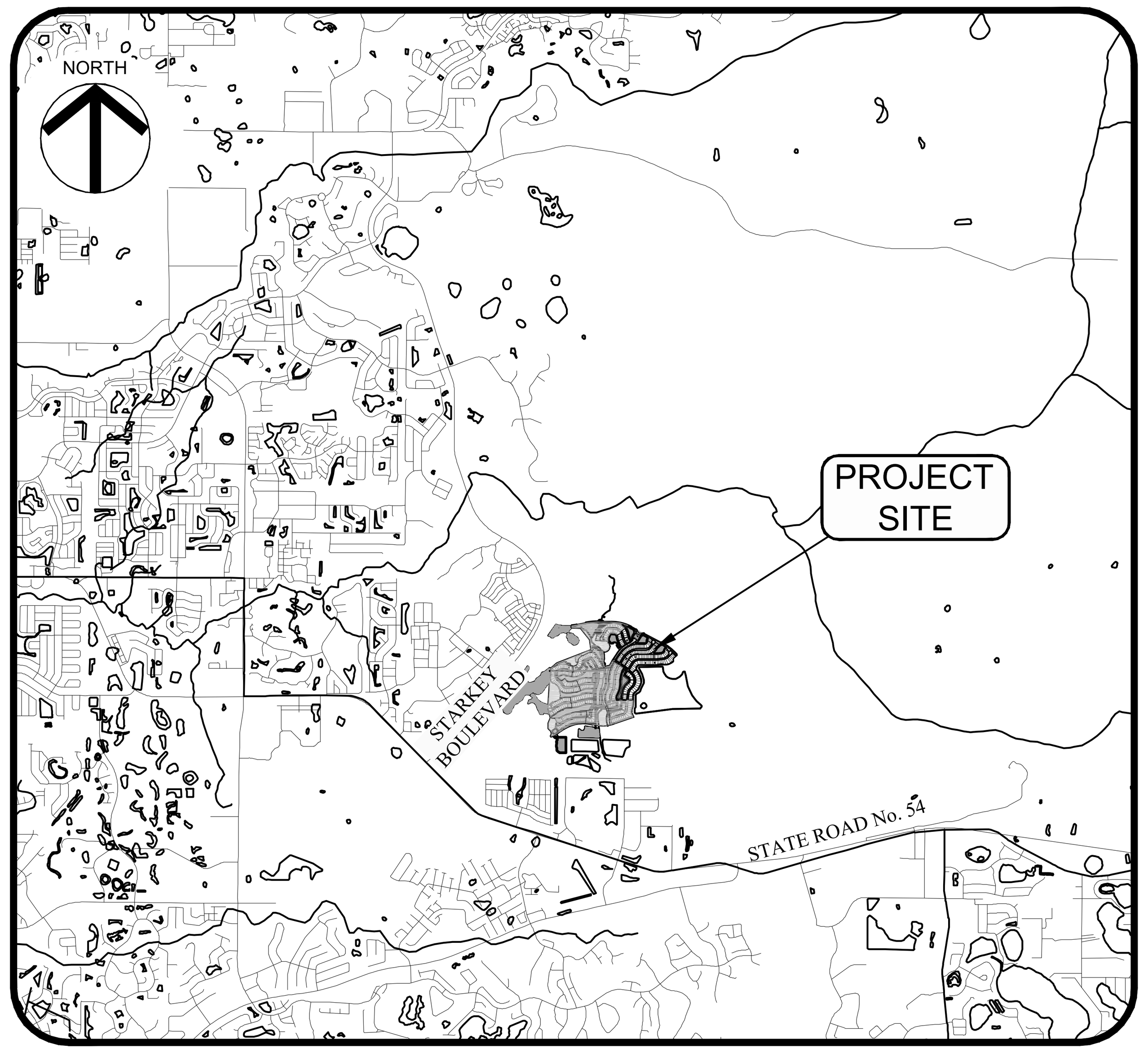
CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

PART OF SECTION(S) 19&20, TOWNSHIP 26 SOUTH, RANGE 17 EAST
PASCO COUNTY, FLORIDA



PROJECT LOCATION MAP

NO SCALE

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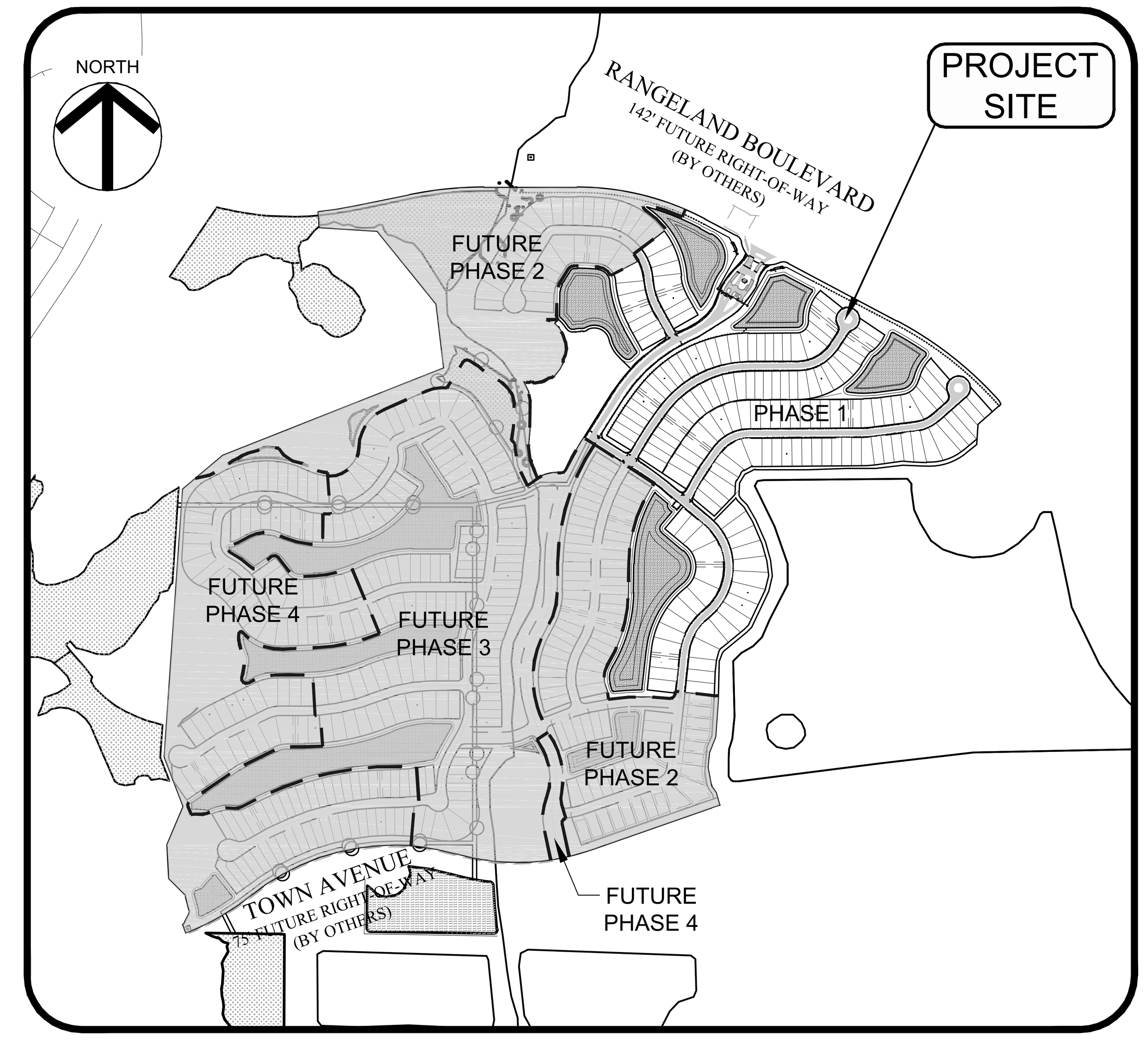

PROJECT SITE MAP

NO SCALE

SITE DATA TABLE

PROJECT LOCATION	PASCO COUNTY, FL
SECTION / TOWNSHIP / RANGE	19 & 20 / T26S / R17E
TOTAL PROJECT AREA	225.263 Ac.
PRESENT ZONING	MPUD
FUTURE LAND USE DESIGNATION	PD
FOLIO #	20-26-17-0000-00300-0000 20-26-17-0000-00100-0010
FLOOD ZONE	"A" "AE" FIRM PANEL #12101C0360F "A" "X" FIRM PANEL #12101C0380F
PETITION NUMBER	RZ-7027 BCC APPROVED 09/11/12

VERTICAL DATUM INFORMATION

THE VERTICAL DATUM UTILIZED FOR THIS PROJECT IS NAVD 1988, U.S. SURVEY FEET. THE BENCHMARK UTILIZED WAS FOUND CONCRETE MONUMENT WITH BRASS DISK STAMPED Q 668 2006, ELEVATION 35.64 (NAVD 88).

PRELIMINARY DEVELOPMENT PLAN DATE OF APPROVAL __________________ .

STORMWATER MANAGEMENT PLAN AND REPORT DATE OF APPROVAL __________________ .

PROPERTY DESCRIPTION

(PROVIDED BY GEOPOINT SURVEYING, INC.)

DESCRIPTION: A parcel of land lying in Sections 19 and 20, Township 26 South, Range 17 East, Pasco County, Florida, and being more particularly described as follows:

COMMENCE at the Southeast corner of said Section 20, run thence along the South boundary of said Section 20, N.89°06'30"W., 2645.16 feet to the South 1/4 corner of said Section 20; thence along the East boundary of the Southwest 1/4 of said Section 20, N.00°21'24"E., 721.44 feet to the POINT OF BEGINNING; thence S.70°46'23"W., a distance of 671.35 feet; thence Westerly, 715.46 feet along the arc of a tangent curve to the right having a radius of 1162.00 feet and a central angle of 35°16'41" (chord bearing S.88°24'43"W., 704.21 feet); thence Westerly, 1044.65 feet along the arc of a reverse curve to the left having a radius of 1188.00 feet and a central angle of 50°22'56" (chord bearing S.80°51'36"W., 1011.32 feet); thence Southwesterly, 83.69 feet along the arc of a compound curve to the left having a radius of 1000.00 feet and a central angle of 04°47'42" (chord bearing S.53°16'16"W., 83.67 feet); thence Southwesterly, 83.69 feet along the arc of a reverse curve to the right having a radius of 1000.00 feet and a central angle of 04°47'42" (chord bearing S.53°16'16"W., 83.67 feet); thence S.55°40'08"W., a distance of 44.50 feet; thence Southwesterly, 278.24 feet along the arc of a tangent curve to the right having a radius of 1169.00 feet and a central angle of 13°38'14" (chord bearing S.62°29'15"W., 277.58 feet); thence N.20°41'37"W., a distance of 47.04 feet; thence Northeasterly, 15.30 feet along the arc of a non-tangent curve to the left having a radius of 25.00 feet and a central angle of 35°04'00" (chord bearing N.42°32'55"E., 15.06 feet); thence N.25°00'56"E., a distance of 50.47 feet; thence Northerly, 17.03 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 39°01'15" (chord bearing N.05°30'18"E., 16.70 feet); thence N.14°00'19"W., a distance of 75.65 feet; thence Northwesterly, 13.90 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 31°51'53" (chord bearing N.29°56'16"W., 13.73 feet); thence N.45°52'13"W., a distance of 34.89 feet; thence N.43°57'03"W., a distance of 79.70 feet; thence N.03°15'56"W., a distance of 177.24 feet; thence N.22°52'48"E., a distance of 216.66 feet; thence N.21°00'43"W., a distance of 278.64 feet; thence N.03°56'16"E., a distance of 1406.43 feet; thence N.50°08'34"E., a distance of 275.85 feet; thence N.68°20'54"E., a distance of 1244.48 feet; thence N.06°47'26"W., a distance of 336.05 feet; thence N.38°50'00"W., a distance of 491.29 feet; thence N.86°37'16"W., a distance of 303.13 feet; thence N.04°57'33"W., a distance of 84.06 feet; thence Easterly, 185.81 feet along the arc of a non-tangent curve to the left having a radius of 1571.00 feet and a central angle of 06°46'36" (chord bearing N.81°39'09"E., 185.70 feet); thence N.78°15'51"E., a distance of 297.67 feet; thence Easterly, 395.11 feet along the arc of a tangent curve to the right having a radius of 1929.00 feet and a central angle of 11°44'09" (chord bearing N.84°07'56"E., 394.42 feet); thence N.90°00'00"E., a distance of 489.02 feet; thence Easterly, 697.13 feet along the arc of a tangent curve to the right having a radius of 1429.00 feet and a central angle of 27°57'05" (chord bearing S.76°01'27"E., 690.24 feet); thence S.62°02'55"E., a distance of 186.45 feet; thence Southeasterly, 45.07 feet along the arc of a tangent curve to the right having a radius of 50.00 feet and a central angle of 51°38'47" (chord bearing S.36°13'31"E., 43.56 feet); thence Southeasterly, 261.41 feet along the arc of a reverse curve to the left having a radius of 145.00 feet and a central angle of 103°17'34" (chord bearing S.62°02'55"E., 227.42 feet); thence Easterly, 45.07 feet along the arc of a reverse curve to the right having a radius of 50.00 feet and a central angle of 51°38'47" (chord bearing S.87°52'19"E., 43.56 feet); thence S.62°02'55"E., a distance of 647.71 feet; thence Southeasterly, 677.02 feet along the arc of a tangent curve to the right having a radius of 1929.00 feet and a central angle of 20°06'33" (chord bearing S.51°59'39"E., 673.55 feet); thence Southeasterly, 26.01 feet along the arc of a compound curve to the right having a radius of 50.00 feet and a central angle of 29°48'20" (chord bearing S.27°02'12"E., 25.72 feet); thence S.48°48'04"W., a distance of 156.35 feet; thence S.04°27'00"W., a distance of 106.06 feet; thence S.50°39'54"W., a distance of 74.30 feet; thence Westerly, 221.22 feet along the arc of a tangent curve to the right having a radius of 300.00 feet and a central angle of 42°14'58" (chord bearing S.71°47'23"W., 216.24 feet); thence N.87°05'08"W., a distance of 121.50 feet; thence S.87°47'28"W., a distance of 4.46 feet; thence S.82°40'04"W., a distance of 139.49 feet; thence S.89°58'44"W., a distance of 149.19 feet; thence S.88°32'22"W., a distance of 206.70 feet; thence N.89°59'57"W., a distance of 277.69 feet; thence Westerly, 12.14 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 27°48'51" (chord bearing S.76°05'37"W., 12.02 feet); thence S.62°11'12"W., a distance of 40.95 feet; thence Southwesterly, 13.94 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 31°57'04" (chord bearing S.46°12'40"W., 13.76 feet); thence S.30°14'08"W., a distance of 41.17 feet; thence Southerly, 11.92 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 27°18'59" (chord bearing S.16°34'39"W., 11.81 feet); thence S.02°55'09"W., a distance of 51.85 feet; thence Southerly, 21.20 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 48°34'54" (chord bearing S.21°22'18"E., 20.57 feet); thence S.45°39'44"E., a distance of 49.83 feet; thence S.30°16'14"E., a distance of 90.42 feet; thence S.23°35'54"E., a distance of 129.99 feet; thence S.15°34'05"E., a distance of 97.17 feet; thence S.06°15'47"E., a distance of 82.06 feet; thence S.12°44'45"W., a distance of 82.98 feet; thence S.25°40'27"W., a distance of 209.81 feet; thence S.45°47'07"W., a distance of 36.09 feet; thence S.50°15'43"W., a distance of 155.18 feet; thence Southwesterly, 12.12 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 27°46'53" (chord bearing S.36°22'16"W., 12.00 feet); thence S.22°28'50"W., a distance of 41.96 feet; thence Southerly, 9.22 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 21°07'16" (chord bearing S.11°55'12"W., 9.16 feet); thence S.01°21'33"W., a distance of 190.04 feet; thence S.03°34'26"W., a distance of 202.52 feet; thence S.23°02'46"W., a distance of 83.41 feet; thence Southerly, 7.45 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 17°04'11" (chord bearing S.14°30'40"W., 7.42 feet); thence S.05°58'34"W., a distance of 71.97 feet; thence Southerly, 7.24 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 16°35'07" (chord bearing S.02°18'59"E., 7.21 feet); thence S.10°36'32"E., a distance of 88.19 feet; thence Southeasterly, 10.51 feet along the arc of a tangent curve to the left having a radius of 25.00 feet and a central angle of 24°04'53" (chord bearing S.22°38'59"E., 10.43 feet); thence S.34°41'26"E., a distance of 39.31 feet; thence S.16°35'18"E., a distance of 69.04 feet; thence Westerly, 46.06 feet along the arc of a non-tangent curve to the left having a radius of 1000.00 feet and a central angle of 02°38'21" (chord bearing S.72°05'33"W., 46.06 feet) to the POINT OF BEGINNING.

Containing 225.263 acres, more or less.

NOTE:
DRAINAGE PLAN IS BASED ON THE PROPOSED DEVELOPMENT DESIGN OF THE ABUTTING PROPERTY TO THE NORTH. RANGELAND BOULEVARD IS CURRENTLY UNDER REVIEW AT PASCO COUNTY (03/09/2015)

CONSTRUCTION PLANS HAVE DEVIATED FROM THE PRELIMINARY DEVELOPMENT PLANS
BY REUSING THE TYPE 1B ROADWAY (MANDEVILLA DR) TO MATCH THE REVISED STARKEY RANCH MPUD APPROVED 12/18/2014

DEVELOPED BY:

TAYLOR MORRISON OF FLORIDA, INC.

551 NORTH CATTLEMEN ROAD, SUITE 200
SARASOTA, FLORIDA 34232
PHONE: (941) 371-3008 FAX: (941) 371-7998

WALDROP ENGINEERING
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTANTS
9432 CAMDEN FIELD PARKWAY RIVERVIEW, FL 33578
P: 813-443-8282 F: 813-443-8285 EMAIL: info@waldropengineering.com

CONSTRUCTION PLANS
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
COVER SHEET

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XX/XX/XX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 1

U:\186-119 Starkey Ranch\Drawings-Exhibits\186-119-04 Construction Plans\CURRENT PLANS\PHASE I\1861190401.dwg
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WATER, SANITARY SEWER AND RECLAIMED WATER CONSTRUCTION NOTES

1.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN FROM THE ENGINEER OR OWNER A COPY OF ALL PERTINENT PERMITS RELATED TO THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL CONSTRUCTION ACTIVITIES ARE IN COMPLIANCE WITH THE CONDITIONS OF ALL PERMITS AND APPROVALS.

2.) GRASS AND MULCH, OR SOLID SOD, ALL AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION.

3.) IN ACCORDANCE WITH THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT (CHAPTER 556, F.S.) THE CONTRACTOR SHALL CALL THE SUNSHINE STATE ONE CALL OF FLORIDA (SSCOF) AT 1-800-432-4770 FORTY EIGHT (48) HOURS IN ADVANCE OF ANY EXCAVATION.

4.) ALL UTILITY MATERIALS AND WORKMANSHIP MUST COMPLY WITH STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER, WASTEWATER AND RECLAIMED WATER FACILITIES SPECS., 2006 EDITION.

5.) CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL ROAD CROSSING OR UTILITY PERMITS.

6.) THE FIELD-SURVEYED OR REPORTED LOCATIONS OF ALL EXISTING UNDERGROUND AND ABOVE-GROUND UTILITIES KNOWN TO EXIST AT THE TIME OF PLANS PRODUCTION HAVE BEEN DEPICTED HEREON, HOWEVER CONFLICTS BETWEEN EXISTING AND PROPOSED UTILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IMMEDIATELY.

7.) CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF EXISTING WATER AND SEWER LINES PRIOR TO BEGINNING CONSTRUCTION.

8.) THE LOCATIONS AND ELEVATION OF ALL SERVICE LINES ARE TO BE DETERMINED IN THE FIELD BY OWNER AND/OR CONTRACTOR PRIOR TO CONSTRUCTION OF SAME.

9.) FIRE HYDRANT, GATE VALVE AND BLOW-OFF VALVE ASSEMBLIES SHALL CONSIST OF ALL PIPE, VALVES, TEES, FITTINGS, AND ANY AND ALL OTHER APPURTENANCES COMPRISING A COMPLETE, WORKING UNIT.

10.) ALL FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED BASED ON FLOW RESULTS IN ACCORDANCE WITH PASCO COUNTY SPECIFICATIONS.

11.) ALL DUCTILE IRON (DIP) POTABLE WATER MAIN PIPING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND MANUFACTURED TO ANSI/AWWA C151/A21.51, AND SUPPLIED WITH RUBBER GASKET PUSH-ON JOINTS IN ACCORDANCE WITH ANSI/AWWA C111/A21.11. PIPE SHALL BE SUPPLIED WITH MINIMUM PRESSURE CLASS 350.

12.) ALL PVC WATER MAIN PIPE SHALL CONFORM TO THE REQUIREMENTS FOUND IN AWWA STANDARD, LATEST EDITION AT THE TIME OF PLAN APPROVAL AND BE AS FOLLOWS: WATER MAINS SMALLER THAN 2" IN DIAMETER SHALL BE CLASS 1120 OR 1220, SCHEDULE 80 AND MEET THE REQUIREMENTS OF ASTM D-1785; SERVICE PIPE LESS THAN 4" IN DIAMETER SHALL BE PVC PRESSURE PIPE, PRESSURE RATE 200, DR 21 PER ASTM STANDARD D-2241; 4"-12" SHALL BE AWWA C-900 CLASS 150 DR 18 PVC; 14"-24" SHALL BE AWWA C-905 CLASS 165 DR 25 PVC.

13.) ALL WATER MAIN PIPE AND FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, FLORIDA ADMINISTRATIVE CODES, USING BLUE AS THE PREDOMINANT COLOR.

14.) REUSE WATER MAINS, VALVES, AND SERVICES SHALL INCLUDE THE FOLLOWING TO AVOID CONFUSION WITH POTABLE SYSTEM:
a. ALL PVC REUSE PIPING SHALL BE PURPLE PIGMENTED OR MARKED.
b. ALL PVC REUSE PIPE SHALL CONFORM TO THE REQUIREMENTS FOUND IN AWWA STANDARD, LATEST EDITION AT THE TIME OF PLAN APPROVAL AND BE AS FOLLOWS: 2" SHALL BE SDR 21 PVC; 4"-12" SHALL BE AWWA C-900 CLASS 150 DR 18 PVC; 16"-24" SHALL BE AWWA C-905 CLASS 165 DR 25 PVC.
c. ALL DUCTILE IRON (DIP) REUSE PIPING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND MANUFACTURED TO ANSI/AWWA C151/A21.51, AND SUPPLIED WITH RUBBER GASKET PUSH-ON JOINTS IN ACCORDANCE WITH ANSI/AWWA C111/A21.11. PIPE SHALL BE SUPPLIED WITH MINIMUM PRESSURE CLASS 250.
d. SQUARE TOP VALVE BOXES FOR ISOLATION VALVES IN SYSTEM, WITH COVERS MARKED "EFFLUENT."
e. PURPLE STRIPE ON CURB TO IDENTIFY REUSE WATER SERVICES.
f. ONE INCH SERVICES FOR REUSE WATER SERVICES.
g. PURPLE MAGNETIC LOCATING TAPE, STATING "REUSE MAIN BURIED BELOW" OVER ALL REUSE WATER MAINS (18 INCHES BELOW GRADE).
h. RECLAIMED WATER SERVICE ON OPPOSITE LOT LINE FROM POTABLE SERVICE.

15.) ALL ASPECTS OF REUSE WATER SYSTEM MUST COMPLY WITH CHAPTER 62-610, F.A.C., LATEST EDITION.

16.) ALL 8" SANITARY SEWER PIPE SHALL BE CONSTRUCTED AT A 0.40% MINIMUM SLOPE UNLESS OTHERWISE NOTED.

17.) SANITARY SEWER MAINS WITH INVERT ELEVATIONS FROM 0-18 FEET BELOW FINISHED GRADE SHALL BE CONSTRUCTED OF SDR-26 PVC PIPE. SANITARY SEWER MAINS WITH INVERT ELEVATIONS GREATER THAN 18 FEET BELOW FINISHED GRADE SHALL BE CONSTRUCTED OF C-900 DR 18 PVC PIPE.

18.) FORCE MAINS SHALL BE CONSTRUCTED OF C-900 DR 18 PVC PIGMENTED GREEN.

19.) ADJUSTING MANHOLE TOPS TO MATCH GRADE AND SLOPE OF THE FINISH PAVING SHALL BE INCLUDED IN THE RESPECTIVE CONTRACT UNIT PRICE FOR MANHOLES, PAYMENT OF WHICH WILL CONSTITUTE FULL COMPENSATION FOR THE CONSTRUCTION AND COMPLETION OF THE MANHOLE, AND NO ADDITIONAL PAYMENT WILL BE ALLOWED OR MADE FOR ADJUSTING MANHOLE TOPS.

20.) BENDS SHALL BE INSTALLED IN FORCE MAIN, WATER MAIN OR REUSE MAIN TO AVOID UNFORESEEN CONFLICTS IN EXISTING OR PROPOSED STRUCTURES.

21.) THE JOINT DEFLECTION METHOD SHALL BE USED WHERE PRACTICAL IN LIEU OF INSTALLING BENDS.

22.) ALL VALVE BOX ASSEMBLIES LOCATED WITHIN ROADWAYS OR PARKING AREAS SHALL BE PROTECTED FROM TRUCK TRAFFIC BY USE OF 6" THICK REINFORCED CONCRETE PADS POURED AROUND VALVE BOXES (SEE DETAIL).

23.) CONNECTIONS INTO EXISTING COUNTY-OWNED SYSTEMS SHALL BE VIA WET TAP. WET TAPS SHALL BE PERFORMED BY THE PASCO COUNTY UTILITIES SERVICES BRANCH AT THE DEVELOPER'S EXPENSE. MATERIAL FOR WET TAPS LARGER THAN 2" SHALL BE PROVIDED AND INSTALLED BY THE PROJECT CONTRACTOR. EXCAVATION, BACKFILL AND SURFACE RESTORATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

24.) GATE VALVES INSTALLED FOR PHASING SHALL BE RESTRAINED PER CURRENT PASCO COUNTY STANDARDS.

25.) OFF-ROAD UTILITY EASEMENTS SHALL BE "STABILIZED" FOR ACCESS BY MAINTENANCE VEHICLES.

26.) STUB-OUT LINES ON THE WATER MAIN, FORCE MAIN, AND REUSE MAIN SHALL HAVE RESTRAINED JOINTS FROM THE MAIN LINE TO THE STUB-OUT.

27.) ALL PVC PRESSURE PIPE SHALL HAVE A MINIMUM 36" COVER.

28.) MAINTAIN 5' MINIMUM HORIZONTAL SEPARATION BETWEEN REUSE MAINS AND WATER MAINS OR FORCE MAINS.

29.) ALL WATER MAINS SHALL BE DEFLECTED VERTICALLY WHERE CROSSING STORM SEWER PIPE TO OBTAIN A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE STORM SEWER. JOINTS SHALL BE LOCATED SUCH THAT THE DISTANCE FROM THE STORM SEWER AND WATER MAIN JOINT IS AS FAR AS PRACTICAL.

30.) WATER MAINS SHOULD BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED STORM SEWER.

31.) AT NO TIME SHOULD VERTICAL CLEARANCE BETWEEN FORCE MAIN OR GRAVITY SEWER AND WATER MAIN BE LESS THAN 18" AT CROSSING OF SAME.

32.) AT NO TIME SHOULD HORIZONTAL CLEARANCE BETWEEN FORCE MAIN OR GRAVITY SEWER AND WATER MAIN BE LESS THAN 10' WHEN SAME ARE PARALLELING EACH OTHER.

33.) SANITARY SEWERS, FORCE AND REUSE MAINS AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS. SANITARY SEWERS, FORCE AND REUSE MAINS AND STORM SEWERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.

34.) WHEN SANITARY SEWERS, FORCE AND REUSE MAINS AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS IF IT IS NOT AVAILABLE IN THE SIZE PROPOSED.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE LEAK FREE AND MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT THE CROSSING.

35.) WHERE THERE IS NO ALTERNATIVE TO SEWER AND REUSE PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES AND 10 FEET BETWEEN JOINTS SHALL BE REQUIRED.

36.) ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER AND REUSE PIPES JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).

37.) WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.

38.) A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED IN PARALLEL INSTALLATIONS BETWEEN ANY TYPE OF SEWER (INCLUDING DRAINAGE INLETS) AND WATER MAIN WHENEVER POSSIBLE. A MINIMUM 5-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED IN PARALLEL INSTALLATION BETWEEN REUSE WATER MAINS AND WATER MAINS, AND BETWEEN REUSE WATER MAINS AND SANITARY SEWERS WHENEVER POSSIBLE.

39.) IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION BETWEEN ANY TYPE OF PARALLEL SEWER AND WATER MAIN, OR A 5-FOOT SEPARATION BETWEEN REUSE MAIN AND WATER MAIN, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER, REUSE MAIN, OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.

40.) WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES OR A HORIZONTAL DISTANCE OF 10 FEET IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER, REUSE MAIN OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (IF AVAILABLE IN THE SIZE PROPOSED) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD BE ABOVE THE SEWER, REUSE MAIN, OR FORCE MAIN. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER, REUSE MAIN, OR FORCE MAIN (STAGGERED JOINTS).

41.) ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT." THE CONTRACTOR SHALL ENSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

42.) THE PASCO COUNTY UTILITIES SERVICES BRANCH SHALL NOT OWN OR MAINTAIN WATER AND SEWER LINES OR FACILITIES ON-SITE.

43.) SANITARY SEWER MANHOLES CONSTRUCTED IN UNPAVED AREAS SHALL BE STABILIZED WITH 6" THICK COMPACTED LIMEROCK (LBR 100) FOR A TEN FOOT RADIUS.

44.) THE CONTRACTOR SHALL INSTALL MECHANICAL PLUGS IN THE GRAVITY SEWER SYSTEM AT THE LOCATIONS INDICATED ON THE CONSTRUCTION PLANS. THE SANITARY SEWER PLUGS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION BY THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL THE SYSTEM HAS BEEN CLEANED, INSPECTED AND APPROVED BY THE UTILITIES SERVICES BRANCH. WHEN THE SYSTEM HAS BEEN APPROVED THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF THE PLUGS.

45.) GROUNDWATER PROTECTION: NO WELLHEADS WILL BE LOCATED ON SITE. NO WELLHEADS ARE LOCATED WITHIN 100 FT. OF SITE.

46.) THE UTILITIES SERVICES BRANCH SHALL NOT OWN OR MAINTAIN ONSITE WATERLINES, SEWER LINES, OR FACILITIES.

47.) ALL UTILITY SYSTEM-DESIGN MATERIALS AND WORKMANSHIP SHALL COMPLY WITH STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER, WASTEWATER, AND RECLAIMED WATER FACILITIES SPECIFICATIONS.

SAFETY NOTES

1.) DURING THE CONSTRUCTION AND MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL.

2.) LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.

3.) CONTRACTOR SHALL PROVIDE AND MAINTAIN ITS OWN SAFETY EQUIPMENT IN ACCORDANCE WITH ITS HEALTH & SAFETY PROGRAM AND ALL OTHER APPLICABLE LEGAL AND HEALTH AND SAFETY REQUIREMENTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROVIDING ITS EMPLOYEES AND SUBCONTRACTORS WITH ADEQUATE INFORMATION AND TRAINING TO ENSURE THAT ALL EMPLOYEES AND SUBCONTRACTORS AND SUBCONTRACTORS' EMPLOYEES COMPLY WITH ALL APPLICABLE REQUIREMENTS. CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH ALL OCCUPATION SAFETY AND HEALTH REGULATIONS AS WELL AS THE ENVIRONMENTAL PROTECTION LAWS. THE FOLLOWING IS NOT TO BE PERCEIVED AS THE ENTIRE SAFETY PROGRAM BUT JUST BASIC REQUIREMENTS.

4.) ALL EXCAVATIONS BY THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF THE DEPARTMENT OF LABOR'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS. PARTICULAR ATTENTION MUST BE PAID TO THE CONSTRUCTION STANDARDS FOR EXCAVATIONS, 29 CFR PART 1926, SUBPART P.

5.) THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKMEN FROM HAZARDS WITHIN THE PROJECT LIMITS.

6.) ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

7.) IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

8.) THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE UTILITY COMPANIES PRIOR TO CONSTRUCTION TO OBTAIN FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES. CALL SUNSHINE-ONE (1-800-432-4770) TO ARRANGE FIELD LOCATIONS.

9.) THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR CALLED FOR IN THIS CONTRACT.

10.) ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND TESTED OR INSPECTED PRIOR TO BASE AND PAVEMENT CONSTRUCTION.

SITE PLAN AND COORDINATE GEOMETRY NOTES

1.) TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A SURVEY CONDUCTED BY GEOPOINT SURVEYING, INC. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

2.) ALL POINTS AND MONUMENTS SHALL BE SURVEYED UPON MOBILIZATION TO VERIFY THEIR ACCURACY. ANY DISCREPANCIES DISCOVERED MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING.

3.) MONUMENTS AND OTHER SURVEY CONTROL POINTS SHALL BE PROTECTED FROM DAMAGE AND DISTURBANCE. IF ANY CONTROL POINTS ARE DAMAGED OR DISTURBED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND REPLACE THE CONTROL POINTS TO THEIR ORIGINAL CONDITION AT HIS OWN EXPENSE.

4.) LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.

5.) UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION CERTIFIED BY A REGISTERED LAND SURVEYOR. THIS "AS-BUILT" INFORMATION SHALL INCLUDE INVERT ELEVATIONS, LOCATION OF FITTINGS, LOCATION OF STRUCTURES FOR ALL UTILITIES INSTALLED. NO ENGINEER'S CERTIFICATIONS, FOR FINALIZATION PURPOSES, WILL BE MADE UNTIL THIS INFORMATION IS RECEIVED AND APPROVED BY THE ENGINEER.

CLEARING / DEMOLITION NOTES

1.) PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN AS INDICATED ON THE CONSTRUCTION PLANS SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL TREE ORDINANCES AND DETAILS CONTAINED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL FROM PASCO COUNTY AND OR THE OWNER.

2.) THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.

3.) REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SITE IF REQUIRED, PROVIDED THAT THE MATERIAL IS DEEMED SUITABLE FOR CONSTRUCTION BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO BE EITHER STOCKPILED ON THE SITE AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING EXCESS EARTHWORK FROM THE SITE.

OWNER INSTRUCTIONS FOR MAINTENANCE AND INSPECTION OF STORMWATER FACILITIES

1.) THE ENTIRE STORMWATER SYSTEM SHOULD BE INSPECTED ON AT LEAST A SEMI-ANNUAL BASIS. THIS SHOULD INCLUDE A VISUAL INSPECTION OF THE POND, POND BANKS, BLEED-DOWN ORIFICES, OTHER CONTROL STRUCTURES, AND DISCHARGE PIPES. THESE SHOULD BE KEPT FREE OF DEBRIS AND CLEANED ON A FREQUENCY AS REQUIRED TO KEEP THEM FUNTIONAL, AS DESIGNED. MOWING/CLEARING AROUND THE STRUCTURES MAY BE REQUIRED TO PREVENT VEGETATION FROM CLOGGING THEM.

2.) WETLAND PLANTS IF INTENTIONALLY INSTALLED, SHOULD BE MONITORED AND MAINTAINED AS REQUIRED ON THE APPROVED CONSTRUCTION PLANS. AREAS OF LITTORAL SHELVING, WHICH ARE REQUIRED TO BE VEGETATED BUT NOT INTENTIONALLY PLANTED, SHOULD NOT BE CLEARED OF THE WETLAND PLANTS. THESE AREAS SHOULD HAVE AS HIGH A PLANT COVERAGE AS POSSIBLE, FOR MAXIMUM WATER FILTRATION.

3.) SEDIMENT SUMPS, IF DESIGNED AND INSTALLED, SHOULD HAVE SEDIMENT REMOVED AS NECESSARY TO ALLOW THEM TO EFFICIENTLY REMOVE SUSPENDED PARTICLES. THEY SHOULD BE RE-DUG TO THE ORIGINAL DESIGN SPECIFICATIONS, IF SILTED IN.

4.) FOR PERCOLATION TREATMENT PONDS/SWALES, THE OWNER OF THE FACILITY SHALL IUNSPECT THE POND BOTTOM PERIODICALLY AFTER HEAVY RAINFALL EVENTS TO CHECK FOR PERSISTENT PONDING OR POOLING OF WATER. ALL LARGE DEBRIS SHALL BE REMOVED AND DISPOSED OF ELSEWHERE. IF PROLONGED PONDING PERSISTS, I.E., IN EXCESS OF 72 HOURS, THE OWNER SHALL RAKE OR SCARIFY THE SURFACE. IF REQUIRED, THE SOIL IN THE AREA OF PONDING SHALL BE REMOVED AND REPLACED WITH CLEAN SANDY, NON-COHESIVE SOILS.

5.) PLEASE CHECK THE CONSTRUCTION PLANS TO SEE IF WRITTEN REPORTS ON MONITORING OR PLANT SURVIVAL RATES ARE REQUIRED TO BE SENT TO ANY REVIEWING AGENCIES. WRITTEN NOTES SHOULD ALWAYS BE KEPT WHICH DESCRIBE MAINTENANCE ACTIVITIES UNDERTAKEN DURING EACH INSPECTION.

6.) SPECIFIC CONDITIONS OF ALL PERMITS MAY REQUIRE ADDITIONAL MAINTENANCE ACTIVITIES ABOVE AND BEYOND THOSE OUTLINED ABOVE. PLEASE BE AWARE OF ALL PERMIT CONDITIONS AS ISSUED BY REGULATORY AGENCIES TO ENSURE PERMIT COMPLIANCE.

STANDARD FIRE PROTECTION NOTES

1.) ALL PROJECTS MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE NO. 46-51.

2.) FIRE HYDRANTS MUST BE IN INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES.

3.) PER NATIONAL FIRE PROTECTION ASSOCIATION, NFPA 1; 16.4.3.1.3: WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED AND IN SERVICE PRIOR TO CONSTRUCTION WORK.

4.) PER NFPA-1, 18.3.4.1: CLEARANCES OF 7 ½ FEET IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT WITH A 4 FOOT CLEARANCE TO THE REAR MUST BE MAINTAINED AT ALL TIMES.

5.) GATED ENTRIES REQUIRE A SIREN OPERATING SYSTEM OR A 3M OPTICOM SYSTEM FOR EMERGENCY ACCESS.

POND/LAKE EXCAVATION NOTES

1.) NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATION SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE; AND NO LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND/OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIALS OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA. PASCO COUNTY MUST BE CONTACTED PRIOR TO ANY EXCAVATION OF CLAYS. IN THE ABSENCE OF ANY CONFINING OR SEMI-CONFINING UNIT CLAYEY SOILS, A MINIMUM OF 5' OF UNDISTURBED SOILS SHALL REMAIN ABOVE THE UNDERLYING LIMESTONE.

2.) THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND THE GEOTECHNICAL ENGINEER IF SIGNIFICANT CLAY LAYERS ARE ENCOUNTERED DURING POND EXCAVATION. POND EXCAVATION DEPTHS MAY BE RAISED TO ELIMINATE OR MINIMIZE EXCAVATION OF CLAY MATERIAL. IF THE EXCAVATION EXPOSES CLAYS OR VERY CLAYEY SANDS TO THE FINAL POND SURFACES, THE EXPOSED CLAY AND CLAYEY AREAS SHALL BE COVERED WITH ONE FOOT OF CLEAN SANDY SOILS.

3.) POND BERMS ADJACENT TO WETLANDS, WHERE SHOWN, SHALL BE CONSTRUCTED AS EARLY AS PRACTICAL IN THE RELATED POND EXCAVATION OPERATION. THE PURPOSE IS TO PREVENT TURBID WATER DISCHARGE TO THE WETLAND DURING POND EXCAVATION. CONTROL STRUCTURES ARE TO BE TEMPORARILY BLOCKED IF NECESSARY TO PREVENT DISCHARGE OF TURBID WATERS.

4.) WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS AND TO PROTECTED UPLANDS. TREATMENT METHODS INCLUDE, FOR EXAMPLE, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE VEGETATED AREAS (OTHER THAN UPLAND PRESERVATION AREAS AND WETLAND BUFFERS), SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS, AND KEPT CONFINED UNTIL ITS TURBIDITY LEVEL MEETS STATE WATER QUALITY STANDARDS. POND TURBIDITY LEVELS MUST BE VISUALLY EVALUATED UPON CONSTRUCTION COMPLETION. ADDITIONAL MEASURES SUCH AS TEMPORARY LOWERING OF POND WATER LEVELS BY PUMPING TURBID WATER TO OVERLAND FILTRATION MAY BE NECESSARY TO PREVENT DIRECT DISCHARGE OF TURBID WATER TO ADJACENT WETLANDS.

PRE-DEVELOPED SITE INFORMATION

1.) TOTAL SITE ACREAGE : 225.263 ACRES±

2.) LAND USE: PINE FLATWOODS, CROP LAND / PASTURE LAND

3.) VEGETATION: PASTURE, HARDWOODS

4.) RECIEVING WATERS OR MUNICIPAL SEPARATE STORM WATER SYSTEM:

5.) 2 YEAR/24 HOUR RAINFALL DEPTH: 4.5"

6.) SOIL TYPES: SMYRNA FINE SAND, BASINGER FINE SAND, MYAKAA FINE SAND, SELLERS FINE SAND AND CASSIA FINE SAND

GENERAL CONSTRUCTION NOTES

1.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN FROM THE ENGINEER OR OWNER A COPY OF ALL PERTINENT PERMITS RELATED TO THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL CONSTRUCTION ACTIVITIES ARE IN COMPLIANCE WITH THE CONDITIONS OF ALL PERMITS AND APPROVALS. CONTRACTOR IS ALSO RESPONSIBLE FOR HAVING HIS DEWATERING PLAN APPROVED BY SWFWMD.

2.) ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH PASCO COUNTY LAND DEVELOPMENT CODE AND DOT SPECIFICATIONS, LATEST EDITIONS.

3.) GRASS AND MULCH, OR SOLID SOD, ALL AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION. IN THE PROPOSED RIGHTS-OF-WAY A 16" WIDE AREA BEHIND THE BACK OF CURB SHALL BE SOLID SODDED. THE REMAINDER OF THE PROPOSED RIGHTS-OF-WAY TO BE SEEDED AND MULCHED IF THE SLOPE IS GREATER THAN 6:1.

4.) IN ACCORDANCE WITH THE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT (CHAPTER 556, F.S.) THE CONTRACTOR SHALL CALL THE SUNSHINE STATE ONE CALL OF FLORIDA (SSCOF) AT 1-800-432-4770 FORTY EIGHT (48) HOURS IN ADVANCE OF ANY EXCAVATION.

5.) (FOR MIAMI, VALLEY, TYPE "V", ETC. GUTTER TYPE SECTIONS ONLY) PRIOR TO CURB INLET CONSTRUCTION, THE ENGINEER SHALL LAY OUT THE BACK OF THE CURB IN THE VICINITY OF THE RESPECTIVE INLET FOR ALIGNMENT AND GRADE, AND THE CONTRACTOR SHALL CONSTRUCT THE INLET ALLOWING FOR AN 18" CONCRETE THROAT BETWEEN THE BACK OF THE CURB AND THE FACE OF THE INLET. THE TOP OF THE INLET SHALL BE CONSTRUCTED TO AN ELEVATION OF 3/8" ABOVE THE TOP OF CURB. ANY INLETS CONSTRUCTED INCORRECTLY BY DEVIATING FROM THIS SEQUENCE OF INLET CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND NO ADDITIONAL PAYMENT SHALL BE MADE OR ALLOWED FOR REMOVING AND/OR CORRECTING THE INLET.

6.) SUITABLE FILL OBTAINED THROUGH EXCAVATION OF STREETS AND DETENTION PONDS SHALL BE PLACED ON LOTS AND ADJACENT LAND IN ACCORDANCE WITH THE MASTER DRAINAGE AND GRADING PLAN AS DIRECTED BY THE ENGINEER.

7.) SOD/SEED & MULCH SHALL BE PLACED IN ACCORDANCE WITH APPLICABLE CITY/COUNTY STANDARDS AS WELL AS IN ACCORDANCE WITH STANDARD AND SPECIFIC CONDITIONS IN THE SWFWMD PERMIT, IF APPLICABLE. AT A MINIMUM THIS SHALL INCLUDE SODDING OF ALL POND EMBANKMENTS OF A SLOPE 4:1 OR GREATER TO THE NW LINE, AS WELL AS SEEDING AND MULCHING OF THE BALANCE OF THE POND TRACTS (INCLUDING POND BERMS, EXCLUDING THE AREA BELOW NW), SODDING AT A MINIMUM OF 16" FROM THE BACK OF CURB, AND SEEDING AND MULCHING OF ANY PROJECT AREA WITH A SLOPE OF 4:1 OR STEEPER.

8.) ROADWAY UNDERDRAIN HAS BEEN LOCATED ON THESE PLANS TO ENSURE ADEQUATE BASE PROTECTION. PRIOR TO CURB CONSTRUCTION, THE GEOTECHNICAL ENGINEER SHALL REVIEW THE PREDESIGN BORINGS AND, ALONG WITH THEIR FIELD INSPECTION, MAKE A RECOMMENDATION REGARDING ADDITIONAL UNDERDRAIN REQUIREMENTS.

9.) SITE CLEARING SHALL BE PERFORMED PER THE APPROVED CONSTRUCTION PLANS AND IN ACCORDANCE WITH PASCO COUNTY LAND DEVELOPMENT CODE. INSTALLATION AND MAINTENANCE OF THE REQUIRED BARRICADING AND EROSION CONTROL SHALL BE THE RESPONSIBILITY OF THE SITE DEVELOPMENT CONTRACTOR UNLESS OTHERWISE DESIGNATED.

10.) PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITY INVERTS TO WHICH A TIE-IN IS PROPOSED AND HAVE ENGINEER VERIFY THE ELEVATION AND ADEQUACY OF THESE INVERTS.

11.) ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT." THE CONTRACTOR SHALL ENSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

12.) SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND PLACED IN UPLAND AREAS.

13.) DURING LAND ALTERATION AND CONSTRUCTION ACTIVITIES, IT SHALL BE UNLAWFUL TO REMOVE VEGETATION BY GRUBBING OR TO PLACE SOIL DEPOSITS, DEBRIS, SOLVENTS, CONSTRUCTION MATERIAL, MACHINERY OR OTHER EQUIPMENT OF ANY KIND WITHIN THE DRIP LINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.

14.) ALL EROSION CONTROL INSTALLATION AND INSTALLATION COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. BE ADVISED THAT THE CONSTRUCTION APPROVAL AND MAINTENANCE OF THE EROSION CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE SITE CONTRACTOR.

15.) DRAINAGE PLAN WAS BASED ON THE EXISTING FIELD CONDITIONS OF THE ABUTTING PROPERTY.

PAVING AND GRADING NOTES

1.) PAVEMENT WEARING SURFACE SHALL BE ASPHALTIC CONCRETE OF TYPE AND THICKNESS SHOWN IN DETAIL AND SHALL MEET CURRENT DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

2.) PAVEMENT BASE SHALL BE SOIL-CEMENT, AS DESIGNATED IN PLANS, AND SHALL BE COMPACTED TO A MINIMUM THICKNESS AS SHOWN.

3.) ALL PORTLAND CEMENT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I.

4.) SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH FDOT INDEX NO. 505, LATEST EDITION. EMBANKMENT FILLS OR NATURAL SANDS TO 24-INCHES BELOW THE BOTTOM OF THE PAVEMENT BASE (IF NO STABILIZED SUBGRADE), OR TO 24-INCHES BELOW THE BOTTOM OF STABILIZED SUBGRADE, SHALL BE SANDY SOILS (A-3 OR SP/SP-SM) WITH TYPICALLY 15% FINES OR LESS PASSING THE NO. 200 SIEVE.

5.) SUBGRADE UNDER A SOIL-CEMENT BASE SHALL BE PROOF-ROLLED TO GRADE, AS DIRECTED BY THE ENGINEER AND APPROVED BY THE ENGINEER WITH SUITABLE COMPACTION EQUIPMENT TO ACHIEVE A DENSITY OF NINETY-EIGHT (98%) PERCENT MODIFIED PROCTOR FOR A DEPTH OF TWELVE (12) INCHES PRIOR TO PLACING SOIL-CEMENT BASE.

6.) SOIL-CEMENT MIX DESIGN SHALL BE PROVIDED A MINIMUM 30 DAYS IN ADVANCE OF PLACEMENT OF BASE MATERIAL FOR APPROVAL BY THE ENGINEER. THE SOIL-CEMENT PRODUCT SHALL BE IN ACCORDANCE WITH PCA STANDARDS.

7.) SOIL-CEMENT SURFACE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO ANY PAVING OPERATION.

8.) ROADWAY UNDERDRAIN HAS BEEN LOCATED ON THESE PLANS TO ENSURE ADEQUATE BASE PROTECTION. PRIOR TO CURB CONSTRUCTION, THE GEOTECHNICAL ENGINEER SHALL REVIEW THE PREDESIGN BORINGS AND, ALONG WITH THEIR FIELD INSPECTION, MAKE A RECOMMENDATION REGARDING ADDITIONAL UNDERDRAIN REQUIREMENTS.

9.) SHOULD NO UNDERDRAIN BE SPECIFIED ON THE PLANS THE CONTRACTOR IS TO INCLUDE 1,000 LINEAR FEET OF UNDERDRAIN AT UNIT PRICES FOR BID PURPOSES.

10.) ALL CURBS AND GUTTERS SHALL BE PLACED ON A FOUNDATION OF TYPE "B" STABILIZED SUBGRADE WITH A MINIMUM LBR VALUE OF 40 (OR A MINIMUM FBV OF 75) WHICH HAS BEEN COMPACTED TO A MINIMUM DENSITY OF NINETY-EIGHT (98) PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 FOR A MINIMUM DEPTH OF TWELVE (12) INCHES.

ALTERNATIVE BASE MATERIAL CRUSHED CONCRETE

CRUSHED CONCRETE ROAD BASE MATERIAL SHOULD MEET THE FOLLOWING CONDITIONS:

1.) SHOULD BE OF UNIFORM QUALITY, FREE OF ALL ORGANICS, STEEL REBAR, ASPHALT DEBRIS, AND ANY OTHER DELETERIOUS MATERIAL.

2.) SHOULD HAVE A MINIMUM LIMEROCK BEARING RATIO (LBR) OF 120, TESTED AT A FREQUENCY REQUIRED BY THE CITY OR COUNTY HAVING JURISDICTION.

3.) SINGLE COURSE LIFTS SHOULD NOT EXCEED 6-INCHES (LOOSE).

4.) SHOULD CONFORM TO THE GRADATION CHART FOR GRADED AGGREGATE BASE, FDOT SECTION 204, TESTED AT A FREQUENCY REQUIRED BY THE CITY OR COUNTY HAVING JURISDICTION.

5.) SHOULD BE COMPACTED TO A MINIMUM OF 98% OF AASHTO T-180, TESTED AT A FREQUENCY REQUIRED BY THE CITY OR COUNTY HAVING JURISDICTION.

6.) SUBGRADE SHALL BE PREPARED AS NOTED ABOVE.

7.) PER PASCO COUNTY CODE, THE NUMBER OF PARKING SPACES ARE PROVIDED BASED ON THE SQUARE FOOTAGE OF THE POOL DIVIDED BY 200 SF. TOTAL AMOUNT OF SPACES REQUIRED IS 6.

CONSTRUCTION STANDARDS AND SPECIFICATIONS

1.) MAINTENANCE OF TRAFFIC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND IN ACCORDANCE WITH STATE OF FLORIDA D.O.T. STANDARD INDEX 600.

2.) ALL PAVEMENT STRIPING AND TRAFFIC FLOW ARROWS SHALL BE THERMOPLASTIC COMPOUND, MEETING THE REQUIREMENTS OF AASHTO M 249-79 (1986) AND BE INSTALLED IN SUBSTANTIAL COMPLIANCE WITH F.D.O.T. STANDARD FOR ROAD AND BRIDGE CONSTRUCTION 1991, SECTION 711 WITH RPMS PER FDOT #17352

3.) ALL WORK PERFORMED WITHIN THE RIGHT OF WAY SHALL CONFORM TO:
a. FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2004), (AKA: STANDARD SPECS).
b. FDOT DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND OPERATIONS ON THE STATE HIGHWAYS SYSTEM, JAN., 2004, (AKA: STANDARD INDEX). COMPLIANCE WITH ALL APPLICABLE INDICES IS REQUIRED.
c. FDOT ROADWAY PLANS PREPARATION MANUAL VOLUME 1, CHAPTERS 2 AND 25 (2004).
d. FDOT FLEXIBLE PAVEMENT DESIGN MANUAL FOR NEW CONSTRUCTION AND PAVEMENT REHABILITATION, JANUARY 2002.
e. ALL TRAFFIC STRIPES AND MARKINGS ARE TO BE LEAD-FREE, NON-SOLVENT BASED THERMOPLASTIC. THE PERMITTEE SHALL FURNISH THE FDOT WITH THE MANUFACTURE'S CERTIFICATION THAT THE THERMOPLASTIC IS "LEAD-FREE".

4.) PROPOSED PAVEMENT MARKINGS TO MEET AND MATCH EXISTING PAVEMENT MARKINGS.

PROJECT INFORMATION

1.) PROJECT TYPE (RESIDENTIAL, COMMERCIAL, ETC.)

2.) ANTICIPATED CONSTRUCTION SEQUENCE IS AS FOLLOWS:
1.) COMPLETE EROSION CONTROL INSTALLATION
2.) CLEARING AND GRUBBING
3.) EARTHWORK ACTIVITIES
4.) STORM WATER SYSTEM CONSTRUCTION
5.) UTILITY CONSTRUCTION
6.) BASE AND PAVEMENT CONSTRUCTION
7.) FINAL STABILIZATION

3.) ANTICIPATED START DATE: JUNE 13, 2014

4.) ANTICIPATED COMPLETION DATE: FEBRUARY 9, 2015

5.) TOTAL ACRES DISTURBED: TBD

6.) PRE-DEVELOPED "C" FACTOR: 0.2

7.) POST-DEVELOPED "C" FACTOR: 0.6

8.) THE STORM WATER MANAGEMENT SYSTEM, UPON COMPLETION OF CONSTRUCTION AND APPROPRIATE CERTIFICATION AND AS-BUILT SUBMITTALS WILL BE OPERATED AND MAINTINED BY: THE STARKEY RANCH HOMEOWNER'S ASSOCIATION

9.) THE POTENTIAL SOURCEOF POLLUTION FROM THIS PROJECT IS ON-SITE DEVELOPMENT AND CONSTRUCTION ACTIVITY.

SITE PLAN NOTES

1. CLIENT:
TAYLOR MORRISON OF FLORIDA, INC.
551 NORTH CATTLEMEN ROAD., SUITE 200 SARASOTA, FLORIDA 34232
PHONE: (941) 371-3008 FAX: (941) 371-7998
EMAIL: TONY SQUITIERI TSquitieri@taylormorrison.com

2. ENGINEER:
WALDROP ENGINEERING
9432 CAMDEN FIELD PARKWAY RIVERVIEW, FLORIDA 33578
PHONE: (813) 443-8282 FAX: (813) 443-8285
EMAIL: ERIC S. DUNNING P.E. Eric.Dunning@waldropengineering.com

3. GEOPOINT SURVEYING, INC.
1403 E. 5TH AVENUE TAMPA, FLORIDA 33605
PHONE: (813) 248-8888 FAX: (813) 248-2266
EMAIL: DAVID A. WILLIAMS, P.S.M., R.P.L.S. davidw@geopointsurvey.com

4. EXISTING ZONING: MPUD (MASTER PLANNED UNIT DEVELOPMENT) PETITION No. RZ-7027 (APPROVAL 09/11/2012)
5. EXISTING LAND USE: PINE FLATWOODS, CROP LAND / PASTURE LAND.
6. FUTURE LAND USE CLASSIFICATION: PD (PLANNED DEVELOPMENT)
7. WATER SERVICE TO BE PROVIDED BY PASCO COUNTY.
8. REUSE WATER SERVICE TO BE PROVIDED BY PASCO COUNTY.
9. SEWAGE DISPOSAL SERVICE TO BE PROVIDED BY PASCO COUNTY.
10. ELECTRICAL POWER TO BE PROVIDED BY DUKE ENERGY.
11. STREET LIGHTING TO BE PROVIDED BY DUKE ENERGY.
12. TELEPHONE/CATV SERVICE TO BE PROVIDED BY VERIZON/BRIGHTHOUSE.
13. FIRE PROTECTION TO BE PROVIDED BY EXISTING PASCO COUNTY FIRE STATION No.15 - TRINITY / NEW PORT RICHEY. STATION No.15 IS LOCATED AT 11538 TRINITY BOULEVARD, APPROXIMATELY 4 MILES FROM THE PROJECT ENTRANCE. FIRE HYDRANTS WILL BE PROVIDED ON-SITE.
14. THE UPLANDS ARE ACTIVELY GRAZED PASTURE. THE WETLANDS ARE CYPRESS HEADS AND GRASS MARSHES.
15. PREDOMINANT SOIL TYPES ON-SITE CONSIST OF SMYRNA FINE SAND, BASINGER FINE SAND, MYAKAA FINE SAND, SELLERS FINE SAND AND CASSIA FINE SAND.
16. MINIMUM SQUARE FOOTAGE OF DWELLING UNITS IS 2,255 SQUARE FEET.
17. RECREATIONS AREAS, CONSERVATION AREAS AND DETENTION PONDS WILL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION. LANDSCAPE AREAS WILL BE DEDICATED TO THE HOMEOWNER'S ASSOCIATION. FOR MAINTENANCE.
18. DETENTION PONDS TO BE WITHIN DRAINAGE TRACTS DEDICATED TO THE HOMEOWNER'S ASSOCIATION FOR MAINTENANCE.
19. CONTOURS SHOWN HEREON BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988.
20. PROPOSED RIGHTS-OF-WAY FOR LOCAL STREETS SHALL BE A MINIMUM OF (50) FEET.
21. ALL SLOPES STEEPER THAN 4:1 SHALL BE SODDED AND SECURED W/SOD PINS.
22. ALL ROADWAY STANDARDS TO COMPLY WITH THE MANUAL OF UNIFORM MINIMUM STANDARDS, STATE OF FLORIDA.
23. ALL WATER AND WASTEWATER FACILITIES TO BE INSTALLED IN COMPLIANCE WITH PASCO COUNTY STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER FACILITIES SPECIFICATIONS, LATEST EDITION.
24. ALL UTILITY LINES SHALL BE INSTALLED UNDERGROUND, WHEREVER POSSIBLE.
25. PROJECT LIES WITHIN FLOOD ZONES "A" "AE" AND "X" AS SHOWN ON FEMA F.I.R.M. COMMUNITY PANELS No's. 12101C0360F AND 12101C0380F WITH AN EFFECTIVE DATE OF SEPTEMBER 26, 2014. FLOOD ELEVATION DATA TAKEN FROM APPROVED SCAP PLANS CREATED BY HEIDT DESIGN, FLOOD ELEVATION VARIES.
26. A MINIMUM OF 16" OF SOD STRIP WILL BE PROVIDED ALONG ALL ROADWAYS PER PASCO COUNTY REQUIREMENTS.
27. SETBACKS FROM POST-DEVELOPEMENT WETLANDS SHALL BE AS FOLLOWS: 25-FOOT MINIMUM AROUND ALL CATEGORY I WETLANDS; BUFFERS AROUND CATEGORY II AND CATEGORY III WETLANDS SHALL BE AS REQUIRED BY SWFWMD. ALLOWABLE USES AND RESTRICTIONS FOR BUFFERS SHALL BE IN ACCORDANCE WITH SECTION 805 OF THE PASCO COUNTY LAND DEVELOPMENT CODE.
28. ALL ON-SITE WATER AND SEWER FACILITIES SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
29. ALL NON-COLLECTOR ROADWAYS WITHIN PARCELS TO BE PRIVATELY OWNED AND MAINTAINED WITH A SECURITY GATE.
30. SIDEWALKS WILL BE PROVIDED IN ACCORDANCE WITH THE ADA STANDARDS. UNLESS OTHERWISE SHOWN, ALL SIDEWALKS SHALL BE FIVE (5) FEET WIDE, 4½" THICK CONCRETE, AND 3000 P.S.I.
31. BUFFERING FOR ALL RETENTION/DETENTION AREAS ALONG ROAD RIGHT-OF-WAYS TO HAVE TREES SELECTED FROM TREE LIST AT THE RATE OF ONE TREE PER 50 LINEAR FEET.
32. ALL LANDSCAPE AND SODDED AREAS ALONG COLLECTOR ROAD WILL BE IRRIGATED.
33. THIS PROJECT WILL COMPLY WITH THE PASCO COUNTY TREE PROTECTION ORDINANCE NO. 01-017 AND PASCO COUNTY LANDSCAPE AND IRRIGATION ORDINANCE NO. 02-04 AND ANY SUBSEQUENT AMENDMENTS.
34. ALL CONSTRUCTION WORK, INCLUDING ROAD, DRAINAGE AND UTILITIES, SHALL BE CONSTRUCTED IN ACCORDANCE WITH PASCO COUNTY DESIGN STANDARDS AND TESTED IN COMPLIANCE WITH THE PASCO COUNTY ENGINEERING SERVICE DEPARTMENT TESTING SPECIFICATIONS FOR CONSTRUCTION OF ROADS, STORM DRAINAGE AND UTILITIES.
35. ALL RESIDENTIAL LOTS SHALL HAVE A MINIMUM ACCESS WIDTH OF 25 FEET ALONG STREET.
36. RANGELAND BOULEVARD IS A PROPOSED COUNTY-MAINTAINED ROAD. BEYOND THE ENTRIES, INTERNAL STREETS ARE PROPOSED TO BE PRIVATELY OWNED AND MAINTAINED AS PRIVATE STREETS. THE MINIMUM THROAT DISTANCE FOR PRIVATE STREETS AS MEASURED FROM ANY PROPOSED GATES TO THE ADJACENT PUBLIC RIGHT-OF-WAY LINE SHALL BE 75 FEET.
37. GATED ENTRIES SHALL HAVE A MINIMUM INGRESS/EGRESS WIDTH OF 16 FEET FROM FACE OF CURB TO FACE OF CURB, FREE FROM EQUIPMENT AND OTHER OBSTRUCTIONS, AND SHALL BE EQUIPPED WITH SIREN OPERATION SYSTEM (SOS) OR 3M OPTICOM SYSTEM FOR EMERGENCY VEHICLE ACCESS.
38. IF DURING CONSTRUCTION ACTIVITIES, ANY EVIDENCE OF HISTORIC RESOURCES INCLUDING, BUT NOT LIMITED TO ABORIGINAL OR HISTORIC POTTERY, PREHISTORIC STONE TOOLS, BONE OR SHELL TOOLS, HISTORIC TRASH PITS OR HISTORIC BUILDING FOUNDATIONS ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP, AND THE FLORIDA DEPT, OF HISTORIC RESOURCES (STATE HISTORICAL PRESERVATION OFFICE) AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON SITE.
39. IF DURING THE CONSTRUCTION ACTIVITIES ANY EVIDENCE OF THE PRESENCE OF STATE AND FEDERALLY PROTECTED PLANT AND/OR ANIMAL SPECIES ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE PLANT AND/OR ANIMAL SPECIES FOUND ON SITE.
40. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK MUST STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH SECTION 872.05, FLORIDA STATUE.
41. ALL PROPOSED SIGNS MUST BE APPLIED FOR, APPROVED, AND PERMITTED ON AN INDIVIDUAL BASIS APART FROM ANY ULTIMATELY-APPROVED SITE PLAN. APPROVAL OF THIS SITE PLAN DOES NOT CONSTITUTE APPROVAL OF ANY SIGNAGE.
42. HANDICAP PARKING SPACES SHALL BE PROPERLY SIGNED AND STRIPED IN ACCORDANCE WITH FLORIDA STATUTE 316, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR OTHER APPLICABLE STANDARDS.
43. THE ENGINEER CERTIFIES THAT THE SITE HAS BEEN DESIGNED TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT.
44. ALL ON-SITE PARKING SPACES SHALL BE STRIPED AND SIGNED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. PARKING SPACES, DIRECTIONAL ARROWS AND STOP BARS SHALL BE STRIPED IN WHITE. IT SHALL BE THE DEVELOPER'S RESPONSIBILITY TO PROPERLY SIGN AND STRIPE IN ACCORDANCE WITH APPLICABLE STANDARDS.
45. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THIS APPROVAL DOES NOT INCLUDE ANY WORK IN COUNTY RIGHT-OF-WAY. ANY RIGHT-OF-WAY WORK SHALL BE A FUNCTION OF AN APPROVED PASCO COUNTY RIGHT-OF-WAY USE PERMIT.
46. ALL CLEAR SITE AREAS SHALL BE KEPT FREE OF ANY SIGNAGE, PLANTINGS, TREES, ETC. IN EXCESS OF 3 1/2 FEET IN HEIGHT.
47. NO IRRIGATION SYSTEM OR LANDSCAPING SHALL BE INSTALLED IN ANY COUNTY OR STATE RIGHT-OF-WAY WITHOUT ISSUANCE OF THE APPROPRIATE RIGHT-OF-WAY USE PERMIT.
48. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THE SITE AND ITS SUBSEQUENT BUILDING PERMITS SHALL COMPLY WITH ALL REZONING/MPUD/PUD CONDITIONS.
49. ALL STRUCTURES, INCLUDING BUFFER WALLS, RETAINING WALLS, SIGNAGE, ETC. REQUIRE BUILDING PERMITS.
50. FUGITIVE DUST EMISSIONS SHALL BE CONTROLLED BY APPLICATION OF SPRAYED WATER, IF NECESSARY.
51. ON-SITE BURNING, IF REQUIRED, SHALL NOT COMMENCE WITHOUT SEPARATE APPROVAL FROM THE DIVISION OF FORESTRY.
52. ALL PROJECTS MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE NO. 46.51.
53. FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO ACCUMULATION OF COMBUSTIBLES.
54. PER THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA-1, 16.4.3.1.3: WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO CONSTRUCTION WORK.
55. PER NFPA-1, 18.3.4.1: CLEARANCES OF 7-1/2 FEET IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT WITH A FOUR-FOOT CLEARANCE TO THE REAR MUST BE MAINTAINED AT ALL TIMES.
56. THE ARCHITECT AND/OR LIGHTING CONSULTANT SHALL ENSURE THAT FINAL LIGHTING PLANS MEET THE REQUIREMENTS OF THE PASCO COUNTY LAND DEVELOPMENT CODE, INCLUDING PROHIBITIONS AGAINST OFF-SITE LIGHT SPILLAGE AND GLARE.
57. THE SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO CONSTRUCTION, MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL THE SITE IS PERMANENTLY STABILIZED.
58. NO FILL IS PROPOSED TO BE HAULED OFFSITE.
59. IN THE EVENT OF PRODUCTION FAILURE OR SHORTFALL BY TAMPA BAY WATER (TBW), AS SET FORTH IN SECTION 3.19 OF THE INTERLOCAL AGREEMENT CREATING TBW, THE MASTER DEVELOPER OR PARCEL DEVELOPER, AS APPLICABLE, SHALL GRANT PASCO COUNTY ACCESS TO AND SHALL COOPERATE WITH THE COUNTY IN THE ALLOCATION OF WATER GENERATED WITHIN THE PROJECT PURSUANT TO ANY AND ALL WATER USE PERMITS OR WATER-USE RIGHTS THE MASTER DEVELOPER OR PARCEL DEVELOPER, AS APPLICABLE, MAY HAVE TO USE OR CONSUME SURFACE OR GROUND WATER WITHIN PASCO COUNTY.
60. PRIOR TO THE MASTER DEVELOPER OR PARCEL DEVELOPER, AS APPLICABLE, SELLING WATER, WATER USE PERMITS, OR WATER-USE RIGHTS, THE MASTER DEVELOPER OR PARCEL DEVELOPER, AS APPLICABLE, SHALL NOTIFY PASCO COUNTY, AND PASCO COUNTYSHALL HAVE A RIGHT OF FIRST REFUSAL TO PURCHASE SUCH WATER, WATER USE PERMITS, OR WATER-USE RIGHTS.
61. THE JURISDICTIONAL WETLAND LINE AND THE UPLAND BUFFER LINE SHALL BE CLEARLY FIELD DEMARCATED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
62. NO CONSTRUCTION ACTIVITES INCLUDING: CLEARING, GRADING, GRUBBING SHALL OCCUR WITHIN THE WETLAND UPLAND BUFFER AS DEPICTED ON THE APPROVED PROJECT CONSTRUCTION PLANS.
63. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN CONFORMANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
64. STREET NAMES SIGNS SHALL BE 6" ON LOCAL ROADS AND 9" ON COLLECTOR AND ARTERIAL ROADS. SIX-INCH SIGNS SHALL HAVE 4" SERIES C LETTERS AND 9" SIGNS SHALL HAVE 6" SERIES B LETTERS. ALL STREET NAME SIGNS ON PRIVATE STREETS (NON-COUNTY MAINTAINED) SHALL BE STANDARD D3 STREET NAME SIGNS WITH THE COLORS REVERSED; WHITE BACKGROUND WITH GREEN LETTERS AND BORDER. AT INTERSECTIONS WITH COUNTY MAINTAINED ROADS, THE COUNTY MAINTAINED ROAD SHALL BE GREEN BACKGROUND WITH WHITE LETTERS AND BORDER.

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

GENERAL NOTES

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 2

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

AERIAL SITE PLAN

PLAN REVISIONS REV00 <<SUBMITTED / BID SET>> XX/XX/XX

0 200 400 800
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #4843

ERIC N. SANDINO, P.E.
LICENSE NO. 62767

SET NUMBER: 186-119-04

SHEET: 3

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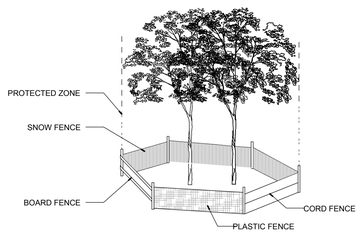
LEGEND

- TREE TO BE REMOVED
- TREE BARRICADE / TREE TO REMAIN
- SILT FENCE
- RIGHT OF WAY LINE (FUTURE)
- CENTERLINE (FUTURE)
- WETLAND LINE
- WETLAND SETBACK LINE
- FENCE (AS NOTED)
- WETLAND IMPACT AREA
- EXISTING WETLAND AREA

DEMOLITION NOTES

1. DEMOLITION AREA SHOWN ON PLAN IS A GENERAL REPRESENTATION. ACTUAL EXTENTS OF DEMOLITION SHALL BE DETERMINED AT TIME OF CONSTRUCTION BY OWNER AND CONTRACTOR.



EXAMPLE OF TREE PROTECTION BARRICADE

WETLAND DATA TABLE

WETLAND ID	CATEGORY	TOTAL ACRES	IMPACT ACRES
C-25	III	0.99	0.99
C-26	III	0.72	0.72
C-30	III	4.41	4.41
C-58	II	7.51	1.11
C-59	III	0.97	0.97
C-59A	III	0.24	0.13
C-60	III	3.67	0.58
M-1	III	0.28	0.28
M-10	III	0.38	0.38
SW-4	III	0.34	0.34
SW-10	III	0.27	0.23

N

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

EXISTING CONDITIONS AND DEMOLITION PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXX/XX/X

0 100 200 400
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 4

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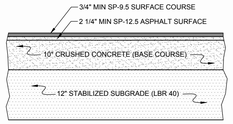
SUBDIVISION COLLECTOR PAVEMENT DESIGN

LAYER TYPE	STRUCTURAL COEFFICIENT	PROPOSED THICKNESS (IN)	SN
SP-9.5 FINE, TRAFFIC LEVEL "C"	0.44	0.75	0.33
SP-12.5 ASPHALT SURFACE	0.44	2.25	0.99
CRUSHED CONCRETE BASE (MIN. 150 LBR)	0.15	10.00	1.50
STABILIZED SUBGRADE (MIN. 40 LBR)	0.08	12.00	0.96
TOTAL PROPOSED SN			3.78 - OK
MINIMUM ALLOWED SN FOR TYPE I ROAD			3.50

NOTE:
PAVEMENT DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PASCO COUNTY LAND DEVELOPMENT CODE.



MATERIAL NOTES:

1.) 12" COMPACTED SUBGRADE, MIN. LBR 40, COMPACTED TO 98% MOD. PROCTOR MAX. DRY DENSITY (ASTM D-1557)
2.) STABILIZED SUBGRADE UNDER CURB ONLY, TO BE LBR 40

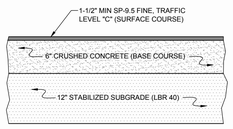
TYPICAL PAVING SECTION (TYPE 1B w/ 8' CONCRETE WALK) (SUBDIVISION COLLECTOR PAVEMENT DESIGN)

N.T.S.

LOCAL ROAD PAVEMENT DESIGN

LAYER TYPE	STRUCTURAL COEFFICIENT	PROPOSED THICKNESS (IN)	SN
SP-9.5 FINE, TRAFFIC LEVEL "C"	0.44	1.50	0.66
CRUSHED CONCRETE (MIN. 150 LBR)	0.15	6.00	0.90
STABILIZED SUBGRADE (MIN. 40 LBR)	0.08	12.00	0.96
TOTAL PROPOSED SN			2.52 - OK
MINIMUM ALLOWED SN FOR LOCAL ROAD			2.34

NOTE:
PAVEMENT DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PASCO COUNTY LAND DEVELOPMENT CODE.

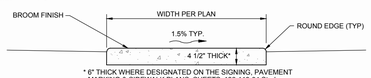


MATERIAL NOTES:

1.) STABILIZED SUBGRADE, MIN. LBR 40, COMPACTED TO 98% MOD. PROCTOR MAX. DRY DENSITY (ASTM D-1557)
2.) STABILIZED SUBGRADE UNDER CURB ONLY, TO BE LBR 40
3.) WHEN NO CURB IS PROPOSED CRUSHED CONCRETE TO EXTEND 6 INCHES BEYOND EDGE OF PAVEMENT

TYPICAL PAVING SECTION (TYPE 2) (FOR LOCAL ROADS)

N.T.S.



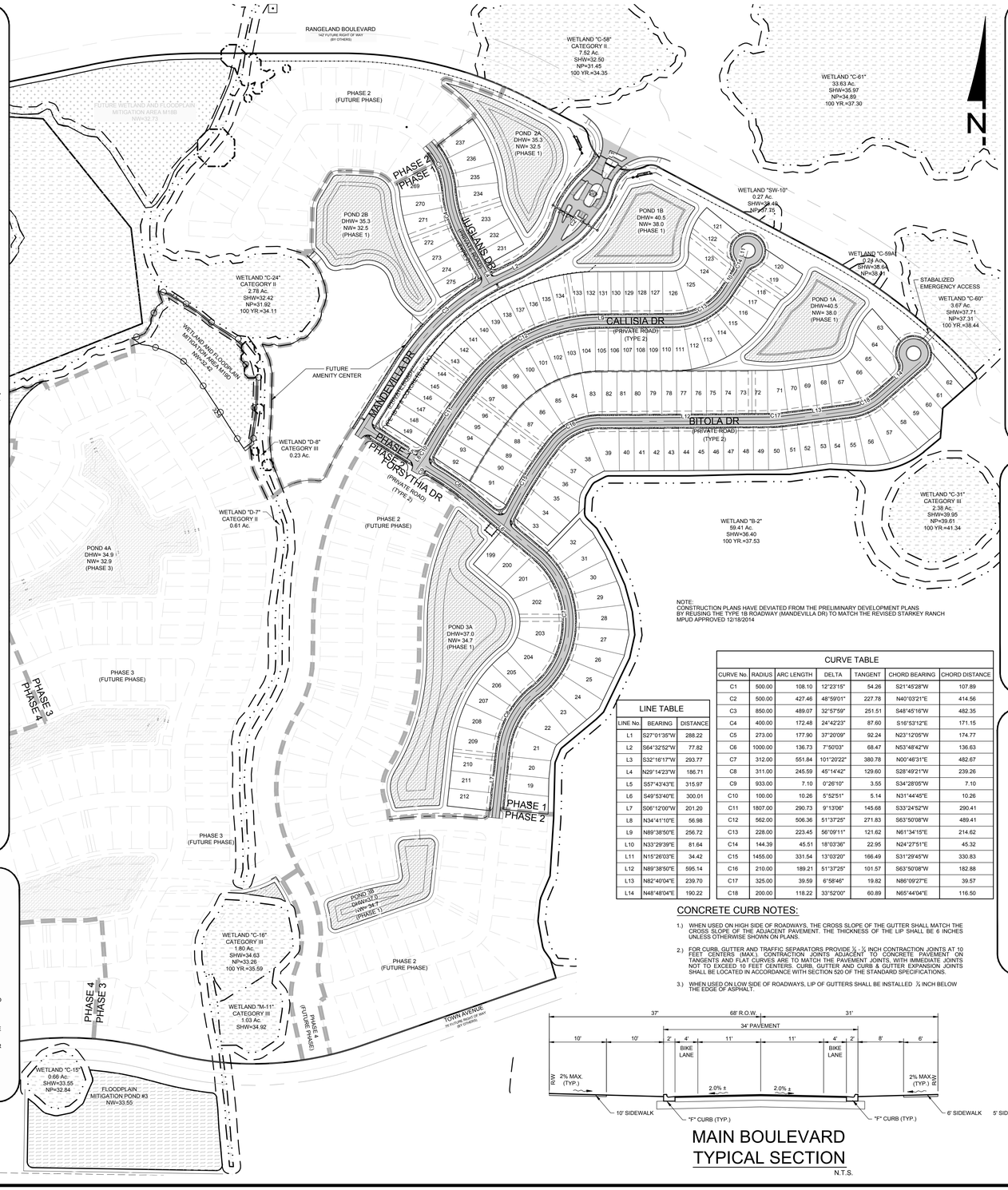
* 6" THICK WHERE DESIGNATED ON THE SIGNING, PAVEMENT MARKING & SIDEWALK PLANS; SHEETS 186-119-04 Starkey Ranch Construction Plans AND 186-119-04 Starkey Ranch Construction Plans

NOTES:

1.) SIDEWALK SHALL BE CONSTRUCTED IN CONFORMANCE WITH FDOT STANDARD INDEX 310 AND STANDARD SPECIFICATION 522 AND CORRESPONDING STANDARDS.
2.) COMPACT FILL AREAS TO MINIMUM 95 % OF AASHTO T99 DENSITY.
3.) SIDEWALK SHALL HAVE CONTRACTION JOINTS SPACED EQUALLY TO THE SIDEWALK WIDTH AND HAVE EXPANSION JOINTS EVERY 120' MAXIMUM.
4.) CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS.
5.) SIDEWALK SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% PER ADA STANDARDS FOR ACCESSIBLE DESIGN SECTION 4.3.
6.) CURB RAMPS SHALL BE CONSTRUCTED IN CONFORMANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN SECTION 4.7 AND FDOT STANDARD INDEX 304.

CONCRETE SIDEWALK

N.T.S.



NOTE:
CONSTRUCTION PLANS HAVE DEVIATED FROM THE PRELIMINARY DEVELOPMENT PLANS BY REUSING THE TYPE 1B ROADWAY (MANDEVILLA DR) TO MATCH THE REVISED STARKEY RANCH MPUD APPROVED 12/18/2014

LINE TABLE		
LINE No.	BEARING	DISTANCE
L1	S27°01'35"W	288.22
L2	S64°32'52"W	77.82
L3	S32°16'17"W	293.77
L4	N29°14'23"W	186.71
L5	S57°43'43"E	315.97
L6	S49°53'40"E	300.01
L7	S06°12'00"W	201.20
L8	N34°41'10"E	56.98
L9	N89°38'50"E	256.72
L10	N33°29'39"E	81.64
L11	N15°26'03"E	34.42
L12	N89°38'50"E	595.14
L13	N82°40'04"E	239.70
L14	N48°48'04"E	190.22

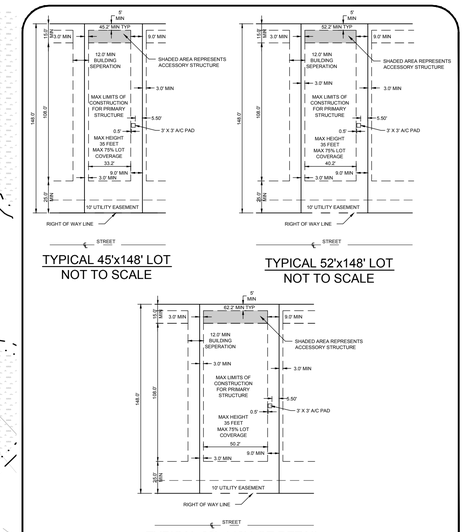
CURVE TABLE						
CURVE No.	RADIUS	ARC LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD DISTANCE
C1	500.00	108.10	12°23'15"	54.26	S21°45'28"W	107.89
C2	500.00	427.46	48°59'01"	227.78	N40°03'21"E	414.56
C3	850.00	489.07	32°57'59"	251.51	S48°45'16"W	482.35
C4	400.00	172.48	24°42'23"	87.60	S16°53'12"E	171.15
C5	273.00	177.90	37°20'09"	92.24	N23°12'05"W	174.77
C6	1000.00	136.73	7°50'03"	68.47	N53°48'42"W	136.63
C7	312.00	551.84	101°20'22"	380.78	N00°46'31"E	482.67
C8	311.00	245.59	45°14'42"	129.60	S28°49'21"W	239.26
C9	933.00	7.10	0°26'10"	3.55	S34°28'05"W	7.10
C10	100.00	10.26	5°52'51"	5.14	N31°44'45"E	10.26
C11	1807.00	290.73	9°13'06"	145.68	S33°24'52"W	290.41
C12	562.00	506.36	51°37'25"	271.83	S63°50'08"W	489.41
C13	228.00	223.45	56°09'11"	121.62	N61°34'15"E	214.62
C14	144.39	45.51	18°03'36"	22.95	N24°27'51"E	45.32
C15	1455.00	331.54	13°03'20"	166.49	S31°29'45"W	330.83
C16	210.00	189.21	51°37'25"	101.57	S63°50'08"W	182.88
C17	325.00	39.59	6°58'46"	19.82	N86°09'27"E	39.57
C18	200.00	118.22	33°52'00"	60.89	N65°44'04"E	116.50

CONCRETE CURB NOTES:

1.) WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP SHALL BE 6 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
2.) FOR CURB, GUTTER AND TRAFFIC SEPARATORS PROVIDE ¼" - ½" INCH CONTRACTION JOINTS AT 10 FEET CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH IMMEDIATE JOINTS NOT TO EXCEED 10 FEET CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS.
3.) WHEN USED ON LOW SIDE OF ROADWAYS, LIP OF GUTTERS SHALL BE INSTALLED ¼ INCH BELOW THE EDGE OF ASPHALT.

MAIN BOULEVARD TYPICAL SECTION

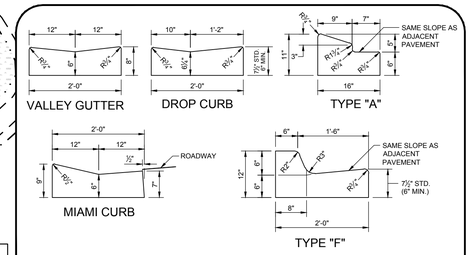
N.T.S.



TYPICAL 45'x148' LOT
NOT TO SCALE

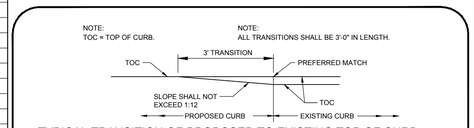
TYPICAL 52'x148' LOT
NOT TO SCALE

TYPICAL 62'x148' LOT DETAIL
NOT TO SCALE

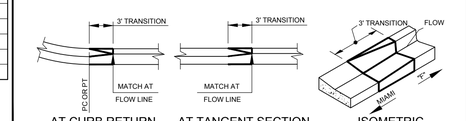


CURB AND CURB AND GUTTER DETAILS

N.T.S.



TYPICAL TRANSITION OF PROPOSED TO EXISTING TOP OF CURB



MIAMI CURB TO TYPE "F"

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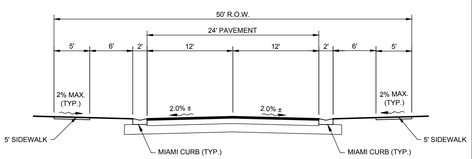

TYPICAL SECTION

N.T.S.

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

MASTER SITE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

0 100 200 400
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67878

SET NUMBER: 186-119-04

SHEET : 5

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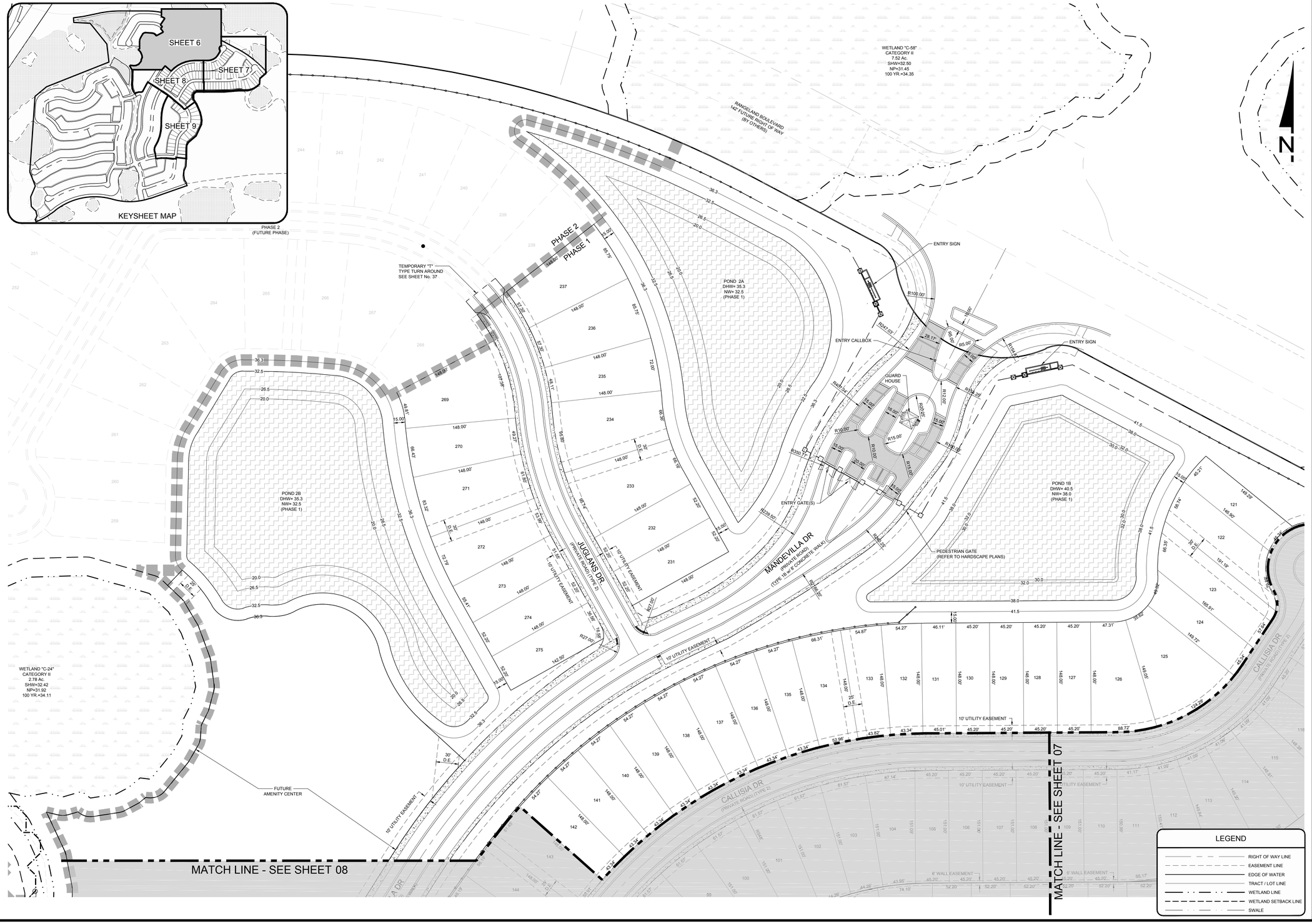

LEGEND

- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF WATER
- TRACT / LOT LINE
- WETLAND LINE
- WETLAND SETBACK LINE
- SWALE

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SITEPLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXX/XX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67878

SET NUMBER: 186-119-04

SHEET : 06

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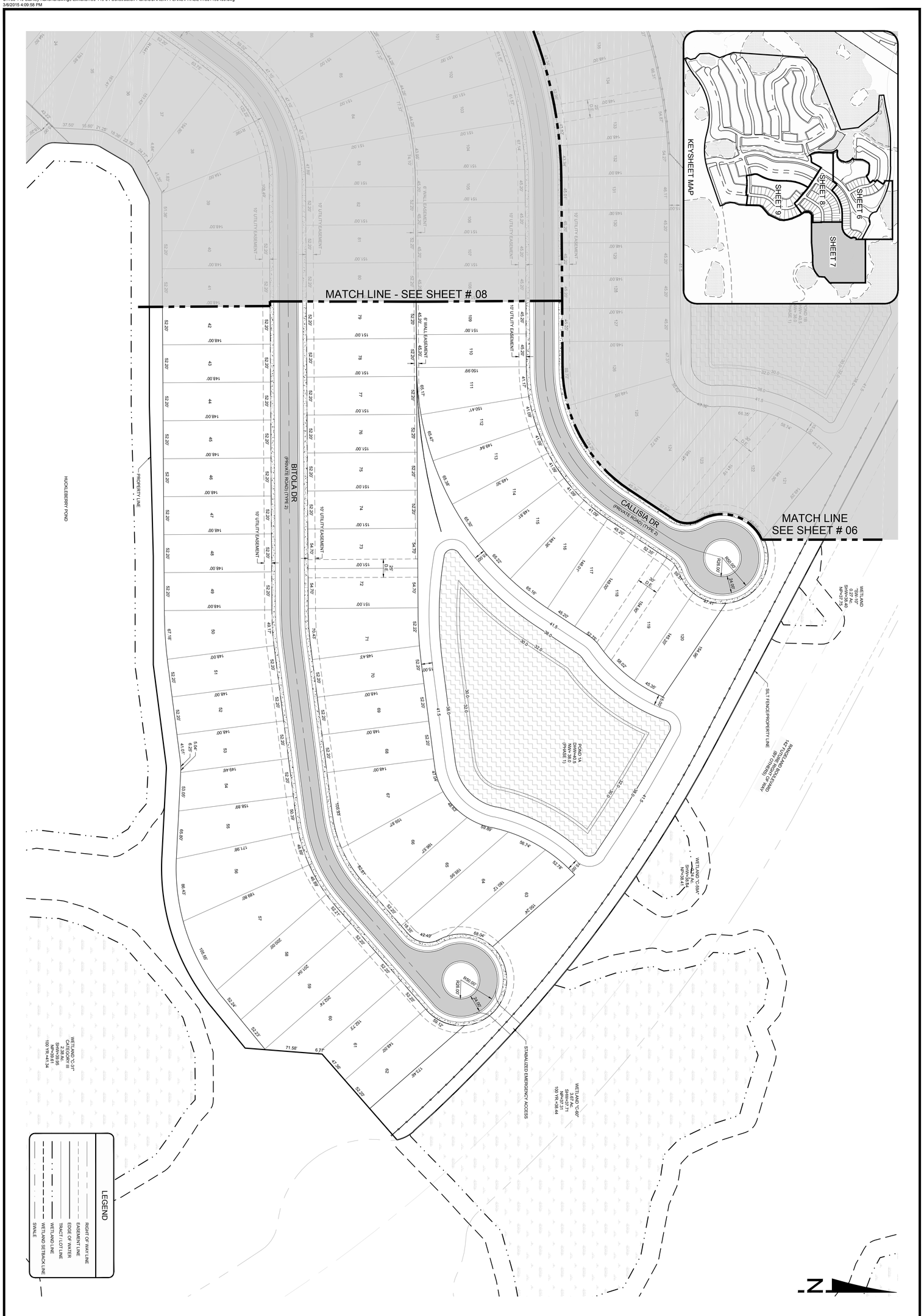

DESIGN ENGINEER:	HUCK SWANSON, P.E.
LICENSE NUMBER:	FL LICENSE NO. 62997
SET NUMBER:	186-119-04
SHEET:	07

FLORIDA CERTIFICATE OF AUTHORIZATION #6606

SCALE IN FEET: 0 30 60 120

PLAN REVISIONS — REV00 <<SUBMITTED / BID SET>> XX/XX/XX

CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SITE PLAN

WALDROP ENGINEERING
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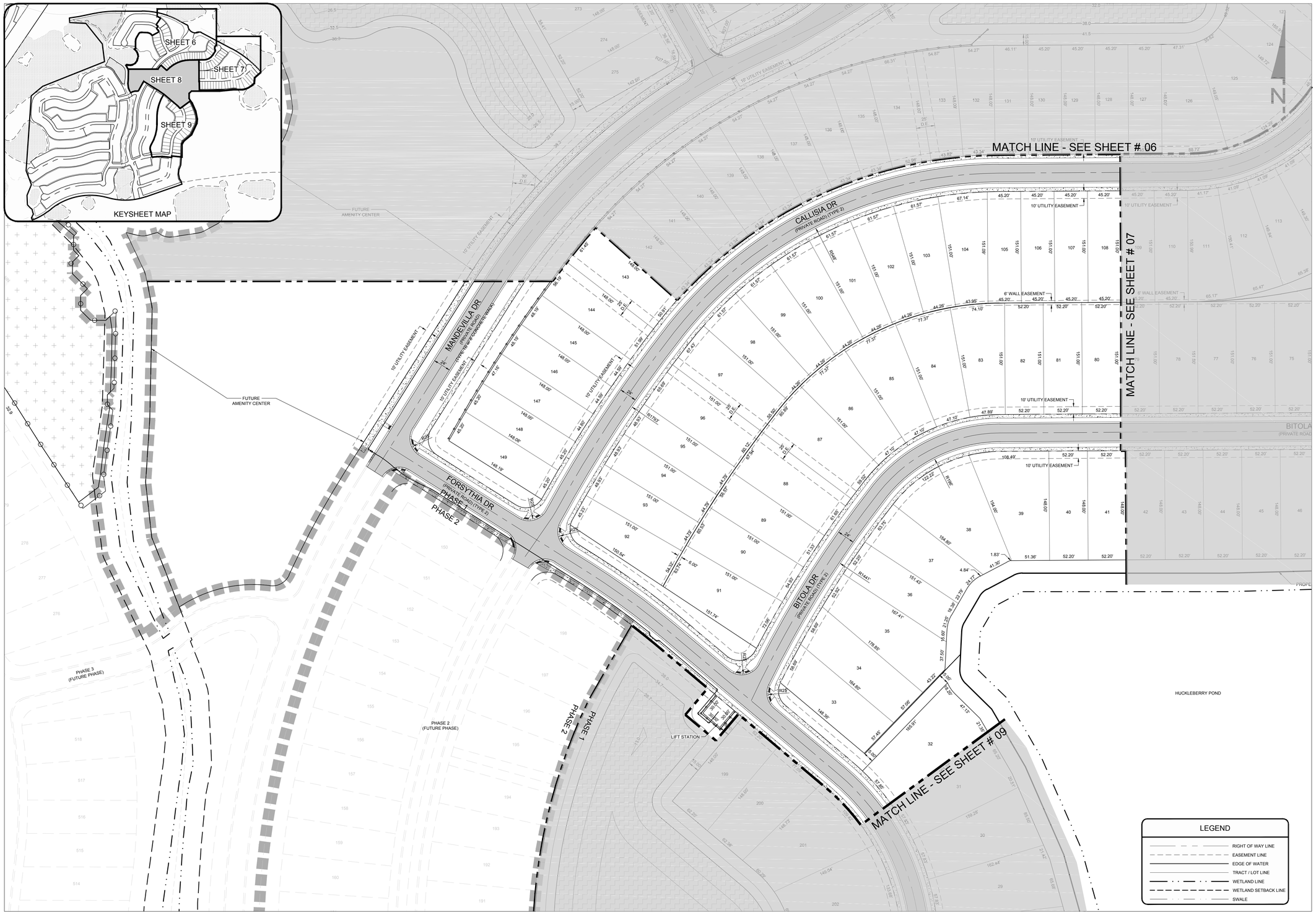
9432 CAMDEN FIELD PARKWAY RIVERVIEW, FL 33578
P: 813-443-5282 F: 813-443-5285 EMAIL: info@waldropengineering.com



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SITE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 30 60 120

SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 08

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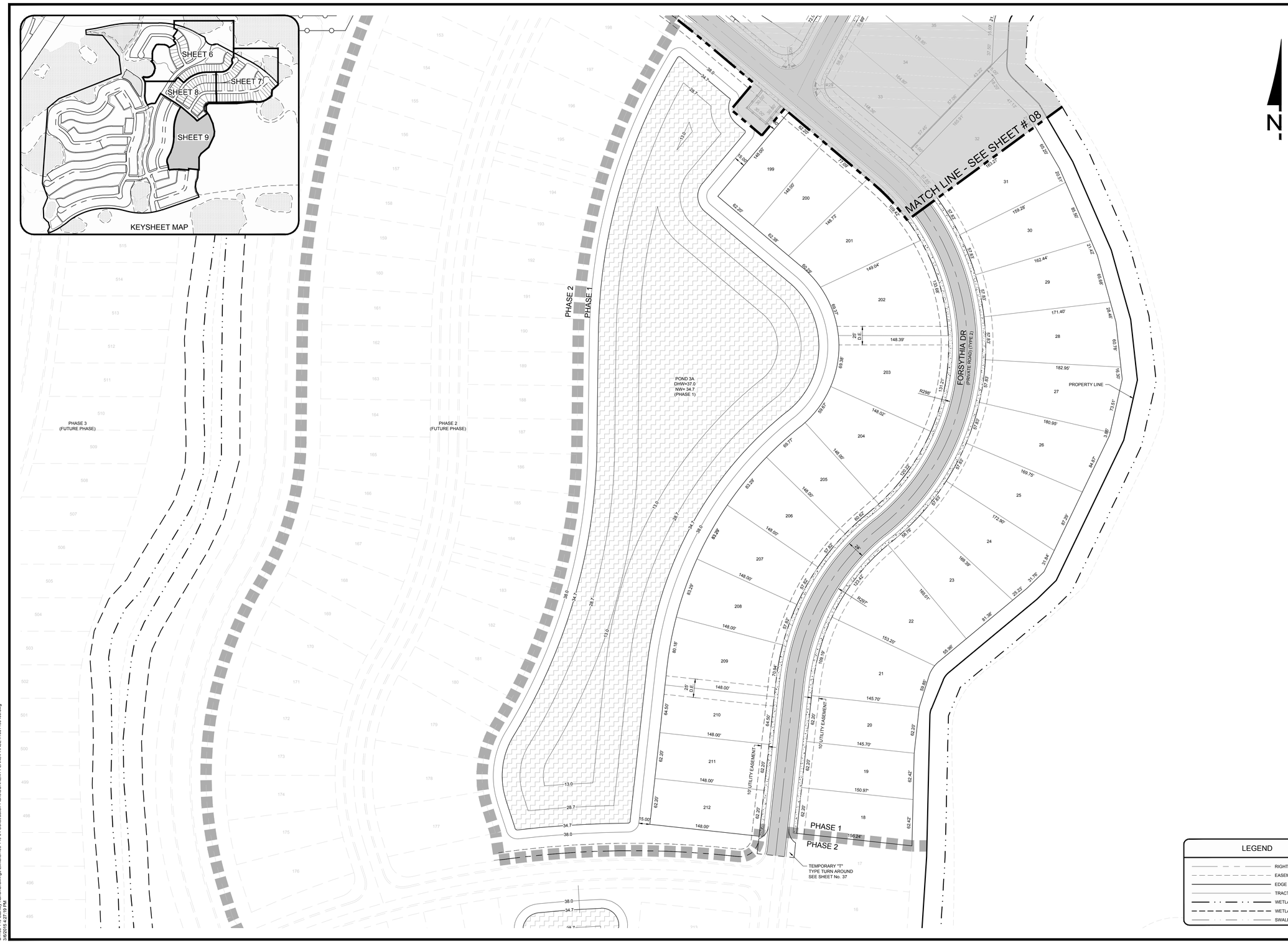

LEGEND

- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF WATER
- TRACT / LOT LINE
- WETLAND LINE
- WETLAND SETBACK LINE
- SWALE

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SITE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 09

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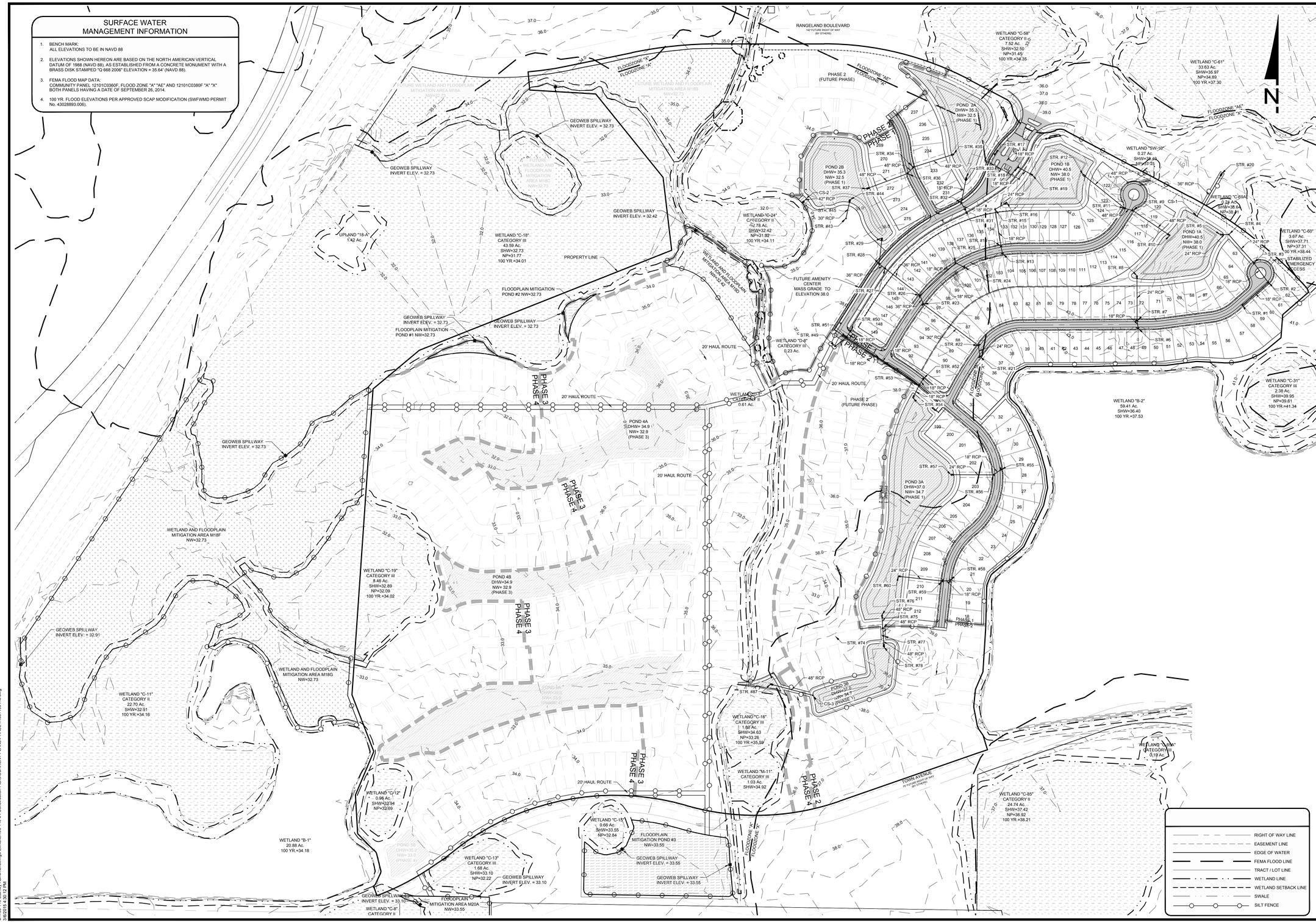
SURFACE WATER MANAGEMENT INFORMATION

1. BENCH MARK:
   ALL ELEVATIONS TO BE IN NAVD 88
2. ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS ESTABLISHED FROM A CONCRETE MONUMENT WITH A BRASS DISK STAMPED "Q 668 2006" ELEVATION = 35.64' (NAVD 88).
3. FEMA FLOOD MAP DATA:
   COMMUNITY PANEL 12101C0360F, FLOOD ZONE "A" "AE" AND 12101C0380F "A" "X" BOTH PANELS HAVING A DATE OF SEPTEMBER 26, 2014.
4. 100 YR. FLOOD ELEVATIONS PER APPROVED SCAP MODIFICATION (SWFWMD PERMIT No. 43028893.006).



RIGHT OF WAY LINE
EASEMENT LINE
EDGE OF WATER
FEMA FLOOD LINE
TRACT / LOT LINE
WETLAND LINE
WETLAND SETBACK LINE
SWALE
SILT FENCE

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

MASTER DRAINAGE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 100 200 400
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #9636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 10

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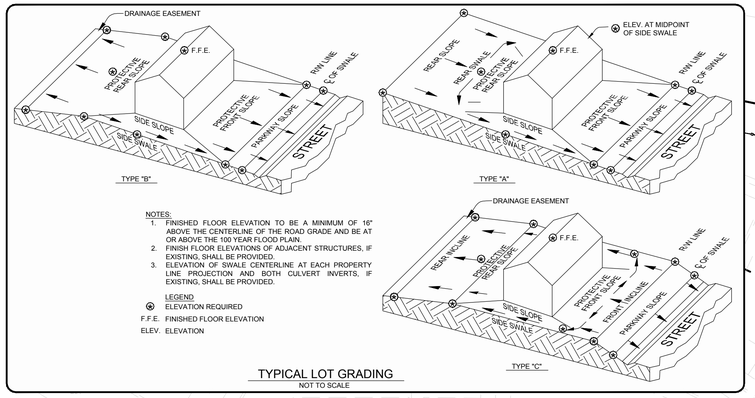


NOTES:

1. FINISHED FLOOR ELEVATION TO BE A MINIMUM OF 16" ABOVE THE CENTERLINE OF THE ROAD GRADE AND BE AT OR ABOVE THE 100 YEAR FLOOD PLAIN.
2. FINISH FLOOR ELEVATIONS OF ADJACENT STRUCTURES, IF EXISTING, SHALL BE PROVIDED.
3. ELEVATION OF SWALE CENTERLINE AT EACH PROPERTY LINE PROJECTION AND BOTH CULVERT INVERTS, IF EXISTING, SHALL BE PROVIDED.

LEGEND

⊗ ELEVATION REQUIRED

F.F.E. FINISHED FLOOR ELEVATION

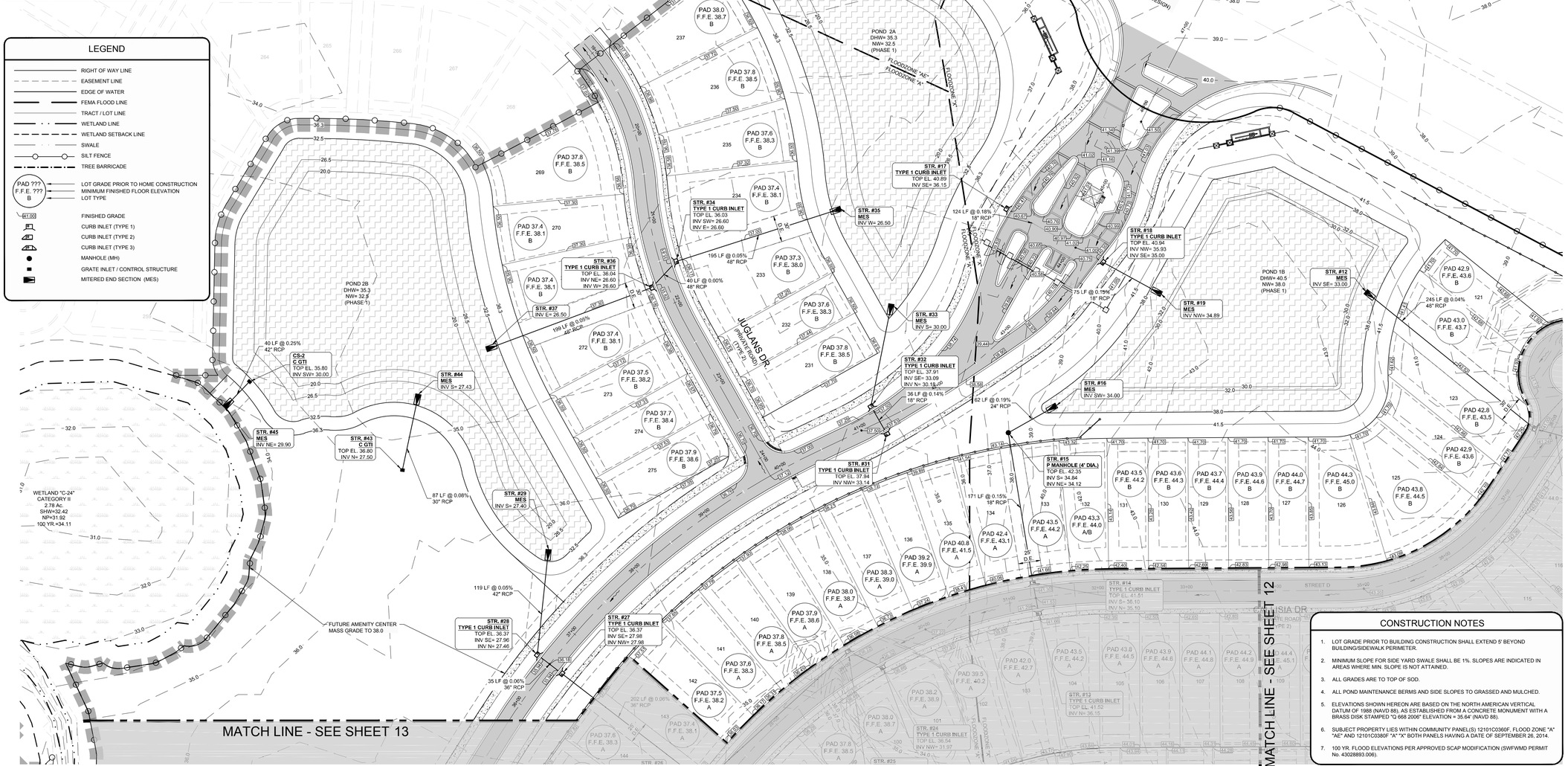
ELEV. ELEVATION

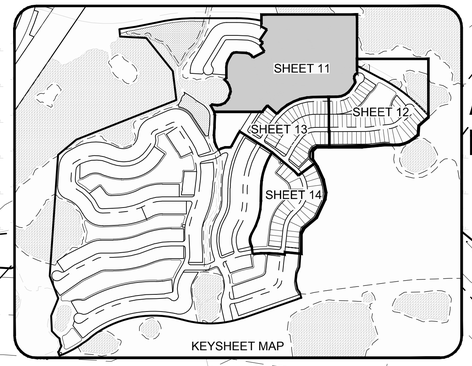
TYPICAL LOT GRADING

NOT TO SCALE

LEGEND

- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF WATER
- FEMA FLOOD LINE
- TRACT / LOT LINE
- WETLAND LINE
- WETLAND SETBACK LINE
- SWALE
- SILT FENCE
- TREE BARRICADE
- PAD ??? / F.F.E. ??? / B — LOT GRADE PRIOR TO HOME CONSTRUCTION; MINIMUM FINISHED FLOOR ELEVATION; LOT TYPE
- 41.00 — FINISHED GRADE
- CURB INLET (TYPE 1)
- CURB INLET (TYPE 2)
- CURB INLET (TYPE 3)
- MANHOLE (MH)
- GRATE INLET / CONTROL STRUCTURE
- MITERED END SECTION (MES)





CONSTRUCTION NOTES

1. LOT GRADE PRIOR TO BUILDING CONSTRUCTION SHALL EXTEND 5' BEYOND BUILDING/SIDEWALK PERIMETER.
2. MINIMUM SLOPE FOR SIDE YARD SWALE SHALL BE 1%. SLOPES ARE INDICATED IN AREAS WHERE MIN. SLOPE IS NOT ATTAINED.
3. ALL GRADES ARE TO TOP OF SOD.
4. ALL POND MAINTENANCE BERMS AND SIDE SLOPES TO GRASSED AND MULCHED.
5. ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). AS ESTABLISHED FROM A CONCRETE MONUMENT WITH A BRASS DISK STAMPED "Q 668 2006" ELEVATION = 35.64' (NAVD 88).
6. SUBJECT PROPERTY LIES WITHIN COMMUNITY PANEL(S) 12101C0360F, FLOOD ZONE "AE" AND 12101C0380F "AE" "X" BOTH PANELS HAVING A DATE OF SEPTEMBER 26, 2014.
7. 100 YR. FLOOD ELEVATIONS PER APPROVED SCAP MODIFICATION (SWFWMD PERMIT No. 43028893.006).

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PAVING, GRADING AND DRAINAGE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #9636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 11

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NOTES:

1. FINISHED FLOOR ELEVATION TO BE A MINIMUM OF 16" ABOVE THE CENTERLINE OF THE ROAD GRADE AND BE AT OR ABOVE THE 100 YEAR FLOOD PLAIN.
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3. ELEVATION OF SWALE CENTERLINE AT EACH PROPERTY LINE PROJECTION AND BOTH CULVERT INVERTS, IF EXISTING, SHALL BE PROVIDED.

LEGEND

(●) ELEVATION REQUIRED
F.F.E. FINISHED FLOOR ELEVATION
ELEV. ELEVATION

TYPICAL LOT GRADING

NOT TO SCALE

CONSTRUCTION NOTES

1. LOT GRADE PRIOR TO BUILDING CONSTRUCTION SHALL EXTEND 5' BEYOND BUILDING/SIDEWALK PERIMETER.
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7. 100 YR. FLOOD ELEVATIONS PER APPROVED SCAP MODIFICATION (SWFWMD PERMIT No. 43028893.006).

LEGEND

- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF WATER
- FEMA FLOOD LINE
- TRACT / LOT LINE
- WETLAND LINE
- WETLAND SETBACK LINE
- SWALE
- SILT FENCE
- TREE BARRICADE
- PAD ??? / F.F.E. ??? / B — LOT GRADE PRIOR TO HOME CONSTRUCTION; MINIMUM FINISHED FLOOR ELEVATION; LOT TYPE
- 41.00 — FINISHED GRADE
- CURB INLET (TYPE 1)
- CURB INLET (TYPE 2)
- CURB INLET (TYPE 3)
- MANHOLE (MH)
- GRATE INLET / CONTROL STRUCTURE
- MITERED END SECTION (MES)

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PAVING, GRADING AND DRAINAGE PLAN

PLAN REVISIONS

RE/00 <<SUBMITTED / BID SET>> XX/XX/XX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 12

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NOTES:

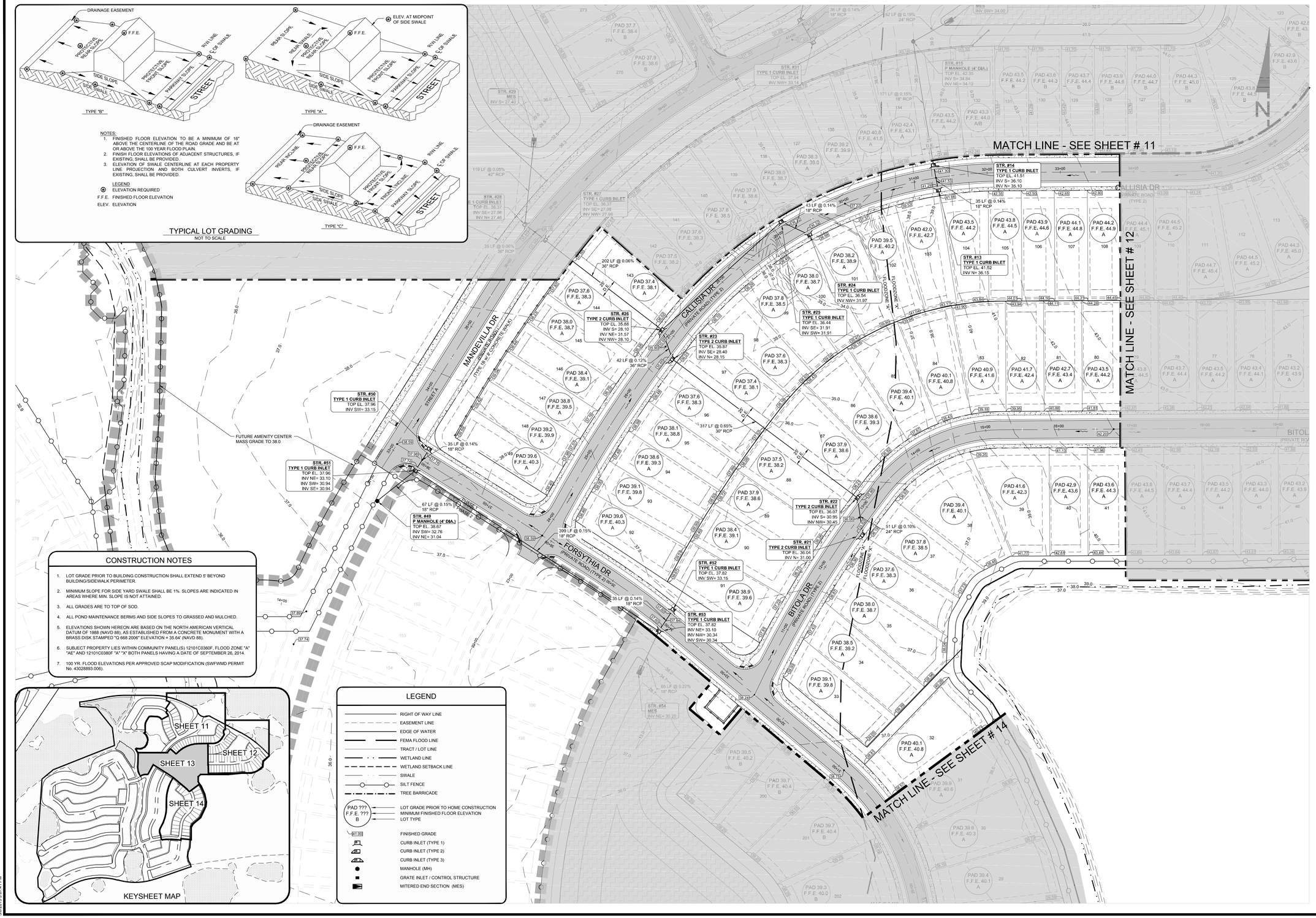
1. FINISHED FLOOR ELEVATION TO BE A MINIMUM OF 16" ABOVE THE CENTERLINE OF THE ROAD GRADE AND BE AT OR ABOVE THE 100 YEAR FLOOD PLAIN.
2. FINISH FLOOR ELEVATIONS OF ADJACENT STRUCTURES, IF EXISTING, SHALL BE PROVIDED.
3. ELEVATION OF SWALE CENTERLINE AT EACH PROPERTY LINE PROJECTION AND BOTH CULVERT INVERTS, IF EXISTING, SHALL BE PROVIDED.

LEGEND

⊛ ELEVATION REQUIRED
F.F.E. FINISHED FLOOR ELEVATION
ELEV. ELEVATION

TYPICAL LOT GRADING

NOT TO SCALE



CONSTRUCTION NOTES

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7. 100 YR. FLOOD ELEVATIONS PER APPROVED SCAP MODIFICATION (SWFWMD PERMIT No. 43028893.006).

KEYSHEET MAP

LEGEND

- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF WATER
- FEMA FLOOD LINE
- TRACT / LOT LINE
- WETLAND LINE
- WETLAND SETBACK LINE
- SWALE
- SILT FENCE
- TREE BARRICADE
- PAD ??? / F.F.E. ??? / B — LOT GRADE PRIOR TO HOME CONSTRUCTION; MINIMUM FINISHED FLOOR ELEVATION; LOT TYPE
- 41.00 — FINISHED GRADE
- CURB INLET (TYPE 1)
- CURB INLET (TYPE 2)
- CURB INLET (TYPE 3)
- MANHOLE (MH)
- GRATE INLET / CONTROL STRUCTURE
- MITERED END SECTION (MES)

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PAVING, GRADING AND DRAINAGE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 13

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LEGEND

- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF WATER
- FEMA FLOOD LINE
- TRACT / LOT LINE
- WETLAND LINE
- WETLAND SETBACK LINE
- SWALE
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CONSTRUCTION NOTES

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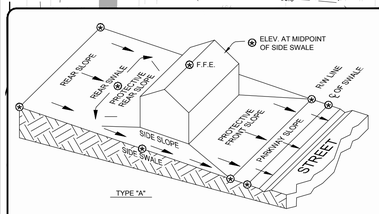
7. 100 YR. FLOOD ELEVATIONS PER APPROVED SCAP MODIFICATION (SWFWMD PERMIT No. 43028893.006).



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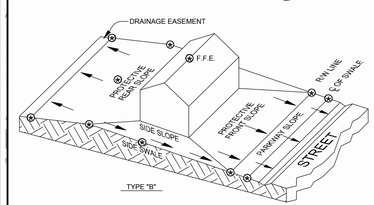

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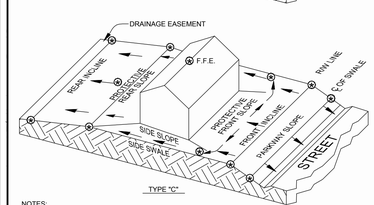


TYPE "C"

NOTES:

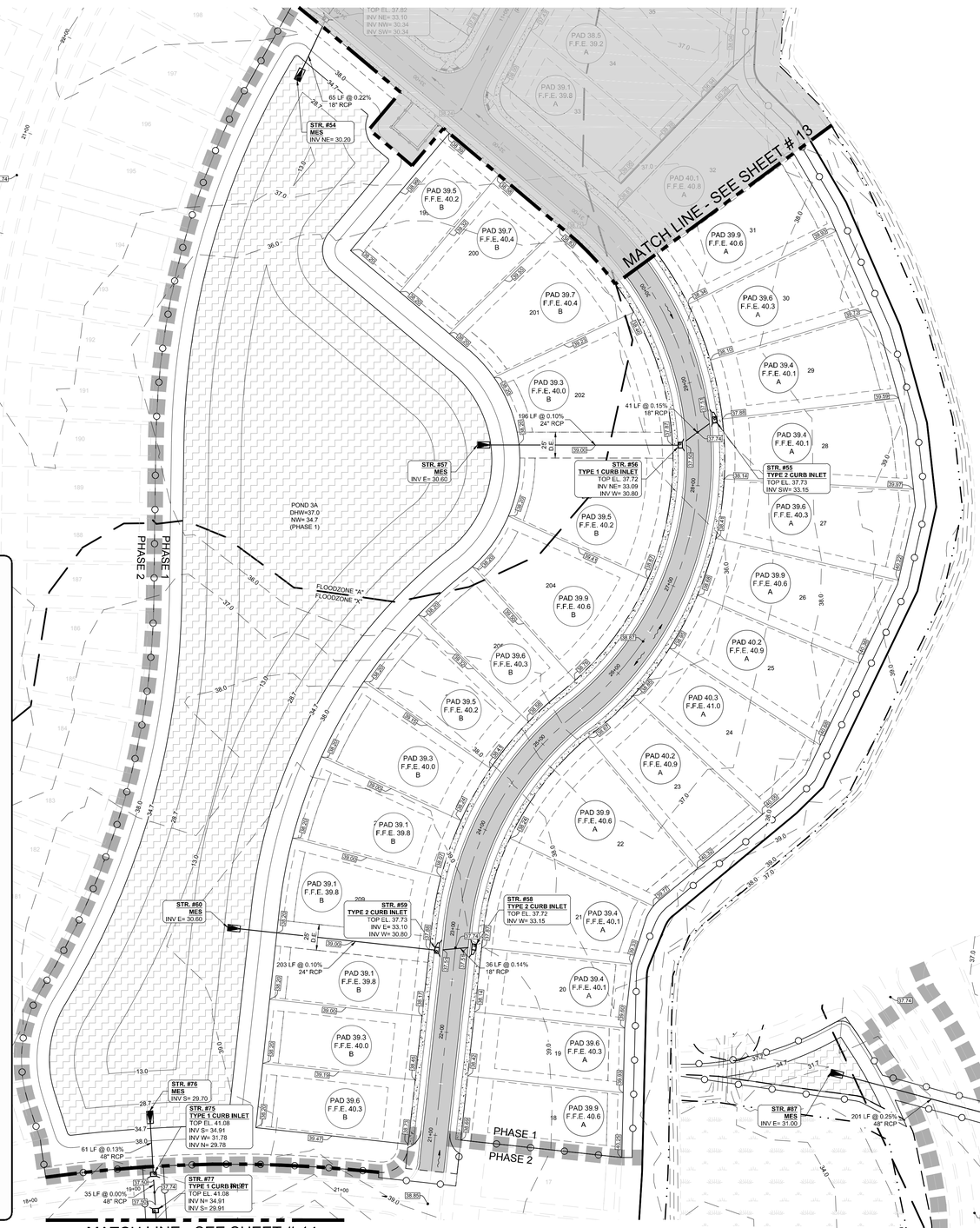
1. FINISHED FLOOR ELEVATION TO BE A MINIMUM OF 16" ABOVE THE CENTERLINE OF THE ROAD GRADE AND BE AT OR ABOVE THE 100 YEAR FLOOD PLAIN.
2. FINISH FLOOR ELEVATIONS OF ADJACENT STRUCTURES, IF EXISTING, SHALL BE PROVIDED.
3. ELEVATION OF SWALE CENTERLINE AT EACH PROPERTY LINE PROJECTION AND BOTH CULVERT INVERTS, IF EXISTING, SHALL BE PROVIDED.

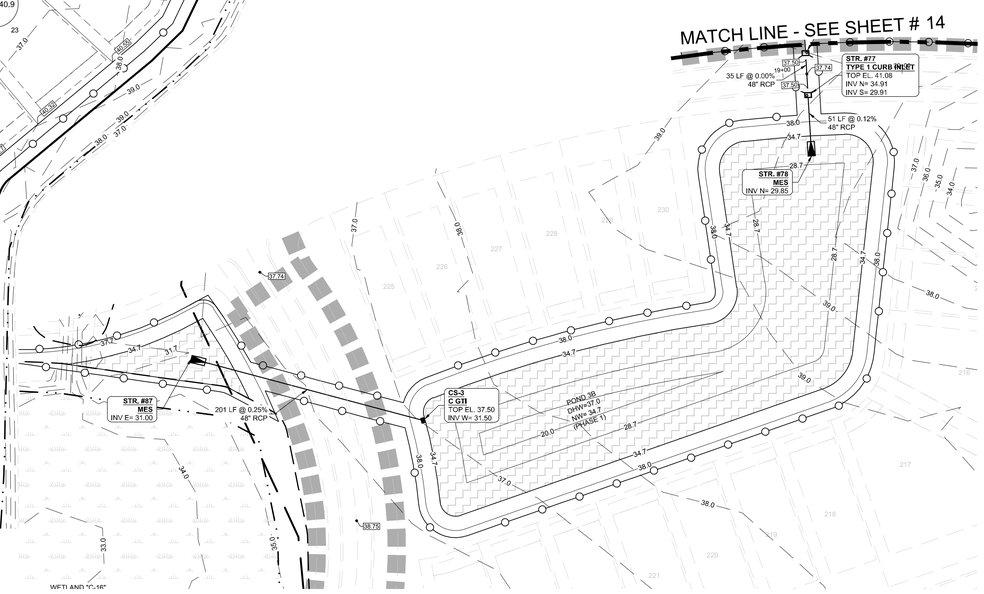
LEGEND

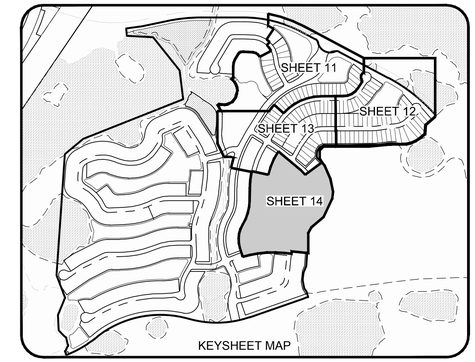
- ⊛ ELEVATION REQUIRED
- F.F.E. FINISHED FLOOR ELEVATION
- ELEV. ELEVATION

TYPICAL LOT GRADING

NOT TO SCALE







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P: 813-443-3262 F: 813-443-3285 EMAIL: info@waldropengineering.com

CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PAVING, GRADING AND DRAINAGE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 14

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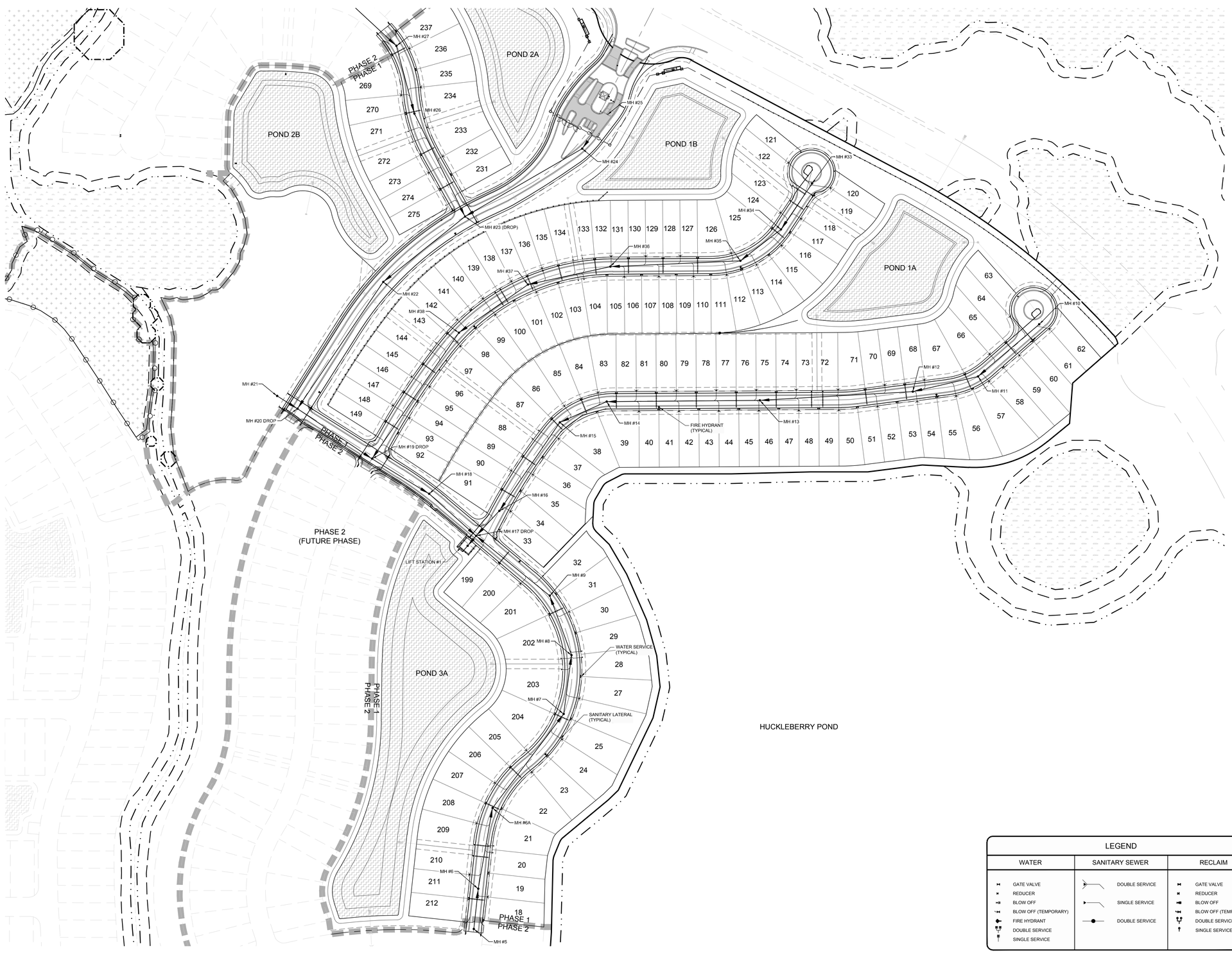

LEGEND

WATER	SANITARY SEWER	RECLAIM
GATE VALVE	DOUBLE SERVICE	GATE VALVE
REDUCER	SINGLE SERVICE	REDUCER
BLOW OFF	DOUBLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

MASTER UTILITY PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 60 120 240
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 15

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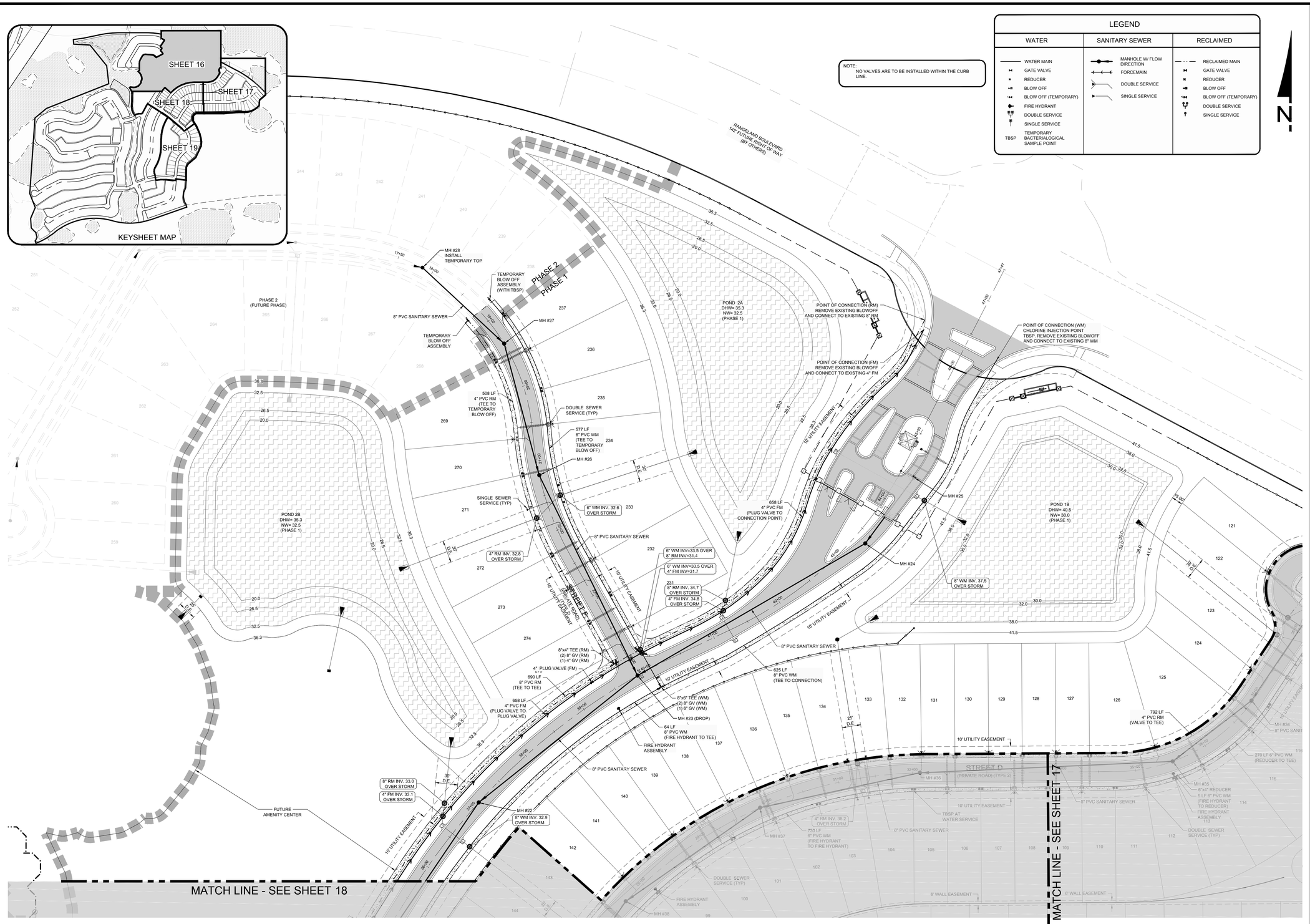

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

UTILITY PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 16

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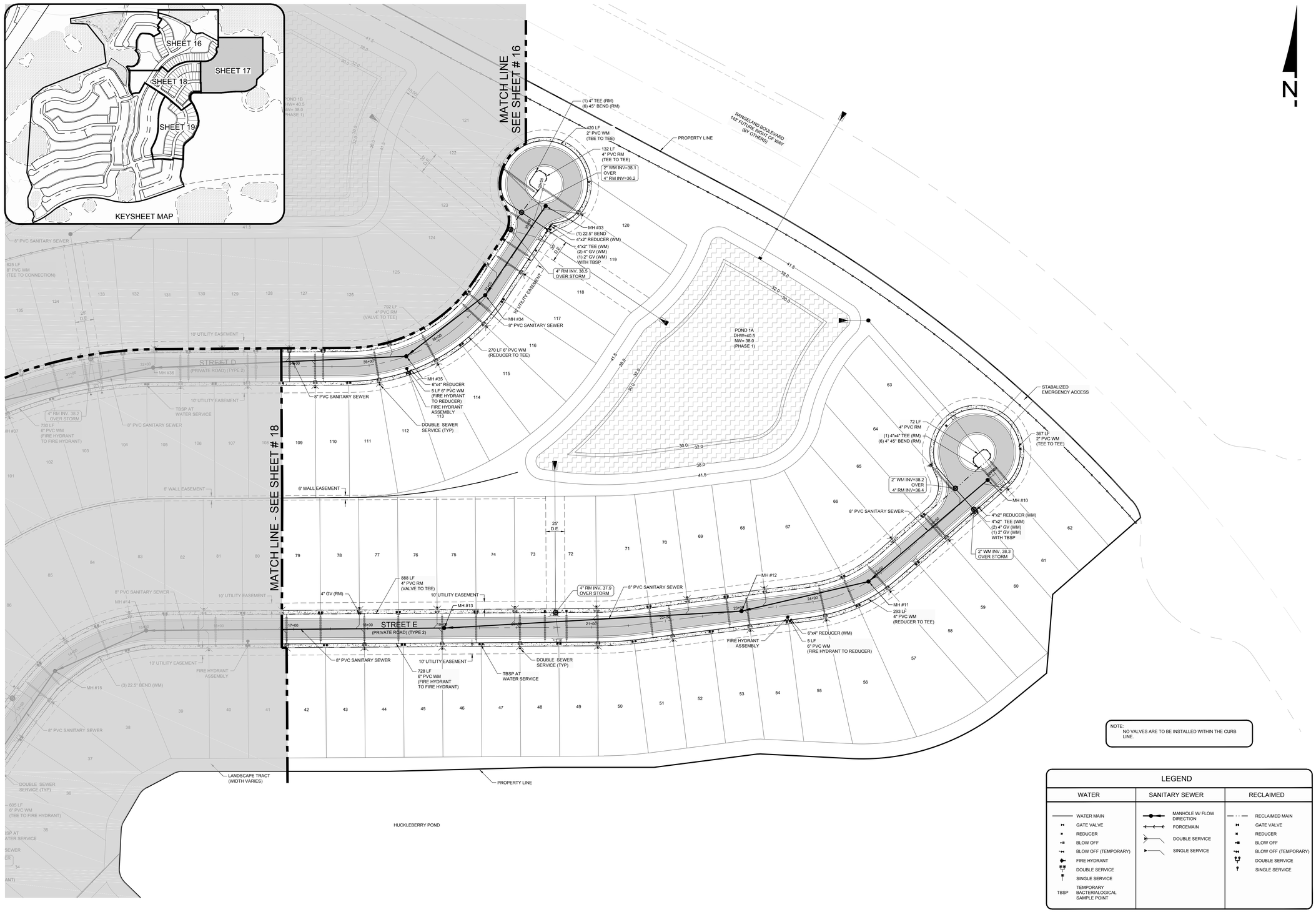

NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		

WALDROP ENGINEERING
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTANTS
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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

UTILITY PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67878

SET NUMBER: 186-119-04

SHEET : 17

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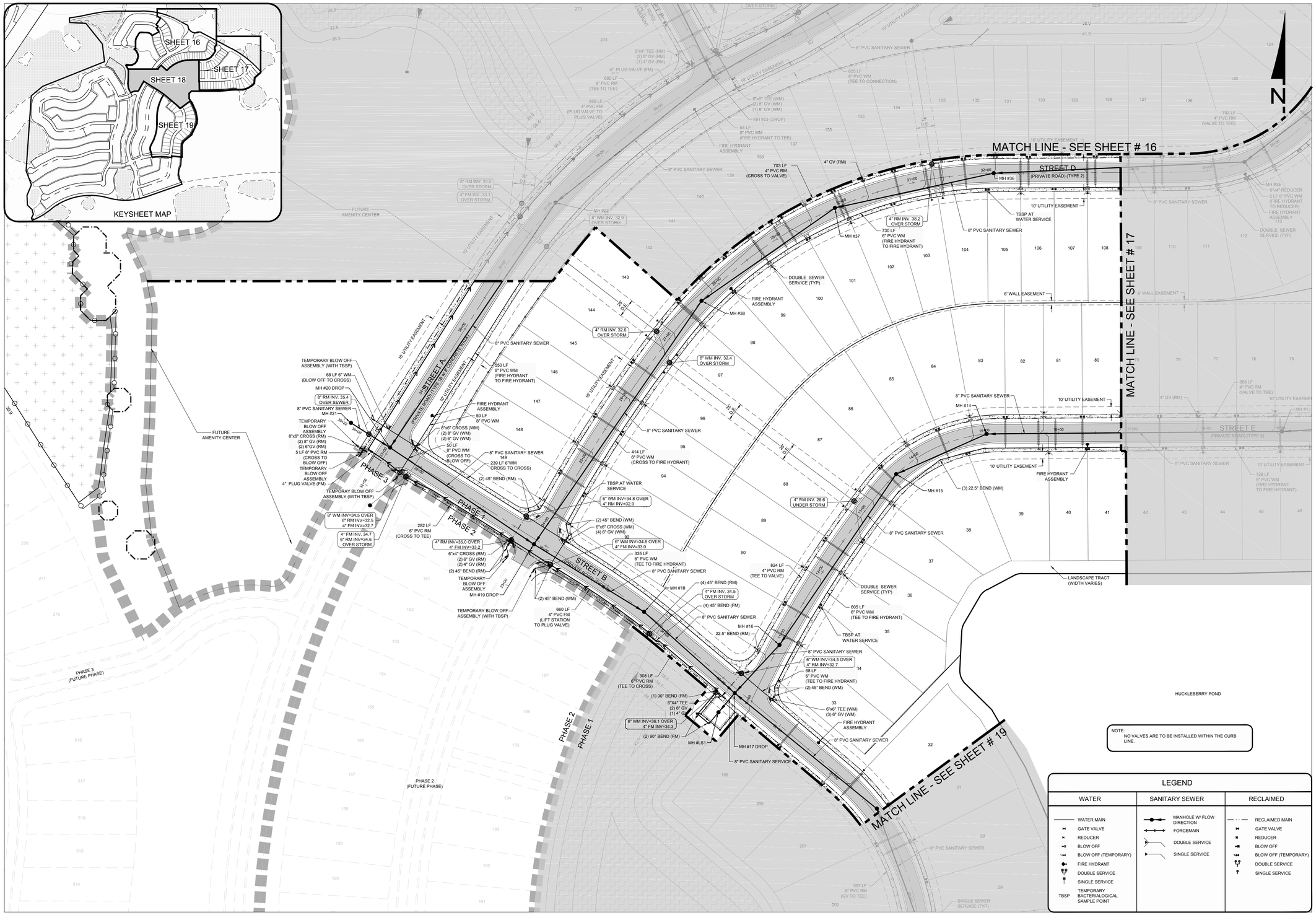

NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

UTILITY PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 18

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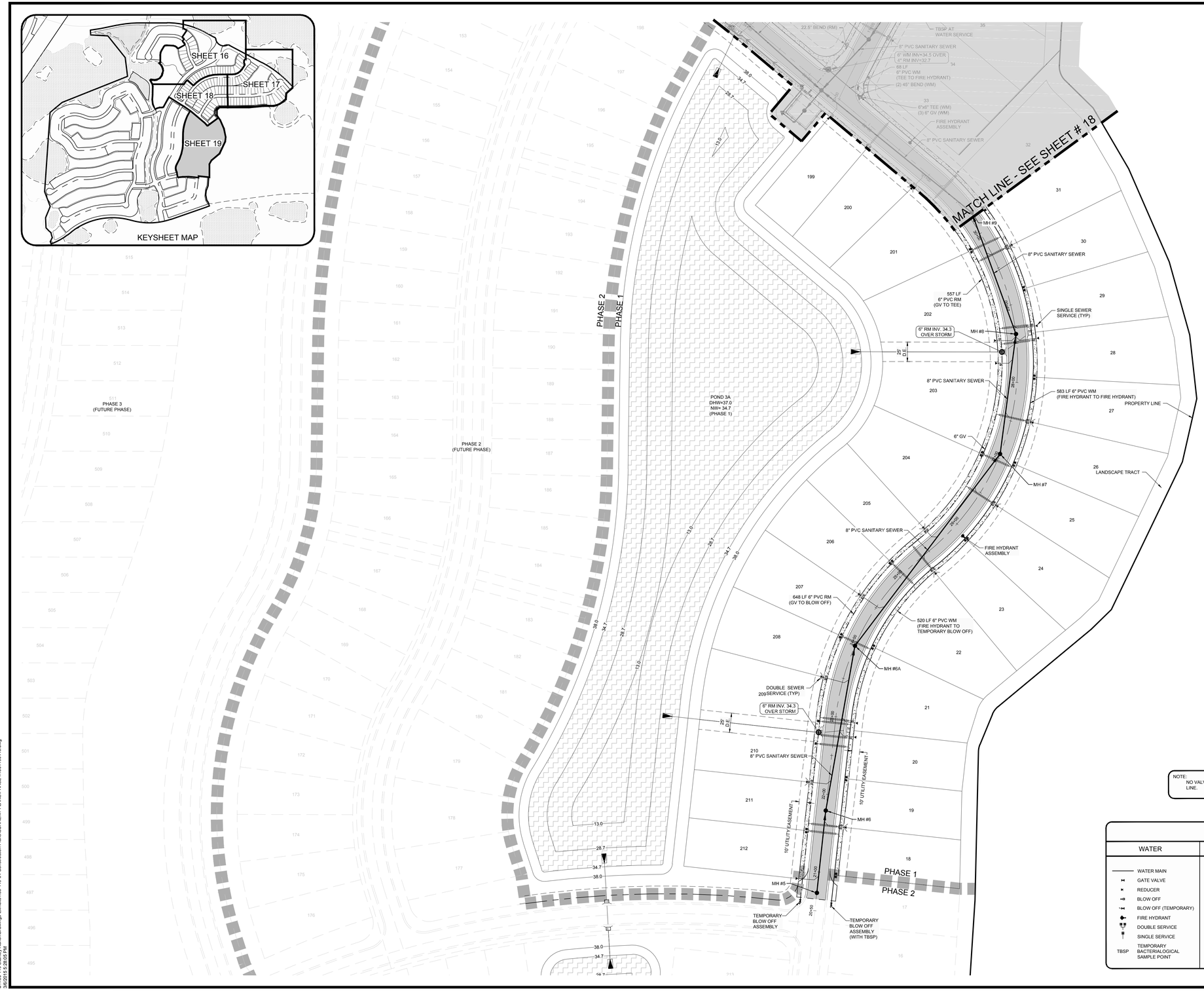

NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP — TEMPORARY BACTERIALOGICAL SAMPLE POINT		

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

UTILITY PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 30 60 120
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

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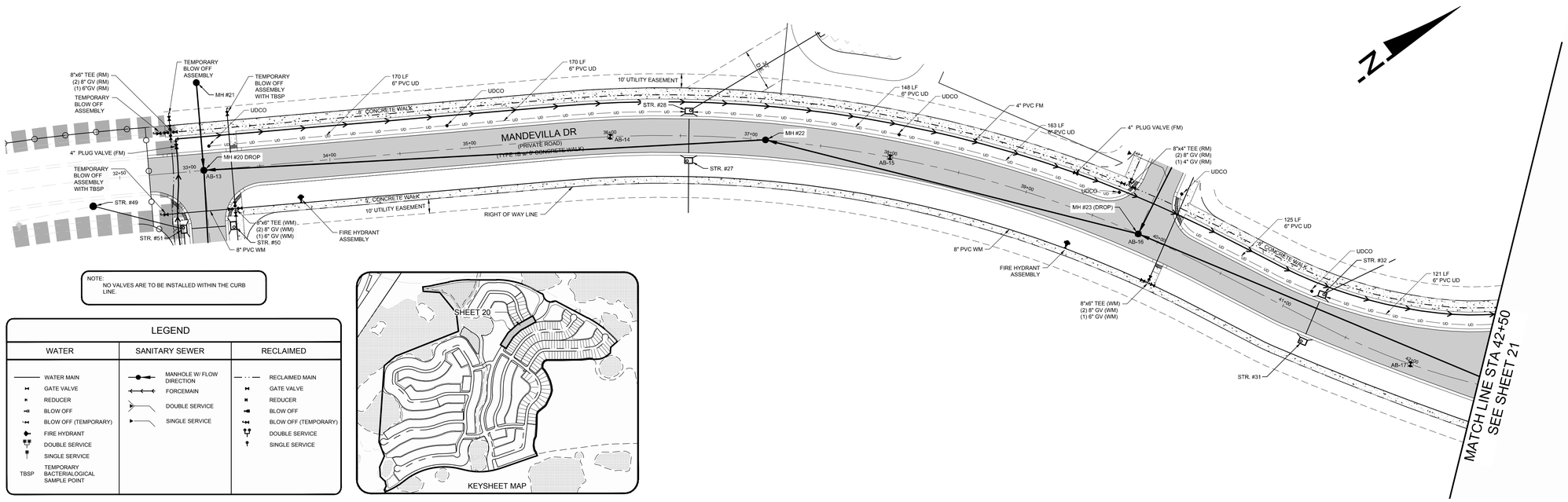
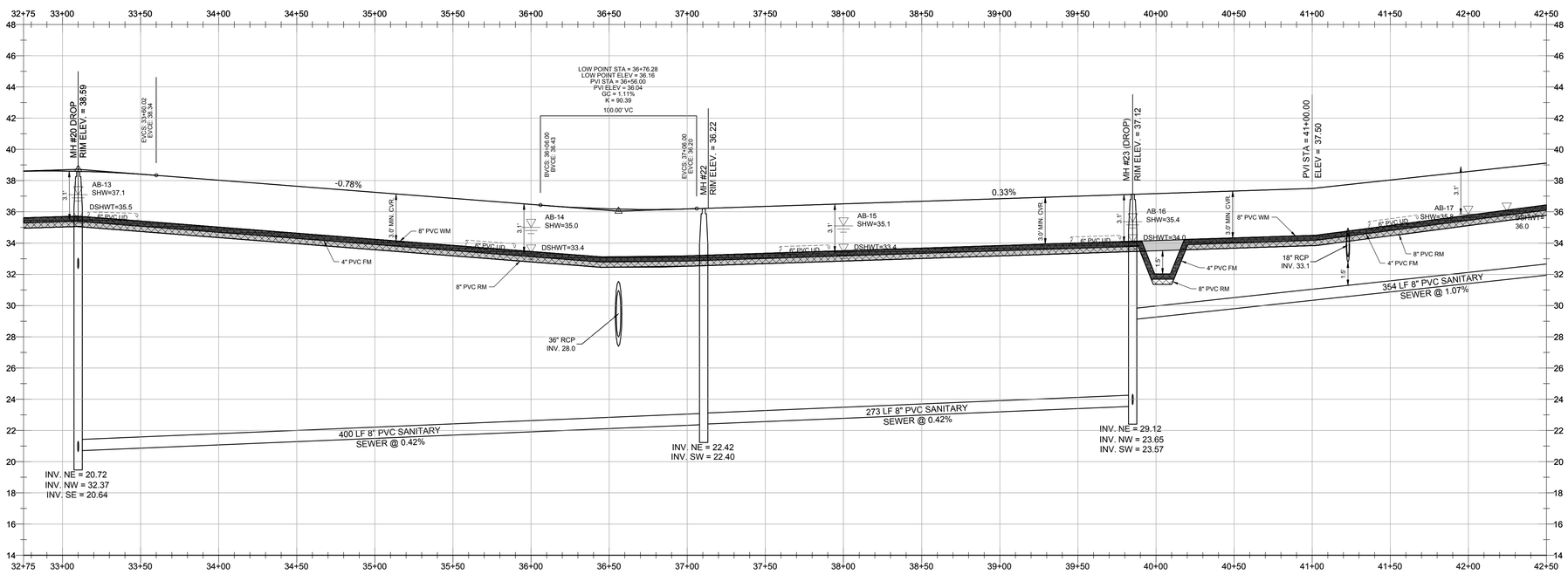


NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

KEYSHEET MAP

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - MANDEVILLA DRIVE

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

0 20 40 80
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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FL LICENSE NO. 63878

SET NUMBER: 186-119-04

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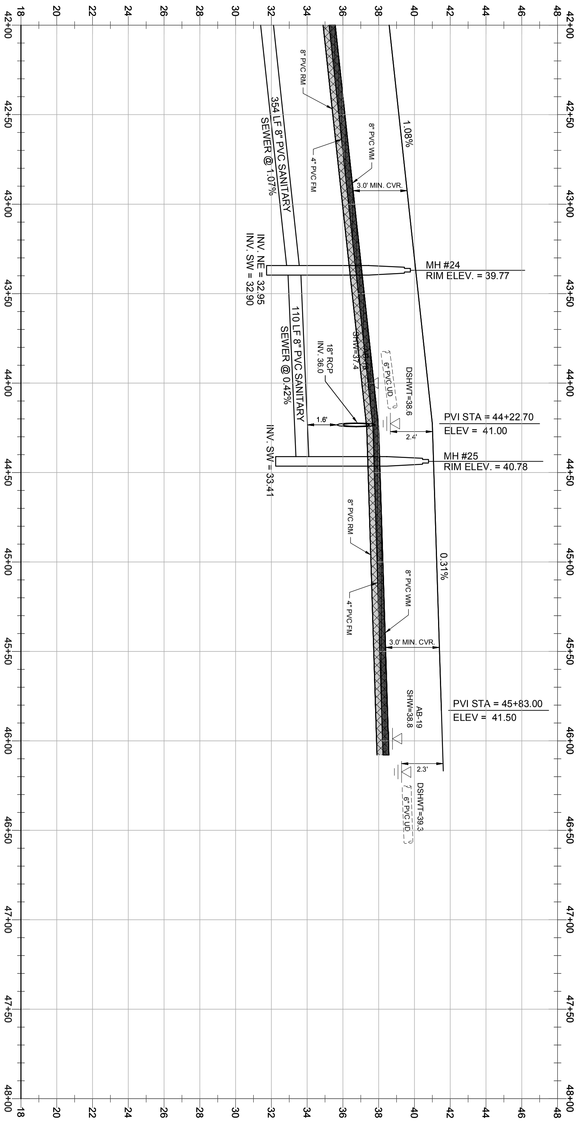

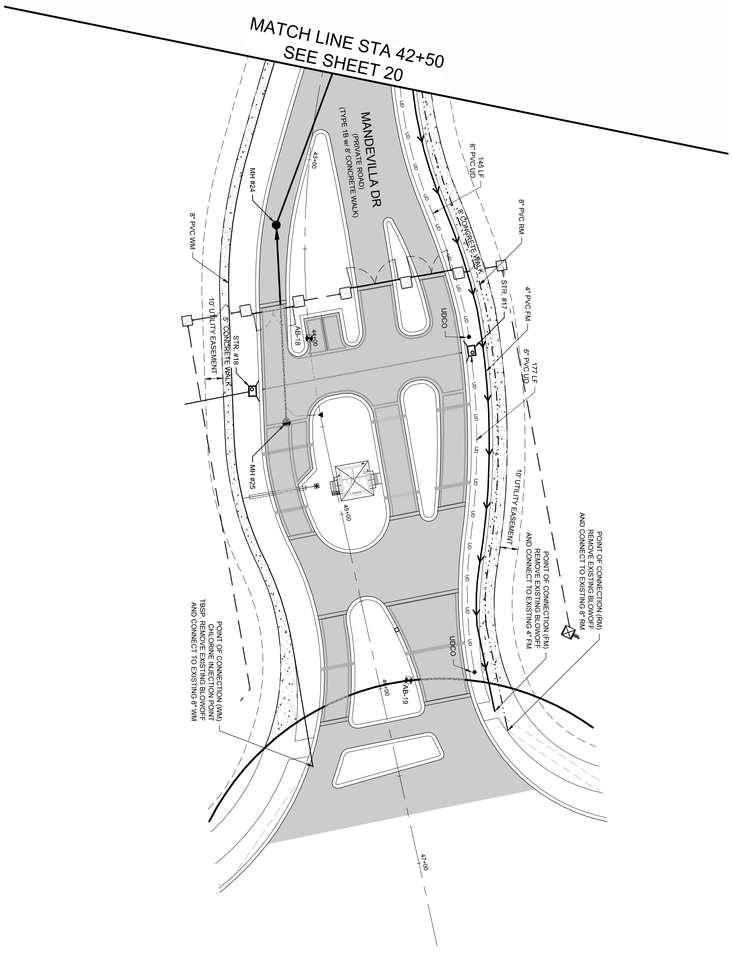

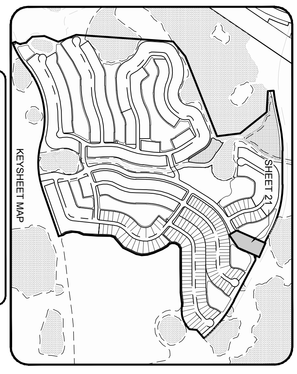

NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TEMPORARY BENCHMARK		
TBSP GEOTECHNICAL SAMPLE POINT		

N

CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - MANDEVILLA DRIVE

PLAN REVISIONS REV00 <<SUBMITTED / BID SET>> XX/XX/XX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #4804

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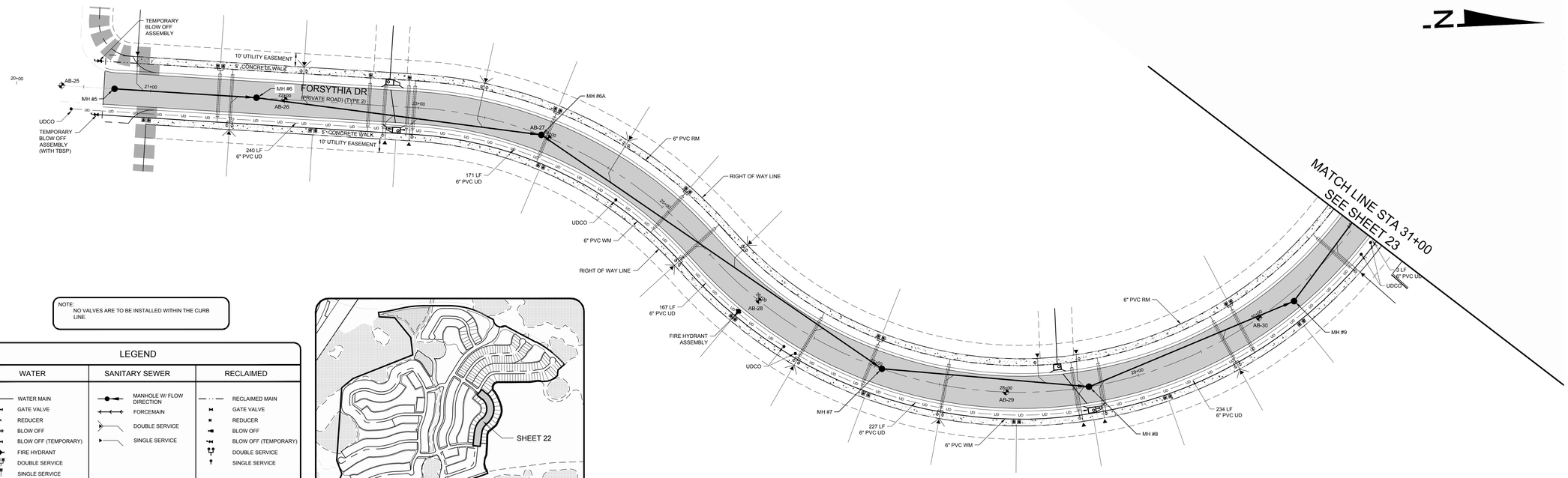
LICENSED PE: TUCK NGUYEN

SET NUMBER: 186-119-04

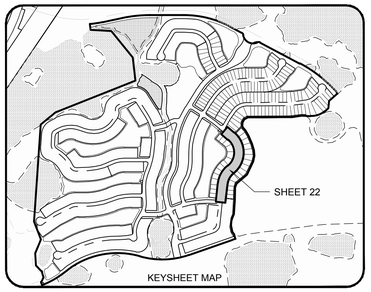
SHEET: 21

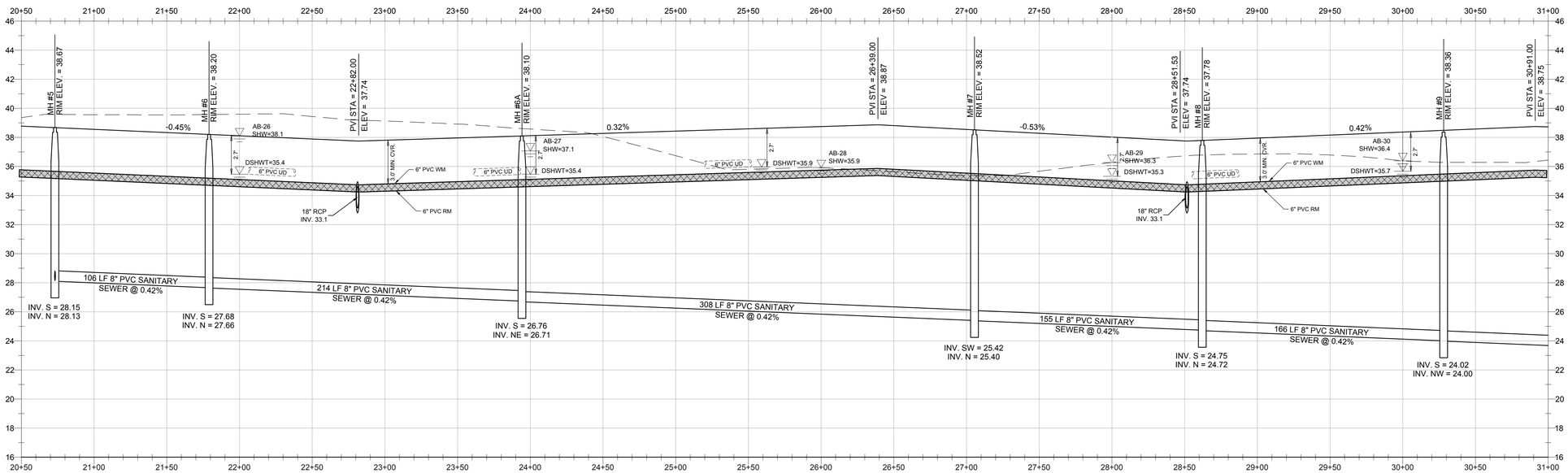


NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIOLOGICAL SAMPLE POINT		





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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - FORSYTHIA DRIVE

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

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FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 22

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NOTE:
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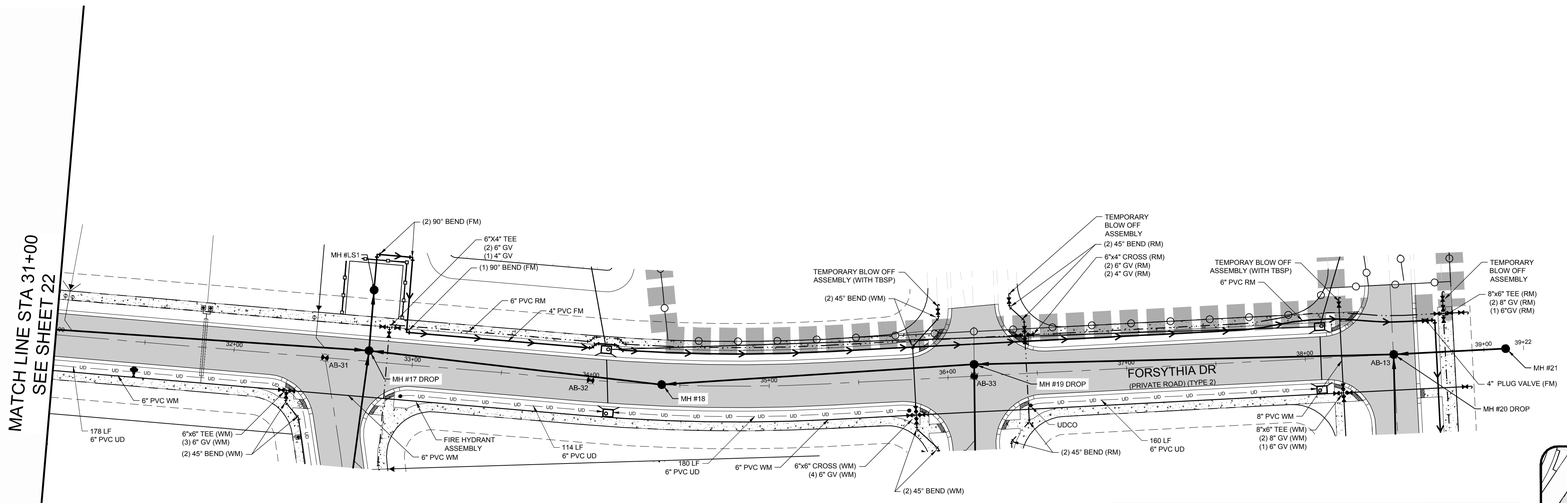

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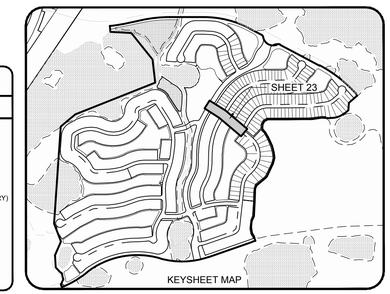
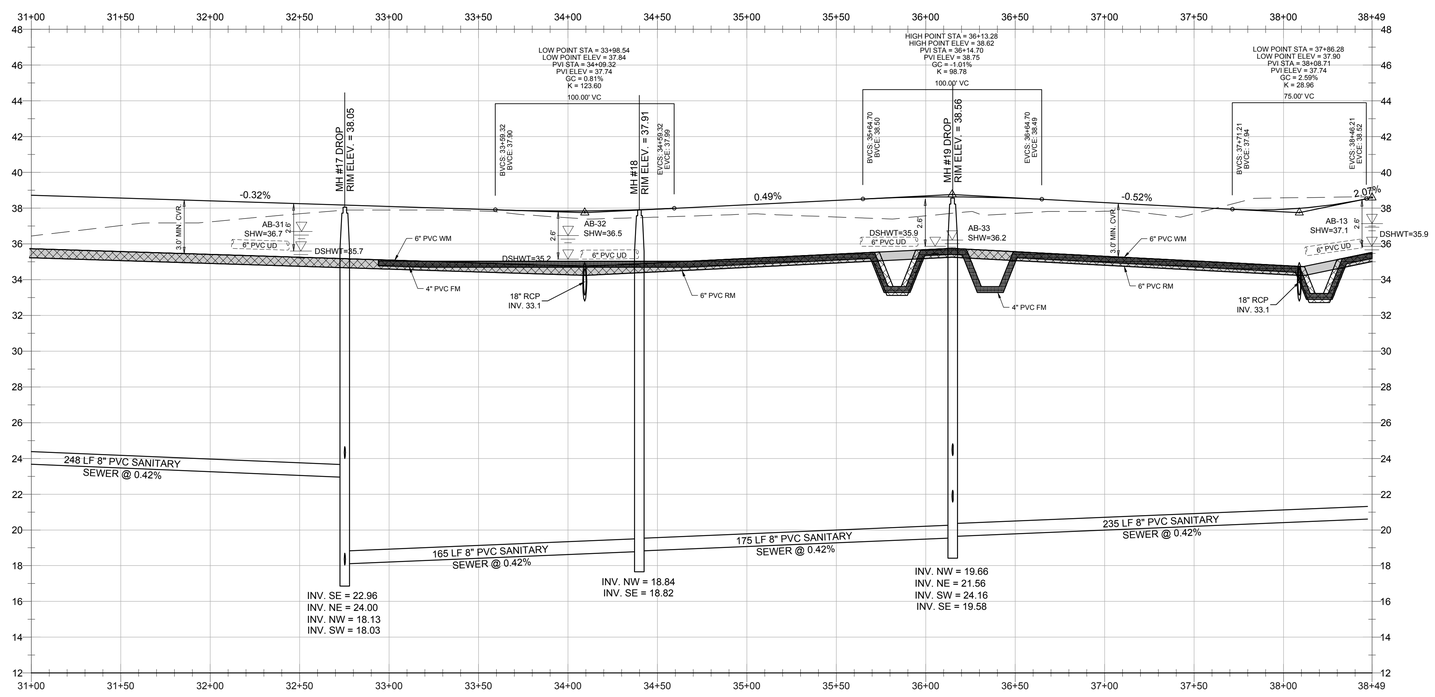


LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - FORSYTHIA DRIVE

PLAN REVISIONS

REV02 <<SUBMITTED / BID SET>> XXXXXXX

0 20 40 80
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

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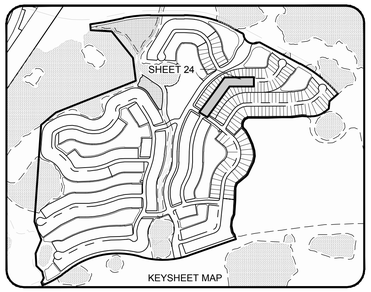
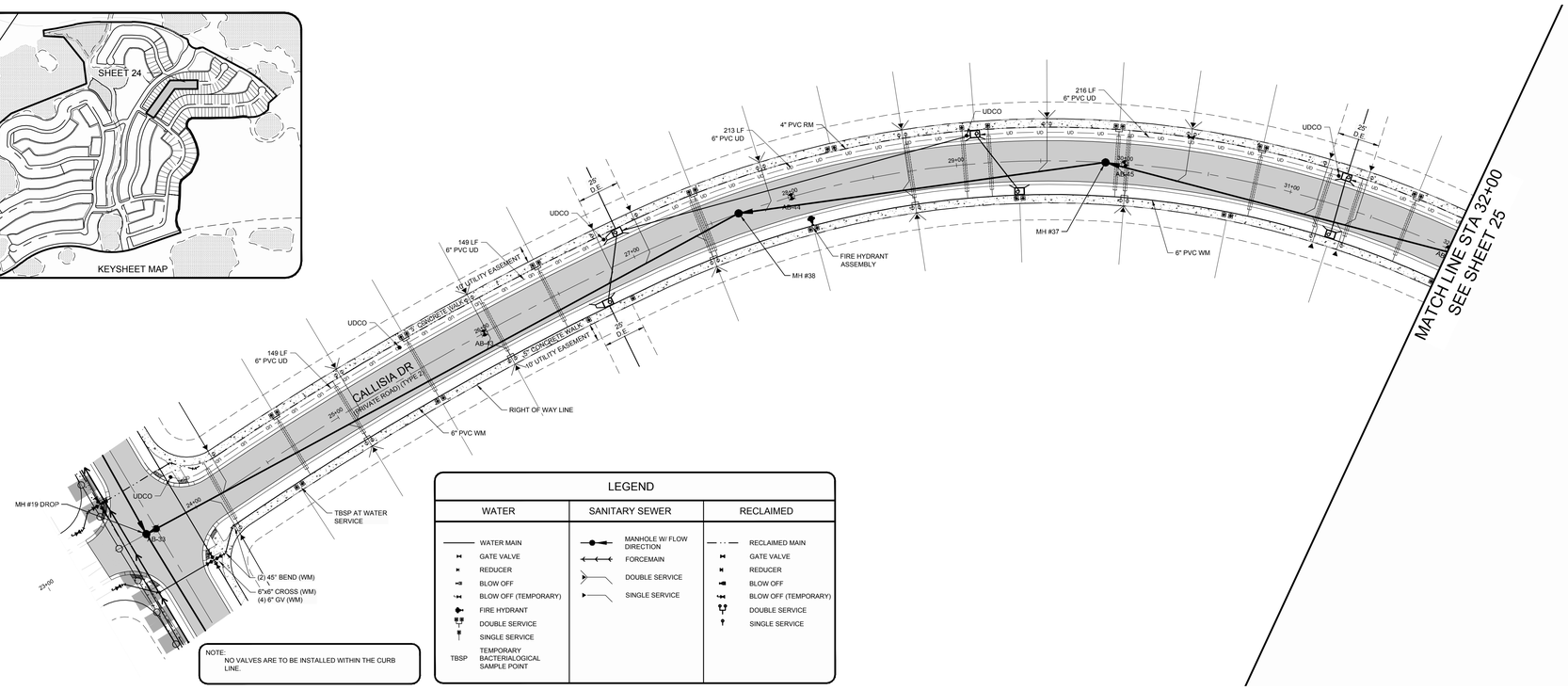
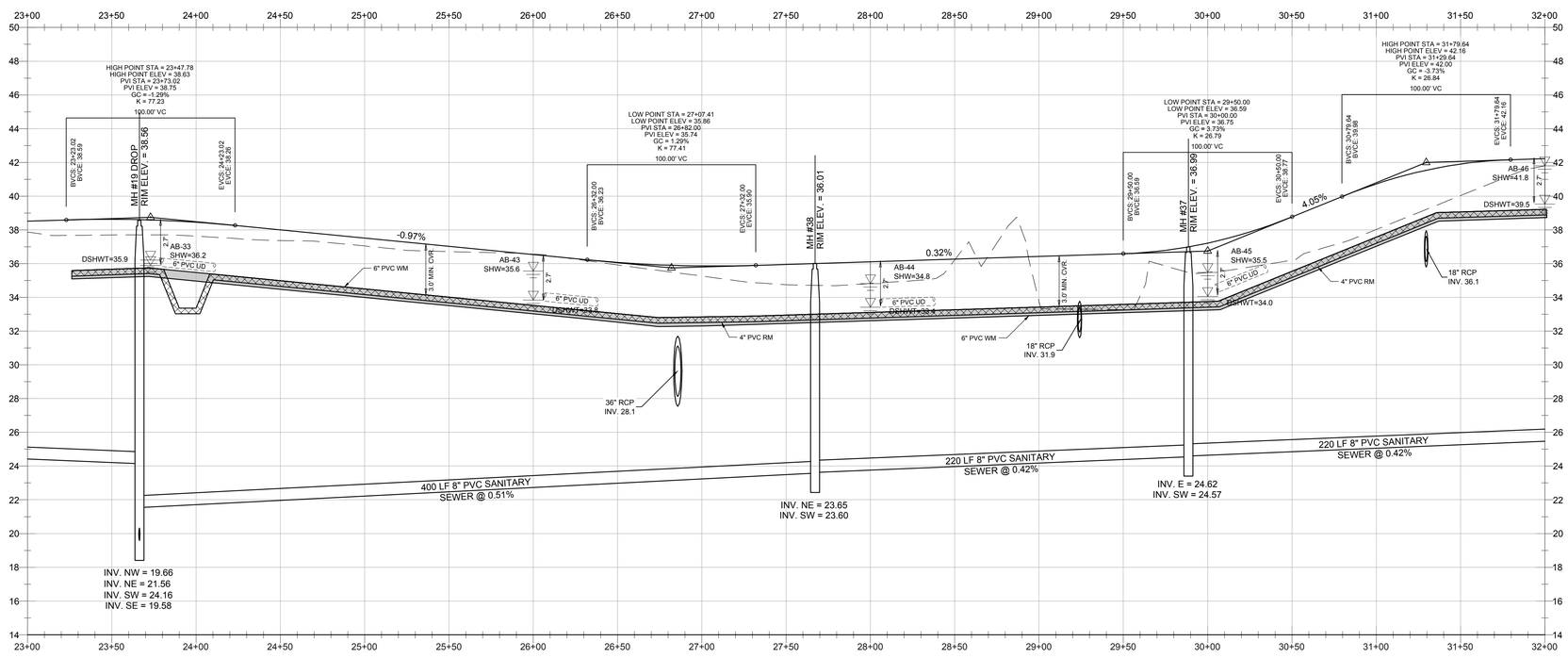




NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - CALLISIA DRIVE

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 24

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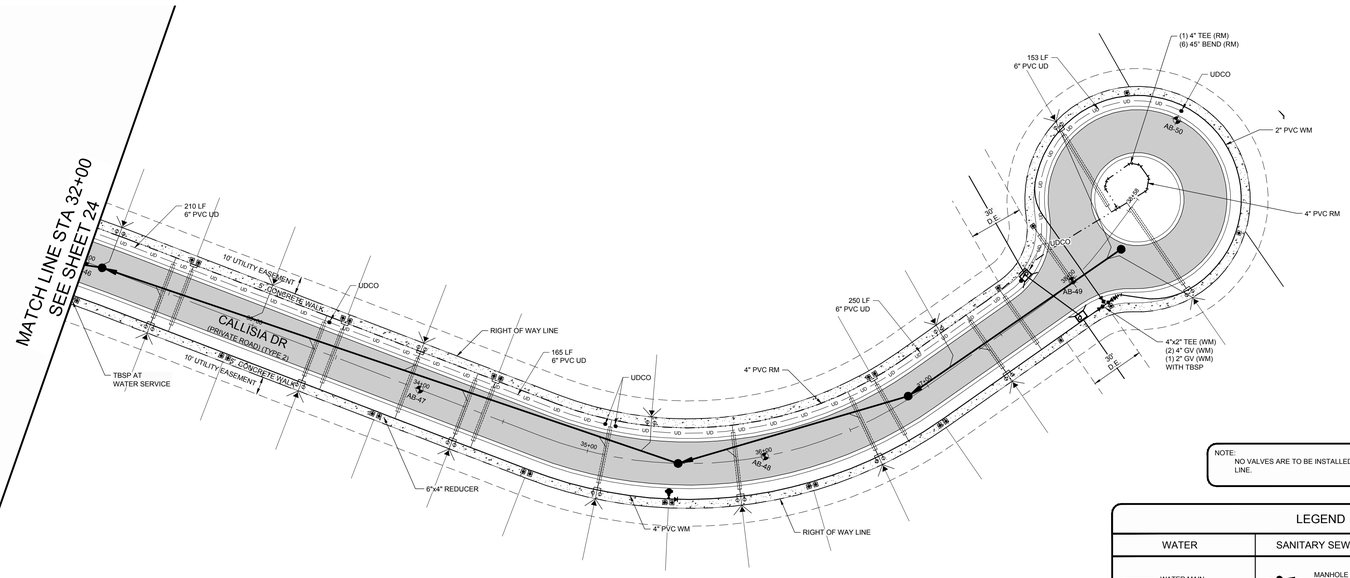
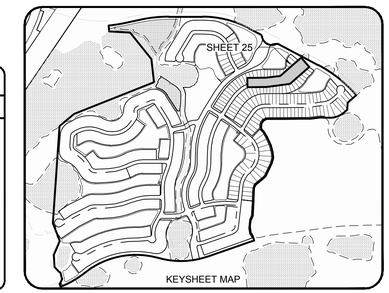
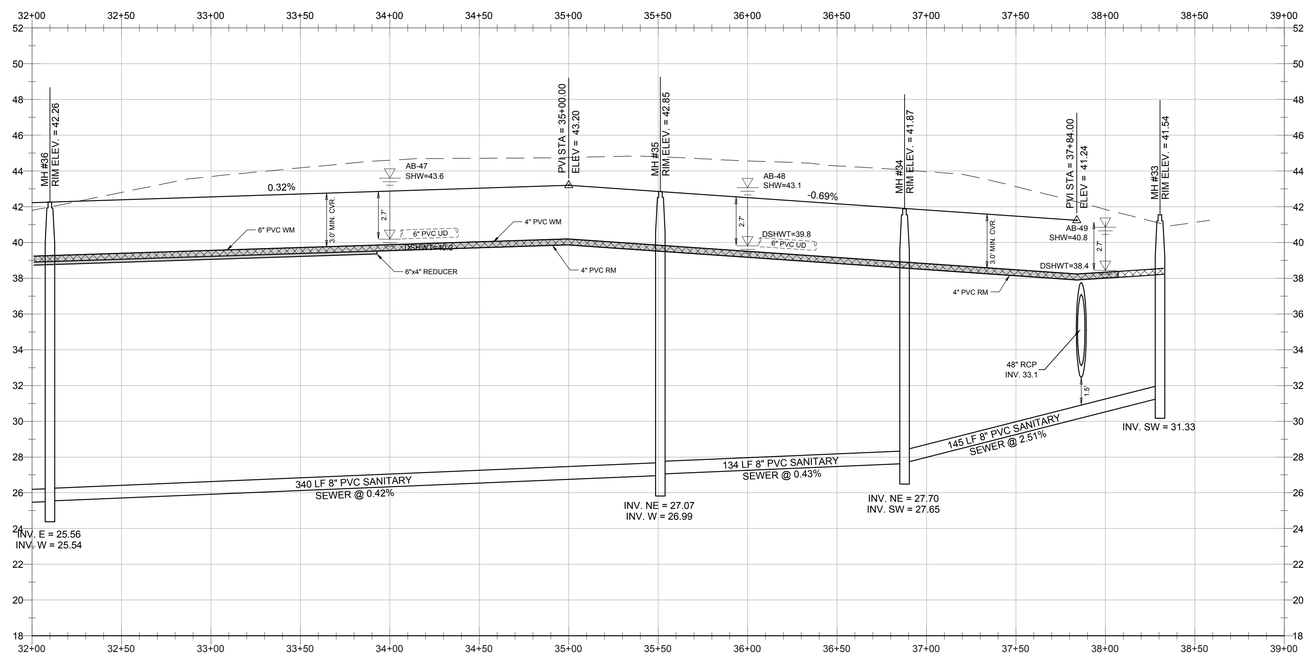


NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		





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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - CALLISIA DRIVE

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XX/XX/XX

SCALE IN FEET: 0 20 40 80

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 25

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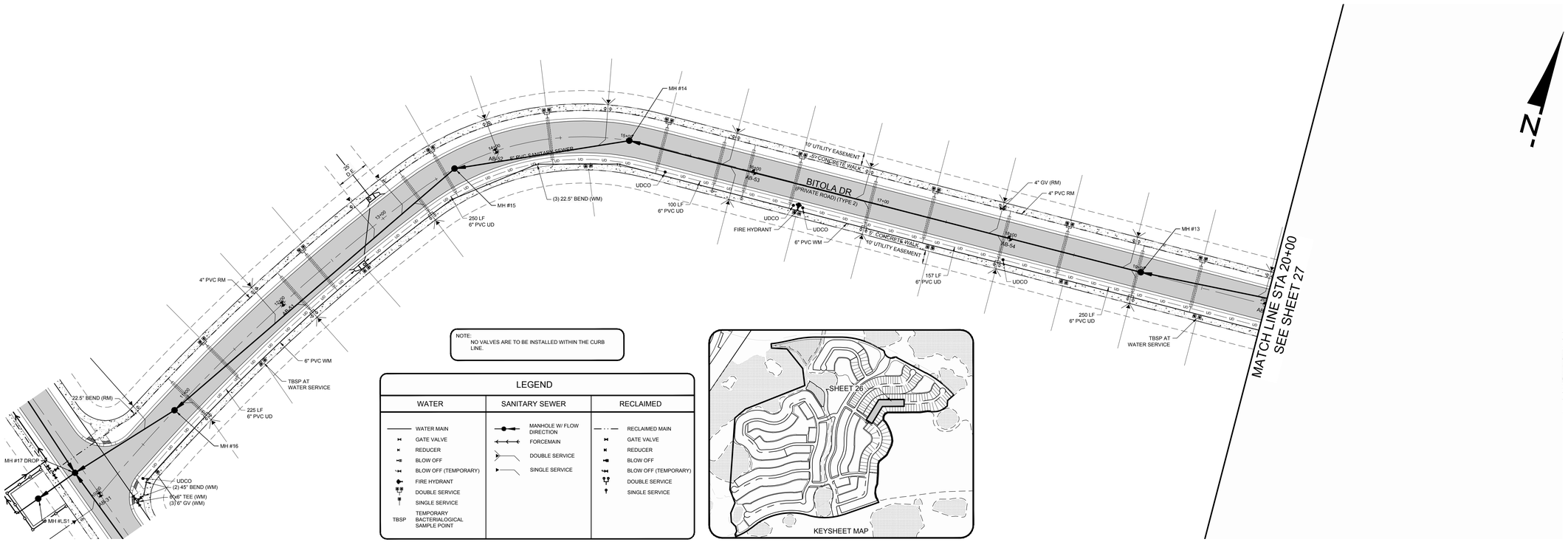
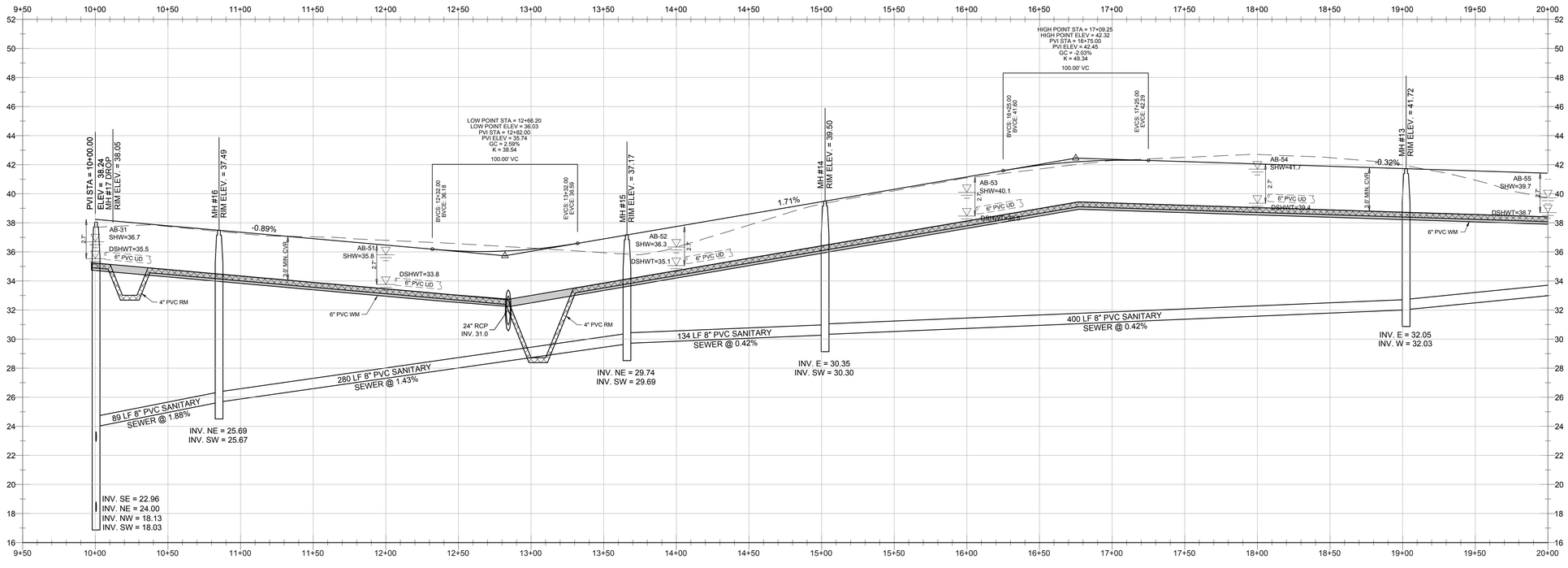


NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - BITOLA DRIVE

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

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FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

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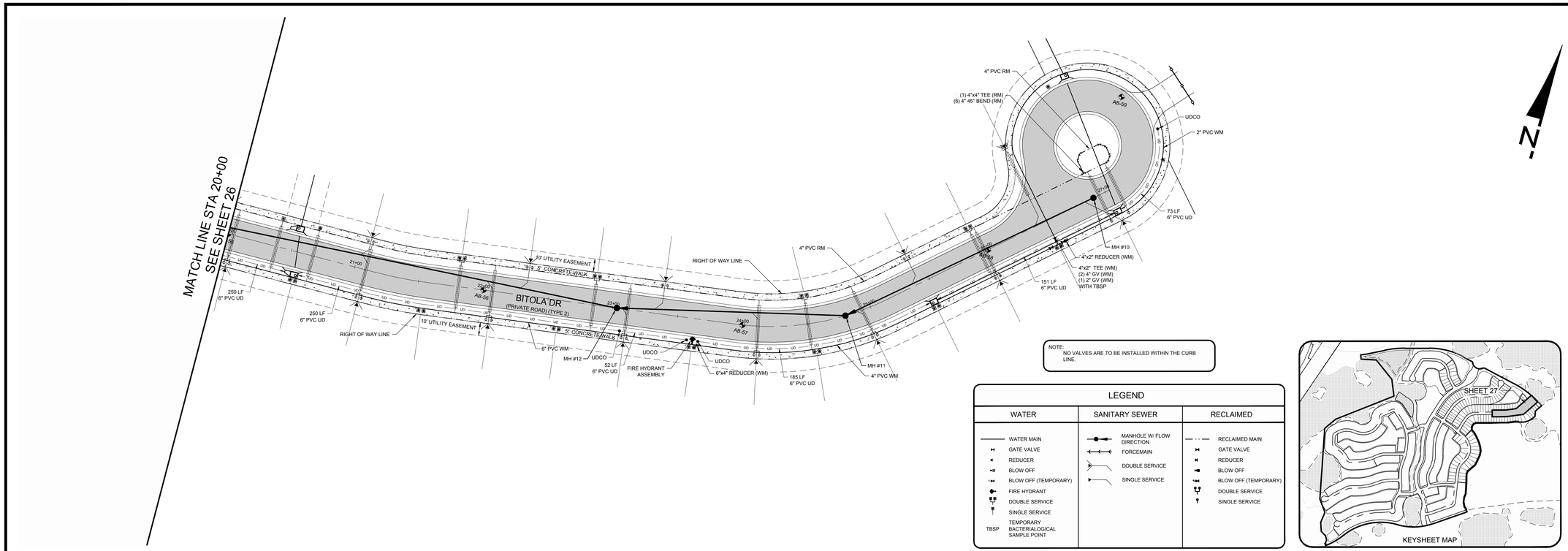
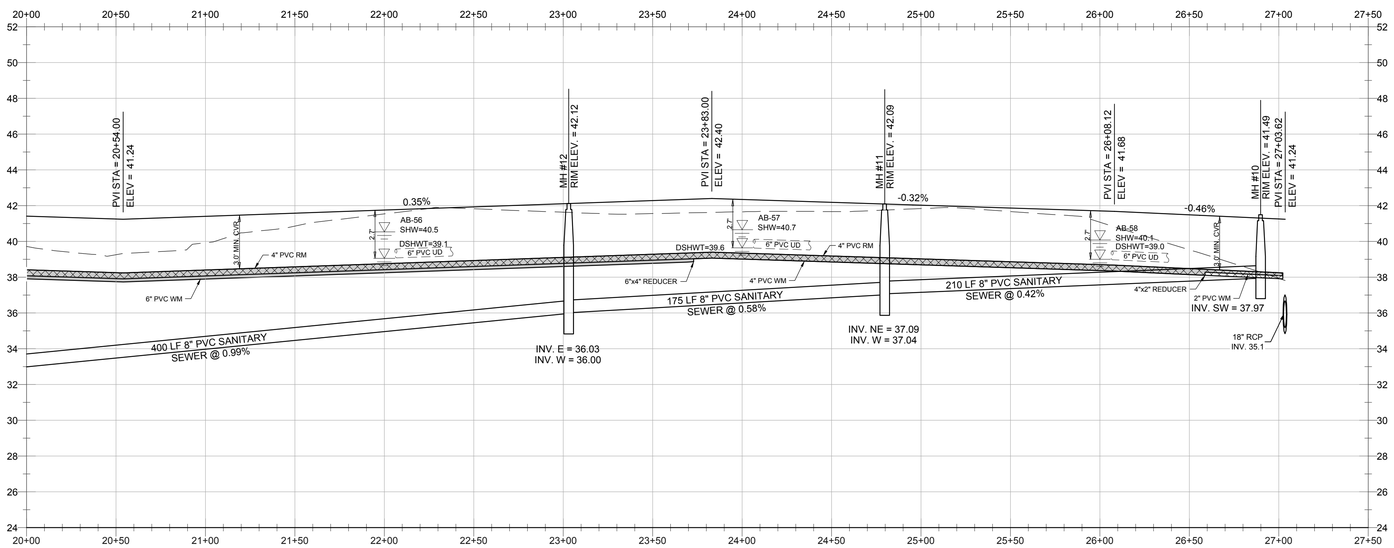


NOTE:
NO VALVES ARE TO BE INSTALLED WITHIN THE CURB LINE.

LEGEND

WATER	SANITARY SEWER	RECLAIMED
WATER MAIN	MANHOLE W/ FLOW DIRECTION	RECLAIMED MAIN
GATE VALVE	FORCEMAIN	GATE VALVE
REDUCER	DOUBLE SERVICE	REDUCER
BLOW OFF	SINGLE SERVICE	BLOW OFF
BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
FIRE HYDRANT		DOUBLE SERVICE
DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
TBSP TEMPORARY BACTERIALOGICAL SAMPLE POINT		



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

PLAN AND PROFILE - BITOLA DRIVE

PLAN REVISIONS

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FL LICENSE NO. 67678

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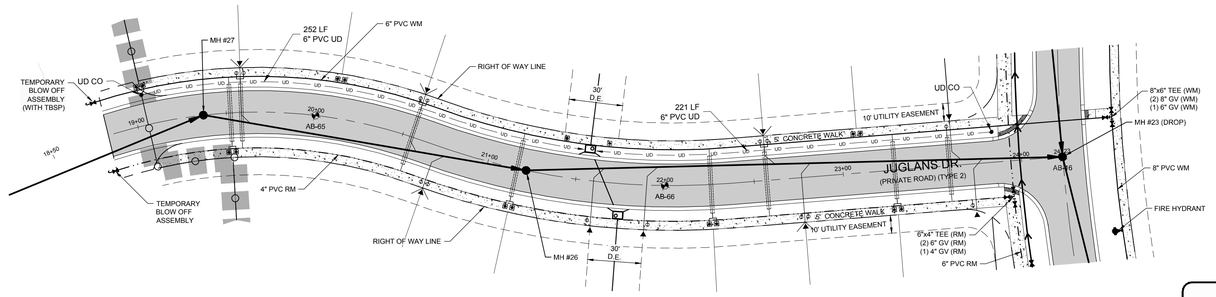

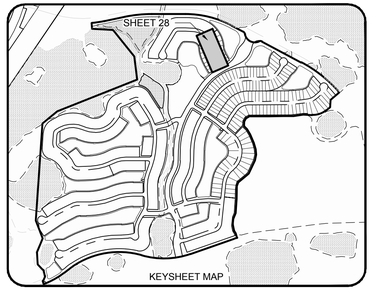

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BLOW OFF (TEMPORARY)		BLOW OFF (TEMPORARY)
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DOUBLE SERVICE		SINGLE SERVICE
SINGLE SERVICE		
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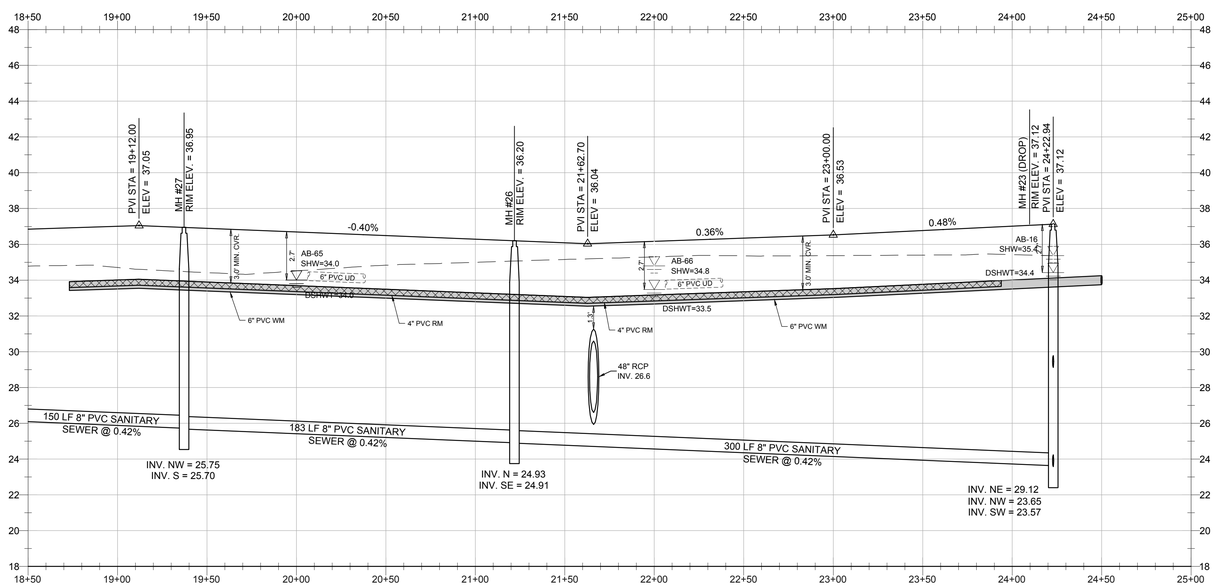

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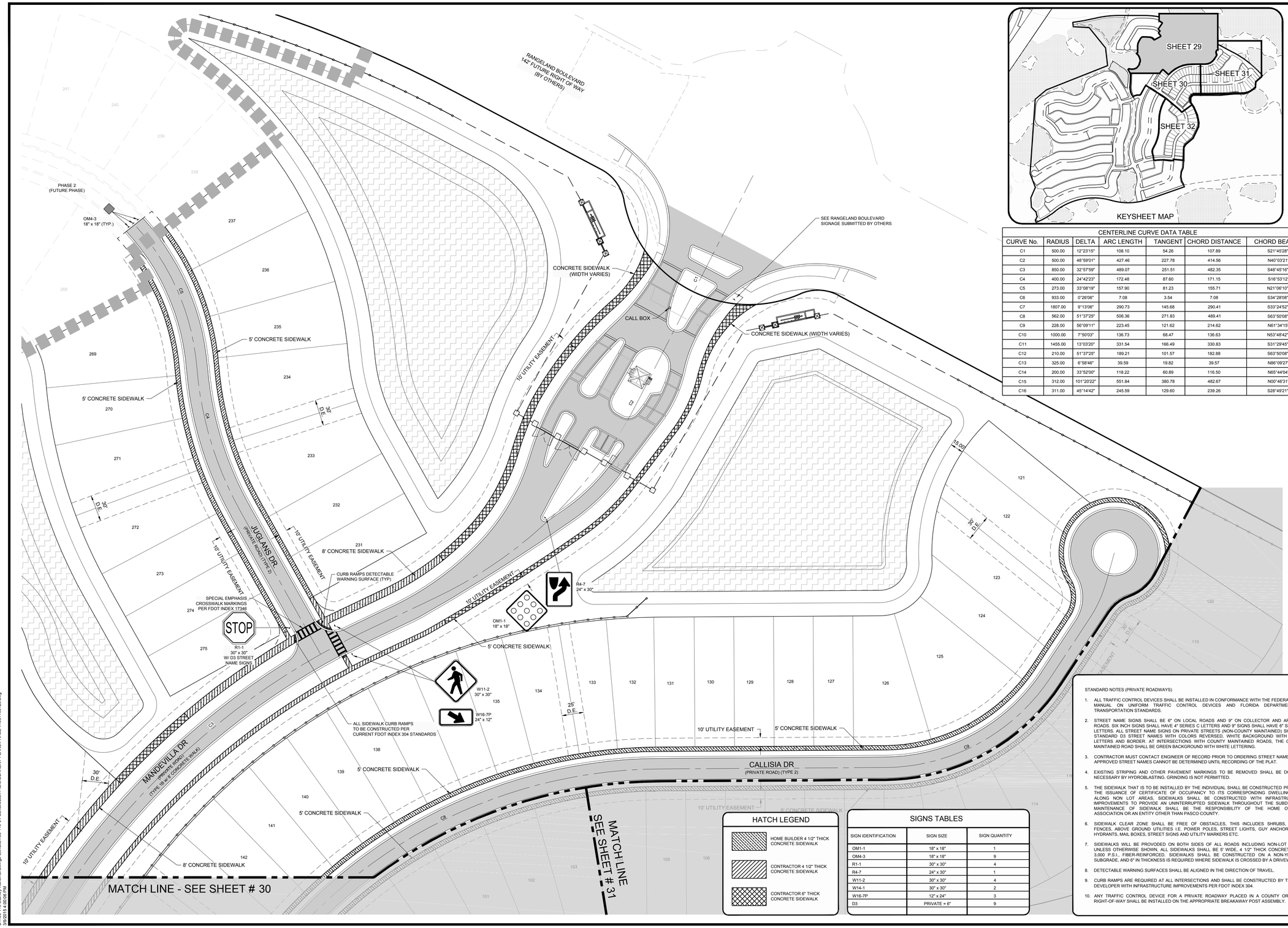

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HATCH LEGEND

- HOME BUILDER 4 1/2" THICK CONCRETE SIDEWALK
- CONTRACTOR 4 1/2" THICK CONCRETE SIDEWALK
- CONTRACTOR 6" THICK CONCRETE SIDEWALK

SIGNS TABLES

SIGN IDENTIFICATION	SIGN SIZE	SIGN QUANTITY
OM1-1	18" x 18"	1
OM4-3	18" x 18"	9
R1-1	30" x 30"	4
R4-7	24" x 30"	1
W11-2	30" x 30"	4
W14-1	30" x 30"	2
W16-7P	12" x 24"	3
D3	PRIVATE = 6"	9

STANDARD NOTES (PRIVATE ROADWAYS)

1. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN CONFORMANCE WITH THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
2. STREET NAME SIGNS SHALL BE 6" ON LOCAL ROADS AND 9" ON COLLECTOR AND ARTERIAL ROADS. SIX INCH SIGNS SHALL HAVE 4" SERIES C LETTERS AND 9" SIGNS SHALL HAVE 6" SERIES B LETTERS. ALL STREET NAME SIGNS ON PRIVATE STREETS (NON-COUNTY MAINTAINED) SHALL BE STANDARD D3 STREET NAMES WITH COLORS REVERSED, WHITE BACKGROUND WITH GREEN LETTERS AND BORDER. AT INTERSECTIONS WITH COUNTY MAINTAINED ROADS, THE COUNTY MAINTAINED ROAD SHALL BE GREEN BACKGROUND WITH WHITE LETTERING.
3. CONTRACTOR MUST CONTACT ENGINEER OF RECORD PRIOR TO ORDERING STREET NAME SIGNS. APPROVED STREET NAMES CANNOT BE DETERMINED UNTIL RECORDING OF THE PLAT.
4. EXISTING STRIPING AND OTHER PAVEMENT MARKINGS TO BE REMOVED SHALL BE DONE AS NECESSARY BY HYDROBLASTING. GRINDING IS NOT PERMITTED.
5. THE SIDEWALK THAT IS TO BE INSTALLED BY THE INDIVIDUAL SHALL BE CONSTRUCTED PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCY TO ITS CORRESPONDING DWELLING UNIT. ALONG NON LOT AREAS, SIDEWALKS SHALL BE CONSTRUCTED WITH INFRASTRUCTURE IMPROVEMENTS TO PROVIDE AN UNINTERRUPTED SIDEWALK THROUGHOUT THE SUBDIVISION. MAINTENANCE OF SIDEWALK SHALL BE THE RESPONSIBILITY OF THE HOME OWNER'S ASSOCIATION OR AN ENTITY OTHER THAN PASCO COUNTY.
6. SIDEWALK CLEAR ZONE SHALL BE FREE OF OBSTACLES, THIS INCLUDES SHRUBS, TREES, FENCES, ABOVE GROUND UTILITIES I.E. POWER POLES, STREET LIGHTS, GUY ANCHORS, FIRE HYDRANTS, MAIL BOXES, STREET SIGNS AND UTILITY MARKERS ETC.
7. SIDEWALKS WILL BE PROVODED ON BOTH SIDES OF ALL ROADS INCLUDING NON-LOT AREAS. UNLESS OTHERWISE SHOWN, ALL SIDEWALKS SHALL BE 5' WIDE, 4 1/2" THICK CONCRETE, AND 3,000 P.S.I., FIBER-REINFORCED. SIDEWALKS SHALL BE CONSTRUCTED ON A NON-YIELDING SUBGRADE, AND 6" IN THICKNESS IS REQUIRED WHERE SIDEWALK IS CROSSED BY A DRIVEWAY.
8. DETECTABLE WARNING SURFACES SHALL BE ALIGNED IN THE DIRECTION OF TRAVEL.
9. CURB RAMPS ARE REQUIRED AT ALL INTERSECTIONS AND SHALL BE CONSTRUCTED BY THE SITE DEVELOPER WITH INFRASTRUCTURE IMPROVEMENTS PER FDOT INDEX 304.
10. ANY TRAFFIC CONTROL DEVICE FOR A PRIVATE ROADWAY PLACED IN A COUNTY OR STATE RIGHT-OF-WAY SHALL BE INSTALLED ON THE APPROPRIATE BREAKAWAY POST ASSEMBLY.

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SIGNAGE, PAVEMENT MARKING AND SIDEWALK PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXX/XX/X

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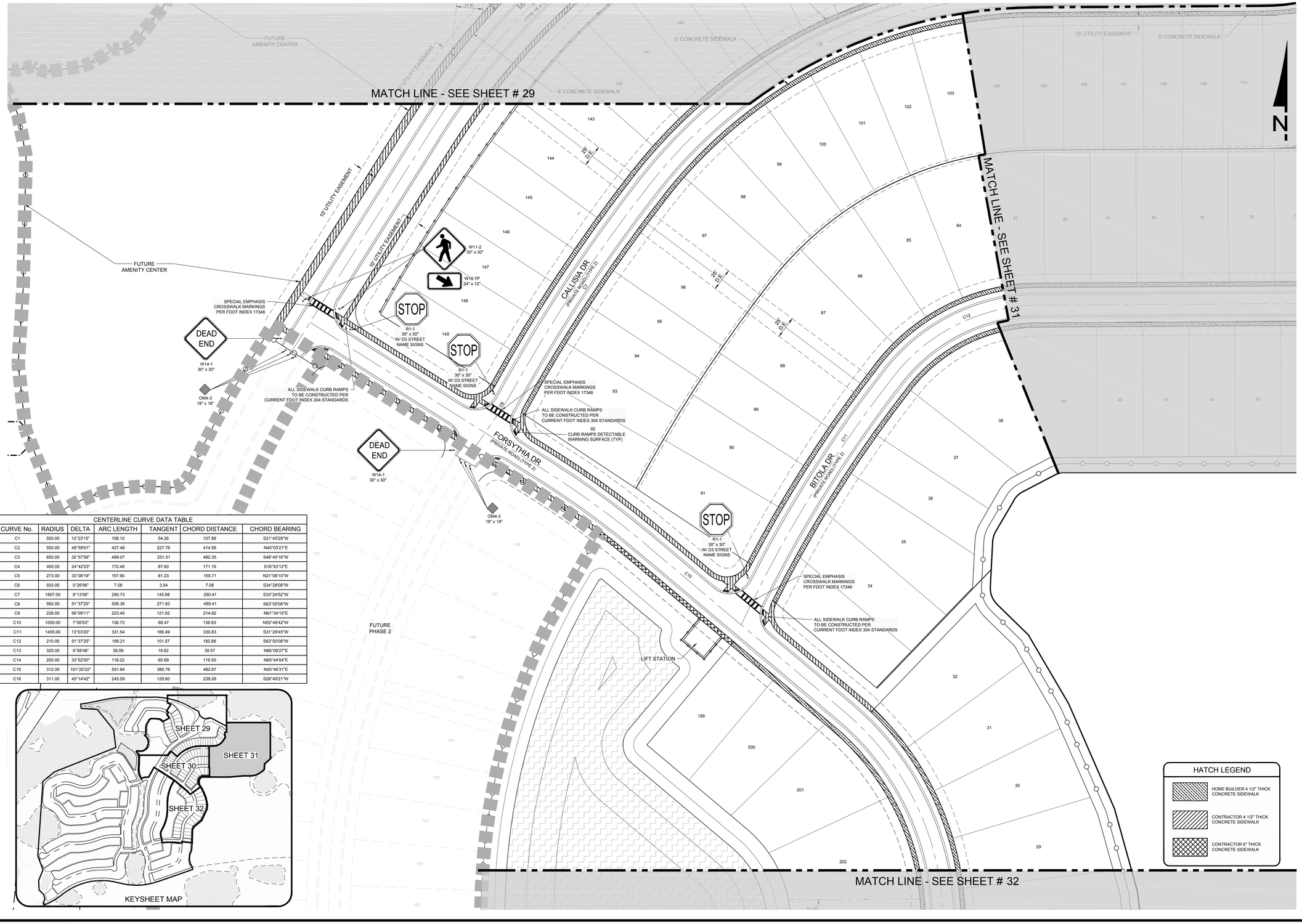

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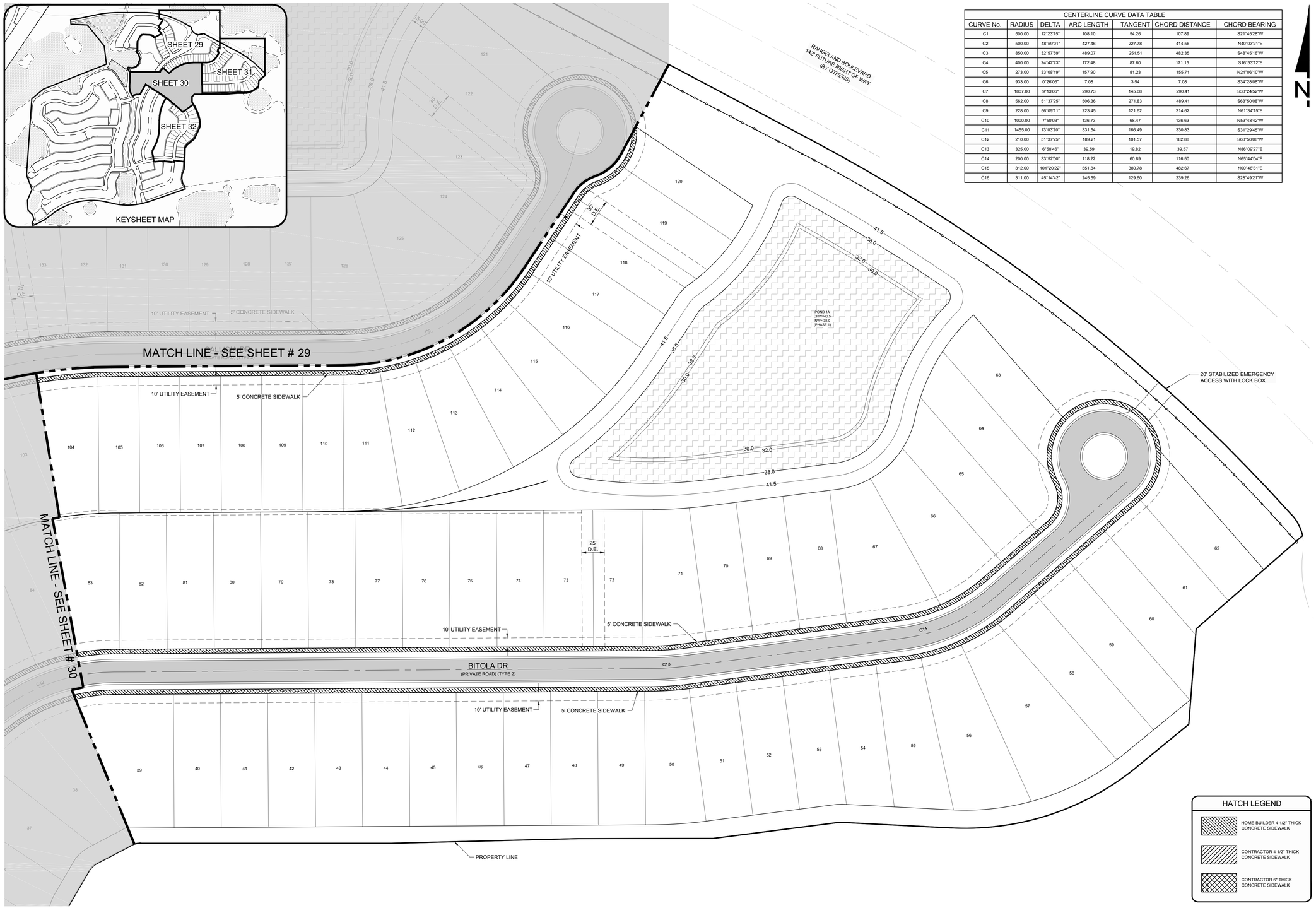

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SIGNAGE, PAVEMENT MARKING AND SIDEWALK PLAN

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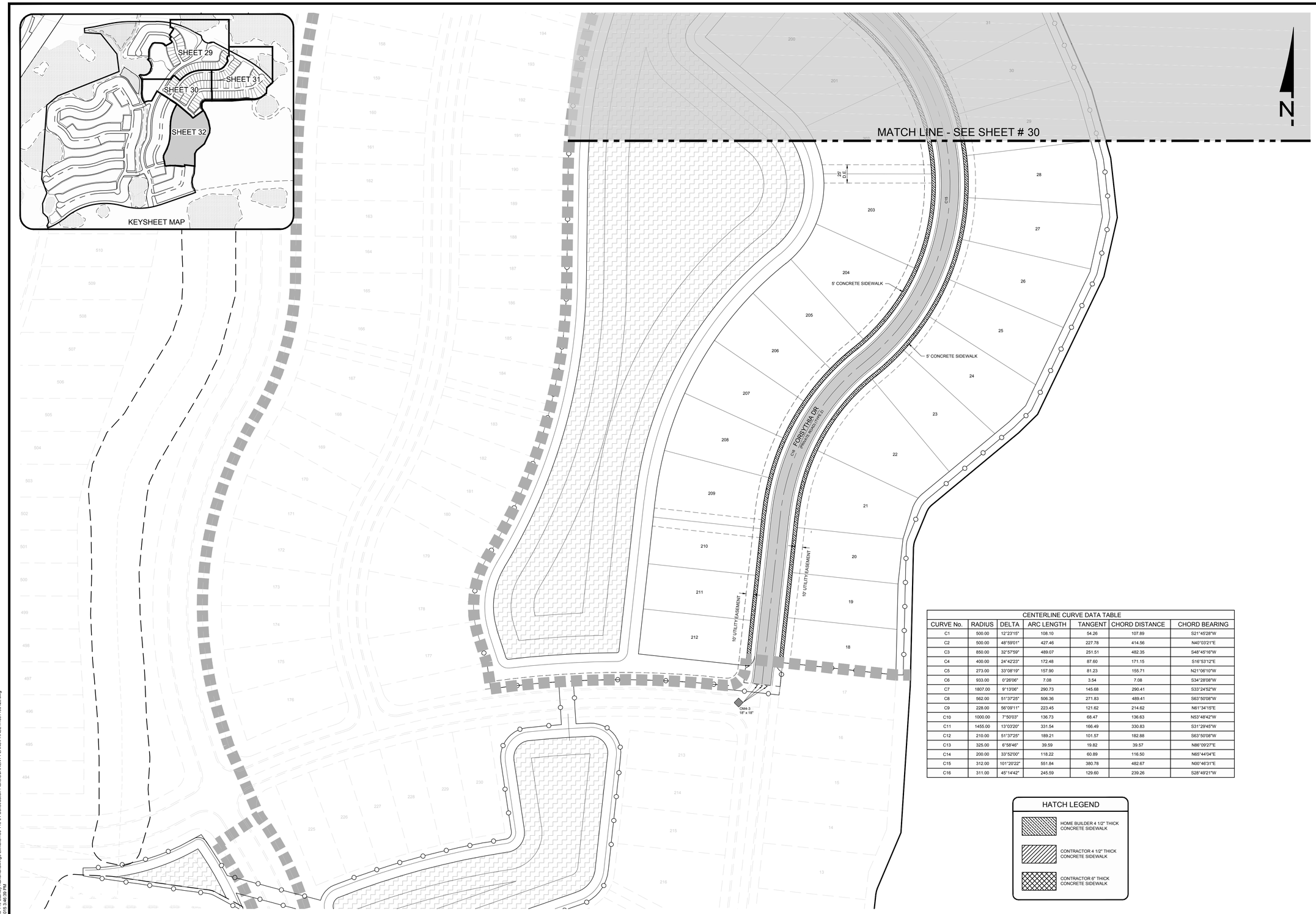

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CONSTRUCTION PLANS

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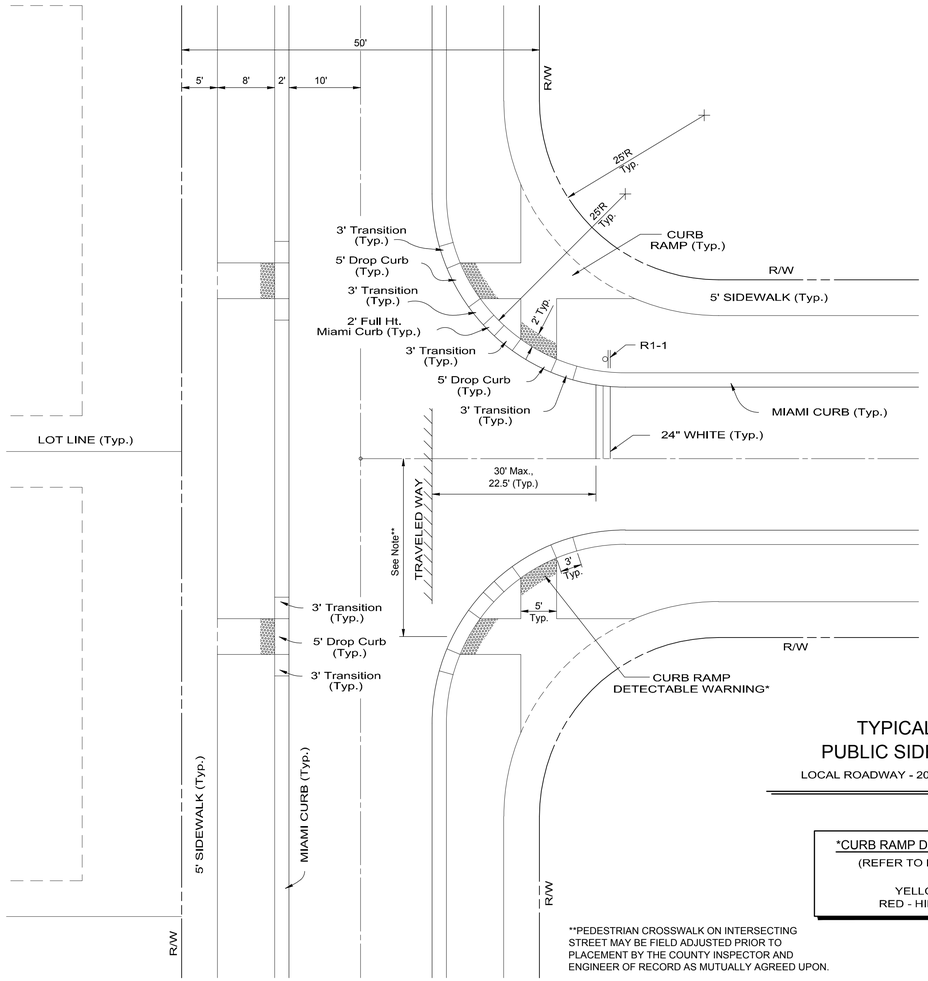

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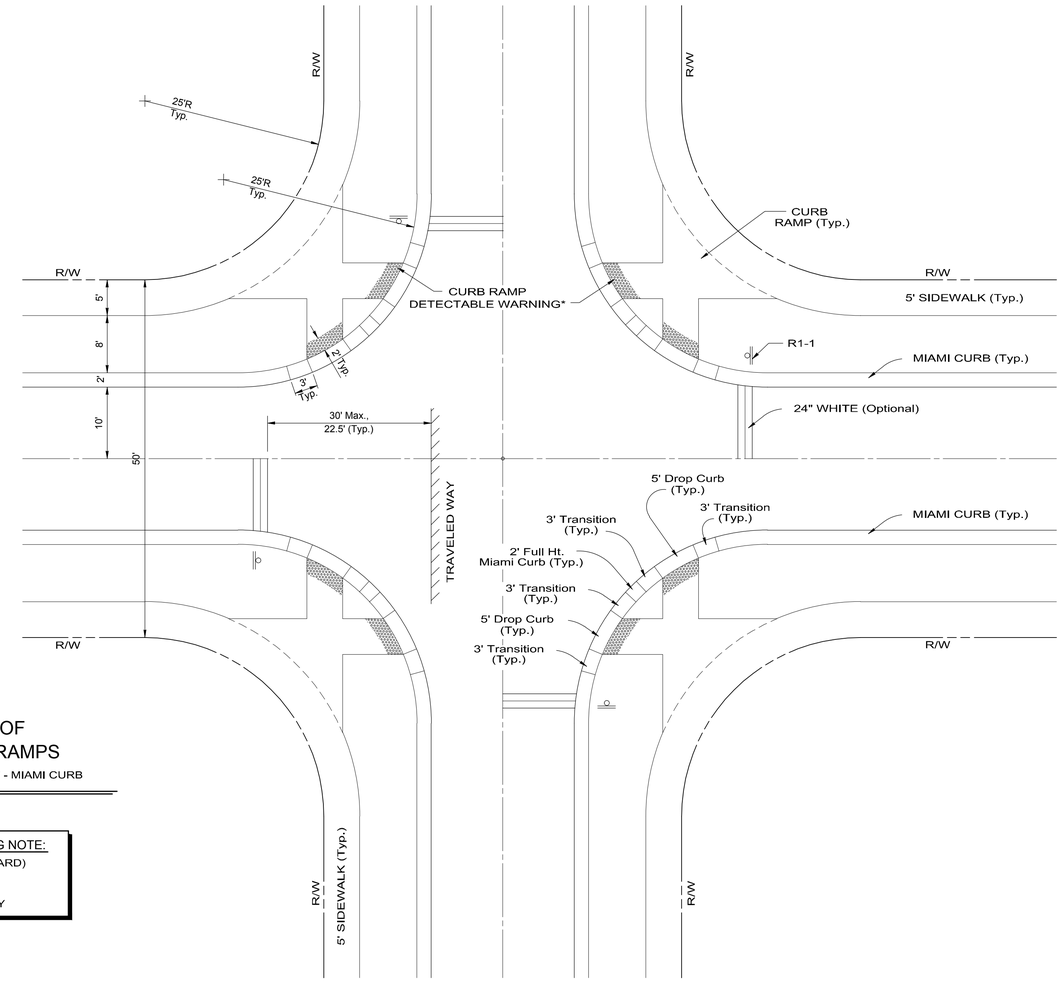


"CROSS" INTERSECTION

TYPICAL PLACEMENT OF PUBLIC SIDEWALK CURB RAMPS

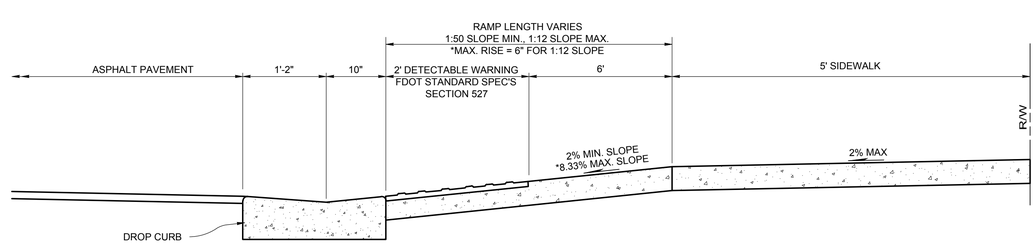
LOCAL ROADWAY - 20' ASPHALT PAVEMENT - MIAMI CURB

SCALE: 1"=10'

***CURB RAMP DETECTABLE WARNING NOTE:**

(REFER TO LOCAL COLOR STANDARD)
BLACK - FDOT
YELLOW - CITY OF TAMPA
RED - HILLSBOROUGH COUNTY

**PEDESTRIAN CROSSWALK ON INTERSECTING STREET MAY BE FIELD ADJUSTED PRIOR TO PLACEMENT BY THE COUNTY INSPECTOR AND ENGINEER OF RECORD AS MUTUALLY AGREED UPON.



SIDEWALK RAMP PROFILE

NOT TO SCALE

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ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SIDEWALK, SIGNING & PAVEMENT MARKING DETAILS

PLAN REVISIONS

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GENERAL NOTES

1. Public sidewalk curb ramps shall be constructed in the public right of way at locations that will provide continuous unobstructed pedestrian circulation paths to pedestrian areas, elements and facilities in the public right of way and to accessible pedestrian routes on adjacent sites. Curbed facilities with sidewalks and those without sidewalks are to have curb ramps constructed at all street intersections and at turnouts that have curbed returns. Partial curb returns shall extend to the limit prescribed by Index No. 515 to accommodate curb ramps. Ramps constructed at locations without sidewalks shall have a landing constructed at the top of each ramp, see Sheet 5.

2. The location and orientation of curb ramps shall be as shown in the plans.

3. Curb ramp running slopes at unrestrained sites shall not be steeper than 1 : 12 and cross slope shall be 0.02 or flatter. Transition slopes shall not be steeper than 1 : 12.

   When altering existing pedestrian facilities where existing site development precludes the accommodation of a ramp slope of 1 : 12, a running slope between 1 : 12 and 1 : 10 is permitted for a rise of 6" maximum and a running slope of between 1 : 10 and 1 : 8 is permitted for a rise of 3" maximum. Where compliance with the requirements for cross slope cannot be fully met, the minimum feasible cross slope shall be provided.

   Ramp running slope is not required to exceed 8' in length, except at sites where the plans specify a greater length.

4. If a curb ramp is located where pedestrians must walk across the ramp, then the walk shall have transition slopes to the ramp; the maximum slope of the transitions shall be 1 : 12. Ramps with curb returns may be used at locations where other improvements provide guidance away from that portion of curb perpendicular to the sidewalk; improvements for guidance are not required at curb ramps for linear pedestrian traffic.

5. Curb ramp detectable warning surfaces shall extend the full width of the ramp and in the direction of travel 24" from the back of curb. Detectable warning surfaces shall be constructed by texturing a truncated dome pattern in conformance with U.S. Department of Justice A.D.A. Standards For Accessible Design, A.D.A. Accessibility Guidelines, Section 4.29.2. (detail shown above left). Transition slopes are not to have detectable warnings.

6. Where a curb ramp is constructed within existing curb, curb and gutter and/or sidewalk, the existing curb or curb and gutter shall be removed to the nearest joint beyond the curb transitions or to the extent that no remaining section of curb or curb and gutter is less than 5' long. The existing sidewalk shall be removed to the nearest joint beyond the transition slope or walk around or to the extent that no remaining section of sidewalk is less than 5' long.

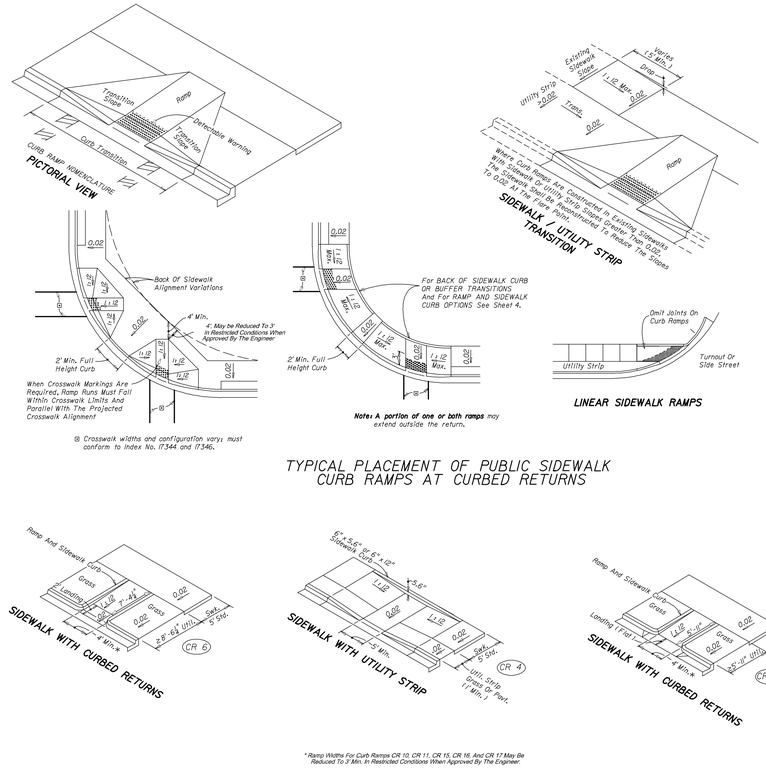
7. Alpha-numeric identifications are for reference (plans, permits, etc.).

8. Public sidewalk curb ramps are to be paid for as follows:
   Ramps, reconstructed sidewalks, walk around sidewalks, sidewalk landings and sidewalk curbs are to be paid for under the contract unit price for Sidewalk Concrete, (__" Thick), SY. Curb transitions and reconstructed curbs are to be paid for under the contract unit price for the parent curb, i.e., Curb Conc., (Type __), LF or Curb and Gutter Conc., (Type __), LF.

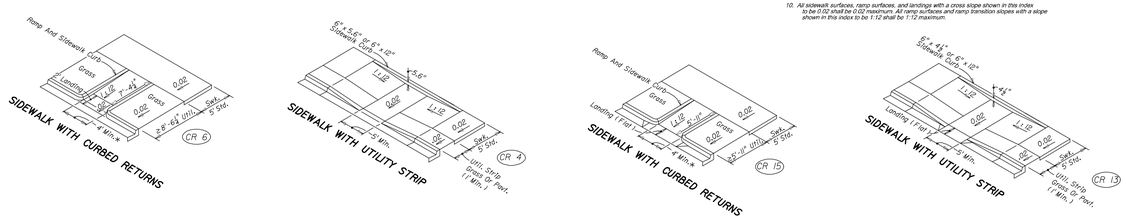
   When a separate pay item for the removal and disposal of existing curb, curb and gutter, and/or sidewalk is not provided in the plans, the cost of removal and disposal of these features shall be included in the contract unit price for new curb, curb and gutter and/or sidewalk respectively.

9. Acceptance Criteria for Detectable Warnings:
   (a) The ramp detectable warning surface shall be complete and uniform in color and texture
   (b) 90% of the individual truncated domes must comply with the design criteria
   (c) There may be no more than 4 non-complying domes in any one square foot of surface
   (d) No two adjacent domes may be non-compliant
   (e) Surface may not deviate more than 0.10" from a true plan

10. All sidewalk surfaces, ramp surfaces, and landings with a cross slope shown in this index to be 0.02 shall be 0.02 maximum. All ramp surfaces and ramp transition slopes with a slope shown in this index to be 1:12 shall be 1:12 maximum.



TYPICAL PLACEMENT OF PUBLIC SIDEWALK CURB RAMPS AT CURBED RETURNS

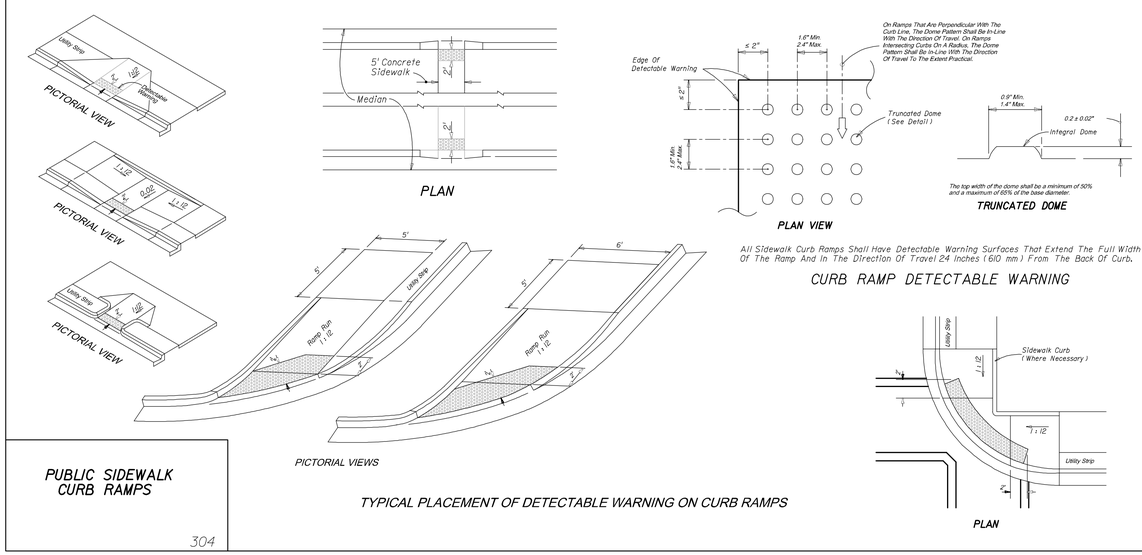


* Ramp Widths For Curb Ramps CR 10, CR 11, CR 15, CR 16, And CR 17 May Be Reduced To 3' Min. In Restricted Conditions When Approved By The Engineer.

DIMENSIONAL FEATURES FOR PUBLIC SIDEWALK CURB RAMPS WHERE RAMP AND LANDING DEPTH ARE RESTRICTED BY RIGHT OF WAY

PUBLIC SIDEWALK CURB RAMPS

304



All Sidewalk Curb Ramps Shall Have Detectable Warning Surfaces That Extend The Full Width Of The Ramp And In The Direction Of Travel 24 Inches (610 mm) From The Back Of Curb.

CURB RAMP DETECTABLE WARNING

TYPICAL PLACEMENT OF DETECTABLE WARNING ON CURB RAMPS

PUBLIC SIDEWALK CURB RAMPS

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SIDEWALK, SIGNING & PAVEMENT MARKING DETAILS

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XXXXXXX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 34

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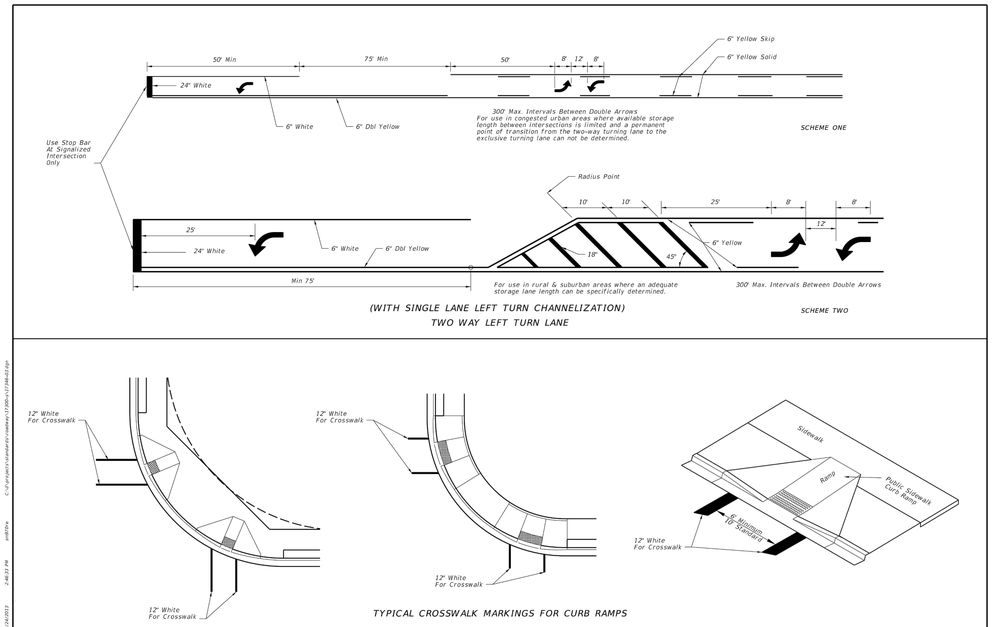
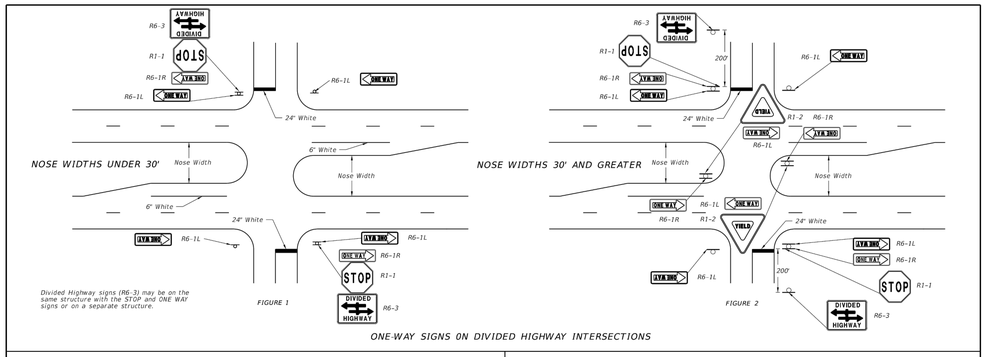


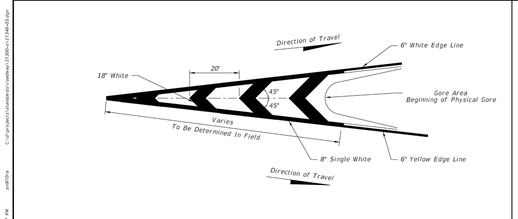
(WITH SINGLE LANE LEFT TURN CHANNELIZATION)
TWO WAY LEFT TURN LANE

TYPICAL CROSSWALK MARKINGS FOR CURB RAMPS

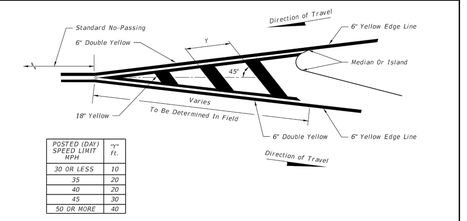
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/13			FDOT 2014 DESIGN STANDARDS	SPECIAL MARKING AREAS	17346	3 of 14



ONE-WAY SIGNS ON DIVIDED HIGHWAY INTERSECTIONS



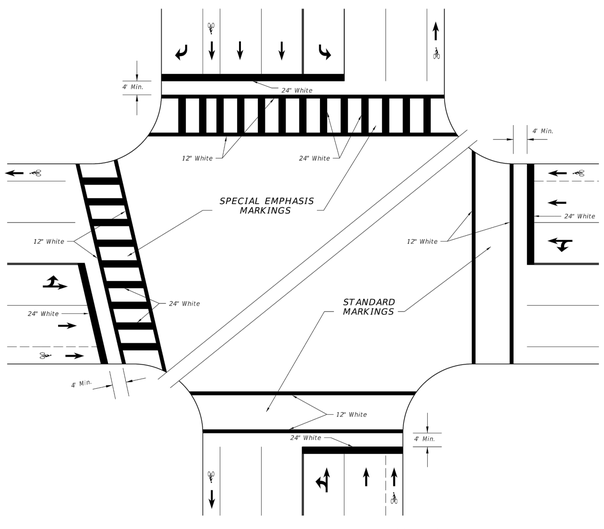
PAVEMENT MARKINGS FOR TRAFFIC CHANNELIZATION AT GORE
(TRAFFIC FLOWS IN SAME DIRECTION)



POSTED (DAY) SPEED LIMIT MPH	"Y" ft.
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

PAVEMENT MARKING FOR TRAFFIC SEPARATION
(TRAFFIC FLOWS IN OPPOSING DIRECTIONS)

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/13			FDOT 2014 DESIGN STANDARDS	SPECIAL MARKING AREAS	17346	5 of 14

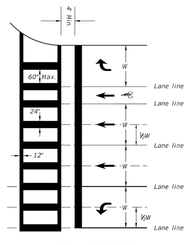


SPECIAL EMPHASIS AND STANDARD CROSSWALKS
SIGNALIZED OR STOP SIGN CONTROLLED INTERSECTION

GENERAL NOTES

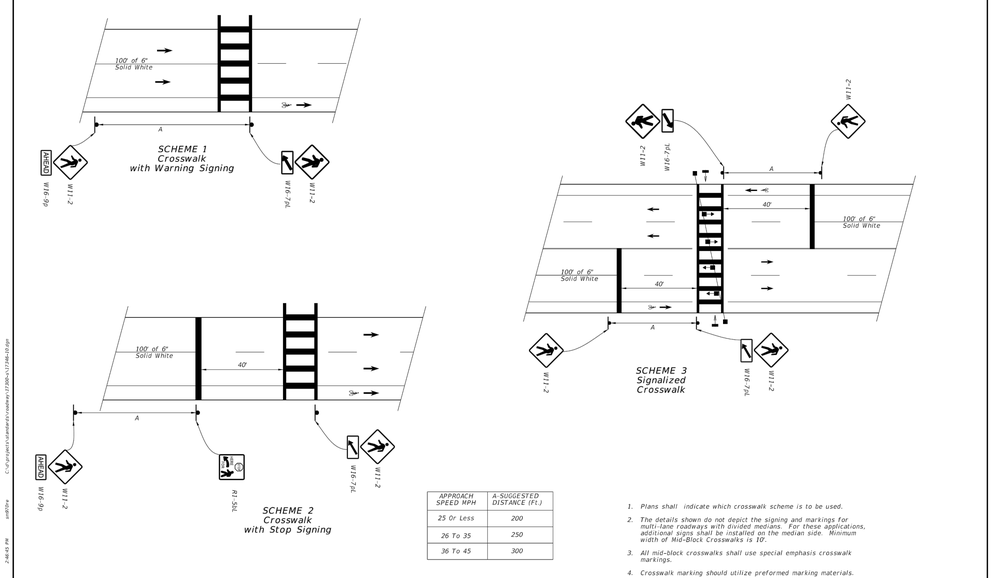
1. For traffic and pedestrian signal installation, refer to Index No. 17721 through 17890.
2. For public sidewalk curb ramps, refer to Index No. 304.
3. For pavement marking and sign installation, refer to Indexes 11200 through 17356.
4. Crosswalk minimum widths: Intersection Crosswalk 6'. Midblock Crosswalk 10'.
5. All crosswalk marking shall be white.
6. Longitudinal lines in Special Emphasis Crosswalk shall be 24" wide and spaced to avoid the wheel path of vehicles as shown in detail. The maximum space between markings shall not exceed 60". A longitudinal marking shall be centered at each lane line. Additional longitudinal markings shall be placed at the center of each lane (1/2W).

   Where the Crosswalk is skewed to the lane lane lines, the Special Emphasis longitudal lines should be parallel to the lane line.



SPECIAL EMPHASIS CROSSWALK MARKING DETAIL

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/09			FDOT 2014 DESIGN STANDARDS	SPECIAL MARKING AREAS	17346	9 of 14



APPROACH SPEED MPH	A-SUGGESTED DISTANCE (Ft.)
25 Or Less	200
26 To 35	250
36 To 45	300

1. Plans shall indicate which crosswalk scheme is to be used.
2. The details shown do not depict the signing and markings for multi-lane roadways with divided medians. For these applications, additional signs shall be installed on the median side. Minimum width of Mid-Block Crosswalks is 10'.
3. All mid-block crosswalks shall use special emphasis crosswalk markings.
4. Crosswalk marking should utilize preformed marking materials.

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
01/01/12			FDOT 2014 DESIGN STANDARDS	SPECIAL MARKING AREAS	17346	10 of 14

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CONSTRUCTION PLANS
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
SIDEWALK, SIGNING & PAVEMENT MARKING DETAILS

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XX/XX/XX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 35

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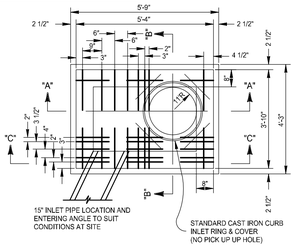

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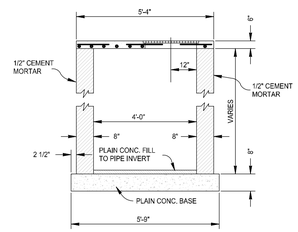
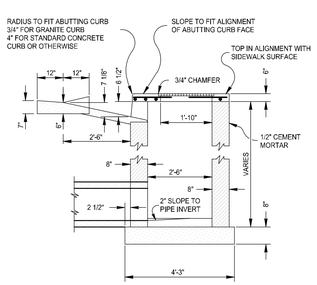


SECTION "A-A"



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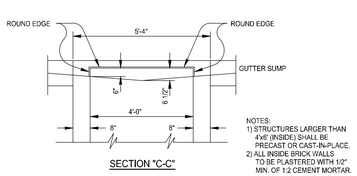
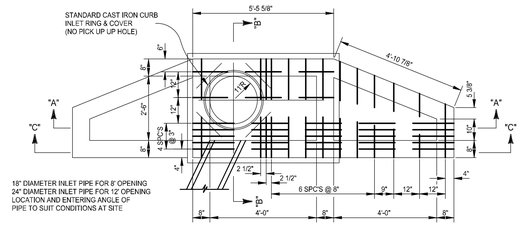


NOTES:
1) STRUCTURES LARGER THAN 4'x6' (INSIDE) SHALL BE PRECAST OR CAST-IN-PLACE.
2) ALL INSIDE BRICK WALLS TO BE PLASTERED WITH 1/2" MIN. OF 1:2 CEMENT MORTAR.

SECTION "C-C"

STANDARD STORM WATER (CURB INLET TYPE 1)



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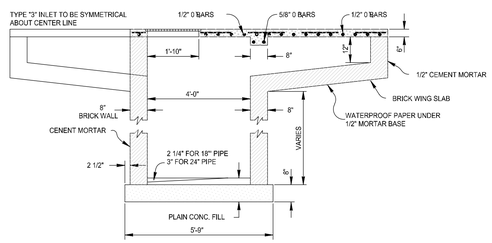

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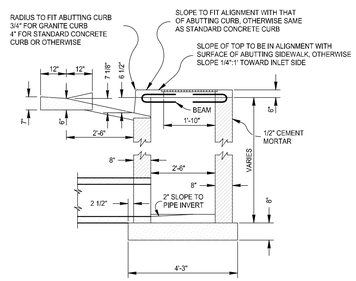
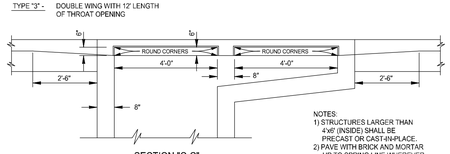


SECTION "B-B"

TYPE "2" - SINGLE WING WITH 8' LENGTH OF THROAT OPENING

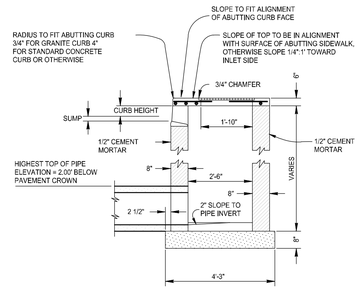
TYPE "3" - DOUBLE WING WITH 12' LENGTH OF THROAT OPENING



SECTION "C-C"

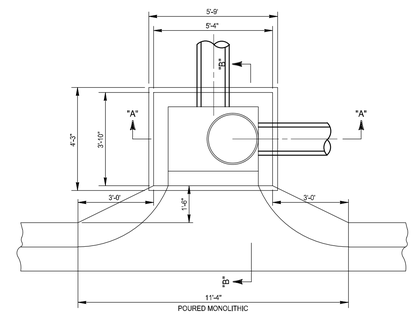
NOTES:
1) STRUCTURES LARGER THAN 4'x6' (INSIDE) SHALL BE PRECAST OR CAST-IN-PLACE.
2) PAVE WITH BRICK AND MORTAR UP TO SPRING LINE WHEREVER TWO OR MORE PIPES ENTER ONE INLET TO PROVIDE A CHANNEL FOR FLOW OF WATER THROUGH INLET.

STANDARD STORM WATER (CURB INLET TYPE 2 & 3)



SECTION "B-B"

TYPE "F" CURB ONLY



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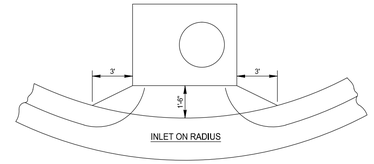
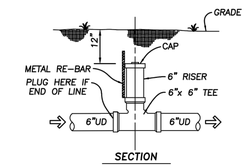


STANDARD INLET (FOR MIAMI GUTTER)

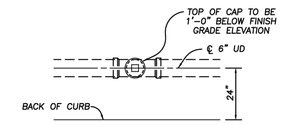
BAR SCHEDULE FOR TOP SLAB			
NO.	SIZE	LOCATION	LENGTH
8	1/2" ϕ	TRANSVERSE BARS	3'-6"
6	1/2" ϕ	LONGITUDINAL BARS	5'-1"
1	1/2" ϕ	LONGITUDINAL BARS	2'-8"
5	5/8" ϕ	TRAFFIC BEARING ONLY	2'-4"

BAR SCHEDULE FOR TOP SLAB			
NO.	SIZE	LOCATION	LENGTH
8	1/2" ϕ	TRANSVERSE BARS - STRAIGHT	3'-6"
1	1/2" ϕ	TRANSVERSE BARS - STRAIGHT	3'-4"
1	1/2" ϕ	TRANSVERSE BARS - STRAIGHT	3'-0"
1	1/2" ϕ	TRANSVERSE BARS - STRAIGHT	2'-9"
1	1/2" ϕ	TRANSVERSE BARS - STRAIGHT	2'-5"
1	1/2" ϕ	TRANSVERSE BARS - STRAIGHT	2'-0"
2	5/8" ϕ	TRANSVERSE BARS - W/ HOOKED ENDS	3'-6"
5	1/2" ϕ	LONGITUDINAL BARS - STRAIGHT	9'-0"
1	1/2" ϕ	LONGITUDINAL BARS - STRAIGHT	6'-3"
1	1/2" ϕ	LONGITUDINAL BARS - STRAIGHT	5'-9"

NOTE:
THIS CURB INLET HAS BEEN APPROVED BY PASCO COUNTY FOR USE ON NON-FUNCTIONALLY CLASSIFIED ROADWAYS, SUCH AS LOCAL STREETS AND SUBDIVISIONS COLLECTOR ROADWAYS. IT DOES NOT CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, OR THE DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM. HOWEVER, WE HEREBY CERTIFY THAT IT IS SUITABLE FOR USE AT THE LOCATIONS DEPICTED HEREIN.



SECTION



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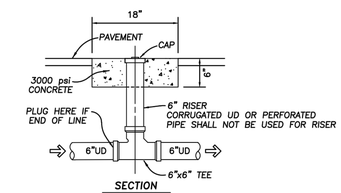

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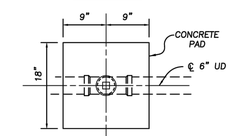
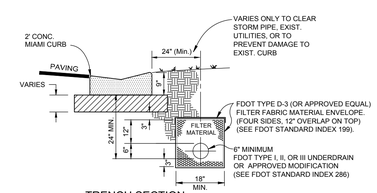


PLAN

UNDERDRAIN CLEANOUT DETAIL

NOTE:
LOCATION OF CLEANOUT TO BE MARKED ON CURB.



TRENCH SECTION

FINE AGGREGATE - NOTES

1.) MINIMUM GRADE ON UNDERDRAIN PIPE SHALL BE 0.2%
2.) DIAMETER OF PERFORATIONS SHALL BE 3/16" TO 3/8".
3.) NON-PERFORATED SHALL BE USED FOR ALL ROADWAY CROSSINGS. PERFORATED PIPE SHALL NOT BE PLACED UNDER STREET PAVEMENT.
4.) FINE AGGREGATE SHALL BE QUARTZ SAND MEETING THE REQUIREMENTS OF SECTIONS 902-4 OF THE STANDARD SPECIFICATIONS.
5.) FDOT AND LOCAL GOVERNING AGENCIES MAY HAVE MINIMUM STANDARDS WHICH MAY EXCEED THOSE REFERENCED ABOVE. CONTRACTOR SHALL INSTALL UNDERDRAIN IN ACCORDANCE WITH FDOT AND LOCAL GOVERNING DISTRICTS' MINIMUM STANDARDS AND REGULATIONS.
6.) EMBANKMENT MATERIAL SHALL CONSIST OF SELECT SOIL (S) PER FDOT INDEX 505 SHALL EXTEND TO A MINIMUM OF 36 INCHES (3 FEET) BEHIND BACK OF CURB EXCEPT AS NOTED ABOVE.
7.) NO IRRIGATION PIPELINES, PLANT MATERIALS, TREE MATERIALS OR PLANTINGS, CONDUITS, ETC. SHOULD BE DESIGNED OR INSTALLED WITHIN 3 FEET (s) OF THE BACK OF CURB.

UNDERDRAIN DETAIL FOR FINE AGGREGATE

N.T.S.

N

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

DRAINAGE DETAILS

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XXX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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FL LICENSE NO. 67678

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SHEET : 36

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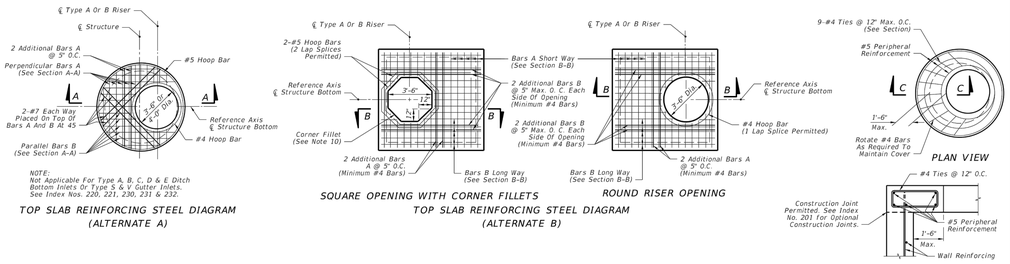


LAST REVISION	REVISION DESCRIPTION:	FDOT 2014 DESIGN STANDARDS	STRUCTURE BOTTOMS TYPE J AND P	INDEX NO.	SHEET NO.
01/01/10				200	1 of 5

SLAB DESIGNS - SQUARE AND RECTANGULAR STRUCTURES (TABLE 6)
(ALL SLABS 8" THICK EXCEPT AS NOTED - REINFORCING PARALLEL TO SHORT WAY AND LONG WAY)

SHORT-WAY SLAB DEPTH	SHORT-WAY SCHEDULE (Bars A)	LONG-WAY SLAB DEPTH	LONG-WAY SCHEDULE (Bars B)
SIZE: 3'-6" x UNLIMITED			
≥0.5' < 8'	B10	≥0.5' < 24'	B10
8' < 13'	B5.5	24'-40'	B5.5
13' < 31'	C6.5		
31'-40'	D7		
SIZE: 4' x UNLIMITED			
≥0.5' < 7'	B5.5	≥0.5' < 15'	B10
7' < 19'	C6.5	15' < 29'	B5.5
19' < 31'	D7	29'-40'	C6.5
31'-40'	E5		
SIZE: 5' x 5'			
≥0.5' < 3'	C6.5	≥0.5' < 3'	C6.5
3' < 7'	B5.5	3' < 13'	C6.5
7' < 22'	C6.5	13' < 22'	D7
22' < 29'	D7	22' < 29'	D4.5
29'-40'	E5	29'-40'	E5
SIZE: 5' x 6'			
≥0.5' < 12'	C6.5	≥0.5' < 3'	C6.5
12' < 26'	D7	3' < 9'	B5.5
26'-40'	E5	9' < 23'	C3.5
		23' < 35'	D4.5
		35'-40'	E5
SIZE: 5' x 7'			
≥0.5' < 10'	C6.5	≥0.5' < 10'	B5.5
10' < 20'	D7	10' < 31'	C3.5
20' < 34'	E5	31'-40'	D4.5
34'-40'	F5		
SIZE: 5' x 8'			
≥0.5' < 7'	C6.5	≥0.5' < 8'	B10
7' < 13'	D7	8' < 17'	B5.5
13' < 24'	E5	17' < 25'	C6.5
24'-40'	F5	25'-40'	C3.5
SIZE: 5' x 9'			
≥0.5' < 8'	C6.5	≥0.5' < 14'	B10
8' < 14'	D7	14' < 24'	B5.5
14' < 25'	E5	24' < 34'	C6.5
25'-40'	F5	34'-40'	C3.5
SIZE: 5' x UNLIMITED			
≥0.5' < 8'	C6.5	≥0.5' < 14'	B10
8' < 14'	D7	14' < 24'	B5.5
14' < 25'	E5	24' < 34'	C6.5
25'-40'	F5	34'-40'	C3.5

SHORT-WAY SLAB DEPTH	SHORT-WAY SCHEDULE (Bars A)	LONG-WAY SLAB DEPTH	LONG-WAY SCHEDULE (Bars B)
SIZE: 6' x 6'			
≥0.5' < 13'	C6.5	≥0.5' < 10'	C3.5
13' < 23'	D7	10' < 18'	D4.5
23'-40'	E5	18' < 27'	E5
		27' < 33'	E3
		33'-40'	F5
SIZE: 6' x 7'			
≥0.5' < 8'	C6.5	≥0.5' < 8'	C6.5
8' < 16'	D7	8' < 12'	C3.5
16' < 28'	E5	12' < 21'	D4.5
28'-40'	F5	21' < 28'	E5
		28' < 35'	E3
		35'-40'	F5
SIZE: 6' x 8'			
≥0.5' < 6'	C6.5	≥0.5' < 6'	B5.5
6' < 13'	D7	6' < 11'	C6.5
13' < 22'	E5	11' < 17'	C3.5
22' < 35'	F5	17' < 22'	D4.5
35'-40'	G5	22' < 32'	E5
		32'-40'	E3
SIZE: 6' x 9'			
≥0.5' < 8'	D7	≥0.5' < 8'	B5.5
8' < 14'	E5	8' < 14'	C6.5
14' < 24'	F5	14' < 21'	C3.5
24'-34'	G5	21' < 25'	D4.5
		25'-34'	E5
SIZE: 6' x UNLIMITED			
≥0.5' < 8'	D7	≥0.5' < 8'	B5.5
8' < 14'	E5	8' < 14'	C6.5
14' < 24'	F5	14' < 21'	C3.5
24'-34'	G5	21' < 25'	D4.5
		25'-34'	E5
SIZE: 7' x 7'			
≥0.5' < 8'	C6.5	≥0.5' < 4'	C6.5
8' < 15'	D7	4' < 7'	C3.5
15' < 26'	E5	7' < 11'	D4.5
26'-40'	F5	11' < 22'	E3
		22' < 32'	F3.5
		32'-40'	G3.5
SIZE: 7' x 8'			
≥0.5' < 5'	C6.5	≥0.5' < 5'	C6.5
5' < 11'	D7	5' < 8'	C3.5
11' < 19'	E5	8' < 13'	D4.5
19' < 30'	F5	13' < 22'	E3
30'-40'	G5	22' < 30'	F3.5
		30'-40'	G3.5
SIZE: 7' x 9'			
≥0.5' < 9'	D7	≥0.5' < 7'	C6.5
9' < 15'	E5	7' < 10'	C3.5
15' < 25'	F5	10' < 14'	D4.5
25' - 34'	G5	14' < 21'	E5
		21' < 29'	F5
		29'-34'	F3.5

SLAB DESIGNS - ROUND STRUCTURES (TABLE 7)

SHORT-WAY SLAB DEPTH	SHORT-WAY SCHEDULE (Bars A)	LONG-WAY SLAB DEPTH	LONG-WAY SCHEDULE (Bars B)
SIZE: 8' x 8'			
≥0.5' < 10'	D7	≥0.5' < 9'	D4.5
10' < 19'	E5	9' < 13'	E5
19'-30'	F5	13' < 18'	F5
		18' < 23'	F3.5
		23'-30'	G3.5
SIZE: 8' x 9'			
≥0.5' < 8'	D7	≥0.5' < 7'	D7
8' < 14'	E5	7' < 9'	D4.5
14' < 23'	F5	9' < 15'	E3
23'-31'	G3.5	15' < 20'	F5
		20' < 23'	F3.5
		23'-31'	G3.5
SIZE: 9' x 9'			
≥0.5' < 8'	D7	≥0.5' < 7'	D4
8' < 14'	E5	7' < 10'	E5
14' < 22'	F5	10' < 17'	F3.5
		17' < 22'	G3.5
SIZE: 9'x9'x10" SLAB THICKNESS			
22' < 36'	F5	22' < 31'	F3.5
36'-40'	G5	31'-40'	G3.5
SIZE: 10'x10'x10" SLAB THICKNESS			
≥0.5' < 7'	C6.5	0.5' < 6'	C6.5
7' < 10'	D7	6' < 9'	D4.5
10' < 18'	E5	9' < 13'	E5
18' < 27'	F5	13' < 22'	F5
27'-32'	G5	22'-32'	G3.5
SIZE: 12'x12'x12" SLAB THICKNESS			
≥0.5' < 10'	D7	≥0.5' < 8'	D7
10' < 16'	E5	8' < 14'	E5
16' < 25'	F5	14' < 22'	F5
25'-35'	G5	22' < 30'	G5
		30'-35'	H4

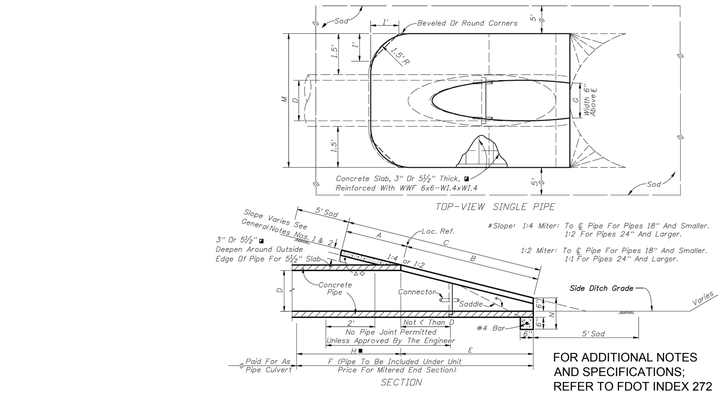
SLAB DESIGNS - ROUND STRUCTURES (TABLE 7)

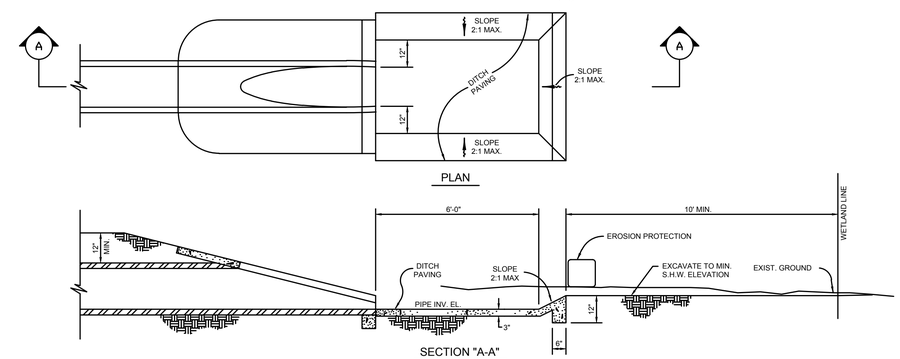
SLAB DEPTH	SLAB THICKNESS	REINF. (2-WAY) SCHEDULE
SIZE: 3'-6" DIAMETER		
2'-15'	6" Precast	C6.5
0.5' < 30'	8"	A6
30'-40'	8"	B5.5
SIZE: 4'-0" DIAMETER		
≥0.5' < 19'	8"	A6
19' < 30'	8"	B5.5
30'-40'	8"	C6.5
SIZE: 5'-0" DIAMETER		
≥0.5' < 15'	8"	B5.5
15' < 26'	8"	C6.5
26' < 35'	8"	D7
35'-40'	8"	D4.5
SIZE: 6'-0" DIAMETER		
≥0.5' < 9'	8"	B5.5
9' < 15'	8"	C6.5
15' < 22'	8"	C3.5
22' < 30'	8"	D4.5
30'-40'	8"	E5
SIZE: 7'-0" DIAMETER		
≥0.5' < 8'	8"	C3.5
8' < 16'	8"	D4.5
16' < 23'	8"	E5
23' < 27'	8"	E3
27'-40'	8"	F3.5
SIZE: 8'-0" DIAMETER		
≥0.5' < 10'	8"	D4.5
10' < 16'	8"	E5
16' < 19'	8"	E3
19' < 29'	8"	F3.5
29'-40'	10"	F5
SIZE: 10'-0" DIAMETER		
≥0.5' < 12'	10"	D4.5
12' < 20'	10"	E5
20' < 28'	10"	F5
28'-40'	10"	G3.5
SIZE: 12'-0" DIAMETER		
≥0.5' < 8'	10"	D4.5
8' < 13'	10"	E5
13' < 18'	10"	F5
18' < 26'	10"	G3.5
26'-40'	12"	G3.5

SLAB AND WALL DESIGN TABLE NOTES

1. Size is the inside dimension(s) of a structure.
2. Slab reinforcement is appropriate for top, intermediate, and bottom slabs.
3. Bottom Slabs for precast 3'-6" x 3'-6" rectangular structures at 15' depth or less, may be 6" thick.
4. Slab depth is measured from finished grade to top of slab.
5. Wall depth is measured to the top of the bottom slab for boxes and to the top of the intermediate slab for risers.
6. Wall height is the distance between top of lower slab to bottom of upper slab. Maximum wall height is 12' for wall lengths exceeding 5', or 10' for wall lengths exceeding 12'.
7. Wall lengths exceeding 6'-0" require two layers of reinforcing (See Table 8) with 2" of cover from the horizontal bars to the inside and outside faces for each layer.
8. Wall lengths exceeding the dimensions or depths shown in Table 8, or 12'-0" diameter require a special design.
9. Wall thickness and reinforcing for rectangular structures is the same for both long and short sides.
10. Reinforcing schedules with larger areas of steel may be substituted for schedules with smaller bar or wire spacing, except that Schedule B10 may not be substituted for Schedule A6. See Index 201, Sheet 4 for allowable bar spacing adjustments when larger areas of reinforcing are substituted.

LAST REVISION	REVISION DESCRIPTION:	FDOT 2014 DESIGN STANDARDS	STRUCTURE BOTTOMS TYPE J AND P	INDEX NO.	SHEET NO.
07/01/09				200	4 of 5





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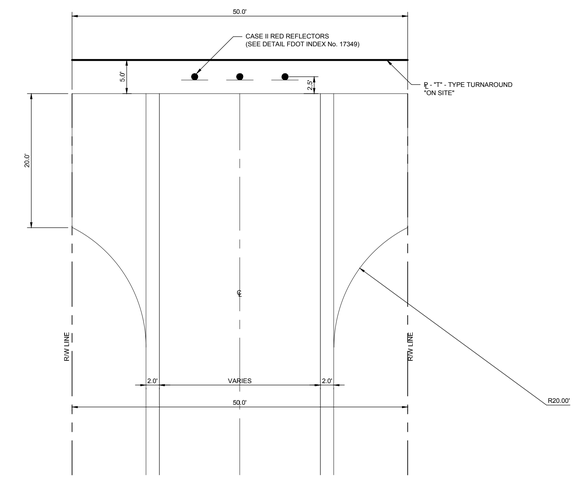

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CONSTRUCTION PLANS
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
DRAINAGE DETAILS

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XXXXXXX

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FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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FL LICENSE NO. 67878

SET NUMBER: 186-119-04

SHEET : 37

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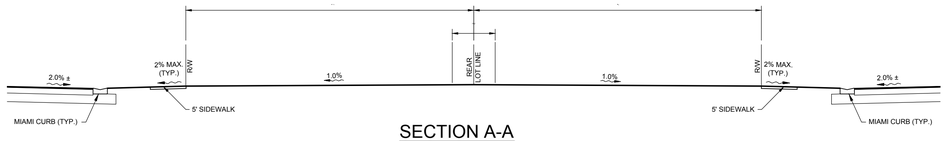

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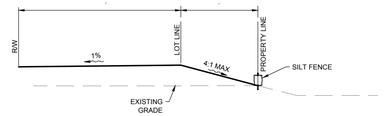

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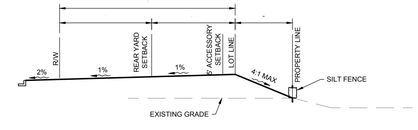

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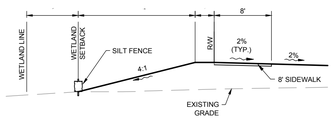

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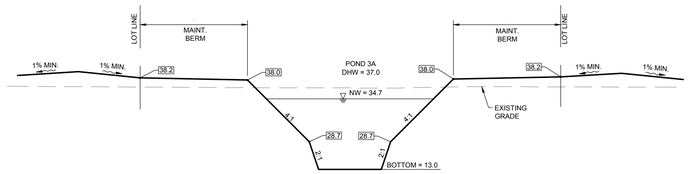

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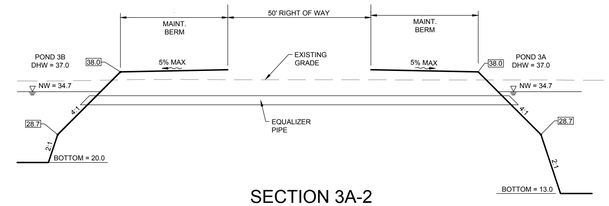

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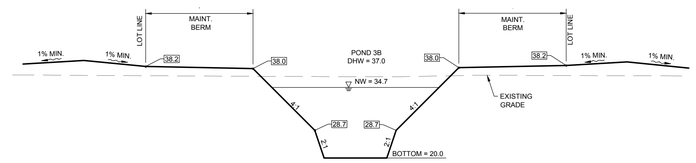

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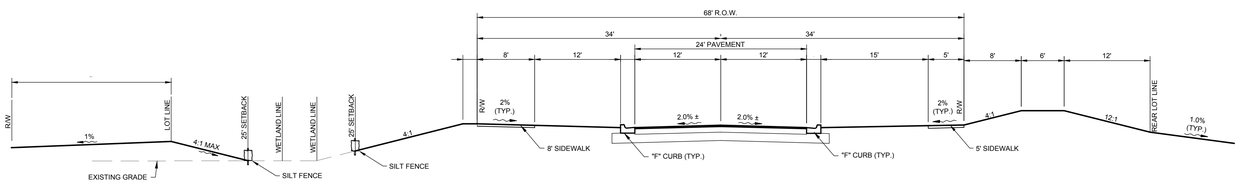

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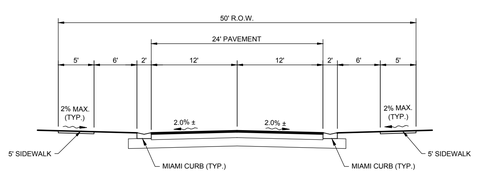

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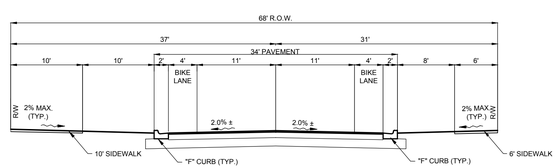

MAIN BOULEVARD
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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

CROSS SECTIONS

PLAN REVISIONS

REV#9 <<SUBMITTED / BID SET>> XXXXXXX

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FL LICENSE NO. 67678

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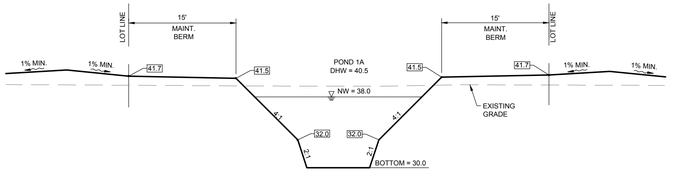

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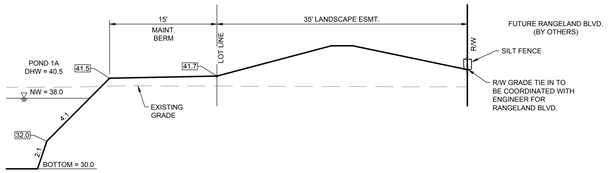

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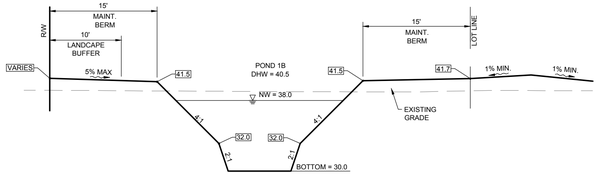

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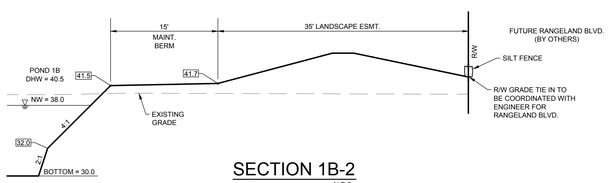

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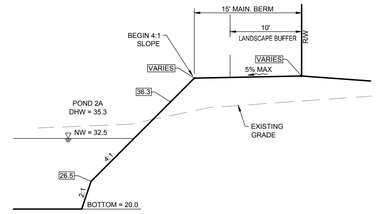

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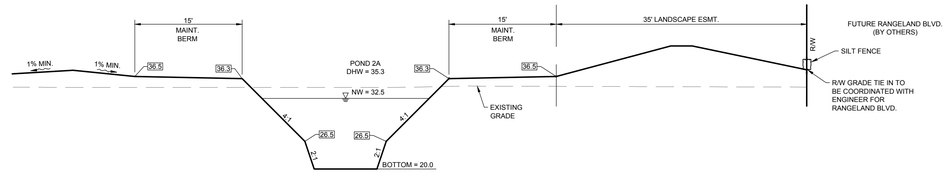

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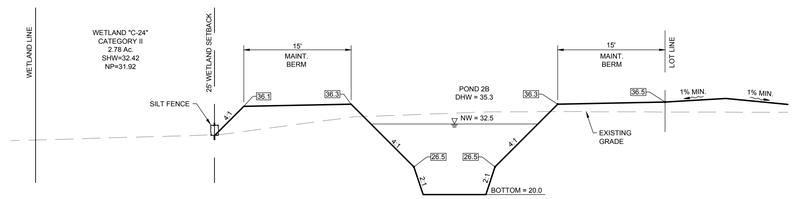

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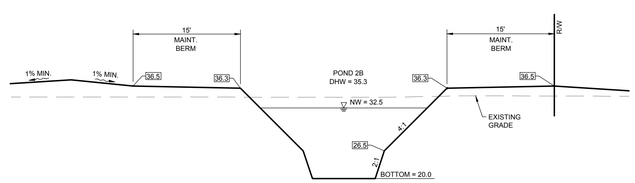

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

CROSS SECTIONS

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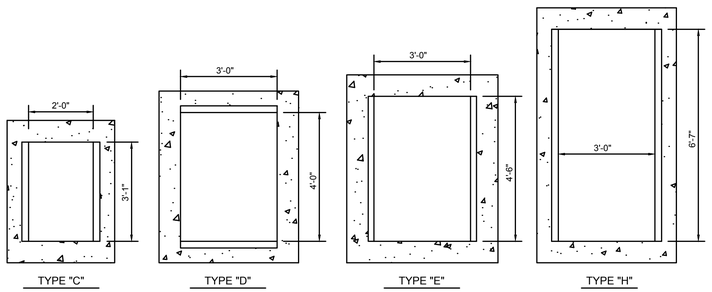

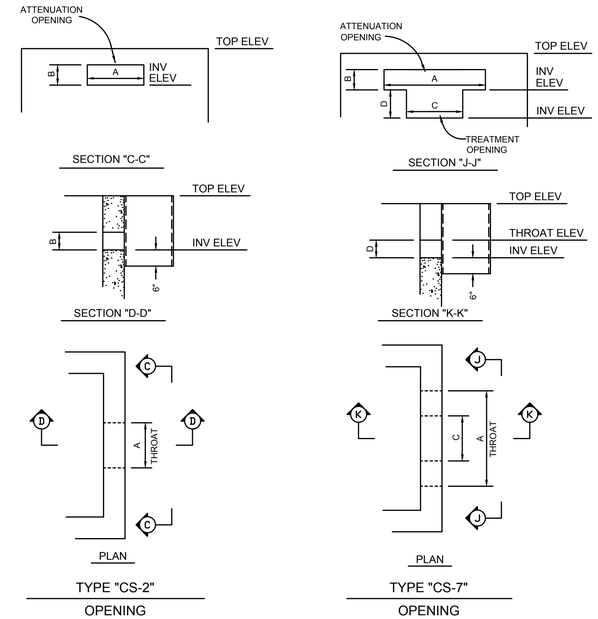

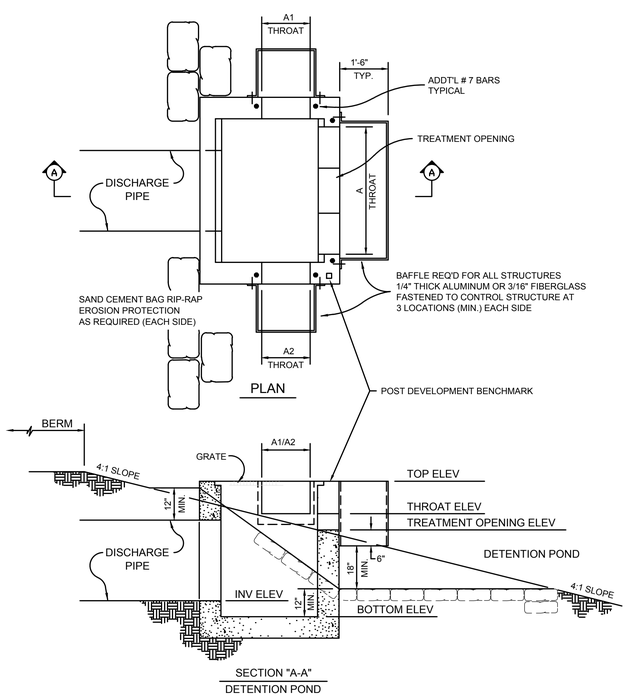

TYPICAL CONTROL STRUCTURE
MODIFIED

NOTES

1.) CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTING CONTROL STRUCTURES.

CONTROL STRUCTURE DATA

STR. NO.	FDOT BOX TYPE	MODIFIED ATTENUATION AND TREATMENT CONTROLS								REMARKS
		OPENING TYPE	ATTENUATION OPENING A	ATTENUATION OPENING B	EL. (FT.)	TREATMENT OPENING C	TREATMENT OPENING D	TREATMENT OPENING F°	EL. (FT.)	
NO.	TYPE	TYPE	A	B	EL	C	D	F°	EL	REMARKS
CS-1	H	CS-7	66"	6"	38.5	22"	6"		38.0	POND 1A (THROAT A)
		CS-2	24"	6"	38.5					POND 1A (THROAT A1)
		CS-2	24"	6"	38.5					POND 1A (THROAT A2)
CS-2	E	CS-7	42"	12"	33.0	27.5"	6"		32.5	POND 2B (THROAT A)
		CS-2	27"	12"	33.0					POND 2B (THROAT A1)
		CS-2	27"	12"	33.0					POND 2B (THROAT A2)
CS-3	H	CS-7	66"	15"	35.2	36"	6"		34.7	POND 3B (THROAT A)
		CS-2	27"	15"	35.2					POND 3B (THROAT A1)
		CS-2	27"	15"	35.2					POND 3B (THROAT A2)
CS-4A	C	CS-7	24"	6"	33.3	24"	4.75"		32.9	POND 4A (THROAT A)
		CS-7	9"	6"	33.3	14"	4.75"		32.9	POND 4A (THROAT A1)
		CS-7	9"	6"	33.3	13.5"	4.75"		32.9	POND 4A (THROAT A2)
CS-4B	C	CS-2	24"	6"	33.3					POND 4B (THROAT A)
CS-5	D	CS-7	36"	6"	33.4	33"	4.75"		33.0	POND 5A (THROAT A)
		CS-2	18"	6"	33.4					POND 5A (THROAT A1)
		CS-2	18"	6"	33.4					POND 5A (THROAT A2)

N

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CONSTRUCTION PLANS
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
CONTROL STRUCTURE DETAILS

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XXXXXXX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 63678

SET NUMBER: 186-119-04

SHEET : 40

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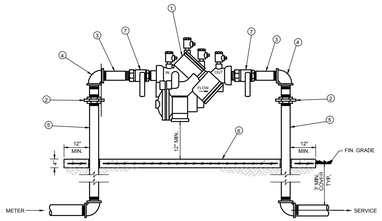
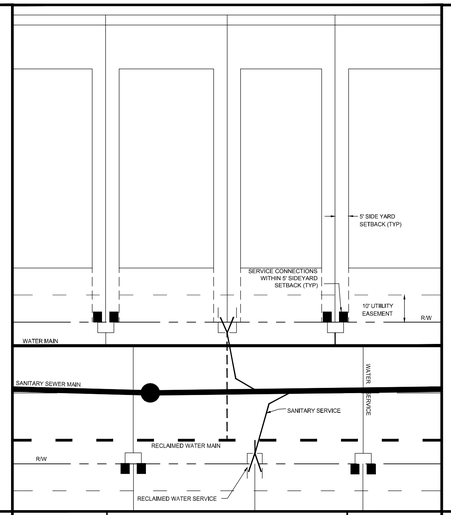


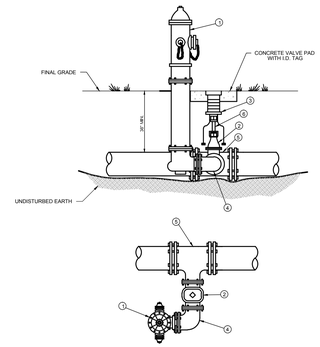
MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	BACKFLOW PREVENTER ASSEMBLY, REDUCED PRESSURE ZONE
2	2	UNIONS - GALV.
3	2	NIPPLES - BRASS
4	2	ELBOWS - GALV. 90°
5	2	RISER - GALV.
6	"	CONCRETE SLAB
7	2	BALL VALVES - BRASS OR S.S. (PROVIDED WITH BFP ASS'Y)

NOTE: - FIELD ADJUST AND CUT ITEM 5 TO THE PROPER LENGTH.
- MINIMUM CLEARANCE OF 24" TO BE MAINTAINED AROUND DEVICE FOR TESTING.
- ENTIRE ASSEMBLY TO BE PAINTED SAFETY BLUE.
- CONCRETE SLAB TO EXTEND 12" MIN. AROUND ENTIRE DEVICE.
- DEVICE MUST BE LISTED WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.

CREATED 02/24/03	REDUCED PRESSURE BACKFLOW PREVENTER (SINGLE SERVICE: 3/4", 1", 1-1/2", 2")	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 12

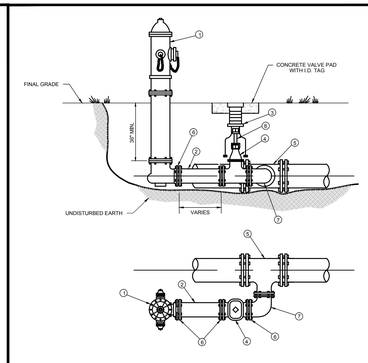


CREATED 02/24/03	STANDARD 40' (DETACHED) SINGLE FAMILY TYPICAL UTILITY CONNECTION DETAIL	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 22



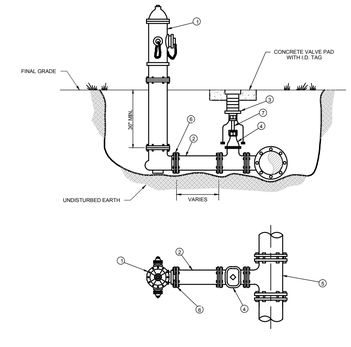
MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	HYDRANT, FIRE (5 1/4" VALVE MIN.), PAINTED YELLOW
2	1	6" VALVE, GATE, MJ RESILIENT WEDGE
3	1	BOX, VALVE SLIP TYPE
4	1	6" BEND, ANCHORING, D.I.
5	1	TEE, ANCHORING, MJ
6	"	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)

CREATED 02/24/03	FIRE HYDRANT PARALLEL TO THE MAIN	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 25



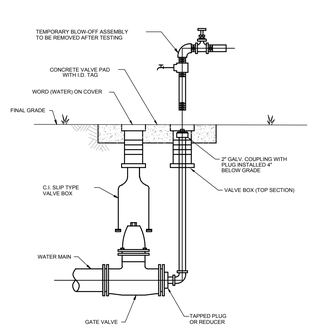
MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	HYDRANT, FIRE (5 1/4" VALVE MIN.), PAINTED YELLOW
2	"	6" PIPE, P.V.C. (DR-18)
3	1	BOX, VALVE SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE
5	1	TEE, ANCHORING, M.J.
6	"	6" RESTRAINER GLAND (MEGALUG)
7	1	BEND, ANCHORING, D.I.
8	"	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)

CREATED 02/24/03	FIRE HYDRANT PARALLEL TO THE MAIN	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 26



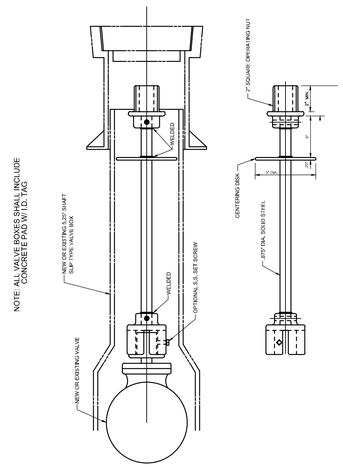
MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	HYDRANT, FIRE (5 1/4" VALVE MIN.), PAINTED YELLOW
2	"	6" PIPE, P.V.C. (DR-18)
3	1	BOX, VALVE SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE
5	1	TEE, ANCHORING, M.J.
6	"	6" RESTRAINER GLAND (MEGALUG)
7	"	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)

CREATED 02/24/03	FIRE HYDRANT PERPENDICULAR TO THE MAIN	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 27

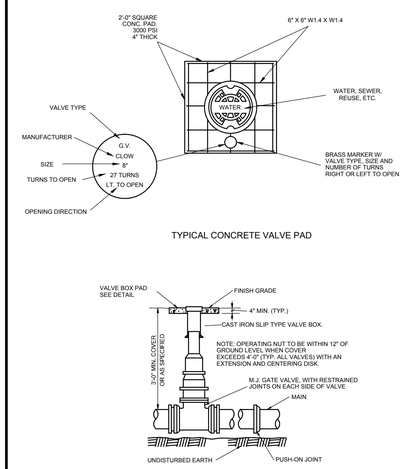


NOTES:
- MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED IN JOINT RESTRAINT TABLE (DETAIL 46)
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE

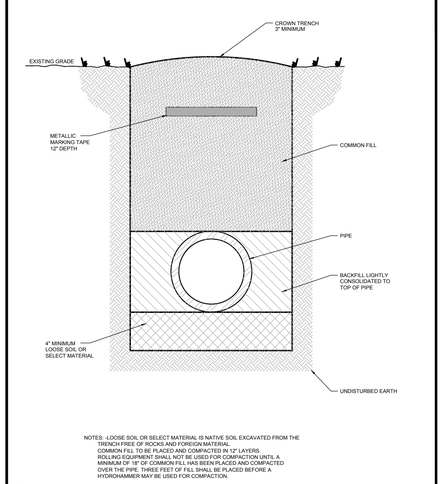
CREATED 02/24/03	PERMANENT BLOW-OFF DETAIL	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 28



CREATED 02/24/03	VALVE EXTENSION RODS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 29



CREATED 02/24/03	VALVE BOX DETAIL SLIP TYPE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 30



NOTES: LOOSE SOIL OR SELECT MATERIAL IS NATIVE SOIL EXCAVATED FROM THE TRENCH FREE OF ROCKS AND FOREIGN MATERIAL.
COMMON FILL TO BE PLACED AND COMPACTED IN 12" LAYERS.
ROLLING EQUIPMENT SHALL NOT BE USED FOR COMPACTION UNTIL A MINIMUM OF 18" OF COMMON FILL HAS BEEN PLACED AND COMPACTED OVER THE PIPE. THREE FEET OF FILL SHALL BE PLACED BEFORE A HYDRAHAMMER MAY BE USED FOR COMPACTION.

NTS

CREATED 02/24/03	PIPE LAYING CONDITIONS STANDARD UNPAVED AREAS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 35

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

WATER DETAILS

PLAN REVISIONS

REV#0 <<SUBMITTED / BID SET>> XXXXXXX

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FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 41

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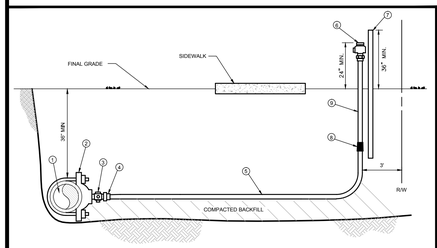
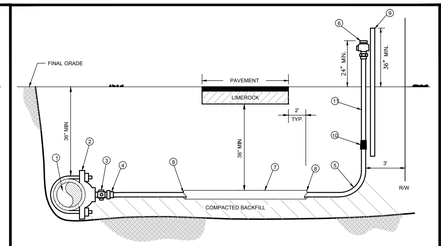


MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	*	PIPE, PVC (DR-18) OR D.I.P.
2	1	SADDLE, SERVICE W/ 1" F.I.P. THREAD
3	1	1" CORPORATION (M.I.P. x COMP.)
4	1	1" INSERT (STAINLESS STEEL)
5	*	1" TUBING, POLYETHYLENE
6	1	3/4" WATER OR 1" REUSE CURB STOP BALL
		VALVE W/ LOCK WINGS (F.I.P. x COMP.)
7	1	2" x 4" P.T. MARKER STAKE
8	1	1" x 3/4" COUPLING (COMP. x COMP.) WATER ONLY
9	1	3/4" WATER OR 1" REUSE TUBING, POLYETHYLENE 4'

NOTES: - ALL FITTINGS FOR POLYETHYLENE TUBING ARE BRASS COMPRESSION TYPE.
- A VALVE BOX MAY BE REQUIRED AS SPECIFIED BY THE ENGINEER.
- CURB STOP TO TERMINATE 24" ABOVE GROUND AT R/W LINE.
- REUSE CURB STOPS = 1" / WATER CURB STOPS = 3/4"
- TUBING TO BE YARDLEY 3406 OR EQUAL.
- SADDLES 2" - 3" TO BE BRASS FULL CIRCLE TYPE.
- SADDLES 4" AND LARGER TO BE D.I. DUAL STRAP TYPE.
- CURB STOPS TO BE TIED TO MARKER STAKE.
- SADDLE MAY BE INSTALLED AT ANGLE (WITHIN 45° OF HORIZONTAL).
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.

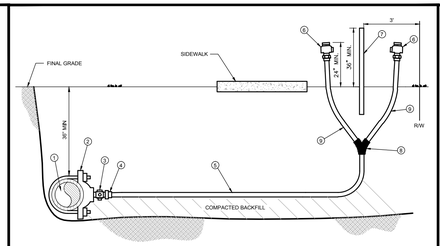
CREATED 02/24/03	SINGLE NEAR SIDE WATER SERVICE - 3/4" SINGLE NEAR SIDE REUSE SERVICE - 1" POLYETHYLENE TUBING	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 17



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	*	PIPE, PVC (DR-18) OR D.I.P.
2	1	SADDLE, SERVICE W/ 1" F.I.P. THREAD
3	1	1" CORPORATION (M.I.P. x COMP.)
4	1	1" INSERT (STAINLESS STEEL)
5	*	1" TUBING, POLYETHYLENE
6	1	3/4" WATER OR 1" REUSE CURB STOP BALL
		VALVE W/ LOCK WINGS (F.I.P. x COMP.)
7	*	2" CASING, PVC OR HDPE - 2' BEYOND EDGE PAVEMENT
8	*	SEALER, RAM-NEK
9	1	2" x 4" P.T. MARKER STAKE
10	1	1" x 3/4" COUPLING (COMP. x COMP.) WATER ONLY
11	1	3/4" WATER OR 1" REUSE TUBING, POLYETHYLENE 4'

NOTES: - ALL FITTINGS FOR POLYETHYLENE TUBING ARE BRASS COMPRESSION TYPE.
- A VALVE BOX MAY BE REQUIRED AS SPECIFIED BY THE ENGINEER.
- CURB STOP TO TERMINATE 24" ABOVE GROUND AT R/W LINE.
- REUSE CURB STOPS = 1" / WATER CURB STOPS = 3/4"
- TUBING TO BE YARDLEY 3406 OR EQUAL.
- SADDLES 2" - 3" TO BE BRASS FULL CIRCLE TYPE.
- SADDLES 4" AND LARGER TO BE D.I. DUAL STRAP TYPE.
- CURB STOPS TO BE TIED TO MARKER STAKE.
- SADDLE MAY BE INSTALLED AT ANGLE (WITHIN 45° OF HORIZONTAL).
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.

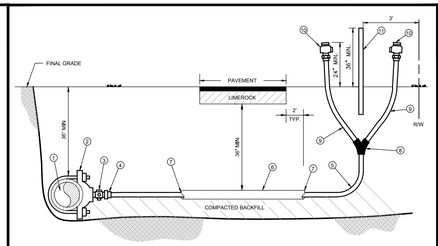
CREATED 02/24/03	SINGLE FAR SIDE WATER SERVICE - 3/4" SINGLE FAR SIDE REUSE SERVICE - 1" POLYETHYLENE TUBING	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 18



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	*	PIPE, PVC (DR-18) OR D.I.P.
2	1	SADDLE, SERVICE W/ 1" F.I.P. THREAD
3	1	1" CORPORATION (M.I.P. x COMP.)
4	1	1" INSERT (STAINLESS STEEL)
5	*	1" TUBING, POLYETHYLENE
6	1	3/4" WATER OR 1" REUSE CURB STOP BALL
		VALVE W/ LOCK WINGS (F.I.P. x COMP.)
7	1	2" x 4" P.T. MARKER STAKE
8	1	1" x 3/4" WYE BRANCH (COMP. x COMP.) WATER ONLY
9	1	3/4" WATER OR 1" REUSE TUBING, POLYETHYLENE 4'

NOTES: - ALL FITTINGS FOR POLYETHYLENE TUBING ARE BRASS COMPRESSION TYPE.
- A VALVE BOX MAY BE REQUIRED AS SPECIFIED BY THE ENGINEER.
- CURB STOP TO TERMINATE 24" ABOVE GROUND AT R/W LINE.
- REUSE CURB STOPS = 1" / WATER CURB STOPS = 3/4"
- TUBING TO BE YARDLEY 3406 OR EQUAL.
- SADDLES 2" - 3" TO BE BRASS FULL CIRCLE TYPE.
- SADDLES 4" AND LARGER TO BE D.I. DUAL STRAP TYPE.
- CURB STOPS TO BE TIED TO MARKER STAKE.
- SADDLE MAY BE INSTALLED AT ANGLE (WITHIN 45° OF HORIZONTAL).
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.

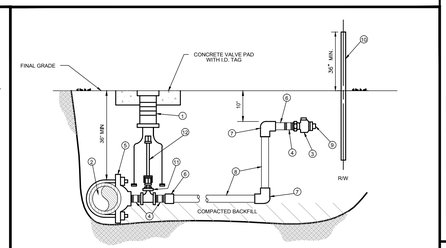
CREATED 02/24/03	DOUBLE NEAR SIDE WATER SERVICE - 3/4" DOUBLE NEAR SIDE REUSE SERVICE - 1" POLYETHYLENE TUBING	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 19



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	*	PIPE, PVC (DR-18) OR D.I.P.
2	1	SADDLE, SERVICE W/ 1" F.I.P. THREAD
3	1	1" CORPORATION (M.I.P. x COMP.)
4	1	1" INSERT (STAINLESS STEEL)
5	*	1" TUBING, POLYETHYLENE
6	*	2" CASING, PVC OR HDPE - 2' BEYOND EDGE PAVEMENT
7	*	SEALER, RAM-NEK
8	1	WYE BRANCH FOR POLY TUBING
9	2	3/4" WATER OR 1" REUSE TUBING, POLYETHYLENE 4'
10	2	3/4" WATER OR 1" REUSE CURB STOP BALL
		VALVE W/ LOCK WINGS (F.I.P. x COMP.)
11	1	2" x 4" P.T. MARKER STAKE

NOTES: - ALL FITTINGS FOR POLYETHYLENE TUBING ARE BRASS COMPRESSION TYPE.
- A VALVE BOX MAY BE REQUIRED AS SPECIFIED BY THE ENGINEER.
- CURB STOP TO TERMINATE 24" ABOVE GROUND AT R/W LINE.
- REUSE CURB STOPS = 1" / WATER CURB STOPS = 3/4"
- TUBING TO BE YARDLEY 3406 OR EQUAL.
- SADDLES 2" - 3" TO BE BRASS FULL CIRCLE TYPE.
- SADDLES 4" AND LARGER TO BE D.I. DUAL STRAP TYPE.
- CURB STOPS TO BE TIED TO MARKER STAKE.
- SADDLE MAY BE INSTALLED AT ANGLE (WITHIN 45° OF HORIZONTAL).
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.

CREATED 02/24/03	WATER AND REUSE LATERAL SERVICE 3/4" (DOUBLE - FAR SIDE) POLYETHYLENE TUBING	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 20



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	BOX, VALVE CAST IRON SLIP TYPE
2	*	4" & LARGER PIPE, PVC (DR-18) OR D.I.P. (CLASS 50)
3	2	1 1/2", 2" CURB STOP BALL VALVE W/ LOCK WINGS (FIP x FIP OR FIP x CTS)
4	3	1 1/2", 2" NIPPLE, BRASS OR STAINLESS STEEL
5	1	1 1/2", 2" SADDLE, SERVICE (I.P. THREADS)
6	2	1 1/2", 2" ADAPTER (PVC SCH 40 / SLIP x FPT OR BRASS MIP x CTS)
7	2	1 1/2", 2" 90° ELBOW (SLIP x SLIP) SCH 40 (NOT REQUIRED FOR HDPE)
8	*	1 1/2", 2" PIPE, PVC (SCH 40) OR HDPE (3408) - LENGTH VARIES
9	1	1 1/2", 2" PLUG, THREADED (W/ TEFLON TAPE)
10	1	2" x 4" P.T. MARKER STAKE
11	1	2" GATE VALVE, IRON BODY W/ SQUARE NUT
12	1	VALVE EXTENSION ROD, AS REQUIRED (3' MAX. BELOW GRADE)

NOTE: - A VALVE BOX SHALL BE REQUIRED ON ALL GATE VALVES.
- SERVICE SADDLES SHALL BE INSTALLED ON ALL TAPS TO P.V.C. (DR-18) WATER MAINS.
- 2" GATE VALVE TO BE RESILIENT WEDGE IRON BODY TYPE WITH 2" OPERATING UNIT.
- SADDLES 4" AND LARGER TO BE DUCTILE IRON DUAL STRAP TYPE.
- 1 1/2" BRASS REDUCER BUSHING REQUIRED WITH ITEM NO. 11 FOR 1 1/2" SERVICE.
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.
- 4" DIAMETER CASING REQUIRED FOR ROAD CROSSINGS

CREATED 02/24/03	WATER AND REUSE LATERAL SERVICE 1 1/2" OR 2" SERVICE LATERAL PVC (SCHEDULE 40)	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 21

PIPE RESTRAINT LENGTHS IN FEET
COMMON FITTINGS

WATER MAINS - TEST PRESSURE 150 PSI						
		FITTING TYPE				
		11-1/4°	22-1/2°	45°	90°	DEAD END
PIPE SIZE	4"	2'	4'	8'	20'	45'
	6"	3'	6'	12'	28'	63'
	8"	4'	7'	15'	36'	82'
	10"	4'	9'	18'	43'	98'
	12"	5'	10'	21'	50'	116'
	16"	6'	13'	26'	63'	148'
	20"	7'	15'	31'	76'	179'
	24"	9'	17'	36'	87'	208'

FORCE MAINS - TEST PRESSURE 100 PSI						
		FITTING TYPE				
		11-1/4°	22-1/2°	45°	90°	DEAD END
PIPE SIZE	4"	1'	3'	6'	13'	30'
	6"	2'	4'	8'	19'	42'
	8"	2'	5'	10'	24'	55'
	10"	3'	6'	12'	29'	66'
	12"	3'	7'	14'	34'	77'
	16"	4'	8'	18'	42'	99'
	20"	5'	10'	21'	50'	119'
	24"	6'	11'	24'	58'	139'

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE FITTING ALONG THE PIPE IN BOTH DIRECTIONS (EXCEPT DEAD ENDS).

CREATED 02/24/03	RESTRAINED JOINT TABLE COMMON FITTINGS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 31

PIPE RESTRAINT LENGTHS IN FEET
TEES (BRANCH SIDE)

WATER MAINS - TEST PRESSURE 150 PSI									
		BRANCH SIZE								
		3"	4"	6"	8"	10"	12"	16"	20"	24"
RUN SIZE	3"	6'	14'	30'	—	—	—	—	—	—
	4"	2'	11'	28'	44'	—	—	—	—	—
	6"	1'	2'	22'	40'	52'	—	—	—	—
	8"	1'	1'	16'	35'	48'	62'	—	—	—
	10"	1'	1'	10'	30'	44'	58'	83'	—	—
	12"	1'	1'	3'	25'	40'	55'	80'	103'	—
	16"	1'	1'	1'	14'	31'	48'	75'	98'	119'
	20"	1'	1'	1'	2'	22'	40'	69'	94'	116'
	24"	1'	1'	1'	1'	11'	31'	63'	89'	111'

RESTRAINT LENGTHS ARE MEASURED FROM THE CENTER LINE OF THE TEE ALONG THE BRANCH FOR THE DISTANCE INDICATED. A MINIMUM OF 5 FEET OF RESTRAINED PIPE MUST BE INSTALLED ON BOTH RUNS OF THE TEE. MEGALUG TYPE RESTRAINERS ARE REQUIRED ON ALL JOINTS.

CREATED 02/24/03	RESTRAINED JOINT TABLE TEES (BRANCH SIDE)	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED	PASCO COUNTY UTILITIES	DETAIL 32

WALDROP ENGINEERING
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTANTS
9432 CAMDEN FIELD PARKWAY RIVERVIEW, FL 33578
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CONSTRUCTION PLANS
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
WATER DETAILS

PLAN REVISIONS
REV#0 <<SUBMITTED / BID SET>> XXXXXXX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 42

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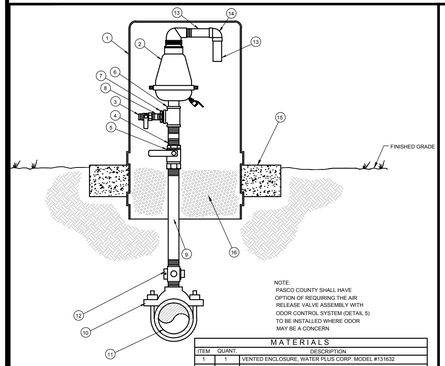

NOTE:
PASCO COUNTY SHALL HAVE OPTION OF REQUIRING THE AIR RELEASE VALVE ASSEMBLY WITH ODOR CONTROL SYSTEM (DETAIL 5) TO BE INSTALLED WHERE ODOR MAY BE A CONCERN

NOTE:

VENTED ENCLOSURE TO BE COLOR CODED AS FOLLOWS:

WATER MAIN - BLUE
FORCE MAIN - GREEN
REUSE MAIN - PURPLE

MATERIALS

ITEM	QUANT.	DESCRIPTION
1	1	VENTED ENCLOSURE, WATER PLUS CORP. MODEL #131632
2	1	AIR RELEASE VALVE 2" NPT (SEE BELOW)
		SEWER AIR RELEASE VALVES SHALL BE AIR MODEL D-025
		WATER AIR RELEASE VALVES SHALL BE VALMATIC OR EQUAL
3	1	3" CURB STOP, S.S.
4	1	2" x 4" NIPPLE, S.S.
5	1	2" BALL VALVE, S.S.
6	1	2" TEE, S.S.
7	1	2" X 1" REDUCER, S.S.
8	1	1" SHORT NIPPLE, S.S.
9	1	2" PIPE, S.S. (LENGTH AS REQUIRED)
10	1	2" DOUBLE STRAP TAPPING SADDLE, S.S.
11	1	4" BLLMISER PIPE, D.I. OR PVC (DR-18)
12	1	2" CORPORATION BRASS
13	2	1-1/2" PIPE, PVC, LENGTH AS REQUIRED
14	1	1-1/2" x 90° ELBOW, PVC
15	1	CONCRETE SLAB AROUND ENCLOSURE
16	1	#57 WHITE ROCK

CREATED 02/24/03
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STANDARD AIR RELEASE VALVE ASSEMBLY (VERTICAL PIPE LAYOUT)

PASCO COUNTY UTILITIES

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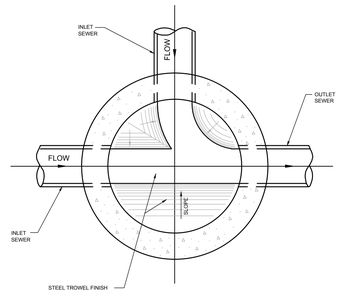
DETAIL 4



CREATED 02/24/03
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STANDARD MANHOLE (BENCH AND INVERTS)

PASCO COUNTY UTILITIES

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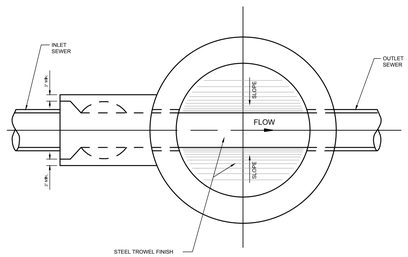
DETAIL 39



NOTE:
DROP MANHOLE TO BE USED WHEN THE DIFFERENCE BETWEEN INVERTS IS 2' OR MORE.

CREATED 02/24/03
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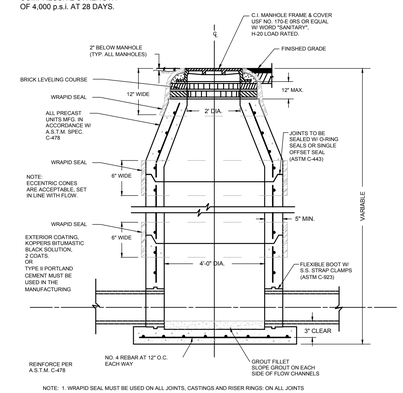
DROP MANHOLE (BENCH AND INVERTS)

PASCO COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

DETAIL 40

NOTE:
PRECAST CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 p.s.i. AT 28 DAYS.



NOTE: 1. WRAPID SEAL MUST BE USED ON ALL JOINTS, CASTINGS AND RISER RINGS: ON ALL JOINTS ON AIR RELEASES, MANHOLES, GREASE/WATER, OIL/WATER SEPARATORS, AND WETWELLS.
2. WRAPID SEAL MUST BE USED IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.
3. PASCO COUNTY SHALL HAVE THE OPTION OF SPECIFYING THE TYPE OF INTERIOR LINING TO BE INSTALLED FOR EACH INDIVIDUAL MANHOLE.
4. PASCO COUNTY SHALL HAVE THE OPTION OF REQUIRING A NEGATIVE PRESSURE TEST PER ASTM C-1244.
5. LIFT HOLES MUST NOT PENETRATE THE WALLS

CREATED 02/24/03
REVISED

STANDARD MANHOLE

PASCO COUNTY UTILITIES

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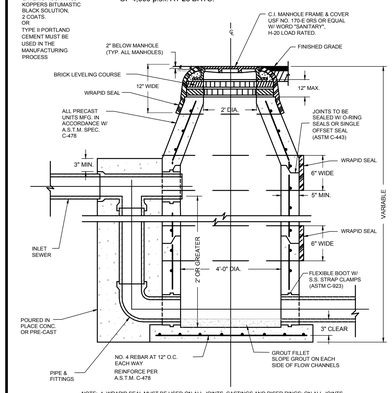
DETAIL 41

NOTE: ECCENTRIC CONES ARE ACCEPTABLE, SET IN LINE WITH FLOW.

EXTERIOR COATING, KOPPERS BITUMASTIC BLACK SOLUTION, 2 COATS. OR TYPE II PORTLAND CEMENT MUST BE USED IN THE MANUFACTURING PROCESS

NOTE:
PRECAST CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 p.s.i. AT 28 DAYS.



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CREATED 02/24/03
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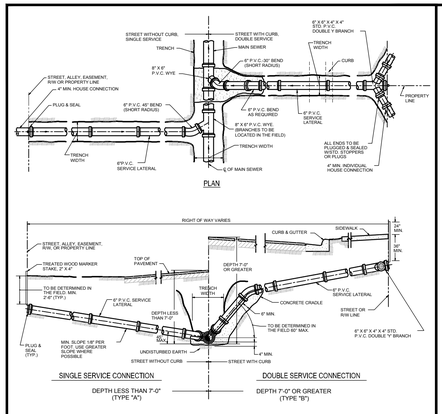
DROP MANHOLE

PASCO COUNTY UTILITIES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

DETAIL 42



NOTE: - CONTRACTOR SHALL MAKE, ON A CLEAN SET OF PLANS, THE FINAL STATIONING OR DISTANCE AND DIRECTION FROM MANHOLE OF EACH SERVICE LATERAL AND THEN GIVE TO ENGINEER FOR RECORD PURPOSES.

- PROVIDE 2" x 4" PRESSURE TREATED WOOD MARKER STAKE AT ALL SANITARY SERVICES (INCLUDE IN PIPE PRICE). TOP OF STAKE TO BE PAINTED WITH GREEN PAINT.

- THE MINIMUM DIAMETER OF ALL SERVICE LATERALS SHALL BE 6 INCHES.

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SEWER LATERAL CONNECTION

PASCO COUNTY UTILITIES

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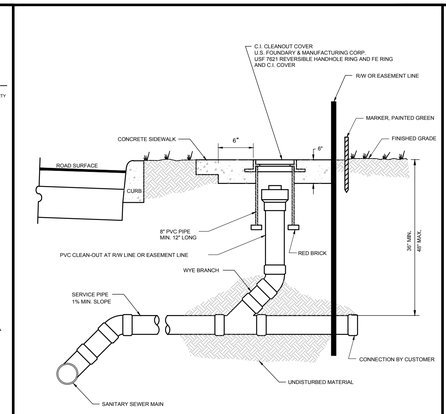
DETAIL 44



NTS

CREATED 02/24/03
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SANITARY SEWER - SINGLE WYE CONNECTION AND TYPICAL CLEAN-OUT

PASCO COUNTY UTILITIES

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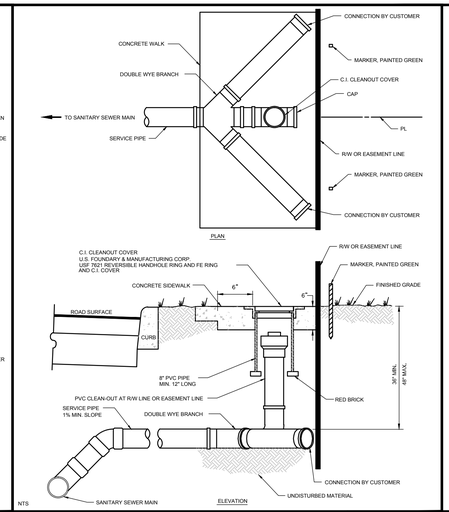
DETAIL 45



NTS

CREATED 02/24/03
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SANITARY SEWER - DOUBLE WYE CONNECTION AND TYPICAL CLEAN-OUT

PASCO COUNTY UTILITIES

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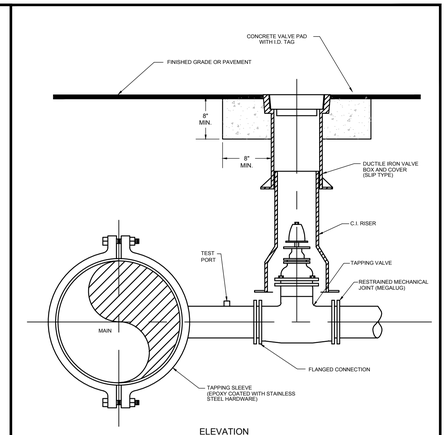
DETAIL 46



ELEVATION

NOTES:
- SADDLE CONNECTION WILL BE TESTED TO 150 PSI PRIOR TO TAPPING MAIN.
- MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED BY COUNTY/ENGINEER.
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE.

CREATED 02/24/03
REVISED

WATER, REUSE, AND FORCE MAIN TAPPING DETAIL W/ VALVE LOCATION

PASCO COUNTY UTILITIES

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DETAIL 37

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ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

SANITARY SEWER DETAILS

PLAN REVISIONS

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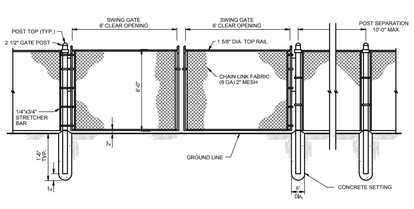
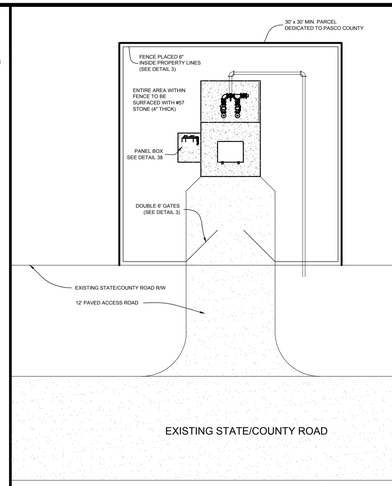
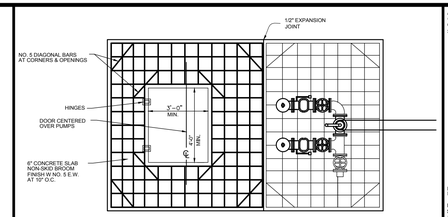


MATERIALS	
ITEM	DESCRIPTION
TYPE	CHAIN LINK
HEIGHT	4', 6', 8' - AS SPECIFIED BY COUNTY
FABRIC	9 GAUGE
POST	2-1/2" DIA. - .085 WALL THICKNESS (MINIMUM)
TOP RAILS	1-5/8" DIA. - .080 WALL THICKNESS (MINIMUM)
GATE	4' x 6' SWING TYPE W/ 2" DIA. - .085 WALL THICKNESS (MINIMUM)
	FRAMEWORK (LOCATED AS INDICATED ON METER SPEC. SHEET)
LATCH	FORK TYPE - PADLOCK COMPATIBLE

CREATED 02/24/03 REVISED	FENCE SPECIFICATIONS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL 04

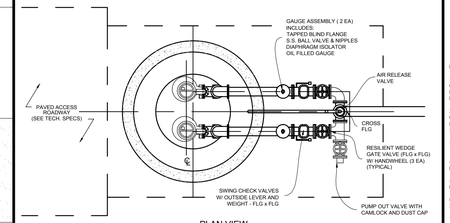


CREATED 02/24/03 REVISED	PUMP STATION (DUPLEX) SITE PLAN & ACCESS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL 47



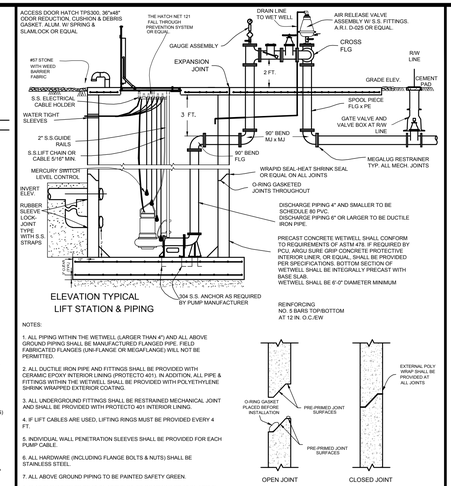
SLAB PLAN VIEW
LIFT STATION & PIPING

NOTE: PUMP OUT ASSEMBLY CAN BE PLACED ON EITHER SIDE TO BEST ACCOMMODATE PROPOSED LAYOUT



PLAN VIEW
LIFT STATION & PIPING

CREATED 02/24/03 REVISED	PUMP STATION SLAB & PIPING PLAN	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL 48



ELEVATION TYPICAL
LIFT STATION & PIPING

NOTES:

1. ALL PIPING WITHIN THE WETWELL (LARGER THAN 4") AND ALL ABOVE GROUND PIPING SHALL BE MANUFACTURED FLANGED PIPE. FIELD FABRICATED FLANGES (UNI-FLANGE OR MEGAFLANGE) WILL NOT BE PERMITTED.

2. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE PROVIDED WITH CERAMIC EPOXY INTERIOR LINING (PROTECTO 401). IN ADDITION, ALL PIPE & FITTINGS WITHIN THE WETWELL SHALL BE PROVIDED WITH POLYETHYLENE SHRINK WRAPPED EXTERIOR COATING.

3. ALL UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT AND SHALL BE PROVIDED WITH PROTECTO 401 INTERIOR LINING.

4. IF LIFT CABLES ARE USED, LIFTING RINGS MUST BE PROVIDED EVERY 4 FT.

5. INDIVIDUAL WALL PENETRATION SLEEVES SHALL BE PROVIDED FOR EACH PUMP CABLE.

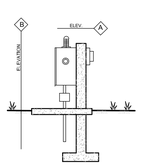
6. ALL HARDWARE (INCLUDING FLANGE BOLTS & NUTS) SHALL BE STAINLESS STEEL.

7. ALL ABOVE GROUND PIPING TO BE PAINTED SAFETY GREEN.

8. SLAB ELEVATION TO BE 12 IN. ABOVE C/L OF ROADWAY OR 12 IN. ABOVE 100 YEAR FLOOD PLAIN - WHICHEVER IS HIGHER.

PRECAST JOINT DETAIL

CREATED 02/24/03 REVISED	DUPLEX PUMP STATION ELEVATION & PIPING PROFILE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL 49



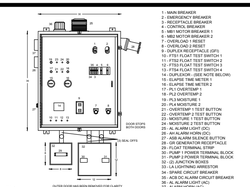
PANEL BOX ELEV.

NOTE:
POSITION PANEL BOX SO OPERATOR'S BACK IS NOT TO WET WELL WHILE FACING BOX

PANEL BOX TO BE LOCATED ON SIDE OPPOSITE WETWELL ACCESS TO WET WELL BY PAVED ACCESS ROAD.

PANEL ELEVATION SHALL BE ABOVE 100 YEAR FLOOD ELEV. AND MUST BE SHOWN ON ALL PLANS

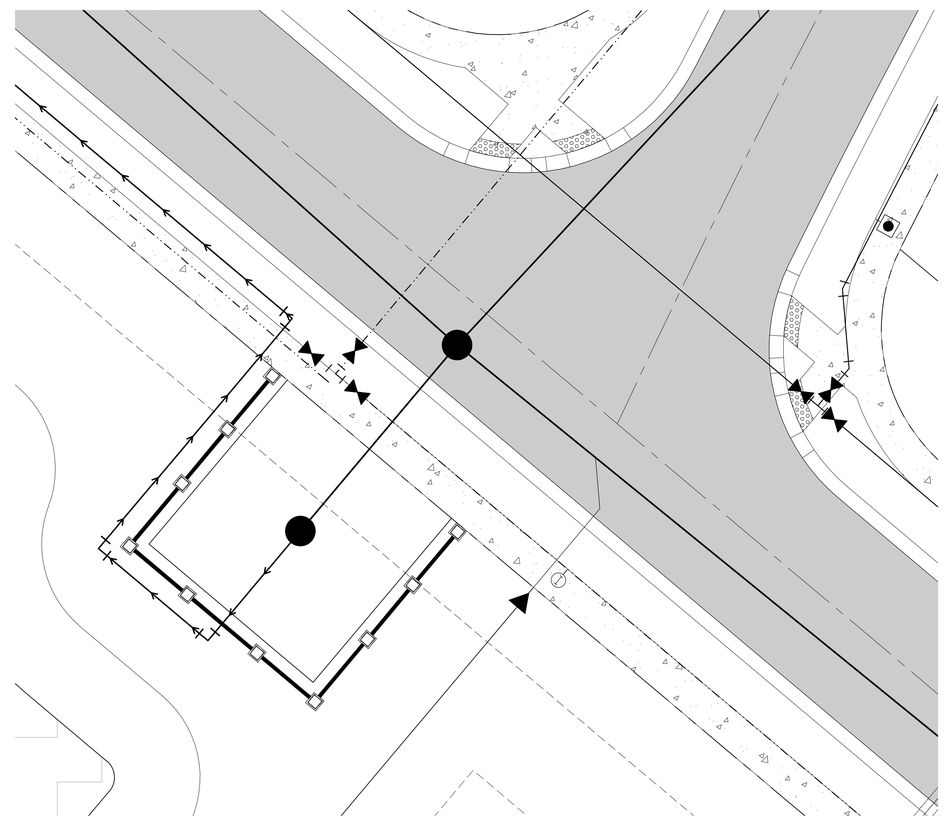
DUPLEXOR SHALL BE AN T.T.I. 6212 AND ALTERNATE TYPE MUST BE SPECIFICALLY APPROVED BY PASCO COUNTY



ELEVATION A

ELEVATION B

CREATED 02/24/03 REVISED	STANDARD PUMP STATION (DUPLEX) PANEL BOX ELEVATION & COMPONENT LAY-OUT	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL 50



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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

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LIFT STATION DETAILS

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

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WASTEWATER PUMPING STATION DESIGN PARAMETERS (FOR COUNTY–OWNED STATIONS)

WASTEWATER PUMPING STATION: ESPLANADE AT STARKEY RANCH PH1 AND PH2
(FACILITY NAME)

LOCATION: ESPLANADE AT STARKEY RANCH PH1 (NEAREST CROSS STREET) SECTION: 19&20 TOWNSHIP: 26S RANGE: 17E

I. SERVICE AREA

NAME OF WWTP SERVING THIS DEVELOPMENT: _____

II. DESIGN CAPACITY

A. Average Daily Flow (ADF):			
275	x 200 GPD/UNIT (Single Family Units)=	55,000.0	GPD
0	x 140 GPD/UNIT (Multi Family Units)=		GPD
10,000	x 0.15 GPD per Square Foot (Office/Retail)=	1,500.0	GPD
	ADF Total=	56,500.0	GPD
B. Peak Influent Rate:			
	Peak Factor: 3.80		
	Peak Flow = (ADF x Peak Factor) / 1440 =	149.1	GPM
C. Design Minimum Flow:			
	(ADF x 0.20) / 1440= 7.8 GPM		
D. Design Pump Capacity (Minimum Required):		149.1	GPM
E. Velocity in Force Main at Max. Pumping Rate:		3.61	fps

III. WETWELL DESIGN (DUPLEX SYSTEM)

A. Design Criteria:

1. Maximum Pump Motor Cycle Rate = 6 Starts Per Hour
2. Maximum Detention Time at Minimum Flow = 30 Minutes

B. Pump Control Level Settings:

1. Pump Cycling Rates are at a minimum when inflow equals one-half the design pumping rate of 149.1 gpm.
2. Wetwell volume required between Lead Pump Start and Pump Shut Off Level = 0.25 x Cycle Period x 1/2 Pumping Rate= 186.37 Gallons
3. Wetwell Diameter (D)= 6 feet
   Wetwell Volume = 211.49 gals / ft. depth
4. Wetwell level change between pump stop and lead pump start= 0.88 feet
   Design For: 0.90 feet (2.00' max)
5. Control Elevations:

Top of Slab:	38.50
Influent Invert:	17.60
High Water Alarm:	17.50
Lag Pump On:	17.00
Lead Pump On:	16.50
All Pumps Off:	15.60
Bottom**:	13.10

** Pump Station depth to not exceed 25 feet

IV. SYSTEM CURVE CALCULATIONS

A. FRICTION LOSS:

1. Pump Station Piping

	Size (in)	Quantity	Friction Loss (ea.)	Total
Tee	4	1	22	22
22.5° Bend	4	0		
45° Bend	4	0		
90° Bend	4	2	22	44
Check Valve	4	1	25	25
Gate Valve	4	1	2.5	2.5
			Total=	93.50
			Pipe Length=	20.00
			Total Equivalent Length=	113.50

Design For: 150.0

2. Force Main Piping

	Size (in)	Quantity	Friction Loss (ea.)	Total
Tee	4	1	22	22
22.5° Bend	4	0		
45° Bend	4	20	5	100
90° Bend	4	4	22	88
Cross	4	0		
Gate Valve	4	11	2.5	27.5
			Total=	237.50
			Pipe Length=	6799.00
			Total Equivalent Length=	7036.50

Design For: 7050.0

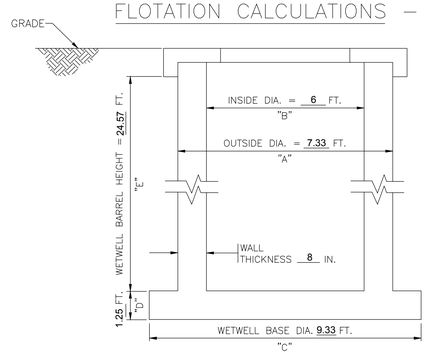
B. STATIC HEAD:

1. Pipe Center Line at Discharge Point:	40.17 ft.
2. Low Water Level (All Pumps Off):	15.60 ft.
3. Total Static Head (B.1-B.2):	24.57 ft.

C. PRESSURES AT POINT OF CONNECTION: (CONNECTION TO MANHOLE IN RANGELAND)

	Flow (GPM)										
	0	30	60	90	120	150	180	210	240	270	300
Low	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FLOTATION CALCULATIONS – CONCRETE WET WELL



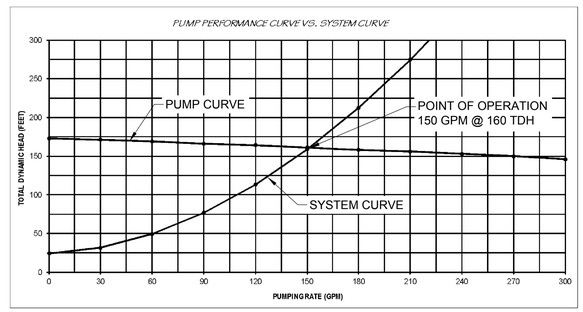
ASSUMPTIONS:

1. CONCRETE (REINFORCED) = 150 lbs./ft.^{3}
2. SATURATED SOIL = 120 lbs./ft.^{3}
3. WATER = 62.4 lbs./ft.^{3}
4. DIMENSIONS IN FEET
5. NO WATER IN WET WELL
6. NEGLECT TOP SLAB WEIGHT
7. NEGLECT SOIL FRICTION
8. ROUND WETWELL BARREL
9. CIRCULAR WETWELL BASE
10. THE WATER TABLE IS AT GRADE

(1) Barrel Weight = $(A^2 - B^2) \times (\pi/4) \times E \times (W_c)$ =	51,452	lb
(2) Bottom Slab Weight = $C^2 \times \pi/4 \times D \times W_c$ =	12,828	lb
(3) Soil Weight = $(C^2 - A^2) \times \pi/4 \times E \times (120 - 62.4)$=	37,046	lb
(4) Total Weight =	101,326	lb
(5) H_2O Displaced = $((A^2 \times \pi/4 \times E) + (C^2 \times \pi/4 \times D)) \times 62.4$	70,084	lb
Safety Factor = Total Weight = / H_2O Displaced	1.45	

SYSTEM vs. PUMP PERFORMANCE CURVE

PUMP MANUFACTURER:		PUMP MODEL:		RPM:	HP:
VORTEX-4		S4LRC		3450	31.2
GPM:	TDH:	IMPELLER DIA./NO.:	PHASE:	VOLTS:	AMPS:
150	160	6.8125 IN	3	460	



SYSTEM HEAD COMPUTATION – TOTAL LOSSES IN FEET

FLOW RATE (G.P.M.)

	Flow (GPM)										
Item	0	30	60	90	120	150	180	210	240	270	300
Pump Station Piping (Equivelent Length)											
150 LF 4 " DIP	0.00	0.20	0.71	1.51	2.57	3.88	5.44	7.24	9.27	11.53	14.01
Force Main Piping (Equivelent Length)											
7050 LF 4 " PVC	0.00	6.61	23.85	50.53	86.09	130.15	182.43	242.71	310.80	386.56	469.85
Static Head	24.57	24.57	24.57	24.57	24.57	24.57	24.57	24.57	24.57	24.57	24.57
(Design Pressure @ POC)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
System Curve	24.17	31.37	49.13	76.61	113.23	158.60	212.44	274.51	344.64	422.65	508.43

NOTES:

SYSTEM HEAD VERSUS PUMP PERFORMANCE CURVES ARE TO BE SHOWN TO DETERMINE THE SYSTEM PERFORMANCE CAPABILITY AT THE FOLLOWING CONDITIONS:

A. CONVENTIONAL PUMPING STATION – FORCE MAIN (NON–MANIFOLD)

1. ONE PUMP RUNNING, IF DUPLEX STATION
2. ONE PUMP AND TWO PUMPS RUNNING, IF TRIPLEX STATION, ETC.
3. IF FORCE MAIN PROFILE RESULTS IN SIPHON, CURVES SHALL SHOW OPERATION AT START–UP (TO HIGH POINT OF PIPING) AS WELL AS FULL FLOW CONDITIONS

B. MANIFOLDED PUMPING STATIONS

ALL CONDITIONS OUTLINED UNDER (A) ABOVE, AND THE FOLLOWING ADDITIONAL CONDITIONS

1. SIMULTANEOUS OPERATION OF ALL PUMPING STATIONS ON SYSTEM (WORST CASE)
2. OPERATION WHILE ALL REMAINING STATIONS ARE OFF (BEST CASE)

C. VARIABLE SPEED PUMPING STATIONS

ALL APPLICABLE CONDITIONS UNDER (A) AND (B) ABOVE AND IN ADDITION:

1. OPERATING POINT, INCLUDING SPEED, AT PEAK, AVERAGE, AND MINIMUM FLOWS

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CONSTRUCTION PLANS
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
LIFT STATION DETAILS

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XX/XX/XX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 46

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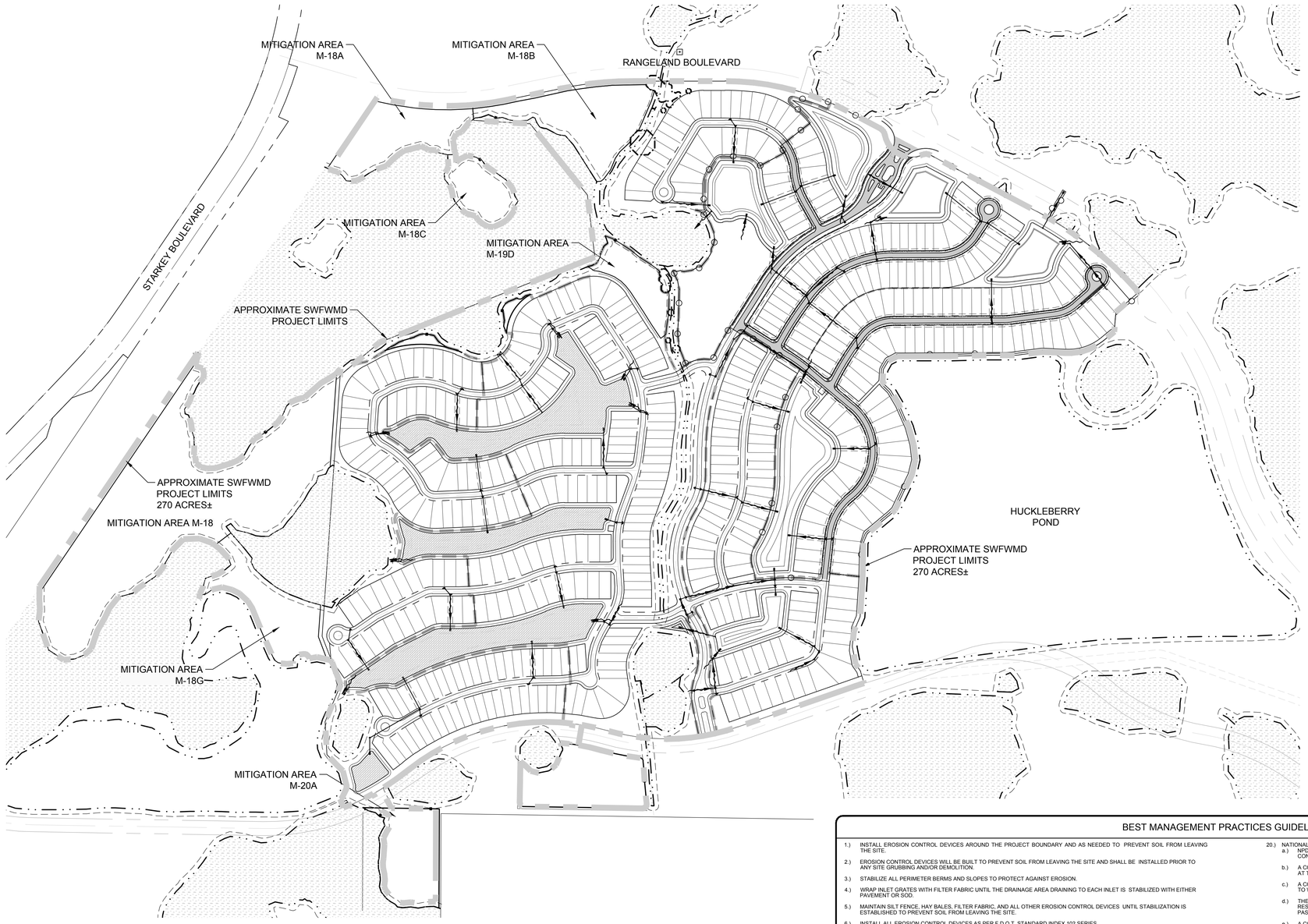

APPLICANT NAME, TITLE: _____

APPLICANT SIGNATURE: _____

DATE: _____

N

GENERAL NATURAL RESOURCE NOTES

1. IMPACTS TO STATE AND FEDERALLY PROTECTED SPECIES AS LISTED IN THE MOST CURRENT VERSION OF "FLORIDA'S ENDANGERED SPECIES, THREATENED SPECIES AND SPECIES OF SPECIAL CONCERN: OFFICIAL LISTS" PREPARED BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) ARE NOT AUTHORIZED BY THIS PERMIT. THESE SPECIES MAY INCLUDE, BUT ARE NOT LIMITED TO, FLORIDA SCRUB JAY, AMERICAN BALD EAGLE, SHERMAN'S FOX SQUIRREL, BURROWING OWL, GOPHER TORTOISE, GOPHER FROG, AND EASTERN INDIGO SNAKE. PROTECTION EXTENDS TO THE NESTS, BURROWS AND HABITAT UTILIZED BY THESE SPECIES. IF A LISTED SPECIES (OR ITS EVIDENCE, SUCH AS BURROWS, NESTS, SCAT, TRACKS) THAT WAS NOT ADDRESSED IN THIS PERMIT IS OBSERVED PRIOR TO OR DURING CONSTRUCTION, ALL CLEARING AND EARTHMOVING ON-SITE SHALL CEASE. THE PERMITTEE SHALL CONSULT WITH THE FWC REGIONAL OFFICE AND/OR THE U.S. FISH AND WILDLIFE SERVICE REGIONAL OFFICE REGARDING NECESSARY PROTECTION MEASURES AND PROVIDE EVIDENCE OF SUCH CONSULTATION TO RESOURCE PROTECTION SERVICES PRIOR TO RESUMING WORK.

2. IF ANY TYPE A FILL (CLEAN EARTHEN MATERIAL) IS TO BE HAULED OFF-SITE, AN EARTHMOVING PERMIT OR LETTER OF EXEMPTION IS REQUIRED FROM RESOURCE PROTECTION SERVICES. IF ANY TYPE A FILL HAULED OFF-SITE IS TO BE STOCKPILED OR FILLED UPON PRIVATE PROPERTIES WITHIN THE UNINCORPORATED AREAS OF PASCO COUNTY, THE RECEIVING PROPERTY(S)SHALL POSSESS AUTHORIZATION IN THE FORM OF AN EARTHMOVING PERMIT, A WRITTEN EARTHMOVING EXEMPTION, A BUILDING PERMIT, OR CONSTRUCTION PLAN APPROVAL PRIOR TO RECEIVING SAID FILL. NO TYPE B (CONCRETE, BROKEN ASPHALT, ROCKS), TYPE C (VEGETATIVE LAND CLEARING DEBRIS), OR TYPE D (GARBAGE, REFUSE, WOOD, METAL, PLASTIC, ETC.) FILL MAY BE BURIED WITHIN OR OUTSIDE APPROVED CONSTRUCTION LIMITS. TYPE D FILL MUST BE DISPOSED AT AN APPROVED LANDFILL OR RECYCLING FACILITY. TYPE B, C, AND D FILLS GENERATED ON-SITE SHALL NOT BE STOCKPILED ON-SITE FOR GREATER THAN SIX MONTHS. TYPE B, C, AND D FILLS SHALL NOT BE HAULED TO THE SITE FROM OFF-SITE SOURCES. FOR INFORMATION ABOUT EARTHMOVING PERMITS OR EXEMPTIONS, CONTACT PASCO COUNTY. IF FILL MATERIAL IS TO BE STOCKPILED WITHIN THE APPROVED CONSTRUCTION LIMITS, THE PROJECT ENGINEER MUST PROVIDE DETAILED DRAWINGS TO LAND DEVELOPMENT SERVICES FOR REVIEW AND APPROVAL.

BEST MANAGEMENT PRACTICES GUIDELINES

1.) INSTALL EROSION CONTROL DEVICES AROUND THE PROJECT BOUNDARY AND AS NEEDED TO PREVENT SOIL FROM LEAVING THE SITE.

2.) EROSION CONTROL DEVICES WILL BE BUILT TO PREVENT SOIL FROM LEAVING THE SITE AND SHALL BE INSTALLED PRIOR TO ANY SITE GRUBBING AND/OR DEMOLITION.

3.) STABILIZE ALL PERIMETER BERMS AND SLOPES TO PROTECT AGAINST EROSION.

4.) WRAP INLET GRATES WITH FILTER FABRIC UNTIL THE DRAINAGE AREA DRAINING TO EACH INLET IS STABILIZED WITH EITHER PAVEMENT OR SOD.

5.) MAINTAIN SILT FENCE, HAY BALES, FILTER FABRIC, AND ALL OTHER EROSION CONTROL DEVICES UNTIL STABILIZATION IS ESTABLISHED TO PREVENT SOIL FROM LEAVING THE SITE.

6.) INSTALL ALL EROSION CONTROL DEVICES AS PER F.D.O.T. STANDARD INDEX 102 SERIES.

7.) IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, STABILIZE THE EFFECTIVE AREA BY USING WETTING OR OTHER ACCEPTABLE METHODS.

8.) REMOVE ALL SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF THE DEPTH OF THE SILTATION CONTROL DEVICE.

9.) REMOVE SILTATION ACCUMULATIONS IN ANY DRAINAGE PIPE AFFECTED BY CONSTRUCTION ACTIVITIES ON THE SITE PRIOR TO COMPLETION OF CONSTRUCTION.

10.) MAINTAIN ALL BERM ELEVATIONS DURING CONSTRUCTION.

11.) LOCATION OF EROSION CONTROL DEVICES MAY BE ADJUSTED DUE TO FIELD CONDITIONS.

12.) THE CONTRACTOR SHALL BE RESPONSIBLE TO SAFELY STORE EQUIPMENT, FUEL, OIL, AND OTHER HAZARDOUS DEVICES IN A MANNER TO PREVENT GREASE, OILS, FUEL, AND OTHER HAZARDOUS SUBSTANCES FROM CONTAMINATING THE STORMWATER MANAGEMENT AND COLLECTION.

13.) SILT FENCE SHOWN ON THESE PLANS SHALL BE INSTALLED ALONG THE JURISDICTIONAL LINE. IF THERE IS A BUFFER IMPACT, ALL SILT FENCE SHALL BE INSTALLED AT THE TOE OF SLOPE AS SHOWN ON THESE PLANS. NO SILT FENCE SHALL BE INSTALLED IN PRESERVED WETLANDS EXCEPT AS PROTECTION AROUND TEMPORARY IMPACTS.

14.) ALL LAKES SHALL BE SOD FROM CONTROL ELEVATION TO 2' BACK OF LAKE CONTROL LINE (TOP OF BANK).

15.) SOD A 2' WIDE STRIP BEHIND ALL CURBING AND EDGE OF PAVEMENT WHERE CURB IS NOT PRESENT.

16.) SOD AROUND ALL INLETS, JUNCTION BOXES, ETC. AND GRASS ALL SWALES.

17.) TO PROTECT OPERATOR / RESPONSIBLE AUTHORITY SHALL BE RESPONSIBLE FOR THE ROUTINE INSPECTION, MAINTENANCE, REPAIR AND REMOVAL OF BMP DEVICES IN ACCORDANCE WITH CURRENT RULES AND REGULATIONS OF PASCO COUNTY, THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT PROGRAM.

18.) SOIL TRACKING PREVENTION DEVICES TO BE LOCATED AS SHOWN ON PLANS AT ROADWAYS THAT CONNECT TO THE PROJECT.

19.) AT ALL TIMES DURING CONSTRUCTION, PROPER MEASURES MUST BE TAKEN TO PROTECT THE SURFACE WATER MANAGEMENT SYSTEM. ALL ROADWAY INLETS THAT RECEIVE SURFACE WATER RUN-OFF FROM CONSTRUCTION AREAS MUST BE PROTECTED FROM SILT AND OTHER MATERIALS PER THE DETAILS ON SHEET # ##.

20.) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM:
- a.) NPDES CONSTRUCTION GENERIC PERMIT COVERAGE SHALL BE OBTAINED AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION COMMENCEMENT.
- b.) A COPY OF THE CERTIFIED NPDES NOI, OR A COPY OF THE FDEP COVERAGE CONFIRMATION LETTER SHALL BE POSTED AT THE SITE IN ACCORDANCE WITH PASCO COUNTY CODE.
- c.) A COPY OF THE CERTIFIED NPDES NOI, OR A COPY OF THE FDEP COVERAGE CONFIRMATION LETTER SHALL BE PROVIDED TO WATER RESOURCES IN ACCORDANCE WITH PASCO COUNTY CODE.
- d.) THE SWPPP SHALL BE CERTIFIED AND A COPY OF THE CERTIFIED DOCUMENT SHALL BE SUBMITTED TO WATER RESOURCES AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH PASCO COUNTY CODE.
- e.) A COPY OF THE SWPPP AND COPIES OF THE INSPECTION AND MAINTENANCE RECORDS SHALL BE MAINTAINED AT THE PROJECT SITE, AND SHALL BE READILY AVAILABLE TO COUNTY OR STATE INSPECTORS PER PASCO COUNTY CODE.

21.) THE DISCHARGE OF GROUNDWATER PRODUCED THROUGH DEWATERING, TO SURFACE WATERS, OR TO ANY PORTION OF THE MS4 WILL REQUIRE SEPARATE PERMITTING FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP). PERMIT(S) SHALL BE OBTAINED PRIOR TO THE COMMENCEMENT OF DEWATERING.

22.) DEWATERING DISCHARGES SHALL BE DIRECTED TO ONSITE WET DETENTION LAKES UNLESS OTHERWISE APPROVED BY S.W.F.W.M.D.

23.) EROSION AND SEDIMENTATION CONTROL BMPS IN ADDITION TO THOSE PRESENTED ON THE PLANS AND OUTLINED IN THE EROSION AND SEDIMENTATION CONTROL PLAN (ECP) OR STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT TURBID DISCHARGES FROM FLOWING ONTO ADJACENT PROPERTIES OR ROADWAYS, OFFSITE STORMWATER CONVEYANCES, OR OFFSITE RECEIVING WATERS. BMPS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED BY THE SITE OPERATOR TO ENSURE THAT OFF SITE SURFACE WATER QUALITY REMAINS CONSISTENT WITH STATE AND LOCAL REGULATIONS. (THE OPERATOR IS THE ENTITY THAT OWNS OR OPERATES THE CONSTRUCTION ACTIVITY AND HAS AUTHORITY TO CONTROL THOSE ACTIVITIES AT THE PROJECT NECESSARY TO ENSURE COMPLIANCE.

24.) OFF SITE SURFACE WATER DISCHARGES WITH TURBIDITY IN EXCESS OF 29 NEPHELOMETRIC TURBIDITY UNITS (NTUS) ABOVE BACKGROUND LEVEL SHALL BE IMMEDIATELY CORRECTED. SUCH INCIDENTS SHALL BE REPORTED TO PASCO COUNTY EPC WITHIN 24 HOURS OF THE OCCURRENCE. THE REPORT SHALL INCLUDE THE CAUSE OF THE DISCHARGE AND CORRECTIVE ACTIONS TAKEN.

25.) THE OPERATOR SHALL ENSURE THAT ADJACENT PROPERTIES ARE NOT IMPACTED BY WIND EROSION, OR EMISSIONS OF UNCONFINED PARTICULATE MATTER IN ACCORDANCE WITH RULE (62-296.320(4)(c)1, F.A.C., BY TAKING APPROPRIATE MEASURES TO STABILIZE AFFECTED AREAS.

26.) FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ENTER STORMWATER DRAINS OR WATERBODIES, OR FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ARE IN EXCESS OF 25 GALLONS SHALL BE CONTAINED, CLEANED UP, AND IMMEDIATELY REPORTED TO PASCO COUNTY EPC. SMALLER GROUND SURFACE SPILLS SHALL BE CLEANED UP AS SOON AS PRACTICAL.

27.) IF CONTAMINATED SOIL OR AND/OR GROUNDWATER IS DISCOVERED DURING DEVELOPMENT OF THE SITE, ALL ACTIVITY IN THE VICINITY OF THE CONTAMINATION SHALL IMMEDIATELY CEASE, AND PASCO COUNTY EPC SHALL BE CONTACTED.

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

BEST MANAGEMENT PRACTICES PLAN

PLAN REVISIONS

REV00 << SUBMITTED / BID SET >> XXXXXXX

0 150 300 600
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 46

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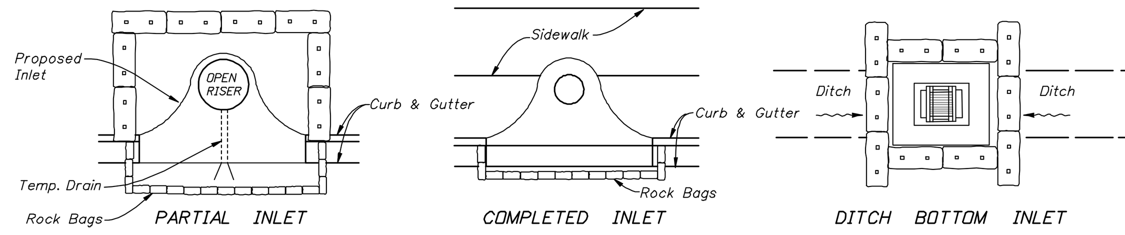
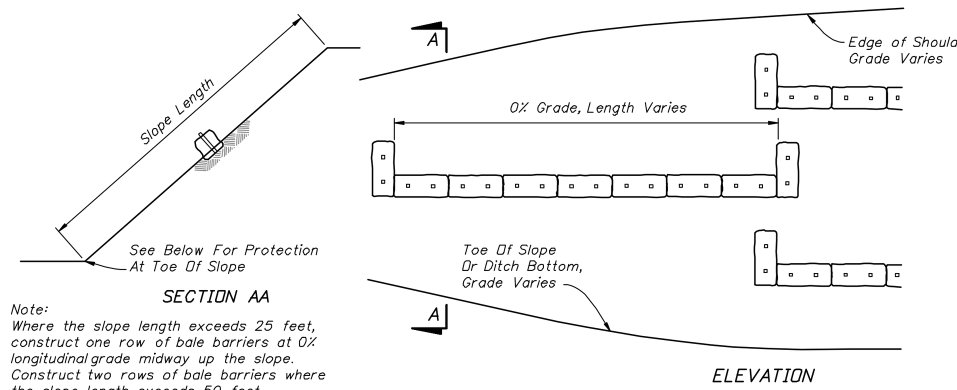
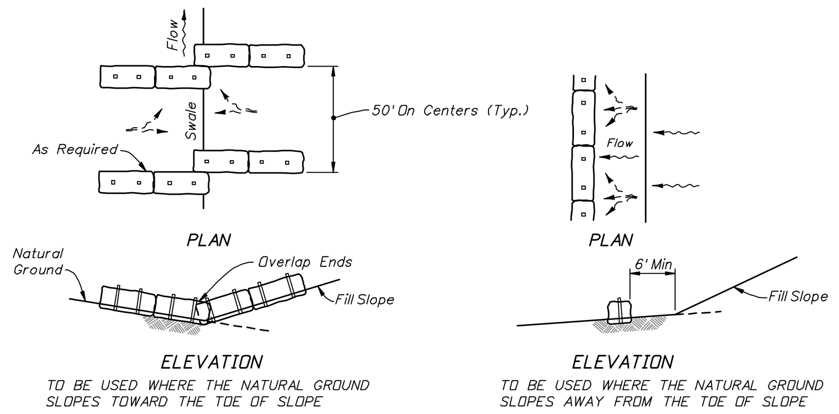


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

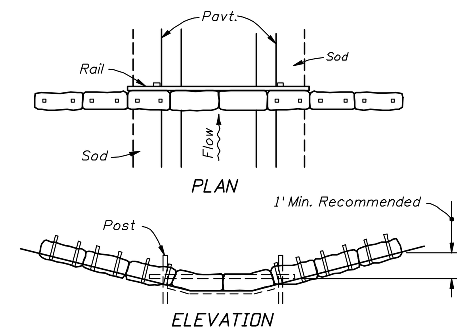


Note:
Where the slope length exceeds 25 feet, construct one row of bale barriers at 0% longitudinal grade midway up the slope. Construct two rows of bale barriers where the slope length exceeds 50 feet.

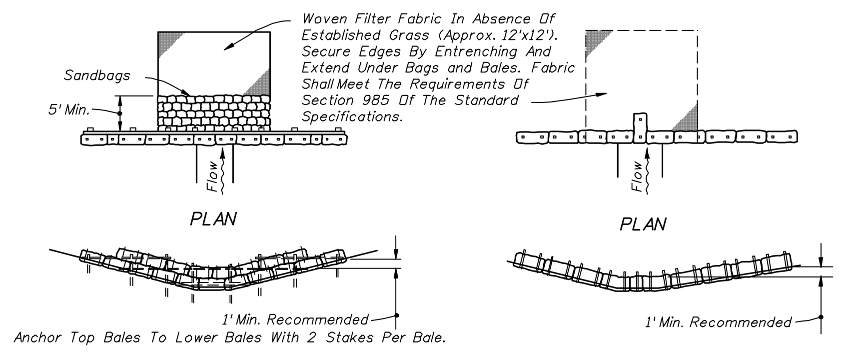
ALONG FILL SLOPE



AT TOE OF SLOPE
BARRIERS FOR FILL SLOPES



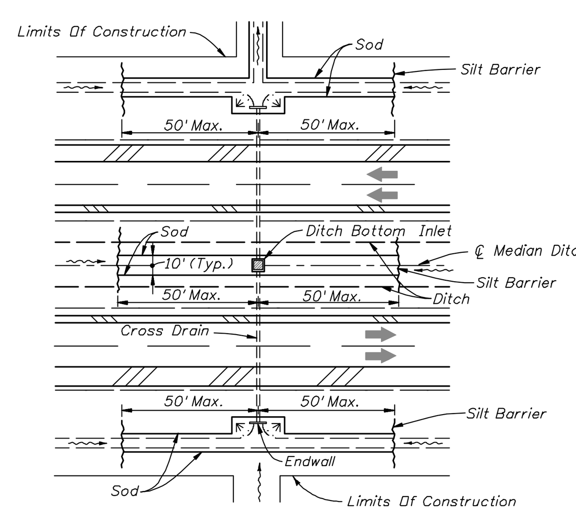
SYNTHETIC BALES OR BALE TYPE BARRIERS FOR PAVED DITCHES



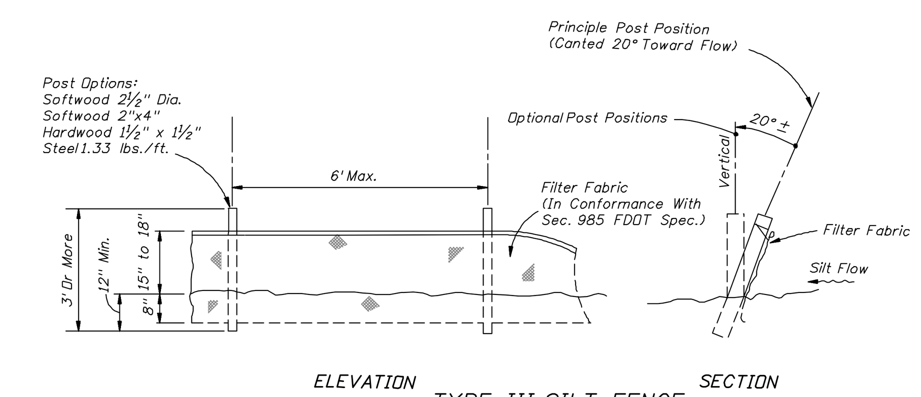
SYNTHETIC BALES OR BALE TYPE BARRIERS FOR UNPAVED DITCHES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS

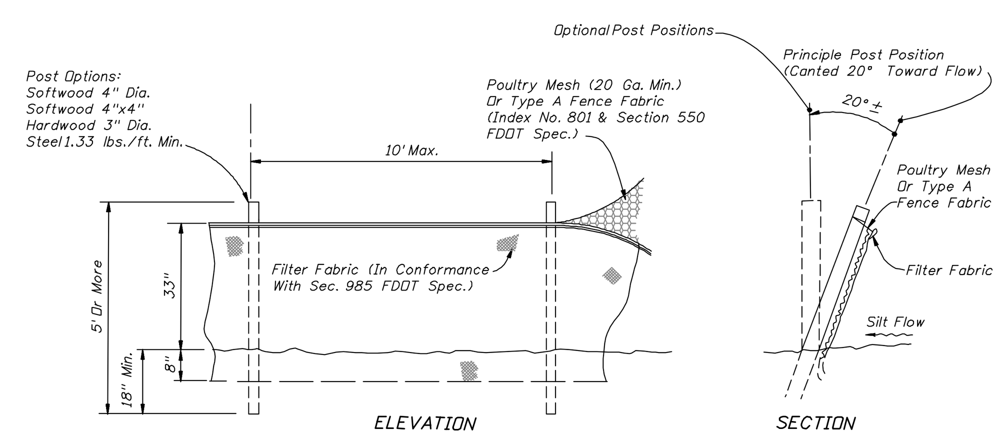
1. Type I and II Synthetic Barrier should be spaced in accordance with Chart 1, Sheet 1.
2. Bales shall be trenched 3" to 4" and anchored with 2-1" x 2" (or 1" dia.) x 4' wood stakes. Stakes of other material or shape providing equivalent strength may be used if approved by the Engineer. Stakes other than wood shall be removed upon completion of the project.
3. Rails and posts shall be 2" x 4" wood. Other materials providing equivlalent strength may be used if approved by the Engineer.
4. Adjacent bales shall be butted firmly together.
5. Where used in conjunction with silt fence, bales shall be placed on the upstream side of the fence.
6. Bales to be paid for under the contract unit price for Synthetic Bales, LF. The unit price shall include the cost of filter fabric for Type I and II Barriers. Sandbags shall be paid for under the unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.



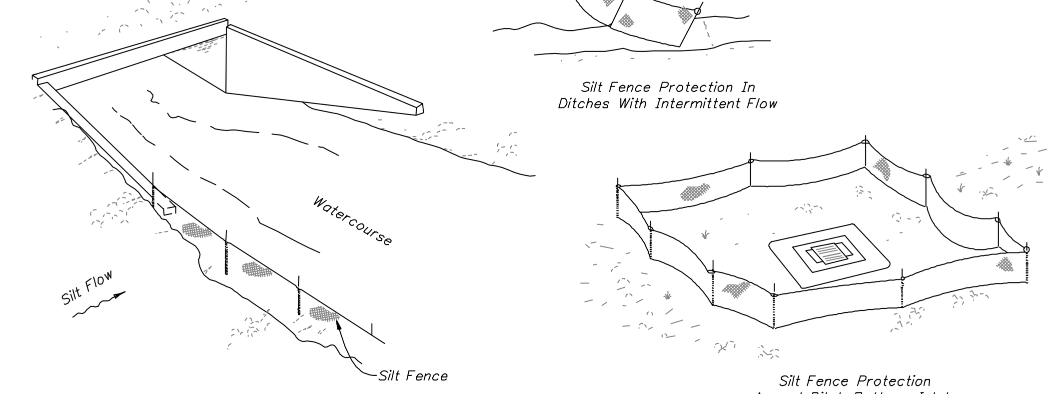
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES



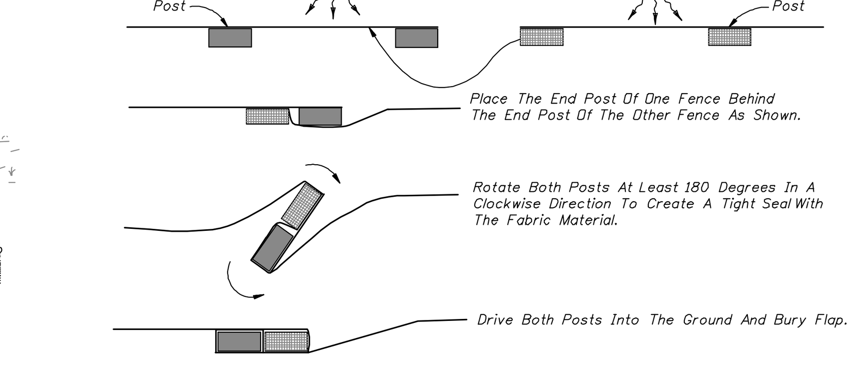
TYPE III SILT FENCE



TYPE IV SILT FENCE



SILT FENCE APPLICATIONS



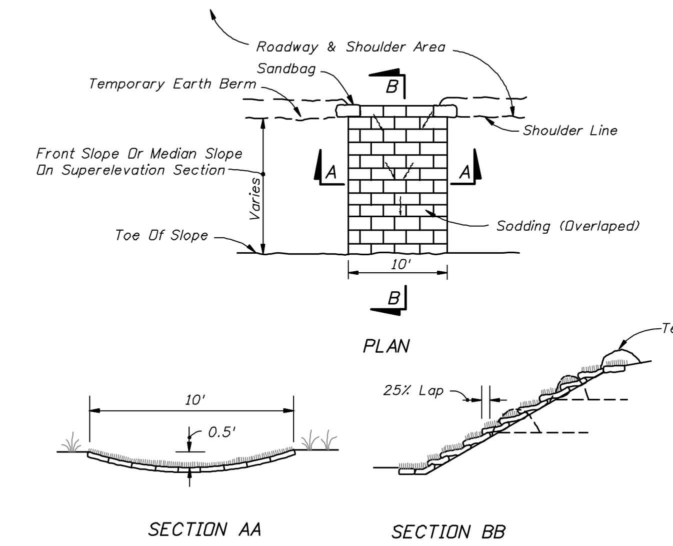
JOINING TWO SILT FENCES

NOTES FOR SILT FENCES

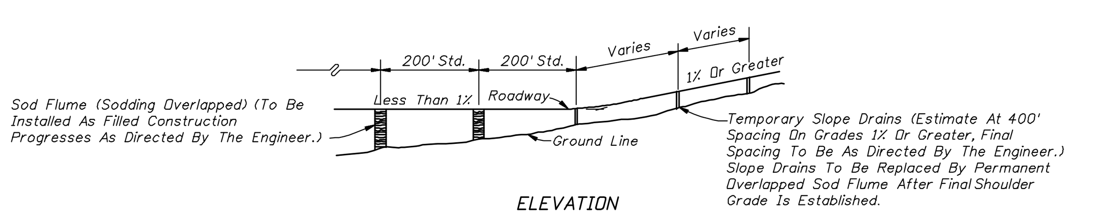
1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt fence shall be in accordance with Chart 1, Sheet 1.
2. Type IV Silt Fence to be used where large sediment loads are anticipated. Suggested use is where fill slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the detained water may back into travel lanes or off the right of way.
3. Do not construct silt fences across permanent flowing watercourses. Silt fences are to be at upland locations and turbidity barriers used at permanent bodies of water.
4. Where used as slope protection, Silt Fence is to be constructed on 0% longitudinal grade to avoid channelizing runoff along the length of the fence.
5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, (LF).

TEMPORARY EROSION AND SEDIMENT CONTROL

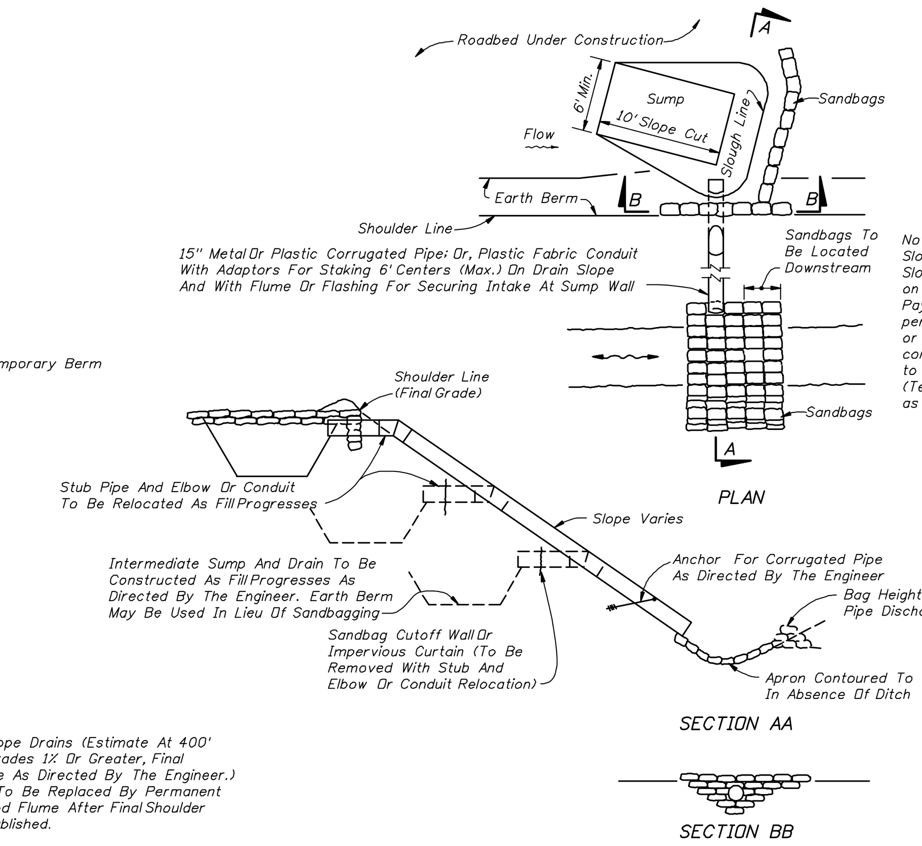
(REF. FDOT INDEX 102) N.T.S.



SOD FLUME (SODDING OVERLAPPED)



SLOPE DRAIN APPLICATION

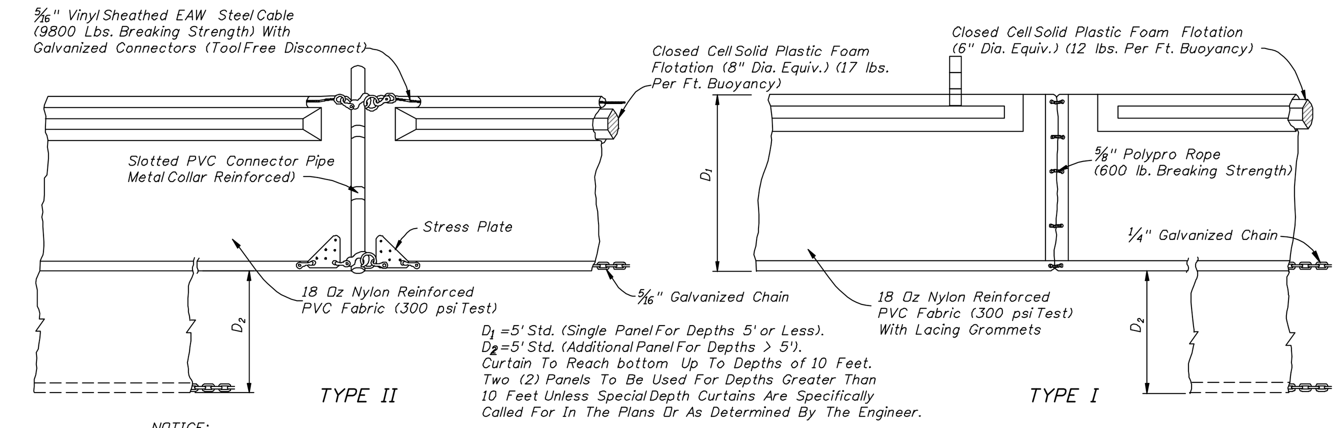


Note:
Slope drain pipe to be paid for as Slope Drains (Temporary) LF, based on linear feet of pipe or conduit installed. Payment to be made for one installation per site, including one stub and elbow or one intake flume or flashing. Sump construction and maintenance and curtains to be included in cost for Slope Drains (Temporary). Sandbags to be paid for as Sandbagging CY.

TEMPORARY SLOPE DRAIN

TEMPORARY SLOPE DRAIN AND SOD FLUME

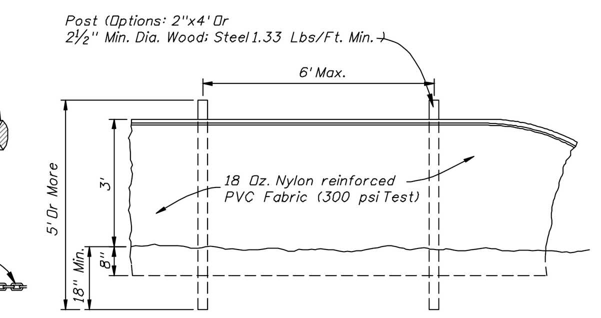
(REF. FDOT INDEX 100) N.T.S.



D_1 =5' Std. (Single Panel For Depths 5' or Less).
D_2 =5' Std. (Additional Panel For Depths > 5').
Curtain To Reach bottom Up To Depths of 10 Feet.
Two (2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Are Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE:
COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

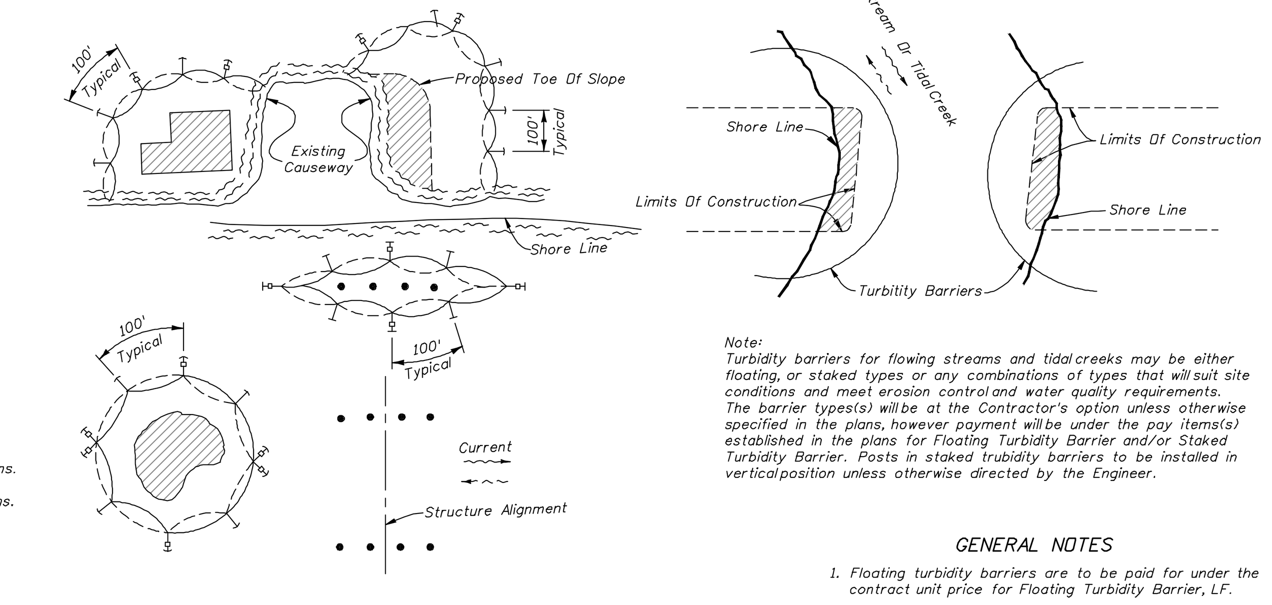
FLOATING TURBIDITY BARRIERS



STAKED TURBIDITY BARRIER

LEGEND
- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action

Notes:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.



Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier types(s) will be at the Contractor's option unless otherwise specified in the plans, however payment will be under the pay items(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked trubidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

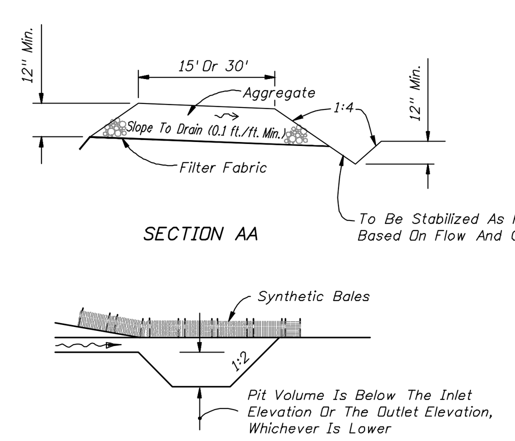
TURBIDITY BARRIER APPLICATIONS

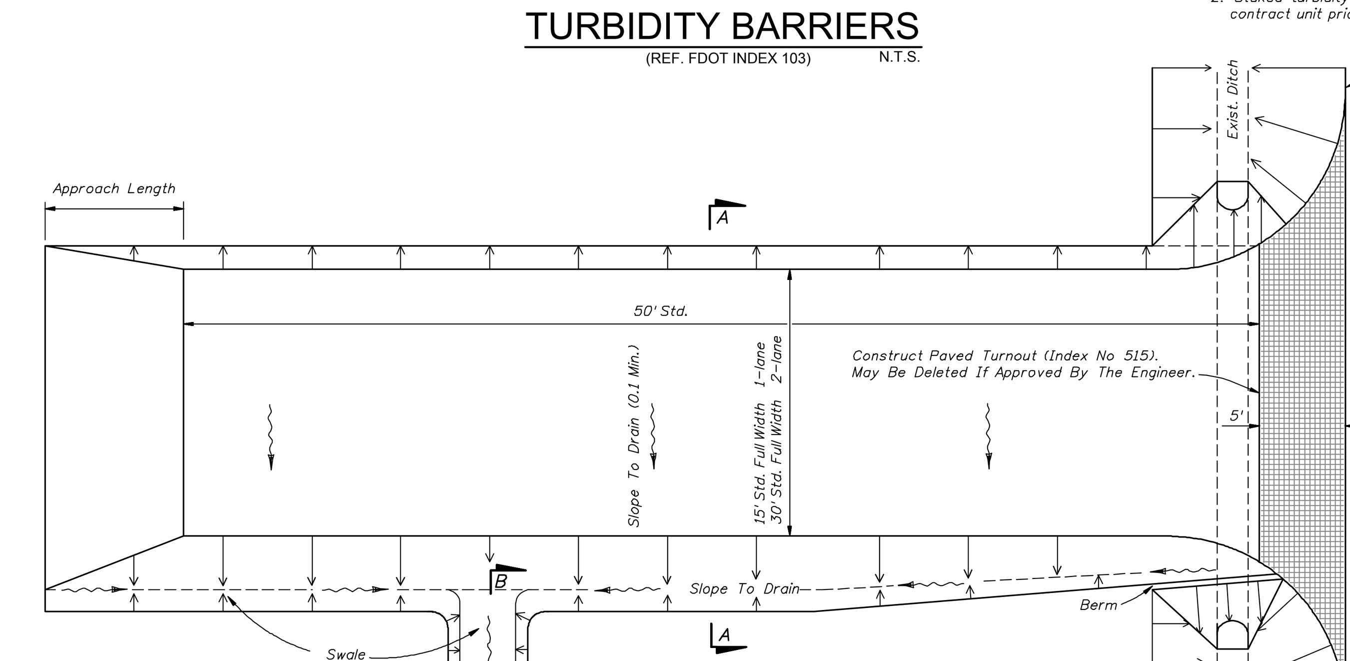
GENERAL NOTES

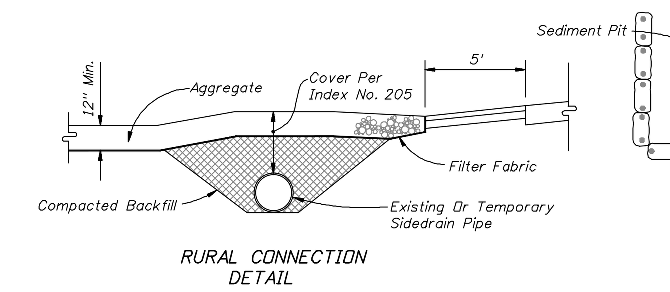
1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

TURBIDITY BARRIERS

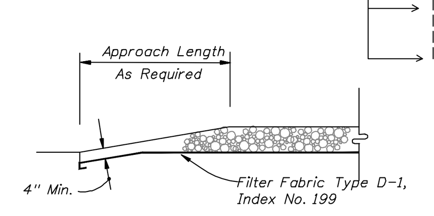
(REF. FDOT INDEX 103) N.T.S.







RURAL CONNECTION DETAIL



TRANSITION DETAIL

GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   15' x 50'=100 ft.³ 30' x 50'=200 ft.³
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD; including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

SOIL TRACKING PREVENTION DEVICE - TYPE A

N

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CONSTRUCTION PLANS

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

BEST MANAGEMENT PRACTICES DETAILS

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

NOT TO SCALE

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

ERIC S. DUNNING, P.E.
FL LICENSE NO. 67678

SET NUMBER: 186-119-04

SHEET : 47

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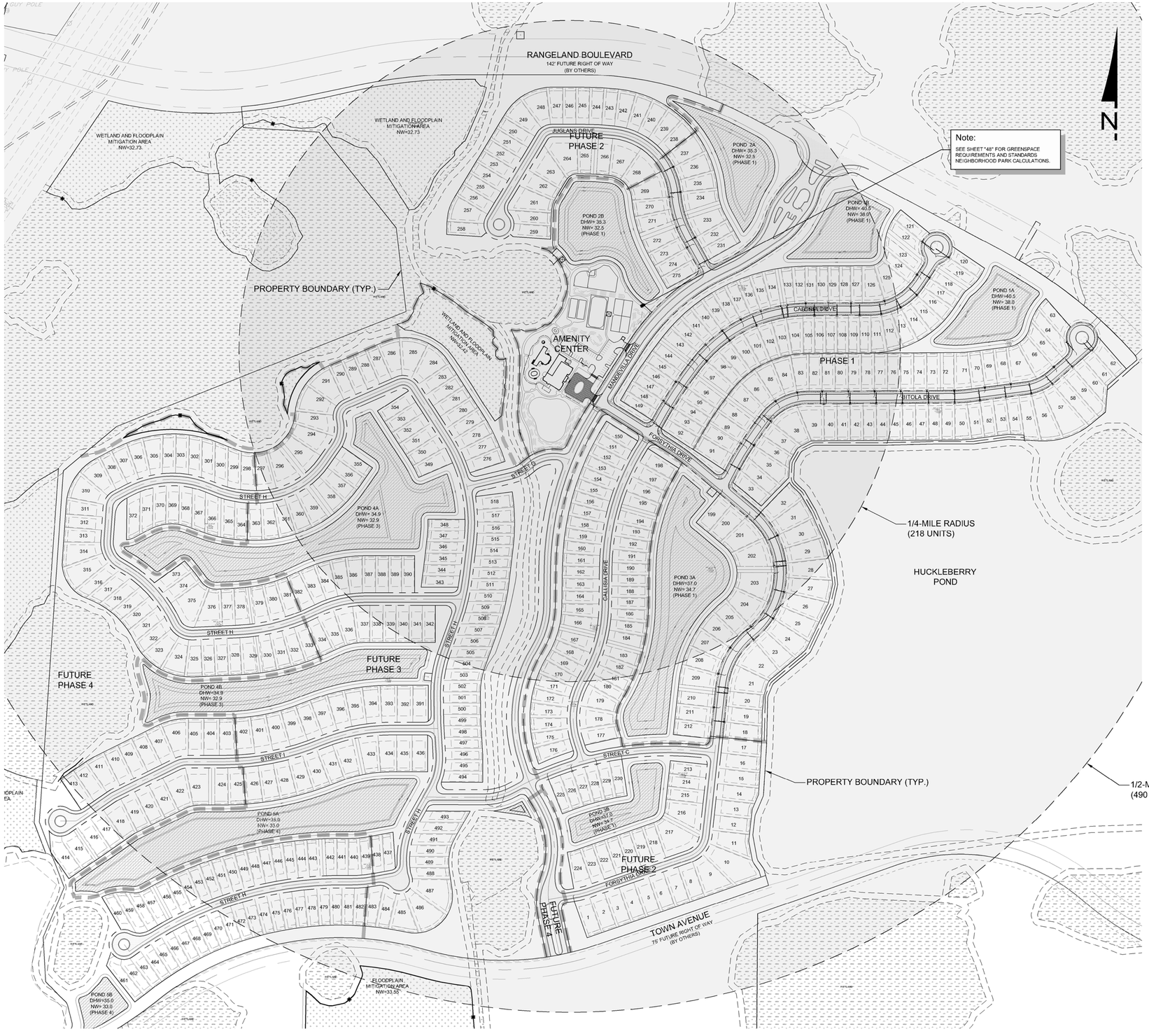

GREENSPACE REQUIREMENTS AND STANDARDS

SEE CALCULATIONS PER LDC SEC. 905.1.A-H NEIGHBORHOOD PARKS

TOTAL ACREAGE REQUIRED :	
TOTAL UNITS	517 UNITS
1 ACRE FOR FIRST 100 UNITS 1/100 FOR EACH UNIT OVER 100	1.0 ACRES 417 /100 = 4.17 ACRES
TOTAL ACREAGE REQUIRED AND MAINTAINED AS NEIGHBORHOOD PARK	5.17 AC REQUIRED 5.36 AC PROVIDED
TOTAL UNITS SERVED BY PARK :	
TOTAL UNITS	517 UNITS
UNITS WITHIN 1/2-MILE RADIUS	490 UNITS (490 / 517 = 95 %)

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

GREENSPACE REQUIREMENT PLAN

PLAN REVISIONS

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

WILLIAM H. BOWERS, P.L.A.
FL LICENSE NO. LA666785

SET NUMBER: 186-119-05

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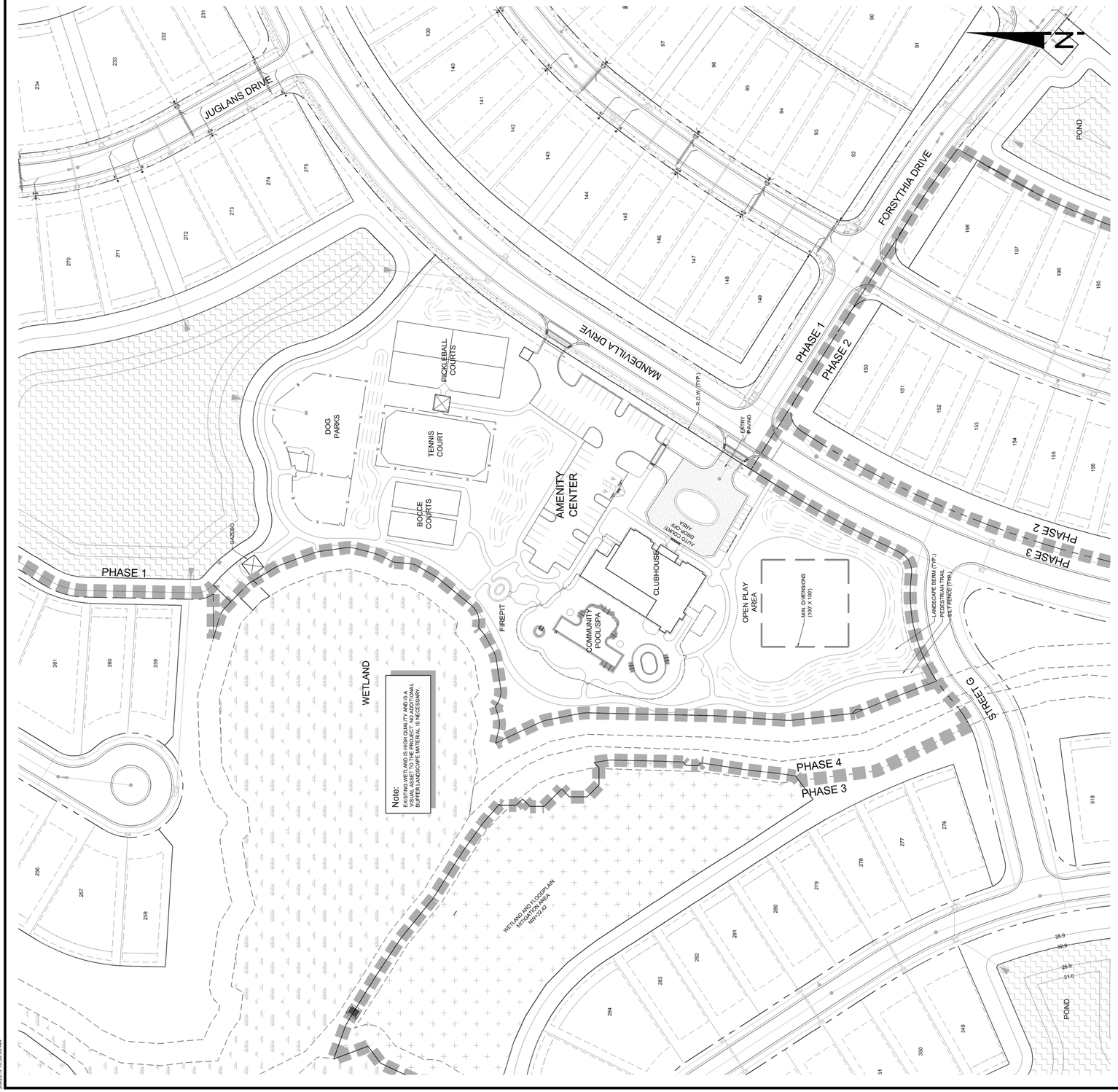

Note:
EXISTING WETLAND IS HIGH QUALITY AND IS A VISUAL ASSET TO THE PROJECT. NO ADDITIONAL BUFFER LANDSCAPE MATERIAL IS NECESSARY.

GREENSPACE REQUIREMENTS AND STANDARDS

SEE CALCULATIONS PER LDC SEC. 905.1.A-H NEIGHBORHOOD PARKS

TOTAL NEIGHBORHOOD PARK AREA :

TOTAL NEIGHBORHOOD PARK ACREAGE PROVIDED	5.36 ACRES
TOTAL NEIGHBORHOOD PARK ACREAGE REQUIRED (SEE SHEET "48" FOR CALCULATIONS)	5.17 ACRES
TOTAL AREA OF PERMITTED USES (DOES NOT INCLUDE AMENITY CLUBHOUSE, SIDEWALK AND MULTI-MODAL PATHS)	5.17 ACRES

OPEN SPACE PLAY REQUIREMENTS :

TOTAL OPEN PLAY AREA PROVIDED: (GREATER THAN 1/2 ACRE)	.97 ACRES PROVIDED (EXCEEDS 100' X 100' SPACE)

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

GREENSPACE REQUIREMENT ENLARGEMENT PLAN

PLAN REVISIONS

REV00: <<SUBMITTED / BID SET>> XX/XX/XX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

WILLIAM H. BOWERS, P.L.A.
FL LICENSE NO. LA6666785

SET NUMBER: 186-119-05

SHEET : 49

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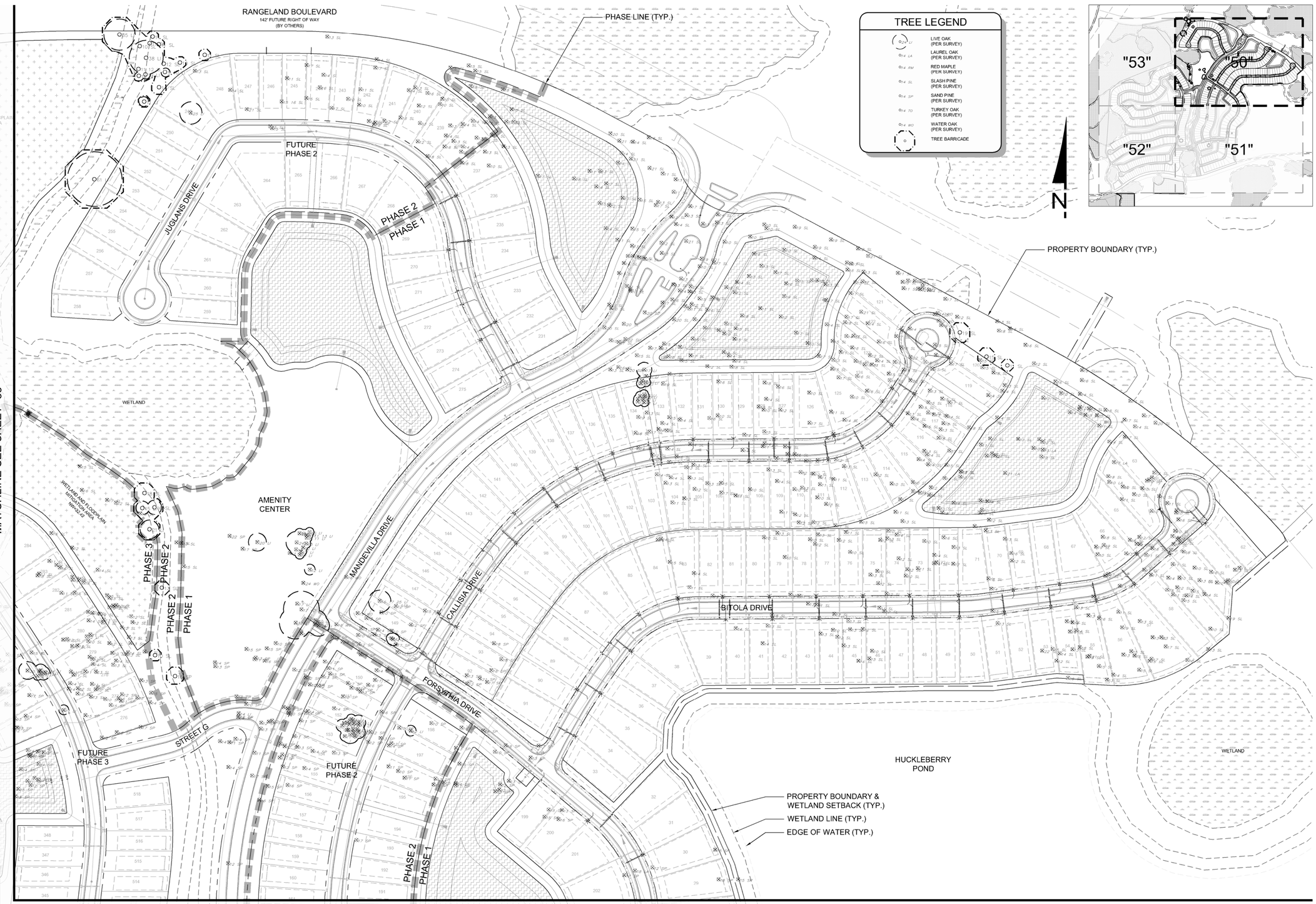

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

EXISTING TREE ENLARGEMENT PLANS

PLAN REVISIONS

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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SET NUMBER: 186-119-05

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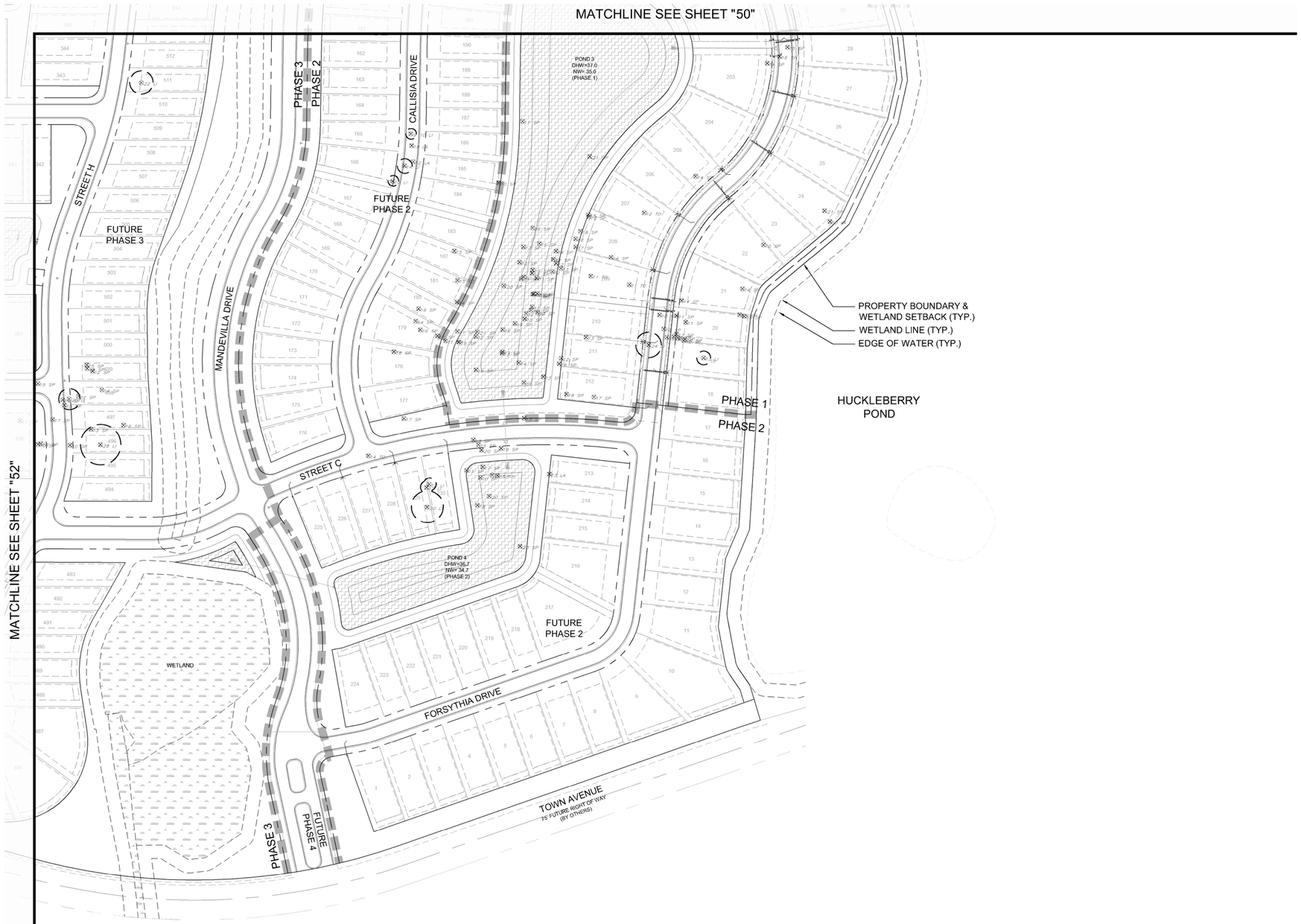

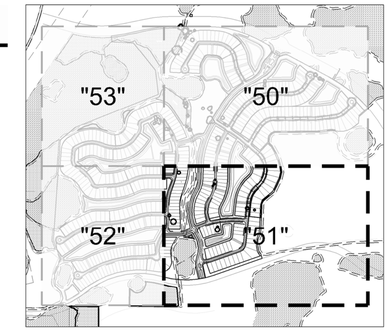

N

TREE LEGEND

LI	LIVE OAK (PER SURVEY)
LA	LAUREL OAK (PER SURVEY)
RM	RED MAPLE (PER SURVEY)
SL	SLASH PINE (PER SURVEY)
SP	SAND PINE (PER SURVEY)
TO	TURKEY OAK (PER SURVEY)
WO	WATER OAK (PER SURVEY)
	TREE BARRICADE

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

EXISTING TREE ENLARGEMENT PLANS

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

0 50 100 200
SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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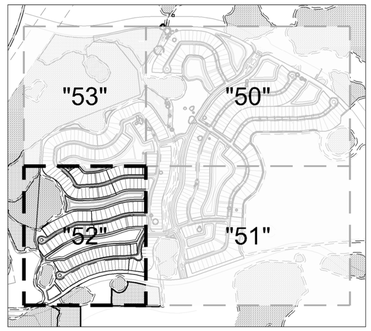

N

TREE LEGEND

LI	LIVE OAK (PER SURVEY)
LA	LAUREL OAK (PER SURVEY)
RM	RED MAPLE (PER SURVEY)
SL	SLASH PINE (PER SURVEY)
SP	SAND PINE (PER SURVEY)
TO	TURKEY OAK (PER SURVEY)
WO	WATER OAK (PER SURVEY)
	TREE BARRICADE

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

EXISTING TREE ENLARGEMENT PLANS

PLAN REVISIONS

REV00: <<SUBMITTED: BID SET>> XX/XX/XX

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SCALE IN FEET

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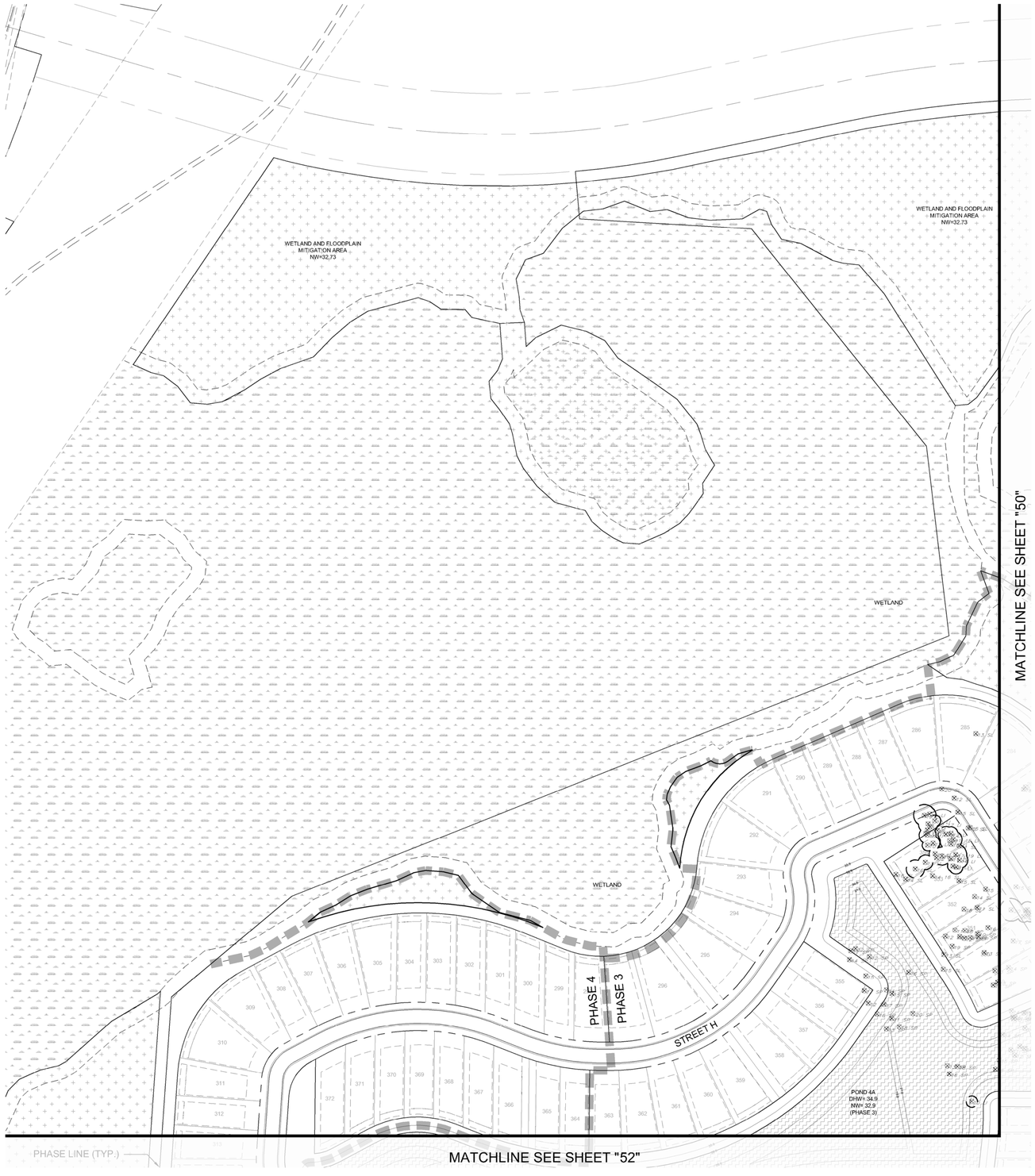

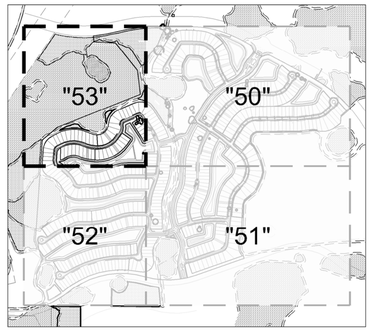

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TREE LEGEND

24 LJ	LIVE OAK (PER SURVEY)
14 LA	LAUREL OAK (PER SURVEY)
14 RM	RED MAPLE (PER SURVEY)
14 SL	SLASH PINE (PER SURVEY)
14 SP	SAND PINE (PER SURVEY)
14 TO	TURKEY OAK (PER SURVEY)
14 WO	WATER OAK (PER SURVEY)
	TREE BARRICADE

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

EXISTING TREE ENLARGEMENT PLANS

PLAN REVISIONS

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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FL LICENSE NO. LA0666785

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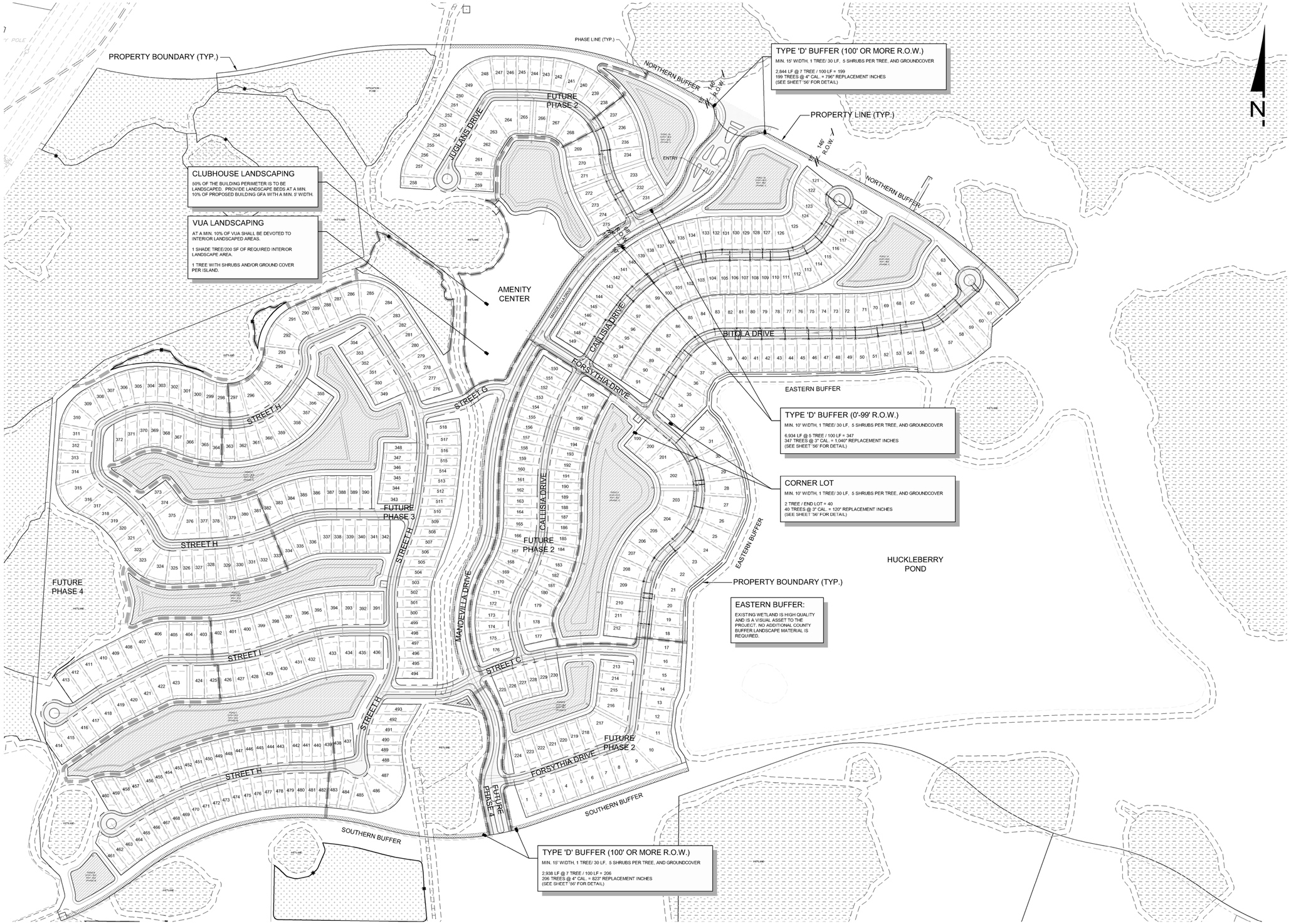

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CODE MINIMUM LANDSCAPE PLANS FOR

ESPLANADE AT STARKEY RANCH-PHASE I

CLIENT: TAYLOR MORRISON OF FLORIDA, INC.

LANDSCAPE PLAN

PLAN REVISIONS

REV00 <<SUBMITTED / BID SET>> XX/XX/XX

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SCALE IN FEET

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

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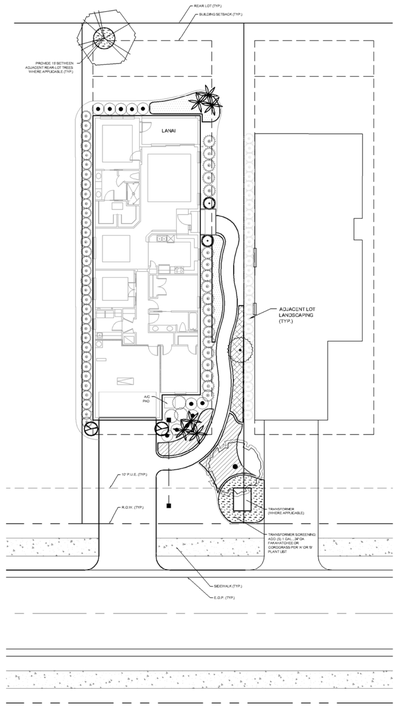


SEE SHEET "16" FOR TYPICAL LOT LANDSCAPE PLAN.
ALL PLANTING SPECIFICATIONS SHALL MEET PASCO COUNTY SHADE TREE AND STARKEY RANCH MPUD REQUIREMENTS.

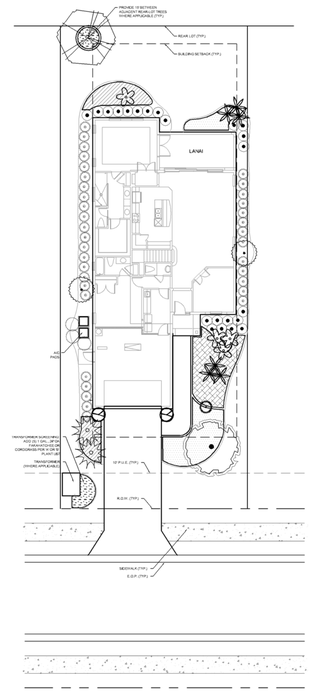
1 Shade Tree	@ 4" Cal.	= 4" Replacement Inches
1 Shade Tree	@ 2" Cal.	= 2" Replacement Inches
1 Accents	@ 1" Cal.	= 1" Replacement Inches
45' Lot Type	(4" + 2" + 1")	= 7" Replacement Inches
45' Lot Type	7" X 201 Lots	= 1,407" Replacement Inches

PLANTING SPECIFICATIONS

Symbol	Name	Quantity
SHADE TREES - 1 FRONT, 1 REAR REQUIRED		
	Botanical: Magnolia grandiflora 'D.D. Blanchard' Common: D.D. Blanchard Magnolia Specifications: 10' Ht x 4' Spd, 2" Cal, Full, Mature Spd. 30'	1
	Botanical: Quercus virginiana 'SDNL'pp12015 Cathedral© Common: Cathedral Live Oak Specifications: 16'-18' Ht. x 6' Spd, 4" Cal, Mature Spd. 60'	1
ACCENT TREES		
	Botanical: Callistemon rigida Common: Erect Bottlebrush Specifications: 8'-10' Ht. x 3' Spd, 2" Cal, Full, Mature Spd. 20'	1

NOTES:
1. ANY PLANT MATERIALS OF WHATSOEVER TYPE AND KIND REQUIRED BY THESE REGULATIONS SHALL BE REPLACED WITHIN THIRTY (30) DAYS OF THEIR DEMISE AND/OR REMOVAL.
2. IN THE EVENT THAT NOT ALL REQUIRED TREES/PLANTINGS WILL FIT ON EACH LOT, THE APPLICATION FOR AN ALTERNATIVE STANDARD WILL BE SUBMITTED TO ALLOW SOME OF THE INDIVIDUAL LOT PLANTINGS TO BE PUT IN COMMON AREAS SUCH AS AT THE END OF A BLOCK OF DWELLINGS. THOSE PLANTINGS WOULD THEN BELONG TO THE HOA OR CDD.

A PROPOSED 45' LOT TYPICAL LANDSCAPE PLANS
SCALE: 1"=20'



SEE SHEET "16" FOR TYPICAL LOT LANDSCAPE PLAN.
ALL PLANTING SPECIFICATIONS SHALL MEET PASCO COUNTY SHADE TREE AND STARKEY RANCH MPUD REQUIREMENTS.

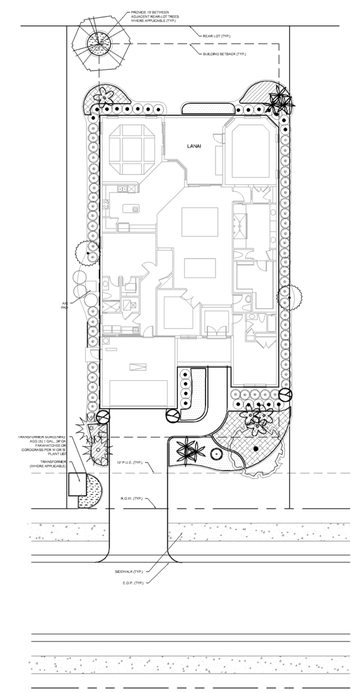
1 Shade Tree	@ 4" Cal.	= 4" Replacement Inches
1 Shade Tree	@ 2" Cal.	= 2" Replacement Inches
2 Accents	@ 1" Cal.	= 2" Replacement Inches
2 Sabal Palms	N/A	N/A
52' Lot Type	(4" + 2" + 2")	= 8" Replacement Inches
52' Lot Type	8" X 224 Lots	= 1,792" Replacement Inches

PLANTING SPECIFICATIONS

Symbol	Name	Quantity
SHADE TREES - 1 FRONT, 1 REAR REQUIRED		
	Botanical: Magnolia grandiflora 'D.D. Blanchard' Common: D.D. Blanchard Magnolia Specifications: 10' Ht x 4' Spd, 2" Cal, Full, Mature Spd. 30'	1
	Botanical: Quercus virginiana 'SDNL'pp12015 Cathedral© Common: Cathedral Live Oak Specifications: 16'-18' Ht. x 6' Spd, 4" Cal, Mature Spd. 60'	1
ACCENT TREES		
	Botanical: Callistemon rigida Common: Erect Bottlebrush Specifications: 8'-10' Ht. x 3' Spd, 2" Cal, Full, Mature Spd. 20'	2
PALM TREES		
	Botanical: Sabal palmetto Common: Cabbage Palm Specifications: 10', 12', 14' C.T. Mixed, H.C., Slick Trunk	2

NOTES:
1. ANY PLANT MATERIALS OF WHATSOEVER TYPE AND KIND REQUIRED BY THESE REGULATIONS SHALL BE REPLACED WITHIN THIRTY (30) DAYS OF THEIR DEMISE AND/OR REMOVAL.
2. IN THE EVENT THAT NOT ALL REQUIRED TREES/PLANTINGS WILL FIT ON EACH LOT, THE APPLICATION FOR AN ALTERNATIVE STANDARD WILL BE SUBMITTED TO ALLOW SOME OF THE INDIVIDUAL LOT PLANTINGS TO BE PUT IN COMMON AREAS SUCH AS AT THE END OF A BLOCK OF DWELLINGS. THOSE PLANTINGS WOULD THEN BELONG TO THE HOA OR CDD.

B PROPOSED 52' LOT TYPICAL LANDSCAPE PLANS
SCALE: 1"=20'



SEE SHEET "16" FOR TYPICAL LOT LANDSCAPE PLAN.
ALL PLANTING SPECIFICATIONS SHALL MEET PASCO COUNTY SHADE TREE AND STARKEY RANCH MPUD REQUIREMENTS.

1 Shade Tree	@ 4" Cal.	= 4" Replacement Inches
1 Shade Tree	@ 2" Cal.	= 2" Replacement Inches
2 Accents	@ 1" Cal.	= 2" Replacement Inches
2 Sabal Palms	N/A	N/A
62' Lot Type	(4" + 2" + 2")	= 8" Replacement Inches
62' Lot Type	8" X 92 Lots	= 736" Replacement Inches

PLANTING SPECIFICATIONS

Symbol	Name	Quantity
SHADE TREES - 1 FRONT, 1 REAR REQUIRED		
	Botanical: Magnolia grandiflora 'D.D. Blanchard' Common: D.D. Blanchard Magnolia Specifications: 10' Ht x 4' Spd, 2" Cal, Full, Mature Spd. 30'	1
	Botanical: Quercus virginiana 'SDNL'pp12015 Cathedral© Common: Cathedral Live Oak Specifications: 16'-18' Ht. x 6' Spd, 4" Cal, Mature Spd. 60'	1
ACCENT TREES		
	Botanical: Callistemon rigida Common: Erect Bottlebrush Specifications: 8'-10' Ht. x 3' Spd, 2" Cal, Full, Mature Spd. 20'	1
PALM TREES		
	Botanical: Sabal palmetto Common: Cabbage Palm Specifications: 10', 12', 14' C.T. Mixed, H.C., Slick Trunk	2

NOTES:
1. ANY PLANT MATERIALS OF WHATSOEVER TYPE AND KIND REQUIRED BY THESE REGULATIONS SHALL BE REPLACED WITHIN THIRTY (30) DAYS OF THEIR DEMISE AND/OR REMOVAL.
2. IN THE EVENT THAT NOT ALL REQUIRED TREES/PLANTINGS WILL FIT ON EACH LOT, THE APPLICATION FOR AN ALTERNATIVE STANDARD WILL BE SUBMITTED TO ALLOW SOME OF THE INDIVIDUAL LOT PLANTINGS TO BE PUT IN COMMON AREAS SUCH AS AT THE END OF A BLOCK OF DWELLINGS. THOSE PLANTINGS WOULD THEN BELONG TO THE HOA OR CDD.

C PROPOSED 62' LOT TYPICAL LANDSCAPE PLANS
SCALE: 1"=20'

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P: 813-443-5252 F: 813-443-5253 EMAIL: info@waldropengineering.com

CODE MINIMUM LANDSCAPE PLANS FOR
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
LANDSCAPE ENLARGEMENT PLAN

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XX/XX/XX

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

WILLIAM H. BOWERS, P.L.A.
FL LICENSE NO. LA6666785

SET NUMBER: 186-119-05

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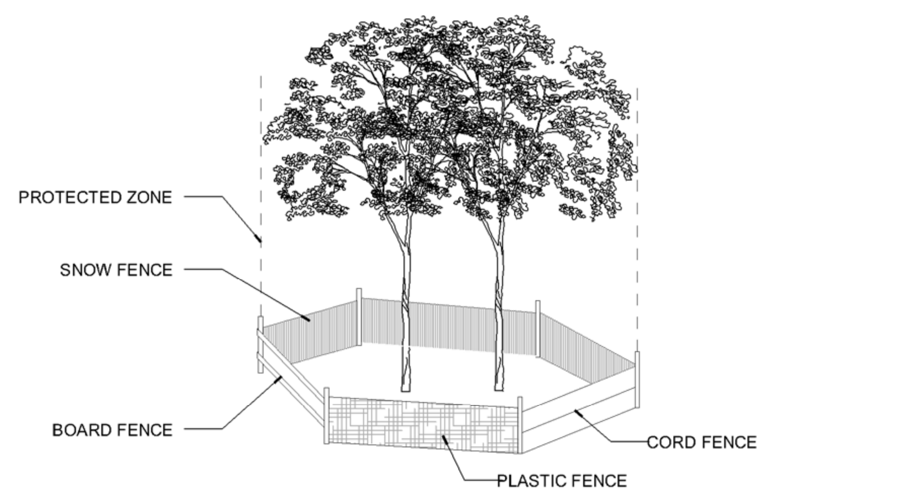
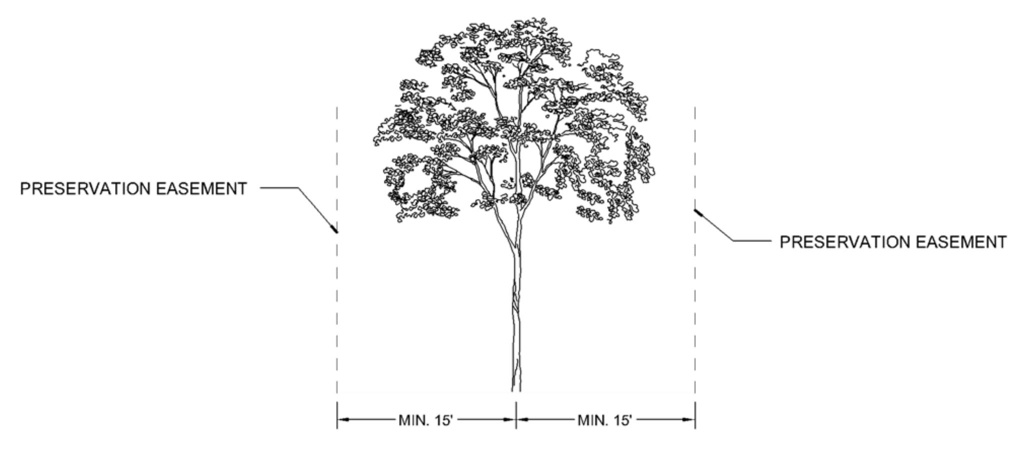


EXAMPLE OF TREE PROTECTION BARRICADE



EXAMPLE OF PRESERVATION EASEMENT FOR TREE OF SPECIAL SIGNIFICANCE

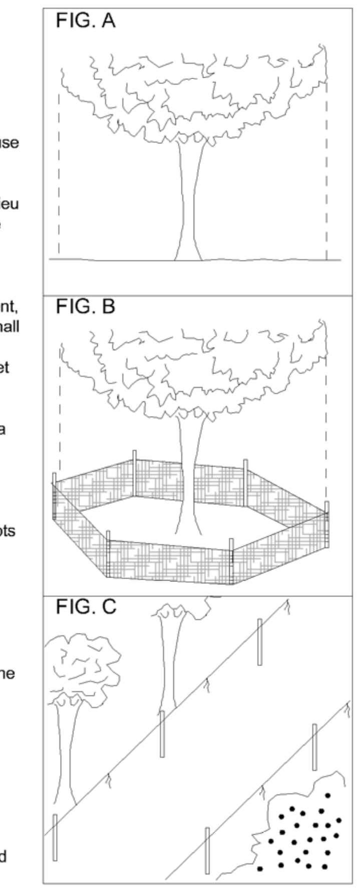
TREE PROTECTION (SECTION 802.3)

1. Prior to the clearing or grubbing of land, or the removal of any tree, the applicant shall clearly mark all tree(s) for which tree removal permit(s) are granted and shall erect barriers around the tree(s) to be retained on site so as to create a protected zone.
2. The protected zone shall extend from the tree trunk in all directions a minimum equal to the tree's drip line. (See Figure A)
3. Barriers of a minimum of three feet in height shall be erected outside the protected zone to prevent encroachment. Barriers shall remain in place and be in good condition throughout all development and building activity. (See Figure B)
4. Silt barrier, hay bales, or similarly effective erosion-control barriers shall be required in any area where erosion or siltation may cause damage to retained trees. Root-protection measures shall be in place prior to the disposal of fill in the protected zone.
5. For large property areas containing stands of trees to be retained that are separated from grubbing, clearing, and construction, in lieu of placing barriers as described above, may be partitioned off by placing the barriers around the perimeter of the stand area on the sides where grubbing, clearing, construction, etc., is occurring as long as an equivalent protected zone is established. (See Figure C)
6. The applicant, owner, developer, builder, or agent shall not cause or permit the movement of equipment or the storage of equipment, material, and debris or fill to be placed within the protected zone. No excavation shall occur within the protected zone, and there shall be no cleaning of equipment or material or the storage or disposal of waste materials, such as paints, petroleum products, oils, solvents, asphalts, concrete, mortar, or any other material, within the protected zone. There shall be no fire or burning within 30 feet of the protected zone.
7. Protective barriers may be removed for the final grading. Removal of vegetation or any landscaping activities within the barrier area shall be accomplished by mowing or hand clearing. If landscaping is to be located within the protected zone, clearing by light rubber-wheeled machinery only in the area and to the extent necessary shall be allowed.
8. Installation of artificial barriers such as protective barricades, fences, posts or walls shall not destroy or irreversibly harm the root system of protected trees and grand trees. Footers for walls shall end at the point where larger roots are encountered, and the roots shall be bridged. Post holes and trenches located close to protected trees shall be adjusted to avoid damage to major roots.
9. All roots to be removed during the site clearing phase shall be severed clean at the perimeter of the designated protective radius.
10. A two-inch layer of mulch shall be applied over the surface of exposed roots of protected trees during the site clearing phase.
11. A protective dry well and drainage / aeration system shall be provided where protected trees will be adversely affected by raising the grade.
12. A protective retaining wall shall be constructed at the permiter of the protective radius around a protected tree where the protected tree will be adversely affected by lowering the grade.
13. All trimming of protected trees and grand trees during development shall be done by a qualified, licensed tree service.
14. Tree(s) designated as trees of special significance shall have a preservation easement, prepared by the owner(s) of the tree(s), created around them and extending a minimum of 15' in all directions from the trunk. The preservation easement shall be recorded by the owner(s) of the tree(s) in the public records of Pasco County.

FIG. A

FIG. B

FIG. C



TREE TABULATION (TREES 10" AND ABOVE) (SECTION 802.3)

	LIVE OAKS				OTHER TREES			
SIZE (IN.)	QTY. RETAINED	TOTAL INCHES RETAINED	QTY. REMOVED	TOTAL INCHES REMOVED	QTY. RETAINED	TOTAL INCHES RETAINED	QTY. REMOVED	TOTAL INCHES REMOVED
10	3	30	27	270	3	30	117	1,170
11	2	22	14	154	5	55	110	1,210
12			19	228	1	12	116	1,392
13			7	91	1	13	146	1,898
14			8	112	1	14	129	1,806
15	1	15	6	90	1	15	104	1,560
16			3	48	2	32	80	1,280
17			3	51			72	1,224
18			1	18	1	18	42	756
19			2	38	1	19	24	456
20			4	80			13	260
21	1	21					13	273
22			3	66			4	88
23				0			1	23
24			3	72			1	24
25			1	25				
26							1	26
28			2	56				
30			1	30				
35	1	35						
36			1	36				
38	1	38						
61	1	61						
TOTAL		222		1,465		208		13,446
					TOTAL OTHER AT 1/3:			4,482

TOTAL TREE INCHES RETAINED ON SITE: 430

TOTAL REPLACEMENT INCHES REQUIRED: 5,517

LIVE OAKS TO BE REPLACED INCH FOR INCH, OTHERS TO BE REPLACED INCH FOR 3 INCHES

LIVE OAK		
SIZE (IN.)	QTY.	TOTAL INCHES
		0

OTHER		
SIZE (IN.)	QTY.	TOTAL INCHES
		0

NET INCHES:

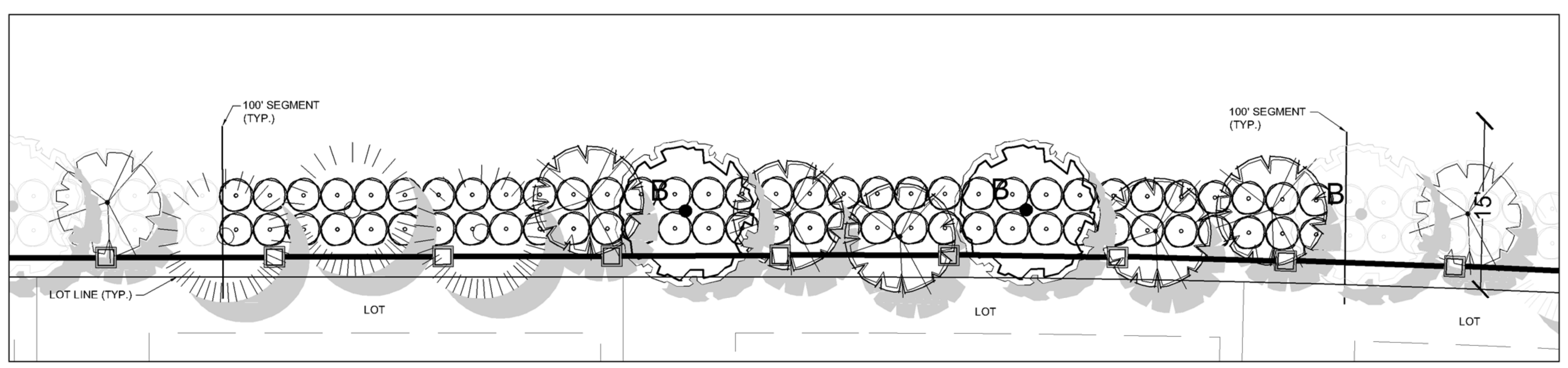
	LIVE OAK	OTHER
DEFFERENCE:	-1,465	-4,482

TOTAL REPLACEMENT INCHES PROVIDED: 5,761

LANDSCAPE BUFFERS	TOTAL INCHES PROVIDED
TYPE 'D' 15' WIDE 7 SHADE TREE PER 100 LINEAR FEET, 4" CAL. (5,782 LINEAR FEET / 100 LF = 5.7 "100' SEGMENTS") (5.7 X 7 TREES @ 4" CAL. = 405 TREES @ 1,619")	1,619
TYPE 'D' 10' WIDE 5 SHADE TREE PER 100 LINEAR FEET, 4" CAL. (6,934 LINEAR FEET / 100 LF = 6.9 "100' SEGMENTS") (6.9 X 5 TREES @ 4" CAL. = 347 TREES @ 1,040")	1,040
CORNER LOTS 2 SHADE TREE PER CORNER LOT, MIN. 4" CAL. (20 CORNER LOTS X 2 TREES EACH) (20 LOTS X 2 TREES @ 4" CAL. = 120")	120
UNIT LANDSCAPE	
45' LOT (201 45' LOTS, 1 TREE @ 4" CAL.) (201 45' LOTS, 1 TREE @ 2" CAL.) (201 X 6" CAL. = 1,206")	1,206
52' LOT (224 52' LOTS, 1 TREE @ 4" CAL.) (224 52' LOTS, 1 TREE @ 2" CAL.) (224 X 6" CAL. = 1,344")	1,344
62' LOT (92 62' LOTS, 1 TREE @ 4" CAL.) (92 62' LOTS, 1 TREE @ 2" CAL.) (92 X 6" CAL. = 552")	552

TOTAL REPLACEMENT INCHES REQUIRED: 5,517

TOTAL REPLACEMENT INCHES PROVIDED: 5,761



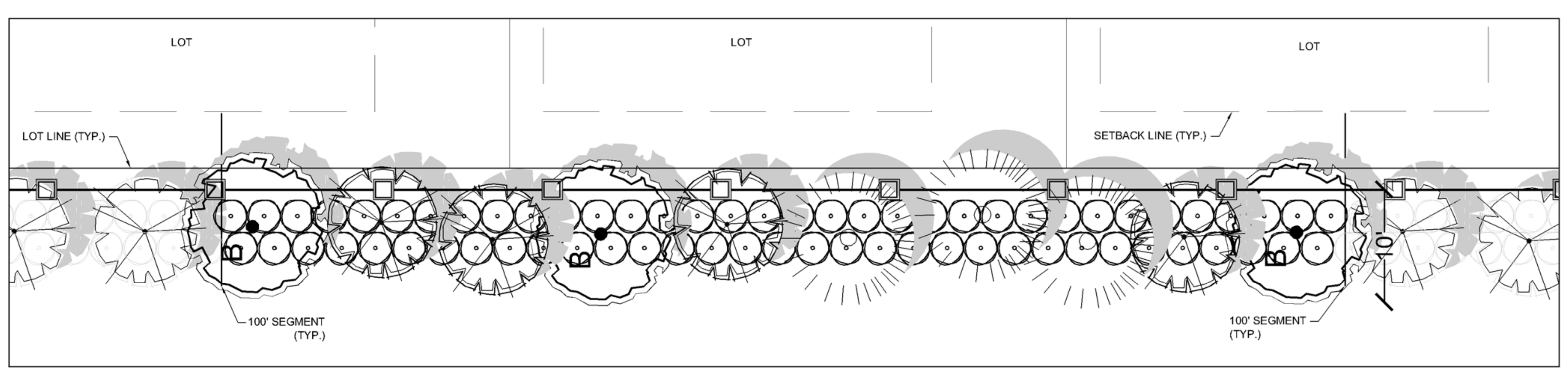
SEE SHEET '14' FOR LOCATION

Code Required:	Provided:
Min. 15' Width Landscape Buffer 1 Tree / 30 L.F.	5,782 L.F. @ 7 Trees / 100 L.F. = 405 405 Trees @ 4" Cal. = 1,619" Replacement Inches
5 Shrubs per Tree and Groundcover	3 Palms and Shrubs

A TYPE 'D' BUFFER (100' or more R.O.W.) 100' SEGMENT
SCALE: 1"=10'

PLANTING SPECIFICATIONS

Symbol	Name	Quantity
SHADE TREES - 1 FRONT, 1 REAR REQUIRED		
	Botanical: Magnolia grandiflora 'D.D. Blanchard' Common: D.D. Blanchard Magnolia Specifications: 10' Ht x 4' Spd, 2" Cal, Full, Mature Spd. 30'	2
ACCENT TREES		
	Botanical: Callistemon rigida Common: Erect Bottlebrush Specifications: 8'-10' Ht. x 3' Spd, 2" Cal, Full, Mature Spd. 20'	5
PALM TREES		
	Botanical: Sabal palmetto Common: Cabbage Palm Specifications: 10', 12', 14' C.T. Mixed, H.C., Slick Trunk	3
SHRUBS		
⊙	Botanical: Viburnum obovatum Common: Walter's Viburnum Specifications: 3 gal., 24" Ht. x 18" Spd.	67



SEE SHEET '14' FOR LOCATION

Code Required:	Provided:
Min. 10' Width Landscape Buffer 1 Tree / 30 L.F.	6,934 L.F. @ 5 Trees / 100 L.F. = 347 347 Trees @ 3" Cal. = 1,040" Replacement Inches
5 Shrubs per Tree and Groundcover	3 Palms and Shrubs

B TYPE 'D' BUFFER (0' - 99' R.O.W.) 100' SEGMENT
SCALE: 1"=10'

PLANTING SPECIFICATIONS

Symbol	Name	Quantity
SHADE TREES - 1 FRONT, 1 REAR REQUIRED		
	Botanical: Magnolia grandiflora 'D.D. Blanchard' Common: D.D. Blanchard Magnolia Specifications: 10' Ht x 4' Spd, 2" Cal, Full, Mature Spd. 30'	2
ACCENT TREES		
	Botanical: Callistemon rigida Common: Erect Bottlebrush Specifications: 8'-10' Ht. x 3' Spd, 2" Cal, Full, Mature Spd. 20'	5
PALM TREES		
	Botanical: Sabal palmetto Common: Cabbage Palm Specifications: 10', 12', 14' C.T. Mixed, H.C., Slick Trunk	3
SHRUBS		
⊙	Botanical: Viburnum obovatum Common: Walter's Viburnum Specifications: 3 gal., 24" Ht. x 18" Spd.	67

NOTES:
1. ANY PLANT MATERIALS OF WHATSOEVER TYPE AND KIND REQUIRED BY THESE REGULATIONS SHALL BE REPLACED WITHIN THIRTY (30) DAYS OF THEIR DEMISE AND/OR REMOVAL.

WALDROP ENGINEERING
CIVIL ENGINEERING & LAND DEVELOPMENT CONSULTANTS
9432 CAMDEN FIELD PARKWAY RIVERVIEW, FL 33578;
P: 813-443-8282 F: 813-443-8285 EMAIL: info@waldropengineering.com

CODE MINIMUM LANDSCAPE PLANS FOR
ESPLANADE AT STARKEY RANCH-PHASE I
CLIENT: TAYLOR MORRISON OF FLORIDA, INC.
LANDSCAPE TREE NOTES & DETAILS

PLAN REVISIONS
REV00 <<SUBMITTED / BID SET>> XX/XX/XX

FLORIDA CERTIFICATE OF AUTHORIZATION #8636

WILLIAM H. BOWERS, P.L.A.
FL LICENSE NO. LA6666785

SET NUMBER: 186-119-05

SHEET : 56

u:\186-119 starkey ranch\drawings-exhibits\186-119-05 CML Plans\CURRENT PLANS\Phase I\1861190556.dwg
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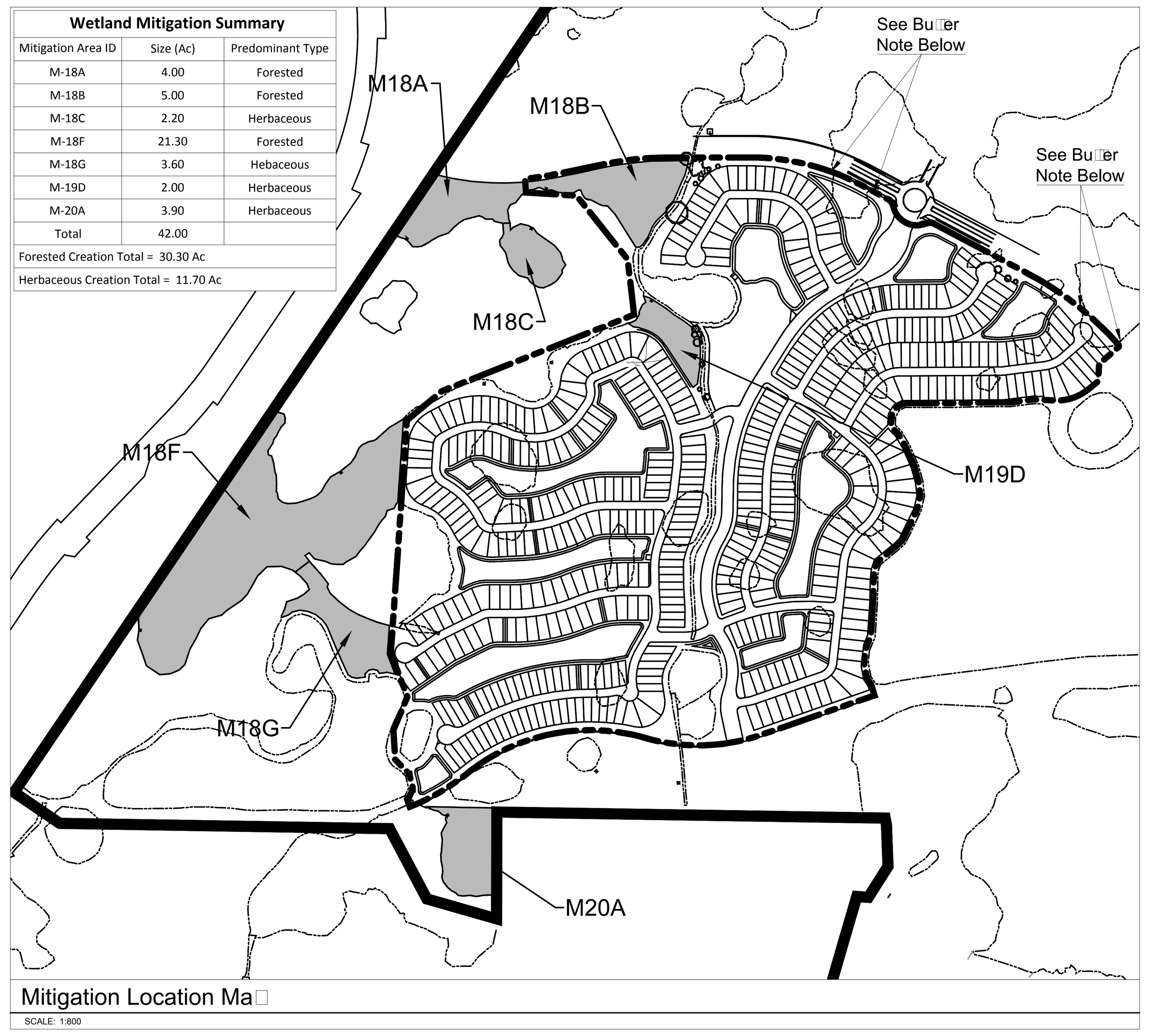
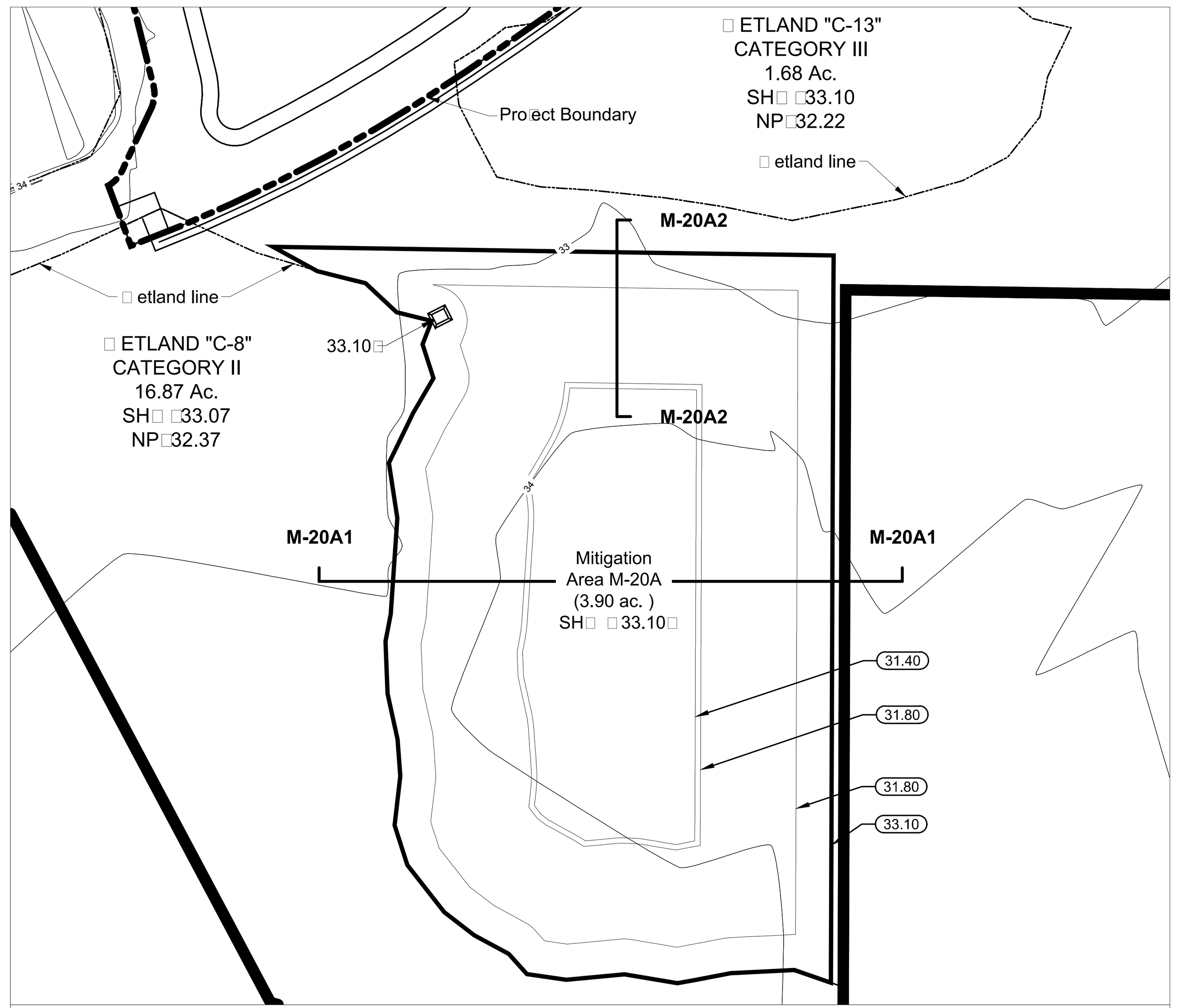


Wetland Mitigation Summary		
Mitigation Area ID	Size (Ac)	Predominant Type
M-18A	4.00	Forested
M-18B	5.00	Forested
M-18C	2.20	Herbaceous
M-18F	21.30	Forested
M-18G	3.60	Hebaceous
M-19D	2.00	Herbaceous
M-20A	3.90	Herbaceous
Total	42.00	
Forested Creation Total = 30.30 Ac		
Herbaceous Creation Total = 11.70 Ac		

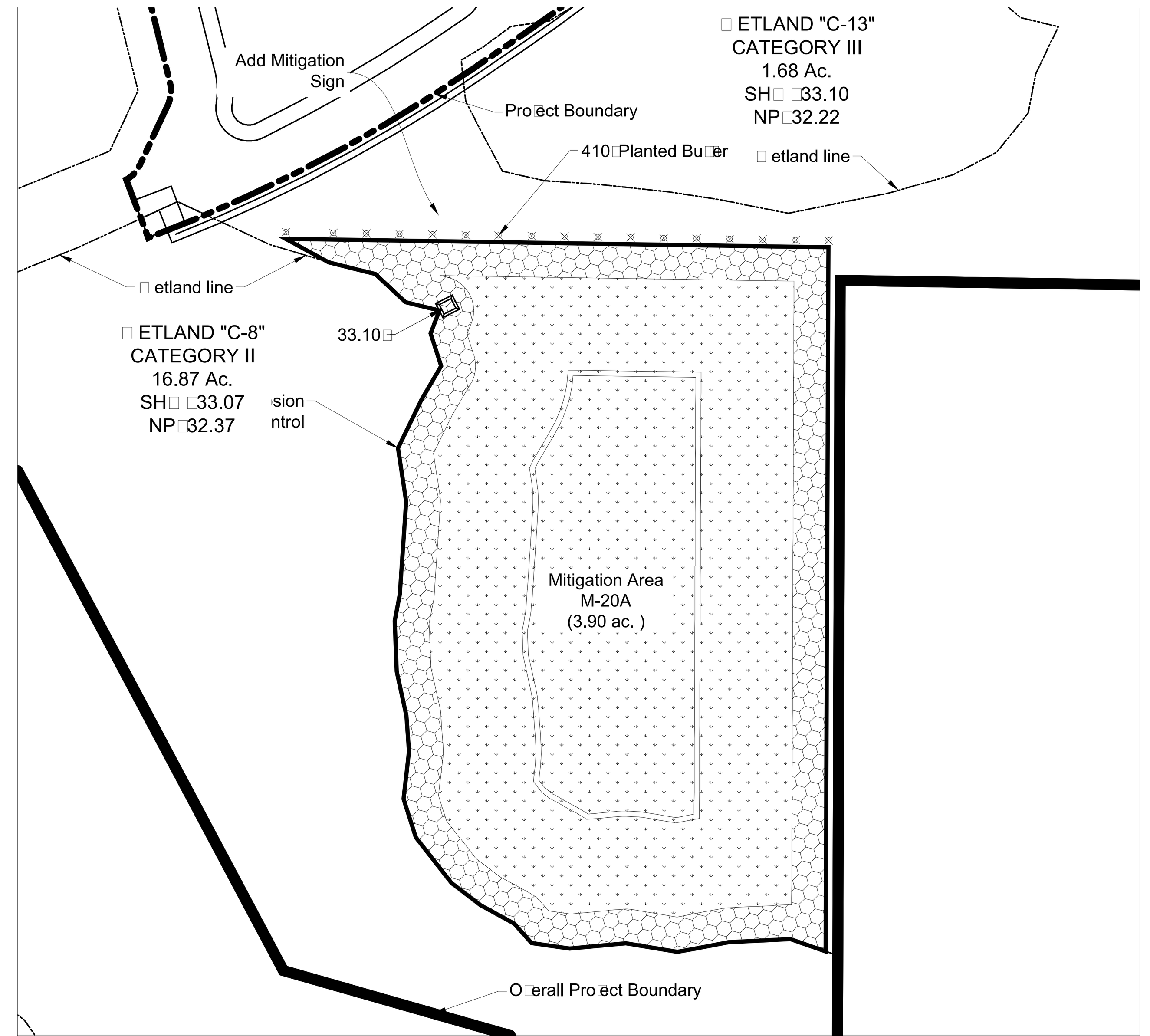
Mitigation Location Ma□

SCALE: 1:800



Mitigation Area M-20A Grading Plan

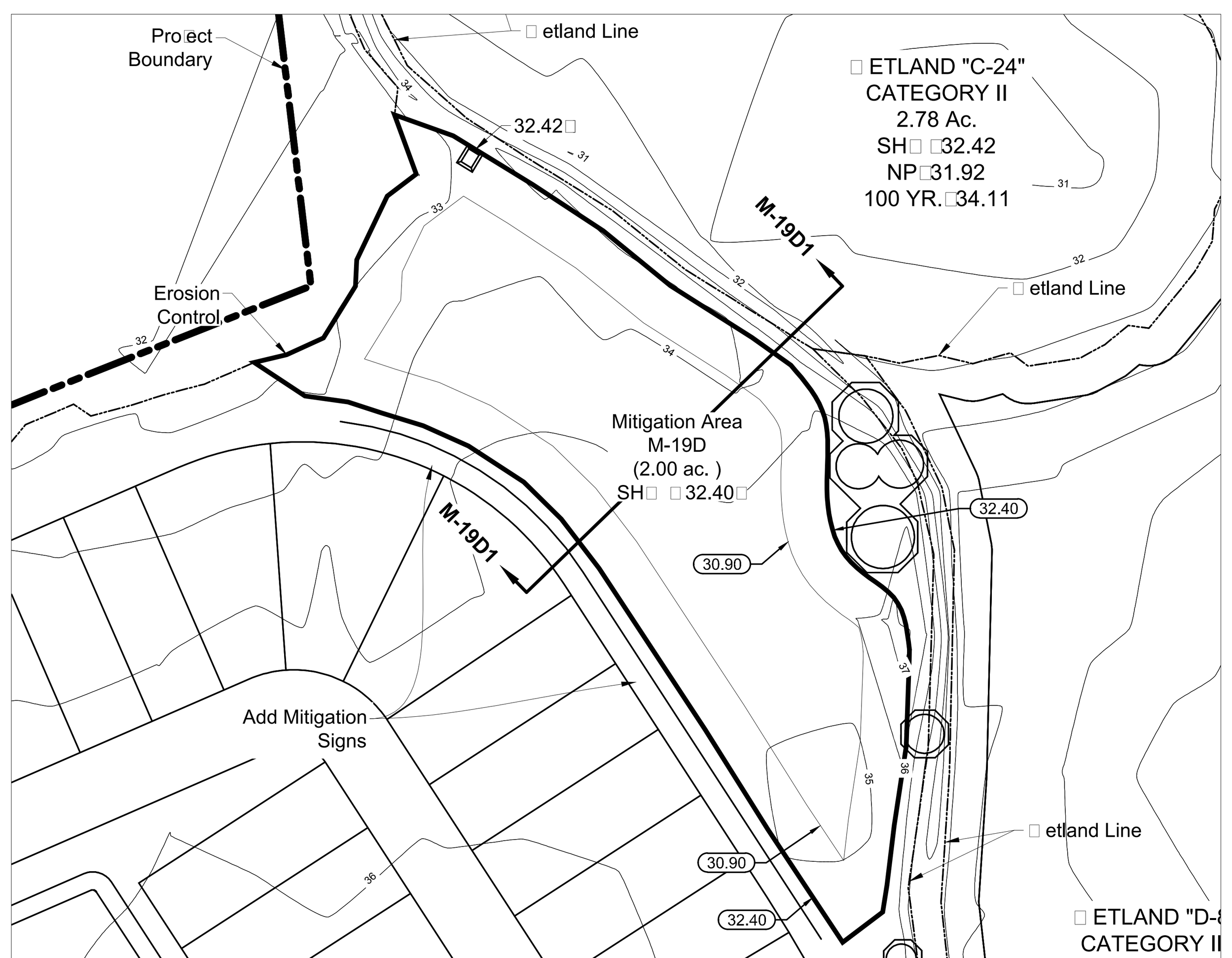
SCALE: 1:100



Mitigation Area M-20A Planting Plan

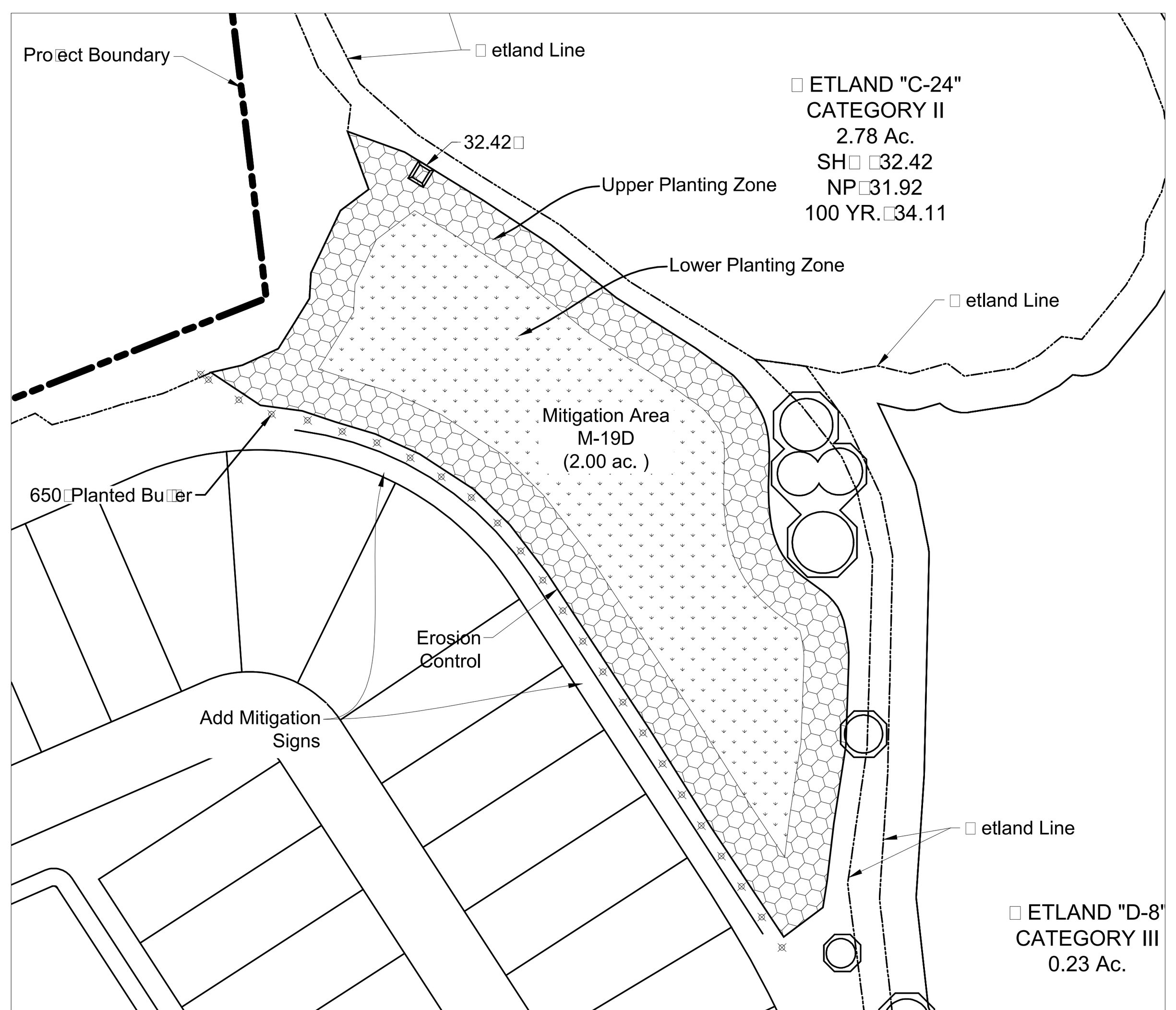
SCALE: 1:100.0002

Mitigation Area M-20A (3.90 Ac.) (Herbaceous)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	33.1 - 31.8	Pontederia cordata - pickerelweed	1.04	705	14%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		654	13%		
		Eleocharis interstincta - knotted spikerush		503	10%		
		Panicum hemitomon - maidencane		1,007	20%		
		Iris hexagona - prairie iris		101	2%		
		Canna flaccida - golden canna		101	2%		
		Spartina bakeri - sand cordgrass		1,812	36%		
		Hypericum fasciculatum - sandweed		50	1%	1 gal	
		Acer rubrum - red maple		25	0.5%		
		Quercus laurifolia - laurel oak		25	0.5%		
		Ilex cassine - dahoon holly		0	0.5%		
		Ulmus americana - American elm		25	0.5%		
Upper Range Plant Totals:				5,008			
Lower Range	31.8 - 31.4	Pontederia cordata - pickerelweed	2.86	5,122	37%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		4,568	33%		
		Eleocharis interstincta - knotted spikerush		1,938	14%		
		Panicum hemitomon - maidencane		1,384	10%		
		Nyphaea odorata - white water-lily		415	3%	1 gal	
		Cephalanthus occidentalis - buttonbush		138	1%		
		Taxodium distichum - bald cypress		138	1%		
		Fraxinus caroliniana - water ash		138	1%		
Lower Range Plant Totals:				13,842			
Total Plant Numbers:				18,851			



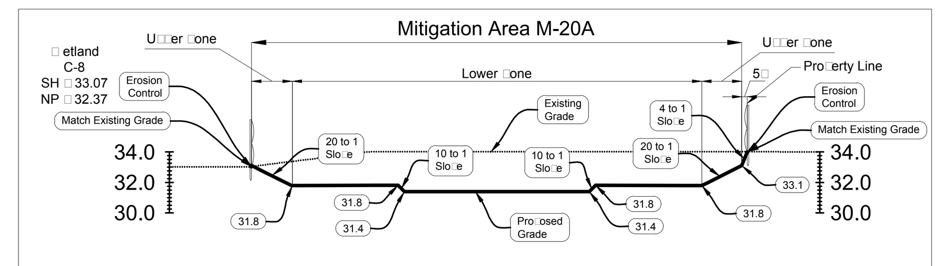
Mitigation Area M19D Grading Plan

SCALE: 1:100



Mitigation Area M-19D Planting Plan

SCALE: 1:100



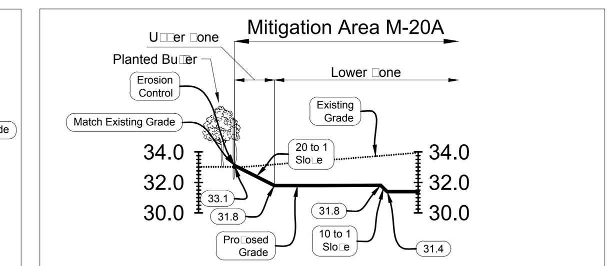
Cross Section M-20A1

Vert: 1"□10□Hor□: 1" □100□

SH□ □or M-20A □33.10□

Mitigation Area M-20A Cross Section M-20A1

SCALE: 1:100



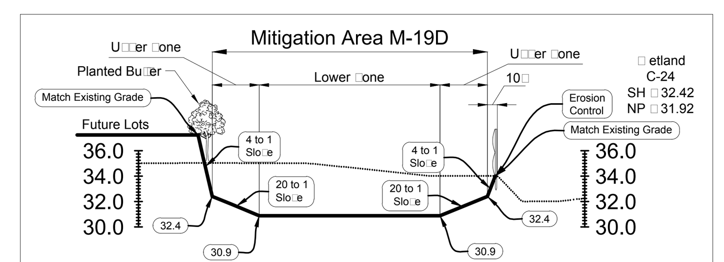
Cross Section M-20A2

Vert: 1"□10□Hor□: 1" □100□

SH□ □or M-20A □33.10□

Mitigation Area M-20A Cross Section M-20A2

SCALE: 1:100



Cross Section M-19D1

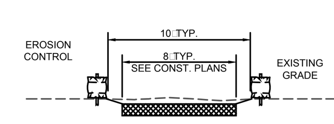
Vert: 1"□12□Hor□: 1" □100□

SH□ □or M-19D □32.40□

Mitigation Area M-19D Cross Section M19D1

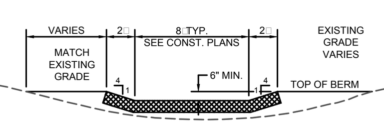
SCALE: 1:100

Mitigation Area M-19D (2.00 Ac.) (Herbaceous)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	32.40 - 30.9	Pontederia cordata - pickerelweed	0.96	650	14%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		604	13%		
		Eleocharis interstincta - knotted spikerush		465	10%		
		Panicum hemitomon - maidencane		929	20%		
		Iris hexagona - prairie iris		93	2%		
		Canna flaccida - golden canna		93	2%		
		Spartina bakeri - sand cordgrass		1,673	36%		
		Hypericum fasciculatum - sandweed		46	1%	1 gal	
		Acer rubrum - red maple		23	0.5%		
		Quercus laurifolia - laurel oak		23	0.5%		
		Ilex cassine - dahoon holly		0	0.5%		
		Ulmus americana - American elm		23	0.5%		
Upper Range Plant Totals:				4,623			
Lower Range	30.9	Pontederia cordata - pickerelweed	1.04	1,963	39%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		1,661	33%		
		Eleocharis interstincta - knotted spikerush		705	14%		
		Panicum hemitomon - maidencane		503	10%		
		Nyphaea odorata - white water-lily		50	1%	1 gal	
		Cephalanthus occidentalis - buttonbush		50	1%		
		Taxodium distichum - bald cypress		50	1%		
		Fraxinus caroliniana - water ash		50	1%		
Lower Range Plant Totals:				5,034			
Total Plant Numbers:				9,657			



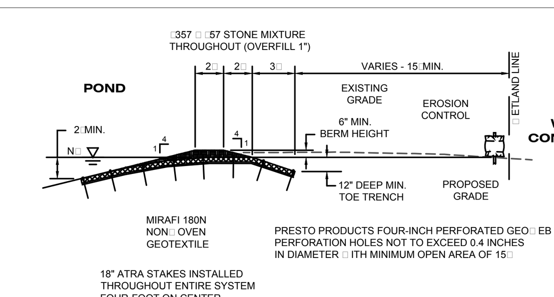
SECTION Y-Y

NTS



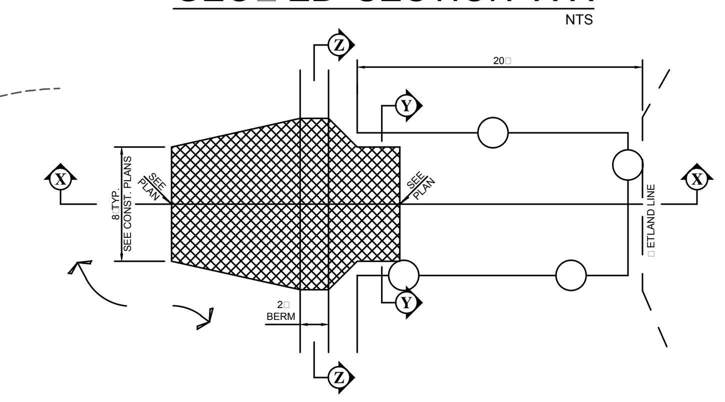
SECTION □-□

NTS



GEO□ EB SECTION X-X

NTS



GEO□ EB TYPICAL DETAIL

NTS

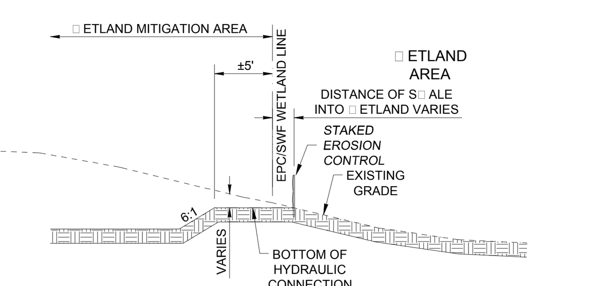
NOTE:
MITIGATION AREAS □ ILL BE BUILT CONCURRENTLY □ ITH THE CONSTRUCTION AT THE □ ETLAND IMPACTS.

WOODY BUFFER PLANTING LIST		
TREES		Approximate Relative %
Slash Pine□	(Pinus elliottii)	60
Sweetgu□	(Li□uida□bar styrac□lua)	30
El□	(Ui□us a□ericana)	10
SHRUBS		
□ax Myrtle□	(Myrica ceri□era)	60
S□all Viburnu□	(Viburnu□ obo□atu□)	10
Beauty Bush	(Callicar□a a□ericana)	30

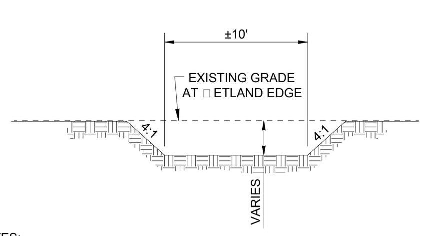
□DOMINANT SPECIES

TREES (3 GALLON) TO BE PLANTED ON 10□CENTERS□SHRUBS (1 GALLON) TO BE INTERSPERSED□2 PER TREE. BUFFER PLANTING TO OCCUR □ HERE MITIGATION AREA IS AD□ACENT TO DEVELOPMENT (e.g.□LOTS□ROADS□COMMERCIAL PARCELS)□SEE LOCATION PLAN VIE□ S.

THE EDGES OF WETLAND IMPACTS C-58B AND C-60 WILL BE PLANTED PER THE BUFFER DETAILS ON SHEET M1, UNLESS THE ERP PERMIT FOR THE ADJACENT ROAD DEPICTS THE WETLAND IN THE RIGHT OF WAY TO BE IMPACTED. IF THAT IS THE CASE, THEN NO BUFFER IS NEEDED AT C-58B AND C-60



GENERIC 10□HYDRAULIC CONNECTION
BET□ EEN MITIGATION AREA AND □ ETLAND



NOTES:

1. DEPTH OF CONNECTIONS WILL VARY (±12") DEPENDING ON EXISTING GRADES, □ ETLAND HYDROPERIODS AND PROPOSED MITIGATION GRADES.
2. DETERMINATION AS TO □ HETHER HYDRAULIC CONNECTIONS ARE NEEDED AND □ HERE THEY □ ILL BE LOCATED □ ILL BE BASED ON A CASE-BY-CASE ASSESSMENT OF EACH MITIGATION AREA AT THE TIME OF CONSTRUCTION PLANS PREPARATION. THEY □ ILL BE INSTALLED AT LOCATIONS TO MINIMI□E □ ETLAND AND TREE DISTURBANCE. ANY DISTURBED AREAS □ ILL BE PLANTED □ ITH □ ETLAND VEGETATION CONCURRENTLY □ ITH MITIGATION PLANTINGS AND MAINTAINED ACCORDINGLY. GEO□ EB □ ILL BE USED NECESSARY TO PREVENT □ ASHOUT.

□ ETLAND MITIGATION MONITORING □ MAINTENANCE NOTES

All the □ollowing ite□s will be included in the □itigation □onitoring and □aintenance □rogra□:

A. Monitoring and □aintenance will be □er□or□ed □or a □ini□u□ o□3 years □or herbaceous areas and 5 years □or the □orested areas. Maintenance will occur eight ti□es □er year □or years one and two□six ti□es □er year □or years three and □our and □our ti□es □er year therea□ter as needed.
Monitoring will be done se□i-annually and re□orted annually□E□ents should occur between March 1 and No□e□ber 30□
Monitoring re□orts will be sub□itted to S□ F□ MD and to COE within 30 days □ollowing the □onitoring e□ent at the annual anni□ersary. At a □ini□u□ □□onitoring re□orts will address:

1. Percent sur□i□al o□□lanted s□ecies.
2. Nu□ber o□□lants re□lanted i□necessary to □eet 85 they were □lanted.
3. □ ater □uality
   a) Visual obser□ations
   b) Lab data i□necessary□i.e.□salinity□conducti□ity□□H□etc.
4. Total □lant co□er
5. Plant di□ersi□ication and natural recruit□ent (list s□ecies □resent)
6. De□th o□water at □onitoring e□ent
7. Soil stabili□ation □easures used
8. Per□anently □arked □hoto stations
9. □ ildli□e usage
10. O□erall ecological e□aluation
11. Proble□s encountered and correcti□e actions taken or needed
12. Date □lanted and nu□ber o□□lanted □aterials used

B. Maintenance shall □ean the re□o□al o□nuisance or exotic s□ecies. Nuisance s□ecies co□erage □ust not exceed 10 □. (cattails□willow□□ri□rose willow□water hyacinths□Sesbania s□□. dog□ennel□Bra□ilian □e□□er□etc.). Contactor should a□oid use o□herbicides i□□ossible. All weed control should cease one year □rior to release by S□ F□ MD.

C. Sur□i□al □ust be guaranteed □or each □lanted s□ecies. The area will be re□lanted annually i□s□ecies sur□i□orshi□ □alls below 85□. 50□ □lant co□er will be achie□ed at the end o□year one□70□ by the end o□year two and 85□ □lant co□er o□non-nuisance wetland s□ecies will be achie□ed by the end o□the third year. Re□lanting □ay be needed to achie□e these □alues. No □ore than 10□ o□the total area co□erage shall be u□land or nuisance s□ecies.

D. Monitoring and □aintenance will continue until S□ F□ MD □er□itted success criteria are achie□ed and the areas are released by S□ F□ MD. Reconstruction o□the site design □ay be necessary to achie□e □unctioning wetlands.

E. Prior to any wetland i□□act□S□ F□ MD □ust recei□e a□□ro□riate □inancial surety □or the □itigation co□□letion.

MISCELLANEOUS MITIGATION NOTES:

Plants will be installed in rando□ □atterns at the contractor□s discretion unless otherwise directed by the □lans or by the □itigation designer.

The Mitigation areas will be considered as conser□ation areas. Plants will be installed at ele□ations □ost conducti□e □or their de□elo□□ent. Planting ranges are de□icted on the attached list.

Grades and slo□es shown on the □itigation areas □ay be □ield altered to insure that water le□els will be achie□ed which result in o□ti□al □lant sur□i□al and habitat □alue. Howe□er□grade changes □ust be a□□ro□ed by a□□ro□riate agencies.

Mini□u□ □lant si□es:
Herbs: 4" □otted □aterial or bare root e□ui□alent.
Shrubs: one gallon □ots
Trees: one gallon □ots in herbaceous areas□3 gallon □ots in □orested areas

Potted□nursery grown □aterial will be used□unless otherwise a□□ro□ed in ad□ance.
Plants will be as shown on the attached list.

All □itigation areas will recei□e □lants on 3 □oot centers. In herbaceous areas□three □ercent o□this total will be shrubs and trees to increase □egetati□e di□ersity. The □orested areas will recei□e herbs on 3□centers□trees on 9□ centers and shrubs on 12□centers.

□ etland to□soil □ro□ a□□ro□ed i□□acts will be used i□a□ailable□in the □itigation areas. The contractor will □ro□ide at least 24" o□sandy□non-clay □aterial abo□e any □resent clay layer in habaceous creation areas and at least 36" o□non-clay soils □or □orested creation areas.

MITIGATION CONSTRUCTION PROCESS NOTES

These u□lands will be scra□ed to ele□ations de□icted. Suitable soils should be □ro□ided (see notes on this sheet).

The Per□ittee shall co□□ence construction o□the □itigation area(s) within 30 days o□wetland i□□acts□i□wetland i□□acts occur between February 1 and August 31. I□wetland i□□acts occur between Se□te□ber 1 and □anuary 31□construction o□the □itigation area(s) shall co□□ence by March 1. In either case□construction o□the □itigation area(s) shall be co□□leted within 120 days o□the co□□ence□ent date unless a ti□e extension is a□□ro□ed in writing by the District.

Noti□ication o□□lanting co□□letion should be □ro□ided to S□ F□ MD. A □onitoring schedule will be arranged with S□ F□ MD.

NOTE: The developer will add wetland mitigation warning signs at various locations between the created wetlands and adjacent, in compatible land uses (lots & roads)

NOTE: "The Mitigation elevations will be field verified prior to Pasco County Engineering Inspections Signing off."

Topsoil Mulch Utilization Notes

The goal will be to transfer about 4" of topsoil and plants to each creation area. The

Sheet - M1

S□ F□ MD
Sec 19
Twn 20□26 S
Rng 17 E

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Mitigation Design Plans

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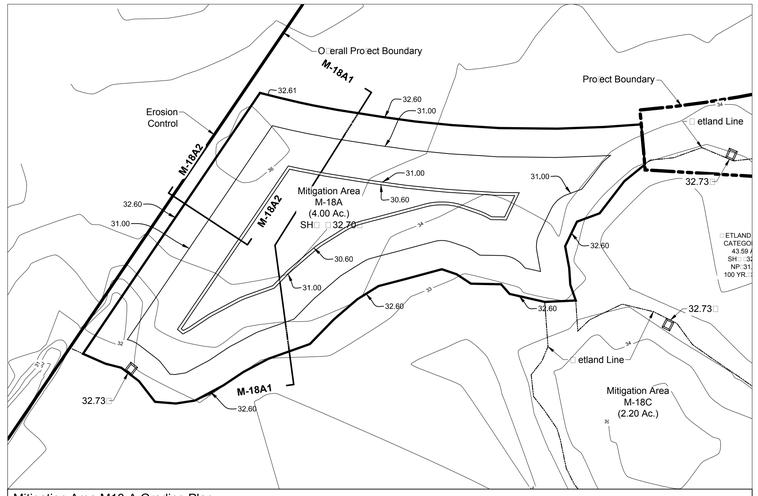
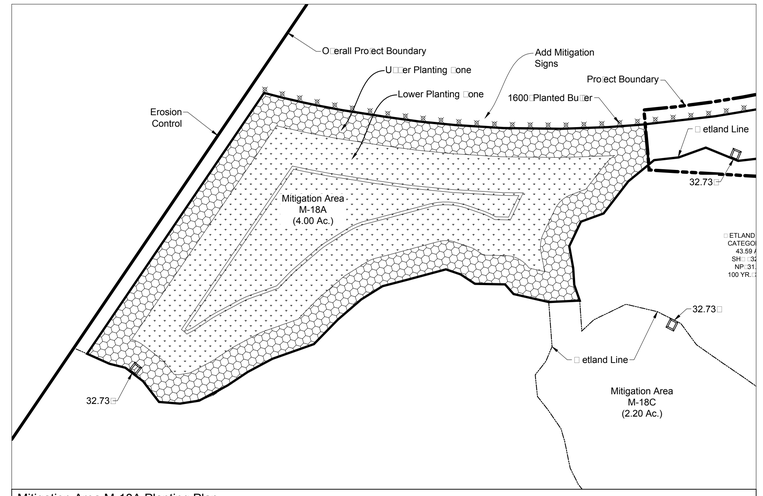


Mitigation Area M18-A Grading Plan

SCALE: 1:100



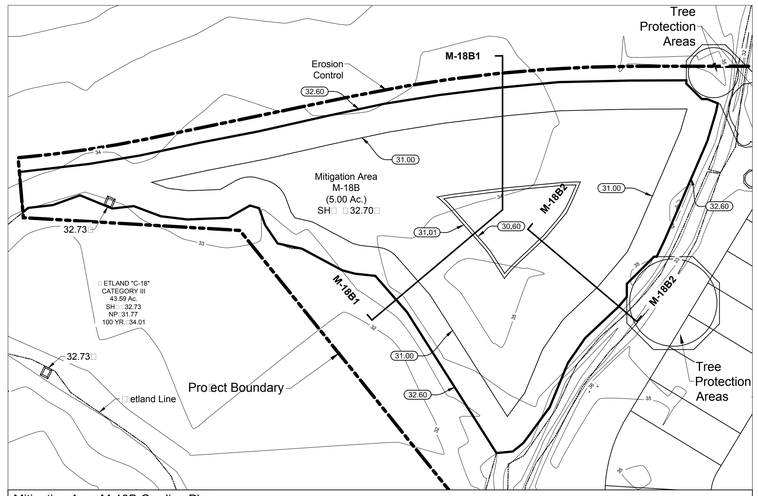
Mitigation Area M-18A Planting Plan

SCALE: 1:100

Mitigation Area M18A (4.00 Ac.) (Forested)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	33.0 - 31.0	Pontederia cordata - pickerelweed	1.67	808	10%	4" containerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		808	10%		
		Eleocharis interstincta - knotted spikerush		808	10%		
		Panicum hemitomon - maidencane		1,940	24%		
		Iris hexagona - prairie iris		242	3%		
		Canna flaccida - golden canna		242	3%		
		Spartina bakeri - sand cordgrass		3,233	40%		
		Viburnum obovatum - small viburnum		177	35%	1 gal	12
		Lyonia lucida - fetterbush, shiny lyonia		101	20%		
		Cephalanthus occidentalis - buttonbush		76	15%		
		Hypericum fasciculatum - sandweed		76	15%		
		Itea virginica - Virginia-willow		76	15%		
		Nyssa sylvatica var. biflora - swamp black gum		90	10%	3 gal	9
		Acer rubrum - red maple		225	25%		
		Quercus laurifolia - laurel oak		180	20%		
		Ilex cassine - dahoon holly		180	20%		
		Ulmus americana - American elm		225	25%		
Upper Range Plant Totals:				9,486			
Lower Range	31.0 - 30.6	Pontederia cordata - pickerelweed	2.33	4,285	38%	4" containerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		3,834	34%		
		Eleocharis interstincta - knotted spikerush		1,128	10%		
		Panicum hemitomon - maidencane		1,692	15%		
		Nymphaea odorata - white water-lily		338	3%	1 gal	
		Cephalanthus occidentalis - buttonbush		705	100%	1 gal	12
		Nyssa sylvatica var. biflora - swamp black gum		125	10%	3 gal	9
		Taxodium distichum - bald cypress		940	75%		
		Fraxinus caroliniana - water ash		188	15%		
Lower Range Plant Totals:				13,235			
Total Plant Numbers:				22,721			

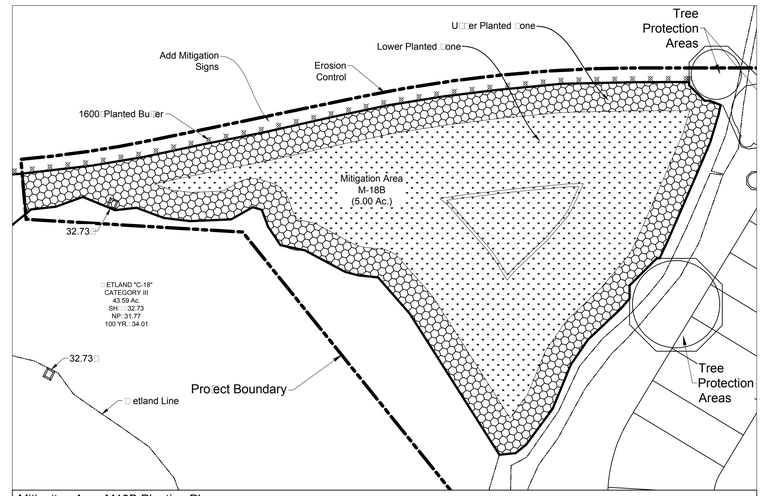
Mitigation Area M-18A Planting Legend

SCALE: 1:1



Mitigation Area M-18B Grading Plan

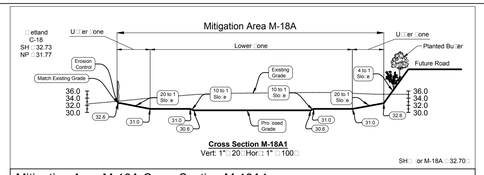
SCALE: 1:100



Mitigaiton Area M18B Planting Plan

SCALE: 1:100

Mitigation Area M-18C (2.20 Ac.) (Herbaceous)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	32.8 - 30.8	Pontederia cordata - pickerelweed	0.98	664	14%	4" containerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		617	13%		
		Eleocharis interstincta - knotted spikerush		474	10%		
		Panicum hemitomon - maidencane		949	20%		
		Iris hexagona - prairie iris		95	2%		
		Canna flaccida - golden canna		95	2%		
		Spartina bakeri - sand cordgrass		1,708	36%		
		Hypericum fasciculatum - sandweed		47	1%	1 gal	
		Acer rubrum - red maple		24	0.5%		
		Quercus laurifolia - laurel oak		24	0.5%		
		Ilex cassine - dahoon holly		0	0.5%		
		Ulmus americana - American elm		24	0.5%		
Upper Range Plant Totals:				4,719			
Lower Range	30.8	Pontederia cordata - pickerelweed	1.22	2,185	37%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		1,949	33%		
		Eleocharis interstincta - knotted spikerush		827	14%		
		Panicum hemitomon - maidencane		590	10%		
		Nyphaea odorata - white water-lily		177	3%	1 gal	
		Cephalanthus occidentalis - buttonbush		59	1%		
		Taxodium distichum - bald cypress		59	1%		
		Fraxinus caroliniana - water ash		59	1%		
Lower Range Plant Totals:				5,905			
Total Plant Numbers:				10,624			



Mitigation Area M-18A Cross Section M-18A1

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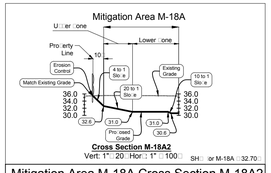

Mitigation Area M-18A Cross Section M-18A2

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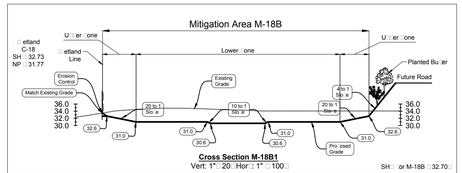

Mitigation Area M-18B Cross Section M-18B1

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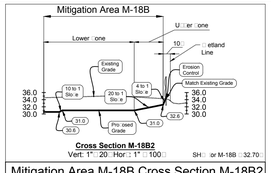

Mitigation Area M-18B Cross Section M-18B2

SCALE: 1:100

Sheet - M2

S□ F□ MD
Sec 19
Twn 20□26 S
Rng 17 E

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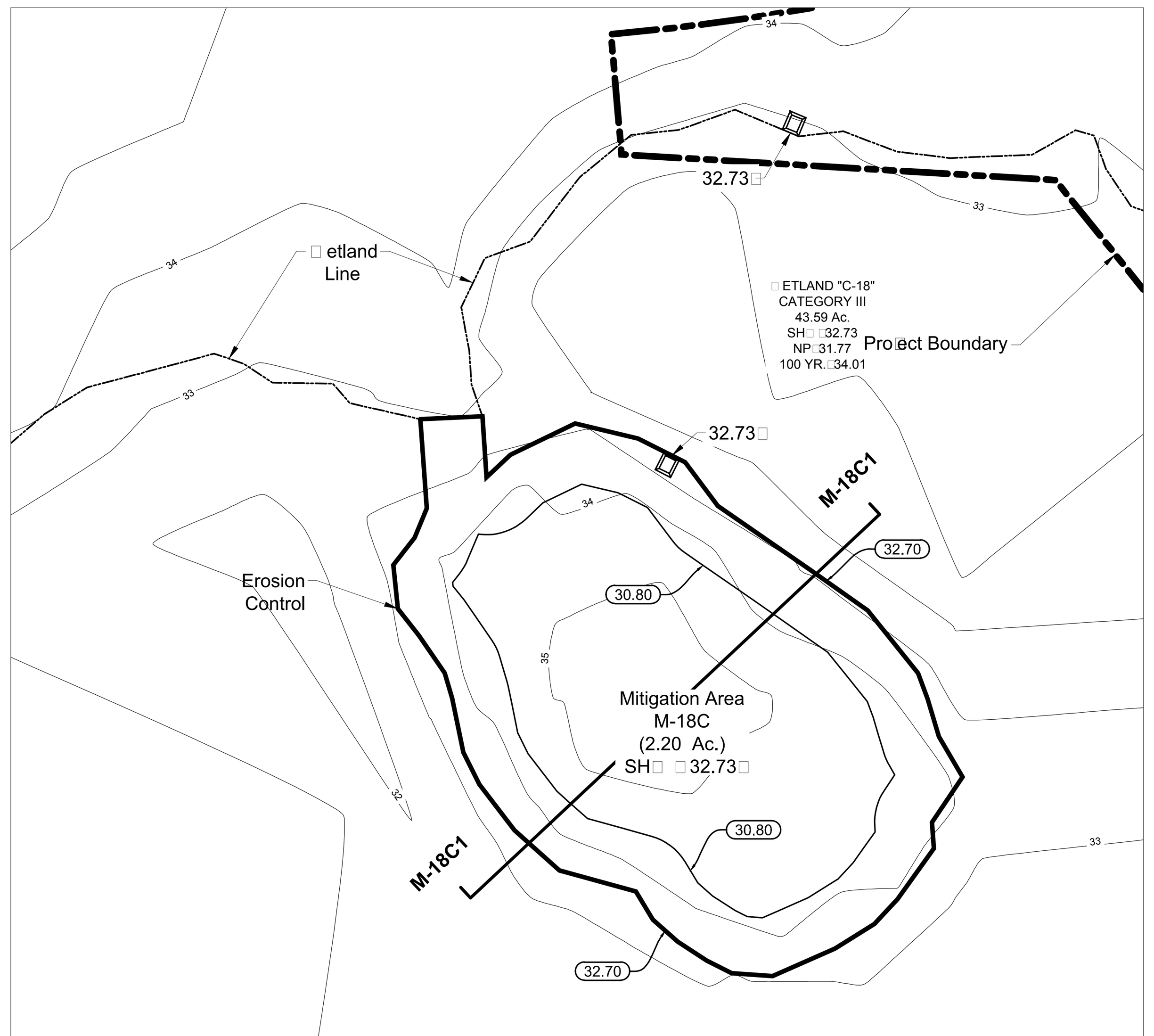

Mitigation Area M18C Grading Plan

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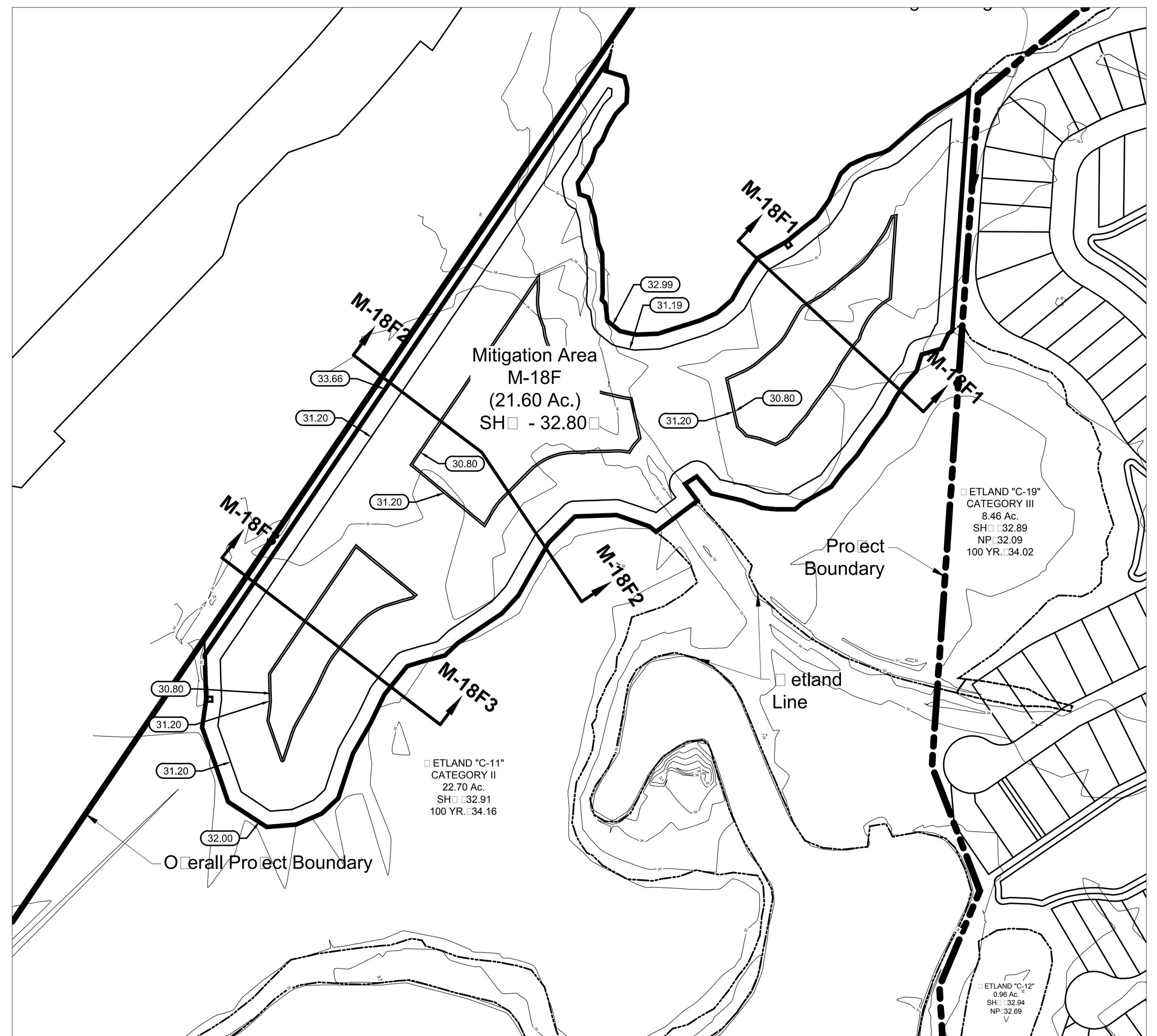
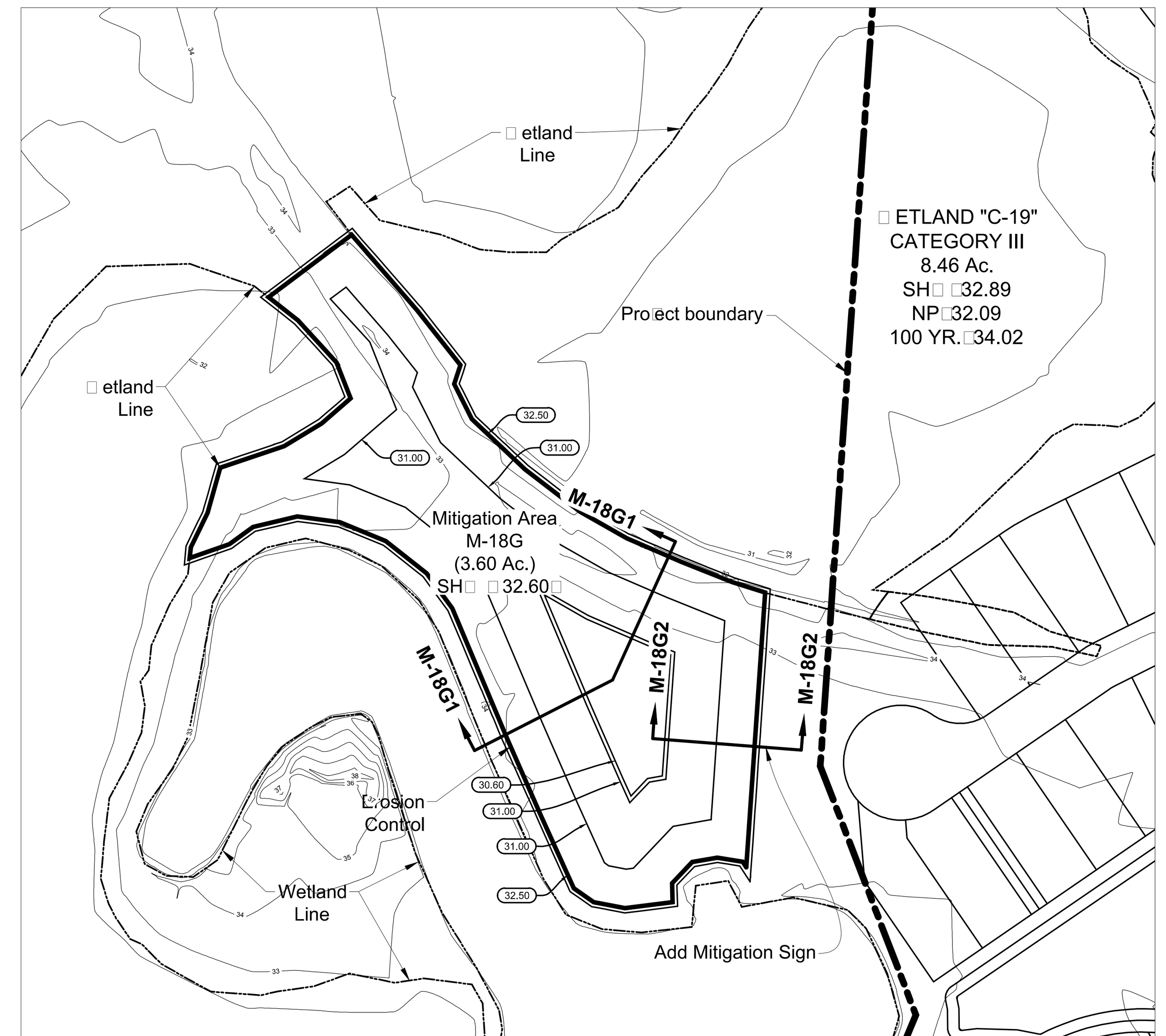


Mitigation Area M-18F Grading Plan

SCALE: 1:300



Mitigation Area M-18G Grading Plan

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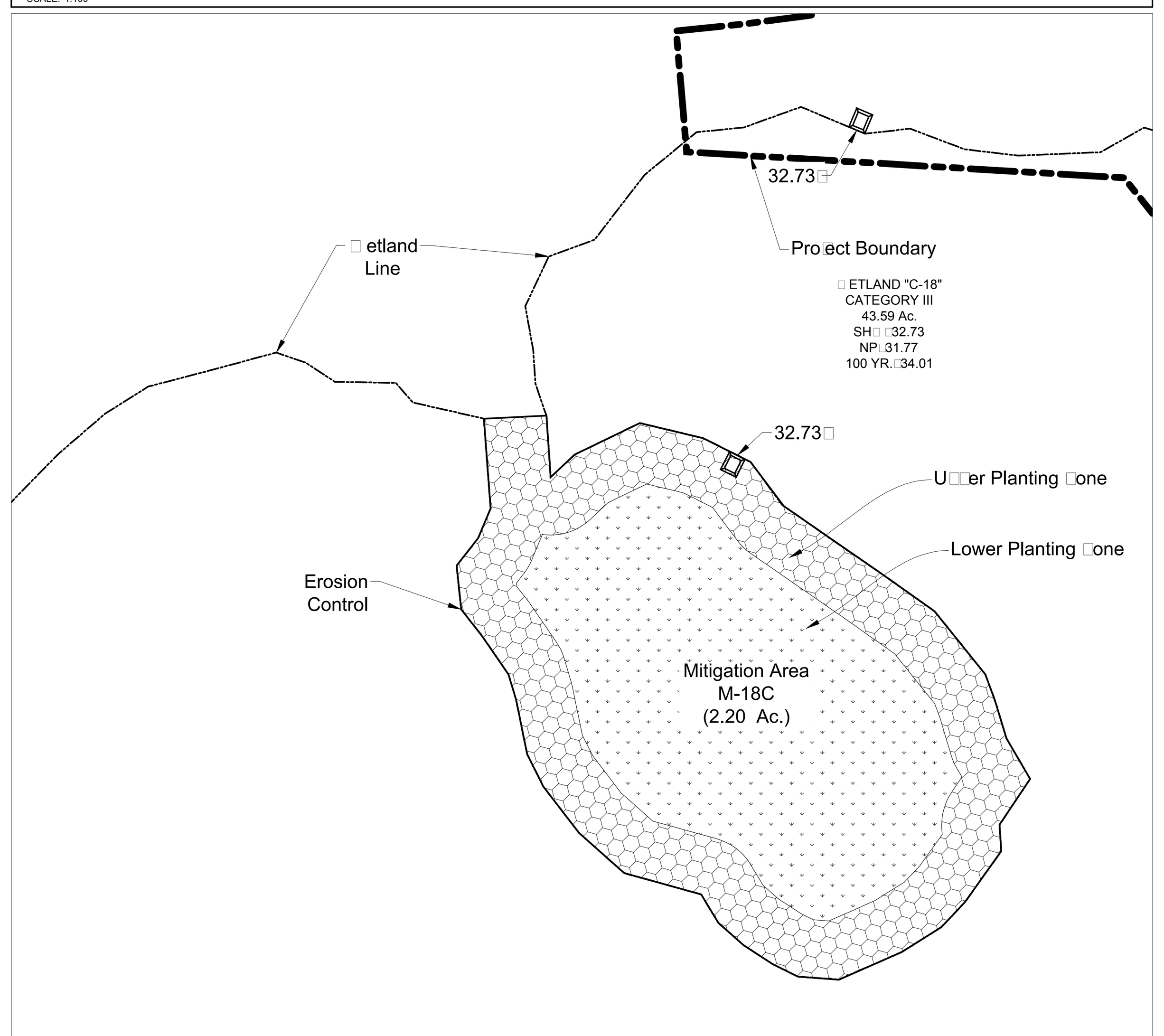
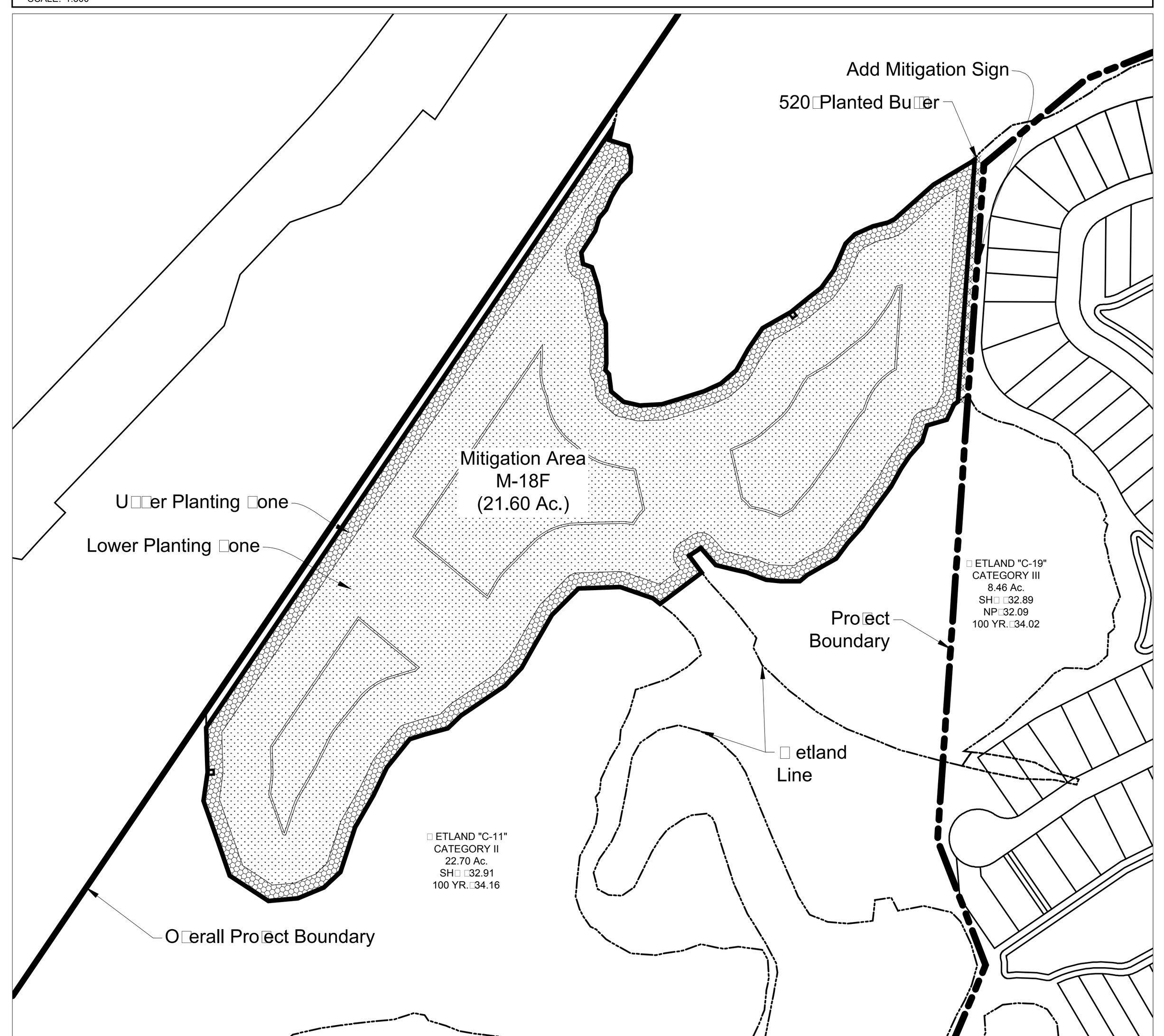


Mitigation Area M-18C Planting Plan

SCALE: 1:100



Mitigation Area M-18F Planting Plan

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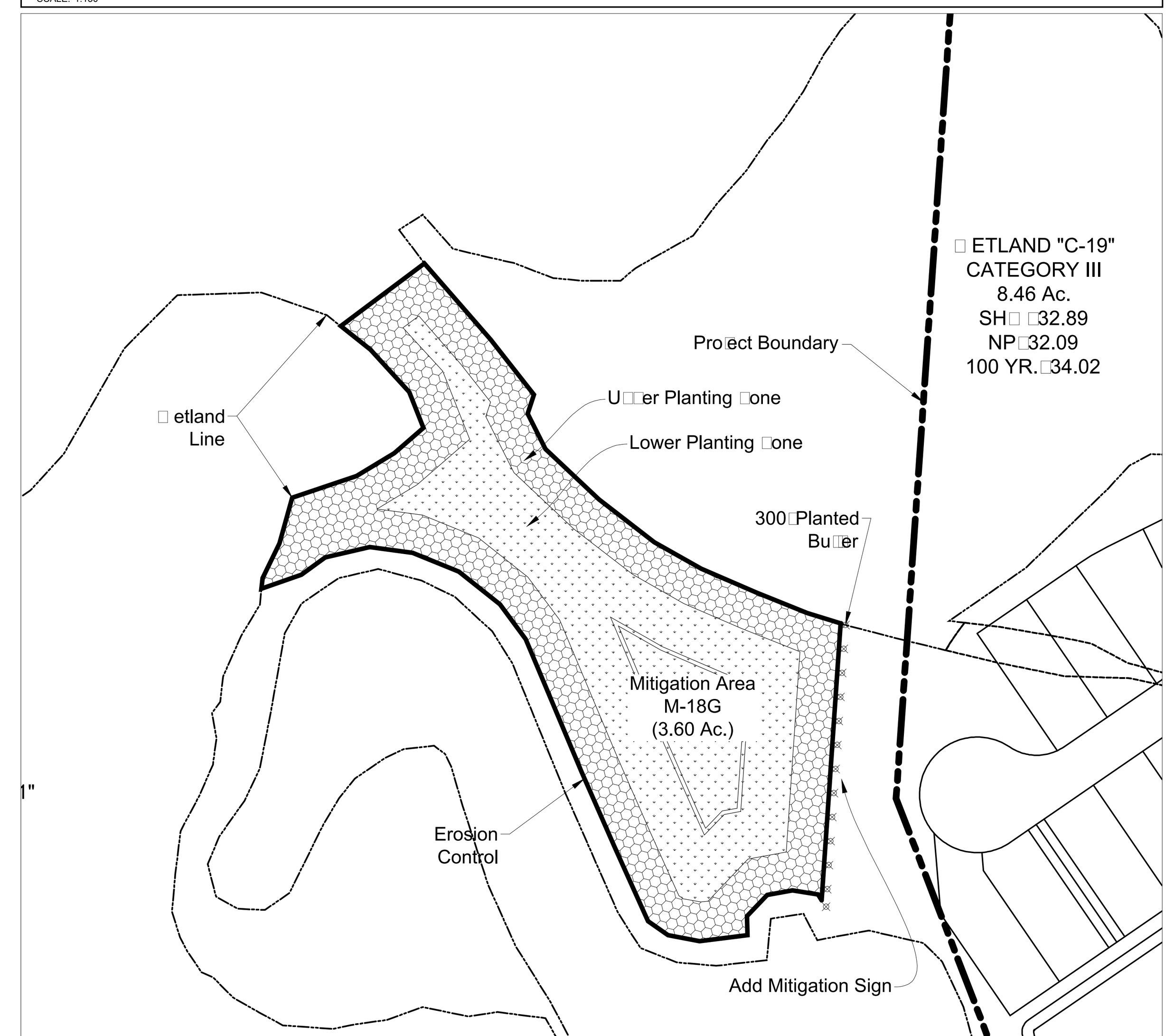


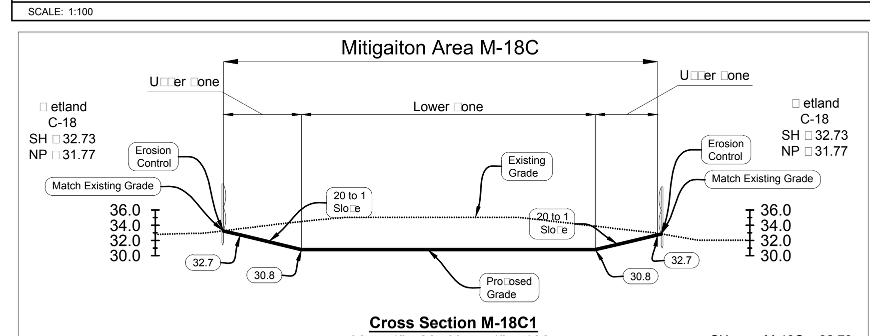
Mitigation Area M-18G Planting Plan

SCALE: 1:150

Mitigation Area M-18C (2.20 Ac.) (Herbaceous)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	32.8 - 30.8	Pontederia cordata - pickerelweed	0.98	664	14%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		617	13%		
		Eleocharis interstincta - knotted spikerush		474	10%		
		Panicum hemitomon - maidencane		949	20%		
		Iris hexagona - prairie iris		95	2%		
		Canna flaccida - golden canna		95	2%		
		Spartina bakeri - sand cordgrass		1,708	36%		
		Hypericum fasciculatum - sandweed		47	1%	1 gal	
		Acer rubrum - red maple		24	0.5%		
		Quercus laurifolia - laurel oak		24	0.5%		
		Ilex cassine - dahoon holly		0	0.5%		
		Ulmus americana - American elm		24	0.5%		
		Upper Range Plant Totals:		4,719			
Lower Range	30.8	Pontederia cordata - pickerelweed	1.22	2,185	37%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		1,949	33%		
		Eleocharis interstincta - knotted spikerush		827	14%		
		Panicum hemitomon - maidencane		590	10%		
		Nyphaea odorata - white water-lily		177	3%	1 gal	
		Cephalanthus occidentalis - buttonbush		59	1%		
		Taxodium distichum - bald cypress		59	1%		
		Fraxinus caroliniana - water ash		59	1%		
		Lower Range Plant Totals:		5,905			
		Total Plant Numbers:		10,624			

Mitigation Area M18F (21.30 Ac.) (Forested)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	32.8 - 31.2	Pontederia cordata - pickerelweed	4.26	2,062	10%	4" containerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		2,062	10%		
		Eleocharis interstincta - knotted spikerush		2,062	10%		
		Panicum hemitomon - maidencane		4,948	24%		
		Iris hexagona - prairie iris		619	3%		
		Canna flaccida - golden canna		619	3%		
		Spartina bakeri - sand cordgrass		8,247	40%		
		Viburnum obovatum - small viburnum		451	35%	1 gal	12
		Lyonia lucida - fetterbush, shiny lyonia		258	20%		
		Cephalanthus occidentalis - buttonbush		193	15%		
		Hypericum fasciculatum - sandweed		193	15%		
		Itea virginica - Virginia-willow		193	15%		
		Nyssa sylvatica var. biflora - swamp black gum		229	10%	3 gal	9
		Acer rubrum - red maple		573	25%		
		Quercus laurifolia - laurel oak		458	20%		
		Ilex cassine - dahoon holly		458	20%		
		Ulmus americana - American elm		573	25%		
		Upper Range Plant Totals:		24,198			
Lower Range	31.2 - 30.8	Pontederia cordata - pickerelweed	17.04	31,340	38%	4" containerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		28,041	34%		
		Eleocharis interstincta - knotted spikerush		8,247	10%		
		Panicum hemitomon - maidencane		12,371	15%		
		Nymphaea odorata - white water-lily		2,474	3%	1 gal	
		Cephalanthus occidentalis - buttonbush		5,155	100%	1 gal	12
		Nyssa sylvatica var. biflora - swamp black gum		916	10%	3 gal	9
		Taxodium distichum - bald cypress		6,873	75%		
		Fraxinus caroliniana - water ash		1,375	15%		
		Lower Range Plant Totals:		96,792			
		Total Plant Numbers:		120,990			

Mitigation Area M-18G (3.60 Ac.) (Herbaceous)							
Zone	Elevation	Scientific Name - Common Name	Acres	Quantity	%	Size	Spacing (feet o.c.)
Upper Range	33.0 - 31.0	Pontederia cordata - pickerelweed	1.92	1,301	14%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		1,208	13%		
		Eleocharis interstincta - knotted spikerush		929	10%		
		Panicum hemitomon - maidencane		1,859	20%		
		Iris hexagona - prairie iris		186	2%		
		Canna flaccida - golden canna		186	2%		
		Spartina bakeri - sand cordgrass		3,345	36%		
		Hypericum fasciculatum - sandweed		93	1%	1 gal	
		Acer rubrum - red maple		46	0.5%		
		Quercus laurifolia - laurel oak		46	0.5%		
		Ilex cassine - dahoon holly		46	0.5%		
		Ulmus americana - American elm		46	0.5%		
		Upper Range Plant Totals:		9,293			
Lower Range	31.0 - 30.6	Pontederia cordata - pickerelweed	1.68	3,171	39%	4" conainerized stock or bare root equivatent	3
		Sagittaria lancifolia - lance-leaved arrowhead		2,683	33%		
		Eleocharis interstincta - knotted spikerush		1,138	14%		
		Panicum hemitomon - maidencane		813	10%		
		Nyphaea odorata - white water-lily		81	1%	1 gal	
		Cephalanthus occidentalis - buttonbush		81	1%		
		Taxodium distichum - bald cypress		81	1%		
		Fraxinus caroliniana - water ash		81	1%		
		Lower Range Plant Totals:		8,131			
		Total Plant Numbers:		17,424			



Mitigation Area M-18C Cross Section M-18C1

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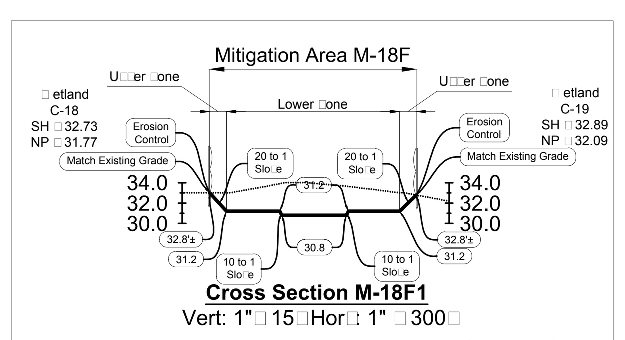

Mitigation Area M-18F Cross Section M-18F1

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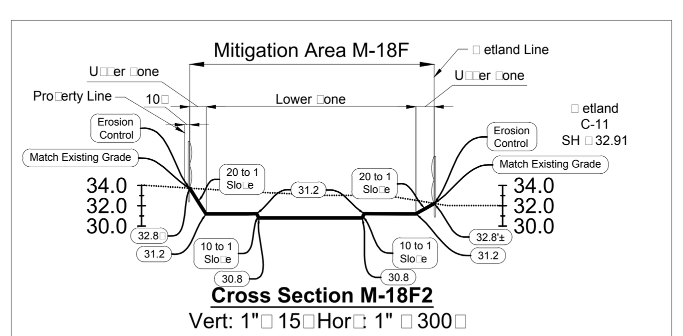

Mitigation Area M-18F Cross Section M-18F2

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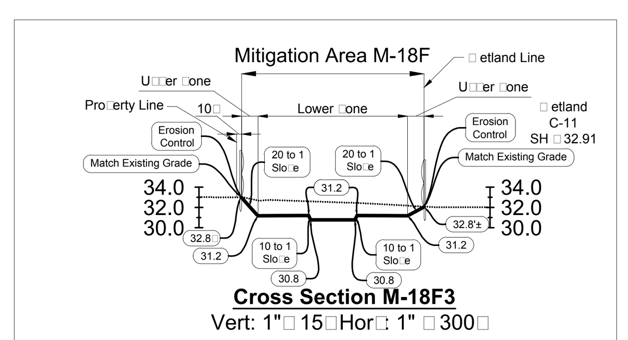

Mitigation Area M-18F Cross Section M-18F3

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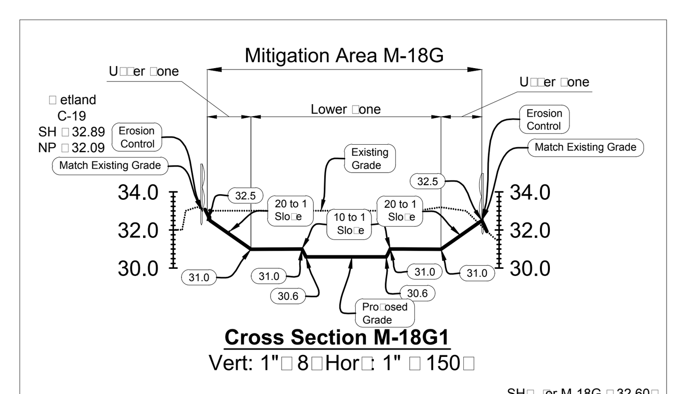

Mitigation Area M-18G Cross Section M-18G1

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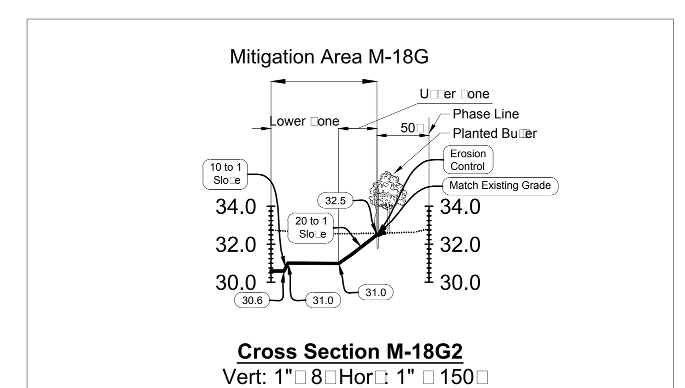

Mitigation Area M-18G Cross Section M-18G2

SCALE: 1:150

Sheet - M3

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Twn 20□26 S
Rng 17 E

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Mitigation Design Plans

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