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LOCATION MAP

CONSTRUCTION PLANS FOR LAKEWOOD RANCH PARK ROSEDALE BUFFER

PROJECT DATA:

PARCEL ID: 583502257
 ZONING: PD-PI
 FUTURE LAND USE: R-OS

LOCATED AT:

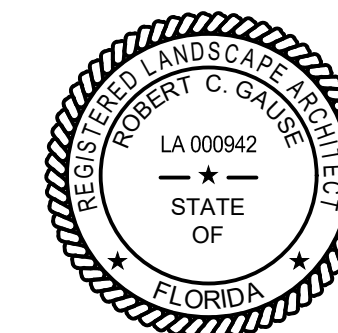
SECTION 18 , TOWNSHIP 35 SOUTH , RANGE 19 EAST
 MANATEE COUNTY, FLORIDA
 10310 MALACHITE RD BRADENTON, FL 34211

CONTACT INFORMATION

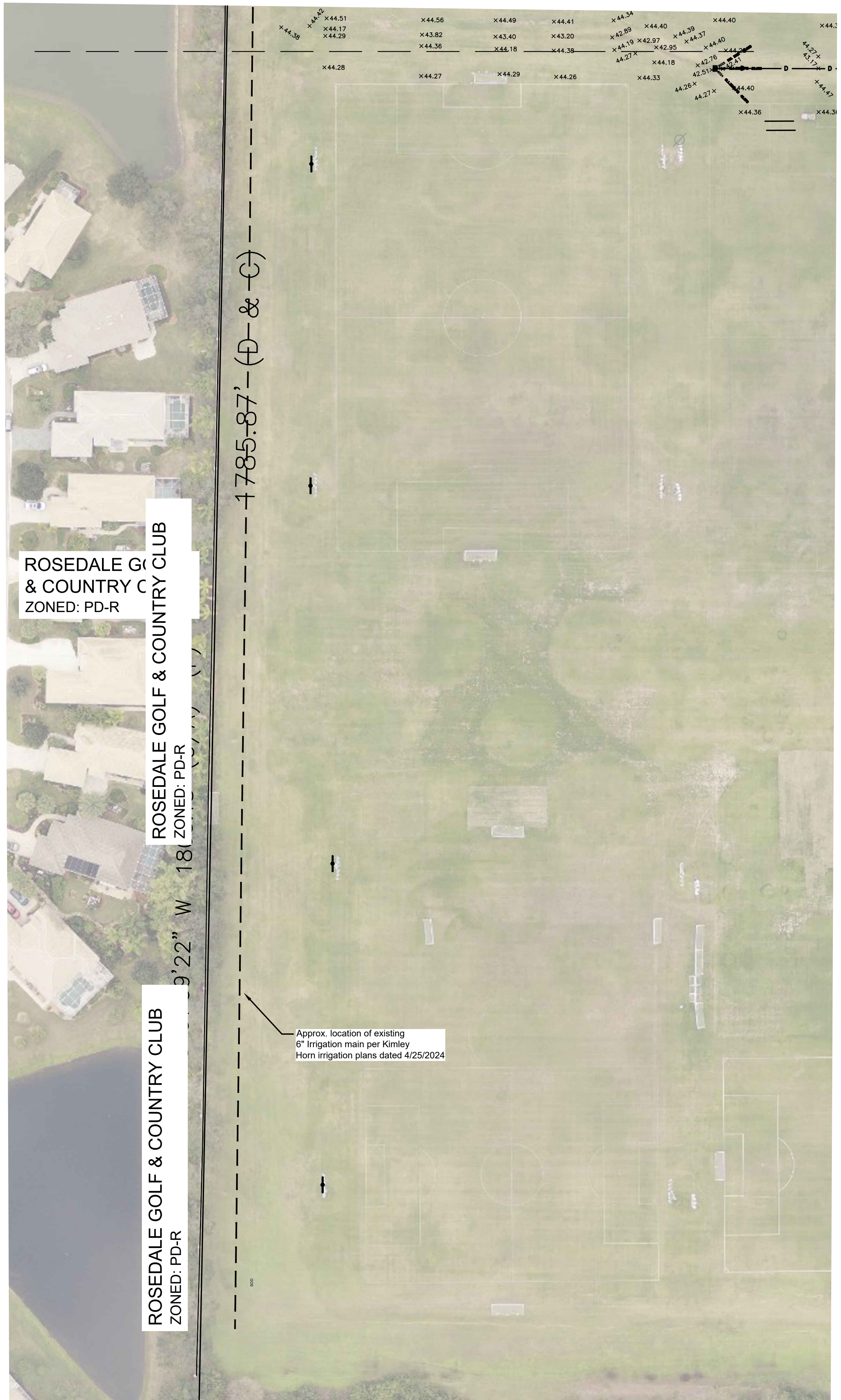
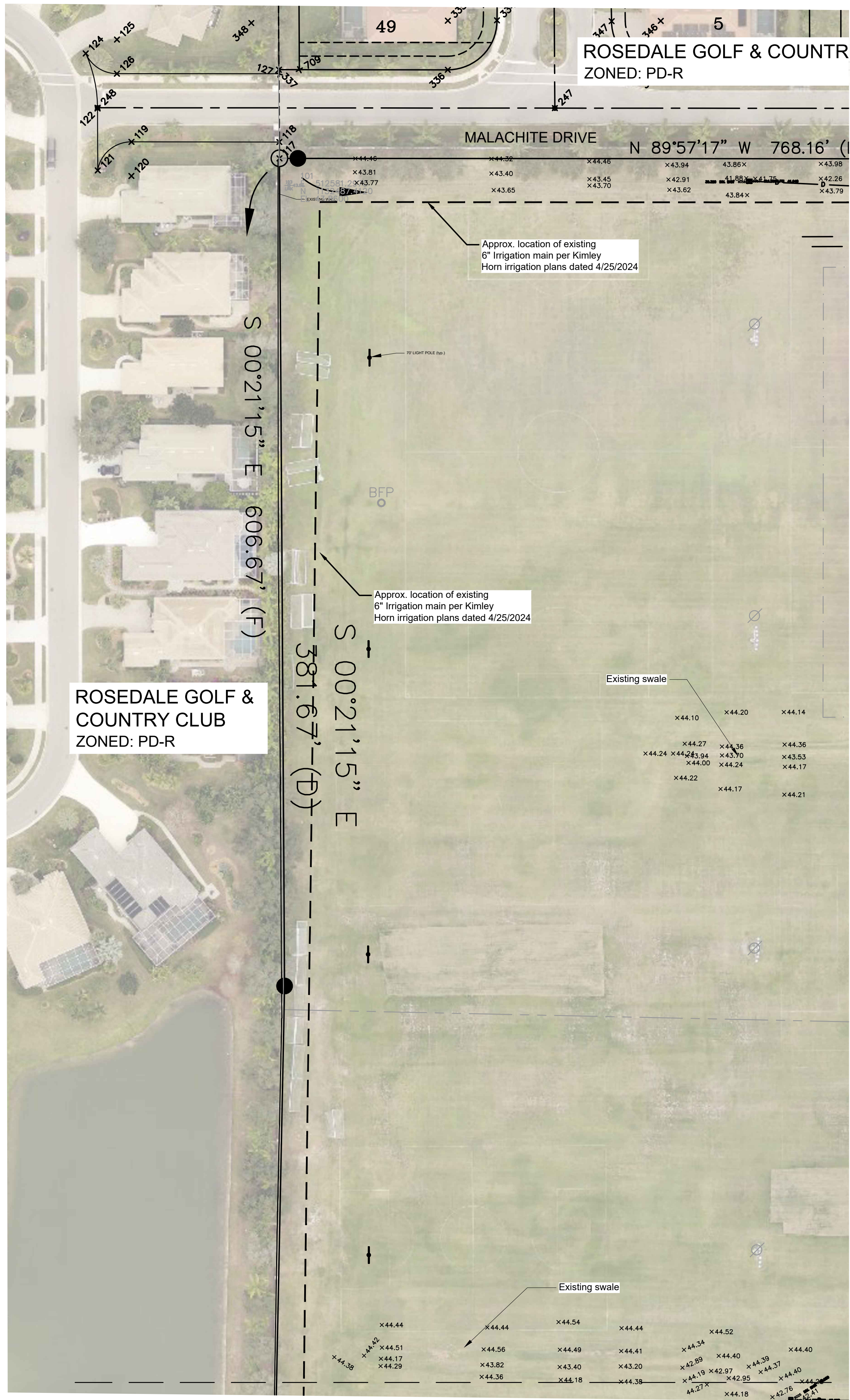
OWNER:
 MANATEE COUNTY GOVERNMENT
 5151 66th St. W.I
 Bradenton, Fl. 34210
 Contact: Mr. David Shurmur
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 email: david.shurmur@mymanatee.org

LANDSCAPE ARCHITECT
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Always call 811 two full business days before you dig to have underground utilities located and marked.



Landscape Architecture | Land Planning | Environmental Consulting
 Arborist | Permitting | Project Management | Irrigation Design



REVISIONS:

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LWR PARK BUFFER

LOCATED AT:
 10310 MALACHITE RD
 BRADENTON, FL 34211
 SECTION 18
 TOWNSHIP 35 SOUTH
 RANGE 19 EAST
 MANATEE COUNTY, FLORIDA

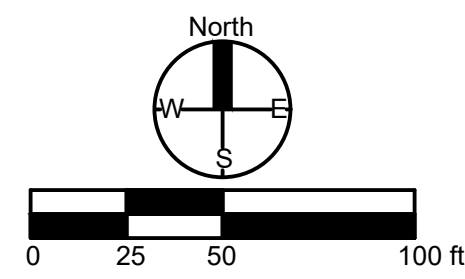
PRINTED COPIES OF ELECTRONICALLY SIGNED/SEALED PLANS ARE NOT VALID WITHOUT A RAISED SEAL.



EXISTING CONDITIONS

EX.1

Always call 811 two full business days before you dig to have underground utilities located and marked.



REVISIONS:

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LWR PARK BUFFER

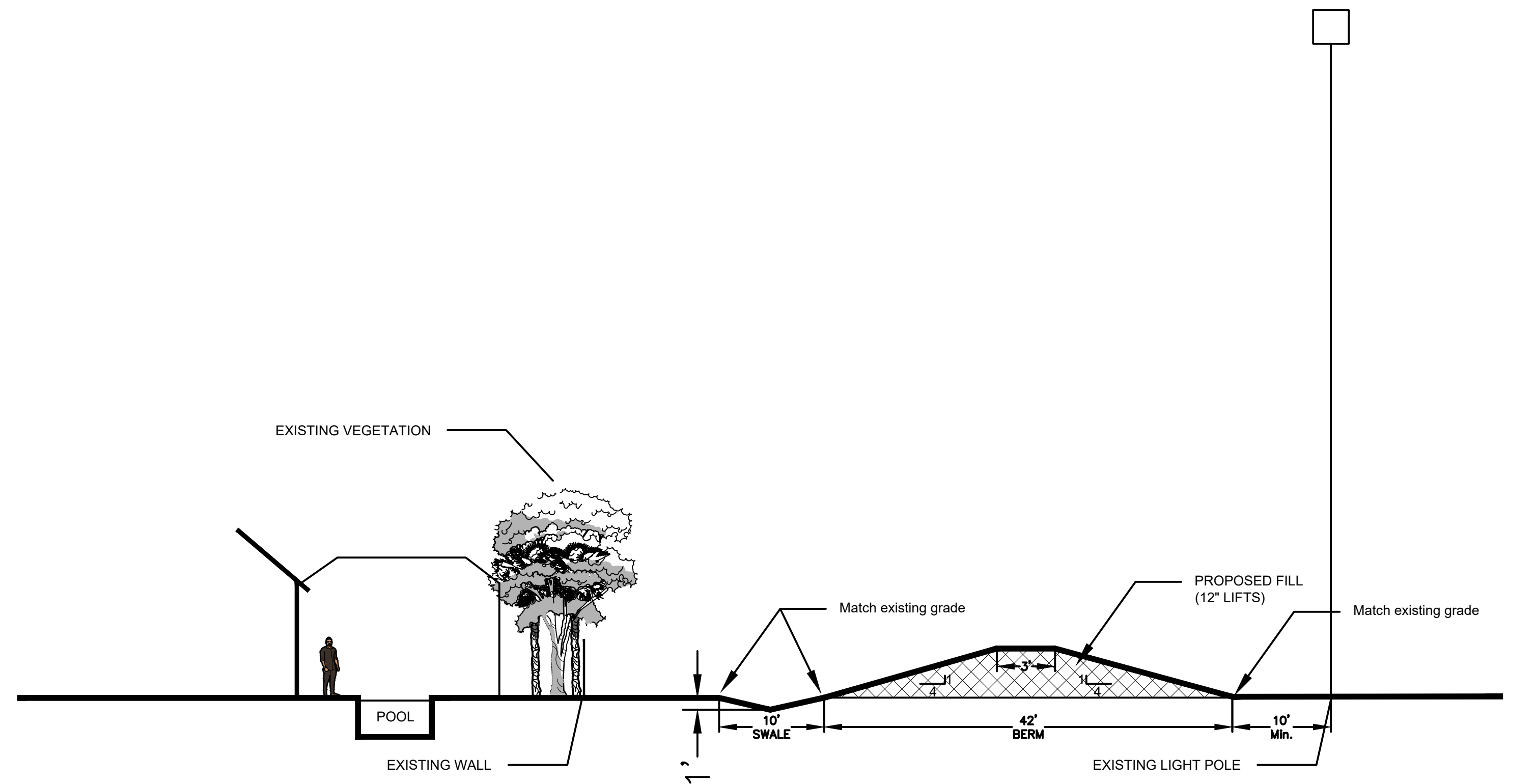
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DRAINAGE & GRADING PLAN

D.1

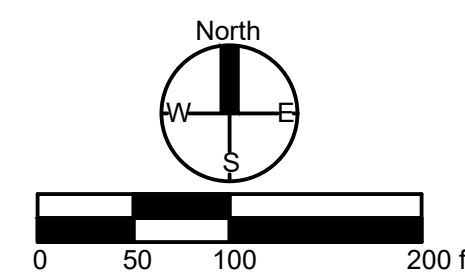


A-A SECTION SCALE 1"=10'

1. BERMS ARE APPROXIMATELY 70,100 SF. IN TOTAL AREA COVERAGE WITH AN APPROXIMATE MAXIMUM HEIGHT OF 5'. ESTIMATED TOTAL VOLUME OF SANDY LOAM MATERIAL NEEDED TO CONSTRUCT BERMS IS 8,640 CYDS. THIS ASSUMES 33% COMPACTION.

- NOTES:
- LIMITED TOPOGRAPHIC DATA AVAILABLE PROVIDED BY OWNER. CONTRACTOR SHALL FAMILIARIZE SELF WITH EXISTING CONDITIONS.
 - CONTRACTOR TO AVOID DIRECTING ANY RUN-OFF BEYOND THE INTERCEPT SWALE PROPOSED ALONG THE WEST SIDE OF THE BERM.
 - CONTRACTOR SHALL FIELD ADJUST PROPOSED SWALE TO CONNECT TO EXISTING SWALE BETWEEN SPORT FIELDS.
 - EXISTING IRRIGATION MAINLINE LOCATION IS APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION OF MAINLINE AND EXISTING IRRIGATION VALVES PRIOR TO BEGINNING SITE GRADING.
 - CONTRACTOR SHALL RELOCATE AND RECONNECT EXISTING IRRIGATION VALVES AND SURGE PROTECTION MATERIALS AS NECESSARY TO AVOID HAVING THEM BE LOCATED BENEATH PROPOSED BERMS.
 - CONTRACTOR SHALL AVOID DAMAGE TO EXISTING SPORT FIELDS AND SHALL REPAIR ALL AREAS DAMAGED TO ORIGINAL CONDITION POST DEVELOPMENT.
 - BERMS SHALL BE CONSTRUCTED USING SANDY LOAM SOIL HAVING A NEUTRAL PH. SOIL SHALL BE FREE FROM DEBRIS AND ROCK OVER 1" IN DIAMETER.

Always call 811 two full business days before you dig to have underground utilities located and marked.





Drainage And Grading Notes

- ALL CONSTRUCTION IS TO BE STAKED IN THE FIELD BY OR UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR.
- THE CONTRACTOR IS TO PROVIDE THE LANDSCAPE ARCHITECT WITH REPRODUCIBLE RECORD DRAWINGS SHOWING ALL IMPROVEMENT LOCATIONS AND ELEVATIONS IN ACCORDANCE WITH LATEST MANATEE COUNTY PLANNING, PERMITTING AND INSPECTIONS (MCPPI) AND SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWM) STANDARDS. THE CONTRACTOR SHALL ALSO PROVIDE FIVE SETS OF PRINTS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR, OF THE RECORD DRAWINGS TO THE ENGINEER OF RECORD. THESE RECORD DRAWINGS SHALL BE CERTIFIED TO THE OWNER, APPROPRIATE GOVERNMENTAL AGENCIES AND TO VHB, INC. RECORD DRAWINGS SHALL SPECIFICALLY INCLUDE STORMWATER FACILITY LOCATIONS, INCLUDING TOP OF BANK, UNDERDRAIN AND CONTROL STRUCTURES, SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE AND PAYMENT. BENCH MARKS WITH THE ELEVATION CLEARLY AND PERMANENTLY MARKED ARE TO BE PLACED ON THE TOP OF ALL PROPOSED OUTFALL CONTROL STRUCTURES. RECORD DRAWINGS OF ALL MITIGATION AREAS INCLUDING ELEVATIONS, ZONES AND LIMITS SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE AND PAYMENT. THE RECORD DRAWINGS SHALL SPECIFICALLY INCLUDE THE SURFACE AREA OF STORMWATER FACILITY AREAS AT NORMAL WATER ELEVATION (NWL), AT HIGH WATER ELEVATION (HWE), TOP OF BANK AND ALL MITIGATION AND/OR LITTORAL SHELF AREAS.
- TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION, STAKED HAYBALES, STAKED SILT SCREENS OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY NATURAL RESOURCES DEPARTMENT (749-3070) PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF OF THE DEPTH OF THE SEDIMENTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND REPLACED IN UPLAND AREAS. IN ADDITION TO SPECIFIED EROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL IMMEDIATELY. STORMWATER TREATMENT FACILITIES INCLUDING OUTFALL PER DETAIL ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO OFF-SITE UNTREATED RUN-OFF OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION.
- TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, AND SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS HE MAY DEEM NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
- THE CONTRACTOR SHALL VERIFY TOPOGRAPHY AND SATISFY HIMSELF AS TO THE EXTENT OF FILL NECESSARY TO ACHIEVE FINISHED GRADE PRIOR TO AWARD OF CONTRACT. THERE SHALL BE NO CLAIM FOR EXTRAS NOTWITHSTANDING SITE PLAN REVISIONS PROMULGATED SUBSEQUENT TO AWARD OF CONTRACT.
- ALL BIDDERS ARE HEREBY ADVISED THAT ALL EXCAVATION ON THIS PROJECT MUST COMPLY WITH FLORIDA STATUTE 90-96 "TRENCH SAFETY ACT", AND THAT THE COST OF COMPLIANCE IS TO BE INCLUDED IN HIS BASE BID. THE BIDDER SHALL INDICATE ON THE BID FORM THE COSTS ASSOCIATED WITH COMPLIANCE.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES PRIOR TO INSTALLATIONS.
- REFER TO GRADING DETAIL SHEETS FOR CROSS SECTION DETAILS.
- REFER TO CONSTRUCTION TECHNICAL SPECIFICATIONS FOR COMPACTION REQUIREMENTS, GRASSING/SODDING REQUIREMENTS, AND PAVING CONSTRUCTION MATERIAL SPECIFICATIONS.
- ALL FILL AREAS ARE TO BE CONSTRUCTED IN 12" MAXIMUM LIFTS.
- THE CONTRACTOR IS TO REVIEW SOILS TESTS AS PERFORMED BY THE SOIL CONSULTANT AND IS ENCOURAGED TO CONDUCT ON-SITE TESTING TO SATISFY HIMSELF AS TO ACTUAL LIMITS OF REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIALS PRIOR TO BIDDING.
- THE CONTRACTOR IS TO PROVIDE THE LANDSCAPE ARCHITECT WITH VERIFICATION OF FINAL GRADES PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

General

- MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS ARE THE MINIMUM ALLOWABLE WATER AND/OR WASTEWATER CONSTRUCTION STANDARDS. WHERE ANY NOTE OR DETAIL ON THESE PLANS CONFLICT WITH THE MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS, THE MORE STRINGENT INTERPRETATION, AS DETERMINED BY THE COUNTY INFRASTRUCTURE INSPECTOR, SHALL BE APPLIED.
- CONTRACTOR SHALL NOTIFY "SUNSHINE STATE ONE CALL" (1-800-432-4770) AT LEAST 72 HOURS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
- ACCESSIBLE ROUTES, PARKING SPACES, RAMP, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE SOD.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
- ALL PROPOSED CONSTRUCTION IS TO MEET OR EXCEED LATEST APPLICABLE MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS AND IS TO MEET ENGINEER'S SPECIFICATIONS. ALL PROPOSED CONSTRUCTION IS TO BE PRIVATELY OWNED AND MAINTAINED.
- THE CONTRACTOR IS TO COORDINATE THE LOCATION AND ELEVATION OF ALL FP&L, VERIZON AND IRRIGATION SERVICE SLEEVES WITH RESPECTIVE AGENCY PRIOR TO CONSTRUCTION.
- ALL PROPOSED ELECTRICAL AND COMMUNICATION SERVICES ARE TO BE LOCATED UNDERGROUND AS DIRECTED BY RESPECTIVE AGENCY.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND ISSUANCE OF ALL COMMENCEMENT AND/OR PROGRESS NOTICES TO GOVERNMENTAL AGENCIES DURING THE COURSE OF CONSTRUCTION, AS REQUIRED FOR INSPECTION, TESTING AND TRACKING PER APPLICABLE AGENCY PERMIT CONDITIONS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMIT CONDITIONS AND STIPULATIONS FOR ALL LOCAL, REGIONAL AND STATE AGENCIES, INCLUDING, BUT NOT LIMITED TO, FINAL SITE PLANS, UTILITIES, DRAINAGE, FUGITIVE PARTICULATES AND EROSION.
- ALL UTILITIES AND/OR DRAINAGE SHOWN AS EXISTING WERE DERIVED FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION, SIZE, TYPE AND AMOUNT OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR TO NOTIFY SUNSHINE UNDERGROUND FACILITIES NOTIFICATION (1-800-432-4770), MCPWD AND FP&L 48 HOURS MINIMUM PRIOR TO START OF CONSTRUCTION FOR POSSIBLE UTILITY LOCATIONS NOT SHOWN ON PLANS.
- THE CONTRACTOR IS RESPONSIBLE FOR ESTIMATING AND CALCULATING ALL CUT AND FILL QUANTITIES. PRIOR TO BID SUBMISSION THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOIL TESTS HE DEEMS NECESSARY TO CALCULATE THE CUT AND FILL QUANTITIES PROPERLY. ADDITIONAL SURVEYS AND TESTS MADE BY THE CONTRACTOR SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES OF ALL SITE WORK APPROVALS, FROM THE OWNER, AND MAINTAIN A COPY ON-SITE AND FOLLOWING ALL STIPULATIONS OF TEH APPROVALS.
- CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL TESTING, FOR INFORMATION SHOWN ON THESE PLANS, AND AS RECOMMENDED IN THE GEOTECHNICAL REPORT.
- ALL THE SIGNING AND PAVEMENT MARKINGS SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS, AND THE MANATEE COUNTY PUBLIC WORKS DEPARTMENT - HIGHWAY, TRAFFIC, AND STORMWATER STANDARDS. TRAFFIC CONTROL DEVICES THAT DO NOT CONFORM TO THE LATEST EDITION OF THE MANATEE COUNTY TRANSPORTATION DEPARTMENT HIGHWAY, TRAFFIC & STORMWATER STANDARDS, WITHIN PUBLICLY MAINTAINED RIGHT-OF-WAY, WILL REQUIRE A SIGN AND HARDWARE DIAGRAM AND, IF ACCEPTABLE, AN EXECUTED MAINTENANCE AGREEMENT PRIOR TO APPROVAL OF CONSTRUCTION PLANS.
- ANY OFFSITE IMPROVEMENTS WITHIN THE MANATEE COUNTY RIGHT-OF-WAY (ROW) AS DEPICTED ON THE APPROVED CONSTRUCTION DRAWINGS AND/OR FINAL SITE PLANS, AS APPLICABLE, SHALL REQUIRE A "TEMPORARY TRAFFIC CONTROL PLAN" (TTCP) BASED ON THE MINIMUM REQUIREMENTS PROVIDED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND/OR MANATEE COUNTY TRANSPORTATION STANDARD DETAIL 406.0 (ROAD/LANE CLOSURE PROCEDURES). THE TTCP SHALL BE SUBMITTED TO INFRASTRUCTURE INSPECTIONS DIVISION PRIOR TO THE START OF SAID CONSTRUCTION. CONTACT INFRASTRUCTURE@MYMANATEE.ORG FOR SPECIFIC REQUIREMENTS
- ALL FILL AREAS ARE TO BE CONSTRUCTED IN 12" MAXIMUM LIFTS.

- POTABLE WATER MAINS ARE TO BE PIGMENTED, COLOR BLUE, DR-18, C-900, C-905 PVC DUCTILE IRON PIPE WITH STEEL CASING PIPE SHALL BE USED. WATER MAINS ARE TO BE INSTALLED UNDER PAVEMENT, WATER SERVICES, WHERE LOCATED UNDER PAVEMENT, TO BE ENCASED IN ASTM 2241, SDR-21 PVC. MAINTAIN A MINIMUM OF 36" COVER.
- GRAVITY SANITARY SEWERS ARE TO BE PIGMENTED, COLOR GREEN, SDR 26, PVC AND CONFORMING TO ASTM D-3034. MAINTAIN A MINIMUM OF 36" COVER.
- GRAVITY SANITARY SEWER FORCEMAINS ARE TO BE PIGMENTED, COLOR GREEN, DR-18, C-900 OR C-905 PVC. MAINTAIN A MINIMUM OF 36" COVER.
- RECLAIMED WATERMAINS ARE TO BE PIGMENTED, COLOR LAVENDER, DR-18, C-900 OR C-905 PVC. MAINTAIN A MINIMUM OF 36" COVER.
- A MINIMUM OF 10 FEET OF HORIZONTAL SEPARATION (OUTSIDE OF PIPE TO OUTSIDE OF PIPE) IS REQUIRED BETWEEN WATER MAINS AND FORCE MAINS, AND BETWEEN WATER MAINS AND GRAVITY SEWER, AND BETWEEN WATER MAINS AND STORM SEWER, AND BETWEEN STORM SEWER AND GRAVITY SEWER. ALL OTHER COMBINATIONS OF WATER, GRAVITY SEWER, FORCE MAIN, RECLAIMED WATER AND STORM SEWER PIPES MUST HAVE 5 FEET OF SEPARATION AT A MINIMUM, EXCEPT FOR GRAVITY SEWER AND FORCE MAINS, WHICH SHALL HAVE A MINIMUM OF 3 FEET OF SEPARATION.
- THE MINIMUM HORIZONTAL SEPARATION BETWEEN RECLAIMED WATERMAINS AND POTABLE WATER OR SANITARY SEWER MAINS SHALL BE 5' OUTSIDE TO OUTSIDE, BUT MAY BE REDUCED TO 3' OUTSIDE TO OUTSIDE, WHEN POTABLE WATER IS DI, HDPE OR HAS A WATER TIGHT CASING AROUND IT. THE MINIMUM VERTICAL SEPARATION BETWEEN RECLAIMED WATERMAINS & POTABLE WATER & SANITARY SEWER MAINS SHALL BE 18" CLEAR (OUTSIDE TO OUTSIDE).
- CONTRACTOR IS RESPONSIBLE FOR ALL GOVERNMENTAL CONSTRUCTION FEES AND CHARGES. I.E. INSPECTIONS AND TESTING FEES. HOWEVER, IMPACT FEES (IF), IF APPLICABLE, TO BE PAID BY THE OWNER.
- TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, AND SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
- ALL NEW TAPS TO MANATEE COUNTY POTABLE WATER LINES SHALL INCLUDE A TEMPORARY 2" (MINIMUM) JUMPER SYSTEM, UNLESS SPECIFICALLY NOTED OTHERWISE IN THE PLANS.
- JUMPER SYSTEM SHALL INCLUDE ALL NECESSARY FITTINGS, PIPE, VALVES AND BACKFLOW PREVENTER (FEBCO 870 OR APPROVED EQUAL).
- THE CONTRACTOR IS RESPONSIBLE FOR THE PRODUCTION OF REPRODUCIBLE RECORD DRAWINGS. PRIOR TO SCHEDULING OF ANY UNDERGROUND UTILITY PRESSURE TESTS, CONTRACTOR SHALL HAVE OBTAINED (FROM A PROFESSIONAL SURVEYOR) ALL NECESSARY FIELD DATA REQUIRED FOR THE PRODUCTION OF RECORD DRAWINGS. SAID RECORD DRAWINGS ARE TO MEET THE REQUIREMENTS OF MANATEE COUNTY HEALTH DEPARTMENT & MANATEE COUNTY PUBLIC WORKS DEPT. UTILITY STANDARDS, APPROVED MAY OF 2011, AND FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR SHALL PROCESS SAID DRAWINGS THROUGH MANATEE COUNTY PUBLIC WORKS DEPARTMENT AND UPON COMPLETION SHALL PROVIDE TWO REPRODUCIBLE MYLARS AND FIVE SETS OF PRINTS OF THE RECORD DRAWINGS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR TO THE ENGINEER. THESE RECORD DRAWINGS SHALL BE CERTIFIED TO THE OWNER, APPROPRIATE GOVERNMENTAL AGENCIES, AND SHROYER DRAPALA ENGINEERING, L.L.C.

IF CONSTRUCTION STAKEOUT IS PROVIDED BY THE OWNER, THE CONTRACTOR SHALL ACCURATELY RECORD THE LOCATION OF ALL WORK THAT MAY SUBSEQUENTLY BECOME CONCEALED OR INACCESSIBLE, AS WELL AS MARK OR EXPOSE UNDERGROUND FACILITIES AS NECESSARY TO FACILITATE THE PREPARATION OF THE RECORD DRAWINGS BY THE OWNER, AND PROVIDE SAID INFORMATION TO THE OWNER.

Layout and Materials

- DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
- PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
- PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTFLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
- SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
- CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.

Demolition

- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH.
- EXISTING UTILITIES SHALL BE TERMINATED, AS NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
- CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.

Erosion Control

- PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
- CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES, AND REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
- CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
- UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Clearing and Grubbing Notes

- EROSION CONTROL PREVENTIVE METHODS, SILT SCREENING AND/OR HAY BALES, TO BE IN PLACE PRIOR TO COMMENCEMENT OF EARTHWORK CONSTRUCTION TO MINIMIZE EROSION AND SEDIMENTARY RUNOFF. THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR ANY POTENTIAL EROSION PROBLEMS. IF ANY POTENTIAL EROSION PROBLEMS ARE ENCOUNTERED, OR HAVE OCCURRED, THE CONTRACTOR SHALL INSTALL PROPER EROSION CONTROL MEASURES IMMEDIATELY. STORMWATER TREATMENT FACILITIES ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO UNTREATED RUNOFF OFF-SITE OCCURRING DURING CONSTRUCTION.

SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED AND THEN VERIFIED/INSPECTED BY MANATEE COUNTY NATURAL RESOURCES DEPARTMENT (749-3070) PRIOR TO COMMENCEMENT OF CONSTRUCTION.

- ALL EXISTING TREES AND BRUSH DESIGNATED FOR REMOVAL ARE TO BE CLEARED AND DISPOSED OF OFFSITE, OR BURNED ON-SITE IF APPROVED BY THE DISTRICT FIRE DEPARTMENT AND COUNTY HEALTH DEPT.. ALL EXISTING TREES AND UNDERBRUSH AREAS THAT ARE TO REMAIN UNDISTURBED SHALL BE PROTECTED BY BARRICADES. THE CONTRACTOR SHALL INSTALL SAID BARRICADES AT COMMENCEMENT OF CONSTRUCTION AND REMOVE FOLLOWING FINAL GRADING AND LANDSCAPING.
- SODDING AND/OR GRASSING TO BE COMPLETED IMMEDIATELY UPON COMPLETION OF FINISH GRADING. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DUST CONTROL.
- TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATION AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, CURBS, PAVEMENTS, TRACTS, AND SOIL BORING DATA GIVING THE NATURE OF GROUND AND SUBSURFACE CONDITIONS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, CONDUCT ANY ADDITIONAL SURVEYS AND SOIL TESTS YOU MAY DEEM NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
- REFER TO EXISTING CONDITIONS PLAN AND DRAINAGE & GRADING PLAN FOR ADDITIONAL NOTES.
- EXISTING WATER SERVICES ENCOUNTERED TO BE REMOVED BACK TO MAIN AND CAPPED OFF.
- EXOTIC, NUISANCE VEGETATION SHALL BE REMOVED FROM ALL UPLAND AREAS OF THE SITE, AS SHOWN ON THE EXOTIC PLANT SPECIES PLAN, INCLUDING REPLACEMENT, IN ACCORDANCE WITH MANATEE COUNTY REQUIREMENTS.

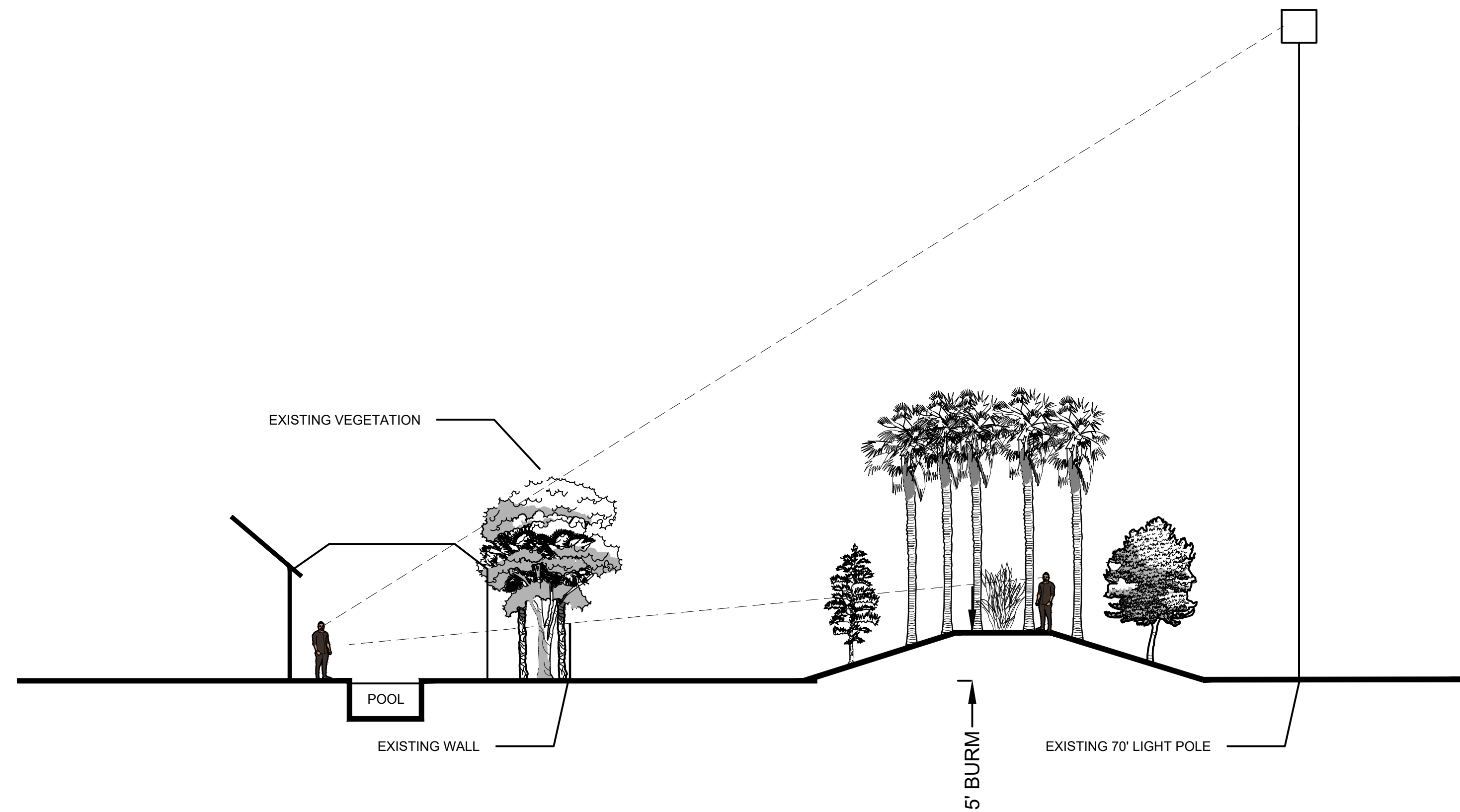
Existing Conditions Information

- BASE PLAN: THE PROPERTY LINES SHOWN WERE DETERMINED BY A SURVEY, TOPOGRAPHY AND PHYSICAL FEATURES; BASED ON INFORMATION PROVIDED BY MANATEE COUNTY AS WELL AS THE SURVEY PREPARED BY AMERICAN LAYOUT & LAND SURVEYING DATED 09/06/2023.
- ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29)

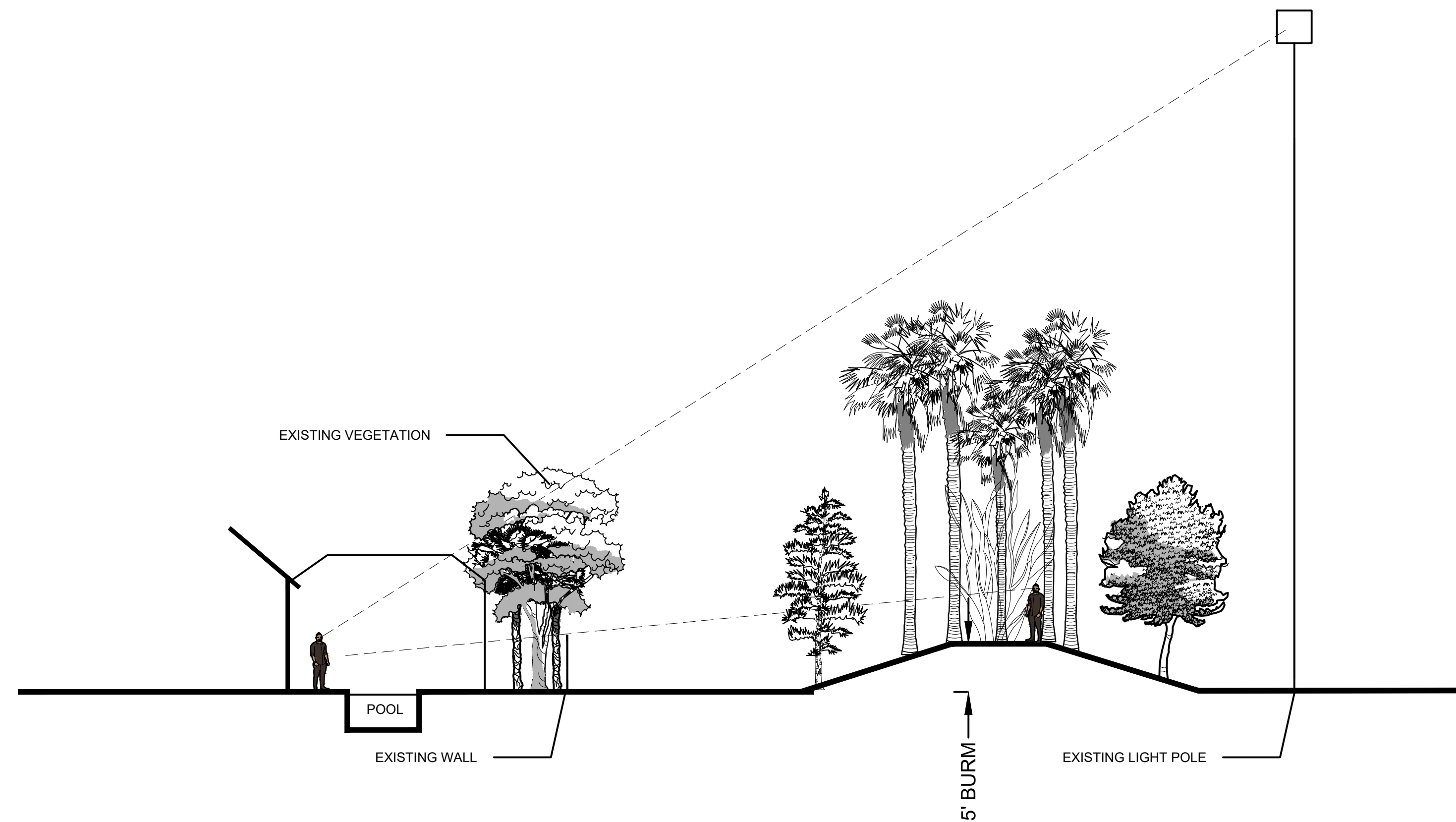
Utilities

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR IT'S REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT..
- THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
- CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES (I.E. IRRIGATION VALVES AND MAINS), WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
- CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITE WORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
- ALL UTILITY AND DRAINAGE PIPE SHALL BE PROPERLY Dewatered AND BEDDING PROVIDED IN ACCORDANCE WITH MANATEE COUNTY STANDARDS, TO ENSURE A STABLE TRENCH BOTTOM, TO PROPERLY SUPPORT THE PIPE, AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL OBTAIN THE LATEST COPY OF THE ARCHITECTURAL PLUMBING PLANS AND CONFIRM CONSISTENCY WITH THE UTILITY SERVICE PLANS, PRIOR TO INSTALLATION OF THE UTILITIES. ANY VARIANCE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD, PRIOR TO CONSTRUCTION.

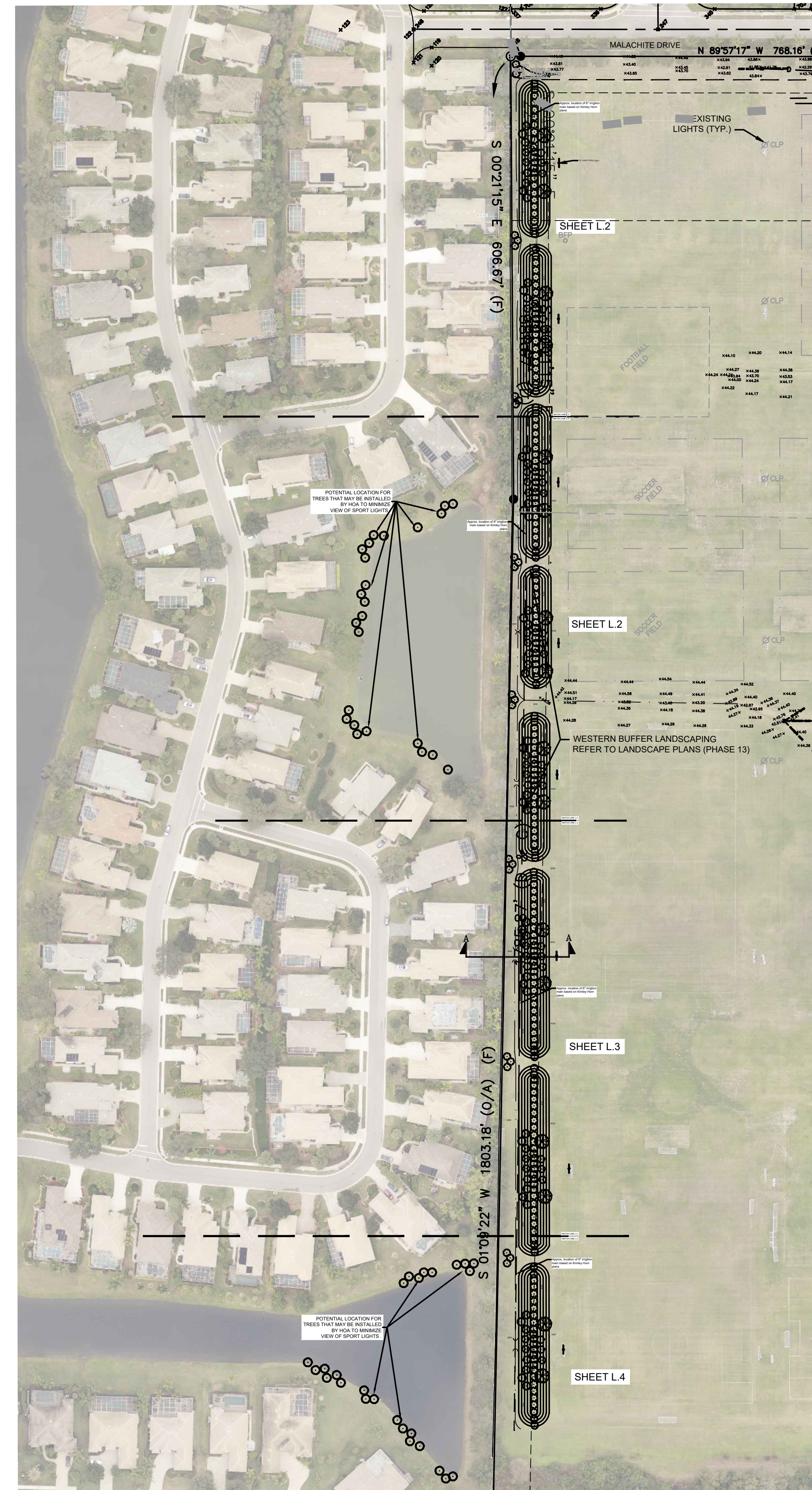
NOTE: CONTRACTOR IS TO USE WORK AROUND THE PERIMETER. THERE SHOULD BE NO EQUIPMENT OR TRUCKS DRIVING OR PARED IN SPORT FIELDS.



A-A SECTION AT THE TIME OF PLANTING
SCALE 1"=10'

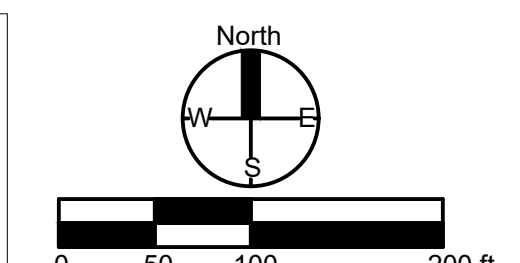


A-A SECTION 75% GROWTH
SCALE 1"=10'



Always call 811 two full business days before you dig to have underground utilities located and marked.

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323 Tenth Avenue West, Suite 102
Palmetto, Florida 34221
Ph. 941.981.3089 | Call 941.713.0782
email: bob@gauseandassociates.com
LC26000572 | ISA# FL5334A | AICP #061988

DESIGNED: RGV/R
DATE: JULY 2025
DRAWN: RGV/R
JOB NO.: 24-1623
SCALE: 1"=100'

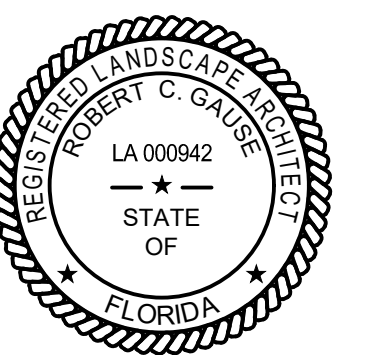
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LWR PARK BUFFER

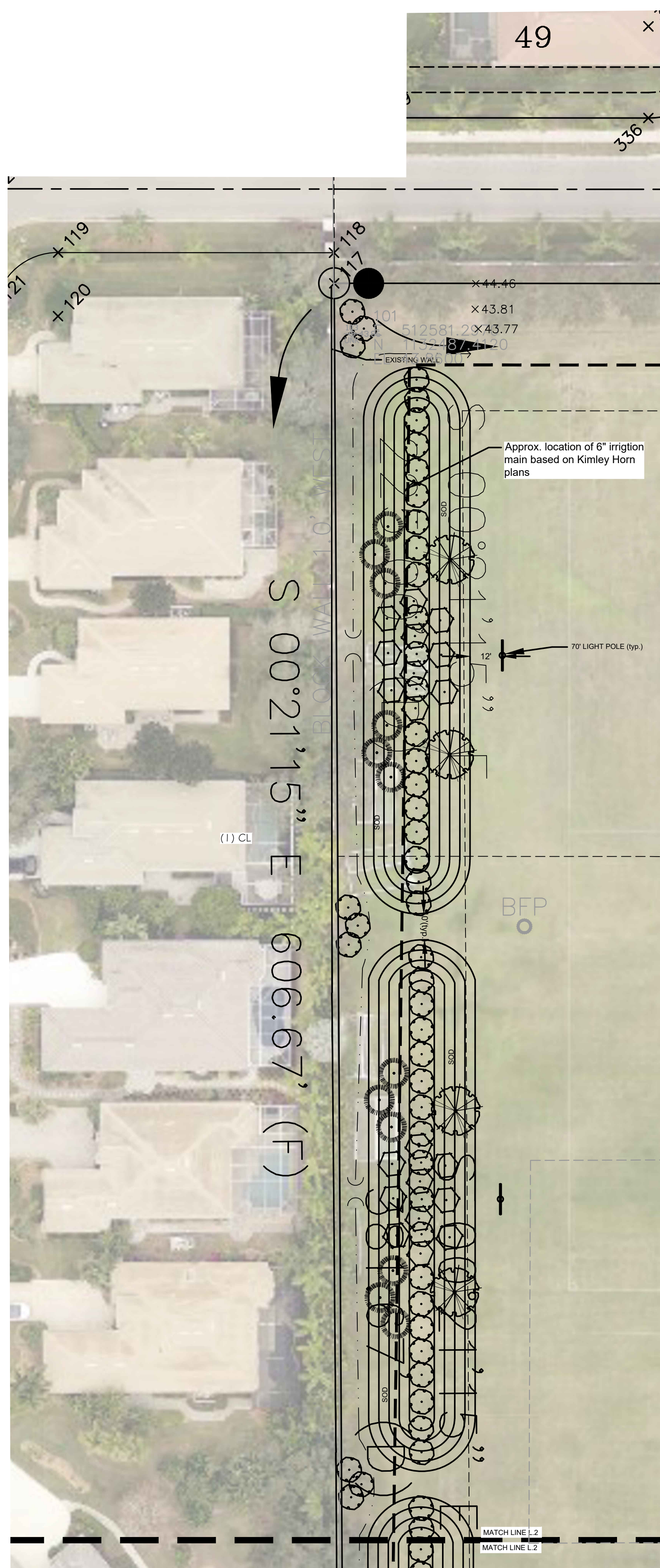
LOCATED AT:
10310 MALACHITE RD
BRADENTON, FL 34211
SECTION 18
TOWNSHIP 35 SOUTH
RANGE 19 EAST
MANATEE COUNTY, FLORIDA

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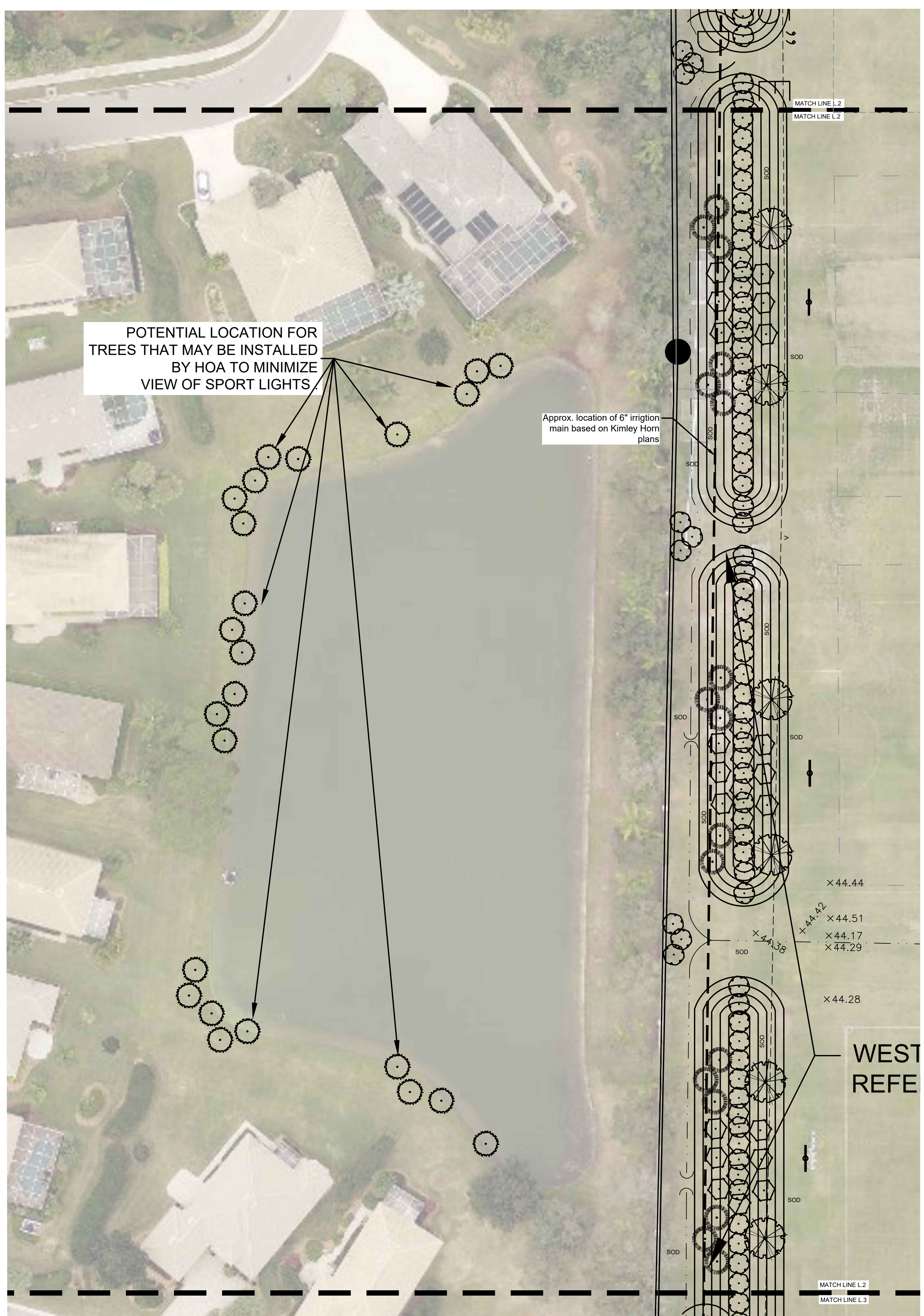
LANDSCAPE PLAN

L.1



PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME
TREES		
	PE3	Pinus elliotti / Slash Pine
	QV3	Quercus virginiana / Live Oak
	TDA	Taxodium distichum / Bald Cypress
PALM TREES		
	CL	Dypsis lutescens / Areca Palm
	WR25	Washingtonia robusta / Mexican Fan Palm
SOD - BERMUDA		



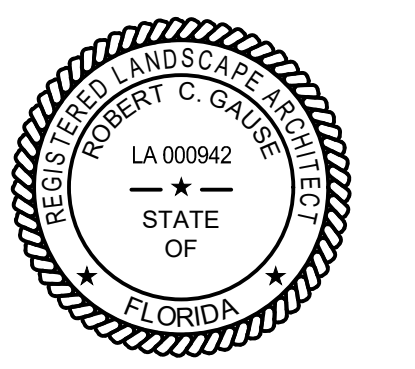
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LWR PARK BUFFER

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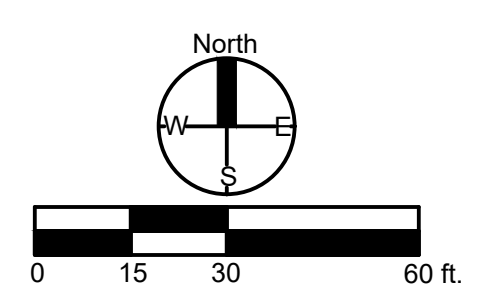


LANDSCAPE PLAN

L.2

Always call 811 two full business days before you dig to have underground utilities located and marked.

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7/29/2025 10:51:54 AM BOB GAUSE F:\2025\2025\LA-1623-AC-LWR_Park_Buffer_V02D\LA-LWR_Park_Buffer_L2.dwg

REVISIONS:

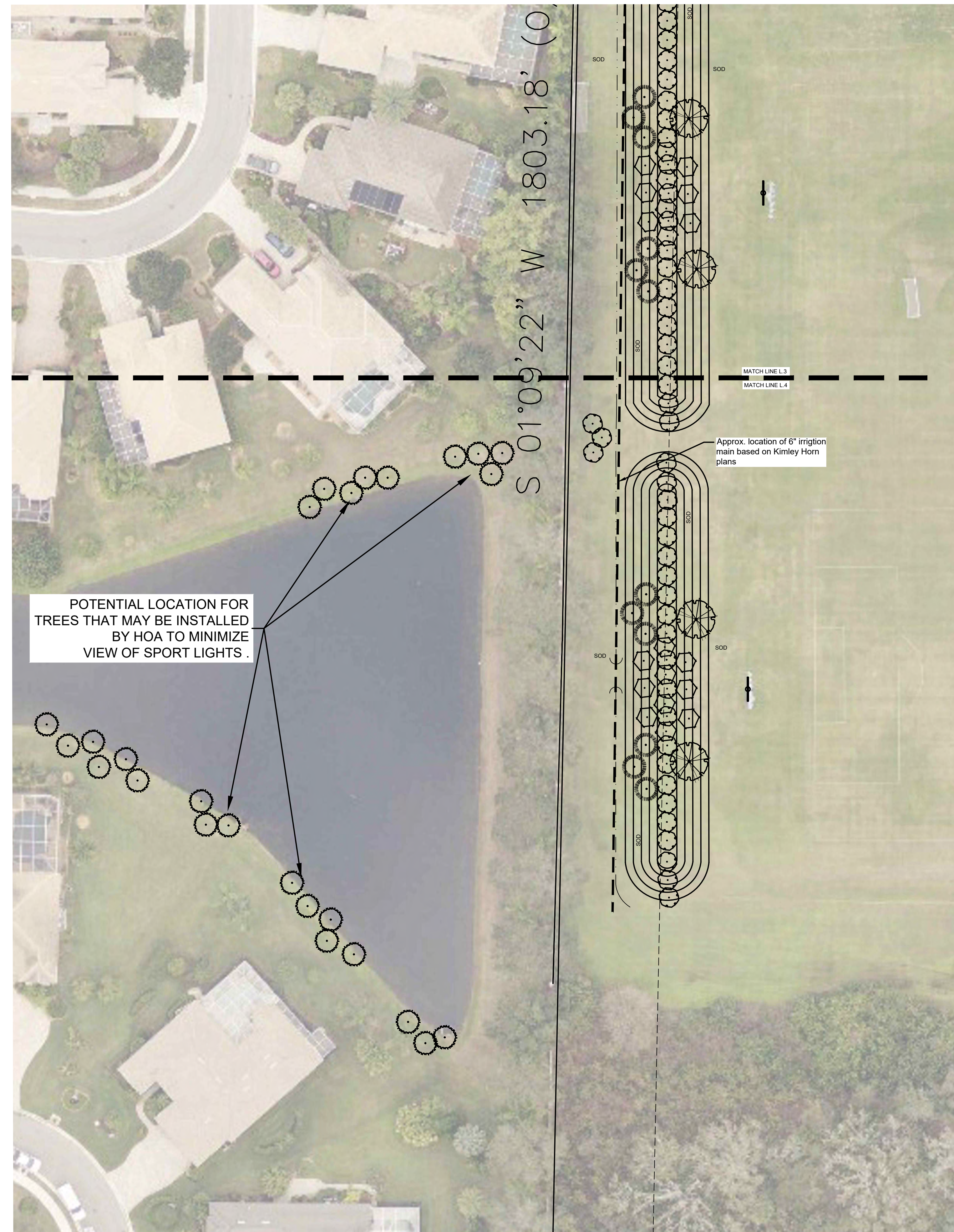
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PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	REMARKS
TREES							
	PE3	47	Pinus elliotti / Slash Pine	30 gal	2.5"Cal	8-10' ht	4' ct., 4' spd, Native
	QV3	16	Quercus virginiana / Live Oak	45 gal	3"Cal	12' Ht.	4' ct., 6' spd., Single leader, Native
	TDA	50	Taxodium distichum / Bald Cypress	B & B	3"Cal	10' Ht.	Full to base, Native
PALM TREES							
	CL	194	Dypsis lutescens / Areca Palm	7 gal		4'-6" HT	
	WR25	80	Washingtonia robusta / Mexican Fan Palm	B & B	N/A	25' ht.	remove skirt
SOD - BERMUDA							

LANDSCAPE NOTES:

- In the event of variation between quantities shown of the plant list and the plans, the plans shall control. Improvisations made by the Landscape Contractor shall be no cause for additional costs to the owner. Sod, mulch, and topsoil quantity takeoffs shall be the responsibility of the contractor.
- No substitutions shall be made without the written consent of the Owner or Landscape Architect.
- Fertilizer shall be applied to all new planting areas at a rate of 1 1/4 lbs. actual nitrogen, 1 1/4 lbs. actual phosphorus, and 1 1/4 lbs. actual potash per 1,000 sq. ft. of planting area. The fertilizer shall also contain all minor trace elements suitable for the area where it is to be used.
- All shrub bed soil mixtures shall contain 2/3 best of on-site topsoil and 1/3 peat, with 8 oz. of super-absorbent mixed in with each cubic yard. Shrub beds shall be uniformly amended to a depth of 12". Ph levels within planting beds shall be between 6.5 and 7.5 following plant installation. It shall be the Landscape Contractor's responsibility to achieve the proper pH level.
- Topsoil material, when called for on the plans, shall be free of sticks, stones larger than 1" dia., plants, or any other debris which would be toxic or otherwise harmful to plant growth. Topsoil should be fertile, friable, and of a naturally loamy character.
- The Landscape Contractor shall take all necessary precautions to protect all existing structures on the site and shall be held responsible for any damage cause by his operations.
- It shall be the Landscape Contractor's financial responsibility to prevent plants and trees from falling or being blown over, and to replace all plants which are damaged at no additional cost to the owner for sustained winds of less than 65 MPH.
- Maintenance shall begin after each plant has been installed and shall continue until final acceptance by the Landscape Architect. Maintenance shall include pruning, mulching, weeding, replacement of sick or dead plants, watering (including cost of equipment such as a water-truck) and any other care which is needed for the proper growth of the plant material.
- Excess waste material shall be removed daily from the site.
- All plant materials used shall conform to the standards for Florida No. 1 or better as described in "Grades and Standards for Nursery Plants", State of Florida, Department of Agriculture and Consumer Services, Division of Plant Industry, 2021 edition or equal thereto as approved by the Landscape Architect.
- All shrub beds and hedges shall be top-dressed with 3" of Coco Brown Mulch unless otherwise stated on the plans or plant schedule. Mulch shall be pulled back 4" from tree trunks and reduced to one inch depth next to woody shrubs.
- It shall be the responsibility of the Landscape Contractor to coordinate activities with other contractors on the job site.
- All plant materials shall be fully guaranteed for a period of one (1) year following final acceptance by the owner.
- Planting beds for hedges shall be 3' wide unless otherwise specified.
- Unit prices for all plant material shall be provided to the Landscape Architect or Owner upon request.
- All landscape materials installed within the public right of way shall be installed to meet all State and Local codes and regulations.
- The Landscape contractor shall not include sod for retention areas into bid (ie. Lake banks and dry retention ponds). This work shall be the responsibility of the general contractor. Sodding of swales shall be the landscape contractors responsibility. Landscape contractor shall use Bahia sod for all other areas unless otherwise specified on the plans.
- Contractor shall install an automatic irrigation system which provides 100% coverage of all landscaped areas, including the tree/shrub buffer as shown on plan and in accordance with Sec. 701.11 LDC. Lowest quality water source shall be used. Potable water shall not be used.
- All B & B or Field Grown material (except palms) shall be obtained from "Roots Plus" certified nurseries.
- All trimming of existing trees shall be conducted or overseen by a certified arborist. Contractor shall contact sunshine state one call of florida system at 811
- 1-800-432-4770 for the location of underground utilities/facilities. Contractor shall verify the exact locations of said facilities prior to excavation and shall assume any and all liability for damages which may occur due to the contractor's failure to locate and preserve said facilities.
- Removal of all nuisance, exotic plant species from upland portions of the site shall be completed prior to the first Certificate of Occupancy issuance, and continue to be removed during the life of the project in accordance with LDC Section 701.4 (715.4)
- There shall be 3' minimum clearance from landscape plants from the edge of the meter slab for meters less than 3" and 6' for meters larger than 3", and for fire line backflow prevention assemblies.
- There shall be 10' min. clearance between trees and meter assemblies, meter assembly slabs, and fire line backflow prevention assemblies.
- There must be a clearance of 7.5' minimum from the front and both sides, and 4' to the rear of all fire hydrants and above grade obstructions including posts, fences, trees, etc. per the Florida Fire Prevention Code.
- Street side of meter assemblies and fire line backflow prevention assemblies shall remain open and free of landscaping.
- Trees shall not be planted or located within 15 feet of any potable water main, reclaimed water main, sanitary force main, gravity sanitary sewer main, sanitary cleanouts, or potable/reclaimed / force main appurtenances such as meters, hydrants, backflow prevention assemblies, etc. that are owned and maintained by Manatee County. An approved root barrier shall be used where trees are planted closer than 15'.
- Roadway buffers are not located in potential Right of Way reservation setbacks.
- Project shall be in compliance with Section 701.8.E LDC - Exotic Plant Species Management Plan which provides for the initial and continued removal of nuisance, exotic plant species that become re-established within upland common, and open spaces, for the life of the project.
- Trees and shrubs shall not be placed within the middle two thirds of any drainage swale or within 3' measured horizontally from the centerline of the swale, whichever is greater.
- Canopy trees shall be placed 20' away from overhead power lines.
- No tree or shrub of more than 2 feet in height shall be located within 2 feet of the edge of the vehicle use area landscaping (LDC Section 701.3.A.5).
- Trees and shrubs shall not be placed within the middle two-thirds of any drainage swale or within 3' feet measured horizontally from the centerline of the swale - whichever is greater (LDC Section 701.8.A.16).



LWR PARK BUFFER

LOCATED AT:
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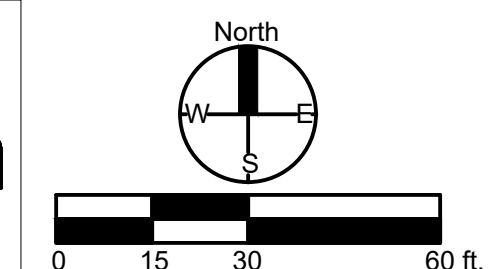


LANDSCAPE PLAN

L.4

Always call 811 two full business days before you dig to have underground utilities located and marked.

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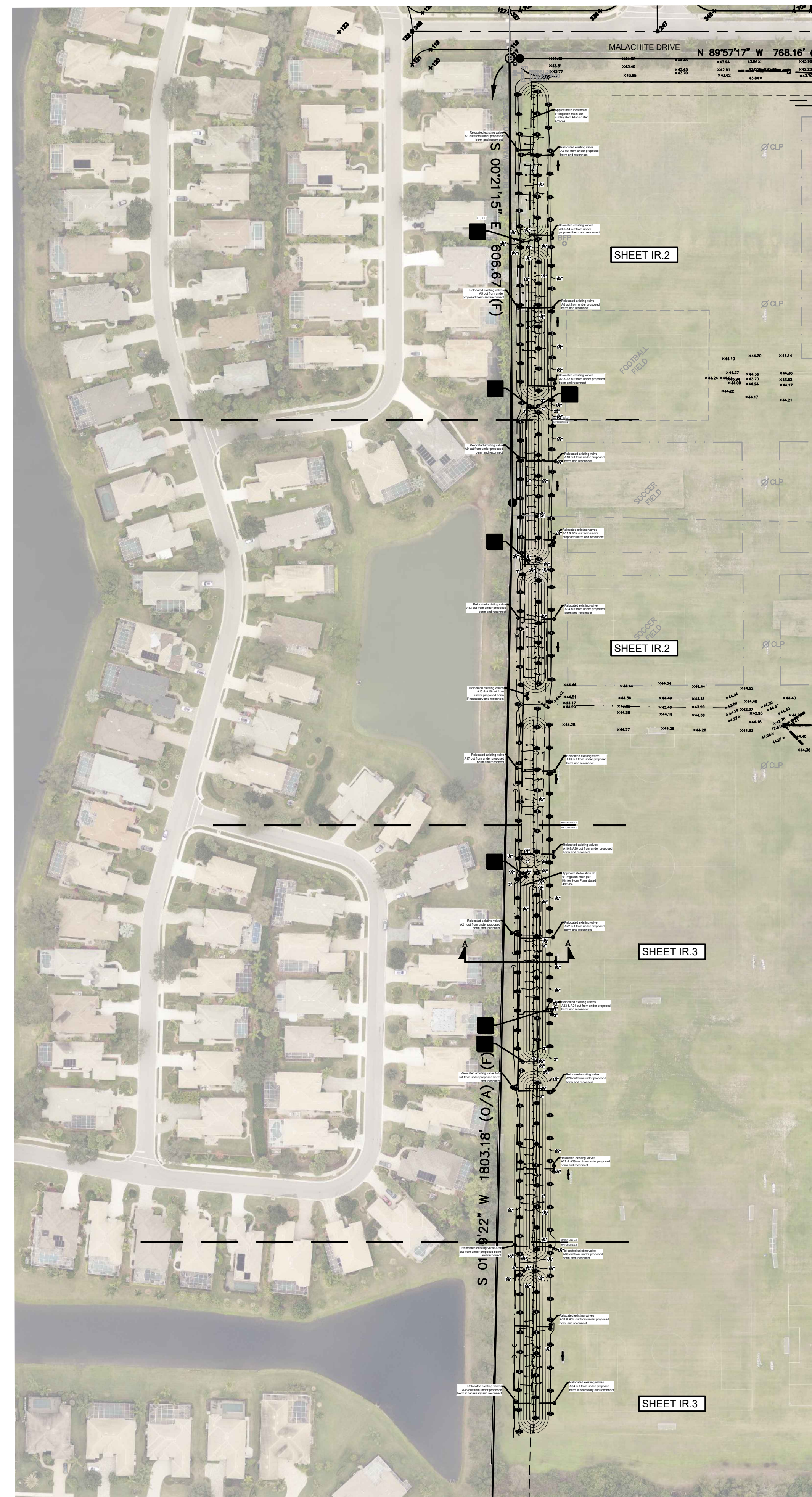
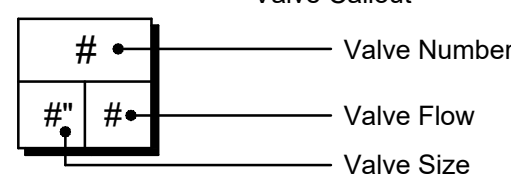


IRRIGATION SPECIFICATIONS

1. **CONDITIONS:**
 - 1.1 Irrigation layout is schematic with pipes located in paved areas and offsets as necessary to create better clarity on the plan. The Contractor shall be responsible for adjusting head location, type, size and any other system components to comply with the requirements of landscaping as actually installed. Such adjustments shall be made at no cost to the Owner except for, when authorized in writing, such adjustments will be compensated at unit prices indicated in the proposal.
 - 1.2 The Contractor shall be responsible for constructing the system in complete accordance with all local codes, ordinances, and laws. Any modifications made to conform with said codes, laws, and ordinances shall be completed at the Contractor's expense with no additional compensation allowed.
 - 1.3 One hundred (100) percent automatic irrigation is serving all required landscape areas.
 - 1.4 The lowest water quality source available shall be utilized for irrigation on common areas and individual residential lots. Stormwater reuse, reclaimed water use, and grey water irrigation systems shall be used where feasible. Shallow wells and wet retention/detention ponds shall also be used as an alternative to potable water.
 2. **SAFETY PROVISIONS:**
 - 2.1 It shall be the responsibility of the Contractor to protect all persons from injury and to avoid property damage. Adequate warning devices shall be placed and maintained during the progress of the work. It shall be the Contractor's responsibility to conform to all local, state, and federal safety laws and codes including the Federal Occupational Safety and Health Act (O.S.H.A.).
 3. **EXISTING UTILITIES:**
 - 3.1 Temporary support, adequate protection and maintenance of all underground and surface utilities, structures, drains, sewers and other obstructions encountered in the progress of the work shall be furnished by the Contractor solely at his expense.
 - 3.2 Where the grade or alignment of the pipe is obstructed by existing utility structures such as conduits, ducts, pipe branch connections to sewer mains, main drains, water services, etc., the obstruction shall be permanently supported, relocated, removed, or reconstructed by the Contractor in cooperation with the Owner of such utility. No deviation from the required line or grade shall be made without the written direction of the Landscape Architect.
 - 3.3 Thrust blocking shall be installed for all pipe line fittings, bends and valves installed with compression "Ring-Tite" joints. The minimum thrust block area shall be one (1) square foot in the thrust-absorbing direction, with the minimum total volume of blocking to be one (1) cubic foot of 2,000 p.s.i. concrete. Thrust blocking shall also be utilized for all main line bends or other bends or fittings where prudent.
 4. **PIPE INSTALLATION:**
 - 4.1 In all cases, the installation of the irrigation system piping shall strictly conform to the manufacturer's recommendations.
 - 4.1.1 Excavation shall be unclassified and shall include all materials whatsoever encountered in the excavation of trenches for pipe installation. The trench shall be of sufficient width and depth for installation of the pipe as indicated herein. The Contractor shall cause minimum disturbance to all existing conditions wherever possible; the Contractor shall bore under existing pavement and sidewalks rather than cut and restore. No pavement shall be cut without the Owner's written permission.
 - 4.1.2 Pipe shall be delivered and stored on the jobsite with suitable protection against any damage to pipe and fittings.
 - 4.1.3 The pipe and fittings shall be carefully inspected before installation in the trench. All rocks and unsuitable bearing material shall be made in strict accordance with the manufacturer's recommendations.
 - a. Compression Joints: The bell end shall be dry and shall have the proper compression ring installed without lubricant and in the proper position. The spigot end shall be clean and lubricated with the recommended lubricant. The spigot end shall then be pushed "home" as indicated when the manufacturer's reference mark is flush with the end of the bell. The completed joint will then be carefully laid in the trench.
 - b. Solvent welded joints shall be made only on clean, dry, square cut, smooth pipe sections. The fitting shall be "dry" tested for proper size before solvent is applied. The assembly shall proceed in strict accordance with recommended procedures furnished by the manufacturer.
 - 4.1.4 Pipe trench depths shall be as follows:
 - Main lines - 12" - 18"
 - Laterals - 7" - 12"
 - 4.2 Gate Valves 2-1/2" or less in size shall be as specified on the plans.
 - 4.3 Vacuum Breakers shall be as required by local codes.
 - 4.4 Automatic solenoid control valves shall be as specified on the plans. The valve shall have a slow closing feature, and manual bleed with pet cock for manual operation installed. All valves shall have a manual flow control adjustment.
 - 4.5 All automatic control valves shall be installed as shown on the detail for such valves and per manufacturer's specification. Once installed and wired to the controller, the Contractor shall adjust the flow controller on each valve to provide the proper flow rate and pressure on the downstream side of each valve. The control valve for mist sprinkler head sections shall be adjusted to provide approximately 30 p.s.i. dynamic pressure downstream with all heads operating. The solenoid control valve for rotary spray head sections shall be adjusted to provide approximately 30 p.s.i. dynamic pressure downstream with all heads operating.
 5. **SPRINKLER HEADS:**
 - 5.1 All sprinkler heads shall be furnished, installed, and operated in accordance with the plans and these Specifications. Installation shall comply with details set out herein. The Contractor shall guarantee all sprinklers and components for not less than one (1) year from installation warranting against all defects in normal material or workmanship.
 - 5.2 The Contractor shall be responsible for the exact location of all sprinkler heads, acknowledging that the plans are schematic in nature. The Contractor shall accordingly place all sprinkler heads, adjust all nozzles, spray patterns and make whatever other adjustments that may be required to give the landscaped areas full, complete and proper coverage and distributions. The Contractor shall make all such adjustments and additions solely at his expense.
 - 5.2.1 Pop-up Spray heads shall be as shown on the plans. Nozzle shall automatically rise 4" for operation, and shall self-retract. Construction shall be entirely of non-corroding materials, and shall be suitable for operations. Sprinkler heads located within hedge rows shall be mounted on 2" sch. 40 pvc pipe painted black or brown. Set height appropriately for hedge.
 - 5.2.2 Controllers shall be contained in lockable cabinets and located on structures as directed by Architect.
 - 5.2.3 Where trees or palms are located within a drip irrigation zone, additional bubblers shall be installed to increase the amount of water available to the rootball. A minimum of one 4 gph bubbler shall be added for every 3" of caliper.
 - 5.3 Control wiring shall be as specified by controller manufacturer. The wiring shall be installed in accordance with these plans and the manufacturer's recommendations. Contractor shall add control wire as necessary to serve new valves from existing system.
 - 5.3.1 Wire connectors shall be 3M DBY/DBR or DBY-6/DBR-6 waterproof connectors, installed per manufacturer recommendations.
 - 5.4 All controllers shall include a provision for system override by automatic moisture sensing devices.
 - 5.5 All valve programming shall exactly follow the valve sequence as indicated on the plans. No deviation shall be made without the Landscape Architect's approval. Initial station tuning shall be in accordance with the Landscape Architect's instructions.
 6. **OTHER IRRIGATION EQUIPMENT:**
 - 6.1 The Contractor shall furnish and install all other irrigation equipment called for herein and on the plans in complete accordance with these specifications and details shown on the plans.
 - 6.2 Valves, including remote control valves, manual control valves, gate valves, globe valves and pressure reducing valves shall be installed in a valve access box.
 - 6.3 At the end of the test period, the piping system shall be "blown-off" at the point most distant from the test pump.
 - 6.4 The acceptance of a piping section because of its passing pressure and leakage tests in no way relieves the Contractor of his responsibility for the piping. At any time during the construction or the warranty period, the Landscape Architect or Owner may order subsequent tests. Such tests and any repairs required shall be solely at the expense of the Contractor.
 - 6.4.1 As an exception to the above testing requirements, all constant pressure main lines upstream from automatic control valves including pump station shall be pressure tested at 125 p.s.i. and shall be allowed leakage as follows:
$$\text{Allowable Leakage} = \frac{L \cdot N \cdot D^2 \cdot P}{3700}$$
 - Leakage = 3700
 - Where L = Gallons per hour
 - N = Number of joints in test main
 - D = Pipe diameter (nominal)
 - P = Average test pressure
 - 6.5 Periodic inspections shall be scheduled by the Contractor as the work progresses. At such time the Landscape Architect shall inspect all work for complete conformance with these specifications. The Landscape Architect shall make any additional inspections that he may deem necessary.
 - 6.6 Generally, inspections should be requested by the Contractor whenever any subsurface system is complete and ready for backfill, so that the Engineer may inspect completely that system without causing excavation of the system, which would be solely the expense of the Contractor.
 - 6.7 Periodic inspections shall include the examination of sprinkler location placement and the conformance of such placement to the actual in-place landscaping requirements. Any relocation required will be ordered by the Landscape Architect and carried out by the Contractor at no additional costs.
7. **AS-BUILT DRAWINGS:**
 - 7.1 During the course of irrigation installation, Contractor shall prepare a reproducible set of as-built drawings for the entire system.
 - 7.2 Said drawings shall be kept updated to show the accurate locations of all underground piping, valves, etc. that have been installed.
 - 7.3 Upon completion of construction, the Contractor shall furnish the completed original drawings and one set of prints to the Owner, and one set of prints to the Landscape Architect.
8. **WARRANTY PERIOD:**
 - 8.1 The entire irrigation system shall be fully guaranteed for parts and labor by the irrigation contractor for a period of one year following final acceptance by the owner or Landscape Architect. This warranty shall be extended to cover individual irrigation components which have longer manufacturer's warranties.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI		
	Hunter AFB 10 Adjustable Flow Bubbler, 1/2" FIPT, stainless steel screw adjustment.	313	20		
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
	Toro TSPSS-RS-LA 2.0 LA Turf Rotor, 5in. Pop-Up, Low Angle Nozzles, Stainless Steel Riser. Adjustable Arc Patterns 40-360, 25ft.-50ft. Radius.	193	55	2.25	31'
	Toro TS90TP-02-14 Blue/Red EXISTING TORO HEAD BASED ON KIMLEY HORN PLANS	1	50	18.8	52'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
	Rain Bird PESB EXISTING VALVE PER KIMLEY HORN PLANS	34			
	Rain Bird PESB-R 1in., 1-1/2in., and 2in. Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	8			
	Irrigation Lateral Line: PVC Class 160 SDR 26	8,491 lf			
	Irrigation Mainline: PVC Class 200 SDR 21 Pipe size 3" and above shall be gasketed pipe Existing mainline pipe to remain	1,527 lf			



Landscape Architecture | Land Planning | Environmental Consulting | Arborist | Permitting | Project Management | Irrigation Design

323 Tenth Avenue West, Suite 102
Palmetto, Florida 34221
Ph. 941.981.3089 | Cell. 941.713.0782
email: bob@gauseandassociates.com
LC26000572 | ISA# FL534A | AICP #061988

DESIGNED: RGVK
DATE: JULY 2025
DRAWN: RGVK
JOB NO.: 24-1623
SCALE: 1"=100'

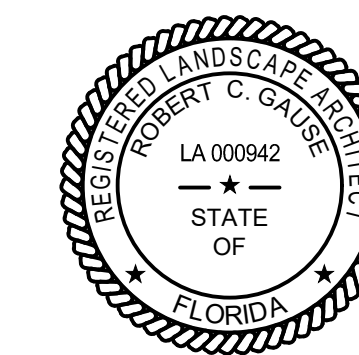
REVISIONS:

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LWR PARK BUFFER

LOCATED AT:
10310 MALACHITE RD
BRADENTON, FL 34211
SECTION 18
TOWNSHIP 35 SOUTH
RANGE 19 EAST
MANATEE COUNTY, FLORIDA

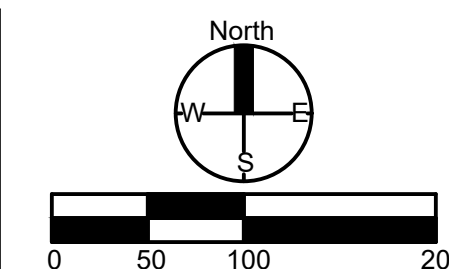
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IRRIGATION PLAN

IR.1

Always call 811 two full business days before you dig to have underground utilities located and marked.



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LWR PARK BUFFER

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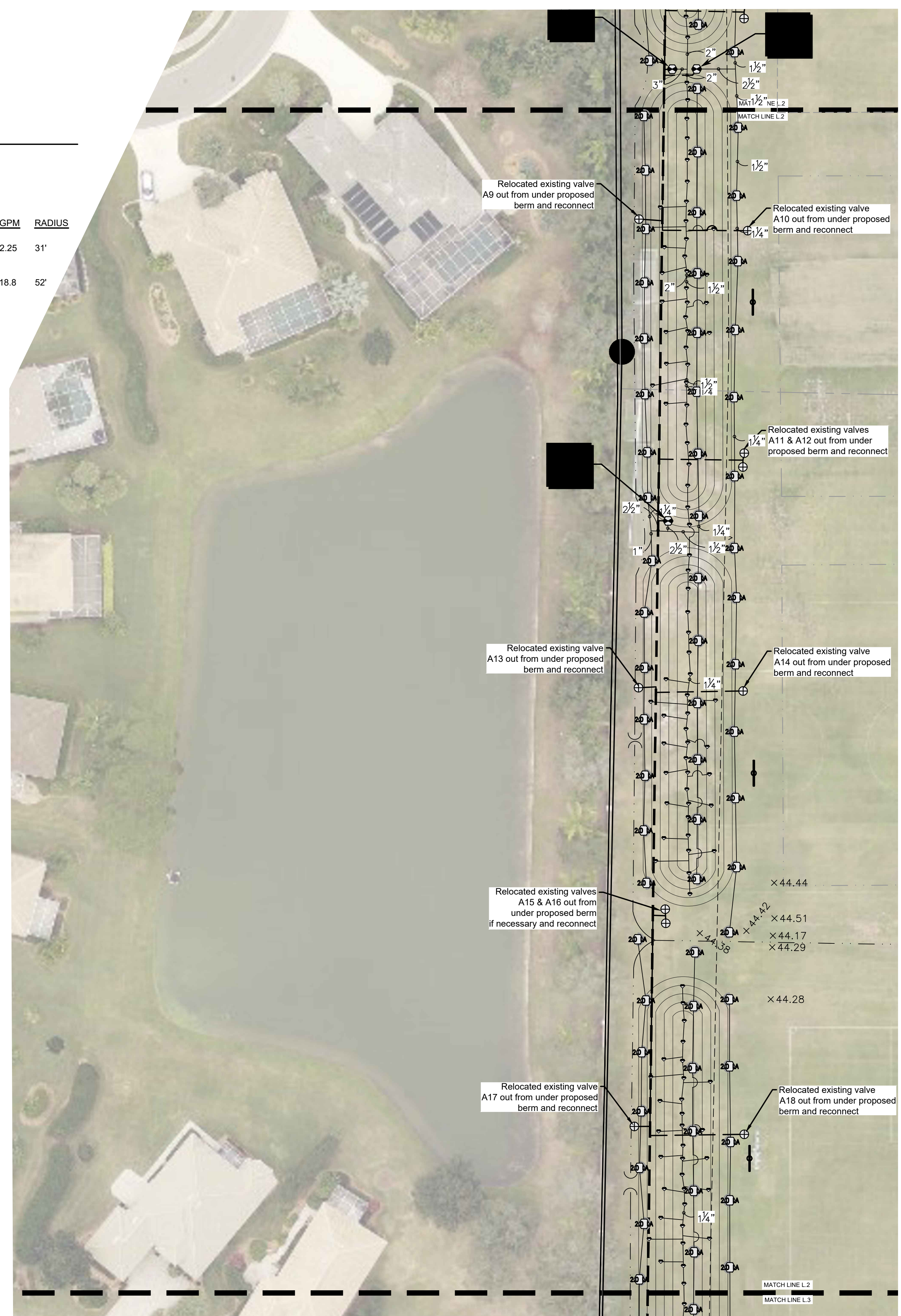
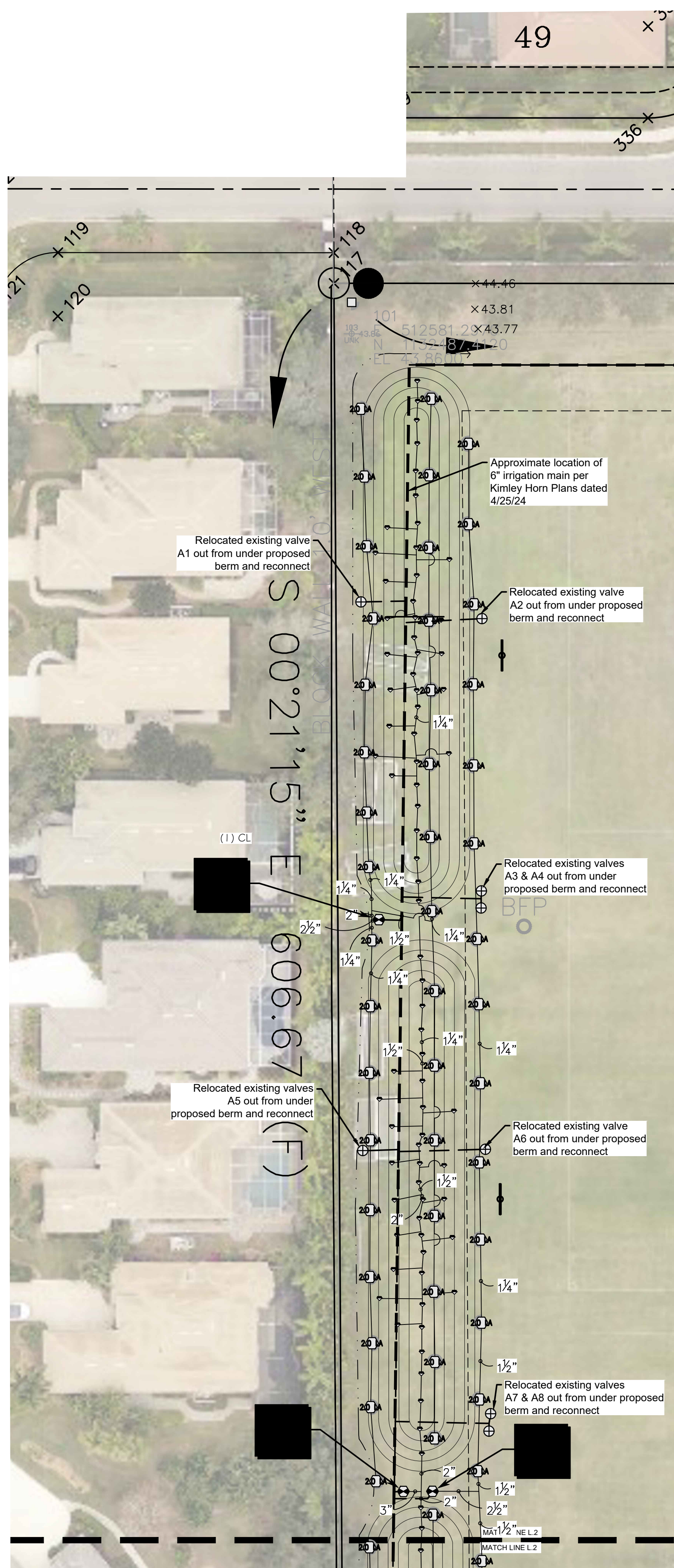
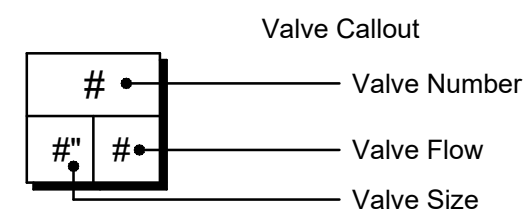


IRRIGATION PLAN

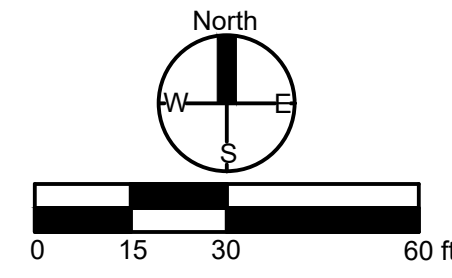
IR.2

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
⊕	Hunter AFB 10 Adjustable Flow Bubbler, 1/2" FIPT, stainless steel screw adjustment.	313	20		
⊕	Toro T5PSS-RS-LA 2.0 LA Turf Rotor, 5in. Pop-Up, Low Angle Nozzles, Stainless Steel Riser. Adjustable Arc Patterns 40-360, 25ft.-50ft. Radius.	193	55	2.25	31'
□	Toro TS90TP-02-14 Blue/Red EXISTING TORO HEAD BASED ON KIMLEY HORN PLANS	1	50	18.8	52'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
⊕	Rain Bird PESB EXISTING VALVE PER KIMLEY HORN PLANS	34			
⊕	Rain Bird PESB-R 1in., 1-1/2in., and 2in. Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	8			
—	Irrigation Lateral Line: PVC Class 160 SDR 26	8,491 lf			
—	Irrigation Mainline: PVC Class 200 SDR 21 Pipe size 3" and above shall be gasketed pipe Existing mainline pipe to remain	1,527 lf			



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LWR PARK BUFFER

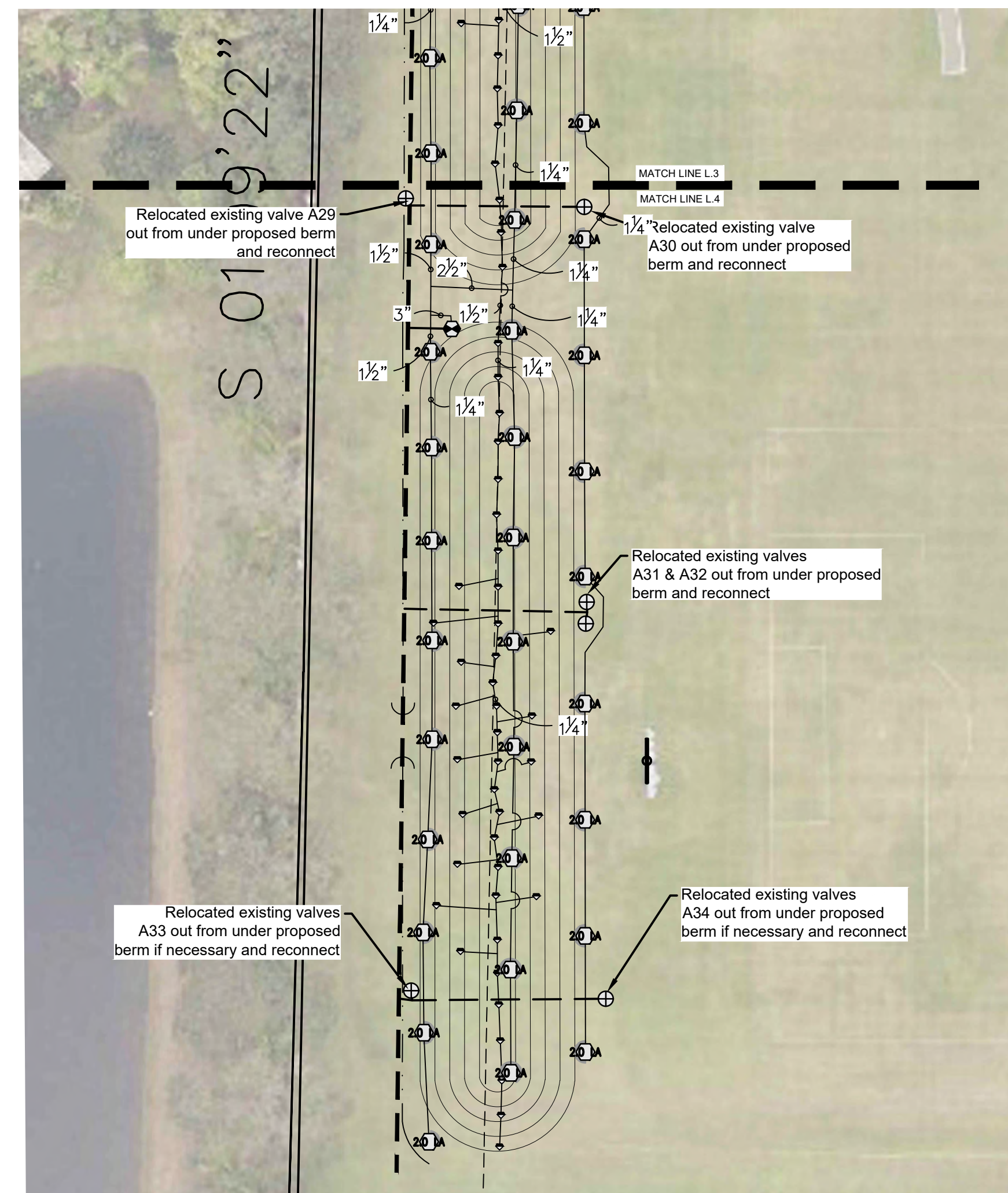
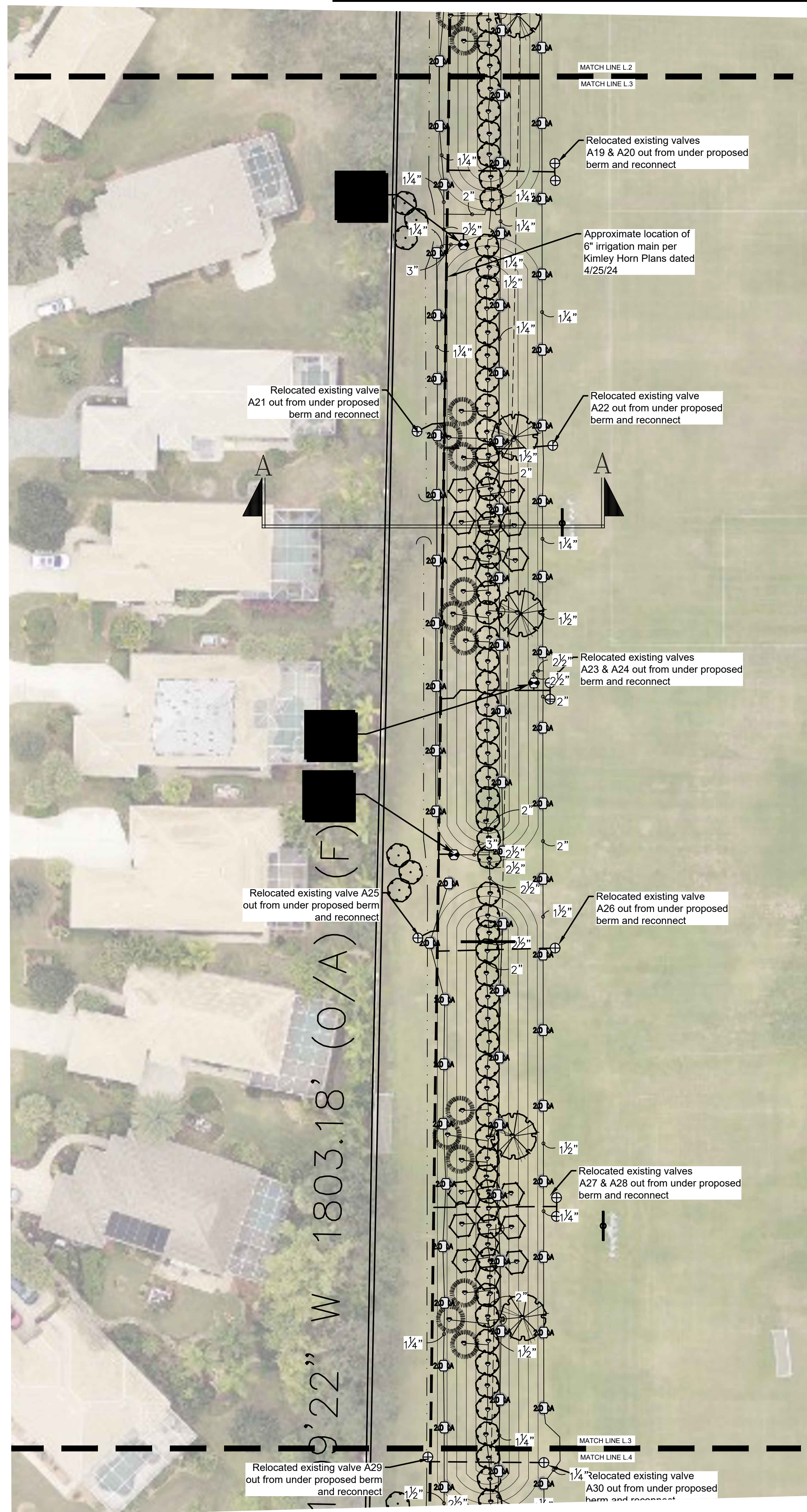
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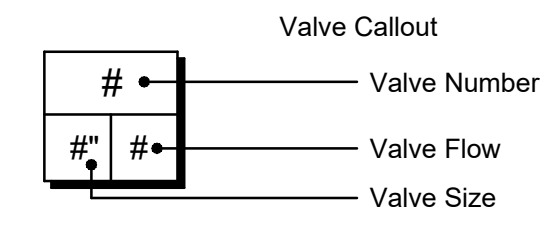
IRRIGATION PLAN

IR.3

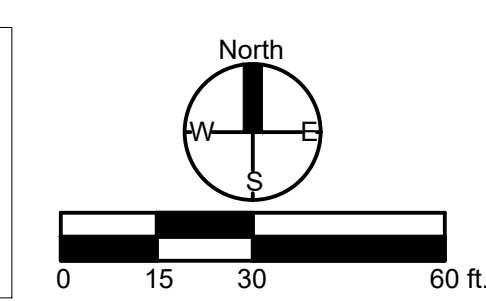


IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI		
	Hunter AFB 10 Adjustable Flow Bubbler, 1/2" FIPT, stainless steel screw adjustment.	313	20		
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
	Toro T5PSS-RS-LA 2.0 LA Turf Rotor, 5in. Pop-Up, Low Angle Nozzles, Stainless Steel Riser, Adjustable Arc Patterns 40-360, 25ft.-50ft. Radius.	193	55	2.25	31'
	Toro TSS0TP-02-14 Blue/Red EXISTING TORO HEAD BASED ON KIMLEY HORN PLANS	1	50	18.8	52'
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY			
	Rain Bird PESB EXISTING VALVE PER KIMLEY HORN PLANS	34			
	Rain Bird PESB-R 1in., 1-1/2in., and 2in. Durable Chlorine-Resistant Valves for Reclaimed Water Applications. With Scrubber Mechanism Technology, and Purple Flow Control Handle.	8			
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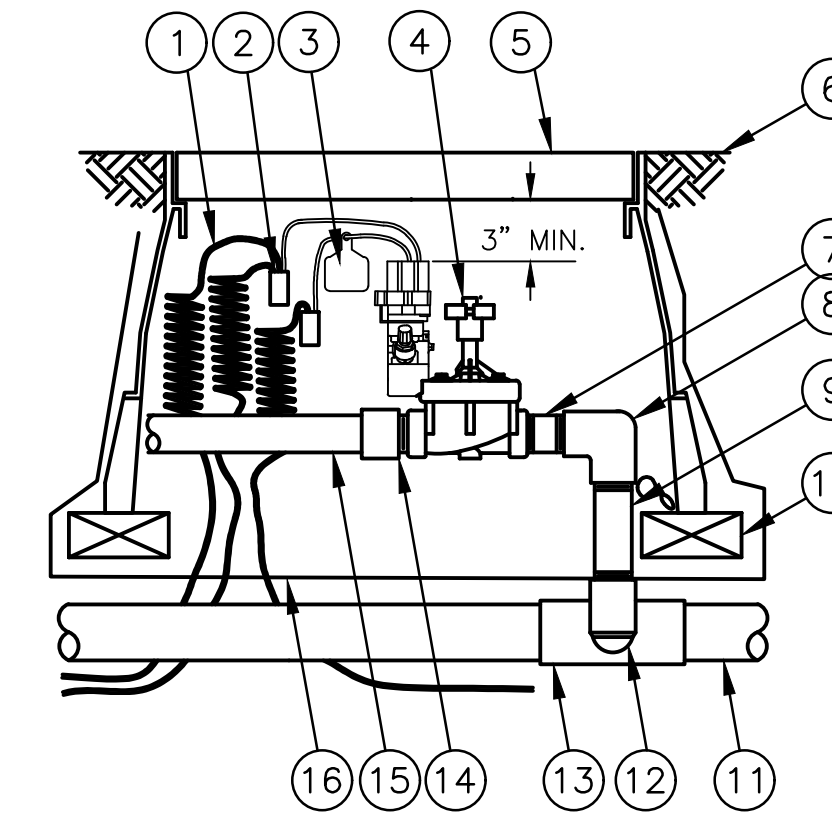


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REVISIONS:

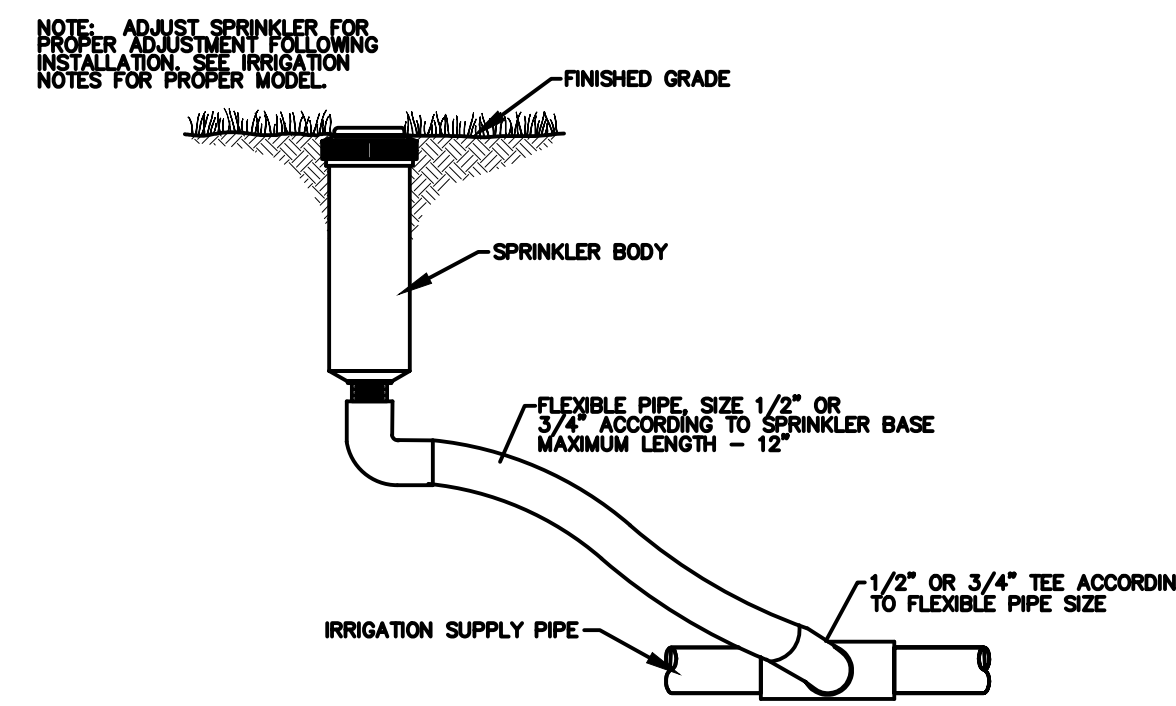
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- ① 30-INCH LINEAR LENGTH OF WIRE, COILED
- ② WATERPROOF CONNECTION (3M-DBY)
- ③ DECODER ON 2 WIRE SYSTEM
- ④ REMOTE CONTROL VALVE: RAIN BIRD PESB-PRS-D WITH NP-HAN
- ⑤ VALVE BOX WITH COVER: RAIN BIRD VB-STD
- ⑥ FINISH GRADE/TOP OF MULCH
- ⑦ PVC SCH 80 NIPPLE (CLOSE)
- ⑧ PVC SCH 40 ELL
- ⑨ PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- ⑩ BRICK (1 OF 4)
- ⑪ PVC MAINLINE PIPE
- ⑫ SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND SCH 40 ELL
- ⑬ PVC SCH 40 TEE OR ELL
- ⑭ PVC SCH 40 MALE ADAPTER
- ⑮ PVC LATERAL PIPE
- ⑯ FILTER FABRIC WRAPPED UNDERNEATH VALVE AND UP OUTSIDE OF VALVEBOX TO KEEP SOIL OUT OF VALVE BOX



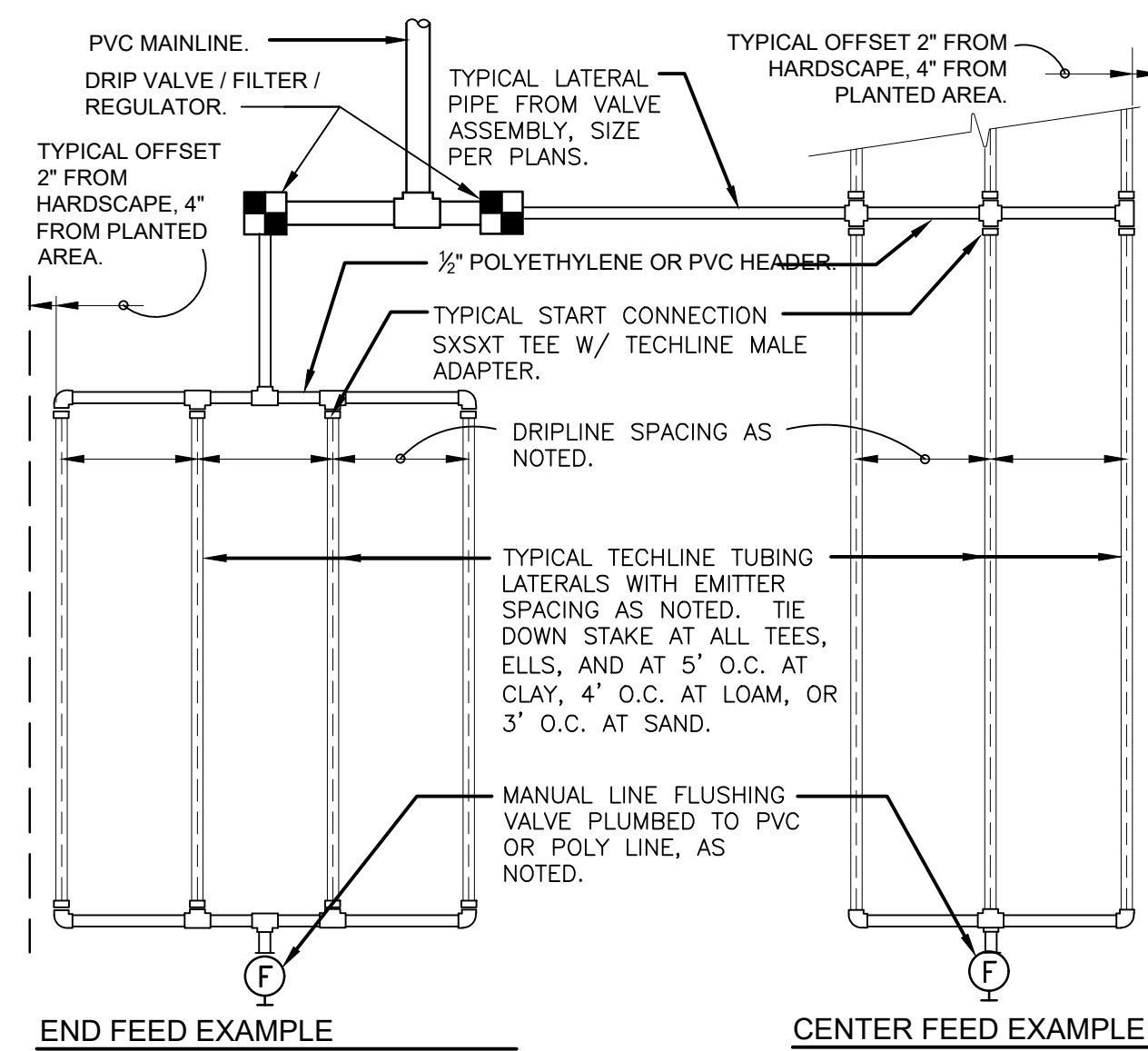
VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
1	Rain Bird PESB-R	2"	Turf Rotor	72		63.0		0.38 in/h
2	Rain Bird PESB-R	2"	Bubbler	73.5		28.4		2.1 in/h
3	Rain Bird PESB-R	2"	Turf Rotor	65.25		62.8		0.39 in/h
4	Rain Bird PESB-R	2"	Turf Rotor	83.25		63.8		0.37 in/h
5	Rain Bird PESB-R	2"	Bubbler	83		28.6		2.1 in/h
6	Rain Bird PESB-R	2"	Turf Rotor	60.75		66.0		0.48 in/h
7	Rain Bird PESB-R	2"	Turf Rotor	69.75		67.8		0.49 in/h



SPRAY HEAD SPRINKLERS, POP-UP DETAIL

N.T.S.



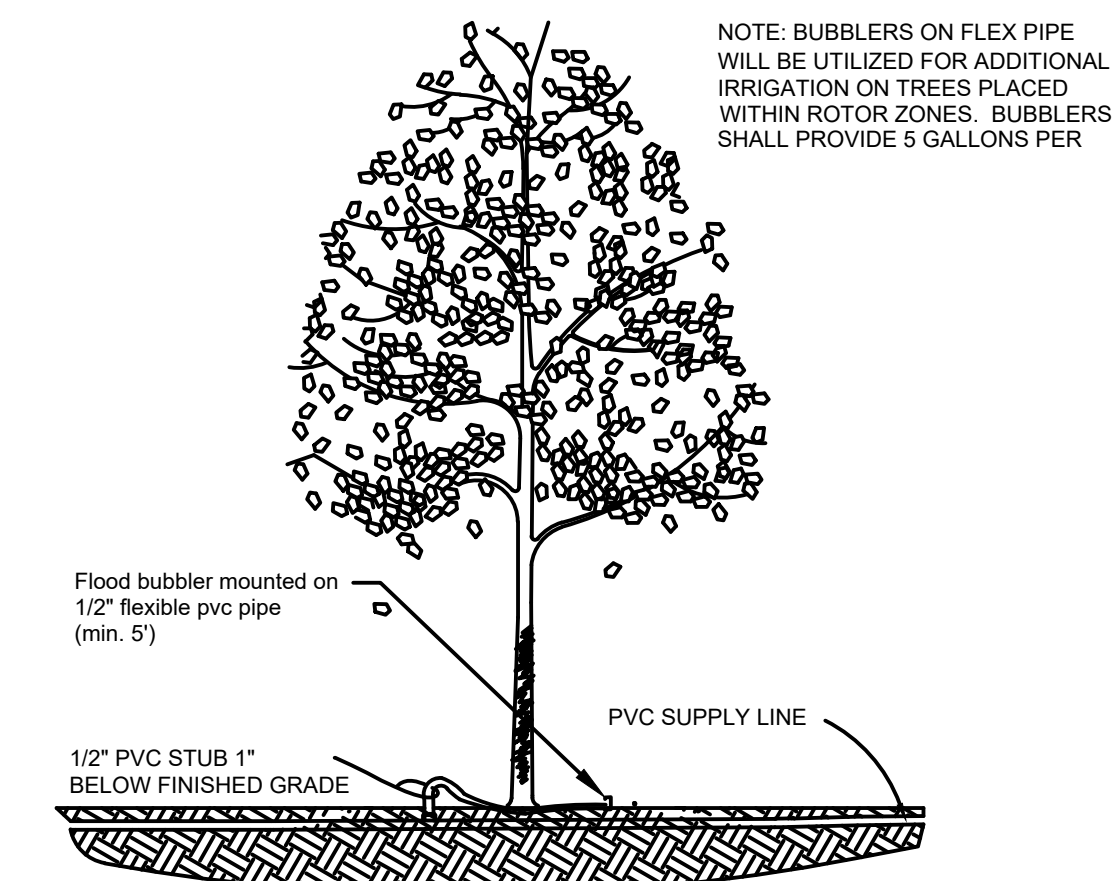
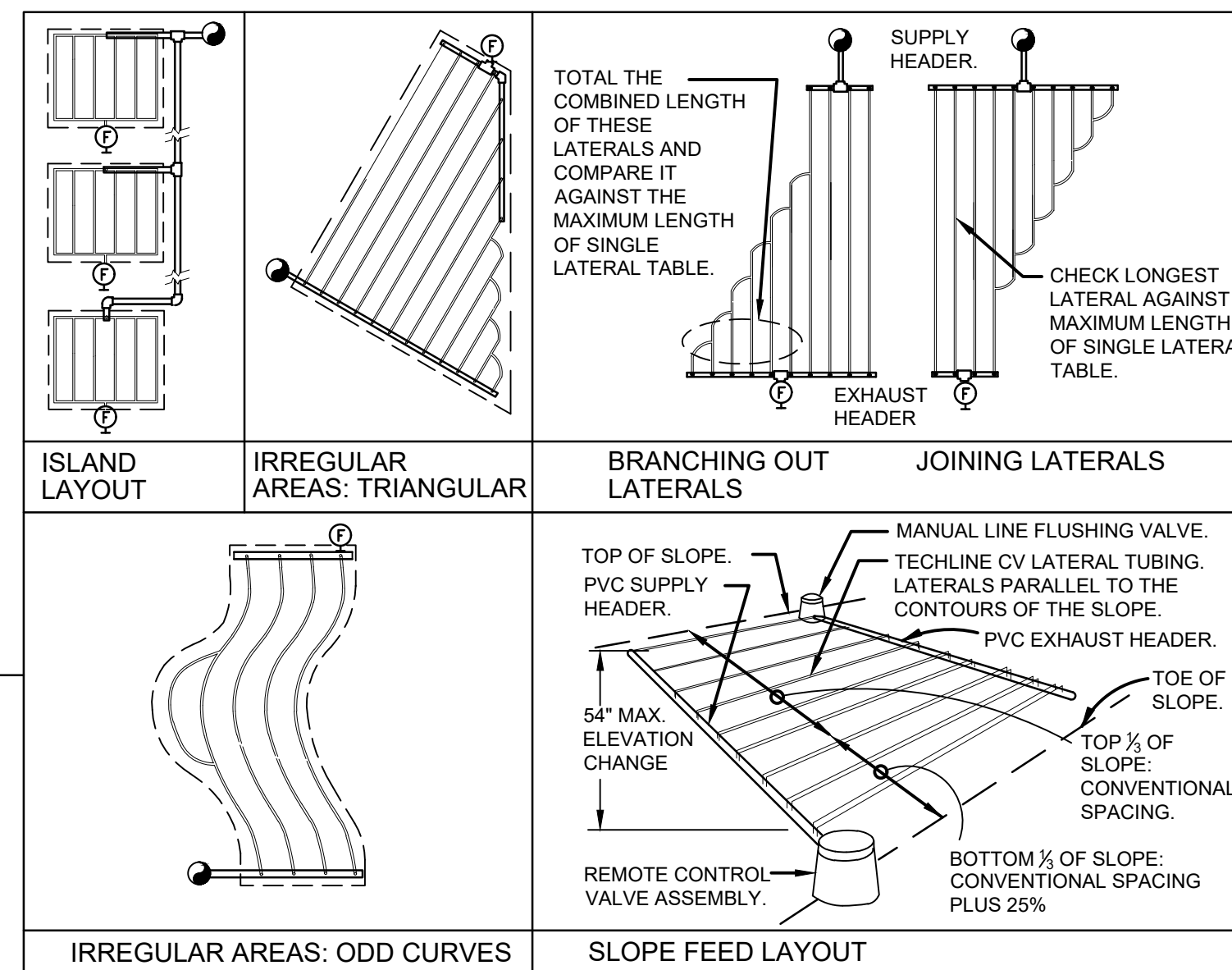
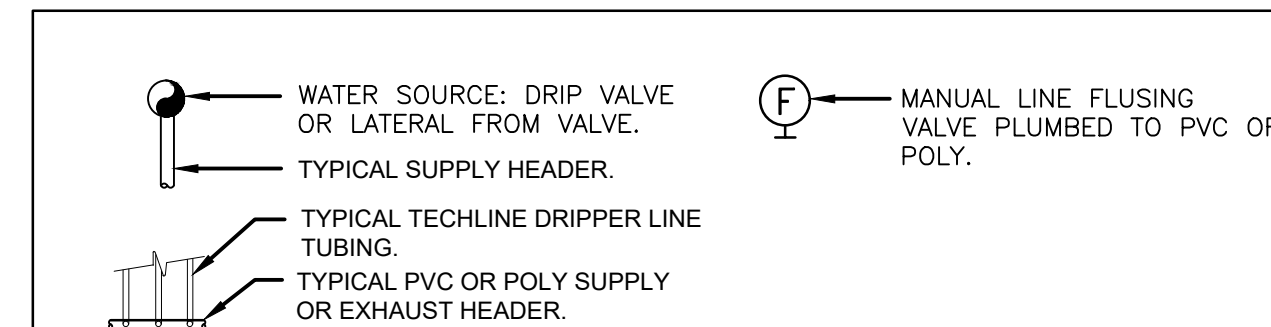
1 TYPICAL NETAFIM TECHLINE CV REQUIREMENTS
 3" = 1'-0"

TECHLINE CV MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

DRIPPER SPACING	12"				18"				24"				
	0.26	0.4	0.6	0.9	0.26	0.4	0.6	0.9	0.6	0.9	0.6	0.9	
DRIPPER FLOW RATE (GPH)	15	127	109	86	65	177	151	120	91	152	116		
INLET PRESSURE (PSI)	25	427	325	256	194	604	459	361	274	458	348		
	35	539	409	322	244	763	579	456	346	580	440		
	45	618	469	369	280	877	664	523	397	666	506		

TECHLINE CV FLOW PER 100 FEET

DRIPPER SPACING	0.26 GPH DRIPPER		0.4 GPH DRIPPER		0.6 GPH DRIPPER		0.9 GPH DRIPPER	
	GPH	GPM	GPH	GPM	GPH	GPM	GPH	GPM
12"	26.40	0.44	40.00	0.67	61.00	1.02	92.00	1.53
18"	17.58	0.29	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	N/A	N/A	31.00	0.51	46.00	0.77



BUBBLER DETAIL
 NOT TO SCALE

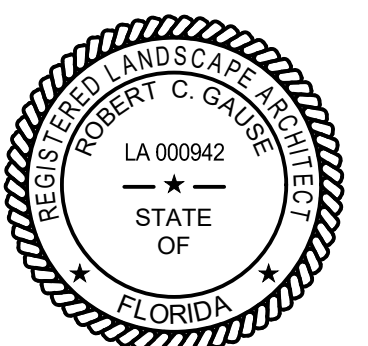
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IRRIGATION NOTES, DETAILS

IR.4