



Royal Oak

Agenda

Royal Oak Environmental Advisory Board Meeting

Wednesday, July 31, 2024, 7:00 p.m.

Royal Oak Farmers Market

316 East Eleven Mile Road

Royal Oak, MI 48067

Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the city clerk's office at 248-246-3050 at least two (2) business days prior to the meeting.

	Pages
1. Call to Order	
2. Approval of Agenda	
3. Approval of Minutes	
4. Public Comment	
5. New Business	
a. EV Charging and Solar Energy Presentation and Discussion	2
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ENVIRONMENTAL ADVISORY BOARD AGENDA ITEM

TITLE	ENVIRONMENTAL ADVISORY BOARD AGENDA ITEM
SUBMITTING DEPARTMENT	City Manager
PRESENTER	Angela Fox
MEETING DATE	August 12, 2024
S-CAP Goal	2.3.1. Install EV chargers at appropriate municipal facilities 2.3.2. **Convert municipal fleet to EVs or other alternative fuel vehicles,

EXECUTIVE SUMMARY *(include history of previous action/discussion, background, scope of work, etc.):*

Four outdated and broken dual port Chargepoint Chargers are currently in two Royal Oak city-owned parking garages. After an evaluation period and discovery process, Matt Exley, Facilities Director, and Angela Fox, Sustainability Manager, recommend hiring Red E to replace them. The discovery process and evaluation period included the following milestones.

- Reviewed the discovery document provided by Red E.
- Meetings with DTE, SEMCOG, Oakland County, and other communities to better understand current EV landscape
- Attended informational sessions on EV Charging Infrastructure through SEMCOG, Great Plains Institute, and the Electrification Coalition
- Met with all seven companies approved to work with DTE through the DTE EV Rebate Program
- Gathered estimates from all seven companies for the “Rip and Replacement” of ChargePoint Chargers in the parking garages.
- Working with DTE, vendors, and electricians to finalize plans for City Hall and Senior Center Charging Stations.
- Received grant funding for the first all-electric shuttle for the Senior Center

The new chargers are single-port level two chargers that can be used for fleet and nonfleet vehicles alike. They have a credit card machine and app for ease of use. Red E also owns, operates, and maintains the chargers, with a revenue share model of \$0.05 per kilowatt-hour payable semi-annually. The chargers will cover all utility costs.

Red E was the second lowest bid after ChargePoint. They have been a wonderful partner during this discovery process. A Detroit-based company, they are invested in the success of EV Charging in and around the Detroit Metro area.

We may seek out chargers for future phases from other vendors, including Ford for Fleet. We were impressed by Red E's ability to address both fleet and community charging needs.

Fiscal Impact

BUDGET SUMMARY	
EXPENDITURE REQUIRED	Red E – 11,192.00 / Income Power - \$4,800.00.
AMOUNT CURRENTLY BUDGETED	\$16,000 (carryover \$90,000 CIP from FY 23-24 for fleet-related charging equip; may require budget amendment)

OTHER FISCAL IMPACTS: (Select all that apply.)

- ☐ No fiscal impact
 ☒ Revenue impact (details below)
 ☐ Workload impact (details below)
 ☒ Operations Impact (details below)

REVENUE IMPACT: *Provide a description of how this item will impact revenue. (Is this item expected to create additional/new revenue? Will this item have a negative impact on revenue? Which funds would be impacted? Provide additional details, as necessary.)*

Red E owns, operates, and maintains its chargers. Its revenue share model is \$0.05 per kilowatt-hour, payable semi-annually. Revenue will be rerouted to the Green Fund Account for future EV projects.

The chargers will be funded through the Motor Pool fund, as they will be used by the fleet in the short term while longer-term EV Chargers are installed. The chargers will charge fleet vehicles at a lesser rate than the public, and a revenue share does not apply to those chargers.

WORKLOAD IMPACT: *If this item will require staff time to implement, operate or maintain, provide a description of the workload impact. (Will more staff be needed? Is this workload able to be absorbed by existing staff? If new FTE(s) are needed, provide details of position classification and duties. Provide additional details, as necessary.)*

These new chargers will free up staff time and capacity. The current chargers are mainly being replaced due to poor customer service and response times for broken or out-of-service chargers.

OPERATIONS IMPACT: *If the item requires a budget adjustment, please identify source of additional funds and any proposed cuts to other operations, programs and services.*

DPS budgeted \$90,000 for EV Chargers in the 23-24 FY. Those funds were not carried over, and a budget amendment will likely be needed. We are confirming with finance. Either way, the motor pool fund is an internal fund and, due to the amount, should not negatively affect the budget in a significant way.

ALIGNMENT WITH COMMISSION APPROVED PLANS, POLICIES, AND PROGRAMS

Provide a description of how this item aligns with the strategic plan, aging in place plan, and sustainability and climate action plans. Include any specific goals or action steps it supports.

Royal Oak Climate Action Plan

2.3.1. Install EV chargers at appropriate municipal facilities.

2.3.2. **Convert municipal fleet to EVs or other alternative fuel vehicles, as appropriate.

COMMUNITY ENGAGEMENT

Provide a description of any community engagement efforts made for this item. Include information on tools used, participation information, and general sentiments.

Social Media posts will be sent out to notify residents when the EV chargers will be replaced. A marketing campaign will explain the change and explain how this is a first step towards a more comprehensive charging infrastructure in Royal Oak.

SUGGESTED RESOLUTION

The Royal Oak Environmental Advisory Board supports the staff recommendation to hire Red E for the installation of 8 level two charger replacements at the 300 S. Center, 212 S. Center, and 514 S. Lafayette parking structures.

Home » Articles » **Soy-backed SYNlawn solving problems Coast to Coast**

Soy-backed SYNlawn solving problems Coast to Coast

From the severe drought plaguing the western United States, to the re-imagining of city parks with innovative and sustainable landscapes, to pesky insects, soy-backed artificial grass is part of the solution.

June 09th, 2015

Landscaping

SECTORS

As reported by the United Soybean Council.

From the severe drought plaguing the western United States, to the re-imagining of city parks with innovative and sustainable landscapes, to pesky insects, soy-backed artificial grass is part of the solution.

Because SYNlawn synthetic grass has a bio-based backing, it can help buyers increase purchases of bio-based products and at the same time reduce water consumption.

Federal agencies are facing new water reduction requirements as a result of President Obama's new Executive Order: Planning for Federal Sustainability in the Next Decade (EO 13693). The EO directs federal agencies to reduce by 2 percent annually through the fiscal year 2025 the gallons of water used for industrial, landscaping, and agricultural consumption relative to the fiscal year 2010 baseline.

SYNlawn artificial grass is made with a soy-based backing called EnviroLoc™ which uses soy-based polyol technology developed with support from the soybean checkoff. Based on UL third-party verification, soybean oil displaces 60 percent of the petroleum-based polyurethane in common artificial grass products.

Urban Park Transformed

Hello! How can I help you?



renovation of Washington Square Park.

The most recent phase of the three-phase Washington Square Park renovation included re-imagining the old asphalt mounds that were installed in the 1970s. Vellonakis, who was tasked with renovating the mounds, said the asphalt was in disrepair and had become a liability and the play structures had long been removed.



SECTORS

Vellonakis designed mounded hills graded and slightly submerged into the landscape to allow for a continuous open meadow. The area also includes a cable play structure respectfully placed within this restored historic landscape that is now very popular with the children. After deciding that synthetic grass was the way to go because of its low maintenance and aesthetic appeal, he then turned his attention to choosing the right product.

"SYNLawn is the best product out there for use in tandem with an existing green feature — like a lawn — and when trying to coexist with a historic park," Vellonakis said. "The color was the most compatible with the surrounding natural lawn and the product doesn't have a sheen like some others."

In addition, the renovation included a Leadership in Energy and Environmental Design (LEED)-certified park house and comfort station. "The fact that the backing on the artificial grass is made using soy definitely played a role, as did removing a hardscape," he said.

One expected benefit of the redesign is the increased family bonding it encourages. "It's very magical," says Vellonakis when describing how the park's famed "Hills" encourage playful interaction between children and their parents or nannies. "Instead of sitting on park benches observing their children play, parents are out there too — rolling around with their kids."

Vellonakis expects to see additional uses of SYNLawn in New York City as leaders focus on ways to incorporate more green space, especially in low-income communities. Two parks in Brooklyn – Sunset and Betsy Head – are in the process of installing



SECTORS

...awn. That renovation work is expected to be completed in the summer of 2015.

park's most recognized features.

Water Shortages Drive Demand for Artificial Turf

The water-deprived West is quickly realizing the benefits of artificial grass as well. Water shortages have lawmakers, homeowners and businesses all facing brown and dead grass across neighborhood lawns, parks, cemeteries and golf courses.



SECTORS

In Las Vegas, Nevada, the average homeowner uses 73 gallons of water per square foot of lawn grass annually – the equivalent of 10 feet of rainfall, according to Southern Nevada Water Authority (SNWA) Conservation Manager Doug Bennett. That's why the region has been aggressive about water-saving solutions since 1999. The Water Smart Landscapes program, which provides cash incentives to homeowners who replace ornamental lawns with more efficient landscapes, has converted nearly 4,000 acres — 173 million square feet — of lawn space. That's enough to cover nearly 3,000 football fields, according to SNWA.

Bennett reports that one in four residential landscape conversions in southern Nevada use artificial grass in some capacity. He points out that even the famed Las Vegas strip has acres of synthetic grass installed along the median and around the famous "Welcome to Fabulous Las Vegas" sign.

Bennett stresses the importance of integrating synthetic grass with living plants. "It looks better and creates a more appealing effect when turf is blended with living plants," Bennett said.



SECTORS

"I was skeptical about synthetic grass at first because of the harsh UV environment here," Bennett said. "I have been pleasantly surprised that artificial grass is withstanding the test of time and most has held up very well for more than ten years."

Bennett sees an added benefit when soy-backed synthetic grass is used. "Not only does the product reduce petroleum use, but because it uses soy it's a way that agriculture can help cities deal with water shortages."

SYNLawn Solves Another Pesky Problem



Lawns in many states are becoming lunch for a hungry pest. According to Michigan State University's Extension Service, the invasive European Chafer Beetle has been found in New York, New Jersey, Connecticut, Pennsylvania, Massachusetts, Rhode Island, Ohio, Michigan, Delaware, and southern Ontario. The beetle was unknowingly brought over in a crate of flowers from Europe and has spread rapidly, tearing up gardens and lawns. These pests feed on the roots of all types of plants leaving massive destruction in their wake. Yet again, artificial grass can be a cost-effective, long-term solution to this pesky problem.

SYNLawn artificial grass is available at over 800 Lowes stores in the U.S. and Canada. For more information visit: [lowes.synlawn.com](https://www.synlawn.com).

This case study is provided for information only. The United Soybean Board does not endorse, promote or make any representations regarding any specific suppliers mentioned herein.

RELATED ARTICLES

Sustainability Manager Update

Data / Energy Update

S-Cap Action Items

- Collect and report annual, community-wide energy consumption
- 1.1.6. Create an energy reduction competition initiative
- 1.1.8. **Engage the industrial sector in utility-sponsored energy efficiency programs
- 1.3.3. Conduct a feasibility study of all municipal buildings' ability to achieve sustainable certifications

Battle of the Buildings

- Continuing to benchmark city buildings with the USGBC and Michigan Battle of the Buildings
- Preparing to launch a Battle of the Building Competition this fall. More can be learned about the competition [HERE](#). We have been working with USGBC this summer to prepare. Using the CEM Grant and DTE Rebate funds, they will provide benchmarking services for all participants and city buildings.
- Drafting an RFP for energy audits for city buildings and community buildings using the awarded CEM grant.

GHG Emissions and End-of-Year Sustainability Report

- Working with Brock and Paul on the next GHG Emission Report
- Renewed membership to Icelei and Clearpoint
- Plan to have an updated GHG Inventory and Report finalized by December.

Solar

S-Cap Action Items

- 1.2.3. Install a municipal solar and battery storage demonstration project
- 1.5.2. Develop a municipal facility as an emergency resilience hub with solar and storage to ensure 100% reliable energy
- 1.5.4. Evaluate access to the Salter Center as the current emergency hub

Solar

- EEBSCO Grant approved by city commissioners. \$70,000 for the library
- Roof replacement for library will go in front of commission on the 12th
- Finalizing RFP to hire solar consultant for both the Salter Center and the Library

EV Charging Update

S-Cap Action Items

- 2.3.1. Install EV chargers at appropriate municipal locations

- 2.3.2. **Convert municipal fleet to EVs or other alternative fuel vehicles as appropriate facilities

EV Charging

- Motion for support for the replacement of ChargePoint chargers in two parking garages. Creating a commission agenda item for a resolution to hire Red E and Income Power to conduct the “rip and replacement” of broken and outdated chargers. **See the later agenda item to discuss.**

Composting Update

S-Cap Action Items

- 3.1.1. **Develop educational recycling & composting programs for the residential and commercial sectors
- 3.1.2. Create a multimedia campaign for recycling & composting
- 3.1.5. **Develop and implement municipal waste reduction policies
- 3.3.1. **Research viability of residential food composting programs
- 3.3.2. **Develop a program to work with restaurants and grocery stores on composting options
- 3.3.2. **Develop a program to work with restaurants and grocery stores on composting options
- 3.4.1. Create a community-wide education campaign to manage rat population without the use of rodenticides

Composting

- Diverted over 10.5 tons since February through the composting program at Farmers Market
- Two weeks in a row where over 100 households have participated on a Saturday
- Working with the Nextcycle Team and the State of Michigan on expansion
- Update on Pride – First Zero waste event
- Helped facilitate the first Green Teams meeting with the Royal Oak School Board. Helping them identify gaps and needs before August.

BUSINESS

Detroit's urban farming begets suburban gardening



Myesha Johnson

The Detroit News

Published 11:00 p.m. ET July 9, 2024 | Updated 11:00 p.m. ET July 9, 2024

When Liangbo Yu moved to Troy in 2018, she couldn't wait to rent a garden plot and start growing organic Chinese vegetables not found in local grocery stores.

But she had a dilemma: beating out hundreds of other applicants looking for ground or a raised bed plot on Troy Farm. She waited until 2021, when she finally got a ground plot, where she now grows tomatoes, peppers, pumpkins, long beans, spinach, Chinese squash and Chinese cabbage.

"I was on wait list for a couple years, for the new gardener, you have to apply right after they open the registration ... if you do it like a half hour later or hour later, it's gone," Yu said.

Troy Farm is one of many suburban community gardens that have sprouted from the seeds planted by Detroit's popular urban farms.

Sterling Heights plans to break ground in September on its first city-managed community garden in James C. Nelson Park, where city residents will be able to plant fruits, veggies and flowers and get advice from expert gardeners. It's expected to cover 1 acre and include raised beds, in-ground beds and Americans with Disabilities Act-compliant beds.

Royal Oak started its first community garden in 2022 at Churchill Community Education Center and —due to high demand — will add more than 10 plots, totaling about 1,500 square feet, at Oakland Elementary School in the next year.

The city is also planning to work with community groups to add public gardens in neighborhoods. These efforts contribute to the Royal Oak's sustainability and climate action plan, creating 20-minute neighborhoods, creating a multi-generational activity and community connection, said Amanda Herzog, a city commissioner.

"We want to have them throughout the city, so that people in different parts of the city don't have to travel so far to get to them," she said. "There's been a lot of interest in Churchill and that's what's making us move to a second location."

Volunteers can snag some crops for free; it costs \$50 for residents to lease a 4-foot by 8-foot raised planter in northern Royal Oak through the city's parks and recreation department from March to October.

"I think it helps with community connection and working on something together with shared interest, so it's been an overly positive experience for our city," Herzog said.

Demand exceeds supply

Inspired by gardens like Palmer Park and Pleasant Ridge, Tom Regan wanted to see Royal Oak break ground on a garden. Regan, 62, is a long-time Royal Oak resident who has grown vegetables most of his life.

"I've been a vegetable gardener since I've been old enough to dig a hole and plant a seed back when I was a kid. Pretty much everywhere I'd live, I'd at least have a little backyard garden," Regan said, adding that he's currently growing green beans, radishes, tomatoes, turnips, beets, squash, zucchini, peppers and carrots behind his home.

During the COVID-19 pandemic, Regan, a former chairperson on Royal Oak's Environmental Advisory Board, championed the project, citing getting exercise, staying mobile and living longer as benefits of gardening. He said the response was immediate when the city opened its community garden in 2022.

"They sold out within a few days when they first listed it, it was really popular," Regan said. "It's nice to see the demand exceed the supply."

"People make acquaintances that they would not have otherwise. People get excellent exercise, they otherwise wouldn't have gotten ... it's easy to replicate, it's very cheap," he said. "Detroit was way ahead of us ... they've been doing this for decades."

There are 2,029 gardens and farms believed to be operating in Detroit, including 1,433 family, 383 community, 120 school and 93 market gardens or farms, according to a 2021 estimate by the nonprofit Keep Growing Detroit.

"I was inspired by Detroit," Regan said. "Decades ago, I worked as a community organizer on the east side of Detroit ... in the '80s there was just vast tracks of vacant land and a lot of people, just on their own initiative, would fence off a part of it and grow cabbages, turnips," Regan said. "I thought that's a good idea: putting this unused land to use in an urban area makes perfect sense."

Cultivating a 'happy space'

Meenaksi Shankr, 51, is a new tenant of Troy Farm. She'd applied for a plot before and is pleased to have her own "proper mini-garden" as opposed to planting in her backyard and sharing crops with deer and rabbits.

"I've already had people sharing their lettuce with me, and any vegetables they grow in excess they're happy to share with the people," Shankr said. She appreciates being welcomed by a community of "accomplished gardeners" and getting tips from them.

"I've learned that no matter what you put in your plot, it's going to grow because it's so much sunshine over there," she said. "It feels like farm to table when I make those salads with my radishes and I can't wait for the peppers, eggplants and tomatoes to grow big ... gardening has always been my happy space."

To get a plot in Troy, gardeners must act quickly. According to the city's recreation supervisor, Allyson Leach, there's a wait list of 30 people.

Leach said a majority of the gardeners are seniors or people who live in apartment complexes who do not have the space at home to garden.

"It's one of our most popular programs. We always sell out. We have a big wait list," Leach said. "There's usually about 10 spots left for the public to try and get when we open to new gardeners. We'll open up at 8 a.m. on a set date and it's full by 8:01. It's like Ticketmaster."

A plot costs Troy residents \$109 and nonresidents \$159, which pays for water, gardening tools and a shed to store items. Last year, 105 people tended either an 18-foot by 18-foot ground-level plot or a 4-foot by 12-foot raised bed.

Yu, who works full-time in the finance field, gets mind and body relaxation when she tends to her gardens. Her two daughters help her with her plot, and she's made new friends with whom she exchanges crops and gardening tips.

"Half of the time I spend talking to people there, looking at what they planted and how it grows, and sometimes we exchange our stuff because we plant different stuff, so I get to try something new," she said, adding that she's had different type of tomatoes and lettuce from other gardeners.

Since Troy Farm is only about four miles away from Yu's home, she stops by the garden three to four times a week while jogging.

"I run to the farm, water my plants and run back," Yu said. "After I have the plot in Troy Farm from June to September, we don't need to go buy any vegetables at all and it tastes much better, fresher, healthier, so we really enjoy it."

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SOCRRA TONNAGE ANALYSIS
June 2024

	MSW			Compost			Recyclables			Total		
	2022	2023	2024	2022	2023	2024	2022	2023	2024	2022	2023	2024
Municipality												
Berkley	573.47	584.49	635.87	249.17	202.50	170.63	129.79	123.87	134.12	952.43	910.86	940.62
Beverly Hills	338.13	284.83	334.04	235.00	171.25	227.50	106.11	88.86	91.53	679.24	544.94	653.07
Birmingham	910.38	917.48	773.32	275.83	279.17	203.33	220.89	223.08	191.84	1,407.10	1,419.73	1,168.49
Clawson	576.53	533.95	400.65	238.75	176.25	161.25	95.60	81.91	60.94	910.88	792.11	622.84
Ferndale	943.34	882.49	815.73	240.00	182.50	190.00	165.05	150.90	135.43	1,348.39	1,215.89	1,141.16
Hazel Park	688.31	648.39	658.82	192.00	156.00	174.00	87.27	67.47	69.02	967.58	871.86	901.84
Huntington Woods	231.29	165.12	164.30	110.00	65.00	85.00	86.46	61.01	71.95	427.75	291.13	321.25
Lathrup Village	162.80	124.79	143.16	65.00	47.50	53.75	20.21	23.90	23.33	248.01	196.19	220.24
Oak Park	875.24	1,077.58	855.84	376.00	192.00	174.00	87.69	120.34	104.17	1,338.93	1,389.92	1,134.01
Pleasant Ridge	69.44	76.79	72.31	48.75	40.00	33.75	33.09	18.03	33.43	151.28	134.82	139.49
Royal Oak	2,118.99	2,026.69	1,875.24	1,068.83	894.33	788.33	456.14	466.59	428.15	3,643.96	3,387.61	3,091.72
Troy	<u>2,752.85</u>	<u>2,492.53</u>	<u>2,292.27</u>	<u>1,193.33</u>	<u>1,003.75</u>	<u>995.83</u>	<u>566.67</u>	<u>503.61</u>	<u>451.23</u>	<u>4,512.85</u>	<u>3,999.89</u>	<u>3,739.33</u>
	10,240.77	9,815.13	9,021.55	4,292.66	3,410.25	3,257.37	2,054.97	1,929.57	1,795.14	16,588.40	15,154.95	14,074.06
Other Customers	5,358.62	3,726.40	3,892.32	0.00	0.00	0.00	680.59	820.59	428.82	6,039.21	4,546.99	4,321.14
Authority	15,599.39	13,541.53	12,913.87	4,292.66	3,410.25	3,257.37	2,735.56	2,750.16	2,223.96	22,627.61	19,701.94	18,395.20

SOCRRA TONNAGE PERCENTAGES

June 2024

	MSW	Compost	Recyclables
	Percentage of City's	Percentage of City's	Percentage of City's
	Total Waste Stream	Total Waste Stream	Total Waste Stream
<u>Municipality</u>			
Berkley	68%	18%	14%
Beverly Hills	51%	35%	14%
Birmingham	66%	17%	17%
Clawson	64%	26%	10%
Ferndale	71%	17%	12%
Hazel Park	73%	19%	8%
Huntington Woods	51%	27%	22%
Lathrup Village	65%	24%	11%
Oak Park	76%	15%	9%
Pleasant Ridge	52%	24%	24%
Royal Oak	61%	25%	14%
Troy	61%	27%	12%