

June 6, 2020

Mr. Ray Vidal  
24 Phoebe Drive  
Neptune NJ 07753

Project Address: 24 Phoebe Drive  
Neptune NJ 07753  
Municipality: Neptune Township  
Subject: Impervious Coverage Area; Driveway Extension

Mr. Vidal,

This report addresses issues relative to Zoning Permit Application that are noted in "Zoning Permit" document provided for reference. As requested, primary focus is on impervious coverage area.

The following documents have been referenced;

- ❖ "Survey Of Property", by Mark J Citone, PLS, dated 3-23-20
- ❖ Neptune Township "Zoning Permit" (5 pages) dated 4-27-20

Background Information

The following background information has been provided by yourself;

1. Purchased property and occupied house about 5 years ago.
2. In 2019, new concrete parking space installed in front yard adjacent to right side of existing driveway area.
3. Thickness of concrete is at least 4-inches.
4. Fence at left side of house was repaired. This is not new fence.



John F Mann, PE  
GE29049

Certificate  
24GA28284800



Photo 101 – Google Maps  
Aerial view of property and house (with small red circle).

Zoning Permit

Name of person responsible for Zoning Permit document is not listed.

The following basic data are listed on page 1;

Block: 2603  
Lot: 6  
Zone: R-2

The following Violations are listed at beginning of “Zoning Review Notes” on page 2;

- Driveway expansion without first acquiring zoning approval.
- Disturbance of land without first acquiring Department of Engineering approval.

Listed under “Land Development Ordinance section 505” are two basic requirements; (A) Applicability and (B) Design Standards.

Eight numbered items are then listed with discussion provided under “Zoning Notes” for each item. In the following, comments are by this writer.

- 1 Lot access.  
Requirements are satisfied.
- 2 Locations.  
Requirements are satisfied.
- 3 Construction Specifications.  
Thickness of concrete driveway and subbase may be verified. However, concrete is in good condition without cracks.
- 4 Width of driveway.  
Considering that driveway & apron already exists, new pavement is most reasonably considered parking space, not driveway. Dimensions of main rectangular area of new parking space (12-feet wide by 24-feet long) exceed minimum requirements for parking space (9 feet x 18 feet) per NJ Residential Design Standards.

Limit on total width of 22-feet noted in “Zoning Notes” for “driveway” is not correct. Per Table 5-2 Driveway Width Requirements, maximum width is specified as 18-feet for single-family house (not 22-feet). If new parking space is considered to be part of “driveway”, then total width of 24-feet would greatly exceed 18-feet limit.

- 5 Grading; shall not exceed 6-percent.  
Slope of driveway is very gradual; on order of 1-percent.
- 6 Aprons.  
New apron not installed for new parking space. Apron for existing driveway is used.
- 7 Side slopes.  
No side slopes involved. Grade is essentially level on each side.
- 8 Clear sight triangles.  
No obstructions to clear sight triangles.

Issue of Impervious Coverage is then noted, along with apparent request for “calculations”.

The following issues are then listed as having to be addressed based on comparison of new Survey to “prior surveys in the zoning file”;

1. Increased impervious coverage
2. Constructed non-conforming deck
3. Constructed new fence on property

Impervious coverage is discussed later in this report.

“Non-conforming deck” is apparently reference to wood deck at back of house, though this must be verified. Reason for claimed non-conformance is not explained.

Zoning requirements for deck are not within scope of this evaluation.

Location of “new fence” is not described. Owner has explained that fence at left of house was repaired.

Observations & Measurements

Inspection by this writer was performed on 6-5-20.

Features of property are essentially as shown on Survey.

At concrete driveway, front of house is about 32'-11" from street sidewalk that runs along street.

New concrete pavement for parking space, about 11'-11" wide, has been installed adjacent to right side of driveway.

Along street sidewalk, new pavement is 4'-0" wide. Right edge of new pavement is then angled to meet right side of main parking space area, which occurs about 7'-8" from street sidewalk. Pavement extends about 7'-4" behind front wall of house, up to wood fence and adjacent to concrete sidewalk that runs along right side of house.

Ordinance 15-09

Municipal Ordinance 15-09, adopted March 9, 2015, amends definition of "impervious cover", which is also to now be termed "impervious coverage".

Key requirements of amended definition;

*Patios that are constructed at grade are impervious.*

*Decks that are twelve (12) inches or more above average grade shall be considered pervious.*

*Water area of pools shall not be counted as impervious.*

Impervious Coverage Area

The following coverage area standards are specified for Zone R-2 in “Zoning Schedule B – Zoning District Bulk Regulations”;

Maximum Percent – Building Cover	30 percent
Maximum Percent – Total Lot Cover	40 percent

Impervious coverage area for entire property has been calculated based on measurements taken during inspection as well as information from Survey as applicable.

Overall plan dimensions of one-story house are 55’-0” side-to-side by 25’-0” front-to-back, not including roof overhang along front wall and back wall which is about 2-feet wide. However, net roof overhang area is included in calculation.

New concrete pavement for parking space results in new impervious area of 413 square feet.

Per Ordinance 15-09, water area of in-ground pool and area of above-grade wood-framed deck are not included for impervious coverage. For this analysis, area of long wood steps (Photo 5) is included to be conservative, although steps more than 12-inches above average grade likely do not have to be included.

Attached calculations show the following results;

Total Impervious Area	3,890 sf
Percent Impervious	38.9 percent of Lot Area < 40 <b>OK</b>

Survey Of Property

As shown on Survey Of Property (“Survey”), drawn to scale of 1-inch equals 20 feet, rectangular lot has dimensions of 100 feet by 100 feet. Sides of rectangular house are shown to be 31.9 feet from front property line and 22.7 feet from left-side property line.

Front property line runs along inside edge of concrete sidewalk along street.

Edge of irregular shaped “In Ground Pool” is shown to be 11.5 feet from left-side property line and 10.2 feet from back property line.

However, dimensions of house, pavement and other features are not shown.

The following areas are listed in box identified as “Coverage Calculations”;

Total Lot Area	10,000	sf
Dwelling	1,366	sf
Concrete	1,685	sf
*** Pool	450	sf
Pavers	267	sf
+++ Decks / Steps	621	sf
Shed	83	sf

For each area, percentage of Total Lot Area is also listed.

Total coverage areas and percentages, which are not listed on Survey, are then as follows;

Total Impervious Area	4,672	sf
Total Percent Impervious	46.7	percent

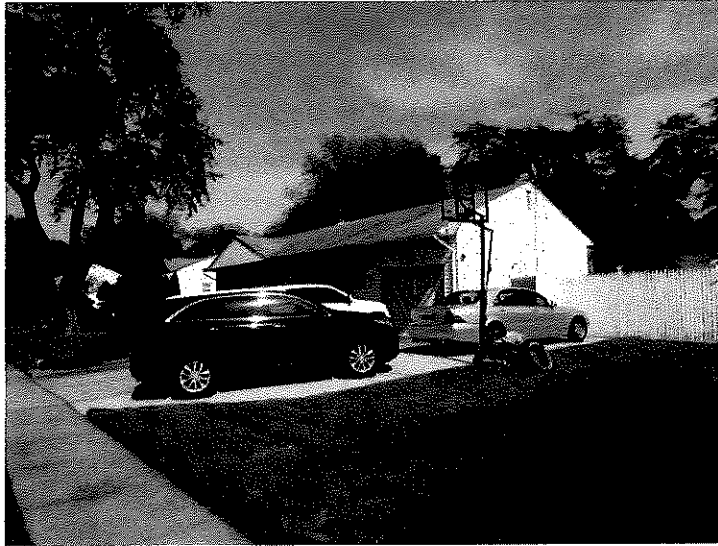
\*\*\* In-ground pool should not be included for impervious area since pool does not produce runoff of rain water. This is specified in Ordinance 15-09.

+++ Area of deck more than 12-inches above average grade does not have to be included per Ordinance 15-09.

Roof overhang along front of house is shown by dashed line. Roof overhang at back of house is not shown.

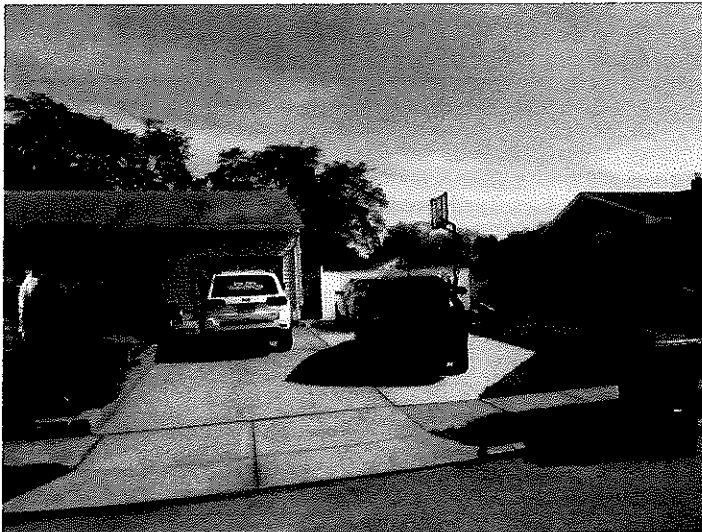
## Photos

Photos taken by John F Mann, PE during inspection.



### Photo 1

Looking towards front and right side of house.  
New concrete parking area in foreground.



### Photo 2

In street, looking towards driveway and front of house.  
New concrete parking area adjacent to right side of driveway.





Photo 3

Back and right side of house.  
Wood-framed deck along back wall.  
In-ground pool is to right of this photo.



Photo 4

At left side of house, looking towards in-ground pool behind house.



Photo 5  
Steps wrapping around back left corner of deck.



Photo 6  
Looking along back of property towards storage shed at back left corner.

Impervious Area Calculation

Lot Area 10,000 ft<sup>2</sup>

Total Impervious Area 3,890 ft<sup>2</sup>  
Total Percent Impervious 38.90

Concrete Areas 2,000 ft<sup>2</sup>  
Net area of house 1,532 ft<sup>2</sup>  
15.315 percent

502 Sidewalk: Front Yard  
Width 3.00 feet  
Length 20.00 feet  
Area 60 ft<sup>2</sup>

604 Concrete Around Pool  
Width 5.00 feet  
Length 90.00 feet  
Area 450 ft<sup>2</sup>

Area	Shape	Front to Back		Side to Side		Area ft <sup>2</sup>	Description
		feet	feet	feet	feet		
1	Rectangle	25.00	55.00			1,375	House, plan dimensions
201	Rectangle	2.00	55.00			110	Roof overhang, front
202	Rectangle	1.50	55.00			83	Roof overhang, back
3	Rectangle	32.32	11.00			355	Driveway, original
401	Rectangle	7.33	9.00			66	Parking area
402	Rectangle	25.25	11.92			301	Parking area
403	Triangle	7.67	7.92			30	Parking area
404	Rectangle	7.67	4.00			31	Parking area
501	Rectangle	25.00	3.00			77	Sidewalk, right side
502	Rectangle					60	Sidewalk, front yard
503	Rectangle	4.00	6.00			24	Front porch
601	Rectangle	12.00	8.58			103	Concrete patio, back yard
602	Rectangle	27.00	18.00			486	Concrete patio, back yard
603	Triangle	9.00	25.00			113	Pavers
604	Irregular					458	Concrete around pool
7	Rectangle	12.00	30.00			360	Wood deck at back
701	Rectangle	2.50	14.50			36	Wood steps along deck
702	Rectangle	12.00	2.58			30	Wood steps along deck
8	Rectangle	8.42	7.83			66	Wood patio at left side
9	Rectangle	8.33	10.00			83	Storage shed; back left corner of yard
	Total					3,925	

\*\*\* Area of pool does not have to be included per Ordinance 15-09.

From Survey Of Property

Dwelling	1,386
Concrete	1,885
*** pool	460
Pavers	267
Decks / Steps	621
Shed	89
Total	4,672

Overlaps areas  
Roof overhang & driveway  
Roof overhang & front porch  
Roof overhang & back deck

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