

# Memorandum

| То:   | Planning Commission Members   |
|-------|---|
| From: | Elizabeth J Corwin, PE, AICP; Planning Director   |
| Date: | November 27, 2024   |
| Re:   | Conditional Rezoning to allow for the use of existing inventory overflow lot for outdoor storage of recreational vehicles |

In 2019-20, Feldman purchased and developed three parcels on S. Hickory Ridge Road for use as an automobile inventory overflow lot. It was permitted in the C-2, General Commercial District as accessory to the dealership on the north side of M-59, even though the parcels were not contiguous. The site was fully developed in conformance with the approved site plan, and sits mostly unused due to shifts in the automotive industry, which no longer pushes massive inventories out to the dealerships.

Recently, staff was approached for permission to rent out spaces to individuals for storage of boats and similar recreational vehicles. This is not a use that is permitted in the C-2 Zoning District, but it seems the site may be perfectly suited to the use, particularly as there are few residential neighbors. The property owner is not seeking to vacate the existing approvals, but rather allow a flexible use of the already developed space.

After discussing the desired expanded use with the applicant, the Zoning Administrator has determined the use is most similar to those allowed in the C-3, Low-Impact Commercial District, namely a combination of vehicle inventory lot for new vehicles and self-storage facilities. Since the use of inventory storage lot is already established, the expanded use falls under the uses permitted by right in the C-3 District. The applicant has represented that there is no plan to build new structures and is willing to limit the use list within C-3 to the proposed use.

The site has been well-maintained and there have been no record of complaints. I see no objection to recommending the approval of the rezoning and expanded land use to the Board of Trustees.



Warm inside. Great outdoors.



### PUBLIC HEARING CHARTER TOWNSHIP OF HIGHLAND PLANNING COMMISSION December 5, 2024 7:30 P.M.

**NOTICE IS HEREBY GIVEN** that a public hearing will be held at the Highland Township Hall Auditorium, 205 N. John St. on Thursday, December 5, 2024, at 7:30 p.m.

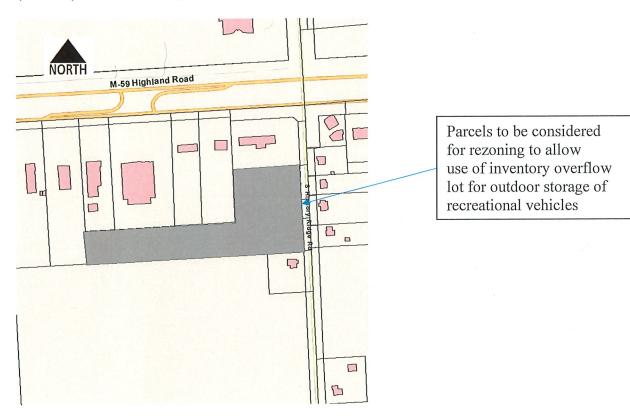
**Notice is further given** that all interested parties are invited to review the request and offer comment through the internet or mail. The application may be viewed at http://highlandtwp.net under the Planning Commission e-packet tab. Comment may be submitted to planning@highlandtwp.org, mailed to the Township offices or dropped in our secure drop box at the Township Offices, 205 N. John St. If you have any questions, please call 248-887-3791, ext. 2.

## TO CONSIDER:

A request for rezoning submitted by M-59 Highland Properties, LLC (applicant/owner)

- FROM: C-2 General Commercial
- TO: C-3 –Low Impact Commercial with an offer of conditions restricting the use to an outdoor storage of recreational vehicles and inventory overflow lot for automobile dealership

LOCATION: Parcels #11-30-200-008,-009 and -030; 268 and 232 S Hickory Ridge Rd (currently site of inventory overflow for Feldman Chevrolet)



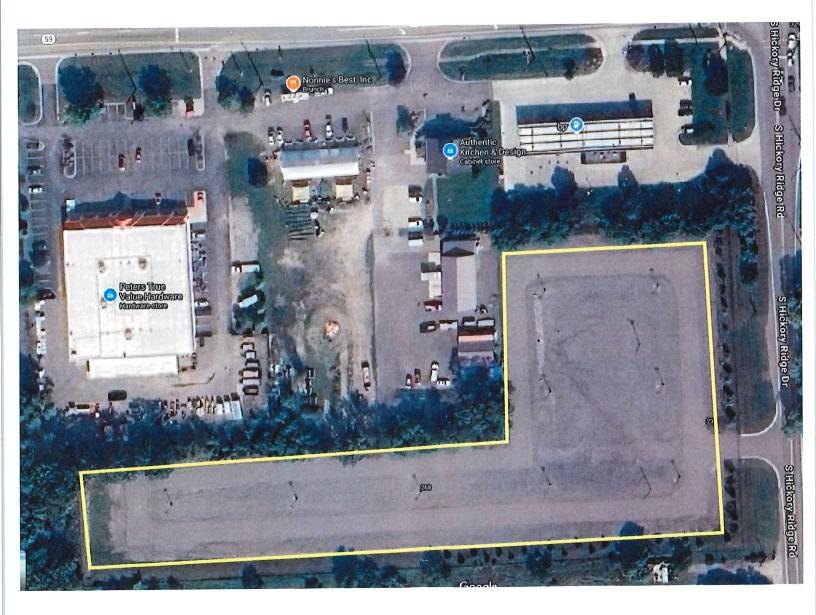
Grant Charlick, Acting ChairmanHighland Township Planning Commission

| $\mathcal{D}^{*}$   |   |
|---|---|
| Highland  | <ul> <li>Site Plan Review</li> <li>Rezoning</li> <li>Use Requiring Special Approval</li> <li>Land Division</li> <li>Land Division &amp; Combination</li> </ul>  |
| Warm inside. Great outdoors.  | Road Profile     Other  |
| PLAN REVIEW APPLICATION<br>Highland Township Planning Department, 205 N. John St, Highland, N   |   |
| Date Filed: 11/14/24 Fee: 850 - Escrow:   | -0- Case Number: <u>R2</u> 24-01*   |
| NOTICE TO APPLICA<br>BY SIGNING THIS APPLICATION, THE APPLICANT AND OW<br>ARE RESPONSIBLE FOR ALL APPLICATION AND CONSULT<br>THIS REQUEST THE OWNER ALSO AUTHORIZES THE TOW<br>NECESSARY, TO INFORM THE PUBLIC OF THE PENDING M   | NER ACKNOWLEDGE ONE OR THE OTHER OR BOTH<br>ANT FEES THAT ARISE OUT OF THE REVIEW OF<br>/NSHIP TO PLACE A SIGN ON THE PROPERTY, IF<br>/ATTER BEING REQUESTED.   |
| REQUIRED COPIE<br>INITIAL REVIEW: 2 HARD COPIES OF F<br>CONSULTANTS REVIEW OF APPROVED PLANS SUBJ   | PLANS AND .PDF COPY OF PLANS  |
| NAME: <u>M 59 Highland Properties</u> NAM<br>ADDRESS: <u>30400 Lyon Center DL</u> . ADI<br><u>NEW Hypson MI 48165</u>   | MER INFORMATION         ME:       TAY 5. feldman         DRESS:       30410 Lyon center DR. E.         JEW       HUDSON MI       48165         ONE:       (248)       390 - 1816         AIL:       Try @ feldman Auto, com   |
| 2. PROPERTY INFORMATION<br>ADDRESS OR ADJACENT STREETS: 268 + 2<br>LOT WIDTH: LOT DEPTH: LOT DEPTH:<br>PARCEL IDENTIFICATION NUMBER(S): H - 11 - 30 -   | LOT AREA: 2 ACRES<br>200-008 AND H-11-30-200-009  |
| 3. PROJECT INFORMATION<br>PROJECT NAME: <u>Hickory Rentm</u><br>PRESENT ZONING: PROJECT PROVING: PROJECT PROVING: PROVIN | 0POSED ZONING: <u>C-3 w/ conditions</u><br>OPOSED USE: <u>Inventory overflow and self</u>   |
| APPLICANT<br>SIGNATURE:   | OWNER<br>SIGNATURE:<br>PRINT NAME:<br>On the <u>301</u> day of <u>October</u> , <u>2024</u> before me, a Notary<br>Public, personally appeared the above named person whose<br>signature appears above, and who executed the foregoing<br>instrument, and he/she acknowledged to me that he/she<br>executed the same. |
| State Of Michigan<br>County Of Oakland<br>Notary Public:  | State Of Michigan<br>County Of Oakland<br>Notary Public:  |
| <ul> <li>considered the official designee for the group and all correspondence</li> <li>A notarized letter giving the Applicant authorization to represent the<br/>The person signing this cover sheet, however, will be considered the<br/>addressed to this person.</li> </ul>  | e Owner is also permitted in lieu of a signature on this applies tion.  |

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The Feldman Automotive Group is proposing to use our Storage Lot for Self-Storage, we would like to rent spaces to the public for the use of storing RV's, Boats and Personal Watercrafts Etc.

Our plan is to have a dedicated phone number for the customer to contact Feldman and will work with a dedicated salesperson on a Rental Agreement. The Renter will have an assigned Key Code or App and will have 24-hour access. The Renter will have an assigned space within our well light and monitored secured lot.



# APPROVED SITE PLAN--CONFORMING TO CONSTRUCTION RECORDS

screening since adjacent properties are used as residences. The sidewalk across the frontage will be extended. The Fire Marshal will require final review on the contractors' facility. The property is currently served by onsite well and septic. Oakland County Health Division will review the continued use of this system; it is assumed the storage building is not connected to the septic system.

Mr. Brad Thompson was in attendance representing the applicants. Mr. Thompson agreed to connect the marginal access by extending the "T" on the maneuvering lane to the property line. The landscaping plan will include a 2-1/2 foot high berm parallel to Milford Road. Also, supplemental plantings will be added to the north and south property lines in the front yard.

Mr. Smith requested that a variety of trees be used in the landscaping plan to ensure that some trees will sustain any outbreak of disease. He also inquired about fencing. There is some 4' chain link fencing with some wood privacy fencing and the applicant will be putting up additional fencing to ensure the storage yard is enclosed. Tiffany George, speaking as the business owner, was concerned that there should still be a walkway between the office and the property to the north, since their family interacts with that neighbor on a frequent basis. Mr. Beach stressed that a screen must be present where the industrial use abuts residential property.

Mr. Smith moved to approve the site plan with the conditional approval from the Zoning Board of Appeals and addressing the issues discussed. Mrs. Chynoweth supported, and the motion carried with the following voice vote: Green – yes, Beach – yes, Chynoweth – yes, Lewis – yes, Smith – yes, Tierney – yes (6 yes votes).

### Agenda Item #2:

| Parcel#:   | 11-30-200-008, -009, -030                  |
|------------|--|
| Zoning:    | C-2, General Commercial                    |
| Address:   | 232 and 268 South Hickory Ridge and vacant |
| File #:    | SPR 19-09                                  |
| Request:   | Site plan review for vehicle inventory lot |
| Applicant: | Feldman Automotive                         |
| Owners:    | Eugene Pallisco and 3365 W Highland, LLC   |

Mr. Beach introduced the conceptual plan for a vehicle inventory lot at the southwest corner of M-59 and Hickory Ridge. He explained that although the plan is not sufficiently detailed for final review, the Planning Commission can identify issues to guide the applicant in refining the plan.

Mr. Dave Katarski, COO of Feldman Automotive was present to represent the applicant. He ensured the Planning Commissioners that Feldman Automotive wants to partner with the Township to make the inventory lot as minimally invasive as possible. He stated that the Highland dealership was highly successful, and that they

wanted to find solutions to deal with the challenges that have come with growth, so that they could continue to prosper here.

Ms. Corwin asked the Planning Commission to address the use and its appropriateness in the C-2 Zoning District. Inventory overflow lots are defined in the pending ordinance for the C-3 zoning, but will not be listed in C-2 zoning. Typically, if a use is specifically defined in one zone but not other zones, it is excluded from consideration in other zones. Since there are no buildings, and the site will not be improved with all the amenities of a stand-alone dealership, the question is whether it is appropriate under the current use list, or if there should be either a rezoning to C-3 Zoning or an amendment to include vehicle inventory overflow lots (with conditions) in the C-2 Zoning District. Mr. Beach believed this could be considered merely as an accessory use to the existing nearby dealership under the C-2 zoning.

Items discussed were:

- a) The site should provide an adequate buffer (screen wall or landscaping) to protect adjacent residential properties from light trespass and noise pollution. Landscaped berms are preferred so that inventory vehicles would not encroach into buffer areas.
- b) Since this site is accessory to the existing dealership, north of M-59, there should be no signage or temporary displays such as inflatable gorillas. There should be no vehicles displayed along Hickory Ridge Road, rather a full berm or screen should be installed.
- c) There should be a properly paved circulation path capable of supporting a firetruck and allowing for turnaround. It was suggested that the aisles could be paved, but the parking spaces left as recycled asphalt millings. The plan must be reviewed and approved by the Fire Marshall. There was discussion of adding a second driveway so that vehicle carriers would easily navigate the site. The applicant stated that this was not necessary because of the way they intend to operate at the site.
- d) Mr. Katarski explained that vehicles will be received only at the existing dealership. There should be no instance where a vehicle carrier parks on Hickory Ridge Road to drop a load of cars.
- e) The inventory at this location will be duplicates only of cars already at the dealership. There will be no customer traffic to or from the site, only porters.
- f) Lighting levels will be minimum necessary for safety and security, avoiding the appearance of "stadium lights" that create a glow around the site, disturbing neighbors.
- g) Fencing will be required at least along the property line shared with the existing residence to the south. Although the applicant expressed little concern about security, the Planning Commission wants to discourage vandals or thieves from accessing the site through residential properties.

Mr. Katarski assured the Planning Commissioners that the objective of this project is to provide space for excess inventory in a convenient offsite location, thereby freeing up room on the dealership lot. Their intention is to unload vehicle carriers at the dealership and to complete the work of receiving new inventory where it could be properly processed. They will not show cars to the public on the inventory site, nor will they repair vehicles or store damaged vehicles on the inventory site. Every vehicle on the lot is an exact twin of a vehicle at the dealership. Porters will move cars early in the day to fill in "holes" at the dealership.

Mr. Green asked why the parking spaces were laid out in the manner proposed, when more vehicles could be stacked on the site. He was concerned that it appeared that customers could be allowed to circulate the site to view the inventory. Mr. Katarski said that although they would be delighted to maximize the site, they laid the lot out in a manner they believed would be more acceptable to the community. Mr. Beach preferred this proposed arrangement because a vehicle could be retrieved without moving multiple cars.

Mr. Green expressed concern about past experiences of inconvenience to the motoring public caused by vehicle carriers stopped and unloading inventory on the side of Hickory Ridge Road or M-59. Mr. Katarski reasserted that expanding storage onto this site would alleviate that concern.

Mr. Beach moved to table the site plan for Parcel #11-30-200-008, -009, -030 so items discussed could be incorporated into the site plan. Mrs. Lewis supported, and the motion carried with the following vote: Green – yes, Beach – yes, Chynoweth – yes, Lewis – yes, Smith – yes, Tierney – yes (6 yes votes).

Agenda Item #3:

| Parcel#:   | 11-19-400-014                                    |
|------------|--|
| Zoning:    | C-2. General Commercial                          |
| Address:   | 3372 Highland Rd                                 |
| File #:    | SPR 19-10  |
| Request:   | Site Plan Amendment for revisions to landscaping |
| Applicant: | Jay Feldman, Feldman Chevy Highland              |
| Owner:     | Jay-Mar Enterprises, LLC                         |

Mr. Beach explained that the continuous low shrub landscaping screen was no longer required by the zoning ordinance. The burning bushes currently planted block vehicle inventory from view from the road. The dealership is amenable to working with the Chill at the Mill project team to transplant the burning bushes to the public park site.

Mr. Beach moved to approve the site plan amendment for removal of the low laying bushes along the frontage of the site, with all street trees to remain. Mrs. Chynoweth supported, and the motion carried with the following voice vote: Green – yes, Beach – yes, Chynoweth – yes, Lewis – yes, Smith – yes, Tierney - yes (6 yes votes).

### Highland Township Planning Commission Record of the 1358<sup>th</sup> Meeting Highland Township Auditorium October 3, 2019

### **Roll Call:**

Scott Green, Chairperson (Absent) Eugene H. Beach, Jr. Mary Pat Chynoweth Chris Gostek, Vice Chairperson Beth Lewis (Absent) Roscoe Smith Jeffrey Stander (Absent) Scott Temple Russ Tierney (Absent)

Also Present: Elizabeth J. Corwin, PE, AICP – Planning Director Julie Kabalka, Recording Secretary

Visitors: 17

Mr. Gostek, Vice Chairperson, called the meeting to order at 7:30 p.m.

Mr. Gostek announced that the applicant asked that Agenda Item #1 be removed. Also, Chill at the Mill Site Plan Review was added as item #3.

## **Public Hearing**

### Agenda Item #1:

| Parcels #: | 11-20-300-014 and -020                   |
|------------|--|
| Zoning:    | R1.5, Single Family Residential          |
| Address:   | Vacant, W Highland Road                  |
| File #:    | RZ 19-03                                 |
| Request:   | Rezoning to C-2, General Commercial (IR) |
| Applicant: | Jay Feldman, Feldman Chevy Highland      |
| Owner:     | Highland Town Square, LLC                |

This item was removed at the request of the applicant – there was no Public Hearing.

### Work Session:

Agenda Item #2:

| Parcels #: | 11-30-200-008, -009, -030                  |
|------------|--|
| Zoning:    | C-2, General Commercial                    |
| Address:   | 232 and 268 South Hickory Ridge and vacant |
| File #:    | SPR 19-09                                  |
| Request:   | Site plan review for vehicle inventory lot |
| Applicant: | Feldman Automotive                         |
| Owners:    | Eugene Pallisco and 3365 W Highland, LLC   |

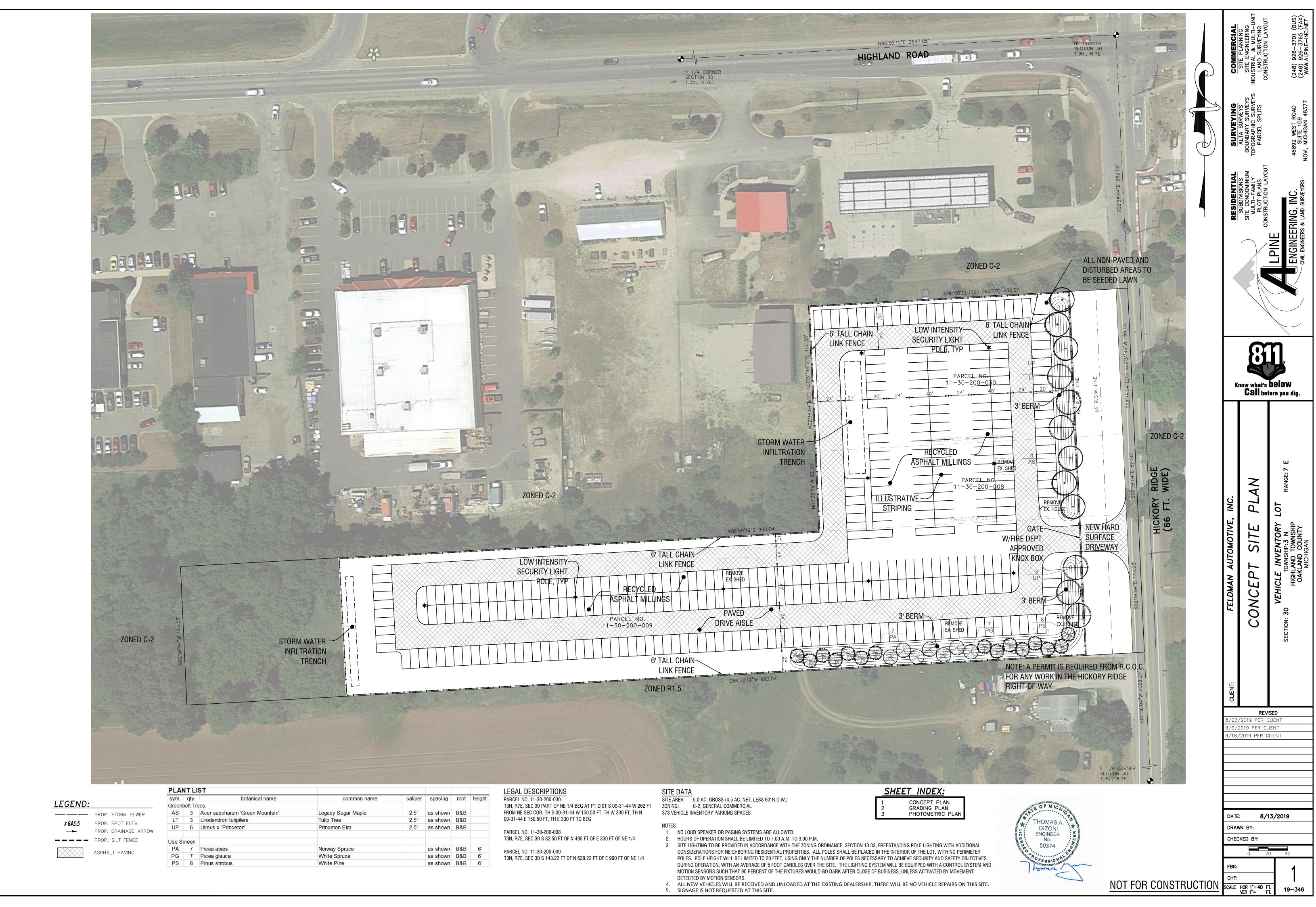
Mr. Beach introduced the site plan for a vehicle inventory lot on Parcel #11-30-200-008, -009, and -030, located south of the gas station on the west side of Hickory Ridge Road. The site plan presents a clear and concise request to utilize this property as an overflow inventory storage lot with no public activity. The revised plan now includes a landscaped berm across the Hickory Ridge Road frontage and the southern property line adjacent to the existing home. A hard surface loop road has been added throughout the site to ensure fire vehicles access and the capability to turn around. Inventory spaces will be gravel surfaced with reclaimed asphalt millings. Two storm water basins will be constructed on the site to ensure proper drainage. The lighting plan has been submitted and is compliant with the Township ordinance. The hours of operation at the inventory site will be limited to the dealership business hours. No vehicles will be delivered to or unloaded at this site. The revised site plan satisfies previously concerns addressed. Ms. Corwin stated that the engineers have reviewed the site plan and that grading and drainage concepts are sound.

The Planning Commission also reiterated that no shuttling of customers to and from this location will be allowed. The applicant assured that there will not be retail activity at this site and the it is just a storage lot with cars being removed and replenished in the early part of each day. The lot will be set up in designated and recorded slips so cars will be easily located without the assistance of key fob noise or flashing lights.

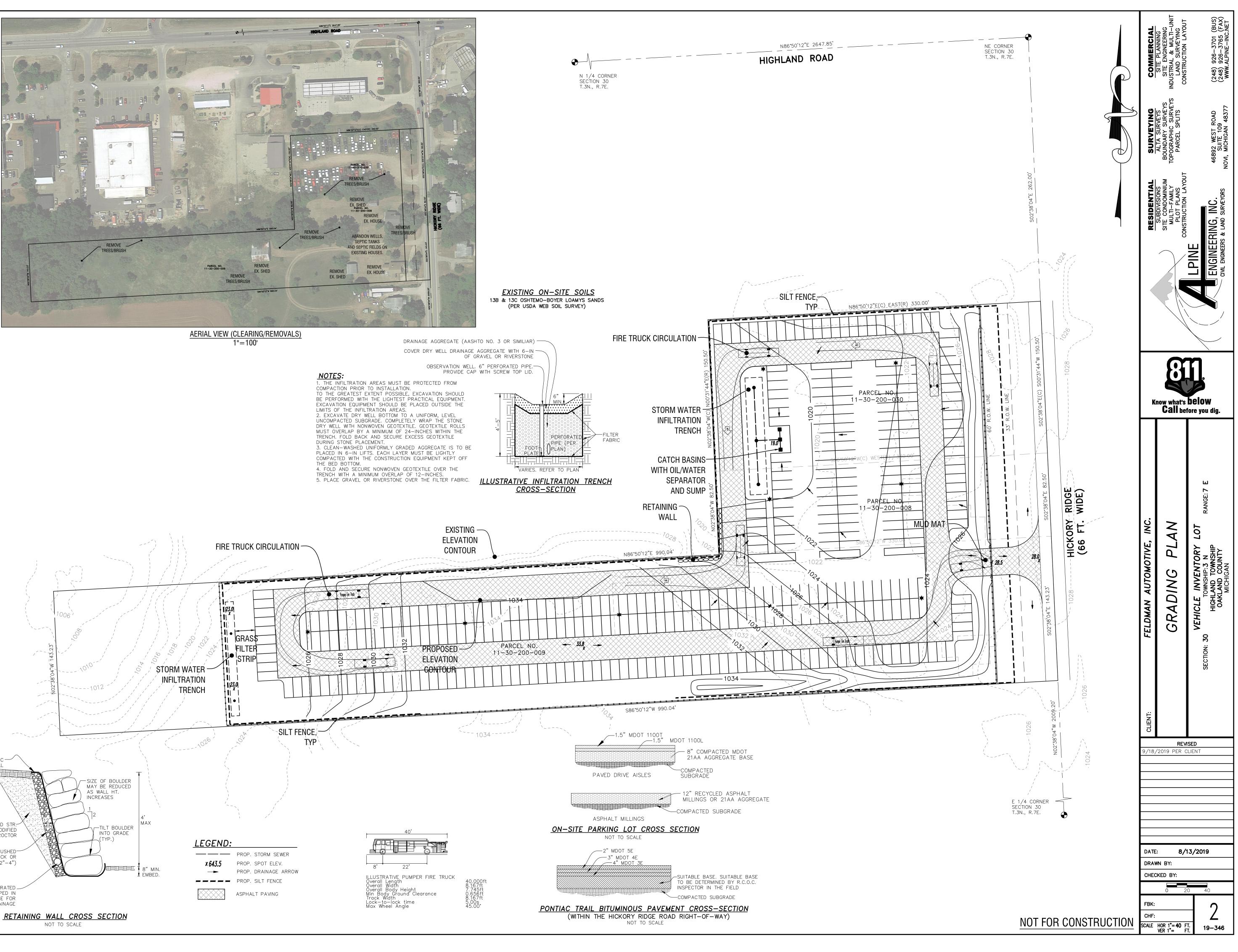
Mr. Beach moved to approve the revised site plan subject to final review by staff and with all stipulations and conditions discussed. Mrs. Chynoweth supported, and the motion carried with the following voice vote: Gostek – yes, Beach – yes, Chynoweth – yes, Smith – yes, Temple – yes (5 yes votes).

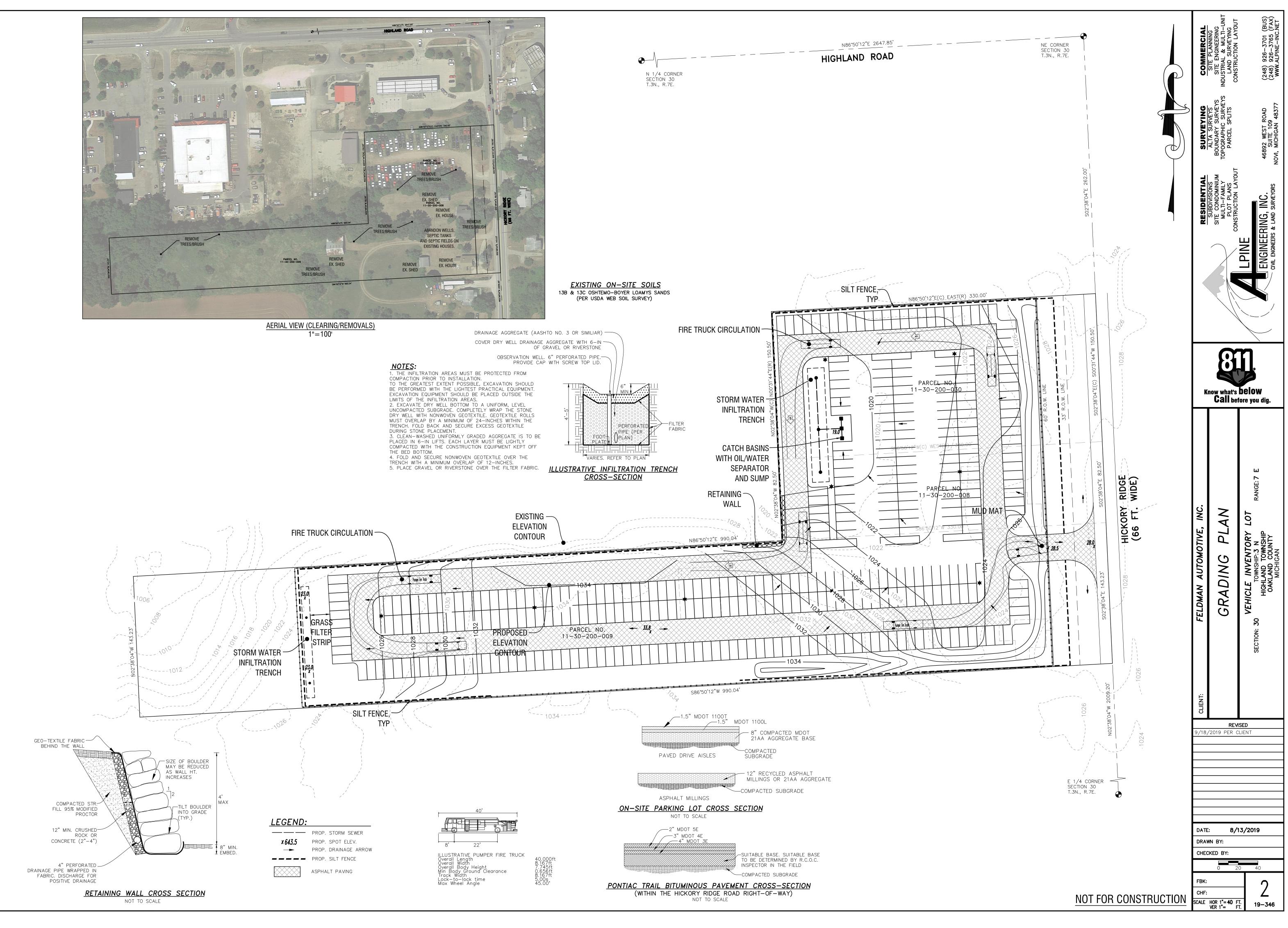
Agenda Item #3: Chill at the Mill Site Plan Review

Ms. Corwin reminded the Planning Commission that Supervisor Hamill had previously presented the Chill at the Mill concept plan, but that no action was taken at that time. The Building Official has since determined that a building permit should be issued to track inspections. The zoning ordinance requires a prerequisite land use permit, typically issued through Planning Commission action on a site plan review. In addition, the Planning Enabling Act requires the Planning Commission to review and approve the location, character and extent of specified improvements including



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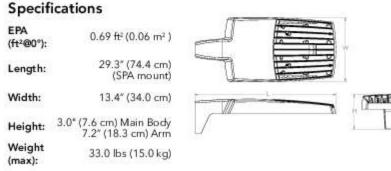
# Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX2 delivers 11,000 to 31,000 lumens allowing it to replace 250W to 1000W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted easy-access door on the bottom of mounting arm

Adjustable slipfriter (fits 2-3,8° 00 tenon) 4

Wall bracket



# on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An allows for wiring without opening the electrical compartment. A mast arm adaptor and an

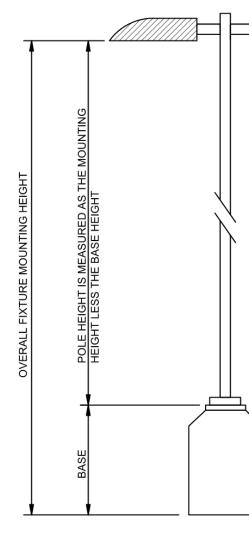
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|           |                                  |                                     |  |  | ntegral slip-fitter are also available.   |
|-----------|----------------------------------|-------------------------------------|--|--|---|
| Order     | ring Informatio                  | n                                   |  | EXAMPLE: RSX   | 2 LED P6 40K R3 MVOLT SPA DDBXE   |
| RSX2 LED  |                                  |                                     |  |  |   |
| Series    | Performance Package              | Color Temperature                   | Distribution   | Voltage  | Mounting  |
| RSX 2 LED | P1<br>P2<br>P3<br>P4<br>P5<br>P6 | 30K 3000K<br>40K 4000K<br>50K 5000K | R3 Type 3 Wide<br>R4 Type 4 Wide<br>R5 Type 5 Wide<br>R5S Type 5 Short<br>AFR Automotive Front Row | MVOLT (120V-277V) <sup>1</sup><br>HVOLT (347V-480V) <sup>2</sup><br>(use specific voltage for<br>options as noted)<br>120 <sup>1</sup> 277 <sup>1</sup><br>208 <sup>1</sup> 347 <sup>1</sup> | SPA         Square pole mounting (Min. 30"SQ for 1<br>at 90", Min. 3.5"SQ for 2, 3, 4at 90")           RPA         Round pole mounting<br>(3.2" min pole dia. for 1,23 or 4at 90")           MA         Mast arm adaptor<br>(fits 2-3/8" OD horizontal tenon) |

240<sup>-1</sup> 480<sup>-1</sup>

| ptions  |   |  | Finish   |  |
|---|---|--|--|--|
| Shipped Inst<br>HS<br>PE<br>PEX<br>PER7<br>DS <sup>16</sup><br>CE34<br>SF<br>DF<br>SPD20KV<br>FA0<br>DMG<br>Shipped Sep | talled<br>House-side shield<br>Photocontrol, button style <sup>3,7</sup><br>Photocontrol external threaded, adjustable <sup>4,7</sup><br>Seven-wire twist-lock receptacle only (no controls) <sup>1,8,4</sup><br>Dual switching<br>Conduit entry 3/4*NPT (Qty 2)<br>Single fuse (120, 277, 347) <sup>1</sup><br>Double fuse (120, 277, 347) <sup>1</sup><br>Double fuse (208, 240, 480) <sup>1</sup><br>20KV Surge pack (10KV standard)<br>Field adjustable output<br>O-10v dimming wires pulled outside foture (for use with an<br>otemal control, ordered separately)<br>barately (requires some field as sembly) | Shipped Installed         *Standalone Sensors Controls (factory default settings, see table page 5, PIRS         PIRS       Motion/ambient sensor for 8-20 mounting heights <sup>1,11,11</sup> PIRHS       Motion/ambient sensor for 20-40 mounting heights <sup>1,11,11</sup> *Net worked Sensors/Controls         NLTAIR2       nlight ARgeneration 2,11,11         PIRHN       Networked; 81-Level motion/ambient sensor (for use with MLTAR2), <sup>11,11,11</sup> | DNAXD<br>DWHX D<br>DDBTXD<br>DBLBXD<br>DNATX D<br>DWHGXD | Dark Bronze<br>Black<br>Natural Aluminum<br>White<br>Textured Dark Bronze<br>Textured Black<br>Textured Natural Aluminum<br>Textured White |
| EGS<br>EGFV<br>BS   | External glare shidd<br>External glare full visor (360° ar ound light aperture)<br>Bird spikes "  | *Note: Sensor coverage pattern is affected when luminaire is tilted.   |  |  |



| Statistics |        |                      |                                     |  |   |   |  |
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| Symbol     | Avg    | Max                  | Min                                 | Max/Min  | Avg/Min   | Avg/Max   |  |
| +          | 5.3 fc | 13.2 fc              | 0.6 fc                              | 22.0:1   | 8.8:1   | 0.4:1   |  |
| +          | 1.7 fc | 3.5 fc               | 0.0 fc                              | N/A  | N/A   | 0.5:1   |  |
| +          | 0.3 fc | 0.5 fc               | 0.0 fc                              | N/A  | N/A   | 0.6:1   |  |
| 5          | +<br>+ | + 5.3 fc<br>+ 1.7 fc | + 5.3 fc 13.2 fc<br>+ 1.7 fc 3.5 fc | +         5.3 fc         13.2 fc         0.6 fc           +         1.7 fc         3.5 fc         0.0 fc | +         5.3 fc         13.2 fc         0.6 fc         22.0:1           +         1.7 fc         3.5 fc         0.0 fc         N/A | +         5.3 fc         13.2 fc         0.6 fc         22.0:1         8.8:1           +         1.7 fc         3.5 fc         0.0 fc         N/A         N/A |  |

| Schedule     |       |     |                   |   |      |                    |  |  |  |
|--------------|-------|-----|-------------------|---|------|--------------------|--|--|--|
| Symbol       | Label | QTY | Manufacturer      | Description   | Lamp | Mounting<br>Height |  |  |  |
| - <u> </u> - | Α     | 9   | Lithonia Lighting | RSX AREA LIGHT<br>WITH PHOTOCELL<br>AND/OR MOTION<br>SENSOR | LED  | 20'-0"             |  |  |  |

# **Mounting Height Note**

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

# Drawing Note

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

# General Note

1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT. 2. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

# **Ordering Note**

FOR INOUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

# Alternates Note

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

ZONED C-2

|                      |                  |     |                  |                  |                  |                  |                  |      |                  |                  |     |     |                  |     |     |     |                  |                     |                  |                     | 0.1                 | 2.8                 | 3.1  | 3.1               | 3.1              | 3.0               | 2.0 | 2.1                 |          |
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|                      |                  |     |                  |                  |                  | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.1              | 0.1 | 0.2 | 0.3 | 0.5              | 0.9                 | 1:3              | ·1.8<br>2.0         | .2.4 2.7            | 3.3                 | 3.7  | 4.0               | 4.1              | 3.9               | 3.4 | 2.9                 |          |
| 0.0 0.0              | 8.8              | 0.0 | . 0.0<br>0.0     | .0.0<br>0.0      | 0.0<br>0.0       | 0.0<br>0.0       | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | <sup>.</sup> 0.1 | 0.1 | 0.2 | 0.4 | 0.7              | 1.2                 | 1.9              | 2.8                 | <sup>.</sup><br>3.8 | 4.7                 | 5.4  | 5.9               | 6.0              | 5.5               | 4.8 | <sup>.</sup> 3.9    |          |
| 0.0 0.0              | <sup>`</sup> 0.0 | 0.0 | <sup>`</sup> 0.0 | 0.0              | <sup>.</sup> 0.0 | 0.0              | 0.0              | 0.0  | <sup>.</sup> 0.0 | 0.0              | 0.0 | 0.0 | 0.1              | 0.1 | 0.3 | 0.5 | 0.9              | 1.5                 | .2.4             | <sup>.</sup><br>3.6 | 4.8                 | 5.9                 | 6.9  | 7.7               | 7.8              | 7.1               | 6.0 | <sup>.</sup><br>5.0 |          |
| 0.0                  | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.1              | 0.2 | 0.3 | 0.6 | 1.1              | <sup>.</sup> 1.7    | <sup>.</sup> 2.8 | 4.2                 | 5.6                 | 7.2                 | 9.3  | 10.8              | 10.9             | 9.6               | 7.4 | 5.9                 |          |
| 0.0 <sup>0.0</sup>   | 0.0              | 0.0 | 0.0              | <sup>.</sup> 0.0 | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.1              | 0.1 | 0.3 | 0.7 | 1.1              | <sup>.</sup><br>1.8 | 2.9              | 4.7                 | 6.3                 | 8.5                 | 11.4 | 12.3              | 12.4             | 11.6              | 8.9 | 6.6                 |          |
| 0.0 <sup>0.0</sup>   | 0.0              | 0.0 | 0.0              | <sup>.</sup> 0.0 | 0.0              | 0.0              | <sup>.</sup> 0.0 | 0.0  | 0.0              | <sup>.</sup> 0.0 | 0.0 | 0.0 | 0.0              | 0.1 | 0.3 | 0.6 | 1.1              | 1.7                 | 2.8              | 4.7                 | <del>6.</del> 5     | 8.3                 | 11.6 | . <b>11.</b>      | 12.9             | <sup>.</sup> 10.5 | 8.8 | 6.8                 |          |
| 0.0                  | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | <sup>.</sup> 0.0 | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.0              | 0.1 | 0.3 | 0.6 | 1.1              | 1.7                 | 2.8              | 4.6                 | 6.3                 | 8.3                 | 11.1 | <sup>.</sup> 12.2 | <b>A</b><br>12.3 | 11.4              | 8.7 | 6.4                 |          |
| 0.0 <sup>.</sup> 0.0 | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.1              | 0.1 | 0.3 | 0.6 | 1.0              | 1.7                 | 2.6              | 4.1                 | 5.5                 | 7.0                 | 8.9  | 10.3              | 10.4             | 9.1               | 7.2 | 5.7                 |          |
| 0.8.0                | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.1              | 0.1 | 0.3 | 0.5 | 0.9              | 1.4                 | 2.3              | 3.4                 | 4.6                 | 5.7                 | 6.7  | 7.4               | 7.4              | 6.8               | 5.8 | 4.8                 |          |
| 0.0                  | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | <sup>.</sup> 0.0 | 0.0              | .0.0 | 0.0              | 0.0              | 0.0 | 0.0 | 0.1              | 0.1 | 0.2 | 0.4 | 0.7              | 1.1                 | 1.8              | 2.7                 | 3.6                 | 4.5                 | 5.2  | 5.7               | 5.7              | 5.3               | 4.6 | 3.7                 | 1        |
| .00<br>0.0           | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | .0.0             | 0.0              | 0.0 | 0.0 | 0.0              | 0.1 | 0.2 | 0.3 | <sup>.</sup> 0.5 | 0.8                 | 1.3              | 1.9                 | 2.6                 | .3.1                | 3.6  | 3.7               | 3.6              | 3.5               | 3.1 | 2.6                 | 2        |
| 0.0                  | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | .0.0             | 0.0              | 0.0 | 0.0 | 0.0              | 0.1 | 0.1 | 0.2 | 0.3              | 0.6                 | 0.8              | 1.2                 | 1.6                 | 2.0                 | 2.2  | 2.3               | 2.1              | 2.2               | 2.0 | 1.7                 | <u> </u> |
| 0.0                  | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.0              | 0.1 | 0.1 | 0.1 | 0.2              | 0.4                 | 0.5              | 0.8                 | 1.0                 | <sup>.</sup><br>1.3 | 1.4  | 1.4               | 1.3              | 1.4               | 1.3 | 1.1                 |          |
| 0.0                  | 0.0              | 0.0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.0              | 0.0 | 0.1 | 0.1 | 0.1              | 0.2                 | ).<br>0.3        | 0.5                 | 0.6                 | 0.7                 | 0.8  | 0.9               | 0.8              | 0.8               | 0.7 | 0.6                 | _        |
| 8:8                  | 0.0              | 0.0 | 0.0              | 0.0              | <sup>.</sup> 0.0 | 0.0              | <sup>.</sup> 0.0 | 0.0  | 0.0              | <sup>.</sup> 0.0 | 0.0 | 0.0 | 0.0              | 0.0 | 0.0 | 0.1 | 0.1              | 8:1                 | 8:2              | 0:2                 | 0.3                 | 0.4                 | 0.5  | 0.5               | 0.5              | 0.5               | 0.5 | 0.4                 | (        |
| 0.0                  | 8:8              | 0:0 | 0.0              | 0.0              | 0.0              | 0.0              | 0.0              | 0.0  | 0.0              | 0.0              | 0.0 | 0.0 | 0.0              | 0.0 | 0.0 |     |                  |                     |                  |                     |                     |                     |      |                   |                  |                   |     |                     |          |

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|  | 1.01.9 2.02.7 3               | 3.3 <del>3.0 4</del> .1 4.2 4.0 3.0   |
|--|-------------------------------|---|
|  | 2.7 3.7 4<br>2.4<br>3.5 4.7 5 | 4.6 5.4 6.0 6.1 5.7 5.0<br>5.8 6.9 7.8 8.0 7.3 6.3  |
|  | 2.9<br>4.1 5.5 7              | 7.1 9.2 10.9 11.1 10.0 7.9  |
|  | 3.3<br>4.5 6.2 {              | 8.2 11.2 12.3 12.5 11.8 9.4   |
|  | <b>3.4</b><br>4.5 6.3 8       | 8.5 10.1 11.6 13.1 11.4 8.7   |
|  | <b>3.4</b><br>4.4 6.1 8       | 8.0 10.9 12.2 12.3 11.6 9.1   |
|  | <b>3.3</b><br>3.9 5.4 6       | 6.8 8.7 10.2 9.2 9.4 7.6  |
|  | 3.0<br>3.4 4.6 5              | 5.7 6.7 7.5 7.5 7.1 6.3   |
|  | 2.6<br>2.8 3.8 4              | 4.7 5.5 6.1 6.1 5.9 5.2   |
|  | 2.1<br>2.2 3.0 3              | 3.8 4.3 4.6 4.5 4.5 4.2   |
|  | 1.8 2.5 3                     | 3.2 <b>3</b> .7 <b>3</b> .8 <b>3</b> .7 <u>3</u> .8 <u>3</u> .7   |
|  | 1.8 2.5 3<br>1.7              | 3.2 <b>3</b> .7 4.0 3. <u>9 4.1 3.</u> 9  |
|  | 2.0 2.9 3<br>2.1              | 3.7 <b>4</b> .5 5.0 5.1 5.2 4.9   |
|  | 2.4 3.5 4<br>2.6              | 4.6 5.5 6.3 6.6 6.6 6.1   |
|  | 3.0                           | 5.4 6.6 7.8 8.5 8.4 7.4   |
|  | 3.3                           | 6.2 8.1 10.4 10.7 11.3 9.7  |
|  | 3.4                           | 6.9         9.5         12.0         12.6         12.5         11           7.0         8.7         11.5         13.1         12.8         11 |
|  | 3.5                           | 6.8 9.1 11.7 12.5 12.4 11   |
| ZONED C-2  | 3.4                           | 6.2 7.8 9.6 10.6 10.5 <u>9.0</u>  |
|  | 3.3                           | 5.6 6.8 7.8 8.3 8.3 7.6   |
|  | 3.1<br>3.9 £                  | 5.1 6.2 6.9 7.3 7.3 6.8   |
|  | 2.9                           | 4.9 5.8 6.4 6.6 6.6 6.3   |
| 25 10 14 11 0.9 0.9 1.1 1.4 1.9 <b>2.5 3.9 3.1</b> <u>3.1</u> <u>3.0</u> 2.6 2.1 1.7 1.3 1.2 1.4   | 2.0 2.8 3.9 5                 | 5.1 6.1 6.9 7.1 7.1 6.7   |
| <u>1.8 24 2.8 3.1 3.1 3.0 2.6 2.1 1.6 1.2 0.9 0.8 0.9 1.1 1.5 2.1 2.8 3.3 3.6 3.7 3.8 3.5 3.0 2.4 1.8 1.3 1.1 1.4 2.0 2.8 3.6 4.4 5.1 5.4 5.4 5.0 4.3 3.6 2.7 2.1 1.7 1.8 2.0 2.7 3.3 3.7 4.0 4.1 3.9 3.4 2.9 2.2 1.6 1.2 1.1 1.2 1.6 2.3 3.1 4.0 4.8 5.5 5.7 5.6 5.0 4.3 3.4 2.5 1.9 1.5 1.5 1.9 2.6 3.6 4.7 5.7 6.6 7.1 7.1 6.4 5.5 4.6 3.5 2.6 2.1 2.1</u>  | 2.2 3.1 4.3 5                 | 5.5 6.7 7.7 8.1 8.0 7.4   |
|  |                               |   |
| 2.8 3.8 4.7 5.4 5.9 6.0 5.5 4.8 3.9 3.0 2.1 1.6 1.4 1.6 2.0 2.9 4.0 5.1 6.2 7.1 7.4 7.3 6.4 5.4 4.4 3.2 2.3 1.9 1.9 2.2 3.1 4.4 5.6 7.1 8.8 9.4 9.9 8.5 6.8 5.5 4.1 3.0 2.4 2.3  |                               |   |
| 3.6 4.8 5.9 6.9 7.7 7.8 7.1 6.0 5.0 3.8 2.7 2.0 1.7 1.9 2.4 3.4 4.8 6.1 7.8 9.7 10.4 10.1 8.4 6.6 5.2 3.8 2.7 2.2 2.1 2.4 3.4 4.9 6.4 8.6 11 3 12.2 12.1 10.9 8.1 6.2 4.6 3.2 2.5 2.3 1  |                               |   |
| 4.2 5.6 7.2 9.3 10.8 10.9 9.6 7.4 5.9 4 4 3.0 2.2 1.9 2.0 2.5 3.7 5.4 7.0 9 6 1 1.9 10.8 12.1 10.4 7.6 5.9 4.1 2.8 2 2 2.1 2.4 3.4 5.2 6.8 9.4 12.0 4 9.4 12.0 4 9.4 12.0 4 9.4 12.7 10.3 8.3 6.5 4.8 3.1 2.4 2.3 10.4 10.4 10.4 10.4 10.4 10.4 10.4 10.4  |                               |   |
| <u>4.7 6.3 8.5 11.4 12.3 12.4 11.6 8.9 6.6 4.9 3.2 2.3 2.0 2.0 2.5 3.7 5.6 7.3 9.1 10.8 3.2</u> 12.0 10.4 7.9 6.1 4.3 2.8 2.2 2.1 2.3 3.3 5.0 6.7 9.1 11.7 12 5 12.4 11.5 8.6 6.4 4.8 3.3 2.5 2.3  |                               |   |
| <u>4.7 6.5</u> 8.3 11.6 117 12.9 10.5 8.8 6.8 5.1 33 2.3 2.0 2.0 2.5 3.7 5.5 7.1 9.8 12.0 12.5 12.2 10.6 7.7 5.9 4.2 2.9 2.2 21 24 8.2 4.6 6.0 7.7 10.0 11.2 11.1 9.7 7.4 5.8 4.4 3.1 2.4 2.1<br><u>4.6 6.3 8.3 11.1 12.2 12.3 11.4 8.7 6.4 4.9 3.3 2.3 2.0 2.0 2.4 3.4 4.9 6.3 8.0 10.1 10.2 10.5 8.6 6.7 5.3 3.9 2.7 2.1 1.9 2.2 2.8 3.9 5.1 6.2 7.4 8.2 8.1 72 6.0 4.9 2.3 8 2.7 2.0 1.8</u>  |                               |   |
| 4.6       6.3       8.3       11.1       12.2       12.3       11.4       8.7       6.4       4.9       3.3       2.3       2.0       2.4       3.4       4.9       6.3'       8.0       10.1       10.2       10.5       8.6       6.7       5.3       3.9       2.7       2.1       1.9       2.2       2.8       3.9       5.1       6.2       7.4       8.2       8.1       7.2       6.0       4.9       3.8       2.7       2.0       1.8       1.8       2.2       3.0       2.1       1.0.2       10.5       8.6       6.7       5.3       3.9       2.7       2.1       1.9       2.2       2.8       3.9       5.1       6.2       7.4       8.2       8.1       7.2       6.0       4.9       3.3       2.7       2.0       1.8       1.8       2.3       3.2       4.1       5.0       5.7       4.8       3.9       3.0       2.1       1.6       1.8       2.3       3.2       4.1       5.0       5.7       4.8       3.9       3.0       2.1       1.6       1.8       2.3       3.2       4.1       5.0       5.7       4.8       3.9       3.0       2.1       1.6       1.8       2.3 |                               |   |
| 4.1 5.5 7.0 8.9 10.3 10.4 9.1 7.2 5.7 4.4 3.1 2.2 1.8 1.8 2.2 3.0 4.1 5.3 6.3 7.3 7.8 7.5 6.6 5.5 4.5 3.3 2.3 1.8 1.6 1.8 2.3 3.2 4.1 5.0 5.7 6.2 6.2 5.7 4.8 3.9 3.0 2.1 1.6 1.4<br>3.4 4.6 5.7 6.7 7.4 7.4 6.8 5.8 4.8 3.7 2.6 1.8 1.5 1.4 1.7 2.4 3.3 4.2 5.0 5.6 6.0 5.8 5.2 4.4 3.5 2.6 1.8 1/4 1.2 1.3 1.7 2.3 3.0 3.6 4.1 4.3 4.2 4.0 3.5 2.9 2.2 1.6 1.2 1.0   |                               |   |
| 2.7 3.6 4.5 5.2 5.7 5.7 5.7 5.7 5.3 4.6 3.7 2.9 2.0 1.4 1.1 1.1 1.3 1.7 2.3 3.0 3.6 3.9 4.0 3.9 3.6 3.1 2.5 1.8 1.3 1.0 0.9 0.9 1.2 1.5 2.0 2.4 2.6 2.6 2.5 2.5 2.2 1.9 1.4 1.1 0.8 0.7  |                               |   |
| 1.9 2.6 3.1 3.6 3.7 3.6 3.5 3.1 2.6 2.0 14 1.0 0.8 0.8 0.9 1.2 1.5 2.0 2.3 24 2.4 2.3 2.3 2.0 1.6 1.2 0.9 0.7 0.6 0.6 0.8 1.0 1.3 1.5 1.6 1.6 1.5 1.6 1.4 1.2 0.9 0.7 0.5 0.4  |                               |   |
|  | · · · · · · · · · · · · · · · |   |
| 1.2       1.6       2.0       2.2       2.3       1.7       1.3       0.5       0.5       0.5       0.6       0.7       1.0       1.2       1.4       1.3       1.3       1.0       0.8       0.6       0.4       0.4       0.5       0.6       0.7       0.9       0.9       0.9       0.9       0.9       0.8       0.6       0.4       0.4       0.5       0.6       0.7       0.8       0.6       0.4       0.4       0.5       0.6       0.7       0.9       0.9       0.9       0.9       0.8       0.6       0.4       0.4       0.5       0.6       0.7       0.9       0.9       0.9       0.9       0.8       0.6       0.4       0.4       0.5       0.6       0.7       0.9       0.9       0.9       0.9       0.8       0.6       0.4       0.3       0.4       0.4       0.5       0.6       0.7       0.9       0.9       0.9       0.9       0.8       0.6       0.5       0.4       0.3       0.3       0.2       0.2       0.3       0.3       0.2       0.2       0.3       0.3       0.2       0.2       0.3       0.3       0.3       0.3       0.3       0.3       0.3       0    | 0.2 0.2 0.3 0                 | .4 0.4 0.5 0.5 0.5 0.5  |
| 0.5 0.6 0.7 0.8 0.9 0.8 0.8 0.7 0.6 0.5 0.4 <u>0.3 0.2 0.2 0.2 0.3 0.3 0.4 0.5</u> 0.5 0.5 0.5 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.3 0.4 0.4 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5   |                               |   |
| <u>9.2</u> 0.3 0.4 0.5 0.5 0.5 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2   |                               |   |
|  |                               |   |

ZONED R1.5

Plan View Scale - 1'' = 40ft

