



Planning Commission Memorandum

To: Karla Richards, Clerk of Council
From: Pat Ryan, Interim Boards & Commissions Secretary *PR*
Date: 2-25-09
Re: Approved/Signed Planning Commission Minutes:
Tuesday, February 10, 2009

Attached you will find a copy of the approved/signed Planning Commission minutes from Tuesday, February 10, 2009.

Note that the original document has been forwarded to, and will be on file with the Clerk of Council for the official record.

E-mail: Mayor (per Admin. Asst.)
Administrative Officer
Finance Director
Planning Commission
Fire Chief
Capital One

cc: Director of Planning & Community Development
Superintendent of Building & Zoning
Council
Tom Jones (Council)
PC File/Posting

City of Norton
PLANNING COMMISSION
Tuesday, February 10, 2009

The Planning Commission (PC) of the City of Norton, Ohio, convened for a public meeting in Council Chambers of the Safety Administration Building. Chairman Spisak called the meeting to order at 6:00 p.m.

I. ATTENDANCE:

PRESENT: Mark Spisak, John Conklin, Janet Jacobs, Todd Houser, Ralph Dowling

ABSENT: None

ALSO PRESENT: Russ Arters, Superintendent of Building and Zoning
Pat Ryan, Zoning Inspector

II. PUBLIC APPLICATIONS:

A.) Application S1-2009 (Continued from 1-27-09)

Major Subdivision/Preliminary Plat

Pride One Norton, LLC, Owner

Parcel 4602628 and 4608579

[Requesting to develop a Planned Cluster Residence Community consisting of 182 attached cluster rental units for Seniors and 14 Single Family Lots]

Chairman Spisak welcomed Ms. Rakoci back and asked her to approach the podium and sign in.

Chairman Spisak stated the Commission received an opinion on the inverted crowned roads from Oshorn Engineering and the engineer gave 5 points why he would not recommend this road design. Chairman Spisak said he did not see how they could approve this, especially on Drive D whether it is public or private, mainly because it goes from an existing road to an abutting property that could be developed in the future. While it may be private now, the way it is proposed to be constructed could be problematic in the future. Mr. Spisak said they need to look at the City's best interest and the City does not want to inherit something like this if it becomes a public road in the future.

Ms. Rakoci questioned the engineer's comment about no under drain and she pointed out there would be a 4" under drain in the center. She stated Pride One has put this street type in 4 different counties in northern Ohio since 1991, this is a typical road section that other city or county engineers have approved. Ms. Rakoci expressed she was surprised because this is the same section that was approved about 3 years ago.

Chairman Spisak stated he reviewed the previous plans and saw basically 2 streets that had the inverted crown streets. He said some differences between the two developments are; this development has more units and the roads are the main development and not off a collector street within the development.

Ms. Rakoci stated that these are rental units on drives. They are not really streets, although they meet the typical section for a private street, they are private drives. They won't be dedicated as a street. They will not have a right-of-way so they won't be platted. If they were to be public streets, that would take away from the marketing and the ability to have a private, possibly gated, community hopefully with seniors. They do not want through traffic, they want it to be its own little community.

Chairman Spisak said he understood that she wants it to be private community but the Commission was looking at Drive D that comes off of Eastern Road and goes north to the property line. He understood that now it is going to be a private community but thinking ahead we don't know what will happen with that drive. This gives the Commission great concern and now they are receiving recommendations from the City's consulting engineer stating the inverted roads are not a good way to construct a road.

Ms. Rakoci stated she would like to speak with the engineer because she cannot believe all of the other city and county engineers that have given their approvals didn't know what they were talking about. She said this is why she is so surprised that Norton's consultant is against this. She said if the Commission is going to insist that this be a public road and insist that she put in curb and gutter then the project won't work.

Chairman Spisak stated he did not say it needed to be a public road but that the road be constructed to the specifications of a public road. He is not asking for it to be dedicated and Pride One may not need to put in curb and gutters on that road in order to do a crowned road.

Ms. Rakoci explained the crowned road would still need to have drains on each side and curb if you have a gutter to take the water away.

Mr. Dowling stated the City has a code stating you can't have inverted pavement for dedicated streets but this is not going to be dedicated. If anyone wanted to tie into the end of Drive D they would need to get approval from Pride One. He feels that the discussion is falling outside the boundaries of what the code applies to.

Ms. Rakoci said this is not a typical single-family development that fits the code, this is a community with private drives. As the owner of the project, they are not going to put in a road they are going to have to keep repairing. There is no Homeowners Association Document, Pride One owns it and hires a company to manage it.

Mr. Houser asked Mr. Arters, Superintendent of Building and Zoning, about Section 1022 and how it relates to all roads both public and private.

Mr. Arters stated he was not the engineer but his concern is with Drive D. The City has to look into the future and if someone brings a road up to this and it has crowned pavement with curb and gutter, then we have a problem going from that type of road to the inverted. It may be fine now but in the future someone may purchase and develop the land to the north and try to access Drive D. The road does not need to be public at this time but we are asking that it meet our specs so if sometime in the future it does convert over to public it is ready to go. This is the biggest concern. Pride One may sell the property and be out of this in the future. No one knows if this will happen but it is a possibility. Mr. Arters felt if the Planning Commission approved it, the City could probably live with the other roads being inverted, but Drive D is the main concern.

Mr. Dowling stated he is struggling with Pride One owning the property and if someone wants to buy and connect into that they need to get an agreement and perhaps there would be some cost to rework the road because Pride One owns that lot.

Mr. Arters gave an example of what would happen if someone bought all the land from Cleveland-Massillon Road including this project and if the Commission approved inverted roads and now they want to make an inverted road public. This is the biggest concern that everyone has.

Mr. Dowling asked if this occurs, then there is some change in responsibility when they want to make it a public road and our response would be that we would not accept it because it does not comply.

Ms. Rakoci stated if it was a public road it would need to be platted and they would not have ownership anymore. She said at the last meeting that Pride One would allow emergency access if property to the north would develop but right now that property can't be subdivided due to the deed restrictions.

Mr. Dowling asked how the areas in Columbia Woods Apartments were handled stating they are all rental units.

Mr. Arters confirmed they are all rentals and they were constructed around 1996. The drives are all privately maintained and they are off of Columbia Woods Drive which is a public road. He was not sure of the pavement profile.

Ms. Rakoci said all of her units would have an Eastern Road address with building and unit numbers.

Mr. Dowling stated that the code doesn't address this specifically nor cover the requirements for private developments very well and most of the requirements are for housing developments not rental property.

Ms. Rakoci feels that they are trying to put a square peg in a round hole and the code doesn't necessarily apply. Ms. Rakoci stated sidewalks are required within the right-of-way and they do not have a right-of-way because they are private streets. Pride One has about 12 or 13 of these communities and none of them have sidewalks. They have been building these since 1991 in northern Ohio and they average between 80 and 100 units. Right now they can't build them fast enough. She reviewed the amenities in these apartments and stated there are not many of this type of units available.

There was a comparison to the Meadows at Johnson and Mr. Conklin pointed out that those were to be condos not rentals.

Mr. Dowling noted Ms. Rakoci has agreed to about half of the items on the list and then about 40% of the rest of them do not really apply to this application.

Mr. Arters referenced Section 1236.03 under Planned Developments and stated the part on private streets may make it clearer. It is part of the review process and it may help with Drive D and even Drive A.

Ms. Rakoci stated these are more like private drives. The units do not have their own street address and that is why they call them drives.

Ms. Ryan, Zoning Inspector, explained that in other counties and cities when a road goes to or near the boundary line, they usually require that road go to the line for future connection based on a thoroughfare plan or future roads. She said she feels this is where the struggle is because there was a plan before showing a proposal for connection to Cleveland Massillon Road and out to Fairland Road. There is a lot of vacant land here and in the future there could be a connection. The City is looking at potential future growth and the reserve strip is for future connection. If there is no connection here, in the future, all traffic has to come out onto Cleveland-Massillon Road or Fairland Road. There is no interconnection and no alternate ways to get in and out of any of these developments. You always try to connect your roads.

Ms. Rakoci mentioned in Montville Township it is a private drive and it goes up to the property line.

Ms. Ryan stated that development does connect to the Medina City streets, Medina County required it to connect and Pride One had to put in public roads to meet the public roads in Medina City so that part is public. The private road comes off that public street and is internal. In looking at the Norton project, if everything around it was already developed and there was no way to connect then that would be OK but this land is wide open. The struggle to make Drive D public is in part because it is a collector street even within this proposed development but it could become a collector for any future development. No one knows what will happen in the future.

Mr. Dowling asked if it was worthwhile talking to Osborn Engineering to see if there is a misunderstanding.

Ms. Rakoci stated she believes it is that engineer's own personal opinion. You have all the other engineers who have approved these and she feels they other engineers know what they are doing or they would not have allowed Pride One to put in a road or drive that was going to fail. Maybe this engineer from Osborn was confused, didn't understand or he had a situation where an inverted crowned road did not do very well. She stated she would need to talk with their attorney because whether it is public today or not the Commission wants it to be built to public road specs. This would require setbacks, the right-of-way would need to be turned over or sold to the City and platted. She needs to understand what the process is.

Mr. Arters stated the platting would not need to happen until it became public. He felt that there could be a notation made that if there was ever a connection then it would be turned over to the City and it would remain private until that time. You would not need to make it public today.

Ms. Rakoci stated before she would agree to something she would need to know the plan review process is.

Mr. Dowling discussed setbacks and how they would change if it was a public road.

Ms. Rakoci stated a public street would require curb and gutter and making it public changes everything. She feels strongly the inverted crown should be approved and that is why she wanted to talk with the engineer from Osborn. Changing it to public affects a lot, costs a lot and with the tight economic times it is a challenge just to get a loan but they feel strongly about the project and the rental units. She requested to table the application to get the road worked out. Ms. Rakoci stated if she has to curb and gutter the whole project then she can't proceed. She needs to talk with Pride One's engineer and attorney so she understands what is involved and she also needs to speak with the owner of Pride One to see if he agrees. The rental development is different than a single-family development as far as costs and phasing.

Mr. Spisak stated there were some other issues they could review tonight such as street lighting and cul-de-sacs.

There was discussion on streetlight locations and Chairman Spisak stated there may be some locations where lights may be needed on long stretches in between the intersections or in the gaps between buildings.

There was discussion regarding the phases. Ms. Rakoci stated she would make those clearer.

Mr. Houser asked if Ms. Rakoci had provided a stream and wetland determination.

Ms. Rakoci stated she did with the previous development and there was nothing on these parcels. She said she would provide the documentation to the Commission.

Ms. Rakoci stated she would provide a letter from the City of Barberton regarding the sewer and water extensions.

The Commission and Ms. Rakoci discussed the possibility of these being platted and sold individually in the future. Ms. Rakoci stated the individual units could be platted as footprints but they would need to be approved by Planning Commission and Council.

Mr. Spisak stated the location of the sidewalks would need to be addressed.

Ms. Rakoci stated sidewalks need to be in a right-of-way according to the code but there is no right-of-way so she can't comply with that section if she is required to put them in. Ms. Rakoci went over the list and stated the biggest items are sidewalks on one side, streetlights, public road, inverted crown and cul-de-sacs.

Mr. Arters also mentioned sidewalks are required on Eastern and Fairland Roads on the single-family lots and in the open space along these roads.

Ms. Rakoci thanked everyone for his or her time but stated she felt this was being treated as a regular single family development and it is not. The Commission is asking her to comply with things in the code that she can't. They want to build a nice community, the economy tanked, they still own the land and what is doing well are these attached apartments.

Chairman Spisak asked for any other comments.

Mr. Conklin stated he believes the whole project depends on the final result of the road. If the City says the inverted crown is not acceptable then project is dead, the applicant has stated that. If the City or Engineer comes back and says the inverted

crowns is ok, then the Commission needs to move forward on some of these other items but until the issue of the road and the inverted crown is clarified, the only thing to do is table the application.

Chairman Spisak asked for any other comments, there were none.

Mr. Conklin made a motion to Table Application S1-2009 for further review. Ms. Jacobs seconded. ROLL CALL: Mr. Conklin-yes, Mr. Dowling-yes, Mr. Houser-yes, Ms. Jacobs-yes, Mr. Spisak-yes. Motion passed 5-0.

B.) Application AG6-2009
Agricultural District Renewal
William McKown, Owner
Property known as 3296 Clubside Drive
PPN 4607169
[Requesting renewal of Agricultural District Classification]

Chairman Spisak asked for comments regarding this Application and there were none. **Chairman Spisak made a motion to approve Application AG6-2009. Ms. Jacobs seconded. ROLL CALL: Mr. Dowling-yes, Mr. Conklin-yes, Ms. Jacobs-yes, Mr. Houser-yes, Mr. Spisak-yes. Motion passed 5-0.**

III. OLD BUSINESS:

Chairman Spisak asked if there was anything new on wood burning furnaces. Mr. Arters said he did not have anything at this time but is looking at combining all alternative energy sources.

Chairman Spisak asked if there was any other old business, there was none.

IV. NEW BUSINESS:

Chairman Spisak asked if there was any new business. Ms. Ryan stated she handed out an Agricultural District Classification Renewal.

Chairman Spisak asked if there was any other new business, there was none.

V. CONSIDERATION OF MINUTES:

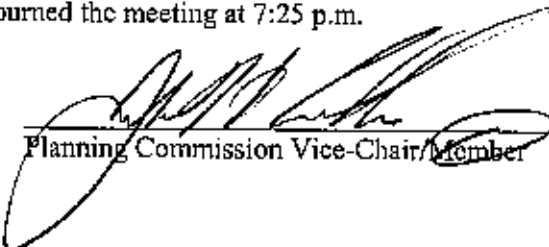
Mr. Conkin made a motion to accept the minutes for Tuesday, January 27, 2009, minutes as written. Seconded by Ms. Jacobs. ROLL CALL: Mr. Houser-Abstain, Ms. Jacobs-Yes, Mr. Conklin-Yes, Mr. Dowling-Yes, Mr. Spisak-Yes. Motion passed 3-0-2. The minutes were signed and processed accordingly.

VI. ADJOURNMENT:

Chairman Spisak announced the next meeting is scheduled for Tuesday, February 24, 2009, at 6:00 p.m. With no further business coming before the Commission, Chairman Spisak adjourned the meeting at 7:25 p.m.



Planning Commission Chair/Vice-Chair



Planning Commission Vice-Chair/Member

2/24/09
Date

**AUDIENCE ATTENDANCE RECORD
PLANNING COMMISSION**

The following individuals were present and wished to speak at the Meeting of the Planning Commission held on Tuesday, February 10, 2009

PLEASE PRINT YOUR NAME CLEARLY:

(PLEASE NOTE: P.O. BOX ADDRESSES ARE NOT PERMITTED)

<small>NAME:</small> <u>Patricia Rakoci</u>	<small>STREET ADDRESS (NO PO BOX):</small> <u>387 Medina Rd</u>	<small>CITY & ZIP CODE:</small> <u>Medina OH 44321</u>
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Signed: _____

Stenographer

Pat Ryan

A SIGNED ORIGINAL OF THIS DOCUMENTATION SHALL BE FILED WITH THE CLERK OF COUNCIL.



Major Subdivision Memorandum

To: Karla Richards, Clerk of Council
Planning Commission (5)

From: Pat Ryan, Interim Boards & Commissions Secretary *PR*

Date: 2/6/2009

Re: ENG Professional Written Comments:
Application S1-2009: Major Subdivision/Preliminary Plat
Eastern and Fairland Roads/PPN's 4602628 & 4608579

Attached you will find a copy of the professional written comments from Osborn Engineering, regarding inverted crown pavement profile for the following application:

Application S 1-2009

Major Subdivision/Preliminary Plat

Pride One Norton, LLC, Owner

Requesting to Develop a Planned Cluster Residence Community consisting of 182 attached cluster rental units for Senior Citizens and 14 Single Family Lots on the property known as vacant land at Eastern and Fairland Roads/PPN's 4602628 & 4608579.

The original documents have been forwarded to, and will be on file with, the Clerk of Council for the official record.

E-Mail: Mayor (per Admin. Asst.)
Administrative Officer
Office Manager
Law Director
Chief of Police
Fire Chief
Superintendent of Public Service

CC: Director of Planning & Community Development
Superintendent of Building & Zoning
Municipal Engineer
Pres. of Council/Planning Committee of Council (4)
Steno



**OSBORN
ENGINEERING**

13620

February 6, 2009

Mr. Richard Ryland
City Administrator
City of Norton
4060 Columbia Woods Drive
Norton, Ohio 44203

email: nick@cityofnorton.org

**Re: Inverted Crown Roads
Pride One Development on Eastern Road
Norton, Ohio**

Dear Mr. Ryland:

You have requested Osborn Engineering's professional opinion as municipal engineer for the City of Norton regarding the proposed installation of an inverted crown pavement for the above referenced development.

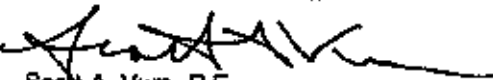
An inverted crown pavement concentrates storm water drainage to the center of the pavement structure for conveyance to storm inlets located along the centerline of the pavement, as opposed to a normal crown pavement which directs water to the edges of the pavement and conveyance in a curbed gutter or roadside ditch. It has been my experience that the use of inverted-crown pavement for private roads and public alleyways proves to be very problematic based on several reasons:

1. By conveying the drainage in the center of the pavement instead of shedding off to the edges and off of the pavement, the inverted crown pavement structure experiences a much higher level of storm water infiltration than the normal crown pavement, which weakens the pavement over time.
2. Secondly, the increase in infiltration causes the aggregate base to become saturated, and because the base is also crowned toward the centerline, it does not drain freely to the edges of pavement where it would be captured by a curb underdrain or daylight to a roadside ditch.
3. Given our typical Northeast Ohio climate, which experiences dozens of freeze-thaw cycles, the saturated aggregate base freezes many times throughout the winter months and tends to heave the pavement, which leads to pavement buckling, cracking and puddling.
4. These actions combine over time leading to premature pavement cracking and spalling, which further aggravates the poor drainage situation causing more puddling, water infiltration and over saturation of the base to occur, eventually leading to total pavement failure.
5. A future mill and overlay of the inverted crown pavement will not correct this situation because it is the result of a base failure. Typically, only full-depth pavement repair/replacement can be utilized at the end of the inverted crown pavement life.

Based on my professional experience, I would recommend against the installation of an inverted crown pavement. If you have any additional questions, please do not hesitate to contact me.

Sincerely,

OSBORN ENGINEERING


Scott A. Vura, P.E.
Vice President
Principal, Infrastructure Group

cc: Mayor David Koontz
S. A. Vura
R. A. Eedinsky
File

1300 East 9th Street Suite 1600 | Cleveland, OH 44114
1216 881 2020 | 1216 861 3329 | osborn-eng.com

441 Wolf Ledges Parkway Suite 300 | Akron, OH 44311
1330 535 3132 | 1330 535 3195

**RESOLUTION
PLANNING COMMISSION**

February 10, 2009

PC RESOLUTION NO.: 8 - 2009

RE: Application S1-2009
Major Subdivision/Preliminary Plat
Pride One Norton LLC, Owner
PPN's 4602628 and 4608579
(Requesting to develop a Planned Cluster Residence Community
consisting of 182 attached cluster rental units for Seniors and 14 Single Family Lots)

The Planning Commission does hereby make the following recommendations on the above:

Table for Further Review

Vote on Motion: FOR 5 AGAINST 0 ABSTAIN 0

Therefore PC Resolution No. 8-2009 has been:

APPROVED DENIED TABLED

This resolution shall be sent to:
Administration for it's action or for ✓ it's information, and
Council for it's action or for ✓ it's information.



Planning Commission Chair/Vice-Chair



Planning Commission Vice-Chair/Member

2/10/2009
Date

**RESOLUTION
PLANNING COMMISSION**

February 10, 2009

PC RESOLUTION NO.: 9 - 2009

RE: Application AG5-2009
Agricultural District Renewal
William McKown, Owner
3296 Clabside Drive/ PPN 4607169
[Requesting Renewal of Agricultural District Classification]

The Planning Commission does hereby make the following recommendations on the above:

None

Vote on Motion: FOR 5 AGAINST 0 ABSTAIN 0

Therefore PC Resolution No. 9-2009 has been:

APPROVED X DENIED _____ TABLED _____

This resolution shall be sent to:
Administration for 0 it's action or for ✓ it's information, and
Council for ✓ it's action or for _____ it's information.



Planning Commission Chair/Vice-Chair



Planning Commission Vice-Chair/Member

2/10/2009
Date

RECEIVED - CITY OF NORTON

New Application _____
Renewal Application

2009 FEB 10 11:18

**APPLICATION FOR PLACEMENT OF
FARMLAND IN AN AGRICULTURAL DISTRICT
(O.R.C. Section 929.02)**

(See pages 5 & 6 for General Information regarding this Application)

INSTRUCTIONS FOR COMPLETING APPLICATION

Print or type all entries.

- o List description of land as shown on the most recent tax statement or statements. Show total number of acres.
- o Describe location of property by roads, etc., and taxing district where located.
- o State whether any portion of land lies within a municipal corporation.
 - o Note: See "Where to File" on page 5 to be sure that a copy of this Application is also filed with the Clerk of the municipal legislative body as well as the County Auditor.
- o A renewal application must be submitted after the first Monday in January and prior to the first Monday in March of the year in which the agricultural district terminates for the land to be continued in this program.
- o If the acreage totals 10 acres or more, do not complete Part D.
- o If the acreage totals less than 10 acres, complete either D (1) or (2).
- o Do not complete page 4. This space to be completed by the County Auditor and/or Clerk of the municipal legislative body.

Dorothy Dunham

A. Owner's Name: Charles Seiberling

Owner's Address: 4117 Greenwich Rd Norton, OH 44703

Description of Land as Shown on Property Tax Statement: 46 NORTON CITY - NORTON CSD Lot of SW S Lot 42 M BARB GREENWICH RD 143.870A

Location of Property: 4117 Greenwich Rd , Summit
Street or Road County

TAX DISTRICT(S)	PARCEL NUMBER(S)	# of ACRES
<u>NORTON City - NORTON CSD</u>	<u>4605182</u> <u>(4605182)</u>	<u>143.870A</u>

Total Number of Acres: 143.870A

B. Does any of the land lie within a municipal corporation limit or subject to pending annexation?

Yes No

If YES, REMEMBER a copy of this application must be submitted to the Clerk of the municipal legislative body.

C. Is the land presently being taxed at its current agricultural use valuation under Section 5713.31 of the Ohio Revised Code? Yes No

1. If "NO" complete the following showing how the land was used the past three years:

	<u>LAST YEAR</u> Acres	<u>TWO YEARS AGO</u> Acres	<u>THREE YEARS AGO</u> Acres
Cropland			
Permanent Pasture used for animal husbandry			
Woodland devoted to commercial timber and nursery stock			
Land Retirement or Conservation Program pursuant to an agreement with a federal agency			
Building areas devoted to agricultural production			
Roads, building areas, and all other areas not used for agricultural production			
Total Acres			

D. Does the land for which the application is being made total 10 acres or more devoted exclusively to agricultural production or devoted to and qualified for payments or other compensation under a land retirement or conservation program under an agreement with an agency of the federal government?

Yes No

If "No," complete the following:

1. Attach evidence of the gross income for each of the past 3 years, if the average yearly income from agricultural production was at least twenty-five hundred (\$2,500.00) dollars or more, or
2. If the owner anticipates that the land will produce an annual gross income of twenty-five hundred (\$2,500.00) dollars or more, evidence must be attached showing the anticipated gross income.

Authorization and Declaration

By signing this application I authorize the county auditor or his duly appointed agent to inspect the property described above to verify the accuracy of this application. I declare this application (including accompanying exhibits) has been examined by me and to the best of my knowledge and belief is a true, accurate and correct application. I understand that land removed from this program before the 5-year enrollment period is subject to penalty, in accordance with Section 929.02(D) of the Ohio Revised Code.

Charles E. Seiberling Trustee
Signature of Owner
Dorothy L. Dunham Trustee

Date: Jan. 22, 2009

DO NOT COMPLETE FOR OFFICIAL USE ONLY

CAUV Application No. _____

Action of County Auditor

Application Approved _____ Rejected _____ *

Date Application Filed with County Auditor _____

Date Filed (if required) with Clerk of Municipal Corporation _____

County Auditor's Signature _____ Date _____

Date Decision Mailed to Applicant _____ Certified Mail No. _____

Action of Legislative Body of Municipal Corporation

Application Approved _____ Approved with Modifications _____ * Rejected _____ *

Date Application Filed with Clerk _____

Date of Public Hearing _____

Date of Legislative Action _____

Clerk's Signature _____ Date _____

Date Decision Mailed to Applicant _____ Certified Mail No. _____

IF MODIFIED OR REJECTED, ATTACH SPECIFIC REASONS FOR MODIFICATION OR REJECTION



GREEN BUSINESS

Melanie Warner

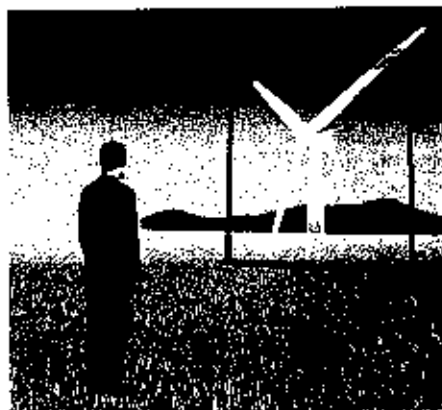
Gust of Hope

Can wind power a rural renaissance?

JON BERGSTROM, a cotton and hay farmer in Sweetwater, Texas (population 10,472), looks outside his window every day and feels grateful. The giant white towers spinning on the near horizon have everything to do with it. Sweetwater is in Nolan County, which boasts more wind turbines than any other U.S. county. Its 1,253 turbines produce a total of 2,000 megawatts of electricity per year at peak. (Coal-fired power plants average 603 megawatts.)

Before clean, renewable wind energy came to Sweetwater, it was best known for its rattlesnake round-up, held every year since 1958 on the second weekend in March. Rattlesnakes may have put Sweetwater on the map, but wind is keeping it there, giving the town the sort of solid economic development American rural communities desperately need. Sweetwater offers a glimpse of what's possible if the United States actually focuses on becoming a world leader in alternative-energy technology and creating a green economy.

Wind power has given landowners like Bergstrom some juicy annual lease revenue. The 13 turbines sitting on his farm earn him at least \$52,000 a year, a figure that he says is scheduled to go up. Next year, wind companies are



expected to dole out \$15 million to Nolan County property holders.

What really makes Bergstrom happy, though, is the thought that his two grandsons, now 3 and 8, may actually want to stick around. (One of Bergstrom's two children left Sweetwater for greener—and more urban—pastures in Austin.) "There's nothing better than being able to spend time with those boys," he says.

The value that wind is bringing to Nolan County gives his grandkids more reasons to stay. Wind farms offer significant property-tax revenue to counties, which means those boys are likely to get a much better education than they would have before. Between 2002 and 2007, wind companies put

\$23.7 million in the coffers of the county's four school districts, and each district has either erected a modern school building or has one under construction.

There are also good local jobs available. Because wind turbines are such massive structures, their manufacturing, installation, and service has to happen locally. That means the return of some of those all-American well-paying blue-collar jobs—\$12 to \$23 an hour for manufacturing and \$20 to \$30 an hour for maintenance—that have disappeared overseas. Sweetwater's unemployment rate is just 3.5%, and over the past two years, the county gave residents a 30% property-tax reduction, making the area even more livable.

Sweetwater is not an isolated wind success story. Home prices, down about 20% nationally since their euphoric high in the summer of 2006, are only down 5% in the dusty town of Pipestone, Minnesota (population 4,095), where 450 new jobs have been created since a turbine-manufacturing facility and service operation opened in 2007. Farming families in Lamar, Colorado, are getting annual checks for more than \$250,000 apiece in lease revenue.

What these small towns have in common is not just geography—they're all in the wind-swept Midwest and West—but proximity to reasonably adequate transmission lines. That's what's needed to carry that wind energy to larger metropolitan areas.

If wind is going to power a rural renaissance, policy makers in Washington must put in place a strategy to fund the building of new electricity transmission lines that will connect more rural areas to big population centers where most energy is consumed. Construction estimates for this modern clean-energy superhighway? About \$60 billion. If it means new jobs and middle-class affluence, as well as carbon-free energy independence, it may be one of the best investments that we can make. ■

> Feedback: warner@fastcompany.com

Life

We spent a hard day's night pitting *Rock Band* against *Guitar Hero* in a battle of the fake-band video games

NERD WORLD, PAGE 74



□ GOING GREEN □ NERD WORLD



GOING GREEN

Got Wind?

These days, the coolest eco-savvy accessory is a wind turbine for your home

BY BRYAN WALSH

DOUG MORRELL HAD ALREADY installed solar panels on his house in Coopersville, Mich., but he was eager to get a little bit greener. So the 52-year-old Navy veteran bought something that might seem more at home on the Dutch countryside than in a small town in western Michigan: his own personal wind turbine. The 33-ft.-high (10 m) machine, whose blades span 7 ft. (2 m) in diameter, sits next to the pole barn 100 yd. (90 m) from Morrell's home. (Turbines like Morrell's convert the energy of the wind to electricity, while old windmills are geared for mechanical power, like pulling water from a well.) On days with decent wind—which occur frequently enough, since he can feel the breeze from Lake Michigan—the \$16,000 Swift wind turbine can generate 1.5 kilowatts (kW) an hour, i.e., enough to power the average lightbulb for

Power breeze Morrell has a 33-ft. turbine in his yard in Michigan

Photograph for TIME by Severio Truglia

15 hours. Together with his solar array, that's enough to take care of much of his electricity bill. "It's clean energy we don't have to dig for. It just comes right to us," says Morrell. And best of all, he says, "it's fun watching our meter run backward instead of forward."

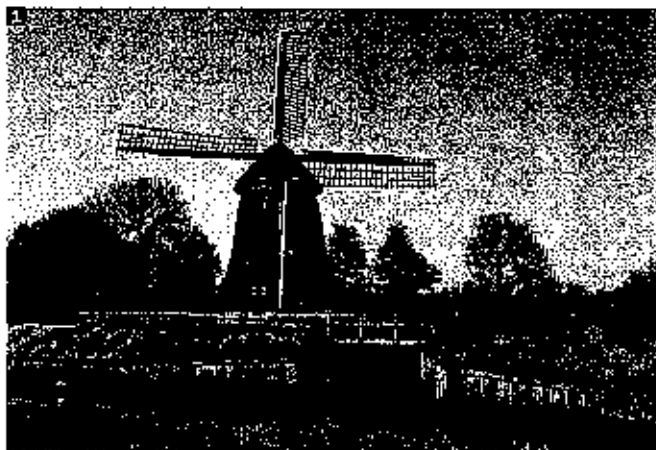
Thanks in part to a new tax credit put into place by Congress in October, owning your own wind turbine could be the next green trend. While it's true that wind power has taken off in the U.S.—adding more in new capacity to the electrical grid last year than any other power source—most of that increase comes from utility wind farms, vast fields of turbines more than 300 ft. (90 m) tall. For homeowners seeking renewable-energy sources, however, better-known solar power has always dominated. Home solar power currently generates 12 times as much energy as small-wind power, which is defined as turbines that have a capacity of 100 kW or less (though most household turbines will produce 10 kW at most). That's partly due to the fact that residential wind turbines require space and sky—at least half an acre of open land—to get access to consistent winds. Still, according to the American Wind Energy Association (AWEA), some 15 million homes in the U.S. fit that definition—and small turbines, unlike large wind farms, can be productive in weaker breezes, which puts more of the country in play, though the best areas are still windy spots like the Midwest or West Texas.

What's really held back residential wind power has been the lack of federal subsidies, which have fed the growth of other renewables like solar and large-scale wind. "We've had zero federal assistance," says Ron Stimmel, AWEA's small-wind expert.

But when Congress passed the bailout bill this fall, it added a 30% tax credit for small-wind projects, which

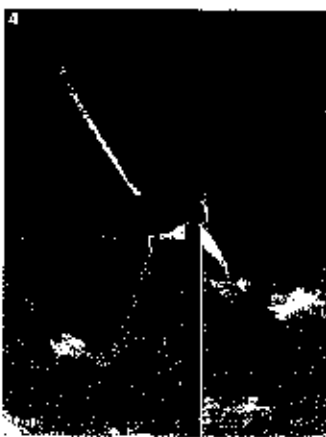
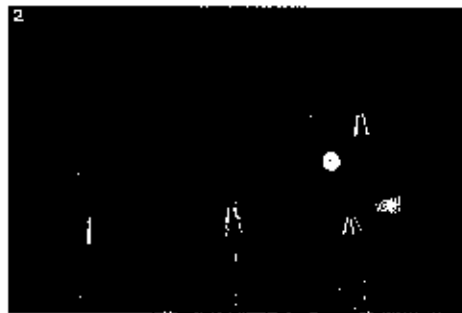
The Winds of Change

Back in the days of Don Quixote, windmills pumped water. Modern wind turbines generate electricity. Here's a look at the evolution of wind power



WIND POWER

- 1 Windmill in Holland 2 Wind pumps in Texas 3 Utility-scale wind turbines in Manitoba 4 Small residential turbine 5 Microturbine



Low-wind-speed generator
Turbines are getting smaller (and quieter), but they still need a breeze

dent of Bergey Windpower, a small-wind producer in Norman, Okla.

Even so, buying your own windmill isn't cheap. A turbine that could produce most of your family's electricity might cost as much as \$80,000 and take as long as two decades to pay back, depending on wind strength and state subsidies. (The 30% federal tax credit is currently capped at \$4,000.)

Then there's the height factor. Residential wind turbines are tall enough to potentially irritate neighbors and require reams of paperwork, especially for the 60 million Americans who belong to a community



association. And even though many of the assumptions about small wind turbines aren't true—they don't make much noise, and the AWEA notes that sliding glass doors are a bigger risk to birds than residential wind turbines are—not everyone wants to fight the bureaucratic battles. "It can take a lot of court cases for a turbine owner just to be sure he can put one in," says Stimmel.

But watt per watt, small wind is cheaper than residential solar, and for those willing to make the up-front investment, it can provide freedom from the electrical grid. Plus, in the eyes of some, there's nothing more beautiful than a wind turbine spinning in the backyard. "It looks like a giant pinwheel and sounds like a plane off in the distance," says Morrell. "I'd definitely recommend it."

Stimmel believes will enable the industry to grow 40% next year, even in a down market.

In other words, small wind may not be small potatoes for much longer. And that could be a boost for domestic green businesses as well: U.S. firms control 98% of the small-wind market, in contrast to large-scale wind and solar, in which foreign manufacturers dominate. "Since the tax credit, our phone has been

ringing off the hook," says Andy Kruse, a co-founder of Southwest Windpower, a major small-scale turbine producer in Flagstaff, Ariz. "It's really exciting to see the market coming to us."

More than 20 states offer separate subsidies, including ever-green California and Vermont. "The federal and state subsidies can make it feasible to get a quicker payback," says Mike Bergey, presi-