

CLASSIFICATION COMMISSION REPORT FOR LATERAL 1, DRAINAGE DISTRICT 67 HARDIN COUNTY, IOWA



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**Classification Commission Report
for Lateral 1 Tile,
Drainage District 67
Hardin County, Iowa**

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**Classification Commission Report
for Lateral 1 Tile,
Drainage District 67
Hardin County, Iowa**

- 1.0 INTRODUCTION - The District Trustees appointed a Classification Commission to classify the lands within the Lateral 1 drainage boundaries of Drainage District 67. For reference, the Certificates of Oath of Commissioners are included in Appendix A. This action by the District Trustees was a result of the lack of a separate classification for Lateral 1 along with the reclassification of the Main Tile. This report will summarize the background information gathered and the evaluation process used by the Commissioners to classify said lands and present the resulting classification.

- 2.0 BACKGROUND INFORMATION - In addition to reviewing lands within the district, the Classification Commission also looked at the following supporting documents supplied by Clapsaddle Garber Associates:
- Existing Classification for Drainage District 67 from the Hardin County Drainage Clerk.
 - Soil Surveys from USDA website.
 - Map of District Boundaries and Facilities from the Hardin County Drainage Clerk.
 - Aerial/Tract Maps from the Hardin County GIS website.
 - Recorded Boundary Surveys from the Hardin County Recorder's office.
 - LIDAR elevation data.

Using the above information, the Classification Commission gathered the following background information:

- 2.1 Boundary Generation - This step involved generation of the Lateral 1 Tile boundary. Using CADD, LIDAR elevation data, and Maps of District Boundaries, the internal boundary was determined for the Lateral 1 Tile.
- 2.2 Tract Verification - This step involved verification that each tract number from the existing classification was within the Lateral 1 Tile boundary and were appropriately sized (i.e. 40 acres or less according to recognized or legal divisions).
- 2.3 Acreage Verification - This step involved verification of the acreages contained within the existing classification for Drainage District No. 67. For the tracts that previously had acreages stated and were totally contained within the Lateral 1 Tile boundary, the acreage was compared to that available from the GIS websites or recorded boundary surveys and corrected as necessary.
- 2.4 Acreage Generation - This step involved generation of the acreages for all the remaining tracts (i.e. those without acreages previously stated in the existing classification, those created in the Tract Verification process above or those that were not totally contained within the mapped Lateral 1 Tile boundary). For lands whose tracts were partially contained within the mapped Lateral 1 Tile boundary, the acreage was measured from a composite overlay of the maps of Lateral Boundaries with the linework from the GIS websites. For reference, a copy of Boundary Map is included in the appendix.
- 2.5 Soils Type Determination - This step involved differentiation of the soil types based on their properties (i.e. very poorly drained, poorly drained, well drained, and excessively well drained), and the percentage of each within each tract. This was measured from a composite overlay of the soil surveys with property lines from the GIS website.
- 2.6 Proximity Determination - This step involved determination of the proximity or distance to the Lateral 1 facilities (i.e. Lateral 1 Tile). All distances were measured from the approximate centroid of each tract along the shortest straight-line route to the Lateral 1 facilities. This was measured from a composite overlay of the maps of Lateral 1 facilities with the property lines from the GIS website.

3.0 EVALUATIONS - Using the above background information, the Classification Commission evaluated and determined benefits using the following method:

3.1 Soil Factor - This factor was calculated as an indication of the "need" for the Lateral 1 facilities based upon the natural soil characteristics for each tract. It was the weighted total of the soil types after placing the following percentage values upon each soil type:

- Very Poorly Drained = 85%
- Poorly Drained = 55%
- Well Drained = 10%
- Excessively Well Drained = 0%

These percentages were based upon the Classification Commission's determination that the Excessively Well Drained soils typically do not need the District facilities to be productive, Well Drained soils typically needed very little of the District facilities to be productive, and the Poorly Drained and Very Poorly Drained soils typically relied heavily on the District facilities to be productive.

3.2 Facility Proximity Factor - This factor was calculated as an indication of "availability" of the district facilities (Lateral 1 tile) based upon the distance of each tract from said facilities. Since there was a large range in the distances measured (109± feet to 1,738± feet), this factor was necessary to compare the tract distances relative to each other. Therefore, the tract which had the farthest measured distance received a Facility Proximity Factor of 10 and the tract which had the closest measured distance received a Facility Proximity Factor of 100. All other tracts received a Facility Proximity Factor calculated in proportion to this range based upon their measured distance.

3.3 Combined Factor - This factor was the composite of the above two factors (i.e. Soil Factor and Facility Proximity Factor). The Combined Factor was calculated as follows:

$$\text{Facility Proximity Factor} \times \text{Soil Factor}$$

Once the Combined Factor was determined, it was used as an indication of benefit received (i.e. the tract with the highest Combined Factor was the closest to the district facilities and had the soils in most need of the district facilities).

3.4 % Benefit - This is the benefit each tract receives using the Combined Factor based on a scale of 100 (i.e. the highest Combined Factor is 100 and all other Combined Factors are calculated in ratio to such).

3.5 Units Assessed - This combines the amount of benefit along with the land area that is benefitted. For each tract this is calculated as:

$$\% \text{ Benefit} \times \text{Number of Acres} \times 100$$

3.6 % Units Assessed - This is the percentage of units assessed for each tract number as a portion of the total units assessed for the District facility. Unlike the % Benefit which was a percentage comparing each tract to the most benefitted tract, the % Units Assessed compares each tract to the total of the istrict facility.

3.7 Percent Levy - This is an indication of the levy amount necessary to pay for a project. For this report, it is at 100%, but will be adjusted as needed in the future by the Drainage Clerk to pay for future bills.

3.8 Assessment for Project (entire tract basis) - This is the amount that each tract must pay in total to cover 100% of the levy. It is important to note that it has been calculated using a sample cost of \$12,500. For each tract this is calculated as:

$$\% \text{ Units Assessed} \times \$12,500$$

3.9 Assessment for Project (per acre basis) - This is the amount that each tract must pay per acre to cover 100% of the levy. Although this was not used in an active role by the Classification Commission, some landowners find it to be valuable information. It is important to note that it is calculated using a sample cost of \$12,500. For each tract this is calculated as:

$$\text{Assessment for Project (entire tract basis)} / \text{Number of Acres}$$

4.0 EXCEPTIONS: - With any process, there are inevitably exceptions and this classification was no different. While the above method was used for the majority of the tract numbers, the following are exceptions to the above process:

4.1 For tract numbers which are highly irregular in shape (i.e. long narrow pieces of land) or do not have accurate soil maps available, Proximity and Soil Factors were not calculated. Instead, the average Combined Factor for all the other tract numbers was used. The only tract numbers to which this applies are roadways along with current and former railroads and are highlighted pink on the classification sheets contained in the appendices (i.e. tract numbers 12 and 13).

5.0 CONCLUSION: - Using all the above, the Classification Commission generated classification sheets for the Lateral 1 tile. For reference, copies are included in Appendix C. It is recommended moving forward that the District Trustees, should take action to accomplish the following:

- Approve the Classification Commission Report.
- Hold the required hearing.
- Adopt the Classification Commission Report as the basis for all current and future repairs and improvements.


CERTIFICATE

Lee Gallentine, a Professional Engineer of the State of Iowa, hereby certify:

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, have examined and inspected lands within the Drainage District, have reviewed original maps of the Drainage District, aerial maps of the lands within the Drainage District, and soil maps showing soil types for the lands within the Drainage District.

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, completed the classification of the lands within the Drainage District relative to the Lateral 1 Tile. Said classification has fixed the percentages of benefits in tracts according to the recognized and legal divisions of 40 acres or less using a graduated scale of benefits, numbered according to the benefit to be received, with the lands receiving the greatest benefit marked on a scale of 100 and those benefited in a less degree marked with such percentage of one hundred as the benefit received is in proportion to.

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, performed said classification in accordance with Chapter 468, Code of Iowa, to the best of my ability, skill, and judgment. The attached list is the final determination of classification and assessment for each tract of land in the Lateral 1 Drainage Boundary for all repairs and future improvements to the facilities in the Drainage Boundary. That this report is a true and correct transcript of said classification of lands and apportionments of benefits made by said classification commission.

	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> <p><i>Lee O. Gallentine, P.E.</i> <i>April 10, 2019</i> _____ Lee O. Gallentine, P.E. DATE:</p> <p>License Number: 15745</p> <p>My License Renewal Date is December 31, 2020</p> <p>Page or sheets covered by this seal: <i>As shown on Table of Contents</i></p>
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CERTIFICATE

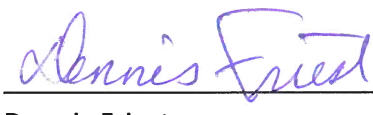
Denny Friest, a resident freeholder of Hardin County, Iowa, hereby certify:

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, have examined and inspected lands within the Drainage District, have reviewed original maps of the Drainage District, aerial maps of the lands within the Drainage District, and soil maps showing soil types for the lands within the Drainage District.

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, completed the classification of the lands within the Drainage District relative to the Lateral 1 Tile. Said classification has fixed the percentages of benefits in tracts according to the recognized and legal divisions of 40 acres or less using a graduated scale of benefits, numbered according to the benefit to be received, with the lands receiving the greatest benefit marked on a scale of 100 and those benefited in a less degree marked with such percentage of one hundred as the benefit received is in proportion to.

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, performed said classification in accordance with Chapter 468, Code of Iowa, to the best of my ability, skill, and judgment. The attached list is the final determination of classification and assessment for each tract of land in the Lateral 1 Drainage Boundary for all repairs and future improvements to the facilities in the Drainage Boundary. That this report is a true and correct transcript of said classification of lands and apportionments of benefits made by said classification commission.

COMMISSIONER:

 Date: 4/10/19

Dennis Friest
14263 County Hwy D-65
Radcliffe, IA 50230

CERTIFICATE

Chuck Walters, a resident freeholder of Hardin County, Iowa, hereby certify:

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, have examined and inspected lands within the Drainage District, have reviewed original maps of the Drainage District, aerial maps of the lands within the Drainage District, and soil maps showing soil types for the lands within the Drainage District.

That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, completed the classification of the lands within the Drainage District relative to the Lateral 1 Tile. Said classification has fixed the percentages of benefits in tracts according to the recognized and legal divisions of 40 acres or less using a graduated scale of benefits, numbered according to the benefit to be received, with the lands receiving the greatest benefit marked on a scale of 100 and those benefited in a less degree marked with such percentage of one hundred as the benefit received is in proportion to.

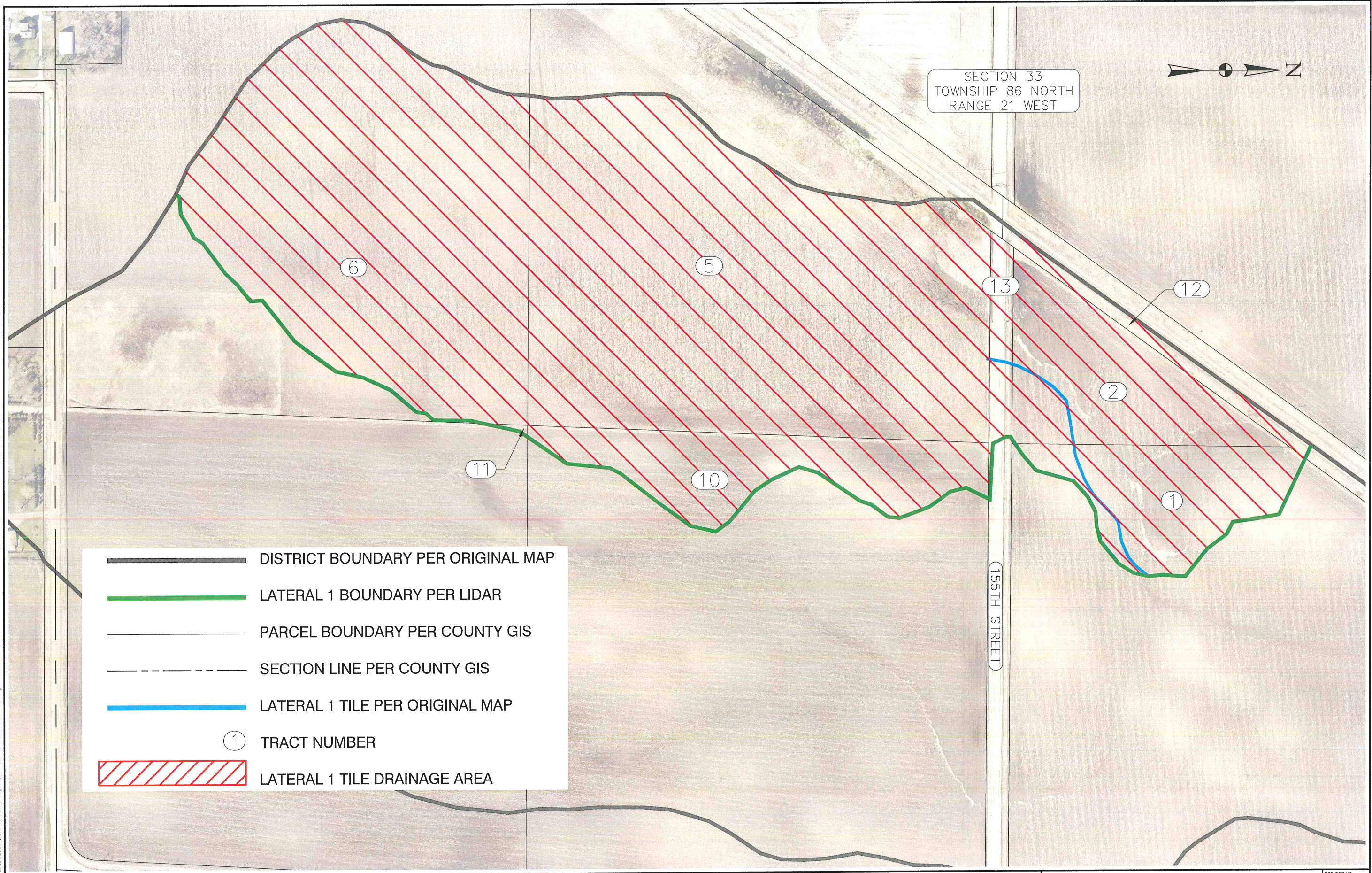
That I, along with the other classification commissioners for Lateral 1 of Hardin County Drainage District No. 67, performed said classification in accordance with Chapter 468, Code of Iowa, to the best of my ability, skill, and judgment. The attached list is the final determination of classification and assessment for each tract of land in the Lateral 1 Drainage Boundary for all repairs and future improvements to the facilities in the Drainage Boundary. That this report is a true and correct transcript of said classification of lands and apportionments of benefits made by said classification commission.

COMMISSIONER:










Date: 4-10-19

Chuck Walters
34122 230th Street
Eldora, IA 50627



SECTION 33
TOWNSHIP 86 NORTH
RANGE 21 WEST



	DISTRICT BOUNDARY PER ORIGINAL MAP
	LATERAL 1 BOUNDARY PER LIDAR
	PARCEL BOUNDARY PER COUNTY GIS
	SECTION LINE PER COUNTY GIS
	LATERAL 1 TILE PER ORIGINAL MAP
	TRACT NUMBER
	LATERAL 1 TILE DRAINAGE AREA

P:\6862\CADD\Quantiles\Lateral 1\6862-LAT 1 TRACT.dwg - Layout - CGA Plan - 04-16-19 - 9:05am - rj341



NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE



Clapsaddle-Garber Associates, Inc.
Toll Free (800) 542-7981
www.cgaconsultants.com

DESIGNED: JWS	DATE: ####
DRAWN: JWS	DATE: ####
CHECKED: LOG	DATE: ####
APPROVED: LOG	DATE: ####

D.D. 67 CLASSIFICATION
HARDIN COUNTY, IOWA

LATERAL TILE BOUNDARY MAP

PROJECT NO.
6862
SHEET NO.
1

Drainage Real Estate												
Classification of Lands for Drainage Benefits - Auditor (by name)												
Tract	Taxing District	Parcel	Entity	Sec-Twp-Rng	Legal	Acres	% Benefit	Units Assessed	% Units Assessed	Percent of Levy	Assessment for Project (entire tract basis)	Assessment for Project (per acre basis)
1		892133200005	Barlow, Kathleen K Trust 1/2 & Barlow, John R Trust 1/2	33-89-21	SE NE EX RR & S100' NE NE LYING S & E OF RR 33-89-21	4.70	72.89%	342.75	9.844%	100	\$1,230.49	\$261.67
2		892133200004	Barlow, Kathleen K Trust 1/2 & Barlow, John R Trust 1/2	33-89-21	SW NE EX RR 33-89-21	5.65	100.00%	565.26	16.235%	100	\$2,029.33	\$359.01
5		892133400002	Clark, Byron J	33-89-21	NW SE E OF RR 33-89-21	26.91	72.28%	1945.30	55.870%	100	\$6,983.75	\$259.51
6		892133400004	Clark, Byron J	33-89-21	SW SE EX TRACT 33-89-21	21.00	7.00%	146.97	4.221%	100	\$527.64	\$25.13
10		892133400003	Shea, Debra Brandt, Cynthia	33-89-21	NE SE 33-89-21	5.44	66.58%	362.13	10.401%	100	\$1,300.09	\$239.02
11		892133400005	Shea, Debra Brandt, Cynthia	33-89-21	SE SE 33-89-21	0.04	6.71%	0.25	0.007%	100	\$0.91	\$24.09
12		32	Midwestern Railroad Properties			1.21	54.24%	65.60	1.884%	100	\$235.49	\$194.74
13		11	Alden Township Roads			0.99	54.24%	53.56	1.538%	100	\$192.29	\$194.74
					Averages			435.23				\$194.74
					Totals	65.94			100.000%		\$12,500.00	

