APPLICATION FOR

SANITARY LANDFILL FACILITIES

FOR THE CITY OF

STOUGHTON, WISCONSIN

Rec'd 3/15/72

John A. Strand & Associates, Inc.
Consulting Engineers
Madison, Wisconsin

March 8, ~~1971~~ 72

LICENSE APPLICATION FOR SOLID WASTE DISPOSAL OPERATION
Form 9400-215

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

See Back of Application Form For Instructions

(A separate application is required for each site or facility)

Application is hereby made to the State of Wisconsin Department of Natural Resources, Division of Environmental Protection, for a license to operate a solid waste disposal site or facility under provisions of Section 144.44, Wisconsin Statutes.

FOR LICENSING PERIOD OF JULY 1, 1972 THROUGH JUNE 30, 1973

TYPE OF DISPOSAL OPERATION: (x) Sanitary Landfill ( ) Salvage Yard
( ) Modified Sanitary Landfill ( ) Incinerator
( ) Dump ( ) Other _____ (Specify)

NAME OF OPERATOR: City of Stoughton (Municipality, Firm, Person, Etc.) Address City Hall, Stoughton, Wisconsin

NAME OF DISPOSAL OPERATION: (If Any) _____ Size 11 (Acres)

LOCATION: Dane (County) Stoughton (City, Village, Town) 5N (Township) 11E (Range) 4 (Section)

NAME OF PROPERTY OWNER: City of Stoughton (Municipality, Firm, Person, Etc.)

RESPONSIBLE PERSON TO CONTACT: George Hove (Name) Clerk (Title) 873-6677 (Telephone)
Address City Hall, Stoughton, Wisconsin

AREA SERVED BY OPERATION: Stoughton (Municipalities) Population: Permanent 6100
Seasonal -

TYPE OF WASTES HANDLED: (Check One or More) ( ) Garbage ( ) Trash ( ) Industrial
( ) Commercial ( ) Demolition Material ( ) Liquid Waste ( ) Salvageable Material
( ) Others See Management Plan (Specify)

ATTACH COPY OF LOCAL PERMITS, MAP SHOWING LAND USE WITHIN $\frac{1}{4}$ MILE, AND DESCRIPTION OF OPERATION

I hereby certify that to the best of my knowledge, the foregoing information and attached details are accurate and complete.

[signature] 3/10/72
Signature and Title of Applicant Date

FOR DISTRICT OFFICE USE ONLY

Site Recommended Action: (Has) (Has Not) Been Field Investigated
( ) License
( ) Conditional License
( ) License Denied (Attach Explanation)

Signature _____ Date _____
(District Director)

LEAVE THIS SPACE BLANK

The application form should be completed in triplicate. The original and one copy should be submitted to the District Office of the Division of Environmental Protection having jurisdiction over the county in which the operation is located. The third copy may be retained for your file. If a typewriter is not available, print with black ink.

NAME OF OPERATOR

If city, village or town, show name (city of, village of, town of) and office address of the local governmental agency having jurisdiction over the operation or clerk of government.

If corporation, show name and address of corporation.

If partnership, show names and addresses of partners.

If individual, show name and address.

NAME OF DISPOSAL OPERATION

If operator has only one site within the indicated municipality (city, village or town) and if operation has no specific name, may show "None". The size of the operation should show total area of property both previously used and expected to be used for disposal purposes in future.

LOCATION

If within city or village, indicate street address instead of township, range and section.

NAME OF PROPERTY OWNER

If same as name of operator, show "Same".

RESPONSIBLE PERSON TO CONTACT

List name, title, telephone number and address of person in charge of operation who should be contacted by department if such becomes necessary.

AREA SERVED BY OPERATION

Municipalities (cities, villages and towns) from which persons may either directly or indirectly through collection service, use the operation for disposal purposes. Because the population of a municipality may greatly vary, particularly in recreational areas, both the permanent and estimated maximum seasonal population should be indicated.

ATTACHED INFORMATION

LOCAL PERMIT - Required in all cases except when site is operated by local government having jurisdiction over area or where otherwise exempt by Section 60.72, Wisconsin Statutes.

MAP SHOWING LAND USE WITHIN $\frac{1}{4}$ MILE AND DESCRIPTION OF OPERATION - Required in all cases. May be submitted on own forms or on forms provided by department. If operation is not located in rural area, use own map with indicated details and legend.

SIGNATURE

If applicant is a municipality, the form should be signed by the official to whom correspondence should be addressed.

If applicant is a partnership, the name of the partnership and the signature of at least one partner should be affixed. It is desirable that the signatures of all partners be included.

If applicant is a corporation, the name of the corporation should be given and the signature of an authorized officer affixed.

FOR FURTHER INFORMATION, SEE STATE OF WISCONSIN SOLID WASTE DISPOSAL STANDARDS

DESCRIPTION OF EXISTING SOLID WASTE
DISPOSAL LANDFILL OPERATION
FORM 4400-1

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NAME OF OPERATOR: City of Stoughton, Wisconsin

LOCATION: Dane (County) Stoughton (City, Village, Town) 5N (Township) 11E (Range) 4 (Section)

Depth to Groundwater See Plans (Below Excavation and/or Lowest Elevation of Site) Depth to Bedrock See Plans

Distance to Nearest Surface Water 1000 ft. + Distance to Nearest Public Road 600 ft.

Type of Zoning in Area Agricultural

Type of Soil at Site: Sandy_____ Gravel_____ Clay_____ Other (See Plans)

How Often is the Site Visited for Maintenance Purposes? Daily

How Often is Dumping Area Compacted and Covered? Daily Proposed

What Equipment is Available on the Site for Compacting, Covering, Etc? See Management Plan

What is Life Expectancy of Existing Site? 10 Years

How Much Area is Required per Year of Operation? Less Than One Acre (Acres)

Following questions are answered in light of the recommendations as included in the Management Plan, a copy of which is attached.

Yes	No	
(x)	( )	Have any Written Operational Procedures been Established?
(x)	( )	Is Open Burning Practiced? How Often? ( ) Regularly ( ) Weekly (x) Occasionally
( )	(x)	Does any Surface Water Exist on Property?
(x)	( )	Are there Means to Control Possible Wind Blown Material?
( )	(x)	Are Separate Areas Maintained for the Disposal of Special Wastes such as Dead Animals, Hazardous Materials, Etc? If so, Specify Wastes No Special Wastes Accepted
(x)	( )	Is the Disposal Operation Fenced? Entirely or Partially? Partially
(x)	( )	Has a Program for Insect and Rodent Control Been Established?
(x)	( )	Is the Site and Approach Road Maintained for Year round Use?
(x)	( )	Have Arrangements for Emergency Fire Protection been Established?
(x)	( )	Is a Gate Provided at the Site Entrance?
(x)	( )	Is an Attendant on Duty When Site is Open for Public Use?
(x)	( )	Are Directions for Dumping Posted?
(x)	( )	Is the Operation Screened from the Surrounding Area by Hills, Trees, Etc?
(x)	( )	Have any Changes in Operational Procedures been Proposed? If so, Describe Proposed Changes.
(x)	( )	Is Solid Waste Collection Service Provided? (x) By Municipality (x) By Private Operator

List and describe all operational and disposal site changes or improvements that were made during the last licensing period. (Use additional sheets if necessary.)

See Management Plan

MAP OF LAND USE WITHIN ¼ MILE
OF EXISTING DISPOSAL OPERATION

SHOW ALL DETAIL BY FOLLOWING LEGEND:

Location and Boundaries of Operation

Homes and Other Buildings

Name — Watercourse and Direction of Flow

Name — Roads and Highways
(Label as to Federal, State, County or Town)

Wells

Name — Lakes

XXXXXXXX — Rock Outcroppings

EACH SQUARE ON GRAPH REPRESENTS 10 ACRES

SECTION___ SECTION___ SECTION___ SECTION___

SECTION___ SECTION___ SECTION___ SECTION___

(SEE AERIAL PHOTOGRAPH AND USGS MAP ATTACHED)

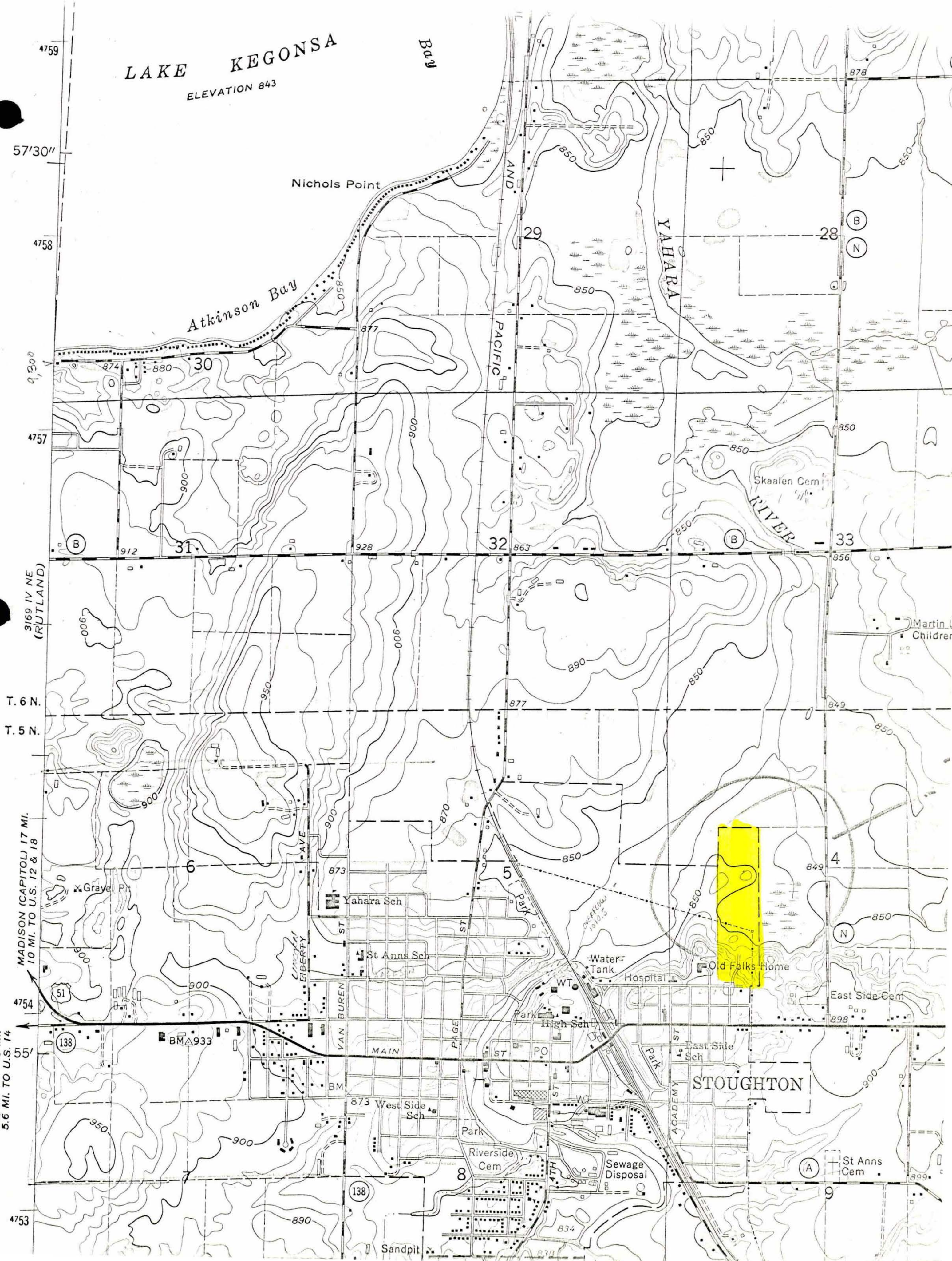
SECTION___ SECTION___ SECTION___ SECTION___

SECTION___ SECTION___ SECTION___ SECTION___

0' 660' 1,320' 2,640' 1 Mile

SCALE

Rev. 4-70



LAKE KEGONSA
ELEVATION 843
Bay
Nichols Point
Atkinson Bay
YAHARA
RIVER
Skaalen Cem
PACIFIC
AND
29
28
30
31
32
33
5
6
4
7
8
9
T. 6 N.
T. 5 N.
4759
57'30"
4758
4757
4754
55'
4753
3169 IV NE
(RUTLAND)
MADISON (CAPITOL) 17 MI.
10 MI. TO U.S. 12 & 18
OREGON 7.5 MI.
5.6 MI. TO U.S. 14
Martin
Children
Gravel Pit
Yahara Sch
St Anns Sch
Water Tank
Hospital
Old Folks Home
East Side Cem
High Sch
Park
PO
East Side Sch
STOUGHTON
BM△933
BM
West Side Sch
Park
Riverside Cem
Sewage Disposal
St Anns Cem
Sandpit
MAIN
VAN BUREN
PAGE
LIBERTY
AVE
ACADEMY
ST
4TH
138
51
850
877
880
874
878
900
912
928
863
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873
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834

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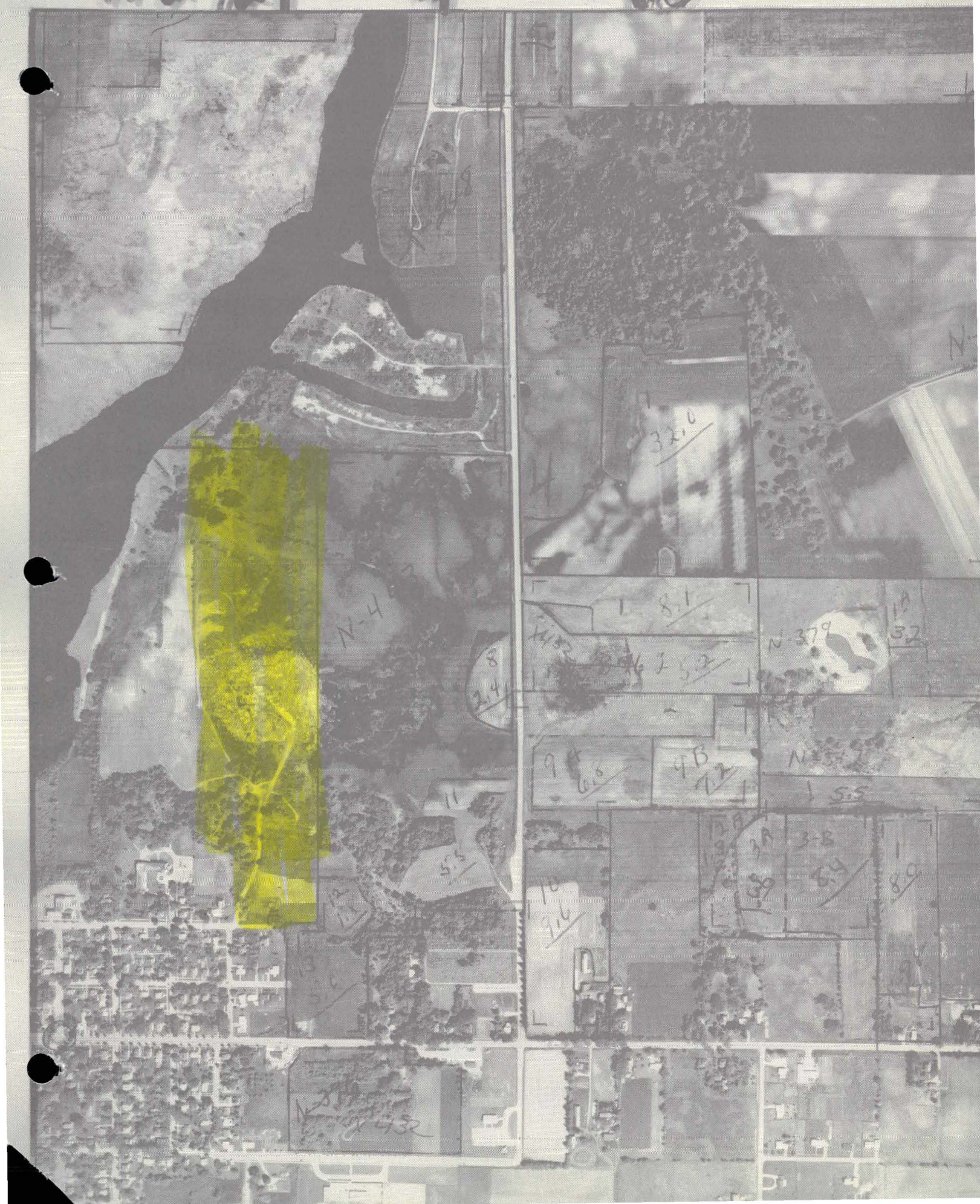


MANAGEMENT PLAN
FOR
CITY OF STOUGHTON, WISCONSIN
SOLID WASTE DISPOSAL SITE
JANUARY 1972

PURPOSE

The purpose of this plan is to develop approved operational procedures for the existing solid waste disposal site in the City of Stoughton in order to extend its useful life. The operational procedures and requirements presented in this plan are in conformance with the State of Wisconsin Solid Waste Disposal Standards (Chapter NR 151, Wis. Adm. Code).

SCOPE

This plan presents necessary information for preparation and development of the site in order that an acceptable and approved sanitary landfill site can be operated. Also presented are details on the method of operation, equipment and manpower requirements, seasonal operational problems and general comments on operation and maintenance of the site.

SITE DESCRIPTION

The existing site is approximately 44 acres in size and is located in the West One-Half of Section 4, T5N, R11E, City of Stoughton, Wisconsin. Approximately 11.5 acres of the site are acceptable for continued use after proper preparation. Access to the site is provided by a bituminous

drive off of Ridge Drive. The land-surface altitudes of the site range from a high of 900 feet to a low of about 842 feet above sea level. Ground surface slopes on the south, partially wooded, one-third of the site are steep, diminishing to relatively flat slopes on the center portion of the site which is presently used for solid waste disposal. Approximately the north one-quarter of the site contains a significant area of lowland. The north boundary of the site is bordered by a drainage ditch which provides surface drainage for a portion of this site and areas to the east and north. The east boundary of the site and a portion of the south boundary are fenced.

Soil borings taken at the site are shown on Drawing 135-1 and indicate that the underlying soils consist of sandy materials containing much silt and silty clays. United States Geological Survey report on the geology and ground water resources of Dane County indicate a bedrock surface elevation of approximately 650 feet above sea level at the site. Ground water elevations, as measured at the soil boring locations, indicate a variation from 842.25 to 846.75 feet above sea level. It is our opinion that the sustained ground water elevation at the site is somewhere between these two values.

POPULATION AND AREA SERVED

As presently planned, the existing site will be limited to providing disposal facilities for City of Stoughton residents and commercial,

industrial, and institutional facilities within the City limits. The following graph (Figure 1) shows the census of population within the City through 1970 and future estimated population growth. Population forecasts are as presented by the Dane County Regional Planning Commission.

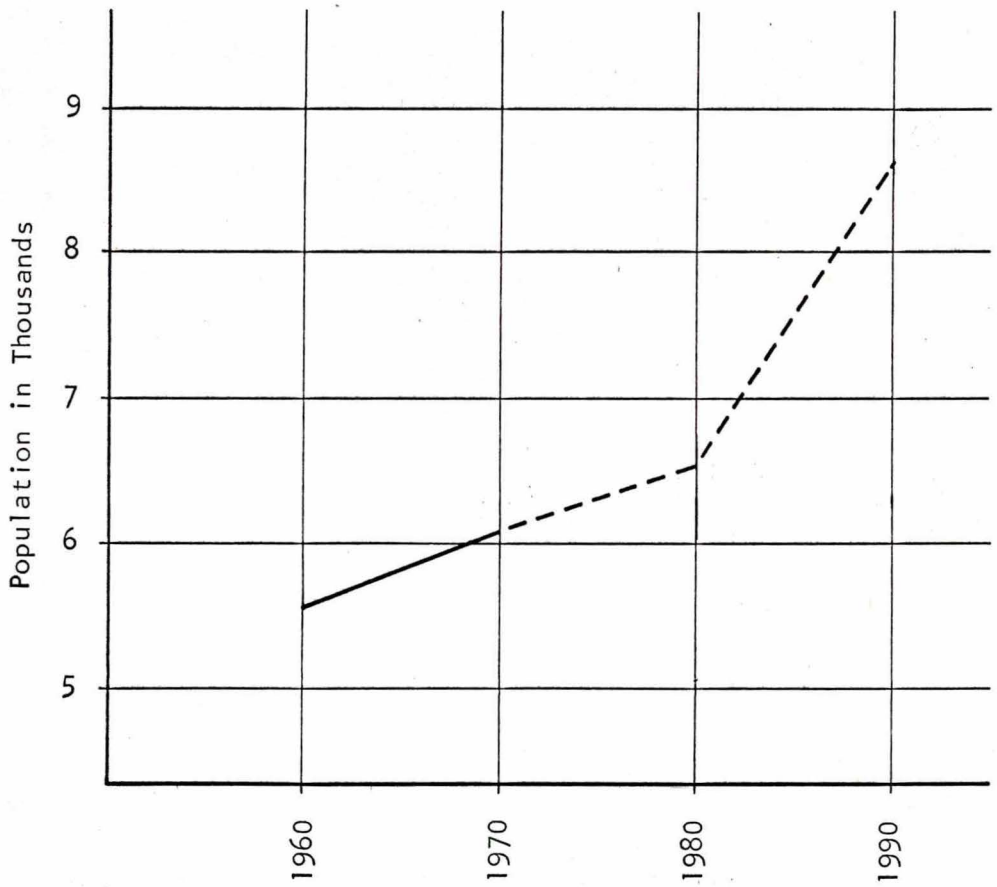


FIGURE 1

MATERIAL DISPOSED OF

The City of Stoughton presently contracts with a private collection service for the collection and disposal of solid waste within the City

limits. The contract requires the Contractor to collect garbage and rubbish from residences and commercial places of business and to dispose of it at a site other than the City-owned site. Residential collection is limited to the collection of garbage and rubbish which is placed at the curb in easily handled containers or bundles. Large items of residential rubbish such as appliances, furniture, etc. are not picked up by the Contractor but are carried to the disposal site by the property owner. Collection of industrial and commercial refuse is made by the Contractor or the place of business accomplishes their own collection and delivery to the disposal site.

In addition to rubbish delivered to the site by residential, industrial, and commercial users, the City disposes of street refuse, trees, grit from the wastewater treatment plant and other miscellaneous solid waste at the existing landfill site.

The types of solid waste permitted to be disposed of at the landfill site are: (1) rubbish, (2) ashes, (3) street refuse, (4) nonputrescible industrial wastes, (5) demolition wastes, (6) construction wastes, and (7) grit from the City wastewater treatment plant, all as defined in Figure 2. Garbage, dead animals, abandoned vehicles, putrescible industrial waste, special wastes and other wastes considered to present an unusual and special problem shall not be disposed of at the landfill site. An effort should be made to control the amount of waste paper disposed of at the site in order to minimize the problems created by windblown paper.

SOLID WASTE MATERIALS BY KIND, COMPOSITION, AND SOURCES

KIND		COMPOSITION	SOURCES
Solid Wastes	Garbage	Wastes from preparation, cooking, and serving of food; market wastes; wastes from handling, storage, and sale of produce	Households, restaurants, institutions, stores, markets
	Rubbish	Combustible: paper, cartons, boxes, barrels, wood, excelsior, tree branches, yard trimmings, wood furniture, bedding, dunnage	
		Noncombustible: metals, tin cans, metal furniture, dirt, glass, crockery, minerals	
	Ashes	Residue from fires used for cooking and heating and from on-site incineration	
	Street Refuse	Sweepings, dirt, leaves, catch basin dirt, contents of litter receptacles	Streets, sidewalks, alleys, vacant lots
	Dead Animals	Cats, dogs, horses, cows	
	Abandoned Vehicles	Unwanted cars and trucks left on public property	
	Industrial Wastes	Food processing wastes, boiler house cinders, lumber scraps, metal scraps, shavings	Factories, power plants
	Demolition Wastes	Lumber, pipes, brick, masonry, and other construction materials from razed buildings and other structures	Demolition sites to be used for new buildings renewal projects, expressways
	Construction Wastes	Scrap lumber, pipe, other construction materials	New construction, remodeling
	Special Wastes	Hazardous solids and liquids: explosives, pathological wastes, radioactive materials	Households, hotels, hospitals, institutions stores, industry
	Wastewater Treatment Plant Residue	Solids from coarse screening and from grit chambers; septic tank sludge	Sewage treatment plants; septic tanks

FIGURE 2

METHOD OF OPERATION

GENERAL

Work conducted at the site shall conform to the principles developed for the operation of a sanitary landfill, defined as follows:

> "A method of disposing of solid wastes on land without creating nuisances or hazards to public health or safety, by utilizing the principles of engineering to confine the refuse to the smallest practical volume, and to cover it with a layer of earth at the conclusion of each day's operation or at such more frequent intervals as may be necessary."

Planning and operation of a sanitary landfill must include provisions for control of water pollution, control of odor and nuisance, and elimination of disease-carrying vectors.

Sanitary landfill construction is generally divided into two categories as follows:

(1) The trench method is usually employed where flat or gently sloping land is the only land available for solid waste disposal. The method is suited to terrain which can be trenched with conventional earth-moving equipment and is based on the use of parallel excavated trenches. Starting at one edge of the land parcel, refuse is dumped into the first trench from its nearest side. At the end

of each day's dumping and spreading, the refuse is covered with earth excavated from the second trench on the far side of the dumping edge. The completed top is given a heavy earth cover while the working face is given a light closing cover. When completed, the landfill consists of a series of long, narrow refuse cells in parallel rows. The finished grade will usually be higher in elevation than the original ground surface.

(2) The area method is usually employed in low-lying areas where land depressions such as abandoned gravel pits, ravines, or canyons are available. Occasionally, an area fill is constructed on an open hillside. Refuse is dumped on the existing ground surface, spread in horizontal layers, and compacted. At the end of each day's work, the surface is covered with earth excavated from the area directly in front of the working face of the landfill. If excavation is not possible, the fill is covered with imported cover material.

Sanitary landfill represents the most economical method of solid waste disposal presently available to a community. In many instances, a sanitary landfill site can become a valuable community asset by converting it into a year-round recreational area.

SITE PREPARATION AND OPERATION

Prior to the issuance of a State license for operation of the site as a sanitary landfill, it is necessary that the site be altered and prepared to conform with criteria as set forth in the State of Wisconsin Solid Waste Disposal Standards. Preparatory work at the site is required in order to protect the adjoining wetlands from adverse effects that could be caused by operation of a sanitary landfill at the site. The major objectives in this regard are to divert surface water drainage away from the landfill operation and to maintain a minimum vertical separation between the ground water surface and bottom of the landfill.

In order to effectively utilize the site, the ground surface should be graded in order to accommodate operations by the area landfill method. This will permit convenient access to the face of the fill and may provide a stockpile of earth for cover material.

Two alternate plans of operation by the area method were considered. The first plan would be to commence filling operations just north of the attendant's house. Filling would then continue in a northerly direction for a distance of about 1000 feet with vehicles dumping at the top of the fill face. Earth cover would be placed on the solid waste as the fill progresses. An advantage of this plan is that consolidation of the fill would be enhanced by the constant vehicular traffic over the deposited fill. A disadvantage of this plan is that the small, lightweight items are more subject to wind action resulting in an increased litter problem.

The second plan considered is to commence the filling operation at the north end of the regraded site. The initial fill face would be against an earth bank which will result from the regrading operation. Progressive filling will then be to the south with all dumping being done at the bottom of the fill face. Filling from the bottom up will generally result in higher densities. This is a result of more complete and thorough compaction by the tractor equipment and also the subsequent vehicular traffic as successive lifts are built. Dumping at the bottom of the fill face will also minimize the amount of wind-blown debris because of the more confined nature of the operation. Plans accompanying this report are based on this second plan of operation.

It is recommended that the first lift of fill be made to a height of four to five feet. The bottom elevation of the fill should be no lower than as shown on the plans. This elevation can be obtained by initially regrading the entire area of the site to be filled, or the regrading operation can proceed concurrently with the filling operation. If the entire site is regraded at once, stockpiles of cover material should be strategically located so they can be efficiently used for cover. In the event that the site is regraded progressively along with the filling operation, it is necessary that due consideration be given to providing convenient access to the fill face by dumping vehicles. It is evident that it would be most economical to regrade the site progressively as the fill advances. However, this will require close attention to the operational procedures.

We have made no computations on the excess or deficiency of earth which will result from the site grading. However, we estimate by inspection that there will be a small excess of earth. This excess should be used for the daily covering of the waste. Additional amounts of earth which will be required for cover material will have to be hauled in from off the site.

The most desirable type of earth cover material is a sandy loam. It should be free from organic material, tree roots and branches, and large stones. Cover material should not have a high clay content.

The width of the individual cells along the fill face is determined by a number of practical considerations. Efficient use of equipment, economy in the volume of cover material required, and control of the dumping operation are some of the more important. The cell width should be wide enough to permit vehicles arriving at the disposal site to be dumped readily without an undue waiting period. This, of course, is in turn influenced by the number of vehicles normally arriving at the site simultaneously. On weekends, it may be necessary to increase the cell width. An unnecessarily wide cell, however, results in wastage of cover material when closing the cell at night. Likewise, a narrow cell requires a large volume of side cover in proportion to top cover. The economical use of cover material is an important consideration because the majority of it will have to be hauled in from off the site. It is desirable, therefore, to adopt a width of cell requiring minimum usage of side cover material in proportion to top cover. Such a condition is achieved by adopting a

width such that the portion of the cell resulting from an average day's volume of refuse will approach the form of a square.

The solid waste dumped is pushed against the fill face and spread laterally, as necessary, across the width of the cell by a bulldozer or front-end loader. As the fill advances, the spreading operation results in repeated travel of the machine across the surface of the fill, thus compacting the deposited refuse. Compaction of the fill is important, both to make maximum use of the available disposal area and to minimize subsequent shrinkage and settling which might adversely affect the ultimate use of the land.

The type and number of pieces of equipment provided at the site must be sufficient for spreading and compacting the solid waste, obtaining and stockpiling cover material, placing and compacting cover material, and finish grading of the landfill surface. As an integral part of the operation, the equipment will also be required for constructing and maintaining adequate access routes to the landfill face. The presently owned equipment, which consists of an International Harvestor TD9, track mounted front-end loader, and a Hough H50, rubber-tired front-end loader, should be sufficient. Equipment required for hauling in the required cover material can be obtained from the City Street Department or can be done on a hired basis.

Sanitary landfills can be operated in extremely cold climates such as that encountered in Wisconsin. One of the major problems during winter months is the availability of unfrozen cover material. This problem can be solved

in several ways. One way is to stockpile the cover material in large stockpiles so that by excavating into the pile, unfrozen material can be obtained. Small stockpiles would provide only small amounts of unfrozen material which could be used. It is desirable to excavate material from the same point every day and this point should be located on the south side of the pile to take advantage of the warming action provided by the sun.

A second way to obtain unfrozen cover material would be to haul it in on a daily basis during the winter months. This hauled-in cover could be obtained from the bank in a gravel pit where unfrozen material can usually be obtained.

Operations at the site during wet weather can be seriously impeded unless provisions are made to minimize the problem. Individual cars and cars with trailers must be provided adequate access routes to the fill area during wet weather. An all-weather access road should be constructed to as near the fill face as possible. A stockpile of material, such as ashes or crushed stone, should be kept at the site for ready use during wet weather. By exercising care, the surfacing material used for temporary access routes can be salvaged and reused if desirable.

Fires at solid waste disposal sites are possibilities that must be anticipated and provisions must be made for fighting fires. The usual causes

are carelessness in smoking at the site, dumping of hot ashes, the presence of highly inflammable materials and spontaneous combustion.

The control of fires and fire hazards is a basic responsibility of the site attendant. It is not unreasonable to prohibit smoking at the site and this should be done. The attendant should pay particular attention to materials being dumped to make certain that hot or inflammable materials are not placed in the fill. Spontaneous combustion can be minimized by spreading out grass clippings and similar materials which are susceptible to this type of ignition.

Inadvertent or deliberate fires can and are started by the public at landfill sites during closed hours. Public access to the site during closed hours should therefore be prohibited and violators should be subject to arrest and fine.

Because the landfill will be constructed of individual daily cells, the spread of fire throughout the site should be minimized. Quick attention to the extinguishing of fires is essential if their spread is to be controlled.

The control of rats and other vectors at the site should be a minor problem because of the type of waste to be disposed of. Good housekeeping of the operating area along with daily covering and maintenance of the cover should essentially eliminate vector problems.

Because much of the site will have an unseeded, exposed earth surface, dust caused by wind action and vehicular traffic will be a problem. Measures should be taken to eliminate severe dust problems which are the cause of complaints from users and owners of adjacent property. It may be feasible to seed areas of the site with fast growing grasses such as Sudan or Brome grass or even rye grass.

Although burning at a sanitary landfill site is not considered to be a normal part of the operation, contact with the local district office and State office of DNR indicates that it will be permissible to burn large volumes of diseased trees disposed of at the site. We were unable to get a commitment on how long burning will be allowed to continue. The Federal Government has established air quality standards and is defining air quality regions, and it will be required that states comply with those standards. In response to this requirement, the State of Wisconsin is presently in the process of developing air quality standards. It is apparent that any burning at the site may have to be stopped within the near future.

The location of the burning site must be at least one-quarter mile from the nearest residence. We have shown an area reserved for burning at the north end of the landfill site. This area would consist of a cutout at the north side of the hill with a side slope against the hill of about $1\frac{1}{2}$:1 and a bottom width dimension of at least 20 feet. A convenient

access road to the trench must be constructed so that trucks can pump directly into the area.

Burning operations should be conducted between the hours of 8:00 A.M. and 3:00 P.M. and an effort should be made to burn on only those days when a southerly or westerly wind of about 5 mph exists. Prior to starting burning, the local fire department should be notified and a plan should be developed for fighting fires caused as a result of the tree burning operation.

When it is necessary to stop open burning at the site, there are three options available. One option would be to conduct burning operations in a trench or pit in conjunction with an air blower which would aid combustion and reduce the nuisance effects. Several communities in the State have purchased commercially available air blowers to use in burning of diseased trees. These devices provide an excess of oxygen resulting in almost complete combustion of the wood products. Although still somewhat experimental, they reportedly are solving the tree disposal problem for these communities. Because there is no great nuisance from this type of operation, indications are that it would be an acceptable method of tree disposal for some years to come.

Another option available for tree disposal is to chip the entire tree into a commercially saleable product. There are machines available which will

reduce the complete tree to chips. These chips can then be disposed of in the landfill or can be sold as a raw material to various wood product manufacturers. A major drawback to this type of operation is the sizeable investment required for the machinery. However, indications are that private contractors may be available in the future to chip trees for various communities on a contract basis. Another possibility which should be explored is the feasibility of a larger unit of government, such as Dane County, purchasing a machine of this type for a county-wide operation. Since these machines are portable, this would seem to be a practicable way to solve the tree disposal problem.

The third option available for tree disposal is to cut the trees into pieces about four feet long and bury them in the landfill. The disadvantages of this option is the difficulty in handling the trees and the land area required for disposal. Because of these disadvantages, it usually is a very expensive means of tree disposal.

Because of the possibility that open burning may have to be discontinued at any time in the future, we recommend that investigations be made into alternate means of tree disposal at an early date.

We are listing below a summary of the operating practices which are a part of the State of Wisconsin Solid Waste Disposal Standards. In order to

maintain a State issued license for the sanitary landfill site, it is essential that all of these operating practices be complied with.

1. No open burning shall be conducted at the site unless specifically approved by the State.

2. Solid waste shall not be deposited at the site which will result in an adverse effect on ground or surface water.

3. Possible windblown waste shall be controlled by confining the dumping operation to a small local area and by the erection of fences to catch windblown materials. Windblown material shall be collected and covered daily.

4. Compact each layer of solid waste to an approximate depth of two feet with a maximum of three layers prior to covering.

5. Solid waste disposed of during each day's operation shall be covered on a daily basis with a minimum of six inches of cover material. Care shall be exercised to direct surface water drainage away from the filling operation.

6. Putrescible waste shall be compacted and covered immediately upon dumping. (No wastes of this type will be allowed at the site.)

7. Special handling methods shall be developed for taking care of toxic and other hazardous waste. (No wastes of this type will be allowed at the site.)

8. Boundaries at the site shall be fenced and the disposal operation should be confined to the area shown on plans accompanying this plan.

9. Means shall be available for control of rodents and other vectors.

10. All-weather access roads shall be constructed and maintained.

11. Traffic shall be routed over the filled area as much as possible.

12. Fire protection facilities shall be provided.

13. An attendant shall be on duty at the site whenever it is open for use.

14. A gate shall be provided and shall be locked when an attendant is not on duty.

15. A sign shall be installed at the entrance to the site. The sign shall show the name of the facility, state license number,

days and hours of operation, penalties and type of materials acceptable for disposal.

16. The site shall be screened by planting of trees and shrubbery.

17. Final earth cover shall be minimum two feet thick with provisions for drainage of the site.

18. The site shall be seeded upon closing.

19. Prior to closing the site, DNR shall be notified.

20. The site shall be maintained by the City after closing.

ULTIMATE USE

After the fill has been completed in accordance with procedures outlined, it will be found that the site can be utilized for many worthwhile purposes. It is desirable that the ultimate use be decided upon early so that it can be integrated into the site development. It can be expected that this site will be much more stable than one which contains large percentages of garbage. Stability of the site will be dependent upon the care taken in compaction of the waste.

One possible use for the completed site would be as a park and playground. This could even incorporate such things as athletic fields, toboggan slides and the like. An advantage of this site for park development is that it is adjacent to wetlands which will never be developed. This will assist in creating the effect of wide open spaces.

Communities throughout the country are using completed sanitary landfills for a multitude of things. Mobile home parks, housing developments, light industrial parks, airports and recreational areas are only some of the uses. Your site will have the advantage that it will not contain large amounts of garbage and therefore will result in a stable site for a wide variety of uses.

The City of Stoughton should develop some ultimate use plan at an early date so that the site can be developed in close conformity with that plan.

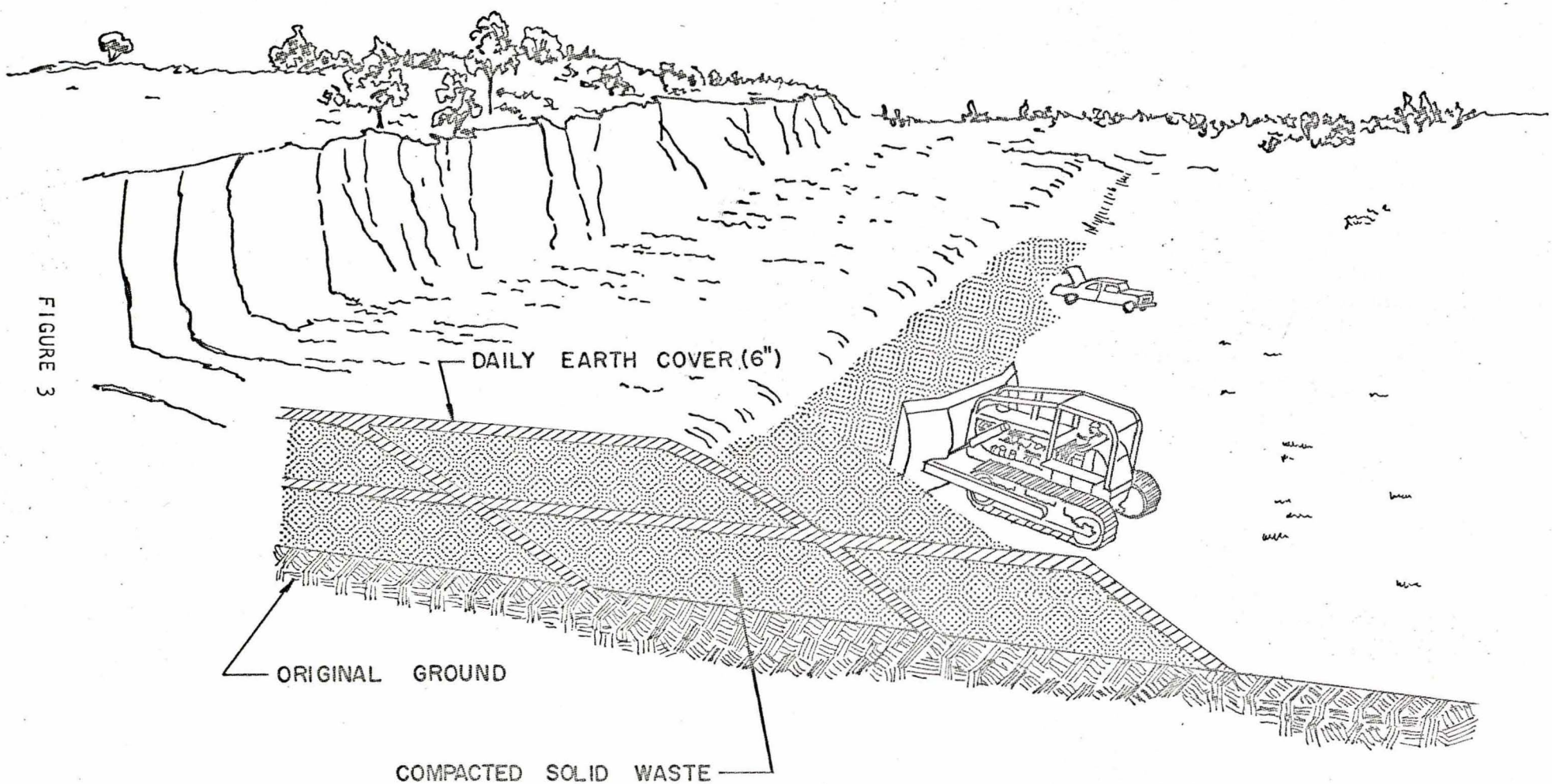
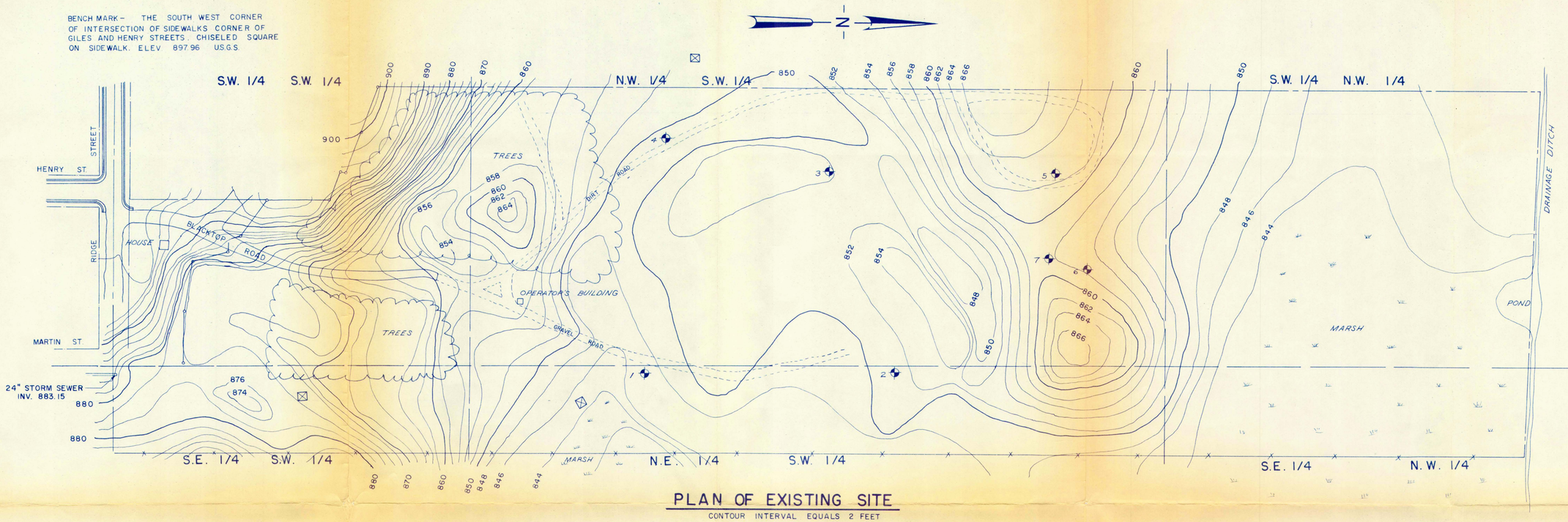


FIGURE 3

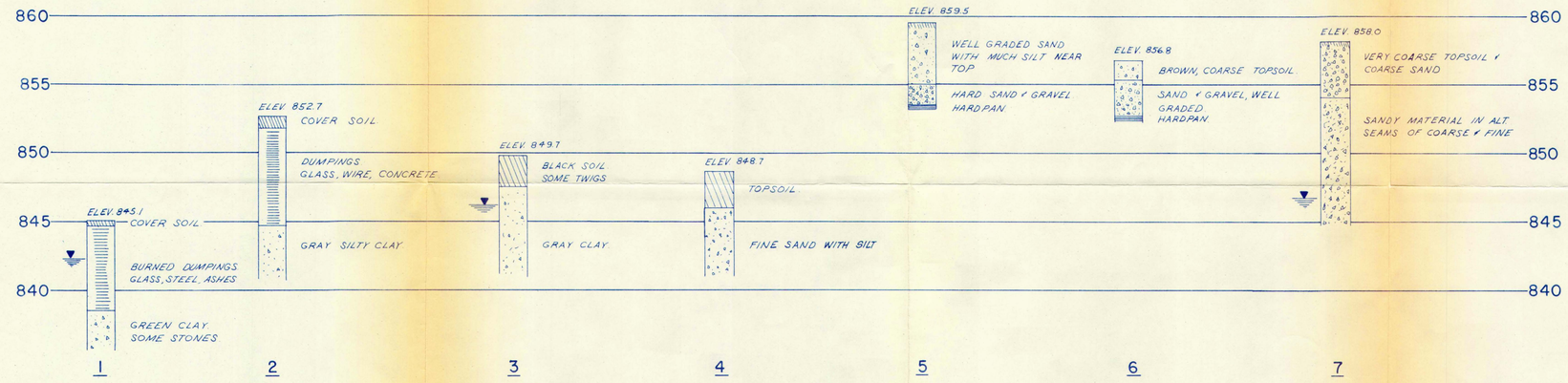
AREA FILL METHOD

BENCH MARK - THE SOUTH WEST CORNER OF INTERSECTION OF SIDEWALKS CORNER OF GILES AND HENRY STREETS. CHISELED SQUARE ON SIDEWALK. ELEV. 897.96 U.S.G.S.



PLAN OF EXISTING SITE

CONTOUR INTERVAL EQUALS 2 FEET



SOIL BORING LOG

NO SCALE

LEGEND

- SOIL BORING LOCATION
- ELECTRICAL TRANSMISSION TOWER
- BARBED WIRE FENCE
- CHAIN LINK FENCE
- LIMITS OF TREES
- R.O.W. LINE
- PROPERTY LINE

NO.	DATE	BY	REVISION	PRINTED: MAR 3 1972

LANDFILL SITE
STOUGHTON, WISCONSIN

PART OF W 1/2 OF SECT. 4, T5N, R11E

SCALE: 1" = 100' DATE: OCTOBER, 1971

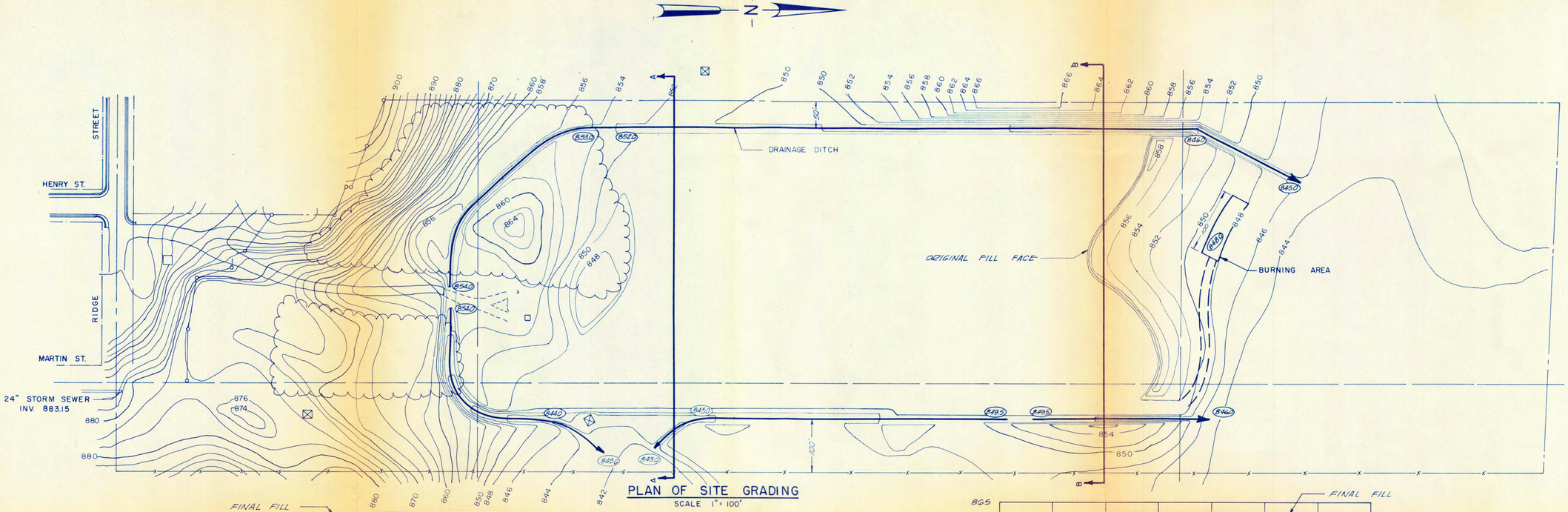
DES. BY
DWN. BY S.L.A.
CHK. BY
APP. BY

JOHN A. STRAND & ASSOCIATES, INC.
CONSULTING ENGINEERS
MADISON, WISCONSIN

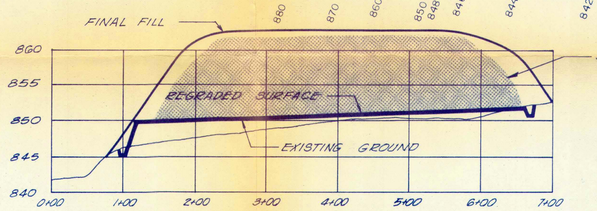
DRAWING NO. 135-1

SHEET OF

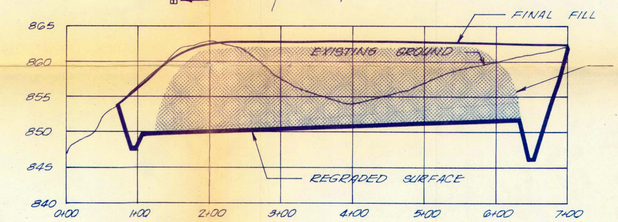
K & E 10-7158 250-9-71



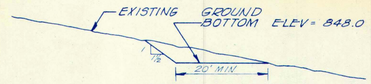
PLAN OF SITE GRADING
SCALE 1" = 100'



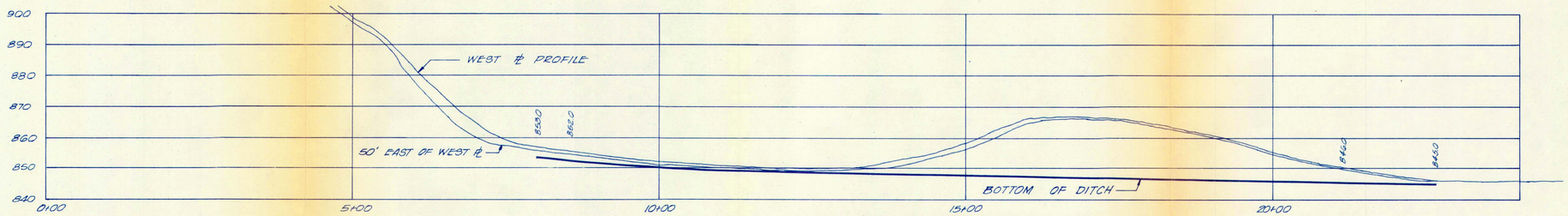
TYPICAL SECTION IN FILL
SECTION AA



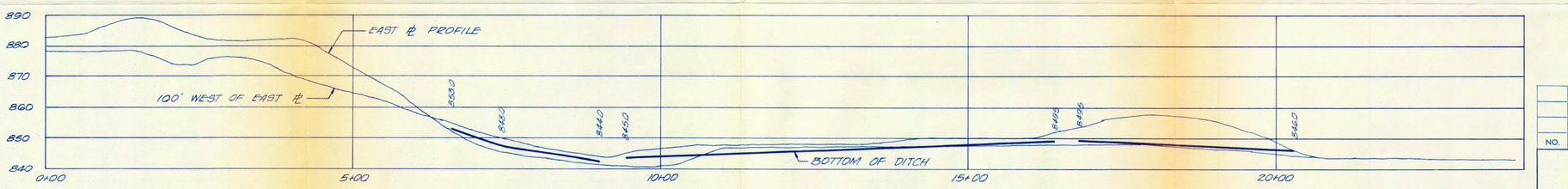
TYPICAL SECTION IN CUT
SECTION BB



BURNING AREA
NO SCALE



DITCH ALONG WEST PROPERTY LINE



DITCH ALONG EAST PROPERTY LINE

NO.	DATE	BY	REVISION	PRINTED: MAR 3 1972

LANDFILL SITE
STOUGHTON, WISCONSIN

PART OF W 1/2 OF SECT. 4, T5N, R11E

SCALE: AS SHOWN
DATE: OCTOBER, 1971

DES. BY N.D.P.
DWN. BY E.T.M.
CHK. BY
APP. BY

JOHN A. STRAND & ASSOCIATES, INC.
CONSULTING ENGINEERS
MADISON, WISCONSIN

DRAWING NO.
135-2

SHEET OF

K & E 10-7155 250-8-71