

## MINUTES OF THE SPECIAL MEETING OF THE AMES CITY COUNCIL

AMES, IOWA

DECEMBER 20, 2022

The Special Meeting of the Ames City Council was called to order by Mayor John Haila at 6:00 p.m. on the 20<sup>th</sup> day of December, 2022, in the City Council Chambers in City Hall, 515 Clark Avenue, pursuant to law. Present were Council Members Gloria Betcher, Amber Corrieri, Tim Gartin, Rachel Junck, and Council Member Anita Rollins was brought in telephonically. Council Member Bronwyn Beatty-Hansen was absent. *Ex officio* Member Bryce Garman was absent.

Council member Bronwyn Beatty-Hansen arrived at 6:01 p.m.

**CONSENT AGENDA:** Mayor Haila noted that Consent Agenda Item Number 7 should read “Major Final Plat,” which the agenda had been corrected to reflect.

Moved by Corrieri, seconded by Betcher to approve the consent agenda.

1. Motion approving new 12-Month Class E Retail Alcohol License – Casey’s #4315 – 3218 Orion Drive -Pending Favorable DIA Inspection
2. Motion approving new 12-Month Class E Retail Alcohol License – Casey’s #4314 – 1118 South Duff Avenue - Pending Favorable DIA Inspection
3. Motion approving DBA name update for Class E Liquor License, Class C Beer Permit, and Class B Wine Permit with Sunday Sales – Tobacco Outlet Plus #530 to KWIK SPIRITS #530, 204 S. Duff Ave
4. RESOLUTION NO. 22-649 approving preliminary plans and specifications for SAM Pump Station Standby Generator, setting January 25, 2023, as the bid due date and February 14, 2023, as the date of public hearing
5. RESOLUTION NO. 22-650 approving Change Order No. 3 to Sargent & Lundy LLC, Chicago, Illinois, for additional engineering services for the RDF Storage Bin Repair Project in the amount not to exceed \$64,000
6. Ely’s Subdivision, 1<sup>st</sup> Addition
  - a. RESOLUTION NO. 22-651 approving Minor Final Plat
  - b. RESOLUTION NO. 652 approving Sidewalk Deferral Agreement
7. RESOLUTION NO. 22-653 approving Major Final Plat for Quarry Estates, 6<sup>th</sup> Addition
8. RESOLUTION NO. 22-654 approving extension of Ames Urban Fringe Plan 28E Agreement until April 30, 2023

Roll Call Vote: 6-0. Motion/Resolutions declared carried/adopted, signed by the Mayor, and hereby made a portion of these Minutes.

**WORKSHOP ON WASTE-TO-ENERGY OPTIONS STUDY:** Bill Schmitt, Superintendent of the Resource Recovery Plant (RRP), opened the presentation with an overview of the history of the City of Ames’ current Waste-To-Energy system, which has been in place since 1975. He outlined that the current system being referenced included the RRP, the Storage and Holding Bin, and the Power Plant. He stated the purpose of the study was to examine the current system and how it may be improved with new technologies as well as look to planning for the next 20 years

with a forward-thinking approach. Superintendent Schmitt introduced the firm who produced the report, RRT Design and Construction (RRT). Mr. Schmitt noted there were five options RRT had originally been contracted to evaluate, as well as two sub-options that came to light through the study that the team preparing the evaluation felt were good options to explore and consider. Brett Wolfe and John Sasso, of RRT, presented on the Waste-To-Energy Options they had been commissioned to explore on behalf of the City of Ames.

Mr. Wolfe opened the presentation by thanking the City for the opportunity to present their findings and noted the extensive experience working with municipalities and qualifications of the RRT team who worked on the project. He noted that while this was a technical study, the financial aspect of the study was a key aspect to evaluate with each option and would be presented alongside the technical information. Mr. Wolfe also credited Capital Market Advisors as the subconsultant who worked with the RRT team to provide the financial modeling included in the presentation. City staff were also credited as being a key component of the team.

Council Member Gartin inquired about RRT's experience with Refuse-Derived Fuel (RDF) and plants similar to the City of Ames'. Mr. Wolfe highlighted projects RRT had worked with previously, that are similar to the current system the City has, but noted there was a size difference.

Mr. Wolfe cited the Request for Proposal (RFP) when outlining the goal of the study: the purpose of the study was to evaluate credible options for disposing Municipal Solid Waste (MSW) in a waste-to-energy system that could satisfy the county's solid waste disposal needs for 2023 and beyond. He also noted that priorities to consider were population growth, environmental stewardship, landfill avoidance with increasing tonnage, reducing reliance on natural gas, and reducing greenhouse gas (GHG) impact. These priorities led to the evaluation of five Waste-To-Energy options and two sub-options, as well as the technical and financial study. Mr. Wolfe noted RRT had made no recommendations in the study or report and would not be making any. He noted RRT's role was to provide options for City Council's consideration but not to endorse any.

Mr. Wolfe further examined the capabilities of the current system. He noted the RRP currently handles 52,000 Tons Per Year (TPY) of MSW, which is then converted to RDF to be used by the Power Plant (PP) to create electricity. The RRP is utilized by 12 cities in Story County, the County itself, and Iowa State University. The PP handles 32,000 TPY of RDF and serves 28,000 metered customers. Mr. Wolfe noted that by law, 30 percent of RDF must be co-fired with 70 percent natural gas by weight, which is costly both financially and environmentally. He also highlighted that the PP is the provider of about 40 percent of Ames electric energy supply.

Council Member Gartin inquired if the City Council needed to operate with the understanding that the co-fired variable was needed when the Council was considering options. Mr. Sasso clarified the air permit was designated to be co-fired with coal when the RRP became operational. Due to this, the boilers were designed with that requirement in mind, which meant the boilers could not be altered to run on 100 percent RDF. Gartin clarified this led to physical constraints in the system that limited options and were binding outside of the permit requirements.

Mr. Wolfe then summarized the current system challenges facing the city. He noted that currently, approximately 2,700 TPY of MSW must be directed to the landfill due to Waste-to-Energy (WTE) capacity limitations and that this number would grow to 17,000 TPY by 2044 if 1.1. percent growth rate is realized. Another factor highlighted by Mr. Wolfe was the requirement to burn natural gas as a large contributor to GHG emissions. He noted the availability of other market energies that had both lower costs and lower GHG emissions and noted that MISO requires the City to have the capacity to meet 110% of the City's historic electric demand.

Mr. Wolfe explained the RRP process has the capacity to divert 3,800 TPY of waste from the landfill. He also noted the Waste-to-Energy approach is preferred by the Environmental Protection Agency over sending waste to a landfill.

Energy through the PP was the next aspect Mr. Wolfe focused on. He highlighted the two RDF boilers located at the PP produce electricity at the price of \$56/MW. The rest of the city's electric needs are met from other areas of the grid such as wind, solar, or fossil generation, at prices of \$30/MW during peak time, and \$17/MW on off-peak times.

Mr. Wolfe went on to explain that of the five options being presented for Council's consideration, one was the base case, which was what would happen if the City did not take action and continued operations as they are now. He then turned the floor over to his colleague, John Sasso to explain the five options and two sub-options that RRT was asked to evaluate.

Mr. Sasso listed the five options and two sub-options given to RRT to evaluate:

1. Utilize the existing Resource Recovery and Power Plant as is (Base Case used for comparison)
- 2A. Utilize the existing Resource Recovery Plant and construct a new dedicated refuse-derived fuel (RDF) unit at the Power Plant with Unit 8 serving as a backup unit
- 2B. Modify the Resource Recovery Plant to produce larger, 20" RDF, (currently 4") and construct two new dedicated RDF units at the Power Plant (does not rely on Unit 8 as a backup)
- 3A-1. Construct a new Resource Recovery Plant at the Coal Yard, and construct a new dedicated refuse-derived fuel (RDF) unit at the Power Plant with Unit 8 serving as a backup unit
- 3A-2. Construct a new Resource Recovery Plant and construct two new dedicated RDF units producing steam to an industrial host at a new greenfield site
- 3B-1. Construct two new MSW mass burn units (no pre-processing) at the Coal Yard site
- 3B-2. Construct two new MSW mass burn units (no pre-processing) producing steam to an industrial host at a new greenfield site.

Mr. Sasso stated that for all options listed, excluding options 3A-2 and 3B-2, the new units would contribute 6 MW of additional capacity compared to the base case of how the City had operated up to that point. He also directed those interested to Table 3 and Table 4, included in the report and Council Summary packet, for a simplified version of the information about to be presented. While discussing the base case, Mr. Sasso noted that current MSW levels exceed the capacity of the current system by at least 6 percent.

Mr. Sasso noted that base case allowed for 53 percent of MSW to be diverted from the landfill. He further clarified for Council Members that this was due in some cases to the type of material, and in other cases the MSW sent to the landfill was due to exceeding the capacity the current WTE system is equipped to handle. Mr. Wolfe noted that of the current MSW that is sent to the landfill, added capacity would divert another 2,700 TPY. If the base case is continued, the projection for that number in 2044 is 17,000 TPY.

Mayor Haila inquired of the RRT team their perspective on the amount of MSW being processed at the RRP. Mayor Haila noted 2,700 TPY of the MSW being taken in is diverted to the landfill. Mr. Wolfe noted that the RRP is not burning to its full potential, and this problem becomes exacerbated further in the future with increased projected intake. Superintendent Schmitt further answered Mayor Haila's inquiry by clarifying that currently the RRP is operating two shifts five days a week, there is additional processing capacity available. He furthered that the choke point of the system is that not all that RDF is able to be combusted as Units 7 and 8 are not able to burn at the same time.

Another constraint noted by Superintendent Schmitt is at the RRP only about 45-50 hours of the 80-hour work week are used for processing, while the remaining hours are used for maintenance. He stated that with more shifts and other accommodations the RRP would be able to handle the volume of MSW coming in. Council engaged in robust conversations about what this meant for the future of the RRP. City Manager Steve Schainker clarified for City Council that the processing of the material is not necessarily the choke point, but the ability to burn the RDF is, and this has led to the need to evaluate new systems to handle the burning. Council Members then asked more clarifying questions of the current system to have a fuller understanding of how to approach the other options put forth by the RRT report.

Mr. Sasso continued through the rest of the options, noting pros and cons for each. For each option presented, he also evaluated the capital costs, operational and maintenance costs, environmental impacts and permitting, externalities (such as truck traffic, odor, and noise), and the timeline to design and construct. Additionally, the consultant was asked to identify the impacts of each option on the existing diversion programs (glass and food waste).

Under Option 2A Mr. Sasso answered Council Member Gartin's question of how the new system would address the need for processing by explaining this option would eliminate the bottleneck on the energy side by allowing for increased burning of RDF. Mr. Wolfe furthered this option allows the City to accommodate the anticipated increase in MSW through the end of time period of the

study, 2044. Council Members then engaged in thorough conversation about how the needs and constraints of the existing system would be affected by this option. Council Member Betcher questioned the valuation of rejects and ash being sent to the landfill, which Mr. Sasso answered by stating ash was preferable between the two as it had no GHG emissions. He also noted air pollution control on the new units would capture pollutants up to EPA standards.

Conversation around Option 2A established the understanding that all options presented, excluding the base case, were designed to meet the projected capacity needs of the City of Ames, and considered all current input sources. Mr. Wolfe addressed Mayor Haila's question about odor by noting that raw MSW is what gives off odor usually, not the burning of it. Council Member Betcher noted Table 3 showed this option overall reduced the amount of leftovers from the process and inquired why that was. Mr. Sasso noted this was due to the increased ability to burn more MSW under this option as the proposed boiler could handle more waste.

Options 3A-1 and 3A-2 called for a new state of the art RRP, one with the option to keep Unit 8, and one with a potential customer for steam produced from the plant. The current RRP would potentially be repurposed as it would no longer be utilized in the WTE process.

Option 3B-1 and 3B-2 both utilized mass burn technology, which Mr. Sasso noted is the most common system being used today. Mr. Sasso furthered that air pollution control technology for a RDF boiler and a mass burn boiler is the same, so the emissions would be on par with each other. An additional benefit was the increased throughput, as almost everything was being burned which leads to less going to the landfill. Robust conversation around the pros and cons of having a steam partner to potentially sell generated steam ensued from these options and the risks and benefits that would result. Council Member Beatty-Hansen asked for more clarification of how these options would handle recycling metal. Mr. Sasso clarified these options also came with recommendations to continue pulling metal out of the system at the front end to be recycled.

Discussion then moved to the ramifications of each option on GHG emissions. Mr. Sasso noted all options besides the base case are projected to result in a greater than 40 percent reduction in GHG, as all options reduce the City's need for natural gas. He further discussed how this could potentially support the City's goal of reducing GHG by 83 percent. Electrical Services Director Donald Kom came forward to clarify how these projections tied to the City's current efforts and the implications it had for CO<sub>2</sub> levels in the future. Director Kom referred back to the Climate Action Plan as he stated WTE makes up 12 percent of the 83 percent reduction the City hopes to make in GHG emissions. Further conversation around the GHG value of WTE followed.

Mr. Sasso presented on the financial models that had been developed for this report. He noted factors that were considered included average annual costs, Net Present Value (NPV), and Internal Rate of Return (IRR). It was also stated that for the study, the base case was run as an option that could not go negative anytime during the 20-year evaluation period of the study. As further financial tables were evaluated, conversation around the fluctuating costs of natural gas and the possibility of steam revenue surfaced.

Director Kom came forward to explain how to think of these options in correlation to the continued need to provide power to the City's citizens as well, noting that none of the options resulted in the City giving up any capacity to meet electrical demands. He also answered questions related to the financial obligation of producing power with natural gas versus purchasing it from MISO. Council Members and presenter Mr. Sasso engaged in robust discussion around the importance of natural gas prices to each option for both costs to customers and GHG emissions, before he took questions about further financial implications.

Mr. Wolfe noted that permitting is a very nuanced process that was hard to talk about without a selection having been made, however he noted that Title V Air Permit would be required by the State of Iowa DNR regardless of which option is selected. Power Plant Manager Curtis Spence came forward to answer Council Member Betcher's question about the possibility to increase capacity for ash disposal. He noted the current model is not used for incineration as ash is different and will be hauled to the landfill, regardless of which option is selected.

One of the additional items in the RFP was to evaluate against current City programs and programs that may come forward in the future, Mr. Wolfe noted for the Council that WTE does not impede recycling. He also noted that the organics diversion program improves combustion, and explained they are complementary of each other. Mr. Wolfe also expressed support for further education opportunities for Ames residents to get stakeholders positively involved in whichever option was chosen to move forward. Council Member Gartin expressed his belief that it was time to have community conversations around program values and Council Member Betcher further questioned the importance of what it would look like for the City to run its WTE program potentially without the staple of the RRP.

Mr. Wolfe went over the potential schedule for a typical product of this size, with over \$100 million in capital, noting RRT's estimate it would be six years from the time an engineer was selected to pursue an agreed-upon option. He noted the permit process was not included in this estimate but would want to be pursued before construction and commissioning.

Assistant City Manager Brian Phillips noted for the City Council there was two main components to be considered in terms of evaluating the future feasibility of the status quo. He listed these as to what extent the City is able to make improvements to the WTE process, and what the cost of natural gas will be. Mr. Phillips reiterated to City Council that the higher the cost of natural gas the less favorable the City's current situation is. Director Kom noted an additional consideration is that Boone County Landfill has stated they do not want anymore of the City's trash, so the sooner action is taken, the better.

City Manager Steven Schainker expressed something has to change in our current system to make it more accessible for people to recycle, compost, and participate in other waste diversion programs. He noted the importance of not giving up on these efforts on the front end of the process to reduce the amount of waste that needed to be processed. Assistant City Manager Phillips

presented a financing scenario based on the lowest cost option, which was 2A. He noted options for financing through garbage fees, property taxes, and electric services and the implications each of those options would have on Ames residents. City Manager Schainker noted revenue bonds would have to be used and would likely be done through electric utility. He also noted the importance of presenting all information to customers in a way they can understand the value of the action.

Director Kom then introduced the team that had been working with RRT to develop this plan. He noted Assistant City Manager Brian Phillips, Public Works Director John Joiner, RRP Superintendent Bill Schmitt, Power Plant Manager Curtis Spence, and former Electric employee Brian Trower all played key roles in the development of the plan. Director Kom then stated Curtis Spence and Electric Engineer Kristin Evans, with others in the PP, believe it may be possible to move Combustion Turbine #2 near the current PP, construct a waste-to-energy boiler and steam generator as envisioned in Option 2A, and use the exhaust gas heat from Combustion Turbine #2 to generate additional steam and produce more electricity. He furthered that staff is requesting that the engineering firm Sargent & Lundy, LLC, Chicago, Illinois be retained to provide an evaluation of this Combustion Turbine #2 Heat Recovery Steam Generator Concept. This evaluation is expected to take four months. Savings in the amount of \$86,267 are available from the WTE study and the Power Plant Wastewater Treatment CIP projects for this project. Power Plant Manager Spence noted this allows for both a capacity increase and the ability for the City to independently operate these systems and that theoretically this could be used in addition to any of the options previously presented.

Another possibility discussed by Director Kom that came forward as a result of the study was the possibility of selling steam to an interested outside party. Through preliminary discussions, Lincolnway Energy, whose host is Alliant, had emerged as a possible partner in building a new WTE facility near its plant in Nevada, as Lincolnway Energy uses a substantial amount of steam in its process to manufacture ethanol. Director Kom further explained if this potential partnership was pursued, a variety of details would need to be further discussed with Lincolnway Energy (and Alliant Energy, which is the electric and natural gas provider in that area), such as the ownership and operating responsibility for the equipment, the source of the waste material to be converted, and the extent of the City's involvement in the overall system. Staff would like to hold further discussions with Lincolnway Energy before the City Council takes final action regarding a preferred option. Staff would then return to the City Council at a future date with a more detailed analysis of the advantages and disadvantages of a partnership option. Director Kom noted he was not making a request to spend any funds, but rather he sought permission to continue these conversations.

## **PRESENTATION ON WASTE-TO-ENERGY MASTER PLAN**

- a. Motion accepting the Waste-to-Energy Options Study Final Report

- b. RESOLUTION NO. 22-655 approving contract with Sargent & Lundy, LLC, Chicago, Illinois, evaluating the feasibility of a Combustion Turbine #2 Heat Recovery Steam Generator Concept in the amount not to exceed \$69,500
- c. Motion authorizing staff to continue discussions with Lincolnway Energy regarding the feasibility of a partnership to develop a waste-to-energy facility

Moved by Betcher, seconded by Corrieri Approving Alternative 1A, 1B, and 1C.

Roll Call Vote: 6-0. Motion declared carried unanimously.

**URBAN RENEWAL AREA PLAN FOR 2105 AND 2421 NORTH DAYTON AVENUE (SMALL LOT INDUSTRIAL SUBDIVISION):**

Moved by Beatty-Hansen, seconded by Corrieri, to pass on second reading an ordinance passage of ordinance creating Tax-Increment Financing District.

Roll Call Vote: 6-0. Motion declared carried unanimously.

**REZONING WITH A MASTER PLAN THE PROPERTY ON THE SOUTHWEST CORNER OF CAMERON SCHOOL ROAD AND GEORGE WASHINGTON CARVER AVENUE FROM “A” (AGRICULTURAL) TO “FS-RL” (SUBURBAN RESIDENTIAL LOW-DENSITY) AND “FS-RM” (SUBURBAN RESIDENTIAL MEDIUM-DENSITY):**

Moved by Betcher, seconded by Corrieri to pass on second reading an ordinance Rezoning with a Master Plan the property on the Southwest Corner of Cameron School Road and George Washington Carver Avenue from “A” (Agricultural) to “FS-RL” (Suburban Residential Low-Density) and “FS-RM” (Suburban Residential Medium-Density).

Roll Call Vote: 6-0. Motion declared carried unanimously.

**ZONING TEXT AMENDMENT TO ALLOW A 20% REDUCTION TO REQUIRED PARKING FOR CERTAIN COMMERCIAL AND INDUSTRIAL USES ON SITES WITH MORE THAN 100 PARKING STALLS:**

Moved by Beatty-Hansen, seconded by Junck, to pass on second reading an ordinance for Zoning Text Amendment to allow a 20% reduction to Required Parking for Certain Commercial and Industrial Uses on Sites with more than 100 Parking Stalls.

Roll Call Vote: 6-0. Motion declared carried unanimously.

**DISPOSITION OF COMMUNICATIONS TO COUNCIL:** Mayor Haila noted that there were four items to consider.

The first item was an email from Lisa Kuehl, regarding informational notification pertaining to the University of Northern Iowa’s “Good Neighbor Iowa” Program. Mayor Haila stated that this item was for information only and no action was required.

The second item was a letter from the State Historic Preservation Office of Iowa, National Register of Historic Places, regarding Nomination of the Cranford Apartment Building to the National Register of Historic Places. Mayor Haila stated that this item was for information only and no action was required.



The third was an email from Grant Thompson, regarding Front Yard Fencing – Consideration for Vegetable Gardens. It was noted this had been referred at last meeting and was for informational purposes only.

The fourth item was a letter from Jerry Nelson, of Onondaga Investments, regarding Zoning Code relating to Non-Conforming Structures.

Moved by Betcher, seconded by Junck to direct to staff for a memo.

Vote on Motion: 6-0. Motion declared carried unanimously.

**COUNCIL COMMENTS:** Council Member Betcher noted that it is exciting that Cranford Apartment Building will be potentially listed as a Historical site. She noted it was a housing site for women who were in engineering and mathematics who were teaching at Iowa State University. She then wished everyone a safe and happy holiday season.

Council Member Gartin expressed his appreciation for staff clearing the snow, providing services, and doing tasks that need to be done even in inclement weather.

Council Member Rollins echoed what had already been said and wished everyone a happy holiday.

City Manager Steve Schainker noted the City of Ames was being proactive and hoped no one would experience an emergency at their home. He noted the City had begun work with the Red Cross to be prepared to open local shelters if needed. He furthered that the Police and Fire Departments have been working on logistics for helping people in need.

Mayor Haila shared the Wreaths Across America event at Ames Municipal Cemetery raised enough money to place wreaths on 1,800 graves. He noted the Boy Scouts, including his grandson, were out laying wreaths and credited the event as a very moving ceremony honoring veterans. He shared the organizations goal next year is to raise enough for graves in the Ontario Cemetery as well. Mayor Haila wished everyone a happy holiday.

**ADJOURNMENT:** Moved by Betcher, seconded by Junck to adjourn the meeting at 8:30 p.m.

Vote on Motion: 6-0. Motion declared carried unanimously.