PETITION FOR SPECIAL EXCEPTION 81-241-XA

TO THE ZONING COMMISSIONER OF BALTIMORE COUNTY:

described in the de Special Exception	escription and under the Zon	er(s) of the property situate in Baltimore County and which is plat attached hereto and made a part hereof, hereby petition for a ning Law and Zoning Regulations of Baltimore County, to use the
herein described p	roperty for	Community Building
	94	

Property is to be posted and advertised as prescribed by Zoning Regulations.

I, or we, agree to pay expenses of above Special Exception advertising, posting, etc., upon filing of this petition, and further agree to and are to be bound by the zoning regulations and restrictions of Baltimore County adopted pursuant to the Zoning Law for Baltimore County.

I/We do solemnly declare and affirm, under the penalties of perjury, that I/we are the legal owner(s) of the property which is the subject of this Petition.

	which is the subject of this relation.
Contrac: Purchaser:	Legal Owner(s):
American Legion Reisterstown Post (Type or Print Name)	Jacob A. Von Gunten (Type or Print Name)
Conera E. With	Signature 1 - 1- 1 - 1 - 1 - 1 - 1
167 Westminster Pike	(Type or Print Name)
Reisterstown, Maryland 21136 City and State	Signature Tree
Attorney for Petitioner:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
(Type or Print Name)	Roaches Lane 933-4426 UNAL Phone No. EV.
Signature	Reisterstown, Maryland 21136 City and State
Address	Name, address and phone number of legal owner, con- tract purchaser or representative to be contacted
City and State	Clarence Wirts, Post Commander Name

167 Westminster Pike

Address Reisterstown, Maryland 21136 No.

Zoning Commissioner of Baltimore County.

ORDERED By The Zoning Commissioner of Baltimore County, this _____l6th _____ day of ___February _____, 19 34 , that the subject matter of this pet.tion be advertised, as required by the Zoning Law of Baltimore County, in two newspapers of general circulation throughout Baltimore County, that property be posted, and that the public hearing be had before the Zoning Commissioner of Baltimore County in Room 106, County Office Building in Towson, Baltimore 26th day of March 1984 at 10:15 o'clock __A._M.

E.C.O.-No. 1

Attorney's Telephone No.: _____

Mr. Clarence B. Wirts, Jr. 167 Westminster Pike Reisterstwer., Md. 21136

Attorney

BALTIMORE COUNTY OFFICE OF PLANNING & ZONING

County Office Building 111 W. Chesapeake Avenue Towson, Maryland 21204

Your petition has been received and accepted for fili this 14th day of Behruary , 19 84

Received by Mucha Elementer Petitioner's Chairman, Zoning Plans Advisory Committee

PETITION FOR ZONING VANANCE 84-241-47

TO THE ZONING COMMISSIONER OF BALTIMORE COUNTY:

The undersigned, legal owner(s) of the property situate in Baltimore County and which is described in the description and plat attached hereto and made a part hereof, hereby petition for a impermeable
Variance from Section __JAG1_48.5_to_permit_s/coverage_of_13.6%_or_94787_S.F. instead maximum permitted eL_______10% or 69696 S.F.

of the Zoning Regulations of Baltimore County, to the Zoning Law of Baltimore County; for the following reasons: (indicate hardship or practical difficulty)

The parking required by Baltimore County Zoning Regulations causes an increase in the coverage from 10% to 13.6% and the landowner is unwilling to sell any additional land.

Property is to be posted and advertised as prescribed by Zoning Regulations.

I, or we, agree to pay expenses of above Variance advertising, posting, etc., upon filing of this petition, and further agree to and are to be bound by the zoning regulations and restrictions of Baltimore County adopted pursuant to the Zoning Law For Baltimore County.

I/We do solemnly declare and affirm, under the penalties of perjury, that I/we are the legal owner(s) of the property which is the subject of this Petition.

Contract Purchaser:	Legal Owner(s):
American Legion Beisterstown Post #116,1 (Type or Print Name)	nc. Jacob A. VonGunten (Type or Print Name)
Signature Post Commander	Jocob von Sunter
Signature Post Commander	Signature
167 Westminster Pike Address	(Type or Print Name)
Reisterstown, Maryland 21136	
City and State	Signature
Attorney for Petitioner:	
(Type or Print Name)	Roches Lane 833-4426 Address Phone No.
Signature .	Reisterstown, Maryland 21136 City and State
415 St. Paul Place Address	Name, address and phone number of legal owner, con- tract purchaser or representative to be contacted
Baltimore, Maryland 21202 City and State	Clarence Wirts, Post Commander Name
Attorney's Telephone No.:727-1365	167 Westminster Pike 833-9605
	Address Reisterstown, Maryland 21136
ORDERED By The Zoning Commissioner of	Baltimore County, this 16th day
of February 1984, that the	subject matter of this petition be advertised, as in two newspapers of general circulation through-
County, on the 26th day of	March 19.84 at 10:15 o'clock

EVALUATION

BALTIMORE COUNTY, MARYLAND

INTER-OFFICE CORRESPONDENCE

Arnold Jablon TO. Zoning Commissioner Date____March_13__1984 Norman E. Gerber, Director

PROM Office of Planning and Zoning Jacob A. Von Gunten

SUBJECT 84-241-XA

The plan was approved by CRG "subject to a zoning hearing with regard to the porous paving satisfying the requirement for the 10% coverage factor and water quality". This office is opposed to the granting of a variance to the 10% coverage factor. In particular, please note Section 502.1h (Bill No. 45, 1982) of the Baltimore County Zoning Regulations.

> Norman E. Gerber, Directo Office of Planning and Zoning

NEG/JGH/sf

Maryland Department of Transportation March 21, 1984

M. S. Caltrider

Zoning Commissioner for Baltimore County Baltimore County Office Building Towson, Maryland, 21204

Subject: American Legion, Inc., Post 116 Contract: B 698-313-470 Item No.: 68808

DISTRICT PIGHT OF WAY OFFICE 4

MICROGRAMOVILLE, MARYLAND THEF

Mr. Arnold Jablon

JACOB A. VON GUNTEN

Dear Mr Jablon: PX-JYL-XA This is to formally notify you that the State Highway Administration is concerned with the American Legion Hearing for a zoning variance on March 26th.

The State has purchased their former property on Westminster Pike and as soon as they can relocate, the State will demolish the old building for the construction of the Northwest Expressvay. Therefore, the State has an interest in relocating the American Legion to their

new site on time, since any delayed date would cause a holdup in the construction of the expressway and the opening that is scheduled for the Fall of 1986.

If you have any questions, please contact George J. Horvath at this office.

Anything that your Department could do to assist the American Legion and the State Highway Administration in accomplishing this relocation on time would be appreciated.

Very truly yours,

Robert H. Tresselt, Chief Right of Way District #4

RHT:GJH:ns

cc: Mr. Hobert Knatz, Knatz Healty Co. Kain St., Reisterstown, Md.

George J. Horvath, Jr. Acting Ass't Chief, R/W #

> My telephone number is 321-3100 Teletypewriter for Impaired Hearing or Speech 383-7555 Baitimore Metro — 565-0451 D.C. Metro — 1-800-492-5082 Statewide Toll Free P.O. Box 717 / 707 North Calvert St., Baltimore, Maryland 21203 - 0717



March 15, 1984

RE: Item No. 167 - Case No. 84-241-XA

111 W. Chesapeake Ave. Towson, Maryland 21204 Mr. Clarence E. Wirts, Jr. 167 Westminster Pike Reisterstown, Maryland 21136 Nicholas B. Commodari

Chairman MEMBERS Dureau of

COUNTY OFFICE BLDG.

*Engineering Department of Traffic Engineering State Foads Commission Bureau of Fire Prevention Health Department Project Planning:

Building Department

Board of Education

Industrial

Development

foning Administration

Petitioner - Jacob A. Von Gunten Special Exception and Variance Petition Dear Mr. Wirts:

The Zoning Plans Advisory Committee and the County Review Group (CRG) have both reviewed the plans submitted with the above referenced petition. The following comments from the CRG have been substituted for those of the Zoning Plans Advisory Committee. They are not intended to indicate the appropriateness of the Zoning action requested, but to assure that all parties are made average of plans are made average. that all parties are made aware of plans or problems with regard to the development plans that may have a bearing on this case. The Director of Planning may file a written report with the Zoning Commissioner with recommendations as to the suitability of the requested zoning.

In view of your proposal to construct an American Legion Building on this site, the special exception is required. The variance is included to allow more than 10% of the lot to be covered by impermeable surface in the event that it is determined at the hearing that "porous paving" is impermeable.

This petition was accepted for filing on the date of the enclosed filing certificate and a hearing scheduled accordingly.

> Very truly yours, VICHOLAS B. COMMODARI Zoning Plans Advisory Committee

NBC: mch Enclosures COUNTY REVIEW GROUP MEETING MINUTES Wednesday, February 1, 1984

> AMERICAN LEGION POST 126 DISTRICT 4 C3

COUNTY REVIEW GROUP - THOSE PRESENT

Gilbert S. Benson, Chairman - Dept. of Public Works Eugene A. Bober, Co-Chairman - Office of Current Planning

> Agency Representatives - Zoning

Diana Itter Susan Carre! Paul Koch Rob Powell Greg Jones

- Planning - Public Services

- Health Cept. - Traffic Engineering

- Realtor

Developer'r Representatives

Robert S. Knact, Jr. Clarence Wirtz, Jr. Jacob vonGunten

from Rt. 140. Pourous paving is being proposed within this site.

office.

- Cmdr., American Legion 116

Douglas A. Lawrence Cornelius E. Cole Charles K. Star.

- Financial Officer, American Legion - Judge Advocate, America: Legion 116 - G. W. Stephens, Jr. & Assocs., Inc.

The meeting was called to order at 10:45 3.m. by Mr. Gilbert S. Bersov Chairman of the County Review Group. Mr. Benson introduced the members of the committee and stated the purpose of the meeting.

Mr. Charles Stark, developer's engineer, presented the plan. The American Logion was forced to relocate because the State Highway Administration was taking their present site on Rt. 140 for the Northwest Expressway. The Legion is now attempting to acquire this piece of land from Mr. Jacob vonGunten. They propose to place the facility on the ridge of this tract, and the land in front and rear of the building will remain as green area. A private well and septic system will be used for this facility. Access is proposed from

Susan Carrell, Office of Planning, summarized the written comments submitted from Health, Developers Engineering Division, State Highway Administration, Planning, Poning, and Traffic Engineering. A copy of these comments was given to the developer and developer's engineer and have been made a part of these minutes. Miss Carrell's summary is as follows: Health approves the plan as submitted subject to the conditions set forth by that

A storm drain study is required and establishment of easements. All interior

Pursuant to the advertisement, posting of property, and public hearing on the Petition and it

appearing that by reason of the requirements of Section 502.1 of the Baltimore County Zoning

PETRION FOR SPECIAL EXCEPTION

SS 783R

Project #84007

January 33, 1984

Fage 3

American Legion Post 4116

quantities.

vertical scale.

indicated.

debris.

c. A profil of the stream.

Computer Program HEC-2."

application and for any grading involved.

WATER AND SANITARY SEWER COMMENTS:

EAM: PMK: SS

CC: 2414

study containing the following information:

Project #34007 American Legion Post 4116 Page 2 January 30, 1984

STORY DRAINS, SEDIMENT CONTROL AND STORM WATER MANAGEMENT COMMENTS: (Cont'd)

Onsite drainage facilities serving only areas within the site are considered private. Therefore, construction and maintenance shall be the Developer's responsibility. However, a drainage area map, scale 1"-200', including all facilities and drainage areas involved, shall be shown on the required construction

The Daveloper must provide necessary drainage facilities (temporary or permanent) to prevent creating any nuisances or damages to adjucent properties, especially by the concentration of surface waters. Correction of any profiles which may result, due to improper grading or improper installation of drainage facilities, would be the full responsibility of the Developer.

Development of this property through stripping, grading and stabili -- tion could result in a sediment pollution problem, damaging private and public holdings downstream of the property. A grading pormit is, therefore, necessary for all governor. inc using the stripping of top soil.

Drainage studies and storm water management drawings will be necessary to be reviewed and approved prior to the recording of any record plat or the issueor any grading or ouilding parmits.

In accordance with Baltimore County Council Grading Ordinance (Bill No. 10-77) a grading plan shall be approved and a Performance Bond posted prior to issuance of a grading permit. The number of square feet of land disturbed shall be indicated on the sediment control drawing.

The Dave Loper shall be regronsible to stabilize the sidewalk areas and supporting slopes on all road rights-of-way following compilition of the initial pr the boxed-out subgrade. The stabilisation shall be accomplished within the nearest period of optimum seeding as established in the Baltimore County Sediment Control Manual. Minimum acceptable stabilisation measures will be as specified in the Baltirore County Sediment Control Manual under "Critical Area Stabilization (With Semi-Fermanent Seedings) ".

Failing by the Developer to accomplish the stabilization as aforementioned will result in the termination of all processing phases of this development.

A permanent method for retaining storm water runoff in excess of the original sunoff based on a 2-year frequency storm must be provided on the site.

Storm water management must comply with the requirements of the 1982 Beltimore County Storm Water Management Policy and Design Manual adopted January 17, 1983 and as amended.

. 1.		Subdivision M	ame, Section and/or	Plat	
	Reservoire de	No. of Lots	er and/or Engineer Total Acreage		
MENTS A	RE AS FOLI	c. Units			
_ Soi	l percolat esignated	tion tests are i	required; a minimum foot sewage disposal requirements, conta	l reserve area. F	or further
_ Soi sub be	l percolat	tion test have to approval	of plat, X are	rised plans,	must be
_ Pub	lic sewers	public	water, must be	utilized and/or	extended to
A A A	ydrogeolog must be	gical Study and submitted,	Environmental Effective are not required peen reviewed and appropriate the contract of the con	i. is incomp	s subdivision, lete and must
A W	ater Appro	opriation Permit	Application, ter than 33 lots no ion as part of the p	must be submitte	d, <u>X</u> has ic hearing with
_ It sub	is recomme mitted sub	endad the plan, pject to the fol	be approved a lowing conditions received 31, 1969	s submitted, X	be approved as
	is recome	ended this plan	not be approved at	this time. See n	evisions and/or
It	ments.				

STORM DRAINS, SEDIMENT CONTROL AND STORM WATER MANAGEMENT COMMENTS: (Cont'd)

a. A map of scale 1"=200', for the entire drainage area which

b. Field run cross-sections of the stream with the flood plain

The Developer must furnish the Bureau of Public Services with a drainage

contributes to the open stream including a tabulation of flow

of a 100-year design storm indicated on them. These sections

are to be taken at 50-foot intervals and are to be shown on

standard tross-section paper at 1"=5" horizontal to 1"=5"

d. A plan with the location of the field run cross-sections

e. Hydraulic computations which were used to establish the

elevation of the flood plain for each cross-section based

f. The stream is to be cleared of all fallen trees, stumps and

In accordance with Bill No. 56-82, filling within a flood plain is

Sediment control provisions will be required for the building permit

Public water is not available to serve this property. Therefore, private

Public sewers are not available to serve this property. Therefore, private

EDWARD A. MCDONCUGH, P.E., Citlef Developers Engineering Division

well systems must be provided in conformance with Health Department requirements.

A water appropriation permit must be approved prior to signature on the record

sewage systems must be provided. Soil tests must be conducted on each lot prior

to approval of a record plat in accordance with Department of Health requirements.

on "The Standard Step Method" or "The U. S. Corps of Engineers

BALTIMORE COUNTY, MARYLAND

INTER-OFFICE CORRESPONDENCE

Mr. Brooks Stafford January 31, 1984 FROM Stephanie Taylor

SURJECT ENVIRONMENTAL EFFECTS REPORT AMERICAN LEGION POST #116

CRG MEETING FEBRUARY 1, 1984 10:45 A.M.

PLANT REVIEW NOTES Proposed building and parking area on 16.0 acres.

Individual water and individual septic system proposed. Liberty Reservoir watershed.

area of Codorus (Cu) soil exists on site. No development is proposed in this area.

A tributary of Gwynn's Falls crosses site. Stormwater management is required.

Proposed impervious area is 2.7 acres.

RESPONSES

The owner agrees in writing to comply with the following best management practices at this site:

A. All areas except that use for buildings, sidewalks and paved parking will be planted with vegetated cover and/or landscaped as soon as possible after final grading and maintained in such condition.

B. Dirt and debris accumulating on private roads and parking lots will be removed according to the following schedule: May through October, concurrent with grass mowing; November through April, monthly. C. Snow removal will be by mechanical means except in severe snow

and ice conditions, when deicing compounds may be used. D. Application of fertilizers, herbicides and pesticides will not exceed recommendations of the University of Maryland Cooperative

Extension Service. E. Filling will not occur in grassed or lined drainage ditches or

SAT:pms

BALTIMORE COUNTY, MARYLAND

SUBDIVISION REVIEW COMMENTS DATE: January 30, 1984 Edward A. McDonough, P.E., Chief Developers Engineering Division American Legion Post #116 N/S of New Westminster Pike, LOCATION: N. of Ivy Hall Road DISTRICT

The Plan for the subject site, dated September 21, 1983, with the latest revision dated January 12, 1984, has been reviewed by the Developers Engineering Division and we comment as follows:

GENERAL COMMENTS:

All improvements, intersections, entrances, drainage requirements and construction affecting a State Road right-of-way are subject to the standards, specifications and approval of the Maryland State Highway Administration in addition to those of Baltimore County.

The Plan is satisfactory pending conformance with the following comments.

As no County roads are involved, this office has no comment.

STORM DRAINS, SEDIMENT CONTROL AND STORM WATER MANAGEMENT COMMENTS:

The Developer is responsible for the total actual cost of drainage facilities required to carry the storm water run-off through the property to be developed to a suitable outfall. The Developer's cost responsibilities include the acquiring of easements and rights-of-way - both onsite and offsive - and the deeding in fee of said rights-of-way to the County. Preparation of all construction, rights-of-way and easement drawings, engineering and surveys, and payment of all actual construction costs including the County overhead both within and outside the development, are also the responsibilities of the Developer.

Maryland Department of Transportation

M. S. Colletter

January 5, 1984

Mr. Arnold Jablon Boning Commissioner County Office Bldg. Towson, Md. 21204

Attention: Mr. N. Com vodari

Re: ZAC Meeting of 1-3-84 ITEM: #167 Property Owner: Jacob A. Von Gunten Location: N/E side Westminster Pike (Route 140) 2700' N/W Ivy Mill Road Existing Zoning: R.C. 4 Proposed Zoning: Special Exception for community building Acres: 16

District: 4th

Dear Mr. Jablon:

On review of the revised site plan of 12-9-83 and field inspection, the State Highway Administration will require the plan to be revised.

The revised plan must show the following:

- 1. S.H.A. Type "A" channelization (concrete curb and gutter) must be constructed along the entire frontage of the site.
- 2. A radius return entrance of 30' in width and 10' radii must be shown.
- 3. The proposed S.H.A. roadside curb and gutter must meet the existing curb and gutter to the northwest and be nosed down at the southeast property line.
- 4. The face of roadside curb must be 12' from the edge of the traveledway at Route 140 (Westminster like).

My telephone number is (301) 659-1350 Telatypewriter for Impaired Hearing or Speech 3d3-7555 Baltimore Metro - 185-0451 D.C. Metro - 1-800-492-5082 Statewide Toll Free P.O. Box 717 / 707 North Jaivert St., Baltimor. Seryland 21203 - 0717

January 5, 1984

Mr. A. Jablon

- 5. The existing shoulder must be overlayed in conjunction with the additional paving and a 135' taper to the southeast.
- The proposed entrance grade must be at a ±3% grade into the site from Route 140 (Westminster Pike).

It is requested the plan be revised prior to a hearing date being set.

Very truly yours,

Charle C Charles Lee, Chief Bureau of Engineering Access Permits By: George Wittman

CL:GW:vrd

cc: Mr. J. Ogle (w-attachment) G.W. Stephens & Assoc. (w-attachment)

- 2 -

Lowell K. Orldwell M. S. Calbridge

February 16, 1984

Mr. Arnold Jablon Zoning Commissioner County Office Bldg. Towson, Maryland 21204

Attention: Mr. N. Commodari

Re: 2AC Meeting of 1-3-84 ITEM: #167 Froperty Owner: Jacob A. Von Gunten Location: N/E side Westminster Pike (Route 140) 2700' N/W Ivy Mill Road Existing Zoning: R.C. 4 Proposed Zoning: Special Exception for community building Acres: 16 District: 4th

Dear Mr. Jablon:

On review of the revised site plan of 1-27-84, the State Highway Administration finds the plan generally acceptable.

Very truly yours,

Chent Re Charles Lee, Chief Bureau of Engineering Access Permits By: George Wittman

CL:GW:vrd

cc: Mr. J. Ogle

My telephone number is (301) 659-1350 Teletypewriter for Impaired Hearing or Speech 333-7555 Baltimore Metro — 565-0451 D.C. Metro — 1-800-492-5082 Statewide Toll Free P.O. Pox 717 / 707 North Calvert St., Baltimore, Maryland 21203 - 0717

> DEPARTMENT OF TRAFFIC ENGINEERING BALTIMORE COUNTY, MARYLAND

: Mr. Robert A. Morton : C. Richard Moore

SUBJECT: C.R.G. COMMENTS

DATE: January 31, 1984

PROJECT NAME: American Legion Post 116

C.R.G. PLAN: X PROJECT NUMBER & DISTRICT: 4C2 DEVELOPMENT PLAN:

Westminster Fike N. of Ivy Mill Road RECORD PLAT:

The entrance on Westminster Pike needs to be

35ft. wide.

Acting Deputy Director Traffic Engineering

CRM/GMJ/ccm

NORMAN E. GERDER

Mr. Arnold Jablon Zoning Commissioner County Office Building Touson, Maryland 21204

Dear Mr. Jablot.:

BALTIMORE COUNTY

Mr. William Hanmond

Towson, Maryland 21204

Item No.: 167

Gentlemen:

Office of Planning and Zoning

Baltimore County Office Building

Attention: Nick Commodari, Chairman

Zoning Plans Advisory Committee

Location: NE/S Westminster Pike 2700' N/W Ivy Mill Road

Pursuant to your request, the referenced property has been surveyed by this Bureau and the comments below marked with an "X" are applicable and required

() 1. Fire hydrants for the referenced property are required and shall be

located at intervals or _____feet along an approved residence with Baltimore County Standards as published by the

Fire Prevention Code prior to occupancy or beginning of operation.

Association Standard No. 101 "Life Safety Code", 1976 Edition prior

comply with all applicable requirements of the Mational Fire Protection

to be corrected or incorporated into the final plans for the property.

() 2. A second means of vehicle access is required for the site.

() 7. The Fire Prevention Bureau has no comments, at this time.

EXCEEDS the maximum allowed by the Fire Department.

(x) 4. The site shall be made to comply with all applicable parts of the

(x) 5. The buildings and structures existing or proposed on the site shall

RE: Property Owner: Jacob A. Von Gunten

Department of Public Works.

to occupancy.

() 6. Site plans are approved, as drawn.

Special Inspection Division

() 3. The vehicle dead end condition shown at

Commissioner

PAUL H REINCKE

FIRE DEPARTMENT TOWSON, MARYLAND 21204

The Division of Current Planning and Development has reviewed the subject petition and offers the following comments. The Items checked below are

)There are no site planning factors requiring comment.

JA County Review Group Meeting is required. A County Review Group meeting was held and the minutes will be forward by the Bureau of Public Services.)This site is part of a larger tract; therfore it is defined as a subdivision. The plan must show the entire tract. (A record plat will be required and must be recorded prior issuance of a building permit.)The access is not satisfactory. The circulation on this site is not satisfactory. The parking arrangement is not satisfactory.

Parking calculations must be shown on the plan. This property contains soils which are defined as wetlands, and development on these soils is prohibited.)Construction in or alteration of the floodplain is prohibited under the provisions of Section 22-98 of the Development)Development of this site may constitute a potential conflict with the Baltimore County Master Plan.)The amended Development Plan was approved by the Planning Board)Landscaping should be provided on ints site and shown on the plan. The property is located in a deficient service area as defined by Bill 178-79. No building permit may be issued until a Reserve Capacity Use Certificate has been issued. The deficient service)The property is located in a traffic area controlled by a "D" level intersection as defined by Bill 178-79, and as conditions change traffic capacity may become more limited. The Basic Services Areas are re-evaluated annually by the County Council. ()Additional comments: APPROVED & C.R.G. PLAN DATE 2-1-84

SURFACE CHITATATI

WE BELIEVE THIS EXCEEDS THE 10% IMPERIORES

February 14, 1984

(JALTIMORE COUNTY, MARYLAND

SUBJECT: COUNTY REVIEW GROUP COMMENTS FROM: OFFICE OF PLANNING AND ZONING

DATE: January 31, 1984

XXXXXXXXXXXXXXXXXX

PROJECT NAME: American Legion Post #116 PLAN COUNCIL & ELECTION DISTRICT IV-252 PLAN EXTENSION

REVISED PLAN PLAT

The Office of Planning and Zoning has reviewed the subject plan and has the following comments:

The handicapped parking spaces should be relocated closer to the building.

- A landscape plan should be submitted with the building permit application.
- A Plat is required which must be recorded prior to issuance of building permits.

Auson Caneck_ Susan Carrell

BALTIMORE COUNTY, MARYLAND

DATE: Pebruary 1, 1984 FROM: ZONING PROJECT NAME: American Legion Post 116 New Mestminster Pike

SUBJECT: COUNTY REVIEW GROUP CONTENTS

4th Election District

The following comments are based on a plan dated January 3, 1983.

- 1. A Petition for Special Exception for a community building in an R.C.4 Zone, Item 167, was filed with this office on December 23, 1983. This Petition must be amended to include a Variance to setback requirements of 10 feet for the pavilion instead of 50 feet and for a distance between buildings of 30 feet indtead of 100 feet.
- 2. The following revisions must be on the plan prior to CRG approval:
 - A. The acreage of the overall tract must be shown on the plan. The 16.2 acre American Legion site must be deducted from that overall acreage for density purposes.
 - B. Calculations must be shown on the plan which show how the coverage factor was determined. The coverage factor in R.C.4 is a maximum of 10%. If the porcus paving area has not been included in the calculations for the impermeable surface area, it will be the Petitioner's responsibility to demonstrate at the Zoning hearing why this type of paving is not to be considered impermeable.
 - C. Parking claculations must be revised to add the pavilion to the parking calculations.
- CRG approval may occur; however, final approval of plat and building permit is contingent upon the outcome of the Special Escaption and Variance hearings.

the same and DIANA ITTER Zoning Associate III

7/32bno :nr

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ZATIIN	A NZ I.	(WINIV	SCHOOLS
		LLAHNII	\mathcal{T}
The Residence of the Control of the	7 6 - 2 - 2 - 2		

Robert Y. Dubei, Superintendent

Towson, Maryland 21204

Taxeon, Maryland - 21204

Date: January 3, 1984

Mr. Arnold Jablon **Toning Commissioner** Baltimore County Office Building 1111 West Chesapeake Avenue

> Z.A.C. Meeting of: January 3, 1984

TE: Item No: 158,159,160,161,162,163,164,165,165(167), & 168. Property Owner: Location: Present Zoning: Proposed Joning:

District: No. Acres:

Dear Mr. Jablon:

The above items have no bearing on student population.

Very truly yours Mm. Nick Petrovich, Assistant

Department of Planning

WNP, 1h

Mr. Arnold Jablon, Zoning Commissioner Office of Planning and Zondag County Office Building Towson, Maryland 2120

January 20, 1984

Comments on Item # 167 Zoning Advisory Committee Meeting are as follows:

Property Owner: Jacob A. Von Gunten
Location: NE/S Westminster Pike 2700' N/W lvy Mill Road
Existing Zoning: R.C. Is
Proposed Zoning: Special Exception for community building

A.) All structures shall comform to the Baltimore County Building Code 1981/Council Bill 4-82 State of Maryland Code for the Handloopped and Aged; and other appli-

B. A building/ & other permit shall be required before beginning construction.

C. Residential: Three sets of construction drawings are required to file a permit application. Architect/Engineer soal is/is not required. Mon-reproduced seals and signatures are required on Plans and Technical Data.

D. Commercial: Three sets of construction drawings with a Maryland Registered Architect or Engineer shall be required to file a permit application.

E. An exterior wall erected within 6'0 for Commercial uses or 3'0 for One & Two Family use group of an adjacent lot line shall be of one hour fire resistive construction, no openings permitted within 3'0 of lot lines. A firewall is required if construction is on the lot line, see Table LC1, line 2, Section 1407 and Table 1402, also Section 503.2.

F. Requested variance appears to conflict with the Baltimore County Building Code,

G. A change of occupancy shall be applied for, along with an alteration permit application, and three required sets of drawings indicating how the structure will next the Code requirements for the proposed change. Brawings may require a professional seal.

H. Before this office can comment on the above structure, please have the owner, thru the services of a Registered in Maryland Architect or Engineer certify to this effice, that, The structure for which a proposed change in use is proposed can comply with the height/area requirements of Table 505 and the required construction classification of Table 501.

[1.] Comments - Separate permits for the pavilion on the main structure chall be required. Construction plans will be reviewed . -- submitted for a permit.

These comments reflect only on the information provided by the drawings sub-wit's to the office of Planning and Zoning and are not intended to be con-struct as the full extent of any permit. If desired, additional information may be obtained by visiting Boom 122 (Plans Review) at 111 W. Chesapeake Ave.,

REVIEWER Let One Kelly 2-14-44 Approved: Leong: M Negande

/mb * Angle of departure on roadway shall not exceed 8 degrees for rear clearance of fire apparatus, according to NFPA 1901, 1979 Edition

Sec. 2-3.2.5.

Zoning Agenda: Meeting of January 3, 1984

RE: PETITION FOR SPECIAL EXCEPTION : BEFORE THE ZONING COMMISSIONER OF BALTIMORE COUNTY NE/S Westminster Pike 2,700' NW from Ivy Mill Rd.,

4th District

JACOB A. VON GUNTEN. Petitioner

: Case No. 84-241-XA

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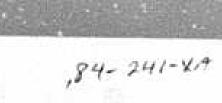
ENTRY OF APPEARANCE

Please enter the appearance of the People's Counsel in the abovecaptioned matter. Notices should be sent of any hearing dates or other proceedings in this matter and of the passage of any preliminary or final Order.

Phyllic Cole Friedman
People's Counsel for Baltimore County

Leter Max Zummenne Peter Max Zimmerman Deputy People's Counsel Room 223, Court House Towsen, MD 21204 494-2188

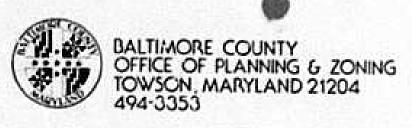
I HEREBY CERTIFY that on this 16th day of March, 1984, a copy of the foregoing Entry of Appearance was mailed to Mr. Jacob A. Von Gunten, Roaches Lane, Reisterstown, MD 21136, Petitioner; and Clarence Wirts, Post Commander, American Legion Reisterstown Post #116, Inc., 167 Westminster Pike, Reisterstown, MD 21136, Contract Purchaser.



CERTIFICATE OF PUBLICATION

TOWSON, MD., ______ March 5 _____, 19_54_ THIS IS TO CERTIFY, that the annexed advertisement was published in THE JEFFERSONIAN, a weekly newspaper printed and published in Towson, Baltimore County, Md., office and of one time __ secretary weeks before the __ BEN 26th day of ___March_____, 19_84_, the mar publication appearing on the 8th day of _____ March

THE JEFFERSONIAN,



ARNOLD JABLON ZONING COMMISSIONER

March 27, 1984

Claude L. Callegary, Esquire 413 St. Paul Place Baltimore, Macyland 21202

RE: Petition for Special Exception and Variance NE/s Westiminster Pike, 2700' from Ivy Mill Road - 4th Election District Jacob A. Von Gunter, - Petitioner Case No. 84-241-XA (Item No. 167)

Dear Mr. Callegary:

I have this date passed my Order in the above captioned matter in accordance with the attached.

> Sincerely, ARNOLD JABLON Zoning Commissioner

AJ:eoh

Attachments

cc: People's Counsel

DALTIMORE COUNTY OFFICE OF PLANNING & ZONING TOWSON, MARYLAND 21204 494-3353

ARNOLD JABLON ZONING COMMISSIONER

March 16, 1984

Mr. Jacob A. Von Gunten Roaches Lane Reisterstown, Maryland 21136

> Re: Petitions for Special Exception and Variance NE/S Westminuter Pike, 2700' NW from Ivy MIII Road Jacob A. Von Gunten - Petitioner Case No. 84-241-XA

Dear Mr. Von Gunten:

This is to advise you that \$56.32 is due for advertising and posting of the above property.

This fee must be paid and our zoning sign and post returned on the day of the hearing before an Order is issued. Do not remove sign until day of hearing.

Please make the check payable to Baltimore County, Maryland, and remit to Mrs. Arlene January, Zoning Office, Room 113, County Office Building, Towson, Maryland 21204, before the hearing.

Sincerely,

LDJABLON g Commissioner

BALTIMORE COUNTY, MARYLAND OFFICE OF FINANCE - REVENUE DIVISION No. 128231 MISCE LANEOUS CASH RECEIPT DATE 3-26-84 R-01-615-000 @ 331*****567216 3263A

VALIDATION OF SIGNATURE OF CASHIER

February 29, 1984

Mr. Jacob A. You Gunton Rosches Lane Reisterstown, Maryland 21136

NOTICE OF HEARING

Re: Petitions for Special Exception and Variance NE/S Westminster Pike, 2, 700' NW from by Mill Road Jacob A. Von Gunten - Potitioner Case No. 84-241-XA

TIME: 10:15 A.M. DATE: Monday, March 26, 1984 PLACE: Room 106, County Office Building, 111 West Chesapeake Avenue, Towson, Maryland

cc: American Legion Reisterstown Post No. 116, Inc. c/o Clarence Wirts, Post Commander 167 Westminster Pike Reisterstown, Maryland 21136

BALTIMORE COUNTY, MARYLAND OFFICE OF FINANCE - REVENUE DIVISION MISCELL AMEDIUS CACH DECEME

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BALTIMORE COUNTY, MARYLAND M. 123265 OFFICE OF FINANCE - REVENUE DIVISION MISCELLANEOUS CASH RECEIPT C BBlessestapport #236A

VALIDATION OR BIGNATURE OF CASHIER

HTY NEWSPAPERS OF WARYLAND, INC.

Westminster, Md., Nard 819 84

TIFY that the annexed Exception and Variance The Zentry Commission of Batteres County, by authory of the Zentry Act (one)

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LANDMARK COMMUNITY NEWSPAPERS OF MARYLAND, INC.

GEORGE WILLIAM STEPHENS, JR. & ASSOCIATES, INC. ENGINEERS. 503 ALLEGHENY AVENUE, TOWSON, MARYLAND 21204

Description to Accompany Petition for Special Exception

December 14, 1951

Beginning for the same on the northeast right of way line of Westminster Pike_(Route 140) 80 feet wide discant 2700 Teet more or less measured northwesterly from Ivy Mill Road thence binding on said northeast right of way line;

- 1) North 28° 07' 57" West 305 feet more or less thence
- 2) North 51" 10' 06" East 2240 feet more or less thence along the southwest right of way line of the Western Maryland Railroad
- 3) Southeasterly 330 feet more or less and thence
- 4) South 51° 10' 06" West 2415 feet more or less to the place of beginning.

Containing 16 acres of land more or less.

This description compiled from deeds and not an actual survey.

PETITION FOR SPECIAL EXCEPTION AND VARIANCE

4th Election District

CURTIFICATE OF POSTEMS

ZOWING DEPARTMENT OF BALTIMORE COUNTY

District 4th Date of Posting 3-8-84

Posted for: Apecial Exception and Variance

Postitioner: Lard a Ven Luntin

Location of property: NE/didn of Westminster Pipe, 2,200' NW

from Clary mill Road

Location of Stone NE / side of Westminster Pite approx 2. Est.

Mumber of Signet

ZONING: Petition for Special Exception and Variance

ZONNA COMMISSIONER OF BALTISCHE COLUMN

LOCATION: Northeast side Westminster Pike, 2,700 ft. Northwest

from Ivy Mill Road

DATE & TIME: Monday, March 26, 1984 at 10:15 A.M.

Room 106, County Office Building, 111 W. Chesapeake Avenue, Towson, Maryland

The Zoning Commissioner of Baltimore County: by authority of the Zoning Act and Regulations of Baltimore County, will hold a public hearing:

Petition for Special Exception for a community building and Variance to permit an impermeable coverage of 13.6% or 94, 787 sq. it. instead of the maximum permitted 10% or 69,696 sq. ft.

Being the property of Jacob A. Von Gunten, as shown on plat plan filed with the Zoning Department.

In the event that these Petitions are granted, a building permit may be issued within the thirty (30) day appeal period. The Zoning Commissioner will, however, entertain any request for a stay of the issuance of said permit during this period for good cause shown. Such request must be received in writing by the date of the hearing set above or made at the hearing.

> BY ORDER OF ARNOLD JABLON ZONING COMMISSIONER OF BALTIMORE COUNTY

OF BALTIMORE COUNTY

Case No. 84-241-XA

Jacob A. Von Gunten

Petitioner

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FINDINGS OF FACT AND CONCLUSIONS OF LAW

The Petitioner berein, Jacob A. Yon Guten, requests a special exception to build a community building, and in addition, a variance, if necessary, to permit an impermeable coverage of 13.6% instead of the allowed maximum of 10% in an R.C. 4 time, as are more fully shown on Petitioner's Exhibit 1.

The Petitioner, by his contract purchaser, the American Legion, Reisterstown Post #116, Inc., represented by its Post Commander, Clarence Wirts, and by counsel, appeared and testified. Testifying for the American Legion Post were Jack Stamm, a registered professional engineer, and Charles Stark, a registered professional land surveyor. There were no Protestants.

Testimony indicated that the State has taken the Legion's present property for use as part of the Northwest Expressway. A new site plan has been found, and Wa contract to purchase has been entered into by and between the Petitioner and the Post. The property is zoned R.C. 4. Nearby and adjacent to the site can be found of a Moose Hall, restaurants, and unimproved farm land. Entrance to the site will be adiscent to a restaurant, Forest Inn, from Westminster Pike. The proposed use, in the opinion of both Mr. Stamm and Mr. Stark, would comport with Section 502.1 the Baltimore County Zoning Regulations (ECZR) and would in no way adversely impact on the health, safety and general welfare of the community. The proposed would not cause traffic congestion and would, if allowed, be within the spirit cand intent of the zoning laws.

The zoning laws permit only 10% of the site in an R.C. 4 zone to be impermeable in coverage. Mr. Stamm testified that in his expert opinion, hased on his experience and on studies completed (see Petitioner's Exhibit 2), the coverage to be used for the parking area is not impermeable but porous, and therefore permeable. He points out that the Baltimore County Department of Public Works agrees. The proposed substance, porous asphalt, shall cover 4.9% of the total area and 8.7% would be impermeable. The proposed coverage for the parking area will have a stone base, choked with large aggregate, allowing for air spaces in between, permitting water to percolate down into the soil. If determined to be permeable, no variance to the zoning regulations would be required.

The Petitioner seeks relief from Section 1403.3.B.3, pursuant to Section 502.1, BCZR, for a special exception to have a community building, and relief from Section 1A03.4.B.5, pursuant to Section 307, BCZR, for a variance, if deemed necessary.

It is clear that the zoning regulations permit the use requested by the Petitioner in a R.C. 4 zone by special exception. It is equally clear that the proposed use would not be detrimental to the primary business uses in the wicarity of the proposed community tuilding. Therefore, it must be determined whether the conditions as delineated by Section 502.1 are satisified by the

After reviewing all of the testimony and evidence presented, it appears that the special exception, as applied for the the Petitioner, should be Personted, with a certain restriction as more fully described below.

The Petitioner had the burden of adducing testimony and evidence which would show that the proposed use met the prescribed standards and requirements use would not actually adversely affect the public interest. The facts and circumstances of the use proposed by the Petitioner does not show that the proposed use at the particular location described by Petitioner's Exhibit 1 would have any adverse impact above and beyond those inherently associated with such a special exception use irrespective of its location within the zone. Schultz v. Pritts, 432 A.2d 1319 (1981).

held, and it appearing that by reason of the requirements of Section 502.1 having been met and the health, safety, and general welfare of the community not

Therefore, IT IS ORDERED by the Zoning Commissioner of Baltimore County, community building be and is hereby CRANTED, and the Petition for Variance Mis DISMISSED for the above reason, from and after the date of this Order, subject however, to the following restriction:

> The Petitioner may apply for his building permit and be granted same upon receipt of this Order; however,

set forth in Section 502.1. In fact, the Petitioner has shown that the proposed

The proposed use will not be detrimental to the health, safety, or general welfare of the locality, nor tend to create congestion in roads, streets, or alleys therein, nor be inconsistent with the purposes of the property's zoning classification, nor in any other way inconsistent with the spirit and intent of the zoning regulations.

As it is determined that the porous asphalt to be used on 4.9% of the total area is not impermeable, the request for variance is moot and none is required.

Fursuant to the advertisement, posting of property, and public hearing being adversely affected, the special exception should be granted.

27 day of March, 1984, that the Petition for Special Exception for a

International Symposium on Urban Storin Runolf (University of Kentucky, Lexington, Kentucky - July 28-31, 1900)

STORM WATER GETENTION AND GROUNDWATER RECHARGE Copy if you want!

Villias J. Churck and James B. Urban Mydrologist and Geologist, USDA-SEA-AR Kartheast Ustershed Research Center University Park, Pennsylvania 16502

Abstract. Buts collected and observations made during the first prace of operation of the Willow Grove facility allow us to as sees the potential of porous asphalt pavement for ators water Fetention and groundwater recharge. To date, the porcue a phalt plot has produced no surface runoff from atther high-intensity or long-duration rainstorms to which it has been subjected; 7.0 in/hr for 6 min (25-yr return period), and 0.37 in/hr for about 8 hr (5-yr return period), respectively. Cenerall, 70 to 90% of the rainfall appears as percolate below the plot on both the monthly and the Individual storm basts, although commonly no percolate aprears during individual events of up to about 0.3 in-Groundwater beneath the porous asphalt plot responds relatively rapidly to rainfall, usually within about & hours, and at the center of the plot it rises approximately 5 ft per inch of rainfall. A very localized groundwater mound is formed by every

Concentrations of both the eritical inorganic and organic twater quality parameters within the percolate leaving the curous esphalt plot are well below acceptable drinking water standards; The percolate seems to pose so groundwater contestnation threat. Field testing of the strength of the porous asphalt plox showed that the plot as constructed as able to support light to moderate traffic. Observations during severs weather conditions indicate that the porous arphalt layer does not seem to be affected by freeze/thaw conditions, and tenains relatively skid resistent during both met and freezing weather.

storm that causes percolate to occur, but this wound forms and

Finally, the initial results clearly show that groundwater is recharged under the porous asphalt plot throughout the year, whereas that ---- the adjacent grass cover plot is recharged little or no: at all furing the growing erason.

dissipates rapidly.

The Stars Vater Detention and Groundwater Recharge facility of the Northeast Vatershed Research Center, SEA-AR, USDA was installed rear Villov Grove, Pennsylvania in 1977. The basic purpose of the facility is twofold: 1) to demonstrate the potential of porous asphalt pavement for on-site detention of storn runoff and groundwater recharge, and 2) to stavid as experimental site and data for twiesrch into the generalized process of groundwater recharge

CAR

The Villoy Grove facility consists of three "runoff" plots, each 150 ft x 150 ft at a 11 slope. One plot has grass cover, one has conventional asphalt cover, and one has a porous (permeable) asphalt pavement cover. The plots are instrumented to

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measure all aspects of their hyderingte perforsance--from rainfall to surface runoif and groundwater recharge. Provisions are also made for water quality sampling of the hydrologic components. The project objectives, facility design and construction, and instrumentation installed are described In Urban and Churek.

Installation of the basic instrumentation was completed in 1978; a partial data set ealsts for James y 1978 through Stay 1979. Instrumentation was completed in 1979, and some instrument site suilitcattons were made. From June 1979 on, we have a complete and continuous data set. Besed on these data, we present initial findings related to the general hydiologic performance of porous asphalt pavenent -- surface runnif, infiltration and percolation of the rainfall, and groundwater response to the recharge. Also, we examine the response of the entire Willow Grave facility to Individual storms. comparing the tining, rates, and volumes of water povement within the three plats. by the compartsons, we show the benefits that can be defined from the use of parous amphalt parement for on-site storm water detention and groundwater recharge. Finally, some schecal observations and findings colated to constraints on porous asphalt pavement's use are presented.

General Hydrology of the Willow Grove Area

We will briefly describe the generalized bydrology of the Villow Grove area (near Philadelphie. Pa.) to allow the reader to compat the hydrology of the porous asphalt system with that normally occurring, as as to better evaluate potous sephalt's hydrologic potential.

The Willow Grove area receives an average anmust precipitation of 43 in, where the total amount is distributed almost evenly among the months. Precipitation is slightly greater during the summer (May through August) when about 40% of the yearly total occurs. Average annual enowfall to 25 in; thus, less than 10% of the liquid precipitation in the normal year is derived from snowfall. Class A pan evaporation in the Villow Grove area in between 45 and 50 in, however, actual evaporation plus transpiration is estimated to be about 25 in. ? Streamflow accounts for about 17 in of the rainfall.

We cannot directly estimate the normal amount of recharge to groundwater in the Willow Grove area. Based on the relatively un ora distribution of precipitation and the skewed / tribution of evapotranspiration throughout the ear, we hypothesize a time-varying distribution i groundwater recharge, ranging from near total precipitation (about 3 in/so) in the winter, to next sate in the summer when the cutire faintall !- consumed by it decand, Shallow groundwater levels war the Willow Grove facility reflect the elff-cences in our hypothesized recharge tates, reaching highs of about 5 ft below the land surface in the winter and spring, and love of about 25 ft below the land surface in the late

. Potential users of porous asphalt paving for storm water detention and ground ster recharge have expressed concern over the ability to resist freeze/thav danage. Therefore, we also include a description of the temperature regime of the Villow Grove area. The average annual temperature is about 55'f, the average summer temperature is about 73", and the average winter temperature is 32". The normal January temperature is also 32". About 801 of January sights have temperatures below 32", but only 25% of the January days have temperatures con-tinuously below freering. Thus, a freeze/thaw cycle occurs within about 552 of the days in January. Seconds the average winter temperature to also 32", we expect that these percentages are somewhat representative of the entire winter season. This winter temperature regime plus the associated occurrence of frequent low-intensity, low-volume storms create severe environmental conditions on the surface layers of the porout asphalt pavenent

Facility Design and Instrumentation

The design of the porous asphalt plot and the Tumentation Installed at the Willow Grove facility are briefly discussed here so that the porous asphalt plot's performance and the data presented may be properly evaluated. For a care complete description of both, see Uroun and Church,

Pornus Pavesant Plot Design

The perous asphalt plot was designed to temporartly store on site and later recharge to gry indwater any 25-yr cerurn period rainfall. We found that the critical depth-intensity combination was associated with the 12-hr duration, 5.0 in of rainfall at 0.42 in/hr. Under these conditions, the gravel subbare of the porous asphalt plot must temporarily store 3.5 in of water in its voids; the remaining 1.5 in is percolated below the subbase during the event. Although our constraints in designing the plot were dictated by its hydrologic performance, the plot's extertal specifications and construction methods were developed by consultation with payenent materials and design specialists from the Pennsylvania Department of Transporation (Penabot), assuring a viable angineering design as

Instrumentation

Climatic, hydrologic, and water quality instrucentation was instailed on the three plots to monitor all aspects of water sovement within the facility. Most Instrumentation is automated, and recording time invervals were chosen to adequately define the important variability of the components empled. The data presented in this paper were obtained prinarily by the following instruments.

A digital ratingage monitors accumulated dopth of precipitation over the clots at 2-uin time interwals, while a collection gutter and H-flume at the lower and of each plot montters sorters runoff at the same interval. The porcus aspinit plot is instrumented with three percolate lysineter sites. At each elte, percolate is intercepted as it places three points within the payment profile: 1) the bottom of the asphalt material, 2) the buttom of the gravel subbase, and 3) the bottom of the ripped rock underlying the gravel. The grass plot is instrumented with one percolation l'aimeter, sampling at the base of the soil profile, i.t it below the plot surface. The percolate collected by all lysineters is moved to off-plot holding tanks through pipes, where its accumulation is recorded at 5-min intervals. Groundwater level in the vicinity of the porous asphalt plot is monitored by three recording wells (at 30-min intervals) across the plot, and it nurrecording wells on its perimeter. One nonrecord ing well to also located in the center of the grass plot, 125 ft from the mearest edge of the purous asphalt plot. The nonrecording wells are read at 3- to 5-day intervals. The gage network at the facility is completely described in Figure 2 and Table 5 of Urban and Gburek.

Initial Pesults

In this portion of the paper we present initial results and observations from the first 2 years of operation of the Willow Grove Storm Water Detention and Groundwater mechange facility. Three areas are considered: 1) general hydrologic performance of the porous asphal: plot, 2) response of the three plots to individual storns, and 1) cons sints on the use of porous asphilt.

Hydrolastic Performance of Porous Asphalt

Installation of the porous aspects plot with its high-permeability surface and te parary storage capacity rather dramatically changed the rainfallrunoff perculate, and groundwater recharge regime of the local tedrologic cycle.

Rainfall-Rusoff on the Porous Asphalt Flot. The Villow Grove facility has received several relattively intense storms that would have stressed conwestional store result control facilities, get so runuff was recorded from the porous amphalt plot. Table I gives the dates of the stores, and the time periods, Cepths of rain accumulated, intensity, and teturn period of the significant intensity-duration combinations within ear' event. Although one storm (June 21, 1978) contained an intensity-duration cumbination of the design retern-period. 25 years, It was not the particular combination upon which the plot deaten was based. From these four storms, and from all other precipitation depth-intensitysuration combinations which have occurred, we have observed absolutely no ourface runoff from the porous asphalt plot. The plot has received no storm that has either exceeded its permeability limitation or provided enough water to fill its full pr ment crows-section.

Perceiation Selow the Porous Asphalt Plot. During periods when answell is not a factor (1.e., all precipitation occurs as rainfall and to immedistely infiltedes into the plot surface), water collected in the percolation lysineters accounted for between 10 and 80% of the rainfall on a monthly bania. We have observed lysineter catch values as low as 55% of the monthly rain, as well as values alightly over 1002. Apparently, the extreme low and high percentages measured are associated with months of little precipitation, whereas the more common values (70 to 90%) were associated with the months with --- I or larger than normal amounts of precipits ion. There seemed to be no relationship between i incher eatch and lysineter depth-

Percolate below the porous asphalt plot occurred quickly after individual rainfalls, and the percent of rainfall accounted for by the lysiscters during individual storms ranged widely. For isolated rainfalls of up to U.2 to 0.3 in, we commonly neasured sero percolate, even in the shallow-depth lynimeters. For the larger storms (about 0.5 in and more), the percentages of rainfall accounted for by the Systmeters were similar it, magnitude and wari--billty to the monthly wines. For most large your, catches were about 70 to 901 of rainfall, (it) some catches as low as 301 and others exceeding

We hypothesize that the differences between the rainfall depths and the lystmeter catches for both single storms and monthly values were due to the

water temaining in the unsaturated pavement profile after drainage is complete. These differences may range f :- 0.2 to 0.3 in/event, which is the size of storm generally not causing percolate to occur. All or part of this water may be lost to exeporation before the next storm.

Apparently, if reinfall was r sufficient magnitude or duration to affect the shallow lymineters, it caused a measurable response Itom the deeper lystneters also. The response became more delayed and dauped with depth, but generally, the deeper lysineters meanured percolate every time the shallow lysineters did, and to a stattar extent with regards to percentage of rainfall accounted for. The shallow and intermediate depth lyaineters usually responded within minutes of a rainfall (after it exceeded some minimum comunt), and their response was normally completed within hours after the tainfull stopped. For major evento, the deeper lysineters began to respond within a few hours, but their response was more damped and delayed with time. Their response was usually completed within about I daafter the event. The specific response of the indiwidon! lystmeters to a rainfall event in timing and total catch will be discussed later, when we present data on the response of all plots to single stores.

Groundwater Level Response to Percolate. Typically, the groundwater level at the Villow Grove facility ranges from 15 ft below the land surface in the winter to 25 ft below the land surface in the summor. Because of its shallow depth and the occurrence of frequent rainfalts, the groundwater level under both the porous asphalt plot and the adjacent na ural sover areas responds relatively quickly and dramatically to peciads of moisture delicits and excess moisture. Since 1977, when the poruve asphalt plot was installed, groundwater levels have been as low as 35 ft below the land surface in November 1978, and so high as within about & ft of the land surface. These high levels occurred at various times during the spring, or as the result of extremely large rainstorms during the summer.

On a long term banks, groundwater levels around the perimeter of the porous asphalt plot resembled those in the middle of the grass plot. The well centered within the porous asphalt plot maintained alightly higher water levels than elsewhere on the experimental site. Only by examining the relative responses of the different wells to single events, could we see the difference in recharge caused by the porcus amphalt plot.

The well within the porous asphalt plot responded rapidly to rainfall on the plat, but only when raintell was sufficient to initiate percolate

Table 1. Extreme Rainfall Events on the Porous Asphalt Plot, 1977-1979 (No Surface Runoff Produced).

Date	Rainfell Depth (Sn)	Guration (hr)	Intensity (in/hr)	Return Period (yr)
6/21/78	0.7	0,10	7.00	25
5/01/77	1.0	0.67	1.50	
8/18/78	2.0	1.60	1.25	10
9/05/79	2.9	1.77	0.37	3

the lyaimeters. The well level began to rise thin less than I hours after the occurrence of perculate. Cenerally, within about 6 hours after the event, the water level in this well had reached maximum and began to drop. The group ster Lound formed eather the porous asphalt plot also dissipated waite tapidly after the consation of rain. Within 3 to 3 days after its formation, the sound was mearly cone, and the more general groundwater level recestion continued. Only during single storms did the parent asphalt plot show a significantly different groundwater response than the gress plot and, 'y extrapolation, the surrounding land area.

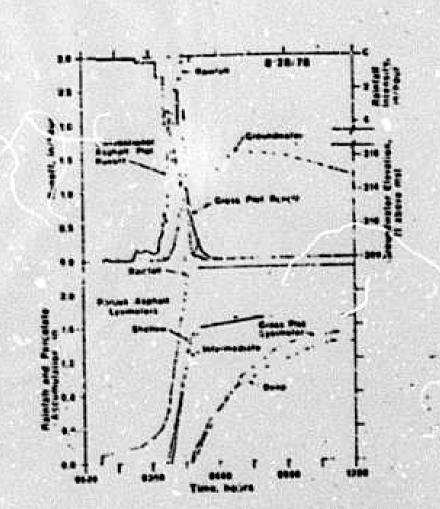
Since groundwater response under the porous asphalt plot second to be about 2 to 5 ft of cise per I in e' reinfall, we conclude that there is about 2 to 41 effective, unfilled, pore space in the underlying rock evallable for storage of the pecharge. One constraint in our original plot deaign was that the plot not become inundated by the rise of groundwater. Apparently, a relatively short duration storm of about 5 in of rainfail would raine the groundwater from its typical summer level (25 m) below the land curface) to the land surface. Although we have not had such an event on the plot, s period during September 1979 illustrates the potential fr. groundwater tise under the porous anchalt plot, and the difference between this rise and that within we surrounding proces.

Starting at 2000 hours on Sectember 5, 1979, about 2.9 in of rain fell on the Willow Grove tocility within an 8-he period. Well levels we'e generally about 22 ft below the land surface over the entire site before the rain. As the recott of this storn, the water level in the well unver the gras plot rose 6 ft, to about 16 ft below the land autface. Mowever, the well under the center of the porous amphalt plot cose about 16 ft to within 5.5 f' of the land surface, and the wells around the perimeter of the plot rase to within 9 to 12 ft of the land surface. Then, within I week, the pound of approximately 10 ft beneath the pyrous asphalt plot had dissipated, and the groundwater level ever the eatire area had returned to 19 to 20 ft below the land surface.

Facility Fesponse to Individual Stores

To this point, we have presented findings primarily related to the porous asphalt plot. To illustrate its bydrologic performance as compared with that of other urtan land uses such as grass and conventional asphalt poving, we extended the tw spents of the three plots within the Willow Grove facility to two specific stores. One storm, a relatirely large, long-duration event, occurred in August, 1978, and the other, a typical shore-duratien high-intracity summer thunderstorn, occurred in Jely, 1979. For each storm, we present reinfall, ronolf hydrographs, percolate below the plots, and the respon - of the recording well centered in the porous asphalt plut. Also, for the August 1978 story, we show the formation and dissipation of the groundwiter sound forced under the porous asphalt

The August 28, 1978 Scorn. Response of the Willow Grove facility to the August 1978 event is shown on Figure 1. Rainfall intensity and ec. unulation are buch shown. Also shown are runoif hydrugraphs from the conventional asphalt and grans plots, percolate under the grass plot and for three



Petitioner is hereby made aware that procueding at this

appellate process from this Order has expired. If, for

whatever reason, this Order is reversed, the Petitioner

ing, said property to its original condition.

time is at his own risk until such time as the applicable

would be required to return, and be responsible for return-

oning Commissioner

Baltimore County

Figure 1. Willow Grove farility response to the store of 2-gunt 25, 1978 (the porous esphalt plot produced no runoff).

depths of one lysimeter site under the porous orpholy plot (lower site, Figure 2; Urben and Church), and the (espense of the recording groundwater observation well centered in the porous as-

After a slow start, the rainfall intensity increased at about 0230 hours. As expected, the conwentional asphalt plot responded almost insediately with surface runoff. Once rainfall had wet the even ventions, asphalt plot and satisfied its detention loss, the plot respected almost instantaneously to rainfall intensity wertations. Each intensity increase was accompanied w a quick increase in runof rate and a subrement recognion; the parison intensities were about 3 in/hr and the resulting wanoff peaks were shout 2 in/hr. This rainstorm applied 2.3 in, and the total remoif from the convettenal asphalt plut was 1.90 to. A 0.4-in loss from comrentions | asphalt pavement may be considered telatively large, however the piot's me serous dips and depressions could have accounted for this loss.

At the time of this storm, the gress plot cover had not yet become well established. Fartly at a result of this, and also simply as the result of the large depth of raisfall, the grass plot produced a rather sinable store bydrograph. The beginning of this hydrograph lagged behind the rain by about I hour, but once runoff started, the grass plot produced U.95 In of runoff at a peak flowrate of about 1.0 plot-in/h .. Host importantly, the porous asphalt plot produced - surface runoff hydrograph

The shallow (0.3 ft) and intermediate (1.4 ft) depth lysimeters under the porous asphalt plot die

not interrept percolate until about I hour after the storm began, after about 0.4 in of rainfall when the higher intensity portion of the storm began. Once these lystmeters began to register percolate, their accumulation paralleled that of the rainfall almost minute by minute and inch by inch. They each ee!lected about 1.7 of the 2.3 in of rain, or about 752. The deep lysineter (3.9 ft) did not intercept perculate until about I hour after the shallow lysimeters, or about 2 hours into the storm, after virtually all of the rain had failen. It began to collect percolate at a rate of about 0.5 in/hr and was still responding 7 hours later, although alouly. We do not know the total stors catch by the deep lystmeter store it responded to additional rainfall later in the day before the first catch was complete. At the time of the later storm, the deep Ivaluates catch had come to within 0.2 in of those of the shallow and intermediate lysimeters.

The grass plot lyalester collected percolate from the storm at almost the same timing, rate, and amount as did the deep porous plot lystneter, even though the grass plot lysiseter is placed only 1.4 It below the soil surface. The wetting front under the grass plot traveled through 1.4 ft of soil in the same amount of time as it took the wetting front under the porous asphalt plot to traverse 3.9 ft (porous pavenent, gravel, and broken rock). The total catch was also about the same, 1.5 in. This 1.5-in lystacter catch, plus the 0.95-in runoff from the grass plot, closely approximated the rainfall depth (2.3 In).

Since no rain had occurred for about 2 weeks prior to this storm, the groundwater level had become relatively constant under the center of the porous asphalt plot at about 18 ft below the plot surface, or at an elevation of about 306 ft above mean sea level (Figure 1). The groundvater level in the observation well began to increase at about 0500 hours, shortly siter rainfall stopped, and more importantly, only about 15 min after the deep lysineter first recorded percolate. While the shallow and intermediate lystmeters (0.5 and 1.8 ft depth) registered percolate almost immediately after the sharp increase in rainfall intensity at about 0330 hours, the seep lysineter (3.9 ft depth) did not begin to intercept percelate until about I hour later. The effect of the storn was then observed at the groundwater table (18 ft depth) only 15 min after that. The groundwater level under the center of the porcus asphalt plot rose about 12 ft, which corresponds to an increase rate of about 5 ft per inch of rainfall, or 7 ft per inch of percolate.

Figure 2 shows the configuration of the groundwater surface near the porous asphalt plot 5 days belove, 4 hours after, and 2 days after the August 28, 1978 rainstorn. The outline of the plot is superimposed on the figure for reference, as are the locations of all observation wells used to determine water table configurations. The axes are distance in feet within a reference coordinate system we use on the site. Note the contour interval on the storm plot is 2 ft, wherean the before- and after-storm plats are at 1-ft contout intervals.

The prestorn water table configuration illustrates a relactively level groundwater surface near the porous asphalt plot, with just the slightest evidence of elevated levels under it. There had been no rain for 9 days previous. The middle plot shows the groundwater topography just after the store, 0900 hours. This time corresponds almost

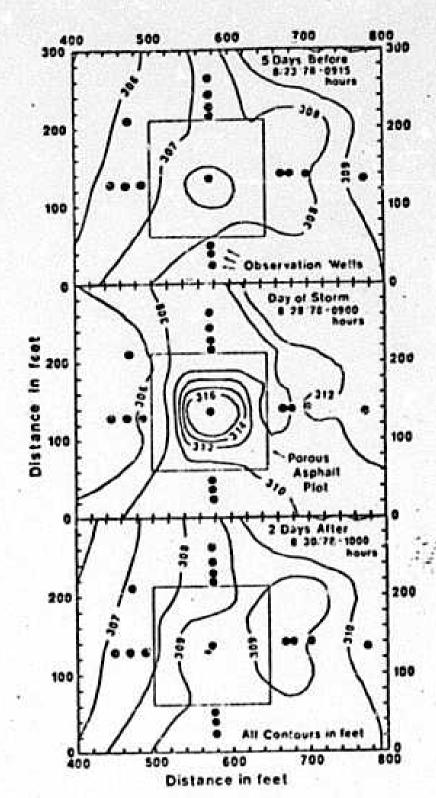


Figure 2. Groundwater elevation around the porous asphalt plut before, during, and after the storm of August 28, 1978.

exactly to the time of maximum water level elevation in the well under the center of the porous asphalt plot (Figure 1). A pronounced and very localized groundwater mound had been formed by the differential recharge, and the migration of all water level contours to the right of the plot indicates the general recharge that occurred under the entire land area around the plot. The tater table configuration 2 days after the storn was remarkably similar to that preceding the atorn, but water levels were about 1 ft higher, and the groundwater mound was just alightly more exaggerated.

The groundwater mound, formed by the difference in recharge between the porous asphalt plot and the surrounding natural cover conditions, appears to

form quickly once the system receives enough rainfall to overcome its inherent losses. Based on all storm responses observed, the sound seems to form within hours of the rainfall, and it also dissipates relatively quickly. Its prominent configuration disappears after about 5 days, leaving only a slight elevation in water level under the porous asphalt plot. Recharge votana above and beyond that normally occurring is added to the proundwater by the porous amphalt plot, but its effects on the general groundwater topography are only short-lived.

The July 14, 1979 Storm. Figure 3 shows the response of the Villow Grove facility to the July 14, 1979 storm, a short-duration high-intensity thunderstorm. This storm produced 1.0 in of calnfall in about 2 hours; O.S in fell in the first 15 min. For about I week before his event, no rain had occurred. The conventional asphalt plot again responded almost inmediately to the rain, with the peak runoff rate closely following the peak rainfall Intensity. The 0.8 in of rainfall occurring before 1500 hours caused 0.54 in of sunoff from the conventional asphalt plot (70% of the rain); the later 0.2 In of rainfall caused an additional 0.05 in of runoff. Total store runoff was 0.62 in, or 60% of the rain. As in the other store examined about 0.4 in of rainfall was lost to detention storage on the

We found a rightficant difference between the August and July storms when we examined the runoff/ percolate balance on the grass plot. Runoff from the grass plot for the July 14 store was virtually monexistent; it totaled about 0.02 plot-in from the 1.0-in rainfall. We might attribute this to the

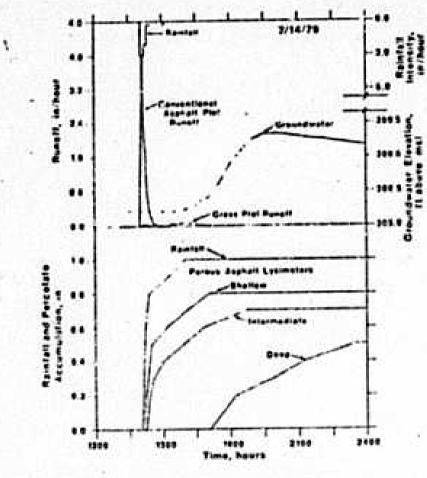


Figure 3. Willow Grove facility response to the storm of July 14, 1979 (the porous asphalt plot produced no runoff; the grass plot lystmeter registered no percolate).

relatively small total death of rain being completely inflittated and vecharged downward, but an examination of the associated percolate record proved this assumption wrong. Along with no tunoff, the grass plot produced no percolate from this storm either. This condition occurred while about 0.7 in of percolate was moving down from the porous asphalt

From the surface vater management viewpoint, the grass plot would acce to be equivalent to porous asphalt in controlling runoff from this storm. Movever, the grass plot differed drantically from porous asphalt in that it did not recharge any of the 1.0 in of rain. Virtually the entire I in of rain infiltrated during the event, but is all second to be held as soll moisture in the upper layers of the soil profile, where it could later be evaporated or transpired, and consequently, lost from the

As in the case of the August 1973 storm, the shallow and intermediate depth lysiseters under the porcus asphalt plot almost innediately registered percolate during this storm's high-intensity period. The shallow and intermediate lysimeters collected 0.8 and 0.7 in of percolate, respectively, from the 1.0-in storm (80 and 701). The deep lysineter did not measure percolate until about I hours after the rain (in contrast to I hour and 15 minutes in the earlier event), and it collected 0.7 in by the time that a succeeding stors on July 15 obscured its response to the July 14 storm.

Groundwater levels increased in response to this event like those during the earlier event. The groundwater level before the storm was at about 20 It below the plot surface. The well at the center of the porous asphalt plot began to respond to the storm at the same time as did the deep percelate lysimeter, and it rose about 3.5 ft per inch of ruin, or about 5 ft per Inch of percolate. Again, water level in the well was maximum about 6 hours after the rain, and recession began innediately thereafter. The grass plot well substantiated the zero grass plot percolate observation and also illustrated the differential recharge conditions between porous asphalt and the surrounding area by showing a continuously declining water level before, during, and after the July 14 event.

Conclusions - Individual Store Response. be found both statlarities and differences in the respense of the three plots to the two separate and distinctly different atorns, with the sintlar responses illustrating the hydrologic potential of porous asphalt povenent for store water detention. Most importantly, the porous asphalt plot responded similarly to each event by producing zero surface runoff. Also, for each event, the percentage of rainfall accounted for by the lysincters, the timing of the lysineters' responses, and the tining and rate of groundwater response under the porous asphalt plot were similar. The conventional asphalt plot responded utnitarly to each rain-its runoff hydrograph peaked quickly after the high-intensity periods and accounted for all but about 0.4 in of the rain depth. Runoff free the grass lot was also larger than that from the parous asphalt plot for each event, although for the 1979 storm, runoff from the grass plot rescabled the zero runoff observed from the porous asphalt plot.

The hydrologic potential of porous asphalt pavenent for groundwater recharge is illustrated by the differences in the amount of percolate under the porous asphalt plot and the grass plot for each storn. The porous amphalt plot recharged about 751 of each store to groundwater. Whereas the grass plot also recharged a relatively high percentage of the 1978 storm (about 602 of the rain with the remainder being surface runoff), its response to the 1979 store was distinctly different. Although almost all of the 1.0-in rainfall during the 1979

recharge; it was all held in the upper soil layers for putential removal by evapotranspiration. Heanwhile, the porous asphalt plot was recharging to Thus, while a grass cover may be as effective as porous asphalt in reducing surface runoff from some smaller atorns during the summer, the grass provides little or no groundwater recharge from many sunner rainstorms. The porous asphalt cover, even

construction.

Countraints on the Nee of Porous Asphalt

groundwater with 70 to 902 of the rainfall.

We recognize that there are other areas besides hydrologic performance that may constrain the use of porous asphalt pavement, and we are beginning investigations, making observations, or contracting research in these areas also. As part of this paper, we present some initial recults and observations in the areas of porous asphalt percolate water quality, atrength of materials of porous asphalt pavement sections, and severs weather effects on porous asphalt pavement.

during the aumer wonths, continually recharges tha

storm inflitrated the grass plot, none of it appear-

ed in the perculation lysimeter as potential

groundwater about 70% of this relatively small

Percolate Water Quality. From just after conatruction to the present, we have routinely analyzed samples of perculate under the porous asphalt plot for all major inorganic cations and anions, as well as for selected trace setals. Rainfall samples, taken at the site, have also been analyzed for comparison. The water quality of percolate from all lysineter depths, as defined by the chesical paraseters listed in Table 2, has changed relatively little from that of the rainfall. Well samples analyzed Indicate that the water quality of ground. water under the porous apphalt ; lot resembled that of the percelate. Concentrations of all chemical parameters analyzed in all samples never exceeded "recommeded drinking water standards."

Table 2 shows the concentration ranges typical of both the rainfall and the porous asphalt percolate. The major effect on water quality under the porous asphalt site was a shift in pli from the incoming acidic rainfall to a relatively neutral perculate and groundwater. The changes in electrical conductivity, calcium, sodium, potassium, magnesture, and chloride were probably the result of the rainvator contacting the freshly exposed fracture faces of the aggregate forming the plot

The potential for organic water quality degradation of the porous asphalt percolate caused by leaching and venthering of the amphalt material was investigated by an independent laboratory under contract.* Based on consultation with . " "ety of

pavement and water quality authorities, we considered the Polynuclear Armestic Hydrocarbons (PAH) to be the extractable organic constituents of asphalt of

An cylinder of um eathered porous asphalt material 6 in high and 5 in diam-ter was taken during placement of the porous asphalt on the plat. The core was leached in the laboratory and the PAN's in the lechate were extracted and analyzed according to a sethod developed by Saxena et al. The core was held at a constant temperature of 100°F, and leached with 45 column-in (0.51 cu ft) of water at an application rate of I in/hr. This simulated leaching of the core by I year of precipitation. The leaching was then continued with 450 column-in of water at the same application rate, and the PAN concentrations in each of the leachates were determined. The analyses shoved that the porous asphalt core leachate yielded less than a part per trillion of any single PAN species. Also, the combined concentration of the 6 PAN's analyzed for, 1.23 ppt. was well below the World Health Organization unper lists of 100 ppt for drinking water.4

Strength of Materials of Purous Asphalt Pavement Sections. The atrength characteristics of porous asphalt pavement sections nurt te considered for their application to parking lot and rostway use. The load bearing capacity of pavenent sections already in place can be tested in the field-the particular method used by PennDOT is to seply a static and dynamic load and record the pavement deformation on an exis outward from the point of load. The equipment used by Pennbot is commonly called a Rondrater. Values obtained from this tests ing are compared to road specifications and road use to develop a relationship between the test values and road-use capability expressed as number of vehicles per day.

We tested the porpus asphalt plut at a 25-ft grid spacing, using the PenniooT technique and equipment. Kinimal variations were found between altas, and the rated etrength of the plot, an constructed, was determined to be 3000 to 5000 vehicles per days i.e., a light to moderate use rondway. This strength is the than sefficient for weing porous asphalt pavie for parking lots.

Laboratory studies currently initiated in cooperation with the Ferrayivania Transportation Institute of The Pennsylvania State University will be used to further decine the structural properties of porous asphalt pavement sections, and to develop tentative specifications for their design and

Severe Weather Observations. We have made field observations related to two aspects of severa weather on porous asphalt, its resistance to freeze thay damage, and its skid resistance during interes rain or freezing conditions.

The porous asphalt plot has been in place for three winters, 1977 through 1979. These winters could be classified as extremely cold with mut. sleet and freening rain, extremely cold with heavy snow accumulation, and relatively mild with Ificie anny or rain, respectively. After these three vinters, we found no visible deterioration of the porous asphalt pavement surface as the result of

Additionally, we have been on-site during both

10 - 30 0.1 - 0.6 2 - 11 0.2 - 2 4 - 20

0.1 - 2 1 - 4 C.3 - 1 0.8 - 1.5 3 - 10 0 - 9 0 - 5 0 - 3 0 - 5 0 - 2 0 - 3 9 - 8 0 - 6

Table 2. Range of Chemical Concentrations Characteristic of

Rainfall

Rainfall and of Percolate Under the Porous Asphalt

Under elect or freezing rainfall conditions, the porous pavecent surface apparently remained more skid resistant than did the conventional asphalt. The surface of the pornus plot did not exhibit a smooth glass, and have pavement continued to protrule through the frozen naterial on its surface. During severe reinstorms, reinfall never occumulated in puddles on the surface of the porous asphalt, nor did the plot surface become alick like conventional asphalt; it maintained its rough, dull, dryweather appearance.

Chenical

Future Studies

The hydrologic effects of porous asphalt on

groundwater recharge are now being staulated using numerical models and data collected from the Willow Grave facility. To fully west'y both the model prodictions and our original plot design, we have scheduled specific field experiments for the future. including traigation treatments simulating ratiofalls greater than the design storm. We will aimiltamenually moulter unanturated moisture movement. chemical transport, heat flux, and groundwater level response. All studies will be completed by 1982. the termination date of this research effort. At that time, we will publish a summary rapor; in the form of a user marmal, detailing the design, construction, and hydrologic performance of a storm porous exphalt.

Percolate

6.5 - 7.5

The Villow Grove Water Detention and Groundwater Recharge facility, installed in 1977, contains a plot of parous asphalt pavement, and two adjacent, identically sized, plots of grass and conventional asphalt. The plots are instrumented for deconstration and comparison of their hydrologic performance. The porgus asphalt plot was designed and constructed to detain on site and recharge to groundwater all ratifall events having less than a 25-yr return period. The data collected and observations made during the first 2 years of the facility's operation allowed us to assess the potential of porous amphalt for storm water detention and groundwater recharge.

To date, the porous asphalt plot has produced no surface runoif from either the high-intenvity or long-duration rainstorms it has received. I'm percolution lysimeters showed that generally 70 to 90% of the rainfall became percolate under the plot on both the monthly and the individual storm basis, although individual events of up to about 0.3 in sauned no Secondate. Groundwater levels beneath the parous esphalt plot responded relatively rapidly to the rainfall, usually within about 6 hours, and at the center of the plot, levels rose about 5 ft per inch of rainfall. A very localized growndwater mound was formed by each atorn that caused perco-

Additionally, we found that concentiations of parameters withis the percolate levels the porous suphalt past were well below acceptable drinking water standards. The percolate sicus to pose no groundwater contamination threat. Field tenting of the porous asphalt plot by the Pennsylvania Departwent of Transportation showed that this plot can support light to molerate traffic. Field observations ande during severe weather conditions indicated that the porces asphalt layer does not seen to be affected by fragge/than conditions, and that during both wit and freezing weathers

Finally, the initial results from the Willow Grove Store Water Detention and Groundwater Recharge facility clearly shound that groundwater recharge dron the porou, asphalt plot occurred throughout the year, whereas the adjacent grass over plot deliver-"ed list or so recharge to the providenter during the gro dig beason.

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