

DirtRoad

Community Charging

Electric Vehicle Charging Proposal

Prepared For: The Village of East Dundee

September 2022



Carbon Solutions Group

Distributed Decarbonization Platform

Carbon Solutions Group was founded in Chicago, Illinois in 2006. CSG consists of three principal groups: **DirtRoad**, **ESG Services**, and **Environmental Credit Aggregation**. CSG prides itself on corporate and municipal partnerships across the U.S. that it has fostered over nearly two decades in operation.

- **DirtRoad** — A developer, owner, and operator of charging networks on behalf of public and private sector customers. DirtRoad's specialized, in-house teams of electrical engineers and project developers focus on charging infrastructure deployment nationwide. DirtRoad currently has 520 projects under development nationwide.
- **ESG Services** — CSG is one of the largest marketers and providers of renewable energy certificates (RECs) and carbon offsets in the U.S., serving large C&I and utility customers. CSG has contracts in place with virtually all load serving entities and has transacted over 150 million MWhs during the past five years.
- **Environmental Credit Aggregation** — Originally launched in Illinois, the business contracts solar RECs from residential and C&I system owners across the U.S. CSG's SREC business currently serves over 15,000 customers in DC, MD, OH, MI, IN, IL, PA, VA, WV, OR, WA, and CA.

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The DirtRoad Platform

Driving Decarbonization

DirtRoad brings a community's public, fleet, workplace, and residential charging onto a common platform to provide low-cost public charging amenities and enable electric vehicle adoption.

When charging increases anywhere in the community, the cost of charging drops for everyone.



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DRIVING DECARBONIZATION

Benefits to the Village of East Dundee

- Advance transportation electrification initiatives and enable EV adoption
- Eliminate the costs and risks of owning EV charging infrastructure
- Eliminate the electricity costs and demand charges from EV charging stations
- Eliminate operating expenses, including network fees, maintenance, and upgrades
- Attract unique EV drivers and creates new marketing opportunities
- Increase property value and desirability with new EV charging amenities
- Obtain long-term revenue streams from each installed charging

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DirtRoad Standard Model

Deal Structure

- CSG proposes an initial installation scope of 1 x 120 kW DC Fast Charging stations at each proposed location if funding is awarded at no cost to the Village.
- CSG will seek to obtain grant funding for the project as applicable under the VW Diesel Emissions Mitigation Trust (VW DEMA) and Charging Infrastructure Grant program under the Climate and Equitable Jobs Act (CEJA).
- CSG will monitor additional potential sources of funding for the proposed location, If funding is not obtained, CSG will propose an alternate Partnership model.
- CSG is responsible for all costs associated with the project design, permitting, equipment and installation.
- CSG will pay operating costs for the agreement's term, including maintenance of charging units and all utility costs.
- CSG will provide a variable revenue share to the Village of East Dundee for each charging station.

Cost Savings

East Dundee will benefit from over **\$259,793** in capital and operating expenses over ten years.

Cost Savings	
10-year Cost Savings	\$259,793

Revenue Share to the Village of East Dundee

DirtRoad will provide East Dundee with a **variable revenue share** based on the utilization rates of chargers. This enables EV drivers to charge at affordable rates when the station utilization is low and for East Dundee to generate an increased revenue share as charging demand increases.

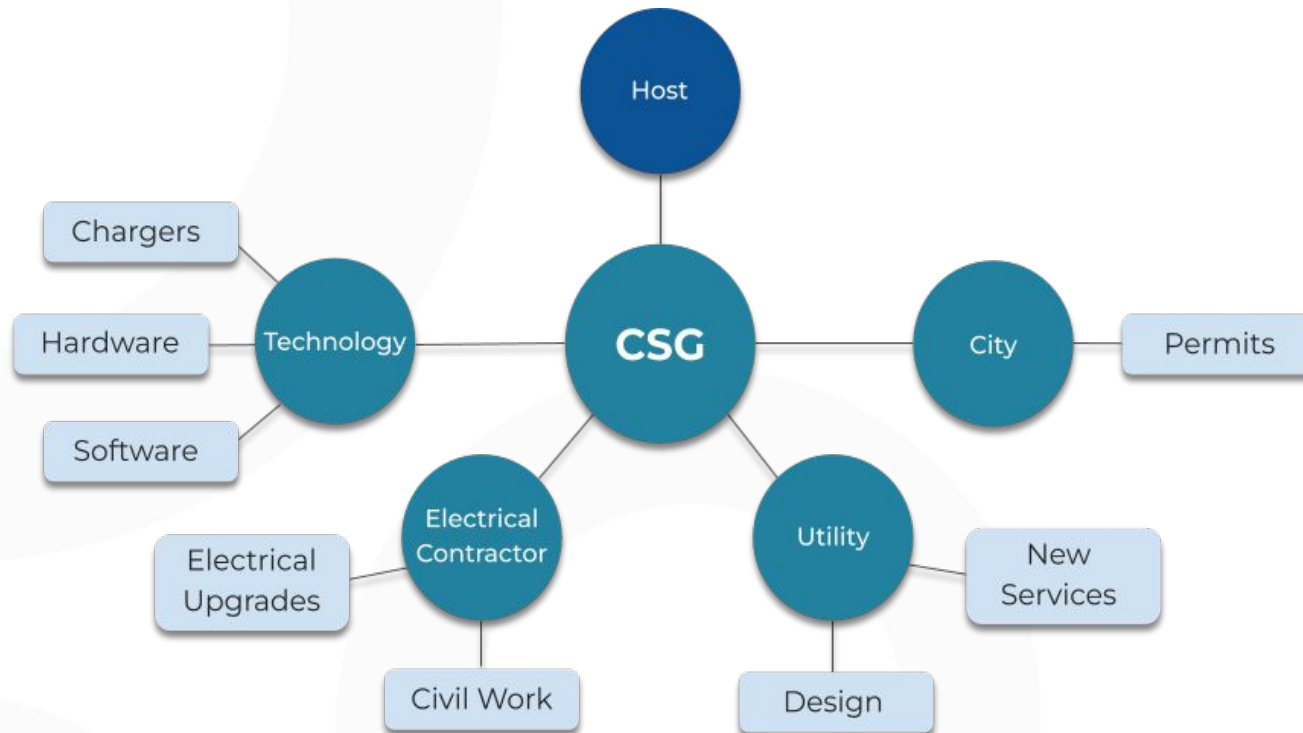
Pro forma Revenue

East Dundee will generate an ancillary income of **\$60,000** over the next 20 years based on an average utilization of 20% for each station.

EV Charging Revenue for the Village of East Dundee	
20-year Pro Forma Revenue	\$60,000

Scope of Work

East Dundee will gain a like-minded partner in CSG and a clear pathway to developing sustainable infrastructure. CSG will interface with all stakeholders, and East Dundee will achieve a turnkey solution that includes the EVSE hardware and software, engineering, permitting, construction, and O&M management.



Proposed Locations

CSG proposes an initial install of **01 x 120 kW DCFC stations** at each proposed location pending VW DEMA funding. As East Dundee's electric vehicle infrastructure partner, CSG will apply for additional potential sources of funding to build out East Dundee's community electric vehicle charging network. CSG will add additional stations upon the Village's request in response to increasing demand.

Site #	EV Charging Locations	L2 Ports	DCFC Ports
1	Meir Street at Barrington/Railroad		2
2	11 E. Main Street Parking Lot		2

Charging Equipment

ABB Terra UL 120 kW DC Fast Charging Station



ABB's Terra all-in-one DC fast chargers offer power up to 120 kW, with convenient charging times for every EV. ABB's DC Fast chargers are designed for the most compact, reliable, and future-proof demands.

Charging Times

EV drivers would obtain **350 miles of range per hour** with the 120 kW DCFC stations.

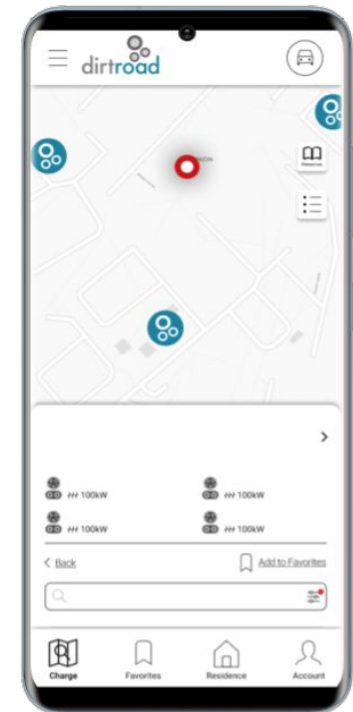
Charging Time (Approx Time for 80% Charge)	
DCFC 120 kW	30-45 minutes

DirtRoad Network & Mobile Application

East Dundee will benefit from DirtRoad's complete in-house digital platform with a full suite of network features with unparalleled customizability. In addition, the DirtRoad Network enables far lower network expenses and operating costs and, by extension, lower rates for community drivers.

DirtRoad Mobile App

- *DirtRoad* implements a fully customized dashboard for each partner
- Complete in-house software development including OCPP server
- Provides lowest operating cost
- Full complement of network benefits including reservations, scheduled charging, load management, and future demand response capabilities
- Network interoperability as new industry standard

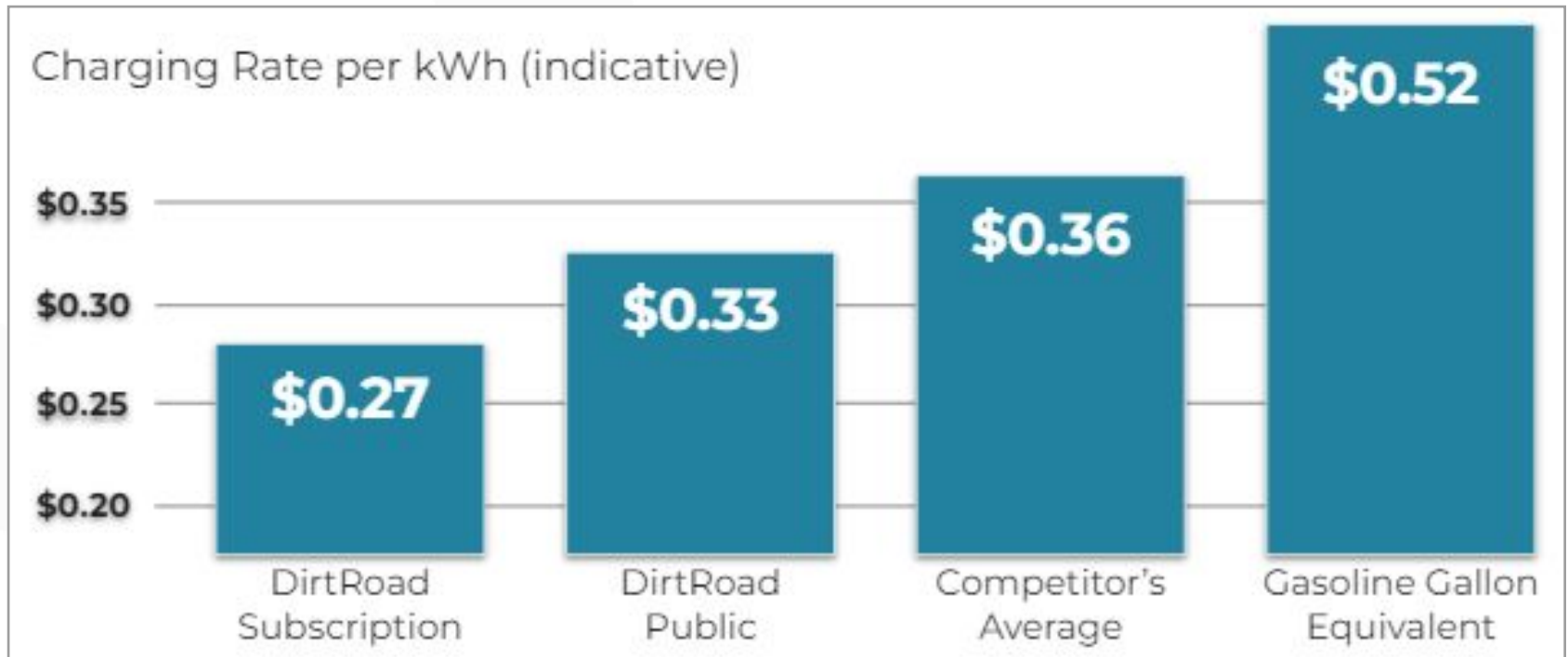


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Village Subscriptions

DirtRoad will offer East Dundee community members steeply discounted charging subscriptions. DirtRoad subscription options cover the needs of all drivers, from those that rely on public charging to those that only need the occasional top-up.



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Project Timeline

CSG will complete the design and engineering work shortly after finalizing the license agreement with East Dundee. Our EV infrastructure design and engineering expertise allow us to get it right the first time, saving time during the Utility Design and Permitting phases. Once the charging stations arrive onsite, civil works and installation are completed in short order.

Phase	Weeks
License Agreement	2 - 8
Draft Design & Engineering	2 - 4
Utility Design	12 - 24
Permitting	8 - 12
Construction	2 - 4
Testing & Commissioning	1 - 2
Software Integration	1 - 2
Start to Completion	28 - 56 weeks

Thank You

Kory Trapp

Vice President of Project Development

858.354.6273

ktrapp@carbonsolutionsgroup.com



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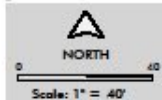
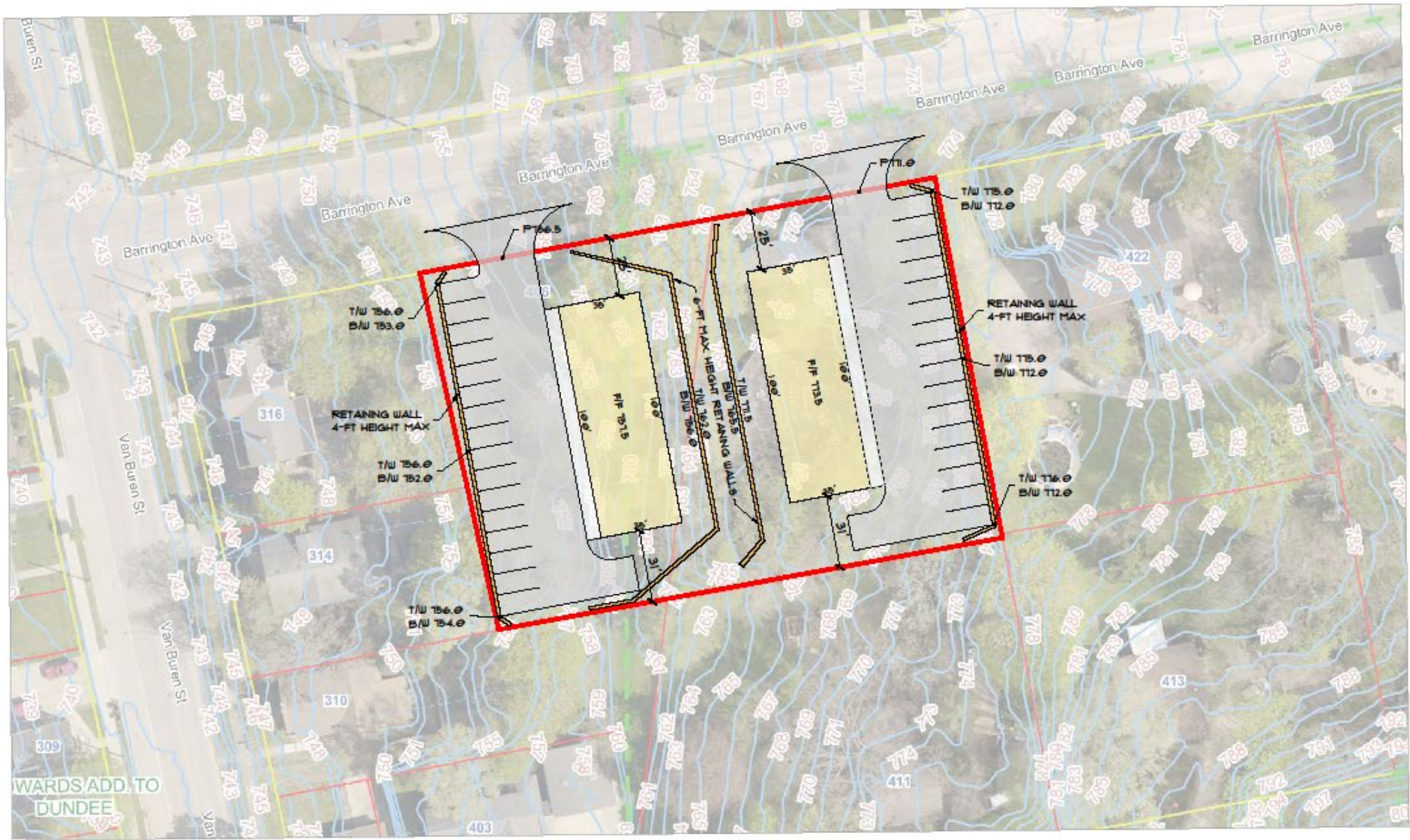
408 Barrington Ave

United Construction Services







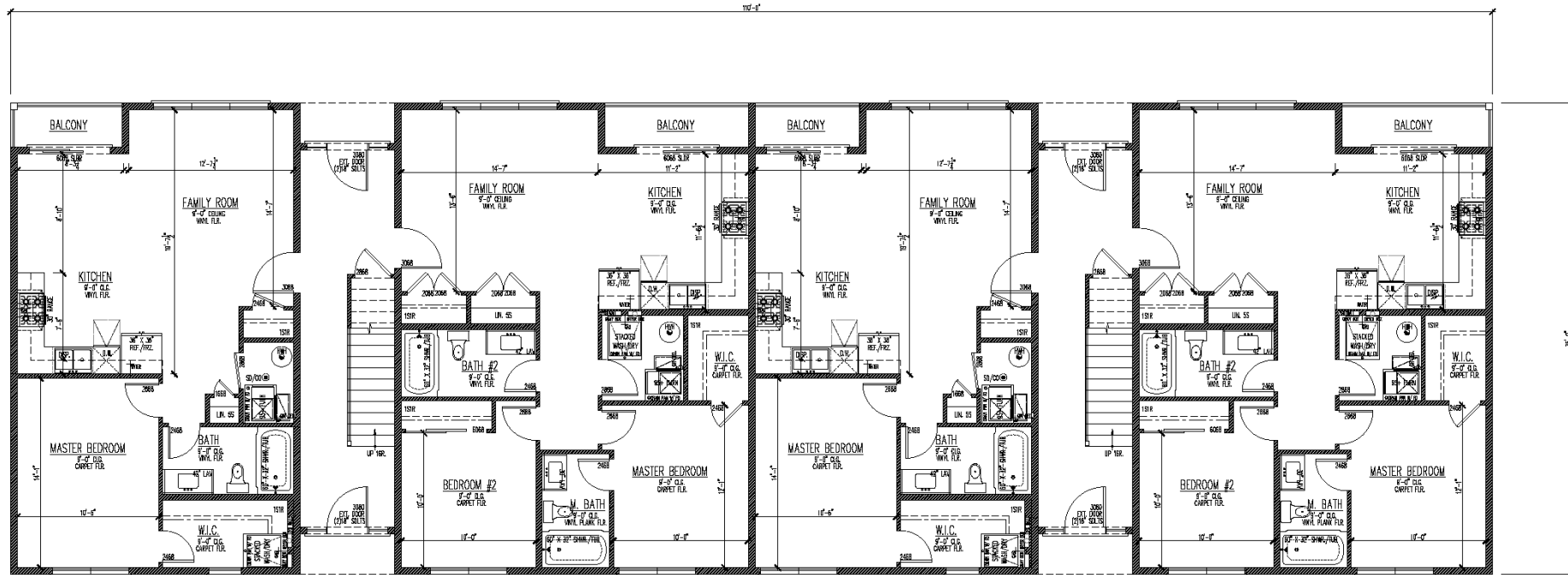


No.	Date	Revision

CONCEPT SITE PLAN
408 BARRINGTON AVENUE
EAST DUNDEE
 ILLINOIS

HAEGER ENGINEERING
 consulting engineers • land surveyors
 700 East State Parkway, Wheeling, IL 60090 Tel: 847.394.0000 Fax: 847.394.0000
 Mobile Professional Design Plans License No. 000-000000 www.haegerengineering.com

Project Manager: M.L.A.
 Engineer: M.L.A.
 Date: 05.12.2022
 Project No.: 19-112
 Sheet: 1 / 1



1E
A101 FIRST FLOOR PLAN

1/4"=1'-0"

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OR PERMIT SUBMITTAL

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1111 Thompson Avenue, Suite 200
Westbrook, CT 06095
203-398-1111
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UNITED CONSTRUCTION SERVICES
400 BARKINGTON AVE.
EAST DUNDEE, IL
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NO.	REVISION	DATE
1	ISSUED FOR PERMIT	10/1/01
2	FOR REVIEW	10/1/01
3	FOR REVIEW	10/1/01
4	FOR REVIEW	10/1/01
5	FOR REVIEW	10/1/01
6	FOR REVIEW	10/1/01
7	FOR REVIEW	10/1/01
8	FOR REVIEW	10/1/01
9	FOR REVIEW	10/1/01
10	FOR REVIEW	10/1/01

Job Number:
22320
Sheet Number:
A101
Date:
10/1/01

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DISPOSIBLE INCOME GENERATED					
		Units	Kane County Avg Income	Disposable income Per unit 10% After Income Taxes (27%)	Total Disposable Income Created
811 e MAIN St.		36	\$84,000	\$6,132.0	\$ 220,752.00
855 E Main St		36	\$84,000	\$6,132.0	\$220,752.0
201 Penny Ave		8	\$84,000	\$6,132.0	\$49,056.0
408 Barrington Ave.		24	\$84,000	\$6,132.0	\$147,168.0
Disosable income factor				Total Created From Our Projects	\$ 637,728.00
0.10					