

**NOTICE OF MEETING
VILLAGE OF FOX POINT
VILLAGE BOARD MEETING**

**SCHWEMER HALL – MUNICIPAL BUILDING
7200 N. SANTA MONICA BLVD
FOX POINT, WI 53217**

**TUESDAY
NOVEMBER 8, 2022
7:00 P.M.**

NOTE: THE VILLAGE BOARD WILL BE MEETING IN PERSON AT VILLAGE HALL, WITH A REMOTE ATTENDANCE OPTION, PER THE HYBRID MEETING PROCEDURES FURTHER DESCRIBED IN SECTION 19-32 D. OF THE VILLAGE CODE. THIS MEETING IS OPEN TO ALL CITIZENS IN PERSON AT VILLAGE HALL, OR THROUGH THE ZOOM PARTICIPANT INFORMATION SHOWN BELOW, SUBJECT TO THE FOLLOWING: NO ASSURANCE IS PROVIDED TO THOSE GOVERNING BODY MEMBERS AND CITIZENS INTENDING TO ATTEND REMOTELY THAT THE TECHNOLOGY WILL PERFORM SUFFICIENTLY TO ALLOW FOR THEIR PARTICIPATION AND THE MEETING WILL PROCEED REGARDLESS. PUBLIC OFFICIALS AND CITIZENS WISHING TO ENSURE THEY CAN PARTICIPATE ARE ENCOURAGED TO ATTEND IN PERSON. CITIZENS ARE ENCOURAGED TO SUBMIT ANY COMMENTS IN WRITING IN ADVANCE OF THE MEETING TO THE VILLAGE MANAGER AT sbotcher@villageoffoxpoint.com.

Zoom Participant Information
<https://us02web.zoom.us/j/82083119155>
Meeting ID: 820 8311 9155
Dial: (312) 626-6799

AGENDA

- 1. Roll Call**
- 2. Persons desiring to be heard**

At this time, individuals can address the Village Board on one or more topics for up to three-minutes with time extensions at the Village President's discretion. Citizen comment when agenda items are called will be heard at the discretion of the chair, subject to the overall three-minute limit. In connection with non-agenda items, no action will be taken except for possible referrals to individuals or committees.

- 3. Committee Reports**

- a. Plan Commission**

1. Plan Commission's review and recommendation regarding Crown Castle's application for a minor modification to the Existing Wireless facility at 8615 N Port Washington Road.

- 4. Public Hearings***

***NOTICE:** After the Village Board set the following two public hearings Village staff have requested to delay consideration of the matters. The Village Board has not received a Plan Commission recommendation concerning either code revision at this time. Village staff therefore believe it is

likely that the Village Board will adjourn the public hearings to a later date and time certain, which may be the regular Village Board meeting of December 13, 2022, beginning at 7:00 p.m.

a. *(See the NOTICE, above) Ordinance to Repeal and Re-Creat Chapter 285 Article III Relating to Stormwater Management Regulations of the Municipal Code of the Village of Fox Point

The Village Board will hear comments and input regarding the Ordinance to Repeal and Re-Creat Chapter 285 Article III Relating to Stormwater Management Regulations of the Municipal Code of the Village of Fox Point.

b. *(See the NOTICE, above) Ordinance to Repeal and Re-Creat Chapter 285 Article IV Relating to Construction Site Erosion Control of the Municipal Code of the Village of Fox Point

The Village Board will hear comments and input regarding the Ordinance to Repeal and Re-Creat Chapter 285 Article IV Relating to Construction Site Erosion Control of the Municipal Code of the Village of Fox Point.

5. Consent Agenda – All items listed under the Consent Agenda will be approved in one motion without discussion unless any Board member requests that the item be removed for individual discussion and possible action. Any item(s) so removed shall be considered individually prior to consideration of any New Business agenda items in the same order in which they were originally listed in the Consent Agenda.

- a.** Approve the minutes of the October 10, 2022 Special Village Board meeting.
- b.** Approve the minutes of the October 11, 2022 Village Board meeting.
- c.** Approve the minutes of the October 25, 2022 Village Board Budget Workshop.
- d.** Approve Change Order No. 1 with Wachtel Tree Science for additional forestry services in an amount not to exceed \$8,000 and authorize the Village President and Village Clerk/Treasurer to sign the change order pursuant to the Director of Public Works' memorandum dated November 1, 2022.
- e.** Approval of Plan Commission recommendation regarding Crown Castle's application for a minor modification to the Exiting Wireless facility at 8615 N Port Washington Road.
- f.** Referral of matter concerning Chapter 745-7(3)(h) regarding height of arbors to Plan Commission for review and recommendation.
- g.** Approval of Ordinance modifying Chapter 842-3 concerning pool fencing requirements as recommended by the Building Inspector.
- h.** Approve payment of the bills in the amount of \$748,550.94 for the period October 1, 2022 through October 31, 2022 per the report submitted by the Village Manager.

6. New Business

a. Aquatic Recreation Facilities Discussion and Possible Action

The Village Board will discuss aquatic recreation in the Village and may take such action as the Village Board deems appropriate, which may include final decision-making or establishing a

process for decision-making, concerning the existing municipal swimming pool, repairs, replacement, abandonment, or alternative facilities.

- b. The Village Board will discuss and may approve Amendment No. 1 with Ruekert Mielke in an amount not to exceed \$27,500 to undertake a Letter of Map Revision (LOMR) in order to appeal the 100-year floodplain delineation made by the Department of Natural Resources and authorize the Village President and Village Clerk/Treasurer to sign the change order pursuant to the Director of Public Works' memorandum dated November 1, 2022.

7. Future Agenda Items

The Village Board will act on any Trustee requests to place additional matters on an upcoming agenda, without discussion.

8. Announcements

The following individuals will be given the opportunity to make announcements at the meeting in regard to (i) actions taken since the previous Village Board meeting on behalf of the Village, (ii) future Village activities and (iii) communications received from citizens. These matters will not be discussed or acted on, and Board members shall not comment on matters announced by others. Referrals may be made to committees and/or individuals.

- a. Village President Frazer
- b. Trustee Fonstad
- c. Trustee Symchych
- d. Trustee Sumner
- e. Trustee Ollman
- f. Trustee Anderson Knight
- g. Trustee Aelion
- h. Village Manager Scott Botcher

9. Closed Session

It is anticipated the Village Board will convene into closed session for the following reasons:

Pursuant to Wisconsin Statutes Section 19.85(1)(g) conferring with legal counsel for the governmental body who is rendering oral or written advice concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved. Specifically, to discuss Catherine Conway v Douglas Frazer, et al. Attendees will include the Village Board, Village Manager, Assistant Village Manager, and Village Attorney.

10. Adjournment

NEXT REGULAR VILLAGE BOARD MEETING:

DECEMBER 13, 2022 7:00 P.M.

PLEASE NOTE:

Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through sign language interpreters or other auxiliary aids. Also, upon reasonable notice, best efforts will be used to ensure that members of the public lacking access to the virtual meeting platform are provided alternative reasonable methods to attend. For additional information or to request these services, contact the Village Clerk at (414) 351-8900. "Persons requiring an interpreter or other assistance should contact the Village Clerk's office 72 hours prior to the meeting. Notice is hereby given that a majority any other board, commission or committee may be present at the meeting to gather information about a subject in which they are interested. This constitutes a meeting of any other board, commission or committee pursuant to State ex rel. Badke v. Greendale Village Bd., 173 Wis. 2d 553, 494 2d 408 (1993), and must be noticed as such, although said boards, commissions or committees will not take any formal action at this meeting."

VILLAGE OF FOX POINT
SPECIAL VILLAGE BOARD MEETING MINUTES
OCTOBER 10, 2022

A special meeting of the Fox Point Village Board was held by a combination of in-person and virtual attendance via telephonic and video conferencing on Monday, October 10, 2022 in Schwemer Hall, 7200 N. Santa Monica Boulevard. President Frazer called the meeting to order at 7:00 p.m. and asked the Village Manager to take roll call. Roll Call of the Village Board present included:

Village President Douglas H. Frazer
Trustee Eric Fonstad
Trustee Christine Symchych
Trustee Sumner
Trustee Greg Ollman
Trustee Catie Anderson Knight
Trustee Liz Aelion

Not Present:

Also, present were Village Attorney Eric Larson, Village Manager Scott Botcher, Public Works Director Scott Brandmeier, Assistant Village Manager Kevin Ausman.

Notice of the meeting was provided to the North Shore Now and to all others as required by State open meetings laws and posted on the official bulletin board at 7200 N Santa Monica Boulevard, as well as the village website at www.villageoffoxpoint.com, as per 2015 Wisconsin Act 79 and as described in Village Ordinance Chapter 116-2, 116-2(C).

Closed Session

Motion made by President Frazer, seconded by Trustee Fonstad, to convene into closed session regarding 1a, at 7:03 p.m., Pursuant to State Statutes Sections:

- a. Pursuant to Wisconsin Statutes Section 19.85(1)(e) to deliberate or negotiate the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session: Specifically, discuss possible acquisition opportunities for relocating municipal facilities and related municipal property transfers, along with possible developer incentives for related redevelopment projects. Participating in the closed session will be the Village Board, Village Manager, Assistant Village Manager, Village Clerk, Village Public Works Director/Engineer and Village Attorney to deliberate or negotiate the purchase and/or sale of public properties.

President Frazer	Aye
Trustee Fonstad	Aye
Trustee Symchych	Aye
Trustee Sumner	Aye
Trustee Ollman	Nay
Trustee Knight	Aye
Trustee Aelion	Aye
President Frazer	Aye

Carried by roll call vote (6 – 1, Nay Trustee Ollman).

VILLAGE OF FOX POINT
SPECIAL VILLAGE BOARD MEETING MINUTES
OCTOBER 10, 2022

Trustee Sumner departed during the closed session at 8:28 p.m.

Reconvene into Open Session

Motion made by President Frazer, seconded by Trustee Ollman, and carried by roll call vote (6-0), to reconvene into open session at 8:57 p.m.

Motion made by Trustee Symchych, seconded by Trustee Ollman to rescind the previously granted permission for Cobalt Partners to apply to rezone Village-owned land.

<i>President Frazer</i>	<i>Nay</i>
<i>Trustee Fonstad</i>	<i>Aye</i>
<i>Trustee Symchych</i>	<i>Aye</i>
<i>Trustee Ollman</i>	<i>Aye</i>
<i>Trustee Knight</i>	<i>Aye</i>
<i>Trustee Aelion</i>	<i>Aye</i>

Motion carried by roll call vote, 6-1 (Nay-President Frazer).

ADJOURN

Motion made by President Frazer, second by Trustee Ollman, and carried by roll call vote (6 -0), to adjourn the Village Board meeting at 9:00 p.m.

Respectfully submitted,

Scott A. Botcher
Village Manager

VILLAGE OF FOX POINT
VILLAGE BOARD MEETING MINUTES
OCTOBER 11, 2022

A meeting of the Fox Point Village Board was held by a combination of in-person and virtual attendance via telephonic and video conferencing on Tuesday, October 11, 2022 in Schwemer Hall, 7200 N. Santa Monica Boulevard. President Frazer called the meeting to order at 7:00 p.m. and asked the Village Manager to take roll call. Roll Call of the Village Board present included:

Village President Douglas H. Frazer
Trustee Eric Fonstad
Trustee Christine Symchych (via Zoom)
Trustee Sumner
Trustee Greg Ollman
Trustee Catie Anderson Knight
Trustee Liz Aelion

Also, present were Village Attorney Eric Larson (via Zoom), Village Manager Scott Botcher, Public Works Director Scott Brandmeier, Assistant Village Manager Kevin Ausman (via Zoom), and Village Clerk Treasurer Kelly Meyer.

Notice of the meeting was provided to the North Shore Now and to all others as required by State open meetings laws and posted on the official bulletin board at 7200 N Santa Monica Boulevard, as well as the village website at www.villageoffoxpoint.com, as per 2015 Wisconsin Act 79 and as described in Village Ordinance Chapter 116-2, 116-2(C).

PERSONS DESIRING TO BE HEARD

Luke Junk, 7945 N Mohawk Road

Mr. Junk expressed his gratitude to the village board trustees in connection with their decision on October 10, 2022 concerning the Cobalt project proposal.

Hearing no other comments, the Board proceeded to Committee Reports.

COMMITTEE REPORTS – PLAN COMMISSION

Trustee Fonstad gave a brief synopsis: He stated the Plan Commission met Monday, October 3, 2022 jointly with the Building Board to consider the submission from Maple Dale Indian Hill School to replace the playground equipment behind the school. The Plan Commission unanimously recommended the Village Board approve the playground structure and found that consistent with ordinance requirements the new playground structure was appropriate for the location, compatible with the neighborhood, not detrimental to the property values for the surrounding properties, and in keeping with the residential character and quality of the village.

PUBLIC HEARINGS

- a. **Consideration by Plan Commission re: Ordinance to Repeal and Re-Creat Chapter 285 Article III Relating to Stormwater Management Regulations**
- b. **Consideration by Plan Commission re: Ordinance to Repeal and Re-Creat Chapter 285 Article IV Relating to Construction Site Erosion Control**

Motion by President Frazer, second by Trustee Fonstad, and carried by roll call vote (7-0), to postpone the consideration of agenda items 3a and 3b, to the next regularly scheduled Village Board meeting on Tuesday, November 8, 2022 at 7:00 p.m.

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- c. **Consideration by Plan Commission and Building Board RE: Maple Dale Indian Hill School, 8377 N Port Washington Road**

Open Public Hearing

Motion by President Frazer, second by Trustee Fonstad, and carried by roll call vote (7-0), to open the public hearing at 7:06 p.m. regarding Maple Dale Indian Hill School, 8377 North Port Washington Road.

There was no public comment.

Close Public Hearing

Motion by President Frazer, second by Trustee Fonstad, and carried by roll call vote (7-0), to close the public hearing at 7:07 p.m. regarding Maple Dale Indian Hill School, 8377 North Port Washington Road.

CONSENT AGENDA

Without objection and by unanimous consent, President Frazer announced a correction to the minutes of the September 13, 2022 meeting.

On page 1, the comments by Terry Rindt, lines 36 and 37, the corrected narrative is as follows:

Terry Rindt thanked Trustee Aelion and Director of Public Works Scott Brandmeier for assisting him with understanding the WDOT storm water work near I-43. He also mentioned the potential idea of a pickleball league, and asked village staff to clarify the definition of private roads and the public's right of access to those roads.

- a. Approve the minutes of the September 13, 2022 Village Board meeting.
- b. Approval of Maple Dale Indian Hill School Playground Structures in the F-Institutional District.
- c. Adopt Resolution Approving the 2023 North Shore Fire Department Fees for Service Schedule.
- d. Adopt Resolution in the Matter of Authorizing an Exception to the Levy Limits for Charges for the North Shore Fire Department Pursuant to 2005 Wisconsin Act 484.
- e. Adopt Resolution in support of a temporary North Shore Health Department Dementia / Alzheimer's Committee and authorizing Village President to appoint two public individuals to serve on a temporary Dementia / Alzheimer's Committee.
- f. Approve payment of the bills in the amount of \$716,432.76 for the period September 1, 2022 through September 30, 2022 per the report submitted by the Village Manager.

Trustee Sumner requested the removal of agenda item 5d and 5e.

Motion by President Frazer, seconded by Trustee Sumner, and carried by roll call vote (7-0), to approve the consent agenda, absent items 5d and 5e.

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Consideration of potential enforcement action against Melinda B Wagner, 7515 N Boyd Way

Property Owners Robert and Melinda Wagner, 7515 N Boyd Way

Robert and Melinda Wagner gave a brief synopsis of the progress in their efforts to correct deficiencies concerning the condition of the chimney and garage at 7515 N Boyd Way. Mr. Wagner stated that the central area of the garage, approximately 80 percent, has collapsed. It will be impossible to go into the garage and remove any contents. He further stated the Wagner's have no choice but to destroy the contents of the garage, losing both the cars and the motorcycles. The right wall at the rear of the garage is tilted back and ready to fall down. The Wagners have not made arrangements to raze the garage.

Village Attorney Eric Larson clarified to the Board the option(s) available regarding the demolition/raze of the garage. He further stated that the village procedure would be to obtain a court order and raze the garage.

Without objection and by unanimous consent, the Board requested that within 30 days the Wagners obtain a signed demolition company contract with an estimated date of demolition. The Wagners can deliver the contract to staff; staff will report whether the contract is satisfactory. If a contract is not timely delivered to staff or is deemed unsatisfactory, the Village will go to court to seek a raze order.

NEW BUSINESS

Resolution in the Matter of Authorizing an Exception to the Levy Limits for Charges for the North Shore Fire Department Pursuant to 2005 Wisconsin Act 484 (5d)

Motion by President Frazer, seconded by Trustee Sumner, and carried by roll call vote (7-0), to adopt the resolution in the matter of authorizing an exception to the levy limits for charges for NSFD Pursuant to 2005 Wisconsin Act 484, as set forth on pages 21-22 of the agenda packet.

Adopt Resolution in support of a temporary North Shore Health Department Dementia / Alzheimer's Committee (5e)

Trustee Sumner requested several corrections to the resolution. On the last line of the first paragraph, it should say "constituencies with" and in the last paragraph, instead of FURTHER RESOLVED, should say "BE IT FURTHER RESOLVED,".

Motion by Trustee Sumner, seconded by President Frazer, and carried by roll call vote (7-0), to adopt Resolution in support of a temporary North Shore Health Department Dementia / Alzheimer's Committee and authorizing Village President to appoint two public individuals to serve on a temporary Dementia / Alzheimer's Committee, as modified by the corrections offered by Trustee Sumner.

Resolution of Commendation and Appreciation – Fox Point Farmer's Market Founders Mary and Jim LaCharite

Motion by President Frazer, seconded by Trustee Sumner, and carried by roll call vote (7-0) to postpone consideration of the Resolution of Commendation and Appreciation for Fox Point Farmer's Market Founders Mary and Jim LaCharite, until the regular Village Board meeting on Tuesday, December 13, 2022 at 7:00 p.m.

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2022 Summer Pool Report

Assistant Village Manager Kevin Ausman gave the year-end report on the municipal pool, including information concerning this year's highlights, the annual and upcoming maintenance/repairs, operations, financials, memberships, and programming and partnerships, as reflected in the agenda packet on pages 39-46.

Paul Keyser, 8300 N Links Way

Mr. Keyser suggested extending the pool season to bring in more revenue. This would help offset pool operational and maintenance costs. He suggested contracting with a company for the employment of lifeguards and staff who would stay through September. At this time, in his view, a season pass is not a good value due to the short pool season.

There were no further comments.

Discussion of Village facilities needs and a status report on the DPW building and Village Hall as requested by Trustees Ollman and Trustee Aelion

The Village Board heard a status report from Public Works Director Scott Brandmeier and Village Manager Scott Botcher regarding the facility needs for both the Department of Public Works and the Village Hall. There are significant space needs, including the need for an additional 21,000 square feet for DPW storage and additional space for Village Hall records storage. Further, concern exists in connection with the facility's aging and inefficient mechanical systems. Although the 1957 building is sound structurally, it is at the end of its useful life.

David Miller, 7401 N Crossway Road

Mr. Miller suggested several locations for a new DPW and Village Hall, such as northeast corner of Port and Bradley.

Judy Shirley, 8235 N Mohawk Rd

Ms. Shirley suggested Village Hall and Department of Public Works remain where currently situated; both work well together in the same location. Ms. Shirley suggested that placing the administrative office on the first floor would provide easier access for voters.

Andrew Elmer, 101 E Bradley Road

Mr. Elmer echoed what was previously said. He commended that the Department of Public Works and Village Hall requirements should be worked out and brought to the public.

Village Manager Scott Botcher commented that, in his view, the question of the continuation or location of the municipal swimming pool should be determined first—the Village Hall and Department of Public Works plans will be easier to work out once that decision is made.

Solid Waste and Recycling Contract with Waste Management

Department of Public Works Director Scott Brandmeier gave an update regarding the Solid Waste and Recycling Contract with Waste Management and distributed a handout [See exhibit A].

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FUTURE AGENDA ITEMS - None

ANNOUNCEMENTS

Trustee Fonstad announced the Tree Commission will meet on October 13, 2022. Items to be taken up would include No Mow May, Bee City designation, and the beekeeper ordinance.

Trustee Symchych had no announcements.

Trustee Sumner had no announcements.

Trustee Ollman had no announcements.

Trustee Anderson had no announcements.

Trustee Aelion had no announcements.

Village President Frazer had no announcements.

Village Manager Scott Botcher reported the Budget Workshop is scheduled for October 25, 2022; packets will be delivered most likely next Wednesday.

ADJOURN

Motion made by President Frazer, second by Trustee Anderson Knight, and carried by roll call vote (7-0) to adjourn the Village Board meeting at 8:36 p.m.

Respectfully submitted,

Kelly A. Meyer, WCMC/CMC/CMTW
Village Clerk Treasurer

Recycling Pick up made by Village staff (through Oct 7, 2022)

Summary

Full route pick up	5
Partial route pick up (greater than 100 homes)	11
Significant spot pick up	11

*Please note that we started consistently logging missed pick up calls in mid September

Date	man hours	equipment hours	direct cost	homes picked up	
4/21/22	6	6	\$315.28	103	partial
5/19/22	9	15	\$651.06	235	partial
5/23/22	22	28	\$1,430.02	639	full
6/6/00	17.5	24	\$1,061.67	640	full
6/7/22	4.5	6	\$356.30	118	partial
6/22/22	16	16	\$950.46	368	partial
6/23/22	15	15	\$813.02	429	partial
8/15/22	11	11	\$890.80	393	partial
8/16/22	16	16	\$682.72	379	partial
8/31/22	16	16	\$1,103.60	425	partial
9/1/22	22	30	\$1,557.80	758	full
9/6/22	18	18	\$1,099.08	455	partial
9/8/22		2	\$30.00		#
9/9/22	19	27	\$1,009.36	495	partial #
9/12/22	20	28	\$1,226.48	643	full
9/25/22	20	27	\$1,509.66	654	full
9/19/22	2	2	\$134.00	12	partial
9/20/22	2	2	\$134.00	12	partial
9/21/22	6	6	\$402.00	44	partial
9/22/22	2	2	\$134.00	11	partial
9/25/22	15	15	\$896.70	398	partial
9/28/22	2	2	\$134.00	7	partial
9/30/22	6	6	\$402.00	48	partial
10/3/22	1	1	\$67.57	4	partial
10/4/22	3	3	\$202.71	28	partial
10/5/22	3	3	\$202.71	25	partial
10/6/22	4	4	\$270.28	37	partial
10/7/22	2	2	\$134.00	6	partial
total	280	333	\$ 17,801.28	7366	

The staff time noted does not include administrative time spent fielding calls, screening emails, organizing staff pick up, tracking missed pick ups, and other tasks necessary for this service delivery

Due to WM equipment issues WM staff used Village equipment

	Sept	Oct (thru 7th)
emails	21	20
calls	20	14

Previous to Sept 1, calls were not consistently logged.

Multiple calls reported 2 or more consecutive weeks missed.

Mike K. was not able to keep a log of calls he received during this period

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A budget workshop meeting of the Fox Point Village Board was held virtually via the hybrid procedures on Tuesday, October 25, 2022 in-person at Schwemer Hall, 7200 N. Santa Monica Boulevard and via Zoom. President Frazer called the meeting to order at 7:00 p.m. and asked Village Manager Botcher to take roll call. Roll Call of the Village Board present included:

Village President Douglas H. Frazer
Trustee Eric Fonstad, via zoom
Trustee Greg Ollman
Trustee Catie Knight
Trustee Liz Aelion
Trustee Liz Sumner via zoom

Not Present:

Trustee Christine Symchych

Also present are Village Manager Scott Botcher, Assistant Village Manager Kevin Ausman, Public Works Director Scott Brandmeier, and Police Chief Chris Freedy via zoom.

Notice of the meeting was provided to the North Shore Now and to all others as required by State open meetings laws and posted on the official bulletin board at 7200 N Santa Monica Boulevard, as well as the village website at www.villageoffoxpoint.com, as per 2015 Wisconsin Act 79 and as described in Village Ordinance Chapter 116-2, 116-2(C).

**Budget Workshop:
Review and Discussion of the 2023 Village of Fox Point Proposed Budget**

Trustee Liz Sumner joined the meeting at 7:04 pm.

Village Manager Scott Botcher presented a virtual PowerPoint of the 2023 Proposed Executive Budget Summary binder and gave details for portions of the proposed budget.

Adjourn

On motion of Frazer, seconded by Anderson-Knight, and carried unanimously by roll call vote, (6-0), the Village Board adjourned the Village Board meeting at 9:30 p.m.

Respectfully submitted,

*Kevin Ausman
Assistant Village Manager*



VILLAGE OF FOX POINT

MILWAUKEE COUNTY
WISCONSIN

VILLAGE HALL
7200 N. SANTA MONICA BLVD.
FOX POINT 53217-3505
414-351-8900
FAX 414-351-8909

To: Village of Fox Point Village Board
From: Scott Brandmeier, Director of Public Works *SB*
Through: Scott Botcher, Village Manager *SB*
Date: November 1, 2022
Re: Recommendation for Approval of Change Order for Forestry Services

The Village of Fox Point contracts with Wachtel Tree Science for forestry services. The contract cost to perform the services for 2022 is \$44,800 and is based on approximately 338 hours. Through October 27, 2022, the Forester has expended approximately 325 hours of the budget and, as noted in his request, the remaining balance of the contract is about \$1,800. As further noted in his request, there have been additional activities the Forester has had to perform that were not anticipated when the agreement was executed.

Based on the foregoing and the attached description of additional services, it is my recommendation that Change Order No. 1 for additional forestry services in an amount not to exceed \$8,000 be accepted by the Village Board. This equates to approximately 60 hours spread over the course of the remainder of the year. It is my further recommendation that the Village President and Village Clerk/Treasurer be authorized to sign the change order on behalf of the Village Board.



**CHANGE ORDER #1
Village Forester Services**

October 27, 2022

Mr. Scott Brandmeier
Village of Fox Point
7200 N. Santa Monica Blvd.
Fox Point, WI 53217

Dear Mr. Brandmeier:

We are requesting that an additional \$8,000.00 be added to the Village Forester contract for the balance of 2022. As of 10/27/2022 the remaining balance in the contract stands at \$1,839.75. In order to fulfill the duties of Village Forester for the balance of calendar year 2022, this additional allocation is being requested.

Several items have occurred this year that have accelerated the drawdown of the budget much more rapidly. The most significant items include: resolving tree conflict and removal issues with the Wye Lane, Bywater Lane, Boyd Way, Links Way, and Portage Road reconstruction projects; working with staff and legal counsel to resolve a significant tree clear-cut issue; attendance at PIM meetings for Regent Road and Lake Drive future construction projects; continued management in conjunction with Marek Landscape of Indian Creek Woods to ensure successful outcome for the (320) sapling trees planted by volunteers in fall 2019; numerous interactions with residents regarding concerns over Emerald Ash Borer on private property; and a higher number than usual of letters sent to property owners where shrubbery overhanging roadways is causing obstructed traffic flow.

We have worked very hard to stay within the budgeted dollars, but these unanticipated issues have caused a greater impact on this account than has previously been the norm.

We hope that the Village Board will look favorable on our request for additional funding.

Respectfully submitted,

John T. Gall
Special Projects Coordinator
Certified Arborist, WI-0249AM
Certified Municipal Specialist



CHANGE ORDER #1
Village Forester Services
Village of Fox Point

Amend Village Forester Services contract dated December 16, 2021, for calendar year 2022 to include an additional \$8,000.00 be added to the contract for the balance of 2022.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'John T. Gall'.

John T. Gall
Special Projects Coordinator
Certified Arborist, WI-0249AM
Certified Municipal Specialist

Douglas H. Frazer, Village President

Kelly Meyer , Village Clerk/Treasurer

Date



VILLAGE OF FOX POINT
7200 N Santa Monica Blvd
Fox Point, WI 53217
(414) 247-6622
www.villageoffoxpoint.com

Permit Number:

B-

OFFICE USE ONLY
Issued Date
Zoning

BUILDING PERMIT

Job Address 8615 N Port Washington Rd, Fox Point, WI 53217	Building Type: Residential ☐ Commercial ☒
Description of Work	
removing (6) antennas, (3) TMA. Adding (3) antennas, (3) radios.	
Estimated Cost of Project \$ 15,000	

Owner/Occupant		Contact Name Christina Wilburn on Behalf of Crown Castle (Tower Owner) agent for T-Mobile
Business Name Crown Castle	City/State/Zip Downers Grove, IL 60515	
Address 3025 Highland Pkwy., Suite 400	Email chrisitna.wilburn@crowncastle.com	
Phone 773-628-4388		

****Cautionary Statement required when homeowner is applying for permit****

Contractor		Contact Name Ryan Nutt
Company Name DYROS INC. (W)	City/State/Zip Elk Grove IL 60007	
Address 900 Lee Street,	Email r.nutt@dyros.net	
Phone 262-581-5883	Dwelling Contractor Qualifier #	
Dwelling Contractor #		

Square Footage Under Construction				
1 st Floor	2 nd Floor	Basement	Addition	Garage

Description	Rate	Amount
Project - Per \$1,000 of estimated cost	\$10.00	
Building Board	\$75.00	
Footing early start - \$230.00 one and two family; \$305.00 commercial		
Plan Review - \$275.00 one and two family; New Single Family Construction \$330.00 plus \$30.00/unit commercial		
State Seal	\$75.00	
Razing, Interior Demolition \$925.00 max/bld	\$95.00 minimum plus	
Moving buildings	\$250.00 plus	
Fuel tanks - Per 1,000 gallons	\$25.00	
Re-inspection	\$100.00	
Work started without permit	Double	
	Minimum Fee	\$70.00
Payable to: Village of Fox Point	Total Permit Fee	\$

Applicant Signature Christina Wilburn **Date** 09/16/22

Rev 01/22

ISSUED PERMITS are available on the Village website under PERMITS & LICENSES



3025 Highland Pkwy Suite 510
Downers Grove, IL 60515

Phone: (773) 628-4388
www.crowncastle.com

September 16, 2022

WI - VILLAGE OF FOX POINT

Inspections

7200 N SANTA MONICA BLVD

FOX POINT, WI 53217

Via Walk-in

*******NOTICE OF ELIGIBLE FACILITIES REQUEST*******

RE: Request for Minor Modification to Existing Wireless Facility – Section 6409

Site Address: 8615 N Port Washington Rd, Fox Point, WI 53217

Crown Site Number: 827008 / Crown Site Name: River Point Shopping Cent

Customer Site Number: ML11046B / Application Number: 624081

Attention Inspections:

On behalf of T-Mobile Central LLC (“T-Mobile” or “Applicant”), Crown Castle USA Inc. (“Crown Castle”) is pleased to submit this request to modify the existing wireless facility noted above through the collocation, replacement and/or removal of the Applicant’s equipment as an eligible facilities request for a minor modification under Section 6409¹ and the rules of the Federal Communications Commission (“FCC”).²

Section 6409 mandates that state and local governments must approve any eligible facilities request for the modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station. Under Section 6409, to toll the review period, if the reviewing authority determines that the application is incomplete, it must provide written notice to the applicant within 30 days, which clearly and specifically delineates all missing documents or information reasonably related to whether the request meets the federal requirements.³ Additionally, if a state or local government, fails to issue any approvals required for this request within 60 days, these approvals are deemed granted. The FCC has clarified that the 30-day and 60-day deadlines begins when an applicant: (1) takes the first step required under state or local law; and (2) submits information sufficient to inform the jurisdiction that this modification qualifies under the federal law⁴. Please note that with the submission of this letter and enclosed items, the thirty and sixty-day review periods have started. Based on this filing, the deadline for written notice of incomplete application is October 16, 2022, and the deadline for issuance of approval is November 15, 2022.

¹ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409 (2012) (codified at 47 U.S.C. § 1455).

² *Acceleration of Broadband Deployment by Improving Wireless Facility Siting Policies*, 29 FCC Rcd. 12865 (2014) (codified at 47 CFR § 1.6100); and *Implementation of State & Local Governments’ Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250 (June 10, 2020).

³ See 47 CFR § 1.6100 (c)(3). ⁴ See 2020 Upgrade Order at paragraph 16.



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The proposed scope of work for this project includes:

Add or replace antennas and ancillary equipment as per plans for an existing carrier on an existing wireless communication facility.

At the end of this letter is a checklist of the applicable substantial change criteria under Section 6409. Additionally, please find enclosed the following information in support of this request:

- (1) Concurrent Zoning and Building Permit;
- (2) Construction Drawings;
- (3) Structural Analysis; and
- (4) Section 6409 Substantial Change Checklist.

As these documents indicate, (i) the modification involves the collocation, removal or replacement of transmission equipment; and (ii) such modification will not substantially change the physical dimensions of such tower or base station. As such, it is an “eligible facilities request” as defined in the FCC’s rules to which the 60-day deadline for approval applies. Accordingly, Applicant requests all authorization necessary for this proposed minor modification under Section 6409.

Our goal is to work with you to obtain approvals earlier than the deadline. We will respond promptly to any request for related information you may have in connection with this request. Please let us know how we can work with you to expedite the approval process. We look forward to working with you on this important project, which will improve wireless telecommunication services in your community using collocation on existing infrastructure. If you have any questions, please do not hesitate to contact me.

Regards,

Christina Wilburn

Christina Wilburn
Site Acquisition Specialist
Crown Castle, Agent for Applicant
(773) 628-4388
Christina.Wilburn@crowncastle.com



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**Section 6409 Substantial Change Checklist
Towers Outside of the Public Right of Way**

The Federal Communications Commission has determined that a modification substantially changes the physical dimension of a wireless tower or base station under 47 U.S.C. § 1455(a) if it meets one of six enumerated criteria under 47 C.F.R. § 1.6100.

Criteria for Towers Outside the Public Rights of Way

YES/NO NO	Does the modification increase the height of the tower by more than the greater of: (a) 10% (b) or, the height of an additional antenna array plus separation of up to 20 feet from the top of the nearest existing antenna?
YES/NO NO	Does the modification add an appurtenance to the body of the tower that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater?
YES/NO NO	Does the modification involve the installation of more than the standard number of new equipment cabinets for the technology involved or add more than four new equipment cabinets?
YES/NO NO	Does the modification entail any excavation or deployment outside the current site by more than 30 feet in any direction, not including any access or utility easements?
YES/NO NO	Does the modification defeat the concealment elements of the eligible support structure?
YES/NO NO	Does the modification violate conditions associated with the siting approval with the prior approval the tower or base station other than as specified in 47 C.F.R. § 1.6100(c)(7)(i) – (iv)?

If all questions in the above section are answered “NO,” then the modification does not constitute a substantial change to the existing tower under 47 C.F.R. § 1.6100.

Date: **August 11, 2022**



Crown Castle
2000 Corporate Drive
Canonsburg, PA
(724) 416-2000

Subject: **Structural Analysis Report**

Carrier Designation: **T-Mobile Co-Locate**
Site Number: ML11046B

Crown Castle Designation: **BU Number:** 827008
Site Name: River Point Shopping Cent
JDE Job Number: 723751
Work Order Number: 2147834
Order Number: 624081 Rev. 2

Engineering Firm Designation: **Crown Castle Project Number:** 2147834

Site Data: **8615 N Port Washington Rd, Fox Point, Milwaukee County, WI**
Latitude 43° 10' 33.63", Longitude -87° 54' 54.28"
130 Foot - Monopole Tower

Crown Castle is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

Sufficient Capacity

This analysis utilizes an ultimate 3-second gust wind speed of 115 mph as required by the 2015 International Building Code. Applicable Standard references and design criteria are listed in Section 2 - "Analysis Criteria".

Structural analysis prepared by: Nicholas Palladino

Respectfully submitted by:

Maribel Dentinger
Maribel Dentinger, P.E.
Senior Project Engineer

Maribel
Dentinger

Digitally signed by
Maribel Dentinger
Date: 2022.08.12
14:46:49 -04'00'



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August 11, 2022
CCI BU No 827008
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130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2

1) INTRODUCTION

This tower is a 130 ft Monopole tower designed by PIROD MANUFACTURES INC. The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	115 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	40 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
125.0	127.0	3	commscope	FFVW-65C-R3-V1_TMO w/ Mount Pipe	12	3/8 7/8 1-1/2
		2	commscope	HCS 2.0 Part 1		
		3	nokia	AEHC w/ Mount Pipe		
		3	nokia	AHFIG_TMO		
	125.0	3	nokia	AHLOA_T-MOBILE		
		1	tower mounts	Sabre M.O.V.E Platform		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
115.0	115.0	3	fujitsu	TA08025-B604	1	1-1/2
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
		1	tower mounts	Commscope MC-PK8-DSH		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	3499149	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	3903109	CCISITES
4-TOWER MANUFACTURER DRAWINGS	3499150	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	9823584	CCISITES
4-POST-MODIFICATION INSPECTION	10262128	CCISITES

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Crown Castle should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	130 - 90	Pole	P24x.375	1	-10.93	920.56	46.1	Pass
L2	90 - 60	Pole	P36x.375	2	-16.44	1564.60	39.3	Pass
L3	60 - 30	Pole	P36x.375	3	-22.05	1564.60	63.1	Pass
L4	30 - 0	Pole	P36x.375	4	-27.81	1564.60	89.0	Pass
							Summary	
						Pole (L4)	89.0	Pass
						Rating =	89.0	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	88.6	Pass
1	Base Plate	0	96.4	Pass
1	Base Foundation (Structure)	0	46.8	Pass
1	Base Foundation (Soil Interaction)	0	19.9	Pass
1	Flange Connection	90	37.9	Pass
1	Flange Connection	60	61.0	Pass
1	Flange Connection	30	98.0	Pass

Structure Rating (max from all components) =	98%
---	------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

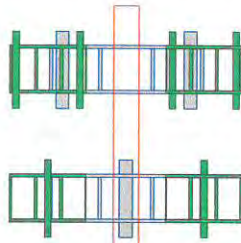
*130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2*

*August 11, 2022
CCI BU No 827008
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APPENDIX A

TNXTOWER OUTPUT

130.0 ft



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	60 ksi	A53-B-42	42 ksi	63 ksi

TOWER DESIGN NOTES

1. Tower is located in Milwaukee County, Wisconsin.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 115 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 40 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 89%

90.0 ft

60.0 ft

30.0 ft

0.0 ft

ALL REACTIONS
ARE FACTORED

AXIAL
42 K

SHEAR
3 K

MOMENT
344 kip-ft

TORQUE 0 kip-ft
40 mph WIND - 1.5000 in ICE

AXIAL
28 K

SHEAR
12 K

MOMENT
1225 kip-ft

TORQUE 0 kip-ft
REACTIONS - 115 mph WIND

Section

Size

Length (ft)

Grade

Weight (K)

1

P24x375

40.00

A53-B-35

3.8

2

P36x375

30.00

4.3

3

P36x375

30.00

4.3

4

P36x375

30.00

4.3

A53-B-42

16.6

Crown Castle
2000 Corporate Drive
Canonsburg, PA
Phone: (724) 416-2000
FAX:

Job: **827008**

Project:

Client: Crown Castle

Code: TIA-222-H

Path:

Drawn by: NPalladino

Date: 08/11/22

Scale: NTS

Dwg No. E-1

C:\Users\inpalladino\SAI\Work Area\827008\W\20 2147834 - SAI\Print\827008_LC7.dwg

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower is located in Milwaukee County, Wisconsin.
- Tower base elevation above sea level: 685.00 ft.
- Basic wind speed of 115 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.5000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 40 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Diagonals	✓ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	✓ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
✓ Use Code Stress Ratios	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
✓ Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	✓ Bypass Mast Stability Checks	✓ Consider Feed Line Torque
Always Use Max Kz	✓ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	✓ Project Wind Area of Appurt.	Use TIA-222-H Bracing Resist.
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Use TIA-222-H Tension Splice
Secondary Horizontal Braces Leg	✓ Sort Capacity Reports By Component	Exemption
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Poles
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	✓ Include Shear-Torsion Interaction
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Always Use Sub-Critical Flow
		Use Top Mounted Sockets
		✓ Pole Without Linear Attachments
		Pole With Shroud Or No
		Appurtenances
		Outside and Inside Corner Radii Are
		Known

Pole Section Geometry

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130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L1	130.00-90.00	40.00	P24x.375	A53-B-35 (35 ksi)	
L2	90.00-60.00	30.00	P36x.375	A53-B-42 (42 ksi)	
L3	60.00-30.00	30.00	P36x.375	A53-B-42 (42 ksi)	
L4	30.00-0.00	30.00	P36x.375	A53-B-42 (42 ksi)	

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 130.00- 90.00				1	1	1			
L2 90.00- 60.00				1	1	1			
L3 60.00- 30.00				1	1	1			
L4 30.00-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter r in	Weight klf

**											

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight klf
LDF2-50(3/8)	C	No	No	Inside Pole	125.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
LDF5-50A(7/8)	C	No	No	Inside Pole	125.00 - 0.00	12	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00
HCS 2.0 Part 3(1- 1/2)	C	No	No	Inside Pole	125.00 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00

**								
*								
CU12PSM9P6XXX (1-1/2)	C	No	No	Inside Pole	115.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00

130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2

August 11, 2022
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Feed Line/Linear Appurtenances Section Areas

Tower Section n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	130.00-90.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.32
L2	90.00-60.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.29
L3	60.00-30.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.29
L4	30.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.29

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	130.00-90.00	A	1.438	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.32
L2	90.00-60.00	A	1.384	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.29
L3	60.00-30.00	A	1.315	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.29
L4	30.00-0.00	A	1.178	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.29

Feed Line Center of Pressure

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
L1	130.00-90.00	0.0000	0.0000	0.0000	0.0000
L2	90.00-60.00	0.0000	0.0000	0.0000	0.0000
L3	60.00-30.00	0.0000	0.0000	0.0000	0.0000
L4	30.00-0.00	0.0000	0.0000	0.0000	0.0000

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Discrete Tower Loads

130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2

August 11, 2022
CCI BU No 827008
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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft

AEHC w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
AEHC w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
AEHC w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
HCS 2.0 Part 1	A	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
HCS 2.0 Part 1	B	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
AHFIG_TMO	A	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
AHFIG_TMO	B	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
AHFIG_TMO	C	From Centroid-Leg	4.00 0.00 2.00	0.0000	125.00
(2) 2.4" Dia. x 10-ft Mount Pipe	A	From Centroid-Leg	4.00 0.00 0.00	0.0000	125.00
(2) 2.4" Dia. x 10-ft Mount Pipe	B	From Centroid-Leg	4.00 0.00 0.00	0.0000	125.00
(2) 2.4" Dia. x 10-ft Mount Pipe	C	From Centroid-Leg	4.00 0.00 0.00	0.0000	125.00
Sabre M.O.V.E Platform	C	None	0.00	0.0000	125.00

**					
*					
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	115.00
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	115.00
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	115.00
TA08025-B604	A	From Leg	4.00 0.00 0.00	0.0000	115.00
TA08025-B604	B	From Leg	4.00 0.00 0.00	0.0000	115.00
TA08025-B604	C	From Leg	4.00 0.00 0.00	0.0000	115.00
TA08025-B605	A	From Leg	4.00 0.00 0.00	0.0000	115.00
TA08025-B605	B	From Leg	4.00 0.00 0.00	0.0000	115.00
TA08025-B605	C	From Leg	4.00 0.00 0.00	0.0000	115.00

130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2

August 11, 2022
CCI BU No 827008
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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
RDIDC-9181-PF-48	A	From Leg	4.00 0.00 0.00	0.0000	115.00
Commscope MC-PK8-DSH (2) 8' x 2" Mount Pipe	C A	None From Leg	4.00 0.00 0.00	0.0000 0.0000	115.00 115.00
(2) 8' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	115.00
(2) 8' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	115.00
* FFVV-65C-R3-V1_TMO w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	125.00
FFVV-65C-R3-V1_TMO w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	125.00
FFVV-65C-R3-V1_TMO w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	125.00
AHLOA_T-MOBILE	A	From Leg	4.00 0.00 0.00	0.0000	125.00
AHLOA_T-MOBILE	B	From Leg	4.00 0.00 0.00	0.0000	125.00
AHLOA_T-MOBILE	C	From Leg	4.00 0.00 0.00	0.0000	125.00

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice

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Comb. No.	Description
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	130 - 90	Pole	Max Tension	2	0.00	0.00	-0.00
			Max. Compression	26	-19.75	-0.29	0.62
			Max. Mx	8	-10.93	-251.67	-0.38
			Max. My	2	-10.93	0.47	253.32
			Max. Vy	8	8.56	-251.67	-0.38
			Max. Vx	2	-8.62	0.47	253.32
			Max. Torque	11			0.30
L2	90 - 60	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.14	-0.29	0.62
			Max. Mx	8	-16.44	-534.27	-0.83
			Max. My	2	-16.44	0.92	537.54
			Max. Vy	8	10.26	-534.27	-0.83
			Max. Vx	2	-10.31	0.92	537.54
			Max. Torque	11			0.30
L3	60 - 30	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.44	-0.29	0.62
			Max. Mx	8	-22.05	-862.02	-1.28
			Max. My	2	-22.05	1.37	866.93
			Max. Vy	8	11.56	-862.02	-1.28
			Max. Vx	2	-11.61	1.37	866.93
			Max. Torque	11			0.30
L4	30 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.54	-0.29	0.62
			Max. Mx	8	-27.81	-1218.71	-1.71
			Max. My	2	-27.81	1.80	1225.20
			Max. Vy	8	12.18	-1218.71	-1.71
			Max. Vx	2	-12.23	1.80	1225.20
			Max. Torque	11			0.30

Maximum Reactions

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Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	41.54	0.00	3.44
	Max. H _x	20	27.82	12.16	0.01
	Max. H _z	2	27.82	0.01	12.21
	Max. M _x	2	1225.20	0.01	12.21
	Max. M _z	8	1218.71	-12.16	-0.01
	Max. Torsion	11	0.30	-10.54	-6.12
	Min. Vert	19	20.86	10.52	-6.09
	Min. H _x	8	27.82	-12.16	-0.01
	Min. H _z	14	27.82	-0.01	-12.21
	Min. M _x	14	-1224.84	-0.01	-12.21
	Min. M _z	20	-1218.53	12.16	0.01
	Min. Torsion	23	-0.30	10.54	6.12

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
Dead Only	23.18	0.00	0.00	-0.14	-0.07	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	27.82	-0.01	-12.21	-1225.20	1.80	0.11
0.9 Dead+1.0 Wind 0 deg - No Ice	20.86	-0.01	-12.21	-1209.11	1.80	0.11
1.2 Dead+1.0 Wind 30 deg - No Ice	27.82	6.07	-10.57	-1060.15	-607.76	-0.04
0.9 Dead+1.0 Wind 30 deg - No Ice	20.86	6.07	-10.57	-1046.21	-599.78	-0.04
1.2 Dead+1.0 Wind 60 deg - No Ice	27.82	10.52	-6.09	-611.06	-1054.51	-0.19
0.9 Dead+1.0 Wind 60 deg - No Ice	20.86	10.52	-6.09	-603.01	-1040.67	-0.19
1.2 Dead+1.0 Wind 90 deg - No Ice	27.82	12.16	0.01	1.71	-1218.71	-0.28
0.9 Dead+1.0 Wind 90 deg - No Ice	20.86	12.16	0.01	1.73	-1202.73	-0.28
1.2 Dead+1.0 Wind 120 deg - No Ice	27.82	10.54	6.12	613.98	-1056.40	-0.30
0.9 Dead+1.0 Wind 120 deg - No Ice	20.86	10.54	6.12	605.97	-1042.53	-0.30
1.2 Dead+1.0 Wind 150 deg - No Ice	27.82	6.09	10.58	1061.67	-611.04	-0.24
0.9 Dead+1.0 Wind 150 deg - No Ice	20.86	6.09	10.58	1047.80	-603.01	-0.24
1.2 Dead+1.0 Wind 180 deg - No Ice	27.82	0.01	12.21	1224.84	-1.98	-0.11
0.9 Dead+1.0 Wind 180 deg - No Ice	20.86	0.01	12.21	1208.84	-1.93	-0.11
1.2 Dead+1.0 Wind 210 deg - No Ice	27.82	-6.07	10.57	1059.78	607.58	0.05
0.9 Dead+1.0 Wind 210 deg - No Ice	20.86	-6.07	10.57	1045.94	599.65	0.05
1.2 Dead+1.0 Wind 240 deg - No Ice	27.82	-10.52	6.09	610.70	1054.33	0.19
0.9 Dead+1.0 Wind 240 deg - No Ice	20.86	-10.52	6.09	602.74	1040.54	0.19
1.2 Dead+1.0 Wind 270 deg - No Ice	27.82	-12.16	-0.01	-2.07	1218.53	0.28
0.9 Dead+1.0 Wind 270 deg - No Ice	20.86	-12.16	-0.01	-2.00	1202.59	0.28
1.2 Dead+1.0 Wind 300 deg - No Ice	27.82	-10.54	-6.12	-614.34	1056.22	0.30
0.9 Dead+1.0 Wind 300 deg - No Ice	20.86	-10.54	-6.12	-606.24	1042.40	0.30
1.2 Dead+1.0 Wind 330 deg	27.82	-6.09	-10.58	-1062.04	610.86	0.24

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Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
- No Ice						
0.9 Dead+1.0 Wind 330 deg	20.86	-6.09	-10.58	-1048.07	602.88	0.24
- No Ice						
1.2 Dead+1.0 Ice+1.0 Temp	41.54	0.00	0.00	-0.62	-0.29	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	41.54	-0.00	-3.44	-343.63	-0.06	0.02
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	41.54	1.72	-2.98	-297.55	-171.11	-0.01
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	41.54	2.97	-1.72	-171.94	-296.39	-0.03
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	41.54	3.44	0.00	-0.45	-342.35	-0.04
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	41.54	2.98	1.72	170.97	-296.66	-0.05
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	41.54	1.72	2.98	296.38	-171.58	-0.04
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	41.54	0.00	3.44	342.19	-0.61	-0.02
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	41.54	-1.72	2.98	296.11	170.43	0.01
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	41.54	-2.97	1.72	170.50	295.72	0.03
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	41.54	-3.44	-0.00	-0.99	341.67	0.04
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	41.54	-2.98	-1.72	-172.41	295.99	0.05
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	41.54	-1.72	-2.98	-297.82	170.90	0.04
Dead+Wind 0 deg - Service	23.18	-0.00	-3.13	-311.66	0.41	0.03
Dead+Wind 30 deg - Service	23.18	1.56	-2.71	-269.69	-154.60	-0.01
Dead+Wind 60 deg - Service	23.18	2.70	-1.56	-155.49	-268.20	-0.05
Dead+Wind 90 deg - Service	23.18	3.12	0.00	0.33	-309.96	-0.07
Dead+Wind 120 deg - Service	23.18	2.70	1.57	156.02	-268.68	-0.08
Dead+Wind 150 deg - Service	23.18	1.56	2.71	269.87	-155.43	-0.06
Dead+Wind 180 deg - Service	23.18	0.00	3.13	311.36	-0.56	-0.03
Dead+Wind 210 deg - Service	23.18	-1.56	2.71	269.39	154.45	0.01
Dead+Wind 240 deg - Service	23.18	-2.70	1.56	155.19	268.05	0.05
Dead+Wind 270 deg - Service	23.18	-3.12	-0.00	-0.63	309.81	0.07
Dead+Wind 300 deg - Service	23.18	-2.70	-1.57	-156.32	268.53	0.08
Dead+Wind 330 deg - Service	23.18	-1.56	-2.71	-270.17	155.28	0.06

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-23.18	0.00	0.00	23.18	0.00	0.000%
2	-0.01	-27.82	-12.21	0.01	27.82	12.21	0.000%
3	-0.01	-20.86	-12.21	0.01	20.86	12.21	0.000%
4	6.07	-27.82	-10.57	-6.07	27.82	10.57	0.000%
5	6.07	-20.86	-10.57	-6.07	20.86	10.57	0.000%
6	10.52	-27.82	-6.09	-10.52	27.82	6.09	0.000%
7	10.52	-20.86	-6.09	-10.52	20.86	6.09	0.000%
8	12.16	-27.82	0.01	-12.16	27.82	-0.01	0.000%
9	12.16	-20.86	0.01	-12.16	20.86	-0.01	0.000%
10	10.54	-27.82	6.12	-10.54	27.82	-6.12	0.000%
11	10.54	-20.86	6.12	-10.54	20.86	-6.12	0.000%
12	6.09	-27.82	10.58	-6.09	27.82	-10.58	0.000%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
13	6.09	-20.86	10.58	-6.09	20.86	-10.58	0.000%
14	0.01	-27.82	12.21	-0.01	27.82	-12.21	0.000%
15	0.01	-20.86	12.21	-0.01	20.86	-12.21	0.000%
16	-6.07	-27.82	10.57	6.07	27.82	-10.57	0.000%
17	-6.07	-20.86	10.57	6.07	20.86	-10.57	0.000%
18	-10.52	-27.82	6.09	10.52	27.82	-6.09	0.000%
19	-10.52	-20.86	6.09	10.52	20.86	-6.09	0.000%
20	-12.16	-27.82	-0.01	12.16	27.82	0.01	0.000%
21	-12.16	-20.86	-0.01	12.16	20.86	0.01	0.000%
22	-10.54	-27.82	-6.12	10.54	27.82	6.12	0.000%
23	-10.54	-20.86	-6.12	10.54	20.86	6.12	0.000%
24	-6.09	-27.82	-10.58	6.09	27.82	10.58	0.000%
25	-6.09	-20.86	-10.58	6.09	20.86	10.58	0.000%
26	0.00	-41.54	0.00	0.00	41.54	0.00	0.000%
27	-0.00	-41.54	-3.44	0.00	41.54	3.44	0.000%
28	1.72	-41.54	-2.98	-1.72	41.54	2.98	0.000%
29	2.97	-41.54	-1.72	-2.97	41.54	1.72	0.000%
30	3.44	-41.54	0.00	-3.44	41.54	-0.00	0.000%
31	2.98	-41.54	1.72	-2.98	41.54	-1.72	0.000%
32	1.72	-41.54	2.98	-1.72	41.54	-2.98	0.000%
33	0.00	-41.54	3.44	-0.00	41.54	-3.44	0.000%
34	-1.72	-41.54	2.98	1.72	41.54	-2.98	0.000%
35	-2.97	-41.54	1.72	2.97	41.54	-1.72	0.000%
36	-3.44	-41.54	-0.00	3.44	41.54	0.00	0.000%
37	-2.98	-41.54	-1.72	2.98	41.54	1.72	0.000%
38	-1.72	-41.54	-2.98	1.72	41.54	2.98	0.000%
39	-0.00	-23.18	-3.13	0.00	23.18	3.13	0.000%
40	1.56	-23.18	-2.71	-1.56	23.18	2.71	0.000%
41	2.70	-23.18	-1.56	-2.70	23.18	1.56	0.000%
42	3.12	-23.18	0.00	-3.12	23.18	-0.00	0.000%
43	2.70	-23.18	1.57	-2.70	23.18	-1.57	0.000%
44	1.56	-23.18	2.71	-1.56	23.18	-2.71	0.000%
45	0.00	-23.18	3.13	-0.00	23.18	-3.13	0.000%
46	-1.56	-23.18	2.71	1.56	23.18	-2.71	0.000%
47	-2.70	-23.18	1.56	2.70	23.18	-1.56	0.000%
48	-3.12	-23.18	-0.00	3.12	23.18	0.00	0.000%
49	-2.70	-23.18	-1.57	2.70	23.18	1.57	0.000%
50	-1.56	-23.18	-2.71	1.56	23.18	2.71	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00052941
3	Yes	4	0.00000001	0.00023797
4	Yes	6	0.00000001	0.00006866
5	Yes	5	0.00000001	0.00006639
6	Yes	6	0.00000001	0.00006929
7	Yes	5	0.00000001	0.00061239
8	Yes	4	0.00000001	0.00070250
9	Yes	4	0.00000001	0.00040251
10	Yes	6	0.00000001	0.00006828
11	Yes	5	0.00000001	0.00060302
12	Yes	6	0.00000001	0.00007017
13	Yes	5	0.00000001	0.00062008
14	Yes	4	0.00000001	0.00059519
15	Yes	4	0.00000001	0.00030244
16	Yes	6	0.00000001	0.00006886
17	Yes	5	0.00000001	0.00060847
18	Yes	6	0.00000001	0.00006797
19	Yes	5	0.00000001	0.00060053
20	Yes	4	0.00000001	0.00082355
21	Yes	4	0.00000001	0.00049890
22	Yes	6	0.00000001	0.00007026

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23	Yes	5	0.00000001	0.00062102
24	Yes	6	0.00000001	0.00006863
25	Yes	5	0.00000001	0.00060593
26	Yes	4	0.00000001	0.00000001
27	Yes	5	0.00000001	0.00053901
28	Yes	5	0.00000001	0.00061495
29	Yes	5	0.00000001	0.00061442
30	Yes	5	0.00000001	0.00053649
31	Yes	5	0.00000001	0.00061146
32	Yes	5	0.00000001	0.00061241
33	Yes	5	0.00000001	0.00053509
34	Yes	5	0.00000001	0.00060910
35	Yes	5	0.00000001	0.00060829
36	Yes	5	0.00000001	0.00053465
37	Yes	5	0.00000001	0.00061392
38	Yes	5	0.00000001	0.00061430
39	Yes	4	0.00000001	0.00007022
40	Yes	4	0.00000001	0.00040086
41	Yes	4	0.00000001	0.00041342
42	Yes	4	0.00000001	0.00007702
43	Yes	4	0.00000001	0.00039006
44	Yes	4	0.00000001	0.00042028
45	Yes	4	0.00000001	0.00007065
46	Yes	4	0.00000001	0.00040397
47	Yes	4	0.00000001	0.00039069
48	Yes	4	0.00000001	0.00007818
49	Yes	4	0.00000001	0.00042369
50	Yes	4	0.00000001	0.00039422

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	130 - 90	14.791	39	0.8450	0.0008
L2	90 - 60	8.056	39	0.6953	0.0004
L3	60 - 30	4.039	39	0.5678	0.0003
L4	30 - 0	1.130	39	0.3403	0.0001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
125.00	AHC w/ Mount Pipe	39	13.906	0.8261	0.0007	73857
115.00	MX08FRO665-21 w/ Mount Pipe	39	12.154	0.7883	0.0006	24619

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	130 - 90	58.180	2	3.3243	0.0031
L2	90 - 60	31.695	2	2.7362	0.0015
L3	60 - 30	15.892	2	2.2348	0.0010
L4	30 - 0	4.446	2	1.3388	0.0005

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
125.00	AEHC w/ Mount Pipe	2	54.702	3.2500	0.0029	18914
115.00	MX08FRO665-21 w/ Mount Pipe	2	47.810	3.1017	0.0024	6304

Compression Checks

Pole Design Data

Section No.	Elevation	Size	L	L _u	KI/r	A	P _u	φP _n	Ratio P _u /φP _n
	ft		ft	ft		in ²	K	K	
L1	130 - 90 (1)	P24x.375	40.00	0.00	0.0	27.8325	-10.93	876.73	0.012
L2	90 - 60 (2)	P36x.375	30.00	0.00	0.0	41.9697	-16.44	1490.10	0.011
L3	60 - 30 (3)	P36x.375	30.00	0.00	0.0	41.9697	-22.05	1490.10	0.015
L4	30 - 0 (4)	P36x.375	30.00	0.00	0.0	41.9697	-27.81	1490.10	0.019

Pole Bending Design Data

Section No.	Elevation	Size	M _{ux}	φM _{ux}	Ratio M _{ux} /φM _{ux}	M _{uy}	φM _{uy}	Ratio M _{uy} /φM _{uy}
	ft		kip-ft	kip-ft		kip-ft	kip-ft	
L1	130 - 90 (1)	P24x.375	253.34	538.74	0.470	0.00	538.74	0.000
L2	90 - 60 (2)	P36x.375	537.55	1338.81	0.402	0.00	1338.81	0.000
L3	60 - 30 (3)	P36x.375	866.93	1338.81	0.648	0.00	1338.81	0.000
L4	30 - 0 (4)	P36x.375	1225.20	1338.81	0.915	0.00	1338.81	0.000

Pole Shear Design Data

Section No.	Elevation	Size	Actual V _u	φV _n	Ratio V _u /φV _n	Actual T _u	φT _n	Ratio T _u /φT _n
	ft		K	K		kip-ft	kip-ft	
L1	130 - 90 (1)	P24x.375	8.62	263.02	0.033	0.24	546.31	0.000
L2	90 - 60 (2)	P36x.375	10.31	454.19	0.023	0.24	1094.28	0.000
L3	60 - 30 (3)	P36x.375	11.61	454.19	0.026	0.24	1094.28	0.000
L4	30 - 0 (4)	P36x.375	12.23	454.19	0.027	0.11	1094.28	0.000

Pole Interaction Design Data

Section No.	Elevation	Ratio P _u /φP _n	Ratio M _{ux} /φM _{ux}	Ratio M _{uy} /φM _{uy}	Ratio V _u /φV _n	Ratio T _u /φT _n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	ft								
L1	130 - 90 (1)	0.012	0.470	0.000	0.033	0.000	0.484	1.050	4.8.2

130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2

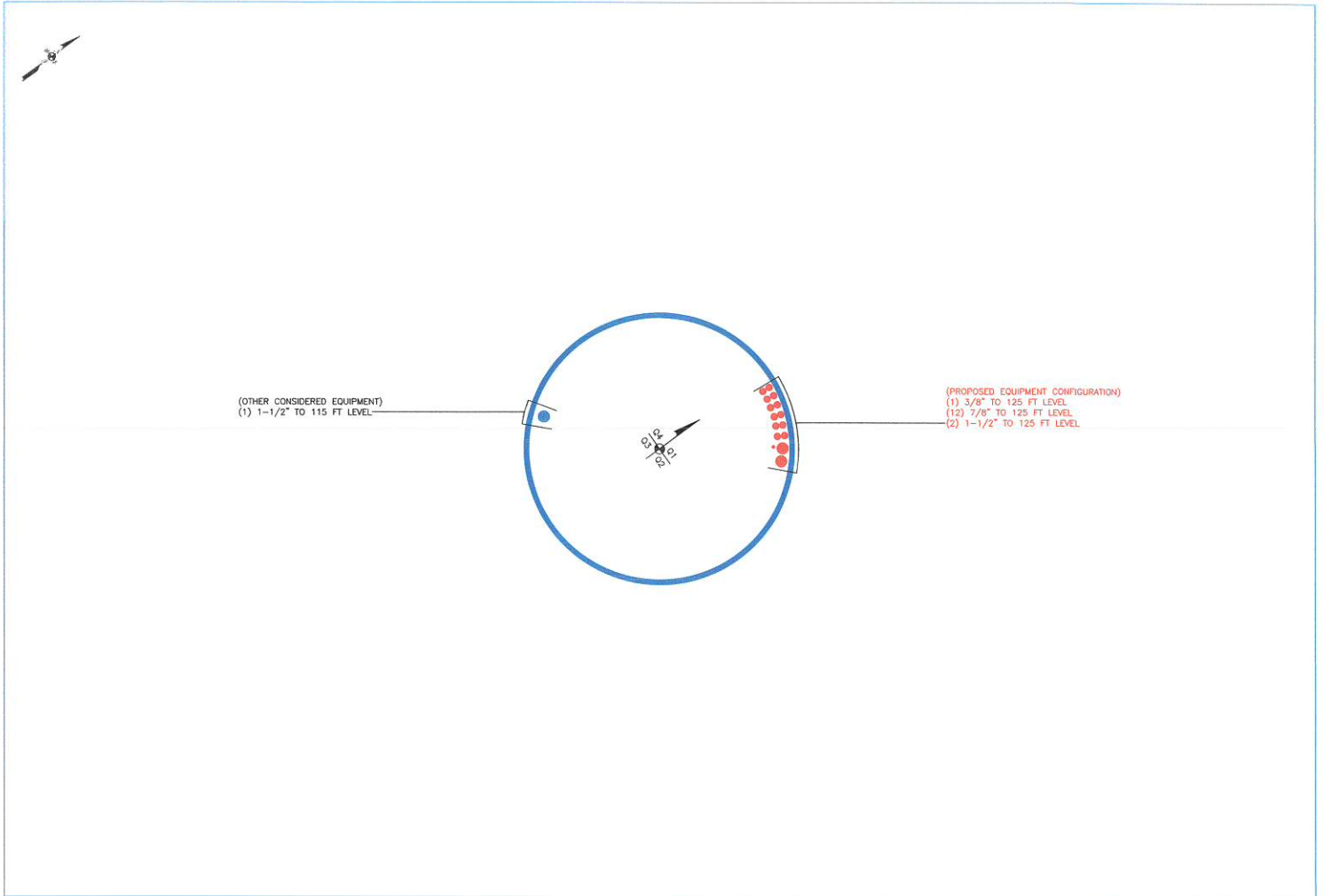
August 11, 2022
CCI BU No 827008
Page 17

Section No.	Elevation ft	Ratio P_u ϕP_n	Ratio M_{ux} ϕM_{nx}	Ratio M_{uy} ϕM_{ny}	Ratio V_u ϕV_n	Ratio T_u ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L2	90 - 60 (2)	0.011	0.402	0.000	0.023	0.000	0.413	1.050	4.8.2
L3	60 - 30 (3)	0.015	0.648	0.000	0.026	0.000	0.663	1.050	4.8.2
L4	30 - 0 (4)	0.019	0.915	0.000	0.027	0.000	0.935	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	130 - 90	Pole	P24x.375	1	-10.93	920.56	46.1	Pass
L2	90 - 60	Pole	P36x.375	2	-16.44	1564.60	39.3	Pass
L3	60 - 30	Pole	P36x.375	3	-22.05	1564.60	63.1	Pass
L4	30 - 0	Pole	P36x.375	4	-27.81	1564.60	89.0	Pass
							Summary	
							Pole (L4)	89.0 Pass
							RATING =	89.0 Pass

APPENDIX B
BASE LEVEL DRAWING



*130 Ft Monopole Tower Structural Analysis
Project Number 2147834, Order 624081, Revision 2*

*August 11, 2022
CCI BU No 827008
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APPENDIX C
ADDITIONAL CALCULATIONS

Monopole Flange Plate Connection

Elevation = 90 ft.

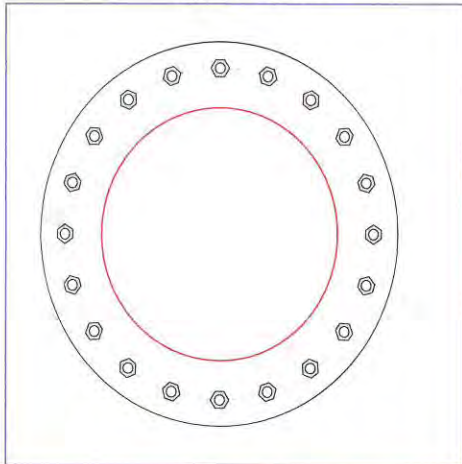


BU #	827008
Site Name	ver Point Shopping Ce
Order #	624081 Rev. 2
TIA-222 Revision	H

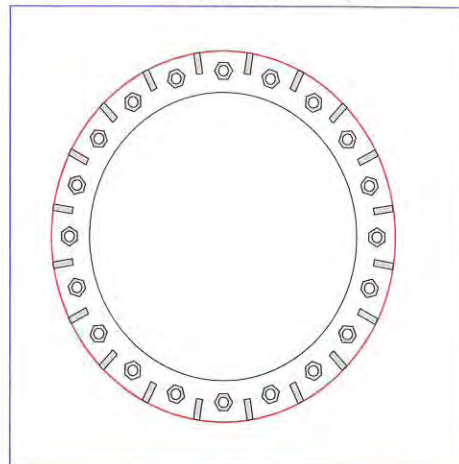
Applied Loads	
Moment (kip-ft)	253.34
Axial Force (kips)	10.93
Shear Force (kips)	8.62

*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - Internal



Connection Properties

Bolt Data

(20) 1" ϕ bolts (A325 N; $F_y=92$ ksi, $F_u=120$ ksi) on 31.5" BC

Top Plate Data

36.5" OD x 2" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi)

Top Stiffener Data

N/A

Top Pole Data

24" x 0.375" round pole (A53-B-35; $F_y=35$ ksi, $F_u=60$ ksi)

Bottom Plate Data

27.375" ID x 1.125" Plate (A36; $F_y=36$ ksi, $F_u=58$ ksi)

Bottom Stiffener Data

(20) 3.5"H x 2"W x 0.625"T, Notch: 0.5"
plate: $F_y=36$ ksi ; weld: $F_y=70$ ksi
horiz. weld: 0.375" fillet
vert. weld: 0.375" fillet

Bottom Pole Data

36" x 0.375" round pole (A53-B-42; $F_y=42$ ksi, $F_u=63$ ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	18.75
Allowable (kips)	54.54
Stress Rating:	32.7% Pass

Top Plate Capacity

Max Stress (ksi):	10.37	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	21.9%	Pass
Tension Side Stress Rating:	15.3%	Pass

Top Stiffener Capacity

Horizontal Weld:	N/A
Vertical Weld:	N/A
Plate Flexure+Shear:	N/A
Plate Tension+Shear:	N/A
Plate Compression:	N/A

Top Pole Capacity

Punching Shear:	N/A
-----------------	-----

Bottom Plate Capacity

Max Stress (ksi):	12.90	(Roark's Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	37.9%	Pass
Tension Side Stress Rating:	N/A	

Bottom Stiffener Capacity

Horizontal Weld:	22.6%	Pass
Vertical Weld:	13.6%	Pass
Plate Flexure+Shear:	9.2%	Pass
Plate Tension+Shear:	18.3%	Pass
Plate Compression:	24.7%	Pass

Bottom Pole Capacity

Punching Shear:	8.1%	Pass
-----------------	------	------

Monopole Flange Plate Connection

Elevation = 60 ft.

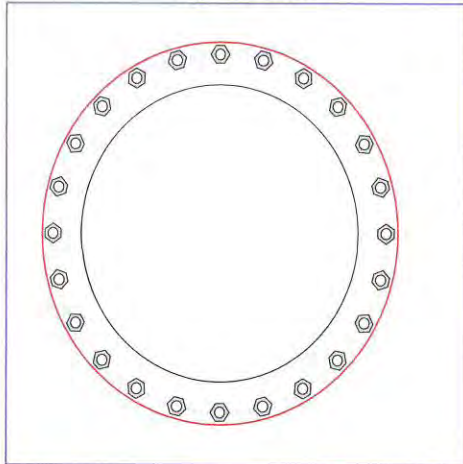


BU #	827008
Site Name	Ver Point Shopping Ce
Order #	624081 Rev. 2
TIA-222 Revision	H

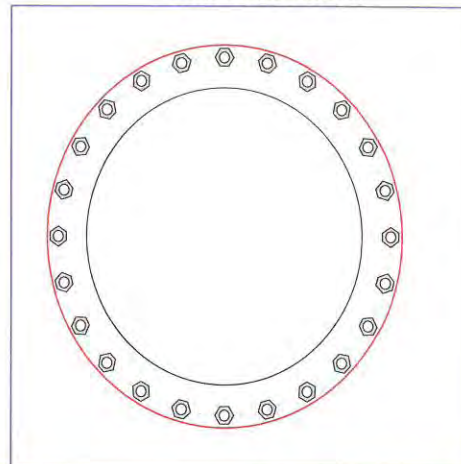
Applied Loads	
Moment (kip-ft)	537.55
Axial Force (kips)	16.44
Shear Force (kips)	10.31

*TIA-222-H Section 15.5 Applied

Top Plate - Internal



Bottom Plate - Internal



Connection Properties

Bolt Data

(24) 1" $\emptyset$ bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 33" BC

Top Plate Data

27.375" ID x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Top Pole Data

36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Bottom Plate Data

27.375" ID x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Stiffener Data

N/A

Bottom Pole Data

36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	31.88
Allowable (kips)	54.54
Stress Rating:	55.7% Pass

Top Plate Capacity

Max Stress (ksi):	20.75	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	61.0%	Pass
Tension Side Stress Rating:	11.4%	Pass

Bottom Plate Capacity

Max Stress (ksi):	20.75	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	61.0%	Pass
Tension Side Stress Rating:	11.4%	Pass

Monopole Flange Plate Connection

Elevation = 30 ft.

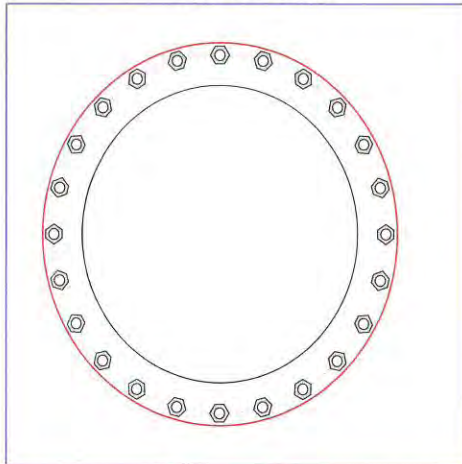


BU #	827008
Site Name	ver Point Shopping Ce
Order #	624081 Rev. 2
TIA-222 Revision	H

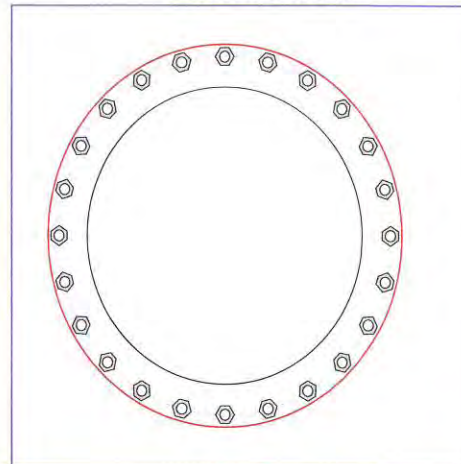
Applied Loads	
Moment (kip-ft)	866.93
Axial Force (kips)	22.05
Shear Force (kips)	11.61

*TIA-222-H Section 15.5 Applied

Top Plate - Internal



Bottom Plate - Internal



Connection Properties

Bolt Data

(24) 1" $\emptyset$ bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 33" BC

Top Plate Data

27.375" ID x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Top Pole Data

36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Bottom Plate Data

27.375" ID x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Stiffener Data

N/A

Bottom Pole Data

36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	51.60
Allowable (kips)	54.53
Stress Rating:	90.1% Pass

Top Plate Capacity

Max Stress (ksi):	33.36	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	98.0%	Pass
Tension Side Stress Rating:	27.0%	Pass

Bottom Plate Capacity

Max Stress (ksi):	33.36	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	98.0%	Pass
Tension Side Stress Rating:	27.0%	Pass

Monopole Base Plate Connection

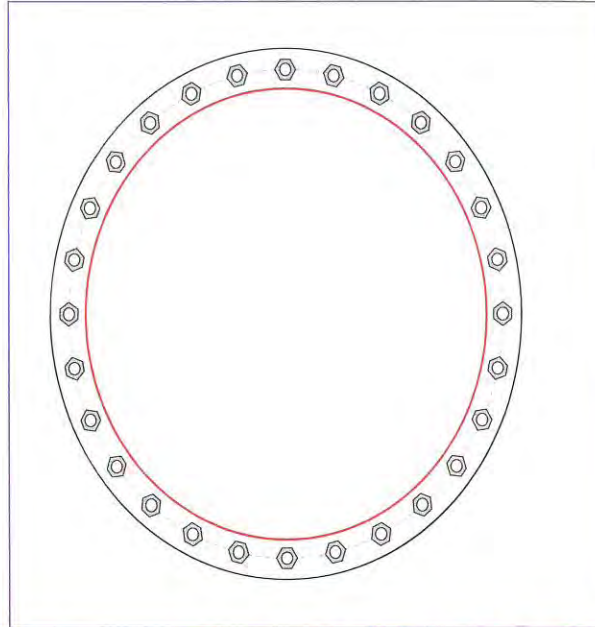


Site Info	
BU #	827008
Site Name	ver Point Shopping Ce
Order #	624081 Rev. 2

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{gr} (in)	1.625

Applied Loads	
Moment (kip-ft)	1225.20
Axial Force (kips)	27.81
Shear Force (kips)	12.23

*TIA-222-H Section 15.5 Applied



Connection Properties		Analysis Results	
Anchor Rod Data		Anchor Rod Summary <i>(units of kips, kip-in)</i>	
(28) 1" ϕ bolts (A687 N; Fy=105 ksi, Fu=125 ksi) on 39" BC		Pu_t = 52.85	ϕPn_t = 56.81
Base Plate Data		Vu = 0.44	ϕVn = 36.82
42.375" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)		Mu = 0.46	ϕMn = 15.75
Stiffener Data		Base Plate Summary	
N/A		Max Stress (ksi):	32.8 (Flexural)
Pole Data		Allowable Stress (ksi):	32.4
36" x 0.375" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)		Stress Rating:	96.4% Pass

Drilled Pier Foundation

BU #: 827008
Site Name: River Point Shopping Cent
Order Number: 624081 Rev. 2
TIA-222 Revision: H
Tower Type: Monopole



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	1225.2	
Axial Force (kips)	27.82	
Shear Force (kips)	12.21	

Material Properties		
Concrete Strength, fc:	3	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	40	ksi

Pier Design Data		
Depth	23	ft
Ext. Above Grade	0.5	ft
Pier Section 1		
From 0.5' above grade to 23' below grade		
Pier Diameter	4.5	ft
Rebar Quantity	24	
Rebar Size	10	
Clear Cover to Ties	3	in
Tie Size	5	
Tie Spacing	18	in

Rebar & Pier Options

Embedded Pole Inputs

Rebar Pier Inputs

Analysis Results			
Soil Lateral Check		Compression	Uplift
D _{req} (ft from TOC)	8.04	-	-
Soil Safety Factor	6.37	-	-
Max Moment (kip-ft)	1350.35	-	-
Rating*	19.9%	-	-
Soil Vertical Check		Compression	Uplift
Skin Friction (kips)	346.97	-	-
End Bearing (kips)	319.20	-	-
Weight of Concrete (kips)	67.28	-	-
Total Capacity (kips)	666.17	-	-
Axial (kips)	95.10	-	-
Rating*	13.6%	-	-
Reinforced Concrete Flexure		Compression	Uplift
Critical Depth (ft from TOC)	8.06	-	-
Critical Moment (kip-ft)	1350.35	-	-
Critical Moment Capacity	2749.24	-	-
Rating*	46.8%	-	-
Reinforced Concrete Shear		Compression	Uplift
Critical Depth (ft from TOC)	19.54	-	-
Critical Shear (kip)	89.45	-	-
Critical Shear Capacity	331.02	-	-
Rating*	25.7%	-	-

Check Limitation	
Apply TIA-222-H Section 15.5:	☒
N/A	☐
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	☐
Shear Design Options	
Check Shear along Depth of Pier:	☒
Utilize Shear-Friction Methodology:	☒
Override Critical Depth:	☐

[Go to Soil Calculations](#)

Shear-Friction Methodology is Applied

Structural Foundation Rating*	46.8%
Soil Interaction Rating*	19.9%

*Rating per TIA-222-H Section 15.5

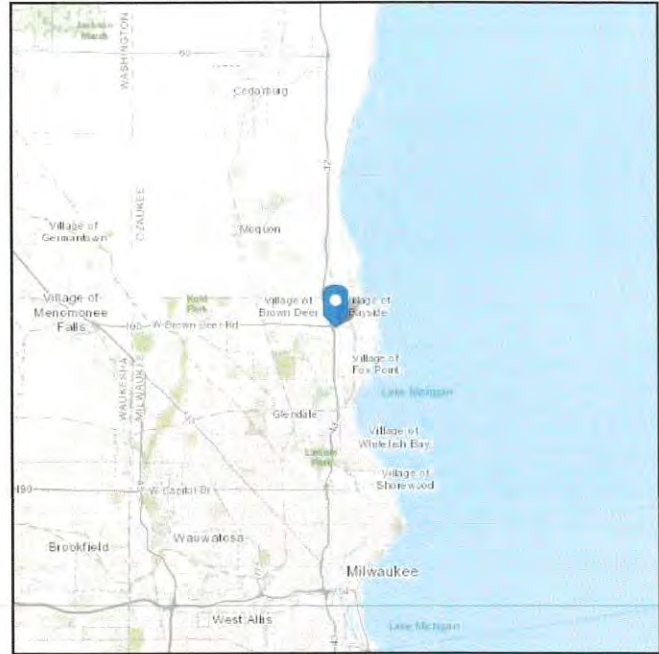
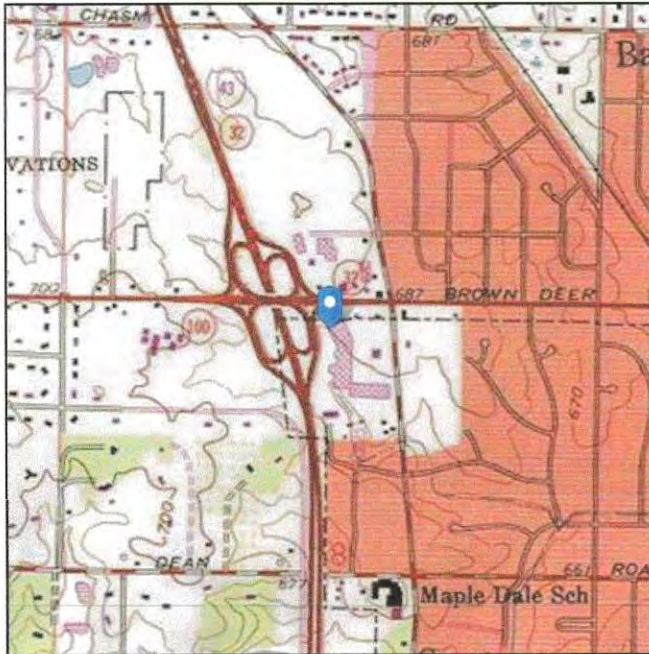
Soil Profile														
Groundwater Depth					# of Layers									
N/A					2									
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	Y _{soil} (pcf)	Y _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Net Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	7	7	120	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	7	23	16	120	150	4		2.045	2.045			24		Cohesive



ASCE 7 Hazards Report

Address:

No Address at This
Location

Standard: ASCE/SEI 7-10**Risk Category:** II**Soil Class:** D - Stiff Soil**Elevation:** 685.18 ft (NAVD 88)**Latitude:** 43.176008**Longitude:** -87.915078

Wind

Results:

Wind Speed:	115 Vmph
10-year MRI	76 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	96 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2.

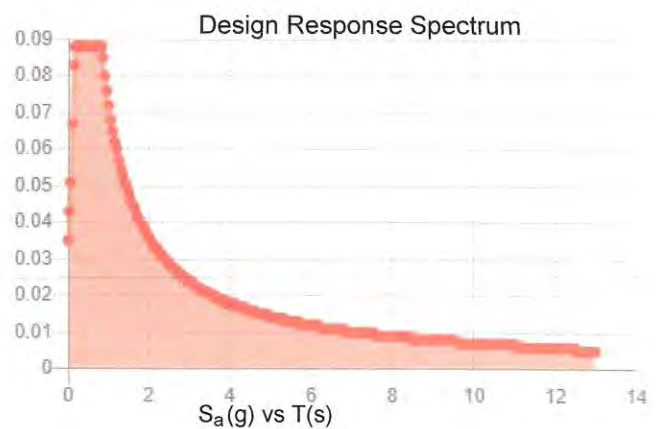
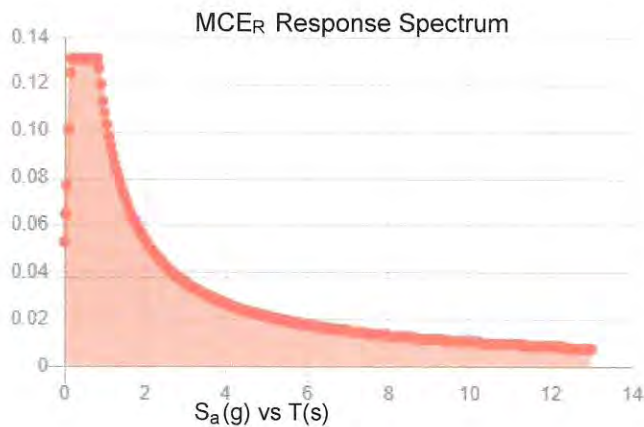


Site Soil Class: D - Stiff Soil

Results:

S_S :	0.082	S_{DS} :	0.088
S_1 :	0.045	S_{D1} :	0.072
F_a :	1.6	T_L :	12
F_v :	2.4	PGA :	0.039
S_{MS} :	0.131	PGA _M :	0.062
S_{M1} :	0.108	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Fri Mar 26 2021

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.



Ice

Results:

Ice Thickness: 0.75 in.
Concurrent Temperature: -5 F
Gust Speed: 40 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Fri Mar 26 2021

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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T-MOBILE SITE NUMBER: ML11046B
T-MOBILE SITE NAME: RIVER POINT SHOPPING CENTER
T-MOBILE PROJECT: L600

BUSINESS UNIT #: 827008
SITE ADDRESS: 8615 N PORT WASHINGTON RD
FOX POINT, WI 53217
COUNTY: MILWAUKEE
SITE TYPE: MONOPOLE
TOWER HEIGHT: 130'-0"



8550 W. BRYN MAWR AVE, SUITE 100
CHICAGO, IL 60631



3025 HIGHLAND PKWY, SUITE 510
DOWNERS GROVE, IL 60515



IRISH TOWER

GENERAL CONSTRUCTION | ENGINEERING | PROJECT MANAGEMENT
4603 Bermuda Drive, Sugar Land, TX 77479
(281) 799-2051 | irishtower.com

T-MOBILE SITE NUMBER :
ML11046B
BU #: 827008
RIVER POINT SHOPPING
CENT

8615 N PORT WASHINGTON RD
FOX POINT, WI 53217
EXISTING 130'-0" MONOPOLE

SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME: RIVER POINT SHOPPING CENT
BU NUMBER: 827008
TOWER OWNER: CROWN CASTLE
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CARRIER/APPLICANT: T-MOBILE
8550 W. BRYN MAWR AVE, SUITE 100
CHICAGO, IL 60631
SITE ADDRESS: 8615 N PORT WASHINGTON RD
FOX POINT, WI 53217
COUNTY: MILWAUKEE
LATITUDE: 43.176008°
LONGITUDE: -87.915078°
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 679.1' AMSL
AREA OF CONSTRUCTION: EXISTING
CURRENT ZONING: 0538989001
OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND
NOT FOR HUMAN HABITATION
PROPERTY OWNER: NORTH SHORE CENTERS PARTNERS
555 W. BROWN DEER RD #220
BAYSIDE, WI 53217
JURISDICTION: WI - VILLAGE OF FOX POINT
ELECTRIC PROVIDER: WE ENERGIES
TELCO PROVIDER: EVERSTREAM

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EXISTING AND FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	EQUIPMENT DETAILS & COAX COLOR CODING
C-4	EQUIPMENT SPECIFICATIONS
C-5	ICE BRIDGE DETAIL
E-1	PANEL SCHEDULES & ONE-LINE DIAGRAM
E-2	ELECTRICAL DETAILS
G-1	TYPICAL GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22X34.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS
AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY
THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE
PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL WISCONSIN ONE CALL
(800) 242-8511
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BEFORE YOU DIG!



LOCATION MAP



PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND
CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE
WIRELESS FACILITY.

TOWER SCOPE OF WORK:

- REMOVE (3) ANDREW - HBXX-6516DS-A2M ANTENNAS
- INSTALL (3) COMMScope - FFVV-65C-R3-V1 ANTENNAS
- INSTALL (3) NOKIA - AHLOA RRHS

GROUND SCOPE OF WORK:

- INSTALL 12'-0" ICE BRIDGE
- REMOVE (2) ASIBs
- REMOVE (2) ASIKs
- REMOVE (1) FSMF
- REMOVE (1) ABIA
- REMOVE (3) ABILs
- REMOVE (3) ABICs
- REMOVE (1) AMIA
- INSTALL (2) ASILs
- INSTALL (4) ABIOs

APPLICABLE CODES &
REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN
ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING
CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.
NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK
NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2015 IBC W/ AMENDMENTS
MECHANICAL	2015 IMC W/ AMENDMENTS
ELECTRICAL	2017 NEC W/ AMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	CROWN CASTLE
DATED:	08/11/2022
MOUNT ANALYSIS:	TOWER ENGINEERING PROFESSIONALS
DATED:	8/4/2022
RFDs REVISION:	3
DATED:	4/4/2022
ORDER ID:	624081
REVISION:	0

Jacob R Goralski
Digitally signed by Jacob R Goralski
Date: 2022.08.19 16:00:57 -05'00'

INSTALLER NOTE:

CONTRACTOR SHALL REFER TO
STRUCTURAL ANALYSIS AND COORDINATE
COAX LAYOUT WITH SITE CONSTRUCTION
MANAGER AND TOWER OWNER.

PROJECT TEAM

A&E FIRM: IRISH TOWER
4603 BERMUDA DRIVE
SUGAR LAND, TX 77479
JACOB.GORALSKI@IRISHTOWER.COM
CROWN CASTLE
USA INC. DISTRICT
CONTACTS: 3025 HIGHLAND PKWY, SUITE 510
DOWNERS GROVE, IL 60515
PAUL SLIFER - PROJECT MANAGER
PAUL.SLIFER@CROWNCastle.COM
PATRICK GABREL - CONSTRUCTION MANAGER
PATRICK.GABREL@CROWNCastle.COM
DALE GRAY - AES
DALE.GRAY@CROWNCastle.COM

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/19/2022	GRV	FINAL	JRG



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

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CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED-- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP" -- CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE, ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ON-SITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED--STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS--STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED--STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION, EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE CCEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE CCEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE CCEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE CCEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (I.E., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: T-MOBILE
TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED, CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE--THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED FIBRE FABRIC (WFF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER.....40 ksi
#5 BARS AND LARGER.....60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER.....2"
#5 BARS AND SMALLER.....1-1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
SLAB AND WALLS.....3/4"
BEAMS AND COLUMNS.....1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, CCEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CCEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE CCEC.
- 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE COOK COUNTY ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR--CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH CCEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI--CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI--CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP--STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND CCEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL--CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL UNDERGROUND ELBOWS/90S.
18. LIQUID--TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID--TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND BONDING FITTINGS SHALL BE THREADED OR COMPRESSION--TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE CCEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON--PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (I.E. POWDER--ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY--COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY--COATED OR NON--CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "T--MOBILE".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
277/480V, 3Ø	GROUND	GREEN
	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
DC VOLTAGE	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

** POLARITY MARKED AT TERMINATION

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
CCEC	COOK COUNTY ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

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DOWNERS GROVE, IL 60515

IRISH TOWER

GENERAL CONSTRUCTION | ENGINEERING | PROJECT MANAGEMENT
4603 Bermuda Drive, Sugar Land, TX 77479
(281) 796-2951 | irishtower.com

T-MOBILE SITE NUMBER :
ML11046B
BU #: 827008
RIVER POINT SHOPPING CENT
8615 N PORT WASHINGTON RD
FOX POINT, WI 53217

EXISTING 130'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	08/19/2022	GRV	FINAL	JRG

Jacob GoralSKI

08/19/2022

WISCONSIN

JACOB GORALSKI
43884-8
SUGAR LAND, TX

PROFESSIONAL ENGINEER

EXPIRATION: 7/31/2024

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T-2

REVISION:
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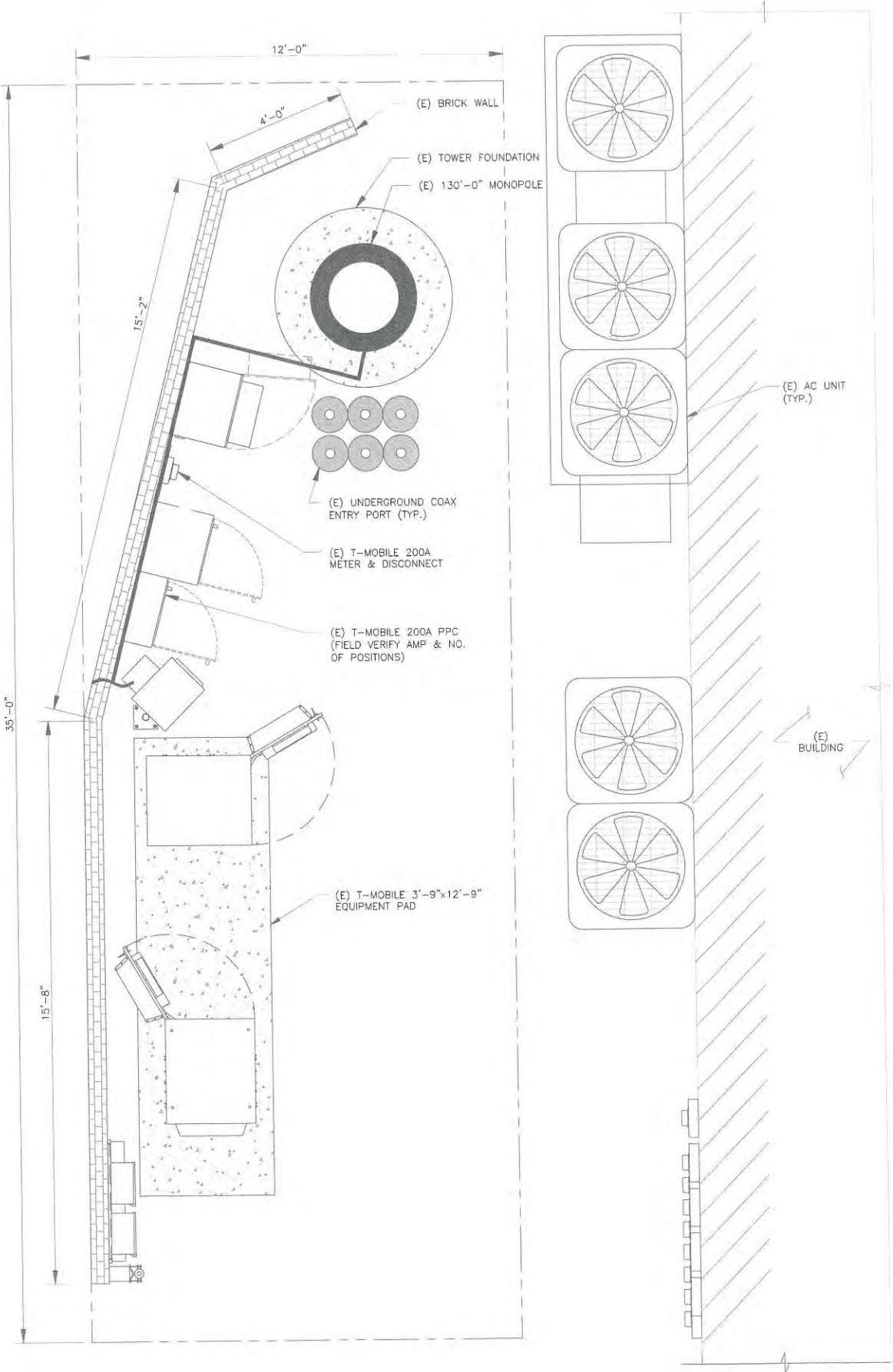
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C-1.1

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1 SITE PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)



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(281) 796-2851 irishtower.com

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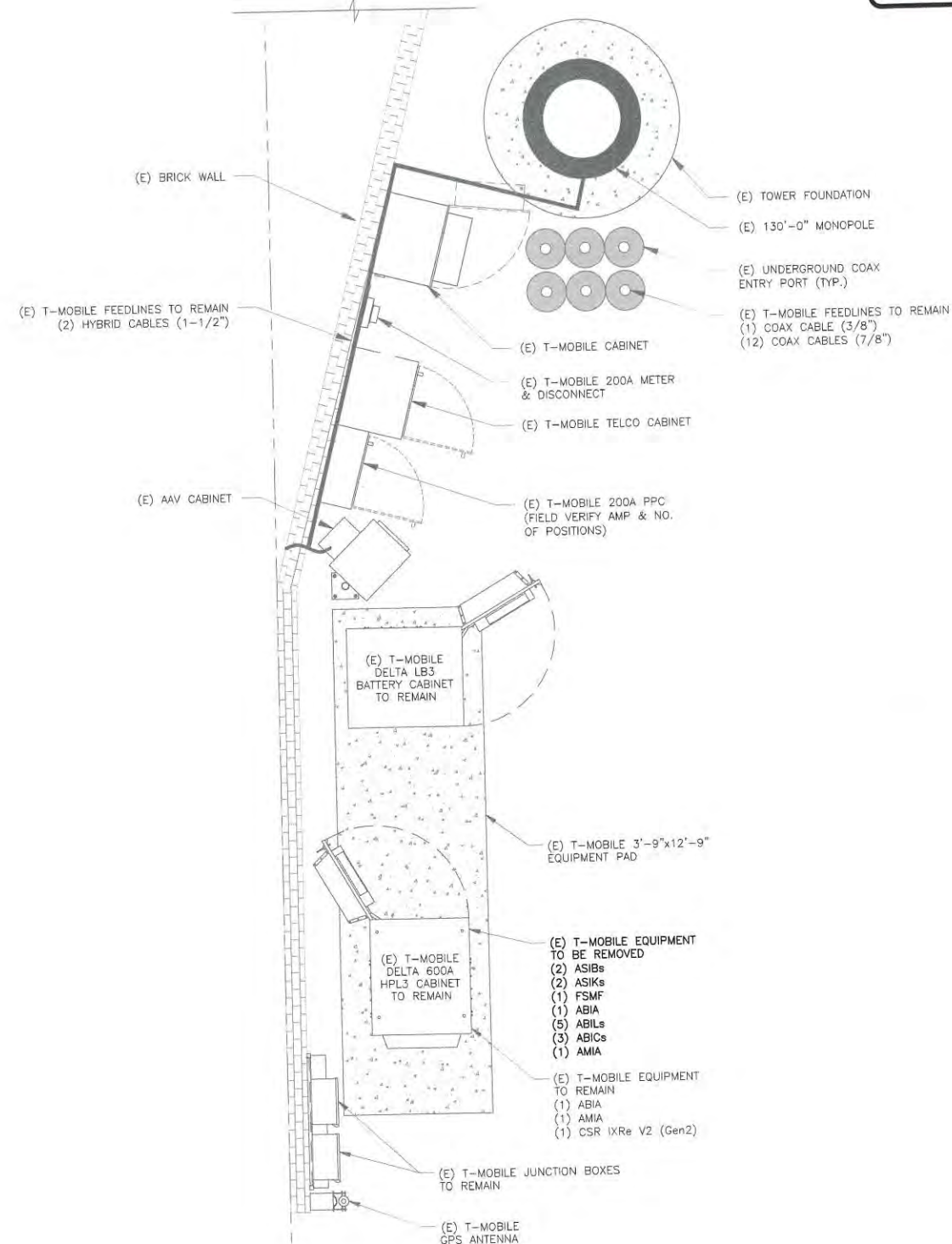
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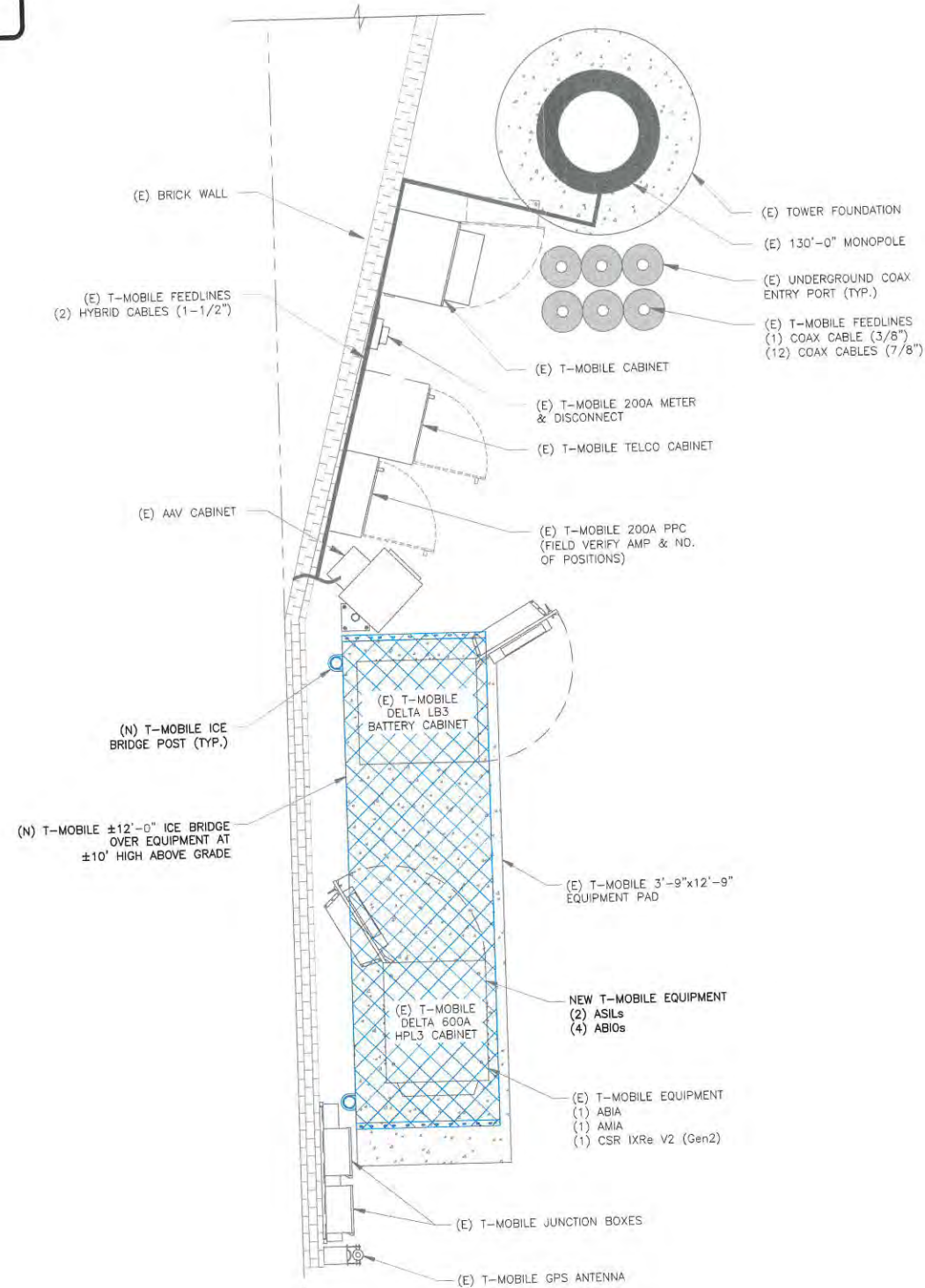
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EQUIPMENT LEGEND:

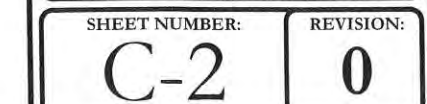
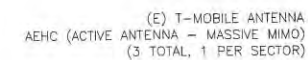
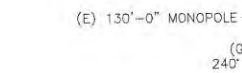
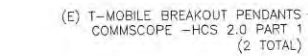
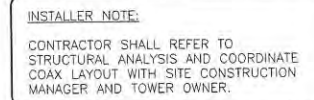
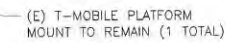
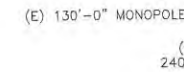
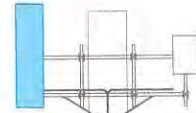
- EXISTING
- TO BE RELOCATED/REMOVED
- NEW



1 EXISTING EQUIPMENT PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)



2 FINAL EQUIPMENT PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)



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4603 Bermuda Drive, Sugar Land, TX 77479
(281) 796-2651 info@irishtower.com

T-MOBILE SITE NUMBER :
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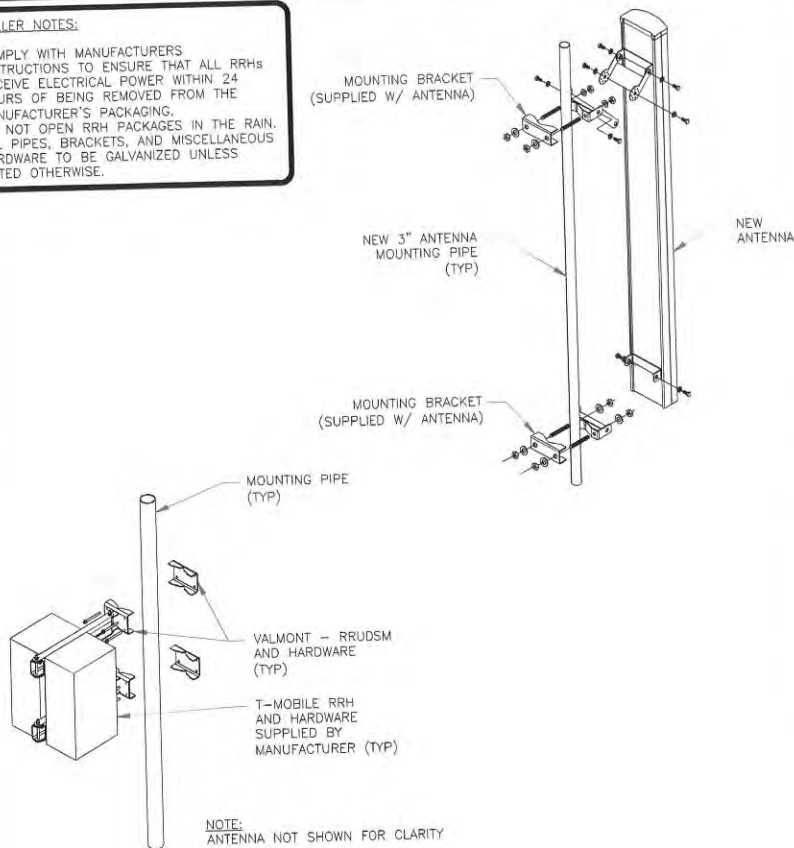
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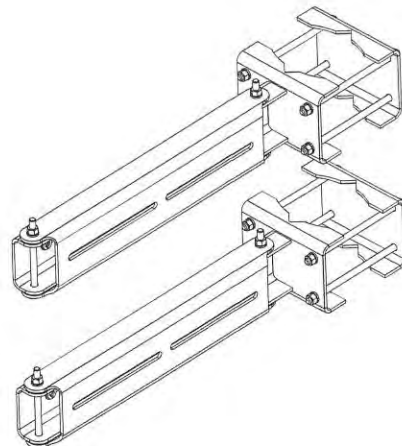
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INSTALLER NOTES:

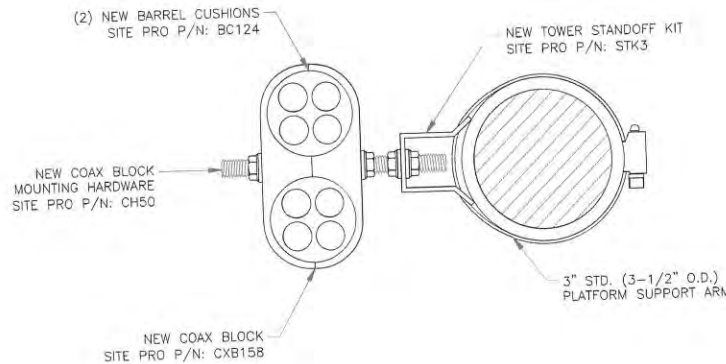
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



1 MOUNTING DETAIL
SCALE: NOT TO SCALE



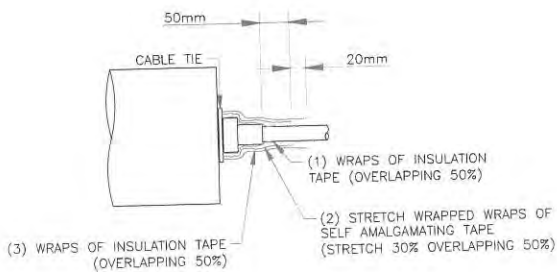
2 RRH MOUNTING DETAIL
SCALE: NOT TO SCALE



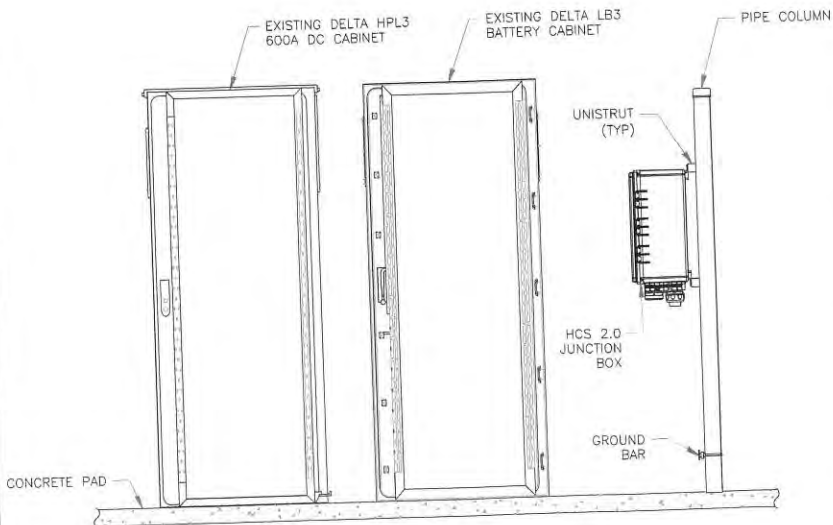
3 RF JUMPER DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTE:

JUMPERS TO BE TORQUED TO 221.27 IN/LBS



4 RF JUMPER CONNECTION
SCALE: NOT TO SCALE



5 GROUND EQUIPMENT ELEVATION
SCALE: NOT TO SCALE

Coax Color Coding

- Antennas and the associated cables of antennas (see) figure 10-10-1. Quantity.
- Coax/Jumper Lines will be identified by color and by number of bands around the coax/jumper.

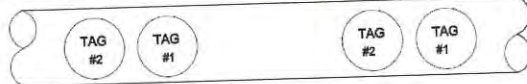
SECTOR A	RED
SECTOR B	GREEN
SECTOR C	BLUE
SECTOR D	YELLOW
SECTOR E	WHITE
SECTOR F	PURPLE
LMU	BROWN = SECTOR COLOR BANDS (1 & 2)
FIBER ID	GRAY
UNUSED COAX	PINK
MICROWAVE	ORANGE
DWE T-1'S + GPS DOWNLINK CABLE	ID W/LABEL MAKER

COLOR CODING NOTES:

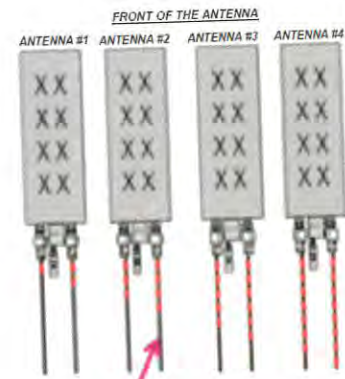
COLOR	GSM
COLOR	UMTS 1900
COLOR	UMTS AWS
COLOR	LTE
COLOR	FIBER CABLE

METALLIC TAG NOTES:

1. TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET.
2. CABLE LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE.
3. TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER.
4. STANDARDIZED METALLIC TAG KIT WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMMODATE ALL CONFIGURATIONS.



6 COAX COLOR CODING
SCALE: NOT TO SCALE



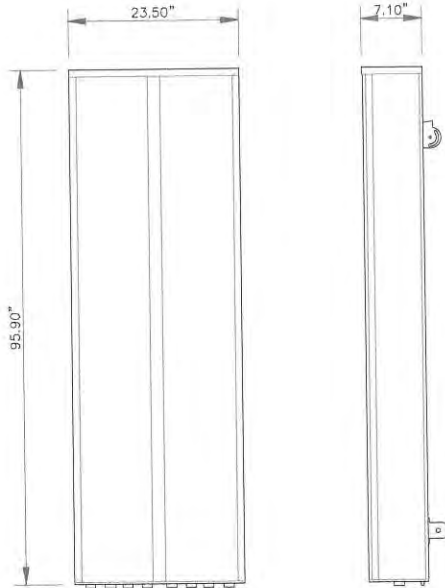
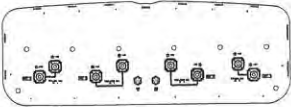
EXAMPLE: COAX WITH FOUR BANDS OF RED TAPE WILL REPRESENT ALPHA SECTOR AND THE 4TH PORT OF ANTENNA

ANTENNA AND COAXIAL CABLE SCHEDULE

1. ALL ANTENNAS SHALL BE FURNISHED WITH DOWNWILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNWILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNWILT SHALL BE SET AND VERIFIED BY A SMART LEVEL.
2. CONTRACTOR SHALL INSTALL COLOR CODE RINGS ON EACH OF THE HYBRID CABLES AND JUMPER CABLES WITH UV RESISTANT TAPE. ALL CABLE SHALL BE MARKED AT TOP AND BOTTOM WITH 2" COLOR TAPE OR STENCIL TAG. COLOR TAPE MAY BE OBTAINED FROM GRAYBAR ELECTRONICS.

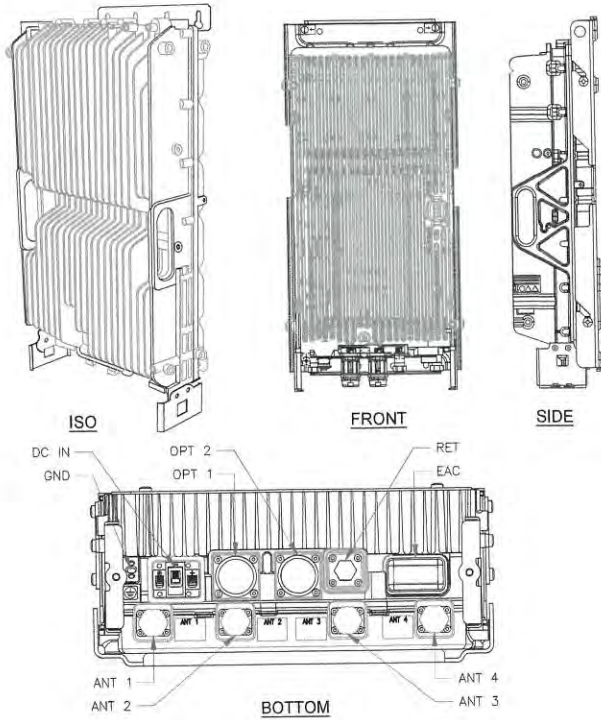
MANUFACTURER:	COMMSCOPE
MODEL:	FFW-65C-R3-V1 8-PORT ANTENNA
DIMENSIONS (HxWxD):	95.90"x25.20"x9.30"
WEIGHT:	124.60 LBS
BAND:	MULTIBAND
MOUNTING KIT:	BSAMNT-4 (INCLUDED)

NOTE:
RF CONNECTORS (4,3-10 FEMALE)



1 COMMSCOPE FFW-65C-R3-V1 ANTENNA
SCALE: NOT TO SCALE

MANUFACTURER:	NOKIA
MODEL:	AHLOA
DIMENSIONS (HxWxD):	22.1"x12.1"x7.4"
WEIGHT:	83.5 LBS



2 NOKIA AHLOA RRH
SCALE: NOT TO SCALE

3 NOT USED
SCALE: NOT TO SCALE

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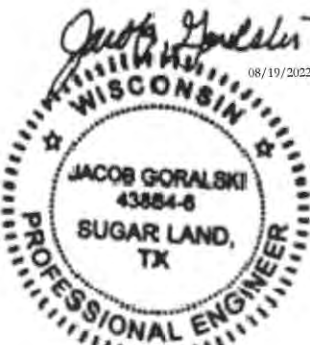
T-MOBILE SITE NUMBER :
ML11046B
BU #: 827008
RIVER POINT SHOPPING CENT

8615 N PORT WASHINGTON RD
FOX POINT, WI 53217

EXISTING 130'-0" MONOPOLE

ISSUED FOR:

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EXPIRATION: 7/31/2024

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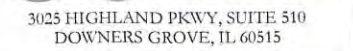
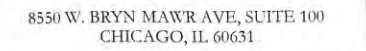
REVISION:

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6 NOT USED
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE



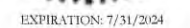
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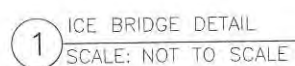
EXISTING 130'-0" MONOPOLE

[illegible]

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C-5

O



② NOT USED
SCALE: NOT TO SCALE

NOTE:
PPC WAS NOT ACCESSIBLE TO FIELD CREW AT THE TIME OF
SITEWALK

PPC 200A, 120/240VAC, 1φ/3W, 60HZ, M. BKR, 10KAIC							
CKT	DESCRIPTION	POLE	AMP		AMP	POLE	DESCRIPTION
1							13
2							14
3							15
4							16
5							17
6							18
7							19
8							20
9							21
10	DELTA 600A HPL3 CABINET	4	200				22
11							23
12							24

* DENOTES NEW OR MODIFIED BREAKERS

1 EXISTING PANEL SCHEDULE
SCALE: NOT TO SCALE

NOTE:
PPC WAS NOT ACCESSIBLE TO FIELD CREW AT THE TIME OF
SITEWALK

THIS PANEL SCHEDULE IS TO BE UTILIZED AS REFERENCE
ONLY. GC TO FIELD VERIFY EXISTING ACTIVE BREAKERS AND
AMPERAGE AND MAINTAIN BREAKERS FOR MISCELLANEOUS
SITE COMPONENTS AS REQUIRED

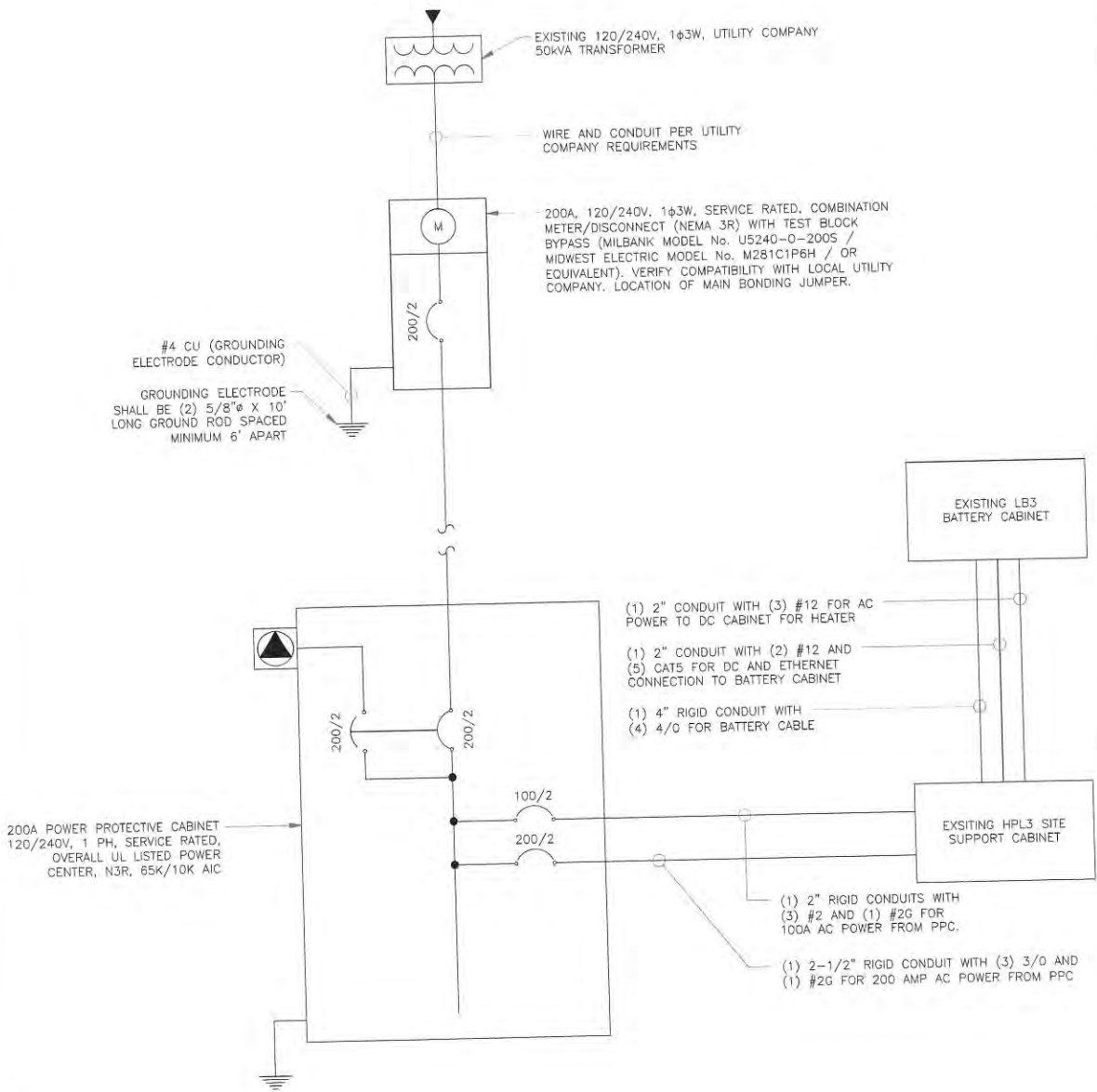
PPC 200A, 120/240VAC, 1φ/3W, 60HZ, M. BKR, 10KAIC							
CKT	DESCRIPTION	POLE	AMP		AMP	POLE	DESCRIPTION
1							13
2							14
3							15
4							16
5							17
6							18
7							19
8							20
9							21
10	DELTA 600A HPL3 CABINET	4	200				22
11							23
12							24

* DENOTES NEW OR MODIFIED BREAKERS

2 FINAL PANEL SCHEDULE
SCALE: NOT TO SCALE

NOTES:

1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER.
ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW,
OR XHHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN
ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE
ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.



3 ONE-LINE DIAGRAM
SCALE: NOT TO SCALE

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CROWN
CASTLE

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(281) 796-2651 irishtower.com

T-MOBILE SITE NUMBER :
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BU #: 827008
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SHEET NUMBER:

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REVISION:

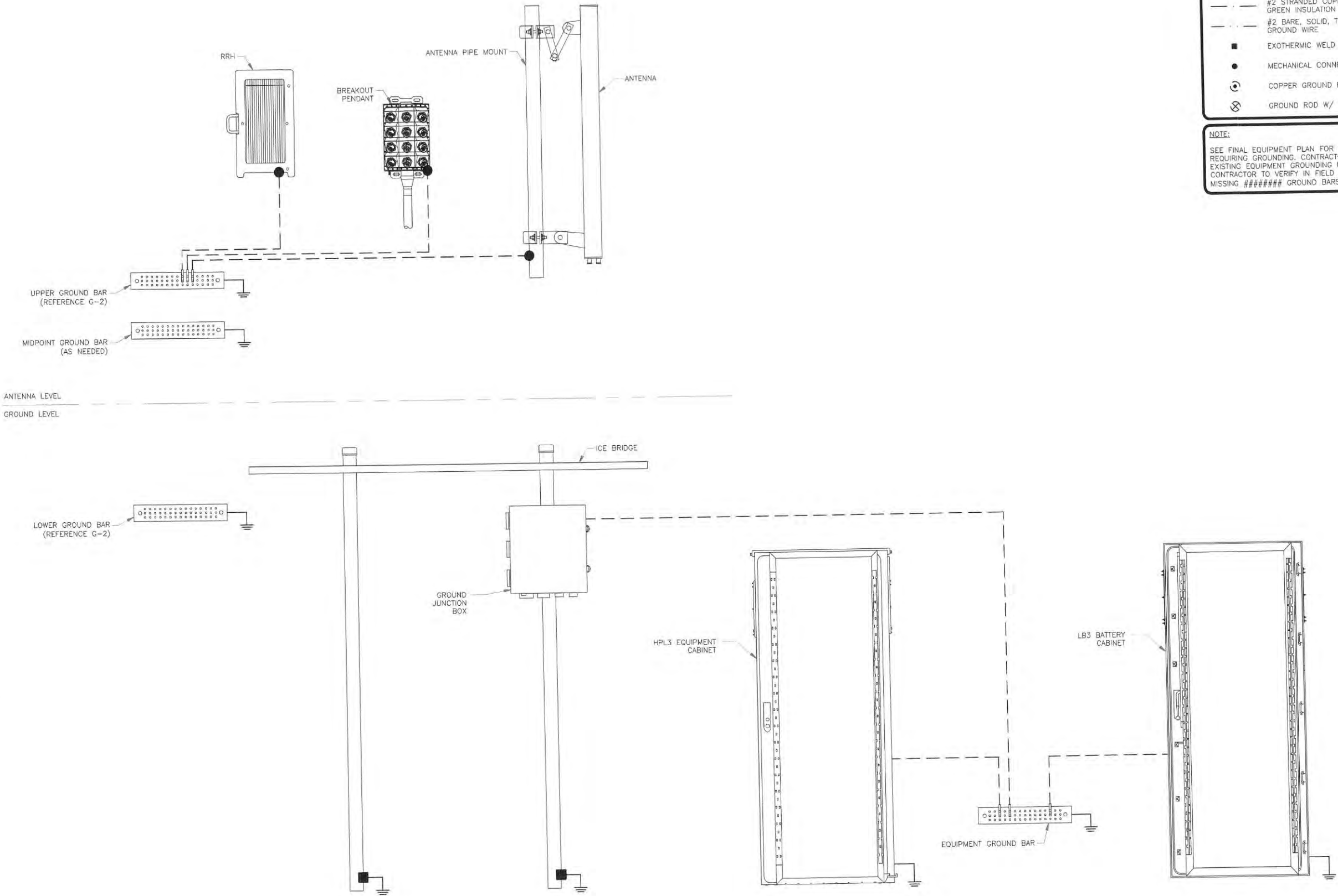
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GROUNDING PLAN LEGEND:

- #6 STRANDED COPPER WITH GREEN INSULATION GROUND WIRE
- #2 STRANDED COPPER WITH GREEN INSULATION GROUND WIRE
- #2 BARE, SOLID, TINNED COPPER GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- ⊙ COPPER GROUND ROD
- ⊗ GROUND ROD W/ TEST WELL

NOTE:

SEE FINAL EQUIPMENT PLAN FOR NEW EQUIPMENT
REQUIRING GROUNDING. CONTRACTOR TO VERIFY
EXISTING EQUIPMENT GROUNDING IN FIELD.
CONTRACTOR TO VERIFY IN FIELD AND INSTALL ANY
MISSING ##### GROUND BARS ON SITE.



1 TYPICAL FINAL GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

T-Mobile

8550 W. BRYN MAWR AVE, SUITE 100
CHICAGO, IL 60631

CROWN
CASTLE

3025 HIGHLAND PKWY, SUITE 510
DOWNERS GROVE, IL 60515



GENERAL CONSTRUCTION | ENGINEERING | PROJECT MANAGEMENT

4603 Bermuda Drive, Sugar Land, TX 77479
(281) 796-2651 irishtower.com

T-MOBILE SITE NUMBER :
ML11046B

BU #: 827008
**RIVER POINT SHOPPING
CENT**

8615 N PORT WASHINGTON RD
FOX POINT, WI 53217

EXISTING 130'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DWG/QA
0	08/19/2022	GRV	FINAL	JRG



IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

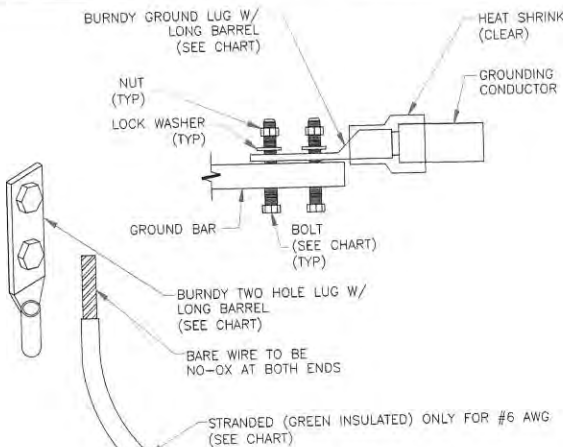
SHEET NUMBER:

G-2

REVISION:

0

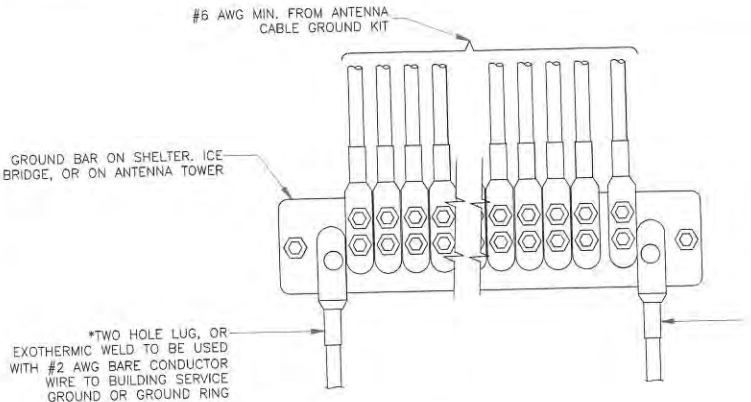
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



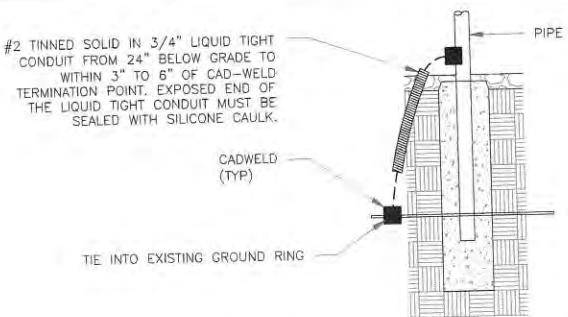
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

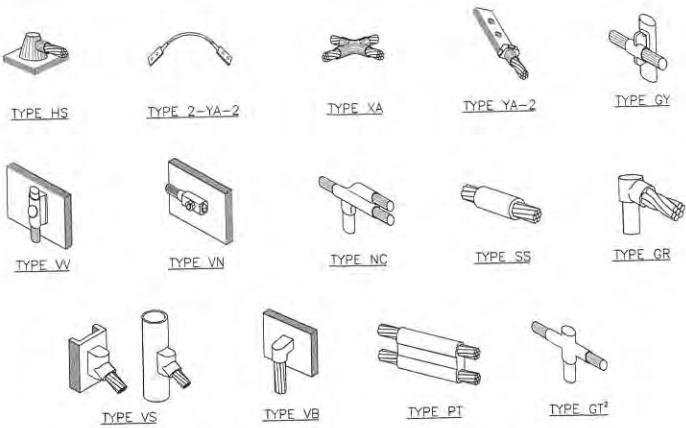
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



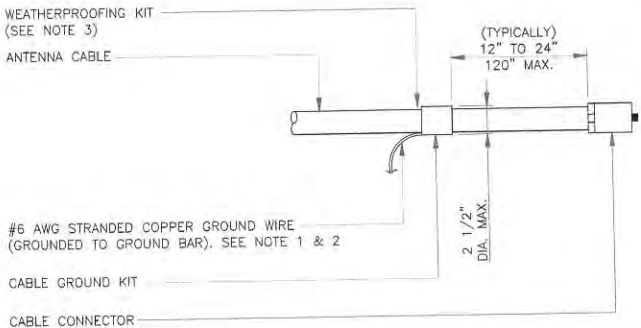
8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE



NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

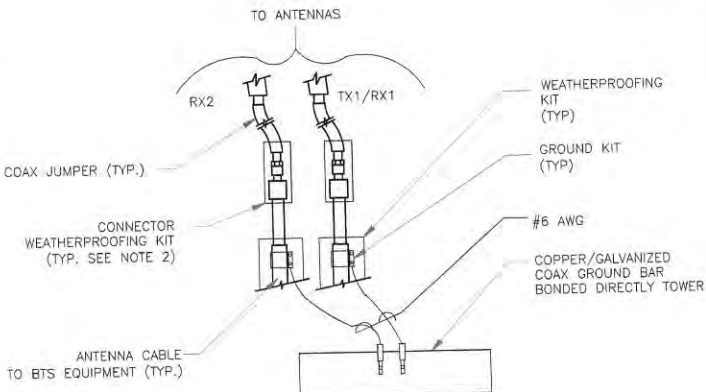
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

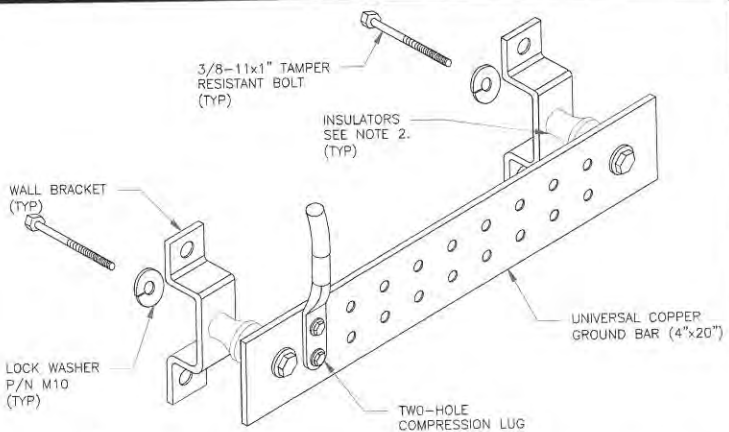
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

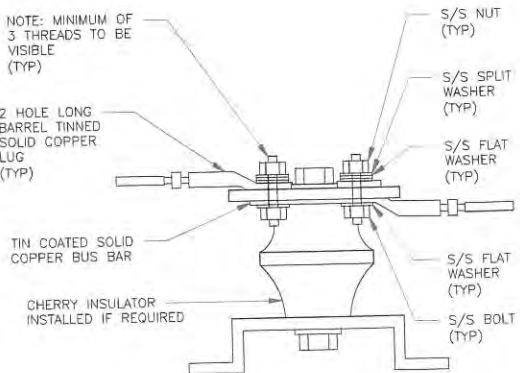
4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

Scott Botcher

From: Eric Larson <elarson@ammr.net>
Sent: Friday, October 14, 2022 10:48 AM
To: Scott Brandmeier; Nathan Schafer; Scott Botcher
Cc: Michael Rakow; Kelly Meyer
Subject: RE: Conditional Use Permit - 8615 N Port Washington Road - Crown Castle

They do need to go to plan commission. They do not need a conditional use, assuming this is not a substantial modification.* This is the procedure, as described in the Village Code, and the highlighted paragraph is the complete approval process which merely requires Plan Commission recommendation and Village Board action:

745-23 D. Modifications. The construction of modifications to an existing mobile service support structure or mobile service facility, and any installation of a small wireless facility on an existing structure, shall be subject to the following requirements: [Amended 4-9-2019 by Ord. No. 2019-03]

...

(2) Not substantial modifications.

(a) Application information. The applicant shall submit a written application that describes the applicant's basis for concluding that the modification is not substantial, and all of the following information:

[1] The name and business address of, and the contact individual for, the applicant.

[2] The location of the affected support structure.

[3] The location of the proposed facility.

(b) Completeness determination within five days. The Village Building Inspector will determine whether the application is complete. If the application includes all of the foregoing information, the application shall be found to be complete. The Village Building Inspector must notify the applicant in writing within five days of receiving the application if it is found not to be complete, specifying in detail the required information that was incomplete. The applicant may resubmit as often as necessary until it is complete.

(c) Fee. Any petition shall be accompanied by a fee as set from time to time by the Village Board to defray the cost of review. Costs incurred by the Village in obtaining legal, planning, engineering and other technical and professional advice in connection with the review of the conditional use and preparation of the conditions to be improved shall be charged to the petitioner. Such fee shall not exceed the limits established by Wisconsin Statutes § 66.0404(4)(d).

(d) Determination. The Village Board shall make a decision on the application within a reasonable time after receipt of the Plan Commission recommendations, provided further that final action shall be taken within 45 days of receipt of a complete application unless the time is extended by the

petitioner. Said decision shall be stated in writing and a copy made a permanent part of the Village records. If approval is not granted, the reasons therefor will be included in such record.

(e) Limitations upon authority. The Village review and action in the matter shall be subject to the limitations imposed by Wisconsin Statutes § 66.0404(4), and such other laws as may apply which may include 47 U.S.C.A. § 1455. In the event the applicant believes the Village has exceeded its authority in this regard, the applicant shall notify the Village Board in writing and the Village Board reserves the right to reconsider the matter, to ensure that applicable laws are followed.

*If there's any question as to whether this is a substantial modification, let me know, but note that "substantial modification" is a defined term by State law, federal law, and our ordinance which defers to the State law definition. This is the statutory definition (66.0404(1)(s), Stats):

"(s) "Substantial modification" means the modification of a mobile service support structure, including the mounting of an antenna on such a structure, that does any of the following:

1. For structures with an overall height of 200 feet or less, increases the overall height of the structure by more than 20 feet.
2. For structures with an overall height of more than 200 feet, increases the overall height of the structure by 10 percent or more.
3. Measured at the level of the appurtenance added to the structure as a result of the modification, increases the width of the support structure by 20 feet or more, unless a larger area is necessary for collocation.
4. Increases the square footage of an existing equipment compound to a total area of more than 2,500 square feet."

Bottom line, we are severely preempted. We can only do this limited review, which in practical effect does no more than ensure they're honest with us in their application and allows a Q & A with the public officials if there are any concerns.

Let me know if you have any questions or concerns.

Eric J. Larson

Municipal LAW

& LITIGATION GROUP

Municipal Law & Litigation Group, SC
Arenz, Molter, Macy, Riffle, Larson & Bitar
730 N. Grand Ave.
Waukesha, WI 53186
(262) 548-1340
elarson@ammr.net
Website: www.municipallawsc.com

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VILLAGE OF FOX POINT

MILWAUKEE COUNTY
WISCONSIN

VILLAGE HALL
7200 N. SANTA MONICA BLVD.
FOX POINT 53217-3505
414-351-8900
FAX 414-351-8909

To: Village Board

From: Michael Rakow, Building Inspector

Through: Scott A. Botcher, Village Manager

Date: 10/28/2022

Re: Chapter 745 Fence/arbor Ordinance

Enclosed is a draft ordinance modifying Chapter 745-7(3)(h). The Village Building Board is requesting to increase the height of arbors from 8'-7" to 10 feet.

Staff recommends approval of the modifications.

Thank you.

STATE OF WISCONSIN

VILLAGE OF FOX POINT

MILWAUKEE COUNTY

ORDINANCE NO. _____

AN ORDINANCE TO AMEND SECTION 745-7B(3)(h) OF THE VILLAGE OF
FOX POINT VILLAGE CODE CONCERNING ARBORS

WHEREAS, the Village Building Inspector has closely reviewed the height restrictions of arbor as an accessory use and structure as provided in the Village Code to consider the possibility of increasing the maximum permitted height; and

WHEREAS, the Village Building Inspector has provided his recommendations to the Village Manager in this regard, and the Village Manager has recommended that the Village Code be amended to permit a greater height for arbor in accordance with the recommendation described herein; and

WHEREAS, the Village Plan Commission of the Village of Fox Point has recommended to the Village Board of the Village of Fox Point that said amendments to the Zoning Code be made; and

WHEREAS, a public hearing was conducted by the Village Board of the Village of Fox Point on _____, after due notice was provided pursuant to Section 745-35 of the Fox Point Zoning Code and Wisconsin Statutes Sections 62.23(7)(2)d; and

WHEREAS, the Village Board finds that this change to the Village Zoning Code is not a down zoning ordinance because it does not decrease the development density of land and it does not reduce the permitted uses of land, and therefore the super majority requirement of Section 66.10015, Wisconsin Statutes, does not apply to this ordinance; and

WHEREAS, the Village Board of the Village of Fox Point having carefully reviewed the recommendation of the Plan Commission of the Village of Fox Point, having determined that all procedural requirements and notice requirements have been satisfied, having given the matter due consideration and having based its determination on the effect of the granting of such a Zoning Amendment on the health, safety and welfare of the community and having given due consideration to the municipal problems involved as well as the impact on the affected properties hereby determines that the public necessity, convenience, general welfare and good zoning practice requires that the Zoning Amendment be granted.

NOW, THEREFORE, the Village Board of the Village of Fox Point, Milwaukee County, Wisconsin, DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1: Chapter 745 of the Village of Fox Point Village Code entitled, "Zoning," Section 745-7 entitled, "Accessory Uses and Structure," Subsection B entitled "Permanent Structures.," Subsection (3), Subsection (h) is hereby repealed and re-created as follows:

745-7(3)(h) Location and height restrictions. Subject to the following exceptions, a fence, wall, architectural screening device, driveway gate or arbor may be permitted up to the lot line in the side and rear yard of any property in Fox Point. A fence, wall, driveway gate or architectural screening device located in a rear or side yard shall not exceed a height of six feet from the finished lot grade and shall not project forward of the front line of the principal building. An arbor shall not exceed a height

of ~~eight feet seven inches~~ ten feet from the finished lot grade and shall not project forward of the front line of the principal building.

SECTION 2: CONTINUATION OF EXISTING PROVISIONS.

The provisions of this ordinance, to the extent that they are substantively the same as those of the ordinances in force immediately prior to the enactment of this ordinance, are intended as a continuation of such ordinances and not as new enactments, and the effectiveness of such provisions shall date from the date of adoption of the prior ordinances. In addition, the adoption of this ordinance shall not affect any action, prosecution or proceeding brought for the enforcement of any right or liability established, accrued or incurred under any legislative provision prior to the effective date of this ordinance for the time that such provision was in effect, and the repeal of any such provisions is stayed pending the final resolution of such actions, including appeals.

SECTION 3: SEVERABILITY

The several sections of this ordinance are declared to be severable. If any section or portion thereof shall be declared by a court of competent jurisdiction to be invalid, unlawful or unenforceable, such decision shall apply only to the specific section or portion thereof directly specified in the decision and shall not affect the validity of any other provisions, sections or portions thereof of the ordinance. The remainder of the ordinance shall remain in full force and effect. Any other ordinances whose terms are in conflict with the provisions of this ordinance are hereby repealed as to those terms that conflict.

SECTION 4: EFFECTIVE DATE

This ordinance shall take effect immediately upon passage and posting or publication as provided by law.

Dated this _____ day of _____, 2022.

Village of Fox Point

Douglas H. Frazer, Village President

ATTEST:

Kelly A. Meyer, Village Clerk/Treasurer



VILLAGE OF FOX POINT

MILWAUKEE COUNTY
WISCONSIN

VILLAGE HALL
7200 N. SANTA MONICA BLVD.
FOX POINT 53217-3505
414-351-8900
FAX 414-351-8909

To: Village Board

From: Michael Rakow, Building Inspector

Through: Scott A. Botcher, Village Manager

Date: 10/28/2022

Re: Chapter 842 Pool Ordinance

Enclosed is a draft ordinance modifying Chapter 842-3. The Village follows the Uniform Building Code and the current pool fencing requirements should be consistent with UBC 30.40(2)(b)1 & 2 to avoid confusion.

Staff recommends approval of the modifications.

Thank you.

STATE OF WISCONSIN

VILLAGE OF FOX POINT

MILWAUKEE COUNTY

ORDINANCE NO. _____

AN ORDINANCE TO REPEAL AND RE-CREATE SECTION 842-3A and 842-3B
OF THE VILLAGE OF FOX POINT VILLAGE CODE RELATED TO
PROTECTION FOR SWIMMING POOLS

WHEREAS, the Village Building Inspector has closely reviewed the fencing and protection requirements for swimming pools in the Village currently required the Village Code to consider whether the fencing and protection requirements continue to be appropriate and are consistent with the requirements of the Wisconsin Uniform Building Code, Section UBC 30.40(2)(b)1 and 2; and

WHEREAS, the Village Building Inspector has provided his recommendations to the Village Manager in this regard, and the Village Manager has recommended that the Village Code be updated to be consistent with the provisions of the Wisconsin Uniform Building Code to avoid any confusion among Village residents; and

WHEREAS, the Village Board hereby intends to accept Village Staff recommendations and amend the swimming pool regulations as shown herein.

NOW, THEREFORE, the Village Board of the Village of Fox Point, Milwaukee County, Wisconsin, DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1: Chapter 842 of the Village of Fox Point Village Code entitled, "Swimming Pools, Wading Pools and Spas," Sections 842-3 entitled, "Protection for Swimming Pools" is hereby repealed and re-created as follows:

842-3 Protection for swimming pools.

Every person who owns, directly or indirectly, or operates or has custody or control of any swimming pool located in the Village of Fox Point shall protect and guard such swimming pool at all times by one or more of the following manners: methods permitted by the Uniform Building Code Section UBC 30.40(2)(b)1 and 2, which currently requires the following as re-stated below, but also including such amendments as may be made to such UBC requirements from time to time. In the event of any such UBC amendments to the provisions that follow, the Uniform Building Code shall control.

- A. A fence or other solid structure of not less than forty-eight (48) inches in height shall completely enclose said premises and/or swimming pool. Openings in the barrier shall not allow passage of a 4 inch diameter sphere. All gates or doors opening through such enclosure shall be kept securely closed at all times while unattended and shall be equipped with a self-closing and self-latching device designed capable of keeping such door or gate securely closed. Latches shall be located at least three (3) feet above the ground, accessible deck or stairs. Erect and maintain an enclosure consisting of a fence, wall, or building or combinations thereof around any swimming pool in the ground, or with sides less than three feet five inches above ground level. The fence or wall shall not be less than three feet five inches in height and not exceed six feet. There shall be no gaps or openings in the fence material after erected that would permit a toddler to get through the fence. There shall be no gaps between the bottom of a fence and the ground or apron of the swimming pool in excess of four inches. A residence or

~~accessory building may be used as part of such enclosure. Every gate or door in the enclosure shall be kept securely closed and fastened at all times in a manner to prevent a toddler from opening the gate or door, except when in actual use.~~

- B. A fence is not required around an above ground pool where the pool wall is at least forty-eight (48) inches above grade for the full pool perimeter. The finished grade shall be maintained for a minimum of four (4) feet beyond the outside perimeter of the pool.
~~Instead of an enclosure as above required, aboveground or partially aboveground swimming pools, where the sides are at least three feet five inches above ground level, shall have the ladder or steps which are used for ingress and egress thereto moveable and shall have such ladder or steps removed at all times, except when in actual use.~~

SECTION 2: SEVERABILITY

The several sections of this ordinance are declared to be severable. If any section or portion thereof shall be declared by a court of competent jurisdiction to be invalid, unlawful or unenforceable, such decision shall apply only to the specific section or portion thereof directly specified in the decision and shall not affect the validity of any other provisions, sections or portions thereof of the ordinance. The remainder of the ordinance shall remain in full force and effect. Any other ordinances whose terms are in conflict with the provisions of this ordinance are hereby repealed as to those terms that conflict.

SECTION 3: EFFECTIVE DATE

This ordinance shall take effect immediately upon passage and posting or publication as provided by law.

Dated this _____ day of _____, 2022.

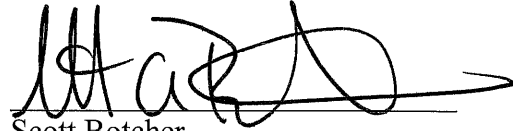
Village of Fox Point

Douglas H. Frazer, Village President

ATTEST:

Kelly A. Meyer, Village Clerk/Treasurer

This is to certify that the attached is true and correct list of bills due for a period from October 1-31, 2022, in the total amount of \$748,550.94. Each bill has been approved in writing by the official department head or employee authorized to incur the obligations and which bills have been audited by the undersigned pursuant to resolution of the Village Board.

A handwritten signature in black ink, appearing to read 'Scott Botcher', written over a horizontal line.

Scott Botcher
Village Manager
Village of Fox Point

This is to certify that the above listed accounts and demands have been presented and allowed and ordered paid by the Village Board at a meeting thereof held on November 8, 2022.

Douglas H. Frazer
Village President

Kelly A. Meyer
Village Clerk/Treasurer
Village of Fox Point

VILLAGE OF FOX POINT

Payment Approval Report - by GL - Board Report
Report dates: 10/01/2022-10/31/2022

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Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Amount Paid	Date Paid
10-13100 ACCOUNTS RECEIVABLE - SUNDRY						
919	DAVID J. FRANK LANDSCAPE C	45952	921 E CALUMET	10/19/2022	225.00	10/20/2022
Total 10-13100 ACCOUNTS RECEIVABLE - SUNDRY:					225.00	
10-21520 GROUP LIFE						
18	SECURIAN FINANCIAL GROUP I	NOVEMBER 2022	LIFE INSURANCE	10/06/2022	932.85	10/07/2022
Total 10-21520 GROUP LIFE:					932.85	
10-21521 SUPPLEMENTAL PLANS						
18	SECURIAN FINANCIAL GROUP I	10/01/2022	ACCIDENTAL	10/06/2022	85.46	10/07/2022
1227	AFLAC	417841	ACCT #G8B41	10/27/2022	400.98	10/28/2022
Total 10-21521 SUPPLEMENTAL PLANS:					486.44	
10-21525 UNION DUES						
185	FOX POINT POLICE PROT. ASS	NOVEMBER 2022	POLICE DUES	10/27/2022	495.00	10/28/2022
185	FOX POINT POLICE PROT. ASS	OCTOBER 2022	POLICE DUES	10/06/2022	495.00	10/07/2022
Total 10-21525 UNION DUES:					990.00	
10-21530 DEFERRED COMPENSATION						
375	NORTH SHORE BANK, FSB	PR1013222	Deferred Comp NORTH SHORE	10/12/2022	2,030.00	10/14/2022
375	NORTH SHORE BANK, FSB	PR1027222	Deferred Comp NORTH SHORE	10/26/2022	2,030.00	10/28/2022
814	GREAT-WEST TRUST COMPAN	PR1013221	Deferred Comp WI DEFER - PRE	10/12/2022	4,506.83	10/14/2022
814	GREAT-WEST TRUST COMPAN	PR1013221	Deferred Comp WI DEFER - RO	10/12/2022	836.92	10/14/2022
814	GREAT-WEST TRUST COMPAN	PR1027221	Deferred Comp WI DEFER - PRE	10/26/2022	4,506.83	10/28/2022
814	GREAT-WEST TRUST COMPAN	PR1027221	Deferred Comp WI DEFER - RO	10/26/2022	836.92	10/28/2022
101991	VANTAGEPOINT TRANSFER AG	PR1013221	Deferred Comp ICMA-PRETAX	10/12/2022	1,016.43	10/14/2022
101991	VANTAGEPOINT TRANSFER AG	PR1027221	Deferred Comp ICMA-PRETAX	10/26/2022	1,016.43	10/28/2022
Total 10-21530 DEFERRED COMPENSATION:					16,780.36	
10-21540 GARNISHMENT						
797	WI SCTF	10/14/2022	REMIT 217318 CASE PIN 217318	10/19/2022	149.60	10/20/2022
797	WI SCTF	10/28/2022	REMIT 217318 CASE PIN 217318	10/27/2022	149.60	10/28/2022
Total 10-21540 GARNISHMENT:					299.20	
10-21545 STREET & SIDEWALK DEPT						
2225	VISION TELECOMMUNICATION	10/04/2022	BOND	10/19/2022	5,000.00	10/20/2022
Total 10-21545 STREET & SIDEWALK DEPT:					5,000.00	
10-51200-395 COUNTY COURT FEES						
330	MILWAUKEE COUNTY TREASU	SEPTEMBER 2022	DRIVER SUR/JAIL FEE	10/03/2022	481.30	10/07/2022
552	WISCONSIN, STATE OF - COUR	SEPTEMBER 2022	SEPTEMBER	10/03/2022	1,558.81	10/07/2022
Total 10-51200-395 COUNTY COURT FEES:					2,040.11	
10-51300-218 VILLAGE ATTORNEY						
535	MUNICIPAL LAW & LITIGATION	8333	VILLAGE ATTORNEY	10/19/2022	7,566.80	10/20/2022
535	MUNICIPAL LAW & LITIGATION	8471	VLG ATTORNEY	10/27/2022	8,117.50	10/28/2022
Total 10-51300-218 VILLAGE ATTORNEY:					15,684.30	

VILLAGE OF FOX POINT

Payment Approval Report - by GL - Board Report
Report dates: 10/01/2022-10/31/2022

Page: 2
Oct 31, 2022 08:14AM

Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Amount Paid	Date Paid
10-51300-219 VILLAGE PROSECUTOR						
965	PADWAY & PADWAY LTD	10/14/2022	PROSECUTOR	10/19/2022	1,707.50	10/20/2022
Total 10-51300-219 VILLAGE PROSECUTOR:					1,707.50	
10-51420-310 SUPPLIES/EXPENSES						
1230	ODP BUSINESS SOLUTIONS LL	272169050001	37360205--TREASURER	10/19/2022	7.28	10/20/2022
1230	ODP BUSINESS SOLUTIONS LL	272371012001	37360205-TREASUER	10/19/2022	26.98	10/20/2022
Total 10-51420-310 SUPPLIES/EXPENSES:					34.26	
10-51420-323 OFFICIAL PUBLICATIONS/NOTICES						
5895	MILW. JOURNAL SENTINAL (AD	0004977768	PUBLICATION	10/18/2022	39.17	10/20/2022
Total 10-51420-323 OFFICIAL PUBLICATIONS/NOTICES:					39.17	
10-51440-310 SUPPLIES/EXPENSES						
1230	ODP BUSINESS SOLUTIONS LL	271867454001	37360205-ELECTIONS	10/19/2022	159.06	10/20/2022
1230	ODP BUSINESS SOLUTIONS LL	272169050001	37360205-ELECTIONS	10/19/2022	18.29	10/20/2022
Total 10-51440-310 SUPPLIES/EXPENSES:					177.35	
10-51530-210 CONTRACT SERVICES						
2706	ASSOCIATED APPRAISAL CON	164576	MONTHLY FEES	10/05/2022	2,789.96	10/07/2022
Total 10-51530-210 CONTRACT SERVICES:					2,789.96	
10-51600-210 CONTRACT SERVICES						
477	TAYLOR COMPUTER SERVICES	23828	MANAGED SERVICES	10/19/2022	1,249.85	10/20/2022
789	DO IT NOW CLEANING LLC	513	MONTHLY CLEANING	10/27/2022	1,583.37	10/28/2022
Total 10-51600-210 CONTRACT SERVICES:					2,833.22	
10-51600-220 GAS-HEAT						
536	WE-ENERGIES	9/26/22	0702787382-00002	09/30/2022	47.05	10/07/2022
Total 10-51600-220 GAS-HEAT:					47.05	
10-51600-221 ELECTRIC UTILITIES						
536	WE-ENERGIES	10/10/2022	0702787382-00009	10/14/2022	19.23	10/20/2022
536	WE-ENERGIES	9/26/22	0702787382-00002	09/30/2022	1,296.24	10/07/2022
Total 10-51600-221 ELECTRIC UTILITIES:					1,315.47	
10-51600-222 TELEPHONE UTILITIES						
2691	CENTURYLINK-BUSINESS SVC.	612295425	87619173	10/19/2022	.40	10/20/2022
5312	AT & T- VILLAGE	09/22/2022	414 351-8909-758 7	10/04/2022	63.50	10/07/2022
Total 10-51600-222 TELEPHONE UTILITIES:					63.90	
10-51600-234 VILLAGE HALL MAINTENANCE						
360	NASSCO INC.	6213327	SUPPLIES	10/12/2022	262.77	10/20/2022
752	EMC2 MECHANICAL SOLUTION	309	KITS	10/26/2022	1,747.04	10/28/2022
892	SPECTRUM	10/07/2022	8348 10 012 0042231 VLG	10/14/2022	10.95	10/20/2022
1235	J.M. BRENNAN, INC.	SALES000146683	BOILER INSTALL	10/13/2022	40,200.00	10/20/2022
1710	UP NORTH SERVICES	4238	PEST CONTROL VLG	10/26/2022	50.00	10/28/2022
2228	GLOBAL WATER TECHNOLOGY	75828	INHIBITOR	10/26/2022	302.03	10/28/2022

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Total 10-51600-234 VILLAGE HALL MAINTENANCE:					42,572.79	
10-51600-310 SUPPLIES/MISC EXPENSES						
1230	ODP BUSINESS SOLUTIONS LL	272811708001	37360205-VLG	10/26/2022	69.54	10/28/2022
2252	SHRED-IT	8002530995	SHREDDING	10/19/2022	2,236.13	10/20/2022
Total 10-51600-310 SUPPLIES/MISC EXPENSES:					2,305.67	
10-51700-511 GROUP HEALTH - RETIREES						
433	RESNICK, AMY	32	HEALTH INSURANCE REIMBUR	09/01/2022	761.45	10/07/2022
433	RESNICK, AMY	33	HEALTH INSURANCE REIMBUR	10/01/2022	761.45	10/07/2022
435	RIES, DANIEL	48	HEALTH	09/01/2022	866.09	10/07/2022
435	RIES, DANIEL	49	HEALTH	10/01/2022	866.09	10/07/2022
446	SCHELLING JUDITH	11	REIMBURSEMENT	09/01/2022	237.80	10/07/2022
446	SCHELLING JUDITH	12	REIMBURSEMENT	10/01/2022	237.80	10/07/2022
548	WOJTANOWSKI, WILLIAM	16	MONTHLY DELTA VISION	09/01/2022	181.52	10/07/2022
548	WOJTANOWSKI, WILLIAM	17	MONTHLY DELTA VISION	10/01/2022	181.52	10/07/2022
638	KRIEFALL, DONALD A	76	HEALTH INSURANCE REIMBUR	09/01/2022	825.89	10/07/2022
638	KRIEFALL, DONALD A	77	HEALTH INSURANCE REIMBUR	10/01/2022	825.89	10/07/2022
Total 10-51700-511 GROUP HEALTH - RETIREES:					5,745.50	
10-52100-210 POLICE MAINTENANCE CONTRACTS						
1710	UP NORTH SERVICES	4237	POLICE PEST CONTROL	10/25/2022	50.00	10/28/2022
5152	JAMES IMAGING SYSTEMS, IN	1242234	POLICE DEPARTMENT	10/17/2022	89.50	10/20/2022
Total 10-52100-210 POLICE MAINTENANCE CONTRACTS:					139.50	
10-52100-217 DISPATCHING CONTRACT SERVICES						
61	BAYSIDE, VILLAGE OF	1142	DISPATCH	10/25/2022	75,913.25	10/28/2022
Total 10-52100-217 DISPATCHING CONTRACT SERVICES:					75,913.25	
10-52100-220 GAS UTILITIES						
536	WE-ENERGIES	10/24/2022	0702787382-00008	10/27/2022	479.94	10/28/2022
Total 10-52100-220 GAS UTILITIES:					479.94	
10-52100-221 ELECTRIC UTILITIES						
536	WE-ENERGIES	10/24/2022	0702787382-00015	10/27/2022	28.93	10/28/2022
Total 10-52100-221 ELECTRIC UTILITIES:					28.93	
10-52100-222 TELEPHONE UTILITIES						
892	SPECTRUM	20221001OTA	8348 10 012 0041845 POLICE	10/13/2022	21.89	10/20/2022
2136	VERIZON WIRELESS	9917413848	786223225-00001 POLICE	10/14/2022	437.56	10/20/2022
2691	CENTURYLINK-BUSINESS SVC.	612295425	87619173	10/19/2022	.39	10/20/2022
2973	TIME WARNER CABLE	070433001100122	070433001	10/13/2022	913.45	10/20/2022
5312	AT & T- VILLAGE	09/22/2022	414 351-8909-758 7	10/04/2022	39.69	10/07/2022
Total 10-52100-222 TELEPHONE UTILITIES:					1,412.98	
10-52100-232 VEHICLE MAINTENANCE						
503	VILLAGE HARDWARE - DPS	222854	WINDSHIELD WASH	10/06/2022	40.88	10/07/2022
503	VILLAGE HARDWARE - DPS	222859	MISC	10/06/2022	11.25	10/07/2022
4777	BATTERIES PLUS -	55479939	12VOLT	10/06/2022	164.75	10/07/2022

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Total 10-52100-232 VEHICLE MAINTENANCE:					216.88	
10-52100-233 EQUIPMENT MAINTENANCE						
2248	STOP-STICK LTD	0026361	STOP STICKS	10/13/2022	128.00	10/20/2022
5839	LEXISNEXIS	1246411-220930	MONTHLY	10/13/2022	30.00	10/20/2022
Total 10-52100-233 EQUIPMENT MAINTENANCE:					158.00	
10-52100-234 BUILDING MAINTENANCE						
503	VILLAGE HARDWARE - DPS	223151	MISC	10/17/2022	11.65	10/20/2022
503	VILLAGE HARDWARE - DPS	223238	PAINT	10/19/2022	8.09	10/20/2022
Total 10-52100-234 BUILDING MAINTENANCE:					19.74	
10-52100-310 SUPPLIES/EXPENSES						
1230	ODP BUSINESS SOLUTIONS LL	270231291001	37360205-POLICE DEPT	10/19/2022	78.36	10/20/2022
1230	ODP BUSINESS SOLUTIONS LL	270299110001	37360205-POLICE DEPT	10/19/2022	25.29	10/20/2022
1585	QUILL CORPORTATION	103323595	PAPER	10/06/2022	185.95	10/07/2022
Total 10-52100-310 SUPPLIES/EXPENSES:					289.60	
10-52100-330 CLOTHING ALLOWANCE						
473	STREICHER'S	1591675	DUBNICKA	10/13/2022	24.99	10/20/2022
473	STREICHER'S	1593954	HUBER	10/13/2022	97.98	10/20/2022
473	STREICHER'S	1594040	BROUWER	10/13/2022	127.97	10/20/2022
473	STREICHER'S	1595547	ADAMAITIS	10/25/2022	107.11	10/28/2022
473	STREICHER'S	1595884	GABRIELSE	10/25/2022	51.98	10/28/2022
473	STREICHER'S	CM293736	CREDIT	10/13/2022	7.99-	10/20/2022
473	STREICHER'S	CM293776	CREDIT	10/13/2022	107.11-	10/20/2022
Total 10-52100-330 CLOTHING ALLOWANCE:					294.93	
10-52100-334 JANITORIAL SUPPLIES						
393	PACKERLAND RENT-A-MAT INC.	2941449	10586-10586-POLICE DEPT	10/13/2022	130.99	10/20/2022
1585	QUILL CORPORTATION	27775252	PAPER TOWELS	09/29/2022	97.95	10/07/2022
Total 10-52100-334 JANITORIAL SUPPLIES:					228.94	
10-52100-335 SCHOOL EXPENSES						
877	FBI-LEEDA	200076244	SLI	10/06/2022	695.00	10/07/2022
Total 10-52100-335 SCHOOL EXPENSES:					695.00	
10-53100-233 GIS MAINTENANCE						
39	RUEKERT MIELKE, INC.	143436	GIS DATA MAINT	10/17/2022	982.50	10/20/2022
Total 10-53100-233 GIS MAINTENANCE:					982.50	
10-53100-321 PROFESSIONAL DUES/MEETINGS						
32	APWA	10.4.2022	MEMBERSHIP DUES	10/17/2022	400.00	10/20/2022
Total 10-53100-321 PROFESSIONAL DUES/MEETINGS:					400.00	
10-53300-221 STREET LIGHTS - ELECTRIC						
536	WE-ENERGIES	10/10/2022	0702787382-00001	10/14/2022	171.58	10/20/2022
536	WE-ENERGIES	10/10/2022	0702787382-00013	10/14/2022	19.36	10/20/2022

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Total 10-53300-221 STREET LIGHTS - ELECTRIC:					190.94	
10-53300-405 STREET MATERIALS						
458	SHERWIN INDUSTRIES, INC.	SS095652	RENTAL	10/13/2022	2,100.00	10/20/2022
1074	MATHESON TRI-GAS, INC	52076183	OXYGEN	10/13/2022	14.52	10/20/2022
1273	WOLF PAVING CO. INC.	42929	GRADE 5	10/03/2022	294.56	10/07/2022
4888	CARLIN SALES	3028665	PAINT	10/03/2022	71.52	10/07/2022
5986	WSO GRADING & EXCAVATING	4181	STONE/FILL	10/10/2022	400.00	10/14/2022
Total 10-53300-405 STREET MATERIALS:					2,880.60	
10-53300-495 MISCELLANEOUS SUPPLIES & TOOLS						
502	VILLAGE HARDWARE - VH	223411/1	NUTS BOLTS	10/26/2022	4.57	10/28/2022
1800	MENARD'S - GERMANTOWN	33637	MISC GENERAL	10/27/2022	6.27	10/28/2022
Total 10-53300-495 MISCELLANEOUS SUPPLIES & TOOLS:					10.84	
10-53310-400 MATERIALS						
4888	CARLIN SALES	3029117-00	MISC	10/20/2022	300.00	10/28/2022
Total 10-53310-400 MATERIALS:					300.00	
10-53400-221 BUS STOP-ELECTRIC						
536	WE-ENERGIES	10/10/2022	0702787382-00016	10/14/2022	17.33	10/20/2022
536	WE-ENERGIES	10/10/2022	0702787382-00005	10/14/2022	17.33	10/20/2022
536	WE-ENERGIES	10/11/2022	0702787382-00003	10/18/2022	19.29	10/20/2022
Total 10-53400-221 BUS STOP-ELECTRIC:					53.95	
10-53700-300 MISCELLANEOUS EXPENSE						
1246	SECURE FIRE & SAFETY LLC	34218	RECHARGE	10/26/2022	113.70	10/28/2022
2241	ITU ABSORB TECH, INC	7993729	SHOP	10/13/2022	11.90	10/20/2022
2241	ITU ABSORB TECH, INC	7997918	SHOP	10/13/2022	11.90	10/20/2022
2241	ITU ABSORB TECH, INC	8001994	SHOP	10/26/2022	11.90	10/28/2022
2241	ITU ABSORB TECH, INC	8006122	SHOP	10/26/2022	11.90	10/28/2022
Total 10-53700-300 MISCELLANEOUS EXPENSE:					161.30	
10-53700-341 REPAIR PARTS						
43	AUTO PARTS & SERVICE	872888	MISC	10/13/2022	67.68	10/20/2022
547	ROLAND MACHINERY	40112397	LUBE SPIN	10/26/2022	18.66	10/28/2022
665	LAKESIDE INTERNATIONAL TR	1077829	REPAIRS	10/26/2022	7,799.60	10/28/2022
665	LAKESIDE INTERNATIONAL TR	1078026	REPAIRS	10/26/2022	8,176.92	10/28/2022
665	LAKESIDE INTERNATIONAL TR	1375717P	MISC	10/13/2022	198.66	10/20/2022
776	GRAINGER, INC.	9474848117	LUBRICANT	10/26/2022	20.91	10/28/2022
1042	EJ EQUIPMENT INC	P07873	CAMERA	10/13/2022	124.70	10/20/2022
1800	MENARD'S - GERMANTOWN	33637	MISC GENERAL	10/27/2022	17.97	10/28/2022
2810	CONTREE SALES, INC.	73469	DAMPER	10/17/2022	42.32	10/20/2022
Total 10-53700-341 REPAIR PARTS:					16,467.42	
10-53700-342 TIRES						
413	POMP'S TIRE SERVICE, INC.	60283354	TIRES	10/26/2022	404.44	10/28/2022
413	POMP'S TIRE SERVICE, INC.	60285806	CREDIT	10/26/2022	714.92	10/28/2022
413	POMP'S TIRE SERVICE, INC.	60287637	TIRES	10/26/2022	458.40	10/28/2022

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Total 10-53700-342 TIRES:					147.92	
10-53700-346 MISC DPW SHOP TOOLS						
43	AUTO PARTS & SERVICE	873700	TOOLS	10/26/2022	328.75	10/28/2022
Total 10-53700-346 MISC DPW SHOP TOOLS:					328.75	
10-53800-220 GAS UTILITIES						
536	WE-ENERGIES	9/26/22	0702787382-00002	09/30/2022	47.05	10/07/2022
Total 10-53800-220 GAS UTILITIES:					47.05	
10-53800-221 ELECTRIC UTILITIES						
536	WE-ENERGIES	9/26/22	0702787382-00002	09/30/2022	1,296.25	10/07/2022
Total 10-53800-221 ELECTRIC UTILITIES:					1,296.25	
10-53800-222 TELEPHONE UTILITIES						
5312	AT & T- VILLAGE	09/22/2022	414 351-8909-758 7	10/04/2022	55.57	10/07/2022
Total 10-53800-222 TELEPHONE UTILITIES:					55.57	
10-53800-224 CELL PHONES						
2136	VERIZON WIRELESS	9917159891	787000169-00001	10/17/2022	187.55	10/20/2022
Total 10-53800-224 CELL PHONES:					187.55	
10-53800-300 MISCELLANEOUS EXPENSE						
1074	MATHESON TRI-GAS, INC	52076183	OXYGEN	10/13/2022	33.00	10/20/2022
2241	ITU ABSORB TECH, INC	7993731	DPW	10/13/2022	27.73	10/20/2022
2241	ITU ABSORB TECH, INC	7997920	TOWELS/ROLL/BAR	10/13/2022	132.02	10/20/2022
2241	ITU ABSORB TECH, INC	8001996	DPW	10/26/2022	27.73	10/28/2022
2241	ITU ABSORB TECH, INC	8006124	TOWELS/MATS	10/26/2022	217.52	10/28/2022
Total 10-53800-300 MISCELLANEOUS EXPENSE:					438.00	
10-53800-333 SAFETY PROGRAM						
671	AIRGAS	9131087003	GLOVES	10/25/2022	20.20	10/28/2022
671	AIRGAS	9131103548	GLOVES/VEST	10/25/2022	202.35	10/28/2022
671	AIRGAS	9131103549	GLOVES	10/25/2022	282.92	10/28/2022
Total 10-53800-333 SAFETY PROGRAM:					505.47	
10-54100-214 HUMANE SOCIETY/MADACC						
619	MADACC	2114	4TH QTR OPERATING	10/19/2022	3,934.48	10/20/2022
Total 10-54100-214 HUMANE SOCIETY/MADACC:					3,934.48	
10-55200-435 PLAYGROUND MATERIALS						
1800	MENARD'S - GERMANTOWN	32064	MISC GENERAL	10/03/2022	57.63	10/07/2022
4888	CARLIN SALES	3027654	SPURGE POWER	10/03/2022	19.62	10/07/2022
Total 10-55200-435 PLAYGROUND MATERIALS:					77.25	
10-55400-430 LX CLUB MATERIALS						
890	FOX POINT BAYSIDE LX CLUB	9.21.22	LX CLUB FEES	10/19/2022	1,500.00	10/20/2022

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Total 10-55400-430 LX CLUB MATERIALS:					1,500.00	
10-55440-220 GAS UTILITIES						
536	WE-ENERGIES	10/10/2022	0702787382-00011	10/14/2022	56.99	10/20/2022
Total 10-55440-220 GAS UTILITIES:					56.99	
10-55440-221 ELECTRIC UTILITIES						
536	WE-ENERGIES	10/10/2022	0702787382-00010	10/14/2022	115.84	10/20/2022
Total 10-55440-221 ELECTRIC UTILITIES:					115.84	
10-55440-450 SKATE RINK MATERIALS						
360	NASSCO INC.	6213327	SUPPLIES	10/12/2022	262.77	10/20/2022
502	VILLAGE HARDWARE - VH	223081/1	TRASH BAGS	10/13/2022	35.99	10/20/2022
1800	MENARD'S - GERMANTOWN	33637	MISC GENERAL	10/27/2022	121.20	10/28/2022
Total 10-55440-450 SKATE RINK MATERIALS:					419.96	
10-56100-125 FORESTRY CONSULTANT						
5933	WACHTEL TREE SCIENCE & SE	105856	FORESTRY REQUESTS	10/17/2022	4,770.00	10/20/2022
5933	WACHTEL TREE SCIENCE & SE	108384	FORESTRY REQUESTS	10/03/2022	5,300.00	10/07/2022
Total 10-56100-125 FORESTRY CONSULTANT:					10,070.00	
10-56100-310 SUPPLIES/EXPENSES						
1800	MENARD'S - GERMANTOWN	33637	MISC GENERAL	10/27/2022	59.94	10/28/2022
Total 10-56100-310 SUPPLIES/EXPENSES:					59.94	
21-53100-233 GIS MAINTENANCE						
39	RUEKERT MIELKE, INC.	143436	GIS DATA MAINT	10/17/2022	53.00	10/20/2022
Total 21-53100-233 GIS MAINTENANCE:					53.00	
21-71000-400 MATERIALS						
2260	PORT A JOHN	1347861	PORT A JOHN	10/03/2022	113.00	10/07/2022
Total 21-71000-400 MATERIALS:					113.00	
21-72000-220 GAS UTILITIES						
536	WE-ENERGIES	10/10/2022	0702787382-00004	10/14/2022	12.64	10/20/2022
Total 21-72000-220 GAS UTILITIES:					12.64	
21-72000-221 ELECTRIC UTILITIES						
536	WE-ENERGIES	10/10/2022	0702787382-00004	10/14/2022	98.50	10/20/2022
536	WE-ENERGIES	10/10/2022	0702787382-00007	10/14/2022	28.03	10/20/2022
Total 21-72000-221 ELECTRIC UTILITIES:					126.53	
21-73000-400 MATERIALS						
50	BADGER METER, INC.	80109523	SERV UNIT	09/30/2022	74.23	10/07/2022
2136	VERIZON WIRELESS	9917159891	787000169-00001	10/17/2022	37.50	10/20/2022
Total 21-73000-400 MATERIALS:					111.73	

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21-91000-888 SEWER SYSTEM IMPROVEMENTS						
256	KAPUR & ASSOCIATES, INC.	115455	SANITARY MANHOLE	10/07/2022	1,893.00	10/14/2022
256	KAPUR & ASSOCIATES, INC.	115456	SANITARY STORM CIPP	10/07/2022	119.00	10/14/2022
983	MSA PROFESSIONAL SVCS, IN	R17951004.0-9	SINK HOLE ASSESSMENT	10/17/2022	420.44	10/20/2022
2231	REDINA CONSTRUCTION CO. I	22-003-01F	SANITARY MANHOLE	10/19/2022	110,564.60	10/20/2022
Total 21-91000-888 SEWER SYSTEM IMPROVEMENTS:					112,997.04	
23-55420-220 GAS UTILITIES						
536	WE-ENERGIES	10/14/22	0702787382-00012	10/19/2022	25.26	10/20/2022
Total 23-55420-220 GAS UTILITIES:					25.26	
23-55420-221 ELECTRIC UTILITIES						
536	WE-ENERGIES	10/14/22	0702787382-00012	10/19/2022	163.80	10/20/2022
Total 23-55420-221 ELECTRIC UTILITIES:					163.80	
23-55420-400 MATERIALS						
1007	HORIZON COMMERCIAL POOL	220927003-AC	POOL CHEMICALS	10/03/2022	68.72	10/07/2022
Total 23-55420-400 MATERIALS:					68.72	
24-52400-218 VILLAGE ATTORNEY						
535	MUNICIPAL LAW & LITIGATION	8333	VILLAGE ATTORNEY	10/19/2022	314.50	10/20/2022
535	MUNICIPAL LAW & LITIGATION	8471	VLG ATTORNEY	10/27/2022	628.30	10/28/2022
Total 24-52400-218 VILLAGE ATTORNEY:					942.80	
24-52400-224 CELL PHONES						
2136	VERIZON WIRELESS	9917159891	787000169-00001	10/17/2022	35.00	10/20/2022
Total 24-52400-224 CELL PHONES:					35.00	
25-52400-401 DRY WEATHER MONITORING						
378	NORTH SHORE WATER COMM	SW10042022-WFB	STORMWATER ANALYSIS	10/17/2022	101.00	10/20/2022
Total 25-52400-401 DRY WEATHER MONITORING:					101.00	
25-53420-400 MATERIALS						
281	LINCOLN CONTRACTORS SUP	119814	MISC	10/18/2022	202.98	10/20/2022
2224	ROCKFIELD SHORT-POUR LLC	10/7/2022	FAIRCHILD CIR	10/19/2022	440.00	10/20/2022
4888	CARLIN SALES	3029117-00	MISC	10/20/2022	152.50	10/28/2022
Total 25-53420-400 MATERIALS:					795.48	
25-53420-415 MAINTENANCE						
787	PROFESSIONAL GROUNDS MG	61940	DUMP MOWING	10/05/2022	204.00	10/07/2022
Total 25-53420-415 MAINTENANCE:					204.00	
25-53800-210 CONTRACT SERVICES						
2136	VERIZON WIRELESS	9917159891	787000169-00001	10/17/2022	30.00	10/20/2022
Total 25-53800-210 CONTRACT SERVICES:					30.00	
25-53800-234 INDIAN CREEK PARK MAINTENANCE						
2824	MAREK LANDSCAPING	5261	INDIAN CREEK	10/21/2022	5,331.35	10/28/2022

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Total 25-53800-234 INDIAN CREEK PARK MAINTENANCE:					5,331.35	
25-91500-800 WPDES COMPLIANCE PROGRAM						
221	PROPET DISTRIBUTORS INC.	140346	DOG BAGS	10/06/2022	409.75	10/14/2022
Total 25-91500-800 WPDES COMPLIANCE PROGRAM:					409.75	
25-91500-833 STORM SEWER SYSTEM IMPROVE.						
39	RUEKERT MIELKE, INC.	143436	GIS DATA MAINT	10/17/2022	979.00	10/20/2022
39	RUEKERT MIELKE, INC.	143437	HYDRAULIC MODEL	10/17/2022	1,183.00	10/20/2022
256	KAPUR & ASSOCIATES, INC.	115457	STORMWATER IMPROV	10/07/2022	1,190.00	10/14/2022
535	MUNICIPAL LAW & LITIGATION	8333	VILLAGE ATTORNEY	10/19/2022	1,165.60	10/20/2022
535	MUNICIPAL LAW & LITIGATION	8471	VLG ATTORNEY	10/27/2022	2,830.00	10/28/2022
Total 25-91500-833 STORM SEWER SYSTEM IMPROVE.:					7,347.60	
40-91200-819 SMALL EQUIPMENT						
1919	PRO-TECH SALES	1113	STRYKER	10/06/2022	3,837.00	10/07/2022
Total 40-91200-819 SMALL EQUIPMENT:					3,837.00	
40-91200-835 MOBILE VIDEO SYSTEMS						
4976	GENERAL COMMUNICATIONS	311844	MOBILE VIDEO	10/25/2022	2,975.00	10/28/2022
Total 40-91200-835 MOBILE VIDEO SYSTEMS:					2,975.00	
40-91400-801 DUMP TRUCK						
5980	MILWAUKEE TRACTOR & EQUIP	EM00473	SKID STEER	10/26/2022	50,386.20	10/28/2022
Total 40-91400-801 DUMP TRUCK:					50,386.20	
40-91500-801 STREET RESURFACING						
256	KAPUR & ASSOCIATES, INC.	115458	LAKE DR	10/07/2022	9,198.91	10/14/2022
1328	AMERICAN SEWER SERVICES I	10.17.2022	2022 ROAD UTILITY	10/19/2022	95,692.35	10/20/2022
2016	BAXTER & WOODMAN INC.	0238837	ROAD AND UTILITY	10/17/2022	7,047.31	10/20/2022
Total 40-91500-801 STREET RESURFACING:					111,938.57	
40-91600-800 STORMWATER ROAD PROJECT						
1328	AMERICAN SEWER SERVICES I	10.17.2022	2022 ROAD UTILITY	10/19/2022	4,662.84	10/20/2022
2016	BAXTER & WOODMAN INC.	0238837	ROAD AND UTILITY	10/17/2022	7,047.31	10/20/2022
Total 40-91600-800 STORMWATER ROAD PROJECT:					11,710.15	
40-91600-830 SIGN REPLACEMENT						
502	VILLAGE HARDWARE - VH	222960/1	MISC HARDWARE	10/12/2022	17.57	10/20/2022
Total 40-91600-830 SIGN REPLACEMENT:					17.57	
40-91600-833 TREE REPLACEMENT						
2824	MAREK LANDSCAPING	5260	VEGETATION MAINTENANCE	10/21/2022	2,596.61	10/28/2022
Total 40-91600-833 TREE REPLACEMENT:					2,596.61	
40-91600-849 BEACH DRIVE-SHORELINE EROSION						
535	MUNICIPAL LAW & LITIGATION	8471	VLG ATTORNEY	10/27/2022	1,408.20	10/28/2022
983	MSA PROFESSIONAL SVCS, IN	R17951003.0-14	SHORELINE REPAIRS	10/17/2022	8,730.02	10/20/2022

VILLAGE OF FOX POINT

Payment Approval Report - by GL - Board Report
Report dates: 10/01/2022-10/31/2022

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Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Amount Paid	Date Paid
Total 40-91600-849 BEACH DRIVE-SHORELINE EROSION:					10,138.22	
40-91600-851 DISEASED TREE REMOVAL						
1569	CUTNGO, LLC	1542	TREE CUTTING	09/30/2022	2,800.00	10/07/2022
1569	CUTNGO, LLC	1551	TREE CUTTING	09/30/2022	2,600.00	10/07/2022
Total 40-91600-851 DISEASED TREE REMOVAL:					5,400.00	
50-81000-601 SOURCE OF WATER SUPPLY						
378	NORTH SHORE WATER COMMI	77	MONTHLY	09/01/2022	23,613.93	10/07/2022
378	NORTH SHORE WATER COMMI	78	MONTHLY	10/01/2022	23,613.93	10/07/2022
Total 50-81000-601 SOURCE OF WATER SUPPLY:					47,227.86	
50-81000-640 OPERATIONS LABOR WATER MAINS						
2839	CITY WATER LLC	924	WATERMIN BREAK	10/06/2022	862.50	10/07/2022
2839	CITY WATER LLC	924	MONTHLY MANAGEMENT FEE	10/06/2022	6,200.00	10/07/2022
Total 50-81000-640 OPERATIONS LABOR WATER MAINS:					7,062.50	
50-81000-651 MAINTENANCE OF MAINS						
474	CORE & MAIN LP	R591134	PARTS	09/16/2022	170.00	10/07/2022
474	CORE & MAIN LP	R679561	PARTS	10/03/2022	853.46	10/20/2022
474	CORE & MAIN LP	R703700	PARTS	10/05/2022	1,141.41	10/28/2022
959	ETNA SUPPLY	S104770362.001	PVC PIPE	10/03/2022	44.00	10/20/2022
1273	WOLF PAVING CO. INC.	42929	GRADE 5	10/03/2022	294.55	10/07/2022
2241	ITU ABSORB TECH, INC	7993730	WATER DEPT	10/13/2022	8.60	10/20/2022
2241	ITU ABSORB TECH, INC	7997919	WATER DEPT	10/13/2022	8.60	10/20/2022
2241	ITU ABSORB TECH, INC	8001995	WATER DEPT	10/26/2022	8.60	10/28/2022
2241	ITU ABSORB TECH, INC	8006123	WATER	10/26/2022	46.53	10/28/2022
101806	USA BLUEBOOK	113783	LID PLUGS	09/16/2022	38.30	10/07/2022
Total 50-81000-651 MAINTENANCE OF MAINS:					2,614.05	
50-81000-654 MAINTENANCE OF HYDRANTS						
474	CORE & MAIN LP	R707666	DDT HYDT	10/05/2022	7,950.00	10/28/2022
Total 50-81000-654 MAINTENANCE OF HYDRANTS:					7,950.00	
50-81000-800 CAPITAL OUTLAY						
39	RUEKERT MIELKE, INC.	143438	ROAD WATER MAIN RELAY	10/17/2022	6,000.00	10/20/2022
256	KAPUR & ASSOCIATES, INC.	115459	LAKE DR	10/07/2022	2,083.00	10/14/2022
535	MUNICIPAL LAW & LITIGATION	8333	VILLAGE ATTORNEY	10/19/2022	2,232.00	10/20/2022
535	MUNICIPAL LAW & LITIGATION	8471	VLG ATTORNEY	10/27/2022	741.80	10/28/2022
1328	AMERICAN SEWER SERVICES I	10.17.2022	2022 ROAD UTILITY	10/19/2022	113,170.00	10/20/2022
2016	BAXTER & WOODMAN INC.	0238837	ROAD AND UTILITY	10/17/2022	7,047.31	10/20/2022
Total 50-81000-800 CAPITAL OUTLAY:					131,274.11	
50-81000-903 SUPPLIES AND EXPENSE						
50	BADGER METER, INC.	80109523	SERV UNIT	09/30/2022	74.22	10/07/2022
Total 50-81000-903 SUPPLIES AND EXPENSE:					74.22	
50-81000-921 OFFICE SUPPLIES AND EXPENSE						
2136	VERIZON WIRELESS	9917159891	787000169-00001	10/17/2022	37.50	10/20/2022

VILLAGE OF FOX POINT

Payment Approval Report - by GL - Board Report
Report dates: 10/01/2022-10/31/2022

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Vendor	Vendor Name	Invoice Number	Description	Invoice Date	Amount Paid	Date Paid
Total 50-81000-921 OFFICE SUPPLIES AND EXPENSE:					37.50	
50-81000-928 REGULATORY COMMISSION EXPENSE						
175	PUBLIC SERVICE COMM. OF WI	RA13-I-02090	ADVANCED ASSESSMENT	09/30/2022	1,706.32	10/07/2022
Total 50-81000-928 REGULATORY COMMISSION EXPENSE:					1,706.32	
50-81000-930 MISC GENERAL EXPENSE						
2385	WISCONSIN RURAL WATER AS	03/07/2023	EXCAVATION TRAINING	10/19/2022	100.00	10/20/2022
Total 50-81000-930 MISC GENERAL EXPENSE:					100.00	
Grand Totals:					748,550.94	

Date Approved: _____

Village Manager: _____

Village Board: _____

Village of Fox Point

AQUATICS DECISION FRAMEWORK



Proposed Timeline

November 8, 2022:

Initial framework, discussion of whether to remain in aquatics recreation, and presentation of concepts from Ayres and Staff

December 13, 2022:

Discussion of construction concepts, financial requirements, and invitation of community comment

January 10, 2023:

Final community comments, Board discussion, and decision



Question for Consideration
November 8, 2022:

Does the Village Board of Fox Point wish to continue to provide
aquatics recreation?

Yes or No

- If no, Staff will begin the process for RFP to solicit bids for demolition of the pool which would likely take place in 2024.
- If yes, the Village Board must decide on the following slides' considerations...



What and Where?

(Guided by options presented in the 2019 Ayres Aquatic Facility Study)

Where would new aquatics construction be located?

- Current location or moved to Longacre
 - Decision on location may affect future Village Hall/DPW facility decisions

What type of aquatics to be constructed?

- Ayres Concept 1: Waterpark Style Pool on Existing Site
- Ayres Concept 2: Lap Pool and Splashpad on Existing Site
- Ayres Concept 3: Lap Pool and Splashpad at Longacre
- Ayres Concept 4: Waterpark Style Pool at Longacre
- Staff Concept: Splashpad and Community Center Upgrades to Longacre Pavilion/Park



Ayres Concept 1: Waterpark Style Pool on Existing Site



- Most desired concept from public meetings
- Many amenities for broad range of ages
- High cost of construction
 - Ayres Est: \$4.5-4.9 million construction
 - Likely even higher with current construction and inflation costs. Expect to budget an additional \$1-1.5 million.
- Significant staffing requirements
- Higher maintenance, operation, and insurance costs
 - Ayres Est: \$225,000 operating
 - Operating costs likely 1.5-2x higher than estimate



Ayres Concept 2: Lap Pool and Splashpad on Existing Site



Fox Point Aquatic Facility - Concept 2
Village of Fox Point, Wisconsin



Aerial Perspective

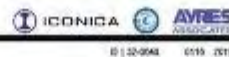
- Second most desired concept from public meetings
- Demographics of community may not lend itself to a splashpad
 - Trending older, per 2020 census and comp. plan
- Lower cost of construction than “waterpark” style community pool
 - Ayres Est: \$3.2-3.6 million construction
 - Likely even higher with current construction and inflation costs. Expect to budget an additional \$1-1.5 million.
- Less staffing requirement than current operations
- Less maintenance and operation costs
 - Ayres Est: \$160,000 operating



Ayres Concept 3: Lap Pool and Splashpad at Longacre



Fox Point Aquatic Facility - Concept 3
Village of Fox Point, Wisconsin



Aerial Perspective

- Least desired concept from public meetings
- Demographics of community may not lend itself to a splashpad
 - Trending older, per 2020 census and comp. plan
- Lower cost of construction than “waterpark” style community pool
 - Ayres Est: \$2.4-2.7 million construction
 - Likely even higher with current construction and inflation costs. Expect to budget an additional \$1-1.5 million.
- Less staffing requirement than current operations. Reduces number of facilities for staff to maintain. Pavilion could be renovated to accommodate aquatics. No playground.
- Less maintenance and operation costs
 - Ayres Est: \$160,000 operating



Ayres Concept 4: Waterpark Style Pool on Existing Site



Fox Point Aquatic Facility - Concept 4
Village of Fox Point, Wisconsin

ICONICA
ID | 50-0648 0118 | 2019

AYRES
ASSOCIATES

Aerial Perspective

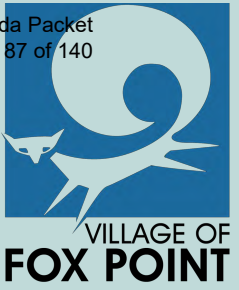
- Least desired location from public meetings
- Many amenities for broad range of ages
- High cost of construction
 - Ayres Est: \$4.5-4.9 million construction
 - Likely even higher with current construction and inflation costs. Expect to budget an additional \$1-1.5 million.
- Significant staffing requirements, parking contingency, no playground
- Reduces number of facilities to maintain
- Higher maintenance, operation, and insurance costs
 - Ayres Est: \$225,000 operating
 - Operating costs likely 1.5-2x higher than estimate



Staff Concept: Splashpad, Park, & Community Center Upgrades to Longacre



- Renovate Longacre Pavilion and Park to include a number of possible community amenities such as the following:
 - Splash Pad
 - Inclusive Playground
 - Additional Parking Pad, space for Food Trucks
 - Multi-Use Paved Open-space
 - Seating/picnic area with bistro lighting, electrical hookup, and possible beer garden relocation
 - Large Chess or Pickleball (painted on pavement)
 - Pergola or shade structures
 - Renovated Pavilion with possible building addition(s) for community events, event rentals, senior activities, small kitchen, etc.
 - Infrastructure improvements such as electric upgrades to allow for concerts, facility Wi-Fi, or public remote work, or other community event programming
 - Dog Run
 - Additional parking and/or re-grading of ice rink could allow for relocation of farmers market (if desired) to create central community event open space
 - Additional Landscaping
 - Staff Est: \$1.5-3 million



Next Steps

- Staff would issue an RFP in 2023 for design and construction work, with likely planned construction for 2024 depending on contractor availability
 - Per §745-20(B) of the Fox Point Municipal Code regarding use of institutional districts, the Village Board will make a referral of the possible project proposal to the Plan Commission. The Plan Commission will meet jointly with the Building Board to review site plans, and then make a recommendation back to the Village Board for final approval.
 - A public hearing component would be included in this process allowing for further community comment
- Discussion and action on Village facilities for a new DPW/Village Hall would occur shortly after a decision on aquatics is made.
 - Decisions on possible pool relocation could affect available facility development area or usable DPW yard space

2019



VILLAGE OF FOX POINT

AQUATIC FACILITY STUDY



ICONICA

AYRES
ASSOCIATES

ACKNOWLEDGEMENTS

Pool Committee

Marty Tirado, *Village Trustee, Chair*
Christine Symchych, *Village Trustee, Vice Chair*
Catie Anderson
Therese Gripenrog
Jill Macek
Carrie O'Connor
Vicki O'Neil
Dirk Stallman
Adam Sturycz

Village Board

Douglas Frazer, *President*
Eric Fonstad, *Trustee*
Christine Symchych, *Trustee*
Liz Sumner, *Trustee*
Marty Tirado, *Trustee*
Bill Kravit, *Trustee*
Greg Ollman, *Trustee*

Village of Fox Point Staff

Scott Botcher, *Village Manager*
Scott Brandmeier, *Director of Public Works/Village Engineer*

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ayresassociates.com

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carricoaquatics.com

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Madison, WI 53717
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iconicacreatives.com

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Appendix

Maps:

- Map 1: Nearby Facilities
- Map 2: Aquatic Facility Site Options
- Map 3: Site 1 – Fox Point Pool
- Map 4: Site 2 – School District Site
- Map 5: Regional Aquatic Center Service Area Analysis

Concept Plans:

- Concept 1 – Community pool on the existing pool site
- Concept 2 – Neighborhood pool and splashpad on the existing pool site
- Concept 3 – Neighborhood pool and splashpad on the Longacre Park site
- Concept 4 – Community pool on the Longacre Park site

Perspective Views:

- Concept 1 – Aerial Perspective
- Concept 1 – Perspective
- Concept 2 – Aerial Perspective
- Concept 2 – Perspective
- Concept 3 – Aerial Perspective
- Concept 3 – Perspective
- Concept 4 – Aerial Perspective
- Concept 4 – Perspective

Village of Fox Point

Aquatic Facility Study



This plan has been prepared to guide the Village of Fox Point in the selection and development of new aquatic facilities. The current Village Pool was constructed in 1968 and it has been determined that it will soon need to be replaced and/or relocated. The goal of this plan is to recommend the facility location and determine the amenities that would best meet the needs of Village residents.

Project Background

Trends

Recent national trends in aquatic facility design have shifted from traditional lap pools to family aquatic centers that have some of the same features as larger waterparks. Features such as zero depth entry pools, lazy rivers and wave pools were once only found in larger commercial facilities but now are commonly found in municipal pools. According to the National Recreation and Park Association, traditional pools may see attendances below 100 people per day while new facilities commonly draw over 500. The additional entertainment value of the modern pool facility is also reflected in the cost of admission. While traditional pools commonly charge \$1 or \$2 a day for admission, a new aquatic center may often charge \$10 or more.

Another emerging trend is the presence of splashpads and splash playgrounds in communities nationwide. Splashpads have replaced wading pools and have become the reason many people go to certain parks in the summer months. Splashpads do not require the maintenance and staffing of a traditional pool so they do not suffer from the same high operational cost. Typical splashpad users are children between the ages of 2 and 12.

Inclusion of new technologies is often part of the design of aquatic facilities and park facilities, in general. Amenities like wireless internet, motion sensing light systems and pedestrian tracking technologies are commonly found in recreational facilities nationwide.

Definitions

Terminology is used in this report to define different types of aquatic facilities.

Aquatic Facility – Refers to any aquatic based recreational amenity including splashpads, neighborhood pools, community pools and aquatic centers.

Splashpad – A designated area with in-ground and above-ground spray features. A typical splashpad is between 1,500 and 3,000 square feet.

Neighborhood Pool - A traditional pool with four to six lanes designed for recreational and competitive swimming.

Community Pool – A traditional pool with six to eight lanes for competitive swimming as well as other recreational aquatic amenities. This type of pool often has a small offering of the features found in more modern aquatic centers such as zero-depth entry, spray features, play structures and slides.

Aquatic Center (Regional Facility) – This type of pool design includes zero depth entry, play structures, waterslides and lazy rivers. A facility that has the potential to draw visitors from outside the community.

Past Planning Documents

Village of Fox Point Public Pool Facility Study (2017)

The Village teamed with the University of Wisconsin-Milwaukee to create a comprehensive study analyzing the need for a new aquatic facility in Fox Point. The study reviewed the condition of the existing pool and gave alternatives for new facility options. An online survey and public meeting were aspects of the public participation process. The plan cites declining conditions of the pool leading to lower attendance over the previous several years. The study also mentions a lack of ADA accessibility and an outdated concession stand as other areas in need of improvement. A study done by Barrientos Engineering in 2007 is referenced in the plan that evaluated the facility and determined the pool had an eleven-year predicted lifespan based on the condition of the pool's sanitary, storm and water utilities. Some of the issues found in the 2007 study have since been remedied, yet others remain or have reoccurred.

After thorough analysis and review, the study generated this "Problem Statement" regarding existing facility conditions:

"After serving the community for 50 years, the Village of Fox Point's public pool will need to undergo major restoration, reconstruction or be decommissioned. Addressing financing, programming and maintenance are crucial in order for the swimming pool to remain a vibrant municipal amenity. The future of the public pool should enhance the quality of life, provide a cost-effective solution and promote community pride."

The final recommendation of the study was to rebuild the pool and pool house structure as soon as possible. Reconstruction of the pool was recommended on the existing pool site.

Meetings and Public Input

Meetings

Meeting 1 – **Kick-Off Meeting (Internal Meeting)**. November 27, 2018: The kick-off meeting introduced the planning consultant and Village staff with the purpose of discussing potential options for future aquatic facilities in Fox Point. A public meeting was scheduled for January 2019 and the consulting team visited the existing pool.

Meeting 2 – **Staff Review Meeting (Internal Meeting)**. January 8, 2019: A second meeting was held with Village staff to review conceptual plans for aquatic facilities prepared by the planning consultant. Two facility options were prepared for both the existing pool and Longacre Park sites. These concepts were modified based on the input of Village staff.

Meeting 3 – **Public Meeting**. February 5, 2019: The public information meeting gave community members an opportunity to review and comment on both the location and conceptual options for future facilities. The planning consultant gave a presentation on the project progress to this point. After the presentation, public feedback was given on possible project options and a visual preference survey was conducted to determine both the type and location of facility that was most popular among meeting attendees.

Meeting 4 – **Pool Committee Meeting**. March 22, 2019: The planning consultant presented the draft report to the pool committee.

Meeting 5 – **Village Board Meeting**. April 19, 2019: The planning consultant presented the final draft to the Village Board.

Community Input Results

The Village of Fox Point values public input and believes that community members should be engaged early on in decisions that affect them. The community was invited to provide feedback on where new aquatic facilities would be desired and what type of amenities they would like to see in these facilities. Public input was considered from the public information meeting, visual preference survey results and the UW-Milwaukee community survey. A second public survey was issued online to collect feedback on the proposed concept scenarios.

Community Survey #1 - An online survey was conducted for pool users regarding future aquatic facilities as a part of the 2017 UW-Milwaukee study. The survey was available on the Village website and collected 842 responses. Some notable results of the survey are listed below:

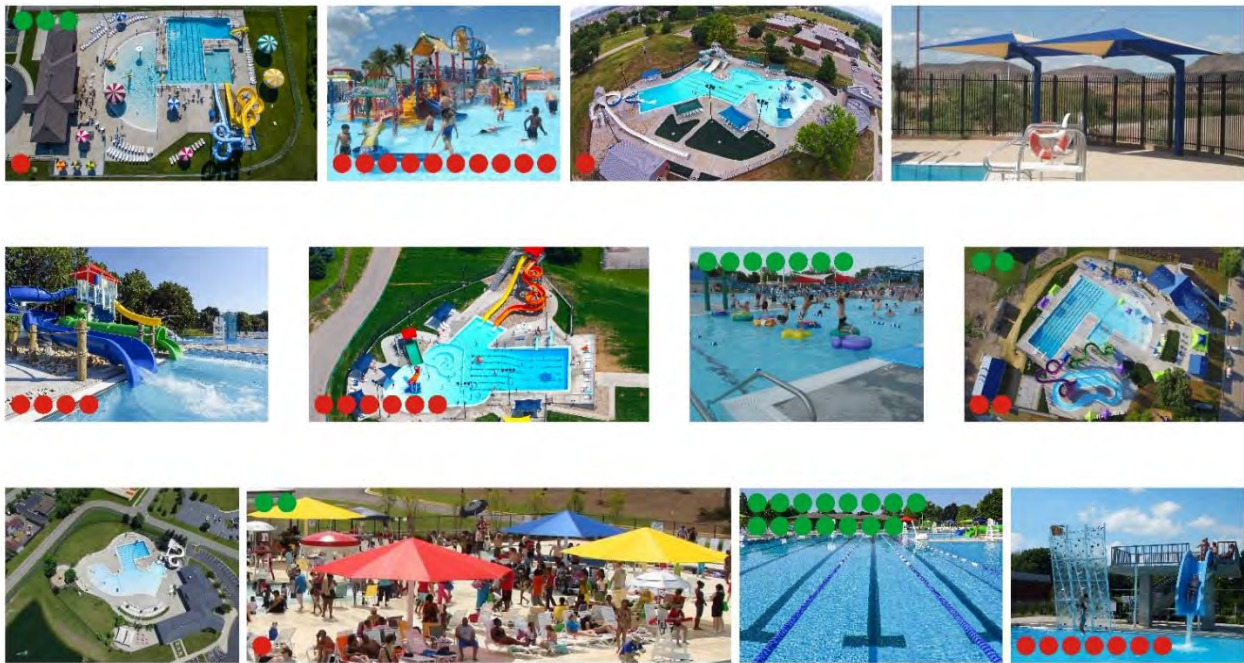
- When asked what type of amenities the survey participants wanted in an aquatic facility, the most common response was “Lap Swimming” (53.3%), closely followed by “Kid Pools/Zero-Depth Pools” (53.1%).
- Asked whether they were in favor of the Village continuing to fund pool operation, the largest percentage of survey participants (64%) responded “I am in favor of continuing to operate the pool regardless of the cost.”
- When asked if they would support a significant capital investment by the Village to rebuild the pool or make it more sustainable, the most common response was “Definitely Yes” (50.6%)

Public Meeting #1 - The consultant team provided a presentation and listening session which included a visual preference survey. Visual preference survey (VPS) boards were created which are 24” x 36” mounted graphics depicting multiple potential options for future facilities. Public meeting attendees were given green and red stickers to mark images they liked or disliked with the corresponding sticker. VPS boards were created showing different specific aquatic amenity types as well as boards displaying a conceptual, constructed facility in one of the potential locations

An example of each of the visual preference survey types is shown are shown on the **Page 4**. See **Page 5** for visual preference survey results.

Community Survey #2 – Based on the limited responses received at the Public Meeting, a follow up Community Survey is recommended to gather input from a larger data set. This section can be updated upon further analysis of the responses.

COMMUNITY POOL



Fox Point Aquatic Facility - Precedent Images
Village of Fox Point, Wisconsin

ICONICA
ID | 52-0648

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1220 | 2018

Visual Preference Survey – Amenity Types



Fox Point Aquatic Facility - Concept 2
Village of Fox Point, Wisconsin

ICONICA
ID | 52-0648

AYRES ASSOCIATES
0116 | 2019

Aerial Perspective

Visual Preference Survey – Facility Concept and Location

Results of the visual preference surveys are shown in the table below. The most desired site amenity was a lap pool. Concept 1 was the concept favored by meeting attendees. It depicts an aquatic enter constructed on the existing pool site.

Fox Point Aquatic Facility - Amenity Character Image Preference Results

ITEM	YES	NO	+/-
Lap pool	15	0	15
Pool building 4	10	0	10
Pool building 1	8	0	8
Rope course	7	0	7
Small pool 1	4	0	4
Pool building 3	3	0	3
Zero depth, lap pool, slides	3	1	2
Small pool 2	2	0	2
Shade kites, deck chairs	2	1	1
Small pool 3	1	0	1
Zero depth, lap pool, slides, current channel	0	0	0
Shade kites	0	0	0
Zero depth, lap pool, slides, current channel	2	2	0
Zero depth, lap pool, slides	0	0	0
Splash pad 1	1	1	0
Splash pad 2	1	2	-1
Pool building 2	0	2	-2
Slides	0	4	-4
Splash pad 3	0	4	-4
Splash pad 4	1	6	-5
Zero depth, lap pool, slides, current channel, play structure	0	6	-6
Aquaclimb, drop slide	0	7	-7
Play structure	0	10	-10

Fox Point Aquatic Facility - Facility Character Image Preference Results

ITEM	YES	NO	+/-
Concept 1	40	0	40
Concept 2	13	22	-9
Concept 4	18	38	-20
Concept 3	2	42	-40

Fox Point Demographics

This section presents social factors that are important to understanding the community and its recreational needs. Particularly important to planning for the adequate provision of aquatic facilities are population trends and projections concerning the age characteristics of potential aquatic facility users.

Population Trends and Projections

There is a direct relationship between population and the need for aquatic facilities. Predicting how the population might change in the future provides important information about the amount of recreational facilities that will be needed to serve the new populations.

According to data provided by the U.S. Census Bureau, Fox Point has experienced a slight population decline in the last 40 years. The population decreased by 411 between the years of 1980 and 1990, 226 between 1990 and 2000, and 311 between the years of 2000 and 2010. Overall, the population has decreased by 13% between the years of 1980 and 2017. Population projections from the Wisconsin Department of Administration estimate that this trend will continue with a 6% reduction in population expected between the years 2010 and 2040. Population projection information for Fox Point and comparable communities is provided in the table below.

Population Projections for the Village of Fox Point and Comparable Communities (2040)

Name of Municipality	Census 2010	Projection 2020	Projection 2030	Projection 2040	Percentage Change 2010-2040
V Fox Point	6,701	6,580	6,345	6,270	-6%
V Hales Corner	7,692	7,860	7,905	8,170	6%
C Elm Grove	5,934	5,945	6,000	5,625	-5%
V Jackson	6,753	7,740	9,085	9,710	44%
V Sturtevant	6,970	7,580	8,320	8,740	25%
C Sheboygan Falls	7,775	8,565	9,575	10,040	29%

Source: Wisconsin Department of Administration Estimates and Projections (2017), US Census

Age

Age distribution in Fox Point is shown in the following table. Age cohorts are an important consideration when determining the type of new aquatic facilities in a community. Different age groups utilize different types of facilities. Recent trends show a decline in the number of children in Fox Point under the age of 19 and an increase in residents between the ages of 20 and 64. There was also a decline in adults over the age of 65. If these trends continue, they could influence the type of aquatic facility improvements that would best serve future populations. For example, declining populations of children under the age of 14 would result in less demand for aquatic facilities such as splashpads. On the other hand, larger adult populations would increase the demand for facilities such as lap pools.

Age Distribution, 2000-2017 Village of Fox Point, Wisconsin

	2000		2017		Percent Change 2000-2017
	Number	Percent	Number	Percent	
Under 5 years	415	5.9	429	6.4	-3%
5 to 9 years	460	6.6	440	6.6	-4%
10 to 14 years	516	7.4	410	6.1	-21%
15 to 19 years	496	7.1	373	5.6	-25%
20 to 24 years	217	3.1	241	3.6	11%
25 to 34 years	510	7.3	501	7.5	2%
35 to 44 years	1,098	15.7	784	11.7	29%
45 to 54 years	1,172	16.7	1,283	19.1	9%
55 to 64 years	723	10.3	968	14.4	34%
65 to 74 years	678	9.7	703	10.5	-4%
75 to 84 years	551	7.9	396	5.9	-28%
85 years and over	176	2.5	178	2.7	1%
Total Population	7,012		6,706		-4%

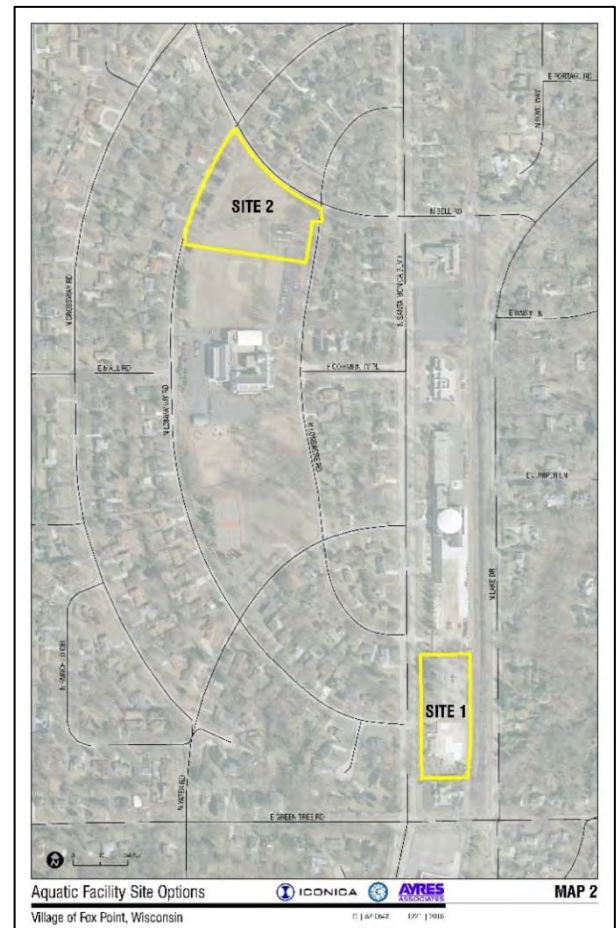
Source: 2000 Census (SF-1), 2017 ACS
5 Year Estimate

Potential Sites

During the initial planning process, five sites were chosen as potential locations for a future aquatic facility. Those five potential locations were reduced to two as locations were eliminated due to issues including demographics, constructability and public input.

The final candidates for the facility location were the existing pool site and Longacre Park. Each site presents its associated benefits and challenges.

See **Map 2**, **Map 3** and **Map 4** in the Appendix for aerial photos of site locations.



Map 2 (See Appendix for full size version)

Existing Pool Site Images



Parking Lot



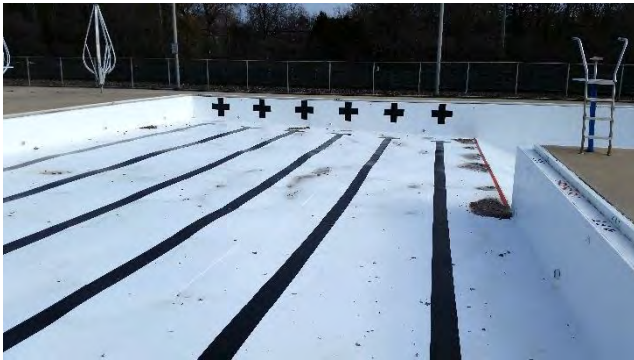
Pool Building



Pool



Pool



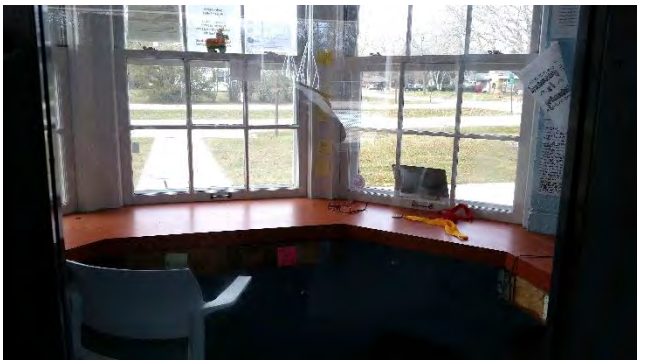
Pool



Mechanical Room



Staff Locker Room



Pool Office

Longacre Site Images



Potential Facility Location



Potential Facility Location



Potential Facility Location



Pavilion



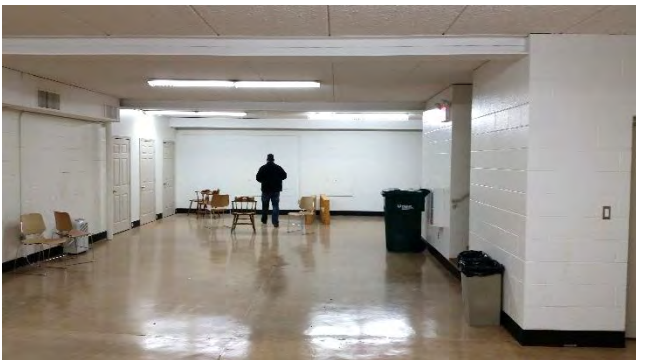
Pavilion Interior



Potential Pavilion Expansion Area



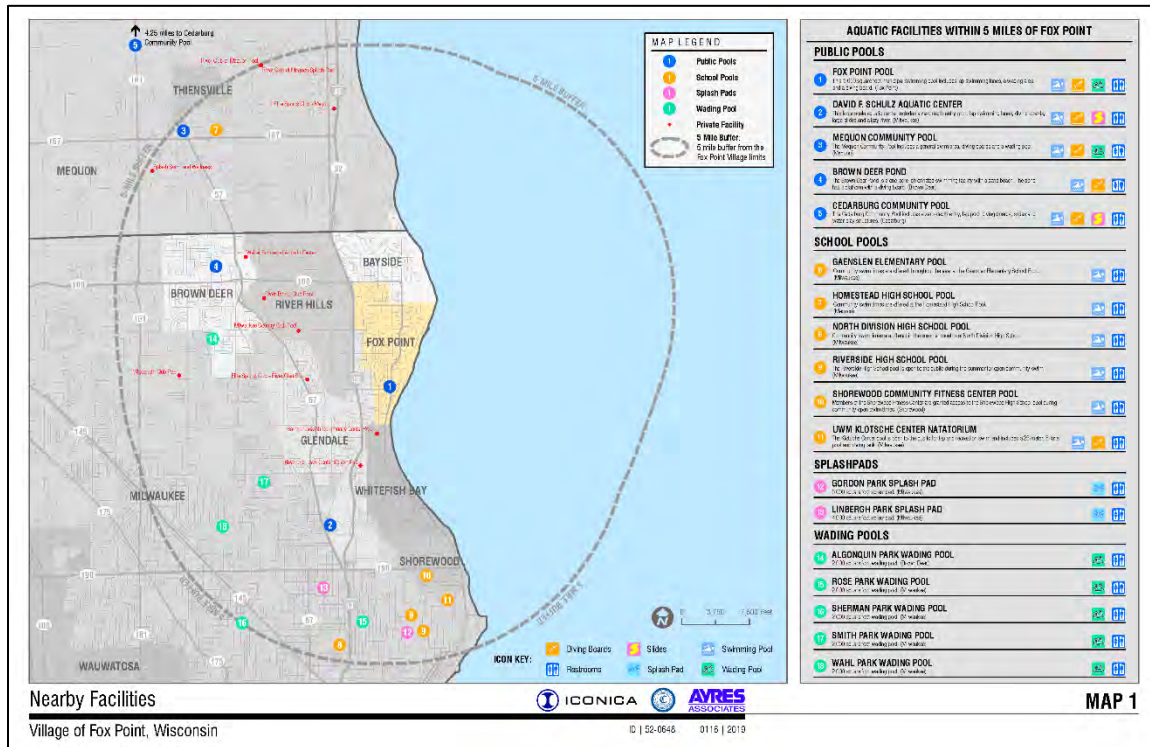
Parking Lot



Pavilion Interior

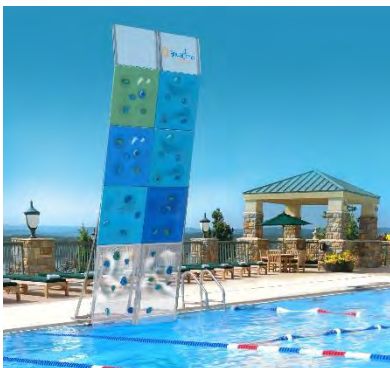
Nearby Facilities

aquatic facility, what amenities may be needed in a new facility and as a means of surveying local trends. **Map 1** in the Appendix was developed to locate aquatic facilities within 5 miles of Fox Point and to illustrate the different types of amenities they offered.



Map 1 (See Appendix for full size version)

There are four public pools within a 5-mile radius of Fox Point. Typical features in these facilities include lap pools and diving boards. Less common are facilities with slides, zero-depth entry and current channels. The David F. Schulz Aquatic Center is the only facility that would be considered an “aquatic center” as it has many of these less-common amenities. Also, within the 5-mile radius are six “school pools”, two splashpads and five wading pools. Some amenities not found in the area were climbing walls, wave pools, flow riders and water labyrinths.



Aqua Climb



Water Labyrinth



Water Walk

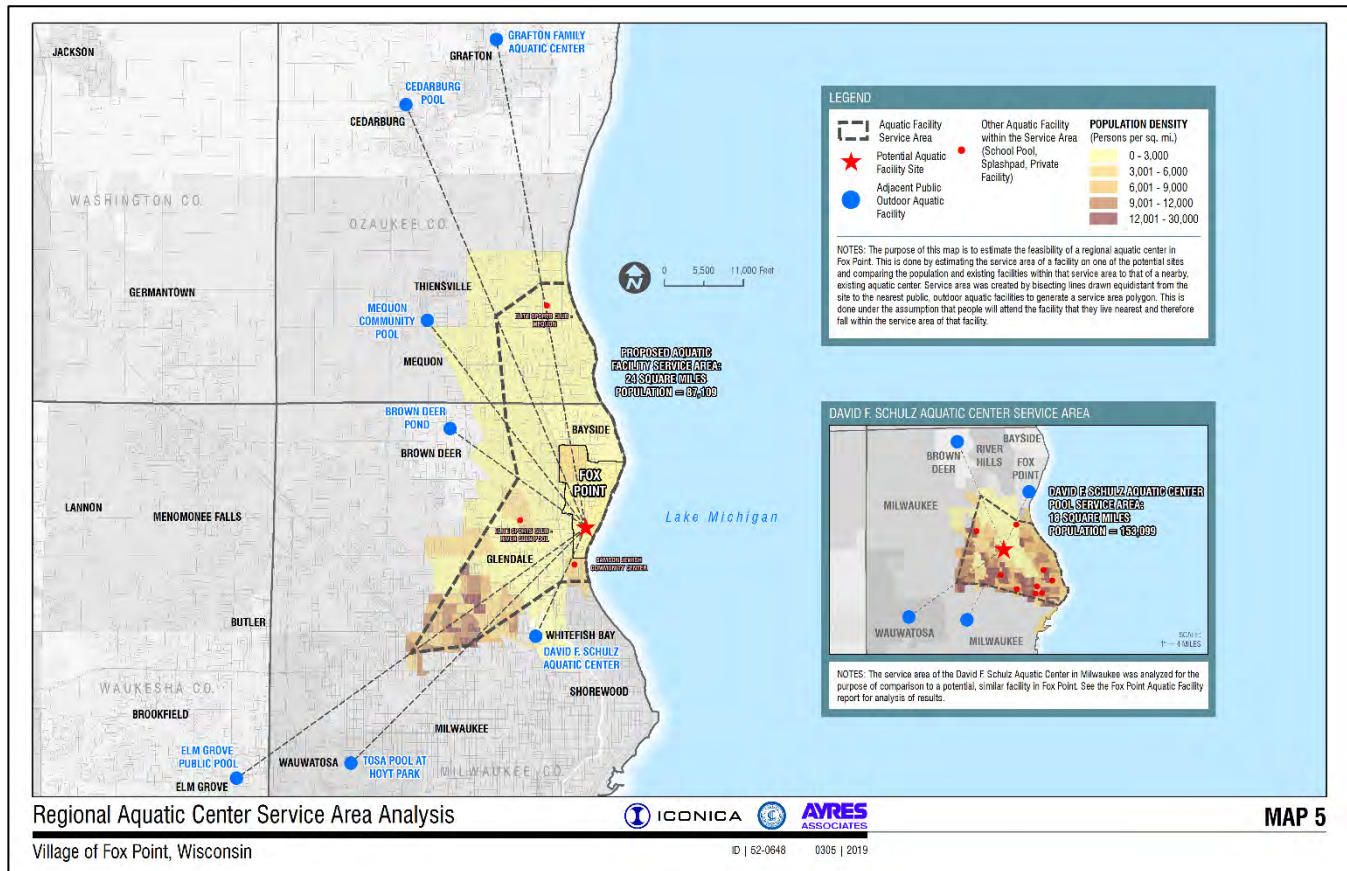
Nearby Facility Inventory (5 Mile Radius)

	Lap Pools	Zero Depth Pools	Water Features	Slides	Splash Pad/ Wading Pool	Current Channels	Rest-rooms	Con-cessions
PUBLIC POOLS								
Fox Point Pool	◆						◆	◆
David F. Schulz Aquatic Center	◆	◆	◆	◆		◆	◆	◆
Mequon Community Pool	◆				◆		◆	◆
Brown Deer Pond							◆	
SCHOOL POOLS								
Gaenslen Elementary Pool	◆						◆	
Homestead High School Pool	◆						◆	
North Division High School Pool	◆						◆	
Riverside High School Pool	◆						◆	
Shorewood Community Fitness Center Pool	◆						◆	
UW-M Klotsche Center Natatorium	◆						◆	
SPLASHPADS								
Gordon Park Splashpad					◆		◆	
Linbergh Park Splashpad					◆		◆	
WADING POOLS								
Algonquin Park Wading Pool					◆		◆	
Rose Park Wading Pool					◆		◆	
Sherman Park Wading Pool					◆		◆	
Smith Park Wading Pool					◆		◆	
Wahl Park Wading Pool					◆		◆	

	Lap Pools	Zero Depth Pools	Water Features	Slides	Splash Pad/ Wading Pools	Current Channels	Rest-rooms	Con-cessions
TOTAL FACILITIES IN AREA	9	1	1	1	8	1	17	3

Regional Facility Feasibility

The feasibility of a regional aquatic center in Fox Point was analyzed in terms of its capability to attract the number of visitors it would need to draw to fund its operation. Factors such as the size of its service area, the population within that service area and number of alternate aquatic facilities nearby are factors in that analysis. These facility scale considerations are analyzed in **Map 5**.



Map 5 (See Appendix for full size version)

This map is an attempt to estimate the feasibility of a regional aquatic center in Fox Point. This is done by estimating the service area of a facility on one of the potential sites and comparing the population and existing facilities within that service area to that of a nearby, existing aquatic center. Service area was created by bisecting lines drawn equidistant from the site to the nearest public, outdoor aquatic facilities to generate a service area polygon. This is done under the assumption that people will attend the facility that they live nearest and therefore fall within the service area of that facility. The service area is then used to extract demographic GIS data and give a total population estimate.

The service area of the David F. Schulz Aquatic Center in was also analyzed for a means of comparison to a potential, similar facility that could exist in Fox Point. The results of the comparisons of size of service area, population within the service area and number of alternate aquatic facilities within the service area are summarized in the adjacent table.

	Service Area Size (Sq. mi.)	Service Area Population	Number of Alternate Facilities*
Fox Point Regional Aquatic Facility	24	87,109	3
David F. Schulz Aquatic Center	18	153,099	9

*Alternate Facilities include splashpads, school pools and private facilities

The service area of the Fox Point facility is larger than the Schulz Aquatic Center however the Schulz service area contains far more people. This does not necessarily mean that a larger facility could not draw enough visitors in Fox Point. There are only three alternate aquatic facilities within the Fox Point facility service area compared to 9 for Schulz facility. With fewer alternate facilities to attend, a person living within the Fox Point service area would be more likely to attend the Fox Point facility than a person in the Schulz service area would be to attend the Schulz Aquatic Center. There are 21,777 people per facility in the Fox Point service area and 15,309 in the Schulz service area.

The population of Fox Point is expected to be approximately 6,580 in the year 2020. There are several examples of larger, regional facilities in Wisconsin communities with a population of under 10,000.

Holmen Area Aquatic Center - Holmen (Population: 9,846) – The Holmen Area Aquatic Center has a zero-depth entry, lap pool, 200-foot waterslide, drop slide, play features and concessions.

Sparta Aquatic Center - Sparta (Population: 9,881) – This recently renovated municipal pool includes a 290-foot tube slide, current channel (lazy river), zero-depth entry pool, play features, ropes course and pool building.



Sparta Aquatic Center

Wiberg Aquatic Center - Brookfield (Population: 6,492) – The Wiberg Aquatic Center has a zero-depth pool, lap pool, flume slide, sand play area, concession stand and spray features.

Edgerton City Pool - Edgerton (Population: 5,364) – The Edgerton pool has a separate lap pool and zero-depth pool, slides, a pool building and play equipment.

Aquatic Facility Conceptual Plans

Past studies, public outreach and market analysis indicate that an aquatic facility of some kind is both needed and desired in Fox Point. This section of the report will present four conceptual plans for the development of a new aquatic facility. Two types of facilities are presented in the concepts on each of the two potential sites.

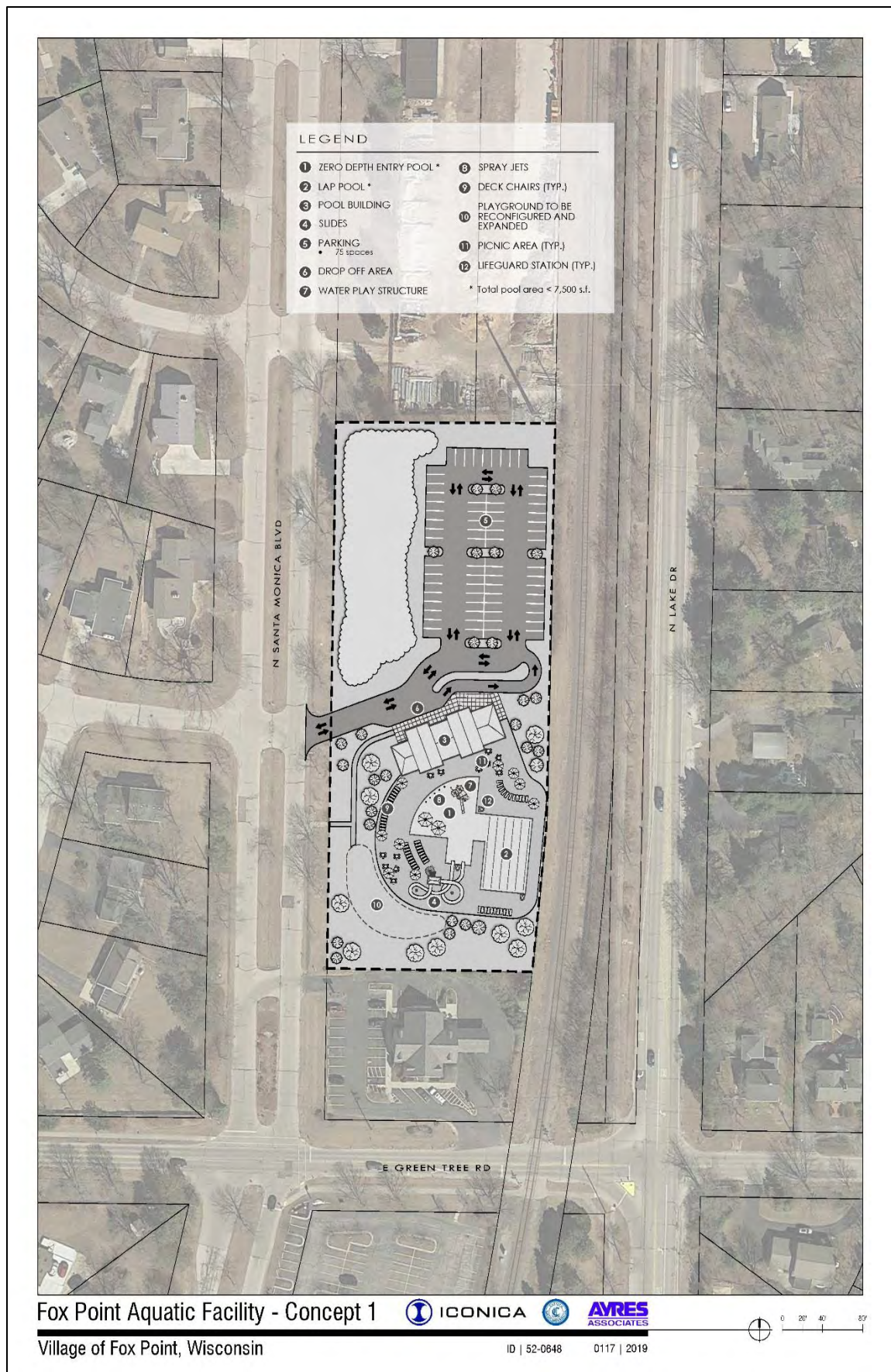
Concept 1: Community pool on the existing pool site

This scenario includes a single vessel lap pool, zero depth entry, and small slide/plunge area. Integrated shade and seating areas surrounding the deck could provide shaded seating and additional rental revenue. A new building built to current pool code standards could include a small concession operation and eating area. This concept utilizes the existing parking lot footprint but rotates the new building to front on the parking and drop off sequence.



Concept 1 - Aerial Perspective (See Appendix for full size graphic)

Pros	Cons
The most desired concept from the public meeting in terms of facilities and location	High cost of construction
Includes many of the most popular amenities from the visual preference survey	More staffing required than in a smaller facility
Includes amenities for a broad range of age groups	Higher maintenance costs than a smaller facility
Potential to be a larger draw/future revenue generator	
This site was recommended as the location for a new facility in the 2017 UW-Milwaukee study	



Concept 1 (See Appendix for full size graphic)

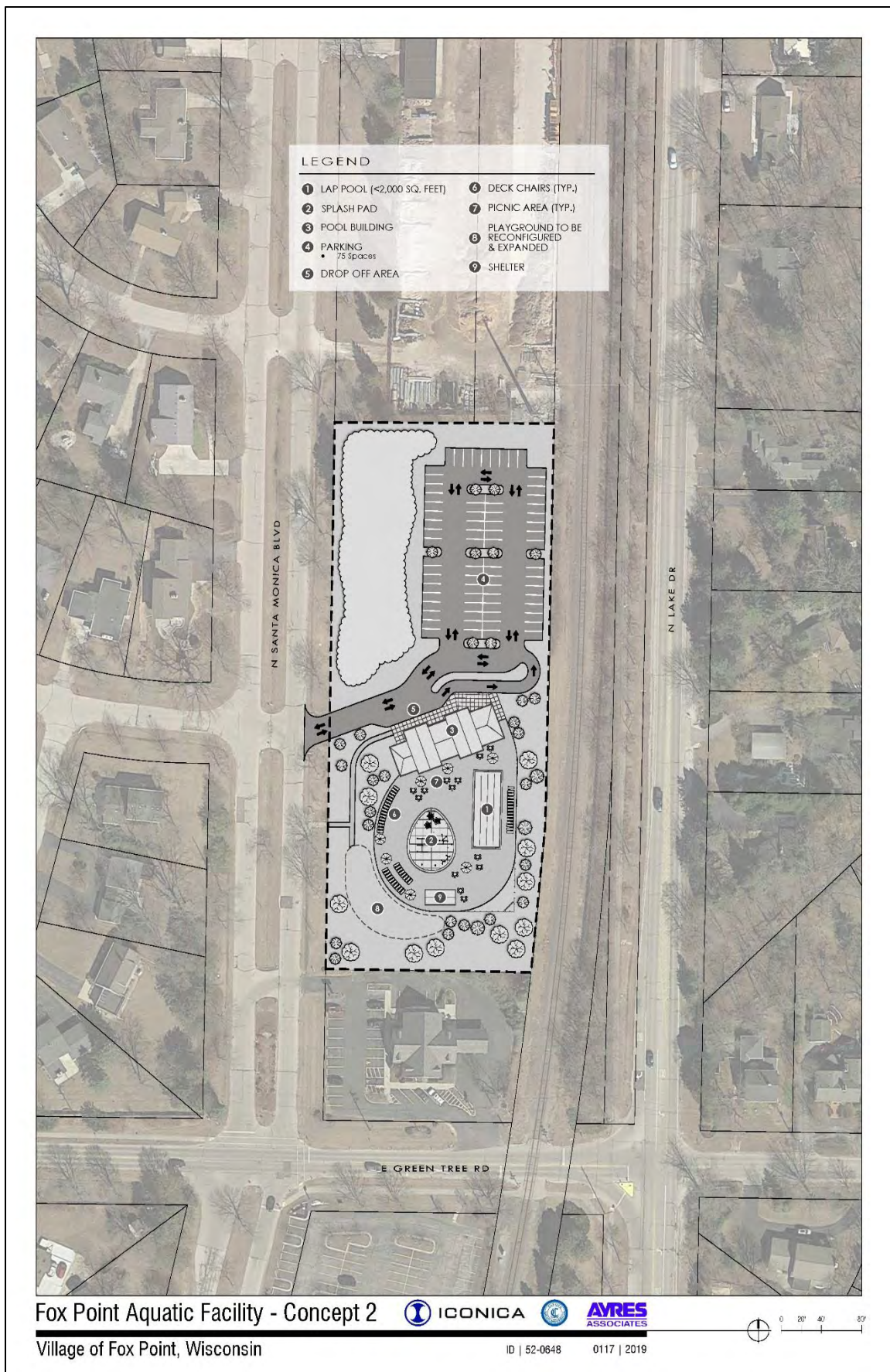
Concept 2: Neighborhood pool and splashpad on the existing pool site

This scenario includes a lap pool vessel (under 2000 sf) and an interactive splashpad. A configuration of this combination would not require the staffing levels of a larger community pool. This facility would require two separate small mechanical systems but benefit from not needing to shut down the entire facility in the event of a chemical imbalance or brown-out. Shade and seating areas could be located around the deck and potentially a new dry playground integrated into the design. This concept utilizes the existing parking lot footprint but rotates the new building to front on the parking and drop off sequence.



Concept 2 - Aerial Perspective (See Appendix for full size graphic)

Pros	Cons
The second most desired concept from the public meeting in terms of facilities and location	A splashpad may not be the best option for a new facility in terms of demographic trends.
Lower cost of construction than a community pool	A splashpad was one of the least popular items for new facilities in the visual preference survey
Less staffing needed than a community pool	Reduced programming opportunities (No diving, water ballet or swim meets)
Less maintenance cost than a community pool	No diving boards
This site was recommended as the location for a new facility in the 2017 UW-Milwaukee study	



Concept 2 (See Appendix for full size graphic)

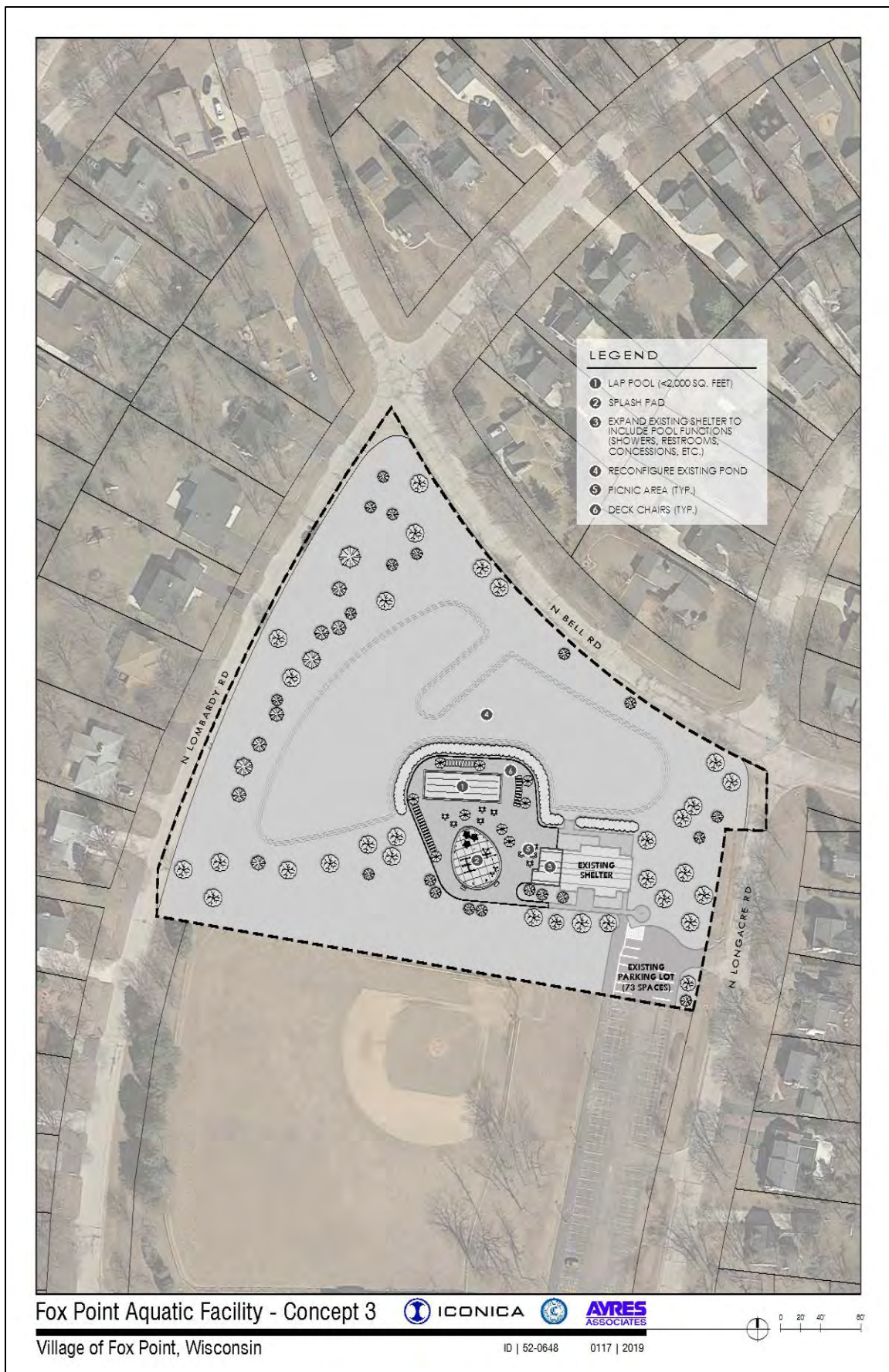
Concept 3: Neighborhood pool and splashpad on the Longacre Park site

This scenario includes a lap pool vessel (under 2000 sf) and an interactive splashpad. A configuration of this combination would not require the staffing levels of a larger community pool. This facility would require two separate small mechanical systems but benefit from not needing to shut down the entire facility in the event of a chemical imbalance or brown-out. Shade and seating areas could be located around the deck and potentially a new dry playground integrated into the design. The facility could be located immediately west of the existing building in a large flat open area of the park. Slight reconfigurations to the ice rinks could allow for better site circulation and privacy screening of the new aquatic facility. The existing building has a large basement that is currently not utilized and could house the new pool mechanical systems. A new wing could be added to the building for restrooms, changing areas, and small concessions while paying tribute to the unique architecture of the building. Parking could be shared with the school district given a joint use agreement can be established.



Concept 3 - Aerial Perspective (See Appendix for full size graphic)

Pros	Cons
Lower cost of construction than a community pool	A splashpad may not be the best option for a new facility in terms of demographic trends.
Less staffing needed than a community pool	A splashpad was one of the least popular items for new facilities in the visual preference survey
Less maintenance cost than a community pool	This was the least popular concept from the public meeting in terms of amenities and location
Existing pavilion could be renovated to provide for aquatic facility use	Reduced programming opportunities (No diving, water ballet or swim meets)
Reduces number of facilities to be maintained	Loss of green space in park
Existing facility could be repurposed to greenspace or sold for development	No playground
	No diving boards
	Parking contingency



Concept 3 (See Appendix for full size graphic)

Concept 4: Community pool on the Longacre Park site

This scenario includes a single vessel lap pool, zero depth entry, and small slide/plunge area. Integrated shade and seating areas surrounding the deck could provide shaded seating and additional rental revenue. The facility could be located immediately west of the existing building in a large flat open area of the park. Slight reconfigurations to the ice rinks could allow for better site circulation and privacy screening of the new aquatic facility. The existing building has a large basement that is currently not utilized and could house the new pool mechanical systems. A new wing could be added to the building for restrooms, changing areas, and small concessions while paying tribute to the unique architecture of the building. Parking could be shared with the school district given a joint use agreement can be established.



Concept 4 - Aerial Perspective (See Appendix for full size graphic)

Pros	Cons
Includes many of the most popular amenities from the visual preference survey	Not the favored location for a new facility based on public meeting feedback
Existing pavilion could be renovated to provide for aquatic facility use	High cost of construction
Includes amenities for a broad range of age groups	More staffing required than in a smaller facility
Potential to be a larger draw/future revenue generator	Higher maintenance costs than a smaller facility
Reduces number of facilities to be maintained	No playground
Existing facility could be repurposed to greenspace or sold for development	Parking contingency



Concept 4 (See Appendix for full size graphic)

Concept to Construction

Project Phases

An individual aquatic facility construction project often involves several phases before construction can begin. Aquatic center design will often begin with a series of concept drawings such as those included in this report. The next step is to choose the most favored concept. This preferred concept may include a combination of features from each of the original concept plans. The goal of a concept plan is to determine what type of improvements are possible in the given space and to provide a guide for the development of those improvements. A final concept plan might look something like the plan shown below.



Aquatic Facility Concept Plan

After a final concept has been established, construction plans can be created. An aquatic center plan often requires the collaboration of several different disciplines. Engineers, architects, electricians, plumbers and landscape architects may all be involved in the preparation of a final construction plan set.

Implementation

Figures below provide an estimate of the expected costs of operation of different facility types, staffing requirements, construction costs and an operational summary.

Operational Summary

CONCEPT	LOCATION	FEATURE(S)	SIZE	DAILY WATER USAGE	FILTRATION & SANITATION
Concept 1	Existing Pool Site	Community Pool	Pool: <7,500 sf Deck: 6K-8K sf Building: 4,500-5,500 sf	4,500-7,500 GDP	High rate sand filters & chlorine briquettes
Concept 2	Existing Pool Site	Neighborhood Pool & Splashpad	Pool: <2,000 sf Deck: 6K-8K sf Building: 4,500-5,500 sf SP Wet Area: 3,000 sf	Pool: 1,500-3,000 GDP Splashpad: 30,000 – 40,000 GDP (flow through)	Pool: High rate sand filters & chlorine briquettes Splashpad: UV filtration loop
Concept 3	Longacre Park	Neighborhood Pool & Splashpad	Pool: <2,000 sf Deck: 6K-8K sf Building: 4,500-5,500 sf SP Wet Area: 3,000 sf	Pool: 1,500-3,000 GDP Splashpad: 30,000 – 40,000 GDP (flow through)	Pool: High rate sand filters & chlorine briquettes Splashpad: UV filtration loop
Concept 4	Longacre Park	Community Pool	Pool: <7,500 sf Deck: 6K-8K sf Building Addition: 3,500 sf	4,500-7,500 GDP	High rate sand filters & chlorine briquettes

Construction Cost Estimate

CONCEPT	LOCATION	ACRES	FEATURE(S)	CONSTRUCTION COST
Concept 1	Existing Pool Site	2.7 Acres	Community Pool	\$4.5M – \$4.9M
Concept 2	Existing Pool Site	2.7 Acres	Neighborhood Pool & Splashpad	\$3.2M - \$3.6M
Concept 3	Longacre Park	4.1 Acres	Neighborhood Pool & Splashpad	\$2.4M - \$2.7M
Concept 4	Longacre Park	4.1 Acres	Community Pool	\$3.8M - \$4.2M

Existing Pool Staffing

POSITION	TOTAL LABOR COST
Pool Management	\$22,500
Lifeguards	\$60,000
TOTAL	\$82,500

Staffing Requirements

Community Pool Staffing Requirements (Concept 1 & 4)

Concept 1 would require six lifeguards for open swim: Lap pool, zero-depth pool, slide dispatch, slide catch pool, a break guard and a zero-depth rover for busy times. **Concept 4** would require six lifeguards for open swim: Lap pool, diving well, zero-depth, top slide, a break guard and a zero-depth rover for busy times.

POSITION	NUMBER ON SITE	HOURS PER WEEK	NUMBER OF WEEKS	\$ PER HOUR	TOTAL LABOR COST
Pool Manager	1	40	16	\$25.00	\$16,000
Assistant Pool Manager	2	40	12	\$14.75	\$14,160
Lifeguards - Fitness/Programming	2	20	12	\$12.00	\$5,760
Instructor - Open Swim	6	60	12	\$12.00	\$51,840
Concessions/Admin. Staff	2	60	12	\$8.00	\$11,520
TOTAL STAFF COST					\$99,280

*Calculations provided above reflect operating costs only. No debt service is included in these projections.

Neighborhood Pool & Splashpad Staffing Requirements (Concept 2 & 3)

Concept 2 & 3 would require two lifeguards. One for the lap pool and one on break for rotation.

POSITION	NUMBER ON SITE	HOURS PER WEEK	NUMBER OF WEEKS	\$ PER HOUR	TOTAL LABOR COST
Pool Manager	1	40	16	\$25.00	\$16,000
Head Lifeguards	1	40	12	\$14.00	\$6,720
Lifeguards - Fitness/Programming	1	20	12	\$12.00	\$2,880
Instructor - Open Swim	2	60	12	\$12.00	\$17,280
Concessions/Admin. Staff	2	60	12	\$8.00	\$11,520
TOTAL STAFF COST					\$54,400

*Calculations provided above reflect operating costs only. No debt service is included in these projections.

Expected Operational Budget

Community Pool Budget Projection (Concepts 1 & 4)

OPERATION REVENUE	
Daily Admissions	\$30,000
Seasonal Passes	\$75,000
Concessions	\$20,000
Programming (Swim lessons, fitness classes)	\$25,000
Pool Rentals and Events	\$18,000
Special Events	\$10,000
TOTAL INCOME	\$178,000

OPERATING EXPENSES	
Labor/Wages	\$99,280
Concession Supplies	\$18,000
Utility Services (Water, heat, phone, electrical)	\$40,000
Operating Supplies	\$18,000
Maintenance Equipment and Repair	\$12,000
Chemicals	\$20,000
Education and Training	\$3,000
Marketing and Promotions	\$2,500
Startup and Winterization	\$12,000
TOTAL EXPENSES	\$224,780

NET CASH FLOW	
INCOME MINUS EXPENSES	- \$46,780

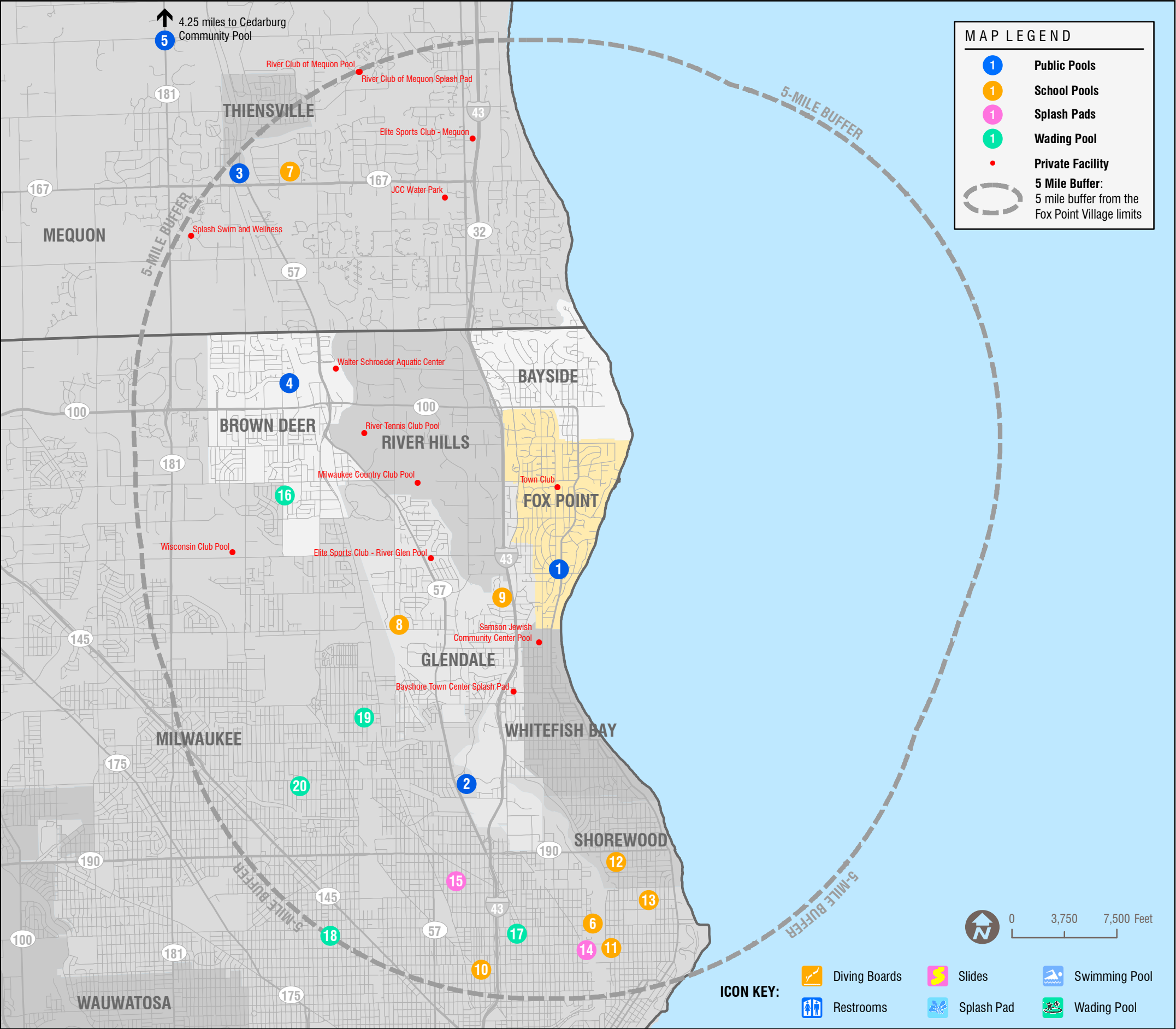
Neighborhood Pool & Splashpad Budget Projection (Concepts 2 & 3)

OPERATION REVENUE	
Daily Admissions	\$20,000
Seasonal Passes	\$65,000
Concessions	\$15,000
Programming (Swim lessons, fitness classes)	\$18,000
Pool Rentals and Events	\$10,000
Special Events	\$10,000
TOTAL INCOME	\$138,000

OPERATING EXPENSES	
Labor/Wages	\$54,400
Concession Supplies	\$12,000
Utility Services (Water, heat, phone, electrical)	\$30,000
Operating Supplies	\$20,000
Maintenance Equipment and Repair	\$12,000
Chemicals	\$15,000
Education and Training	\$2,000
Marketing and Promotions	\$1,500
Startup and Winterization	\$12,000
TOTAL EXPENSES	\$158,900

NET CASH FLOW	
INCOME MINUS EXPENSES	- \$20,900

Appendix



AQUATIC FACILITIES WITHIN 5 MILES OF FOX POINT

PUBLIC POOLS

- 1 FOX POINT POOL**
This 5,600 square foot municipal swimming pool includes lap swimming lanes, a wading area and a diving board. (Fox Point)
- 2 DAVID F. SCHULZ AQUATIC CENTER**
This large scale aquatic center includes a zero depth entry pool, lap swimming lanes, diving boards, large slides and a lazy river. (Milwaukee)
- 3 MEQUON COMMUNITY POOL**
The Mequon Community Pool includes a general swim area, diving boards and a wading pool. (Mequon)
- 4 BROWN DEER POND**
The Brown Deer Pond is a one-acre, chlorinated swimming facility with a sand beach. The pond has a platform with a diving board. (Brown Deer)
- 5 CEDARBURG COMMUNITY POOL**
The Cedarburg Community Pool includes a zero-depth entry, lap pool, diving boards, slides and water play structures. (Cedarburg)

SCHOOL POOLS

- 6 GAENSLEN ELEMENTARY POOL**
Community swim times are offered throughout the year at the Gaenslen Elementary School Pool. (Milwaukee)
- 7 HOMESTEAD HIGH SCHOOL POOL**
Community swim times are offered at the Homestead High School Pool. (Mequon)
- 8 GLEN HILLS MIDDLE SCHOOL**
Community swim times are offered at the Glen Hills Middle School Pool. (Glendale)
- 9 NICOLET HIGH SCHOOL**
Community swim times are offered at the Nicolet High School Pool. (Glendale)
- 10 NORTH DIVISION HIGH SCHOOL POOL**
Community swim times are offered in the summer months at North Division High School. (Milwaukee)
- 11 RIVERSIDE HIGH SCHOOL POOL**
The Riverside High School pool is open to the public during the summer for open community swim. (Milwaukee)
- 12 SHOREWOOD COMMUNITY FITNESS CENTER POOL**
Members of the Shorewood Fitness Center are granted access to the Shorewood High School pool during community open swim times. (Shorewood)
- 13 UWM KLOTSCHKE CENTER NATATORIUM**
The Klotsche Center pool is open to the public for lap and recreation swim and includes a 25-meter, 8-lane pool and diving tank. (Milwaukee)

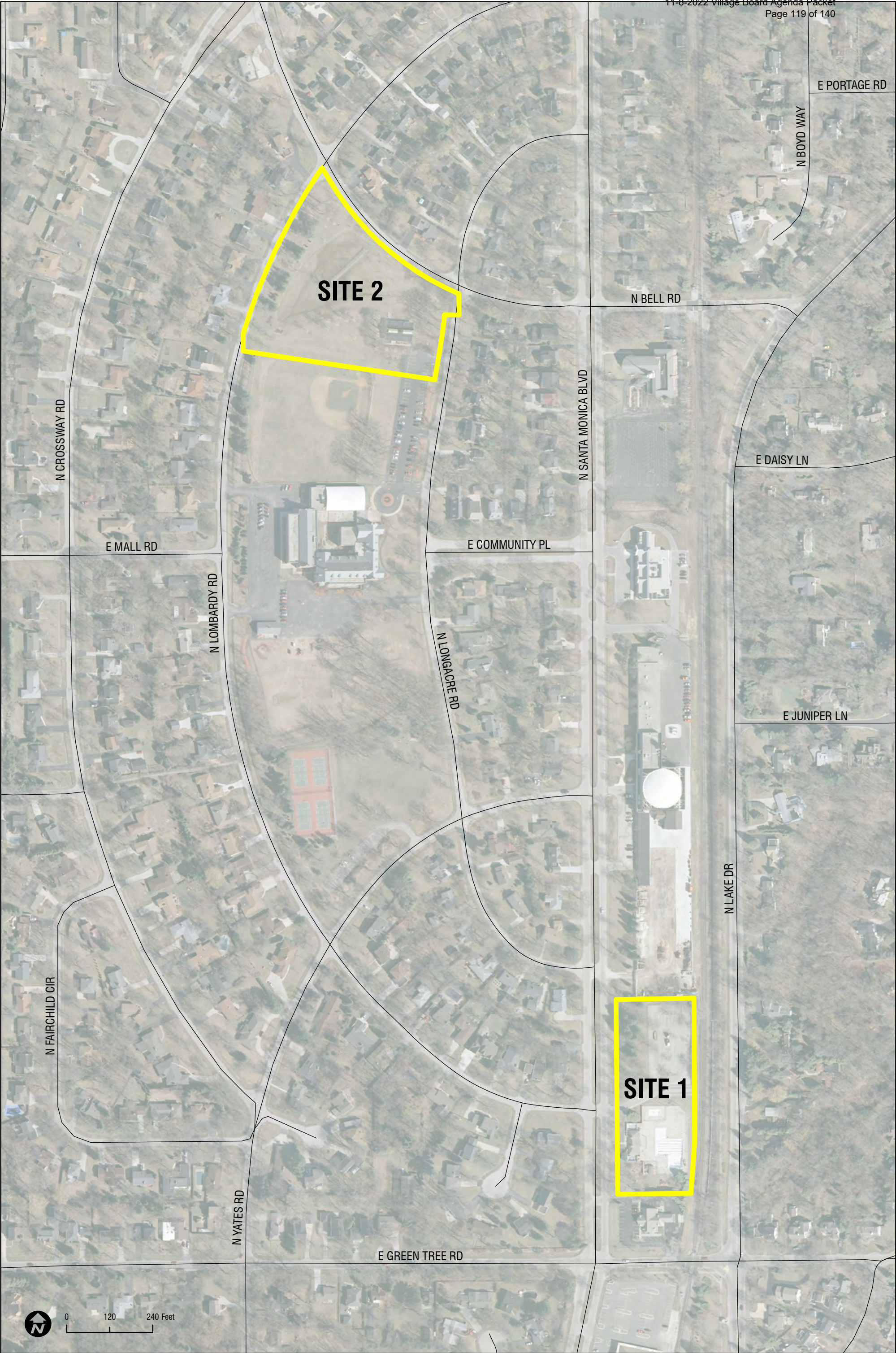
SPLASHPADS

- 14 GORDON PARK SPLASH PAD**
5,000 square foot splashpad. (Milwaukee)
- 15 LINBERGH PARK SPLASH PAD**
4,000 square foot splashpad. (Milwaukee)

WADING POOLS

- 16 ALGONQUIN PARK WADING POOL**
2,000 square foot wading pool. (Brown Deer)
- 17 ROSE PARK WADING POOL**
2,000 square foot wading pool. (Milwaukee)
- 18 SHERMAN PARK WADING POOL**
2,000 square foot wading pool. (Milwaukee)
- 19 SMITH PARK WADING POOL**
2,000 square foot wading pool. (Milwaukee)
- 20 WAHL PARK WADING POOL**
2,000 square foot wading pool. (Milwaukee)

Nearby Facilities



Aquatic Facility Site Options

Village of Fox Point, Wisconsin



MAP 2



Site 1 - Fox Point Pool

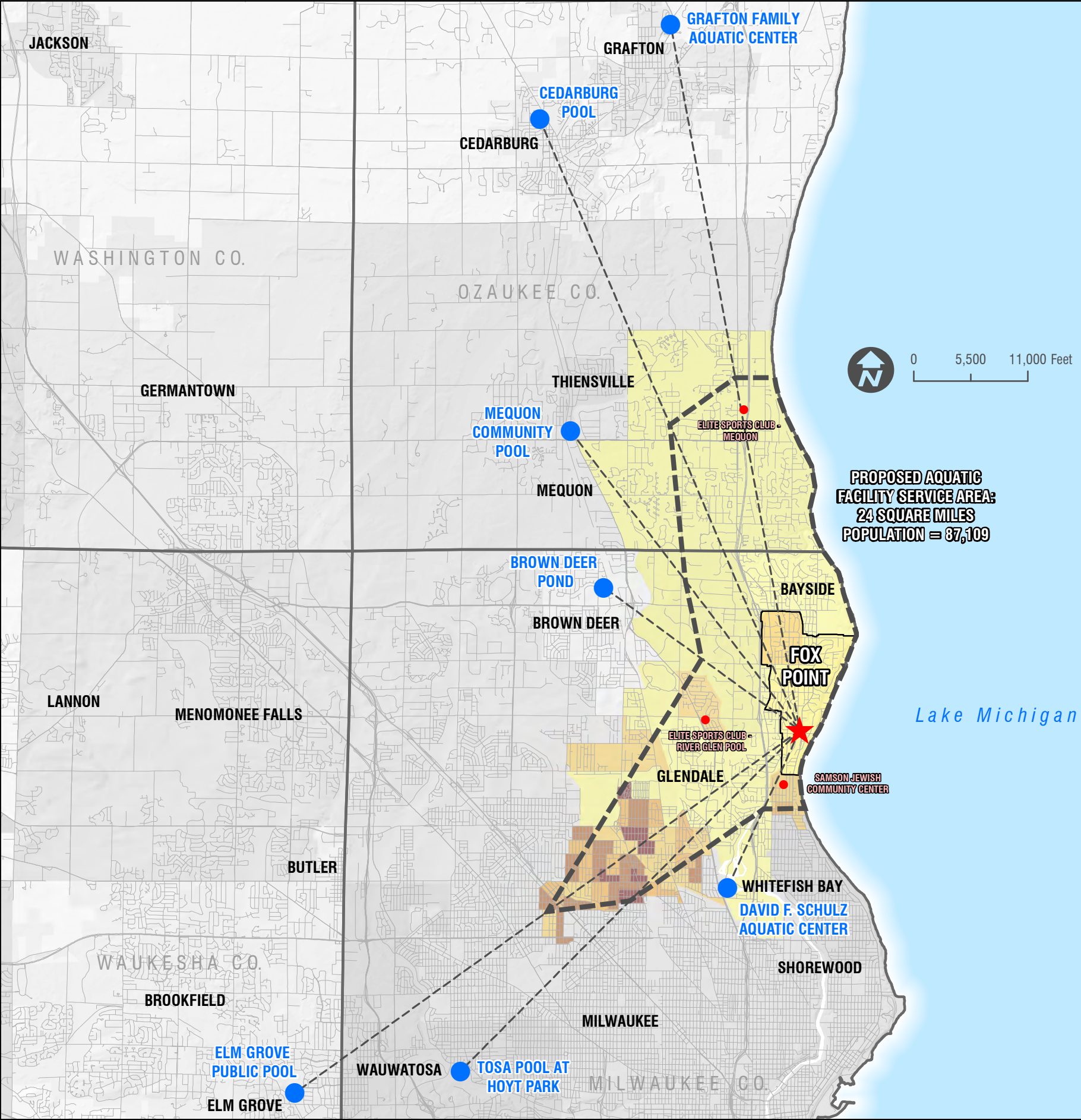


Site 2 - School District Site

Village of Fox Point, Wisconsin



MAP 4



LEGEND

Aquatic Facility Service Area	Other Aquatic Facility within the Service Area (School Pool, Splashpad, Private Facility)	POPULATION DENSITY (Persons per sq. mi.)
Potential Aquatic Facility Site		0 - 3,000
Adjacent Public Outdoor Aquatic Facility		3,001 - 6,000
		6,001 - 9,000
		9,001 - 12,000
		12,001 - 30,000

NOTES: The purpose of this map is to estimate the feasibility of a regional aquatic center in Fox Point. This is done by estimating the service area of a facility on one of the potential sites and comparing the population and existing facilities within that service area to that of a nearby, existing aquatic center. Service area was created by bisecting lines drawn equidistant from the site to the nearest public, outdoor aquatic facilities to generate a service area polygon. This is done under the assumption that people will attend the facility that they live nearest and therefore fall within the service area of that facility.

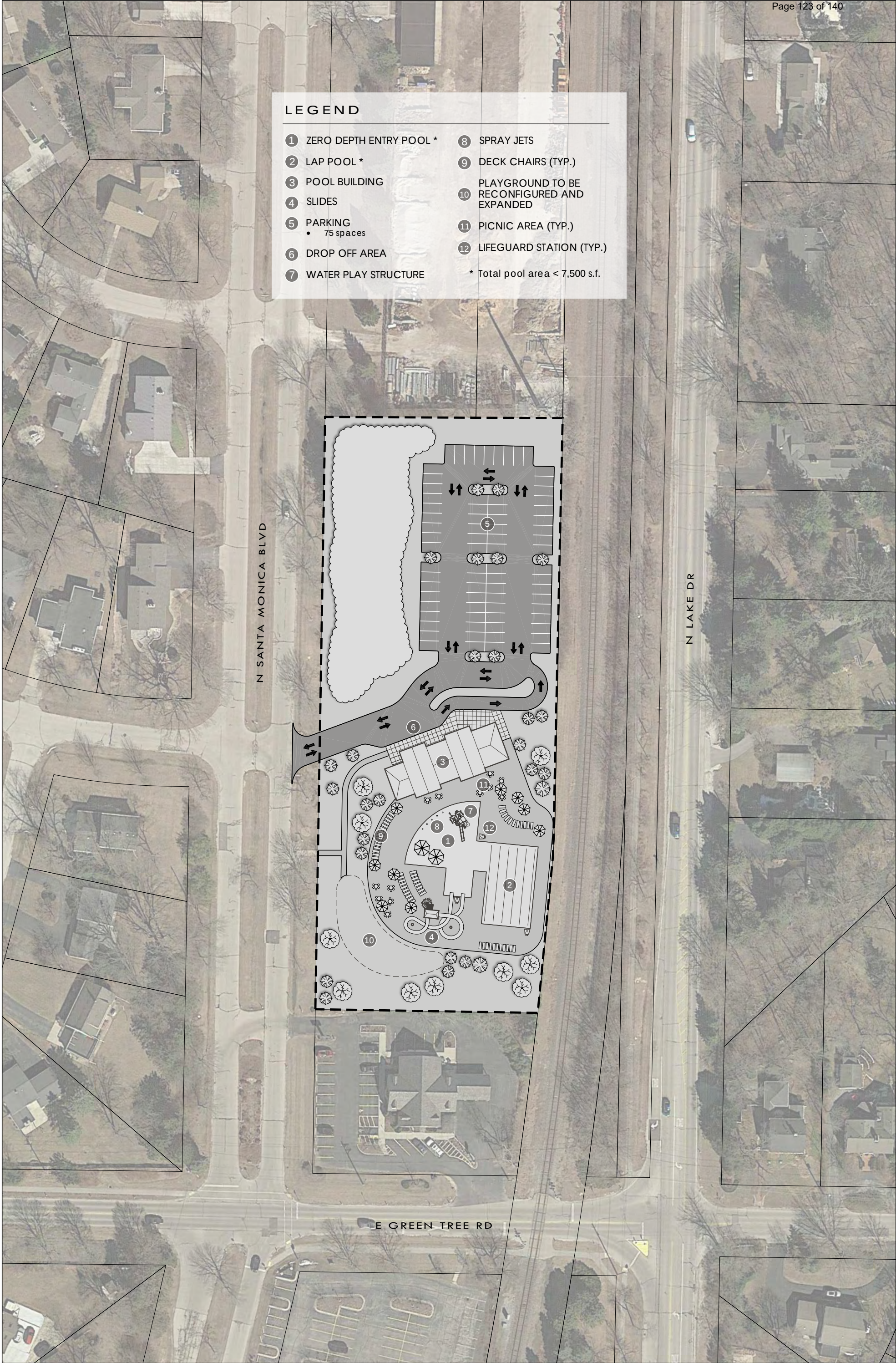
DAVID F. SCHULZ AQUATIC CENTER SERVICE AREA

DAVID F. SCHULZ AQUATIC CENTER POOL SERVICE AREA: 18 SQUARE MILES POPULATION = 153,099

NOTES: The service area of the David F. Schulz Aquatic Center in Milwaukee was analyzed for the purpose of comparison to a potential, similar facility in Fox Point. See the Fox Point Aquatic Facility report for analysis of results.

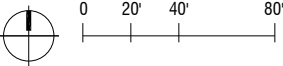
Regional Aquatic Center Service Area Analysis

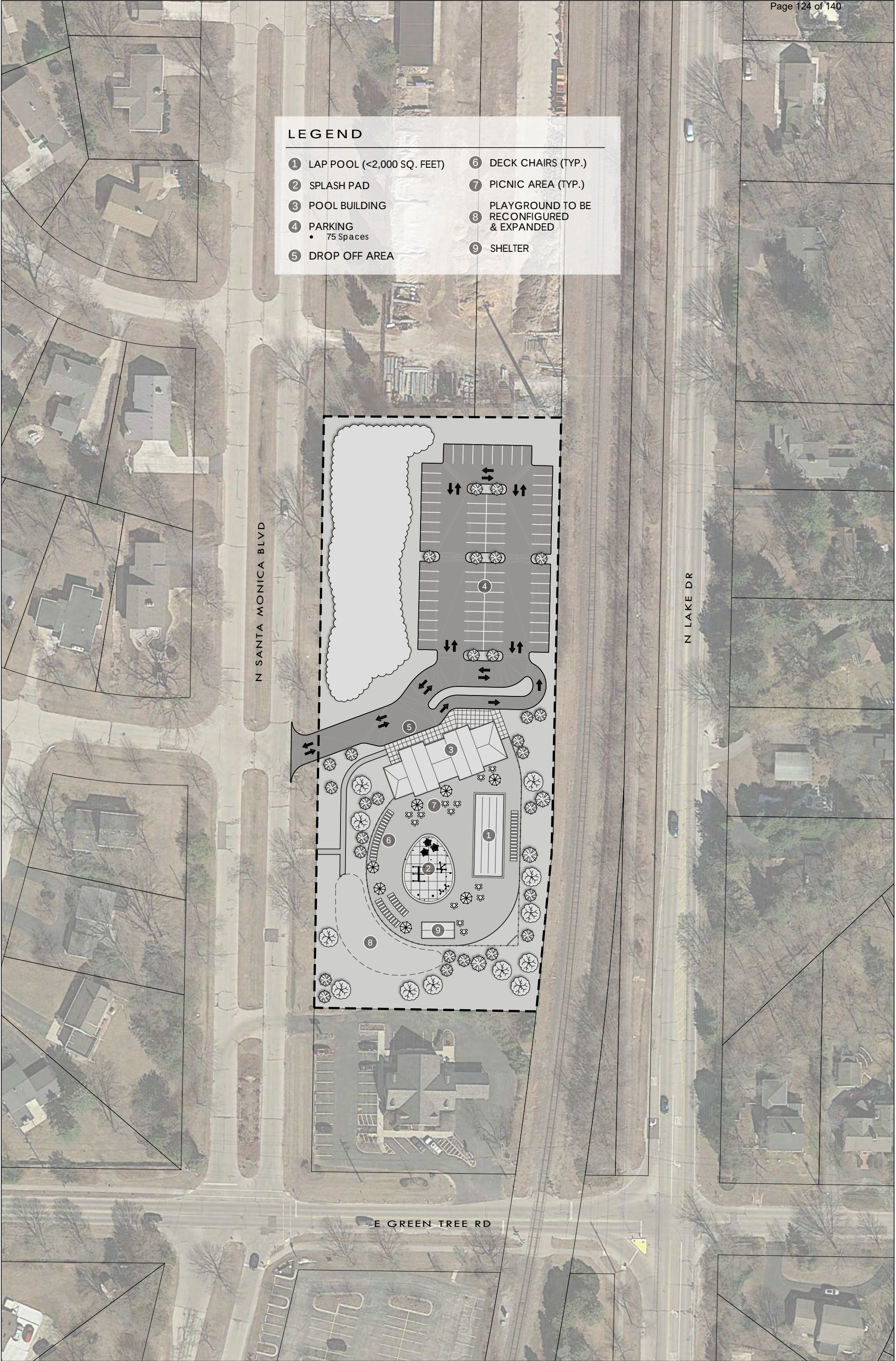
Village of Fox Point, Wisconsin



Fox Point Aquatic Facility - Concept 1

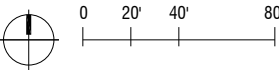
Village of Fox Point, Wisconsin

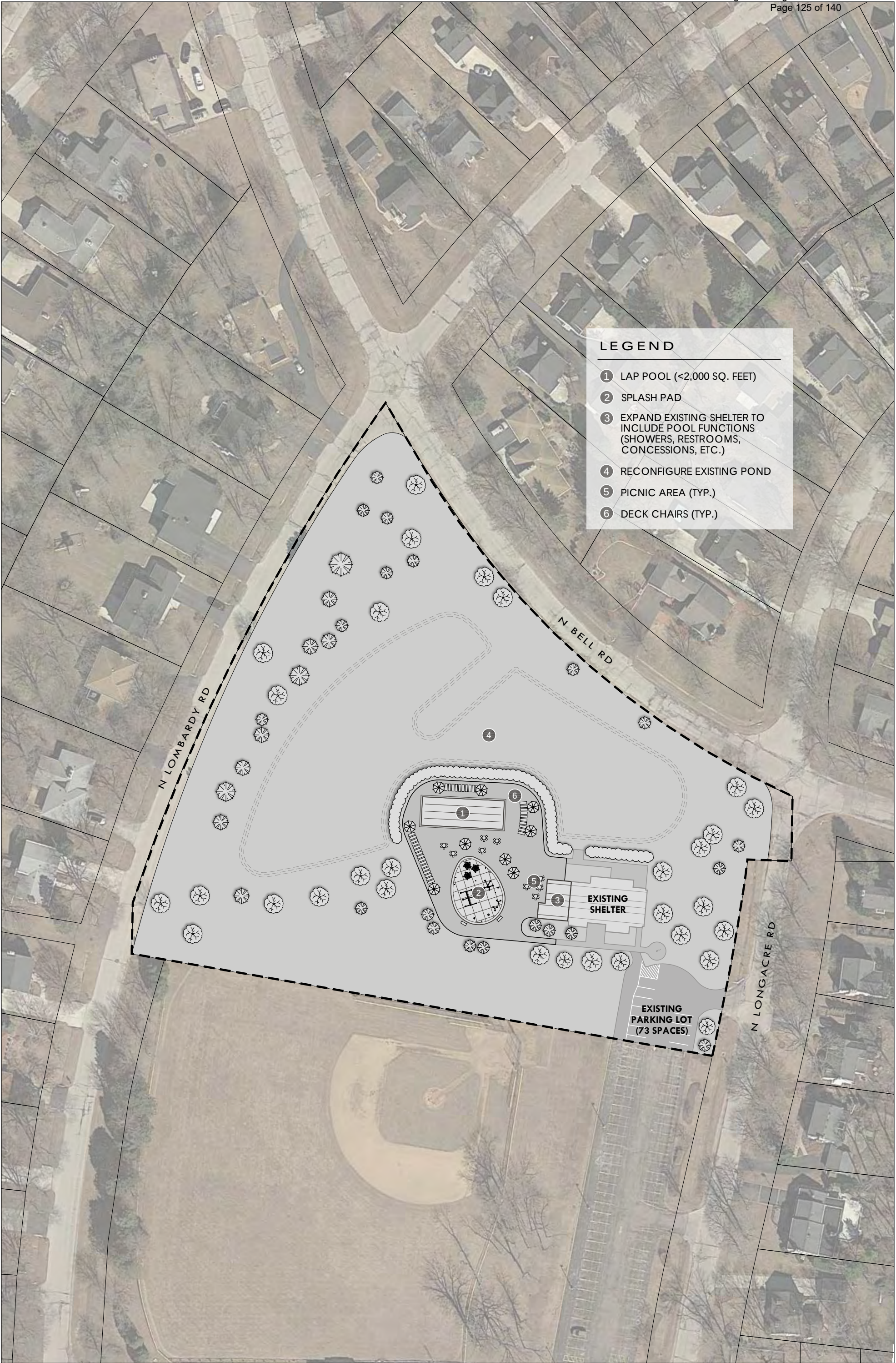


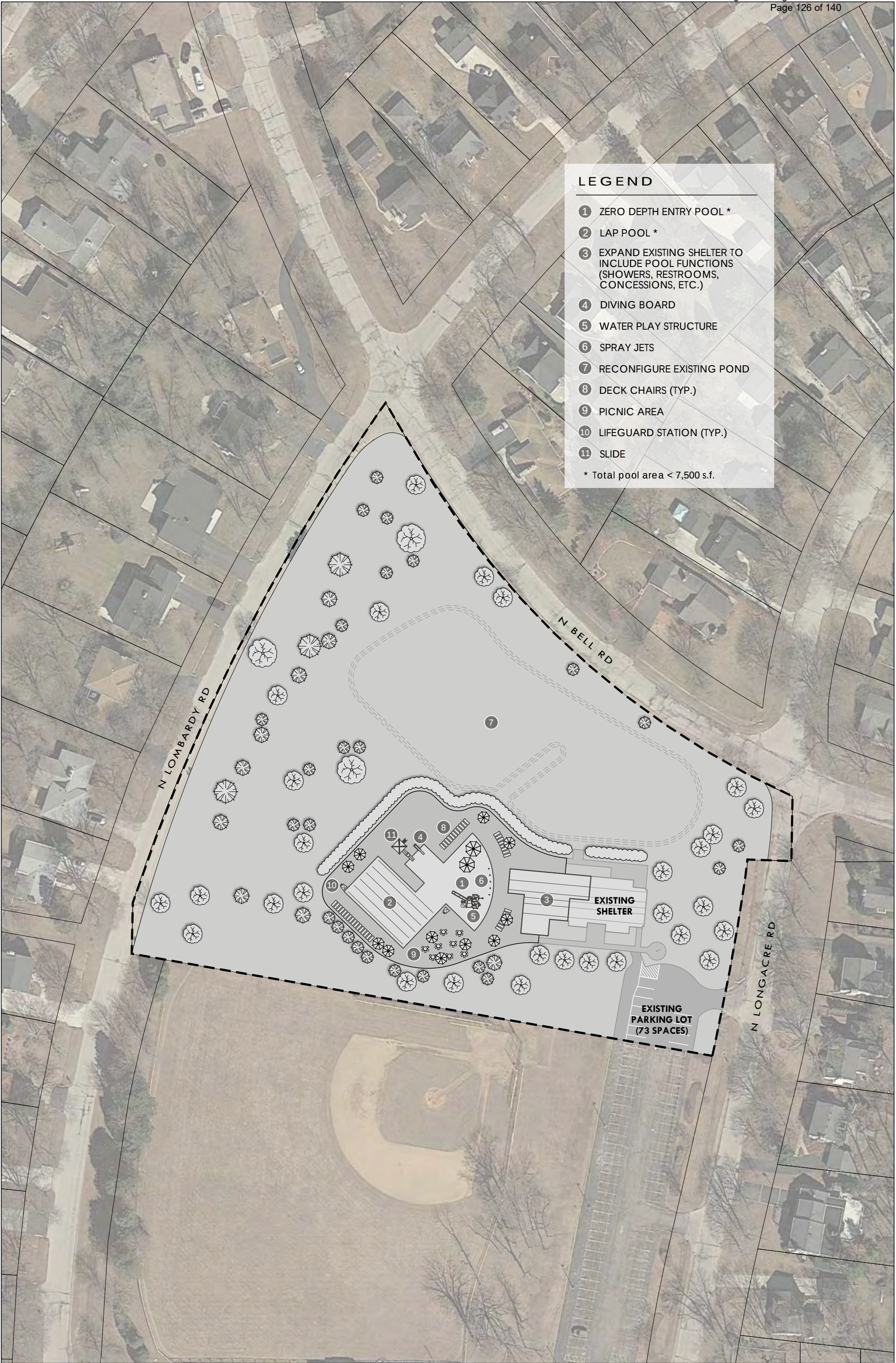


Fox Point Aquatic Facility - Concept 2

Village of Fox Point, Wisconsin







LEGEND

- ① ZERO DEPTH ENTRY POOL *
- ② LAP POOL *
- ③ EXPAND EXISTING SHELTER TO INCLUDE POOL FUNCTIONS (SHOWERS, RESTROOMS, CONCESSIONS, ETC.)
- ④ DIVING BOARD
- ⑤ WATER PLAY STRUCTURE
- ⑥ SPRAY JETS
- ⑦ RECONFIGURE EXISTING POND
- ⑧ DECK CHAIRS (TYP.)
- ⑨ PICNIC AREA
- ⑩ LIFEGUARD STATION (TYP.)
- ⑪ SLIDE

* Total pool area < 7,500 s.f.



Fox Point Aquatic Facility - Concept 1

Village of Fox Point, Wisconsin



ICONICA



AYRES
ASSOCIATES

ID | 52-0648

0116 | 2019

Aerial Perspective



Fox Point Aquatic Facility - Concept 1

Village of Fox Point, Wisconsin



ICONICA



AYRES
ASSOCIATES

ID | 52-0648

0116 | 2019

Perspective



Fox Point Aquatic Facility - Concept 2

Village of Fox Point, Wisconsin



ICONICA



AYRES
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ID | 52-0648

0116 | 2019

Aerial Perspective



Fox Point Aquatic Facility - Concept 2

Village of Fox Point, Wisconsin



ICONICA



AYRES
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0116 | 2019

Perspective



Fox Point Aquatic Facility - Concept 3

Village of Fox Point, Wisconsin



ICONICA

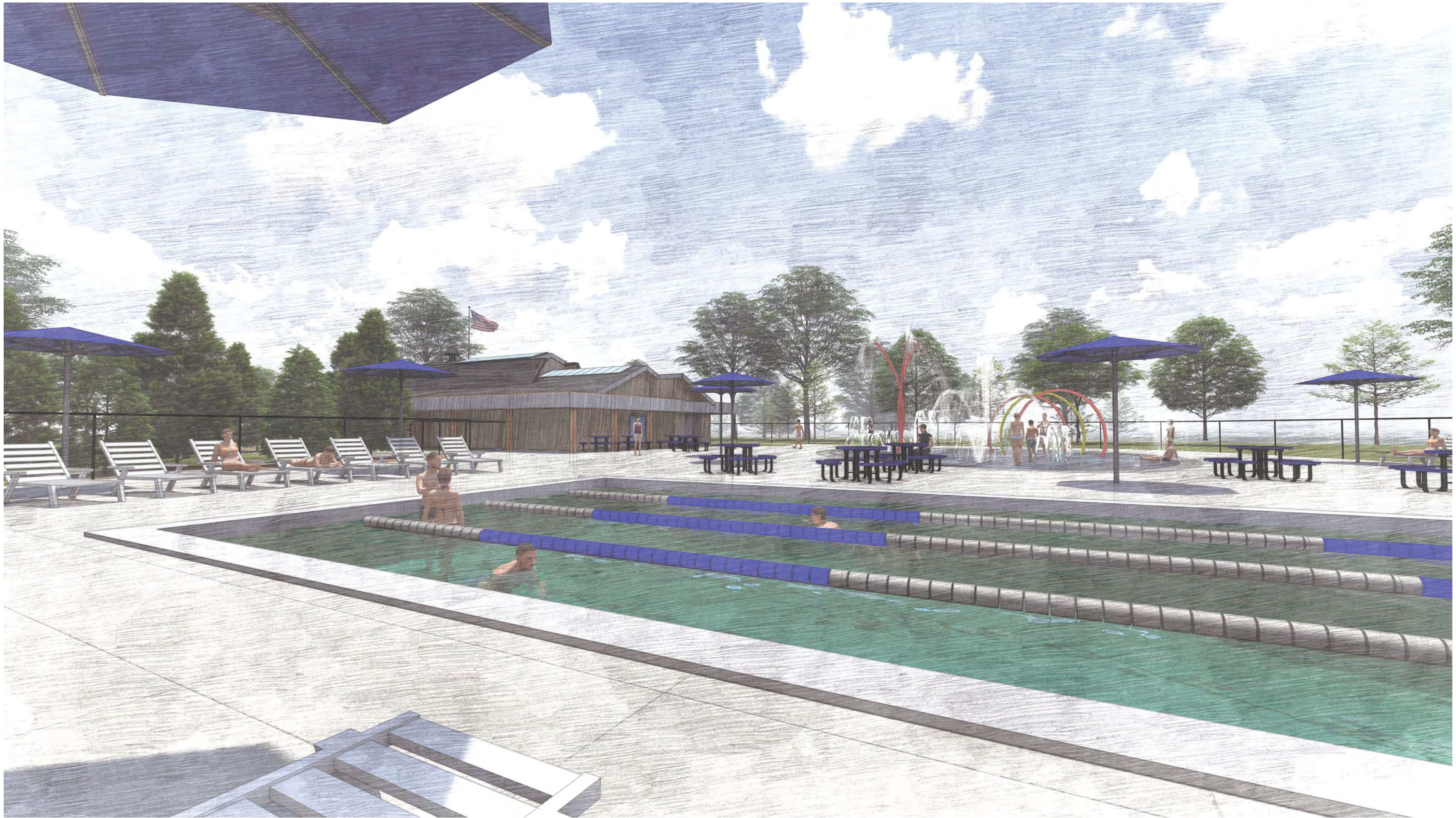


AYRES
ASSOCIATES

ID | 52-0648

0116 | 2019

Aerial Perspective



Fox Point Aquatic Facility - Concept 3

Village of Fox Point, Wisconsin



ICONICA



AYRES
ASSOCIATES

ID | 52-0648

0116 | 2019

Perspective



Fox Point Aquatic Facility - Concept 4

Village of Fox Point, Wisconsin



ICONICA

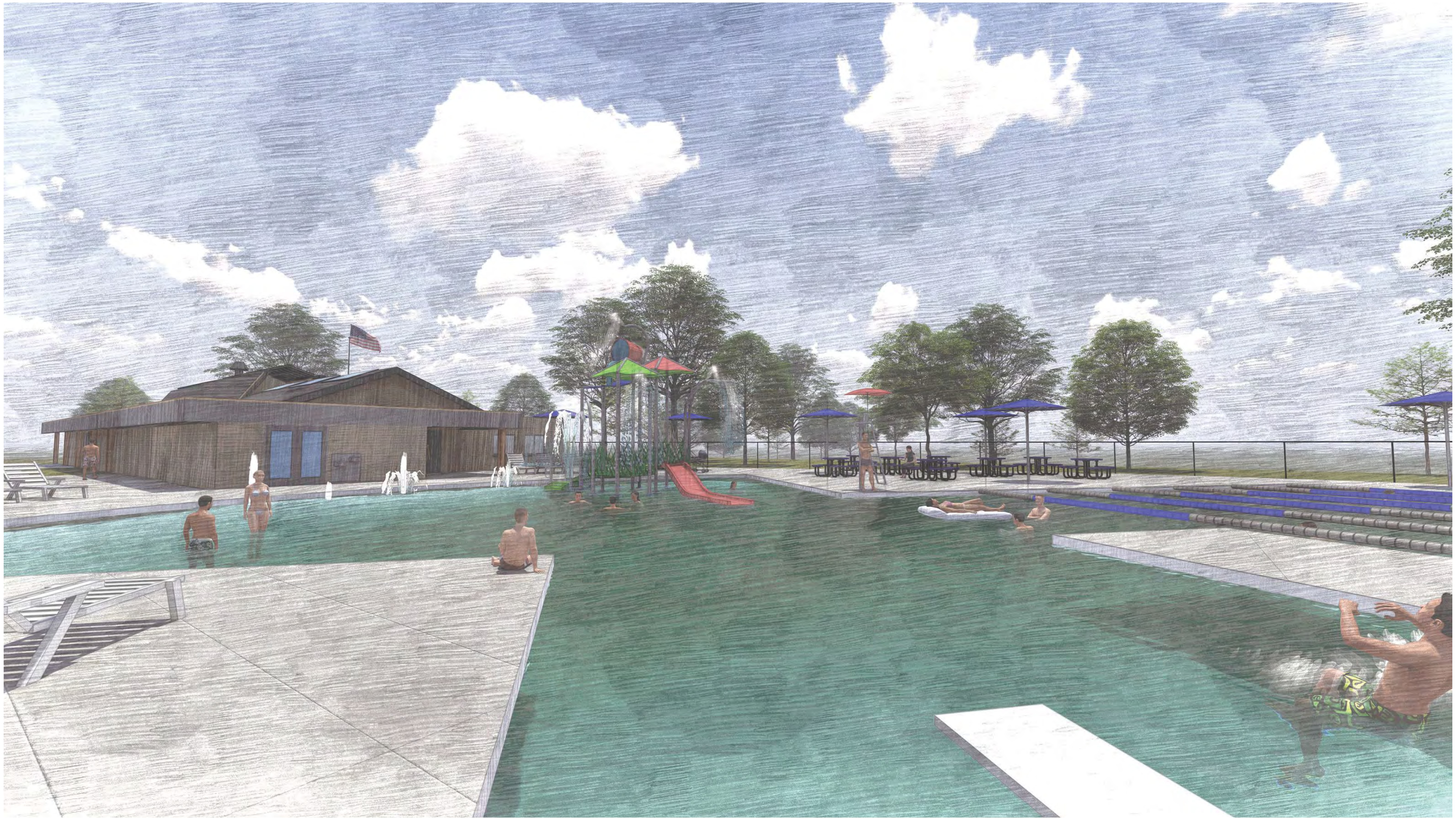


AYRES
ASSOCIATES

ID | 52-0648

0116 | 2019

Aerial Perspective



Fox Point Aquatic Facility - Concept 4

Village of Fox Point, Wisconsin



ICONICA



AYRES
ASSOCIATES

ID | 52-0648

0116 | 2019

Perspective



VILLAGE OF FOX POINT

MILWAUKEE COUNTY
WISCONSIN

VILLAGE HALL
7200 N. SANTA MONICA BLVD.
FOX POINT 53217-3505
414-351-8900
FAX 414-351-8909

To: Village of Fox Point Village Board
From: Scott Brandmeier, Director of Public Works *SFB*
Through: Scott Botcher, Village Manager *SMB*
Date: November 1, 2022
Re: Recommendation for Approval of Change Order for Preliminary FEMA Flood Insurance Rate Map Review for Fox Point

At the July Village Board meeting, information was presented to the Village Board noting that the Department of Natural Resources (DNR) had updated the 100-year floodplain maps in conjunction with FEMA. The revised maps affect nearly 100 additional properties that were not in the 2008 floodplain maps. Village staff began working with Ruekert Mielke to determine why the revised maps were so drastically different from the previous maps and how to appeal the delineation.

On October 11, 2022, the DNR held a local officials meeting as well as a public information meeting. During the local officials meeting, the DNR noted that any appeal of the delineation would have to be accompanied by technical documentation showing their delineation to be inaccurate. I inquired whether this meant a municipality appealing the delineation would be required to prepare a Letter of Map Revision (LOMR) level analysis and DNR staff responded affirmatively.

Given the extensive nature of the hydraulic analysis needed to perform the LOMR and that the Village only has 90 days in which to appeal the revised delineation, I requested that Ruekert Mielke prepare an amendment to perform the work. They have submitted an amendment to prepare the analysis, as described on the attached, in the amount of \$27,500.

I have reviewed the proposed scope of services and find the scope and fees to be reasonable under the circumstances. Therefore, it is my recommendation that the Village Board approve Amendment No. 1 with Ruekert Mielke in an amount not to exceed \$27,500 and authorize the Village President and Village Clerk/Treasurer to sign the amendment on behalf of the Village. Funding is proposed to come from the Capital Projects Fund and the Stormwater Utility Fund.



W233 N2080 Ridgeview Parkway, Waukesha, WI 53188-1020 262-542-5733

**AMENDMENT TO ENGINEER-CLIENT AGREEMENT
Amendment No. 1**

Background Data:

Effective Date of Engineer-Consultant Agreement: September 7, 2022

Engineer: Ruekert & Mielke, Inc.

Client: Village of Fox Point

Project: Hydraulic Model Review Services Agreement

Nature of Amendment:

 X Additional Services to be performed by Consultant

Description of Modifications:

- R/M will conduct a meeting with the Village as a project kickoff meeting to discuss tasks and schedule and to compile a list of all projects within the Village that have not been incorporated into the hydrology and hydraulics used to generate the Preliminary FEMA Flood Insurance Rate Maps (FIRM) within the Village limits.
- R/M will obtain all available design information, plans, and calculations for the projects not included into the hydrology and hydraulics used to generate the Preliminary FIRM mapping within the Village.
- R/M will modify the hydraulic model representing the Preliminary FIRMS provided by the Wisconsin Department of Natural Resources (WDNR) where it feels is necessary based on differences in physical geometry, roughness coefficients in Indian Creek and it's overbanks, and crossing geometry.
- R/M will incorporate the projects not included in the hydrology and hydraulics used to generate the Preliminary FIRMS into the revised hydraulic model.
- As part of the 90-day FEMA Map appeal process, R/M will compile and complete all necessary paperwork, including FEMA MT-2 application forms, to complete and submit a FEMA Letter of Map Revision (LOMR) request to the WDNR and FEMA, requesting that the Preliminary FIRM maps for the Village be revised to reflect the differing hydrology and hydraulics developed during this project.



Amendment to Engineer-Client Agreement
Amendment No. 1
October 25, 2022
Page 2

Agreement Summary:

Original agreement amount:	\$15,000
Net change for prior amendments:	\$0
This amendment amount:	\$27,500
Adjusted Agreement amount:	\$42,500

Engineer and Consultant hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is October 25, 2022.

ENGINEER:

CLIENT:

Ryan T. Amtmann, P.E.
Ruekert & Mielke, Inc.

By:

A handwritten signature in blue ink, appearing to read "Ryan T. Amtmann", written over a horizontal line.

By:

Title: Vice President

Title:

Date Signed: October 25, 2022

Date Signed:

Ruekert & Mielke, Inc. Standard Terms and Conditions (Engineering Services)

Effective June 17, 2014

A. Standards of Performance

The standard of care for all professional engineering and related services performed or furnished by Engineer under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished by Engineer.

B. Authorized Representative

With the execution of this Agreement, Engineer and Owner shall designate specific individuals to act as Engineer's and Owner's representatives with respect to the services to be performed or furnished by Engineer and duties and responsibilities of Owner under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the Assignment on behalf of the respective party whom the individual represents.

C. Payments to Engineer

Invoices will be prepared in accordance with Engineer's standard invoicing practices and will be submitted to Owner by Engineer monthly, unless otherwise agreed. Invoices are due and payable within 30 days of receipt. If Owner fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice therefore, the amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, Engineer may, after giving seven days written notice to Owner, suspend services under this Agreement until Engineer has been paid in full all amounts due for services, expenses, and other related charges.

D. Ownership and Reuse of Documents

All documents prepared or furnished by Engineer pursuant to this Agreement are instruments of service, and Engineer shall retain an ownership and property interest therein (including the copyright and the right of reuse at the discretion of the Engineer) whether or not the Project is completed. Engineer grants Owner a limited license to use the documents on the Project, extensions of the Project, and for related uses of the Owner, subject to receipt by Engineer of full payment due and owing for all services relating to preparation of the documents. Such limited license shall not create any rights in third parties. Reuse of any documents pertaining to this Agreement by Owner shall be at Owner's sole risk; and Owner agrees to indemnify, defend, and hold Engineer harmless from all claims, damages, and expenses including reasonable attorney's fees arising out of such reuse of documents by Owner or by others acting through Owner.

E. Construction Review

Engineer will observe the work as agreed to for general compliance with the construction documents. Engineer shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a contractor to comply with Laws and Regulations applicable to that contractor's furnishing and performing of its work. Engineer shall not be responsible for the acts or omissions of any contractor. Engineer has no stop work authority.

F. Environmental

Engineer assumes no liability for the detection or removal of any hazardous substances found at or adjacent to the Project site.

G. Owner Provided Information

Engineer shall have the right to rely on the accuracy of any information provided by Owner. Engineer will not review this information for accuracy.

H. Permits and Approvals

It is the responsibility of the Owner to obtain all necessary permits and approvals for the Project. Engineer will assist the Owner in obtaining permits and approvals as mutually agreed to in writing.

I. Access

Owner shall arrange for safe access to and make all provisions for Engineer and Engineer's consultants to enter upon public and private property as required for Engineer to perform services under this Agreement.

J. Limit of Liability

To the fullest extent permitted by law, the total liability, in the aggregate, of Engineer and Engineer's officers, directors, partners, employees, agents, and consultants, or any of them to Owner and anyone claiming by, through, or under Owner, for any and all injuries, losses, damages and expenses, whatsoever arising out of, resulting from, or in any way related to this Agreement from any cause or causes including but not limited to the negligence, professional errors or omissions, strict liability or breach of contract or warranty, express or implied, of Engineer or Engineer's officers, directors, partners, employees, agents, and consultants, or any of them, shall not exceed the total amount of \$2,000,000.

K. Insurance

Engineer will maintain insurance coverage for Workers' Compensation, General Liability, and Automobile Liability and will provide certificates of insurance to Owner upon request.

L. Termination of Contract

Either party may at any time terminate this Agreement with 7 days written notice for cause in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. Owner may terminate this Agreement for convenience with 30 days written notice, or the Project may be suspended by Owner with 30 days written notice. In the event of suspension or cancellation for convenience by Owner, Owner shall pay to Engineer all amounts owing to Engineer under this Agreement, for all work performed up to the effective date of notice.

M. Indemnification and Allocation of Risk

1. To the fullest extent permitted by law, Engineer shall indemnify and hold harmless Owner, Owner's officers, directors, partners, and employees from and against costs, losses, and damages (including but not limited to reasonable fees and charges of engineers, architects, attorneys, and other professionals, and reasonable court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of Engineer or Engineer's officers, directors, partners, employees, and consultants in the performance of Engineer's services under this Agreement.

2. To the fullest extent permitted by law, Owner shall indemnify and hold harmless Engineer, Engineer's officers, directors, partners, employees, and consultants from and against costs, losses, and damages (including but not limited to reasonable fees and charges of engineers, architects, attorneys, and other professionals, and reasonable court or arbitration or other dispute resolution costs) caused solely by the negligent acts or omissions of Owner or Owner's officers, directors, partners, employees, and consultants with respect to this Agreement.

3. To the fullest extent permitted by law, Engineer's total liability to Owner and anyone claiming by, through, or under Owner for any injuries, losses, damages and expenses caused in part by the negligence of Engineer and in part by the negligence of Owner or any other negligent entity or individual, shall not exceed the percentage share that Engineer's negligence bears to the total negligence of Owner, Engineer, and all other negligent entities and individuals.

4. The indemnification provision of paragraph M.1. is subject to and limited by the provisions agreed to by Owner and Engineer in paragraph J. "Limit of Liability," of this Agreement.

N. Independent Contractor

All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of Owner and Engineer and not for the benefit of any other party. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either Owner or the Engineer. Engineer's services under this Agreement are being performed solely for the Owner's benefit, and no other entity shall have any claim against Engineer because of this Agreement or the performance or nonperformance of services hereunder. Owner agrees to include a provision in all contracts with contractors and other entities involved in this Project to carry out the intent of this paragraph.

O. Force Majeure

Engineer shall not be liable for any loss or damage due to failure or delay in rendering any service called for under this Agreement resulting from any cause beyond Engineer's reasonable control.

P. Severability and Waiver of Provisions

Any provision or part of the Agreement held to be void or unenforceable under any Laws or Regulations shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Engineer, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision. Non-enforcement of any provision by either party shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

Q. Dispute Resolution

Owner and Engineer agree that they shall first submit any and all unsettled claims, counterclaims, disputes, and other matters in questions between them arising out or relating to this Agreement or the breach thereof ("disputes") to mediation as a condition precedent to litigation.

R. Public Records

Engineer agrees to comply with the requirements of Wisconsin Statutes Sections 19.32 to 19.39 and Sections 19.81 to 19.98 – Wisconsin Public Records Law and Open Meetings Law.

END OF DOCUMENT

Scott Brandmeier

From: Kloth, Ryan <RKloth@ruekert-mielke.com>
Sent: Thursday, October 27, 2022 3:29 PM
To: Scott Brandmeier
Subject: Village of Fox Point-Amendment to contract to provide services related to the appeal of the Preliminary FIRM maps within the Village
Attachments: 45-10011 Engineer-Client Agreement Amendment-1 w R-M Standards.pdf

Scott,

Per our discussions, I've provided you with our proposal to provide services to appeal the Preliminary FIRM mapping within the Village; included in this is the work to put together a LOMR request to FEMA. Please let me know if you have any questions.

Regards,

Ryan W. Kloth

Water Resources Senior Project Manager



 262-953-3078
 RKloth@ruekert-mielke.com
 ruekertmielke.com

