SUNSHINE NOTICE BOROUGH OF BERGENFIELD PLANNING BOARD REGULAR MEETING TELECONFERENCE MEETING VIA WEBEX

Please be advised due to the current state of emergency and public health emergency declared by Governor Phil Murphy pursuant to Executive Order No. 103, and in an effort to prevent further spread of COVID-19, the May 18, 2020 Borough of Bergenfield Planning Board meeting will be held via teleconference using Cisco Webex Meetings in lieu of an in-person meeting. This meeting is scheduled to commence at 7:30 pm.

Members of the public can join this meeting from their computer, tablet, or smartphone. Members of the public who join this meeting will be able to give public comment during the relevant portions of the meeting.

To join by phone:

Call: +1-408-418-9388 United States Toll

To join from a video system or application
Dial 795474619@boroughofbergenfield.my.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

To join using Microsoft Lync or Microsoft Skype for Business Dial 795474619.boroughofbergenfield.my@lync.webex.com

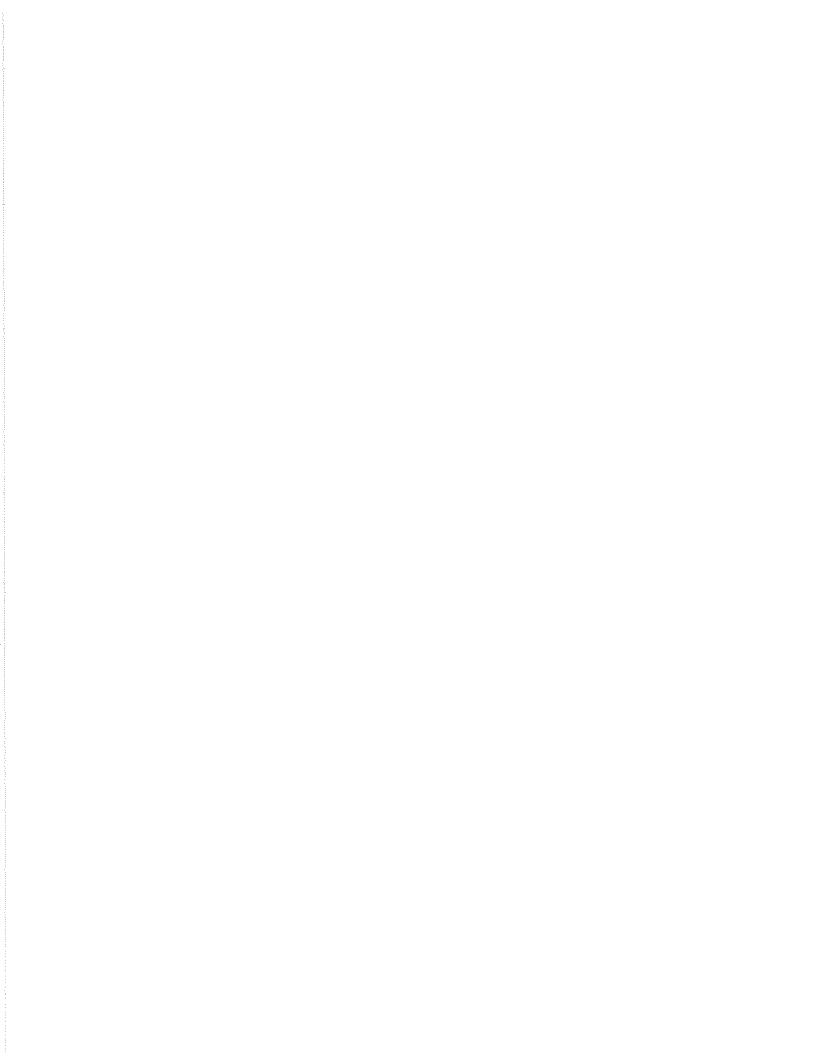
Meeting number (access code): 795 474 619 Meeting password: QPzutYgw553 (77988949 from phones and video systems)

The Planning Board agenda and the applications to be heard at this meeting can be reviewed and downloaded from the Borough website. You may also contact Board Clerk, Hilda Tavitian, at (201) 387-4055 x4056 to make an appointment to view the plans in-person.

Please visit the Borough website on <u>www.bergenfield.com</u> for updates and additional information on this meeting.

Hilda Tavitian, Clerk Planning Board Borough of Bergenfield

*THIS IS A PUBLIC NOTICE, NOT A PAID LEGAL AD.



BERGENFIELD PLANNING BOARD **REGULAR MEETING TELECONFERENCE VIA CISCO WEBEX** May 18, 2020

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AGENDA

MEETING CALLED TO ORDER

OPEN PUBLIC MEETING STATEMENT

In compliance with the Open Public Meetings Act, the notice requirements have been satisfied. Meeting dates are confirmed at the Annual Meeting. Notice of this meeting was provided to the Record, Star Ledger, and Cablevision, posted on two municipal public notice bulletin boards and posted on the borough website. Notice of this meeting via the May 14, 2020 Sunshine notice has been sent to the Record, Star Ledger, and Cablevision, posted on two municipal bulletin boards and the borough website.

Any board member having conflict of interest involving in any matter to come before the board this evening is reminded they must recuse himself from participating in any discussion on that matter.

PLEDGE OF ALLEGIANCE

ROLL CALL

Oath of Office to Reappointed Members

Jerald Berger Ben Cabrera Jerald Naylis **Greg Polandick**

APPROVE MINUTES OF PREVIOUS MEETING - January 27, 2020

Motion from board members to approve minutes.

CORRESPONDENCE

VERBAL COMMUNICATIONS

Any resident may comment or question any subject not on the agenda. Motion from board members to close verbal communications.

OLD BUSINESS

Appointments of Standing Committees

- 1. Liaison to Board of Adjustment
 - a.
 - b.
- 2. Site Plan
 - a.
 - b.
- 3. Master Plan
 - a.
 - b.
 - c.
 - d.
- 4. Parking/Legal
 - a.
 - b.

COMMITTEE REPORTS

- 1. Site Plan
- 2. Parking Legal
- 3. Capital Improvements
- 4. Master Plan
- 5. Liaison to Board of Adjustment

NEW BUSINESS

1. The Porada Development Group, LLC

111 Hallberg Avenue

Block: 219 Lots: 20

Minor Subdivision – 2 Lots with Variance Relief

MOTION TO ADJOURN MEETING

NOTE: No applications will be heard by the Board that were not on the agenda at the time of publication release to the newspaper or applications that do not comply with Article VIII title "Hearings contained in the By-Laws of the Bergenfield Board".

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Construction Code Dept, Code Enforcement Office Zoning & Planning Offices (201) 387-4055 ext.1-4092 Fax: 201-385-7376

BOROUGH OF BERGENFIELD COUNTY OF BERGEN

APPLICATION FOR SUBDIVISION

MUST BE MADE OUT IN TRIPLICATE AND SUBMITTED AT LEAST THIRTY
(30) DAYS PRIOR TO PLANNING BOARD MEETING
APPLICATION MUST BE ACCOMPANIED BY AN ORIGINAL AND HIGHTEEN
(18) COPIES OF A SKETCH PLAT SHOWING ALL EXISTING STRUCTURES
WITHIN THE PORTION TO BE SUBDIVIDED AND WITHIN 200' THEREOF

YY	THIN THE COULDEY TO DESCOURS	
	DATE	3/19/20
	,	
	Application is hereby made for approval of the subdivision of la	and as herein described and shown
on acc	ompanying plat.	74 201-463-6607
1.	ompanying plat. Applicant's Name The Porada Development Group LLC	Page
2.	Address /10 Newcomp Road, Ridgewood, NJ 0/430. If applicant is a pathiership, corporation or company, give name	e and address of the hindibar
	Steven Porada - see above address	
3.	Property Owner's name (if other than #1 above) Dagmar B. Li	bonati
	Address 111 Hallberg Ave. Bergepfield, NJ Interest of applicant if other than owner. Contract purchaser.	Phone c/o Linda #201-838-235
4.	Interest of applicant if other than owner Contract purchaser	
5.	Decrinition of land in the simulvided. (2) Divid / 19	
J4	A Adress 111 Hallberg Avenue, Bergenfield, NJ 07621	The second secon
	(c) Give size of original plot 12,500 SF	
	(d) Give size of lots after subdivision 6,250 SF	
	(e) Are the following utilities existing:	i
	Paved streets V Curbs V	Sidewalks No
	Paved streets	Sidewalks <u>No</u> Electric
	Storm Servers No. Gas . /	
	(f) What is the zoning of the property, R-5	
	Vor	
	(g) Are there any existing structures on the property jes. Type Single Family Home if dwelling, What is the purpose of the subdivision request subdivide ex	how many families 1
	Type Single Pamby Fronte Subdivide e	xisting 12.500 SF lot into 2 lots
6.	What is the purpose of the substitute of ringle family borne	
_	6,250 SF lots, each featuring a single family home. Name & address of person preparing sketch plat: (Plat must be	drawn by a licensed engineer or
7.	Name & address of person preparing sketch placific at most ve	
	land surveyor): Name Thomas G. Stearns III, PE, US	Phone 973-340-0948
	Address GB Engineering, 1/13-144 Jewell St. Gartield N.107026 Signature of applicant	1000
8.	Signature of applicant	
	Signature of property owner it office man approxim	
Machine Court	FOR OFFICE USE ONLY	
	red to members of Subdivision Committee on unty approval is required, referred to County Planning Board on This arrange of	3
Amnii	ication received Fe	e of \$paid
Refer	red to members of Subdivision Committee on	and the same of th
TE Co	uniy approval is required, referred to County Planning Board on _	
11 (0)	Was approved Disapproved	·
There	Was approved Insapproved at a meeting of the	
Dav	antiald Diaming Roard held on	the above request for a subdivision
DOLE	enfield Planning Board held on was approved rejected held over for ad-	ditional information
	was approved	
Conn	wents.	



Construction Code Dept. Code Enforcement Office Zoning & Planning Offices (201) 387-4055 ext.1-4092 Fax: 201-385-7376

BOROUGH OF BERGENFIELD COUNTY OF BERGEN

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DATE 3/19/20 Application is hereby made for approval of the subdivision of land as herein described and shown Applicant's Name The Porada Development Group LLC Phone 201-463-6607 on accompanying plat Applicant's Name The Porada Development Group LLC Phone 201-40-3-000/ Address 710 Newcomb Road Ridgewood NJ 07450 If applicant is a partitetable, corporation or company, give name and address of the principal Steven Forada - see above address Property Owner's name (if other than \$1 above) Dagmar B. Libonall Address 111 Hallberg Ave. Bergenfield NJ Phone c/o Linda \$201-838. Interest of applicant if other than owner Contract purchaser Description of land to be subdivided; (a) Block 219. (b) Address 111 Hallberg Avenue, Bergenfield, NJ 07621. (c) Give size of original plot 12,500 SF. (d) Give size of lots after subdivision 6,250 SF. Phone c/o Linda #201-838-2350 (e) Are the following utilities existing: Payed streets. Sidewalks No. Sanitary Sewers, V Sanitary Sewers No Gas (f) What is the zoning of the property R.5 (g) Are there any existing structures on the property Yes Type Single Family Home If dwelling, how many families I What is the purpose of the subdivision request subdivide existing 12,500 SF lot into 2 lots. 6,260 SF lots: each featuring a single family home. Name & address of person preparing sketch plat: (Plat must be drawn by a licensed engineer or land surveyor): Name Thomas G. Steam's III. PE. US Address: GB Engineering, 125,444 level St. Garield, N. 17025 Phone 973,340-0948 Signature of applicant. Signature of property owner if other than applicant. FOR OFFICE USE ONLY Application received. Referred to members of Subdivision Committee on Fee of \$.

Disapproved.

at a meeting of the

held over for additional information

the above request for a subdivision

If County approval is required referred to County Planning Board on

Was approved Declared to be a major/minor subdivision on

Bergenfield Planning Board held on

was approved

ADDITIONAL QUESTIONS TO BE ANSWERED BY ALL, APPLICANTS SEEKING SUBDIVISION APPROVAL

In what zone is the property located?
 R-5, Residutial One and Two Family Dwelling Zone

(If the applicant intends to use the proposed subdivided lots for a use not permitted in that zone, a variance must be obtained from the Bergenfield Zoning Board of Adjustment).

2. State dimensions and square fbotage area of each proposed lot:

'Lot 20.01 - 50' x 125' (6,250 SF) Lot 20.02 - 50' x 125' (6,250 SF)

3. If any structure exists on any of the proposed subdivided lots, state with reference to that lot or lots-

(a) Front setback length: Lot 20.01 - 27

(b) Each side yard length: Lot 20.01 - 7.5' Lot 20.02 - 7.5'

(c) Rear yard length: Lot 20.01 - 43.33' Lot 20.02 - 43.33'

(if any setback, side or rear yard measurements are less than permitted for that zone, a variance may be applied for before the Bergenfield Planning Board, with proper notices)

Signature of applicant

Signature of property owner,

If other than applicant_____

;	
:	
:	
-	

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 - (a) Rront setback length: Lot 20.01 27 Lot 20.02 27
 - (b) Hach side yard length; Lot 20.01 7.5'
 - (c) Rear yard length: Lot 20.01 43.33' Lot 20.02 43.33'

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Signature of applicant

Signature of property owner, If other than applicant

Dagman Libonati

AFFIDAVIT PLANNING BOARD/BOARD OF ADJUSTMENT OF THE BOROUGH OF BERGENFIELD

•	•
STATE OF NEW JERSEY	SS: The Porada Development Group L
COUNTY OF BERGEN	Name of Applicant
BOROUGH OF BERGENFIELD	***
Steven Porada	being duly sworn deposes and says;
that he resides at number 710 Newcomb	
Village of Ridgewood , In	the County of Bergen
in the State of New Jersey	, and says that he is the appellant making
appeal for a variation of the provisions of the	Zoning Ordinance of the Borough of Bergenfield in
connection with the property which is the subj	ect matter of this appeal and known as number
111 Hallberg Ave., Bergenfield, NJ	designated as Blockand
Loton the Assessment l	Map, of the Borough of Bergenfield. That all
Statements made in this application, and state	ments made in the plans submitted herewith are
True. The applicant further states that he is re	ady and able to proceed with the construction if
And when the application is granted.	•
Sworn to me this - 19th	
	The Porada Development Group LLC
Day of March 2020	Startan.
Notary Public	Steven Porada, Applicant Managing Member
E M. DESCALZI	ons must supply a list of stockholders with a 10% or
# 50010004 prester share, they must also b	e represented by an Attorney at the hearing.
mission Explres 6/1/2020	

SS:

STATE OF NEW JERSEY,	SS:
COUNTY OF BERGEN	
Dagmar B, Libonati	of full age, duly sworn according
to the law, deposes and says that h	us resides at 111 Hallberg Ave.
in the Borough of Bergenfield	
in the State of New Jersey	that he is the owner in fee of real property lying in
the Borough of Bergenfield, know	n and designated as mumber Block 219, Lot 20
and that he hereby authorizes .	The Porada Development Group LLC to make the within
application in his behalf and that t	he statements in the said application are true.
SWORN TO BEFORE ME THIS	. A .
DAY OF March	20 20
	Owner, Dagmar B. Libonati
	HARVEY J. CAVAYERO
Notary Public	NOTARY PUBLIC OF NEW JERSEY

NOTARY PUBLIC OF NEW JERSEY

Comm. # 50077249

Wy Commission Expires 2/20/203

Note: All partnership and corporations must supply a list of stockholders with a 10% or greater share, that they must also be represented by an Attorney at the hearing.

· AFFIDAVIT OF OWNERSHIP

STATE OF NEW JERSEY, SS: COUNTY OF BERGEN
Linda J. Libonati of full age, duly sworn according
to the law, deposes and says that he resides at 111 Halberg Avenue, Bergentield, NJ 0262)
in the Borough of Bergenfield in the County of Bergen
in the State of New Jersey that he is the owner in fee of real property lying in 111 Hallberg Ave., Bergenfield, the Borough of Bergenfield, known and designated as number NJ Block 219, Lot 20
and that he hereby authorizes The Porada Development Group LLC to make the within
application in his behalf and that the statements in the said application are true. SWORN TO BEFORE ME THIS 8th
DAY OF April. 2020 Swift Swift Week Wowner Linda J. Libonati
Notary Public HARVEY J. CAVAYERO NOTARY PUBLIC OF NEW JERSEY Comm. # 50077249 My Commission Expires 2/20/20
Note: All partnership and corporations must supply a list of stockholders with a 10% or greater share, that they must also be represented by an Attorney at the hearing.



Rider to Application for Subdivision

Zoning Officer's Letter of Denial dated March 6, 2020





BOROUGH OF BERGENFIELD

198 NORTH WASHINGTON AVENUE BERGENFIELD, NEW JERSEY 07621

March 6, 2020

Steve Porada 111 Hallberg Avenue Bergenfield, NJ 07621

RE: Subdivision

Dear Mrs. Porada

Your application for subdivision has been denied for the following reasons:

107 Hallberg Avenue:

- 1. Street side set back required 15 sq. feet. Proposed 71/2 sq. feet.
- 2. Improved lot coverage required 2,000 sq. feet. Proposed 2,454 sq. feet.

109 Hallberg Avenue:

 Improved lot coverage required 2,000 sq. feet. Proposed2,464 sq. feet.

You have the right to appeal my decision to the planning board for minor subdivision. You must contact the Building Department to obtain the proper applications.

If you have any question on the above matter, please contact our office. You can call the Building Department at 201-387-4055 Ext. 4

Sincerely

Michael Ravenda Zoning Officer

Rider to Application for Subdivision

Certification of Paid Taxes



TAX COLLECTOR'S CERTIFICATION PAYMENT OF PROPERTY TAXES

Date: 2/19/20
Block: 219 Lot: 20 Address: 111 Hallberg Ave
Owners Name: The Porada Development Group Lu
Owner's Address 710 New Comb Rd., Ridge word, NI 07450
Phone Number: 201-463-4607 Cell Number:
Application for: Board of Adjustment 1 Planning Board
Building Department Permit
Description of Work to be Performed: MINOV SUPPLIVISION (2 (015) All applications for the above are required to obtain a cartification from the Tax Collector's Office prior to receiving placement on the agenda of any board and / or receiving a permit from the hillding department for construction or certificate of occupancy. "No Exceptions"

Tax Office Use Only:
Tax Cannent Yes No . Last Quarter Paid On: 1-31-20 (Printout Attached)
Tax Collector / Deputy Tax Collector Cordification: 2-: 24-20 Date:
Contification Number: 1-8454



Engineering • Surveying



144 Jewell Street • Garfield, NJ 07026

Tel: 973-340-0948 • Fax: 973-340-0015

DRAINAGE CALCULATIONS

FOR

107 HALLBERG AVENUE
PROP. LOT 20.01 in BLOCK 219
BOROUGH OF BERGENFIELD
BERGEN COUNTY
NEW JERSEY
2019/1215

Prepared for:

STEVEN PORADA

February 5, 2020

the Soft 11

THOMAS G. STEARNS III
N. J. PROFESSIONAL ENGINEER & SURVEYOR
N. J. LICENSE NO. GB40959





Engineering • Surveying

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Tel: 973-340-0948 • Fax: 973-340-0015

Present Existing Site:

Area in Question consists of Proposed Lot 20.01 Area = 6250 sf = 0.143 Acres

tc = 6 min.

2 year storm, i = 5.2 "/hr; Use Rational Method
10 year storm, i = 6.7 "/hr; "
100 year storm, i = 9.1 "/hr; "

EXISTING COEFFICIENT FROM PRESET SITE:

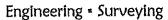
	Area(SF)	%	Ce	Partial Ce
P/O Dwelling	594	9,5	0.95	0.090
Pool Equip.	90	1.4	0.95	0.014
P/O Pool	596	9.5	0.95	0.091
Conc. Feat.	678	10.8	1.95	0.212
Landscape	4292	<u>68.7</u>	0.3	<u>0.206</u>
Section Control of the Control of th	6,250	100%		0.612

RUNOFF FROM EXISTING SITE:

50% = 0.228 cfs 0.612 x 5.2 x 0.143 = 0.457 cfsQ = CiA =e2 allowable volume $x \frac{1}{2} x \frac{18.00}{x} 60 = \frac{123}{x}$ 0.228 e2 75% = 0.441 cfs $0.612 \times 6.7 \times 0.143 = 0.588 \text{ cfs}$ Q = CiA =e10 allowable volume x 1/2 x 18.00 x 60 = 2380.441 e10 $0.612 \times 9.1 \times 0.143 = 0.799 \text{ cfs}$ 80% = 0.639 cfs Q = CiA =e100 allowable volume x 1/2 x 18.00 x 60 = 3450.639

 Location Surveys * Topography * Site Plans * Subdivisions 	5
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144 Jewell Street - Garfield, NJ 07026

Tel: 973-340-0948 • Fax: 973-340-0015

Proposed Developed Site:

Area in Question consists of Proposed Lot 20.01 Area = 6250 sf = 0.143 Acres

tc = 6 min.

2 year storm, i = 5.2 "/hr; Use Rational Method 10 year storm, i = 6.7 "/hr; " 100 year storm, i = 9.1 "/hr; "

RUNOFF COEFFICIENT FROM PROPOSED SITE:

	Area(SF)	• %	Ce	Partial Ce
Dwelling	1683	26.9	0.95	0.256
Front Porch	102	1.6	0.95	0.016
Driveway-pavers	445	7.1	0.95	0.068
Front Walk-pavers	106	1.7	0.95	0.016
Conc. Feat.	128	2.0	0.95	0.019
Landscape	<u>3786</u>	<u>60.6</u>	0.3	0.182
-	6250	100%		0.556

RUNOFF FROM PROPOSED SITE:

Q = p2	0.556	x	5.2	x	0.143	-	0.415	cfs	
V = p2	0.415	x	1/2	x	18.00	x	60 =	<u>224</u>	cf
Q = p10	0.556	×	6.7	x	0.143	=	0.535	cfs	
V = p10	0.535	×	1/2	x	18.00	x	60 =	<u>289</u>	cf
Q = p100	0,556	ж	9.1	x	0.143	-	0.726	cfs	
V = p100	0.726	x	1/2	x	18.00	x	60 =	<u>392</u>	cf





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Storage Required for Proposed Increase in Runoff Volume: (as per Residential Site Improvement)

2 yr storm

123 = 101 cf

10 yr storm

238 =

100 yr storm

Storage Required for Roof Runoff:

10 yr storm used 60 min. storm duration

I = 2.0"/hr

Roof Area -

Note:

1683 sf.

102 cf.

Front Porch

Designated Area

1785 x 2.0 x 0.95

12

cf (req. for 2 yr storm) <

283 cf

Use

cf as design volume

SEEPAGE PIT STORAGE CALCULATIONS FOR ROOF RUNOFF

Pre-cast

6 ft inner diameter concrete seepage pit

→ 6 ft deep

(6.5 ft outer diameter)

Provide stone with filter fabric around pit

 \rightarrow 2.0 ft thick

40% stone void ratio used.

* No base stone area considered as storage due to sedimentation.

Pit Volume: 6 ft deep 2.0 ft thick stone

110 - 42) x 0.4 x 6 /

Provided Storage for Dwelling

298 CF > 283 CF Required





Engineering • Surveying

144 Jewell Street • Garfield, NJ 07026

Tel: 973-340-0948 • Fax: 973-340-0015

Storage Required for Driveway Runoff:

10 yr storm used 60 min. storm duration

 $I = 2.0^{\circ}/hr$

Driveway Area

445 sf.

Designated Area

SEEPAGE PIT STORAGE CALCULATIONS FOR DRIVEWAY RUNOFF

Pre-cast 6 ft inner diameter concrete seepage pit \rightarrow 3 ft deep (6.5 ft outer diameter)

Provide stone with filter fabric around pit

→ 1.5 ft thick

40% stone void ratio used.

* No base stone area considered as storage due to sedimentation.

Pit Volume: 3 ft deep 1.5 ft thick stone

Provided Storage for Driveway 130 CF > 70 CF Required

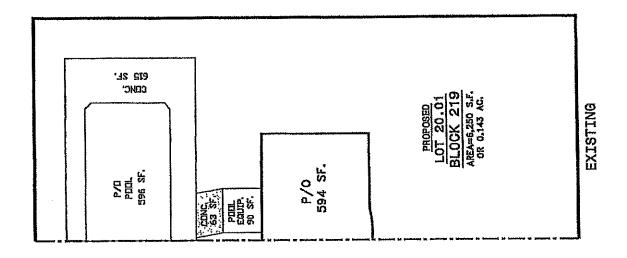


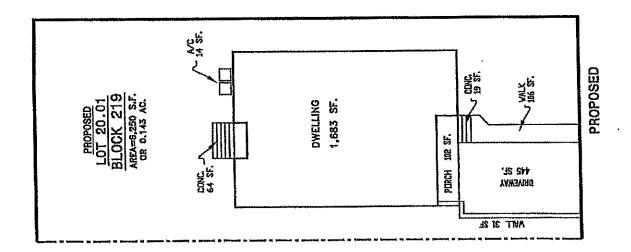
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Engineering * Surveying

144 Jewell Street • Garfield, NJ 07026

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Present Existing Site:

Area in Question consists of Proposed Lot 20.02

Area = 6250 sf = 0.143 Acres

tc = 6 min.

Use Rational Method i = 5.2 "/hr; 2 year storm, i = 6.7 "/hr; 10 year storm, i = 9.1 "/hr; 100 year storm,

EXISTING COEFFICIENT FROM PRESET SITE:

	Area(SF)	%	Ce	Partial Ce
P/O Dwelling	1594	25.5	0.95	0.242
Porch w/stairs	109	1.7	0.95	0.017
P/O Pool	117	1.9	0.95	0.018
Wood Deck	278	4.4	. 0.95	0.042
Macadam	239	3.8	0.95	0.036
Front walk	143	2.3	0.95	0.022
Concrete feat.	550	8.8	0.95	0.084
Landscape	<u>3220</u>	<u>51.5</u>	0.3	<u>0.155</u>
	6,250	100%		0.615

RUNOFF FROM EXISTING SITE:

		0.440 0.460 0	£00/ 0.220 -6
Q = CiA = e2	0,615 x 5.2 x	0.143 = 0.459 cfs	50% = 0.229 cfs
V = 0.229 e2	x 1/2 x 18.00	x 60 = 124	allowable volume
Q = CiA = e10	0.615 x 6.7 x	0.143 = 0.591 cfs	75% = 0.443 cfs
V = 0.443	x 1/2 x 18.00	x 60 = 239	allowable volume
Q = CiA = e100	0.615 x 9.1 x	0.143 = 0.803 cfs	80% = 0.643 cfs
V = 0.643	x 1/2 x 18.00	x 60 = 347	allowable volume

^{*} Location Surveys * Topography * Site Plans * Subdivisions *





Engineering • Surveying

144 Jewell Street • Garfield, NJ 07026 Proposed Developed Site:

Tel: 973-340-0948 • Fax: 973-340-0015

Area in Question consists of Proposed Lot 20.02 Area = 6250 sf = 0.143 Acres tc = 6 min.

> i = 5.2 "/hr; Use Rational Method year storm, i = 6.7 "/hr; year storm, 10 i = 9.1 "/hr; 100 year storm,

RUNOFF COEFFICIENT FROM PROPOSED SITE:

	Area(SF)	%	Ce	Partial Ce
Dwelling	1683	26.9	0.95	0.256
Front Porch	102	1.6	0.95	0.016
Driveway-pavers	445	7.1	0.95	0.068
Front Walk-pavers	104	1.7	0.95	0.016
Conc. Feat.	120	1.9	0.95	0.018
Landscape	<u>3796</u>	<u>60.7</u>	0.3	<u>0.182</u>
_	6250	100%		0.555

RUNOFF FROM PROPOSED SITE:

Q = p2	0.555	x	5.2	x	0.143	<u> </u>	0.414	cfs	
V = p2	0.414	x	1/2	x	18.00	x	60 =	224 cf	
Q = p10	0.555	x	6.7	x	0.143		0.534	cfs	
V = p10	0.534	x	1/2	x	18.00	x	60 =	<u>288</u> cf	
Q = p100	0.555	x	9.1	x	0.143		0.725	cfs	
V = ρ100	0.725	x	1/2	x	18.00	x	60 =	<u>391</u> cf	



Engineering • Surveying



144 Jewell Street • Garfield, NJ 07026

Tel: 973-340-0948 • Fax: 973-340-0015

Storage Required for Proposed Increase in Runoff Volume: (as per Residential Site Improvement)

2 yr storm 224 cf - 124 = 100 c 10 yr storm 288 cf - 239 = 49 c

100 yr storm 391 cf - 347 = 45 c

Storage Required for Roof Runoff:

10 yr storm used 60 min. storm duration $I = 2.0^{\circ}/hr$

Roof Area - 1683 sf. Front Porch 102 cf.

Designated Area 1785 x 2.0 x 0.95 x 60 = 283 cf.

Note: 100 cf (req. for 2 yr storm) < 283 cf

Use 283 cf as design volume

SEEPAGE PIT STORAGE CALCULATIONS FOR ROOF RUNOFF

Pre-cast 6 ft inner diameter concrete seepage pit \rightarrow 6 ft deep (6.5 ft outer diameter)

Provide stone with filter fabric around pit

 \rightarrow 2.0 ft thick

40% stone void ratio used.

* No base stone area considered as storage due to sedimentation.

Pit Volume: 6 ft deep 2.0 ft thick stone

 $V = (3.14 \times 6 \times 6 \times 6 / 4) + (3.14 \times (110 - 42) \times 0.4 \times 6 / 4 = 298 \text{ CF}$

Provided Storage for Dwelling 298 CF > 283 CF Required





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144 Jewell Street • Garfield, NJ 07026 Storage Required for Driveway Runoff:

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10 yr storm used 60 min. storm duration

1 = 2.0"/hr

Driveway Area

445 sf.

Designated Area

SEEPAGE PIT STORAGE CALCULATIONS FOR DRIVEWAY RUNOFF

6 ft inner diameter concrete seepage pit \rightarrow 3 ft deep Pre-cast (6.5 ft outer diameter)

Provide stone with filter fabric around pit

 \rightarrow 1.5 ft thick

40% stone void ratio used.

* No base stone area considered as storage due to sedimentation.

Pit Volume: 3 ft deep 1.5 ft thick stone

90 - 42) x 0.4 x 3 / 4 = 130 CF

70 CF Required Provided Storage for Driveway 130 CF >



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