

City of Oxford
Community Development Department
STAFF REPORT

Planning Commission

Case # PC-02-2012

Date – February 14, 2012

APPLICATION

Applicant:	National Energy Control, Applicant/Agent
Location:	6727 Contreras Road
Owner:	Southwest Ohio Senior Services, Inc.
Action Request:	Combined Preliminary/Final PD – Installation of 250 KW Ground Based Solar Array for the Knolls of Oxford
Current Use:	Comprehensive Care Facility Retirement Home
Surrounding Existing Land Uses:	Residential

DESCRIPTION

The Applicant seeks a combined Preliminary/Final PD to install a 250 KW ground based solar array at The Knolls of Oxford. The ground area of this array measures 186' x 264' and is approximately 49,104 square feet and will be located at the northwest corner of Fairfield Road and The Knolls of Oxford main entrance. The array will be placed approximately 90-95 feet from Fairfield Road. This system will be connected with an existing distribution system of the main building to the complex via underground conduit.

SITE HISTORY

1997- Property annexed into the City
1997- Zoning Map Amendment- from Agricultural (Township) to R1-A
1998- Preliminary Planned Development and Final Planned Development Phase I
2002- Final Planned Development Phase II

COMPREHENSIVE PLAN

The Comprehensive Plan is fairly silent concerning this type of alternative energy source. The only relevant reference focuses on senior housing options.

COMMENT FORMS

No public comment forms have been received to date.

AGENCY REVIEWS

Requests for review were made to the Police, Fire, Engineering & Economic Development Departments. The following comments have been received:

Police:	No Comments returned.
Fire:	Returned with no comment.
Engineering:	Comments returned with comments attached.
Econ. Dev.	No Comments returned.

DECISION CRITERIA

A copy of the Zoning Code Planned Development Decision Standards is attached.

ANALYSIS

The proposed solar array will have the capacity to generate up to 250 KW electricity of solar energy and is to be built at the northwest corner of the Fairfield Road entrance. The size of this system will cover 49,104 square feet of ground area. The system will consist of 264 racking assemblies. The height is approximately 62.5" (5'-2"). This array system will be tied in with the main electrical distribution system via underground conduit (under roads, driveways and parking lots) so there are no other apparatus other than the solar modules mounted on racks.

This system will cover over an acre of ground. It is quite substantial in size and scope. The location of this system could present a distraction to motorists and residents in terms of its overall visual effect. The application does not show any landscaping or screening material in addressing this issue. Therefore, it is critical to devise ways to mitigate the visual effect of this system.

Other issues that the applicant/owner will need to deal with, beyond the scope of the City, are the Federal Aviation Administration (FAA) and Miami University, since the site is fairly close to the University Airport.

This is a green energy initiative that the Knolls of Oxford is pursuing to reduce energy consumption and increase operational efficiency through the implementation of energy efficient technologies. The idea of using solar array is to reduce the carbon footprint and the reliance on traditional coal fired energy plants. It is a worthy goal and should be commended in taking a leadership role in this initiative. It is also important to balance the visual impact and green energy initiative, especially since the general public travels on Fairfield Road.

Since there are no other improvements under this application, the focus needs to be in dealing with the proposed system's visual impact. In order to minimize the visual effect of this solar array system, the applicant/owner must install a screen system that will shield the view year-round at least to the east, south and west sides of the site of installation. The screening system must be earth mound or landscaping with evergreen types of plants that is higher than the system to hide the solar array from the general public, at least on three (3) sides of the site. The exception may be at the service entrance to the site which is solely used by the maintenance staff.

RECOMMENDATION

SUBMITTED

BY:


Jung-Han Chen,

Community Development Director

DATE: January 24, 2012

- (a) Burden of Proof. Planning Commission has no obligation to recommend approval and City Council has no obligation to approve a planned development. This Zoning Code assumes that a planned development is appropriate only if an applicant proves that the proposed uses and design will not be detrimental to the public health, safety, or general welfare of the City or the neighborhood in which it is proposed. Applicants shall prove that potential negative impacts of elements such as location, size and extent of facilities and operations, site design, traffic generation, site access, and potential impact upon public facilities will be adequately mitigated.
- (b) General Decision Standards. All planned developments shall satisfy these general decision standards:
- (1) The proposed planned development is in fact permitted in the zoning districts in which it is proposed.
 - (2) If the application is for the same site where a planned development application has been denied within one year, the plan is substantially different from the application so denied.
 - (3) The uses and site plan will satisfy the general intent of this Zoning Code.
 - (4) The uses and site plan will be compatible with the general intent of the Comprehensive Plan.
 - (5) The size and shape of the site are sufficient for the proposed planned development.
 - (6) The use will not be hazardous or disturbing to existing or potential future neighboring uses that are permitted in the zoning district.
 - (7) The use will not involve activities, processes, materials, equipment, or conditions of operation that will be detrimental to any person, property, or the general welfare because of excessive production of traffic, noise, smoke, fumes, glare, odors, or other emissions.
 - (8) Accessory uses will be directly related to the operation of the principal uses and will not be operated independent of the principal uses.
 - (9) The use and site will be adequately served by public facilities and services such as streets, water and sewer, drainage structures, police and fire protection, and refuse disposal, or adequate provisions will be made to provide the same services privately.
 - (10) Development of the site and operation of the use will not require substantial public expenditure for additional infrastructure or services.
 - (11) The site will be designed, constructed, and maintained in a character harmonious in appearance and general character with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area. Structures to be constructed, reconstructed, or altered in a residential zoning district shall have the appearance of residential buildings permitted in the zoning district.
 - (12) The site is designed so that on-site traffic and traffic accessing the site will not adversely impact the movement or safety of all modes of traffic on adjacent public streets.
 - (13) Proposed construction will not result in the destruction, loss, or damage of a natural, scenic, or historic feature of major importance.
- (c) Additional Final Plan Decision Standards
- (1) The final planned development shall substantially conform to the preliminary plan.
 - (2) Any substantial changes from the preliminary plan improve the plan or were requested by Planning Commission or Council as a part of the preliminary plan approval process.
 - (3) If the final plan seeks approval of only a portion of the approved preliminary plan, the elements of the proposed phase are sufficient to stand alone if the remainder of the planned development is abandoned.
(Ord. 2838. Passed 2-15-05.)

City of Oxford
Inter-Office Review Transmittal Sheet

Date: 1/6/2012

To: Fire Department Engineering Division Police Department Economic Development

From: Community Development

Drawings are being submitted to you for the following:

Case #: **PC-02-2012**

Description:

PC-02-2012 COMBINED PRELIMINARY/FINAL PLAN, Knolls of Oxford, 6727 Contreras Road, major change to an approved Planned Development, to allow for the installation of a 250KW ground based solar array, **National Energy Control, TMI Electric Inc., Applicants/Agents**

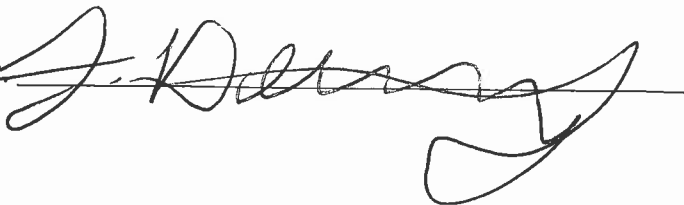
 X Review Revisions Other

Comments or status update requested by: Lynn Taylor

Please return no later than: **2/7/2012** Note: If no comments are received, we will assume the project meets your department's standards.

.....
Drawings are returned: w/comments without/comments

Drawings reviewed by



Date: 1-7-12

City of Oxford
Inter-Office Review Transmittal Sheet

Date: 1/6/2012

To: Fire Department Engineering Division Police Department Economic Development

From: Community Development

Drawings are being submitted to you for the following:

Case #: **PC-02-2012**

Description:

PC-02-2012 COMBINED PRELIMINARY/FINAL PLAN, Knolls of Oxford, 6727 Contreras Road, major change to an approved Planned Development, to allow for the installation of a 250KW ground based solar array, **National Energy Control, TMI Electric Inc., Applicants/Agents**

 X Review Revisions Other

Comments or status update requested by: Lynn Taylor

Please return no later than: **2/7/2012** Note: If no comments are received, we will assume the project meets your department's standards.

.....
Drawings are returned: w/comments without/comments

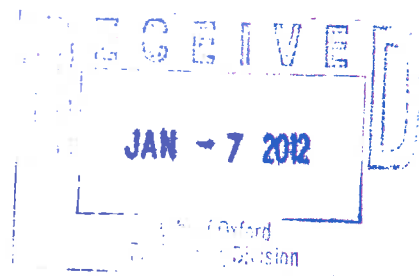
SEE MEMO DATED 1-10-2012

Drawings reviewed by: _____

V. Popescu

VICTOR POPESCU

Date: 1-10-2012





Memo

Service Department
Engineering Division

513/524-5208 fax 513/524-5267

TO: Community Development Department

FROM: Victor Popescu, P.E.
City Engineer

RE: Case # PC-02-2012
Combined Preliminary/Final Plan – Knolls of Oxford
6727 Contreras Road

DATE: January 10, 2012

The Engineering Division has reviewed the subject case.

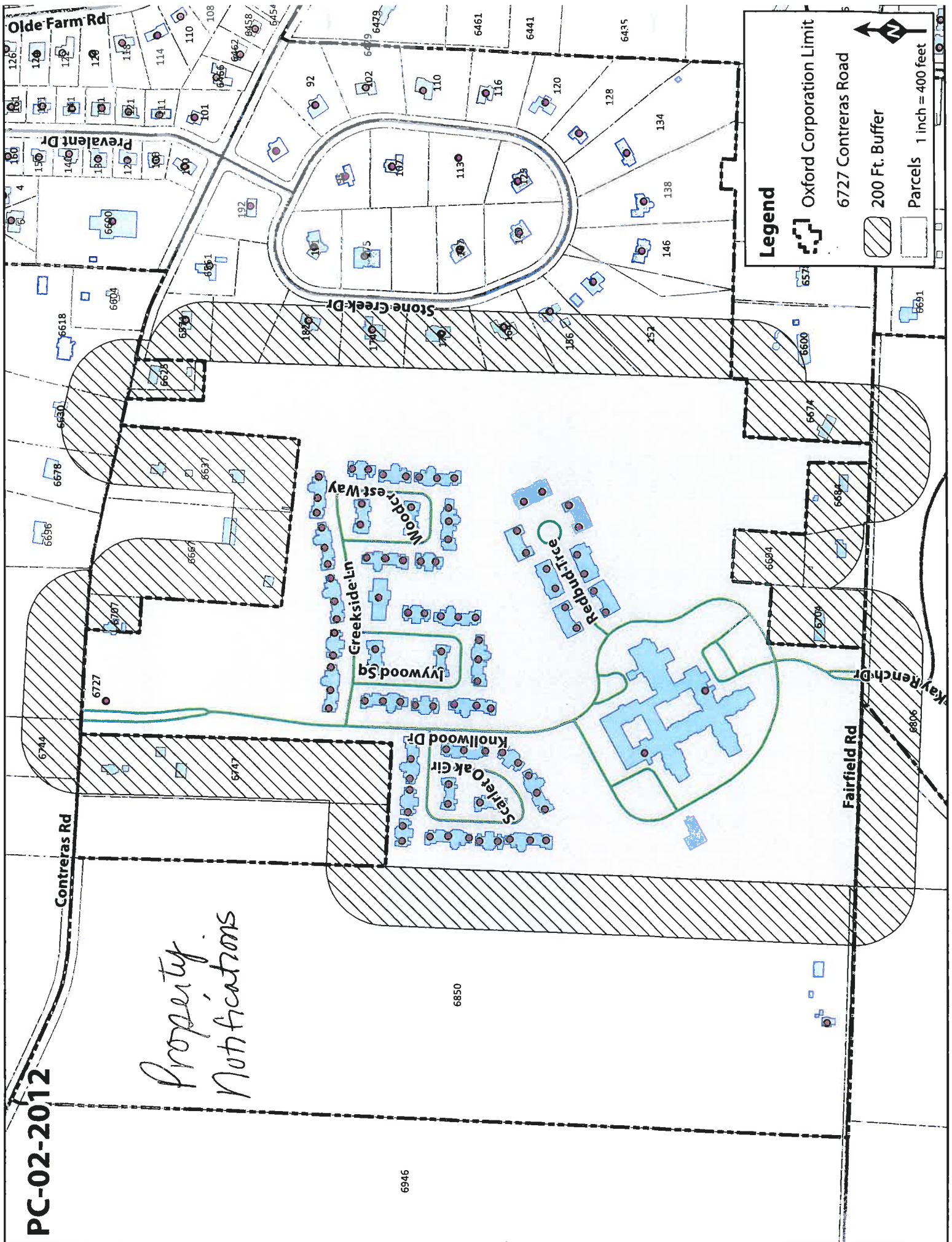
The following are our comments:

- Are the proposed solar panels allowed in areas close to airports (i.e. Miami University Airport)?
- Will the proposed solar panels create glare that may affect travelling vehicles on Contreras Road, and/or Miami University Airport traffic?
- Does the proposed project require concurrence/approval from FFA?
- Has Miami University given an opinion on the proposed project?

If there are questions, please contact the Engineering Division at 513-524-5208.

PC-02-2012

Property
Notifications



December 29, 2011

11100 Springfield Pike
Cincinnati, OH 45246
Tel 513.782.2400
Fax 513.772.1056

Mr. Jung-Han Chen
Community Development Director
City of Oxford
Oxford, OH 45056

Maple Knoll Village
The Knolls of Oxford
The Hemsworth
Wellness Center
Maple Knoll Child
Center
Maple Knoll Home
Health Services
Sycamore Senior
Center
The Meadows
Corbly Trace
Mt. View Terrace
WMKV 89.3 FM
The Manor House
Restaurant

Dear Mr. Chen,

Maple Knoll Village, in conjunction with the Knolls of Oxford, is working with National Energy Control on the feasibility of a ground based solar array on the Knolls of Oxford campus.

We have authorized National Energy Control personnel to submit a Planned Development application on our behalf to the Zoning Commission. Our objective is to determine the requirements by the City of Oxford for any additional costs or changes to the design (outside of standard construction costs) in building this array.

Please give NEC your fullest cooperation in this matter and please feel free to contact me directly with any questions. We appreciate your cooperation and assistance with this matter.

Sincerely,


Kenneth W. Huff

Executive Vice President / CFO

Maple Knoll Communities

CC: Timothy McGowan

Planned Development Application
City of Oxford, Ohio

REQUIRED INFORMATION

Name of Applicant: NATIONAL ENERGY CONTROL / TME ELECTRIC, INC.
(Attach a letter of agency if the applicant is not the property owner.)
Mailing Address: 423 W. WYOMING AVE. CINCINNATI OH 45215
Telephone Number(s): 513-821-9900
Email Address: Mgillespie@tmelectric.com
Name of Subdivision: THE KNOLLS OF OXFORD
Location of Property: 6727 CONTRERAS RD, OXFORD, OH 45056
Legal Description: 3231 ENT EX #4-130 APP 10TY SEE PCL # 025E
Zoning District: OXFORD CORP TAL DL
Number of Lots: 4
Total Acreage: 75.31 Acres R1A district
Surveyor/Engineer: MARK GILLESPIE
Address: 423 W. WYOMING AVE CINCINNATI OH 45215
Phone Number: 513-265-5301

DRAWING REQUIREMENTS

Please submit **thirteen (13)** complete sets of all information with each preliminary and final application. The Zoning Administrator may modify this requirement based upon the type of materials included. The applicant shall contact the Zoning Administrator prior to submitting an application to discuss the submission requirement. Fee for preliminary and final: **\$400 plus \$100 per acre plus actual postage**

If any information is submitted in color or on non-standard paper, more copies may be required.

A. Preliminary Plan

1. Application Fee
2. The name, mailing address, and telephone number of the applicant and all property owners
3. If the applicant is not the owner, or if there are multiple owners within the proposed area, a statement from all owners that the applicant is entitled to apply on their behalf, and that they agree to be legally bound to any decision reached according to this Chapter
4. Evidence sufficient to ensure that the applicant has the financial capacity to complete the proposed development
5. Evidence of unified control of all land in the proposed area
6. The name, mailing address, and telephone number of any planner, engineer, surveyor, or other design professional who assisted with preparation of the plans
7. Description of Use and Site
 - a. A written, detailed description shall include the following information. A separate response is required for each subsection.
 - b. A legal description of the site, including all separate lots
 - c. A description of the existing uses of the site
 - d. The zoning districts in which the site is located
 - e. A description of the proposed PD
 - i. The number of housing units by size and type proposed within each phase
 - ii. A description of any nonresidential operations, including type of goods sold, services performed, and expected number of customer, clientele, delivery, and service vehicles
 - iii. The hours of operation of any nonresidential use
 - iv. A phased development schedule, if applicable, that indicates the location and timing of phases and demonstrates that each completed phase would form a reasonably independent unit if succeeding phases were abandoned

- f. A narrative statement that evaluates the compatibility of the proposed PD with the general vicinity and adjacent properties
 - i. How the proposed uses are similar to or different from existing area uses and if there will be any interaction between the proposed site and adjacent sites
 - ii. How any existing structures, proposed structures, and the site design relate to adjacent structures and sites
 - iii. If the proposed uses will involve any operations that create potential nuisances such as excessive noise, lighting, odor, fumes, vibration, or emissions
 - iv. How any potential negative effects on adjacent land will be mitigated
- g. A statement about why the location proposed is appropriate for the PD
 - i. A statement of the necessity or desirability of the proposed PD to the neighborhood or community
 - ii. Proposals for the provision of public utilities and services, if insufficient or not available for the planned development, or for the provision of suitable private utilities and services
 - iii. The substance of proposed covenants, easements, and other restrictions on the land and structures
 - iv. For a CPD, an independent market analysis sufficient to ensure that the planned commercial entities have a reasonable chance of success
 - v. A list of the names, mailing addresses and parcel numbers of all property owners within 200 feet of the site, including those across streets, roads, alleys and highways. NOTE: The Butler County website (www.butlercountyohio.org/auditor) is very helpful when searching for the mailing address of adjoining property owners. Once the site is up, click on online searches, then click on real estate. It will allow you to search by owner, address or parcel number. *Property Owner names will not be included in the agenda packet
 - vi. Such other information regarding the proposed uses, site design, or surrounding area as may be pertinent to the application or required by Planning Commission or Council.

8. Site Plan

A scaled site plan shall include the following information in detail. The required information may be submitted on multiple site plans if inclusion of all information on a single plan makes it illegible or difficult to understand.

- a. North arrow
 - b. Scale
 - c. Vicinity map
 - d. All existing and proposed lot lines within the site
 - e. Dimensions of all lots and of the entire site and any adjacent rights-of-way
 - f. The location of all Primary Conservation areas, and all proposed parks, playgrounds, pedestrian paths and other open space areas
 - g. Location, height, dimensions, and use of all proposed and existing structures
 - h. Location and design of all proposed vehicle and pedestrian routes and nonresidential vehicle management areas
 - i. Approximate location and size of all existing and proposed utilities that will serve the PD
 - j. Location, size, and type of all proposed signs
 - k. Location, height, and type of all proposed screening and landscaping
 - l. Distances to residential zoning districts if within 1,000 feet
 - m. The use of land and location of structures on adjacent property and across adjacent rights-of-way
 - n. The location of any nearby schools and commercial facilities
 - o. Other information as required by the Planning Commission or Council
9. Elevations
Elevations of proposed structures or typical elevations if structures are not yet designed.
10. Other
Photographs of any existing uses, vacant land, and the surrounding area

B. Final Plan Additional Submission Requirements

Maps in the form required by the City of Oxford Subdivision Regulations, with such modifications and additions as required concerning such items as building sites when used as a substitute for lots,

common open space not dedicated for public use, and other matters as appropriate to planned developments generally or to the specific planned development. Similar modifications of standards contained in the Subdivision Regulations or in other regulations or policies applying generally may be reflected in such maps and report if the Planning Commission shall find and shall certify, after consultations with other agencies of government as appropriate in the specific case, that the public purposes of such regulations or policies are as well or better served by specific proposals of the final plan and reports.

1. Topographic data map drawn to a scale of 100 feet to one inch by a registered surveyor or engineer showing:
 - a. Boundary lines: bearings and distances.
 - b. Easements: location, width, and purpose.
 - c. Wooded areas, streams, lakes, marshes, and any other physical conditions that affect the site.
 - d. Ground elevations on the tract: for land that slopes less than one-half percent, show one-foot contours; for land that slopes more than one-half percent, show two foot.
 - e. If deemed necessary, subsurface conditions on the tract, including the location and results of tests made to ascertain the conditions of subsurface soil, rock and ground water, and the existing depth of ground water.
2. A general site and land use plan for the planned development as a whole, indicating sub-areas for phased development, if any, and showing location and use of structures and portions of structures in relation to building site lines; floor plans of the buildings involved, indicating horizontal dimensions, uses of space, and floor area; elevations of the buildings involved, indicating height, and if required, in determinations for the particular building or use location and dimensions of all windows and other glassed areas; building sites reserved for future use and uses for which sites are reserved, automotive and pedestrian circulatory networks, principal parking areas, open space not in building sites and use for which it is intended, and such other matters as are required to establish a clear pattern of the relationship to exist between structures, uses, circulation and land.
3. Agreements, Contracts, Deed Restrictions, and Sureties:
 - a. Filing a performance and labor and material payment bond in the amount of 110 percent of the estimated construction cost as determined by the City.
 - b. Depositing or placing in escrow or certified check, cash, or other acceptable pledge, in the amount of 110 percent of the construction cost as approved by the City.

NOTE: Incomplete applications CANNOT be processed.

Submit this application, required copies of the preliminary plan containing all required information and the required fee made payable to the City of Oxford, to the office of Community Development, Municipal Building, 101 East High Street, Oxford, Ohio 45056. Any questions should be directed to Community Development Department at (513) 524-5204. The plan will be placed on the next possible agenda

NOTE: Notification and publication requirements must be adhered to. Submit materials 45 days prior to the proposed Planning Commission meeting date. City Staff will erect a public hearing sign on the subject property. It is the Applicant's responsibility to remove the signage once the hearing(s) are completed.

SIGNATURE OF APPLICANT: _____

Date: 1/3/12

PRINTED NAME: Rick Wooliver

FEE / RECEIPT

\$400 plus \$100.00 Per Acre plus Actual Postage - Paid / Receipt Number:

clc #
24723
17164.5

Drawing Requirements

13 copies attached

A. Preliminary Plan

1. Application Fee of \$ 450 submitted
2. Applicant-National Energy Control, 423 W.Wyoming Ave. Cincinnati, OH 45215 513-821-9900
3. Owner- Southwestern Ohio Senior Services Inc. DBA Knolls of Oxford 11100 Springfield Pike, Cincinnati, OH 45246, 513-782-2550
4. Evidence of Financial capacity available upon request
5. Evidence of Unified Control of all land should be verifiable by Zoning
6. NAPSEB Certified Solar Engineer-Mark Gillespie, TMI/NEC 423 W. Wyoming Ave. Cincinnati, OH 45215, 513-265-5301
7. Description of Use and Site-items A-D see above. Item E is N/A

Narrative F-i-iv, G-i-G-vi

The proposed 250 KW Solar Photovoltaic installation will be ground mounted in SW corner of the Knolls just west of the main entrance. The array will consist of approximately 1056 solar modules mounted on 264 Racking assemblies at a total footprint of 49,104 square feet or approximately 1.25 acres.

The array is a low profile installation at a height of approximately 62.5". There is little to no environmental impact of this array. Site grading will not be necessary as the array will be adjusted manually by the racking to take full advantage of proper azimuth angles.

The array will have zero operational conditions that would cause any type of disturbance in the area such as noise, fumes, lighting, odor, or vibration.

The site is appropriate for the array as it is close enough to the existing Knolls structure and has the proper elevation for maximizing the efficiency of the system. It's proximity to the electrical service entrance, lack of trees and other obstructions, and the fact that the roof is not eligible for this type of installation make it ideal.

423 W. Wyoming Cincinnati, OH 45215 513-821-9900 www.nationalenergycontrol.com

We don't anticipate any necessity for any changes to or increases in the existing utilities. The system will be interconnected to the existing power of the Knolls and the energy created will be used by the facility itself. We are not aware of any restrictions, covenants, or easements required to build this array and there is not any outside structures within 200' of the proposed location.

Green Energy Initiative

The proposed array is part of an overall strategy by the Maple Knoll Village Communities to reduce energy consumption and increase operational efficiency through the implementation of energy efficient technologies. This solar array also helps the community reduce its carbon footprint and reduce Greenhouse gases by cutting its reliance on traditional coal fired energy plants. By implementing environmentally friendly "green energy", the Knolls of Oxford takes a leadership role in the community and sets a positive example for all in and around the Oxford and SW Ohio area.

8. Site Plan. Please see attached documentation of the proposed array and its location. Below are the specifics of the array.

Photovoltaic Array Specifications

- 242.88 KW solar array
- 1056 - 230W Solar modules
- 1 - 250KW inverter (located at the facility)
- System height - 62.5"
- 264 - Racking assemblies
- Array size 49104 sq ft
- No added service or distribution requirements, except for connection into customers existing distribution system
- All feeders to be installed underground with boring under roads, driveways, walkways and parking lots

Sequence of Installation

Installation of underground conduits (4 weeks)

Installation of Racking and modules (2 weeks) - occurs at the same time as underground conduit installation

Installation of wiring of modules (4 weeks)

Testing and commissioning (1 week)

Total project (9 - 10 weeks)

MAGE POWERTEC Plus
220/6PJ, 225/6PJ, 230/6PJ



More power

MAGE POWERTEC Plus modules use a polycrystalline cell technology with an electrical efficiency of up to 15.75%.

Allowable tolerances of up to +5 watts guarantee maximum power without compromise. The nominal power is always obtained or even exceeded.

More quality

The 10-year product warranty far surpasses legal requirements. MAGE POWERTEC Plus modules go far beyond competitors' standards with the added guarantee that they'll produce 90% of their nominal power for 12 years and 80% for 30 years. That is three full decades of reassurance.

Certifications according to the most rigorous North American and international standards guarantee maximum quality.

In addition, every MAGE POWERTEC Plus module passes rigorous optical, mechanical, and electrical quality controls.

More security

Due to their engineered hollow-section frame and 3.2 mm (013 in) special solar glass, MAGE POWERTEC Plus modules meet maximum demands with regard to stability and corrosion resistance. The high-quality EVA foil allows ideal embedding of the solar cells, while the weatherproof foil on the back of the modules protects against humidity.

To avoid overheating of the individual solar cells (hot-spot effect), a junction box with bypass diodes is placed on the back of the module. In addition, the extremely robust modules resist a maximum pressure of 5,400 Pa/113 psf.



+5 Watts
Positive
Tolerances



10 Year
Product
Warranty



12 Year 90%
Power
Guarantee



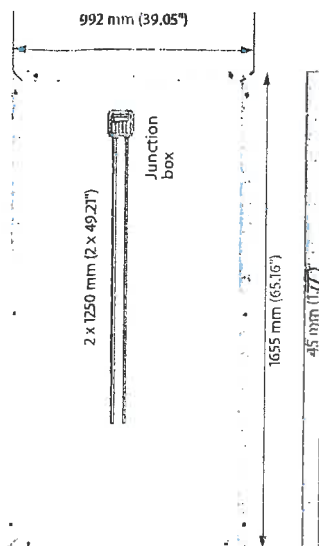
30 Year 80%
Power
Guarantee

MAGE POWERTEC Plus

220/6PJ, 225/6PJ, 230/6PJ



Solar Modules



MAGE SOLAR Projects Inc
720 Industrial Blvd.
Dublin, GA 310
+1(877) 311 6243 Toll-free
+1(478) 609 6640 Main office
+1(478) 275 7685 Fax
info@matesolar.com
www.matesolar.com

Technical Facts

	220/6PJ	225/6PJ	230/6PJ
Number of Cells (Matrix)	60 (6x10)	60 (6x10)	60 (6x10)
Solar Cell Type	polycrystalline	polycrystalline	polycrystalline
Solar Cell Size (mm)	156 x 156	156 x 156	156 x 156
Solar Cell Size (in)	6 x 6	6 x 6	6 x 6
Dimensions (LxW x D mm)	1655 x 992 x 45	1655 x 992 x 45	1655 x 992 x 45
Dimensions (LxW x D in)	65.16 x 39.05 x 1.77	65.16 x 39.05 x 1.77	65.16 x 39.05 x 1.77
Weight (kg)	19.96	19.96	19.96
Weight (lbs)	44.00	44.00	44.00
Fire Rating	C	C	C

Electrical Characteristics*

		220/6PJ	225/6PJ	230/6PJ
Maximum Power Rating	P_{max} [Wp]	220	225	230
Tolerance of P_{max}	P [Wp]	-0/+5	-0/+5	-0/+5
Maximum Power Voltage of P_{max}	U_{mp} [V]	30.00	30.30	30.20
Maximum Power Current P_{max}	I_{mp} [A]	7.34	7.48	7.62
Short Circuit Current	I_{sc} [A]	8.30	8.20	8.33
Open Circuit Voltage	U_{oc} [V]	36.60	36.80	36.90
Module Efficiency	[%]	13.55	13.86	14.16
Cell Efficiency	[%]	15.00	15.40	15.75
Maximum System Voltage	[V]	600	600	600

* STC @ 25°C (77°F), 1000 W/m², AM 1.5

Thermal Characteristics

		220/6PJ	225/6PJ	230/6PJ
NOCT	[°C]	+47/+2	+47/+2	+47/+2
NOCT	[°F]	+116.60 +/-3.6	+116.60 +/-3.6	+116.60 +/-3.6
Temperature Coefficient	I_{sc} [%/K]	+0.055	+0.055	+0.055
Temperature Coefficient	U_{oc} [%/K]	-0.347	-0.347	-0.347
Temperature Coefficient	P_{max} [%/K]	-0.48	-0.48	-0.48

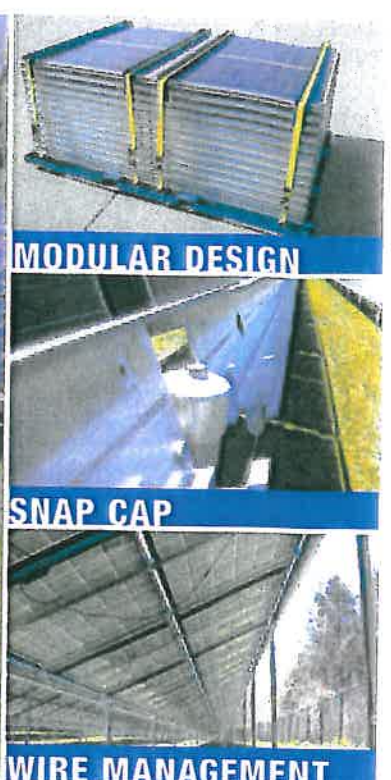
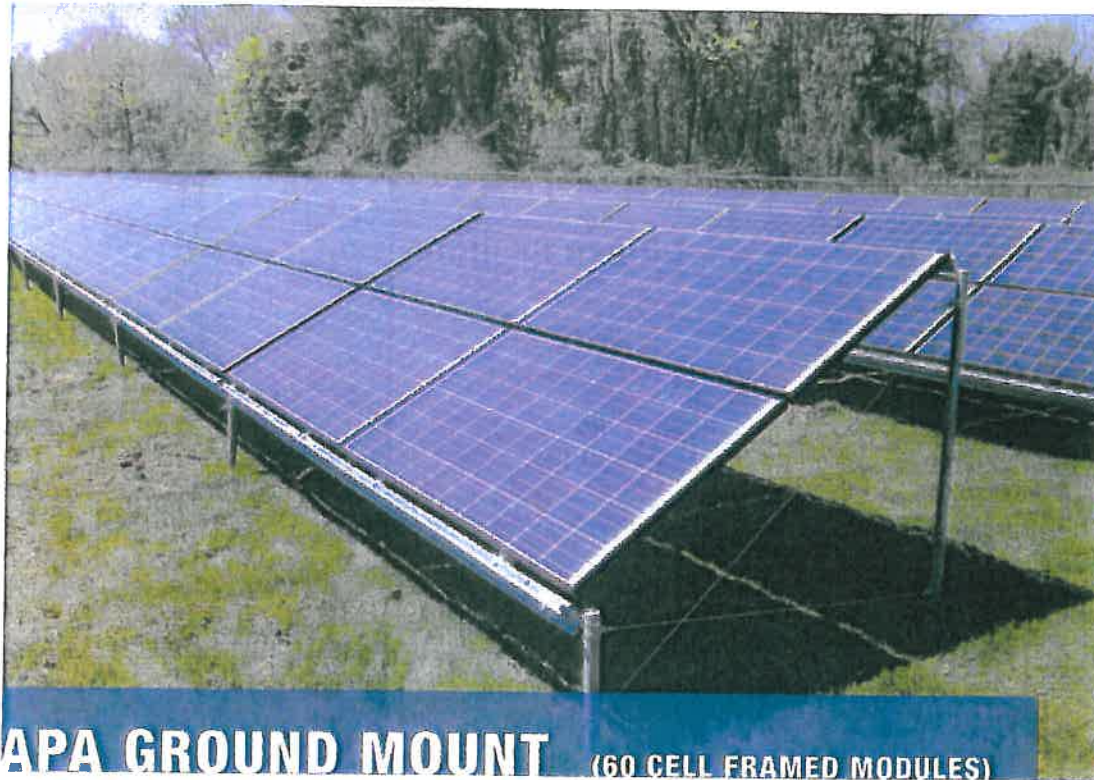
Guarantees and Certificates

Product Warranty	10 years
Power Guarantee 90%	12 years
Power Guarantee 80%	30 years



ISO 9001, UL 1703,
ULC ORD 1703, IEC 61215,
IEC 61730

FSEC listed
CEC listed



APA GROUND MOUNT (60 CELL FRAMED MODULES)

MODULAR DESIGN

SNAP CAP

WIRE MANAGEMENT

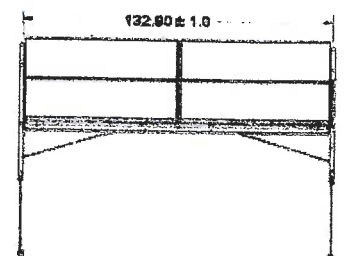
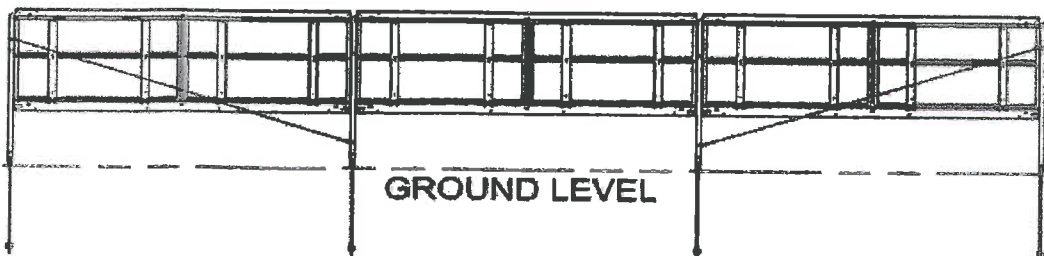
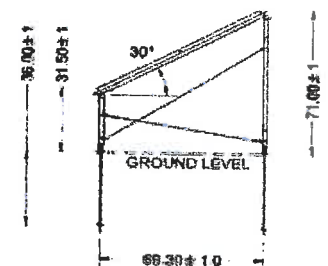
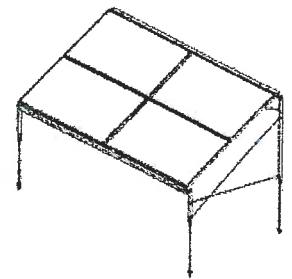
WHERE INNOVATION MEETS AUTOMATION

SPECIFICATIONS

Racking Material: High Strength Low Alloy Steel
Corrosion Resistance: Galvanized coating that complies with the requirements of ASTM 123 and ASTM 653
Snow Load: Standard 25 psf
Wind Load: Standard 100 mph
Panel Angle: Customer Specified (10-30 Degrees)
Anchor Depth: Design based on soil type and geographical location. Testing performed by APA before installation to confirm soil bearing loads.

SYSTEM ADVANTAGES

Modular Design: Only 3 main components - all prefabricated in a quality controlled environment.
Installation Rate: Extremely time and labor efficient utilizing our snap together interlocking modular design.
Zero Fasteners: Zero fasteners needed for field installation.
PrePanelization: All panels can be preloaded onto the racking system before site delivery.
Prewiring: All wire management is completed for lead wires.
Cable Tray: Built in cable tray for home runs.
Interlocking: Rows can be constructed to any desired length.
Grounding Provisions: Racking system has predrilled holes for quick and efficient grounding.





PV Powered™

solAron®

siteguard®

PVP250kW

The industry standard for reliability, installability and maintainability

The PVP250kW raises the bar once again for commercial inverter reliability, ease of installation and lifetime maintainability, while delivering an impressive 96.5% CEC efficiency. Unsurpassed reliability is enabled by market-leading features including busbar power connections, redundant cooling system, card cage circuit board design and the widest temperature rating of any inverter in its class. The highly integrated system saves installers time and money by including load break rated AC & DC service disconnects, neutral-free installation, oversized busbar landings and generous cable bending area with bottom and side cable entry options. Additionally, the PVP250kW has a 295VDC minimum MPPT which enables exceptional stringing capability.

PV Powered backs all its commercial inverters with an industry-leading 10-year nationwide warranty and an unprecedented optional 20-year warranty; plus the best service and support team in the business.



Superior Reliability

- Redundant cooling system with Smart Air Management™
- Low parts count reduces potential failure points
- Engineered busbar power connections
- Card cage circuit board system minimizes electronic interconnections

Exceptional Installability

- Bottom and side cable entry with generous bending area and oversized busbar landings
- Large DC sub-combiner compartment with multiple fuse options and configurations
- Exterior mounting flanges for fast and easy anchoring with no pre-drilling

Easy to Maintain

- All maintenance and service via front access
- Fast change circuit board system shortens service time
- Load break rated AC and DC service disconnects

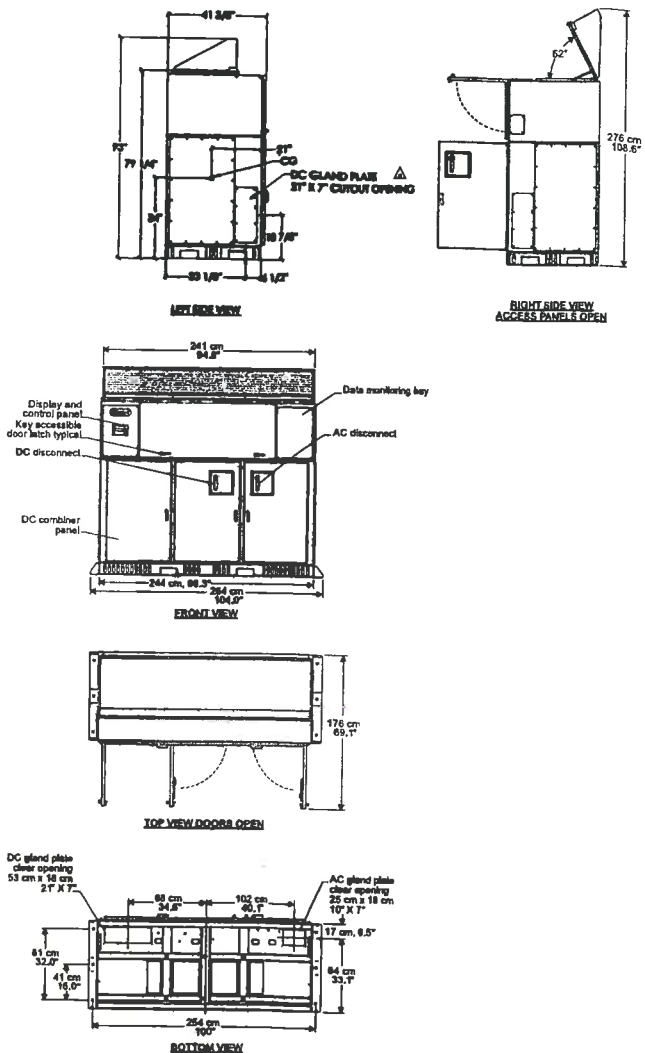


Model	PVP250kW (600VAC)	PVP250kW (480VAC)
Continuous Output Power (kW)	249.5kW	249.5kW
Weighted CEC Efficiency (%)	96.5%	96.5%
Maximum DC Input Voltage (VOC)	600	600
DC Peak Power Tracking Range (V)	295-595	295-595
Maximum Operating Input Current (A)	890	890
AC Nominal Voltage (V)	600V	480V
AC Operating Range (V)	528-660	423-528
AC Frequency Range (Hz)	59.3-60.5	59.3-60.5
AC Maximum Continuous Current (A)	243	304
Standby Losses (W)	90	67
Harmonic Distortion (%THD)	<3%	<3%
Power Factor	>.99	>.99

Mechanical Specifications

Model	PVP250kW (600VAC)	PVP250kW (480VAC)
Enclosure	NEMA 4	NEMA 4
Construction	Powder Coated Steel	Powder Coated Steel
Mounting	Pad Mount	Pad Mount
Weight (lbs)	5000	5000
Cooling	Forced Convection	Forced Convection
Temperature Range (°C)	-30 to 50	-30 to 50
Standby/Storage Ambient Temperature Range (°C)	-40 to 60	-40 to 60
Isolation Transformer	Yes	Yes
Noise Emission - Typical at full load	< 65 dBA at 8 ft	< 65 dBA at 8 ft

Dimensions



Options

- Integrated fused sub-array combiner with options from 4 to 20 fuses and 70 to 400 Amps
- Fused subcombiners with monitoring: 8 x 200A, 16 x 100A
- Integrated revenue grade meter
- Integrated data monitoring solutions
- 24V auxiliary power supply
- Preventative maintenance program
- 20-year extended warranty

Agency Approvals

UL 1741, IEEE519, IEEE929, IEEE1547, CSA 107.1-1, FCC Class A

Performance Monitoring

Increase uptime and reduce maintenance costs with integrated performance monitoring hardware that enables connectivity to a variety of software solutions from industry leading monitoring partners. The tight integration between Advanced Energy and our monitoring partners creates a superior service and support experience while seamlessly delivering meaningful data. Factory integration and testing of our UL listed monitoring solution ensures high reliability and significantly reduces field installation costs.



For more information on AE inverters, visit www.advanced-energy.com/renewables
Specifications are subject to change without notice

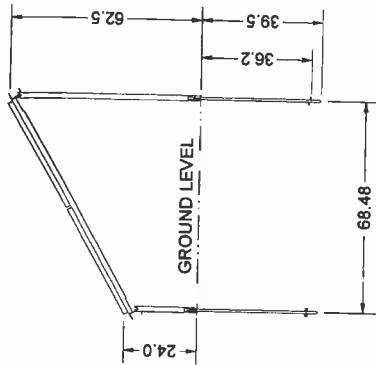
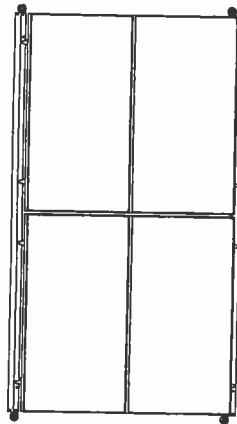
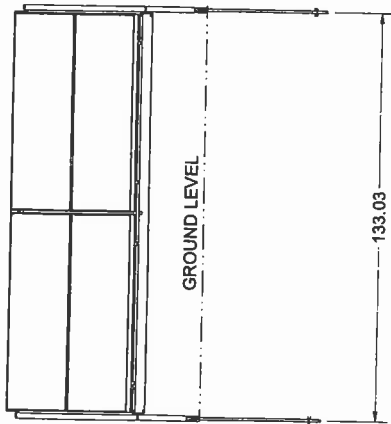


Advanced Energy Industries, Inc. • 20720 Brinson Blvd. P.O. Box 7348 Bend 97708 OR U.S.A.
T. 877.312.3832 • sales.support@aei.com • www.advanced-energy.com/renewables
Please see www.advanced-energy.com for worldwide contact information

© Advanced Energy Industries, Inc. 2011
All rights reserved. Printed in U.S.A.
55-600400-64DO 01/11

Advanced Energy® and Solaron® U.S. trademarks of Advanced Energy Industries, Inc.





CONTROLLED APPROVED: _____ DATE: _____ (DRAWING CONTROLLED ONLY IF SIGNATURE IS PRESENT IN BLUE INK)		DETAILS PER ASSEMBLY ASSEMBLY(S) REQ'D X TOTAL DETAILS = MODEL USED: A301-030-D30-H22-AA TOLERANCES (UNLESS SPECIFIED) .0004 ± .0005 .00 ± .010 .0001 ± .001 .00 ± .000 FRACTIONAL ± 1/16 ANGULAR ± 1 DEGREE		DO NOT SCALE  THIRD ANGLE PROJECTION	
DRAWN BY: _____ DATE: 10/02/11 CHECKED BY: _____ DATE: _____ REVISION: _____ BY: _____ DATE: _____		SCALE: FULL PERMISSIBLE TOLERANCE: IN SURFACE FINISH: AS REQUIRED MEDIA TYPE: B ORIGINATOR: ALEX DATE: 10/02/11 DEPARTMENT: ALEX		ALEX PRODUCTS, INC RIDGEVILLE CORNERS, OHIO DRAWING NUMBER: A301-030-D30-H22-AA	

City of Oxford
Community Development Department
STAFF REPORT

Planning Commission

Case # PC-01-2012

Date – February 14, 2012

APPLICATION

Applicant:	Scott Webb, Architect
Location:	600 McGuffey Avenue
Owner:	Tim Rhodenbaugh
Action Request:	Zoning Map Amendment- Request Map Amendment from a R-3 (Multi-Family Residential) District to GB (General Business) District
Current Use:	Professional Office (Dentist Office)
Surrounding Existing Land Uses:	Residential

DESCRIPTION

The application is to request a zoning change of the subject property from a R3 (Multi-family) Residential District to a GB (General Business) District. The property is located at the southwest corner of Tollgate Drive and McGuffey Avenue and is a one-acre site.

SITE HISTORY

1987- Ordinance 1982 approving an Additional Use for Professional Offices in Residential District.

COMPREHENSIVE PLAN

The site was not specifically addressed by the 2008 Comprehensive Plan; therefore, it is necessary to examine the Development Map as well as Neighborhood Character map to discern the development pattern of this area. The Development Map shows that this site is in a developed area, while the Character Map shows the site is in Neighborhood General 2. The Development Map is used to show how the neighborhood, district and corridor should be developed, whereas the Character Map defines the character of the neighborhood and helps guide future growth in each character area.

COMMENT FORMS

No public comment forms have been received to date.

AGENCY REVIEWS

Requests for review were made to the Police, Fire, Engineering & Economic Development Departments. The following comments have been received:

Police:	Returned without comment.
Fire:	Returned without comment.
Engineering:	Returned with comments attached.
Econ. Dev.	No comments received.

DECISION CRITERIA

A copy of the Zoning Code Map Amendment Decision Standards is attached.

ANALYSIS

The site is a dentist office and has been there for over 20 years. The site is surrounded by condominiums on the south and west sides. The TRI recreational facility is to the north and banking institutions are located to the east of this property. The general land use in this neighborhood has not gone through any significant changes. This dentist office was established in 1987 through an Additional Use permit application approved by City Council. Reviewing the staff analysis at that time, the sense was that the dentist office would be an appropriate transition use from commercial and institution use to high-density residential use.

As stated, the previous approval was granted in 1987 and the current building was built around 1989. The zoning classification of the site was not amended until 2003 from R4 to R3. That was when office use as an Additional Use was removed from the zoning regulations.

Even the Comprehensive Plan does not deal with specific sites like this one; the Development Map and Character Map, as part of the Land Use Element, do not suggest the site to be considered commercial. It certainly served as an appropriate transition and buffering effect from general commercial to high density residential area. This area has remained the same since 1990. Comparing the land use map at that time with the current zoning map, this area remains to be the same as well. In considering zoning map amendment, the Planning Commission must review the request that at least one of the Decision Standards has been met.

RECOMMENDATION

SUBMITTED

BY:



Jung-Han Chen,

Community Development Director

DATE: January 31, 2012

ATTACHMENT

(c) Planning Commission and Council Review. The Planning Commission shall base its recommendation on a proposed Zoning Code amendment upon the complete application, upon any staff report, and upon any relevant and credible public comment presented during the public hearing. Council shall base its decision on the same materials and shall also consider the Planning Commission recommendation.

If the Planning Commission or Council finds that the information provided is insufficient to make a determination, it may suspend its review until sufficient information has been provided.

- (1) Decision standards. A proposed amendment shall be approved only if it meets at least one of the following criteria, and if its benefits will likely outweigh any potential pitfalls.

Text Amendments

- A. The proposed amendment will make the Code conform more closely to the Comprehensive Plan.
- B. The proposed amendment will improve the public health, safety, and general welfare of Oxford.
- C. The proposed amendment will clarify the intent of the Code.
- D. The proposed amendment will better implement the intent of the Code.
- E. The proposed amendment will improve enforcement of the Code.

Map Amendments

- A. There is an error on the Official Zoning Map or in the delineations between districts thereon.
- B. The proposed amendment will make the map conform more closely to the Comprehensive Plan.
- C. There has been a substantial change in area conditions that necessitates the amendment.
- D. There is a legitimate need for additional land area in the zoning district that will be expanded.

City of Oxford
Inter-Office Review Transmittal Sheet

Date: 12/29/2011

To: **Fire Department** Engineering Division Police Department Economic Development

From: Community Development

Drawings are being submitted to you for the following:

Case #: PC-01-2012 ADDRESS: 600 McGuffey Avenue

**Zoning Map Amendment, 600 McGuffey Avenue R3 Multi-Family Residential to GB
General Business District, Scott Webb, Applicant, Agent; Tim Rhodenbaugh,
Applicant/Property Owner**

____X____ Review _____ Revisions _____ Other

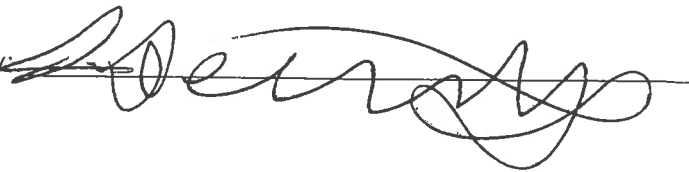
Comments or status update requested by: Lynn Taylor

Please return no later than: **2/8/12** Note: If no comments are received, we will assume the project meets your department's standards.

.....
Drawings are returned: w/comments

without/comments

Drawings reviewed by:



Date: 1-3-12

City of Oxford
Inter-Office Review Transmittal Sheet

Date: 12/29/2011

To: Fire Department Engineering Division Police Department Economic Development

From: Community Development

Drawings are being submitted to you for the following:

Case #: PC-01-2012 ADDRESS: 600 McGuffey Avenue

Zoning Map Amendment, 600 McGuffey Avenue R3 Multi-Family Residential to GB
General Business District, Scott Webb, Applicant, Agent; Tim Rhodenbaugh,
Applicant/Property Owner

____X____ Review _____ Revisions _____ Other

Comments or status update requested by: Lynn Taylor

Please return no later than: 2/8/12 Note: If no comments are received, we will assume the
project meets your department's standards.

.....
Drawings are returned: w/comments without/comments

SEE MEMO DATED 12-30-11.

Drawings reviewed by: _____

A. Poppe

Date: 12-30-11



Memo

Service Department
Engineering Division

513/524-5208 fax 513/524-5267

TO: Community Development Department

FROM: Victor Popescu, P.E.
City Engineer

RE: Case # PC-01-2012
Zoning Map Amendment - 600 McGuffey Avenue

DATE: December 30, 2011

The Engineering Division has reviewed the subject case.

Based on the received documentation, approval is recommended. Completion of the previously approved development will not be detrimental to the neighborhood, or severely impact the traffic. The area is already a cluster of apartments and various businesses.

If there are questions, please contact the Engineering Division at 513-524-5208.

City of Oxford
Inter-Office Review Transmittal Sheet

✓ JLT

Date: 12/29/2011

To: Fire Department Engineering Division **Police Department** Economic Development

From: Community Development

Drawings are being submitted to you for the following:

Case #: PC-01-2012 ADDRESS: 600 McGuffey Avenue

**Zoning Map Amendment, 600 McGuffey Avenue R3 Multi-Family Residential to GB
General Business District, Scott Webb, Applicant, Agent; Tim Rhodenbaugh,
Applicant/Property Owner**

 X Review Revisions Other

Comments or status update requested by: Lynn Taylor

Please return no later than: **2/8/12** Note: If no comments are received, we will assume the project meets your department's standards.

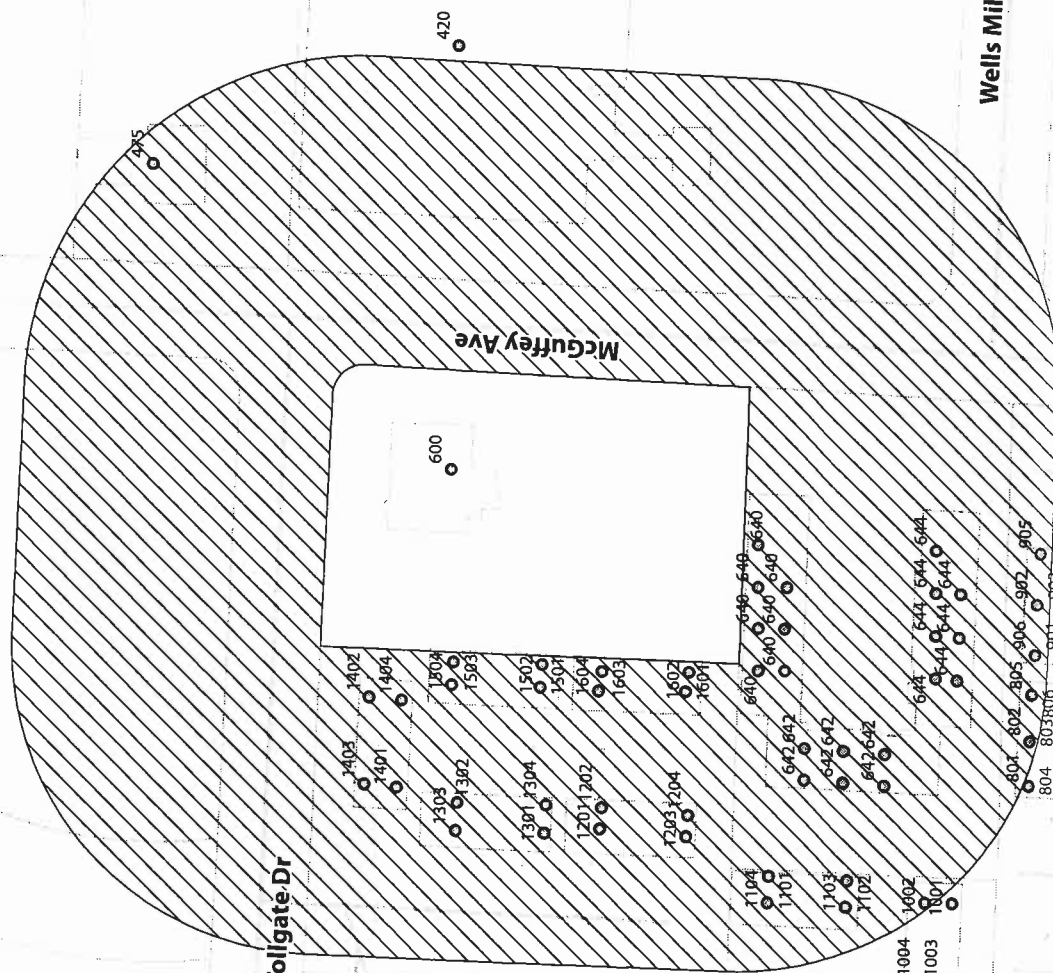
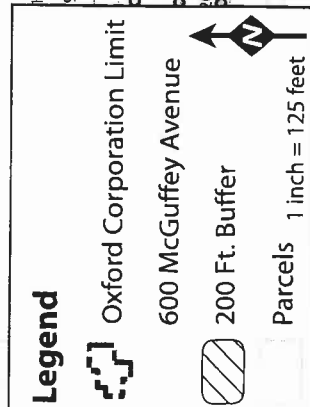
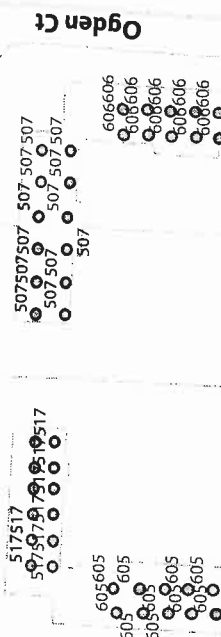
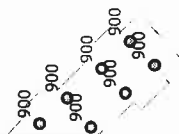
.....
Drawings are returned: w/comments without/comments

Drawings reviewed by: _____



Date: 1.3.2012

Surrounding properties



LETTER OF AGENCY

To Whom It May Concern:

Please be advised that Scott Webb, Architect has permission to represent our interest with the City of Oxford and act on our behalf for Planning Commission & City Council regarding a Zoning Map Amendment to our property located at 600 McGuffey Avenue.

Thank-you,

Signed: Tim Rhodenbaugh
(Tim Rhodenbaugh)

Date: 12/7/11

Case No.: PC-01-2012
Date Filed: 12/12/11
Feb 14 mtg

Zoning Map Amendment Application
City of Oxford, Ohio

REQUIRED INFORMATION

Name of Applicant: Scott Webb Architect Tim Raderenburgh
(Attach a Letter of Agency if the applicant is not the property owner.)
Mailing Address: 102 W. Walnut St. 6002 McCarty Ave
Oxford, OH 45056 Oxford, OH 45056
Telephone Number(s): 523-3838 Email Address: scott@scottwebbarchitect.com
Location of Property: 600 McCarty Avenue
(Indicate address if there is an existing structure or subdivision name and lot number if subdivided.)
Legal Description: _____
Total Area: _____ Acres / Square Feet (circle one)
Existing Use of Property: Professional Office
Current Zoning: R-8
Proposed Zone(s): C-8
Proposed Use: Additional Professional Offices

SUBMISSION REQUIREMENTS

Please submit a vicinity map, at scale and a metes and bounds description of the property, the statement described below and the required fee of **\$150.00 plus actual postage**, made payable to the City of Oxford. The entire submission must be prepared in accordance with Chapter 1135, Zoning Code Amendments, of the City of Oxford Zoning Code.

On a separate sheet of paper, provide the names and addresses of all adjoining property owners within 200 feet of the site, including those across streets, roads, alleys and highways. NOTE: The Butler County website (www.butlercountyohio.org/auditor) is very helpful when searching for the mailing address of adjoining property owners. Once the site is up, click on online searches, then click on real estate. It will allow you to search by owner, address or parcel number. *Property Owner names will not be provided in the agenda packet.

Attach a statement which responds to the following questions:

- What is the relationship of the proposed zone change to the City of Oxford's Comprehensive Plan?
- How will the zone change affect the neighborhood in which the property is located? Briefly describe any impacts of the change as proposed.
- How will the zone change affect public facilities such as sewer and water service, drainage, schools and roads, if applicable?
- What mitigating actions might be suggested to offset problems resulting from adverse impacts on private property and public facilities (e.g., landscape screening, drainage improvements, changes in traffic signalization, provision of additional turn lanes).
- Why is the current zoning classification of the property no longer appropriate?

All materials and application fee must be delivered to the office of Community Development, Municipal Building, 101 East High Street, Oxford, Ohio 45056. Any questions should be directed to the Community Development Department at (513) 524-5204. Submit materials 45 days prior to the proposed meeting date.

NOTE: Incomplete applications will not be processed. City Staff will erect a public hearing sign on the subject property. It is the Applicant's responsibility to remove the signage once the hearing(s) are completed.

SIGNATURE OF APPLICANT: [Signature] Date: 12/9/11

PRINTED NAME: Scott Webb

FEE / RECEIPT

\$150 Fee plus Actual Postage Paid / Receipt Number: 17116.62

Jung-Han Chen
Community Development Director
City of Oxford
Municipal Building
101 E. High Street
Oxford, Ohio 45056



SCOTT
WEBB

A R C H I T E C T

103 West Walnut Street
Oxford, Ohio 45056
(513) 523-3838

www.scottwebbarchitect.com

Re: Application for Zoning Map Amendment
Professional Office Buildings
600 McGuffey Avenue

December 9, 2011

Dear Mr. Chen,

Please accept this letter as a formal request for a review hearing by the City of Oxford Planning Commission and Oxford City Council for a Zoning Map Amendment for the R-3 designated property located at the corner of McGuffey & Tollgate Ave to the GB district.

The property in question has been the location of Dr. Tim Rhodenbaugh's dental practice. Over 20 years ago, this building was permitted as the first phase of a development that was approved through a "Special Use" approval. This section has subsequently been eliminated from our Zoning Code, and while it has been replaced with "Conditional Uses", Professional Offices are no longer allowed as a Conditional Use in this district. The property is now considered a Non-Conforming Use, and is subsequently prohibited from being expanded; now preventing the second phase of the development which was previously approved.

The attached proposal has been prepared for and with the help of the following:

Property Owners:

Dr. Tim Rhodenbaugh
600 McGuffey Avenue
Oxford, Ohio 45056

Architect:

Scott Webb, Architect
103 West Walnut Street
Oxford, Ohio 45056

Narrative Statement regarding the proposed Zoning Map Amendment

In response to the questions outlined in the application, we offer the following:

- A. *What is the relationship of the proposed zone change to the City of Oxford's Comprehensive Plan ;*

While this street is not specifically addressed by the Comprehensive plan, the property is currently commercial, and acts as a transition between the neighboring multi-family residential to the West and South, the Tri Community Center to the North, and commercial uses along the Eastern side of McGuffey Avenue.

The Comprehensive Plan does however address a number of other issues germane to this Zoning change, including:

- New development will be sensitive to pedestrians in terms of scale and walkability (Land Use Principle #1)

The additional office uses on the property will be of similar scale to the existing buildings in the area, and will provide a variety of professional services within a walkable distance to a large number of community residents.

- Mixed-use centers will include a variety of commercial, office, retail, civic and residential uses in the same building and or adjacent to each other (Land Use Principle #2).

This property is ideally located adjacent to all these uses.

- Infill development and redevelopment of underutilized sites is a priority. (Land Use Principle #3)

Allowing the second phase of this development as infill on an under utilized site is preferred to expansion of these services on the City's perimeter.

- B. *How will the Zone Change affect the neighborhood in which the property is located?*

The neighborhood currently includes a mix of uses, including banks, multi-family residential, and other professional offices. Additional professional offices would enhance the viability of the existing neighborhood.

- C. *How will the Zone Change affect public facilities such as sewer and water service, drainage, schools and roads, if applicable?*

The original site design included additional buildings and parking. City services are available, and the existing storm water retention area was designed to accommodate both phases of construction.

- D. *What mitigating actions might be suggested to offset problems resulting from adverse impacts on private property and public facilities (e.g. landscape screening, drainage improvements, changes in traffic signalization, provision of additional turn lanes).*

The current Zoning Code prescribes increased setbacks & screening where adjacent to residential uses. A fence & landscaping are currently in place separating these uses.

Storm water management has been provided on site for both phases of the development.

No change in traffic signalization is necessitated by the addition of approx. 6,000 s.f. of new professional office space.

E. *Why is the current Zoning Classification of the property no longer appropriate?*

The commercial use of this property was approved over 20 years ago, and has been in use as a professional office since that time. At the time of the previous approval, a second phase was shown, allowing the entire lot to be developed as professional offices. The Zoning Designation of the site has never changed, nor has the character of the neighborhood in which it resides. A change in the language of the Zoning Code has caused the existing building to be "non-conforming" and effectively prevented the completion of the site once approved

With regard to the Decision Standards provided in the Zoning Code, we offer the following:

A. *There is an error in the Official Zoning Map or in the delineations between districts thereon.*

Professional offices were approved for this location, though at the time of its original approval, a Zone Change was not required, as professional offices were allowed in Residential Districts through a "Special Use".

B. *The proposed amendment will make the map conform more closely to the Comprehensive Plan.*

The Comprehensive Plan recognizes this area as part of a commercial corridor and favors infill development of under utilized sites.

C. *There has been substantial change in the area conditions that necessitates the amendment.*

There has not been substantial change in the area; it has been developed as contemplated nearly 20 years ago with a mix of banks, multi-family residential & professional offices.

D. *There is legitimate need for the additional land area in the zoning district that will be expanded.*

This application does not request additional land, but rather allows the infill of the site as was approved nearly 20 years ago.

Thank you for your consideration of this proposal. If you have any questions or need any additional information, please call.

Respectfully,

Scott Webb, Architect