

PROJECT LOCATION
ST. LUCIE COUNTY

PD PLANS FOR SUNSET GARDENS MULTI-FAMILY RESIDENTIAL DEVELOPMENT

LOCATED AT
3804 SUNRISE BLVD, FORT PIERCE, FLORIDA
SECTION 33, TOWNSHIP 35S, RANGE 40E

PROJECT TEAM

OWNER/DEVELOPER
SUNRISE INVESTMENTS REAL ESTATE CORP.
4512 N FLAGLER DR. #206 WEST PALM BEACH, FL 33407
(561) 244-1654

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DIVERSITY LANDSCAPE ARCHITECTURE
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MIAMI, FL 33135
(305) 779-5876

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SURVEYOR
DIVERSITY SURVEYING, INC.
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KMA
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DATE:	
BY:	
CHECKED BY:	
APPROVED BY:	
SCALE:	
PROJECT NO.:	
SHEET NO.:	
TITLE:	

NOT FOR CONSTRUCTION

PROJECT:
4945 EDWARDS ROAD MULTI-FAMILY
PD PLAN
FT. PIERCE, FLORIDA

CLIENT:
CAPITAL INVESTMENTS
REAL ESTATE CORP.
WEST PALM BEACH,
FLORIDA 33407



BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE NO. 845598
00242022



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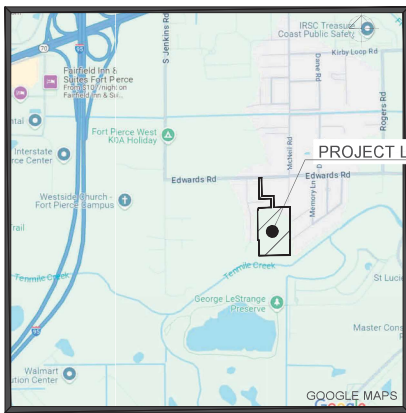
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CHECKED BY: 04020223
DATE: 04/20/23

SHEET TITLE: 24/04/02023

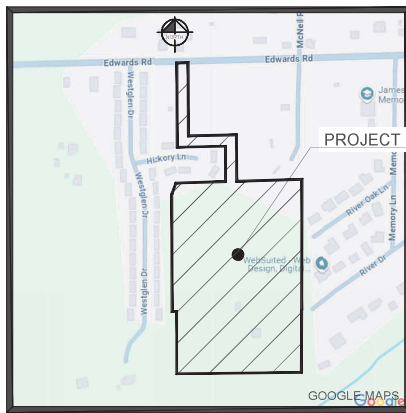
COVER

SHEET NUMBER:

C-100



LOCATION MAP
SCALE: NOT TO SCALE



VICINITY MAP
SCALE: NOT TO SCALE

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ENGINEER & SURVEYOR

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1176 25th, ST.
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ENGINEER'S PROJECT NO. 22-1026

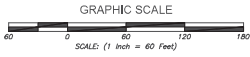
PERMITTING AGENCIES

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**SOUTH FLORIDA WATER
MANAGEMENT DISTRICT**
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PLAT NUMBER:
P.L. 14, 15, 51

PARCEL ID:
242100000004

SECTION 30
TOWNSHIP 35 S
RANGE 40 E

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DATE:	
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SCALE:	
PROJECT:	
CLIENT:	
CONTRACT:	

NOT FOR CONSTRUCTION

PROJECT:
4945 EDWARDS ROAD MULTI-FAMILY
PD PLAN
FT. PIERCE, FLORIDA

CLIENT:
CAPITAL INVESTMENTS
REAL ESTATE CORP.
WEST PALM BEACH, FLORIDA 33407



BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE NO. 84598
002740022

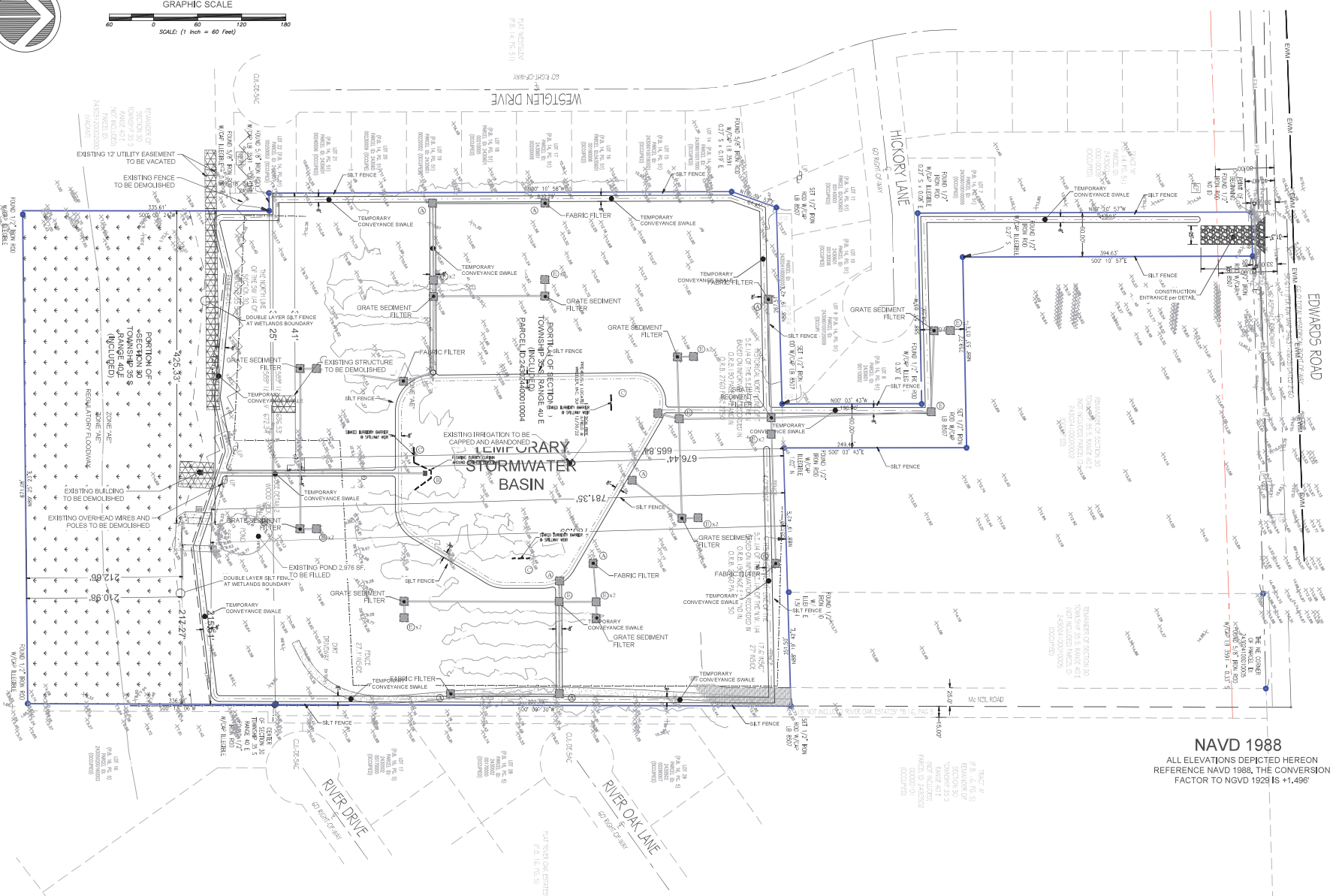


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PROJECT NO.: 242100000004
DRAWN BY: KCS
CHECKED BY: BNS
DATE: 04/22/2024
CAD L.D.

SHEET TITLE:
EXISTING
CONDITIONS &
DEMOLITION PLAN

SHEET NUMBER:
C-102



NAVD 1988
ALL ELEVATIONS DEPICTED HEREON
REFERENCE NAVD 1988, THE CONVERSION
FACTOR TO NGVD 1929 IS +1.496'

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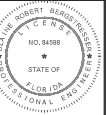
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PROJECT:	4945 EDWARDS ROAD MULTI-FAMILY
CLIENT:	CAPITAL INVESTMENTS REAL ESTATE CORP.
DATE:	02/20/2022
SCALE:	AS SHOWN
PROJECT NO.:	240000
DRAWN BY:	ICE
CHECKED BY:	BNS
DATE:	04/20/2022

NOT FOR CONSTRUCTION

PROJECT: 4945 EDWARDS ROAD MULTI-FAMILY PD PLAN FT. PIERCE, FLORIDA

CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.
WEST PALM BEACH, FLORIDA 33407



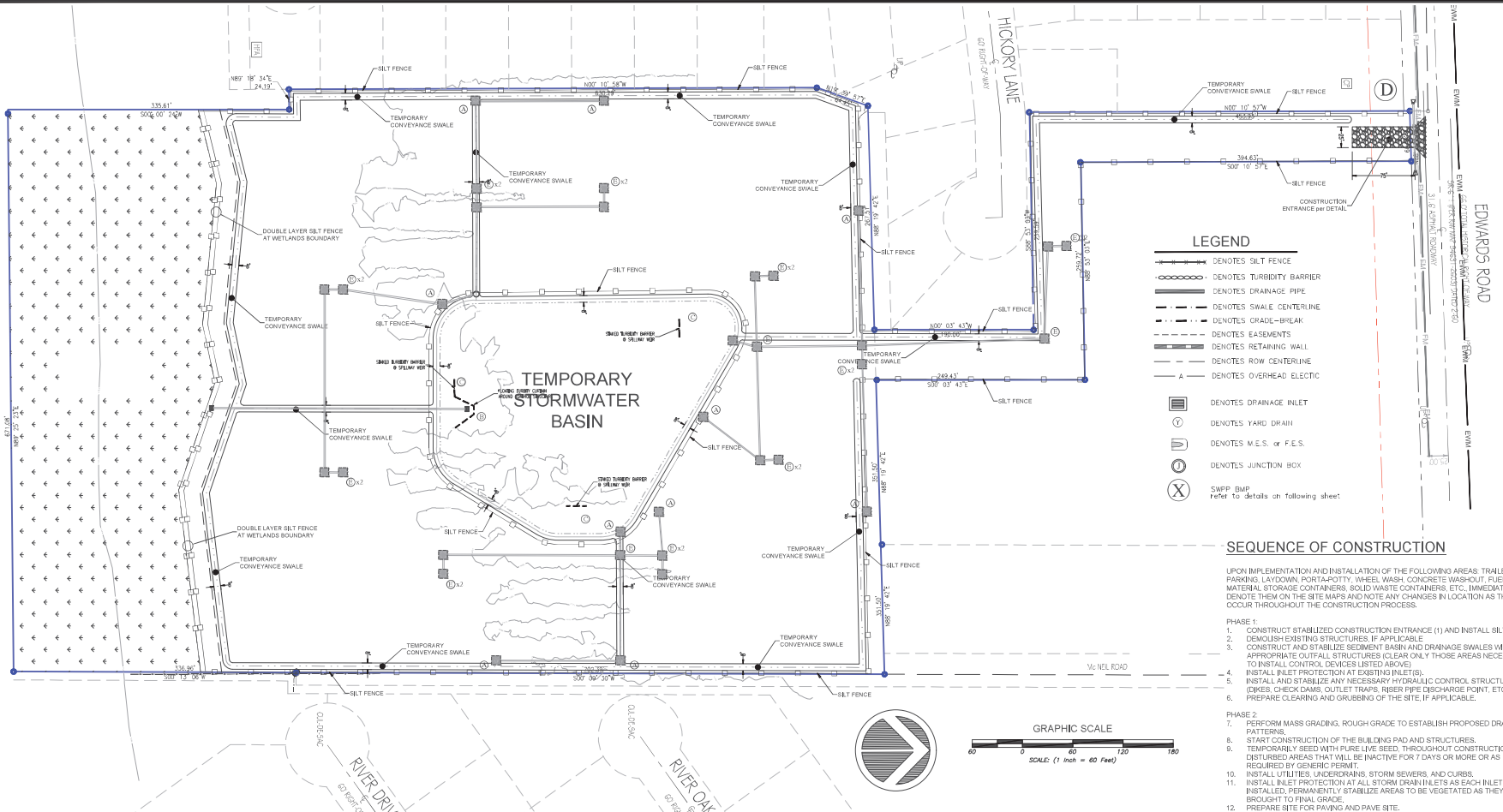
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00240022



PROJECT NO. 240000
DRAWN BY ICE
CHECKED BY BNS
DATE 04/20/2022

SHEET TITLE: PHASE ONE EROSION CONTROL PLAN

SHEET NUMBER: C-103

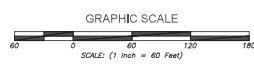


- LEGEND**
- DENOTES SILT FENCE
 - DENOTES TURBIDITY BARRIER
 - DENOTES DRAINAGE PIPE
 - DENOTES SWALE CENTERLINE
 - DENOTES GRADE-BREAK
 - DENOTES EASEMENTS
 - DENOTES RETAINING WALL
 - DENOTES ROW CENTERLINE
 - A DENOTES OVERHEAD ELECTRIC
 - DENOTES DRAINAGE INLET
 - DENOTES YARD DRAIN
 - DENOTES M.E.S. or F.E.S.
 - DENOTES JUNCTION BOX
 - ⊗ SWPP BMP refer to details on following sheet

SEQUENCE OF CONSTRUCTION

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS, TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC. IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

- PHASE 1:**
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1) AND INSTALL SILT FENCE.
 - DEMOLISH EXISTING STRUCTURES, IF APPLICABLE.
 - CONSTRUCT AND STABILIZE SEDIMENT BASIN AND DRAINAGE SWALES WITH APPROPRIATE OUTFALL STRUCTURES (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL CONTROL DEVICES LISTED ABOVE).
 - INSTALL INLET PROTECTION AT EXISTING INLETS.
 - INSTALL AND STABILIZE ANY NECESSARY HYDRAULIC CONTROL STRUCTURES (DAMS, CHECK DAMS, OUTLET TRAPS, RISER PIPE DISCHARGE POINT, ETC).
 - PREPARE CLEANING AND GRUBBING OF THE SITE, IF APPLICABLE.
- PHASE 2:**
- PERFORM MASS GRADING, ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.
 - START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
 - TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.
 - INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, AND CURBS.
 - INSTALL INLET PROTECTION AT ALL STORM DRAIN INLETS AS EACH INLET IS INSTALLED, PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE.
 - PREPARE SITE FOR PARKING AND DRIVE SITE.
 - CONTACT CIVIL ENGINEER ONCE THE SITE APPEARS TO BE FULLY STABILIZED.
 - REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER INSPECTION AND APPROVAL OF THE ENGINEER AND STABILIZE ANY AREA DISTURBED BY THE REMOVAL OF BMPS.
 - CONTINUE DAILY INSPECTION REPORTS UNTIL THE FINAL DAILY INSPECTION IS STABILIZED AND THE PERMIT MAY BE TERMINATED.



NAVD 1988
ALL ELEVATIONS DEPICTED HEREON
REFERENCE NAVD 1988, THE CONVERSION
FACTOR TO NGVD 1929 IS +1.496'

- 1. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTORS SHOULD INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE.
- 2. CONTRACTOR TO BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS NECESSARY FOR CONSTRUCTION.
- 3. SITE PREPARATION SHOULD BE IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION.

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

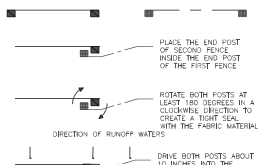
NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
TEMPORARY CONSTRUCTION EXITS												
TEMPORARY CONTROL MEASURES												
SEDIMENT CONTROL BASINS												
STRIP & STOCKPILE TOPSOIL												
ROUGH GRADE												
STORM FACILITIES												
SITE CONSTRUCTION												
PERMANENT CONTROL STRUCTURES												
FOUNDATION / BUILDING CONSTRUCTION												
FINISH GRADING												
LANDSCAPING/SEED/FINAL STABILIZATION												

MAINTENANCE

ALL MEASURES STATED ON THIS SITE MAP AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEED AS NEEDED.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. DAMAGED SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
- OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.



ATTACHING TWO SILT FENCES
N.T.S.

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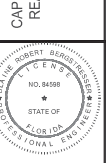
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WWW.KMA-FLA.COM

PROJECT:	4945 EDWARDS ROAD MULTI-FAMILY
CLIENT:	CAPITAL INVESTMENTS REAL ESTATE CORP.
DATE:	08/20/2024
DRAWN BY:	CS
CHECKED BY:	CS
DATE:	08/20/2024
SCALE:	AS SHOWN
SHEET NO.:	104
TOTAL SHEETS:	104

NOT FOR CONSTRUCTION

PROJECT: 4945 EDWARDS ROAD MULTI-FAMILY PD PLAN
FT. PIERCE, FLORIDA

CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.
WEST PALM BEACH, FLORIDA 33407



BLAINE BERNTSEN, P.E.
FLORIDA LICENSE NO. 84598
00240022

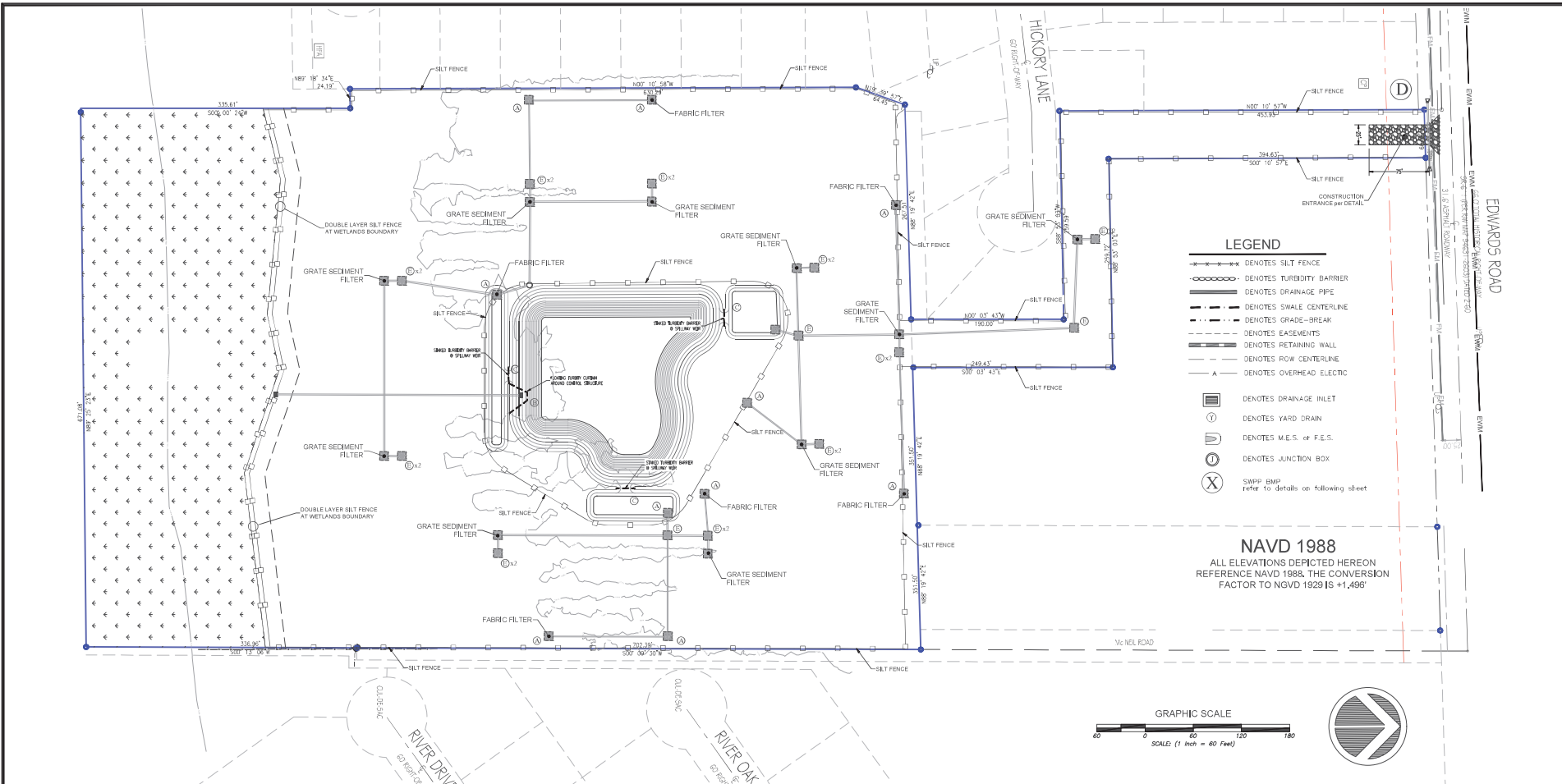


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PROJECT NO.: 240201
DRAWN BY: CS
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DATE: 08/20/2024

SHEET TITLE: PHASE TWO EROSION CONTROL PLAN

SHEET NUMBER: C-104



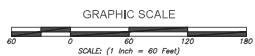
SILT FENCE APPLICATION NOTES

1. THE HEIGHT OF SILT FENCE SHALL NOT EXCEED 36 INCHES (90CM).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE OVERLAP AS DESCRIBED IN ITEM 8 BELOW.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FT (1.8M).
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10CM) WIDE AND 8 INCHES (10CM) DEEP ALONG THE LINES OF POSTS AND UPSLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25MM) LONG. THE WIRES, OR HOOD RINGS, THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
7. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSER POST SPACINGS ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM 6.06 APPLYING.
8. WHEN ATTACHING TWO SILT FENCES TOGETHER, PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. NOTE BOTH THE POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FILTER FABRIC. DRIVE BOTH POSTS INTO THE GROUND AND BURY THE FLAG.
9. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
10. THE MOST EFFECTIVE APPLICATION CONSISTS OF A DOUBLE ROW OF SILT FENCES SPACED A MINIMUM OF THREE FEET APART. THE THREE FOOT SEPARATION IS SO THAT IF THE FIRST ROW COLLAPSES IT WILL NOT FALL ON THE SECOND ROW. WIRE OR SYNTHETIC MESH MAY BE USED TO REINFORCE THE FIRST ROW.
11. WHEN USED TO CONTROL SEDIMENTS FROM A STEEP SLOPE, SILT FENCES SHOULD BE PLACED AWAY FROM THE TOE OF THE SLOPE FOR INCREASED HOLDING CAPACITY.
12. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

EROSION CONTROL NOTES

1. SEDIMENT BARRIERS AND TRAPS, PERIMETER DICES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.
2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES.
3. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENuded AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENuded AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.
4. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
5. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENuded AREAS NOT OTHERWISE PERMANENTLY STABILIZED.
6. AFTER ANY SIGNIFICANT RAINFALL, SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED FOR INTEGRITY. ANY DAMAGED DEVICES SHALL BE CORRECTED IMMEDIATELY.
7. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN OUT OF FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, SLOPE DRAIN STRUCTURE OR APPROVED CONTROL.
8. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORM WATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. WHEN WORK IN A LIFE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCODRMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION.
10. FENCE INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROLS. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.

11. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELLING OR SWEEPING AND TRANSPORTED TO A SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.
12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
13. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES DURING CONSTRUCTION.
14. EROSION CONTROL DESIGN AND CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS IN INDEX NUMBERS 101, 102 AND 103 OF F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS AND COUNTY PERMITS.
15. CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DRAINAGES, MANUAL RUN OFF OR DRAINAGE DEVICES.
16. CONTRACTOR MUST INCORPORATE ALL BMP'S NECESSARY TO MEET OR EXCEED STATE WATER QUALITY AND SWPPP REQUIREMENTS.
17. THE POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTOR'S EXPENSE.
18. NO TO BE POSTED ON SITE.
19. DRAINAGE ACTIVITIES:
 - A - DISCHARGE MUST NOT EXCEED STATE WATER QUALITY STANDARDS.
 - B - CONTRACTOR MUST HAVE A TRANSFERABLE SURFACED CONSUMPTIVE USE PERMIT KNOWN AS A "NOTICED GENERAL PERMIT FOR SHORT TERM CONSTRUCTION DE-WATERING".
 - C - AND HEREAFTER PUMPS MAY BE USED FOR DRAINAGING UNLESS APPROVED BY THE WATER MANAGEMENT DISTRICT FOR THAT AREA.
 - D - AND TURBID DISCHARGE. TURBIDITY READINGS ARE REQUIRED ONCE A WEEK AND MUST BE REPORTED TO THE PROJECT ENGINEER.



PROJECT NO.: 240201
 DRAWN BY: CS
 CHECKED BY: CS
 DATE: 08/20/2024

Section 1	Project Name and location information:	SUNSET GARDENS 4945 EDWARDS ROAD FT. PIERCE, Florida
Section 2	Describe the nature of the construction activity:	Constructive activities consist of the development of a 13.70 AC residential SUBDIVISION w/ 117 townhome units and related infrastructure within 31.14 acre County, Florida.
Section 3	Describe the intended sequence of major soil disturbing activities:	-90 DAYS- SITE PREP AND STABILIZED CONSTRUCTION ENTRANCE -60 DAYS- INSTALL PERIMETER BARRIERS AND EROSION CONTROLS -40 DAYS- INSTALL STORMWATER RETENTION BASIN -150 DAYS- CLEARING/GRUBBING OVER ALL AREAS -150 DAYS- SITE GRADING -90 DAYS- INSTALL STORM SEWER AND UTILITIES -150 DAYS- DRIVE- STABLED SITE
Section 4	Total area of the site:	17.58 AC
Section 5	Total area of the site to be disturbed:	13.70 AC
Section 6	Existing data describing the soil or quality of any stormwater discharge from the site:	The soils on site are mostly sand, consisting of HOWARD DUNE and FORTMEYER, BOKUNIEWICZ and IRONDEKON sands.
Section 7	Estimate the discharge area size for each discharge point:	13.70 AC
Section 8	Latitude and longitude of each discharge point and identify the receiving water or MSA for each discharge point:	LAT: 27° 24' 17.2" N LONG: 80° 27' 31.8" W Discharge through control structure into existing canal to the south of site.
Section 9	Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented. NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment on both a 0.50-1.00 ACP and 1.00-2.00 ACP. A Stormwater Pollution Prevention Plan (SWPPP) is required. The Department of the Department of a Water Management District, and the guidelines contained in the State of Florida Erosion and Sediment Control Design and Review Manual, FDOT, 12302, and any subsequent amendments.	PHASE I 1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SWPPP ENTRANCE DESIGN 2. INSTALL SILT FENCES ON THE SITE CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCES 3. INSTALL TEMPORARY FENCING AND STORMWATER CONTROL STRUCTURES AS NECESSARY TO PREVENT EROSION 4. ORANGE PROTECTIVE FENCE AROUND ANY LAND TO BE PRESERVED IF NECESSARY, INCLUDING TREES/LANDSCAPE 5. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (DAMS, CHECK DAMS, ETC.) 6. BEGIN GRADING AND GRASSING THE SITE. 7. BEING GRASSING THE SITE.
Section 10	Describe all temporary and permanent stabilization practices. Stabilization practices include temporary seeding, mulching, permanent seeding, geotextiles, soil stabilization, vegetative buffer strips, protection of trees, vegetative preservation, etc.	1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR. 2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCK PILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH EROSION TRAPPING MEASURES. THE APPLICABLE SWPPP SHALL BE APPLIED TO PERMANENTLY STABILIZED AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE. 3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. 4. WHEN WORK IS IN A LIVE WATERCOURSE BE PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT CONTROL, SEDIMENT TRANSPORT AND STABILIZE THE AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. 5. ALL CLEARED AREAS SHALL BE RESEED AND MULCH WITHIN SEVEN (7) DAYS IF NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE OR PLANNED FOR DAYS OR MORE AND/OR COMPLETION OF A PHASE OF GRADING. 6. VEGETATIVE COVER ON OTHER EROSION CONTROL DEVICES OR STRUCTURES USED TO MEET THESE REQUIREMENTS SHALL BE PROPERLY MAINTAINED DURING AND AFTER CONSTRUCTION
Section 11	Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to reuse flows, areas undisturbed on-site or on any other low-impact stormwater runoff. These controls include silt fences, earth dikes, diversion, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, enhanced soil storage systems, gabions, coagulating agents and temporary or permanent sediment basins.	1. SEDIMENT BARRIERS AND TRAPS: PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY EROSION AND SEDIMENT CONTROL AND SHALL BE MADE FUNCTIONAL BEFORE UNEXPOSED LAND SURFACE WARE TAKES PLACE. 2. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR SETTLEMENT OF EXISTING SURFACE MATERIAL OR BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT EROSION OR TRAPS FROM LOSING OR FILLING FROM PROPERTIES. 3. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL. PERIMETER STRUCTURE STRUCTURE APPROXIMATE CONTROL. A SEDIMENT TRAP SHALL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORM WATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT. 4. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES. 5. PROPERTIES AND WATERWAYS DOWNSTREAM FROM CONSTRUCTION SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES. 6. ALL STORM SEWER INLET GRATES TO BE COVERED WITH FILTER FABRIC DURING CONSTRUCTION. 7. CUT AND FILL SLOPES TO BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SILT FENCES TO BE USED WHERE NECESSARY. 8. SILT FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH FOOT STANDARD INDEX NO. 10. 9. SILT FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOOT STANDARD INDEX NO. 10. 10. FLOATING TURBIDITY BARRIER INSTALLATION SHALL BE IN ACCORDANCE WITH THE FOOT STANDARD INDEX NO. 10. 11. THE ANGLE FOR GRADED SLOPES AND FILLS SHALL NOT BE GREATER THAN THE ANGLE WHICH CAN BE MAINTAINED BY THE COVER OR OTHER EROSION CONTROL MEASURES. 12. SLOPES LEFT EXPOSED SHALL BE MAINTAINED WITHIN SEVEN (7) WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING. BE PLANTED OR OTHERWISE PROTECTED WITH GRASSING COVER, GEOTEXTILES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. 13. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROL. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
Section 12	Describe all sediment basins to be implemented for areas that will disturb 10 or more acres or one acre: (The sediment basins on an equivalent alternative) should be able to provide 3000 cubic feet of storage for each acre drained. Temporary sediment basins (on an equivalent alternative) are recommended for drainage areas up to 10 acres.	
Section 13	Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.	

RESPONSIBLE ENTITIES

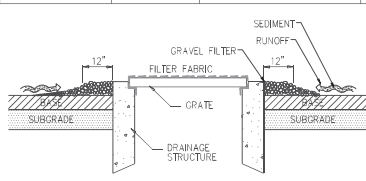
The SWPPP must clearly identify, for each measure identified within the SWPPP, the contractor(s) or subcontractor(s) that will implement each measure. All contractors and subcontractors that will be responsible for the implementation and maintenance of the measures identified in the SWPPP must sign the following certification.

I, CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THERE UNDER.

Section 14	Waste disposal, this may include construction debris, chemical, litter, and sanitary wastes.	All construction materials and debris will be placed in a dumpster and hauled off-site to a landfill or other proper disposal site. No materials will be hauled on-site.
Section 15	Off-site vehicle tracking from construction entrances/exits.	Off-site vehicle tracking of sediments and dust generated by the construction entrance, street sweeping and the use of water to keep dust down.
Section 16	The proper application rates of all fertilizers, herbicides and pesticides used at the construction site.	Fertilizers, herbicides and pesticides will be used at a minimum and in accordance with the manufacturer's suggested application rates.
Section 17	The storage, application, generation and mitigation of all toxic substances.	All paints and other chemicals will be stored in a locked covered shed.
Section 18	Other:	Post-off-site will be placed away from storm sewer systems, storm inlets, surface waters and wetlands. No vehicle maintenance shall be conducted on-site. A washdown area shall be designated at all times and will not be located in any area that will allow for the discharge of prohibited runoff.
Section 19	Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.	Contractor shall provide routine maintenance of permanent and temporary sediment and erosion control features in accordance with the technical specifications or as follows, whichever is more stringent: • Silt fence shall be inspected at least weekly. Any required repairs shall be made immediately. Sediment deposits shall be removed when they reach approximately one-half the height of the barrier. • Maintenance shall be performed on the rock surface when any void spaces are full of sediment. • Silt fence shall be inspected immediately after each rain event and any required repairs to the filter fabric, silt fence, or other fabric shall be performed immediately. • Base area of the site that was previously seeded shall be reseeded per manufacturer's instructions. • Mulch and soil that has been washed out shall be replaced immediately. • Maintain all other areas of the site with proper controls as necessary.
Section 20	Inspections: Describe the inspection and inspection documentation procedures, as required by the FDEP/NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	Qualified personnel will inspect all points of discharge, all disturbed areas of construction that have not been installed, constructed areas and locations where vehicles enter and exit the site, and all BMPs at least once every 7 calendar days and within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Where sites have been fully stabilized, said inspections shall be conducted at least once every month until the Notice of Termination is filed.
Section 21	Identify and describe all sources of non-stormwater discharges as allowed by the FDEP/NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	1. Contractor is responsible for all surface water discharges, rainfall run-off or overflowing activities. 2. Contractor must incorporate BMP's necessary to prevent or reduce storm water quality and SWPPP requirements. 3. Discharging from construction activities shall be maintained onsite with no discharge to surface waters of the state or MSA systems.
Section 22	All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:	I certify under penalty of law that I understand and shall comply with the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and the Stormwater Pollution Prevention Plan prepared hereunder.

NOTE: CONTRACTOR SHALL FILL OUT THE RESPONSIBLE ENTITIES THE FOLLOWING TABLE.

Section 22	Name	Title	Company Name, Address and Phone Number	Date



THIS METHOD OF INLET PROTECTION IS APPLICABLE AT DITCH BOTTOM INLETS USED IN VEHICLE USE AREAS, WHERE STAKED SEDIMENT FILTER IS NOT PRACTICAL.

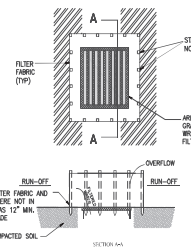
GRAVEL GRATE INLET SEDIMENT FILTER (E)

NAVD 1988

ALL ELEVATIONS DEPICTED
HEREON REFERENCE NAVD 1988

FILTER FABRIC NOTES:

- FILTER BARRIERS SHALL BE CONSTRUCTED AT THE FOLLOWING LOCATIONS TO INTERCEPT AND OBTAIN SEDIMENT FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS FROM EXISTING WETLANDS, DITCHES, OR EXISTING WATERS.
- AT THE PERIMETER OF ALL EXISTING WETLANDS THAT ARE BELOW DISTURBED AREAS WHERE EROSION COULD OCCUR DURING CONSTRUCTION OPERATIONS, AND AT THE LIMITS OF FILL OF EXISTING WETLANDS.
- ALL OTHER LOCATIONS IDENTIFIED BY THE PROJECT SITE, A FILTER BARRIER SHALL BE CONSTRUCTED AT THE DOWNSTREAM PROPERTY LINE.
- FLOATING SILT BARRIERS SHALL BE INSTALLED AROUND THE POINT OF DISCHARGE TO A WATER BODY. THE BARRIERS SHALL BE REGULARLY CHECKED AND MAINTAINED TO ENSURE ADEQUATE FUNCTION UNTIL ALL PROPOSED SURFACES ARE COMPLETE AND ALL SLOPED AREAS HAVE GRASS COVER.
- IN USE OF SEED AND MULCH, SOIL ALL AREAS THAT ARE PRONE TO EXCESSIVE EROSION, INCLUDING AREAS ADJACENT TO CULVERT ENDS, DISCHARGE STRUCTURES, FLUMES, ETC.
- PROVIDE 18" MIN. WIDE STRIP OF SOG ADJACENT TO THE EDGE OF ALL NEW PAVED SURFACES.



FABRIC DROP INLET SEDIMENT FILTER (A)

SELECTIONS:

- FABRIC: HIGH STRENGTH NYLON REINFORCED WITH HIGH VISIBILITY YELLOW, 22 OZ. 7'0\"/>

CONNECTOR: 2000 HOUR ANTI-RUST CONNECTOR BOLTS WITH WIDENED HEADS AND EXTRUDED ALUMINUM CONNECTORS.

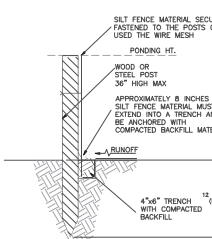
FLOTATION: 1\"/>

BALLAST: 2\"/>

LOAD LINES: DIA. 5/16\"/>

TURBIDITY CURTAINS ARE TO REMAIN IN PLACE FOR A PERIOD OF TIME NOT LESS THAN SEVEN (7) DAYS AFTER WORK HAS BEEN COMPLETED AND TURBIDITY LEVELS ARE EQUAL TO OR BELOW BACKGROUND NTU LEVELS.

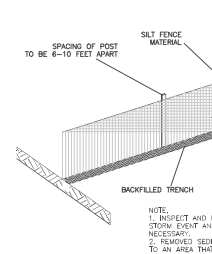
FLOATING TURBIDITY BARRIER (B)



ALTERNATE DETAIL TRENCH WITH GRAVEL (N.T.S.)



STANDARD DETAIL TRENCH WITH NATIVE BACKFILL (N.T.S.)



FABRIC SILT FENCE (N.T.S.)

FLOATING TURBIDITY BARRIER (C)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



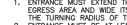
GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



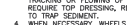
GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



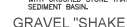
GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



GRAVEL "SHAKE DOWN" CONST. ENTRANCE (D)



KMA
ENGINEERING & SURVEYING, LLC
1000 N. W. 10th Ave., Suite 100
Fort Lauderdale, FL 33304
Phone: 754-561-0000
Fax: 754-561-0001

NOT FOR CONSTRUCTION

PROJECT: 4945 EDWARDS ROAD MULTI-FAMILY PD PLAN, FT. PIERCE, FLORIDA

CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.



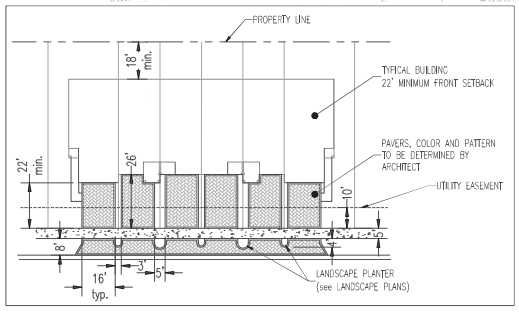
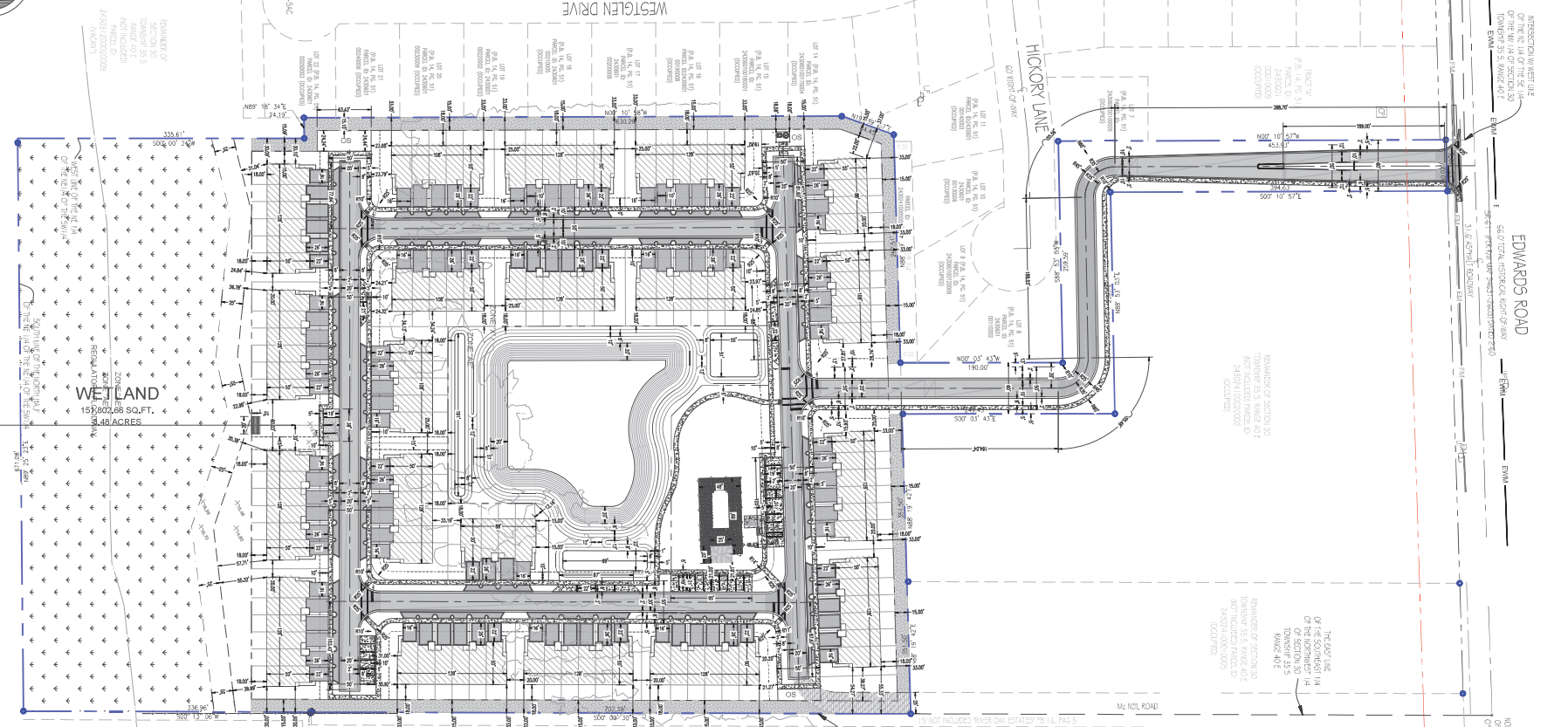
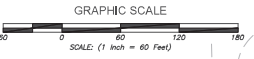
BLAINE BERNTRESSER, P.E.
FLORIDA LICENSE NO. 84598
00240022



KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
811-4-4-4
www.call811.com

SHEET TITLE: EROSION CONTROL DETAILS

SHEET NUMBER: C-105



TYPICAL DRIVEWAY PAVEMENT

1/17.2

NAVD 1988
ALL ELEVATIONS DEPICTED HEREON
REFERENCE NAVD 1988, THE CONVERSION
FACTOR TO NGVD 1929 IS +1.473'

LINWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
- DENOTES ULTIMATE RIGHT-OF-WAY
- DENOTES RIGHT-OF-WAY
- DENOTES CENTERLINE
- DENOTES EASEMENT
- DENOTES SHALE FLOWLINE
- DENOTES DITCH BOTTOM INLET
- DENOTES JUNCTION STRUCTURE
- DENOTES YARD DRAIN
- DENOTES MIWM CURB INLET
- DENOTES SEWER MANHOLE
- DENOTES GATE VALVE
- DENOTES FIRE HYDRANT
- DENOTES MITERED END SECTION
- DENOTES LIGHT POLE

HATCH LEGEND

- [Hatch] PROPOSED ASPHALT PAVEMENT
- [Hatch] PROPOSED CONCRETE PAVEMENT (SIDEWALKS, PADS, ETC.)
- [Hatch] BRICK PAVEMENT PARKING, DRIVEWAY, OR BALCONY
- [Hatch] UPLAND PRESERVE OR LANDSCAPE BUFFER
- [Hatch] EMERGENCY ACCESS



KMA
ENGINEERING AND SURVEYING, LLC
10000 W. WINDYBROOK DRIVE
SUITE 100
FORT WORTH, TEXAS 76133
PHONE: (817) 556-0000
WWW.KMA-INC.COM

PROJECT:	4945 EDWARDS ROAD MULTI-FAMILY
CLIENT:	CAPITAL INVESTMENTS REAL ESTATE CORP.
DATE:	11/17/2023
DRAWN BY:	ICE
CHECKED BY:	BBS
SCALE:	AS SHOWN
PROJECT NO.:	240700
SHEET NO.:	108
SHEET TOTAL:	108

NOT FOR CONSTRUCTION

PROJECT: 4945 EDWARDS ROAD MULTI-FAMILY
CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.
WEST PACE BOULEVARD
FORT WORTH, TEXAS 76107

CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.
WEST PACE BOULEVARD
FORT WORTH, TEXAS 76107



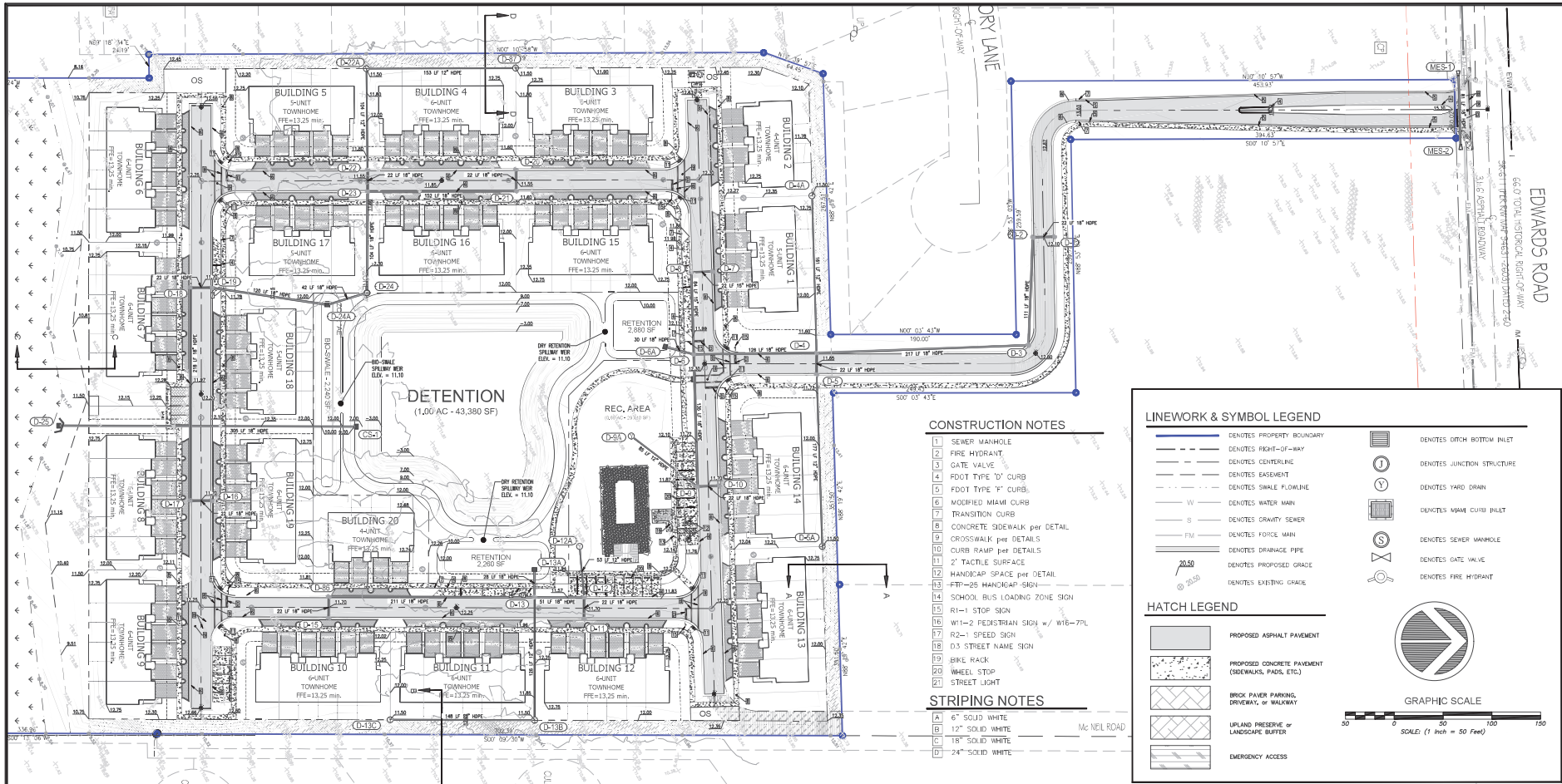
BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE NO. 84598
002402022



PROJECT NO. 240700
DRAWN BY ICE
CHECKED BY BBS
DATE 04/22/2024
CAD/D.

SHEET TITLE:
HORIZONTAL CONTROL PLAN

SHEET NUMBER:
C-200



CONSTRUCTION NOTES

- 1 SEWER MANHOLE
- 2 FIRE HYDRANT
- 3 GATE VALVE
- 4 FOOT TYPE 'D' CURB
- 5 FOOT TYPE 'F' CURBS
- 6 MODIFIED MIAMI CURB
- 7 TRANSITION CURB
- 8 CONCRETE SIDEWALK PER DETAIL
- 9 CROSSLINK PER DETAILS
- 10 CURB RAMP PER DETAILS
- 11 2" TACTILE SURFACE
- 12 HANDICAP SPACE PER DETAIL
- 13 FTI-25 HANDICAP SIGN
- 14 SCHOOL BUS LANDING ZONE SIGN
- 15 R1-1 STOP SIGN
- 16 W1-2 PEDESTRIAN SIGN / W16-7FL
- 17 R2-1 SPEED SIGN
- 18 D3 STREET NAME SIGN
- 19 BIKE RACK
- 20 WHEEL STOP
- 21 STREET LIGHT

LINWORK & SYMBOL LEGEND

- DENOTES PROPERTY BOUNDARY
- DENOTES RIGHT-OF-WAY
- DENOTES CENTERLINE
- DENOTES EASEMENT
- DENOTES SWALE FLOWLINE
- DENOTES WATER MAIN
- DENOTES GRAVITY SEWER
- DENOTES FORCE MAIN
- DENOTES DRAINAGE PIPE
- DENOTES PROPOSED GRADE
- DENOTES EXISTING GRADE
- DENOTES DITCH BOTTOM INLET
- DENOTES DITCH STRUCTURE
- DENOTES YARD DRAIN
- DENOTES MIAMI CURB INLET
- DENOTES SEWER MANHOLE
- DENOTES GATE VALVE
- DENOTES FIRE HYDRANT

HATCH LEGEND

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT (SIDEWALKS, PADS, ETC.)
- BRICK PAVEMENT PARKING DRIVEWAYS, OR WALKWAY
- UPLAND PRESERVE or LANDSCAPE BUFFER
- EMERGENCY ACCESS



GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE PROJECT DESIGN AND NOTIFYING OWNER AND ENGINEER OF ANY POTENTIAL COST SAVINGS, OMISSIONS, OR DISCREPANCIES IN PLANS PRIOR TO FINAL CONTRACT SIGNATURE.
2. CONTRACTOR AND SUBCONTRACTOR SHALL COORDINATE WITH KMA ENGINEERING & SURVEYING DAILY PRIOR TO CONSTRUCTION START-UP TO ASSURE PROPER CONSTRUCTION.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UNDERGROUND UTILITY NOTIFICATION CENTER AT 811 AND ANY OTHER POTENTIALLY AFFECTED UTILITY PROVIDERS FOR INSTALLATION OF NECESSARY CONDUIT AND CONDUIT PROTECTION, ANY NECESSARY UTILITY ADJUSTMENTS, RELOCATIONS, AND FOR GENERAL COORDINATION WITH THESE UTILITY PROVIDERS: FLORIDA POWER AND LIGHT, CITY OF FELLENGERS UTILITY DEPARTMENT, MIAMI RIVER COUNTY UTILITY DEPARTMENT, COMCAST CABLE, AT&T & FLORIDA GAS.
4. CONTRACTOR IS TO EXERCISE CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND UTILITY LINES. THE LOCATIONS OF THE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE THE RESPONSIBILITY OF THE CONTRACTOR AND UTILITY PROVIDER TO FIELD LOCATE PRIOR TO WORKING IN THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGED UTILITIES RESULTING FROM THE CONTRACTOR'S WORK.
5. THE CONTRACTOR SHALL VERIFY ALL EXISTING TIE-INS FOR DRAINAGE, WATER, SEWER, PAVING, AND ELEVATIONS AS NECESSARY PRIOR TO CONSTRUCTION COMMENCEMENT. THE CONTRACTOR SHALL VERIFY THE ACCURACY AND SUFFICIENCY OF ALL CONSTRUCTION STAKE-OUTS PRIOR TO COMMENCEMENT OF CONSTRUCTION TO ASSURE COMPLIANCE WITH PLANS, CROSS SECTIONS, DETAILS, AND POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONSTRUCTION DETAILS AND POINTS HAVE BEEN ACQUIRED PRIOR TO COMMENCING CONSTRUCTION. ALL CONSTRUCTION DETAILS AND POINTS SHALL BE OBTAINED FROM THE SURVEYOR AND SHOWN TO THE PROJECT ENGINEER ON ALL-BUILDING LINES. CONSTRUCTION POINTS SHALL BE LOCATED ON ALL LINES AT ALL TIMES. THE CONTRACTOR SHALL ENSURE ADEQUATE HORIZONTAL AND VERTICAL SEPARATION AS NECESSARY FOR FOOTY AND LOCAL UTILITY PROVIDER SPECIFICATIONS (INCLUDING SERVICES). THESE SEPARATION DISTANCES SHALL BE MEASURED BY THE SURVEYOR AND SUPPLIED TO THE PROJECT ENGINEER ON ALL-BUILDING LINES. CONSTRUCTION POINTS SHALL RECORD ALL SEPARATION DISTANCES ON FIELD SET OF CONSTRUCTION DOCUMENTS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND LABOR TO COMPLETELY CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS AND IN CONFORMANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
7. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT AN AS-BUILT SURVEY CERTIFIED BY A REGISTERED, LICENSED SURVEYOR OF ALL CONSTRUCTED MEASUREMENTS AT PROJECT COMPLETION.
8. NO DESIGN CHANGES ARE TO OCCUR TO THE APPROVED CONSTRUCTION PLANS WITHOUT PRIOR APPROVAL OF THE PROJECT ENGINEER.
9. ALL EXCAVATED MATERIAL SHALL BE USED IN SITU AS FILL MATERIAL, AS NEEDED. NO EXCAVATED MATERIAL SHALL BE TRANSPORTED OFFSITE. ALL IMPORTED FILL MUST HAVE A CURVE NUMBER VALUE OF NO GREATER THAN 46. ALL IMPORTED MATERIAL MUST BE VERIFIED BY A LICENSED GEOTECHNICAL ENGINEER AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL, BEFORE BEING BROADCAST ONSITE.
10. THE FEMA FLOOD ZONE FOR THIS PROJECT HAS BEEN DETERMINED TO BE ZONE "X" AND ZONE "AE-1" per FEMA PIRM 12111(C)0169, dated 02-16-2012.

DRAINAGE NOTES

1. ELEVATIONS SHOWN HEREIN ARE REFERENCED TO NAVD 1988. SURVEY INFORMATION SHOWN HEREON WAS PROVIDED BY VELCON.
2. CONTRACTOR TO CONSTRUCT DRAINAGE STRUCTURES WITH LEAF GRATES, RIMS AND COVERS AS CALLED OUT OR APPROVED EQUAL.
3. CONTRACTOR TO NOTIFY THE PROJECT ENGINEER FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
4. REFER TO THE PROJECT ENGINEER FOR THE EXISTING STRUCTURES AS NECESSARY TO RETURN TO EXISTING CONDITIONS OR BETTER.
5. CONTRACTOR IS RESPONSIBLE FOR SELECTION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE.
6. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION ON SITE ARE HEAVY DUTY TRAFFIC RATED. CONTRACTOR TO NOTIFY THE PROJECT ENGINEER FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
7. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RIMS & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
8. ALL CATCH BASINS WITHIN PROPOSED TRAFFIC AREAS SHALL HAVE TRAFFIC PROTECTIVE DEVICES.
9. CONTRACTOR TO FLUSH AND VACUUM ENTIRE ON-SITE STORM WATER SYSTEM UPON COMPLETION OF PROPOSED WORK.
10. PLANS SPECIFY A MINIMUM FINISH FLOOR ELEVATION BASED ON ROUTING MODEL FOR THE 100-YEAR STORM EVENT. LISTED ELEVATION IS ASSOCIATED WITH THE LOW-PART AT THE CROWN OF THE ROAD. FINISH FLOOR ELEVATIONS SHALL MARK WITH THE CROWN OF ROAD ELEVATION. IN GENERAL, FINISH FLOOR ELEVATIONS SHALL BE A MINIMUM ONE-FOOT HIGHER THAN THE HIGHEST ROUGH GRADE ELEVATION AT THE CENTER OF THE ADJACENT LOT LINE.
11. ALL DRAINAGE PIPE JOINTS SHALL BE FILTER FABRIC WRAPPED PER FOOT INDEX #430-001. ALL DRAINAGE PIPE JOINTS NEED TO BE FILTER FABRIC WRAPPED PER FOOT INDEX #430-001.
12. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURES AS NECESSARY TO RETURN TO EXISTING CONDITIONS OR BETTER.
13. CONTRACTOR IS RESPONSIBLE FOR SELECTION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE.
14. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION ON SITE ARE HEAVY DUTY TRAFFIC RATED. CONTRACTOR TO NOTIFY THE PROJECT ENGINEER FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
15. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RIMS & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
16. ALL CATCH BASINS WITHIN PROPOSED TRAFFIC AREAS SHALL HAVE TRAFFIC PROTECTIVE DEVICES.
17. CONTRACTOR TO FLUSH AND VACUUM ENTIRE ON-SITE STORM WATER SYSTEM UPON COMPLETION OF PROPOSED WORK.
18. PLANS SPECIFY A MINIMUM FINISH FLOOR ELEVATION BASED ON ROUTING MODEL FOR THE 100-YEAR STORM EVENT. LISTED ELEVATION IS ASSOCIATED WITH THE LOW-PART AT THE CROWN OF THE ROAD. FINISH FLOOR ELEVATIONS SHALL MARK WITH THE CROWN OF ROAD ELEVATION. IN GENERAL, FINISH FLOOR ELEVATIONS SHALL BE A MINIMUM ONE-FOOT HIGHER THAN THE HIGHEST ROUGH GRADE ELEVATION AT THE CENTER OF THE ADJACENT LOT LINE.
19. ALL STORM DRAINAGE FACILITIES SHALL CONFORM TO CHAPTERS 119 AND 121 AND THE STANDARD SPECIFICATIONS ADOPTED BY THE CITY COMMISSION ON FEBRUARY 13, 1973, AS AMENDED.
20. FOR RCP DRAINAGE PIPE MAKE CONNECTION PER FOOT INDEX #430-001 CONCRETE COLLAR FOR JOINTS MANHOLE PIPE AND STUB PIPE DETAIL.
21. NOTIFY CONSULTANT FOR CONNECTION METHOD TO STEEL PIPE.

Structure Table

Structure Name	Description	RIM Elev.	Inverts
CS-1	CONTROL STRUCTURE PER DETAIL	RM = 10.90	8.00(0)
D-1	MIAMI CURB INLET	RM = 11.82	8.30(3)
D-2	MIAMI CURB INLET	RM = 11.82	8.30(3)
D-3	JUNCTION BOX (MIAMI CURB INLET)	RM = 12.32	8.30(3)
D-4	MIAMI CURB INLET	RM = 11.37	8.00(7)
D-5	YARD DRAIN PER DETAIL	RM = 11.50	8.50(0)
D-6	MIAMI CURB INLET	RM = 11.37	8.00(0)
D-7	MIAMI CURB INLET	RM = 11.82	8.10(3)
D-8	MIAMI CURB INLET	RM = 11.82	8.10(0)
D-9	MIAMI CURB INLET	RM = 11.82	8.10(0)

Structure Table

Structure Name	Description	RIM Elev.	Inverts
D-9	YARD DRAIN PER DETAIL	RM = 11.50	8.50(0E)
D-10	MIAMI CURB INLET	RM = 11.82	8.10(3)
D-11	MIAMI CURB INLET	RM = 11.82	7.90(0)
D-12	MIAMI CURB INLET	RM = 11.82	7.75(3)
D-12a	YARD DRAIN PER DETAIL	RM = 11.50	8.50(0)
D-13	JUNCTION BOX (MIAMI CURB INLET)	RM = 11.63	7.90(0)
D-13a	FOOT TYPE C DITCH BOTTOM INLET	RM = 10.00	7.50(1)
D-13b	YARD DRAIN PER DETAIL	RM = 11.50	8.50(0)
D-13c	YARD DRAIN PER DETAIL	RM = 11.50	8.50(0)
D-14	JUNCTION BOX	RM = 12.00	7.80(0)
D-15	MIAMI CURB INLET	RM = 11.82	7.90(0)
D-16	MIAMI CURB INLET	RM = 11.82	7.90(0)
D-17	MIAMI CURB INLET	RM = 11.82	7.90(0)
D-18	MIAMI CURB INLET	RM = 11.82	7.90(0)

Structure Table

Structure Name	Description	RIM Elev.	Inverts
D-19	MIAMI CURB INLET	RM = 11.41	7.75(0)
D-20	MIAMI CURB INLET	RM = 11.27	7.75(0)
D-21	MIAMI CURB INLET	RM = 11.27	7.75(0)
D-22	MIAMI CURB INLET	RM = 11.27	7.75(0)
D-22a	YARD DRAIN PER DETAIL	RM = 11.50	8.50(0)
D-23	MIAMI CURB INLET	RM = 11.27	7.75(0)
D-24	JUNCTION BOX	RM = 12.00	7.80(0)
D-24a	FOOT TYPE C DITCH BOTTOM INLET	RM = 10.00	7.50(0)
D-25	OUTFALL TO WETLANDS	RM = 10.32	5.00(0)
D-86	MIAMI CURB INLET	RM = 11.82	7.80(0)
D-87	MIAMI CURB INLET	RM = 11.50	7.80(0)
MES-1	MITERED END SECTION PER DETAIL	RM = 15.44	13.00(0)
MES-2	MITERED END SECTION PER DETAIL	RM = 15.44	13.00(0)

NAVD 1988
 ALL ELEVATIONS DEPICTED HEREON
 REFERENCE NAVD 1988. THE CONVERSION
 FACTOR TO NGVD 1929 IS -1.473

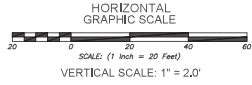
KMA
 ENGINEERING & SURVEYING, LLC
 1100 S.W. 15th Ave., Suite 100
 Ft. Lauderdale, FL 33304
 Phone: (954) 576-1100
 Fax: (954) 576-1101
 www.kma-engineering.com

PROJECT: 4945 EDWARDS ROAD MULTI-FAMILY PD PLAN, FT. PIERCE, FLORIDA

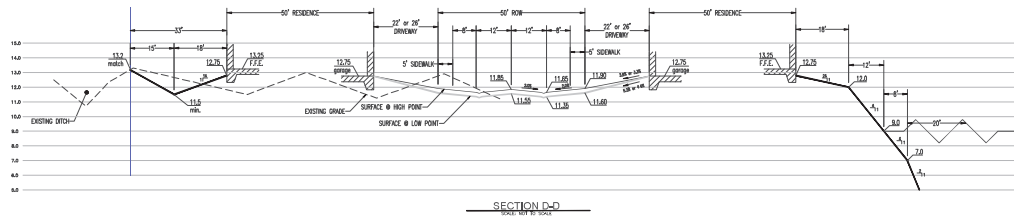
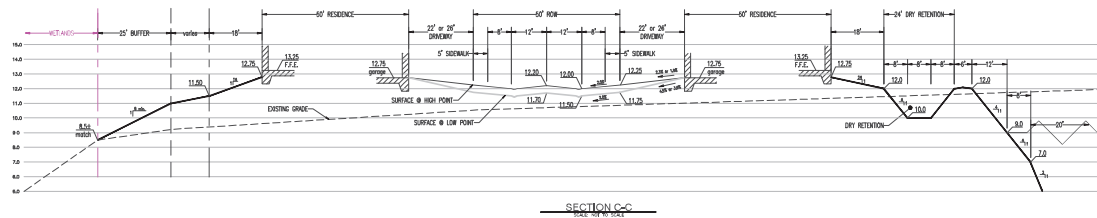
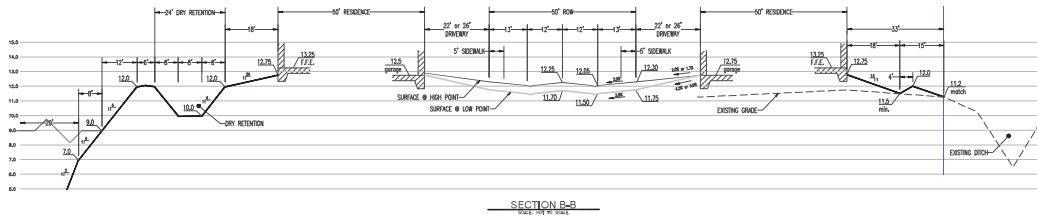
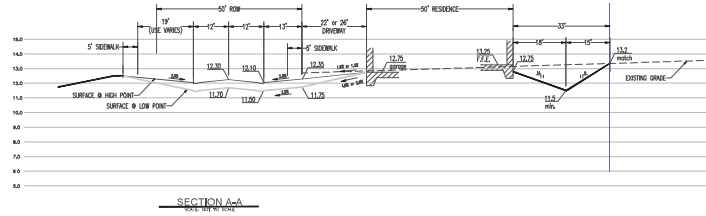
CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.

STATE OF FLORIDA PROFESSIONAL ENGINEER
 BLAINE BERGSTRESSER, P.E.
 FLORIDA LICENSE NO. 84598
 00240022

811 KNOW WHAT'S BELOW ALWAYS CALL 811 BEFORE YOU DIG
 PROJECT NO. 24000
 DRAWN BY: SCB
 CHECKED BY: BBS
 DATE: 04/22/2024
 SHEET TITLE: MASTER PAVING GRADING DRAINAGE PLAN
 SHEET NUMBER: C-300



NAVD 1988
ALL ELEVATIONS DEPICTED HEREON
REFERENCE NAVD 1988, THE CONVERSION
FACTOR TO NGVD 1929 IS +1.473'



KMA
ENGINEERING & SURVEYING, LLC
2845 W. STATE ROAD 10
SUITE 1000 FT. PIERCE, FLORIDA 34503
PHONE: (772) 330-0000
WWW.KMA-FL.COM

PROJECT:	
DATE:	
BY:	
CHECKED BY:	
SCALE:	
REVISIONS:	

NOT FOR CONSTRUCTION

PROJECT:
4945 EDWARDS ROAD MULTI-FAMILY
PD PLAN
FT. PIERCE, FLORIDA

CLIENT:
CAPITAL INVESTMENTS
REAL ESTATE CORP.
WEST PALM BEACH,
FLORIDA 33407



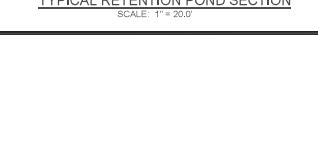
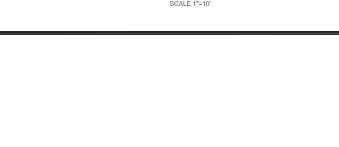
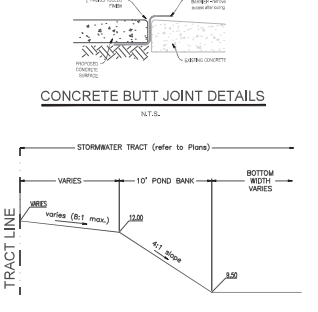
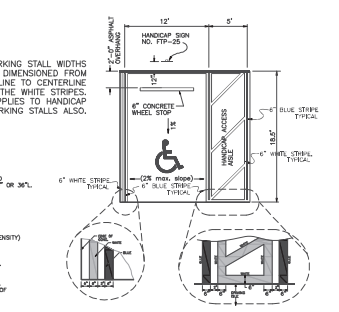
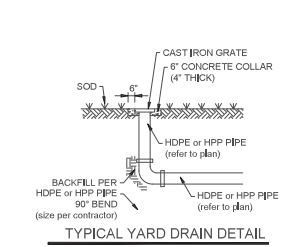
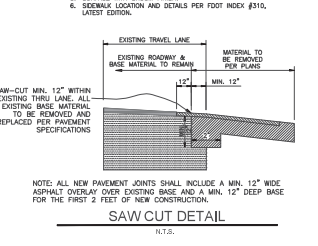
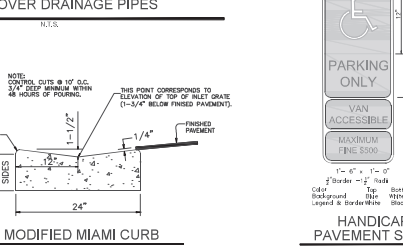
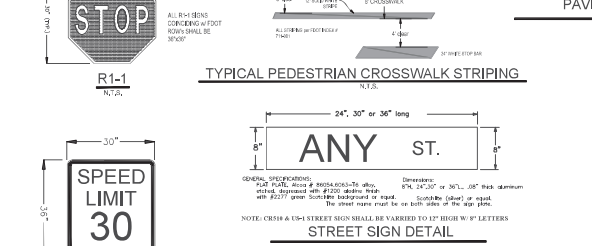
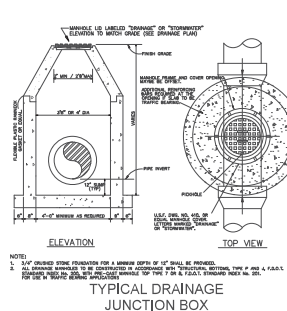
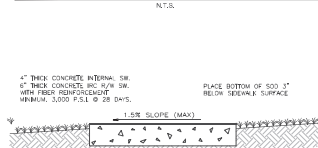
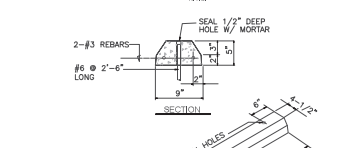
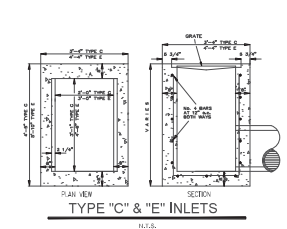
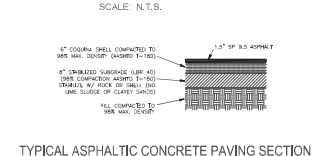
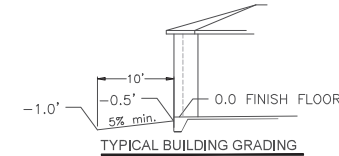
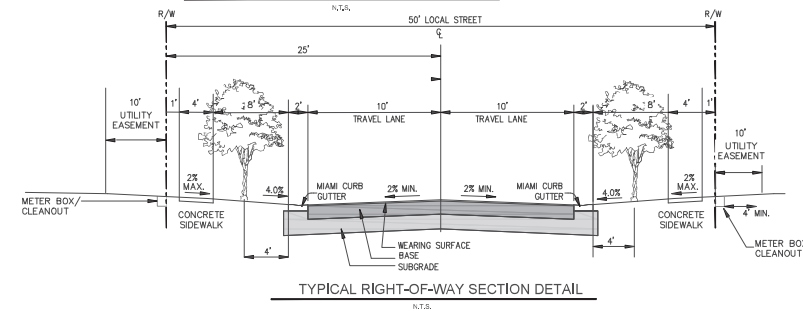
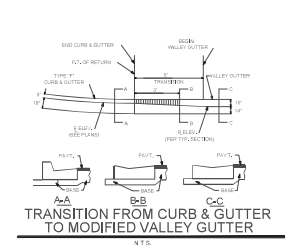
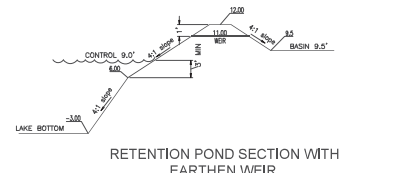
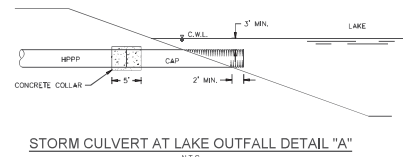
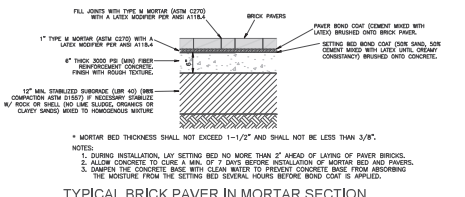
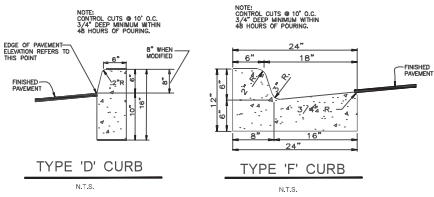
BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE NO. 84598
002/4/2022



PROJECT NO.: 240703
DRAWN BY: SCB
CHECKED BY: BBS
DATE: 04/22/2024
CAD L.D.: BMT/MS/SCB

SHEET TITLE:
GRADING
SECTIONS

SHEET NUMBER:
C-301



KMA
ENGINEERING & SURVEYING, LLC
10000 W. BOULEVARD
SUITE 100
FT. PIERCE, FLORIDA 34947
TEL: 888-888-8888
WWW.KMA-FL.COM

PROJECT:
4945 EDWARDS ROAD MULTI-FAMILY
PD PLAN
FT. PIERCE, FLORIDA

CLIENT:
CAPITAL INVESTMENTS
REAL ESTATE CORP.

DESIGNED BY:
BLAINE BERGSTRASSER, P.E.
FLORIDA LICENSE NO. 84598

CHECKED BY:
SCOTT BERRY, P.E.
FLORIDA LICENSE NO. 84598

DATE:
04/22/2024

PROJECT NO.:
240100

DRAWN BY:
SCOTT BERRY

CHECKED BY:
SCOTT BERRY

DATE:
04/22/2024

SHEET TITLE:
PAVING GRADING
DRAINAGE
DETAILS

SHEET NUMBER:
C-302



KMA
ENGINEERING & SURVEYING, LLC
1800 N.W. 107th Ave., Suite 100
Davie, FL 33317
Phone: (754) 944-0000
Fax: (754) 944-0000

DATE:	
BY:	
CHECKED:	
APPROVED:	

NOT FOR CONSTRUCTION

PROJECT:
4945 EDWARDS ROAD MULTI-FAMILY
PD PLAN
FT. PIERCE, FLORIDA

CLIENT:
CAPITAL INVESTMENTS
REAL ESTATE CORP.
WEST PALM BEACH,
FLORIDA 33407



BLAINE BERGSTRESSER, P.E.
FLORIDA LICENSE NO. 84598
00240022



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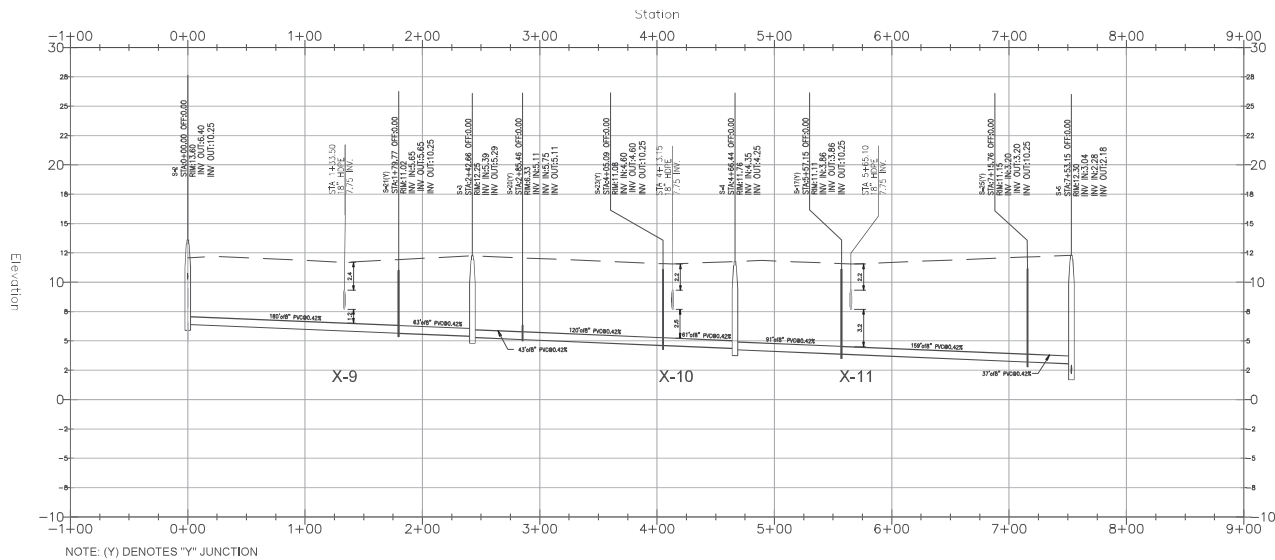
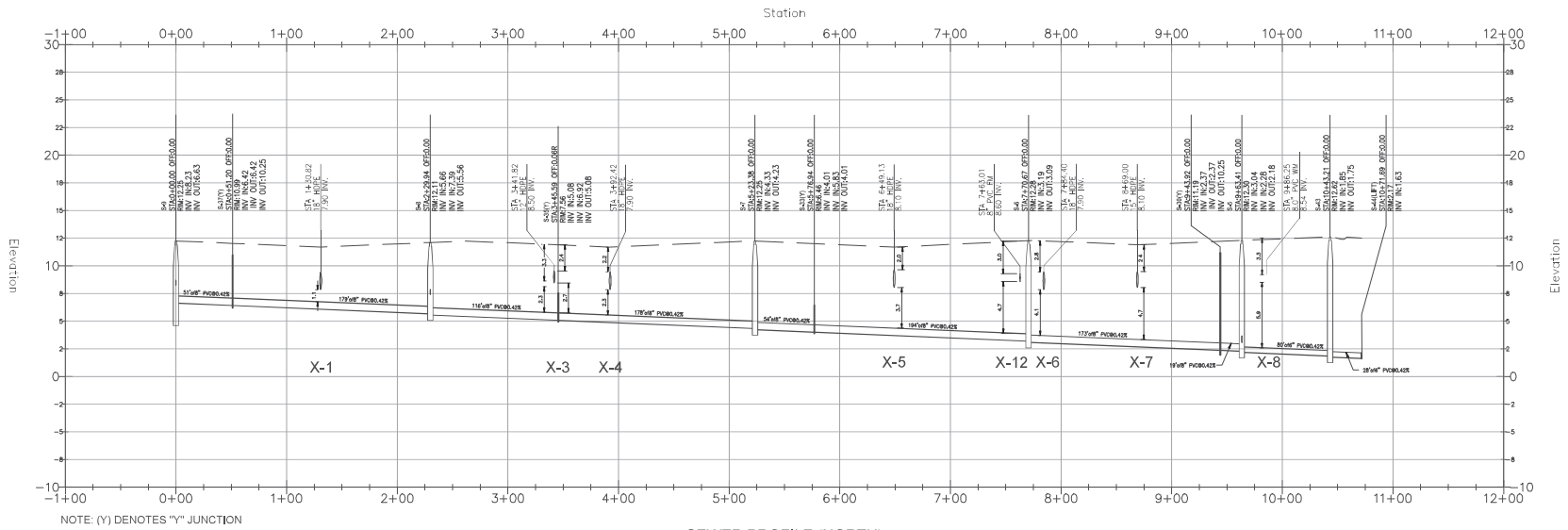
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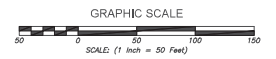
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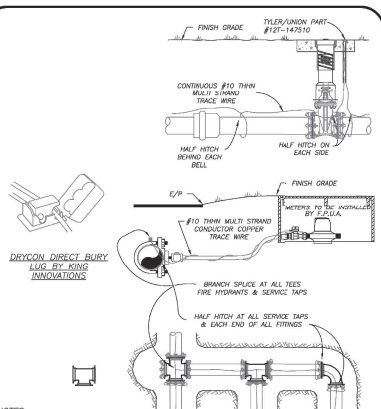
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C-401



NAVD 1988
ALL ELEVATIONS DEPICTED HEREON
REFERENCE NAVD 1988, THE CONVERSION
FACTOR TO NSVD 1929 IS +1.473'

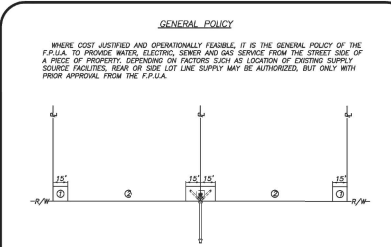




- NOTES:**
- 1) TRACE WIRE IS REQUIRED ON ALL PIPE AS NOTED BY UTILITIES ENGINEER AND SHOWN IN STANDARD DETAILS.
 - 2) INCLUDE ALL LUGS OF MANHOLE & LATCH IN POINT OF PIPE.
 - 3) CONTRACTOR IS RESPONSIBLE FOR CONTINUITY OF ALL TRACE WIRE.

TRACE WIRE
(N.T.S.)

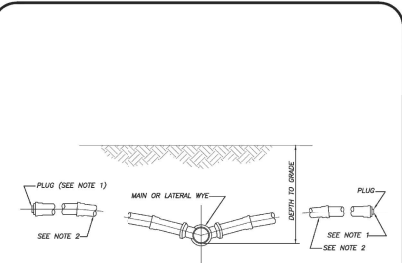
TRACE WIRE DETAIL		M-11	
REVISION	DATE	BY	APP. (SCALE)
AS	02/10/20	AS	FT. PIERCE UTILITIES AUTHORITY
APPROVED:	DATE:	SHEET:	
AS	02/10/20	1	OF 1



- GENERAL POLICY**
- WHERE COST JUSTIFIED AND OPERATIONALLY FEASIBLE, IT IS THE GENERAL POLICY OF THE F.P.U.A. TO PROVIDE WATER, ELECTRIC, SEWER AND GAS SERVICE FROM THE STREET SIDE OF A PIECE OF PROPERTY, DEPENDING ON FACTORS SUCH AS LOCATION OF EXISTING SUPPLY SQUARE FACILITIES, REAR OF SIDE LOT LINE SUPPLY MAY BE AUTHORIZED, BUT ONLY WITH PRIOR APPROVAL FROM THE F.P.U.A.
- NOTES:**
1. THE PREFERRED POINT OF CONNECTION TO THE F.P.U.A. SEWER LATERAL AREA (D) SHALL BE LOCATED IN THE CORNER OF THE PROPERTY SELECTED BY THE F.P.U.A. AS THE BEST LOCATION FOR THE LATERAL. EVERY EFFORT WILL BE MADE TO SELECT THE CORNER WHERE TWO LATERALS CAN BE CONNECTED IN A "Y" CONFIGURATION AS SHOWN.
 2. IF PHYSICAL BARRIERS OR OTHER OBSTACLES PREVENT THE CONNECTION OF THE BUILDING SERVICE LINE TO THE F.P.U.A. SEWER LATERAL WITHIN AREA (D) THE F.P.U.A. ENGINEERING DEPARTMENT MAY AUTHORIZED THE CONNECTION ALONG THE PORTION OF THE R/W LINE MARKED AREA (C).
 3. HORIZONTAL SEPARATION OF WATER AND WASTEWATER SERVICES SHOULD BE A MINIMUM OF SIX FEET AND PREFERABLY TO FEET.
 4. THE WASTEWATER LATERAL SHALL BE LOCATED WITHIN RIGHT-OF-WAY AND TERMINATE AT THE PROPERTY LINE.
 5. THE F.P.U.A. SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF THE WASTEWATER LATERAL WITHIN THE EASEMENT OF RIGHT-OF-WAY, UP TO THE POINT OF CONNECTION.

WASTEWATER SERVICE PLACEMENT
(N.T.S.)

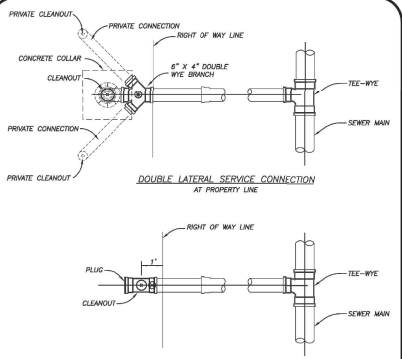
WASTEWATER SERVICE PLACEMENT		S-1	
REVISION	DATE	BY	APP. (SCALE)
AS	02/10/20	AS	FT. PIERCE UTILITIES AUTHORITY
APPROVED:	DATE:	SHEET:	
AS	02/10/20	1	OF 1



- NOTES:**
- 1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.
 - 2) MINIMUM SLOPE OF 1/8" PER FOOT. USE GREATER SLOPE WHERE POSSIBLE.
 - 3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.
 - 4) INSTALL CLEANOUT AT THE PROPERTY LINE REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

SERVICE CONNECTION
(N.T.S.)

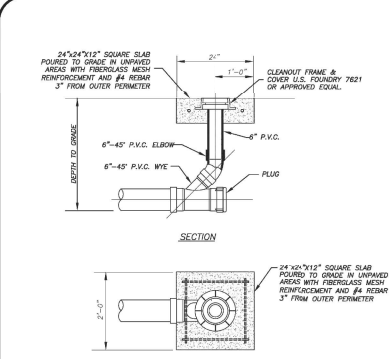
SERVICE CONNECTION		S-2	
REVISION	DATE	BY	APP. (SCALE)
AS	02/10/20	AS	FT. PIERCE UTILITIES AUTHORITY
APPROVED:	DATE:	SHEET:	
AS	02/10/20	1	OF 1



- DOUBLE LATERAL SERVICE CONNECTION AT PROPERTY LINE**
- SINGLE SERVICE LATERAL CONNECTION**
- ⊙ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT BALL BY 3M CORP. OR APPROVED EQUAL.
- SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

SERVICE CONNECTION
(N.T.S.)

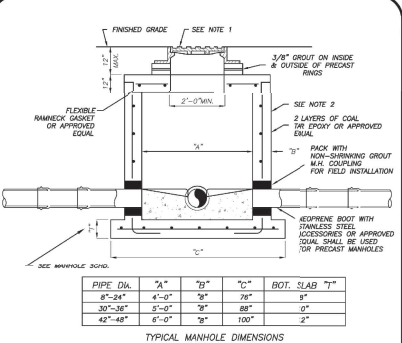
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REVISION	DATE	BY	APP. (SCALE)
AS	02/10/20	AS	FT. PIERCE UTILITIES AUTHORITY
APPROVED:	DATE:	SHEET:	
AS	02/10/20	1	OF 1



- NOTES:**
- 1) SEE DETAIL S-3 FOR DOUBLE SERVICE CONNECTION.

RESIDENTIAL CLEANOUT DETAIL
(N.T.S.)

TERMINAL CLEANOUT DETAIL		S-4A	
REVISION	DATE	BY	APP. (SCALE)
AS	02/10/20	AS	FT. PIERCE UTILITIES AUTHORITY
APPROVED:	DATE:	SHEET:	
AS	02/10/20	1	OF 1



PIPE DIA.	7 1/2"	9"	10"	12"	BOT. SLAB 7"
8"-10"	4'-0"	5'	5'-6"	5'	3"
10"-12"	5'-0"	6'	6'-6"	6'	0"
12"-14"	6'-0"	7'	7'-6"	7'	2"

- NOTES:**
- 1) MANHOLE FRAME & COVER WITH THE WORDS "SANITARY SEWER" CAST IN THE COVER. U.S. FOUNDARY 170 OR APPROVED EQUAL.
 - 2) ALL CONCRETE MANHOLES TO BE 4000 P.S.I. TO MEET OR EXCEED ASTM C478 ALL CEMENT TO BE TYPE I ALSO RESISTANT. REINFORCING AREA OF 0.02 SQ. IN/FT FOR WALL SECTION MIN. TO MEET OR EXCEED ASTM A 185.
 - 3) A MAXIMUM OF 2 LAYERS OF PRECAST CONCRETE RINGS, IF REQUIRED.
 - 4) RAIN GUARDS SHALL BE INSTALLED IN MANHOLES THAT HAVE GRAVITY MAINS 12" OR LESS.
- SHALLOW MANHOLE**
DEPTH OF LESS THAN 5'-0"
(N.T.S.)

PRECAST MANHOLE DEPTH OF LESS THAN 5'-0"		S-6	
REVISION	DATE	BY	APP. (SCALE)
AS	02/10/20	AS	FT. PIERCE UTILITIES AUTHORITY
APPROVED:	DATE:	SHEET:	
AS	02/10/20	1	OF 1

Project at: Ft. Pierce, September 18, 2025, 3:25 PM. P. 04.00
 Sheet: S-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



KMA
ENGINEERING & SURVEYING, LLC
1000 W. PALM BEACH BLVD., SUITE 100
WEST PALM BEACH, FLORIDA 33411
PHONE: 561-833-8800
FAX: 561-833-8801

NOT FOR CONSTRUCTION

PROJECT: 4945 EDWARDS ROAD MULTI-FAMILY
 CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.
 SHEET TITLE: PD PLAN
 SHEET NUMBER: FT. PIERCE, FLORIDA

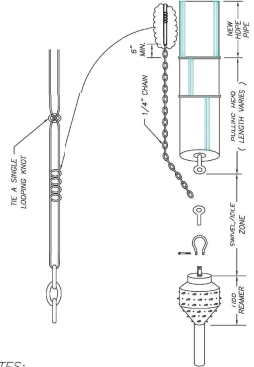
CLIENT: CAPITAL INVESTMENTS REAL ESTATE CORP.
 WEST PALM BEACH, FLORIDA 33407

BLAINE BERGSTRESSER, P.E.
 FLORIDA LICENSE NO. 84598
 00240202





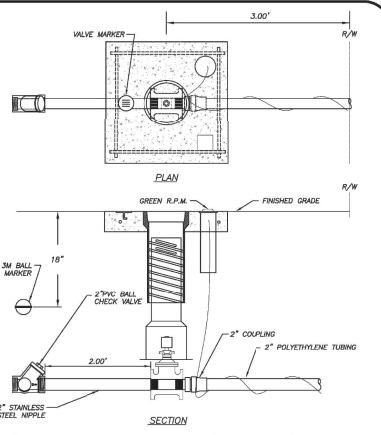
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NOTES:

1. WHERE DIRECTIONAL DRILLING LENGTHS EXCEED 750 LINEAR FEET AND/OR HOPE PIPE DIAMETER EXCEED 12 INCHES, A SECOND LENGTH OF TRACE WIRE SHALL BE INSTALLED.
2. TRACE WIRE SHALL CONFORM TO THE FOLLOWING SPECIFICATION:
 MANUFACTURER - COPPERHEAD INDUSTRIES, LLC
 PART NUMBER - 1245B-D10-300 / 1245B-D10-1000 / 1245B-D10-2500
 PART NUMBER DESCRIPTION - 12 (DIMS.) 45 (JACKET MTL.) 8 (JACKET COLOR: B=BLUE, G=GREEN, ETC. - DIMS. EXTRA HIGH STRENGTH-HARD DRAWN / 1150# BREAKING LOAD STRENGTH) - 300 (WIRE LENGTH IN FEET)

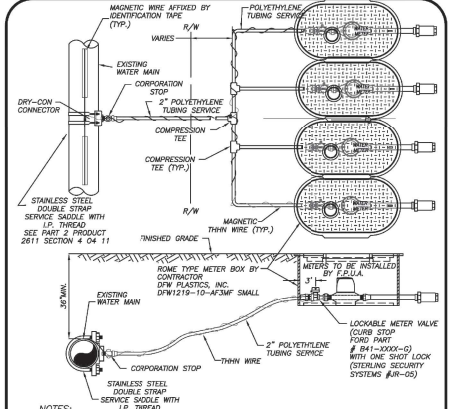
DIRECTIONAL BORE WIRE ANCHORAGE		M-16	
DATE	CONCRETE SIZE	SCALE	APPROVED
10/15/18	12" x 12" x 4"	1" = 1'-0"	BLANE BERGSTRESSER, P.E.
BY	DATE	SCALE	APPROVED
BLANE BERGSTRESSER, P.E.	10/15/18	1" = 1'-0"	FL PIERCE UTILITIES AUTHORITY



NOTES:

1. FORCE MAIN CONNECTION SHALL CONSIST OF A 2" TAPPING SADDLE, 2" STAINLESS STEEL NIPPLE AND 2" THREADED RESILIENT SEAT GATE VALVE.
2. ORDNY 10 GAUGE THIN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
3. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SHOULDS MIN. COVER SHALL BE 30".

GRINDER STATION CONNECTION		S-16	
DATE	REVISION	SCALE	APPROVED
10/15/18	1	1" = 1'-0"	BLANE BERGSTRESSER, P.E.
BY	DATE	SCALE	APPROVED
BLANE BERGSTRESSER, P.E.	10/15/18	1" = 1'-0"	FL PIERCE UTILITIES AUTHORITY



NOTES:

1. BLUE 10 GAUGE THIN WIRE SHALL BE ATTACHED TO THE SERVICE LINE AND RAN TO OUTER METERS ONLY.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE (CURB STOP).
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SHOULDS MIN. COVER SHALL BE 30".

TYPICAL MULTIPLE WATER SERVICE CONNECTION		W-4	
DATE	REVISION	SCALE	APPROVED
10/15/18	1	1" = 1'-0"	BLANE BERGSTRESSER, P.E.
BY	DATE	SCALE	APPROVED
BLANE BERGSTRESSER, P.E.	10/15/18	1" = 1'-0"	FL PIERCE UTILITIES AUTHORITY



PROJECT	4945 EDWARDS ROAD MULTI-FAMILY PD PLAN
CLIENT	CAPITAL INVESTMENTS REAL ESTATE CORP.
DATE	10/15/18
SCALE	1" = 1'-0"
APPROVED	BLANE BERGSTRESSER, P.E.

NOT FOR CONSTRUCTION

4945 EDWARDS ROAD MULTI-FAMILY PD PLAN
 FT. PIERCE, FLORIDA



BLANE BERGSTRESSER, P.E.
 FLORIDA LICENSE NO. 84598
 00240202



PROJECT NO.	340700
DRAWN BY	SCB
CHECKED BY	BNS
DATE	04/20/2018
CAD L.D.	DMR/PLA/02/18

SHEET TITLE:
FPUA STANDARD DETAILS

SHEET NUMBER:
C-406