

GLADIATOR LAKE IMPROVEMENTS

CITY OF GREENACRES PALM BEACH COUNTY, FLORIDA

LEGAL DESCRIPTION:

PORTIONS OF LOTS 1 THROUGH 32, BLOCK 4 AND ALL OF THE LAKE PARCEL, BLOCK 4, PALM BEACH VILLAS II, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 31, PAGES 54 AND 55 OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA.

SAID RIGHTS OF WAY LYING IN THE CITY OF GREENACRES, PALM BEACH COUNTY, FLORIDA.

CONTACTS:

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POWER COMPANY: FLORIDA POWER & LIGHT
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PROJECT LOCATION



LOCATION MAP

SECTION 25, TOWNSHIP 44 SOUTH, RANGE 42 EAST

PREPARED FOR:

CITY OF GREENACRES
PLANNING & ENGINEERING DEPARTMENT
5800 MELALEUCA LANE, GREENACRES, FL 33463
PHONE: (561) 642-2054

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REV. # DESCRIPTION DATE



CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS

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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS No. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

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Leonard Z. Gamble, State of Florida, Professional Engineer, License No. 65921
This item has been electronically signed and sealed by Leonard Z. Gamble, P.E. on September 18, 2018 using a SHA authentication code.

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Leonard Z. Gamble
Florida P.E. No. 65921
September 18, 2018

CTA PROJECT NUMBER: 17-0052-001-01

I. APPLICABLE CODES

- A. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF CITY OF GREENACRES & ALL OTHER LOCAL, STATE AND NATIONAL CODES WHERE APPLICABLE.
- B. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
- C. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D.).
- D. WITHIN THE CITY OF GREENACRES JURISDICTIONAL RIGHT-OF-WAY, ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH CITY OF GREENACRES SUBDIVISION AND LAND DEVELOPMENT CODE.
- E. TRENCH SAFETY ACT
 - 1. ALL TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 90-96 OF THE LAWS OF FLORIDA (THE TRENCH SAFETY ACT).
 - 2. ALL TRENCH EXCAVATION IN EXCESS OF 5 FEET IN DEPTH SHALL BE UNDERTAKEN IN ACCORDANCE WITH O.S.H.A. STANDARD 29 CFR. SECTION 1926.650 SUBPART P.
 - 3. A TRENCH SAFETY SYSTEM, IF REQUIRED, SHALL BE DESIGNED BY THE CONTRACTOR.
- F. ASBESTOS CEMENT PIPE (ACP), AND TRANSITE PIPE, CONTAIN ASBESTOS MATERIAL. ALL ASBESTOS CONTAINING MATERIALS SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH THE CURRENT LOCAL, STATE AND FEDERAL REGULATIONS. THIS INCLUDES THE CUTTING, PLUGGING AND DISPOSAL OF EXISTING ACP OR TRANSITE WATER MAIN PIPES.
- G. ALL HANDICAP ACCESSIBLE AREAS TO CONFORM WITH THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT, LATEST EDITION.
- H. IN THE EVENT OF A CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND THE REQUIREMENTS OF ANY JURISDICTIONAL AUTHORITIES, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

II. PRE-CONSTRUCTION RESPONSIBILITIES

- A. FOR WORK WITHIN CITY OF GREENACRES JURISDICTIONAL RIGHT-OF-WAY, PLAN APPROVAL, CITY COUNCIL APPROVAL AND PERMIT ISSUANCE ARE REQUIRED PRIOR TO SCHEDULING PRE-CONSTRUCTION CONFERENCE.
- B. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS AND THE ENGINEER OF RECORD.
- C. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL CERTIFICATION NUMBER AND FIELD MARKINGS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION, CALL 811.
- D. LOCATION OF EXISTING FACILITIES AS SHOWN ON CONSTRUCTION DRAWINGS ARE DRAWN FROM AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING FACILITIES SHOWN OR FOR ANY EXISTING FACILITY NOT SHOWN. THE CONTRACTOR SHALL VERIFY THROUGH VACUUM EXCAVATION & TEST HOLE METHODS, THE ELEVATIONS AND LOCATIONS OF EXISTING FACILITIES PRIOR TO CONSTRUCTION. IF AN EXISTING FACILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION UPON EXCAVATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE ISSUE.
- E. THE CONTRACTOR SHALL COORDINATE W/ OTHER UTILITY OWNERS TO LOCATE, IDENTIFY OR RELOCATE EXISTING UTILITIES AS REQUIRED. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK. IT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- F. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC (M.O.T.) PLAN TO THE CITY OF GREENACRES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND CANNOT COMMENCE CONSTRUCTION PRIOR TO APPROVAL OF THE M.O.T. PLAN AND INSTALLATION OF THE MEASURES CALLED FOR IN THE PLAN. THE M.O.T. SHALL BE PREPARED SUCH THAT THERE IS ACCESS TO PROPERTIES AT ALL TIMES.
- G. THE CONTRACTOR SHALL USE EXTREME CAUTION WORKING UNDER, OVER AND AROUND EXISTING ELECTRIC LINES. THE CONTRACTOR SHALL CONTACT THE FLORIDA POWER & LIGHT TO VERIFY LOCATIONS, VOLTAGE AND REQUIRED CLEARANCES, ONSITE, IN RIGHT-OF-WAYS AND IN EASEMENTS, PRIOR TO ANY CONSTRUCTION IN THE VICINITY OF EXISTING LINES.
- H. ALL UTILITY / ACCESS EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION.
- I. NO CONSTRUCTION MAY COMMENCE UNTIL THE APPROPRIATE PERMITS HAVE BEEN OBTAINED FROM ALL LOCAL, STATE, AND FEDERAL AGENCIES.
- J. ALL REQUIRED GOVERNMENTAL AGENCY BUILDING AND RIGHT OF WAY PERMITS TO BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION ACTIVITY.

III. INSPECTIONS

- A. THE CONTRACTOR SHALL NOTIFY THE CITY OF GREENACRES, THE ENGINEER OF RECORD, AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND 24 HOUR ADVANCED NOTIFICATION PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS, WHERE APPLICABLE:
 - 1. CLEARING AND DEMOLITION, INCLUDING TREE REMOVAL FROM LAKE EMBANKMENT
 - 2. LAKE EMBANKMENT EXCAVATION
 - 3. RETAINING WALL INSTALLATION
 - 4. FINAL GRADING OF LAKE EMBANKMENT
 - 5. ASPHALTIC CONCRETE
 - 6. LANDSCAPING
 - 7. FINAL

IV. SHOP DRAWINGS

- A. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD FOR THE FOLLOWING: EMBANKMENT STABILIZATION PRODUCTS, DRAINAGE PIPE, CONCRETE, AND DRAINAGE STRUCTURES, TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.

V. TEMPORARY FACILITIES

- A. GENERAL:

- 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY.
- B. TRAFFIC REGULATION:
 - 1. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). CONTRACTOR IS RESPONSIBLE TO PREPARE AND PROCESS A MAINTENANCE OF TRAFFIC PLAN AND OBTAIN APPROVAL FROM CITY OF GREENACRES PRIOR TO THE START OF CONSTRUCTION.
 - 2. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
 - 3. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS, UNLESS IN ACCORDANCE WITH METHODS APPROVED BY THE ENGINEER OF RECORD AND THE CITY OF GREENACRES.
 - 4. THE SAFE WALK ROUTE FOR ALL SCHOOLS WITHIN THE VICINITY OF THE CONSTRUCTION ZONE SHALL BE MAINTAINED DURING THE ARRIVAL AND DISMISSAL OF SCHOOL.
 - 5. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR FOR ANY NECESSARY CONSTRUCTION, PAVEMENT MARKING AND SIGNAGE OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN ALTERNATE SAFE WALK ROUTE.
 - 6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAINTAIN ALL TRAFFIC CONTROL DEVICES DURING CONSTRUCTION. ANY DEVICE DAMAGED DURING CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTORS EXPENSE. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED IN ACCORDANCE WITH CITY OF GREENACRES STANDARDS.

VI. STORM DRAINAGE

- A. GENERAL:
 - 1. CATCH BASIN, YARD DRAIN/INLINE DRAIN & STORM MANHOLE GRATES AND RIM ELEVATIONS AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
 - 2. DISTANCES AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
- B. MATERIALS:
 - 1. REINFORCED CONCRETE PIPE (R.C.P.) SHALL MEET THE REQUIREMENTS OF ASTM C-76, CLASS III, LATEST REVISION. RUBBER GASKETS OR OTHER MANUFACTURER SUPPLIED JOINT SEALER SHALL BE USED.
 - 2. ALL DRAINAGE CATCH BASINS AND STRUCTURES SHALL BE PRECAST CONCRETE AND SHALL MEET THE REQUIREMENTS OF A.S.T.M. SPECIFICATION C-478 AND 65T UNLESS OTHERWISE NOTED IN THE PLANS. THE MINIMUM WALL THICKNESS SHALL BE 6 INCHES AND MINIMUM SLAB THICKNESS SHALL BE 8 INCHES. THE MINIMUM REINFORCING SHALL BE GRADE 60 NO. 4 BARS AT 12 INCHES EACH WAY UNLESS OTHERWISE INDICATED. CONCRETE SHALL BE MINIMUM OF FC=4000 PST AT 28 DAYS.
- C. INSTALLATION:
 - 1. PIPE BEDDING MATERIAL SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LIMEROCK 3/8"-7/8" SIZING. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS, AND LARGER ROCK SHALL BE REMOVED. BEDDING MATERIAL SHALL BE COMPACTED IN 6" MAXIMUM LAYERS TO ACHIEVE 98% OF THE MAXIMUM DENSITY PER AASHTO T-180. BEDDING MATERIAL SHALL BE PLACED 4" BELOW BOTTOM OF PIPE AND EXTEND TO SPRING LINE OF PIPE.
 - 2. BACKFILL MATERIAL SHALL BE WELL GRADED GRANULAR MATERIAL (2" MAX. SIZE), PLACED AND COMPACTED TO ACHIEVE 98% OF THE MAXIMUM DENSITY PER AASHTO T-180, WITH WELL TAMPED LAYERS NOT TO EXCEED 6" TO A HEIGHT 12" ABOVE PIPE. REFER TO UTILITY TRENCH DETAIL WITHIN PLAN SHEETS.
 - 3. PROVIDE A MINIMUM PROTECTIVE COVER OF 18 INCHES OF COVER OVER STORM SEWER PIPE AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.
 - 4. THE CONTRACTOR SHALL NOTIFY CITY OF GREENACRES AT LEAST 7 DAYS PRIOR TO THE START OF THE CONSTRUCTION AND INSPECTION.

VII. DE-WATERING

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF DEWATERING PERMIT IS REQUIRED FOR ANY OF THE PROPOSED CONSTRUCTION ACTIVITIES. IF A DEWATERING PERMIT IS REQUIRED, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PREPARE AND SUBMIT A DEWATERING REPORT APPLICATION (PREPARED BY A STATE OF FLORIDA LICENSED ENGINEER OR A REGISTERED PROFESSIONAL GEOLOGIST) TO ALL APPLICABLE AGENCIES FOR PERMIT APPROVAL. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE TESTING AND MONITORING OF THE DEWATERING OPERATIONS AND WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH MEANS AND METHODS OF DEWATERING WHICH WILL BE SET FORTH BY THE DEWATERING PERMIT(S) OBTAINED BY THE CONTRACTOR.
- B. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE TESTING AND MONITORING OF THE DEWATERING OPERATIONS AND WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH MEANS AND METHODS OF DEWATERING WHICH WILL BE SET FORTH BY THE DEWATERING PERMIT(S) OBTAINED BY THE CONTRACTOR.

VIII. NPDES REQUIREMENT

- A. AT LEAST TWO (2) DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A CGP "NOTICE OF INTENT (N.O.I.) TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB ONE OR MORE ACRES OF LAND" FORM (DEP FORM 62-621.300(4)(B)) TO FDEP NOTICES CENTER. THE CONTRACTOR WILL BE RESPONSIBLE FOR (AT THE CONTRACTORS EXPENSE) (1) ASSISTING THE OWNER(S) WITH PREPARING, COMPLETING, AND FILING THE N.O.I. AND N.O.T. TO FDEP (2) PREPARING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (REQUIRED PRIOR TO THE NOI SUBMITTAL) (3) IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT WAS REQUIRED TO BE DEVELOPED PRIOR TO THE NOI SUBMITTAL, AND (4) RETENTION OF RECORDS REQUIRED BY THE PERMIT, INCLUDING RETENTION OF A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL SITE STABILIZATION. A "NOTICE OF TERMINATION (N.O.T.) OF GENERIC PERMIT COVERAGE" FORM (DEP FORM 62-621.300(6)) MUST BE SUBMITTED TO FDEP TO DISCONTINUE PERMIT COVERAGE, SUBSEQUENT TO COMPLETION OF CONSTRUCTION. FOR ADDITIONAL INFORMATION SEE FDEP WEBSITE:

HTTP://WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES.

IX. EARTHWORK

- A. EARTHWORK AND SITE PREPARATION
 - 1. THE CONTRACTOR SHALL IMPLEMENT AND BE RESPONSIBLE FOR THE COST REQUIRED TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE EXISTING EARTH AT ITS CURRENT POSITION WITHIN THE EXISTING ADJACENT RESIDENTIAL LOTS OR LAKE ACCESS EASEMENTS ABUTTING THE PROJECT PROPOSED LIMITS OF RE-GRADING, EXCAVATION, OR FILL SUCH THAT NO MATERIAL WITHIN AN EXISTING RESIDENTIAL YARD/LOT SHALL FAIL OR MOVE FROM ITS CURRENT POSITION TOWARDS THE LAKE EMBANKMENT. THE CONTRACTOR SHALL MAINTAIN THE ACCESS AND SAFE USE OF ALL ADJACENT RESIDENTIAL LOTS BY RESIDENTS AT ALL TIMES SUCH THAT THE PROJECT DOES NOT INTERFERE WITH OR CAUSE A LACK OF ACCESS OR UNSAFE USE OF THE RESIDENTIAL LOT THROUGHOUT THE DURATION OF CONSTRUCTION.
 - 2. ALL TREES, BRUSH, ROOTS, GRASS, WEEDS AND ALL OTHER OBSTRUCTIONS SHALL BE REMOVED FROM WITHIN THE PROJECT LIMITS OF THE AREAS PROPOSED TO BE RE-GRADED, EXCAVATED, OR FILLED .
 - 3. ALL UNSUITABLE MATERIAL SHALL BE REMOVED UNDER THE PROJECT LIMITS OF THE AREAS PROPOSED TO BE RE-GRADED, EXCAVATED, OR FILLED IN SUCH A MANNER THAT WILL NOT CAUSE FAILURE OF THE LAKE EMBANKMENT EITHER ABOVE OR BENEATH THE WATER LEVEL. CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION AND COST OF DEWATERING, SHORING, OR OTHER REQUIREMENTS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE LAKE EMBANKMENT ABOVE AND BELOW THE WATER LEVEL.
 - 4. STRUCTURAL FILL SHOULD CONSIST OF INORGANIC, NON-PLASTIC, GRANULAR SOILS CONTAINING LESS THAN 10 PERCENT MATERIAL PASSING THE #200 SIEVE (GP, GW, SP, SW, GW-GM, GP-GM SW-SM OR SP-SM OR A CRUSHED LIME ROCK WITH A 3" MAX. PARTICLE SIZE) BACK FILL MATERIAL PLACED IN LIFTS NOT TO EXCEED TWELVE (12) INCHES IN THICKNESS, AND COMPACTED TO A MINIMUM DENSITY OF 98% OF AASHTO T-180 (MODIFIED PROCTOR), IF THE EXCAVATION EXTENDS BELOW THE GROUND WATER LEVEL, THE EXCAVATION SHOULD BE DEWATERED PRIOR TO STRIPPING AND SITE PREPARATION. THE DEWATERING OPERATION SHOULD BE A WELL POINT OPERATION AND SHOULD OPERATE CONTINUOUSLY UNTIL THE FILL HAS BEEN BROUGHT TO AT LEAST TWO (2) FEET ABOVE THE ORIGINAL GROUND WATER LEVEL. PRIOR TO INITIATING COMPACTION, REPRESENTATIVE SAMPLES OF THE FILL MATERIALS TO BE USED, AS WELL AS ACCEPTABLE EXPOSED IN-PLACE SOILS, SHALL BE COLLECTED AND TESTED TO DETERMINE THEIR COMPACTION AND CLASSIFICATION CHARACTERISTICS.
 - 5. A REPRESENTATIVE NUMBER OF IN-PLACE FIELD DENSITY TESTS SHOULD BE PERFORMED IN THE COMPACTED EXISTING SOILS AND IN EACH 1' LIFT OF FILL MATERIAL OR BACK FILL TO CONFIRM THAT THE REQUIRED DEGREE OF COMPACTION HAS BEEN ACHIEVED. AT LEAST ONE DENSITY TEST SHALL BE PERFORMED FOR EVERY 2000 SQUARE FEET OF COMPACTED EXISTING SOIL, SUB GRADE, AND EACH LIFT OF CONTROLLED FILL.
 - 6. ANY DEEP EXCAVATIONS OR TRENCHES REQUIRED FOR THIS PROJECT SHOULD BE ADEQUATELY SHORED TO PREVENT THE SANDY ON-SITE SOILS FROM COLLAPSING INTO THE EXCAVATIONS. ALL APPLICABLE OSHA STANDARDS AND REGULATIONS SHOULD BE ADHERED TO FOR THE SAFETY OF PROJECT CONSTRUCTION PERSONNEL. CONTRACTOR MUST ADHERE TO REQUIREMENTS OF FLORIDA TRENCH SAFETY ACT OF 1990.

X. PROJECT CLOSEOUT

- A. CLEAN UP:
 - 1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEPED BROOM CLEAN.
 - 2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, OR EMPLOYEES, TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THAT END, THE CONTRACTOR SHALL DO, AS REQUIRED, ALL NECESSARY HIGHWAY, DRIVEWAY, WALK AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
 - 3. WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR HAS BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.
 - 4. ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
 - 5. ALL UNPAVED SURFACES DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED BEFORE THE CONSTRUCTION.
- B. PROJECT RECORD DOCUMENTS:
 - 1. DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH, MATERIAL AND ELEVATION OF ANY FACILITY NOT BUILT EXACTLY ACCORDING TO PLANS.
 - 2. UPON COMPLETION OF GRADING MODIFICATIONS THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD "AS-BUILT" PLANS FOR THESE IMPROVEMENTS. SEE ENGINEERS AS-BUILT REQUIREMENTS.
 - 3. ALL "AS-BUILT" INFORMATION SHALL BE CERTIFIED BY A FLORIDA REGISTERED LAND SURVEYOR.

XI. ENGINEER'S AS-BUILT REQUIREMENTS

- A. ALL AS-BUILT LOCATIONS MENTIONED BELOW SHALL PROVIDE COORDINATES (NORTHING AND EASTING) SPATIALLY LOCATED WITHIN STATE PLANE COORDINATES. ALL LOCATIONS (NORTHING AND EASTING) SHALL BE PROVIDED TO THE NEAREST TENTH OF A FOOT. ALSO ALL AS-BUILT LOCATION POINT COORDINATES SHALL BE PROVIDED AT THE CORRESPONDING NORTHING AND EASTING IN AN AUTOCAD FILE.
- B. EASEMENT LOCATIONS (NORTHING AND EASTINGS) SHALL BE PROVIDED ON AS-BUILTS.
- C. AS-BUILTS OF PROPOSED LAKE BANK CROSS SECTIONS SHALL BE PROVIDED.
- D. DRAINAGE AS-BUILTS SHALL BE PROVIDED SHOWING OF ALL DRAINAGE PIPING AND STRUCTURES WHICH SHALL INCLUDE THE FOLLOWING INFORMATION:
 - 1. LOCATION, RIM ELEVATION, INVERTS, BOTTOM OF STRUCTURE, BOTTOM OF POLLUTION RETARDANT BAFFLE AND WEIR ELEVATIONS (IF APPLICABLE) ON DRAINAGE STRUCTURES.
 - 2. LENGTH AND SIZE OF THE PIPING BETWEEN STRUCTURES. SIZE OF THE PIPING SHALL BE VERIFIED BY THE SURVEY CREW AT THE TIME OF AS-BUILT.
 - 3. LENGTH AND SIZE OF EXFILTRATION TRENCH BETWEEN STRUCTURES ALONG WITH THE TOP AND BOTTOM ELEVATIONS OF EXFILTRATION TRENCH. LENGTH, SIZE, TOP OF AND BOTTOM OF

- EXFILTRATION TRENCH SHALL BE VERIFIED BY THE SURVEY CREW AT THE TIME OF AS-BUILT.
- 4. CONTROL STRUCTURE AS-BUILTS SHALL INCLUDE, BUT NOT BE LIMITED TO, RIM ELEVATIONS, WEIR ELEVATIONS, BOTTOM ELEVATION OF THE STRUCTURES, BOTTOM ELEVATION OF POLLUTION RETARDANT BAFFLE, AND INVERTS ELEVATIONS OF PIPING.
- 5. CROSSING INFORMATION BETWEEN PROPOSED DRAINAGE PIPING AND EXISTING AND PROPOSED SEWER MAIN, FORCE MAIN, DRAINAGE, WATER MAIN, UTILITIES, ETC.
- E. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PREPARE RECORD DRAWINGS AND "AS-BUILTS", ON FULL SIZE, 24" X 36" REPRODUCIBLE MATERIAL. TWO (2) SETS OF THESE RECORD DRAWINGS AND "AS-BUILTS" SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL LAND SURVEYOR. ADDITIONALLY, AN ELECTRONIC COPY OF THESE RECORD DRAWINGS AND "AS-BUILTS", SHALL BE SUBMITTED TO THE ENGINEER OF RECORD IN BOTH PDF AND AUTOCAD (VERSION 2010 OR GREATER).
- F. FINAL DELIVERABLES SHALL INCLUDE AN AUTOCAD-COMPATIBLE DIGITAL FILE CONTAINING ALL PERTINENT RECORD DRAWING AND "AS-BUILT" INFORMATION (INCLUDING, WATER, SEWER, PAVING, AND DRAINAGE). FILE TO BE SPATIALLY LOCATED WITHIN STATE PLANE COORDINATES.

Leonard Z. Gamble, State of Florida, Professional Engineer, License No. 65921
 This item has been electronically signed and sealed by
 Leonard Z. Gamble, P.E. on September 18, 2018 using a SHA authentication code.

Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

Leonard Z. Gamble
 Florida P.E. No. 65921
 September 18, 2018

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DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION				CHECKED BY		CHECKED BY		CHECKED BY		CHECKED BY					
SUPERVISED BY:																							

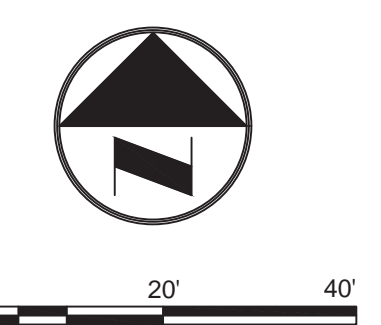
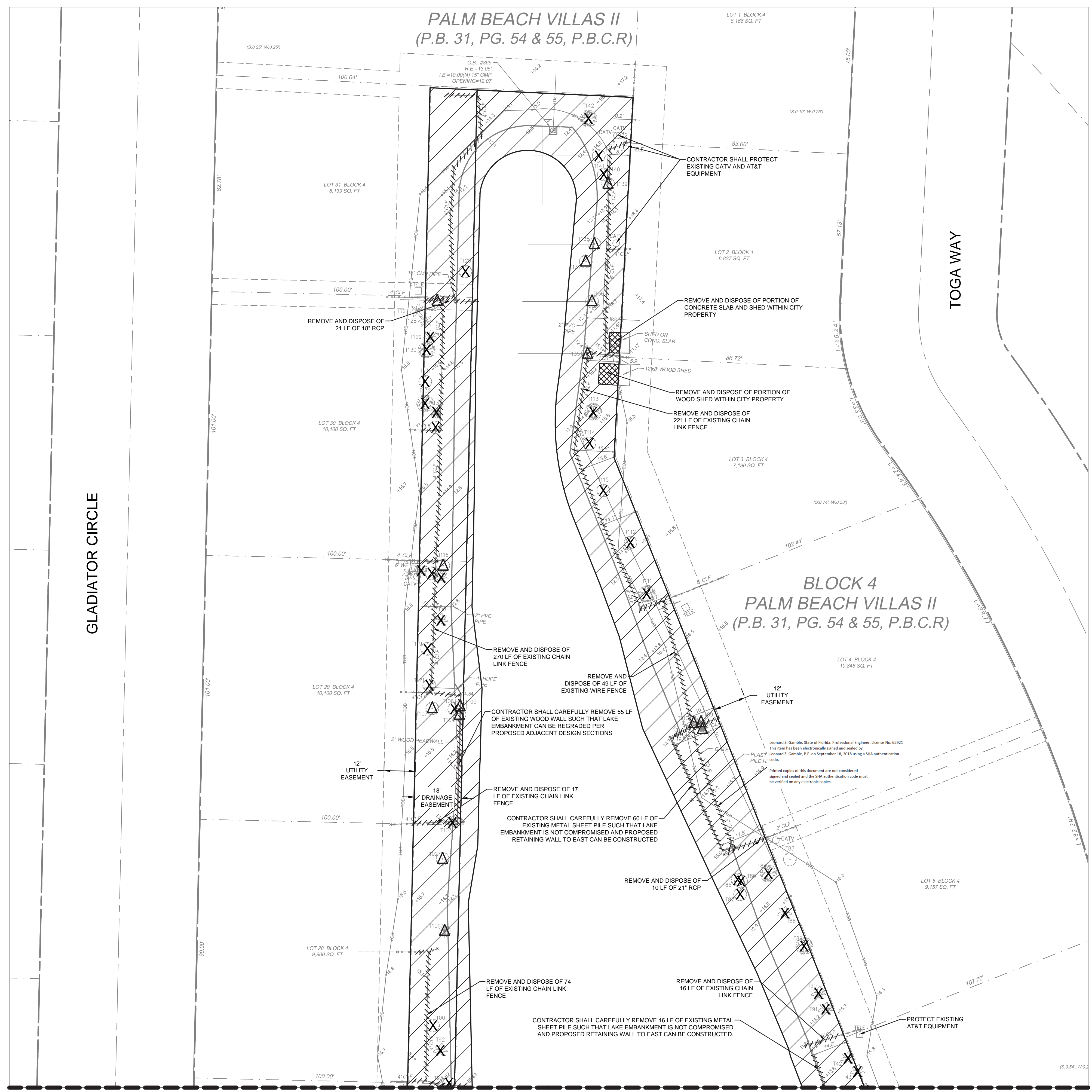
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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

GLADIATOR LAKE DRAINAGE ENHANCEMENTS
 PREPARED FOR:
 CITY OF GREENACRES

GENERAL NOTES AND SPECIFICATIONS

SHEET NO.
C-2

R:\Engineering\2017\17-0052-001-01_Gladiator Lake Greenacres\Drawings\17-0052-001-01-DEMOLITION.dwg [C-3 DEMOLITION PLAN] Sep 18, 2018 9:39am ZC/MABLE



- DEMOLITION LEGEND:**
- ////// DEMOLISH FENCE / WALL
 - X EXISTING TREE TO BE REMOVED (<16")
 - △ EXISTING TREE TO BE REMOVED (>16")
 - [Hatched Box] LIMITS OF CLEARING AND GRUBBING AND EXCAVATION PER PROPOSED DESIGN SECTIONS
 - [Cross-hatched Box] LIMITS OF REMOVAL AND DISPOSAL OF EXISTING HARDSCAPE

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988

Always call 811 two full business days before you dig

- NOTES:**
1. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO STARTING DEMOLITION.
 2. ALL MANHOLES, VALVES, METER BOXES, COVERS, ETC SHALL BE ADJUSTED TO FINISHED GRADE. THIS INCLUDES ITEMS NOT SPECIFICALLY LABELED TO BE ADJUSTED. IF BOX IS BROKEN OR FOUND TO BE NOT PER CITY STANDARDS CONTRACTOR SHALL REPLACE BOX AT THEIR OWN EXPENSE.
 3. CONSTRUCTION AREAS TO BE RE-GRADED SHALL BE CLEARED OF ANY DEBRIS, WEEDS AND GRASS PRIOR TO START OF CONSTRUCTION
 4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AND CITY OF GREENACRES PRIOR TO START OF CONSTRUCTION.
 5. BROKEN BOXES WILL NOT BE ACCEPTED AND SHALL BE REPLACED AS NECESSARY AT CONTRACTOR'S EXPENSE.

TREE NO.	DESCRIPTION	WORK REQUIRED
42	4" CHRISTMAS PALM	TO BE REMOVED
43	4" CHRISTMAS PALM	TO BE REMOVED
84	14" MANGO	TO BE REMOVED
85	6" UNKNOWN	TO BE REMOVED
86	4" UNKNOWN	TO BE REMOVED
87	4" UNKNOWN	TO BE REMOVED
88	10" COCONUT PALM	TO BE REMOVED
89	6" MANGO	TO BE REMOVED
90	10" COCONUT PALM	TO BE REMOVED
91	4" CHRISTMAS PALM	TO BE REMOVED
92	12" PALM	TO BE REMOVED
93	10" UNKNOWN	TO BE REMOVED
100	4" SCHEFFLERA	TO BE REMOVED
*101	24" NORFORK ISLAND PINE	TO BE REMOVED
*102	60" STRANGLER FIG	TO BE REMOVED
103	6" QUEEN PALM	TO BE REMOVED
*104	20" SCHEFFLERA	TO BE REMOVED
*105	20" SCHEFFLERA	TO BE REMOVED
106	10" SCHEFFLERA	TO BE REMOVED
*107	36" OAK	TO BE REMOVED
*108	48" CACTUS	TO BE REMOVED
*109	24" PALM	TO BE REMOVED
*110	18" PALM	TO BE REMOVED
111	3" MANGO	TO BE REMOVED
112	1" UNKNOWN	TO BE REMOVED
113	1" MANGO	TO BE REMOVED
114	1" UNKNOWN	TO BE REMOVED
115	1" UNKNOWN	TO BE REMOVED
*116	36" BANANA TREE	TO BE REMOVED
117	COCONUT PALM	TO BE REMOVED
118	COCONUT PALM	TO BE REMOVED
119	2" HIBISCUS	TO BE REMOVED
121	4" UNKNOWN	TO BE REMOVED
122	2" HAWAIIAN LAI	TO BE REMOVED
123	4" ROBELLINI PALM	TO BE REMOVED
125	10" BOTTLEBRUSH	TO BE REMOVED
*126	24" BANANA TREE	TO BE REMOVED
129	10" COCONUT PALM	TO BE REMOVED
130	10" MANGO	TO BE REMOVED
131	1" AVACADO	TO BE REMOVED
132	1" CITRUS TREE	TO BE REMOVED
133	8" CACTUS	TO BE REMOVED
134	3" UNKNOWN	TO BE REMOVED
*135	20" BLACK OLIVE	TO BE REMOVED
*136	16" BLACK OLIVE	TO BE REMOVED
*137	20" BISCHOFFIA	TO BE REMOVED
*138	30" BLACK OLIVE	TO BE REMOVED
*139	18" BISCHOFFIA	TO BE REMOVED
140	6" BISCHOFFIA	TO BE REMOVED
141	14" BISCHOFFIA	TO BE REMOVED
142	12" MANGO	TO BE REMOVED

* INDICATES EXISTING TREE 16" OR LARGER

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Florida P.E. No. 65921
September 18, 2018

MATCHLINE - SEE SHEET C-4

MATCHLINE - SEE SHEET C-5

REVISIONS				DESIGNED				DRAWN				CHECKED				SUPERVISED			
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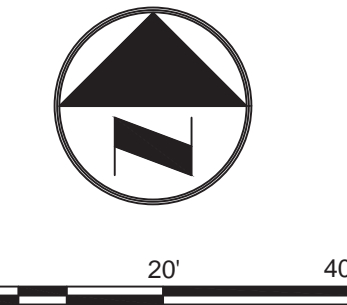
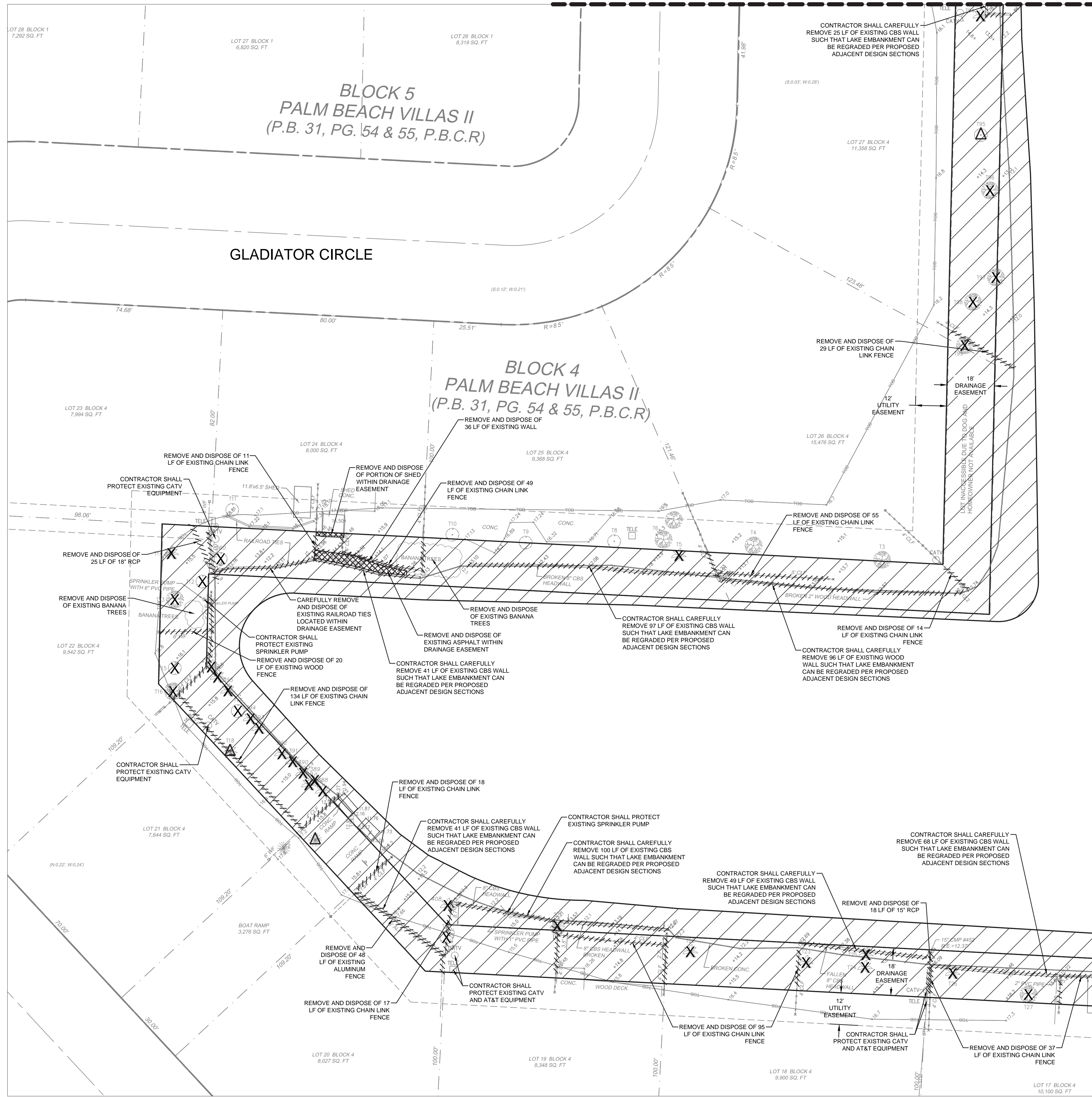
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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS No. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

GLADIATOR LAKE
DRAINAGE ENHANCEMENTS
PREPARED FOR:
CITY OF GREENACRES

DEMOLITION PLAN

SHEET NO.
C-3

MATCHLINE - SEE SHEET C-3



DEMOLITION LEGEND:

- ////// DEMOLISH FENCE / WALL
- X EXISTING TREE TO BE REMOVED (<16')
- △ EXISTING TREE TO BE REMOVED (≥16')
- [Hatched Box] LIMITS OF CLEARING AND GRUBBING AND EXCAVATION PER PROPOSED DESIGN SECTIONS
- [Cross-hatched Box] LIMITS OF REMOVAL AND DISPOSAL OF EXISTING HARDSCAPE

TREE NO.	DESCRIPTION	WORK REQUIRED
*1	32" SLASH PINE	TO BE REMOVED
5	14" COCONUT PALM	TO BE REMOVED
12	UNKNOWN	TO BE REMOVED
13	8" MANGO	TO BE REMOVED
14	14" COCONUT PALM	TO BE REMOVED
15	AVACADO	TO BE REMOVED
16	MANGO	TO BE REMOVED
17	4" CARROTWOOD	TO BE REMOVED
*18	16" ARECA BAMBOO PALM	TO BE REMOVED
19	4" ARECA BAMBOO PALM	TO BE REMOVED
20	12" CARROTWOOD	TO BE REMOVED
21	6" CHRISTMAS PALM	TO BE REMOVED
22	4" CHRISTMAS PALM	TO BE REMOVED
23	12" QUEEN PALM	TO BE REMOVED
24	12" QUEEN PALM	TO BE REMOVED
25	12" QUEEN PALM	TO BE REMOVED
26	8" ARECA BAMBOO PALM	TO BE REMOVED
27	4" MANGO	TO BE REMOVED
94	12" QUEEN PALM	TO BE REMOVED
*95	36" BOTTLEBRUSH	TO BE REMOVED
96	12" MANGO	TO BE REMOVED
97	6" MANGO	TO BE REMOVED
98	4" MANGO	TO BE REMOVED
99	14" MANGO	TO BE REMOVED
360	8" BANANA TREE	TO BE REMOVED
388	10" COCONUT PALM	TO BE REMOVED
389	COCONUT PALM	TO BE REMOVED
390	COCONUT PALM	TO BE REMOVED
391	COCONUT PALM	TO BE REMOVED
392	COCONUT PALM	TO BE REMOVED
393	COCONUT PALM	TO BE REMOVED
394	COCONUT PALM	TO BE REMOVED
395	COCONUT PALM	TO BE REMOVED
396	COCONUT PALM	TO BE REMOVED
397	COCONUT PALM	TO BE REMOVED
408	COCONUT PALM	TO BE REMOVED

* INDICATES EXISTING TREE 16" OR LARGER

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988

Always call 811 two full business days before you dig

NOTES:

1. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO STARTING DEMOLITION.
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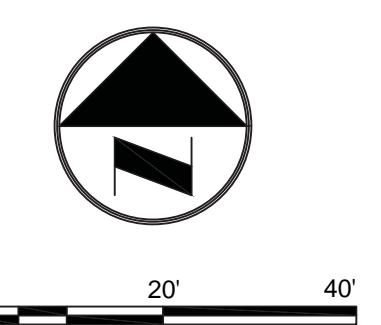
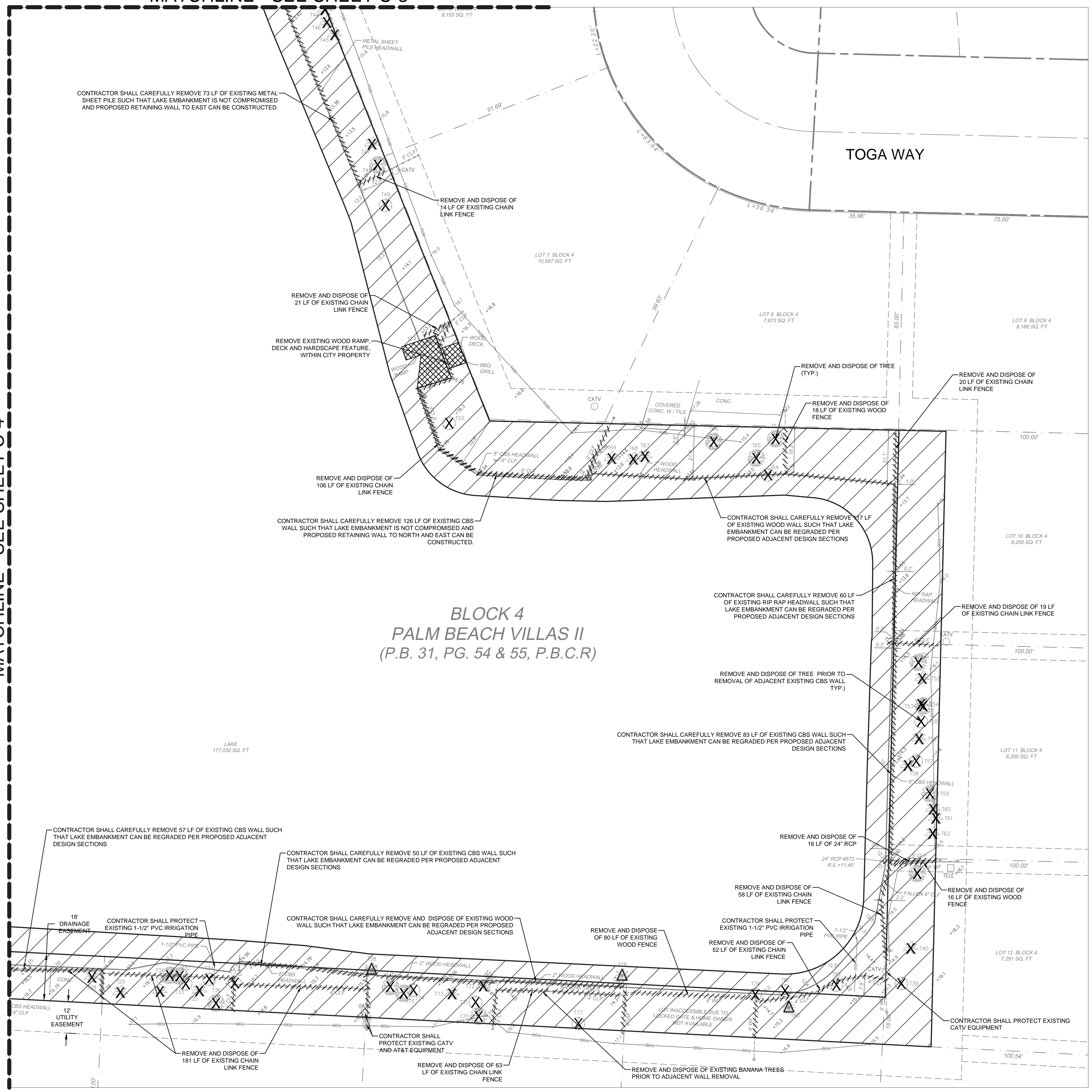
R:\Engineering\2017\17-0692-001-01_Gladiator Lake Greenacres\Drawings\17-0692-001-01-DEMOLITION.dwg [C-4 DEMOLITION PLAN] Sep 18, 2018 9:40am ZCMBLE

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DATE	BY	DESCRIPTION	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	CITY OF GREENACRES		C-4	

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FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

MATCHLINE - SEE SHEET C-3

MATCHLINE - SEE SHEET C-4



- DEMOLITION LEGEND:**
- ////// DEMOLISH FENCE / WALL
 - X EXISTING TREE TO BE REMOVED (<16')
 - △ EXISTING TREE TO BE REMOVED (≥16')
 - [Hatched Box] LIMITS OF CLEARING AND GRUBBING AND EXCAVATION PER PROPOSED DESIGN SECTIONS
 - [Cross-hatched Box] LIMITS OF REMOVAL AND DISPOSAL OF EXISTING HARDSCAPE

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988



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TREE NO.	DESCRIPTION	WORK REQUIRED
28	10" COCONUT PALM	TO BE REMOVED
29	12" COCONUT PALM	TO BE REMOVED
30	12" COCONUT PALM	TO BE REMOVED
31	4" MANGO	TO BE REMOVED
32	4" MANGO	TO BE REMOVED
33	6" UNKNOWN	TO BE REMOVED
34	6" UNKNOWN	TO BE REMOVED
35	10" COCONUT PALM	TO BE REMOVED
36	8" MANGO	TO BE REMOVED
37	8" CARROTWOOD	TO BE REMOVED
38	42" ARECA BAMBOO PALM	TO BE REMOVED
39	6" AVACADO	TO BE REMOVED
40	12" COCONUT PALM	TO BE REMOVED
41	6" MANGO	TO BE REMOVED
44	14" WASHINGTONIA PALM	TO BE REMOVED
45	14" WASHINGTONIA PALM	TO BE REMOVED
46	6" QUEEN PALM	TO BE REMOVED
47	8" COCONUT PALM	TO BE REMOVED
48	4" MANGO	TO BE REMOVED
49	10" CARROTWOOD	TO BE REMOVED
50	4" BLACK OLIVE	TO BE REMOVED
51	3" MANGO	TO BE REMOVED
52	3" ALEXANDER PALM	TO BE REMOVED
53	3" MANGO	TO BE REMOVED
54	3" FOXTAIL PALM	TO BE REMOVED
55	8" AVACADO	TO BE REMOVED
56	4" CHRISTMAS PALM	TO BE REMOVED
57	4" HONG KONG ORCHID	TO BE REMOVED
58	3" ALEXANDER PALM	TO BE REMOVED
59	6" MANGO	TO BE REMOVED
60	8" PALM	TO BE REMOVED
61	10" COCONUT PALM	TO BE REMOVED
62	6" CHRISTMAS PALM	TO BE REMOVED
63	4" MANGO	TO BE REMOVED
64	4" BLACK OLIVE	TO BE REMOVED
65	16" MANGO	TO BE REMOVED
66	15" MANGO	TO BE REMOVED
67	6" CHRISTMAS PALM	TO BE REMOVED
68	6" CHRISTMAS PALM	TO BE REMOVED
69	4" COCONUT PALM	TO BE REMOVED
70	4" CITRUS TREE	TO BE REMOVED
71	8" UNKNOWN	TO BE REMOVED
72	4" ARECA BAMBOO PALM	TO BE REMOVED
73	12" COCONUT PALM	TO BE REMOVED
74	4" AVACADO	TO BE REMOVED
75	4" MANGO	TO BE REMOVED
76	4" MANGO	TO BE REMOVED
77	14" AVACADO	TO BE REMOVED
78	18" COCONUT PALM	TO BE REMOVED
79	4" UNKNOWN	TO BE REMOVED
80	18" NORFORK ISLAND PINE	TO BE REMOVED
81	6" BISCHOFFIA	TO BE REMOVED
82	4" UNKNOWN	TO BE REMOVED

* INDICATES EXISTING TREE 16' OR LARGER

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September 18, 2018

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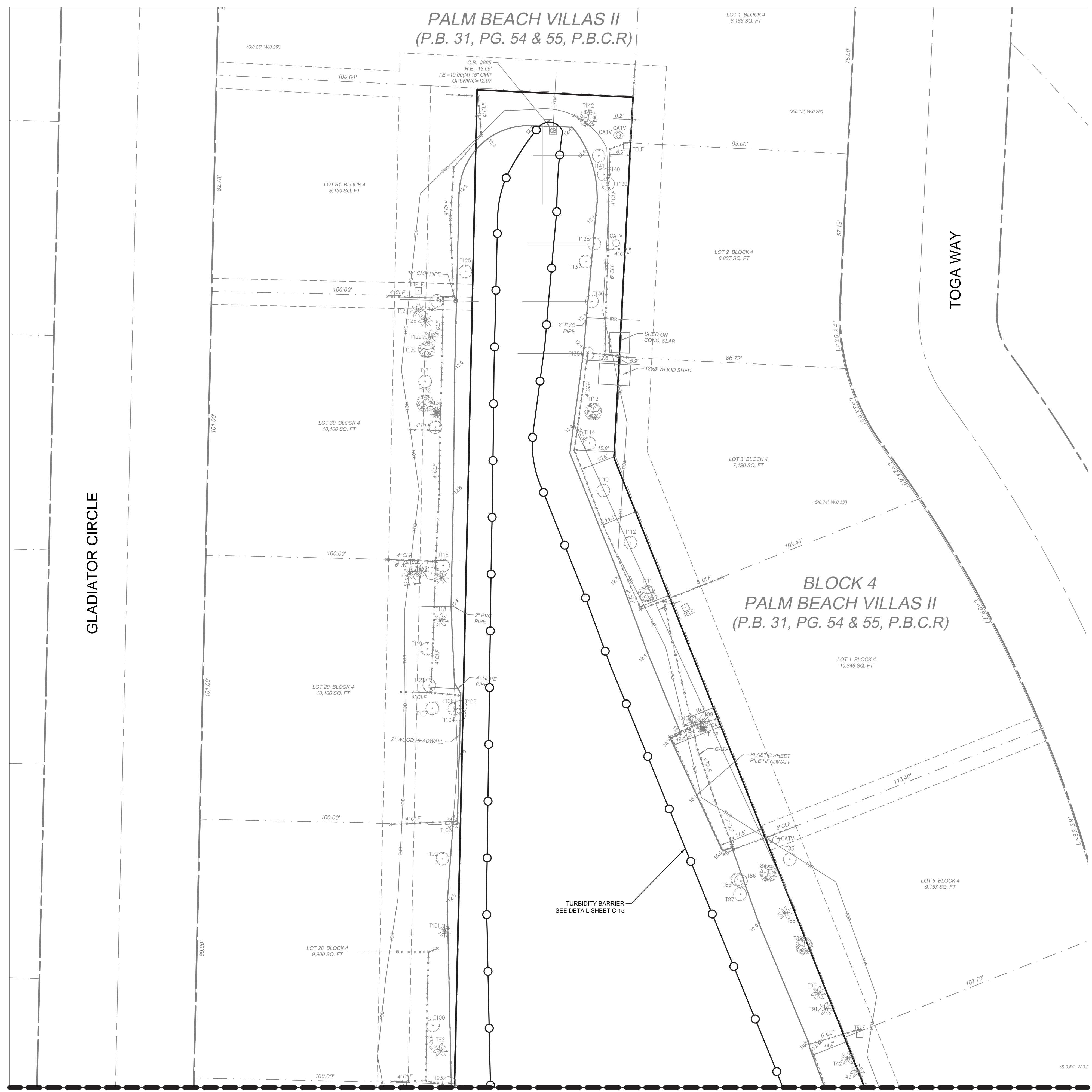
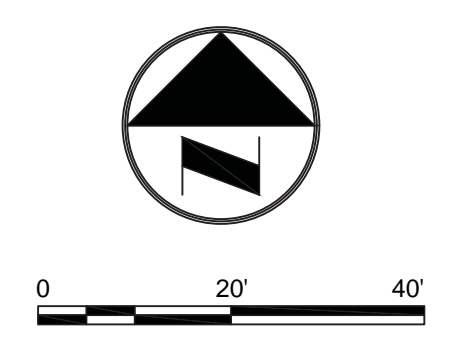
**GLADIATOR LAKE
DRAINAGE ENHANCEMENTS**
PREPARED FOR:
CITY OF GREENACRES

DEMOLITION PLAN

SHEET NO.
C-5

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988

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EROSION CONTROL NOTES:

1. CONTRACTOR SHALL ASSUME ANY AND ALL RESPONSIBILITIES FOR ANY WATER CONTROL VIOLATIONS RESULTING FROM FAILURE TO ELIMINATE AND/OR CONTROL TURBID RUNOFF FROM LEAVING THE SITE AS ISSUED BY ANY AGENCY HAVING JURISDICTION.
2. CONTRACTOR SHALL INSTALL SILT FENCE AS NECESSARY TO PREVENT CONSTRUCTION SILT AND DEBRIS FROM LEAVING THE WORK AREA WHERE THE SIDEWALK INSTALLATION AND GRADING ARE BEING PERFORMED.
3. CONTRACTOR SHALL MAINTAIN A POLLUTION PREVENTION CONTROL LOG AND CONDUCT WEEKLY INSPECTIONS AND WITHIN 24 HOURS OF A 0.25" STORM EVENT.
4. CONTRACTOR TO EMPLOY BEST MANAGEMENT PRACTICES THROUGHOUT CONSTRUCTION IN ORDER TO ENSURE POLLUTION PREVENTION. CONTRACTOR TO COMPLY WITH ALL LOCAL, STATE, AND OTHER LOCAL GOVERNMENTAL ENVIRONMENTAL REGULATIONS THROUGHOUT CONSTRUCTION.
5. DURING CONSTRUCTION, ALL CATCH BASINS TO BE EQUIPPED WITH FILTER FABRIC AND HAY BALES OVER GRATES.
6. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.
7. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
8. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED AT CONTRACTORS EXPENSE.

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September 18, 2018

MATCHLINE - SEE SHEET C-7

MATCHLINE - SEE SHEET C-8

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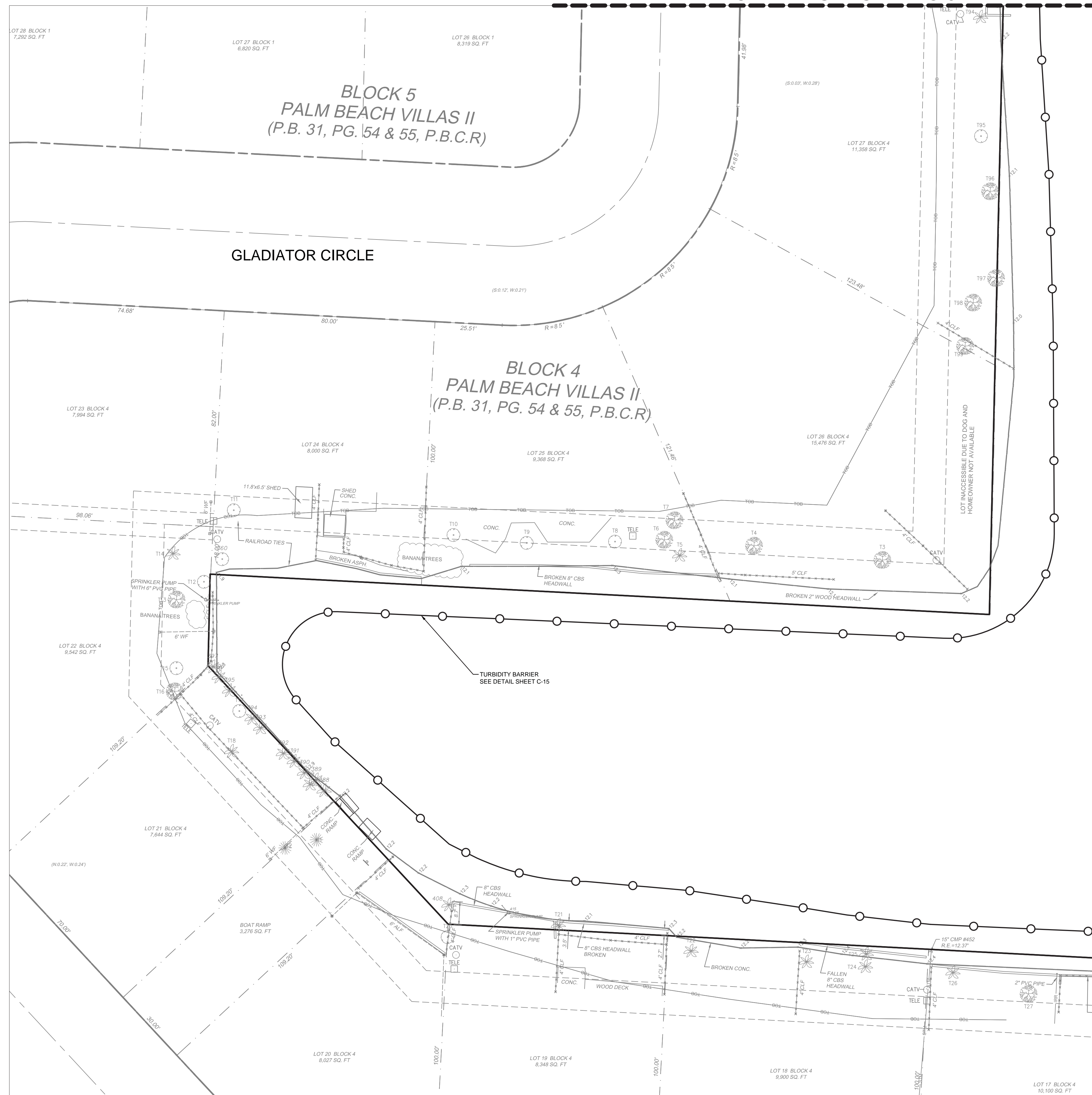
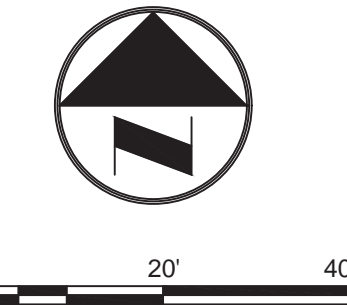
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PREPARED FOR:
CITY OF GREENACRES

EROSION CONTROL PLAN

SHEET NO.
C-6

MATCHLINE - SEE SHEET C-6

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MATCHLINE - SEE SHEET C-8

EROSION CONTROL NOTES:

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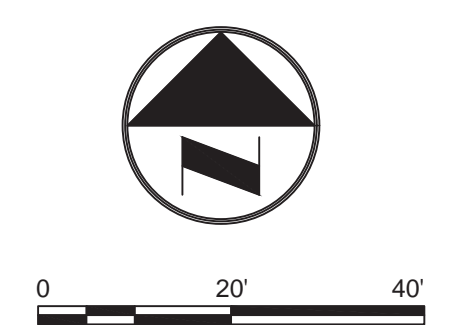
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DRAINAGE ENHANCEMENTS**
PREPARED FOR:
CITY OF GREENACRES

EROSION CONTROL PLAN

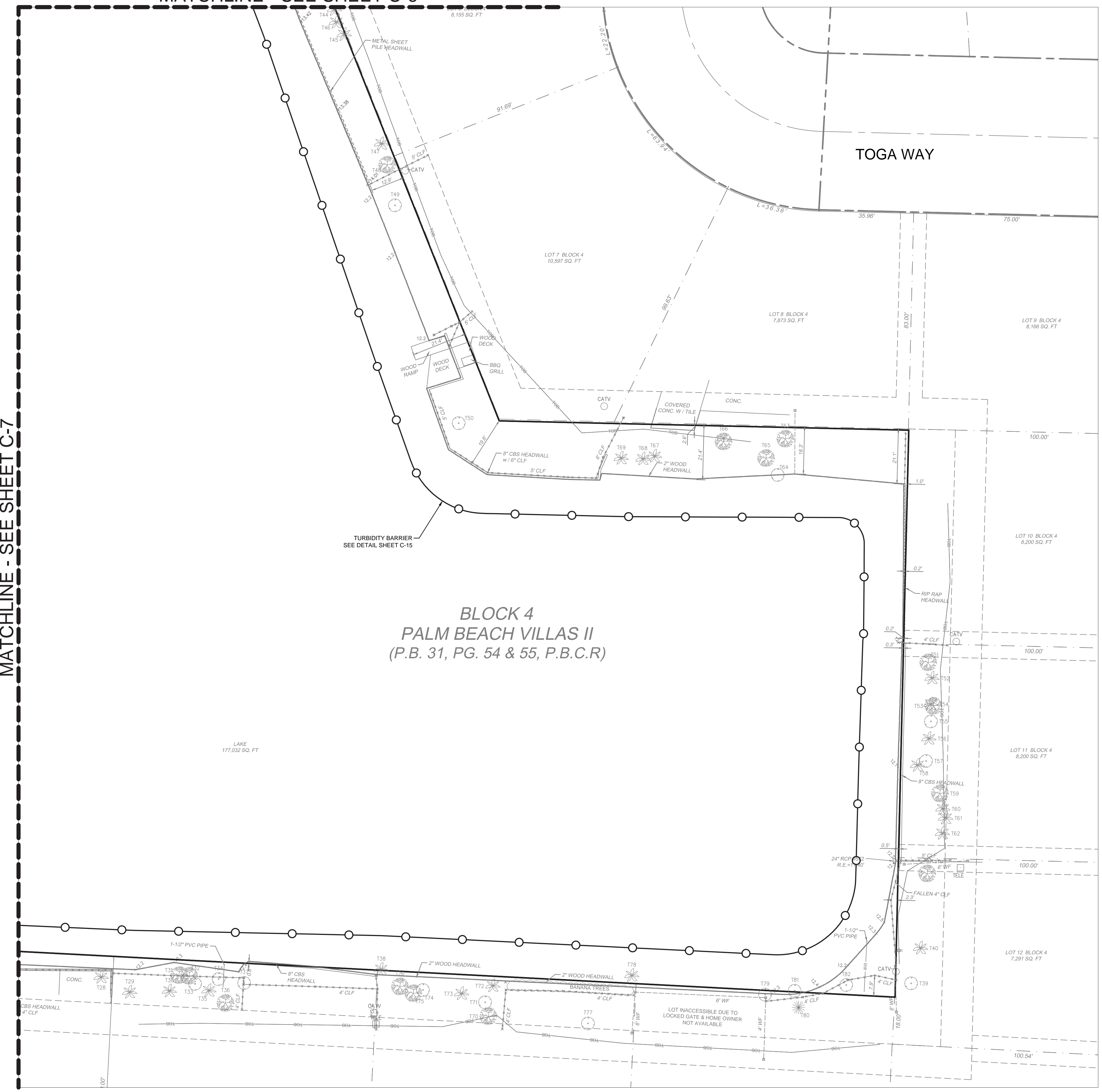
SHEET NO.
C-7

MATCHLINE - SEE SHEET C-6

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MATCHLINE - SEE SHEET C-7



**BLOCK 4
PALM BEACH VILLAS II
(P.B. 31, PG. 54 & 55, P.B.C.R.)**

EROSION CONTROL NOTES:

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September 18, 2018

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY			CHECKED BY		
SUPERVISED BY:					

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ENGINEERS • PLANNERS • SURVEYORS
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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS No. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS No. C000114

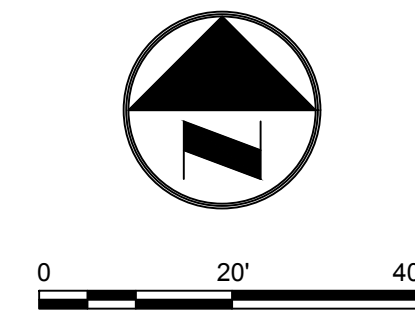
**GLADIATOR LAKE
DRAINAGE ENHANCEMENTS**
PREPARED FOR:
CITY OF GREENACRES

EROSION CONTROL PLAN

SHEET NO.
C-8

R:\Engineering\2017\17-0052-001-01_Gladiator Lake Greenacres\Drawings\17-0052-001-01-ERP.dwg [C-8 EROSION CONTROL PLAN] Sep 18, 2018 9:21am ZGAMBLE

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988



GRADING AND DRAINAGE LEGEND:

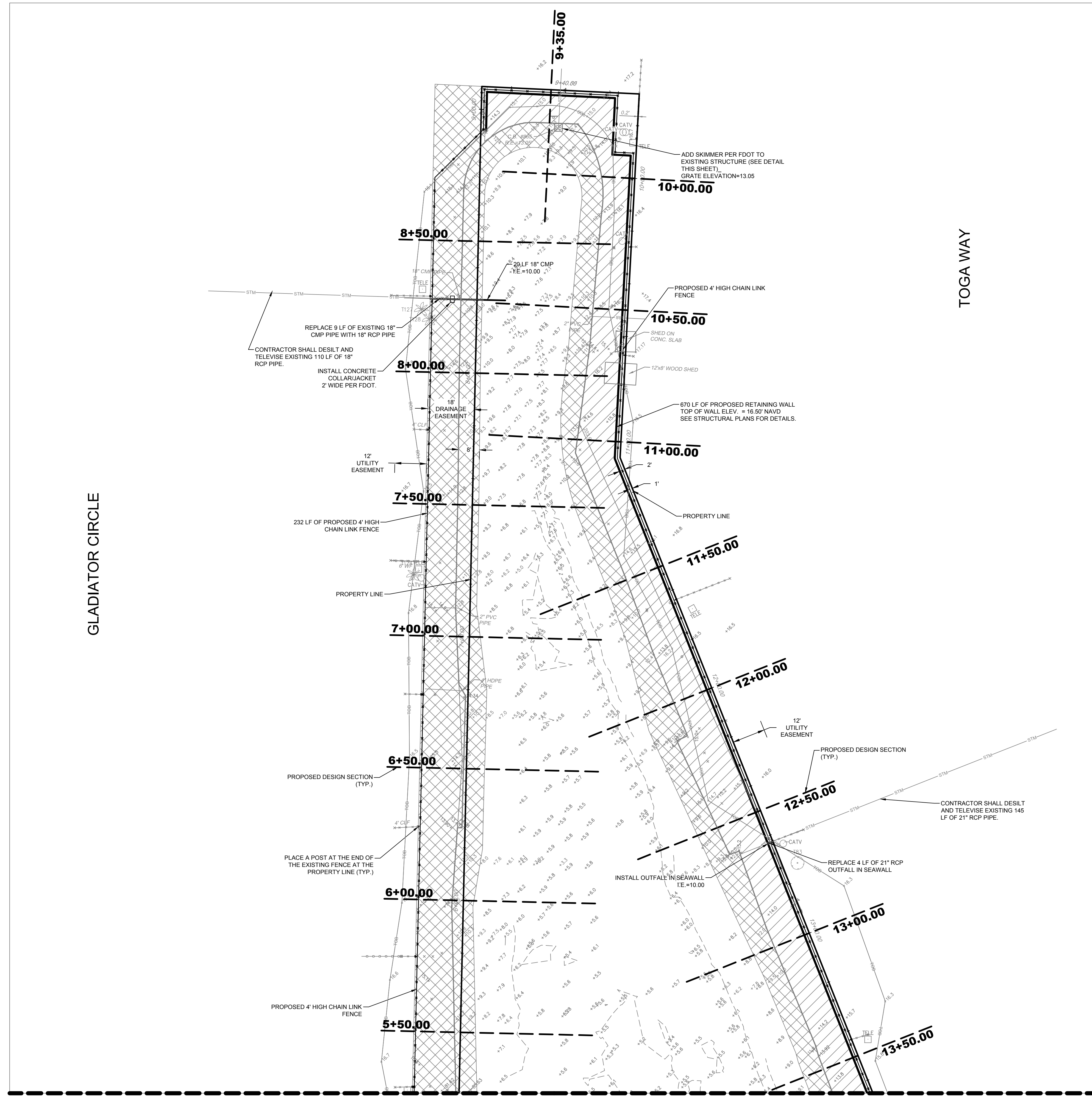
- EXISTING SPOT GRADE
- EXISTING DRAINAGE STRUCTURE
- LIMITS OF LAKE EMBANKMENT REGRADING/ FILL/ EXCAVATION PER SECTIONS ON SHEETS C-12 THROUGH C-14 (INCLUDES INSTALLATION OF EXCEL PP5 EXTREME TURF REINFORCEMENT MAT OR EQUAL)
- LIMITS OF LAKE WATER SURFACE EXPANSION
- PROPOSED CHAIN LINK FENCE
- PROPOSED ALUMINUM FENCE
- PROPOSED WOOD FENCE
- PROPOSED LAKE EMBANKMENT SECTION

SPECIAL TURF REINFORCEMENT NOTE:

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NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING SUCH THAT NO REAR RESIDENTIAL YARD LOCATED BEYOND THE OUTER MOST EDGE OF THE EXISTING 18' DRAINAGE EASEMENT SHALL BE IN ANY WAY AFFECTED BY THE PROPOSED GRADING. THE CONTRACTOR SHALL SECURE AND MAINTAIN STRUCTURAL INTEGRITY OF THE EARTH TO EXISTING CONDITIONS ON ALL REAR YARDS AT ALL TIMES.
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6. WET SEASON WATER TABLE ELEVATION 12.50' (NAVD 1988).



MATCHLINE - SEE SHEET C-10

MATCHLINE - SEE SHEET C-11

\\c01file02\Eng\Projects\2017\17-0052-001-01\Gladiator Lake Greenacres\Drawings\17-0052-001-01-PCD-1-9-23.dwg [C-9 GRADING AND DRAINAGE PLAN] Apr 05, 2024 11:46am ZGAMBLE

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**GLADIATOR LAKE
DRAINAGE ENHANCEMENTS**
 PREPARED FOR:
CITY OF GREENACRES

**GRADING AND
DRAINAGE PLAN**

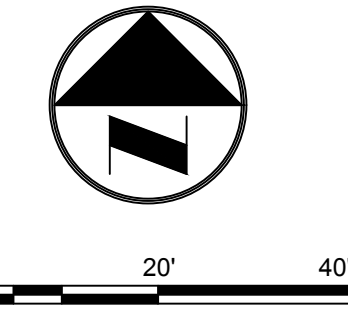
SHEET NO.
C-9

Leonard Z. Gamble
Florida P.E. No. 65921
April 5, 2024

MATCHLINE - SEE SHEET C-9

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988

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GLADIATOR CIRCLE

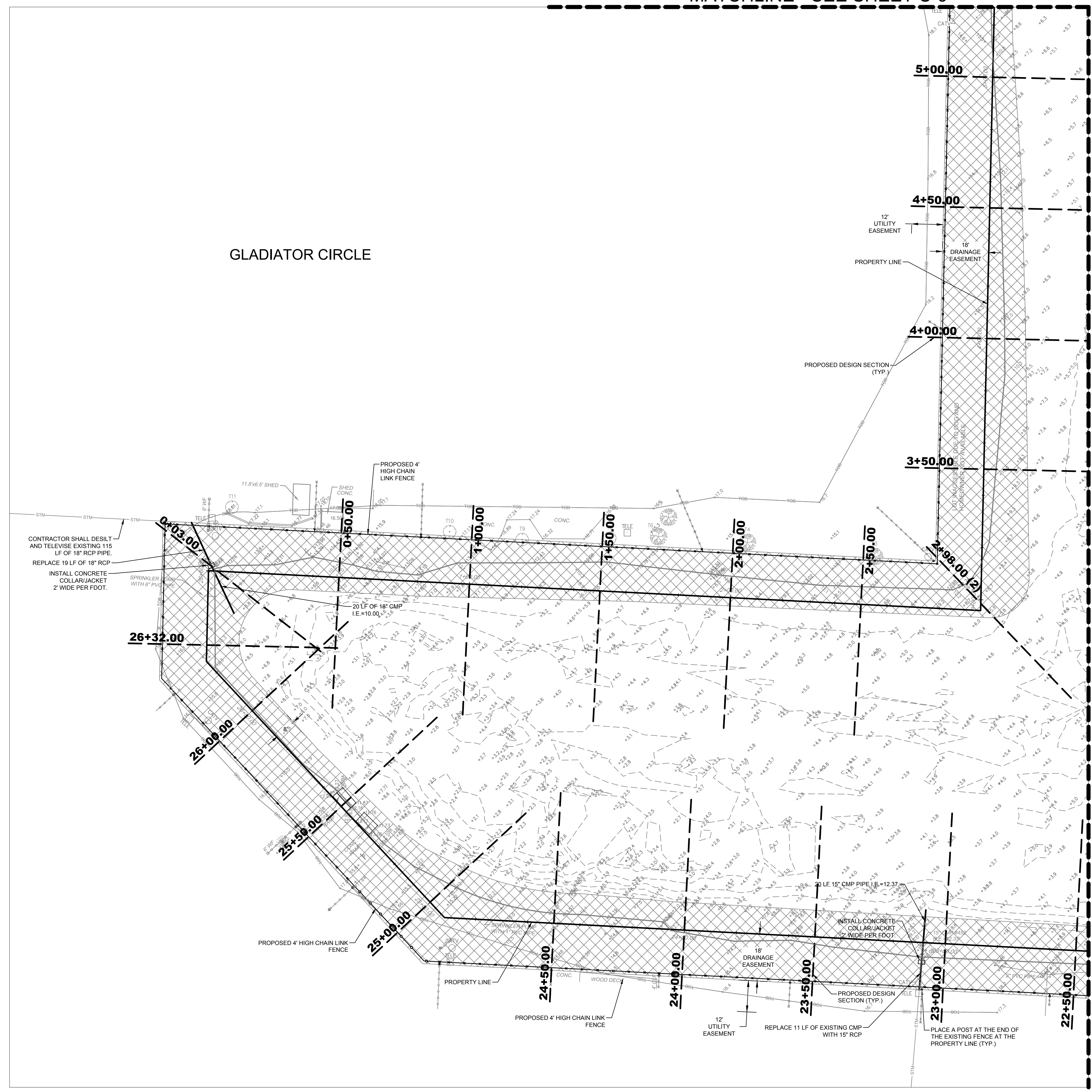
GRADING AND DRAINAGE LEGEND:

- EXISTING SPOT GRADE
- EXISTING DRAINAGE STRUCTURE
- LIMITS OF LAKE EMBANKMENT REGRADING/ FILL/ EXCAVATION PER SECTIONS ON SHEETS C-12 THROUGH C-14 (INCLUDES INSTALLATION OF EXCEL PP5 EXTREME TURF REINFORCEMENT MAT OR EQUAL)
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MATCHLINE - SEE SHEET C-11

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Leonard Z. Gamble
Florida P.E. No. 65921
April 5, 2024

\\c:\file02\Eng\Projects\2017\17-0052-01-01\Gladiator Lake Greenacres\Drawings\17-0052-01-01-PGD-1-9-23.dwg [C-10 GRADING AND DRAINAGE PLAN] Apr 05, 2024 11:47am ZCAMPBLL

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**GLADIATOR LAKE
DRAINAGE ENHANCEMENTS**

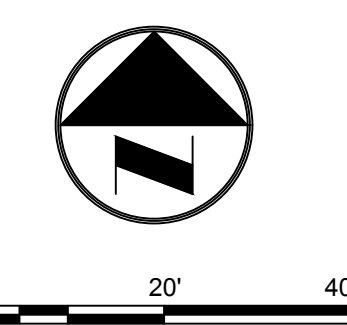
PREPARED FOR:
CITY OF GREENACRES

**GRADING AND
DRAINAGE PLAN**

SHEET NO.
C-10

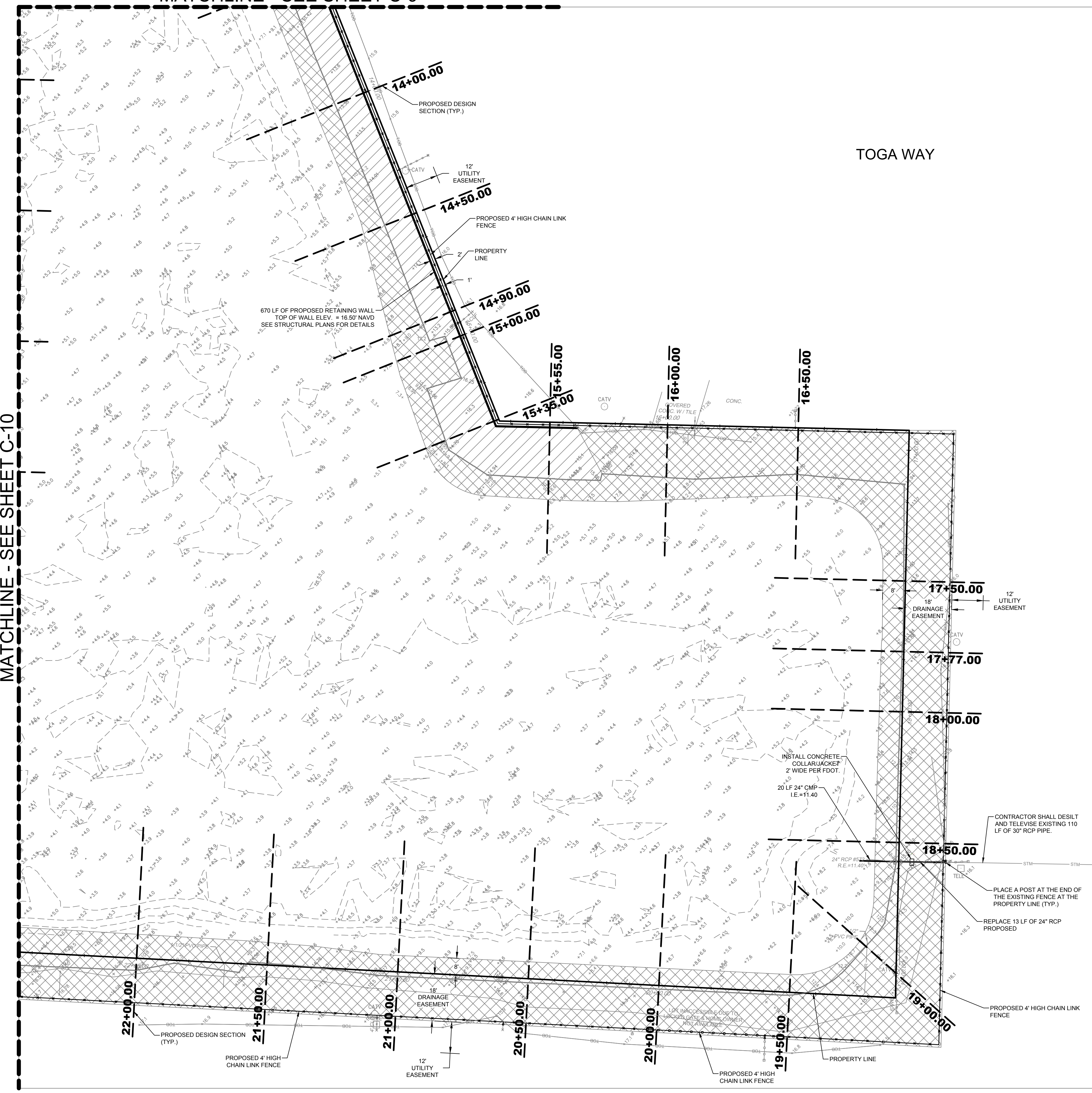
MATCHLINE - SEE SHEET C-9

ALL ELEVATIONS SHOWN
REFERENCE N.A.V.D. 1988



MATCHLINE - SEE SHEET C-10

TOGA WAY



GRADING AND DRAINAGE LEGEND:

- EXISTING SPOT GRADE
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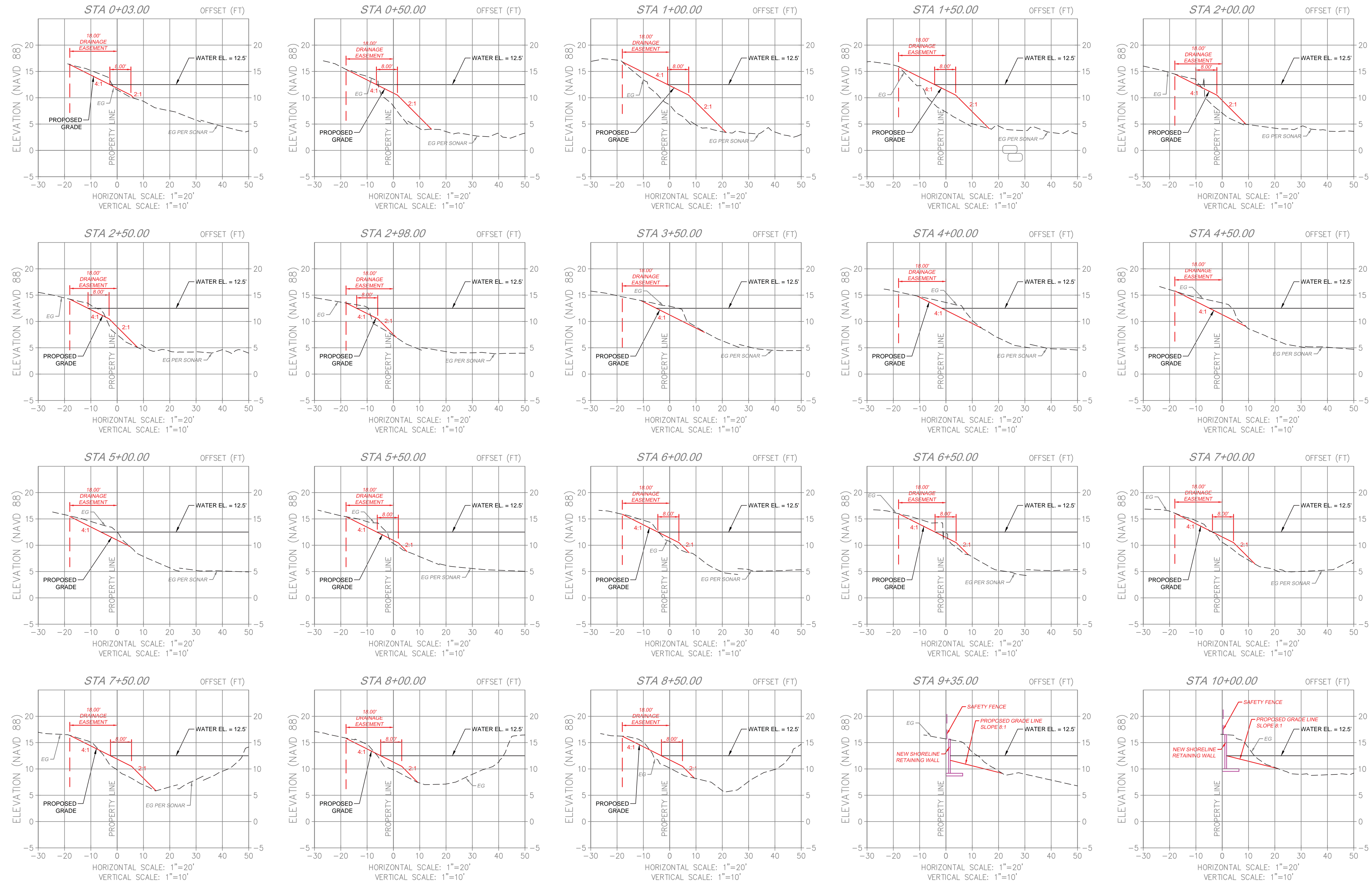
GLADIATOR LAKE DRAINAGE ENHANCEMENTS
 PREPARED FOR:
 CITY OF GREENACRES

GRADING AND DRAINAGE PLAN

SHEET NO.
C-11

Leonard Z. Gamble
 Florida P.E. No. 65921
 April 5, 2024

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Florida P.E. No. 65921
September 18, 2018

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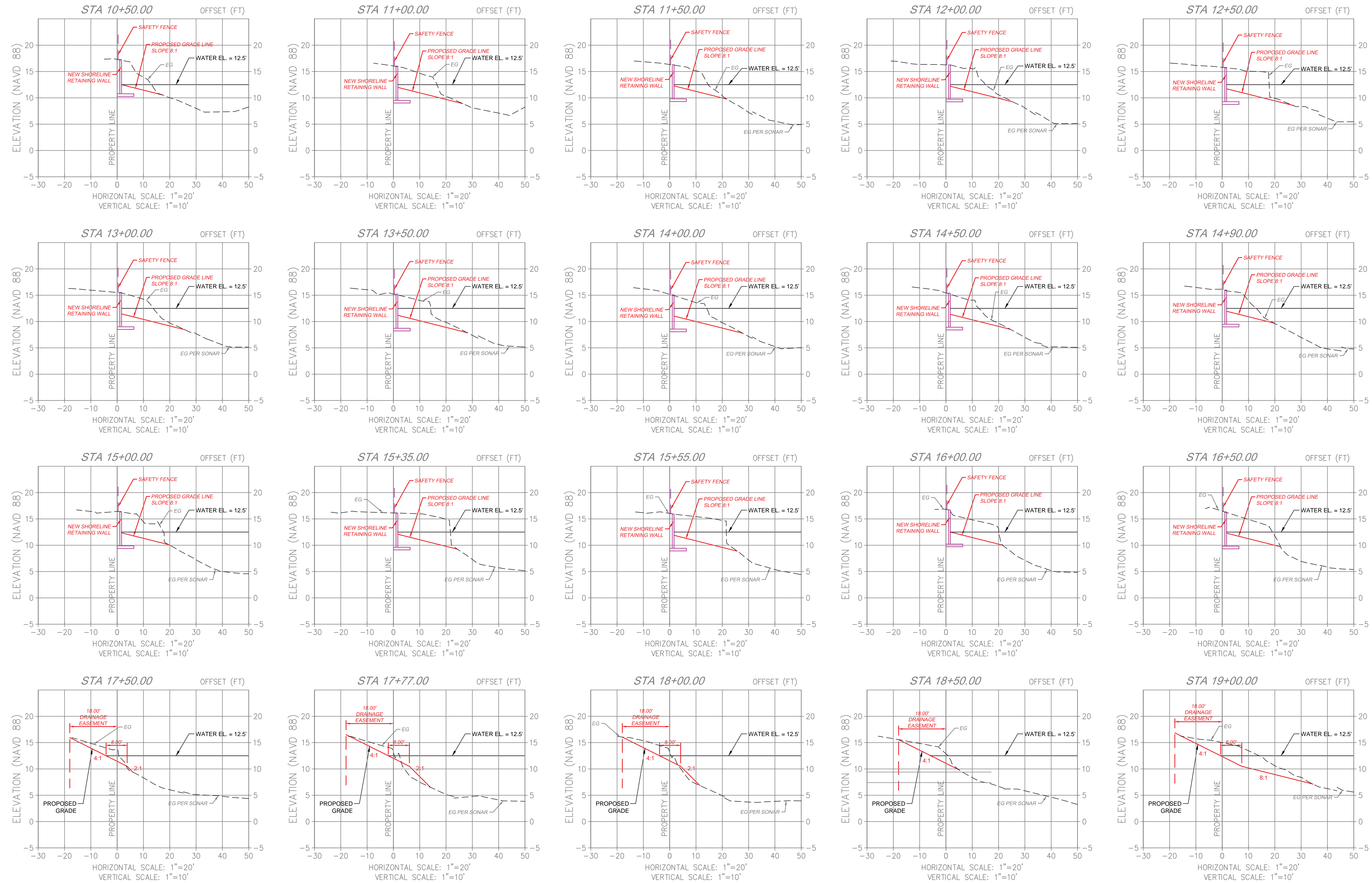
**GLADIATOR LAKE
DRAINAGE ENHANCEMENTS**
PREPARED FOR:
CITY OF GREENACRES

CROSS SECTIONS

SHEET NO.

C-12

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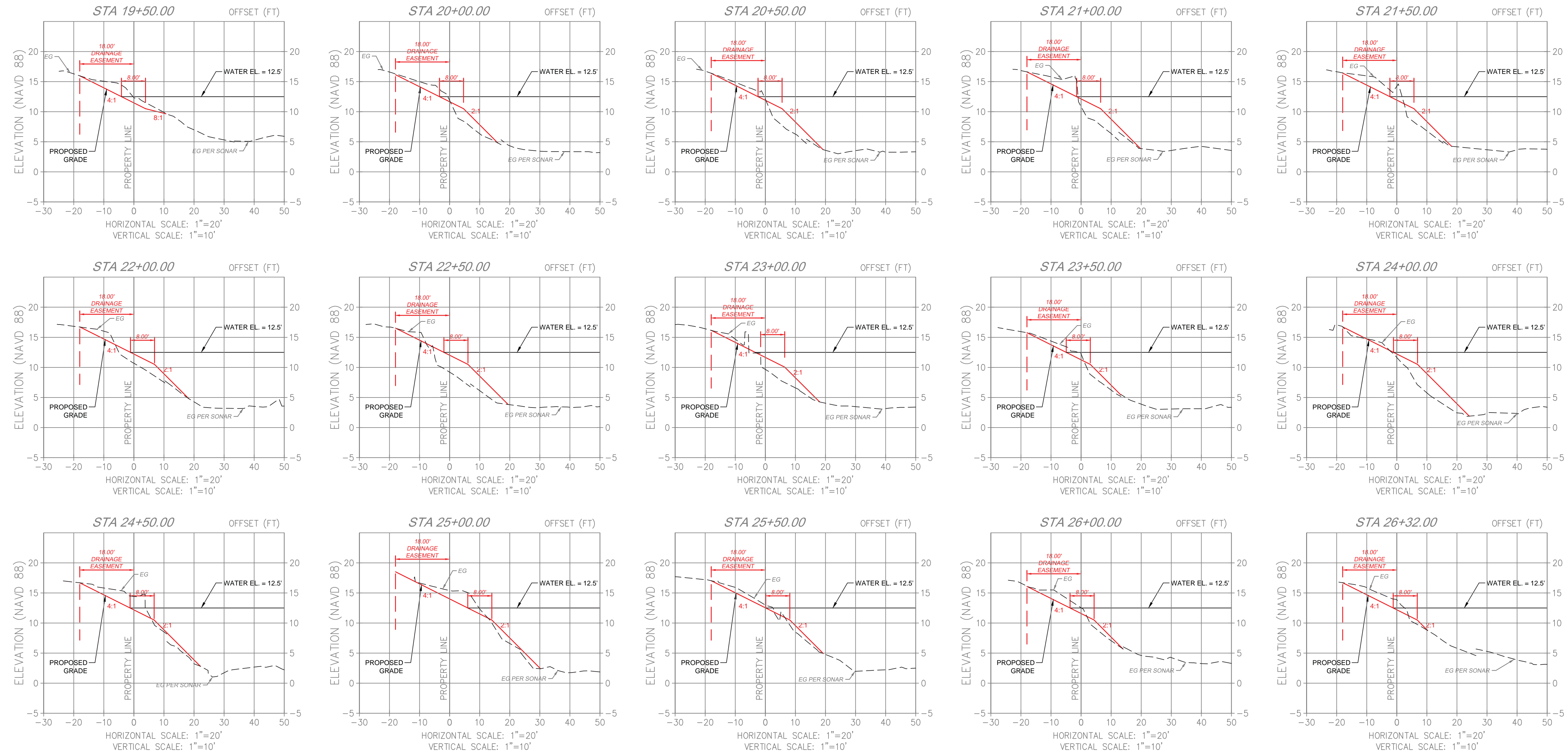
**GLADIATOR LAKE
DRAINAGE ENHANCEMENTS**
PREPARED FOR:
CITY OF GREENACRES

CROSS SECTIONS

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											C-14

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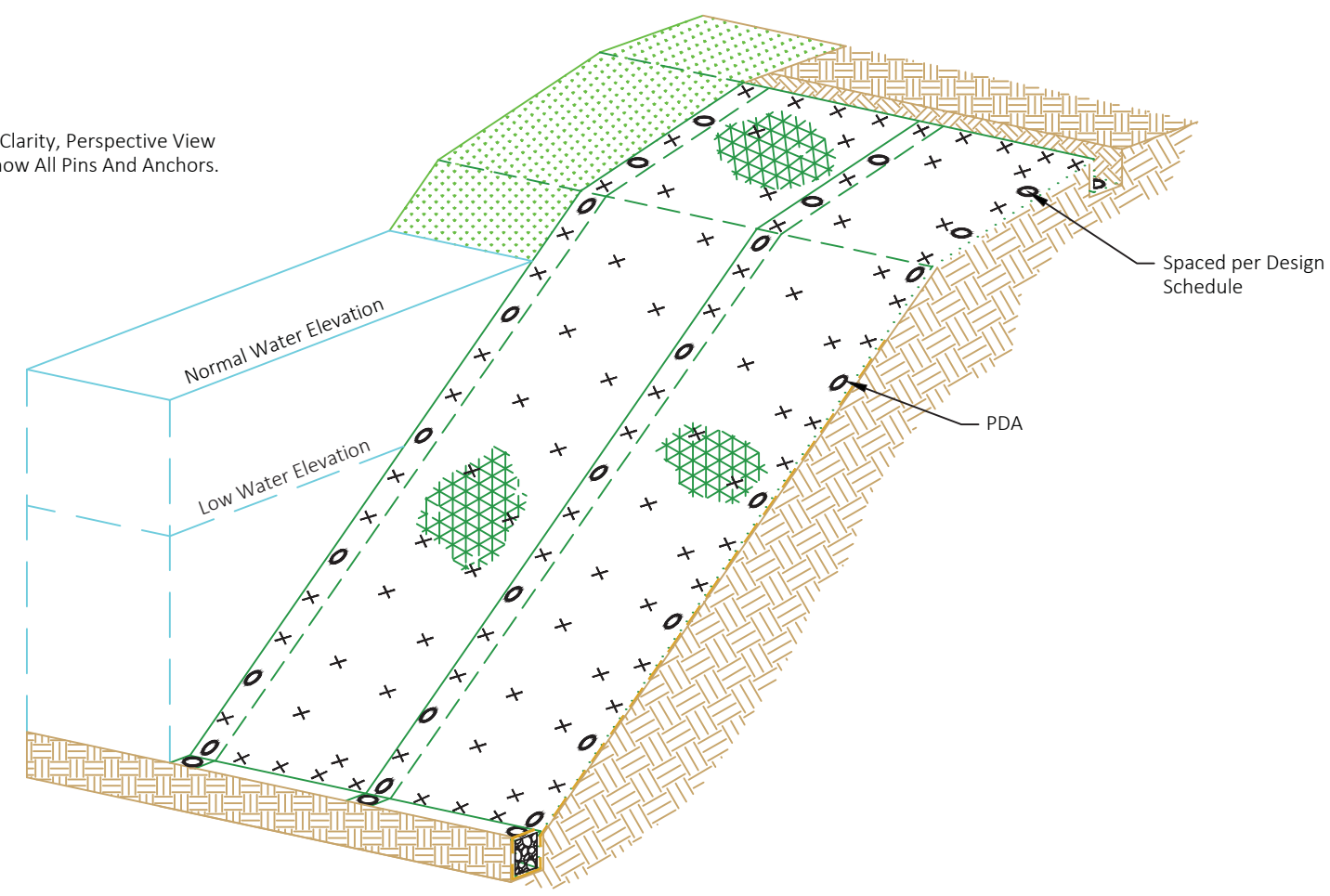
**GLADIATOR LAKE
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CROSS SECTIONS

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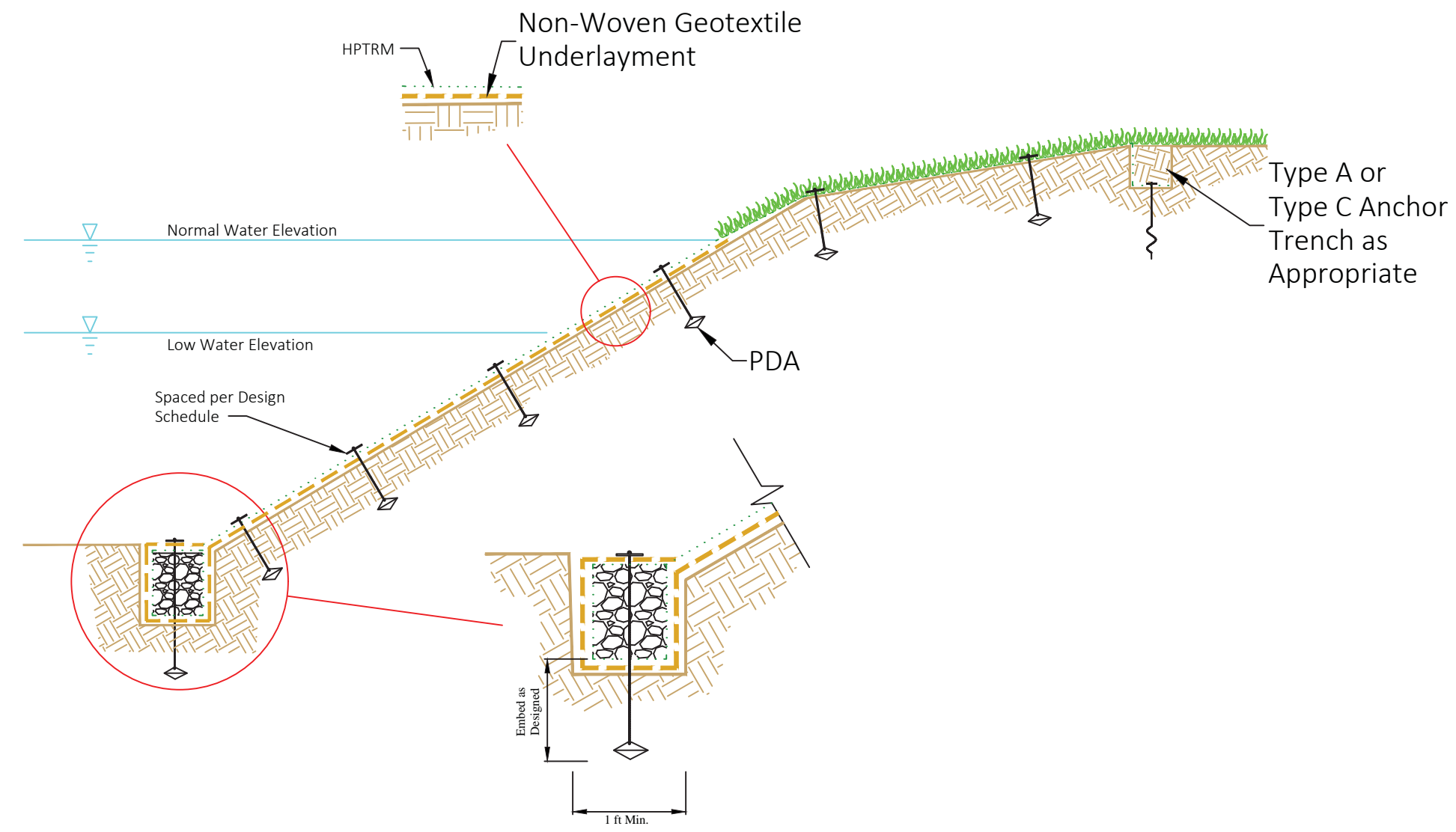
Structural Pond Bank/ Channel Bank/ Shoreline/ Levee Installation Perspective View

* Note: For Clarity, Perspective View Does Not Show All Pins And Anchors.

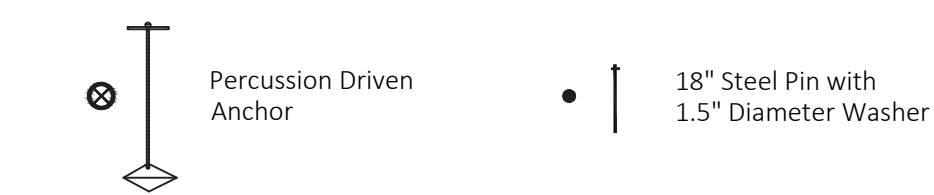
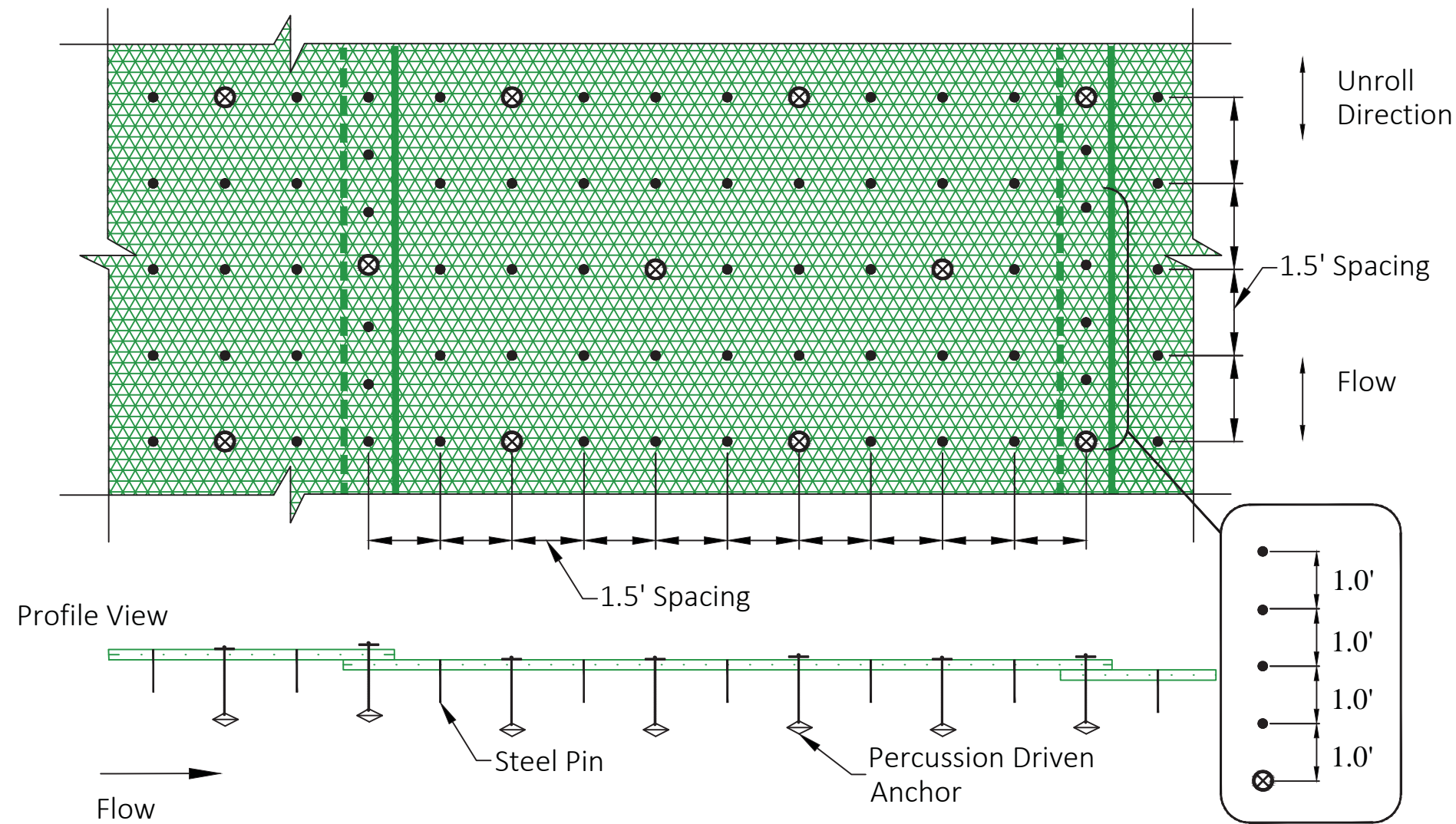


TURF REINFORCEMENT MAT DETAIL
SCALE: NTS

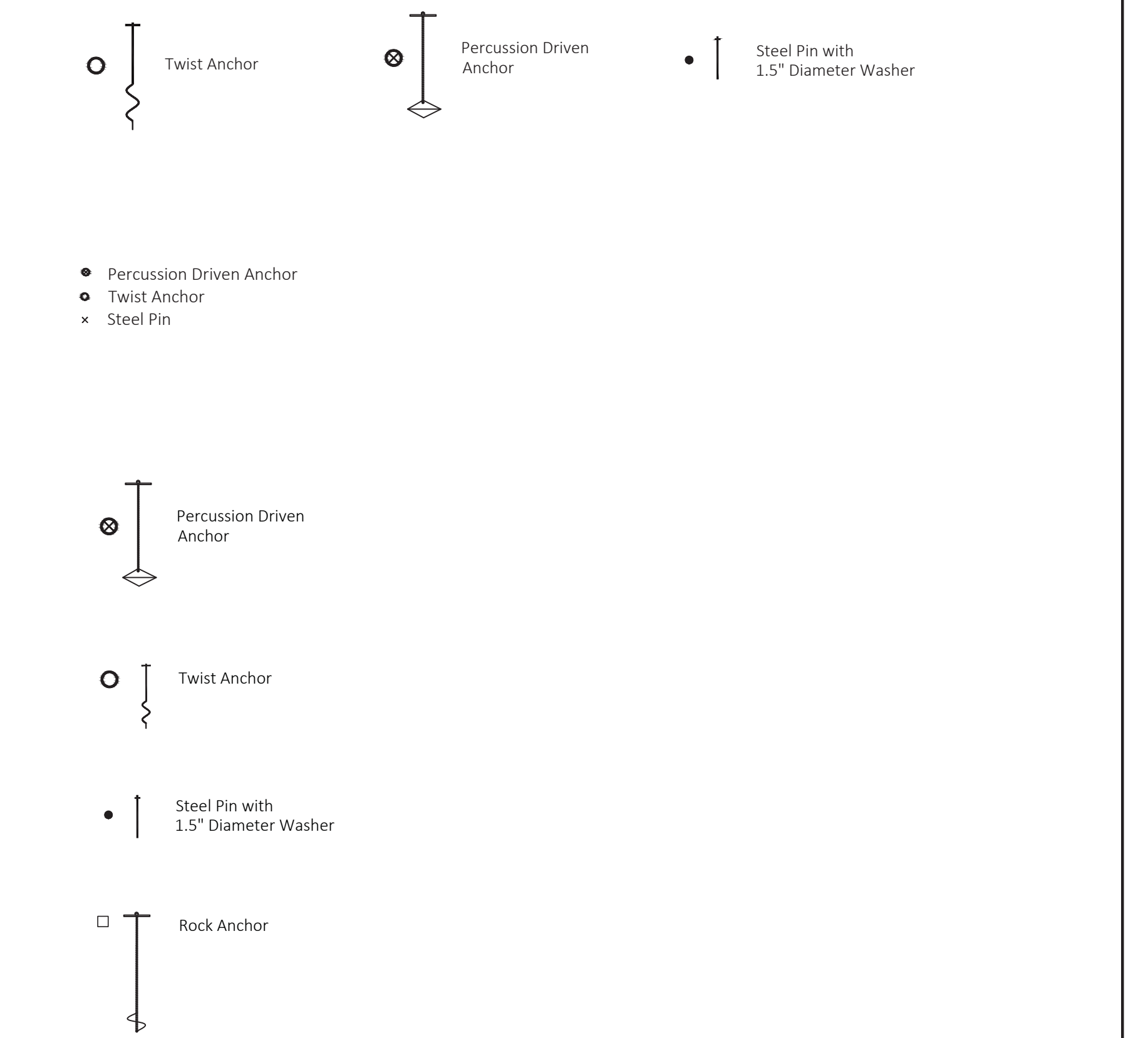
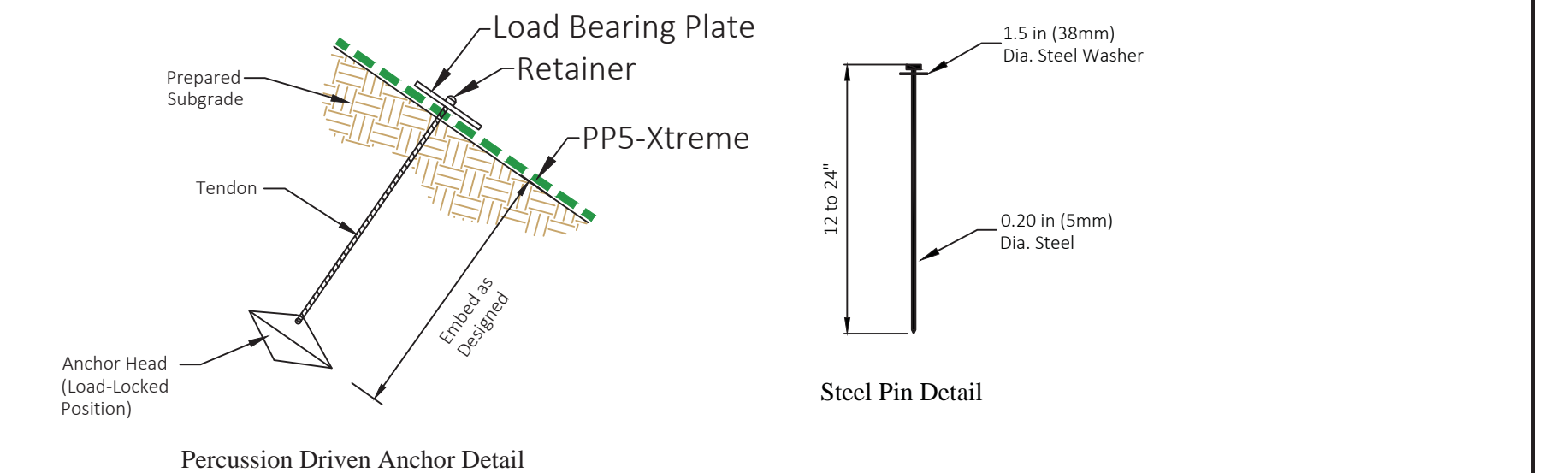
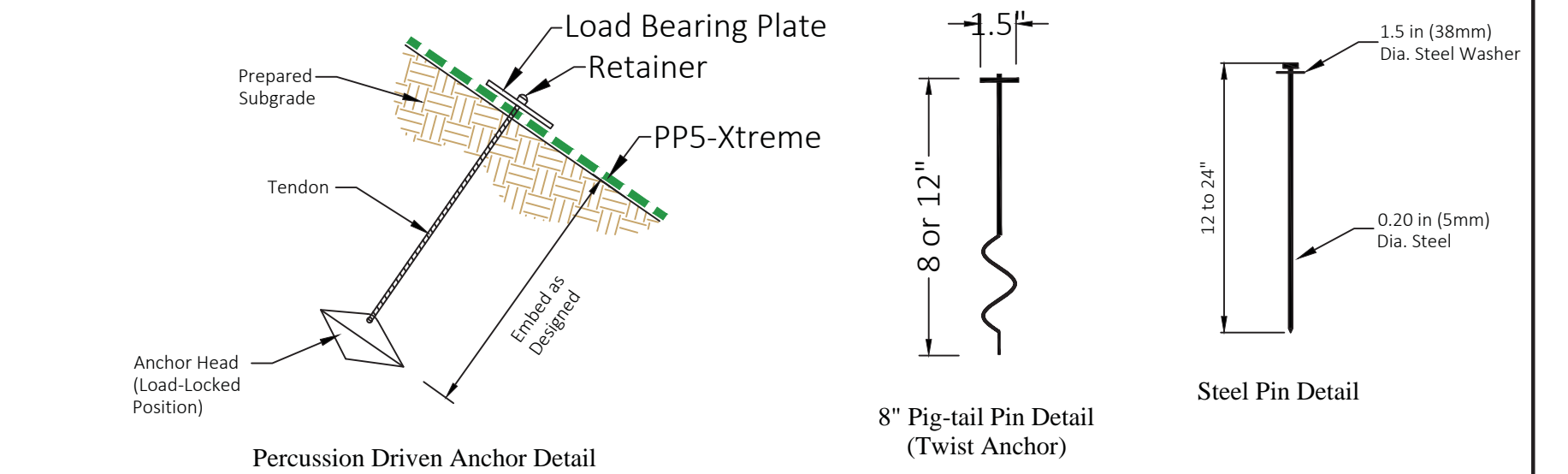
Structural Pond Bank/ Channel Bank/ Shoreline/ Levee Installation Cross-Section View



Plan View



TURF REINFORCEMENT MAT DETAILS
SCALE: NTS



TURF REINFORCEMENT MAT DETAILS
SCALE: NTS

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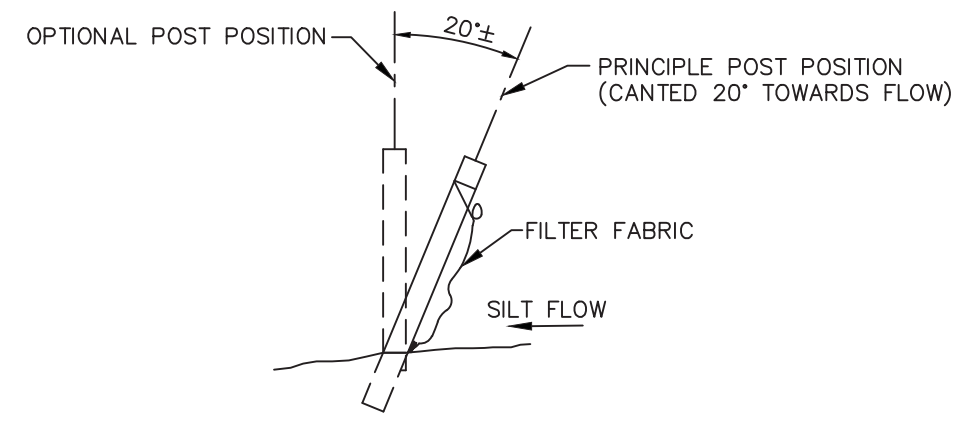
GLADIATOR LAKE DRAINAGE ENHANCEMENTS
PREPARED FOR:
CITY OF GREENACRES

GRADING AND DRAINAGE DETAILS

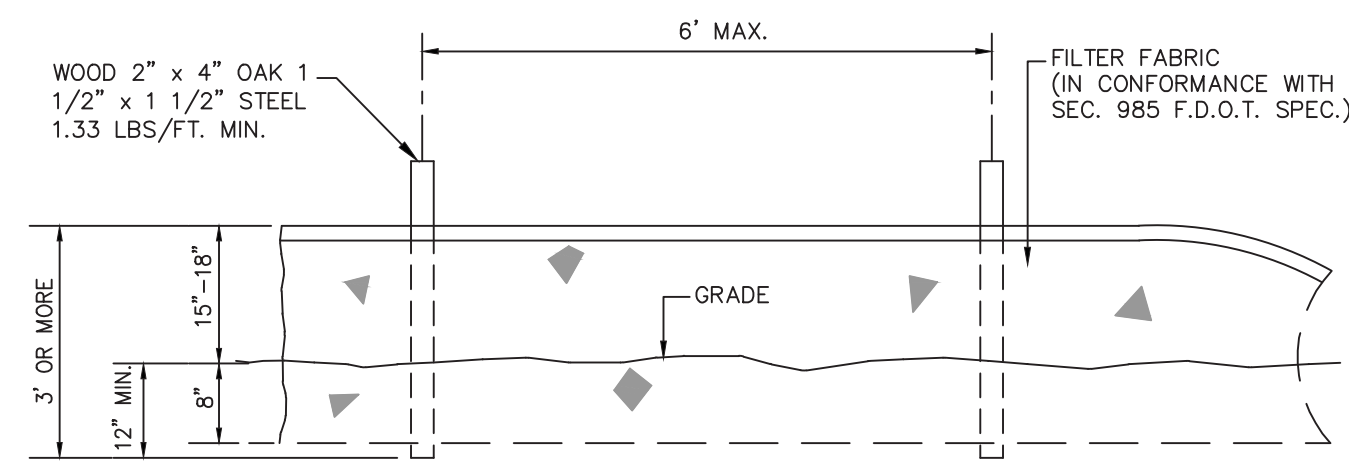
SHEET NO.
C-15

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Florida P.E. No. 65921
September 18, 2018

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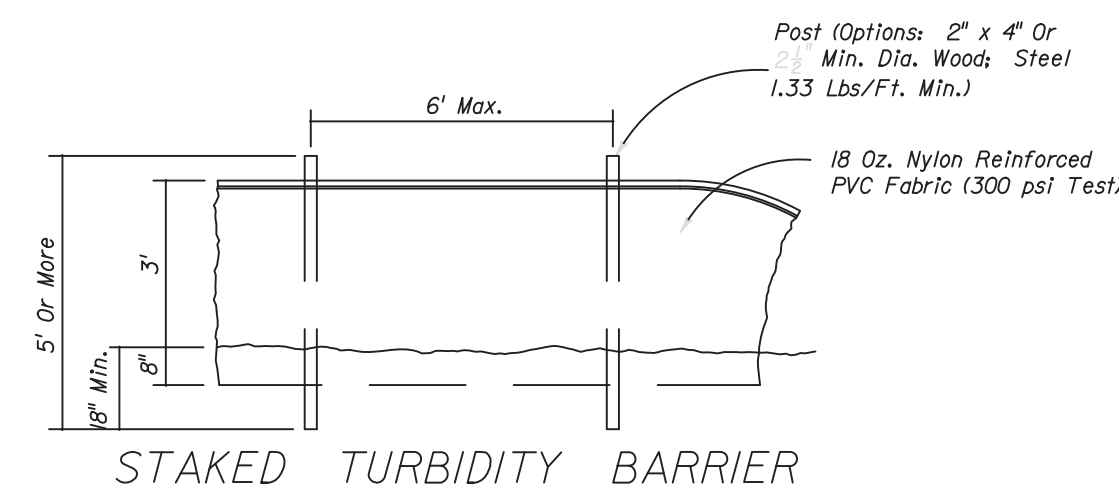


SECTION



ELEVATION

TYPE III SILT FENCE
N.T.S.

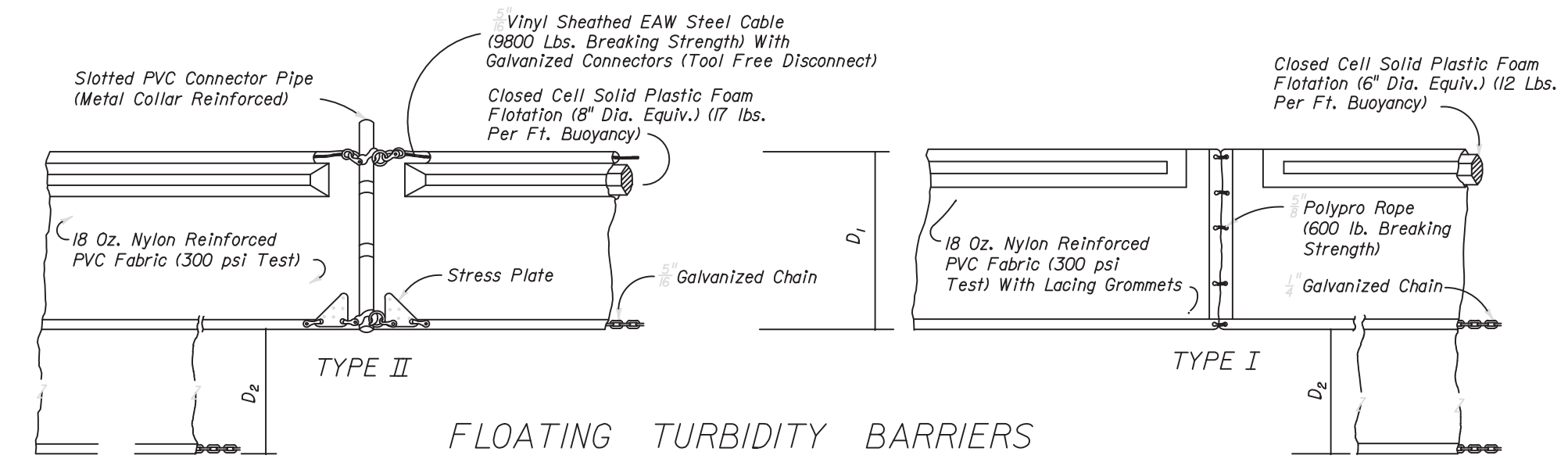
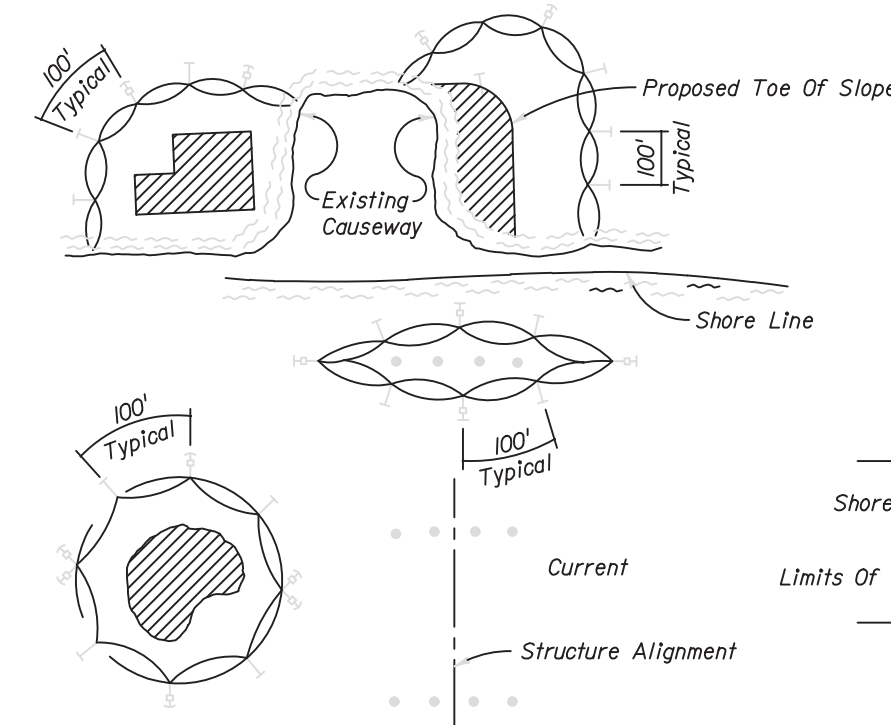


STAKED TURBIDITY BARRIER

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

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

TURBIDITY BARRIER APPLICATIONS



FLOATING TURBIDITY BARRIERS

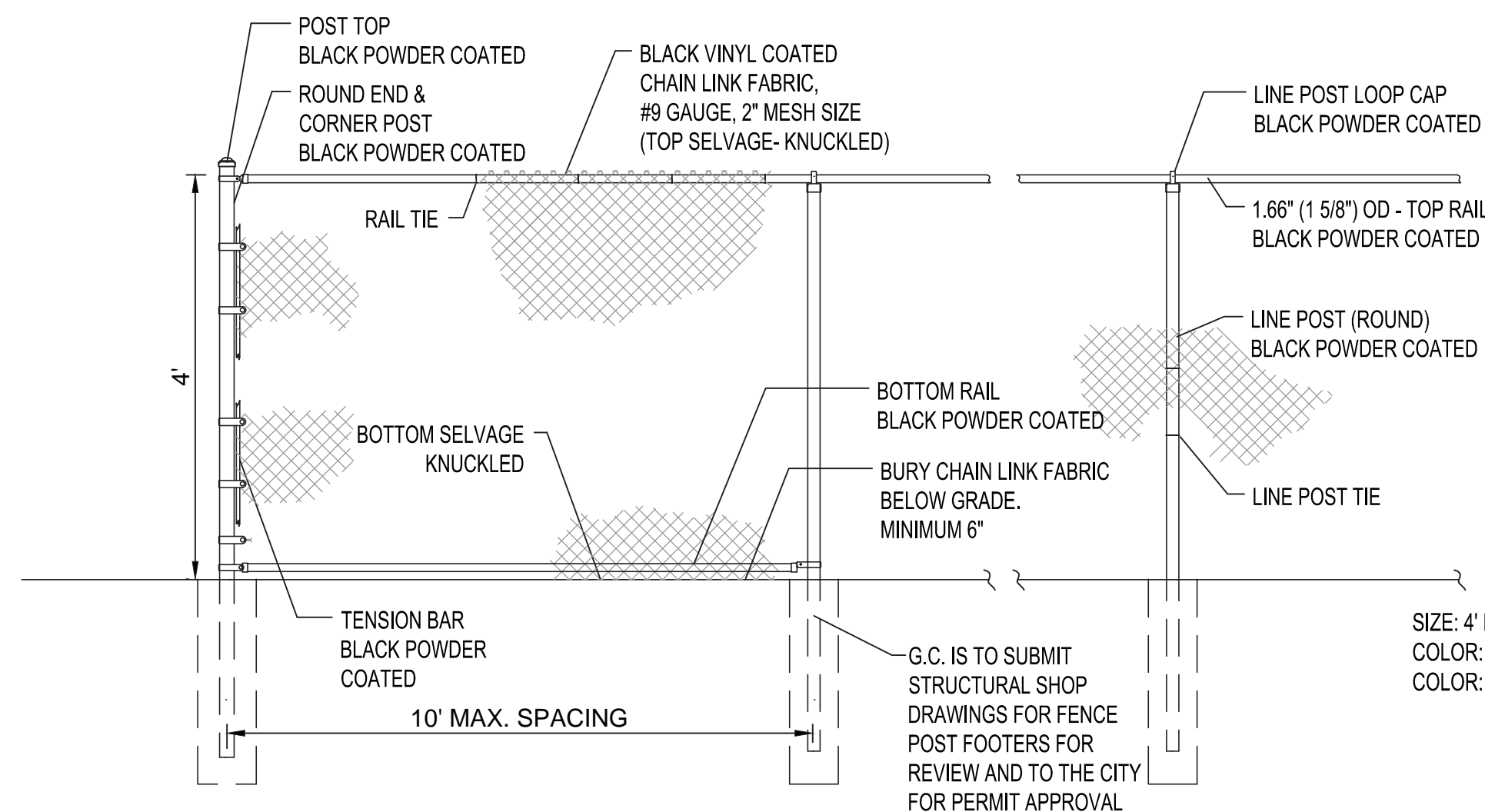
- NOTE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.
- D_1 = 5' Std. (Single Panel For Depths 5' or Less).
 D_2 = 5' Std. (Additional Panel For Depths 5').
 Curtains To Reach Bottom Up To Depths Of 10 Feet.
 Two(2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

TURBIDITY BARRIER DETAIL

SCALE: N.T.S.

CHAIN LINK FENCE MINIMUM REQUIREMENTS				
FENCE HEIGHT (FT)	TERMINAL POST DIMENSIONS (IN) (O.D. x WALL THICKNESS)	LINE POST DIMENSIONS (IN) (O.D. x WALL THICKNESS)	TERMINAL POST CONCRETE FOUNDATION SIZE (IN) (DIAMETER x DEPTH)	LINE POST CONCRETE FOUNDATION SIZE (IN) (DIAMETER x DEPTH)
4	2 3/8 x 0.042	1 3/8 x 0.047	10 x 24	8 x 24
6	2 3/8 x 0.042	1 3/8 x 0.065	10 x 24	8 x 24

- NOTE:
- THIS TABLE IS APPLICABLE ONLY TO FENCES WITH UNRESTRICTED AIRFLOW.
 - FABRIC: 12 1/2 GAUGE MINIMUM.
 - TENSION BANDS: USE ONE LESS THAN THE HEIGHT OF THE FENCE IN FEET EVENLY SPACED.
 - FABRIC TIES: MUST BE MINIMUM THE SAME GAUGE OF THE FABRIC.
 - FABRIC TIE SPACING ON THE TOP RAIL: FIVE TIES BETWEEN POSTS, EVENLY SPACED.
 - FABRIC TIE SPACING ON LINE POSTS: ONE LESS THAN HEIGHT OF THE FENCE IN FEET, EVENLY SPACED.
 - EITHER TOP RAIL OR TOP TENSION WIRE SHALL BE USED.
 - BRACES MUST BE USED AT TERMINAL POSTS IF TOP TENSION WIRE IS USED INSTEAD OF TOP RAIL.
 - POST SPACING: 10 FOOT ON CENTER MAXIMUM.
 - POSTS SHALL BE EMBEDDED TO WITHIN 6 INCHES FROM THE BOTTOM OF THE FOUNDATION.
 - IN ORDER TO FOLLOW THE CONTOUR OF THE LAND, THE BOTTOM OF THE FENCE MAY CLEAR THE CONTOUR OF THE GROUND BY UP TO 5 INCHES WITHOUT INCREASING TABLE VALUES TO THE NEXT HIGHER LIMIT.



- NOTE:
- PLEASE FIELD VERIFY DIMENSIONS
 - TRUSS BARS ARE REQUIRED FOR THE FIRST SPAN ON EACH SIDE OF A CORNER POST.
 - CONTRACTOR TO SUBMIT SHOP DRAWINGS.
 - FOOTING WIDTH TO BE (4)x POST WIDTH, MINIMUM DEPTH 36".
 - FENCE FOOTINGS TO BE SPECIALLY ENGINEERED. CONTRACTOR TO SUBMIT SIGNED SEALED STRUCTURAL DRAWINGS FOR REVIEW.
 - POSTS, FRAMING, AND HARDWARE TO BE BLACK POWDER COATED.
 - FENCE FABRIC TO BE BLACK VINYL COATED GALVANIZED CHAIN LINK

SIZE: 4' Height
 COLOR: Black Vinyl Coated (Fabric)
 COLOR: Black Powdercoated (Posts, Caps, Hardware, etc.)

4' CHAIN LINK FENCE
N.T.S.

Leonard Z. Gamble, State of Florida, Professional Engineer, License No. 65921
 This item has been electronically signed and sealed by
 Leonard Z. Gamble, P.E. on September 18, 2018 using a SHA authentication code.

Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

Leonard Z. Gamble
 Florida P.E. No. 65921
 September 18, 2018

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY			CHECKED BY		
SUPERVISED BY					

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GLADIATOR LAKE DRAINAGE ENHANCEMENTS
 PREPARED FOR:
 CITY OF GREENACRES

GRADING AND DRAINAGE DETAILS

SHEET NO.
C-16