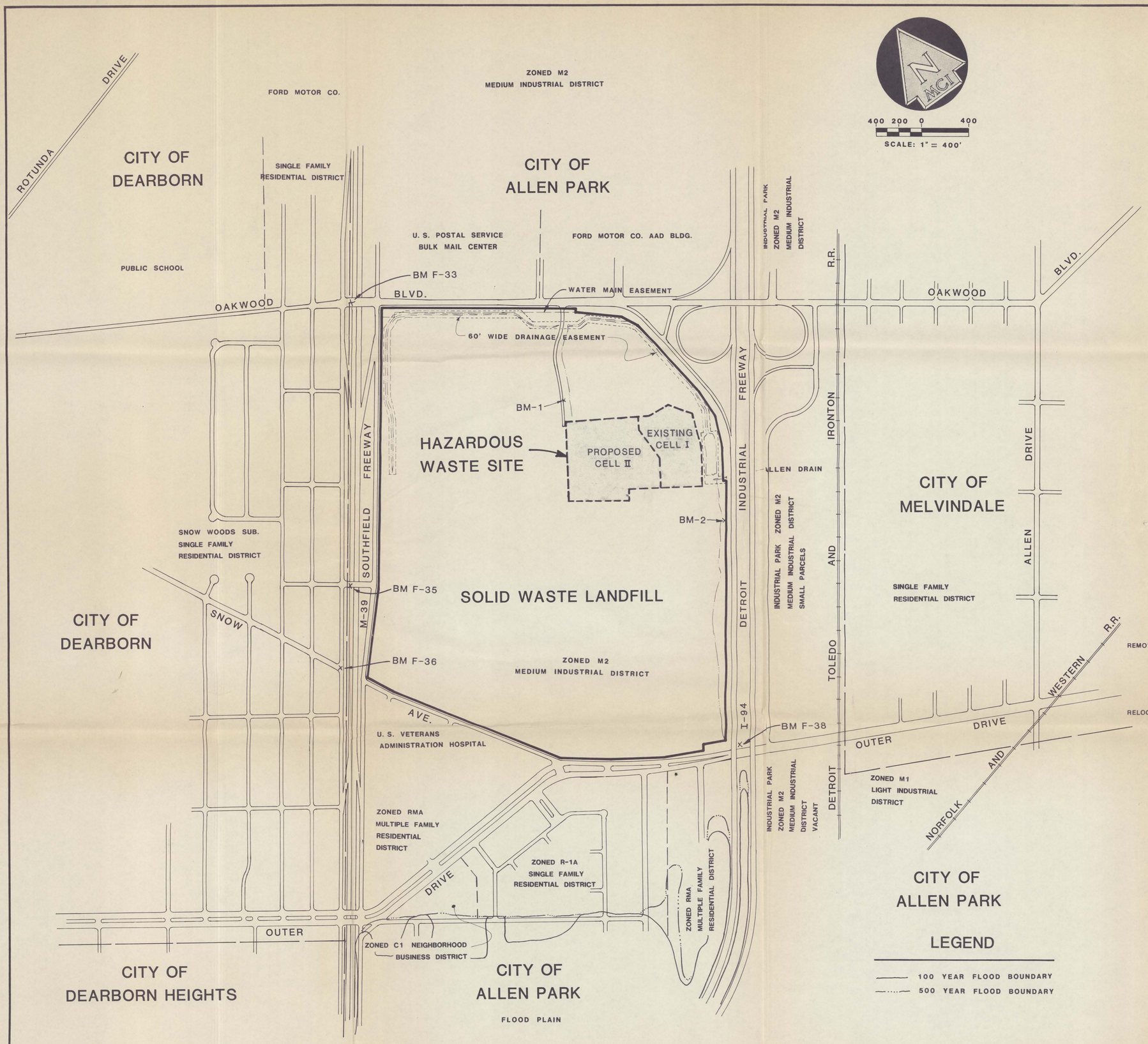
US EPA RECORDS CENTER REGION 5
505675



400 200 0 400
SCALE: 1" = 400'

HAZARDOUS WASTE DISPOSAL AREA
LICENSE LIMIT DESCRIPTION

A parcel of land located in Private Claim 66 also being part of lots 1, 2, 3 and 4 of Walker and Wilcox Plat of Private Claim 66, City of Allen Park, Wayne County, Michigan described as commencing at the Southeast corner of Southfield Expressway (350' wide) and Oakwood Boulevard (100' wide), thence S 58° 37' 20" E 1,697.41 feet; thence S 48° 23' 02" W 491.60 feet; thence S 23° 45' 37" W 583.36 feet; thence S 70° 48' 45" E 527.01 feet to the POINT OF BEGINNING;

thence S 61° 21' 45" E 218.07 feet;
thence S 85° 38' 46" E 143.76 feet;
thence S 62° 00' 53" E 47.79 feet;
thence S 36° 52' 13" E 101.55 feet;
thence S 38° 04' 32" E 103.44 feet;
thence S 19° 17' 50" W 281.45 feet;
thence S 31° 34' 40" W 294.98 feet;
thence N 58° 26' 05" W 644.32 feet;
thence S 31° 32' 52" W 106.55 feet;
thence N 58° 26' 05" W 525.00 feet;
thence N 31° 32' 52" E 643.15 feet;
thence S 61° 21' 45" E 528.68 feet to the POINT OF BEGINNING, containing 16.50 acres of land more or less.

BENCH MARKS

Elevations indicated hereon relate to USGS Datum

BM F-38 Elevation = 591.29

Southwesterly corner of top of concrete storm water pumping station at Outer Drive and Detroit Industrial Freeway.

BM F-35 Elevation = 596.82

Wayne County Road Commission Bronze Tablet in bridge concrete sidewalk, southwesterly corner of Fern Street - Southfield Freeway Bridge.

BM- F-36 Elevation = 596.54

Iron rod in concrete post, in monument box in pavement, intersection of Snow Road and southbound Southfield Freeway Service Drive.

BM F-33 Elevation = 595.75

Wayne County Road Commission Brome Tablet in bridge concrete sidewalk, southwesterly corner ofOakwood Boulevard - Southfield Freeway Bridge.

REMOVED
~~BM-1 Elevation = 597.59~~
~~2 nails 2' above ground, west face of transformer power pole, 60' ± southwest of manifest trailer.~~

BM-2 Elevation = 593.17
North rim of sanitary manhole (WCDC MH 23A)
400' ± South of sedimentation basin and 6' off fence.

RELOCATED
BM-1 Elevation = 597.08
2 nails, 1' above ground, south face of powerpole, directly east of Wheel Wash Building, East side of entrance road.

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ANN ARBOR, MICHIGAN 48104
TELEPHONE: 313-971-8800

ALLEN PARK CLAY MINE LANDFILL

OWNER - FORD MOTOR COMPANY SITE LOCATION - CITY OF ALLEN PARK

GENERAL SITE, ADJACENT PROPERTIES, PROPERTY DESCRIPTION, BENCH MARKS, DRAINS, EASEMENTS, SURROUNDING LAND USE

1

JUL 0 6 1988

DATE JULY 9, 1984
SHEET 1 OF 18
BY

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE		
GENERAL SITE		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

JOB NO. 84030
REVISIONS

DUNN 300 4-84 81847

ELEVATION REFERENCE MARKS

REFERENCE MARKS	ELEVATION FEET (NGVD)	DESCRIPTION OF LOCATION
RM 1	601.360	An arrow on a fire hydrant on the northwest corner of Pinecrest Road and Larme Street.
RM 2	596.830	The top of the southwest corner of the westbound I—94 bridge over the North Branch Ecorse Creek.
RM 3	597.230	A railroad spike in the west side of a Detroit Edison Pole at the southwest corner of Shenandoah Street and Keppen Street.
RM 4	595.140	The top of the letter "C" on the south rim of a sanitary manhole at the intersection of Keppen Street and Larme Street.
RM 5	598.980	An arrow on a fire hydrant at the northeast corner of Watson Street and Russell Avenue.
RM 6	599.040	An arrow on a fire hydrant on the north side of Euclid Avenue, approximately 125 feet east of the northbound Southfield Service Drive and approximately 50 feet east of the North Branch Ecorse Creek.
RM 7	596.040	The centerline of the intersection of Russell Avenue and Shenandoah Street.

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE
500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
ALLEN PARK,
MICHIGAN
WAYNE COUNTY

PANEL 2 OF 2
(SEE MAP INDEX FOR PANELS NOT PRINTED)

PROOF

COMMUNITY-PANEL NUMBER
260217 0002 B

EFFECTIVE DATE:
FEBRUARY 17, 1982

federal emergency management agency
federal insurance administration

KEY TO MAP

500-Year Flood Boundary	
100-Year Flood Boundary	
Zone Designations* With Date of Identification e.g., 12/2/74	ZONE B / ZONE B
100-Year Flood Boundary	
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation in Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7
River Mile	• M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
MAY 3, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
JANUARY 10, 1975

FLOOD INSURANCE RATE MAP EFFECTIVE:
FEBRUARY 17, 1982

FLOOD INSURANCE RATE MAP REVISIONS:

MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS · PLANNERS · SURVEYORS
2045 HOGBACK ROAD
ANNARBOR MICHIGAN 48105
TELEPHONE: (313) 971-8900

ALLEN PARK CLAY MINE LANDFILL
OWNER – FORD MOTOR COMPANY
SITE LOCATION CITY OF ALLEN PARK
FLOOD PLAIN MAP

18
JUL 0 6 1988

ASSIGNMENT NO.	PROJECT NO. 84030
TITLE	ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE
	FLOOD PLAIN MAP
SCALE GRAPHIC / CH'K'D BY	DRAWING NUMBER
DES. BY / APP'D	
DR. BY / DATE	SHEET NO.
	FORD MOTOR COMPANY PLANT ENGINEERING OFFICE
	LOCATION ALLEN PARK, MICHIGAN

JOB NO. 84030
DATE: MARCH 1987
SHEET 18 OF 18
BY: S. KOHLS
REVISIONS:

ENTRANCE FOR ALL TRAFFIC

OAKWOOD BLVD.

W. 101

EXISTING FENCE

GATE

EXIST. WATER MAIN

10

SW. 10

2 - 42" CMP

A

60' WIDE DRAINAGE EASEMENT

EXISTING FENCE

W. 102

EXISTING PAVED HAUL ROAD
(450 TRUCKS PER WEEK MAXIMUM)

OVERHEAD ELECTRIC & TELEPHONE

OFFICE & WHEEL WASH

NON-HAZARDOUS LANDFILL
(250 TRUCK PER WEEK PRESENTLY)

PROP. DITCH

PROPOSED HAUL ROAD

B

DRAINAGE EASEMENT

CLAY HAUL ROAD
(89 TRUCKS PER WEEK PRESENTLY)

HAZARDOUS WASTE ROUTE
(112.6 TRUCKS PER WEEK)

DUMP RAMP

W. 103

PROPOSED CELL II

PROPOSED LEACHATE COLLECTION SUMPS AND MONITORING MANHOLE

EXISTING CELL I

PROPOSED LEACHATE FORCE MAIN

EXISTING LEACHATE COLLECTION MANHOLE

SEDIMENTATION BASIN

SEDIMENT TRAP

9

18" CMP

48" CONC. CULVERT

ALLEN DRAIN

PROPOSED RELOCATED HAUL ROAD

PROP. DITCH

HAZARDOUS WASTE BOUNDARY

ACCESS RAMP

I - 94 DETROIT INDUSTRIAL FREEWAY

PROP. DITCH

LEACHATE DISPOSAL SYSTEM SHOWN ON MCNEELY & LINCOLN ASSOC, INC.
PLANS DATED AUG 1985

UTILITIES SHOWN ON SIEBER-KEAST & ASSOC, INC.
PLANS DATED 10-13-86

ELECTRIC DISTRIBUTION SYSTEM SHOWN ON I.A. LOMBARDO & ASSOC, INC.
PLANS DATED AUG 12, 1986

18" WASTE WATER SEWER LINE

WASTE WATER METERING MANHOLE

WCDC MANHOLE 23A

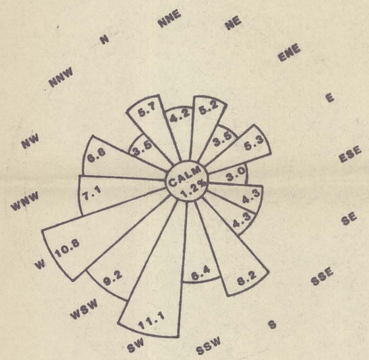
N MCI

100 0 100 200 300

SCALE: 1"=100'

WIND ROSE

WIND DIRECTION DETROIT METROPOLITAN AIRPORT
FREQUENCY OF OBSERVATION 1965 - 1974



LEGEND

- INDICATES DIRECTION OF TRAFFIC
- A INDICATES 15 MPH SPEED LIMIT SIGN
- B INDICATES WARNING SIGN - DANGER UNAUTHORIZED PERSONNEL KEEP OUT
- 1 INDICATES LOCATION OF TEST BORING DRILLED PREVIOUSLY
- SW. 10 INDICATES LOCATION OF SHALLOW 15 FOOT MONITORING WELL DRILLED PREVIOUSLY
- W. 101 INDICATES LOCATION OF NEW DEEP MONITORING WELL
- 10 INDICATES LOCATION OF TEST BORING AND MONITORNG WELL DRILLED PREVIOUSLY
- AIR QUALITY MONITOR LOCATIONS

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3001 OAKWOOD BLVD.
ANN ARBOR, MICHIGAN 48104
TELEPHONE: 313-971-8800

ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
SECURITY, TRAFFIC, WIND ROSE, STRUCTURES, UTILITIES

17

JUL 0 6 1988

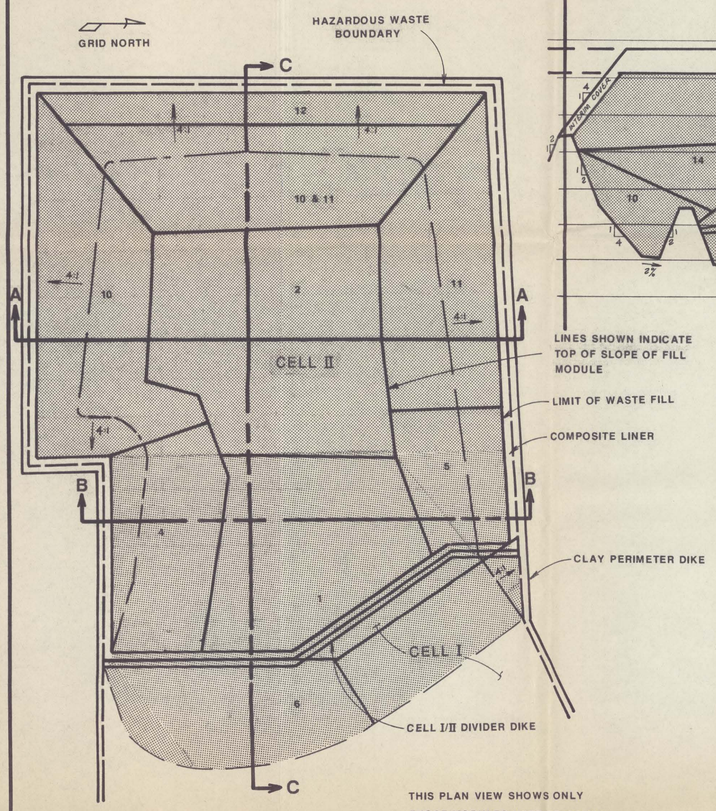
DATE: JULY 9, 1984
SHEET 17 OF 18
BY:

JOB NO. 84030

REVISIONS:
REV. COLLECTION & MONITOR SHEE. 4-87
REVISED ELECTRIC SERVICE 2-88
DUMP RAMP

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE - ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE SECURITY, TRAFFIC, WIND ROSE, STRUCTURES, UTILITIES		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

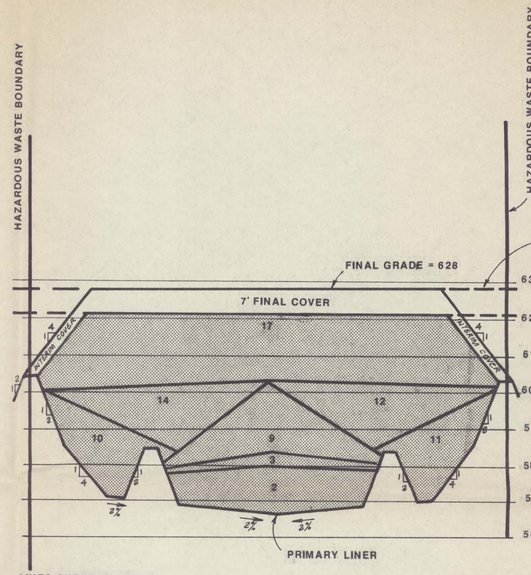
DUNN 300 4-84 8164F



PLAN VIEW

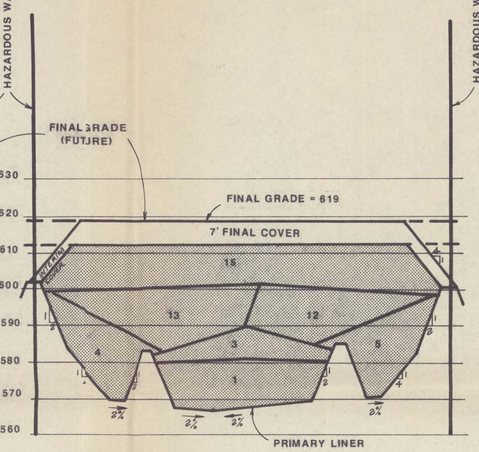
SCALE : 1= 100'

THIS PLAN VIEW SHOWS ONLY THOSE MODULES USED TO COVER THE CELL BOTTOM. ALL OTHER MODULES LIE ABOVE.



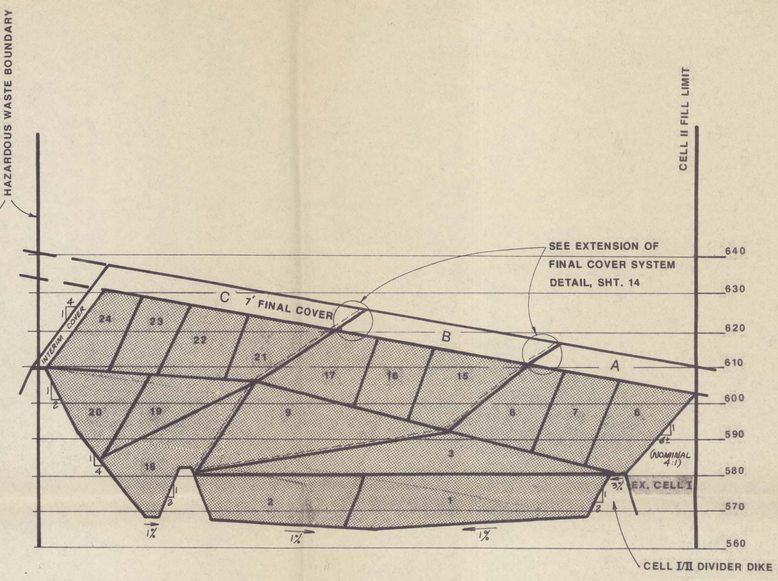
SECTION A-A

SCALE : HORZ. 1" = 100'
VERT. 1" = 20'



SECTION B-B

SCALE : HORZ. 1" = 100'
VERT. 1" = 20'



SECTION C-C

SCALE : HORZ. 1" = 100'
VERT. 1" = 20'

NOTE: SHADING DENOTES AREAS REACHING FINAL GRADE UNDER EACH PHASE OF OPERATION

DESCRIPTION OF FILL SEQUENCE

1) MODULES 1-3 FILL THE PORTION WITHIN THE STABILIZATION DIKES (88,000 c.y.)

2) MODULES 4-8 FILL THE E. 1/2 OF THE N. & S. LEGS OF THE OUTER "U" SHAPED AREA (117,000 c.y.) TO FINAL COVER "A"

3) MODULES 9-17 FILL THE CENTRAL PORTION OF CELL II TO FINAL COVER "B" (242,000 c.y.)

4) MODULES 1-17 ARE FILLABLE FROM THE HAUL ROAD ALONG THE DIKE BETWEEN CELL I & CELL II (447,000 c.y.)

5) MODULES 18-24 FILL THE REST OF THE CELL WORKING FROM EAST TO WEST TO FINAL COVER "C" (198,000 c.y.). WORKING THESE MODULES WILL REQUIRE RELOCATING THE HAUL ROAD.

6) FINAL COVER AND INTERIM COVER MAY BE COMPLETED AS SHOWN IN SECTION C-C, ABOVE.

WASTE FILL VOLUME SUMMARY BY FILL MODULES

	MODULE NO.	MODULE VOL. (c.y.)
	1	25,000
	2	31,000
	3	32,000
A	4	14,000
	5	15,000
	6	30,000
	7	29,000
	8	29,000
	9	32,000
	10	15,000
	11	15,000
	12	32,000
B	13	31,000
	14	32,000
	15	29,000
	16	28,000
	17	28,000
	18	27,000
	19	28,000
	20	29,000
C	21	29,000
	22	29,000
	23	28,000
	24	28,000
	NET TOTAL	

WASTE VOLUME 645,000 c.y.

SITE LIFESPAN @ 80,000 c.y./yr. = 8± YEARS

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ANN ARBOR MICHIGAN 48105
TELEPHONE: (313) 971-8800

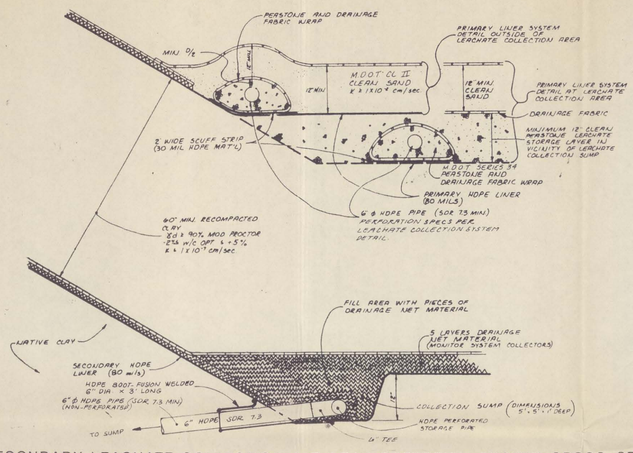
ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
CELL II - FILL SEQUENCE PLAN

16
JUL 0 8 1988

DATE: JUNE 1987
SHEET 16 OF 18
BY:

ASSIGNMENT NO.
PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE
CELL II - FILL SEQUENCE PLAN
SCALE GRAPHIC | CH'K'D BY | DRAWING NUMBER
DES. BY | APP'D
DR. BY | DATE | SHEET NO.
FORD MOTOR COMPANY
PLANT ENGINEERING OFFICE
LOCATION ALLEN PARK, MICHIGAN

JOB No. 84030
REVISIONS:
FILL MODULES 11/5/88
FILL MODULES 6/88



SECONDARY LEACHATE COLLECTION AND LEAK DETECTION SYSTEM CROSS-SECTION

OPERATING PROCEDURE: (Temporary Containment Berms & Sumps)

PREFACE-THIS PROCEDURE ASSUMES THAT THE FIRST LEACHATE COLLECTION SUMP HAS BEEN CONSTRUCTED AS PART OF THE BASIC CELL CONSTRUCTION PRIOR TO RECEIPT OF REFUSE. IT IS ALSO ASSUMED THAT THE PERFORATED PIPE IN THE SUMP UPSTREAM OF TEMP. CONTAINMENT BERM #1 HAS BEEN DISCONNECTED, THE SMOOTH PIPE CAPPED, AND THE FIRST SUMP READY FOR USE.

UPON COMPLETION OF FILL TO A POINT 20 FT. FROM BERM 1

1. DISCONNECT TUBING IN BERM #2 AREA, AND CAP SMOOTH PIPE THROUGH BERM #2.
2. REMOVE TEMPORARY CAP ON SMOOTH PIPE THROUGH BERM #1 AND RECONNECT TO PERFORATED PIPE. PLACE STONE AND FILTER FABRIC ENVELOPE AROUND DRAIN PIPE UP TO BERM #1.
3. REMOVE SUMP RETAINER AT BERM #1.
4. CUT OFF LINER FLAP, REMOVE IT, AND LEVEL OUT SAND AT BERM #1.
5. PLACE PROPEX 4545 FABRIC FROM BERM #1 TO BERM #2.
6. UPON COMPLETION OF FILL UP TO A POINT 20 FT. FROM BERM #2. REMOVE BERM #2 AND REPEAT STEPS 2, 3 & 4.

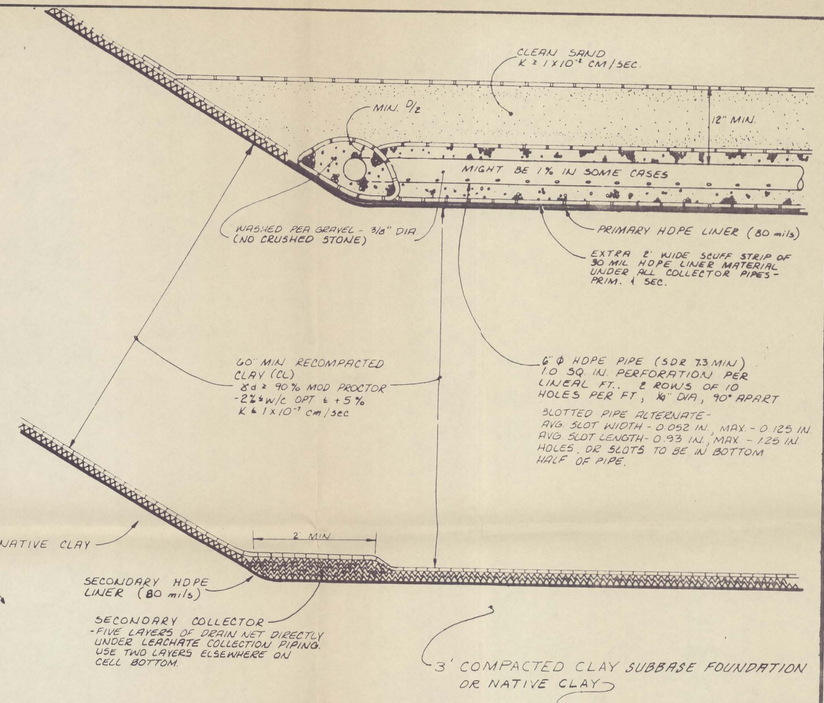
ADDITIONAL NOTES FOR 5' COMPACTED CLAY

- First lift to be 18" in loose thickness, and all subsequent lifts to be 7" in loose thickness.
- Shear strength to be greater than or equal to 500 p.s.f. along cell base within stabilization berms, along the inner face of the stabilization berms
- Shear strength to be greater than or equal to 2500 p.s.f. in all other areas of the cell.

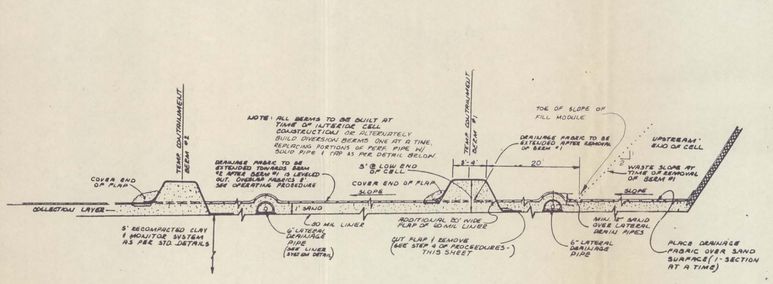
LINER MATERIAL LEGEND

- DRAINAGE FABRIC - AMOCO PROPEX 4545 OR TREVIRA 1120
- DRAINAGE FABRIC TREVIRA 1127 OR PRO - FELT 8
- DRAINAGE NET - CONWED PN 4000 (SIDESLOPE), PN 3000 (BOTTOM) - 2 LAYERS
- LINER FABRIC - 30MIL. GUNDLE HDPE (PRIMMARY LINER) 50 MIL. GUNDLE HDPE (SECONDARY LINER)

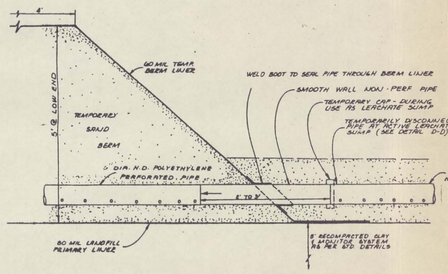
OTHER GEOTEXTILES MAY BE CONSIDERED PROVIDING COMPATABILITY IS DEMONSTRATED & REVIEW AGENCY & ENGINEER'S APPROVAL OF EQUIVALENCY IS RECEIVED.



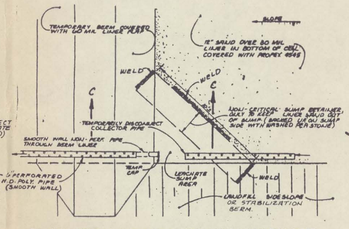
LEACHATE COLLECTION SYSTEM DETAIL



TEMPORARY CONTAINMENT BERMS IN BOTTOM OF LINED CELLS

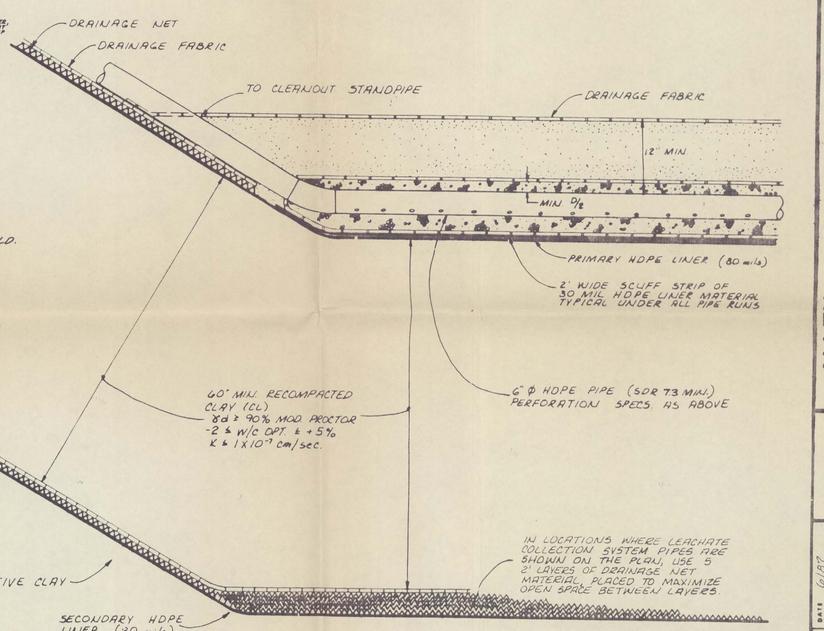


DETAIL OF LEACHATE COLLECTION SYSTEM AT TEMPORARY CONTAINMENT BERMS

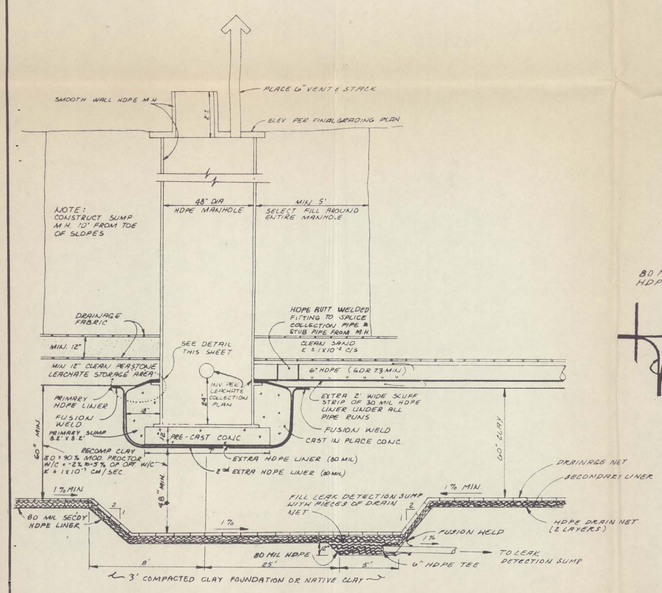


PLAN VIEW OF TEMPORARY LEACHATE COLLECTION SUMP AT UPSTREAM SIDE OF EACH TEMPORARY BERM

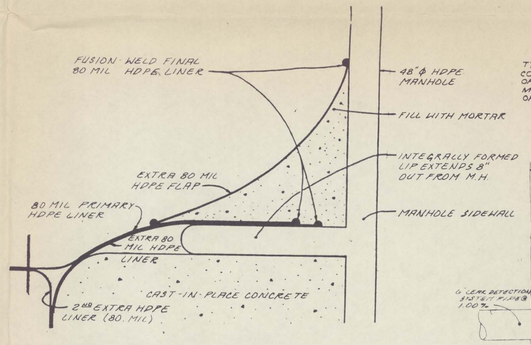
NOTE: HDPE COLLECTOR PIPE TO BE JOINED BY BEAD WELD.



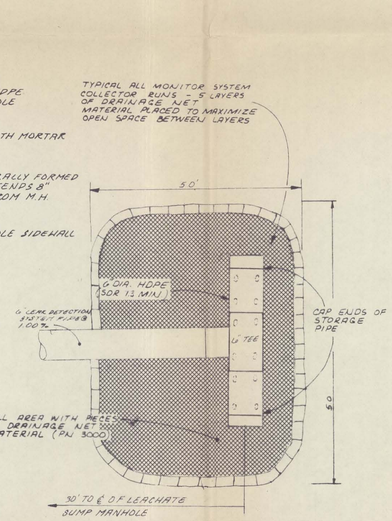
END OF CELL CLEANOUT DETAIL



LEACHATE COLLECTION SUMP & MONITORING MANHOLE WITH LEAK DETECTION/COLLECTION SUMP DETAIL



LEACHATE COLLECTION SUMP LINER CONNECTION DETAIL



LEAK DETECTION / COLLECTION SUMP - PLAN VIEW

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE LEACHATE & MONITORING SYSTEM DETAILS		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

JOB NO. 84030

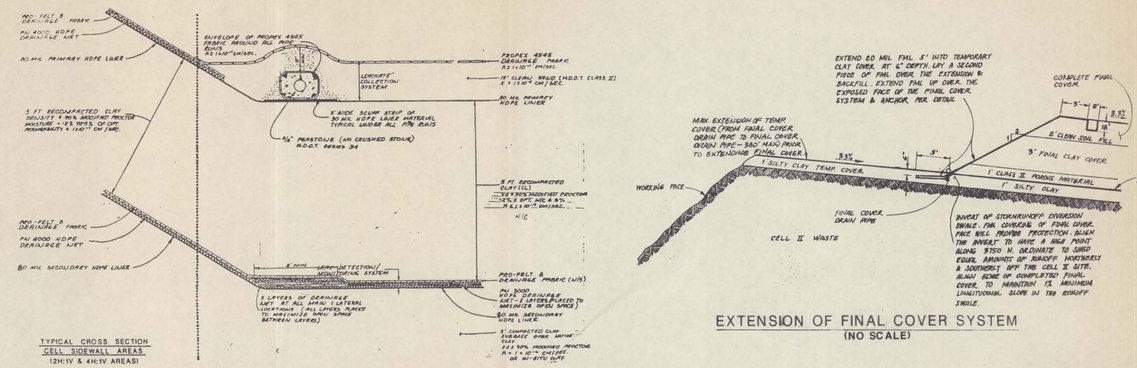
REVISIONS: LINER AT COLLECTION SUMP 1/5/88; SECONDARY LINER THICKNESS 4/1/86; LEACHATE MONITORS 3/17/84; LEAK DETECTION SYSTEM 6/1/88

DATE 6/1/87 SHEET 15 OF 18 BY

15 JUL 0 6 1988

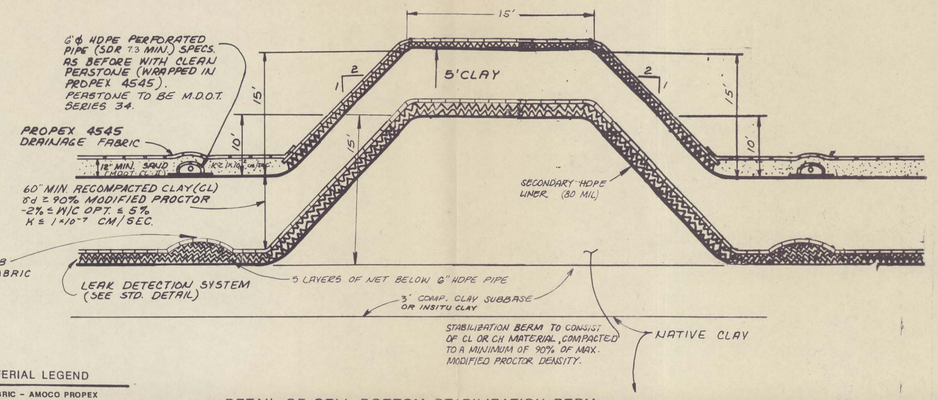
MIDWESTERN CONSULTING INC.
MCI CIVIL ENGINEERS · PLANNERS · SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48104
TELEPHONE 313-971-8800

ALLEN PARK CLAY MINE LANDFILL
SITE LOCATION - CITY OF ALLEN PARK
OWNER - FORD MOTOR COMPANY
LEACHATE & MONITORING SYSTEM DETAILS



TYPICAL CROSS SECTION-LINER SYSTEM CELL BOTTOM AREAS

EXTENSION OF FINAL COVER SYSTEM
(NO SCALE)

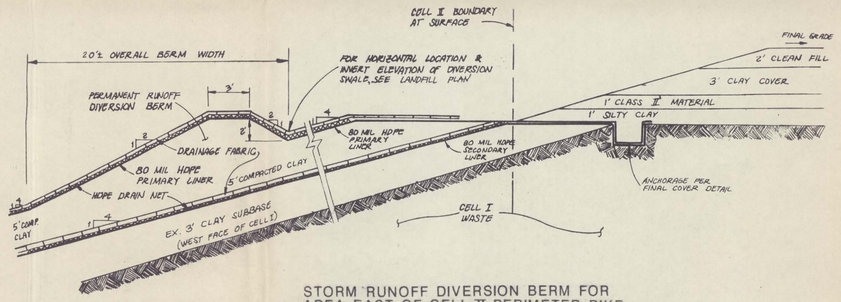


DETAIL OF CELL BOTTOM STABILIZATION BERM

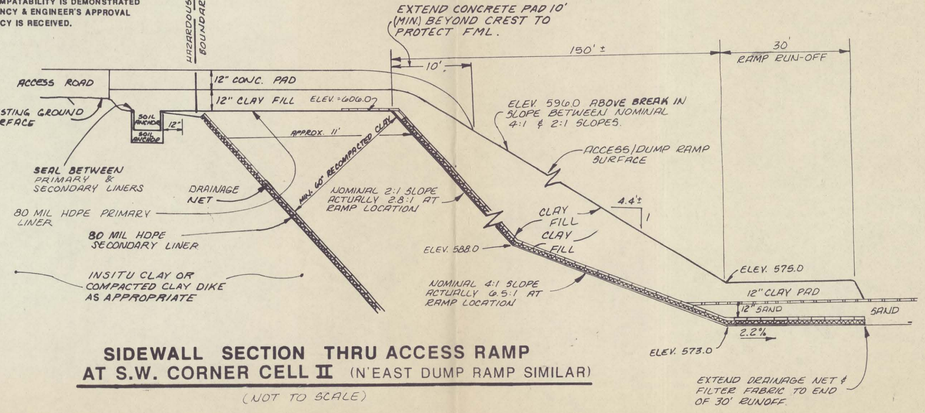
LINER MATERIAL LEGEND

- DRAINAGE FABRIC – AMOCO PROPEX 4545 OR TREVIRA 1120
- DRAINAGE FABRIC TREVIRA 1127 OR PRO – FELT 8
- DRAINAGE NET – CONWED PN 4000 (SIDESLOPE), PN 3000 (BOTTOM) – 2 LAYERS
- LINER FABRIC – 80MIL. GUNDLE HDPE (PRIMMARY LINER) 60 MIL. GUNDLE HDPE (SECONDARY LINER)

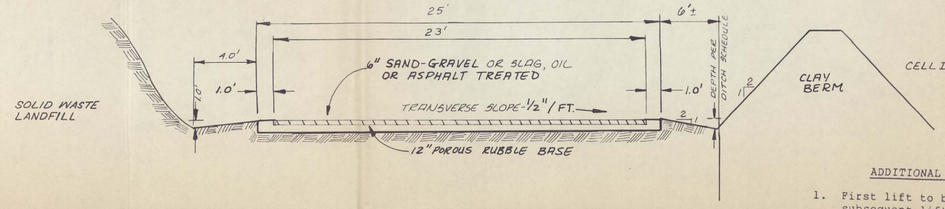
OTHER GEOTEXTILES MAY BE CONSIDERED PROVIDING COMPATABILITY IS DEMONSTRATED & REVIEW AGENCY & ENGINEER'S APPROVAL OF EQUIVALENCY IS RECEIVED.



STORM RUNOFF DIVERSION BERM FOR AREA EAST OF CELL II PERIMETER DIKE
(NO SCALE)



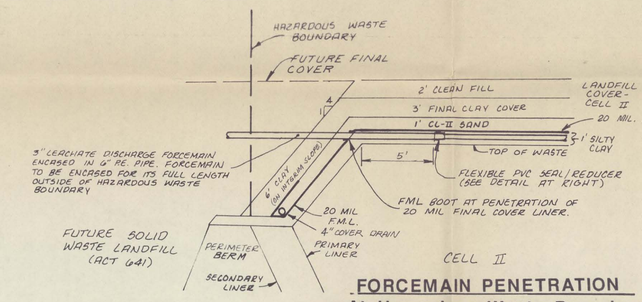
SIDEWALL SECTION THRU ACCESS RAMP AT S.W. CORNER CELL II (N'EAST DUMP RAMP SIMILAR)
(NOT TO SCALE)



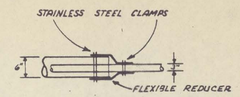
TYPICAL ACCESS ROAD CROSS-SECTION
(NOT TO SCALE)

ADDITIONAL NOTES OR 5' COMPACTED CLAY

1. First lift to be 18" n loose thickness, and all subsequent lifts to b 9" in loose thickness.
2. Shear strength to be reater than or equal to 500 p.s.f. along cellbase within stabilization berms, along the inne face of the stabilization berms.
3. Shear strength to be reater than or equal to 2500 p.s.f. in all oter areas of the cell.

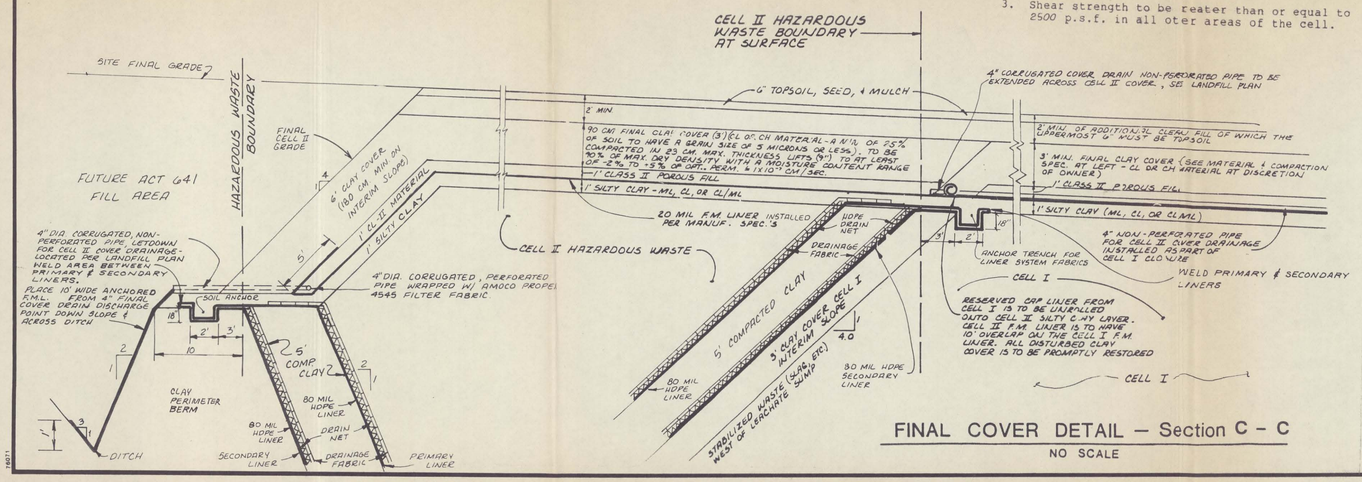


FORCEMAIN PENETRATION
At Hazardous Waste Boundary

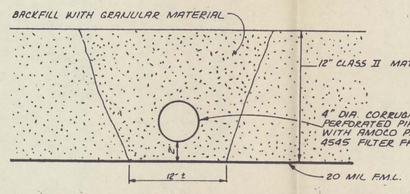


FLEXIBLE PVC SEAL/REDUCER

ALTERNATIVELY, A WELDED HDPE REDUCER FITTING MAY BE USED. WELD ANNULAR SPACE.



FINAL COVER DETAIL — Section C - C
NO SCALE



PERFORATED PIPE INSTALLATION IN FINAL COVER

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE		
CELL II - STANDARD DETAILS		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

JOB NO. 84030

REVISIONS:
SUBBASE & GEOTEXTILE ANCHORS 1/85
EXTENSION OF FINAL COVER 4/88
TREATMENT RUNOFF PIPE, SPEC. & DETAIL 5/88
LEACHATE FORCEMAIN PIPE, SPEC. & DETAIL 5/88
LINERS AT STABILIZATION BERM 6/88

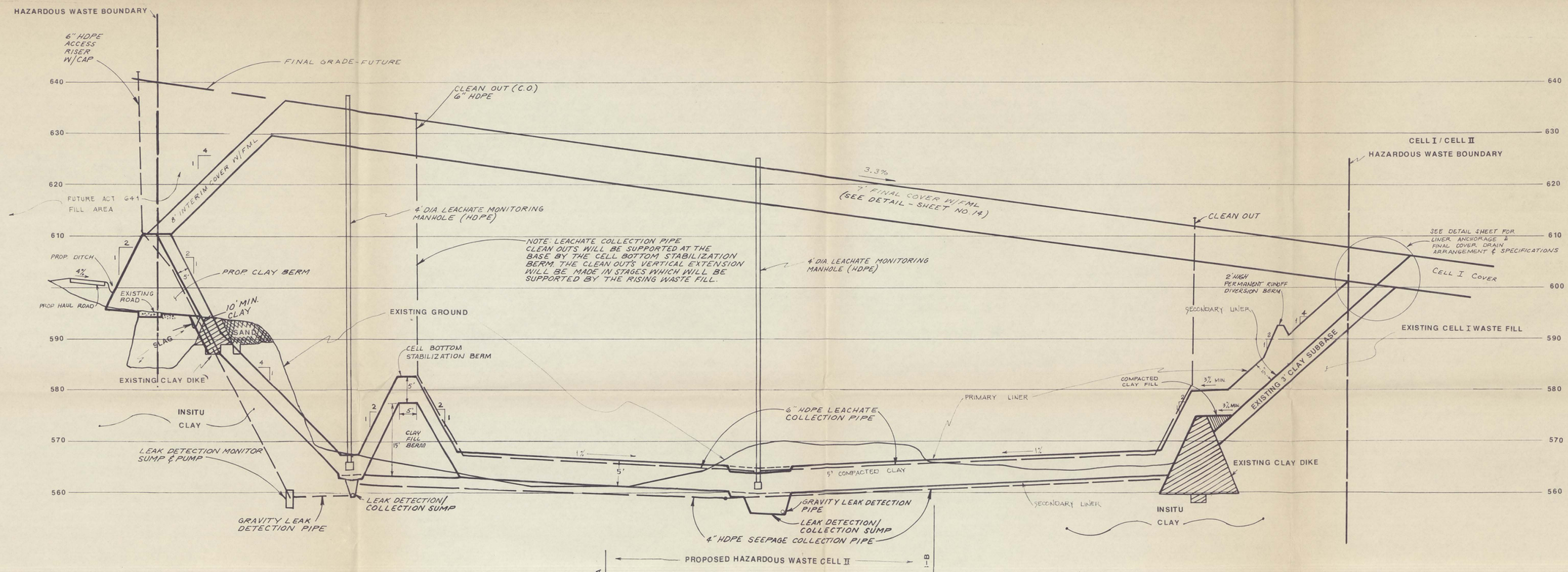
DATE: 5/87
SHEET 14 OF 18
BY:

MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR MICHIGAN 48105
TELEPHONE (313) 971-8800

ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
CELL II - STANDARD DETAILS

14

JUL 06 1988



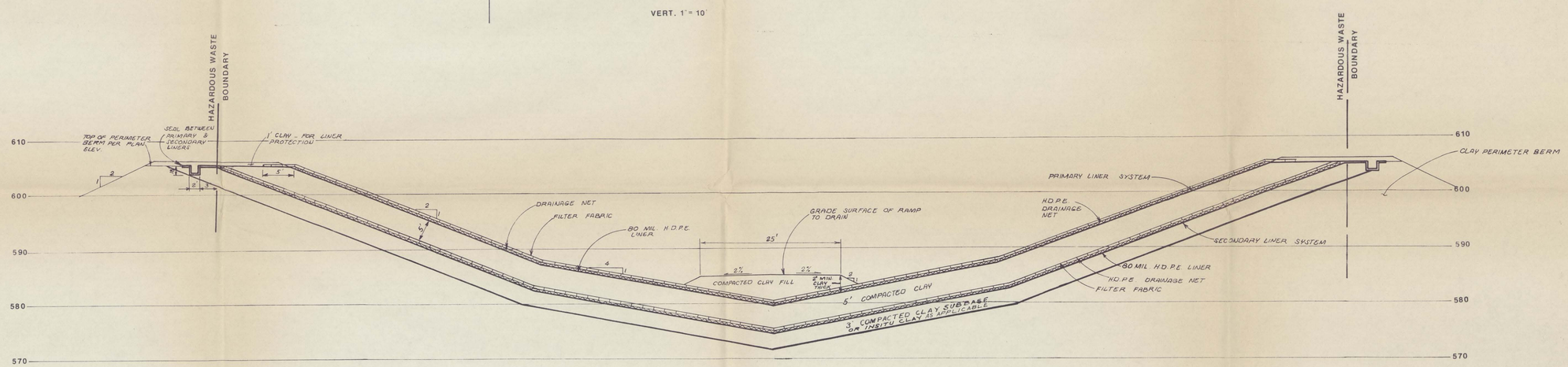
PROPOSED HAZARDOUS WASTE CELL II

SECTION A-A

SECTION I-B

SECTION C-C

SCALE: HORZ. 1" = 40'
VERT. 1" = 10'



SECTION D-D THROUGH S.W. ACCESS RAMP

SCALE: HORZ. 1" = 10'
VERT. 1" = 10'

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE		
40 SCALE FINAL PLAN SECTIONS CELL II		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

JOB NO. 84030

REVISIONS:
FINAL COVER & SUBBASE 12/87
RUNOFF DIVERSION BERM, CLAY SUBBASE 4/88
ADDED LEACHATE COLLECTION 5/88
ADDED LEAK DETECTION SYSTEM 6/88

DATE: 5/87
SHEET 13 OF 18
BY: D.J.O.

MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE (313) 971-8600

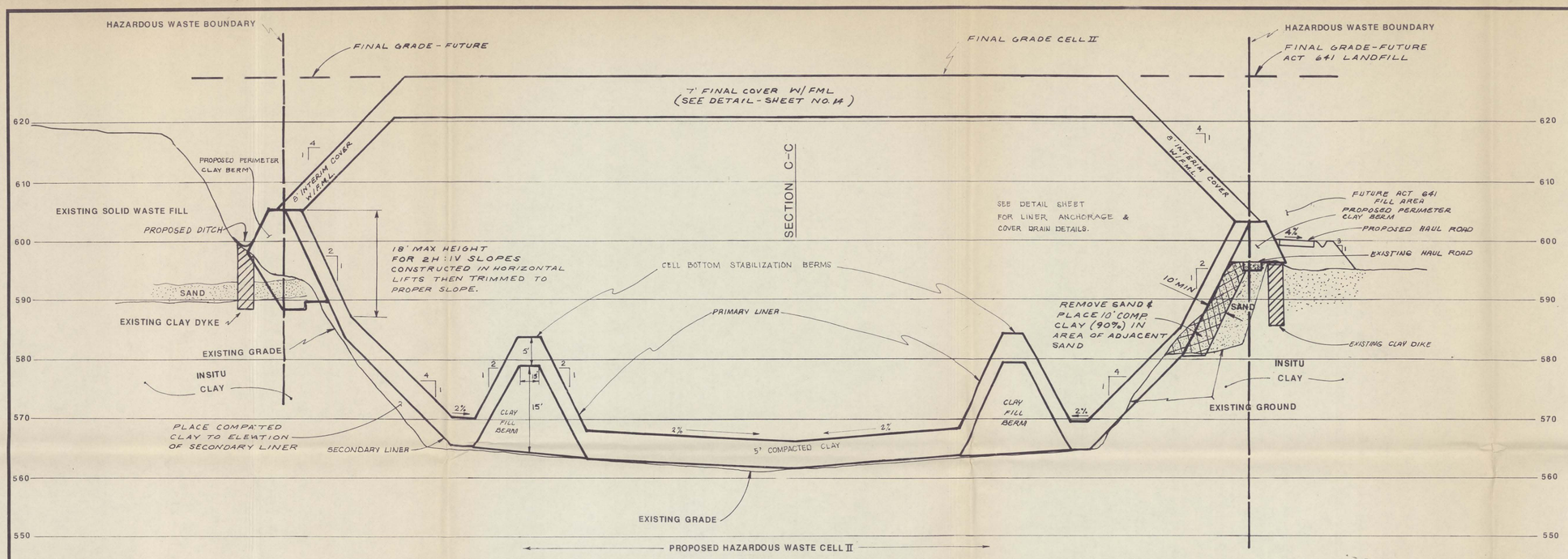
ALLEN PARK CLAY MINE LANDFILL

OWNER - FORD MOTOR COMPANY SITE LOCATION - CITY OF ALLEN PARK

40 SCALE FINAL PLAN SECTIONS - CELL II

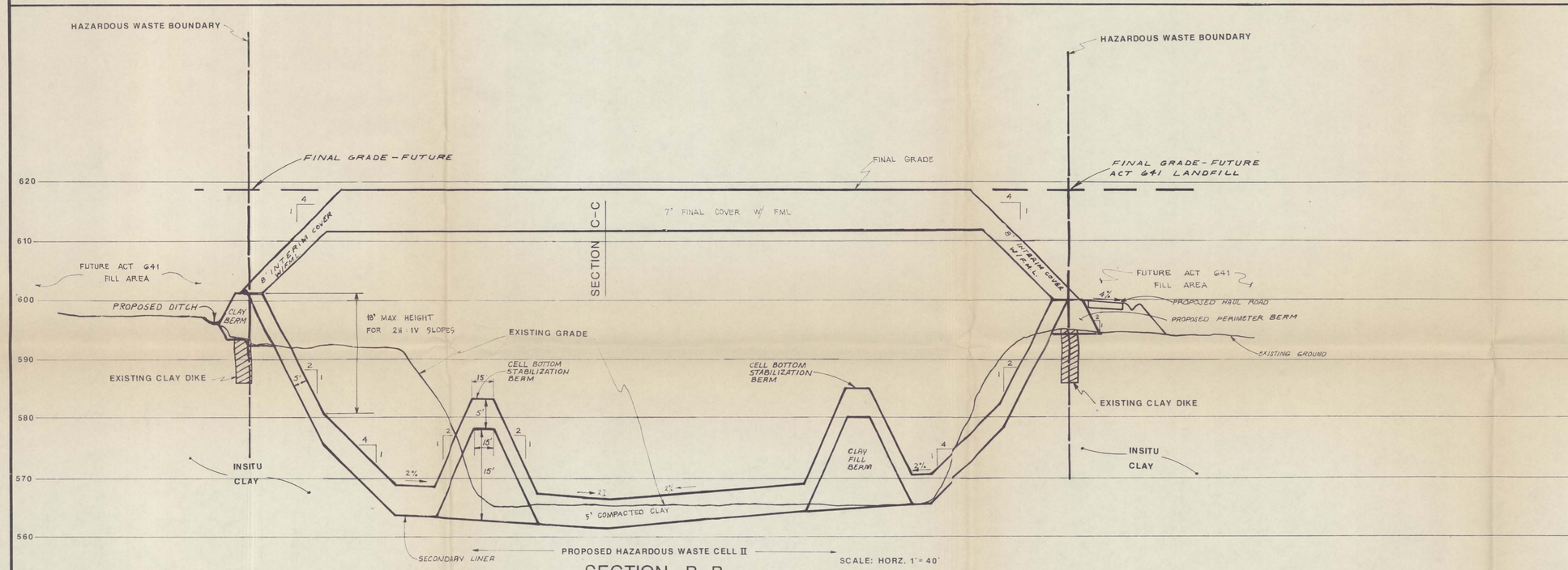
13

JUL 06 1988



SECTION A-A

SCALE: HORZ. 1" = 40'
VERT. 1" = 10'



SECTION B-B

SCALE: HORZ. 1" = 40'
VERT. 1" = 10'

ASSIGNMENT NO.	PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE	
40 SCALE FINAL PLAN SECTIONS CELL II	
SCALE GRAPHIC / CH'K'D BY	DRAWING NUMBER
DES. BY / APP'D	
DR. BY / DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE	
LOCATION ALLEN PARK, MICHIGAN	

JOB NO. 84030

REVISIONS:
FINAL COVER & SUBBASE 12/87
COMPACTED CLAY SUBBASE 4/88
INCREASED INTERIM COVER 5/88
UPDATE EX GRADE 6/88

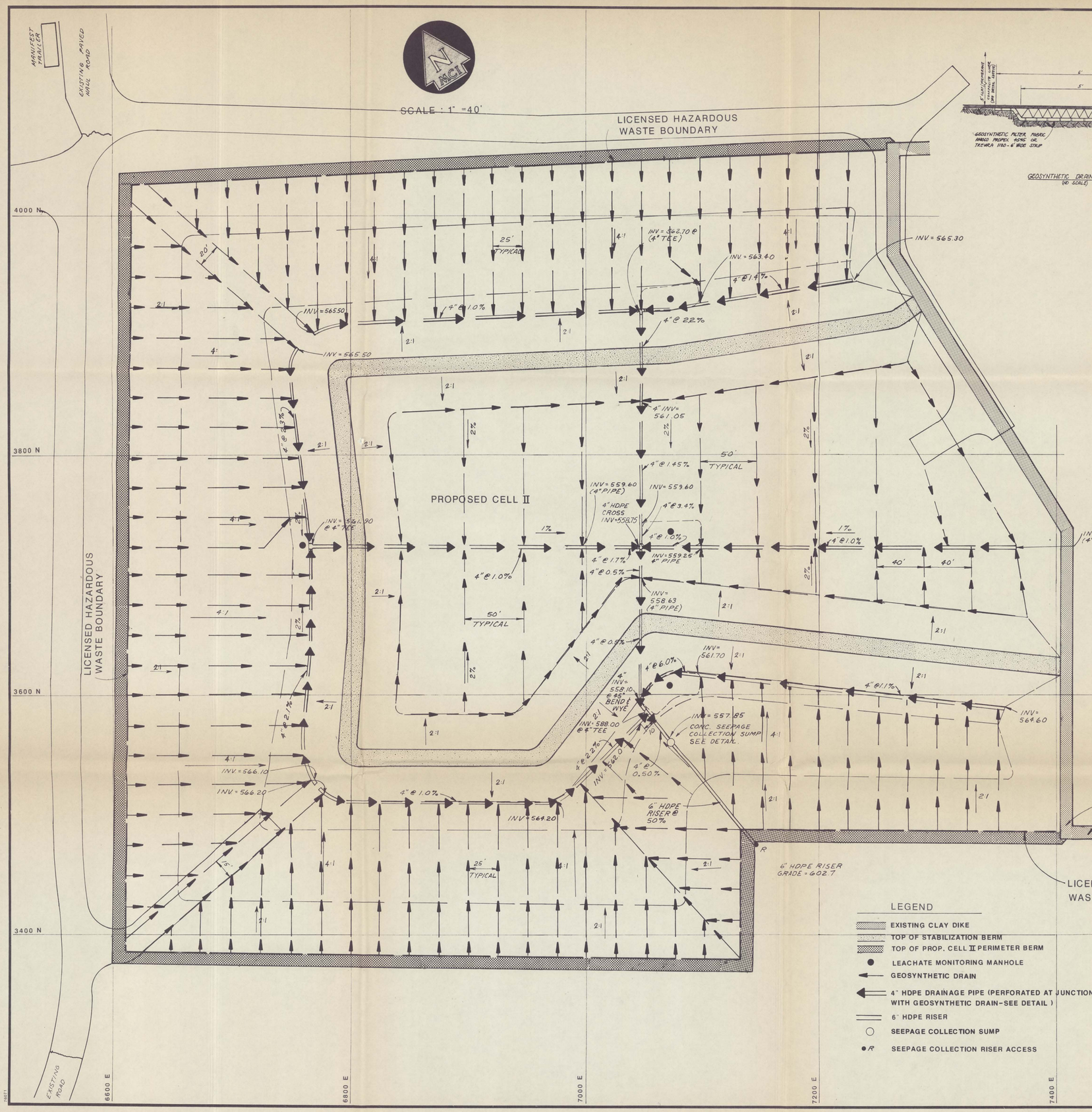
DATE: 5/87
SHEET 12 OF 18
BY: D.J.O.

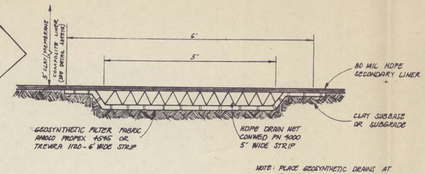
MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE (313) 971-8800

ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
40 SCALE FINAL PLAN SECTIONS - CELL II

12

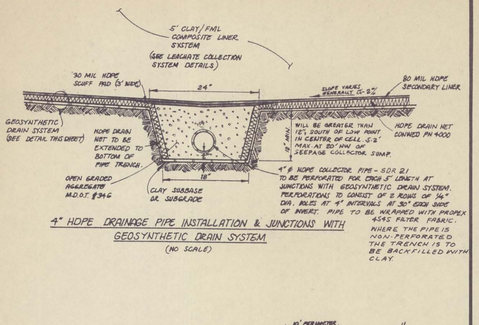
JUL 06 1988



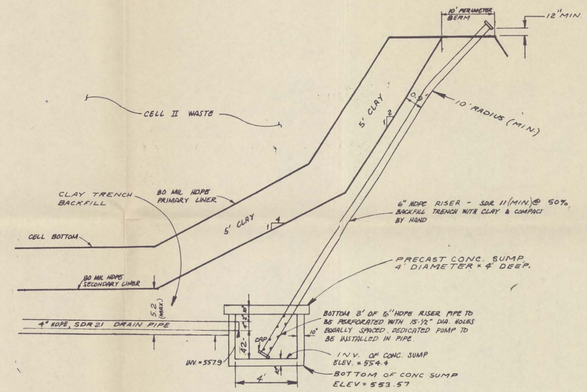


NOTE: PLACE GEOSYNTHETIC DRAINS AT 50' C-C INTERVALS ON CELL BOTTOM & AT 25' C-C INTERVALS ON SIDESLOPES.

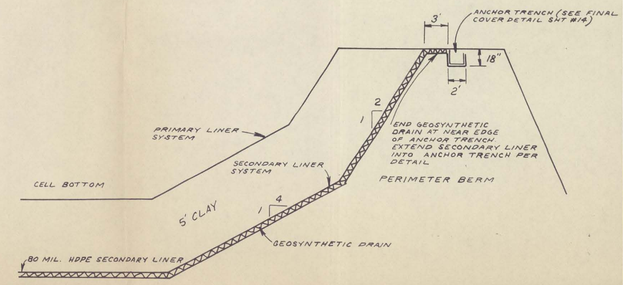
GEOSYNTHETIC DRAIN SYSTEM
(NO SCALE)



4" HDPE DRAINAGE PIPE INSTALLATION & JUNCTIONS WITH GEOSYNTHETIC DRAIN SYSTEM
(NO SCALE)



PRECAST CONCRETE SUMP & HDPE DRAIN & RISER PIPE INSTALLATION
(NO SCALE)



GEOSYNTHETIC DRAIN INSTALLATION ON SIDE SLOPES
(NO SCALE)

LEGEND

- EXISTING CLAY DIKE
- TOP OF STABILIZATION BERM
- TOP OF PROP. CELL II PERIMETER BERM
- LEACHATE MONITORING MANHOLE
- GEOSYNTHETIC DRAIN
- 4" HDPE DRAINAGE PIPE (PERFORATED AT JUNCTIONS WITH GEOSYNTHETIC DRAIN-SEE DETAIL)
- 6" HDPE RISER
- SEEPAGE COLLECTION SUMP
- R SEEPAGE COLLECTION RISER ACCESS

NOTES

1) SPACING OF GEOSYNTHETIC DRAINS SHALL BE AT 50' C-C ON CELL BOTTOM & AT 25' C-C ON SIDE SLOPES.
2) GEOSYNTHETIC DRAINS SHALL BE PLACED IMMEDIATELY BELOW THE 80 MIL HDPE SECONDARY LINER.

REFER TO DWG #8 FOR SECONDARY LINER ELEVATIONS.

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE		
CELL II ARTESIAN SEEPAGE COLLECTION SYSTEM		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

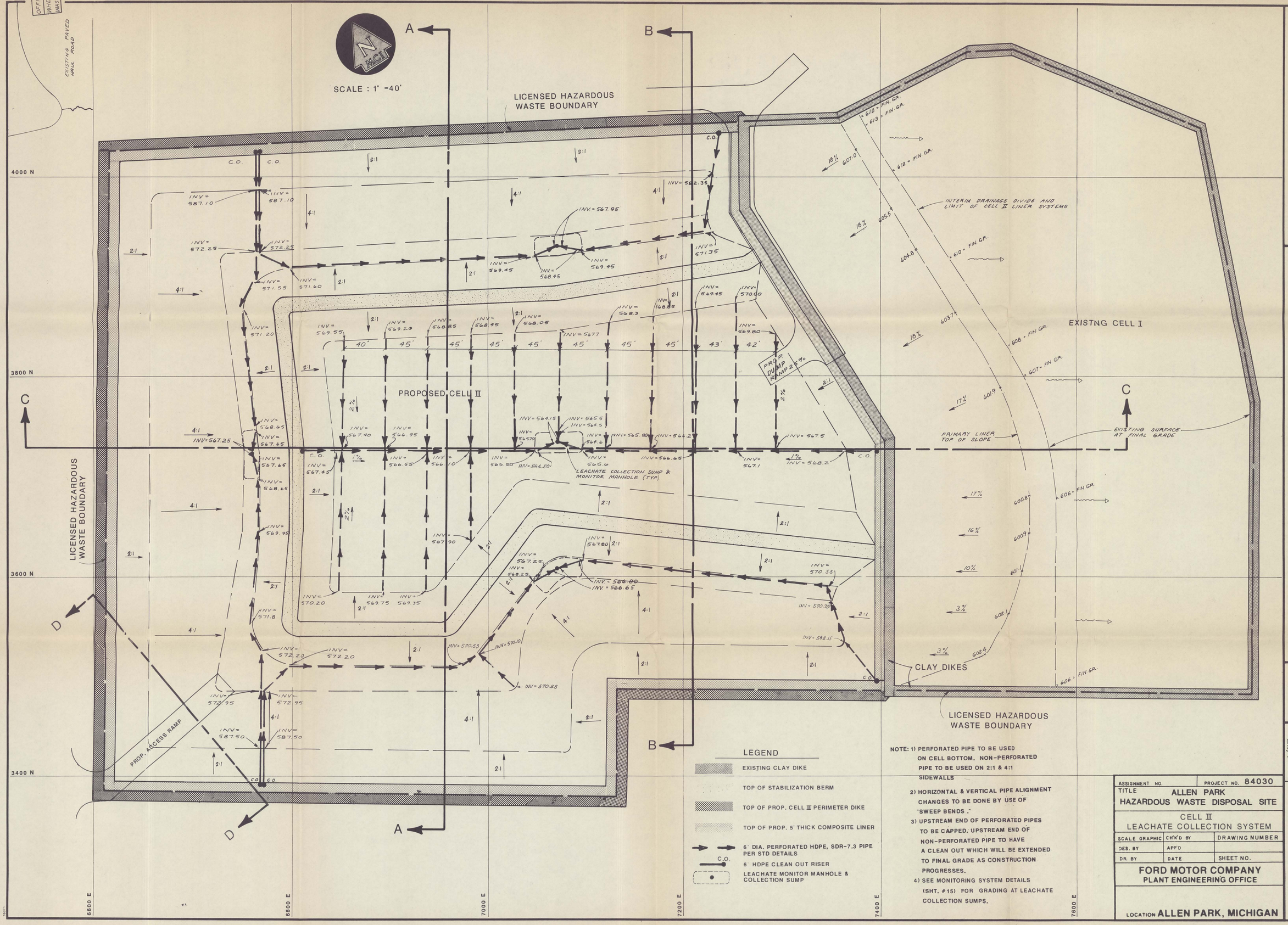
MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE (313) 971-6600

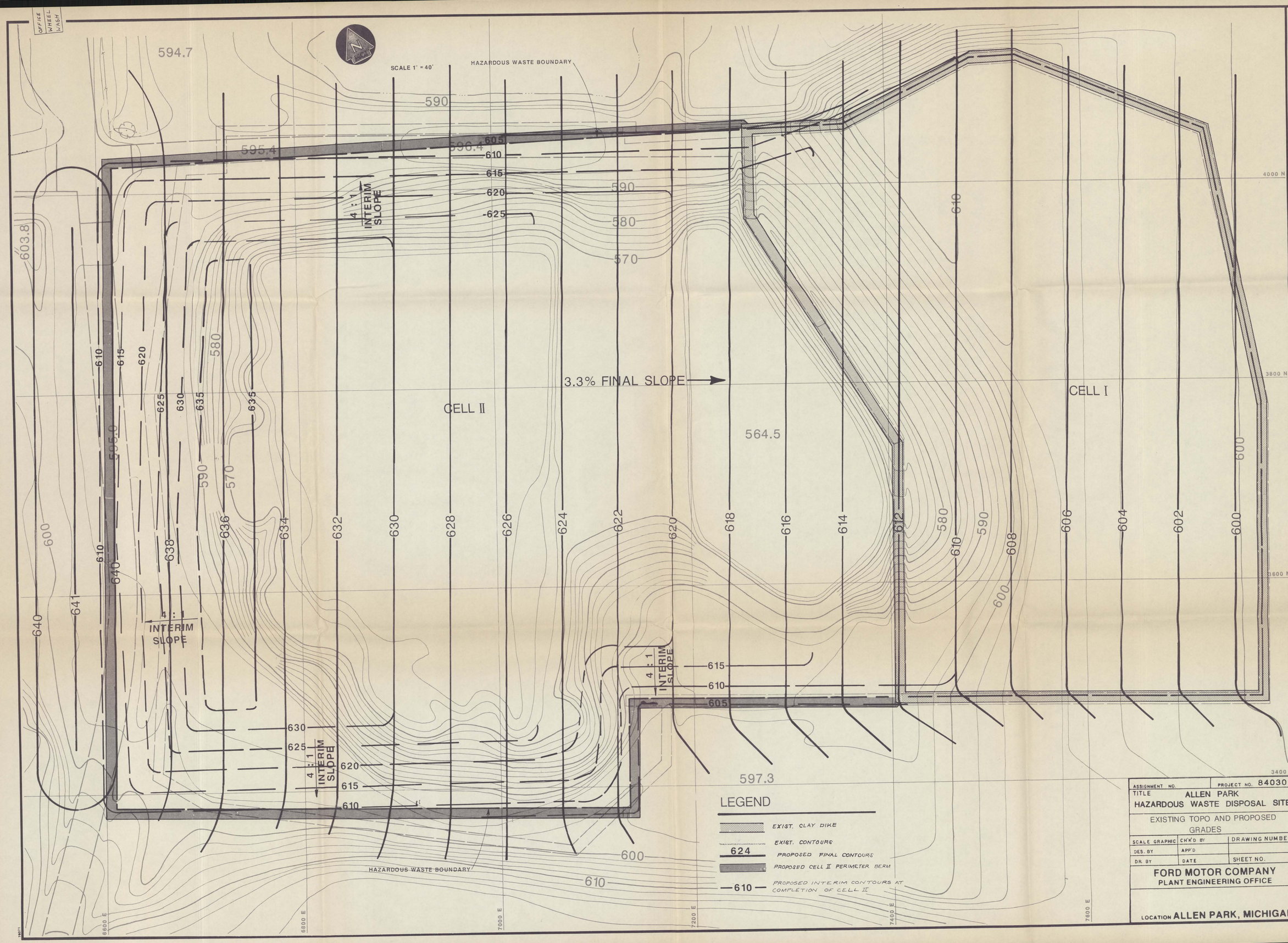
ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
CELL II - ARTESIAN SEEPAGE COLLECTION SYSTEM

11
JUL 06 1988

DATE: APRIL 1988
SHEET 11 OF 18
BY:

JOB NO. 84030
REVISIONS: ADDED GEOSYNTHETIC SIDESLOPE DRAIN 4/88


SCALE : 1" =40'
LICENSED HAZARDOUS WASTE BOUNDARY
OFFICE
WHEEL WASH
EXISTING PAVED HAUL ROAD
4000 N
3800 N
3600 N
3400 N
6600 E
6800 E
7000 E
7200 E
7400 E
7600 E
A
B
C
D
PROPOSED CELL II
EXISTNG CELL I
INTERIM DRAINAGE DIVIDE AND LIMIT OF CELL II LINER SYSTEMS
PRIMARY LINER TOP OF SLOPE
EXISTING SURFACE AT FINAL GRADE
LEACHATE COLLECTION SUMP & MONITOR MANHOLE (TYP)
PROP. DUMP RAMP
PROP. ACCESS RAMP
CLAY DIKES
C.O.
LEGEND
EXISTING CLAY DIKE
TOP OF STABILIZATION BERM
TOP OF PROP. CELL II PERIMETER DIKE
TOP OF PROP. 5' THICK COMPOSITE LINER
6" DIA. PERFORATED HDPE, SDR-7.3 PIPE PER STD DETAILS
6" HDPE CLEAN OUT RISER
LEACHATE MONITOR MANHOLE & COLLECTION SUMP
NOTE: 1) PERFORATED PIPE TO BE USED ON CELL BOTTOM. NON-PERFORATED PIPE TO BE USED ON 2:1 & 4:1 SIDEWALLS
2) HORIZONTAL & VERTICAL PIPE ALIGNMENT CHANGES TO BE DONE BY USE OF "SWEEP BENDS."
3) UPSTREAM END OF PERFORATED PIPES TO BE CAPPED. UPSTREAM END OF NON-PERFORATED PIPE TO HAVE A CLEAN OUT WHICH WILL BE EXTENDED TO FINAL GRADE AS CONSTRUCTION PROGRESSES.
4) SEE MONITORING SYSTEM DETAILS (SHT. #15) FOR GRADING AT LEACHATE COLLECTION SUMPS.
ASSIGNMENT NO.
PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE
CELL II LEACHATE COLLECTION SYSTEM
SCALE GRAPHIC
CH'K'D BY
DRAWING NUMBER
DES. BY
APP'D
DR. BY
DATE
SHEET NO.
FORD MOTOR COMPANY
PLANT ENGINEERING OFFICE
LOCATION ALLEN PARK, MICHIGAN
MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE (313) 971-8800
ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
CELL II - LEACHATE COLLECTION SYSTEM
10
JUL 0 6 1988
DATE: 6/3/7
SHEET 10 OF 18
BY:
JOB NO. 84030
REVISIONS:
ACCESS RD.
12/87
INSTALLED MONITOR SYSTEM PER DWG #15
4/88



LEGEND

- EXIST. CLAY DIKE
- EXIST. CONTOURS
- 624 PROPOSED FINAL CONTOURS
- PROPOSED CELL II PERIMETER BERM
- —610— PROPOSED INTERIM CONTOURS AT COMPLETION OF CELL II

ASSIGNMENT NO.		PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE		
EXISTING TOPO AND PROPOSED GRADES		
SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE		
LOCATION ALLEN PARK, MICHIGAN		

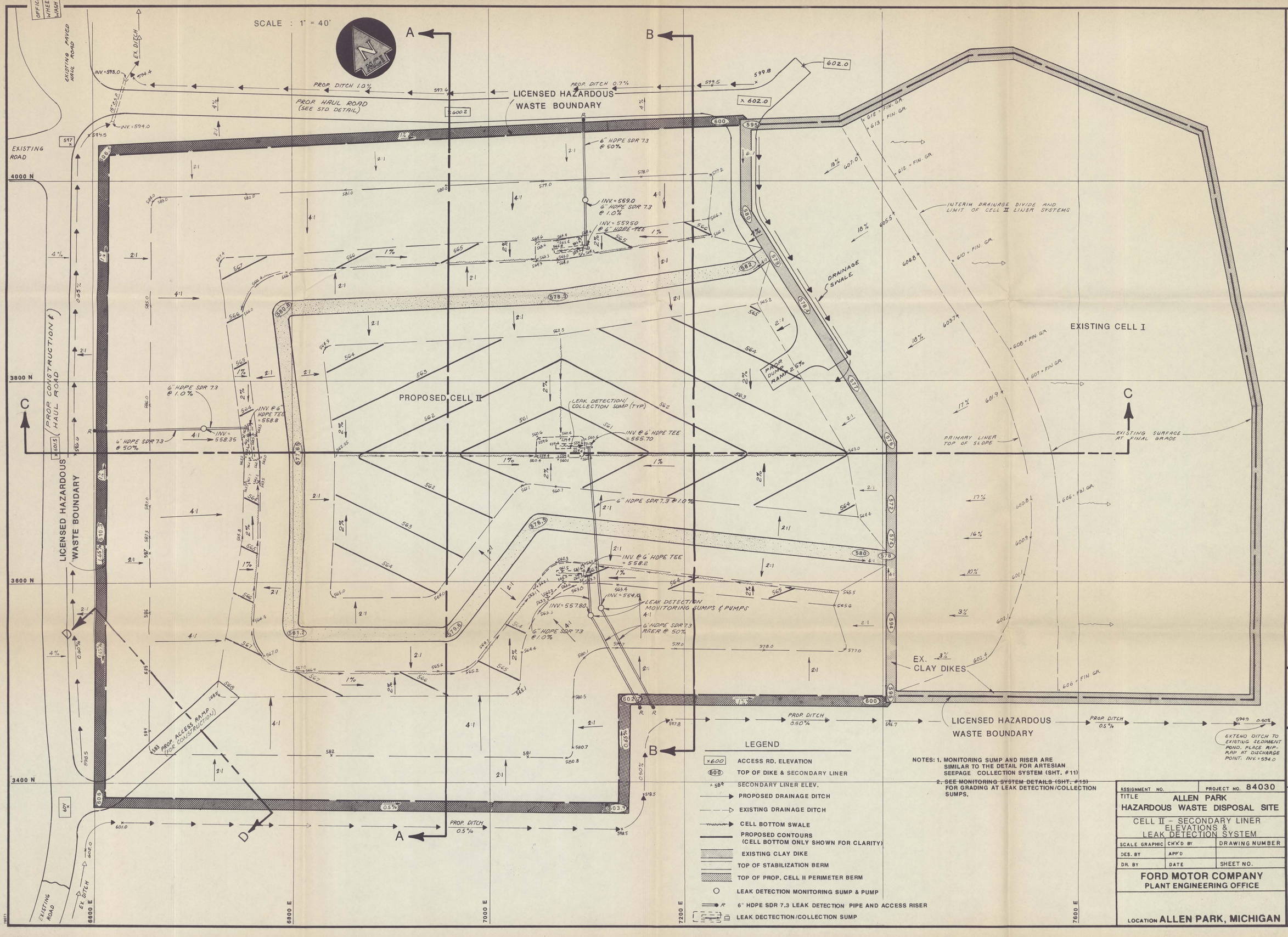
MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS · PLANNERS · SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE: (313) 971-8800

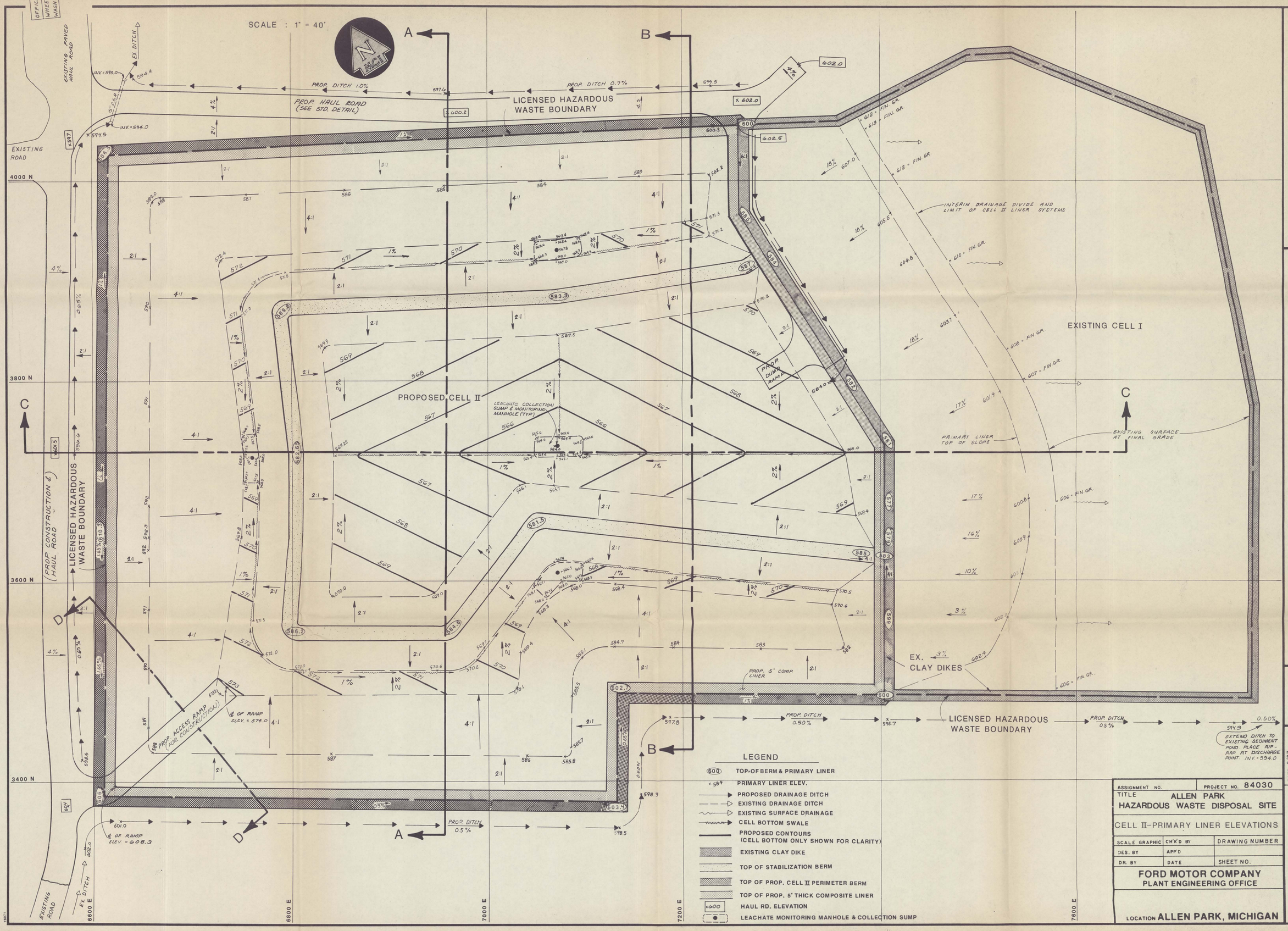
ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
EXISTING TOPO AND PROPOSED GRADES

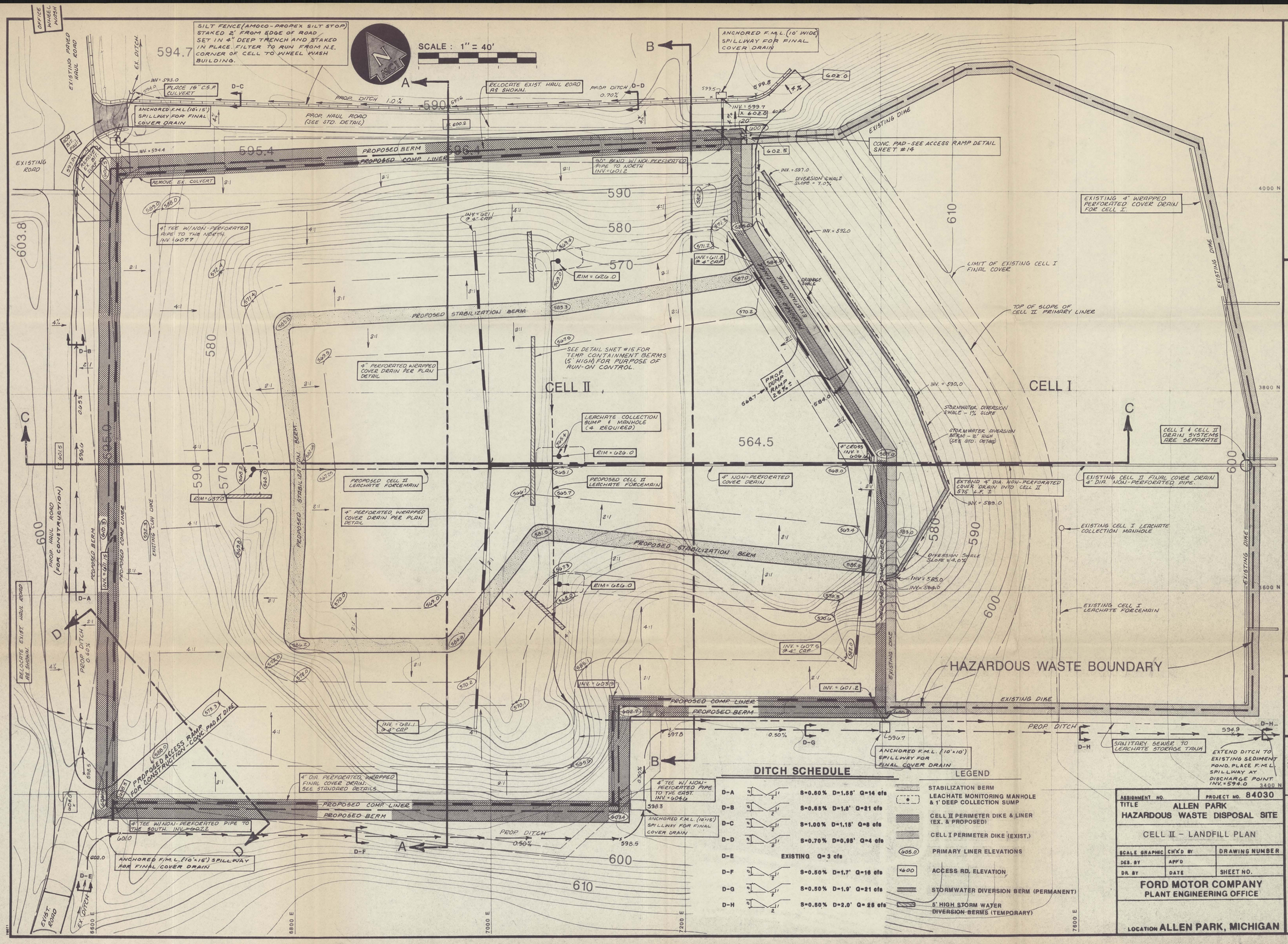
9
JUL 0 6 1988

DATE: 5/87
SHEET 9 OF 18
BY:

JOB No. 84030
REVISIONS: UPDATED EXISTING TOPO 6/88


SCALE : 1" = 40'
OFFICE WHEEL WASH
EXISTING PAVED HAUL ROAD
EX. DITCH
PROP. DITCH 1.0%
PROP. HAUL ROAD (SEE STD. DETAIL)
LICENSED HAZARDOUS WASTE BOUNDARY
PROP. DITCH 0.7%
EXISTING ROAD
4000 N
3800 N
3600 N
3400 N
6600 E
6800 E
7000 E
7200 E
7600 E
PROP. CONSTRUCTION & HAUL ROAD
6" HDPE SDR 7.3 @ 50%
INV = 559.0 6" HDPE SDR 7.3 @ 1.0%
INV = 559.50 @ 6" HDPE TEE
INTERIM DRAINAGE DIVIDE AND LIMIT OF CELL II LINER SYSTEMS
DRAINAGE SWALE
PROP. DUMP RAMP 2.5%
EXISTING CELL I
PROPOSED CELL II
LEAK DETECTION/ COLLECTION SUMP (TYP)
INV. @ 6" HDPE TEE = 558.8
INV = 558.35
INV. @ 6" HDPE TEE = 555.70
6" HDPE SDR 7.3 @ 1.0%
INV @ 6" HDPE TEE = 558.2
INV = 557.80
INV = 554.10
LEAK DETECTION MONITORING SUMPS & PUMPS
6" HDPE SDR 7.3 RISER @ 50%
PRIMARY LINER TOP OF SLOPE
EXISTING SURFACE AT FINAL GRADE
EX. CLAY DIKES
PROP. ACCESS RAMP (FOR CONSTRUCTION)
PROP. DITCH 0.5%
EXTEND DITCH TO EXISTING SEDIMENT POND. PLACE RIP-RAP AT DISCHARGE POINT. INV. = 594.0
LEGEND
ACCESS RD. ELEVATION
TOP OF DIKE & SECONDARY LINER
SECONDARY LINER ELEV.
PROPOSED DRAINAGE DITCH
EXISTING DRAINAGE DITCH
CELL BOTTOM SWALE
PROPOSED CONTOURS (CELL BOTTOM ONLY SHOWN FOR CLARITY)
EXISTING CLAY DIKE
TOP OF STABILIZATION BERM
TOP OF PROP. CELL II PERIMETER BERM
LEAK DETECTION MONITORING SUMP & PUMP
6" HDPE SDR 7.3 LEAK DETECTION PIPE AND ACCESS RISER
LEAK DECTECTION/COLLECTION SUMP
NOTES: 1. MONITORING SUMP AND RISER ARE SIMILAR TO THE DETAIL FOR ARTESIAN SEEPAGE COLLECTION SYSTEM (SHT. #11)
2. SEE MONITORING SYSTEM DETAILS (SHT. #15) FOR GRADING AT LEAK DETECTION/COLLECTION SUMPS.
ASSIGNMENT NO.
PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE
CELL II - SECONDARY LINER ELEVATIONS & LEAK DETECTION SYSTEM
SCALE GRAPHIC
CH'K'D BY
DRAWING NUMBER
DES. BY
APP'D
DR. BY
DATE
SHEET NO.
FORD MOTOR COMPANY
PLANT ENGINEERING OFFICE
LOCATION ALLEN PARK, MICHIGAN
JOB No. 84030
REVISIONS:
TIDIKE ELEV. 11/87
TUCKER ELEV. 12/87
WITH LEAK DETECTION SYSTEM 6/88
DATE: 5/87
SHEET 8 OF 18
BY:
MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE (313) 971-8800
ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY
SITE LOCATION - CITY OF ALLEN PARK
CELL II - SECONDARY LINER ELEVATIONS & LEAK DETECTION SYSTEM
8
JUL 0 6 1988


SCALE : 1" = 40'
N
MCI
OFFICE WHEEL WASH
EXISTING PAVED HAUL ROAD
EX. DITCH
PROP. DITCH 1.0%
PROP. DITCH 0.7%
PROP. HAUL ROAD (SEE STD. DETAIL)
LICENSED HAZARDOUS WASTE BOUNDARY
EXISTING ROAD
4000 N
3800 N
3600 N
3400 N
6600 E
6800 E
7000 E
7200 E
7600 E
A
B
C
D
PROPOSED CELL II
LEACHATE COLLECTION SUMP & MONITORING MANHOLE (TYP)
PROP. DUMP RAMP
INTERIM DRAINAGE DIVIDE AND LIMIT OF CELL II LINER SYSTEMS
EXISTING CELL I
PAIMART LINER TOP OF SLOPE
EXISTING SURFACE AT FINAL GRADE
EX. CLAY DIKES
PROP. 5' COMP. LINER
PROP. ACCESS RAMP (FOR CONSTRUCTION)
℄ OF RAMP ELEV. = 574.0
℄ OF RAMP ELEV. = 608.3
PROP. DITCH 0.50%
EXTEND DITCH TO EXISTING SEDIMENT POND. PLACE RIP-RAP AT DISCHARGE POINT. INV. = 594.0
LEGEND
TOP OF BERM & PRIMARY LINER
PRIMARY LINER ELEV.
PROPOSED DRAINAGE DITCH
EXISTING DRAINAGE DITCH
EXISTING SURFACE DRAINAGE
CELL BOTTOM SWALE
PROPOSED CONTOURS (CELL BOTTOM ONLY SHOWN FOR CLARITY)
EXISTING CLAY DIKE
TOP OF STABILIZATION BERM
TOP OF PROP. CELL II PERIMETER BERM
TOP OF PROP. 5' THICK COMPOSITE LINER
HAUL RD. ELEVATION
LEACHATE MONITORING MANHOLE & COLLECTION SUMP
ASSIGNMENT NO.
PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE
CELL II-PRIMARY LINER ELEVATIONS
SCALE GRAPHIC
CH'K'D BY
DRAWING NUMBER
DES. BY
APP'D
DR. BY
DATE
SHEET NO.
FORD MOTOR COMPANY
PLANT ENGINEERING OFFICE
LOCATION ALLEN PARK, MICHIGAN
MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 MORRIS AVENUE
ANN ARBOR MICHIGAN 48105
TELEPHONE (313) 971 8800
ALLEN PARK CLAY MINE LANDFILL
SITE LOCATION – CITY OF ALLEN PARK
OWNER – FORD MOTOR COMPANY
CELL II – PRIMARY LINER ELEVATIONS
7
JUL 0 6 1988
DATE 5/87
SHEET 7 OF 18
BY:
JOB No. 84030
REVISIONS:
ELEVS 11/87
ACCESS RAMP 12/87
DUMP RAMP/LEACHATE COLLECTION SUMP 4/88



DITCH SCHEDULE

D-A	S=0.60% D=1.55' Q=14 cfs	
D-B	S=0.65% D=1.8' Q=21 cfs	
D-C	S=1.00% D=1.15' Q=8 cfs	
D-D	S=0.70% D=0.95' Q=4 cfs	
D-E	EXISTING Q=3 cfs	
D-F	S=0.50% D=1.7' Q=16 cfs	
D-G	S=0.50% D=1.9' Q=21 cfs	
D-H	S=0.50% D=2.0' Q=26 cfs	

LEGEND

- STABILIZATION BERM
- LEACHATE MONITORING MANHOLE & 1' DEEP COLLECTION SUMP
- CELL II PERIMETER DIKE & LINER (EX. & PROPOSED)
- CELL I PERIMETER DIKE (EXIST.)
- (605.0) PRIMARY LINER ELEVATIONS
- (+600) ACCESS RD. ELEVATION
- STORMWATER DIVERSION BERM (PERMANENT)
- 5' HIGH STORM WATER DIVERSION BERMS (TEMPORARY)

ASSIGNMENT NO. | PROJECT NO. 84030

TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE

CELL II - LANDFILL PLAN

SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO.

FORD MOTOR COMPANY
PLANT ENGINEERING OFFICE

LOCATION ALLEN PARK, MICHIGAN

MIDWESTERN CONSULTING, INC.
CIVIL ENGINEERS • PLANNERS • SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48105
TELEPHONE (313) 971-8800

ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY SITE LOCATION - CITY OF ALLEN PARK
CELL II - LANDFILL PLAN

6
JUL 06 1988

DATE: 5/87
SHEET 6 OF 18
BY:

JOB No. 84030

REVISIONS:
HAUL ROAD & RAMP 12/87
SEDIM. DIVERSION, BERM & SWALE 4/88
ADD SANITARY SEWER, DITCH, BERMS 5/88
UPDATED EX. TOPO 6/88

MATCH LINE WITH SHEET 4

AIR TOPO AS OF DECEMBER 1982

MIDWESTERN CONSULTING INC.
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ANN ARBOR, MICHIGAN 48105
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MCI

ALLEN PARK CLAY MINE LANDFILL

OWNER - FORD MOTOR COMPANY SITE LOCATION - CITY OF ALLEN PARK

200 SCALE EXISTING TOPOGRAPHY - SOUTH HALF

5

JUL 0 6 1988

ASSIGNMENT NO.	PROJECT NO. 84030
TITLE	ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE 200 SCALE EXISTING TOPOGRAPHY - SOUTH HALF
SCALE GRAPHIC / CH'K'D BY	DRAWING NUMBER
DES. BY / APP'D	
DR. BY / DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE	
LOCATION ALLEN PARK, MICHIGAN	

JOB NO. 84030

DATE JULY 9, 1984 SHEET 5 OF 18

REVISIONS BY

DUNN 300 4-84 B1064F

MATCH LINE WITH SHEET 5

AIR TOPO AS OF DECEMBER 1982
UPDATED IN HAZARDOUS WASTE AREA - APRIL 1987

ASSIGNMENT NO.	PROJECT NO. 84030
TITLE ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE 200 SCALE EXISTING TOPOGRAPHY - NORTH HALF	
SCALE GRAPHIC / CH'K'D BY	DRAWING NUMBER
DES. BY / APP'D	
DR. BY / DATE	SHEET NO.
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE	
LOCATION ALLEN PARK, MICHIGAN	

MIDWESTERN CONSULTING INC.
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2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48104
TELEPHONE: 313-971-8000

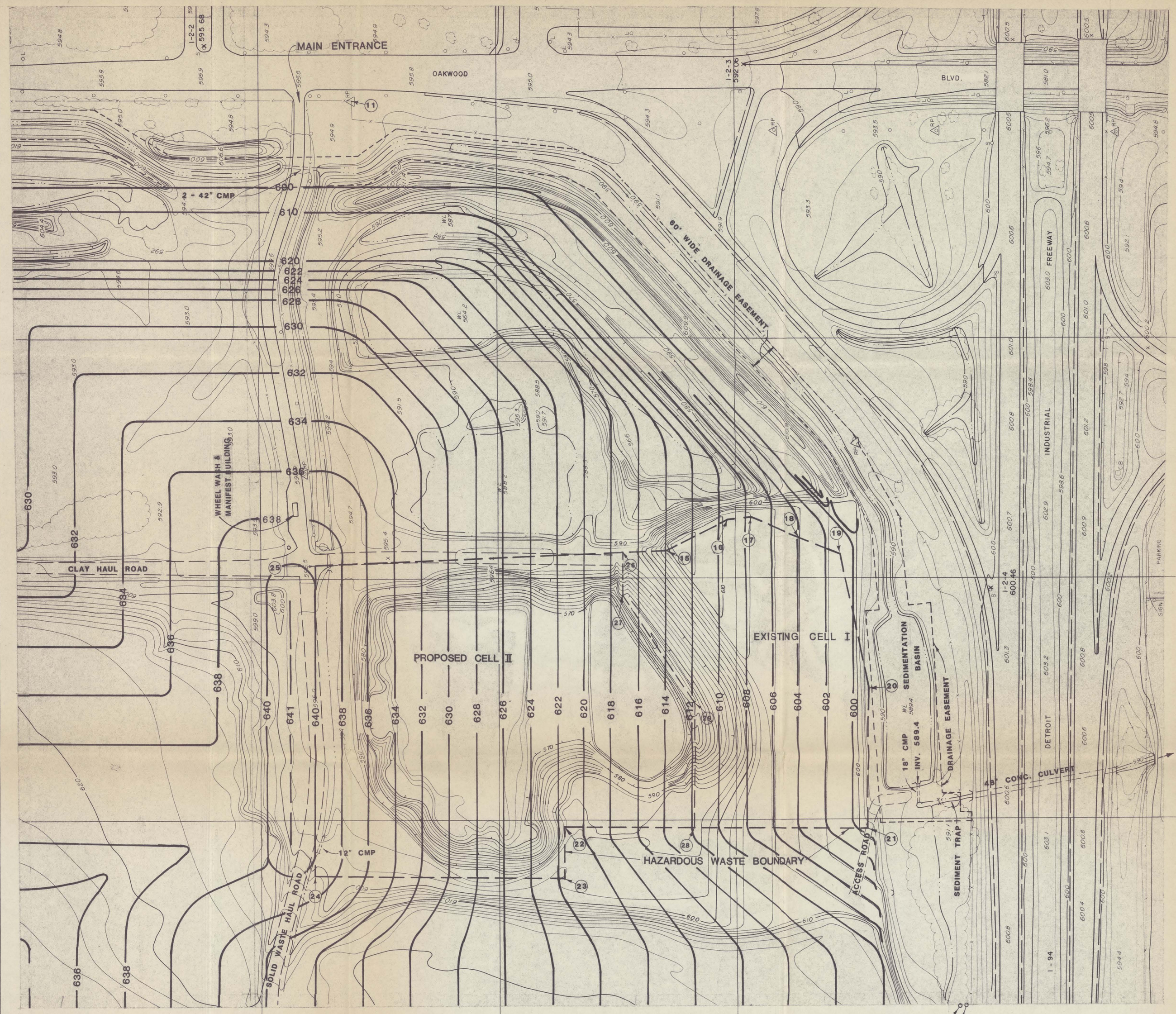
ALLEN PARK CLAY MINE LANDFILL
OWNER - FORD MOTOR COMPANY SITE LOCATION - CITY OF ALLEN PARK
200 SCALE EXISTING TOPOGRAPHY - NORTH HALF

4
JUL 0 6 1988

DATE JULY 9 1984
SHEET 4 OF 18

JOB NO. 84030
REVISIONS: UPDATED TOPOGRAPHY 6/88 BY

DUNN 309 4-84 B184F



AIR TOPO AS OF DECEMBER 1982
UPDATED IN HAZARDOUS WASTE AREA - APRIL 1987

100 0 100 200 300
SCALE: 1"=100'

31° ROTATION FROM TRUE NORTH TO GRID NORTH

LEGEND

(14) INDICATES COORDINATE POINT NUMBER

—594— INDICATES EXISTING CONTOUR AT 2' INTERVALS

—600— INDICATES PROPOSED CONTOUR AT 2' INTERVALS

COORDINATE POINTS AS RELATED TO CONSTRUCTION GRID

11	4988.81000	6697.37000
15	4057.83000	7357.75000
16	4122.30000	7486.24000
17	4124.81000	7533.96000
18	4086.56000	7628.03000
19	4049.62000	7724.65000
20	3774.02000	7781.74000
21	3479.05000	7778.76000
22	3485.41000	7134.47000
23	3378.87000	7133.45000
24	3384.04000	6808.48000
25	4027.17000	6614.63000
26	4053.93454	7263.33032
27	3966.93786	7262.57111
28	3482.72188	7406.77812
29	3741.21203	7409.03393

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CIVIL ENGINEERS · PLANNERS · SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48104
TELEPHONE: 313-971-8800

ALLEN PARK CLAY MINE LANDFILL

OWNER - FORD MOTOR COMPANY

SITE LOCATION - CITY OF ALLEN PARK

MASTER PLAN - CELL SITES, GRADING PLAN, MAJOR ROADS, DRAINS

3

JUL 0 6 1988

DATE: JULY 9, 1984
SHEET 3 OF 18
BY:

ASSIGNMENT NO. | PROJECT NO. 84030

TITLE ALLEN PARK
HAZARDOUS WASTE DISPOSAL SITE

MASTER PLAN

SCALE GRAPHIC	CH'K'D BY	DRAWING NUMBER
DES. BY	APP'D	
DR. BY	DATE	SHEET NO

FORD MOTOR COMPANY
PLANT ENGINEERING OFFICE

LOCATION ALLEN PARK, MICHIGAN

JOB NO. 84030

REVISIONS: ADDED WHEEL WASH BUILDING 6/88

DUNN 300 4-84 8184F

AS OF DECEMBER 1982

N MCI

200 100 0 200

SCALE: 1" = 200"

MIDWESTERN CONSULTING INC.

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2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48104
TELEPHONE: 313-971-8800

ALLEN PARK CLAY MINE LANDFILL

OWNER - FORD MOTOR COMPANY

SITE LOCATION - CITY OF ALLEN PARK

200 SCALE AERIAL PHOTO

2

JUL 0 6 1988

ASSIGNMENT NO.	PROJECT NO. 84030
TITLE	ALLEN PARK HAZARDOUS WASTE DISPOSAL SITE
	200 SCALE AERIAL PHOTO
SCALE GRAPHIC / CH'K'D BY	DRAWING NUMBER
DES. BY / APP'D	
DR. BY / DATE	SHEET NO
FORD MOTOR COMPANY PLANT ENGINEERING OFFICE	
LOCATION ALLEN PARK, MICHIGAN	

JOB NO. 84030

DATE: JULY 9, 1984

SHEET 2 OF 18

BY:

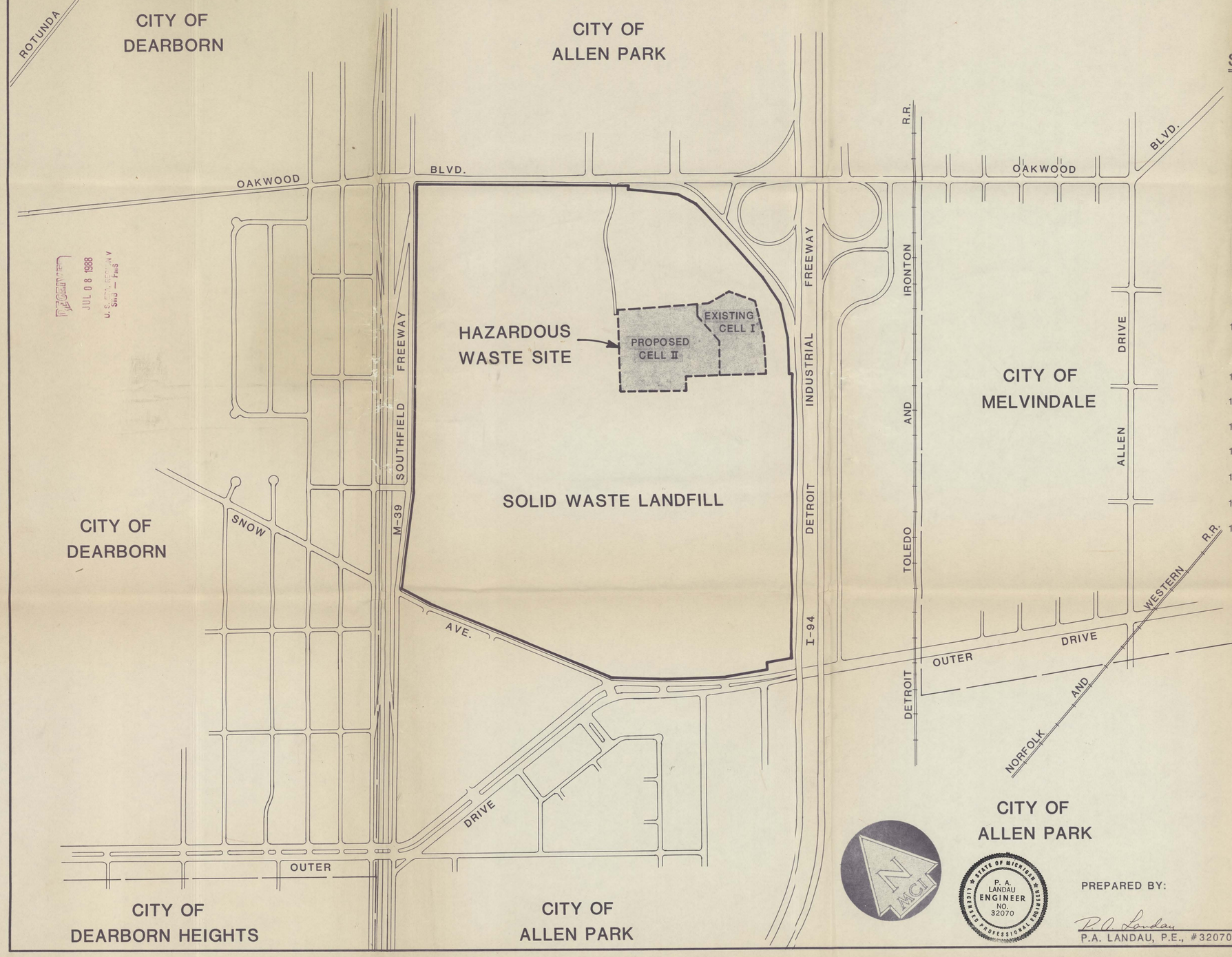
REVISIONS:

DUNN 306 4-84 8194F

ALLEN PARK CLAY MINE LANDFILL

HAZARDOUS WASTE DISPOSAL SITE - CELL II

OWNER: FORD MOTOR COMPANY LOCATION: CITY OF ALLEN PARK, WAYNE CO., MICH.



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3. MASTER PLAN - CELL SITES, GRADING PLAN, MAJOR ROADS, DRAINS
4. 200 SCALE EXISTING TOPOGRAPHY - NORTH HALF
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7. CELL II - PRIMARY LINER ELEVATIONS
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9. EXISTING TOPO AND PROPOSED GRADES
10. CELL II - LEACHATE COLLECTION SYSTEM
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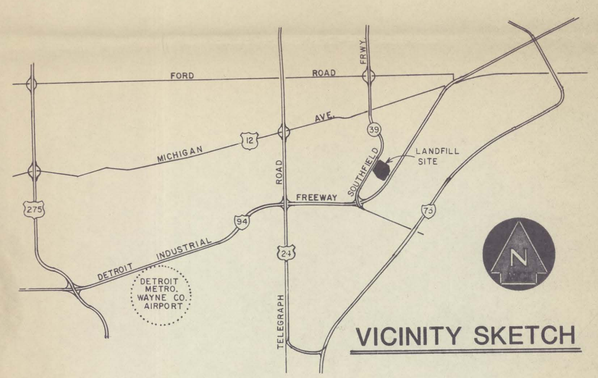
17. SECURITY, TRAFFIC, WIND ROSE, STRUCTURES, UTILITIES
18. FLOOD PLAIN MAP



VICINITY SKETCH

LANDFILL
JUL 08 1988
U.S. ENVIRONMENTAL PROTECTION AGENCY
SWD — FMS

STATE OF MICHIGAN
P. A. LANDAU
ENGINEER
NO. 32070
LICENSED PROFESSIONAL ENGINEER

PREPARED BY:

P.A. Landau

P.A. LANDAU, P.E., #32070

JUNE 24, 1988

PREPARED BY:
MIDWESTERN CONSULTING INC.
MCI
CIVIL ENGINEERS · PLANNERS · SURVEYORS
2045 HOGBACK ROAD
ANN ARBOR, MICHIGAN 48104
TELEPHONE: 313-971-8800

JUL 06 1988