



**GENERAL EROSION AND TURBIDITY CONTROL NOTES**

- THE SITE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL EROSION AND TURBIDITY CONTROLS AND THE QUALITY AND QUANTITY OF OFFSITE OR WETLAND DISCHARGES.
- PRIOR TO CONSTRUCTION, THE SITE SUBCONTRACTOR IS RESPONSIBLE FOR HAVING HIS DEWATERING PLAN AND TURBIDITY CONTROL PLAN APPROVED BY THE APPLICABLE REVIEWING AGENCIES. REFER TO THE PROJECT'S PERMIT APPROVALS AND PERMIT CONDITIONS FOR AGENCIES REQUIRING SUCH REVIEW AND APPROVAL. QUESTIONS CONCERNING APPROPRIATE TECHNIQUES SHOULD BE ADDRESSED TO THOSE AGENCIES AND/OR DISCUSSED WITH THE PROJECT ENGINEER AND OWNER.
- THE APPROPRIATE TURBIDITY AND EROSION CONTROL METHODOLOGIES SELECTED BY THE SITE SUBCONTRACTOR FOR THIS PROJECT SHOULD BE MADE FOLLOWING ASSESSMENT OF THE PLANS AND PROJECT SITE SPECIFIC FACTORS AND AFTER CONSULTATIONS AS NEEDED WITH THE PROJECT ENGINEER AND APPROPRIATE AGENCIES. THE SITE SUBCONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ANY AND ALL NECESSARY PERMITS FOR SUCH ACTIVITY; SEVERAL FACTORS TO CONSIDER ARE LISTED BELOW:
  - CLAY CONTENT IN EXCAVATED MATERIALS AND/OR PERMEABILITIES RATES
  - DEPTH OF CUT IN PONDS, TRENCHES, OR UTILITY LINES
  - AMBIENT GROUND WATER LEVELS
  - ACTUAL RAINFALL AMOUNTS AND TIME OF YEAR RELATIVE TO NORMAL RAINY SEASON
  - PROXIMITY TO WETLANDS, WATER BODIES OR OFFSITE PROPERTIES
  - "CLASS" DESIGNATION OF RECEIVING WATER BODIES (I.E., OUTSTANDING FLORIDA WATERS, SHELLFISH HARVESTING AREAS, ETC.)
  - DENSITY, TYPE, AND PROXIMITY OF UPLAND VEGETATION TO BE RETAINED DURING CONSTRUCTION (FOR USE AS POSSIBLE FILTRATION AREAS)
  - FILL HEIGHT RELATIVE TO NATURAL GRADE AND LENGTH AND STEEPNESS OF THE PROPOSED SLOPES
  - EXISTING TOPOGRAPHY AND DIRECTIONS OF SURFACE FLOW
  - TYPE OF EQUIPMENT USED
  - PROJECT TYPE
  - DURATION OF CONSTRUCTION ACTIVITIES
  - SEPARATION DISTANCE OF ONSITE PONDS
  - AMBIENT QUALITY OF SURFACE AND GROUNDWATER
  - TEMPORARY STOCKPILE LOCATIONS AND HEIGHTS
- AT THE ONSET OF CONSTRUCTION, THE SITE SUBCONTRACTOR, AS THE PARTY RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN, SHALL ASSESS THE ABOVE DESCRIBED CONDITIONS AND FACTORS WITH RESPECT TO RELATIVE COST EFFECTIVENESS AND SELECT THE APPROPRIATE METHODS OF PROTECTION. A FAIRLY EXTENSIVE LIST OF TECHNIQUES ARE PRESENTED BELOW BUT IT MUST BE STRESSED THAT ANY OR ALL OF THE FOLLOWING MAY BE NECESSARY TO MAINTAIN WATER QUALITY AND QUANTITY STANDARDS. THE CONSTRUCTION SEQUENCING SHOULD BE THOUGHT OUT IN ADVANCE OF INITIATION TO PROVIDE ADEQUATE PROTECTION OF WATER QUALITY.
- DISCHARGES WHICH EXCEED 29 N.T.U.'S OVER THE BACKGROUND LEVELS ARE IN VIOLATION OF STATE WATER QUALITY STANDARDS. DISCHARGES OF WATER QUANTITIES WHICH AFFECT OFFSITE PROPERTIES OR MAY DAMAGE WETLANDS ARE ALSO PROHIBITED BY REGULATING AGENCIES.
- THE EROSION AND TURBIDITY CONTROL MEASURES SHOWN HEREON ARE THE MINIMUM REQUIRED FOR AGENCY APPROVAL. ADDITIONAL CONTROL AND MEASURES MAY BE REQUIRED DUE TO THE SITE SUBCONTRACTOR'S CONSTRUCTION SEQUENCE & UNFORESEEN WEATHER CONDITIONS. ANY ADDITIONAL MEASURES DEEMED NECESSARY BY THE SITE SUBCONTRACTOR SHALL BE INCLUDED IN THE LUMP SUM BID WITH NO EXTRAS FOR MATERIALS AND LABOR ALLOWED.
- HAY BALES OR SILT SCREENS SHALL BE INSTALLED PRIOR TO LAND CLEARING TO PROTECT WATER QUALITY AND TO IDENTIFY AREAS TO BE PROTECTED FROM CLEARING ACTIVITIES AND MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL ALL SOIL IS STABILIZED.
- FLOATING TURBIDITY BARRIERS SHALL BE IN PLACE IN FLOWING SYSTEMS OR IN OPEN WATER LAKE EDGES PRIOR TO INITIATION OF EARTHWORK AND MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL ALL SOIL IS STABILIZED.
- NO CLAY MATERIAL SHALL BE LEFT EXPOSED IN ANY STORMWATER STORAGE FACILITY. IF CLAY OR SANDY-CLAYS ARE ENCOUNTERED DURING STORMWATER STORAGE EXCAVATION, THE SITE SUBCONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH FURTHER EXCAVATION. IF THE ENGINEER OF RECORD HAS DETERMINED THAT SUCH SOILS ARE NON-CONFINING AND MUST BE EXCAVATED TO MEET PERMIT AND DESIGN CONDITIONS, EXCAVATION MAY PROCEED AFTER OBTAINING WRITTEN AUTHORIZATION FROM THE APPROPRIATE GOVERNING AGENCY. IF SAID SOILS ARE LEFT EXPOSED AT THE PERMITTED AND DESIGNED DEPTH, THE SITE SUBCONTRACTOR SHALL OVER-EXCAVATE THE POND'S BOTTOM AND SIDE SLOPES BY A MINIMUM OF TWELVE (12") INCHES AND BACKFILL WITH CLEAN SANDS TO HELP PREVENT SUSPENSION OF FINE PARTICLES IN THE WATER COLUMN.
- THE INSTALLATION OF TEMPORARY EROSION CONTROL BARRIERS SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONSTRUCTION PHASE.
- THE TYPE OF EROSION CONTROL BARRIERS USED SHALL BE GOVERNED BY THE NATURE OF THE CONSTRUCTION OPERATION AND SOIL TYPE THAT WILL BE EXPOSED. SILTY AND CLAYEY MATERIAL MAY REQUIRE SOLID SEDIMENT BARRIERS TO PREVENT TURBID WATER DISCHARGE, WHILE SANDY MATERIAL MAY NEED ONLY SILT SCREENS OR HAY BALES TO PREVENT EROSION. FLOATING TURBIDITY CURTAINS SHOULD GENERALLY BE USED IN OPEN WATER SITUATIONS. DIVERSION DITCHES OR SWALES MAY BE REQUIRED TO PREVENT TURBID STORMWATER RUNOFF FROM BEING DISCHARGED TO WETLANDS OR OTHER WATER BODIES. IT MAY BE NECESSARY TO EMPLOY A COMBINATION OF BARRIERS, DITCHES, AND OTHER EROSION/TURBIDITY CONTROL MEASURES IF CONDITIONS WARRANT.
- WHERE PUMPS ARE TO BE USED TO REMOVE TURBID WATERS FROM CONSTRUCTION AREAS, THE WATER SHALL BE TREATED PRIOR TO DISCHARGE TO THE WETLANDS. TREATMENT METHODS INCLUDE, FOR EXAMPLE, TURBID WATER BEING PUMPED INTO GRASSED SWALES OR APPROPRIATE UPLAND VEGETATED AREAS (OTHER THAN UPLAND PRESERVATION AREAS AND WETLAND BUFFERS), SEDIMENT BASINS, OR CONFINED BY AN APPROPRIATE ENCLOSURE SUCH AS TURBIDITY BARRIERS OR LOW BERMS, AND KEPT CONFINED UNTIL TURBIDITY LEVELS MEET STATE WATER QUALITY STANDARDS.
- THE PERMITTEE SHALL SCHEDULE HIS OPERATIONS SUCH THAT THE AREA OF UNPROTECTED ERODIBLE EARTH EXPOSED AT ANY ONE TIME IS NOT LARGER THAN THE MINIMUM AREA NECESSARY FOR EFFICIENT CONSTRUCTION OPERATION, AND THE DURATION OF EXPOSED, UNCOMPLETED CONSTRUCTION TO THE ELEMENTS SHALL BE AS SHORT AS PRACTICABLE. CLEARING AND GRUBBING SHALL BE SO SCHEDULED AND PERFORMED SUCH THAT GRADING OPERATIONS CAN FOLLOW IMMEDIATELY THEREAFTER. GRADING OPERATIONS SHALL BE SO SCHEDULED AND PERFORMED THAT PERMANENT EROSION CONTROL FEATURES CAN FOLLOW IMMEDIATELY THEREAFTER IF CONDITIONS ON THE PROJECT PERMIT.
- WATER DERIVED FROM VARIOUS DEWATERING METHODS SHOULD BE PASSED THROUGH SUFFICIENTLY WIDE AREAS OF EXISTING UPLAND VEGETATION TO FILTER OUT EXCESS TURBIDITY. IF THIS IS NOT SUFFICIENT, THE WATER SHALL BE RETAINED IN PREVIOUSLY CONSTRUCTED PERMANENT STORMWATER PONDS OR ELSE RETAINED IN TEMPORARY SEDIMENTATION BASINS UNTIL THE CLARITY IS SUITABLE TO ALLOW FOR ITS DISCHARGE. PLUGGING THE OUTFALLS FROM COMPLETED STORMWATER PONDS MAY BE NEEDED TO AVOID DISCHARGE. HOWEVER, SUCH SITUATIONS SHOULD BE MONITORED CLOSELY TO PRECLUDE BERM FAILURE IF WATER LEVELS RISE TOO HIGH.
- WATER CAN BE TRANSPORTED AROUND THE SITE BY THE USE OF INTERNAL SWALES OR BY PUMPS AND PIPES.
- SHEET FLOW OF NEWLY FILLED OR SCRAPPED AREAS MAY BE CONTROLLED OR CONTAINED BY THE USE OF BRUSH BARRIERS, DIVERSION SWALES, INTERCEPTOR DITCHES OR LOW BERMS. FLOW SHOULD BE DIRECTED TOWARD AREAS WHERE SEDIMENTS CAN SUFFICIENTLY SETTLE OUT.
- EXPOSED SOILS SHALL BE STABILIZED AS SOON AS POSSIBLE, ESPECIALLY SLOPES LEADING TO WETLANDS. STABILIZATION METHODS INCLUDE SOLID SOD, SEEDING AND MULCHING OR HYDROMULCHING TO PROVIDE A TEMPORARY OR PERMANENT GRASS COVER MULCH BLANKETS, FILTER FABRICS, ETC., CAN BE EMPLOYED TO PROVIDE VEGETATIVE COVER.
- ENERGY DISSIPATORS (SUCH AS RIP RAP, A GRAVEL BED, HAY BALES, ETC.) SHALL BE INSTALLED AT THE DISCHARGE POINT OF PIPES OR SWALES IF SCOURING IS OBSERVED.
- ATTEMPT TO INSTALL ROADWAY CURB AND GUTTERS AS SOON AS POSSIBLE TO REDUCE THE SURFACE AREA FOR EROSION TO OCCUR.
- IMPLEMENT STORM DRAIN INLET PROTECTION (HAY BALES OR GRAVEL) TO LIMIT SEDIMENTATION WITHIN THE STORMWATER SYSTEM. PERFORM INSPECTIONS AND PERIODIC CLEANING OF SEDIMENTS WHICH WASH OUT INTO THE STREETS UNTIL ALL SOIL IS STABILIZED.
- WATER DISCHARGE VELOCITIES FROM IMPOUNDED AREAS AND TEMPORARY SEDIMENTATION BASINS SHALL BE RESTRICTED TO AVOID SCOURING IN RECEIVING AREAS.
- IF WATER CLARITY DOES NOT REDUCE TO STATE STANDARDS RAPIDLY ENOUGH IN HOLDING PONDS, IT MAY BE POSSIBLE TO USE CHEMICAL AGENTS SUCH AS ALUM TO FLOCCULATE OR COAGULATE THE SEDIMENT PARTICLES.
- HAY BALES, SILT SCREENS, OR GRAVEL BEDS CAN BE ADDED AROUND THE PIPE OR SWALE DISCHARGE POINTS TO HELP CLARIFY DISCHARGES. SPREADER SWALES MAY HELP DISSIPATE CLOUDY WATER PRIOR TO CONTACT WITH WETLANDS.
- ALL FUEL STORAGE AREAS OR OTHER HAZARDOUS STORAGE AREAS SHALL CONFORM TO ACCEPTED STATE OR FEDERAL CRITERIA FOR SUCH CONTAINMENT AREAS.
- VEHICLE OR EQUIPMENT WASHDOWN AREAS WILL BE SUFFICIENTLY REMOVED FROM WETLANDS OR OFFSITE AREAS.
- FUGITIVE DUST CONTROLS (PRIMARILY BY USING WATER SPRAY TRUCKS) SHALL BE EMPLOYED AS NEEDED TO CONTROL WINDBORNE EMISSIONS.
- IF THE ABOVE CONTROLS REMAIN INEFFECTIVE IN PRECLUDING RELEASE OF TURBID WATER, ESPECIALLY DURING POND OR UTILITY LINE DEWATERING, THEN THE CONTRACTOR MAY BE COMPELLED TO USE A VERTICAL DEWATERING SYSTEM SUCH AS WELL POINTS OR SOCK DRAINS TO WITHDRAW GROUNDWATER WHICH MAY ALREADY BE CLEAR ENOUGH TO ALLOW FOR DIRECT DISCHARGE TO WETLANDS.
- ONGOING INSPECTIONS AND PERIODIC MAINTENANCE BY THE SITE SUBCONTRACTOR SHALL OCCUR THROUGHOUT CONSTRUCTION AS NECESSARY TO INSURE THE ABOVE METHODS ARE WORKING SUITABLY. THIS MAY BE NEEDED DAILY, IF CONDITIONS SO WARRANT. SITE SUBCONTRACTORS ARE ENCOURAGED TO OBTAIN AND THOROUGHLY REVIEW THE FLORIDA DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT, WHICH WAS DEVELOPED BY THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION IN 1988. THIS PROVIDES FAIRLY IN-DEPTH DISCUSSIONS OF RECOMMENDED TECHNIQUES AND ALSO PROVIDES SPECIFIC DESIGN AND TECHNICAL STANDARDS. A COPY OF THIS DOCUMENT IS AVAILABLE FOR REVIEW AT HEIDT DESIGN, LLC.
- THE CONTRACTOR WILL PERFORM DAILY INSPECTIONS OF ALL ON-SITE WETLANDS WITHIN THE CONSTRUCTION AREA TO ENSURE THAT WATER LEVELS WITHIN THOSE WETLANDS ARE NOT EXCESSIVELY IMPOUNDED PRIOR TO THE TIME WHEN THE PERMITTED CONTROL STRUCTURE OR OUTFALL IS BUILT. WATER LEVELS SIGNIFICANTLY ABOVE NORMAL SHOULD BE CORRECTED AT A FREQUENCY THAT PREVENTS A CHANGE IN THE VEGETATIVE CHARACTER OR HEALTH OF ANY WETLANDS.

**SOIL REUSE REQUIREMENTS**

AT LEAST THE FOLLOWING SIX (6) TYPES OF MATERIALS ARE PRESENT ON-SITE THAT REQUIRE PROPER HANDLING/TREATMENT BY THE CONTRACTOR, DURING THE COURSE OF SITE DEVELOPMENT/CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH THE NOTED REUSE REQUIREMENTS FOR EACH TYPE. ALTHOUGH SOME SOIL MATERIAL QUALITY CONTROL TESTING WILL BE RANDOMLY AND PERIODICALLY PERFORMED BY THE PROJECT GEOTECHNICAL CONSULTANT, AS REQUIRED, WORKING FOR THE OWNER, IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REUSE ONSITE SOIL MATERIALS AS DESCRIBED AND SPECIFIED BELOW. ALL DISCOVERED OR FUTURE FILLING OR MATERIAL REUSE WORK ONSITE NOT IN ACCORDANCE OR COMPLIANCE WITH THESE NOTES, OR ANY FUTURE ADVERSE IMPACTS OR CONSEQUENCES RESULTING FROM THE CONTRACTOR'S FAILURE TO PROPERLY REUSE SOIL MATERIALS ONSITE AS SPECIFICALLY DESCRIBED BELOW, WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR REMEDY AND REPAIR AT HIS COST. IF THE CONTRACTOR HAS ANY QUESTIONS REGARDING ANY OF THE SOIL MATERIALS ONSITE, THE PROJECT GEOTECHNICAL REPORTS (WHICH HE NEEDS TO OBTAIN FROM THE OWNER OR GEOTECHNICAL CONSULTANT/ENGINEER), OR ANY QUESTIONS ASSOCIATED WITH THE NOTES BELOW, IT IS PRESUMED THAT THE CONTRACTOR WILL SATISFACTORILY RESOLVE SUCH QUESTIONS/CONCERNS PRIOR TO SITE DEMOLITION, CLEARING, GRUBBING, STRIPPING AND EXCAVATION OPERATIONS BEGIN.

PLEASE NOTE, LOCAL, STATE AND FEDERAL RULES, LAWS, AND REGULATIONS PROHIBITING SOIL REUSE AS DESCRIBED BELOW SHALL TAKE PRECEDENCE AND SHALL BE FOLLOWED TO THE FULLEST EXTENT.

- SITE DEMOLITION DEBRIS (SITE DEMOLITION DEBRIS, NOT GENERALLY CONSIDERED AN ENVIRONMENTAL/CONTAMINATION HAZARD, INCLUDES SUCH ITEMS AS WOOD PIECES, CONCRETE PIECES, PLASTIC PIPE PIECES, CERTAIN METAL/STEEL PIECES, OR SIMILAR. IF ANY SUCH DEBRIS OR OTHER DEMOLITION DEBRIS IS CONSIDERED AN ENVIRONMENTAL/CONTAMINATION HAZARD, OR IF BURIAL ONSITE OF SUCH MATERIALS IS PROHIBITED BY THE GOVERNING ENVIRONMENTAL AGENCY, THEN ALL SUCH MATERIALS SHALL BE HAULED OFF SITE BY THE CONTRACTOR FOR PROPER DISPOSAL, IN ACCORDANCE WITH ALL APPLICABLE GOVERNING ENVIRONMENTAL AGENCY REQUIREMENTS. IN NO CASE, SHALL ANY SUCH DEBRIS MATERIALS REMAIN, OR BE PLACED BY THE CONTRACTOR, BENEATH ANY TYPE OF STRUCTURE, PAVEMENT, ROADWAY, HOUSE, BUILDING, PIPELINE, SLAB, ETC.)
- CLEARING AND GRUBBING DEBRIS (SITE CLEARING AND GRUBBING DEBRIS INCLUDES ALL LARGER ORGANIC MATERIALS, SUCH ITEMS AS TREES, STUMPS, LIMBS, BRUSH, VEGETATION OR SIMILAR; ALL SUCH MATERIALS MUST BE EITHER "BURNED" OR "MULCHED" BY THE CONTRACTOR PRIOR TO REUSE OR DISPOSAL ONSITE.)
- IF ACCEPTABLE TO THE GOVERNING ENVIRONMENTAL AGENCY, THEN ALL SUCH "BURNED" OR "MULCHED" SITE CLEARING/GRUBBING DEBRIS, IF APPROVED IN WRITING FIRST BY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER, COULD BE:
  - PLACED AS "MULCH" MATERIAL SURFACE DRESSING IN FUTURE LANDSCAPE AREAS, STOCKPILING OF SUCH "MULCHED" MATERIALS (AMOUNTS/LOCATIONS), IF ACCEPTABLE, WILL BE DIRECTED BY THE OWNER/GEOTECHNICAL CONSULTANT/LANDSCAPE ARCHITECT/ENGINEER;
  - PLACED IN TEMPORARILY EXCAVATED LITTORAL SHELF AREAS IN SELECTED STORMWATER PONDS, OR IN TEMPORARILY EXCAVATED SELECTED WETLAND MITIGATION PONDS, IN EITHER CASE NOT IN SIDE BANKS AND NOT BELOW THE PERMITTED DESIGN DEPTH OF THE POND, OR SUCH DEBRIS COULD BE BURIED IN TEMPORARILY EXCAVATED PASSIVE RECREATION/PARK AREAS (AT LEAST 30 FEET FROM ANY STRUCTURE) AT APPROVED DEPTHS/LOCATIONS, BUT ALL THESE DISPOSAL AREAS WILL REQUIRE ADEQUATE SOIL MIXING (MIX SOIL WITH THE MULCH) AND THEN REFILLING (WITH COMPACTION) TO REQUIRED DESIGN GRADES;
  - PLACED ALONG THE BOTTOM OF SELECTED FLOODPLAIN MITIGATION PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED EXCAVATION DEPTH OF THE POND, BUT WILL REQUIRE ADEQUATE SOIL COVER;
  - PLACED ALONG THE BOTTOM OF SELECTED DEEPER STORMWATER PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED DESIGN DEPTH, BUT WILL REQUIRE ADEQUATE SOIL COVER.

IN ALL INSTANCES, THE MINIMUM POND DEPTH (INCLUDING FLOODPLAIN AND WETLAND MITIGATION AREAS) SHALL BE NO LESS THAN REQUIRED BY THE ENGINEER.

ALL ORGANIC DEBRIS BURIAL AREAS IN STORMWATER POND AREAS AND FLOODPLAIN MITIGATION POND AREAS WILL REQUIRE ADEQUATE SOIL COVER OF 18 - 24 INCHES (WITH COMPACTION) BY THE CONTRACTOR, MEANING AT LEAST AN ADEQUATE WEIGHT/THICKNESS OF SOIL MATERIAL OVERTOP THE BURIED ORGANIC DEBRIS, SUCH THAT THERE WILL BE NO FUTURE FLOATING UP OF DEBRIS; AND FOR ALL ORGANIC DEBRIS BURIAL AREAS IN LITTORAL SHELF AREAS, WETLAND MITIGATION POND AREAS, AND PASSIVE RECREATION/PARK AREAS, ADEQUATE SOIL/MULCH MIXING (WITH COMPACTION) WILL BE NECESSARY BY THE CONTRACTOR, SUCH THAT NO SIGNIFICANT FUTURE UNACCEPTABLE SETTLEMENT OF A LITTORAL SHELF AREA, CREATED WETLAND AREA, OR PARK/GRASSED AREA WILL OCCUR.

IF ANY OF THESE PROCEDURES ARE CONTEMPLATED BY THE CONTRACTOR, THEN THE CONTRACTOR SHALL NOTIFY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER IN WRITING, AT THE START OF CONSTRUCTION, WITH SOME SPECIFIC INFORMATION, INCLUDING THE ESTIMATED QUANTITY AND TYPES OF MATERIALS, TO WHICH STORMWATER PONDS, FLOODPLAIN MITIGATION PONDS, WETLAND MITIGATION PONDS, OR PASSIVE RECREATION/PARK AREAS THEY PROPOSE TO USE FOR THIS TYPE OF ORGANIC DEBRIS DISPOSAL, AND WHAT APPROXIMATE ELEVATIONS WILL BE THE TOP AND BOTTOM OF THE ORGANIC DEBRIS.

- MUCK/PEAT ORGANIC MATERIALS (TYPICALLY GENERATED FROM WETLAND OR LOWLAND AREAS, OR SIMILAR AREAS, PERMITTED FOR IMPACT OR DISPLACEMENT, INCLUDING EXCAVATION OF UNSUITABLE ORGANIC MATERIALS AND REFILLING WITH SUITABLE SANDY SOILS TO ACCOMMODATE DEVELOPMENT; INCLUDES SIGNIFICANT ORGANIC PEAT MATERIALS, ORGANIC SANDY MUCK MATERIALS, AND MUCKY OR ORGANIC SAND MATERIALS, DESIGNATED EITHER PT OR A-8, PER THE UNIFIED AND AASHTO SOIL CLASSIFICATION SYSTEMS, RESPECTIVELY; THOSE ORGANIC MATERIALS WHOSE PRESENCE, OR PLACEMENT BY THE CONTRACTOR, IS UNACCEPTABLE BENEATH ANY TYPE OF STRUCTURE, PAVEMENT, ROADWAY, HOUSE, BUILDING, PIPELINE, SLAB, ETC.)

IF ACCEPTABLE TO THE GOVERNING ENVIRONMENTAL AGENCY, THEN ALL SUCH MUCK/PEAT (SIGNIFICANT) ORGANIC MATERIALS, IF APPROVED IN WRITING FIRST BY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER, COULD BE:

- PLACED AS "PEAT/MUCK/ORGANIC MATTER" SURFACE LAYER IN NEW OR CREATED WETLAND MITIGATION AREAS, STOCKPILING OF SUCH "SIGNIFICANT ORGANIC" MATERIALS (AMOUNTS/LOCATIONS), IF ACCEPTABLE, WILL BE DIRECTED BY THE OWNER/WETLAND CONSULTANT;
- PLACED IN TEMPORARILY EXCAVATED LITTORAL SHELF AREAS IN SELECTED STORMWATER PONDS, OR IN TEMPORARILY EXCAVATED SELECTED WETLAND MITIGATION PONDS, IN EITHER CASE NOT IN SIDE BANKS AND NOT BELOW THE PERMITTED DESIGN DEPTH OF THE POND, OR SUCH ORGANIC MATERIALS COULD BE BURIED IN TEMPORARILY EXCAVATED PASSIVE RECREATION/PARK AREAS (AT LEAST 30 FEET FROM ANY STRUCTURE) AT APPROVED DEPTHS/LOCATIONS, BUT ALL THESE DISPOSAL AREAS WILL REQUIRE ADEQUATE SOIL MIXING (MIX SOIL WITH THE ORGANIC MATERIALS) AND THEN REFILLING (WITH COMPACTION) TO REQUIRED DESIGN GRADES;
- PLACED ALONG THE BOTTOM OF SELECTED FLOODPLAIN MITIGATION PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED EXCAVATION DEPTH OF THE POND, BUT WILL REQUIRE ADEQUATE SOIL COVER;
- PLACED ALONG THE BOTTOM OF SELECTED DEEPER STORMWATER PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED DESIGN DEPTH, BUT WILL REQUIRE ADEQUATE SOIL COVER.

ALL ORGANIC DEBRIS BURIAL AREAS IN STORMWATER POND AREAS AND FLOODPLAIN MITIGATION POND AREAS WILL REQUIRE ADEQUATE SOIL COVER (WITH COMPACTION) BY THE CONTRACTOR, MEANING AT LEAST AN ADEQUATE WEIGHT/THICKNESS OF SOIL MATERIAL OVERTOP THE BURIED ORGANIC DEBRIS, SUCH THAT THERE WILL BE NO FUTURE FLOATING UP OF DEBRIS; AND FOR ALL ORGANIC DEBRIS BURIAL AREAS IN LITTORAL SHELF AREAS, WETLAND MITIGATION POND AREAS, AND PASSIVE RECREATION/PARK AREAS,

ADEQUATE SOIL/ORGANICS MIXING (WITH COMPACTION) WILL BE NECESSARY BY THE CONTRACTOR, SUCH THAT NO SIGNIFICANT FUTURE UNACCEPTABLE SETTLEMENT OF A LITTORAL SHELF AREA, CREATED WETLAND AREA, OR PARK/GRASSED AREA WILL OCCUR.

IF ANY OF THESE PROCEDURES ARE CONTEMPLATED BY THE CONTRACTOR, THEN THE CONTRACTOR SHALL NOTIFY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER IN WRITING, AT THE START OF CONSTRUCTION, WITH SOME SPECIFIC INFORMATION, INCLUDING THE ESTIMATED QUANTITY AND TYPES OF MATERIALS, TO WHICH STORMWATER PONDS, FLOODPLAIN MITIGATION PONDS, WETLAND MITIGATION PONDS, OR PASSIVE RECREATION/PARK/LANDSCAPE BERM AREAS THEY PROPOSE TO USE FOR THIS TYPE OF ORGANIC MATERIAL DISPOSAL, AND WHAT APPROXIMATE ELEVATIONS WILL BE THE TOP AND BOTTOM OF THE ORGANIC MATERIALS.

- TOPSOILS/SITE STRIPPINGS (TYPICALLY GENERATED FROM UPLAND AREAS, AFTER DEMOLITION/CLEARING/GRUBBING/DISCING OPERATIONS; STRIPPING OF SURFICIAL ORGANICS/TOPSOILS BEING A REQUIREMENT OVER AT LEAST ALL STRUCTURE, BUILDING, CONCRETE SLAB AND PAVEMENT AREAS PRIOR TO FILLING TO ACCOMMODATE DEVELOPMENT; INCLUDES TOPSOILS AND ORGANIC LADEN SANDS; THOSE TOPSOILS/ORGANIC SAND MATERIALS WHOSE PRESENCE, OR PLACEMENT BY THE CONTRACTOR, IS UNACCEPTABLE BENEATH ANY TYPE OF STRUCTURE, PAVEMENT, ROADWAY, HOUSE, BUILDING, PIPELINE, SLAB, ETC.)

IF ACCEPTABLE TO THE GOVERNING ENVIRONMENTAL AGENCY, ALL SUCH TOPSOILS/ORGANIC LADEN SAND MATERIALS, IF APPROVED IN WRITING FIRST BY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER, COULD BE:

- PLACED AS FILL IN NEW (LARGER) LANDSCAPE/GRASS COMMON AREAS OR LANDSCAPE BERM AREAS (WITH COMPACTION), STOCKPILING OF SUCH "TOPSOILS/ORGANIC LADEN SAND MATERIALS" (AMOUNTS/LOCATIONS), IF ACCEPTABLE, WILL BE DIRECTED BY THE OWNER/LANDSCAPE CONSULTANT;
- PLACED IN TEMPORARILY EXCAVATED LITTORAL SHELF AREAS IN SELECTED STORMWATER PONDS, OR IN TEMPORARILY EXCAVATED SELECTED WETLAND MITIGATION PONDS, IN EITHER CASE NOT IN SIDE BANKS AND NOT BELOW THE PERMITTED DESIGN DEPTH OF THE POND, OR SUCH TOPSOILS/ORGANIC LADEN SAND MATERIALS COULD BE BURIED IN TEMPORARILY EXCAVATED PASSIVE RECREATION/PARK AREAS (AT LEAST 30 FEET FROM ANY STRUCTURE) AT APPROVED DEPTHS/LOCATIONS, BUT ALL THESE DISPOSAL AREAS WILL REQUIRE REFILLING (WITH COMPACTION) TO REQUIRED DESIGN GRADES;
- PLACED ALONG THE BOTTOM OF SELECTED FLOODPLAIN MITIGATION PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED EXCAVATION DEPTH OF THE POND;
- PLACED ALONG THE BOTTOM OF SELECTED DEEPER STORMWATER PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED DESIGN DEPTH.

ALL TOPSOIL/ORGANIC LADEN SAND DISPOSAL AREAS IN LITTORAL SHELF AREAS, WETLAND MITIGATION POND AREAS, PASSIVE RECREATION/PARK AREAS, OR LANDSCAPE/BERM AREAS WILL REQUIRE ADEQUATE COMPACTION BY THE CONTRACTOR, SUCH THAT NO SIGNIFICANT FUTURE UNACCEPTABLE SETTLEMENT OF A LITTORAL SHELF AREA, CREATED WETLAND AREA, PARK/GRASSED AREA, OR LANDSCAPE BERM WILL OCCUR.

IF ANY OF THESE PROCEDURES ARE CONTEMPLATED BY THE CONTRACTOR, THEN THE CONTRACTOR SHALL NOTIFY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER IN WRITING, AT THE START OF CONSTRUCTION, WITH SOME SPECIFIC INFORMATION, INCLUDING THE ESTIMATED QUANTITY AND TYPES OF MATERIALS, TO WHICH STORMWATER PONDS, FLOODPLAIN MITIGATION PONDS, WETLAND MITIGATION PONDS, PASSIVE RECREATION/PARK AREAS, OR LANDSCAPE BERM AREAS THEY PROPOSE TO USE FOR THIS TYPE OF ORGANIC DEBRIS DISPOSAL, AND WHAT APPROXIMATE ELEVATIONS WILL BE THE TOP AND BOTTOM OF THE ORGANIC DEBRIS.

- NON-STRUCTURAL CLAYEY SAND/CLAY MATERIALS (TYPICALLY GENERATED FROM POND/LAKE EXCAVATIONS OR FROM UTILITY PIPELINE/MANHOLE EXCAVATIONS; SUCH CLAYEY SAND/CLAY MATERIALS, WITH TYPICALLY 40% FINES OR MORE PASSING THE NO. 200 SIEVE, DESIGNATED EITHER SC, CL, CH OR A-4 TO A-7, PER THE UNIFIED AND AASHTO SOIL CLASSIFICATION SYSTEMS, RESPECTIVELY; SUCH CLAYEY SAND/CLAY MATERIALS BEING UNSUITABLE OR UNACCEPTABLE FOR REUSE BY THE CONTRACTOR AS BUILDING PAD FILL, STRUCTURAL FILL, ROADWAY EMBANKMENT FILL, AND PIPELINE OR MANHOLE EXCAVATION BACKFILL.)

IF ACCEPTABLE TO THE GOVERNING ENVIRONMENTAL AGENCY, ALL SUCH CLAYEY SAND/CLAY MATERIALS, IF APPROVED IN WRITING FIRST BY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER, COULD BE:

- PLACED AS FILL IN NEW (LARGER) LANDSCAPE/GRASS COMMON AREAS OR LANDSCAPE BERM AREAS (WITH COMPACTION), PROVIDE SOME SURFACE DRAINAGE RELIEF, USE WHERE INFILTRATION AND DRAINAGE IS NOT AN IMPORTANT ISSUE, PROVIDE SOME SURFACE SANDY SOILS (MIN. OF 18-INCHES) AS DIRECTED BY THE LANDSCAPE CONSULTANT FOR PLANTING; STOCKPILING OF SUCH "CLAYEY SAND/CLAY MATERIALS" (AMOUNTS/LOCATIONS), IF ACCEPTABLE, WILL BE DIRECTED BY THE OWNER/LANDSCAPE CONSULTANT;
- PLACED IN TEMPORARILY EXCAVATED LITTORAL SHELF AREAS IN SELECTED STORMWATER PONDS, OR IN TEMPORARILY EXCAVATED SELECTED WETLAND MITIGATION PONDS, IN EITHER CASE NOT IN SIDE BANKS AND NOT BELOW THE PERMITTED DESIGN DEPTH OF THE POND, OR SUCH CLAYEY SAND/CLAY MATERIALS COULD BE BURIED IN TEMPORARILY EXCAVATED PASSIVE RECREATION/PARK AREAS (AT LEAST 30 FEET FROM ANY STRUCTURE) AT APPROVED DEPTHS/LOCATIONS, BUT ALL THESE DISPOSAL AREAS WILL REQUIRE REFILLING (WITH COMPACTION) TO REQUIRED DESIGN GRADES, AND THE TOP 2 FEET (MIN.) BEING SAND MATERIALS (NOT CLAYEY MATERIALS) FOR TURBIDITY CONTROL AND PLANTING;
- PLACED ALONG THE BOTTOM OF SELECTED FLOODPLAIN MITIGATION PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED EXCAVATION DEPTH OF THE POND; HOWEVER, A 12-INCH LAYER (MIN.) OF SAND MATERIAL OVERTOP THE CLAYEY MATERIALS WILL BE NECESSARY FOR TURBIDITY CONTROL.
- PLACED ALONG THE BOTTOM OF SELECTED DEEPER STORMWATER PONDS (NOT IN SIDE BANKS), NOT BELOW THE PERMITTED DESIGN DEPTH, HOWEVER, A 12-INCH LAYER (MIN.) OF SAND MATERIAL OVERTOP THE CLAYEY MATERIALS WILL BE NECESSARY FOR TURBIDITY CONTROL.

ALL CLAYEY SAND/CLAY DISPOSAL AREAS IN LITTORAL SHELF AREAS, WETLAND MITIGATION POND AREAS, PASSIVE RECREATION/PARK AREAS, OR LANDSCAPE/BERM AREAS WILL REQUIRE ADEQUATE COMPACTION BY THE CONTRACTOR, SUCH THAT NO SIGNIFICANT FUTURE UNACCEPTABLE SETTLEMENT OF A LITTORAL SHELF AREA, CREATED WETLAND AREA, PARK/GRASSED AREA, OR LANDSCAPE BERM WILL OCCUR.

IF ANY OF THESE PROCEDURES ARE CONTEMPLATED BY THE CONTRACTOR, THEN THE CONTRACTOR SHALL NOTIFY THE OWNER/GEOTECHNICAL CONSULTANT/ENGINEER IN WRITING, AT THE START OF CONSTRUCTION, WITH SOME SPECIFIC INFORMATION, INCLUDING THE ESTIMATED QUANTITY AND TYPES OF MATERIALS, TO WHICH STORMWATER PONDS, FLOODPLAIN MITIGATION PONDS, WETLAND MITIGATION PONDS, PASSIVE RECREATION/PARK AREAS, OR LANDSCAPE BERM AREAS THEY PROPOSE TO USE FOR THIS TYPE OF CLAYEY SAND/CLAY DISPOSAL, AND WHAT APPROXIMATE ELEVATIONS WILL BE THE TOP AND BOTTOM OF THE CLAYEY MATERIALS.

- STRUCTURAL SAND FILL MATERIALS (TYPICALLY GENERATED FROM POND/LAKE EXCAVATIONS, CUT FROM HIGHER ELEVATION AREAS, OR FROM UTILITY PIPELINE/MANHOLE EXCAVATIONS; SUCH SAND MATERIALS, WITH TYPICALLY 35% FINES OR LESS PASSING THE NO. 200 SIEVE, DESIGNATED EITHER SP, SP-SM, SM OR A-2-4, A-2-6 OR A-3, PER THE UNIFIED AND AASHTO SOIL CLASSIFICATION SYSTEMS, RESPECTIVELY; SUCH SAND MATERIALS BEING SUITABLE OR ACCEPTABLE FOR REUSE BY THE CONTRACTOR AS BUILDING PAD FILL, STRUCTURAL FILL, ROADWAY EMBANKMENT FILL, AND PIPELINE OR MANHOLE EXCAVATION BACKFILL.)

ALL SAND MATERIALS SHALL BE REUSED ONSITE BY THE CONTRACTOR, PER THE GEOTECHNICAL REPORTS, AS BUILDING PAD FILL, STRUCTURAL FILL, ROADWAY EMBANKMENT FILL, AND PIPELINE OR MANHOLE EXCAVATION BACKFILL; PLACED BY THE CONTRACTOR IN LOOSE LIFTS NOT EXCEEDING 12-INCHES, COMPACTED TO AT LEAST 95% OR 98% MODIFIED PROCTOR (PER ASTM D-1557 OR AASHTO T-180), WHICHEVER IS APPLICABLE DEPENDING UPON THE FUTURE USE OF THE FILLED AREA (SEE GEOTECHNICAL REPORTS); WITH DENSITY TESTING OF EACH FILL LIFT FOR ACCEPTANCE BY THE GEOTECHNICAL CONSULTANT, UPON CONTRACTOR REQUEST, PRIOR TO THE NEXT FILL LIFT BEING PLACED.

**WETLAND NOTES:**  
"Conservation Area" designation is given to all protected wetlands per Pasco County requirements. They are not designated as "Conservation Easements" for SWFWMD compensation.

Wetland lines permitted under ERP No. 4202 8893.000

**EARTHWORK NOTE:**

- All material excavated within this parcel will be reused as fill.
- All earthwork deficits in Multifamily Parcel will be satisfied from excess materials available from concurrently constructed ponds associated with Starkey Ranch (constructed by same Owner)
- There will be no net earthwork export from this parcel.

**EARTHWORK:**

- Estimated earthwork quantities are as follows:
  - Mass Grading Cut = 10,616 Cu. Yd.
  - Mass Grading Fill = 37,411 Cu. Yd.
 Net Deficit Material = 26,795 Cu. Yd.

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Landscape Architecture Certificate of Authorization No. LC26000005

**STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE**

**GENERAL NOTES**

WAYPOINT RESIDENTIAL

PREPARED FOR:

NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: TBD  
FILE: GNOTS5  
DESIGN BY: AMR  
DRAWN BY: AMR

FLORIDA PROFESSIONAL ENGINEER

Designed by:  
*Gary D. Miller*  
10/17/2016 | 10:51 AM EDT

**GARY D. MILLER**  
DATE: 10/17/2016  
REGISTRATION NO. 52717

**C-101**

ELEVATIONS BASED ON:  
NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.85

<p><b>WATER, SANITARY SEWER &amp; REUSE WATER CONSTRUCTION NOTES:</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>SOLID SOIL, ALL AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION.</li> <li>CONTRACTOR IS TO COORDINATE ALL WORK WITHIN, BUT NOT LIMITED TO, PASCO COUNTY RIGHTS-OF-WAY WITH UTILITY COMPANIES IN ORDER TO PREVENT DAMAGE TO UTILITY LINES AND THE MAKING OF ADJUSTMENTS TO SAME, IF REQUIRED. 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.</li> <li>ALL UTILITY MATERIALS AND WORKMANSHIP MUST COMPLY WITH STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER, WASTEWATER AND RECLAIMED WATER FACILITIES SPECS., JUNE 1995 EDITION.</li> <li>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.</li> <li>ALL 4"-12" PVC WATER MAIN PIPE SHALL CONFORM TO THE REQUIREMENTS FOUND IN AWWA STANDARD C-900, LATEST EDITION AT THE TIME OF PLAN APPROVAL. ALL 16"-24" WATER MAIN SHALL BE C-905 DR 25 PVC. ALL SERVICE PIPE LESS THAN 4" IN DIAMETER SHALL BE PVC PRESSURE PIPE; PRESSURE RATE 200; DR 21 PER ASTM STANDARD D-2241. WATER MAINS SMALLER THAN 2" IN DIAMETER SHALL BE CLASS 1120 OR 1220; SCHEDULE 80 AND MEET THE REQUIREMENTS OF ASTM D-1785.</li> <li>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.</li> <li>WATER MAINS SHOULD BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED STORM SEWER.</li> <li>AT NO TIME SHOULD VERTICAL CLEARANCE BETWEEN FORCE MAIN OR GRAVITY SEWER AND WATER MAIN BE LESS THAN 18" AT CROSSING OF SAME.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>BENDS SHALL BE INSTALLED IN FORCE MAIN OR WATER MAIN TO AVOID UNFORESEEN CONFLICTS IN EXISTING OR PROPOSED STRUCTURES.</li> <li>THE JOINT DEFLECTION METHOD SHALL BE USED WHERE PRACTICAL IN LIEU OF INSTALLING BENDS.</li> <li>CONTRACTOR SHALL VERIFY LOCATIONS AND DEPTHS OF EXISTING WATER AND SEWER LINES PRIOR TO BEGINNING CONSTRUCTION.</li> <li>THE EXISTING UNDERGROUND UTILITY LINES SHOWN HEREON WERE TAKEN FROM DOCUMENTS FURNISHED BY OTHERS AND NOT FIELD VERIFIED, THEREFORE, THE ENGINEER CANNOT GUARANTEE THE ACCURACY OF SAME NOR THAT ALL ARE SHOWN. THE CONTRACTOR SHALL EXPOSE ALL UNDERGROUND UTILITY LINES IN COORDINATION WITH THE OWNERS TO HIS SATISFACTION AND MAKE ADJUSTMENTS TO SAME IN THE EVENT THERE ARE CONFLICTS WITH NEW CONSTRUCTION.</li> <li>CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL ROAD CROSSING OR UTILITY PERMITS.</li> <li>ALL 8" GRAVITY SANITARY SEWER PIPE SHALL BE CONSTRUCTED AT A 0.40% MINIMUM SLOPE UNLESS OTHERWISE NOTED.</li> <li>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).</li> <li>ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.</li> <li>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.</li> <li>GATE VALVES INSTALLED FOR RESTRAINED SHALL BE RESTRAINED PER CURRENT PASCO COUNTY STANDARDS.</li> <li>OFF-ROAD UTILITY EASEMENTS SHALL BE "STABILIZED" FOR ACCESS BY MAINTENANCE VEHICLES.</li> <li>RECLAIMED WATER MAINS, VALVES, AND SERVICES SHALL INCLUDE THE FOLLOWING TO AVOID CONFUSION WITH POTABLE SYSTEM:       <ol style="list-style-type: none"> <li>PURPLE PIGMENTED C-900, DR-18 PVC PIPING FOR 4"-12" RECLAIMED WATER MAINS, EXCEPT 2" WHICH SHALL BE SDR 21 PVC PIPING.</li> <li>SQUARE TOP VALVE BOXES FOR ISOLATION VALVES IN SYSTEM, WITH COVERS MARKED "EFFLUENT."</li> <li>PURPLE STRIPE ON CURB TO IDENTIFY RECLAIMED WATER SERVICES.</li> <li>ONE INCH SERVICES FOR RECLAIMED WATER SERVICES.</li> <li>PURPLE MAGNETIC LOCATING TAPE, STATING "REUSE MAIN BURIED BELOW" OVER ALL RECLAIMED WATER MAINS (18 INCHES BELOW GRADE).</li> <li>RECLAIMED WATER SERVICE ON OPPOSITE LOT LINE FROM POTABLE SERVICE.</li> <li>16" - 24" RECLAIMED MAIN SHALL BE C-905 DR 25 PVC.</li> </ol> </li> <li>ALL ASPECTS OF RECLAIMED WATER SYSTEM MUST COMPLY WITH CHAPTER 17-610, F.A.C., LATEST EDITION.</li> <li>MAINTAIN 5' MINIMUM HORIZONTAL SEPARATION BETWEEN RECLAIMED MAINS AND WATER MAINS OR FORCE MAINS.</li> <li>STUB-OUT LINES ON THE WATER MAIN, FORCE MAIN, AND RECLAIMED MAIN SHALL HAVE RESTRAINED JOINTS FROM THE MAIN LINE TO THE STUB-OUT.</li> <li>ALL PVC PRESSURE PIPE SHALL HAVE A MINIMUM 36" COVER.</li> <li>SANITARY SEWERS, FORCE AND RECLAIMED MAINS AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS. SANITARY SEWERS, FORCE AND RECLAIMED 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.</li> <li>WHERE SANITARY SEWERS, FORCE AND RECLAIMED 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.</li> <li>WHERE THERE IS NO ALTERNATIVE TO SEWER AND RECLAIMED PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION OF 18 INCHES BETWEEN LINES AND 10 FEET BETWEEN JOINTS SHALL BE REQUIRED.</li> <li>ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER AND RECLAIMED PIPES JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).</li> <li>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.</li> <li>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 RECLAIMED WATER MAINS AND WATER MAINS, AND BETWEEN RECLAIMED WATER MAINS AND SANITARY SEWERS WHENEVER POSSIBLE.</li> <li>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 RECLAIMED 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, RECLAIMED 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.</li> <li>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, RECLAIMED 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, RECLAIMED MAIN, OR FORCE MAIN. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER, RECLAIMED MAIN, OR FORCE MAIN (STAGGERED JOINTS).</li> <li>IN CONSIDERATION OF PASCO COUNTY'S AGREEMENT TO PROVIDE POTABLE WATER AND/OR RECLAIMED WATER TO THE SUBJECT PROPERTY, DEVELOPER/OWNER, AND ITS SUCCESSORS ASSIGNS, AGREE TO THE FOLLOWING:       <ol style="list-style-type: none"> <li>IN THE EVENT OF PRODUCTION FAILURE OR SHORTFALL BY TAMPA BAY WATER, DEVELOPER/OWNER SHALL TRANSFER TO PASCO COUNTY ANY AND ALL WATER USE PERMITS OR WATER USE RIGHTS THE DEVELOPER/OWNER MAY HAVE TO USE OR CONSUME SURFACE OR GROUND WATER WITHIN PASCO COUNTY.</li> <li>PRIOR TO DEVELOPER/OWNER SELLING WATER OR WATER USE PERMITS OR WATER USE RIGHTS, DEVELOPER/OWNER SHALL NOTIFY PASCO COUNTY, AND PASCO COUNTY SHALL HAVE A RIGHT OF FIRST REFUSAL TO PURCHASE SUCH WATER OR WATER USE PERMITS OR WATER USE RIGHTS.</li> </ol> </li> <li>CONTRACTOR'S RESPONSIBILITIES REGARDING WET TAPS TWO INCHES AND LARGER SHALL BE AS FOLLOWS:       <ol style="list-style-type: none"> <li>2" ONLY- THIS EXCAVATED TRENCH MUST BE DRY OR THE TRENCH WILL REQUIRE ROCK AND A PUMP TO BE IN PLACE. THE MINIMUM DISTANCE FROM THE FACE OF THE VALVE TO THE WALL OF THE TRENCH IS TO BE SIX FEET.</li> <li>3" AND LARGER- THE CONTRACTOR WILL SUPPLY A TAPPING SADDLE BEING EPOXY COATED, A TAPPING VALVE WITH MECHANICAL JOINT AND THE EQUIPMENT TO PROVIDE, AND CONDUCT A PRESSURE TEST. COUNTY PERSONNEL WILL WITNESS THE PRESSURE TEST WHICH MUST BE AT 150 PSI FOR DURATION OF THIRTY MINUTES.</li> <li>THE CONTRACTOR IS RESPONSIBLE FOR THE EXCAVATION BEFORE ANY COUNTY PERSONNEL WILL ENTER AN EXCAVATED AREA. IF THE TRENCH IS FOUR FEET IN DEPTH OR DEEPER, IT WILL REQUIRE A TRENCH BOX OR SLOPING, AND A LADDER ACCORDING TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.</li> <li>THE TAPPING VALVE WILL REQUIRE A BLOCKING DEVICE MADE OF SUITABLE MATERIAL OR DEVICE. THIS BLOCKING DEVICE OR MATERIAL WILL BE PLACED UNDER THE VALVE AND REMAIN IN PLACE UNTIL THE TAP MACHINE IS REMOVED AND THE TAP IS COMPLETED.</li> <li>NOTE: IF THE CONTRACTOR HAS NOT FULFILLED HIS RESPONSIBILITIES, AS STATED ABOVE, PRIOR TO THE ARRIVAL OF PASCO COUNTY UTILITIES OPERATIONS AND MAINTENANCE TAPPING CREW, THERE WILL BE AN ADDITIONAL CHARGE OF \$95.00.</li> <li>IF YOU HAVE ANY QUESTIONS REGARDING THIS INFORMATION, CONTACT NELSON D. HOLT, FIELD SUPERVISOR, UTILITIES SERVICES BRANCH, AT (727) 847-8145, OR E-MAIL NHOLT@PASCOCOUNTYFL.NET.</li> </ol> </li> <li>FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED BASED UPON FLOW RESULTS.</li> </ol>	<p><b>STREET &amp; DRAINAGE CONSTRUCTION NOTES:</b></p> <ol style="list-style-type: none"> <li>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 AND PERMITTED BY FDEP.</li> <li>ALL CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH PASCO COUNTY LAND DEVELOPMENT CODE AND FDOT SPECIFICATIONS, LATEST EDITIONS.</li> <li>SOIL 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 SOIL SODDED. THE REMAINDER OF THE PROPOSED RIGHTS-OF-WAY TO BE SEEDED AND MULCHED IF THE SLOPE IS GREATER THAN 6:1 OR FLATTER</li> <li>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.</li> <li>PRIOR TO CURB INLET CONSTRUCTION, THE CONSTRUCTION SURVEYOR SHALL LAY OUT THE BACK OF THE CURB IN THE VICINITY OF THE RESPECTIVE INLET FOR ALIGNMENT AND GRADE.       <ol style="list-style-type: none"> <li>FOR MIAMI TYPE CURB &amp; GUTTER: 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.</li> <li>FOR TYPE F CURB &amp; GUTTER: THE CONTRACTOR SHALL CONSTRUCT THE INLET TOP TO BE FLUSH WITH THE BACK OF CURB GRADE.</li> <li>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.</li> </ol> </li> <li>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.</li> <li>SOIL/SEED &amp; 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 NORMAL WATER 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 FLATTER THAN 4:1.</li> <li>ROADWAY UNDERDRAIN HAS BEEN LOCATED ON THESE PLANS TO ENSURE ADEQUATE BASE PROTECTION.</li> <li>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.</li> <li>PRIOR TO BEGINNING CONSTRUCTION, SITE CONTRACTOR SHALL EXPOSE ALL EXISTING UTILITY INVERTS TO WHICH A TIE-IN IS PROPOSED AND VERIFY THE ELEVATION AND ADEQUACY OF ANY REPORTED INVERTS. ALL DIFFERENCES SHALL BE REPORTED TO THE ENGINEER OF RECORD IN WRITING PRIOR TO CONSTRUCTION.</li> <li>ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE SITE CONTRACTOR SHALL ENSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.</li> <li>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.</li> <li>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 DRIPLINE OF A TREE TO REMAIN ON THE SITE UNLESS OTHERWISE APPROVED BY THE COUNTY.</li> <li>ALL EROSION CONTROL INSTALLATION AND INSTALLATION COORDINATION SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR. HEIDT DESIGN, IF CONTRACTED BY THE OWNER, WILL COORDINATE THE STAKING OF THE ALIGNMENT OF THE PROPOSED EROSION CONTROL AND SHALL LIMIT ITS RESPONSIBILITY AND COORDINATION AT THAT POINT. BE ADVISED THAT THE CONSTRUCTION APPROVAL AND MAINTENANCE OF THE EROSION CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE SITE CONTRACTOR.</li> </ol>			
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**STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE**

**GENERAL NOTES**

**WAYPOINT RESIDENTIAL**

PREPARED FOR:

NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: **TBD**

FILE: **GNOTES**

DESIGN BY: **AMR**

DRAWN BY: **AMR**

**FLORIDA PROFESSIONAL ENGINEER**

DocuSigned by:  
  
 10/17/2016 | 10:51 AM EDT

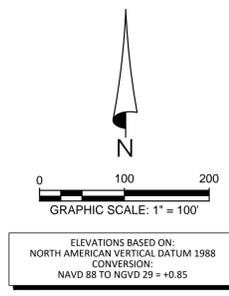
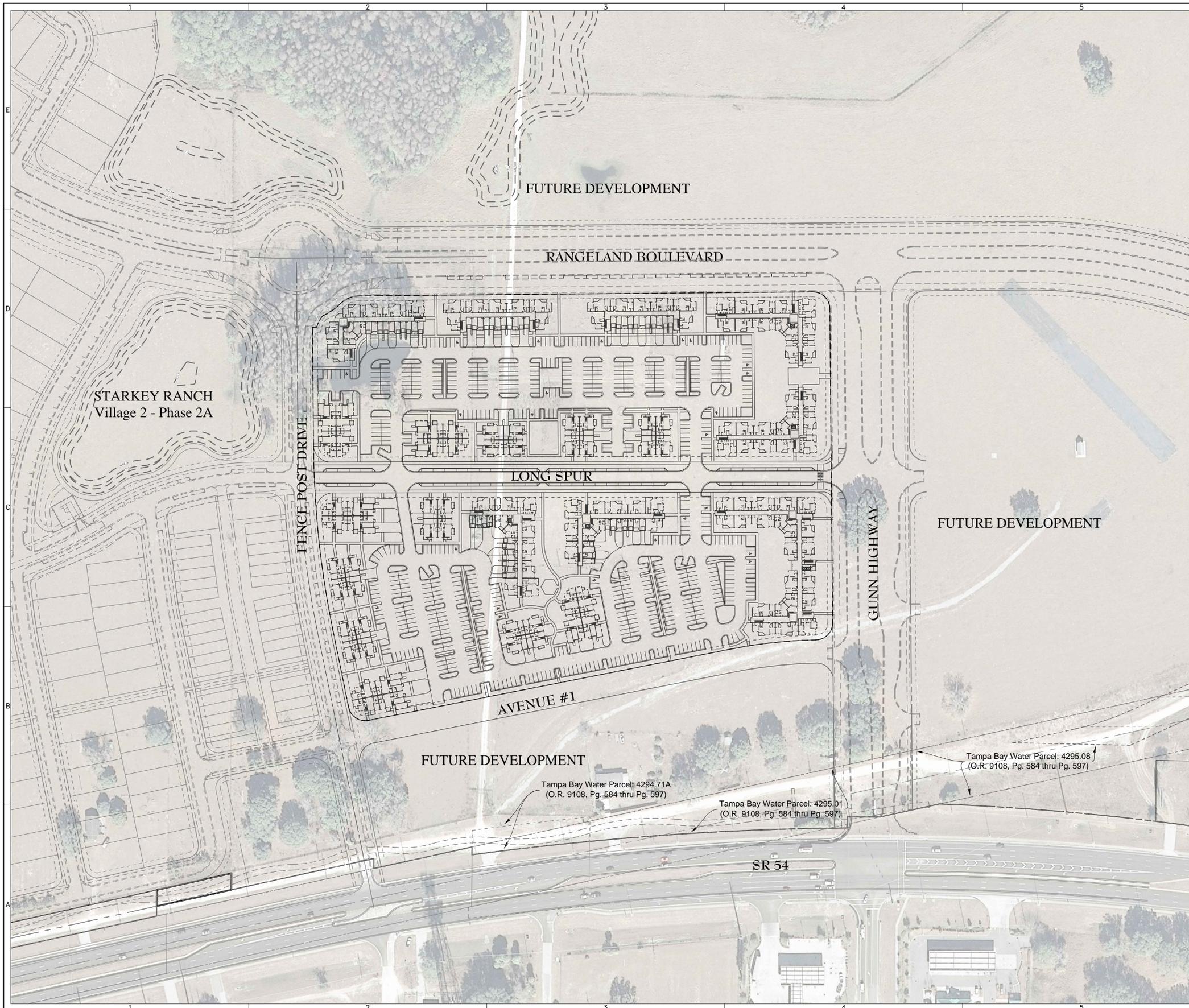
**GARY D. MILLER**

DATE: \_\_\_\_\_

REGISTRATION NO. **52717**

**C-102**

ELEVATIONS BASED ON:  
 NORTH AMERICAN VERTICAL DATUM 1988  
 CONVERSION:  
 NAVD 88 TO NGVD 29 = +0.85



1) THIS EXHIBIT WAS PREPARED FOR ILLUSTRATIVE PURPOSES ONLY. THE LATEST AVAILABLE DIGITAL AERIAL FILES HAVE BEEN USED HOWEVER THIS MAY NOT ACCURATELY DEPICT CURRENT SITE CONDITIONS. ADDITIONAL ENGINEERING, ENVIRONMENTAL REVIEWS, FIELD SURVEYING AND DATA COLLECTION ARE NECESSARY TO CORRECTLY PORTRAY ACTUAL SITE CONDITIONS. THIS EXHIBIT IS SUBJECT TO CHANGE WITHOUT NOTICE BASED ON THE ABOVE.

DATE OF PHOTO: 2011

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5806-B Breckenridge Pkwy.  
 Tampa, Florida 33610  
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Engineering Business Certificate of Authorization No. 28752  
 Landscape Architecture Certificate of Authorization No. LC26000405

STARKEY RANCH DOWNTOWN  
 NEIGHBORHOOD MF SITE  
**AERIAL SITE PLAN**

PREPARED FOR:  
 WAYPOINT RESIDENTIAL

NO.	DATE	REVIEW SUBMITTAL	DESCRIPTION
1	10/17/2016		

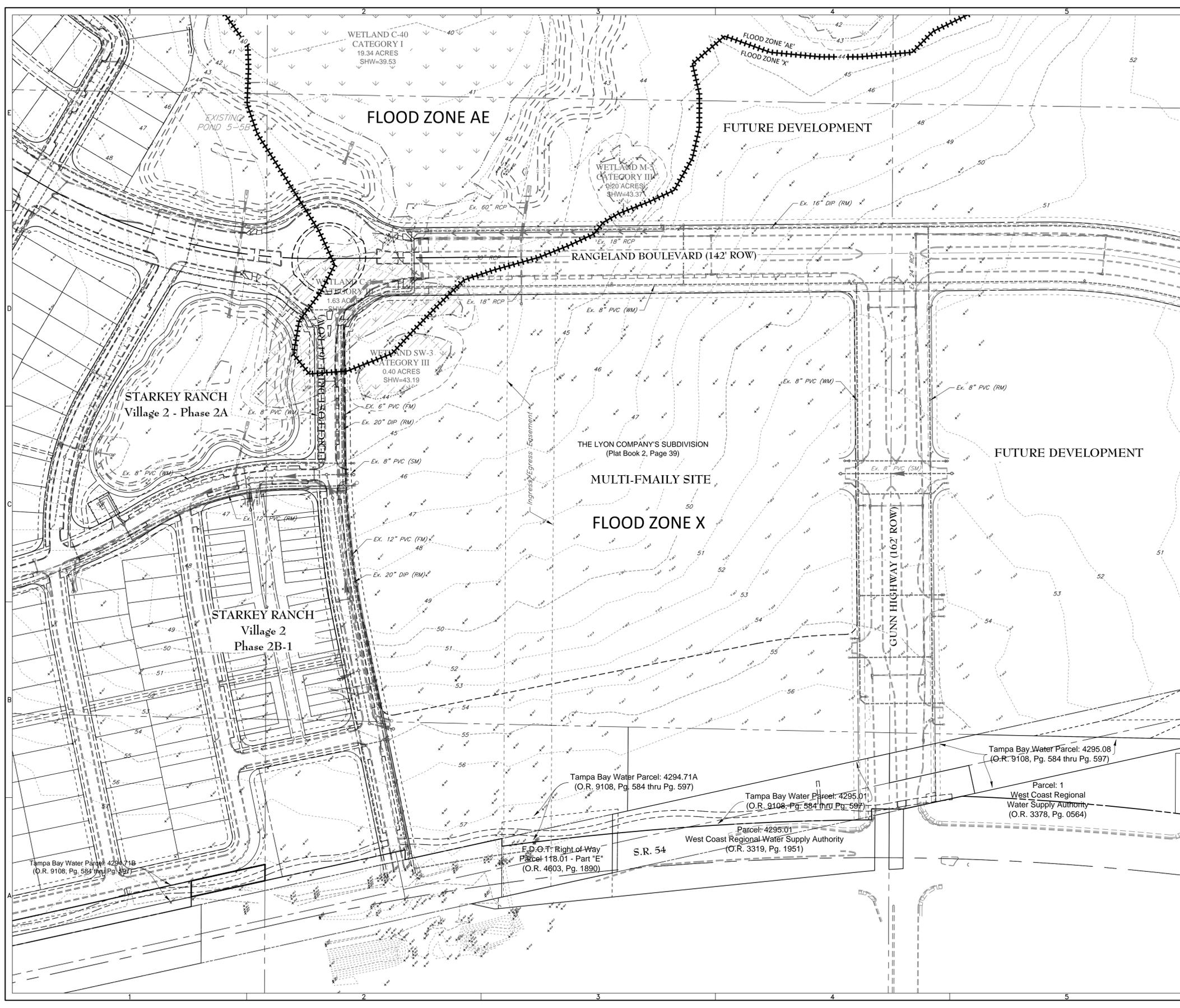
PROJECT NO: TBD  
 FILE: ASP  
 DESIGN BY: AMR  
 DRAWN BY: AMR

FLORIDA PROFESSIONAL ENGINEER

Designed by:  
  
 GARY D. MILLER  
 DATE: 10/17/2016 | 10:51 AM EDT  
 REGISTRATION NO. 52717

**C-103**

R:\STARKEY RANCH\DOWN TOWN MF SITE (WAYPOINT RESIDENTIAL)\WAYPOINT RESIDENTIAL AERIAL SITE PLAN.dwg



N

0 100 200  
GRAPHIC SCALE: 1" = 100'

ELEVATIONS BASED ON:  
NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.85

**LEGEND**

- PROJECT LIMITS
- WETLAND LINE
- WETLAND CONS. AREA SETBACK / LANDWARD EXTENT OF UPLAND BUFFER
- |-|-|-|- FEMA FLOOD LINE
- +150 SPOT ELEVATION GROUND
- 15' CONTOUR

THIS PROJECT LIES IN FLOOD ZONE "AE & X" ACCORDING TO FLOOD INSURANCE RATE MAPS FOR PASCO COUNTY, FLORIDA; FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 12101C0380F DATED SEPTEMBER 26, 2014 AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. BASE FLOOD ELEVATION VARIES FROM 43' TO 44' AE ZONE.

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**STARKEY RANCH DOWNTOWN  
NEIGHBORHOOD MF SITE  
EXISTING SITE**

WAYPOINT RESIDENTIAL

PREPARED FOR:

NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

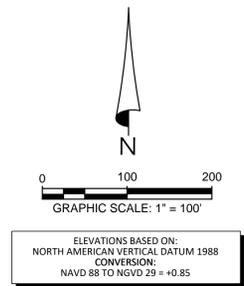
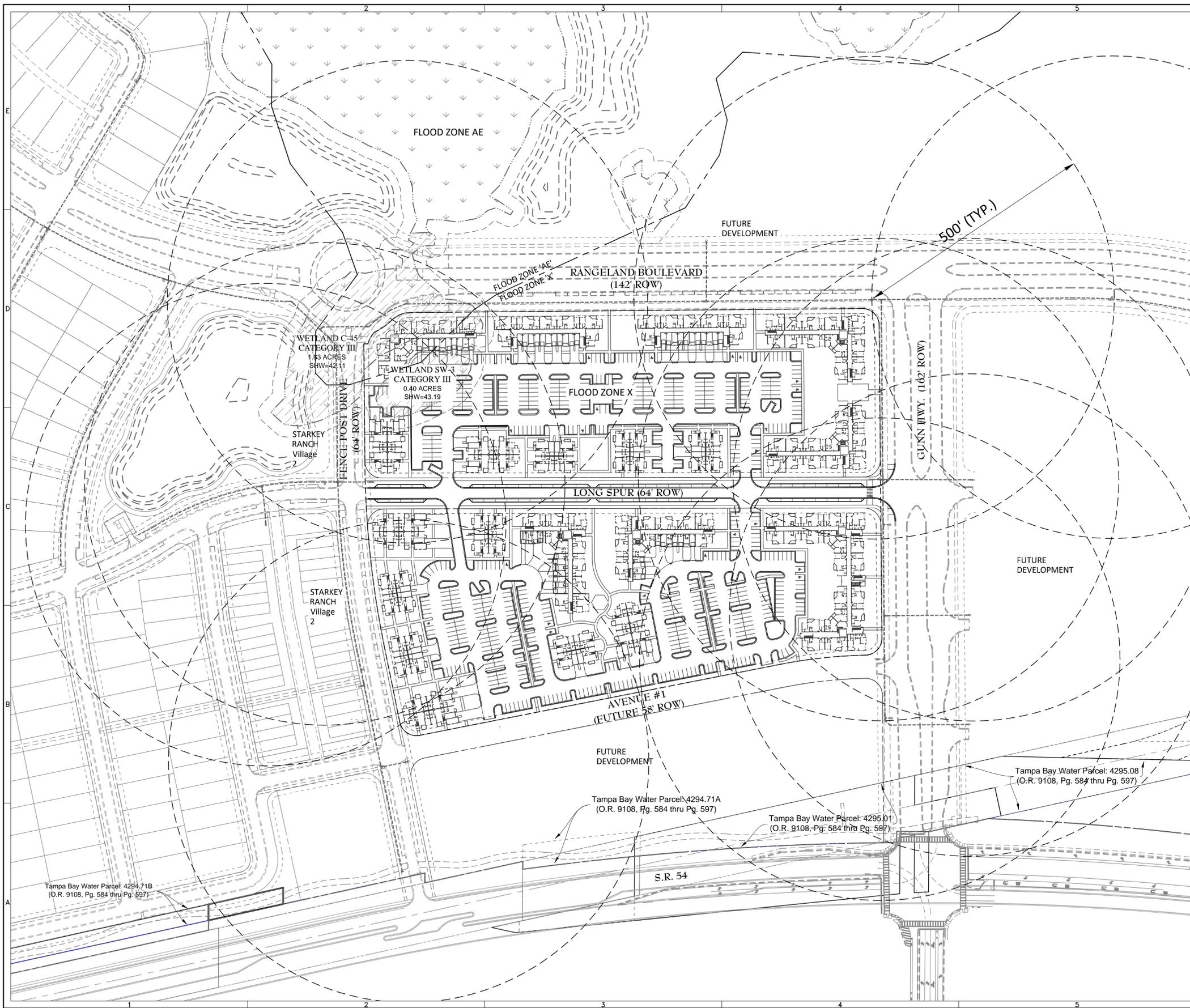
PROJECT NO: TBD  
 FILE: EX-SITE  
 DESIGN BY: AMR  
 DRAWN BY: AMR

FLORIDA PROFESSIONAL ENGINEER

Designed by:  
*Gary D. Miller*  
GARY D. MILLER  
DATE: 10/17/2016 | 10:51 AM EDT  
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**C-104**

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ELEVATIONS BASED ON:  
 NORTH AMERICAN VERTICAL DATUM 1988  
 CONVERSION:  
 NAVD 88 TO NGVD 29 = +0.85

**GENERAL LEGEND**

	PROJECT LIMIT LINE
	RIGHT-OF-WAY LINE
	UTILITY EASEMENT
	FEMA FLOOD ZONE LINE
	WETLAND LINE
	EXISTING HYDRANT

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**STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE**

**HYDRANT LOCATIONS**

PREPARED FOR:	WAYPOINT RESIDENTIAL
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NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: TBD  
 FILE: PP-HYDRANT  
 DESIGN BY: AMR  
 DRAWN BY: AMR

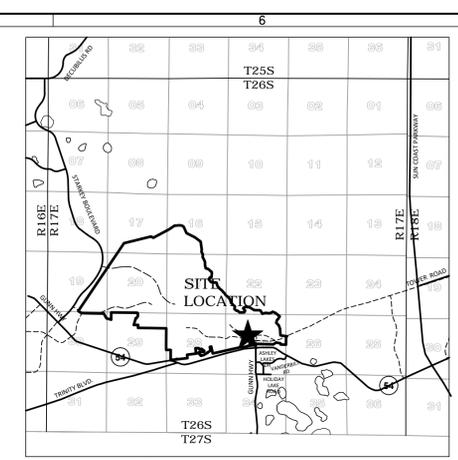
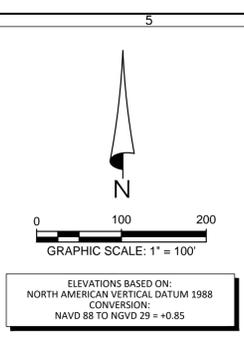
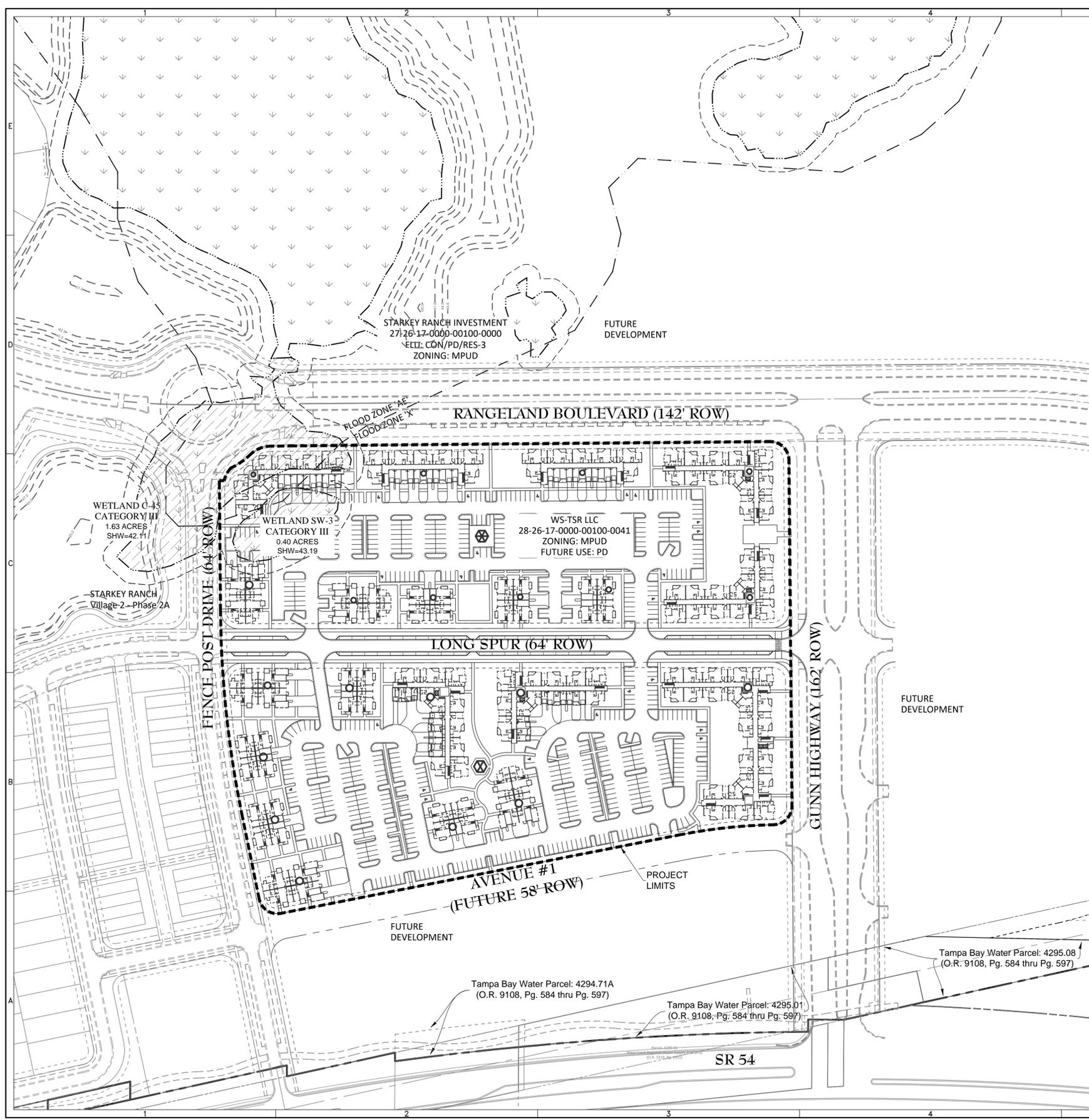
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DocuSigned by:  
  
 Gary D. Miller  
 10/17/2016 | 10:51 AM EDT

GARY D. MILLER  
 DATE: 10/17/2016  
 REGISTRATION NO. 52717

**C-105**

R:STARKEY RANCH DOWNTOWN MF SITE (WAYPOINT RESIDENTIAL) WAYPOINT PPS/ENGINEERING/HYDRANT.DWG-C-105 2016/10/17 8:47 AM ANNA RASNIK



LOCATION MAP (NOT TO SCALE)

**GENERAL LEGEND**

- PROJECT LIMIT LINE
- RIGHT-OF-WAY LINE
- UTILITY EASEMENT
- FEMA FLOOD ZONE LINE
- WETLAND LINE
- WETLAND AREA
- IMPACTED WETLAND AREA

**SITE DATA TABLE**

PARCEL	UPLAND ACRES	WETLAND ACRES	EXISTING MITIGATION	SURFACE-WATER (MAN MADE LAKE) ACRES	TOTAL ACRES	UNITS	GROSS DENSITY (DU/AC)
MULTIFAMILY	18.5	0.7	0.0	0.00	19.2	384	20.0
<b>TOTAL</b>	<b>18.5</b>	<b>0.7</b>	<b>0.0</b>	<b>0.00</b>	<b>19.2</b>	<b>384</b>	

**PASCO COUNTY WETLAND CATEGORY TABLE**

CATEGORY	SIZE (ACRES)
I	0.0
II	0.0
III	0.72
<b>TOTAL</b>	<b>0.72</b>

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**STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE OVERALL SITE PLAN**

PREPARED FOR: WAYPOINT RESIDENTIAL

NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: TBD  
 FILE: PSP-OVERALL  
 DESIGN BY: AMR  
 DRAWN BY: AMR

FLORIDA PROFESSIONAL ENGINEER

Designed by: *Gary D. Miller*  
 10/17/2016 | 10:51 AM EDT  
**GARY D. MILLER**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 52717

**C-106**

THIS PROJECT LIES IN FLOOD ZONE "AE & X" ACCORDING TO FLOOD INSURANCE RATE MAPS FOR PASCO COUNTY, FLORIDA, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 12101C0380F DATED SEPTEMBER 26, 2014 AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. BASE FLOOD ELEVATION VARIES FROM 43' TO 44' AE ZONE.

R:\STARKEY RANCH\DOWN TOWN MF SITE (WAYPOINT RESIDENTIAL)\WAYPOINT PSP\ENGINEERING\SP-OVERALL\DWG-C-106-20161017 8:50 AM ANNA RASIAK  
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PARKING CALCULATIONS			
PROPOSED USE	QUANTITY/UNIT	REQUIRED PARKING / UNIT	PARKING SPACES
<b>PARKING REQUIRED</b>			
MULTIFAMILY - NORTH	194	2 SPACE/ UNIT	388
VISITOR PARKING (NORTH)	194	0.25 SPACE/UNIT	48
TOTAL PARKING REQUIRED (NORTH)			436
<b>PARKING PROVIDED (NORTH)</b>			
GARAGE			37
ONSITE			305
STREET			65
TOTAL PARKING (NORTH)			407
HANDICAP SPACES:		2 PERCENT OF TOTAL PARKING (9 SPACES)	13
MULTIFAMILY - SOUTH	190	2 SPACES/UNIT	380
VISITOR PARKING (SOUTH)	190	0.25 SPACE/UNIT	47
TOTAL PARKING REQUIRED (SOUTH)			427
<b>PARKING PROVIDED (SOUTH)</b>			
GARAGE (SOUTH)			36
ONSITE			382
STREET			50
TOTAL PARKING (SOUTH)			468
HANDICAP SPACES:		2 PERCENT OF TOTAL PARKING (10 SPACES)	9
TOTAL PARKING REQUIRED (NORTH & SOUTH)			863
TOTAL PARKING PROVIDED (NORTH & SOUTH)			875
BICYCLE PARKING		.05 PER PROVIDED SPACE (44 SPACES)	-- SPACES

SITE DATA TABLE		
ITEM	DESCRIPTION OF USE	ACERAGE
MULTIFAMILY - NORTH	APARTMENTS, PARKING, OPEN SPACE	8.45
MULTIFAMILY - SOUTH	APARTMENTS, PARKING, OPEN SPACE	9.25
LONG SPUR	LOCAL ROAD	1.51
AREA OF DISTURBANCE TOTAL:		19.21

BUILDING INFORMATION	
ITEM DESCRIPTION	VALUE
MULTIFAMILY - NORTH	
BUILDING HEIGHT	40-50 FT
NUMBER OF FLOORS	2-3
INTENDED USES	APPARTMENT
BUILDING SIZE (VARIES)	172,238 S.F. TOTAL
MULTIFAMILY - SOUTH	
BUILDING HEIGHT	40-50 FT
NUMBER OF FLOORS	2-3
INTENDED USES	APPARTMENT
BUILDING SIZE (VARIES)	174,839 S.F. TOTAL
TOTAL BUILDING AREA (S.F.)	347,077

SUMMARY OF INDIVIDUAL PASCO COUNTY PLAN APPROVALS AND PENDING APPROVALS

ACTION REFERENCE	REFERENCE NUMBER	APPROVAL DATE	STATUS
VILLAGE 2 PHASE 1A CONSTRUCTION PLAN	RSD 16-007	6/27/2016	APPROVED
VILLAGE 2 PRELIMINARY DEVELOPMENT PLAN	RSD 15-016	11/10/2015	APPROVED
RANGELAND BLVD. WEST PHASE 1 CONSTRUCTION PLANS	LRG 15-011	6/15/2015	APPROVED
RANGELAND BLVD. WEST PHASE 1 CONSTRUCTION PLANS MODIFICATION	LRG 15-011	5/6/2016	APPROVED
STARKEY RANCH WELCOME CENTER	SML 14-024	5/21/2014	APPROVED
STARKEY RANCH MPUD PARCEL 2 NEIGHBORHOOD BLOCK PLAN	PDD 16-66	10/8/2015	APPROVED
UNIFIED SIGN PLAN	PDD 15-1685	10/6/2015	APPROVED
STARKEY RANCH TRANSIT ACCOMODATION PLAN		7/17/2015	APPROVED
MASTER UTILITY PLAN MODIFICATION	06-139.00	7/10/2015	APPROVED
MPUD NONSUBSTANTIAL MODIFICATION	PDD 15-562	4/8/2015	APPROVED
MPUD NON-SUBSTANTIAL MODIFICATION	PDD 15-821	4/8/2015	APPROVED
MPUD NON-SUBSTANTIAL MODIFICATION	PDD15-562	4/8/2015	APPROVED
LICENSE AND MAINTENANCE AGREEMENT		2/11/2015	APPROVED
MPUD NON-SUBSTANTIAL MODIFICATION	PDD 15-259	1/8/2015	APPROVED
MASTER BIKE & PEDESTRIAN PLAN NON-RESIDENTIAL MODIFICATION	PDD 15-257	12/30/2014	APPROVED
MASTER PARK PLAN AND ALTERNATE STANDARD	PDD 15-258	12/30/2014	APPROVED
MASTER ROADWAY PLAND AND ALTERNATE STANDARD	PDD 15-255	12/18/2014	APPROVED
MPUD NONSUBSTANTIAL MODIFICATION	PDD 15-5259	12/4/2014	APPROVED
WATER, SEWER AND RECLAIMED UTILITIES SERVICE PLAN (REV.)	PCU 06-139.00.A.6	8/6/2014	APPROVED
STARKEY RANCH VILLAGE 1 PHASES 1-5 PLANS	RSD 14-008	6/5/2014	APPROVED
NON-SUBSTANTIAL MODIFICATION TO MPUD RZ-7078	PDD 14-885	5/24/2014	APPROVED
STARKEY RANCH HEART PINE AVE/RANGELAND BLVD PLANS	LRG 14-010	5/23/2014	APPROVED
WATER, SEWER AND RECLAIMED UTILITIES SERVICE PLAN	PCU 06-139.00.A.6	4/4/2014	APPROVED
WATER SUPPLY, RECLAIMED WATER AND WASTEWATER TREATMENT SERVICE AGREEMENT C79	UTD 14-453	2/25/2014	APPROVED
STARKEY RANCH VILLAGE 1 MASS GRADING PLANS	RSD 14-001	1/16/2014	APPROVED
DISTRICT PARK, SITE, SCHOOL SITE, LIBRARY-THEATRE ACQUISITION, DEVELOPMENT SHARED-USE & MANAGEMENT AGREEMENT	CAO 14-3501	12/17/2013	APPROVED
STARKEY RANCH MPUD SUBSTANTIAL MODIFICATION	RZ-7078	12/17/2013	APPROVED
BICYCLE & PEDESTRIAN MASTER PLAN	PDD 14-035	11/21/2013	APPROVED
MASTER PARK & ALT. STD.	PDD 14-257	11/21/2013	APPROVED
MASTER ROADWAY PLAN & ALT. STD.	PDD 14-032	11/21/2013	APPROVED
AMENDED AND RESTATED DEVELOPMENT AGREEMENT	PDD 13-141	11/7/2012	APPROVED
DEVELOPMENT AGREEMENT AMENDMENT	OR BK 8785 PG 585	11/7/2012	APPROVED
COMPREHENSIVE PLAN AMENDMENT ORD. 12-21	PGM 12-204	9/11/2012	APPROVED
COMPREHENSIVE PLAN AMENDMENT ADOPTION	ORD. 12-21	9/11/2012	APPROVED
DRI RECISSION	RES. NO. 12-309	9/11/2012	APPROVED
DRI RECISSION RES. NO. 12-309	PGM 12-206	9/11/2012	APPROVED
MPUD	REZONING 7027	9/11/2012	APPROVED
REZONING 7027	PGM 12-205	9/11/2012	APPROVED
STARKEY RANCH MPUD REZONING PETITION	RZ-7027	9/11/2012	APPROVED
COMPREHENSIVE PLAN AMENDMENT ORD. 08-42	GM 08-466	9/23/2008	APPROVED
COMPREHENSIVE PLAN AMENDMENT	ORD. 08-42	9/23/2008	APPROVED
DRI DEVELOPMENT ORDER	RES. NO. 08-393	9/23/2008	APPROVED
DRI NO 264 DEVELOPMENT AGREEMENT	GM 08-467	9/23/2008	APPROVED
DRI/DEVELOPMENT AGREEMENT	RES. NO. 08-42	9/23/2008	APPROVED
DRI/DEVELOPMENT ORDER 264 RES. NO. 08-393	GM 08-468	9/23/2008	APPROVED

OWNER: WS-TSR, LLC  
1217 KENTUCKY AVENUE  
SAINT CLOUD, FL 34769  
(321) 805-4830

ENGINEER: HEIDT DESIGN, LLC  
5806-B BRECKENRIDGE PARKWAY  
TAMPA, FLORIDA 33610  
(813) 253-5311

SURVEYOR: GEOPPOINT SURVEYING, INC.  
1403 EAST 5TH AVENUE  
TAMPA, FL 33605  
(813) 248-8888

DEVELOPER: WAYPOINT RESIDENTIAL  
3475 PIEDMOUNT ROAD NE  
SUITE 1640  
ATLANTA, GA 30305  
(770) 817-5923

GEOTECHNICAL ENGINEER: MORTENSEN ENGINEERING, INC.  
6408 W. LINEBAUGH AVENUE  
SUITE 111  
TAMPA, FL 33625  
(813) 908-5555

ARCHITECT: FORUM ARCHITECTURE & INTERIOR DESIGN, INC.  
237 S.W. MONTE DRIVE  
SUITE 220  
ALTAMONTE SPRINGS, FL 32714  
(407)830-1400

NOTES:  
1. EXISTING ZONING: MPUD; EXISTING USE: VACANT/AGRICULTURAL  
2. LAND USE CLASSIFICATION: PD/CON  
3. THE ORIGINAL MPUD PLAN WAS APPROVED ON 09/11/12 (RZ-7027). REVISED MPUD APPROVED 12/17/13 (REZONING 7078).  
4. WATER SERVICE TO BE PROVIDED BY PASCO COUNTY UTILITIES.  
5. SEWAGE DISPOSAL SERVICE TO BE PROVIDED BY PASCO COUNTY UTILITIES.  
6. ELECTRICAL POWER TO BE PROVIDED BY DUKE ENERGY.  
7. TELEPHONE SERVICE TO BE PROVIDED BY VERIZON.  
8. STREET LIGHTING TO BE PROVIDED BY A STREET LIGHTING TAXING DISTRICT THROUGHOUT THE DEVELOPMENT.  
9. FIRE PROTECTION TO BE PROVIDED BY THE EXISTING PASCO COUNTY FIRE STATION #15. LOCATED APPROXIMATELY ONE (1.25) MILE FROM SITE. FIRE HYDRANTS TO BE PROVIDED ON SITE.  
10. THE UPLANDS ARE ACTIVELY GRAZED BAHIA PASTURE. THE WETLANDS ARE CYPRESS SWAMPS AND GRASSY MARSHES.  
11. PREDOMINANT SOIL TYPES ON-SITE CONSIST OF SELLERS, SMYRNA, IMMOKALEE & MYAKKA.  
12. RECREATION AREAS, CONSERVATION AREAS, AND DETENTION PONDS WILL BE OWNED AND MAINTAINED BY THE CDD. LANDSCAPE EASEMENTS WILL BE DEDICATED TO THE CDD FOR MAINTENANCE.  
13. DETENTION PONDS TO BE WITHIN DRAINAGE EASEMENTS DEDICATED TO THE CDD FOR MAINTENANCE.  
14. CONTOURS SHOWN ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1988.  
15. PROPOSED RIGHTS-OF-WAY FOR LOCAL STREETS SHALL BE A MINIMUM OF FIFTY (50) FEET.  
16. ALL ROADWAY STANDARDS TO COMPLY WITH THE MANUAL OF UNIFORM MINIMUM STANDARDS, STATE OF FLORIDA.  
17. ALL WATER AND WASTEWATER FACILITIES TO BE INSTALLED IN COMPLIANCE WITH PASCO COUNTY STANDARDS FOR DESIGN AND CONSTRUCTION OF WATER AND WASTEWATER FACILITIES, LATEST EDITION.  
18. ALL UTILITY LINES SHALL BE INSTALLED UNDERGROUND.  
19. ENTIRE PROJECT LIES WITHIN FLOOD ZONE "AE & X" ACCORDING TO FLOOD INSURANCE RATE MAPS FOR PASCO COUNTY, FLORIDA, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 12101C03807 DATED SEPTEMBER 26, 2014 AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. BASE FLOOD ELEVATIONS RANGE FROM 43 TO 44 FEET NAVD FOR AE FLOOD ZONE.  
20. A MINIMUM OF 16" OF SOD STRIP WILL BE PROVIDED ALONG ALL ROADWAYS PER PASCO COUNTY REQUIREMENTS.  
21. CORNER LOTS WILL BE A MINIMUM OF TEN (10) FEET GREATER IN WIDTH THAN STANDARD LOTS.  
22. SETBACKS FROM POST-DEVELOPED 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 702 OF THE PASCO COUNTY LAND DEVELOPMENT CODE.  
23. SIDEWALKS WILL BE PROVIDED ON BOTH SIDES OF ALL ROADS INCLUDING NON-LOT AREAS. UNLESS OTHERWISE SHOWN, ALL SIDEWALKS SHALL BE FIVE (5) FEET WIDE, 4X" THICK CONCRETE, AND 3000 P.S.I. SIDEWALK SHALL BE FIBER REINFORCED AND CONSTRUCTED ON A COMPACTED NON-YIELDING SUBGRADE.  
24. 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 L.F.  
25. ALL LANDSCAPE AND SODDED AREAS ALONG COLLECTOR ROAD WILL BE IRRIGATED.  
26. THIS PROJECT WILL COMPLY WITH THE PASCO COUNTY TREE PROTECTION AND RESTORATION ORDINANCE.  
27. THIS PROJECT SHALL BE SUBJECT TO THE PASCO COUNTY NEW DEVELOPMENT FAIR SHARE CONTRIBUTION FOR ROAD IMPROVEMENTS ORDINANCE AND SCHOOL IMPACT FEE ORDINANCE.  
28. 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.  
29. 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 FOUNDATION, ARE DISCOVERED, WORK SHALL COME TO AN IMMEDIATE STOP AND THE FLORIDA DEPARTMENT OF HISTORIC RESOURCES (STATE HISTORIC PRESERVATION OFFICER) AND PASCO COUNTY SHALL BE NOTIFIED WITHIN TWO WORKING DAYS OF THE RESOURCES FOUND ON SITE.  
30. 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.  
31. ALL PROPOSED SIGNS MUST BE APPLIED FOR, APPROVED, AND PERMITTED ON AN INDIVIDUAL BASIS APART FROM THE ULTIMATELY APPROVED SITE PLAN. APPROVAL OF THIS SITE PLAN DOES NOT CONSTITUTE APPROVAL OF ANY SIGNAGE.  
32. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THIS APPROVAL DOES NOT INCLUDE ANY WORK IN PUBLIC RIGHT-OF-WAY. ALL WORK WITHIN EXISTING RIGHT-OF-WAY SHALL BE A FUNCTION OF AN APPROVED PASCO COUNTY RIGHT-OF-WAY USE PERMIT.  
33. ALL 20'x20' CLEAR-SIGHT AREAS SHALL BE KEPT FREE OF ANY SIGNAGE, PLANTINGS, TREES, ETC. IN EXCESS OF THREE-AND-A-HALF (3-1/2) FEET IN HEIGHT.  
34. THE OWNER/DEVELOPER ACKNOWLEDGES THAT THE SITE AND ITS SUBSEQUENT BUILDING PERMITS MUST COMPLY WITH ALL MPUD CONDITIONS.  
35. NO IRRIGATION SYSTEM OR LANDSCAPING SHALL BE INSTALLED IN ANY COUNTY OR STATE RIGHT-OF-WAY WITHOUT ISSUANCE OF APPROPRIATE RIGHT-OF-WAY USE PERMIT.  
36. FUGITIVE DUST EMISSIONS SHALL BE CONTROLLED BY SPRINKLING AS NECESSARY.  
37. ON-SITE BURNING SHALL NOT BE EMPLOYED WITHOUT APPROVAL FROM THE FIRE MARSHALL.  
38. THE SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED THROUGHOUT CONSTRUCTION UNTIL THE SITE IS PERMANENTLY STABILIZED.  
39. ALL PROJECTS MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE NO. 46-51.  
40. FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO THE ACCUMULATION OF COMBUSTIBLES.  
41. 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 BUILDING CONSTRUCTION WORK.  
42. PER NFPA-1, 18.3.4.1: CLEARANCES OF 7.5 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.  
43. PRIOR TO CONSTRUCTION, A BUILDING PERMIT SHALL BE OBTAINED FOR ALL STRUCTURES THAT HAVE A FOOTER, REGARDLESS OF SIZE, THROUGH PASCO COUNTY CENTRAL PERMITTING. (E.G., INCLUDING BUT NOT LIMITED TO BUILDINGS, ACCESSORIES, RETAINING WALLS, AND ETC.).  
44. ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF.  
45. ANY OFF SITE DISTURBANCE SHALL BE RESTORED TO THE PRE-CONSTRUCTION CONDITION OR BETTER.  
46. AS APPLICABLE, THE OWNER OR DEVELOPER SHALL PROVIDE COPIES OF ALL REQUIRED PERMITS FROM THE RESPECTIVE GOVERNING AGENCIES, PRIOR TO ISSUANCE OF THE SITE DEVELOPMENT PERMIT (SDP).  
47. UNDERDRAINS SHALL BE THE MAINTENANCE RESPONSIBILITY OF THE DEVELOPER'S SUCCESSOR (C.D.D.).  
48. NO DRIVEWAY CUTS SHALL BE ALLOWED ON COLLECTOR ROADS( TYPE LOW). DRIVEWAYS ARE ONLY ALLOWED ON LOCAL STREETS (TYPES SLOW & YIELD).  
49. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN THE 5- AND 10-YEAR WELLHEAD PROTECTION AREA .  
50. NO PORTION OF THIS PROJECT IS WITHIN A TRANSPORTATION CORRIDOR.  
51. IN CONSIDERATION OF THE COUNTY'S AGREEMENT TO PROVIDE POTABLE WATER AND/OR RECLAIMED WATER TO THE SUBJECT PROPERTY, THE APPLICANT/DEVELOPER AND ITS OR THEIR SUCCESSORS AND ASSIGNS AGREE TO THE FOLLOWING:  
a. 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 APPLICANT/DEVELOPER SHALL TEMPORARILY TRANSFER TO THE COUNTY ANY AND ALL WATER-USE PERMITS OR WATER-USERIGHTS THE APPLICANT/DEVELOPER MAY HAVE TO USE OR CONSUME SURFACE WATER OR GROUNDWATER WITHIN THE COUNTY FOR THE DURATION OF THE PRODUCTION FAILURE OR SHORTFALL.  
b. PRIOR TO THE APPLICANT/DEVELOPER SELLING WATER, WATER-USE PERMITS, OR WATER-USE RIGHTS, THE APPLICANT/DEVELOPER SHALL NOTIFY THE COUNTY, AND THE COUNTY SHALL HAVE A RIGHT OF FIRST REFUSAL TO PURCHASE SUCH WATER OR WATER-USE PERMITS OR WATER-USE RIGHTS.  
53. THE APPLICANT/DEVELOPER ACKNOWLEDGES, IN ACCORDANCE WITH THE LDC, SECTION 905.2, LANDSCAPING AND BUFFERING, ANY PLANT MATERIALS OF WHATSOEVER TYPE AND KIND REQUIRED BY THE LANDSCAPE AND BUFFERING REGULATIONS AND THIS APPROVAL SHALL BE REPLACED WITHIN THIRTY DAYS OF THEIR DEMISE AND/OR REMOVAL.  
54. ALL STRUCTURES, INCLUDING BUFFER WALLS, RETAINING WALLS, SIGNAGE, ETC., REQUIRES BUILDING PERMITS.  
55. ALL CONSTRUCTION WORK, INCLUDING ROADS, DRAINAGE, AND UTILITIES, SHALL BE CONSTRUCTED IN ACCORDANCE WITH PASCO COUNTY DESIGN STANDARDS AND TESTED IN COMPLIANCE WITH THE ENGINEERING SERVICES DEPARTMENT TESTING SPECIFICATIONS FOR CONSTRUCTION OF ROADS, STORM DRAINAGE, AND UTILITIES.



STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE  
PRELIMINARY SITE PLAN  
WAYPOINT RESIDENTIAL

DATE	DESCRIPTION
10/17/2016	REVIEW SUBMITTAL

PROJECT NO: TBD  
FILE: P5P  
DESIGN BY: AMR  
DRAWN BY: AMR

FLORIDA PROFESSIONAL ENGINEER  
10/17/2016 10:51 AM EDT  
GARY D. MILLER  
DATE: 10/17/2016 10:51 AM EDT  
REGISTRATION NO. 62717

**C-108**

**PROPOSED LOCAL ROADWAY DESIGN**

FOR ON-SITE PARKING & DRIVE AISLES

LAYER COEFFICIENTS	THICKNESS
0.44 - TYPE S-3 ASPHALT SURFACE COURSE	1.50"
0.15 - CRUSHED CONCRETE BASE COURSE (LBR 150)	6"
0.08 - STABILIZED SUBGRADE (12" MIN.)	12"

$SN = (0.44 \times 1.50) + (0.15 \times 6) + (0.08 \times 12) = 2.52$

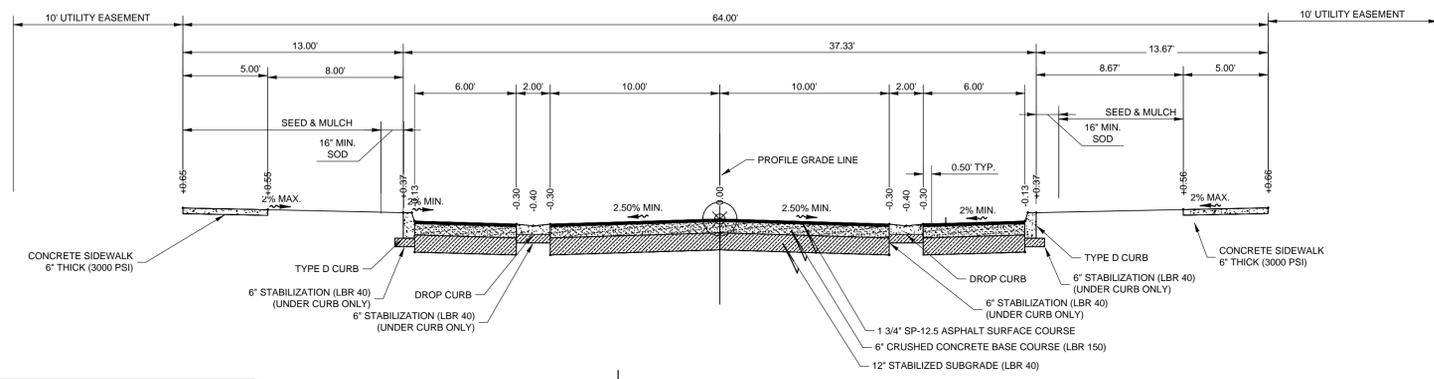
**ALTERNATE LOCAL ROADWAY DESIGN**

FOR ON-SITE PARKING & DRIVE AISLES  
(FOR SOIL CEMENT BASE ALTERNATIVE)

LAYER COEFFICIENTS	THICKNESS
0.44 - TYPE S-3 ASPHALT SURFACE COURSE	1.50"
0.15 - SOIL CEMENT BASE	7"
0.04 - COMPACTED SUBGRADE	12"

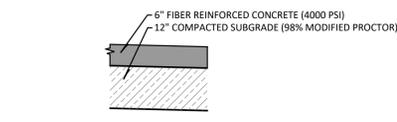
$SN = (0.44 \times 1.50) + (0.15 \times 7) + (0.04 \times 12) = 2.19$

Contractor may propose alternate pavement designs. Contractor shall submit any pavement alternatives to Engineer for approval prior to final subgrade preparations.

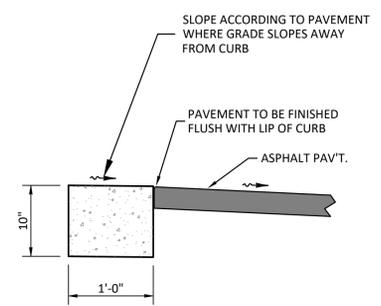


**LOCAL TWO-WAY ROAD**  
64' RIGHT-OF-WAY - ON-STREET PARKING BOTH SIDES  
SLOW STREET DESIGN SPEED 25 M.P.H.  
SCALE: 1" = 5'

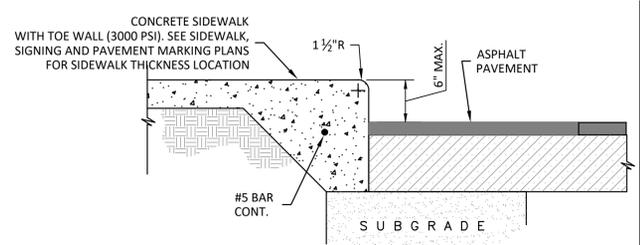
- NOTES:
- ROADSIDE CLEAR ZONE (4' FROM EACH FACE OF CURB) SHALL BE FREE FROM OBSTRUCTION.
  - SEE NOTE ON C-205 REGARDING SOIL CEMENT ALTERNATIVE.



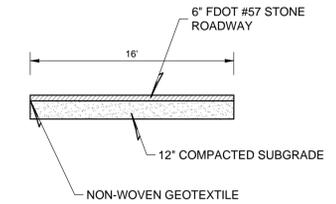
**CONCRETE PAD DETAIL**  
SCALE: NTS



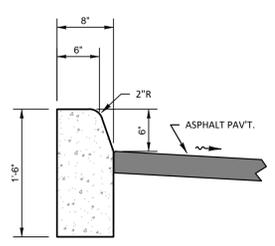
**RIBBON CURB**  
SCALE: NTS



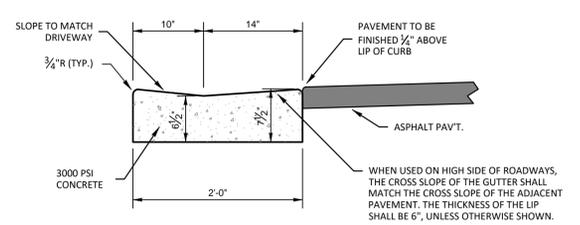
**6" RAISED SIDEWALK/PAVEMENT INTERFACE**  
SCALE: 1" = 1'



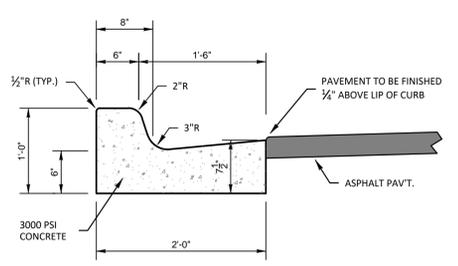
**TEMPORARY COMPACTED ROADWAY**  
SCALE: NTS



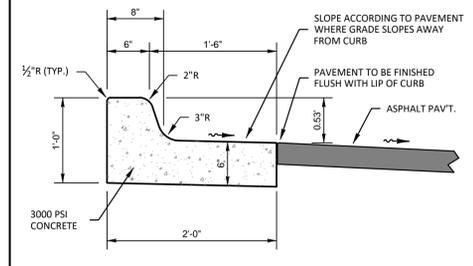
**TYPE "D" CURB**  
SCALE: 1" = 1'



**DROP CURB**  
SCALE: 1" = 1'



**TYPE "F" CURB & GUTTER**  
SCALE: 1" = 1'



**TYPE "F" CURB & GUTTER ROTATED**  
SCALE: 1" = 1'

**PAVEMENT CONSTRUCTION NOTES:**

- Pavement wearing surface shall be asphaltic concrete of type and thickness shown in detail and shall meet current Department of Transportation Specifications.
- Pavement base shall be crushed concrete, as designated in plans, and shall be compacted to a minimum thickness as shown.
- Crushed concrete road base material shall be of uniform quality, free of all organics, steel rebar, asphalt debris, and any other deleterious materials.
- Crushed concrete road base material shall generally conform to the gradation chart for graded aggregate base, FDOT Section 204 and 901, tested at a frequency required by the Governing Agency having jurisdiction. In addition, crushed concrete shall conform to the applicable specification contained within Pasco County Design Standards, "Crushed Concrete Base Specification - Index 104."
- Crushed concrete road base material shall have a minimum compacted dry density of 114.0 pcf (per AASHTO T-180), and a minimum Limerock Bearing Ratio (LBR) of 150 (under-tolerance +/- 5%), tested at a frequency required by the Governing Agency having jurisdiction, or in the absence thereof, by minimum FDOT standards.
- Base single-course lifts shall not exceed 6 inches (compacted, 8 inches loose).
- Crushed concrete road base shall be compacted to a minimum of 100% of Modified Proctor per AASHTO T-180, tested at a frequency required by the Governing Agency having jurisdiction, or in the absence thereof, by minimum FDOT standards.
- Crushed concrete base shall have a 12-inch thick stabilized subgrade, Type "B" stabilization in accordance with FDOT Section 160 and shall have a minimum Limerock Bearing Ratio (LBR) of 40 or greater. Subgrade shall be compacted to the minimum thickness as shown. Subgrade shall be compacted to a minimum of 98% Modified Proctor per AASHTO T-180.
- Compacted subgrade (beneath stabilized subgrade, if required, or beneath base materials) shall be prepared in accordance with FDOT Index 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 (SP) and/or A-2-4) with a maximum 15% fines passing the No. 200 sieve.
- Crushed concrete base surface shall be inspected and approved by the engineer prior to any paving operation.
- 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 percent (98%) of the maximum density as determined by AASHTO T-180 for a minimum depth of twelve (12) inches.
- All Portland Cement Concrete shall have a minimum compressive strength of 3000 psi.
- 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.
- Should no underdrain be specified on the plans, the Contractor shall include 1,000 linear feet of underdrain at unit prices for bid purposes.
- All testing referenced above shall, at a minimum, be at the frequency required by the Governing Agency having jurisdiction, or in the absence thereof, by minimum FDOT standards.
- Sidewalks shall be constructed of natural or colored concrete at least 3,000 psi in strength, fiber reinforced on a compacted and non-yielding subgrade with minimum of four inches in thickness. When a sidewalk is crossed by a driveway, the minimum thickness shall be 6 inches.

**ALTERNATIVE SOIL-CEMENT BASE MATERIAL**

- 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.
- Soil-cement surface shall be inspected and approved by the Engineer prior to any paving operation.
- Subgrade for soil-cement 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.
- 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.
- Subgrade under soil-cement base shall NOT be stabilized unless otherwise directed by Engineer of Record.

**HEIDT DESIGN**  
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Engineering Business Certificate of Authorization No. 23752  
Landscape Architecture Certificate of Authorization No. LC26000405

**STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE TYPICAL ROADWAY SECTIONS**

PREPARED FOR: WAYPOINT RESIDENTIAL

NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: TBD  
FILE: RS  
DESIGN BY: AMR  
DRAWN BY: AMR

FLORIDA PROFESSIONAL ENGINEER

10/17/2016 | 10:51 AM EDT  
**GARY D. MILLER**  
DATE: 10/17/2016  
REGISTRATION NO. 52717

**C-200**

### PASCO COUNTY CRUSHED CONCRETE BASE SPECIFICATIONS

THE WORK SPECIFIED UNDER THIS SECTION CONSISTS OF THE CONSTRUCTION OF ROADWAY BASE UTILIZING CRUSHED CONCRETE (RECLAIMED CONCRETE AGGREGATE BASE MATERIAL) ON A PREPARED STABILIZED SUBGRADE OF LBR 40 WITH A DENSITY OF 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY FM 1-T-180, METHOD D, IN CONFORMITY WITH THE LINES, GRADES NOTES AND TYPICAL CROSS SECTIONS SHOWN IN THE PLANS, AND AS DIRECTED BY THE COUNTY ENGINEER.

THE CONSTRUCTION OF CRUSHED CONCRETE BASE SHALL CONFORM TO THE REQUIREMENTS OF THIS SECTION, OR, IN LIEU THEREOF, SUCH REQUIREMENTS AS MAY BE ESTABLISHED BY THE COUNTY ENGINEER DURING CONSTRUCTION. THE COUNTY ENGINEER SHALL HAVE FULL AUTHORITY TO MODIFY THE PROVISIONS OF THIS SECTION AS DEEMED NECESSARY, IN HIS OPINION, TO MEET FIELD CONDITIONS AND REQUIREMENTS.

#### MATERIALS

CRUSHED CONCRETE MUST BE PRODUCED FROM A SOURCE APPROVED BY FLORIDA DEPARTMENT OF TRANSPORTATION OR THE COUNTY ENGINEER. THE SUPPLIER SHALL HAVE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) PERMIT REQUIREMENTS SECTION 62-701.730 OR BE QUALIFIED AS A CLEAN DEBRIS SOURCE UNDER DEP RULES. THE RECLAIMED CONCRETE AGGREGATE BASE SHALL CONSIST OF CRUSHED CONCRETE MATERIAL DERIVED FROM THE CRUSHING OF HARD PORTLAND CEMENT CONCRETE.

#### COMPOSITION

BASE MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

SEIVE SIZE	PERCENT BY WEIGHT PASSING
2 INCH	100
3/4 INCH	65 to 95
3/8 INCH	40 to 85
No. 4	25 to 65
No. 10	20 to 50
No. 50	5 to 25
No. 200	0 to 10

BASE MATERIAL SHALL CONFORM TO THE FOLLOWING PLASTICITY REQUIREMENTS:

CRUSHED CONCRETE BASE SHALL NOT CONTAIN PLASTIC SOILS SUCH THAT THE No. 40 SIEVE MATERIAL SHALL BE NON-PLASTIC.

LIQUID LIMIT (AS DETERMINED BY AASHTO T80) (LESS THAN 25) PER MATERIAL TYPE

THE FINISHED IN-PLACE CRUSHED CONCRETE BASE LIMEROCK BEARING RATIO SHALL HAVE A MINIMUM (LBR) OF 150.

CRUSHED CONCRETE BASE SHALL BE FREE OF ALL MATERIALS THAT FALL UNDER THE CATEGORY OF SOLID WASTE OR HAZARD MATERIALS AS DEFINED BY THE STATE OR LOCAL JURISDICTION AND SHALL MEET ALL DEP PERMIT REQUIREMENTS WHICH PERTAIN TO CONSTRUCTION, DEMOLITION AND RECYCLING OF THESE MATERIALS. CRUSHED CONCRETE BASE SHALL BE ASBESTOS FREE. THE FOLLOWING LIMITS SHALL NOT BE EXCEEDED:

BITUMINOUS CONCRETE.....	1% BY WEIGHT
BRICKS.....	.1% BY WEIGHT
WOOD AND OTHER ORGANIC SUBSTANCES.....	0.5% BY WEIGHT
HEAVY METALS (EXCEPT LEAD).....	0.1% BY WEIGHT
LEAD.....	.5 PARTS PER MILLION
REINFORCED STEEL AND WELDED WIRE FABRIC.....	0.1% BY WEIGHT
PLASTER AND GYPSUM BOARD.....	0.1% BY WEIGHT

THE MATERIAL FOR CRUSHED CONCRETE BASE SHALL CONSIST ONLY OF CRUSHED CONCRETE PAVEMENT AND SUCH ADDITIVE MATERIAL AS MAY BE APPROVED BY THE COUNTY ENGINEER FOR THE PURPOSE OF FACILITATING CONSTRUCTION AND ACHIEVING THE DESIRED CHARACTERISTICS OF THE FINISHED IN-PLACE PRODUCT. APPROVAL FROM THE COUNTY ENGINEER IS REQUIRED BEFORE PLACING MATERIAL FROM MORE THAN ONE SOURCE. ONCE APPROVED, A CHANGE IN THE SOURCE OF BASE MATERIAL SHALL REQUIRE ADDITIONAL ACCEPTANCE TESTING. THE MATERIAL SHALL NOT CONTAIN LUMPS, BALLS OR POCKETS OF SAND OR CLAY MATERIAL IN SIZE OR QUANTITY SUFFICIENT TO BE DETRIMENTAL TO THE PROPER BONDING, FINISHING, STRENGTH OF THE CONCRETE BASE. EXISTING BASE IS TO BE REMOVED TO CONSTRUCT THE NEW BASE.

#### INSPECTION

SUBGRADE AND BASE INSPECTIONS SHALL BE CONDUCTED BY THE ENGINEER OF RECORD AND THE COUNTY INSPECTOR PRIOR TO SURFACE COURSE CONSTRUCTION.

NOTE: NO DEVIATIONS TO THIS DETAIL WILL BE PERMITTED UNLESS APPROVED BY THE COUNTY ENGINEER. ANY PROPOSED ALTERATIONS SHALL BE CLEARLY IDENTIFIED AND HIGHLIGHTED ON DETAIL.

 <b>PASCO COUNTY ENGINEERING SERVICES</b> <b>DESIGN STANDARDS</b>	<b>CRUSHED - CONCRETE BASE SPECIFICATIONS</b>		Sheet No. <b>1 of 2</b>
	APPROVED BY <u>JCW</u>	BCC APPROVAL REVISED _____	Index No. <b>104</b>

#### EQUIPMENT, PLACEMENT AND SPREADING OF MATERIAL

USE MECHANICAL ROCK SPREADERS, EQUIPPED WITH A DEVICE THAT STRIKES OFF THE ROCK UNIFORMLY TO LAYING THICKNESS AND CAPABLE OF PRODUCING EVEN DISTRIBUTION. FOR ROADWAY WIDTHS OF 20 FEET OR LESS, CROSSOVERS, INTERSECTIONS, RAMP AREAS OR WHERE THE USE OF A MECHANICAL SPREADER IS NOT PRACTICABLE, THE CONTRACTOR MAY SPREAD THE CRUSHED CONCRETE BASE USING BULLDOZERS OR BLADE GRADERS.

TRANSPORT CRUSHED CONCRETE TO THE POINT OF USE, OVER THE BASE PREVIOUSLY PLACED, AND DUMP IT ON THE END OF THE PRECEDING SPREAD. HAULING ON SUBGRADE TO DUMP CRUSHED CONCRETE BASE WILL BE PERMITTED ONLY WHEN, IN THE ENGINEER'S OPINION, THESE OPERATIONS WILL NOT BE DETRIMENTAL TO THE BASE AND SUBGRADE.

CRUSHED CONCRETE SHALL BE SPREAD UNIFORMLY WITHOUT SEGREGATION OF FINE OR COURSE MATERIALS. SEGREGATED AREAS SHALL BE REPLACED WITH PROPERLY GRADED CRUSHED CONCRETE AFTER REMOVAL.

THE MINIMUM THICKNESS OF THE CRUSHED CONCRETE BASE SHALL BE INDICATED ON THE PLANS. WHEN THE SPECIFIED COMPACTED THICKNESS OF THE CRUSHED CONCRETE BASE IS GREATER THAN SIX INCHES, CONSTRUCT THE BASE IN MULTIPLE COURSES OF EQUAL THICKNESS. INDIVIDUAL COURSES SHALL NOT BE LESS THAN THREE INCHES. PLACE CRUSHED CONCRETE MATERIAL TO ENSURE THE TOTAL THICKNESS SINGLE SOURCE INTEGRITY AT ANY STATION LOCATION OF THE BASE.

#### COMPACTING, FINISHING AND TESTING REQUIREMENTS

AFTER SPREADING IS COMPLETED THE CRUSHED CONCRETE SHALL BE UNIFORMLY COMPACTED, WITH WATER BEING ADDED AS REQUIRED TO A DENSITY OF NOT LESS THAN ONE HUNDRED PERCENT (100%) OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. DURING FINAL COMPACTION OPERATIONS, IF THE BLDING OF ANY AREAS IS NECESSARY TO OBTAIN THE TRUE GRADE AND CROSS SECTION, FREE OF SCABS AND LAMINATIONS, THE COMPACTING OPERATIONS FOR SUCH AREAS SHALL BE COMPLETED PRIOR TO THE PERFORMANCE OF DENSITY TESTS ON THE FINISHED BASE.

MULTIPLE COURSE BASE: CLEAN THE FIRST COURSE OF FOREIGN MATERIAL, THEN BLADE AND BRING IT TO A SURFACE CROSS-SECTION APPROXIMATELY PARALLEL TO THE FINISHED BASE. BEFORE SPREADING ANY MATERIAL FOR THE UPPER COURSES, OBTAIN DENSITY TESTS FOR THE LOWER COURSES TO DETERMINE THAT THE REQUIRED COMPACTION (NOT LESS THAN ONE HUNDRED PERCENT (100%) OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180) HAS BEEN OBTAINED. AFTER SPREADING THE CRUSHED CONCRETE FOR THE TOP COURSE, FINISH AND SHAPE ITS SURFACE TO PRODUCE THE REQUIRED GRADE AND CROSS-SECTION, FREE OF SCABS AND LAMINATIONS, AFTER COMPACTION.

THE MINIMUM DENSITY THAT WILL BE ACCEPTED AT ANY LOCATION OUTSIDE THE TRAVELED ROADWAY (SUCH AS INTERSECTIONS, CROSSOVERS, TURNOUTS, ETC.) SHALL BE 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

#### TESTING OF BASE COURSE

THE MINIMUM FREQUENCY OF SAMPLING AND TESTING OF CRUSHED CONCRETE MATERIAL, LAB DENSITY, FIELD DENSITY AND THICKNESS SHALL ADHERE TO THE FREQUENCY OF TESTING FOR LIMEROCK BASE IN THE MOST CURRENT EDITION OF "PASCO COUNTY ENGINEERING SERVICES DEPARTMENT TESTING SPECIFICATIONS FOR CONSTRUCTION OF ROADS, STORM DRAINAGE AND UTILITIES". ONE PLANT MIX DESIGN, ONE PLANT GRADATION TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES (AASHTO T-27) (FM1-T027) INCLUDING A PLASTICITY INDEX (FM1-T090) (AASHTO T-90) FROM THE APPROVED SOURCE SHALL BE SUBMITTED AT ONE PER DAY OR CHANGE OF MATERIAL. ONE ROADWAY FIELD TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES (ASTM C-136) SHALL BE SUBMITTED PER 500 FEET OF ROAD PER DAY PER MIX DESIGN; MINIMUM ONE PER ROAD.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING PERFORMED IN CONNECTION WITH CONSTRUCTION OF THE BASE.

#### CORRECTION OF DEFECTS

ALL SEGREGATED AREAS OF FINE OR COURSE CRUSHED CONCRETE SHALL BE REMOVED AND REPLACED WITH PROPERLY GRADED RECLAIMED CONCRETE AGGREGATE BASE MATERIAL. ALL DEFECTS IN MATERIALS AND CONSTRUCTION SHALL BE CORRECTED BY THE CONTRACTOR, AT HIS EXPENSE, AND TO THE SATISFACTION OF THE COUNTY ENGINEER.

#### PRIMING AND MAINTENANCE

APPLY THE PRIME COAT ONLY WHEN THE BASE MEETS THE SPECIFIED DENSITY REQUIREMENTS AND WHEN THE MOISTURE CONTENT, AT THE TIME OF PRIMING, ENSURE THAT THE BASE IS FIRM, UNYIELDING AND IN SUCH CONDITION THAT NO UNDUCE DISTORTION WILL OCCUR. MAINTAIN THE TRUE CROWN AND TEMPLATE, WITH NO RUTTING OR DISTORTION, WHILE APPLYING THE SURFACE COURSE.

EMBANKMENT MATERIAL UNDER CONCRETE PAVEMENT SHALL BE PER FDOT INDEX No. 505.

#### PASCO COUNTY TESTING SPECIFICATIONS ON CRUSHED CONCRETE BASE

TESTS FOR BASE THICKNESS, AND DENSITY SHALL BE LOCATED NO MORE THAN THREE HUNDRED (300) FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT, AND ON THE CENTERLINE OF ROADWAY. THERE SHALL BE NO LESS THAN ONE (1) TEST PER STREET, BEARING VALUE, GRADATION AND FIELD TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES (ASTM C-136) SHALL BE NO MORE THAN FIVE HUNDRED (500) FEET.

EXAMPLE: A SEVEN HUNDRED FEET ROAD WOULD REQUIRE TWO FIELD LBR AND GRADATION TESTS, THREE FIELD DENSITY AND THICKNESS TESTS ALONG WITH THE APPROPRIATE LAB TESTING.

NOTE: NO DEVIATIONS TO THIS DETAIL WILL BE PERMITTED UNLESS APPROVED BY THE COUNTY ENGINEER. ANY PROPOSED ALTERATIONS SHALL BE CLEARLY IDENTIFIED AND HIGHLIGHTED ON DETAIL.

 <b>PASCO COUNTY ENGINEERING SERVICES</b> <b>DESIGN STANDARDS</b>	<b>CRUSHED - CONCRETE BASE SPECIFICATIONS</b>		Sheet No. <b>2 of 2</b>
	APPROVED BY <u>JCW</u>	BCC APPROVAL REVISED _____	Index No. <b>104</b>

### SOIL - CEMENT BASE SPECIFICATIONS

DESCRIPTION  
CONSTRUCT A BASE COURSE COMPOSED OF A COMBINATION OF SOIL, PORTLAND CEMENT, AND WATER.

#### MATERIALS

MEET THE FOLLOWING REQUIREMENTS:

CEMENT: PORTLAND CEMENT, TYPE I, II, III, OR TYPE I-P OR TYPE I-S.....SECTION 921

WATER: USE WATER THAT IS FREE FROM SUBSTANCES DELETERIOUS TO HARDENING OF THE SOIL-CEMENT MIXTURE.  
CURING MATERIAL: .....916-4

USE EMULSIFIED ASPHALT GRADE SS, RS, OR MS AS APPROVED BY THE ENGINEER. DILUTE THESE AS RECOMMENDED BY MANUFACTURER.

SOIL: FOR BASE COURSE CONSTRUCTION, USE EITHER THE MATERIAL EXISTING IN THE LOCATION TO BE OCCUPIED BY BASE, A SUITABLY FRIABLE MATERIAL FURNISHED BY THE CONTRACTOR, OR A COMBINATION OF THESE. IF THE MATERIAL EXISTING IN THE LOCATION TO BE OCCUPIED BY THE BASE DOES NOT MEET THE REQUIREMENTS SPECIFIED BELOW, REMOVE AND REPLACED WITH SUITABLE SOIL.

OBTAIN APPROVAL OF THE MATERIAL PITS PRIOR TO USE. EXCAVATE MATERIAL PITS TO ACHIEVE A UNIFORMLY MIXED MATERIAL WITH REASONABLY CONSISTENT CHARACTERISTICS. BLEND STRATA OR DIFFERING MATERIALS IN ACCORDANCE WITH A PROCEDURE APPROVED BY THE ENGINEER. THE COUNTY WILL CONSIDER PROPOSED RECYCLED MATERIALS ON A CASE BY CASE BASIS.

#### SPECIFIC REQUIREMENTS FOR SOIL:

ORGANIC MATERIAL (AS PER FM 1-T267).....	MAXIMUM 5%
TOTAL CLAY AND SILT CONTENT (MINUS NO. 200 [75 μm SIEVE])(AS PER FM 1-T088, NO HYDROMETER TEST) .....	MAXIMUM 25%
PLASTIC INDEX (AS PER FM 1-T090).....	MAXIMUM 10%
LIQUID LIMIT (AS PER FM 1-T089).....	MAXIMUM 25%
GRADATION:	
PASSING 2 INCH [50 MM] SIEVE.....	MINIMUM 100%
PASSING NO. 4 [4.75 MM] SIEVE.....	MINIMUM 55%
PASSING NO. 10 [2.00 MM] SIEVE.....	MINIMUM 37%
(AS PER FM 1-T088)	

AS AN EXCEPTION TO THE ABOVE REQUIREMENTS, THE CONTRACTOR MAY USE ANY MATERIAL MEETING THE REQUIREMENTS FOR LIMEROCK.

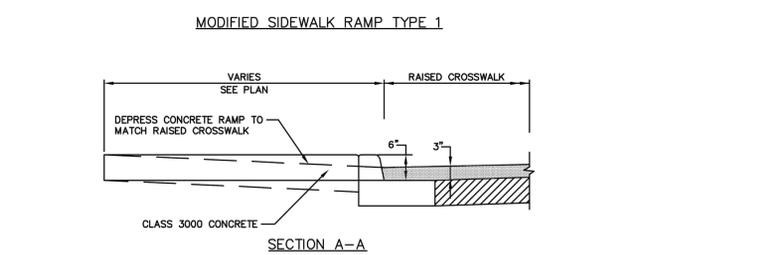
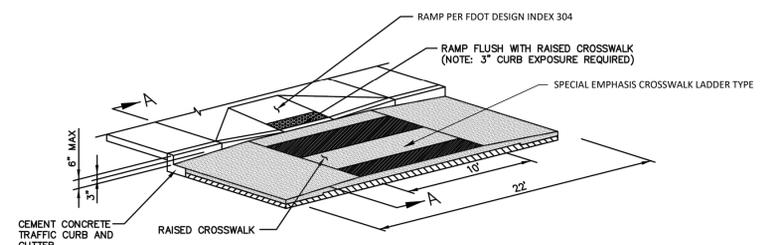
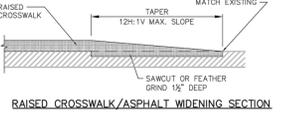
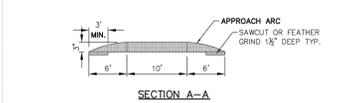
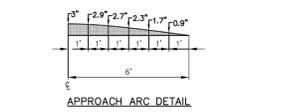
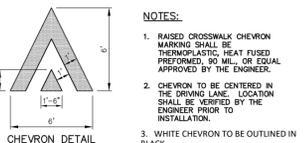
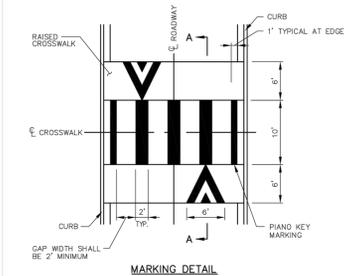
#### NOTE:

THE ABOVE SOIL CEMENT BASE SPECIFICATIONS WERE TAKEN FROM FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2002 MANUAL - SECTION 270. AS SUCH, THE REFERENCED MATERIALS FOR SOIL CEMENT BASE SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN DIVISION III (MATERIALS) OF THIS FDOT MANUAL AS WELL.

SOIL CEMENT SHALL BE PLANT MIXED. DESIGN MIX SHALL BE 300 PSI AND CONSTRUCTED BASE SHALL NOT EXCEED 350 PSI.

NOTE: NO DEVIATIONS TO THIS DETAIL WILL BE PERMITTED UNLESS APPROVED BY THE COUNTY ENGINEER. ANY PROPOSED ALTERATIONS SHALL BE CLEARLY IDENTIFIED AND HIGHLIGHTED ON DETAIL.

 <b>PASCO COUNTY ENGINEERING SERVICES</b> <b>DESIGN STANDARDS</b>	<b>SOIL - CEMENT BASE SPECIFICATIONS</b>		Sheet No. <b>1 of 1</b>
	APPROVED BY <u>JCW</u>	BCC APPROVAL REVISED _____	Index No. <b>105</b>



### RAISED CROSSWALK DETAIL

N.T.S.

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Professional Engineer License No. 12016/0117 8.57 AM ANNA RASIAK

STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE	TYPICAL ROADWAY SECTIONS	PREPARED FOR:
		WAYPOINT RESIDENTIAL

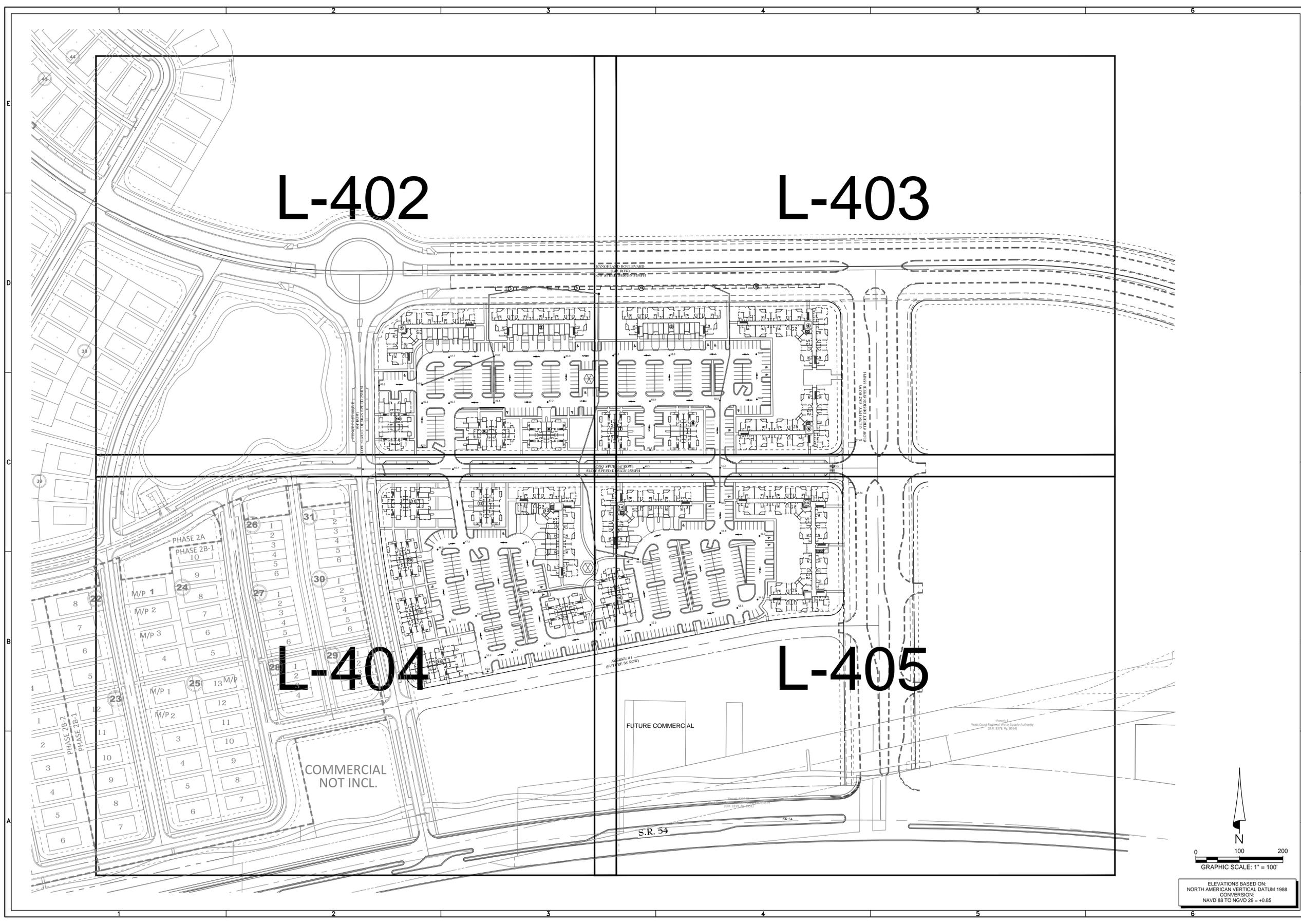
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DRAWN BY:	AMR

FLORIDA PROFESSIONAL ENGINEER

Designed by:  
  
GARY D. MILLER  
DATE: 10/17/2016 | 10:51 AM EDT  
REGISTRATION NO. 62717

**C-201**



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STARKEY RANCH DOWNTOWN  
 NEIGHBORHOOD MF SITE  
 LANDSCAPE KEY SHEET

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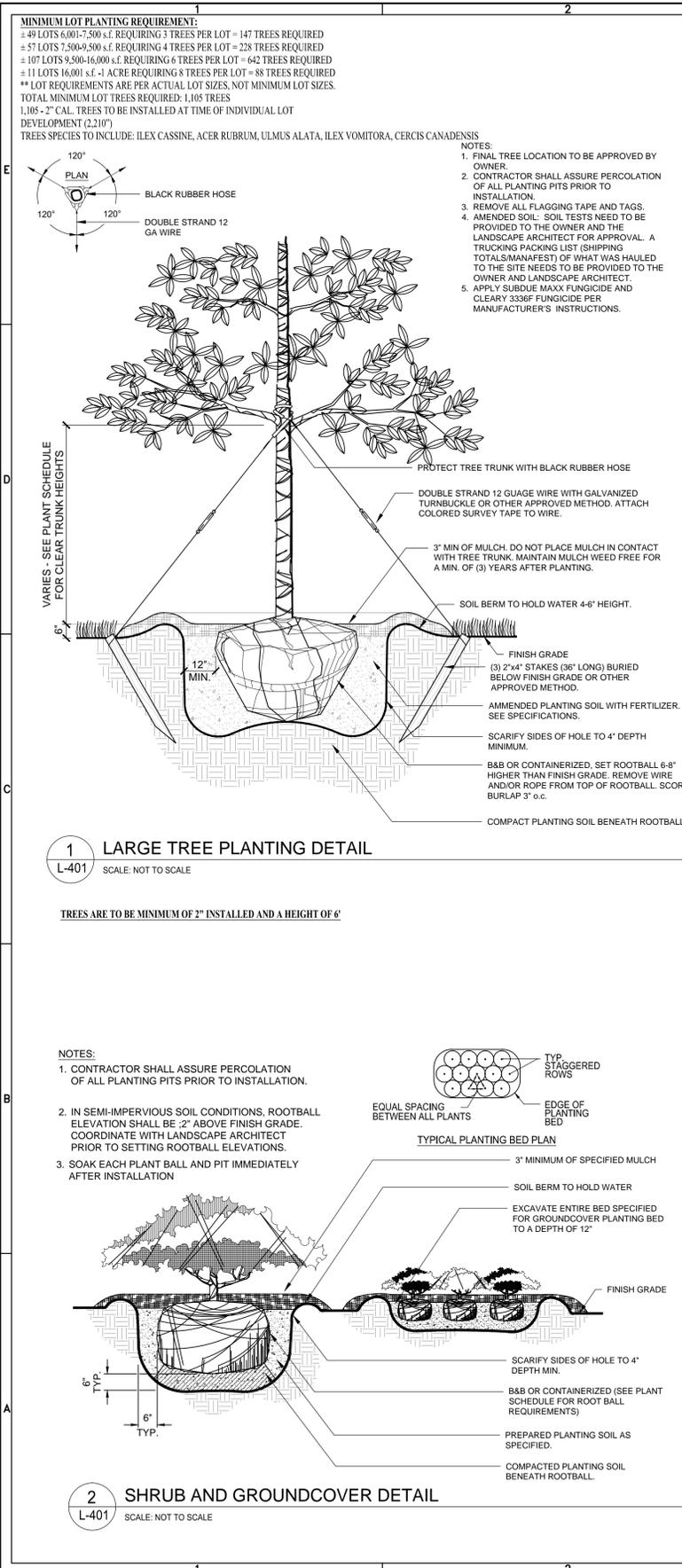
PROJECT NO: WPR SR 1002  
 FILE: L-400  
 DESIGN BY: RR/KJS  
 DRAWN BY: RR

FLORIDA REGISTERED  
 LANDSCAPE ARCHITECT

KEVEN JOHN STEELE  
 DATE:  
 REGISTRATION NO. LA6667179

**L-400**

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PASCO COUNTY LANDSCAPING STANDARD NOTES (PASCO LDC 905.2)

- MAINTENANCE RESPONSIBILITY.** THE COUNTY IS NOT RESPONSIBLE FOR MAINTENANCE OF ANY LANDSCAPING UNLESS APPROVED THROUGH A COUNTY MAINTENANCE AGREEMENT. (LDC 905.2-C.1.A)
- CLEAR-SIGHT TRIANGLE.** WHERE A DRIVEWAY/ACCESSWAY INTERSECTS A ROAD RIGHT-OF-WAY OR WHERE TWO (2) ROAD RIGHTS-OF-WAY INTERSECT, VEGETATION, STRUCTURES, AND NON-VEGETATIVE VISUAL SCREENS SHALL NOT BE LOCATED SO AS TO INTERFERE WITH THE CLEAR-SIGHT TRIANGLE AS DEFINED IN THIS CODE OR THE FLORIDA DEPARTMENT OF TRANSPORTATION, MANUAL OF UNIFORM MINIMUM STANDARDS, MOST RECENT EDITION (GREEN BOOK), WHICHEVER IS MORE RESTRICTIVE. (LDC 905.2-C.1.B)
- SUSTAINABLE PRACTICES.** LANDSCAPING SHALL BE INSTALLED SO THAT LANDSCAPING MATERIALS MEET THE CONCEPT OF RIGHT MATERIAL/RIGHT PLACE. INSTALLED TREES AND PLANTS SHALL BE GROUPED INTO ZONES ACCORDING TO WATER, SOIL, CLIMATE, AND LIGHT REQUIREMENTS. PLANT GROUPINGS BASED ON WATER REQUIREMENTS ARE DROUGHT TOLERANT, NATURAL, AND OASIS. (LDC 905.2-C.1.C)
- DIVERSITY.** A MAXIMUM OF 50 PERCENT OF THE PLANT MATERIALS USED, OTHER THAN TREES, MAY BE NON-DROUGHT TOLERANT. A MINIMUM OF 30 PERCENT OF THE PLANT MATERIALS, OTHER THAN TREES AND TURFGRASS, USED TO FULFILL THE REQUIREMENTS OF THIS SUBSECTION SHALL BE NATIVE FLORIDIAN SPECIES, SUITABLE FOR GROWTH IN THE COUNTY. (LDC 905.2-C.1.D)
- DIVERSITY.** NO ONE PLANT SPECIES OF SHRUBS OR GROUND COVER PLANTS, EXCLUDING TURFGRASS, SHALL CONSTITUTE MORE THAN 25 PERCENT COVERAGE OF THE OVERALL LANDSCAPE AREA. (LDC 905.2-C.1.D.5)
- QUALITY.** ALL PLANT MATERIALS SHALL BE FLORIDA NO. 1 GRADE PER GRADES AND STANDARDS FOR NURSERY PLANTS," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES (FDACS), WHICH IS INCORPORATED HEREIN BY REFERENCE. (LDC 905.2-C.2.A)
- AVOID EASEMENTS.** TREES SHALL NOT BE PLANTED WITHIN ANY EASEMENT SO AS TO INTERFERE WITH THE USE OF THAT EASEMENT, NOR UNDER ANY PRESENT OR PLANNED OVERHEAD UTILITY, NOR IN ANY RIGHTS-OF-WAY WITHOUT COUNTY APPROVAL THROUGH THE ASSOCIATED REVIEW PROCESS. (LDC 905.2-C.3.C)
- MULCH SHALL BE USED IN CONJUNCTION WITH LIVING PLANT MATERIALS** SO AS TO COVER EXPOSED SOIL. MULCH SHALL BE INSTALLED TO A MINIMUM DEPTH OF THREE (3) INCHES. THE MULCH SHOULD NOT BE PLACED DIRECTLY AGAINST THE PLANT STEM OR TREE TRUNK. MULCH SHALL NOT BE REQUIRED FOR ANNUAL BEDS. STONE OR GRAVEL MAY BE USED TO COVER A MAXIMUM OF 20 PERCENT OF THE LANDSCAPED AREA. (LDC 905.2-C.3.D)
- QUALITY PRACTICES.** ALL LANDSCAPING SHALL BE INSTALLED IN ACCORDANCE WITH STANDARDS AND PRACTICES OF THE FLORIDA NURSERY, GROWERS, AND LANDSCAPE ASSOCIATION AND THE FLORIDA CHAPTER OF THE INTERNATIONAL SOCIETY OF ARBORICULTURE. (LDC 905.2-C.3.E)
- ALL PORTIONS OF A LOT UPON WHICH DEVELOPMENT HAS COMMENCED, BUT NOT CONTINUED FOR A PERIOD OF 30 DAYS, SHALL BE PLANTED WITH A GRASS SPECIES OR GROUND COVER TO PREVENT EROSION AND ENCOURAGE SOIL STABILIZATION.** ADEQUATE COVERAGE, SO AS TO SUPPRESS FUGITIVE DUST, SHALL BE ACHIEVED WITHIN 45 DAYS. (LDC 905.2-C.3.G)
- ALL REQUIRED LANDSCAPING SHALL BE MAINTAINED IN A HEALTHY CONDITION IN PERPETUITY IN ACCORDANCE WITH THIS CODE.** (LDC 905.2-E.2)
- ONGOING MAINTENANCE TO PREVENT THE ESTABLISHMENT OF PROHIBITED EXOTIC SPECIES IS REQUIRED.** (LDC 905.2-E.4)

LANDSCAPE NOTES AND SPECIFICATIONS

IMPLEMENTATION OF THIS PLAN AND SPECIFICATIONS SHALL CONFORM TO THE HIGHEST STANDARDS OF THE TRADE AND TO ALL PREVAILING ORDINANCES AND CODES. THE SPECIFICATIONS CONTAINED HEREIN SHALL SUPPLEMENT THE WRITTEN SPECIFICATIONS.

PRIOR TO SUBMISSION OF BID, THE LANDSCAPE CONTRACTOR SHALL VISIT THE SITE AND FULLY INFORM HIMSELF OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE ACCOMPLISHED.

THE WORK INCLUDES SOIL PREPARATION, FINISH GRADING, SUPPLYING AND PLANTING OF TREES, SHRUBS, GROUNDCOVERS, VINES, AND SOD OF THE SPECIES, SIZES AND QUALITY AS SHOWN ON THE DRAWINGS AND/OR AS SPECIFIED HEREIN. FURTHER, THE WORK SHALL INCLUDE THE MAINTENANCE OF ALL LANDSCAPE AND SOD/SEED AREAS UNTIL FINAL ACCEPTANCE BY THE PROJECT ARCHITECT AND OWNER'S REPRESENTATIVE.

THE LANDSCAPE CONTRACTOR SHALL PROVIDE A LUMP SUM BID PRICE FOR A FULLY AUTOMATIC, 100% OVERLAP COVERAGE, UNDERGROUND IRRIGATION SYSTEM. THE IRRIGATION SYSTEM DESIGN, SPECIFICATIONS AND INSTALLATION SHALL CONFORM TO THE STANDARDS OF THE "IRRIGATION ASSOCIATION," 1911 N. FORT MYER DRIVE #1009, ARLINGTON, VA 22209 AND TO THE STANDARDS OF THE "FLORIDA IRRIGATION SOCIETY."

THE LANDSCAPE CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK, PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE ARCHITECT AND OWNER'S CONSTRUCTION REPRESENTATIVE.

THE LANDSCAPE CONTRACTOR SHALL BE PROPERLY LICENSED AND INSURED. SEE WRITTEN SPECIFICATIONS.

ALL WORK IN THE RIGHT-OF-WAY AREAS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE LOCAL AND/OR STATE HIGHWAY JURISDICTION.

THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS (EXISTING AND PROPOSED), RELATED PAVING, ELEVATIONS, WATER AND ELECTRICAL SUPPLY, ETC., PRIOR TO START OF WORK. NOTIFY THE GENERAL CONTRACTOR AND THE ARCHITECT/OWNER'S AGENT IN WRITING OF UNSATISFACTORY CONDITIONS PRIOR TO START OF WORK. START OF WORK WILL INDICATE ACCEPTANCE OF CONDITIONS AND FULL RESPONSIBILITY FOR COMPLETED WORK.

VERIFY ALL UNDERGROUND AND ABOVE-GROUND UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. IF UNDERGROUND CONSTRUCTION, UTILITIES OR OBSTRUCTIONS ARE ENCOUNTERED DURING THE EXCAVATION OF PLANTING AREAS OR PITS, IMMEDIATELY INFORM THE OWNER'S CONSTRUCTION REPRESENTATIVE. ALTERNATE LOCATIONS FOR THE PLANT MATERIAL(S) WILL BE SELECTED BY THE ARCHITECT OR AGENT. SUCH CHANGES IN LOCATION SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION.

THE LANDSCAPE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ANY AND ALL DAMAGES THAT RESULT FROM HIS ACTIVITIES DUE TO IMPROPER VERIFICATION OF UTILITIES AND/OR OPERATOR ERROR DURING EXCAVATIONS. SEE RELATED CIVIL PLANS FOR ADDITIONAL INFORMATION AND COORDINATE ON-SITE WITH THE GENERAL CONTRACTOR AND OTHER TRADES PRIOR TO START OF WORK.

SITE CONTRACTOR SHALL PROVIDE THE LANDSCAPE CONTRACTOR WITH A FINISH GRADE OF (PLUS OR MINUS) ONE-TENTH OF ONE FOOT. GRADE SHALL BE CLEAR OR DEBRIS AND WEED GROWTH. FINISH GRADES ADJACENT TO PAVING SHALL BE TWO INCHES (2") BELOW TOP OF CURBS, WALKS OR PAVING IN ORDER TO CONTAIN SOD OR MULCH AS SPECIFIED.

LANDSCAPING SHALL BE PLANTED IN SUCH A MANNER AS NOT TO IMPEDE THE ACCESS FOR MAINTENANCE AND STORMWATER RUNOFF FLOW TO OR IN A DITCH, SWALE OR POND.

PLANT MATERIAL SHALL BE GRADED FLORIDA NO. 1 OR BETTER AS OUTLINED UNDER THE GRADES AND STANDARDS FOR NURSERY PLANTS - SECOND EDITION STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE AND SHALL CONFORM TO AAN STANDARDS FOR NURSERY STOCK (ANSI 260.1-1980).

NO SUBSTITUTIONS SHALL BE MADE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. PLANS SHALL BE BID BY ALL BIDDERS AS SHOWN. SUBMIT WRITTEN VERIFICATION OF ANY PLANT MATERIAL(S) THAT MAY BE UNAVAILABLE AS SPECIFIED, TO THE LANDSCAPE ARCHITECT.

COORDINATE THE INSTALLATION OF TREES AND PLANTS SO AS TO NOT OBSCURE THE SITE VISIBILITY TRIANGLE AT INTERSECTIONS AND THE VISIBILITY OF DIRECTIONAL SIGNS OR LIGHTS. FIELD ADJUST TREE AND PALM LOCATIONS AS REQUIRED TO AVOID CONFLICT WITH LIGHT POLES, ETC. THE OWNER SHALL PROPERLY MAINTAIN TREES AND PLANT MATERIALS AFTER FINAL ACCEPTANCE IN ORDER TO MAINTAIN UNOBSTRUCTED VISIBILITY FOR PEDESTRIANS AND VEHICLES.

ALL TREES SPECIFIED AS BALLED AND BURLAPPED SHALL BE 'ROOT PLUS GROWERS' TAGGED AND APPROVED TO ENSURE PROPER HARDENING OFF PRIOR TO INSTALLATION ON-SITE.

ALL TREES PLANTED USING EITHER A TREE AUGER OR TREE SPADE ARE TO BE CORRECTLY WATER SETTLED TO ENSURE NO FUTURE SETTLING. ALL TREES THAT SETTLE CROOKED WILL BE RESET BY LANDSCAPE CONTRACTOR. ALL HOLES DUG BY EITHER A SPADE OR AUGER ARE TO BE SCORED ALONG ALL SIDES TO ALLOW ROOT GROWTH TO ESCAPE LIMITS OF EXCAVATION.

APPLY 'DEVIRNOL' SELECTIVE HERBICIDE (DRY FLOWABLE) PER MANUFACTURER'S DIRECTIONS TO ALL PLANT BED AREAS PRIOR TO MULCHING. USE A PROPERLY CALIBRATED GRANULAR APPLICATOR AND DO NOT APPLY CHEMICAL DIRECTLY ONTO LEAVES OF PLANTS.

ALL PLANT BEDS AND TREE RINGS SHALL BE MULCHED WITH A 3" DEPTH LAYER OF PINE BARK MULCH (MEDIUM SIZE CHIPS). DEPTH SHALL BE MEASURED AFTER COMPACTION. REMOVE MULCH FROM CANOPIES OF SHRUBS AND PROPERLY 'TUCK-IN' MULCH ALONG EDGES. DO NOT PILE MULCH AROUND THE BASE OF TREE TRUNKS. PROVIDE A 3" DIAMETER MULCH RING AROUND ALL PROPOSED AND EXISTING TREES WHICH DO NOT FALL WITHIN A MULCHED PLANTING BED OR ARE SURROUNDED BY TURF.

GROUNDCOVER AND SHRUB BEDS SHALL BE PLANTED ON TRIANGULAR SPACING WITH PLANTS INSTALLED AND FACED FOR OPTIMUM GROWTH INTO THE BED. CURVILINEAR BED LINES SHALL BE ACCURATELY SCALED FROM PLANS AND LAID-OUT IN THE FIELD. IF FIELD CONDITIONS ARE DIFFERENT FROM PLANS, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OR ON-SITE REPRESENTATIVE FOR FIELD ADJUSTMENT OF MATERIALS.

**MISCELLANEOUS REQUIREMENTS**  
 1 TREE SPECIES PER 5 REQUIRED TREES UP TO 8 TREE SPECIES MINIMUM.  
 8 SPECIES PROPOSED  
 NO SHRUB TO BE MORE THAN 25% OF SHRUB TOTAL.  
 SHRUB TO BE 50% DROUGHT TOLERANT, 30% NATIVE.

GROUNDCOVER PLANTS SHALL BE SPACED TO PRESENT A FINISHED APPEARANCE AND OBTAIN A REASONABLY COMPLETE COVERAGE WITHIN ONE (1) YEAR. NON-LIVING GROUND COVER, SUCH AS MULCH, GRAVEL, ROCKS, ETC., SHALL BE USED IN CONJUNCTION WITH LIVING PLANTS TO COVER EXPOSED SOIL AND SUPPRESS FUGITIVE DUST.

FINISH GRADE TO BE RAKED, LEVEL AND FREE OF WEEDS, ROCKS AND DEBRIS PRIOR TO INSTALLATION OF SOD. LANDSCAPE CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF SITE CONDITIONS ARE NOT ACCEPTABLE. INCONSISTENCY IN SOD QUALITY, GRADE AND INSTALLATION MAY WARRANT REMOVAL AND REINSTALLATION.

SODDING IS REQUIRED IN ALL UNPAVED AREAS WITH THE SITE BOUNDARIES UNLESS OTHERWISE SHOWN OR NOTED. ALL SOD AREAS SHALL BE PLANTED WITH "ST. AUGUSTINE" AS SPECIFIED. SOD SHALL BE REASONABLY FREE FROM PESTS AND WEEDS, LAID IN STAGGERED ROWS WITH NO GAPS, ROLLED, FERTILIZED AND WATERED IMMEDIATELY AFTER INSTALLATION.

FERTILIZE LAWN AREAS WITH 6-6-6 FERTILIZER AT THE RATE OF 8 LBS PER 1,000 S.F. OF LAWN AREA. WATER AFTER FERTILIZATION.

THE IRRIGATION SYSTEM SHALL BE FULLY OPERATING FOR A PERIOD OF TWENTY-FOUR HOURS PRIOR TO START OF PLANTING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY ADDITIONAL HAND-WATERING AS NECESSARY FOR ALL TREES, SHRUBS, GROUNDCOVERS AND LAWN AREAS PRIOR TO FINAL ACCEPTANCE.

THE JOB SITE SHALL BE KEPT ORDERLY AND REASONABLY CLEAN ON A DAILY BASIS DURING CONSTRUCTION OPERATIONS. UPON COMPLETION, THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL DEBRIS AND WASTE GENERATED BY HIS OPERATIONS ON-SITE, INCLUDING THE CLEANING OF WALKS AND PAVING AS NECESSARY.

IN THE EVENT OF A VARIATION BETWEEN THE PLANT LIST AND THE ACTUAL NUMBER OF PLANTS SHOWN OR NOTED ON THE PLANS, THE PLANS SHALL CONTROL.

PLANTS AND TREES SHALL BE SET PLUMB, AT THE SAME GRADE AT WHICH THEY HAVE BEEN GROWN, BEST SIDE FACING PRIME VISIBILITY AND THOROUGHLY WATERED-IN, TO ELIMINATE AIR POCKETS. TREES SET TOO HIGH OR LOW WILL BE REJECTED. VERIFY PROPOSED FINISH GRADES AND SET TREES ACCORDINGLY. SEE DETAILS FOR PLANTING, STRAKING AND CUTTING. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY SECURING TREES, PALMS AND LARGE SHRUBS IMMEDIATELY AFTER PLANTING. ALL GUY WIRES SHALL BE FLAGGED AND ALL STAKES SHALL BE DRIVEN FLUSH WITH SURROUNDING GRADE FOR PUBLIC SAFETY.

PLANTING SOIL FOR ALL TREES AND SHRUBS SHALL CONSIST OF 60% PEAT, 20% COMPOST, AND 20% WOOD PRODUCT FOR AERATION. PLANTING MIX SHALL HAVE A pH OF 6.0-6.5 / MIX 75% PLANTING SOIL WITH 25% ON-SITE SOIL FOR PLANTING SOIL BACKFILL. BACKFILL ALL TREES AND SHRUBS AT THE FOLLOWING RATE:

TREES 3 1/2" CAL. AND GREATER	=1 CUBIC YARD EACH TREES
1 1/2" CAL. TO 3 1/2" CAL.	=1/2 CUBIC YARD EACH
7-15 GALLON CONTAINERS SIZE	=1/4 CUBIC YARD EACH
3-5 GALLON CONTAINER SIZE	=35 PLANTS PER CUBIC YARD
1-2 GALLON CONTAINER SIZE	=65 PLANTS PER CUBIC YARD
ROOTED CUTTING/4" POTS	=6" DEPTH OF ANNUAL BED MIX

ROOTED CUTTINGS AND 4" POT MATERIAL SHALL BE PLANTED IN A 6" DEPTH PREPARED BED CONTAINING AN "ANNUAL BED MIX" COMPOSED OF 1/3 PEAT, 1/3 COMPOSTED PINE BARK, 1/3 SAND AND DOLOMITE pH 6.0-6.5. FERTILIZE WITH "OSMOCOTE" PER MANUFACTURER'S DIRECTIONS. TOP DRESS WITH 1-LAYER OF SPECIFIED FINE MULCH.

SHRUBS SHALL BE PLANTED IN CIRCULAR PLANT PITS WITH A DIAMETER OF 16" GREATER THAN THE ROOTBALL OF CONTAINER. TREES SHALL BE PLANTED IN CIRCULAR PITS WITH A DIAMETER OF 12" GREATER THAN ROOTBALL OR CONTAINER AND BACKFILLED WITH PLANTING SOIL MIX.

REMOVE ALL PLANT LABELS, TAGS, FLAGGING TAPE AND RIBBON FROM ALL TREES, AND SHRUBS UPON FINAL ACCEPTANCE OF THE LANDSCAPE.

FERTILIZE TREES, SHRUBS AND GROUNDCOVERS WITH "SIERRA" 7.5 GRAM TABLETS PER MANUFACTURER'S DIRECTIONS AND AT THE FOLLOWING RATE:

LARGER CONTAINER PLANTS/TREES	=1 TABLET PER GALLON SIZE
5 GALLON CONTAINER	=4 - 5 TABLETS PER PLANT
3 GALLON CONTAINER	=3 - 4 TABLETS PER PLANT
1 GALLON CONTAINER	=2 - 3 TABLET PER PLANT

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE. ALL TREES, PLANTS AND/OR GRASSING NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED WITHIN TEN (10) DAYS AFTER WRITTEN NOTICE. ALL PLANT REPLACEMENTS SHALL BE OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THE REPLACEMENTS SHALL BE FURNISHED, AND INSTALLED AS HEREIN SPECIFIED AT NO ADDITIONAL COST TO THE OWNER. THE IRRIGATION SYSTEM SHALL BE GUARANTEED FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE FROM DEFECTS IN MATERIALS AND WORKMANSHIP.

AN "AS-BUILT" OF THE LANDSCAPE AND IRRIGATION PLANS SHALL BE MADE BY THE LANDSCAPE AND IRRIGATION CONTRACTOR. THE "AS-BUILT" SHALL BE UP-DATED DAILY AND SHALL BE KEPT ON-SITE AT ALL TIMES DURING THE CONSTRUCTION PERIOD. ANY AND ALL DEVIATIONS FROM THE ORIGINAL CONSTRUCTION DOCUMENTS SHALL BE DULY AND ACCURATELY RECORDED. A REPRODUCIBLE OF EACH "AS-BUILT" SHALL BE PROVIDED BY THE LANDSCAPE AND IRRIGATION CONTRACTOR TO THE OWNER'S CONSTRUCTION REPRESENTATIVE AND TO THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE AND PAYMENT OF RETAINAGE.

AT THE TIME OF FINAL ACCEPTANCE, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE OWNER WITH A MAINTENANCE MANUAL CONTAINING INSTRUCTIONS FOR THE PROPER CARE OF ALL MATERIALS SPECIFIC TO THE JOB. INCLUDE IRRIGATION TIMELOCK OPERATING DIRECTIONS AND MANUFACTURER'S LITERATURE TO OWNER'S REPRESENTATIVE. LANDSCAPE CONTRACTOR SHALL SUPPLY THE OWNER WITH A BID TO PROVIDE YEARLY MAINTENANCE OF THE PROJECT.

THE OWNER SHALL BE RESPONSIBLE FOR THE PROPER MAINTENANCE AND WATERING OF THE LANDSCAPING AND TURF AFTER FINAL ACCEPTANCE.

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**STARKEY RANCH DOWNTOWN NEIGHBORHOOD MF SITE**

**LANDSCAPE NOTES AND SPECIFICATIONS**

**WAYPOINT RESIDENTIAL**

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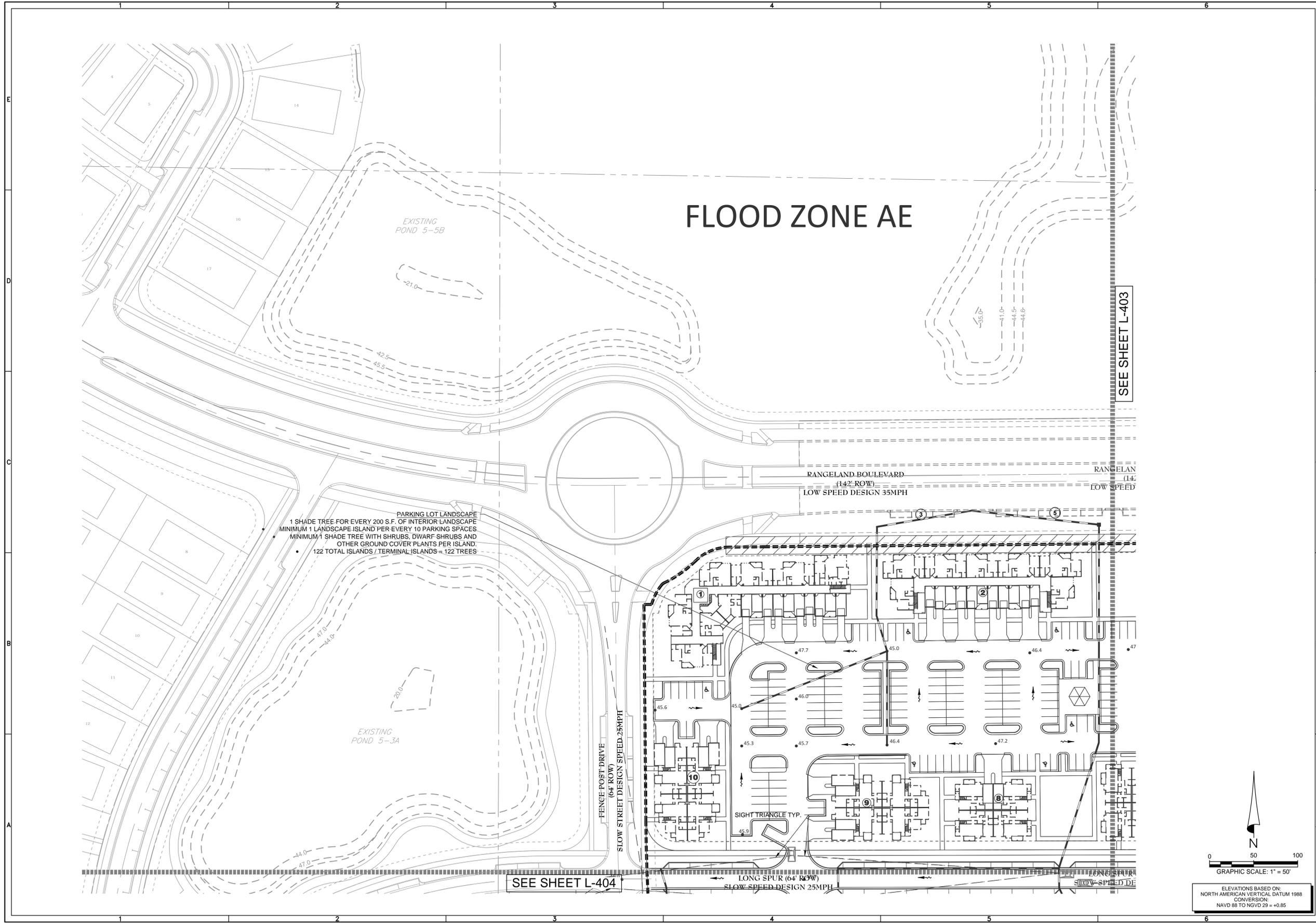
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1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: WPR SR 1002  
 FILE: L-400  
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 DRAWN BY: RR

FLORIDA REGISTERED LANDSCAPE ARCHITECT

KEVEN JOHN STEELE  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. LA6667179

**L-401**



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STARKEY RANCH DOWNTOWN  
 NEIGHBORHOOD MF SITE  
 LANDSCAPE PLAN

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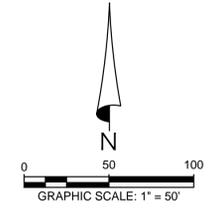
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1	10/17/2016	REVIEW SUBMITTAL

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FLORIDA REGISTERED  
 LANDSCAPE ARCHITECT

KEVEN JOHN STEELE  
 DATE:  
 REGISTRATION NO. LA6667179

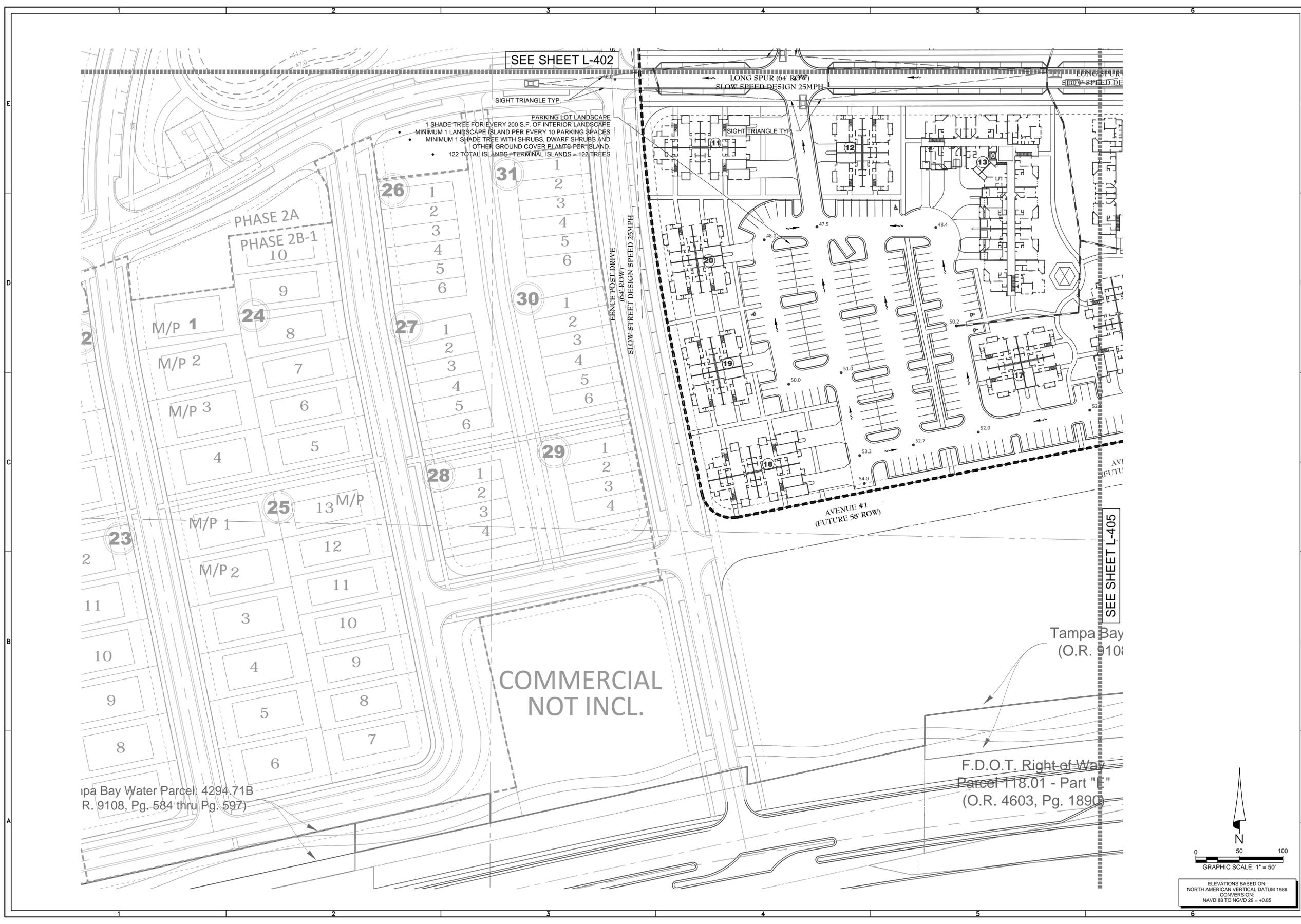
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 CONVERSION:  
 NAVD 88 TO NGVD 29 = +0.85

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SEE SHEET L-402

PARKING LOT LANDSCAPE  
1 SHADE TREE FOR EVERY 200 S.F. OF INTERIOR LANDSCAPE  
MINIMUM 1 LANDSCAPE ISLAND PER EVERY 10 PARKING SPACES  
MINIMUM 1 SHADE TREE WITH SHRUBS, DWARF SHRUBS AND OTHER GROUND COVER PLANTS PER ISLAND.  
122 TOTAL ISLANDS / TERMINAL ISLANDS = 122 TREES

1 SHADE TREE FOR EVERY 200 S.F. OF INTERIOR LANDSCAPE  
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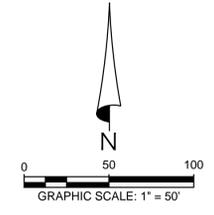
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Tampa Bay Water Parcel: 4294.71B  
R. 9108, Pg. 584 thru Pg. 597

F.D.O.T. Right of Way  
Parcel 118.01 - Part "A"  
(O.R. 4603, Pg. 189)

Tampa Bay  
(O.R. 9108)



ELEVATIONS BASED ON:  
NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.85

**HEIDT DESIGN**  
Civil Engineering • Planning & GIS  
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Engineering Business Certificate of Authorization No. 28752  
Landscape Architecture Certificate of Authorization No. LC26000405

STARKEY RANCH DOWNTOWN  
NEIGHBORHOOD MF SITE  
LANDSCAPE PLAN

WAYPOINT RESIDENTIAL

PREPARED FOR:

NO.	DATE	DESCRIPTION
1	10/17/2016	REVIEW SUBMITTAL

PROJECT NO: WPR SR 1002  
FILE: L-402  
DESIGN BY: RR/KS  
DRAWN BY: RR

FLORIDA REGISTERED  
LANDSCAPE ARCHITECT

KEVEN JOHN STEELE  
DATE:  
REGISTRATION NO. LA6667179

**L-404**

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