

**COUNCIL ACTION FORM**

**SUBJECT: STATE LETTER OF AGREEMENT FOR NEW WATER TREATMENT PLANT CONSTRUCTION**

**BACKGROUND:**

On January 21, 2012, the City Council authorized the Water and Pollution Control Department to enter into a Drinking Water State Revolving Fund (DWSRF) planning and design loan to fund the design of the City's new 15 million gallon per day water treatment plant. The DWSRF program provides low-interest loans to allow communities to minimize the financial cost for major capital projects. The loan fund can be used for planning and design as well as water plant construction. The planning and design loan will later be rolled into the construction loan.

The DWSRF program uses federal funds and is required to conduct an environmental and historical review. Several agencies were asked to review the proposed project and provide comments on any possible impacts. After review, the State Historic Preservation Office (SHPO) had two concerns: recognition of veterinary advances made on the former United States Department of Agriculture research site, and special construction near charity graves in the Ames Cemetery. Staff worked extensively over a period of many months with SHPO and the SRF administration team to develop a solution agreeable to all parties. The letter of agreement drafted to address the two SHPO concerns contains the following provisions:

- The agreement would require the City to install a commemorative plaque acknowledging the veterinary advances that took place on the site. City staff had already discussed the possibility of a plaque with the USDA, and had in fact already verbally agreed with the City's Historic Preservation Commission to provide such a plaque. The agreement with SHPO leaves the design and placement of the commemorative plaque to the discretion of the City. This requirement does not add any additional cost or time to the project that was not already anticipated.
- The agreement also commits the City to utilize special construction methods near the charity grave sites. The proposed water pipeline to the new water treatment plant follows a gravel access road in the City's lime pond area, near the cemetery. There is a 350-foot segment where SHPO has requested special excavation because of possible archeological remains. The City will need to excavate this area in lifts of no greater than 12" at a time, with the work to be supervised by an archeologist. This requirement will add additional cost to the City to hire the archeologist, and will require the area to be excavated twice. It is worth noting that, should any items of cultural or historical significance be discovered, the City's obligations would be no different than if no letter of

agreement had been signed. If artifacts are discovered, the City will need to negotiate a preservation and/or recovery plan with the IDNR and SHPO in accordance with applicable state and federal statutes. All the letter of agreement adds is the additional cautious excavation of the area.

The letter of agreement is the final step in the review process. All environmental reviews are complete and the other reviewing agencies have granted approval for the process which would allow the City to enter into the construction loan. Staff believes the negotiated letter of agreement is a reasonable compromise to contain the project costs while taking responsible precautions to protect possible artifacts.

**ALTERNATIVES:**

1. Authorize the Mayor to sign the letter of agreement accepting the two SHPO requests and allowing the review clearance to be issued.
2. Do not authorize the Mayor to sign the letter and direct staff to seek an alternate agreement with SHPO.

**MANAGER'S RECOMMENDED ACTION:**

Funding of the new water treatment plant is shown in the current Capital Improvements Plan as coming from the Drinking Water State Revolving Fund loan. A letter of agreement between the City, the Department of Natural Resources, the State Historic Preservation Office, and the State Archeologist is the final step to obtaining a "Finding of No Significant Impact" certificate, which is a requirement of the State Revolving Fund loan program. Staff is in agreement with the terms of the attached letter.

Therefore, it is the recommendation of the City Manager that the Council adopt Alternative No. 1, thereby authorizing the mayor to sign the letter of agreement and allowing the SRF review process to be finalized.

June 13, 2014

Mr. Daniel Higginbottom  
State Historical Preservation Office  
State Historical Society of Iowa  
600 E. Locust St.  
Des Moines, IA 50319-0290

Ms. Shirley Schermer  
Burials Director  
Iowa Office of the State Archaeologist  
700 South Clinton Street Building  
Iowa City, Iowa 52242-1030

**RE: R&C # 120885097**

City of Ames, Iowa—New Water Treatment Facility  
Story County  
Ames East Quadrangle  
Section 01 & 02, Township 83 N, Range 24 W

Dear Mr. Higginbottom & Ms. Schermer:

For the purpose of avoiding effects upon historic properties in this project area, the State Revolving Fund (SRF) program, under the Iowa Department of Natural Resources (IDNR), would like to propose a **Letter of Agreement** to establish appropriate measures to protect from the possibility of damaging unmarked burials and to commemorate significant veterinary advances that have occurred within the Area of Potential Effect (APE.)

**Background**

The previous submittal dated August 20, 2012, reviewed the general scope of the project; a new drinking water treatment plant is proposed to be built in the northeastern corner of the project APE. Pipelines will transfer raw water, finished water, and lime sludge to and from that location along the routes shown in the attached map. River crossings will be bored. Portions of the existing drinking water treatment plant, located in the southwestern corner of the APE, will be

demolished as part of this project. Iowa Site Inventory forms were completed on those structures affected over 50-years-old were included in the original submittal.

## **Archeology**

The proposed project will disturb an estimated 137 acres of land, with approximately 40 of those acres previously disturbed for existing water treatment structures including the sludge lagoons. An archaeological firm, the Wapsi Valley Archaeology, was retained to perform a Phase 1 Intensive Archaeological Survey of the project area. No significant archaeological resources were identified within the project area, however SHPO asked that some additional field testing be done on two sensitive landform areas. This field testing was completed and was included in the October 2012 Archaeological Survey Report previously submitted.

A second survey was performed in August 2013 because an area was added to the project APE just west of the existing sludge lagoons and within the Ames Municipal Cemetery boundaries. While significantly away from the more formal cemetery area, this section was near an area fenced off and marked as a charity burial area. Because of the concern of possible undiscovered burial sites, at the request of the Burials Director, Phase I excavation was not conducted between City of Ames utility poles #12531 and #12535 along the eastern edge of the existing Ames Municipal Cemetery (334.65 feet by 40 feet).

Finally, during a review of the pipeline routes in May 2014, it was found that two sections of pipe have been moved in a noteworthy fashion from their previously planned locations. One pipeline is now located immediately to the north of Cell #4 of the existing sludge lagoons in an area marked by the archeologists as previously disturbed, presumably by the construction of the sludge lagoons; based on the archeologist's assessment of this vicinity (October 2012 report), it does not appear that this route alteration will impact any historic resources.

The second pipeline route alteration is in the proximity of the charity graves. Specifically, in response to concerns raised by the Burials Director concerning undiscovered burials, the City has moved this section to the east of what was previously proposed, to a location within an existing roadbed which is also the western berm of the existing sludge lagoon. See attached map D06 for a closer view of this route. While it is reasonable to think that any archeological deposits on the ground surface have been disturbed for the construction of the existing roadbed and berm, it is possible that historic burials occurred prior to the road's construction and may still exist underneath the disturbed strata. This is most likely in the same vicinity as the area restricted from Phase I investigation by the Burials Director, i.e. between City of Ames utility poles #12531 and #12535.

Due to the project's proximity to the existing cemetery boundaries and the possibility of unknown burials, the Burials Director and Iowa State Historic Preservation Office (SHPO) agree that additional measures need to be taken to properly investigate the remaining section of APE in the vicinity of the charity graves prior to construction and treatment measurements be specified for the possible event of an unanticipated discovery.

## **Architectural History**

Buildings formerly located on the former USDA property were architecturally-reviewed through a previous submittal, R&C#110685005, during the time when the buildings were owned by the USDA. DNR personnel reviewed USDA research and correspondence with SHPO prior to these buildings' demolition by the USDA and concurred with their lack of historic significance.

The existing treatment plant has many components, some of which were originally constructed at least 50 years ago, though the treatment facility has undergone multiple renovations and is currently in poor condition. Photos and an Iowa Site Inventory form filled out by Assistant Director Steven DuVall of the Ames Water and Pollution Control Department were included in the previous submittal. As the Electric Department Warehouse, while currently utilized by the water treatment plant, was primarily constructed for and used by the electric department, it is included in a separate Iowa Site Inventory form. It is located immediately east of the other components discussed in the primary form. Please note, while some original structures were designed by Anson Marston, an accomplished civil engineer and educator at Iowa State University's School of Engineering, it is believed that the only extant such structure is a 25,000 gallon cement below-ground storage tank. As it lacks any distinctive architectural characteristics, it is not believed to be historic despite its association with Marston.

While National Register eligible properties exist within Ames, the proposed project will not affect any existing structures beyond those already discussed. One National Register listed district is located approximately two blocks west and one block north of the far southwestern corner of the APE (Bandshell Park). This park will not be affected by this project given the distance and demolition work proposed in that vicinity. Viewshed in this vicinity has already been compromised by the existence of the Ames electrical power plant; construction of the new water treatment facility should be no more invasive. Based on this information we believe that further historical survey of the project area is not justified.

## **Areas of Concern**

Under this Agreement, the areas of concern will be defined as that portion of APE for the Ames New Water Treatment Facility project area that is between City of Ames utility poles #12531 and #12535 under the existing roadbed (334.65 feet by 12 feet) and that portion of the former USDA-owned property on which veterinary advances in the creation of a hog cholera immunization process took place (see attached map). Each area will have a different set of treatment guidelines as set out below.

## **Exclusion Zones and Supervised Stripping**

With this background established, we proposed the following steps to avoid adverse effects upon historic properties. Ames will ensure that temporary barriers are erected along the western easement boundaries within the area of concern in the cemetery to prevent accidental encroachment of construction activities into areas that may contain archeological sites, such as undiscovered burials. Ames will inform contractors of the sensitivity of these exclusion zones.

Additionally, on-site mechanical stripping, at one-foot intervals or less, shall be conducted in advance of construction between City of Ames utility poles #12531 and #12535 under the existing roadbed. This work shall be supervised by a qualified archeologist, to ascertain if there are graves, human remains, or coffin remains within the construction corridor. Should the archeologist on-site determine that intervals greater than one-foot are appropriate, the discretion of the archeologist may be used.

Ames will ensure that all archaeological work and any subsequent surveys and/or Data Recovery Plans are conducted in a manner consistent with the Guidelines for Archaeological Investigations in Iowa (1999), the Secretary of the Interior's Standards and Guidelines for Identification and Evaluation (48 FR 44720-23), and take into account the National Park Service publication The Archeological Survey: Methods and Uses (1978) and any extant or most recent version of Iowa guidelines for historic properties reconnaissance surveys and reports, or other pertinent guidance depending on the resource type.

### **Unanticipated Discoveries**

In accordance with 36 CFR Section 800.13, if during construction, previously undetected or undocumented historic properties are discovered, the City of Ames will cease, or cause to stop, any activities within the immediate vicinity of the discovery and consult with the DNR, OSA and SHPO to determine if additional investigation is warranted. The SHPO shall respond within seven working days of direct notification to the SHPO reviewer.

If both the City of Ames and the DNR, in consultation with SHPO and OSA, determine that further investigation is not necessary, activities may resume with no further action required. If the City of Ames, DNR, OSA, and the SHPO disagree concerning the need for further investigations the IDNR will request comment from the Advisory Council on Historic Preservation in accordance with item (c)(3) of Appendix A to Part 36 CFR 800 . The IDNR will take the Council's comments into account, with reference only to the subject of the dispute. The signatories' responsibilities to carry out all actions under this Agreement not in dispute will remain unchanged.

Should a significant, National Register-eligible archeological site(s) be discovered during construction, the requirements of 36 CFR Part 800.2 and .5-.6 shall apply. If upon applying the criteria for adverse effects the City of Ames, in consultation with the DNR, OSA and SHPO, determines that no other actions are feasible to avoid or otherwise minimize the effects to archeological properties, then the City of Ames will develop a memorandum of agreement (MOA) to supplant the present Letter of Agreement, which will be null and void upon full execution of the MOA. Mitigation measures may include, but not necessarily be limited to the following: data recovery, partial site avoidance and preservation in place with proactive protection measures that will be implemented under a legally binding and enforceable conservation easement.

If archeological data recovery is the agreed upon treatment, a data recovery plan (DRP) will be devised in consultation with the SHPO and as necessary the OSA subject to IDNR approval, and attached to the MOA as an appendix. The DRP will address substantive research questions that are pertinent to the historic context(s) under investigation. It shall specify, at a minimum, the following:

- a. The property, properties, or portions of properties where the treatment plan is to be carried out
- b. The research questions to be addressed, with an explanation of research relevance and importance.
- c. The relevant historic contexts that are under consideration and their qualities of historical significance.
- d. The methods to be used, with an explanation of methodological relevance to the research questions.
- e. Proposed methods of disseminating results of the work to the interested public.
- f. A proposed schedule for the submission of progress reports to the SHPO.

When archaeological data recovery is the agreed upon approach to mitigation, the City of Ames, in consultation with the DNR, OSA, SHPO and consulting archaeologist, will develop and implement a program to secure significant archeological resources from vandalism subject to IDNR approval. In consultation with the SHPO, the City of Ames will ensure that all materials and records resulting from the historic properties studies are appropriately curated at a repository within the State of Iowa in accordance with 36 CFR Part 79.

If human remains are encountered either during survey, evaluation, or data recovery investigations or during any construction activities associated with the Undertaking, the IDNR and the City of Ames will comply with all provisions outlined in the appropriate state acts, statutes, and guidance and any decisions regarding the treatment of human remains will be made in consultation with the SHPO, Tribes, and the Iowa Office of the State Archaeologist (Iowa Code Chapter 114.34, 263B.7-9, 716.5, 523I.316.6, and Iowa Administrative Code 685-11), as appropriate.

Immediately upon the completion of data recovery efforts, a letter report of sufficient content shall be prepared by the cultural resources consultant and submitted to the IDNR along with relevant attachments that demonstrate adherence to and fulfillment of the approved DRP. The IDNR shall distribute copies to the SHPO and other consulting parties. The SHPO shall have 30 calendar days from the date of their receipt to comment on the IDNR's findings and determinations. Failure by the SHPO to respond within 30-days shall represent concurrence with the IDNR findings and determinations. The final report shall be submitted to the IDNR within one year of the completion of fieldwork. The IDNR shall distribute copies to the SHPO and consulting parties with regulatory, oversight, and/or review responsibilities. The adverse effect shall be considered mitigated once the SHPO has received and recommended the acceptance of the final report. Failure to complete and file the final report with the SHPO will result in an adverse effect on the historic property that is the subject of the data recovery and constitute a breach of this Agreement.

## **Public Comment & Cooperation**

While the above discussed research has shown that no National Register-eligible properties have been located on the project site, correspondence with local historians and others has indicated that various groups would like some recognition of the significant veterinary medicine work conducted on the former-USDA property. At minimum, the Ames Historic Preservation Commission would like a marker of some sort to this effect; the City of Ames is amenable to this. A copy of their letter was included in the original submittal. To that end, the City has been in contact with the Director of the National Centers for Animal Health as well as one of the (now retired) researchers who was involved in the work at the site as to the most appropriate way to commemorate the work with a marker. As part of this Agreement, the City shall construct an appropriate sign or monument *a propos* the historical events regarding veterinary medicine that have taken place on this area of concern.

Currently the thought is to use an area just outside the security fence surrounding the proposed water treatment plant to have a sort of garden or memorial area that would be accessible to the public, however, designs have not been set. The SHPO will be provided with an opportunity to review and comment upon design drafts.

## **Determination**

With these conditions in place, the SRF program has proposed a “no adverse effect to historic properties” determination.



**Agreement**

Please sign and date the signature block provided below if you are in agreement with the attached conditions.

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Mr. Steve King  
State Historic Preservation Officer  
State Historical Society of Iowa

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Date

**Agreement**

Please sign and date the signature block provided below if you are in agreement with the attached conditions.

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Mr. Chuck Gipp  
Director  
Iowa Department of Natural Resources

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Date

**Agreement**

Please sign and date the signature block provided below if you are in agreement with the attached conditions.

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Dr. John Doershuk  
State Archaeologist  
Iowa Office of the State Archaeologist

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Date

**Agreement**

Please sign and date the signature block provided below if you are in agreement with the attached conditions.

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Ms. Ann Campbell  
Mayor  
City of Ames

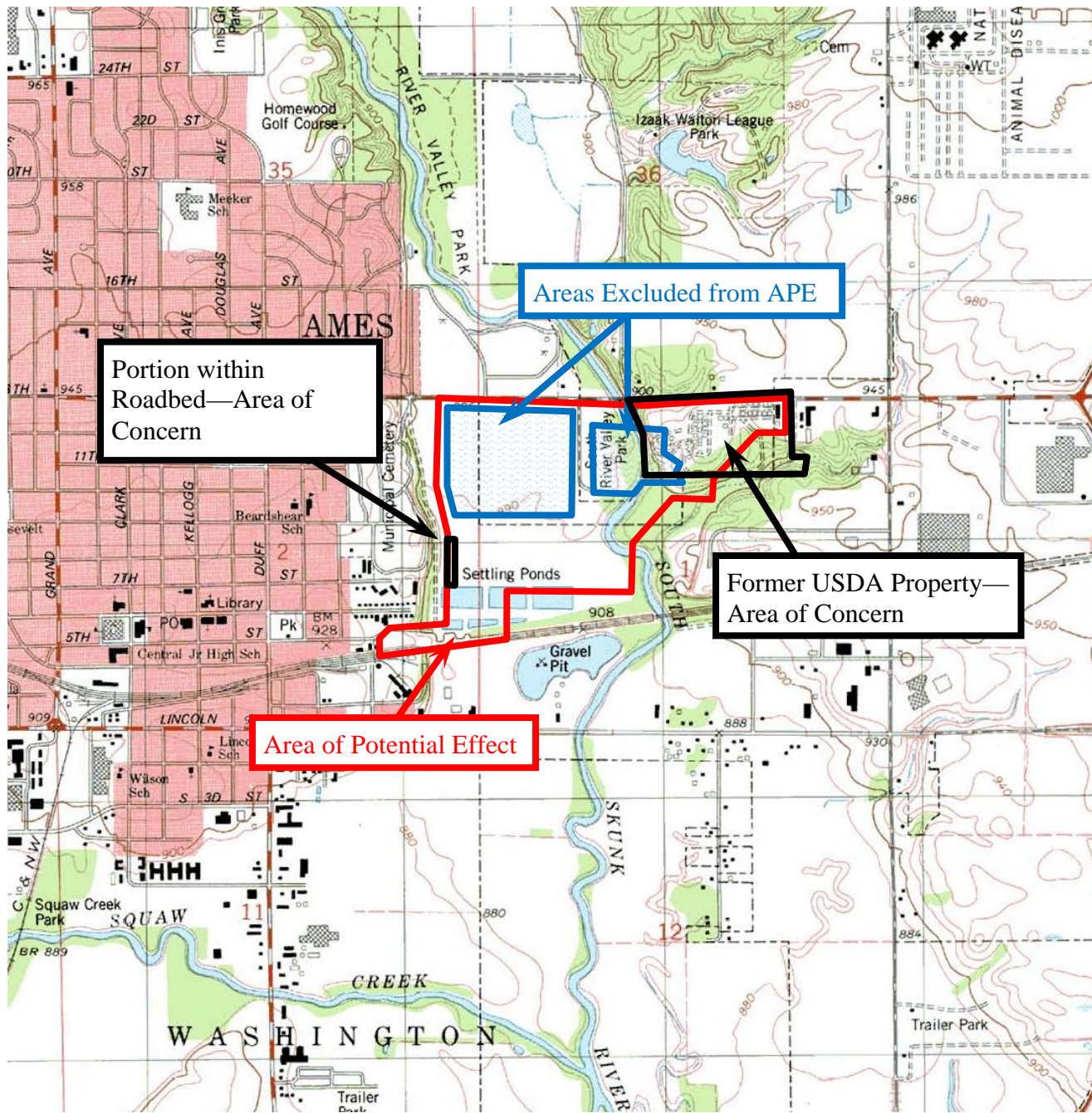
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Date

Ames East Quadrangle  
Section: 01 and 02, Township: 83 N, Range: 24 W  
Date: 1975  
Scale: 1 Inch = 2,000 Feet



North



### USGS Topographic Map

Ames Proposed Water Treatment Facility  
Ames, Iowa



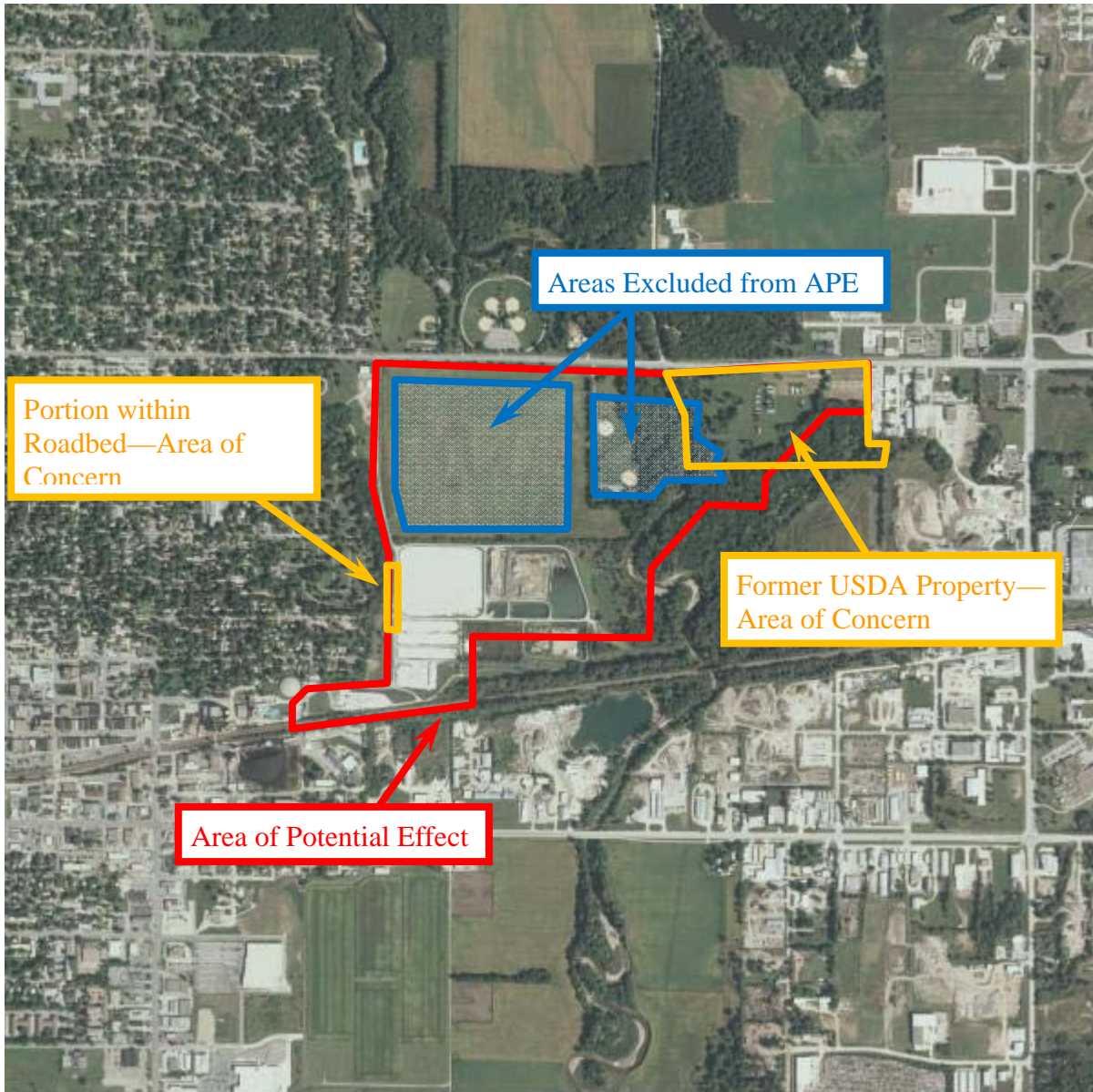
State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309

2009

Location provided by City of Ames, Water & Pollution Control Dept.



North



## Aerial Photograph

Ames Proposed Water Treatment Facility  
Ames, Iowa



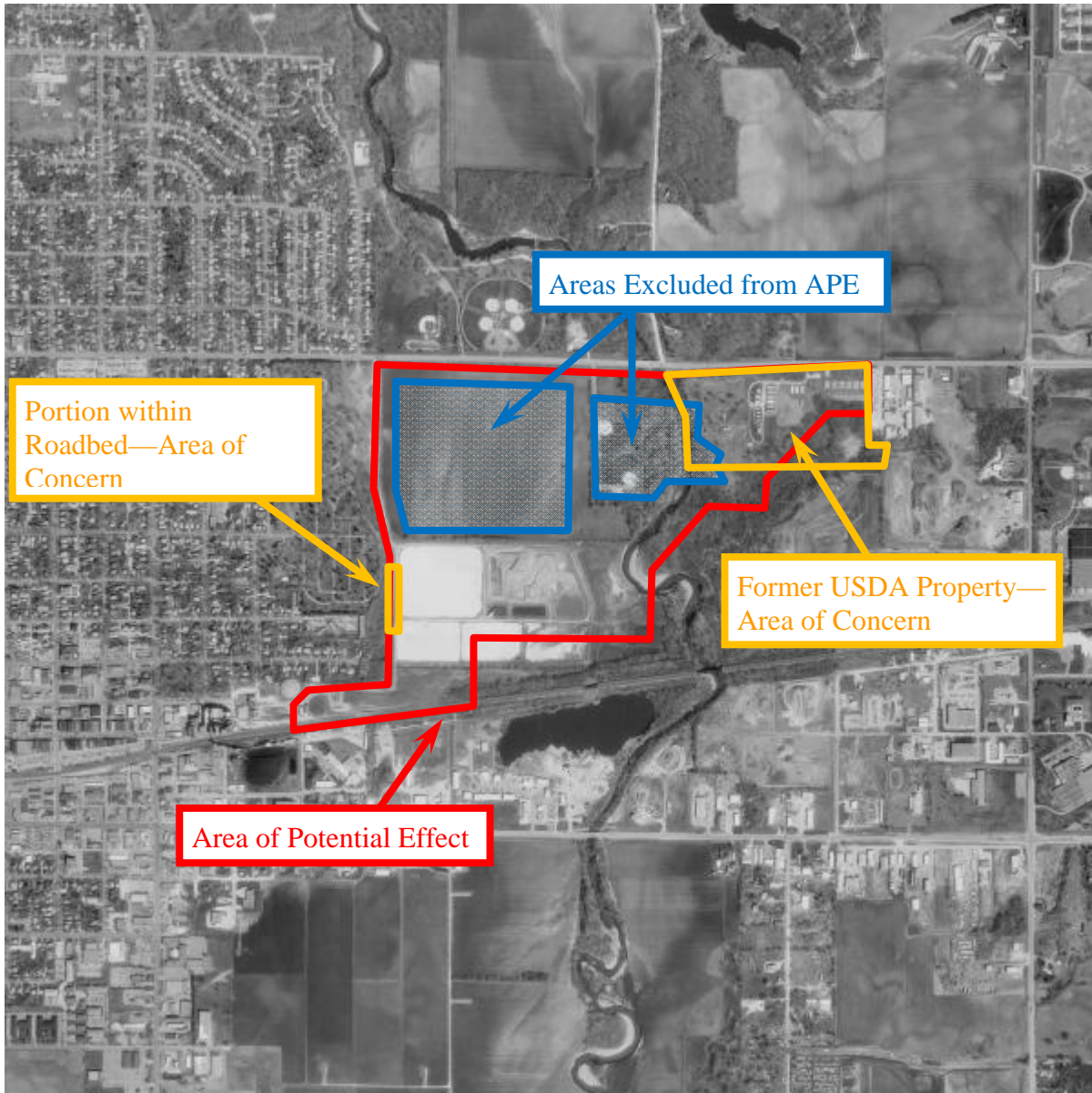
State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309

1990's

Location provided by City of Ames, Water & Pollution Control Dept.



North



## Aerial Photograph

Ames Proposed Water Treatment Facility  
Ames, Iowa



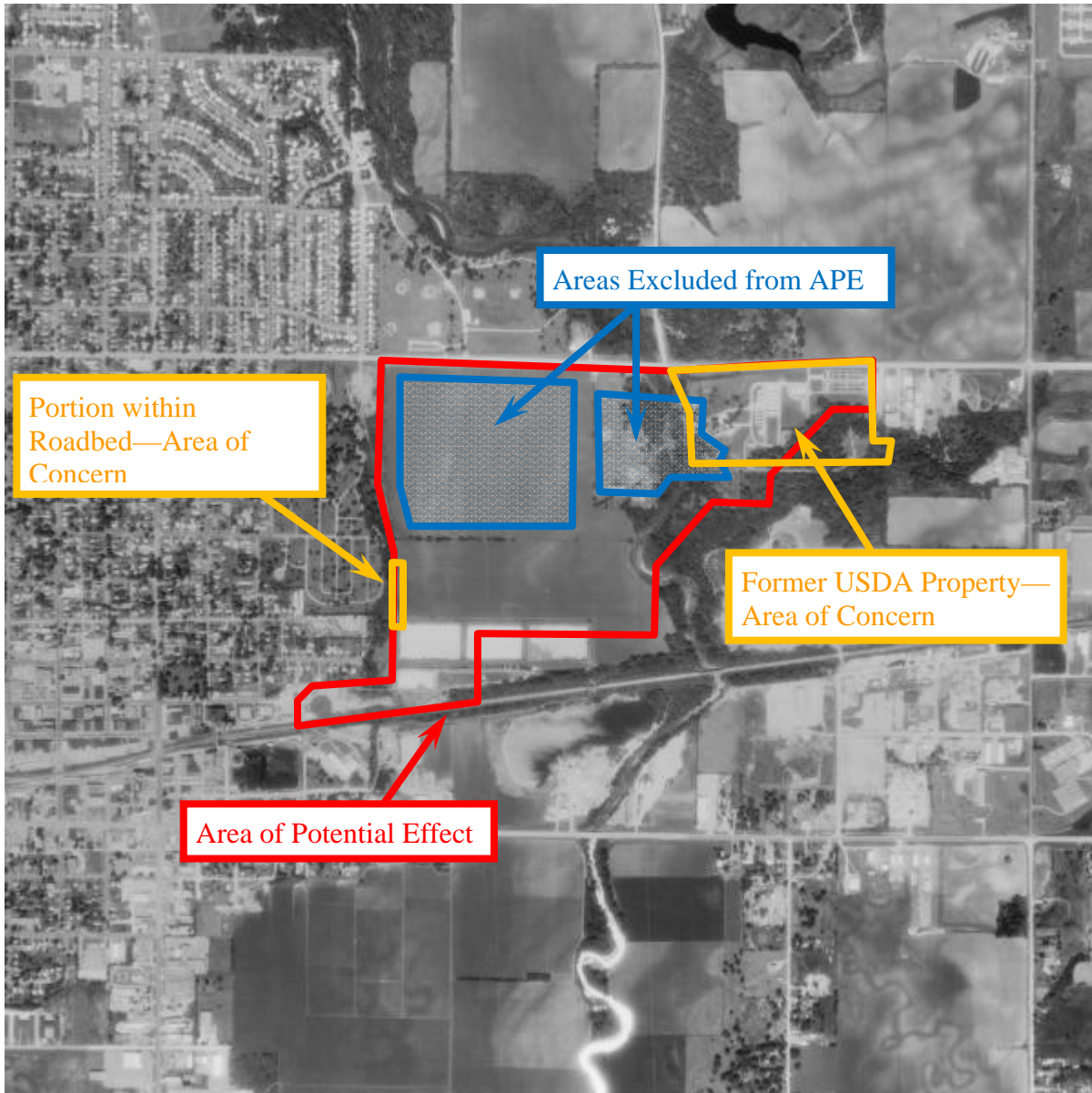
State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309

1970's

Location provided by City of Ames, Water & Pollution Control Dept.



North



## Aerial Photograph

Ames Proposed Water Treatment Facility  
Ames, Iowa



State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309

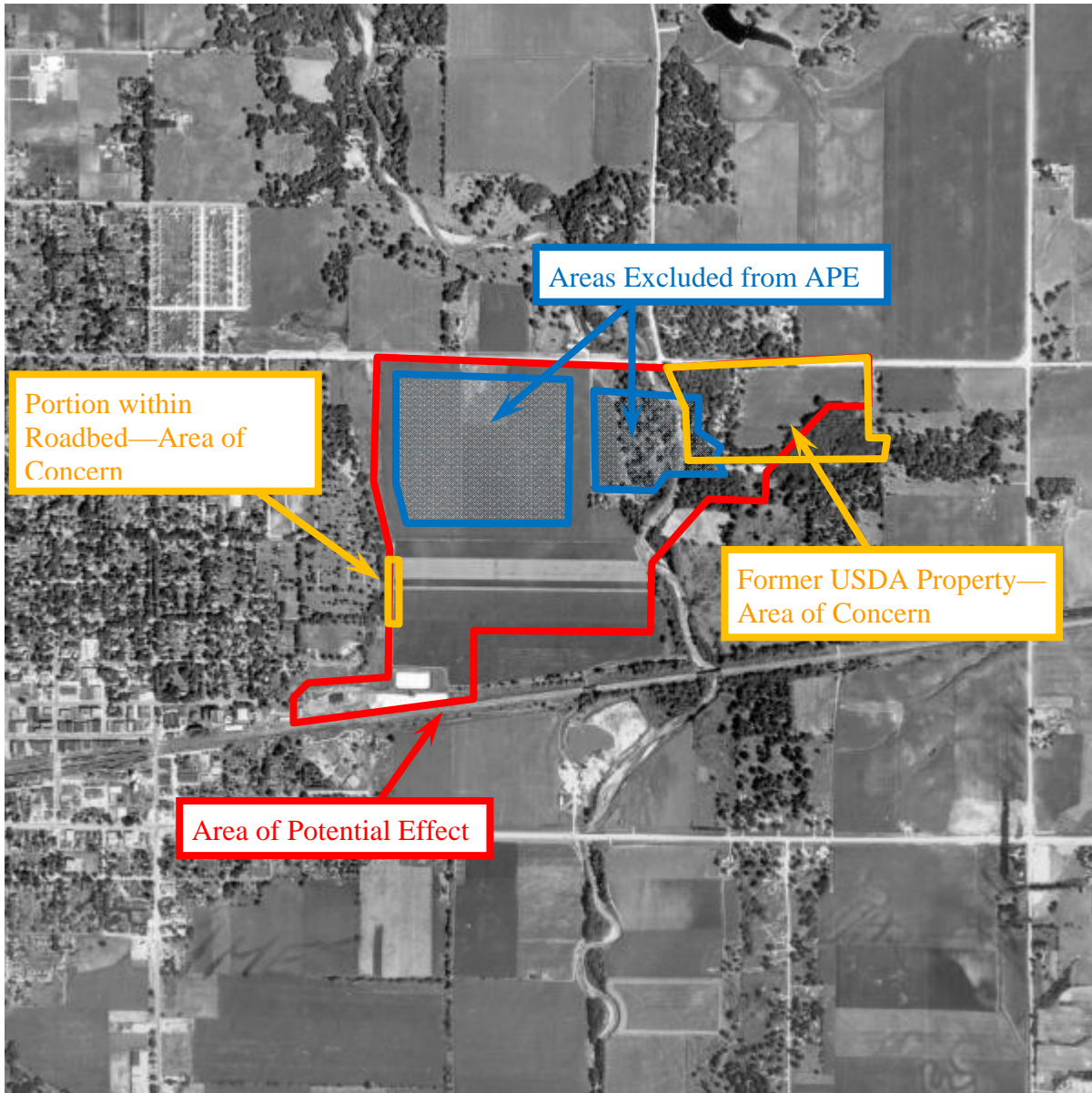


1950's

Location provided by City of Ames, Water & Pollution Control Dept.



North



## Aerial Photograph

Ames Proposed Water Treatment Facility  
Ames, Iowa



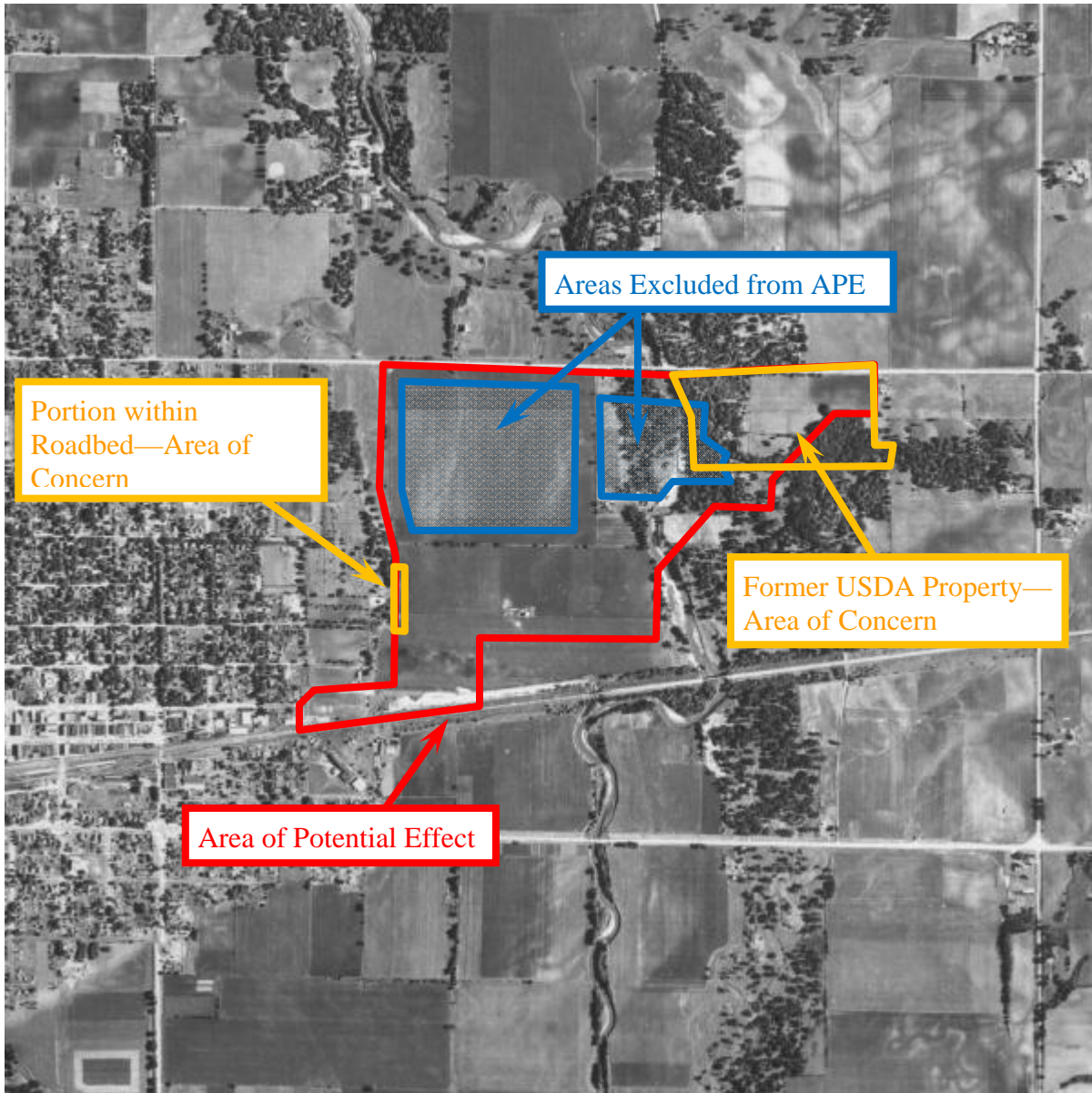
State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309

1930's

Location provided by City of Ames, Water & Pollution Control Dept.



North

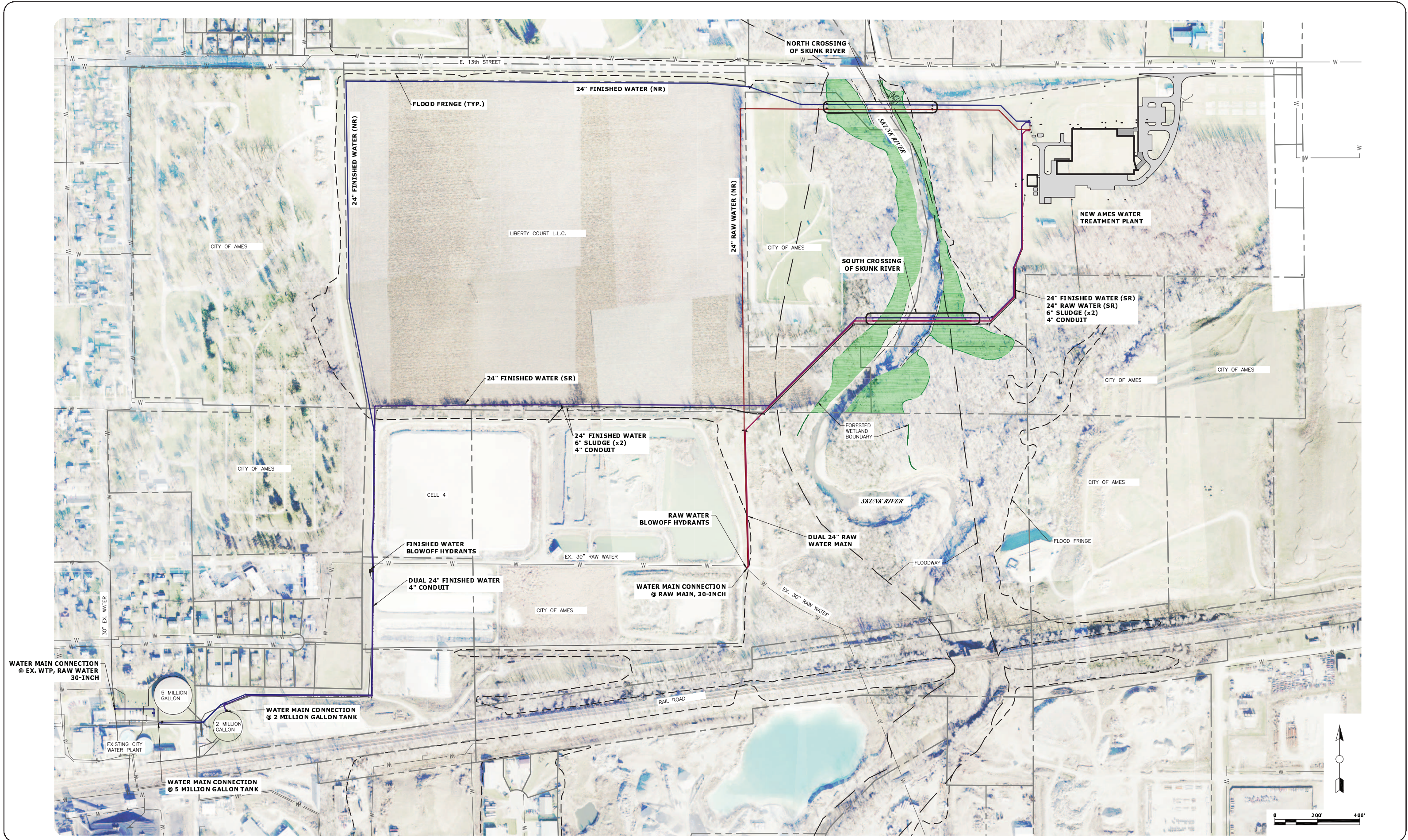


## Aerial Photograph

Ames Proposed Water Treatment Facility  
Ames, Iowa



State Revolving Fund  
401 SW 7<sup>th</sup> Street, Suite M  
Des Moines, IA 50309



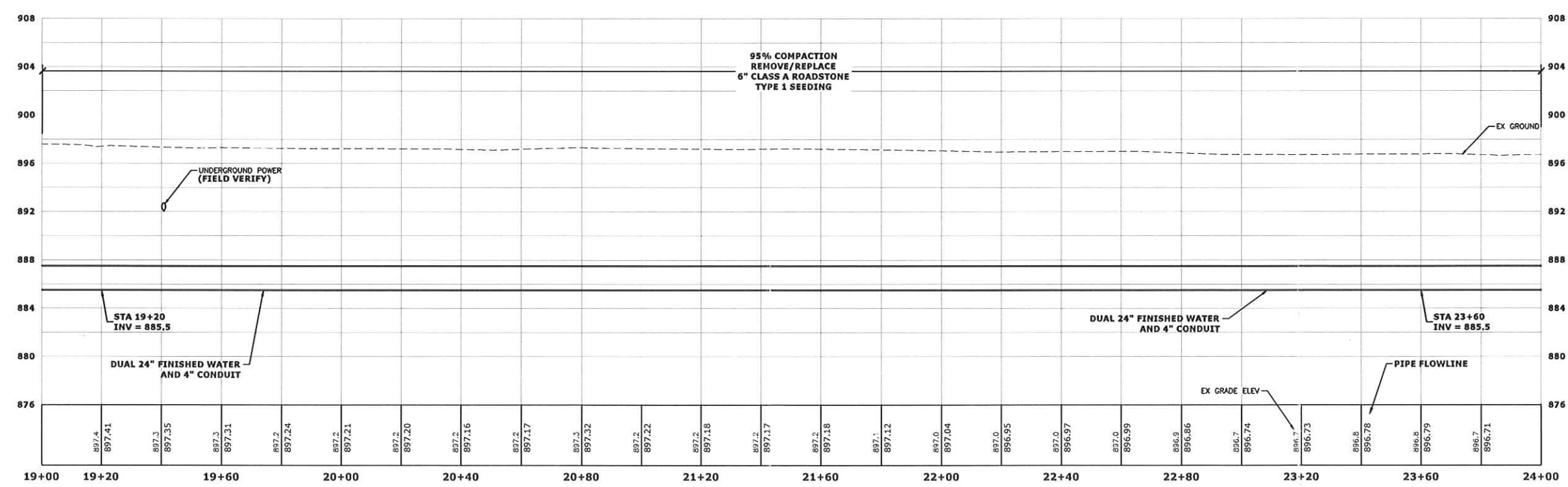
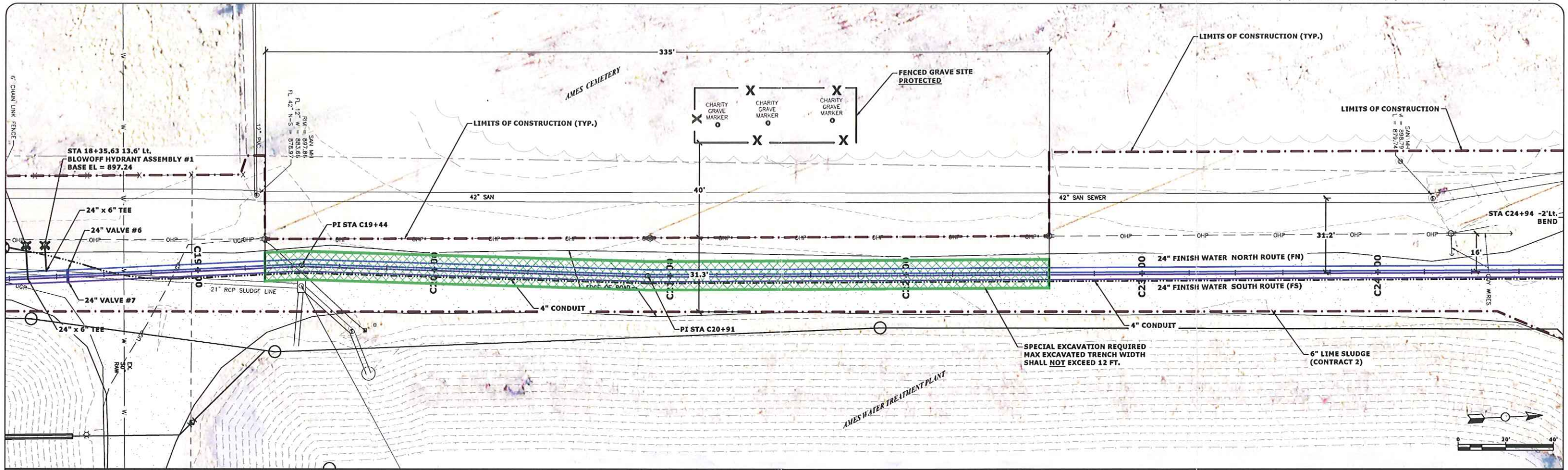
DESIGNED:	BY:	DATE:	REV. NO.:	REV. DATE:	REVISION:
JMG	JMG				
TJH					

FOX PROJECT NO.:	FOX engineering
3338-12C	

GENERAL OVERALL LAYOUT

AMES WATER TREATMENT PLANT - CONTRACT 1  
 UTILITIES  
 CITY OF AMES - AMES, IOWA

LAST UPDATE:	SHEET NUMBER
03/14/14	A.02



STATION	EX GRADE PROFILE	GRADE	STATION
19+00	897.4	897.41	19+20
	897.3	897.35	
	897.3	897.31	19+60
	897.2	897.24	
	897.2	897.21	20+00
	897.2	897.20	
	897.2	897.16	20+40
	897.2	897.17	
	897.3	897.32	20+80
	897.2	897.22	
	897.2	897.18	21+20
	897.2	897.17	
	897.2	897.18	21+60
	897.1	897.12	
	897.0	897.04	22+00
	897.0	896.95	
	897.0	896.97	22+40
	897.0	896.99	
	896.9	896.86	22+80
	896.7	896.74	
	896.7	896.73	23+20
	896.8	896.78	
	896.8	896.79	23+60
	896.7	896.71	24+00