CITY OF PALM COAST

FINAL LOT GRADING & DRAINAGE CERTIFICATION

- This Final Lot Grading & Drainage Certification Form is to be used in conjunction with building permits issued for one- and two-family dwellings only.
- This Certification Form to be completed by a Florida licensed professional engineer only.
- This Certification Form consists of three parts 1.) A checklist which is part of this Form with each item to be initialed by the professional engineer affirming the Final Lot Grading & Drainage complies with the standard referenced; 2.) A blank page (supplied as necessary) to be completed by the professional engineer noting and describing any discrepancies between the City approved Lot Grading & Drainage Plan and the Final Lot Grading & Drainage Certification along with commentary and engineering design, if necessary, and; 3.) The Final Lot Grading & Drainage Plan that graphically documents and illustrates the "as-built" lot grading and drainage conditions at completion of the home, **after all site improvements and landscaping including installation of sod is completed.**
- This Certification Form shall be completed in its entirety and shall not be altered or revised in any manner.
- Incomplete, altered and / or revised forms will not be accepted by the City.

Date:_____ Address:_____

Permit No._____ Lot:_____ Block: _____

- I, (print name) _____, a Florida licensed professional engineer, certify construction of all stormwater, lot grading and drainage facilities are complete **including all site improvements and landscaping including installation of sod** and hereby submit this Final Lot Grading & Drainage Certification.

Please respond to each of the following statements below by initialing the appropriate response. For each statement initialed with a "No". attach an explanation detailing the discrepancy, change or deviation that occurred and its effect, if any, on the intended performance of the stormwater grading and drainage design for this lot. If the discrepancy, change or deviation has no effect, then provide a statement indicating "no effect" or similar language. If the discrepancy, change or deviation affects the original design and or any adjacent property, provide a detailed explanation of the discrepancy, change or deviation that occurred and include details of the engineering design solutions installed or constructed to eliminate its effect on the adjacent property. Provide a statement indicating any work performed was inspected by the professional engineer and installed or constructed in conformance with the professional engineer's design.

1. This certification is accompanied by an As-Built Final Lot Grading & Drainage Plan dated _____ (date must be within 30 days of the date of this certification). Yes_____ No_____

2. The As-Built Final Lot Grading & Drainage Plan was prepared after installation of landscaping including sod. Yes_____ No_____

3. The final lot grading and drainage for this lot was completed in substantial conformance with the City approved Site Plan. *Note: if the response to this statement is "No", provide a detailed response describing the discrepancy, change or deviation and provide a supporting engineering design as necessary. Cloud or otherwise graphically identify the area where the discrepancy, change or deviation occurred on the Final Lot Grading & Drainage Plan.* Yes_____ No_____

The As-Built Final Lot Grading & Drainage Plan complies with the following:

4. On-site, third order, easily identifiable benchmark referenced to the 1988 NAVD (e.g. fire hydrant, nail in power pole) is shown. *Note: pavement nails may be accepted if preferred locations are not available on site*. Yes_____ No_____

5. FFE for house shown and within 0.20 feet of the FFE shown on the City approved Grading & Drainage Plan. Yes_____ No_____

6. FFE for garage shown and within 0.20 feet of the FFE shown on the City approved Grading & Drainage Plan. Yes_____ No_____

7. FFE of garage floor shown and not less than 4 inches (0.333 ft.) lower than FFE of house. Yes_____ No_____

8. Garage floor slope shown and provided with positive slope towards vehicle entrance. Yes_____ No_____

9. FFE of all exterior attached concrete slabs (e.g. porches, patios, lanai's, exterior door landings, sidewalks [those located within 10 feet of the foundation] and similar) shown and are not less than 4 inches (0.333 ft.) lower than the FFE of the house. *Unattached pads solely for the purpose of supporting AC, LPG and pool equipment are exempt.* Yes_____ No_____

10. All exterior attached or unattached concrete slabs and other impervious surfaces directly adjacent and /or within 10 feet of the foundation slopes shown and are sloped 2% minimum. *Note: Unattached pads solely for the purpose of supporting AC, LPG and pool equipment are exempt.* Yes_____ No_____

11. Finished grade elevations (at each corner and at 20-foot intervals are shown along each side of house) directly adjacent to building envelope and are 4 inches (0.333 ft.) lower than FFE of house _____ [block] or 6 inches (0.5 ft.) lower than house FFE _____ [wood frame]. Yes_____ No_____

12. Finished grade slopes (at each corner and at 20-foot intervals along each side of house) are shown and are a minimum of 5% in first 10 feet perpendicular to foundation. *Note: Where lot lines, walls, slopes or other physical barriers prohibit 6 inches of fall within 10 feet, drains or swales shall be constructed to ensure drainage away from the structure. Swales, drains and other conveyances must be shown on the Final Lot Grading & Drainage Plan and any physical conveyance structures must be designed by the professional engineer completing this Final Lot Grading & Drainage Certification and documented on a separate sheet.* Yes_____ No_____

13. FFE of houses on adjacent lots (left and right side) are shown and are within 0.20 feet of the FFE shown on the City approved Grading & Drainage Plan. *Note: If adjacent lots are vacant, then FFE of nearest lots are shown.* Yes_____ No_____

14. FFE of house is a minimum of 12 inches (1.0 feet) higher than crown of road. Yes_____ No_____

15. FFE of house is not more than 10 inches (0.833 ft.) higher or lower than the lowest adjacent (left or right) house FFE. Yes_____ No_____

16. Finished grade elevations provided on a 20-foot grid inside property lines. *Note: Grid must provide sufficient grade shots to establish the drainage pattern and direction of flows – additional grade elevation shots may be required at the discretion of the City.* Yes_____ No_____

17. Finished grade elevation high points are clearly noted. Yes_____ No_____

18. Finished grade elevations provided at 20-foot intervals on adjacent lots at 10 foot off-sets from the common side property lines. Yes_____ No_____

19. All hard surface elevations are expressed to the nearest 0.01 ft. Yes_____ No_____

20. All ground surface elevations are expressed to the nearest 0.1 ft. Yes_____ No_____

21. Finished grade elevations of the front property line match the edge of pavement elevations. Yes_____ No_____

22. The road centerline and edge of pavement elevations for all roadways adjacent to all property lines are shown at the 9, 12 and 3 o'clock positions. Yes_____ No_____

23. The lot has a minimum of 0.50 feet of fall in the drainage patterns from the rear property line to front yard swale. Yes_____ No_____

24. The Final Lot Grading & Drainage Plan is provided with stormwater / drainage flow / directional indicators at sufficient intervals to indicate actual flow of drainage including drainage away from / perpendicular to structure on all sides, drainage from structure to rear yard swale, drainage from rear property line and / or rear yard berm towards rear yard swale, side yard berms toward rear and side yard swales, drainage along the side yards, drainage from front yard and indicating all drainage reaches its intended outfall – the front yard swale for A drainage lots and rear yard outfall for B drainage lots. Yes_____ No_____

25. There are no slopes anywhere on the lot that exceed 4:1. Yes_____ No_____

26. All slopes that adjoin adjacent developed lots do not exceed 4:1 or are provided with a common swale or match existing grades. Yes_____ No_____

27. All slopes that adjoin adjacent undeveloped lots do not exceed 2:1 or are provided with a common swale or match existing grades. Yes_____ No_____

28. The elevation of the top of slope of all swales along property lines are a minimum of 0.30 feet higher than the toe of the slope. Yes_____ No_____

29. Inverts of driveway culvert pipes of adjacent (left and right) properties and any other drainage features within 100 feet of the property lines. Yes_____ No_____

30. Driveway widths at the property line is shown (minimum 10 feet) and at edge of pavement (minimum 16 feet) is shown. Yes_____ No_____

31. The distance from the edge of the driveway flare at the edge of pavement to the centerline of an intersection where the driveway is on the same side of the road street as the stop sign is a minimum of 65 feet and is shown. Yes_____ No_____

32. No structures including flatwork (e.g. patios, sidewalks, slabs, equipment pads encroach into any utility, drainage or any other easement. Yes_____ No_____

33. No structures on the lot interfere with the performance of the lot grading and drainage. Yes_____ No_____

34. The tolerance of the final swale elevations, compared to the City approved Swale Plan is within plus or minus 0.10 feet. Yes_____ No_____

35. The swale and culvert have positive slope in the direction of intended flow as indicated on the City approved Swale Plan. Yes_____ No_____

36. The driveway culvert pipe is set within the range established by the City approved Swale Plan and is not sloped against the intended direction of drainage flow and is not sloped more than 0.10 feet in the direction of drainage flow. Yes_____ No_____

Engineering Certification

Check One (1)

☐ At the time of the inspection by the undersigned professional engineer below, the finished grade elevations and slopes, drainage flows and patterns and completed final lot grading on this lot is in substantial conformance with the stormwater grading and drainage design shown on the City approved Grading & Drainage Plan for this lot. It is my professional judgement, as completed at the time of inspection, the grading and drainage of this lot will function as intended in the approved Grading & Drainage Plan for this lot and will have no adverse effect on adjacent lots.

☐ At the time of inspection by the undersigned professional engineer below, the finished grade elevations and slopes, drainage flows and patterns and completed final lot grading on this lot is in general conformance with the stormwater grading and drainage design shown on the City approved Grading & Drainage Plan for this lot with the exceptions noted. It is my professional judgement, as completed at the time of inspection, the grading and drainage of this lot including the exceptions noted, will function as intended in the approved Grading & Drainage Plan for this lot and will have no adverse effect on adjacent lots.

The engineering services addressed herein, as defined in Section 471.005(7), F.S., have been performed by the undersigned professional engineer below, and based upon the professional engineer's knowledge, information and belief, and in accordance with the commonly accepted procedures consistent with the applicable standards of practice, and is not a guaranty or warranty, either expressed or implied.

Name (print):_____

Email:_____

Phone:_____

Company:_____

Address:_____