



# CHARTER TOWNSHIP OF HIGHLAND

205 N. John Street Auditorium Highland, Michigan 48357 248/887-3791

## SPECIAL BOARD OF TRUSTEES MEETING AGENDA

March 15, 2021 - 6:30 P.M.

Based on the December 7, 2020, Board of Trustees Resolution Declaring and Confirming Coronavirus Local State of Emergency and the COVID-19 epidemic declared by the Director of the Michigan Department of Health and Human Services, this meeting will be held by electronic remote access that provides 2-way telephone or video conferencing as permitted by and in accordance with the Open Meetings Act as amended by Public Act No. 228 of 2020.

The public may participate in the meeting through Zoom by computer, tablet or smart phone using the following link: <https://us02web.zoom.us/j/86418648308>. New to Zoom? Get the app now and be ready when your first meeting starts March 15, 2021, at 6:30 p.m. Meeting ID: 864 1864 8308

You may also participate using your phone by calling the following numbers:

One tap mobile

+13017158592,,86418648308# US (Washington DC) +13126266799,,86418648308# US (Chicago)

Dial by your location

+1 301 715 8592 US (Washington DC)

+1 253 215 8782 US (Tacoma)

+1 312 626 6799 US (Chicago)

+1 346 248 7799 US (Houston)

+1 929 436 2866 US (New York)

+1 669 900 6833 US (San Jose)

Find your local number: <https://us02web.zoom.us/j/86418648308>

Meeting ID: 864 1864 8308

Members of the public will only be able to speak during the Public Comment period at the beginning of the meeting and Public Hearing, such comments will be limited to three minutes per person. To provide for orderly public participation, a person wishing to speak must first state their name and request to be recognized by the Chairperson of the meeting. The Chairperson will recognize all persons wishing to speak during the public comment period. Prior to the meeting, members of the public may contact the members of the Highland Township Board of Trustees to provide input or ask questions by email or mail to the Township employee/official and at the address listed below. Persons with disabilities in need of accommodations to be able to participate in the meeting should provide at least 24-hour advance notice to the listed Township employee by phone, email, or mail and an attempt will be made to provide reasonable accommodations.

Tami Flowers MiPMC, Clerk  
Charter Township of Highland  
205 North John Street,  
Highland, Michigan 48357  
Email: [clerk@highlandtwp.org](mailto:clerk@highlandtwp.org)  
Phone: (248) 887-3791 Extension 5

1. Call Meeting to Order
2. Pledge of Allegiance
3. Roll
4. Approval of Agenda
5. Consent Agenda Approval

Approve:

- a) Board of Trustees Meeting Minutes 03-01-21
  - b) List of Bills dated 03-10-21 plus additions
  - c) Fire Dispatch Service Agreement Between County of Oakland and Charter Township of Highland April 1, 2021 – March 31, 2024
6. Announcements and Information Inquiry:
    - a) Highland Township Offices will be closed Good Friday, April 2, 2021
  7. Public Comment
  8. Pending Business:
    - a) Proposed Purchase of Potential Park and Cemetery Land
  9. New Business:
    - a) Introduce Ordinance No. 470 to Amend the Lake Access and Docking Regulations in Article III of Chapter 24 of the Code of Ordinances for the Charter Township of Highland by Revising the Purpose, Definitions, and Regulations Sections, but without Changing the Section that Provides for Enforcement and Penalties for Violation of the Regulations.
    - b) Award Low Voltage Bid for Fire Station 1
    - c) Community Sharing Lease
  10. Adjourn

1. Call Meeting to Order

Time: \_\_\_\_\_

Number of Visitors: \_\_\_\_\_

## 2. Pledge of Allegiance

# Special Township Board Meeting Roll

Date: March 15, 2021

Present

\_\_\_\_\_  
\_\_\_\_\_  
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Absent

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\_\_\_\_\_

Board Member

Rick A. Hamill  
Tami Flowers  
Jenny Frederick  
Judy Cooper  
Brian Howe  
Beth Lewis  
Joseph Salvia

Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

#### 4. Approval of Agenda

## **5a. Consent Agenda Approval**

- a) Board of Trustees Meeting Minutes 03-01-21
- b) List of Bills dated 03-10-21 plus additions
- c) Fire Dispatch Service Agreement Between County of Oakland and Charter Township of Highland April 1, 2021 – March 31, 2024

CHARTER TOWNSHIP OF HIGHLAND  
REGULAR BOARD OF TRUSTEES MEETING  
March 1, 2021 - 6:30 p.m.

The meeting was called to order at 6:30 p.m. with the Pledge of Allegiance.

Roll Call: Rick Hamill, Supervisor  
Tami Flowers, Clerk  
Jenny Frederick, Treasurer  
Judy Cooper, Trustee  
Brian Howe, Trustee, Trustee – joined at 6:42 p.m.  
Beth Lewis, Trustee  
Joseph Salvia, Trustee

Also Present: Ken Chapman, Fire Chief  
Gary Dovre, Township Attorney  
Matt Snyder, Lieutenant OCSO

Visitors: 22

**Approval of Agenda:**

Mr. Hamill requested New Business Item d) Proposed Purchase of Potential Park and Cemetery Land be removed from the agenda. Mrs. Cooper moved to approve the agenda as amended. Mr. Salvia supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Lewis – yes, Salvia – yes.

**Consent Agenda Approval:**

- a) February 1, 2021 Board of Trustees Meeting Minutes
- b) List of Bills dated 02-10-21 and 02-24-21 plus additions
- c) Renew Freedom Works 2021 Contract for Lawn Maintenance
- d) Appoint Kevin Curtis to the Planning Commission term ending March 1, 2024
- e) Resolution 21-06 Approving Hickory Ridge Pines Park Soccer Fields Usage Fee
- f) Participate in 2021 Tri-Party Program with RCOC
- g) RCOC 2021 Dust Control Program

**Receive and File:**

Activity Council Board Minutes – January 13, 2021  
Building Department – January 2021  
Financial Report – January 2021  
Fire Department – January 2021  
Library Board Meeting Minutes – January 2021  
Library Director's Report – February 2021  
Ordinance Department Enforcement – January 2021  
Ordinance Department Inspections – January 2021  
Sheriff's Department – Year End 2020 and January 2021  
Treasurer's Report – January 2021



Mrs. Cooper moved to approve the consent agenda as presented. Mrs. Lewis supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Lewis – yes, Salvia – yes.

**Announcements and Information Inquiry:**

a) Highland Township Offices will be closed Good Friday, April 2, 2021

Supervisor announced the passing of Al Evans. Tribute and recognition of Roscoe Smith on his 90<sup>th</sup> birthday for all he has done for Highland Township. Special Board Meeting is scheduled for March 15<sup>th</sup> at 6:30 p.m. Mr. Salvia commented on the progress at Fire Station No. 1.

**Public Comment:**

A resident inquired about the percentage of fire fighters who have received the vaccine.

**Public Hearing:**

a) **2021 Community Development Block Grant Application**

The Public Hearing was opened at 6:44 p.m. and closed at 6:52. Requests were made from HAVEN and Community Sharing to be considered for support.

**New Business:**

a) **2021 Community Development Block Grant Application**

Mrs. Frederick moved to approve the 2021 Community Block Grant Application Project #1 in the amount of \$20,970 for the Mobile Home, Minor Repairs. Mrs. Cooper supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

Mrs. Frederick moved to approve the 2021 Community Block Grant Application Project #2 in the amount of \$4,986 for HAVEN. Mr. Howe supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

Mrs. Frederick moved to approve the 2021 Community Block Grant Application Project #3 in the amount of \$4,000 for Meals on Wheels. Mrs. Lewis supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

**b) Purchase BS&A for Online Assessing**

Mr. Hamill moved to authorize the Supervisor to sign the proposal from BS&A – Option 2 in the amount of \$6,300 for online assessing. Mr. Salvia supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

**c) Architecture and Engineering to Remodel Sheriff Substation**

Mr. Hamill moved to authorize the Supervisor to sign the proposed Professional Services Agreement for Architecture and Engineering with Lindhout Associates to determine the cost to remodel the sheriff's office building and to authorize the payment of up to \$32,600 for said services. Mr. Salvia supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes. Budget amendment will be presented at a future meeting.

**d) Proposed Purchase of Potential Park and Cemetery Land – Removed from agenda.**

**e) Purchase of Tractor Loader and Assorted Implements for Township Maintenance**

Mr. Hamill moved to approve the purchase of a John Deere 2038R Tractor Loader and assorted implements for township maintenance from D&G Equipment in the amount of \$34,171.89 and to waive the Township Purchasing Policy because the price meets the MiDEAL price thru the State of Michigan plus 8% discount, it is from a local dealer and taxpayer and repairs can be made locally. Mr. Salvia supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

**f) EMS Billing Collection Process**

Mr. Hamill moved to approve the EMS Billing Collection Process as outlined in the Fire Chief's memo. Mrs. Cooper supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

Mr. Hamill moved to approve and authorize the Supervisor to sign the necessary agreement with Merchants & Medical subject to approval by the township attorney. Mrs. Cooper supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

**g) Budget Amendment – Close Transportation Fund**

Mrs. Frederick moved to approve the Budget Amendment – Close Transportation Fund as presented. Mrs. Cooper supported, and the motion carried with the following roll call vote: Hamill – yes, Flowers – yes, Frederick – yes, Cooper – yes, Howe – yes, Lewis – yes, Salvia – yes.

**Adjourn:**

Supervisor Hamill adjourned the meeting at 7:51 p.m.

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Tami Flowers, MiPMC  
Highland Township Clerk

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Rick A. Hamill  
Highland Township Supervisor

UNAPPROVED

Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
<b>GENERAL FUND</b>					
<b>101-000-000-202-001 ESCROW BONDS&amp;ENG. FEES PAYABLE</b>					
8215	755 MANAGEMENT COMPANY INC	101-ESCROW/BUILDING	B20-00424	02/25/2021	500.00
7669	AFTC HOME TRANSPORT & SERVICES INC	101-ESCROW/BUILDING	B19-00261	02/26/2021	500.00
7669	AFTC HOME TRANSPORT & SERVICES INC	101-REINSPECTION	B19-00261	02/26/2021	57.00-
6091	C & L WARD BROS. CO.	101-BUILDING/ESCROW	B20-00597	02/25/2021	125.00
7768	CLARKS CONCRETE SERVICES LLC	101-ESCROW/BUILDING	B19-00424	03/01/2021	125.00
8214	CREATIVE CONST	101-ESCROW/BUILDING	B20-00537	02/24/2021	750.00
5917	HANSON'S WINDOW & CONST.	101-ESCROW/BUILDING	B20-00074	03/02/2021	250.00
1498	HIGHLAND TOWNSHIP	101-REINSPECTION FEE	B19-00125	03/02/2021	57.00
1498	HIGHLAND TOWNSHIP	101-REINSPECTION FEE	B19-00261	03/01/2021	57.00
8216	MCGRATH, LORIE	101-ESCROW/BUILDING	B19-00125	03/03/2021	250.00
8216	MCGRATH, LORIE	101-REINSPECTION FEE	B19-00125	03/03/2021	57.00-
6102	WALLSIDE INC.	101-ESCROW/BUILDING	B20-00455	02/23/2021	125.00
6102	WALLSIDE INC.	101-ESCROW/BUILDING	B20-00535	02/23/2021	250.00
<b>101-000-000-285-005 OAKLAND CO. ANIMAL CONTROL</b>					
4000	CHARTER TOWNSHIP OF HIGHLAND	101-DOG LICENSE	02242021	02/24/2021	47.00
4007	OAKLAND CO. ANIMAL CONTROL/PET ADOPTION	101-DOG LICENSE	02242021	02/24/2021	462.25
Total :					3,384.25
<b>TREASURER'S DEPT</b>					
<b>101-253-000-820-000 TREAS: DUES/ED/TRAVEL</b>					
1226	APA	101-APA MICH CHAPTER - FREDERICK	189831-210103	02/22/2021	32.00
Total TREASURER'S DEPT:					32.00
<b>CEMETERY</b>					
<b>101-276-000-935-000 CEMETERY: SEXTON</b>					
1127	HURON CEMETERY MAINTENANCE	101-CEMETERY MAINTENANCE	MAR 2021	02/23/2021	3,434.00
Total CEMETERY:					3,434.00
<b>ACTIVITY CENTER</b>					
<b>101-289-000-853-000 ACTIVITY CTR: PHONE SERVICE</b>					
9090	NET EXPRESS VOIP	101-PHONE SERVICE-ACT CTR	429210223	02/23/2021	52.66
2652	SPRINT	101-CELL PHONE-ACT. CTR.	337192515-228	02/23/2021	38.50
<b>101-289-000-920-000 ACTIVITY CTR: UTILITIES</b>					
1375	CONSUMERS ENERGY	101-209 N JOHN ST ACTIVITY CENTER	203053503699	02/25/2021	173.04

Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
<b>101-289-000-931-000</b>	<b>ACTIVITY CTR: BUILDING MAINT</b>				
2596	FIVE STAR ACE	101-ACTIVITY CTR-TOILET BOWL CLEANER	25389	02/26/2021	9.87
<b>101-289-000-933-000</b>	<b>ACTIVITY CTR: OFF. EQUIP MAINT</b>				
2059	APPLIED IMAGING	101-COPIER MAINT. CONTRACT-ACT. CTR	1692142	02/22/2021	391.83
<b>101-289-001-853-000</b>	<b>ANNEX: INTERNET SERVICE</b>				
2216	COMCAST	101-ANNEX 8529 10 157 0100876	04082021 0100876	02/26/2021	216.56
<b>101-289-001-920-002</b>	<b>ANNEX: UTILITIES</b>				
1375	CONSUMERS ENERGY	101-205 W. LIVINGSTON RD-ANNEX	203053503698	02/25/2021	184.74
<b>101-289-001-931-002</b>	<b>ANNEX: BUILDING MAINT</b>				
2694	GOYETTE MECHANICAL	101-REPAIR FURNACE-ANNEX	910069601	02/19/2021	249.00
1157	TOP NOTCH CLEANING SERVICES	101-ANNEX OFFICE CLEANING	1210	02/25/2021	400.00
Total ACTIVITY CENTER:					1,716.20
<b>GENERAL GOVERNMENT</b>					
<b>101-290-000-727-000</b>	<b>GEN GOV: OFFICE SUPPLIES</b>				
2541	STAPLES	101-POST ITS/BINDER CLIPS/FOLDERS	3469676647	02/13/2021	29.54
<b>101-290-000-802-000</b>	<b>GEN GOV: AUDITING</b>				
1014	PLANTE & MORAN PLLC	101-WATER FUND	1961585	02/26/2021	397.50
1014	PLANTE & MORAN PLLC	101-AUDIT-INITIAL	1961585	02/26/2021	6,056.50
<b>101-290-000-852-000</b>	<b>GEN GOV: FIBER-OTHER COMMUNICA</b>				
7660	CROWN CASTLE FIBER LLC	101-205 JOHN ST. FIBER NETWORKS	782341	03/01/2021	823.00
<b>101-290-000-853-000</b>	<b>GEN GOV: PHONE SERVICE</b>				
9090	NET EXPRESS VOIP	101-PHONE SERVICE-TWP	429210223	02/23/2021	218.96
2652	SPRINT	101-CELL PHONES - TWP.	337192515-228	02/23/2021	127.06
<b>101-290-000-855-000</b>	<b>GEN GOV: WEBSITE</b>				
9049	WEB MATTERS	101-TECHNICAL LABOR	6700	02/25/2021	135.00
<b>101-290-000-903-000</b>	<b>GEN GOV: ADVERTISING</b>				
2680	KINGSETT LLC D/B/A SPINAL COLUMN	101-ADVERTISEMENTS LEGAL HIGHLAND NOTICE	32529	02/10/2021	114.75
2680	KINGSETT LLC D/B/A SPINAL COLUMN	101-ADVERTISEMENT HIGHLAND BOARD OF REVIEW	32532	02/10/2021	255.00
2680	KINGSETT LLC D/B/A SPINAL COLUMN	101-ADVERTISEMENT HIGHLAND TOWNSHIP	32533	02/10/2021	1,095.00
2680	KINGSETT LLC D/B/A SPINAL COLUMN	101-ADVERTISEMENT HIGHLAND BOARD OF REVIEW	32542	02/17/2021	255.00
2680	KINGSETT LLC D/B/A SPINAL COLUMN	101-ADVERTISEMENTS HIGHLAND BOARD OF REVIEW	32567	02/24/2021	255.00
6278	TECHNOLOGY GALLERY LLC	101-DIGITAL SIGN MAINTENANCE	INV-123	03/01/2021	400.00
<b>101-290-000-913-000</b>	<b>GEN GOV: GEN INSURANCE</b>				
1060	MICHIGAN MUNICIPAL RISK	101-INSURANCE M0001676	2021-2M	02/17/2021	14,971.00
1060	MICHIGAN MUNICIPAL RISK	101-INSURANCE R0001676	2021-2R	02/17/2021	2,000.00
<b>101-290-000-920-000</b>	<b>GEN GOV: UTILITIES</b>				
1375	CONSUMERS ENERGY	101-205 N JOHN-TWP OFFICES	203053503700	02/25/2021	314.38
1005	DTE ENERGY	101- STREETLIGHTS 9100-4056-3462	2001027441080	03/01/2021	4,182.82
2158	ROAD COMMISSION FOR O.C.	101-TRAFFIC SIGNAL MAINT.	1406	02/17/2021	16.07

Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
2158	ROAD COMMISSION FOR O.C.	101-TRAFFIC SIGNAL MAINT.	1554	02/19/2021	135.26
<b>101-290-000-931-000 GEN GOV: TOWNSHIP MAINTENANCE</b>					
2649	2 MOMS & A MOP INC.	101-OFFICE CLEANING	96075	02/28/2021	518.00
<b>101-290-000-934-000 GEN GOV: VEHICLE OP MAINT</b>					
1918	BERT OIL LLC	101-OIL CHANGE 2015 GMC	154033	02/01/2021	127.76
2692	WEX BANK	101-GAS FOR TWP VEHICLE	70508891	02/28/2021	157.67
<b>101-290-000-956-000 GEN GOV: MISCELLANEOUS</b>					
1839	ABSOPURE WATER CO.	101-5 GALLON SPRING	87853739	02/22/2021	19.40
4000	CHARTER TOWNSHIP OF HIGHLAND	101-DRAIN-AT-LARGE LT-1 2020 LEVY	2242021	02/24/2021	245.25
Total GENERAL GOVERNMENT:					32,849.92
<b>TWP COMMUNITY PARKS</b>					
<b>101-292-000-935-000 PARKS: MAINTENANCE</b>					
1309	BRENDEL'S SEPTIC TANK SER LLC	101-MONTHLY RENTAL-HICKORY RIDGE	189556	02/27/2021	95.00
1309	BRENDEL'S SEPTIC TANK SER LLC	101-MONTHLY RENTAL-DUCK LAKE PINES	189557	02/27/2021	180.00
Total TWP COMMUNITY PARKS:					275.00
<b>GENERAL GOVT PERSONNEL</b>					
<b>101-295-000-715-000 GGP:HEALTH/DENTAL/LIFE/DIS INS</b>					
9116	COLONIAL LIFE PREMIUM PROCESSING	101-PREMIUM BCN-E4485801	4485801-0213292	02/24/2021	136.68
1967	MUTUAL OF OMAHA	101-LIFE,DENTAL,DISAB. INS. BR3 LIBRARY	001182182152	03/03/2021	49.50
1967	MUTUAL OF OMAHA	101-LIFE,DENTAL,DISAB. INS. BR1 ACT CTR	001182182152	03/03/2021	61.33
1967	MUTUAL OF OMAHA	101-LIFE, AD&D, DISAB. INS. BR1 IN-HOUSE	001182182152	03/03/2021	153.71
1967	MUTUAL OF OMAHA	101-LIFE, AD&D, DISAB. INS. BR1 TWP	001182182152	03/03/2021	723.42
1967	MUTUAL OF OMAHA	101-LIFE, AD&D, DISAB. INS. ORDINANCE OFFICER BR1	001182182152	03/03/2021	33.52
9094	STANDARD INSURANCE CO.	101-DENTAL INSURANCE-TWP.	3/01/21-3/31/21	02/24/2021	1,166.52
9094	STANDARD INSURANCE CO.	101-DENTAL INSURANCE-IN HOUSE	3/01/21-3/31/21	02/24/2021	392.48
9094	STANDARD INSURANCE CO.	101-DENTAL INSURANCE-ORDINANCE/FIRE MARSHAL	3/01/21-3/31/21	02/24/2021	21.18
9094	STANDARD INSURANCE CO.	101-DENTAL INSURANCE-ACT. CTR.	3/01/21-3/31/21	02/24/2021	84.80
<b>101-295-000-718-000 GGP: DEFINED CONTRIBUTION PLAN</b>					
1350	EQUITABLE RETIREMENT	101-DEF CONTR 1ST QTR-ACT CTR PLAN ID 652977	6445044	02/25/2021	1,718.44
1350	EQUITABLE RETIREMENT	101-DEF CONTR 1ST QTR-IN-HOUSE PLAN ID 652977	6445044	02/25/2021	6,697.57
1350	EQUITABLE RETIREMENT	101-DEF CONTR 1ST QTR-TWP PLAN ID 652977	6445044	02/25/2021	5,089.51
1502	VANTAGEPOINT TRANSFER AGENTS-109785	101-DEF CONTR 1ST QTR-TWP PLAN # 109785	495346	02/26/2021	12,403.78
Total GENERAL GOVT PERSONNEL:					28,732.44

**BUILDING DEPT**

Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
<b>101-371-000-710-001 BLDG: INSP/ELEC/PLUMB/HTG</b>					
9261	DUNCAN LLC, JEFFREY	101-INSPECTIONS	2/17/21-3/2/21	03/02/2021	608.75
1199	GREG CALME ELECTRIC LLC	101-INSPECTION	2/17/21-3/2/21	03/02/2021	1,720.37
9168	LUTTMAN, ROBERT J.	101-INSPECTIONS	2/17/21-3/2/21	03/02/2021	2,056.25
Total BUILDING DEPT:					4,385.37
<b>ZONING BOARD OF APPEALS</b>					
<b>101-410-000-903-005 ZBA: ADVERTISING</b>					
2680	KINGSETT LLC D/B/A SPINAL COLUMN	101-ADVERTISEMENTS LEGAL-ZBA	35231	02/10/2021	357.00
Total ZONING BOARD OF APPEALS:					357.00
Total GENERAL FUND:					75,166.18
<b>FIRE FUND</b>					
<b>206-000-000-656-001 OPERATING TR IN FOR EMS</b>					
2631	STAR EMS	206-EMS BILLING SERVICE FEE	01-21-001H	02/04/2021	831.95
2631	STAR EMS	206-EMS BILLING SERVICE FEE	02-21-001H	03/01/2021	502.72
Total :					1,334.67
<b>FIRE EXPENDITURES</b>					
<b>206-290-001-715-206 FIRE: INSURANCE/BONDS</b>					
1060	MICHIGAN MUNICIPAL RISK	206-INSURANCE M0001676	2021-2M	02/17/2021	8,421.25
1060	MICHIGAN MUNICIPAL RISK	206-INSURANCE R0001676	2021-2R	02/17/2021	1,125.00
<b>206-290-001-727-206 FIRE: SUPPLIES</b>					
1642	PETER'S TRUE VALUE HARDWARE	206-STATION SUPPLIES	K56600	02/19/2021	22.46
<b>206-290-001-822-206 FIRE: PARAMEDIC TRAINING</b>					
7695	GARRITY, KEVIN	206-GARRITY REIMBURSEMENT FPW	10242020	10/24/2020	900.00
<b>206-290-001-835-206 FIRE: MEDICAL SUPPLIES</b>					
2039	BOUND TREE MEDICAL LLC	206-EMS SUPPLIES	83951093	02/11/2021	77.94
2039	BOUND TREE MEDICAL LLC	206-EMS SUPPLIES	83951094	02/11/2021	760.81
1132	LINDE GAS NORTH AMERICA LLC	206- MEDICAL OXYGEN	61974859	02/23/2021	15.14
<b>206-290-001-852-206 FIRE: RADIO COMMUNICATIONS</b>					
2490	FRONTIER	206-DISPATCH LINE 616-001-6196	02192021 011603-5	02/20/2021	51.71
<b>206-290-001-865-206 FIRE: VEHICLE REPAIR</b>					
7326	HAROLD'S FRAME SHOP INC.	206-2014 F250 (U1) PLOW REPAIR H FRAME REPLACED	97446	02/19/2021	1,264.61
6241	SZOTT DODGE/SZOTT HIGHLAND PRO	206-2019 DODGE (C1) OIL CHANGE AND TIRE ROTATION	226612	03/01/2021	70.10
1084	TUFFY AUTO SERVICE CENTERS	206-2014 FORD F450 (R213) OIL PAN REPLACEMENT	82859	02/22/2021	603.49

Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
1084	TUFFY AUTO SERVICE CENTERS	206-2014 FORD F250 (U1) BRAKE AND SUSPENSION	82877	02/23/2021	2,036.32
<b>206-290-001-866-206 FIRE: VEHICLE GAS/OIL</b>					
2692	WEX BANK	206-GAS FOR MARSHAL VEHICLE	70508891	02/28/2021	143.17
2692	WEX BANK	206-GAS FOR FIRE VEHICLES	70508891	02/28/2021	1,863.85
2692	WEX BANK	206-GAS FOR FIRE VEHICLES	70508891	02/28/2021	28.47-
<b>206-290-001-920-206 FIRE: PUBLIC UTILITIES</b>					
1375	CONSUMERS ENERGY	206-250 W LIVINGSTON RD-ST#1	203053503696	02/24/2021	376.78
1375	CONSUMERS ENERGY	206-3550 DUCK LK RD ST#2	203053503697	02/24/2021	154.53
1375	CONSUMERS ENERGY	206-510 CLYDE RD	206523929680	02/24/2021	204.91
9090	NET EXPRESS VOIP	206-VOIP MONTHLY	1605210223	02/23/2021	110.57
2652	SPRINT	206-CELL PHONES - FIRE	337192515-228	02/23/2021	172.01
<b>206-290-001-933-206 FIRE: EQUIP MAINT</b>					
2059	APPLIED IMAGING	206-COPIER MAINTENANCE	1691929	02/19/2021	143.92
9228	M-2 AUTO PARTS OF HIGHLAND	206-12 PIERCE STAR HEAD DRIVERS	081676	02/23/2021	29.99
1642	PETER'S TRUE VALUE HARDWARE	206-SCBA BATTERIES	K56600	02/19/2021	151.92
Total FIRE EXPENDITURES:					18,672.01
<b>GENERAL GOVT PERSONNEL</b>					
<b>206-295-000-715-000 FIRE:HEALTH/DENTAL/LIFE/DISINS</b>					
1967	MUTUAL OF OMAHA	206-LIFE, AD&D INS. BR2 PD. ON CALL	001182182152	03/03/2021	181.50
1967	MUTUAL OF OMAHA	206-LIFE, AD&D INS. BR1 F-T FIRE	001182182152	03/03/2021	414.83
1967	MUTUAL OF OMAHA	206-LIFE, AD&D, DISAB. INS. CHIEF BR1	001182182152	03/03/2021	83.10
1967	MUTUAL OF OMAHA	206-LIFE, AD&D, DISAB. INS. FIRE MARSHAL BR1	001182182152	03/03/2021	33.52
9094	STANDARD INSURANCE CO.	206-DENTAL INSURANCE-FIRE CHIEF	3/01/21-3/31/21	02/24/2021	153.84
9094	STANDARD INSURANCE CO.	206-DENTAL INSURANCE-FIRE MARSHAL/ORDINANCE	3/01/21-3/31/21	02/24/2021	21.18
9094	STANDARD INSURANCE CO.	206-DENTAL INSURANCE-FIRE	3/01/21-3/31/21	02/24/2021	631.04
<b>206-295-000-718-000 FIRE:DEFINED CONTRIBUTION PLAN</b>					
1502	VANTAGEPOINT TRANSFER AGENTS-109785	206-DEF CONTR 1ST QTR- PLAN # 109785	495346	02/26/2021	4,267.65
Total GENERAL GOVT PERSONNEL:					5,786.66
Total FIRE FUND:					25,793.34
<b>POLICE FUND</b>					
<b>POLICE EXPENDITURES</b>					
<b>207-290-000-815-000 POLICE: SHERIFF'S MAINT</b>					
1157	TOP NOTCH CLEANING SERVICES	207-MONTHLY CHG - FEB	1209	02/25/2021	560.00
<b>207-290-000-816-000 POLICE: OAKLAND CO SHER CONT</b>					
1029	OAKLAND COUNTY	207-COMP TIME	SHF0006496	02/25/2021	2,065.09



Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
<b>207-290-000-920-000 POLICE: UTILITIES</b>					
1375	CONSUMERS ENERGY	207-165 N. JOHN ST-POLICE	203053503695	02/25/2021	123.58
Total POLICE EXPENDITURES:					2,748.67
Total POLICE FUND:					2,748.67
<b>POST-RETIREMENT BENEFITS</b>					
<b>211-290-000-700-000 RETIREE OPEB EXPENSE</b>					
1958	AmWINS GROUP BENEFITS INC.	211-RETIREE HEALTH PREMIUMS	6728523	02/23/2021	450.00
2499	GIBSON, WANDA SUE	211-RETIREE HEALTH REIMBURSEMENT	MAR 2021	03/02/2021	193.76
1181	KILEY, JUDITH A.	211-RETIREE HEALTH REIMBURSEMENT	MAR 2021	02/24/2021	200.00
9095	PATTERSON, BRIDGET	211-RETIREE DENTAL REIMBURSEMENT	02252021	02/25/2021	145.00
9095	PATTERSON, BRIDGET	211-RETIREE HEALTH REIMBURSEMENT	MAR 2021	03/02/2021	184.55
1206	REGAN, RITA	211-RETIREE HEALTH REIMBURSEMENT	MAR 2021	02/23/2021	362.32
1373	WAGNER, PATRICIA G.	211-RETIREE HEALTH REIMBURSEMENT	FEB 2021	02/23/2021	213.54
Total :					1,749.17
Total POST-RETIREMENT BENEFITS:					1,749.17
<b>REFUSE FUND</b>					
<b>REFUSE EXPENDITURES</b>					
<b>226-528-000-706-000 REFUSE: CONTRACTOR</b>					
2676	GFL ENVIRONMENTAL USA	226-MONTHLY CONTRACT-MARCH	48347843	03/01/2021	87,327.63
Total REFUSE EXPENDITURES:					87,327.63
Total REFUSE FUND:					87,327.63
<b>FIRE CAPITAL FUND</b>					
<b>FIRE CAPITAL EXPENDITURES</b>					
<b>402-290-000-988-001 CONSTR IN PROCESS FIRE MIL ST1</b>					
1375	CONSUMERS ENERGY	402-1600 W HIGHLAND-FS1	204388410908	02/25/2021	1,728.75
1005	DTE ENERGY	402-1600 W HIGHLAND RD 920020305909	02192021 05909	02/27/2021	344.45
Total FIRE CAPITAL EXPENDITURES:					2,073.20
Total FIRE CAPITAL FUND:					2,073.20

Vendor	Name	Description	Invoice Number	Invoice Date	Invoice Amount
<b>DOWNTOWN DEVELOPMENT AUTHORITY</b>					
<b>495-000-000-694-201 DDA EVENTS FUND</b>					
2596	FIVE STAR ACE	495-UNITY DOLLARS	02222021	02/22/2021	20.00
1244	SNOOK'S BUTCHER SHOPPE	495-UNITY DOLLARS	02222021	02/22/2021	150.00
Total :					170.00
<b>DDA EXPENDITURES</b>					
<b>495-290-000-810-002 DDA: CONSULTANT CASSIE BLASCYK</b>					
9249	BLASCYK, CASSIE R.	495-MONTHLY CONSULTATION FEE	402	03/01/2021	600.00
<b>495-290-000-920-000 DDA: RENT/ UTILITIES</b>					
9090	NET EXPRESS VOIP	495-PHONE SERVICE DDA	429210223	02/23/2021	5.55
Total DDA EXPENDITURES:					605.55
Total DOWNTOWN DEVELOPMENT AUTHORITY:					775.55
<b>CURRENT TAX COLLECT</b>					
<b>703-000-000-403-703 TAX COLLECTIONS</b>					
8217	FIRST CENTENNIAL TITLE AGENCY INC	703-TAX REFUND	11-29-278-011	03/02/2021	65.61
8212	S W DENTAL MANAGEMENT COMPANY	703-TAX REFUND	11-34-176-009	02/23/2021	48.45
8213	VIBE CREDIT UNION	703-TAX REFUND	11-12-432-013	02/23/2021	88.11
Total :					202.17
Total CURRENT TAX COLLECT:					202.17
<b>TAGGETT LAKE ASSOC.</b>					
<b>706-290-000-934-000 TAGGETT LAKE: DEDUCTIONS</b>					
1081	AQUA-WEED CONTROL INC.	706-2021 EGLE PERMIT FEE	08312020	08/31/2020	800.00
Total :					800.00
Total TAGGETT LAKE ASSOC.:					800.00
Grand Totals:					196,635.91

Total GENERAL FUND:	75,166.18
Total FIRE FUND:	25,793.34
Total POLICE FUND:	2,748.67
Total POST-RETIREMENT BENEFITS:	1,749.17
Total REFUSE FUND:	87,327.63
Total FIRE CAPITAL FUND:	2,073.20
Total DOWNTOWN DEVELOPMENT AUTHORITY:	775.55
Total CURRENT TAX COLLECT:	202.17
Total TAGGETT LAKE ASSOC.:	800.00
	<hr/>
Grand Totals:	196,635.91
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**Payroll and Hand Checks March 10, 2021 List of Bills**

**GENERAL FUND**

Payroll Taxes (FICA & FWT)	\$	19,712.81
General/Fire Payroll            3/5/2021	\$	60,686.04
Hand Check-D&G Equipment Fund 101 Tractor/loader 03/04/2021	\$	34,171.89
Hand Check-DTE Fund 402 Service Line Ext FS2 03/04/2021	\$	2,538.00
Equitable - Deferred Comp.	\$	1,350.00
ICMA - Deferred Comp.	\$	1,405.73
Flexible Savings Account	\$	661.69
Garnishments	\$	660.94
Highland Firefighters Assn		
Highland Firefighters Union Dues-Full-Time	\$	350.00
Highland Firefighters Union Dues-Part-Time	\$	672.00
OPEB Monthly Transfer	\$	166.67
3/31/2021 DDA LOAN-Monthly	\$	3,771.83

**From:** [Renee Bowen](#)  
**To:** [Amy LaVoie](#); [Brian Howe](#); [Rick A. Hamill](#); [Joe Salvia](#); [Tami Flowers](#); [Jennifer Frederick](#); [Beth Lewis](#); [Judy Cooper](#)  
**Cc:** [Dawn Mecklenborg](#); [Karen Genson](#); [Julie Kabalka](#); [Ken Chapman](#)  
**Subject:** List of Bills dated 3/10/2021 addition  
**Date:** Wednesday, March 10, 2021 8:56:05 AM

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Hello, the following need to be added to the List of Bills dated 3/10/2021:

1. SafeWay Shredding Fund 101 for \$560.00

This particular invoice was not available prior to the completion of the LOB's and only just recently became available and need to be added upon request or to avoid fees.

Checks will be processed and mailed this week.

Please contact me if you have any questions or concerns. Have a nice day.

Thank you,

*Renee Bowen*

Assistant Bookkeeper

248-887-3791 ext. 140

248-889-0988 Fax

[Bowenr@highlandtwp.org](mailto:Bowenr@highlandtwp.org)

Work Hours Monday-Thursday 8:30am-2:30pm





## Memorandum

To: Highland Township Board of Trustees  
From: Rick A. Hamill  
Date: March 11, 2021  
Re: Fire Dispatch Service Agreement

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For your consideration attached is the Fire Dispatch Service Agreement between County of Oakland and the Charter Township of Highland.

*Warm inside. Great outdoors.*



COUNTY OF OAKLAND  
**OFFICE OF THE SHERIFF**

MICHAEL J. BOUCHARD



March 8, 2021

Charter Township of Highland  
Attn: Rick Hamill  
205 North John Street  
Highland, MI 48357

Dear Mr. Hamill,

Attached you will find a draft Fire Dispatch Service Agreement for the period April 1, 2021 to March 31, 2024 for your review.

The Fire Dispatch rates are anticipated to increase 3.6% for 2021 and 3% for 2022 and 2023. Consistent with previous contract calculations established many cycles ago, individual municipality costs will increase or decrease based on the average number of calls over the last three years.

The rates and agreements are pending Oakland County Board of Commissioner approval. Once approved, a final version will be sent to your office for signature.

Please feel free to contact me (248-858-5512), Major Chris Wundrach (248-858-4970) or Captain Mel Maier (248-858-1645) if you have any questions.

Sincerely,

*Gaia V. Piir*

Gaia Piir,  
Sheriff Fiscal Officer

**2021 – 2024 FIRE DISPATCH SERVICE AGREEMENT  
BETWEEN COUNTY OF OAKLAND  
AND  
THE CHARTER TOWNSHIP OF HIGHLAND**

**April 1, 2021 – March 31, 2024**

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This Agreement is made and entered into between the COUNTY OF OAKLAND, a Michigan Constitutional and Municipal Corporation, whose address is 1200 North Telegraph Road, Pontiac, Michigan 48341 (the "COUNTY"), and the CHARTER TOWNSHIP OF HIGHLAND whose address is 205 N. John Street, Highland, Michigan 48390 (the "MUNICIPALITY"). In this Agreement, the COUNTY shall be represented by the OAKLAND COUNTY SHERIFF, in their official capacity as a Michigan Constitutional Officer, whose address is 1200 North Telegraph Road, Bldg. 38 E., Pontiac, Michigan 48341 (the "SHERIFF"). In this Agreement, whenever the COUNTY and the SHERIFF are intended to be referred to jointly, they shall collectively be referred to as the "OAKLAND COUNTY SHERIFF'S OFFICE" ("O.C.S.O.").

**INTRODUCTION**

**WHEREAS**, the MUNICIPALITY is authorized by law to provide fire protection service for its residents; and

**WHEREAS**, to provide effective fire protection services for its residents, the MUNICIPALITY must also provide municipal fire department communication and dispatch functions; and

**WHEREAS**, the O.C.S.O. provides police communication and dispatch functions and has the capability to provide fire dispatch for the MUNICIPALITY but, absent this Agreement, is not obligated to provide FIRE DISPATCH SERVICE for the MUNICIPALITY; and

**WHEREAS**, the COUNTY and the MUNICIPALITY may enter into a contract by which the O.C.S.O. would provide FIRE DISPATCH SERVICE for the MUNICIPALITY; and

**WHEREAS**, the MUNICIPALITY has concluded that it is more cost effective for the MUNICIPALITY to contract for FIRE DISPATCH SERVICE with the O.C.S.O. than to equip and staff its own fire communication and dispatch center; and

**WHEREAS**, the O.C.S.O. agrees to provide FIRE DISPATCH SERVICE for the MUNICIPAL FIRE PERSONNEL, under the following terms and conditions;

**NOW, THEREFORE**, it is mutually agreed as follows:

1. The COUNTY, with the cooperation and approval of the SHERIFF, shall, in conjunction with its existing O.C.S.O. police communications functions, provide FIRE DISPATCH SERVICE to MUNICIPAL FIRE PERSONNEL for the MUNICIPALITY.



2. Except as expressly provided for in this Agreement, the Parties agree that this Agreement does not, and is not intended to, transfer, delegate, or assign to the other Party any civil or legal responsibility, duty, obligation, duty of care, cost, legal obligation, or liability associated with any governmental function delegated and/or entrusted to either party under any existing law or regulations.
3. For all purposes and as used throughout this Agreement, the words and expressions listed below, whether used in the singular or plural, within or without quotation marks, or possessive or nonpossessive, shall be defined, read, and interpreted as follows:
  - 3.1 "FIRE DISPATCH SERVICE(S)" shall be defined to include: any emergency or non-emergency telephone call or notice, of any kind, received by the O.C.S.O., which requests, requires, or, in the sole judgment of the O.C.S.O. or a COUNTY AGENT appears to request or require the presence, attention, or services of any MUNICIPAL FIRE PERSONNEL to address, respond, or attend to any issue, event, or circumstance involving public health or safety, an accident, an accidental injury, the protection of property, or any emergency (including, but not limited to medical, fire, and/or health), and an O.C.S.O. or COUNTY AGENT radio communication, or any attempted radio communication to any MUNICIPAL FIRE PERSONNEL.
  - 3.2 "MUNICIPAL FIRE PERSONNEL" shall be defined to include: all uniformed, non-uniformed, civilian, command, volunteer, administrative, and/or supervisory personnel employed and/or contracted by the MUNICIPALITY to provide, supply, support, administer, or direct any fire or emergency related services and/or any persons acting by, through, under, or in concert with any of them; or any MUNICIPALITY official, officer, employee or agent whose job duties may include the receipt of any O.C.S.O. FIRE DISPATCH SERVICE.
  - 3.3 "COUNTY AGENT(S)" shall be defined to include the SHERIFF and all COUNTY elected and appointed officials, commissioners, officers, boards, committees, commissions, departments, divisions, employees (including any SHERIFF'S DEPUTY), agents, predecessors, successors, or assigns, (whether such persons act or acted in their personal, representative, or official capacities), and all persons acting by, through, under, or in concert with any of them. COUNTY AGENT as defined in this Agreement shall also include any person who was a COUNTY AGENT at any time during the term of this Agreement but, for any reason, is no longer employed, appointed, or elected in his/her previous capacity.
  - 3.4 "CLAIM(S)" shall be defined to include any and all losses, complaints, demands for relief, damages, lawsuits, causes of action, proceedings, judgments, deficiencies, penalties, costs and expenses, including, but not limited to, reimbursement for reasonable attorney fees, witness fees, court costs, investigation, litigation expenses, amounts paid in settlement, and/or any other amount for which the COUNTY or COUNTY AGENT becomes legally and/or contractually obligated to pay, whether direct, indirect, or consequential, whether based upon any alleged violation of the constitution (federal or state), any statute, rule, regulation, or the common law, whether in law or equity, tort, contract, or otherwise, and/or whether commenced or threatened.

4. The MUNICIPALITY agrees that under the terms of this Agreement, except for the FIRE DISPATCH SERVICE(S) expressly contracted for herein, that neither the O.C.S.O. nor any COUNTY AGENT(S) shall be obligated, in any other way, to provide or assist the MUNICIPALITY or any MUNICIPAL FIRE PERSONNEL with any other direct, indirect, backup or supplemental support or police, fire or emergency-related services or protection of any kind or nature whatsoever, or send COUNTY AGENT(S) to respond, in any way, to any call for FIRE PERSONNEL services.
5. Under all circumstances, the MUNICIPALITY shall remain solely and exclusively responsible for all costs and/or liabilities associated with providing available on-duty MUNICIPAL FIRE PERSONNEL to receive and respond to FIRE DISPATCH SERVICE in a timely and professional manner.
6. The MUNICIPALITY acknowledges that there may be circumstances when, despite all reasonable O.C.S.O. or COUNTY AGENT(S) efforts, an O.C.S.O. or COUNTY AGENT(S) attempt to communicate or provide FIRE DISPATCH SERVICES(S) for MUNICIPAL FIRE PERSONNEL may be unsuccessful and, as a result, FIRE PERSONNEL'S timely response to a call for FIRE PERSONNEL assistance may not be forthcoming.
7. The MUNICIPALITY agrees that this Agreement does not, and is not intended to, include any O.C.S.O. warranty, promise, or guarantee of any kind or nature whatsoever concerning the provision of FIRE DISPATCH SERVICES(S) to the MUNICIPALITY except that the COUNTY will make a reasonable effort to provide FIRE DISPATCH SERVICE(S) for MUNICIPAL FIRE PERSONNEL consistent with existing O.C.S.O. communication and dispatch policies, procedures, orders and standards.
8. This Agreement does not, and is not intended to, obligate or require the O.C.S.O. to change, alter, modify, or develop any different O.C.S.O. dispatch related procedures, policies, and/or standards; purchase or use any special or additional equipment; or, alternatively, prohibit the O.C.S.O. from implementing any future communication-related changes that the O.C.S.O., in its sole judgment and discretion, believes to be in its best interest.
9. The MUNICIPALITY shall be solely and exclusively responsible during the term of this Agreement for guaranteeing that: (a) all MUNICIPAL FIRE PERSONNEL radios and other communication equipment will be properly set, adjusted, and maintained to receive any FIRE DISPATCH SERVICE from the O.C.S.O. and/or COUNTY AGENT and will comply with all current and future applicable O.C.S.O. dispatching procedures, policies, standards, technical specifications, and/or any applicable state or federal communication requirements, including, but not limited, to all Federal Communications Commission orders, regulations, and policies; (b) all MUNICIPAL FIRE PERSONNEL will be adequately trained and will comply with all current and future applicable O.C.S.O. dispatching procedures, policies, standards, technical specifications and/or any applicable state or federal communication requirements, including, but not limited, to all Federal Communications Commission orders, regulations, and policies; and (c) the MUNICIPALITY and all MUNICIPAL FIRE PERSONNEL shall at all times promptly and properly notify the designated COUNTY AGENT of any on-duty or off-duty status and/or availability or unavailability of MUNICIPAL FIRE PERSONNEL to receive FIRE DISPATCH SERVICE from the O.C.S.O.

10. The MUNICIPALITY shall be solely and exclusively responsible for all fees, costs, expenses, and liabilities, including any connectivity costs, associated with the purchase, lease, operation, and/or use of any MUNICIPAL FIRE PERSONNEL radio or other communication equipment. The O.C.S.O. shall not be obligated to provide MUNICIPAL FIRE PERSONNEL with any radio or other communication equipment of any kind. The MUNICIPALITY shall not be obligated under the terms of this Agreement to supply or provide the O.C.S.O. with any additional telephones, telephone lines, radios, other communication equipment, or property.
11. The O.C.S.O. may, at its sole discretion and expense, inspect any MUNICIPAL FIRE PERSONNEL radio or other communication equipment to ensure that it conforms with applicable O.C.S.O. dispatching procedures, policies, standards, technical specifications, and/or state and federal law. If the inspection reveals a lack of conformance, the O.C.S.O. shall notify the MUNICIPALITY in writing of the specific violations. The MUNICIPALITY shall address and correct such violations at its own expense within thirty (30) calendar days of receiving the written notice or present a written plan to O.C.S.O. within 15 calendar days setting forth a procedure for correcting the violations. If the MUNICIPALITY fails to address and/or correct such violations within the time period set forth in this paragraph, the O.C.S.O. may terminate and/or cancel the Agreement.
12. In consideration of the COUNTY'S promises and efforts under this Agreement, the MUNICIPALITY shall pay the COUNTY \$3,886.94 per month for the months of April 1, 2021 through March 31, 2022, \$4,003.10 per month for the months of April 1, 2022 through March 31, 2023 and \$4,122.76 per month for the months of April 1, 2023 through March 31, 2024. Said payments shall be made as follows:
  - 12.1 The COUNTY shall send an invoice to the MUNICIPALITY each month for services rendered the previous month. The MUNICIPALITY shall have 30 days from the date of each invoice to make payment. For example, for services rendered in July of 2021, the COUNTY will bill the MUNICIPALITY on August 1, 2021 and the MUNICIPALITY shall pay the invoice within 30 days of the invoice date.
  - 12.2 All Monthly payments shall be due and payable by the MUNICIPALITY without any further notice or demand from the COUNTY.
  - 12.3 Each payment shall clearly identify that it is a monthly payment being made pursuant to this Agreement and identify the calendar month for which the MUNICIPALITY intended the payment to apply. The COUNTY, in its discretion, may apply any monthly payment received from the MUNICIPALITY to any past due amount or monthly payment then due and owing to the COUNTY pursuant to this Agreement.
13. If the MUNICIPALITY, for any reason, fails to pay the COUNTY any monies when and as due under this Agreement, the MUNICIPALITY agrees that unless expressly prohibited by law, the COUNTY or the County Treasurer, at their sole option, shall be entitled to setoff from any other MUNICIPALITY funds that are in the COUNTY'S possession for any reason. Funds include but are not limited to the Delinquent Tax Revolving Fund ("DTRF"). Any setoff or retention of funds by the COUNTY shall be deemed a voluntary assignment of the amount by the MUNICIPALITY to the COUNTY. The MUNICIPALITY waives any CLAIMS against the COUNTY or its Officials for any acts related specifically to the

COUNTY'S offsetting or retaining such amounts. This paragraph shall not limit the MUNICIPALITY'S legal right to dispute whether the underlying amount retained by the COUNTY was actually due and owing under this Agreement. If the COUNTY chooses not to exercise its right to setoff or if any setoff is insufficient to fully pay the COUNTY any amounts due and owing the COUNTY under this Agreement, the COUNTY shall have the right to charge up to the then-maximum legal interest on any unpaid amount. Interest charges shall be in addition to any other amounts due to the County under this Agreement. Interest charges shall be calculated using the daily unpaid balance method and accumulate until all outstanding amounts and accumulated interest are fully paid. Nothing in this Section shall operate to limit the COUNTY'S right to pursue or exercise any other legal rights or remedies under this Agreement against the MUNICIPALITY to secure reimbursement of amounts due to the COUNTY under this Agreement. The remedies in this paragraph shall be available to the COUNTY on an ongoing and successive basis if the MUNICIPALITY at any time becomes delinquent in its payments. Notwithstanding any other terms and conditions in this Agreement, if the COUNTY pursues any legal action in any court to secure its payment under this Agreement, the MUNICIPALITY agrees to pay all costs and expenses, including attorney's fees and court costs, incurred by the County in the collection of any amount owed by the MUNICIPALITY.

14. The MUNICIPALITY agrees that all MUNICIPALITY representations, liabilities, payment obligations and/or any other related obligations provided for in this Agreement with regard to any acts, occurrences, events, transactions or CLAIMS either occurring or having their basis in any events or transactions that occurred before the cancellation or expiration of this Agreement shall survive the cancellation or expiration of this Agreement. The parties agree that the expiration, cancellation, or termination of this Agreement shall be without prejudice to any rights or claims of either party against the other and shall not relieve either party of any obligations which, by their nature, survive expiration or termination of this Agreement.
15. Each party shall be responsible for any CLAIM made against that party and for the acts of its employees or agents.
16. In any CLAIM that may arise from the performance of this Agreement, each Party shall seek its own legal representation and bear the costs associated with such representation, including any attorney fees.
17. Except as otherwise provided in this Agreement, neither Party shall have any right under any legal principle to be indemnified by the other Party or any of its employees or AGENTS in connection with any CLAIM.
18. This Agreement does not, and is not intended to, impair, divest, delegate or contravene any constitutional, statutory, and/or other legal right, privilege, power, obligation, duty or immunity of the Parties. Nothing in this Agreement shall be construed as a waiver of governmental immunity for either Party.
19. This Agreement does not, and is not intended to, create, by implication or otherwise, any direct or indirect obligation, duty, promise, benefit, and/or right to be indemnified, or any other right of any kind in favor of any person, organization, alleged third party beneficiary, or

any right to be contractually, legally, equitably or otherwise subrogated to any indemnification or any other rights provided under the terms of this Agreement.

20. Neither the COUNTY nor any COUNTY AGENT, by virtue of this Agreement or otherwise, shall be considered employees of the MUNICIPALITY. The COUNTY and/or any COUNTY AGENTS legal status and relationship to the MUNICIPALITY shall be that of an Independent Contractor. No MUNICIPAL FIRE PERSONNEL shall, by virtue of this Agreement or otherwise, be considered an employee, agent, or working under the supervision and control of the COUNTY and/or any COUNTY AGENT.
21. The MUNICIPALITY and the O.C.S.O. shall each remain the sole and exclusive employer of each of their respective employees. The MUNICIPALITY and COUNTY each agree to remain solely and exclusively responsible for the payment of each of their respective employees' wages, compensation, overtime wages, expenses, fringe benefits, pension, retirement benefits, training expenses, or other allowances or reimbursements of any kind, including, but not limited to, workers' disability compensation, unemployment compensation, Social Security Act protection and benefits, employment taxes, or any other statutory or contractual right or benefit based, in any way, upon employment.
22. This Agreement does not, and is not it intended to, create, change, modify, supplement, supersede, or otherwise affect or control, in any manner, any term or condition of employment of any COUNTY AGENT, or any applicable O.C.S.O. employment and/or union contract, any level or amount of supervision, any standard of performance, any sequence or manner of performance, and/or any O.C.S.O. rule, regulation, training and education standard, hours of work, shift assignment, order, policies, procedure, directive, ethical guideline, etc., which shall solely and exclusively, govern and control the employment relationship between the O.C.S.O. and/or all conduct and actions of any COUNTY AGENT.
23. Neither the MUNICIPALITY nor any MUNICIPAL FIRE PERSONNEL shall provide, furnish or assign any COUNTY AGENT with any job instructions, job descriptions, job specifications, or job duties, or, in any manner, attempt to control, supervise, train, or direct any COUNTY AGENT in the performance of any COUNTY duty or obligation under the terms of this Agreement.
24. The MUNICIPALITY shall promptly deliver to the O.C.S.O. written notice and copies of any CLAIM, accusation or allegation of negligence or other wrongdoing, whether civil or criminal in nature, that the MUNICIPALITY becomes aware of which involves, in any way, the O.C.S.O. or any COUNTY AGENT. The MUNICIPALITY shall cooperate with the O.C.S.O. in any investigation conducted by the SHERIFF of any act or performance of any duties by any COUNTY AGENT.
25. Subject to the following Paragraph, and unless canceled as provided for in this Paragraph, this Agreement shall become effective April 1, 2021 and shall remain in effect continuously until it expires, without any further act or notice being required of any party, at 11:59 P.M. on March 31, 2024. This Agreement may be cancelled for any reason, including the convenience of any Party, and without any penalty, before its March 31, 2024 expiration by delivering a written notice of the cancellation to the other signatories to this Agreement, or their successors in office. Such written notice shall provide at least ninety (90) calendar day notice

of the effective date of cancellation, and such cancellation of this Agreement shall be effective at 11:59 P.M. on the last calendar day of the calendar month following the expiration of the 90 calendar day notice period. If this Agreement is terminated for any reason, the MUNICIPALITY will fully reimburse the COUNTY for all direct and indirect labor costs incurred by the COUNTY as a result of the Agreement's termination. Such costs include, but are not limited to, unemployment compensation claims made by COUNTY employees hired by the COUNTY to fulfill the terms of this Agreement.

26. This Agreement, and any subsequent amendments, shall not become effective prior to approval by resolution of the COUNTY Board of Commissioners and the MUNICIPALITY'S Governing Body. The approval and terms of this Agreement shall be entered into the official minutes and proceedings of the COUNTY Board of Commissioners and the MUNICIPALITY's Council and shall also be filed with the Office of the Clerk for the COUNTY and the MUNICIPALITY Clerk. In addition, this Agreement, and any subsequent amendments, shall be filed by a designated COUNTY AGENT with the Secretary of State for the State of Michigan and shall not become effective prior to the filing of this Agreement with the Secretary of State.
27. Any signatory or any signatories' successor in office to this Agreement shall send, by first class mail, any correspondence and written notices required or permitted by this Agreement to each of the signatories of this Agreement, or any signatories' successor in office, to the addresses shown in this Agreement. Any written notice required or permitted under this Agreement shall be considered delivered to a party as of the date that such notice is deposited, with sufficient postage, with the U.S. Postal Service.
28. This Agreement is made and entered into in the State of Michigan and shall in all respects be interpreted, enforced and governed under the laws of the State of Michigan. The language of all parts of this Agreement is intended to and, in all cases, shall be construed as a whole, according to its fair meaning, and not construed strictly for or against any Party. As used in this Agreement, the singular or plural number, possessive or non-possessive, shall be deemed to include the other whenever the context so suggests or requires.
29. Absent an express written waiver, the failure of any party to pursue any right granted under this Agreement shall not be deemed a waiver of that right regarding any existing or subsequent breach or default under this Agreement. No failure or delay on the part of any Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall a single or partial exercise of any right, power or privilege preclude any other or further exercise of any other right, power or privilege.
30. The COUNTY and the MUNICIPALITY acknowledge that this Agreement shall be binding upon them and, to the extent permitted by law, upon their administrators, representatives, executors, successors and assigns, and all persons acting by, through, under, or in concert with any of them.
31. This Agreement sets forth the entire contract and understanding between the COUNTY and the MUNICIPALITY and fully supersedes any and all prior contracts, agreements or understandings between them in any way related to the subject matter hereof, and after the effective date of this Agreement shall remain effective and enforceable for any CLAIM

arising or occurring during any prior contract period. This Agreement shall not be changed or supplemented orally. This Agreement may be amended only by concurrent resolutions of the COUNTY Board of Commissioners and the MUNICIPALITY Governing Body in accordance with the procedures set forth herein.

32. Each Party shall comply with all federal, state, and local statutes, ordinances, regulations, administrative rules, requirements applicable to its activities performed under this Agreement.
33. If a court of competent jurisdiction finds a term, or condition, of this Agreement to be illegal or invalid, then the term, or condition, shall be deemed severed from this Agreement. All other terms, conditions, and provisions of this Agreement shall remain in full force.
34. This Agreement sets forth the entire contract and understanding between the COUNTY and the MUNICIPALITY and fully supersedes any and all prior oral or written understandings, communications, or contracts between the Parties related to the subject matter hereof. It is further understood and agreed that the terms of this Agreement are contractual and are not a mere recital and that there are no other contracts, understandings, or representations between the COUNTY and the MUNICIPALITY in any way related to the subject matter hereof, except as expressly stated herein. This Agreement shall not be changed or supplemented orally. This Agreement may be amended only by concurrent resolutions of the COUNTY Board of Commissioners and the MUNICIPALITY's Governing Body in accordance with the procedures set forth herein.
35. For and in consideration of the mutual promises, acknowledgments, representations, and agreements set forth in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the COUNTY and the MUNICIPALITY hereby agree and promise to be bound by the terms and provisions of this Agreement.

**IN WITNESS WHEREOF**, Rick Hamill, Supervisor for the Charter Township of Highland, hereby acknowledges that he or she has been authorized by a resolution of the MUNICIPALITY'S governing body (a certified copy of which is attached) to execute this Agreement on behalf of the MUNICIPALITY and hereby accepts and binds the MUNICIPALITY to the terms and conditions of this Agreement on this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

WITNESS:

**CHARTER TOWNSHIP OF HIGHLAND,**  
a Michigan Municipal Corporation

BY: \_\_\_\_\_

\_\_\_\_\_  
Name:

Rick Hamill

Title:

Highland Township Supervisor

**IN WITNESS WHEREOF**, David T. Woodward, Chairperson, Oakland County Board of Commissioners, hereby acknowledges that he has been authorized by a resolution of the Oakland County Board of Commissioners (a certified copy of which is attached) to execute this Agreement on behalf of the COUNTY and hereby accepts and binds the COUNTY to the terms and conditions of this Agreement on this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

WITNESS:

**COUNTY OF OAKLAND,**  
a Michigan Municipal Corporation

BY: \_\_\_\_\_

\_\_\_\_\_  
Name:  
Title:

David T. Woodward  
Chairperson, Oakland County Board of  
Commissioners

**IN WITNESS WHEREOF**, Michael J. Bouchard, in his official capacity as SHERIFF, hereby concurs and accepts the terms and conditions of this Agreement on this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

WITNESS:

**OAKLAND COUNTY SHERIFF,**  
a Michigan Constitutional Officer

BY: \_\_\_\_\_

\_\_\_\_\_  
Name:  
Title:

Michael J. Bouchard,  
Oakland County Sheriff



## **6. Announcements and Information Inquiry**

- a) Highland Township Offices will be closed Good Friday, April 2, 2021

## 7. Public Comment



## Memorandum

To: Highland Township Board of Trustees

From: Rick Hamill

Date: March 1, 2021

Re: Proposed Purchase of Potential Park and Cemetery Land

---

Very recently over 111 acres of open farm and wetlands on south Hickory Ridge Road across the road (West) and adjacent(South) to The Lazy J Ranch has come on the market. The property belongs to long time residents of Highland who have recently passed and the family needs to address liquidation of the assets.

Roscoe Smith informed me of the availability of the land as a suggested potential park and I made contact with the family to see if they would be interested in selling it to the township for that use. The land to the East could also be used for cemetery expansion for many years to come. We are nearly out of available lots in our two current cemeteries.

Attached are documents that relate to the parcels being referred to in the memo. In order to consider the possible purchase we will need to hire a professional appraisal firm to establish the true value of the property before any further steps can be taken. The owners are willing to use our appraisal to establish the selling price. In order to apply for DNR grants we will need an appraisal so I have a list of DNR pre-approved appraisers to choose from.

Complete details will be discussed further at the Board meeting .

I am asking for approval to hire a DNR approved appraisal firm to obtain the value of this property to further the discussion with the land owners on purchasing this great piece of open land for a public purpose.

*Warm inside. Great outdoors.*



Robinson Property  
Consists of 4 Parcels  
Located South of M-59  
On Hickory Ridge Road



Parcel # 1

11-30-200-011

19.61 Ac

Parcel # 2

11-30-200-018

30 Ac

Parcel # 3

11-30-200-019

10 Ac

Parcel # 4

11-29-100-016

51.88 Ac

S Hickory Ridge Rd

land



No property address available



beds / full baths / half baths / sq ft

#3

Residential Property Profile

11-30-200-019

2 x SEV # 44,400 = # 88,800

Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.

Owner Information

Owner(s) : ROBINSON, DORA JANE LIV TRST
Postal Address : 922 S HICKORY RIDGE RD MILFORD MI 48380-1506

Location Information

Site Address : No property address available
PIN : 11-30-200-019 Neighborhood Code : RS1
Municipality : Charter Township of Highland
School District : 63220 HURON VALLEY SCHOOLS
Class Code : 102 FARM VAC (Farm-Agricultural Vac.)

Property Description

T3N, R7E, SEC 30 PART OF SE 1/4 OF NE 1/4 BEG AT E 1/4 COR, TH N 89-48-20 W 1318.90 FT, TH N 01-35-57 E 330.47 FT, TH S 89-48-20 E 1317.96 FT, TH S 01-31-05 W 330.48 FT TO BEG 10.00 A

Split/Combination Information

Added Status : Added Parcel
Added Date : 02/06/1979 Added From : FROM 30-200-012

Most Recent Sale Since 1994

Date : 11/14/2013
Amount : \$1 Liber : 46554:675
Grantor : ROBINSON, DORA JANE Grantee : DORA JANE ROBINSONTR

Handwritten calculations: #1 \$127,060, #2 194,280, #3 88,800, sum \$410,140, x 25%, ATWP GRANT SHARE #102,535

No property address available

beds / full baths / half baths / sq ft

#3 pg 2



Residential Property Profile

11-30-200-019

Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.

Tax Information

Taxable Value	: \$36,840	State Equalized Value	: \$44,400
Current Assessed Value	: \$44,400	Capped Value	: \$36,840
Effective Date For Taxes	: 12/01/2020	Principal Residence Exemption Type	: Qual. Ag.
Summer Principal Residence Exemption Percent	: 100%	Winter Principal Residence Exemption Percent	: 100%
<b>2019 Taxes</b>		<b>2020 Taxes</b>	
Summer	: \$822.07	Summer	: \$835.18
Winter	: \$314.33	Winter	: \$322.33
Village	:	Village	:

Lot Information

Description : ROLLING SWAMPY Area : 9.75 ACRES

**No property address available**

beds / full baths / half baths / sq ft



11-29-100-016

# 4  
2X SEV #162,470 = #324,940

**Residential Property Profile**

**Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.**

**Owner Information**

Owner(s) : **ROBINSON, DORA JANE LIV TRST**  
Postal Address : **922 S HICKORY RIDGE RD MILFORD MI 48380-1506**

**Location Information**

Site Address : **No property address available**  
PIN : **11-29-100-016** Neighborhood Code : **RS1**  
Municipality : **Charter Township of Highland**  
School District : **63220 HURON VALLEY SCHOOLS**  
Class Code : **102 FARM VAC (Farm-Agricultural Vac.)**

**Property Description**

**T3N, R7E, SEC 29 S 1/2 OF NW 1/4 EXC W 528 FT OF S 82.50 FT, ALSO EXC W 1924 FT OF N 614 FT 51.88 A**

**Most Recent Sale Since 1994**

Date : **11/14/2013**  
Amount : **\$1** Liber : **46554:672**  
Grantor : **ROBINSON, DORA JANE** Grantee : **DORA JANE ROBINSONTR**

**Tax Information**

Taxable Value : **\$91,390** State Equalized Value : **\$162,470**  
Current Assessed Value : **\$162,470** Capped Value : **\$91,390**  
Effective Date For Taxes : **12/01/2020** Principal Residence Exemption Type : **Qual. Ag.**  
Summer Principal Residence Exemption Percent : **100%** Winter Principal Residence Exemption Percent : **100%**  
**2019 Taxes** **2020 Taxes**  
Summer : **\$2,039.08** Summer : **\$2,071.88**  
Winter : **\$779.72** Winter : **\$799.72**  
Village : **:** Village : **:**

**Lot Information**

Description : **ROLLING** Area : **51.88 ACRES**

## No property address available

beds / full baths / half baths / sq ft

11-30-200-011

#1  
2 X SEV \$63,530 = \$127,060



## Residential Property Profile

Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.

### Owner Information

Owner(s) : ROBINSON, DORA JANE LIV TRST  
Postal Address : 922 S HICKORY RIDGE RD MILFORD MI 48380-1506

### Location Information

Site Address : No property address available  
PIN : 11-30-200-011 Neighborhood Code : RS1  
Municipality : Charter Township of Highland  
School District : 63220 HURON VALLEY SCHOOLS  
Class Code : 102 FARM VAC (Farm-Agricultural Vac.)

### Property Description

T3N, R7E, SEC 30 S 681.12 FT OF NE 1/4 OF NE 1/4 EXC N 181.50 FT OF E 194.50 FT 19.61 A

### Most Recent Sale Since 1994

Date : 11/14/2013  
Amount : \$1 Liber : 46554:675  
Grantor : ROBINSON, DORA JANE Grantee : DORA JANE ROBINSONTR

### Tax Information

Taxable Value	: \$38,800	State Equalized Value	: \$63,530
Current Assessed Value	: \$63,530	Capped Value	: \$38,800
Effective Date For Taxes	: 12/01/2020	Principal Residence Exemption Type	: Qual. Ag.
Summer Principal Residence Exemption Percent	: 100%	Winter Principal Residence Exemption Percent	: 100%
<b>2019 Taxes</b>		<b>2020 Taxes</b>	
Summer	: \$865.73	Summer	: \$879.62
Winter	: \$331.01	Winter	: \$339.51
Village	:	Village	:

### Lot Information

Description : ROLLING Area : 19.23 ACRES



**No property address available**

beds / full baths / half baths / sq ft

# 2 P41



**Residential Property Profile**

11-30-200-018

2x SEV #97,140 = \$194,280-

**Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.**

**Owner Information**

Owner(s) : ROBINSON, DORA JANE LIV TRST  
Postal Address : 922 S HICKORY RIDGE RD MILFORD MI 48380-1506

**Location Information**

Site Address : No property address available  
PIN : 11-30-200-018 Neighborhood Code : RS1  
Municipality : Charter Township of Highland  
School District : 63220 HURON VALLEY SCHOOLS  
Class Code : 102 FARM VAC (Farm-Agricultural Vac.)

**Property Description**

T3N, R7E, SEC 30 SE 1/4 OF NE 1/4 EXC BEG AT E 1/4 COR, TH N 89-48-20 W 1318.90 FT, TH N 01-35-57 E 330.47 FT, TH S 89-48-20 E 1317.96 FT, TH S 01-31-05 W 330.48 FT TO BEG 30 A

**Split/Combination Information**

Added Status : Added Parcel  
Added Date : 02/06/1979 Added From : FROM 30-200-012

**Most Recent Sale Since 1994**

Date : 11/14/2013  
Amount : \$1 Liber : 46554:675  
Grantor : ROBINSON, DORA JANE Grantee : DORA JANE ROBINSONTR

No property address available

beds / full baths / half baths / sq ft

#2 pg 2



### Residential Property Profile

11-30-200-018

Note: Please be advised the data included in Property Gateway originates from multiple local municipalities. Data, in regard to properties, may be classified and updated differently by municipalities. If you have any questions, please contact the local community where the data originated.

#### Tax Information

Taxable Value	: \$62,350	State Equalized Value	: \$97,140
Current Assessed Value	: \$97,140	Capped Value	: \$62,350
Effective Date For Taxes	: 12/01/2020	Principal Residence Exemption Type	: Qual. Ag.
Summer Principal Residence Exemption Percent	: 100%	Winter Principal Residence Exemption Percent	: 100%
<b>2019 Taxes</b>		<b>2020 Taxes</b>	
Summer	: \$1,391.13	Summer	: \$1,413.52
Winter	: \$531.94	Winter	: \$545.59
Village	:	Village	:

#### Lot Information

Description : ROLLING SWAMPY Area : 29.24 ACRES



## Memorandum

To: Highland Township Board of Trustees  
From: Rick A. Hamill  
Date: March 11, 2021  
Re: Amendment to the Lake Access and Docking Ordinance

---

For your consideration attached is a simplified Lake Access and Docking Ordinance. This amendment was requested by our Ordinance Officer. The language in the current Ordinance was making it impossible to enforce. This new simplified amendment makes it easy to read and therefore to enforce.

*Warm inside. Great outdoors.*



**CHARTER TOWNSHIP OF HIGHLAND**  
**ORDINANCE NO. \_\_\_\_\_**  
**LAKE ACCESS AND DOCKING REGULATIONS ORDINANCE AMENDMENT**

AN ORDINANCE TO AMEND THE LAKE ACCESS AND DOCKING REGULATIONS IN ARTICLE III OF CHAPTER 24 OF THE CODE OF ORDINANCES FOR THE CHARTER TOWNSHIP OF HIGHLAND BY REVISING THE PURPOSE, DEFINITIONS, AND REGULATIONS SECTIONS BUT WITHOUT CHANGING THE SECTION THAT RESCINDING CHAPTER 24, WATERWAYS, A NEW ARTICLE III, LAKE ACCESS AND DOCKING REGULATIONS, SUCH ARTICLE REGULATING LAKE ACCESS AND DOCKING ON LAKE FRONTAGE WITHIN THE CHARTER TOWNSHIP OF HIGHLAND AND REPLACING IN ITS ENTIRETY WITH REGULATIONS PROVIDING FOR DOCKING, MOORING AND LAUNCHING OF WATERCRAFT AND OTHER MATTERS, AND TO PROVIDES FOR ENFORCEMENT AND PENALTIES FOR VIOLATION OF THESE REGULATIONS.

**THE CHARTER TOWNSHIP OF HIGHLAND ORDAINS:**

**Section 1. Amendment.**

Sections 24-50, 24-51, and 24-52 in Article III, Lake Access and Docking Regulations, of Chapter 24, Waterways, of the Code of Ordinances for the Charter Township of Highland, are hereby amended to by rescinding and replacing Article III. Lake Access and Docking Regulations, which will read in its entirety as follows:

**Section 1. Amendment**

**ARTICLE III. LAKE ACCESS AND DOCKING REGULATIONS.**

Sec. 24.50 Intent, ~~and~~ Purpose, and Title.

- a. The Highland Township Board of Trustees recognizes and concludes that the proper and safe use of water resources in Highland Township is desirable to retain and maintain the physical, ecological, cultural and aesthetic characteristics of lakes in the Township, to preserve and protect the quality and safety of the lakes and shorelines and the rights of riparian owners and users as well as the Township as a whole, and to promote the public health, safety and welfare of all persons making use of lakes within the Township and properties adjacent to lakes in the Township. It has been recognized that the lack of regulation would result in a

nuisance condition and an impairment of these important and irreplaceable natural resources in the Township; and would further result in the destruction of property values. Accordingly, it is the intent and purpose of the Township Board to adopt reasonable regulations for lake access and docking in the Township.

~~Sec. 24.51 Short Title~~

~~b. This Ordinance shall be known and may be cited and referred to as the “Highland Township Lake Access and Docking Ordinance.”; and shall hereinafter be referred to as the “Ordinance.”~~

Sec. 24.52~~1~~ Definitions

~~a. “Beached” or “beaching” means placing or securing a watercraft on or adjacent to the lake shore of a separate frontage on a lake.~~

~~a.b. “Bottomland” means the area of a lake below the ordinary high water mark.~~

~~b.c. “Dock” means a pier, structure, platform, or fixture extending from the shore over the bottomlands into a lake.~~

~~d. “Docked” or “docking” means the: (i) the anchoring, tethering or mooring of a watercraft directly to a pier, structure, platform, pole, anchor, or dock; (ii) and also means the placement of a watercraft in an off-shore boat cradle or shore station; or (iii) regular or overnight beaching of a watercraft, and (iv) or anchoring or tethering to of a watercraft to the bottomlands of a lake.~~

~~e. “Lake frontage” means that portion of a lot or parcel of land lawfully existing on documentation recorded with the Oakland County Register of Deeds, which abuts or intersects with the ordinary highwater mark of a lake, whether such lot or parcel is owned by one or more persons, is commonly owned by several persons or combinations of persons, or occupied by a multiple-unit residential development.~~

~~f. “Lake frontage lot” means a lot or parcel with lake frontage.~~

~~e.g. “Launch or launched” means to place a watercraft in the waters of a lake.~~

~~d.h. “Mooring” means a space for a single watercraft that is docked or beached at or adjacent to a dock, in an offshore boat cradle or shore station, or a beaching location.~~

~~i. “Ordinary highwater mark means the line between upland and bottomland which persists through successive changes in water levels, below which the presence of and action of the water is so common or recurrent that the character of the land is “marked” distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil, and the vegetation. On an inland lake which has a level established by law, it means the highest established level. Where water returns to its natural level as a~~

result of the permanent removal or abandonment of a dam, it means the natural “ordinary high water mark.”

j. “Riparian” means the owners of a lake frontage lot.

e-k. “Riparian interest area” means the bottomland over which a riparian has an ownership interest. For purposes of this ordinance, there shall be a rebuttable presumption that the extension of side lot lines of the lake frontage lot over the bottomland at the same angles those lines intersect the ordinary high water mark form the boundaries of the riparian interest area.

f.l. “Separate frontage” means that portion of a lot or parcel of land lawfully existing on documentation recorded with the Oakland County Register of Deeds, which abuts or intersects with the ordinary highwater mark of a lake, whether such lot or parcel is owned by one or more persons, is commonly owned by several persons or combinations of persons, or occupied by a multiple-unit residential development.

g-m. “Watercraft” means any boat, pontoon boat, hydrofoil, hovercraft, jet ski, personal watercraft, jet boat or similar vessel having a propulsion system of six (6) horsepower or more, or a sailboat over twelve (12) feet in length, but does not include canoes, kayaks, paddle boats, ~~rowboats (without an engine)~~ or other human-powered ~~vessels~~ vessels ~~craft or sailboats~~.

## Sec. 24.5~~32~~ Regulations

a. Unless otherwise provided herein, no more than four (4) watercraft shall be launched from ~~each separate~~ lake frontage lot in any calendar year. This limitation does not prohibit a single-family dwelling riparian from launching one (1) additional watercraft for each previously launched watercraft owned by the riparian that has been sold and permanently removed from the lake and lake frontage lot.

b. Unless otherwise provided herein, ~~nor shall~~ more than four (4) watercraft ~~shall be utilized~~ used, docked, ~~moored, beached, or kept~~ stored at, on, or adjacent to ~~each a separate lake frontage lot~~.

a-c. Unless otherwise provided herein, a dock is only allowed on a lake frontage lot that has an established and lawful principal permitted use under the Township Zoning Ordinance and at least 40 feet of lake frontage.

b.d. Unless otherwise provided herein, a lake frontage lot shall have no more than one (1) dock. ~~shall be allowed, used or installed for each parcel which has at least 40 feet of lake frontage and which has first established a permitted principal use in accordance with the Zoning Ordinance.~~

e-e. No dock shall be placed within ten (10) feet of the side lot lines at the ordinary high water mark of a lake frontage lot ~~and parcel~~. ~~The placement of the dock on the bottomland must be within the lake frontage lot owner’s riparian interest area.~~

~~within the lake should respect littoral and riparian boundaries which are generally interpreted as radiating from the center of the lake to the shoreline. (Note: Only the courts can establish riparian boundaries based on survey and other evidence. The Township will not mediate boundary disputes.)~~

- d.f. Watercraft access from outlots, parks, easements, and common areas shall be permitted only where approved as part of a site plan, subdivision plat, or site condominium plan and subject to the following:
- i. ~~No more than~~Only one (1) watercraft may be docked ~~or moored at any outlet, parks, easements, and common area~~ for every 10 feet of ~~lake~~separate frontage ~~of within~~ the outlet, park, easement, or common space.
  - ii. Only one (1) dock may be installed for each 40 feet of ~~lake~~separate frontage ~~of within~~ the outlet, park, easement or common space.
  - iii. No ~~dock-docking or mooring~~ shall be allowed at or on any public or private road right-of-way or walkway easement unless specifically allowed by a recorded deed or easement or recorded dedication and as allowed by state law (MCL 324.3011b)
  - iv. Exception. Where lake access has been lawfully established at an outlet, park, easement, or common space prior to adoption of this ordinance, as documented by aerial photographs, homeowner's association rules, or other such documentation as may be acceptable to the code enforcement officer, such access may be continued, but not expanded as to the number or size of docks or ~~mooring~~docking points.
- e.g. No watercraft access, ramp, launch, dock or lake frontage shall be used for any nonresidential use or purpose, including, but not limited to, any commercial use, business use, entertainment facility, or institutional uses or purposes, unless the use is otherwise authorized by the Zoning Ordinance as a special land use or a planned unit development. This section shall not apply to governmental structures or uses.

**~~Section 2.~~ Repealer.**

~~This Ordinance hereby repeals any ordinances in conflict herewith.~~

**~~Section 32.~~ Savings Clause.**

That nothing in this Ordinance hereby adopted be construed to affect any just or legal right or remedy of any character nor shall any just or legal right or remedy of any character be lost, impaired or affected by this Ordinance.

**Section 43. Severability.**

The various parts, sections and clauses of this Ordinance are declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected.

**Section 4. Publication and Effective Date.**

This Ordinance shall be effective immediately upon publication as provided by law.

**CERTIFICATION**

I, Tami Flowers, the Clerk for the Charter Township of Highland, Oakland County, Michigan, do hereby certify that this Ordinance was adopted by the Charter Township of Highland Board of Trustees at a regular meeting held on \_\_\_\_\_, 2021 .

\_\_\_\_\_  
\_\_\_\_\_  
Tami Flowers, Township Clerk

Introduction Date:  
Adoption Date:  
Publication and Effective Date:

**Section 5. Adoption.**

~~\_\_\_\_\_This Ordinance is hereby declared to have been adopted by the Township of Highland Board, at a meeting thereof duly called and held on the \_\_\_\_\_ day of \_\_\_\_\_, 2021. This Ordinance shall be effective immediately upon publication as provided by law.~~

\_\_\_\_\_  
Rick A. Hamill, Township Supervisor

\_\_\_\_\_  
Tami Flowers, Township Clerk

Introduction:  
Adoption:  
Published:  
Effective Date:



**CHARTER TOWNSHIP OF HIGHLAND  
ORDINANCE NO. 470  
LAKE ACCESS AND DOCKING REGULATIONS ORDINANCE AMENDMENT**

AN ORDINANCE TO AMEND THE LAKE ACCESS AND DOCKING REGULATIONS IN ARTICLE III OF CHAPTER 24 OF THE CODE OF ORDINANCES FOR THE CHARTER TOWNSHIP OF HIGHLAND BY REVISING THE PURPOSE, DEFINITIONS, AND REGULATIONS SECTIONS BUT WITHOUT CHANGING THE SECTION THAT PROVIDES FOR ENFORCEMENT AND PENALTIES FOR VIOLATION OF THE REGULATIONS.

**THE CHARTER TOWNSHIP OF HIGHLAND ORDAINS:**

**Section 1. Amendment.**

Sections 24-50, 24-51, and 24-52 in Article III, Lake Access and Docking Regulations, of Chapter 24, Waterways, of the Code of Ordinances for the Charter Township of Highland, are amended to read as follows:

ARTICLE III. LAKE ACCESS AND DOCKING REGULATIONS.

Sec. 24.50 Intent, Purpose, and Title.

- a. The Highland Township Board of Trustees recognizes and concludes that the proper and safe use of water resources in Highland Township is desirable to retain and maintain the physical, ecological, cultural and aesthetic characteristics of lakes in the Township, to preserve and protect the quality and safety of the lakes and shorelines and the rights of riparian owners and users as well as the Township as a whole, and to promote the public health, safety and welfare of all persons making use of lakes within the Township and properties adjacent to lakes in the Township. It has been recognized that the lack of regulation would result in a nuisance condition and an impairment of these important and irreplaceable natural resources in the Township; and would further result in the destruction of property values. Accordingly, it is the intent and purpose of the Township Board to adopt reasonable regulations for lake access and docking in the Township.
- b. This Ordinance shall be known and may be cited and referred to as the “Lake Access and Docking Ordinance.”

Sec. 24.51 Definitions.

- a. “Beached” or “beaching” means placing or securing a watercraft on or adjacent to the lake shore of a lake frontage lot.
- b. “Bottomland” means the area of a lake below the ordinary high water mark.
- c. “Dock” means a pier, structure, platform, or fixture extending from the shore over the bottomland into a lake.
- d. “Docked” or “docking” means the: (i) anchoring, tethering or mooring of a watercraft directly to a pole, anchor, or dock, (ii) placement of a watercraft in an off-shore boat cradle or shore station;, (iii) regular or overnight beaching of a watercraft, and (iv) anchoring or tethering of a watercraft to the bottomland of a lake.
- e. “Lake frontage” means that portion of a lot or parcel of land lawfully existing on documentation recorded with the Oakland County Register of Deeds, which abuts or intersects with the ordinary highwater mark of a lake, whether such lot or parcel is owned by one or more persons, is commonly owned by several persons or combinations of persons, or occupied by a multiple-unit residential development.
- f. “Lake frontage lot” means a lot or parcel with lake frontage.
- g. "Launch or launched" means to place a watercraft in the waters of a lake.
- h. “Mooring” means a space for a single watercraft that is docked or beached.
- i. “Ordinary highwater mark” means the line between upland and bottomland which persists through successive changes in water levels, below which the presence and action of the water is so common or recurrent that the character of the land is “marked” distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil, and the vegetation. On an inland lake which has a level established by law, it means the highest established level. Where water returns to its natural level as a result of the permanent removal or abandonment of a dam, it means the natural ordinary high water mark.
- j. “Riparian” means the owners of a lake frontage lot.
- k. "Riparian interest area" means the bottomland over which a riparian has an ownership interest. For purposes of this ordinance, there shall be a rebuttable presumption that the extension of side lot lines of the lake frontage lot over the bottomland at the same angles those lines intersect the ordinary high water

mark form the side boundaries of the riparian interest area.

1. "Watercraft" means any boat, pontoon boat, hydrofoil, hovercraft, jet ski, personal watercraft, jet boat or similar vessel having a propulsion system of six (6) horsepower or more, or a sailboat over twelve (12) feet in length, but does not include canoes, kayaks, paddle boats, or other human-powered vessels.

#### Sec. 24.52 Regulations

- a. Unless otherwise provided herein, no more than four (4) watercraft shall be launched from a lake frontage lot in any calendar year. This limitation does not prohibit a single-family dwelling riparian from launching one (1) additional watercraft for each previously launched watercraft owned by the riparian that has been sold and permanently removed from the lake and lake frontage lot.
- b. Unless otherwise provided herein, no more than four (4) watercraft shall be used, docked, , or stored at, on, or adjacent to a lake frontage lot.
- c. Unless otherwise provided herein, a dock is only allowed on a lake frontage lot that has an established and lawful principal permitted use under the Township Zoning Ordinance and at least 40 feet of lake frontage.
- d. Unless otherwise provided herein, a lake frontage lot shall have no more than one (1) dock.
- e. No dock shall be placed within ten (10) feet of the side lot lines at the ordinary high water mark of a lake frontage lot and the placement of the dock on the bottomland must be within the lake frontage lot owner's riparian interest area.
- f. Watercraft access from outlots, parks, easements, and common areas shall be permitted only where approved as part of a site plan, subdivision plat, or site condominium plan and subject to the following:
  - i. No more than one (1) watercraft may be docked for every 10 feet of lake frontage of the outlot, park, easement, or common space.
  - ii. Only one (1) dock may be installed for each 40 feet of lake frontage of the outlot, park, easement, or common space.
  - iii. No docking shall be allowed at or on any public or private road right-of-way or walkway easement unless specifically allowed by a recorded deed or easement or recorded dedication and as allowed by state law (MCL 324.30111b)
  - iv. Exception. Where lake access has been lawfully established at an outlot, park, easement, or common space prior to adoption of this ordinance, as

documented by aerial photographs, homeowner's association rules, or other such documentation as may be acceptable to the code enforcement officer, such access may be continued, but not expanded as to the number or size of docks or docking points.

- g. No watercraft access, ramp, launch, dock or lake frontage shall be used for any nonresidential use or purpose, including, but not limited to, any commercial use, business use, entertainment facility, or institutional uses or purposes, unless the use is otherwise authorized by the Zoning Ordinance as a special land use or a planned unit development. This section shall not apply to governmental structures or uses.

**Section 2. Savings Clause.**

That nothing in this Ordinance hereby adopted be construed to affect any just or legal right or remedy of any character nor shall any just or legal right or remedy of any character be lost, impaired or affected by this Ordinance.

**Section 3. Severability.**

The various parts, sections and clauses of this Ordinance are declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected.

**Section 4. Publication and Effective Date.**

This Ordinance shall be effective immediately upon publication as provided by law.

**CERTIFICATION**

I, Tami Flowers, the Clerk for the Charter Township of Highland, Oakland County, Michigan, do hereby certify that this Ordinance was adopted by the Charter Township of Highland Board of Trustees at a regular meeting held on \_\_\_\_\_, 2021\_.

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Tami Flowers, Township Clerk

Introduction Date:

Adoption Date:

Publication and Effective Date:



# Memorandum

To: Highland Township Board of Trustees  
From: Rick A. Hamill  
Date: March 11, 2021  
Re: Award Bid for Low Voltage at new Fire Station #1

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For your consideration attached is the list of bids and recommendation for Low Voltage service at the new Fire Station #1.





## Charter Township of Highland - Fire Department

**250 W. Livingston Rd  
Highland, MI 48357  
(248)887-9050**

TO: Highland Township Board  
FROM: Ken Chapman, Fire Chief  
SUBJECT: Low Voltage RFQ recommendation  
DATE: March 15, 2021

On February 22, 2021, a RFQ was published. The RFQ was posted on MITN, the Township website, and a trades website. We rec'd (6) separate quotes for the project.

- Net Solutions LLC  
\$138,879.55
- Visionary Sound  
\$138,575.00
- Buechel Independent Technology  
\$46,522.80
- NetExpress  
\$38,216.80 (Original bid was short 17 runs, est. add \$5,000)
- **Enertron**  
**\$38,236.00 (Original bid had tax, which should be removed -\$986.69)**  
**\$37,249.78**
- Vector Solutions  
\$23,231.00 (This was an incomplete bid, Training Room equipment not included)

At the February Board meeting, the Township Board approved a consultant to create the RFQ, and help vet the bid submissions. After review of the bids was completed, and any questions of the submissions answered.

I would like to recommend Enertron be awarded the project for Low Voltage at Fire Station 1. Their bid met all the requirements identified in the RFQ, and the quoted amount was significantly less than any other submission.



O: 586.757.1200  
F: 586.757.6740  
24705 Mound Road  
Warren, MI 48091  
[enertronllc.com](http://enertronllc.com)

March 8, 2021

Charter Township of Highland  
Attn: Clerk's Office  
205 North John Street  
Highland, MI 48357

RE: Low Voltage – Request for Bid  
Highland Fire Station #1  
1600 W. Highland Road  
Highland, MI 48357

Enertron specializes in IT Services, Managed Service Provider for IT, Cabling Infrastructure, and IT Logistics. Enertron has been providing IT managed services and cabling services for the past 30+ years to our partners.

First is our in-house cabling division, which is staffed with technicians certified under BICSI standards. In this capacity, we have designed and installed numerous fiber optic backbone systems, built short-haul fiber links and facilitated data and voice infrastructures using category UTP cable. We are a certified install company for Hubbell Premise Wiring, Leviton Network and Solutions, Panduit Data Products, Ortronics Data Products and many other copper and fiber manufacturers. These companies offer warranties for up to 25 years, which we are prepared to honor on their behalf.

Additionally, Enertron is Cabling certified in Commscope Data Products, Corning Fiber Products, General Cable Products, Hubbell Premise Wiring Products, Leviton Data Products, Molex Data Products, Ortronics Data Products, and Panduit Wiring Products.

This skill is a value-add, as is our expertise at providing low voltage wiring installation services for computer and telephone. These technologies include low voltage hardware using enhanced category 5, 6 and 7 wiring products. We provide UTP telephone wiring; coaxial cable wiring for the design and maintenance of CATV systems; communications closet wire management, labeling and mapping; and telephone room cross-connecting.

We have designed and built many low-voltage systems to handle communications requirements, including voice, data, security and fire alarms. All such installation meet the highest electronics and telecommunications industry standards. Augmenting manufacturers' warranties covering cable and wiring products, we extend our own assurances. This lifetime, no-nonsense backup covers work done by our firm, as well as protecting against product defects and customer abuse for the lifetime of the installation.

This is yet another way we broaden the range of expertise we bring, and the scope of the Township -Enertron partnership.

Joseph LaFrance  
Manager/Member

**Charter Township Of Highland**

**Request For Quote:**

**Highland Fire Station #1**

**1600 W Highland Rd.**

**Highland, MI 48357**

**Request For Quote:**

**“Low Voltage - Request For Quote”.**

**Request For Quote (RFQ) Is Due by March 8th, 2021 before 4:00 PM EST.**

**205 North John Street**

**Clerk’s Office**

**Highland, MI 48357**

**1. Description Of Project:**

**Highland Fire Station #1 (Low Voltage - Request For Quote)**

**1a. Low Voltage Infrastructure for Fire Station #1 will begin in March for interior cabling. Targeted date for completion of this building and all infrastructure is in the Spring of 2021. The Local Area Network will be 10/100/1000 Mbps / CAT 6 Plenum Rated Cabling. The Equipment Rack will be located inside the Mechanical Room. All Cable Runs will be suspended above the drop ceiling using J-Hooks or Bridle Rings. Conduits in each office will be provided by the Contractor with pull strings into wiring boxes. All cables will be tested and labeled at the rack and at each end point of the cable and the face plate. Cabling Infrastructure shall meet ANSI/TIA/T568B Standards. Each CAT 6 Cable will be labeled entering each Patch Panel at least 2 Feet behind each RJ45 (Keystone Insert). The Fire Station will also have Three Zones 70V Paging system throughout the facility integrated with**



radio and strobe lights located in equipment rooms or hard to reach areas of the station including two white strobe lights on the exterior back of the building for visual alerts during alerts.

The Fire Station requires a Wifi System for the entire building that will be password protected for internal users.

A Training Room will require an independent sound system separate from the paging system. An Amp, Pre-Amplifier / Mixing console, Speakers, and two headsets with two microphones for training and presentations. Please include a cordless system for hands free microphone and a stationary microphone at a podium for training applications.

TV's will be purchased by the Township but TV Full Motion Mounts for (55" TV Full Motion Mount / 37 Lbs.) and Installation can also be quoted including labor. (See Drawing Electrical Print For AV / TV Locations)

All AV and TV Locations on the print will have a single CAT 6 Run Labeled with White Face Plates.

The Fire Station will require (3) PA broadcast zones for radio transmissions/public addressing. One zone will cover 100% of the building and be utilized for alerting and public addressing. The second zone will be utilized throughout 90% of the building (excluding dorm rooms), and a 3<sup>rd</sup> zone should have independent volume control for the Apparatus Bay Area. A Wall mounted Volume control will be installed in the Kitchen / Dining Room / Dayroom Area and in the Training / Community Room.

The current radio system is the Harris OpenSKY digital system. The new system P25 Motorola is also known as PSAP (Public Safety Answering Point). Oakland County will be upgrading the communication to P25 in the future. The new system will be based off the State of Michigan MPSCS radio platform. The broadcast zones at Fire Station #1 should be adaptable for the future upgrade in radio systems. 2 of the 3 zones for paging will require emergency frequencies broadcast throughout the facility. The dorm rooms will only have an alert broadcast.

All zones will have the ability to broadcast alert signal during an alarm emergency.

1b. A Copy of this bid response should be signed and dated by the owner of the company bidding the project.

**Enertron understands this section.**

1c. The Owner of the Company bidding the project will be in good business standing and without business liens against their business or property.

**Enertron understands this section.**

1d. The Owner of the Company will hold a valid and current policy of Commercial Insurance and Workers' Compensation for their business employees or contractors on this work site. See description in (5, 5a, 5b.)

**Enertron understands this section and has provided a valid sample COI.**

1e. Deliver this **sealed Bid** Response directly to the Clerk's Office at Charter Township of Highland located at 205 North John Street, Highland, MI 48357 no later than March 8th, 2021 by 4:00 PM EST.

**Enertron understands this section.**

1f. The chosen contractor will be licensed in the State of Michigan and will provide, EIN #, and Copy of Business W-9 Information.

**Enertron understands this section.**

1g. A minimum of two years of experience in the installation of cabling infrastructure is required. References may be requested by Charter Township of Highland.

1h. Contractors are asked to deliver two printed copies of the RFQ Pricing Response directly to Highland Township Offices located at: 205 N John Street, Highland, MI 48357

**Enertron understands this section. References are included**

Include all Company Contact information and Print Clearly on envelope:  
"Charter Township of Highland - Low Voltage RFQ Response".

1i. Bidders should expect to hear results if they are awarded after March 15, 2021. Work should begin as soon as March-April 2021 timeframe. Building has already been constructed and the interior construction of mechanicals are already in process.

**Enertron understands this section.**

**2. Drawings**

**2a. Copy of Drawings:**

**<https://www.axiomcsgllc.com/highland-township-new-fire-station-no-1-2/>**

### **3. Contacts For Questions:**

#### **3a. Architect**

**Lauren Lee**

**PARTNERS in Architecture, PLC**

**65 Market Street, Suite 200 | Mount Clemens, MI 48043**

**p: 586-469-3600 | f: 586-469-3607 | m: 517-375-4026**

**LLee@partnersinarch.com**

#### **3b. Charter Township of Highland – Fire Department**

**Fire Chief: Ken Chapman**

**250 W Livingston Rd.**

**Highland, MI 48357**

**[kchapman@htfd.com](mailto:kchapman@htfd.com)**

**248.887.8688 (office)**

**248.343.5235 (mobile)**

#### **3c. Design / Build Contractor:**

**AXIOM Construction Services Group**

**Director of Field Operations**

**248-763-8948**

**dmougrabi@axiomcsgllc.com**

**3d. Technology Consultant: Kevin Buechel**

**Buechel Independent Technology, LLC**

**1236 W Livingston Rd.**

**Highland, MI 48357**

**248-505-0005**

**kevin@buechelit.com**

**4. Safety Requirements:**

**4a. Follow all Posted Michigan Safety Laws and Safety Requirements which are clearly posted in and on the trailer on the job site. Please follow Covid-19 mask protection orders. Maintain social distancing 6 ft. from other workers. If you or if any of your employees are feeling ill, please leave the job site.**

**4b. Wear appropriate safety equipment including approved safety helmet and dress in work clothing and boots while on this job site. If you have questions about the job site or the safety requirements, please call the Contractor AXIOM.**

**Enertron understands this section.**

**5. Cost Estimate**

**5a. Attached Excel Spreadsheet – (Low Voltage RFQ Response)**

**Please list your estimate of Labor and Equipment prices that your company will purchase and install. Anything left blank will assume that you do not provide the product or enter an “N/A” into the empty field of the spreadsheet for cost.**

**Enertron understands this section.**

## 6. Payment Terms

6a. The chosen Company for this RFQ will be issued a check for 50% upfront of the bid total issued within 10 days of the Highland Board approval by submitting an invoice. The remaining 50% payment will be paid by submitting a final invoice after completion of the job. Please use the same invoice number and add “-B” at the end of the invoice number on final invoice.

6b. The chosen Company will guarantee that their pricing will not change during the project. If changes are requested by the chosen Company or the Township, a signed agreement and relative cost changes, moves, add-on service, or equipment will be agreed to by both parties on a separate invoice.

**Enertron understands this section.**

## 7. Commercial Liability Insurance

7a. If awarded the job, your company will be required to provide a copy of a certificate of insurance.

7b. Insurance Certificate Required– Minimum Requirements:

For Each Employee / Contractor: \$1,000,000 in General Liability Coverage and Statutory Workers’ Comp.

**Enertron understands this section and has provided a valid sample COI.**

## 8. Warranty

8a. All work performed on this job will include a One Year Warranty from the company awarded. If any part is found to be defective or requires replacement during the first year, the company installing the network will be responsible for the labor, manufacturer returns, and the replacement of parts.

8b. If the work includes an extended warranty of the entire network, parts replacement, and manufacturer warranty, please provide a written explanation of the warranty and cost.

**Enertron understands this section.**

**Enertron offers a lifetime warranty on all installed network cabling and components.**

**Please see attached warranty certificate.**

**9 Response Section**

**9a. Please list all responses by number and corresponding letter of the RFQ.**

*(Example of a response; 8a., Agree To Terms as Listed.)*

*(Example of a response: 8b, Our company offers a 3 Year parts and labor warranty for all work performed for an annual fee of \$1,500.)*

Owner Signature 

Date 3-8-2021

Name	Position	Email	Phone
Joseph LaFrance	Owner	<a href="mailto:joe@enertronllc.com">joe@enertronllc.com</a>	586-709-9639
Matt LaFrance	Lead Tech	<a href="mailto:matt@enertronllc.com">matt@enertronllc.com</a>	586-206-6609
Sara Lorenzo	Business Director	<a href="mailto:sara@enertronllc.com">sara@enertronllc.com</a>	586-703-6084



PLEASE SEE ATTACHED COMPLETE QUOTE FOR ALL MATERIALS AND LABOR

LOW VOLTAGE RFQ RESPONSE

Highland Fire Station #1 (Data Inventory)	Quantity	Cost	Description
1 Voice and Data (CAT 6 Plenum Rated White)	17000 Feet	.27/Foot	Mohawk CAT6 Plenum White Cable
Single Runs (CAT 6 Plenum Rated White)	250 Feet	.27/Foot	Mohawk CAT6 Plenum White Cable
Face Plates 2 Port Single Gang (White)	61	2.25/Each	Hubbell SG 2 Port White Plate
Voice Only (CAT 5e)	Will all be CAT6	Included in Single Runs	
Face Plates 1 Port (White)	2	2.25/Each	Hubbell SG 1 Port White Plate
Rack 7' Tower	1	\$250.00	Hubbell 7 Foot Free Standing Data Rack
1 U Rack Shelf	0	\$0.00	
2 U Rack Shelf	3	\$36.79	Quest 15" Deep Shelf
Patch Panel 48 Port (With Keystone Insert)	3	\$69.00	Hubbell 48 Port Unloaded Patch Panel
Patch Panel 24 Port (With Keystone Insert)	0	\$0.00	N/A
Key Stones (CAT 6) (White)	262	6.25/Each	Hubbell CAT6 Jacks White
Patch Cables 3Ft (CAT 6)	136	1.50/Each	CAT6 Patch Cord 3 Foot
Patch Cables 5-7 Ft (CAT 6)	126	3.35/Each	CAT6 Patch Cord 7 Foot
Wifi Access Point System	10 WAP's with Key	139.00 + 220.66	Ubiquiti UAP UniFi Long Range WAP
ata Switch 1000/100 48 Port (Unmanaged)	3	550.00/Each	Ubiquiti EdgeSwitch 48 Port Lite Managed
ata Switch 1000/100 24 Port (Unmanaged)	0	\$0.00	N/A
Speakers 70V	30	39.60/Each	
Paging Amp (Three Zones) 70V	1	\$650.00	
Speaker Cable 14/2 1000' (White)	0	\$0.00	N/A
Speaker Cable 16/2 1000' (White)	2000 Feet	.24/Foot	16/2 Plenum Speaker Cable
Mounts (Full Motion for 55" TV's / 37 Lb.	17	70.00/Each	Tripp Lite Display Wall Mount Tilt
Training Room Sound System	1	\$325.00	Bogen Amplifier/Mixer and Microphone
Speakers For Training Room	4	\$158.40	Bogen 8" Round Ceiling Speakers
Cordless Mic System	1	\$346.25	Bogen Wireless Body Pack Microphone
U Skeleton Rack For Training Room system	1	315.00/Each	Hoffman Wall Mount Rack
LABOR		\$20,000.00	
Additional Hardware		\$1,000.00	Miscellaneous: J-hooks, cage nuts, uni-strut, conduit, boxes, connectors, straps, couplers, bushings, supports, tape, velcro, etc...
Insurance	Included	\$0.00	\$1,000,000 Casualty and Workers Comp
Fuel	Included	\$0.00	
Warranty	Included	Time On all Cabling and Cabling Components	See Attached Warranty Sheet Manufactures Warranty on Equipment
TOTAL			



“We Don’t Just Take Care  
Of Your Technology Needs.  
We Take Care Of You.”



We have prepared a quote for you

**Low Voltage RFQ for New Fire Station #1**

Quote # 002659  
Version 1

Prepared for:

**Charter Township of Highland**

Terri Flowers  
flowerst@highland.org

 **Statement of Work**

**Work Site address:**

**Highland Fire Station #1  
1600 W Highland Road  
Highland, MI 48357**

**Enertron LLC will provide : (as per Blueprint E3-00 dated 9/1/2020)**

- Tech hours to install the new network cable as shown on print (as listed below)
  - (62) Double CAT6 locations for all offices, conference rooms, training room and reception area
  - (2) Single CAT6 locations for phone
  - (10) Single CAT6 locations for wireless access points
- Tech hours to install the new network wireless access points
- Tech hours to install the new cabling, speakers and amplifiers for paging systems as per specs
- Tech hours to install the new cabling, speakers and amplifiers for paging systems as per specs in training/community room
- Tech hours to install (17) new township supplied TV's and monitors as shown on print
- (1) Full size data rack for MDF
- (1) Wall mount rack for training/community room
- Patch panels, jacks, RJ45 mod clips, wall plates and patch cables necessary to complete work for turn-key operation
- Supports for new routes
- Any conduit stubs needed for fire rated walls and fire-stop when completed
- All data jack and patch panel labeling as per customers scheme
- All cabling will follow ANSI/TIA/EIA and BICSI standards and codes
- Certified test results when job is completed

**Enertron LLC will not provide : (These items may be added at additional cost)**

- Any permit fees (if necessary)
- Underground work
- Floor core drilling
- Power/Communication poles
- Any electrical power

## Network Cabling-Hardware

Description	Price	Qty	Ext. Price
Mohawk CAT6 Network Cable CMP UTP-White	\$0.27	17,000	\$4,590.00
16/2 Stranded Cable Plenum	\$0.24	2,000	\$480.00
Hubbell Patch Panel 48 Port Unloaded	\$69.00	3	\$207.00
Hubbell CAT6 Jack-White	\$6.25	262	\$1,637.50
Hubbell Wall Plate SG 1 Port- White	\$2.25	2	\$4.50
Hubbell Wall Plate SG 2 Port- White	\$2.25	61	\$137.25
Hubbell 2 Port 106 Outlet Frame - White	\$3.50	1	\$3.50
CAT6 RJ45 Mod Clip	\$1.00	10	\$10.00
Hubbell Relay Rack 2 Post	\$250.00	1	\$250.00
Quest Cabinet Shelf 15" Deep	\$36.79	3	\$110.37
Hoffman Wall Mount Rack 20U 41H x 21W x25D	\$315.00	1	\$315.00
Ubiquiti UAP-AC-LR UniFi AP AC Long Range	\$139.00	10	\$1,390.00
Ubiquiti Unifi Cloud Key - Gen2	\$220.66	1	\$220.66
Ubiquiti EdgeSwitch 48 Lite Managed Gigabit Switch with SFP	\$550.00	3	\$1,650.00
Tripp Lite Display TV LCD Wall Mount Tilt	\$70.00	17	\$1,190.00
Patch Cord CAT6 3ft - Blue	\$1.50	136	\$204.00
Patch Cord CAT6 7ft - Blue	\$3.35	126	\$422.10
Bogen 8" Round Ceiling Speaker - No Volume Control	\$21.00	30	\$630.00
Bogen Tile Bridge Ceiling Mount	\$7.00	30	\$210.00
Bogen Speaker Enclosure	\$11.60	30	\$348.00
Bogen Wireless Body Pack Microphone	\$346.25	1	\$346.25
Bogen Industrial Gooseneck Microphone	\$97.75	1	\$97.75
Bogen Loudspeaker Horn 70 Volt	\$86.70	2	\$173.40
Bogen 250 Watt Mixer Amplifier - Platinum Series	\$650.00	1	\$650.00
Bogen 35 Watt Mixer Amplifier - Classic Series	\$325.00	1	\$325.00
Bogen Auto Transformer 10W Attenuator	\$29.00	5	\$145.00

38251 S. Groesbeck Hwy  
Clinton Township, MI 48036  
www.enertronllc.com  
(586) 757-1200



### Network Cabling-Hardware

Description	Price	Qty	Ext. Price
<b>Bogen 3 Zone Paging Module</b>	\$502.50	1	\$502.50
<b>Miscellaneous: J-hooks, cage nuts, uni-strut, conduit, boxes, connectors, straps, couplers, bushings, supports, tape, velcro, etc...</b>	\$1,000.00	1	\$1,000.00

Subtotal: **\$17,249.78**

### Services

Description	Price	Qty	Ext. Price
<b>Installation labor</b>	\$20,000.00	1	\$20,000.00

Subtotal: **\$20,000.00**

38251 S. Groesbeck Hwy  
Clinton Township, MI 48036  
www.enertronllc.com  
(586) 757-1200



## Low Voltage RFQ for New Fire Station #1

### Prepared by:

**Enertron LLC**  
Joe LaFrance  
(586)757-9615  
Fax (586) 757-6740  
joe@enertronllc.com

### Prepared for:

**Charter Township of Highland**  
205 North John Street  
Highland, MI 48357  
Terri Flowers  
flowerst@highland.org  
(248) 887-3791

### Quote Information:

**Quote #: 002659**  
Version: 1  
Delivery Date: 03/08/2021  
Expiration Date: 05/02/2021

## Quote Summary

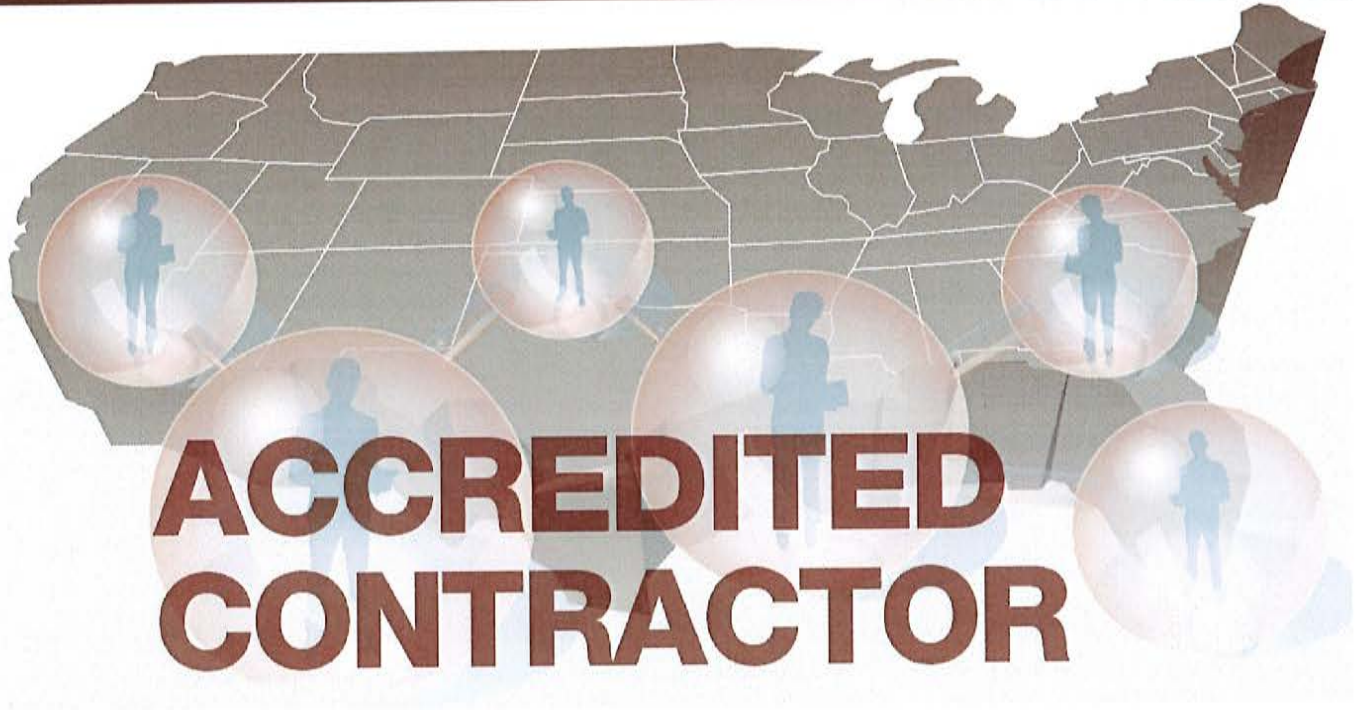
Description	Amount
Network Cabling-Hardware	\$17,249.78
Services	\$20,000.00
<b>Subtotal:</b>	<b>\$37,249.78</b>
<b>Tax:</b>	<b>\$986.69</b>
<b>Total:</b>	<b>\$38,236.47</b>

Taxes, shipping, handling and other fees may apply. We reserve the right to cancel orders arising from pricing or other errors.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**MOHAWK**  
Cabling Excellence for Open Architecture



This certificate hereby certifies that:

**Enertron LLC**

has participated in and successfully completed  
Mohawk's Accredited Contractor Program using  
Mohawk's Network Cable Products.

Date of Certification: **2018**

Date of Expiration: **2021**



# Hubbell Premise Wiring<sup>®</sup>

Division of HUBBELL INCORPORATED (Delaware)

Enertron, LLC  
Of  
Clinton Township, Michigan

*is a Certified Installer Company for the Hubbell Premise Wiring*

*MISSION CRITICAL<sup>®</sup> Program*

*Certified Since 1997*

A handwritten signature in black ink, appearing to read "Michael R. O'Connor".

Michael R. O'Connor, RCDD/NTS, CSI  
Senior Director – Premise Wiring Business Unit

March 8, 2021  
Expires March 8, 2023



**Patch Panels  
Jack, Unloaded, Shielded**

# HUBBELL



**Ordering Information**

Description	UPC Number	Catalog Number
Patch Panel, Jack, Unloaded, Shielded, 19" W X 3.50" H	662620612058	HPJS48



NEXTSPEED®

Jacks

## Xcelerator Category 6 Jack

### Features

- Third Party Verified Category 6 Component Compliant
- Exclusive 1-Punch Termination Reduces Termination Time by 75%
- Mating Cycles Exceed Industry Standard by Four Times
- Bulk Packaging Reduces Excess Waste on the Job

### Ordering Information

Description	Color	Catalog No.	UPC
NEXTSPEED Xcelerator Category 6 Component Jack, 1 Jack	White	HXJ6W	662620825281

### Listings

ANSI/TIA/EIA-568-C.2 Category 6 component  
 ISO 11801/60603-7-41 Category 6 component  
 Mechanical: Verified to TIA-568-C.2  
 UL Listed 1863  
 Mechanical TIA-568-C.2  
 CSA Certified  
 RoHS Compliant

### Specifications

Nose Contact	Beryllium copper with precious metal plating over nickel under plating
IDC Contact	Phosphor bronze with 100 micro-inch tin lead 60/40 plating over nickel under plating
Housing	High impact thermoplastic (UL 94 V-0)
Stuffer Cap	Lexan® (UL 94 V-0)

### Performance

#### Electrical

Center balanced to Category 6 plug specifications  
 Positive PSACR beyond 300 MHz (channel)  
 4+Gbs capacity within the bandwidth of 1-250MHz (channel)  
 Qualified to 150% of 802.3bt PoE Current Level

#### General Information

Backward compatible to lower installed Categories  
 Icon Compatible Supporting 606-B requirements  
 100% factory tested

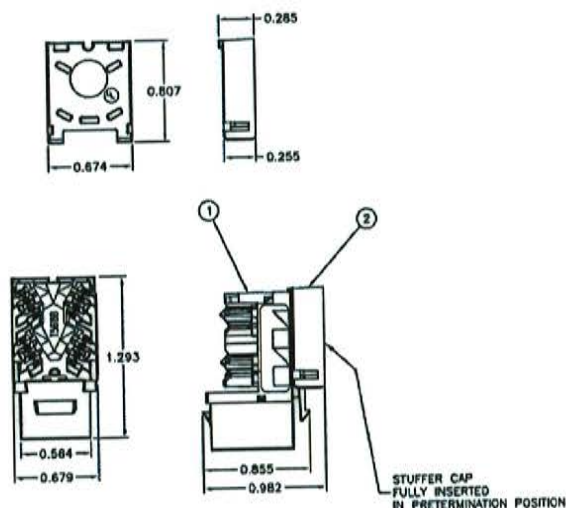
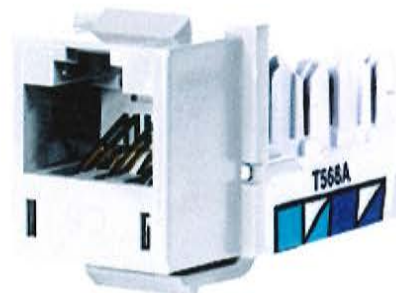
#### Mechanical

Nose Contact Mating Cycles: 2000  
 IDC Contact Termination: 10x  
 Keystone Latching Force: 25 lbs.  
 Contact performance confirmed over the full range of ISO/FCC compliant plug

### Applications

IEEE 802.3ab 1000GBASE-T  
 IEEE 802.3bt 4PPoE Power over Ethernet  
 TIA TSB-155 10GbE Over 55 Meters

# HUBBELL



### Accessories

1-Punch Tool	TX4P
Category 6 Patch Cord	HC6W03
Dust Cover	HXJDC25
Termination Puck	HXTP25
Category 6 Cable	C6SPB

### Online Resources

Customer Use Drawing  
 eCatalog

iStation  
Wallplates

# HUBBELL

## Wallplate With Label Fields

### Features

- Fits all Hubbell keystone connections (AV, data and fiber)
- Supplied with paper labels, clear and color match screw covers
- Secure; Requires removal to access connectivity



### Ordering Information

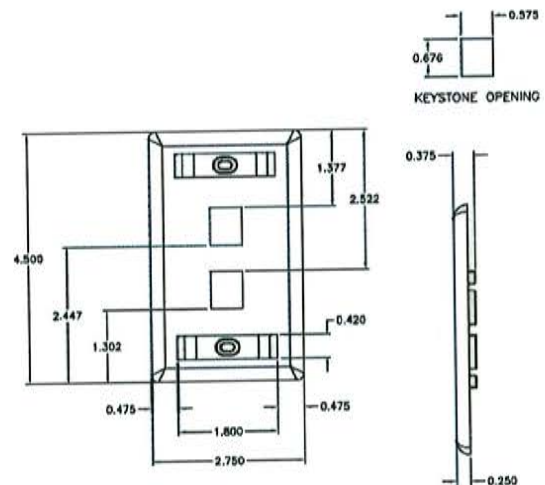
Description	Color	Catalog No.	UPC
IFP Wallplate with Label Fields, Single Gang, 2-Port	White	IFP12W	662620826424

### Listings

UL and cUL Listed 1863  
RoHS Compliant

### Specifications

Plate Material High-impact thermoplastic (UL 94V-0)



### Online Resources

eCatalog

## Racks Standard Relay Rack 3" Deep

### Features

- Each rack unit numbered
- Universal mounting hole pattern allows for many types of vertical cable managers

### Ordering Information

Rack Units	Finish	Catalog Number	UPC
45	Black powder coat	HPW84RR19	662620806198

### Listings

UL 1863  
EIA/ECA-310-E Universal Mounting Pattern

### Specifications

Angled Base	Extruded aluminum
Vertical Member	Extruded aluminum
Angled Top	Extruded aluminum
Assembly Kit	Steel
Combo Screw	Steel
Washer	Nylon

### Characteristics

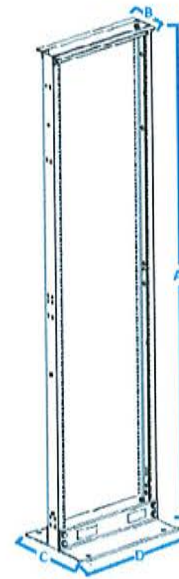
Load Capacity	1,000lb bolted to floor; 500lb unsecured
Equipment	Supports 19" EIA wide rack-mount equipment
Thread Holes	#12-24
Rack Units	Numbered

### Accessories

Isolation Pad	HRRP3
Horizontal rack bonding bus bar	HBBBHR19KT
1U Horizontal cable manager with cover	HM17C
15A Powerstrip	HPWPWR
6" Wide cable manager	VM613

### Online Resources

Customer Drawing  
Customer Use Drawing  
eCatalog

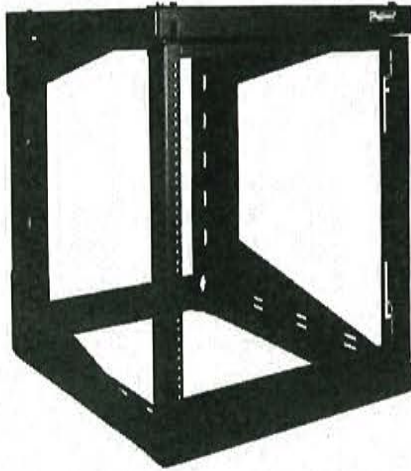


### Dimensions- inches (mm)

A	84" (2134)
B	3" (76)
C	14.75" (375)
D	20.25" (514)



Hubbell Premise Wiring

**VERSARACK™**

**INDUSTRY STANDARDS**

UL 1863 Listed; File Number E230874  
 Rated to 100 lbs. with a 4X safety factor

EIA 310-D

**APPLICATION**

VERSARACK™ is used for wall mounting and securing 19-inch rack equipment for Telecommunication Rooms and other locations. The rack provides for either left or right hinging to accommodate a variety of applications. These open frame racks are ideal for high-density cabling application. VERSARACK is ideal for IDFs (Intermediate Distribution Frames), remote 19-inch rack equipment, building automation, security and many other applications.

**FEATURES**

- Designed to accommodate all standard 19-inch rack equipment
- Easy, single-tool assembly reduces installation time and cost
- Spring-load pivot pins provide for either left or right hinging; pins can be arranged in unlocked or locked position
- Preassembled for fast, time-saving installation
- Temporary mounting bracket allows for rapid, single-person wall installation
- UL double lug ground holes provide easy adherence to local bonding and grounding codes
- Cable tie down points, sized for up to 1-inch Velcro® straps, provided in horizontal and vertical positions in multiple locations
- Standard 12- or 24-inch deep offering to accommodate various applications
- Open design provides for maximum access to cables and equipment
- 19-inch rack fasteners (Phillips head, pilot point, black) 12-24, quantity 20, included with rack
- Smart packaging with hand-carrying holes allows for easy transportation

**SPECIFICATIONS**

- Wall section made of heavy gauge, cold rolled steel construction
- Welded pivoting rack section constructed of steel
- Tapped 12-24 holes per EIA Universal pattern standards (1/4-5/8-5/8-1/4)

**FINISH**

- Pretreated steel coated with RAL 9005 black textured, low-gloss polyester powder paint
- Hardware is clear or plated black
- Rack 12-24 fasteners plated black

**LOAD RATING**

Static working load rating is 150 lbs. for all sizes

**ACCESSORIES**

Vertical Cable Managers  
 D-Ring Cable Manager  
 Blanking Panels  
 Grounding kits  
 PDUs  
 Shelves

BULLETIN: DOFRW

**Standard Product**

Catalog Number	AxBxC in./mm	F in./mm	G in./mm	Rack Units	Vertical Cable Manager Accessory
E19SWM12U12	27.80 x 20.91 x 12.28	9.24	22.30	12	E19C12U
	706 x 531 x 312	235	566		
E19SWM12U24	27.80 x 20.91 x 24.29	21.24	22.30	12	E19C12U
	706 x 531 x 617	540	22.30		
E19SWM20U12	41.81 x 20.91 x 12.28	9.24	36.31	20	E19C20U
	1062 x 531 x 312	235	922		
E19SWM20U24	41.81 x 20.91 x 24.29	21.24	36.31	20	E19C20U
	1062 x 531 x 617	540	922		
E19SWM25U12	50.59 x 20.91 x 12.28	9.24	45.09	25	E19C25U
	1285 x 531 x 312	235	1145		
E19SWM25U24	50.59 x 20.91 x 24.29	21.24	45.09	25	E19C25U
	1285 x 531 x 617	540	1145		

# EQUIPMENT SHELVES Single-Sided Design



## 19" Format

Specifications			
Stock No.	RU	Depth	Load Capacity
ES0219-0107	1 RU	7"	12 lbs
ES0219-0110	1 RU	10.5"	15 lbs
ES0219-0210	2 RU	10.5"	18 lbs
ES0219-0112	1 RU	12"	20 lbs
ES0219-0212	2 RU	12"	22 lbs
ES0219-0115	1 RU	15"	35 lbs
ES0219-0215	2 RU	15"	38 lbs
ES0219-0218	2 RU	18"	40 Lbs
ES0219-0315	3 RU	15"	41 lbs

RU = Rack Units

### Vented



Cold Rolled Steel 16 AWG  
Black Powder Coat Finish

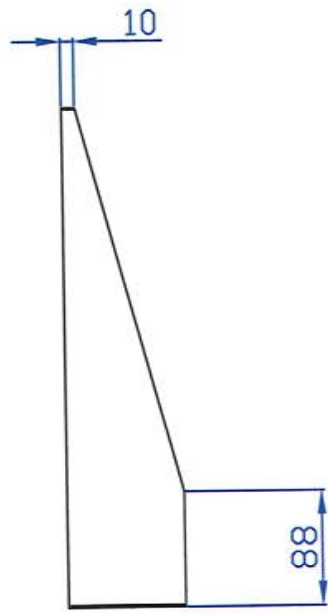
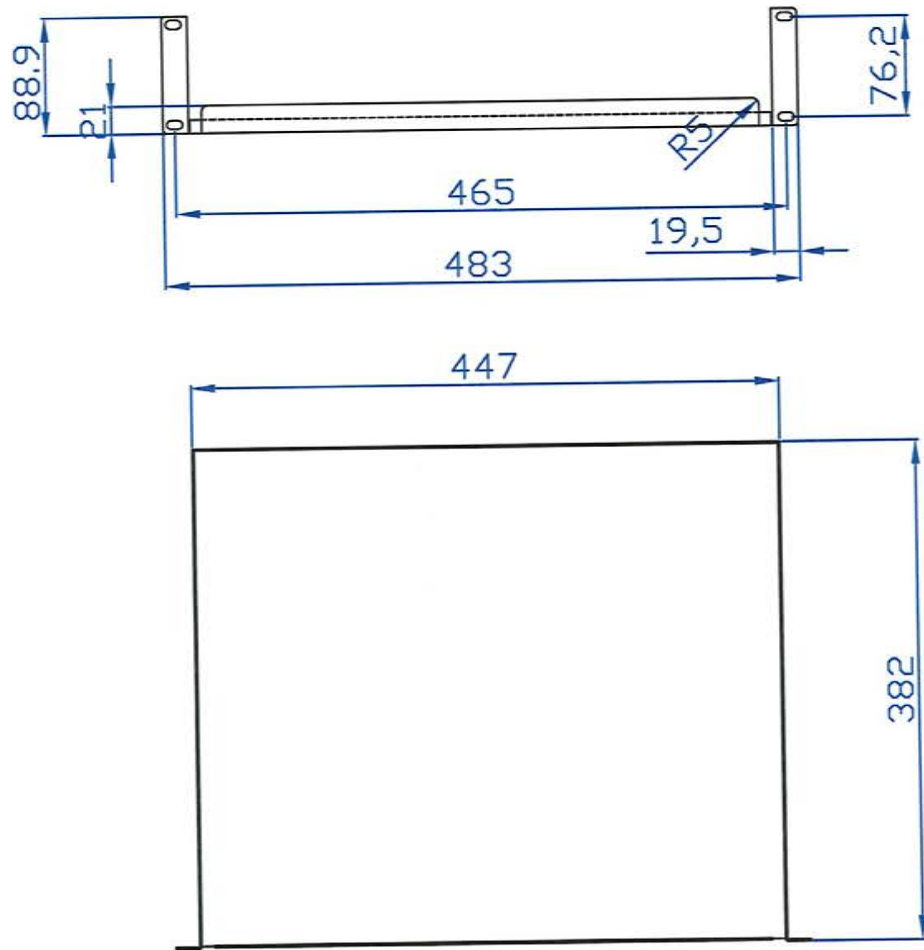
Specifications			
Stock No.	RU	Depth	Load Capacity
ES0319-0107	1 RU	7"	20 lbs
ES0319-0110	1 RU	10.5"	25 lbs
ES0319-0210	2 RU	10.5"	28 lbs
ES0319-0112	1 RU	12"	30 lbs
ES0319-0212	2 RU	12"	32 lbs
ES0319-0115	1 RU	15"	40 lbs
ES0319-0215	2 RU	15"	42 lbs
ES0319-0315	3 RU	15"	45 lbs

RU = Rack Units

### Non-Vented



Cold Rolled Steel 16 AWG  
Black Powder Coat Finish



**Quest Manufacturing Corp.**

<b>ITEM NO.</b>		<b>ES0319-0215</b>				
Drawn By		Date		Material	1.4mm C.R.S.	
Checked By		Date		Unit	mm	
Approved By		Date		Surface Finish	Power Coat	
					Scale	1:1

# Gold Seal Series Public Address Amplifiers

## Models

**GS500D, GS250D, GS150D,  
GS100D, GS60D & GS35D**



- Description** The **Gold Seal Series** amplifiers are designed to meet the rigorous requirements of today's sophisticated sound systems. They combine unique and useable features with ultra high reliability and professional performance. These amplifiers are available in 500, 250, 150, 100, 60 and 35 watt models, each with exactly the same features to provide power and performance no matter how large or small the application.
- The Bogen Gold Seal Series amplifiers are an extraordinary addition to Bogen's line of quality audio amplifiers. Designed with the sound contractor in mind, they provide unparalleled flexibility and versatility, without the need for add-on modules.
- In addition to their extensive flexibility, the Gold Seal Series amplifiers provide a combination of features not found in other commercial amplifiers. The Gold Seal Series amplifiers also offer Class D Amplification for increased operating efficiency.

- Features**
- 4 dedicated MIC inputs
  - 1 selectable MIC/TEL input
  - 1 selectable MIC/AUX input
  - 1 dedicated AUX input
  - 4-ohm, 8-ohm, 25V, 25VCT and 70V transformer-coupled outputs
  - Rack mountable – 2RU package
  - Dual-function, 10-band graphic equalizer (Acoustic EQ or Feedback Control modes)
  - True loudness contour function
  - Audio Enhancement circuit for improved intelligibility
  - Switchable phantom power supply (13V DC)
  - Variable AUX input muting
  - Remote master volume control capability
  - Automatic level control
  - Input muting via contact on inputs
  - Voice activated AUX muting on TEL input
  - AUX fade back after TEL page
  - Pre-amp Out/Power Amp In "insert" connections
  - Booster amp output connection
  - Tape output connection
  - Balanced line driver output (using WMT1A accessory; sold separately)
  - Low-cut filter for MIC channels
  - Listed to UL Standard 60065 for U.S. and Canada
  - Rack Mounting Kit (GSDRPK; sold separately)
  - Remote Volume Control (GSRVC; sold separately)
  - Security Cover (GSTRC; sold separately)



**Technical Specifications**

- Power Rating (RMS):** GS35D: 35 watts; GS60D: 60 watts; GS100D: 100 watts; GS150D: 150 watts; GS250D: 250 watts; GS500D: 500 watts
- Frequency Response:** Transformer Output: 65 Hz to 20 kHz, +0/-2 dB @ -2 dB
- Distortion:** Transformer Output: 0.5% (max.), 0.3% (typ.), 65 Hz to 20 kHz
- Signal-to-Noise Ratio:** Fundamental: -70 dB or better; AUX 1 & 2: -70 dB; Tel: -70 dB or better @ 600 ohms  
MIC 1 through MIC 6: -60 dB or better @ 200 ohms
- Inputs/Outputs:** MIC: 6 Lo-Z balanced via 4 XLR connectors and 2 screw terminals  
Sensitivity: 11 mV (200 ohms)  
AUX: 2 Hi-Z RCA jacks. Sensitivity: 0.085V (10k ohms)  
Telephone: Screw terminals. Sensitivity: 0.07V (600 ohms)  
Output to Power Amp: 5V @ Rated Output via RCA jack  
Power In/Pre Out: Input 1V/Output 1V via RCA jacks  
WMT1A Output: 25V @ Rated Output via RCA jack  
Tape Output: 700 mV @ Rated Output via RCA jack
- Output Impedance:** All models: balanced or unbalanced 4-ohm, 8-ohm, 25V, 25VCT, 70V
- Output Regulation:** Better than 2 dB from no load to full load
- AC Input Voltage:** 120V~ 60 Hz
- AC Current:** GS35D: 0.8A; GS60D: 1.3A; GS100D: 2.1A; GS150D: 2.5A; GS250D: 4.0A; GS500D: 6.5A
- Thermal Emissions (Full Power):** GS35D: 78.5 BTU/HR.; GS60D: 119.5 BTU/HR.; GS100D: 191.3 BTU/HR.; GS150D: 136.6 BTU/HR.; GS250D: 239.1 BTU/HR.; GS500D: 467.9 BTU/HR.
- Variable Mute Range:** -60, -21, -10, 0 dB (AUX1 & 2)
- ALC:** Distortion: less than 0.5%; Compression: 25 dB (TEL)
- VOX Threshold:** TEL Input 20 mV (VOX control max., clock-wise position)
- MIC Precedence:** Via terminal strip. -60 dB: MIC 1, 2, 3, 5/TEL, 6/AUX, AUX 2
- Power Input/Pre Output:** Input 1V/Output 1V via RCA jacks
- Phantom Power:** 13V DC
- Lo-Cut:** 3 dB@100 Hz
- Loudness Contour:** +8 dB @ 100 Hz, +4 dB @ 10 kHz (AUX 1 & 2 control at 1/4 clock-wise position)
- Overload Protection:** Electronic with automatic reset
- Thermal Protection:** Thermistor attached to heat sink
- Dimensions:** 16-1/2" W x 3-1/2" H x 13-1/2" D
- Shipping Weight:** GS35D: 13.5 lb.; GS60D: 14.3 lb.; GS100D: 16.4 lb.; GS150D: 18.5 lb.; GS250D: 19.5 lb.; GS500D: 26.5 lb

**Architect & Engineer Specifications**

The amplifier shall be a model \_\_\_\_\_, rated at \_\_\_\_\_ watts RMS (GS500D/500 watts, GS250D/250 watts, GS150D/150 watts, GS100D/100 watts, GS60D/60 watts, and GS35D/35 watts).

The amplifier shall accommodate up to 6 Lo-Z balanced microphones, 2 Hi-Z auxiliary sources and a telephone paging input (MIC 5 shall be switch-selected for MIC or telephone line; MIC 6 switch-selected for MIC or AUX 1). MIC 1 through 4 shall use XLR-type connectors; AUX inputs shall be via RCA phono jacks and all other connectors shall use pluggable screw terminals. Phantom power shall be supplied for use with condenser microphones. Microphone precedence connections shall be included for MIC 1, 2, 3, 5/TEL, 6/AUX 1 and AUX 2.

The amplifier shall provide a frequency response from 65 Hz to 20 kHz +0/-2 dB at rated power. Distortion shall be 0.3% typically.

The amplifier shall include an Audio Enhancement circuit, variable loudness contour control, and dual function equalizer. The equalizer shall be switch selectable for feedback control or acoustic shaping and shall include 10 center-detent slide controls providing ±12 dB of boost or cut from 62.5 Hz to 16 kHz in acoustic mode and from 125 Hz to 8 kHz in feedback control mode.

The amplifier shall include automatic level control to provide consistent output regardless of who is paging, automatic muting complete with a VOX circuit, and a variable mute level. Provisions shall also be included for remote volume control, using an accessory control unit (GSRVC).

Outputs shall be provided for 4- and 8-ohm speakers and for 25V, 25VCT and 70V distributed systems. Additional outputs shall be provided to feed a booster amp and recorder. A dedicated output shall permit feeding a 600-ohm telephone line using an accessory transformer (Model WMT1A). A Pre-Amp Out/Power-Amp In circuit shall be provided to insert signal processing equipment.

The amplifier shall be rack mountable using an accessory rack panel kit (GSDRPK). It shall carry the necessary safety agency listings for both the US and Canada.





# Classic Series Public Address Amplifiers



## Models C35, C60 & C100

**Description** The Bogen Classic Series Models C35, C60, and C100 are public address mixer amplifiers that provide mixing of microphones, telephone, and auxiliary sources.

Output screw terminals are provided for 4-ohm (direct) and 8-ohm (C35 & C60 models only), 16-ohm, 25V and 70V (transformer-coupled) speaker systems. Output jacks let you connect to a tape recorder or an additional booster amplifier, or feed a 600-ohm telephone line when an accessory transformer (Model WMT1A) is used.

- Features**
- 3 models: 35, 60, and 100 watts
  - 4 inputs: 1 MIC (Lo-Z), 1 AUX (Hi-Z), 1 TEL, plus 1 selectable MIC or AUX
  - Each input controlled by an independent volume control
  - Treble and bass controls
  - AUX muting by external contact closure for push-to-talk microphones
  - TEL input for telephone paging applications
  - TEL input voice-activated (VOX) mute over AUX input
  - Variable threshold for TEL input voice-activated AUX mute
  - Outputs for 4-ohm (direct), 8-ohm (C35 & C60 models only), and 16-ohm, 25V and 70V speaker systems (transformer coupled)
  - Output jack to connect a recording device or booster amplifier
  - Output jack to connect a general-purpose 600-ohm matching transformer (model WMT1A)
  - Thermal protection and electronic shutdown
  - Rack mountable with accessory mounting kit (model RPK50)
  - Listed to UL Standard 60065 for U.S. and Canada

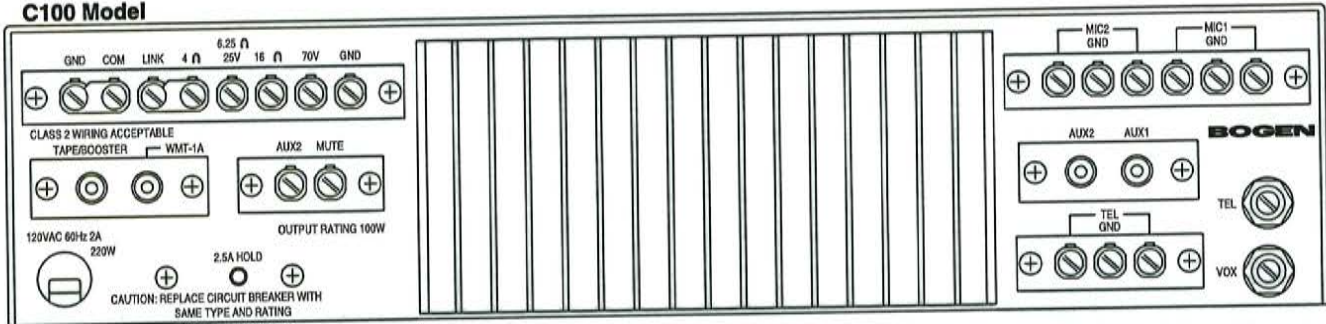
**BOGEN**®

Specifications subject to change without notice.  
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54-7853-01D 1109

### C35 & C60 Models



### C100 Model



### Technical Specifications

	C35	C60	C100
<b>Power Output (RMS):</b>			
Rated	35W	60W	100W
<b>Frequency Response &amp; Distortion:</b>			
Transformer†	70 Hz - 16 kHz (± 2 dB) @ 1% max.		
4-Ohm Direct Output	20 Hz - 20 kHz (± 1 dB) @ 0.5% max.		
<b>Hum and Noise:</b>			
MIC	55 dB below rated output		
AUX	70 dB below rated output		
TEL	70 dB below rated output		
<b>Input Sensitivity:</b>			
MIC Lo-Z Balanced	600μV		
AUX	85mV		
TEL	75mV		
<b>Outputs:</b>	8 ohms (C35 & C60 models only), 16 ohms, 25V, 70V transformer-isolated balanced or unbalanced; 4 ohms direct unbalanced		

<b>Output Connections:</b>	Screw terminal strip, TAPE/BOOSTER jack; WMT1A jack (requires accessory transformer)
<b>Input Connections:</b>	Screw terminals for MIC and TEL, two AUX Hi-Z jacks
<b>Controls:</b>	MIC1, MIC2/AUX (switch selected), AUX 2, BASS, TREBLE, TEL, VOX
<b>Thermal Emissions:</b>	C35: 119.5 BTU/hr.; C60: 228.8 BTU/hr.; C100: 399.6 BTU/hr.
<b>Tone Control:</b>	Treble, ±11 dB @ 10 kHz; Bass ±11 dB @ 100 Hz
<b>Power Requirements:</b>	120V AC, 60 Hz C35: 85W; C60: 148W; C100: 220W
<b>Dimensions:</b>	14-1/2" W x 3-3/4" H x 11" D
<b>Product Weight:</b>	C35: 15 lb; C60: 17 lb; C100: 19 lb.

### Architect and Engineer Specifications

The public address amplifier shall be a Bogen Model \_\_\_\_\_, or approved equivalent, with a full power rating of \_\_\_\_\_watts. (Specify: C35/35 watts, C60/60 watts or C100/100 watts.) The frequency response (transformer) shall be 70 Hz to 16 kHz ±2 dB†, with less than 1% distortion†. Input sensitivity shall be 600μV for low-impedance balanced microphones, 85mV for auxiliary inputs, and 75mV for TEL input. Hum and noise shall be 55 dB below rated output for the MIC inputs and 70 dB below rated output for the AUX and TEL inputs.

The amplifier shall provide one dedicated low-impedance balanced microphone input, one dedicated Hi-Z auxiliary input, and one dedicated telephone line input, as well as a fourth input that is switch selectable to be either a microphone or auxiliary input.

The microphone inputs shall be equipped with filters to protect against RF interference. Independent volume controls for each input as well as TREBLE control (±11 dB @ 10 kHz) and BASS control (±11 dB @ 100 Hz) shall be incorporated. A precedence circuit shall mute the AUX 2 input when a customer-supplied external switch is actuated.

The amplifier shall include a TEL volume control to adjust the telephone paging level and a VOX volume control to adjust the TEL input signal level trigger point for automatic muting of the AUX inputs.

The amplifier shall provide output impedances of 4-ohm (direct), 8-ohm (C35 & C60 models only), and 16-ohm speaker systems as well as for 25V and 70V constant voltage systems. Two high-impedance outputs shall be provided to drive a tape recorder or booster amplifier and, when used with an accessory transformer (WMT1A), to feed a 600-ohm telephone line.

The amplifier shall contain a resettable thermostat in the power transformer to protect against heat build-up and short-circuited or overloaded connections.

Provision shall be included to mount the amplifier in 19-inch equipment racks, using an optional rack panel kit (Model RPK50). Dimensions shall be 14-1/2" W x 3-3/4" H x 11" D. Product weight shall be \_\_\_\_\_lb. (Insert 15 lb. for C35, 17 lb. for C60 or 19 lb. for C100.)

† Measured @ 2 dB below FRP

**BOGEN.**  
COMMUNICATIONS, INC.

50 Spring Street, Ramsey, NJ 07446  
201-934-8500 • Fax: 201-934-9832  
www.bogen.com

# Ceiling Speaker Grille Assemblies



S86T725PG8WBR



S86T725PG8WVK

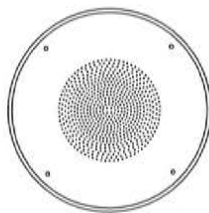
**Description** Bogen's Ceiling Speaker Assemblies consist of an 8" Cone Speaker (S86 or S810) pre-assembled onto a 13" steel ceiling grille painted with off-white (PG8W) or bright white (PG8U) enamel. Options for these assemblies are recessed volume control (VR), volume control with knob (VK), and rear-mounted screw terminal strip for power taps (BR).

- Features**
- 4-watt capacity
  - 8" cone speaker for excellent audio quality
  - 6 different power taps available (4, 2, 1, 1/2, 1/4, 1/8W)
  - T725 4-watt transformer
  - Off-white enamel over steel grille ("W" versions)
  - Bright white enamel over steel grille ("U" versions)
  - Pre-assembled for faster installation
  - Works with both 70V and 25V amplifier outputs
  - Available with volume control – recessed or with knob (VR and VK models only)
  - Screw terminals (BR models only)
  - 6 oz. or 10 oz. magnet weights

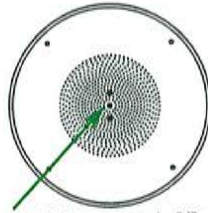
## Technical Specifications

Model	Power Taps (in Watts)	Frequency Response	Sensitivity (4 ft./1W)	Magnet Weight	No Volume Control	Recessed Volume Control (VR)	Volume Control w/Knob (VK)	Screw Terminals (BR)	Off-White (W)	Bright White (U)	Shipping Weight (6/Carton)	Dimensions				
S86T725PG8W	4, 2, 1, 1/2, 1/4, 1/8 @ 25 & 70V	50 Hz-12 kHz	95 dBspl	6 oz.	•				•		27 lb. / carton	13" Dia x 3-1/4" D				
S86T725PG8WVR						•				•						
S86T725PG8WVK							•			•						
S86T725PG8WBR					•			•		•			28 lb. / carton			
S86T725PG8WBRVR						•		•		•						
S86T725PG8WBRVK							•	•		•						
S86T725PG8U								•					•	27 lb. / carton		
S86T725PG8UVR							•				•					
S86T725PG8UVK								•			•					
S86T725PG8UBR								•			•		•	28 lb. / carton		
S86T725PG8UBRVR							•			•	•					
S86T725PG8UBRVK								•		•	•					
S810T725PG8W						70 Hz-15 kHz	96 dBspl	10 oz.	•					•		30 lb. / carton
S810T725PG8WVR									•					•		
S810T725PG8WVK			•						•							
S810T725PG8U	•									•						
S810T725PG8UVR			•							•						
S810T725PG8UVK				•						•						
S810T725PG8UVR				•						•						

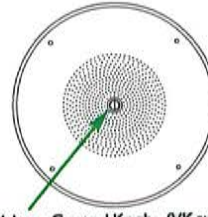
## Ceiling Speaker Assembly Variations



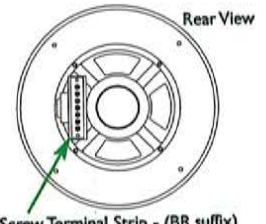
No Volume Control



Recessed Volume Control - (VR suffix)



Volume Control Knob - (VK suffix)



Screw Terminal Strip - (BR suffix)

## Architect and Engineer Specifications

**S86T725PG8W & Variations** The loudspeaker assembly shall be a Bogen model **S86T725PG8W** (or **S86T725PG8WVR**, **S86T725PG8WVK**, **S86T725PG8WBR**, **S86T725PG8WBRVR**, or **S86T725PG8WBRVK**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 50 Hz to 12 kHz. Axial sensitivity shall be 95 dB, measured at 1-watt/4 feet. The loudspeaker shall have a 6 oz. ceramic magnet and a 3/4" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The loudspeaker shall be assembled on a 13" steel ceiling grille, finished in off-white semi-gloss enamel. Assembly depth shall be 3-1/4".

(For **S86T725PG8WVR** add) A recessed volume control shall be included.

(For **S86T725PG8WVK** add) A volume control knob shall be accessible from the front of the grille.

(For **S86T725PG8WBR** add) A terminal strip shall be included for connection of the audio line.

(For **S86T725PG8WBRVR** add) A terminal strip shall be included for connection of the audio line. A recessed volume control shall be included.

(For **S86T725PG8WBRVK** add) A terminal strip shall be included for connection of the audio line. A volume control knob shall be accessible from the front of the grille.

**S86T725PG8U & Variations** The loudspeaker assembly shall be a Bogen model **S86T725PG8U** (or **S86T725PG8UVR**, **S86T725PG8UVK**, **S86T725PG8UBR**, **S86T725PG8UBRVR**, or **S86T725PG8UBRVK**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 50 Hz to 12 kHz. Axial sensitivity shall be 95 dB, measured at 1-watt/4 feet. The loudspeaker shall have a 6 oz. ceramic magnet and a 3/4" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The loudspeaker shall be assembled on a 13" steel ceiling grille, finished in bright white semi-gloss enamel. Assembly depth shall be 3-1/4".

(For **S86T725PG8UVR** add) A recessed volume control shall be included.

(For **S86T725PG8UVK** add) A volume control knob shall be accessible from the front of the grille.

(For **S86T725PG8UBR** add) A terminal strip shall be included for connection of the audio line.

(For **S86T725PG8UBRVR** add) A terminal strip shall be included for connection of the audio line. A recessed volume control shall be included.

(For **S86T725PG8UBRVK** add) A terminal strip shall be included for connection of the audio line. A volume control knob shall be accessible from the front of the grille.

**S810T725PG8W & Variations** The loudspeaker shall be a Bogen model **S810T725PG8W** (or **S810T725PG8WVR**, or **S810T725PG8WVK**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 70 Hz to 15 kHz. Axial sensitivity shall be 96 dB, measured at 1-watt/4 feet. The loudspeaker shall have a 10 oz. ceramic magnet and a 1" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The loudspeaker shall be assembled on a 13" steel ceiling grille, finished in off-white semi-gloss enamel. Assembly depth shall be 3-1/4".

(For **S810T725PG8WVR** add) A recessed volume control shall be included.

(For **S810T725PG8WVK** add) A volume control knob shall be accessible from the front of the grille.

**S810T725PG8U & Variations** The loudspeaker shall be a Bogen model **S810T725PG8U** (or **S810T725PG8UVR**, or **S810T725PG8UVK**), or equivalent, 8" cone-type loudspeaker, having a frequency response of at least 70 Hz to 15 kHz. Axial sensitivity shall be 96 dB, measured at 1-watt/4 feet. The loudspeaker shall have a 10 oz. ceramic magnet and a 1" voice coil. A transformer, capable of matching an 8-ohm loudspeaker to a 25-volt or 70-volt line, and providing power taps of 4, 2, 1, 1/2, 1/4, and 1/8 watts shall be included. The loudspeaker shall be assembled on a 13" steel ceiling grille, finished in bright white semi-gloss enamel. Assembly depth shall be 3-1/4".

(For **S810T725PG8UVR** add) A recessed volume control shall be included.

(For **S810T725PG8UVK** add) A volume control knob shall be accessible from the front of the grille.

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**COMMUNICATIONS, INC.**

50 Spring Street, Ramsey, NJ 07446, U.S.A.  
Tel: 201-934-8500; FAX: 201-934-9832; www.bogen.com

# Reentrant Horn Loudspeakers

## Models SPT15A and SP158A



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### Description

The Bogen SPT15A and SP158A are compact, high intelligibility, reentrant type loudspeakers, designed for one-way or two-way sound and communication systems. Their sturdy, weatherproof, all-metal construction is ideal for indoor and outdoor use in industrial plants, warehouses, schools, construction sites, transportation terminals, and recreational areas.

The Model SPT15A has a built-in, rotary impedance selector switch for matching the speaker power requirements to a 25V or 70V constant-voltage line. The model SP158A has an 8-ohm impedance only.

---

### Features

- High intelligibility and efficiency; ideal for both one-way and talk back applications
- Weatherproof, all-metal construction
- 15 watts; 25/70 volt (SPT15A) or 8-ohm (SP158A) operation
- Tap settings for 70V: 15, 7.5, 3.8, 1.8, 0.9 watts; for 25V: 15, 7.5, 1.8, 0.94, 0.46 watts
- Rotary tap impedance selector on SPT15A
- Tilt and swivel base for easy positioning
- Screw terminals make installation fast and easy
- All-purpose mounting bracket
- Self-aligning, field replaceable diaphragm
- Mocha enamel finish
- Limited lifetime warranty
- Mountable to I-beam flange using Bogen's BC1 Beam Clamp (sold separately)
- Mountable to electrical box using Bogen's HSES10 mounting strap (sold separately)
- Terminal Cover (TCSPT1) allows connection of conduit fittings to horn speakers (sold separately)

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**Technical Specifications**

**Power Rating (RMS):** 15 watts continuous, 20 watts equalized  
**Frequency Response:** 275 Hz to 14 kHz  
**Impedance:**  
*SPT15A* — 25/70 volts  
*SP158A* — 8 ohms  
**Sound Pressure Level:** 121 dB @ four feet on axis with 15 watt input @ 1000 Hz  
**Dispersion:** 110°  
**Sensitivity as Microphone:** -22 dBm [Ref: 10 dynes/cm<sup>2</sup>]  
**Dimensions:** 9" Diameter x 9-1/4" D  
**Product Weight:**  
*SPT15A* — 4 lb.  
*SP158A* — 3 lb.

**Finish:** Textured mocha enamel

**Impedance Selector Switch Settings (SPT15A only):** 25V @ 15, 7.5, 1.8, 0.94, 0.46 watts  
 70V @ 15, 7.5, 3.8, 1.8, 0.9 watts

Sound Pressure Level in dB @ 1000Hz:	Watts	Feet on Axis				
		4	8	16	32	64
<b>Input:</b>						
15		121	115	109	103	97
7.5		118	112	106	100	94
3.8		115	109	103	97	91
1.8		112	106	100	94	88
0.9		109	103	97	91	85
0.46		106	100	94	88	82

**Architect and Engineer Specifications**

The loudspeaker shall be a Bogen Model \_\_\_\_ (specify SPT15A or SP158A), or approved equal, reentrant type horn loudspeaker. The frequency response shall be 275 Hz to 14 kHz. Rated power output shall be 15 watts, RMS continuous. Dispersion shall be 110°. Sound pressure level, measured four feet on axis with 15 watt input @ 1000 Hz, shall be at least 121 dB.

**Use for SPT15A.** The unit shall incorporate a seven-position weather-sealed switch, to allow matching the loudspeaker to a 25V or 70V constant-voltage line. Power handling capacity shall be adjustable at 70V to 0.9, 1.8, 3.8, 7.5, or 15 watts, and at 25V to 0.46, 0.94, 1.8, 7.5, or 15 watts.

**Use for SP158A.** The unit shall have an impedance of 8 ohms.

The loudspeaker shall be of weatherproof, all-metal construction, with driver enclosed within a weatherproof housing. The loudspeaker shall include a self-aligning, field-replaceable diaphragm.

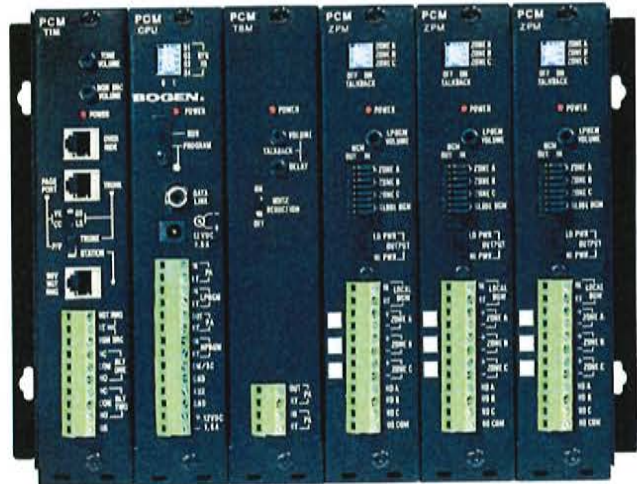
Screw terminals shall be provided for connection to the audio line. A plastic cover shall be provided to protect the connectors and impedance selector switch, and provide strain relief for the audio line.

An all-purpose mounting bracket shall provide precise positioning in the vertical and horizontal planes with a single adjustment. The bracket shall include banding slots to permit mounting the loudspeaker on beams or pillars. Bracket and loudspeaker shall be finished in textured mocha enamel. The unit shall measure 9" diameter by 9-1/4" D. Product weight shall be \_\_\_\_\_ (insert 4 lb. for SPT15A, 3 lb. for SP158A).

# BOGEN

## Zone Paging System

### PCM2000



#### Features

- One zone to 99 zones of simultaneous high-power and low-power paging
- Up to 32 paging zone groups
- Universal analog telephone interface designed for direct connection to loop start and ground start trunks, to PBX or KEY paging ports which supply DTMF capability, and to analog T/R lines
- Modular integration assures reconfiguring and expansion with minimum time and expense
- Optional talkback paging and time-triggered signaling events with PCMTBM module
- Field programmable using DTMF and switches
- Signaling features include night ringer zone group, emergency/shift change zone group, code call zone group
- Emergency All-Facility Override Paging
- Background music assigned per zone; Local Background music sourcing capability
- Relay drivers and AUX contacts included
- Allows total system amplifier power of up to 250W
- Mounting Kit for 2 to 6 modules available as an accessory (RPK84)
- Mounting Kit for up to 10 modules available as an accessory (RPK88)

#### Technical Specifications

##### Registered under Part 68 of FCC Rules

- Ringer Equivalence:** 1.0B
- Operating Voltage:** 12V DC
- Operating Current (max.):** 1.5A (9-zone system)
- Audio Power Capability:** 250W
- Operating Temperature:** 25 to 100°F
- Operating Humidity:** 0 to 90% non-condensing
- Dimensions (single module):** 1-1/2" W x 7-1/2" H x 4-1/4" D
- Shipping Weight (each module):** Approximately 1-2 lb.

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## Description

The Bogen **PCM2000** is a modular telephone zone paging and control system. By integrating unique, multi-function modules, the PCM2000 offers both incredible flexibility and capability for future expansion.

The Bogen PCM2000 Zone Paging System is designed for direct connection to loop start and ground start trunks, to PBX or KEY paging ports which supply DTMF capability, and to analog T/R lines. The unit allows total system amplifier power of up to 250W.

The PCM2000 is a fully-integrated zone paging and signaling system with an extensive list of features:

- Simultaneous high- & low-power paging
- Zone and zone group paging (32 paging zone groups, each with up to 99 zones)
- Talkback capabilities (requires PCMTBM module)
- Background music assigned per zone
- Local BGM sourcing capability
- Night ringer zone group
- Emergency zone group with choice of built-in tones or outside tone source
- Emergency all-facility page override
- Eight daily time-triggered signaling events (requires PCMTBM module)
- Pattern & echo code calling
- Daily master clock synchronization
- Relay driver per zone
- Auxiliary contacts

The PCM2000 allows for the design of a system that is specifically tailored to the requirements of the facility owner. The basic system supports up to three paging zones and consists of only three modules:

**PCMCPU** – Central processor

**PCMTIM** – Telephone interface

**PCMZPM** – Zone module (3 zones)

The **PCMCPU** module includes a set of DIP switches to set the system ID, a Program/Run switch that allows system programming, a Power Jack for 12V DC power, and audio connections for central amplifier, low-power BGM, high-power BGM, emergency/shift change trigger, and auxiliary trigger.

The **PCMTIM** telephone interface module incorporates a universal interface so that connection to any telephone system is rapid and trouble-free. The module connects to the telephone system via a standard RJ11 plug and port type is selected simply by using slide switches. All other connections are made to built-in terminal blocks.

Setup is also easy. Zone group programming, selection of all signaling functions, and all other parameters are set by simply dialing in with a touch-tone telephone.

The telephone interface module is equipped with three RJ11 jacks for Override, Page Port/Trunk, and 90V Night Ring/Station. The Night Ringer feature can be activated from 90V ring signal or contact closure. The Page Port/Trunk jack can be used to program the system locally and provides 48V talk battery. The Override feature permits all-zone override paging from a dedicated telephone, trunk, or microphone (with suitable pre-amp).

The **PCMZPM** zone paging module can operate high-power or low-power paging to self-amplified paging systems (only one type per PCMZPM module). For high-power paging, a single amplifier can be used for paging and supplying background music (when not paging). Background music can also be continuously supplied to all zones not being paged with the addition of a second amplifier. For low-power operation, background music is always supplied to zones not being paged. Each module can also be disconnected from the background music bus and connected to a local background music source.

Two additional zone modules can be added to the basic system to increase capacity to 9 zones. When more than 9 zones are required, a central processor module with power supply and up to 3 zone modules can be assembled as a satellite system. Ten additional 9-zone satellite systems can be installed to bring total capacity to 99 zones.

A talkback module (PCMTBM) can also be added to the system to provide hands-free talkback capability. Only one talkback module is required regardless of the number of zones or satellite systems on the PCM2000 system.

Relay driver outputs are provided for each zone. Two C-form contact sets are also provided to control the activation of accessory equipment.

---

## DTMF Programmable Features:

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"><li>• Privacy Beep</li><li>• Pre-announce Tone</li><li>• Confirmation Tone</li><li>• Emergency Override Tone</li><li>• All-Call</li><li>• Dialing Timeout</li><li>• Trunk Disconnect</li></ul> | <ul style="list-style-type: none"><li>• 1 Amp BGM</li><li>• Default Timer</li><li>• VOX Timer</li><li>• Zone Groups</li><li>• Emergency/Shift Change</li></ul> | <ul style="list-style-type: none"><li>• Night Ring</li><li>• Code Call</li><li>• Clock Set</li><li>• Clock Sync.</li><li>• Time Trigger 1-8</li><li>• Reset Default</li><li>• Setup Tone</li></ul> |
|--|--|--|



# BOGEN®

## UHF PLL Single Channel Diversity Wireless Microphone Systems

### Models UHF8011BP, UHF8011HH

Bogen's **UHF8011BP** and **UHF8011HH** Wireless Microphone Systems offer users the freedom to move around while speaking. System choices consist of an 1,440-channel PLL single channel UHF receiver coupled with either a body-pack transmitter (UHF8011BP) with lavalier microphone, or a wireless handheld microphone (UHF8011HH).

#### SYSTEM COMPONENTS

##### UDR8011 Single Channel UHF PLL Receiver

- Offers 1,440 user-selectable frequencies in UHF 470-960 MHz band; 120 dB dynamic range; operation up to 500 feet line-of-sight
- Antenna diversity for maximum range and dropout protection, LCD screen, 1/4" unbalanced and XLR balanced outputs, noiseless transmitter ON/OFF switching, and digital level control for output
- Half-rack receiver design with detachable, rear dual antennas, powered by wall power adapter (included)
- Base unit: 8" W x 1-5/8" H x 6-1/2" D; 1 lb.
- Detachable Antenna: 12" Long (fully extended); 4 oz.

##### UBP8011 Body-Pack Transmitter

- Audio mute switch allows convenient audio muting while leaving the transmitter "ON"
- LED and LCD display
- 4-Pin, Mini-XLR connection
- Convenient, economical operation with two (2) AA alkaline or NiMH batteries (not included)
- 2-1/4" W x 4" H x 1" D; 2.8 oz. (without batteries)

*Lavalier Microphone (Model BCLM1) and Headset Microphone (Model UHFHSM-B) sold separately.*

##### UHT8011 Wireless Handheld Microphone

- Sleek housing with internal antenna for optimum aesthetics and durable long life
- Unidirectional dynamic cartridge for optimum sound, maximum feedback rejection, and minimal handling noise
- Audio mute switch allows convenient audio muting while leaving the transmitter "ON"
- LED and LCD display
- Convenient, economical operation with two (2) AA alkaline or NiMH batteries (not included)
- 10-1/2" long x 2" dia.; 10 oz.

##### BCLM1 Lavalier Microphone

- Condenser Mic for use with UBP8011 Body-Pack
- Windscreen Mic cover; body attachment clip
- 5-foot long, 4-Pin mini-XLR connector cable
- Round 0.5" dia. x 1"; 4 oz.



### UHF8011BP

SYSTEM INCLUDES:

- UDR8011 UHF Receiver
- UBP8011 Body-Pack Transmitter
- BCLM1 Lavalier Mic



### UHF8011HH

SYSTEM INCLUDES:

- UDR8011 UHF Receiver
- UHT8011 Handheld Mic

## TECHNICAL SPECIFICATIONS

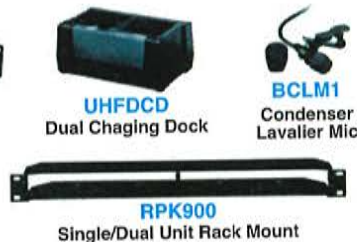
UDR8011	
Frequency Mode	Phase-locked loop (PLL)
Frequency Range	470 ~ 960 MHz
Sync Frequency	Ultrasonic
Bandwidth	36 MHz
Signal/Noise Ratio	> 105 dB(A)
Total Harmonic Distortion (Thd)	< 0.6% @ 1kHz
Receiving Sensitivity	-95 dBm (S/N > 80 dB)
Rejection Ratio	> 80 dB
Frequency Response	50 Hz ~ 16 kHz ± 2 dB
Antenna Type	1/2 λ BNC detachable, diversity
Antenna Power	12-15 VDC / 100mA
Display Type	LCD
Controls	Power, Set, ▲ / ▼, Button Lock, Sync
Display Functions	Group, channel, frequency, battery level, antenna A/B, muting level, AF indication, RF indication, channel scanning, output level attenuation, volume indication
Audio Frequency Output Level	Ref: ± 22.5 kHz Dev @ 1 kHz Tone 1/4" Jack: -10 dBV (unbalanced) XLRM Jack: -4 dBV (Line), -24 dBV (MIC) (balanced)
Audio Output Impedance	600Ω
Muting	Noise/Squelch muting
Output Port	1 x balanced XLRM Jack 1 x unbalanced 1/4" TS Jack
Power Supply	12-15 VDC / 300mA
Dimensions	8.35" (W) x 1.5" (H) x 5.6" (L)

UBP8011	
Frequency Mode	Phase-locked loop (PLL)
Frequency Range	470 ~ 960 MHz
Sync Frequency	Ultrasonic
RF Power Output	10m W / 50 m W (as per local regulations)
RF Stability	< ± 10 kHz @ Fc
Modulation Frequency	± 48 kHz
Harmonic Radiation	< -50 dBc
Functions	Mute, auto off, sensitivity adjustment, input level attenuation, group, channel, frequency
Display	LCD + LED
Input	4-pin Mini XLR
Controls	Power, Mute, Set, ▲ / ▼
Battery	AA alkaline battery or NiMH rechargeable battery (x 2)
Charging	Yes
Dimensions	2.4" (W) x 3.8" (H) x 0.78" (L)

UHT8011	
Frequency Mode	Phase-locked loop (PLL)
Frequency Range	470 ~ 960 MHz
Sync Frequency	Ultrasonic
RF Power Output	10m W / 50m W (as per local regulations)
RF Stability	< ± 10 kHz @ Fc
Modulation Frequency	± 48 kHz
Harmonic Radiation	< -50 dBc
Display	LCD + LED
Controls	Power, Mute, Set, ▲ / ▼, Button Lock
Functions	Mute, auto off, sensitivity adjustment, group, channel, frequency
Battery	AA alkaline battery or NiMH rechargeable battery (x 2)
Charging	Yes
Dimensions	2" (W) x 10.5" (H)

The UHF Receiver (UDR8011), Handheld Microphone (UHT8011), Body-Pack Transmitter (UBP8011), and Lavaliers Microphone (BCLM1) all can be purchased separately as individual items/accessories.

## SYSTEM ACCESSORIES



## DDU250 - Dynamic Desktop

### Description

The DDU250 is a high-quality, dynamic, gooseneck desktop microphone ideal for any podium or PA system. The gooseneck permits the user to adjust the microphone's angle and height to suit the user's needs.

### Features

- Cardioid pickup pattern
- 16" long, fully flexible gooseneck stalk that is shock-mounted to a heavy zinc die cast base
- Push-to-lock and push-to-talk switches
- 10-foot cable with external contact closure outputs for the talk switches
- Excellent speech intelligibility with low ambient noise
- Effective feedback control
- Low sensitivity to breath and popping sound
- Slim, compact design to minimize distraction to the user

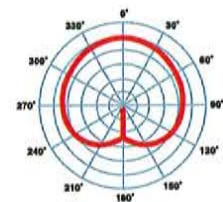


### Specifications

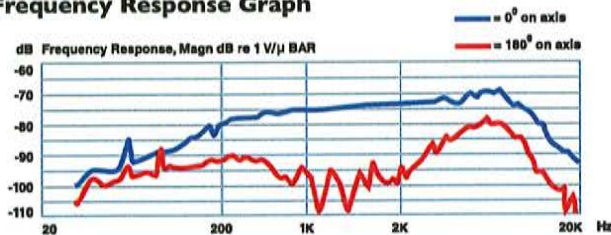
MIC Type:	Desktop
Element:	Moving coil dynamic
Polar Pattern:	Cardioid
Impedance:	500-ohm
Frequency Response:	100 Hz to 12 kHz
Sensitivity*:	-76 dB +/- 3dB
S/N Ratio:	>65 dB
Cable:	10 ft., 4-conductor, 2-shielded
Switches:	Push-to-lock and push-to-talk
Dimensions:	4-1/4" W x 18-1/4" H x 6-1/4" D
Product Weight:	3-1/2 lb.
Material:	Zinc die cast
Finish:	Matte black

\* (0dB=1V/ $\mu$  BAR 1,000 Hz indicated by open circuit)

### Polar Graph



### Frequency Response Graph



## MGN19A - Dynamic Gooseneck

### Description

The MGN19A is a push-button activated, dynamic gooseneck microphone that is specifically designed for paging and commercial applications.

### Features

- Omni-directional pickup pattern
- Push-to-talk switch on MIC housing
- Rugged, reliable design for quality, long-term use under the most strenuous handling conditions
- Chrome-plated screen and 19" L with black gooseneck and plastic housing
- Contact closure leads

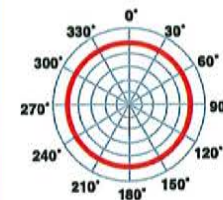


### Specifications

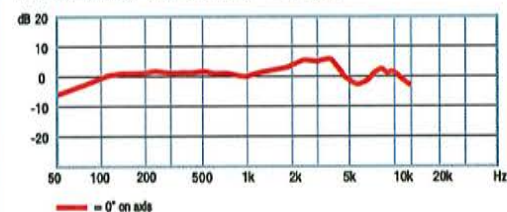
Element:	Dynamic
Polar Pattern:	Omni-directional
Frequency Response:	70 to 15 kHz
Output:	-70 dB (0 dB = 1V/microbar); $\pm$ 3dB
Impedance:	500 ohms, $\pm$ 30% (@ 1kHz)
Max Input SPL:	130dB @ 1kHz
Switch:	DPDT push-button switch
Cable:	5 ft. of four-conductor, two-shielded, permanently attached, rugged, synthetic jacketed cable
Dimensions:	23.66" H x 1.42" dia.
Product Weight:	1.34 lbs.
Finish:	Anodized Black
Gooseneck:	Electro-deposition coating, 18.15"

\* (0dB=1V/ $\mu$  BAR 1,000 Hz indicated by open circuit)

### Polar Graph



### Frequency Response Graph



# Models

## Hardware Overview

**Easy Mounting** Sleek design for seamless integration into any environment (all accessories included).

**LED** Unique provisioning and status LED provides administrator location tracking and alerts for each device.

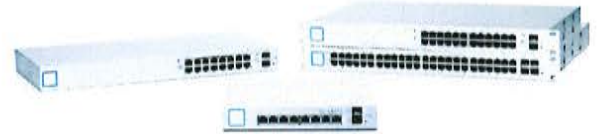
**Designed for the Great Outdoors** The UniFi AC Pro features weatherproof casing designed specifically for outdoor applications.

**Advanced Acoustic Speaker** The UniFi AC EDU AP provides high-quality sound with accurate voice reproduction for announcements over Wi-Fi.

**Power over Ethernet (PoE)** Includes PoE functionality. Each single-pack – except for the UniFi AC In-Wall AP, In-Wall Pro AP, and Pro AP – includes a PoE adapter.

## PoE Switching

**UniFi Switch with PoE** You can power your UniFi devices with a UniFi PoE Switch (sold separately). Available in 8, 16, 24, and 48-port versions with multiple power output options, the UniFi PoE Switch conveniently offers auto-sensing IEEE 802.3af PoE/802.3at PoE+.



**PoE Standards** The UniFi AC EDU, In-Wall, In-Wall Pro, and Pro APs are compatible with an 802.3at PoE+ compliant switch. The UniFi AC Pro AP can also use 802.3af PoE.

## Model Comparison Chart



	UAP-AC-IW	UAP-AC-IW-PRO	UAP-AC-LITE	UAP-AC-LR	UAP-AC-PRO	UAP-AC-EDU
Environment	Indoor	Indoor	Indoor	Indoor	Indoor/Outdoor	Indoor
Simultaneous Dual-Band	✓	✓	✓	✓	✓	✓
2.4 GHz Radio Rate	300 Mbps	450 Mbps	300 Mbps	450 Mbps	450 Mbps	450 Mbps
2.4 GHz MIMO	2x2	3x3	2x2	3x3	3x3	3x3
5 GHz Radio Rate	867 Mbps	1300 Mbps	867 Mbps	867 Mbps	1300 Mbps	1300 Mbps
5 GHz MIMO	2x2	3x3	2x2	2x2	3x3	3x3
Secondary Ethernet Port	✓ (2 Additional Ports)	✓ (2 Additional Ports)			✓	✓
Loudspeaker						✓
PoE Mode	802.3at PoE+	802.3at PoE+	802.3af/A PoE 24V Passive PoE	802.3af/A PoE 24V Passive PoE	802.3af PoE 802.3at PoE+	802.3at PoE+
Ceiling Mount			✓	✓	✓	✓
Wall Mount	✓	✓	✓	✓	✓	✓
Wireless Uplink	✓	✓	✓	✓	✓	✓
DFS Certification	✓	✓	✓	✓	✓	✓

## Models

### EdgeSwitch 24 Lite

Model: ES-24-Lite

- (24) Gigabit RJ45 Ports
- (2) SFP Ports
- (1) Serial Console Port
- Non-Blocking Throughput: 26 Gbps
- Switching Capacity: 52 Gbps
- Forwarding Rate: 38.69 Mpps
- Maximum Power Consumption: 25W
- Rack- or Wall-Mountable
- DC Input Option (Redundant or Stand-Alone)



Front Panel



Back Panel

### EdgeSwitch 48 Lite

Model: ES-48-Lite

- (48) Gigabit RJ45 Ports
- (2) SFP+ Ports
- (2) SFP Ports
- (1) Serial Console Port
- Non-Blocking Throughput: 70 Gbps
- Switching Capacity: 140 Gbps
- Forwarding Rate: 104.16 Mpps
- Maximum Power Consumption: 56W
- Rack- or Wall-Mountable
- DC Input Option (Redundant or Stand-Alone)



Front Panel



Back Panel

# EdgeSwitch<sup>®</sup> 24 **LITE**

## Hardware Specifications

ES-24-Lite	
Dimensions	443 x 43 x 221 mm (17.44 x 1.69 x 8.70")
Weight	
Rack-Mount Brackets Included	2.6 kg (5.7 lb)
Rack-Mount Brackets Excluded	2.51 kg (5.53 lb)
Total Non-Blocking Throughput	26 Gbps
Switching Capacity	52 Gbps
Forwarding Rate	38.69 Mpps
Max. AC Power Consumption	25W
Power Method	
AC	100-240VAC/50-60 Hz, Universal Input
DC	DC 25W, 25 to 16V, with 2.5 mm DC Power Inline Connector
Power Supply	AC/DC, Internal, 25W DC
LEDs Per Port	
Serial Console Port	N/A
RJ45 Data Ports	Speed/Link/Activity
SFP Data Ports	Speed/Link/Activity
Networking Interfaces	(24) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1 Gbps SFP Ethernet Ports
Management Interface	(1) RJ45 Serial Port, Ethernet In/Out Band
Certifications	CE, FCC, IC
Rackmount	Yes, 1U High
ESD/EMP Protection	Air: ±24 kV, Contact: ±24 kV
Operating Temperature	-5 to 40° C (23 to 104° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4 Standard

# EdgeSwitch 48 **LITE**

## Hardware Specifications

ES-48-Lite

Dimensions	443 x 43 x 286 mm (17.44 x 1.69 x 11.26")
Weight	
Rack-Mount Brackets Included	3.65 kg (8.05 lb)
Rack-Mount Brackets Excluded	3.56 kg (7.85 lb)
Total Non-Blocking Throughput	70 Gbps
Switching Capacity	140 Gbps
Forwarding Rate	104.16 Mpps
Max. AC Power Consumption	56W
Power Method	
AC	100-240VAC/50-60 Hz, Universal Input
DC	DC 56W, 25 to 16V, with 2.5 mm DC Power Inline Connector
Power Supply	AC/DC, Internal, 56W DC
LEDs Per Port	
Serial Console Port	N/A
RJ45 Data Ports	Speed/Link/Activity
SFP+/SFP Data Ports	Speed/Link/Activity
Networking Interfaces	(48) 10/100/1000 Mbps RJ45 Ethernet Ports (2) 1/10 Gbps SFP+ Ethernet Ports (2) 1 Gbps SFP Ethernet Ports
Management Interface	(1) RJ45 Serial Port, Ethernet In/Out Band
Certifications	CE, FCC, IC
Rackmount	Yes, 1U High
ESD/EMP Protection	Air: ±24 kV, Contact: ±24 kV
Operating Temperature	-5 to 40° C (23 to 104° F)
Operating Humidity	5 to 95% Noncondensing
Shock and Vibration	ETSI300-019-1.4 Standard



## Software Specifications

Software Information	
Core Switching Features	<ul style="list-style-type: none"><li>• ANSI/TIA-1057: LLDP-Media Endpoint Discovery (MED)</li><li>• IEEE 802.1AB: Link Layer Discovery Protocol (LLDP)</li><li>• IEEE 802.1D: Spanning Tree Compatibility</li><li>• IEEE 802.1S: Multiple Spanning Tree Compatibility</li><li>• IEEE 802.1W: Rapid Spanning Tree Compatibility</li><li>• IEEE 802.1Q: Virtual LANs with Port-Based VLANs</li><li>• IEEE 802.1p: Ethernet Priority with User Provisioning and Mapping</li><li>• IEEE 802.1X: Port-Based Authentication with Guest VLAN Support</li><li>• IEEE 802.3: 10BASE-T</li><li>• IEEE 802.3u: 100BASE-T</li><li>• IEEE 802.3ab: 1000BASE-T</li><li>• IEEE 802.1ak: Virtual Bridged Local Area Networks - Amendment 07: Multiple Registration Protocol</li><li>• IEEE 802.3ac: VLAN Tagging</li><li>• IEEE 802.3ad: Link Aggregation</li><li>• IEEE 802.3x: Flow Control</li><li>• IEEE 802.1D-2004: Generic Attribute Registration Protocol: Clause 12 (GARP)</li><li>• IEEE 802.1D-2004: Dynamic L2 multicast registration: Clause 10 (GMRP)</li><li>• IEEE 802.1Q-2003: Dynamic VLAN registration: Clause 11.2 (GVRP)</li><li>• RFC 4541: Considerations for Internet Group Management Protocol (IGMP) Snooping Switches</li></ul>
Advanced Layer 2 Features	<ul style="list-style-type: none"><li>• Broadcast Storm Recovery</li><li>• Broadcast/Multicast/Unknown Unicast Storm Recovery</li><li>• DHCP Snooping</li><li>• IGMP Snooping Querier</li><li>• Independent VLAN Learning (IVL) Support</li><li>• Jumbo Ethernet Frame Support</li><li>• Port MAC Locking</li><li>• Port Mirroring</li><li>• Protected Ports</li><li>• Static MAC Filtering</li><li>• TACACS+</li><li>• Voice VLANs</li><li>• Unauthenticated VLAN</li><li>• Internal 802.1X Authentication Server</li></ul>

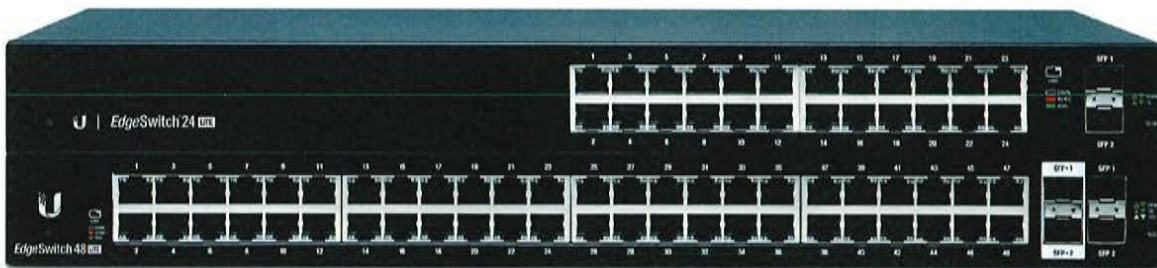


Software Information	
Platform Specifications	<ul style="list-style-type: none"> <li>• DHCP Server                             <ul style="list-style-type: none"> <li>• Maximum Number of Pools: 128</li> <li>• Maximum Number of Leases (Total): 2048</li> </ul> </li> <li>• Routing                             <ul style="list-style-type: none"> <li>• Number of Routes: 16</li> <li>• Number of Routing Interfaces: 15</li> </ul> </li> <li>• VLANs: 4093</li> <li>• MAC Addresses: 16,384</li> <li>• MSTP Instances: 4</li> <li>• LAGs: 6</li> <li>• ACLs: 100 with 10 Rules per Port</li> <li>• Traffic Classes (Queues): 8</li> </ul>
System Facilities	<ul style="list-style-type: none"> <li>• Event and Error Logging Facility</li> <li>• Run-Time and Configuration Download Capability</li> <li>• PING Utility</li> <li>• FTP/TFTP Transfers via IPv4/IPv6</li> <li>• Malicious Code Detection</li> <li>• BootP and DHCP</li> <li>• RFC 2021: Remote Network Monitoring Management Information Base Version 2</li> <li>• RFC 2030: Simple Network Time Protocol (SNTP)</li> <li>• RFC 2819: Remote Network Monitoring Management Information Base</li> <li>• RFC 2865: RADIUS Client</li> <li>• RFC 2866: RADIUS Accounting</li> <li>• RFC 2868: RADIUS Attributes for Tunnel Protocol Support</li> <li>• RFC 2869: RADIUS Extensions</li> <li>• RFC 3579: RADIUS Support for EAP</li> <li>• RFC 3580: IEEE 802.1X RADIUS Usage Guidelines</li> <li>• RFC 3164: BSD Syslog Protocol</li> </ul>
Management	<ul style="list-style-type: none"> <li>• Web UI</li> <li>• Industry-Standard CLI</li> <li>• IPv6 Management</li> <li>• Password Management</li> <li>• Autoinstall Support for Firmware Images and Configuration Files</li> <li>• SNMP v1, v2, and v3</li> <li>• SSH 1.5 and 2.0</li> <li>• SSL 3.0 and TLS 1.0</li> <li>• Secure Copy (SCP)</li> <li>• Telnet (Multi-Session Support)</li> </ul>
Layer 3 Routing	<ul style="list-style-type: none"> <li>• Static Routing</li> </ul>

Software Information

QoS

- Access Control Lists (ACLs), Permit/Deny Actions for Inbound IP and Layer 2 Traffic Classification Based on:
  - Time-Based ACL
  - Source/Destination IP Address
  - TCP/UDP Source/Destination Port
  - IP Protocol Type
  - Type of Service (ToS) or Differentiated Services (DSCP) Field
  - Source/Destination MAC Address
  - EtherType
  - IEEE 802.1p User Priority
  - VLAN ID
  - RFC 1858: Security Considerations for IP Fragment Filtering
- Optional ACL Rule Attributes
  - Assign Flow to a Specific Class of Service (CoS) Queue
  - Redirect Matching Traffic Flows
- Differentiated Services (DiffServ)
  - Classify Traffic Based on Same Criteria as ACLs
  - Mark the IP DSCP or Precedence Header Fields, Optional
  - Police the Flow to a Specific Rate with Two-Color Aware Support
  - RFC 2474: Definition of the Differentiated Services Field (DS field) in the IPv4 and IPv6 Headers
  - RFC 2475: An Architecture for Differentiated Services
  - RFC 2597: Assured Forwarding Per-Hop Behavior (PHB) Group
  - RFC 3246: An Expedited Forwarding PHB
  - RFC 3260: New Terminology and Clarifications for DiffServ
- Class of Service (CoS) Queue Mapping Configuration
  - AutoVoIP: Automatic CoS Settings for VoIP
  - IP DSCP-to-Queue Mapping
  - Configurable Interface Trust Mode (IEEE 802.1p, DSCP, or Untrusted)
  - Interface Egress Shaping Rate
  - Strict Priority versus Weighted Scheduling per Queue



Specifications are subject to change. Ubiquiti products are sold with a limited warranty described at: [www.ui.com/support/warranty](http://www.ui.com/support/warranty)  
 The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.  
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## LIFETIME WARRANTY

Enertron LLC affords each cabling customer a unique limited warranty. This warranty provides for:

Complete repair or replacement of any cabling or interconnectivity product installed by Enertron during the life of the installation. Life of the installation is defined as that time from customer acceptance of the installation until one of the following events occur:

- ◆ The customer sells the building housing the installation.
- ◆ The customer alters the original installation by utilizing either internal personnel or other outside contractors to perform the alteration.
- ◆ The building housing the installation is destroyed or damaged by fire, weather, acts of terrorism or war.
- ◆ The installation is vandalized.
- ◆ The customer stops using the installation.

The customer agrees to permit Enertron the opportunity to inspect and perform maintenance on the installation annually.

This maintenance is to ensure that the structure is still intact and conforms to the original installation specification. During this annual inspection visit, Enertron will perform required maintenance at no charge to the customer, assuming the conditions of this warranty have been met.

Enertron LLC  
38251 S. Groesbeck Highway  
Clinton Township, MI 48036  
(586) 757-1200  
(586) 757-6740 Fax

# Cabling Infrastructure

**Cabling Infrastructure** is your network's lifeline. At Enertron, we excel at the design and installation of all categories of structured cabling products and fiber optics, partnering with Fortune 500 brands to ensure that you receive the highest quality. We also provide a lifetime warranty covering all Enertron-installed cabling to protect our customers against manufacturer defects and product wear for the lifetime of the installation.

- Cabling diagrams and as-built docs
- Certification and cabling audits
- All category cabling including gigabit ethernet
- Fiber optic cabling
- BICSI certified cabling standards
- New construction or retrofitting current structures
- All low voltage including alarm, CCTV, and AV

Our partners include...

- BICSI
- Commscope
- ConnectWise
- Corning
- General Cable
- Great Lakes Case & Cabinet
- Hubbell
- Leviton
- Molex
- Ortronics/Legrand
- Panduit
- R. Simon Electric



O: 586.757.1200  
F: 586.757.8740  
38251 S. Groesbeck Hwy  
Clinton Township, MI 48036  
[enertronllc.com](http://enertronllc.com)



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
08/18/2020

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).

<b>PRODUCER</b> STERLING INSURANCE GROUP 13900 Lakeside Circle  Sterling Heights MI 48313-1318		<b>CONTACT NAME:</b> Wayne Foster <b>PHONE (A/C, No., Ext):</b> (586) 323-5700 <b>FAX (A/C, No):</b> (586) 323-5703 <b>E-MAIL ADDRESS:</b> wfoster@sterlingagency.com	
<b>INSURED</b> Enertron LLC 38251 S Groesbeck Hwy  Clinton Twp MI 48036		<b>INSURER(S) AFFORDING COVERAGE</b> <b>INSURER A:</b> Great Northern Insurance Company <b>INSURER B:</b> Selective Insurance <b>INSURER C:</b> Chubb Insurance Group <b>INSURER D:</b> <b>INSURER E:</b> <b>INSURER F:</b>	

**COVERAGES**      **CERTIFICATE NUMBER:** CL2062223238      **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	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			35898048EUC	07/01/2020	07/01/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			S241208100	07/01/2020	07/01/2021	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$			79869296	07/01/2020	07/01/2021	EACH OCCURRENCE \$ 4,000,000 AGGREGATE \$ 4,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WC908628600	07/01/2020	07/01/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

<b>CERTIFICATE HOLDER</b>	<b>CANCELLATION</b>
	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

**REFERENCE:****CONTACT:****TELEPHONE:**

**JEFFREY AUTOMOTIVE GROUP**  
28585 TELEGRAPH ROAD  
SOUTHFIELD, MI 48034

**MR. ERIC FREHSEE**  
GENERAL MANAGER

(248) 755-2763

**CITY OF AUBURN HILLS**  
1824 N. SQUIRREL ROAD  
AUBURN HILLS, MI 48326

**MR. DONALD GRACE**  
ASSISTANT CITY MANAGER

(248) 370-9440

**CITY OF LINCOLN PARK**  
1355 SOUTHFIELD ROAD  
LINCOLN PARK, MI 48146

**MS. LISA GREGGS**  
DIR. OF FINANCE

(734) 827-4462

**YANFENG GLOBAL AUTOMOTIVE**  
12775 OAKLAND PARKWAY  
HIGHLAND PARK, MI 48203

**MR. DAVID SCHAAP**  
IT PROGRAMS MANAGER

(616) 402-8183

**COLD HEADING**  
21777 HOOVER ROAD  
WARREN, MI 48089

**MR. JASON TAFFER**  
IT MANAGER

(586) 497-7598

**GENERAL RV CENTER**  
25000 ASSEMBLY PARK DRIVE  
WIXOM, MI 48393

**MR DUSTIN OLDS**  
DIRECTOR IT

(248) 662-9911

**AUTOLIV NORTH AMERICA**  
1320 PACIFIC DRIVE  
AUBURN HILLS, MI 48326

**MR. JONATAN IBARRA**  
IT DEPARTMENT

(248) 370-5623

**SECREST, WARDLE LAW OFFICES**  
2600 TROY CENTER DRIVE  
TROY, MI 48084

**MS. JULIE GORNEY**  
MGR. INFORMATION TECHNOLOGY

(248) 851-9500

**HORIZON STEEL CO.**  
50390 UTICA DRIVE  
SHELBY TWP., MI 48315

**MS. ANNIE NORWOOD**  
NETWORK ADMINISTRATOR

(586) 532-2135

**BLUE WATER AREA TRANSIT**  
2021 LAPEER AVENUE  
PORT HURON, MI 48060

**MR. DAVE FRASIER**  
DIRECTOR OF PROCUREMENT  
**MR. JIM WILSON**  
GENERAL MANAGER

(810) 966-4198

(810) 966-4200

**CITY OF ANN ARBOR**  
301 E. HURON STREET  
ANN ARBOR, MI 48107

**MR. WILLIAM DUFF**  
SR. INFRASTRUCTURE SPECIALIST

(734)-794-6550

**GREGORY, MOORE,  
JEAKLE & BROOKS, P.C.**  
65 CADILLAC SQUARE SUITE 3727  
DETROIT, MI 48226

**MR. SCOTT BROOKS**  
ATTORNEY

(313) 964-5600

**CENKO VENDITTELLI & HAYNES**  
5700 CROOKS  
TROY, MI 48098

**MR. PAUL CENKO**  
MANAGER / MEMBER

(248) 649-7628

**CONIFER INSURANCE COMPANY**  
550 MERRILL SUITE 200  
BIRMINGHAM, MI 48009

**MR. JASON BRAWNER**  
VICE PRESIDENT OF IT

(248) 559-0840

**ST. CLAIR SHORES OBGYN**  
19714 10 MILE ROAD  
ST. CAIR SHORES, MI 48080

**DR. CHUCK RAPHTIS**

(586) 779-9400

## 9 c) Community Sharing Lease

Information will be provided to the Board Members when received.

Public can email [clerk@highlandtwp.org](mailto:clerk@highlandtwp.org) to request a copy when available.

10. Adjourn

Time: \_\_\_\_\_