



NASSAU COUNTY ENGINEERING SERVICES TECHNICAL REVIEW CHECKLIST

EFFECTIVE SEPTEMBER 9, 2019

Development / Project Name: _____ **Date:** _____

All plan sets submitted for review shall follow the order and the minimum content requirements set forth below, or the plan submittal will be deemed incomplete and rejected for review. Additional sheets (i.e., summary of quantities) may be included at the back of the plan set.

Example

Index of Drawings

- 1.0 Cover Sheet
- 2.0 General Notes
- 3.0 Existing Conditions
- 4.0 Sediment and Erosion Control Plans
- 5.0 Overall Site Plan
- 5.1 Site Layout Plans
- 6.0 Signing & Pavement Marking Plans
- 7.0 Grading Plans
- 8.0 Stormwater and Drainage Plans
- 9.0 Utility Plans
- 10.0 Plan & Profile Sheets
- 11.0 Cross Sections
- 12.0 Offsite Improvement Plans
- 12.1 Maintenance of Traffic Plans
- 13.0 Detail Sheets
- 14.0 Lighting Plan

YES NO N/A

1.0 Cover Sheet:

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|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Project title. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Location Map with North Arrow. (Ordinance 99-17, Article 5 (H) 2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Names and contact information for all design professionals including but not limited to the Surveyor, Environmental Scientists, Geotechnical Engineer, Owner, Landscape Architect, etc. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Names and contact information for all utility providers. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Index of Drawings. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Flood, Soil, and USGS Maps of the project area. |

2.0 General Note Sheets:

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|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Must identify specific horizontal and vertical datum.
(Ordinance 2000-40, Section 3.3.18, and Ordinance 99-17, Section 10.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Any reference to Engineer must be identified as "Engineer of Record".
Plan sets must be signed, sealed, & dated. (Ordinance 99-17, Section 5.1.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Must contain a statement stating that the Contractors assume full responsibility for complying with State and/or Federal safety laws, including OSHA safety requirements. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Plans should have a legend showing the symbols used in the plans. |

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | (Ordinance 99-17, Article 5 (H)) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Plans must be to scale whether submitted as 24"x36" or 11"x17". Digital plans must be submitted in State Plane coordinates with at least two Northing & Easting points. (Ordinance 99-17, Article 5 (H) 2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Any variances to code requirements have been obtained and documentation provided. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Provide certificate of completeness. (Ordinance 99-17, Section 5.3.1.b) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Provide copies of all permits- SJRWMD, FDOT or any other, as applicable. (Ordinance 99-17, Section 5.2.a) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | i. Provide drainage certification and operation and maintenance entity documentation. (Ordinance 99-17, Section 10.4.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | j. Reference latest versions of applicable codes, including Nassau County Roadway and Drainage Standards and the Nassau County Land Development Code. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | k. Note stating that as-built survey is required. (Ordinance 99-17, Section 10.4.3) |

3.0 Existing Conditions:

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Survey/Construction plans shall have the project boundary shown w/ bearings and distances. (Ordinance 2000-40, Section 3.3.1 and Ordinance. 99-17, Section 10.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. All wetlands must be clearly identified. (Ordinance 2000-40, Section 3.3.16 and Ordinance 99-17, Section 10.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Neighboring parcel numbers, owner names, and zoning designation identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. All existing wells and septic tanks within the site or within 75' of the site shall be noted on the plans. (Health Department requirement) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Existing 1-foot contours shall be shown for site and adjacent properties on the plans. (Ordinance 99-17, Article 5 (H)) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. Legal Description must be included on the survey/construction plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Soil types shall be shown. (Ordinance 99-17, Section 10.6.2.1) |

4.0 Sediment & Erosion Control Plan:

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|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Silt fences, inlet control, construction entrance, and all other ESPC measures shall be shown with details on the construction plans. (Ordinance 99-17, Section 10.6.5.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Detail sheet including fence and barrier details. (Ordinance 99-17, Section 10.6.5.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. NPDES requirements of the Contractor SHOULD be in the plans. County Requirements of the Contractor set forth in Section 10.6.5 Shall be included in the plans. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. SWPPP (Stormwater Pollution Prevention Plan) requirements shall be included in the construction plans. |

5.0 Overall Site Plans:

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. Show all major improvements. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Show all proposed connections to existing rights-of-way, cross access connections, and existing improvements. Construction to an access roadway must be shown. For projects over 25 lots, 2 access points must be identified. (Ordinance 2000-40, Section 4.8.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. Key sheet boundaries with relevant sheet numbers identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Neighboring parcel numbers, owner names & zoning designation are shown. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. Construction plans shall have the project boundary shown with bearings |

and distances. (Ordinance 2000-40, Section 3.3.1 and Ordinance. 99-17, Section 10.7.1)

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|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. If the project is to be completed in phases, then each phase line should be clearly shown and each phase must be functional (standalone) for roads and drainage. (Ordinance 99-17, Section 10.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. All wetlands must be clearly identified. (Ordinance 2000-40, Section 3.3.16 and Ordinance 99-17, Section 10.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Wetland buffers with buffer tables must be on plans where applicable. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | i. All existing wells and septic tanks within the site or within 75' of the site shall be noted on the plans. (Health Department requirement) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | j. All onsite tracts and parcels shall be labeled. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | k. Percentage of impervious surface ratio and computations must be shown. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | l. Show access and maintenance buffers for all stormwater ponds. (Ordinance 99-17, Section 10.6.7) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | m. Mailbox kiosk locations and tracts shall be depicted. (Ordinance 99-17, Section 8.4) |

5.1 Site Layout Plans:

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|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | a. All streets shown in the plans must have a street name and ROW width identification on all applicable plan sheets. (Ord 2000-40, Sec 4.1 & 3.3.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | b. Subdivision streets shall be 60' wide ROW or 50' wide with a 5' utility easement on both sides of the street. (Ord 99-17, Sec 11.2.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | c. All Right of Ways conform to Nassau County requirements. (Ordinance 99-17, Section 11.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | d. Curb and gutter with sidewalks are required in all developments with lots one (1) acre or less. (Ordinance 99-17, Section 11.2.6) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | e. All cul-de-sacs shall have a minimum ROW radius of 65' and minimum paved radius of 50 feet. Elevations shall be provided at the center of the cul-de-sac and at quarter points of the circle. (Ordinance 99-17, Sections 10.7.1&11.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | f. All street and curve data and distances between curves must be shown. (Ordinance 2000-40, Section 3.3.8, and 99-17, Sections 10.7.1 and 11.1.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | g. Sidewalks are required on both sides of streets unless waived or are a part of a Developers Agreement, or a circulation plan is submitted. (Ordinance 99-17, Section 11.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | h. Handicap ramps and other appurtenances should be shown where applicable and meet current FOOT and Florida Accessibility Code criteria. (Ordinance 99-17, Section 11.7.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | i. Centerline radii conform to the requirements (Minimum 100 feet). (Ordinance 99-17, Section 11.6.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | j. Any asphalt specification other than those listed in section 11.5.3 shall conform with FDOT criteria. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | k. When required, turn lanes or intersection plans shall be submitted. (Ordinance 99-17, Sections 9.8, 10.7.1 and 11.1.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | l. All drainage easements and detention basins shall be located within clearly defined easement or tracts. Should drainage from public facilities drain through or across private lands, easements shall be shown on the plans and (if not recorded by plat) draft easement grantee documents shall be submitted with the plans. (Ordinance 99-17, Section 10.7.1) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | m. Handicap ramps and other appurtenances shall be shown where applicable and shall meet current FDOT and Florida Accessibility Code Criteria. (Ordinance 99-17, Section 10.7.2) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | n. Driveway spacing and sizing per Nassau County standards. (Ordinance 99-17, Sections 9.2 & 9.5.1). |

6.0 Signage and Pavement Marking Plans:

**May be included on Site Layout Plans*

- a. All striping and signage shall conform to the FDOT and MUTCD (Manual on Uniform Traffic Control Devices) requirements. (Ordinance 99-17, Section 11.9)
- b. Thermoplastic striping shall be specified. (Ordinance 99-17, Section 11.9.2)

7.0 Grading Plans:

- a. Plans must have street profiles or sufficient elevations to determine the street slopes, high points and low points (HP and LP elevations shall be clearly noted). Ground water elevations must be shown on the profiles. (Ordinance 2000-40, Section 3.4.2. & 99-17, Sections 10.7.1 and 11.11.4)
- b. Minimum first floor elevations shall be identified on the construction plans. For lots one acre in size or less, these elevations shall be a minimum of 1' above the 100-year flood plain or 18" above the centerline street elevation (street elevation shall be taken at a point perpendicular to the center of the lot) whichever is greater. For lots greater than one acre, the FFE elevation shall be a minimum of 1' above the 100-year flood plain. (Ordinance 99-17, Section 10.8.1)
- c. All drainage easements and detention basins shall be located within clearly defined easement or tracts. Should drainage from public facilities drain through or across private lands, easements shall be shown on the plans and (if not recorded by plat) draft easement grantee documents shall be submitted with the plans. (Ordinance 99-17, Section 10.7.1)
- d. Curb and gutter with sidewalks are required in all developments with lots one (1) acre or less. (Ordinance 99-17, Section 11.2.6)
- e. All Lots shall be designated and A, B or C grading and there shall be a FHA grading detail on the plans and Finished Floor elevations. (Ordinance 2000-40, Section 3.4)
- f. The 100-year flood plain shall be clearly shown on the construction plans where applicable. (Ordinance 2000-40, Section 3.3.14)
- g. All proposed grades for any paved areas, graded areas, ponds, swales, roadways, etc. shall be clearly shown on the plans.
- h. 1-foot contours shall be shown for site and adjacent properties on the plans. (Ordinance 99-17, Article 5 (H))
- i. Spot elevations shall be provided at the center and at the quarter points of all cul-de-sacs. (Ordinance 99-17, Section 10.7.1 & 11.2)

8.0 Stormwater and Drainage Plans:

- a. Plans must have street profiles or sufficient elevations to determine the street slopes, high point and low point. Ground water elevations must be shown on the profiles. (Ordinance 2000-40, Section 3.4.2. and 99-17, Sections 10.7.1 and 11.11.4)
- b. All drainage easements and detention basins shall be located within clearly defined easement or tracts. Should drainage from public facilities drain through or across private lands, easements shall be shown on the plans and (if not recorded by plat) draft easement grantee documents shall be submitted with the plans. (Ordinance 99-17, Section 10.7.1)
- c. Curb and gutter with sidewalks are required in all developments with lots one (1) acre or less. (Ordinance 99-17, Section 11.2.6)
- d. All wet detention and dry retention basins with greater than 4:1 side slopes shall have a 6' high FDOT Type B chain link fence around it.

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- (Ordinance 99-17, Sections 10.6.1.4 and 10.7.1)
- e. Plans shall have drainage maps with drainage sub basins marked. (Ordinance 99-17, Sections 10.6.6.3.3 and 10.7.1)
- f. The area of the detention pond water surface at normal water level must be shown on the plans. (All above, reference Ord 99-17, Sec 10.7.1)
- g. Pipe sizes, length and cover shall be shown on the construction plans. (Ordinance 99-17, Section 11.11)

9.0 Utility Plans:

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- a. All utility mains, laterals, service lines, and fittings shall be shown on the Construction plans. All pipe & fitting sizes, and pipe lengths shall be shown. (Ordinance 99-17, Section 8.5.1)
- b. All fittings, bends, valves, tees, manholes, junctions, handholes, etc. shall be located on the construction plans using station and offset callouts.
- c. Distances to all right-of way lines, boundary lines, and existing utilities shall be noted on the construction plans.

10.0 Plan and Profile Sheets:

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- a. Plans must have street profiles or sufficient elevations to determine the street slopes, high point and low point. Ground water elevations must be shown on the profiles. (Ordinance 2000-40, Section 3.4.2. and 99-17, Sections 10.7.1 and 11.11.4)
- b. Borings information to minimum depth of 6' below the proposed Profile Grade Line (PGL) Spaced no further than 500' or a minimum of 2 per proposed roadway. (Ordinance 99-17, Sections 11.5.1)
- c. Storm sewer profiles within ROW shall be shown with all utility crossings. (Ordinance 99-17, Sections 10.7.1 and 11.11)
- d. Plan and profile sheets for the storm sewers under streets or parking areas shall be provided. Water and sanitary sewer line crossings shall be shown with clearance from the storm sewer. (Ordinance 2000-40, Section 3.4.2, Sec 5.3.2 and Ordinance 99-17, Section 10.7.1)

11.0 Cross Sections:

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- a. Typical street cross section for all widths of streets conforming to County regulations with street names identified with each width. (Ordinance 99-17, standard detail 2 through 12 and Sec 10.7.1)
- b. Cross sections for work in County ROW at each Station (100' spacing min).
- c. Storm sewer within ROW shall be shown with all utility crossings.
- d. Water and sanitary sewer line crossings shall be shown with clearance from the storm sewer.

12.0 Offsite Improvements and Maintenance of Traffic Plans:

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- a. All work, materials, and equipment shall meet County standards and be performed under the supervision of the Nassau County Engineer.
- b. No open road cuts. Directional bore only will be used when crossing the roadway. A minimum of 36" cover under road shall be required.
- c. Plans must clearly show that safe and stable access is provided at all times to all residences and businesses.
- d. Lane closures or restrictions shall require approval from Nassau County prior top commencing work. Lane closures shall be performed between the hours

of 9:30 am to 3:30 pm, Monday through Friday. Weekend, night, and holiday work shall not be permitted.

e. MOT plans are required when work is planned on existing streets. MOT plans and traffic control devices shall conform to FDOT Standard Index 600 and must be included in construction plans. (Ordinance 99-17, Section 8.3)

f. All lane closures, transitions, flagging operations, signs, PCMS, barricades, and work areas must be clearly identified.

13.0 Detail Sheets:

a. Detail of all detention basin outlet structures with dimensions and elevations must agree with drainage report.

b. All side slopes must be identified.

c. Water table should be noted on basin details.

d. Curb detail or details where mountable curbs are shown. Curb start, end, and transition locations must be identified on site plans.

e. Stop sign and street sign details depicted. (Ordinance 99-17, Section 11.9)

f. Pipe bedding detail included.

g. Fence detail included.

h. Retaining wall detail included.

i. Open channel swale details provided. (Ordinance 99-17, Section 11.11.1.2)

j. Inlet and catch basin details provided. (Ordinance 99-17, Section 11.11.14)

k. Sidewalk details provided.

l. Driveway connection details provided.

m. Cross section detail of detention basin showing bottom elevation, normal water level, water table, high water level, as well as top of bank elevation and side slopes.

n. Typical pavement details for all pavement structures proposed.

14.0 Lighting Plans:

a. All projects must have a lighting plan per Nassau County Requirements.

Drainage Report:

A drainage report for the project must include the following:

a. Geotech report where applicable. (Ordinance 99-17, Section 10.6.2)

b. Computations proving that peak flow rates for 5, 10, & 25-year storm events are less for post-development conditions than pre-development conditions. (Ordinance 99-17, Section 10.6.3.a)

c. Volume sensitive sites have sufficient detention capacity to limit 25-year discharges to pre-development flow during critical period. (Ordinance 99-17, Section 10.6.1.b)

d. SGS Type II Florida Modified rainfall distribution shall be used for all computations. (Ordinance 99-17, Section 10.6.3.7)

e. Roadway storm sewer systems shall be designed for 5-year frequency so as not to have the hydraulic grade line higher than any grate elevation, however, sewers must also be designed to limit temporary street flooding to half of a traffic lane and full recovery within a reasonable time with a 25-year rain. (Ordinance 99-17, Section 10.6.4.1)

f. Parking lots and streets are designed based on 5-year storm using FDOT Zone 4 intensities, durations and frequency curves. (Ordinance 99-17, Section 10.6.4.3)

g. High water in the sewer system is determined by hydraulic grade line. (Ordinance 99-17, Sections 10.6.4.4, 10.6.4.5 and 10.7.1)

- h. Detention Computations may be accomplished using ICPR, Hec-Ras, Pond Storm Cad or other suitable computer programs. (Ordinance 99-17, Sections 10.6.3.3 and 10.7.1)
- i. Storm sewer design must be by FDOT Sewer Design or suitable program. (Ordinance 99-17, Section 10.6.4.4 and 10.7.1)
- j. Tailwater elevations shall be used in storm sewer and detention design when applicable and shall be the highest reasonably expected tailwater expected during the storm event. (Ordinance 99-17, Section 10.6.4.5)
- k. For ICPR computations, a peaking factor of 256 shall be used for pre-developed ground and a factor of 484 shall be used for developed ground. (Ordinance 99-17, Section 10.7.1)
- l. Should dry retention be proposed, a double ring infiltrometer test (1 per basin) shall be submitted to verify the K value used in the recovery analysis. Should swale treatment variance be granted, an infiltrometer test shall be performed at intervals of no less than 1000' along the centerline of each swale. (Ordinance 99-17, Sec 10.7.1)
- m. Evaluate downstream structures for sizing a minimum of 1 mile from the project.
- n. Provide pipe sizing calculations with flow rates and easement sizing calculations. (Ordinance 99-17, Section 10.6.7.2)
- o. Calculations shall be bound. Calculations shall be signed, sealed, and dated by an engineer. (Ordinance 99-17, Section 10.4.1)

Traffic Study:

- a. A traffic study detailing ADT's and peak hour vehicle trips. When ADT's exceed the ordinance requirements, left and right turn lanes or acceleration or deceleration lanes may be added. (Ordinance 99-17, Section 9.8)

Note:

The above review items represent the major review design items of the Department. It is intended to be as comprehensive as practicable. Due to the unique nature of all projects additional items must be addressed occasionally. Please be advised that due to this fact the checklist is updated on occasion and it is the responsibility of the applicant to have the latest checklist.

I, _____ certify that I have completed this checklist and all required items are included in this application. I understand that if any item is checked "no" or "N/A" and it is, in fact, a requirement of an Ordinance these plans are subject to rejection upon receipt and a re-application may be necessary.

I also understand that this checklist is not intended to be all inclusive and may change from time to time. Apparent compliance with the Code requirements by virtue of approval of these plans shall not in any way enjoin Nassau County for the responsibility of their content. Plan reviews by the Department which generate excessive comments may deem the plans to be incomplete by the Department and the plans will be returned without further review. Notification that the applicant must submit a new application and any applicable fees required will be sent to the applicant and the developer upon such occurrence.

Applicant Signature

Date