Addendum to: Phase I Archaeological Survey
IA10 Hetfield
600 South Maple Street
Ames, Story County, Iowa

Prepared for

Verizon Wireless, Inc.
6 Campus Circle, Suite 500
Westlake, Texas 76272

January 29, 2015

Prepared by

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MANAGEMENT SUMMARY

This addendum report presents the findings of a Phase I Archaeological Survey for the proposed Verizon Wireless (Verizon) IA10 Hetfield site (the Project) located in the city of Ames in Story County, Iowa (Appendix A, Figure 1). The initial survey for the Project was conducted in December 2012 (Holven 2012) and received a concurrence letter from the Iowa Historic Preservation Office in January 2013 (R&C # 130185061). Site drawings provided by Verizon dated June 29, 2015 revealed changes to the proposed facility layout including: shifting the proposed lease area and tower location approximately 40 feet (ft) (12.2 meters [m]) to the east, expanding the proposed lease area from 46 ft by 41 ft (14.0 m by 12.5 m) to 59 ft by 33 ft (17.9 m by 10.1 m), extension of the proposed access and utility easement along an existing gravel driveway from 400 ft (121.9 m) long to 430 feet (131.1 m) long, and reduction of the proposed electrical utility easement from 130 ft (39.6 m) long to 75 ft (22.9 m) long. These changes resulted in project facilities being located in areas that were not surveyed during the initial 2012 survey. No other changes were noted in the proposed actions. The proposed action is located within the northeast quarter of Section 10, Township 83 North, Range 24 West. The Universal Transverse Mercator (UTM) coordinates for the revised tower are approximately 448381 east, 4651849 north (NAD 83, UTM Zone 15).

The proposed Project will require a license from the Federal Communications Commission (FCC) and compliance with the National Historic Preservation Act (NHPA) of 1966. The purpose of this addendum investigation was to determine the presence of archaeological resources within those portions of the amended area of potential effects (APE) for direct effects that are located in areas not included in the initial Phase I Archaeological Investigation of the proposed Project. If archaeological resources were present within the APE for direct effects, then appropriate management recommendations for mitigation work would be recommended based on the resources’ National Register of Historic Places (NRHP) status.

The file review failed to identify archaeological or architectural resources, including unevaluated, not eligible, eligible, and listed, within the APE for direct effects. One archaeological investigation, four archaeological sites, and 44 architectural properties were previously recorded in the APE for visual effects. None of the archaeological or architectural resources are National Register listed or eligible. Based on the absence of historic properties within the APE for visual effects, a determination of No Historic Properties in the APE for visual effects is recommended.

No archaeological sites or architectural properties were identified during the pedestrian survey of the APE for direct effects. Additionally, no archaeological materials were identified during shovel testing. Based on the absence of cultural resources within the APE for direct effects, a determination of No Historic Properties in the APE for direct effects is recommended.
INTRODUCTION

This addendum report presents the findings of a Phase I Archaeological Survey for the proposed Verizon Wireless (Verizon) IA10 Hetfield site (the Project) located in the city of Ames in Story County, Iowa (Appendix A, Figure 1). The initial survey was conducted in December 2012 (Holven 2012) and received a concurrence letter from the Iowa Historic Preservation Office in January 2013 (R&C # 130185061). Site drawings provided by Verizon dated June 29, 2015 revealed changes to the proposed facility layout including: shifting the proposed lease area and tower location approximately 40 ft (12.2 m) to the east, expanding the proposed lease area from 46 ft by 41 ft (14.0 m by 12.5 m) to 59 ft by 33 ft (17.9 m by 10.1 m), extension of the proposed access and utility easement along an existing gravel driveway from 400 ft (121.9 m) long to 430 feet (131.1 m) long, and reduction of the proposed electrical utility easement from 130 ft (39.6 m) long to 75 ft (22.9 m) long. These changes resulted in project facilities being located in areas that were not surveyed during the initial 2012 survey. No other changes were noted in the proposed actions. The proposed action is located within the northeast quarter of Section 10, Township 83 North, Range 24 West. The Universal Transverse Mercator (UTM) coordinates for the revised tower are approximately 448381 east, 4651849 north (NAD 83, UTM Zone 15).

The proposed Project will require a license from the Federal Communications Commission (FCC) and compliance with the National Historic Preservation Act (NHPA) of 1966. The purpose of this addendum investigation was to: (1) assess the presence or absence of cultural resources within the amended area of potential effects (APE) for direct effects and within the APE for visual effects; and (2) make appropriate management recommendations for mitigation work based on the resources’ National Register of Historic Places (NRHP) status. Work was conducted in accordance with Guidelines for Archaeological Investigations in Iowa (Kaufmann 1999) and The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation [48 Federal Register 44716-44740] (National Park Service [NPS] 1983).

Area of Potential Effects (APE)

The APE for direct effects is based on the Project design dated June 29, 2015, and includes all areas that may be permanently or temporarily impacted during the installation of the tower, utilities, and equipment shelter (Appendix A, Figure 2). Based on the 2012 Phase I Archaeological Investigation, all proposed Project facilities illustrated in the June 29, 2015 Project design with the exception of the proposed lease area and a small sliver of access and utility easement north of the lease area were previously surveyed.

Tetra Tech’s updated archaeological survey included the proposed 59-ft by 33-ft (17.9-m by 10.1-m) lease area and a 30-ft by 4-ft (9.1-m by 1.2-m) segment of the proposed access and utility easement. The total area reviewed was 1,488 square feet (138.3 square meters).
INVESTIGATION TECHNIQUES

File Search and Literature Review
The APE for direct effects was investigated through an archaeological file review received from the Iowa Office of the State Archaeologist on January 4, 2016 and an architectural inventory review received from the State Historic Preservation Office (SHPO) on December 21, 2015. The purpose of reviewing this information was to determine if previously documented archaeological sites, National Register properties, or previous surveys are located within the APEs.

The background research also included a review of historic documentation consisting of plat maps, topographic maps, and aerial photographs. An updated review of relevant materials for the APE for direct effects is presented in this addendum.

Field Investigations
A systematic surface survey was conducted in the survey corridor by walking 5-m (16.4-ft) interval transects to determine the presence or absence of isolated finds, artifact scatters, or features on the surface. If archaeological materials were identified during the survey, the boundaries were flagged and recorded with a GPS unit. The locations of temporally or culturally diagnostic artifacts and features were also recorded with the GPS. If ground surface visibility was less than 25 percent and there was an increased potential for buried cultural resources based on the landform or topography, systematic shovel tests were placed at 15-m (49.2-ft) intervals within the APE for direct effects (i.e., proposed lease area and access and utility easements). All excavated sediments were passed through 0.25-inch (in) (0.6-centimeter [cm]) screen and examined for cultural materials. If cultural materials were encountered in shovel tests, then radial shovel tests were excavated at 5-m (16.4-ft) or 10-m (32.8-ft) intervals in the surrounding areas, where applicable, to determine the presence or absence of additional cultural materials. Shovel tests were excavated at approximately 10-cm (3.9-in) levels until sterile soil horizons were encountered. Observations and photographic documentation of field conditions and survey results were recorded in a field notebook that is on record at the Tetra Tech office in Bloomington, Minnesota.

ENVIRONMENTAL BACKGROUND

Landforms, Soils, and Hydrology
A discussion of landforms, hydrology, and soils within the APE for direct effects is presented in Holven (2012). Due to the proximity of the APE for direct effects to the previously investigated area, there are no documented differences in landforms, soils, or hydrology.
INVESTIGATION RESULTS

File Search
No previous archaeological investigations have been conducted within the APE for direct effects and one archaeological investigation (20140785082) is located within the 0.5 mi (0.8 km) APE for visual effects (Appendix A, Figure 1).

No archaeological resources, including unevaluated, not eligible, eligible, or listed, have been recorded within the APE for direct effects. Four archaeological sites were identified within the APE for visual effects (Appendix A, Figure 1; Table 1). One archaeological site 13SR199, is adjacent to the project area. All four archaeological sites are unevaluated for the National Register.

Table 1. Previously Recorded Archaeological Sites within the APE for Direct Effects.

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Description</th>
<th>NR Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>13SR199</td>
<td>Historic dump, railroad related</td>
<td>Unevaluated</td>
</tr>
<tr>
<td>13SR331</td>
<td>Historic dump</td>
<td>Unevaluated</td>
</tr>
<tr>
<td>13SR332</td>
<td>Historic artifact scatter</td>
<td>Unevaluated</td>
</tr>
<tr>
<td>13SR333</td>
<td>Structural remains</td>
<td>Unevaluated</td>
</tr>
</tbody>
</table>

No architectural resources, including unevaluated, not eligible, eligible, or listed, have been recorded within the APE for direct effects. A total of 44 architectural properties were identified within the APE for visual effects. A review of the historic structures inventory for Ames, Iowa received on December 21, 2015, revealed that none of these 44 properties are listed on the National Register or considered eligible for listing by the SHPO or a federal agency.

Historic Document Review
A discussion of historic plat maps, topographic maps, and aerial photographs within the APE for direct effects is presented in Holven (2012). Due to the proximity of the APE for direct effects to the previously investigated area, there are no documented differences in the historic plat maps, topographic maps, and aerial photographs.

Field Investigations
The field survey was completed in 1 hour on December 7, 2015 by Tetra Tech archaeologists Britt McNamara and Elise Agne. At the time of the field survey, the proposed lease area had been staked. The proposed lease area was located in a wooded area and on a slightly elevated finger of land that protruded to the south toward Squaw Creek (Appendix C). Lower areas assumed to be the modern floodplain were observed immediately south of the proposed lease area. Surface visibility within the APE for direct effects was poor (0 to 25 percent) and no cultural materials were observed on the surface.

Tetra Tech excavated two shovel tests to confirm the presence or absence of intact sediments and cultural materials in the subsurface (Appendix A, Figure 2; Appendix C, Photograph 5; Appendix D). Shovel Tests were placed at roughly 15-m (49.2-ft) intervals within previously unsurveyd portions of the APE for direct
effects. Shovel Test No. 1 was placed on the west side of the lease area north of the tower center, and Shovel Test No. 2 was placed on the east side of the lease area (Appendix A, Figure 2). The shovel tests revealed an A horizon consisting of sandy loam extending 24 to 34 centimeters (cm) (9.5 to 13.4 inches [in]) below the surface and overlying a silty sand horizon (Appendix D). The sand horizon extended to 63 cm (24.8 in) below the surface. No cultural materials were observed within the screened sediments.

These soil profiles are consistent with the soil profiles observed during previous shovel testing (Holven 2012). As before, shovel testing within these areas did not reveal soil profiles characteristic of the Coland or Spillville soil series. Both series consist of dark, thick A horizons, which were not observed in the shovel tests. Shovel testing within the proposed lease area revealed silty loam overlying fine sand layers. The gradation of these sediments (silty loam overlying sand) and an overall lack of observable soil formation within these layers may indicate a relatively young landform. It is Tetra Tech’s opinion that the soils and sediments observed during the shovel testing may belong to the Camp Creek Member of the DeForest Formation and may be less than 400 years old (Office of the State Archaeologist 2010).

RECOMMENDATIONS

The file review failed to identify archaeological or architectural resources, including unevaluated, not eligible, eligible, and listed, within the APE for direct effects. One archaeological investigation, four archaeological sites, and 44 architectural properties were previously recorded in the APE for visual effects. None of the archaeological or architectural resources are National Register listed or eligible. Based on the absence of historic properties within the APE for visual effects, a determination of **No Historic Properties in the APE for visual effects** is recommended.

No archaeological sites or architectural properties were identified during the pedestrian survey of the APE for direct effects. Additionally, no archaeological materials were identified during shovel testing. Based on the absence of cultural resources within the APE for direct effects, a determination of **No Historic Properties in the APE for direct effects** is recommended.

However, Tetra Tech understands that the potential exists that archaeological materials could be present beyond the depth that was tested. Based on the minimal area that would be subjected to deeper excavations during construction including the proposed lease area (0.02 acres) and the proposed utilities trenches (3 ft [0.9 m] deep by 1 ft [0.3 m] wide), Verizon has developed an unanticipated discoveries plan that outlines the procedure to be undertaken in the event of the discovery of archaeological materials during construction (Appendix E).
REFERENCES CITED

Holven, Adam

Kaufmann, Kira (editor)

National Park Service

Office of the State Archaeologist

United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS)
APPENDIX A

FIGURES
Figure 1
Site Vicinity Map and Results of Literature Review

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Ames East [1975] and Ames West [1975], Iowa); Northeast 1/4 of Section 10, Township 83 North, Range 24 West of Story County.

IA10 Hetfield
600 South Maple Street
Ames, Story County, Iowa

Proposed Tower Location
APE for Visual Effects
Previous Archaeological Survey
Archaeological Site
Figure 2
Site Vicinity Map and Results of Field Survey

IA10 Hetfield
600 South Maple Street
Ames, Story County, Iowa

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Ames East [1975] and Ames West [1975], Iowa); Northeast 1/4 of Section 10, Township 83 North, Range 24 West of Story County.

APE for Direct Effects
Proposed Tower Location
Previously Surveyed
Access and Utility Route
Utility Route

Negative Shovel Test

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, ¥

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APPENDIX B

PHOTOGRAPHS
Photograph 1 (North): A view from the proposed tower center looking north.

Photograph 2 (East): A view from the proposed tower center looking east.
Photograph 3 (South): A view from the proposed tower center looking south.

Photograph 4 (West): A view from the proposed tower center looking west.
Photograph 5 (N/A): A view of the observed soil profile.
APPENDIX C

SHOVEL TEST RESULTS
## Appendix D. Shovel testing results.

<table>
<thead>
<tr>
<th>Location</th>
<th>Test No.</th>
<th>Depth (cm below surface)</th>
<th>Soil Horizon</th>
<th>Description</th>
<th>Cultural Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease Area East-Center</td>
<td>1</td>
<td>0-34</td>
<td>A</td>
<td>10YR 2/1; silt loam</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34-63</td>
<td>C</td>
<td>10YR 6/3; sand</td>
<td>NCMR</td>
</tr>
<tr>
<td>Lease Area West-Center</td>
<td>2</td>
<td>0-24</td>
<td>A</td>
<td>10YR 2/1; silt loam</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24-50</td>
<td>B</td>
<td>10YR 2/1 and 10YR 6/3 marbled; silty sand</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50-56</td>
<td>C</td>
<td>10YR 6/3; sand</td>
<td>NCMR</td>
</tr>
</tbody>
</table>

\(^4\) No cultural material recorded.
APPENDIX D

ARCHAEOLOGICAL DATA BASE FORM
NATIONAL ARCHAEOLOGICAL DATABASE – REPORTS: DATA ENTRY FORM

1. R and C #: ____________________________
2. Authors: Holven, Adam C. and Britt McNamara
   Publication Date: January 2016
3. Title: Addendum To: Phase I Archaeological Survey, IA10 Hetfield, 600 Maple Street,
   Ames, Story County, Iowa

4. Report Title: Project Report
   Volume #:__________ Report #: 103IP2711907 NTIS:__________
   Publisher: Tetra Tech
   Place: Bloomington, MN

5. Unpublished
   Sent From: ____________________________
   Sent To: ____________________________
   Contract #: ____________________________


7. State: Iowa
   County: Story
   Town: Ames

8. Work Type: 31 (Phase I Survey)

9. Keyword: 0 - Types of resources / Features 1 - Generic terms / Research Questions 2 -
   Taxonomic Names 3 - Artifact Types / Material Classes 4 - Geographic Names / Locations 5 Time Periods 6 - Project names / Study Unit 7 - Other Key Words
   Iowan Surface [4] No Resources [0]

10. UTM Zone: 15 (NAD83) Easting: 448381 Northing: 4651849
    15 (NAD83) Easting: ______ Northing: ______
    15 (NAD83) Easting: ______ Northing: ______
    15 (NAD83) Easting: ______ Northing: ______

11. Township: T83N
    Range: R24W
Other Publication Types:

1. Monograph:
   Name: ________________________________________________________________
   Place: ________________________________________________________________

2. Chapter: In: __________ First: __________ Last: __________


4. Dissertation:
   Degree: Ph.D. LL.D. M.A. M.S. B.A. B.S. Institute: ______________

5. Paper: Meeting:
   Place: _________________________________ Date: ________________________

6. Other:
   Reference Line: ______________________________________________________

7. Site #:
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________
   __________ __________ __________ __________ __________ __________

8. Quad Map: Ames East and Ames West
   Date: 1975
APPENDIX E

UNANTICIPATED DISCOVERIES PLAN
UNANTICIPATED DISCOVERY PLAN FOR VERIZON WIRELESS PROJECTS REGARDING CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

REVISED JUNE 2013

The purpose of this Unanticipated Discovery Plan (UDP) is as a last line of defense for the protection of cultural resources. After Section 106 compliance efforts, including records research, professional cultural resources survey, tribal consultation, consultation with the public, consultation with the local government, and consultation with SHPO, have identified no historic within the direct Area of Potential Effect (APE), Verizon wishes to provide further assurance that any unidentified historic properties that may be present will be appropriately protected. So, in the highly unlikely event that historic properties not identified during the Section 106 consultation process are present within the direct APE, the UDP will guide field personnel in the appropriate steps to take to protect historic properties. The purpose of the UDP is to make field personnel aware that, in spite of negative research, survey, and consultation findings, cultural resources could still be present, and that construction should cease if any cultural resources are encountered. Further, the UDP guides steps that should be taken following any unanticipated discovery. While the specific points of contact will vary regionally, the general guidelines regarding the appropriate steps to follow should be applicable across the US. The procedures outlined in this UDP are in no way intended to replace or supercede the role of a tribal or other cultural resources monitor during construction, when consulting parties agree that such a monitor should be present. Furthermore, the UDP is not intended to allow any short-cuts or reduction of effort in any part of the Section 106 consultation process.

As used within this UDP, inadvertent, unanticipated, or emergency discoveries, also known as chance finds, are defined as:

• Newly discovered previously unidentified archaeological sites.

• Artifacts or cultural materials within previously recorded archaeological sites that warrant further evaluation.

• Any evidence of human remains or graves. All discoveries of bone are to be treated by construction personnel as potential human remains until a determination regarding whether the
remains are human can be made by a qualified individual, such as a coroner, an archaeologist, or an osteologist. Any bone encountered must be left in place to the extent possible until the appropriate experts determine their origin and proper disposition (which may be to leave them in place and rebury them, perhaps more deeply to avoid further disturbance).

What is a cultural resource?
The first step in dealing appropriately with unanticipated discoveries is recognizing cultural resources and human remains when they are encountered. Since this UDP is intended for use by field personnel rather than by cultural resources specialists, a brief summary of types of cultural resources is provided. The intention is to make field personnel aware of cultural resources that they may encounter. The intention is not to train field personnel to act as cultural resource specialists—but to recognize when cultural resource specialists should be consulted.

A cultural resource discovery could be prehistoric or historic, and can consist of artifacts or of features. Cultural resources are anything exhibiting modification by humans. Stones broken in a certain way during the manufacture of stone tools are artifacts, as are metal nails or glass fragments from more recent activities. Cultural features are evidence in the ground of previous activities, for example a hearth, or a mound of burned rock. Examples of cultural resources include:

- An accumulation of burned rocks and/or shell
- An area of charcoal or very dark stained or reddened soil, possibly with artifacts
- Stone tools or waste flakes (i.e. an arrowhead, or stone chips)
- Clusters of tin cans or bottles, ceramics, glass, buttons, marbles, pipes, figurines, or doll parts, and identifiable metal (tools, gun parts, machine parts, hinges, nails, buckles, flatware, wagon hardware, horse tack) and agricultural equipment that could include items older than 50 years
- Privies (outhouse pits), wells, cisterns, root cellars—any unnatural depression
- Standing structures such as barns, houses, and silos or remains of structures, including buried walls or foundations
- Buried railroad tracks, decking, or other industrial materials
• Earth and/or rock mounded up above the normal ground surface—any unnatural prominence

• A trench or pit excavated below the normal ground surface

• Anything that is more symmetrical or regular than expected in nature

• Bones that do not clearly belong to an animal, or evidence of human burials or graves—these receive special treatment, as described below.

If an object or a feature in the landscape does not look natural, then it is more than likely cultural. It is best to be conservative, and assume that the material or feature is a cultural resource if there is any uncertainty.

The identification of cultural resources requires basic training to recognize potential sites, artifacts, and cultural features of significance. It is recommended that all relevant personnel and construction contractor personnel be provided basic orientation training designed to facilitate the recognition of cultural resources and human remains. Such training should be supplemented by a quick-reference guide to cultural resources that should be available in the field—perhaps to accompany health and safety documents. In addition, the training and quick-reference guide should emphasize the exact procedures to be followed in the event of an unanticipated significant site discovery, such as the discovery of human remains.

**What do I do if I find a cultural resource?**

1. If you are engaged in work near the cultural resource, stop work immediately, and secure and protect the discovery location. If you are not engaged in work near the discovery location, mark the spot so that you can find it again.

2. Do not move anything once you are aware that there may be cultural material present, and do not remove anything from the location. If anything has already been disturbed, leave it where it lies until further instruction. If you can take photos without disturbing anything, please do so. Do not take photos of suspected human remains—any bones or possible graves (see below for treatment of suspected human burials).
3. Immediately notify a designated supervisor and Verizon Wireless—NEPA Regulatory Compliance (NRC), of the discovery. Do not discuss the discovery with anyone other than your supervisor, unless asked to do so by your supervisor. Once made aware of the discovery, the designated supervisor will immediately notify a qualified archaeologist.

4. Information about the discovery will be provided to the archaeologist, who will provide guidance on immediate protection measures in the field, until he or she can reach the site.

5. Once the archaeologist has examined the cultural material and developed an assessment of the significance of the cultural resource based on a visit to the discovery location, recommendations will be developed through discussion with NRC, to be presented to the State Historic Preservation Officer (SHPO), federal agency, and potentially interested tribes. If the discovery is deemed potentially significant, NRC, and the archeologist should consult and coordinate appropriate mitigation measures for treating and handling the discovery, while minimizing impacts to the construction schedule to the extent possible.

What do I do if I find remains that could be human, or a burial or grave site?
The Project will be subject to state and possibly local laws regarding treatment or disturbance of human remains. In the event that any human remains are encountered during construction, the following plan outlines the general procedures to be followed. Before any action is taken, applicable local and state laws must be consulted.

If you find remains that could be human, or a burial or grave site:

1. Unless you are absolutely sure that the bones represent an animal, as you might be in the case of an articulated deer skeleton, bones should be treated as if they are human until an expert determines otherwise.

2. If you are engaged in work near the discovery, stop work immediately, and secure and protect the discovery location. If you are not engaged in work near the discovery location, mark the spot so that you can find it again, and protect it to the extent possible.

3. Do not move or touch anything once you are aware that there may be human remains or graves present, and do not remove anything from the location. If anything has already been disturbed, leave it where it lies, carefully covered and protected from degradation.
by weather or unauthorized individuals. The Site Manager will partition off the area and take all necessary steps to ensure that the site is not disturbed.

4. Do not photograph any possible human remains or graves or associated artifacts.

5. Immediately notify your supervisor and NRC, of the discovery. The designated supervisor will immediately notify a qualified archaeologist/physical anthropologist and the Site Manager.

6. Always be sure to treat human remains and graves with respect and dignity. Do not speak to anyone other than your designated supervisor about the discovery, unless asked to do so by your supervisor.

7. Once the archaeologist or other appropriate expert, such as physical anthropologist or osteologist, confirms that human remains or graves are present, based on a site visit, the Site Manager will notify Verizon Wireless's Project Manager and the appropriate local law enforcement agency and/or coroner.

8. If the local law enforcement agency and/or coroner determine that the human remains or grave are of recent origin, the discovery location will be treated as a crime scene under the direction of local law enforcement officers.

If the local law enforcement agency and/or coroner find that there is no need for a legal inquiry or for a criminal investigation, it is recommended that the following best practices be applied:
(a) NRC will immediately notify the FCC of the discovery, and the actions planned.
(b) NRC will immediately notify SHPO and other appropriate state agencies (such as the State Archaeologist’s Office, if applicable).
(c) NRC will immediately contact any tribes who have requested notice of such discoveries, and any other who may be interested.
(d) If possible, leave the grave or remains undisturbed in their original condition.
(e) Consult legal advice if modern or historic burials need to be relocated, as special restrictions and requirements may apply.
(c) NRC, through discussion with FCC, SHPO, interested tribes, and any other interested parties will develop a plan of action.

No work should proceed in the vicinity of the discovery until the disposition of the discovery is resolved. If work must proceed in the general area of the discovery before the disposition of the
discovery is final, full-time monitoring by a qualified archaeologist is recommended. A tribal monitor may also be appropriate, as determined by consultation with interested federally recognized tribes.
EXPERIENCE SUMMARY

Mr. Holven has extensive archaeological field experience, including large-scale research-based excavations in western Nebraska and Iowa, multi-square mile cultural resource surveys for wind parks in Iowa, Indiana, Minnesota, North Dakota, Ohio, and South Dakota, and Phase I and II cultural resource surveys for agricultural, transportation, and telecommunication projects throughout the Upper Midwest and Great Plains. The cultural resource projects the Mr. Holven manages are often a critical component in the development of environmental assessments (EA) and environmental impact statements (EIS) for project requiring compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). For this work, he has developed the necessary project management skills by serving as a crew member, collaborator, field director, and principal investigator for a broad range of archaeological and cultural resource management projects. Mr. Holven has also overseen the completion of NEPA categorical exclusions for cellular projects in Iowa, Minnesota, North Dakota, and South Dakota reviewed by the Federal Communications Commission (FCC). He is highly proficient in GIS (including aerial photography, spatial statistics, and landscape modeling), zooarchaeology and vertebrate taphonomy, chipped stone analysis, historic archaeology, and has applied his educational background in geology and soils to the field of geoarchaeology. This suite of archaeological experience coupled with cultural resources and NEPA project management, a background in GIS, geology, and soils has provided him with the necessary tools to complete a wide range of cultural resources projects both thoroughly and efficiently.

RELEVANT EXPERIENCE

Cultural Resource Management - National Environmental Policy Act (NEPA) Support

Federal Communications Commission (FCC) NEPA Compliance, Verizon Wireless, 2007 – Current. Mr. Holven has served as Principal Investigator and has completed cultural resource assessments and surveys for more than 400 telecommunication tower and antenna installation sites throughout the Upper Midwest, Great Plains, and Mountain West. Tasks have included cultural resource file searches at multiple state historic preservation offices, surface and subsurface testing, and consultation with the multiple state historic preservation offices and numerous American Indian Tribes, and local historical groups.
Résumé

Adam Holven, M.S., B.S., B.A.

Cultural Resource Management – Energy Support

Thunder Spirit Wind Energy Center, Adams County, North Dakota, Global Winds Harvest, 2013 – 2014. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Thunder Spirit Wind Energy Center in southwest North Dakota. The total area surveyed to date for the project is 926 acres (1.4 square miles). The project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (PSC); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under the North Dakota Century Code 55-02-07.

Courtenay Wind Farm, Stutsman County, North Dakota, Geronimo Energy, 2013 – 2014. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Courtenay Wind Farm in central North Dakota. The total area surveyed to date for the project is 2,832 acres (4.4 square miles). The project will require a Certificate of Site Compatibility from the North Dakota PSC; therefore, the Project is subject to review by the SHSND under the North Dakota Century Code 55-02-07.

Wilton IV Wind Energy Center, Burleigh County, North Dakota, NextEra Energy, 2011 – Current. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Wilton IV Wind Energy Center in central North Dakota. The total area surveyed to date for the project is 1,035 acres (1.6 square miles). Western and the SHSND will review this Project and ensure its compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). Mr. Holven will provide the cultural resources documentation that will be utilized in the Environmental Impact Statement (EIS).

Day County II Wind Energy Center, Day County, South Dakota, NextEra Energy, 2012 – Current. Mr. Holven is the Principal Investigator for the Level III Cultural Resource Survey for the proposed Day County II Wind Energy Center in eastern South Dakota. The project will require a Certificate of Site Compatibility from the South Dakota Public Utility Commission (PUC); therefore, the Project is subject to review by the South Dakota State Historic Preservation Office (SHPO).

Crowned Ridge Wind Energy Center, Grant, Codington, and Deuel Counties, South Dakota, NextEra Energy, 2009 – Current. Mr. Holven is the Principal Investigator for the Level III Cultural Resource Survey for the proposed Crowned Ridge Wind Energy Center in eastern South Dakota. The project will require a Certificate of Site Compatibility from the South Dakota Public Utility Commission (PUC); therefore, the Project is subject to review by the South Dakota State Historic Preservation Office (SHPO).

ADDITIONAL EXPERIENCE

MS Excel, MS Word, MS Outlook, MS Access, ArcGIS, ArcPAD, Trimble GPS, Zooarchaeology, Geoarchaeology, Historic Archaeology

EMPLOYMENT HISTORY

2003-2006 Research Archaeologist, Iowa State University, Ames, Iowa
2003-2005 Teaching Assistant, Iowa State University, Ames, Iowa
EXPERIENCE SUMMARY

Britt McNamara has a variety of field experience. She has primarily worked on Phase I cultural resource surveys in Minnesota, Iowa, North Dakota, Wisconsin, and Idaho, and on Phase II testing projects in Minnesota, Iowa, and Idaho. Additionally, she has conducted pedestrian survey in California and Utah. Ms. McNamara has also analyzed and catalogued artifacts from the Great Basin, Southwest United States, and Midwest.

RELEVANT EXPERIENCE

Cultural Resource Management

Federal Communications Commission (FCC) NHPA Compliance Support, Terracon, 2014-2015. Ms. McNamara has completed cultural resource assessments and surveys for telecommunication towers and antenna installations in Minnesota and North Dakota. Tasks have included file searches, surface survey, subsurface survey, and drafting and editing technical and short reports.

Federal Communications Commission (FCC) NHPA Compliance Support, Trileaf, 2014-2015. Ms. McNamara has completed cultural resource assessments and surveys for telecommunication towers and antenna installations in Minnesota, Iowa, and Wisconsin. Tasks have included file searches, surface survey, subsurface survey, and drafting and editing technical and short reports.

Minnesota River Valley OHV Park, Olivia, Renville County, Minnesota, 2014. Ms. McNamara served as the field lead and coauthored the report for the Phase I investigation (pedestrian survey and shovel testing) for the proposed Minnesota River Valley OHV Park. The total area surveyed was approximately 2 acres. During this project, a prehistoric lithic scatter and a historic farmstead were documented.

Public Outreach, Edge of the Cedars State Park Museum, Blanding, Utah, 2012. Ms. McNamara researched, designed, and implemented an exhibit and activity area focused on the science of archaeology. The project included writing the text panels for the exhibit and designing and manufacturing six activities. Additionally, Ms. McNamara wrote a museum visitors’ guide for the museum.

Archaeological Survey and Mapping, Utah State University, Southeast Idaho, 2011. Ms. McNamara surveyed cultural resources on lands managed by the Bureau of Management Pocatello Field Office. Additionally, she interviewed private collectors to determine the approximate location of looted archaeological sites. Fieldwork was conducted in cold weather over uneven terrain.
ADDITIONAL EXPERIENCE

MS Excel, MS Word, MS Outlook, MS PowerPoint

EMPLOYMENT HISTORY

2014-2015  Archaeologist, Blondo Consulting, LLC, Kettle River, Minnesota
2012       Education Intern, Edge of the Cedars State Park-Museum, Blanding, Utah
2011       Archaeology Technician, Utah State University, Logan, Utah
2009       Archaeology Intern, Bureau of Land Management, El Centro, California
January 29, 2016

Ray Anderson  
Department of Planning and Housing  
P.O. Box 811  
Ames, IA 50010

Subject: Public Notice to Certified Local Government  
IA10 Hetfield (12934)

Dear Mr. Anderson:

Pursuant to the FCC rules regarding review under Section 106 of the National Historic Preservation Act, we contacted you regarding any potential impacts to historic properties or cultural resources resulting from the proposed telecommunications tower project described below on December 11, 2012. Since our initial notification, the proposed project was shifted approximately 40 feet to the east resulting in a change to the proposed tower coordinates. Updated project information is provided below.

Celco Partnership and its controlled affiliates doing business as Verizon Wireless propose to construct a 129-foot monopole telecommunications tower at 600 South Maple Street in Ames, Story County, Iowa. The latitude/longitude coordinates of the proposed tower are N42° 1' 1.075"/W93° 37' 24.401" (NAD 83) within the northeast quarter of Section 10, Township 83 North, Range 24 West.

Any information or comments you may have regarding this project’s potential impact to historic properties or cultural resources can be made by contacting:

Kathy Bellrichard, Environmental Scientist  
Tetra Tech  
2001 Killebrew Drive, Suite 141  
Bloomington, Minnesota 55425  
612-643-2233  
kathy.bellrichard@tetratech.com

Sincerely,

Kathy Bellrichard  
Environmental Scientist
February 18, 2016

Ms. Bellrichard-

We have received your February 2, 2016 supplemental submittal regarding the above-referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.) and its implementing regulations 36 CFR Part 800 (revised, effective August 5, 2004).

At this point we are unable to conclude our review for the following reasons.

1. The soils described in Appendix D are not consistent with what appears in Photograph 5. A buried horizon appears to present at the base of the Shovel test.
2. The National Register eligibility of 13SR199 has not been determined and is presently under review by our office and Federal Highway and Iowa DOT.

Additional intensive fieldwork appears to be warranted to investigate deep site potential and determine if 13SR199 extends into the lease area.

Dan Higginbottom, Archaeologist

State Historic Preservation Office
600 East Locust Street  |  Des Moines, Iowa  |  50319
March 11, 2016

Dan Higginbottom, Archaeologist  
State Historical Society of Iowa  
600 East Locust  
Des Moines, Iowa, 50319

Subject:  R&C #130185061  
Verizon Wireless IA10 Hetfield (Ensite # 12934) Site  
Proposed New 129’ Monopole Tower Site  
Ames, Story County, Iowa

Dear Dan Higginbottom:

Tetra Tech received your February 18, 2016 response regarding the proposed Verizon Wireless 129-foot monopole tower site in Ames, Iowa. In your response, you indicated that additional field investigation was required to investigate deep site potential at the project site and to investigate whether site 13SR199 extends into the project area. Tetra Tech has completed the additional requested fieldwork, the results of which are summarized in the enclosed revised Addendum to: Phase I Archaeological Survey report.

Your time and effort regarding this matter are greatly appreciated. If you have questions or need additional information, please feel free to contact me at 612-643-2233.

Sincerely,

Kathy Bellrichard  
Environmental Scientist  
kathy.bellrichard@tetratech.com
Addendum to: Phase I Archaeological Survey
IA10 Hetfield
600 South Maple Street
Ames, Story County, Iowa

Prepared for
Verizon Wireless, Inc.
6 Campus Circle, Suite 500
Westlake, Texas 76272

March 9, 2016

Prepared by
Britt McNamara and
Adam C. Holven, Principal Investigator

Tetra Tech, Inc.
2001 Killebrew Drive, Suite 141
Bloomington, Minnesota 55425
(612) 643-2200
MANAGEMENT SUMMARY

This addendum report presents the findings of a Phase I Archaeological Survey for the proposed Verizon Wireless (Verizon) IA10 Hetfield site (the Project) located in the city of Ames in Story County, Iowa. The initial survey for the Project was conducted in December 2012 (Holven 2012) and received a concurrence letter from the Iowa Historic Preservation Office in January 2013 (R&C # 130185061). Site drawings provided by Verizon dated June 29, 2015 revealed changes to the proposed facility layout including: shifting the proposed lease area and tower location approximately 40 feet (12.2 meters [m]) east, expanding the proposed lease area from 46 ft by 41 ft (14.0 m by 12.5 m) to 59 ft by 33 ft (17.9 m by 10.1 m), extension of the proposed access and utility easement along an existing gravel driveway from 400 ft (121.9 m) long to 430 feet (131.1 m), and reduction of the proposed electrical utility easement from 130 ft (39.6 m) long to 75 ft (22.9 m) long. These changes resulted in project facilities being located in areas that were not surveyed during the 2012 survey. No other changes were noted in the proposed actions. The proposed action is located within the northeast quarter of Section 10, Township 83 North, Range 24 West. The Universal Transverse Mercator (UTM) coordinates for the revised tower are approximately 448381 east, 4651849 north (NAD 83, UTM Zone 15).

The proposed Project will require a license from the Federal Communications Commission (FCC) and compliance with the National Historic Preservation Act (NHPA) of 1966. The purpose of this addendum investigation was to determine the presence of archaeological resources within those portions of the amended area of potential effects (APE) for direct effects that are located in areas not included in the initial Phase I Archaeological Investigation of the proposed Project. If archaeological resources were present within the APE for direct effects, then appropriate management recommendations for mitigation work would be recommended based on the resources’ National Register of Historic Places (National Register) status.

The file review failed to identify archaeological or architectural resources, including unevaluated, not eligible, eligible, and listed, within the APE for direct effects. One archaeological investigation, four archaeological sites, and 44 architectural properties were previously recorded in the APE for visual effects. Site No. 13SR199 (a historic dump) is reported to be located east of the APE for direct effects. None of the archaeological or architectural resources are National Register listed or eligible. Based on the absence of historic properties within the APE for visual effects, a determination of No Historic Properties in the APE for visual effects is recommended.

No archaeological sites or architectural properties were identified during the pedestrian survey of the APE for direct effects; however, modern refuse and historic materials were observed on the surface and in the roots of fallen trees approximately 130 ft (39.6 m) east of the APE for direct effects and are likely associated with Site 13SR199. A north-south trending two-track path observed approximately 125 ft (38.1 m) east of the APE for direct effects may indicate the western extent of the Site 13SR199 based on surface features. No archaeological materials or discernable paleosols were identified during shovel testing or auger testing within the APE for direct effects. Additionally, geotechnical probes in the proposed lease area did not
identify any historic materials or sediments that could be interpreted as a paleosol. Based on the absence of cultural resources within the APE for direct effects, a determination of *No Historic Properties in the APE for direct effects* is recommended.

However, Tetra Tech understands that the potential exists that archaeological materials could be present beyond the depth that was tested. Based on the minimal area that would be subjected to deeper excavations during construction including the proposed lease area (0.02 acres) and the proposed utilities trenches (3 ft [0.9 m] deep by 1 ft [0.3 m] wide), Verizon has developed an unanticipated discoveries plan that outlines the procedure to be undertaken in the event of the discovery of archaeological materials during construction.
INTRODUCTION

This addendum report presents the findings of a Phase I Archaeological Survey for the proposed Verizon Wireless (Verizon) IA10 Hetfield site (the Project) located in the city of Ames in Story County, Iowa (Appendix A, Figure 1). The initial survey for the Project was conducted in December 2012 (Holven 2012) and received a concurrence letter from the Iowa Historic Preservation Office in January 2013 (R&C # 130185061). Site drawings provided by Verizon dated June 29, 2015 revealed changes to the proposed facility layout including: shifting the proposed lease area and tower location approximately 40 feet (ft) (12.2 meters [m]) east, expanding the proposed lease area from 46 ft by 41 ft (14.0 m by 12.5 m) to 59 ft by 33 ft (17.9 m by 10.1 m), extension of the proposed access and utility easement along an existing gravel driveway from 400 ft (121.9 m) long to 430 feet (131.1 m), and reduction of the proposed electrical utility easement from 130 ft (39.6 m) long to 75 ft (22.9 m) long. These changes resulted in project facilities being located in areas that were not surveyed during the 2012 survey. No other changes were noted in the proposed actions. The proposed action is located within the northeast quarter of Section 10, Township 83 North, Range 24 West. The Universal Transverse Mercator (UTM) coordinates for the revised tower are approximately 448381 east, 4651849 north (NAD 83, UTM Zone 15).

The proposed Project will require a license from the Federal Communications Commission (FCC) and compliance with the National Historic Preservation Act (NHPA) of 1966. The purpose of this addendum investigation was to: (1) assess the presence or absence of cultural resources within the amended area of potential effects (APE) for direct effects and within the APE for visual effects; and (2) make appropriate management recommendations for mitigation work based on the resources’ National Register of Historic Places (National Register) status. Work was conducted in accordance with Guidelines for Archaeological Investigations in Iowa (Kaufmann 1999) and The Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation [48 Federal Register 44716-44740] (National Park Service [NPS] 1983).

Area of Potential Effects (APE)

The APE for direct effects is based on the Project design dated June 29, 2015, and includes all areas that may be permanently or temporarily impacted during the installation of the tower, equipment shelter, access road, and utilities (Appendix A, Figure 2). Based on the 2012 Phase I Archaeological Investigation, all proposed Project facilities illustrated in the June 29, 2015 Project design with the exception of the proposed 59-ft by 33-ft (17.9-m by 10.1-m) lease area and a 30-ft by 4-ft (9.1-m by 1.2-m) segment of the proposed access and utility easement north of the lease area were previously surveyed. The total area investigation for this addendum was 1,488 square feet (138.3 square meters).

INVESTIGATION TECHNIQUES

File Search and Literature Review

The APE for direct effects was investigated through an archaeological file review received from the Iowa Office of the State Archaeologist on January 4, 2016 and an architectural inventory review received from...
the State Historic Preservation Office (SHPO) on December 21, 2015. The purpose of reviewing this information was to determine if previously documented archaeological sites, National Register properties, or previous surveys are located within the APEs.

The background research also included a review of historic documentation consisting of plat maps, topographic maps, and aerial photographs. An updated review of relevant materials for the APE for direct effects is presented in this addendum.

**Field Investigations**

A systematic surface survey was conducted in the previously unsurveyed portions of the APE for direct effects by walking 5-m (16.4-ft) interval transects to determine the presence or absence of isolated finds, artifact scatters, or features on the surface. If archaeological materials were identified during the survey, the boundaries were flagged and recorded with a GPS unit. The locations of temporally or culturally diagnostic artifacts and features were also recorded with the GPS. If ground surface visibility was less than 25 percent and there was an increased potential for buried cultural resources based on the landform or topography, systematic shovel tests were placed at 15-m (49.2-ft) intervals within the APE for direct effects (i.e., proposed lease area and access and utility easements). Shovel tests were excavated in approximately 10-cm (3.9-in) levels to culturally-sterile soil horizons. All excavated sediments were passed through 0.25-inch (in) (0.6-centimeter [cm]) screen and examined for cultural materials. If cultural materials were encountered in shovel tests, then radial shovel tests were excavated at 5-m (16.4-ft) or 10-m (32.8-ft) intervals in the surrounding areas, where applicable, to determine the presence or absence of additional cultural materials.

Tetra Tech reviewed a geotechnical report dated March 29, 2014 (Terracon Project No. AB125649-01) to determine appropriate excavation depths for deep testing. The geotechnical report reported sandy-gravelly sediments below 5 to 5.5 ft (1.5 to 1.7 m) to depths ranging from 20 to 29 ft (6.1 to 8.8 m). Tetra Tech determined that deep testing to a depth of at least 5.5 ft (1.7 m) would be adequate to identify any paleosols or buried surfaces, if present. Tetra Tech utilized a 10-in (25.4-cm) diameter posthole auger to remove sediments beyond the reach of standard shovel testing. All excavated sediments were passed through 0.25-in (0.6-cm) screen and examined for cultural materials. Observations and photographic documentation of field conditions and survey results were recorded in a field notebook that is on record at the Tetra Tech office in Bloomington, Minnesota.

**ENVIRONMENTAL BACKGROUND**

**Landforms, Soils, and Hydrology**

The APE for direct effects lies upon a terrace and/or riser approximately 430 ft (131.1 m) north of Squaw Creek within the Des Moines Lobe physiographic region (Prior 1991). The Des Moines Lobe region is characterized by a poorly-drained, hummocky terrain whose edges are delineated by moraines, which represent the edges of the glacial advances and stagnation points (Prior 1991).
The soil map units encompassing the APE for direct effects includes the Spillville-Coland complex and Orthents (U. S. Department of Agriculture-Natural Resource Conservation Service [USDA-NRCS] 2015a). The Spillville series consists of very deep, moderately well drained or somewhat poorly drained soils formed in dark colored, medium-textured alluvium on nearly level flood plains and gently sloping footslopes on uplands (USDA-NRCS 2015b). The Coland series consists of very deep, poorly drained soils formed in alluvium on floodplains and alluvial fans in river valleys and upland drainage ways in dissected till plains (USDA-NRCS 2015b). According to DeWitt (1984), Orthents are found in areas disturbed by human activities but are still suitable for plant growth. These areas can include borrow areas, cut and fill areas, and reclaimed gravel pits. The westernmost 200 ft (61 m) of the proposed access and fiber optic utility easement lies within areas comprised of Orthents. A review of the soil horizons from the Spillville-Coland complex indicates the potential for multiple A horizons formed from alluvium deposited from Squaw Creek to be present in the area. The Spillville and Coland series are included in the Roberts Creek Member of the DeForest Formation, which includes sediments deposited between 4,000 and 500 years before present Iowa (Office of the State Archaeologist 2016). Based on the Tetra Tech 2012 investigation of the area, no buried A horizons or buried paleosols were identified during shovel testing (Holven 2012). The presence of sandy sediments and the review of historical maps would suggest these sediments were deposited in the last 150 years.

As mentioned above, Squaw Creek is located approximately 430 ft (131.1 m) to the south of the APE for direct effects (Appendix A, Figure 1). Squaw Creek flows eastward for approximately 1.5 mi (2.4 km), at which point it joins the South Skunk River. The area surrounding the APE for direct effects is located within the 100-year floodplain of Squaw Creek (National Flood Insurance Program – Flood Insurance Rate Map – Map Number 19169C0163E). On a regional scale, the APE is located within the Upper Mississippi-Iowa-Skunk-Wapsipinicon watershed of the Upper Mississippi River basin (United States Geological Survey [USGS] 2015).

INVESTIGATION RESULTS

File Search

One previous archaeological investigation has been conducted within the APE for direct effects (Holven 2012) and one archaeological investigation (R&C No. 20140785082) was conducted within the 0.5 mi (0.8 km) APE for visual effects (Appendix A, Figure 1). The 2012 survey included nearly all of the APE for direct effects with the exception of the current proposed lease area and a small sliver proposed access and utility easement north of the proposed lease area. Shovel testing in the former location of the proposed lease area and the current location of the utility easement revealed sandy loam near the surface and sandy sediments at depth (approximately 100 cm [39.4 in] below the surface). Auger testing along the proposed access road revealed the presence of multiple layers of fill material. No historic materials, buried surfaces or paleosols were encountered.

No archaeological resources, including unevaluated, not eligible, eligible, or listed, have been recorded within the APE for direct effects. Four archaeological sites were identified within the APE for visual effects.
Site No. 13SR199 is a historic dump that is reported to be located just east of the APE for direct effects.

Table 1. Previously Recorded Archaeological Sites within the APE for Direct Effects.

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Description</th>
<th>NR Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>13SR199</td>
<td>Historic dump, railroad related</td>
<td>Unevaluated</td>
</tr>
<tr>
<td>13SR331</td>
<td>Historic dump</td>
<td>Unevaluated</td>
</tr>
<tr>
<td>13SR332</td>
<td>Historic artifact scatter</td>
<td>Unevaluated</td>
</tr>
<tr>
<td>13SR333</td>
<td>Structural remains</td>
<td>Unevaluated</td>
</tr>
</tbody>
</table>

No architectural resources, including unevauluated, not eligible, eligible, or listed, have been recorded within the APE for direct effects. A total of 44 architectural properties were identified within the APE for visual effects. A review of the historic structures inventory for Ames, Iowa received on December 21, 2015, revealed that none of these 44 properties are listed on the National Register or considered eligible for listing by the SHPO or a federal agency.

**Historic Document Review**

A review of GLO Maps (1836-59) did not reveal any historic features in the APE for direct effects or within the adjacent sections (Appendix B, Map 1). The GLO map does reveal that Squaw Creek was located approximately 550 ft (167.4 m) to the north of the APE for direct effects in the early to mid-1800s and another channel (the historical location of Worrell Creek) was located approximately 370 ft (145.7 m) to the south. Unlike the present-day Squaw Creek, the historic channel consisted of numerous meanders; no straightened channels were illustrated on the map. Worrell Creek and Squaw Creek merged east of the APE for direct effects in the GLO map.

By 1875, the APE for direct effects was located in the channel of Squaw Creek and in undeveloped river bottom land north of Squaw Creek (Andreas 1875) (Appendix B, Map 2). The western extent of the proposed access and utility easement was located in the channel of Squaw Creek, while the remaining portions of the APE for direct effects were located north of Squaw Creek. Squaw and Worrell Creeks appeared to merge roughly 200 ft (78.7 m) south of the proposed lease area. The town of Ames and the Agricultural Farm (i.e., Iowa State University) were depicted to the north of the APE for direct effects. The Des Moines and Minneapolis Railroad is illustrated to the east of the APE for direct effects in the approximate location of the current Chicago and Northwestern Railroad.

The Huebinger and Company (1902) map reveals the land in the vicinity of the APE for direct effects had been divided into parcels; however, no structures were illustrated in the vicinity of the APE for direct effects (Appendix B, Map 3). By 1902, the course of Squaw Creek appeared to be south of the APE for direct effects. It appears that Squaw Creek may have shifted more to the south and pirated the smaller Worrell Creek. The presence of several meanders of the Squaw Creek suggests this channel migration was natural and not man-made. The Des Moines and Minneapolis Railroad is labeled as the Chicago and Northwestern Railroad in the 1902 plat map. The Midland Map Company (1910) plat map did not reveal any significant
changes in the vicinity of the APE for direct effects; however, one large building appears to be present north of the APE along a road in the approximate location of South 4th Street (Appendix B, Map 4).

A review of the USGS 1914 15-minute Ames, Iowa Topographical Quadrangle revealed no structures in the vicinity of the APE for direct effects (Appendix B, Map 5). Squaw Creek appeared to be located to the south of the APE for direct effects in the 1914 map. A small north-south trending intermittent drainage also appeared to be present in the eastern half of the APE for direct effects. No significant changes were observed in the 1946 15-minute Ames, Iowa Topographical Quadrangle (Appendix B, Map 6).

A review of aerial photographs from the 1930s to 2011 revealed the APE for direct effects was historically located within a wooded lot/pasture south of the Ames and later was used as green space between developed areas of Ames and Squaw Creek (United States Department of Agriculture [USDA] 1930s, 1950s, 1960s, 1970s, 1980s; USGS 1990s; Iowa Department of Natural Resources [IDNR] 2002, 2010; USDA-National Agriculture Imagery Program [USDA-NAIP] 2006, and 2011).

The 1930s aerial photograph reveals that the APE for direct effects is located in a partially wooded area approximately 400 ft (121.9 m) west of a structure (City of Ames Disposal Plant) and 450 ft (137.2 m) north of Squaw Creek (USDA 1930s) (Appendix B, Map 7). A small northwest-southeast trending drainage (or possibly a meander scar) appears to transect the proposed lease area. This may be associated with the intermittent drainage observed on the USGS 1914 and 1946 15-minute Ames, Iowa Topographical Quadrangles. Areas to the north include agricultural fields and the residential areas. Areas to the west and south include agricultural fields and Squaw Creek, and areas to the east include the disposal plant, the Chicago and Northwestern Railroad, and a wooded area. A dirt road in the approximate location of South Maple Avenue extends from residential areas on the south side of Ames to the western side of the APE for direct effects.

The 1950s aerial photograph reveals that the westernmost two-thirds of the proposed access and fiber optic easement are in an open field and the remaining one-third of the proposed access and fiber optic easement, the proposed lease area, and the proposed electrical utility easement are within a wooded area (USDA 1950s) (Appendix B, Map 8). The disposal plant that was formerly located to the east of the APE for direct effects no longer appears to be present. While areas to the south and west still appear to be agricultural cropland, areas to the north appear to be in the initial stages of urban development. A road in the approximate location of South 4th Street is present in the 1950s aerial photograph as well as disturbed areas between the road and the APE for direct effects.

The 1960s aerial photograph reveals significant development in portions of the APE for direct effects and areas to the north and west (USDA 1960s) (Appendix B, Map 9). The westernmost two-thirds of the proposed access and fiber optic easement appear to have undergone significant ground-disturbing activities. This ground disturbance extends to the north and south of the proposed access and fiber optic easement and appears to be associated with construction of the Department of Transportation (DOT) facility located to the north of the APE for direct effects. These disturbed areas also correspond geographically with areas
identified as Orthents during the soils review. The remaining portions of the APE for direct effects that appeared to be wooded in the 1950s aerial photograph now appear to be mostly cleared of timber, with the exception of a few trees, although no signs of surface disturbance were observed.

By the 1970s, a gravel road appears to extend from a road in the approximate location of South Maple Avenue was present on the west side of the proposed access and utility easement (USDA 1970s) (Appendix A, Map 10). The western half of the proposed access and utility easement was located in an open area. The eastern half of the proposed access and utility easement, the proposed lease area, and the proposed utility easement were located in a wooded treeline. A northeast-southwest gravel drive appeared to extend from the DOT facility through the eastern half of the APE for direct effects to areas near Squaw Creek.

The USDA (1980s) aerial photograph revealed the presence of a gravel drive in the approximate location of the proposed access and fiber optic utility easement. The proposed lease area appears to be an open grassy area with a few scattered trees. The proposed electrical utility easement appears to extend from the grassy area to a paved parking area (DOT Facility) located to the north. Areas to the east of the APE for direct effects include open areas and the Chicago and Northwestern Railroad; areas to the south include open areas and Squaw Creek; and areas to the west include South Maple Avenue, developed areas and open areas beyond. No significant changes were observed in the 1980s or 1990s aerial photograph with the exception of additional tree growth and the development of some small paths in the area south of the APE for direct effects. No significant changes were observed during the review aerial photographs from 2002, 2006, or 2011 (IDNR 2002; USDA-NAIP 2006, 2011). The open area south of the proposed access and fiber optic easement appears to be used as urban gardens while the remaining portions of the APE for direct effects appear to be wooded.

In addition to aerial photographs, Tetra Tech also reviewed the high-resolution Light Detection and Ranging (LiDAR) terrain data for the APE for direct effects (IDNR 2010). This imagery revealed what appeared to be a built up area along the westernmost two-thirds of the proposed access and fiber optic easement. This is the same area identified as Orthents and that also appeared to be disturbed in the 1960s aerial photograph (USDA 1960’s). No significant signs of ground disturbances could be observed in the remaining portions of the APE for direct effects.

Based on the review of these documents, it appears that Squaw Creek shifted south relative to the APE for direct effects in the mid to late 1800s. If Squaw Creek meandered through the APE for direct effects, it would have eroded away all older sediments and soils and deposited relatively newer sediments (less than 150 years old). The early topographic maps also show a small tributary of Squaw Creek in the eastern half of the APE for direct effects. The aerial photographs revealed the development of the area from 1930s through the 1980s. The westernmost two-thirds of the proposed access and fiber optic easement appears to consist of construction fill material deposited in the 1960s. The remaining portions of the APE for direct effects appear to be relatively undisturbed based on aerial photographs and may contain intact sediments.
**Field Investigations**

The initial field survey for revised APE for direct effects was completed on December 7, 2015 by Tetra Tech archaeologists Britt McNamara and Elise Agne. Upon concerns of the SHPO in an email dated February 18, 2016 (Ref. No. 130185061) regarding buried horizons and extent of Site 13SR199, additional deep testing was completed on March 2, 2016 by Tetra Tech archaeologists Jason Reichel and Scott Tooker.

At the time of the field survey and deep testing the proposed lease area had been staked. The proposed lease area was located in a wooded area and on a slightly elevated finger of land that protruded to the south toward Squaw Creek (Appendix C). Lower areas assumed to be the modern floodplain were observed immediately south of the proposed lease area. Surface visibility within the APE for direct effects was poor (0 to 25 percent) and no cultural materials were observed on the surface within the APE for direct effects. Additionally, no materials or features associated with Site 13SR199 were observed on the surface within the APE for direct effects or immediately to the east. Modern refuse and historic materials were observed on the surface and in the roots of fallen trees approximately 130 ft (39.6 m) east of the APE for direct effects and are likely associated with Site 13SR199. A north-south trending two-track path observed approximately 125 ft (38.1 m) east of the APE for direct effects may indicate the western extent of the Site 13SR199 based on surface features. The current western boundary of the site appears to be based on a review of a 1930 aerial photograph and may not be based on field testing along the reported western boundary.

In December 2015, Tetra Tech excavated two shovel tests to confirm the presence or absence of buried intact sediments and cultural materials in the subsurface, and returned in March 2016 to excavate deeper auger tests in the same locations to confirm the presence or absence of deeply buried surfaces or materials associated with Site 13SR199 (Appendix A, Figure 2; Appendix C, Photograph 5; Appendix D). Shovel/auger tests were placed at roughly 15-m (49.2-ft) intervals within previously unsurveyed portions of the APE for direct effects. Shovel/Auger Test No. 1 was placed on the west side of the lease area north of the tower center, and Shovel/Auger Test No. 2 was placed on the east side of the lease area (Appendix A, Figure 2).

Shovel/Auger Test No.1 revealed an A horizon consisting of a very dark brown sandy loam extending from the surface to 34 cm (13.4 in) below the surface. A pale brown silty sand C1 horizon was observed extending from 34 cm (13.4 in) to a termination depth of approximately 60 cm (23.6 in) below the surface. The auger testing revealed continuation of the C1 horizon to a depth of 88 cm (34.7 in) below the surface. A dark yellowish brown silty sand C2 horizon was observed extending from 88 cm (34.7 in) to a depth of approximately 103 cm (40.6 in) below the surface. A yellowish brown sand C3 horizon was observed extending from 103 cm (40.6 in) to a depth of approximately 161 cm (63.4 in) below the surface. A very dark grayish brown silty clay C4 horizon was observed extending from 161 cm (63.4 in) to a depth of approximately 170 cm (66.9 in) below the surface. A very dark yellowish brown sand C5 horizon was observed extending from 170 cm (66.9 in) to a depth of approximately 188 cm (74.0 in) to the depth of termination. No cultural materials were observed within the screened sediments.
Shovel/Auger Test No.2 revealed an A horizon consisting of a very dark brown sandy loam extending from the surface to 24 cm (9.5 in) below the surface. A very dark brown sandy loam marbled with pale brown silty sand A/C1 horizon was observed extending from 24 cm (9.5 in) to a termination depth of approximately 56 cm (22.1 in) below the surface. The auger testing revealed a dark yellowish brown silty sand C1 horizon extending from 56 cm (22.1 in) to a depth of approximately 88 cm (34.7 in) below the surface. A yellowish brown sand C2 horizon was observed extending from 88 cm (34.7 in) to a depth of approximately 176 cm (69.3 in) below the surface. No cultural materials were observed within the screened sediments.

These soil profiles are consistent with the soil profiles observed during previous shovel testing (Holven 2012). The shovel and auger testing did not reveal soil profiles characteristic of the Coland or Spillville soil series. Both series consist of dark, thick A horizons, which were not observed in the shovel tests. Shovel and auger testing within the proposed lease area revealed the presence silty loam overlying fine sand layers. The gradation of these sediments (silty loam overlying sand with lenses of silty clay) and an overall lack of observable soil formation within these layers may indicate a relatively young landform. It is Tetra Tech’s opinion that the soils and sediments observed during the shovel and auger testing may be associated with the Camp Creek Member of the DeForest Formation and are less than 400 years old (Office of the State Archaeologist 2016).

**RECOMMENDATIONS**

The file review failed to identify archaeological or architectural resources, including unevaluated, not eligible, eligible, and listed, within the APE for direct effects. One archaeological investigation, four archaeological sites, and 44 architectural properties were previously recorded in the APE for visual effects. Site No. 13SR199 (a historic dump) is reported to be located east of the APE for direct effects. None of the archaeological or architectural resources are National Register listed or eligible. Based on the absence of historic properties within the APE for visual effects, a determination of *No Historic Properties in the APE for visual effects* is recommended.

No archaeological sites or architectural properties were identified during the pedestrian survey of the APE for direct effects; however, modern refuse and historic materials were observed on the surface and in the roots of fallen trees approximately 130 ft (39.6 m) east of the APE for direct effects and are likely associated with Site 13SR199. A north-south trending two-track path observed approximately 125 ft (38.1 m) east of the APE for direct effects may indicate the western extent of the Site 13SR199 based on surface features. No archaeological materials or discernable paleosols were identified during shovel testing or auger testing within the APE for direct effects. Additionally, geotechnical probes in the proposed lease area did not identify any historic materials or sediments that could be interpreted as a paleosol. Based on the absence of cultural resources within the APE for direct effects, a determination of *No Historic Properties in the APE for direct effects* is recommended.
However, Tetra Tech understands that the potential exists that archaeological materials could be present beyond the depth that was tested. Based on the minimal area that would be subjected to deeper excavations during construction including the proposed lease area (0.02 acres) and the proposed utilities trenches (3 ft [0.9 m] deep by 1 ft [0.3 m] wide), Verizon has developed an unanticipated discoveries plan that outlines the procedure to be undertaken in the event of the discovery of archaeological materials during construction (Appendix E).
REFERENCES CITED

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DeWitt, T

General Land Office Survey

Holven, Adam
2012  *Phase I Archaeological Survey and Architectural History Review IIA Hetfield, 600 South Maple Street, Ames, Story County Iowa.* On file at the Iowa State Historic Preservation Office, Des Moines, Iowa.

Huebinger and Company

Iowa Department of Natural Resource (IDNR)

2010  Hillshade from 1-meter LiDAR. Electronic document, [http://ortho.gis.iastate.edu/client.cgi?zoom=1&x0=448277&y0=4651827&layer=lidar_hs&action=layercir&width=600&height=600](http://ortho.gis.iastate.edu/client.cgi?zoom=1&x0=448277&y0=4651827&layer=lidar_hs&action=layercir&width=600&height=600), accessed March 2, 2016.

Kaufmann, Kira (editor)

Midland Map Company

National Park Service
Office of the State Archaeologist

Prior, Jean C.

U.S. Department of Agriculture (USDA)

U.S. Department of Agriculture, National Agriculture Imagery Program (USDA – NAIP)

United States Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS)

United States Geological Survey Bureau (USGS)
APPENDIX A

FIGURES
Figure 1
Site Vicinity Map and Results of Literature Review

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Ames East [1975] and Ames West [1975], Iowa); Northeast 1/4 of Section 10, Township 83 North, Range 24 West of Story County.

IA10 Hetfield
600 South Maple Street
Ames, Story County, Iowa

Proposed Tower Location
APE for Visual Effects
Previous Archaeological Survey
Archaeological Site

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Ames East [1975] and Ames West [1975], Iowa); Northeast 1/4 of Section 10, Township 83 North, Range 24 West of Story County.
Figure 2
Site Vicinity Map and Results of Field Survey

IA10 Hetfield
600 South Maple Street
Ames, Story County, Iowa

APE for Direct Effects
Proposed Tower Location
Negative Shovel Test
Previously Surveyed
Access and Utility Route
Utility Route

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Ames East [1975] and Ames West [1975], Iowa); Northeast 1/4 of Section 10, Township 83 North, Range 24 West of Story County.
Map 1: A view of the 1836-1859 GLO map. The red box indicates the approximate location of the APE for direct effects.

Map 2: A view of the A.T. Andreas (1875) atlas. The red box indicates the approximate location of the APE for direct effects.
Map 3: A view of the Huebinger Survey and Map Publishing Co (1902) atlas. The red box indicates the approximate location of the APE for direct effects.

Map 4: A view of the Midland Map Co. (1910) atlas. The red arrow indicates the approximate location of the APE for direct effects.
Map 5: A view of the 1914 USGS 15-minute Ames, Iowa Topographic Quadrangle. The red box indicates the approximate location of the APE for direct effects.

Map 6: A view of the 1946 USGS 15-minute Ames, Iowa Topographic Quadrangle. The red box indicates the approximate location of the APE for direct effects.
Map 7: A view of the 1930s aerial photograph. The red box indicates the approximate location of the APE for direct effects.

Map 8: A view of the 1950s aerial photograph. The red box indicates the approximate location of the APE for direct effects.
Map 9: A view of the 1960s aerial photograph. The red box indicates the approximate location of the APE for direct effects.

Map 10: A view of the 1970s aerial photograph. The red box indicates the approximate location of the APE for direct effects.
Map 11: A view of the 1980s aerial photograph. The red arrow indicates the approximate location of the APE for direct effects.

Map 12: A view of the 2010 aerial photograph. The red box indicates the approximate location of the APE for direct effects.
APPENDIX C

PHOTOGRAPHS
Photograph 1 (North): A view from the proposed tower center looking north.

Photograph 2 (East): A view from the proposed tower center looking east.
Photograph 3 (South): A view from the proposed tower center looking south.

Photograph 4 (West): A view from the proposed tower center looking west.
Photograph 5 (Southeast): A view former road that observed roughly 125 ft (38.1 m) east of the APE for direct effects. Historic artifacts were observed on the surface east of the road.

Photograph 6 (N/A): A view historic items observed on the surface around a tree roughly 130 ft (39.6 m) east of the APE for direct effects.
APPENDIX D

SHOVEL TEST RESULTS
## Appendix D. Shovel and auger testing results.

<table>
<thead>
<tr>
<th>Location</th>
<th>Test No.</th>
<th>Depth (cm below surface)</th>
<th>Soil Horizon</th>
<th>Description</th>
<th>Cultural Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease Area</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East-Center</td>
<td>1</td>
<td>0-34</td>
<td>A</td>
<td>10YR 2/2; sandy loam</td>
<td>NCMR(^a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34-88</td>
<td>C1</td>
<td>10YR 6/3; silty sand</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>88-103</td>
<td>C2</td>
<td>10YR 4/4; silty sand</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>103-161</td>
<td>C3</td>
<td>10YR 5/4; sand</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>161-170</td>
<td>C4</td>
<td>10YR 3/2; silty clay</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>170-188+</td>
<td>C5</td>
<td>10YR 4/4; sand</td>
<td>NCMR</td>
</tr>
<tr>
<td>Lease Area</td>
<td>2</td>
<td>0-24</td>
<td>A</td>
<td>10YR 2/2; sandy loam</td>
<td>NCMR</td>
</tr>
<tr>
<td>West-Center</td>
<td></td>
<td>24-56</td>
<td>A/C1</td>
<td>10YR 2/2 and 10YR 6/3 marbled;</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>56-88</td>
<td>C1</td>
<td>10YR 6/3; silty sand</td>
<td>NCMR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>88-176+</td>
<td>C2</td>
<td>10YR 5/4; sand</td>
<td>NCMR</td>
</tr>
</tbody>
</table>

\(^a\) No cultural material recorded.
APPENDIX E

UNANTICIPATED DISCOVERIES PLAN
UNANTICIPATED DISCOVERY PLAN FOR VERIZON WIRELESS PROJECTS REGARDING CULTURAL RESOURCES AND HUMAN SKELETAL REMAINS

REVISED JUNE 2013

The purpose of this Unanticipated Discovery Plan (UDP) is as a last line of defense for the protection of cultural resources. After Section 106 compliance efforts, including records research, professional cultural resources survey, tribal consultation, consultation with the public, consultation with the local government, and consultation with SHPO, have identified no historic within the direct Area of Potential Effect (APE), Verizon wishes to provide further assurance that any unidentified historic properties that may be present will be appropriately protected. So, in the highly unlikely event that historic properties not identified during the Section 106 consultation process are present within the direct APE, the UDP will guide field personnel in the appropriate steps to take to protect historic properties. The purpose of the UDP is to make field personnel aware that, in spite of negative research, survey, and consultation findings, cultural resources could still be present, and that construction should cease if any cultural resources are encountered. Further, the UDP guides steps that should be taken following any unanticipated discovery. While the specific points of contact will vary regionally, the general guidelines regarding the appropriate steps to follow should be applicable across the US. The procedures outlined in this UDP are in no way intended to replace or supercede the role of a tribal or other cultural resources monitor during construction, when consulting parties agree that such a monitor should be present. Furthermore, the UDP is not intended to allow any short-cuts or reduction of effort in any part of the Section 106 consultation process.

As used within this UDP, inadvertent, unanticipated, or emergency discoveries, also known as chance finds, are defined as:

- Newly discovered previously unidentified archaeological sites.
- Artifacts or cultural materials within previously recorded archaeological sites that warrant further evaluation.
- Any evidence of human remains or graves. All discoveries of bone are to be treated by construction personnel as potential human remains until a determination regarding whether the
remains are human can be made by a qualified individual, such as a coroner, an archaeologist, or an osteologist. Any bone encountered must be left in place to the extent possible until the appropriate experts determine their origin and proper disposition (which may be to leave them in place and rebury them, perhaps more deeply to avoid further disturbance).

**What is a cultural resource?**

The first step in dealing appropriately with unanticipated discoveries is recognizing cultural resources and human remains when they are encountered. Since this UDP is intended for use by field personnel rather than by cultural resources specialists, a brief summary of types of cultural resources is provided. The intention is to make field personnel aware of cultural resources that they may encounter. The intention is not to train field personnel to act as cultural resource specialists—but to recognize when cultural resource specialists should be consulted.

A cultural resource discovery could be prehistoric or historic, and can consist of artifacts or of features. Cultural resources are anything exhibiting modification by humans. Stones broken in a certain way during the manufacture of stone tools are artifacts, as are metal nails or glass fragments from more recent activities. Cultural features are evidence in the ground of previous activities, for example a hearth, or a mound of burned rock. Examples of cultural resources include:

- An accumulation of burned rocks and/or shell
- An area of charcoal or very dark stained or reddened soil, possibly with artifacts
- Stone tools or waste flakes (i.e. an arrowhead, or stone chips)
- Clusters of tin cans or bottles, ceramics, glass, buttons, marbles, pipes, figurines, or doll parts, and identifiable metal (tools, gun parts, machine parts, hinges, nails, buckles, flatware, wagon hardware, horse tack) and agricultural equipment that could include items older than 50 years
- Privies (outhouse pits), wells, cisterns, root cellars—any unnatural depression
- Standing structures such as barns, houses, and silos or remains of structures, including buried walls or foundations
- Buried railroad tracks, decking, or other industrial materials
• Earth and/or rock mounded up above the normal ground surface—any unnatural prominence

• A trench or pit excavated below the normal ground surface

• Anything that is more symmetrical or regular than expected in nature

• Bones that do not clearly belong to an animal, or evidence of human burials or graves – these receive special treatment, as described below.

If an object or a feature in the landscape does not look natural, then it is more than likely cultural. It is best to be conservative, and assume that the material or feature is a cultural resource if there is any uncertainty.

The identification of cultural resources requires basic training to recognize potential sites, artifacts, and cultural features of significance. It is recommended that all relevant personnel and construction contractor personnel be provided basic orientation training designed to facilitate the recognition of cultural resources and human remains. Such training should be supplemented by a quick-reference guide to cultural resources that should be available in the field—perhaps to accompany health and safety documents. In addition, the training and quick-reference guide should emphasize the exact procedures to be followed in the event of an unanticipated significant site discovery, such as the discovery of human remains.

What do I do if I find a cultural resource?
1. If you are engaged in work near the cultural resource, stop work immediately, and secure and protect the discovery location. If you are not engaged in work near the discovery location, mark the spot so that you can find it again.

2. Do not move anything once you are aware that there may be cultural material present, and do not remove anything from the location. If anything has already been disturbed, leave it where it lies until further instruction. If you can take photos without disturbing anything, please do so. Do not take photos of suspected human remains—any bones or possible graves (see below for treatment of suspected human burials).
3. Immediately notify a designated supervisor and Verizon Wireless—NEPA Regulatory Compliance (NRC), of the discovery. Do not discuss the discovery with anyone other than your supervisor, unless asked to do so by your supervisor. Once made aware of the discovery, the designated supervisor will immediately notify a qualified archaeologist.

4. Information about the discovery will be provided to the archaeologist, who will provide guidance on immediate protection measures in the field, until he or she can reach the site.

5. Once the archaeologist has examined the cultural material and developed an assessment of the significance of the cultural resource based on a visit to the discovery location, recommendations will be developed through discussion with NRC, to be presented to the State Historic Preservation Officer (SHPO), federal agency, and potentially interested tribes. If the discovery is deemed potentially significant, NRC, and the archeologist should consult and coordinate appropriate mitigation measures for treating and handling the discovery, while minimizing impacts to the construction schedule to the extent possible.

What do I do if I find remains that could be human, or a burial or grave site?
The Project will be subject to state and possibly local laws regarding treatment or disturbance of human remains. In the event that any human remains are encountered during construction, the following plan outlines the general procedures to be followed. Before any action is taken, applicable local and state laws must be consulted.

If you find remains that could be human, or a burial or grave site:

1. Unless you are absolutely sure that the bones represent an animal, as you might be in the case of an articulated deer skeleton, bones should be treated as if they are human until an expert determines otherwise.

2. If you are engaged in work near the discovery, stop work immediately, and secure and protect the discovery location. If you are not engaged in work near the discovery location, mark the spot so that you can find it again, and protect it to the extent possible.

3. Do not move or touch anything once you are aware that there may be human remains or graves present, and do not remove anything from the location. If anything has already been disturbed, leave it where it lies, carefully covered and protected from degradation.
by weather or unauthorized individuals. The Site Manager will partition off the area and take all necessary steps to ensure that the site is not disturbed.

4. Do not photograph any possible human remains or graves or associated artifacts.

5. Immediately notify your supervisor and NRC, of the discovery. The designated supervisor will immediately notify a qualified archaeologist/physical anthropologist and the Site Manager.

6. Always be sure to treat human remains and graves with respect and dignity. Do not speak to anyone other than your designated supervisor about the discovery, unless asked to do so by your supervisor.

7. Once the archaeologist or other appropriate expert, such as physical anthropologist or osteologist, confirms that human remains or graves are present, based a site visit, the Site Manager will notify Verizon Wireless’s Project Manager and the appropriate local law enforcement agency and/or coroner.

8. If the local law enforcement agency and/or coroner determine that the human remains or grave are of recent origin, the discovery location will be treated as a crime scene under the direction of local law enforcement officers.

If the local law enforcement agency and/or coroner find that there is no need for a legal inquiry or for a criminal investigation, it is recommended that the following best practices be applied:

(a) NRC will immediately notify the FCC of the discovery, and the actions planned.

(b) NRC will immediately notify SHPO and other appropriate state agencies (such as the State Archaeologist’s Office, if applicable).

(c) NRC will immediately contact any tribes who have requested notice of such discoveries, and any other who may be interested.

(d) If possible, leave the grave or remains undisturbed in their original condition.

(e) Consult legal advice if modern or historic burials need to be relocated, as special restrictions and requirements may apply.

(c) NRC, through discussion with FCC, SHPO, interested tribes, and any other interested parties will develop a plan of action.

No work should proceed in the vicinity of the discovery until the disposition of the discovery is resolved. If work must proceed in the general area of the discovery before the disposition of the
discovery is final, full-time monitoring by a qualified archaeologist is recommended. A tribal monitor may also be appropriate, as determined by consultation with interested federally recognized tribes.
APPENDIX F

RESUMES
EXPERIENCE SUMMARY

Mr. Holven has extensive archaeological field experience, including large-scale research-based excavations in western Nebraska and Iowa, multi-square mile cultural resource surveys for wind parks in Iowa, Indiana, Minnesota, North Dakota, Ohio, and South Dakota, and Phase I and II cultural resource surveys for agricultural, transportation, and telecommunication projects throughout the Upper Midwest and Great Plains. The cultural resource projects the Mr. Holven manages are often a critical component in the development of environmental assessments (EA) and environmental impact statements (EIS) for project requiring compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). For this work, he has developed the necessary project management skills by serving as a crew member, collaborator, field director, and principal investigator for a broad range of archaeological and cultural resource management projects. Mr. Holven has also overseen the completion of NEPA categorical exclusions for cellular projects in Iowa, Minnesota, North Dakota, and South Dakota reviewed by the Federal Communications Commission (FCC). He is highly proficient in GIS (including aerial photography, spatial statistics, and landscape modeling), zooarchaeology and vertebrate taphonomy, chipped stone analysis, historic archaeology, and has applied his educational background in geology and soils to the field of geoarchaeology. This suite of archaeological experience coupled with cultural resources and NEPA project management, a background in GIS, geology, and soils has provided him with the necessary tools to complete a wide range of cultural resources projects both thoroughly and efficiently.

RELEVANT EXPERIENCE

Cultural Resource Management - National Environmental Policy Act (NEPA) Support

Federal Communications Commission (FCC) NEPA Compliance, Verizon Wireless, 2007 – Current. Mr. Holven has served as Principal Investigator and has completed cultural resource assessments and surveys for more than 400 telecommunication tower and antenna installation sites throughout the Upper Midwest, Great Plains, and Mountain West. Tasks have included cultural resource file searches at multiple state historic preservation offices, surface and subsurface testing, and consultation with the multiple state historic preservation offices and numerous American Indian Tribes, and local historical groups.
Résumé

Adam Holven, M.S., B.S., B.A.

Cultural Resource Management – Energy Support

Thunder Spirit Wind Energy Center, Adams County, North Dakota, Global Winds Harvest, 2013 – 2014. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Thunder Spirit Wind Energy Center in southwest North Dakota. The total area surveyed to date for the project is 926 acres (1.4 square miles). The project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (PSC); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under the North Dakota Century Code 55-02-07.

Courtenay Wind Farm, Stutsman County, North Dakota, Geronimo Energy, 2013 – 2014. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Courtenay Wind Farm in central North Dakota. The total area surveyed to date for the project is 2,832 acres (4.4 square miles). The project will require a Certificate of Site Compatibility from the North Dakota PSC; therefore, the Project is subject to review by the SHSND under the North Dakota Century Code 55-02-07.

Wilton IV Wind Energy Center, Burleigh County, North Dakota, NextEra Energy, 2011 – Current. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Wilton IV Wind Energy Center in central North Dakota. The total area surveyed to date for the project is 1,035 acres (1.6 square miles). Western and the SHSND will review this Project and ensure its compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). Mr. Holven will provide the cultural resources documentation that will be utilized in the Environmental Impact Statement (EIS).

Day County II Wind Energy Center, Day County, South Dakota, NextEra Energy, 2012 – Current. Mr. Holven is the Principal Investigator for the Level III Cultural Resource Survey for the proposed Day County II Wind Energy Center in eastern South Dakota. The project will require a Certificate of Site Compatibility from the South Dakota Public Utility Commission (PUC); therefore, the Project is subject to review by the South Dakota State Historic Preservation Office (SHPO).

Crowned Ridge Wind Energy Center, Grant, Codington, and Deuel Counties, South Dakota, NextEra Energy, 2009 – Current. Mr. Holven is the Principal Investigator for the Level III Cultural Resource Survey for the proposed Crowned Ridge Wind Energy Center in eastern South Dakota. The project will require a Certificate of Site Compatibility from the South Dakota Public Utility Commission (PUC); therefore, the Project is subject to review by the South Dakota State Historic Preservation Office (SHPO).

ADDITIONAL EXPERIENCE

MS Excel, MS Word, MS Outlook, MS Access, ArcGIS, ArcPAD, Trimble GPS, Zooarchaeology, Geoarchaeology, Historic Archaeology

EMPLOYMENT HISTORY

2003-2006 Research Archaeologist, Iowa State University, Ames, Iowa
2003-2005 Teaching Assistant, Iowa State University, Ames, Iowa
Britt McNamara, M.S., B.A.
Archaeologist

EXPERIENCE SUMMARY
Britt McNamara has a variety of field experience. She has primarily worked on Phase I cultural resource surveys in Minnesota, Iowa, North Dakota, Wisconsin, and Idaho, and on Phase II testing projects in Minnesota, Iowa, and Idaho. Additionally, she has conducted pedestrian survey in California and Utah. Ms. McNamara has also analyzed and catalogued artifacts from the Great Basin, Southwest United States, and Midwest.

RELEVANT EXPERIENCE

Cultural Resource Management

Federal Communications Commission (FCC) NHPA Compliance Support, Terracon, 2014-2015. Ms. McNamara has completed cultural resource assessments and surveys for telecommunication towers and antenna installations in Minnesota and North Dakota. Tasks have included file searches, surface survey, subsurface survey, and drafting and editing technical and short reports.

Federal Communications Commission (FCC) NHPA Compliance Support, Trileaf, 2014-2015. Ms. McNamara has completed cultural resource assessments and surveys for telecommunication towers and antenna installations in Minnesota, Iowa, and Wisconsin. Tasks have included file searches, surface survey, subsurface survey, and drafting and editing technical and short reports.

Minnesota River Valley OHV Park, Olivia, Renville County, Minnesota, 2014. Ms. McNamara served as the field lead and coauthored the report for the Phase I investigation (pedestrian survey and shovel testing) for the proposed Minnesota River Valley OHV Park. The total area surveyed was approximately 2 acres. During this project, a prehistoric lithic scatter and a historic farmstead were documented.

Public Outreach, Edge of the Cedars State Park Museum, Blanding, Utah, 2012. Ms. McNamara researched, designed, and implemented an exhibit and activity area focused on the science of archaeology. The project included writing the text panels for the exhibit and designing and manufacturing six activities. Additionally, Ms. McNamara wrote a museum visitors’ guide for the museum.

Archaeological Survey and Mapping, Utah State University, Southeast Idaho, 2011. Ms. McNamara surveyed cultural resources on lands managed by the Bureau of Management Pocatello Field Office. Additionally, she interviewed private collectors to determine the approximate location of looted archaeological sites. Fieldwork was conducted in cold weather over uneven terrain.
Résumé

Britt McNamara, M.S., B.A.

ADDITIONAL EXPERIENCE

MS Excel, MS Word, MS Outlook, MS PowerPoint

EMPLOYMENT HISTORY

2014-2015 Archaeologist, Blondo Consulting, LLC, Kettle River, Minnesota
2012 Education Intern, Edge of the Cedars State Park-Museum, Blanding, Utah
2011 Archaeology Technician, Utah State University, Logan, Utah
2009 Archaeology Intern, Bureau of Land Management, El Centro, California
Based on the information provided, we would be able to concur with a revised determination of ‘no adverse effect’ upon 13SR199, whose boundaries have yet to be fully defined and significance/NR eligibility have yet to be formally evaluated.

Daniel K. Higginbottom

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Hello Dan, I left you a voicemail but I thought I’d follow-up with an email as well. Just wanted to check in on the review of this project since we sent the additional information a few weeks ago. Verizon is very anxious to complete this one, so please let me know as soon as possible if you have any concerns or need anything else.

Thanks,

Kathy Bellrichard
Tetra Tech
612-643-2233
kathy.bellrichard@tetratech.com

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February 18, 2016

Ms. Bellrichard-

We have received your February 2, 2016 supplemental submittal regarding the above-referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seg.) and its implementing regulations 36 CFR Part 800 (revised, effective August 5, 2004).

At this point we are unable to conclude our review for the following reasons.

1. The soils described in Appendix D are not consistent with what appears in Photograph 5. A buried horizon appears to present at the base of the Shovel test.
2. The National Register eligibility of 13SR199 has not been determined and is presently under review by our office and Federal Highway and Iowa DOT.

Additional intensive fieldwork appears to be warranted to investigate deep site potential and determine if 13SR199 extends into the lease area.
The following new Section 106 filing has been submitted:

File Number: 0005600713  
Purpose: New Tower Submission Packet  
Notification Date: 7AM EST 01/14/2013  
Applicant: Verizon Wireless  
Consultant: Tetra Tech  
Site Name: IA10 Hetfield  
Site Address: 600 South Maple Street  
Site Coordinates: 42-1-1.0 N, 93-37-24.9 W  
City: Ames  
County: STORY  
State: IA  
Lead SHPO/THPO: State Historical Society of Iowa  

Consultant Contact Information:  
Name: Tetra Tech  
Title: Archaeologist  
PO Box:  
Address: 2001 Killebrew Drive, Suite 141  
City: Bloomington  
State: MN  
Zip: 55425  
Phone: 612-643-2233  
Fax: 612-643-2201  
Email: kathy.bellrichard@tetratech.com

NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE  
Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.
<table>
<thead>
<tr>
<th>Tribe</th>
<th>TCNS Auto-Reply</th>
<th>Request From Tribe</th>
<th>Follow-Up(s)</th>
<th>Final Reply</th>
<th>FCC Referral</th>
<th>Standing Agreements &amp; Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Brule Sioux Tribe</td>
<td>Cultural resources report with maps and photos required</td>
<td></td>
<td>12/13/12 - Cultural resources report sent</td>
<td>12/20/12 - No further interest, request notification if archaeological remains or resources discovered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sisseton-Wahpeton Oyate of the Lake Traverse Reservation</td>
<td>Archaeological survey report and map required, no interest if no response 30 days after providing requested materials, request notification if archaeological remains or resources discovered</td>
<td>12/13/12 - Archaeological report with map sent</td>
<td>1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ponca Tribe of Nebraska</td>
<td>No interest if no response after 30 days, request notification if cultural materials or human remains discovered</td>
<td>1/29/16 - Project revision notice sent</td>
<td>1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omaha Tribe of Nebraska</td>
<td>No interest if no response after 30 days, request notification if cultural materials or human remains discovered</td>
<td>1/29/16 - Project revision notice sent</td>
<td>1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winnebago Tribe of Nebraska</td>
<td>No interest if no response after 30 days, request notification if cultural materials or human remains discovered</td>
<td>1/29/16 - Project revision notice sent</td>
<td>1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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## Tribal Summary Table

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Iowa Tribe of Kansas and Nebraska</td>
<td>1/25/13 - Archaeological report and SHPO reply letter sent 1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td>11/27/12 - Archaeological report requested, no interest if project is cleared through the SHPO; request notification if Section 106 consultations requested, any new historical/cultural properties or NAGPRA remains/objects are discovered, or if adverse effects are reported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sac and Fox Nation of Oklahoma</td>
<td>12/3/12 - Second attempt letter sent 1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td></td>
<td>12/20/2012</td>
<td></td>
</tr>
<tr>
<td>Sac and Fox Tribe of the Mississippi in Iowa</td>
<td>1/29/16 - Project revision notice sent</td>
<td></td>
<td></td>
<td>11/7/12 - No interest, request notification if archaeological remains or resources discovered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keweenaw Bay Indian Community</td>
<td>Basic site information, cultural resources report, and review fee required</td>
<td>11/1/12 - Review fee required</td>
<td>12/20/12 - Cultural resources survey report and review fee sent 1/29/16 - Project revision notice sent</td>
<td>1/4/13 - No properties of interest identified, request notification if project changes or if artifacts or human remains discovered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Sioux Indian Community of Minnesota</td>
<td>No interest if no response after 30 days, request notification if cultural materials or human remains discovered</td>
<td></td>
<td></td>
<td>6/6/13 - No interest, request notification if archaeological remains or resources discovered 2/9/16 - No interest, request notification if archaeological remains or resources discovered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tribe</td>
<td>TCNS Auto-Reply</td>
<td>Request From Tribe</td>
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<td>-------------------------------------------------------------------------------</td>
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<td>-------------------------------</td>
</tr>
<tr>
<td>Upper Sioux Community of Minnesota</td>
<td></td>
<td>2/3/16 - Cultural resources report required&lt;br&gt;2/3/16 - Tribal on-site visit required&lt;br&gt;3/14/16 - Finding of adverse effect to possible cultural materials including mounds near the site</td>
<td>12/3/12 - Second attempt letter sent&lt;br&gt;1/29/16 - Project revision notice sent&lt;br&gt;2/3/16 - Cultural resources reports sent&lt;br&gt;2/22/16 - Fees for on-site visit sent</td>
<td>3/30/16 - Tribal monitor required during all ground disturbing activities</td>
<td></td>
<td>12/20/2012</td>
</tr>
<tr>
<td>Ottawa Tribe of Oklahoma</td>
<td>Basic site information, cultural resources report, topo map, SHPO response and review fee required per Cell Tower Consultation Procedures (2006 update 1.0)</td>
<td></td>
<td>1/25/13 - Cultural resources report, SHPO response and review fee sent&lt;br&gt;1/29/16 - Project revision notice sent</td>
<td>2/4/13 - No concerns, request notification if archaeological materials or human remains discovered</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dear Kathy Bellrichard,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Cultural Resources Consultant Brian L Molyneaux PhD of the Lower Brule Sioux Tribe in reference to Notification ID #89775:

After careful consideration of the information you provided, we will not require any additional representations from you on this matter. While our direct concern ends with this letter, we remain committed to the protection and preservation of the natural and cultural resources of all the lands that we share. If project plans include ground disturbance and the applicant discovers cultural material that may call into question the original archaeological, ethnological, or historical evaluation of the project area, or inadvertently exposes human remains, they must cease all planning or construction work and notify the FCC and the Tribe, as per 47 CFR Sec. 1.1312 of the Commission's rules, and abide by other relevant federal or state regulations.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/26/2012
Notification ID: 89775
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Kathy Bellrichard
Street Address: 2001 Killebrew Dr Suite 141
City: Bloomington
State: MINNESOTA
Zip Code: 55425
Phone: 612-643-2233
Email: kathy.bellrichard@tetratech.com

Structure Type: MTOWER - Monopole
Latitude: 42 deg 1 min 1.0 sec N
Longitude: 93 deg 37 min 24.9 sec W
Location Description: 600 South Maple Street
City: Ames
State: IOWA
County: STORY
Ground Elevation: 270.4 meters
Support Structure: 36.6 meters above ground level
Overall Structure: 39.3 meters above ground level
Overall Height AMSL: 309.7 meters above mean sea level
December 13, 2012

Dianne Desrosiers, THPO
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation
PO Box 717
Agency Village, SD 57262

Re: TCNS ID 89775
IA10 Hetfield

Dear Dianne Desrosiers:

Please find enclosed a copy of the cultural resources survey report for the proposed cellular tower with TCNS ID 89775. Site details are listed below.

TCNS ID: 89775
Site Address: 600 South Maple Street, Ames, IA 50010
Legal Description: Northeast quarter of Section 10, Township 83 North, Range 24 West in the Ames East Quadrangle
Project Description: Verizon Wireless proposes to construct a new 129-foot monopole telecommunications tower and place a 12-foot by 30-foot equipment building on the adjacent ground space within a 41-foot by 46-foot lease area. The proposed lease area will be accessed by an existing gravel drive off South Maple Street.

Please let us know if you have any questions or require any additional information.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellrichard@tetratech.com
Dear Kathy Bellrichard,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Chairman Amen Sheridan of the Omaha Tribe of Nebraska in reference to Notification ID #89775:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/26/2012
Notification ID: 89775
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Kathy Bellrichard
Street Address: 2001 Killebrew Dr Suite 141
City: Bloomington
State: MINNESOTA
Zip Code: 55425
Phone: 612-643-2233
Email: kathy.bellrichard@tetratech.com

Structure Type: MTOWER - Monopole
Latitude: 42 deg 1 min 1.0 sec N
Longitude: 93 deg 37 min 24.9 sec W
Location Description: 600 South Maple Street
City: Ames
State: IOWA
County: STORY
Ground Elevation: 270.4 meters
Support Structure: 36.6 meters above ground level
Overall Structure: 39.3 meters above ground level
Overall Height AMSL: 309.7 meters above mean sea level
Dear Kathy Bellrichard,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO F. Martin Fee of the Iowa Tribe of Kansas & Nebraska in reference to Notification ID #89775:

The Iowa Tribe of Kansas and Nebraska requests a copy of the SHPO or Archaeologist's Report for this proposed site.

We do not have objections to this project, as proposed, if it is cleared through the SHPO. We wish to be notified if any Section 106 consultations are requested, any new historical/cultural properties are discovered, and if any Adverse Effects are reported. If human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify this office.

Sincerely,
F. Martin Fee, THPO
(785) 595-3258 or 3259

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/26/2012
Notification ID: 89775
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Kathy Bellrichard
Street Address: 2001 Killebrew Dr Suite 141
City: Bloomington
State: MINNESOTA
Zip Code: 55425
Phone: 612-643-2233
Email: kathy.bellrichard@tetratech.com

Structure Type: MTOWER - Monopole
Latitude: 42 deg 1 min 1.0 sec N
Longitude: 93 deg 37 min 24.9 sec W
Location Description: 600 South Maple Street
City: Ames
State: IOWA
County: STORY
Ground Elevation: 270.4 meters
Support Structure: 36.6 meters above ground level
Overall Structure: 39.3 meters above ground level
Overall Height AMSL: 309.7 meters above mean sea level
January 25, 2013

F. Martin Fee, THPO
Iowa Tribe of Kansas and Nebraska
3345 B Thrasher Road
White Could, KS 66094

Subject: TCNS ID 89775
IA10 Hetfield

Dear F. Martin Fee:

We received your November 27, 2012 response through the TCNS for the above listed proposed telecommunication site. Please find enclosed a copy of the requested archaeological report and a copy of the SHPO comment letter. Basic project information is provided below for your reference.

IA10 Hetfield
TCNS ID: 89775
Site Address: 600 South Maple Street, Ames, IA 50010
Legal Description: Northeast quarter of Section 10, Township 83 North, Range 24 West in the Ames East Quadrangle
Project Description: Verizon Wireless proposes to construct a new 129-foot monopole telecommunications tower and place a 12-foot by 30-foot equipment building on the adjacent ground space within a 41-foot by 46-foot lease area. The proposed lease area will be accessed by an existing gravel drive off South Maple Street.

If you have questions or need additional information, please feel free to contact me at 612-643-2233.

Sincerely,

[Signature]

Kathy Bellrichard
Environmental Scientist
kathy.bellrichard@tetratech.com
Dear Kathy Bellrichard,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from Historic Preservation Director Johnathan L Buffalo of the Sac & Fox Tribe of the Mississippi in Iowa in reference to Notification ID #89775:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/26/2012
Notification ID: 89775
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Kathy Bellrichard
Street Address: 2001 Killebrew Dr Suite 141
City: Bloomington
State: MINNESOTA
Zip Code: 55425
Phone: 612-643-2233
Email: kathy.bellrichard@tetratech.com

Structure Type: MTOWER - Monopole
Latitude: 42 deg 1 min 1.0 sec N
Longitude: 93 deg 37 min 24.9 sec W
Location Description: 600 South Maple Street
City: Ames
State: IOWA
County: STORY
Ground Elevation: 270.4 meters
Support Structure: 36.6 meters above ground level
Overall Structure: 39.3 meters above ground level
Overall Height AMSL: 309.7 meters above mean sea level
January 04, 2013

RE: TCNS Notification ID#: 89775.

Aniin;
The KBIC Tribal Historic Preservation Office has identified no properties of interest regarding religious or cultural sites documented at this time in your proposed location. If the scope of work changes in any way, or if artifacts or human remains are discovered, please notify the KBIC THPO immediately.

Please forward any future consultation requests for review of project proposals pursuant to Section 106 of the National Historic Preservation Act to KBIC THPO, Keweenaw Bay Indian Community Tribal Historic Preservation Office or through email at jgoyen@kbic-nsn.gov and keep us informed of future projects as we continue our efforts to identify and document historic, archaeological and traditional cultural sites in the area so we can assist in making an appropriate determination.

Miigwech (Thank You)
Juliet K. Goyen, THPO/NAGPRA Technician

---

Miigwech!

Juliet K. Goyen & Gary T. Soonsfoot Jr.

"If you take care of the language, the spirit-keeper of the language will take care of you."
Dear Kathy Bellrichard,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Grace Goldtooth-Campos of the Lower Sioux Indian Community of Minnesota in reference to Notification ID #89775:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/26/2012
Notification ID: 89775
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Kathy Bellrichard
Street Address: 2001 Killebrew Dr Suite 141
City: Bloomington
State: MINNESOTA
Zip Code: 55425
Phone: 612-643-2233
Email: kathy.bellrichard@tetratech.com

Structure Type: MTOWER - Monopole
Latitude: 42 deg 1 min 1.0 sec N
Longitude: 93 deg 37 min 24.9 sec W
Location Description: 600 South Maple Street
City: Ames
State: IOWA
County: STORY
Ground Elevation: 270.4 meters
Support Structure: 36.6 meters above ground level
Overall Structure: 39.3 meters above ground level
Overall Height AMSL: 309.7 meters above mean sea level
Dear Kathy Bellrichard,

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this email is to inform you that an authorized user of the TCNS has replied to a proposed tower construction notification that you had submitted through the TCNS.

The following message has been sent to you from THPO Grace Goldtooth-Campos of the Lower Sioux Indian Community of Minnesota in reference to Notification ID #89775:

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

For your convenience, the information you submitted for this notification is detailed below.

Notification Received: 10/26/2012
Notification ID: 89775
Tower Owner Individual or Entity Name: Verizon Wireless
Consultant Name: Kathy Bellrichard
Street Address: 2001 Killebrew Dr Suite 141
City: Bloomington
State: MINNESOTA
Zip Code: 55425
Phone: 612-643-2233
Email: kathy.bellrichard@tetratech.com

Structure Type: MTOWER - Monopole
Latitude: 42 deg 1 min 1.0 sec N
Longitude: 93 deg 37 min 24.9 sec W
Location Description: 600 South Maple Street
City: Ames
State: IOWA
County: STORY

Detailed Description of Project:
Ground Elevation: 270.4 meters
Support Structure: 36.6 meters above ground level
Overall Structure: 39.3 meters above ground level
Overall Height AMSL: 309.7 meters above mean sea level
March 30th, 2016

Kathy Bellrichard
Tetra Tech
612-643-2233
kathy.bellrichard@tetratech.com

TCNS 89775 IA10 Hetfield

Hello,
Per our phone call on March 30th 2016, we made an agreement to have one of Upper Sioux Communities site monitors on the construction site. This is for any ground disturbance, tree stump removal and digging.
We charge $50 an hour plus hotels and per diem (gov rate).
Please let us know at least two weeks in advance of any ground disturbance for us to make travel arrangements.

Sara Childers
Tribal Historic Preservation Officer
Upper Sioux Community
P.O. Box 147
Granite Falls, MN 56241
Tel: 320.564.3853 Ext 6334

sarac@uppersiouxcommunity-nsn.gov
Ottawa Tribe of Oklahoma
Environmental Services
P.O. Box 110
10 NORTH 69A
Miami, OK 74355
Phone: (918) 541-1902
Fax: (918) 541-1904
e-mail: cherylstafford@sbcglobal.net

To: Tetra Tech
Attn: Kathy Bellripard
Fax number: 901-269-2201

DATE: 8-4-13

NO. OF PAGES INCLUDING FAX COVER:

MESSAGE: THE OTTAWA TRIBE OF OKLAHOMA CONCURS THAT NO KNOWN HISTORIC PROPERTIES WILL BE NEGATIVELY IMPACTED BY CONSTRUCTION OF THIS TOWER SITE OR SITES. OUR RESEARCH AND REVIEW EFFORTS DO NOT REVEAL ANY ISSUES CURRENTLY KNOWN TO BE OF CONCERN TO US AT THIS TOWER LOCATION OR LOCATIONS.

IN THE EVENT THAT ARCHAEOLOGICAL MATERIALS – INCLUDING HUMAN REMAINS – ARE ENCOUNTRED LATER DURING CONSTRUCTION, USE, OR MAINTENANCE OF THIS TOWER LOCATION OR LOCATIONS, PLEASE RE-NOTIFY US AT THAT TIME, AS WE WOULD LIKE TO RESUME CONSULTATION UNDER SUCH A CIRCUMSTANCE.

THE OTTAWA TRIBE OF OKLAHOMA TAKES THIS OPPORTUNITY TO EXPRESS ITS CONCERNS THAT TELECOMMUNICATIONS TOWERS CAN HAVE A POTENTIALLY DESTRUCTIVE IMPACT ON BATS AND BIRDS, ESPECIALLY MIGRATORY BIRDS. IMPACTED BIRDS AND BATS COULD INCLUDE SPECIES THAT ARE LISTED AS THREATENED OR ENDANGERED BY BOTH STATES AND THE FEDERAL GOVERNMENT. THE OTTAWA TRIBE STRONGLY SUGGESTS THAT THIS/THESE TOWER/TOWERS BE CONSTRUCTED IN ACCORDANCE WITH THE GUIDELINES AVAILABLE FROM THE US FISH AND WILDLIFE SERVICE IN ORDER TO REDUCE THE ADVERSE EFFECTS OF TELECOMMUNICATIONS TOWERS ON BIRDS AND BATS. THESE GUIDELINES MAY BE FOUND AT:

WWW.FWS.GOV/MITARYBIRDS/ISSUES/TOWERS/COMTOW.HTML

PLEASE DO NOT HESITATE TO CALL US FOR ADDITIONAL COMMENT.

CHERYL STAFFORD
ENVIRONMENTAL DIRECTOR

IF YOU HAVE DIFFICULTY RECEIVING THIS FAX, PLEASE CONTACT US AT 918-541-1902 EXT. 18
THE CONTENTS OF THIS FAX MAY CONtain CONFIDENTIAL INFORMATION, PLEASE DISTRIBUTE ONLY TO ADDRESSEE.
Dear Applicant:

This letter addresses the proposed communications facilities listed below that you have referred to the Federal Communications Commission (Commission) for purposes of contacting federally recognized Indian Tribes, including Alaska Native Villages (collectively Indian Tribes), and Native Hawaiian Organizations (NHOs), as specified by Section IV.G of the Nationwide Programmatic Agreement (NPA). Consistent with the procedures outlined in the Commission’s recent Declaratory Ruling (1), we have contacted the Indian Tribes or NHOs identified in the attached Table for the projects listed in the attached Table. You referred these projects to us between 12/13/2012 and 12/20/2012. Our contact with these Indian Tribes or NHOs was sent on 12/20/2012.

Thus, as described in the Declaratory Ruling (2), if you or Commission staff do not receive a statement of interest regarding a particular project from any Tribe or NHO within 20 calendar days of 12/20/2012, your obligations under Section IV of the NPA with respect to these Indian Tribes or NHOs are complete (3). If an Indian Tribe or NHO responds that it is interested in participating within the 20 calendar day period, the Applicant must involve it in the review as set forth in the NPA, and may not begin construction until the process set forth in the NPA is completed.

You are reminded that Section IX of the NPA imposes independent obligations on an Applicant when a previously unidentified site that may be a historic property, including an archeological property, is discovered during construction or after the completion of review (4). In such instances, the Applicant must cease construction and promptly notify, among others, any potentially affected Indian Tribe or NHO. An Indian Tribe’s or NHO’s failure to express interest in participating in pre-construction review of an undertaking does not necessarily mean it is not interested in archeological properties or human remains that may inadvertently be discovered during construction. Hence, an Applicant is still required to notify any potentially affected Indian Tribe or NHO of any such finds pursuant to Section IX or other applicable law.

Sincerely,

Dan Abeyta
Assistant Chief
Spectrum and Competition Policy Division
Wireless Telecommunications Bureau

1) See Clarification of Procedures for Participation of Federally Recognized Indian Tribes and Native Hawaiian Organizations Under the Nationwide Programmatic Agreement, Declaratory Ruling, FCC 05-176 (released October 6, 2005) (Declaratory Ruling).
2) Id S 8-10.
3) We note that, under the Declaratory Ruling, an expression of interest by an Indian Tribe or NHO addressed solely to the Commission staff during the 20-day period is sufficient even if it does not contact the Applicant.

4) Id at S 11.

LIST OF PROPOSED COMMUNICATIONS TOWERS

TCNS# 89772 Referred Date: 12/13/2012 Location: Rockford Road SW, Cedar Rapids, IA
   Tribe Name: Sac and Fox Nation of Oklahoma
   Tribe Name: Upper Sioux Community of Minnesota

TCNS# 89773 Referred Date: 12/13/2012 Location: 106 North 10th Street Apartment 609, Fort Dodge, IA
   Tribe Name: Sac and Fox Nation of Oklahoma
   Tribe Name: Upper Sioux Community of Minnesota

TCNS# 89774 Referred Date: 12/13/2012 Location: 201 Cass Street, Griswold, IA
   Tribe Name: Sac and Fox Nation of Oklahoma
   Tribe Name: Upper Sioux Community of Minnesota

TCNS# 89775 Referred Date: 12/13/2012 Location: 600 South Maple Street, Ames, IA
   Tribe Name: Sac and Fox Nation of Oklahoma
   Tribe Name: Upper Sioux Community of Minnesota

TCNS# 89776 Referred Date: 12/13/2012 Location: 201 South Main Street, Conrad, IA
   Tribe Name: Sac and Fox Nation of Oklahoma
   Tribe Name: Upper Sioux Community of Minnesota

TCNS# 89843 Referred Date: 12/13/2012 Location: 5604 Hathaway Lane, Minnetonka, MN
   Tribe Name: Mille Lacs Band of Ojibwe Indians
   Tribe Name: Minnesota Indian Affairs Council
   Tribe Name: Upper Sioux Community of Minnesota
   Tribe Name: Yankton Sioux Tribe

LEGEND:
* - Notification numbers are assigned by the Commission staff for sites where initial contact was not made through TCNS.
Dear Dr. Molyneaux,

Tetra Tech provided a copy of the Phase I Archaeological Survey report for the proposed telecommunications tower with TCNS #89775 on December 13, 2012. In a December 20, 2012 response, you indicated that based on the information provided no further representations were required. Since the initial review was completed, revisions were made to the proposed project plans including:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
- Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);
- Extension of the proposed access and utility easement along an existing gravel driveway from 400 feet long to 430 feet long;
- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

An Addendum to the Phase I Archaeological Survey is attached for your reference. We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
Office: 612.643.2233 | Fax: 612.643.2201
kathy.bellrichard@tetratech.com

Tetra Tech
2001 Killebrew Drive, Suite 141 | Bloomington, MN 55425 | www.tetratech.com

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.
Hello Kathy, thank you for your recent form submission to the Sisseton Wahpeton Oyate Tribal Historic Preservation Department. We will be looking over this shortly and will get back to you as soon as we can.

The unique ID for your project, IA10 Hetfield, is:
thpo56ac0caa89d38

Please include this with any questions you may have via email

Submission summary:

Your Name: Kathy Bellrichard
Your Phone: 612-643-2233
Your Email: kathy.bellrichard@tetratech.com Your Project: IA10 Hetfield
Project Description: Tetra Tech provided a copy of the Phase I Archaeological Survey report for the proposed telecommunications tower site on December 13, 2012. Since that time, revisions were made to the proposed project plans including:

• Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;

• Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);

• Extension of the proposed access and utility easement along an existing gravel driveway from 400 feet long to 430 feet long;

• Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and

• Minor changes to the proposed elevated equipment platform.

An Addendum to the Phase I Archaeological Survey is being submitted for your reference. We respectfully request a response within 30 days if you have any comments or concerns regarding these changes.

Project Additional Information:
Files Attached: Addendum to IA10 Hetfield CRM.pdf, Submission Date: 2016/01/29 18:06:50 Your TCNS Number: 89775
Number of Exempt PTC Towers:
Number of NON Exempt PTC Towers:

-------------------
Invoice for project: thpo56ac0caa89d38

The total consultation fee due: $400

Please submit payment payment via check to:

Sisseton Wahpeton Oyate Tribal Historic Preservation Office P.O. Box 907 Sisseton, SD 57262

-------------------
Please contact our portal administrator if any of the project details are incorrect in the summary above or are empty and should contain values!
January 29, 2016

Randy Teboe, THPO
Ponca Tribe of Nebraska
P.O. Box 288
Niobrara, NE 68760

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Randy Teboe:

This letter serves as notification of the following changes made to the proposed telecommunications tower project listed above since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
- Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);
- Extension of the proposed access and utility easement along an existing gravel driveway from 400 feet long to 430 feet long;
- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellichard@tetratech.com
January 29, 2016

Thomas Parker, THPO
Omaha Tribe of Nebraska
100 Main Street
P.O. Box 368
Macy, NE 68039

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Thomas Parker:

This letter serves as notification of the following changes made to the proposed telecommunications tower project listed above since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
- Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);
- Extension of the proposed access and utility easement along an existing gravel driveway from 400 feet long to 430 feet long;
- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellichard@tetratech.com
January 29, 2016

Emily Smith-DeLeon, THPO  
Winnebago Tribe of Nebraska  
P.O. Box 687  
Winnebago, NE 68071

Subject: Notice of Project Change  
Verizon Wireless Tower Site  
TCNS 89775 – IA10 Hetfield  
Ames, Story County, Iowa

Dear Emily Smith-DeLeon:

This letter serves as notification of the following changes made to the proposed telecommunications tower project listed above since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
- Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);
- Extension of the proposed access and utility easement along an existing gravel driveway from 400 feet long to 430 feet long;
- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard  
Environmental Scientist  
612-643-2233  
kathy.bellichard@tetratech.com
January 29, 2016

Lance Foster, THPO
Iowa Tribe of Kansas and Nebraska
3345 B. Thrasher Road
White Cloud, KS 66094

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Lance Foster:

Tetra Tech provided a copy of the Phase I Archaeological Survey report for the proposed telecommunications tower site listed above on December 13, 2012. Since that time, revisions were made to the proposed project plans including:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
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- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

An Addendum to the Phase I Archaeological Survey is enclosed for your reference. We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellichard@tetratech.com
Dear Carol Butler,

This message serves as notification to the Sac and Fox Nation of Oklahoma of the following changes made to the proposed telecommunications tower site with TCNS #89775 located in Ames, Story County, Iowa since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
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- Extension of the proposed access and utility easement along an existing gravel driveway from 400 feet long to 430 feet long;
- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
Office: 612.643.2233 | Fax: 612.643.2201
kathy.bellrichard@tetratech.com

Tetra Tech
2001 Killebrew Drive, Suite 141 | Bloomington, MN 55425 | www.tetratech.com

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.
January 29, 2016

Johnathan L. Buffalo, Historic Preservation Director
Sac and Fox Tribe of the Mississippi in Iowa
349 Meskwaki Rd.
Tama, IA 52339

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Johnathan L. Buffalo:

This letter serves as notification of the following changes made to the proposed telecommunications tower project listed above since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
- Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);
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- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellrichard@tetratech.com
January 29, 2016

Gary Loonsfoot Jr., THPO  
Keweenaw Bay Indian Community  
16429 Beartown Road  
Baraga, MI 49908

Subject: Notice of Project Change  
Verizon Wireless Tower Site  
TCNS 89775 – IA10 Hetfield  
Ames, Story County, Iowa

Dear Gary Loonsfoot Jr.:

Tetra Tech provided a copy of the Phase I Archaeological Survey report for the proposed telecommunications tower site listed above on December 20, 2012. In a January 4, 2013 response, you indicated that no properties of interest regarding religious or cultural sites were identified. Since the initial review was completed, revisions were made to the proposed project plans including:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
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- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

An Addendum to the Phase I Archaeological Survey is enclosed for your reference. We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellichard  
Environmental Scientist  
612-643-2233  
kathy.bellichard@tetratech.com
January 29, 2016

Grace Goldtooth-Campos, THPO
Lower Sioux Indian Community of Minnesota
P.O. Box 308
Morton, MN 56270

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Grace Goldtooth-Campos:

This letter serves as notification of the following changes made to the proposed telecommunications tower project listed above since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012 and your response indicating no interest dated June 6, 2013:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
- Lease area shifted approximately 40 feet to the east and expanded from 1,886 square-feet (41-foot by 46-foot) to 1,947 square-feet (33-foot by 59-foot);
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- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellichard@tetratech.com
January 29, 2016

Sara Childers, THPO
Upper Sioux Community of Minnesota
P.O. Box 147
Granite Falls, MN 56241

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Sara Childers:

This letter serves as notification of the following changes made to the proposed telecommunications tower project listed above since it was entered in the FCC Tower Construction Notification System (TCNS) on November 2, 2012:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
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- Reduction in the length of the proposed electrical utility easement from 130 feet to 75 feet; and
- Minor changes to the proposed elevated equipment platform.

We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.belrichard@tetratech.com
January 29, 2016

Cheryl Stafford, Environmental Director
Ottawa Tribe of Oklahoma
13 South 69A
P.O. Box 110
Miami, OK 74354

Subject: Notice of Project Change
Verizon Wireless Tower Site
TCNS 89775 – IA10 Hetfield
Ames, Story County, Iowa

Dear Cheryl Stafford:

Tetra Tech provided a copy of the Phase I Archaeological Survey report for the proposed telecommunications tower site listed above on January 25, 2013. In a February 4, 2013 response, you indicated that no known properties will be negatively impacted by construction of this tower site. Since the initial review was completed, revisions were made to the proposed project plans including:

- Tower location shifted approximately 40 feet to the east from latitude/longitude N42° 1’ 1.024”/W93° 37’ 24.929” to N42° 1’ 1.075”/W93° 37’ 24.401” resulting in a change in the ground elevation at the tower site from 887 feet above mean seal level (AMSL) to 888 feet AMSL;
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- Minor changes to the proposed elevated equipment platform.

An Addendum to the Phase I Archaeological Survey is enclosed for your reference. We respectfully request a response within 30 days of the receipt of this letter if you have any comments or concerns regarding these changes.

Sincerely,

Kathy Bellrichard
Environmental Scientist
612-643-2233
kathy.bellichard@tetratech.com
TCNS Certification

March 28, 2013

IA10 Hetfield (EnSite #12934)
TCNS #89775

All notified Tribes either responded that no issues existed with the proposed action or communication was referred to the FCC through the TCNS system and the appropriate waiting time has expired.

This also certifies that should I receive in the future any Tribal request regarding this site, Tetra Tech will notify Verizon Wireless immediately.

Kathy Bellrichard
2001 Killebrew Drive Suite 141
Bloomington, MN 55425
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:
Appendix D

Local Zoning and Planning Documentation
Summary

Ames City Assessor

Sec-Twp-Rng 10-83-24
Brief Tax Description SECTION:10 TOWNSHIP:83 RANGE:24 LOT 8 RR ROW:E22'W1/2 S OF 4TH ST AMES
(Note: Please contact the Story County Recorder for full legal 515-382-7230)

Primary Class EXEMPT
Primary Zoning S-GA - Government/Airport District
Secondary Zoning N/A
Zoning Overlay N/A
Secondary Zoning Overlay N/A
Gross Acres 0.00
Net Acres 0.00
Last Transfer N/A
Recording Date N/A
Deed Book/Page N/A
(Instr. Date)
Contract Book/Page N/A
(Instr. Date)
Taxing District AMES CITY/AMES SCH
School District AMES COMMUNITY SCHOOL
TIF/UR District N/A
Drainage District N/A
Fire District AMES
Neighborhood Apts: Hospital and Downtown

Property ID 09-10-275-000
Map ID 09-10-275-000
Property Address 600 S MAPLE AVE AMES

Owner

Deed Holder AMES, CITY OF
PO BOX 811
AMES IA 50010-0811
Contract Holder
Mailing Address AMES, CITY OF
PO BOX 811
AMES IA 50010-0811

Change mailing address
Transfer Homestead or Military

Site Description (Ames)

Topography
Public Utilities
Street or Road Paved
Neigh. Life Cycle: Static
Legal Acres: 12.65
Legal Sq Ft: 551,034

### Land (Ames)

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### Pay Property Taxes

Click here to pay property taxes online at the ISCTA website

### Homestead Tax Credit Application
Apply online for the Homestead Tax Credit

Military Service Tax Exemption Application

Apply online for the Military Service Tax Exemption

Iowa Land Records

Photos


The information in this web site represents current data from a working file which is updated continuously. Information is believed reliable, but its accuracy cannot be guaranteed.

Last Data Upload: 2/11/2016 11:53:51 PM

Developed by The Schneider Corporation
ARTICLE 13
ADDITIONAL REQUIREMENTS FOR SPECIFIC USES

Sec. 29.1300. GENERAL.
This Article establishes additional specific requirements for certain specific uses in addition to the other requirements of this Ordinance and the requirements of each Zone. Wherever 2 or more requirements apply to the same use, structure or activity, then the requirement that is more restrictive upon the use, structure or activity shall apply.

Sec. 29.1301. ADULT ENTERTAINMENT BUSINESSES.
(1) Location.
(a) No person shall establish any adult entertainment business as herein defined within 1,000 feet from another such business, any school, place of worship, public park, public playground, public plaza or area zoned for residential use. Measurement shall be taken on a direct line from the main entrance of such adult entertainment business to the point on the property line of such other business, school, places of worship, public park, public playground, public plaza or area zoned for residential use that is closest to the said main entrance of such adult entertainment business.
(b) No person shall establish any adult entertainment business within 200 feet of the public right-of-way for any arterial street in the City, as designated on the City of Ames Arterial Street Map.
(2) "Establishment" Defined. The establishment of an adult entertainment business shall include the opening of such business as a new business, the relocation of such business, the addition of such business activity to that of any other business, or a conversion of an existing business location to any of the uses and activities as described below. It shall also include any addition to or expansion of an existing adult entertainment business that causes said business to occupy over 50% more space than before such addition or expansion.

Sec. 29.1302. BED & BREAKFAST ESTABLISHMENTS.
To obtain a Special Use Permit for a Bed & Breakfast Establishment, all criteria in "Home Occupations," set forth in Section 29.1304, must be met, in addition to the following:
(1) Guest Rooms. A maximum of 5 per structure in the RM and RH Zones and a maximum of 2 per structure in the RL Zone. The Zoning Board of Adjustment may restrict the number of guest rooms to a lesser number.
(2) Breakfast shall be the only meal served. This service must occur before 11:00 a.m. Only guests residing in the structure or persons living in the premises may be served. The structure shall not be remodeled into a commercial kitchen unless required by Environmental Health rules and regulations established pursuant to Municipal Code Chapter 11.
(3) Off-Street Parking Requirements. One space per guest room, plus one space for the owner. The parking spaces shall meet standards established by Section 29.406 of this Ordinance.
(4) Guests shall register upon arrival, stating their names, current residence address and the license plate number of the vehicle that is being used by the guest. The registration form shall be kept by the owner for a period of 3 years and shall be made available for examination by a representative of the City upon one day's notice.
(5) Guest stays shall be limited to 2 weeks.
(6) The Special Use Permit is not transferable to a subsequent owner or to another property.
(7) The establishment must comply with local and state regulations regarding all applicable permits and licenses including, but not limited to fire, health, food service, hotel, liquor, revenue, building/zoning permits and licenses.

Sec. 29.1303. DRIVE-THROUGH FACILITIES.
All Drive-Through Facilities, whether primary or accessory uses, must comply with the following conditions:
(1) Setbacks and Landscaping. Stacking lanes for a Drive-Through Facility must be setback at least 5 feet from all lot lines. Where the setback abuts other than Residential Zones, the setback must be landscaped to at least the L2 standard. Where the setback abuts a Residential Zone, the setback must be landscaped to at least the L3 standard.
(2) Design and Layout. Stacking lanes must be designed to provide adequate on-site maneuvering, queuing and circulation area, so that stacking vehicles will neither impede traffic on abutting streets nor interfere with vehicle circulation.

Sup #2016-1
Chapter 29, Article 13-1

Rev. 01-1-16
Sec. 29.1304. HOME OCCUPATIONS.

This Section is intended to protect residential areas from potential adverse impacts of activities defined as home occupations; to permit residents of the community a broad choice in the use of their homes as a place of livelihood in the production or supplementing of personal/family income; to restrict incompatible uses; to establish criteria and develop standards for the use of residential structures or dwelling units for home occupations. It is not the intent to eliminate certain businesses and occupations that may be compatible with residential areas.

(1) Permitted, Special and Prohibited Home Occupations.

(a) The following are Permitted Home Occupations:

(i) Home sewing or tailoring;
(ii) Studios for painting, sculpturing, ceramics or other similar arts;
(iii) Writing or editing;
(iv) Telephone answering, scheduling of appointments, and other office activities where there are limited visits to the home;
(v) Production of crafts such as handiwork, model-making, weaving, lapidary, and cabinet-making for the purpose of selling the product;
(vi) Tutoring and giving lessons, limited to 4 students at any one time;
(Ord. No. 3591, 10-10-00)
(vii) Catering, home-cooking and preserving for the purpose of selling the product;
(viii) Computer programming, services provided over the Internet and other similar activities;
(ix) Mail order businesses where products are shipped directly from the supplier to the customer; and
(x) Offices for architects and engineers.

(b) The following are Special Home Occupations:

(i) Family day care home for the care of six or fewer preschool children and for the care of five or fewer school age children. The care of school age children shall be limited to before and after school care for less than two hours at a time. Or in the alternative a day care home for the care of six or fewer adults;
(ii) Physicians and other licensed medical practitioners;
(iii) Barbershops and beauty parlors;
(iv) Small repair shops (including small appliances, mower repair, blade sharpening and similar uses);
(v) Real estate and related services;
(Ord. No. 3591, 10-10-00)
(vi) Insurance agents;
(vii) Bed-and-breakfast operations;
(viii) Home professional offices, lawyers and members of similar professions, and
(Ord. No. 3591, 10-10-00)
(ix) All other activities not included on either the permitted or prohibited list.

(c) The following are prohibited Home Occupations:

(i) Animal hospitals;
(ii) Dancing studios or exercise studios;
(iii) Private clubs;
(iv) Restaurants;
(v) Stables and kennels;
(vi) Repair or painting of motor vehicles, including motorcycles; and
(vii) Firearm sales
(Ord. No. 4126, 10-23-12)

(d) Rummage/garage sales are not included in the listing of permitted, special or prohibited home occupations and are not defined as home occupations, provided no more than 3 sales per year are conducted. In addition, sale of garden produce is not defined as a home occupation provided no more than 3 sales per year are conducted.
(2) **Permit and Review Procedures.**

(a) Permitted Home Occupations. Applicants must submit an application to the Planning and Housing Department. The application will be reviewed by the staff, and the applicant will be notified of the decision of the Department. If the applicant is aggrieved, the decision may be appealed to the Zoning Board of Adjustment within 30 days.

(b) Special Home Occupations. Applicants must submit a Special Home Occupation Permit to the City Clerk for consideration by the Zoning Board of Adjustment. Applications will then be reviewed by the Planning and Housing Department. A staff report will be prepared and sent to the Zoning Board of Adjustment. The Board may grant the Special Home Occupation Permit if it reasonably concludes from the evidence that the home occupation proposed will meet the criteria set out in Section 29.1304(3). The Board may, if warranted by the evidence, impose such additional conditions as may be deemed necessary to protect the legitimate use and enjoyment of neighboring properties. Any failure to obtain such Special Home Occupation Permit when required, or to comply with the criteria and conditions set out when issued, shall constitute a violation of this Section and shall be grounds for revocation of the Special Home Occupation Permit after notice and hearing by the Zoning Board of Adjustment.

(Ord. No. 3591, 10-10-00)

(c) Prohibited Home Occupations. No person will be allowed to operate prohibited home occupations.

(3) **Criteria.** All home occupations must meet the following criteria:

(a) Area to Be Used.

(i) The activity shall be conducted in a manner that will not alter the normal residential character of the premises, or in any way cause a nuisance to adjoining residents, nor shall there be any structural alteration to accommodate the occupation. There should be no emission of smoke, dust, odor, fumes, glare, noises, vibration, electrical or electronic disturbances detectable at the lot line that would exceed that normally produced by a single residence. Special noise exceptions will be allowed for day care homes due to the nature of the clients using the facility.

(ii) The activity shall be located within the principal building or within an accessory structure. It shall occupy no more than 25% of the total floor area of the residence and shall not exceed 400 square feet of an accessory building. Exception: For family day care homes, the entire dwelling unit may be used to serve the various needs of day care (e.g., kitchen, bathroom, napping rooms, play areas, etc.). However, the day care can provide care to no more than one person per 35 square feet of the total dwelling unit, exclusive of baths, hallways, closets, kitchens, and dining areas. The dining area may be included in the square footage calculation if used by day care participants for activities other than meals.

(Ord. No. 4101, 01-10-12)

(b) Signs. Any sign utilized at the home occupation shall be limited to one flush-mounted sign on the main residential structure, which shall not exceed one square foot in area. Such sign shall not be lighted and nonreflecting materials shall be used. The legend shall show only the name of the occupant and the type of occupation. Color shall be consistent with the residential character.

(c) Equipment. There shall be no mechanical equipment used except as customary for domestic household purposes. Any merchandise or stock in trade sold, repaired or displayed shall be stored entirely within the residential structure or in any accessory building. No storage is to be visible from lot lines.

(d) Employment. The activity shall employ only members of the household residing in the dwelling unless approval for the employment of up to two (2) non-family members is granted by the Zoning Board of Adjustment.

(e) Traffic. The activity shall not generate significantly greater traffic volumes than would normally be expected in a residential area. Not more than 10 vehicular visits per day shall be allowed. An exception to the number of visits allowed per day may be permitted for family day care homes and adult day care due to the number of children or adults allowed on-site and the need for parent or caregiver contact during the day. The delivery and pick up of materials or commodities to the premises by commercial vehicles shall not interfere with the delivery of other services to the area.

(f) Parking Criteria.

(i) Only one delivery vehicle associated with the activity may be parked on the street near the premises for not more than 4 consecutive hours.
(ii) One additional on-site parking space is required above the normal parking requirement where 2 or more clients are likely to visit the premises concurrently.

(iii) No more than 4 client vehicles during any given hour shall be allowed on the site. This requirement shall not be construed to prohibit occasional exceptions for such events as meetings, conferences, demonstrations, or similar events that are in no way a nuisance to adjoining residences.

(Ord. No. 3591, 10-10-00)

(g) Class Size. If the home occupation is the type in which classes are held or instructions given, there shall be no more than 4 students or pupils at any given time. The Board may approve up to 6 students if it finds that the additional students will not generate additional traffic. Day-care homes may have up to 6 children or adults at a time. Additional children or adults will require a Special Home Occupation Permit for a day-care center.

(Ord. No. 3591, 10-10-00)

(h) Number of Home Occupations. The total number of home occupations within a dwelling unit is not limited, except that the cumulative impact of all home occupations conducted within the dwelling unit shall not be greater than the impact of one home occupation. This will be determined by using the home occupation criteria.

(4) **Family Day Care in Multifamily Dwellings.** In addition to the criteria of Section 29.1304(3), Family Day Care in multifamily dwellings shall comply with the following additional criteria.

(a) A defined outdoor play area is available on-site that provides not less than 75 square feet per child based on the maximum number of children that will be attending the day care at any given time, or a public or neighborhood park is located within 300 feet of the site. This provision only applies to day care provided to children five years of age and older.

(b) An area designated and posted for guest parking is provided on the site; or at least one parking space must be posted and reserved for use of the day care operation only. Parking spaces otherwise required to meet minimum parking requirements for the residents may not count toward the required guest or reserved parking spaces.

(c) The day care operator must provide evidence that the owner of the multifamily building has no objections to the day care operation, and that he or she agrees to comply with the required guest or reserved parking provisions.

(Ord. No. 4104, 01-10-12)

**Sec. 29.1305. MANUFACTURED HOUSING.**

This Section is intended to regulate manufactured housing in a manner consistent with the provisions of Section 414.28, Code of Iowa.

(1) **A Manufactured Home** is defined for purposes of the Ordinance as any structure manufactured or constructed under the authority of 42 U.S.C. Section 5403, and is to be used as a place for human habitation, but that is not constructed or equipped with a permanent hitch or other device allowing it to be moved other than for the purpose of moving to a permanent site, and that does not have permanently attached to its body or frame any wheels or axles.

(2) Neither the provisions of this Section nor of Section 29.705 shall pertain to what is called the "modular home," that is housing built in whole or in part off the site of its occupancy and use and certified by the State of Iowa as meeting the State Building Code. If so certified by the State of Iowa, modular homes shall be governed by the same regulations and standards as pertain to housing that is built at the site of its occupancy and use.

(3) A manufactured home located on a lot outside a Residential Low Density Park Zone shall be located and installed according to the same standards, including but not limited to, a permanent foundation system, set-back, and minimum square footage that would apply to a site-built dwelling.

**Sec. 29.1306. SALVAGE YARDS.**

(1) It is found that the keeping of salvaged parts and materials and the storage of motor vehicles out of doors can detract from the beneficial use and enjoyment of neighboring properties. A salvage yard is prohibited anywhere except in the GI Zone. Such salvage yard shall be authorized only by a Special Use Permit issued after a public hearing by the Zoning Board of Adjustment in accordance with the procedures set out in Section 29.1503 and shall be subject to such protective conditions that may be warranted by the nature of the salvage operation. A salvage yard operation is also subject to all the submittal and approval requirements set out in Section 29.901.
(2) The Zoning Board of Adjustment shall not grant any Special Use Permit as authorized and required in Subsection A above, unless it shall first find as a fact that the keeping of motor vehicles that are stored or displayed under their present or proposed conditions or circumstances will not:

(a) Provide an attractive and dangerous nuisance for young children;
(b) Be a harborage for rats and other forms of vermin; or
(c) Be an unsightly detraction from the use and enjoyment of adjacent properties.

In granting a Special Use Permit, the Zoning Board of Adjustment may impose such time limits and other special protective conditions as it shall find useful and reasonable to the concerns expressed in Subsections a, b and c above.

Sec. 29.1307. WIRELESS COMMUNICATIONS FACILITIES

(1) Scope, Purpose, and Policy. The provisions of this Section apply to, and apply only to, the placement, construction and modification of that which is called "personal wireless service facilities" in Section 704 of the Telecommunications Act of 1996. It is the intent of this Ordinance not to discriminate unreasonably among providers of functionally equivalent services and not to have the effect of prohibiting the provision of personal wireless services. Any request for authorization to place, construct, or modify personal wireless service facilities shall be acted on within a reasonable time after the request is duly filed with the proper city office, taking into account the scope and nature of such request. Any decision to deny a request to place, construct or modify personal wireless service facilities shall be in writing and supported by substantial evidence contained in a written record.

(2) Definitions. For the purpose of this Section, the following definitions shall apply:

(a) Antenna Height means the vertical distance measured from the base of the antenna support structure at grade to the highest point of the structure. If the support structure is on a sloped grade, then the average between the highest and lowest grades of the site shall be used in calculating the antenna height.
(b) Antenna Support Structure means any tower or any other structure that supports a device used in the transmitting or receiving of radio frequency energy.
(c) Cell Site means a tract or parcel of land that contains the wireless communication antenna, its support structure, accessory building(s), and parking and may include other uses associated with and necessary for wireless communication transmission.
(d) Tall Structure means any structure the top of which is more than 50 feet above grade.

(3) Special Use Permit Not Required. A cell site with antenna that is attached to an existing communications tower, smoke stack, water tower, or other tall structure is permitted in all Zones. The height of the antenna shall not exceed the height of the existing tall structure by more than 20 feet. If the antenna is to be mounted on an existing tall structure, a Site Development Plan shall not be required.

(4) Special Use Permit Required. A cell site with antenna that is either not mounted on an existing tall structure or is more than 20 feet higher than the tall structure on which it is mounted shall not be permitted except pursuant to a Special Use Permit issued by the Zoning Board of Adjustment pursuant to both Section 29.1503 and the provisions of this Section.

(5) Ancillary Activities. All other uses and activities ancillary to the antenna and associated equipment (including a business office, maintenance depot, vehicle storage, etc.) are prohibited from a cell site, unless otherwise permitted pursuant to the zoning regulations for the Zone in which the cell site is located.

(6) Monopoles Required. All antenna support structures shall be "monopole." Lattice or guyed towers are prohibited in all Zones except Industrial Zones.

(7) Standards for Special Use Permit. The following standards and procedures, in addition to those contained in Section 29.1503, shall apply to the issuance of a Special Use Permit for a cell site with antenna:

(a) Necessity. The wireless communications company shall demonstrate, using technological evidence, that the antenna must be located where it is proposed in order to satisfy the antenna's function in the company's grid system.
(b) Co-location Effort. If the wireless communications company proposes to build a tower (as opposed to mounting the antenna on an existing tall structure), it shall demonstrate that it contacted the owners of tall structures within a one-quarter-mile radius of the site proposed, asked for permission to install the antenna on those tall structures, and was denied for reasons other than failure to agree on compensation. The Zoning Board of Adjustment may deny the permit if it concludes that the applicant has not made a good faith effort to mount the antenna on an existing tall structure.
(c) Antenna Height. The applicant shall demonstrate, to the reasonable satisfaction of the Zoning Board of Adjustment, that the antenna is the minimum height required to function satisfactorily. No antenna or
antenna support structure shall be constructed, altered, or maintained so as to project above any of the imaginary airspace surfaces described in FAR Part 77 of the FAA guidance on airspace protection.

(Ord. No. 4186, 6-24-14)

(d) Setbacks from Base of Antenna Support Structure. The minimum distance between the base of the support or any guy anchors and any property line shall be the largest of the following:

(i) 50% of antenna height;
(ii) The minimum setback in the underlying Zone; or
(iii) 60 feet.

(e) Antenna Support Structure Safety. The applicant shall demonstrate, to the reasonable satisfaction of the Zoning Board of Adjustment, that the proposed antenna and support structure are safe and the surrounding areas will not be negatively affected by support structure failure, falling ice or other debris, or radio frequency interference. All support structures shall be fitted with anti-climbing devices, as approved by the manufacturers.

(f) Fencing. An opaque fence constructed of wood or masonry material, or other substantial material, that is consistent with the existing structures on the proposed site and approved by the Zoning Board of Adjustment, shall be installed around the antenna support structure and other equipment unless the antenna is mounted on an existing structure.

(Ord. No. 3629, 9-25-01)

(g) Co-location. In order to reduce the number of antenna support structures needed in the community in the future, the proposed support structure shall be required to accommodate other users, including other wireless communications companies and local police, fire and ambulance companies.

(h) FCC License. The wireless communication company shall provide proof that it is licensed by the Federal Communications Commission.

(i) Required Parking. If the cell site is fully automated, adequate parking shall be required for maintenance workers. If the site is not automated, the number of required parking spaces shall equal the number of people on the largest shift.

(j) Painting. Antenna support structures should be painted in such a manner as to reduce the visual impact and create a harmonious appearance with its surroundings.

(k) Site Plan. A full site plan shall be required for all cell sites, showing the antenna, antenna support structure, building, fencing, buffering, and access.

(l) Air Safety. Support structures 200 feet in height or taller, or those near airports, shall meet all Federal Aviation Administration regulations.

(Ord. No. 3629, 9-25-01)

Changes. There shall be no change in the exterior appearance of a cell site, including any change in the profile of the antenna support structure, that is a departure from what was shown or represented in the initial application for the granted special use permit. Additional antenna devices may be attached to the antenna once an antenna support structure has been certified as having been installed according to the approved special use permit. The additional antenna devices may be attached as provided for in Section 29.1307(3) as a means to accomplish the objective of co-location as specified in Section 29.1307(7)(b).

(Ord. No. 3591, 10-10-00)

(9) Engineered Addition. If an additional antenna is installed on an existing antenna support structure, engineering data and certification by a licensed professional engineer assuring that the installation is structurally sound within the standards of good engineering practice shall be provided to the City Building Official.

(10) Removal. If a cell site, or any antenna support structure, is not used for a period of one year, it shall be the duty and obligation of the party then in possession and control of the site to have the unused antenna support structure and any other unused cell site apparatus completely dismantled and removed from the site.

Sec. 29.1308. MINI-STORAGE WAREHOUSE FACILITIES.

Mini-storage warehouse facilities are self-storage spaces designed and used for the purpose of renting or leasing individual storage space to tenants who have access to such space for the purpose of storing and removing personal properties. Mini-storage warehouse facilities are permitted in the General Industrial (GI) Zone only, except that such facilities may be located in the Highway Oriented Commercial District (HOC) by virtue of a Special Use Permit authorized by the Zoning Board of Adjustment. A Special Use Permit for a mini-storage warehouse facility shall be subject to the Zone Development Standards of the HOC Zone and also be subject to the following additional regulations:
(1) **Architectural Standards.**

(a) **Architectural Theme.**

(i) Facilities placed in or near a shopping center or other retail uses shall be designed to be consistent with the dominant theme or design of surrounding buildings.

(ii) Building surface colors shall be restricted to muted earth tones.

(iii) All buildings, including storage units shall be surfaced in high quality materials such as stone, split face block, or brick. Smooth-faced concrete block, painted masonry, tilt-up concrete panels and prefabricated metal panels are prohibited.

(b) **General Architectural Requirements.**

(i) Buildings shall include design elements such as columns, ribs or pilasters, piers, quoins, and fenestration patterns to prevent a utilitarian, industrial, warehouse-like appearance.

(ii) Unit doors shall be screened or sited so they are not visible from the street.

(iii) Unit doors shall be integrated into the overall design theme of the site through color and texture.

(iv) Buildings greater than forty feet (40') long must include a change in wall plane, recess, or reveal every twenty feet (20').

(v) Maximum building length on the site perimeter is sixty feet (60'), except where the buildings are adjacent to an industrial land use or zone and/or Airport Clear Zone.

(vi) Interior climate controlled mini-storage facilities are mini-warehouse buildings where storage is primarily accessed from the interior of the building. Interior climate controlled mini-storage facilities may exceed the sixty feet (60') maximum building length at the perimeter. Exterior garages and/or bays may be located on interior climate controlled mini-storage facilities, but shall not be located on the building that is adjacent to and/or facing the site perimeter.  

(Ord. No. 3811, 11-23-04)

(c) **Roof Design.**

(i) Buildings shall include a roof pitch greater than or equal to 6:12, with roofs incorporating a high quality surface such as architectural shingles, standing seam metal or tile. Flat roofs are prohibited.

(ii) Roofs shall include four (4) or more planes, and have overhanging eaves extending at least one and one-half feet (1.5') past the building wall.

(d) **Height.** No building shall exceed twenty feet (20') in height.

(e) **Building Placement.** Screening and building location shall be such that overhead doors are not visible from off the site.

(2) **Landscaping and Screening.** Visual separation is desirable between mini-storage warehouse facilities and adjacent land uses or development. Landscaping shall provide a physical and visual separation.

(a) High shrubs shall be spaced at a maximum distance of six (6) feet on center to form a screen six (6) feet high.

(b) One Landscape Tree is required per fifty (50) lineal feet of landscaped area or as appropriate to provide a tree canopy over the landscaped area.

(c) Ground cover plants shall fully cover the remainder of the landscaped area.

(d) River rock or similar non-organic materials shall not be substituted for the landscaping area or used in combination with the minimum landscaping requirements in the zone or this section.

(3) **Fencing.** Fencing is required for additional screening and as a security measure. Fencing shall comply with Section 29.408(2), and comply with the following:

(a) Fencing shall provide a five (5) foot minimum setback from the property line.

(b) Fencing shall be wrought iron or similar material with brick or stone columns spaced at a maximum of fifty (50) feet on center. Landscaping, as required in Section 29.1308(2)(a), shall be provided on the exterior side of the fence facing adjacent land uses. Fences containing barbed wire, electric charges, or sharp materials are prohibited.

(c) Where a setback abuts a residential zone, a six (6) foot masonry wall is required. Landscaping, as required in Section 29.1308(2)(a), shall be provided on the exterior side of the fence facing adjacent land uses. Masonry walls must be designed and constructed to facilitate maintenance and not to modify natural drainage in such a way as to endanger adjacent property.
(4) **Building Access.**

(a) Doors providing access to individual storage units shall not be permitted on the front yard side of the building, nor on any side abutting a public street or a residential district.

(b) Storage units and drive aisles shall be sited so a truck or car parked at a unit cannot trap another vehicle and prevent it from leaving the facility.

(c) Vehicular aisles providing access to storage units on both sides of the aisles, whether interior or exterior, shall not be less than twenty (20) feet wide.

(d) Aisles providing access to storage units on only one side of the aisle shall not be less than twenty (20) feet wide provided that there is more than one aisle available for circulation around a building.

(e) Loading docks shall not be permitted as part of the storage building.

(5) **Signage.**

(a) The only types of signs permitted are wall signs and monument signs, and shall adhere to the following:

(i) **Wall-mounted Signs.**

   A. Only one wall-mounted sign is permitted along a street frontage.

   B. The number of wall-mounted signs shall not exceed two (2) signs per facility.

(ii) **Monument Signs.**

   A. Only one monument sign is permitted along a street frontage per facility.

   B. The number of monument signs shall not exceed two (2).

   C. The base of a monument sign shall be landscaped with ground cover plants at a minimum of three (3) feet from the base. River rock or similar non-organic materials shall not be substituted for the landscaping area or used in combination with ground cover plants.

(b) **Signage Size Restrictions.**

   (i) A wall sign is a sign that is displayed by being affixed to the outside of an exterior wall of a building. Wall signs shall be affixed to only those walls that face a street. A wall sign shall be no larger than thirty-two (32) square feet.

   (ii) Monument signs shall be no larger than sixty-four (64) square feet, excluding the base.

(c) **Signage Height Restrictions.** The maximum permissible height for a monument sign is eight (8) feet, including the sign base; that is, the tope of a monument sign shall be no more than eight feet above the grade of the site on which it is erected.

(d) **Signage Lighting Restrictions.**

   (i) The face of an illuminated sign shall have a dark background.

   (ii) The lighting of both wall signs and monument signs shall be projected downward.

   (iii) Signs that flash light in any manner are prohibited.

   (iv) Internally lighted signs and computerized/digital scrolling signs are prohibited.

(6) **Lighting.** Lighting shall be in accordance with Section 29.411, and with the following conditions:

(a) Night lighting and security lighting shall be sensitively designed to ensure no off-site glare is directed to neighboring parcels and that the overall intensity of the site lighting is not in violation of the standards for Section 29.411 or unreasonably intrusive on the use of adjoining property. All lights shall be shielded to direct light onto the site and away from adjacent property.

(b) Building mounted sconces shall be used instead of freestanding light poles wherever possible.

(c) When a mini-storage facility is adjacent to a residential zone, pole mounted lights shall be turned off between 9:00 PM and 6:00 AM.

(7) **Parking.** Parking shall be situated in conjunction with an office or management structure, for use by staff, service or delivery personnel, or prospective tenants.

(a) For developments less than or equal to two hundred (200) storage units, a minimum of five (5) off-street parking spaces shall be provided.

(b) For developments greater than two hundred (200) storage units, five (5) off-street parking spaces shall be provided on the property for the first two hundred (200) units, and one additional parking space is required for every one hundred (100) storage units thereafter.
(c) Except for purposes of loading and unloading, there shall be no parking or storage of trucks, trailers, and moving vans.

(8) **Prohibited Uses.**

(a) The following uses and activities shall be prohibited:

(i) Any business activity other than the rental of storage units, including sales and transfer-storage enterprises that utilize vehicles as part of said business is prohibited.

(ii) Servicing or repair of motor vehicles, boats, trailers, lawnmowers, or similar equipment is prohibited.

(iii) Outdoor storage of boats, vehicles, or other materials is prohibited. All items stored on the property shall be located within buildings.

(iv) Storage of hazardous, toxic, or volatile substances is prohibited.

(v) Residential uses, other than one (1) unit for a 24-hour facility caretaker not to exceed 1,200 square feet.

(9) **Changes.** Minor changes to the approved Site Development Plan may occur after staff of the Department of Planning and Housing has determined that the proposed changes are minor in nature, and revised plans have been provided to the Department for the purposes of keeping the Site Development Plan current.

(a) Minor changes are defined as changes that:

(i) Do not constitute a change in land use of the project; or layout and design;

(ii) Do not increase the density or intensity of use, the number of buildings, or change in number of storage units.

(iv) Do not change the overall landscape design;

(v) Do not change the height or placement of buildings, or other major features.

(Ord. No. 3794, 08-24-04)

**Sec. 29.1309 SOLAR ENERGY SYSTEMS.**

**Purpose.** Solar energy is a clean, readily available and renewable energy source. This section establishes regulations to facilitate the installation and construction of Solar Energy Systems so that systems are safe, effective, and efficient, as well as harmonious with the character of the adjacent area where located. The provisions of this Section apply to the placement, construction and use of “solar energy systems” as defined in this chapter.

The following standards shall apply to the development of Solar Energy Systems:

(1) **Allowed Use.** Solar Energy Conversion is an allowed accessory use in all zoning districts pursuant to the standards in this section.

(2) **District Classifications.**

(a) Residential Properties. As used in this subsection residential properties include those zoned RL, RM, UCRM, RH, RLP, FS-RL, FS-RM, and also F-VR, F-PRD, and S-SMD.

(b) Non-residential Properties. As used in this subsection, all properties not zoned in the residential classifications above shall be classified as non-residential property.

(3) **Freestanding Solar Energy Systems:**

(a) Setbacks

(i) Front. Solar Energy Systems shall not be located within any required front setback.

They may be located in a front yard (beyond the required front setback line) subject to approval of a Solar Energy System Special Use Permit by the Zoning Board of Adjustment.

(a) Front yard, as used in this section, is the space between the principal building on the lot and the front lot line. See definition and graphic in Section 29.406(7)(e).

(ii) Side and Rear. Six (6) feet from all property lines and other structures.

(iii) Corner and Through Lots. The definition and requirements for a front yard in Section 29.406(7)(e) shall prevail when the subject lot is not an interior lot.

(iv) Easements, Utilities, Rights of Way. No portion of any solar energy system shall extend into any easement, right of way or public way, regardless of above stated exceptions and regulations for
setback and yard requirements.

(b) Location. Systems shall be located on the same lot as the building being served.
Where there is no principal building, the system is not allowed.

(c) Height. Six (6) feet in height maximum in side and rear yards. Four (4) feet in height maximum in front yards. There is an exception for systems in non-residential zoning districts, a SES may be twenty (20) feet in height and subject to setbacks if placed over a parking area. Otherwise, height and setback limits are the same as in residential zoning districts. The height shall be measured from the grade at system base to the highest peak, including the highest position of any adjustable system.

(Ord. 4236, 12-8-15)

(d) Freestanding System Size:

(i) Residential Properties. Systems shall not exceed one-tenth (1/10) the footprint of the principal building served or one hundred (100) square feet, whichever is greater.

(ii) Non-Residential Properties. Systems shall not exceed the footprint of the principal building served.

(Ord. 4236, 12-8-15)

(iii) Lot Coverage. Freestanding systems shall be included in the maximum lot Coverage or minimum landscaped area calculations except that up to 40 square feet is allowed regardless of total lot coverage.

(iv) Measurement of the system shall be based upon the area of the solar receiving panel, regardless of the adjustment angle of the panel.

(v) A freestanding system, or portion thereof, not visible from abutting street rights of way at any time of the year is exempt from maximum size and coverage calculations.

(4) Residential Attached Solar Energy Systems are permitted to be located on the roof or attached to a building, subject to all of the following:

(a) In the case of wall mounting, no part of the system shall project more than five (5) feet From the building.

(b) In the case of front wall mounting, attached systems are only allowed subject to approval of a Solar Energy System Special Use Permit by the Zoning Board of Adjustment. The front wall, as used in this section is defined as any wall coincident with the front yard as defined in Section 29.406(7) (e).

(c) No part of the system shall extend more than 50 percent into any required side or rear setback. No part of the system shall extend into any required front setback.

(d) No portion of any solar energy system shall extend into any easement, right of way or public way, regardless of above stated exceptions and regulations for setback and yard requirements.

(e) Systems shall not exceed the maximum height in the zone, for the structure to which it is attached except for projections allowed in (g) below.

(Ord. 4236, 12-8-15)

(f) The building must have a conforming principal use.

(Ord. 4236, 12-8-15)

(g) Roof attached systems may be mounted on principal and accessory building roofs provided they conform to the maximum height standards established in the zone. Additionally, systems shall be mounted parallel to the pitch of the roof and be no higher than 6 inches from the roof surface except that systems not meeting the flush mount requirement may be allowed subject to approval of a Solar Energy System Special Use Permit, provided they do not project more than 5 feet from the roof surface. A system or a portion of a system not visible from abutting street rights of way is exempt from the flush mount requirement, but no part of the system shall project higher than 5 feet from the roof surface.
(h) Section 29.401(5), pertaining to height exceptions for architectural features and projections shall not apply.

(i) Section 29.402(2), pertaining to exceptions for projections into required setbacks shall not apply.

(j) There is no surface area size limitation on attached systems, unless otherwise required by a Solar Energy System Special Use Permit.

(5) **Non-Residential Attached Solar Energy Systems** are permitted on the roof of, or attached to a non-residential building, subject to all of the following:

(a) For wall mounting, no part of the system shall project more than five (5) feet from the wall.

(b) For roof mounting, no part of the system shall project more than ten (10) feet from the roof.

(Ord. 4236, 12-8-15)

(c) No part of the system shall extend more than 50 percent into any required side or rear setback. No part of the system shall extend more than 20 percent into any required front setback.

(Ord. 4236, 12-8-15)

(d) No part of the system shall exceed the maximum height permitted in the zone, for the structure to which it is attached except for the projections allowed in (b) and (c) above.

(Ord. 4236, 12-8-15)

(e) The building must have a conforming principal use.

(f) Section 29.401(5), pertaining to height exceptions for architectural features and projections shall not apply.

(g) Section 29.402(2), pertaining to exceptions for projections into required setbacks shall not apply.

(6) **Zoning Permit-Exempt systems.** The following systems are exempt from zoning permit requirements:

(a) Systems in which the cumulative surface area of the system is four (4) square feet or less

(b) Systems or building parts integral to the structure, that are passive (Passive Solar Energy Systems) in nature and do not project from the structure

(7) **Code Compliance.** Solar Energy Systems shall comply with all applicable building codes and are not exempt from any such inspections and permits. The applicant or designee is encouraged to meet with the regulatory and utility agencies before purchasing equipment to understand feasibility and code requirements prior to applying for a zoning permit.

(8) **Solar Access.** A property owner who has installed or intends to install a solar energy system shall be responsible for negotiating with other property owners in the vicinity for any necessary solar easement. The granting of a zoning permit or Special Use Permit by the City does not constitute solar access rights.

(9) **Historic Districts.** All solar energy systems within a historic overlay district are not permitted unless a Certificate of Appropriateness has been granted by the Historic Preservation Commission pursuant to Chapter 31, Municipal Code. None are exempt.

(10) **Application for Solar Energy System Zoning Permit (SES ZP)**

The Planning & Housing Director shall prescribe the application form and any necessary submittal requirements, as needed, to determine compliance with this section. The Zoning Permit application shall include, but not be limited to:

(a) A plot plan drawn to scale, showing:

(i) Existing structures on the lot

(ii) Proposed system

(iii) Property lines

(iv) Setbacks of existing and proposed structures

(v) Rights of way

(vi) Utility diagram applicable to proposed system

(b) Elevation views and dimensions

(c) Manufacturer’s photographs

(d) Manufacturer’s spec sheet including capacity
(e) Demarcation of dimensions. For systems claiming exemption due to “no-visibility” from abutting street rights of way, the applicant shall place demarcation posts, rods or balloons and schedule an appointment for staff to confirm no visibility.

(f) Certificate of Appropriateness from Historic Preservation Commission, if applicable

(11) Issuance of Solar Energy System Zoning Permit (SES ZP)
The Planning & Housing Director shall review the permit application. If the application is compliant, an approval shall constitute a Solar Energy System Zoning Permit (SES ZP) and the applicant shall then be authorized to seek any other necessary building permits and approvals before installation. Any decision of denial shall be in writing and supported by substantial evidence contained in a written record. The Zoning Permit can be revoked if there is evidence that the system does not comply with the permit.

(12) Solar Energy System Special Use Permit (SES SUP):
(a) Application. The Planning & Housing Director shall prescribe the application form and any necessary submittal requirements, as required in this Section and Section 29.1503. The Director can waive any of the submittal requirements of a SES SUP upon request of the applicant, which the Director deems not applicable.

(b) Procedure. The procedure shall follow Section 29.1503(a), Special Use Permits. Sections 29.1503(b-d), (Residential Zone Standards, Commercial Zone Standards and Functional Families) shall not apply to the review of SES SUP applications.

(c) Review Criteria. To approve a SES SUP, the Zoning Board of Adjustment must find that the proposal conforms to all of the following five criteria (i-v) and either vi. OR vii.:

(i) The system will be harmonious with the character of the neighboring properties as they exist on the date of approval, which is defined as properties within 200 feet of the system property

(ii) Access to open space (air and light) from the neighboring properties is not significantly reduced

(iii) If in a historic district, a Certificate of Appropriateness has been granted by the Historic Preservation Commission

(iv) The predominate pattern of building placement, height, orientation and scale among the neighboring properties and general area beyond the neighboring properties will not be negatively impacted or altered by the system

(v) The system conforms with all other city, state and federal regulations

AND EITHER

(vi) Unique topography, vegetation or lot conditions exist which help to shield the system from the view of neighboring properties and from the street.

OR

(vii) Placement of the principal building allows the system to be located and operated in a way that helps to shield the system from the view of neighboring properties and from the street.

(d) Review and Approval. The Zoning Board of Adjustment can request additional information if insufficient information is presented to determine conformance with the criteria. If approved, the SES SUP can be revoked after a public hearing, if there is evidence that the system does not comply with the provisions of the Special Use Permit. The Board may impose conditions as it deems necessary for the general welfare of the public and for ensuring that the intent and objectives of this Ordinance will be observed. The application shall include the same information required for a SES ZP, and shall also include statements addressing how the application meets the criteria of subsection C above.

When a Solar Energy System Special Use Permit is approved, it shall constitute the equivalent of the Solar Energy System Zoning Permit.

(13) Site Development Plan Exemption. A Freestanding Solar Energy System is exempt from Site Development Plan requirements if the surface area of the system is less than 150 square feet as measured in this Section.

(14) Exception Provisions Not Applicable. An Exception for a Minor Area Modification, as defined in Section 29.1506 shall not be allowed or applicable to Solar Energy Systems.

(15) Interconnection: Interconnected Solar Energy Systems are allowed subject to the standards in this section. The applicant is encouraged to work with the applicable utility before purchasing equipment.
(Ord. 4236, 12-8-15)

(16) **Abandonment:** System use shall be determined abandoned under the provisions of Section 29.307, which requires notice by the Zoning Enforcement Officer to the property owner. The system shall be removed within 90 days of the termination date, at the cost of the property owner.

(17) **Signage:** Any signs on the system shall be limited to one square foot.

(18) **Commercial systems:** A Commercial Solar Energy System is not allowed in the City of Ames.

(19) **Appearance.** The property owner of any solar energy system shall maintain such system in a safe and attractive manner, including replacement of defective parts, painting, cleaning, and other acts that may be required for the maintenance and upkeep of the function and appearance of such a system. The owner shall also maintain the ground upon which the system is located in an orderly manner, such that it is free of debris, tall grass and weeds, and any associated structures remain quality in appearance.

(20) **Underground Wire Requirement.** Wires shall be underground or otherwise concealed, to the greatest extent possible, where crossing open areas.

(21) **Industry standard:** Before any Solar Energy System zoning permit is issued for a Solar Energy System, evidence shall be shown that the system and parts meet industry standards, such as Underwriters Laboratories (UL), or another standard applicable to the technology and materials of the system.

(Ord. No. 4013, 11-10-09)

Sec. 29.1310. WIND ENERGY SYSTEMS.

(1) **Intent.**

(a) **Purpose.** Wind energy is a clean, readily available and renewable energy source. This section establishes regulations to facilitate the installation and construction of Wind Energy Systems so that systems are safe, effective, and efficient and have minimal impact on surrounding development. The provisions of this Section apply to the placement, construction and use of “wind energy systems” as defined in this section.

(2) **Definitions.** See Sec. 29.201

(3) **General Regulations.**

(a) A Small Wind Energy System (SWES) shall be allowed only as an accessory use to a permitted principal use on the same legalized lot. Commercial systems are not allowed. Non-electric systems are not regulated by this chapter.

(b) **Zoning:** SWES are allowed only in PRC (Planned Regional Commercial), HOC (Highway-Oriented Commercial), GI (General Industrial) and PI (Planned Industrial) zoning districts subject to the provisions contained herein and elsewhere within the Municipal Code.

(4) **Permit Required:**

(a) It shall be unlawful to construct, erect, install, alter or locate any SWES within the City of Ames, unless both a SWES Zoning Permit and a Building Permit have been obtained. The Zoning Permit may be revoked by the City of Ames any time the approved system does not comply with the rules set forth in this Section.

(b) After a Zoning Permit has been issued, the owner/operator of the SWES shall obtain a building permit from the City of Ames Building Official prior to commencing construction of the system. Authorization for interconnection is independent of the approval for the SWES zoning and building permits. If an interconnected system is planned, the utility’s interconnection requirements must also be satisfied, and no building permit shall be issued until the Building Official has been provided with the utility’s written authorization.

(c) In order to obtain a SWES Zoning Permit, a SWESZP application must be submitted to the Planning and Housing Department, in conformance with the Minor Site Development process and submittal requirements. The Planning and Housing Director, upon request of the applicant, may waive any of the submittal requirements that he or she deems not applicable. The Director may also require additional information as minimally needed to determine compliance with the Municipal Code. In addition to the requirements of Section 29.1502, the following information shall be submitted:

(i) Manufacturer specifications of the proposed system

(ii) Photographs or renderings of the proposed system

(iii) Elevation drawings of the proposed system, including as applicable:

(a) Elevation of building to which attached

(b) Distance to other objects on the property, such as trees, power lines and buildings
(5) **Tower:** Only monopole towers are permitted for freestanding Small Wind Energy Systems in the HOC, PRC, and PI zones. Either monopole or lattice towers are permitted in GI zones. Guyed towers or any other types of towers are not permitted.

(6) **Color and Surface:** Freestanding SWES shall be a neutral color such as white, sky blue, or light gray. Supporting structures for building mounted SWES shall match the color of the building on which they are mounted. Surfaces of the SWES and building mounted supporting structures shall be non-reflective.

(7) **Lighting:** No lights shall be installed on the tower, unless required to meet FAA guidelines.

(8) **Signage:** Any signs on the system shall be limited to one square foot.

(9) **Climbing Apparatus:** The tower must be designed to prevent climbing within the first ten feet (10’).

(10) **Maintenance:** Facilities shall be well maintained in accordance with manufacturer’s specifications. The property owner of any SWES shall maintain such system in a safe and attractive manner, including replacement of defective parts, painting, cleaning, and other acts that may be required for the maintenance and upkeep of the function and appearance of such a system. The owner shall also maintain the ground upon which the system is located in an orderly manner, such that is free of debris, tall grass and weeds, and any associated structures remain quality in appearance.

(11) **Displacement of Parking Prohibited:** The location of the SWES shall not result in the net loss of required parking or landscaping as specified elsewhere in the zoning code.

(12) **Utility Notification:** The City of Ames shall notify the utility of receipt of a SWESZP application to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this notification requirement. This is only to inform the utility. A response from the utility is not required to approve or deny the SWESZP application.

(13) **Interconnection:** The SWES, if not off-grid, shall meet the requirements for interconnection and operation as set forth by the utility. Off-grid systems shall be exempt from this requirement.

(14) **Restriction on use of Electricity Generated:** A SWES shall be used exclusively to supply electrical power to the owner for on-site consumption, except that excess electrical power generated by the SWES and not presently needed for use by the owner may be used by the Utility in accordance with laws and regulations governing interconnection and utility approval.

(15) **Noise and Vibration:** A SWES shall be designed, installed and operated so that any noise or vibration has minimal impacts on adjacent properties. No noise or vibration above the ambient sound level shall be detected from a property within a zoning district where an SWES is not allowed. A SWES shall utilize only manufacturer designs in which the turbine sound level, when installed according to manufacturer’s specifications, shall not exceed 55 decibels, at the base of the turbine tower. Additionally, a SWES shall comply with noise control regulations in Chapter 16 of Municipal Code.

(16) **Low Frequency Sound:** No SWES or combination of SWESs shall emit low frequency sound at or below 20 Hertz.

(17) **Shadow Flicker:** No SWES shall be installed and operated so to cause a shadow flicker to fall on or in any residentially zoned dwelling unit existing at such time that the application to install a SWES is received by the city.

(18) **Safety Controls:** Each SWES shall be equipped with both an automatic and manual braking, governing, or feathering system to prevent uncontrolled rotation, over-speeding, and excessive pressure on the tower structure, rotor blades, or turbine components. Said system shall also be capable of stopping power generation in the event of a power outage so as to prevent back feeding of the grid.

(19) **Shut Off:** A clearly marked and easily accessible power disconnect will be required as determined by the Building Official.

(20) **Wind Access Easements:** The enactment of this chapter or granting of an SWES Zoning Permit does not
constitute the granting of an easement by the City of Ames. The SWES owner/operator shall have the sole responsibility to acquire any easements, or similar documentation to assure and/or protect access to sufficient wind as may or may not be necessary to operate the SWES.

(21) **Engineer Certification:** Submittal requirements for SWES building permits shall be determined by the Building Official. The Building Official, upon review of the proposed SWES, may require certification by an Iowa Professional Engineer, prior to completing review or issuing building permits.

(22) **Installation:** Installation must be done according to manufacturer’s recommendations. All wiring, electrical, and construction work must be completed according to applicable codes. All electrical components must meet industry standards as determined by the Building Official and the utility.

(23) **Abandonment:** System use shall be determined abandoned under the provisions of Section 29.307, which requires notice by the Zoning Enforcement Officer to the property owner. The system shall be removed within 90 days of the termination date, at the cost of the property owner.

(24) **Bulk Regulations.**
   
   (a) **Setbacks:**
   
   (i) The minimum distance between any Freestanding SWES and any property line shall be a distance that is equivalent to 1.1 times the total system height. The setback shall be measured from the property line to the closest point of the swept area.
   
   (ii) The required setback for any Building-Mounted SWES shall be equal to the required setback of the principal building to which the SWES is to be attached at such time that the application to install a building mounted SWES is received by the city. Section 29.402(2) regarding allowable minor projections into required setbacks is not applicable.

(25) **Maximum Height:** Height shall be measured from the ground to the top of the tower, including the wind turbine generator and blades. Known as the “total system height,” as defined in this section.

   (a) For lots up to three (3) acres, the maximum height shall be 80 feet.
   
   (b) For lots of three (3) to seven (7) acres, the maximum height shall be 100 feet.
   
   (c) For lots of more than seven (7) acres the maximum height shall be 120 feet.
   
   (d) Building-Mounted SWES may project a maximum of 10 feet higher than the point of attachment to the building on which they are attached, based upon the definition of total system height in this section. However, the combined heights of the building and the system may not exceed the maximum principal building height by more than five (5) feet. Section 29.401(5) regarding maximum heights for allowable roof projections is not applicable.

(26) **Minimum Lot Size:** None.

(27) **Ground and Swept Area Clearance:** No portion of the SWES Swept Area shall be closer than 10 feet to the ground. Clearance of 15 feet is required over parking areas, driveways, sidewalks, decks, and balconies. No portion of the Swept Area shall extend closer than 20 feet horizontally to the nearest tree, structure, or above ground utility facility.

(28) **Location:**

   (a) No part of a SWES shall be located within or over drainage, utility, or other established easements.
   
   (b) No SWES shall be constructed, altered, or maintained so as to project above any of the imaginary airspace surfaces described in FAR Part 77 of the FAA guidance on airspace protection.
   
   (c) No SWES shall be constructed so that any part thereof can extend within 20 feet laterally of an overhead electrical power line (excluding secondary electrical service lines or service drops). The setback from underground electric distribution lines shall be at least five (5) feet.
   
   (d) No part of the SWES, including the swept area, shall be within or overhang any portion of the property that is within a required building setback.

(29) **Number of Systems per Lot/Parcel:**

   (a) Additional building mounted SWES may be allowed within the parameters of this section.
   
   (b) In no case shall the generating capacity of aggregated SWES exceed anticipated energy needs for on-site consumption, based upon analysis from the utility.
   
   (c) Vertical axis (Building-Mounted or Freestanding): No limit on number.
   
   (d) Horizontal axis (Building-Mounted): No limit on number.
   
   (e) Horizontal axis (Freestanding): Limited to a maximum of two (2) per acre. At least one is allowed.
per lot/parcel, but not more than two (2) per acre. Systems collocated on existing poles or towers that serve another primary purpose are exempt from the two (2) per acre limit.

(Ord. No. 4040, 6-22-10)

Sec 29.1311. Temporary Concrete and Asphalt Batch Plants.

(1) It is recognized that certain large private and public projects require the establishment of temporary facilities for the preparation of Portland cement concrete or asphaltic cement concrete. These facilities have been constructed rarely within or near the City and it is anticipated that they will continue to be a rare occurrence. However, it is necessary to accommodate them on a temporary basis and in a manner that will reduce their expected impacts on surrounding properties.

(2) The Zoning Board of Adjustment can authorize a Special Use Permit for a temporary concrete or asphalt batch plant only after a public hearing in accordance with the submittal and approval procedures set out in Section 29.1503.

(3) The Special Use Permit shall not be granted:
   a. If the tract, parcel or lot on which the proposed use is located is less than 500 feet from a tract, parcel or lot containing a residential use.
   b. If the tract, parcel or lot on which the proposed use is located is less than 250 feet from a tract, parcel or lot containing a commercial use.
   c. For more than six months although an approved use can receive a single extension of up to an additional three months by the Board provided the initial approval has not expired.

(4) Additional Requirements
   a. All temporary principal and accessory structures and storage of materials shall meet the setbacks of the zone in which it is located. The temporary establishment of such a use is exempt from the General Development Standards of Article 4 of the Zoning Ordinance. However, the Board may apply such standards, or any other appropriate standard, as a condition of approval as it seems necessary for the general welfare, for the protection of individual property rights, and for ensuring that the intent and objectives of this Ordinance will be observed.

(Ord. No. 4085, 09-27-11)

Sec 29.1312. Delayed Deposit Services.

(1) Words and Terms Defined
   a. Delayed Deposit Service Provider: Means every person who for a fee does either of the following:
      (i) Accepts a check dated subsequent to the date it was written.
      (ii) Accepts a check dated on the date it was written and holds the check for a period of time prior to deposit or presentment pursuant to an agreement with, or any representations made to, the maker of the check, whether express or implied.

(2) The following shall apply to delayed deposit service providers:
   a. Location: No person, whether as principal or agent, clerk, or employee, either himself or any other person, or as an officer of any corporation, or otherwise, shall place, maintain, own, or operate any delayed deposit service business in the following locations:
      (i) Within 1000 feet of any parcel of real property upon which is located any of the following facilities:
         a. Existing delayed deposit service facilities;
         b. A children’s daycare, nursery school, preschool, elementary school, junior high school, senior high school;
         c. Park or recreational facilities operated and improved by the city, story county, the story county conservation board or the state of Iowa;
(ii) Within 1000 feet of any residentially zoned or used property, or any property designated on the city’s land use policy plan as residential oriented;
   a. Within 1000 feet of any arterial street;
   b. In the highway-oriented commercial zones;
   c. In gateway overlay zoning districts.

(3) Measurement of distance:
The distance between any two delayed deposit service facilities shall be measured in a straight line, without regard to intervening structures, from the closest exterior structural wall of each business. The distance between any delayed deposit service facility and any daycare, school, public park, or any property designated for residential use or used for residential purposes shall be measured in a straight line, without regard to intervening structures, from the closest property line of the delayed deposit service facility to the closest property line of any daycare, school, public park or any property designated for residential use or used for residential purposes. The distance between any delayed deposit service facility and any arterial street shall be measured in a straight line, without regard to intervening structures, from the closest property line of the delayed deposit service facility to the closest edge of the arterial street pavement.

(Ord. No. 4111, 5-8-12)

Section 29.1313. Clubhouses

(1) Location on a lot.
   a. The clubhouse shall meet the minimum principal building setbacks established in the Zone Development Standards table for that Zone.
   b. Clubhouses shall be located off a main access to the development near a public street and shall allow for access and visibility around the structure for safety purposes.
   c. Primary access to a clubhouse shall be oriented to a parking lot or to a primary pedestrian walkway circulating through a site.

(2) General Requirements.
   a. Area supporting a clubhouse shall not be excluded from minimum lot area requirements for calculating density.
   b. Clubhouses shall not be used as a dwelling unit or for short term lodging.
   c. Clubhouse construction shall not precede the construction of the principal building on the same lot.
   d. Clubhouses shall be compatible with adjacent residential buildings in the development through similarities in scales, proportions, form, architectural detailing, materials, color and texture.

(Ord. No. 4167, 12-17-13)
CHAPTER 9

FLOOD PLAIN ZONING REGULATIONS

Sec. 9.1. STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSE.
   (1) Statutory Authorization. The legislature of the State of Iowa has, in Chapter 414 Code of Iowa,
delegated the responsibility to cities to enact zoning regulations to secure safety from flood and to promote health and
the general welfare.
   (2) Findings of Fact.
      (a) The flood hazard areas of Ames are subject to periodic inundation which can result in loss
of life and property; health and safety hazards; disruption of commerce and governmental services; extraordinary public
expenditures for flood protection and relief; and impairment of the tax base; all of which adversely affect the health,
safety, and general welfare of the community.
      (b) These flood losses, hazards and related adverse effects are caused by (i) the occupancy of
flood hazard areas by uses vulnerable to flood damages which create hazardous conditions as a result of being
inadequately elevated or otherwise protected from flood, and (ii) the cumulative effect of flood plain construction on
flood flows, which causes increases in flood heights and flood water velocities.
      (c) This ordinance relies upon engineering methodology for analyzing flood hazards which is
consistent with the standards established by the Department of Natural Resources. This methodology consists of a series
of interrelated steps including:
         (i) Determination of flood magnitudes and the corresponding flood frequencies by
statistical and engineering calculations which permits a consideration of such flood factors as expected frequency of
occurrence, area inundated, and depth of inundation.
         (ii) Calculation of water surface profiles based upon a hydraulic engineering analysis
of the capability of the stream channel and overbank areas to convey flood flows.
         (iii) Computation and delineation of a floodway, an area which must be reserved (with
no additional obstructions) for conveyance of flood flows so that flood heights and velocities will not be substantially
increased by future encroachment on the flood plain.
   (3) Purpose. It is the purpose of this ordinance to promote the public health, safety, and general welfare
by minimizing those flood losses described in Section 9.1(2) with provisions designed to:
      (a) Reserve sufficient flood plain area for the conveyance of flood flows so that flood heights
and velocities will not be increased by greater than one (1) foot.
      (b) Restrict or prohibit uses which are dangerous to health, safety or property in times of flood
or which cause excessive increases in flood heights or velocities.
      (c) Require that uses vulnerable to floods, including public utilities which serve such uses, be
protected against flood damage at the time of initial construction or substantial improvement.
      (d) Protect individuals from buying lands which are unsuited for intended purposes because of
flood hazard.
      (e) Assure that eligibility to purchase flood insurance through the National Flood Insurance
Program is maintained for property owners in the community.

Sec. 9.2. GENERAL PROVISIONS.
   (1) Lands to Which Ordinance Applies. This ordinance shall apply to all lands within the jurisdiction
of the City of Ames, Iowa, shown on the Official Flood Plain Zoning Map to be within the “Special Flood Hazard
Areas Subject to Inundation by the 1% Annual Chance Flood”.

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(3) Rules for Interpretation of District Boundaries. The boundaries of the zoning district shall be determined by scaling distances on the Official Flood Plain Zoning Map. Where interpretation is needed as to the exact location of the boundaries of the district as shown on the Official Zoning Map, the Flood Plain Administrator shall make the necessary interpretation, provided however, that the Flood Plain Administrator may require the owner to provide a topographic survey of the land to assist in that interpretation. The person contesting the location of the district boundary shall be given a reasonable opportunity to present his or her case and submit technical evidence.

(4) Compliance. No structure or land shall hereafter be used and no structure shall be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations which apply to uses within the jurisdiction of this ordinance.

(5) Abrogation and Greater Restrictions. It is not intended by this ordinance to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

(6) Interpretation. In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State statutes.

(7) Warning and Disclaimer of Liability. The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that areas outside the flood plain districts or land uses permitted within such districts will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Ames, Iowa, or any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(8) Severability. If any section, clause, provision or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby.

Sec. 9.3. ESTABLISHMENT OF ZONING OVERLAY DISTRICTS.

The flood plain areas within the jurisdiction of this ordinance are hereby divided into the following zoning overlay districts:

(1) Floodway Overlay District - The Floodway Overlay District includes the areas shown as “Floodway Areas in Zone AE” on the Official Flood Plain Zoning Map.

(2) Floodway Fringe Overlay District - The Floodway Fringe Overlay District includes the areas shown as “Zone AE excluding the Floodway Areas in Zone AE” on the Official Flood Plain Zoning Map.

(3) General Flood Plain Overlay District – The General Flood Plain Overlay District includes the areas shown as “Zone A” on the Official Flood Plain Zoning Map.

Within these districts, all uses not allowed as Permitted Uses or authorized as Conditional Uses are prohibited unless a use variance to the terms of this ordinance is granted after due consideration by the Zoning Board of Adjustment.

Sec. 9.4. FLOODWAY OVERLAY DISTRICT.

(1) Permitted Uses. The following uses shall be permitted within the Floodway Overlay District to the extent they are not prohibited by any other ordinance or underlying zoning district regulation, and provided they do not include placement of structures, factory-built homes, fill or other obstruction the storage of materials or equipment, excavation, or alteration of a watercourse (except as needed for public infrastructure):

(a) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.
(b) Industrial-commercial uses such as loading areas, parking areas, airport landing strips.
(c) Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.
(d) Residential uses such as lawns, gardens, parking areas and play areas.
(e) Such other open-space uses similar in nature to the above uses.
(f) Public infrastructure such as bridges; roads; trails; culverts; fill, excavation or grading; channel changes, relocations or placement of riprap or similar material; provided that any required permits from the Iowa Department of Natural Resources or Army Corps of Engineers have been approved. Such uses must also meet the applicable provisions of the Floodway Overlay District Performance Standards. This also includes any activity defined as maintenance under the nationwide permit issued by the Army Corps of Engineers.

(Ord. No. 4086, 09-27-11)

(2) Conditional Uses. The following uses which involve structures (temporary or permanent), fill, or storage of materials or equipment may be permitted only upon issuance of a Conditional Use Permit by the Zoning Board of Adjustment as provided for in Sec. 9.7. Such uses must also meet the applicable provisions of the Floodway Overlay District Performance Standards.
(a) Uses or structures accessory to open-space uses.
(b) Circuses, carnivals, and similar transient amusement enterprises.
(c) Drive-in theaters, new and used car lots, roadside stands, signs, and billboards.
(d) Extraction of sand, gravel, and other materials.
(e) Marinas, boat rentals, docks, piers, wharves.
(f) Utility transmission lines, underground pipelines.
(g) Other uses similar in nature to uses described as permitted uses or listed conditional uses, which are consistent with the performance standards of Subsection (3) below and the general spirit and purpose of this ordinance.

(3) Performance Standards. All Floodway Overlay District uses allowed as a Permitted or Conditional Use shall meet the following standards:
(a) No use shall be permitted in the Floodway Overlay District that would result in any increase in the base flood elevation level. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands. Evidence required will be a hydraulic study performed by a licensed professional engineer for the area of drainage involved.

(Ord. No. 4087, 09-27-11)

(b) All uses within the Floodway Overlay District shall:
(i) Be consistent with the need to minimize flood damage.
(ii) Use construction methods and practices that will minimize and resist flood damage.
(iii) Use construction materials and utility equipment that are resistant to flood damage.
(c) No use shall affect the capacity or conveyance of the channel or floodway or any tributary to the main stream, drainage ditch, or any other drainage facility or system.
(d) Structures, buildings and sanitary and utility systems, if permitted, shall meet the applicable performance standards of the Floodway Fringe Overlay District and shall be constructed or aligned to present the minimum possible resistance to flood flows.
(e) Buildings, if permitted, shall have a low flood damage potential and shall not be for human habitation.
(f) Storage of materials or equipment that are buoyant, flammable, explosive or injurious to human, animal or plant life is prohibited. Storage of other material may be allowed if readily removable from the Floodway Overlay District within the time available after flood warning.
(g) Watercourse alterations or relocations (channel changes and modifications) must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.
Any fill allowed in the floodway must be shown to have some public beneficial purpose and shall be limited to the minimum amount necessary.

Pipeline river or stream crossings shall be buried in the streambed and banks or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering or due to the action of flood flows.

It shall be the responsibility of adjacent property owners to maintain the location and carrying capacity of the floodway adjacent to their property.

Sec. 9.5. FLOODWAY FRINGE OVERLAY DISTRICT.

(1) Permitted Uses. All uses within the Floodway Fringe Overlay District shall be permitted to the extent that they are not prohibited by any other ordinance or underlying zoning district and provided they meet applicable performance standards of the Floodway Fringe Overlay District.

(2) Performance Standards. All uses must be consistent with the need to minimize flood damage and shall meet the following applicable performance standards.

(a) All structures shall

(i) be adequately anchored to prevent flotation, collapse or lateral movement of the structure,

(ii) be constructed with materials and utility equipment resistant to flood damage, and

(iii) be constructed by methods and practices that minimize flood damage.

(b) Residential buildings. All new or substantially improved residential structures shall have the lowest floor, including basements, elevated a minimum of three (3) feet above the base flood elevation level. Construction shall be upon compacted fill which shall, at all points, be no lower than three (3) feet above the base flood elevation level and extend at such elevation at least 18 feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers) may be allowed, subject to favorable consideration by the Zoning Board of Adjustment and issuance of a Conditional Use Permit, where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding. All new residential buildings shall be provided with a means of access which will be passable by wheeled vehicles during the base flood elevation.

(c) Non-residential buildings. All new and substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of three (3) feet above the base flood elevation level, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer licensed in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood elevation level, and that the structure, below the base flood elevation level, is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (in relation to National Geodetic Vertical Datum NGVD29) to which any structures are floodproofed shall be maintained by the Flood Plain Administrator.

(d) Factory-built homes:

(i) Factory-built homes including those placed in existing factory-built home parks or subdivisions shall be anchored to resist flotation, collapse, or lateral movement.

(ii) Factory-built homes including those placed in existing factory-built home parks or subdivisions shall be elevated such that the permanent foundation of the structure is a minimum of three (3) feet above the base flood elevation.

(e) Utility and Sanitary Systems

(i) All new and replacement sanitary sewage systems shall be designed to minimize and eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities shall be provided with a level of flood protection equal to or greater than three (3) feet above the base flood elevation.

(ii) On-site waste disposal systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.

(iii) New or replacement water supply systems shall be designed to minimize or
eliminate infiltration of flood waters into the system. Water supply treatment facilities shall be provided with a level of protection equal to or greater than three (3) feet above the base flood elevation.

(iv) Utilities such as gas or electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damaged or impaired systems.

(f) Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of three (3) feet above the base flood elevation level. Other material and equipment must either be similarly elevated or (i) not be subject to major flood damage and be anchored to prevent movement due to flood waters or (ii) be readily removable from the area within the time available after flood warning.

(g) Flood control structural works such as levees and flood walls, shall provide, at a minimum, protection from a base flood elevation with a minimum of 3 ft. of design freeboard and shall provide for adequate interior drainage. In addition, structural flood control works shall be approved by the Department of Natural Resources.

(h) No use shall affect the capacity or conveyance of the channel or floodway of any tributary to the main stream, drainage ditch, or other drainage facility or system. In addition, the Department of Natural Resources must approve any alteration or relocation of any stream.

(i) Subdivisions (including factory-built home parks and subdivisions) shall be consistent with the need to minimize flood damages and shall have adequate drainage provided to reduce exposure to flood damage. Development associated with subdivision proposals shall meet the applicable performance standards. Subdivision proposals intended for residential development shall provide all lots with a means of vehicular access that will remain dry during occurrence of the base flood. Proposed subdivision plats greater that five (5) acres or fifty (50) lots (whichever is fewer) shall include base flood elevation data for those areas located within the Floodway, Floodway Fringe, or General Floodway Overlay Districts on the preliminary plat and final plat.

(j) The exemption of detached garages, sheds, and similar structures from the current requirements for elevation may result in increased premium rates for insurance coverage of the structure and contents, however, said detached garages, sheds, and similar accessory type structures are exempt from the current requirements for elevation when:

(i) The structure shall not be used for human habitation.

(ii) The structure shall be designed to have low flood damage potential.

(iii) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.

(iv) The structure shall be firmly anchored to prevent flotation which may result in damage to other structures.

(v) The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least three (3) feet above the base flood elevation level.

(k) For all new and substantially improved structures:

(i) Fully enclosed areas below the “lowest floor” (not including basements) that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a licensed professional engineer or meet or exceed the following minimum criteria:

a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

b. The bottom of all openings shall be no higher than one foot above grade.

c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters. Such areas shall be used solely for parking of vehicles, building access, and low damage potential storage.

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(ii) New and substantially improved structures must be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

(iii) New and substantially improved structures must be constructed with electrical,
heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(l) Recreational vehicles placed on sites within the Floodway Fringe Overlay District shall:
   (i) Be on the site for fewer than 180 consecutive days and
   (ii) Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system; is attached to the site only by disconnect type utilities and security devices, and has no permanent attached additions. Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of Section 9.5(d) of this Ordinance regarding anchoring and elevation of factory-built homes.

Sec. 9.6. GENERAL FLOOD PLAIN OVERLAY DISTRICT (FP).

(1) Permitted Uses. The following uses shall be permitted within the General Flood Plain Overlay District to the extent they are not prohibited by any other ordinance or underlying zoning district and provided they do not include placement of structures, factory built homes, fill or other obstruction; the storage of materials or equipment; excavation; or alteration of a watercourse.

   (a) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.
   (b) Industrial-commercial uses such as loading areas, parking areas, airport landing strips.
   (c) Private and public recreation uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.
   (d) Residential uses such as lawns, gardens, parking areas, and play areas.

(2) Conditional Uses. Any use which involves placement of structures, factory-built homes, fill or other obstructions; the storage of materials or equipment; excavation; or alteration of a watercourse may be allowed only upon issuance of a Conditional Use Permit by the Zoning Board of Adjustment as provided for in Section 9.7(3). All such uses shall be reviewed by the Department of Natural Resources to determine (i) whether the land involved is either wholly or partly within the floodway or floodway fringe and (ii) the base flood elevation level. The applicant shall be responsible for providing the Department of Natural Resources with sufficient technical information to make the determination.

(3) Performance Standards.

   (a) All conditional uses, or portions thereof, to be located in the floodway as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway Overlay District.
   (b) All conditional uses, or portions thereof, to be located in the floodway fringe as determined by the Department of Natural Resources shall meet the applicable standards of the Floodway Fringe Overlay District.

Sec. 9.7. ADMINISTRATION.

(1) Appointment, Duties and Responsibilities of Flood Plain Administrator

   (a) The Flood Plain Administrator (the Administrator) shall be the Director of the Department of Planning and Housing or his/her designee and shall administer and enforce this chapter and will herein be referred to as the Administrator.
   (b) Duties and responsibilities of the Administrator shall include, but not necessarily be limited to, the following:

      (i) Review all flood plain development permit applications to insure that the provisions of this chapter will be satisfied.
      (ii) Review all flood plain development permit applications to insure that all necessary permits have been obtained from Federal, state or local governmental agencies.
      (iii) Record and maintain a record of:
          a. the elevation (in relation to National Geodetic Vertical Datum NGVD29) of the lowest habitable floor of all new or substantially improved buildings or
          b. the elevation to which new or substantially improved structures have
been floodproofed.

(iv) Notify adjacent communities and/or counties and the Department of Natural Resources prior to any proposed alteration or relocation of a watercourse and submit evidence of such notifications to the Federal Insurance Administrator.

(v) Keep a record of all permits, appeals, variances and such other transactions and correspondence pertaining to the administration of this ordinance.

(vi) Submit to the Federal Insurance Administrator any required report concerning the community's participation in the National Flood Insurance Program.

(vii) Notify the Federal Insurance Administration of any annexations or modifications to the community's boundaries.

(viii) Review subdivision proposals to insure such proposals are consistent with the purpose of this ordinance and advise the City Council of potential conflicts.

(2) Flood Plain Development Permit.

(a) Permit Required. A Flood Plain Development Permit issued by the Administrator shall be secured prior to initiation of any flood plain development. Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, excavation or drilling operations, including the placement of factory-built homes.

(b) Application for Permit. Application for a Flood Plain Development Permit shall be made on forms supplied by the Administrator and shall include the following information:

(i) Description of the work to be covered by the permit for which application is to be made.

(ii) Description of the land on which the proposed work is to be done (i.e., lot, block, tract, street address, or similar description) that will readily identify and locate the work to be done.

(iii) Identification of the use or occupancy for which the proposed work is intended.

(iv) The base flood elevation (BFE).

(v) Elevation (in relation to National Geodetic Vertical Datum NGVD29) of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.

(vi) For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.

(vii) Such other information as the Administrator deems reasonably necessary for the purpose of this ordinance.

(c) Action for Permit Application. The Administrator shall, within a reasonable time, make a determination as to whether the proposed flood plain development meets the applicable provisions and standards of this ordinance and shall approve or disapprove the application. For disapprovals, the applicant shall be informed, in writing, of the specific reasons therefore. The Administrator shall not issue permits for Conditional Uses or Variances except as directed by the Zoning Board of Adjustment.

(d) Construction and Use to be as Provided in Application and Plans. Flood Plain Development Permits issued on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications and no other use, arrangement or construction. Any use, arrangement or construction other than that which is authorized shall be deemed a violation of this Ordinance and shall be punishable as provided in Section 9.9.

(e) The applicant shall be required to submit certification by a professional engineer or land surveyor, as appropriate, licensed in the State of Iowa, that the finished fill, building floor elevations, floodproofing, or other flood protection measures were accomplished in compliance with the provisions of this Ordinance, prior to the use or occupancy of any structure.

(Ord. No. 4087, 09-27-11)

(3) Conditional Uses, Appeals, and Variances.

(a) Appointment and Duties of Zoning Board of Adjustment. The Zoning Board of Adjustment shall hear and decide

(i) Requests for Conditional Uses upon which the Board is authorized to pass under this Ordinance;

(ii) Appeals, and

(iii) Requests for Variances to the provisions of this Ordinance; and
(b) Conditional Uses. Requests for Conditional Uses shall be submitted to the Administrator, who shall forward such to the Zoning Board of Adjustment for consideration. Such requests shall include information ordinarily submitted with applications as well as any additional information deemed necessary by the Zoning Board of Adjustment.

(c) Appeals. Where it is alleged there is any error in any order, requirement, decision, or determination made by Administrator in the enforcement of this Ordinance, the aggrieved party may appeal such action. Applications for Appeals shall be submitted to the Administrator, who shall forward such to the Zoning Board of Adjustment for consideration. Such applications shall include information ordinarily submitted with applications as well as any additional information deemed necessary by the Zoning Board of Adjustment. The notice of appeal shall be submitted to the Administrator and shall set forth the specific reason for the appeal. The Administrator shall transmit to the Zoning Board of Adjustment all the papers constituting the record upon which the action appealed from was taken.

(d) Variances. Requests for Variances shall be submitted to the Administrator who shall forward such to the Zoning Board of Adjustment. Such requests shall include information ordinarily submitted with applications as well as any additional information deemed necessary by the Zoning Board of Adjustment. The Zoning Board of Adjustment may authorize upon request in specific cases such variances from the terms of this ordinance as will not be contrary to the public interest, where owing to special conditions a strict enforcement of the provisions of this ordinance will result in unnecessary hardship. Variances granted must meet the following applicable standards:

(i) No variance shall be granted for any development within the Floodway Overlay District which would result in any increase in the base flood elevation. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.

(ii) Variances shall only be granted upon (a) a showing of good and sufficient cause, (b) a determination that failure to grant the variance would result in an unnecessary hardship to the applicant, and (c) a determination that the granting of the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense; create nuisances, or cause fraud on or victimization of the public.

(iii) Variance shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(iv) In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this Ordinance, the applicant shall be notified in writing over the signature of the Administrator that (a) the issuance of a variance will result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage, and (b) such construction increases risks to life and property.

(v) All variances granted shall have the concurrence or approval of the Department of Natural Resources.

(e) Hearings and Decisions of the Zoning Board of Adjustment.

(i) Hearings. Upon the filing with the Zoning Board of Adjustment of a request for a Conditional Use, an Appeal, or a request for a Variance, the Board shall hold a public hearing. The Board shall fix a reasonable time and publish notice of the hearing. At the hearing, any party may appear in person or by agent or attorney and present written or oral evidence. The Board may require the appellant or applicant to provide such information as is reasonably deemed necessary and may request the technical assistance and/or evaluation of a licensed professional engineer or other expert person or agency, including the Department of Natural Resources.

(ii) Decisions. The Board shall arrive at a decision on a Conditional Use, Appeal, or Variance within a reasonable time. In passing upon an Appeal, the Board may, so long as such action is in conformity with the provisions of this ordinance, reverse or affirm, wholly or in part, or modify the order, requirement, decision, or determination appealed from, and it shall make its decision, in writing, setting forth the findings of fact and the reasons for its decision. In granting a Conditional Use or Variance the Board shall consider such factors as contained in this section and all other relevant sections of this ordinance and may prescribe such conditions as described below.

a. Factors Upon Which the Decision of the Board Shall be Based. In passing upon requests for Conditional Uses or Variances, the Zoning Board shall consider all relevant factors
specified in other sections of this ordinance and:

1. The danger to life and property due to increased flood heights or velocities caused by encroachments.
2. The danger that materials may be swept onto other lands or downstream to the injury of others.
3. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
4. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
5. The importance of the services provided by the proposed facility to the community.
6. The requirements of the facility for a flood plain location.
7. The availability of alternative locations not subject to flooding for the proposed use.
8. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
9. The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.
10. The safety of access to the property in times of flood for ordinary and emergency vehicles.
11. The expected heights, velocity, duration, rate of rise and sediment transport of the flood water expected at the site.
12. Such other factors which are relevant to the purpose of this ordinance.

b. Conditions attached to Conditional Uses or Variances. Upon consideration of the factors listed above, the Board may attach such conditions to the granting of Conditional Uses or Variances as it deems necessary to further the purpose of this ordinance. Such conditions may include, but are not limited to:

1. Modification of waste disposal and water supply facilities.
2. Limitation on period of use and operation.
3. Imposition of operational controls, sureties, and deed restrictions.
4. Requirements for construction of channel modification, dikes, levees, and other protective measures, provided such are approved by the Department of Natural Resources and are deemed the only practical alternative to achieving the purpose of this ordinance.
5. Floodproofing measures. Floodproofing measures shall be designed consistent with the flood protection elevation for the particular area, flood velocities, durations, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the regulatory flood. The Zoning Board of Adjustment shall require that the applicant submit a plan or document certified by a licensed professional engineer that the floodproofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area. Such floodproofing measures may include, but are not necessarily limited to the following:

a) Anchorage to resist flotation and lateral movement.
b) Installation of watertight doors, bulkheads, and shutters.
c) Reinforcement of walls to resist water pressure.
d) Use of paints, membranes, or mortars to reduce seepage of water through walls.
e) Addition of mass or weight to structures to resist flotation.
f) Installation of pumps to lower water levels in structures.
g) Construction of water supply and waste treatment systems so as to prevent the entrance of flood waters.
h) Pumping facilities or comparable practices for subsurface drainage systems for building to relieve external foundation wall and basement flood pressures.

i) Construction to resist rupture or collapse caused by water pressure or floating debris.

j) Installation of valves or controls on sanitary and storm drains which will permit the drains to be closed to prevent backup of sewage and storm waters into the buildings or structures.

k) Location of all electrical equipment, circuits and installed electrical appliances in a manner which will assure they are not subject to flooding.

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c. Appeals to the Court. Any person or persons, jointly or severally, aggrieved by any decision of the Zoning Board of Adjustment may present to a court of record a petition, duly verified, setting forth that such decision is illegal, in whole or in part, specifying the grounds of the illegality. Such petition shall be presented to the court within thirty days after the filing of the decision in the office of the Zoning Board.

Sec. 9.8. NONCONFORMING USES.

(1) In the Floodway Overlay District. When located in the Floodway Overlay District, a structure, or the use of a structure, or the use of land, which was lawful before July 16, 2004, but is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

(a) No use shall be expanded or enlarged to cover more lot area, or changed to another use, unless that use is a permitted use.

(b) If any nonconforming use or structure incurs substantial damage of any origin or by any means, including floods, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(c) If any nonconforming use or structure incurs damage, but not to the extent of substantial damage, from any origin or by any means, it may be restored to the condition in which it existed as a nonconforming use or structure prior to damage.

(d) Any nonconforming structure damaged by any origin to the extent that the cost of restoring the structure to its before damage condition would be less than fifty (50) percent of the market value of the structure before the damage occurred, may be rebuilt provided such rebuilding does not increase the intensity of use, as determined by the number of dwelling units (for residences) or floor area or ground coverage (for nonresidential uses), does not increase the nonconformity, complies with all other legal requirements, and is completed within 18 months from the time of damage.

(e) If a nonconforming use is discontinued for twelve (12) consecutive months, any future use of the buildings or premises shall conform to this ordinance.

(2) In the Floodway Fringe Overlay District. When located in the Floodway Fringe Overlay District, a structure, use of a structure or the use of land which was lawful before July 16, 2004, but is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

(a) If any nonconforming use or structure incurs substantial damage of any origin or by any means, including floods, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(b) If any nonconforming use or structure incurs damage, but not to the extent of substantial damage, of any origin or by any means, it may be restored to the condition in which it existed as a nonconforming use or structure prior to damage.

(c) Any nonconforming structure damaged by any origin to the extent that the cost of restoring the structure to its before damage condition would be less than fifty (50) percent of the market value of the structure before the damage occurred may be rebuilt provided such rebuilding does not increase the intensity of use, as determined by the number of dwelling units (for residences) or floor area or ground coverage (for nonresidential uses), does not increase the nonconformity, complies with all other legal requirements, and is completed within 18 months from the time of damage. If the cumulative value of improvements and work to the structure exceed the extent of 50% or more of the market value of the structure before the damage occurred, the lowest floor must be elevated to three (3) feet above the base flood elevation, or if the structure is a nonresidential structure, the lowest floor may be floodproofed in accordance with the requirements of Section 9.5(2) of this ordinance.

(d) If a nonconforming use is discontinued for twelve (12) consecutive months, any future use of the buildings or premises shall conform to this ordinance.
In the General Flood Plain Overlay District, when located in the General Flood Plain Fringe Overlay District, a structure, use of a structure or the use of land which was lawful before July 16, 2004, but is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

(a) No use shall be expanded or enlarged to cover more lot area, or changed to another use, unless that use is a permitted use.
(b) If any nonconforming use or structure incurs substantial damage of any origin or by any means, including floods, it shall not be reconstructed except in conformity with the provisions of this ordinance.
(c) If any nonconforming use or structure incurs damage, but not to the extent of substantial damage, from any origin or by any means, it may be restored to the condition in which it existed as a nonconforming use or structure prior to damage.
(d) Any nonconforming structure damaged by any origin to the extent that the cost of restoring the structure to its before damage condition would be less than fifty (50) percent of the market value of the structure before the damage occurred, may be rebuilt provided such rebuilding does not increase the intensity of use, as determined by the number of dwelling units (for residences) or floor area or ground coverage (for nonresidential uses), does not increase the nonconformity, complies with all other legal requirements, and is completed within 18 months from the time of damage.
(e) If a nonconforming use is discontinued for twelve (12) consecutive months, any future use of the buildings or premises shall conform to this ordinance.

Sec. 9.9. PENALTIES FOR OFFENSES PERTAINING TO FLOOD PLAIN ZONING.
A violation of any provision of Chapter 9, Flood Plain Zoning Regulations, shall be a municipal infraction punishable by a penalty of $500 for a person’s first violation thereof, and a penalty of $750 for each repeat violation.

Sec. 9.10. AMENDMENTS.
The regulations, restrictions and boundaries set forth in this ordinance may from time to time be amended, supplemented, changed, or repealed as provided in Sections 414.4, 414.5, and 414.21, Code of Iowa, 1987 as amended. No amendment, supplement, change, or modification to this ordinance shall be undertaken without prior approval from the Department of Natural Resources.

Sec. 9.11. DEFINITIONS.
Unless specifically defined below, words or phrases in this chapter shall be interpreted so as to give the meaning they have in common usage and to give this chapter its most reasonable application.

(1) Base Flood. A flood having a one percent chance of being equaled or exceeded in any given year for a given area.
(2) Base Flood Elevation (BFE). The height to which the base flood is estimated to rise.
(3) Basement. Any area of the building having its floor subgrade (below ground level) on all sides.
(4) Development. Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
(5) Existing Construction. Structures for which the "start of construction" commenced before January 28, 1980 (the effective date of the first flood plain management regulations adopted by the City of Ames). "Existing construction" may also be referred to as "existing structures".
(6) Existing Factory-built Home Park or Subdivision. A factory-built home park or subdivision for which the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is complete before January 28, 1980 (the effective date of the first flood plain management regulations adopted by the City of Ames).
(7) Expansion of Existing Factory-built Home Park or Subdivision. The preparation of additional sites by the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).
(8) Factory-Built Home. A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities.
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prepar ation,  such  as clear ing, gradi ng and filling; nor does it include the installation of street s and/or walkwa ys; nor does

excavati on; or t he placem ent of a m anuf act ured ho me o n a f ound ation. Perm anent  co nstruct ion do es not  include land

pou ring of  s lab or f oot ings, t he installation of  pi les, t he con struction of  c olumns, or  a ny wo rk b eyon d t he stage of

the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the

pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of

evacuation; or the placement of a manufactured home on a foundation. Permanent construction does not include land

preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does

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it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects the external dimensions of the building.

(26) Structure. Anything constructed or erected on the ground or attached to the ground including, but without limiting the generality of the foregoing: buildings, factories, sheds, cabins, mobile homes, manufactured homes, other similar items, and walled and roofed buildings, including gas or liquid storage tanks that are principally above ground.

(27) Substantial Damage. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its condition before the damage occurred would equal or exceed 50 percent of the market value of the structure before the damage occurred.

(28) Substantial Improvement. Any improvement to a structure which satisfies either of the following criteria: (a) Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the "start of construction" of the improvement, or (ii) if the structure has been "substantially damaged" and is being restored, before the damage occurred. The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions. The term also does not include any alteration of an "historic structure", provided the alteration will not preclude the structure's designation as an "historic structure"; or (b) Any addition which increases the original floor area of a building by 25 percent or more. All additions constructed after the effective date of the flood plain management regulations adopted by the community shall be added to any proposed addition in determining whether the total increase in original floor space would exceed 25 percent.

(29) Variance. A grant of relief by a community from the terms of the flood plain management regulations.

(30) Violation. The failure of a structure or other development to be fully compliant with the community's flood plain management regulations.

(Ord. No. 4007, 09-22-09)
MINUTES OF THE REGULAR MEETING OF
THE ZONING BOARD OF ADJUSTMENT

AMES, IOWA

JUNE 24, 2015

The Ames Zoning Board of Adjustment met, pursuant to law, in regular session at 7:00 p.m. on June 24, 2015, in the Council Chambers of City Hall with the following members present: Shelby Ebel, Susan Bradbury, Kyle Perkins, Michael Davis and Matthew Koehler. Staff members Karen Marren, Charlie Kuester and Mark Lambert were also present.

APPROVAL OF MINUTES: Moved by Davis, seconded by Perkins, to approve the minutes of the meeting of May 27, 2015, as well as the memo of the meeting of June 10, 2015, as written.

Vote on Motion: 5-0. Motion declared carried unanimously.

CASE NO. 15-13
SPECIAL HOME OCCUPATION PERMIT – Sarah Beavers, 2016 McCarthy Road
Public Hearing on application for a Special Home Occupation Permit for an at home massage therapy business on the property located at 2016 McCarthy Road*

City Planner Karen Marren displayed a location map and site plan for the project. She noted that the applicant is requesting allowance for a professional massage therapy business to operate as a home business from the residential property. The home is a one-story house with a basement. One of the existing bedrooms, 87 square feet, will be used for the home occupation. There are no modifications needed for the business to run out of the home. The proposed hours of operation will be Wednesdays, Thursdays, and Fridays from 9:00 a.m. to 7:00 p.m. and every other Saturday from 8:00 a.m. to 2:00 p.m.

The applicant has explained that no more than four clients will be seen per day and there should not be more than one client at the home at any given time. The home has a single car attached garage and a single width driveway to McCarthy Road. It is anticipated that clients to the business who arrive by car will park on McCarthy Road or in the applicant’s driveway in front of the residence.

The site plan, project description, applicable law, and findings of fact and conclusions were reviewed in detail by Ms. Marren. She explained that City staff has reviewed the request and recommends that the Board approve the request for a Special Home Occupation Permit.

Ms. Bradbury asked if all neighbors within 200 feet were notified. Ms. Marren noted that they were all notified and that two residents came in and wanted further explanation; a couple phone calls were also received. However, once all individuals were given further explanation, Ms. Marren said that residents appeared satisfied with staff’s decision on the permit.

Sarah Beavers, 2016 McCarthy Road, informed the board that she has been in the massage business for seven years and that she is properly licensed through a professional massage business along with proper insurance.
Sue Stanton, 2021 McCarthy Road, expressed that her main concern is an increase in traffic on the street. She also questioned whether or not the residence would have a sign in front of the residence promoting the business.

Ms. Marren replied that the applicant has no intention of putting up a sign at this time. She also informed the board that the criterion allows up to ten vehicle trips per day for a home business. However, the applicant only intends to have four clients per day so there should only be four extra vehicles a day which staff does not feel will increase traffic to a noticeable amount.

Moved by Koehler, seconded by Perkins, to adopt ORDER NO. 15-13, thereby approving the request for a Special Home Occupation Permit for an at home massage therapy business at 2016 McCarthy Road, based on the findings of fact and conclusions.

Vote on Motion: 5-0. Motion declared carried unanimously.

CASE NO. 15-12
SPECIAL HOME OCCUPATION PERMIT – Deborah Flaherty, 609 20th Street
Public Hearing on application for a Special Home Occupation Permit to allow a Certified Public Accounting business on the property located at 609 20th Street

City Planner Karen Marren displayed a location map and site plan for the project. She noted that the applicant is requesting approval of a Special Home Occupation to allow an office for a Certified Public Accountant (CPA) in the home at 609 20th Street. The home is a one-story house with a basement. The business would be located on the first floor and occupy a total of 240 square feet of the 2,274 square feet of floor area in the house. The size of office space would be 120 square feet, and the size of the waiting area would be an additional 120 square feet. No modifications to the home are being proposed for use by the business. Hours of operation for the business would be 8:30 a.m. to 8:00 p.m. January 16th to April 15th by appointment only.

The applicant has explained that no more than eight clients will be seen per day and that there should not be more than two clients at the home at any given time. The home has a two-car attached garage and a double-wide driveway to 20th Street. It is expected that clients of the business who arrive by car will park on the applicant’s driveway in front of the residence.

The site plan, project description, applicable law, and findings of fact and conclusions were reviewed in detail by Ms. Marren. She explained that City staff has reviewed the request and recommends that the Board approve the request for a Special Home Occupation Permit.

Ms. Bradbury inquired if any comments were received from surrounding property owners and Ms. Marren replied that no comments or calls were received.

Deborah Flaherty, 1403 Maxwell Avenue, informed the board that she will be renting, not purchasing, the home for her place of business; the owner of the home signed the application giving their consent for the home business to take place.

Ms. Ebel asked the applicant if the last appointment would begin at 8 p.m. or if she would be
wrapped up and done with clients by 8 p.m. Ms. Flaherty noted that she would be wrapped up with the last client by 8 p.m.; the last appointment would be scheduled at 7 p.m. at the latest.

Ms. Bradbury noted that Ms. Flaherty indicated that she would be restricting appointments to eight per day although she states twelve hours of availability. Ms. Bradbury inquired what the rest of the time would involve if she was only seeing and sticking to eight appointments per day. Ms. Flaherty said that she would be doing prep work or other paperwork when she’s not with clients and solidified that she would only see a maximum of eight clients per day.

Ms. Ebel noted that there is only parking on the north side of 20th street which will be on the same side as the applicant’s home.

Moved by Bradbury, seconded by Koehler, to adopt ORDER NO. 15-12, thereby approving the request for a Special Home Occupation Permit to allow a Certified Public Accounting business at 609 20th Street, based on the findings of fact and conclusions.

Vote on Motion: 5-0. Motion declared carried unanimously.

CASE NO. 15-07
SPECIAL USE PERMIT – Ronald McMillen, 405 Northwestern Avenue
Public Hearing on application for a Special Use Permit to allow House of Refuge Church to operate on the property located at 405 Northwestern Avenue*

City Planner Charlie Kuester displayed a location map and site plan for the project. He noted that the House of Refuge is operating out of 405 Northwestern Avenue, a building on the same lot as Wheatsfield grocery store. The operation of the church started two years ago but City staff was made aware of it during the recent review of a minor site development plan for Wheatsfield. No Special Use Permit was ever approved or applied for by the church which they are now seeking to correct.

The site is on the south side of Northwestern Avenue, near the US 65 overpass where Northwestern Avenue transitions into Main Street. The Union Pacific railroad tracks lie to the rear. There are several buildings on this lot location, including Wheatsfield.

Wheatsfield is planning an expansion of the existing parking lot and use of their current building. To accommodate that, the two houses to the west on 5th Street are being removed and those lots are being consolidated with the existing lot. The improvements also include the removal of a small portion of the existing large building to allow improved traffic flow from the front to the rear of the lot, mostly to better accommodate truck traffic. The Wheatsfield improvements have minimal effect on the church building subject to this Special Use Permit request. This proposed Special Use Permit is being approved independently of the plat of survey and minor site development plan.

The site plan, project description, applicable law, and findings of fact and conclusions were reviewed in detail by Mr. Kuester. He explained that City staff has reviewed the request and recommends that the Board approve the request for a Special Use Permit to allow the occupancy of a church within an existing building in the Highway Oriented Commercial Zoning District.
Mr. Kuester would like the board to note a condition upon the approval. He feels that if the board should approve the permit, a condition should be placed upon approval that no social services be allowed without an update to the Special Use Permit. Mr. Kuester feels it would be beneficial to add this condition to the permit after hearing some concerns from nearby residents and neighbors.

Ms. Bradbury inquired if the thirty-two spaces parking spaces were shared with Wheatsfield or if the spaces belonged to the church.

Mr. Kuester said that Wheatsfield and the church share the parking spaces. He also noted that the parking of the total area does meet the needs and criteria for both Wheatsfield, the church and the vacant industrial building located on the lot.

Ms. Bradbury inquired if the time of services for the church caused congestion in the parking lot with the shoppers at Wheatsfield.

Mr. Kuester said that services seem to be held at a time that doesn’t interfere with a busy shopping time at Wheatsfield. He also said that the church has been operating for two years and no complaints have been received for parking or any other reason.

Nathan Hostetter, 511 Duff Avenue, Suite 300, noted that the church has already been in operation for two years. He expressed that the goals of the church are compatible with the goals of the City of Ames and that the applicant and the church recognize that they would need to come back to the board if they were to change the use of their permit in any way.

Ms. Bradbury inquired how many people currently attend the church on a regular basis. Mr. Hostetter replied that there are 60 to 70 regular attendees.

Mr. Davis wondered if the church had future plans to have any additional social services, such as a homeless shelter or soup kitchen. Mr. Hostetter said that those types of services are not in their current or future plans at this time and believes the idea of such services have only arisen because of some questions and concerns by residents in the area.

Bishop Orlando McClaim, 1401 Illinois Avenue, informed the board that they have had a little growth over time and would like to continue to grow. He said the church can hold 125 people and they have 70 persons attending regularly. He noted that they would look to purchase something else or re-locate if they grew past 125 members.

Ms. Bradbury questioned if most people in attendance drive or take a different mode of transportation. Bishop McClaim said that most people drive but that they have had no issues with parking between Wheatsfield and the church. He informed the board that the church and Wheatsfield work collaboratively to inform each other of events taking place.

Mr. Davis believes one of the things churches can provide for the public is shelter and food in the event of an emergency and wondered if the church would be restricted to providing those
services in a time of emergency, as well. Mr. Kuester replied that the condition he is suggesting would pertain to services offered regularly not in an emergency situation.

Moved by Koehler, seconded by Bradbury, to adopt ORDER NO. 15-07, thereby approving the request for a Special Use Permit to allow House of Refuge Church to operate at 405 Northwestern Avenue, based on the findings of fact and conclusions with the condition that no social services, such as homeless shelters or soup kitchens, are allowed unless the applicant comes back to the board for review of their permit.

Vote on Motion: 5-0. Motion declared carried unanimously.

CASE NO. 15-06
CONDITIONAL USE PERMIT — Verizon Wireless, 600 South Maple Avenue
Public Hearing on application for Conditional Use Permit for a cell tower in the Floodway on the property located at 600 South Maple Avenue*

City Planner Charlie Kuester displayed a location map and site plan for the project. He noted that the applicant has submitted a request to construct a new monopole cell tower. The site is located along the north edge of the floodway of Squaw Creek. The site is located mostly within the Floodway Fringe which means the project must meet the Floodway standards. Development within the Floodway is allowed for a limited number of uses and only if Floodway performance standards are met.

The Verizon improvements would be within a 33 feet by 59 feet compound. The leased premises are 33 feet by 84 feet, which includes an area for the future inclusion of two additional carriers. Within the Verizon area will be a 120 foot tall monopole (129 feet with the lightning rod) and an elevated equipment platform. The pole has an eight-foot diameter at its base.

The equipment platform is supported by multiple columns and is 17.33 feet by 35.33 feet and will rise 13 feet above ground. The platform will contain the equipment cabinets and emergency generator inside a shelter. The shelter provides security and screening for the equipment. Access to the platform is by stairs on the north side of the platform. A security fence is located along the top of the platform.

At the proposed tower site, the ground elevation is about 888’ (all elevations are in National Geodetic Vertical Datum 1929, or NGVD 29). The base flood elevation (BFE, the water surface level of a flood event having a one percent chance of occurring in any given year, or 100-year flood event) is 894.6.’ Therefore, in a 100-year flood, it is anticipated that the ground will be inundated by 6.6 feet of flood water.

The City of Ames flood plain regulations requires elevation or floodproofing to three feet above BFE for an elevation of 897.6’ at this location. The bottom of the steel platform, upon which the equipment shelter sits, is at 900.’ This is 5.4 feet above BFE, or 12 feet above the natural grade.

Mr. Kuester gave a brief overview of some staff comments for consideration by the board, including that there is no anticipated danger to life due to a flood event as the proposed project is
an uninhabited equipment shelter and cell tower. He also informed the members that no materials would be stored on-site and that the tower is designed to withstand anticipated hydraulic forces in a flood event. He noted that the site is heavily wooded, which will provide significant screening of the base of the tower and the equipment platform and that the site will only be accessed for routine maintenance. The Ames Land Use Policy Plan identifies the area of the Floodway as Parks and Open Space and the proposed tower is not inconsistent with these designations. In conclusion, Mr. Kuester said that the tower and platform supports are not expected to cause an increase in flood depths, water velocities, or sedimentation flows due to site mitigations of removing existing obstructions of trees.

Ms. Ebel inquired if any extra engineering would be completed to ensure the tower won’t float down the river in the event of a flood. Mr. Kuester replied that the tower would be able to withstand the event of a 100 year flood plan.

Mr. Koehler questioned what type of screening would be at the top of the tower. Mr. Kuester said that there would be chain link fencing around the top of the tower and that the actual equipment for the tower itself would not be visible.

Ms. Bradbury asked for confirmation that the noise that might accompany the generator would be temporary in nature not permanent. Mr. Kuester confirmed that the generator is tested weekly, and would be used in the case of a power loss, but would only actually be running about 30-45 minutes a week.

The site plan, project description, applicable law, and findings of fact and conclusions were reviewed in detail by Mr. Kuester. He explained that City staff has reviewed the request and recommends that the Board approve the request for a Conditional Use Permit.

Moved by Koehler, seconded by Perkins to adopt ORDER NO. 15-06, thereby approving the request for a Conditional Use Permit to allow a new wireless communication tower in the Floodway at 600 South Maple Avenue, based on the findings of fact and conclusions.

Vote on Motion: 5-0. Motion declared carried unanimously.

CASE NO. 15-05
SPECIAL USE PERMIT – Verizon Wireless, 600 South Maple Avenue
Public Hearing on application for Special Use Permit to allow a cellular tower on the property located at 600 South Maple Avenue*

City Planner Charlie Kuester displayed a location map and site plan for the project. The applicant is requesting a Special Use Permit to allow a new cellular tower at 600 South Maple Avenue. Mr. Kuester noted that approval of both the Conditional Use Permit and Special Use Permit are necessary for this project to move forward. In the event that the Board denies the related Conditional Use Permit, the proposed Special Use Permit may not be approved as it will not comply with flood plain requirements. The property at hand is located within City owned park land for which the City Council approved a lease on October 9, 2014 subject to approval of a Special Use Permit.
The new tower and associated equipment shelter would be located in a lease area along the north boundary of the property with an access easement to the South Maple Avenue right-of-way. The site is in a wooded area and will require removal of approximately 24 trees. Access is from Maple Street via park access roads. Access to the lease area is via an existing gravel access road into the woods. As an existing park access road, it is not required to be paved to serve the proposed monopole.

The Verizon improvements will be within a 33 feet by 59 feet compound. The leased premises are 33 feet by 84 feet, which includes an area for the future inclusion of two additional carriers. Within the Verizon area will be a 120 foot tall monopole (129 foot with the lightning rod) and an elevated equipment platform. The pole has an eight-foot diameter at its base. The monopole will be 8 feet at the base. While the applicant does not indicate a paved parking space on the site plan, staff is recommending a condition of approval to include updating the site plan to show a 9-foot by 19-foot parking space to meet zoning requirements.

The equipment platform is 17.33 feet by 35.33 feet and will rise 13 feet above ground. There are multiple columns supporting the platform. The platform will contain the equipment cabinets and emergency generator inside a shelter. The shelter provides security and screening for the equipment. Access to the platform is by stairs on the north side of the platform. A security fence is located along the top of the platform. There might be some annoyance during the testing of the generator but that would only be about 30 minutes to one hour per week. No sewer or water brought to the site; the applicant would pay for the electric fees. Only traffic would be for periodic testing of the generator and a cell use is a permitted use in this area if approved for use by the Zoning Board of Adjustment.

Ms. Bradbury asked why the applicant is requesting a paved 9 by 19 parking space. Mr. Kuester said that zoning requirements require one paved parking space and a cell tower also requires one paved parking space for the maintenance vehicle to park.

Ms. Bradbury noted that the access road that exists is gravel and inquired who would be in charge of maintaining the access road. Mr. Kuester replied that it is the responsibility of the applicant, Verizon Wireless, to maintain the access to the road, as well as the actual condition of the road.

Ms. Bradbury wondered if the lease lists specifics on the maintenance and upkeep of the road because she has concerns that there wouldn’t be access to the road in the event of a flood or some other emergency. She asked about adding a condition to the motion surrounding the maintenance and upkeep of the road. Mr. Kuester asked what kind of language she would propose for a condition on the permit; he also noted that Brian Phillips, in the City Manager’s Office, might have more knowledge on what is outlined in the lease regarding the access road because he has worked closely with the applicant on the terms of the lease.

Brian Phillips, City of Ames representative, informed the board that the lease requires Verizon Wireless to give the City 24 hours advance notice that they will be visiting the site so that the City can mitigate the access to the road.
Ms. Bradbury noted that the fact that the road is in a flood area is a safety concern. Mr. Kuester asked Mr. Phillips if he could speak on the maintenance of the road and the condition it must maintain in various weather conditions and whether or not the lease spoke to the maintenance at all. Mr. Phillips said that that is not directly outlined in the lease.

Mr. Perkins asked if the applicant would need to return to the board if additional carriers are added to the cellular tower. Mr. Kuester replied that the applicant would need to return to the board because they would need to apply for another Special Use Permit.

Mike Howley, 15660 Midwest Road, Suite 140, first spoke on the issue of the generator and informed the board that the generator is for temporary use. He informed the board that the generator only cycles on once a week for 30-45 minutes at a standardized time; a technician only goes to the site when diagnostic testing is needed. He also explained to the board that Verizon is obligated to maintain the access road and it benefits them to maintain the road and keep it accessible because if the road is not maintained their technicians won’t have access to the site. If the City felt that Verizon was not maintaining the road well enough it would only take a phone call to Verizon to get the road taken care of right away. However, he stated that Verizon does a great job of maintaining their access roads so he assured the board that he didn’t anticipate there would be problems with the maintenance of the road.

Mr. Howley expressed the need for this site to be able to significantly improve service to their customers and said that Verizon has spent a lot of time and effort on this project. Verizon wants to be able to make this site work because it is an identified area where service is in high demand.

In conclusion, he noted that the tower would have very minimal impact to residents and will only bring significantly improved service to the area, especially at times of high demand during sporting events or other large events when there are additional users. Their main goal is to provide the best service possible and this tower location is ideal for improving the communication service of their customers. Mr. Howley respectfully requests the approval of the permits.

Mr. Kuester said that no phone calls or comments were received by residents as a result of the 200 foot notices.

Ms. Bradbury asked if the applicant would have to demonstrate no rise to the flood plain and Mr. Kuester replied that yes, the applicant would need to be able to demonstrate that there is no rise to the flood plain.

Mr. Davis inquired who would own the tower and Mr. Kuester stated that the City would own the property but Verizon would own the tower.

The site plan, project description, applicable law, and findings of fact and conclusions were reviewed in detail by Mr. Kuester. He explained that City staff has reviewed the request and recommends that the Board approve the request for a Conditional Use Permit with the conditions listed in Alternative #1.
Moved by Bradbury, seconded by Ebel, to adopt ORDER NO. 15-05, thereby approving the request for a Special Use Permit at 600 South Maple Avenue to allow a new cellular tower, based upon the site plan, project description, applicable law, and findings of fact and conclusions with the following conditions:
   a.) The required Conditional Use Permit in the Floodway is also approved.
   b.) The site plan is amended to include a 9 by 19-foot paved parking space.

Vote on Motion: 5-0. Motion declared carried unanimously.

COMMENTS:

ADJOURNMENT: Moved by Davis, seconded by Perkins, to adjourn the meeting at 8:41 p.m.

_____________________________  ________________________________
Erin Cain, Recording Secretary     Shelby Ebel, Chair
October 29, 2015

Michael Howley
15660 Midwest Road
Oakbrook Terrace, IL 60181

Dear Michael:

Enclosed please find the Decision and Order which has been issued by the Ames Zoning Board of Adjustment regarding your applications for a Special Use Permit and a Conditional Use Permit. These documents are for your information and future reference. Be advised that any person desiring to appeal this decision to a court of record may do so within 30 days after the filing of this decision.

If you have any questions, please feel free to contact the City Clerk's Office.

Sincerely,

Erin Cain
Deputy City Clerk
Secretary to the Board

Enclosure
FACTS

The applicant, Verizon Wireless, represented by Michael Howley with Insite RE, Inc., is seeking to construct a new monopole cell tower on the property located at 600 South Maple Avenue. The property is zoned “SGA” (Special Government-Airport). This is located within City owned park land for which the City Council approved a lease on October 9, 2014, subject to approval of a special use permit. The new tower and associated equipment shelter would be located in a lease area along the north boundary of the property with an access easement to the South Maple Avenue right-of-way (see Attachment A: Location Map). The site is in a wooded area and will require removal of approximately 24 trees. Access is from Maple Street via park access roads. Access to the lease area is via an existing gravel access road into the woods. As an existing park access road, it is not required to be paved to serve the proposed monopole. The Verizon improvements will be within a 33 feet by 59 feet compound. The leased premises are 33 feet by 84 feet, which includes an area for the future inclusion of two additional carriers. Within the Verizon area will be a 120 foot tall monopole (129 foot with the lightning rod) and an elevated equipment platform. The pole has an eight-foot diameter at its base. The monopole will be 8 feet at the base. While the applicant does not indicate a paved parking space on the site plan, staff is recommending a condition of approval to include updating the site plan to show a 9 foot by 19 foot parking space to meet zoning requirements. The equipment platform is 17.33 feet by 35.33 feet and will rise 13 feet above ground. There are multiple columns supporting the platform. The platform will contain the equipment cabinets and emergency generator inside a shelter. The shelter provides security and screening for the equipment. Access to the platform is by stairs on the north side of the platform. A security fence is located along the top of the platform. Mr. Howley noted that the cell tower was necessary to improve service to customers. Staff noted that neighboring property owners within 200 feet were notified and no phone calls or comments were received. Staff recommended approval with two conditions: a) the required Conditional Use Permit in the Floodway is also approved, and b) the site plan is amended to include a 9 foot by 19 foot parking space.
DECISION

The Board considers the facts above, and the standards in Ames Municipal Code section 29.1503(4)(a), (c) and (e), as well as the standards for wireless communications facilities in section 29.1307, and finds that the application meets all of the standards. The Board establishes the following conditions on its approval: a) that the required Conditional Use Permit in the Floodway is also approved, and b) that the site plan is amended to include a 9 foot by 19 foot parking space.

ORDER

WHEREFORE, IT IS ORDERED that the applicant is GRANTED, section 29.1503 of the Ames Municipal Code, a Special Use Permit for a wireless communications tower and facilities on the property located at 600 South Maple Avenue.

Any person desiring to appeal this decision to a court of record may do so within 30 days after the filing of this decision.

Done this 24th day of August, 2015.

Erin Cain
Secretary to the Board

Shelby Ebel
Chair
FACTS

Applicant Verizon Wireless, represented by Michael Howley with Insite RE, Inc., is seeking to construct a new monopole cell tower on the property located at 600 South Maple Avenue. The site is located along the north edge of the Floodway of Squaw Creek and is zoned “SGA” (Special-Government/Airport) and Floodway Overlay District. The site is located mostly within the Floodway Fringe, which has lesser development standards but, because a portion is within the Floodway, the entire project must meet those Floodway standards. Development within the Floodway is allowed for a limited number of uses and only if Floodway performance standards are met. The new tower and associated equipment shelter will be located in a lease area along the north boundary of the property with an access easement to the South Maple Avenue right-of-way. The Verizon improvements will be within a 33 feet by 59 feet compound. The leased premises are 33 feet by 84 feet, which includes an area for the future inclusion of two additional carriers. Within the Verizon area will be a 120 foot tall monopole (129 foot with the lightning rod) and an elevated equipment platform. The pole has an eight-foot diameter at its base. The equipment platform is supported by multiple columns and is 17.33 feet by 35.33 feet and will rise 13 feet above ground. The platform will contain the equipment cabinets and emergency generator inside a shelter. The shelter provides security and screening for the equipment. Access to the platform is by stairs on the north side of the platform. A security fence will be located along the top of the platform. At the proposed tower site, the ground elevation is about 888 feet. The base flood elevation (BFE, the water surface level of a flood event having a one percent chance of occurring in any given year, or 100-year flood event) is 894.6 feet. Therefore, in a 100-year flood, it is anticipated that the ground will be inundated by 6.6 feet of flood water. The City of Ames flood plain regulations require elevation or flood proofing to three feet above BFE for an elevation of 897.6 feet at this location. The bottom of the steel platform upon which the equipment shelter sits is at 900 feet. This is 5.4 feet above BFE, or 12 feet above the natural grade. There was evidence that the tower and platform supports are designed to withstand damage from floods and will not increase base flood elevations.
DECISION

The Board finds that the application for a proposed wireless communication tower meets the standards for a Conditional Use Permit in section 9.7(3)(e)(2)(a) of the Ames Municipal Code, including the standards for Wireless Communications Facilities in section 9.4(2) and the Floodway Performance Standards in section 9.4(3).

ORDER

WHEREFORE, IT IS ORDERED that the applicant is GRANTED, section 97.3(2)(e)(2)(a) of the Ames Municipal Code, a Conditional Use Permit to construct a wireless communications tower in the Floodway on the property at 600 South Maple Avenue.

Any person desiring to appeal this decision to a court of record may do so within 30 days after the filing of this decision.

Done this 24th day of August, 2015.

Erin Cain
Secretary to the Board

Shelby Ebel
Chair
December 14, 2015

Insite, Inc.
Attn: Michael Howley
13660 Midwest Rd., Ste. 140
Oakbrooke Terrace, IL 60181

RE: FDP-15-44, 600 S Maple Avenue

Dear Michael:

I am enclosing an approved Flood Plain Development Permit for the construction of a cell tower at 600 South Maple Avenue in Ames. This approval is conditioned upon:

- The boundary of the Floodway must be staked throughout the construction period.
- All workers at the site need to be informed that about the conditions of this flood plain development permit.
- No materials can be stored in the Floodway that are buoyant, flammable, explosive or injurious to human, animal or plant life. No fuel tanks, building materials, or port-a-johns are allowed.
- No materials can be stored in the Floodway Fringe that are buoyant, flammable, explosive or injurious to human, animal or plant life. Fuel tanks, building materials that may float, or port-a-johns are allowed but only if elevated to BFE + 3.
- All construction, grading, structure location, and structure elevation must be as shown on the Special Use Permit approved by the Zoning Board of Adjustment on June 24, 2015.
- An elevation certificate showing the elevation of the bottom of the platform and indicated as “Finished Construction” must be completed and submitted before the use of the structure. All elevations are measured in NGVD 29 vertical datum.

If you have any further questions or wish to discuss the requirements of the Flood Plain Zoning Regulations in general, feel free to contact Charlie Kuester at 515-239-5400 or at ckuester@city.ames.ia.us.

Sincerely,

[Signature]
Charlie Kuester, CFM Planner

CC: Adam Ostert, Inspections
Keith Abraham, Parks and Recreation
S:\PLAN_SHRM\Flood Plain Management\FPD Permits\2015 Letters\600_S_Maple-12-14-15.docx
Flood Plain Development Permit

Application Form

(This form must be filled out completely before your application will be accepted.)

Note: This application form pertains to flood plain development as regulated by Chapter 9, Flood Plain Zoning Regulations, of the Ames Municipal Code. It is required of all development within all “Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood” as shown on the Official Flood Plain Zoning Map. These areas are commonly referred to as the Floodway and the 100-year Flood Plain.

1. Property Address: 600 South Maple Ave, Ames Iowa 50010

2. Legal Description of the Property: See Attached

3. Type of Development Activity:
   - ☐ Filling
   - ☐ Grading
   - ☐ Excavation
   - ☐ Routine maintenance
   - ☐ Addition or Interior Remodel to Existing Building
   - ☐ New Building
   - ☐ Other: ____________________________

4. Description of Development Activity:
   Proposed Verizon 129' Tower (with lightning rod) and equipment shelter

5. Flood Plain Overlay District:
   - ☒ Floodway Overlay
   - ☐ Floodway Fringe Overlay
   - ☐ General Flood Plain Overlay
   - ☐ Date of Letter of Map Change (If Applicable): ____________________

If the Site is within the Floodway or General Flood Plain Overlay Districts, a Conditional Use Permit from the Zoning Board of Adjustment may be required.
Does the Project involve New Construction, Addition, or Major Remodel of Existing Structure? If so, please complete this section (a-m, below)

a. Proposed Use of Structure: Proposed wireless communication facility

b. Is Structure Principal or Accessory: Principal

c. Dimensions of Existing Structure: 120' Monopole Tower (with lightning rod 129')

d. Dimensions of New Structure or Addition: 11' 6" x 29' 5 1/2" Equipment Shelter

e. Area of New Structure or Addition: 33' x 84'

f. Estimated Cost of Construction: TBD

g. If an Addition to an Existing Structure, Assessed Value of Existing Structure: N/A

h. Is Structure or Use Non-conforming: No

i. Base Flood Elevation of Site (identify source of information if other than FIRM): 894.6' NVD AG 29

j. Current Elevation of Site (natural grade): 888.0

k. Required Elevation/Floodproofing of Development: 897.6

l. Proposed Elevation/Floodproofing of Development: 900.00

m. Other Flood Plain Information (identify and describe source):

Any development within the Floodway, Floodway Fringe, or General Flood Plain Overlay Districts shall meet the required performance standards of Chapter 9, Flood Plain Zoning Regulations, of the Ames Municipal Code. These standards may include, at a minimum, the elevation of the lowest floor to three feet above the Base Flood Elevation for residential structures and the elevation or floodproofing of the lowest floor to three feet above the Base Flood Elevation for non-residential structures.

Property Owner Name/Business: Verizon Wireless

Address: 10801 Bush Lake Road Bloomington MN 55438
(Street) (City) (State) (Zip)

Telephone: 612-220-6470 (Phone) (Fax)

E-mail address: christopher.coughlin@verizonwireless.com

Applicant (if different): Mike Howley (As authorized agent for Verizon Wireless)

Business: Insite, Inc.

Address: 1s660 Midwest Rd, Suite 140, Oakbrook Terrace, IL 60181
(Street) (City) (State) (Zip)

Telephone: 630-240-3253 (Phone) (Fax)

E-mail address: howley@insite-inc.com

5
Note: Prior to the issuance of a temporary or final Certificate of Occupancy for the development activities approved by this Flood Plain Development Permit, a registered engineer, architect or land surveyor may need to submit an Elevation Certificate or Floodproofing Certificate (as applicable) on forms provided by the Federal Emergency Management Agency to the Department of Planning and Housing.

I (We) certify that the above information is true, to the best of my knowledge and understanding, and that I am (we are) familiar with applicable state and local codes and ordinances, the procedural requirements of the City of Ames, and have submitted all the required information.

Signed by: Michael C (Authorizing Agent for Owner) Date: 12/8/15

Property Owner

Print Name

Michael Howley

(Note: No other signature may be substituted for the Property Owner’s Signature, unless accompanied by an affidavit of agent authority.)

The area below is reserved for City of Ames

Flood Plain Development Permit Number: FDP-15-44

Classified as: New Construction Substantial Improvement Minor Improvement (Circle one)

Date of Zoning Board of Adjustment Approval (If Applicable): 6/24/15

Date of Iowa Dept. of Natural Resources Approval (If Applicable): N/A

Date of U.S. Army Corps of Engineers Approval (If Applicable): N/A

Elevation Certificate Required: YES NO (Circle one)

Vertical Datum of Elevation Certificate: NGVD 29 NAVD 88 (Circle one)

Additional Conditions are noted on approval letter: YES NO (Circle one)

Name of Authorizing Official: Charles Kuester CFM

Signature of Authorizing Official: Charles Kuester

Date of Approval: 12/14/15
May 13, 2014

Mr. Charlie Kuester
Planner
Ames City Hall
515 Clark Avenue
Ames, IA  50010

RE:  Verizon Tower and Building on Squaw Creek
42.017049° N, -93.623455° E
No Rise Certification
E&A Project #: P2014.073.001

Dear Mr. Kuester,

E & A Consulting Group, Inc. (E&A) has been asked to evaluate the effects of constructing a communications tower and support building on the grounds approximately 440 feet east of South Maple Avenue and 790 feet south of South 4th Street in Ames, Iowa as related to the established FEMA Base Flood Elevation (BFE). Please refer to the Vicinity Map-Exhibit A, enclosed. The current BFE at the proposed site is approximately 894.6±. The proposed site is in the defined floodway of Squaw Creek. Please refer to the FIRMette-Exhibit B, enclosed.

The proposed communications monopole and support building shall be constructed in a heavily wooded area at the northern limits of the floodway. Please refer to the Site Plan-Exhibit C, enclosed. The site shall be cleared of 25 trees of varying maturity and trunk diameter. Please refer to the Tree Removal Plan-Exhibit E, enclosed. The trees to be removed provide approximately 16.42 feet (width) of obstruction to flow. Existing grade at the proposed site is approximately 888.0.

The monopole is approximately 6 feet in diameter at the base. The support base for the building including stairs and exterior walkway is 24 feet by 35.5 feet. Please refer to the Proposed Building/Tower Elevation-Exhibit D, enclosed. The support building dimensions are 29.5 feet by 18 feet. The raised building base shall be oriented so that its narrowest dimension is perpendicular to the flow of Squaw Creek. The flow direction of Squaw Creek is west to east at this site. The monopole shall be placed at the west end of the building (upstream). The building shall be elevated above the Base Flood Elevation by the use of reinforced concrete piers to the proposed finished floor elevation is 898.0. Eight, 2-foot diameter piers and six, 1.33-foot diameter piers shall elevate the proposed building. All electrical and mechanical support infrastructures for the building and tower shall also be elevated above the BFE a minimum of 3 foot.

E & A Consulting Group, Inc. has obtained the latest available hard copy of Flood Insurance Study (FIS) 19169V000A, dated February 20, 2008, for Squaw Creek from its confluence with the Skunk River to its headwaters. The FIS data includes stream and water surface profiles used to interpret the Base Flood Elevation at the site. No effective FIS hydraulic model was provided to E&A.
The proposed tower and building site is about 520 feet upstream of the former railroad embankment (now recreational trail) and bridge over Squaw Creek. The nearest river sections modeled in the FIS is at the former railroad embankment and near South 4th Street. A cross section of the floodplain at River Station 9200 has total width of 3,700 feet that is below the Base Flood Elevation at that station. The 24-foot width dimension of the raised base is 0.649 percent of 3,700 feet.

It is my opinion that the proposed Verizon Tower and building will cause no net rise in the Base Flood Elevation. This conclusion is reached on the basis of several conditions. The site is in a heavily wooded area that restricts flow velocity for that portion of the modeled cross section. The wooded area is better at attenuating or storing the runoff than it is at conveying the runoff. Also, the area of flow restriction due to the constructed reinforced concrete piers will be offset by the removed trees. Another reason for concluding that this project will result in no net rise of the BFE is that the encroachment length (24 feet) as compared to the overall length (3,700 feet) of the modeled cross section is very small – less than 0.65%. The ground elevations around the building perimeter will remain at the existing elevations and a negligible storage volume may be lost. Another characteristic of this site is its spatial relation (upstream and off channel) to the former railroad embankment and bridge. This railroad infrastructure creates an ineffective flow area outside of the Squaw Creek channel bridge section.

Should you have any questions about this investigation and conclusion, please contact me at 402-895-4700 or pgonzales@eacg.com.

Thank you for your time and consideration.

Sincerely,

E & A CONSULTING GROUP

[Signature]

Paul J. Gonzales, P.E., CFM
Project Manager

Enclosures
EXHIBIT "C"

PROPOSED SITE PLAN

VERIZON TOWER SITE
AMES, STORY COUNTY, IOWA

FLOOD ZONE "AE"
Base Flood Elevations determined

PROPOSED VERSION TOWER SITE

1 inch = 100 ft.
EXHIBIT "D"
UTILITIES:
The location of the utilities indicated on the plans are taken from existing public records and are approximate locations. The exact locations of all utilities must be ascertained in the field. It shall be the duty of the contractor to determine whether any additional facilities other than those shown on the plans may be present.

TREE REMOVALS

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<td>WALNUT</td>
</tr>
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</table>
PERMIT

Application Number . . . . . 15-00003167
Property Address . . . . . 600 S MAPLE AVE
Tenant nbr, name . . . . . VERIZON
Application type description COMMERCIAL BUILDING NEW

Application desc
TENANT: ANTENNA FACILITY 120' TOWER & EQUIP SHELTER

Owner
MIKE HOWLEY (VERIZON AGENT)
INSITE INC
1S660 MIDWEST RD STE 140
OAK BROOK TERRACE IL 60181

Contractor
OWNER

Permit . . . . . . . BUILDING PERMIT
Additional desc
Permit Fee . . . . 966.15
Plan Check Fee . . . 676.31
Issue Date . . . 12/16/15
Valuation . . . 200000
Expiration Date . . 12/15/16

Special Notes and Comments
Follow all applicable codes per Chapter 5 of the Ames Municipal Code.

Fee summary
Charged Paid Credited Due
Permit Fee Total 966.15 .00 .00 966.15
Plan Check Total 676.31 .00 .00 676.31
Grand Total 1642.46 .00 .00 1642.46

FINAL INSPECTIONS ARE REQUIRED IN ALL CASES.

APPROVED BY: [Signature]

DEC 18 2015
Appendix E

Qualifications of Preparers
EXPERIENCE SUMMARY

Ms. Bellrichard has a diverse and well-rounded background in the environmental field. She has prepared numerous Federal Communications Commission (FCC) categorical exclusions and focused Environmental Assessments (EAs) under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) for a variety of telecommunication tower sites in many states in the Great Plains, Midwest, Mountain West, Southwest, Northeast and Pacific regions. She is also trained in wetland delineation and has completed wetland surveys and delineations in Minnesota, Nebraska, North Dakota, South Dakota and Wisconsin. She is experienced with wetland permitting processes including those with the U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS) and Minnesota Board of Water Resources (BWSR) Wetland Conservation Act (WCA), including consultation with administering Local Government Units (LGUs). Ms. Bellrichard has conducted numerous Phase I and Phase II environmental site assessments throughout the Great Plains and Southwest regions. She is able to collect spatial data in the field using hand-held GPS units and can also create and edit spatial data in ArcGIS. Ms. Bellrichard is also experienced at sampling soil, groundwater, and soil vapor for laboratory analysis.

RELEVANT EXPERIENCE

National Environmental Policy Act (NEPA) and Section 106

FCC NEPA Compliance, Verizon Wireless, 2005 – Current. Ms. Bellrichard has completed categorical exclusion level of assessment for more than 350 telecommunication tower and antenna installation sites throughout the Great Plains, Midwest, Mountain West, Northeast, and Pacific regions and has also completed several focused EAs. Tasks have included consultation with the USFWS, multiple state natural resource agencies, multiple state historic preservation offices (SHPOs) and tribal historic preservation offices (THPOs), numerous American Indian Tribes, and local historical groups, as well as participation in public meetings.

Throdores Roosevelt National Park Communication Tower Replacement and Co-location, Verizon Wireless, 2014-2016. Ms. Bellrichard was the lead author on the Environmental Assessment (EA) for the proposed tower replacement and antenna collocation in the North Unit of Theodore Roosevelt National Park for the National Park Service.

Wetland Survey/Delineation

Community Solar Gardens, Geronimo Energy, 2015 – Current. Ms. Bellrichard was the lead author or primary technical reviewer on wetland delineation reports for approximately 22 Community Solar Garden (CSG) projects in Minnesota. Reports were completed in accordance with USACE...
and BWSR guidelines including review of historic aerial photography and antecedent precipitation to assess wetland hydrology. Ms. Bellrichard is coordinating with the USACE and LGU responsible for administering the Minnesota WCA to obtain wetland boundary and type determinations and preliminary jurisdictional determinations for each project.

**Solar Energy Projects, SoCore, 2015 – Current.** Ms. Bellrichard conducted wetland delineation surveys for five solar sites in Minnesota. Tasks included delineation of wetlands using the USACE 1987 Wetlands Delineation Manual and regional supplements, using hand-held GPS, completing field data sheets, preparation of final reports in accordance with USACE and BWSR guidelines including review of historic aerial photography and antecedent precipitation to assess wetland hydrology, and coordination with the USACE and LGU responsible for administering the Minnesota WCA to obtain wetland boundary and type determinations and preliminary jurisdictional determinations for each project.

**Oliver III Wind Energy Center and Transmission Line, Morton and Oliver Counties, ND, NextEra Energy Resources, 2009 – Current.** Ms. Bellrichard lead/assisted with the wetlands and waters analysis for the proposed Oliver Wind Energy Center and transmission line in central North Dakota. Tasks included project facility micrositing to avoid and minimize impacts to wetlands and waters of the U.S., surveying wetlands and waters of the U.S., wetland delineations using the USACE 1987 Wetlands Delineation Manual and regional supplements, using hand-held GPS, completing field data sheets, and preparation of a final report for submission to the North Dakota Public Service Commission (PSC).

**Verizon Wireless, 2009 – Current.** Ms. Bellrichard has conducted numerous wetland delineations using the USACE 1987 Wetlands Delineation Manual and regional supplements for telecommunications tower sites in the Great Plains and Midwest including coordination with the USACE, USFWS, and Wisconsin Department of Natural Resources.

**Geographic Information Systems (GIS)**

**Line 6B Incident Response, Marshall, MI, Enbridge, 2010 – 2011.** Ms. Bellrichard worked in support of the Enbridge Line 6B Incident response in Marshall, Michigan as the lead GIS technician for the Submerged Oil Task Force. Tasks included the creation of multiple datasets, daily updating, maintenance and management of those datasets, and delivery of data to client and agency personnel. Ms. Bellrichard also created numerous maps for field personnel and the client, many of which were critical to the decision making process for the response.

**Phase I/Phase II Environmental Site Assessment (ESA) and Remedial Investigation**

**Phase I ESA, 2005 – Current.** Ms. Bellrichard has conducted more than 100 Phase I ESAs throughout the upper Midwest, Mountain West and Southwest. She has assessed various types of properties including cropland, residential, and retail/commercial; these sites have ranged in size from a few hundred square feet to several acres. Ms. Bellrichard has completed all aspects of the ESA including site reconnaissance, historical resource review, records review, conducting interviews and completing file reviews at government agencies.

**Phase II ESA, 2005 – 2012.** Ms. Bellrichard has lead or assisted with many Phase II ESAs including sample collection, sample control and completion of chain of custody documentation. Ms. Bellrichard is experienced sampling various media for laboratory analysis including soil, soil vapor, groundwater and paint.

**EMPLOYMENT HISTORY**

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<th>Company</th>
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<tr>
<td>2005 - Current</td>
<td>Environmental Scientist</td>
<td>Tetra Tech, Inc.</td>
<td>Bloomington, Minnesota</td>
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<tr>
<td>2004-2005</td>
<td>GIS Intern</td>
<td>University of Minnesota-Board of Water and Soil Resources</td>
<td>St. Paul, Minnesota</td>
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EXPERIENCE SUMMARY

Ms. Kuisle has an educational background in Environmental Studies and Business Management with applicable professional field experience. Ms. Kuisle has prepared numerous Federal Communications Commission (FCC) categorical exclusions and assisted with focused Environmental Assessments (EAs) under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) for a variety of telecommunication sites in many states in the Great Plains, Midwest, Mountain West, Southwest, Northeast, and Pacific regions. With a wide range of project development tasks including project research, technical writing support, and field research. Ms. Kuisle has completed several Phase I environmental site assessments, and cultural resource pedestrian surveys. Ms. Kuisle has conducted wetland delineations in Minnesota and North Dakota and prepared wetland delineation reports for sites throughout the Great Plains. Ms. Kuisle also has experience sampling soil, groundwater, and soil vapor for laboratory analysis.

RELEVANT EXPERIENCE

National Environmental Policy Act (NEPA) Assessments

Federal Communications Commission (FCC) NEPA Compliance, Verizon Wireless, 2013 – Current. Ms. Kuisle has completed categorical exclusion level of assessment for several telecommunication tower and antenna installation sites throughout the upper Midwest and Mountain West. Tasks have included consultation with the U.S. Fish and Wildlife Service, multiple state natural resource agencies, multiple state historic preservation offices, numerous American Indian Tribes, and local historical groups.

Phase I/Phase II Environmental Site Assessments (ESA)

Midwest Region, 2013 – Current. Ms. Kuisle has completed several Phase I ESAs throughout the Midwest. She has assessed various types of properties including cropland, residential, and retail/commercial; these sites have ranged in size from a few hundred square feet to several acres. Ms. Kuisle has completed all aspects of the ESA including site reconnaissance, historical resource review, records review, conducting interviews and completing file reviews at government agencies. Ms. Kuisle has also assisted with Phase II ESAs including drafting reports and sample collection. Ms. Kuisle is experienced sampling various media for laboratory analysis including soil, groundwater and paint.

U.S. Environmental Protection Agency, Colorado Smelter Remedial Investigation (RI), Pueblo, Colorado (2016): The Colorado Smelter Superfund site is a Remedial Investigation project for the U.S. EPA Region 8 to evaluate the nature and extent of lead and arsenic contamination in about

EDUCATION

B.A. Environmental Studies, B.A. Business Management, College of Saint Benedict, 2012

AREAS OF EXPERTISE

Phase I/Phase II Environmental Site Assessment (ESA), NEPA/Section 106

Wetland Delineation

Field Data Collection

Technical report preparation

Cultural Resources Pedestrian Surveys

KEY TRAINING/CERTIFICATIONS

OSHA HAZWOPER, 2016

CPR, 2016

Standard First Aid Training, 2016

Project Management Training Level I, 2015

OFFICE

Bloomington, MN

YEARS OF EXPERIENCE

3

CONTACT

612-643-2231
molly.kuisle@tetratech.com
Résumé

Molly Kuisle

1,200 homes surrounding the former smelter in Pueblo, CO. Ms. Kuisle has participated in aspects including: sampling of soil in residential yards using an incremental sampling methodology (ISM) utilizing manual drive core samplers, sampling of residential indoor dust using a High Volume Small Surface Sampler (HVS3), preparing soil samples for analysis through a process of drying, disaggregating, and sieving samples into different grain-size fractions, interacting with the homeowners and the community, including selection of dust sampling locations based on SOP guidance and a resident questionnaire, assuring quality in all aspects of the project in accordance with the Quality Assurance Project Plan (QAPP).

National Guard Bureau, Fargo, North Dakota (2015-Current): Ms. Kuisle assisted on the field sampling team in the long-term bio-remediation of a chlorinated solvent and co-mingled petroleum plume at an active Air National Guard installation. Project activities include ongoing groundwater monitoring.

Cultural Resources

Pedestrian Surveys, North Dakota, Nebraska, Minnesota (2013-Present): Ms. Kuisle has served as a field crew member for a Class II Cultural Resource Inventory for the proposed Grande Prairie Wind Farm in Holt County, Nebraska, a Class III Cultural Resource Inventory for the proposed Thunder Spirit Wind Energy Center in Adams County, North Dakota, and a Class III Cultural Resource Inventory for the proposed Courtenay Wind Farm located in Stutsman County, North Dakota, and a Phase II Archaeological Investigation for the proposed Dickinson Wind Farm in western North Dakota. During these surveys, Ms. Kuisle documented archaeological resources ranging from Euro-American artifact scatters to Native American lithic sites.

Saddle Club Residential Development, Anoka County, Minnesota, 2014. Ms. Kuisle served as a field crew member during the Phase I pedestrian survey and subsurface testing for the proposed 40-acre Saddle Club Residential Development. Over 250 shovel tests were excavated during this project.

Wetland Delineations

Community Solar Gardens, Geronimo Energy, 2015 – Current. Ms. Kuisle assisted with wetland delineation surveys for several Community Solar Garden (CSG) projects in Minnesota. Tasks included delineation of wetlands using the USACE 1987 Wetlands Delineation Manual and regional supplements, using hand-held GPS, completing field data sheets, and preparation of final reports in accordance with USACE and BWSR guidelines including review of historic aerial photography and antecedent precipitation to assess wetland hydrology.

Community Solar Gardens, SunEdison, 2015. Ms. Kuisle prepared wetland delineation reports for several Community Solar Garden (CSG) projects in Minnesota. Reports were completed in accordance with USACE and BWSR guidelines including review of historic aerial photography and antecedent precipitation to assess wetland hydrology.


ADDITIONAL EXPERIENCE

MS Excel, MS Word, MS Outlook, MS Publisher, Google Earth, Adobe Acrobat, GPS Navigation, and Nuance

EMPLOYMENT HISTORY

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<td>2013- Present</td>
<td>Environmental Scientist, Tetra Tech Inc., Bloomington, Minnesota</td>
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<tr>
<td>2012</td>
<td>Global Fellow, Institute for Youth Development KULT, Sarajevo, Bosnia</td>
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<tr>
<td>2010-2011</td>
<td>Agricultural Intern, University of Minnesota, Rochester, Minnesota</td>
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EXPERIENCE SUMMARY

Mr. Holven has extensive archaeological field experience, including large-scale research-based excavations in western Nebraska and Iowa, multi-square mile cultural resource surveys for wind parks in Iowa, Indiana, Minnesota, North Dakota, Ohio, and South Dakota, and Phase I and II cultural resource surveys for agricultural, transportation, and telecommunication projects throughout the Upper Midwest and Great Plains. The cultural resource projects the Mr. Holven manages are often a critical component in the development of environmental assessments (EA) and environmental impact statements (EIS) for project requiring compliance with the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). For this work, he has developed the necessary project management skills by serving as a crew member, collaborator, field director, and principal investigator for a broad range of archaeological and cultural resource management projects. Mr. Holven has also overseen the completion of NEPA categorical exclusions for cellular projects in Iowa, Minnesota, North Dakota, and South Dakota reviewed by the Federal Communications Commission (FCC). He is highly proficient in GIS (including aerial photography, spatial statistics, and landscape modeling), zooarchaeology and vertebrate taphonomy, chipped stone analysis, historic archaeology, and has applied his educational background in geology and soils to the field of geoarchaeology. This suite of archaeological experience coupled with cultural resources and NEPA project management, a background in GIS, geology, and soils has provided him with the necessary tools to complete a wide range of cultural resources projects both thoroughly and efficiently.

RELEVANT EXPERIENCE

Cultural Resource Management - National Environmental Policy Act (NEPA) Support

Federal Communications Commission (FCC) NEPA Compliance, Verizon Wireless, 2007 – Current. Mr. Holven has served as Principal Investigator and has completed cultural resource assessments and surveys for more than 400 telecommunication tower and antenna installation sites throughout the Upper Midwest, Great Plains, and Mountain West. Tasks have included cultural resource file searches at multiple state historic preservation offices, surface and subsurface testing, and consultation with the multiple state historic preservation offices and numerous American Indian Tribes, and local historical groups.
Résumé

Adam Holven, M.S., B.S., B.A.

December 2014

Cultural Resource Management – Energy Support

Thunder Spirit Wind Energy Center, Adams County, North Dakota, Global Winds Harvest, 2013 – 2014. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Thunder Spirit Wind Energy Center in southwest North Dakota. The total area surveyed to date for the project is 926 acres (1.4 square miles). The project will require a Certificate of Site Compatibility from the North Dakota Public Service Commission (PSC); therefore, the Project is subject to review by the State Historical Society of North Dakota (SHSND) under the North Dakota Century Code 55-02-07.

Courtenay Wind Farm, Stutsman County, North Dakota, Geronimo Energy, 2013 – 2014. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Courtenay Wind Farm in central North Dakota. The total area surveyed to date for the project is 2,832 acres (4.4 square miles). The project will require a Certificate of Site Compatibility from the North Dakota PSC; therefore, the Project is subject to review by the SHSND under the North Dakota Century Code 55-02-07.

Wilton IV Wind Energy Center, Burleigh County, North Dakota, NextEra Energy, 2011 – Current. Mr. Holven is the Principal Investigator for the Class III Cultural Resource Inventory for the proposed Wilton IV Wind Energy Center in central North Dakota. The total area surveyed to date for the project is 1,035 acres (1.6 square miles). Western and the SHSND will review this Project and ensure its compliance with Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA). Mr. Holven will provide the cultural resources documentation that will be utilized in the Environmental Impact Statement (EIS).

Day County II Wind Energy Center, Day County, South Dakota, NextEra Energy, 2012 – Current. Mr. Holven is the Principal Investigator for the Level III Cultural Resource Survey for the proposed Day County II Wind Energy Center in eastern South Dakota. The project will require a Certificate of Site Compatibility from the South Dakota Public Utility Commission (PUC); therefore, the Project is subject to review by the South Dakota State Historic Preservation Office (SHPO).

Crowned Ridge Wind Energy Center, Grant, Codington, and Deuel Counties, South Dakota, NextEra Energy, 2009 – Current. Mr. Holven is the Principal Investigator for the Level III Cultural Resource Survey for the proposed Crowned Ridge Wind Energy Center in eastern South Dakota. The project will require a Certificate of Site Compatibility from the South Dakota Public Utility Commission (PUC); therefore, the Project is subject to review by the South Dakota State Historic Preservation Office (SHPO).

ADDITIONAL EXPERIENCE

MS Excel, MS Word, MS Outlook, MS Access, ArcGIS, ArcPAD, Trimble GPS, Zooarchaeology, Geoarchaeology, Historic Archaeology

EMPLOYMENT HISTORY

2003-2006 Research Archaeologist, Iowa State University, Ames, Iowa
2003-2005 Teaching Assistant, Iowa State University, Ames, Iowa