

MILLARD PUBLIC SCHOOLS

BOARD MEETING NOTICE

The Board of Education will meet on Monday, November 8, 2004, at 7:00 p.m. at the Don Stroh Administration Center, 5606 South 147th Street.

Public Comments on agenda items - This is the proper time for public questions and comments on agenda items only. Please make sure a request form is given to the Board Vice-President before the meeting begins.

A G E N D A

1. Technology Master Plan
2. Possible Scenarios for Assignments to New Elementary School

Public Comments - This is the proper time for public questions and comments on any topic. Please make sure a request form is given to the Board Vice President before the meeting begins.

Technology Plan 2005-2010: Request for Bond Funding

Submitted By:

**Dr. Mark W. Feldhausen
Assistant Superintendent of Technology**

“The mission of the Millard Public Schools is to guarantee all students learn the academic and life skills necessary for personal success and responsible citizenship in a global society by creating a world-class educational system characterized by innovative and diverse opportunities designed to challenge each student.”.

Therefore, in support of the Mission of the Millard Public Schools, the purpose of technology and the Technology Division is to:

- A. Support Student Learning and Achievement by
 1. Alignment with Curriculum, Instruction, and Assessment, and
 2. Addressing Specific Technology Standards in Support of District Essential Learner Outcomes, Nebraska Academic Standards, and Nebraska Technology Standards

- B. Support the Effective Management of the District in
 1. Communications
 2. Human Resources
 - Pupil Services
 3. Business Operations
 4. Educational Services
 - Special Education
 - Early Childhood and Elementary Education
 - Secondary Education
 - Staff Development
 5. Support Services Center
 - Facility Management
 - Food Services

Thus, technology plays a vital role in the overall success of the Millard Public Schools. Not only is technology’s utilization woven throughout the District’s curriculum, it is essential to the efficient and effective communication in and management of a continually growing world-class school district.

Revised Technology Five-Year Plan

Since January 2002, a proposed Five-Year Technology Plan has been presented to the Board of Education on a yearly basis. This plan addresses the replacement and growth of technology for the Millard Public Schools. The proposed five-year plan is based upon certain suppositions. These include:

1. The infrastructural investment made over the last six years in Category 6 (gigabit) cabling is sufficient for the foreseeable future. However, future construction and/or remodeling should consider options, such as but not limited to, fiber to the desktop and/or wireless local area networks.

2. The standard of four drops per room should be adequate for most situations.
3. Facilities cannot accommodate any more new permanent computer labs. Mobile laptop carts should be considered as a viable option.
4. The network of T-1 lines will need to be improved upon in order to eliminate congestion and provide access to new forms of data including, but not limited to, streaming video and voice over IP.
5. That new equipment should be allocated in order to:
 - a. Address obsolete equipment,
 - b. Provide for current operating systems and improved software packages
 - c. Maintain equity between buildings and levels,
 - d. Provide access for all students to needed technology,
 - e. Align with curriculum and the Millard Education Program (MEP),
 - f. Recognize that some areas may need to be replaced more frequently than others due to the nature of their use and the need to maintain industry standards,
 - g. Displaced equipment may be acceptable for certain needs and may, therefore, be repositioned elsewhere in a building or in the District.
6. That a baseline of not only existing need, but anticipated need be created. This baseline shall be known as the Standard Technology Guideline or Building Optimum Technology Configuration. The Building Optimum Configuration calls for:
 - a. Three computers per elementary classroom
 - b. Two computers per secondary classroom
 - c. Maintenance of existing fixed labs at all locations.
 - d. Replacement of inkjet printers with shared laser printers
 - e. Two mobile laptop labs per elementary building (Such mobile labs would also replace antiquated AphaSmart or DreamWriter labs.)
 - f. Four mobile labs for each of the middle schools
 - g. Six mobile labs for each of the high schools. (Note: A mobile lab is defined as a mobile storage cart equipped with 30 wireless laptop computers, a wireless access point, a laser printer and a projection system.)
 - h. Significant increases in the number of projection systems available for use by teachers and students. The goal is one per secondary classroom but at least 1 for every two classrooms. The elementary ratio is one projector for every four classrooms.
7. The video surveillance system established at each building to support safety and security should be maintained and upgraded to ensure functionality.
8. The twenty-year-old ISDN/Centrex telephone system should be replaced with a cost effective system that provides all users with efficient and equitable services.

Summary of Five-Year Plan Request by Category

Implementation of the five-year plan will require special funding. To this end, a total of \$20,600,000 is requested as a part of the proposed special bond election. The monies would be allocated to address the following infrastructure, telecommunications, information technologies, and safety/security systems.

1. Goal: A Wide Area Network that can provide broadband data communications to access the internet, appropriate instructional sites, multimedia including streaming media, and the various databases and applications used to support instruction, student achievement, and the efficient management of the District.

Rationale: Thirty out of thirty-five district facilities currently operate using T-1 data communications lines. These 1.54 Mbps lines are congested and incapable of supporting voice and video, as well as data.

Solution: The District should establish a data communications network that will support data, voice, and video using wireless (11, 54, 100 Mbps) point-to-point and near point-to-point technologies, and other means that support increased capacity.

Cost: The initial phase of this transformation is being funded by the 3Com Urban Challenge Grant worth \$100,000 in services and equipment. Completion of the reconfigured wide area network will cost approximately:

\$ 100,000.00

2. Goal: Provide wireless Local Area Networks within district facilities.

Rationale: Wireless Local Area Networks allow for mobility and flexibility and, in certain instances, may be more cost effective than wired solutions. Wireless connectivity supports mobile staff, laptop labs, and increases network access.

Solution: Provide wireless bridging technology and traditional wireless access points in all buildings as may be required..

Cost: Based on current technologies and standards, the needed equipment would cost approximately:

\$ 600,000.00

3. Goal: Establish a telecommunications (telephone) system that replaces the current ISDN/Centrex system.

Rationale: The current ISDN/Centrex system is twenty year old technology that is difficult to maintain and costly. Each added service per telephone number carries with it added monthly costs. Newer technologies, such as Voice over Internet Protocol (VoIP) would improve communications within the District and between the schools and the community.

Solution: Implement a VoIP telephone system that will provide district wide voice communications with consistent services, such as voicemail, call forwarding, etc. to all district users while reducing recurring costs.

Cost: The estimated implementation cost is: \$ 900,000.00

4. Goal: Replace and upgrade infrastructure equipment on a five-year cycle.

Rationale: Increasing user need for storage, improved and necessary management considerations, growth in utilization, system capacity and speed necessitate that equipment be replaced systematically.

Solution: Provide for the replacement of servers, switches, fiber modules, routers, uninterrupted power systems, and related infrastructural devices in timely and predictable fashion.

Cost: Infrastructure replacement value is: \$ 1,000,000.00

5. Goal: Apply data cabling standard of Category 6 (Gigabit) or higher to facilities that have not yet been upgraded.

Rationale: Several buildings were not upgraded as a result of the 1997 bond effort. Cabling in these buildings will need to be upgraded in order to meet the district's standard of functionality and serviceability.

Solution: Upgrade the cabling at SSC, DSAC, and the original Millard West High School to the District standard of Category 6. Alternatives should be examined that include, but are not limited to, fiber to the desktop and/or wireless.

Cost: Category 6 cable would cost approximately \$200,000.00. Fiber to the desktop would cost an estimated \$600,000. \$ 600,000.00

6. Goal: Refresh and improve/increase the access students and staff have to appropriate hardware and software that contributes to student learning and achievement, and assists all staff in meeting their responsibilities.

Rationale: Approximately one-third of the computer hardware in the district is obsolete. It will not support current operating systems and software. Also, increased numbers of computers, printers, and projection systems are called for in the district's five-year plan. Growth in the use of technology to deliver instruction and content (curriculum) continues to be identified within the Millard Education Plan (MEP). Finally, laptop labs are needed to supplant fixed labs and to support assessment procedures that can be made more efficient with technology.

Solution: Provide staff with laptops, increase the numbers of classroom computers, add wireless laptop carts/mobile labs in each building, projection systems and laser printers. This proposal effectively increases the number of computers from 6200 to approximately 9200.

Cost: Using current pricing for HP and Apple computers, Epson projectors, and HP laser printers, the plan costs an estimated

\$15,500,000.00

7. Goal: Refresh and improve surveillance camera systems at all buildings.

Rationale: Current systems are almost five years old and both comparable and compatible replacement equipment is not available. In addition, greater utilization of these systems as both deterrents and investigative tools has been realized. Within the next five years all systems including the monitors, cameras (stationary and Pan/Tilt/Zoom), digital recorders, MUX controllers, and camera remote control devices will have to be replaced.

Solution: Identify and invest in replacement systems that will improve video surveillance reliability, facilitate increased numbers of cameras, and extend retention time for surveillance video from less than two weeks at the high schools to at least 30 days. This will require digital recorders with at least a terabyte of memory.

Cost: Recently identified system is estimated at:

\$ 600,000.00

8. Goal: Maintain necessary licensing to ensure that all district operating systems and software is legal.

Rationale: Both Windows and Macintosh platforms now require yearly licensing contracts to ensure timely support and allow the district the flexibility to upgrade or backload to support both new and legacy software requirements.

Solution: Provide for necessary licensing fees for desktop and laptop computer operating systems, required software suites, and disposal. Disposal costs may be eliminated or imbedded in lease agreements if used.

Cost: This cost is estimated at:

\$ 1,300,000.00

Summary

Total requested for Technology in the bond election is: \$20,600,000.00

This does not include additional support staff, yearly maintenance costs for network hardware, increased yearly licensing fees for network operating system upgrades and associated software.

AGENDA SUMMARY SHEET

AGENDA ITEM: Possible Scenarios for Assignments to New Elementary School

Meeting Date: November 8, 2004

Department: Planning and Evaluation

Title and Brief Description: Six different scenarios are presented for possible assignments of neighborhoods to the new elementary school.

Action Desired: Approval ___ Discussion x Information Only ___

Background: The goal for assignments is to put a sufficient number into the new school, considering geographic factors and the impact on existing schools.

Options/Alternatives Considered: 6 different scenarios are presented.

Recommendations: Develop a recommendation by January 1, 2005.

Strategic Plan Reference: Strategy #2.

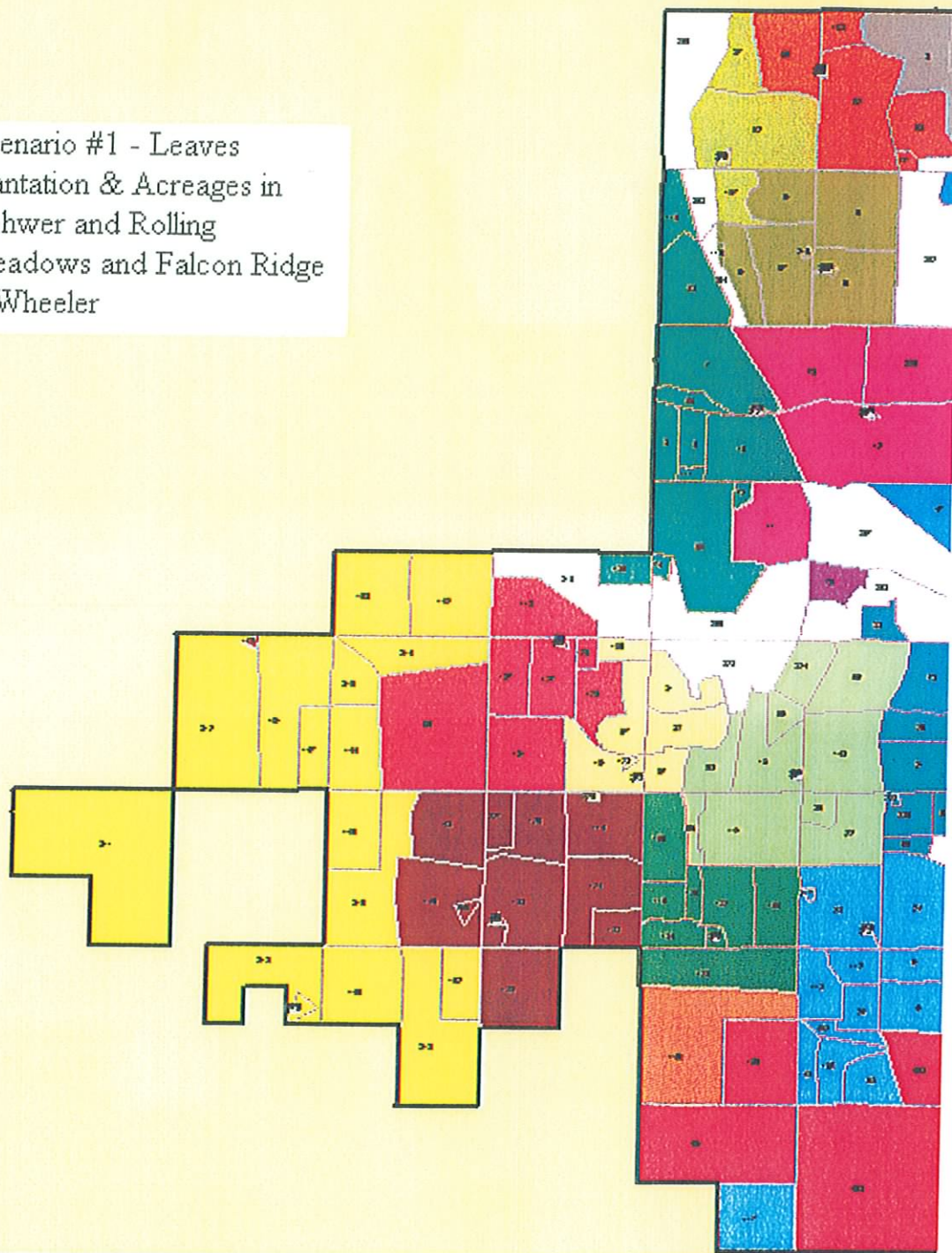
Implications of Adoption/Rejection: N.A.

Timeline: Continue study of alternatives for the next 6-8 weeks.

Responsible Persons: John Crawford

Superintendent's Signature: _____

Scenario #1 - Leaves
Plantation & Acreages in
Rohwer and Rolling
Meadows and Falcon Ridge
in Wheeler



Scenario #1

	Number of Students as of <u>October, 2004</u>	<u># of Lots</u>	Potential Additional Number of Students Based on <u>Number of Empty Lots</u>	Total = Potential + <u>Current</u>
--	---	------------------	--	--

New School

Subdivision

142 West Bay Woods	39	110	44	
153 Oakmont	6	324	130	
154 West Bay Springs	3	122	49	
144 Cattail Creek	73	148	59	
147 The Woodlands	50	56	22	
151 Whitehawk	1	450	180	
145 Coyote Run	36	145	58	
149 Sugar Creek	30	220	88	
152 Sunridge	9	248	99	
45 Rural Douglas County	4			
TOTAL	251		729	
Cottonwood Creek		92	37	
Canterberry Crossing		122	49	
Harrison Place		509	204	
Bellbrook		437	175	
TOTAL		2983	1194	1445

Subdivision

Rohwer

118 Bay Wood	15			
55 Plantation	6			
137 Wood Creek	39			
127 Dickinson Landing	107			
120 West Bay	29			
126 Lakeshore Lots 329-542	60			
131 Hawthorne	70	76	30	
45 180th St Acreages	6			
Option and Transfers	43			
TOTAL	375		30	
Stonecrest (Rural Sarpy Co.)		531	212	
		607	242	617

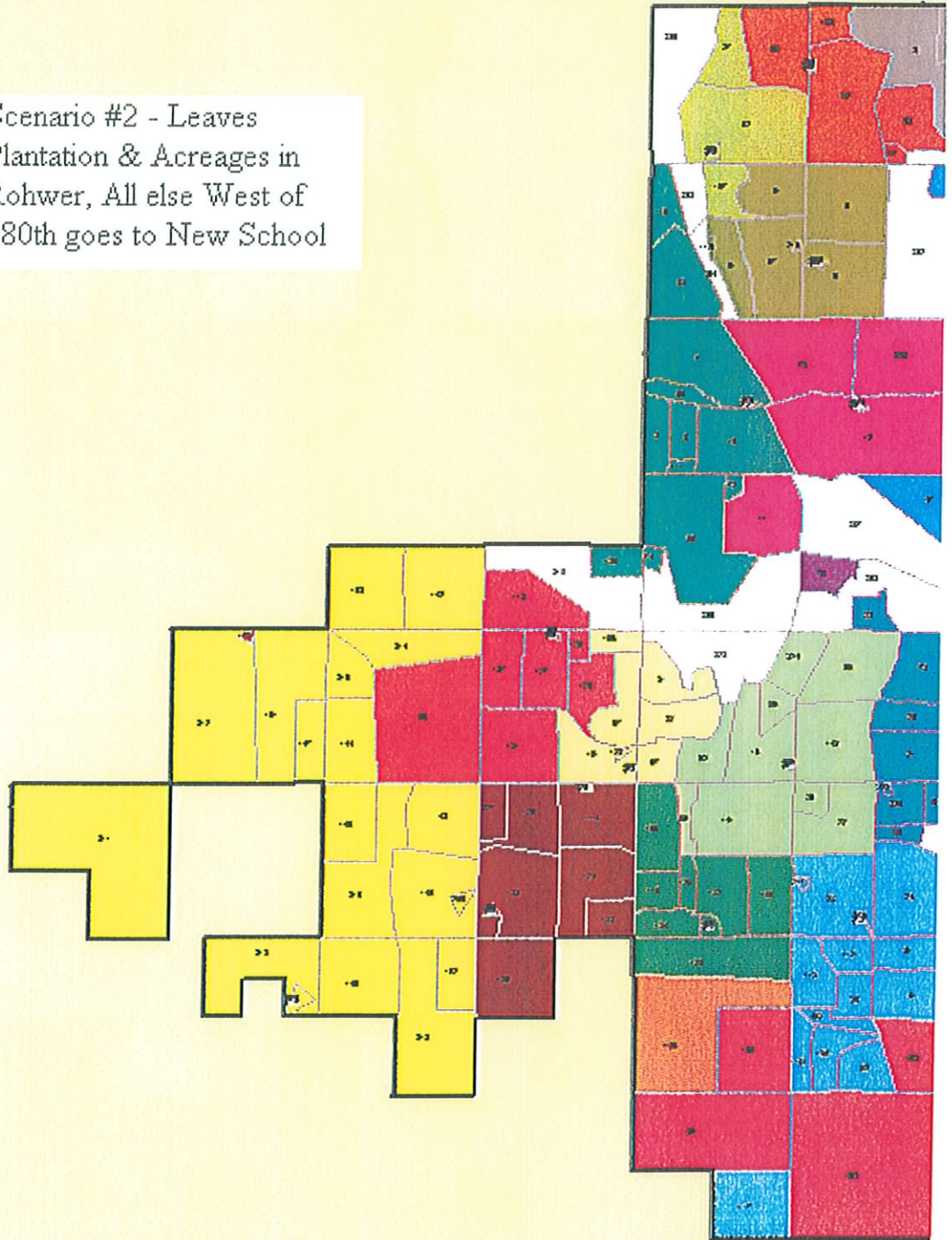
Subdivision

Wheeler

48 Rolling Meadows	9			
140 Falcon Ridge	84	97	39	
129 Cinnamon Creek	73			
138 Cinnamon Creek South	159	69	28	
136 Hickory Ridge	130			
114 Mission Park	44			
124 Mission Park South	51			
133 Mission Pines	9	15	6	
Options and Transfers	57			
TOTAL	616	181	73	689

1242	3771	1509	2751
-------------	-------------	-------------	-------------

Scenario #2 - Leaves
Plantation & Acreages in
Rohwer, All else West of
180th goes to New School



Scenario #2

	Number of Students as of <u>October, 2004</u>	<u># of Lots</u>	Potential Additional Number of Students Based on <u>Number of Empty Lots</u>	Total = Potential + <u>Current</u>
--	---	------------------	--	--

New School

Subdivision

142 West Bay Woods	39	110	44	
153 Oakmont	6	324	130	
154 West Bay Springs	3	122	49	
144 Cattail Creek	73	148	59	
147 The Woodlands	50	56	22	
151 Whitehawk	1	450	180	
145 Coyote Run	36	145	58	
48 Rolling Meadows	9			
140 Falcon Ridge	84	97	39	
149 Sugar Creek	30	220	88	
152 Sunridge	9	248	99	
45 Rural Douglas County	4			
TOTAL	344		768	
Cottonwood Creek		92	37	
Canterberry Crossing		122	49	
Harrison Place		509	204	
Bellbrook		437	175	
TOTAL		3080	1233	1577

Subdivision

Rohwer

118 Baywood	15			
120 West Bay	29			
127 Dickinson Landing	107			
137 Wood Creek	39			
55 Plantation	6			
131 Hawthorne	70	76	30	
45 180th St acreages	6			
126 Lakeshort Lots 329-542	60			
Options and Transfers	43			
TOTAL	375		30	
Stonecrest (Rural Sarpy Co.)		531	212	
		607	242	617

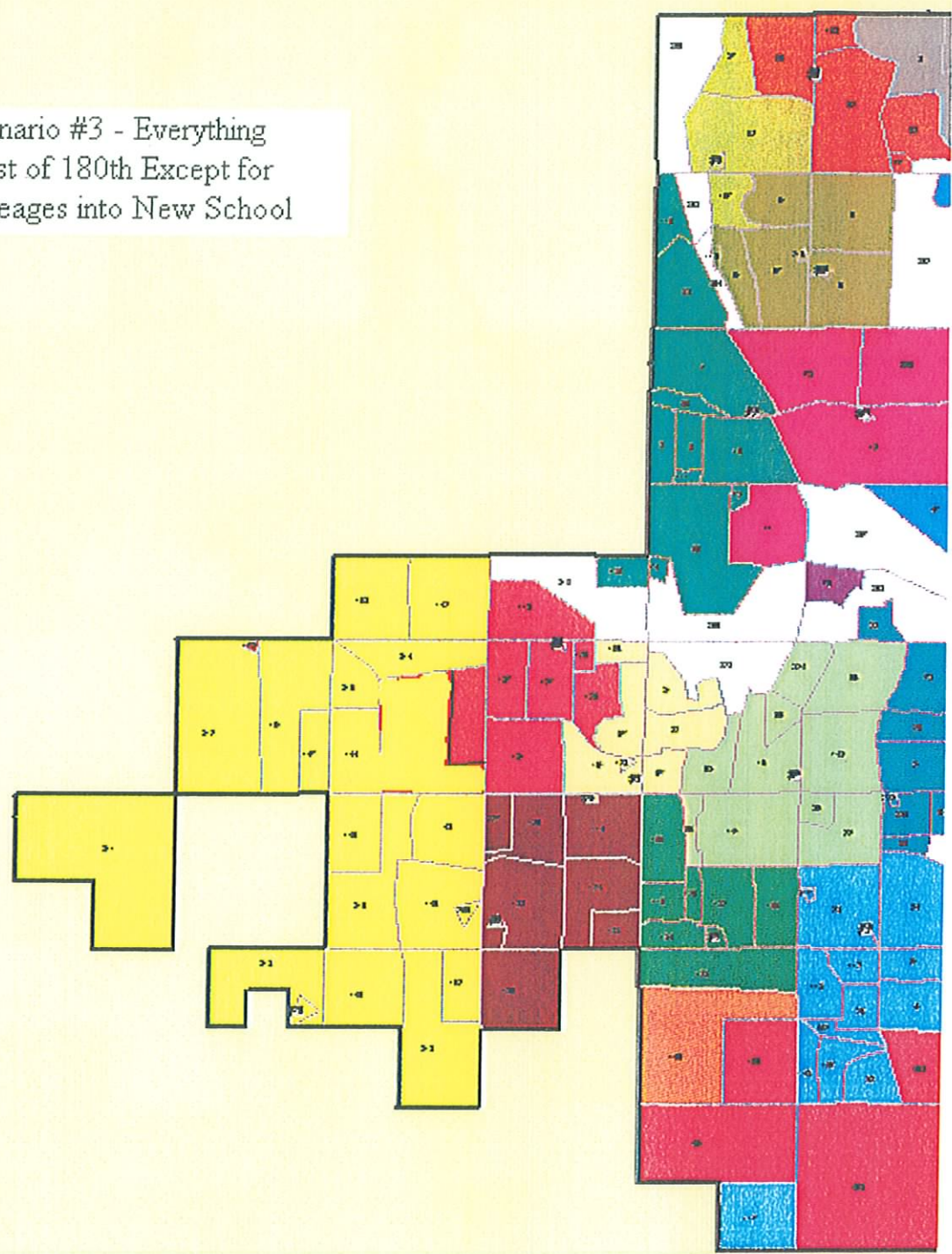
Subdivision

Wheeler

129 Cinnamon Creek No	73			
114 Mission Park	44			
138 Cinnamon Creek So	159	69	28	
124 Mission Park So	51			
133 Mission Pines	9	15	6	
136 Hickory Ridge	130			
Options and Transfers	57			
TOTAL	523	84	34	557

	1242	3771	1509	2751
--	-------------	-------------	-------------	-------------

Scenario #3 - Everything
West of 180th Except for
Acreages into New School



Scenario #3

	Number of Students as of <u>October, 2004</u>	<u># of Lots</u>	Potential Additional Number of Students Based on <u>Number of Empty Lots</u>	Total = Potential + <u>Current</u>
--	---	------------------	--	--

New School

Subdivision

142 West Bay Woods	39	110	44	
153 Oakmont	6	324	130	
154 West Bay Springs	3	122	49	
144 Cattail Creek	73	148	59	
147 The Woodlands	50	56	22	
151 Whitehawk	1	450	180	
145 Coyote Run	36	145	58	
48 Rolling Meadows	9			
140 Falcon Ridge	84	97	39	
149 Sugar Creek	30	220	88	
152 Sunridge	9	248	99	
55 Plantation	6			
45 Rural Douglas County	4			
TOTAL	350		768	
Cottonwood Creek		92	37	
Canterberry Crossing		122	49	
Harrison Place		509	204	
Bellbrook		437	175	
TOTAL		3080	1233	1583

Subdivision

Rohwer

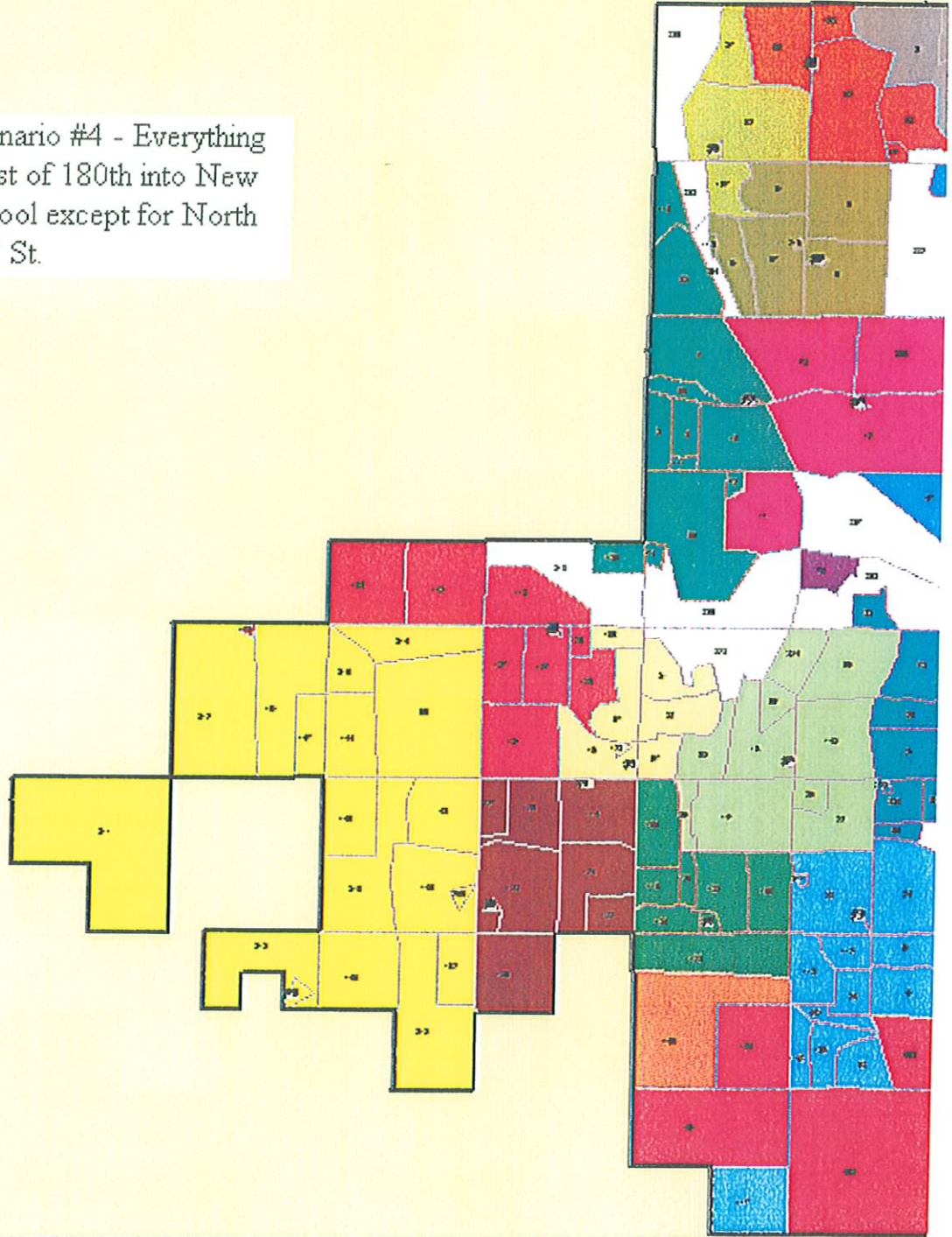
118 Baywood	15			
120 West Bay	29			
127 Dickinson Landing	107			
137 Wood Creek	39			
131 Hawthorne	70	76	30	
45 180th St acreages	6			
126 Lakeshore Lots 329-542	60			
Options and Transfers	43			
TOTAL	369		30	
Stonecrest (Rural Sarpy Co.)		531	212	
		607	242	611

Subdivision

Wheeler

129 Cinnamon Creek No	73			
114 Mission Park	44			
138 Cinnamon Creek So	159	69	28	
124 Mission Park So	51			
133 Mission Pines	9	15	6	
136 Hickory Ridge	130			
Options and Transfers	57			
TOTAL	523	84	34	557
	1242	3771	1509	2751

Scenario #4 - Everything
West of 180th into New
School except for North
of F St.



Scenario #4

	Number of Students as of <u>October, 2004</u>	<u># of Lots</u>	Potential Additional Number of Students Based on <u>Number of Empty Lots</u>	Total = Potential + <u>Current</u>
--	---	------------------	--	--

New School

Subdivision

144 Cattail Creek	73	148	59	
147 The Woodlands	50	56	22	
151 Whitehawk	1	450	180	
145 Coyote Run	36	145	58	
48 Rolling Meadows	9			
140 Falcon Ridge	84	97	39	
149 Sugar Creek	30	220	88	
152 Sunridge	9	248	99	
55 Plantation	6			
45 Rural Douglas County	4			
45 180th St acreages	6			
TOTAL	308		545	

Cottonwood Creek		92	37	
Canterberry Crossing		122	49	
Harrison Place		509	204	
Bellbrook		437	175	
TOTAL		2524	1010	1318

Subdivision

Rohwer

118 Baywood	15			
120 West Bay	29			
127 Dickinson Landing	107			
137 Wood Creek	39			
131 Hawthorne	70	76	30	
142 West Bay Woods	39	110	44	
153 Oakmont	6	324	130	
154 West Bay Springs	3	122	49	
126 Lakeshore Lots 329-542	60			
Options and Transfers	43			
TOTAL	411	632	253	

Stonecrest (Rural Sarpy Co.)		531	212	
		1163	465	876

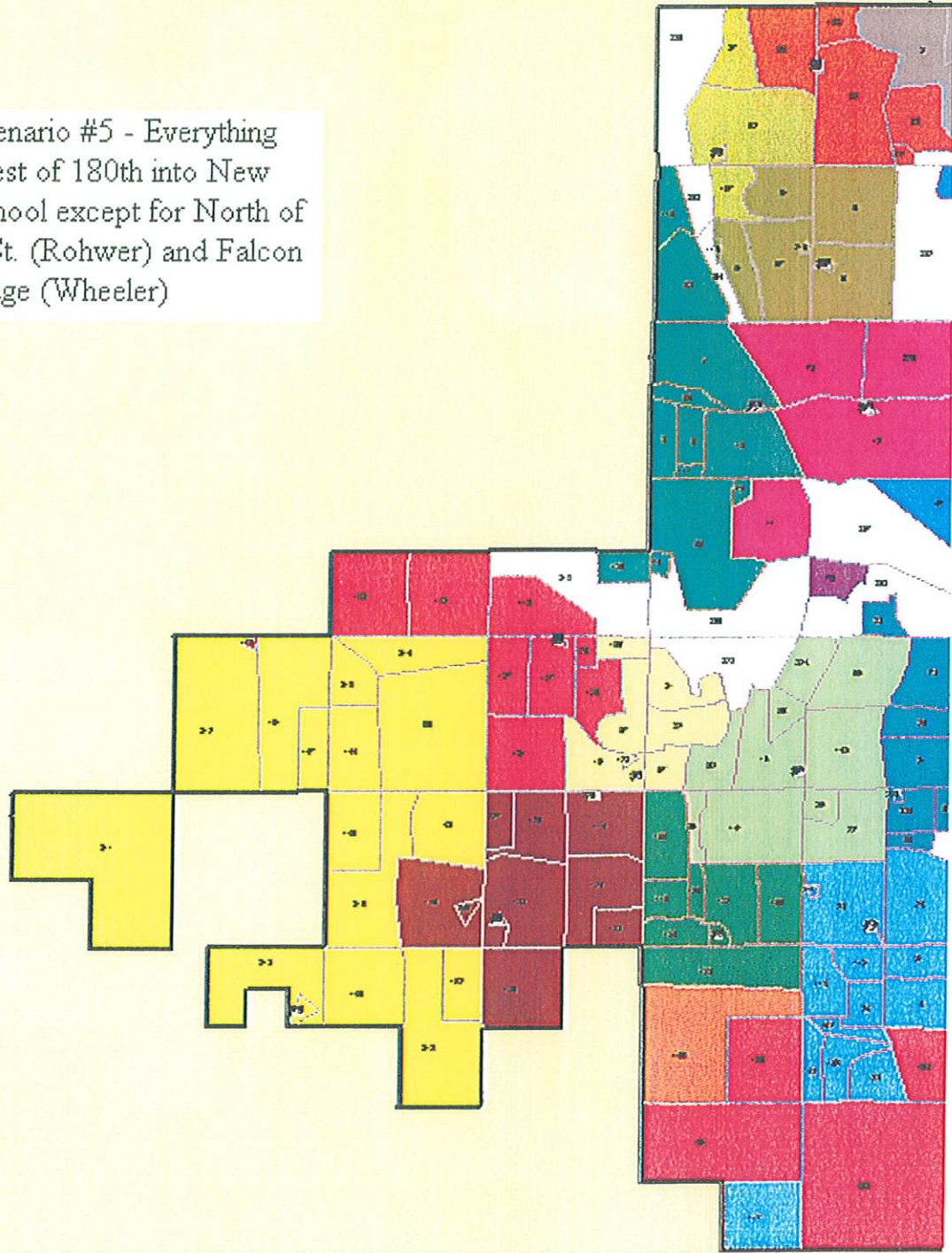
Subdivision

Wheeler

129 Cinnamon Creek No	73			
114 Mission Park	44			
138 Cinnamon Creek So	159	69	28	
124 Mission Park So	51			
133 Mission Pines	9	15	6	
136 Hickory Ridge	130			
Options and Transfers	57			
TOTAL	523	84	34	557

	831	3771	1509	2751
--	------------	-------------	-------------	-------------

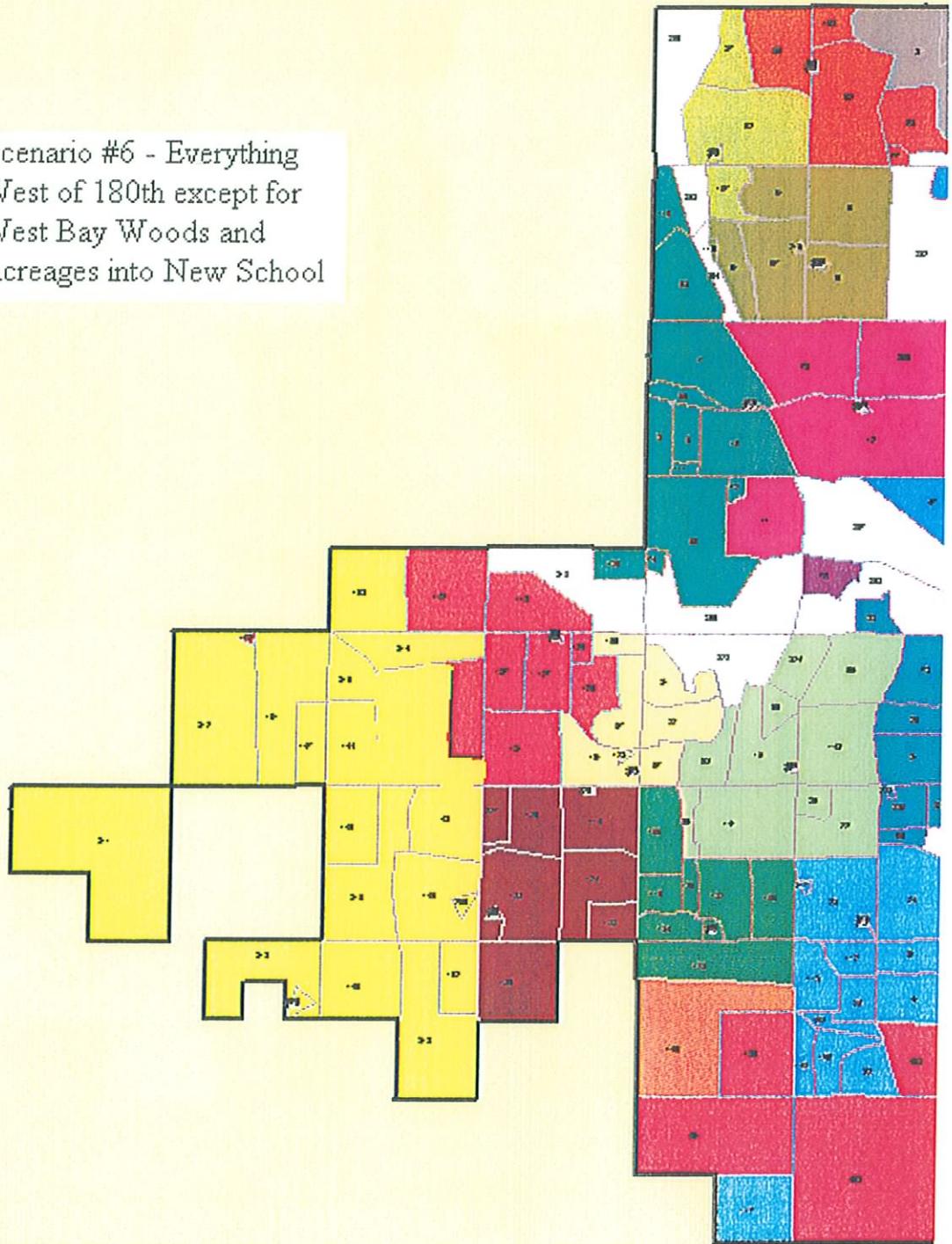
Scenario #5 - Everything
West of 180th into New
School except for North of
F St. (Rohwer) and Falcon
Ridge (Wheeler)



Scenario #5

	Number of Students as of <u>October, 2004</u>	<u># of Lots</u>	Potential Additional Number of Students Based on <u>Number of Empty Lots</u>	Total = Potential + <u>Current</u>
New School				
<u>Subdivision #</u>				
144 Cattail Creek	73	148	59	
147 The Woodlands	50	56	22	
151 Whitehawk	1	450	180	
145 Coyote Run	36	145	58	
48 Rolling Meadows	9			
149 Sugar Creek	30	220	88	
152 Sunridge	9	248	99	
55 Plantation	6			
45 Rural Douglas County	4			
TOTAL	218		506	
Cottonwood Creek		92	37	
Canterberry Crossing		122	49	
Harrison Place		509	204	
Bellbrook		437	175	
TOTAL		2427	971	1189
Rohwer				
<u>Subdivision #</u>				
118 Baywood	15			
120 West Bay	29			
127 Dickinson Landing	107			
137 Wood Creek	39			
131 Hawthorne	70	76	30	
45 180th St acreages	6			
142 West Bay Woods	39	110	44	
153 Oakmont	6	324	130	
154 West Bay Springs	3	122	49	
126 Lakeshore Lots 329-542	60			
Options and Transfers	43			
TOTAL	417		253	
Stonecrest (Rural Sarpy Co.)		531	212	
		1163	465	882
Wheeler				
<u>Subdivision #</u>				
129 Cinnamon Creek No	73			
114 Mission Park	44			
138 Cinnamon Creek So	159	69	28	
124 Mission Park So	51			
133 Mission Pines	9	15	6	
136 Hickory Ridge	130			
140 Falcon Ridge	84	97	39	
Options and Transfers	57			
TOTAL	607	181	73	680
	1242	3771	1509	2751

Scenario #6 - Everything
West of 180th except for
West Bay Woods and
Acreages into New School



Scenario #6

Number of
Students as of
October, 2004 # of Lots

Potential Additional Number
of Students Based on
Number of Empty Lots

Total =
Potential +
Current

New School

Subdivision

144 Cattail Creek	73	148	59
147 The Woodlands	50	56	22
151 Whitehawk	1	450	180
145 Coyote Run	36	145	58
48 Rolling Meadows	9		
140 Falcon Ridge	84	97	39
149 Sugar Creek	30	220	88
152 Sunridge	9	248	99
55 Plantation	6		
153 Oakmont	6	324	130
154 West Bay Springs	3	122	49
45 Rural Douglas County	4		
TOTAL	311		724
Cottonwood Creek		92	37
Canterberry Crossing		122	49
Harrison Place		509	204
Bellbrook		437	175
TOTAL		2970	1189

1500

Subdivision

Rohwer

118 Baywood	15		
120 West Bay	29		
127 Dickinson Landing	107		
137 Wood Creek	39		
131 Hawthorne	70	76	30
45 180th St acreages	6		
142 West Bay Woods	39	110	44
126 Lakeshore #3	60		
Options and Transfers	43		
TOTAL	408		74
Stonecrest (Rural Sarpy Co.)		531	212
		717	286

694

Subdivision

Wheeler

129 Cinnamon Creek No	73		
114 Mission Park	44		
138 Cinnamon Creek So	159	69	28
124 Mission Park So	51		
133 Mission Pines	9	15	6
136 Hickory Ridge	130		
Options and Transfers	57		
TOTAL	523	84	34

557

1242

3771

1509

2751