STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

July 28, 1999

Mr. Lorence Wenke, Chairperson
Kalamazoo County Board of Commissioners
201 West Kalamazoo Avenue
Kalamazoo, Michigan 49007-3777

Dear Mr. Wenke:

The Department of Environmental Quality (DEQ) received the locally approved update to the Kalamazoo County Solid Waste Management Plan (Plan) on January 4, 1999.

This Plan provides for more than ten years of disposal capacity by relying on out-of-county facilities in Barry, Berrien, Calhoun, Ionia, Ottawa, St. Joseph, and Washtenaw Counties to meet the county's final solid waste disposal needs. In addition, Kalamazoo County has authorized its waste to be exported to any of the remaining 75 other Michigan counties. As a result, Kalamazoo County has chosen not to include a siting process in its Plan. The Plan authorizes the import of waste from Allegan, St. Joseph, and Washtenaw Counties.

By this letter, this Plan is hereby approved and Kalamazoo County now assumes responsibility for the enforcement and implementation of this Plan. The DEQ would like to thank Kalamazoo County for its efforts in addressing the solid waste management issues in Kalamazoo County.

If you have any questions, you may contact Mr. Seth Phillips, Chief of the Solid Waste Management Unit, Waste Management Division, at 517-373-4750.

Sincerely,

Arthur R. Nash
ACTING

Russell J. Harding
Director
517-373-7917

cc: Senator Dale L. Shugars
Representative Charles R. Perricone
Representative Edward LaForge
Representative Jerry Vander Roest
Mr. Dean Holub, Kalamazoo County, Dept. of Planning & Community Development
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Ms. Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Tomas Leep, DEQ-Plainwell
Mr. Seth Phillips, DEQ

bcc: Alcona County
Alger County
Allegan County
Alpena County
Antrim County
Arenac County
Baraga County
Barry County
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Berrien County
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Grand Traverse County
Gratiot County
Hillsdale County
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Iosco County
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St. Clair County
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Sanilac County
Schoolcraft County
Shiawassee County
Tuscola County
Van Buren County
Washtenaw County
Wayne County
Wexford County

KALAMAZOO COUNTY

SOLID WASTE MANAGEMENT PLAN

UPDATE

DECEMBER 1998

1997 PLAN UPDATE COVER PAGE

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules, requires that each County have a Solid Waste Management Plan Update (Plan) approved by the Michigan Department of Environmental Quality (DEQ). Section 11539a requires the DEQ to prepare and make available, a standardized format for the preparation of these Plan updates. This document is that format.

DATE SUBMITTED TO THE DEQ: December 31, 1998

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:
Kalamazoo Metropolitan County Planning Commission

CONTACT PERSON: Dean J. Holub

ADDRESS: 201 West Kalamazoo Avenue
Kalamazoo, MI 49007

PHONE: (616) 384-8112

FAX: (616) 383-8862

CENTRAL REPOSITORY LOCATION(S): Kalamazoo County Department of Planning & Community Development

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The following summarizes the system selected to manage solid waste within Kalamazoo County through the planning period. In case of conflicting information between the executive summary and the remaining contents of the Plan update, the information provided in the main body of the Plan update shall take precedence over the executive summary. There were no problems encountered during preparation of the Plan.

Overview of the County

The following provides a summary of the Kalamazoo County's population, general land use and its economic base.

Municipality	Population	% Land Use		% of Economic Base				
	(1998 est)	Rural	Urban	Ag	For	Ind	Com	Other
Townships								
Alamo	3,503	100	0	55	0	10	35	0
Brady	3,204	100	0	97	0	2	1	0
Charleston	1,793	100	0	70	0	20	10	0
Climax	1,659	100	0	98	0	0	2	0
Comstock	12,368	60	40	5	0	40	55	0
Cooper	8,668	85	15	51	0	25	24	0
Kalamazoo	21,540	0	100	0	0	23	72	5
Oshtemo	14,876	70	30	2	0	20	78	0
Pavilion	5,928	95	5	57	0	11	32	0
Prairie Ronde	1,474	100	0	92	0	3	5	0
Richland	4,923	90	10	24	0	30	46	0
Ross	3,904	95	5	27	0	29	44	0
Schoolcraft	3,813	90	10	60	0	10	30	0
Texas	9,001	75	25	20	0	30	30	20
Wakeshma	1,410	100	0	97	0	0	3	0
Cities								
Galesburg	1,915	0	100	0	0	11	89	0
Kalamazoo	82,170	0	100	0	0	30	30	40
Parchment	2,035	0	100	0	0	60	30	10
Portage	43,136	0	100	0	0	50	40	10
Villages								
Augusta	948	0	100	0	0	40	60	0
Climax	714	0	100	10	0	0	90	0
Richland	469	0	100	5	0	15	80	0
Schoolcraft	1,620	0	100	0	0	35	65	0
Vicksburg	2,258	0	100	0	0	40	60	0
COUNTY	**233,242**	**70**	**30**	**45**	**0**	**25**	**10**	**20**

Conclusions

Sensitive to the fact that Kalamazoo County has been an exporter of Type II solid waste since the closure of the "KL" Avenue Landfill in 1979, the community has focused on waste reduction to significantly decrease the amount of waste it sends to sanitary landfills in adjacent or nearby counties. Since 1988 with the inception of the County's pilot recycling program, the County today boasts of a 40% recovery rate of its solid waste. With the exception of one (1) community in the County, all residents have an opportunity to separate their solid waste and take it to a drop-off station or have it collected at the curb. Moreover, residential source separation programs are becoming more and more accessible and convenient as local contracts expire and are renewed for expanded service. Business and industry likewise, always leaders in the waste reduction arena, are also expanding their efforts to separate and collect recyclable materials.

In order to enhance waste reduction, the County has funded a staffed a full-time Recycling Coordinator position to assist the community in its efforts. Likewise, the County has established a Household Hazardous Waste collection program to facilitate the minimization of household hazardous wastes from the general solid waste stream. The program also maintains a staff and operates a state-of-the-art collection facility.

Recently, a Type III sanitary landfill for the deposit of paper mill residuals was approved and opened in Charleston Township. This facility accommodates some nearly 30% of the County's solid waste stream as paper mill residuals are the largest single component of our waste stream.

The preceding descriptions provide a significant contrast to the way the County handled its solid waste as short as ten years ago. Nearly all of our solid waste was exported to out-county sanitary landfills, while there was little emphasis on waste reduction and/or the quality of the waste stream.

With the positive strides that have been accomplished in the County, there was little doubt that our solid waste system should continue in this direction with emphasis on waste reduction. Therefore, the selected solid waste system reflects the status quo or current situation with some minor enhancements, particularly in the area of waste reduction. Significant or major modifications to the system could have serious impacts on what has been achieved to date, and consequently such changes were not recommended.

Selected Alternative

As noted above, the selected solid waste system envisions maintaining and enhancing the present system currently operating in the County. As such, the system will rely on both the public and private sectors to effectively manage the system. The private sector will continue to manage the actual physical operation (collection, processing, transportation and disposal) of the solid waste system, while the public sector will continue to monitor waste reduction services in particular, and will be responsible for continuation of contractual arrangements and legislative actions to perpetuate and enhance such services. The recommended system will rely on the exportation of solid waste to out-county sanitary landfills as it has in the recent past.

The following provides a brief summary of the major components of the recommended solid waste management system (Alternate System No. 2) for Kalamazoo County for the planning period.

Alternate System No. 2

Waste Reduction/Pollution Prevention

* Maintain current public education/information program on waste reduction and resource conservation via County Recycling Coordinator

* Continue operation of County's Pollution Prevention Program for local business and industry

* Maintain and expand County's Household Hazardous Waste Collection Program for local and regional residential and agricultural hazardous waste collection

Resource Recovery: Recycling & Composting

* Enhance and expand current local curbside and drop off recycling programs in all communities in the County

* Continue commercial and industrial source separation and recycling efforts

* Maintain and improve local public and private yard waste collection and recycling operations

Collection Processes and Transportation

* Maintain current system of transfer stations as break-in-bulk points between collection and ultimate disposal

* Maintain and enhance cost-effective systems for processing recyclables collected from households and businesses

Volume Reduction

* Continue individual solid waste volume reduction operations

Sanitary Landfill

* Continue current exportation of Type II and Type III solid waste to existing sanitary landfills in adjoining/nearby counties

* Utilize Type III monofill in Charleston Township for deposit of paper mill residuals

Institutional Arrangements

* Maintain and enhance current private operation of solid waste collection, transfer, processing and disposal

* Enhance public/private contractual arrangements affecting resource recovery and/or solid waste collection when possible

INTRODUCTION

Goals and Objectives

Primary to any planning effort is the establishment of basic goals and objectives. Goals and objectives provide the necessary foundation of principles and guided directions toward which the plan and subsequent course of action should follow.

For use in the Plan, a **goal** is defined as a "general statement of wants and aspirations, very broad in scope and usually reflects a somewhat idealistic aim. A goal provides direction, but may not necessarily be achievable." In contrast, an **objective** "is a more precise aim that is deemed achievable along the path toward fulfillment of a goal."

The following action statements represent the goals and objectives identified to achieve the intent of this Plan.

Goal 1:	**To develop a cost-effective solid waste management system which minimizes environmental degradation, conserves natural resources, and protects public health.**
Objective 1.1:	Treat solid waste as an economic resource, not a liability.
Objective 1.2:	Maintain the involvement of private enterprise in the solid waste management system.
Objective 1.3:	Encourage the development of an efficient and economically stable comprehensive materials recovery component to serve the County.
Objective 1.4:	Support local, state and national legislation which would improve the economic climate for secondary and recycled materials.
Objective 1.5:	Promote cooperation and interaction between the public and private sectors in the implementation of a solid waste management system for Kalamazoo County.
Goal 2:	**Enhance the concepts of reduction reuse and recycling for citizens and business as viable and essential low technology components of solid waste management in Kalamazoo County.**

Objective 2.1:	Maintain the County Recycling Coordinator FTE position to assist local residents, businesses and industries in fostering waste reduction efforts.
Objective 2.2:	Enhance each local community's current recycling program to attain maximum participation via educational and promotional involvement.
Objective 2.3:	Maintain staffing and operation of the County's Household Hazardous Waste Collection Center.
Objective 2.4:	Enlist all local units of government in the County to contract with the County to provide access of the HHW Collection Center to their residents.
Objective 2.5:	Promote the procurement of recycled products by private and public entities whenever and wherever feasible.
Objective 2.6:	Maintain the County's "Recycling Hot Line" and Web page for public information regarding waste reduction.
Objective 2.7	Enhance the recovery of yard clippings and other compostable waste materials.
Goal 3:	**To foster coordination and cooperation in regard to solid waste management among units of government in southwest Michigan.**
Objective 3.1:	Develop a solid waste management plan update which is compatible with those of other counties in southwest Michigan.
Objective 3.2:	Maintain membership in the Southwest Michigan Solid Waste Consortium.
Objective 3.3:	Enlist the support of all local units of government in the County to implement the Plan Update.

DATA BASE

DATA BASE

Sources and Quantity of Solid Waste Generated Within Kalamazoo County

The following table estimates the annual amount of landfilled waste which Is generated within Kalamazoo County. This estimate is based on the Solid Waste Landfill Receipt Report (10/1/96 - 9/30/97) compiled by the Michigan Department of Environmental Quality, the US Environmental Protection Agency's Characterization of Municipal Solid Waste in the United States 1994 Update, and known and estimated data from individual generators.

TABLE 1

ESTIMATED SOLID WASTE LANDFILL DISPOSAL PER SECTOR (TONS)

	Estimated Annual Amount Landfilled in Tons:		
Sector/Waste Type	Currently	Five-Year Period	Ten-Year Period
Household solid waste [60% of MSW[1]]	123,922	127,392	130,959
Commercial & Industrial [40% of MSW]	82,614	84,927	87,305
Paper mill sludge	113,850	117,038	120,315
Incinerator ash	4,300	4,420	4,544
Wastewater treatment sludge	9,300	9,560	9,828
Construction & Demolition waste	51,000	52,428	53,896
Total	**384,986**	**395,765**	**406,847**

Total Estimated Quantity of Solid Waste Generated: 588,931 tons per year

[1]Based on the U.S. EPA's standard definition of Municipal Solid Waste (MSW) which considers the commercial and industrial waste stream to include packaging and administrative wastes (such as corrugated boxes, office papers, plastic film, wood pallets, and cafeteria wastes), but excludes process wastes, paper mill sludge, incinerator ash, waste water treatment sludge, and construction and demolition debris.

Inventory of Solid Waste Disposal Areas to Be Used to Meet Disposal Needs

The following table is an inventory of all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

TABLE 2

INVENTORY OF SOLID WASTE DISPOSAL AREAS

Type II Landfills	County	Disposal Capacity
Arbor Hills Landfill	Washtenaw	17.6 years
Autumn Hills RDF	Ottawa	30.2 years
C & C Landfill	Calhoun	7 years
City Environmental Services Landfill Inc., of Hastings	Barry	10+ years
Forest Lawn Landfill	Berrien	15 years
Orchard Hills Landfill	Berrien	10+ years
Ottawa County Farms Landfill	Ottawa	25-30 years
Southeast Berrien Landfill	Berrien	18.4 years
Westside Landfill	St. Joseph	12 years
Type III Landfills		
Crown Vantage	Kalamazoo	unknown
Kalamazoo Valley Group Landfill	Kalamazoo	33 years
Pitsch Landfill	Ionia	5-10 years
Westside Landfill	St. Joseph	12 years
Type A Transfer stations		
Cork Street Transfer Station	Kalamazoo	
Miller Road Transfer Station	Kalamazoo	
Royal Holdings, Inc. Transfer Station and Solid Waste Processing	Kalamazoo	
Waste Management Transfer Station	Calhoun	
Type B Transfer Stations		
Comstock Twp. Transfer Station	Kalamazoo	
Pavilion Township Transfer Station	Kalamazoo	

Facility Descriptions

The following table describes all solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

TABLE 3

DESCRIPTIONS OF SOLID WASTE DISPOSAL AREAS [2]

TYPE II LANDFILLS

Arbor Hills Landfill

Location: Washtenaw County, Salem Township
Owner: Browning-Ferris Industries (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility property: 936 acres
Total area sited for use: 356 acres
Total area permitted: 217 acres
Area in operation: 113 acres
Area not excavated: 104 acres
Current capacity: 30,500,000 cubic yards
Estimated lifetime: 17.6 years
Estimated days open per year: 265
Estimated yearly disposal volume: 3,500,000 cubic yards
Annual landfill gas recovery: 18 megawatts

Autumn Hills Recycling & Disposal Facility

Location: Ottawa County, T5N, R14W Section 36
Owner: Autumn Hills RFD - Division of Waste Management of MI, Inc.(private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility property: 314 acres
Total area sited for use: 197 acres
Total area permitted: 99.3 acres
Area in operation: 35.1 acres
Area not excavated: 64.2 acres
Current capacity: 20.75 million tons
Estimated lifetime: 30.2 years

---

[2]A map or boundary description of each facility is included in Appendix D.

Estimated days open per year: 286
Estimated yearly disposal volume: 500,000 tons
Annual landfill gas recovery: NA

C&C Landfill

Location: Calhoun County, T1S R6W Section 28
Owner: Browning-Ferris Industries (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility property: 224 acres
Total area sited for use: 154 acres
Total area permitted: 154 acres
Area in operation: 33 acres
Area not excavated: 21 acres
Current capacity: 3,360,000 million cubic yards
Estimated lifetime: 7 years
Estimated days open per year: 286
Estimated yearly disposal volume: 1.1 million cubic yards
Annual landfill gas recovery: NA

City Environmental Services Landfill Inc., of Hastings

Location: Barry County, T3W R8N Section 6
Owner: City Management (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, contaminated soils, foundry sand, fly ash, waste water sludges, trees and stumps, and asbestos
Total area of facility property: 330 acres
Total area sited for use: 330 acres
Total area permitted: 48 acres
Area in operation: 19.5 acres
Area not excavated: 28.5 acres
Current capacity: 5 million cubic yards under current permit
Estimated lifetime: 10+ years
Estimated days open per year: 308 days
Estimated yearly disposal volume: 175,000 cubic yards
Annual landfill gas recovery: NA

Forest Lawn Landfill

Location: Berrien County, T8S R20W Section 17
Owner: Forest Lawn Landfill, Inc. (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and

demolition, fly ash, foundry sand, trees and stumps, wastewater sludges, and asbestos
Total area of facility property: 284 acres
Total area sited for use: 135 acres
Total area permitted: 135 acres
Area in operation: 26 acres
Area not excavated: 78 acres
Current capacity: 15,900,000 cubic yards
Estimated lifetime: 15 years
Estimated yearly disposal volume: 1,530,000 cubic yards
Estimated days open per year: 286
Annual landfill gas recovery: NA

Orchard Hill Landfill

Location: Berrien County, T3S R7W Section 28 and 33
Owner: Landfill Management Company (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, fly ash, foundry sand, trees and stumps, and wastewater sludges
Total area of facility property: 160 acres
Total area sited for use: 117 acres
Total area permitted: 160 acres
Area in operation: 53 acres
Area not excavated: 64 acres
Current capacity: 8 million CY
Estimated lifetime: 10+ years
Estimated yearly disposal volume: 402,000 CY
Annual landfill gas recovery: not converted to electricity

Ottawa County Farms Landfill

Location: Ottawa County, T8N, R14W Sections 26 & 27
Owner: Allied Waste Systems (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility: 240 acres
Total area sited for use: 197 acres
Total area permitted: 240 acres
Area in operation: 37 acres
Area not excavated: 125 acres
Current capacity: 16,500,000 cubic yards
Estimated lifetime: 25-30 years
Estimated days open per year: 286
Estimated yearly disposal volume: 500,000 tons

Annual landfill gas recovery: 4,565 megawatts

Pitsch Sanitary Landfill

Location: Ionia County, T8N,R7W Section 7
Owner: Pitsch Companies (private)
Operating Status: open and licensed
Wastes received: Type II and III solid wastes
Total area of facility property: 143.5 acres
Total area sited for use: 28.36 acres
Total area permitted: 78.44 acres
Area in operation: 9.87 acres
Area not excavated: 70 acres
Current capacity: 415,000 tons
Estimated lifetime: 5 years
Estimated days open per year: 307
Estimated yearly disposal volume: 83,000 tons
Annual landfill gas recovery: NA

Southeast Berrien Landfill

Location: Berrien County, T8S R7W Section 6
Owner: Southeast Berrien County Landfill Authority, Inc. (public)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, contaminated soils, fly ash, foundry sand, trees and stumps, wastewater sludges, asbestos, and auto shredder residue (auto fluff)
Total area of facility property: 160 acres
Total area sited for use: 100 acres
Total area permitted: 39 acres
Area in operation: 27.5 acres
Area not excavated: 5.5 acres
Current capacity: 2.1 million cubic yards
Estimated lifetime: 18.4 years
Estimated days open per year: 281
Estimated yearly disposal volume: 800,000 cubic yards
Annual landfill gas recovery: NA

Westside Landfill

Location: St. Joseph County, T6S R12W Section 26
Owner: Waste Management of Michigan d.b.a. Westside RDF (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, fly ash, foundry sand, trees and stumps, wastewater sludges, and asbestos.

Total area of facility property: 640 acres
Total area sited for use: 490 acres
Total area permitted: 85 acres
Area in operation: 51 acres
Area not excavated: 34 acres
Current capacity: 1.75 million cubic yards per year
Estimated lifetime: 12 years
Estimated days open per year: 300+
Estimated yearly disposal volume: 1.2+ million cubic yards
Annual landfill gas recovery: 2 megawatts

TYPE III LANDFILLS

Crown Paper Company, d.b.a. Crown Vantage

Location: Kalamazoo County, T1S R11W Section 34
Owner: Crown Paper Company, d.b.a. Crown Vantage (private)
Operating Status: open and licensed
Wastes received: paper waste residuals
Total area of facility property: unknown
Total area sited for use: 32.8 acres
Total area permitted: 31.4 acres
Area in operation: 8 acres
Area not excavated: unknown
Current capacity: unknown
Estimated lifetime: unknown
Estimated days open per year: 365
Estimated yearly disposal volume: 200,000 cubic yards
Annual landfill gas recovery: NA

Kalamazoo Valley Group Landfill

Location: Kalamazoo County, T2S R9W Section 29
Owner: Kalamazoo Valley Group (private)
Operating Status: open and licensed
Wastes received: paper mill residuals from partner facilities
Total area of facility property: 200.879
Total area sited for use: 80 acres
Total area permitted: 10 acres
Area in operation: unknown
Area not excavated: unknown
Current capacity: 8.2 million cubic yards
Estimated lifetime: 33 years
Estimated days open per year: 312 days
Estimated yearly disposal volume: 250,000

Annual landfill gas recovery: NA

Westside Landfill

Location: St. Joseph County, T6S, R12W Section 23
Owner: Waste Management of MI d.b.a. Westside RDF (private)
Operating Status: open and licensed
Waste types received: Type III
Total area of facility property: 35 acres
Total area sited for use: 35 acres
Total area permitted: 18 acres
Area in operation: 6 acres
Area not excavated: 12 acres
Current capacity: included in Type II facility amounts
Estimated lifetime: 12 years
Estimated days open per year: 300+
Estimated yearly disposal volume: included in Type II facility amounts

TYPE A TRANSFER STATIONS

Cork Street Transfer Station

Location: Kalamazoo County, T2S R11W Section 36
Final disposal site: C & C Landfill
Owner: BFI Waste Systems of Michigan, Inc. (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, contaminated soils, and paper sludge
Total area of facility property: 2.758 acres
Estimated days open per year: 300
Estimated yearly disposal volume: unknown

Miller Road Transfer Station

Location: Kalamazoo County, T2S R11W Section 25
Final disposal site: Orchard Hill Sanitary Landfill
Owner: Landfill Management Company (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, trees and stumps
Total area of facility property: $\pm$ 1 acre
Estimated days open per year: 312
Estimated yearly disposal volume: unknown

Royal Holdings, Inc. Transfer Station and Solid Waste Processing

Location: Kalamazoo County, T2S R11W Section 36

Final disposal site: Southeast Berrien County Landfill and Orchard Hill Landfill
Owner: Tri-City Recycling and Disposal (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition
Total area of facility property: 8 acres
Estimated days open per year: 312
Estimated yearly disposal volume: 175,000 cubic yards

Waste Management Transfer Station

Location: Calhoun County, T2S R8W Section 5
Final disposal site: Westside Landfill (private)
Owner: Waste Management of Michigan
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, trees and stumps
Total area of facility property: 18.36 acres
Estimated days open per year: 310
Estimated yearly disposal volume: 300,000 compacted cubic yards

TYPE B TRANSFER STATIONS

Pavilion Township Transfer Station

Location: Kalamazoo County, T3S R10W Section 26
Final disposal site: C & C Landfill (currently)
Owner: Pavilion Township (public)
Operating Status: open and unlicensed
Wastes received: residential, construction and demolition
Total area of facility property: 2 acres
Total area sited for use: 1 acre
Estimated days open per year: 65
Estimated yearly disposal volume: 750 compacted cubic yards of Type II materials and 1000 compacted cubic yards of Type III materials

Comstock Township Transfer Station and Recycling Drop-off

Location: Kalamazoo County, T2S R10W Section 16
Final disposal site: Westside Landfill
Owner: Comstock Township (public)
Operating Status: open and unlicensed
Wastes received: residential, construction and demolition
Total area of facility property: 40 acres

Total area sited for use: 1 acre
Estimated days open per year: 134
Estimated yearly disposal volume: 2,600 compacted cubic yards, largely Type III material

Solid Waste Collection Services & Transportation Infrastructure

This section describes the solid waste collection services and transportation infrastructure that will be utilized within the County to collect and transport solid waste.

All solid waste collection services operating in Kalamazoo County are private companies. All waste haulers services are subscription-based, with the exception of special bulk trash collections that a city, township, or village may contract with a waste hauler to provide[3] and the City of Parchment's (population 1958) exclusive contract with BFI for residential services.

Best Way and City Environmental currently service only commercial and industrial customers. BFI, Kipp Refuse, Tri-City Recycling and Disposal, and Waste Management of Michigan-Southwest service residential, commercial, and industrial customers.

TABLE 4

SOLID WASTE COLLECTION SERVICE PROVIDERS

Service Provider	Disposal Facility Used
BFI	BFI Transfer Station and C&C Landfill
Best Way Disposal	Miller Road Transfer Station and Orchard Hill Landfill
City Environmental	City Environmental Services Landfill Inc., of Hastings
Kipp Refuse	C & C Landfill
Tri-City Recycling and Disposal	Royal Holdings Transfer Station, Southeast Berrien County Landfill and Orchard Hill Landfill
Waste Management of Michigan-SW	Waste Management Transfer Station and Westside Landfill

[3]The City of Kalamazoo provides monthly bulk trash collections. The Charter Township of Kalamazoo contracts for three bulk trash pick-ups per year. The Village of Vicksburg provides its residents with the opportunity to set-out bulk trash items twice per year (spring and fall). The City of Portage offers a Spring Clean-Up. The Charter Townships of Oshtemo and Texas offer 11 and 16, respectively, special trash drop-off days. Pavilion and Comstock Township operate transfer stations for their residents' use only.

Evaluation of Deficiencies & Problems

Overall, the existing solid waste system adequately serves the needs of Kalamazoo County. However, the current system fails to fully address the following deficiencies:

Households without Garbage Service

The combination of subscription-based residential garbage service and the lack of requirements or enforcement for households to have garbage service allows many County households to elect to not have garbage service. An estimated 45,000 of the County's 57,000 single-family households (79 percent) have garbage service. In rural areas, the percentage of households with garbage service is even lower. For instance, a 1996 survey estimated that approximately half of single-family households in Climax Township do not subscribe to garbage service.

Households which lack garbage service may be managing their waste by either using commercial waste dumpsters, dumping along road sides or private property, or burying or burning their waste on-site. Illegal dumping and on-site burning present serious ramifications for aesthetics, public health, and public safety.

Hazardous Wastes in MSW

Rule 204(2)(a) and Rule 228(3) of Part 111 Administrative Rules (Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended) exempts all household waste from the hazardous waste statute and also resource recovery facilities that manage household hazardous waste provided they do not accept hazardous waste. As a result, Part 111 restricts Kalamazoo County's Household Hazardous Waste Collection Program from accepting hazardous waste from businesses which generate hazardous waste products and may be considered small-quantity generators (SQG's) or conditionally exempt small quantity generators (CESQG's). Although some private-sector disposal services are available to manage hazardous wastes from SQG's and CESQG's, transportation and disposal costs currently pose barriers which may encourage many SQG's and CESQG's to stockpile dangerous quantities of hazardous waste on-site or to dispose of hazardous waste into waste water drains or via conventional, non-hazardous waste collection and disposal systems.

For example, flourescent light bulbs are a common, potentially hazardous waste item generated by households and businesses. Although businesses must determine whether or not their waste streams are hazardous and cannot dispose of hazardous waste as municipal solid waste and although light bulbs cannot be disposed as municipal solid waste unless found to be non-hazardous (as of

October 15, 1996, under the Part 111 Rules, businesses may manage waste light bulbs as either a universal waste stream or as a hazardous waste stream), in reality, many businesses currently dispose of their flourescent bulbs without determining whether or not the bulbs are hazardous.

Kalamazoo County Demographics

Population

Population growth in Kalamazoo County since 1970 has been relatively stable, increasing at a rate of some 5-6% each decade. Table 5 provides current estimates and population projections for the County as well as the local units of government in the County. The estimates and projections were compiled from such factors as past growth trends, percentage of County population, and anticipated growth based upon past and present developmental trends in the particular community.

Population Density

Current and projected population density patterns serve to indicate the intensity of residential development throughout the County and the intensity that can be expected in the future. Map 1 provides a graphic illustration of the current population density (persons per square mile) throughout the County, while Table 6 depicts existing and projected population density for the County and all of the local units of government in the County through the planning period. Map 2 illustrates the projected population density in the County through 2008. With the exception of a few areas, no significant changes in population density are anticipated. In general, current population densities are expected to increase in existing populated areas within the County.

Population/Waste Generation Centers

In the broadest sense, waste generation centers are those urban/suburban areas or satellite communities that produce a considerable amount of solid waste. Such centers can be "specific" or residential waste generation centers, or "diversified" waste generation centers. The latter centers are generally comprised of a mixture of residential, commercial and industrial land uses. Other uses that could constitute a specific center include an industrial park, or some type of special land use such as a correctional facility, regional airport, educational institution, etc. These uses could also be incorporated within a diversified center as well.

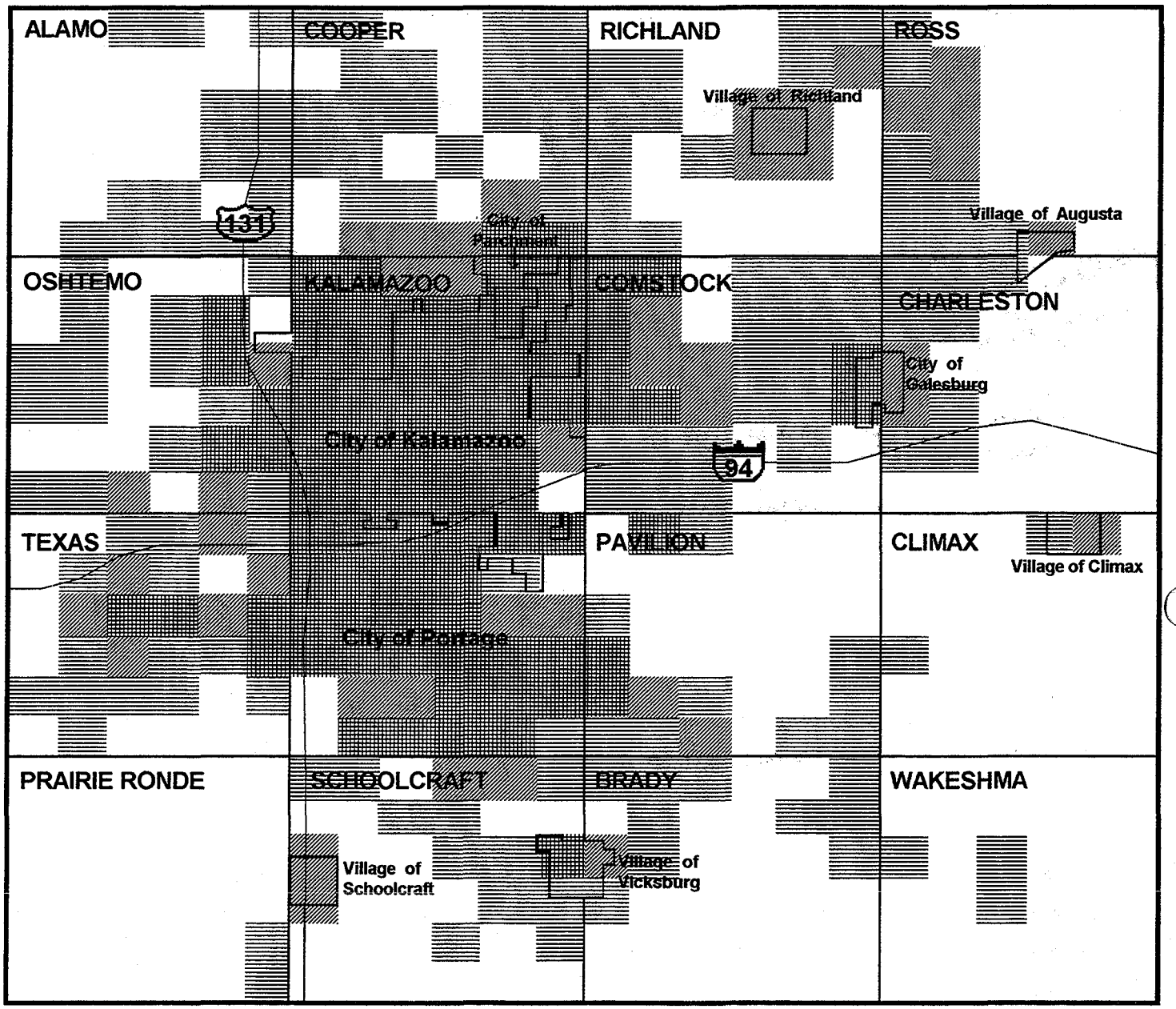
Currently, the major waste generation and population centers in the County are in the metropolitan area comprised of the Cities of Kalamazoo, Parchment and Portage and contiguous portions/entirety of the Townships of Cooper, Comstock, Pavilion, Texas,

Oshtemo and Kalamazoo. Other current centers also include the political subdivisions of the Villages of Augusta, Richland, Climax, Schoolcraft and Vicksburg and the City of Galesburg. The aforementioned centers are generally considered diversified centers due to the mixture of uses contained therein.

TABLE 5
CURRENT AND PROJECTED POPULATION FOR KALAMAZOO COUNTY AND LOCAL UNITS OF GOVERNMENT

	Actual 1990	Estimated 1998	Projected 2003	Projected 2008
Townships				
Alamo	3,276	3,503	3,657	3,818
Brady	3,134	3,204	3,250	3,297
Charleston	1,747	1,793	1,823	1,854
Climax	1,544	1,659	1,737	1,818
Comstock	11,834	12,368	12,712	13,063
Cooper	8,442	8,668	8,777	8,866
Kalamazoo	20,976	21,540	21,717	22,012
Oshtemo	13,401	14,876	15,903	16,999
Pavilion	5,500	5,928	6,215	6,515
Prairie Ronde	1,365	1,474	1,547	1,623
Richland	4,634	4,923	5,114	5,313
Ross	3,832	3,904	3,949	3,994
Schoolcraft	3,695	3,813	3,889	3,968
Texas	7,711	9,001	9,966	11,037
Wakeshma	1,378	1,410	1,431	1,451
Cities				
Galesburg	1,863	1,915	1,950	1,986
Kalamazoo	80,277	82,170	83,386	84,625
Parchment	1,958	2,035	2,130	2,198
Portage	41,042	43,136	44,499	45,893
Villages				
Augusta	927	948	963	979
Climax	677	714	739	765
Richland	465	469	471	472
Schoolcraft	1,517	1,620	1,688	1,758
Vicksburg	2,224	2,258	2,285	2,313
County	223,411	233,242	239,794	246,618

Population Density in Kalamazoo County, 1998



Map 1

Kalamazoo County, Michigan

Density Shown as People Per Square Mile

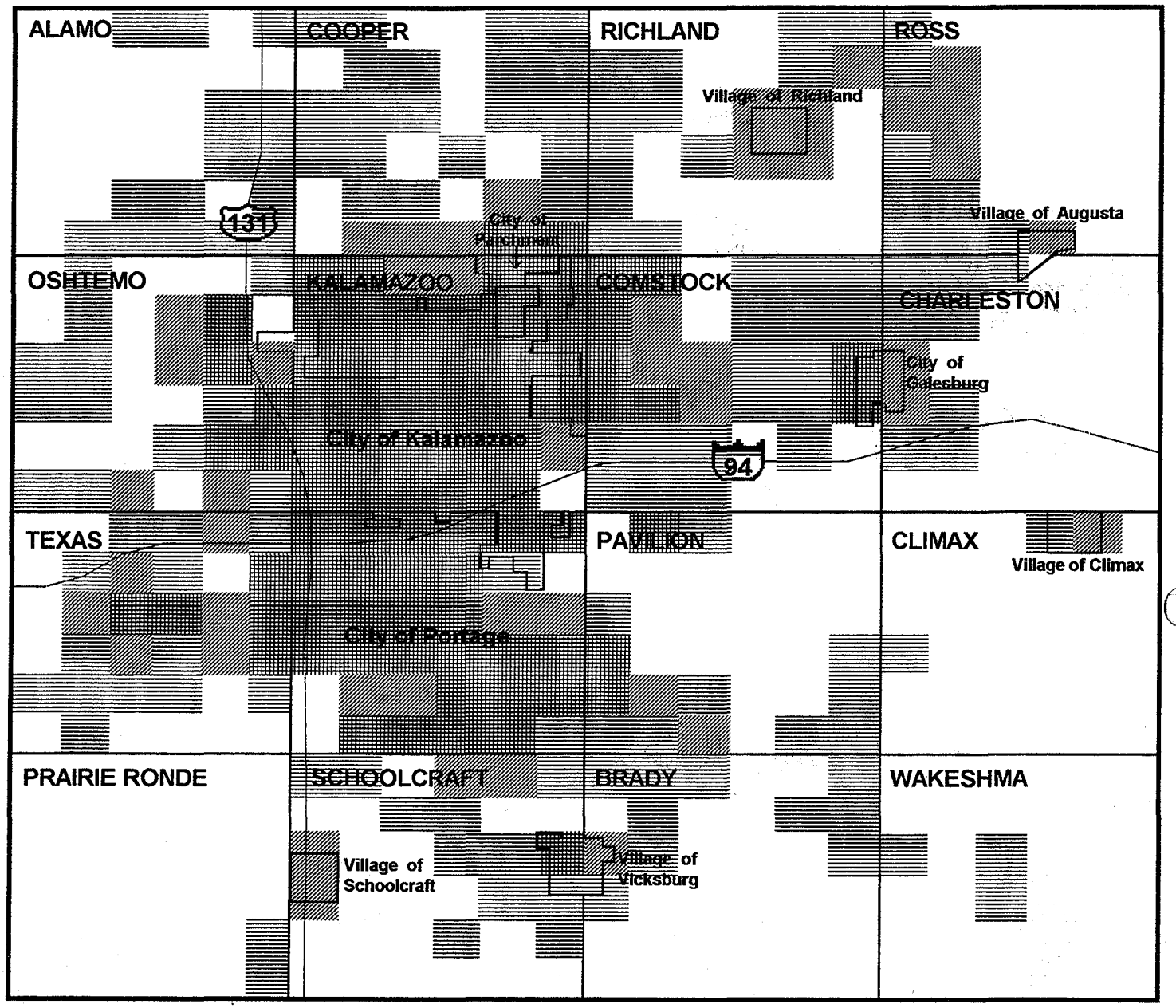
- 0 - 99
- 100 - 300
- 301 - 999
- 1,000 +

N

TABLE 6
POPULATION DENSITY (PERSONS PER SQUARE MILE)
TOWNSHIPS, CITIES & VILLAGES
KALAMAZOO COUNTY

	Actual 1990	Estimated 1998	Projected 2003	Projected 2008
Townships				
Alamo	92.1	98.4	102.7	107.2
Brady	87.4	89.5	90.8	92.1
Charleston	50.2	51.5	52.4	53.3
Climax	44.1	47.4	49.6	51.9
Comstock	337.8	353.4	363.2	373.2
Cooper	234.5	240.8	243.8	246.3
Kalamazoo	1,792.8	1,841.0	1856.2	1,881.4
Oshtemo	373.7	414.4	443.0	473.5
Pavilion	152.8	164.7	172.6	181.0
Prairie Ronde	37.9	40.9	43.0	45.1
Richland	132.4	140.7	146.1	151.8
Ross	107.7	109.7	110.9	112.2
Schoolcraft	108.1	111.5	113.7	116.0
Texas	214.2	250.0	276.8	306.6
Wakeshma	38.3	39.2	39.8	40.3
Cities				
Galesburg	1,280.7	1,276.7	1,300.0	1,324.0
Kalamazoo	3,236.9	3,313.3	3,362.3	3,412.3
Parchment	2,082.9	2,261.1	2,366.7	2,442.2
Portage	1,169.3	1,228.9	1,267.8	1,307.5
Villages				
Augusta	996.8	1,053.3	1,070.0	1,087.8
Climax	677.0	714.0	739.0	765.0
Richland	465.0	469.0	471.0	472.0
Schoolcraft	1,784.7	1,800.0	1,875.6	1,953.3
Vicksburg	2,051.8	2,052.7	2,077.3	2,102.7
Total County	387.9	404.9	416.3	428.2

Population Density in Kalamazoo County, 2008



Map 2

Kalamazoo County, Michigan

Density Shown as People Per Square Mile

- 0 - 99
- 100 - 300
- 301 - 999
- 1,000 +

N

In contrast, the County is endowed with numerous inland lakes which are natural attractions for residential development. Consequently, there are several lakes in the County which are not located within one of the diversified centers, but are characterized by a significant amount of concentrated residential development along the periphery. These areas are considered specific centers.

Map 3 illustrates the current specific and diversified centers in Kalamazoo County.

It is anticipated that the population/waste generation centers identified in Map 3 will remain essentially the same throughout the planning period. This corresponds to the previous statement made regarding present and future population densities in the County. No new population/waste generation centers are expected within the County in the next 5-10 years.

Kalamazoo County Land Development

Current Land Use Pattern

Kalamazoo County comprises some 368,640 acres or 576 square miles. Over 73,000 acres, or nearly 20% of the land area, is considered "developed." The largest single category in the County is agriculture. This category, which is considered "undeveloped," is comprised of some 132,000 acres or 36% of the land area in the County. In contrast, the commercial and industrial land use classifications assume the least amount of developed land in the County, while collectively, both categories account for only 1.5% of the total land area in the County.

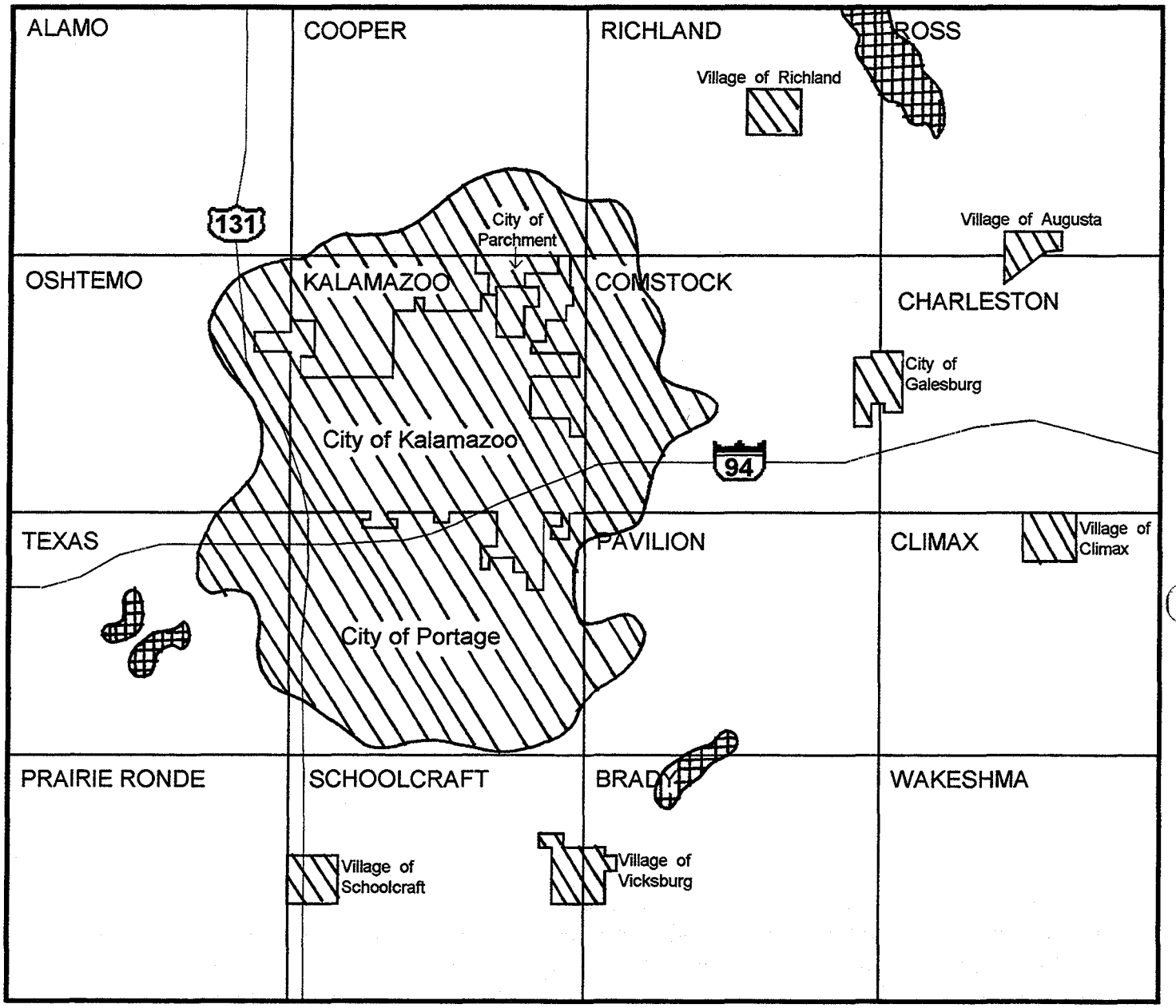
Table 7 provides a summary breakdown of the acreage of the various land use categories in the County, while Map 4 depicts a generalized view of existing development and limits within the County.

Anticipated Land Use Pattern

It is probable that most future growth throughout the County will occur in conjunction with the various urban/suburban and satellite communities. These communities will provide the infrastructure services necessary to support the expansions and extensions. Therefore, it is assumed that during the ten-year planning period, major new growth and development will likely take place within and adjacent to current developed areas.

Map 5 illustrates the projected land development limits for Kalamazoo County through the planning period.

Population/Waste Generation Centers in Kalamazoo County, 1998



Map 3

Kalamazoo County, Michigan

Specific Center

Diversified Center

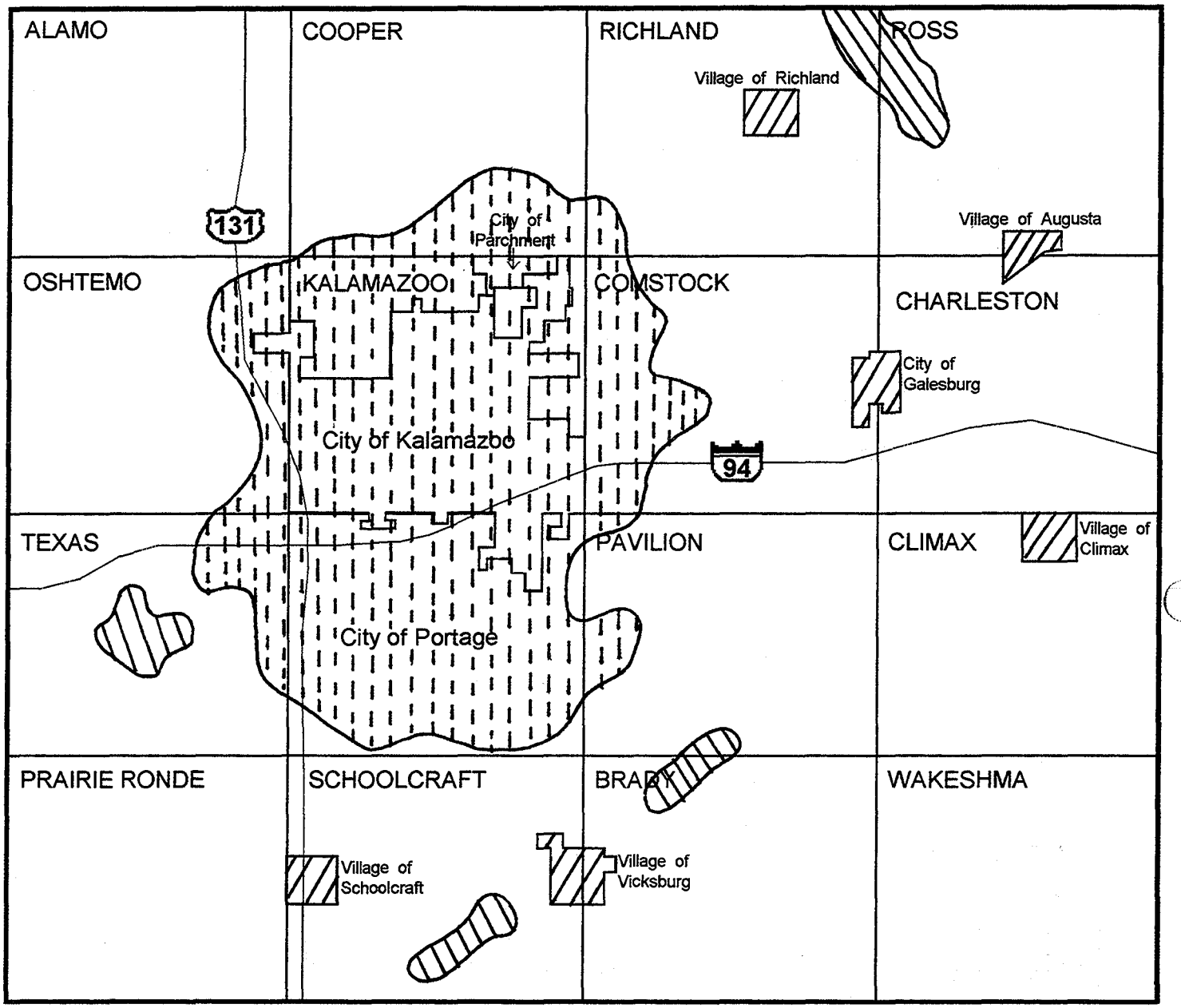
N

TABLE 7

EXISTING LAND USE
KALAMAZOO COUNTY - 1998

Developed Land Use Categories	Acres	Percent of County
Residential	25,500	6.9
Commercial	1,825	.5
Industrial	3,750	1.0
Public/Quasi-Public	21,600	5.9
Transportation & Utilities	20,500	5.6
Total Developed Area	**73,175**	**19.8**
Undeveloped Land Use Categories		
Extraction	280	.1
Agriculture	132,335	36.0
Water	8,800	2.4
Wooded	49,400	13.4
Marsh	13,450	3.6
Vacant	91,200	24.7
Total Undeveloped Area	**295,465**	**80.2**
TOTAL AREA	**368,640**	**100.0**

Existing Land Use Pattern
Generalized, 1998



Map 4

Kalamazoo County, Michigan

Satellite Communities

Concentrated Rural Residential Developments

Kalamazoo-Portage Metropolitan Area

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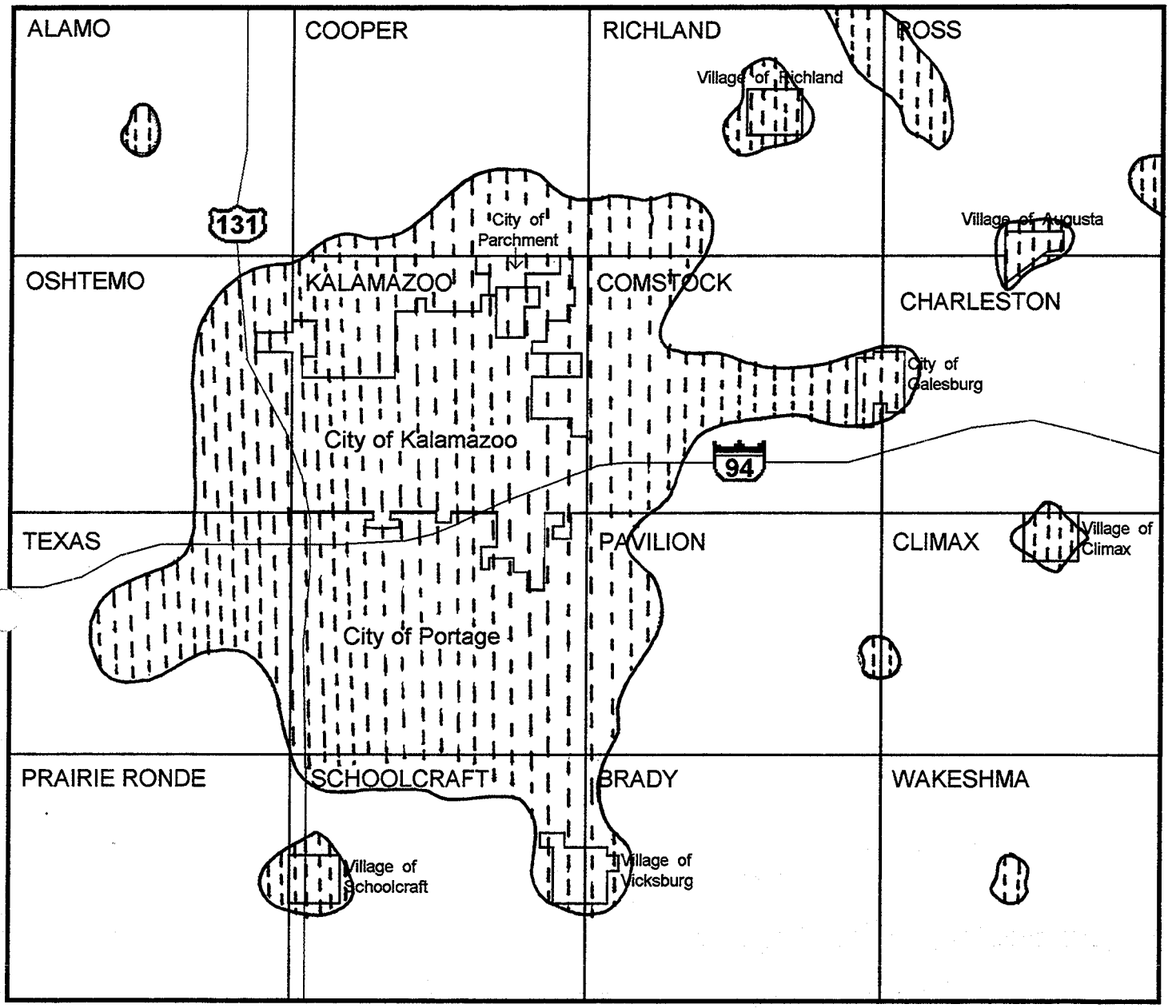
Proposed Land Use Pattern
Generalized, 2008



Map 5

Kalamazoo County, Michigan

Projected Urbanized Areas

N

Solid Waste Management System Alternatives for Kalamazoo County

The following briefly describes various solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation and ranking of each alternative is also described. The selected solid waste management system is detailed in the next section of the document.

Alternate System No. 1

Waste Reduction/Pollution Prevention

* Maintain current public education/information program on waste reduction and resource conservation via County Recycling Coordinator

* Continue operation of County's Pollution Prevention Program for local business and industry

* Maintain County's Household Hazardous Waste Collection Program for local residential and agricultural hazardous waste collection

Resource Recovery: Recycling & Composting

* Maintain current local curbside and drop off recycling programs throughout the County

* Continue commercial and industrial source separation and recycling efforts

* Continue local public and private yard waste collection and composting efforts

Collection Processes and Transportation

* Maintain current system of transfer stations as break-in-bulk points between collection and ultimate disposal

* Maintain existing network of materials recovery and processing facilities for recyclable materials

Volume Reduction

* Continue individual solid waste volume reduction operations

Sanitary Landfill

* Continue current exportation of Type II and Type III solid waste to existing sanitary landfills in adjoining/nearby counties

* Utilize Type III monofill in Charleston Township for deposit of paper mill residuals

Institutional Arrangements

* Maintain current public and private operations and contractual arrangements for solid waste collection, transfer, processing and disposal

Alternate System No. 2

Waste Reduction/Pollution Prevention

* Maintain current public education/information program on waste reduction and resource conservation via County Recycling Coordinator

* Continue operation of County's Pollution Prevention Program for local business and industry

* Maintain and expand County's Household Hazardous Waste Collection Program for local and regional residential and agricultural hazardous waste collection

Resource Recovery: Recycling & Composting

* Enhance and expand current local curbside and drop off recycling programs in all communities in the County

* Continue commercial and industrial source separation and recycling efforts

* Maintain and improve local public and private yard waste collection and recycling operations

Collection Processes and Transportation

* Maintain current system of transfer stations as break-in-bulk points between collection and ultimate disposal

* Maintain and enhance cost-effective systems for processing recyclables collected from households and businesses

Volume Reduction

* Continue individual solid waste volume reduction operations

Sanitary Landfill

* Continue current exportation of Type II and Type III solid waste to existing sanitary landfills in adjoining/nearby counties

* Utilize Type III monofill in Charleston Township for deposit of paper mill residuals

Institutional Arrangements

* Maintain and enhance current private operation of solid waste collection, transfer, processing and disposal

* Enhance public/private contractual arrangements affecting resource recovery and/or solid waste collection when possible

Alternate System No. 3

Waste Reduction/Pollution Prevention

* Maintain current public education/information program on waste reduction and resource conservation via County Recycling Coordinator

* Continue operation of County's Pollution Prevention Program for local business and industry

* Maintain and expand County's Household Hazardous Waste Collection Program for local and regional residential and agricultural hazardous waste collection

Resource Recovery: Recycling & Composting

* Enhance and expand current local curbside and drop off recycling programs in all communities in the County

* Continue commercial and industrial source separation and recycling efforts

* Maintain and improve local public and private yard waste collection and composting operations

Collection Processes and Transportation

* Maintain and enhance cost-effective systems for processing recyclables collected from households and businesses

* Maintain limited number of transfer stations where necessary to facilitate transportation of solid waste

* Direct haul of solid waste to disposal facility

Volume Reduction

* Continue individual solid waste volume reduction operations

Sanitary Landfill

* Develop Type II sanitary landfill

* Maintain Type III monofill in Charleston Township for deposit of paper mill residuals

Institutional Arrangements

* Maintain current public and private operations and contractual arrangements for solid waste collection, transfer, processing and disposal

Alternate System Evaluation

In order to adequately assess/evaluate the alternative systems previously presented, several parameters were selected to rank each system. The following parameters

were chosen to objectively measure each proposed system:

1. Conservation of Natural Resources
2. Public Acceptability
3. Effects on Energy
4. Access to Land
5. Access to Transportation
6. Economic Feasibility
7. Technical Feasibility
8. Environmental Impact

Definitions of each parameter are contained in Appendix B of this document.

Rating System

A point system was developed for rating the systems by assigning each parameter a numerical weighting factor ranging from 1.0 (low) to 5.0 (high). To differentiate between parameters, each was assigned the following priority and a respective factor based upon its individual merit and its relative importance to one another:

Parameter	Priority	Score
Conservation of Natural Resources	High	5.0
Effects on Energy	Medium	3.0
Public Acceptability	Low	1.0
Access to Transportation	Low	1.0
Access to Land	Medium	3.0
Economic Feasibility	High	5.0
Technical Feasibility	High	5.0
Environmental Impact	High	5.0

Those parameters which have low priority scores are considered more flexible, while those with high priority scores are less flexible. For example, the parameter "access to transportation" refers solely to access to a road network. That network may be in poor condition, however the system can be physically altered/improved to enhance accessibility. Therefore, the subject parameter can be manipulated or modified to improve its adequacy. In contrast, many of the parameters cannot be changed or changed as easily.

Each proposed alternate system was then given a point score ranging from a low of negative five (-5) to a high of plus five (+5), depending upon how the particular system met the objectives of the evaluation parameters.

Overall Scoring System

Each of the proposed systems was rated using the following matrix. The score shown in each box is the product of the parameter's priority weight and the score (-5 to +5) given in the evaluation of the system's consistency with the objective for that particular parameter.

TABLE 8

ALTERNATE SYSTEMS EVALUATION

PARAMETERS	SYSTEM NO. 1	SYSTEM NO. 2	SYSTEM NO.3
Conservation of Natural Res. (5.0)	10.0	17.5	17.5
Effects on Energy (3.0)	0.0	0.0	0.0
Public Acceptability (1.0)	3.0	4.0	-3.5
Access to Transport. (1.0)	3.0	3.0	3.0
Access to Land (3.0)	9.0	9.0	9.0
Economic Feasibility (5.0)	20.0	17.5	17.5
Technical Feasibility (5.0)	22.5	22.5	22.5
Environmental Impact (5.0)	20.0	22.5	15.0
TOTAL	87.5	95.0	81.0

Evaluation Summary

Each of the proposed solid waste management systems suggests an approach to meet the goals and objectives of this Plan. Over the past 5-7 years, the concept of

waste reduction has been incorporated into the County's solid waste management system and now is an integral part of the system. The proposed systems are designed to maintain and /or to increase the current level of waste reduction efforts in the community. Recognizing the significant gains in these areas in recent times, the proposed systems (particularly Systems 2&3), only suggest minor modifications/ improvements in order to enhance these efforts. The only exception to the preceding, is the development of a Type II sanitary landfill in the County during the planning period in Alternate No. 3.

Descriptions of the non-selected systems (1&3) can be found in Appendix B.

SELECTED SOLID WASTE MANAGEMENT SYSTEM

THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing Kalamazoo County's solid waste and recoverable materials. The Selected System addresses the generation, transfer and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal area locations and capacity to accept solid waste are identified as well as program management, funding, and enforcement roles for local agencies. Appendix A provides a brief overview of the advantages and disadvantages of the selected system. Following is a description of the Selected System, previously identified and evaluated.

Alternate System No. 2

Waste Reduction/Pollution Prevention

* Maintain current public education/information program on waste reduction and resource conservation via County Recycling Coordinator

* Continue operation of County's Pollution Prevention Program for local business and industry

* Maintain and expand County's Household Hazardous Waste Collection Program for local and regional residential and agricultural hazardous waste collection

Resource Recovery: Recycling & Composting

* Enhance and expand current local curbside and drop off recycling programs in all communities in the County

* Continue commercial and industrial source separation and recycling efforts

* Maintain and improve local public and private yard waste collection and recycling operations

Collection Processes and Transportation

* Maintain current system of transfer stations as break-in-bulk points between collection and ultimate disposal

* Maintain and enhance cost-effective systems for processing recyclables collected from households and businesses

Volume Reduction

* Continue individual solid waste volume reduction operations

Sanitary Landfill

* Continue current exportation of Type II and Type III solid waste to existing sanitary landfills in adjoining/nearby counties

* Utilize Type III monofill in Charleston Township for deposit of paper mill residuals

Institutional Arrangements

* Maintain and enhance current private operation of solid waste collection, transfer, processing and disposal

* Enhance public/private contractual arrangements affecting resource recovery and/or solid waste collection when possible

Import Authorization

Importation of solid waste through the planning period will be accepted from those counties identified in Table 9.

TABLE 9

IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

Importing County	Exporting County	Facility Name	Authorized Qty. (Daily)	Authorized Qty. (Annual)	Conditions
Kalamazoo	Allegan	Kalamazoo Valley Group Landfill	----	12,650 tons	Primary
Kalamazoo	St. Joseph	--	----	121,500 yards	Primary
Kalamazoo	Washtenaw	--	----	200,000 yards	Primary

Export Authorization

The disposal of solid waste generated by Kalamazoo County is authorized up to the authorized quantity and conditions to be exported to the counties identified in Table 10 if authorized for import in the approved Solid Waste Management Plan of the receiving County. Appendix D contains communications of authorization from the respective Counties and/or facilities.

TABLE 10

EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

Exporting County	Importing County	Facility Name	Authorized Quantity (Daily)	Authorized Quantity (Annual)	Authorized Conditions
Kalamazoo	Barry	City Env. Services	100%	100%	Primary
Kalamazoo	Berrien	Forest Lawn, Orchard Hill, SE Berrien	100%	100%	Primary
Kalamazoo	Calhoun	C&C Landfill	100%	100%	Primary
Kalamazoo	Ionia	Pitsch Landfill	100%	100%	Special Wastes
Kalamazoo	Ottawa	Autumn Hills RDF, Ottawa Farms Landfill	100%	100%	Primary
Kalamazoo	St. Joseph	Westside Landfill	100%	100%	Primary
Kalamazoo	Washtenaw	Arbor Hills Landfill	------	200,000 cubic gate yards	Primary

In addition to the preceding list of export authorizations, up to 100% of Kalamazoo County's solid waste may be exported to any of the following Counties whose Solid Waste Management Plans specifically allow for importation of solid waste from Kalamazoo County. Such exportation will be subject to all waste volume or composition restrictions by the importing county's Plan.

Alcona	Crawford	Iosco	Manistee	Osceola
Alger	Delta	Iron	Marquette	Oscoda
Allegan	Dickinson	Isabella	Mason	Otsego
Alpena	Eaton	Jackson	Mecosta	Presque Isle
Arenac	Emmet	Kalkaska	Menominee	Roscommon
Baraga	Genesee	Kent	Missaukee	Saginaw
Bay	Gladwin	Keweenaw	Monroe	Sanilac
Benzie	Gogebic	Lake	Montcalm	Schoolcraft
Branch	Grand Traverse	Lapeer	Montmorency	Shiawassee
Cass	Gratiot	Leelanau	Muskegon	St. Clair
Charlevoix	Hillsdale	Lenawee	Newaygo	Tuscola
Cheboygan	Houghton	Livingston	Oakland	Van Buren
Chippewa	Huron	Luce	Oceana	Wayne
Clare	Ingham	Mackinac	Ogemaw	Wexford
Clinton		Macomb	Ontonagon	

Solid Waste Disposal Areas

The following table identifies the names of existing disposal areas which will be utilized to provide the required capacity and management needs for the solid waste generated within Kalamazoo County for the next ten years. Pages III-7 through III-14 contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which will be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited in the Plan, or amended into this Plan, and become available for disposal. If this Plan update is amended to identify additional facilities in other counties outside the County, those facilities may only be used if such import is authorized in the receiving County's Plan. Facilities outside of Michigan may also be used if legally available for such use.

TABLE 11

INVENTORY OF SOLID WASTE DISPOSAL AREAS

Type II Landfills	County	Disposal Capacity[4]
Arbor Hills Landfill	Washtenaw	17.6 years
Autumn Hills RDF	Ottawa	30.2
C & C Landfill	Calhoun	7 years
City Environmental Services Landfill Inc., of Hastings	Barry	10+ years
Forest Lawn Landfill	Berrien	15 years
Orchard Hills Landfill	Berrien	10+ years
Ottawa County Farms Landfill	Ottawa	25-30 years
Southeast Berrien Landfill	Berrien	18.4 years
Westside Landfill	St. Joseph	12 years
Type III Landfills		
Crown Vantage	Kalamazoo	unknown
Kalamazoo Valley Group Landfill	Kalamazoo	33 years
Pitsch Landfill	Ionia	5-10 years
Westside Landfill	St. Joseph	12 years
Type A Transfer stations		
Cork Street Transfer Station	Kalamazoo	
Miller Road Transfer Station	Kalamazoo	
Royal Holdings, Inc. Transfer Station and Solid Waste Processing	Kalamazoo	
Waste Management Transfer Station	Calhoun	
Type B Transfer Stations		
Comstock Twp. Transfer Station	Kalamazoo	
Pavilion Township Transfer Station	Kalamazoo	

[4]Documentation which confirms that Kalamazoo County has access to the capacity listed is attached in Appendix D.

Facility Descriptions

The following table describes the solid waste disposal areas within the County or to be utilized by the County to meet its disposal needs for the planning period.

TABLE 12

DESCRIPTIONS OF SOLID WASTE DISPOSAL AREAS [5]

TYPE II LANDFILLS

Arbor Hills Landfill

Location: Washtenaw County, Salem Township
Owner: Browning-Ferris Industries (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility property: 936 acres
Total area sited for use: 356 acres
Total area permitted: 217 acres
Area in operation: 113 acres
Area not excavated: 104 acres
Current capacity: 30,500,000 cubic yards
Estimated lifetime: 17.6 years
Estimated days open per year: 265
Estimated yearly disposal volume: 3,500,000 cubic yards
Annual landfill gas recovery: 18 megawatts

Autumn Hills Recycling & Disposal Facility

Location: Ottawa County, T5N,R14W Section 36
Owner: Autumn Hills RFD - Division of Waste Management of MI, Inc (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility property: 314 acres
Total area sited for use: 197 acres
Total area permitted: 99.3 acres
Area in operation: 35.1 acres
Area not excavated: 64.2 acres
Current capacity: 20.75 million tons
Estimated lifetime: 30.2 years

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[5]A map or boundary description of each facility is included in Appendix D

Estimated days open per year: 286
Estimated yearly disposal volume: 500,000 tons
Annual landfill gas recovery: NA

C&C Landfill

Location: Calhoun County, T1S R6W Section 28
Owner: Browning-Ferris Industries (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility property: 224 acres
Total area sited for use: 154 acres
Total area permitted: 154 acres
Area in operation: 33 acres
Area not excavated: 21 acres
Current capacity: 3,360,000 million cubic yards
Estimated lifetime: 7 years
Estimated days open per year: 286
Estimated yearly disposal volume: 1.1 million cubic yards
Annual landfill gas recovery: NA

City Environmental Services Landfill Inc., of Hastings

Location: Barry County, T3W R8N Section 6
Owner: City Management (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, contaminated soils, foundry sand, fly ash, waste water sludges, trees and stumps, and asbestos
Total area of facility property: 330 acres
Total area sited for use: 330 acres
Total area permitted: 48 acres
Area in operation: 19.5 acres
Area not excavated: 28.5 acres
Current capacity: 5 million cubic yards under current permit
Estimated lifetime: 10+ years
Estimated days open per year: 308 days
Estimated yearly disposal volume: 175,000 cubic yards
Annual landfill gas recovery: NA

Forest Lawn Landfill

Location: Berrien County, T8S R20W Section 17
Owner: Forest Lawn Landfill, Inc. (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and

demolition, fly ash, foundry sand, trees and stumps, wastewater sludges, and asbestos
Total area of facility property: 284 acres
Total area sited for use: 135 acres
Total area permitted: 135 acres
Area in operation: 26 acres
Area not excavated: 78 acres
Current capacity: 15,900,000 cubic yards
Estimated lifetime: 15 years
Estimated yearly disposal volume: 1,530,000 cubic yards
Estimated days open per year: 286
Annual landfill gas recovery: NA

Orchard Hill Landfill

Location: Berrien County, T3S R7W Section 28 and 33
Owner: Landfill Management Company (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, fly ash, foundry sand, trees and stumps, and wastewater sludges
Total area of facility property: 160 acres
Total area sited for use: 117 acres
Total area permitted: 160 acres
Area in operation: 53 acres
Area not excavated: 64 acres
Current capacity: 8 million cubic yards
Estimated lifetime: 10+ years
Estimated yearly disposal volume: 402,000 cubic yards
Annual landfill gas recovery: not converted to electricity

Ottawa County Farms Landfill

Location: Ottawa County, T8N,R14W Sections 26 &27
Owner: Allied Waste Systems (private)
Operating Status: open and licensed
Waste types received: Type II & III solid waste
Total area of facility: 240 acres
Total area sited for use: 197 acres
Total area permitted: 240 acres
Area in operation: 37 acres
Area not excavated: 125 acres
Current capacity: 16,500,000 cubic yards
Estimated lifetime: 25-30 years
Estimated days open per year: 286
Estimated yearly disposal volume: 500,000 tons

Annual landfill gas recovery: 4,565 megawatts

Pitsch Sanitary Landfill

Location: Ionia County, T8N,R7W Section 7
Owner: Pitsch Companies (private)
Operating Status: open and licensed
Wastes received: Type II and III solid wastes
Total area of facility property: 143.5 acres
Total area sited for use: 28.36 acres
Total area permitted: 78.44 acres
Area not excavated: 70 acres
Current capacity: 415,000 tons
Estimated lifetime: 5 years
Estimated days open per year: 307
Estimated yearly disposal volume: 83,000 tons
Annual landfill gas recovery: NA

Southeast Berrien Landfill

Location: Berrien County, T8S R7W Section 6
Owner: Southeast Berrien County Landfill Authority, Inc. (public)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, contaminated soils, fly ash, foundry sand, trees and stumps, wastewater sludges, asbestos, and auto shredder residue (auto fluff)
Total area of facility property: 160 acres
Total area sited for use: 100 acres
Total area permitted: 39 acres
Area in operation: 27.5 acres
Area not excavated: 5.5 acres
Current capacity: 2.1 million cubic yards
Estimated lifetime: 18.4 years
Estimated days open per year: 281
Estimated yearly disposal volume: 800,000 cubic yards
Annual landfill gas recovery: NA

Westside Landfill

Location: St. Joseph County, T6S R12W Section 26
Owner: Waste Management of Michigan d.b.a. Westside RDF (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, fly ash, foundry sand, trees and stumps, wastewater sludges, and asbestos.
Total area of facility property: 640 acres

Total area sited for use: 490 acres
Total area permitted: 85 acres
Area in operation: 51 acres
Area not excavated: 34 acres
Current capacity: 1.75 million cubic yards per year
Estimated lifetime: 12 years
Estimated days open per year: 300+
Estimated yearly disposal volume: 1.2+ million cubic yards
Annual landfill gas recovery: 2 megawatts

TYPE III LANDFILLS

Crown Paper Company, d.b.a. Crown Vantage

Location: Kalamazoo County, T1S R11W Section 34
Owner: Crown Paper Company, d.b.a. Crown Vantage (private)
Operating Status: open and licensed
Wastes received: paper waste residuals
Total area of facility property: unknown
Total area sited for use: 32.8 acres
Total area permitted: 31.4 acres
Area in operation: 8 acres
Area not excavated: unknown
Current capacity: unknown
Estimated lifetime: unknown
Estimated days open per year: 365
Estimated yearly disposal volume: 200,000 cubic yards
Annual landfill gas recovery: na

Kalamazoo Valley Group Landfill

Location: Kalamazoo County, T2S R9W Section 29
Owner: Kalamazoo Valley Group (private)
Operating Status: open and licensed
Wastes received: paper mill residuals from partner facilities
Total area of facility property: 200.879
Total area sited for use: 80 acres
Total area permitted: 10 acres
Area in operation: unknown
Area not excavated: unknown
Current capacity: 8.2 million cubic yards
Estimated lifetime: 33 years
Estimated days open per year: 312 days
Estimated yearly disposal volume: 250,000
Annual landfill gas recovery: NA

Westside Landfill

Location: St. Joseph County, T6S, R12W Section 23
Owner: Waste Management of MI d.b.a. Westside RDF (private)
Operating Status: open and licensed
Waste types received: Type III
Total area of facility property: 35 acres
Total area sited for use: 35 acres
Total area permitted: 18 acres
Area in operation: 6 acres
Area not excavated: 12 acres
Current capacity: included in Type II facility amounts
Estimated lifetime: 12 years
Estimated days open per year: 300+
Estimated yearly disposal volume: included in Type II facility amounts

TYPE A TRANSFER STATIONS

Cork Street Transfer Station

Location: Kalamazoo County, T2S R11W Section 36
Final disposal site: C & C Landfill
Owner: BFI Waste Systems of Michigan, Inc. (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, contaminated soils, and paper sludge
Total area of facility property: 2.758 acres
Estimated days open per year: 300
Estimated yearly disposal volume: unknown

Miller Road Transfer Station

Location: Kalamazoo County, T2S R11W Section 25
Final disposal site: Orchard Hill Sanitary Landfill
Owner: Landfill Management Company (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, trees and stumps
Total area of facility property: ± 1 acre
Estimated days open per year: 312
Estimated yearly disposal volume: unknown

Royal Holdings, Inc. Transfer Station and Solid Waste Processing

Location: Kalamazoo County, T2S R11W Section 36
Final disposal site: Southeast Berrien County Landfill and Orchard Hill Landfill

Owner: Tri-City Recycling and Disposal (private)
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition
Total area of facility property: 8 acres
Estimated days open per year: 312
Estimated yearly disposal volume: 175,000 cubic yards

Waste Management Transfer Station

Location: Calhoun County, T2S R8W Section 5
Final disposal site: Westside Landfill (private)
Owner: Waste Management of Michigan
Operating Status: open and licensed
Wastes received: residential, commercial, industrial, construction and demolition, trees and stumps
Total area of facility property: 18.36 acres
Estimated days open per year: 310
Estimated yearly disposal volume: 300,000 compacted cubic yards

TYPE B TRANSFER STATION

Pavilion Township Transfer Station

Location: Kalamazoo County, T3S R10W Section 26
Final disposal site: C & C Landfill (currently)
Owner: Pavilion Township (public)
Operating Status: open and unlicensed
Wastes received: residential, construction and demolition
Total area of facility property: 2 acres
Total area sited for use: 1 acre
Estimated days open per year: 65
Estimated yearly disposal volume: 750 compacted cubic yards of Type II materials and 1000 compacted cubic yards of Type III materials

Comstock Township Transfer Station and Recycling Drop-off

Location: Kalamazoo County, T2S R10W Section 16
Final disposal site: Westside Landfill
Owner: Comstock Township (public)
Operating Status: open and unlicensed
Wastes received: residential, construction and demolition
Total area of facility property: 40 acres
Total area sited for use: 1 acre

Estimated days open per year: 134
Estimated yearly disposal volume: 2,600 compacted cubic yards

Solid Waste Collection Services and Transportation

This section describes the solid waste collection services and transportation infrastructure which will be utilized within the County to collect and transport solid waste.

Kalamazoo County will continue to rely on private sector services:

- to provide quantity-based, solid waste collection services to the County's residential, commercial, and industrial sectors, and
- to transport collected solid waste to licensed transfer stations and landfills within and outside Kalamazoo County.

In an effort to conserve resources and reduce the volume of solid waste generated in the County, the collection and transportation system for solid waste will emphasize compaction at transfer stations and will encourage the trend toward less frequent (annual, semi-annual, or quarterly versus monthly) collections for residential bulk trash items.

Resource Conservation Efforts

In an effort to reduce the amount of solid waste generated in Kalamazoo County, the selected system proposes to continue its current path of promoting efforts to recover resources via source reduction, reuse, recycling, and composting. Table 17 details the current and proposed annual amounts of solid waste estimated to be diverted from landfills as a result of these efforts.

Waste Reduction, Recycling & Composting Programs

Volume Reduction Techniques

With the exception of some waste which is collected in 40 to 50 cubic yard roll-off containers, most waste is currently compacted at one of three commercial transfer stations located within Kalamazoo County before being transported to more distant landfills. Kalamazoo County intends to continue to rely on compaction at transfer stations in an effort to reduce the volume of disposed solid waste.

Overview of Resource Recovery Programs

Programs for recycling, composting, and source separation of potentially hazardous materials are feasible. According to May 1995 report, an estimated 110,012 tons of materials are available for potential recovery in Kalamazoo County (see Table 13). However, to the credit of current waste reduction efforts by the private and public sectors, a much more significant 203,945 tons of materials are estimated to be currently diverted from landfill disposal via recycling and composting (see Table 17).

Even greater future recovery is possible if the County is able to overcome current barriers. Table 14 identifies barriers to greater recovery, possible options for overcoming these barriers, and estimated increased tonnage of material that may recovered as a result of these efforts.

TABLE 13

PROJECTED RECOVERY, MAY 1995 (TONS)[6]

Material	Estimated Generation x Residential Waste Recovery Potential	Estimated Generation x Business Waste Recovery Potential	Potential Total Waste Recovery
Newsprint	9141 x 80% = 7313	3667 x 50% = 1834	9147
Office Papers	7312 x 25% = 1828	8944 x 75% = 6708	8536
Corrugated	6560 x 50% = 3280	30,128 x 80% = 24,102	27,382
Magazines	3119 x 40% = 1248	3647 x 25% = 912	2160
Box board	6452 x 40% = 2581	2542 x 30% = 763	3344
Glass bottles	7851 x 50% = 3926	2231 x 40% = 892	4818
Steel cans	4517 x 50% = 2259	3390 x 90% = 3051	5310
Aluminum	1183 x 90% = 1065	511 x 90% = 460	1525
Other Metals	968 x 0% = 0	1318 x 80% = 1054	1054
HDPE Plastic	1183 x 50% = 592	560 x 50% = 280	872
PET Plastic	753 x 50% = 377	280 x 50% = 140	517
Plastic Film	3226 x 0% = 0	2015 x 25% = 504	504
Polystyrene foam	860 x 30% = 258	504 x 50% = 252	510
Other plastics	3656 x 0% = 0	4992 x 30% = 1498	1498
Textiles	3871 x 0% = 0	3359 x 30% = 1008	1008
Food waste	12,044 x 60% = 7226	7638 x 20% = 1528	10,252
Yard Waste	22,476 x 90% = 20,228	7073 x 90% = 6366	26,594
Wood Waste	3979 x 30% = 1194	5494 x 75% = 4121	5315
Tires	1075 x 50% = 538		538
Rubber		1251 x 50% = 626	626
Motor Oil	na	na	
HHW	na	na	
Total	**53,913**	**56,099**	**110,012**

[6] From *Southwest Michigan Recycling Market Development Strategy: Part II Background*, May 1995. The strategy report was funded by the CEO Council of Kalamazoo and the Southwest Michigan Solid Waste Interim Consortium and prepared by Resource Recycling Systems of Ann Arbor and Public Policy Associates of Lansing.

TABLE 14

BARRIERS & OPPORTUNITIES FOR GREATER RECOVERY

Barriers	Possible methods for overcoming barriers	Increased annual recovery (est.)
1. Cost of increasing the frequency of residential curbside recycling collection from monthly to every-other-week or weekly pick-up inhibits greater participation.	Reduce collection costs by encouraging private sector collection services to invest in compacting (versus hauling loose, voluminous loads) and cocollection (i.e., using one vehicle to collect both recyclables and garbage in separate compartments) technologies. Reduce processing costs by encouraging the development of: • a merchant (open to all haulers) processing facility (MRF) which would have more efficient sorting technologies and would be able to operate at a more advantageous economy of scale, • recycling transfer station to aggregate loads before shipping to a more distant, yet highly efficient sorting facility, or • a system to minimize processing of paper fibers by allowing collectors to use existing compacting roll-offs to transport papers to local mills, instead of incurring the expense of baling. Make additional funding resources available by reducing the frequency of bulk trash collections and their associated costs.	6,500 tons
2. Half of multiple-family housing complexes provide on-site recycling opportunities to their residents.	Educate and assist managers and owners (who generally live outside of the County). Encourage local units (particularly the Townships of Kalamazoo, Oshtemo, and Texas where multiple-family complexes which decline on-site recycling service are concentrated) to interpret and enforce existing ordinances to require multiple-family complexes to provide on-site recycling.	4,100 tons
3. Minimal economic incentives of residential garbage collection fees	Increase public awareness of financial advantage of using the smallest and least expensive garbage service option. For example, using a 30-gallon garbage bag every-other-week costs 39 percent less -- an average $85 less (June 1997 prices) -- than 90-gallon garbage cart service.	NA
4. Limited markets and services for recovering an increased portion of construction and demolition (C & D) materials.	Promote cost-competitive and convenient outlets for building contractors, waste haulers, and others to manage clean scrap wood, gypsum board, and asphalt roofing shingles. Encourage the recovery of corrugated paper boxes at building sites and from mixed C & D loads at all transfer stations.	

5. An estimated 40 percent of County businesses do not recycle office papers or corrugated boxes -- generally, the most common material generated by businesses.	Continue efforts to increase awareness among businesses of all sizes[7] concerning the economic benefits of recycling and assist businesses' effort to start or expand recovery efforts.	14,000 tons
6. Businesses which generate small-quantities of hazardous materials may be impeded from properly managing these wastes due to prohibitive costs or a lack of awareness of options.	Increase awareness among the business community of the liabilities associated with improper storage and disposal of hazardous materials. Work with state and federal agencies and lawmakers to explore opportunities which would allow the HHW Center to also accept materials from small quantity generators.	NA
7. Some hazardous wastes, such as fluorescent lighting tubes and pre-1993 alkaline batteries which contain high levels of mercury, are not currently convenient for homeowners to recycle	Work with state and national organizations and agencies to explore options for developing cost-effective recovery programs.	NA
8. Unstable markets and an undeveloped system for collecting and processing plastic waste products from commercial and industrial sources.	Continue to promote cost-effective systems for recovering various plastic items which are currently difficult to recycle by assisting emerging private sector service providers and generators of concentrated amounts of marketable plastic waste items.	NA, although plastic waste items represent 8-11% of the waste stream from retailers, wholesalers, health services, and manufacturers[8]

[7] According to research by Weyerhaeuser, "offices with 100 or more employees generate about 45 percent of the total quantity of discarded printing and writing paper, and about 95 percent of such offices have collection programs," although many programs have much room for improvement. "Offices with fewer than 50 employees generate nearly 40 percent of the supply, while only 30 percent have collection programs." (*Resource Recycling*, November 1997, p.25)

[8] *Southwest Michigan Recycling Market Development Strategy: Part II Background*, May 1995.

Recycling

The following table identifies current recycling programs. These programs are proposed to continue to operate and improve as opportunities arise in the foreseeable future.

TABLE 15

SELECTED RECYCLING SYSTEM

Residential Curbside Collection Programs (see Map 6)
Nearly all curbside recycling collection services serve 1-4 unit housing structures and accept the same type of materials: #1 PET and #2 HDPE plastic bottles and jugs, colorless glass jars and bottles, metal cans and foils, newspapers and newspaper inserts, junk mail and office papers, magazines and catalogs, telephone directories, corrugated boxes.

Weekly Collection:

City of Kalamazoo
Contracts with a private company to provide weekly service curbside collection (beginning April 1998) and on-site recycling containers for most multiple-family housing complexes.

City of Portage
Contracts with a private company to provide weekly curbside collection and on-site recycling containers for most multiple-family housing complexes.

Monthly Collection:

Kalamazoo Township
Contracts with a private company to provide monthly curbside collection.

City of Parchment
Contracts with a private company to provide monthly curbside collection.

City of Galesburg; the Townships of Brady, Charleston, Climax, Oshtemo, Pavilion, Prairie Ronde, Richland, Schoolcraft, and Texas; the Villages of Augusta, Climax, Richland, and Vicksburg
Each of these communities adopted a Waste Reduction Ordinance which requires waste haulers to provide their residential garbage customers with at least monthly curbside recycling collection service and the choice of at least three different quantity-based garbage containers options.

Drop-off programs (see Map 6)

The **BFI Recycling Center** is privately operated drop-off which is open to the public year-round. The drop-off accepts the same materials as curbside collection, plus #6 polystyrene foam.

Alamo Township Drop-off is open 6 hours per month, except the winter months and accept the same materials as curbside.

Comstock Township operates a drop-off at its Transfer Station which is open three days per week and accepts the same materials as curbside and used motor oil.

Cooper Township operates two drop-off sites. The Township Hall site is open two days per month while the McKinley Fire Station site is open one day per month. Both sites accept the same materials as curbside, and the Township Hall site also accepts colored glass jars, used motor oil, and #6 polystyrene foam.

Wakeshma Township drop-off at the Township Hall is open one day per month and accepts newspapers, corrugated boxes, magazines and catalogs, colorless glass jars, metal cans, #2 HDPE plastic bottles and jugs, and #6 polystyrene foam.

The **Village of Schoolcraft** operates a drop-off which is open one day per month and accepts newspapers, corrugated boxes, magazines and catalogs, colorless glass jars, metal cans, and #2 HDPE plastic bottles and jugs.

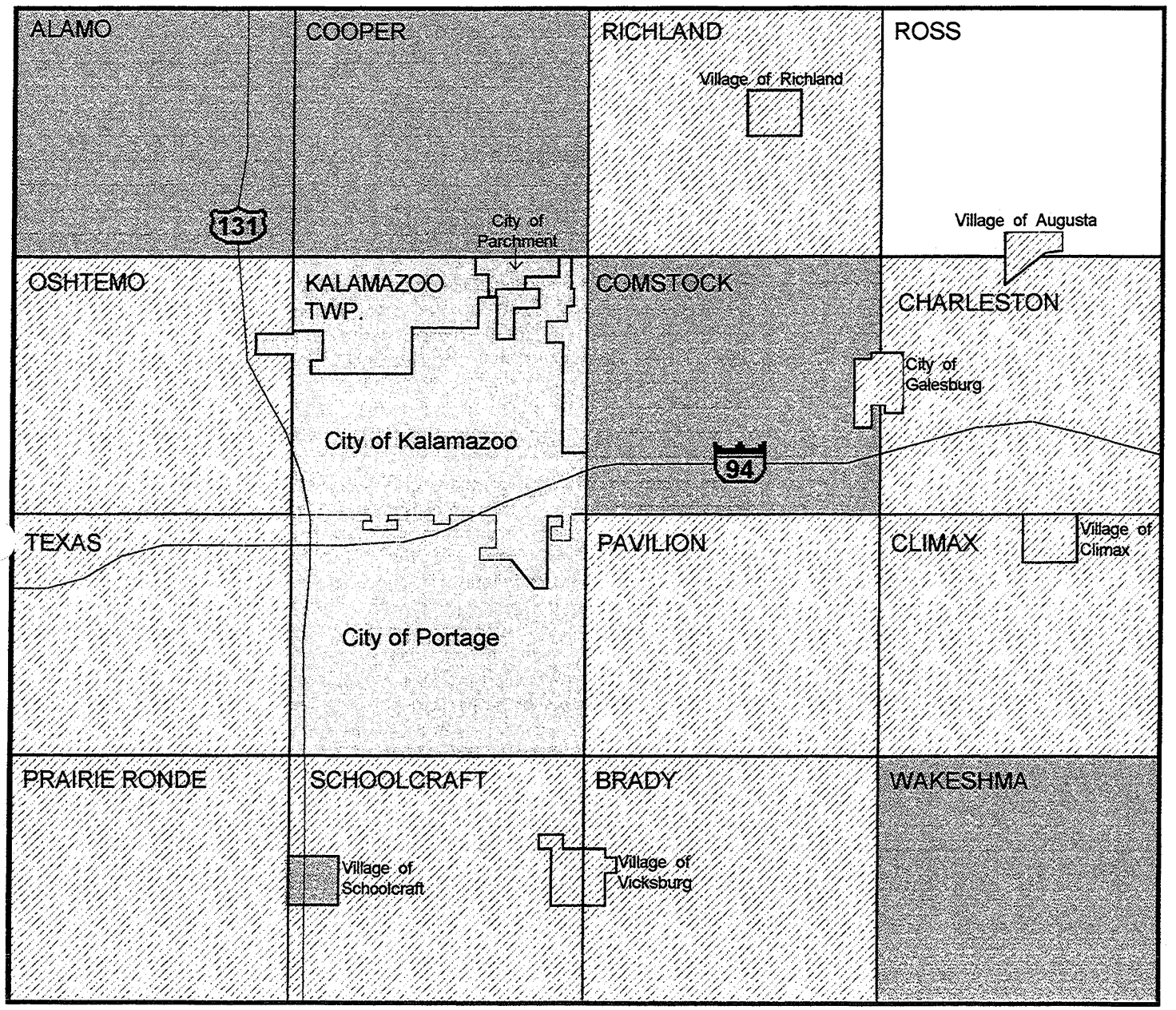
Ross Township currently does not provide any residential recycling collection program.

Commercial Paper Collection Programs

At least eight local private services collect office papers and corrugated boxes from commercial and industrial sources.

Map 6

The Variety of Recycling Programs in Kalamazoo County*



= Communities with drop-off recycling programs

= Communities which contract with a single company for community-wide curbside pick-up

= Communities in which waste haulers automatically provide curbside recycling to their residential garbage customers.

* Updated: December 1997

Composting

The following table identifies current composting programs for yard clippings. These programs are proposed to continue to operate for the foreseeable future.

TABLE 16

SELECTED COMPOSTING SYSTEM

Municipal Leaf Collection and Composting Programs

- Village of Climax (fall pick-up)
- Comstock Township (year-round drop-off)
- City of Galesburg (fall pick-up and year-round drop-off)
- City of Kalamazoo (fall pick-up)
- Township of Kalamazoo (fall and spring pick-up)
- City of Parchment (fall pick-up)
- City of Portage (fall and spring pick-up)
- Village of Richland (fall pick-up)
- Village of Schoolcraft (fall pick-up)
- Village of Vicksburg (fall pick-up)

Municipal Brush Collection Programs

- Township of Comstock (year-round drop-off)
- City of Kalamazoo (pick-up during 8-month growing season)
- Township of Kalamazoo (spring and fall pick-up)
- City of Parchment (monthly pick-up)
- City of Portage (fall and spring pick-up)
- Village of Vicksburg (year-round pick-up as needed)

Municipal holiday/Christmas tree collections

- City of Galesburg (drop-off)
- City of Kalamazoo (drop-off and curbside pick-up)
- Township of Oshtemo (drop-off)
- City of Parchment (drop-off and curbside pick-up)
- Village of Schoolcraft (curbside pick-up)
- Village of Vicksburg (curbside pick-up)

Municipal grass collections

- Township of Comstock (year-round drop-off)

Private Services

- Private maintenance/lawn care services (year-round pick-up)
- Private subscription-based, seasonal pick-up provided by waste haulers

- Private drop-off sites open to the public which accept leaves grass clippings,and brush, including BFI/Cooper Farms (Cooper Township), KLS (Texas Township), and Miller Road Transfer Station (City of Kalamazoo).

Source Separation of Potentially Hazardous Materials

Kalamazoo County operates a Household Hazardous Waste (HHW) Center at 1301 Lamont Avenue (Kalamazoo Township) as a drop-off site open three days per week, plus every second Saturday of each month for a total of 17 hours per month. The HHW Center accepts oil-based paint, pesticides, aerosols, solvents, corrosives, car chemicals, used motor oil, motor oil filters, antifreeze, lead acid batteries, hazardous cleaners and polishers, hazardous hobby and art supplies, and hazardous personal care products from residential sources.

The HHW Center maintains a "Swap Shop" to facilitate the exchange of reusable materials for no charge to the public.

The HHW Center is also a drop-off site for the statewide "Clean Sweep" program which collects pesticides from greenhouses, farms, and agricultural sources.

These programs are proposed to continue to operate for the foreseeable future.

Identification of Resource Recovery Management Entities

City, township, village and county governments are involved in contractual arrangements for resource recovery and in the administration of local ordinances. Waste haulers and other private sector stakeholders generally manage the operational aspects of resource recovery programs.

Projected Diversion Rates

The following table estimates the annual amount of materials which are currently diverted from landfills and materials which are expected to be diverted as a result of current and future resource recovery efforts. Expected increases will primarily result from efforts to expand the convenience of residential recycling collection programs and to enhance office paper recycling programs. Future gains may occur as additional types of materials begin to be recovered, including clean scrap drywall and sludges generated by paper mills and waste water treatment facilities.

TABLE 17

PROJECTED DIVERSION RATES

Type of Material	Projected Annual Tons Diverted (estimated)		
	Current	5th Year	10th Year
A. Plastics	**532**	**612**	**692**
Residential PET (#1) & HDPE (#2) plastic	388	440	493
Polystyrene (est.)	39	39	39
Film from garment and grocery bags	32	41	50
Shrink, stretch, and pallet wrap film	33	47	60
Vinyl siding	40	45	50
Other			
B. Paper	**50,577**	**57,135**	**63,691**
Residential newspaper	5,137	5,831	6,524
Commercial/Industrial newspaper	2,260	2,330	2,400
Residential corrugated	100	114	127
Residential mixed paper	2,236	2,538	2,840
Commercial office paper and corrugated	40,844	46,322	51,800
C. Glass	**1,491**	**1,693**	**1,894**
Colorless (flint) jars & bottles	1,341	1,522	1,703
Green	100	114	127
Amber (brown) jars & bottles	50	57	64
Pane glass			
D. Total metals	**16,742**	**17,312**	**17,881**
Residential cans and foils (est.)	300	341	381
Consumer & light industrial ferrous scrap[9]	9,942	10,471	11,000
Metal scrap from concrete recycling	6,500	6,500	6,500
Car bodies and other C&D metal	NA		
Other non-ferrous scrap	NA		
E. Depositable beverage containers (est.)	**15,810**	**16,605**	**17,400**

[9] Based on Steel Recycling Institute's estimate of 89 pounds per person per year, including mufflers, appliances, etc., but excluding car bodies, prompt scrap (from industrial processes such as metal stamping), and construction and demolition debris.

F. Yard Waste	**46,462**	**46,462**	**46,462**
Municipal leaf collections	5,800		
Municipal brush collections	2,724		
Municipal grass collection	35		
	214		
Municipal holiday tree collections	13,250		
Private yard waste collection services	24,439		
Source reduction[10]			
G. Motor oil	**323**	**339**	**355**
Do-it-yourselvers	123	135	135
Commercial oil change services	200	220	220
H. Concrete	**33,917**	**33,917**	**33,917**
I. Asphalt	**14,960**	**14,960**	**14,960**
County Road Commission projects	3,740	3,740	3,740
Other	11,220	11,220	11,220
J. Other wood waste	**12,480**	**13,090**	**13,700**
Wooden pallets	12,480	13,090	13,700
K. Misc. Construction & Demolition Materials	**NA**	**NA**	**NA**
Asphalt roofing shingles			
Wallboard/gypsum board			
L. Food and food processing	**6,785**	**6,785**	**6,785**
M. Meat by-products	**1,000**	**1,000**	**1,000**
N. Tires[11]	**2,850**	**2,850**	**2,850**
O. Hazardous Waste	**16**	**19**	**21**
Household sources (HHW)	6	8	8
Agricultural sources (Clean Sweep)	10	13	13
Ni-Cad batteries			
Lead-acid batteries			
TOTAL	**203,945**	**212,779**	**221,608**

[10] Mulching and home composting

[11] Based on state generation average of 1.5 per person per year X 20 pounds per average tire X 223,411 people in Kalamazoo County X 85 percent (.85) recycling rate.

Market Availability for Collected Materials

The following identifies the volume of materials recovered from the County's solid waste stream which existing markets are able to utilize.

Collected Material	In-State Market	Out-of-State Market
All Plastics	550 tons	
Newspaper	7,500 tons	
Corrugated containers	25,000 tons	
All "other" Paper	17,000 tons	
All Glass	1,500 tons	
Concrete & Asphalt	49,000 tons	
Motor Oil	323 tons	
Grass & Leaves	6,100 tons	
All Wood waste	29,000 tons	
Construction & Demolition	NA	
Food & Food Processing	7,000 tons	
Tires		3,000 tons
All Metals	17,000 tons	

Educational and Informational Programs

The following table is a listing of the educational and informational programs offered in Kalamazoo County.

Program Topic[12]	Delivery Medium[13]	Targeted Audience[14]	Program Provider[15]
1, 2, 3, 4, 5	w, r, t, n, o, e	p, b, l, s (K thru college) within Kalamazoo Co.	DPA
3, 4	r, t, n, o, f, e	p, s	HD
1, 4, 5	w, n, o, f, e	b, l	HD
1, 2, 3, 4	w, o, f	p, s	EX

[12]Identified by 1 = recycling; 2 = composting; 3 = household hazardous waste; 4 = resource conservation; 5 = volume reduction

[13]Identified by w = workshop; r = radio; t = television; n = newspaper; o = organizational newsletter; f = flyers; e = exhibits

[14]Identified by p = general public; b = business; l = industry; s = students

[15]Identified by DPA = Designated Planning Agency; EX = MSU Extension; HD = Human Services Dept.

Timetable for Implementing Selected System

The following timetable is a guide to implement components of the Selected System including a range of time in which the component will be implemented.

Management Component	Timeline
Waste Reduction/Pollution Prevention	On-going
Resource Recovery: Recycling & Composting	On-going
Collection Processes & Transportation	On-going
Volume Reduction	On-going
Sanitary Landfill	On-going
Institutional Arrangements	On-going

Facility Siting Procedure

The plan proposes sites which will address Kalamazoo County's solid waste needs through the planning period. These sites provide the County with ten years of solid waste capacity. Therefore, no facility siting procedure is included in this document.

Management Components

Waste disposal components of the selected system will be implemented and enforced largely by existing state and federal solid waste management laws and regulations. Kalamazoo County staff will concentrate on the implementation of resource recovery components of the selected system.

Identification of Responsible Parties

Parties	Sector(s) Responsible
Resource Conservation:	
Source or waste reduction	Business & State/Federal Government
Product reuse	" "
Reduced material volume	" "
Increased product lifetime	" "
Decreased consumption	" "
Resource Recovery Program:	
Composting	Local business & governments
Recycling	Waste haulers & local governments
Energy Production	NA
Volume Reduction Techniques:	Waste haulers & transfer stations
Collection processes:	Waste haulers & local governments
Transportation:	Waste haulers
Disposal areas:	
Processing plants	Facility owners/operators
Transfer stations	Facility owners/operators
Sanitary landfills	Facility owners/operators
Ultimate disposal area uses:	Facility owners/operators
Local responsibility for plan update monitoring & enforcement:	Kalamazoo County
Educational & informational programs:	Kalamazoo County

APPENDIX A

APPENDIX A

ADDITIONAL INFORMATION

REGARDING THE

SELECTED SYSTEM

Coordination Efforts

Ultimate responsibility for implementing the Solid Waste Management Plan rests with the Kalamazoo County Board of Commissioners as part of its duties of general governance. The County has charged the Department of Planning and Community Development on behalf of the Kalamazoo Metropolitan County Planning Commission to be cognizant of any pertinent ordinances or approved land use plans or wellhead protection plans within the County, and any pertinent restrictions or ongoing commitments contained in plans for air quality, water quality or waste management which may be required to meet State or Federal standards. Any County-level decisions affecting current or anticipated programs for solid waste management, air quality, water quality or land use planning will be made only after thorough consultation with the Department. In addition, should such decisions have an affect on an adjoining or nearby County, such coordination and communication will be directed through the Southwest Michigan Solid Waste Consortium, of which Kalamazoo County is a member.

Costs and Funding

The selected system is premised upon an enhancement of the current solid waste management system in the County. As such, the majority of the system is financed privately via a contractor (hauler) and a generator (residential, commercial, industrial, etc.). Therefore, it is expected that costs and funding will continue in the same manner. In regard to contractual arrangements between municipalities and contractors for collection of source separated materials and trash, it is anticipated that costs and funding (via special assessments/millages, etc.) will also continue in this fashion throughout the planning period. Lastly, funding for County staff positions and operation of the Household Hazardous Waste Collection facility will continue to be generated via the County's General Fund and local municipality contractual arrangements respectively, during the planning period.

Evaluation Summary

The selected system (Alternate System 2) was previously evaluated along with the other alternate systems in the Data Base portion of the Plan document. The following provides a summary of the advantages and disadvantages of the selected system:

Advantages

- Continuation of accepted local waste reduction programs
- Enhancement of waste reduction programs
- Continuity of overall system

Disadvantages

- Reliance on exportation and out-county sanitary landfills

APPENDIX B

APPENDIX B

NON-SELECTED SYSTEMS

Evaluation Criteria Descriptions

The following provides a description/definition of each criteria used to evaluate the various systems identified in the Plan.

Conservation of Natural Resources

This parameter refers primarily to the recovery of energy and/or materials from the waste stream. Systems and/or components which are directed toward the reduction, reutilization, recycling and /or conversion of solid waste which in turn have a direct effect on the conversion of natural resources are scored in a positive fashion. Those that avoid such attempts are scored negatively.

Public Acceptability

A solid waste management system will only be a successful as one which the general public accepts and participates in. Public acceptability is often measured in terms of degree of change from the status quo. Are the proposed changes more or less convenient? Are the changes controversial? Typically, the most publicly acceptable components are the most convenient and vice versa.

Some changes for the most part, will have a direct effect (economic or otherwise) on the public. Therefore, systems/components which require little or no change or will have no negative impact on the part of the public received a positive score. Those systems instituting changes (which may be viewed as negative impositions) are rated in a negative manner.

Effects on Energy

A key factor that should be considered in any solid waste management system is energy consumption. This is significant since 80% of the cost of waste disposal is in transportation, which has a high rate of energy use. In contrast, there are many energy effects which can be considered indirect. For example, the energy difference it requires to create a new glass bottle from recycled glass versus one from virgin materials is significant.

Therefore, systems and components which encourage the reduction and/or recovery of energy, either directly or indirectly, are rated in a positive manner.
Those components which are energy inefficient are rated in a negative fashion.

Access to Transportation

This parameter refers to adequacy of the transportation systems in the County. Is the network of roads, etc., sufficient to accommodate the development and operation of solid waste transport process and disposal facilities? Due to the ten-year planning period, it will be assumed that the conditions of said network will remain sufficient throughout the planning period. Therefore, each system received an identical rating in this category.

Access to Land

In contrast to the previous parameter, accessibility to land is a more measurable term since land is a finite resource. However, a basic premise - one that assumes that the availability of land, particularly in large acreage quantities, will be less and less available as time goes on is needed before the systems and components are rated.

Therefore, systems and components which are "land" intensive, (i.e., those largely dependent upon the acquisition of significant amounts of land for processing/disposal of solid waste, particularly in the long-range, are rated in a negative fashion. Those systems/components which minimize the use of land for any phase of the solid waste management process are rated in a neutral or positive manner.

Economic Feasibility

The economic feasibility of any solid waste management system is primarily dependent upon the capital, operation and maintenance costs of its components. Will the proposed system cost more than the present system? What, if any, revenues will be generated? What cost savings (short or long-term) will result from the proposed system? Are markets readily available for the sale of recovered materials and/or energy?

In general, economic feasibility can be summed up by the following question: Is the cost of the system/components realistically affordable for the community?

This question will be answered differently in each and every community. What may be affordable in one community may not be in another. Moreover, if solid waste is a major issue or problem in a community, economic feasibility may not even be a significant concern.

It should also be emphasized that certain components of an overall system may be more economically feasible than others. Some may actually increase or decrease costs, while others may break even.

For purposes of the analysis of this parameter, each system is evaluated on an overall basis and given a single rating. The rating will, however, take into account the positive or negative economics of each component of the system.

Individual components which are anticipated either to generate a surplus revenue after costs, or reduce costs, will be rated in a positive scoring fashion. Those components which are predicted to either increase costs and/or result in more costs than revenues, are rated in a negative manner. Finally, those components which do not have a significant impact on costs one way or another (increase versus decrease) are rated with a neutral score. The individual component scores are then aggregated to determine a net score for the overall system.

Technical Feasibility

Technical feasibility relates primarily to the practicality of the system's mechanical operations. Have components been tested and proven? Are the components reliable? Is the system compatible with the waste stream characteristics and quantities? Will the operation of a component(s) require specially trained personnel.

Technical feasibility, as indicated, primarily affects the operational function of the system. As such, systems which propose a very simple, tried and proven component are rated at the positive end of the scale. In contrast, those systems which would be considered experimental in nature, are placed at the negative end of the scale. It should be noted that most proposed systems will contain components which incorporate some degree of each element (proven versus experimental) and are thus rated on an aggregate basis.

Environmental Impact

There are environmental impacts inherent in every solid waste management system. Some impacts are minimal, while others border on disastrous. Moreover, environmental impacts can also range from direct to indirect. Environmental impacts can affect the quality of our air and water (surface and subsurface) resources, as well as noise standards. Severe negative environmental impact(s) can result in serious effects upon a community's public health.

It should be noted, however, that environmental impacts can be minimized via proper design, construction and operation of a solid waste facility/program. Such impacts can further be minimized by developing/implementing alternative methods of solid waste management.

Therefore, for purposes of rating systems according to this parameter, solid waste management systems/components which appear or have tested and which minimize or even eliminate negative environmental impacts are rated in a positive manner. Other systems/components which may result in negative impacts are rated in a

moderate or neutral fashion. Those that result in definite negative impacts are scored as such.

Non-Selected System Descriptions

Alternate System No. 1

Alternate System No. 1 represents the status quo or present solid waste management system in Kalamazoo County. Over the last five years, the County has experienced significant growth in waste reduction methods, particularly via the introduction and incorporation of residential recycling as an integral part of the solid waste management system. With the exception of two (2) communities in the County, all residents have access to curbside recycling service. This is accomplished in a number of ways and frequencies of collection -- all services are provided by the private sector in conjunction with the public sector.

In addition to recycling services, the County has instituted several waste reduction services to the residential and business community through the provision of a Recycling Coordinator, a Household Hazardous Waste program and respective staffing and a Pollution Prevention program and its staff.

In response to the ban of yard waste in landfills, the private sector has responded with regular residential yard waste collection on a subscription basis. Several communities also contract with private firms to provide annual Spring and/or Fall leaf and branch collections.

All of the local solid waste haulers in the County own/operate transfer stations, either within or outside the County. Likewise, most of the haulers also operate materials recovery facilities along with the transfer stations. Local business and industry continue to investigate and implement volume reduction via various methods in their processing.

Currently all Type II and some Type III (particularly construction and demolition wastes) are deposited in sanitary landfills in adjacent/nearby counties. It is anticipated that during the preparation of this document that a Type III monofill for the deposit of paper mill residuals will be opened. This facility will accommodate the largest single component of the County's solid waste stream estimated at some 113,000 tons per year.

As indicated previously on several occasions, the private sector provides the bulk of the ownership and operation of solid waste collection, transfer, processing and disposal systems and facilities in the County. The public sector, however, does play a significant role in the implementation of waste reduction and recycling services via contractual efforts and legislative actions at the local level of government.

Alternate System No. 3

Alternate System No. 3 reflects many of the same components as Alternate System No. 1. In order to avoid redundancy in describing System No. 3, the following outlines/summarizes the major differences proposed in System No. 3:

Waste Reduction/Pollution Prevention

* The County's Household Hazardous Waste Program would be expanded to accept HHW on a regional basis from residents in adjoining/nearby Counties via a contractual arrangement

Resource Recovery: Recycling & Composting

* Enhancement of local curbside and drop off recycling programs in all communities in the County to increase participation by increasing frequency of collection in many entities
* Improvement of local public and private yard waste collection and composting operations to include other organics in addition to yard wastes

Collection Processes and Transportation

* Consolidate the number of materials recovery facilities used by area haulers to improve economic efficiencies In the processing, marketing and transportation of recyclable materials
* Maintain a minimum number of transfer stations to facilitate the transfer of solid waste
* Incorporate direct haul of solid waste into the transportation component of the solid waste system

Sanitary Landfill

* Development of a Type II sanitary landfill in Kalamazoo County in order to maintain economic advantages and reduce dependency on out-of-County disposal

As noted previously, System No. 3, with the aforementioned proposed modifications/additions, mirrors System No. 1 in all other solid waste management system component operations.

Evaluation Summary of Non-Selected Systems

The non-selected systems (Alternate Systems 1 & 3) were previously evaluated in the

Data Base portion of the Plan. The following lists the advantages and disadvantages of the non-selected systems.

Advantages

- Continuity of services and programs (Systems 1&3)
- Public acceptance (System 1)

Disadvantages

- Reliance on exportation and out-county sanitary landfills (System 1)
- Local public concern over development of sanitary landfill (System 3)
- No enhancement of waste reduction programs (System 1)

APPENDIX C

APPENDIX C

PUBLIC PARTICIPATION AND APPROVAL

The following summarizes the processes which were used in the development and local approval of the Plan including a summary of public participation in those processes, documentation of each of the required approval steps, and a description of the appointment of the solid waste management planning committee along with members of the committee.

Public Involvement Process

Pursuant to Section 11535a(c) of P.A. 451, all local units of government were notified of the initiation of the solid waste management planning process in September of 1997 (see Attachment C-1). As a result of that communication, a mailing list (Attachment C-2) was compiled and notices of all regular committee meetings during the Plan preparation were disseminated to those individuals so requesting notice. Attachment C-3 which outlines a proposed schedule/timetable for Plan preparation was also included in the initial communication with the local units of government. A press release (Attachment C-4) was also prepared to notify the general citizenry of the solid waste management planning process.

In regard to the approval and adoption of the Plan, Attachment C-5 is a communication to all local units notifying them of the release, public review and comment period, and public hearing on the Plan. Attachment C-6 is a legal notice to the general public of such comment period and public hearing.

Planning Committee Appointment Procedure

Kalamazoo County has maintained a Solid Waste Management Planning Committee since its inception in 1980. Membership has been continued through Board of Commissioner appointments/reappointments for the past eighteen years. With the exception of a representative from the "Regional Planning Agency," the Committee has remained in existence and meets on an infrequent basis. The regional planning agency has been requested on several occasions to submit a candidate for representation on the Committee, however the agency has chosen not to participate. Attachment C-7 is a listing of the current membership of the Kalamazoo County Solid Waste Management Planning Committee.

ATTACHMENT C-1

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

201 WEST KALAMAZOO AVENUE • KALAMAZOO, MICHIGAN 49007
PHONE (616) 384-8112 FAX (616) 383-8862

MEMORANDUM

TO: All Local Units of Government

FROM: Kalamazoo County Solid Waste Management Planning Committee
Michael Swords, Chairman

DATE: September 18, 1997

SUBJECT: Notice of Intent of Kalamazoo County to Prepare 5-Year Update to the Kalamazoo County Solid Waste Management Plan

Recently, all counties in the State of Michigan were notified by the Michigan Department of Environmental Quality (MDEQ) that preparation of the next Updates to County Solid Waste Management Plans were set to begin and that the Updates were due in to MDEQ by December 1, 1998. Counties were given the option of preparing the Plan Updates or passing the responsibility on to other parties pursuant to P.A. 451 of 1994, as amended. In August, the Kalamazoo County Board of Commissioners filed a "notice of intent" with the MDEQ that it would prepare the Plan Update for Kalamazoo County.

The purpose of this communication is to inform you that the task of preparing the subject Plan Update has commenced under the direction of the Kalamazoo County Solid Waste Management Planning Committee. Enclosed you will find a proposed schedule/timetable for processing the Plan Update. There is no action requested of your unit of government at this time. This notice is for information only.

If you would like to receive copies of the Solid Waste Management Planning Committee meeting agendas and minutes or have questions regarding the Plan Update process, please contact Mr. Dean Holub at the Department of Planning & Community Development at 384-8114.

Encl.
cc: Board of Commissioners
5250

K:\DEAN\SWMPC\SWORDS.MEM

PRINTED ON RECYCLED PAPER

ATTACHMENT C-2

MR WALTER SCHNEIDENBACH
5380 GLEN HARBOR DR
KALAMAZOO MI 49009

SMPC
PO BOX 2137
PORTAGE MI 49081-2137

MR MARK HOFFMAN
707A GARLAND CIRCLE
KALAMAZOO MI 49008

Mr [illegible]n Cummins
Georgia Pacific Corp
2425 KING HIGHWAY
KALAMAZOO MI 49001

MR BILL FRENCH
15200 FT CUSTER DR
AUGUSTA MI 49012

Mr Jerry VanderRoest Supervisor
Charleston Township
1499 SOUTH 38TH ST
GALESBURG MI 49053

Mr Dan Batts
6359 WEST "Q" AVENUE
KALAMAZOO MI 49009

MS DEBORAH L BOGEMA
7867 N 34TH ST
RICHLAND MI 49083

MR JAMES PORTER
EARLY LENNON FOX ET AL
900 COMERICA BLDG
KALAMAZOO MI 49007-4752

Ms Wendy Ginther
9101 VANDERBILT ROAD
PORTAGE MI 49024

MR PAT DIGIOVANNI
CITY MANAGERS OFFICE
241 W SOUTH ST
KALAMAZOO MI 49007

MS TISH POWELL
KALAMAZOO PUBLIC SERVICES
415 STOCKBRIDGE AVE
KALAMAZOO MI 49001-2898

MR RON REID MANAGER
KALAMAZOO CTY RD COMMISSION
3801 E KILGORE RD
KALAMAZOO MI 49001

MS MARY POWERS
917 S PARK ST
KALAMAZOO MI 49001

Mr Ted A Hartridge
3723 SONGBIRD LANE
KALAMAZOO MI 49008

MR JAMES M THORNE
[illegible] OLD FIELD TRAIL
KALAMAZOO MI 49008

MS MARY JONES
ALLEGAN CO
3819 112TH AVE
ALLEGAN MI 49010

Mr Tim Hudson, Supervisor
Charter Township of Comstock
PO BOX 414
COMSTOCK MI 49041

MR FRAN BELL
PO BOX 147
GALESBURG MI 49053

MR JOSEPH VANBRUGGEN
3146 NORTH 33RD ST
GALESBURG, MI 49053

MR MICHAEL D SWORDS
1025 BERKSHIRE
KALAMAZOO MI 49007

Ms Sharon Gillette
Browning Ferris Industries
PO BOX 51427
KALAMAZOO MI 49005-1427

MR SONNY DAMVELT
4520 CROYDEN
KALAMAZOO MI 49006

ST JOESPH CTY PLANNING DEPT
PO BOX 277
CENTREVILLE MI 49032

MS JUDY MAYO
4318 LAKESIDE DR
KALAMAZOO MI 49008

Mr Roger Andrews
Calhoun County
315 WEST GREEN ST
MARSHALL MI 49068

MR BLAINE LAM
LAM & ASSOCIATES
100 W MICHIGAN STE 220
KALAMAZOO MI 49007

MR V HARRY ADROUNIE
1905 N BROADWAY
[illegible]STINGS MI 49058

Mr Henry Valkema
2357 NORTH 38th ST
AUGUSTA MI 49012

MR DENNIS SCHUH
PLANNING PARKS REC AND DPW
COURTHOUSE RM 101
ST JOSEPH MI 49085

ADMINISTRATORS OFFICE
VAN BUREN CTY COURTHOUSE
PAW PAW MI 49079

Mr Ron Fleckenstein, Supervisor
Charter Townshp of Oshtemo
7275 WEST MAIN STREET
KALAMAZOO MI 49009

Mr Belden Smith
8800 WEST "D" AVE
KALAMAZOO MI 49009

PROPOSED SCHEDULE

KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN

September 17, 1997	SWMPC Meeting
September 18, 1997	Notify All Local Units of Plan Process
November 19, 1997	SWMPC Meeting
January 21, 1998	SWMPC Meeting
March 18, 1998	SWMPC Meeting
April 15, 1998	SWMPC Meeting
May 20, 1998	SWMPC Meeting * Approval of Draft SWM Plan * Initiation of 90-day Review and Comment Period * Establish Public Hearing Date & Time
May 21, 1998	Notify All Local Units of Government & Interested Parties of Draft Plan Availability and Review and Comment Process
August 6, 1998	KMCPC Conducts Public Hearing
August 18, 1998	90-day Review & Comment Period Ends
August 19, 1998	SWMPC Meeting * Review & Approval of Final Solid Waste Management Plan for Kalamazoo County * Transmittal of Plan to Board of Commissioners
September 1, 1998	Board of Commissioners * Review & Approval of Plan * Transmittal of Plan to Local Units of Government
September 2, 1998	Transmit SWM Plan to All Local Units of Government for Respective Review & Action
September 2, 1998 through November 30, 1998	Review & Action by Local Units
December 1, 1998	Transmit SWM Plan to MDEQ

KALAMAZOO COUNTY GOVERNMENT

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

201 WEST KALAMAZOO AVENUE • KALAMAZOO, MICHIGAN 49007
PHONE (616) 384-8112 FAX (616) 383-8862

Dean J. Holub, Assistant County Administrator for
Economic & Community Development
384-8114

FOR IMMEDIATE RELEASE

Nearly Half of County Waste is Recycled

Kalamazoo County homes and businesses generate an estimated 558,552 tons of solid waste per year. Approximately 113,850 tons per year of waste is paper mill residuals -- generally, paper fibers which may be too small to be recycled into new products -- which will be landfilled within Kalamazoo County beginning in 1998. Of the remaining 444,702 tons per year of generated waste, approximately 46 percent, or an estimated 204,000 tons per year, of materials is currently being diverted from landfill disposal via public and private waste reduction efforts, according to a draft County Solid Waste Management Plan which the Kalamazoo County Solid Waste Planning Committee is currently preparing for the Michigan Department of Environmental Quality.

Paper and yard waste are two of the most common recovered materials, representing 48 percent of all materials which are currently diverted from landfill disposal. Examples of how papers and yard waste are diverted from landfill disposal include recycling programs for office papers and boxes at 60 percent of Kalamazoo County businesses, and efforts by most homeowners to mulch their grass clippings or participate in community fall leaf pick-ups. Paper and yard waste were also the two most common materials by weight found in landfills prior to state law which banned yard waste from Michigan landfills in March 1995.

The draft plan also identifies a strategy for Kalamazoo County to maintain and increase its current waste reduction efforts and to continue to rely on landfills in neighboring counties to dispose of the estimated 240,757 tons per year of waste which is not currently recycled, instead of planning to construct a new landfill within the County to accept residential and commercial waste. Kalamazoo County is in the process of obtaining consent from neighboring counties with landfills

to accept Kalamazoo County's non-recovered wastes for the next ten years.

Future meetings of the Kalamazoo County Solid Waste Planning Committee are scheduled for January 21, March 18, April 15, and May 20 at 7:00 p.m. in room 207 of the County Administration Building, 201 W. Kalamazoo Avenue. The plan is expected to be submitted to the Michigan Department of Environmental Quality by December 1, 1998.

ATTACHMENT C-5

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

201 WEST KALAMAZOO AVENUE • KALAMAZOO, MICHIGAN 49007
PHONE (616) 384-8112 FAX (616) 383-8862

MEMORANDUM

TO: Local Units of Government, Adjacent Counties, Interested Individuals, Organizations/Agencies, Public Libraries

FROM: Kalamazoo County Solid Waste Management Planning Committee
Michael Swords, Chairman

DATE: May 21, 1998

SUBJECT: Transmittal of Proposed Solid Waste Management Plan Update for Kalamazoo County

The Kalamazoo County Solid Waste Management Planning Committee hereby submits its Proposed Solid Waste Management Plan Update for Kalamazoo County for your review and comment. The enclosed document represents several months of effort on behalf of the Committee in fulfilling the requirements of P.A. 451 of 1994, as amended, which mandates that all counties in the State develop solid waste management plans for their respective jurisdictions and further, update those plans every five (5) years. The initial Kalamazoo County Solid Waste Management Plan was prepared in 1983.

The Committee is releasing the Proposed Plan during a required 90-day review and comment period which commenced on the above date and will terminate on August 18, 1998. During this public review and comment period, a formal public hearing will be held to receive verbal comment. Written comments will be accepted during the 90-day period as well as at the public hearing which is scheduled for Thursday, August 6, 1998 at 7:00 p.m. in the County Administration Building. Official notices will be published at a later date in advance of the Hearing.

Following the 90-day review and comment period, the Committee may modify/alter the document as a result of public comment and recommend the Plan Update for approval to the Kalamazoo County Board of Commissioners. After the Board's review and action, the Plan Update will then be transmitted to all of the local units of government in the County for their official review and action. Following this

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step, the Plan Update will be submitted to the Michigan Department of Environmental Quality for final review and action.

During this time period, you and/or your organization/unit of government is being given an opportunity to review the proposed document in order to provide any comments (written and/or verbal) in advance or at the Public Hearing. Pursuant to P.A. 451 of 1994, as amended, local units of government will receive final proposed copies of the document for their formal action following County Board action later this year.

The Committee would like to extend its offer to make a brief presentation on the Proposed Plan Update to your unit of government/organization. Should you desire such a presentation, please contact the Department of Planning & Community Development at 384-8112 to schedule a meeting date and time.

Further, since supplies of the Proposed Plan Update are limited, your cooperation and assistance in circulating copies of the document would be greatly appreciated.

Should you have any questions regarding the document or the Plan Update review and approval process, please feel free to contact this Department.

Thank you for your interest in this matter.

LIBRARIES PLEASE NOTE: Please place the enclosed document in a reference or other appropriate short-term area of your facility for public review/access during the next 90 days. A published Public Notice indicates that copies of the proposed document may be inspected at all public libraries in Kalamazoo County. A final version of the document will be transmitted to your library at a later date following final acceptance and printing. Thank you for your interim cooperation.

Encl.

cc: Board of Commissioners
KMCPC
5250 (1997/98)

PUBLIC NOTICE

Please be advised that pursuant to P.A. 451 of 1994, as amended, the Kalamazoo County Solid Waste Management Planning Committee (SWMPC) has initiated a 90-day public review and comment period for the Proposed Solid Waste Management Plan Update for Kalamazoo County. The subject document may be inspected at any Public Library in Kalamazoo County, as well as the Kalamazoo County Department of Planning & Community Development and Board of Commissioners' office during normal business hours, Monday through Friday.

The public review and comment period will terminate on Tuesday, August 18, 1998. A public hearing will be held on the subject Plan Update on Thursday, August 6, 1998 at 7:00 p.m. in the County Administration Building, 201 West Kalamazoo Avenue.

Written comments should be addressed to the Kalamazoo County SWMPC in c/o the Department of Planning & Community Development, Suite 202, 201 West Kalamazoo Avenue, Kalamazoo, MI 49007. Questions regarding the Plan Update document and/or process may be directed to the Department at (616) 384-8112.

STATE OF MICHIGAN)
County of Kalamazoo ss. Elizabeth Gladeswood

being duly sworn deposes and says he/she is Principal Clerk of

THE KALAMAZOO GAZETTE

DAILY EDITION

a newspaper published and circulated in the County of Kalamazoo and otherwise qualified according to Supreme Court Rule; and that the annexed notice, taken from said paper, has been duly published in said paper on the following day(days) .....

May 27 A.D. 19 98

Sworn to and subscribed before me this 27th day of May 19 98

Karen J Wilkes

Notary Public, Kalamazoo County, Michigan

KAREN J WILKES
NOTARY PUBLIC STATE OF MICHIGAN
VAN BUREN COUNTY
ACTING IN:
KALAMAZOO COUNTY
MY COMMISSION EXP. SEPT 26,2001

ATTACHMENT C-6

Kalamazoo County
SOLID WASTE MANAGEMENT PLANNING COMMITTEE
Membership Roster as of April 8, 1998

Name	Address	City	Zip	Representation	Tel: Office	Tel: Home	Term
Dan Batts	6359 W. Q Ave.	Kalamazoo	49009	Solid Waste Industry	(616) 463-5588 226-9200		3/98-3/01
Bill French	15200 Ft. Custer Dr.	Augusta	49012	Environmental	381-4344	731-2627	3/97-3/00
Wendy Ginther	9101 Vanderbilt Rd.	Portage	49024	Solid Waste Industry	969-7509		3/96-3/99
Ted Hartridge	3723 Songbird Ln.	Kalamazoo	49008	Waste Generator	381-0010		3/97-3/00
Mark Hoffman	707A Garland Cir.	Kalamazoo	49008	Environmental	349-9711	381-8899	3/96-3/99
Bruce Minsley	415 Stockbridge Ave.	Kalamazoo	49001	City Government	337-8730	337-8660	3/96-3/99
Mary Powers	917 S. Park St.	Kalamazoo	49001	County Government		345-9295	3/97-3/00
Jay Sherwood	270 Montague	Portage	49024	Solid Waste Industry	382-0677	329-2029	3/98-3/01
Mike Swords	1025 Berkshire	Kalamazoo	49006	Public	387-5381	375-1063	3/98-3/01
James Thorne	4210 Old Field Trail	Kalamazoo	49008	Public	349-2064	372-2102	3/97-3/00
Henry Valkema	2357 N. 38th St.	Augusta	49012	Solid Waste Industry	385-2590		3/97-3/00
Joe Van Bruggen	3146 N. 33rd St.	Galesburg	49053	Public		665-9213	3/98-3/01
Jerry Vander Roest	1499 S. 38th St.	Galesburg	49053	Twp. Government	(800) 635-0793	665-7617	3/96-3/99
(vacancy)				Regional Planning Agency			

APPENDIX D

APPENDIX D

ATTACHMENTS

Plan Implementation Strategy

As described and noted on several previous occasions, the selected solid waste management system for Kalamazoo County is a perpetuation of the current system with the incorporation of certain enhancements of the waste reduction segment. It is anticipated that operation of the planned system will continue in much the same manner and framework as it does today. With minor exceptions, implementation of the recommended system should function with no disruption to the existing system. Therefore, as indicated in the implementation timetable in the Selected System portion of the Plan, all of the components will operate on an "on-going" basis. Enhancements of the systems' waste reduction component, such as increasing frequency of curb-side collections, adding new source separated materials to waste reduction collections, etc., will take place throughout the planning period as a result of on-going public education and information programs.

In conclusion, there is no specific or identified "strategy" to implement the County's Plan due to its current nature and operation.

Solid Waste Disposal Facility Location Maps

The following maps and/or legal descriptions (Attachments D-1 through D-12) are intended to identify the locations of the various solid waste disposal facilities proposed to serve Kalamazoo County during the planning period.

Special Conditions

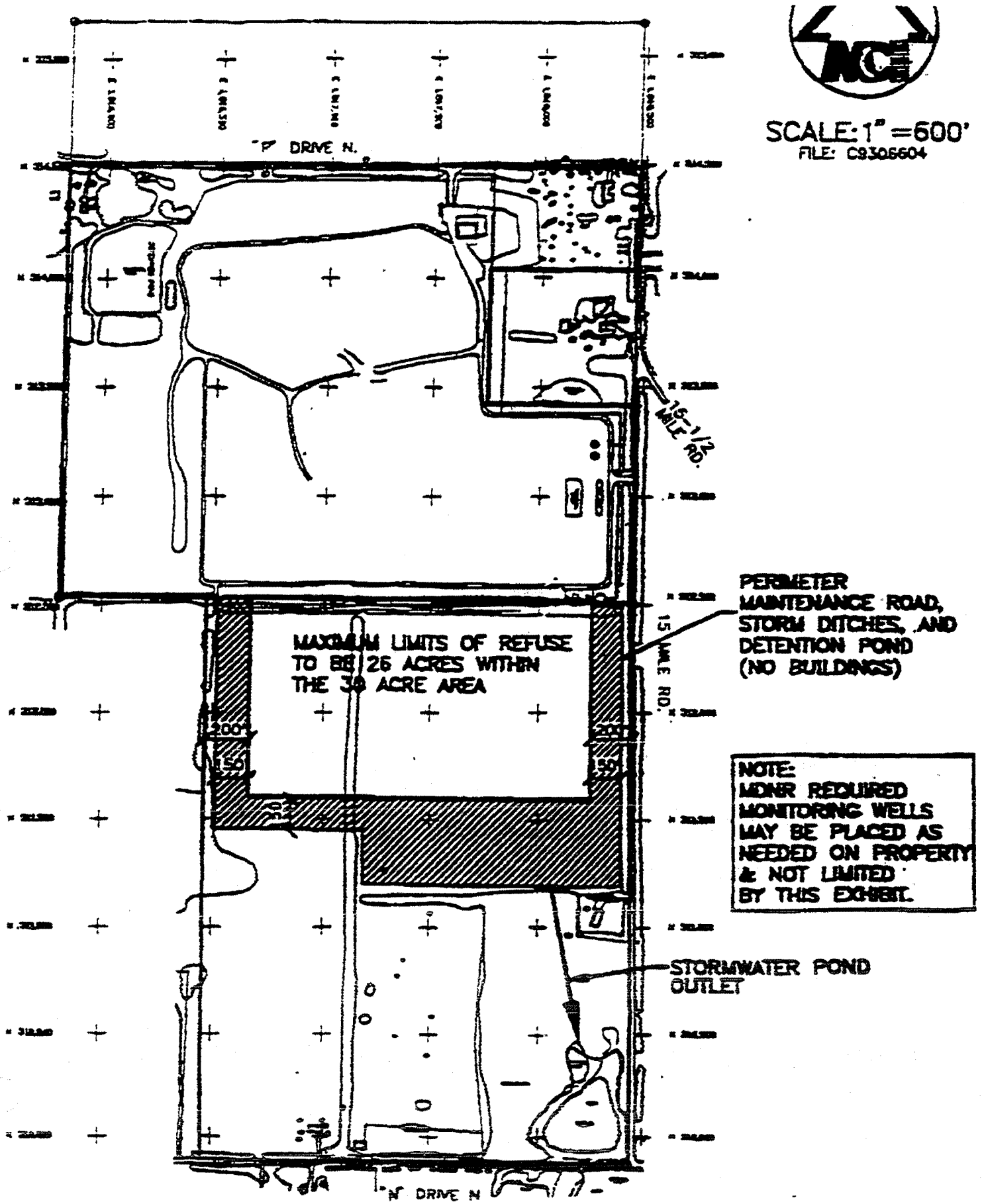
The following communications (D-13 through D-18) authorize the export of solid waste from Kalamazoo County.

Resolutions

Attachments D-19 through D-37 represent local resolutions/letters of Plan Update approval from the County and at least 67% of the local units of government in the County.

C&C Landfill

THE 26 ACRE (LIMITS OF REFUSE) LANDFILL EXPANSION NOT TO EXCEED SKETCH



PHONE: 616-983-1531

Wightman and Associates, Inc.

CONSULTING ENGINEERS & SURVEYORS
920 BROAD ST. – P.O. BOX D
ST. JOSEPH, MICHIGAN 49085

M.R. RUSHLOW P.E. R.L.S.
T.A. DENEAU P.E.
A.C. LINDBLOM II ARCH.
L.M. VESEI P.E.
J.G. KAMER R.L.S.

FOREST LAWN LANDFILL

PROPERTY DESCRIPTION

SEPTEMBER 30,1983

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 8 SOUTH, RANGE 20 WEST, THREE OAKS TOWNSHIP, BERRIEN COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 17; THENCE NORTH ON THE EAST LINE OF SAID SECTION 17, A DISTANCE OF 988.30 FEET; THENCE SOUTH 89° 31' 04" WEST 33.00 FEET TO THE TRUE PLACE OF BEGINNING OF THE LAND HEREIN DESCRIBED; THENCE SOUTH 89° 31' 04" WEST 1291.37 FEET; THENCE SOUTH 0° 04' 40" WEST 329.24 FEET; THENCE SOUTH 62° 04' 46" WEST 142.73 FEET; THENCE NORTH 2° 04' 46" EAST 725.49 FEET; THENCE SOUTH 79° 46' 46" WEST 823.59 FEET; THENCE NORTH 48° 49' 37" WEST 251.19 FEET; THENCE NORTH 0° 52' 41" WEST 939.15 FEET; THENCE SOUTH 81° 44' 07" EAST 1331.19 FEET; THENCE SOUTH 82° 36' 03" EAST 1097.33 FEET; THENCE SOUTH 943.67 FEET TO THE PLACE OF BEGINNING. CONTAINING 56.33 ACRES MORE OR LESS.

JOHN G. KAMER R.L.S. 27449

LEGAL DESCRIPTIONS FOR ORCHARD HILL LANDFILL

OVERALL PARCEL DESCRIPTION

MARCH 25, 1992

A parcel of land that is part of Sections 28 and 33 in Town 3 South, Range 17 West, Coloma and Watervliet Townships Berrien County, Michigan described as:

Beginning at the Section Corner common to Sections 27, 28, 33 and 34 in Town 3 South, Range 17 West, Berrien County, Michigan; thence N00°38'14"W 1847.34 feet along the East Line of Section 28 to the South Right-of-Way Line of Interstate Highway I-94; thence S85°33'19"W 2627.72 feet along said south line to the North and South 1/4 Line of said section; thence S00°48'21"E 1848.03 feet along said line to the 1/4 Corner common to aforementioned sections 28 and 33; thence N89°54'23"E 663.00 feet along the section line common to said sections; thence S00°18'30"W 1063.98 feet; thence parallel with the north line of Section 33 N89°54'23"E 881.78 feet to the West Line of the Northeast 1/4 of the Northeast 1/4 of said section; thence S00°35'47"E 238.53 feet along said west line to the South Line of the Northeast 1/4 of the Northeast 1/4 of said section; thence S89°53'19"E 1309.89 feet along said south line to the East Line of Section 33; thence N00°39'04"W 1307.23 feet along said east line to the Section Corner common to Sections 27, 28, 33 and 34 and the Point of Beginning. Containing 160.28 acres more or less and excepting all easements and restrictions of record, if any.

DESCRIPTION
PARCEL "A"

MAY 12, 1993

A parcel of land that is part of Sections 28 in Town 3 South, Range 17 West, Watervliet Township, Berrien County, Michigan described as:

Commencing at the Southeast corner of Section 28, Town 3 South, Range 17 West, Berrien County, Michigan; thence N00°38'14"W 1847.34 feet along the East Line of section 28; thence S85°33'19"W 70.15 feet along the South Right-of-Way of Interstate 94 to the Point of Beginning; thence S00°38'14"E 219.17 feet; thence N89°21'46"E 20.00 feet; thence S00°38'14"E 380.00 feet; thence N89°21'46"E 17.00 feet; thence S00°38'17"E 461.62 feet; thence S89°44'27"W 287.97 feet; thence S87°25'18"W 131.84 feet; thence S02°34'09"W 129.91 feet; thence S00°21'50"E 136.19 feet; thence S02°00'18"W 231.91' feet; thence N89°28'22"W 545.18 feet; thence N85°44'56"W 268.14 feet; thence N00°38'14"W 1464.54 feet; thence N85°33'19"E 1217.16 feet along the South Right-of-Way of Interstate 94 to the Point of Beginning. Containing 38.5 acres more or less and subject to all easements and restrictions, if any.

DESCRIPTION
PARCEL "B"

APRIL 8, 1992

A parcel of land that is part of Sections 28 and 33 in Town 3 South, Range 17 West, Coloma and Watervliet Townships, Berrien County, Michigan described as:

Commencing at the Northeast corner of Section 33, Town 3 South, Range 17 West, Berrien County, Michigan; thence S89°54'23"W 133.00 feet along the North Line of said section to the Point of Beginning; thence S00°39'04"E 500.02 feet; thence S89°54'23"W 305.01 feet; thence N00°39'04"W 515.98 feet; thence S89°34'05"W 164.49 feet; thence S89°16'01"W 398.71 feet; thence N89°48'38"W 289.50 feet; thence N01°12'01"W 134.33 feet; thence N02°27'53"E 138.83 feet; thence S89°44'56"E 268.14 feet; thence S89°28'22"E 545.16 feet; thence N02°00'18"E 231.91 feet; thence N00°21'50"W 136.19 feet; thence N02°34'09"E 129.91 feet; thence N87°25'18"E 131.84 feet; thence N89°44'27"E 187.97 feet; thence S00°38'12"E 781.29 feet to the North Line of Section 33, Town 3 South, Range 17 West and the Point of Beginning. Containing 14.49 acres and subject to all easements and restrictions, if any.

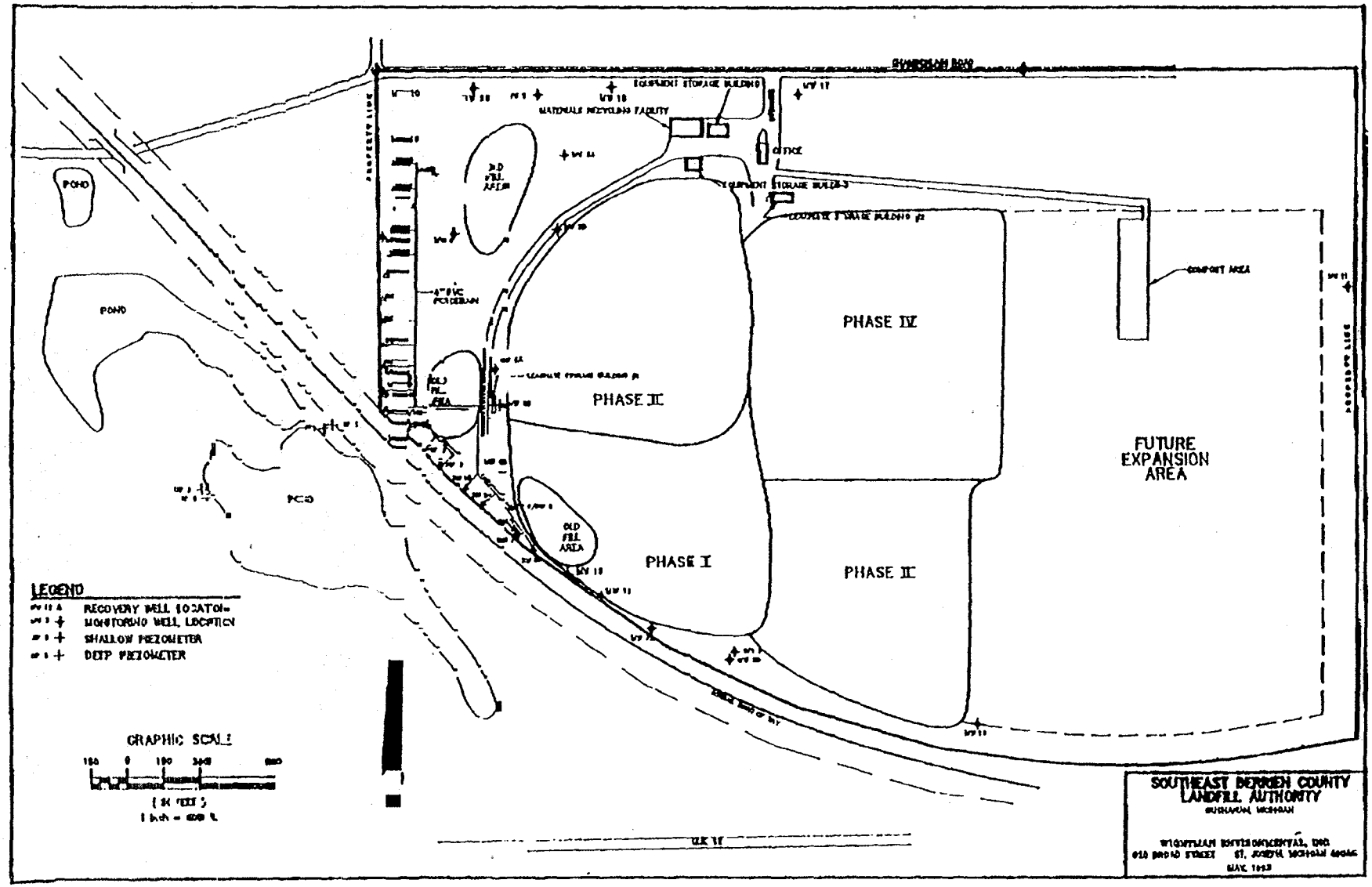
DESCRIPTION
PARCEL "C"

October 27, 1992

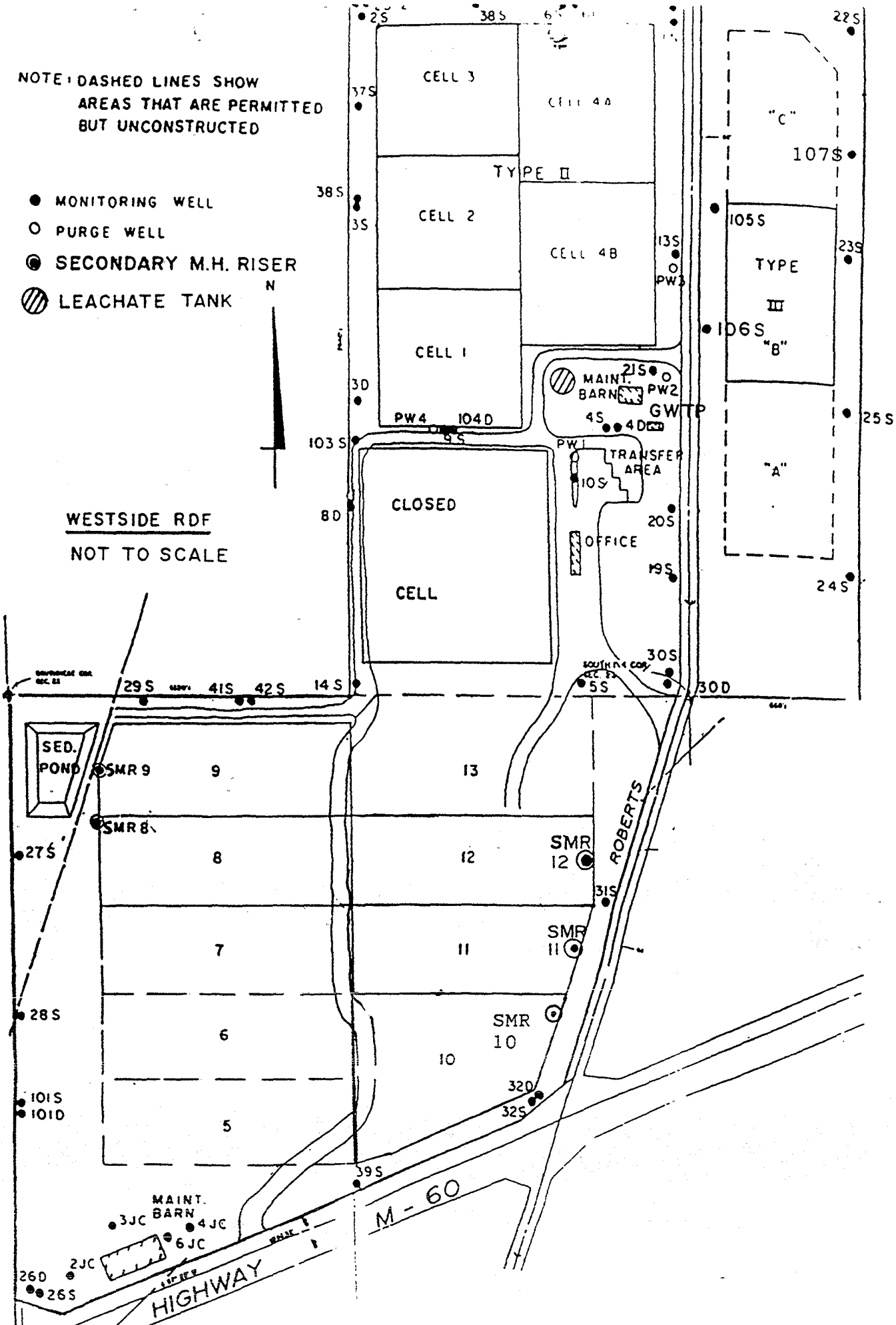
A parcel of land that is part of Sections 28 and 33 in Town 3 South, Range 17 West, in Coloma and Watervliet Townships Berrien County, Michigan described as:

Commencing at the Section Corner common to Sections 27, 28, 33 and 34 in Town 3 South, Range 17 West, Berrien County, Michigan; thence S00°39'04"E 500.03 feet along the east line of said Section 33 to the Point of Beginning; thence continuing along said line S00°39'04"E 807.20 feet to the South line of the NE 1/4 of the NE 1/4 of said section; thence N89°53'19"W 1309.89 feet along said line to the West line of the NE 1/4 of the NE 1/4 of said section; thence N00°35'47"W 238.53 feet along said line; thence S89°54'23"W 881.78 feet; thence N00°18'30"E 1063.98 feet to the section line common to aforementioned Sections 33 and 28; thence S89°54'23"W 663.00 feet along said section line to the 1/4 corner common between said sections; thence N00°48'21"W 1648.03 feet along the North/South 1/4 line of said Section 28 to the South Right-of-Way of Interstate 94; thence N85°33'19"E 1340.41 feet along said south line; thence S00°38'14"E 1464.54 feet; thence S02°27'53"W 138.83 feet ; thence S01°12'01"E 134.33 feet; thence S89°48'38"E 289.50 feet; thence N89°16'01"E 398.71 feet; thence N89°34'05"E 164.49 feet; thence S00°39'04"E 515.98 feet; thence N89°54'23"E 438.01 feet to the East line of said Section 33 and the Point of Beginning. Containing 102.43 acres more or less and subject to all easements and restrictions of record, if any.

SOUTHEAST BERRIEN COUNTY LANDFILL AUTHORITY SITE PLAN



ATTACHMENT D-4


NOTE: DASHED LINES SHOW AREAS THAT ARE PERMITTED BUT UNCONSTRUCTED
MONITORING WELL
PURGE WELL
SECONDARY M.H. RISER
LEACHATE TANK
N
WESTSIDE RDF
NOT TO SCALE
CELL 3
CELL 4A
TYPE II
CELL 2
CELL 4B
CELL 1
CLOSED CELL
MAINT. BARN
GWTP
TRANSFER AREA
OFFICE
"C"
TYPE III
"B"
"A"
SED. POND
SMR 9
SMR 8
SMR 12
SMR 11
SMR 10
ROBERTS
M-60
HIGHWAY
MAINT. BARN
PW1
PW2
PW3
PW4
2S
38S
22S
37S
107S
38S
3S
105S
13S
23S
106S
3D
21S
PW4
104D
4S
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25S
103S
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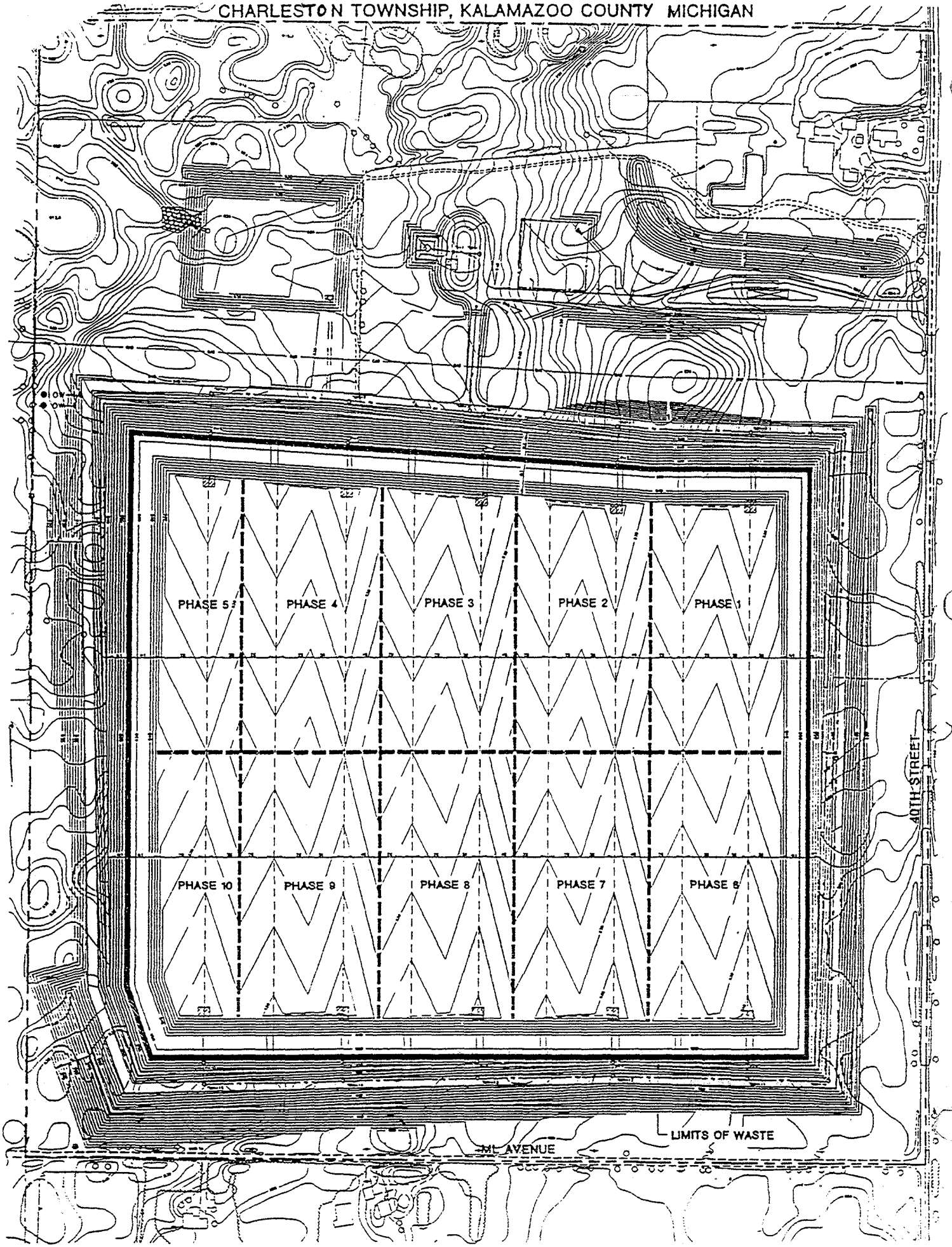
10S
8D
20S
19S
24S
30S
29S
41S
42S
14S
5S
30D
27S
31S
28S
101S
101D
32D
32S
39S
3JC
4JC
6JC
2JC
26D
26S

ATTACHMENT D-6

KALAMZOO VALLEY GROUP LANDFILL
CHARLESTON TOWNSHIP, KALAMAZOO COUNTY MICHIGAN



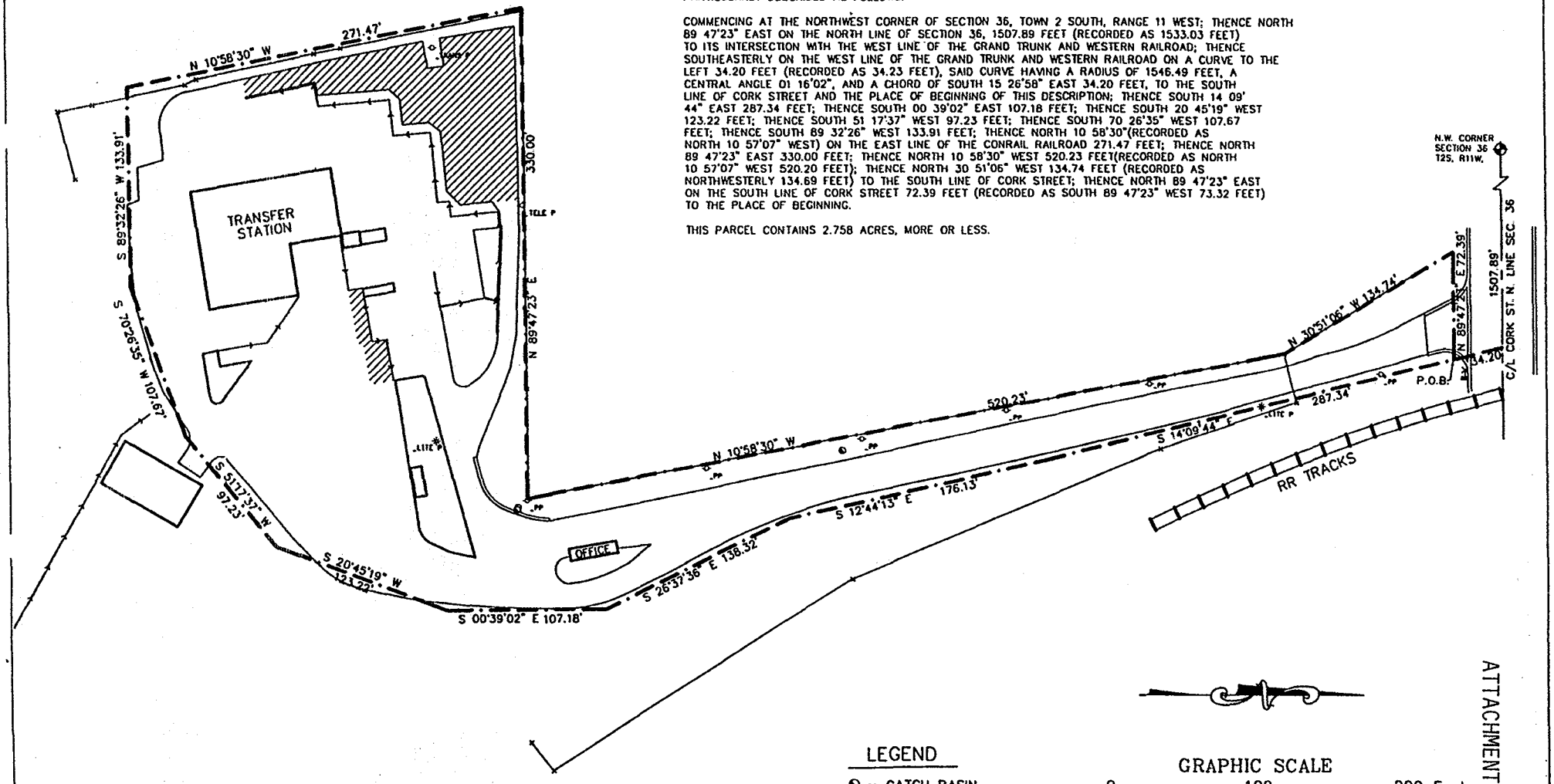
CORK STREET TRANSFER STATION

DESCRIPTION OF PROPERTY

A PARCEL OF LAND IN SECTION 36, TOWN 2 SOUTH, RANGE 11 WEST; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SECTION 36, TOWN 2 SOUTH, RANGE 11 WEST; THENCE NORTH 89 47'23" EAST ON THE NORTH LINE OF SECTION 36, 1507.89 FEET (RECORDED AS 1533.03 FEET) TO ITS INTERSECTION WITH THE WEST LINE OF THE GRAND TRUNK AND WESTERN RAILROAD; THENCE SOUTHEASTERLY ON THE WEST LINE OF THE GRAND TRUNK AND WESTERN RAILROAD ON A CURVE TO THE LEFT 34.20 FEET (RECORDED AS 34.23 FEET), SAID CURVE HAVING A RADIUS OF 1546.49 FEET, A CENTRAL ANGLE 01 16'02", AND A CHORD OF SOUTH 15 26'58" EAST 34.20 FEET, TO THE SOUTH LINE OF CORK STREET AND THE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 14 09' 44" EAST 287.34 FEET; THENCE SOUTH 00 39'02" EAST 107.18 FEET; THENCE SOUTH 20 45'19" WEST 123.22 FEET; THENCE SOUTH 51 17'37" WEST 97.23 FEET; THENCE SOUTH 70 26'35" WEST 107.67 FEET; THENCE SOUTH 89 32'26" WEST 133.91 FEET; THENCE NORTH 10 58'30"(RECORDED AS NORTH 10 57'07" WEST) ON THE EAST LINE OF THE CONRAIL RAILROAD 271.47 FEET; THENCE NORTH 89 47'23" EAST 330.00 FEET; THENCE NORTH 10 58'30" WEST 520.23 FEET(RECORDED AS NORTH 10 57'07" WEST 520.20 FEET); THENCE NORTH 30 51'06" WEST 134.74 FEET (RECORDED AS NORTHWESTERLY 134.69 FEET) TO THE SOUTH LINE OF CORK STREET; THENCE NORTH 89 47'23" EAST ON THE SOUTH LINE OF CORK STREET 72.39 FEET (RECORDED AS SOUTH 89 47'23" WEST 73.32 FEET) TO THE PLACE OF BEGINNING.

THIS PARCEL CONTAINS 2.758 ACRES, MORE OR LESS.



LEGEND

- = CATCH BASIN
- = FENCE
- = RETAINING WALL
- = RESIDENTIAL DROP OFF/ RECYCLING AREA

GRAPHIC SCALE

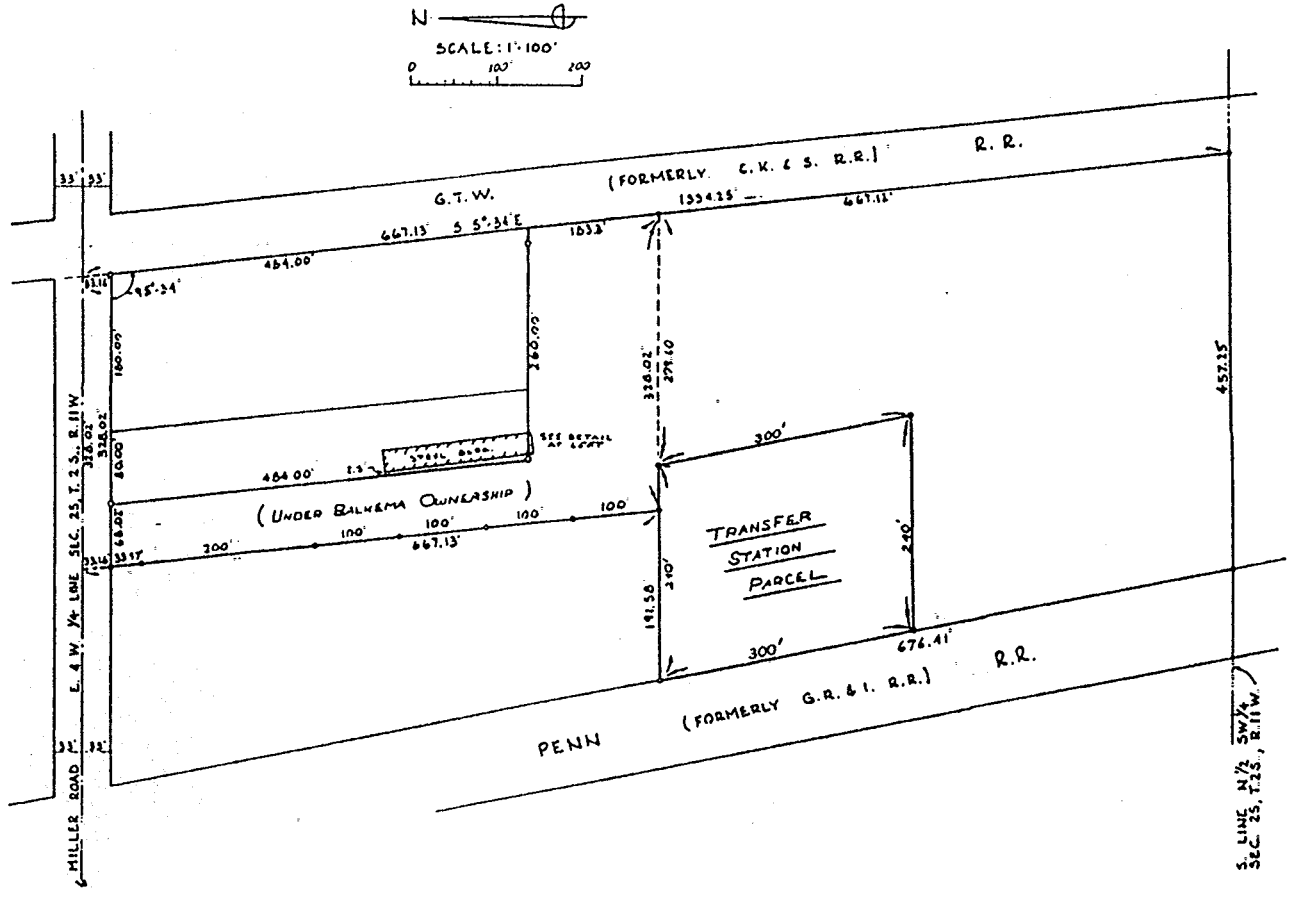
0 100 200 Feet

1 inch = 100 ft.

ATTACHMENT D-7

TRANSFER STATION PARCEL DESCRIPTION

Land located in the South half of the Northwest quarter of the Southwest quarter of Section 25, Town 2 South, Range 11 West more particularly described as follows: Commencing at the intersection of the East and West quarter line of Section 25 with the Westerly line of the Grand Trunk Western Railroad; thence South 5°-34" East along the Westerly line of said right-of-way, 667.13 feet to the South line of the North half of the Northwest quarter of the Southwest quarter of said Section 25; thence West along said South line, 275.40 feet to the place of beginning; thence South 9°-48' East parallel to the East line of the Conrail right-of-way, 300 feet; thence Westerly parallel to said South line, 240 feet; thence Northerly along the East line of the Conrail right-of-way, 300 feet to said South line; thence Easterly thereon 240 feet to the place of beginning; said description containing 1.65 acres, more or less, subject to all conditions, limitations, restrictions and easements of record.



SITE SURVEY

INFORMATION BASED ON SURVEY PREPARED BY WILKINS & WHEATON ENGINEERING CO.

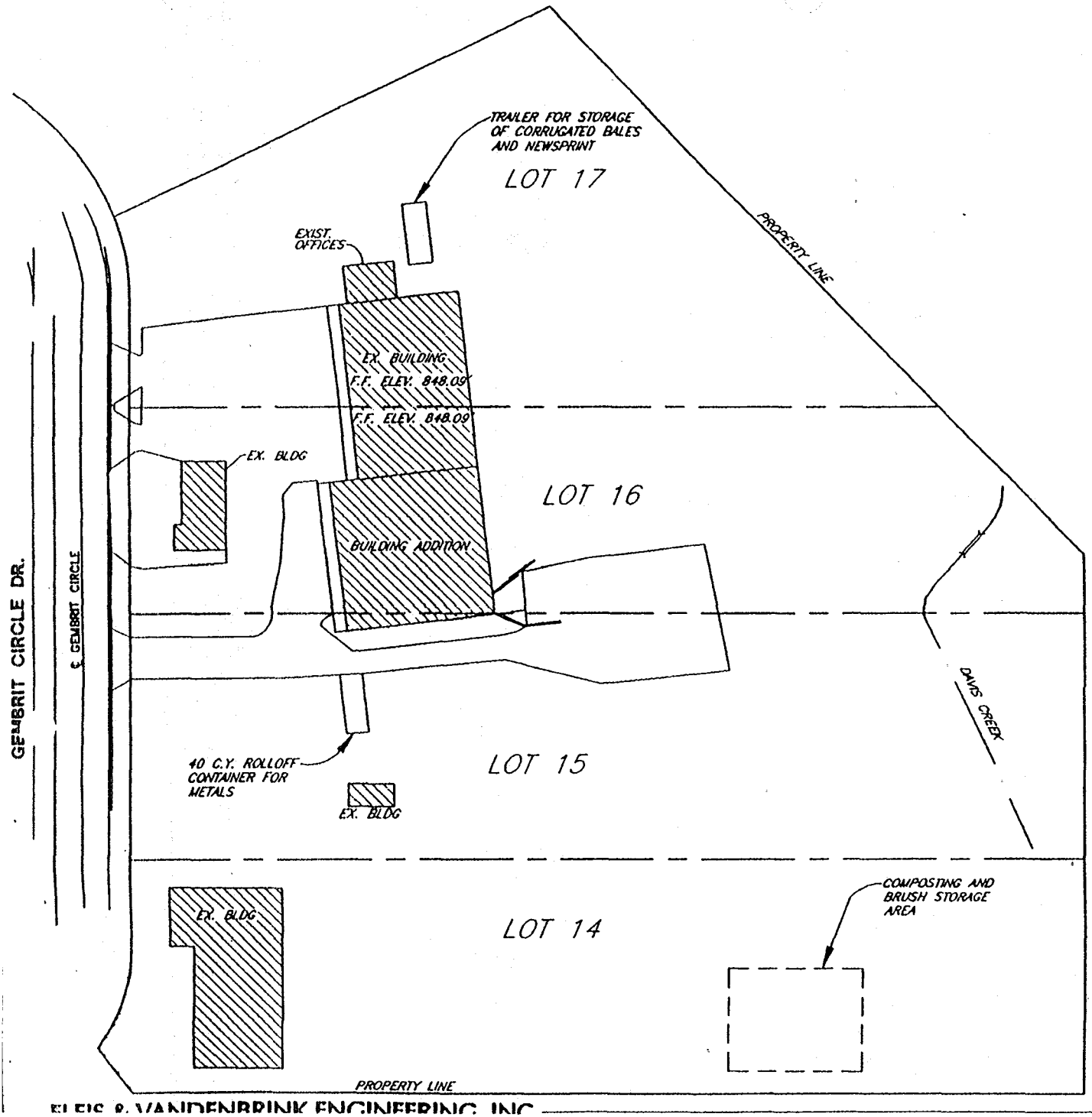
ADD BAR SCALE 9/22/93 BMR
REVISED TO SHOW ENCROACHMENT 2-27-84 J.E.B.

NOTE: IRONS AT ALL POINTS MARKED(•)

ARCHITECTS ENGINEERS PLANNERS SURVEYORS	GOVE ASSOCIATES, INC. 1601 Portage Street Kalamazoo, Michigan (616) 385-0011	SCALE: 1"=100'-0"	DATE	MILLER ROAD TRANSFER STATION CITY OF KALAMAZOO KALAMAZOO CO., MICHIGAN	SHEET 5 OF 5
		DRAWN BY: GARY G.	3/31/83		PROJECT NUMBER B-9618-1
		CHECKED BY: BILL O.	3/31/83		
		APPROVED BY: BMR	9/27/83	PARCEL DESCRIPTION	

© COPYRIGHT 1983

ATTACHMENT D-8



N

0 100 200

SCALE IN FEET

ATTACHMENT D-9

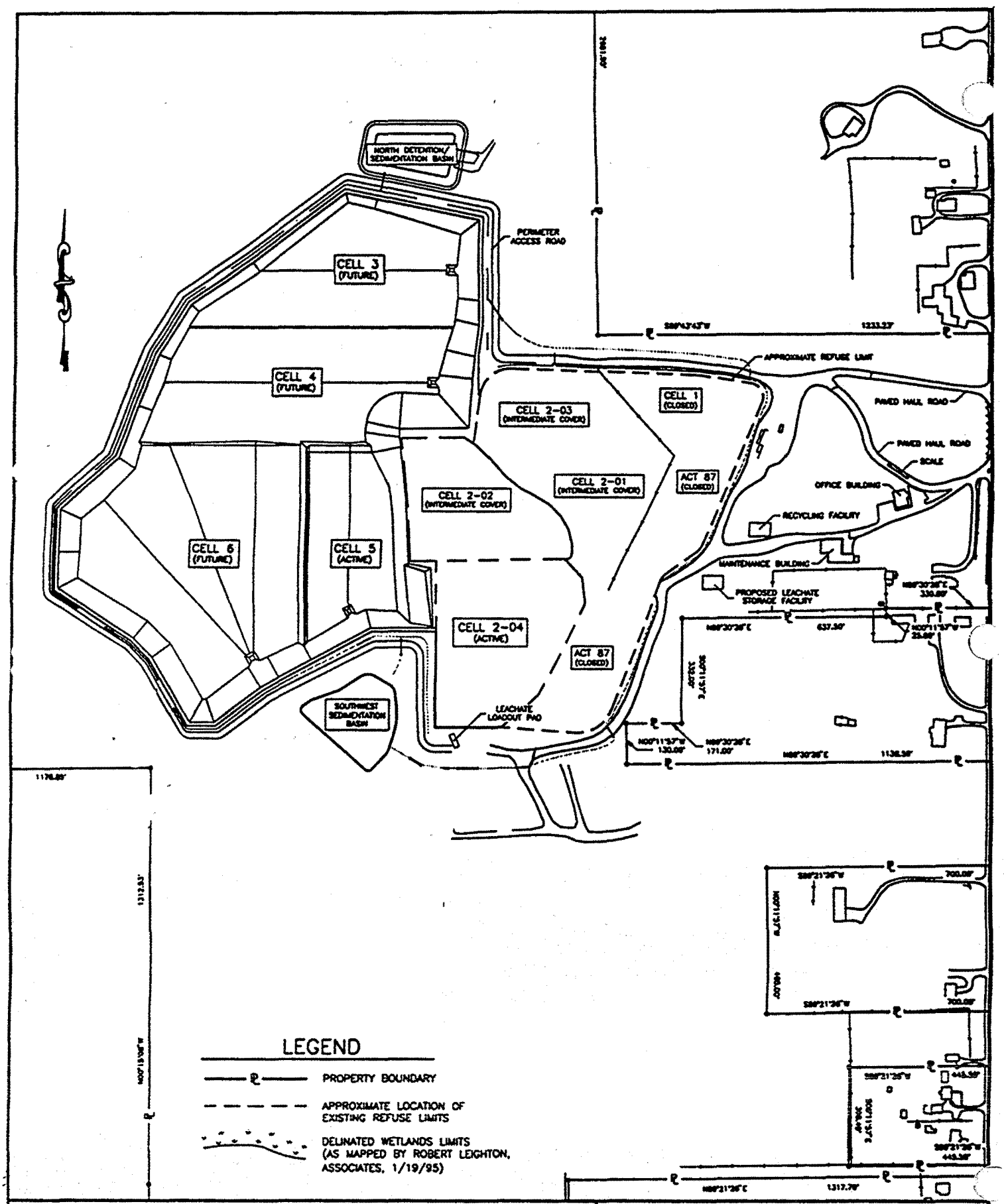
ROYAL HOLDINGS, INC.

ACT 641 SITE PLAN

5/97

3052MAP

ELFIS & VANDENBRINK ENGINEERING, INC.



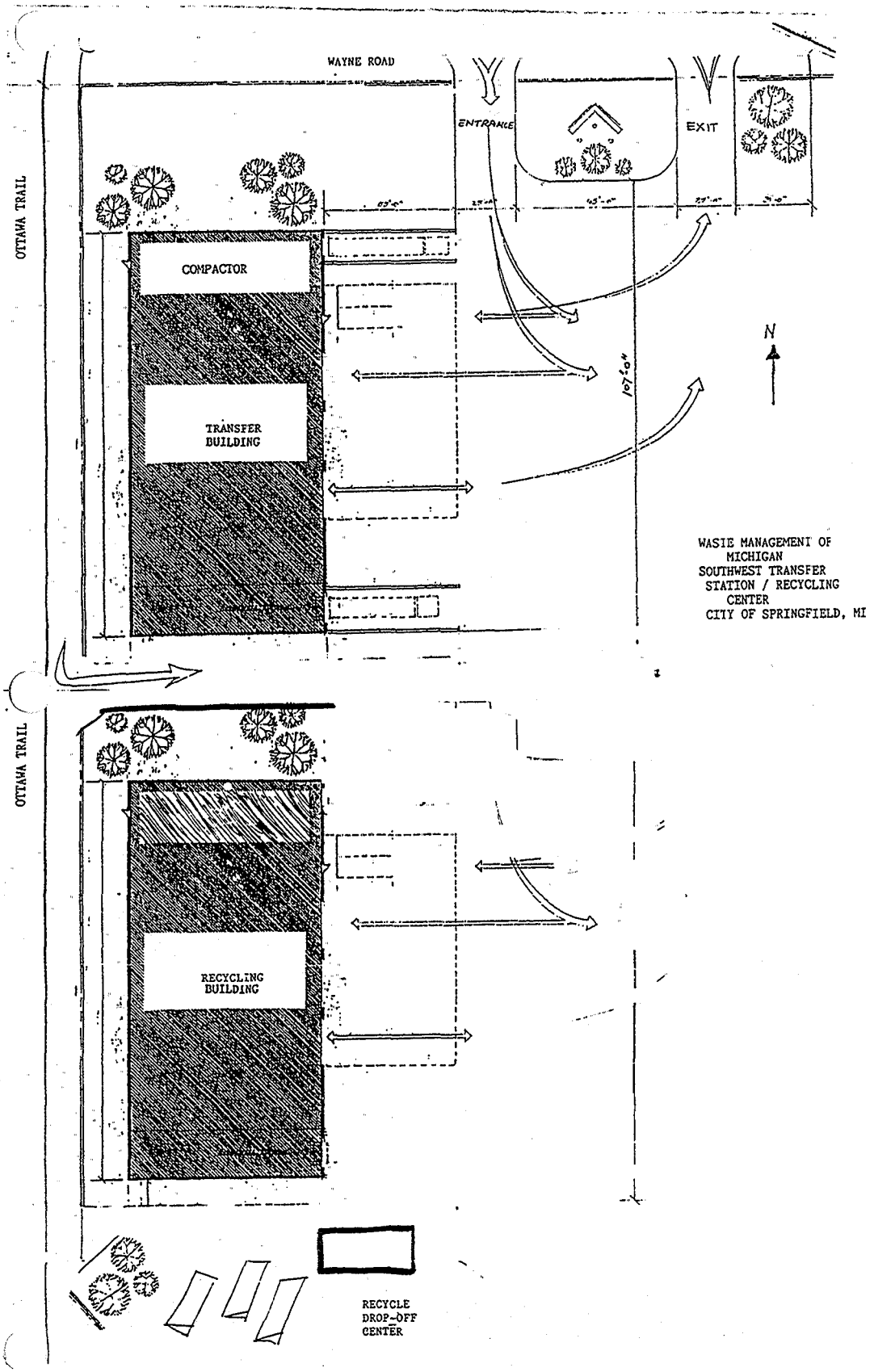
CITY ENVIRONMENTAL SERVICES LANDFILL, INC. OF HASTINGS

GENERAL SITE PLAN

DATE: 10/3/97

HSS-GSP.DWG

ATTACHMENT D-11



RESOURCE RECOVERY PROJECT
OF IONIA COUNTY

March 13, 1998

TO: Designated Planning Agencies for Berrien, Branch, Calhoun, Cass, Clare, Jackson, Kalamazoo, Midland, Mecosta, Osceola, Saginaw, Shiawassee, St. Joseph, Van Buren, and Wexford Counties
FROM: Don Lehman, Ionia County Solid Waste Coordinator
RE: Solid Waste Management Plan Import/Export Arrangements

At Ionia County's Solid Waste Planning Committee meeting on March 5, your county was designated as a county from which "Special Wastes" will be accepted at solid waste disposal facilities in Ionia County. Presently that consists of the Pitsch Landfill in northwest Ionia County. "Special Wastes," as described in Ionia County's Solid Waste Management Plan, consists of construction and demolition debris, foundry sand, sludge, contaminated soils, street sweepings, fly ash, slag, agricultural waste, and others. These "Special Wastes" are Type II wastes, but exclude general Type II residential, commercial, and industrial wastes.

As Ionia County updates its SWMP we will be listing your county as a potential exporter of "Special Waste" to Ionia County. Ionia County's Solid Waste Planning Committee requests that your Solid Waste Management Plan records Ionia County as an importing County for this type of waste. Some counties may desire that this type of arrangement be reciprocal and want their county to be recorded as an importing county for some of Ionia County's waste. If this is the desire of your Solid Waste Planning Committee, please contact me at your convenience.

Ionia County will most likely put an annual cap on the amount of waste permitted to be disposed of at the Pitsch Landfill in order to maintain sufficient capacity for Ionia County's future needs. This could put some restrictions on the use of Pitsch Landfill by your county, but under current conditions the need for restrictions seems to be very limited or even nonexistent.

If you have any questions or comments about Ionia County's intent in proposing this waste disposal relationship, please contact me with your questions or concerns. It is to be hoped that this type of arrangement will help provide your county, and Ionia County, with both primary and contingency capacity over the next ten years and beyond.

Sincerely,

Don Lehman

Donald Lehman
Solid Waste Coordinator

100 Library Street, Ionia, MI 48846
Phone: (616)527-5357 Fax: (616)527-5312

PLANNING COMMISSION Telephone: (616) 467-5617

125 W. Main St.
P.O. Box 277
Centreville, MI 49032-0277

DATE: April 20,1998

TO: All Lower Peninsula Designated Solid Waste Planning Agency Representatives

FROM: St. Joseph County Solid Waste Planning Committee

RE: Solid Waste Management Plan Import/Export Arrangements

The St. Joseph County Solid Waste Planning Committee intends on listing all Lower Peninsula Counties as authorized exporters of Type II solid waste to St. Joseph County. Westside Landfill, located near Three Rivers, is owned and operated by Waste Management of Michigan and has a licensed life capacity of approximately 12 years. In addition to the currently licensed capacity Westside has an additional 280 acres available for future development. Westside Landfill has a current annual cap of 1.75 million gate cubic yards of solid waste with St. Joseph County contributing approximately 255,000 gate cubic yards per year.

If your county wishes to utilize Westside Landfill as a disposal area St. Joseph County must be listed in your plan as an authorized import/export county. Arrangements for specific amounts of waste to be exported to Westside Landfill should be made with Waste Management 616-279-5444.

The St. Joseph County Solid Waste Planning Committee requests that reciprocal agreements, allowing St. Joseph County to export solid waste to your county, be included in your county plans for counties that wish to include St. Joseph County as an import/export county.

Please direct correspondence and inquires to:

Mr. Craig Laurent
Environmental Consultant
PO Box 44
Battle Creek, MI 49016
Phone 616-962-5082

Sincerely,

Craig Laurent, Environmental Consultant

ATTACHMENT D-14

Westside R.D.F.
P.O. Box 392
14094 M-60 West
Three Rivers, MI 49093
616/279-5444 • FAX: 616/273-1662

A Waste Management Company

April 21, 1998

Dean Holub
Solid Waste Coordinator
Kalamazoo County Government
201 West Kalamazoo Ave.
Kalamazoo, MI 49007

Dear Mr. Holub:

Westside RDF has accepted waste from Kalamazoo County for a number of years. The volume we have accepted is included in our annual volume as specified in the fact sheet.

In 1995 the St. Joseph County Plan was amended to allow our landfill to accept up to a combined total of 1,500,000 cubic yards of waste from any authorized counties in our plan. The only restriction that we have is that we will give first priority to St Joseph County solid waste should we reach the annual volume limit. I want to assure you that we are currently a long way from reaching the current limit.

We are, therefore, requesting authorization to accept up to 100% of the waste generated in Kalamazoo County, for the 10 year planning period. Waste acceptance would be subject to the annual volume cap authorized in the St. Joseph County Solid Waste Plan.

St. Joseph County has started the Solid Waste Management Plan update process. The current philosophy regarding waste acceptance will continue to be a part of the updated plan. We have also recently signed an amended Host Community Agreement with St. Joseph County that will allow us to increase our annual volume cap from 1,500,000 cubic yards to 1,750,000 cubic yards. This provision will also be included as part of the plan update. The volume increase will allow us to provide additional landfill disposal capacity for Southwest Michigan on a yearly basis.

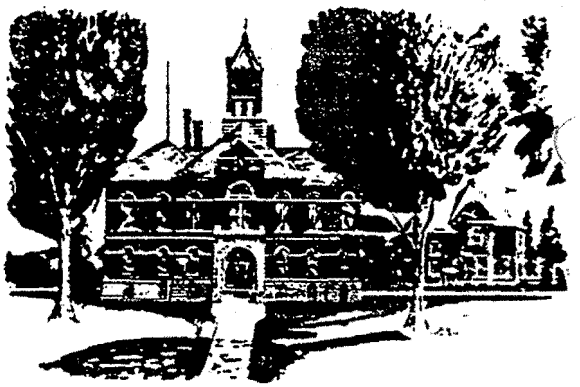
If you have any questions, please give me a call.

Yours Truly,

Tom Wilson

Tom Wilson
Site Manager

ATTACHMENT D-15



BARRY COUNTY COURTHOUSE

220 W. STATE STREET
HASTINGS, MICHIGAN 49058

JUN 05 A.M.

May 28, 1998

Mr. Michael Swords - Chairman
Kalamazoo County Solid Waste Planning Committee
201 W. Kalamazoo Avenue
Kalamazoo, Mi. 49007

Dear Mr. Swords,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Kalamazoo County.

We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Kalamazoo County to Barry County. We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes.

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516.

Sincerely,

V. Harry Adrounie, Ph.D
Chairman

cc: Mr. Dean Holub
Ms. Charlotte B Sumney

Ottawa County Environmental Health

Solid Waste Management Program

Memorandum

To: *Solid Waste Management Planning Committees/Designated Planning Agencies for:*

Allegan, Barry, Berrien, Branch, Calhoun, Cass, Clare, Clinton, Eaton, Gratiot, Ionia, Isabella, Kalamazoo, Kent Lake, Mason, Mecosta, Muskegon, Montcalm, Newago, Oceana, Osceola, St. Joseph, Van Buren Counties.

From: *Darwin J. Baas, Solid Waste Management Coordinator* Darwin J. Baas

Date: *Monday, June 22, 1998*

Subject: *Ottawa County Import/Export Authorizations for Type II/III Solid Waste*

In preparing the Solid Waste Management Plan Update, Ottawa County has recognized 24 counties within the disposal region for import and export authorization.

Importation of Out-of-County Solid Waste

Ottawa County has approved the counties listed above for disposal of Type II/III solid waste and authorizes solid waste from these counties to be deposited in licensed facilities located in Ottawa County. Solid waste may be imported from one or any combination of the above listed counties if explicitly authorized by the exporting county's Solid Waste Management Plan. Disposal of solid waste in licensed Type II facilities in Ottawa County is subject to an annual cap of 1,500,000 tons annually.

Exportation of Ottawa County Solid Waste

Ottawa County will authorize the exportation of up to 100 percent of the Ottawa County solid waste stream to any of the counties listed above whose Solid Waste Management Plan specifically authorize the acceptance of Ottawa County's solid waste.

Enclosed are copies of facility descriptions for the Type II landfills located in Ottawa County. We are requesting that you provide a facility description for each Type II and Type III landfill located within your county, provided the importation of Ottawa County solid waste will be authorized by your Plan. I will be calling you shortly regarding this information.

In the mean time, if you have any questions regarding the enclosed material, please feel free to call me at 616/393-5638.

ATTACHMENT D-17

DEPARTMENT OF ENVIRONMENT AND INFRASTRUCTURE SERVICES
PUBLIC WORKS DIVISION
110 NORTH FOURTH AVENUE
P.O. BOX 8645, ANN ARBOR, MI 48107-8645

RECEIVED
AUG 17 A.M.

August 7, 1998

Mr. Dean Holub
Kalamazoo County Metropolitain Planning Agency
201 West Kalamazoo Avenue
Kalamazoo, MI 49007

Dear Mr. Holub,

In preparing its 1998 Part 115 Solid Waste Management Plan Update, Washtenaw County is considering recognizing all 83 counties in Michigan for import/export authorization. Exhibit A (attached) describes Washtenaw County's intended import/export authorizations, including quantities, for each county in the State.

Washtenaw County currently has one licensed and operational Type II landfill located within its borders, the Arbor Hills Landfill operated by Browning Ferris Industries. Per statutory requirements, it is necessary for both the generating and receiving county plans to explicitly authorize waste transfers and amounts. Washtenaw County is hereby requesting Kalamazoo County to authorize the receipt of 200,000 gate cubic yards of Washtenaw County solid waste per year into Kalamazoo County through explicit authorization in your solid waste plan. We propose to authorize the importation of 200,000 gate cubic yards per year of Kalamazoo County solid waste into Washtenaw County.

Washtenaw County intends to release the draft of its Plan Update in October of this year. In order to ensure that your County's disposal needs are included in our Plan, and that our needs are likewise included in your Plan, we would appreciate receiving written notice of your import/export intentions by September 1, 1998.

Thank you for your attention to this matter. If you have any questions or concerns, please contact me at (734) 994-2398 or via e-mail at todds@co.washtenaw.mi.us.

Sincerely,

Susan Todd
Solid Waste Coordinator
Enc.

ATTACHMENT D-18

SOLID WASTE DIVISION
Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

WATER AND SEWER DIVISION
Financing
Construction
Operation

Board of Public Works

JERRY O. KOOIMAN
Chairman
ROGER G. LANINGA
Vice Chairman
BEVERLY R. REKENY
Secretary
CHERRY H. JACOBUS
KATHERINE KUHN
PAUL McGUIRE
DAVID H. MORREN
CURT A. KEMPPAINEN
Director

September 1, 1998

Dean Holub
Kalamazoo Metro County Planning Agency
201 West Kalamazoo Avenue
Kalamazoo, MI 49007

Re: Solid Waste Management Plan Committee

Dear Mr. Holub:

In preparing its 1998 Part 115 Solid Waste Management Plan Update and as part of the County's integrated solid waste system, Kent County is recognizing 14 counties in Michigan for import and/or export authorization. Exhibit A (attached) describes Kent County's intended import and/or export authorizations for each county recognized in their Plan limited to the conditions as stated. Also included are Tables 1-A and 2-A from the updated Plan.

In order to ensure that your County is included in our Plan, and that our needs are likewise included in your Plan, we would appreciate receiving written notice of your import and/or export intentions by October 5, 1998.

Thank you for your attention to this matter. If you have any questions or concerns, please contact me.

Best regards,

KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Douglas G. Wood

Douglas G. Wood
Deputy Director

Earl G. Woodworth Building • 1500 Scribner Avenue, N.W. • Grand Rapids, Michigan 49504-3299
Telephone: (616) 336-3694 Facsimile: (616) 336-3338 E-Mail address: kcdpw@dpw.co.kent.mi.us

printed on recycled paper

Kent County
Solid Waste Import Condition*

Kent County has had an integrated solid waste management system which includes the Kent County Waste-to-Energy Facility, the South Kent Landfill, the North Kent Transfer Station, the Material Recovery Facility, the Household Hazardous Waste Program, perpetual care for closed landfills, and public education programs. Through this integrated system, Kent County takes a comprehensive approach to the management of solid waste within the County.

As part of the County's integrated system, the 1990 Solid Waste Management Plan permitted a limited amount of waste generated from several surrounding counties to be imported into Kent County and disposed of in the South Kent Landfill. These counties were Allegan, Ottawa, Montcalm, Ionia and Barry.

This Plan will recognize the following counties as importers of solid waste to Kent County facilities: Allegan, Ottawa, Montcalm, Ionia, Barry, Calhoun, Clinton, Eaton, Gratiot, Kalamazoo, Mecosta, Newaygo, Oceana and Van Buren.

Kent County's first and main concern is to provide long term disposal for the residents of the County (20 years). In the event, as determined solely by the Board of Public Works, that long term disposal is not being met, any contracts for importation with the above mentioned counties will be reviewed or not renewed.

S:\SWO\SWMA\PLANS\451SWMP\CONDITIM.WPD

BOARD OF COMMISSIONERS
MEMORANDUM

TO: Dean Holub

FROM: Ann Root

DATE: September 2, 1998

SUBJECT: Board Action

At its meeting of September 1, 1998, the Kalamazoo County Board of Commissioners approved the proposed Solid Waste Management Plan Update dated May 1998, subject to the additions and modifications recommended by the Solid Waste Management Planning Committee (SWMPC), and authorized the SWMPC to submit said Plan Update to all local units of government in the County for review and action.

If you have any questions regarding this action, please feel free to contact the Board Office.

K:\BOC\FOLLOWUP\1998\09-01.KH

ATTACHMENT D-20

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Galesburg City Council (board/commission/council) of the City of Galesburg (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

CITY OF KALAMAZOO

RESOLUTION NO. 98-145

A RESOLUTION APPROVING THE 1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

Minutes of a regular meeting of the City Commission of the City of Kalamazoo held on December 7 1998, at 7:00 o'clock p.m., local time, at the City Hall.

PRESENT, Commissioners: Cooney, Gordon, Hahn, Heilman, Teeter, Vice Mayor McKinney, Mayor Jones

ABSENT, Commissioners: None

WHEREAS, on May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short and long-range (5-10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE, BE IT RESOLVED, that the City Commission of the City of Kalamazoo does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

The above resolution was offered by Commissioner Gordon and supported by Commissioner Hahn.

AYES: Commissioners, Cooney, Gordon, Hahn, Heilman, Teeter, Vice Mayor McKinney, Mayor Jones

NAYS: Commissioners, None

ABSTAIN: Commissioners, None

CERTIFICATE

I hereby certify that the foregoing is a true and complete copy of a resolution adopted at the regular meeting of the City Commission of the City of Kalamazoo, Kalamazoo County, Michigan, held on the December 7, 1998. Public notice was given and the meeting was conducted in full compliance with the Michigan Open Meetings Act (PA 267, 1976). Minutes of the meeting will be available as required by the Act.

NA Collins

Nancy Collins, City Clerk

RESOLUTION
CITY OF PARCHMENT
1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

At a regular meeting of the City Commission of the City of Parchment held on Monday, October 5, 1998 it was moved by Commissioner DeGraw and supported by Commissioner McCue to adopt the following resolution:

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short-range (5-year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the City Commission of the City of Parchment does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998 for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

The roll call vote was as follows:

Ayes:	Banner, Bultje, DeGraw, Hageman, Heasley, McCue, Pressley.
Nays:	None
Absent:	None
Abstain:	None

Resolution Declared Adopted October 5, 1998.

Curt Flowers, City Clerk

ATTACHMENT D-23

CITY OF
PORTAGE
A PLACE FOR OPPORTUNITIES TO GROW

Office of the City Clerk

November 24, 1998

Mr. Dean Holub
Department of Planning & Community Development
201 West Kalamazoo Avenue
Kalamazoo MI 49007

Dear Mr. Holub:

RE: Solid Waste Management Plan Update

On November 3, Portage City Council approved the **Solid Waste Management Plan Update** as submitted for review and action.

If you have any questions, please do not hesitate to call me at 329-4511.

Sincerely,

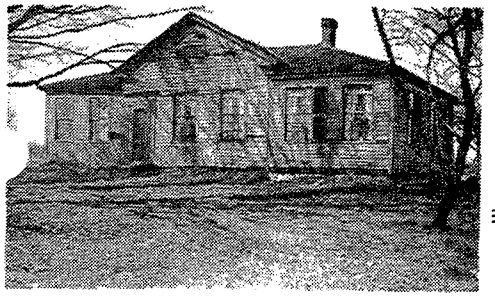
James R. Hudson
City Clerk

LeHolubPlanningDeptCo.doc/ajk

c Dennis Durham, Assistant City Manager

7900 South Westnedge Avenue ▪ Portage, Michigan 49002 ▪ (616) 329-4511

ATTACHMENT D-24



VILLAGE OF SCHOOLCRAFT

KALAMAZOO COUNTY
. . . MICHIGAN . . .

ON HIGHWAY US-131 - SOUTHWESTERN MICHIGAN GATEWAY TO THE SOUTH, MID-WEST, WEST

HISTORIC OLD UNDERGROUND RAILROAD
STATION OF EARLY CIVIL WAR DAYS

OFFICE OF THE CLERK
679-4304

RESOLUTION
NOVEMBER 16, 1998

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Council of the Village of Schoolcraft does hereby approve the 1998 Solid Waste Management Plan Update of Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

VILLAGE OF VICKSBURG
RESOLUTION 10-1-98-1
A RESOLUTION APPROVING THE 1998 KALAMAZOO COUNTY
SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, on May 1, 1979, the Kalamazoo County Board of Commissioners adopted a notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal, and management system needs of all communities within Kalamazoo county both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE, BE IT RESOLVED that the Village Council of the Village of Vicksburg does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

RESOLUTION 10-1-98-1 , PAGE #2

I, HEREBY CERTIFY that the foregoing is a true and complete copy of a resolution adopted by the Village Council of the Village of Vicksburg at a regular meeting held on October 5, 1998. By a roll call vote:

MOTION: Trustee Margaret Merrill

SUPPORT: Trustee Tim Pool

AYES: Seven (7) Trustees: Steve Beebe, Sheldon Durham, Rachel Freeman, Margaret Merrill, Tim Pool, Jody Tuinier, and President Ted Hammond

NAYS: None (0):

ABSTAINING: None (0):

O. John Bretz

O. John Bretz, Village Clerk

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Board (board/commission/council) of the Township of Brady (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

Motion by Guthrie, seconded by Maturen to accept Resolution: 12/1/98

Guthrie	YES
Dougherty	YES
Maturen	YES
Vermeulen	YES
Parker	YES

Cande Vermeulen

Brady Township Clerk
Cande Vermeulen

CERTIFICATE

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Township Board of Brady Township at a Meeting held on December 1, 1998, and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meeting Act, being ACT 267, Public Acts of Michigan, 1976, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.

Cande L. Vermeulen, Township Clerk

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Board (board/commission/council) of the Climax Twp. (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

John P. Simmons Dec 8-1998

EXCERPT OF MINUTES OF THE REGULAR MEETING OF THE CHARTER TOWNSHIP OF COMSTOCK BOARD KALAMAZOO COUNTY, MICHIGAN

SEPTEMBER 30, 1998

The Regular Meeting of the Charter Township of Comstock Board was called to order at 4:00 p.m. Wednesday, September 30, 1998 at the Township Hall, 6138 King Highway, by the Supervisor.

Board Members Present:	Timothy J. Hudson, Supervisor Stephen M. French, Clerk Janice Boers Shattuck, Treasurer Jeffrey D. Bogema, Trustee Shelly Pierce Cornell, Trustee Ellen Eggleston, Trustee William G. Shields, Trustee
Board Members Absent:	None.

NEW BUSINESS

KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

The Supervisor stated that the Kalamazoo County Board of Commissioners had provided the Township Board with a Resolution adopting the new five year plan regarding solid waste management in Kalamazoo County. The Supervisor stated that, in addition to the Board of Commissioners, the area township supervisors have recommended its adoption.

The following Resolution was then moved by Bogema and seconded by Cornell:

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979 the Kalamazoo County Board of Commissioners adopted a Notice of intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Comstock Township Board does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

On a roll call vote of the Resolution, the following voted, "Aye": Bogema, Cornell, Eggleston, French, Hudson, Shattuck, Shields.

The following Board Members voted, "Nay": None.

The following Board Members were absent: None.

The Supervisor declared the Resolution adopted.

CERTIFICATE

I hereby certify that the foregoing constitutes a true and complete copy of a Resolution adopted at a regular meeting of the Comstock Charter Township Board held at the Township Hall on Wednesday, September 30, 1998, that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being 1976 PA 267; that a quorum of the Board was present and voted in favor of said Resolution; and that minutes of said meeting were kept and will be or have been made available as required by said Open Meetings Act.

STEPHEN M. FRENCH, Clerk
Charter Township of Comstock

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a So]id Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequcntly reenacted as PA. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, thc floard authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been *prepared for* Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities witnin Kalamazou Cuuiity both in the ₃h₀rt (S year) and Inng range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Bo&d of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Township board of the Township of Cooper does hereby approve the 1998 Solid

Waste Management Ftan Update for Kalamazoo County, Michigan, dated September 1 998, far the purpose of meeting the objectives of Section 11 539a of F.A. 451 of l 994, as amended, and the rules promulgated thereunder.

Dated this 14th day of September, 1998.

ATTACHMENT D-30

Charter
Township
of Kalamazoo

Office of the Supervisor
Gary L. Cramer

Telephone: (616) 381-8083
Fax: (616) 381-6930

E-Mail: "Ktwp@telecity.org"
Internet: "http://www.telecity.org/kalamazootownship/"

1720 Riverview Drive
Kalamazoo, Michigan 49004-1099

Resolution

1998 Kalamazoo County Solid Waste Management Plan Update
November 09, 1998

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short-range (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE, WE, . . . the Charter Township of Kalamazoo do hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

Gary L. Cramer

Gary L. Cramer - Supervisor

"A Quality Township Striving to Meet the Needs of Its Citizens."

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act required that each Solid Waste Management Plan to be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waster Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and (10 year time periods; and

WHEREAS the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Board of Trustees of the TOWNSHIP OF OSHTEMO does hereby approved the 1998 Solid Waste Management Plan Update for Kalamazoo County Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. Of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

Motion was made by Block, seconded by Johnson, to adopt the foregoing Resolution.

Upon roll-call vote, the following voted "AYE: Block Johnson Bushouse Branch Anderson Fleckenstein

The following voted "NAY" none

Absent: Brown

The Supervisor declared the motion carried and the Resolution duly adopted.

Elaine J. Branch

Elaine J. Branch, Clerk
OSHTEMO CHARTER TOWNSHIP

* *

CERTIFICATE

ELAINE J. BRANCH, the duly elected and acting Clerk of the Charter Township of Oshtemo, Kalamazoo County Michigan hereby certifies that the foregoing is a true and correct copy of an Excerpt of the Minutes of a regular meeting of the Oshtemo Charter Township Board held on September 22, 1998, at which a quorum was present.

Elaine J. Branch

Elaine J. Branch, Clerk
OSHTEMO CHARTER TOWNSHIP

RESOLUTION PT 12-98

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the board (board/commission/council) of the Township of Pavilion (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

State of Michigan)
)
County of Kalamazoo)

I, the undersigned, the duly qualified and acting Clerk of the Township of Pavilion, do hereby certify that the foregoing is a true copy of a Resolution adopted by the Township Board at a meeting held on the 12th day of October 1998, the original of this resolution is on file in my office.

IN WITNESS WHEREOF, I have hereunder affixed my official signature the 12th day of October 1998.

Deborah J. Poolman

Deborah J. Poolman
Pavilion Township Clerk

RICHLAND TOWNSHIP

7401 North 32nd Street
Richland, Michigan 49083-9701
(616) 629-4921 • FAX (616) 629-5993

October 8, 1998

Kalamazoo County Department
of Planning & Community Development
201 West Kalamazoo Avenue
Kalamazoo, MI 49007

The following resolution was passed by the Richland Township Board at a regular meeting held October 6, 1998:

Light moved, Kaywood seconded, approval of the following resolution:

WHEREAS, on May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of PA 641 of 1978, as amended (subsequently reenacted as PA 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of PA 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of PA 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Richland Township Board of Trustees does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dates September 1998, for the purpose of meeting the objectives of Section 11539a. of PA 451 of 1994, as amended, and the rules promulgated thereunder.

AYES: Stafford, Hinklin, Blanchard, Light, Kaywood
NAYS: None

The Supervisor declared the Resolution adopted.

Jacqueline Light
Richland Township Clerk

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the BOARD (board/commission/council) of the TOWNSHIP OF ROSS (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

ADOPTED NOVEMBER 10, 1998

Linda Armintrout

LINDA ARMINTROUT, SUPERVISOR

ATTACHMENT D-35

TOWNSHIP OF SCHOOLCRAFT

Kalamazoo County, Michigan

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50 EAST VW AVENUE, VICKSBURG, MICHIGAN 49097

Office of
Clerk

Phone: (616) 649-1276
(616) 342-6185

December 10, 1998

Michael Swords, Chairman
Kalamazoo County Solid Waste Management Planning Committee
201 West Kalamazoo Ave.
Kalamazoo, MI 49007

Dear Mr. Swords:

Please be advised that the Schoolcraft Township Board of Trustees at its December 10, 1998 meeting approved the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998.

If you have any questions regarding this matter, please don't hesitate to call.

Sincerely,

Kathleen F. Cook

Kathleen F. Cook
Schoolcraft Township Clerk

ATTACHMENT D-36

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Board of Trustees (board/commission/council) of the Charter Township of Texas (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.

ATTACHMENT D-37

RESOLUTION

1998 KALAMAZOO COUNTY SOLID WASTE MANAGEMENT PLAN UPDATE

WHEREAS, On May 1, 1979, the Kalamazoo County Board of Commissioners adopted a Notice of Intent which required filing a Solid Waste Management Plan in accordance with Section 24 of P.A. 641 of 1978, as amended (subsequently reenacted as P.A. 451 of 1994); and

WHEREAS, said Act requires that each Solid Waste Management Plan be updated every five (5) years; and

WHEREAS, the Board authorized the Metropolitan County Planning Commission as the "designated planning agency" responsible for the oversight of a Solid Waste Management Plan Update for the County of Kalamazoo; and

WHEREAS, the Board appointed a Solid Waste Management Planning Committee to prepare the actual document in accordance with Section 11534 of P.A. 451 of 1994, as amended; and

WHEREAS, a Solid Waste Management Plan Update has been prepared for Kalamazoo County and subsequently distributed to all local units of government in the County; and

WHEREAS, the Plan provides for the basic solid waste collection, disposal and management system needs of all communities within Kalamazoo County both in the short- (5 year) and long-range (10 year) time periods; and

WHEREAS, the Plan has been approved by the Kalamazoo County Solid Waste Management Planning Committee and the Kalamazoo County Board of Commissioners in accordance with Section 11536 of P.A. 451 of 1994, as amended.

NOW, THEREFORE BE IT RESOLVED that the Township Board (board/commission/council) of the Township of Wakeshma (Local unit of government) does hereby approve the 1998 Solid Waste Management Plan Update for Kalamazoo County, Michigan, dated September 1998, for the purpose of meeting the objectives of Section 11539a. of P.A. 451 of 1994, as amended, and the rules promulgated thereunder.