



AGENDA
CITY OF CHARLEVOIX CITY COUNCIL REGULAR MEETING
Tuesday, July 6, 2021- 6:00 PM
Council Chambers, 210 State Street, Charlevoix, MI

- 1. Pledge of Allegiance**
- 2. Roll Call**
- 3. Presentations**
 - A. Electric System Study Presentation
John Griffith, Electric Department Director
- 4. Inquiry Regarding Conflicts of Interest**
- 5. Consent Agenda**
 - A. City Council Meeting Minutes - June 21, 2021
 - B. Accounts Payable and Payroll Check Registers
 - C. Charlevoix Yacht Club Request for Free Parking – Nucore Triangle & Red Fox Regatta
 - D. Venetian Festival Special Liquor License
 - E. Venetian Festival Fireworks
- 6. Public Hearings and Actions Requiring Public Hearings**
- 7. All Other Actions and Requests**
 - A. Chamber of Commerce Lease Renewal
Mark L. Heyldauff, City Manager
 - B. MPPA Energy Waste Reduction Program
John Griffith, Electric Department Director
 - C. Public Act 171 Shutoff Notice
John Griffith, Electric Department Director
 - D. Lake Charlevoix EMS Authority Benefits Resolution
Mark L. Heyldauff, City Manager
 - E. Short Term Rentals Appeals Board
Mark L. Heyldauff, City Manager
 - F. Council Rules of Procedure Amendment
Mark L. Heyldauff, City Manager

- G. Council Appointments
Janet Kalbfell and Greg Bryan, Councilmembers

8. Reports and Communications

- A. Public Comment
- B. City Manager's Comments
- C. Mayor and Council Comments

9. Other Council Business

- A. Closed Session: Pending Union Negotiations

10. Adjourn

The City of Charlevoix will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting upon one weeks' notice to the City of Charlevoix. Individuals with disabilities requiring auxiliary aids or services should contact the City of Charlevoix Clerk's Office in writing or calling the following: City Clerk, 210 State Street, Charlevoix, MI 49720 (231) 547-3250.

CHARLEVOIX CITY COUNCIL

Presentations

TITLE: Electric System Study Presentation

DATE: July 6, 2021

PRESENTED BY: John Griffith, Electric Department Director

BACKGROUND:

GRP Engineering provides engineering services for several municipal electric and cooperative utility clients throughout Michigan. They have offices in Petoskey and Grand Rapids. In early 2020 we contacted Mr. Michael McGeehan to conduct a review of Charlevoix's electric distribution system. Mr. Michael McGeehan, P.E., is here this evening to summarize the findings and recommendations contained in the final report.

ATTACHMENTS:

▣ Presentation

CITY OF CHARLEVOIX

ELECTRIC DISTRIBUTION SYSTEM STUDY & FIVE-YEAR PLAN

**FINAL REPORT
APRIL 5, 2021**



**CITY OF
CHARLEVOIX**

City of Charlevoix
210 State Street
Charlevoix, MI 49720

GRP
Engineering, Inc.

GRP Engineering, Inc.
459 Bay Street
Petoskey, MI 49770

CITY OF CHARLEVOIX

Charlevoix, Michigan

ELECTRIC DISTRIBUTION SYSTEM STUDY & FIVE-YEAR PLAN

FINAL REPORT APRIL 5, 2021

Report Authors:

Nicholas M. Abraitis, PE
Michael P. McGeehan, PE

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Michigan.

Signature: Michael P. McGeehan

Typed Name: Michael P. McGeehan, P.E.

Date: April 5, 2021 Reg. # 6201045127



Grand Rapids Location:
3300 Eagle Run Dr NE
Suite 101
Grand Rapids MI 49525

Petoskey Location:
459 Bay Street
Petoskey MI 49770

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**CITY OF CHARLEVOIX
ELECTRIC DISTRIBUTION SYSTEM STUDY & FIVE-YEAR PLAN
EXECUTIVE SUMMARY**

The scope of this electric distribution system study was to review the City of Charlevoix's substations and distribution system for equipment & conductor capacity issues, customer reliability, circuit backup ties, and voltage quality issues under several loading cases. The system review was performed for normal system conditions plus first contingency (N-1) substation and distribution circuit critical equipment outages.

A system operating philosophy including maximum conductor and equipment loading limits plus voltage limits was established. Conductors will be limited to operate at 50% of their thermal rating for normal system conditions under peak loading conditions and 90% for first contingency operations. Substation transformers and high side (46kV) equipment will be allowed to operate at 40% of full forced-air nameplate rating for normal operation and 80% for first contingency operations.

The substation and distribution system were analyzed for capacity and voltage issues under peak conditions based on 2020 system peak loading plus a 1% load growth for 5 and 10 years. Analysis included conductor and equipment capacity and voltage drop for normal circuit configurations plus utilizing all full capacity circuit ties. A field assessment of both substations and each distribution circuit was completed. The top ten load and critical customers were determined and reliability for each was assessed. Finally, outage reports for the previous three years were analyzed and areas with higher outage rates were field assessed.

The City of Charlevoix's electrical system including substations and distribution system have the capacity to serve existing and projected load under peak and 1st contingency outage conditions. Concerns are warranted with the aging substation equipment including 46kV underground cable into Westenbroek Substation, electro-mechanical relays, unjacketed concentric neutral underground substation exit cables, overhanging vegetation, rusting cabinets, uncovered jumper wires and energized bushings, insufficient control house HVAC systems, and no hydrogen detection systems.

Preparation of a contingency plan for loss of the 46kV underground cable into Westenbroek Substation will prepare the City of Charlevoix for handling this single point of failure in the transmission system. Completion of substation maintenance at both substations will solve multiple issues including replacing a cracked transformer bushing, and the uncovered jumper wires and bushings. Completing of substation relay house upgrade projects will provide the City with modern microprocessor based protective relaying and annunciation systems plus create proper climate control in the substation control houses. Finally, replacement of the two transformers, circuit switchers, and voltage regulators at Westenbroek Substation will not only replace aging equipment, but will keep equipment operating within established operating parameters.

Primary concerns on the distribution system include the condition of and equipment within the 65 subsurface manholes, rusting padmount equipment,unjacketed concentric neutral cables noted above, the single points of failure for multiple distribution circuits on the same riser pole, lack of close-in circuit ties for critical loads including the Hospital, Water Plant, WWTP, City Hall, and drawbridge, plus the inability to balance loads when utilizing the two critical substation ties. A secondary concern are the two underwater critical tie circuits between substations. Solidifying a plan for a second crossing in a different location along with upgrading the cable in pipe is recommended.

Completion of the three recommended circuit tie projects provides increased reliability to critical and large load customers, plus provides ability to balance loads when utilizing the substation tie circuits. Replacement of all substation exit cables also increases reliability and circuit capacity with the installation of jacketed underground copper cable in conduit. Separating substation circuit exit risers onto different poles eliminates the single-point of failure present on four of Westenbroek Substation circuits. Considering five of the top ten load customers and four of the top ten critical customers are all served by Circuit G, this circuit should have the highest priority for tree clearing, inspections, and review for potential points of failure. In addition to the manhole inspections proposed within this study, regular inspections of padmount equipment should also be completed and fully documented.

Completion of the recommended projects will maintain the City of Charlevoix's substation equipment and distribution conductors within established ratings and to more reliably serve their electric system customers by replacing aged equipment, removing single-points of failure, balancing circuit loads, and increasing circuit backfeed capabilities to large and critical customers.

CITY OF CHARLEVOIX
ELECTRIC DISTRIBUTION SYSTEM STUDY & FIVE-YEAR PLAN
BACKGROUND & FINDINGS

The scope of this electric distribution system study was to review The City of Charlevoix's substations and distribution system for equipment & conductor capacity issues, customer reliability, circuit backup ties, and voltage quality issues under several loading cases. The system review was performed for normal system conditions plus first contingency (N-1) substation and distribution circuit critical equipment outages. Implementation of the recommendations included in this report will maintain conductor and equipment within specified ratings, will balance circuit loads, will increase capacity of distribution circuits and improve customer reliability.

Study process included:

- Conduct study kickoff meeting with City of Charlevoix staff.
- Obtain documented history of electrical distribution system operational issues, outages, and potential growth areas.
- Retrieval of system summer peak circuit loads and substation transformer demand data.
- Develop City of Charlevoix electric system operating philosophy including maximum conductor and equipment loading limits and voltage limits. Conductor thermal loading limits will be the basis for continuous and emergency conductor ampacity ratings.
- Analyze and review distribution system for capacity issues and voltage issues. Analysis will include conductor and equipment loading levels, voltage drop, capacitor placement, and load balancing. System VAR load will be analyzed on a circuit and total system basis, but not by individual customer.
- Perform load growth scenario for 5 & 10 years based on actual historical load growth data. Complete voltage drop and capacity analysis for each load growth case for several system scenarios including loss of a major circuit and loss of a substation transformer.
- System analysis will include circuit review utilizing all major circuit ties.
- Assess substation equipment and Charlevoix owned 46kV facilities for age and potential reliability issues.
- Analyze system for ability to shift either substation load for maintenance and unplanned outages without utilizing any equipment inside the substation that is de-energized.
- Assess system for aged construction including copper conductors, unjacketed underground cable, and failing equipment.
- Review customer outage reports and field assess system in areas with high outage rates.
- Analyze system reliability for both top ten load customers and top ten critical customers.
- Prepare list of recommended system improvement projects including substation equipment upgrades, distribution circuit rebuilds, underground conductor replacement, substation and distribution circuit capacitor banks and voltage regulator installations.
- Preparation of drawings depicting recommended projects.
- Prepare construction cost estimates for recommended projects.
- Present preliminary electric system report including analysis, drawings, and proposed system modifications to City of Charlevoix staff. Revise report as required by the City of Charlevoix.
- Conduct final presentation and review meeting with City of Charlevoix

System Background Information

City of Charlevoix's electrical system is comprised of the following:

- Two distribution substations
- Twelve distribution circuits
- 39.2 Miles of overhead distribution line
- 40.8 Miles of underground distribution line
- 2020 Peak demand 12.6MW

The City of Charlevoix's electrical system is served by one radial 46kV sub-transmission line (McNally-Medusa) from Consumers Energy (CE's) McNally Substation. Both Industrial Substation and Westenbroek Substation are served by separate three-terminal taps on this 46kV line. The terminal end of CE's 46kV line is St. Mary's Cement Plant where it serves as an alternate service to the plant. The 46kV sub-transmission line serving Westenbroek Substation has three sections of underground cable including one section of submarine cable crossing Lake Charlevoix. The 46kV underground cable from the riser structure on Stover Road into the Substation is owned by the City of Charlevoix where the other two sections are owned by CE.

Westenbroek Substation was initially constructed in 1992 and is currently comprised of two 10/12.5MVA transformers and eight distribution circuits. In 2015, the existing Cooper Form 4c recloser controllers were updated with SEL-351R recloser controllers. In 2021, 15kV substation potential transformers (PTs) were connected to the SEL recloser controllers. Connection of the bus PTs allows for calculation of power on an individual circuit level. There have been no other known upgrades or expansions to the substation.

Industrial Substation was initially constructed in 2002 and is currently comprised of one 10/12.5MVA transformer and four distribution circuits. In 2016, the existing Cooper Form 4c recloser controllers were updated with SEL-351R recloser controllers. In 2020, 15kV substation potential transformers (PTs) were connected to the SEL recloser controllers. Connection of the bus PTs allows for calculation of power on an individual circuit level. There have been no other known upgrades or expansions to the substation.

Electrical Distribution System Loading

Michigan Public Power Agency (MPPA) provided historical system loads and circuit loads for years 2001 – 2020. The City of Charlevoix's load has trended down over the last three years. Since this is a system capacity and planning study, worst case (peak) load data was utilized. The most recent system peak occurred on July 6, 2020 and was the basis for the analysis. Non-coincidental, peak circuit demand amps from the month of July 2020 were collected and utilized for analysis in the Charlevoix system model and load growth charts.

The City of Charlevoix, being served by a 46kV line is not required to maintain a power factor and is not assessed a penalty in their billing. Power factor and kVAR loading were taken into account in this study as it is a capacity and load flow study. Power factor was assumed to be at 97% and lagging for this study. Power factor is assumed based on site visits to collect loading data.

The demand readings from individual circuits were reviewed and compared to the peak on July 6, 2020. The individual circuit demands and the system peak demands were found to be within 5%

of each other. Considering the individual circuit demands are an instantaneous snap shot and the total system peak from July 6, 2020 is a rolling average for the hour, the individual circuit demands are acceptable for use in this system study. The electrical system is currently loaded to 33.6% of total substation transformer capacity. A graph of historical system peak and anticipated load is provided in the attachments section of this report.

System Model Update

Since the completion of the last electric system model in 2017, the City of Charlevoix has continued to maintain their electric system GIS mapping database. The most recent 2020 GIS updates were provided by the City's GIS consultant. Charlevoix's computer model of the electrical system in Milsoft's WindMil Engineering Analysis software was updated to include the most recent customer meter connections and billing load from July 2020. Updated Thevenin sources for the 46kV system were obtained from Consumers Energy and the impedance definitions for each substation source was updated in the equipment database.

System Load Allocation

Proper load allocation on the system within the computer model is key to accurate analysis results. Importing of individual customer billing data provides the most accurate results. Charlevoix's Market Participant, MPPA, provided historical non-coincidental system loads for 2001-2020, from this data, the most current peak day was determined. The City of Charlevoix provided distribution circuit load demands for the month of the determined peak day by circuit and further broken out electrical phase. A billing file containing each customers kWh and primary customers demand for the peak month was provided for load allocation.

Load was allocated in the model using Windmil's top-down method. This method places customer usage data from the billing file into the consumers within the model and load control points (LCP) are created. Each of the twelve circuit's reclosers at the substations were utilized as LCPs and no other LCPs were created. The peak circuit demands were input into the LCPs by phase and then the Windmil Load Allocation tool was used for calculation and applying load. This tool applies load to the model based on the LCPs and calculated load from the provided billing file through an iterative process until the results converge.

Load Growth & Additions

MPPA's load forecast projection for the City of Charlevoix anticipates a 0.7MW increase in total system load demand in 2021. MPPA load projection for years 2022-2030 show a slight downward trend to the total system demand, this decrease is anticipated to be less than 0.05% per year. Since this is a system capacity study determining the current and future ability of the system to handle supplying robust electrical service for customers, a small load growth was applied for years 2021-2030.

Growth in peak demand for the City of Charlevoix's electric system was projected to be 1.00% annually for the next ten years. There are currently no new anticipated large load customers to be added to the system through 2030. No areas of significant potential growth within the existing service territory were noted. Peak demand load projections (MW & MVA) are highlighted below.

Load Projections		
Year	MW Demand	MVA Demand
2020	12.6	13.0
2021	13.3	13.7
2022	13.4	13.8
2023	13.5	14.0
2024	13.7	14.1
2025	13.8	14.2
2026	14.0	14.4
2027	14.1	14.5
2028	14.2	14.7
2029	14.4	14.8
2030	14.5	15.0

*Annual escalation factor of 1.00%
plus projected load additions.

Reliability

The following criteria will be used to determine if Charlevoix's critical and top 10 customers (based on usage) have reliable and robust electric service.

- Available backup circuit tie.
- Tie to an alternate substation
- Tie to an alternate power transformer.

The City of Charlevoix provided a list of the most critical customers on their system. These included medical facilities, governmental and public safety buildings, large commercial and industrial, plus water and waste water processing plants.

Conductor & Equipment Ratings

In order to evaluate substation transformer and distribution circuit capacity, not only must system load be determined, but maximum equipment and conductor ratings must be established. Ratings utilized in this study were established for three system conditions:

1. Normal – All substation transformers and distribution circuits in service, and circuit tie switches open.
2. First Contingency – One substation transformer, distribution circuit breaker or recloser out of service, bus tie switch/circuit tie switch closed. Loss of customers is not acceptable.
3. Second Contingency – Two substation transformers or distribution circuit breakers out of service with field circuit tie switch closed. Loss of customers will be acceptable.

Substation equipment including high-side (46kV) transformers, circuit switchers, etc. will be allowed to operate at 40% of maximum nameplate rating for normal conditions, 80% for 1st contingency outages, and 100% for 2nd contingency outages. Low-side (12.47kV) substation equipment and distribution circuit conductor, regardless if overhead or underground, will be allowed to operate at 50% of maximum nameplate or thermal rating for normal system conditions, 90% for 1st contingency outages, and 100% for 2nd contingency outages. The equipment and conductor ratings established in this study are goals for the City of Charlevoix to achieve and are the basis for the analysis and recommendations. Refer to the Equipment & Conductor Loading table attached to this report.

Maximum ratings for substation equipment are provided by the manufacturers and are listed on equipment nameplates. Due to the expense and lead time associated with substation transformers and equipment, maximum continuous loading should not exceed nameplate ratings unless in an emergency situation. Short term overloads in emergency situations can be handled by transformers with little or no damage based on the percentage of overload and duration.

Overhead conductor ratings are more difficult to establish than equipment ratings since the calculations include thirteen variables including selecting maximum temperature often based on unknown design conditions. The ampacity (thermal) ratings of overhead conductors on Charlevoix's system were determined by the following variables:

- 104°F (40°C) Ambient Temperature
- 167°F (75°C) Conductor Temperature (*Normal, 1st Contingency & Emergency*)
- 2ft/sec wind speed (utility standard)
- Additional eleven variables using a conservative approach.

Standard ACSR is not a high-temperature conductor and is not designed for use above 212°F. It is rated for 167°F continuous operation and 212°F emergency operation for a total of 1,500 hours over the conductor's life. Additionally, system design (sag & clearances) must reflect this rating. Conductor sag at 212°F is often not factored into overhead distribution circuit design therefore a more conservative rating (167°F) is prudent to be used for normal system conditions. Under emergency conditions, conductors will be allowed to operate at 130% of their normal rating for up to four hours.

Underground conductor ratings were determined based on cable characteristics and installation method based on conductor size.

- 90°C Conductor Temperature (*Normal & 1st Contingency*)
- 105°C Conductor Temperature (*Emergency Rating*)
- 20°C Earth Ambient Temperature
- 75% Load Factor
- Conductors up to #4/0 AL 15kV 1/3rd Concentric Neutral – direct buried, one circuit.
- Large conductors above #4/0 in size including tape-shield power cable – direct buried conduit, one circuit.
- 133%, EPR conductor insulation.

Conductor characteristics for all of Charlevoix's overhead and underground conductors were updated in the WindMil equipment database (EQDB) prior to running any analysis. This included ampacity ratings for normal system conditions, overhead construction design, and all underground cable characteristics, including cable and insulation diameters, concentric neutral cable characteristics, resistances, and dielectric constants.

Overhead and underground conductor ampacities utilized in the study are provided on the table in the attachments section of this report. This ampacity table should be utilized by Charlevoix electrical system personnel for future system review and operation.

Voltage Limits

Primary system voltage limits were established based on published ANSI and MPSC voltage ranges. These allowable ranges of voltage at the point of common connection (PCC) were the basis for this study. The range of service utilization voltage under normal system conditions is $\pm 5\%$ of 120V (114V – 126V). Since the secondaries and service wires were removed from the model for load allocation convergence, voltage drop was calculated on the primary system only. Case studies of both rural and municipal systems show that $>99\%$ of customers have $\leq 4.0\text{V}$ drop due to secondaries, services, and transformers. Therefore, a lower limit of 118V was used to account for voltage drop across the transformer and secondaries up to the customer's service entrance. This allows for 4V drop on secondaries and services not included in the current system model.

System Assessment

A field review of the electric distribution system and substations was completed. The 2.4kV & 12.47kV distribution system, substations, and Charlevoix owned 46kV facilities were visually assessed by experienced utility engineers for a number of issues including aged construction, equipment, and copper conductors, plus failing hardware, equipment leaking oil, unjacketed underground cable, and vegetation issues. Areas known to have a higher than average number of outages received additional focus during the field review. The field review did not include opening of padmount equipment or manholes/cable vaults. Information on condition of cables, racks, and connections in manholes was provided by City of Charlevoix staff although inspections were not performed.

**CITY OF CHARLEVOIX
ELECTRIC DISTRIBUTION SYSTEM STUDY & FIVE-YEAR PLAN
ANALYSIS**

Substation Transformer Loading

Considering under 1st contingency outage conditions that no loss of service to customers will be allowed, substation transformer capacity must be sufficient enough to support the loss of one transformer in the system under peak load conditions. Substation transformer loading will be limited to 40% of the full forced air (FFA) nameplate rating of unit under normal operating conditions. Limiting the loading of substation transformers under normal conditions, ensures the distribution system has sufficient capacity allowing for the loss of any substation transformer. Under a 1st contingency outage condition, substation transformers will be allowed to operate at 80% of maximum rating. This provides capacity for short-term spikes in load, unplanned load growth, and additional load transfer in the event of a 2nd contingency condition. Refer to the Substation Equipment Loading Spreadsheet. This spreadsheet is found in the Substation Loading attachments at the end of the report.

2020

Under 2020 peak loading conditions, only Westenbrook Transformer #2 was determined to be operating above its established 40% threshold for normal operating conditions. Westenbrook Transformer #1 under 2020 peak loading was determined to be operating at 34.0% and Transformer #2 at 49.0% of their full nameplate ratings.

Industrial Substation's single transformer is currently loaded to 34.0% of the FFA nameplate rating under 2020 peak loading conditions. Since Industrial Substation only has one transformer, all of the distribution circuit load would need to be carried by other substation transformers in the event of a transformer outage. Sufficient transformer capacity is available at other substations, but the number of circuit ties to Westenbrook Substation circuits limit the amount of load that can be transferred.

Westenbrook Substation has two transformers with identical maximum 10/12.5MVA ratings. These transformers operate independently, with an open bus tie switch. This allows for either transformer to carry all distribution circuits served by the substation if the adjacent transformer is out of service. Loading each transformer to a maximum of 40% of nameplate rating allows for one transformer to be out of service and the second transformer to carry all of the Westenbrook distribution circuit load under Summer Peak system conditions. Westenbrook has sufficient transformer capacity to carry the entire distribution load in the event of a 1st contingency loss of either transformer. Under 2020 peak loading conditions for a loss of one substation transformer, the adjacent transformer will be loaded to 83.7% of its rated nameplate capacity. This is above the established 80% threshold for a first contingency condition.

Total substation transformer capacity for the 2020 peak loading case is at 39.0%. Capacity wise, the system can support the loss of any single substation transformer without loss of service to customers.

Refer to the Substation Transformer Loading charts, System Normal – 2020, Transformer #1 Out of Service – 2020, and Transformer #2 Out of Service – 2020. These charts are found in the Substation Loading attachments at the end of the report.

2025

Under 2025 peak loading conditions, only Westenbrook Transformer #2 was anticipated to be operating above its established 40% threshold for normal operating conditions. Westenbrook Transformer #1 under 2025 peak loading was determined to be operating at 36.0% and Transformer #2 at 52.0% of their full nameplate ratings. Industrial Substation's single transformer is currently loaded to 35.0% of the FFA nameplate rating under 2025 peak loading conditions.

Westenbrook continues to have sufficient transformer capacity to carry the entire distribution load in the event of a 1st contingency loss of either transformer. However, the backup transformer will be loaded above the 80% threshold. Under 2025 peak loading conditions for a loss of one substation transformer, the adjacent transformer will only be loaded to 87.9% of its rated nameplate capacity. This is well above the established 80% threshold for a first contingency condition.

Total substation transformer capacity for the 2025 peak loading case is at 40.9%. Capacity wise, the system can support the loss of any single substation transformer without loss of service to customers.

Refer to the Substation Transformer Loading charts, System Normal – 2025, Transformer #1 Out of Service – 2025, and Transformer #2 Out of Service – 2025. These charts are found in the Substation Loading attachments at the end of the report.

2030

Under 2030 peak loading conditions, only Westenbrook Transformer #2 was anticipated to be operating above its established 40% threshold for normal operating conditions. Westenbrook Transformer #1 under 2030 peak loading was determined to be operating at 38.0% and Transformer #2 at 55.0% of their full nameplate ratings. Industrial Substation's single transformer is currently loaded to 37.0% of the FFA nameplate rating under 2025 peak loading conditions.

Westenbrook continues to have sufficient transformer capacity to carry the entire distribution load in the event of a 1st contingency loss of either transformer. Under 2030 peak loading conditions for a loss of one substation transformer, the adjacent transformer will only be loaded to 97.1% of its rated nameplate capacity. This is well above the established 80% threshold for a first contingency condition and load will need to be transferred or installation of larger transformers will be necessary.

Total substation transformer capacity for the 2030 peak loading case is at 45.3%. Capacity wise, the system can support the loss of any single substation transformer without loss of service to customers.

Refer to the Substation Transformer Loading charts, System Normal – 2030, Transformer #1 Out of Service – 2030, and Transformer #2 Out of Service – 2030. These charts are found in the Substation Loading attachments at the end of the report.

Substation Equipment

Under a 1st contingency outage condition, no loss of service to customers will be allowed. 46kV substation equipment loading will be limited to 40% of the devices' nameplate rating under normal operating conditions. 15kV substation equipment loading will be limited to 50% of the devices' nameplate rating under normal operating conditions. Limiting the loading of substation equipment under normal conditions, ensures the distribution system has sufficient capacity allowing for the loss of any single substation device. Under a 1st contingency outage condition, 46kV substation equipment will be allowed to operate at 80% of maximum nameplate rating and 15kV substation equipment will be allowed to operate at 90% of maximum nameplate rating. This provides capacity for short-term spikes in load, unplanned load growth, and additional load transfer in the event of a 2nd contingency condition. Refer to the Substation Equipment Loading Spreadsheet. This spreadsheet is found in the Substation Loading attachments at the end of the report.

2020

None of the substation 46kV equipment is operating above the 40% threshold for normal operating conditions under any of the three loading cases. Furthermore, none of the substation 46kV equipment is operating above the 80% threshold for a first contingency operating condition under 2020 peak loading.

Only a single piece of 15kV substation equipment is operating above the 40% threshold for normal operating conditions under 2020 peak loading. Westenbroek Substation Bank #2 voltage regulators were determined to be operating at 42.0% of their nameplate rating.

2025-2030

None of the substation 46kV equipment is anticipated to operate above the 40% threshold for normal operating conditions under any of the three loading cases. Furthermore, none of the substation 46kV equipment is anticipated to operate above the 80% threshold for a first contingency operating conditions under 2025 & 2030 peak loading.

Under anticipated 2030 loading, Wetenbroek Substation Bank #2 voltage regulators continue to be operating above their established 40% rating for normal operating conditions. Under a first contingency condition, should either of the Westenbroek Substation power transformers or regulators banks become unavailable, there is sufficient capacity to carry the adjacent load.

Reliability

The distribution system's ability to provide reliable service to its customers and short outage restoration times was reviewed. The Top 10 Load and Critical Customers had their service reliability reviewed based on Key Performance Indices, Available Backup Circuit Ties, and Alternate Substation Transformer Ties. A table was created to show how each customer stands based on the above criteria. Ranking of critical customers was based on the standard utility evaluation practices and does not include analysis of on-site backup generation assets.

Key Performance Indices (KPI)

The City of Charlevoix currently keeps track of the distribution system outages using an excel sheet to input the outage data. A review of the past three years of outage data was completed. Outage restoration times are acceptable for both overhead and underground failures. A majority of overhead outages were restored within two hours. Nearly half the underground outages were

restored within 4 hours and all but one was restored within eight hours. There were thirty-two unscheduled outage entries in the power outage operating log for the years 2018-2020. Approximately half of the outages are wildlife related with the other half mainly being caused by equipment failure, car pole accidents, and underground dig-in.

KPIs are currently not calculated by the City of Charlevoix. The power outage operation log used by the City of Charlevoix to track outages contains the following critical data;

- Circuit Name
- Number of Customers Affected
- Duration of Outage

The only missing piece of information from the outage log is the number of customers on each circuit. With the number of customers on each circuit and the system as a whole, KPIs can be calculated.

Available Backup Circuit Ties

The City of Charlevoix has backup ties to each of its critical and top ten customers. These backup ties are available regardless of the loading case and do not have low voltage issues under a first contingency tie. This analysis only included distribution circuit ties outside of the substation. The ties were reviewed under the peak loading case.

Although there are backup ties to each of the critical and top ten customers, there are customers who are still served off a radial line. The usefulness of a backup tie is only as reliable as the radial line serving the consumer. Geographical location of the service generally prohibits building a tie line any closer to the radial feed. Note that five of the top ten load customers and four of the top ten critical customers are all served by Circuit G.

The following critical customers are served by a radial line:

- Water Treatment Plant
- Waste Water Treatment Plant
- Charlevoix Munson Hospital
- Boulder Park Terrace
- City Hall
- Draw Bridge

The following top load customers are served by a radial line:

- Waste Water Treatment Plant
- Charlevoix Munson Hospital
- Boulder Terrace
- Charlevoix High School
- ACAT Global

Backup circuit ties can be provided to four of the six critical customers with construction of two new ties lines. Construction of a tie between Circuits F & G on Park Avenue would provide a backup to the Hospital and close-in backup for Boulder Park Terrace. Construction of a tie

between Circuits B & F across Bridge Street would provide a backup for both City Hall and the draw bridge.

Alternate Substation Ties

Extreme weather, loss of transmission source, or equipment failure (e.g. bus tie switch) can render a customer's primary feed unavailable. Should an event happen that causes the primary substation feed for a customer to become unavailable, a tie to an alternate substation is needed to limit the service interruption. The City of Charlevoix has direct backup ties (not requiring multiple switching operations) from an alternate substation to only 12% of its top ten load and critical customers. These backup ties are available regardless of the loading case and do not have low voltage issues under a first contingency tie.

Alternate Power Transformer Ties

Loss of a power transformer or section of main bus can render a customer's primary feed unavailable. Should an event happen that causes the primary substation power transformer feed for a customer to become unavailable, a tie to an alternate power transformer is needed to limit the service interruption. The City of Charlevoix has direct backup ties (not requiring multiple switching operations) from an alternate substation power transformer to 53% of its top ten load and critical customers. These backup ties are available regardless of the loading case and do not have low voltage issues under a first contingency tie.

A table has been prepared listing the customers and the criteria utilized in the evaluation for reliable service to the critical and top ten usage customers. Refer to the Top Ten Critical Customer and Top Ten Load Customer tables attached to this report.

Distribution Circuit Loading

Consistent with the substation transformer outage conditions, no loss of service to customers will be allowed under 1st contingency distribution circuit breaker or main circuit outage conditions. This will apply to mainline sections of distribution circuits. City of Charlevoix's distribution circuits all have normally open tie points to other circuits, although most are limited by conductor size to 200A. Limiting distribution circuit loading to 50% of conductor ampacity allows for one distribution circuit to be out of service and a backup circuit to carry all of the load under peak system conditions. Under this 1st contingency outage condition the conductor will be allowed to operate at 90% of its thermal rating. Short-term spikes in load will be covered by utilizing the emergency conductor ratings. Refer to the Distribution Circuit Loading Limit Diagram attached to this report.

2020

Based on the 2020 peak load conditions, all (100%) of the City of Charlevoix's twelve (12) distribution circuits at the substation recloser are operating below their 50% rating. Refer to the City of Charlevoix's Circuit Loading 2020 chart. Mainline, three-phase circuit conductor loading was analyzed under 2020 peak load using the Milsoft electric distribution system model. Following the conductor rating discussion provided in the Background & Findings section of this report, under normal system operating conditions, conductors operating at or above 50% of their rated ampacity should be increased in size or have load shifted to other circuits. No primary conductor sections were found to be operating above 50% of their thermal rating under 2020 peak loading.

2025-2030

Based on the 2025 & 2030 anticipated peak load conditions, all (100%) of the City of Charlevoix's twelve (12) distribution circuits at the substation recloser remain operating below their 50% rating. Refer to the City of Charlevoix's Circuit Loading 2025 & 2030 charts. Mainline, three-phase circuit conductor loading was analyzed under 2025 & 2030 peak load using the Milsoft electric distribution system model. Following the conductor rating discussion provided in the Background & Findings section of this report, under normal system operating conditions, conductors operating at or above 50% of their rated ampacity should be increased in size or have load shifted to other circuits. No primary conductor sections were found to be operating above 50% of their thermal rating under 2025 or 2030 peak loading.

Mainline Circuit Ties Loading

Conductor and equipment loading levels were evaluated for all full-capacity circuit ties at peak load conditions. The Circuit Backup Review tables attached to this report list the ties for the twelve (12) main distribution circuits on the City of Charlevoix's system. Highlighted values represent substation breakers and distribution conductors operating above 90% when carrying the load of an adjacent circuit.

2020

Under Peak loading conditions all (100%) of the thirty-two (32) distribution circuit ties are operating below the established 90% criteria. Under a first contingency condition with 2020 peak loading, the highest loaded backup conductor was determined to be Circuit F at 68.0%. All backup substation reclosers were determined to be at or below 25.0% their nameplate rating for a first contingency condition.

Maximum anticipated loading on substation power transformers for a first contingency condition of one circuit utilized as a backup under 2020 anticipated peak loading are as followed:

- Westenbroek Substation Transformer #1 – 50.0%
- Westenbroek Substation Transformer #2 – 66.0%
- Industrial Substation Transformer #2 – 45.0%

Refer to Circuit Backups – 2020 Loading. This spreadsheet is found in the Circuit Loading attachments at the end of the report.

2025

Under Peak loading conditions all (100%) of the thirty-two (32) distribution circuit ties are operating below the established 90% criteria. Under a first contingency condition with 2025 anticipated peak loading, the highest loaded backup conductor was determined to be Circuit G at 68.0%. All backup substation reclosers were determined to be below 26.0% their nameplate rating for a first contingency condition.

Maximum anticipated loading on substation power transformers for a first contingency condition of one circuit utilized as a backup under 2025 anticipated peak loading are as followed:

- Westenbroek Substation Transformer #1 – 53.0%
- Westenbroek Substation Transformer #2 – 69.0%
- Industrial Substation Transformer #2 – 47.0%

Refer to Circuit Backups – 2025 Loading. This spreadsheet is found in the Circuit Loading attachments at the end of the report.

2030

Under Peak loading conditions all (100%) of the thirty-two (32) distribution circuit ties are operating below the established 90% criteria. Under a first contingency condition with 2030 anticipated peak loading, the highest loaded backup conductor was determined to be Circuit G at 75.0%. All backup substation reclosers were determined to be below 26.0% their nameplate rating for a first contingency condition.

Maximum anticipated loading on substation power transformers for a first contingency condition of one circuit utilized as a backup) under 2030 anticipated peak loading are as followed:

- Westenbroek Substation Transformer #1 – 55.0%
- Westenbroek Substation Transformer #2 – 73.0%
- Industrial Substation Transformer #2 – 50.0%

Refer to Circuit Backups – 2030 Loading. This spreadsheet is found in the Circuit Loading attachments at the end of the report.

Additional circuit ties and back-feeding capabilities exist with the multitude of switches on the system. As unique switching arrangements are required, analysis should be completed on a case-by-case basis. Additionally, circuit ties completed at non-peak times should be individually reviewed.

Although there is ample substation transformer capacity for the peak load, taking Westenbroek Substation completely out of service on peak days is not possible. This is due to only having two (2) tie circuits between Westenbroek and Industrial Substations. In order to take Westenbroek Substation out of service, the entire load of the substation would need to be placed on Industrial Substation's Circuit K and Circuit L. Industrial Substation can be taken out of service on the peak day without restrictions.

The four circuits that tie between Industrial Substation and Westenbroek Substation (Circuits B, C, K & L) are all unjacketed concentric neutral cable in undersized 4" conduit with a direct buried river crossing following the same centerline. Additionally, Circuits B & C are both served by Transformer #1 at Westenbroek Substation. Reliability concerns with these circuits include the fact the cables are unjacketed (neutral wires are exposed to the elements), direct buried underwater crossing, same centerline for both tie circuits, and the undersized conduit which may have caused undue stress on the cables during original installation. A more reliable installation would be jacketed cable in 6" conduit with river crossings at different locations.

Voltage Drop Analysis – Circuits Normal

Voltages were calculated on the system under the three loading conditions with the system in the following conditions:

- All circuit switches in normal state.
- Fixed and switched capacitor banks on.
- All substation bus voltage regulators allowed to operate to maximum step limit 16 raise.

Analysis completed in WindMil shows that none of the twelve distribution circuits had a calculated voltage on primary line sections less than 118V under 2020 Peak loading conditions.

Voltage Drop Analysis – Circuits 1st Contingency

Voltage conditions for all 32 mainline circuit ties under a system first contingency condition of one circuit utilized as a backup were analyzed. Review was completed strictly for field circuit ties and not substation transfer bus ties. Circuits that are tied together using a substation transfer bus will not incur voltage issues if there were no voltage issues under normal operation. Analysis completed in WindMil shows that none of the twelve distribution circuits had a calculated voltage on primary line sections less than 118V when utilized as a backup tie.

Load Balancing

A balanced distribution system has lower losses than the unbalanced case. Although completely balanced circuits are ideal, it is not always possible to achieve. All distribution circuits were analyzed for unbalanced loading conditions through evaluation of phase loading from historical substation loading data.

To determine if the circuit has a load imbalance that needs to be addressed, a formula was used. This formula takes the difference between the highest and lowest phases and divides that value by the minimum phase amps. If this calculated value is greater than 49%, the circuit is deemed unbalanced. The tables below summarize the circuit loading findings under the 2020 peak loading.

Circuit Loading – 2020

Circuit	AØ	BØ	CØ	% Imbalance
Circuit A	31	25	19	63.2%
Circuit B	18	12	22	83.3%
Circuit C	54	41	67	63.4%
Circuit D	56	80	90	37.8%
Circuit E	54	66	74	37.0%
Circuit F	44	81	88	50.0%
Circuit G	112	95	111	17.9%
Circuit H	29	25	19	52.6%
Circuit I	35	37	40	14.3%
Circuit J	85	63	49	73.5%
Circuit K	40	28	30	42.9%
Circuit L	36	26	61	134.6%

Note: Load Unbalanced if % imbalance (Max Phase Amps – Min Phase Amps)/Min Phase Amps > 49%

Circuit loading per phase under 2020 peak loading shows seven (7) of the twelve (12) distribution circuits have a load imbalance greater than 49%. This imbalance causes difficulty in the analysis and operation of the system as all conductors and equipment must be sized to handle load on the highest phase. System loading spreadsheets attached to this report are based on loading of the highest phase. All circuit loading data was obtained by the City of Charlevoix from accurate microprocessor based SEL recloser controllers.

Analysis shows that load on these circuits should be rephased. The rephasing of single-phase radial taps will be reviewed and balancing actions can be found in the Recommendations section of this report. The following load shifts will need to be completed to bring the circuits into balance.

- Circuit A – move 5A of load from AØ to CØ
- Circuit B – move 5A of load from CØ to BØ
- Circuit C – move 13A of load from CØ to BØ
- Circuit F – move 10A of load from BØ to AØ and 15A of load from CØ to AØ
- Circuit H – move 5A of load from AØ to CØ
- Circuit I – move 15A of load from AØ to CØ
- Circuit L – move 15A of load from CØ to BØ

After completing the above load transfer recommendations, the system load balance will be improved. The tables below summarize the circuit loading findings after completing the above recommendations.

Circuit Loading – Proposed

Circuit	AØ	BØ	CØ	% Imbalance
Circuit A	26	25	24	8.3%
Circuit B	18	17	17	5.9%
Circuit C	54	54	54	0.0%
Circuit D	56	80	90	37.8%
Circuit E	54	66	74	37.0%
Circuit F	69	71	73	5.8%
Circuit G	112	95	111	17.9%
Circuit H	24	25	24	4.2%
Circuit I	35	37	40	14.3%
Circuit J	70	63	64	11.1%
Circuit K	40	28	30	42.9%
Circuit L	36	41	46	27.8%

Note: Load Unbalanced if % imbalance (Max Phase Amps – Min Phase Amps)/Min Phase Amps > 49%

Additionally, the re-phasing of some taps may not be possible due to phase orientation on the poles. Should this be the case, similarly loaded taps should be located that can be re-phased. Some phase imbalance may also be on the customer side of the system and may not be able to be balanced.

System Assessment

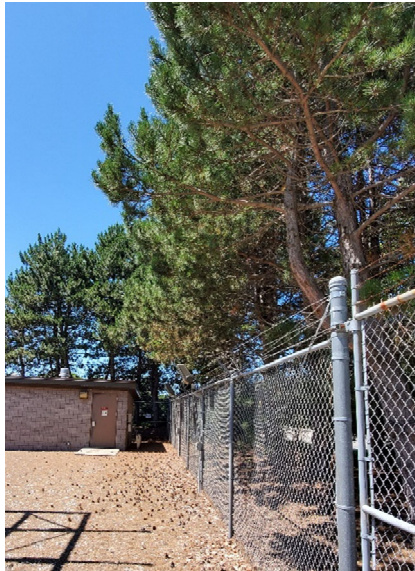
The electric utility system substation and distribution facilities were assessed via field review as part of this study. The 2.4kV & 12.47kV distribution system, substations, and Charlevoix owned 46kV facilities were visually assessed by experienced utility engineers for a number of issues including aged construction, equipment, copper conductors, failing hardware, equipment leaking oil, unjacketed underground cable, and vegetation issues. As noted, the field review did not include opening of padmount equipment or manholes/cable vaults therefore conditions within manholes were provided by Charlevoix staff.

Substations

The two 46kV to 12.47kV distribution substations, Westenbroek and Industrial, were assessed as part of this study. Substation sites were visited and assessed for aged equipment, over-dutied equipment, under maintained equipment, vegetation issues, animal guarding, potential failure points and unsafe conditions.

Westenbroek Substation is the older of the two substations and was constructed in 1992, nearly 30 years ago. This substation has large trees very close to the substation which overhang the fence. Although the vegetation provides visual screening of the substation, sap from the large pines is causing contamination issues on insulators and equipment, plus this may be a reason for the number of wildlife issues within the substation. Decaying vegetation is also a safety concern as it reduces the insulating value of the stone surfacing cover which provides personnel safety from faults when inside the substation. The overhanging trees may eventually have clearance issues to

the energized equipment. Additionally, security is compromised as one can easily climb the trees and overhanging limbs for access into the substation.



Vegetation Overhang



Insulator Contamination

Westenbroek Substation's transmission source is CE's radial 46kV line which includes three sections of underground cable. The terminal structure outside the substation on Stover Road is a two-pole wood structure situated close to the edge of pavement. This structure is the demarcation point in ownership where the structure is owned by CE and the bottom of the disconnect switches is the demark between the two utilities. There are four cables from the riser structure into the substation which does include one spare cable and switches allowing for quick changeover in the event one cable fails.

Deficiencies in the riser structure include its age (nearly 30 years old), proximity to vehicular traffic with no guard structures, porcelain insulators and arresters, wood poles and crossarms. In the event this structure damaged or destroyed due to events such as a car-pole accident, cable or pole fire, or multiple cable failures, the outage time on Westenbroek will be significant. During peak load times, the two circuit ties to Industrial Substation are unable to serve all of the load on the south side of the lake.



46kV Underground Cable Riser Structure

Significant issues noted on the 46kV underground and power transformers within the substation include discoloration at the 46kV termination bases, rusting transformer control cabinets, and broken 15kV bushing on transformer #1. Additionally, the center-phase voltage regulator on bus #1 was leaking oil at the time of system assessment which has been fixed. This equipment is approaching 30 years in service and plans for replacement should be implemented. Bus connections within the substation are bolted style as opposed to the more reliable welded style.



Cable Showing
Signs of Aging

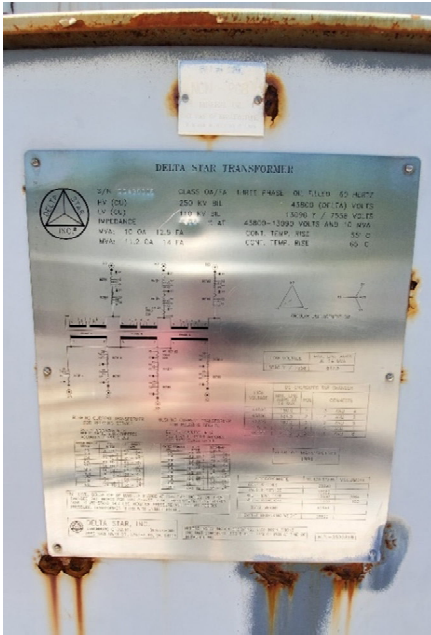
Bolted Bus
Connector

46kV Cable Termination



Cracked
Bushing

Transformer #1 – Cracked 15kV Bushing



Transformer #1 – Rusting Control Cabinet



Transformer #2 – Rusting Control Cabinet

Westenbroek Substation has suffered numerous outages due to wildlife. A number of these have been contact between wildlife and bare jumper wires on the bus PT and station service connections. Covered line wire and wildlife protection should be added to both 15kV bus PT's. Fiberglass PT cable junction boxes are also severely weathered and have exposed fibers.



Bare Jumpers / No
Wildlife Protection

Bus #2 PT's – Bare Copper Jumpers
No Wildlife Protection

Distribution circuit underground exits are constructed with unjacketed concentric neutral aluminum cable in 5" conduits. Utility experience shows that exposed concentric wires often corrode easily and are sources of cable failure. These cables are a key component in every distribution circuit and an outage would affect a high number of customers. The underground cables are 500kCM 15kV aluminum rated at 356A. These aluminum cables are the limiting factor on the distribution circuits which have #336.4 ACSR overhead conductor rated for 421A. Additionally, the station ground connections to the concentric neutrals are undersized.



Circuit Riser – Unjacketed Cable, Porcelain Terminations
Undersized Neutral to Substation Ground

The substation control house, relay and annunciator panels are representative of early 1990's construction. The control house is a cinder block house with one heater and a manual exhaust fan rather than a climate-controlled building. The building does not include a hydrogen gas detection system which is necessary with the installed battery system. The control house should have a full HVAC system, hydrogen detector, and automatic exhaust fan in the event the gas level exceeds 2%.

The relay control panels and annunciator panels are shown below and are typical for transformer protection from the time-frame when installed. These electro-mechanical relays are now outdated and require routine calibration. The annunciator panels are also outdated and do not provide contacts and communication capabilities of modern systems. Finally, the RTU and Positron telephone protection system should be evaluated if still needed and removed if no longer utilized.



Control Panels
Electro-Mechanical Relaying



Annunciator Panels

Summary of Westenbroek Substation Issues

- 46kV riser structure
- Overhanging vegetation
- Aging 46kV underground cable terminations
- Cracked 15kV bushing on transformer #1
- Bolted bus connections
- Rusting transformer control cabinets
- Uncovered PT & station service jumper wire
- Severely weathered fiberglass junction boxes
- Leaking voltage regulator on bus #1 center phase
- Contaminated insulators
- Aged electro-mechanical relays & annunciator panels
- No hydrogen detection system in control house
- Poor ventilation and no AC in control house
- Unjacketed concentric neutral cables and undersized grounds on circuit exits
- Voltage regulator high oil temperature alarm wiring is disconnected

Industrial Substation is the newer of Charlevoix' two substations and was constructed in 2002. Minimal changes have occurred at the substation but do include retrofitting of one circuit recloser and replacement of all recloser controllers. Encroachment of mature oak trees over the substation yard are of concrete with the open 15kV bus on the west side of the substation. Critical issues noted below include sliding links in the 46kV CT circuits, bare jumper wires, PT fused cutouts, and aged control house equipment.

The substation control house, relay and annunciator panels are original installation from the early 2000's, but mimic the older Westenbroek Substation. The control house is a cinder block house with one heater and a manual exhaust fan rather than a climate-controlled building. The building does not include a hydrogen gas detection system which is necessary with the installed battery system. The control house should have a full HVAC system, hydrogen detector, and automatic exhaust fan in the event the gas level exceeds 2%.

The relay control panels and annunciator panels are shown below and include electro-mechanical relays which are outdated and require routine calibration. The annunciator panels are newer, but they still do not provide contacts and communications compatible with SCADA systems. Finally, the RTU and Positron telephone protection system should be evaluated if still needed and removed if no longer utilized.

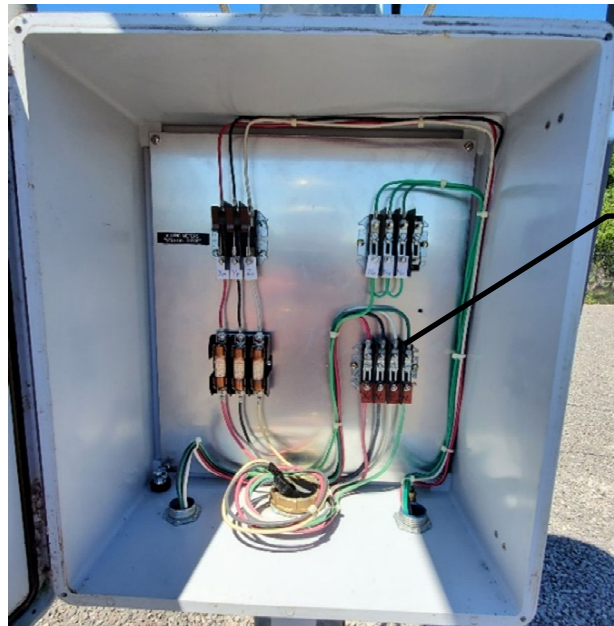


Control Panel
Electro-Mechanical Relaying



Annunciator Panels

The terminal blocks for the 46kV current transformer (CT) circuits at Industrial Substation are sliding link style blocks and are shown below. Sliding link terminal blocks are not utilized in CT circuits due to the potential for 46,000 volts to be present across the terminals if a link is opened. The potential for this hazard is increased in this installation as the links are installed vertically.

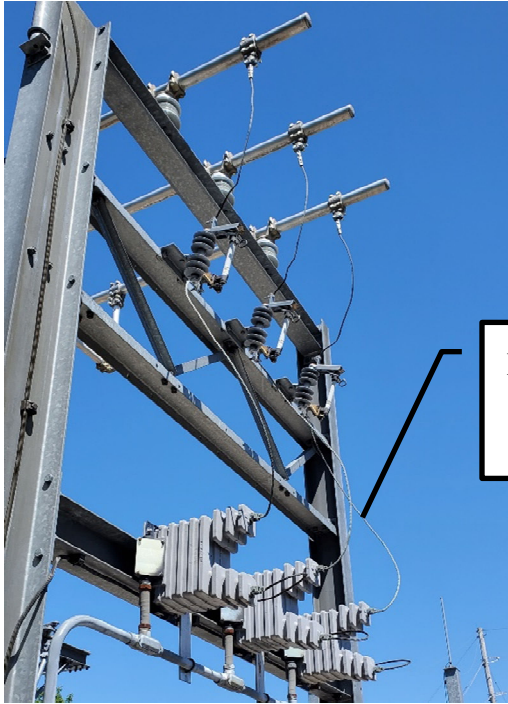


CT Circuit
Sliding Links

46kV PT/CT Junction Box
CT Wiring on Slidelink Terminals

The bus PT jumper wires in Industrial Substation are bare plus the PT bushings have no wildlife protection. The PT fuse holders have been replaced with standard distribution cutouts. These cutouts do not have the fault withstand capability that is required in a substation. These cutouts should be replaced with substation rated fuse holders along with covered line wire and wildlife protection should be added to all 15kV bus PT's.

Three of the circuit reclosers in the substation are oil-filled and the fourth has been retrofitted to modern and safer vacuum style. The recloser on Circuit K is currently out of service due to wildlife climbing on top of the recloser and causing significant damage during the subsequent fault. Charlevoix has ordered three new vacuum style reclosers and are schedule for installation in 2021.



Bare Jumpers /
No Wildlife
Protection

15kV Bus PT's – Bare Copper Jumpers
No Wildlife Protection



15kV Oil Circuit Recloser

Distribution circuit underground exits are constructed with unjacketed concentric neutral aluminum cable in 5" conduits. As noted above, experience shows that exposed concentric wires often corrode easily and are sources of cable failure. These cables are a key component in every distribution circuit and an outage would affect a high number of customers. The underground cables are 500kCM 15kV aluminum rated at 356A. These aluminum cables are the limiting factor on the distribution circuits which have #336.4 ACSR overhead conductor rated for 421A.

Summary of Industrial Substation Issues

- Oil-filled circuit reclosers
- Uncovered PT jumper wire
- Under-rated cutouts on PT's
- Aged electro-mechanical relays & annunciator panels
- No hydrogen detection system in control house
- Poor ventilation and no AC in control house
- Unjacketed concentric neutral cables on circuit exits

12.47kV Distribution System

The City of Charlevoix's distribution system is in very good condition overall based on the visual assessment completed for this study. No vegetation issues were noted, minimal porcelain cutouts were found, and no copper conductor was located on the overhead system. Areas of concern include rusting padmount switchgear and cabinets, especially those on mainline sections of circuits, a double circuit substation exit riser pole, single-phase switches on mainline circuit tie points, multiple cables tapped to single points in padmount switch cabinets, 5kV rated underground cable, and few mainline circuit lightning arresters. As noted, the field review did not include opening of padmount equipment or manholes/cable vaults. All 65 manholes/vaults should be fully inspected for structural issues, rusting hardware, plus corroded ground and neutral connections.



Rusting Padmount Switchgear
Switch #1, Circuit E



Rusting Padmount Cabinet



Rusting Padmount Switchgear
Switch #14, Circuit I

The risers for Westenbroek Substation Circuits D & H are located on a single pole along M-66 across from the substation. Clearances between facilities on this critical riser pole are tight. In the event of a pole fire or car-pole accident these two circuits would be unable to serve load. Each substation circuit exit should be installed on a separate pole. A similar installation is noted with Circuits A & F on May Street.



Double Circuit Riser Pole
Circuits D & H

Several mainline circuit tie points including Switch OH8 (Circuit A & E), Switch OH19 (Circuit A & F), and Switch OH21 (Circuit F & G) are single-phase disconnect switches. These mainline tie switches should be three-phase gang-operated switches to prevent flashover that can occur during opening of single-phase switches.

Circuit I serving the north side Industrial Park has three PMH-5 padmount switchgear. The mainline cables are double-tapped on the single side of a switch in each of these switchgear. Sectionalizing the underground cable is not possible without taking a circuit outage. Installation of multiple-bay switchgear would solve this operational issue.

There are a few sections of underground 5kV remaining in the system which require isolating transformers to step down the voltage from 7.2kV to 2.4kV. Although these areas do not serve critical load, they should systematically be replaced with 15kV underground cable.

Very few lightning arresters were noted on the overhead mainline distribution circuits. Installation of lightning arresters on overhead circuits spacing approximately every 1/4 mile is highly recommended.

The parallel underwater circuit crossing Lake Charlevoix from Ferry Ave & Belvedere Drive to Coast Guard Dr and Chicago Ave was installed in the 1990's and is not installed in pipe. As noted above, these are the critical and only ties between Charlevoix's two substations. The cable on each is 500kCM 15kV AL rated at 326A which totals 14.0MVA of capacity. This is just above the current system peak recorded in 2020. Although these cables can currently handle the City's total load, circuit configurations do not allow for balancing the loads and fully transferring Westenbroek Substation load to Industrial Substation. Charlevoix staff have noted there is an abandoned cable in pipe crossing the channel between Hoffman Park (100 block of Park Ave) and the parking lot on the north side of the channel (103 Park Ave to 106 Pine River). Pipe diameter, material, and integrity is unknown, but crews have reportedly attempted to remove the abandoned cable with no success.

There are 65 manholes in the primary electric system with both 200A and 600A circuits routed through them. Charlevoix staff noted that there are no 600A elbows on the mainline 500kCM AL 15kV underground cable runs, just splices in the manholes. Staff did note that there are many mechanical ground and neutral connections in the manholes. These connections should be inspected and replaced with compression connectors to reduce the possibility of an open neutral on the underground system. There are 200A load break elbows in manholes which require staff to enter the manhole to operate. Current policy is that circuits must be de-energized for the elbows to be removed or installed. The manhole on Belvedere Ave just east of Bridge Street is a prime example of a location that would require shutdown of all downtown load to sectionalize the circuit. Installation of an above-ground padmount cabinet would solve this issue.

One manhole of concern noted by staff is on Bridge Park Dr which serves the Beaver Island Boat Company and services in the surrounding area. The manhole has both primary and secondary cables routed through it with minimal space and separation. This manhole should be replaced with separated manholes with cables appropriately spaced and covers secured.

**CITY OF CHARLEVOIX
ELECTRIC DISTRIBUTION SYSTEM STUDY & FIVE-YEAR PLAN
RECOMENDATIONS**

The following recommendations are based on the findings and analysis stated above including conductor and equipment loading at normal and first contingency operations (one circuit or substation transformer out of service), established acceptable service voltages, balanced circuit loads, and protection device coordination. Implementation of these recommendations will bring the electrical distribution system within the required parameters established herein.

Substation Projects

Proposed substation improvement projects are grouped by priority starting with the most critical issues including setting a contingency plan for loss of the 46kV transmission into Westenbroek Substation, replacement of the 15kV bushing on transformer #2, installation of covered jumpers and wildlife guards, then relay and control house upgrades, and finally substation transformer replacement. This plan does cover the most critical and least expensive items first and allows time for capital to be secured for the high cost of replacing transformers.

An option for just creating a contingency plan for the critical 46kV underground source into Westenbroek Substation would be to construct an overhead line into the station and eliminate the underground cable. Considering the need to eventually replace the cable this may prove to be the best option. Additional poles, conductor, and guy wires would have a minimal impact on the area as there are already numerous overhead facilities in the immediate area.

2021

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#101	N/A	Prepare contingency plan for loss of the 46kV underground (riser structure, terminations or cable) serving Westenbroek Substation including writing the plan and switching orders, creating construction drawings, purchasing material, and completing mock training. Completion of this project properly prepares Charlevoix for the total loss of the 46kV transmission source. Estimated cost: \$33,000
#201	N/A	Complete substation maintenance at Westenbroek Substation including replacement of cracked 15kV bushing on transformer #2, repair bus #1 center phase voltage regulator, reconnection of high oil temperature alarm wiring on the voltage regulators, plus installation of covered line wire and wildlife protection on the bus PT's, station service transformers, reclosers and voltage regulators. Completion of this project improves overall system reliability by solving a number of critical substation maintenance issues and protects high capital equipment. Estimated cost: \$72,000

#202	N/A	Replace three oil-filled circuit reclosers at Industrial Substation with new vacuum break style reclosers including wildlife guards. Recently replaced controllers will be transferred to the new reclosers. Completion of this project eliminates high-maintenance equipment from the substation and replaces the one recloser that was damaged by wildlife. These reclosers were purchased in 2020 and are scheduled for delivery early 2021. Estimated cost: \$17,500
#203	N/A	Installation of station class fuse holders, covered line wire and wildlife protection on the bus PT's, plus replacement of the 46kV metering CT terminal blocks at Industrial Substation. Completion of this project improves overall system reliability by removing a historical point of failure and eliminating a potential safety issue in this substation. Estimated cost: \$7,000
#204	N/A	Removal of overhanging vegetation at both substations and installation of low growth screening at Westenbrook Substation. Completion of this project eliminates a contamination issue, potential outages, and security issues at both substations. Estimated cost: \$91,500

2022

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#205	N/A	Replacement of relay control and annunciator panels, junction boxes, and installation of new HVAC and hydrogen detection systems at Westenbrook Substation. Completion of this project replaces outdated electromechanical relaying with new solid-state relays and modern alarm annunciator panel, plus creates a climate-controlled environment in the control house for the new equipment. Estimated cost: \$348,000

2023

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#206	N/A	Replacement of relay control and annunciator panels and installation of new HVAC and hydrogen detection systems at Industrial Substation. Completion of this project replaces outdated electromechanical relaying with new solid-state relays and modern alarm annunciator panel, plus creates a climate-controlled environment in the control house for the new equipment. Estimated cost: \$284,000

2024

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#207	N/A	Replacement of both power transformers, circuit switchers, low & high side disconnects, and voltage regulators at Westenbroek Substation with new 10/12/16MVA transformers with LTC's. Completion of this project replaces aged and rusting equipment and combines multiple pieces of equipment into single transformers. Estimated cost: \$2,504,000

2025

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#208	N/A	Replacement of all eight underground substation circuit exits with 500kCM 15kV copper jacketed cables at Westenbroek Substation including new 6" conduit out to the first manhole or riser pole. Separate Circuits B & C from transformer #1 onto both substation transformers in conjunction with this project. Completion of this project replaces aged cable with new jacketed underground cable serving a high number of customers. Estimated cost: \$493,000
#209	N/A	Replacement of all four underground substation circuit exits with 500kCM 15kV copper jacketed cables at Industrial Substation. Completion of this project replaces aged cable with new jacketed underground cable serving a high number of customers. Estimated cost: \$150,000

Distribution Line Projects

Considering the fact that none of City of Charlevoix's main distribution circuits are operating above the 50% rating under peak system conditions or when utilized as backup circuits, mainline circuit upgrades are not required based on conductor loading.

Proposed project #306 is to complete a new underground tie between circuits F & G which will create a new backup circuit to the hospital, Boulder Park Terrace, and to the tap for the WWTP. A less expensive option for this project would be to construct 1,500' of three-phase overhead #336.4 Hendrix aerial spacer cable along Antrim Street, but the proposed road reconstruction project lends this to staying as an underground project.

Considering the two critical tie circuits between substations are direct buried along a common centerline across the Pine River, it is prudent to consider a second crossing in a different location. At current system loading, the circuits are capable of serving the maximum transformer rating of Industrial Substation but not Westenbroek Substation.

2021

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#301	Multiple	Complete inspections of all electric system manholes and replace connections and aged hardware as determined during the inspection. Completion of this project improves system reliability by proactively repairing potential points of failure. Estimated cost \$10,000
#313	C & E	Construction of new tie between Circuits C & E at Stover Rd & Ferry Ave including riser pole and padmount switchgear. Completion of this project shifts additional load to Circuit C during load transfers from Westenbroek Substation to Industrial Substation. Estimated Cost \$70,000

2022

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#302	E,I,J	Replace aged and rusting padmount equipment including Switch #1 (Circuit E, Stover Rd), Switch #14 (Circuit I, Mercer Rd), one sectionalizing cabinet on Stover Rd, and seven sectionalizing cabinets along US31 North. Completion of this project improves reliability on mainline circuits by eliminated aged and potentially failing equipment. Estimated cost: \$45,000
#303	D & H	Separate substation underground cable risers for Circuits D & H along the west side of M-66 across from Stover Rd onto two individual poles with normally open GOAB switch between the circuits. Completion of this project improves reliability to these two circuits by eliminating two critical points of failure which are currently on the same pole. Estimated cost: \$32,000
#312	A & F	Separate substation underground cable risers for Circuits A & F along the west side of May Street onto two individual poles with normally open GOAB switch between the circuits. Completion of this project improves reliability to these two circuits by eliminating two critical points of failure which are currently on the same pole. Estimated cost: \$32,000
#304	B & F	Construction of new underground tie between Circuits B & F, across Bridge Street at Park Ave and south to Clinton Street with #4/0 15kV CU within existing 4" conduit system. Conduit integrity must be verified prior to embarking on this project. Completion of this project creates a full capacity tie on the north side of downtown and to two critical loads, City Hall and the drawbridge. Estimated cost: \$45,000
#306	F & G	Construction of new underground tie between Circuits F & G for a distance of 0.55 miles along Antrim Street from Grand Ave to the Hospital with #500 15kV AL cable in conjunction with road reconstruction.

Project includes relocating the backlot single-phase overhead to underground between Antrim & Mason Street west of Grant Street. Completion of this project creates a full capacity tie to three critical and two large loads including the Water Plant and the Hospital.
Estimated cost: \$493,000

#314 B Replacement of manhole on Bridge Park Dr service the Beaver Island Boat Company with two manholes. Completion of this project will separate primary and secondary cables into two distinct locations and will provide better security to the primary system.
Estimated cost: \$50,000

2023

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#305	Multiple	Replace single-phase disconnect switches with 3-phase gang-operated airbreak switches (GOAB) for Switch #8 (Ckt A & Ckt E) on Stover Rd east of May St, Switch OH19 (Ckt A & F) on Garfield, west of May Street, and Switch OH21 (Ckt F & Ckt G) on Garfield, west of Grant Street. Completion of this project improves system reliability by removing potential failure points that can occur during switching operations. Estimated cost: \$15,000

#311 D Installation of triple single three phase recloser east of Wickersham Road on M-66. Recloser to be placed beyond the last three phase customer, Castle Farms. Placement of this recloser will improve reliability to Primary Metered customers and protect a long radial line with a history of outages.
Estimated cost: \$25,000

2024

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#307	B	Installation of 200A sectionalizing cabinet on Belvedere Ave east of Bridge Street to remove 200A elbows from manhole. Completion of this project allows for sectionalizing in the downtown area without causing an outage to all downtown customers. Estimated cost: \$38,000
#308	K	Replacement of approximately 625' of 5kV underground cable with #2 AL 15kV cable and associated equipment for voltage conversion to 7.2kV of the tap west off Mt. McSauba Road serving 08489 through 08515. Estimated cost: \$52,000

2025

<u>Project #</u>	<u>Circuit</u>	<u>Description</u>
#309	D	Replacement of approximately 950' of underground cable with #2 AL 15kV cable and associated equipment for voltage conversion to 7.2kV on the tap at 05752 M-66. Completion of this project eliminates aged 5kV cable and moves this tap to the preferred higher voltage system. Estimated cost: \$36,000

Phase Balancing

Distribution circuits need the loading per phase balanced to improve efficiency, reduce line losses, and reduce total loading per circuit. Balancing the phases will improve City of Charlevoix's ability to tie circuits together, as the highest loaded phase is the limiting factor when making distribution ties. City of Charlevoix should take specific spot load measurements on peak load days to verify which areas of the system are responsible for the unbalanced conditions.

The following circuits should be re-phased to improve load balance on the distribution circuits.

- Circuit A – move 5A of load from AØ to CØ
 - Move transformer and Lincoln St tap west of May Street.
- Circuit B – move 5A of load from CØ to BØ
 - Move 167kV East Park transformer
- Circuit C – move 13A of load from CØ to BØ
 - Field review moving two transformers on Belevedere Ave.
- Circuit F – move 10A of load from BØ to AØ and 15A of load from CØ to AØ
 - Move Pine Cove & May Street Apartment transformers
 - Move Lincoln St Tap & State St at Garfield St taps
- Circuit H – move 5A of load from AØ to CØ
 - Move 1ph tap on US31 between Airport Dr & Barnard Rd serving storage facility
- Circuit I – move 15A of load from AØ to CØ
 - Due to majority of the load being 3-phase, load shift load is not possible
- Circuit L – move 15A of load from CØ to BØ
 - Move two transformers on Dixon Ave and Carson Rd tap.

Future Projects

Future projects that should be included in a long range plan include installation of a SCADA System, AMI metering, replace circuit B & C river crossings with 500kCM 15kV copper cable to increase circuit capacity by 120A (2.6MVA), replacement of the three PMH-5 switchgear in the North Industrial Park, manhole rehabilitation or replacement, and adding 200A sectionalizing cabinets to eliminate elbows in manholes. Additionally, replacement of the Industrial Substation transformer to match the peak total load of Westenbroek Substation plus future growth should be considered.

The four circuits that tie between Industrial Substation and Westenbroek Substation (Circuits B, C, K & L) are all unjacketed concentric neutral cable in undersized 4" conduit with a direct buried river crossing. A long-term plan to replace these critical tie circuits with 500kCM 15kV copper cable in 6" conduit should be prepared. Another crossing separate from these two circuits would also be beneficial for increased reliability, but is not necessary for loading reasons.

Conclusions

The City of Charlevoix's electrical system including substations and distribution system have the capacity to serve existing and projected load under peak and 1st contingency outage conditions. Concerns are warranted with the aging substation equipment including 46kV underground cable into Westenbroek Substation, electro-mechanical relays, unjacketed concentric neutral underground substation exit cables, overhanging vegetation, rusting cabinets, uncovered jumper wires and energized bushings, insufficient control house HVAC systems, and no hydrogen detection systems.

Preparation of a contingency plan for loss of the 46kV underground cable into Westenbroek Substation will prepare the City of Charlevoix for handling this single point of failure in the transmission system. Completion of substation maintenance at both substations will solve multiple issues including replacing a cracked transformer bushing, and the uncovered jumper wires and bushings. Completing of substation relay house upgrade projects will provide the City with modern microprocessor based protective relaying and annunciation systems plus create proper climate control in the substation control houses. Finally, replacement of the two transformers, circuit switchers, and voltage regulators at Westenbroek Substation will not only replace aging equipment, but will keep equipment operating within established operating parameters.

Primary concerns on the distribution system include the condition of and equipment within the 65 subsurface manholes, rusting padmount equipment, unjacketed concentric neutral cables noted above, the single points of failure for multiple distribution circuits on the same riser pole, lack of close-in circuit ties for critical loads including the Hospital, Water Plant, WWTP, City Hall, and drawbridge, plus the inability to balance loads when utilizing the two critical substation ties. A secondary concern are the two underwater critical tie circuits between substations. Solidifying a plan for a second crossing in a different location along with upgrading the cable in pipe is recommended.

Completion of the three recommended circuit tie projects provides increased reliability to critical and large load customers, plus provides ability to balance loads when utilizing the substation tie circuits. Replacement of all substation exit cables also increases reliability and circuit capacity with the installation of jacketed underground copper cable in conduit. Separating substation circuit exit risers onto different poles eliminates the single-point of failure present on four of Westenbroek Substation circuits. Considering five of the top ten load customers and four of the top ten critical customers are all served by Circuit G, this circuit should have the highest priority for tree clearing, inspections, and review for potential points of failure. In addition to the manhole inspections proposed within this study, regular inspections of padmount equipment should also be completed and fully documented.

Several maps were created as part of this study and attached to the end of the report. These include existing System Circuit Maps and Project Map designating the proposed capital projects.

Completion of the recommended projects will allow the City of Charlevoix to more reliably serve their electric system customers by replacing aged equipment, removing single-points of failure, and increasing circuit backfeed capabilities to large and critical customers.

SYSTEM LOAD & EQUIPMENT RATING

**City of Charlevoix
Electrical System Study
Substation Loading Peak Conditions
Existing System Configuration**

Westenbroek Substation

Item	Device	Rating ¹	2020		2025		2030		2035		Notes
			Amps	Capacity	Amps	Capacity	Amps	Capacity	Amps	Capacity	
WS199	46kV Circuit Switcher	1,200	51	4%	54	4%	57	5%	59	5%	
WS299	46kV Circuit Switcher	1,200	74	6%	78	6%	82	7%	86	7%	
WSX1	10/12.5 MVA Xfmr	552	189	34%	199	36%	209	38%	219	40%	
WSX2	10/12.5 MVA Xfmr	552	273	49%	287	52%	301	55%	317	57%	
WSVR1	500kVA V_Regulator	656	189	29%	199	30%	209	32%	219	33%	
WSVR2	500kVA V_Regulator	656	273	42%	287	44%	301	46%	317	48%	
CKT A	800A VSA-12 Recloser	800	31	4%	33	4%	34	4%	36	4%	
CKT B	800A VSA-12 Recloser	800	22	3%	23	3%	24	3%	26	3%	
CKT C	800A VSA-12 Recloser	800	67	8%	70	9%	74	9%	78	10%	
CKT D	800A VSA-12 Recloser	800	90	11%	95	12%	99	12%	104	13%	
CKT E	800A VSA-12 Recloser	800	74	9%	78	10%	82	10%	86	11%	
CKT F	800A VSA-12 Recloser	800	88	11%	92	12%	97	12%	102	13%	
CKT G	800A VSA-12 Recloser	800	112	14%	118	15%	124	15%	130	16%	
CKT H	800A VSA-12 Recloser	800	29	4%	30	4%	32	4%	34	4%	

Industrial Substation

Item	Device	Rating ¹	2020		2025		2030		2035		Notes
			Amps	Capacity	Amps	Capacity	Amps	Capacity	Amps	Capacity	
IS299	46kV Circuit Switcher	1,200	53	4%	55	5%	58	5%	61	5%	
ISX1	10/12.5 MVA Xfmr	579	194	34%	204	35%	215	37%	226	39%	
ISVR1	500kVA V_Regulator	656	194	30%	204	31%	215	33%	226	34%	
CKT I	560A VSA Recloser	560	40	7%	42	8%	44	8%	46	8%	VWE recloser retrofitted with vacuum interrupters.
CKT J	560A VWE Recloser	560	85	15%	89	16%	94	17%	99	18%	
CKT K	560A VWE Recloser	560	30	5%	32	6%	33	6%	35	6%	
CKT L	560A VWE Recloser	560	61	11%	64	11%	67	12%	71	13%	

¹ Transformer ratings are given for FFA rating on the secondary side of the transformers. Secondary voltage is 12.5kV for all transformers.

² Bus tie breaker/switch amps are calculated from the highest loaded adjacent bus breaker or switch.

³ Cells highlighted in red represent high-side (46kV) equipment and transformers which are operating at or above 40% of nameplate rating OR low-side (12.5kV) equipment which is operating at or above 60% of nameplate rating under normal peak load conditions.

⁴ CE transmission system is normal and available

⁵ Shaded cells represent equipment that is operating above the percent of capacity rating established within this study.

City of Charlevoix
Electrical System Study
Circuit Loading

Annual Growth Rate 1.00%

Circuit	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Growth Rate	Notes
CKT A	31	31	32	32	32	33	33	33	34	34	34	35	35	35	36	36	1.00%	#4/0 AL UG on Belvedere
CKT B	22	22	22	23	23	23	23	24	24	24	24	25	25	25	25	26	1.00%	#4/0 AL UG on Belvedere
CKT C	67	68	68	69	70	70	71	72	73	73	74	75	75	76	77	78	1.00%	
CKT D	90	91	92	93	94	95	96	96	97	98	99	100	101	102	103	104	1.00%	
CKT E	74	75	75	76	77	78	79	79	80	81	82	83	83	84	85	86	1.00%	
CKT F	88	89	90	91	92	92	93	94	95	96	97	98	99	100	101	102	1.00%	
CKT G	112	113	114	115	117	118	119	120	121	122	124	125	126	127	129	130	1.00%	#4/0 ACSR on Garfield
CKT H	29	29	30	30	30	30	31	31	31	32	32	32	33	33	33	34	1.00%	
CKT I	40	40	41	41	42	42	42	43	43	44	44	45	45	46	46	46	1.00%	#4/0 AL UG on Taylor Rd
CKT J	85	86	87	88	88	89	90	91	92	93	94	95	96	97	98	99	1.00%	
CKT K	30	30	31	31	31	32	32	32	32	33	33	33	34	34	34	35	1.00%	
CKT L	61	62	62	63	63	64	65	65	66	67	67	68	69	69	70	71	1.00%	

**City of Charlevoix
System Load Flow Study
Substation Equipment Loading**

High Side Equipment (46kV)

Circuit Switchers and Disconnect Switches

Example 1200A Circuit Switcher

		Amps	MVA (46kV)
Normal	40%	480	38
1st Contingency	80%	960	76
2nd Contingency	100%	1,200	95

Transformers (Maximum Nameplate Rating - 2nd Stage Cooling)

Substation Power Transformers

Example 20/26.7/33.3MVA Transformer

		OA (MVA)	FA (MVA)
Normal	40%	4.0	5.0
1st Contingency	80%	8.0	10.0
2nd Contingency	100%	11.5	12.5

Low Side Equipment (12.5kV)

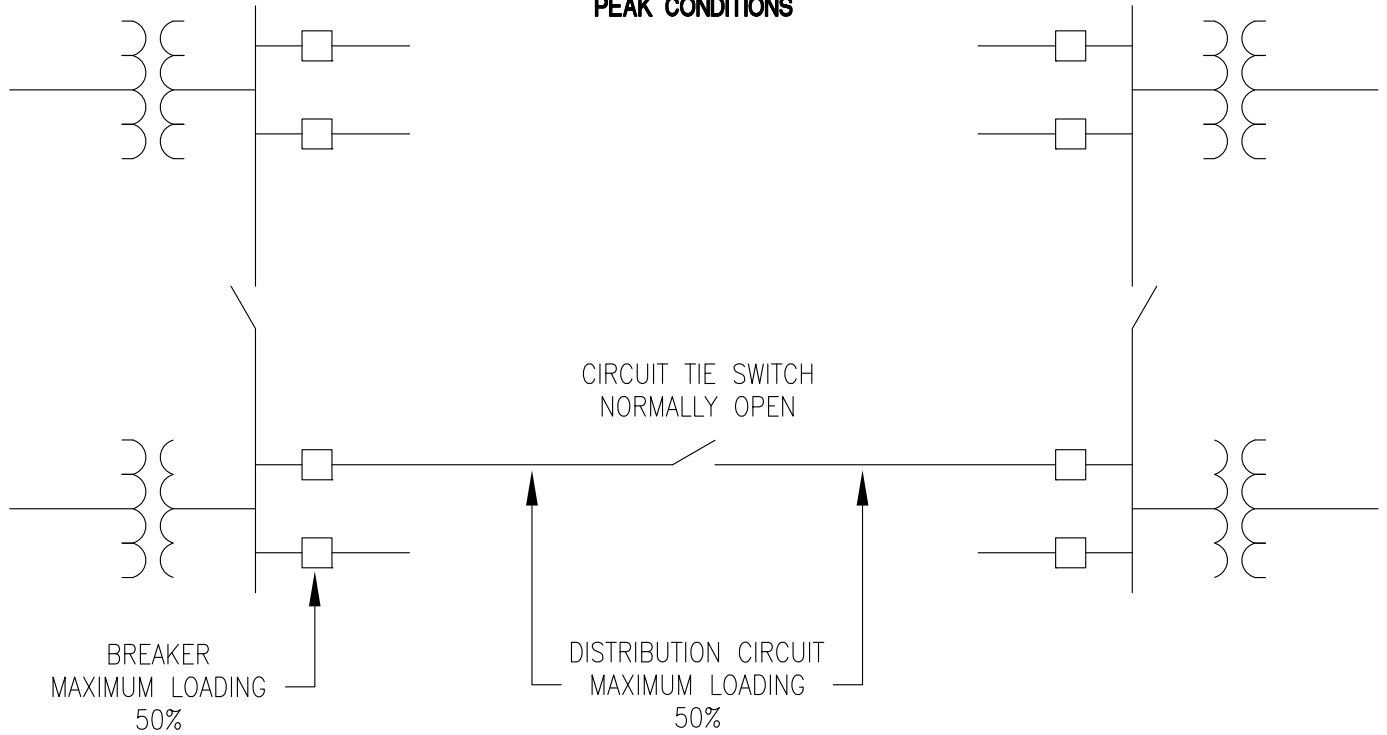
Reclosers, Breakers, Disconnect Switches

Examples 560A Kyle Recloser & 800A Viper Recloser

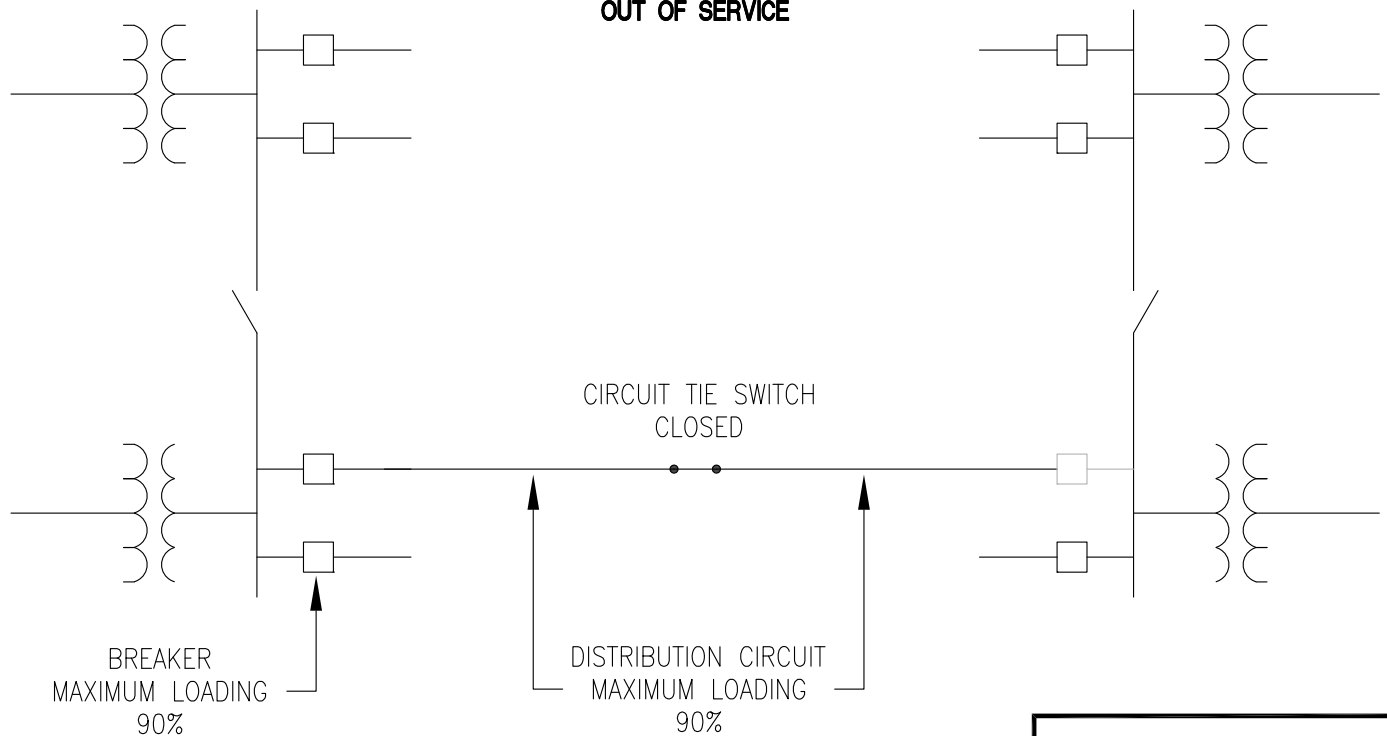
		Kyle Amps	Viper Amps	500kCM 15kV CU	750kCM 15kV CU
Normal	50%	280	400	228	274
1st Contingency	90%	504	720	410	492
2nd Contingency	100%	560	800	456	547

Conductor ratings provided for reference.

**SYSTEM NORMAL
PEAK CONDITIONS**



**DISTRIBUTION CIRCUIT
OUT OF SERVICE**



**DISTRIBUTION CIRCUIT
LOADING LIMIT DIAGRAM**

**City of Charlevoix
Conductor Ampacity**

ACSR Conductor	Rated Ampacity			60% Rated Ampacity		
	120°F	167°F	212°F	120°F	167°F	212°F
#4 ACSR 7/1 "Swanate"	46	115	149	28	69	89
#2 ACSR 7/1 "Sparate"	59	153	197	35	92	118
#1/0 ACSR 6/1 "Raven"	73	198	256	44	119	154
#4/0 ACSR 6/1 "Penguin"	96	295	381	58	177	229
#336.4 ACSR 18/1 "Merlin"	119	421	562	71	253	337
#477 ACSR 26/7 "Hawk"	126	533	715	76	320	429
#1/0 Hendrix Black		201	235		121	141
#4/0 Hendrix Black		306	357		184	214
#336 Hendrix Black		447	521		268	313
#336 Hendrix Grey		478	548		287	329
#477 Hendrix Black		556	647		334	388
#477 Hendrix Grey		596	683		358	410

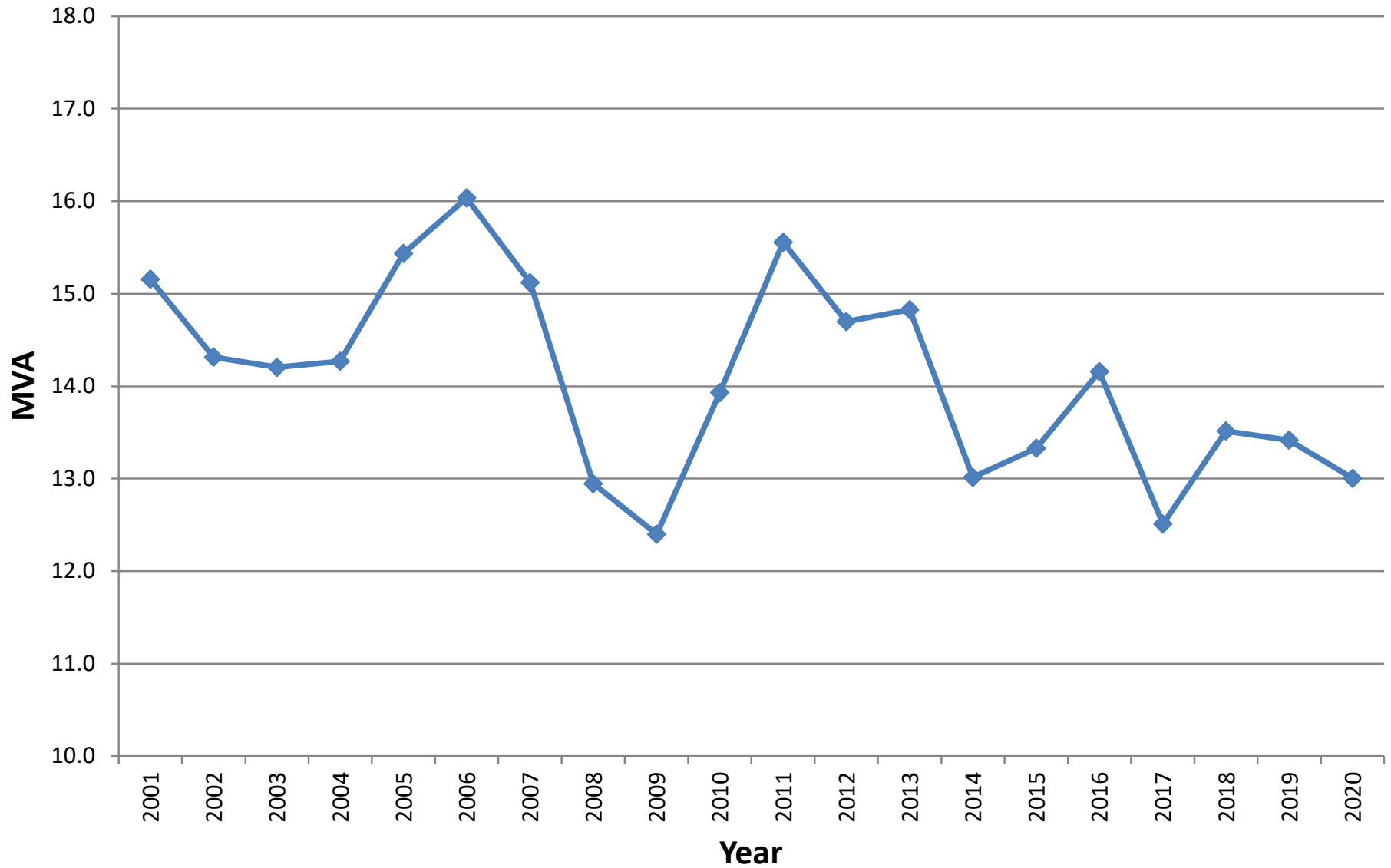
*Ampacities based on 104°F (40°C) Ambient Temperature, 2 ft/sec Wind Speed, Full Sun.

Underground Cable	AL Rated Ampacity		CU Rated Ampacity	
	Direct Buried	Buried Ductbank (1-way)	Direct Buried	Buried Ductbank (1-way)
#2 15kV Full Neutral	165	125	215	
#1/0 15kV Full Neutral	218		275	
#4/0 15kV 1/3rd Neutral	318	244	404	309
#500 15kV 1/3rd Neutral	502	356	609	476
#500 15kV 1/12 Power Cable				505
#750 15kV 1/3rd Neutral		479		476
#750 15kV 1/12 Power Cable				609

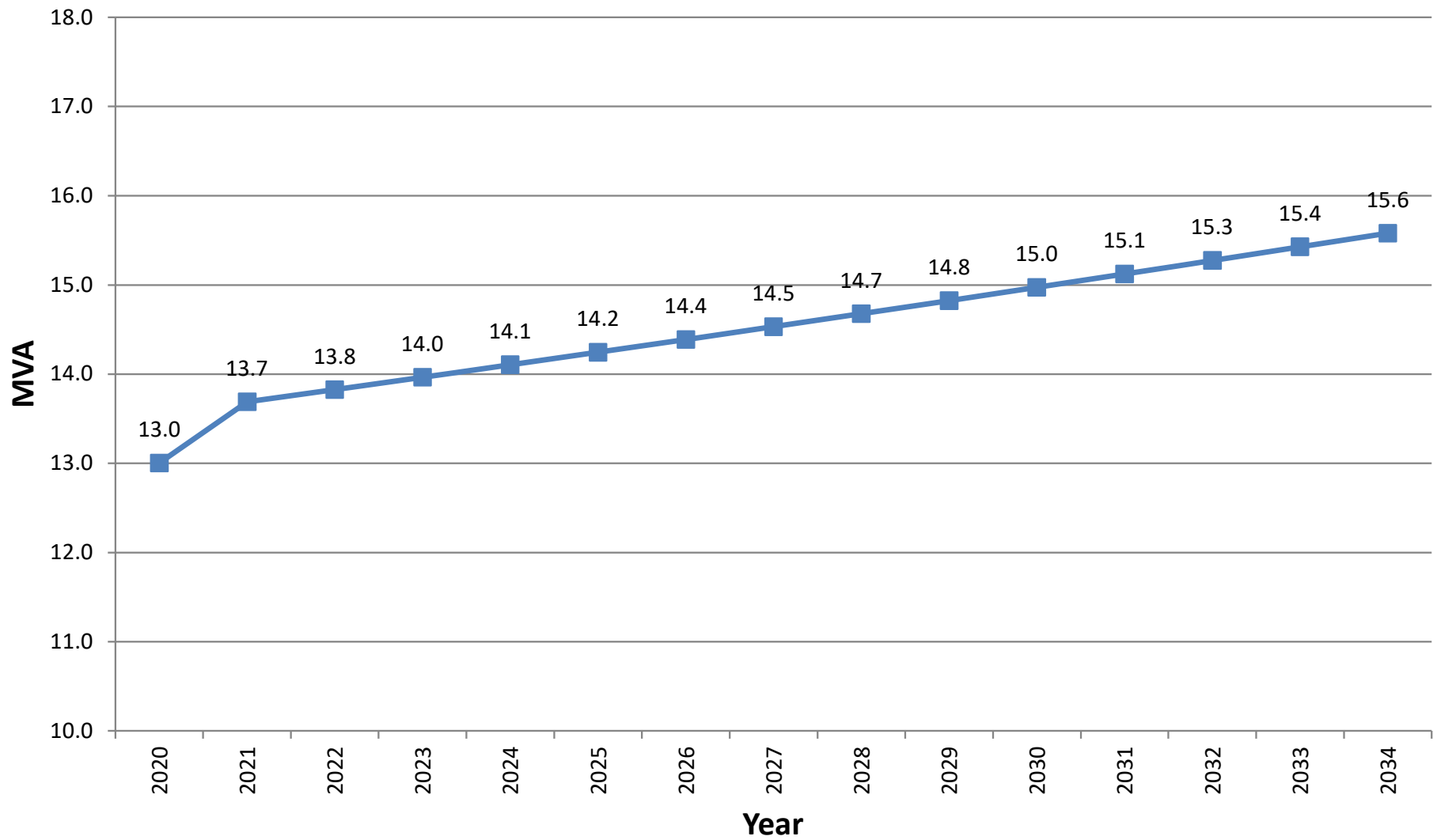
*Ampacities based on 90°C (194°F) conductor temperature, 75% load factor, 20°C (68°F) ambient earth temperature & 90rho soil.

SYSTEM STUDY TABLES

City of Charlevoix Historic System Load



City of Charlevoix Projected System Load



**CITY OF CHARLEVOIX
ELECTRIC DISTRIBUTION SYSTEM STUDY
TOP TEN CRITICAL CUSTOMER LIST**

				Primary		Backup		
Number	Name	Address	Type	Circuit / Construction		Circuit / Construction		Notes
1	Water Plant	97 Grant St	Utility	CKT F	OH	CKT A	OH	
2	WWTP	15116 Lake Shore Dr	Utility	CKT G	OH	CKT F	OH	
3	Charlevoix Hospital / Munson	14700 Lake Shore Dr	Medical	CKT G	OH	CKT F	OH	
4	Boulder Park Terrace	14673 W. Garfield Ave	Medical	CKT G	OH	CKT F	OH	
5	City Hall	210 State St	Governmental	CKT B	UG	CKT C	UG	
6	Charlevoix County Sheriff	1000 Grant St	Governmental	CKT F	OH	CKT A	OH	
7	DPW	401 W. Carpenter St	Governmental	CKT G	OH	CKT F	OH	
8	Drawbridge	100 Bridge Street	Transportation	CKT B	OH	CKT C	OH	
9	Street Department	229 Stover Rd	Governmental	CKT E	OH	CKT A	OH	
10	US Coast Guard Station	101 Coast Guard Dr	Governmental	CKT K	UG	CKT L	UG	

Notes:

1. Construction types: OH - overhead, UG - underground
2. Primary circuits typically have multiple backup circuits. Selected circuit has 3-phase switching capabilities.

**CITY OF CHARLEVOIX
ELECTRIC DISTRIBUTION SYSTEM STUDY
TOP TEN LOAD CUSTOMER LIST**

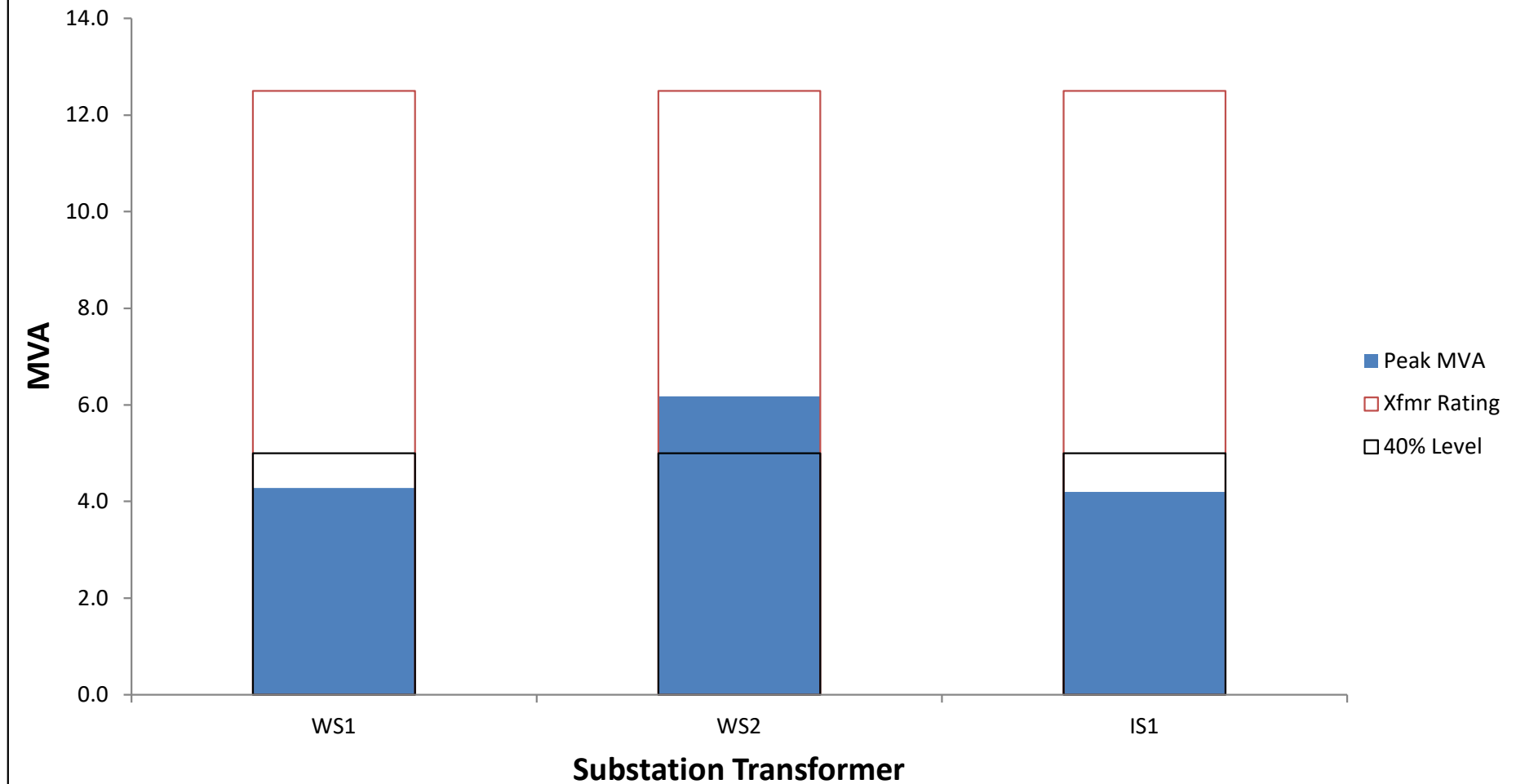
			2020		Primary		Backup		
Number	Name	Address	kWh	kW	Circuit / Construction		Circuit / Construction		Notes
1	Charlevoix Hospital / Munson	14700 Lake Shore Dr	3,715,200	857	CKT G	OH	CKT F	OH	
2	Family Fare Supermarket	111 M-66	1,545,300	258	CKT G	OH	CKT E	OH	
3	Harbor Industries	100 Harbor Dr	1,358,400	474	CKT G	OH	CKT F	OH	
4	Oleson's Food Store	223 Antrim St	1,018,800	180	CKT A	OH	CKT F	OH	
5	Charlevoix High School	05200 Marion Center Rd	912,600	221	CKT H	OH	CKT D	OH	Long radial overhead line.
6	WWTP	15116 Lake Shore Dr	680,280	112	CKT G	OH	CKT F	OH	
7	Boulder Park Terrace	14673 W. Garfield Ave	667,680	134	CKT G	OH	CKT F	OH	
8	Empty Shell, LLC	06328 Ferry Ave	520,200	N/A	CKT D	OH	CKT E	OH	
9	DCL	08660 Ance Rd	458,720	163	CKT I	UG	CKT K	OH	
10	ACAT Global	05339 N. M-66 Hwy	423,280	166	CKT D	OH	CKT H	OH	

Notes:

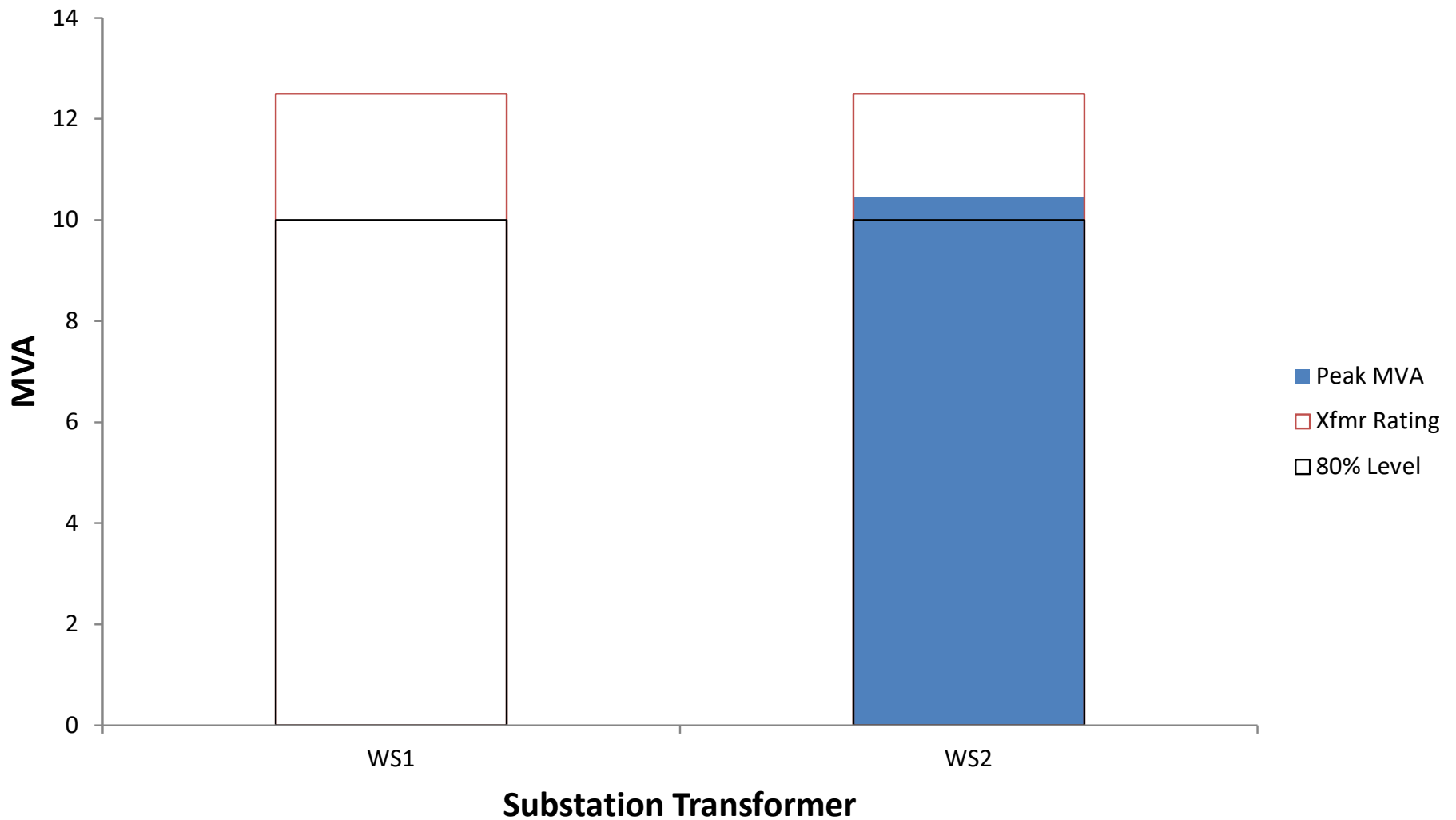
1. Construction types: OH - Overhead, UG - Underground

SUBSTATION TRANSFORMER LOADING CHARTS

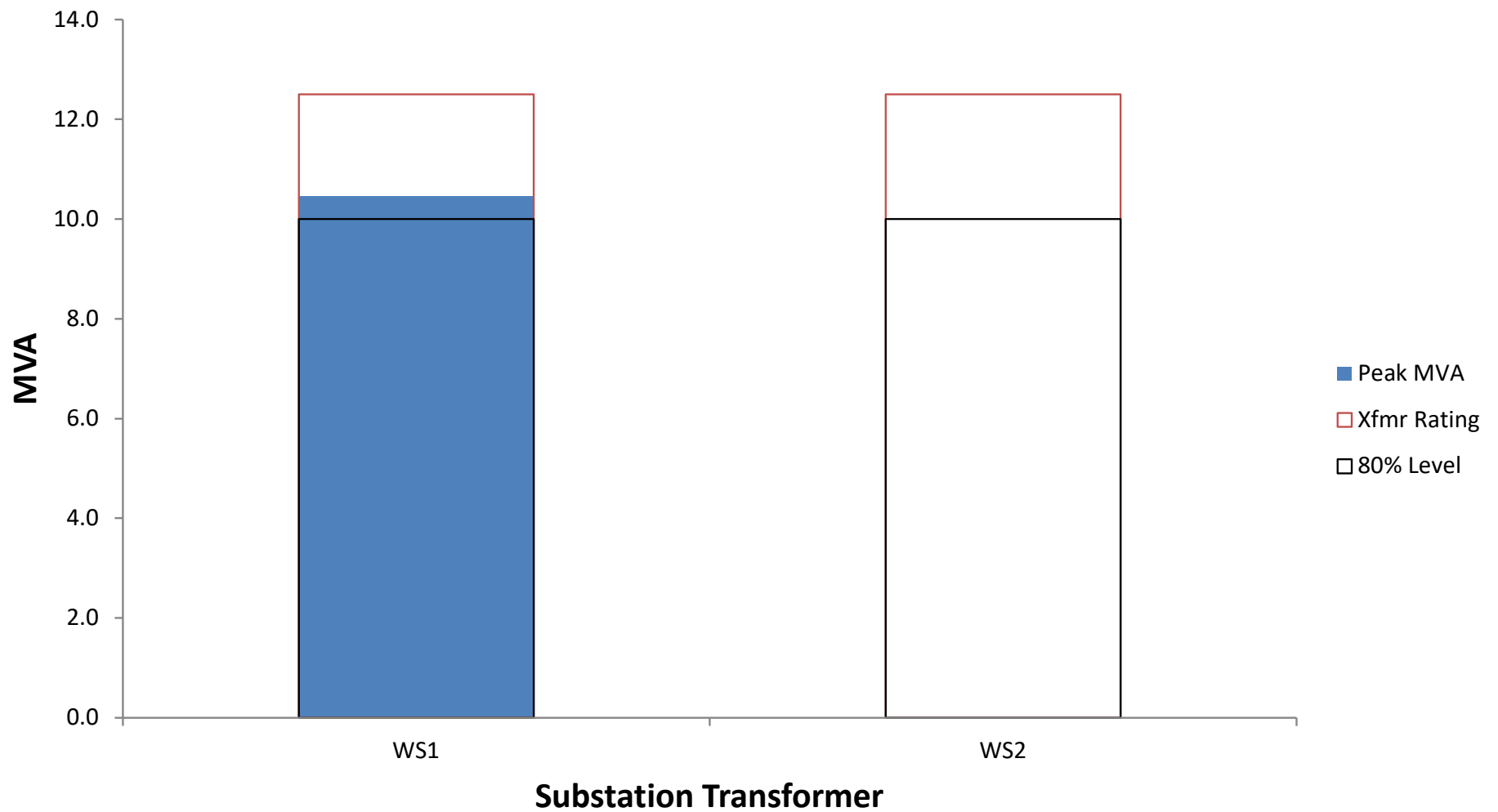
Substation Transformer Loading System Normal - Peak Conditions 2020



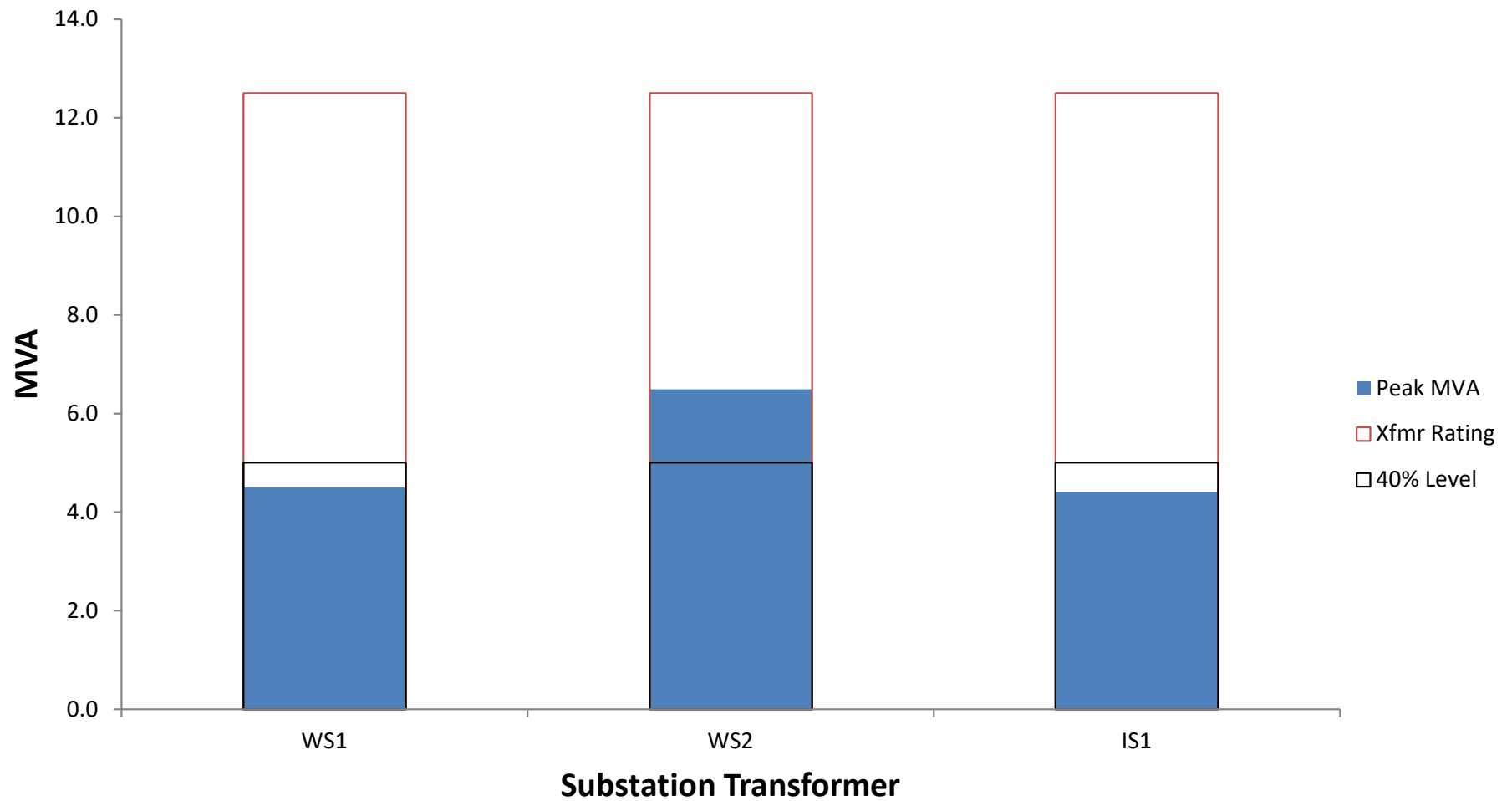
Substation Transformer Loading Transformer #1 Out of Service - 2020



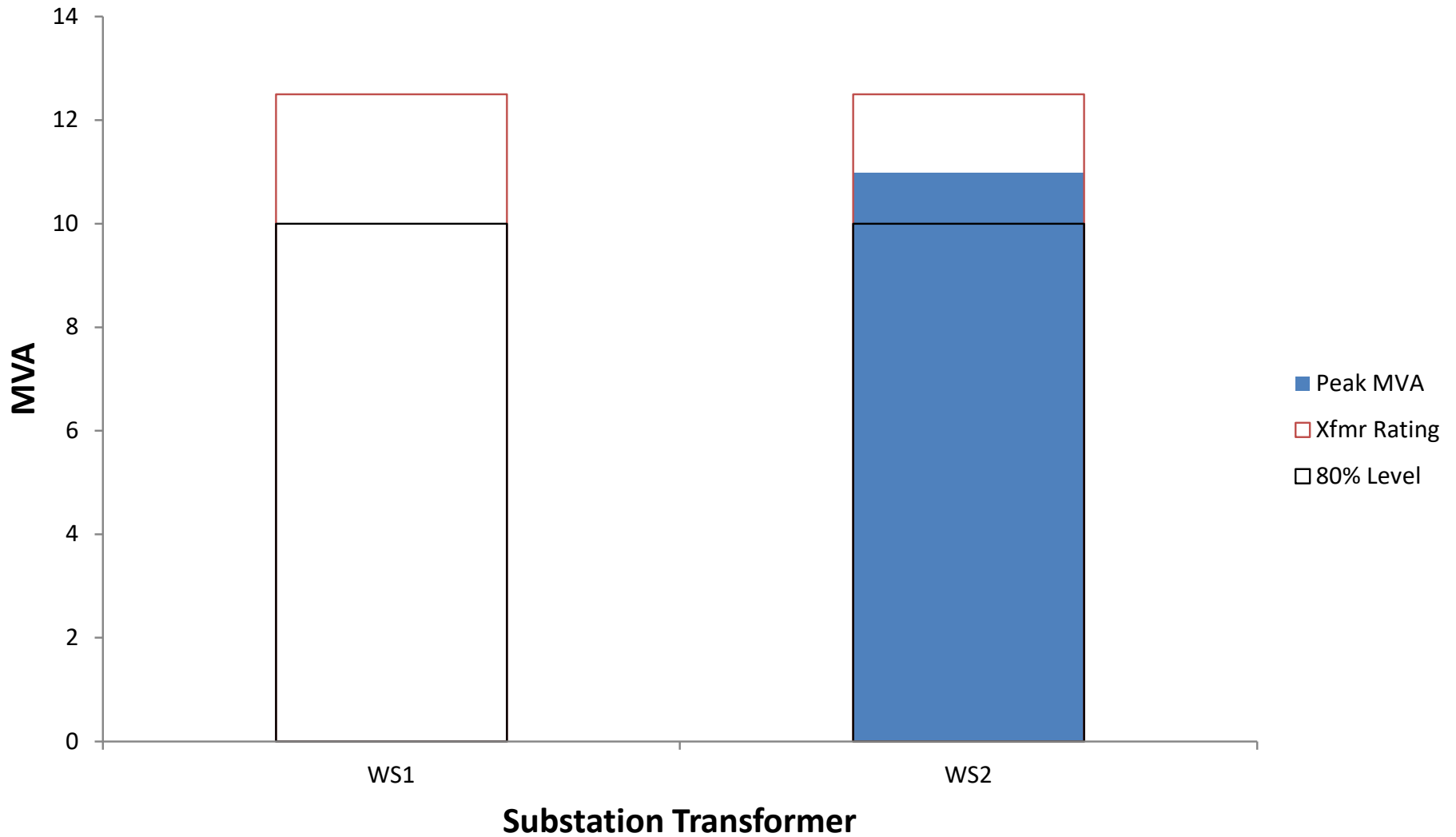
Substation Transformer Loading Transformer #2 Out of Service - 2020



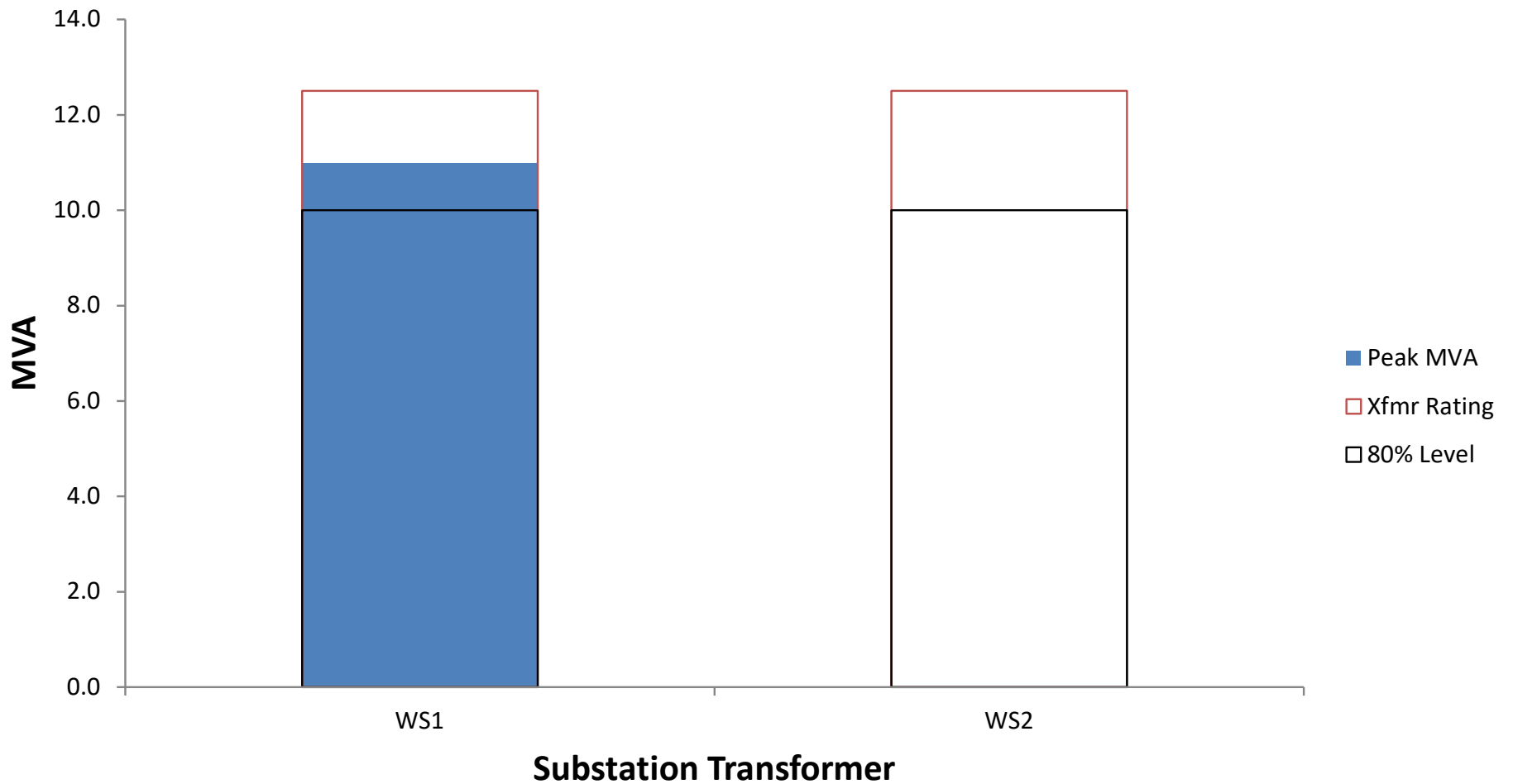
Substation Transformer Loading System Normal - Peak Conditions 2025



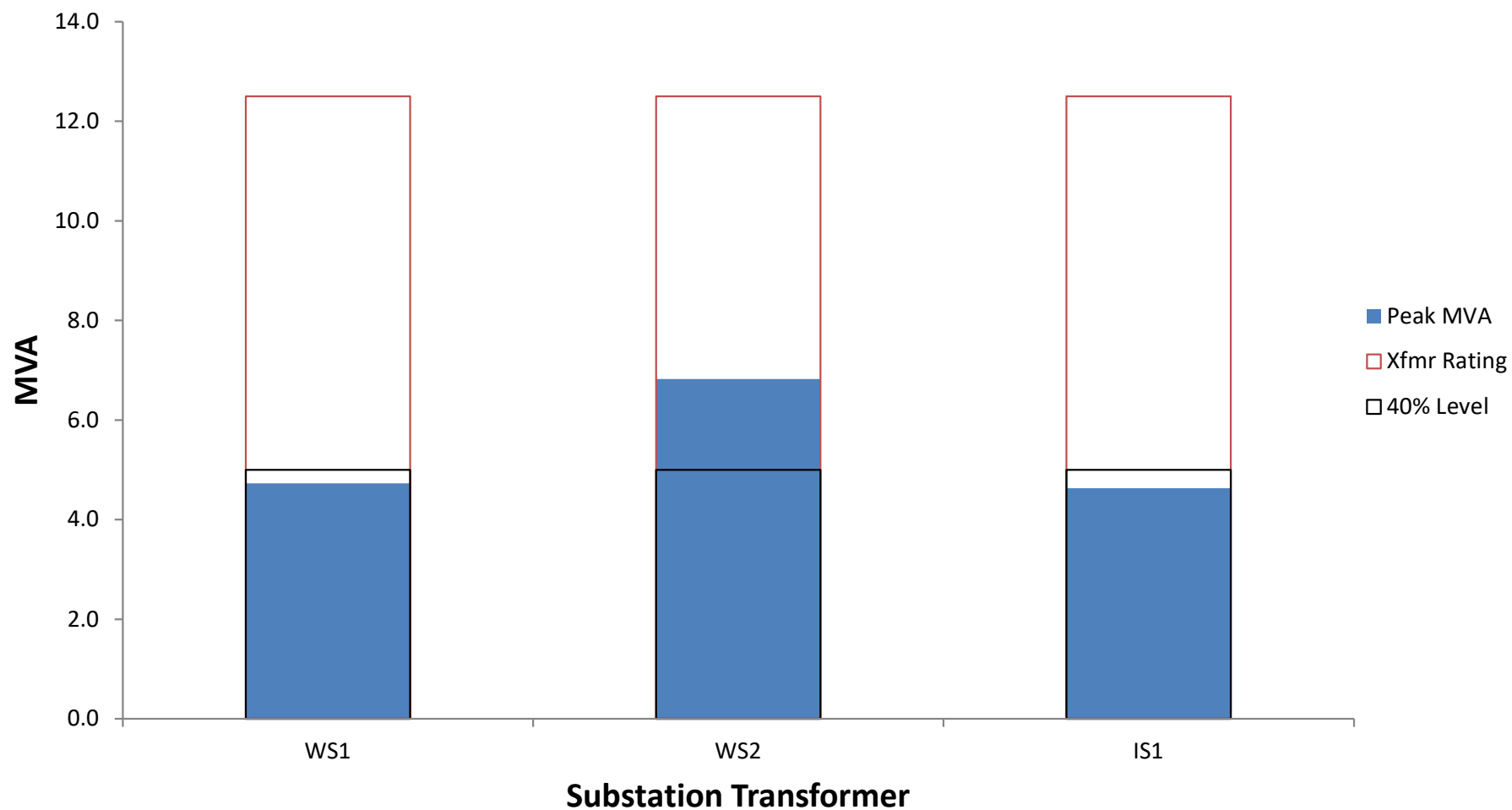
Substation Transformer Loading Transformer #1 Out of Service - 2025



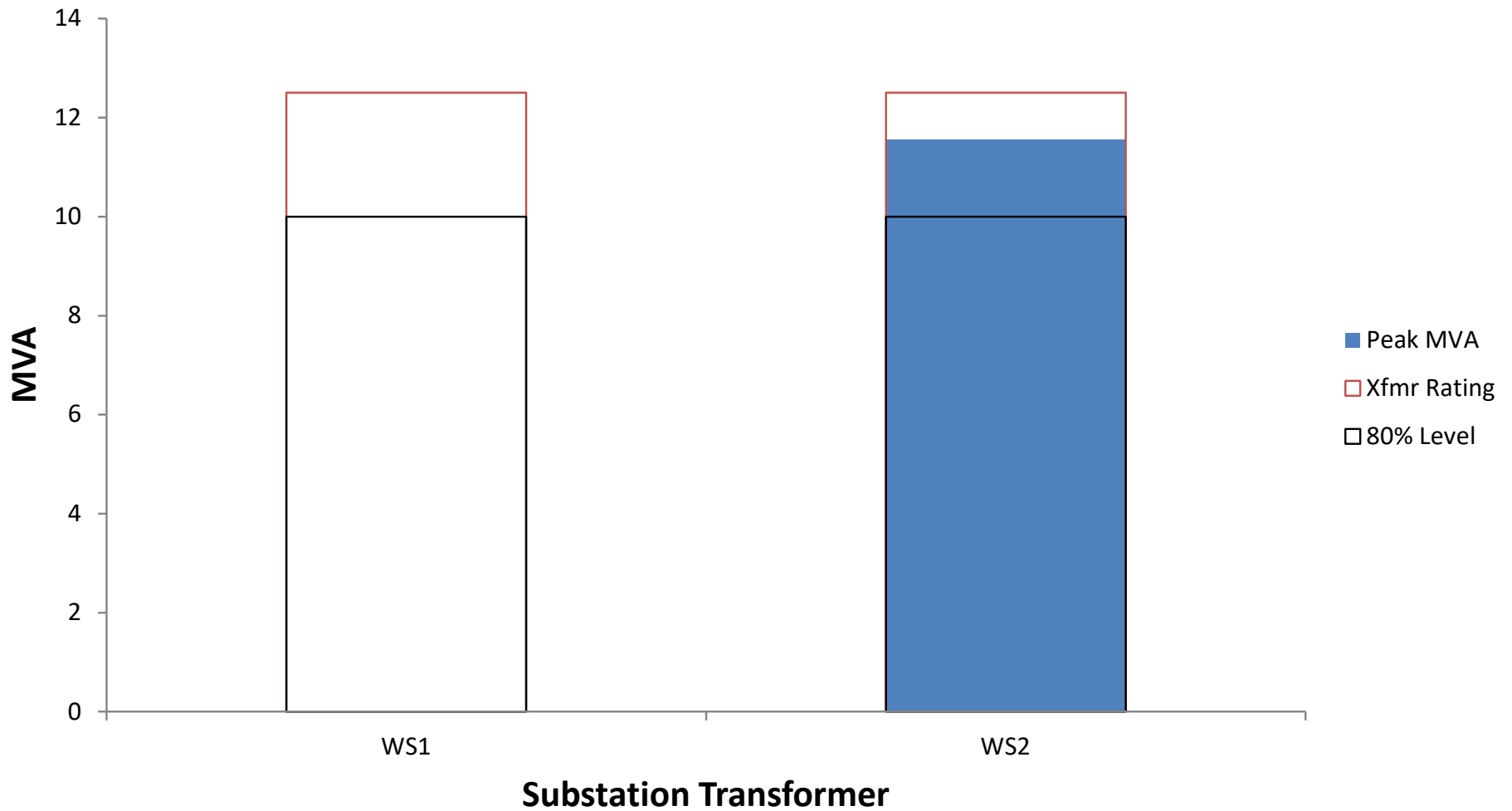
Substation Transformer Loading Transformer #2 Out of Service - 2025



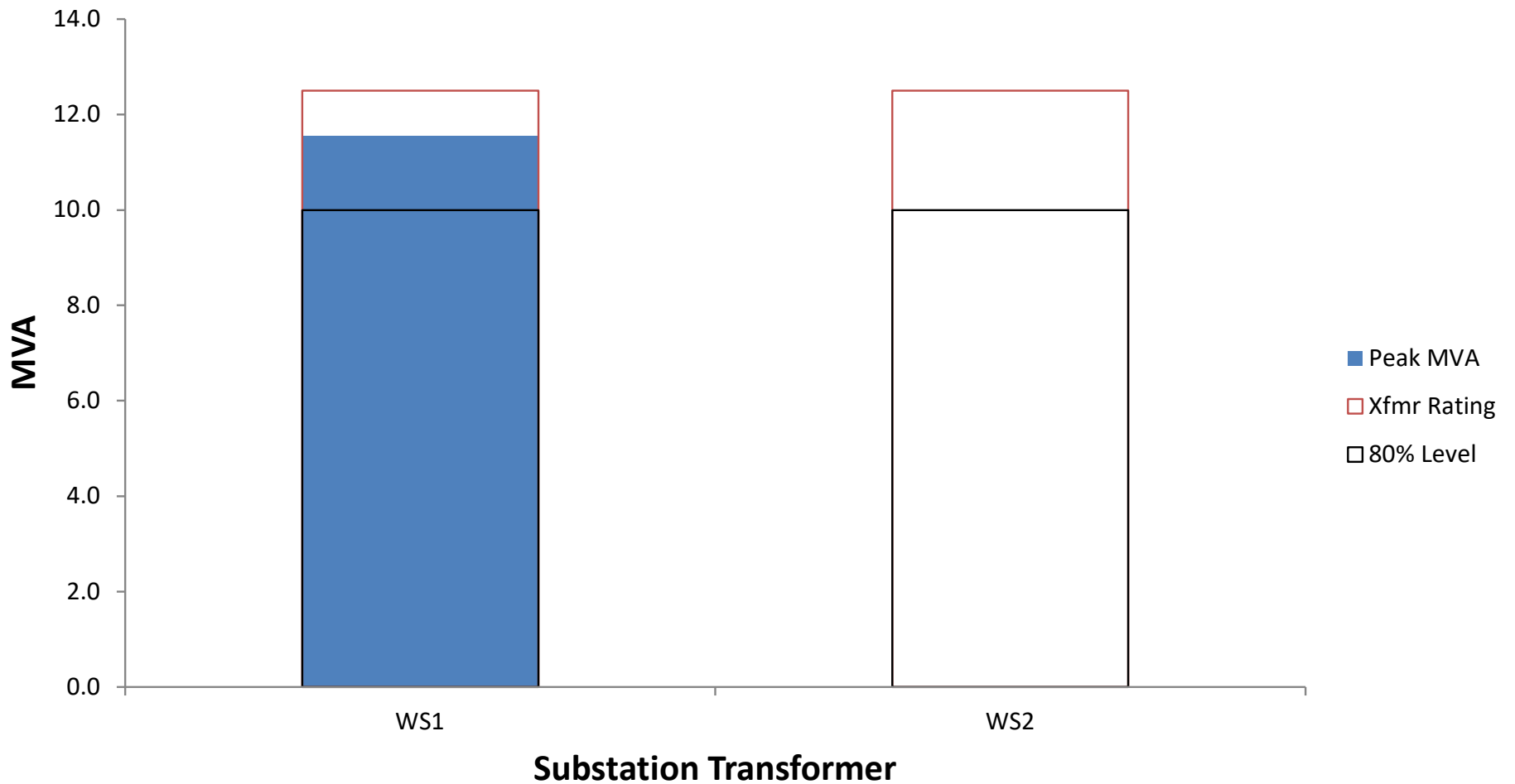
Substation Transformer Loading System Normal - Peak Conditions 2030



Substation Transformer Loading Transformer #1 Out of Service - 2030

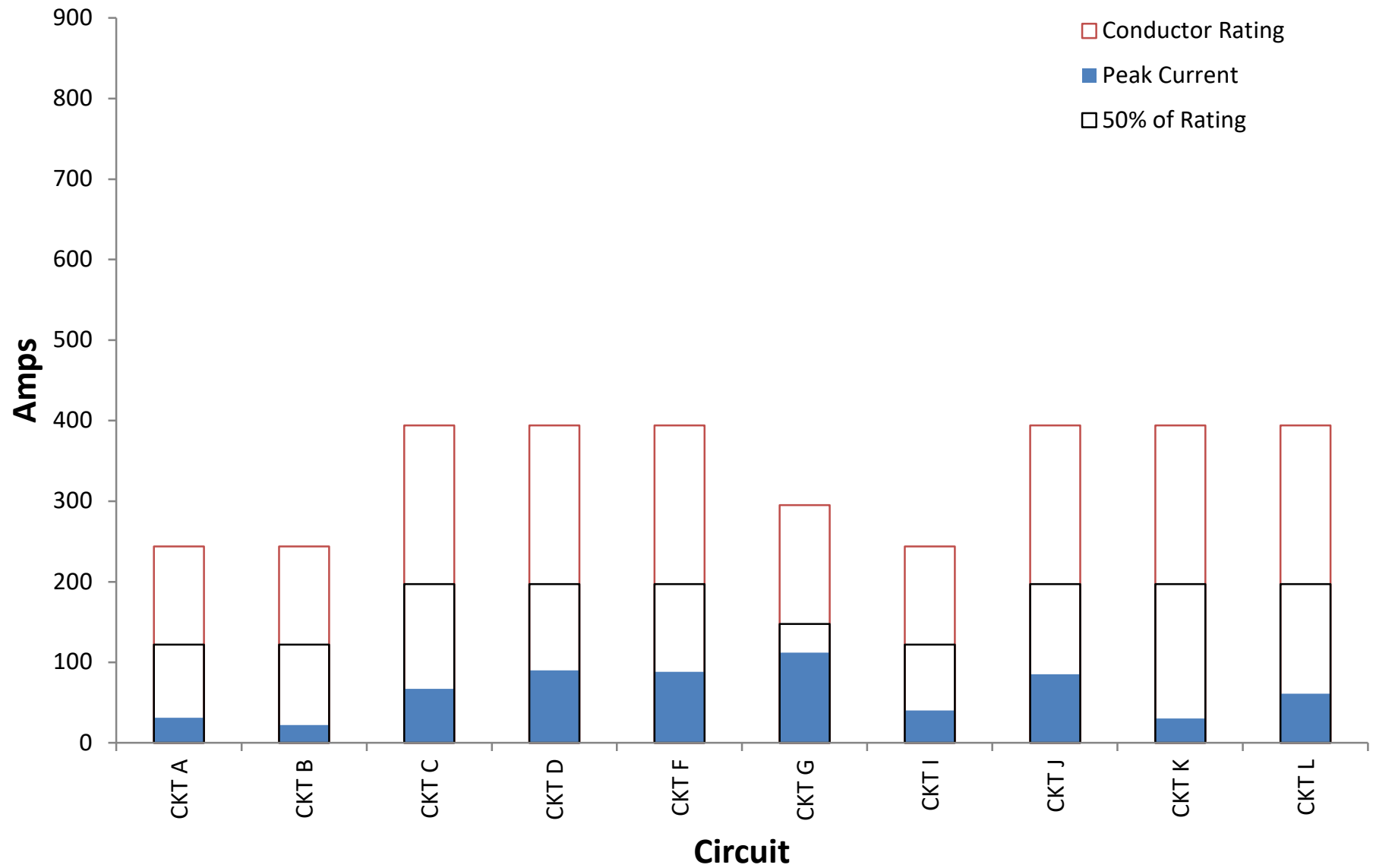


Substation Transformer Loading Transformer #2 Out of Service - 2030

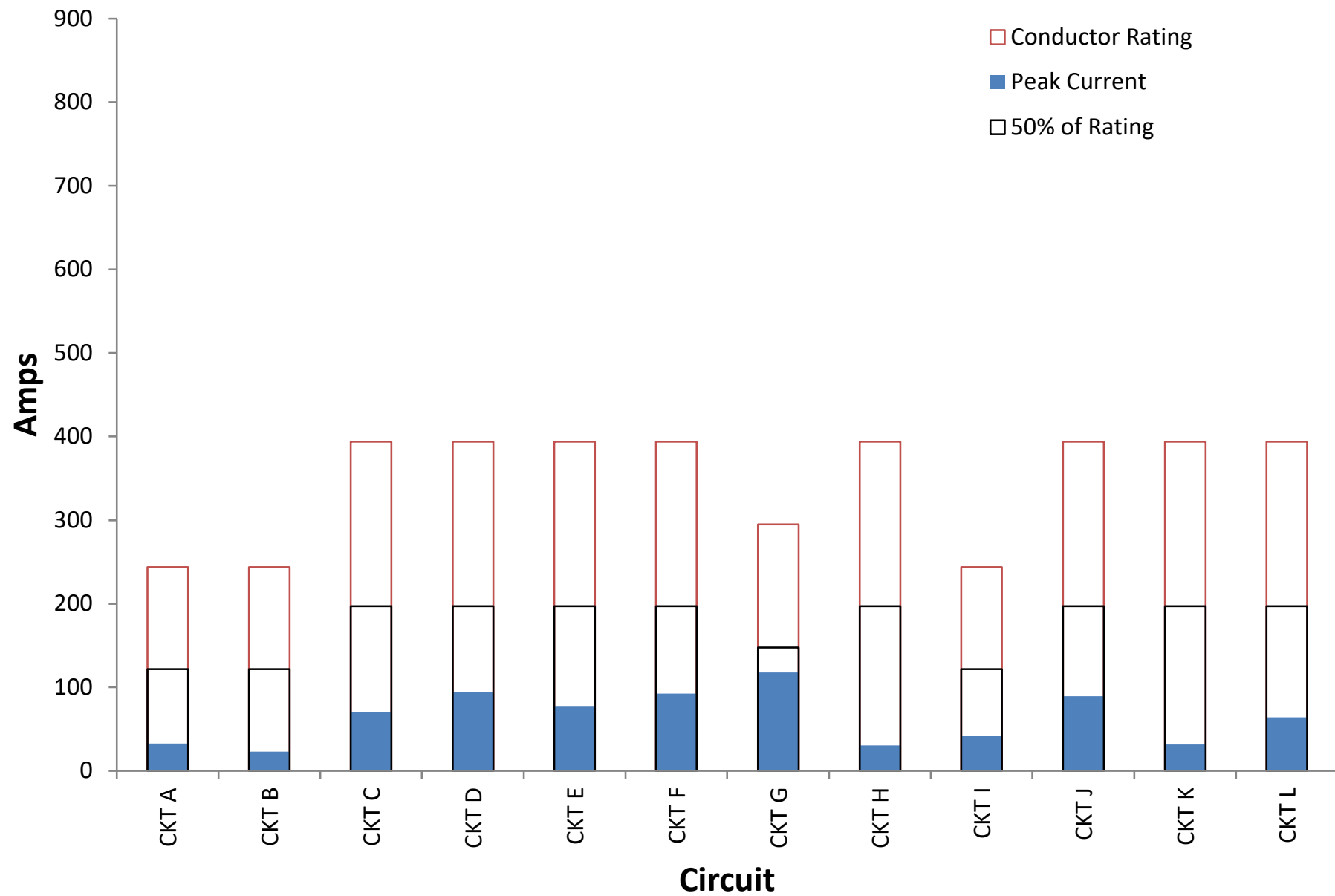


DISTRIBUTION CIRCUIT LOADING CHARTS

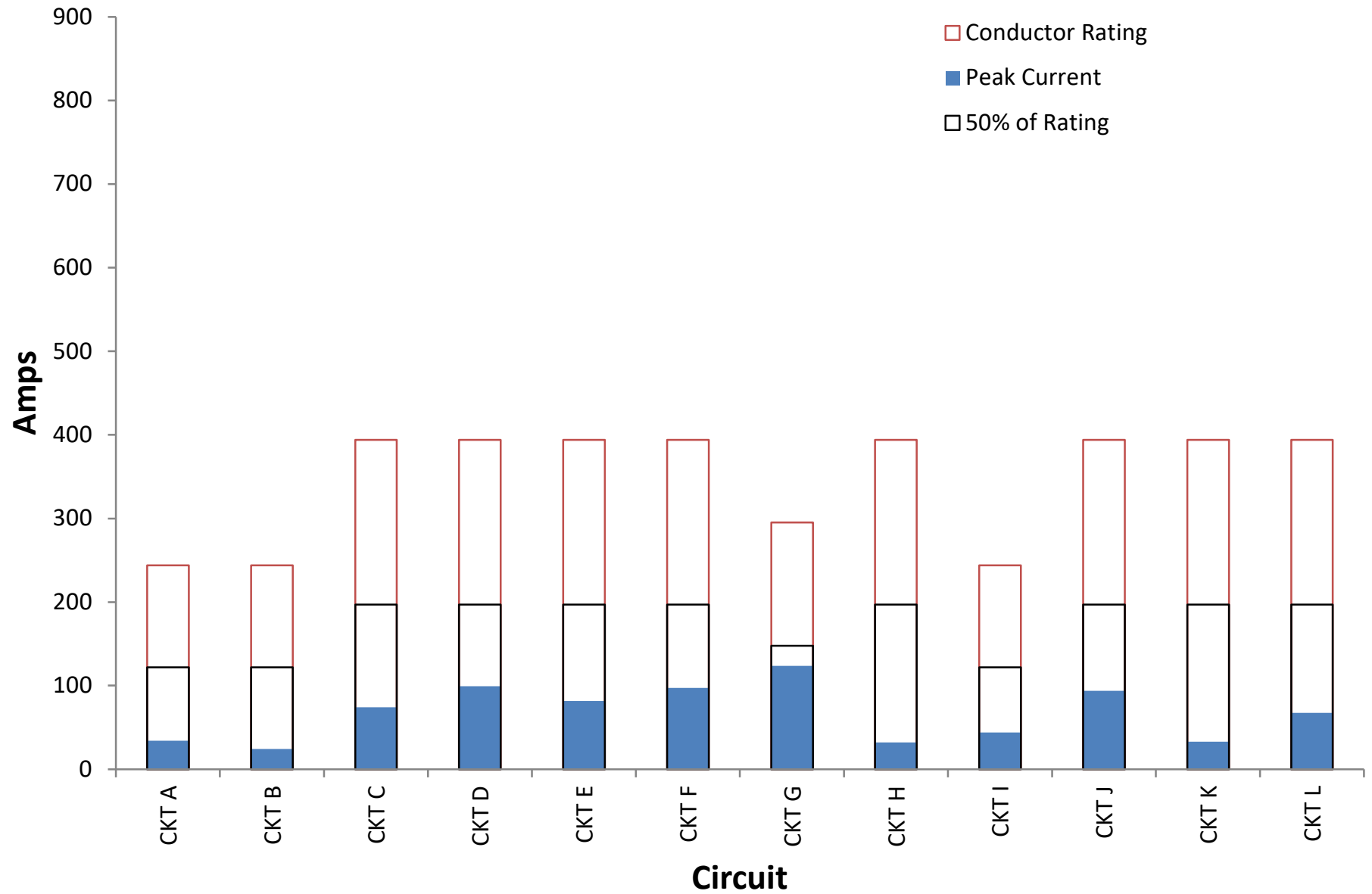
City of Charlevoix Circuit Loading 2020



City of Charlevoix Circuit Loading 2025



City of Charlevoix Circuit Loading 2030



DISTRIBUTION CIRCUIT BACKUP REVIEW

**City of Charlevoix
Electrical System Study
Circuit Backup Review**

Circuit Out-of-Service	Backup Circuit	Total Load	Load Year 2020	Backup Circuit Conductor Capacity	Backup Circuit Sub Xfmr Capacity	Notes
			Recloser/ Breaker Capacity			
CKT A	CKT B	53	7%	22%	34%	SW6, Belevedere Ave & May St PMH-10
CKT A	CKT E	105	13%	27%	55%	OH8, Stover Rd east of May St
CKT A	CKT F	119	15%	30%	55%	OH19, Garfield west of May St, 1ph Disc
CKT A	CKT F	119	15%	30%	55%	OH20, Hurlbut St east of Grant St
CKT B	CKT A	53	7%	22%	34%	SW6, Belevedere Ave & May St PMH-10
CKT B	CKT C	89	11%	23%	34%	SW4, Ferry & Belevedere Ave PMH-10
CKT B	CKT L	83	15%	21%	37%	SW10, Chicago & Coast Guard PMH-10
CKT C	CKT B	89	11%	36%	34%	SW4, Ferry & Belevedere Ave PMH-10
CKT C	CKT K	97	17%	25%	45%	SW11, Chicago & Coast Guard PMH-10
CKT D	CKT E	164	21%	42%	66%	OH3, Ferry Ave, north of M-66
CKT D	CKT H	119	15%	30%	66%	SW2, M-66, South of Substation, PMH-19
CKT E	CKT A	105	13%	43%	48%	OH8, Stover Rd east of May St
CKT E	CKT D	164	21%	42%	48%	OH3, Ferry Ave, north of M-66
CKT E	CKT G	186	23%	63%	49%	OH11, Stover Rd at Sub, GOAB
CKT F	CKT A	119	15%	49%	50%	OH19, Garfield west of May St, 1ph Disc
CKT F	CKT A	119	15%	49%	50%	OH20, Hurlbut St east of Grant St
CKT F	CKT G	200	25%	68%	49%	OH16, Carpenter Ave west of May, GOAB
CKT F	CKT G	200	25%	68%	49%	OH21, Garfield west of Grant, 1ph Disc
CKT G	CKT E	186	23%	47%	49%	OH11, Stover Rd at Sub, GOAB
CKT G	CKT H	141	18%	36%	49%	OH10, M-66 west of Stover Rd, GOAB
CKT G	CKT F	200	25%	51%	49%	OH16, Carpenter Ave west of May, GOAB
CKT G	CKT F	200	25%	51%	49%	OH21, Garfield west of Grant, 1ph Disc
CKT H	CKT D	119	15%	30%	39%	SW2, M-66, South of Substation, PMH-19
CKT H	CKT G	141	18%	48%	49%	OH10, M-66 west of Stover Rd, GOAB
CKT I	CKT K	70	13%	18%	34%	SW14, Mercer Rd and Taylor Rd, PMH-11
CKT J	CKT K	115	21%	29%	34%	OH25, US31 east of Mercer Rd, GOAB
CKT K	CKT C	97	12%	25%	40%	SW11, Chicago & Coast Guard PMH-10
CKT K	CKT I	70	13%	29%	34%	SW14, Mercer Rd and Taylor Rd, PMH-11
CKT K	CKT J	115	21%	29%	34%	OH25, US31 east of Mercer Rd, GOAB
CKT K	CKT L	91	16%	23%	34%	OH24, US31 west of Mercer Rd, GOAB
CKT L	CKT B	83	10%	34%	45%	SW10, Chicago & Coast Guard PMH-10
CKT L	CKT K	91	16%	23%	34%	OH24, US31 west of Mercer Rd, GOAB

¹ Ratings for transformers are given as FFA rating on the secondary side of the transformers. Breaker & recloser ratings are nameplate. Conductor ratings are based on maximum thermal conductor operating temperature.

² Cells highlighted in red represent high-side (46kV) equipment and transformers which would be operating at or above 80% of nameplate rating OR low-side (12.5kV) equipment and conductors which would be

**City of Charlevoix
Electrical System Study
Circuit Backup Review**

Circuit Out-of-Service	Backup Circuit	Load Year Total Load	2025	Backup Circuit Conductor Capacity	Backup Circuit Sub Xfmr Capacity	Notes
			Recloser/ Breaker Capacity			
CKT A	CKT B	56	7%	23%	36%	SW6, Belevedere Ave & May St PMH-10
CKT A	CKT E	110	14%	28%	58%	OH8, Stover Rd east of May St
CKT A	CKT F	125	16%	32%	58%	OH19, Garfield west of May St, 1ph Disc
CKT A	CKT F	125	16%	32%	58%	OH20, Hurlbut St east of Grant St
CKT B	CKT A	56	7%	23%	36%	SW6, Belevedere Ave & May St PMH-10
CKT B	CKT C	94	12%	24%	36%	SW4, Ferry & Belevedere Ave PMH-10
CKT B	CKT L	87	16%	22%	39%	SW10, Chicago & Coast Guard PMH-10
CKT C	CKT B	94	12%	38%	36%	SW4, Ferry & Belevedere Ave PMH-10
CKT C	CKT K	102	18%	26%	47%	SW11, Chicago & Coast Guard PMH-10
CKT D	CKT E	172	22%	44%	69%	OH3, Ferry Ave, north of M-66
CKT D	CKT H	125	16%	32%	69%	SW2, M-66, South of Substation, PMH-19
CKT E	CKT A	110	14%	45%	50%	OH8, Stover Rd east of May St
CKT E	CKT D	172	22%	44%	50%	OH3, Ferry Ave, north of M-66
CKT E	CKT G	195	24%	66%	52%	OH11, Stover Rd at Sub, GOAB
CKT F	CKT A	125	16%	51%	53%	OH19, Garfield west of May St, 1ph Disc
CKT F	CKT A	125	16%	51%	53%	OH20, Hurlbut St east of Grant St
CKT F	CKT G	210	26%	71%	52%	OH16, Carpenter Ave west of May, GOAB
CKT F	CKT G	210	26%	71%	52%	OH21, Garfield west of Grant, 1ph Disc
CKT G	CKT E	195	24%	50%	52%	OH11, Stover Rd at Sub, GOAB
CKT G	CKT H	148	19%	38%	52%	OH10, M-66 west of Stover Rd, GOAB
CKT G	CKT F	210	26%	53%	52%	OH16, Carpenter Ave west of May, GOAB
CKT G	CKT F	210	26%	53%	52%	OH21, Garfield west of Grant, 1ph Disc
CKT H	CKT D	125	16%	32%	42%	SW2, M-66, South of Substation, PMH-19
CKT H	CKT G	148	19%	50%	52%	OH10, M-66 west of Stover Rd, GOAB
CKT I	CKT K	74	13%	19%	35%	SW14, Mercer Rd and Taylor Rd, PMH-11
CKT J	CKT K	121	22%	31%	35%	OH25, US31 east of Mercer Rd, GOAB
CKT K	CKT C	102	13%	26%	42%	SW11, Chicago & Coast Guard PMH-10
CKT K	CKT I	74	13%	30%	35%	SW14, Mercer Rd and Taylor Rd, PMH-11
CKT K	CKT J	121	22%	31%	35%	OH25, US31 east of Mercer Rd, GOAB
CKT K	CKT L	96	17%	24%	35%	OH24, US31 west of Mercer Rd, GOAB
CKT L	CKT B	87	11%	36%	48%	SW10, Chicago & Coast Guard PMH-10
CKT L	CKT K	96	17%	24%	35%	OH24, US31 west of Mercer Rd, GOAB

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**City of Charlevoix
Electrical System Study
Circuit Backup Review**

Circuit Out-of-Service	Backup Circuit	Load Year Total Load	2030	Backup Circuit Conductor Capacity	Backup Circuit Sub Xfmr Capacity	Notes
			Recloser/ Breaker Capacity			
CKT A	CKT B	59	7%	24%	38%	SW6, Belevedere Ave & May St PMH-10
CKT A	CKT E	116	14%	29%	61%	OH8, Stover Rd east of May St
CKT A	CKT F	131	16%	33%	61%	OH19, Garfield west of May St, 1ph Disc
CKT A	CKT F	131	16%	33%	61%	OH20, Hurlbut St east of Grant St
CKT B	CKT A	59	7%	24%	38%	SW6, Belevedere Ave & May St PMH-10
CKT B	CKT C	98	12%	25%	38%	SW4, Ferry & Belevedere Ave PMH-10
CKT B	CKT L	92	16%	23%	41%	SW10, Chicago & Coast Guard PMH-10
CKT C	CKT B	98	12%	40%	38%	SW4, Ferry & Belevedere Ave PMH-10
CKT C	CKT K	107	19%	27%	50%	SW11, Chicago & Coast Guard PMH-10
CKT D	CKT E	181	23%	46%	73%	OH3, Ferry Ave, north of M-66
CKT D	CKT H	131	16%	33%	73%	SW2, M-66, South of Substation, PMH-19
CKT E	CKT A	116	14%	48%	53%	OH8, Stover Rd east of May St
CKT E	CKT D	181	23%	46%	53%	OH3, Ferry Ave, north of M-66
CKT E	CKT G	205	26%	70%	55%	OH11, Stover Rd at Sub, GOAB
CKT F	CKT A	131	16%	54%	55%	OH19, Garfield west of May St, 1ph Disc
CKT F	CKT A	131	16%	54%	55%	OH20, Hurlbut St east of Grant St
CKT F	CKT G	221	28%	75%	55%	OH16, Carpenter Ave west of May, GOAB
CKT F	CKT G	221	28%	75%	55%	OH21, Garfield west of Grant, 1ph Disc
CKT G	CKT E	205	26%	52%	55%	OH11, Stover Rd at Sub, GOAB
CKT G	CKT H	156	19%	40%	55%	OH10, M-66 west of Stover Rd, GOAB
CKT G	CKT F	221	28%	56%	55%	OH16, Carpenter Ave west of May, GOAB
CKT G	CKT F	221	28%	56%	55%	OH21, Garfield west of Grant, 1ph Disc
CKT H	CKT D	131	16%	33%	44%	SW2, M-66, South of Substation, PMH-19
CKT H	CKT G	156	19%	53%	55%	OH10, M-66 west of Stover Rd, GOAB
CKT I	CKT K	77	14%	20%	37%	SW14, Mercer Rd and Taylor Rd, PMH-11
CKT J	CKT K	127	23%	32%	37%	OH25, US31 east of Mercer Rd, GOAB
CKT K	CKT C	107	13%	27%	44%	SW11, Chicago & Coast Guard PMH-10
CKT K	CKT I	77	14%	32%	37%	SW14, Mercer Rd and Taylor Rd, PMH-11
CKT K	CKT J	127	23%	32%	37%	OH25, US31 east of Mercer Rd, GOAB
CKT K	CKT L	101	18%	26%	37%	OH24, US31 west of Mercer Rd, GOAB
CKT L	CKT B	92	11%	38%	50%	SW10, Chicago & Coast Guard PMH-10
CKT L	CKT K	101	18%	26%	37%	OH24, US31 west of Mercer Rd, GOAB

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² Cells highlighted in red represent high-side (46kV) equipment and transformers which would be operating at or above 80% of nameplate rating OR low-side (12.5kV) equipment and conductors which would be

ELECTRIC SYSTEM PROJECTS AND COST ESTIMATES

City of Charlevoix
2021 - 2025 Electric System Projects

Year	Project #	Priority	Project Description	Estimated Cost
2021	101	1	Prepare contingency plan for loss of the 46kV underground (riser structure, terminations or cable) serving Westenbrook Substation including writing the plan and switching orders, creating construction drawings, and purchasing material.	\$33,000
2021	201	2	Complete substation maintenance at Westenbrook Substation including replacement of cracked 15kV bushing on transformer #2, repair bus #1 center phase voltage regulator, reconnection of high oil temperature alarm wiring on the voltage regulators, plus installation of covered line wire and wildlife protection on the bus PT's, station service transformers, reclosers, and regulators.	\$72,000
2021	202	3	Replace three oil-filled circuit reclosers at Industrial Substation with new vacuum break style reclosers including wildlife guards. Recently replaced controllers will be transferred to the new reclosers. These reclosers were purchased in 2020 and are scheduled for delivery early 2021.	\$17,500
2021	203	4	Installation of station class fuse holders, covered line wire and wildlife protection on the bus PT's, plus replacement of the 46kV metering CT terminal blocks at Industrial Substation	\$7,000
2021	204	5	Removal of overhanging vegetation and installation of low growth screening at Westenbrook Substation.	\$91,500
2021	301	6	Complete inspections of all electric system manholes and replace connections and aged hardware as determined during the inspection	\$10,000
2021	313	7	Construction of new tie between Circuits C & E at Stover Rd & Ferry Ave including riser pole and padmount switchgear.	\$70,000
				\$301,000

2022	205	1	Replacement of relay control and annunciator panels, junction boxes, and installation of new HVAC and hydrogen detection systems at Westenbrook Substation.	\$348,000
2022	302	2	Replace aged and rusting padmount equipment including Switch #1 (Circuit E, Stover Rd), Switch #14 (Circuit I, Mercer Rd), one sectionalizing cabinet on Stover Rd, and seven sectionalizing cabinets along US31 North	\$55,000
2022	303	3	Separate substation underground cable risers for Circuits D & H along the west side of M-66 across from Stover Rd onto two individual poles with normally open GOAB switch between the circuits	\$32,000
2022	312	4	Separate substation underground cable risers for Circuits A & F along the west side of May Street onto two individual poles with normally open GOAB switch between the circuits	\$32,000
2022	304	5	Construction of new underground tie between Circuits B & F, across Bridge Street at Park Ave and south to Clinton Street with #4/0 15kV CU within existing 4" conduit system. Conduit integrity must be verified prior to embarking on this project.	\$45,000

City of Charlevoix
2021 - 2025 Electric System Projects

Year	Project #	Priority	Project Description	Estimated Cost
2022	314	6	Replacement of manhole on Bridge Park Dr service the Beaver Island Boat Company with two manholes. Completion of this project will separate primary and secondary cables into two distinct locations and will provide better security to the primary system.	\$50,000
				\$403,000
2023	206	1	Replacement of relay control and annunciator panels and installation of new HVAC and hydrogen detection systems at Industrial Substation.	\$284,000
2023	305	2	Replace single-phase disconnect switches with 3-phase gang-operated airbreak switches (GOAB) for Switch #8 (Ckt A & Ckt E) on Stover Rd east of May St, Switch OH19 (Ckt A & F) on Garfield, west of May Street, and Switch OH21 (Ckt F & Ckt G) on Garfield, west of Grant Street	\$15,000
2023	306	3	Construction of new underground tie between Circuits F & G for a distance of 0.5 miles along Antrim Street and Park Ave from Grant Street to the Hospital with #500 15kV AL cable. Project to be completed in conjunction with roadway reconstruction.	\$493,000
2023	311	4	Installation of a three-phase recloser on Circuit D immediately past Castle Farms tap.	\$25,000
				\$817,000
2024	207	1	Replacement of both power transformers and voltage regulators at Westenbroek Substation with new 10/12/16MVA transformers with LTC's. Completion of this project replaces aged and rusting equipment and combines multiple pieces of equipment into single transformers	\$2,504,000
2024	307	2	Installation of 200A sectionalizing cabinet on Belvedere Ave east of Bridge Street to remove 200A elbows from manhole	\$38,000
2024	308	3	Replacement of ____miles of underground cable with #2 AL 15kV cable and associated equipment for voltage conversion to 7.2/12.5kV at Mt. McSaubia	
				\$2,542,000
2025	208	1	Replacement of all eight underground substation circuit exits with 500kCM 15kV copper jacketed cables at Westenbroek Substation including new 6" conduit out to the first manhole or riser pole. Separate Circuits B & C from transformer #1 onto both substation transformers in conjunction with this project.	\$493,000
2025	209	2	Replacement of all four underground substation circuit exits with 500kCM 15kV copper jacketed cables at Industrial Substation	\$150,000
2025	309	3	Replacement of approximately 950' of underground cable with #2 AL 15kV cable and associated equipment for voltage conversion to 7.2kV on the tap at 05752 M-66.	\$36,000
				\$679,000

EXISTING ELECTRICAL SYSTEM MAPS

ELECTRICAL SYSTEM PROJECT MAPS

CHARLEVOIX CITY COUNCIL

Consent Agenda

TITLE: City Council Meeting Minutes - June 21, 2021

DATE: July 6, 2021

RECOMMENDATION:

Motion to approve City Council minutes.

ATTACHMENTS:

- ▣ Draft Council Minutes

CITY OF CHARLEVOIX
REGULAR CITY COUNCIL MEETING MINUTES
Monday, June 21, 2021 – 6:00 p.m.
210 State Street, Charlevoix, MI

The meeting was called to order at 6:00 p.m. by Mayor Kurtz.

1. Pledge of Allegiance

2. Roll Call

Mayor: Luther Kurtz
Members Present: Greg Bryan, Aaron Hagen, Janet Kalbfell, Mark Knapp, Phil Parr, Brian Slater
Members Absent: None
City Manager: Mark L. Heydlauff
City Clerk: Joyce Golding

3. Presentations

A. Mayoral Proclamation: Voices Without Borders

The Mayor presented a proclamation to Sara Russell Kukuk and Jack Kukuk with gratitude for their dedication to advancing the arts in our community through Voices Without Borders.

4. Inquiry Regarding Conflicts of Interest

The Mayor stated he had a conflict with Item 6.A and also disclosed that he has tenants with a liquor license but felt there was no conflict with Item 6.B. Hagen stated he had a conflict with Item 6.B.

5. Consent Agenda

All items listed under Consent Agenda are considered routine and will be enacted by one motion. There will be no separate discussion of these items. If discussion of an item is required, it will be removed from the Consent Agenda and considered separately.

- A. City Council Meeting Minutes – June 7, 2021
- B. Accounts Payable and Payroll Check Registers
 - a. Regular Accounts Payable Check Register – June 22, 2021
 - b. ACH Payments – June 2, 2021 to June 14, 2021
 - c. Payroll Check Register – June 11, 2021
 - d. Payroll Transmittal – June 11, 2021
 - e. Tax Disbursement – June 22, 2021
- C. Venetian Festival Contract for \$15,000 – payment approved

Motion by Kalbfell, second by Hagen to approve the Consent Agenda.

Yeas: Hagen, Bryan, Kalbfell, Parr, Slater, Knapp

Nays: None

6. Public Hearings & Actions Requiring Public Hearings

A. Public Hearing: Stoneycroft Farms LLC Commercial Facilities Exemption Certificate Transfer, June 21, 2021

The Mayor opened the public hearings at 6:05 p.m., then recused himself and Deputy Mayor Hagen introduced the item. City Manager Heydlauff explained that Ron Way of Stoneycroft Farms LLC purchased 100 Van Pelt Place from Luther Kurtz (Celebrate Me Home LLC) and this property was receiving a commercial facilities tax abatement. He noted that it was standard practice to transfer the CFEC from one owner to the next. The statute allows for exemption certificates to be transferred but must include a public hearing and City Council approval.

Deputy Mayor Hagen opened the item to public comment, and none was heard.

Motion by Parr, second by Knapp to approve Resolution 2021-06-02 Commercial Facilities Exemption Certificate transfer request from Ron Way of Stoneycroft Farms LLC (100 Van Pelt Place.)

CITY OF CHARLEVOIX
RESOLUTION NO. 2021-06-02
RESOLUTION APPROVING TRANSFER OF A COMMERCIAL FACILITIES EXEMPTION CERTIFICATE APPLICATION
FOR STONEYCROFT FARMS LLC LOCATED AT 100 VAN PELT PLACE, CHARLEVOIX, MICHIGAN
(PA255 OF 1978 AS AMENDED)

WHEREAS, *the City of Charlevoix legally established the Charlevoix Main Street Commercial Redevelopment District No.1 on October 17, 2016, after a public hearing held on October 17, 2016; and*

WHEREAS, *on April 3, 2017, the Charlevoix City Council granted Celebrate Me Home LLC a Commercial Facilities Exemption for the real property, excluding land, located in the Charlevoix Main Street Commercial Redevelopment District No.1 at 100 Van Pelt Place,*

DRAFT

City Council Regular Meeting -

for a period of 12 years, beginning December 31, 2017, and ending December 30, 2029, pursuant to the provisions of PA 255 of 1978, as amended; and

WHEREAS, a Commercial Facilities Exemption Certificate may be transferred and assigned by the holder of the certificate to a new owner of the facility with the approval of the local governmental unit after application by the new owner and with a properly noticed public hearing; and

WHEREAS, the applicant Stoneycroft Farms LLC (Ron & Jill Way) purchased 100 Van Pelt Place on February 1, 2021; and

WHEREAS, the applicant Stoneycroft Farms LLC has provided answers to all required questions under Section 6(1) of PA 255 of 1978 to the City of Charlevoix; and

WHEREAS, the City Assessor certified that the property is eligible to be covered by the exemption; and

WHEREAS, the application for transferring the Commercial Facilities Exemption Certificate was considered at a public hearing as provided by section 6(2) of Public Act 255 of 1978 on June 21, 2021.

NOW THEREFORE BE IT RESOLVED, by the City Council of the City of Charlevoix, that Stoneycroft Farms LLC is granted a transfer of the Commercial Facilities Exemption for the real property, excluding land, located in the Charlevoix Main Street Commercial Redevelopment District No.1 at 100 Van Pelt Place, for a period of 12 years ending December 30, 2029, pursuant to the provisions of PA 255 of 1978, as amended.

RESOLVED this 21st day of June 2021 A.D.

Resolution was adopted by the following yea and nay vote:

Yeas: Hagen, Bryan, Kalbfell, Parr, Slater, Knapp
Nays: None
Absent: None

B. Public Hearing: Alcoholic Beverages in Public Parks, June 21, 2021

The Mayor returned to the meeting. Hagen recused himself. City Manager Heydlauff stated that the DDA Board voted to recommend and support an amendment to the ordinance that currently prohibits consumption of alcoholic beverages in public parks located in the downtown. Council agreed to amend the proposed ordinance lifting alcohol restrictions in East Park and Bridge Park and establishing a time limitation for all venues.

Mayor Kurtz opened the item to public comment, and one was heard in favor.

Motion by Knapp, second by Slater to approve Ordinance 826 of 2021.

**CITY OF CHARLEVOIX
ORDINANCE NO. 826 of 2021**

AN ORDINANCE TO AMEND TITLE IX, CHAPTER 94, SECTION 30 OF THE CHARLEVOIX CITY CODE

THE CITY OF CHARLEVOIX ORDAINS:

SECTION 1. Title IX, Chapter 94, Section 30 of the City of Charlevoix Code is hereby repealed and replaced as follows:

94.30 ALCOHOLIC BEVERAGES.

(A) Consumption prohibited at all times. Alcoholic beverages may not be consumed or possessed in Veterans Park or cemeteries of the City.

(B) Hours of consumption limited. Alcoholic beverages may not be consumed in public places between the hours of 11:00 p.m. and 10:00 a.m.

(C) Exemption for boats. Restrictions on alcohol shall not extend to privately owned vessels moored in the waters of the City or docked in the Charlevoix Marina.

SECTION 2. Severability.

No other portion, paragraph or phase of the Code of the City of Charlevoix, Michigan shall be affected by this Ordinance except as to the above sections, and in the event any portion, section or subsection of this Ordinance shall be held invalid for any reason, such invalidation shall not be construed to affect the validity of any other part or portion of this Ordinance or of the Code of the City of Charlevoix, Michigan.

SECTION 3. Effective Date.

DRAFT

This Ordinance shall become effective thirty (30) days after its enactment pursuant to the City Charter.

Ordinance No. 826 was adopted on the 21st day of June 2021 A.D., by the Charlevoix City Council as follows:

Motion by: Knapp

Second by: Slater

Yeas: Bryan, Kalbfell, Parr, Slater, Knapp

Nays: None

Abstain: Hagen

Absent: None

State of Michigan } §
City of Charlevoix

Motion by Knapp, second by Parr to authorize the City Manager to relax the restrictions [in Section 94.30 of the City Code] for a 30-day period per Council's discussion. Motion carried by unanimous voice vote.

C. Public Hearing Charlevoix Trail Extension

The City of Charlevoix is continuing to move forward on design work and planning of the Charlevoix Trail Connection to the Little Traverse Wheelway. A source of funding that we are exploring is seeking of a Transportation Alternatives Program (commonly known as TAP) Grant. OHM facilitated a presentation of the project overview, preliminary studies and conceptual design to meet the requirements of the grant.

Mayor Kurtz opened the item to public comment, and one was heard.

Motion to approve Resolution 2021-06-03 pending final numbers from OHM Advisors.

**CITY OF CHARLEVOIX
RESOLUTION NO. 2021-06-03
TRANSPORTATION ALTERNATIVES PROGRAM AUTHORIZATION**

WHEREAS, the City of Charlevoix supports the submission of an application titled "City of Charlevoix Little Traverse Wheelway Extension" to the Michigan Transportation Alternative Program for development of properties connecting the Wheelway to the City of Charlevoix; and

WHEREAS, the City of Charlevoix is committed to increased use and development of trails; and

WHEREAS, the proposed application is supported by the current annual Capital Improvement Plan; and

WHEREAS, the City of Charlevoix is hereby making a financial commitment to the project in the amount of **TBD** matching funds, in cash and/or force account.

NOW THEREFORE BE IT RESOLVED, that the City of Charlevoix through the City Council, authorizes the City Manager to submit a Michigan Transportation Alternative Program Grant Application; and

BE IT FURTHER RESOLVED, that the City of Charlevoix will make available its financial obligation amount of **TBD** (%) of the total **TBD** project cost during the 2022-23 fiscal year.

RESOLVED this 21st day of June 2021 A.D.

Resolution was adopted by the following yea and nay vote:

Yeas: Hagen, Bryan, Kalbfell, Parr, Slater, Knapp

Nays: None

Absent: None

The public hearings were closed at 6:38 p.m.

7. All Other Actions & Requests

A. Historical Sign on Indigenous History

DDA Director Dotson presented the final version of a sign that interprets the important history of indigenous peoples in Charlevoix. The Planning Commission reviewed and supported the project. She stated that funding came from grants and a partnership with the Charlevoix Public Library.

Mayor Kurtz opened the item to public comment, and none was heard.

Motion by Kalbfell, second by Hagen to approve the placement of the Indigenous History interpretive sign on the north side of the channel by the Charlevoix Historical Society and Prolmage Design. Motion carried by unanimous voice.

B. Renewable Energy Credits for \$12,000

Electric Department Director Griffith stated that there have been changes in Charlevoix's cost structure and the cost-of-service methodology has been refined. He noted that Utility Financial Solutions is the City's rate consultant, and their scope of work includes updating the credits and outlining metering and billing protocols for behind-the-meter generation.

Mayor Kurtz opened the item to public comment, and none was heard.

Motion by Hagen, second by Kalbfell to approve the Utility Financial Solution's Engagement Letter of April 28, 2021 in the amount not-to-exceed \$12,000 and authorize John Griffith, Electric Department Director, to execute the letter. Motion carried by unanimous voice vote.

C. West Dixon Street Light Purchase \$13,632.15

Electric Department Director Griffith stated that the Electric Department received four proposals for streetlights. He recommended purchasing the lights from Power Line Supply as a Michigan based company. He noted that in addition to completing this project, these streetlights will serve as a pilot project to establish a standard residential streetlight design and manufacturer.

Mayor Kurtz opened the item to public comment, and three were heard.

Motion by Hagen, second by Parr to direct the City Manager to notify the property owners on W. Dixon as discussed [in care of the Weathervane and LaCroft management]. Motion carried by voice vote with five yeas and one nay.

Council agreed that this item warranted further discussion at a future meeting to include dark-sky compliant lighting options.

D. Advanced Meter Infrastructure Consultant \$57,000

Electric Department Director Griffith stated that the City of Charlevoix's 2021-2022 budget includes funds for the implementation of an Advanced Metering Infrastructure (AMI) program. He explained that Tom Asp, Power System Engineering, was asked to submit an AMI Procurement and Technology Work Plan to guide the City through the AMI needs assessment and implementation as well as long term technology planning and budgeting.

Mayor Kurtz opened the item to public comment, and none was heard.

Motion by Kalbfell, second by Slater to approve the Power System Engineering's AMI Procurement and Technology Work Plan in the amounts of \$23,500 for Phase I (AMI) and \$31,000 for Phase II (TWP) and \$2,500 (Travel) as presented. Motion carried by unanimous voice vote.

8. **Reports & Communications**

A. Public Comments

- Ron Marshall, Citizens Climate Lobby requested Council's support for their Energy Innovation and Carbon Dividend Act
- Bob Timms was not in favor of the Lake Charlevoix EMS Authority and the requested millage

B. City Manager Comments

- DPW is vacating their building today and demolition will begin tomorrow
- Looking at areas impacted by high-water and possible remediation; also looking at areas impacted by drier/warmer temperatures this spring
- City Hall will amend COVID restrictions reflecting the Health Department changes effective June 22, 2021

C. Mayor & Council Comments

- Kalbfell stated the Senior Center will reopen on July 1st

9. **Other Council Business**

10. **Adjourn**

The Mayor adjourned the meeting at 7:26 p.m.

Joyce M. Golding	City Clerk	Luther Kurtz	Mayor
Regular Accounts Payable – 06/22/2021			
ACCUMED GROUP, THE	2,481.33	ALLERS, TRACEY	29.81
ACE HARDWARE	5,298.75	AMAZON CAPITAL SERVICES	222.25
ACUSHNET COMPANY	21.83	AMERICAN WASTE INC.	900.00
ADAMS, DANIEL	23.38	AT YOUR SERVICE PLUS INC	250.00

AUTO VALUE	637.95	LANDSCAPE FORMS INC.	3,120.00
AVFUEL CORPORATION	54,387.26	LASER PRINTER TECHNOLOGIES	144.00
BERG, REBECCA	222.00	LITTLE TRAVERSE DISPOSAL LLC	200.00
BLACK MARKET FOODS	111.00	LOTTIE'S BAGELS	151.00
BOUND TREE MEDICAL LLC	193.45	MCCARDEL CULLIGAN-PETOSKEY	51.50
BRADFORD'S	42.25	METAL HEAD WELDING LLC	9,619.82
BRIDGE STREET BLOOMS	247.78	MI DEPT OF TREAS-UNCLAIMED PROP	818.22
CARSON, MABEL	51.76	MICHIGAN CLEAN MARINA FOUNDATION	600.00
CDW GOVERNMENT INC.	831.21	MICHIGAN MUNICIPAL LEAGUE	336.36
CHX AREA CHAMBER OF COMMERCE	7,500.00	MICHIGAN OFFICEWAYS INC	1,803.18
CHARLEVOIX AUTO	66.13	MICHIGAN STATE UNIVERSITY	2,500.00
CHARLEVOIX SCREEN MASTERS INC	738.00	MSA SAFETY SALES LLC	1,222.34
CHARLEVOIX TOWNSHIP	20,599.25	MYNORTH MEDIA	350.00
CHARTER COMMUNICATIONS	144.98	NATIONAL RECREATION & PARK ASSOC	175.00
CINTAS	102.18	NW SELF DEFENSE PRODUCTS	155.85
CLOTHING COMPANY, THE	294.00	OLSON BZDOK & HOWARD	992.00
CONWAY PROFESSIONAL SERVICES	5,369.00	PLUNKETT & COONEY	480.00
COOPER, MELANIE SUE	97.00	POWER LINE SUPPLY	2,210.67
CRYSTAL FLASH ENERGY	1,061.61	PREIN & NEWHOF	2,820.00
ELLSWORTH FARMER'S EXCHANGE	314.06	PRESTON FEATHER	1,565.79
ELMER'S CRANE & DOZER INC.	116,583.36	PURITY CYLINDER GASES INC	88.02
ETNA SUPPLY	160.00	QUALITY CAR & TRUCK REPAIR INC	301.54
FARMER WHITE'S	158.00	REHMANN-ROBSON & CO	10,000.00
FENCE CO OF NORTHERN MICHIGAN	3,576.60	SCOVIE'S GOURMET	25.00
FREEDOM MAILING SERVICES INC.	2,274.29	SIGMA-ALDRICH INC.	462.10
GERBER HOMEMADE SWEETS	80.00	SPARTAN STORES LLC	86.67
GOLDEN HILLS MAPLE SYRUP	46.00	STATE AND MASON LLC	1,000.00
GREY BOUTIQUE	50.75	STATE OF MICHIGAN	731.76
GUNTZVILLER, RHONDA	367.00	STEPHAN, PAUL	55.00
HABERER, JEANNE	238.26	SWANSON K & D INC	2,900.00
HACH COMPANY	2,454.04	TARGET SPECIALTY PRODUCTS	48.53
HAMMERSMITH EQUIPMENT CO	129.30	TELNET WORLDWIDE	224.35
HARRELL'S	1,781.50	TILLIE'S TAFEL	154.00
HOUSING NORTH	2,312.50	UNIFIRST CORPORATION	2,748.47
HYDRO CORP	539.50	UPPER CASE PRINTING INK.	1,131.00
IDEXX DISTRIBUTION INC.	461.51	VILLAGE GRAPHICS INC.	90.00
IPS GROUP INC	644.64	WELLS, IVY L	45.00
J RANCK ELECTRIC INC	632.50	WILBERT BURIAL VAULT CO	1,143.52
JONES, KELSEY	67.00	WOJAN PLUMBING & HEATING	296.41
KASH, TRACY GAIL	700.00	ZIIBIMIJIWANG INC	155.00
KENDALL ELECTRIC INC.	3,597.05	TOTAL	291,217.30
KSS ENTERPRISES	1,123.18		

ACH Payments – 06/02/2021 to 06/14/2021

PROXIMITY SPACE INC	109.72	STATE OF MI (WITHHOLDING TAX)	6,834.34
AMG PAYMENT SOLUTIONS	103.78	VANTAGEPOINT (401 ICMA PLAN)	912.07
PAYMENT SERVICE NETWORK INC	248.10	VANTAGEPOINT (457 ICMA PLAN)	20,279.64
MI PUBLIC POWER AGENCY	16,083.52	VANTAGEPOINT (ROTH IRA)	1,180.76
DTE ENERGY	5,075.73	MI PUBLIC POWER AGENCY	9,264.21
STATE OF MI (SALES TAX)	20,190.87	TOTAL	551,621.05
IRS (PAYROLL TAX DEPOSIT)	45,647.44		
ALERUS FINANCIAL (HCSP)	350.00		

Payroll Net Pay – Check Date 06/11/2021

HEYDLAUFF, MARK L.	3,175.96	MACGILLIVRAY, ROGER	535.28
GOLDING, JOYCE M.	2,195.53	WESTRICK, AARON J.	477.81
DEROSIA, PATRICIA E.	1,265.42	MILLER, ZACHARY S.	823.75
DOTSON, LINDSEY J.	1,455.09	WURST, RANDALL W.	1,422.78
KLOOSTER, ALIDA K.	2,175.68	HILLING, NICHOLAS A.	1,606.22
GOLOVICH, KAREN J.	974.83	MEIER III, CHARLES A.	1,414.87
BARNEVELD, RICHELLE L.	1,293.40	ZACHARIAS, STEVEN B.	1,922.46
MILLER, FAITH G.	45.81	NEWMAN, MARK J.	1,523.71
MCGINN, KELLY A.	2,120.12	GRIFFITH, JOHN J.	2,995.57
DOAN, GERARD P.	2,466.09	EATON, BRAD A.	2,760.47
SCHOLEY, ROBERT W.	1,627.57	WILSON, TIMOTHY J.	3,034.87
UMULIS, MATTHEW T.	1,065.45	LAVOIE, RICHARD L.	2,353.75
ORBAN, BARBARA K.	1,344.78	STEVENS, BRANDON C.	3,128.73
RILEY, DENISE M.	454.74	DRAVES, MARTIN J.	2,364.07
MUNK, CHRISTOPHER J.	1,849.18	ANDERSON, ELIZABETH A.	1,234.96
SCHICK, TIELER R.	1,703.05	KENWABIKISE, DAVID L.	1,694.09
STEWART, MORGAN J.	1,668.21	ELLIOTT, PATRICK M.	3,065.84
MATELSKI, KRISTEN L.	1,382.25	SCHWARTZFISHER, JOSEPH	1,037.30
BINGHAM, LARRY E.	1,039.91	BRADLEY, KELLY R.	1,607.15

HART II, DELBERT W.	1,379.94	KUSINA, DENNIS W.	177.30
JONES, ROBERT F.	1,143.64	LABLANCE, MAUREEN J.	33.25
FARRELL, MITCHELL L.	1,337.26	LIVINGSTON, BRIAN D.	1,814.94
THORP JR, WILLIAM D.	1,609.66	STANLEY, MARK J.	57.71
LEITNER, RYAN S.	1,430.20	KLOOSTER, PATRICK H.	506.14
FERGUSON, ROYCE L.	2,269.00	WAY, KRISTINA M.	95.58
DORAN, JUSTIN J.	2,173.13	DIETRICH, ARLENE M.	317.01
NEDWICK, DAVID J.	665.27	WYMAN, MATTHEW A.	1,776.67
FREY, DYLAN V.	685.44	MILLER, WILLIAM S.	847.65
HART III, DELBERT W.	866.02	DOUGLAS, MARK	1,328.14
DOTSON, WILLIAM R.	232.58	FRATRICK, JOSEPH W.	798.48
BEMIS, JACKSON R.	440.39	CARSON, SAWYER J.	1,691.44
FINNERTY, HOLLY E.	894.72	PAALMAN, STEPHEN J.	603.95
CRANDELL, ZACKARY R.	727.23	MCMULLEN, DONALD R.	1,802.20
FRANCE JR, JAMES A.	1,149.62	SILVA, JESSE L.A.	1,684.23
RABIDEAU, JACOB L.	732.22	JOHNSON, MELISSA A.	1,668.51
MORGRIDGE, ALEXANDER J.	253.72	STEPHENS, LYON G.	146.64
KNORR, KENT J.	1,999.53	TRAVERS, MANUEL J.	1,907.01
ANZELL, BETH A.	1,345.76	RILEY, CASEY W.	613.46
STEBE, LAURA A.	63.49	JONES, LARRY M.	345.00
MCDERMOTT, DENNIS J.	1,856.11	CORNELL, BRITTA J.	742.88
EVANS JR, HALBERT K.	718.43	AZZOPARDI, ANTHONY J.	1,671.61
JASURDA, DONALD J.	848.27	MCCRANEY, RUSSELL R.	79.28
DORST, KRISTA M.	747.82	PECK, JARICA L.	619.18
MEEHAN, MAXIMUS M.	571.74	FALKENBERG, AMANDA M.	1,535.09
WHITE III, MARCUS W.	786.88	WELLS, JANINNA J.	208.13
SNYDER, JACOB M.	424.72	MOYER, NATHAN I.	865.78
CUNNINGHAM, ABIGAIL A.	753.86	HOSLER, ERIK R.	1,447.74
MAY, MEREDITH A.	232.26	HOLOWACH, ROGER E.	2,307.32
KIRINOVIC, THOMAS F.	330.69	JOSLIN, ISABELLE G.	333.89
MOOAR, ISAAK S.	155.06	WHITLEY, ANDREW T.	2,237.60
COFFEY, JASON J.	598.06	MORRISON, KEVIN P.	1,380.11
SHANAHAN, CHERYL J.	977.43	TOTAL	127,998.43
GILL, DAVID R.	1,080.70		
MASSON, DONALD J.	566.91		

Payroll Transmittal – 06/11/2021

4FRONT CREDIT UNION	1,093.00	DISCOVER BANK	323.09
AMERICAN FAMILY LIFE	479.51	EQUITABLE FINANCIAL LIFE INSURANCE	353.56
CALIF DISBURSEMENT UNIT	92.19	MI STATE DISBURSEMENT UNIT	429.88
CHAR EM UNITED WAY	70.00	POLICE OFFICERS LABOR COUNCIL	251.25
CHARLEVOIX STATE BANK	867.00	PRIORITY HEALTH	1,512.63
COMMUNICATION WORKERS OF AMER	653.03	TOTAL	6,125.14

Tax Disbursement – 06/22/2021

MI DEPT OF TREAS-UNCLAIMED PROP	166.77	TOTAL	166.77
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CHARLEVOIX CITY COUNCIL

Consent Agenda

TITLE: Accounts Payable and Payroll Check Registers

DATE: July 6, 2021

RECOMMENDATION:

Motion to approve Accounts Payable and Payroll Check Registers.

ATTACHMENTS:

- ▣ Accounts Payable and Payroll Check Registers

Check Number	Payee	Amount
06/23/2021		
133797	AMAZON CAPITAL SERVICES	338.67
133798	AT&T	1,541.81
133799	AT&T	160.66
133800	AT&T LONG DISTANCE	39.96
133801	AT&T MOBILITY	848.85
133802	CHARLEVOIX STATE BANK	10,330.83
133803	CHARTER COMMUNICATIONS	716.07
133804	DELTA DENTAL	3,406.04
133805	EQUITABLE FINANCIAL LIFE INSURAN	423.95
133806	HOLIDAY STATIONSTORES LLC	7,218.98
133807	INLAND SEAS EDUCATION ASSOCIATI	1,155.00
133808	KENNEDY INDUSTRIES INC	12,485.00
133809	PENINSULA FIBER NETWORK LLC	470.00
133810	PRIORITY HEALTH	44,090.24
133811	RANGE TELECOMMUNICATIONS	202.20
133812	STANDARD INSURANCE CO	2,608.97
133813	VERIZON WIRELESS	88.27
133814	VSP INSURANCE CO. (CT)	550.10
133815	WEX BANK	384.65

Total 06/23/2021: 87,060.25

Grand Totals: 87,060.25

Summary of Check Registers & ACH Payments
HUNTINGTON NATIONAL BANK - CHECKS ISSUED

06/23/21	Special Accounts Payable Run	\$ 87,060.25
06/25/21	Payroll (net pay)	\$ 129,778.72
06/25/21	Payroll Transmittal Checks	\$ 5,961.58
07/07/21	Regular Accounts Payable	\$ 88,689.72

Checks Sub-Total: \$ 311,490.27

HUNTINGTON NATIONAL BANK - ACH/WIRE PAYMENTS

06/21/21	MI Public Power Agency	\$ 17,002.02
06/25/21	MI Public Power Agency	\$ 177,049.09
06/25/21	MERS (Defined Benefit Plan)	\$ 51,865.59
06/25/21	IRS (Payroll Tax Deposit)	\$ 45,333.05
06/25/21	Alerus Financial (HCSP)	\$ 350.00
06/25/21	State of MI (Withholding Tax)	\$ 6,859.42
06/25/21	Vantagepoint (401 ICMA Plan)	\$ 912.08
06/25/21	Vantagepoint (457 ICMA Plan)	\$ 20,420.10
06/25/21	Vantagepoint (Roth IRA)	\$ 1,180.76
06/28/21	MI Public Power Agency	\$ 23,256.37

ACH Sub-Total: \$ 344,228.48

Huntington National Bank Total: \$ 655,718.75

CHARLEVOIX STATE BANK - CHECKS ISSUED
(PROPERTY TAX DISBURSEMENT TO VARIOUS TAXING AUTHORITIES)

Tax Disbursement	\$ -
Charlevoix State Bank Total:	\$ -

Grand Total: \$ 655,718.75

APPROVED:


CITY MANAGER


CITY TREASURER


CITY CLERK

Pay Period Date	Journal Code	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
06/19/2021	PC	06/25/2021	33343	HEYDLAUFF, MARK L.	102		2,887.53
06/19/2021	PC	06/25/2021	33344	GOLDING, JOYCE M.	106		1,748.81
06/19/2021	PC	06/25/2021	33345	DEROSIA, PATRICIA E.	107		1,137.37
06/19/2021	PC	06/25/2021	33346	DOTSON, LINDSEY J.	109		1,455.10
06/19/2021	PC	06/25/2021	33347	KLOOSTER, ALIDA K.	121		1,787.66
06/19/2021	PC	06/25/2021	33348	GOLOVICH, KAREN J.	122		997.57
06/19/2021	PC	06/25/2021	33349	BARNEVELD, RICHELLE	123		1,226.34
06/19/2021	PC	06/25/2021	33350	SCHULZ, GINNY L.	125		1,481.25
06/19/2021	PC	06/25/2021	33351	MILLER, FAITH G.	142		38.17
06/19/2021	PC	06/25/2021	33352	MCGINN, KELLY A.	146		1,673.43
06/19/2021	PC	06/25/2021	33353	SCHEEL, CRESTON R.	148		321.65
06/19/2021	PC	06/25/2021	33354	DOAN, GERARD P.	201		2,466.09
06/19/2021	PC	06/25/2021	33355	SCHOLEY, ROBERT W.	204		1,627.58
06/19/2021	PC	06/25/2021	33356	UMULIS, MATTHEW T.	205		1,079.02
06/19/2021	PC	06/25/2021	33357	ORBAN, BARBARA K.	209		1,775.74
06/19/2021	PC	06/25/2021	33358	RILEY, DENISE M.	213		452.41
06/19/2021	PC	06/25/2021	33359	MUNK, CHRISTOPHER J.	215		1,377.69
06/19/2021	PC	06/25/2021	33360	SCHICK, TIELER R.	216		1,396.72
06/19/2021	PC	06/25/2021	33361	STEWART, MORGAN J.	217		1,452.32
06/19/2021	PC	06/25/2021	33362	MATELSKI, KRISTEN L.	230		1,382.24
06/19/2021	PC	06/25/2021	33363	BINGHAM, LARRY E.	240		846.23
06/19/2021	PC	06/25/2021	33364	MACGILLIVRAY, ROGER	244		803.71
06/19/2021	PC	06/25/2021	33365	WESTRICK, AARON J.	246		615.27
06/19/2021	PC	06/25/2021	33366	MILLER, ZACHARY S.	247		924.98
06/19/2021	PC	06/25/2021	33367	WURST, RANDALL W.	411		1,728.26
06/19/2021	PC	06/25/2021	33368	HILLING, NICHOLAS A.	413		2,490.66
06/19/2021	PC	06/25/2021	33369	MEIER III, CHARLES A.	421		1,665.42
06/19/2021	PC	06/25/2021	33370	ZACHARIAS, STEVEN B.	422		1,513.27
06/19/2021	PC	06/25/2021	33371	NEWMAN, MARK J.	424		1,589.34
06/19/2021	PC	06/25/2021	33372	GRIFFITH, JOHN J.	500		2,995.57
06/19/2021	PC	06/25/2021	33373	EATON, BRAD A.	515		2,332.03
06/19/2021	PC	06/25/2021	33374	WILSON, TIMOTHY J.	516		2,670.25
06/19/2021	PC	06/25/2021	33375	LAVOIE, RICHARD L.	519		2,279.04
06/19/2021	PC	06/25/2021	33376	STEVENS, BRANDON C.	521		2,409.68
06/19/2021	PC	06/25/2021	33377	DRAVES, MARTIN J.	523		2,754.14
06/19/2021	PC	06/25/2021	33378	ANDERSON, ELIZABETH	526		1,234.96
06/19/2021	PC	06/25/2021	33379	KENWABIKISE, DAVID L.	528		1,106.38
06/19/2021	PC	06/25/2021	33380	ELLIOTT, PATRICK M.	600		3,065.84
06/19/2021	PC	06/25/2021	33381	SCHWARTZFISHER, JOS	603		1,176.01
06/19/2021	PC	06/25/2021	33382	BRADLEY, KELLY R.	614		1,298.58
06/19/2021	PC	06/25/2021	33383	HART II, DELBERT W.	616		2,118.01
06/19/2021	PC	06/25/2021	33384	JONES, ROBERT F.	618		1,145.83
06/19/2021	PC	06/25/2021	33385	FARRELL, MITCHELL L.	622		1,337.26
06/19/2021	PC	06/25/2021	33386	THORP JR, WILLIAM D.	623		1,570.66
06/19/2021	PC	06/25/2021	33387	LEITNER, RYAN S.	624		1,721.65
06/19/2021	PC	06/25/2021	33388	FERGUSON, ROYCE L.	625		1,325.92
06/19/2021	PC	06/25/2021	33389	DORAN, JUSTIN J.	634		2,173.13
06/19/2021	PC	06/25/2021	33390	NEDWICK, DAVID J.	642		311.68
06/19/2021	PC	06/25/2021	33391	FREY, DYLAN V.	643		771.66
06/19/2021	PC	06/25/2021	33392	HART III, DELBERT W.	657		975.60
06/19/2021	PC	06/25/2021	33393	DOTSON, WILLIAM R.	661		416.71
06/19/2021	PC	06/25/2021	33394	BEMIS, JACKSON R.	667		793.44
06/19/2021	PC	06/25/2021	33395	FINNERTY, HOLLY E.	669		931.26
06/19/2021	PC	06/25/2021	33396	CRANDELL, ZACKARY R.	691		736.36
06/19/2021	PC	06/25/2021	33397	BLAIN, TAYLOR W.	692		422.88
06/19/2021	PC	06/25/2021	33398	FRANCE JR, JAMES A.	695		1,276.33
06/19/2021	PC	06/25/2021	33399	RABIDEAU, JACOB L.	696		796.14

Pay Period Date	Journal Code	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
06/19/2021	PC	06/25/2021	33400	MORGRIDGE, ALEXANDE	697		723.05
06/19/2021	PC	06/25/2021	33401	SPEER, KEEGAN L.	698		422.88
06/19/2021	PC	06/25/2021	33402	KNORR, KENT J.	700		1,999.54
06/19/2021	PC	06/25/2021	33403	ANZELL, BETH A.	702		1,345.76
06/19/2021	PC	06/25/2021	33404	STEBE, LAURA A.	703		69.26
06/19/2021	PC	06/25/2021	33405	MCDERMOTT, DENNIS J.	732		1,856.11
06/19/2021	PC	06/25/2021	33406	EVANS JR, HALBERT K.	744		725.85
06/19/2021	PC	06/25/2021	33407	JASURDA, DONALD J.	748		747.82
06/19/2021	PC	06/25/2021	33408	DORST, KRISTA M.	749		772.93
06/19/2021	PC	06/25/2021	33409	PARRISH, SAMANTHA K.	750		264.67
06/19/2021	PC	06/25/2021	33410	MEEHAN, MAXIMUS M.	751		640.46
06/19/2021	PC	06/25/2021	33411	WHITE III, MARCUS W.	754		919.11
06/19/2021	PC	06/25/2021	33412	CUNNINGHAM, ABIGAIL A	759		675.10
06/19/2021	PC	06/25/2021	33413	JAREMA, CAROLINE J.	760		264.30
06/19/2021	PC	06/25/2021	33414	PRIMAK, JACOB L.	761		264.30
06/19/2021	PC	06/25/2021	33415	CURTIS, LILY E.	770		282.89
06/19/2021	PC	06/25/2021	33416	MAY, MEREDITH A.	771		647.88
06/19/2021	PC	06/25/2021	33417	SPRAGUE, CHEYENNE L.	773		253.72
06/19/2021	PC	06/25/2021	33418	WALKER, SAVANNAH P.	774		391.24
06/19/2021	PC	06/25/2021	33419	SHRIFT, EMILY K.	783		189.02
06/19/2021	PC	06/25/2021	33420	KIRINOVIC, THOMAS F.	790		421.07
06/19/2021	PC	06/25/2021	33421	WAGNER, KIRSTEN M.	793		243.16
06/19/2021	PC	06/25/2021	33422	SHEETS, SOPHIA R.	794		258.43
06/19/2021	PC	06/25/2021	33423	MOOAR, ISAAK S.	796		363.41
06/19/2021	PC	06/25/2021	33424	COFFEY, JASON J.	798		499.66
06/19/2021	PC	06/25/2021	33425	SHANAHAN, CHERYL J.	838		536.61
06/19/2021	PC	06/25/2021	33426	GILL, DAVID R.	856		991.15
06/19/2021	PC	06/25/2021	33427	MASSON, DONALD J.	861		566.91
06/19/2021	PC	06/25/2021	33428	LABLANCE, MAUREEN J.	863		391.18
06/19/2021	PC	06/25/2021	33429	LIVINGSTON, BRIAN D.	866		1,814.94
06/19/2021	PC	06/25/2021	33430	STANLEY, MARK J.	867		63.49
06/19/2021	PC	06/25/2021	33431	KLOOSTER, PATRICK H.	868		515.52
06/19/2021	PC	06/25/2021	33432	WAY, KRISTINA M.	870		352.48
06/19/2021	PC	06/25/2021	33433	DIETRICH, ARLENE M.	871		489.25
06/19/2021	PC	06/25/2021	33434	BERRY, ROBERT J.	872		43.06
06/19/2021	PC	06/25/2021	33435	WYMAN, MATTHEW A.	927		1,776.67
06/19/2021	PC	06/25/2021	33436	MILLER, WILLIAM S.	933		786.10
06/19/2021	PC	06/25/2021	33437	DOUGLAS, MARK	935		1,031.42
06/19/2021	PC	06/25/2021	33438	FRATRICK, JOSEPH W.	940		828.17
06/19/2021	PC	06/25/2021	33439	CARSON, SAWYER J.	941		417.92
06/19/2021	PC	06/25/2021	33440	PAALMAN, STEPHEN J.	942		1,044.22
06/19/2021	PC	06/25/2021	33441	MCMULLEN, DONALD R.	1000		1,802.20
06/19/2021	PC	06/25/2021	33442	SILVA, JESSE L.A.	1001		1,580.47
06/19/2021	PC	06/25/2021	33443	JOHNSON, MELISSA A.	1004		1,500.65
06/19/2021	PC	06/25/2021	33444	STEPHENS, LYON G.	1005		146.64
06/19/2021	PC	06/25/2021	33445	TRAVERS, MANUEL J.	1006		1,665.00
06/19/2021	PC	06/25/2021	33446	HOSLER, ERIK R.	1014		1,982.41
06/19/2021	PC	06/25/2021	33447	MOYER, NATHAN I.	1015		811.75
06/19/2021	PC	06/25/2021	33448	HOLLOWACH, ROGER E.	1016		1,369.95
06/19/2021	PC	06/25/2021	33449	RILEY, CASEY W.	1052		400.04
06/19/2021	PC	06/25/2021	33450	JONES, LARRY M.	1057		563.94
06/19/2021	PC	06/25/2021	33451	MOYER, DAVID T.	1073		37.21
06/19/2021	PC	06/25/2021	33452	CORNELL, BRITTA J.	1106		92.35
06/19/2021	PC	06/25/2021	33453	AZZOPARDI, ANTHONY J.	1108		1,204.75
06/19/2021	PC	06/25/2021	33454	MCCRANEY, RUSSELL R.	1111		22.03
06/19/2021	PC	06/25/2021	33455	PECK, JARICA L.	1114		244.04
06/19/2021	PC	06/25/2021	33456	FALKENBERG, AMANDA	1115		1,310.65

Pay Period Date	Journal Code	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
06/19/2021	PC	06/25/2021	33457	WELLS, JANINNA J.	1117		66.07
06/19/2021	PC	06/25/2021	33458	JOSLIN, ISABELLE G.	1125		1,004.14
06/19/2021	PC	06/25/2021	133783	WHITLEY, ANDREW T.	522		2,526.63
06/19/2021	PC	06/25/2021	133784	MORRISON, KEVIN P.	601		1,913.71
06/19/2021	PC	06/25/2021	133785	SNYDER, JACOB M.	756		554.55
Grand Totals:			119				129,778.72

km

Report Criteria:

Computed checks included
Manual checks included
Supplemental checks included
Termination checks included
Void checks included

Pay Period Date	Check Issue Date	Check Number	Payee	Emp ID	Description	Amount
06/19/2021	06/25/2021	133786	4FRONT CREDIT UNION	9024	HSA-EMPLOYEE CONTRIB-4FR	1,093.00
06/19/2021	06/25/2021	133787	AMERICAN FAMILY LIFE	9011	AMERICAN FAMILY LIFE-POST T	86.90
06/19/2021	06/25/2021	133787	AMERICAN FAMILY LIFE	9011	AMERICAN FAMILY LIFE-PRETA	392.61
06/19/2021	06/25/2021	133788	CALIFORNIA STATE DISB	9033	Remittance ID 200000001923773	92.19
06/19/2021	06/25/2021	133789	CHAR EM UNITED WAY	9009	UNITED WAY Pay Period: 6/19/2	70.00
06/19/2021	06/25/2021	133790	CHARLEVOIX STATE BAN	9017	HSA - EMPLOYEE CONTRIB - C	867.00
06/19/2021	06/25/2021	133791	COMMUNICATION WORK	9004	CWA UNION DUES Pay Period:	652.33
06/19/2021	06/25/2021	133792	DISCOVER BANK	9032	Garnishment: WWR File #040038	310.86
06/19/2021	06/25/2021	133793	EQUITABLE FINANCIAL LI	9010	LIFE - VOLUNTARY Pay Period:	246.84
06/19/2021	06/25/2021	133793	EQUITABLE FINANCIAL LI	9010	SPOUSE LIFE Pay Period: 6/19/	52.09
06/19/2021	06/25/2021	133793	EQUITABLE FINANCIAL LI	9010	CHILD LIFE Pay Period: 6/19/20	4.40
06/19/2021	06/25/2021	133793	EQUITABLE FINANCIAL LI	9010	AD&D - VOLUNTARY Pay Period	40.43
06/19/2021	06/25/2021	133793	EQUITABLE FINANCIAL LI	9010	SPOUSE AD&D Pay Period: 6/19	6.84
06/19/2021	06/25/2021	133793	EQUITABLE FINANCIAL LI	9010	CHILD AD&D Pay Period: 6/19/2	2.96
06/19/2021	06/25/2021	133794	INSTANT CASH	9034	Garnishment: 21-0150SC GARNI	88.26
06/19/2021	06/25/2021	133795	MI STATE DISBURSEMEN	9012	FRIEND OF THE COURT Pay Pe	429.88
06/19/2021	06/25/2021	133796	PRIORITY HEALTH	392358	PRIORITY HEALTH Pay Period:	1,524.99
Grand Totals:		17				5,961.58

Xm

Check Number	Payee	Amount
07/07/2021		
133816	ACME SPORTS INC	344.50
133817	ALTEC INDUSTRIES INC	256.77
133818	AMAZON CAPITAL SERVICES	579.04
133819	AMERICAN WASTE	48.40
133820	ANDERSON, ELIZABETH A.	50.00
133821	ANZELL, BETH A.	50.00
133822	AVFUEL CORPORATION	44,756.85
133823	AZZOPARDI, ANTHONY J.	50.00
133824	BOUND TREE MEDICAL LLC	735.89
133825	BY THE BAY CLEANING	375.00
133826	CDW GOVERNMENT	943.24
133827	CHARLEVOIX SCREEN MASTERS INC	300.00
133828	CHARLEVOIX TOWNSHIP	28.36
133829	CHIPMAN, MARISSA	82.66
133830	CINTAS	42.85
133831	CRUMP, MARY	75.00
133832	DELL MARKETING LP	459.68
133833	DeROSIA, PATRICIA E.	50.00
133834	DOAN, GERARD P.	50.00
133835	DORAN, JUSTIN J.	50.00
133836	DORNBOS SIGN INC	1,112.00
133837	DOTSON, LINDSEY J.	50.00
133838	DROST LANDSCAPE	580.00
133839	ECONO SIGNS LLC	172.00
133840	ELLIOTT, PATRICK M.	50.00
133841	FAMILY FARM & HOME	612.76
133842	FASTENAL COMPANY	35.64
133843	GALLS LLC	17.45
133844	GOLDING, JOYCE M.	50.00
133845	GRIFFITH, JOHN J	50.00
133846	GRP ENGINEERING INC.	5,430.00
133847	HACH COMPANY	1,667.09
133848	HARRELL'S	1,041.08
133849	HEYDLAUFF, MARK L.	50.00
133850	HILLING, NICHOLAS A.	50.00
133851	HOCQUARD, KERRY	47.47
133852	JEAN JACQUES, CLEVELAND	1,200.00
133853	KLOOSTER, ALIDA K.	50.00
133854	KNORR, KENT J.	50.00
133855	KSS ENTERPRISES	663.63
133856	LIVINGSTON, BRIAN D.	50.00
133857	MATELSKI, KRISTEN L.	50.00
133858	MAY, MEREDITH A.	50.00
133859	MCDERMOTT, DENNIS J.	50.00
133860	McGINN, KELLY A.	50.00
133861	MCMULLEN, DONALD R.	50.00
133862	MICHIGAN MUNICIPAL LEAGUE	3,045.00
133863	MICHIGAN RURAL WATER ASSN	755.00

Check Number	Payee	Amount
133864	MILLARD, CHARLES LAWRENCE	1,000.00
133865	MILLER, WILLIAM S.	50.00
133866	NATIONAL PEN LLC	359.30
133867	NORTHERN MICHIGAN REVIEW INC.	1,397.14
133868	OHM ADVISORS	12,069.75
133869	OTEC	225.00
133870	PERSONS, TANYA	59.58
133871	RANVILLE, KENNETH	18.18
133872	RICHARDS, STEPHANIE	18.35
133873	RUNDQUIST, PATRICIA	53.49
133874	SCHOLEY, ROBERT W.	50.00
133875	SHEPARD, RITA	8.54
133876	SILVA, JESSE L.A.	50.00
133877	SPARTAN DISTRIBUTORS INC	277.60
133878	SPOK INC	244.51
133879	TIMMS, ALICE	10.68
133880	TRAVERS, MANUEL J.	50.00
133881	UNIFIRST CORPORATION	208.24
133882	UP NORTH ASSESSING INC	5,100.00
133883	WURST, RANDALL W.	50.00
133884	WYMAN, MATTHEW A.	50.00
133885	Z & Z MEDICAL INC	932.00
Total 07/07/2021:		88,689.72
Grand Totals:		88,689.72

Check Number	Payee	Amount
06/21/2021		
62121001	MICHIGAN PUBLIC POWER AGENCY	17,002.02
Total 06/21/2021:		17,002.02
Grand Totals:		17,002.02

Check Number	Payee	Amount
06/25/2021		
62521001	MICHIGAN PUBLIC POWER AGENCY	177,049.09
62521008	MERS	51,865.59
Total 06/25/2021:		228,914.68
Grand Totals:		228,914.68

Check Issue Date	Check Number	Payee	Amount
62521002			
06/25/2021	62521002	**EFTPS* Payroll Taxes	12,027.26
06/25/2021	62521002	**EFTPS* Payroll Taxes	12,027.26
06/25/2021	62521002	**EFTPS* Payroll Taxes	2,812.82
06/25/2021	62521002	**EFTPS* Payroll Taxes	2,812.82
06/25/2021	62521002	**EFTPS* Payroll Taxes	15,652.89
Total 62521002:			
	5		45,333.05
62521003			
06/25/2021	62521003	Alerus Financial	350.00
Total 62521003:			
	1		350.00
62521004			
06/25/2021	62521004	STATE OF MICHIGAN	6,859.42
Total 62521004:			
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62521005			
06/25/2021	62521005	Vantagepoint - 401 Plan 109153	912.08
Total 62521005:			
	1		912.08
62521006			
06/25/2021	62521006	Vantagepoint - 457 Plan 300959	5,251.00
06/25/2021	62521006	Vantagepoint - 457 Plan 300959	2,622.67
06/25/2021	62521006	Vantagepoint - 457 Plan 300959	4,203.83
06/25/2021	62521006	Vantagepoint - 457 Plan 300959	8,342.60
Total 62521006:			
	4		20,420.10
62521007			
06/25/2021	62521007	Vantagepoint - Roth IRA 706117	1,180.76
Total 62521007:			
	1		1,180.76
Grand Totals:			
	13		75,055.41

Check Number	Payee	Amount
06/28/2021		
62821001	MICHIGAN PUBLIC POWER AGENCY	23,256.37
Total 06/28/2021:		23,256.37
Grand Totals:		23,256.37

CHARLEVOIX CITY COUNCIL

Consent Agenda

TITLE: Charlevoix Yacht Club Request for Free Parking – Nucore Triangle & Red Fox Regatta

DATE: July 6, 2021

BACKGROUND:

The Charlevoix Yacht Club is asking that the City Council waive the parking fees at the Ferry Launch Ramp for the Nucore Triangle and Red Fox Regatta on August 30-31 and September 1, 2019.

The Charlevoix City Code, Title VII, Chapter 71, Section 71.04 states: “The city council, by resolution, may revise or waive fees for special or public events. The term "special or public events" shall mean a tournament, festival or other type of event, whether or not open to public participation or observation, the occurrence of which will, in the judgment of the city council, benefit the city economically or by virtue of the publicity surrounding the event.”

RECOMMENDATION:

Motion to approve Resolution 2021-07-02 Waive Parking Fees for Charlevoix Yacht Club.

ATTACHMENTS:

- ▣ Request Letter
- ▣ Resolution



RECEIVED
JUN 10 2019

Charlevoix Yacht Club

209 Ferry Avenue · PO Box 522 Charlevoix, MI 49720 · www.CharlevoixYachtClub.org · 231-547-9170

June 10, 2019

Mayor and City Council
City of Charlevoix
210 State Street
Charlevoix, MI 49720

RE: Use of Boat Launch Facility for Red Fox Regatta

Dear Mayor and Council;

This letter is a request to the City Council to again allow free use of the boat launch ramp at the end of Stover Road on August 30 and 31, and September 1 of 2019. These are the dates of the Nucore Triangle Race, Friday evening and the annual Red Fox Regatta sailboat race between Charlevoix and Boyne City, Saturday and Sunday, sponsored by the Charlevoix Yacht Club.

We have sailboats participating in these races from out of town that will need to use the launch ramp. Last year there were about thirty launch passes used by out of town sailboats. Local boats are either in the water or already have seasonal launch passes. Participants will be identified by showing a colored card indicating that they are a Red Fox participant.

There will be approximately 70 to 80 boats with anywhere from 1 to 18 people on board. Over half of the race participants come from out of town and will be patronizing Charlevoix restaurants, businesses and motels during their stay. There will be a definite economic benefit to the City of Charlevoix. Charlevoix also receives good community exposure as the host of this annual event.

Your consideration and approval of this matter will be appreciated.

Sincerely,

Judy A. Gordon
Red Fox Committee
Charlevoix Yacht Club

CITY OF CHARLEVOIX
RESOLUTION NO. 2019-06-01
WAIVE PARKING FEES FOR CHARLEVOIX YACHT CLUB

WHEREAS, the Charlevoix Yacht Club is hosting the Nucore Triangle Race and Red Fox Regatta on August 30-31 and September 1, 2019; and

WHEREAS, the Charlevoix Yacht Club is requesting that parking fees be waived for the races; and

WHEREAS, the City Code permits the City Council to waive parking fees for special or public events.

NOW THEREFORE BE IT RESOLVED, that the City Council of the City of Charlevoix, hereby waives parking fees for the Nucore Triangle Race and Red Fox Regatta on August 30-31 and September 1, 2019.

RESOLVED this 17th day of June, 2019 A.D.

Resolution was adopted by the following yeas and nays vote:

Yeas:

Nays:

CHARLEVOIX CITY COUNCIL

Consent Agenda

TITLE: Venetian Festival Special Liquor License

DATE: July 6, 2021

BACKGROUND:

The Charlevoix Venetian Festival wishes to use a special license for alcohol sales in East Park during the festival. The proposed Tiki Tent would be located in East Park and open Thursday to Saturday from 6:00 - 11:30 p.m. and to sell and consume alcoholic beverages.

Currently, Chapter 93 of the City Code would require a waiver for this type of activity. Ordinance 826 does not contemplate the allowance of special liquor licenses in public places. If Council wishes to grant approval, it must do so specifically or perhaps it intended the ordinance stand on it's own with no special licenses being permitted.

RECOMMENDATION:

Motion to approve the Venetian Festival request for a use of East Park for a special liquor license.

CHARLEVOIX CITY COUNCIL

Consent Agenda

TITLE: Venetian Festival Fireworks

DATE: July 6, 2021

BACKGROUND:

The Venetian Committee is requesting permission for their annual fireworks display. The fireworks display is planned for the evenings of Friday, July 23 and Saturday, July 24. Both Chief Doan and Chief Thorp have reviewed the application package and Chief Thorp's crew will conduct normal preventative staging. The fireworks company used by the Venetian Festival has not changed in over a decade, and we have developed an excellent working relationship with Frank Loffredo and his staff.

NFPA 1123 of 2014 is the standard that the City must follow because we do not have a fireworks code of our own. This display meets all NFPA requirements, and exceeds the NFPA standard for minimum setbacks for both shows.

Chief Thorp and Chief Doan recommend the permit be authorized as long as representatives from the Venetian Festival understand that we will take an aggressive stance to stop the display if drifting debris or other unforeseen issues compromise safety in any way.

RECOMMENDATION:

Motion to authorize the City Clerk to issue the fireworks permit for the 2021 Venetian Festival fireworks displays and authorize the City Manager to sign the Hold Harmless Agreement with Colonial Fireworks Special Effects, LLC.

ATTACHMENTS:

- ▢ Application

CHARLEVOIX VENETIAN FESTIVAL, INC.

309 Petoskey Avenue
P.O. Box 120
Charlevoix, Michigan 49720
PH 231-547-9950 / FAX 231-547-2977
www.venetianfestival.com Email: info@venetianfestival.com

June 30, 2021
HAND DELIVERED

Dan Thorp
Charlevoix Township Fire Chief
Charlevoix Township Hall
12491 Waller Road
Charlevoix, Michigan 49720

RE: Proposed Fireworks Displays
91st Annual Charlevoix Venetian Festival

Dear Chief Thorp:

I have enclosed the 2021 Application for Fireworks Display Permit, together with the following materials:

- Application For Approval of Marine Event (with correspondence to USCG)
- U.S.C.G. depiction of Lake Charlevoix display site with waypoints
- U.S.C.G. depiction of Round Lake display site with waypoints
- Itinerary/ Colonial Fireworks Special Effects, LLC
- Venetian Festival Boat Parade Route
- Certificate of Liability Insurance
- Proposed Hold Harmless Agreement
- Summary of Experience / Lead Pyrotechnician

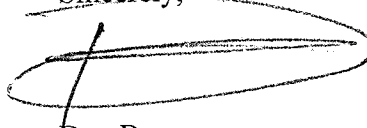
The master pyrotechnician overseeing the displays is once again Frank Loffredo, Jr., the same individual who has overseen the Venetian fireworks displays since 1999. Mr. Loffredo is the master pyrotechnician of Colonial Fireworks Special Effects, LLC/Great Lakes. I have enclosed a Summary of Experience, to confirm references which you have on file. Please note that Mr. Loffredo possesses 42 years of experience as a pyrotechnician.

In addition to the foregoing, I would like to confirm the following matters relating to this year's proposal:

1. As you can see from the enclosed materials, the maximum shell size for the Friday night display (July 23, 2021) is 12". A clear zone radius of 1,200 feet will be maintained, which exceeds the NFPA clear zone standard of 840 feet. The maximum shell size for the "harbor" fireworks on Saturday night (July 24, 2021) is 3". A clear zone radius of 250 feet will be maintained, which exceeds the NFPA clear zone standard of 210 feet.
2. St. James Marine Co. of Beaver Island, Michigan, will be providing the barge and tug services, as they have since 2003.

3. There will be no manual ignition in either fireworks display. Such ignition shall be effected via computer and/or electronically.
4. The buoys marking the clear zone perimeters will once again be set by Irish Boat Shop, based upon data provided by the United States Coast Guard.
5. We will promptly provide to you an originally executed copy of the Hold Harmless Agreement.

Please feel free to contact me if you should have any questions or comments.

Sincerely,

Dan Barron
President

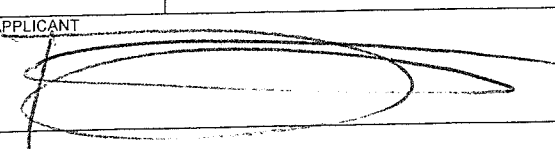
DBB/jlm

Enclosures

xc: Mark Heydlauff, City Manager
U.S.C.G. - BMC Marcus Collison
Joyce Golding, City Clerk
Frank Loffredo, Jr.
Gerard Doan, Charlevoix Police Chief

2021 Application for Fireworks Other Than Consumer or Low Impact

FOR USE BY LEGISLATIVE BODY
OF CITY, VILLAGE OR TOWNSHIP
BOARD ONLY
DATE PERMIT(S) EXPIRE:

Authority: 2011 PA 256		The LEGISLATIVE BODY OF CITY, VILLAGE OR TOWNSHIP BOARD will not discriminate against any individual or group because of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. If you need assistance with reading, writing, hearing, etc., under the Americans with Disabilities Act, you may make your needs known to this Legislative Body of City, Village or Township Board.		
TYPE OF PERMIT(S) (Select all applicable boxes)				
☐ Agricultural or Wildlife Fireworks		☐ Articles Pyrotechnic		☐ Display Fireworks
☒ Public Display		☐ Private Display		
☐ Special Effects Manufactured for Outdoor Pest Control or Agricultural Purposes				
NAME OF APPLICANT Charlevoix Venetian Festival, Inc.		ADDRESS OF APPLICANT PO Box 120, Charlevoix, MI 49720		AGE OF APPLICANT 18 YEARS OR OLDER ☒ YES ☐ NO
NAME OF PERSON OR RESIDENT AGENT REPRESENTING CORPORATION, LLC, DBA OR OTHER Daniel B. Barron, President		ADDRESS PERSON OR RESIDENT AGENT REPRESENTING CORPORATION, LLC, DBA OR OTHER PO Box 120, Charlevoix, MI 49720		
IF A NON-RESIDENT APPLICANT (LIST NAME OF MICHIGAN ATTORNEY OR MICHIGAN RESIDENT AGENT)		ADDRESS (MICHIGAN ATTORNEY OR MICHIGAN RESIDENT AGENT)		TELEPHONE NUMBER 231-547-9950
NAME OF PYROTECHNIC OPERATOR Frank Loffredo, Jr.		ADDRESS OF PYROTECHNIC OPERATOR 5225 Telegraph Rd., Toledo, OH 43612		AGE OF PYROTECHNIC OPERATOR 18 YEARS OR OLDER ☒ YES ☐ NO
NO. YEARS EXPERIENCE 42	NO. DISPLAYS 1000 +	WHERE throughout U.S., Canada and Virgin Islands		
NAME OF ASSISTANT Aaron Dusseau		ADDRESS OF ASSISTANT 5225 Telegraph Rd., Toledo, OH 43612		AGE OF ASSISTANT 18 YEARS OR OLDER ☒ YES ☐ NO
NAME OF OTHER ASSISTANT		ADDRESS OF OTHER ASSISTANT		AGE OF OTHER ASSISTANT 18 YEARS OR OLDER ☐ YES ☐ NO
EXACT LOCATION OF PROPOSED DISPLAY 07/23/2021 – Lake Charlevoix; and 7/24/2021 – Round Lake				
DATE OF PROPOSED DISPLAY see above		TIME OF PROPOSED DISPLAY approximately 10:00 pm to 11:00 pm		
MANNER AND PLACE OF STORAGE, SUBJECT TO APPROVAL OF LOCAL FIRE AUTHORITIES, IN ACCORDANCE WITH NFPA 1123, 1124 & 1126 AND OTHER STATE OR FEDERAL REGULATIONS. PROVIDE PROOF OF PROPER LICENSING OR PERMITTING BY STATE OR FEDERAL GOVERNMENT Colonial Fireworks Special Effects, LLC / Great Lakes truck with 24 hour security at Port Ironon facility				
AMOUNT OF BOND OR INSURANCE (TO BE SET BY LOCAL GOVERNMENT) \$5,000,000.00		NAME OF BONDING CORPORATION OR INSURANCE COMPANY McGowan Allied Specialty		
ADDRESS OF BONDING CORPORATION OR INSURANCE COMPANY 20595 Lorain Road, Fairview Park, OH 44126				
NUMBER OF FIREWORKS		KIND OF FIREWORKS TO BE DISPLAYED (Please provide additional pages as needed)		
07/23/2021		300 pcs 4"; 300 pcs 5"; 200 pcs 6"; 30 pcs 8"; 15 pcs 10"; 30 pcs 12"		
07/24/2021		500 pcs 3" shells; 300 mm candles; 15 fans of 3; 25 pcs 1.4G 2" cake items		
SIGNATURE OF APPLICANT 		Daniel B. Barron, President		DATE 6/30/2021

CHARLEVOIX VENETIAN FESTIVAL, INC.

309 Petoskey Avenue
P.O. Box 120
Charlevoix, Michigan 49720
PH 231-547-3872 / FAX 231-547-2977
www.venetianfestival.com Email: info@venetianfestival.com

May 18, 2021
VIA UPS NEXT DAY AIR
VIA E-MAIL (deaven.s.palenzuela@uscg.mil)

Lt. Deaven Palenzuela
Coast Guard Sector Sault Ste. Marie
337 Water Street
Sault Ste. Marie, Michigan 49783

RE: 91st Annual Charlevoix Venetian Festival

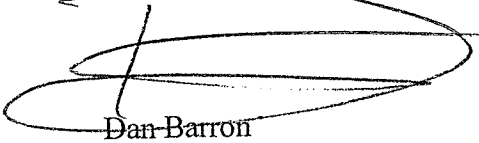
Dear Lt. Palenzuela:

The Charlevoix Venetian Festival currently anticipates staging two nights of fireworks similar to the displays which have been produced since 2000. The displays will once again be conducted by Frank Loffredo Jr., the master pyrotechnician of Colonial Fireworks Special Effects, LLC/Great Lakes. Barge and tug operations will once again be conducted by the St. James Marine Co. of Beaver Island, Michigan.

Although an Application For Approval of Marine Event is not required, I have nevertheless enclosed the same for informational purposes, together with the following support materials:

- USCG depiction of Lake Charlevoix display site with waypoints
- USCG depiction of Round Lake display site with waypoints
- Venetian Festival Boat Parade Route
- Lead pyrotechnician references - Frank Loffredo, Jr.

Please feel free to contact me if you should have any questions or comments.

Sincerely,

Dan Barron
President

DBB/jlm
Enclosures

xc: Frank Loffredo, Jr.
BMC Marcus Collison (USCG Life Station, Charlevoix)
Dan Thorp (Charlevoix Township Fire Chief)

**DEPARTMENT OF HOMELAND SECURITY
APPLICATION FOR MARINE EVENT**

OMB Number: 1625-0008

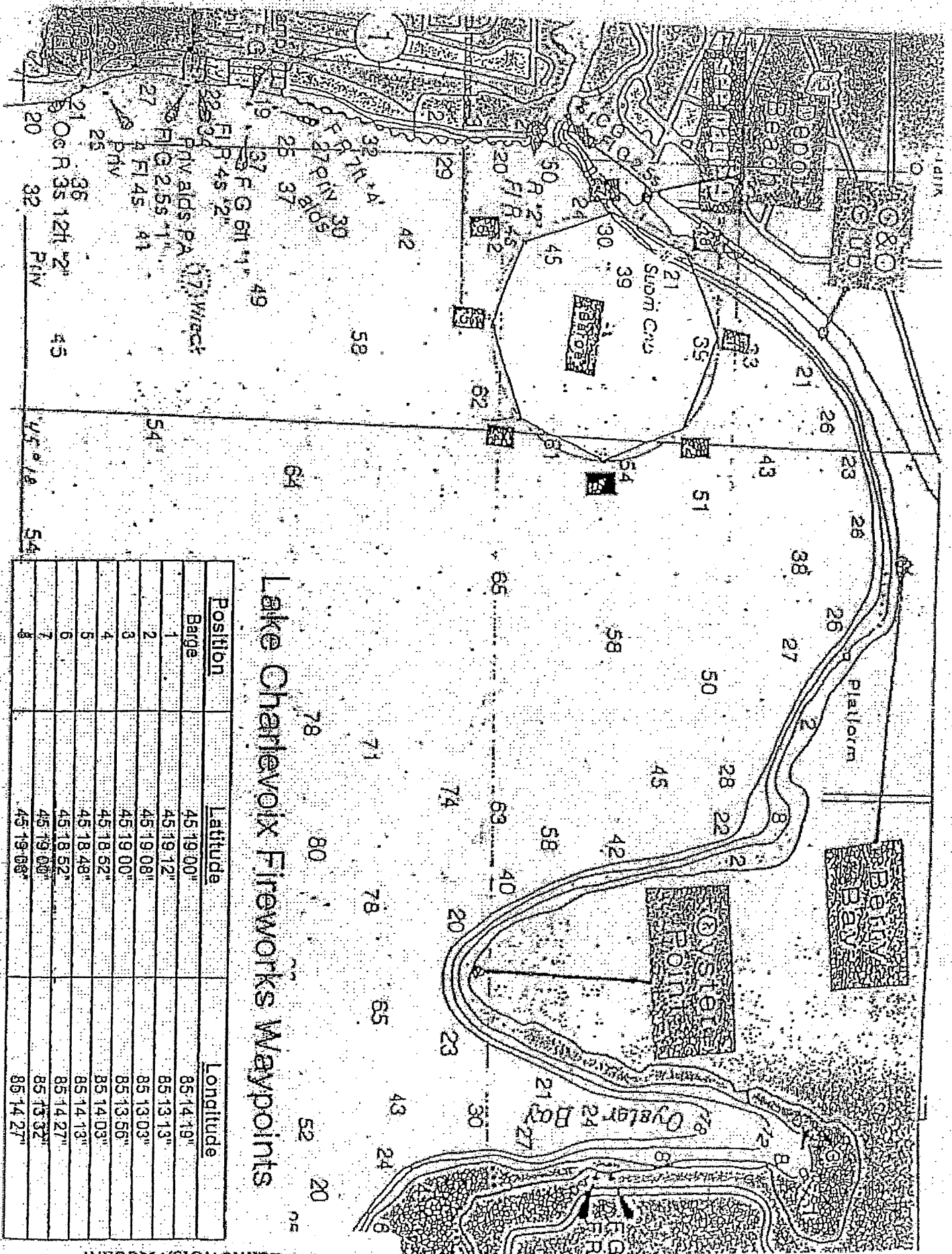
Date Submitted: 05/18/2021

FORM INSTRUCTIONS

1. Please, complete on a computer, a typewriter, or print in black ink to permit reproduction. You may also submit online at: <http://homeport.uscg.mil>.
2. This application must reach the appropriate USCG Sector at least 135 days prior to the event. A list of sectors may be found here: <http://www.uscg.mil/top/units/>.
3. Attach a section of a chart or a scale drawing showing boundaries and/or courses and markers contemplated.
4. Submit a copy of your entry requirements and any special rules pertaining to equipment, rigs, or procedures.

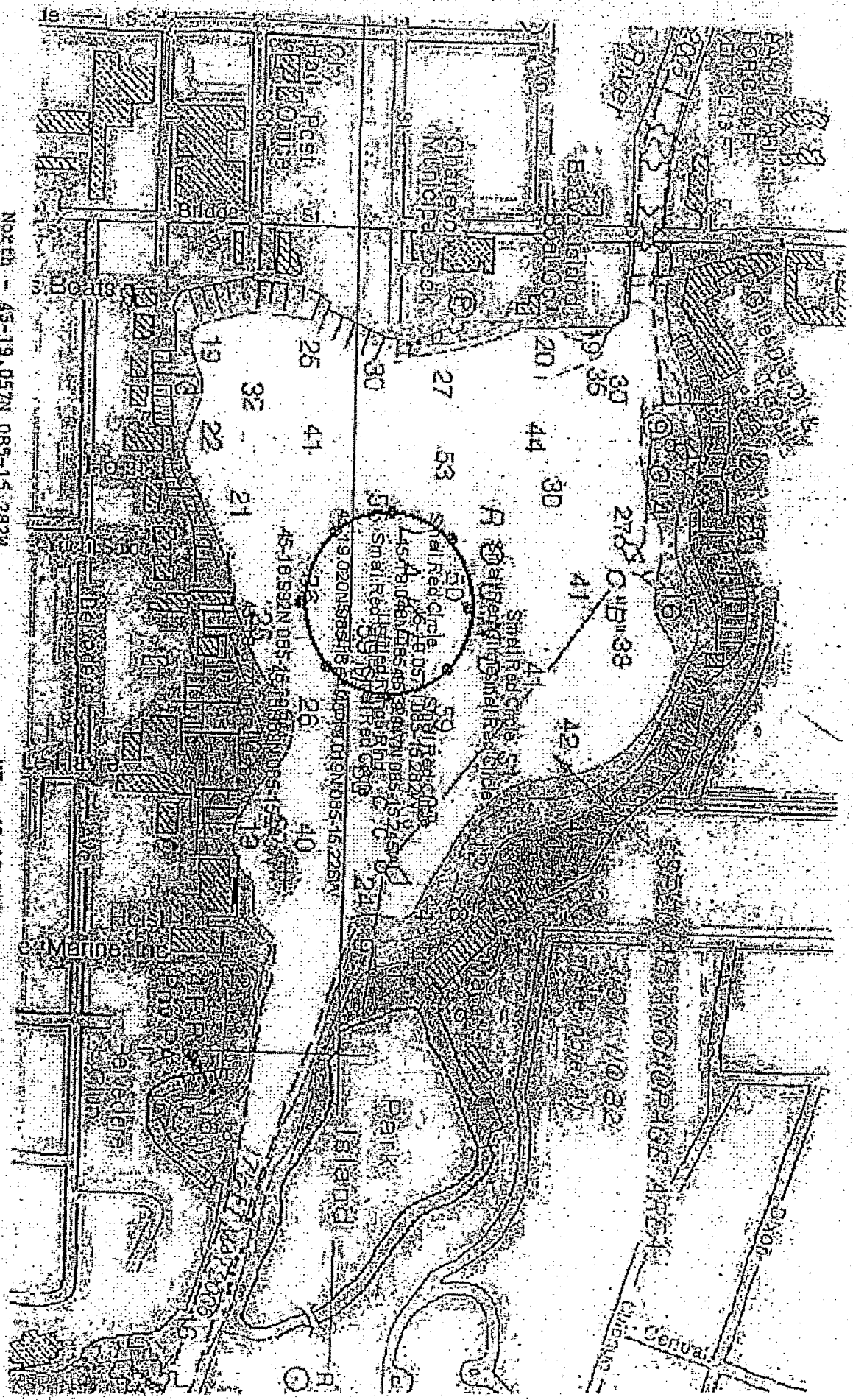
1. Name of Event	91st Annual Charlevoix Venetian Festival			2. Date of Event	see # 3	
3. Location of Event	Lake Charlevoix (7/23/2021) and Round Lake Harbor (7/24/2021)			4. Time: From 10:00 pm To 11:00 pm		
5. Name and Address of Sponsoring Organization (Include Zip Code) Charlevoix Venetian Festival, Inc. PO Box 120 Charlevoix, MI 49720				6. No. of Participants	7. Sizes of Boats	
8. Types of Boats a. Fireworks - barge # 150; b. Boat Parade - assorted; c. Tug - Wendy Anne.				9. No. of Spectator Craft	150	
10. Description of Events a. Fireworks (7/23/2021) shot from barge in Lake Charlevoix, vicinity of Depot Beach b. Boat Parade (7/24/2021) lighted pleasure craft to circle Round Lake Harbor (Approximately 14 vessels) c. Fireworks (7/24/2021) shot from barge in Round Lake						
11. Will This Event Interfere or Impede the Natural Flow of Traffic? <u>NO</u> ☒ <u>YES</u>						
11a. If YES, briefly explain: Clear zone radius of (i) 1200 feet to be maintained for display on 7/23/2021; and of (ii) 250 feet to be maintained for display on 7/24/2021						
12. What Extra or Unusual Hazard (to participants or non-participants) Will Be Introduced Into the Regatta Area? Fireworks (7/23/2021) maximum shell size is 12". Gross explosive weight on barge of approximately 4000 lbs. Net explosive weight of approximately 1700 lbs. Fireworks (7/24/2021) low level aerial product and 3" maximum shell size. Gross explosive weight on barge of approximately 3000 lbs. Net explosive weight of approximately 1500 lbs.						

13. Have any Objections Been Received from Other Interested Parties? ☒ NO ☐ YES			
13a. If YES, briefly explain:			
14. Vessels Provided by Sponsoring Organization for Safety Purposes (<i>number and description</i>) Boat parade committee boat, fireworks barge and tug			
15. Does the Sponsoring Organization Deem their Patrol Adequate for Safety Purposes? ☒ NO ☐ YES			
15a. If NO, briefly explain: Marine patrols historically provided by USCG, Charlevoix County Sheriff Department and Michigan DNR. Further assistance from US Power Squadron is requested.			
16. Is a Coast Guard or Coast Guard Auxiliary Patrol Requested for Control of Spectator and/or Commercial Traffic? ☐ NO ☒ YES			
16a. If YES, how many vessels do you recommend and why? Defer to USCG expertise			
17. Person In Charge	Daniel B. Barron, President Charlevoix Venetian Festival, Inc.	18. Where Will 'Person In Charge' be During the Event?	Depot Beach Park, East Park or on fireworks barge
19. How Can 'Person In Charge' be Contacted During the Event?		radio / cell phone 231-675-4257	
20. Person to be Contacted for Further Details (<i>Name, Address, Zip Code</i>) Daniel B. Barron, PO Box 120, 309 Petoskey Ave., Charlevoix, MI 49720		20a. Area Code and Phone No.: (231) 547-9950	20b. Email Address: dbarron@barronengstlrom.com
The undersigned has full authority to represent the sponsoring organization.			
21. Name: Daniel B. Barron	22. Title: President		
23. Address (<i>Include Zip Code</i>) PO Box 120, 309 Petoskey Ave., Charlevoix, MI 49720	23a. Area Code and Phone No.: (231) 547-9950		
	23b. Email Address: dbarron@barronengstlrom.com		
24. Signature: 	Daniel B. Barron		
PRIVACY ACT STATEMENT			
Privacy Act Notice			
Authority: 33 U.S.C. §1233 authorizes the collection of this information. Purpose: The Coast Guard will use this information to determine whether an event poses an extra or unusual hazard to the safety of life and whether or not, and under which conditions, to permit the event on the navigable waters of the United States. Routine Uses: The information will be used by and disclosed to Coast Guard personnel to evaluate the request. Additionally, the Coast Guard may share the information with facility operators, law enforcement or other government agencies as necessary to promote public safety during the requested marine event. Disclosure: Furnishing this information is voluntary; however, failure to furnish the requested information may delay or prevent the approval of the requested marine event. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The Coast Guard estimates that the average burden for this report is 60 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: United States Coast Guard, Commandant (VWMA-1) Stop 7509, 2703 Martin Luther King Jr. Ave SE, Washington, DC, 20563-7509 or Office of Management and Budget, Paperwork Reduction Project (1625-0008), Washington DC 20503.			



North - 45-19.057N 085-15.282W
 South - 45-18.972N 085-15.282W
 East - 45-19.019N 085-15.226W
 West - 45-19.020N 085-15.340W

NE - 45-19.047N 085-15.245W
 SE - 45-18.989N 085-15.243W
 SW - 45-18.992N 085-15.327W
 NW - 45-19.048N 085-15.324W



**COLONIAL FIREWORKS SPECIAL EFFECTS, LLC
ITINERARY
JULY 23 AND JULY 24, 2021 DISPLAYS**

VENETIAN FESTIVAL
CHARLEVOIX, MICHIGAN

Please Note: Colonial Fireworks Special Effects, LLC must be permitted to follow all guidelines set forth in their entirety by NFPA 1123 and 1124 - 2000 Edition, as revised.

Monday, July 19, 2021

12:00 to 5:00 PM Colonial equipment truck arrives at "Port Ironton" Facility.
Pre-barge loading meeting with City of Charlevoix Police Chief Doan,
Charlevoix Township Fire Chief Dan Thorp, USCG Life Station Chief and
Colonial technicians. Colonial technicians begin off loading and setting up,
equipment only, onto barge.

5:00 PM Security arrives (24 hours/day of private security and/or Colonial
technicians), from this time through July 24, 2021

Tuesday, July 20, 2021

8:00 AM - 5:00 PM Set up of equipment continues.

9:00 AM Operations staging meeting at USCG Life Station - Charlevoix.
(tentative - may occur later in week)

Wednesday, July 21, 2021

8:00 AM - 5:00 PM Loading of fireworks into mortars begins.

Thursday, July 22, 2021

8:00 AM - 5:00 PM Loading of fireworks into mortars continues.

Friday, July 23, 2021

6:00 - 8:00 PM Barge towed from Port Ironton to Charlevoix - approximately two (2) hour
trip - loading of live material to continue.

8:00 PM Barge anchored at firing location - loading of live material continues and
connection of electrical system begins.

9:00 PM Final hookup of electrical system and final testing completed.

10:15 PM Firing begins (time approximate).
10:35 PM Firing ends (time approximate).
11:00 PM Barge is towed back to Ironton - inspection of equipment takes place.

Saturday, July 24, 2021

1:00 AM Barge arrives in Ironton to begin tearing down of aerial show. Begin loading of low aerial program for Round Lake on evening of July 24, 2021.
8:00 AM Continue loading of low level program.
6:00 - 8:00 PM Barge towed to Charlevoix - approximately two (2) hour trip - loading of live material to continue.
8:00 PM Barge anchored at firing location - loading of live material continues and connection of electrical system begins.
9:00 PM Final hookup of electrical system and final testing completed.
10:00 PM Initial fireworks barrage begins with start of boat parade (time approximate).
10:45 PM Primary fireworks display begins and concludes subsequent to conclusion of boat parade (time approximate).
11:30 PM Barge is towed back to Ironton - inspection of equipment takes place.

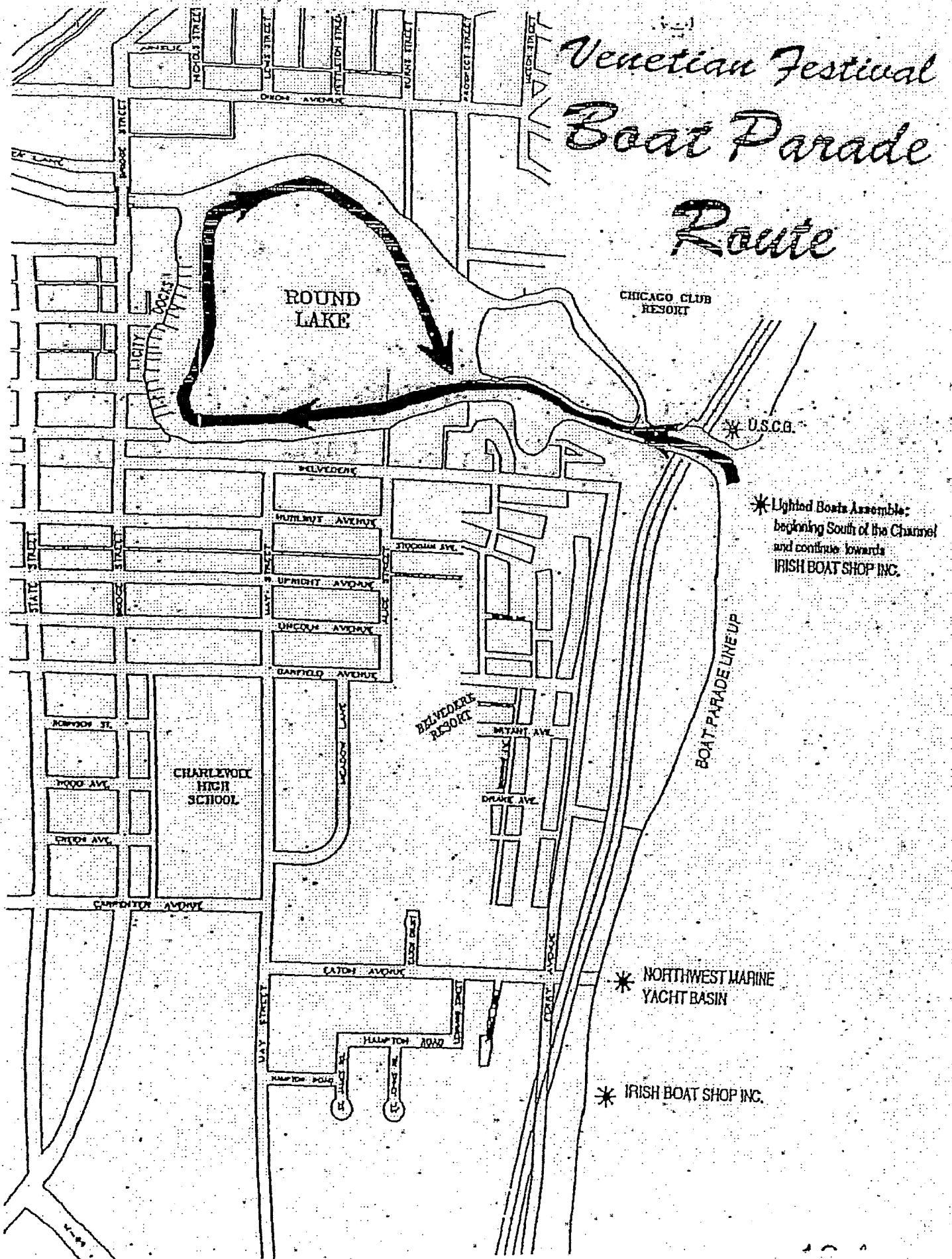
Sunday, July 25, 2021

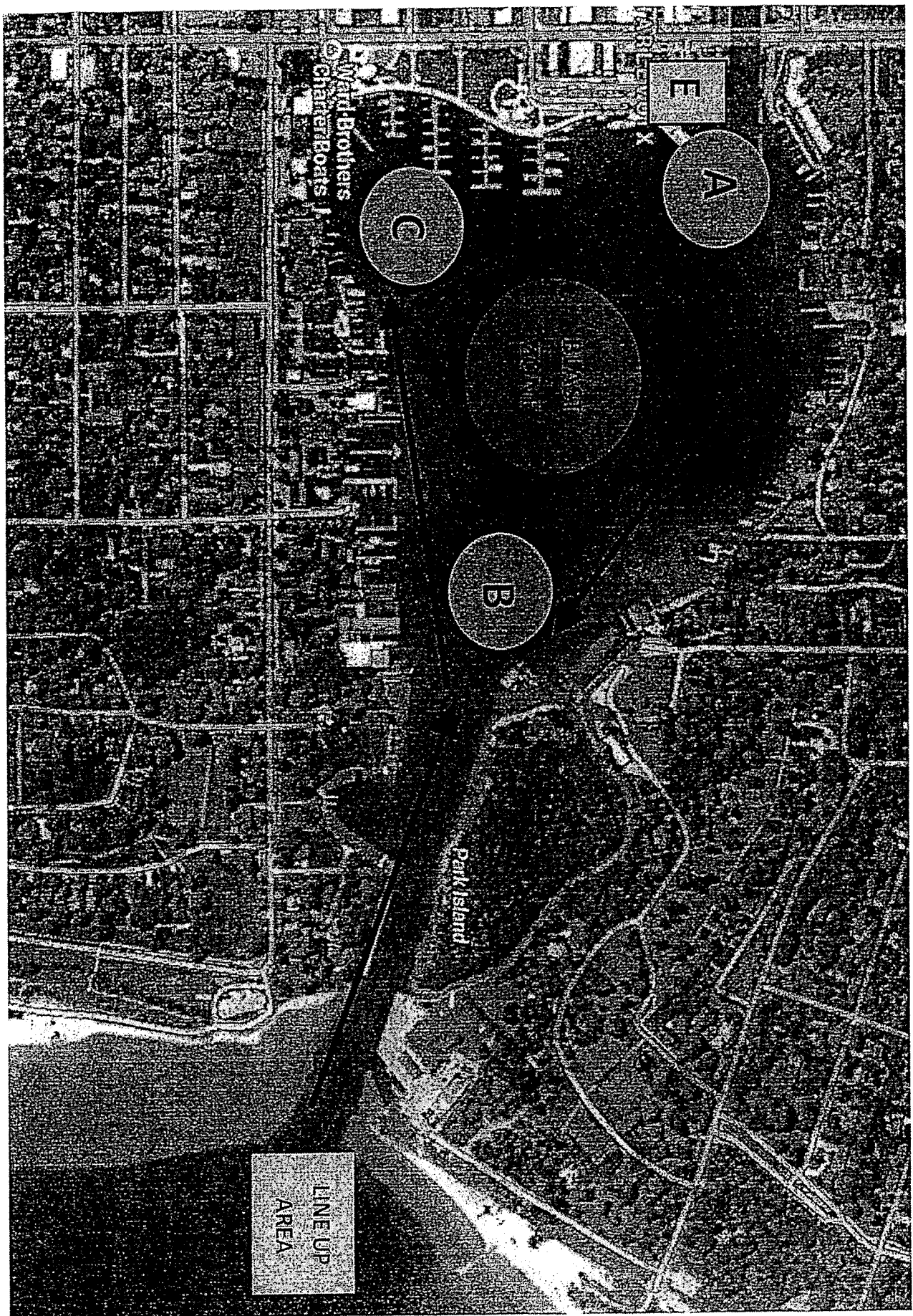
1:30 AM Barge arrives in Ironton and electrical system is removed from barge.
8:00 AM Unloading of equipment begins.
1:00 PM Colonial truck departs for Clayton, Michigan.

WEATHER CONTINGENCY PLANS

1. Friday "rain out." The "large" (Lake Charlevoix) show will not be displayed in 2021, and on Saturday evening in Round Lake (i) the "low aerial" Harbor show will be displayed and (ii) the lighted boat parade will be staged.
2. Saturday "rain out." The "low aerial" Harbor show will not be displayed in 2021.

Venetian Festival Boat Parade Route







CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
6/29/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
McGowan Allied Specialty
20595 Lorain Rd
Fairview Park OH 44126

CONTACT
NAME:
PHONE (A/C, No, Ext): 800-545-1538 FAX (A/C, No): 440-333-3214
E-MAIL
ADDRESS: tstraka@mcgowancompanies.com

License#: 973
GREALAK-13

INSURED
Great Lakes Fireworks, LLC
COLONIAL FIREWORKS SPECIAL EFFECTS
PO BOX 276
West Branch MI 48661

INSURER(S) AFFORDING COVERAGE
INSURER A: T.H.E. Insurance Company
INSURER B:
INSURER C:
INSURER D:
INSURER E:
INSURER F:

NAIC #
12866

COVERAGES

CERTIFICATE NUMBER: 1927028496

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PRO-JECT ☐ LOC ☐ OTHER:			CPP010071111	1/15/2021	1/15/2022	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$100,000 MED EXP (Any one person) \$0 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$10,000,000 PRODUCTS - COMP/OP AGG \$2,000,000 \$
A	☐ AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ OWNED AUTOS ONLY ☒ SCHEDULED AUTOS ☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY			CPP010071111	1/15/2021	1/15/2022	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☐ UMBRELLA LIAB ☒ OCCUR ☒ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☐ RETENTION \$			ELP001016811	1/15/2021	1/15/2022	EACH OCCURRENCE \$4,000,000 AGGREGATE \$ \$ PER STATUTE ☐ OTH-ER ☐
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☐	N/A				E.I. EACH ACCIDENT \$ E.I. DISEASE - EA EMPLOYEE \$ E.I. DISEASE - POLICY LIMIT \$
A				ELP001185206	1/15/2021	1/15/2022	Ea Occur / Agg Limit \$4,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Display Date: 7/23/2021 & 7/24/2021 Rain Date: TBD Location: Lake Charlevoix and Round Lake

RE: General Liability, the following are named as additional insured in respects to the negligence of the named insured:
Charlevoix Venetian Festival; Iron Stone Dock LLC; St. James Marine Co including their Property - American Girl., Wendy Ann and Barge no. 19; City of Charlevoix; Charlevoix Township; All Agents, Representatives, volunteers and employees of each thereof; Colonial Fireworks; Colonial Fireworks Special Effects, LLC

CERTIFICATE HOLDER

Charlevoix Venetian Festival, Inc
P.O. Box 120
Charlevoix MI 49720

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD 25 (2016/03)

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THIS CERTIFICATE SUPERSEDES PREVIOUSLY ISSUED CERTIFICATE

City Council Regular Meeting -

**COLONIAL FIREWORKS SPECIAL EFFECTS, LLC
HOLD HARMLESS AGREEMENT**

Indemnity Provisions (Re: 2021 Venetian Festival Fireworks Displays):

Colonial Fireworks Special Effects, LLC (hereinafter "Vendor") agrees to indemnify and save harmless the **City of Charlevoix** (hereinafter "Corporation") and its agents, representatives and employees from any and all charges, claims and causes of action by third persons, including but not limited to, agents, representatives and employees of the Vendor and of the Corporation, based upon or arising out of any damages, losses, expenses, charges, cost, injuries or illnesses, including death, sustained or incurred by such person or persons resulting from or in any way, directly or indirectly connected with the performance or non performance of this Agreement, this includes only the Vendor's setup and exhibiting of the fireworks, of these vending services; provided, however, that notwithstanding the foregoing, the Vendor does not agree to indemnify and save harmless the Corporation, its agents, representatives and employees from any charges, claims or actions based upon or arising out of any damages, losses, claims, expenses, charges, costs, injuries or illnesses including death, sustained or incurred as a sole result of the negligence of the Corporation, its agents, representatives or employees. In the event a claim is filed against the Corporation for which the Vendor is to be held liable under the terms of this Agreement, the Corporation will promptly notify the Vendor of such claim and will not settle such claim without the prior written consent of the Vendor, which shall not be unreasonably withheld. The obligation of Vendor for reimbursement/indemnification hereunder shall encompass and include all reasonable attorney fees and costs of litigation which may be incurred by the Corporation.

Signed:

Signed:

For the "Vendor"
Colonial Fireworks Special Effects, LLC
Brenda Loffredo, President
Date: _____

For the "Corporation"
City of Charlevoix
Date: _____



Colonial Fireworks Special Effects LLC/Great Lakes

May 18, 2021

LEAD PYROTECHNICIAN

FRANK LOFFREDO, JR.
25 MARLINDALE AVENUE
BOARDMAN, OH 44512

D.O.B. July 20, 1960

Mr. Loffredo has 42 years experience as a pyrotechnician. He has experience in electronic and manual firing. Mr. Loffredo has worked on numerous barge shows as well as roof top firings.

Some of the shows Mr. Loffredo has been involved with include: Charlevoix Venetian Festival, City of Harbor Springs, Bay Harbor, Sommerset Pointe, City of Saginaw, First Night Providence; Governor's Conference/Providence; Air and Sea Show in Fort Lauderdale and Thunder Over Louisville which is the kick off for the Kentucky Derby Festival. "Thunder" is fired from 6 barges and a 3,000 foot bridge that crosses the Ohio River and is one of the largest fireworks displays produced annually in the United States.

Mr. Loffredo has fired over 1,000 outdoor and indoor displays throughout the United States and has an excellent safety record.



Administration: 25 Marlindale Avenue, Boardman, OH 44512



CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: Chamber of Commerce Lease Renewal

DATE: July 6, 2021

PRESENTED BY: Mark L.Heydlauff, City Manager

BACKGROUND:

The City has long leased the former post office building on Mason Street to the Charlevoix Area Chamber of Commerce, who in turn has been approved to sublet a portion to Visit Charlevoix. The lease is up for renewal and largely follows the previous agreement which obligates the Chamber to place \$4,500 into a maintenance fund for long-term improvements to the building; otherwise, the annual lease is \$1 plus the Chamber pays all utility expenses.

New in this lease is a consideration that the City may look to redevelop this property in the future to aid long-term development goals of the city (for example, add upper floors for housing). In the case we were able to develop the property, we would give the Chamber notice and offer an alternative, though not necessarily comparable office space).

I recommend your approval of this continued part of the relationship between the Chamber and the City.

RECOMMENDATION:

Motion to approve the lease for 109 Mason Street between the Charlevoix Area Chamber of Commerce and the City of Charlevoix and authorize the Mayor and City Clerk to sign the agreement.

ATTACHMENTS:

- Draft Lease Agreement

LEASE AGREEMENT

This Lease Agreement is made on this 1st day of July, 2021 and is between the City of Charlevoix, a Michigan home rule city, whose address is 210 State Street, Charlevoix, Michigan 49720 (the City) and the Charlevoix Area Chamber of Commerce, a Michigan nonprofit corporation, whose address is 109 Mason Street, Charlevoix, Michigan 49720 (hereafter known as “the tenant”).

Recitals

The City owns the building at 109 Mason Street and has leased it to The Charlevoix Area Chamber of Commerce since 2006. The tenant wishes to continue leasing the premises from the City. The City recognizes the benefit the tenant provides to the economic health of the community and wishes to partner with them by offering office space under the following terms.

Agreement

The parties agree as follows:

1. DESCRIPTION

The City hereby leases to the tenant the City's real property commonly known as the old Post Office building located at 109 Mason Street, Charlevoix, Michigan (the leased property) under the terms and conditions specified in this Agreement.

2. RENT

The tenant shall pay the City ONE DOLLAR (\$1.00) per year as rent for the leased property.

3. TERM

This Agreement shall last for five (5) years unless terminated under the terms below. The tenant shall have the first right of refusal to renegotiate the lease at the expiration of this Agreement so long as the tenant requests a lease renewal in writing served personally or by certified mail to the City not less than three months prior to the expiration of this Agreement.

4. SUBLETTING AND ASSIGNMENT

The tenant shall not sublet any or all of the leased property and shall not assign its interests in this Lease Agreement to any other party without prior written approval of the City except for the Charlevoix Convention and Visitors Bureau. Such permission shall extend for the entire term of this agreement.

5. CONDITION OF THE BUILDING

The parties agree the building is in sound condition upon the execution of this lease and the tenant shall return the building to the City at the expiration of this lease in similar good condition excepting reasonable wear and tear.

6. ESTABLISHMENT OF REPAIR FUND

On or about the anniversary of the execution of this Agreement, the tenant shall annually deposit \$4,500 into a repair fund established by the tenant. The tenant may withdraw money from this fund to make repairs or improvements to the leased property. The tenant shall annually provide to the City an accounting of the funds deposited and withdrawn and the repairs or improvements made to the leased property. All funds remaining in the account at the expiration or termination of this agreement shall be remitted to the City within 30 days of the expiration or termination of the agreement.

7. IMPROVEMENTS & REPAIRS

The tenant, at their sole expense, shall make repairs to the building, fixtures, and other fixed items of the building and may make any improvements to the leased property deemed necessary. If any improvements are made by the tenant, the improvements shall become and remain the property of the City upon the expiration or termination of this Lease Agreement and any renewal thereof. This provision shall pertain to interior or exterior alterations or additions to the building or land.

The tenant shall be responsible for all improvements and repairs to the building including but not limited to: wall coverings; floor coverings; ceilings; roofs; mechanical equipment; windows and doors; electrical systems; hardware; IT wiring; painting; and, cabinetry. The tenant shall obtain written approval from the City prior to making any structural changes or repairs including any of the following: roofing; exterior siding, painting, or masonry work; structural changes including additions, demolitions, moving or adding interior walls; and, any other repair or improvement not included in either list.

8. UTILITIES

The tenant shall be responsible for the payment of all utilities and shall see that those payments are made before any liens attach to the premises for nonpayment.

9. SNOW REMOVAL

The tenant shall be responsible to keep the leased property, sidewalks, and all entrances and exits free from unreasonable accumulations of ice and snow.

10. LAWN MAINTENANCE

The tenant shall be responsible for all lawn maintenance on the leased property, including the mowing of grass, raking of leaves, and trimming of vegetation.

11. SIGN

The tenant may at its sole expense erect or cause to be erected one (1) outdoor sign advertising the activities and/or organizations using the leased property. The sign shall be of dignified nature and shall not be in violation of any city zoning regulations.

12. INDEMNIFICATION

The tenant shall indemnify and hold harmless the City, its public officials, officers, employees, agents, successors, and assigns from any damages, legal fees or expenses, awards, demands, rights, causes or action, including but not limited to, causes of action for contribution, indemnification, or recovery of any liens of any kinds or nature, losses, claims and actions which may, do, or shall arise out of or grow out of the tenant's use or occupancy of the leased property or which may, do, or shall arise out of or grow out of the use or occupancy of the leased property by an authorized subtenant of the tenant. This provision shall apply to any and all claims by the tenant, their directors, officers, agents, servants, employees, successors or assigns, to any and all claims by any authorized subtenant of the tenant, its directors, officers, agents, servants, employees, successors, assigns, personal representatives, or heirs or to any and all claims by any other third party.

13. CASUALTY INSURANCE

The City shall at its sole expense during the term of this Agreement obtain and maintain casualty insurance on all buildings now located on or hereafter constructed on the leased property. The casualty insurance shall be for guaranteed replacements value of each building.

14. LIABILITY INSURANCE; INSURANCE ON PERSONAL PROPERTY

The tenant shall at their sole expense during the term of this Lease Agreement and any renewal thereof obtain and maintenance public liability insurance for the benefit of the City in the sum of not less than One Million and 00/100 Dollars (\$1,000,000) for damages relating to any one person and Three Million and 00/100 Dollars (\$3,000,000) for damages relating to a single occurrence. The insurance policy shall name the City as an Additional Insured using ISO "Form B-CG2010" and shall contain a provision that the policy cannot be terminated or canceled without thirty (30) days written notice to the City. The tenant shall at their sole expense during the term of this Agreement and any renewal thereof obtain and maintain insurance covering the tenant's personal property and on personal property owned by others in the tenant's possession on the leased property on a replacement cost, no less than 90% coinsurance basis. The tenant shall furnish proof of the required insurance to the City upon request for same.

15. FIRE OR CASUALTY LOSS

It is understood and agreed that if the leased property shall be damaged or destroyed in whole or in part by fire or other cause during the term of this Agreement or any renewal thereof, the City shall repair and restore the same to a good, tenantable condition with reasonable dispatch, unless the tenant and the City mutually agrees not to repair and restore the property damaged or destroyed. In such event, the insurance proceeds shall be paid to the City.

16. REDEVELOPMENT AND ADDITIONS

Should the City decide to improve or redevelop the leased property in a manner that would interrupt the tenant's free enjoyment of the leased property, it shall provide to the tenant notice of same not less than six months before commencing construction. The City shall provide an offer of alternative and temporary office location to the tenant but is not obligated to make them equal to the leased property.

In the case that the City invokes this clause and the tenant is displaced, the tenant may use funds remaining in the maintenance fund to secure temporary or permanent office space without further obligation to the City.

17. WASTE AND NUISANCE

The tenant shall not commit, or suffer to be committed, any waste on the leased property, nor shall they maintain, commit, or permit the maintenance or commission of any nuisance on the leased property.

18. DEFAULT

A default shall be deemed to have occurred if the tenant breaches any provision of this Lease Agreement and such breach continues for thirty (30) days after receipt by the tenant of written notice of the breach. If any default as specified herein occurs, the City shall have the right to re-enter the leased property and regain possession or to take such action as permitted by law.

19. TERMINATION WITHOUT CAUSE

The lease may be terminated by either party with not less than six months written notice provided to the other party.

20. MISCELLANEOUS

- A. The leased property shall not be used for any unlawful purpose.

- B. The tenant agrees that if the interest created by this Lease Agreement shall be taken in execution or by other process of law or if the tenant, jointly or separately, shall dissolve, become bankrupt or insolvent, according to law, or any receivership be appointed for the business or property of the Charlevoix Area Chamber of Commerce, then this Lease Agreement and any renewal thereof may be canceled at the option of the City.
- C. This Lease Agreement shall be construed under and in accordance with the laws of the State of Michigan and a court of competent jurisdiction in Charlevoix County shall be the venue for disputes.
- D. No waiver by the parties hereto of any default or breach of any term, condition, or covenant of this Lease Agreement shall be deemed to be a waiver of any other breach of the same or any other term, condition or covenant contained herein.
- E. The City shall be solely responsible for any environmental liabilities except those which the tenant may cause

21. SEPARABILITY

If any provisions of this Lease Agreement shall be declared invalid or unenforceable, the remainder of the Lease Agreement shall continue in full force and effect.

22. ENTIRE AGREEMENT

This Lease Agreement contains the entire agreement between the parties and any subsequent agreement made hereafter shall be ineffective to change, modify or discharge this Lease Agreement, either in whole or in part, unless such an agreement is in writing and signed by the party against whom enforcement of the change, modification or discharge is sought.

IN WITNESS WHEREOF, this Lease Agreement has been executed to be effective on this day and year set forth above.

CITY OF CHARLEVOIX

Date

Luther Kurtz, its Mayor

Joyce Golding, its Clerk

CHARLEVOIX AREA CHAMBER OF COMMERCE

Date

Sarah Van Horn, its President

Anora O'Connor, its Board Chair

CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: MPPA Energy Waste Reduction Program

DATE: July 6, 2021

PRESENTED BY: John Griffith, Electric Department Director

BACKGROUND:

The Energy Waste Reduction (EWR) mandate within Public Act 342 is scheduled and expected to sunset on December 31, 2021. In preparation for the sunset, the Michigan Public Power Agency (MPPA) and Michigan Municipal Electric Association (MMEA) are engaging their members to see if their governing bodies and customers want an EWR type program going forward.

The interested members conveyed two themes:

- 1) Have MPPA/MMEA take the lead to administer a program for 2022. This is like the current approach using Franklin Energy.
- 2) Explore a new more customized “Green/Environmentally Friendly” offerings such as EV charging station deployment. This would allow more flexibility in each members program.

Each MPPA and MMEA member is to decide, by September 19, 2021, if they want to continue with a post-EWR program. If it is the Charlevoix City Council’s desire to continue, it needs to provide the MPPA and MMEA with a high-level budget estimate and possible programs. The current budget for Charlevoix’s EWR program is \$90,000.

Since this is a high-level decision, the Electric Department would again suggest continuing with the current rebate programs. The current applications are included in your council packet for reference. Neither the suggested budget or programs are definitive and can change as the MPPA and MMEA work on a replacement for the EWR program.

GOALS:

Ensure Charlevoix is environmentally sustainable while also economically efficient

RECOMMENDATION:

Motion to approve the continued participation of the Charlevoix Electric Department in the Energy Waste Reduction programs and direct the Electric Department Director to work toward the goals of Council.

ATTACHMENTS:

- ▢ Residential Application
- ▢ Commercial Application



CITY OF CHARLEVOIX

Residential Energy Efficiency Program

2021 Incentive Application

Ready to start your project? Follow these 3 simple steps.

Step #1: Make Sure Your Project is Eligible

Check the specifications listed in this application and/or speak with an Energy Smart advisor by calling **877-NRG-SAV1** (877-674-7281) to make sure your project is eligible for Energy Smart incentives. All equipment must be new and installed or operated in a residential dwelling, whose electric service is provided by City of Charlevoix.

Step #2: Complete Your Project

Install your new, energy-efficient equipment, following the specifications listed in this application.

Step #3: Apply for Your Cash Incentive

Once your project is complete, it's time to request your cash incentive. You must submit:

1. A completed and signed application
2. Itemized invoice(s) for contractor-installed equipment, including installation date, costs for equipment installed and installation labor
3. For furnace and central air conditioning units, the AHRI certificate
4. For ENERGY STAR® products/equipment, the ENERGY STAR® logo and a copy of invoice/receipt
5. For all other items just send in a copy of the invoice/receipt

Your completed application and the required materials listed above must be received by December 31, 2021.

Limited funds are available. Please allow 8-10 weeks to receive your Energy Smart incentive check from the time your completed application is received.

Have Questions?
Call 877-NRG-SAV1



Please submit your documents one of three ways:

Fax 517-203-0658

Email energysmart@franklinenergy.com

Mail Energy Smart – City of Charlevoix
1400 Abbot Road, Suite 400
East Lansing, MI 48823

Customer Information

Customer Name	Phone	Email	
Mailing Address	City	State	ZIP Code
Installation Address	City	State	ZIP Code
City of Charlevoix Electric Account Number	Fuel type for space heating: ☐ Natural Gas ☐ Electric ☐ LP (Propane) ☐ Oil		
How did you learn about the program? ☐ My Utility ☐ Utility Website ☐ Online Ad ☐ Mail/Bill Insert ☐ Event ☐ Contractor ☐ Newspaper ☐ Radio			
Name of Installing Contractor	Contractor Name		
Address	City	State	ZIP Code
Contractor Phone	Contractor Email		
Certifications and Signature I hereby certify that: 1. The information contained in this application is accurate and complete. 2. All rules of this incentive program have been followed. 3. I have read and understand the Terms and Conditions included with this document. I agree to verification of equipment installation which may include a site inspection by a City of Charlevoix representative. I understand that I am not allowed to receive more than one incentive from this program for any one piece of equipment. I hereby agree to indemnify, hold harmless and release the utility from any actions or claims in regard to the installation, operation and disposal of equipment (and related materials) covered herein, including liability from any incidental or consequential damages. I understand that my submittal of the requested information is for the sole purpose of my program participation. I further understand that this information will be treated as confidential to the extent permitted by law.			
Customer Signature	Print Name	Date Submitted	

Complete section below only if rebate will be paid to the Contractor or Landlord.

Payee Legal Name (as shown on income tax return):	Payee Business Name (if different than payee legal name):		
Payee Legal Address:	City:	State:	ZIP:
Mail Check to: ☐ Payee Legal Address ☐ Job Site Address ☐ Alternate Address (complete below):			
Alternate Pay Address (optional):	City:	State:	ZIP:
Payee Federal Tax Classification (check ONE only): ☐ Corporation ☐ Partnership ☐ Sole Proprietor/Individual ☐ LLC ☐ Other tax exempt organization or gov't agency			
Payee Taxpayer Identification Number (TIN) (Must match payee legal name above): FEIN #: _____ - _____			
Payee Signature:	Print Name:	Title:	Date:

For Internal Use Only

Date Received	Post Inspection	Incentive Approval	Date Approval
	Post Inspection Required? ☐ Yes ☐ No	☐ Yes ☐ No	

Incentive Worksheet

Please see Equipment Specifications & Documentation Requirements found on page 4 of this document for details, including quantity limitations.

Measure	Specs	Quantity	Incentive	Total Incentive (Quantity x Incentive)
Central Air Conditioning				
Central AC – 15 SEER	The indoor coil and outdoor condenser must be a matched set and installed on the same date to be eligible.		\$75.00	
Central AC – 16 SEER			\$100.00	
Central AC – 17 SEER			\$150.00	

Please provide the following information about the new, installed equipment:

Central AC Manufacturer:	Central AC Model Number:	Central AC Serial Number:

Mini-Split System				
Mini-Split System	Must be at least SEER 18 or higher		\$300.00	

Please provide the following information about the new, installed equipment:

Manufacturer:	Model Number:	Serial Number:

Water Heater				
ENERGY STAR® High Efficiency Heat Pump Water Heater (Replacing Electric Water Heater)	ENERGY STAR Qualified		\$150.00	

Appliances and Other Equipment				
ENERGY STAR Dehumidifier	ENERGY STAR Qualified		\$15.00	
ENERGY STAR Refrigerator	ENERGY STAR Qualified		\$25.00	
ENERGY STAR Room AC	ENERGY STAR Qualified		\$15.00	
ENERGY STAR PC (Personal Computer)	ENERGY STAR Qualified		\$15.00	
ENERGY STAR Electric Clothes Dryer — High Efficiency	ENERGY STAR Qualified		\$25.00	
Intelligent Surge Protector			\$10.00	
Programmable Thermostat	2 Programs / 4 Temperature Settings; WiFi enabled included		\$10.00	
ENERGY STAR LED Lamp	ENERGY STAR Qualified		\$4.00	
ENERGY STAR TV	ENERGY STAR Qualified		\$30.00	
ENERGY STAR Monitor	ENERGY STAR Qualified		\$15.00	
ENERGY STAR Freezer — Chest or Upright	ENERGY STAR Qualified		\$20.00	
ENERGY STAR Air Purifier	ENERGY STAR Qualified		\$40.00	

			Total Incentives: \$
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Equipment Specifications & Documentation Requirements

GENERAL PROGRAM RULES

This offer is valid only for City of Charlevoix residential electric customers for a limited time. Offer is good while funds are available, on a first-come, first-served basis. Program begins January 1, 2021 and expires December 31, 2021. City of Charlevoix reserves the right to withdraw or change this offer without notice. Incentives may not exceed purchase price. Ineligible incentive requests are subject to denial or repayment to program. Incentive requests must be received by December 31, 2021. Call 877-NRG-SAV1 (877-674-7281) for more information.

EQUIPMENT SPECIFICATIONS

Central Air Conditioning: AHRI Certificate required to verify efficiency. SEER 15, 16, or 17 required.

ENERGY STAR® Room/Window AC Unit, Dehumidifier, Refrigerator, Freezer, LED Lamp, TV, Monitor, Air Purifier and Personal Computer Products: To verify purchase, please send in a copy of the receipt with the product model numbers on it. Limit of 25 LED lamp incentives per customer.

ENERGY STAR® Heat Pump Water Heater: To verify purchase, please send in a copy of the receipt with the product model numbers on it. Limit 1 incentive per customer.

Electric Water Heater: Must replace an existing electric water heater and have an Energy Factor (EF) $\geq .93$.

ENERGY STAR® Electric Clothes Dryer: Must replace a standard efficiency electric clothes dryer. New unit must be high efficiency.

Intelligent Surge Protectors: Does not require ENERGY STAR® qualification. The Intelligent Surge Protector must be new and have one or more outlets that have integrated automatic (controlled) shut-off, when connected equipment is not being used (automatic control used to save energy). A copy of the receipt from the store where the intelligent surge protector was purchased is required. Limit 4 rebates per customer.

Programmable Thermostat: Must replace a non-programmable thermostat and be capable of maintaining two (2) separate programs and up to four (4) temperature settings for each program to address the different comfort needs of weekdays and weekends.



City of Charlevoix

Commercial & Industrial Energy Efficiency Program

2021 Incentive Application

Ready to start your project? Follow these 3 simple steps.

Step #1: Request Pre-Approval

To ensure that your project is eligible and to reserve funds, please complete, sign and submit:

1. The Pre-Approval Agreement (found on page 2 of this application), completed and signed.
2. The worksheet(s) that are applicable to your project, completed (found on pages 4-12 of this application).
3. Itemized quote/proposal with model numbers from your contractor.
4. If this project is for new construction, please refer to the New Construction application on www.mienergysmart.com.
5. All Projects are subject to inspection before and/or after work is performed.
6. All projects must receive a reservation letter before work is performed.
7. New product specification sheets

Step #2: Complete Your Project

If your project meets the pre-approval criteria, you will receive a letter indicating funds have been reserved. Following the specifications listed in this application, install your equipment within 90 days. Applications that are not completed within 90 days from the date on the acceptance letter are subject to cancellation. All equipment must be installed and operational within 90 days of the date on the acceptance letter or by November 30, 2021, whichever date comes first.

Step #3: Get Your Cash Incentive

Once your project is complete, it's time to request your cash incentive. Within 30 days of project completion, you must submit:

1. The Payment Approval Agreement (found on page 3 of this application), completed and signed.
2. The itemized invoice(s) for materials and any applicable external labor costs, including the following:
 - Contractor's name and contact information
 - Customer's name and contact information
 - Date of invoice
 - Line item cost for each product
 - Quantities of each product
 - Complete product model numbers
 - Labor (and other) expenses listed separately from product costs
 - Total invoice amount



**Please submit your
documents one
of two ways:**

Fax 517-203-0658

Email energysmart@franklinenergy.com

Have questions?

Contact us at 877-674-7281.



Pre-Approval Agreement – Step #1

Please complete and submit this page, along with the appropriate worksheet(s) and quotes with model numbers from your contractor, *before you begin your project*. If you plan to install the equipment yourself (as opposed to hiring a contractor to do so), please submit a quote/proposal for the cost of the equipment from a supplier or distributor. If your project meets the pre-approval criteria, you will receive a letter indicating the funds have been reserved. You can then proceed with completing your project, as described in Step #2 on page 1 of this application.

Name of Business		Phone		Email	
Mailing Address		City		State	ZIP Code
Installation Address		City		State	ZIP Code
Annual Hours of Operation	City of Charlevoix Electric Account Number			Taxpayer ID # (SSN/FEIN or Payee)	
Building Use (Please Check One): ☐ New Construction (refer to the New Construction application) ☐ Office ☐ Retail ☐ Warehouse ☐ Restaurant ☐ Grocery Store/Supermarket ☐ Manufacturing ☐ Lodging ☐ School (K-12) ☐ School (College) ☐ Healthcare Facility ☐ Other/Miscellaneous					
How did you learn about the program? ☐ My Utility ☐ Utility Website ☐ Online Ad ☐ Mail/Bill Insert ☐ Event ☐ Contractor ☐ Newspaper ☐ Radio					
Name of Supplier/Distributor		Contact Name			
Name of Installing Contractor		Contact Name			
Address		City		State	ZIP Code
Contractor Phone		Contractor Email			
Certifications and Signature I hereby certify that: 1. The information contained in this application is accurate and complete. 2. All rules of this incentive application have been followed. 3. I have read and understand the Terms and Conditions included with this document. I agree to verification of equipment installation which may include a site inspection by a program or utility representative. I understand that I am not allowed to receive more than one incentive from this program on any piece of equipment. I hereby agree to indemnify, hold harmless and release the utility from any actions or claims in regard to the installation, operation and disposal of equipment (and related materials) covered herein, including liability from any incidental or consequential damages.					
Customer Signature				Date Submitted	
Print Customer Name				Estimated Completion Date	

You can submit your
documents one of two ways...

FAX
517-203-0658

EMAIL
energysmart@franklinenergy.com



Payment Approval Agreement – Step #3

Please complete and submit this page, along with your itemized invoice(s), within 30 days of project completion.

Name of Business				
Total Project Cost		Total Incentives Requested		Pre-Approval Incentive Amount
Mailing Address		City	State	ZIP Code
Installation Address		City	State MI	ZIP Code
Print Name	Date		Installation Completion Date	
Certifications and Signature I certify that I am an eligible City of Charlevoix electric utility customer and that the efficiency measures in this application were installed in this facility in 2021. I certify that I have read and complied with the Terms and Conditions of this application. By submitting this application, I understand that this facility may be inspected by employees or contractors/subcontractors of City of Charlevoix to verify installation of any and all measures applied for in this application and that the project follows all program guidelines.				
Customer Signature (Must Be Same Person Who Signed Pre-Approval Agreement)				

OPTIONAL: Complete section below **ONLY** if incentive is to be paid to a third-party other than the customer.

Make Payable To	Contact Name		Contact Phone	
Mailing Address	City	State	ZIP Code	
Taxpayer ID # (FEIN or Payee)	Tax Status (Please Check One): ☐ Corporation ☐ Tax Exempt ☐ Individual ☐ Other:			
Print Name		Date		
Certifications and Signature I am authorizing the payment of the incentive to the third party named above, and I understand that I will not be receiving the incentive payment. I also understand that my release to a third party does not exempt me from the program requirements outlined in the Terms and Conditions.				
Customer Signature (Must Be Same Person Who Signed Pre-Approval Agreement)				
I certify that I have read and complied with the Terms and Conditions of this application.				
Third Party Rebate Recipient Signature				

*You can submit your
documents one of two ways...*

FAX
517-203-0658

EMAIL
energysmart@franklinenergy.com



Prescriptive Lighting Worksheet (one-for-one unit replacement)

All lighting projects are required to comply with the IESNA recommended lighting levels or local code.

Measure	Specs	Quantity	\$ / Unit	Total
Screw-In Lamps				
 CFL (less than 30W)	Replace an incandescent lamp with ENERGY STAR® CFL.		\$1 / Lamp	
 CFL (between 30W and 115W)				
 Specialty CFL (Dimmable, 3-Way, Flood)				
 LED Lamp replacement screw base CFL	Replace CFL with ENERGY STAR LED.			
 LED A Series (replacing incandescent)	Replace an incandescent lamp with ENERGY STAR LED.		\$2 / Lamp	
 LED Decorative (replacing incandescent)			\$4 / Lamp	
 LED MR16 Lamp (less than 10W)			\$4 / Lamp	
 LED PAR/BR Lamp			\$5 / Lamp	
Interior Fixtures				
 LED Downlight Fixture	Replace incandescent lamped fixture with ENERGY STAR LED fixture.		\$20 / Fixture	
LED Exit Signs	Replacement or retrofit of an incandescent or fluorescent exit sign with LED.		\$13 / Fixture	

Standard Wattage Tables

Standard Wattage Table		Existing 4 Foot Linear Fluorescent Fixtures						Existing U Lamp Fixtures		
Fixture	Wattage		T8 F32	T12 F40 34W Mag	T12 F48 40W Mag	T5 F28	T5 F54 HO		T8 FU32	T12 FU40
HID 50W	61	1 Lamp	30	43	51	33	59	1 Lamp	29	43
HID 70W	89	2 Lamp	59	72	82	63	117	2 Lamp	55	63
HID 100W	120	3 Lamp	88	115	133	96	179	3 Lamp	81	115
HID 150W	174	4 Lamp	115	144	164	126	234	Existing 2 Foot Fluorescent Fixture		
HID 175W	194	6 Lamp	162	216	266	192	351		T8 F17	T12 F20
HID 200W	230	8 Lamp	230	288	328	252	468	1 Lamp	18	25
HID 250W	290	10 Lamp	295	360	410	315	585	2 Lamp	33	50
HID 400W	455	12 Lamp	345	460	492	384	702	3 Lamp	47	71
HID 750W	850	Existing 8 Foot Linear Fluorescent Fixtures						4 Lamp	59	100
HID 1000W	1080		T12 Mag (60W lamp)	T12 Mag STD (75W lamp)	T12 Mag (95W lamp)	T12 HO Mag STD (110W lamp)				
		1 Lamp	75	-	112	-				
		2 Lamp	128	173	227	257				

Lighting Worksheet Incentive Subtotal, page 4: \$

Lighting Worksheet continues on page 5.



Pre-Approval Not Required
note indicated areas



Lighting Worksheet, continued

All lighting projects are required to comply with the IESNA recommended lighting levels or local code.

Interior Linear Fluorescent Lighting - Non-High Bay			
Incentives are eligible for replacement of interior linear fluorescent fixtures/retrofits. Incentive is \$0.08/kWh for LED. All new fixtures and retrofits must be ENERGY STAR or DLC. Use wattage listed on ENERGY STAR or DLC sites for proposed fixture or lamps.			
Existing Fixture:		Watts/Fixture:	Quantity:
Proposed Fixture:		Watts/Fixture:	Quantity:
Total:	Annual Operating Hours:		
	Watts Saved:	kWh Saved:	Incentive:
Existing Fixture:		Watts/Fixture:	Quantity:
Proposed Fixture:		Watts/Fixture:	Quantity:
Total:	Annual Operating Hours:		
	Watts Saved:	kWh Saved:	Incentive:

Interior Linear Fluorescent Lighting - Non-High Bay			
Incentives are eligible for replacement of interior linear fluorescent fixtures/retrofits. Incentive is \$0.08/kWh for LED. All new fixtures and retrofits must be ENERGY STAR or DLC. Use wattage listed on ENERGY STAR or DLC sites for proposed fixture or lamps.			
Existing Fixture:		Watts/Fixture:	Quantity:
Proposed Fixture:		Watts/Fixture:	Quantity:
Total:	Annual Operating Hours:		
	Watts Saved:	kWh Saved:	Incentive:
Existing Fixture:		Watts/Fixture:	Quantity:
Proposed Fixture:		Watts/Fixture:	Quantity:
Total:	Annual Operating Hours:		
	Watts Saved:	kWh Saved:	Incentive:

Interior Linear Fluorescent Lighting - Non-High Bay			
Incentives are eligible for replacement of interior linear fluorescent fixtures/retrofits. Incentive is \$0.08/kWh for LED. All new fixtures and retrofits must be ENERGY STAR or DLC. Use wattage listed on ENERGY STAR or DLC sites for proposed fixture or lamps.			
Existing Fixture:		Watts/Fixture:	Quantity:
Proposed Fixture:		Watts/Fixture:	Quantity:
Total:	Annual Operating Hours:		
	Watts Saved:	kWh Saved:	Incentive:
Existing Fixture:		Watts/Fixture:	Quantity:
Proposed Fixture:		Watts/Fixture:	Quantity:
Total:	Annual Operating Hours:		
	Watts Saved:	kWh Saved:	Incentive:

Lighting Worksheet Incentive Subtotal, page 5: \$			
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Lighting Worksheet continues on page 6.

Note: Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility unless there are both electric and gas savings.



Lighting Worksheet, continued

All lighting projects are required to comply with the IESNA recommended lighting levels or local code.

Interior Lighting — All High Bay Lighting, 15 feet and above for ceiling height		
Incentives are eligible for replacing High Bay Fixtures with interior High Bay Linear Fluorescent (T5/T8), Induction or LED. Existing wattages used must come off of the Standard Wattage Table on page 4. Incentive is \$0.30 per watt reduced. <i>All new fixtures and retrofits must be DLC. Use wattage listed on DLC sites for proposed fixture or lamps.</i>		
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Exterior Lighting		
Incentives are eligible for the replacement or retrofit of an exterior fixture with an induction, LED, or T8/T5 linear fluorescent fixtures which have a reduced input wattage of at least 40%. Incentives are per fixture and are based on the nominal lamp wattage of the original fixture. Incentive is for fixtures that operate less than 24 hours per day. Existing wattages must come off of the Standard Wattage Table on page 4. Incentive is \$0.35 per watt reduced. <i>All new fixtures and retrofits must be DLC. Use wattage listed on DLC sites for proposed fixture or lamps.</i>		
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Existing Fixture:	Watts/Fixture:	Quantity:
Proposed Fixture:	Watts/Fixture:	Quantity:
Total:	Watts Saved:	Incentive:
Lighting Worksheet Incentive Subtotal, page 6:		\$
Lighting Worksheet Incentive TOTAL:		\$



Controls Worksheet

Measure	Specifications	Quantity	\$ / Unit	Total
HVAC Controls				
Building Temperature Controls	Must control central AC and replace a non-programmable building management system. The new system must offer time of day controls and a minimum temperature setback of 8 degrees (heating/cooling).		\$45 / 1,000 sq ft	
Optimized Snow Melt Controls	Snow melt system must shut down completely when no precipitation is present. Controller must monitor forecasts and raise the slab temperature to 32 deg F eight hours before expected precipitation. A Slab moisture sensor must be used to signal controller to raise slab temperature to 40 degrees F when precipitation is present.		\$9 / 1,000 sq ft	
Occupancy Sensor Control for HVAC	Installation of new controls to an existing EMS system which automatically switched the HVAC system to occupied and unoccupied mode based on occupancy sensors. Provide wiring schematic at the time of submitting pre-approval.		\$30 / 1,000 sq ft	
Constant Volume AHU to VAV	Converting constant volume air handling system to a variable air volume. Must have reheat and supply at least four zones.		\$450 / 1,000 sq ft	
Air Side Economizer	Available for air handling units supplying air conditioning which have inoperable economizer controls.		\$10 / 1,000 sq ft	
Critical Zone Reset Control	Available for existing VAV air handling systems which add critical zone reset (static pressure reset) controls. At a minimum, airflow at each VAV box must be monitored and adjust control sequences must be in accordance to ASHRAE 90.1.		\$20 / 1,000 sq ft	
Hotel GREM Controls – A/C with Electric Heat	For sensors which automatically control HVAC equipment. Incentive is for new controls only and is offered per room installed.		\$65 / Unit	
Hotel GREM Controls – A/C with Gas Heat			\$10 / Unit	
Lighting Controls				
Interior Occupancy Sensors which control ≤ 500W	Sensors which automatically turn lights on when occupancy is detected and automatically turn lights off when no movement is detected after a set length of time. Cannot be used in conjunction with instant start ballast.		\$20 / Sensor	
Interior Occupancy Sensors which control > 500W			\$50 / Sensor	
Exterior Occupancy Sensors with Daylight Sensor	Sensors which automatically turn lights on when occupancy is detected and automatically turn lights off when no movement is detected after a set length of time.		\$20 / Sensor	
Interior Daylight Harvesting Sensor	The controls can be on/off, stepped or dimming and must vary the light output based on the level of sunlight received. The floor plan and control schedule must be submitted. Cannot be used with occupancy sensor.		\$0.09 / sq ft	
Interior Central Lighting Control	For systems that utilize building automation to control the lights based on a set schedule. Incentive for occupancy sensors or daylight sensor controls cannot be received on the same fixtures. Control schedule and floor plans must be submitted.		\$0.06 / sq ft	
Computer Controls				
Network Power Management Software	New installation must allow centralized control at the server level of the power management settings (sleep mode and shutdown) of desktop computers on a distributed network and must report energy savings.		\$8 / PC controlled	

Controls Worksheet Incentive TOTAL: \$



Compressed Air Worksheet

Measure	Specs	Quantity	\$ / Unit	Total
Compressed Air Equipment				
VSD Air Compressor (< 301 HP)	Replacement of constant speed compressor with rotary screw compressor controlled by a VSD.		\$150 / HP	
Refrigerated Cycling Thermal Mass Air Dryer	Available for replacing a non-cycling refrigerated air dryer with a cycling refrigerated dryer of equal capacity.		\$2 / SCFM	
Variable Speed Air Dryer			\$2 / SCFM	
Dew-Point Sensor Control for Desiccant Dryer	Available for replacing a desiccant dryer without a dew point sensor with a desiccant dryer with a dew point sensor.		\$5 / SCFM	
 Engineered Nozzles	A new compressed air nozzle installed on an open pipe or tube.		\$150 / Nozzle	
Flow Controller	The actual air compressor discharge pressure set point must be reduced by 5 psig, must be a minimum of 50 horsepower.		\$10.00 / HP	
Variable Displacement Air Compressor	New variable displacement screw compressor replacing a screw compressor with modulating or load/no load control.		\$35 / HP	
Desiccant to Refrigerated Air Dryer	New externally heated or blower purge air dryer replacing a desiccant dryer. Not allowed on inlet modulating compressors.		\$4 / SCFM	
Heat of Compression Air Dryer	Waste heat from oil-free air compressor used to regenerate desiccant dryer.		\$4 / SCFM	
Compressed Air Storage Tank	Existing: ≤ 1 gal/cfm to new ≥ 3 gal/cfm		\$50 / HP	
	Existing: ≤ 3 gal/cfm to new ≥ 5 gal/cfm		\$50 / HP	
	Existing: ≤ 5 gal/cfm to new ≥ 10 gal/cfm		\$30 / HP	
Air Compressor Outside Air Intake	Ducted outside air must provide compressed air supply.		\$8.50 / HP	
Low Pressure Drop Air Filters for Compressed Air	New low pressure drop filter (PSID ≤ 1 initial differential) replacing a standard coalescing filter.		\$5 / HP	
No-loss Drains – Compressed Air	Replacing manual or timer drains.		\$150 / Drain	

Measure	Specs	Quantity	\$ / Unit	Total
Compressed Air Energy Audit and Leak Reduction				
Incentives are available for the repair of a minimum of 50% of leaks by CFM documented in a leak audit of a compressed air system which was performed by a qualified, independent contractor. Customer or contractor can repair the leaks. Pre-approval is required prior to repairing leaks. To qualify for pre-approval: - Submit evidence of the compressed air audit leaks utilizing a spreadsheet detailing: ☐ Date of inspection. ☐ The leak locations. ☐ Estimated size of leak by volume (SCFM). ☐ Secure a tag at each leak location stating data above. ☐ A pre-inspection may be required by a MPPA advisor. ☐ Upon pre-approval, a reservation letter stating the incentive amount will be sent to the customer and trade ally. The leaks can then be fixed. To receive incentive payment: - Submit payment form, invoice and evidence of the compressed air leaks utilizing a spreadsheet and notes on tags detailing: ☐ Date of repair. ☐ The leak locations. ☐ Name of person who completed the repair. ☐ Leave updated tags in place for up to 30 days or until post inspection is performed.				
Compressed Air Leak Audit AND Repair of 50% of Documented Leaks by Volume	☐ VSD ☐ Non-VSD		\$15 / HP	



Pre-Approval Not Required
note indicated areas

Compressed Air Worksheet Incentive TOTAL: \$



Mechanical Worksheet

Variable Frequency Drives (VFD) - HVAC

Drives must be added to existing pumping or air handling applications related to HVAC or for process pumping applications. VFDs must be automatically controlled by a variable signal and have load diversity that will result in savings through motor speed variation.

To qualify for HVAC equipment:

- Motor size must be ≤ 100 HP
- Annual hours must be ≥ 1800 hours

To qualify for Process equipment:

- Motor Size must be ≤ 50 HP
- Annual hours must be ≥ 2,000 hours.

Redundant units, soft start, back-up units and replacements of existing VFDs do not qualify.

VFD Application	HP	Incentive Per HP	Quantity	Incentive Total (HP x Incentive x Qty)
HVAC Fan		\$60 / HP		
HVAC Fan		\$60 / HP		
HVAC Pump		\$75 / HP		
HVAC Pump		\$75 / HP		
Process Fan		\$75 / HP		
Process Fan		\$75 / HP		
Process Pump		\$75 / HP		
Process Pump		\$75 / HP		
ECM Pump		\$100 / HP		
ECM Pump		\$100 / HP		

Computer Room Air Conditioning (CRAC)

CRAC Unit Measure	SIZE (MBH)	Incentive	Quantity	Incentive Total
High Efficiency CRAC Unit	< 65 MBH; min SCOP = 2.2			
	65 ≤ MBH ≤ 240; min SCOP = 2.1	\$14 / MBH		
	> 240 MBH; min SCOP = 1.9			
CRAC Unit Economizer	< 65 MBH			
	65 ≤ MBH ≤ 240	\$35 / MBH		
	> 240 MBH			

CRAC Unit Measure	SIZE (HP)	Incentive	Quantity	Incentive Total
VFD on Existing CRAC Unit Process Fans		\$150 / HP		
Data Room Hot/Cold Aisle Configuration	Return Air Temp Increase ≥ 5°F	\$10 / MBH		
	Return Air Temp Increase ≥ 10°F	\$20 / MBH		

Mechanical Worksheet Incentive Subtotal, page 9: \$

Mechanical Worksheet continues on page 10.



Mechanical Worksheet, continued

Measure	Heat Pump Specs	AC Specs	Tons	Quantity	\$ / Unit	Total
Central Packaged/Split System Replacement						
Air Conditioner/ Air-Source Heat Pump	≤ 5.4 Tons	15 SEER HPSF 8.5	14 SEER		\$50/ (Ton x Qty)	
	≤ 11.25 Tons	11.8 EER 12.8 IEER 3.4 COP	12.4 EER 17.8 IEER		\$50/ (Ton x Qty)	
	≤ 20 Tons	10.9 EER 12.0 IEER 3.3 COP	12.5 EER 16.8 IEER		\$50/ (Ton x Qty)	
	≤ 63.3 Tons	10.3 EER 12.1 IEER 3.2 COP	10.6 EER 12.1 IEER		\$50/ (Ton x Qty)	
	> 63.3 Tons	10.3 EER 12.1 IEER 3.2 COP	10.2 EER		\$50/ (Ton x Qty)	

Measure	FL Specs	IPLV Specs	Tons	Quantity	\$ / Unit	Total
HVAC Chiller Replacement						
Incentives are not available for back-up or redundant chillers. Qualification and incentive based on ratings at AHRI Conditions. Must meet full-load (FL) OR part-load (IPLV).						
Air-Cooled	All Sizes	≤ 1.14 kW/ton	≤ 0.71 kW/ton		\$40 / Ton	
Water-Cooled Positive Displacement	≤ 150 Tons	≤ 0.69 kW/ton	≤ 0.46 kW/ton		\$40 / Ton	
	≤ 300 Tons	≤ 0.63 kW/ton	≤ 0.41 kW/ton		\$40 / Ton	
	> 300 and / ≤ 600 Tons	≤ 0.58 kW/ton	≤ 0.38 kW/ton		\$40 / Ton	
Water-Cooled Centrifugal	≤ 150 Tons	≤ 0.58 kW/ton	≤ 0.41 kW/ton		\$40 / Ton	
	≤ 300 Tons	≤ 0.58 kW/ton	≤ 0.37 kW/ton		\$40 / Ton	
	≤ 600 Tons	≤ 0.53 kW/ton	≤ 0.35 kW/ton		\$40 / Ton	

Measure	Specs	Quantity	\$ / Unit	Total
HVAC Chiller Maintenance				
Air-Cooled & Water-Cooled Chiller Tune-Up	Chiller must be ≤ 20 Tons. Eligible every 2 years.		\$350 / Unit	
Cogged Belt Drive	Cogged belt replacing standard V-shaped belt.		\$5 / HP	
Synchronous Belt Drive	Synchronous belt replacing standard V-shaped belt.		\$9 / HP	

Measure	Specs	Quantity	\$ / Unit	Total
Miscellaneous Equipment				
High-Frequency Battery Charger (Fork Lifts Only)	Minimum power conversion efficiency of 92%. Must replace either an existing Ferroresonant or a silicon controlled rectifier (SCR) charger.	Qty:	\$100 / Unit / Shift	
		# of Shifts:		

Mechanical Worksheet Incentive Subtotal, page 10:	\$
Mechanical Worksheet Incentive TOTAL:	\$



Commercial Kitchen / Retail Worksheet

Measure	Specs	Quantity	Product Information	\$ / Unit	Total
Commercial Kitchen Systems					
ENERGY STAR® Steam Cooker	Energy Star		# of pans:	\$600 / Unit	
Energy Star Refrigerator Check one: ☐ Solid Door ☐ Glass Door	Energy Star		ft ³	\$100 / Unit	
Energy Star Freezer Check one: ☐ Solid Door ☐ Glass Door	Energy Star		ft ³	\$100 / Unit	
Energy Star Ice Machine	Energy Star		lbs/day	\$400 / Unit	
Energy Star Fryer	Energy Star			\$80 / Unit	
Energy Star Hot Holding Cabinets	Energy Star		ft ³	\$200 / Unit	
Energy Star Commercial Dishwasher	Energy Star			\$600 / Unit	

Measure	Specs	Quantity		\$ / Unit	Total
Commercial Refrigeration Systems					
LED Grocery Case Lighting	Replace T12 or T8 with LED lighting.			\$40 / Door	
Recycling of Refrigerators	Refrigerator must be used in a commercial setting. Must be >15 and <40 cubic feet.			\$50 / unit	
Occupancy Sensor for LED Case Lighting	Sensors which automatically turn on LED cooler lighting when motion is detected.			\$10 / Door	
Walk-In or Case Cooler/Freezer ECM	Replacement of PSC or shaded pole motors with an ECM motor.			\$100 / Motor	
No Heat Reach-In Case Doors	Replace existing case door with special glass door that requires no anti-sweat heat.			\$150 / Door	
Cooler Strip Curtains	Installation of new curtains isolating a cold storage area.			\$5 / ft²	
Freezer Strip Curtains	Installation of new curtains isolating a freezer storage area.			\$25 / ft²	
Cooler/Freezer Door Gaskets	Installation of new gaskets to reduce air infiltration on a cooler or freezer door.			\$2.50 / Linear Foot	
Cooler Night Covers	Vertical covers designed for refrigerated display cases. Incentive is based on linear length of cooler and the time per day covers are used.	Ft	Hr	\$1 / Foot / Hour	
Anti-Sweat Heater Controls	Controls which monitor relative humidity and turn off anti-sweat heaters when appropriate.			\$80 / Door	
High Speed Door (Cooler-Dock)	High speed door replacing strip curtains between a cooler space and dock space.			\$15 / Door	
High Speed Door (Cooler-Freezer)	High speed door replacing strip curtains between a cooler space and freezer space.			\$70 / Door	
High Speed Door (Freezer-Dock)	High speed door replacing strip curtains between a freezer space and dock space.			\$145 / Door	

Commercial Kitchen / Retail Worksheet Incentive TOTAL: \$



Custom Worksheet

These incentives are available to customers for energy-saving measures that are not covered by the prescriptive portion of the program. Custom incentives are based on the first-year energy (kWh) savings.

When applying for pre-approval of a custom project, you must submit the following items:	Custom Incentive Rate \$0.10 / kWh
1. Completed and signed Pre-Approval Agreement (page 2) 2. Completed Custom Worksheet (below) 3. Itemized quote/proposal for all related materials and any external labor 4. Manufacturer's specification sheets for all equipment	

Custom Project – Item 1			
Before Retrofit:		Existing Wattage	
After Retrofit:		Proposed Wattage	
Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period*:
Total:		Calculated Annual kWh Savings:	Calculated Incentive:

Custom Project – Item 2			
Before Retrofit:		Existing Wattage	
After Retrofit:		Proposed Wattage	
Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period*:
Total:		Calculated Annual kWh Savings:	Calculated Incentive:

Custom Project – Item 3			
Before Retrofit:		Existing Wattage	
After Retrofit:		Proposed Wattage	
Electric Rate (\$ / kWh):	Project Cost:	Annual Operating Hours:	Payback Period*:
Total:		Calculated Annual kWh Savings:	Calculated Incentive:

* Payback Period must be greater than or equal to one (1) and less than or equal to eight (8) years to receive the incentive.

$$\text{Payback period} = \frac{\text{Incremental Measure Cost}}{(\text{Annual kWh Saved} \times \text{Electricity Rate})}$$

Total Custom Measure Cost:	\$
Custom Worksheet Incentive TOTAL: (Cannot exceed 50% of the total custom project cost)	\$

Note: Customer acknowledges and agrees that Customer cannot apply for, nor receive, incentives for the same product, equipment or service from more than one utility unless there are both electric and gas savings.



Terms and Conditions

1. **Eligibility:** These incentives are offered by your Energy Smart utility to commercial and industrial electric customers installing energy efficient equipment only. For questions regarding eligibility, call 877-674-7281.
2. **Incentive Offer:** Energy efficient equipment subject to incentive from your Energy Smart utility must be installed and operational by November 30, 2021. Applicant has 90 days from the date of the acceptance letter to complete the proposed project. Applications that are not completed within 90 days are subject to cancellation. Additionally, invoice(s) related to the equipment upgrade must be submitted to Energy Smart within 30 calendar days of installation (completion) and no later than November 30, 2021. Please keep a copy for your records. Incentives are calculated based on prescriptive incentive rates and shall not exceed the total cost of equipment, labor, and other associated project costs.
3. **Project Documentation Requirements:** Customer will have to provide your Energy Smart utility with the documentation as listed in the instructions (page 1). If Customer does not provide the required project documents to Energy Smart at pre-approval and payment stages, the project may be disqualified from the program. The project may also be disqualified if pre-approval is not received, unless otherwise noted on the application.
4. **Energy Efficiency Improvement Qualifications:** Increased energy efficiency resulting from peak shaving, demand limiting, or operating schedule changes does not qualify. To qualify, lighting equipment must have a planned minimum usage of 1,800 hours per year. Non-lighting equipment must have a planned minimum usage of 1,500 hours per year. If Customer's equipment does not meet required usage hours per year, an incentive cannot be offered. If Customer has questions or concerns about above qualifications, Customer may contact Energy Smart to discuss.
5. **Incentive Limit:** Prescriptive and Custom project applications may receive or cumulate a maximum of \$5,000 combined per customer name and/or business entity each calendar year. Incentives for measures can be up to 100% for Prescriptive projects and 50% for Custom projects of the total project cost of a specific measure but shall not exceed the incentives set by your Energy Smart utility for each measure on the application Worksheet(s).
6. **Compliance:**
 - a. All projects must comply with applicable federal, state and local laws.
 - b. All equipment must be new or retrofitted with new components.
 - c. The purchase and installation of used equipment is not eligible for incentives. Existing equipment must be removed and/or permanently disconnected.
 - d. Equipment must meet specification requirements as defined in application Worksheets and Equipment Guidelines.
7. **Payment:** Approved Final Applications will receive payment within 8-10 weeks of signed payment approval. Incomplete applications will either delay payments or result in denial of application approval. Your Energy Smart utility reserves the right to refuse payment and disqualify Customer from participating in the program if the customer or their contractor violates any program Terms and Conditions. The qualified equipment must be installed and operating for the rated life of the product(s) or for a period of three (3) years from receipt of rebate, whichever is more. If the qualified equipment is removed or replaced with less efficient equipment, or if Customer ceases to be a customer of your Energy Smart utility during the three (3) years, Customer shall refund a prorated amount of rebate dollars based on the time installed within thirty (30) days of receipt of notice from your Energy Smart utility.
8. **Inspection:** Energy Smart staff may conduct inspection(s) of the project site to survey existing conditions and/or newly installed equipment.
9. **Publicity:** Your Energy Smart utility reserves the right to publicize Customer's participation in this program, unless Customer specifically requests in writing otherwise.
10. **Program Discretion:** Incentives are available on a first-come, first-served basis. Incentive amounts and offerings are subject to change and/or termination without notice and at the discretion of your Energy Smart utility.
11. **Disclaimers:** Your Energy Smart utility:
 - a. does not endorse any particular manufacturer, product, labor or system design by offering this program;
 - b. is not responsible for any tax liability imposed on the customer as a result of the payment of incentives. Your Energy Smart utility is tax exempt;
 - c. does not expressly or implicitly warrant the performance of installed equipment or contractor's quality of work (contact your contractor for detailed warranties);
 - d. is not responsible for the proper disposal/recycling of any waste generated as a result of this project;
 - e. is not liable for any damage caused by the installation of the equipment and/or for any damage caused by the malfunction of the installed equipment.
12. **Participating Trade Ally Program:** Participating Trade Allies must adhere to standards of acceptable behavior and performance. Violation of these standards could result in removal from the program. Should an alleged violation occur, the contractor will be contacted.
13. **Indemnification:** Customer shall, to the fullest extent permitted by law, indemnify and hold harmless your Energy Smart utility, and their officers, agents and employees harmless from and against all losses and litigation expenses arising out of or resulting from the performance of work hereunder and caused, in whole or part, by any act or omission of Contractor. Your Energy Smart utility shall further be entitled to all cost (which include both internal and external) incurred in the process of enforcing this or any other provision under this agreement. This provision is not intended and is not to be construed as a waiver of the defense of governmental immunity otherwise available nor is it construed as a waiver of the defense of governmental immunity otherwise available nor is it intended to grant third party beneficiary status to any person or entity.
14. **Governing Law:** This agreement is construed in accordance with Michigan law, without regard to conflict of laws, provisions, and venue is in the county in which the municipality resides.
15. **Intellectual Property:** No rights in copyright, patents, trademarks, trade secrets, or other intellectual property are granted to contractor and/or subcontractor except as expressly provided under these Terms. Contractor and/or subcontractor will not register or use any mark and/or internet domain name that contains any Energy Smart intellectual property.

You can submit your
documents one of two ways...

FAX
517-203-0658

EMAIL
energysmart@franklinenergy.com

CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: Public Act 171 Shutoff Notice

DATE: July 6, 2021

PRESENTED BY: John Griffith, Electric Department Director

BACKGROUND:

Public Act 171 of December 15, 2009, established certain procedures for the disconnect of electric service for non-payment of utility bills. Article 9q (3) of PA 171 states, in part, "A provider shall not shut off service unless it sends a notice to the customer by first-class mail or personally serves the notice not less than 10 days before the date of the proposed shutoff." The City of Charlevoix has been using linemen to personally deliver these notices. The cost of delivery could be reduced by delivering the notices by first class mail.

As we transition this delivery model, we would propose to send notices by first class mail and personal service starting immediately with mail-only after October 1.

RECOMMENDATION:

Motion to authorize the delivery of the notice of disconnect of electric service to be by first class mail beginning October 1, 2021.

CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: Lake Charlevoix EMS Authority Benefits Resolution

DATE: July 6, 2021

PRESENTED BY: Mark L. Heyldauff, City Manager

BACKGROUND:

As the Lake Charlevoix EMS Authority prepares to onboard new employees, many of whom already have been working for the City, they desired to offer health and other insurance benefits comparable to our plan. To sort through insurance and other benefits questions more broadly for the City, I retained Nancy Keppelman of the firm Butzel Long in Ann Arbor. She researched the matter and determined that the Authority was a related employer for the purpose of purchasing benefits and, if the Authority agrees, it can obtain insurance for its employees based on what the City offers its employees. This will benefit the Authority by lowering benefits costs and aid the transition of employees. Long-term, it will also aid the City by not reducing and perhaps expanding the size of our benefit group to lower costs and spread risk.

RECOMMENDATION:

Motion to approve Resolution 2021-07-01.

ATTACHMENTS:

- ▣ Resolution

**CITY OF CHARLEVOIX
RESOLUTION NO. 2021-07-01**

LAKE CHARLEVOIX EMERGENCY MEDICAL SERVICES AUTHORITY ADOPTION OF CITY BENEFITS APPROVAL

WHEREAS, the City of Charlevoix (City) maintains the following health and welfare benefit programs:

- a medical, dental and vision insurance program with costs shared by the City and employees, which offers a choice between a fully insured option or a high deductible health plan plus health savings account contribution,
- a cash payment in lieu of medical coverage to employees with other medical coverage,
- group term life insurance,
- short- and long-term disability,
- may offer a section 125 cafeteria plan and flexible spending account plan, and
- may offer other insurance at the employee's expense; and

WHEREAS, certain City employees will be transferred to the newly formed Lake Charlevoix Emergency Medical Services Authority (EMS Authority); and

WHEREAS, the EMS Authority wishes to offer its employees the same or very similar health and welfare benefits as the City offers, so as to be able to retain transferred employees and attract new employees in the future; and

WHEREAS, the City and the EMS Authority have been advised by legal counsel that they are related employers which may be treated as a single employer for purposes of employee benefits so that the EMS Authority may elect to participate in City health and welfare benefit plans; and

WHEREAS, the City and the EMS Authority have agreed that as related employers, it is advisable for the EMS Authority to adopt the City's health and welfare programs as an adopting employer, with the terms of such programs to be set by the City from time to time.

NOW THEREFORE BE IT RESOLVED, that the City hereby consents to the adoption of its health and welfare programs by the EMS Authority as a participating employer. The terms of such programs and the insurers to provide insured benefits shall be selected by the City from time to time in its discretion, provided that the EMS Authority shall have the discretion to provide only the high deductible health insurance plus health savings plan or only the fully insured health option, or both, and shall have the discretion to select the welfare benefits for its employees from among those offered by the City; and

BE IT FURTHER RESOLVED, that the EMS Authority shall pay for such health and welfare benefits for its employees, either directly to the insurer or other provider, or by reimbursement to the City, at cost; and

BE IT FURTHER RESOLVED, that the EMS Authority shall have the power to elect to terminate its participation in one or more of the City's health and welfare programs in its discretion, with such notice to the City as the City may reasonably require, in which case the EMS Authority will have the responsibility to develop its own health and welfare plans for its employees after the effective date of such termination.

RESOLVED this 6th day of July, 2021 A.D.

Resolution was adopted by the following yeas and nays vote:

Yeas:

Nays:

Absent:

CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: Short Term Rentals Appeals Board

DATE: July 6, 2021

PRESENTED BY: Mark L. Heyldauff, City Manager

BACKGROUND:

The City enacted an ordinance to limit and regulate Short Term Rentals in 2020. As part of this ordinance, an appeals board was included to hear appeals when the enforcement officer may penalize or revoke a license for cause. Until now, we have not had any such appeal but an appeal has been requested. The City Attorney drafted the attached resolution to set the board and appoint the members.

RECOMMENDATION:

Motion to approve Resolution 2021-07-03.

ATTACHMENTS:

- ▣ Resolution

CITY OF CHARLEVOIX
RESOLUTION NO. 2021-07-03
SHORT TERM RENTALS APPEALS BOARD

WHEREAS, the City of Charlevoix has adopted an ordinance to regulate short-term rentals within the City; and

WHEREAS, the City of Charlevoix Short-Term Rentals Ordinance provides for a procedure to appeal from the denial, suspension, or revocation of a short-term rental registration; and

WHEREAS, the City of Charlevoix Short-Term Rentals Ordinance provides that the Short Term Rentals Appeals Board shall conduct show cause hearings as to why short-term rental registrations shall not be revoked; and

WHEREAS, the Charlevoix City Council wishes to establish the Short Term Rentals Appeals Board consisting of three persons who serve at the pleasure of the City Council.

NOW THEREFORE BE IT RESOLVED, that the Charlevoix City Council hereby establishes the Short Term Rentals Appeals Board, whose initial members shall be [NAME], [NAME], and [NAME], and whose appointment shall take effect immediately.

RESOLVED this 7th day of July 2021 A.D.

Resolution was adopted by the following yeas and nays vote:

Yeas:

Nays:

Absent:

CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: Council Rules of Procedure Amendment

DATE: July 6, 2021

PRESENTED BY: Mark L. Heyldauff, City Manager

BACKGROUND:

Last year, you modified the Council Rules of Procedure to allow virtual meetings and remote participation. Earlier this spring, the legislature and governor revised the Open Meetings Act to only permit these kinds of participation in certain circumstances. This amendment to the Rules of Procedure defers to what is allowed in the Open Meetings Act as it stands now and may be amended in the future.

RECOMMENDATION:

Introduce the resolution and lay it on the table pursuant to the City Council Rules of Procedure.

ATTACHMENTS:

- ▣ Resolution

CITY OF CHARLEVOIX
RESOLUTION NO. 2021-07-04
AMENDMENT TO THE RULES OF PROCEDURE FOR CITY COUNCIL

- WHEREAS,** the Charlevoix City Council adopted "Rules of Procedure for City Council" on November 4, 1996 and has subsequently amended them from time to time; and
- WHEREAS,** pursuant to Rule 20 of the Rules, they may be amended by resolution voted upon at any meeting but shall be tabled until the next regular meeting thereof or at such other time as the Council shall determine; and
- WHEREAS,** the COVID-19 pandemic caused the Governor to declare a State of Emergency and public health authorities recommended social distancing guidelines including virtual meetings. Subsequently, the legislature and governor enacted revisions to the Open Meetings Act limiting the applicability for virtual meetings and remote participation.

NOW THEREFORE BE IT RESOLVED, Rule 2 of the "Rules of Procedure for City Council" shall be amended as follows: Strike all language so that

Rule 2 should read:

Four members of the City Council (which may include the Mayor) shall be present in the appointed meeting location to constitute a quorum for the transaction of business. Members may participate remotely only when the Open Meetings Act may specifically allow it; virtual meetings shall likewise only be permitted in circumstances allowed by law or a State of Emergency.

In the absence of a constituted quorum, two or more members may adjourn any *regular* or *special* meeting to a later date. In the event of such adjournment, the City Clerk shall notify the absent members, and as soon as reasonably possible, but failure of such other members to receive notice shall not excuse them from attending such adjourned meeting.

Issues requiring a majority of Council require four votes to enact and, when applicable, are shown herein as **majority**. Issues requiring only a majority of the quorum present are shown as *majority*. Members present via remote means shall be deemed present in both circumstances.

RESOLVED this 19th day of July 2021

Resolution was adopted by the following yeas and nays vote:

Yeas:

Nays:

CHARLEVOIX CITY COUNCIL

All Other Actions and Requests

TITLE: Council Appointments

DATE: July 6, 2021

PRESENTED BY: Janet Kalbfell and Greg Bryan, Councilmembers

BACKGROUND:

Paul Weston requested reappointment to the Historic District Commission. This is a Council appointment.

Mike Doherty requested appointment to the Zoning Board of Appeals as an Alternate Member. This is a Council appointment.

RECOMMENDATION:

Motion to reappoint Paul Weston to the Historic District Commission, term expiring June 2024.

Motion to appoint Mike Doherty to the Zoning Board of Appeals, term expiring December 2024.

ATTACHMENTS:

- ▢ Applications



CITY OF CHARLEVOIX
VOLUNTEER BOARDS AND COMMITTEES APPLICATION

Thank you for your interest in serving on a volunteer board, commission or committee. The purpose of this form is to provide the Mayor and City Council members with some information about residents considered for appointment. Your application will be kept active for six months and you will be contacted if you are chosen to serve.

☐ BOARD OF REVIEW ☐ COMPENSATION COMMISSION ☐ DDA/MAIN STREET BOARD ☒ HISTORIC DISTRICT COMMISSION	☐ HOUSING COMMISSION ☐ PLANNING COMMISSION ☐ RECREATION ADVISORY COMMITTEE ☐ SHADE TREE & PARK COMMISSION	☐ ZONING BOARD OF APPEALS ☐ OTHER _____ ☐ NO PREFERENCE
--	--	--

PLEASE PRINT

NAME: PAUL WESTON

ADDRESS: 110 BURNS ST.

HOME PHONE: (231) 547-6603 CELL PHONE: _____

EMAIL: pjweston@charter

ARE YOU A REGISTERED VOTER IN THE CITY? yes HOW LONG HAVE YOU LIVED IN THE CITY? 22 yrs - full time

EDUCATIONAL BACKGROUND: Bowdoin College BA MBA prog. @ Wharton School

PROFESSIONAL QUALIFICATIONS AND/OR WORK EXPERIENCE: 4 yrs FDA, 30 yrs Investment Adviser

COMMUNITY ACTIVITIES AND/OR OTHER EXPERIENCE: Historic Distict Comm. since in 2006

HAVE YOU SERVED ON A BOARD/COMMITTEE OR HELD A CIVIC POSITION IN THE PAST? IF YES, PLEASE EXPLAIN:

DO YOU FORESEE ANY POTENTIAL CONFLICTS OF INTEREST WHILE EXECUTING THE DUTIES OF THIS POSITION? IF YES, PLEASE EXPLAIN:
No

REASON(S) YOU WISH TO SERVE: Long-time Seasonal Resident since 1958
Full-time for last 22 yrs. Love this community & its history.

HAVE YOU REVIEWED THE CURRENT MEETING SCHEDULE OF THE BOARD/COMMITTEE AND CAN COMMIT TO REGULAR MEETING ATTENDANCE? _____

SIGNATURE: Paul Weston DATE: 6/25/21

RETURN APPLICATION TO THE CITY CLERK'S OFFICE: 210 STATE STREET CHARLEVOIX, MI 49720 – EMAIL clerk@charlevoixmi.gov

Print**Volunteer Boards and Committees Application - Submission #1175****Date Submitted: 7/1/2021**

Thank you for your interest in serving on a volunteer board, commission or committee. The purpose of this form is to provide the Mayor and City Council members with some information about residents considered for appointment. Your application will be kept active for six months and you will be contacted if you are chosen to serve.

Committees and Boards to Apply For

- | | | | |
|--|---|---|--|
| ☐ Board of Review | ☐ Historic District Commission | ☐ Recreation Advisory Committee | ☐ No Preference |
| ☐ Compensation Commission | ☐ Housing Commission | ☐ Shade Tree & Park Commission | ☐ Other |
| ☐ DDA / Main Street Board | ☐ Planning Commission | ☒ Zoning Board of Appeals | |

Other**Name**

C. Michael Doherty

Email Address

cmiikedoherty@gmail.com

Address

410 Mason Street

Home Phone

231 437-3339

Cell Phone

517 719-8432

Are you a registered voter in the City?

☒ Yes

☐ No

How long have you lived in the City?

20 years

Educational Background

B.S. Business/Marketing CMU

Professional Qualifications and / or Work Experience

Real Estate Broker, Builder, Board of Directors for Lansing Realtors

Community Activities and / or Other Experience

Former Elder for Church, Kiwanis member, and Old Newsboy

Have you served on a board / committee or held a civic position in the past?

☒ Yes

☐ No

If yes, please explain.

Board of Directors for Lansing Association of Realtors

Do you foresee any potential conflicts of interest while executing the duties of this position?

☐ Yes

☒ No

If yes, please explain.

Reason(s) You Wish to Serve

To be involved in the community.

Have you reviewed the current meeting schedule of the board / committee and can commit to regular meeting attendance?

☒ Yes

☐ No

Electronic Signature Agreement

By checking the "I agree" box below, you agree and acknowledge that 1) your application will not be signed in the sense of a traditional paper document, 2) by signing in this alternate manner, you authorize your electronic signature to be valid and binding upon you to the same force and effect as a handwritten signature, and 3) you may still be required to provide a traditional signature at a later date.

☒ I agree.

Electronic Signature

C. Michael Doherty

Date

7/1/2021

CHARLEVOIX CITY COUNCIL

Reports and Communications

TITLE: City Manager's Comments

DATE: July 6, 2021

PRESENTED BY: Mark L. Heydlauff, City Manager

BACKGROUND:

A. Monday Farmer's Market

In our second season of running a Farmer's Market on Monday evenings at Ferry Beach, we are piloting the inclusion of a small number of regional crafters and artisans to complement the food vendors we typically have. With staffing challenges, many of our vendors have been unable to commit to the markets but we believe there is still interest from the public and long-term interest from vendors to utilize this space and timing to create a new opportunity.

B. West Dixon Streetlights

After the feedback from Council at your last meeting, Electric Director John Griffith and I will be rethinking the discussion on streetlights to better reflect your concerns about dark skies, consistency in design, and implementation. Rather than have a snap return with the same plan, Council raised important questions that can reflect a better proposal that is responsive to the neighborhood. We'll come back to you later in the summer with a more comprehensive presentation about this block and the broader street lighting system.

C. Annual Performance Review

Annually, Council reviews my performance. I would suggest planning this for your first meeting in August. If there is concern with this timing, please let me know.

CHARLEVOIX CITY COUNCIL

Other Council Business

TITLE: Closed Session: Pending Union Negotiations

DATE: July 6, 2021

PRESENTED BY: Mark L. Heydlauff, City Manager

BACKGROUND:

Pursuant to MCL 15.268(c), I request Council enter closed session for strategy and negotiation sessions connected with the negotiation of a collective bargaining agreement if either negotiating party requests a closed hearing. In this case, the discussion is relative to the Communication Workers of America CBA which expires later this summer.

RECOMMENDATION:

Motion to enter a closed session for the purpose of discussing strategy connected with the negotiation of a collective bargaining agreement pursuant to MCL 15.268(c).