | 11/08/2016 | 11/16/2016 | 28.12 |
| | | | | | | | <u>479.37</u> |
| 101-215-880 | Education & Training VISA | | Supr/Trustee/Clerk and | 41280 | 10/28/2016 | 11/16/2016 | 101.00 |

INVOICE APPROVAL LIST BY FUND REPORT

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:10 pm

Page: 2

Whitewater Township

| Fund/Dept/Acct | Vendor Name | Invoice # | Invoice Desc. | Check # | Due Date | Check Date | Amount |
|--|-------------------------|--------------|----------------------------|---------|------------|---|-----------------|
| | | | | | | | 101.00 |
| | | | | | | Total Dept. Clerk: | 580.37 |
| Dept: 253 Treasurer | | | | | | | |
| 101-253-860 | Mileage Reimburse | | | | | | |
| | ARDELLA BENAK | | 8/19-9/28/2016 | 41299 | 11/28/2016 | 11/29/2016 | 151.20 |
| | ARDELLA BENAK | | 10/14-11/28/2016 | 41299 | 11/28/2016 | 11/29/2016 | 112.86 |
| | ARDELLA BENAK | | 6/14-8/18/2016 | 41299 | 11/28/2016 | 11/29/2016 | 149.04 |
| | | | | | | | 413.10 |
| | | | | | | Total Dept. Treasurer: | 413.10 |
| Dept: 265 Township Hall & Groun | | | | | | | |
| 101-265-740 | Operating Expense & | | | | | | |
| | INDUSTRIAL COVERT UNLIM | ICU-110716CG | ITEMS FOR VIDEO CAMERA IN | 41309 | 11/07/2016 | 11/29/2016 | 84.00 |
| | MCCARDEL CULLIGAN WATI | | NOV RENT AND BOTTLED WA | 41273 | 11/01/2016 | 11/16/2016 | 32.50 |
| | | | | | | | 116.50 |
| 101-265-811 | Waste Removal Servi | | | | | | |
| | AMERICAN WASTE | 1727248 | 11/01-11/30/2016 | 41259 | 11/01/2016 | 11/16/2016 | 15.00 |
| | | | | | | | 15.00 |
| 101-265-851 | Internet/Website | | | | | | |
| | CHARTER COMMUNICATION | | 11/30-12/29/2016 | 41300 | 11/20/2016 | 11/29/2016 | 59.99 |
| | | | | | | | 59.99 |
| 101-265-922 | Electricity | | | | | | |
| | CONSUMERS ENERGY | 205632030381 | 10/12-11/13/2016 | 41302 | 11/13/2016 | 11/29/2016 | 146.99 |
| | | | | | | | 146.99 |
| 101-265-923 | Electric Heat | | | | | | |
| | CONSUMERS ENERGY | 205632030386 | 10/12-11/13/2016 | 41302 | 11/13/2016 | 11/29/2016 | 216.91 |
| | | | | | | | 216.91 |
| 101-265-924 | Telephone | | | | | | |
| | CHARTER COMMUNICATION | | 11/30-12/29/2016 | 41300 | 11/20/2016 | 11/29/2016 | 198.15 |
| | | | | | | | 198.15 |
| 101-265-930 | Facility Repairs/Maint | | | | | | |
| | ALPINE ELECTRIC CORPOR | W24741 | Troubleshoot & Repair all | 41298 | 11/17/2016 | 11/29/2016 | 480.48 |
| | GILL-ROY'S HARDWARE 673 | 1610-612395 | Replacement lock For | 41267 | 10/14/2016 | 11/16/2016 | 31.55 |
| | GILL-ROY'S HARDWARE 673 | 1611-674122 | Return of Non-Working Keys | 41267 | 11/01/2016 | 11/16/2016 | -7.56 |
| | GILL-ROY'S HARDWARE 673 | 1611-729406 | HPP/TWP HALL/WTP | 41308 | 11/16/2016 | 11/29/2016 | 27.98 |
| | GILL-ROY'S HARDWARE 673 | 1611-733206 | TWP HALL | 41308 | 11/17/2016 | 11/29/2016 | 9.93 |
| | | | | | | | 542.38 |
| | | | | | | Total Dept. Township Hall & Grounds: | 1,295.92 |
| Dept: 276 Cemetery | | | | | | | |
| 101-276-922 | Electricity | | | | | | |
| | CONSUMERS ENERGY | 202072320709 | 10/12-11/13/2016 | 41302 | 11/13/2016 | 11/29/2016 | 22.57 |
| | | | | | | | 22.57 |
| | | | | | | Total Dept. Cemetery: | 22.57 |
| Dept: 405 Zoning Administrator/F | | | | | | | |
| 101-405-860 | Mileage Reimburse | | | | | | |
| | CHRISTOPHER WEINZAPFE | | 10/21-10/27/2016 | 41262 | 11/04/2016 | 11/16/2016 | 39.96 |
| | | | | | | | 39.96 |
| | | | | | | Dept. Zoning Administrator/Planning: | 39.96 |
| | | | | | | tal Fund GENERAL FUND: | 3,833.39 |

INVOICE APPROVAL LIST BY FUND REPORT

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:10 pm

Page: 3

Whitewater Township

| Fund/Dept/Acct | Vendor Name | Invoice # | Invoice Desc. | Check # | Due Date | Check Date | Amount |
|------------------------------------|-------------------------|--------------|------------------------------|---------|------------|------------|--|
| Fund: 203 ROAD FUND | | | | | | | |
| Dept: 446 Road Right of Way | | | | | | | |
| 203-446-921 | Street Lights | | | | | | |
| | CHERRYLAND ELECTRIC CC | | M72 & MOORE RD | 41301 | 11/22/2016 | 11/29/2016 | 13.64 |
| | CHERRYLAND ELECTRIC CC | | M72 & SKEGEMOG PT RD | 41301 | 11/22/2016 | 11/29/2016 | 14.74 |
| | CHERRYLAND ELECTRIC CC | | M72 & COOK RD | 41301 | 11/22/2016 | 11/29/2016 | 14.74 |
| | CONSUMERS ENERGY | 205543034289 | 10/01-10/31/2016 | 41263 | 10/31/2016 | 11/16/2016 | 77.98 |
| | | | | | | | <u>121.10</u> |
| | | | | | | | Total Dept. Road Right of Way: 121.10 |
| | | | | | | | Total Fund ROAD FUND: 121.10 |
| Fund: 206 FIRE FUND | | | | | | | |
| Dept: 336 Fire Dept | | | | | | | |
| 206-336-739 | Fuel & Oil | | | | | | |
| | FUELMAN | L2K6Z-Q8496 | FUEL FOR EXPEDITION | 41306 | 11/17/2016 | 11/29/2016 | 33.05 |
| | | | | | | | <u>33.05</u> |
| 206-336-811 | Waste Removal Servi | | | | | | |
| | AMERICAN WASTE | 1726419 | 11/01-11/30/2016 | 41259 | 11/01/2016 | 11/16/2016 | 15.00 |
| | | | | | | | <u>15.00</u> |
| 206-336-920 | Natural Gas | | | | | | |
| | DTE ENERGY | | 10/19-11/17/2016 | 41304 | 11/17/2016 | 11/29/2016 | 26.36 |
| | | | | | | | <u>26.36</u> |
| 206-336-922 | Electricity | | | | | | |
| | CONSUMERS ENERGY | 202072320677 | 10/12-11/13/2016 | 41302 | 11/13/2016 | 11/29/2016 | 157.31 |
| | | | | | | | <u>157.31</u> |
| 206-336-924 | Telephone | | | | | | |
| | CHARTER COMMUNICATION | | 12/01-12/31/2016 | 41300 | 11/22/2016 | 11/29/2016 | 49.53 |
| | | | | | | | <u>49.53</u> |
| 206-336-930 | Facility Repairs/Maint | | | | | | |
| | ACE HARDWARE | 096734/2 | FLUORESCENT BULBS | 41258 | 10/28/2016 | 11/16/2016 | 170.10 |
| | | | | | | | <u>170.10</u> |
| | | | | | | | Total Dept. Fire Dept: 451.35 |
| | | | | | | | Total Fund FIRE FUND: 451.35 |
| Fund: 208 PARK FUND | | | | | | | |
| Dept: 756 Township Park | | | | | | | |
| 208-756-729 | Licenses & Fees | | | | | | |
| | STATE OF MICHIGAN | 761-8097733 | Annual DEQ Fee For WTP | 41282 | 10/30/2016 | 11/16/2016 | 135.87 |
| | | | | | | | <u>135.87</u> |
| 208-756-812 | Septic Services | | | | | | |
| | GMOSEY'S SEPTIC SERVICE | 30063 | Final pumping of Pit Toilets | 41268 | 10/14/2016 | 11/16/2016 | 102.10 |
| | | | | | | | <u>102.10</u> |
| 208-756-922 | Electricity | | | | | | |
| | CONSUMERS ENERGY | 204920103356 | 10/13-11/14/2016 | 41302 | 11/14/2016 | 11/29/2016 | 62.67 |
| | CONSUMERS ENERGY | 204920103367 | 10/13-11/14/2016 | 41302 | 11/14/2016 | 11/29/2016 | 30.07 |
| | | | | | | | <u>92.74</u> |
| 208-756-924 | Telephone | | | | | | |
| | AT&T | 231267509111 | | 41260 | 11/01/2016 | 11/16/2016 | 58.56 |
| | | | | | | | <u>58.56</u> |
| 208-756-930 | Facility Repairs/Maint | | | | | | |

INVOICE APPROVAL LIST BY FUND REPORT

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:10 pm

Page: 4

Whitewater Township

| Fund/Dept/Acct | Vendor Name | Invoice # | Invoice Desc. | Check # | Due Date | Check Date | Amount |
|----------------------------------|-------------------------|--------------|--------------------------------|---------|------------|------------|--|
| | GILL-ROY'S HARDWARE 673 | 1611-729406 | HPP/TWP HALL/WTP | 41308 | 11/16/2016 | 11/29/2016 | 22.36 |
| | GREAT LAKES GOLF CARS | 6624 | Winterize Golf Cart | 41269 | 11/07/2016 | 11/16/2016 | 117.08 |
| | HURST MECHANICAL | 4208 | Shut down water system at | 41270 | 11/15/2016 | 11/16/2016 | 575.00 |
| | LAWN-N-ORDER | | Final mowing of interior of | 41272 | 11/15/2016 | 11/16/2016 | 600.00 |
| | TC RENTALS | 11540 | 1- 1/2 Day Rental Wood Chipper | 41278 | 10/28/2016 | 11/16/2016 | 270.00 |
| | | | | | | | 1,584.44 |
| 208-756-970 | Capital Expenditure | | | | | | |
| | D & W MECHANICAL | 0040783-IN | Lochinvar 100 Gallon | 41303 | 11/18/2016 | 11/29/2016 | 5,227.00 |
| | | | | | | | 5,227.00 |
| | | | | | | | Total Dept. Township Park: 7,200.71 |
| | | | | | | | Total Fund PARK FUND: 7,200.71 |
| Fund: 209 RECREATION FUND | | | | | | | |
| Dept: 757 Recreation | | | | | | | |
| 209-757-727 | Office Supplies & Exp | | | | | | |
| | FAST SIGNS TRAVERSE CIT | 435-26096 | PARK CLOSED SIGN FOR HPP | 41305 | 11/22/2016 | 11/29/2016 | 168.00 |
| | | | | | | | 168.00 |
| 209-757-729 | Licenses & Fees | | | | | | |
| | STATE OF MICHIGAN | 761-8097734 | Annual DEQ Fee HPP Public | 41282 | 10/30/2016 | 11/16/2016 | 135.87 |
| | | | | | | | 135.87 |
| 209-757-809 | Lawn Maintenance Sr | | | | | | |
| | LAWN-N-ORDER | | Final mowing of interior of | 41272 | 11/15/2016 | 11/16/2016 | 180.00 |
| | | | | | | | 180.00 |
| 209-757-922 | Electricity | | | | | | |
| | CONSUMERS ENERGY | 202072320700 | 10/11-11/10/2016 | 41302 | 11/10/2016 | 11/29/2016 | 53.84 |
| | CONSUMERS ENERGY | 205632030378 | 10/12-11/13/2016 | 41302 | 11/13/2016 | 11/29/2016 | 33.13 |
| | | | | | | | 86.97 |
| 209-757-930 | Facility Repairs/Maint | | | | | | |
| | GILL-ROY'S HARDWARE 673 | 1611-729406 | HPP/TWP HALL/WTP | 41308 | 11/16/2016 | 11/29/2016 | 128.55 |
| | | | | | | | 128.55 |
| | | | | | | | Total Dept. Recreation: 699.39 |
| | | | | | | | Fund RECREATION FUND: 699.39 |
| Fund: 210 AMBULANCE FUND | | | | | | | |
| Dept: 651 Ambulance | | | | | | | |
| 210-651-920 | Natural Gas | | | | | | |
| | DTE ENERGY | | 10/19-11/17/2016 | 41304 | 11/17/2016 | 11/29/2016 | 26.36 |
| | | | | | | | 26.36 |
| 210-651-922 | Electricity | | | | | | |
| | CONSUMERS ENERGY | 202072320677 | 10/12-11/13/2016 | 41302 | 11/13/2016 | 11/29/2016 | 157.30 |
| | | | | | | | 157.30 |
| 210-651-924 | Telephone | | | | | | |
| | CHARTER COMMUNICATION | | 12/01-12/31/2016 | 41300 | 11/22/2016 | 11/29/2016 | 49.54 |
| | | | | | | | 49.54 |
| 210-651-970 | Capital Expenditure | | | | | | |
| | VISA | | Supr/Trustee/Clerk and | 41280 | 10/28/2016 | 11/16/2016 | 21.78 |
| | | | | | | | 21.78 |
| | | | | | | | Total Dept. Ambulance: 254.98 |
| | | | | | | | Fund AMBULANCE FUND: 254.98 |

INVOICE APPROVAL LIST BY FUND REPORT

Bills for Approval 12/13/2016

Date: 12/08/2016

Time: 5:10 pm

Page: 5

Whitewater Township

| Fund/Dept/Acct | Vendor Name | Invoice # | Invoice Desc. | Check # | Due Date | Check Date | Amount |
|--------------------------------------|--------------------------|-----------------|------------------------------|---------|------------|-------------------------------|------------------|
| Fund: 406 FIRE CAPITAL IMPROV | | | | | | | |
| Dept: 000 | | | | | | | |
| 406-000-970 | Capital Expenditure | | | | | | |
| | VISA | | Supr/Trustee/Clerk and | 41280 | 10/28/2016 | 11/16/2016 | 21.78 |
| | | | | | | | <u>21.78</u> |
| | | | | | | Total Dept. 000: | 21.78 |
| | | | | | | AL IMPROVEMENT FUND: | 21.78 |
| | | | | | | | |
| Fund: 590 MIAMI BEACH SEWER | | | | | | | |
| Dept: 000 | | | | | | | |
| 590-000-805 | Contracted Services-I | | | | | | |
| | GRAND TRAVERSE CO TRE/ | 92577 | Sewer Expenses for Oct. 2016 | 1183 | 10/31/2016 | 11/29/2016 | 37.85 |
| | | | | | | | <u>37.85</u> |
| | | | | | | Total Dept. 000: | 37.85 |
| | | | | | | MI BEACH SEWER FUND: | 37.85 |
| | | | | | | | |
| Fund: 750 PAYROLL CLEARING F | | | | | | | |
| Dept: 000 | | | | | | | |
| 750-000-258 | Accrued Payroll Taxes: | | | | | | |
| | EFTPS | 270672133050262 | 11/10/2016 PAYROLL | 41264 | 11/16/2016 | 11/16/2016 | 884.57 |
| | EFTPS | 270670782398137 | 10/28/2016 PAYROLL | 41264 | 11/02/2016 | 11/16/2016 | 831.70 |
| | STATE OF MICHIGAN - TREA | SMIBUS000662878 | 10/28/2016 PAYROLL | 41277 | 11/02/2016 | 11/16/2016 | 126.20 |
| | STATE OF MICHIGAN - TREA | SMIBUS000696811 | 11/10/16 PAYROLL | 41277 | 11/16/2016 | 11/16/2016 | 134.57 |
| | | | | | | | <u>1,977.04</u> |
| | | | | | | Total Dept. 000: | 1,977.04 |
| | | | | | | PAYROLL CLEARING FUND: | 1,977.04 |
| | | | | | | Grand Total: | 14,597.59 |

Memo

To: Whitewater Township Board
From: Ron Popp, Supervisor
CC:
Date: 12-7-2016
Re: 8380 Old M-72 Update.

Board Members,

- 1) Doug Fishell, Rail Road Property Manager (Ron Adam's replacement), and I have an appointment December 14, 2016 to begin negotiations on the proposed property acquisition behind the 8380 Old M-72 fire station.
- 2) Grand Traverse County Construction Codes Department has finished their plan review of the proposed renovations and additions to the 8380 Old M-72 emergency services building. The main area of concern I have is the requirement for a fire suppression system "throughout" the entire building (plan review item #17). If this requirement stands, it will likely push the cost of construction beyond our reach. In conversation with Mark Pressel, engineer of record on the project, he has three of these buildings currently under design and is facing similar situations in all three. The plan is to modify the drawings detailing a robust fire wall around the R-2 area (sleeping areas) of the building and provide fire suppression to just that area.

Additionally, out of the 41 items the plan review highlighted, items number 4, 6, 9, 10 and 38 are of special note. Correcting these concerns may impact the building's current heating and electrical systems which are located in the mezzanine. Specifically, the low headroom of this floor space no longer meets code.

I recommend we resolve some of these issues and obtain a few written approvals/exemptions before moving ahead. This includes the installation of the temporary living quarters. The proposed location may not provide enough building separation and access around the structure. Moreover, this facility could become longer term than we originally forecasted making placement very important.

3) I sought a competitive bid on the electrical service to the temporary housing structure. I met with Tim Talfelsky of H &M Electric, LLC, a Williamsburg business, to discuss our needs. His proposal is attached for comparison.

Respectfully,

A handwritten signature in black ink, appearing to read "Ron Popp". The signature is stylized with a large, looping initial "R" and a smaller "P" that loops back under the "R".

Ron Popp
Supervisor, Whitewater Township

2012 MICHIGAN BUILDING CODE PLAN REVIEW RECORD

Plan Review # 1

Date: 12/6/2015

JURISDICTION: WHITEWATER TWP., GRAND TRAVERSE COUNTY

BUILDING LOCATION: 8380 OLD M-72

BUILDING DESCRIPTION: 1600 SF. ADDITION AND INTERIOR ALTERATIONS TO FIRE DEPT. BUILDING, "B, S-1 & R-2" USE, 5B CONSTRUCTION,

REVIEWED BY: RLH

CORRECTION LIST

| NO. | DESCRIPTION |
|-----|---|
| 1. | CONSTRUCTION DOCUMENTS SHALL BE OF SUFFICIENT CLARITY TO INDICATE THE LOCATION, NATURE AND EXTENT OF THE WORK PROPOSED AND SHOW IN DETAIL THAT IT WILL CONFORM TO THE PROVISIONS OF THIS CODE AND RELEVANT LAWS, ORDINANCES, RULES AND REGULATIONS, AS DETERMINED BY THE BUILDING OFFICIAL. 107.2.1 |
| 2. | ON SHEET "A3" IS SECTIONAL INDICATOR "5/A5" FOR THE WEST PORCH, AND ON SHEET "A4" IS SECTIONAL INDICATOR "4/A4" FOR THE WEST PORCH, AND ON SHEET "A5" IN BUILDING SECTION IS SECTIONAL INDICATOR 5/A5" FOR THE SOUTH PORCH. PLEASE CLAIRIFY LOCATION FOR SECTIONALS "4/A4" AND "5/A5". 107.2.1 |
| 3. | ON SHEET "A4" IS SECTIONAL INDICATOR "3/A5" FOR THE SOUTH PORCH, HOWEVER NO SECTIONAL "3/A5" FOUND ON PLANS. 107.2.1 |
| 4. | ON SHEET "A4" THE FLOOR PLAN SHOWS A STAIRWAY OFF THE NW CORNER OF THE EQUIPMENT BAY AREA. PLEASE CLAIRIFY WHAT STAIRWAY IS FOR. 107.2.1 |
| 5. | ADDITIONS AND ALTERATIONS TO A BUILDING, THAT CONTAINS AN AREA OF PRIMARY FUNCTION, THEN THE ROUTE TO THE PRIMARY FUNCTION SHALL BE ACCESIBLE, AND SHALL COMPLY WITH THE APPLICABLE PROVISIONS IN CHAPTER 11 OF THE CODE AND ICC/ANSI A117.1. 3411.5, 3411.6, 3411.7 |
| 6. | CORRIDOR WALLS ARE REQUIRED TO BE RATED PER T-1018.1 AND SHALL BE CONSTRUCTED AS FIRE PARTITIONS PER 708.1. CONTINUITY PER 708.4. PROVIDE HOUR RATING AND CONSTRUCTION DETAILS AND UL OR GA NUMBER FOR RATED ASSEMBLIES. 107.1, 107.2.1 |
| 7. | PENETRATIONS INTO OR THROUGH "FIRE BARRIERS" AND "FIRE PARTITIONS" SHALL BE PROTECTED PER 714.3. PROVIDE DETAILS OF PROTECTION AND UL OR GA NUMBERS WHERE APPLICABLE. 107.1, 107.2.1 |
| 8. | PENETRATIONS INTO OR THROUGH "HORIZONTAL ASSEMBLIES" SHALL BE PROTECTED PER 714.4. PROVIDE DETAILS OF PROTECTION AND UL OR GA NUMBERS WHERE APPLICABLE. 107.1, 107.2.1 |
| 9. | ALL DOOR OPENINGS IN CORRIDOR WALLS SHALL BE 20-MINUTE FIRE RATED IN ACCORDANCE WITH T-716.5. INDICATE FIRE RATING ON PLANS. 716.1, 107.1, 107.2.1 |
| 10. | FIRE DAMPERS, SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS ARE REQUIRED IN THE LOCATIONS AS INDICATED IN SECTION 717.5., 717.6 |
| 11. | FIREBLOCKING IS REQUIRED IN CONCEALED WALL SPACES HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET. FIREBLOCKING MATERIALS TO COMPLY WITH 718.2, 718.2.1, 718.2.2 |

12. FIREBLOCKING IS REQUIRED AT THE CONNECTION BETWEEN HORIZONTAL AND VERTICAL SPACES. FIREBLOCKING MATERIALS TO COMPLY WITH 718.2.1.
13. **DRAFTSTOPPING IS REQUIRED IN ATTICS BETWEEN CEILING/ROOF, IN COMBUSTIBLE CONSTRUCTION, SO THAT ANY HORIZONTAL AREA DOES NOT EXCEED 3,000 SF. DRAFTSTOPPING MATERIALS TO COMPLY WITH 718.4., 718.4.1. EXCEPTION, IF THE ATTIC SPACE IS SPRINKLED THE DRAFT STOP IS NOT REQUIRED.**
14. INTERIOR FINISHES TO COMPLY WITH T-803.9
15. PROVIDE FIRE PROTECTION SYSTEM SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO THE START OF SYSTEM INSTALLATION. 107.2.2
16. **PROVIDE PORTABLE FIRE EXTINGUISHERS AS REQUIRED BY THE INTERNATIONAL FIRE CODE, AND INDICATED ON THE PLANS THEIR CLASS, SIZE AND LOCATION. 906.1, 107.2.1**
17. **THIS BUILDING HAS A "GROUP R" FIRE AREA AND AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT THE BUILDING PER 903.2.8. THE BUILDING PLANS INDICATE AN "AUTOMATIC SPRINKLER SYSTEM REQUIRED", HOWEVER THE SEALED PLAN REVIEW APPLICATION INDICATES "NO COMPLETE SUPPRESSION". REVISE AS NEEDED. 107.2.1**
18. SINGLE- AND MULTIPLE-STATION SMOKE ALARMS SHALL BE INSTALLED IN ACCORDANCE WITH 907.2.11. 907.2.9.2
19. **R OCCUPANCIES LOCATED IN A BUILDING CONTAINING A FUEL-BURNING APPLIACNCE OR IN A BUILDING WHICH HAS AN ATTACHED GARAGE SHALL BE EQUIPPED WITH SINGLE-STAGE CARBON MONOXIDE ALARMS. 908.7**
20. MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE TENANT SPACE IS OCCUPIED, PER 1006.1, 1006.2, 1006.3, 1006.3.1
21. **EXTERIOR EXIT DISCHARGE LIGHTS ARE REQUIRED AND ARE TO BE INDICATED ON THE PLANS, THE EXTERIOR EXIT DISCHARGE LIGHTS SHALL BE OF THE TYPE THAT WILL STAY ILLUMINATED BY EMERGENCY POWER DURING FAILER OF NORMAL POWER SUPPLY. 1006.3, 107.2.1**
22. MEANS OF EGRESS LIGHTING SHALL PROVIDE THE LEVEL OF ILLUMINATION REQUIRED BY 1006.2, 1006.3, 1006.3.1
23. A LANDING, AT THE SAME ELEVATION, IS REQUIRED ON EACH SIDE OF A DOOR. LANDING SIZE PER 1008.1.6. ANSI, A117.1-09, T-404.2.3.2 FOR MANEUVERING SPACE. THRESHOLD HEIGHT IS NOT TO EXCEED 0.5". 1008.1.5, 1008.1.6, 1008.1.7
24. DOOR HARDWARE TO COMPLY WITH 1008.1.9, 1008.1.9.1, 1008.9.2 AND ANSI, A117.1-09, 404.2.6
25. STAIR RISER TO BE 7" MAXIMUM AND TREAD DEPTH 11" MINIMUM. 1009.7.2.
26. HANDRAILS ARE REQUIRED ON EACH SIDE OF A STAIRWAY, HANDRAILS SHALL BE CONTINUOUS, AND HANDRAIL ENDS SHALL BE RETURNED TO A WALL, GUARD OR THE WALKING SURFACE. HANDRAILS SHALL EXTEND HORIZONTALLY AT LEAST 12" BEYOND THE TOP RISER AND CONTINUE TO SLOPE FOR THE DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER. 1009.15,1012.4, 1012.6
26. RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL BEVE HANRAILS ON BOTH SIDES. 1010.9.
27. HANDRAILS SHALL BE CONTINUOUS. HANDRAIL ENDS SHALL BE RETURNED TO A WALL, GUARD OR THE WALKING SURFACE. HANDRAILS SHALL EXTEND HORIZONTALLY AT LEAST 12" BEYOND THE TOP AND BOTTOM OF RAMP RUNS 1012.4, 1012.6
28. GUARDS ARE REQUIRED WHERE THE WALKING SURFACE IS MORE THAN 30" ABOVE THE SURFACE BELOW AT ANY POINT WITHIN 36". GUARDS TO COMPLY WITH THE HEIGHT AND OPENING LIMITATIONS OF 1013.1, 1013.2, 1013.3

29. THIS PROJECT IS REQUIRED TO BE ACCESSIBLE. THIS REVIEW DOES NOT ADDRESS THE "AMERICANS WITH DISABILITIES" ACT. 1103.1

Plan Review No. 1
Page 3

12/6/2016

30. **THE SHOWER COMPARTMENTS SHALL HAVE SIZES, CLEARANCES AND SEATS COMPLYING WITH SECTION 608.2 OF ICC/A117-1-2009, AND PROVIDE DETAILS FOR THE INSTALLATION ON THE PLANS. 1101.2, 107.2.1**
31. **THE WORK OUT ROOM IS REQUIRED TO BE ACCESSIBLE TO THE PHYSICALLY DISABLED. 1103.1**
32. AT LEAST ONE OF EACH TYPE OF FIXTURE, ELEMENT, CONTROL OR DISPENSER IN EACH ACCESSIBLE TOILET ROOM SHALL BE ACCESSIBLE. 1109.2
33. **A DRINKING FOUNTAIN IS REQUIRED PER 403.1 OF THE MICHIGAN PLUMBING CODE, NO FEWER THAN TWO DRINKING FOUNTAINS SHALL BE PROVIDED. ONE DRINKING FOUNTAIN SHALL COMPLY WITH THE REQUIREMENTS FOR PEOPLE WHO USE A WHEEL CHAIR AND ONE DRINKING FOUNTAIN SHALL COMPLY WITH THE REQUIREMENTS FOR STANDING PERSONS", AND PROVIDE DETAILS FOR THE INSTALLATION ON THE PLANS. 1109.5, 1109.5.1**
34. PROVIDE "ACCESSIBILITY" SIGNAGE PER 1110.1
35. AN ATTIC ACCESS IS REQUIRED PER 1209.2.
36. CONCRETE SHALL MEET THE STRENGTH REQUIREMENTS OF T-1904.2. WHEN THE STRUCTURAL DESIGNED OF FOOTING IS GREATER THAN 2500 PSI, CONCRETE STRENGTH TESTING IS REQUIRED PER ACI 318-11, 5.6.1, FREQUENCY OF TESTING PER ACI 318-11, 5.6.2
37. SAFETY GLAZING IS REQUIRED IN THE LOCATIONS INDICATED IN 2406.4. EACH PANE OF SAFETY GLAZING IS TO BE PERMANENTLY IDENTIFIED. 2406.3
38. **PROVIDE ASHRAE 90.1-07 COMPLIANCE DOCUMENTS, FOR THE CONDITIONED SPACE COMPLYING WITH THE BUILDING ENVELOPE OF THE SPACE, AND INDICATE ON THE PLANS THE INSULATION TYPE AND R-VALUES. MUEC 501.1, ASHRAE 90.1-2007, SECTIONS, 4.2.2, 5.1, 107.2.1**
39. **FOR SLAB-ON-GRADE FLOORS, "THE INSULATION SHALL EXTEND DOWNWARD FROM THE TOP OF THE SLAB ON THE INSIDE OR OUTSIDE OF THE FOUNDATION WALL." 2009 MUEC 501.1, ASHRAE 90.1-2007, NORMATIVE APPENDIX A6.2**
40. PRIOR TO A PERMIT BEING ISSUED, COMMENTS SHOWN IN **BOLD TYPE** ARE TO BE ADDRESSED AND THE PLANS REVISED AS REQUIRED TO INDICATE COMPLIANCE. TWO SETS OF REVISED PLANS WITH AN ORIGINAL "SEAL" AND SIGNATURE ARE REQUIRED FOR REVIEW. 107.1, 107.2.1
41. THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE SHALL BE RESPONSIBLE FOR REVIEWING AND COORDINATING THE SUBMITTAL DOCUMENTS PREPARED BY OTHERS, INCLUDING PHASED AND DEFERRED SUBMITTAL ITEMS, FOR COMPATIBILITY WITH THE DESIGN OF THE BUILDING. 107.3.4.1

Kuhns Electric Inc

Estimate

P O Box 1506
Kalkaska, MI 49646

Phone # (231) 624-1007 cekuhns@sbcglobal.net

| Date | Estimate # |
|------------|------------|
| 11/27/2016 | 2016-035 |

| Name / Address |
|--|
| Whitewater Township PO Box 159 Williamsburg MI 49690 |

| Project |
|---------|
| |

| Description | Qty | Cost | Total |
|--|-----|--------------|-------------------|
| Install 125' of #4 Romex from existing panel to east side of building to a 100 amp disconnect for feeding temporary trailer Material: 1 - 100 amp QO breaker 125' - #4 - 4 wire Romex wire 1 - 100 amp fused disconnect 2 - 100 amp fuses 20' - 1 1/4" PVC 1 - 1 1/4" PVC LB 10' - 1 1/4" liquid tite 1 - 1/4" liquid tite straight connector | | 2,991.25 | 2,991.25 |
| | | Total | \$2,991.25 |

Customer Signature _____

RECEIVED
11-28-16
C6



H & M Electric, LLC WHITEWATER FIRE DEPT QUOTE.xls

• Commercial • Residential • Electrical Upgrades • Service Work

7515 Cram Rd., Williamsburg, MI 49690 Phone: 231-267-5059

PROPOSAL

SUBMITTED TO:
WHITEWATER TOWNSHIP
5770 VINTON RD.
WILLIAMSBURG, MI. 49690

PHONE#
231-409-5059

DATE
12/5/2016

JOB NAME:
WILLIAMSBURG FIRE DEPT.
8380 OLD M-72
WILLIAMSBURG, MI.

WE HEREBY SUBMIT ESTIMATES FOR:

TO INSTALL A 100AMP WEATHERPROOF PANEL ON THE EAST SIDE OF THE BUILDING.
THE FEEDER WILL BE #1 AL.SER RUN FROM THE MAIN BREAKER PANEL TO THE SUB PANEL
WITH A 100 AMP BREAKER IN THE MAIN PANEL AND A 6 CIRCUIT WEATHERPROOF
PANEL IN THE MIDDLE OF THE EXTERIOR WALL ON THE EAST SIDE.

ANY ALTERATIONS OR ADDITIONS TO THE PLANS OR SPECIFICATIONS MAY BE EXTRA.

WE PROPOSE HEREBY TO FURNISH MATERIAL AN LABOR-COMPLETE IN ACCORDANCE
WITH ABOVE SPECIFICATIONS, FOR THE SUM OF:

ONE THOUSAND SEVEN HUNDRED SEVENTY FIVE _____ DOLLARS \$1,775.00

PAYMENT TO BE MADE AS FOLLOWS:
65% DUE UPON COMPLETION OF ROUGH IN AND SERVICE
35% DUE UPON FINISH

ALL MATERIAL IS GUARANTEED TO BE AS SPECIFIED. ALL WORK TO BE
COMPLETED IN A WORKMANLIKE MANNER ACCORDING TO STANDARD
PRACTICES. ALL AGREEMENTS CONTINGENT UPON STRIKES, ACCIDENTS,
OR DELAYS BEYOND OUR CONTROL. OWNER TO CARRY FIRE, TORNADO
AND OTHER NECESSARY INSURANCE.
OUR WORKERS COVERED BY WORKMAN'S COMPENSATION INSURANCE.

AUTHORIZED SIGNATURE

Permit included - Recd. 12-5-2016 per T.M. JAKELSKI.



1670 Barlow Street
Traverse City, MI. 49686
Ph. 231-947-3600
Fax

Whitewater Township
5777 Vinton Rd.
Williamsburg, Mi. 49690

Attn : Cheryl Goss
Re: Fire hall Temporary

Project Synopsis:

To install a temporary 100A service from the main electrical panel in the hall to the East wall for the trailer. The run will be in pipe for future use.
To use the space taken now by the siren in the electrical panel and use it for the trailer feed.

Labor: \$:3432.00
Material: \$1194.41
Scissor Lift: \$340.00

Total Project:\$4966.41

An electrician is required to be licensed under Act No. 217 of the Public Acts of 1956 as amended, being section 338.881 to 338.892 of the Michigan Compiled Laws.. This CONTRACTOR is required to be licensed to provide the improvement contracted for by this Contract. This CONTRACTOR'S license number is 62-02909

Acceptance of Bid

The above specifications, terms and contract are satisfactory, and (I) (We) hereby authorize the performance of this work.

Date: 09 December 2016 Signed: *Richard L. Walendowski*
Richard L. Walendowski

Customer

Date: _____ Signed: _____
Customer

Thank you for the opportunity to provide this quotation!

Memo

To: Whitewater Township Board
From: Ron Popp, Supervisor
CC:
Date: 12-8-2016
Re: 11-22-2016 Special Rural Fire Meeting Update

Board Members,

At a special meeting of the Rural Fire Board, the membership received consultant Thomas J. Wieczorek's Fire Service Operations Report on the Grand Traverse Fire Department – Rural Division. Thomas is the Director of the Center for Public Safety Management, LLC (CPSM) and his firm was hired to assist the Department through this time of transition. His report makes many good recommendations and uncovers some issues in the County's 911 system we were unaware of.

It was a recommendation of CPSM to delay Green Lake Township's departure from the Department and extend Chief Weber's employment contract for at least six (6) months to facilitate a smooth transition period. Due to contractual difficulties the Rural Board saw no way clear to extend membership to Green Lake Township for six (6) months, the existing agreement is based on annual membership. Additionally, Green Lake Township's new Supervisor, Marvin Radtke, wanted the membership at no cost to his township, Free Fire protection for Green Lake was not considered. Chief Weber's contract was not extended either, despite two (2) motions by Paradise Township to do so. Earlier in the Meeting Chief Weber expressed a lack interest in staying on as the Department's person in charge if Green Lake and Grant Townships were departing. I believe the Rural Board was also looking at the budget, with proposed revenues of \$350K, spending a \$147K on three administration positions may not be possible.

A final order of business was concurrence of the Board to rewrite the Fire Chief's Job Description, a task that both Union Township and Whitewater will be completing before the next meeting.

For your reading pleasure, attached you will find a rather lengthy set of DRAFT minutes for the November 22, 2016 meeting and Mr. Wiczorek's report.

Respectfully,

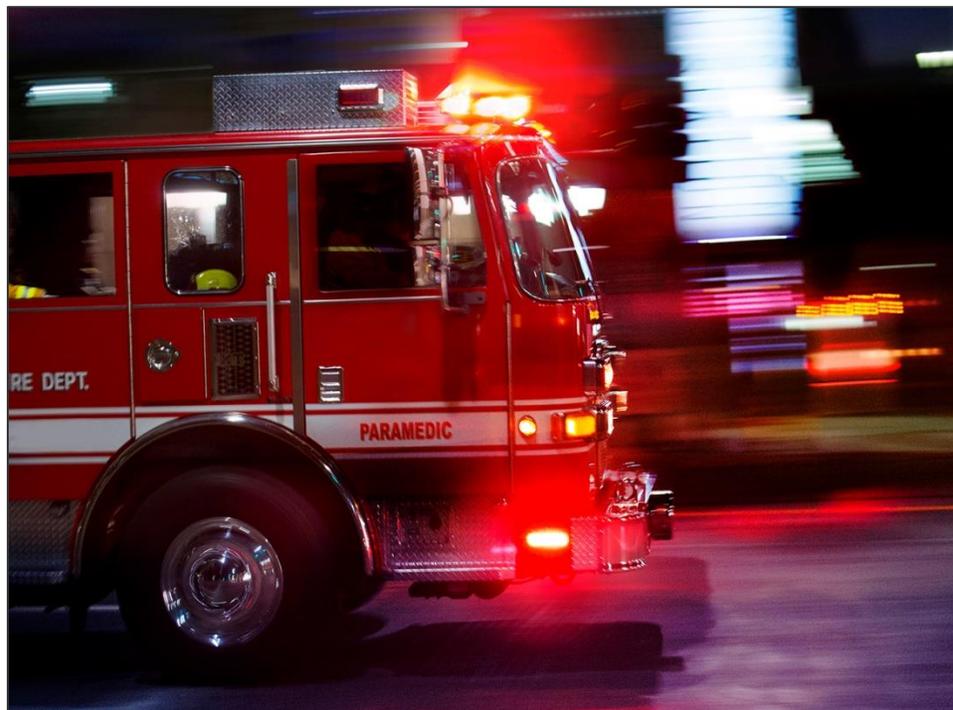
A handwritten signature in black ink, appearing to read "Ron Popp". The signature is stylized with a large, sweeping initial "R" and "P".

Ron Popp
Supervisor, Whitewater Township

Fire Services Operations Report

Grand Traverse Rural Fire, MI

DRAFT



CPSM[®]

Center For Public Safety Management, LLC

475 K Street NW Ste 702 • Washington, DC 20001

www.cpsm.us • 716-969-1360

ICMA

Exclusive Provider of Public Safety Technical Services for
International City/County Management Association

The Association & The Company

The International City/County Management Association (ICMA) is a 100-year-old, nonprofit professional association of local government administrators and managers, with approximately 9,000 members spanning thirty-two countries.

Since its inception in 1914, ICMA has been dedicated to assisting local governments in providing services to their citizens in an efficient and effective manner. Our work spans all of the activities of local government — parks, libraries, recreation, public works, economic development, code enforcement, Brownfields, public safety, etc.

ICMA advances the knowledge of local government best practices across a wide range of platforms including publications, research, training, and technical assistance. Its work includes both domestic and international activities in partnership with local, state, and federal governments as well as private foundations. For example, it is involved in a major library research project funded by the Bill and Melinda Gates Foundation and is providing community policing training in Panama working with the U.S. State Department. It has personnel in Afghanistan assisting with building wastewater treatment plants and has had teams in Central America providing training in disaster relief working with SOUTHCOM.

The **ICMA Center for Public Safety Management (ICMA/CPSM)** was one of four Centers within the Information and Assistance Division of ICMA providing support to local governments in the areas of police, fire, EMS, emergency management, and homeland security. In addition to providing technical assistance in these areas we also represent local governments at the federal level and are involved in numerous projects with the Department of Justice and the Department of Homeland Security. In each of these Centers, ICMA has selected to partner with nationally recognized individuals or companies to provide services that ICMA has previously provided directly. Doing so will provide a higher level of services, greater flexibility, and reduced costs in meeting members' needs as ICMA will be expanding the services that it can offer to local governments. For example, The Center for Productivity Management (CPM) is now working exclusively with SAS, one of the world's leaders in data management and analysis. And the Center for Strategic Management (CSM) is now partnering with nationally recognized experts and academics in local government management and finance.

Center for Public Safety Management, LLC (CPSM) is now the exclusive provider of public safety technical assistance for ICMA. CPSM provides training and research for the Association's members and represents ICMA in its dealings with the federal government and other public safety professional associations such as CALEA. The Center for Public Safety Management, LLC maintains the same team of individuals performing the same level of service that it has for the past seven years for ICMA.

CPSM's local government technical assistance experience includes workload and deployment analysis using our unique methodology and subject matter experts to examine department organizational structure and culture, identify workload and staffing needs, and identify and disseminate industry best practices. We have conducted more than 200 such studies in 36 states and 155 communities ranging in size from 8,000 population (Boone, Iowa) to 800,000 population (Indianapolis, Ind.).

Thomas Wieczorek is the Director of the Center for Public Safety Management. Leonard Matarese serves as the Director of Research & Program Development. Dr. Dov Chelst is the Director of Quantitative Analysis.

Center for Public Safety Management Project Contributors

Thomas J. Wiczorek, Director

Leonard A. Matarese, Director, Research & Project Development

Dov Chelst, Ph.D. Director of Quantitative Analysis

Peter J. Finley, Jr., Fire Specialist

Sarah Weadon, Data Analyst

Dennis Kouba, Senior Editor

CONTENTS

- Contents iii**
- Tables..... v**
- Figures vi**
- Introduction 1**
- SEction One - EXECUTIVE SUMMARY RECOMMENDATIONS 2**
- Section 2. Administration 7**
- Section 3. Fire and EMS Operations 13**
 - Dispatch and Communications..... 15
 - Fire Risk Analysis/Target Hazards 16
 - Target hazards 17
 - Operational Response Approaches 17
 - Fire Responses 20
- Section 4. Facilities, Apparatus, and Equipment..... 25**
 - Fire Station Facilities 25
 - apparatus and equipment 33
 - capital equipment 43
 - capital planning 45
- Section 5. Communications and Training..... 47**
 - Organizational Communications 47
 - Education/Training Programs and Personnel Development 47
 - training important for iso rating 48
 - perspectives of area fire chiefs..... 49
- Section 6. iso AND cOMMUNITY rISK rEDUCTION 51**
 - uNDERSTANDING iso 51
 - automatic aid 53
 - water supply 53
 - Minimum criteria 53**
 - Class 8B..... 54**
 - buildings not considered in the community's ppc 54
 - Evaluation method 54**
 - community risk reduction 55
- Section 7. Response times 56**

| | |
|---|-----------|
| SECTION 8: DATA AND PERFORMANCE Introduction | 61 |
| Methodology | 61 |
| Aggregate Call Totals and Dispatches | 63 |
| Calls by Type | 63 |
| Calls by MUNICIPALITY | 66 |
| Calls by Type and Duration..... | 67 |
| Average Calls per Day and per Hour..... | 69 |
| Units Dispatched to Calls..... | 71 |
| Workload: Calls and Total Time Spent | 73 |
| Runs and Deployed Time – All Units | 73 |
| Runs and Deployed Time By MUNICIPALITY..... | 75 |
| Workload by Unit | 76 |
| Analysis of Busiest Hours | 80 |
| Response Time | 81 |
| Response Times by Type of Call | 81 |
| Response Time Distribution | 84 |
| Long Lake Township | 86 |
| Calls by Type | 86 |
| Runs and Deployed Time – All Units | 88 |
| Workload by Unit | 89 |
| Attachment I | 90 |
| Attachment II | 91 |
| Attachment III | 93 |

TABLES

| | |
|---|----|
| TABLE 1: Call Types | 63 |
| TABLE 2: Calls by Municipality | 66 |
| TABLE 3: Calls by Type and Duration | 67 |
| TABLE 4: Number of Units Dispatched to Calls by Call Type | 72 |
| TABLE 5: Annual Runs and Deployed Time by Call Type | 73 |
| TABLE 6: Annual Runs and Deployed Time by Municipality | 75 |
| TABLE 7: Call Workload by Unit | 76 |
| TABLE 8: Total Annual Runs by Call Type and Unit..... | 77 |
| TABLE 9: Daily Average Deployed Minutes by Call Type and Unit | 78 |
| TABLE 10: Frequency Distribution of the Number of Calls | 80 |
| TABLE 11: Top 10 Hours with the Most Calls Received | 80 |
| TABLE 12: Average Response Times of First Arriving Unit, by Call Type (Minutes) | 82 |
| TABLE 13: 90th Percentile Response Times of First Arriving Unit, by Call Type (Minutes) | 83 |
| TABLE 14: Cumulative Distribution of Response Time – First Arriving Unit | 85 |
| TABLE 15: Call Types | 86 |
| TABLE 16: Annual Runs and Deployed Time by Call Type | 88 |
| TABLE 17: Call Workload by Unit | 89 |
| TABLE 18: Annual Runs and Daily Average Deployed Time by Call Type and Unit | 89 |
| TABLE 19: Actions Taken Analysis for Structure and Outside Fire Calls..... | 90 |
| TABLE 20: Content and Property Loss – Structure and Outside Fires | 91 |
| TABLE 21: Total Fire Loss Above and Below \$20,000..... | 91 |
| TABLE 22: Content and Property Loss by Township | 92 |
| TABLE 23: Workload of Administrative Units | 93 |
| TABLE 24: Workload of Administrative Units – Long Lake Township 2015..... | 93 |

FIGURES

FIGURE 1: EMS and Fire Calls by Type64
FIGURE 2: Average Calls per Day, by Month69
FIGURE 3: Calls by Hour of Day70
FIGURE 4: Number of Units Dispatched to Calls.....71
FIGURE 5: Average Response Times of First Arriving Unit, by Call Type82
FIGURE 6: Cumulative Distribution of Response Time – First Arriving Unit84

INTRODUCTION

This operational report was prepared as a key component of the study of the Grand Traverse Rural Fire Department (GTRFD) including Green Lake Township, which was conducted by the Center for Public Safety Management, LLC.

This report contains a comprehensive review that utilized the analysis of performance from the dispatch center. It provides recommendations for the continuation of the Grand Traverse Rural Fire Department as well as outlining a Strategic Plan for short and long term service delivery.

CPSM recognizes that several decisions must be made in the next two months to ensure the continuation of services and may or may not include the Green Lake Township station. The recommendations provided would require policy development by the Board of Directors for the Grand Traverse Rural Fire Department. Recommendations may be accepted, amended, or disregarded if the board chooses; none of the recommendations carry the status of law or legal mandate.

GTRFD was one of the first combined service delivery models in the State of Michigan and required unique legislative action to allow the governmental units to partner for service delivery. Several of the original members have left the combined model and formed stand-alone service delivery stations, the latest being Long Lake Township in January 2016. Green Lake and Grant Townships have served notice to leave and form independent service providers beginning in January 2017.

CPSM conducted several input sessions involving paid staff, volunteers, community members, board members, Township Boards, and surrounding departments. CPSM recommends and, unless directed, will not dwell so much on past decisions and process but focuses on the future of the department. From a map of fire stations and current service delivery, Green Lake and Grant are somewhat isolated from the rest of the GTRFD, divided geographically by other departments that were former members. The two townships are ideally served by Blair, Long Lake Township, and Elmwood for automatic/mutual aid with abundant water supplies throughout each.

However, should GTRFD continue to break into smaller components, all the individual departments will still be required for any significant fire incident. Volunteerism is much more difficult with continued demands for training and education of staff – not just in GTRFD but throughout the United States. Demographic data suggests (and is confirmed by the closure of at least one school in the fire district) that populations are aging which will impact the number of potential volunteers available for the department.

CPSM feels it is imperative that interoperability be continued by all participants and encouraged for surrounding agencies so that when fires occur, resources are capable of functioning together.

SECTION ONE - EXECUTIVE SUMMARY

RECOMMENDATIONS

1. The Grand Traverse Rural Fire Department (GTRFD) and Green Lake Township (along with Grant) should enter agreement to delay withdrawal from the association until June 1, 2017. All provisions for withdrawal should be continued until that date. During interviews with members of the current GTRFD, several important actions must take place in the remaining months of 2016 that could impact service delivery. CPSM feels Green Lake/Grant Townships and GTRFD would best be served by taking additional time to implement these major changes. This agreement to delay withdrawal should be affirmed by the boards in November and would serve as the basis of continuing many of the remaining recommendations. Timeline and priority: Immediate.
2. The GTRFD should convert the existing agreement authorizing consolidation to Act 57 of 1988, "Emergency Services to Municipalities." The act provides for the incorporation by two or more municipalities for providing emergency services. It also allows for a separate tax levy which would require a vote of the residents in all the Townships and could be undertaken later. CPSM recommends the participants in the GTRFD authorize its attorneys to begin the process of transitioning from the current agreement to Act 57. Timeline and priority: Immediate.
3. CPSM recommends that a personnel committee be established for the GTRFD and immediately begin work on updating the job descriptions for the department. During interviews with GTRFD board members as well as the respective Townships, concern was expressed as to authority, management, and cost for employees of the fire district. Employees work at the discretion of the board and salaries have been set by past boards that appear to be a source of contention with current members. In the case of the Chief's position, regular reviews were not conducted and should be a task of the personnel committee which could draw on representatives from the communities with a background in Human Relations. The contract for the chief expires December 31, 2016 and is a reason CPSM recommends extending deadlines for withdrawal to June to ensure decisions can be made in a non-crisis framework. Timeline: Immediate
4. CPSM recommends an expansion of the board and Township selection process for representatives on the new board authorized under Public Act 57 of 1988. The current board is comprised of Supervisors from the Townships and was identified as problematic by other board members from some townships. Each Township should elect a representative on a regular basis who would represent them at the GTRFD. CPSM also recommends additional spots be identified on the board for persons with backgrounds in medical, human resources, personnel management, and other specialized skills that could benefit GTRFD. An alternative would be to develop standing committees that report to the Board for some of these areas. Timeline: Transition process
5. CPSM has recommended that Green Lake Township begin to immediately hire a Director of Emergency Services with specialized skill in EMS. CPSM recommends that the GTRFD consider (should Green Lake and Grant remain in the new authority) this person eventually transition to overseeing all medical operations for the combined GTRFD. The Director of Emergency Services recommended by CPSM in a job description ideally could assume command in the absence of a fire chief but would be primarily tasked for EMS operations, Quality Control, and Quality Review. While Green Lake would ultimately hire the person for this position, it is recommended that if the GTRFD remain with its existing participants that the individual transition into the fire department to serve all members.

6. The GTRFD should make the recruitment and retention of additional personnel one of its highest priorities. A key component of this priority should be to apply for a federal SAFER grant to support recruitment and retention of on-call personnel. The application should cite an attempt to meet the provisions of NFPA 1720. This grant should be utilized to develop a comprehensive marketing program to attract new members, and to provide incentives for the retention of those personnel. CPSM recommends that the GTRFD consider expanding this position to service surrounding volunteer departments which would increase the potential for funding from the SAFER grants. With expansion, the position could be full-time. CPSM review of attendance at events showed day times as a problem. NFPA, has recently released recommendations that a house fire (standard 2000 square foot residential with proper setbacks) have a 12-person assignment. Open air strip malls, that are found throughout the region, carry a recommendation of 23 personnel. Garden Style Apartments, like those at Interlochen, are recommended to have 27 personnel and high rise as found at the Casino in Whitewater Township are recommended to have 40 on assignment.
7. The GTRFD should explore the feasibility of utilizing, and in fact encouraging, township and village employees to perform "dual roles" by serving not only in their full-time positions, but also serving the Fire Department as call firefighters.
8. Under Act 57, the mission of the GTRFD should be expanded to include EMS. Reasons for this expansion are included in the comments section but are driven by the lack of available on-call personnel during daytime hours. All the EMS providers have paid staff available during those hours and CPSM has found it common in most parts of the country to cross-train EMS personnel to also respond to fire. The goal should include upgrading EMS response in all the GTRFD to Advanced Life Support capability (ALS). Currently, Whitewater Township receives ALS service through a contract with a private firm; none of the other areas are delivering ALS. Blair Township dispatches a unit when an ALS upgrade is required and subsequently bills for the services.
9. The GTRFD should modify its dispatch protocol for responding to medical emergencies. If the closest station does not respond, no further fire department resources should respond, or be dispatched, unless specifically requested by the EMS unit.
10. GTRFD should establish metrics for dispatch that meet NFPA standards for communication centers. These metrics should be reviewed after each call as part of normal quality assurance processes with results reported to boards for the fire authority and communication center. In discussing dispatch times with the department, a Priority Medical Dispatch protocol is followed but may not be the latest version which is designed to ensure compliance with NFPA standards.
11. The GTRFD should conduct a formal districtwide fire risk analysis that concentrates on commercial and industrial occupancies. Townships should ensure commercial development plans and modifications are signed off by the GTRFD.
12. The GTRFD should establish a formal pre-incident planning program with the goal of having an up-to-date preplan for every business and commercial occupancy (including schools, churches, etc.) within its response area.
13. In consultation and cooperation with its neighboring departments, the GTRFD should enter automatic aid agreements that specify the immediate dispatch of certain necessary resources and possibly additional personnel for various types of reported emergencies, primarily structure fires. Closest due units should be listed on run cards at dispatch and any policy change should be approved by the GTRFD Board of Directors.
14. The GTRFD should discontinue the practice of allowing apparatus to respond with just one firefighter unless specifically authorized by a chief officer.
15. The GTRFD and its participating municipalities should make it a priority to identify additional suitable locations for dry hydrants or standpipes throughout the district, and, in conjunction with the various public works departments, or through the formation of public/private

partnerships, install as many of them as possible each year based upon the highest risk areas and/or year-round accessibility and usability.

16. The GTRFD should develop a comprehensive list AND a map that shows the location of ALL potential water supply fill sites throughout the district and, within reason, in surrounding communities. This would be a requirement when the department undergoes a review for its Insurance Standards Organization (ISO) fire rating.
17. The GTRFD should work with the governing bodies of all the participating municipalities to consider adopting municipal regulations requiring the installation of a fire water supply cistern in any new development consisting of three or more homes or for any individual home of larger than a designated square footage, and which are located outside of the municipal water supply system service areas.
18. The GTRFD should install automatic fire alarm systems with heat, smoke, and carbon monoxide detection in all fire stations. These systems should not only be equipped with both audible and visible warning devices, they should automatically transmit an alarm to either the department's dispatch center, or, an approved central monitoring station.
19. The GTRFD should consider equipping all existing fire stations with complete, automatic fire sprinkler systems for the protection of the occupants, buildings and equipment, as well as complete, supervised smoke detection systems already recommended, that transmit an alarm to the fire dispatch center or central monitoring station.
20. The GTRFD should install vehicle exhaust extraction systems for all vehicles in all the apparatus bays at all department fire stations.
21. The GTRFD should install automatic start emergency generators at all stations to provide needed power and keep the stations operational during power failures/outages.
22. The GTRFD should apply for an Assistance to Firefighters (AFG) Grant to attempt to obtain funding for the installation of the automatic fire suppression and fire alarm, vehicle exhaust extraction systems, and emergency generators in all stations.
23. The GTRFD and the municipalities that are part of it and/or own the station facilities should develop a long-range facilities capital plan to address the numerous operational and personnel safety deficiencies currently found in them and generally significantly upgrade and modernize, or replace them, to meet the current and future needs of the department. In the interim, consideration should be given to the rental of appropriate and code-approved living quarters for staff at the station, and its customers.
24. The GTRFD should track and analyze annual repair, maintenance, and service costs for the apparatus fleet and utilize this information in periodic review and updating of the vehicle
25. replacement schedule. Long term, the GTRFD should consider selling the existing tankers and replacing them with new combination engine/tender apparatus.
26. The GTRFD should consider the acquisition of quick attack, rescue (interface) pumpers to be used in conjunction with larger combined engine/water tanker apparatus.
27. Should the GTRFD assume responsibility for EMS in the communities it serves, it should consider the acquisition of combination Fire/EMS transport vehicles.
28. The GTRFD should replace the existing 1982 ladder truck with a single axle "quint" that has a 75' aerial ladder, is configured to fully function as a fire pumper, and, can be easily set up and operated by one or two personnel.
29. The following GTRFD vehicles have probably reached the end of their useful service life and should be removed from service.
 - Brush 2
 - Brush 3
 - Rescue 3
 - Brush 4
30. The GTRFD should remove one air/light unit and one water supply unit from service and sell them. The proceeds from the sale can then be reinvested in the department's other capital needs.

31. Long term, when the time comes to replace them, the GTRFD should seriously analyze whether they have a true need for either their own air/light unit, or water supply unit.
32. The GTRFD should consider adopting the following recommended apparatus fleet (assuming a continued 4 station configuration):
 - 4 – Quick Attack/Rescue Engines, or, Combination fire/EMS transport vehicle
 - 4 – Engine/tender combination
 - 4 – Brush units* (pick-up trucks w/ skid units)
 - 1 – 75' Quint (Regional Resource)
 - 1 – Air/Light Unit (Regional Resource)
 - 1 – Water Supply Unit (Regional Resource)
 - 1 – Reserve Engine
33. The GTRFD should consider applying for an Assistance to Firefighters (AFG) Grant for the 75' Quint since it is the department's oldest vehicle, lacks up to date safety features, and is a true regional resource.
34. The GTRFD should establish a formal replacement plan for fire and rescue equipment. The regular replacement of large cost items such as hose, ladders, firefighter PPE, portable radios, and SCBA on an incremental basis will avoid major one-time increases in the annual operating budget.
35. The GTRFD should develop and implement a long-term capital apparatus, vehicle, and equipment replacement plan.
36. The GTRFD board should consult with its legal counsel to ensure that it has adopted all necessary policies and that all policies are current and appropriate.
37. The board should ensure that all department personnel participate in a documented annual review of all authority policies.
38. Using an organizational and operational analysis as a foundation and guide, the board should establish a committee to begin oversight of the long-range/strategic planning process and develop a plan to guide the department's future. Certain projections, such as the construction of a new station or the apparatus replacement plan, can be tentatively projected out past five years.
39. Overall, the fire station site visits by the CPSM team showed stations that are inadequate for the needs of a modern-day fire department, even one that is staffed almost entirely by volunteer personnel. Except for Station 2, the stations lack basic safety and operational features, and are crowded with almost no storage or crew areas. The apparatus bays are very small for modern fire stations. This limits the amount of apparatus and/or equipment that can be stored in the station. In addition, hose and equipment cannot be efficiently loaded/unloaded inside during cold or inclement weather, nor can equipment be removed from the apparatus and set up for training and maintenance activities. However, for the most part they did appear relatively clean.
40. Develop a "360 Communications Plan." In the listening sessions, communications was brought up by staff, volunteers, board members, members of the Township and Villages, surrounding departments, and citizens. GTRFD administration needs to provide regular updates to staff and board members; board members need to be communicating that information to respective Township Boards; the volunteers need to be involved in processes; and education/outreach programs need to be developed to citizens. Consideration should be given to developing public education/communication using older volunteers who no longer can fight fire, educators from the community (active and retiree), volunteers from the hospital, Tribe, and Interlochen. With an aging population, many in the community may have time they wish to give but lack an outlet in which to give; fire prevention and

education is an excellent area that can provide reward (personal and professional). Broken Arrow, Arizona has developed a team of such participants who present throughout the community 365 days a year; not just during fire prevention week. Timeline: Immediate.

41. GTRFD should embrace and develop the department using the Community Risk Reduction models.

SECTION 2. ADMINISTRATION

Grand Traverse Rural Fire Department (GTRFD) has undergone significant changes in its management since its inception. The prior chief was sick during his last years in office and administration was delegated from headquarters to the individual fire stations. The current chief sought to reverse that decision and follow national guidelines for operations of fire departments. The change was not always embraced.

One major difficulty with GTRFD and the predicament it currently faces with withdrawals of members is the addition of EMS across the fire district. GTRFD depends on the individual Townships and EMS providers for all its stations and many of its volunteers (usually provided at no cost to the fire department). However, EMS is independent of the GTRFD and reports to a variety of administrators. EMS is costly; it relies on paid staff that deploy from four of the GTRFD stations to provide timely intervention but who may or may not be cross-trained in firefighting. The fire department relies on volunteers to muster the recommended forces necessary for a fire incident who receive a stipend for services. In some cases, the EMS personnel respond in the GTRFD vehicles that is reflected in overall response times; in other cases, they do not. The result is a much higher cost for EMS and fire because of the inability to have uniform staffing capable of both responses.

Green Lake Township (which serves Grant) is a Township provided service and whose employees report to the Township Board. When a fire call is received, the EMS employees of the Township assume the role of firefighters for GTRFD and respond. This results in a much better turnout and response time for Township residents and guarantees a minimum level of responders. The captain in charge of EMS and fire at Green Lake Township receives annual compensation from the Township for the added EMS responsibility as well as the stipend from the GTRFD. The difficulty is the level of funding provided to the employee from the Township far surpasses the fire department stipend and could be different from every other captain in the department.

Paradise Township EMS is operated by a non-profit group whose members may or may not be fire fighter cross-trained. This is a significant expense for the Township without the benefit of dual-response.

Whitewater Township contracts with MMR for its ALS-certified service. Employees of MMR do not respond as fire fighters and the number of responders for fire in the Township is at a critical level. Often, one person responds to fire calls in the Township, particularly during daytime hours. Meanwhile, two employees of MMR are staffing the station at a cost to the Township.

Fife Lake EMS operates under an authority (that could serve as a model for all of GTRFD). It is not incorporated under Act 57 of 1988 but involves a board that could be reflective of the entire fire district if expanded and re-incorporated. Fife Lake's EMS members are cross-trained and respond to fire and EMS calls which enable them to have a similar turnout and response time to that in Green Lake. However, the volunteer numbers have decreased in recent years and could impact not only fire but also EMS in the future.

CPSM conducted interviews – one on one as well as group – with responders, board members, Township Board members, and community residents. CPSM also interviewed surrounding fire chiefs on working relationships with GTRFD.

Overall, most employees and others interviewed gave the chief good marks for ensuring the department policy, procedure, personal protective equipment, and management were current. There has been a breakdown in confidence between the GTRFD Board and the Chief which CPSM

identified but could not get unanimity of ways to correct. The chief had not undergone a performance review and CPSM provided a format for conducting an annual review which was provided to the chief separate from this study or compensation. However, the chief's contract expires December of 2016 and several those interviewed from board levels expressed a desire to change going forward. Because of the short time frame between the review, this study, and the end of the year, CPSM recommends that all parties involved extend options for six months to allow for a more orderly review and implementation of changes.

If Green Lake and Grant are required to leave as of January 1, there will be little time to manage the subsequent actions necessary for orderly transition of services. Policies, procedures, response protocols, and equipment must have almost immediate action. There is little possibility that this could be completed under the best of circumstances.

A change of fire chief will require review of the current job description (recommended by CPSM), posting of the opening, recruitment and selection, notice to current employer of any potential candidate, and then assuming the role of chief. CPSM's experience is that this can require several months to complete, under the best circumstances. Green Lake Township is also recommended to hire a Director for Emergency Services with a focus on EMS. This job description has been developed but the same process as chief will need to take place. Both positions would be critical to the GTRFD (if it remains intact) or to Green Lake individually. Extending deadlines and notice to existing employees of job description changes would be most fair to the employee as well as to ensuring service delivery continues at the high level currently provided.

The Fire Chief currently carries the added title of "CEO" and is responsible for operations, volunteer recruitment, response to calls for service, and managing the paid-on-call firefighters when they are not employees of the various EMS providers. The administrative assistant position processes the paperwork for the fire department. The funding structure for GTRFD will be substantially reduced if Green Lake and Grant Township withdraw from the current department. If they remain, service delivery should be reviewed to best ensure sufficient response across the expansive fire department boundaries. When others have withdrawn from the fire department, the budget has simply been cut. This can only be done so many times before service delivery is impacted and CPSM feels the reduction in fire prevention has already had a negative potential effect on the current and future response.

The GTRFD has several options to consider:

- Continue the existing model of separate fire and EMS under the original enabling legislation. When Green Lake and Grant withdraw on January 1, reduce the budget (and likely administration, training, and other costs). It is likely that others will withdraw over time as volunteer staffs decrease and the focus moves even more towards EMS. CPSM recommends immediate confirmation by the GTRFD Board to extend all timelines for withdraw by six months and begin the process of converting to Act 57 of 1988 for oversight of a combined Fire/EMS department. Based upon the workload analysis conducted by CPSM (and found in the data/performance report), the combined department could utilize two paid staff at each of the four stations on 24 hour shifts.
 - The total paid EMT/paramedic staff would be 24 (8 on three squads working 24-hour shifts).
 - Average salaries to each EMT/paramedic would be \$15 per hour at 2912 hours per year or \$43,680 per employee (plus 25% benefit cost) which totals \$54,600 each. With 24 employees, the cost would be \$1,310,400.
 - Administrative costs would run the combined district (chief, admin assistant/volunteer coordinator, finance, EMS director) approximately \$275,000.

- Total salary and wages for staff would be \$1,585,400. With anticipated overtime/back-fill: \$1,635,400.
- Costs of EMS and fire (current):
 - Paradise Township: \$252,475 EMS and \$110,132 to GTRFD
 - Green Lake Township: \$370,560 (from millage for EMS) and \$185,000 fire. Currently two ambulances and ALS by Blair Township which then bills for full costs of run
 - Long Lake Township: No ambulance; fire is first responder; partially served by Green Lake Township and others.
 - Grant Township: \$800 per year EMS to Green Lake and \$30,489 to GTRFD
 - Whitewater Township: \$295,000 for MMR (which also bills residents) using 1.5 mill (up to 10 mills) and Chippewa Tribe accounts for 1/3 of runs and \$110,132 for fire which levies 1 mill
 - Fife Lake Township: \$215,220 EMS and \$52,913 for GTRFD
 - Union Township: \$12,616 for GTRFD
 - Springfield Township: 1 mill for fire and 1.3 mills for ambulance or \$36,000 to rural fire and \$46,000 to EMS
 - Totals for Fire and EMS (current): \$1,717,337
 - The overall millage rate may have to be increased to .91 mills to provide for operating costs. This could vary because the billing rates for EMS would increase with the capability of ALS service (\$225 more per run for ALS).
- Continue the existing arrangement and job descriptions that have served the department for almost 30 years. Based on our interviews with personnel, it appears likely that there will be a decreasing number of responders to calls for service. Fortunately, there are few fires and most GTRFD time is spent on EMS (if combined fire and EMS, this would be consistent with what is found across the United States). During daytime hours, the paid EMS staff who are cross-trained often are most responders. Total response numbers are typically well below recommended guidelines established by the National Fire Protection Association (NFPA). Several times Whitewater has had a lone responder to emergency calls for fire and is one of the reasons the Township contracted with MMR for EMS. It appears that the Department's four stations operate as a team but communication was cited as a weakness.
- The current enabling legislation prohibits adding EMS services even though the focus of GTRFD members is that area. Most funds available support EMS and will likely continue to do so in the future. Act 57 of 1988 was created by the legislature to allow municipalities to provide emergency services and could be ideally structured to meet the current and future needs of GTRFD. Because of contractual obligations, the phase in of EMS would likely be over time.
- Green Lake and Grant Townships are studying how to oversee the EMS portion of their operations (currently separate from GTRFD and under Township direction). CPSM has recommended hiring a "Director of Emergency Services" that would become the administrator of an individual department (should they follow through and break from GTRFD). In that case, the Captain who now oversees EMS and is a command officer for GTRFD would become Deputy Chief/Fire Chief with charge of fire operations and report to the Director of Emergency Services while the new position would be operations and command of EMS. The right individual would be ideally suited for overseeing EMS operations across the GTRFD if Green Lake and Grant remain in the department and would report to GTRFD chief like the proposed configuration in the individual Township department. This would allow the entire fire department to upgrade to ALS service delivery. CPSM would recommend paramedics in "Echo Units" be stationed at Green Lake and Fife Lake that could upgrade calls throughout the fire district.

- A review of the job description and duties of the Fire Chief position should be undertaken by the Board. This was a frequent criticism heard by CPSM in focus groups and interviews and may have resulted from the decentralization of command by the prior chief during his illness. When the current chief assumed command, he followed the national models that follow a quasi-military function which has irritated GTRFD members. Because command below the rank of chief are often also in charge of EMS for the Townships and report to the Township Boards, any discipline or change can impact those operations. Conflict has almost been assured.
- Upgrade the existing administrative assistant position to include volunteer recruitment, retention, and training in the position's duties. CPSM would recommend that day-to-day administrative duties might better be provided by one of the Township member's staff to save money for GTRFD and allow the upgrade of the existing position. CPSM can provide information on an outstanding program used in Leduc, Alberta, Canada, and which has resulted in the recruitment of more than 100 active volunteers in an area smaller than that served by GTRFD. That department uses a full-time volunteer coordinator — the only one in Canada — to achieve its goals. GTRFD could seek funding through the Assistance to Firefighter's Act Grants through the U.S. Fire Administration or through area foundations to support this effort. Another consideration might be to engage with surrounding volunteer departments and organizations to hire one coordinator to serve the multiple entities, which would result in a lower cost. The bottom line, however, is that the GTRFD is going to need a full-time effort to reengage existing volunteers, recruit new volunteers, establish some type of youth training program (Explorers, cadets, etc.), and maintain the existing paid-on-call roster.
- Any modification of the administrative structure should assign these tasks to an individual who should report to the board monthly. A comprehensive compliance program should be planned, presented, and adopted as part of any administration modifications. Communication should improve at all levels of the organization; this was identified in nearly every group setting as an issue.

FIGURE 2-1: Current Organizational Chart

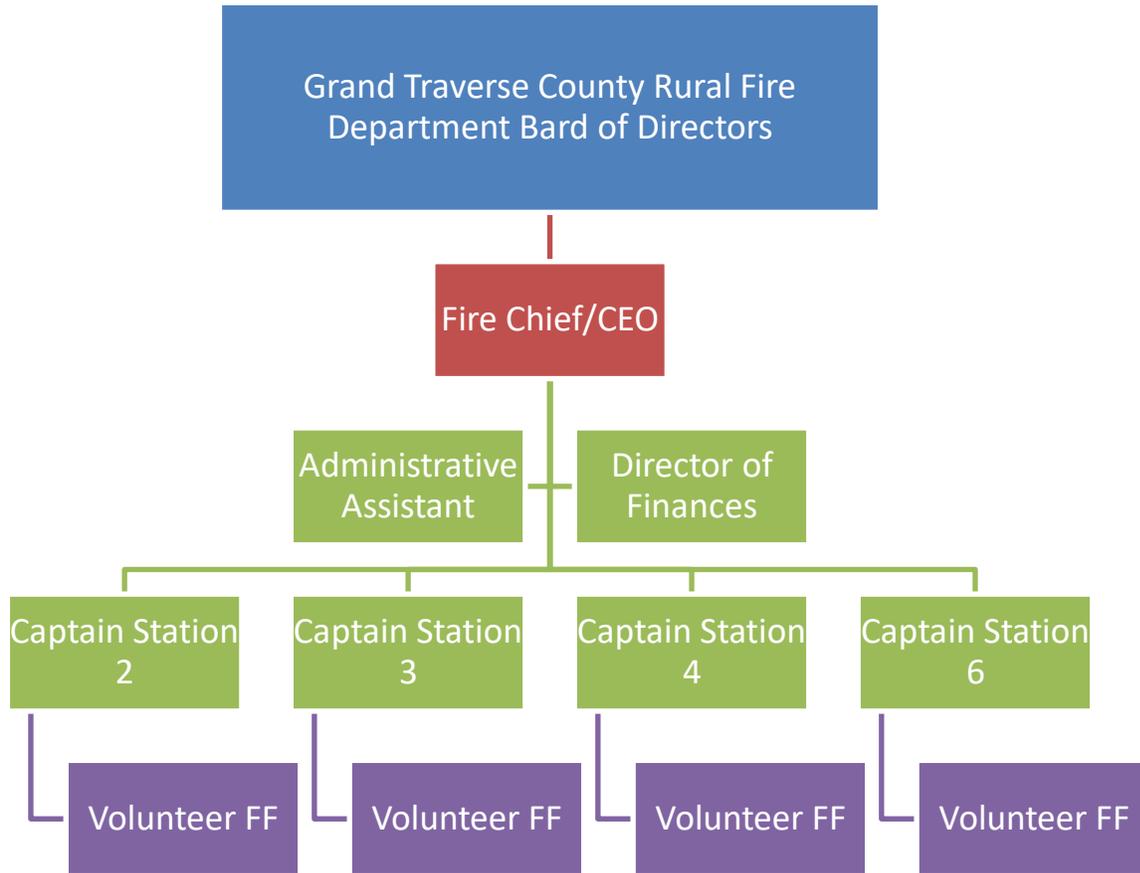
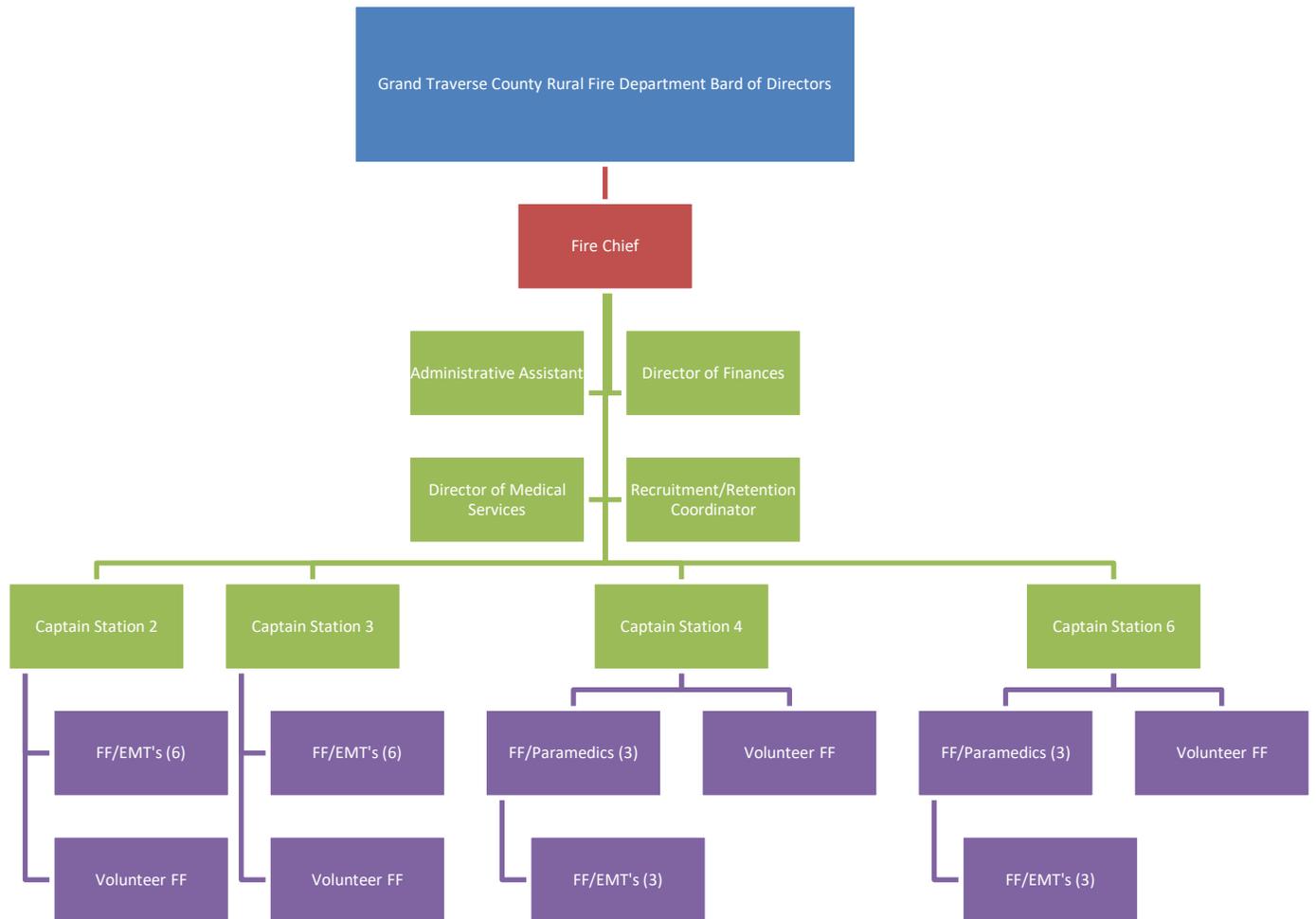


FIGURE 2-2: Proposed Organizational Chart



SECTION 3. FIRE AND EMS OPERATIONS

It should be noted that the GTRFD is not a true volunteer fire department, but rather a mix-type of department that has relied on paid on call provided through several of the EMS providers along with a contingent of volunteers. The EMS do not depend on funding from the fire department but the fire department is dependent on the contributions from the EMS, particularly in staffing. The buildings that house GTRFD are provided by the Townships who receive a rent payment from the Fire Department. Equipment is purchased through the GTRFD although Townships may contribute additional items but may or may not retain title.

There is no formal membership recruitment program in place. Efforts to recruit and retain new members have been sporadic, albeit successful, but membership continues to decrease. Separation of Township units has been most impactful on overall membership. Most recruitment of new members is done by word of mouth.

Recommendation: The GTRFD should make the recruitment and retention of additional personnel one of its highest priorities. A key component of this priority should be to apply for a federal SAFER grant to support recruitment and retention of on-call personnel. The application should cite an attempt to meet the provisions of NFPA 1720. This grant should be utilized to develop a comprehensive marketing program to attract new members, and to provide incentives for the retention of those personnel.

Recommendation: In conjunction with surrounding departments, GTRFD should consider hiring a call/volunteer "Recruitment and Retention Coordinator" to develop, implement, and coordinate recruitment and retention efforts and programs for the cooperating communities. In the short term, this could result in administrative support being received from a member township with the existing Administrative Assistant filling this role.

The federal government has a component of the Staffing for Fire and Emergency Response (SAFER) grant program that pertains strictly to volunteer and on-call firefighters. It provides competitively awarded funds to municipalities to retain and recruit on-call and volunteer firefighters. The grants fund expenses such as recruitment campaigns, and can provide money for such as expenses as tuition for college curriculums in fire science, for EMT and paramedic training, health insurance for call members, physical fitness programs, uniforms, and various tax incentives offered to attract new candidates to join the fire department, then stay for an extended period. Consideration could also be given to the implementation of a Length of Service Awards Program (LOSAP), which is basically a pension program for call/volunteer personnel.

The GTRFD should make it a priority to develop an active a recruitment program for on-call personnel, led by a chief officer. At a minimum this program should consist of:

- Creating a marketing program to recruit new personnel into the department.
- Developing a recruitment brochure and mailing it to all residents.
- Performing public outreach through the local media.

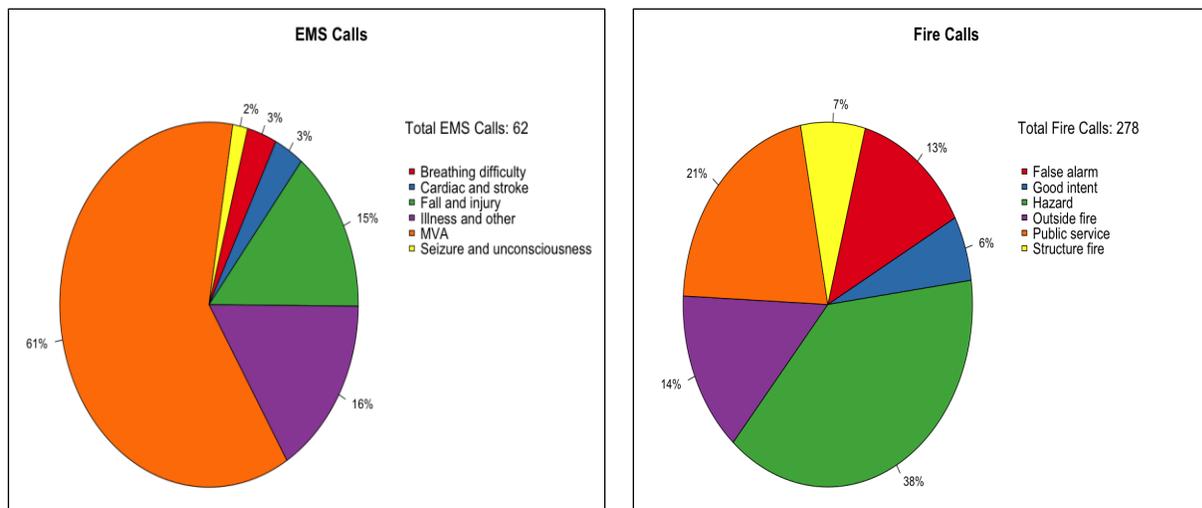
- Contacting community and service groups.
- Developing an eye-catching banner on the each participating jurisdiction's website, as well as the Fire Department's site.
- Placing signs to recruit call/volunteer personnel at the main entrances of participating towns and villages.
- Placing signs to recruit call/volunteer in local businesses, particularly high-traffic locations.
- Developing an active and visible presence at local high schools and community colleges.
- Working with local businesses to form partnerships that would allow employees to leave work to respond to emergency incidents when needed and without financial penalty to the employees.
- Nurturing the volunteer/call complement of the fire department,

While time-consuming, consideration should also be given to conducting a door-to-door recruitment campaign of every residence in the authority's service area.

Recommendation: The GTRFD should set a realistic goal of recruiting at least 15 to 20 new members over the next three years, and, simultaneously set a goal of increasing the overall call member force to around 40 to 45 active, qualified personnel.

Recommendation: The GTRFD should explore the feasibility of utilizing, and in fact encouraging, township and village employees to perform “dual roles” by serving not only in their full-time positions, but also serving the Fire Department as call firefighters.

Figure 3-1: Calls for Service



At the time of this study the GTRFD is responding to approximately 399 emergency incidents annually. As is the case with most fire departments that are involved in providing prehospital emergency care, about 20 percent (62) of those incidents are medically related. However, this

number is somewhat misleading because GTRFD may have responded but did so through the individual EMS providers and not with GTRFD equipment. EMS runs totaled approximately 1,200 in the GTRFD service area. The fire department may be dispatched simultaneously with EMS on more serious, life-threatening types of incidents categorized Priority 1 and Priority 2. While getting trained assistance to the patient as quickly as possible should be the overriding priority of every emergency response agency, there are also situations where, due to circumstances, current response protocols may not be beneficial, and may in fact, be counterproductive. The GTRFD finds itself in such a situation.

EMS (four different models), which provides the primary EMS response and transport to the same area as the GTRFD, is a primarily career organization with full-time staffing on duty 24/7 ready for immediate response unless it is already committed to another incident. Conversely, the GTRFD is a fully call agency here personnel must respond to their stations upon receipt of an alarm and then respond from there to the incident scene with the needed apparatus unless they are working for one of the four EMS agencies. Due to this inherent systemic delay, in many cases the ambulance is on location treating the patient prior to the arrival of the fire department. Unless the ambulance crew requires some type of additional assistance (a situation that should not occur very frequently) the fire department response is unnecessary.

Recommendation: The GTRFD and EMS should work collaboratively to develop more appropriate response protocols for dispatching the fire department only to true, high-priority, medical emergencies.

Recommendation: The GTRFD should modify its dispatch protocol for responding to medical emergencies. If the closest station does not respond, no further fire department resources should respond, or be dispatched, unless specifically requested by the EMS unit.

DISPATCH AND COMMUNICATIONS

The success of the GTRFD begins with dispatch. NFPA standards for dispatching state that units will be dispatched within 90 seconds 90 percent of the time. In the case of GTRFD, the average dispatch time is 3.3 minutes. When looking at GTRFD's experience through the lens of 90th percentile performance, dispatch time is 4.1 for structure fires and 5.5 for overall calls at the 90th percentile. One of the reasons given was the use of Priority Medical and Fire Dispatch; more recent versions of software identified the added time and indicate to dispatch to send units at the proper time and gathering additional information as those units are enroute.

When added to turnout time, which at the 90th percentile is 10.7 minutes, the likelihood of successful intervention in the most critical incidents is greatly hindered. As an example, in sudden cardiac arrest (SCA), the survival rate decreases 10 percent for every minute that passes without intervention. At 4.1 minutes to dispatch and 10.7 minutes to turnout, patient survival is unlikely. SCA is one of the leading metric measures used in evaluating EMS response. For a patient to survive, CPR and defibrillation must occur within 10 minutes or the outcome is likely going to be unsuccessful.

Recommendation: GTRFD should establish metrics for dispatch that meet NFPA standards for communication centers. These metrics should be reviewed after each call as part of normal quality assurance processes with results reported to boards for the fire department and communication center.

FIRE RISK ANALYSIS/TARGET HAZARDS

The cost of providing fire protection in most communities has increased steadily in recent years. This has been fueled in part by rising wages, additional special pay, and escalating overtime costs. In addition, funding requirements have been compounded by increasing insurance premiums and spiraling pension contributions. At the same time the workforce has become less productive largely because of increases in lost time, specifically because of vacation leave, greater usage of sick leave, and increases in other miscellaneous lost-time categories (workers' compensation, light duty, FMLA, holiday leave, training leave, etc.). Thus, many jurisdictions are asking the fundamental question of whether the level of risk in their jurisdiction is commensurate with the type of protective force that is currently being deployed. To this end, a fire risk assessment and hazard analysis process can be helpful in providing a more objective assessment of a community's level of risk.

A fire risk analysis utilizes a "fire risk score," which is a rating of an individual property based on several factors, including;

- Needed fire flow if a fire were to occur.
- Probability of an occurrence based on historical events.
- The consequence of an incident in that occupancy (to both occupants and responders).
- The cumulative effect of these occupancies and their concentration in the community.

From this analysis, a score is established and this is used to categorize a property as one of low-, moderate-, or high/maximum-risk. There is specific training and several retail software products currently available that assist in carrying out this process.

Plotting the rated properties on a map will provide a better understanding of how the response matrix and staffing patterns can be used to provide a higher concentration of resources for worst-case scenarios or, conversely, fewer resources for lower levels of risk.¹ The community fire risk assessment may also include determining and defining the differences in fire risk between a detached single-family dwelling, a multifamily dwelling, an industrial building, and a high-rise building by placing each in separate category. Further, an overall community risk profile can be linked to historical response time data. This analysis can then be used to establish response time baselines and benchmarks.

Community risk and vulnerability assessment are essential elements in a fire department's planning process. The GTRFD has not completed a comprehensive community risk and vulnerability assessment. Per a National Fire Protection Association (NFPA) paper on assessing community vulnerability, fire department operational performance is a function of three considerations: resource availability/reliability, department capability, and operational effectiveness.² These elements can be further defined as:

¹ *Fire and Emergency Service Self-Assessment Manual*, Eighth Edition, (Center for Public Safety Excellence, 2009), 49.

² *Fire Service Deployment, Assessing Community Vulnerability: From*
<http://www.nfpa.org/assets/files/pdf/urbanfirevulnerability.pdf>.

Resource availability/reliability: The degree to which the resources are ready and available to respond.

Department capability: The ability of the resources deployed to manage an incident.

Operational effectiveness: The product of availability and capability. It is the outcome achieved by the deployed resources or a measure of the ability to match resources deployed to the risk level to which they are responding.³

Recommendation: *The GTRFD should conduct a formal districtwide fire risk analysis that concentrates on its commercial and industrial occupancies, the downtown village areas and the railroad lines.*

TARGET HAZARDS

The process of identifying target hazards and preplanning suppression and rescue efforts are basic preparedness efforts that have been key functions in the fire service for many years. In this process, critical structures are identified based on the risk they pose. Then, tactical considerations are established for fires in these structures. Consideration is given to the activities that take place (manufacturing, processing, etc.), the number and types of occupants (elderly, youth, handicapped, imprisoned, etc.), and other specific aspects relating to the construction of the facility or any hazardous or flammable materials that are regularly found in the building. Target hazards are those occupancies or structures that are unusually dangerous when considering the potential for loss of life or the potential for property damage. Typically, these occupancies include hospitals, nursing homes, and other large structures. Also included are industrial and manufacturing plants, and other buildings or large complexes.

The GTRFD has a limited number of target hazards within its service area. Primary among the areas of concern are the downtown areas where a fire could quickly spread to multiple buildings and have a significant negative impact on the community. There are several large industrial facilities sprinkled throughout the various communities, some of which are engaged in high-hazard operations (the Cherry factory and Interlochen). The district has a few schools and churches with their associated risks due to assembly of large numbers of people.

OPERATIONAL RESPONSE APPROACHES

Many agencies incorporate the use of pre-fire plans to allow firefighters to become familiar with more critical or complex occupancies within their response area prior to an emergency, alert them to on site hazards and risks, and, develop a detailed fire response plan for them that includes specific strategies and tactics that will be required to mitigate fires or other emergencies. The community risk and vulnerability assessment evaluates the community and property, measures all property and the risks associated with that property and then segregates the property as either a high-, medium-, or low-hazard, which are further broken down into varying degrees of risk. Per the *NFPA Fire Protection Handbook*, these hazards are defined as:

³ National Fire Service Data Summit Proceedings, U.S. Department of Commerce, NIST Tech Note 1698, May 2011.

High-hazard occupancies: Schools, hospitals, nursing homes, explosives plants, refineries, high-rise buildings, and other high life-hazard or large fire-potential occupancies.

Medium-hazard occupancies: Apartments, offices, and mercantile and industrial occupancies not normally requiring extensive rescue by firefighting forces.

Low-hazard occupancies: One-, two-, or three-family dwellings and scattered small business and industrial occupancies.⁴

Figures 3-1 and 3-2 illustrate the critical tasks and resource deployment required on low-risk incidents and moderate-risk incidents such as structure fires. Understanding the community's risk greatly assists fire department management planning for and justification of staffing and apparatus resources.

FIGURE 3-1: Low-Risk Response—Exterior Fire Attack

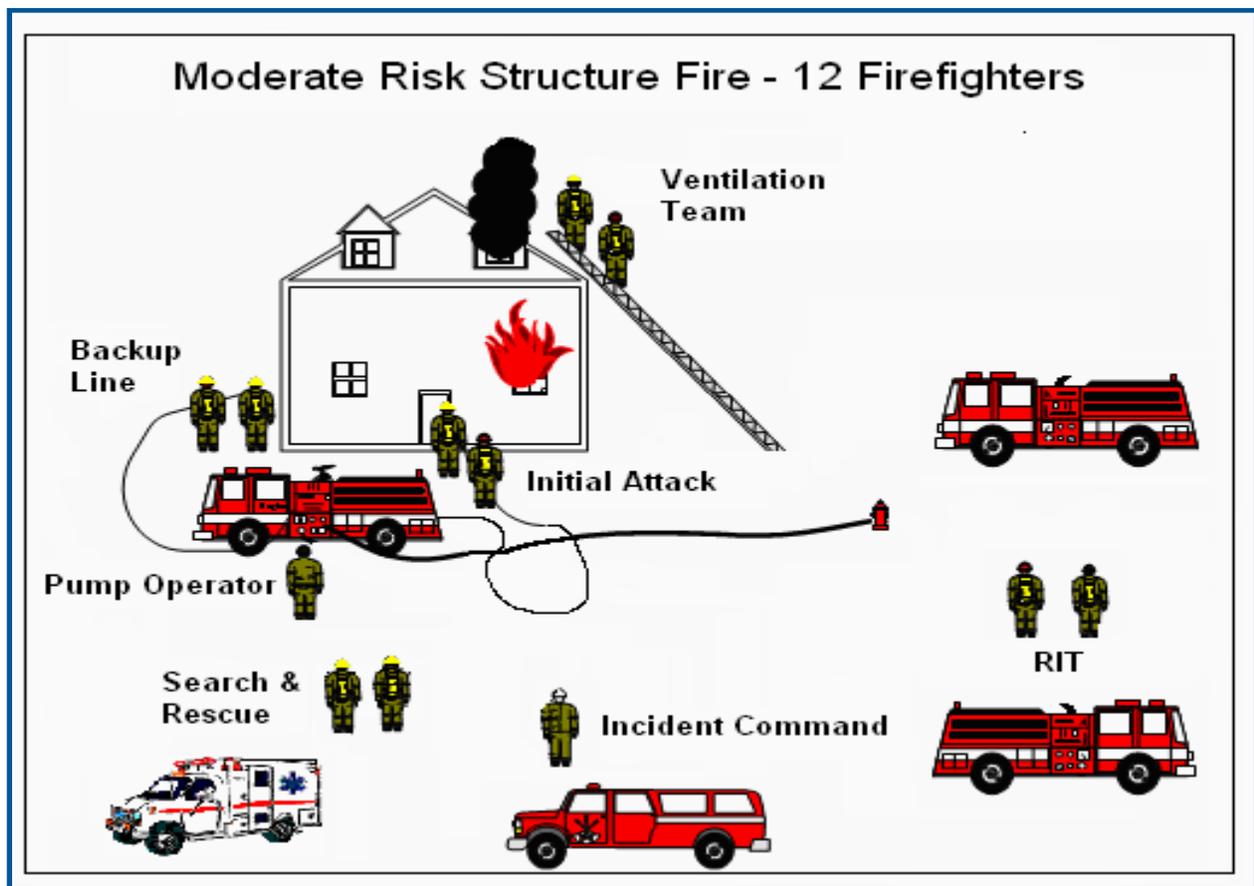


Figure 3-2 represents critical task elements for a moderate-risk structure fire. Some jurisdictions add additional response resources to meet and in some cases, exceed the specifics of national benchmarking, such as National Fire Protection Association (NFPA) 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Departments*, 2014 Edition. However, for a rural community, NFPA 1720 only recommends that the department have six personnel on the scene of

⁴ Cote, Grant, Hall & Solomon, eds., *Fire Protection Handbook* (Quincy, MA: National Fire Protection Association, 2008), 12.

a structure fire within 14 minutes, which is going to serve to significantly limit the firefighting tactical options probably to those that are defensive in nature.

FIGURE 3-2: Moderate Risk Response–Interior Fire Attack



In addition to examining risks faced by the community at large, the department needs to examine internal risks to protect all assets, including personnel, resources, and property. This concept is not new to the fire service and can be an excellent tool for strengthening existing health and safety guidelines. The National Fire Protection Association's *Standard for a Fire Department Occupational Safety and Health Program* (NFPA 1500) requires the development of a separate risk management plan⁵ for fire departments; that is, separate from those incorporated in a local government plan. The risk management plan establishes a standard of safety for the daily operations of the department. This standard of safety establishes the parameters within which the department should conduct all activities during emergency and nonemergency operations. The intent is for all members of the department to operate within this standard or plan of safety and not deviate from this process.

At the time of this study the GTRFD had limited formal pre-fire/incident plans but has an extensive Box Alarm System with Central Dispatch which identifies alarms and units.

⁵ Robert C. Barr and John M. Eversole, eds., *The Fire Chief's Handbook*, 6th edition (Tulsa, OK: PennWell Books), 270.

Paragraph 5.5.1 of NFPA 1720 states, the fire department shall set forth operational guidelines to conduct pre-incident planning, while paragraph 5.5.2 states, attention shall be provided to target hazards.

Recommendation: The GTRFD should establish a formal pre-incident planning program with the goal of having an up-to-date preplan for every business and commercial occupancy (including schools, churches, etc.) within its response area. The station captains should be responsible for maintaining these plans along with volunteers assigned to the stations.

Prefire/incident plans should be reviewed regularly and tested by periodic table-top exercises and on-site drills. In addition, the department should develop a plan to make prefire/incident plans accessible on mobile data terminals (notebook/laptop computers) on fire apparatus for use enroute to an incident and while on scene.

FIRE RESPONSES

GTRFD utilizes a well-developed box alarm system for managing response to fires in the response area.

However, it was noted that closest units are not always dispatched due to the contraction of members in GTRFD and various policies of the departments. For instance, Grand Traverse Metro Fire Department has instituted a service charge for all responses that precludes a request for service except in structure fires. There is no Automatic Vehicle Location system for fire department vehicles that could automatically locate and dispatch closest units. These are policy issues that should be made at the board levels and consideration should be given to utilizing GPS and always dispatching closest units to fire and EMS (if the department incorporates EMS into the response).

With the limited number of active members of the GTRFD and the extended travel distances and thus travel times to certain areas of the district, along with extended travel distances and times for mutual aid and automatic response, GTRFD's ability to properly manage anything greater than a small structural fire, an outbuilding, garage, vehicle fire, or porch fire is very limited. If a fire grows to an area more than 2,000 square feet or has extended beyond the building of origin, it is certain that additional personnel and equipment will be needed. From this perspective, it is critical that GTRFD units respond rapidly and initiate extinguishment efforts within the first eight to ten minutes of notification. It is, however, difficult to determine in every case the effectiveness of the initial response in limiting the fire spread and fire damage. Many variables will impact these outcomes, including:

- The age and type of construction of the structure.
- The contents stored in the structure and its flammability.
- The presence of any flammable liquids, explosives, or compressed gas canisters.
- The time of detection, notification, and ultimately response of fire units.
- The presence of any built-in protection (automatic fire sprinklers) or fire detection system.
- Weather conditions
- The availability of water for extinguishment

Subsequently, in those situations in which there are extended delays in the extinguishment effort or the fire has progressed sufficiently upon arrival of fire units, there is very little that can be done to limit the extent of damage to the entire structure and its contents. In these situations, suppression efforts will focus on the protection of nearby or adjacent structures with the goal being to limit the spread of the fire beyond the building of origin. This is often termed **protecting exposures**. When the extent of damage is extensive and the building becomes unstable, firefighting tactics typically move to what is called a **defensive attack**, or one in which hose lines and more importantly personnel are on the outside of the structure and their focus is to merely discharge large volumes of water until the fire goes out. In these situations, the ability to enter the building is very limited and if victims are trapped in the structure, there are very few safe options for making entry.

Today's fire service is actively debating the options of interior firefighting vs exterior firefighting. These terms are self-descriptive in that an **interior fire attack** is one in which firefighters enter a burning building to find the seat of the fire and from this interior position extinguish the fire with limited amounts of water. An **exterior fire attack** is a tactic in which firefighters initially discharge water from the exterior of the building, either through a window or door and knock down the fire before entry in the building is made. The concept is to introduce larger volumes of water initially from the outside of the building, cool the interior temperatures, and reduce the intensity of the fire before firefighters enter the building. An exterior attack is most applicable in smaller structures, typically single family, one-story detached units that are typically smaller than 2,500 square feet in total floor area.

There are several factors that have fueled this debate. The first and most critical of which are staffing levels. As fire departments operate with reduced levels of staffing, and this staff is arriving at the scene from greater distances, there is little option for a single fire unit with two, three or four personnel but to conduct an exterior attack. The U.S. Occupational Safety and Health Administration (OSHA) has issued a standard that has been termed the **"Two-in-Two-Out"** provision. This standard affects most public fire departments across the U.S., including GTRFD. Under these standard firefighters who are engaged in **interior structural firefighting** and enter an area that is immediately dangerous to life or health (an IDLH atmosphere) must remain in visual or voice contact with each other and have at least two other employees located outside the IDLH atmosphere. This assures that the "two in" can monitor each other and assist with equipment failure or entrapment or other hazards, and the "two out" can monitor those in the building, initiate a rescue, or call for back-up if a problem arises.⁶ There is also a provision within the OSHA standard that will allow two personnel to make entry into an IDLH atmosphere without the required two back-up personnel. This is allowed when they are attempting to rescue a person or persons in the structure before the entire team is assembled.⁷

When using an exterior attack, the requirement of having the four persons assembled on-scene prior to making entry would not apply. Recent studies by UL have evaluated the effectiveness of interior vs. exterior attacks in certain simulated fire environments. These studies have found that the exterior attack to be equally effective in these simulations.⁸ This debate is deep-seated in the fire service and traditional tactical measures have always proposed an interior fire attack, specifically when there is a possibility that victims may be present in the burning structure. The long-held belief in opposition to an exterior attack is that this approach may push the fire into areas that are not burning or where victims may be located. The counterpoint supporting the exterior attack centers

⁶ OSHA-Respiratory Protection Standard, 29CFR-1910.134(g)(4)

⁷ Ibid, Note 2 to paragraph (g).

⁸ "Innovating Fire Attack Tactics", U.L.COM/News Science, Summer 2013.

on firefighter safety. The exterior attack limits firefighters from making entry into those super-heated structures that may be susceptible to collapse. From CPSM's perspective, and given the limited number of available personnel and the likelihood that a single crew of two or possibly three personnel will encounter a fire situation, it is prudent that GTRFD build its training and operating procedures around the tactical concept of the exterior fire attack when the situation warrants such an approach.

Recommendation: The GTRFD should build its training regimens and tactical strategies around the exterior or transitional attack when the fire scenario and the number of responding personnel warrant this approach.

The GTRFD does not have any minimum staffing requirements for its apparatus, so vehicles can respond with just one or two personnel rather than a much more desirable minimum of three or the recommended four. It was reported to CPSM that the number of apparatus on an emergency incident often matches the total number of personnel. This situation is not effective, efficient, or safe from an operational perspective. It is our opinion that without a significant increase in its active membership resources, the GTRFD will rarely be able to get both sufficient properly staffed apparatus and personnel to the scene of significant incidents without turning to neighboring departments for assistance. Bear in mind that turning to assistance from neighboring departments is common practice in both career and on-call fire departments throughout the country and should not be viewed negatively in any way. Paragraph 4.7.3 of NFPA 1720 states: The fire department shall be allowed to use established automatic aid or mutual aid agreements to comply with the requirements of Section 4.7, *Sustained Firefighting Operations*. Paragraph 4.3.5, *Staffing and Deployment*, states that standard response assignments and procedures, including mutual aid response and mutual aid agreements predetermined by the location and nature of the reported incident, shall regulate the dispatch of companies, response groups, and command officers to fires and other emergency incidents.

Recommendation: The GTRFD should discontinue the practice of allowing apparatus to respond with just one firefighter unless specifically authorized by a chief officer.

Being able to develop an adequate water supply for firefighting purposes is perhaps the most critical, non-safety, aspect of firefighting operations. If an adequate water supply cannot be established quickly, and maintained, effective firefighting operations will simply not be possible. Rural communities that do not have a municipal, pressurized water supply must supply their needs from other sources. Sometimes static water sources (lakes, rivers, ponds, cisterns) are drafted out of, either manually, or with dry hydrants, to achieve the needed water supply to fight a fire. In cases where static water sources are not readily available, and oftentimes even if they are, fire departments must utilize water tankers/tenders to carry or shuttle the needed water supply from the source to the incident scene. In communities without staffed fire stations such as parts of GTRFD, there is an inherent delay in the response to a building fire. This delay is due to the fire department members having to respond to the station to staff and respond with the apparatus. This inherent delay allows the fire to increase in size before the arrival of the fire department. This situation can exacerbate the need for an adequate and sustainable water supply.

Only a portion of the GTRFD response area is equipped with a municipal water supply system. The remainder of the district does not have a water system, which requires the fire department to establish, and then maintain, an adequate supply of water to fight the fire. Establishing a water supply operation in a rural area requires significant resources, both personnel and equipment, in addition to a closely coordinated effort. Portable tanks are set up near the fire scene to supply

engines operating to attack the fire. Water tenders transport water from water supply sources located throughout the service area to the dump tanks near the incident. The larger the fire, and the distance from the fire to the closest source(s) of water, will both directly impact the size and complexity of this type of operation.

There are some static water supply sources located throughout the GTRFD's district, but they are limited in number, and consist of a handful of dry hydrants and/or standpipes. These dry hydrants are going to be most effective primarily for fires that are located within a reasonable proximity to them. Using them as a fill point for tender operations is a sound tactical option; however, it will take time to establish this type of water supply relay. There are a few potential drafting sites located throughout the district, including several lakes. However, these sites are mostly on private property and in many cases, have little or no direct public access that the fire department can utilize.

However, GTRFD has many lakes in its service area with ample water supply. Access agreements and points should be identified for allowing use of this valuable resource.

Recommendation: The GTRFD and its participating municipalities should make it a priority to identify additional suitable locations for dry hydrants or standpipes throughout the district, and, in conjunction with the various public works departments, or through the formation of public/private partnerships, install as many of them as possible each year based upon the highest risk areas and/or year-round accessibility and usability.

Recommendation: The GTRFD, in conjunction with its neighboring fire departments, should identify locations within these communities that may be appropriate fill sites for tenders supplying water for fire incidents in certain areas of the district. These locations can include dry hydrants/standpipes, clear drafting locations, cisterns, and even municipal fire hydrants.

Recommendation: The GTRFD should develop a comprehensive list and a map that shows the location of ALL potential water supply fill sites throughout the district and, within reason, in surrounding communities. These should be developed into a layer of GIS mapping available to all responding units through in-vehicle terminals.

A growing number of rural communities that are similar in nature to the municipalities that comprise the GTRFD district have adopted ordinances to mandate the installation of water cisterns. The ordinances require that any new subdivision comprised of three or more houses install a water supply cistern to hold the water necessary for fire suppression operations. In some cases, individual new homes that exceed a certain size, perhaps 3,000 square feet, are also required to comply with the ordinance requirements. The requirements for these systems are detailed in several NFPA standards. This is an important fire and life safety initiative for a rural community.

Recommendation: The GTRFD should work with the governing bodies of all the participating municipalities to consider adopting municipal regulations requiring the installation of a fire water supply cistern in any new development consisting of three or more homes or for any individual home of larger than a

designated square footage and which are located outside of the municipal water supply system service areas.

One area that was mentioned repeatedly to the CPSM team was problems with interoperability and the surrounding counties since Grand Traverse County has moved to the 800 MHz system for both communication and paging. This situation can obviously delay the response of personnel who may be available to assist with an incident.

Of even greater concern, as it has the very real potential to impact firefighter safety in a profoundly negative manner, is that fire department radios, particularly portable radios also frequently have difficulty reaching and communicating with the dispatch center in certain areas of the district where the coverage is not interoperable. This situation could make it impossible for personnel to request additional assistance for an incident that is beyond their capabilities and resources to handle, or, more seriously, be unable to call for help or transmit a MAYDAY if they are lost, trapped, disoriented, running out of air, etc. Personnel also may not be able to reach dispatch if they encounter a violent patient, an active shooter, etc.

Recommendation: The GTRFD should work with the appropriate government entities to determine areas where there are serious inadequacies in the radio system coverage and take proactive steps to eliminate these gaps through interoperability policy, training, and use.

SECTION 4. FACILITIES, APPARATUS, AND EQUIPMENT

FIRE STATION FACILITIES

Fire stations are a critical community public safety asset. The fire station facilities of a modern fire department are designed to do much more than simply provide a garage for apparatus and a place for firefighters to wait for a call. Fire department capital facilities are exposed to some of the most intense and demanding uses of any public local government facility, as they are occupied 24 hours a day.⁹ While the demands of use may be somewhat less in stations that are staffed by volunteer personnel, the very nature of the fire department's operations necessitate that all stations be functional, adequate to fulfill the department's core missions, and be well maintained.

A fire/EMS station should, at a minimum, provide adequate, efficiently designed space for the following functions:

- Housing of fire apparatus and ambulances, with adequate space for apparatus length and height (and the housing of all equipment, including staff, service and support vehicles including trailers)
- On-duty crew quarters, with sufficient toilet/shower/locker room space for both sexes
- Adequate sized sleeping facilities (as necessary)
- Kitchen and eating area
- Training and meeting space
- Administrative offices
- Vehicle maintenance (as necessary)
- Hose drying and storage (as necessary)
- Supply and equipment storage
- Public entrance/reception area

The adequacy, quality and appearance of fire station facilities have a significant impact on the performance of the department. Well-designed fire and EMS facilities enable staff to perform their duties effectively, efficiently and safely. As a facility ages, it may no longer meet the needs of an evolving department and/or community, thus negatively affecting morale, efficiency, safety, security, technology and overall efforts to provide quality fire, rescue, and emergency medical services. It may also hamper the ability of the department to keep pace with increasing and/or expanded request for, and/or levels of, service. Older and/or obsolete facilities are also expensive to maintain. When these conditions occur, typical remedies include expanding, renovating and/or replacing the existing facilities.

Typically, fire stations have an anticipated service life of approximately fifty years. In most cases facilities require replacement because of the size constraints of the buildings, a need to relocate the facility to better serve changing population centers, the absence of needed safety features or service accommodations, and the general age and condition of the facility. The day-to-day cost of operating a fixed capital facility can burden the operating budget. Properly maintaining mechanical and structural components is critical to the longevity of the facility. Deferring routine

⁹ Compton and Granito, eds., *Managing Fire and Rescue Services*, 219.

maintenance creates inefficiencies of mechanical systems and increases costs for replacement and repairs.

Now, the GTRFD operates from four stations that were originally the facilities of the independent fire companies which were consolidated to form the current department. They are strategically located throughout the department's service area. Figure 4-1 illustrates the department's district along with the location of the stations.

Figure 4-1: Grand Traverse Rural Fire Department District and Station Locations



Figure 4-2: GTRFD Station 2



Station #2 is situated at 2266 E. M-113 in the Village of Kingsley which is located within the borders of Paradise Township. This facility has also served as the department's administrative headquarters since January 2016. Built in 2009, of Type II (non-combustible) construction, this station is the newest, and by far, most up to date and adequate, of the GTRFD's facilities Engine 2, Ladder 2 (the department's only aerial), Rescue/Air 2,

Tanker 2, Brush 2, and several other utility and support units operate from this station. Kingsley EMS is also deployed from the station and utilizes on duty career staff from 8:00 AM to 4:00 PM daily.

The station is equipped throughout with a complete automatic fire suppression (sprinkler) system along with a fire detection/alarm system including carbon monoxide detectors. Air and electric shore lines are provided for all the apparatus. The facility is not equipped with an emergency generator. When needed, portable generators are set up to provide back-up power.

The station is comprised of four double deep, drive through apparatus bays. The apparatus bays in this station are the most spacious of the department's stations providing the most room to move around safely. The remainder of the station consists of three offices, a lounge area and a kitchen. As is the recommended practice today, it does contain a decontamination area for personnel and equipment, and a laundry room with an extractor for washing firefighter's personal protective equipment along with an area to properly dry it. Station 2 also has an air compressor and cascade system for refilling the department's self-contained breathing apparatus.

Despite only being about 7 years old, Station 2 is not equipped with a personnel bunkroom, showers or locker room facilities. It is severely lacking in storage space. The CPSM team observed store cluttered throughout the apparatus floor which can create trip and fall hazards. It appeared that boxes of department records were stored in this area as well.

Figure 4-3: Storage Throughout the Apparatus Bays at Station 2.



Figure 4-4: GTRFD Station 3



Station #3 is located at 8380 Old M-72 in the Williamsburg section of Whitewater Township. Built in the early 1970s, of Type II construction, it is the GTRFD's oldest station. The station is comprised mainly of four single deep and very shallow apparatus bays. One of the apparatus bays is occupied by an MMR ambulance which provides contract EMS services to Whitewater Township. Engine 3,

Rescue 3, Tanker 3, Brush 3 and an off-road ATV and small rescue boat are deployed from this station. The use of one bay by MMR requires Rescue 3 to be stored in the rear of the station, parked perpendicular to the ambulance.

The station is not equipped with an automatic fire suppression system. It did appear to have an older system of interconnected smoke and heat detectors. However, no one could say when the last time the system had been tested and inspected, or, if it was even operational. Air and electric shore lines are provided for all the apparatus. The facility is not equipped with an emergency generator.

Crew facilities in the station are very limited. There is a small lounge/day room/office area that is utilized by the MMR EMS staff. There is also a small kitchen area and bathrooms that have been outfitted with showers. There are no locker or bunk rooms. In fact, with the MMR EMS crew occupying the station around the clock the GTRFD personnel have been basically relegated to a small table in the rear of the apparatus bays to conduct all of their meetings and other business. There is not even an office for the GTRFD station officer. Storage areas in the station are extremely limited necessitating a large amount of equipment to be stored within the apparatus bays.

Figure 4-5 (left): The Rescue Truck at Station 3

Figure 4-6 (right): GTRFD Crew and Ready Area at Station 3



Figure 4-5 (left): The rescue truck at Station 3 is parked perpendicular to the other vehicles behind the ambulance due to a lack of bay space.

Figure 4-6 (right): GTRFD personnel area in Station 3 is basically limited to a table in one corner of the apparatus bays. The remainder of the crew areas are utilized by MMR, the contract EMS provider.

Figure 4-7: GTRFD Station 4



Station #4 is located at 9394 Tenth St. in the Interlochen section of Green Lake Township. It is attached to the Green Lake Township Municipal Building. The station is of Type II, non-combustible construction. It is unknown regarding when it was built. The station is comprised of three apparatus bays whose depth is between single and double deep. One of the bays is utilized by

Green Lake EMS for their two ambulances. Engine 4, Tanker 4, Air 4, Water Supply 4, Brush 4 and a small rescue boat are deployed from this station. The apparatus bays of the station are so crowded that some of the apparatus assigned here must be parked on an angle to allow it to fit.

The station is not equipped with an automatic fire suppression system. It did appear to have an older system of interconnected smoke and heat detectors. However, no one could say when the last time the system had been tested and inspected. Air and electric shore lines are provided for all the apparatus. The facility is not equipped with an emergency generator.

Crew facilities in the station are almost non-existent. The on-duty EMS crew's lounge and day room area is in the township's meeting and multipurpose room. Their sleeping area is in the same area partitioned off from the rest of the area. There is a small kitchen area. There are no adequate locker or shower facilities. The GTRFD station commander works in a small cubicle in one corner of the multi-purpose room.

Figure 4-8 (left): Station 4 Crowded Apparatus Bays

Figure 4-9 (right): Fire and EMS Area in Multi-Purpose Room

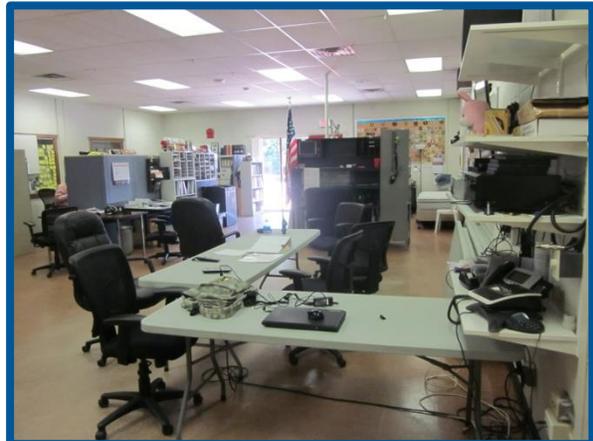


Figure 4-8 (left): Crowded apparatus bays at Station 4 require apparatus to be parked on an angle to fit and makes it difficult to move around the area.

Figure 4-9 (right): Fire and EMS shares their areas with the Green Lake Township Multi-purpose room. Note the bunk in the background, upper left corner.

Figure 4-10: GTRFD Station 6



Station #6 is situated at 134 Morgan St. in the Village of Fife Lake, which is located within the borders of Fife Lake Township. It is attached to the Fife Lake Township Municipal Building. The station is of Type II, non-combustible construction. The operational area of the station consists of five shallow, single deep apparatus for the fire department. There are also two additional single deep bays that are utilized for the ambulances operated by Fire Lake Area EMS. Engine 4, Tanker 4, Brush 4, and Water Supply 4 are assigned to this

station. There is also an ATV type brush unit, a snow mobile and a small rescue boat. The station bays are so shallow that the rear of the engine is just inches from the rear wall of the station when parked.

The station is not equipped with an automatic fire suppression system or fire alarm system. There are no carbon monoxide detectors. Air and electric shore lines are provided for all the apparatus. The facility is not equipped with an emergency generator.

Crew facilities, at least for the fire personnel are virtually non-existent. There is no office area, day room, kitchen, shower or locker facilities, or bunkroom. The EMS personnel do have a small combination day room/lounge, kitchen area, and sleeping area between the fire and EMS bay areas. However, even here the facilities are inadequate with no shower, locker or proper sleeping area. The EMS officers use a small office off this area.

Figure 4-11 (left): Rear of Engine 6

Figure 4-12 (right): Fife Lake EMS Dayroom, Eating and Sleeping Area



Figure 4-11 (left): The rear bumper of Engine 6 is just inches from the rear wall of the station when parked in its assigned bay.

Figure 4-12 (right): The EMS area in the Fife Lake station combines the day room, eating area and sleeping area into a single room which is less than optimal.

Overall, the fire station site visits by the CPSM team showed stations that are seriously inadequate for the needs of a modern-day fire department, even one that is staffed almost entirely by volunteer personnel. Except for Station 2, the stations lack basic safety and operational features, and are crowded with almost no storage or crew areas such as day/ready rooms, kitchens and eating areas, and shower and locker facilities. The apparatus bays are very small for modern fire stations. This limits the amount of apparatus and/or equipment that can be stored in the station. In addition, hose and equipment cannot be efficiently loaded/unloaded inside during cold or inclement weather, nor can equipment be removed from the apparatus and set up for training and maintenance activities. However, for the most part they did appear relatively clean.

None of the GTRFD stations are fully in compliance with the requirements and recommendations of the *Standard on Fire Department Occupational Health Program*, NFPA 1500, 2007 edition. NFPA 1500 is the nationally recognized standard for health and safety in fire departments, and includes requirements for fire station facilities. Selected examples include but may not be limited to: the need for isolated areas for decontamination of personnel and equipment, vehicle exhaust systems, and life safety code requirements.

Except for Station 2, none of the facilities are following the requirements and recommendations NFPA 1581: *Standard on Fire Department Infection Control Program* (National Fire Protection Association, Quincy, MA) which has requirements to provide minimum criteria for infection control in the fire station, in the fire apparatus, during procedures at an incident scene, and at any other location where fire department members are involved in routine or emergency operations.

None of the facilities are following the requirements and recommendations NFPA 1851: *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting* (National Fire Protection Association, Quincy, MA). This standard provides safety requirements for storage and cleaning of personal protective equipment.

Except for Station 2, none of the GTRFD stations are equipped with fire sprinkler systems, automatic fire alarm systems, or, carbon monoxide detectors. Fire protection is provided in a few stations by older alarm systems unacceptable in facilities of this type. No one could say when the systems had been tested/ inspected, or, if they were even operational.

Recommendation: The GTRFD should install automatic fire alarm systems with heat, smoke, and carbon monoxide detection in all fire stations. These systems should not only be equipped with both audible and visible warning devices, they should automatically transmit an alarm to either the department's dispatch center, or, an approved central monitoring station.

Recommendation: The GTRFD should consider equipping all existing fire stations with complete, automatic fire sprinkler systems for the protection of the occupants, buildings and equipment, as well as complete, supervised smoke detection systems already recommended, that transmit an alarm to the fire dispatch center or central monitoring station.

None of the GTRFD stations were equipped with source capture vehicle exhaust emissions systems. Station 2 does have large fans that are supposed to remove these emissions, however, this type of system is not effective. Vehicle exhaust extraction systems are designed to enable apparatus operators to attach a large flexible hose to the exhaust pipe before backing into the station. The system fan automatically discharges vehicle exhaust to the outside atmosphere. When the vehicle is driven out of the station, the discharge hose is automatically released once the apparatus clears the station. Because of the lack of this type of system, the department's personnel are exposed on a regular basis to the harmful effects of breathing in both diesel and gasoline engine exhaust emissions. This exposure occurs during response to, and return from, emergency responses, during training exercises, routine vehicle inspections, and, any other time that any vehicle in the station must be started and driven either out of, or backed into, the station.

Short term, breathing in diesel and gasoline fumes can cause coughing, itchy or burning eyes, chest constriction, wheezing, and difficulty breathing. Over the long-term exposure to these fumes may increase the risk of lung cancer and possibly bladder and other cancers. There is additional evidence that the fine particles found in diesel emissions, particularly the soot, can aggravate heart problems and respiratory illnesses such as asthma. In addition, the members' personal protective equipment (PPE), which is stored in the apparatus bays, is continuously exposed to deposits of soot and other exhaust emission products that are released every time a vehicle is started in the station, resulting in a secondary exposure hazard to our personnel as they perform their emergency response duties. At least one major study has concluded that diesel exhaust can penetrate and be absorbed into clothing, furniture and other items which firefighters routinely are in contact with, where it can later be absorbed into the firefighter's skin. Every time the firefighters put on this gear they are being exposed to these contaminants and potential carcinogens.

Recommendation: The GTRFD should install vehicle exhaust extraction systems for all vehicles in all the apparatus bays at all department fire stations.

None of the GTRFD stations are equipped with emergency generators thus effectively rendering them out of service during times of power failures/outages. Although it was reported to the study team that the stations can be hooked up to, and at least partially powered by portable generators, this is not conducive to effective emergency operations. Hooking up portable generators can be time consuming and may divert needed personnel away from emergency response during times that often result in increased incident activity.

Recommendation: The GTRFD should install automatic start emergency generators at all stations to provide needed power and keep the stations operational during power failures/outages.

Recommendation: The GTRFD should apply for an Assistance to Firefighters (AFG) Grant to attempt to obtain funding for the installation of the automatic fire suppression and fire alarm, vehicle exhaust extraction systems, and emergency generators in all stations.

Fire and EMS station facilities should be an important component of a municipal or government entity capital improvement plan (CIP). A long-term plan should be in place that takes into consideration the expected life expectancy of a facility, space needs, technology needs, and location requirements, based on response times, travel distance, changes in community development patterns, and regional fire protection capabilities. The construction or renovation of fire stations is a costly proposition that should be planned well in advance to balance other community needs for capital projects.

Recommendation: The GTRFD and the municipalities that are part of it and/or own the station facilities should develop a long-range facilities capital plan to address the numerous operational and personnel safety deficiencies currently found in them and significantly upgrade and modernize, or replace them, to meet the current and future needs of the department. In the interim, consideration should be given to the rental of appropriate and code-approved living quarters for staff at the station, and its customers.

APPARATUS AND EQUIPMENT

The resources that the fire department uses to perform its core mission and mitigate a wide range of emergency incidents are generally divided into two major categories, apparatus and tools/equipment. Apparatus generally includes the department's motorized vehicle fleet and includes the major emergency response apparatus such as pumpers (engines), tenders/tankers (water supply vehicles), aerial apparatus/quints¹⁰, rescue vehicles, and ambulances. Specialized apparatus includes emergency units such as brush trucks and other off-road vehicles. They also often include trailers for unique applications such as technical rescue, hazardous materials response/equipment, hazardous material decontamination, structural collapse rescue equipment, breathing air/light support units, foam units/supplies, and mass casualty incident supplies. Support

¹⁰ A "quint" serves the dual purpose of an engine and a ladder truck. The name "quint" refers to the five functions that these units provide: fire pump, water tank, fire hose, aerial device, and ground ladders.

vehicles that are critical to fire department operations, both routine and emergency, include command post and emergency communications units, command/staff vehicles and maintenance trucks.

The mission, duties, responsibilities, demographics, geography, infrastructure, hazards protected, and construction features within the community they are protecting all play a major role in the composition of each department's unique and individualized apparatus fleet and equipment inventory. These factors, as well as projected future needs, must be taken into consideration when specifying and purchasing apparatus and equipment. Every effort should be made to make new apparatus as versatile and multi-functional/capable as is possible and practical.

The GTRFD deploys an array of fire apparatus and other emergency response units to accomplish the missions of the department. This apparatus is deployed among the four fire stations and includes four pumpers (engines), four water tenders, one ladder, two light/air units, one light rescue truck, four brush units, three ATV brush units, two water supply units, and several other utility vehicles and small boats including one snow mobile. The GTRFD also operates a single command vehicle that is assigned to the fire chief. Overall the CPSM evaluation of the department's fleet finds an aging inventory whose condition ranges from very good to fair. In addition, the department does not have any reserve apparatus to replace vehicles that are out of service for routine maintenance or long-term maintenance/repair occurring on frontline units. While this is should not be a problem in most cases, with all the GTRFD vehicles being mostly single function units, it can place a response area without a primary response engine as there is no comparable vehicle to replace it when it is out of service.

While we certainly understand that the GTRFD covers a large geographic area, overall, the department's current apparatus fleet make-up regarding types and numbers of apparatus is too large for a community of the size, demographics, risk, and relatively low emergency incident frequency that the department serves. However, we will also add the caveat that rural communities often need to have larger apparatus fleets per capita than other comparable departments due to the need for water tenders to carry water for firefighting operations. The significant distances between stations, which create extended response times, all contributes to a need for more self-sufficiency in each individual station which can lead to as redundancy in the apparatus fleet configuration.

TABLE 4-1: GTRFD Apparatus Inventory

| Unit | Type | Make | Year | Age |
|----------------|---------------------|-----------------------|------|-----------|
| Engine 2 | Type 1/Pumper | HME | 2006 | 10 years |
| Tanker 2 | Water Tender | Chevrolet | 2000 | 16 years. |
| Ladder 2 | Aerial Device/Tower | Pierce | 1982 | 34 years |
| Air 2 | Utility/Air/Light | Freightliner | Unk. | Unk. |
| Brush 2 | Brush Unit | Chevrolet | 1986 | 30 years |
| Kubota 2 | ATV/Brush Unit | Kubota | 2013 | 3 years |
| Transport 2 | Utility/Squad | Chevrolet | Unk. | Unk. |
| | | | | |
| Engine 3 | Type 1/Pumper | HME | 2003 | 13 years |
| Tanker 3 | Water Tender | Chevrolet | 2000 | 16 years |
| Rescue 3 | Light Rescue Unit | Chevrolet | 1986 | 30 years |
| Brush 3 | Brush Unit | Military Surplus 4x4 | Unk. | Unk. |
| Kubota 3 | ATV/Brush Unit | Kubota | 2004 | 12 years |
| | | | | |
| Engine 4 | Type 1/Pumper | HME | 2003 | 13 years |
| Tanker 4 | Water Tender | Chevrolet Monroe | 1996 | 20 years |
| Air 4 | Utility/Air/Light | Chevrolet Spencer | 2006 | 10 years |
| Brush 4 | Brush Unit | Chevrolet/Spartan/ERV | 1986 | 30 years |
| Water Supply 4 | Water Supply Unit | Ford Spencer | 2010 | 6 years |
| | | | | |
| Engine 6 | Type 1/Pumper | Spencer | 2010 | 6 years |
| Tanker 6 | Water Tender | Chevrolet | Unk. | Unk. |
| Brush 6 | Brush Unit | Chevrolet | 2006 | 10 years |
| Kubota 6 | ATV/Brush Unit | Kubota | Unk. | Unk. |
| Water Supply 6 | Water Supply Unit | Ford | Unk. | Unk. |
| | | | | |
| Chief's Truck | Command Vehicle | Ford | ?? | ?? |

The ages of the department's major apparatus range from six years for Engine 6 to 34 years for Ladder 2. The pumpers range in age from six to thirteen years and are all in very good condition. The water tankers appear to be between 16 and 20 years and are still in relatively good condition. However, they have only very small pumps on them for refilling their tanks and at 1,500 gallons have only a minimal size tank for a water tender. The ladder is 34 years old, is large and

cumbersome to set up to get in service which requires multiple personnel to accomplish. It also lacks a fully enclosed cab area for the crew which is a safety concern. Brush 2, Brush 4, and Rescue 3 are all 30 years old. Brush 3 is using a vehicle who age is unknown and that was not designed for its current purpose.

One of the biggest factors that can impact serviceable life of the apparatus is the level of preventative maintenance that it receives. NFPA 1915: *Standard for Fire Apparatus Preventive Maintenance Program* provides guidance on this important aspect of fire department support operations. Apparatus manufacturers also identify suggested programs and procedures to be performed at various intervals. As apparatus ages, it is reasonable to expect that parts will wear out and need to be replaced. It follows then that maintenance costs and overall operating expenses will increase. Thus, cost history and projected costs for the future must be considered as a factor in determining when to replace, or refurbish, a fire apparatus. In addition, reliability of the apparatus must be considered. Experiencing low downtime and high parts availability are critical factors for emergency equipment maintenance and serviceability. A pro-active preventative maintenance program can assist with holding costs to an acceptable level.

It appears that GTRFD has a good preventative maintenance program in place for its apparatus. Routine preventative maintenance on the apparatus, as well as, most necessary repairs, is performed by Emergency Vehicles Plus (EVP). EVP has a mobile service vehicle so most service and repairs can be performed in the station which reduces out of service time. The department started performing annual testing on the fire pumps approximately three years ago. These tests are required by NFPA and ISO standards.

Recommendation: The GTRFD should track and analyze annual repair, maintenance, and service costs for the apparatus fleet and utilize this information in periodic review and updating of the vehicle replacement schedule.

In a 2004 survey of 360 fire departments in urban, suburban, and rural settings across the nation, Pierce Manufacturing reported on the average life expectancy for fire pumpers.¹¹ The results are shown in Table 3-2.

TABLE 4-2: Fire Pumper Life Expectancy by Type of Jurisdiction

| Demographic | First-Line Service | Annual Miles Driven | Reserve Status | Total Years of Service |
|-------------|--------------------|---------------------|----------------|------------------------|
| Urban | 15 Years | 7,629 | 10 Years | 25 |
| Suburban | 16 Years | 4,992 | 11 Years | 27 |
| Rural | 18 years | 3,034 | 14 Years | 32 |

Note: Survey information was developed by Added Value Inc. for Pierce Manufacturing in, “Fire Apparatus Duty Cycle White Paper,” Fire Apparatus Manufacturer’s Association (FAMA), August 2004.

¹¹ Fire Apparatus Duty Cycle White Paper, Fire Apparatus Manufacturer’s Association. August 2004.

The International City/County Management Association (ICMA) suggests that the life span of a fire pumper should be twenty (20) years, and the life span of an aerial ladder should be twenty-five (25) years.

Based upon these estimates, all the GTRFD engines (pumpers) should have several years of useful service life remaining. The engines have been well maintained, are in good condition, and, are subjected to a relatively low run volume and workload. With these facts in mind, there is no reason that these engines should not be able to serve the GTRFD and the townships in front line service for another seven to fifteen years.

The tankers however, although not particularly old, are of limited use since our recommendation is that, long term, maintain a more limited inventory of multi-functional vehicles. At a rating of just 200 gallons per minute the pumps on this vehicle are severely undersized even for a vehicle that is strictly for water transportation. Pumps less than 750 gallons per minute are generally not recognized by either NFPA or ISO as a rated fire pump. With a 1,500-gallon water tank, the minimum size required by NFPA for a vehicle to be classified as a tanker, it would take nearly eight minutes for these tankers to be refilled, much longer than many newer vehicles. In addition, the trucks only carry two dump tanks and no fire hose which severely limits their versatility.

Being able to develop an adequate water supply for firefighting purposes is perhaps the most critical, non-safety aspect of firefighting operations. Quite simply, if an adequate water supply cannot be established quickly, and maintained, effective firefighting operations will simply not be possible. The establishment of rural a water supply operation requires significant resources, both personnel and equipment, in addition to a closely coordinated effort. Portable tanks are set up near the fire scene to supply engines operating to attack the fire. Water tenders transport water from water supply sources located throughout the area to the dump tanks near the incident. The larger the fire, and the distance from the fire to the closest source(s) of water, will both directly impact the size and complexity of this type of operation; so will the capacity of the tankers and speed with which they can be loaded and unloaded. At an absolute minimum, three (3) rated Class A pumpers are required to maintain a rural water supply operation, along with an adequate number tenders/tankers. If a water supply is being established using large diameter hose, an additional pumper will be required at no more than each interval of 1,000 feet.

Water tanker, or more correctly, tender apparatus is designed to carry large volumes of water (2,000 to 3,500 gallons) to supplement attack engine tank water, and when used in a relay operation of tankers, sustain the needed fire flow to mitigate a larger fire. An alternative to this traditional model is to combine two units into one where possible, while maintaining effective fire services with limited staffing as is often found in the volunteer fire service. In this scenario, an engine and water tender are combined into a single unit to maximize overall fleet versatility.

Figure 4-13 illustrates this concept in a locality where the engine/tanker apparatus concept is deployed. Although this apparatus resembles that of a normal engine apparatus with a 1,500 gallon per minute fire pump, it also carries 2,200 gallons of water (many carry 2,500). These vehicles may also be equipped with a compressed air foam system (CAFS) and a portable water tank; the vehicle has the normal array of firefighting tools, hose, and equipment including a light tower and large generator. The goal of this deployment would be the delivery of a significant quantity of water (often 5,000 gallons or more) on initial alarm assignments through the combination of engine tank water and water tender apparatus response both from GTRFD and mutual aid departments.

Figure 4-13: Combination Engine/Water Tender Apparatus



Recommendation: Long term, the GTRFD should consider selling the existing tankers and replacing them with new combination engine/tender apparatus.

A fire/rescue pumper or squad combines the functions of an engine (pump, hose, water) with vehicle extrication tools and equipment. The current Engine 4 is set up and functions as a rescue pumper. It is our opinion that this concept of operations should be continued and in fact be the basis of the GTRFD's rescue operations which are almost exclusively going to be related to vehicle rescue and extrication operations.

With these two concepts in mind, the other primary fire rescue vehicle in each of the stations could be a quick attack, rescue pumper, sometimes referred to as an interface pumper. These vehicles are smaller, more maneuverable vehicles that are equipped with a rated fire pump, usually 1,000 GPM and a 500-gallon water tank along with a compressed air foam system (CAFS). They carry a full complement of hose and are equipped with hydraulic rescue tools for use in vehicle extrication operations. They are often equipped with four-wheel drive capability allowing them to operate in an off-road environment. Operated in tandem with the larger engine/tender apparatus they would provide the department with more than adequate fire suppression and water supply capabilities.

Figure 4-14: Quick Attack/Rescue (Interface) Pumper



Recommendation: The GTRFD should consider the acquisition of quick attack, rescue (interface) pumpers to be used in conjunction with larger combined engine/water tanker apparatus.

While the scope of this study did not involve an assessment of the various township's emergency medical services, we believe that the key to future success for the emergency services providers, and the GTRFD is to combine fire and EMS into a singular entity that will allow the use of cross trained personnel to handle response to both types of incidents. As is discussed in other areas of this report, we believe that if the GTRFD is to survive and remain viable it must seriously consider adopting a consolidated approach to the delivery of both fire and EMS services to the community. To that end, since it is likely that the on-duty personnel will be cross staffing both fire and EMS units that they be provided with as versatile and multi-purpose vehicle as possible.

One option is to combine both firefighting and EMS capabilities into a hybrid response vehicle. This unit has a 500 gallon-per-minute pump, 300-gallon water tank, and a compressed air foam system (CAFS). The unit has initial attack hose lines, typical firefighting hand tools, electric rescue tools for vehicle extrication, and supply hose. Additional engineering can allow several hundred feet of 3-inch supply hose to be deployed from the rear. It also has a full size, ALS capable patient care and transport area in the rear. Figures 15 thru 17 illustrate the functionality of this type of apparatus. If GTRFD adopted this concept of operations, these vehicles would be deployed in place of the quick attack interface pumpers described above.

Figure 4-15: Combination Fire/EMS Transport Vehicle



Figure 4-16: Fire Suppression Component of Fire/EMS Transport Vehicle



Figure 4-17: EMS Transport Component of Fire/EMS Transport Vehicle



Recommendation: Should the GTRFD assume responsibility for EMS in the communities it serves, it should consider the acquisition of combination Fire/EMS transport vehicles.

Figure 4-18: GTRFD Ladder 2



Ladder 2 is 34 years old and lacks important safety features like fully enclosed crew seating areas.

As previously mentioned briefly the current Ladder 2 is 34 years old and lacks basic safety features found on modern apparatus such as a full enclosed crew cab area. In addition, the way Ladder 2 is configured requires several personnel to get it set up and into operation. This can be problematic when staffing is very limited. It is also our opinion that the current truck is too large for the needs of the GTRFD and the communities it serves.

The CPSM team believes that the GTRFD having a ladder or aerial device does provide important tactical and operational benefits to the department and by extension the townships. Virtually all new construction, including new housing and condominium developments, are built using lightweight construction methods and materials that are prone to early failure and collapse during fires. Lightweight construction creates significantly

magnified risks and safety issues for firefighters during emergencies and necessitates firefighting tactical operations to be approached much differently.

The CPSM team also believes that a ladder or aerial of some type should respond automatically to every reported structural fire incident. Many of these incidents turn out to be minor, however, that fact is not going to be known until qualified fire department personnel arrive on the scene and make an assessment. When there is an actual fire, particularly a significant one, it is not cliché to say that minutes and even seconds can make a difference. The immediate availability of an aerial ladder can play a significant tactical role in the overall successful mitigation of the incident for numerous time critical operations involving rescuing trapped civilians or firefighters, accessing roofs (or chimneys) and conducting coordinated ventilation operations.

It is our belief that the existing ladder be replaced with a 75' single axle "Quint" which will contribute to what we believe will be an effective and appropriate apparatus set for the department. Long term, having a pumpers and ladder combined into a quint, GTRFD will have a diverse firefighting resource that provides maximum operational flexibility and options for safe, effective and efficient options, particularly when operating with minimal staffing levels that would be expected in an all-volunteer department, particularly during the day.

Recommendation: The GTRFD should replace the existing 1982 ladder truck with a single axle "quint" that has a 75' aerial ladder, is configured to fully function as a fire pumper, and, can be easily set up and operated by one or two personnel.

Figure 4-19: 75' Quint Apparatus Combining Engine and Ladder



Recommendation: *The following GTRFD vehicles have probably reached the end of their useful service life and should be removed from service.*

- **Brush 2**
- **Brush 3**
- **Rescue 3**
- **Brush 4**

With the low number of incidents that the GTRFD experiences and few truly significant incidents we do not believe the department requires two air/light units and two water supply units. While these specialty vehicles may arguably provide some occasional benefit to the department, it is probably a relatively rare occurrence. Resources such as these are generally better viewed as a regional resource that are shared and/or jointly operated between several departments.

Recommendation: *The GTRFD should remove one air/light unit and one water supply unit from service and sell them. The proceeds from the sale can then be reinvested in the department's other capital needs.*

Recommendation: *Long term, when the time comes to replace them, the GTRFD should seriously analyze whether they have a true need for either their own air/light unit, or water supply unit.*

Recommendation: *The GTRFD should consider adopting the following recommended apparatus fleet (assuming a continued 4 station configuration):*

- **4 – Quick Attack/Rescue Engines, or, Combination fire/EMS transport vehicle**
- **4 – Engine/tender combination**
- **4 – Brush units* (pick-up trucks w/ skid units)**
- **1 – 75' Quint (Regional Resource)**

- 1 – Air/Light Unit (Regional Resource)
- 1 – Water Supply Unit (Regional Resource)
- 1 – Reserve Engine

*** Typical brush trucks would probably no longer be needed if the department purchased the four-wheel drive, quick attack units recommended if there is no assumption of EMS duties.**

Recommendation: The GTRFD should consider applying for an Assistance to Firefighters (AFG) Grant for the 75' Quint since it is the department's oldest vehicle, lacks up to date safety features, and is a true regional resource.

If the department is not successful at obtaining an AFG grant for the purchase of a Quint, serious consideration should be given to the purchase of a good used vehicle as opposed to a brand new one.

CAPITAL EQUIPMENT

Fire apparatus are equipped with various types of tools and equipment that are utilized in providing fire and EMS services. Many of the tools and much of the equipment carried on fire apparatus are specified in NFPA and ISO guidelines. Fire and EMS equipment includes such items as hose, couplings, nozzles, master stream appliances,¹² various types of ground ladders, hydraulic rescue tools and equipment, foam, scene lighting, oxygen tanks, defibrillators, small hand tools, fire extinguishers, mobile and portable radios, salvage covers, and medical equipment and supplies. The technology and standards for fire department equipment are constantly evolving to improve the effectiveness, efficiency, and safety of firefighters.

Many of the small tools and equipment are considered disposable items and are replaced with ongoing operating funds. However, some pieces of equipment are very expensive, and thus require ongoing planning for their useful life and replacement. The more expensive pieces of capital equipment include:

- Self-contained breathing apparatus (SCBA) and fill stations.
- Firefighting PPE (personal protective equipment).
- Hydraulic/pneumatic extrication equipment.
- ECG monitor/defibrillator.
- Thermal imaging cameras.
- Mobile/portable and base radios.
- Mobile data computers.
- Gas monitoring and detection devices.

¹² "Master streams" are large capacity nozzles that can be placed on the ground or are affixed to aerial devices.

Much of the more expensive capital equipment is generally on a ten-year replacement cycle. The total cost of outfitting a department for the capital items described can be considerable. **It is therefore imperative that these costs be included in the apparatus replacement program and be built around the anticipated life cycle of this equipment.** Departments should seek out and apply for various grants to obtain necessary funding for the purchase or replacement of capital equipment.

Recommendation: The GTRFD should establish a formal replacement plan for fire and rescue equipment. The regular replacement of large cost items such as hose, ladders, firefighter PPE, portable radios, and SCBA on an incremental basis will avoid major one-time increases in the annual operating budget

The GTRFD's fire apparatus has a typical selection of portable hand power and service tools and equipment utilized for firefighting and other emergency operations. For the most part the apparatus appears to meet NFPA and ISO recommendations for equipment carried commensurate with their age. The fire department equipment appears adequate and well maintained. Engine 4 is well set up and organized to function as a Rescue Engine as we believe all the department's first line engines should be.

Figure 4-20: Engine 4 Compartments



Engine 4 is well equipped including carrying a full complement of rescue tools and equipment allowing it to function as a rescue engine. All equipment is neatly organized, stored and mounted.

The department has performed required annual testing on hose and ground ladders for about the past three years as required by NFPA and ISO standards. The department also has three trained field service technicians for SCBA who maintain these critical components of the firefighter's PPE ensemble. Annual SCBA fit testing of all qualified personnel as required by OSHA

regulations, and annual flow testing of all SCBA as recommended by NFPA and the manufacturers are both performed in house as part of a regional cooperative endeavor between Rural, Traverse City and Grand Traverse Metro Fire Departments. This is a commendable shared services agreement that CPSM considers to be a [Best Practice](#).

The personal protective equipment (PPE) worn by firefighters includes the turnout coat, turnout pants, helmet, boots, gloves, and hood. A random check of GTRFD PPE indicated that it was in acceptable condition. The department inspects PPE on an annual basis.

CAPITAL PLANNING

Capital infrastructure is essential to all communities. A Capital Improvement Plan (Program), or CIP, is a plan or varying duration, in government, usually five (5) to ten (10) years in duration, which identifies major (capital) projects and equipment purchases, organizes long term projects, provides a planning schedule and identifies options for financing the plan. The plan serves as a mechanism for decision-making, to identify priorities early to allow for more deliberate planning of financial resources, and to communicate those long-range plans and needs to jurisdiction's stakeholders and taxpayers. Service quality can only be maintained if governments are committed to keeping their capital assets in good condition.

Budgetary pressures often divert government resources away from capital renewal. At a time when many governments are challenged by citizen demands for additional or improved services and taxpayer resistance to higher tax levies to pay for these services, the capital budget is often the first to be cut to balance the budget. Careful planning is required to ensure that capital needs receive the full attention and commitment of government officials. A well-planned capital improvement program is a crucial tool to systematically plan for and manage capital needs. On-going service delivery can be assured only if adequate consideration is given to capital needs. If facilities and infrastructure are not maintained, they will deteriorate until costly maintenance is required, services are threatened, and community growth stagnates or declines.

At the time of this assessment the Grand Traverse Rural Fire Department did not have a formal capital vehicle/equipment replacement plan or schedule. The department's fleet is aging and at least several vehicles are currently in need of replacement. The development of a long-range capital plan for apparatus will allow the department to not only plan for it apparatus replacement and acquisition needs, it will also, both short and long term, allow it to right size and reconfigure it apparatus and vehicle fleet into a versatile, multi-functional one that more effectively and efficiently meets the needs of the communities it serves.

One option to fully equipping and transforming the Grand Traverse Rural Fire Department would be the use of the United States Department of Agriculture (USDA). Under USDA, the Rural Fire Department Resources for Local Government Program is designed to assist communities like those served by GTRFD. Applications may have to be by each township to maximize full use of the program and grant funds may be available to offset a portion of the costs.

Information on the USDA program include using a financing model or cash outlay:

- The United States Department of Agriculture has a grant/loan program that may be ideally suited for the Townships that make up GTRFD. The Rural Fire Department Resources for Local Government under USDA – Rural Development Program provides low-interest loans and grants:

- James Turner, State Director, 3001 Coolidge Road, Suite 200, East Lansing, Michigan 48823; phone 517-324-5190 and www.rd.usda.gov/mi can provide information
- No more than 20,000 population for the community seeking loans/grants
- Funds can be used for facilities and equipment.
- Explanation is contained in the Code of Federal Regulations, 7 CFR, Part 1942.17(d) for loans and 7 CFR, Part 3570.62 for grants.
- Priority in grant area is for small population municipalities of 5,500 or less.
- Low-income guidelines also assist in grant versus loan mix

Recommendation: The GTRFD should develop and implement a long-term capital apparatus, vehicle, and equipment replacement plan. As an alternative, the Fire Department may wish to seek financing for capital needs through the US Department of Agriculture, Rural Initiatives.

SECTION 5. COMMUNICATIONS AND TRAINING

ORGANIZATIONAL COMMUNICATIONS

Effective communications systems are key to successful operation of any emergency services organization. Standard Operating Procedures (SOPs)/Standard Operating Guidelines (SOGs) and other orders are mission critical to consistent, effective, and safe operations. Without them there is a tendency to “freelance” and personnel may not all be on the “same page” regarding a wide range of emergency and administrative operations.

During interviews throughout the GTRFD service area, communications was listed as either the top or one of the top issues. Regardless of whether Green Lake and Grant Townships withdraw from the GTRFD, a formal 360 communications plan should be adopted. Included in this plan:

- Regular communications with all stakeholders (taxpayers, businesses, and customers) about the Department
- Individual communications with people treated or transported by the EMS division. This should include follow-up on outcomes achieved by the department.
- Regular communication between the Township Board and members of the department – both paid and volunteers.
- Regular communications to other surrounding townships and fire departments on activities and actions of the Department.
- Monthly reporting on activity. Included in this report should be a review of how the department performed against stated service goals and objectives. Outliers and calls for service that exceeded stated goals and objectives should be explained.
- Monthly information on fire prevention, education, and volunteer opportunities to all stakeholders (and sent on tax notices, assessment notices, and any other township correspondence as well as through Social Media and websites).
- Regular reporting on activities of the department should be posted on social media as well as alerts (fire burn bans, winter storm warnings, freeze warnings, heat warnings, etc.)

Recommendation: GTRFD should develop a 360 communication plan to alleviate problems identified by stakeholders.

EDUCATION/TRAINING PROGRAMS AND PERSONNEL DEVELOPMENT

Training is, without question, one of the most important functions that a fire department should be performing on a regular basis. One could even make a credible argument that training is, in some ways, more important than emergency responses because a department that is not well trained, prepared, and operationally ready will be unable to effectively, efficiently, correctly,

and safely fulfill its emergency response obligations and mission. A comprehensive, diverse, and ongoing training program is critical to the fire department's level of success.

An effective fire department training program must cover all the essential elements of that specific department's core missions and responsibilities. The program must include an appropriate combination of technical/classroom training and manipulative or hands-on/practical evolutions. Most of the training, but particularly the practical, standardized, hands-on training evolutions should be developed based upon the department's own operating procedures and operations while remaining cognizant of widely accepted practices and standards that could be used as a benchmark to judge the department's operations for any number of reasons.

Education and training programs also help to create the character of a fire service organization. Agencies that place a real emphasis on training tend to be more proficient in carrying out day-to-day duties. The prioritization of training also fosters an image of professionalism and instills pride in the organization.

TRAINING IMPORTANT FOR ISO RATING

One area in which most departments fail to achieve a high level of ISO points is in training. Most departments either do not track or have failed to create a robust training program for fire departments and, therefore, lose points assigned to the training area. A summary of training that is evaluated by ISO includes:

- **Training facilities**
 - Drill tower
 - Live fire training structure (including smoke room)
 - 2-acre training area
- **Use of facilities**
18 hours per year per firefighter (for maximum credit)
- **Company training**
Company training at fire stations, 16 hours per member per month (for maximum credit)
- **Classes for officers**
Certification of all officers
12 hours per year of continuing education for all officers (for maximum credit)
- **New driver and operator training**
Classes for new drivers and operators, 60 hours (for maximum credit)
- **Existing driver and operator training**
Classes for existing drivers and operators, 12 hours (for maximum credit)
- **Training on hazardous materials**
6-hour session per member per year (for maximum credit)
- **Recruit training**
240 hours per recruit in the first year (for maximum credit)
- **Building familiarization for prefire planning programs**
The community should conduct a prefire planning inspection of each commercial, industrial, institutional, and other similar structure once a year for maximum credit in the Fire Suppression Rating Schedule (FSRS). Records of the inspections should include complete and up-to-date notes and sketches.
- **Records**
When no records exist for training, there will be no credit for items.

PERSPECTIVES OF AREA FIRE CHIEFS

As part of this assessment the CPSM team interviewed the chiefs of numerous fire departments that surround the GTRFD response area. These include Blair and Long Lake Townships, both of which are contiguous to Green Lake, and were part of Rural at one time; Traverse City and Grand Traverse Metro which are the “big” departments in the area; and Elmwood, Garfield, Boardman, and Clearwater Townships and the Village of Elk Rapids. These departments are partners with Rural in various ways for automatic and mutual aid.

As would be expected, all the chiefs stated unequivocally that they would provide automatic and/or mutual aid to whoever needs it regardless of how the Rural situation ultimately works out. Most of them stated they want to remain above the political infighting that seems to be paralyzing Rural and serve the 9-1-1 callers who need assistance. None of the chiefs felt that their respective communities would be interested in reforming any type of regional or consolidated department now. Several pointed to the problems Rural is experiencing as the reason there would not be any interest now. However, they felt that the possibility of pursuing some type of collaborative endeavors in the future should not be ruled out.

For the chiefs of Blair and Long Lake, which were once a part of the GTRFD, there was a consensus regarding some of the issues that resulted in their respective township's ultimately deciding to leave GTRFD and form their own fire departments. Chief among the concerns was an economic one, that is, that their townships were the largest financial contributors to Rural, yet they it was widely perceived they got little in return in the way of apparatus or equipment. Both townships had to also purchase additional equipment that Rural would not provide to them. Finally, despite the considerable funding they were providing to Rural, both townships still had to provide additional funding to cover the salaries of personnel who staffed their stations. Rural refused or could not provide any type of in station staffing.

There is a widespread perception that there is a lack of communication between GTRFD and the townships which are members. There is also a widespread belief among a wide cross section of stakeholders, most of the chiefs included; that the political infighting between the various townships that Rural protects has served to render the board completely dysfunctional and ineffective at setting the vision and direction that is desperately needed. It is believed that several of the municipalities are pursuing their own individual agendas rather than looking out for the overall good of the organization. One example that was cited several times is that one of the Rural board members frequently votes no on approving even routine motions such the payment of bills. This political posturing may have caused what is perceived as a lack of good faith negotiations between Rural and any townships that are considering withdrawing. Concern was expressed about the lack of visibility by the GTRFD chief in the various townships.

Whether the chiefs feel that the GTRFD chief is doing a good job or not seemed to be somewhat split. The majority (although not all) believe that from their perspective as fellow fire chiefs that the chief has done a good job. He has tried to unify the department into a single organization and instill a true singular sense of identity and belonging to “Rural” rather than the individual organizations that existed prior to its formation. The sense that members did not feel that they were a part of, or had an ownership stake in, GTRFD, was expressed to CPSM by several stakeholders who were interviewed. However, trying to break down the old “fiefdoms” created

resentment and pushback from some personnel, particularly older, long time, members. Nonetheless, the chiefs of the former GTRFD members felt that their members are much more engaged, with better morale, since leaving rural.

In a demonstration of communication issues, Long Lake informed the team that they were dropped from all Rural boxes and initial responses, and Rural dropped from theirs as of the date they became independent. However, there is a memo from the Chief indicating the change in Box Alarm Assignments that was sent prior to those changes being implemented. Somewhere Long Lake command was not notified that these response assignment changes had been made.

There is a sense among the chiefs that although the Rural chief probably has the support of most members of the department, he does not have the support or backing of the GTRFD board, and has at times been rendered less effective. Part of this issue can probably be connected to the resistance of seasoned GTRFD volunteers, who may share connections with local political figures, to embrace the unification of the combined department. This is an important aspect the Rural board will need to give very careful consideration to as they move forward.

Several of the chiefs informed the CPSM team that in some ways they envied Rural for the larger pool of personnel they could draw from due to their larger geographic size. However, a couple of other chiefs also stated that one of Rural's major issue was staffing, and they (Rural) never know who was going to show up.

Most the chiefs stated a fact that is well known to the CPSM team, that fire departments in communities such as these need the support of a strong automatic and mutual aid system to successfully mitigate many incidents. In fact, the team was informed that among other things, all of Kalkaska and Antrim Counties rely on Rural for a ladder truck. However, several of the chiefs relayed concerns about the mutual aid procedures and practices. Despite their reliance on each other for both automatic and mutual aid, CPSM was informed that Rural and the surrounding departments rarely ever train and/or meet with each other and interactions are almost totally confined to emergency scenes.

Several chiefs expressed an opinion that the GTRFD does not purchase apparatus and equipment that is appropriate for the area that they must protect. Their feeling was that the department's apparatus is too large and not well suited for the department's operations.

The chiefs from Kalkaska County noted that their county had a county wide fire department at one time and it was disbanded. There is no interest in trying to reform any type of regional operation (Clearwater and Alden are considering merging into a new organization that will be called the South Torch Lake Fire District). Although a couple of chiefs mentioned there is a synergy to regional endeavors such as Rural remaining together, the majority felt that the individual municipalities would still receive more than adequate fire protection if Rural were to disband. A couple even thought the individual municipalities would thrive if they had their own departments again in ways that would not have been possible remaining in the GTRFD. It was also noted that in less than a year after Long Lake left the Rural system, Long Lake has purchased three new pieces of apparatus, replacing two vehicles that were over 30 years old, and are expecting a considerable improvement in their ISO rating.

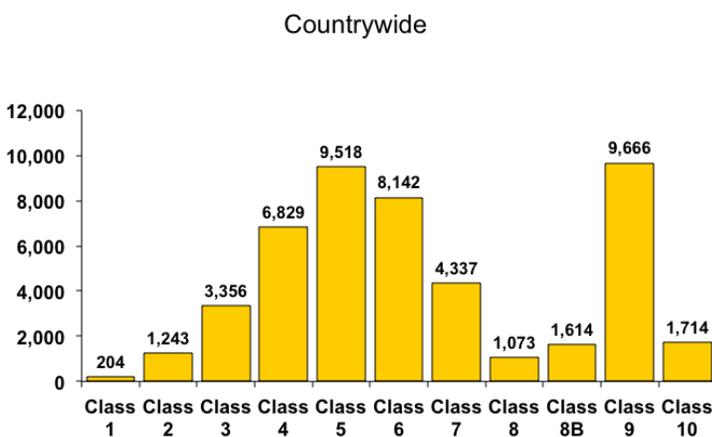
There is widespread belief that if Green Lake ultimately withdraws from Rural that the GTRFD will disband. Some believe the GTRFD's demise is imminent regardless of what Green Lake decides. In the end, all the chiefs stated they would do whatever they could to assist either Rural, or, any new departments should that may be formed should rural disband.

SECTION 6. ISO AND COMMUNITY RISK REDUCTION

UNDERSTANDING ISO

Grand Traverse Rural Fire Department enjoys a mix of rating schedules from the Insurance Services Office (ISO). It is important to understand the complexity of the ISO rating schedule and that there is no guarantee a community will receive a specific rating.

The ISO insurance rating schedule goes from best – number 1 – to “no fire protection” which is assigned a number 10. Very few departments in the country achieve the number 1 status, particularly in rural areas where there is no water system. Forty percent of the ISO rating is based upon available water supplies and in rural areas, it is difficult to achieve fire flow requirements without a maintained, hydrant system.



The table at left identifies the numbers of departments around the country that have achieved various levels within the ISO rating classification system. Most departments fall within the 4-6 range.

Achieving a better ISO rating does not guarantee a large reduction in insurance costs. The ISO rating system and subsequent costs pertain only to the fire liability portion of the homeowner's policy. Much of the policy is determined on other risks and coverage, thus the savings may be minimal in moving from one

classification to another. In addition to this component, some insurance companies (State Farm) have opted to move to an alternative risk-assessment schedule that is not based on ISO. For that reason, to determine the actual costs of insurance requires contacting all individual insurance agents servicing a community and having them provide information as to the cost of the fire rating. The individual agents are also free to opt to other levels, further complicating the effort to specifically quantify the cost.

To determine a community's Public Protection Classification (PPC™), ISO conducts a field survey. Expert ISO staff visit the community to observe and evaluate features of the fire protection systems. ISO objectively evaluates four major areas:

- **Emergency communications systems**
A review of the emergency communications systems accounts for 10 points of the total classification. The review focuses on the community's facilities and support for handling and dispatching alarms for structure fires.
- **Fire department**
A review of the fire department accounts for 50 points of the total classification. ISO focuses on a community's fire suppression capabilities. ISO measures suppression capabilities based on the fire department's first-alarm response and initial attack to minimize potential loss. Here, ISO reviews such items as engine companies, ladder or service companies,

deployment of fire companies, equipment carried on apparatus, pumping capacity, reserve apparatus, company personnel, and training.

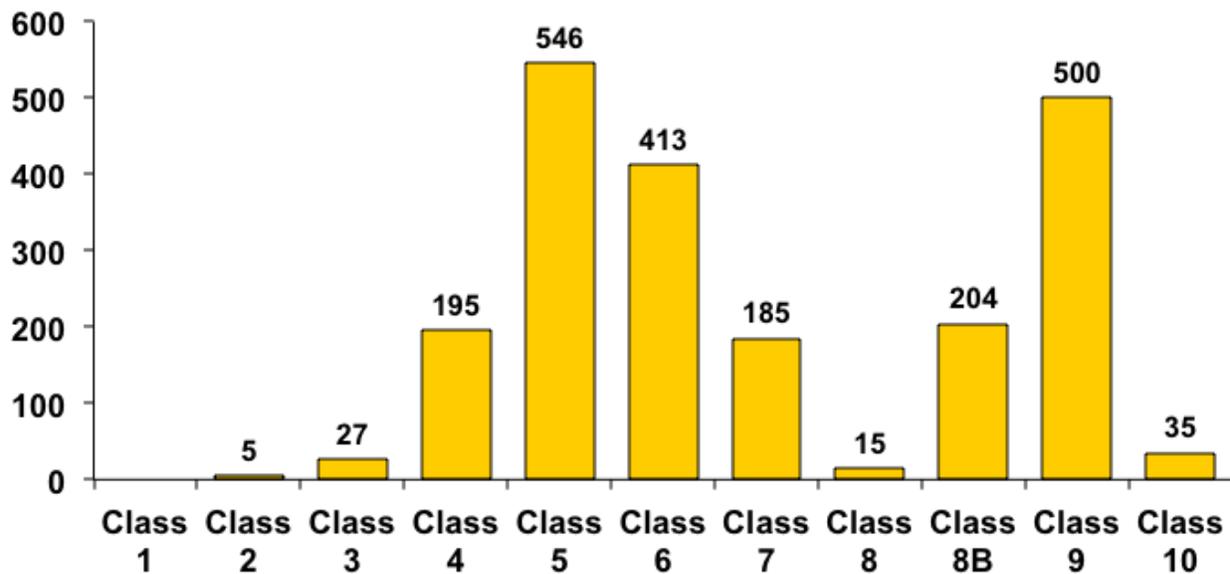
- **Water supply**

A review of the water supply system accounts for 40 points of the total classification. ISO evaluates the community's water supply system to determine the adequacy for fire suppression purposes. ISO also consider hydrant size, type, and installation, as well as the frequency and completeness of hydrant inspection and flow-testing programs. For that reason, each hydranted system should develop (and provide) maps of their service area that include flow test information (volume and pressure of each individual hydrant along with water main sizes). Hydrants should be color-coordinated using NFPA standards and records on maintenance should be compiled and maintained by the fire department.

- **Community risk reduction**

ISO reviews a community's risk reduction efforts and credit them in the Community Risk Reduction section, which allows for extra credit of up to 5.5 points for a potential total of 105.5. That considers fire prevention code adoption and enforcement, public fire safety education, and fire investigation. CPSM recommends that communities invest in the Community Risk Reduction Effort in the same robust manner as firefighting. Information on the CRR will follow in this section.

Michigan



In Michigan, most departments mirror the national standard (identified in the table above). Most rural departments will be rated a “9” while there are no Class 1 departments in the state.

When ISO develops a single Public Protection Classification (PPC™) for a community, all community properties receive that classification. However, in many communities, ISO develops split classifications, which were revised in 2013 to reflect the risk of loss more precisely. An example of the split classification is 4/4X or 4/4Y. The first number refers to the classification of properties within 5 road miles of a fire station and within 1,000 feet of a creditable water supply. The second number, with either the X or Y designation, applies to properties within 5 road miles

of a fire station but beyond 1,000 feet of a creditable water supply. ISO generally assigns Class 10 to properties beyond 5 road miles.

The X and Y classifications replace the former 9 and 8B portions of a split classification, respectively. For example, a community formerly graded as a split 6/9 will change to a split 6/6X. Similarly, a community formerly graded as a split 6/8B classification will change to a split 6/6Y classification. Those designations reflect a reduction in fire severity and loss and have the potential to reduce property insurance premiums.

- To the fire service, the X and Y designations identify enhanced fire suppression capabilities used throughout the fire protection area.
- To the community, those designations reward a community's fire suppression efforts by showing a more reflective designation.
- To the individual property owner, the designations offer the potential for decreased property insurance premiums on the fire liability portion of their policy.

AUTOMATIC AID

Automatic aid is assistance dispatched automatically by contractual agreement between two communities or fire districts to all first alarm structural fires. That differs from mutual aid or assistance arranged case by case. ISO will recognize an automatic-aid plan under the following conditions:

- The assistance must be prearranged for first-alarm response per a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.
- The assistance may be fire department companies — including apparatus and firefighters — or only firefighters.
- For fireground communications, the communities should have common dispatch and tactical radio frequency capability and standard operating procedures.

WATER SUPPLY

Forty points of a community's Public Protection Classification (PPC™) grading is based on its water supply. ISO looks at whether there is sufficient water for fire suppression beyond the community's maximum daily consumption for other purposes.

Minimum criteria

For a community to be eligible for a PPC of Class 8 or better, the water supply system must be able to deliver at least 250 gallons per minute (gpm) for a period of 2 hours. That flow is in addition to the community's maximum daily rate of consumption for purposes other than firefighting.

If the fire department delivers the 250 gpm through tanker shuttle, large-diameter hose, or other alternative water supply, the water must be available within 5 minutes of the arrival of the first-due apparatus, and the department must maintain the flow, without interruption, for the 2-hour duration.

Class 8B

If a community has superior fire protection services and fire alarm facilities but lacks the water supply required for a PPC of Class 8 or better, the community may be eligible for a Class 8B rating. If your water supply meets the 250 gpm minimum, ISO will evaluate each system — together with factors relating to the fire department and the fire alarm and communications systems — to determine whether the fire department can qualify for a PPC of Class 8 or better.

ISO calculates the NFF for an individual building based on the building's area, construction, occupancy, and exposure. To get full credit, the water supply must be able to deliver water at 20 psi residual pressure and at the specified rate of flow for a specified period. NFFs for individual buildings range from a minimum of 500 gpm to a maximum of 12,000 gpm.

BUILDINGS NOT CONSIDERED IN THE COMMUNITY'S PPC

For purposes of calculating the community's PPC, ISO does not normally consider the Necessary Fire Flow (NFF) at certain high-demand properties. Those properties include buildings with an NFF more than 3,500 gpm. Examples of this type of building would be industrial, commercial, and even some new single family homes.

ISO individually grades the protection of buildings with an NFF more than 3,500 gpm, and their PPC can differ from that of the community or district that provides their fire protection.

Evaluation method

ISO analyzes three primary factors in the evaluation of the water supply at each representative site in the community:

- capacity of the supply works
- capacity of the water mains or distribution system
- distribution of hydrants

ISO will analyze each factor per applicable standards of the National Fire Protection Association (NFPA) and the American Water Works Association (AWWA). In addition, ISO evaluates the type and installation of hydrants and/or suction points throughout the community or district, along with any program of hydrant inspections and flow testing. A community will receive additional credit points based on that evaluation.

The Fire Suppression Rating Schedule (FSRS) recognizes alternative water supply systems, including dry hydrants, suction points, large-diameter hose relays, and hauled water using tanker shuttles.

The water delivery system must be available 365 days a year and provide 250 gpm for a 2-hour duration within 5 minutes of the arrival of the first apparatus. If a community uses a dry hydrant or suction supply point, ISO may need certification of the water capacity available during a 50-year drought cycle — by a state-certified professional — and many state and local governments have geological engineers or hydrologists who can provide that information. ISO treats suction points — with or without dry hydrants — in the same way it treats standard fire hydrants. Any property within 1,000 feet of a creditable suction point may be eligible for a protection class better than Class 9, provided the building is within 5 road miles of a responding fire station and the community has obtained 20 percent credit or more under the FSRS.

ISO may extend credit beyond 1,000 feet of a fire hydrant when the company uses large-diameter hose — if the fire department can demonstrate a standard procedure for deployment of hose and establish a relay operation.

To determine the fire department's eligibility for recognition of a tanker shuttle, ISO needs to understand the delivery capability of each apparatus. ISO considers:

- fire-site pump capacity
- drop-tank capacities
- distance of responding apparatus from the fire station to the fire site
- distance of responding supply pumper to supply site
- distance from the fire site to the supply site
- amount of water carried by apparatus
- discharge rate of water supply apparatus
- fill rate of water supply apparatus
- quantity of water available and the rate available from the supply source
- set-up times

The procedure for determining the department's capability involves running a timeline analysis. ISO considers apparatus arrival times, travel times, discharge rates, fill rates, fire flow at the fire site, wait time for apparatus to fill or discharge their water supply, and supply delivery capability.

COMMUNITY RISK REDUCTION

Community Risk Reduction has become an important component of progressive fire departments in the United States. Vision 20/20, a project funded by an AFG Fire Prevention and Safety Grant to the Institution of Fire Engineers, has been working on implementing Community Risk Reduction (CRR) programs to demonstrate their application in all-size departments.

Modeled on the highly successful programs used in the United Kingdom and Australia, the concepts of CRR have been implemented in several communities including Dallas, Texas; Tucson, Arizona; Portland, Oregon; Madison, Wisconsin; Vancouver, Washington; Philadelphia, Pennsylvania, Michigan and others.

The concept has its roots in the United Kingdom, evolving out of the "Standard of Response Coverage" (SOC) process that is still used by most departments in the United States but that provides a one-dimensional response to fire problems.

Beginning in 1933, brigades (like fire districts) in the United Kingdom developed processes to move fire deployed resources out of harms ways should war come to the nation. Resources would re-deploy following any attack to fight the fires and provide emergency service with metrics created that indicated the success or failure of units.

In 1955, the concept was evaluated and expanded for peace-time use with metrics analyzing the time to respond, the units that could respond in specific times, and an evaluation of the effectiveness of that response. In the 1980's, the last iteration of the old Standard of Cover process was evaluated at which time recognition was given that adding equipment, adding

staffing, and adding stations produced, largely, the same result which was fire occurred with a resulting loss.

A comprehensive study was undertaken in the United Kingdom and in 2001 a White Paper was released that called for "Integrated Risk Management Systems." Rather than concentrating on response, the new process would focus the same robust deployment to prevention efforts. Using data on fires, brigades would drill down to identify behaviors (that could be changed) to prevent fires. An example of this concept is that a service area may be experiencing many home fires in the evening hours. Rather than stopping at that level, analysis would be used to determine what were the underlying causes – such as smoking in bed. In addition to installing smoke detectors and alarms, the brigade would partner with health care professionals to present smoking cessation programs that would be conducted at the fire stations as well as providing free home inspections to eliminate further hazards.

The result has been double digit decreases in the numbers of fires, the numbers of injured and killed, and improvements in safety for responders.

CPSM has been invited several times to participate in presentations from the Merseyside Fire District in Liverpool and the retired fire chief is a CPSM subject matter expert who provides education and training for communities in the United States as well as around the world.

CPSM strongly supports and encourages communities that are deploying resources to include a robust Community Risk Reduction component to achieve maximum results for the investments made. Examples of initial CRR efforts would be a community-wide inspection program that ensures each structure is equipped with the necessary smoke and carbon monoxide detectors and that existing units are maintained. Those efforts can be expanded into cursory inspections for other fire prevention actions such as discontinuing the use of extension cords, improperly stored flammable materials, hoarding, etc.

Recommendation: GTRFD should organize using a Community Risk Reduction Model. Considerable resources are available online at <http://strategicfire.org/resources/fire-is-everyones-fight/>

SECTION 7. RESPONSE TIMES

CPSM's Geographic Information Team produced run times using various national standard benchmarks for the GTRFD that includes Green Lake and Grant Townships. CPSM is working to include Buckley and other stations in this analysis. From the GIS analysis, travel times of 4, 6, and 8 minutes were created based upon the responding unit location, posted speed limits, and road configurations.

For most NFPA standards, a four minute travel time is used to achieve the best performance from responding units. Coupled with a 1.5 minute dispatch time and 1.5 minute turnout time, a four minute travel time allows the first due unit to arrive prior to flashover (based on witnessed ignition) or within the 10 minute survival rate for Sudden Cardiac Arrest (SCA) patients. Research and information from the American Heart Association shows that for every minute of delay in starting CPR or defibrillating a patient, the survival chances decrease by 10%. Thus, a ten minute response without anyone performing CPR or defibrillating the patient is likely to produce a negative outcome.

Achieving a four minute response time can usually only be achieved in the immediate area surrounding a fire station. The second mark, six minutes, is more indicative of the efforts to respond in a suburban area – the immediate area outside the main fire department response. The six minute mark is the outside metric for flashover and would still provide a positive outcome if CPR or defibrillation occurs in a SCA.

The eight minute response time is the level established for full-assignment response in most NFPA standards and is the basis for NFPA 1720's standard that governs volunteer and combination department response metrics.

Figure 7-1 Area Map



Figure 7-2 Station Locations

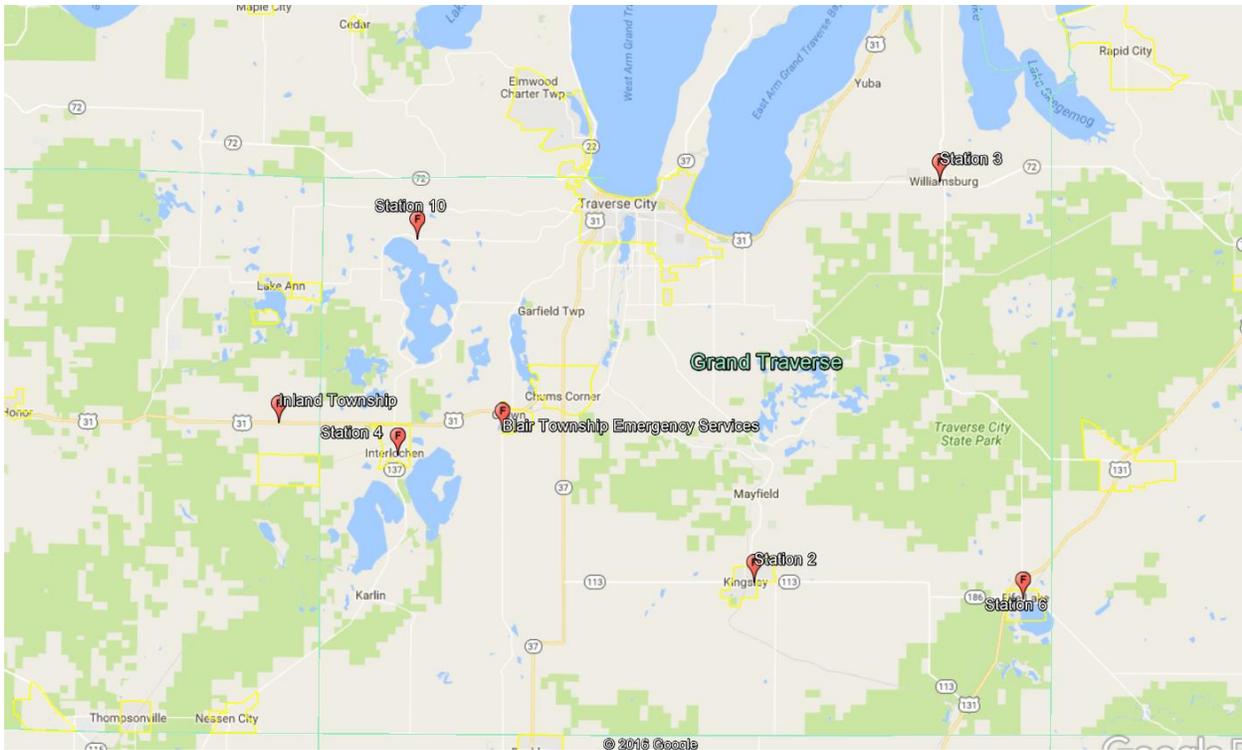


Figure 7-3 Four Minute Travel Times From Stations

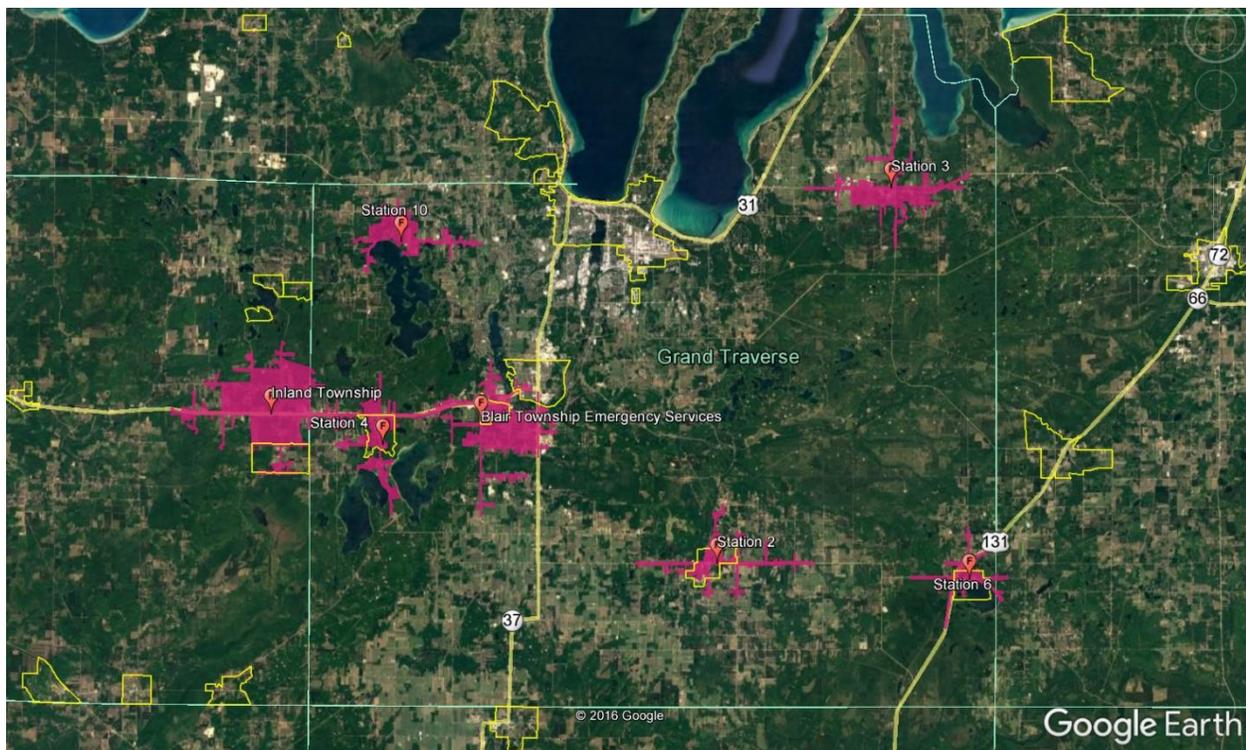


Figure 7-4 Six Minute Travel Times from Stations

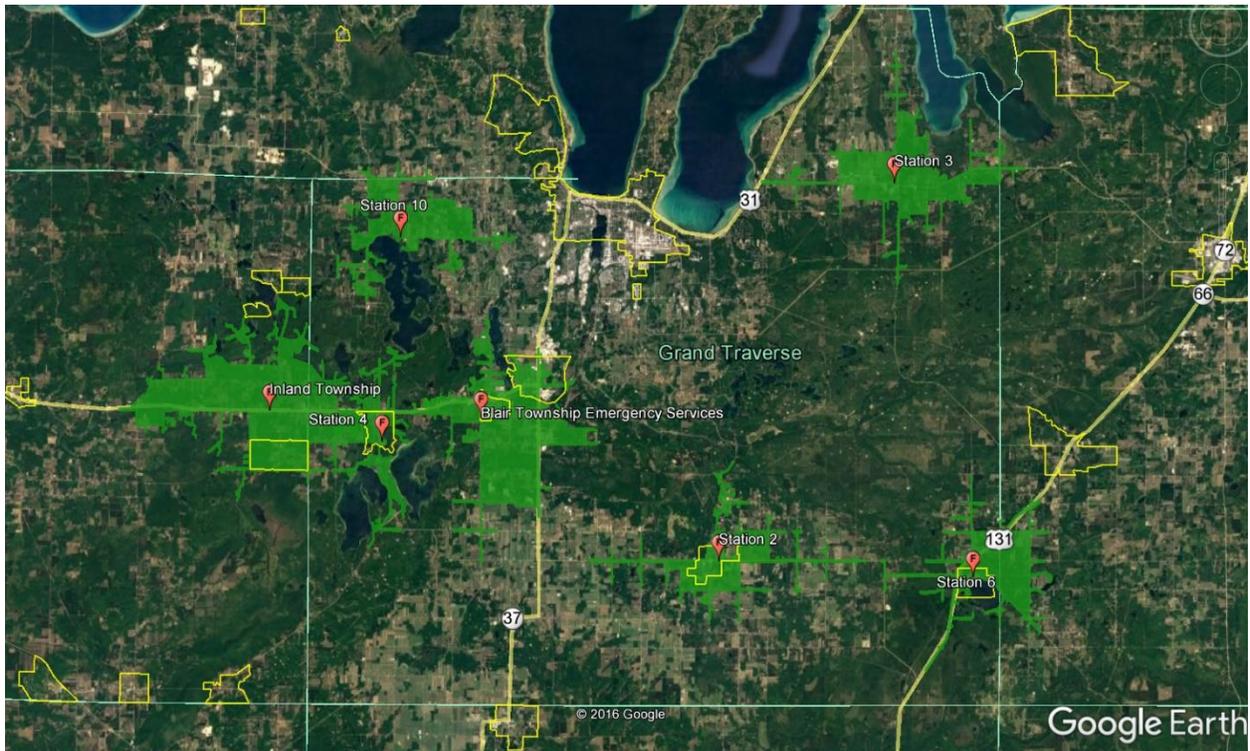


Figure 7-5 Eight Minute Travel Times

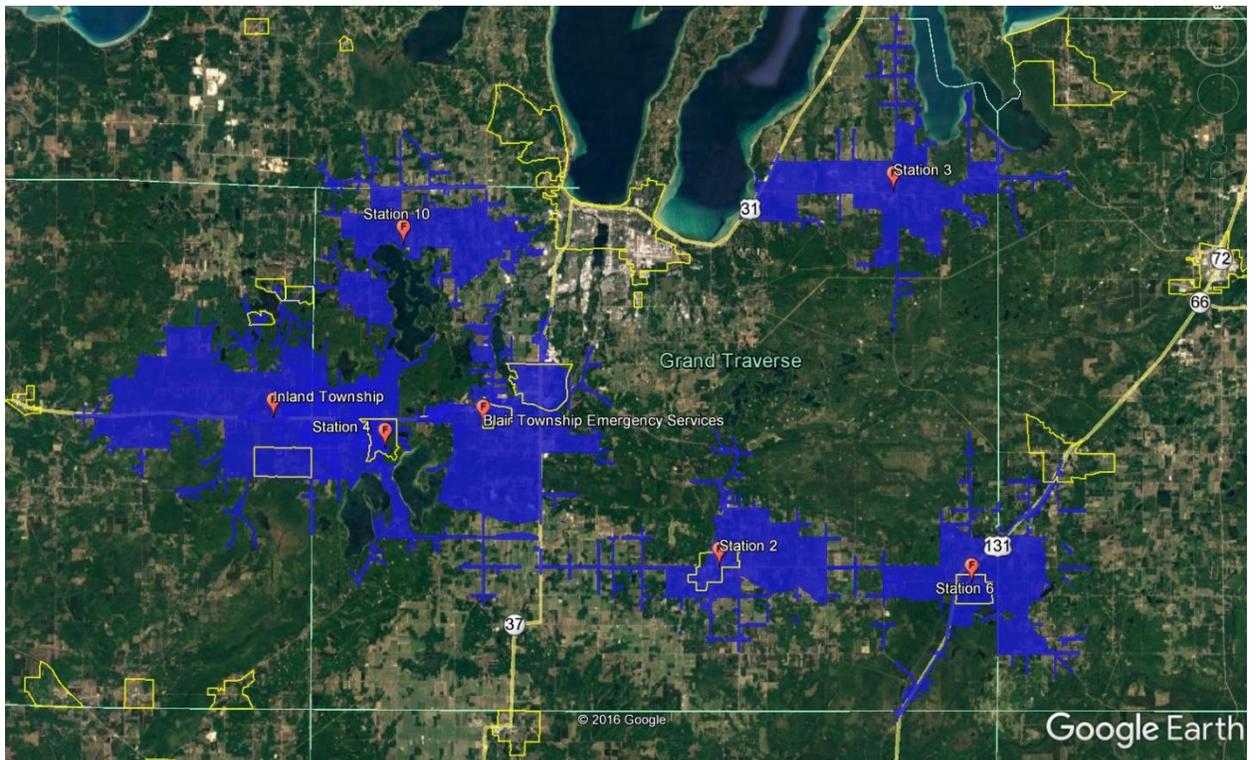
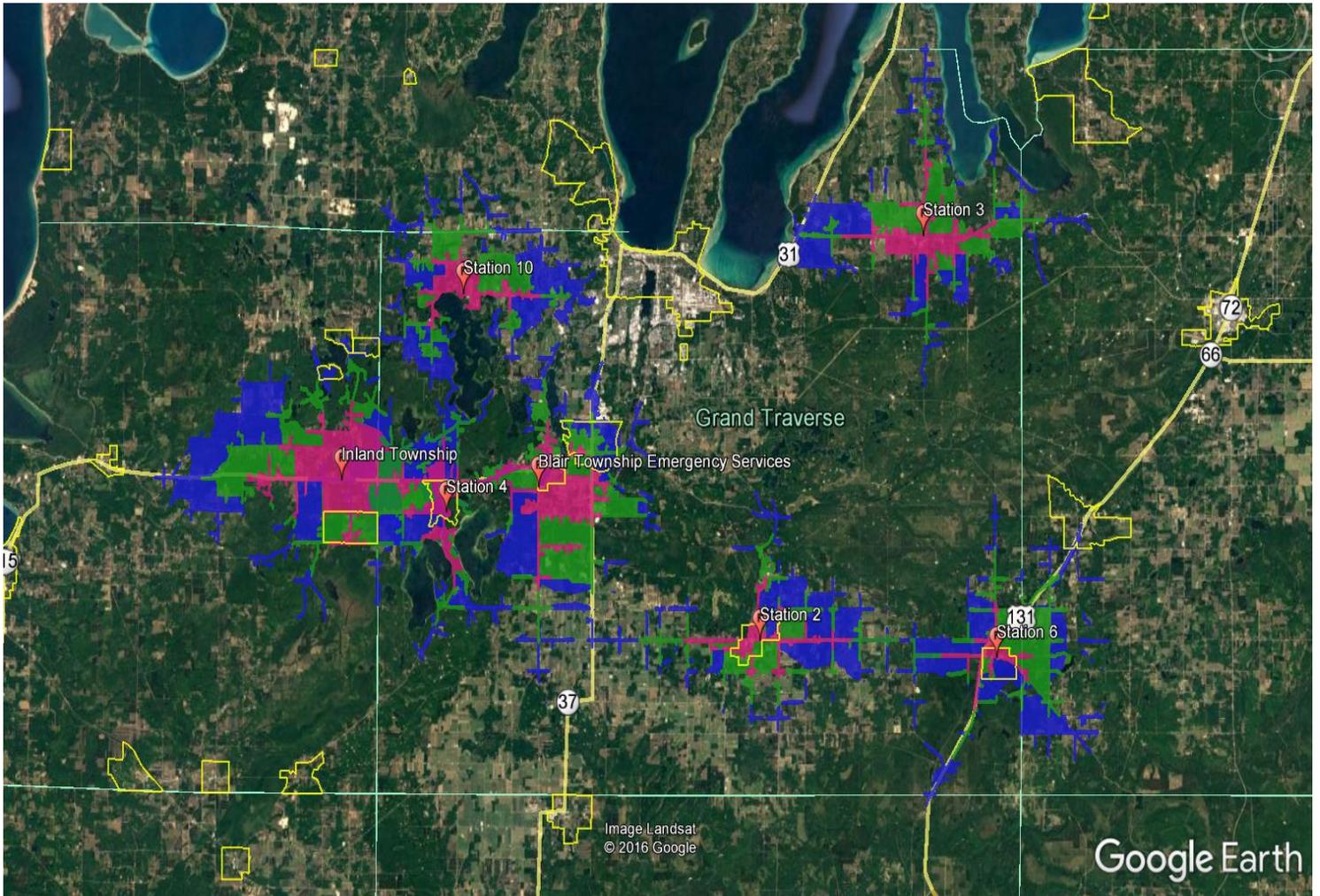


Figure 7-6 Effective Response Areas (Travel Time)



SECTION 8: DATA AND PERFORMANCE

INTRODUCTION

This data analysis was prepared as a key component of the study of the Grand Traverse Rural Fire Department (GTRFD), which was conducted by the Center for Public Safety Management, LLC. This analysis examines all calls for service within the service area between July 1, 2015, and June 30, 2016, as recorded in the Grand Traverse County 911/Central Dispatch computer-aided dispatch (CAD) system and the GTRFD's National Fire Incident Reporting System (NFIRS).

This analysis is made up of five parts. The first part focuses on call types and dispatches. The second part explores time spent and workload of units. The third part presents an analysis of the busiest hours in the year studied. The fourth part provides a response time analysis of units. The fifth and final section provides an overview of calls and workload in Long Lake Township in the last six months of 2015.

During the year covered by this study, Grand Traverse Rural Fire Department provided service to the townships of Fife Lake, Grant, Green Lake, Mayfield, Paradise, Springfield, Union, and Whitewater and the Villages of Fife Lake and Kingsley. GTRFD operated four engines, four tankers, four wildfire/brush units, three ATVs, two water supply units, two marine (boat) units, two utility vehicles, one air unit, one squad, one ladder, one snowmobile, and one administrative unit out of four stations. GTRFD also provided service to Long Lake Township through December 31, 2015, operating one engine, one tanker, one wildfire/brush unit, and one squad out of one station.

During the year studied, there were 399 calls for service, of which 16 percent were EMS calls. The total combined workload (deployed time) for all units was 764 hours. The average dispatch time for the first arriving unit was 3.3 minutes and the average response time of the first arriving unit was 15.6 minutes. The 90th percentile dispatch time was 5.5 minutes and the 90th percentile response time was 24.3 minutes.

METHODOLOGY

In this report, we analyze calls and runs. A call is an emergency service request or incident. A run is a dispatch of a unit. Thus, a call might include multiple runs.

We received CAD and NFIRS data for Grand Traverse Rural Fire Department. We first matched the NFIRS and CAD data based on incident numbers provided. Then, we classified the calls in a series of steps. We first used NFIRS incident type to identify canceled calls and to assign EMS, motor vehicle accident (MVA), and fire category call types. EMS calls were then assigned detailed categories based on a list of types provided for 75 percent of EMS calls and based on the CAD incident nature for the remaining EMS calls. Mutual aid calls were identified based on the NFIRS mutual aid code.

Finally, records for units with no en route time and no arrival time were removed. Then, calls with no responding units were removed.

To provide a better picture of GTRFD's work for the current areas covered, calls within Long Lake in 2015 were excluded from the analyses in the first four sections. Call location was determined

by the township field in the NFIRS data. An analysis of GTRFD's work in Long Lake between July 1, 2015, and December 31, 2015, is examined separately.

In this report, canceled calls are included in all analyses other than the response time analyses.

AGGREGATE CALL TOTALS AND DISPATCHES

In this report, each citizen-initiated emergency service request is considered a call. During the year studied, GTRFD received 399 calls for service. Of these, 20 were structure fire calls and 60 were outside fire calls. Each dispatched unit is a separate "run." As multiple units are dispatched to a call, there are more runs than calls. The department's total runs and workload are reported in the second part of this analysis.

CALLS BY TYPE

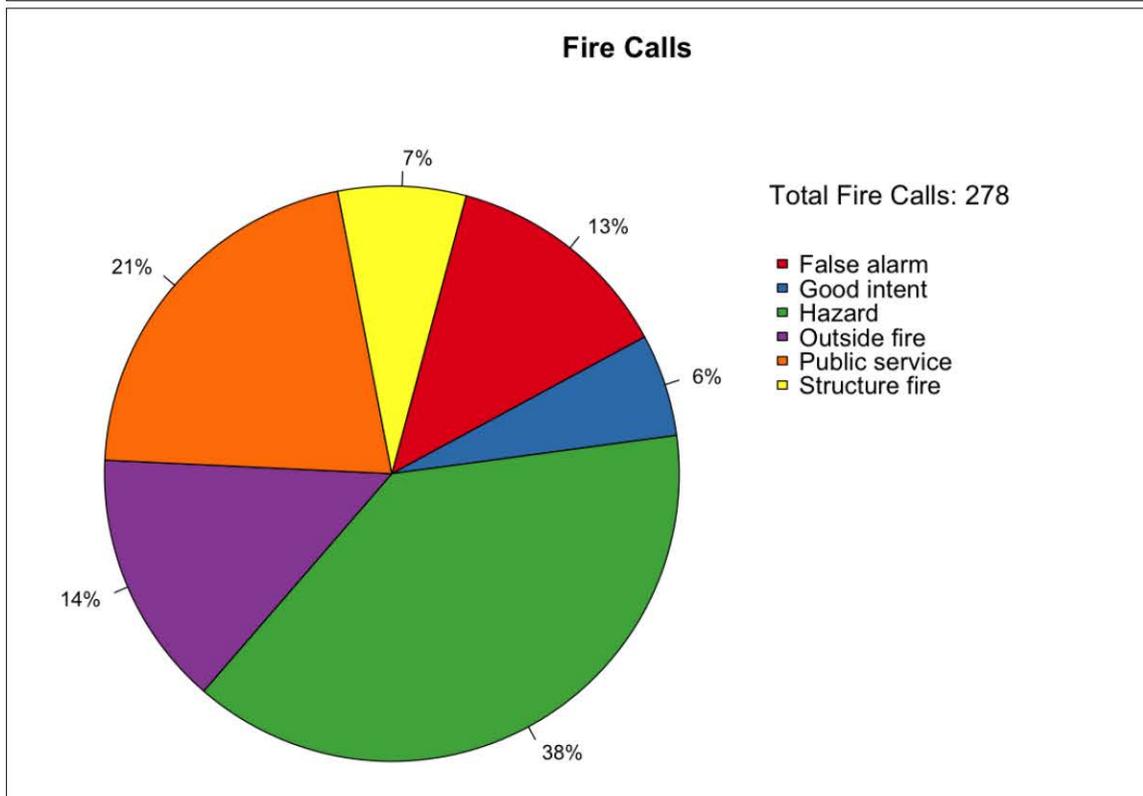
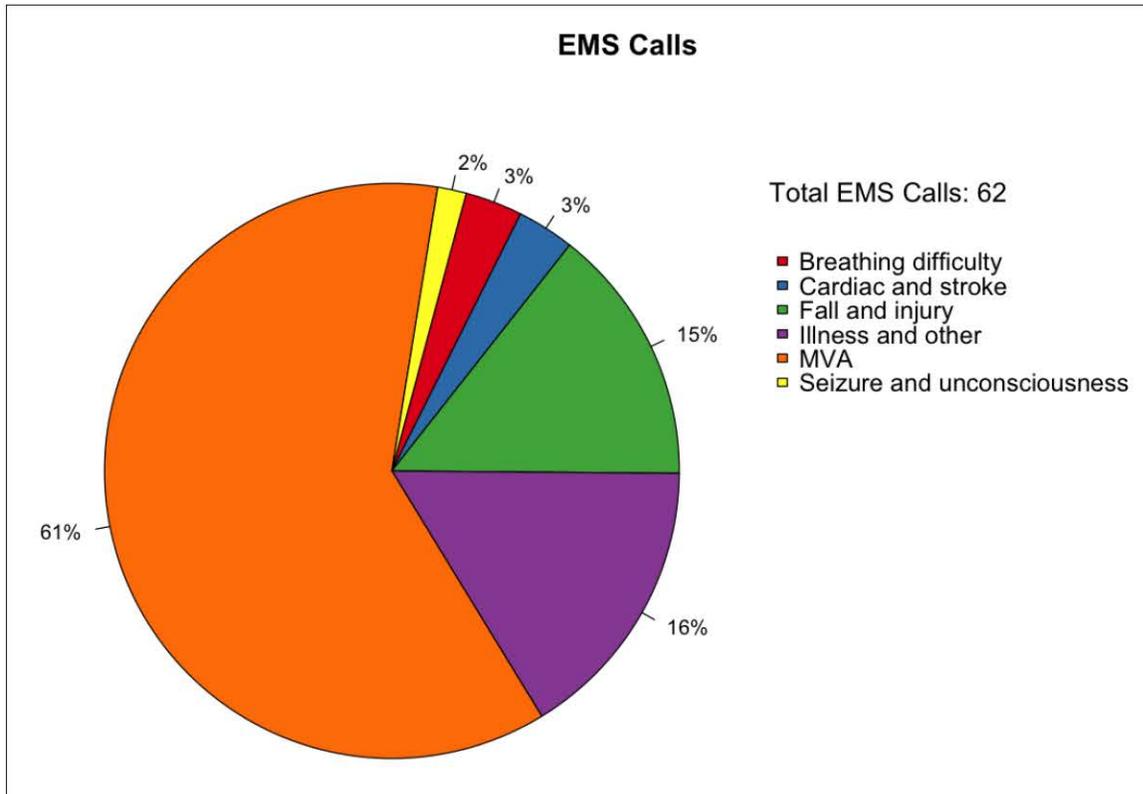
Table 1 and Figure 1 show the number of calls by call type, average calls per day, and the percentage of calls that fall into each call type category.

TABLE 1: Call Types

| Call Type | Number of Calls | Calls per Day | Call Percentage |
|-----------------------------|-----------------|---------------|-----------------|
| Breathing difficulty | 2 | 0.0 | 0.5 |
| Cardiac and stroke | 2 | 0.0 | 0.5 |
| Fall and injury | 9 | 0.0 | 2.3 |
| Illness and other | 10 | 0.0 | 2.5 |
| MVA | 38 | 0.1 | 9.5 |
| Overdose and psychiatric | 0 | 0.0 | 0.0 |
| Seizure and unconsciousness | 1 | 0.0 | 0.3 |
| EMS Total | 62 | 0.2 | 15.5 |
| False alarm | 36 | 0.1 | 9.0 |
| Good intent | 16 | 0.0 | 4.0 |
| Hazard | 107 | 0.3 | 26.8 |
| Outside fire | 40 | 0.1 | 10.0 |
| Public service | 59 | 0.2 | 14.8 |
| Structure fire | 20 | 0.1 | 5.0 |
| Fire Total | 278 | 0.8 | 69.7 |
| Canceled | 32 | 0.1 | 8.0 |
| Mutual aid | 27 | 0.1 | 6.8 |
| Total | 399 | 1.1 | 100.0 |

Note: Some call types had so few calls in the year that average calls per day, when rounded to the nearest one-tenth, appears to be zero.

FIGURE 1: EMS and Fire Calls by Type



Observations:

Overall

- The department received an average of 1.1 calls per day, including 0.1 canceled and 0.1 mutual aid calls.
- EMS calls for the year totaled 62 (16 percent of all calls), an average of 0.2 per day.
- Fire calls for the year totaled 278 (70 percent of all calls), an average of 0.8 per day.

EMS

- Motor vehicle accidents were the largest category of EMS calls at 61 percent of EMS calls.
- Cardiac and stroke calls made up 3 percent of the EMS calls.

Fires

- Structure and outside fires combined for a total of 60 calls during the year, an average of one call every 6.1 days.
- A total of 20 structure fire calls accounted for 7 percent of the fire calls.
- A total of 40 outside fire calls accounted for 14 percent of the fire calls.
- Hazard calls were the largest fire call category, with 38 percent of the fire calls.
- False alarm calls made up 13 percent of the fire calls.

CALLS BY MUNICIPALITY

Table 2 shows the number of calls by municipality, average calls per day, and the percentage of GTRFD calls in that township.

TABLE 2: Calls by Municipality

| Municipality | Number of Calls | Calls per Day | Call Percentage |
|----------------------|-----------------|---------------|-----------------|
| Fife Lake | 43 | 0.1 | 10.8 |
| Village of Fife Lake | 13 | 0.0 | 3.3 |
| Grant | 12 | 0.0 | 3.0 |
| Green Lake | 83 | 0.2 | 20.8 |
| Village of Kingsley | 11 | 0.0 | 2.8 |
| Mayfield | 16 | 0.0 | 4.0 |
| Paradise | 39 | 0.1 | 9.8 |
| Springfield | 39 | 0.1 | 9.8 |
| Union | 15 | 0.0 | 3.8 |
| Whitewater | 87 | 0.2 | 21.8 |
| Other | 41 | 0.1 | 10.3 |
| Total | 399 | 1.1 | 100.0 |

Note: Some municipalities had so few calls in the year that average calls per day, when rounded to the nearest one-tenth, appears to be zero. The “other” category covers those municipalities to which GTRFD gave aid. The total number of calls is larger than the number of mutual aid calls because some calls to other townships were canceled calls.

Observations:

- Whitewater Township had the most calls and accounted for 22 percent of all calls. Green Lake Township had the second most total with 21 percent of all calls.
- 10 percent of all calls were to townships, villages, or cities that were not GTRFD members.

CALLS BY TYPE AND DURATION

Table 3 shows the duration of calls by type using four duration categories: less than 30 minutes, 30 minutes to one hour, one to two hours, and more than two hours.

TABLE 3: Calls by Type and Duration

| Call Type | Less than 30 Minutes | 30 Minutes to One Hour | One to Two Hours | More than Two Hours | Total |
|-----------------------------|----------------------|------------------------|------------------|---------------------|------------|
| Breathing difficulty | 0 | 2 | 0 | 0 | 2 |
| Cardiac and stroke | 1 | 1 | 0 | 0 | 2 |
| Fall and injury | 2 | 6 | 1 | 0 | 9 |
| Illness and other | 6 | 2 | 1 | 1 | 10 |
| MVA | 6 | 13 | 15 | 4 | 38 |
| Overdose and psychiatric | — | — | — | — | — |
| Seizure and unconsciousness | 1 | 0 | 0 | 0 | 1 |
| EMS Total | 16 | 24 | 17 | 5 | 62 |
| False alarm | 24 | 10 | 2 | 0 | 36 |
| Good intent | 12 | 2 | 2 | 0 | 16 |
| Hazard | 26 | 40 | 32 | 9 | 107 |
| Outside fire | 4 | 12 | 12 | 12 | 40 |
| Public service | 33 | 16 | 5 | 5 | 59 |
| Structure fire | 1 | 4 | 9 | 6 | 20 |
| Fire Total | 100 | 84 | 62 | 32 | 278 |
| Canceled | 30 | 2 | 0 | 0 | 32 |
| Mutual aid | 4 | 7 | 9 | 7 | 27 |
| Total | 150 | 117 | 88 | 44 | 399 |

Note: There were no overdose and psychiatric calls.

Observations:

EMS

- A total of 40 EMS category calls (65 percent) lasted less than one hour, 17 EMS category calls (27 percent) lasted between one and two hours, and 5 EMS category calls (8 percent) lasted more than two hours.
- On average, there were 0.1 EMS category calls per day that lasted more than one hour.
- A total of 19 motor vehicle accidents (50 percent) lasted less than one hour, and 19 motor vehicle accidents (50 percent) lasted more than an hour.

Fire

- A total of 184 fire category calls (66 percent) lasted less than one hour, 62 fire category calls (22 percent) lasted between one and two hours, and 32 fire category calls (12 percent) lasted more than two hours.
- On average, there were 0.3 fire category calls per day that lasted more than one hour.

- A total of 5 structure fires (25 percent) lasted less than one hour, 9 structure fires (45 percent) lasted between one and two hours, and 6 structure fires (30 percent) lasted more than two hours.
- A total of 16 outside fires (40 percent) lasted less than one hour, 12 outside fires (30 percent) lasted between one and two hours, and 12 outside fires (30 percent) lasted more than two hours.
- A total of 34 false alarms (94 percent) lasted less than one hour, and 2 false alarms (6 percent) lasted more than an hour.

AVERAGE CALLS PER DAY AND PER HOUR

Figure 2 shows the monthly variation in the average daily number of calls handled by GRTFD during the year studied. Similarly, Figure 3 illustrates the average number of calls received each hour of the day over the course of the year.

FIGURE 2: Average Calls per Day, by Month

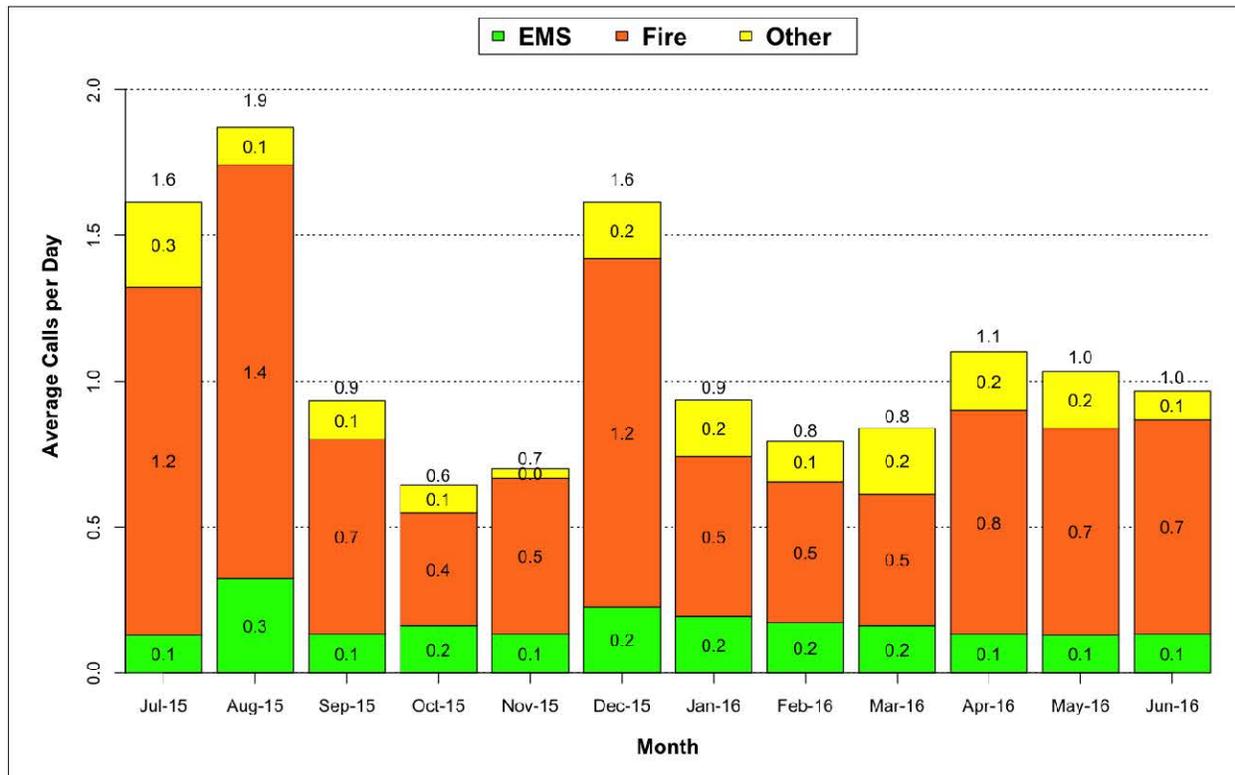
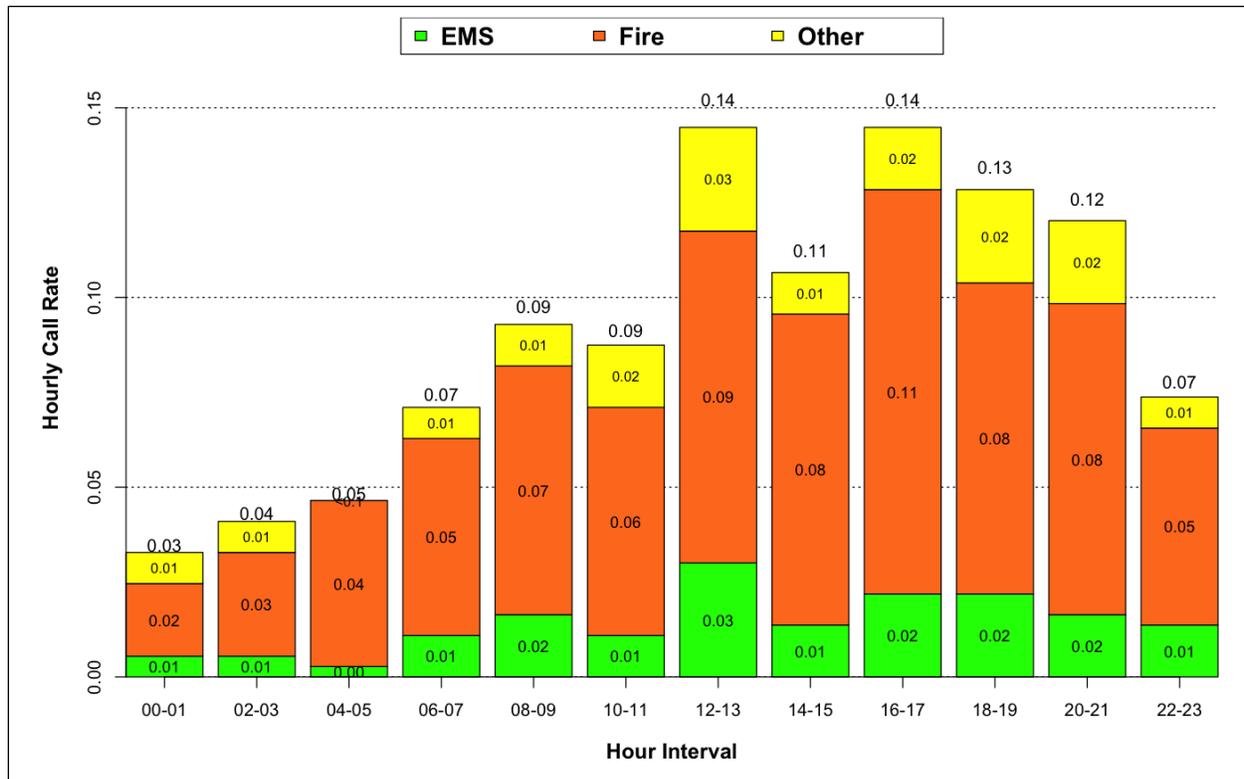


FIGURE 3: Calls by Hour of Day



Observations:

Average Calls per Day

- Average calls per day ranged from a low of 0.6 calls per day in October 2015 to a high of 1.9 calls per day in August 2015. The highest monthly average was 190 percent greater than the lowest monthly average.
- Average EMS calls per day ranged from a low of 0.1 calls per day six out of 12 months to a high of 0.3 calls per day in August 2015.
- Average fire calls per day ranged from a low of 0.4 calls per day in October 2015 to a high of 1.4 calls per day in August 2015.
- Average other calls per day ranged from a low of less than 0.05 calls per day in November 2015 to a high of 0.3 calls per day in July 2015.
- The highest number of calls received in a single day was 20, which occurred on December 24, 2015.

Average Calls per Hour

- Average hourly call rates ranged from under 0.05 to 0.1 calls per hour.
- Call rates were highest between noon and 10:00 p.m., averaging 0.1 calls per hour.
- Call rates were lowest between midnight and 6:00 a.m., averaging less than 0.05 calls per hour.

UNITS DISPATCHED TO CALLS

Figure 4 and Table 4 detail the number of GTRFD units dispatched to calls overall and broken down by call type.

FIGURE 4: Number of Units Dispatched to Calls

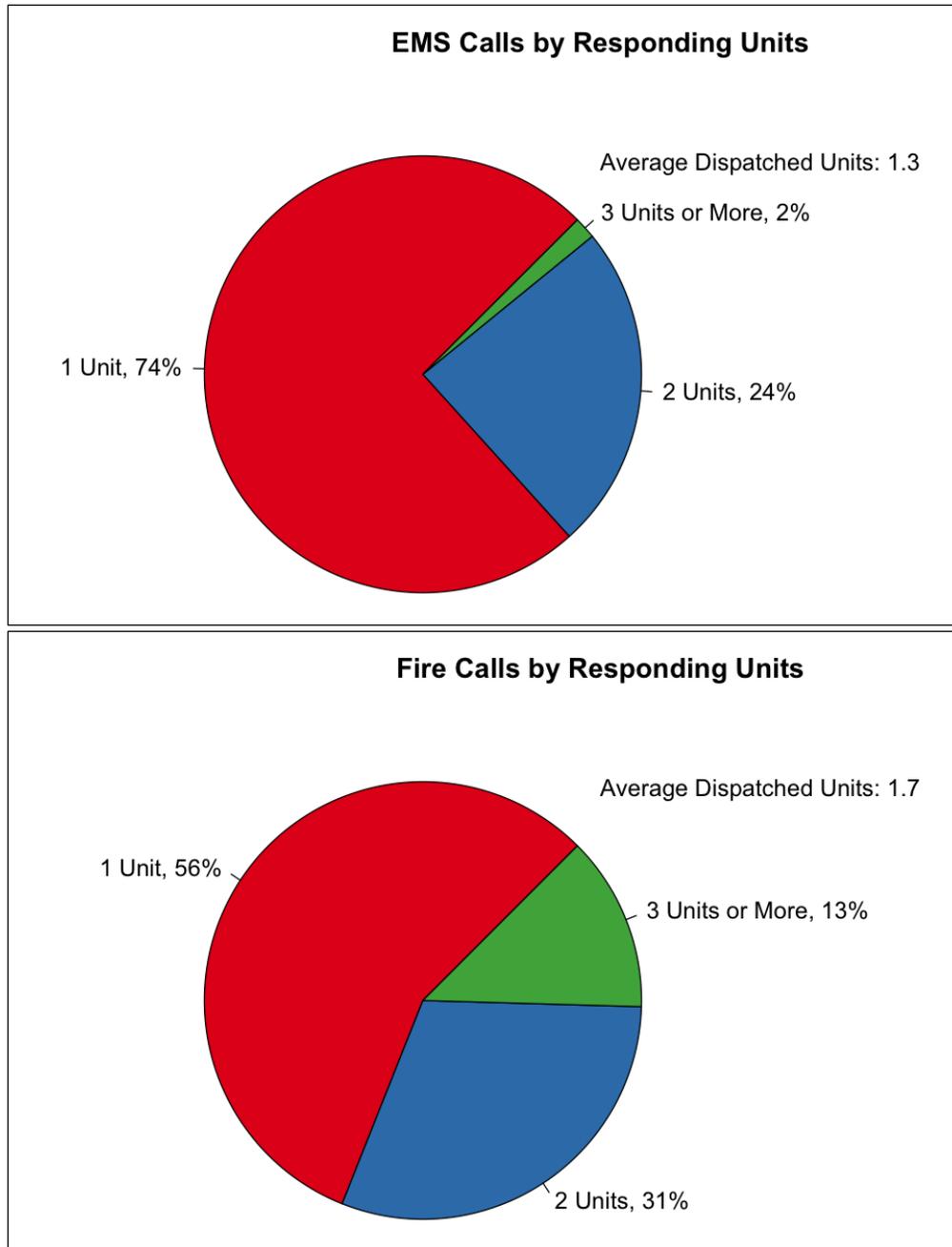


TABLE 4: Number of Units Dispatched to Calls by Call Type

| Call Type | Number of Units | | | Total Calls |
|-----------------------------|-----------------|-------------|---------------|-------------|
| | One | Two | Three or More | |
| Breathing difficulty | 2 | 0 | 0 | 2 |
| Cardiac and stroke | 2 | 0 | 0 | 2 |
| Fall and injury | 7 | 2 | 0 | 9 |
| Illness and other | 9 | 1 | 0 | 10 |
| MVA | 25 | 12 | 1 | 38 |
| Overdose and psychiatric | — | — | — | — |
| Seizure and unconsciousness | 1 | 0 | 0 | 1 |
| EMS Total | 46 | 15 | 1 | 62 |
| False alarm | 21 | 14 | 1 | 36 |
| Good intent | 14 | 2 | 0 | 16 |
| Hazard | 72 | 32 | 3 | 107 |
| Outside fire | 8 | 18 | 14 | 40 |
| Public service | 41 | 14 | 4 | 59 |
| Structure fire | 1 | 5 | 14 | 20 |
| Fire Total | 157 | 85 | 36 | 278 |
| Canceled | 25 | 6 | 1 | 32 |
| Mutual aid | 17 | 3 | 7 | 27 |
| Total | 245 | 109 | 45 | 399 |
| Percentage | 61.4 | 27.3 | 11.3 | 100 |

Note: There were no overdose and psychiatric calls.

Observations:

Overall

- On average, 1.6 units were dispatched to all calls, and for 61 percent of calls only one unit was dispatched.
- Overall, three or more units were dispatched to 11 percent of calls.

EMS

- On average, 1.3 units were dispatched per EMS call.
- For EMS calls, one unit was dispatched 74 percent of the time, two units were dispatched 24 percent of the time, and three or more units were dispatched 2 percent of the time.

Fires

- On average, 1.7 units were dispatched per fire call.
- For fire calls, one unit was dispatched 56 percent of the time, two units were dispatched 31 percent of the time, and three or more units were dispatched 13 percent of the time.
- For structure fire calls, three or more units were dispatched 70 percent of the time.
- For outside fire calls, three or more units were dispatched 35 percent of the time.

WORKLOAD: CALLS AND TOTAL TIME SPENT

The workload of each unit is reported in two ways: deployed time and runs. A dispatch of a unit is defined as a run; thus, one call might include multiple runs, which results in a higher total number of runs than total number of calls. The deployed time of a run is from the time a unit is dispatched through the time the unit is cleared.

RUNS AND DEPLOYED TIME – ALL UNITS

Deployed time, also referred to as deployed hours, is the total deployment time of all the units deployed on all calls. Table 5 shows the total deployed time, both overall and broken down by type of call, during the year studied.

TABLE 5: Annual Runs and Deployed Time by Call Type

| Call Type | Avg. Deployed Min. per Run | Total Annual Hours | Percent of Total Hours | Avg. Deployed Min. per Day | Total Annual Runs | Avg. Runs per Day |
|-----------------------------|----------------------------|--------------------|------------------------|----------------------------|-------------------|-------------------|
| Breathing difficulty | 45.4 | 1.5 | 0.2 | 0.2 | 2 | 0.0 |
| Cardiac and stroke | 31.5 | 1.0 | 0.1 | 0.2 | 2 | 0.0 |
| Fall and injury | 41.8 | 7.7 | 1.0 | 1.3 | 11 | 0.0 |
| Illness and other | 63.0 | 11.5 | 1.5 | 1.9 | 11 | 0.0 |
| MVA | 78.7 | 68.2 | 8.9 | 11.2 | 52 | 0.1 |
| Overdose and psychiatric | — | — | — | — | — | — |
| Seizure and unconsciousness | 20.5 | 0.3 | 0.0 | 0.1 | 1 | 0.0 |
| EMS Total | 68.6 | 90.3 | 11.8 | 14.8 | 79 | 0.2 |
| False alarm | 27.1 | 23.5 | 3.1 | 3.8 | 52 | 0.1 |
| Good intent | 28.4 | 8.5 | 1.1 | 1.4 | 18 | 0.0 |
| Hazard | 59.9 | 144.7 | 18.9 | 23.7 | 145 | 0.4 |
| Outside fire | 91.3 | 146.1 | 19.1 | 24.0 | 96 | 0.3 |
| Public service | 73.5 | 100.5 | 13.2 | 16.5 | 82 | 0.2 |
| Structure fire | 129.7 | 144.9 | 19.0 | 23.7 | 67 | 0.2 |
| Fire Total | 74.1 | 568.2 | 74.4 | 93.1 | 460 | 1.3 |
| Canceled | 15.0 | 10.0 | 1.3 | 1.6 | 40 | 0.1 |
| Mutual aid | 124.2 | 95.2 | 12.5 | 15.6 | 46 | 0.1 |
| Total | 73.3 | 763.7 | 100.0 | 125.2 | 625 | 1.7 |

Note: Some call types had so few runs in the year that average runs per day, when rounded to the nearest one-tenth, appears to be zero. There were no overdose and psychiatric calls.

Observations:

Overall

- Total deployed time for the year was 764 hours. The daily average was 125 minutes (2 hours and 5 minutes) for all units combined.
- There were 625 runs, including 46 runs dispatched for mutual aid calls. The daily average was 1.7 runs.

EMS

- EMS calls accounted for 12 percent of the total workload.
- The average deployed time for a run to an EMS call was 68.6 minutes. The deployed time for all units dispatched to EMS calls averaged 0.2 hours per day.

Fires

- Fire calls accounted for 74 percent of the total workload.
- There were 163 runs for structure and outside fire calls, with a total workload of 291 hours. This accounted for 38 percent of the total workload.
- The average deployed time for a run to a structure fire call was 129.7 minutes, and the average deployed time for a run to an outside fire call was 91.3 minutes.

RUNS AND DEPLOYED TIME BY MUNICIPALITY

Table 6 shows the total deployed time and runs by municipality during the year studied. Most municipalities are townships while two are villages.

TABLE 6: Annual Runs and Deployed Time by Municipality

| Municipality | Avg. Deployed Min. per Run | Total Annual Hours | Percent of Total Hours | Avg. Deployed Min. per Day | Total Annual Runs | Avg. Runs per Day |
|----------------------|----------------------------|--------------------|------------------------|----------------------------|-------------------|-------------------|
| Fife Lake | 83.9 | 89.5 | 11.7 | 14.7 | 64 | 0.2 |
| Village of Fife Lake | 43.0 | 9.3 | 1.2 | 1.5 | 13 | 0.0 |
| Grant | 77.9 | 27.3 | 3.6 | 4.5 | 21 | 0.1 |
| Green Lake | 45.1 | 101.4 | 13.3 | 16.6 | 135 | 0.4 |
| Village of Kingsley | 29.9 | 6.5 | 0.8 | 1.1 | 13 | 0.0 |
| Mayfield | 61.2 | 23.4 | 3.1 | 3.8 | 23 | 0.1 |
| Paradise | 71.4 | 88.0 | 11.5 | 14.4 | 74 | 0.2 |
| Springfield | 45.8 | 38.1 | 5.0 | 6.3 | 50 | 0.1 |
| Union | 148.1 | 88.8 | 11.6 | 14.6 | 36 | 0.1 |
| Whitewater | 86.9 | 192.7 | 25.2 | 31.6 | 133 | 0.4 |
| Other | 94.0 | 98.7 | 12.9 | 16.2 | 63 | 0.2 |
| Total | 73.3 | 763.7 | 100.0 | 125.2 | 625 | 1.7 |

Note: Some townships had so few runs in the year that average runs per day, when rounded to the nearest one-tenth, appears to be zero.

Observations:

- Calls in Union Township had the highest average deployed time per run at 148 minutes (2 hours and 28 minutes), which is double the overall average of 73 minutes per run.
- Calls in Whitewater Township accounted for 25 percent of the total workload and resulted in the second most runs (133).
- Calls in Green Lake Township resulted in the most run (135) and 13 percent of the total workload.

WORKLOAD BY UNIT

Table 7 provides a summary of each workload by unit. Tables 8 and 9 provide a more detailed view of workload, showing runs broken out by call type (Table 8) and the resulting daily average deployed time by call type (Table 9).

Units with fewer than 15 calls in the year were grouped with other units from the same station and are listed as 'Other' in the tables.

Workload for calls in Long Lake Township in 2015 is discussed in a later section. However, units from Station 10, which is located in Long Lake Township, did respond to a small number of calls outside of Long Lake Township in 2015. Since it is possible units from another GTRFD station would have responded to those calls if they had occurred in 2016, workload for station 10 units included here.

TABLE 7: Call Workload by Unit

| Station | Unit | Avg. Deployed Min. per Run | Total Annual Hours | Avg. Deployed Min. per Day | Total Annual Runs | Avg. Runs per Day |
|----------------------|--------------|----------------------------|--------------------|----------------------------|-------------------|-------------------|
| 2 | Engine | 75.9 | 79.7 | 13.1 | 63 | 0.2 |
| | Tanker | 104.2 | 38.2 | 6.3 | 22 | 0.1 |
| | Other | 123.8 | 78.4 | 12.9 | 38 | 0.1 |
| | Total | 95.8 | 196.3 | 32.2 | 123 | 0.3 |
| 3 | Engine | 65.5 | 83.0 | 13.6 | 76 | 0.2 |
| | Tanker | 129.5 | 47.5 | 7.8 | 22 | 0.1 |
| | Other | 110.6 | 64.5 | 10.6 | 35 | 0.1 |
| | Total | 87.9 | 195.0 | 32.0 | 133 | 0.4 |
| 4 | Engine | 44.4 | 73.2 | 12.0 | 99 | 0.3 |
| | Tanker | 54.8 | 46.5 | 7.6 | 51 | 0.1 |
| | Other | 67.5 | 33.7 | 5.5 | 30 | 0.1 |
| | Total | 51.2 | 153.5 | 25.2 | 180 | 0.5 |
| 6 | Engine | 65.2 | 111.9 | 18.3 | 103 | 0.3 |
| | Tanker | 109.6 | 43.8 | 7.2 | 24 | 0.1 |
| | Wildfire | 65.2 | 48.9 | 8.0 | 45 | 0.1 |
| | Other | 50.7 | 5.1 | 0.8 | 6 | 0.0 |
| | Total | 70.7 | 209.6 | 34.4 | 178 | 0.5 |
| 10 | Other | 50.8 | 9.3 | 1.5 | 11 | 0.0 |
| Overall Total | | 73.3 | 763.7 | 125.2 | 625 | 1.7 |

TABLE 8: Total Annual Runs by Call Type and Unit

| Station | Unit | EMS | False Alarm | Good Intent | Hazard | Outside Fire | Public Service | Structure Fire | Canceled | Mutual Aid | Total |
|----------------------|--------------|-----------|-------------|-------------|------------|--------------|----------------|----------------|-----------|------------|------------|
| 2 | Engine | 13 | 1 | 2 | 15 | 6 | 13 | 6 | 5 | 2 | 63 |
| | Tanker | 0 | 2 | 0 | 1 | 7 | 4 | 6 | 1 | 1 | 22 |
| | Other | 5 | 0 | 0 | 2 | 13 | 4 | 8 | 2 | 4 | 38 |
| | Total | 18 | 3 | 2 | 18 | 26 | 21 | 20 | 8 | 7 | 123 |
| 3 | Engine | 22 | 14 | 0 | 26 | 3 | 7 | 4 | 0 | 0 | 76 |
| | Tanker | 0 | 5 | 0 | 1 | 9 | 3 | 4 | 0 | 0 | 22 |
| | Other | 6 | 3 | 0 | 8 | 10 | 6 | 1 | 1 | 0 | 35 |
| | Total | 28 | 22 | 0 | 35 | 22 | 16 | 9 | 1 | 0 | 133 |
| 4 | Engine | 11 | 13 | 2 | 30 | 2 | 14 | 7 | 15 | 5 | 99 |
| | Tanker | 2 | 8 | 2 | 13 | 2 | 6 | 7 | 6 | 5 | 51 |
| | Other | 2 | 0 | 0 | 2 | 1 | 4 | 7 | 5 | 9 | 30 |
| | Total | 15 | 21 | 4 | 45 | 5 | 24 | 21 | 26 | 19 | 180 |
| 6 | Engine | 14 | 5 | 8 | 30 | 14 | 9 | 6 | 4 | 13 | 103 |
| | Tanker | 0 | 0 | 0 | 1 | 12 | 0 | 9 | 0 | 2 | 24 |
| | Wildfire | 1 | 0 | 4 | 11 | 14 | 12 | 0 | 0 | 3 | 45 |
| | Other | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 1 | 6 |
| | Total | 15 | 5 | 12 | 42 | 43 | 21 | 17 | 4 | 19 | 178 |
| 10 | Other | 3 | 1 | 0 | 5 | 0 | 0 | 0 | 1 | 1 | 11 |
| Overall Total | | 79 | 52 | 18 | 145 | 96 | 82 | 67 | 40 | 46 | 625 |

TABLE 9: Daily Average Deployed Minutes by Call Type and Unit

| Station | Unit | EMS | False Alarm | Good Intent | Hazard | Outside Fire | Public Service | Structure Fire | Canceled | Mutual Aid | Total |
|----------------------|--------------|-------------|-------------|-------------|-------------|--------------|----------------|----------------|------------|-------------|--------------|
| 2 | Engine | 2.9 | 0.1 | 0.1 | 2.0 | 2.1 | 1.7 | 2.7 | 0.2 | 1.2 | 13.1 |
| | Tanker | 0.0 | 0.1 | 0.0 | 0.1 | 1.8 | 0.3 | 2.6 | 0.0 | 1.2 | 6.3 |
| | Other | 1.9 | 0.0 | 0.0 | 0.2 | 3.8 | 0.6 | 3.4 | 0.1 | 2.9 | 12.9 |
| | Total | 4.8 | 0.3 | 0.1 | 2.4 | 7.7 | 2.6 | 8.7 | 0.3 | 5.4 | 32.2 |
| 3 | Engine | 3.7 | 1.0 | 0.0 | 3.7 | 0.3 | 3.1 | 1.8 | 0.0 | 0.0 | 13.6 |
| | Tanker | 0.0 | 0.3 | 0.0 | 0.1 | 2.2 | 2.7 | 2.5 | 0.0 | 0.0 | 7.8 |
| | Other | 1.3 | 0.2 | 0.0 | 1.5 | 2.8 | 4.0 | 0.6 | 0.1 | 0.0 | 10.6 |
| | Total | 5.0 | 1.6 | 0.0 | 5.3 | 5.4 | 9.8 | 4.9 | 0.1 | 0.0 | 32.0 |
| 4 | Engine | 1.7 | 0.8 | 0.1 | 5.5 | 0.4 | 0.8 | 1.7 | 0.6 | 0.5 | 12.0 |
| | Tanker | 0.1 | 0.5 | 0.1 | 2.9 | 0.3 | 0.4 | 1.7 | 0.4 | 1.2 | 7.6 |
| | Other | 0.2 | 0.0 | 0.0 | 0.2 | 0.2 | 0.2 | 1.5 | 0.2 | 3.0 | 5.5 |
| | Total | 2.0 | 1.3 | 0.2 | 8.5 | 0.9 | 1.4 | 4.9 | 1.1 | 4.7 | 25.2 |
| 6 | Engine | 2.5 | 0.6 | 0.9 | 4.9 | 3.0 | 1.3 | 1.9 | 0.1 | 3.2 | 18.3 |
| | Tanker | 0.0 | 0.0 | 0.0 | 0.2 | 2.8 | 0.0 | 3.2 | 0.0 | 1.1 | 7.2 |
| | Wildfire | 0.2 | 0.0 | 0.2 | 1.7 | 3.6 | 1.3 | 0.0 | 0.0 | 1.0 | 8.0 |
| | Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 | 0.8 |
| | Total | 2.6 | 0.6 | 1.1 | 6.8 | 10.0 | 2.6 | 5.3 | 0.1 | 5.3 | 34.4 |
| 10 | Other | 0.4 | 0.1 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 1.5 |
| Overall Total | | 14.8 | 3.8 | 1.4 | 23.7 | 24.0 | 16.5 | 23.7 | 1.6 | 15.6 | 125.2 |

Observations:

- Engine 6 made the most runs (103, an average of 0.3 per day) and had the highest total annual deployed time (112 hours, an average of 18 minutes per day).
 - Structure and outside fires combined accounted for 19 percent of the runs and 24 percent of deployed time.
 - Hazard calls accounted for 29 percent of the runs and 27 percent of deployed time.
- Engine 4 made the second most runs (99, an average of 0.3 per day) but was fifth in total annual deployed time (73 hours, an average of 12 minutes per day).
 - Structure and outside fires combined accounted for 9 percent of the runs and 17 percent of deployed time.
 - Hazard calls accounted for 30 percent of the runs and 46 percent of deployed time.
- Engine 3 made the third most runs (76, an average of 0.2 per day) and had the second highest total annual deployed time (83 hours, an average of 14 minutes per day).
 - Structure and outside fires combined accounted for 9 percent of the runs and 16 percent of deployed time.
 - Hazard calls accounted for 34 percent of the runs and 27 percent of deployed time.

ANALYSIS OF BUSIEST HOURS

There is significant variability in the number of calls from hour to hour. One special concern relates to the resources available for hours with the heaviest workload. We tabulated the data for each of the 8,784 hours in the year. Table 10 shows the number of hours in the year where there were zero to two or more calls during the hour. Table 11 shows the 10 one-hour intervals during the year with the most calls.

TABLE 10: Frequency Distribution of the Number of Calls

| Calls in an Hour | Frequency | Percentage |
|------------------|-----------|------------|
| 0 | 8,424 | 95.9 |
| 1 | 334 | 3.8 |
| 2+ | 26 | 0.3 |

TABLE 11: Top 10 Hours with the Most Calls Received

| Hour | Number of Calls | Number of Runs | Total Deployed Hours |
|-------------------------------------|-----------------|----------------|----------------------|
| 12/24/2015 – 8:00 a.m. to 9:00 a.m. | 5 | 6 | 18.5 |
| 12/24/2015 – 5:00 a.m. to 6:00 a.m. | 4 | 5 | 10.0 |
| 08/02/2015 – 7:00 p.m. to 8:00 p.m. | 4 | 5 | 4.5 |
| 12/24/2015 – 2:00 a.m. to 3:00 a.m. | 4 | 5 | 3.4 |
| 08/02/2015 – 8:00 p.m. to 9:00 p.m. | 4 | 4 | 3.7 |
| 07/06/2015 – 11:00 a.m. to Noon | 3 | 6 | 4.5 |
| 12/24/2015 – 4:00 a.m. to 5:00 a.m. | 3 | 3 | 1.2 |
| 07/26/2015 – 6:00 a.m. to 7:00 a.m. | 2 | 7 | 17.3 |
| 05/29/2016 – 3:00 p.m. to 4:00 p.m. | 2 | 6 | 18.9 |
| 08/03/2015 – 6:00 p.m. to 7:00 p.m. | 2 | 4 | 4.5 |

Note: Total deployed hours is the total time spent responding to calls received in the hour, and which may extend into the next hour or hours.

Observations:

- During 26 hours (less than 1 percent of all hours), two or more calls occurred; in other words, the department responded to two or more calls in an hour roughly once every 14 days.
- The highest number of calls to occur in an hour was five, which happened once.
- Four of the top ten busiest hours in the year occurred on December 24, 2015, and another two of the top ten occurred on August 2, 2015. High winds passed through the area on both of those days.
- The hour with the most calls was 8:00 a.m. to 9:00 a.m. on December 24, 2015. The hour's five calls involved six individual dispatches resulting in 18.5 hours of deployed time. These five calls included three public service calls, and two hazard calls.
- Of the hours with the second most calls, 5:00 a.m. to 6:00 p.m. on December 24, 2015, had the most deployed time. The hour's four calls involved five individual dispatches resulting in 10 hours of deployed time. These four calls were all hazard calls.

RESPONSE TIME

In this part of the analysis we present response time statistics for different call types.

Different terms are used to describe the components of response time. Dispatch time is the difference between the time a call is received and the time a unit is dispatched. Dispatch time includes call processing time, which is the time required to determine the nature of the emergency and types of resources to dispatch. Turnout time is the difference between dispatch time and the time a unit is en route. Travel time is the difference between the time en route and arrival on scene. Response time is the total time elapsed between receiving a call to arriving on scene.

In this response time analysis, we focused on calls that were responded to with lights and sirens, excluding canceled calls. In addition, calls with a total response time of more than 30 minutes were excluded. Finally, we focused on units that had complete time stamps, that is, units with all components recorded so as to be able to calculate each segment of response time.

Based on the methodology above, 59 canceled and mutual aid calls, 175 calls responded to without lights and sirens, 13 calls with response times over 30 minutes, and 35 calls with one or more missing time stamps were excluded. As a result, in this section, a total of 117 calls are included in the analysis.

RESPONSE TIMES BY TYPE OF CALL

Table 12 provides average dispatch, turnout, travel, and total response time for the first arriving unit to each call, broken out by call type. EMS calls were not broken out by type because doing so would have resulted in averages based on two calls per call type for all EMS call types except motor vehicle accident.

Figure 5 illustrates the same information. Table 13 gives the 90th percentile time broken out in the same manner. A 90th percentile time means that 90 percent of calls had response times at or below that number.

TABLE 12: Average Response Times of First Arriving Unit, by Call Type (Minutes)

| Call Type | Dispatch | Turnout | Travel | Total | Number of Calls |
|-------------------|------------|------------|------------|-------------|-----------------|
| EMS Total | 5.1 | 5.3 | 5.5 | 15.8 | 24 |
| False alarm | 2.3 | 4.8 | 8.0 | 15.1 | 17 |
| Good intent | 3.4 | 0.8 | 6.1 | 10.3 | 2 |
| Hazard | 3.0 | 7.2 | 6.5 | 16.6 | 25 |
| Outside fire | 2.9 | 6.1 | 6.3 | 15.4 | 25 |
| Public service | 3.4 | 6.5 | 6.1 | 16.0 | 8 |
| Structure fire | 2.6 | 6.1 | 6.5 | 15.3 | 16 |
| Fire Total | 2.8 | 6.1 | 6.7 | 15.6 | 93 |
| Total | 3.3 | 5.9 | 6.4 | 15.6 | 117 |

FIGURE 5: Average Response Times of First Arriving Unit, by Call Type

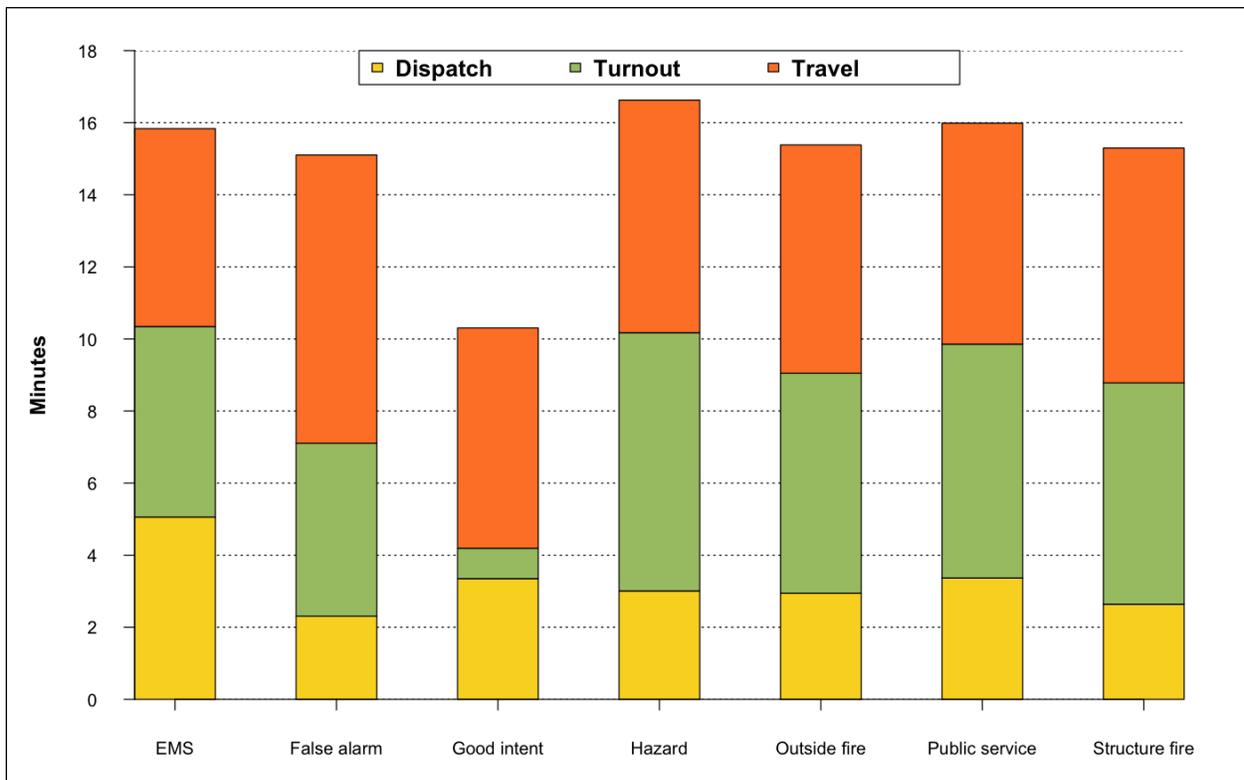


TABLE 13: 90th Percentile Response Times of First Arriving Unit, by Call Type (Minutes)

| Call Type | Dispatch | Turnout | Travel | Total | Number of Calls |
|-------------------|------------|-------------|-------------|-------------|-----------------|
| EMS Total | 7.4 | 10.4 | 8.9 | 23.2 | 24 |
| False alarm | 2.8 | 10.3 | 18.7 | 26.9 | 17 |
| Good intent | 5.5 | 1.6 | 7.0 | 12.5 | 2 |
| Hazard | 4.1 | 12.7 | 9.7 | 25.7 | 25 |
| Outside fire | 5.7 | 10.3 | 12.6 | 22.5 | 25 |
| Public service | 5.7 | 10.4 | 11.6 | 25.8 | 8 |
| Structure fire | 4.1 | 14.3 | 13.1 | 24.9 | 16 |
| Fire Total | 4.1 | 10.7 | 12.0 | 24.3 | 93 |
| Total | 5.5 | 10.7 | 11.7 | 24.3 | 117 |

Observations:

- The average dispatch time was 3.3 minutes.
- The average turnout time was 5.9 minutes.
- The average travel time was 6.4 minutes.
- The average response time was 15.6 minutes.
- The average response time was 15.8 minutes for EMS calls and 15.6 minutes for fire calls.
- The average response time for structure fires was 15.3 minutes, and for outside fires was 15.4 minutes.
- The 90th percentile dispatch time was 5.5 minutes.
- The 90th percentile turnout time was 10.7 minutes.
- The 90th percentile travel time was 11.7 minutes.
- The 90th percentile response time was 24.3 minutes.
- The 90th percentile response time was 23.2 minutes for EMS calls and 24.3 minutes for fire calls.
- The 90th percentile response time for structure fires was 24.9 minutes, and for outside fires was 22.5 minutes.

RESPONSE TIME DISTRIBUTION

A more detailed look at how response times are distributed is presented here. Figure 6 shows the cumulative distribution of total response time for the first arriving unit calls, and Table 14 gives the same information.

FIGURE 6: Cumulative Distribution of Response Time – First Arriving Unit

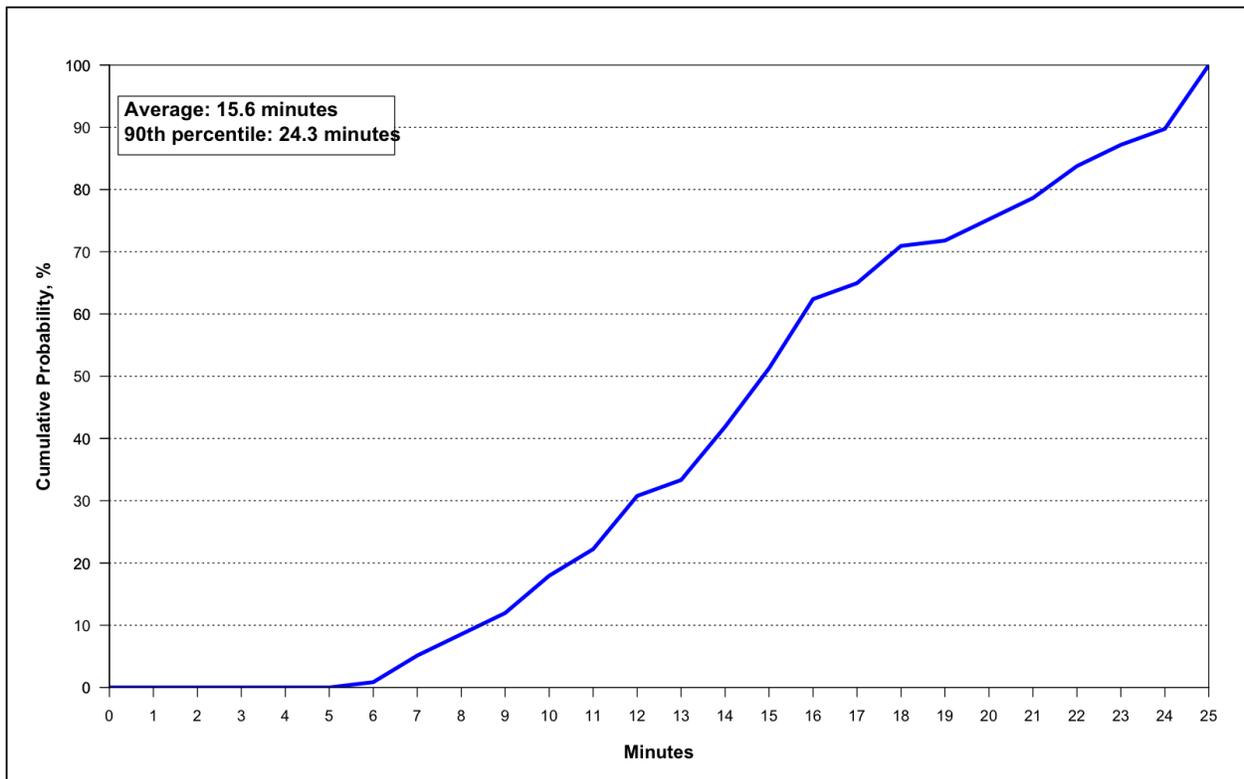


TABLE 14: Cumulative Distribution of Response Time – First Arriving Unit

| Response Time (minute) | Frequency | Cumulative Percentage |
|-----------------------------------|------------------|----------------------------------|
| < 1 | 0 | 0 |
| 1 – 2 | 0 | 0 |
| 2 – 3 | 0 | 0 |
| 3 – 4 | 0 | 0 |
| 4 – 5 | 0 | 0 |
| 5 – 6 | 1 | 0.9 |
| 6 – 7 | 5 | 5.1 |
| 7 – 8 | 4 | 8.5 |
| 8 – 9 | 4 | 12.0 |
| 9 – 10 | 7 | 17.9 |
| 10 – 11 | 5 | 22.2 |
| 11 – 12 | 10 | 30.8 |
| 12 – 13 | 3 | 33.3 |
| 13 – 14 | 10 | 41.9 |
| 14 – 15 | 11 | 51.3 |
| 15 – 16 | 13 | 62.4 |
| 16 – 17 | 3 | 65.0 |
| 17 – 18 | 7 | 70.9 |
| 18 – 19 | 1 | 71.8 |
| 19 – 20 | 4 | 75.2 |
| 20 – 21 | 4 | 78.6 |
| 21 – 22 | 6 | 83.8 |
| 22 – 23 | 4 | 87.2 |
| 23 – 24 | 3 | 89.7 |
| 24 + | 12 | 100.0 |

Observations:

- For 9 percent of all calls, the first unit arrived in less than 8 minutes.
- For 31 percent of all calls, the first unit arrived in less than 12 minutes.

LONG LAKE TOWNSHIP

Grand Traverse Rural Fire Department provided service to Long Lake Township through December 31, 2015. This section looks at the calls for service and workload of GTRFD units from July 1, 2015, through December 31, 2015.

CALLS BY TYPE

Table 15 shows the number of calls by call type, average calls per day, and the percentage of calls that fall into each call type category.

TABLE 15: Call Types

| Call Type | Number of Calls | Calls per Day | Call Percentage |
|-----------------------------|-----------------|---------------|-----------------|
| Breathing difficulty | 13 | 0.1 | 6.8 |
| Cardiac and stroke | 15 | 0.1 | 7.8 |
| Fall and injury | 33 | 0.2 | 17.2 |
| Illness and other | 40 | 0.2 | 20.8 |
| MVA | 8 | 0.0 | 4.2 |
| Overdose and psychiatric | 6 | 0.0 | 3.1 |
| Seizure and unconsciousness | 11 | 0.1 | 5.7 |
| EMS Total | 126 | 0.7 | 65.6 |
| False alarm | 7 | 0.0 | 3.6 |
| Good intent | 2 | 0.0 | 1.0 |
| Hazard | 27 | 0.1 | 14.1 |
| Outside fire | 5 | 0.0 | 2.6 |
| Public service | 17 | 0.1 | 8.9 |
| Structure fire | 2 | 0.0 | 1.0 |
| Fire Total | 60 | 0.3 | 31.3 |
| Canceled | 6 | 0.0 | 3.1 |
| Total | 192 | 1.0 | 100.0 |

Note: Some call types had so few calls in the six months covered that average calls per day, when rounded to the nearest one-tenth, appears to be zero.

Observations:

Overall

- The department received an average of 1.0 calls per day.
- EMS calls for the year totaled 126 (66 percent of all calls), an average of 0.7 per day.
- Fire calls for the year totaled 60 (31 percent of all calls), an average of 0.3 per day.

EMS

- Illness and other calls were the largest category of EMS calls at 32 percent of EMS calls.
- Cardiac and stroke calls made up 12 percent of the EMS calls.
- Motor vehicle accidents made up 6 percent of the EMS calls.

Fires

- Structure and outside fires combined for a total of 7 calls during the year, an average of one call every 26 days.
- A total of 2 structure fire calls accounted for 3 percent of the fire calls.
- A total of 5 outside fire calls accounted for 8 percent of the fire calls.
- Hazard calls were the largest fire call category, with 45 percent of the fire calls.
- False alarm calls made up 12 percent of the fire calls.

RUNS AND DEPLOYED TIME – ALL UNITS

Table 16 shows the total deployed time, both overall and broken down by type of call, for GTRFD calls in Long Lake Township between July 1 and December 31, 2015.

TABLE 16: Annual Runs and Deployed Time by Call Type

| Call Type | Avg. Deployed Min. per Run | Total Annual Hours | Percent of Total Hours | Avg. Deployed Min. per Day | Total Annual Runs | Avg. Runs per Day |
|-----------------------------|----------------------------|--------------------|------------------------|----------------------------|-------------------|-------------------|
| Breathing difficulty | 24.6 | 5.7 | 3.2 | 1.9 | 14 | 0.1 |
| Cardiac and stroke | 28.7 | 7.7 | 4.2 | 2.5 | 16 | 0.1 |
| Fall and injury | 34.3 | 20.6 | 11.4 | 6.7 | 36 | 0.2 |
| Illness and other | 32.4 | 24.9 | 13.8 | 8.1 | 46 | 0.3 |
| MVA | 52.6 | 14.0 | 7.8 | 4.6 | 16 | 0.1 |
| Overdose and psychiatric | 27.1 | 2.7 | 1.5 | 0.9 | 6 | 0.0 |
| Seizure and unconsciousness | 31.1 | 5.7 | 3.2 | 1.9 | 11 | 0.1 |
| EMS Total | 33.6 | 81.3 | 45.0 | 26.5 | 145 | 0.8 |
| False alarm | 27.4 | 6.9 | 3.8 | 2.2 | 15 | 0.1 |
| Good intent | 15.2 | 0.5 | 0.3 | 0.2 | 2 | 0.0 |
| Hazard | 56.8 | 45.4 | 25.1 | 14.8 | 48 | 0.3 |
| Outside fire | 130.1 | 28.2 | 15.6 | 9.2 | 13 | 0.1 |
| Public service | 23.3 | 10.1 | 5.6 | 3.3 | 26 | 0.1 |
| Structure fire | 47.8 | 6.4 | 3.5 | 2.1 | 8 | 0.0 |
| Fire Total | 52.2 | 97.5 | 53.9 | 31.8 | 112 | 0.6 |
| Canceled | 13.2 | 2.0 | 1.1 | 0.6 | 9 | 0.0 |
| Total | 40.8 | 180.7 | 100.0 | 58.9 | 266 | 1.4 |

Observations:

Overall

- Total deployed time for the year was 181 hours. The daily average was 59 minutes for all units combined.
- There were 266 runs with a daily average of 1.4 runs.

EMS

- EMS calls accounted for 45 percent of the total workload.
- The average deployed time for a run to an EMS call was 33.6 minutes. The deployed time for all units dispatched to EMS calls averaged 0.4 hours per day.

Fires

- Fire calls accounted for 54 percent of the total workload.
- There were 21 runs for structure and outside fire calls, with a total workload of 35 hours. This accounted for 19 percent of the total workload.
- The average deployed time for a run to a structure fire call was 47.8 minutes, and the average deployed time for a run to an outside fire call was 130.1 minutes.

WORKLOAD BY UNIT

Table 17 provides a summary of workload for GTRFD units that responded to calls in Long Lake Township between July 1 and December 31, 2015. Table 18 provides a more detailed view of workload, showing runs broken out by call type and the resulting daily average deployed time by call type.

TABLE 17: Call Workload by Unit

| Station | Unit | Avg. Deployed Min. per Run | Total Annual Hours | Avg. Deployed Min. per Day | Total Annual Runs | Avg. Runs per Day |
|----------------|--------------|----------------------------|--------------------|----------------------------|-------------------|-------------------|
| 10 | Boat | 68.0 | 2.3 | 0.7 | 2 | 0.0 |
| | Engine | 42.0 | 37.8 | 12.3 | 54 | 0.3 |
| | Squad | 30.3 | 77.8 | 25.4 | 154 | 0.8 |
| | Tanker | 72.7 | 23.0 | 7.5 | 19 | 0.1 |
| | Wildfire | 52.8 | 19.4 | 6.3 | 22 | 0.1 |
| | Total | 38.3 | 160.3 | 52.3 | 251 | 1.4 |
| 4 | Other | 81.5 | 20.4 | 6.6 | 15 | 0.1 |
| Overall | | 40.8 | 180.7 | 58.9 | 266 | 1.4 |

Note: Station 4 unit 'Other' includes the engine, tanker, water supply, and wildfire units.

TABLE 18: Annual Runs and Daily Average Deployed Time by Call Type and Unit

| Station | Unit | Total Annual Runs | | | | Average Minutes per Day | | | |
|----------------------|--------------|-------------------|------------|----------|------------|-------------------------|-------------|------------|-------------|
| | | EMS | Fire | Canceled | Total | EMS | Fire | Canceled | Total |
| 10 | Boat | 2 | 0 | 0 | 2 | 0.7 | 0.0 | 0.0 | 0.7 |
| | Engine | 13 | 39 | 2 | 54 | 2.5 | 9.7 | 0.2 | 12.3 |
| | Squad | 123 | 26 | 5 | 154 | 21.6 | 3.5 | 0.3 | 25.4 |
| | Tanker | 2 | 16 | 1 | 19 | 0.4 | 7.0 | 0.1 | 7.5 |
| | Wildfire | 3 | 18 | 1 | 22 | 0.9 | 5.3 | 0.1 | 6.3 |
| | Total | 143 | 99 | 9 | 251 | 26.1 | 25.5 | 0.6 | 52.3 |
| 4 | Other | 2 | 13 | 0 | 15 | 0.4 | 6.3 | 0.0 | 6.6 |
| Overall Total | | 145 | 112 | 9 | 266 | 26.5 | 31.8 | 0.6 | 58.9 |

Note: Station 4 unit 'Other' includes the engine, tanker, water supply, and wildfire units.

Observations:

- Squad 10 made the most runs (154, an average of 0.8 per day) and had the highest total annual deployed time (78 hours, an average of 25 minutes per day).
- EMS calls accounted for 80 percent of the runs and 85 percent of deployed time.
- Engine 10 made the second most runs (54, an average of 0.3 per day) and had the second highest total annual deployed time (38 hours, an average of 12 minutes per day).
- Fire calls accounted for 72 percent of the runs and 78 percent of deployed time.

ATTACHMENT I

TABLE 19: Actions Taken Analysis for Structure and Outside Fire Calls

| Action Taken | Number of Calls | |
|---|-----------------|--------------|
| | Structure Fire | Outside Fire |
| Fire control or extinguishment, other | 2 | 5 |
| Extinguishment by fire service personnel | 15 | 22 |
| Salvage & overhaul | 10 | 0 |
| Contain fire (wildland) | 0 | 2 |
| Control fire (wildland) | 0 | 5 |
| Remove hazard | 0 | 1 |
| Ventilate | 1 | 0 |
| Establish safe area | 0 | 2 |
| Provide manpower | 0 | 2 |
| Control traffic | 0 | 1 |
| Information, investigation & enforcement, other | 0 | 1 |
| Incident command | 1 | 0 |
| Investigate | 9 | 7 |
| Investigate fire out on arrival | 3 | 3 |
| Total | 41 | 51 |

Note: Totals are higher than the total number of calls because some calls had more than one action taken.

Observations:

- A total of 22 outside fires were extinguished by fire service personnel, which accounted for 55 percent of outside fires.
- A total of 15 structure fires were extinguished by fire service personnel, which accounted for 75 percent of structure fires.

ATTACHMENT II

TABLE 20: Content and Property Loss – Structure and Outside Fires

| Call Type | Property Loss | | Content Loss | |
|----------------|------------------|-----------------|------------------|-----------------|
| | Loss Value | Number of Calls | Loss Value | Number of Calls |
| Outside fire | \$155,500 | 12 | \$6,000 | 3 |
| Structure fire | \$709,000 | 10 | \$363,500 | 10 |
| Total | \$864,500 | 22 | \$369,500 | 13 |

Note: This includes only calls with recorded loss greater than 0.

Observations:

- Out of 40 outside fires, 12 had recorded property loss, with a combined \$155,500 in loss.
- Three outside fires also had content loss with a combined \$6,000 in loss.
- Out of 20 structure fires, 10 had recorded property loss, with a combined \$709,000 in loss.
- Ten structure fires also had content loss with a combined \$363,500 in loss.
- The average total loss for all structure fires was \$53,625.
- The average total loss for a structure fire with loss was \$107,250.

TABLE 21: Total Fire Loss Above and Below \$20,000

| Call Type | No Loss | Under \$20,000 | \$20,000 plus |
|----------------|-----------|----------------|---------------|
| Outside fire | 28 | 11 | 1 |
| Structure fire | 10 | 6 | 4 |
| Total | 38 | 17 | 5 |

Observations:

- 28 outside fires and 10 structure fires had no recorded loss.
- One outside fires and 4 structure fires had \$20,000 or more in loss.
- The highest total loss for an outside fire was \$100,000.
- The highest total loss for a structure fire was \$375,000.

TABLE 22: Content and Property Loss by Township

| Township | Outside Fires | | Structure Fires | |
|-------------|---------------|-----------------|-----------------|-----------------|
| | Loss Value | Number of Calls | Loss Value | Number of Calls |
| Fife Lake | \$41,000 | 5 | \$10,500 | 1 |
| Green Lake | — | — | \$15,000 | 2 |
| Mayfield | — | — | \$23,000 | 1 |
| Paradise | \$15,500 | 3 | \$325,000 | 1 |
| Springfield | \$4,000 | 2 | \$7,000 | 2 |
| Union | \$100,000 | 1 | \$317,000 | 2 |
| Whitewater | \$1,000 | 1 | \$375,000 | 1 |

ATTACHMENT III

TABLE 23: Workload of Administrative Units

| Unit ID | Annual Hours | Annual Runs |
|------------------|---------------------|--------------------|
| 601 – Fire Chief | 103.5 | 43 |

TABLE 24: Workload of Administrative Units – Long Lake Township 2015

| Unit ID | Annual Hours | Annual Runs |
|------------------|---------------------|--------------------|
| 601 – Fire Chief | 2.9 | 6 |



GRAND TRAVERSE RURAL FIRE BOARD MEETING

Paradise Township Hall

2300 E. M-113

Kingsley, MI 49649

November 29, 2016

Special Meeting held at 6:00 p.m.

Chairman Linda Forwerck Vice-Chair Doug Mansfield Treasurer Doug Moyer

Members: Fife Lake -Linda Forwerck, Grant - Doug Moyer, Green Lake- Paul Biondo, Paradise- Rob Lajko, Springfield- Tom Gonyer, Union- Doug Mansfield, Whitewater- Ron Popp

Any interested person or group may address the Grand Traverse Rural Fire Board on any agenda item when recognized by the presiding Chairman or upon request of any Board Member. Also, any interested person or group may address the Grand Traverse Fire Board on any matter of Fire Department concern not on the Agenda during the agenda item designated Public Comment. The comment of any member of the public or any special interest group may be limited in time. Such limitation shall not be less than five minutes unless otherwise explained by the presiding Chairman, subject to appeal by the Grand Traverse Rural Fire Board.

I. Roll Call

Grant (present), Green Lake (present), Paradise (present), Springfield (present), Union (present), Whitewater (present) and Fife Lake (present).

II. Approval of Agenda

Motion by Union, supported by Whitewater to approve the agenda as presented. Motion carried.

III. Conflict of Interest

No conflicts of interest were reported by members.

IV. Consent Calendar

The purpose of the consent calendar is to expedite business by grouping non-controversial items together to be dealt with by one Board motion without discussion. Any member of the Board, staff or the public may ask that any item on the consent calendar be removed therefrom and placed elsewhere on the agenda for individual consideration by the Board; and such requests will be automatically respected. If an item is not removed from the consent calendar,

the action noted in parentheses on the agenda is approved by a single Board action adopting the consent calendar.

V. Public Comment

None at this time.

VI. Unfinished Business

VII. New Business

- a). **Strategic Plan Review and Discussion.** Fife Lake introduced Tom Wieczorek of CPSM consulting, Strategic Plan consultant. Mr. Wieczorek provided the members a brief summary of his experience in the public sector as well as projects his firm has completed. A power point presentation was made and has been incorporated below, with comment to follow.



Crossroads

- Critical decisions
- Time is short
- Impacts on continuing operations
- Reactive versus proactive
- Addressing future of fire and EMS services
- Budget of \$543,000 vs. \$363,000
- Loss of future partners

Key Issues

Immediate:

- Green Lake and Grant exit
- Job description of chief
- Contract for administration
- Act 57
- EMS department that happens to fight a fire or a fire-based EMS system?



The first discussion held centered on the critical decisions needed by the Board. Noting the 30 day deadline looming, Mr. Wieczorek commented that under the best of circumstances it generally takes 6 months to reorganize. Even if Green Lake and Grant townships pull, still need 6 months to handle new processes, procedures, polices and alarms for Grand Traverse Rural Fire Department. There is a lot of work to be done prior to December 31, 2016. Mr. Wieczorek suggested rewriting the Chief's job description immediately, and offer a six month extension. Whether the Department splits or stays, the extension will allow for continuity of service. Mr. Wieczorek commented that based on interviews there will be conflict regardless of who is Chief. Just switching Chief's will not resolve the conflict within the Board. The Department needs to go forward at an organizational level, independent of the decisions for both – stay or go. Time is critical.

Volunteers and the limited pool of individuals available is also a concern. Without leadership will the organization be proactive or reactive to the fire calls as received? The most successful departments are those that are proactive, a military type structure. When reviewing area departments it was noted that the Kalkaska departments visited are reactive, they arrive on scene unprepared in how to handle.

Transitioning to a Fire based EMS department provides a financial solution. Providing cross-trained, staffed departments allow for more immediate turn out time. Currently each station has a service, but it is a patchwork of providers – each with a different funding model. EMS can be self-funding and the dollars needed to develop a fire based EMS service for GTRFD is already there. Still a need for a Chief to oversee the Department and that individual would need the support of the Board when hiring or firing decisions are made. Mr. Wieczorek understands there is conflict that exists now when a firefighter is terminated, he or she may still remain as on EMS provider. Fire and EMS will get pulled together over time.

Consensus on these items will be tough to achieve by the end of the year. The question remains will others split. Mr. Wieczorek repeated there is a finite source of volunteers and independent stations will not allow for the sharing of these resource. The savings by remaining together is in administration costs, requires only one Chief and support staff. Utilizing Act 57 will not require a millage. Putting a new authority in place will also allow for restructuring of the Board, seating individuals with specialized skills. The addition of a fulltime Volunteer Coordinator could also bring the staffing levels up at all stations. The money is there.

The following slide was reviewed by Mr. Wieczorek highlighting various sources of available funding. Although the list is extensive, he recommends Act 57 as the cleanest easiest way, however a vote within the townships would be required.

Enabling Legislation

- Public Act 57 of 1988
- Public Act 7 of Public Acts of 1967 – Agreement for Service
- Act 188 of 1954 – The General Township Improvement Special Assessment Act
- Public Act 116 of 1923 – Township and Village Public Improvement of Public Services Act
- Act 36 of 2014 – Interlocal Agreement Act
- Act 33 of 1951 – Public and Fire Protection Act (together with)
- Ambulance Special Assessments under Public Act 368 of 1918
- Act 207 of 1941 as amended – the Fire Prevention Code

Mr. Wieczorek reiterated the main components of the Strategic Plan and the order in which they should be completed. Rewriting the Chief's job description and securing a six month contract are foremost for a smooth transition. This action drives the remainder of the Strategic Plan.

Strategic Plan Impacts

- 1st decision: 6 month extension of deadlines
- 2nd decision: Re-write Chief Job Description
- 3rd decision: Chief Position
- 4th decision: Act 57
- 5th decision: Fire-based EMS

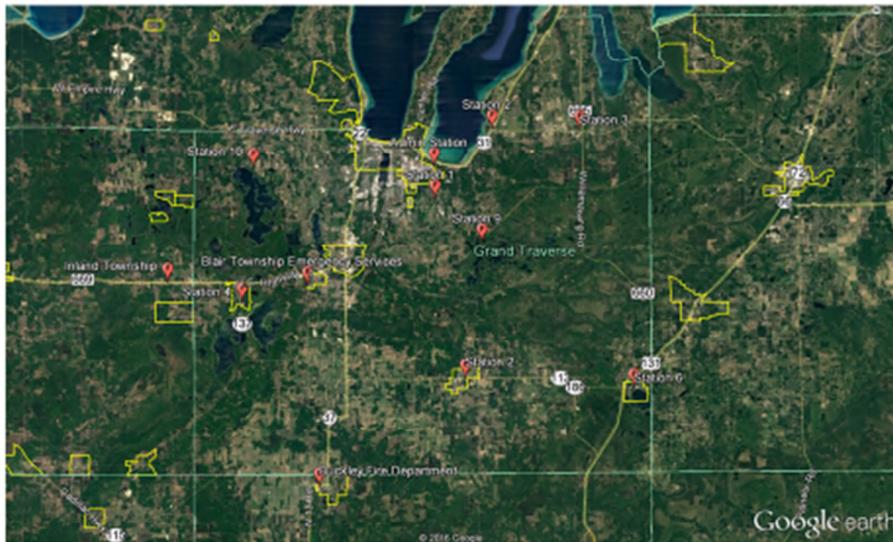


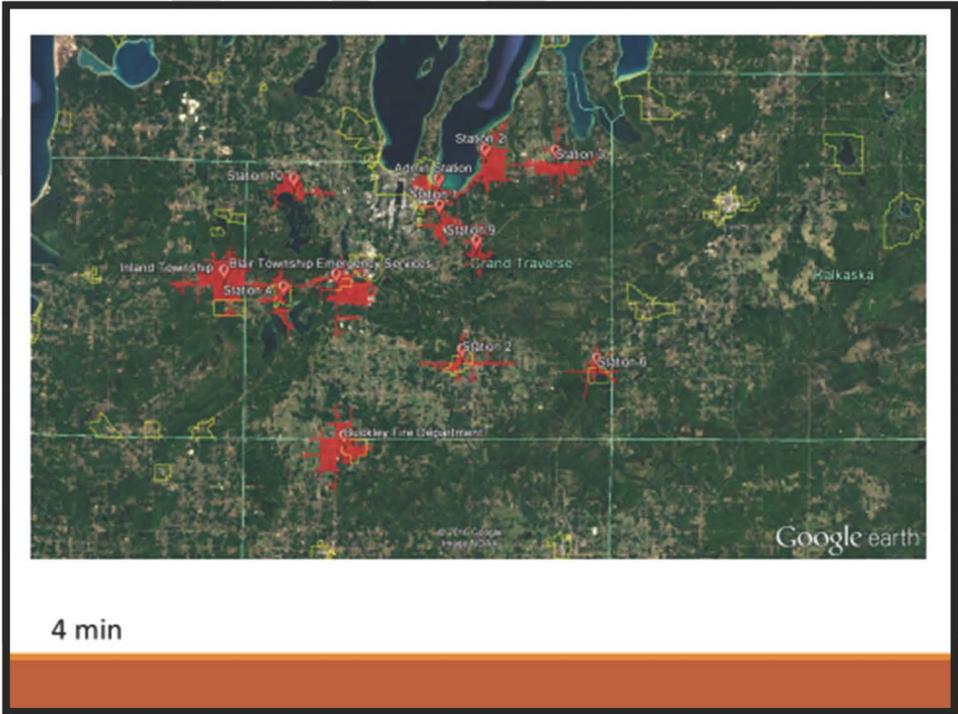
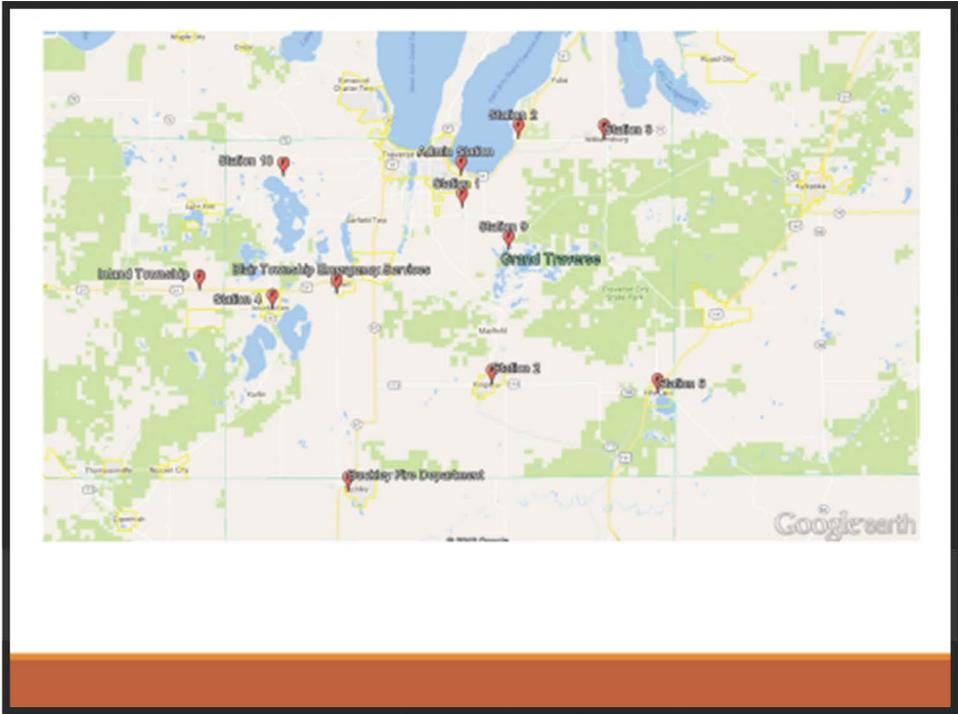
These drivers will decide the direction of the rest of Strategic Plan Recommendations

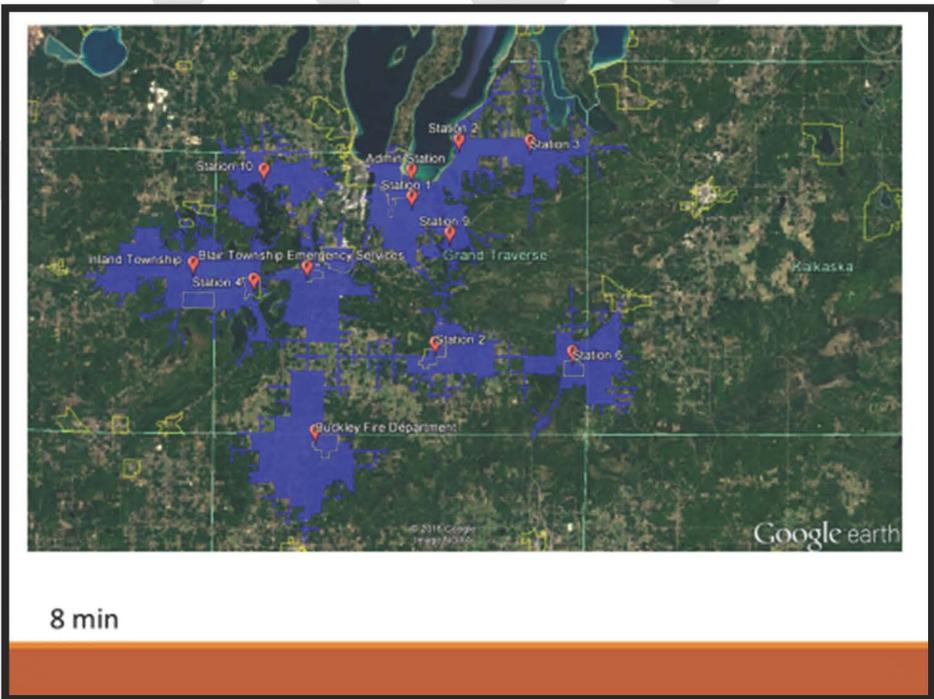
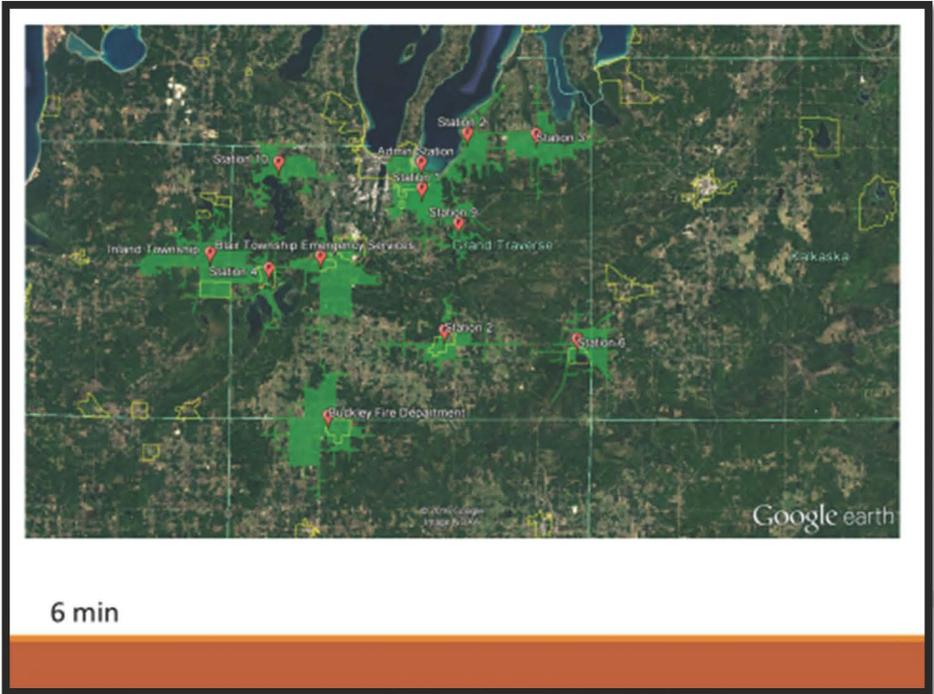
Coverage

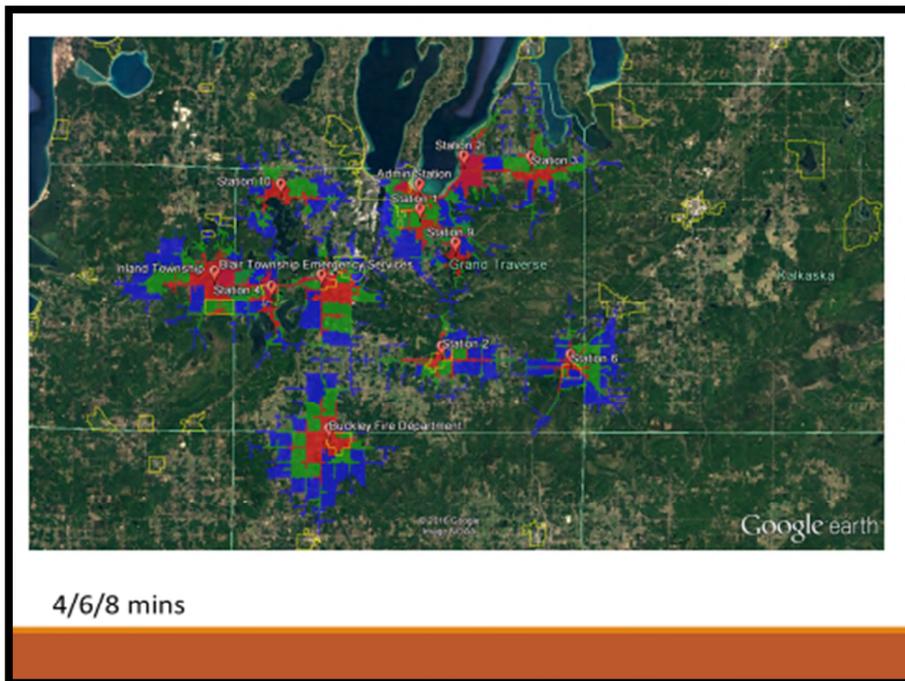
GREEN LAKE AND GRANT LEAVING VERSUS STAYING

Stations are at or near peak for location. Most border major highways and roadways and allow for response times at or near benchmarks for like departments. Grant Township is of concern until Buckley Fire Department is added to the stations noted below. Developed areas are being reach, however some areas, many located in Union Township, require additional response time. Homes there are dotted between State land and other privately owned forested areas. Although response time is longer to reach these properties, the time is within acceptable standards. Union inquired about Act 57 and the need to manipulate data in order to sway voters in what is agreed to as a rural area. Is data available with specific response times, you are 25 minutes away, etc. Mr. Wieczorek answered that data is easily obtained through Google maps. Green Lake Township has a lot of water, requiring the “long way around” to get to many areas. There is no real solution to this.









While discussing volunteers, or staffing Mr. Wiczorek included the following slide highlighting threats related to splitting. While conducting interviews he often heard “my station” forgetting that the stations are a part of Rural Fire. Once fracturing of the station occurs, available volunteers may be limited and recruitment may become more difficult. This also increases costs for apparatus and equipment as well as impacting ISO ratings for the community.

Volunteers

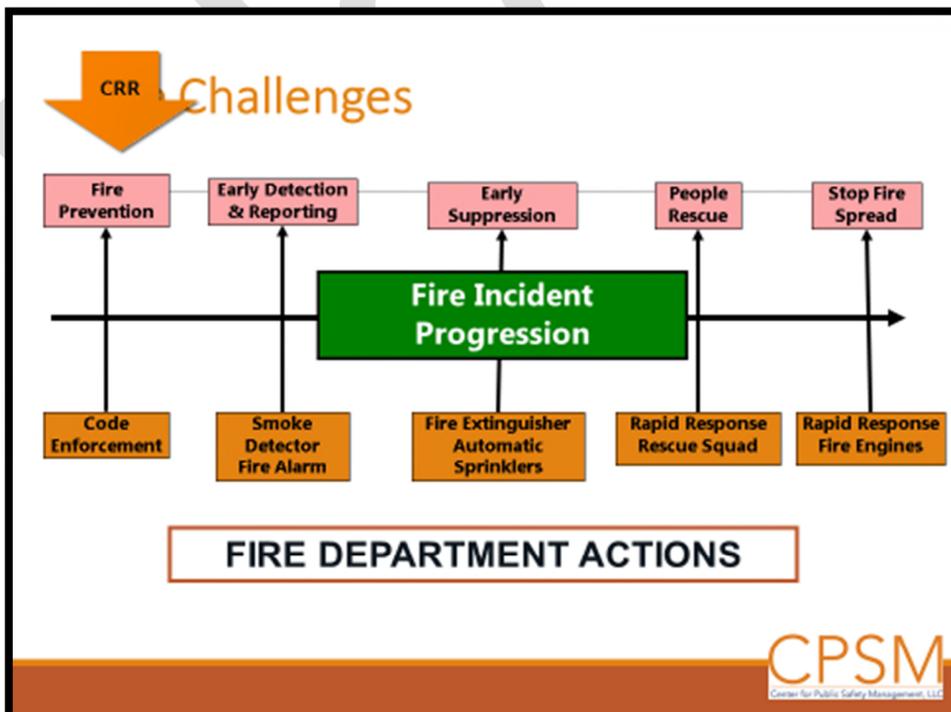
- “Active” volunteers are down
- Where will staff come from?
- How do we pay for staff?
- Where does EMS best fit?
- Fires are down; costs are up
- Are we fire departments that run on an occasional EMS call or EMS departments that run on an occasional fire?
- ISO

Combining EMS and Fire is a good alternative if you have a large enough pool of qualified individual, both paid and volunteer to fill the need. In reality EMS is “driven more by politics and past practice – as opposed to efficient, patient based care. An example given would be utilizing EMS to identify patients in the area who are abusing the service and find alternatives for their needs, such as pill reminders provided by community members. This process would reduce the number of missed medication ambulance calls. In Fire, older or retired adults could provide community education, fire prevention services or even assist with recruitment. The model centers around identifying community needs and utilizing human resources available to fill those needs.

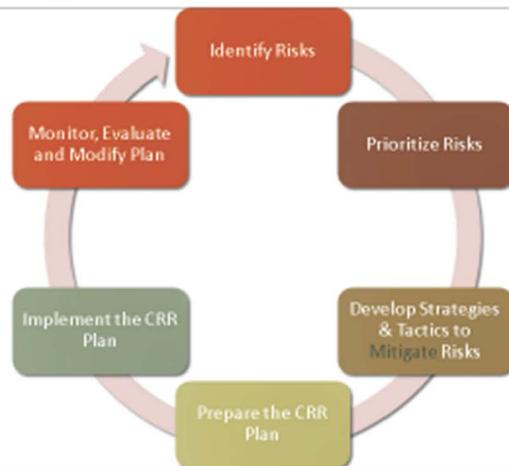
The EMS Reality

“The reality is that most EMS systems today were developed in a piece-meal fashion, driven more by politics, the influence of labor unions, and past practice, as opposed to an efficient, patient-centered, evidence-based system.”

- Marc Eckstein, MD, MPH, FACEP



Fighting fire to Preventing



Question

What service does your township want?

Mr. Wieczorek inquired of the members what type of service does your township want? Union replied most in his township don't know it's a patchwork department. All they know is that it is that it is their township and they don't have a fire hall. Mr. Wieczorek responded that he noticed during a lot of the interviews with township officials they almost always referenced their station or our station instead of Rural Fire. It is seen as an identity crisis.

Also during those interviews, sessions with firefighters and community meetings when asked they all commented the service received was good, staff are good. During those meetings when asked about the mission to provide service, no one said they wanted to provide the best – or expect the best. Mr. Wieczorek stated that typically someone always shares to provide the “best” service possible, or receive the “best” service possible. Mr. Wieczorek answered a question by Chief Weber indicating no concerns were raised during interviews regarding response times.

Sample Mission and Vision statements were shared for review and follow this comment for review.

Mission, Vision

Grand Traverse Rural Fire Department is created to provide fire and EMS services for the Townships and Villages it serves. The department is committed to saving lives and property through fire suppression and emergency medical response while recognizing the need to be efficient and effective with the community's investment

Values

While made up of many members, we have one mission and common values focused on serving our collective community.

We will work to provide adequate and consistent deployment of resources: stations, staffing, and equipment.

We value the teamwork of our board, volunteers, and citizens.

We serve, often without compensation.

All of our citizens, businesses, and communities will receive the same excellent service regardless of population, budget size, or geographic location.

Our success will depend on the continued comradery and partnership of mutual aid resources—both given and received.

The dedication and protection of volunteers will remain the focus of the Board of Directors and the community served by GTRFD. Training and safety will always be first at GTRFD.

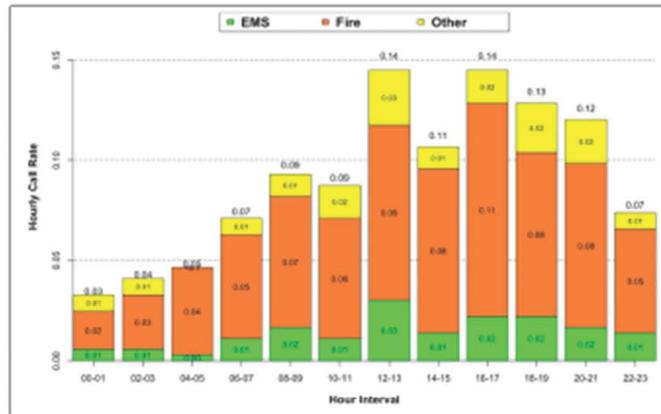
We will not be afraid of change but, instead, will embrace it at all levels of the organization. At least 10 percent of each Board of Directors meeting will be dedicated to future planning for the department.

We value communication at all levels and will strive to leave no one out.

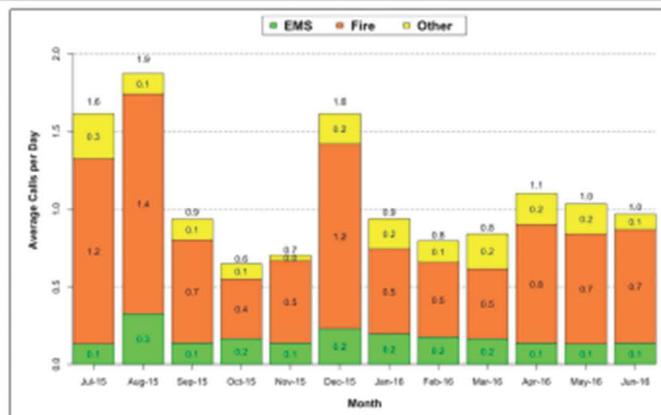
One concern expressed by Mr. Wieczorek is how to maintain inter-operability if there is a split. Calls in the coverage area peak later times during the day than other areas. This could be related to travel for work and when arrive home. Summer is the busiest season with increased calls per day. Dispatch times are questioned and Mr. Wieczorek believes the longer than average response time is based on an outdated system utilized by Central Dispatch. Chief Weber confirmed this and added the county has been looking at replacement but the cost is a factor. Newer software could dispatch in as little as 45 seconds. Travel or turn-out is consistent, 1 minutes is standard and 3-5 minutes for volunteer departments is the norm.

Another suggestion offered by Mr. Wieczorek to reduce time is of course 24 hour staffing but also the Department could consider vehicle replacement. He presented the Ladder as an example. This apparatus requires additional staffing to take to the scene and could be replaced with a newer, less cumbersome version which requires only one person to operate. USDA has funding options available for rural initiatives through grants and low interest loans. Splitting will not make this funding easier.

Times of Calls



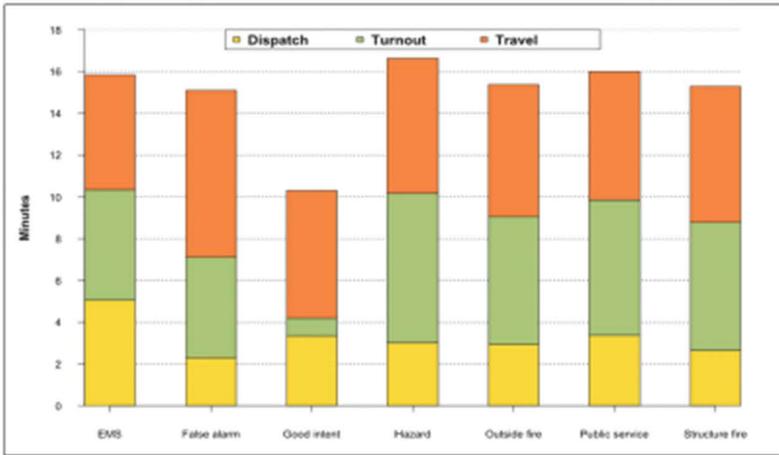
Calls per day



Calls by Area

| Municipality | Number of Calls | Calls per Day | Call Percentage |
|----------------------|-----------------|---------------|-----------------|
| Fire Lake | 45 | 0.1 | 10.8 |
| Village of Fire Lake | 19 | 0.0 | 9.3 |
| Grant | 12 | 0.0 | 3.0 |
| Green Lake | 85 | 0.2 | 20.8 |
| Village of Kingsley | 11 | 0.0 | 2.8 |
| Mayfield | 16 | 0.0 | 4.0 |
| Paradise | 39 | 0.1 | 9.8 |
| Springfield | 39 | 0.1 | 9.8 |
| Union | 15 | 0.0 | 3.8 |
| Whiteswater | 87 | 0.2 | 21.8 |
| Other | 41 | 0.1 | 10.3 |
| Total | 399 | 1.1 | 100.0 |

Response Times



In summary Mr. Wieczorek wanted to remind the members the plan as presented include recommendations only and none of those provided are mandates. Setting short, long and way down the road goals should be addressed next.

Paradise opened the question portion of the presentation asking if he had heard right that with the fire and ambulance funding already available, \$1.7 million, a fully staffed, 24/7 department could be created. Mr. Wieczorek replied that it could in fact provide that service, if the township could cross-train personnel already available. Fife Lake is already trained and Green Lake is as well to a certain extent. Paradise also asked for clarification of the ECHO service. Mr. Wieczorek explained that a unit with a Paramedic could be placed centrally to improve existing services as well as decrease the expenditure many ambulances currently have to pay to Blair Township for the service. Determining the best location, which would still benefit Whitewater may be a concern.

Whitewater asked about the single individual responding in at apparatus and what is better. Mr. Wieczorek explained that at least two individuals is considered best practice. Captain Fritz, Station 2 commented that it does occur, when person in the vehicle with others traveling to scent in personal vehicle. He continued that two are better as visibility is not good and there are a lot of blindspots. Also an individual can fight a fire defensively but cannot attempt any type of rescue.

Whitewater asked about water points as mentioned in the report. Chief Weber stated some dry hydrants were damaged by boats, cisterns are still utilized and all stations have a turbo-draft enabling them to draw from any water source.

Paradise inquired under “immediate needs” Green Lake is hiring a Director of EMS? If that position is hired, couldn’t the individual provide service under the Chief and step-in during an absence. Mr. Wieczorek explained this position oversees a lot of mandatory requirements which include a lot of liability. Generally responsible for drug control, loss and it does happen, especially on scene. They are also responsible for paperwork and accurate data collection and reporting – which both impact billing. There could be some flexibility if the individual were a paramedic and they could take calls, but too much work to assume Chief duties.

Mr. Wieczorek pointed out again the critical need to have the Chief in place over the next six months to coordinate the Strategic Plan. The six month cooling off period is suggested to benefit both parties. The same six month period is included in the Green Lake report, which will be presented on Monday, December 5. Fife Lake stated this six month delay would need a legal opinion and also need the vote of each township, at the township level. The Notice to Withdraw contained no out clause and Fire Board members are agents only for their townships. Union Township asked if this six month waiting period benefits both sides.

Fife Lake also shared that Act 57 will take some time to discuss thoroughly with staff and Boards. Whitewater heard that Act 57 requires employees to unionize. Mr. Wiczorek answered that is not true, however if a union is in place it must be recognized. You cannot use Act 57 to break a union. Chief Weber added that Traverse City Metro Fire Department is an Act 57 funded department and they have no union.

Whitewater asked about the current inter-governmental agreement, an actual Act and added in 1977 Attorney General Frank Kelly put out an opine on this and his opinion was that because EMS was not included in the MCL even though it had been included in the public act 198, (Mr. Wiczorek noted it was Act 51) Health Department Code 306 oversees ambulance. Mr. Wiczorek stated that the way he read the Act and understood it is that you cannot add EMS, but you could do an inter-local agreement on one of the other acts. What you really want to get by is that prohibition that you can't and Act 57 seems the cleanest approach to that.

Green Lake commented that a millage as a funding base is the real source of the problems here, and the formula for each township. Whitewater disagrees stating the Rural Board before 2012 actually voted to decrease the assessment so the funding issues is not coming out of the townships and has nothing to do with whether I have a special assessment district or you have a millage. Whitewater has often said they would be willing to contribute more, Paradise stated they would also pay more. Funding for this organization is just not a problem. Union added and asked Grant felt the same way, but getting support for a millage in an area basically not covered will be a tough sell. Unless another station is built he doesn't see a change. Act 57, requiring a majority vote of the district seems a better solution. Whitewater commented under the act they could lose our voice, you could lose your voice relatively easy as could Grant. Paradise could out vote us all. Right now we each have a voice. Union added that it does not matter if it's a district or a millage he wants what is best for public safety. Mr. Wiczorek understands the situation. Often when city dwellers move to the country their expectations for services are not met.

Paradise asked if the \$1.7 million shown in the budget is drawn from an Act 57 scenario. Mr. Wiczorek said this money is already available from township budgets based on their funding of fire and ambulance services. Some townships may have to pay more, but as presented the figure does not include revenues. Chief Weber stated that under Act 57 every homeowner pays the same rate. Union agreed feeling this would be a much better alternative for his township. Whitewater stated the current agreement divides costs equally. Also, providing a departmental ECHO vehicle would save the \$300,000 current paid to other agencies and could also increase revenue is the service was charged to outside agencies. Mr. Wiczorek reiterated the money is there it is just going into too many pots.

Fife Lake put the discussion into a synopsis to inquire of the Board where they want to go. The first thing is delaying this until June 1, 2017 and I don't know when Green Lake and Grant are coming in with their decision? If it is to be extended will require approval by the township Boards. Then Act 57 can be explored. Then if it is to go ahead and extend and our individual Boards ok that and our Rural Fire attorney draws up an agreement, then we can further explore Act 57. Union would like to direct staff to have the attorney of Rural Fire draw up the language necessary for the individual Boards to accept or work with a delay for six months. Can't wait until December Board meeting. Whitewater said six months is going to be a stretch, let alone 30 some days. If we just maintain the agreement we have and the two entities chose to stay for 12 months rather than six months. This gives us time to act on behalf of the people we serve. Whitewater did add that they are in total disagreement of any extension. Union asked so you don't want any extension. Whitewater added that Green Lake and Long Lake have paralyzed us for two years and that is wrong.

Fife Lake, so where do we want to go with this. Paradise feels we need to renew the Chief's contract until June 30, 2017. Fife Lake opened for discussion and added we could extend current contract, could advertise with a lower wage or extend the contract with less pay. Union said we don't know if the Chief will accept a new job description or the new salary if offered. Union added we have to rewrite the job description before we can offer less money. It may mean an equal amount of money but the time is spent much differently. Fife Lake stated with a new job description you could also put more on the Captains that has been talked about.

Paradise has a concern that if we do not renew the Chief's contract for the next six months, we will be using that time looking for a new Chief rather than working on the items suggested in the Strategic Plan report. Fife Lake stated they did recommend looking at the contract. Whitewater asked what Mr. Wiczorek would recommend. His reply was a lot of the changes will be driven by are you going to become EMS based service and the associated duties with the service and initial conversion. A Fire Chief and a Fire/EMS Chief are completely different. If the expectation of the Chief is to attend township Board meetings than the description needs to be specific and say attend two meeting a month or 4 meetings. The description needs to be clear. Just to say I don't like you isn't enough, you have to have job parameters set. This includes centralized or decentralized command. Do you want a traditional Chief or shared authority at stations. All of this drives who will apply for that job and what salary expectation are. He concluded that if Green Lake and Grant withdraw it will take a lot of time to redraft agreements, protocols, policies and all associated documentation, that is why they are recommending a six month extension to the Chief's contract.

Whitewater commented as to the job description, that as a Board, his township will not support adding EMS. He is the lone, dissenting voice who sees that as our future. Also

Whitewater is not excited about Act 57, would rather look toward some type of ancillary agreement that would support the addition of EMS. Whitewater Township has instructed him to say to EMS but I truly believe it's the only way forward.

Fife Lake asked Springfield what they thought about EMS. Springfield responded they would just join up with Fife Lake they do not want to spend more money than they have. Union stated they can see that based on their location. Union sees Whitewater and Fife Lake as good, they have fire and ambulance and their politics. Whitewater added they would still like to staff the ambulance with own staff, just don't think the remainder of the Board thinks it can be done. Union concluded that the five townships remaining don't impact his service one way or another, response times remain unchanged but the cost goes up.

Green Lake shared their Board meets Monday, December 12. Regardless of outcome, anytime their service they are always there to help. He personally believes there is no compelling reason to stay in for six months, it would take a lot of work to come up with a six month plan. Frankly nothing has changed. Finances are the main concern with 38% of the budget coming from Green Lake. This Board has prepared a budget and talked about it long enough I think you need to move on to more important things. We could discuss a mutual aid type of agreement. There are three pieces of equipment that will not remain at Station 4, and could be relocated to the other side of the county. Their decision was based on the best service for their residents. If you look at the map provided, looking at Inland, Blair and Long Lake we have local assistance and for some reason we (Rural) have truncated Long Lake out of responding. Chief Weber stated that is not true. We have a mutual aid agreement with Long Lake, but the three closest; Blair, Inland and Metro Station 12 are called first. The map as provided shows the Long Lake station at the south end of Long Lake when it is in fact the north end. They are in the system, but not to be called first.

Green Lake stated they are working with all their neighbors on responding, and Fife Lake stated they too are looking to Kankaska County as they go back and forth often. They added that they are getting off the discussion at hand.

Fife Lake stated until Green Lake makes some type of decision our hand are tied. Green Lake disagreed saying the Boards' hands are not tied, they have known about this for 18 months. The budget hearing is scheduled, you can adopt a budget and begin to move forward. Certainly the Chief's contract is up again with yet another extension looming. This is very concerning. Paradise added that regardless of what Green Lake and Grant decide, we need to secure good leadership. The right person to do this is Chief Weber whether you think he is overpaid, we need him and if Green Lake and Grant leave it is apparent his position would be over in June, once he got us through the transition.

Fife Lake does not agree with this scenario and will not extend the contract under the current terms without a significant cut in salary and they know Springfield feels the same way. Union is ok not extending the contract but you need to define a new description in the next two weeks and that new description will determine salary. What is the back-up situation, we are still a department. As of January 1, 2016, what would be the proposal? Let's work to resolve and not keep things the same. The members agreed the description needs to be rewritten. Grant Township doesn't feel it is their place to vote on it, but there is a situation you have got to work through. Union asked what Grant will do on January 1, 2016. Do you have agreements with all the separate departments that serve you? The response was no, waiting to see how this plays out. Union, so you have some work to do then in the next two weeks.

Fife Lake stated that by December 31 we will have Green Lake and Grant's decision. Converting to an Act 57 will take some work if we decide to go through with it. We need to establish a personnel committee to update the Administrative job descriptions. Mr. Wiczorek commented that a new Chief's job description may or may not include EMS oversight.

Whitewater, the Board did not follow its own instructions that last time a committee was formed. Fife Lake recollected that they were directed to pick three or five to come back to this Board and be interviewed. And so, we came to the Board expecting that but instead the Board asked who the top one was and we hired the Chief. If there is a committee it should come back for final interview of at least three candidates.

Paradise commented so it appears that you were not happy with the hiring process from three years ago. His third anniversary was the third of November and his first evaluation was two months ago. If you weren't happy why did you wait so long to give a review? There has been no corrective action plan or indication that he is not doing his job. It seems like you are piling on the guy. Whitewater stated they would refrain from comment.

Fife Lake offered information on extensions granted by the Board. Union stated working with volunteers is tough. Separating some of those responsibilities; hiring, firing, discipline, etc., the Board formed a military style hierarchy after the Chief Sedlacek left to get us in compliance and keep us in compliance. Since that time things have changed. Now we have a whole new job description, we have lost 40% of our income and maybe another 33% and what I am saying is we cannot continue to do this. A compensation package needs to be commensurate. Union cannot say that Chief Weber did not perform the duties as outlined in his job description. Paradise asked Mr. Wiczorek of Chief Weber is a competent Chief and if he is compensated accordingly. Mr. Wiczorek thought he was. Paradise added it is the fault of the Board members if the expectations were not met and relayed. Can we afford to be without Chief Weber?

Union added the priority tasks as outlined earlier will need to be completed by the Fire Chief, maybe the day-to-day stuff could be given to the Captains. Union does not know what the firefighters do and cannot do their job.

Fife Lake asked Green Lake if the Chief's contract had any bearing on their staying or leaving. Green Lake didn't think so, although if you are going to bust up the department and we were going to get half the assets we would probably stay for another year. Green Lake does agree with Paradise that there are things that need to get done in the next six months and you will need a competent Chief to follow through. They did add that they would have to abstain from the vote, if the Board would allow.

Union added that this Board needs to put together a new job description with duties outlined and include the new salary, offer it to the Chief and if he declines on December 31st you are going to have to pass those duties on to your Captains. Green Lake asked "don't you think you should have already done that?" Fife Lake responded yes, but it was not done.

Paradise made the motion that we extend the Chief's contract to June 30, 2017 with the current salary. Motion fails.

Chief Weber stated one year you brought in the Captains and asked them to take on additional duties and what did they say? No. So good luck with that unless you are going to make them a paid position within the department. And, no one has asked me if I want to stay. Paradise stated they are starting to get a pretty bad feeling though. The Chief commented that if Green Lake and Grant are gone he doesn't see the organization as viable. Everytime my contract comes up I state I want to see this department succeed. The Board is not resolving their differences and their behavior is as it has been for three years. You look down, rather than at yourself to pass blame. Lack of action by the Board has gotten us here, it is not my decisions. (applause).

Union again stated the description needs to be done and salary assigned. The members discussed having the staff write the description and the audience did not support. Whitewater will, with the assistance of Union prepare a new description for presentation at the next meeting of the Board. Paradise asked the consultant if the salary currently being paid is out of the norm for this size department and the rural area. Mr. Wiczorek stated based on the national norm it is in line and until the description is written it is hard to put a number on it. Paradise is a good exit strategy to get us through June. Obviously he is not going to work for 50% of his salary. We need his help to get us through the winter and into June and we can have a seamless transition for our taxpayer residents. Chaos at one fire is too many, to save \$20,000 if that saves one person from a fire that would be silly to do. Whitewater commented that he been trying to make changes for four years and this Board has been reluctant to make any.

Union does not feel it is appropriate to extend again. We need a new description outlined and task defined. Cannot keep kicking can down. Expenditures with the attorney will be approved as needed, whatever needs to be done.

Kelly Stiner, Firefighter from Station 2 was allowed to comment here that he keeps hearing we will let the Captains do it, not once have you asked if they are willing. Union commented there will be a lot harder discussions in the next six months, so be willing to be frank and honest with us. Mr. Stiner asked if the Board was ready to hear it though.

Fife Lake wrapped up by stating the Green Lake withdrawal and communications with attorney are not needed at this time. As well action on Act 57 can be set aside. Establishing a committee to review the Chief's job description has been set and will be done for the December 21, 2016 meeting. The budgets are good per Mr. Milliron. The Chief shared that all the equipment is good as well.

Union wished to thank Mr. Wiczorek for this time, work and the presentation made this evening. Members were reminded that if they have additional comments they should be shared directly with Mr. Wiczorek.

VIII. Second Public Comment

Sherri West, 3725 Betsie River Road, Interlochen. Commented on how far Chief Weber has gotten on a county wide millage for Rural Fire. Union Township replied this was not the Chief's project, the project was began in 2009 under Chief Sedlacek and was assigned to Chief Stinson during his tenure. Chief Weber was not assigned to follow through on this request and the Board instead directed him to clean up policies, replace equipment and get our MIOSHA standards met. We would not be here is those were not done. Union further added that even after receiving tonight's fine report we still do not have a consensus to stay together.

David Bieganowski, 5658 Karlin, Interlochen, Green Lake Township. Mr. Bieganowski stated he was here one year ago and the comments that action cannot be taken until you know what Green Lake is going to do is stunningly backward. Green Lake was here a year ago and decided to give this Board a year to convince us to stay in, and now you are saying you cannot do anything until we tell you what we are going to do. What bad memory you have. Mr. Popp your fake support for the Chief is duly noted. You have been the biggest fence post obstacle on this Board for the past three or four years.

Jill Coverdill, 5648 Runwood, Grawn. I work for Munson Healthcare report directly to the Board, so I am in a similar position as to what the Chief does. My personnel committee wrote my job description and they have clearly communicated their expectations and evaluate me on a regular basis. I am required to react to what they

expect from me. From what I have seen tonight there have been some very different lines of communication back and forth to articulate what you want from the Chief. I would be incensed to learn from my Board that in nine days this is what we will offer you as a contract, take it or leave it. After serving this group which is not the most functional or well performing Board, I think it is inappropriate behavior and furthermore this group of firefighters are going to be required and probably not very well compensated to help this organization to get through the next stage. This is inappropriate treatment of this very valuable group. You really need to think very hard as to what this Board does as a group and realize it is wrong, very wrong. You have got to get your act together. I have been staying pretty close to this process because I want to have good fire protection, however that is. This group has of firefighters have always been there and we knew there was also a Chief to respond. We don't know our future, but I don't know that this is helping us right now. I have been in the stay camp until now and I am really questioning that decision. Perhaps you should search the bylaws and determine what your role as a Board is and how to play nice.

Neil Haycraft, 4209 E. M-113, Kingsley. Chief Weber replaced Chief Sedlacek and because of him we have better training and stations – he has been better than any other Chief. Now you want to throw him under the bus. You just spent \$49,000 (corrected to \$35,000) on a report that you are going to do nothing with. Can any of you here do the Chief's job? That man right there is a real Chief. He has helped at fires when no one else has been there to respond. Look at what you have done. A few months ago you were all coming together and now you are going apart, after getting a report the report that says not to. Can anyone tell me why, no. It's not all about the dollars, it is about the community. I do this from my heart, not for the money. Look at what the Chief does, we need to make sure he stays here. Union commented that one meeting he's a hero and the next needs to be out of here. Union also agree that a meeting with all members of each of the townships' Boards is a good idea. Whitewater shared that what Neil saw is the future, a way to move forward. The lack of the Board's ability to plan for the future, they see us as bantering – should have been doing this 18-24 months ago. Union also said that last month there was a plan and this month we won't buy it. Whitewater the only way I see forward for this department is cross-trained personnel.

Eric King, 6631 Clark Road, Kingsley. Every time a good idea is brought forward it gets shot down. Stop looking back. Green Lake is leaving, just move on. You know they are not going to be here. It is stunning how this Board cannot move. If it is not your idea it can't go forward. This is Rob's (Rob Lajko, Paradise Township Supervisor) first meeting, he is just trying to move the Board forward. Don't take offense; that is what he was elected to do. I'm with Neil, if I were the Chief I would put my badge down and walk away. This Board has done nothing but dump on the Chief. Three years until his first review? I would leave too. It is not the Captain's job to write the job description, it is

yours. Do your job; that is all we ask of you. We aren't asking you to do our job. You need to work with us and come back next year with a plan.

Ken Fritz, 9809 Dell Road, Kingsley. Mr. Fritz shared that he has grave concerns, but also hope. The report provided tonight has the answers. You have got to get all of your Board members together to see what needs to be done to move forward. The Chief is the best candidate to lead the department to the proposed solutions. He has dim hope for a lot of us, the service will remain the same but the level of the service will diminish greatly in the next 1 to 5 years. You need to answer to your township and he wishes the members luck working toward a positive solution.

Andy Marek, 2875 East Railroad Avenue, Interlochen. Look around, every member of the Green Lake Township Board is here tonight, this is an important decision. Where are your members? We have a community member here tonight who wanted this department to remain together, and tonight, after your discussions, wants out. Listen to what your constituents are saying.

Kelly Stiner, 9051 S. Hodge Road, Kingsley. Opened his comment with "here's your plan," displaying the Strategic Plan presented this evening. He came back to the department because of the Chief and the right structure. He has since stepped up to Health and Safety Officer, noting all of his department pay goes to charity. This is a good department and it needs a good Chief, but you will have to pay to get the right one. Mr. Lajko has a good idea, renew the Chief's contract. The Board is to influence policy, let him run the department. You can replace him but your will not get the same caliber. In the corporate world you would set the policy, approve the budget and let the manager run with it – with periodic evaluations. Three years and no evaluation? I get one 3 times per year. This is my Chief and the guys Chief.

Theo Weber, 9475 Youker Road, Grawn. Chief Weber began comment by noting the tremendous efforts by staff and the fabulous Firefighters. He is disappointed in the Board. You said we needed a consultant and a good one was hired. The consultant delivered a play-by-play and I am not confident that you will look at it after tonight.

Marv Radtke wished to address Chief Weber. Friendships have been lost in this action/inaction. What should Green Lake do? What are the terms and conditions to extend the planned actions? Why would they stay without competent leadership? He will go back to Green Lake and present the plan. The tasks before this group over the next six months are identifiable, but without a Chief unattainable.

Ben Eager 10845 Wildwood, Interlochen. Mr. Eager identified himself as an EMT/Firefighter. Tom (Mr. Wiczorek) painted the solution. If there was more time probably could follow-through but it is too late – we want the best. The dysfunction of this board is it is based on township opinions, and only your township. We are all

different, could double my tax and I wouldn't care. Done after six months, Paradise Township secures Chief Weber – don't blame them. Should Green Lake pay again for equipment already paid for? Doesn't seem right.

Tom Wieczorek, CPSM Consultant. Mr. Wieczorek wished to utilize the public comment to say right now everyone is talking about breaking up. Don't forget you could get back together. Leave an opportunity to those departments who have left to join again. *Leave an opening to build the future.*

Paradise Township asked the members to again consider a motion to grant a six month extension to Chief Weber's current contract to safely get them through the changes impacting the department with a potential Green Lake withdrawal. Motion seconded by Green Lake. Discussion ensued with Union stating the tasks must be outlined. Green Lake agreed that one person in charge is a better position for the department. Union asked each township if their Captains are willing to lead. Both Fife Lake and Whitewater commented no. Whitewater asked, what is the Board's plan to run the Department and what if the Chief says no on December 21st then what? Whitewater commented that someone will step up. In reality the clerks can run the department. Union commented that Whitewater's confidence is confusing. Do you have a plan or money to go forward? Union added he is unaware of any conversation including who will step up, do you have someone. Have you talked outside this meeting? Whitewater said they have not. Union has to believe that. Paradise said we still need a Chief to run the department. Union commented to wait until the description is here. Life changes and can go on without administration, but I like to do things the way they are supposed to be done. It is not always clear where Green Lake is going. We need to put the best effort forward into a successful transition and this is coming from the township with the least to gain. We have to stop kicking the can down the road. If it all goes awry, my mistake and I'll admit that. Let's lay it out correctly. May have to hire another half time position to get us through the next six months. The Chair asked for a roll call vote; Fife Lake (nay), Grant (abstain), Green Lake (abstain), Paradise (yea), Springfield (nay), Union (nay), Whitewater (nay). Motion failed.

IX. Adjournment

Motion by Whitewater, supported by Springfield to adjourn the meeting at 9:20 p.m. All in favor. Motion carried.

Linda Forwerck, Chairman

Mary Jo Barck, Recording Secretary

DRAFT

Christopher M. Weinzapfel

7008 Cairn Hwy
Kewadin MI 49648

Cell 231-313-0823
Work 231-264-6697

QUALIFICATIONS

Considerable experience working with the public
Experienced in managing detailed records, diagram and blue print work
Organizational, leadership and time management skills
Valid driver license
Extensive knowledge in planning and zoning (Whitewater Township ordinance very similar to Milton Township)

WORK HISTORY

1988-2000 Owner and Operator, Star Maintenance Service
Customers were both commercial and residential and were within Milton Township Whitewater including your cemeteries and park. Complete lawn and janitorial services and building maintenance. 2-7 employees.

2000-Present Zoning Administrator Milton Township

EDUCATION

High School Diploma, Elk Rapids High School
Liberal Arts, Northwestern Michigan College, Traverse City

CERTIFICATION

Michigan State University Zoning Administrator Certificate ZA Training Program
Citizen Planner programs, Planning and Zoning Classes
EMS Specialist, Firefighter I, Firefighter II
OSHA-Shop Safety, Management Production – General Motors Institute
Mich. High School Soccer and U.S. Soccer Federation- Referee

VOLUNTEER

Milton Township Fire Department 23 years

SERVICES

Elk Rapids Township Ambulance 17 years

REFERENCES

Lon Bargy, Milton Township Supervisor 645-0841
Rick Young Owner Village Market
Kathy Rudy Alden State Bank Elk Rapids
Hourly rate \$18.00 24Hours per Week 4/8 required at the office

October 25, 2016

RE: Zoning Administration Position

Ron Popp, Supervisor

P.O. Box 159

Williamsburg MI 49690

Chris Weinzapfel

7008 Cairn Hwy.

Kewadin MI 49648

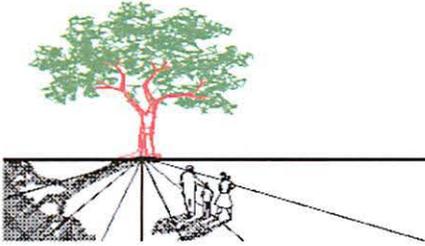
Dear Ron

I would like to apply for the Zoning Administrator position that is available. I believe I can be of value to your community in this capacity and would like the opportunity of an interview. Thanks for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Chris Weinzapfel". The signature is written in a cursive style with a large, looping "C" and "W".

Chris Weinzapfel



KEVIN P. McELYEA, LLA
● FIFE LAKE TOWNSHIP ZONING ADMINISTRATOR
● GRAND TRAVERSE COUNTY DRAIN COMMISSIONER

9310 PENINSULA DRIVE, TRAVERSE CITY, MI 49686, PHONE: (231) 645-1113
E-MAIL: KEVINPMcELYEA@GMAIL.COM

Whitewater Township
5777 Vinton Road – P.O. Box159
Williamsburg, MI 49690

October 25, 2016

RE: Zoning Administrator Position:

Dear Whitewater Township Officials:

Thank you for an opportunity to submit my attached resume as an applicant for your zoning administrator position. I am enthusiastically interested and confidently assert that 30 years of civil engineering and local land planning experience has more than adequately prepared me to succeed as your next zoning administrator. The prospect of working with your Township team is an irresistible opportunity to utilize my training, skills and experience. If you hire me, you will be getting an innovative, effective, credentialed landscape architect, and soon to be certified zoning administrator who is passionate about public service and works every day to bring openness, integrity, conflict resolution, and concise public presentations to the municipality I work with.

I have remained in government because I am deeply committed to the nobility of public service. Additionally, I believe that government agencies can ~ and should ~ be a place where public employees take pride in the excellence of their work, their stewardship of the natural and built environments, and their commitment to objectively and consistently meeting the needs of their fellow citizens.

In terms of style, I am a collaborative and interdisciplinary, involving all stakeholders in the consensus and problem solving process. I enjoy working with a team that embraces an "open-door" policy for Board Members, businesses, residents and fellow employees alike. My associates and community leaders would identify my strengths as having boundless energy, a can-do and passionate attitude for developing problem solving options, innovative and extremely loyal to the organization.

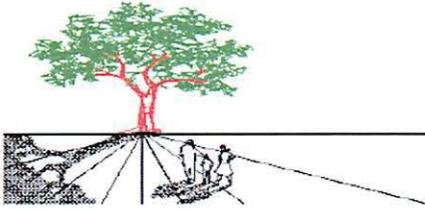
Whitewater Township is a proud and beautiful area rich with historical and social activities and a strong commitment to excellent public services, cornerstones of a healthy and well-respected Township. I pledge to bring a unique perspective and an abundance of experience to the position. Because of my experience, I am fluent in the important aspects of site inspections and their subsequent detailed reports. Moreover, my demonstrated administration skills in performing and reviewing intricate engineering calculations, regulatory ordinance compliance verifications, interpreting complicated scientific and legal documents to prepare executive summaries with recommendations for action, directing governmental regulatory programs and exemplarily customer service to all involved, would be an asset to Whitewater Township.

Per your request, an acceptable salary range for this job, based on the description and my research, is \$16 - \$18 per hour. However, my requirement is flexible and negotiable, depending on such factors as fulfilling the ongoing review of current fee schedules, as well as discussing potential meeting per-diems, mileage, and any other reimbursable costs.

I welcome the opportunity to speak with you further about how my diverse knowledge and experience in both the public and private sectors have resulted in skills that would contribute to successfully serving the public, the Whitewater Township team, and will help to promote your vision for current and future generations in the Township. Thanks again. I look forward to hearing from you.

Sincerely,

Kevin P. McElyea, LLA



KEVIN P. McELYEA, LLA

● **FIFE LAKE TOWNSHIP ZONING ADMINISTRATOR**
● **GRAND TRAVERSE COUNTY DRAIN COMMISSIONER**

9310 PENINSULA DRIVE, TRAVERSE CITY, MI 49686, PHONE: (231) 645-1113
E-MAIL: KEVINPMCELYEA@GMAIL.COM

RESUME SUMMARY

To further my rewarding government career of stewardship by pursuing opportunities in monitoring fields, that work with our citizens and build relationships to assist in managing the impacts of construction and land use projects on our land and water resources, which protects their property rights, serves the public good and our quality of life.

EXPERIENCE

- 2016-10 to Present Fife Lake Township Zoning Administrator
134 Morgan Street, Fife Lake, MI 49633
Phone (231) 879-3963
- 2005-1 to Present Grand Traverse County Drain Commissioner
400 Boardman Avenue, Traverse City, MI 49684
Phone (231) 922-4807
- 2001-7 to 2005-1 LandSpace Architecture, Self-employed Landscape Architect
1200 W. 11th St., Traverse City, MI 49686
Phone (231) 941-1113
- 1998-8 to 2001-7 Fleis & VanDenbrink Engineering, Inc., Project Landscape Architect
Grand Rapids & Traverse City Offices
Phone (231) 932-8600
- 1996-2 to 1998-8 Howard Walker Land Surveying, Surveying technician, CAD operator for ALTA surveys
West Bay Shore Drive, Traverse City
(Company closed in 1998)
- 1995-1 to 1996-4 Saudi Consolidated Engineering Company (Khatib & Alami), Project Landscape Architect
Al Kohbar, Kingdom of Saudi Arabia, 31952
Phone +966 (3) 894-6816

EDUCATION

- 1983-9 to 1986-6 Michigan State University, School of Urban Planning & Landscape Architecture
East Lansing, MI 48825
Degree: Bachelor of Landscape Architecture & Minor: Urban Planning
- 1980-1 to 1983-6 Northwestern Michigan College, Traverse City, MI 49686
Degree: Associate of Arts, Major: Design / Drafting / CAD, Minor: Geography / Sociology
- 1973-8 to 1976-6 John Glenn High School, Westland, MI 48185

CERTIFICATIONS. LICENSES

- 2004-4 to Present Michigan Soil Erosion Inspector Comprehensive Certification # 01452, expires 7/1/2019
certified by the State of Michigan Department of Environmental Quality to administer Part 91 of NREPA, -- Soil Erosion and Sedimentation control.
- 1995-6 to Present State of Michigan Licensed Landscape Architect #3901001197, and Nationally Certified by the Council of Landscape Architectural Registration Boards, (CLARB) Record # 1698.

SKILLS

Meticulous record keeping, concise reports for Boards & Commissions, maintaining regular office hours & 24/7 accessibility, respectful documented inspection of properties & structures to determine compliance with permits & ordinances, problem solving & conflict resolution, and administration of practices & enforcement recommendations in compliance with Public Acts in effect.

INTERESTS

Structure remodeling, dog training & exercising, hiking, and family travels.

Memo

To: Whitewater Township Board
From: Ron Popp, Supervisor
CC:
Date: 12-8-2016
Re: Baggs Road 2017 Proposed Construction.

Board Members,

For your funding consideration Kalkaska County Road Commission (KCRC) has supplied two possible fixes for Baggs Road prepared by GFA Engineering. Also enclosed is a document generated by Grand Traverse County Road Commission (GTCRC) detailing a few core samples and comments about what type of project they would recommend.

As you can see from GTCRC's document, there is still a difference of opinion on how to fix the road (remove the clay or leave it) but, ultimately GTCRC is recommending a compromise that will accommodate the ability of all the partners on this project to contribute for the good of the residents. These concessions along with KCRC's commitment of \$75,000 to the project are two major milestones!

To recap each partner's involvement, Clearwater Township has committed \$105,000, KCRC \$75,000, and GTCRC \$75,000 with final approval still pending. Whitewater Township budgeted expenditures from the Road Repair/Replacement Fund of \$75,000 with a contingent amount of \$25,000 for a total expenditure of \$100,000.

I am asking the Whitewater Township Board to approve an expenditure on Baggs Road in the amount of \$100,000 for Fiscal Year 2016/2017.

An appropriate motion might be: Motion to approve the repair of Baggs Road as outlined in GFA document dated October 20, 2016 and addressed to John Rogers, Manager, of the Kaskaska County Road Commission Estimated cost of \$304,099.00 of which Whitewater Township will pay up to \$100,000 or 25% of the project whichever is less.

Roll Call Vote:

Respectfully,

A handwritten signature in black ink, appearing to read "Ron Popp". The signature is stylized with a large, looped initial "R" and "P".

Ron Popp
Supervisor, Whitewater Township

RESOLUTION #16-15

REQUEST FOR 2017 REPAIRS TO BAGGS ROAD

**Whitewater Township
Grand Traverse County, Michigan**

WHEREAS, Whitewater Township, Grand Traverse County, Michigan, is a political subdivision within the State of Michigan and shares Baggs Road, a County Line Road, with Clearwater Township, Kalkaska County, Michigan, also a political subdivision within the State of Michigan; and

WHEREAS, the average Pavement Surface Evaluation and Rating (PASER) of Baggs Road is 1.2 (out of 10) and the average Remaining Service Life (RSL) is a -20.2 according to a 2014 PASER Study; and

WHEREAS, on August 17, 2016, the Clearwater Township Board, Kalkaska County, declared Baggs Road to be a “First Priority” for road repairs; and

WHEREAS, Baggs Road serves as the sole point of ingress and egress for 120 parcels of land within Whitewater and Clearwater Townships and is no longer reasonably safe and convenient for public travel; and

WHEREAS, Baggs Road is the only road leading to a single boat launch site for the South Shore of Lake Skegemog; and

WHEREAS, the County Line Road Maintenance Agreement, dated August 5, 1992, hereinafter referred to as the Agreement, between Kalkaska County Road Commission (KCRC) and Grand Traverse County Road Commission (GTCRC) assigns Maintenance and Control of Baggs Road to KCRC; and

WHEREAS, Paragraph 5 of the Agreement states, “New construction or reconstruction on the above sections of HIGHWAY shall be performed in accordance with separate written construction agreements by the parties hereto”;

NOW, THEREFORE, BE IT RESOLVED that the Whitewater Township Board requests that the KCRC and the GTCRC work collectively to develop a Baggs Road resurfacing construction agreement for the 2017 construction year; and

FURTHERMORE, the Construction Agreement should name Kalkaska County Road Commission, Clearwater Township, Grand Traverse County Road Commission, and Whitewater Township as equal funding members of the Agreement.

A motion to adopt the foregoing resolution was made by _____ and seconded by _____.

Upon roll call vote, the following voted:

Yes:

No:

Absent:

Resolution declared _____ (adopted/not adopted).

Certificate

I, Cheryl A. Goss, Clerk of Whitewater Township, Grand Traverse County, Michigan, do hereby certify that the foregoing is a true and complete copy of certain proceedings taken by the Whitewater Township Board of said municipality at a regular meeting held on _____ (date), relative to the _____ (adoption/non-adoption) of Resolution #16-XX.

Cheryl A. Goss

**ROAD REPAIR/
REPLACEMENT
FUND**

BUDGET WORKSHEET

Whitewater Township

| Month: 3/31/2016 | Prior Year | Current Year | | | (6) | (7) | (8) | |
|---|------------|-----------------|----------------|-------------------|-----------------|-----------|-------------|---------|
| | Actual | Original Budget | Amended Budget | Actual Thru March | Estimated Total | Requested | Recommended | Adopted |
| Fund: 204 - ROAD REPAIR/REPLACEMENT FUND | | | | | | | | |
| Revenues | | | | | | | | |
| Dept: 000 | | | | | | | | |
| 665 Interest Earned | 5 | 5 | 5 | 11 | 0 | 5 | 5 | 0 |
| 699 Transfers From Other Funds | 4,100 | 100,000 | 100,000 | 0 | 0 | 100,000 | 100,000 | 0 |
| Dept: 000 | 4,105 | 100,005 | 100,005 | 11 | 0 | 100,005 | 100,005 | 0 |
| Total Revenues | 4,105 | 100,005 | 100,005 | 11 | 0 | 100,005 | 100,005 | 0 |
| Expenditures | | | | | | | | |
| Dept: 000 | | | | | | | | |
| 935 Road Repair | 0 | 75,000 | 75,000 | 0 | 0 | 75,000 | 100,000 | 0 |
| Dept: 000 | 0 | 75,000 | 75,000 | 0 | 0 | 75,000 | 100,000 | 0 |
| Dept: 890 Contingency | 0 | 25,000 | 25,000 | 0 | 0 | 25,000 | 0 | 0 |
| 890 Contingency | 0 | 25,000 | 25,000 | 0 | 0 | 25,000 | 0 | 0 |
| Contingency | 0 | 25,000 | 25,000 | 0 | 0 | 25,000 | 0 | 0 |
| Total Expenditures | 0 | 100,000 | 100,000 | 0 | 0 | 100,000 | 100,000 | 0 |
| ROAD REPAIR/REPLACEMENT FUND | 4,105 | 5 | 5 | 11 | 0 | 5 | 5 | 0 |

*Should be 0
20000*



Engineering
Surveying
Testing &
Operations

123 West Front Street
Traverse City, Michigan 49684
231.946.5874 
231.946.3703 

October 20, 2016

John Rogers, Manager
Kalkaska County Road Commission
1049 Island Lake Road
Kalkaska, MI 49646

RE: Baggs Road Cost Estimates

Dear Mr. Rogers:

Enclosed are the opinions of probable construction costs for improvements to Baggs Road, from M72 to Lakeside Tail, 1.3 miles, along the Kalkaska County/Grand Traverse County line. The OPCCs were prepared in the MERL format, utilizing MDOT pay items, as applicable, with one special provision to address cutting the grade down between the road shoulder and the ditch line. Both OPCC's include costs for ditching, check dams, paved and riprap constructed spillways to improve drainage. The unit prices on these OPCCs were based on MDOT average unit prices and increased approximately 10% to account for items Kalkaska County Road Commission considers incidental to the road work (including but not limited to mobilization, work zone signage, pavement marking, mailbox posts, etc).

OPCC – Estimate #1

The construction scope for estimate #1 is based on placing an HMA, LVSP overlay in 2 courses of 165#/syd, totaling an average of 3". The road cross-section will remain 22' wide for traveled paved surface, and 1'-3' gravel shoulder. HMA wedging will be done in areas determined by the Engineer. A 4' paved shoulder with raised edge to a spillway will be constructed along the hill near M72. Existing HMA driveways will be tapered into for a smooth transition, new Approach, CI II will be used on existing gravel driveways and the two concrete driveways within the proposed project limits will be saw cut (as directed by the Engineer, and no further back than the right-of-way) for removal and replacement. The road approaches, of Meadowlark, Lossie, and Hoiles will be paved. The culvert at Baggs Road and Lakeside, shall be replaced with a 24" CMP culvert, and end sections have been included in the estimate, but may not be necessary.

OPCC – Estimate #2

The construction scope for estimate #2 is based on placing an HMA base crushing and shaping, and repaving with HMA, LVSP in 2 courses of 165#/syd, totaling an average of 3". The proposed road cross section would be 24' wide HMA surface, with 1' gravel shoulder. A 4' paved



shoulder with raised edge to a spillway will be constructed along the hill near M72. Existing HMA driveways will be tapered into for a smooth transition, new Approach, CI II will be used on existing gravel driveways and the two concrete driveways within the proposed project limits will be saw cut (as directed by the Engineer, and no further back than the right-of-way) for removal and replacement. The road approaches, of Meadowlark, and Hoiles will be crushed and shaped and repaved, the approach on Lossie will be paved. The culvert at Baggs Road and Lakeside, shall be replaced with a 24" CMP culvert, and end sections have been included in the estimate, but may not be necessary.

If you have any questions about the enclosed estimates, scope of work included, or would like any further assistance on this project, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Heather Jamison', written over a faint horizontal line.

Digitally signed by Heather Jamison, PE
DN: cn=Heather Jamison, PE, ou=GFA,
ou_email=heatherj@gfa.us, c=US
Date: 2016.10.21 15:53:53 -0400

Heather Jamison, PE

Engineer's Opinion of Costs

| | |
|---|---|
| Project Number: 16-561 Estimate Number: 1: 3" HMA overlay at 22' wide, ditching and drainage Project Type: Miscellaneous Location: Baggs Road Description: M-72 to curve at Lakeside Trail, 1.3 mi | Project Engineer: Heather Jamison, PE Date Created: 10/13/2016 Date Edited: 10/20/2016 Fed/State #: Fed Item: Control Section: |
|---|---|

| Line | Pay Item | Description | Quantity | Units | Unit Price | Total |
|-----------------------|----------|---|-----------|-------|------------|--------------|
| Category: 0000 | | | | | | |
| 0001 | 2040050 | Pavt, Rem | 30.000 | Syd | \$6.75 | \$202.50 |
| 0002 | 2057002 | _ Slope correction to ditchline | 14.000 | Sta | \$230.00 | \$3,220.00 |
| 0003 | 2080012 | Erosion Control, Check Dam, Stone | 60.000 | Ft | \$20.00 | \$1,200.00 |
| 0004 | 3020001 | Aggregate Base | 600.000 | Ton | \$15.00 | \$9,000.00 |
| 0005 | 3050010 | Material, Surplus and Unsuitable, Rem, LM | 400.000 | Cyd | \$5.00 | \$2,000.00 |
| 0006 | 3070021 | Approach, CI II | 80.000 | Ton | \$17.50 | \$1,400.00 |
| 0007 | 3070121 | Shoulder, CI II | 350.000 | Ton | \$16.00 | \$5,600.00 |
| 0008 | 3070200 | Trenching | 35.000 | Sta | \$125.00 | \$4,375.00 |
| 0009 | 4010098 | Culv End Sect, Metal, 24 inch | 2.000 | Ea | \$400.00 | \$800.00 |
| 0010 | 4010202 | Culv, CI A, CSP, 24 inch | 50.000 | Ft | \$75.00 | \$3,750.00 |
| 0011 | 5010008 | Pavt for Butt Joints, Rem | 360.000 | Syd | \$5.50 | \$1,980.00 |
| 0012 | 5010061 | HMA Approach | 180.000 | Ton | \$105.00 | \$18,900.00 |
| 0013 | 5010703 | HMA, LVSP | 3,400.000 | Ton | \$68.00 | \$231,200.00 |
| 0014 | 8010005 | Driveway, Nonreinf Conc, 6 inch | 30.000 | Syd | \$35.00 | \$1,050.00 |
| 0015 | 8050010 | Curb Sloped, HMA | 1,400.000 | Ft | \$1.10 | \$1,540.00 |
| 0016 | 8130010 | Riprap, Plain | 180.000 | Syd | \$48.00 | \$8,640.00 |
| 0017 | 8140010 | Paved Ditch, HMA | 120.000 | Syd | \$45.00 | \$5,400.00 |
| 0018 | 8160028 | Mulch Blanket, High Velocity | 210.000 | Syd | \$1.15 | \$241.50 |
| 0019 | 8160100 | Slope Restoration, Type A | 1,800.000 | Syd | \$2.00 | \$3,600.00 |

Category 0000 Total: \$304,099.00

Estimate Total: \$304,099.00

Engineer's Opinion of Costs

| | |
|---|---|
| Project Number: 16-561 Estimate Number: 2: Crush and shape, pave with 3" HMA, at 24' wide, 1' gravel shoulders Project Type: Miscellaneous Location: Baggs Road Description: M-72 to curve at Lakeside Trail, 1.3 mi | Project Engineer: Heather Jamison, PE Date Created: 10/20/2016 Date Edited: 10/20/2016 Fed/State #: Fed Item: Control Section: |
|---|---|

| Line | Pay Item | Description | Quantity | Units | Unit Price | Total |
|-----------------------|----------|---|------------|-------|------------|--------------|
| Category: 0000 | | | | | | |
| 0001 | 2040050 | Pavt, Rem | 30.000 | Syd | \$6.75 | \$202.50 |
| 0002 | 2057002 | _ Slope correction to ditchline | 14.000 | Sta | \$250.00 | \$3,500.00 |
| 0003 | 2080012 | Erosion Control, Check Dam, Stone | 60.000 | Ft | \$20.00 | \$1,200.00 |
| 0004 | 3020001 | Aggregate Base | 3,200.000 | Ton | \$15.00 | \$48,000.00 |
| 0005 | 3050002 | HMA Base Crushing and Shaping | 20,600.000 | Syd | \$1.50 | \$30,900.00 |
| 0006 | 3050010 | Material, Surplus and Unsuitable, Rem, LM | 400.000 | Cyd | \$5.00 | \$2,000.00 |
| 0007 | 3070021 | Approach, CI II | 80.000 | Ton | \$17.50 | \$1,400.00 |
| 0008 | 3070121 | Shoulder, CI II | 500.000 | Ton | \$16.00 | \$8,000.00 |
| 0009 | 4010098 | Culv End Sect, Metal, 24 inch | 2.000 | Ea | \$400.00 | \$800.00 |
| 0010 | 4010202 | Culv, CI A, CSP, 24 inch | 50.000 | Ft | \$75.00 | \$3,750.00 |
| 0011 | 5010061 | HMA Approach | 180.000 | Ton | \$105.00 | \$18,900.00 |
| 0012 | 5010703 | HMA, LVSP | 3,500.000 | Ton | \$68.00 | \$238,000.00 |
| 0013 | 8010005 | Driveway, Nonreinf Conc, 6 inch | 30.000 | Syd | \$35.00 | \$1,050.00 |
| 0014 | 8050010 | Curb Sloped, HMA | 1,400.000 | Ft | \$1.10 | \$1,540.00 |
| 0015 | 8130010 | Riprap, Plain | 180.000 | Syd | \$48.00 | \$8,640.00 |
| 0016 | 8140005 | Ditch, Plain Cobble | 90.000 | Syd | \$35.00 | \$3,150.00 |
| 0017 | 8140010 | Paved Ditch, HMA | 120.000 | Syd | \$45.00 | \$5,400.00 |
| 0018 | 8160028 | Mulch Blanket, High Velocity | 210.000 | Syd | \$1.15 | \$241.50 |
| 0019 | 8160100 | Slope Restoration, Type A | 1,800.000 | Syd | \$2.00 | \$3,600.00 |

Category 0000 Total: \$380,274.00

Estimate Total: \$380,274.00



"Our mission is to upgrade and maintain
a safe and efficient road system"

DATE: November 15, 2016

TO: Ron Popp
5777 Vinton Road
P.O. Box 159
Williamsburg, MI 49690

RE: Baggs Road investigations
Whitewater Township/Clearwater Township
Core Data

Dear Mr. Popp:

As we discussed during our meeting on November 2, 2016, the Grand Traverse County Road Commission (GTCRC) requested that cores be performed on Baggs Road. With permission from Kalkaska County Road Commission (KCRC) the GTCRC performed cores at the following locations with said results.

| CORES TAKEN 11-13-16 | | | | |
|----------------------|----------|-------------------|---------------------|--|
| CORE # | Station* | Asphalt Thickness | Aggregate Thickness | Notes |
| C-1 | 12+50/Rt | 1" | 0 | 0"-2' Dark Sandy Clay at 2'-3' Clay |
| C-2 | 14+52/Rt | 1" | 0 | 0"-28" Clay at 28" Fine Clean Sand |
| C-3 | 16+35/Lt | 2.5" | 0 | 0"-30" Clay at 30" Fine Clean Sand |
| C-4 | 23+16/Rt | 2" | 8" | 8"-2.5' Clay |
| C-5 | 33+70/Rt | 5" | 0 | 0"-30" Sandy Clay |
| C-6 | 43+81/Lt | 5" | 0 | 0"-3' Clay |
| C-7 | 50+56/Lt | 1.5" | 0 | 0"-12" Clay 12"- 24" Clean Sand |
| C-8 | 60+39/Lt | 3" | 2" | 2"-2' Sandy Clay, 2'-3' Sand/W small Rock |
| C-9 | 78+61/Lt | 3" | 0 | 0"-6" Hard Black topsoil, 6"- 14" Silt Loam/W Rock |
| C-10 | 82+03/Lt | 3" | 3" | 3"-12" Sand W/Rock, 12"-3' Hard top soil |

*Station 0+00 starts at the center of M-72.

Core Table Clarifications:

- Core information is a point source and information above is only accurate at the core location.
- Cores are at the GTCRC office and any party is welcome to view them.

Please also find attached pictures of the cores. Core number 1, 5 and 7 are missing due to the existing asphalt crumbled when auguring. This was most likely due to the core being comprised of cold patch. In viewing the cores, there are definitely variations with the pavement thickness. The roadway appears to be comprised of a standard HMA (Hot Mixed Asphalt) structure (not a triple seal) due to the aggregate size and thickness per lift. Also note that 7 of the 10 cores had no aggregate base below the existing HMA.

At the meeting on November 2, 2016, a letter from GFA dated October 20, 2016 was presented by KCRC that illustrated two options for providing treatments to Baggs Road. Option 1 was a wedge/ overlay and option 2 was a crush and shape. If this roadway was under the jurisdiction of GTCRC, staff would not recommend providing any proposed long term treatment to the roadway without removing the underlying clay. It is the GTCRC's understanding that the KCRC at this time would not like to remove the underlying clay due to cost restraints. We do understand the potential cost associated with the removal of the underlying clay and due to this, would suggest considering a heavy maintenance type fix. Of the two options presented, option 1 most closely meets this criteria. Without removing the underlying clay, it is the GTCRC's position that any option performed is a temporary fix that will see premature pavement deterioration. Based on the found core data (with minimal aggregate and underlying clay) it is highly suggested that even with a heavy maintenance type fix, if the clay is not to be removed, all efforts should be made to ensure the underlying clay stays dry.

Considering this roadway is under the jurisdiction of KCRC and they will accept all future roadway maintenance cost, the GTCRC would consider contributing to option 1 (wedge/ overlay). With the understanding that KCRC is contributing \$75,000.00 to the project and based on the fix proposed we would need to receive Board approval on the final dollar amount that GTCRC will contribute along with varying from completing a major project..

We appreciate the continued communication with all parties and look forward to working with you in the future. If you have any questions or concerns please contact me anytime.

Sincerely,

A handwritten signature in cursive script that reads "James P. Johnson" followed by a small mark resembling a stylized "L" or "7".

James P. Johnson, P.E.
County Highway Engineer



2

3

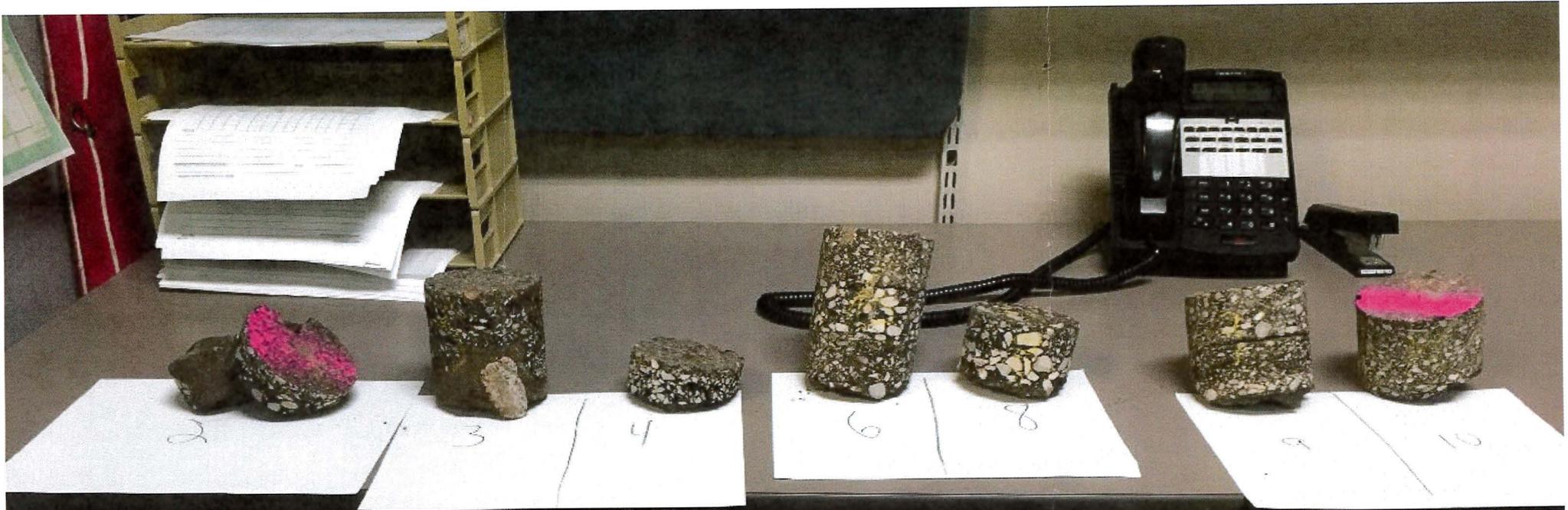
4

6

8

9

10



Ron Popp

From: Bradley Link <bradleylink@hotmail.com>
Sent: Thursday, December 08, 2016 8:55 AM
To: Ron Popp; Lloyd Lawson
Subject: Recodification

Ron,

The PC agreed by consensus that we would like to draft an Request For Proposal for the services a firm specializing in re codification as it will be money well spent by streamlining the ZA duties and reduce risk of potential lawsuit over a zoning issue. We would like to include the General Ordinance in this scope as well with an option to include all the amendments. An RFP process will assure the needs of the PC and Board are met and competitive quotes are sought instead of just randomly accepting quotes.

I opted to reply this through the PC's liaison Mr Lawson thinking your agenda was out. Since your agenda is still pending, this email is meant to provide you the option to include this item in your coming agenda. We would like to begin addressing this at our next meeting, have timely budget input to the Board and have a firm on board by say April.

Let me know if you have any questions.

Thanks,

Brad

Memo

To: Whitewater Township Board
From: Ron Popp
CC:
Date: 12-7-2016
Re: Planning Commission Appointments

Colleagues,

I am recommending:

Mickey Dean, 4020 Farrell Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Planning Commission. The term will end on December 31, 2019.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Mickey Dean to a 3 year position on the Whitewater Township Planning Commission. The term will end on December 31, 2019.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board
From: Ron Popp
CC:
Date: 12-7-2016
Re: Planning Commission Appointments

Colleagues,

I am recommending:

Eric Render, 4418 N. Broomhead Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Planning Commission. The term will end on December 31, 2019.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Eric Render to a 3 year position on the Whitewater Township Planning Commission. The term will end on December 31, 2019.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board

From: Ron Popp

CC:

Date: 12-7-2016

Re: Zoning Board of Appeals

Colleagues,

I am recommending:

Therowin “Skip” Lake, 5463 N. Broomhead Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Zoning Board of Appeals. The term will end on December 31, 2019.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Therowin “Skip” Lake to a 3 year position on the Whitewater Township Planning Commission. The term will end on December 31, 2019.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board

From: Ron Popp

CC:

Date: 12-7-2016

Re: Zoning Board of Appeals

Colleagues,

I am recommending:

Tim Shaffer, 5309 Moore Road, Williamsburg, Michigan 49690 to an alternate position on the Whitewater Township Zoning Board of Appeals. The term will end on December 31, 2019.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Tim Shaffer to a 3 year alternate position on the Whitewater Township Zoning Board of Appeals. The term will end on December 31, 2019.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board

From: Ron Popp

CC:

Date: 12-7-2016

Re: Board of Review

Colleagues,

I am recommending:

Kim Halstead, 7923 Cook Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Kim Halstead to a 2 year position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board

From: Ron Popp

CC:

Date: 12-7-2016

Re: Board of Review

Colleagues,

I am recommending:

Connie Rountree, 5413 Glendenning Trail, Williamsburg, Michigan 49690 to a position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Connie Rountree to a 2 year position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board

From: Ron Popp

CC:

Date: 12-7-2016

Re: Board of Review

Colleagues,

I am recommending:

Eric Sanborn, 7905 Cook Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Eric Sanborn to a 2 year position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board

From: Ron Popp

CC:

Date: 12-7-2016

Re: Board of Review

Colleagues,

I am recommending:

Tim Shaffer, 5309 Moore Road, Williamsburg, Michigan 49690 to an Alternate position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Tim Shaffer to a 2 year Alternate position on the Whitewater Township Board of Review. The term will end on December 31, 2018.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board
From: Ron Popp
CC:
Date: 12-2-2016
Re: Park & Recreation Advisory Committee Appointments

Colleagues,

I am recommending:

Dennis Leach, 7178 Skegemog Point Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Parks and Recreation Advisory Committee. The term will end on December 31, 2018.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Dennis Leach to a 2 year position on the Whitewater Township Parks and Recreation Advisory Committee. The term will end on December 31, 2018.

(Voice Vote)

Ron Popp.

Memo

To: Whitewater Township Board
From: Ron Popp
CC:
Date: 12-7-2016
Re: Park & Recreation Advisory Committee Appointments

Colleagues,

I am recommending:

Frances Butler, 10327 Sand Lakes Road, Williamsburg, Michigan 49690 to a position on the Whitewater Township Parks and Recreation Advisory Committee. The term will end on December 31, 2018.

An appropriate motion might be:

A motion to confirm the recommendation of the supervisor appointing Frances Butler to a 2 year position on the Whitewater Township Parks and Recreation Advisory Committee. The term will end on December 31, 2018.

(Voice Vote)

Ron Popp.

Ron Popp

From: Bradley Link <bradleylink@hotmail.com>
Sent: Friday, October 21, 2016 3:12 PM
To: Ron Popp
Subject: Ordinance No. 32
Attachments: Memo_Recind_Private_Road_Ordinance.pdf

Ron,

attached is a memo with the Planning Commissions recommendation to the Board for your use and presentation to the Board.

Best Regards,

Brad

Memo

To: Supervisor Popp
Whitewater Township Board

From: Brad Link, Chair

cc:

Date: October 21, 2016

Re: Ordinance No. 32 Private Roads

At our October 5, 2016 meeting Whitewater Township Planning passed a motion to recommend the Board rescind General Ordinance #32.

WHITEWATER TOWNSHIP PLANNING COMMISSION
MINUTES FOR REGULAR MEETING
October 5, 2016

Call to Order at 7:00 p.m.

Roll Call: Link, Dean, Mangus, Lyons, Hooper, Lawson

Absent: Miller

Also in attendance: Recording Secretary MacLean

Set / Adjust Agenda: None

Declaration of Conflict of Interest: None.

Public Comment: None.

Public Hearing: None.

Approval of Minutes:

Motion to approve September 7, 2016, Regular Meeting Minutes by Hooper, second by Dean. All in favor. Motion carried.

Correspondence: None

Reports:

Zoning Administrator Report: Josh Vey has resigned as ZA

Chair's Report, Link: Last meeting board directed us to consider fee schedule – that is tabled until we have a ZA.

Township Board Representative, Lawson: ZBA minutes to be sent to PC.

ZBA Representative, Lyons: No meetings.

Committee Reports: None.

Additional Items: None.

Old Business

1. Private Road Article: Discussion: Interpretations by the attorney with the Supervisor. Attorney report was delivered just before the last meeting. Still need to meet with the Supervisor for discussion with the attorney. We are doing a full deliberation on Private Roads.

Motion by Hooper, second by Lawson, to recommend to the Board that we do not have a private road ordinance.

Discussion:

Subdivision Act roads, who controls them and how they are addressed?

There could be fees defending this private road ordinance.

Other regulations in place address the issue.

Maintain without pushing unrealistic guidelines.

Notification and acknowledgement.

Is it necessary for the township to regulate?

Sometimes the ordinance can make it more difficult for people to get financing rather than easier.

Master Plan states that we look out for the public's health, safety and welfare.

Abandoning a long standing ordinance that has not been enforced.

Private Road ordinance is not the appropriate place to control land splits.

County roads upgrades and quality do not necessarily match our Ordinance.

It is a General Ordinance so appeals would be directed to the PC via the Board.

Difference between subdivisions (platted and numbered) and sub-dividing land?

Is it covered adequately in General Ordinance 16?

Are we making a recommendation to the Board for something that could be inadequate?

Restate to rescind General Ordinance #32. Lawson agrees with the change to the motion.

Restate of motion:

Motion by Hooper, second by Lawson, to recommend the Board rescind General Ordinance #32.

Roll call: Dean-Yes; Link-No; Mangus-Yes; Lyons-Yes; Hooper-Yes; Lawson-Yes. Motion carried.

Chair to send a brief memo to the Board.

2. Recodification of Zoning Ordinance (awaiting scheduling)

New Business:

1. Regulating short term home rentals. Skegemog Point Road residents have expressed concerns. Looking for input for the Board.
 - More than one location?
 - Have current options been utilized ie: the police for noise, etc.?
 - Can the township reach out to the property owner?
 - This is a police issue.
 - The township does not regulate.
 - Supervisor Popp: Homes that sleep 18 people, 8 – 9 cars, boats, drunkenness, noise, trash.
 - How do we protect a residential area from becoming commercial areas?
 - Three of the complaints are not part of the established resorts.
 - Has communication been opened up with the owners? – Yes.
 - How many bedrooms? Septic systems adequate to handle the additional use?
 - Can we get information from Elk Rapids, who is dealing with the same type of thing?
 - Do we want the authority to regulate?
 - Are short term rentals addressed in our ordinance?
 - Use by right is addressed in our ordinance. Everything else is considered special use.
 - Possibly have the ZBA come up with an interpretation of the ordinance.
 - This will be on the next Board Agenda.

2. Next regular meeting, October 5, 2016

Public Comment: None.

Commission Discussion/Comments: Hooper to be absent next month.

Continuing Education: None.

Adjournment: 8:20 p.m.

Respectfully Submitted
Lois MacLean,
Recording Secretary

To: Whitewater Township Board
From: Cheryl A. Goss, Parks & Recreation Administrator
Date: 12/08/2016
Re: **Proposed Design for Flush Toilet Facility at WTP Boat Launch/Pavilion Area**

The Parks & Recreation Advisory Committee, as well as myself, have been gathering information for replacement of the pit toilets at Whitewater Township Park (WTP) with a flush toilet facility.

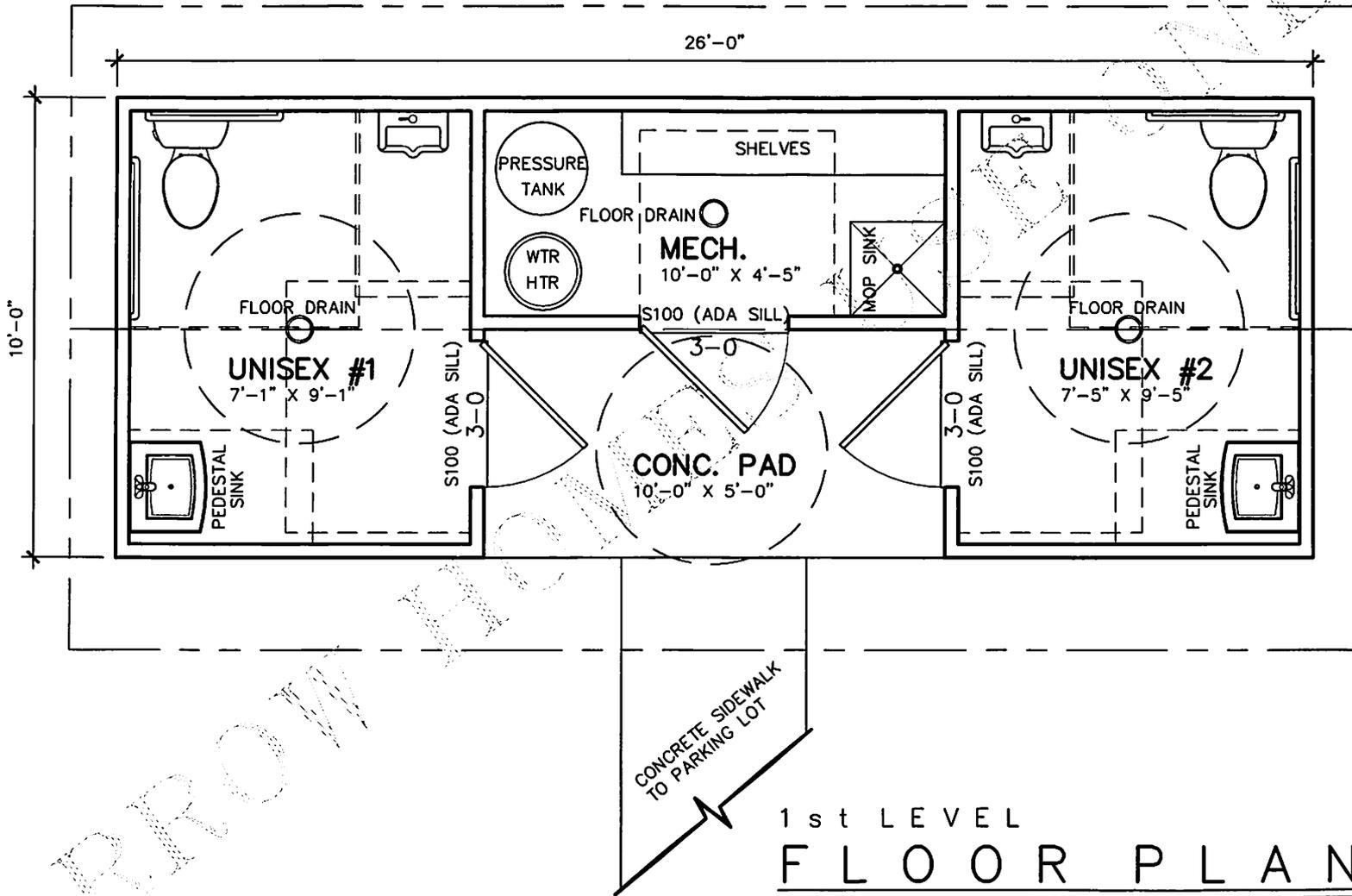
To that end, I met with an Arrow Homes representative this summer and they were invited to submit a proposed design. Attached you will find the design.

This design was discussed at the Parks & Recreation Advisory Committee meeting on 10/10/2016. Following are their suggested changes:

- Eliminate the urinals.
- Add baby changing stations.
- Utilize under-sink hot water units.
- Eliminate the hot water heater.
- Add an outside drinking fountain and faucet.

I think these are well-thought-out changes that should be incorporated.

I am asking that the Township Board give this design a quick review for any issues you might have before I have Arrow Homes quote the cost of building it in prefab and concrete choices. I will need this information for our budget hearings as we would like to fund this project for 2017.

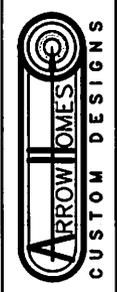


1st LEVEL
FLOOR PLAN

**WHITEWATER
 TOWNSHIP PARK**

| |
|--------------------|
| 1st - 210 SQ.FT. |
| 2nd - 0 SQ.FT. |
| TOTAL - 210 SQ.FT. |
| DATE: 9/12/16 |

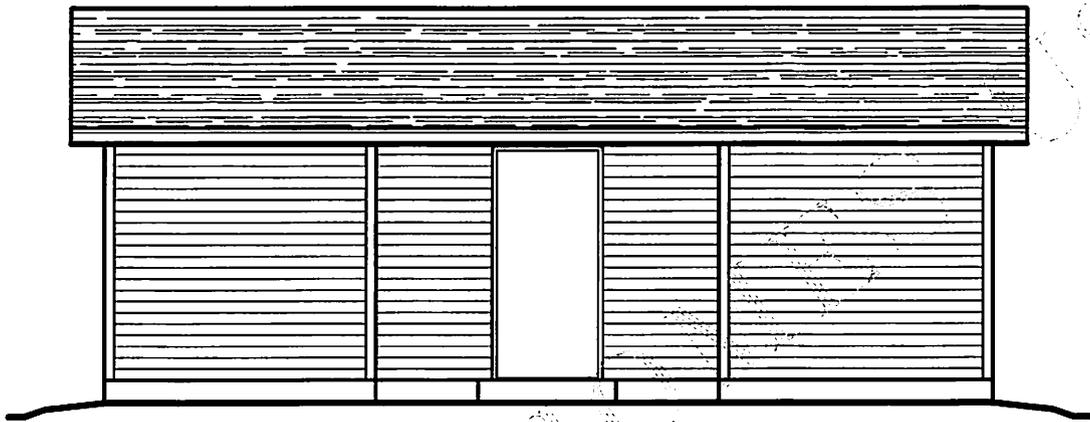
6815 E. HOUGHTON LAKE RD.
 MERRITT, MI 48867
 PHONE: 231-328-4318
 FAX: 231-328-4346



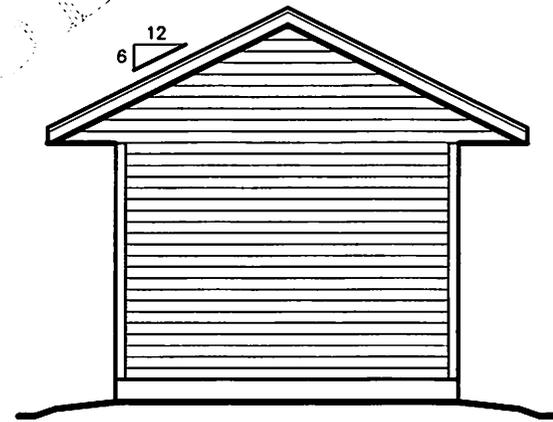
SCALE:
 NO SCALE

DESIGN'S PRODUCED BY ARROW HOMES ARE A FREE SERVICE INTENDED FOR ARROW HOMES USE ONLY. UPON RECEIVING THIS PRINT, CUSTOMER AGREES THAT HE/SHE WILL NOT PERMIT THESE DRAWINGS TO BE REPRODUCED OR COPIED EITHER WHOLLY OR PARTIALLY WITHOUT PERMISSION IN FIRST OBTAINED FROM ARROW HOMES. OTHERWISE, DESIGN FEES WILL BE CHANGED ACCORDINGLY.

USE ONLY



FRONT
ELEVATION

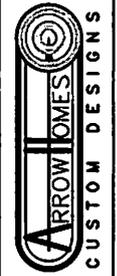


SIDE
ELEVATION

**WHITEWATER
TOWNSHIP PARK**

| |
|--------------------|
| 1st - 210 SQ.FT. |
| 2nd - 0 SQ.FT. |
| TOTAL - 210 SQ.FT. |
| DATE: 9/12/16 |

| |
|---------------------------|
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