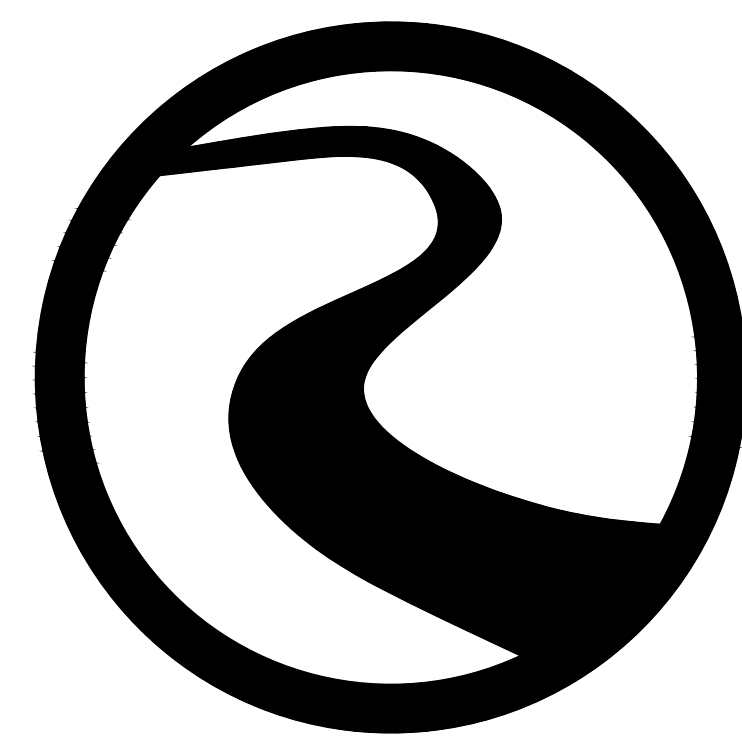


SITE CONSTRUCTION PLANS LOT 109A DARIEN, GA

PREPARED FOR:
THE CITY OF DARIEN GA



ROBERTS
CIVIL ENGINEERING
WWW.ROBERTSCIVILENGINEERING.COM

301 SEA ISLAND ROAD, SUITE 10
ST. SIMONS ISLAND, GA 31522
912-638-9681

6001 CHATHAM CENTER DRIVE, SUITE 255
SAVANNAH, GA 31405
912-298-7006

14600 WHIRLWIND AVENUE, SUITE 119A
JACKSONVILLE, FL 32218
904-741-0099

4000 FABER PLACE DRIVE, SUITE 300
NORTH CHARLESTON, SC 29405
843-323-4224



NOT RELEASED
FOR
CONSTRUCTION



VICINITY MAP NTS

DARIEN, GA

LOT 109A

OWNER
CITY OF DARIEN
CONTACT
DEBORAH GILKEY
EMAIL
DDADIRECTOR@DARIENTEL.NET

ENGINEER
ROBERTS CIVIL ENGINEERING
CONTACT
JESSICA NAJAR
EMAIL
JNAJAR@ROBERTSCIVILENGINEERING.COM

#	REVISIONS
1	
2	
3	
4	
5	

2023-05-22: ORIGINAL ISSUE DATE

RCE PROJECT NUMBER: 22221

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SHEET		DATE
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7	ES & PC PLAN	23-05-22
8	CONSTRUCTION DETAILS	23-05-22
9	CONSTRUCTION DETAILS	23-05-22

COVER

GENERAL NOTES:

1. CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO APPLICABLE FEDERAL, STATE, AND LOCAL LAWS.
2. PERMITS NECESSARY FOR CONSTRUCTION SHALL BE OBTAINED BY CONTRACTOR.
3. DEVIATIONS FROM PLANS ARE PROHIBITED WITHOUT WRITTEN CONSENT OF THE ENGINEER.
4. CONTRACTOR IS TO IMMEDIATELY CONTACT ENGINEER IF ANY UNFORESEEN CONDITIONS OR DISCREPANCIES OCCUR.
5. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF UTILITIES ON SITE WITH APPROPRIATE PROVIDER (I.E., POWER, PHONE, CABLE, ETC.).
6. ENGINEER IS NOT RESPONSIBLE FOR PHYSICAL CONSTRUCTION OF SITE.
7. CONTRACTOR SHALL MAINTAIN A SAFE SITE AND MEET APPROPRIATE REGULATIONS CONCERNING SAFETY.
8. SURVEY DATA PROVIDED BY JACKSON SURVEYING, INC.
 - A. DATE OF SURVEY 10/18/2022
 - B. SURVEYOR PROJECT OR FILE NO. LSF001244
9. EXISTING SURVEY INFORMATION TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES IN FIELD OBSERVATIONS VERSUS SURVEY DATA.
10. CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION BY CALLING "CALL BEFORE YOU DIG" HOTLINE: 811.
11. ACCORDING TO FEMA FLOOD INSURANCE RATEMAPS 13191C0381E, DATED 08-02-2018. SITE IS LOCATED IN ZONE "X" UNSHADED.
12. HORIZONTAL DATUM BASED ON GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE NAD83. VERTICAL DATUM BASED ON NAVD 88.

ADA NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO CURRENT ADA REQUIREMENTS.
2. EXTERIOR ACCESSIBLE ROUTE SHALL HAVE A MINIMUM WIDTH OF 3 FEET. IF ACCESSIBLE ROUTE CLEAR WIDTH IS LESS THAN 5 FEET, THEN 5'X5' PASSING SPACES SHALL BE PROVIDED EVERY 200' OR LESS. INTERSECTING SIDEWALKS MEET THIS REQUIREMENT.
3. FINISHED SURFACE HEIGHT DIFFERENCE REQUIREMENTS SHALL MEET FOLLOWING:
 - A. 0 - 1/4" NO REQUIREMENTS.
 - B. 1/4" - 1/2" BEVEL WITH 1:2 SLOPE.
 - C. GREATER THAN 1/2" CONFORM TO RAMP REQUIREMENTS.
4. RAMPS SHALL MEET FOLLOWING CONSTRAINTS:
 - A. MAX SLOPE 1:12.
 - B. MAX RAMP RISE IS 30".
 - C. MAX RAMP LENGTH IS 30'.
 - D. MAX CROSS SLOPE IS 2.00%.
5. RAMP LANDINGS SHALL MEET FOLLOWING CONSTRAINTS:
 - A. A MINIMUM 5' LONG LEVEL LANDING AT LEAST AS WIDE AS RAMP SHALL BE PLACED AT TOP AND BOTTOM OF RAMP.
 - B. LANDING SHALL BE MINIMUM 5'X5' WHERE RAMP CHANGES DIRECTION.
 - C. LANDINGS SHALL NOT EXCEED A 2.00% SLOPE.
6. HANDRAILS SHALL MEET FOLLOWING CONSTRAINTS:
 - A. IF RAMP RISE IS GREATER THAN 6", THEN HANDRAILS ARE REQUIRED ON BOTH SIDES OF RAMP.
 - B. MINIMUM OF 12" LONG HANDRAIL EXTENSIONS SHALL BE PROVIDED AT TOP AND BOTTOM OF LANDINGS.

PROJECT NOTES:

1. OWNER / DEVELOPER:
 - A. NAME: DARIEN DEVELOPMENT AUTHORITY
 - B. CONTACT: DEBORAH GILKEY
 - ADDRESS: LOT 109A
 - DARIEN / TAX PARCEL : D006 0138
2. ZONING CLASSIFICATION: CHT-HD, GENERAL COMMERCIAL, GOVERNMENT OVERLAY SUBAREAS
 DEVELOPMENT ORDINANCE (NAME / DATE): XXXXXXXXXXXXXXXX
 - A. FRONT SETBACK: 0'
 - B. SIDE SETBACK: 0'
 - C. REAR SETBACK: 0'
 - D. BUILDING HEIGHT (ALLOWABLE / PROPOSED): N/A.
3. SITE COVERAGE:
 - A. TOTAL AREA: 7,521 SQ. FT. (0.17 AC)
 - B. IMPERVIOUS (ALLOWABLE / PROPOSED): N/A (7,521 SQ. FT.)
 - C. OPEN SPACE (REQUIRED / PROPOSED): N/A
6. PARKING REQUIREMENTS:
 - A. REQUIRED / PROPOSED: N/A / 12 REG + 1 HC + 2 EV = 15

EARTHWORK AND PAVING:

1. UPPER 12 INCHES OF SUBGRADE BELOW PAVEMENT AND BUILDINGS SHALL BE SCARIFIED AND RECOMPACTED TO 100% STANDARD PROCTOR MAX DRY WEIGHT DENSITY WITH A MOISTURE CONTENT WITHIN 2% OF OPTIMUM MOISTURE CONTENT.
2. CONTRACTOR TO PROVIDE TEST RESULTS OF SUBGRADE AND BASE COURSE COMPACTION TO ENGINEER INCLUDING VOLUME ESTIMATES OF ANY UNSUITABLE SOILS TO BE REMOVED AND REPLACED THAT WERE IDENTIFIED DURING COMPACTION OPERATIONS PER ITEM NO. 1 ABOVE. IF ANY CONTRACTOR SHALL NOT PROCEED WITH OVER-EXCAVATION AND REPLACEMENT OF UNSUITABLE SOILS WITHOUT WRITTEN AUTHORIZATION FROM ENGINEER OR OWNER.
3. FOR APPROVED AREAS OF OVER-EXCAVATION AND REPLACEMENT, CONTRACTOR TO REMOVE IDENTIFIED UNSUITABLE MATERIAL TO A DEPTH OF 3 FEET AND REPLACE WITH STRUCTURAL FILL.
4. IN AREAS WHERE STRUCTURAL FILL IS REQUIRED, FILL SHALL BE PLACED IN LIFTS OF 6 INCHES AND BE COMPACTED TO 100% STANDARD PROCTOR MAX DRY WEIGHT DENSITY. STRUCTURAL FILL SHALL CONSIST OF GRANULAR SOIL CONTAINING LESS THAN 10% MATERIAL PASSING THE NO 200 SIEVE.
5. EXCAVATION AND FILL SHALL BE COMPLETED PRIOR TO INSTALLATION OF UTILITIES.

GRADING & DRAINAGE NOTES:

1. STORM PIPES SHALL BE JOINED PER DOT SPECIFICATIONS.
2. PIPING SHALL BE INSTALLED IN NEW CONDITION.
3. A RIGHT-OF-WAY WORK PERMIT MAY BE REQUIRED BEFORE ANY WORK CAN BE DONE IN RIGHT-OF-WAY.
4. STORM DRAINAGE PIPING SHALL BE CONSTRUCTED PER GA DOT SPECS.
5. STORM DRAINAGE PIPING JOINTS SHALL BE WRAPPED IN FILTER FABRIC.
6. CONTRACTOR TO REQUEST CONFIRMATION OF LATEST PLAN REVISION DATE FROM ENGINEER IN WRITING PRIOR TO ORDERING MATERIALS.
7. IT IS CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO ORDERING MATERIALS.

NOT RELEASED FOR CONSTRUCTION

REVISIONS



GENERAL NOTES

LOT 109A
DARIEN, GA
PREPARED FOR:
CITY OF DARIEN

DATE: 2023-05-22

PROJECT NUMBER: 22221

DRAWN BY: MS

CHECKED BY: JN

SCALE: NTS

2

SHEET:

NOW OR FORMERLY LANDS OF
ALICE C. BAILEY
(D.B. 277, PG. 213)

NOW OR FORMERLY LANDS OF
JAMES R. COPPAGE
(D.B. 190, PG. 406)

NOW OR FORMERLY LANDS OF
**CATHERINE P. &
DAVID A. KARWACKI**
(D.B. 685, PG. 507)

NOW OR FORMERLY LANDS OF
**CATHERINE P. &
DAVID A. KARWACKI**
(D.B. 630, PG. 588)

LOT 108A
(0.176 ACRES)

LOT 109A
(0.191 ACRES - LIMIT OF
TOPOGRAPHICAL
SURVEY)

FIRST STREET
(60' RIGHT-OF-WAY ~P.C. 1, PG. 83-D)

BENCHMARK
MAGSPIKE IN POWER POLE
ELEV. = 28.67' (NAVD88)

LEGEND:

⊕ UTILITY POLE	⊕ SANITARY SEWER MANHOLE
→ GUY ANCHOR	— EXISTING CONTOURS
⊕ WATER SPIGOT	27.3 EXISTING SPOT ELEVATIONS AT ELEVATION POINT
⊕ IRRIGATION VALVE	27.19 EXISTING SPOT ELEVATIONS AT ARROW TIP
⊕ TELEPHONE PEDESTAL	
⊕ BOLLARD	
ASPHALT	TREES
CONCRETE	8" CHINA BERRY & SIZE
OHP	12" WATER OAK & SIZE
OVERHEAD POWER LINES	12" LIVE OAK & SIZE
OHC	10" PALM & HEIGHT
OVERHEAD COMMUNICATION LINES	

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REVISIONS



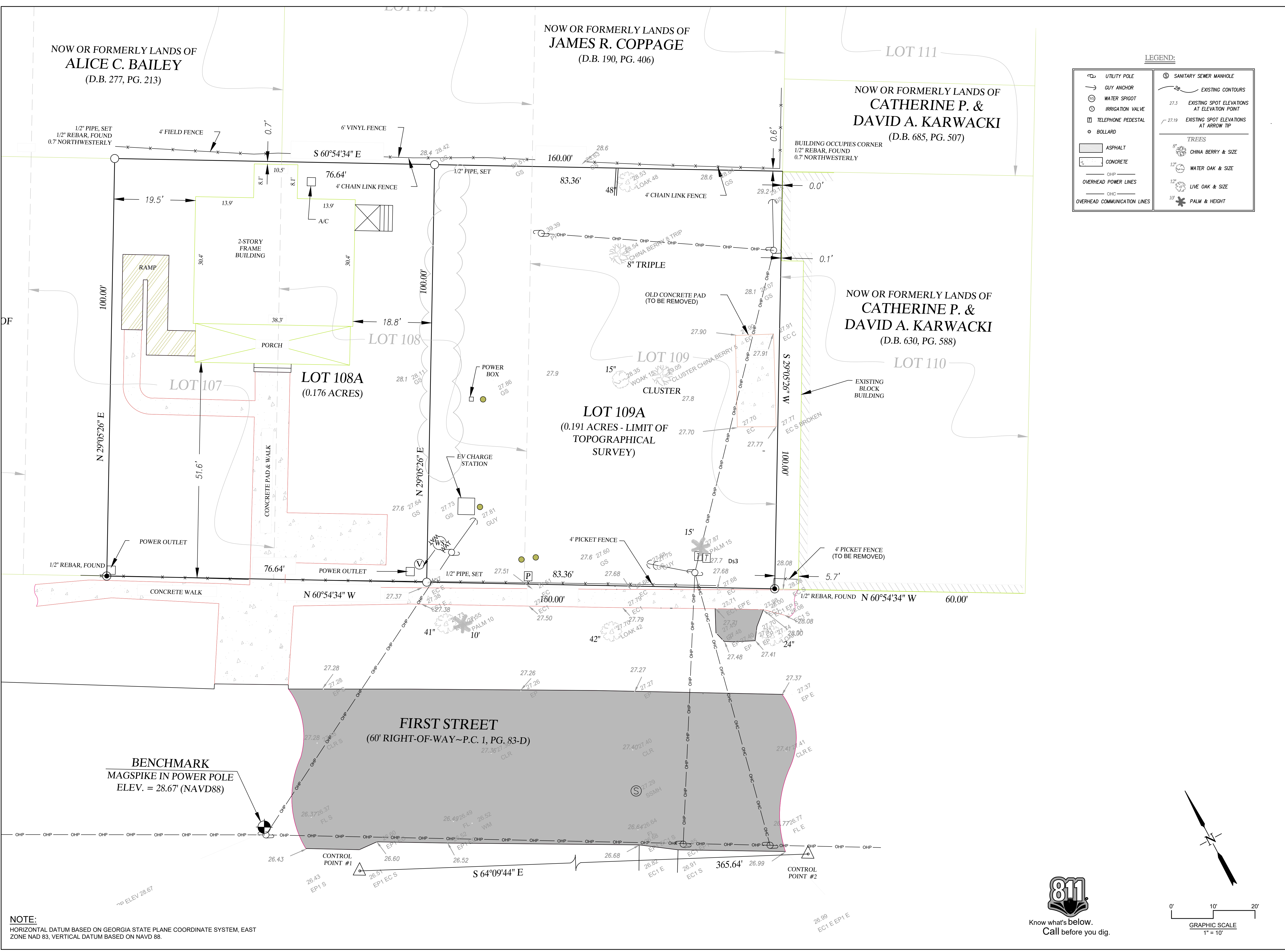
ROBERTS
CIVIL ENGINEERING
1500 W. COUNTY ROAD 160, SUITE 100, DARIEN, GA 30158
WWW.ROBERTSCIVILENGINEERING.COM

EXISTING CONDITIONS
LOT 109A
DARIEN, GA
PREPARED FOR:
CITY OF DARIEN

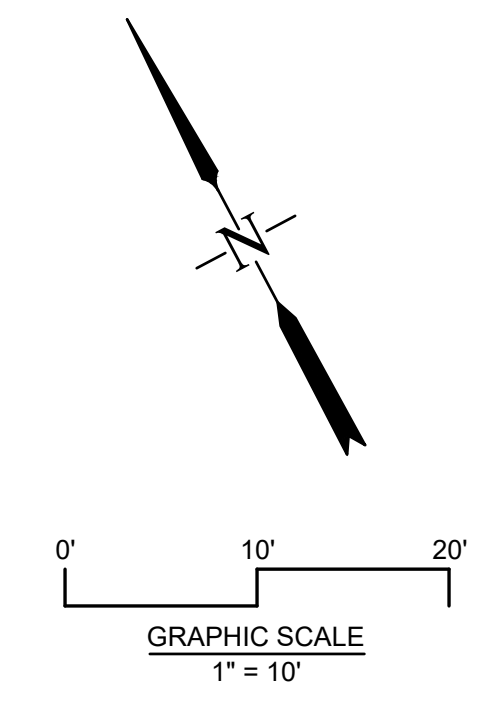
DATE: 2023-05-22
PROJECT NUMBER: 22221
DRAWN BY: MS
CHECKED BY: JN
SCALE: 1"=10' (FOR 24"x36" PLOT)

3

SHEET:



NOTE:
HORIZONTAL DATUM BASED ON GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE NAD 83, VERTICAL DATUM BASED ON NAVD 88.

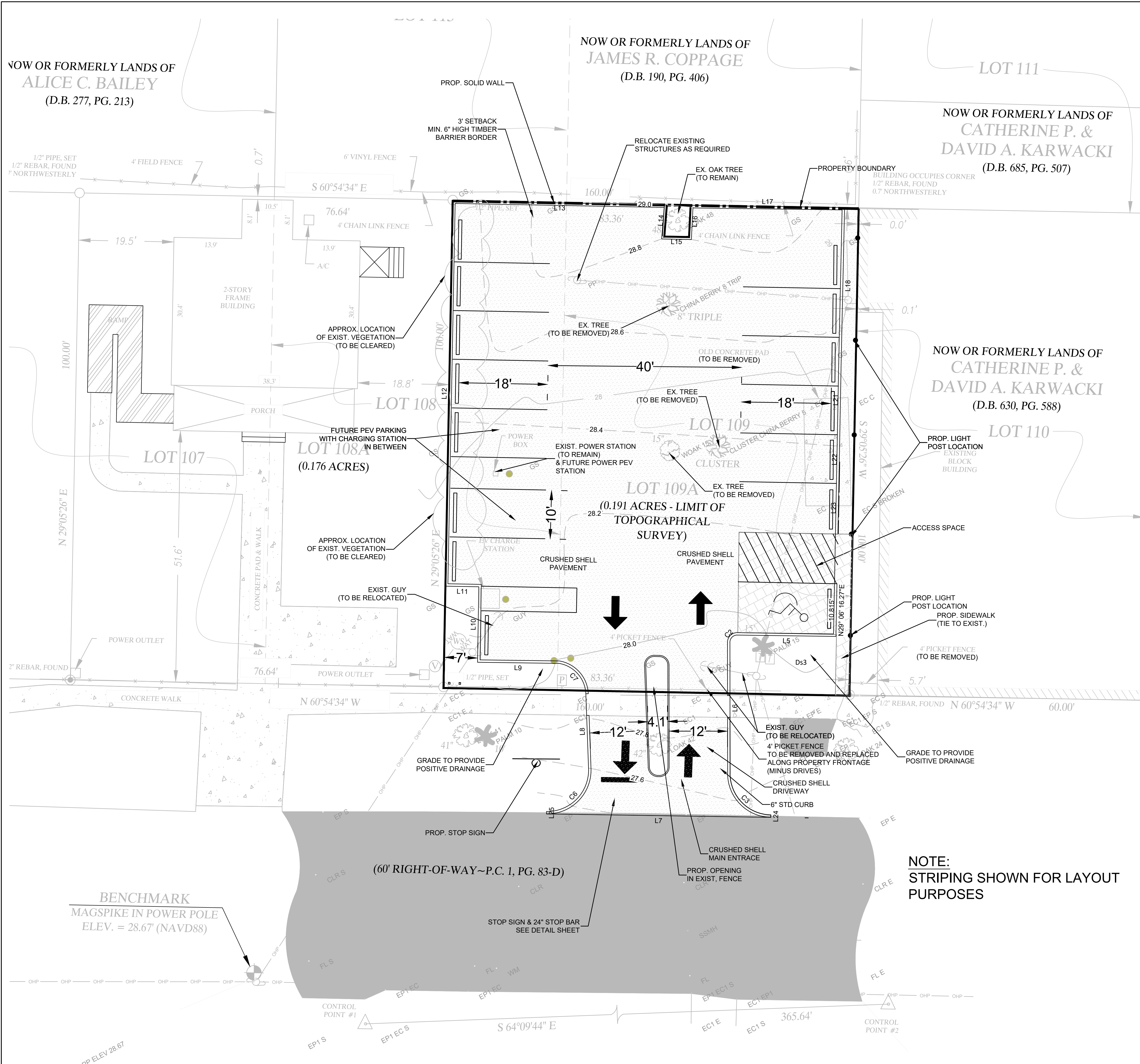


NOW OR FORMERLY LANDS OF
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(D.B. 277, PG. 213)

NOW OR FORMERLY LANDS OF
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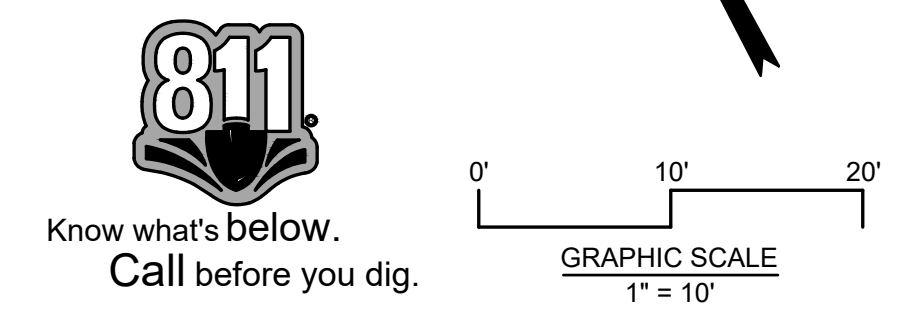


LINE #/CURVE#	LENGTH FT	RADIUS FT
C2	2	1
C3	13	9
C6	14	8
C7	9	7
L5	20.24	
L6	26.92	
L7	46.05	
L8	15.37	
L9	16.67	
L10	15.51	
L11	6.86	
L12	79.10	
L13	43.96	
L14	6.50	
L15	5.08	
L16	6.49	
L17	31.61	
L18	32.06	
L21	15.11	
L22	9.19	



STAKING PLAN
LOT 109A
DARIEN, GA
PREPARED FOR:
CITY OF DARIEN

[Hatched Box]	ADA COMPLIANT PERMEABLE PAVERS
[Stippled Box]	EXISTING CONCRETE
[Solid Box]	EXISTING ASPHALT PAVEMENT
[Dotted Box]	CRUSHED SHELL



NOTE:
HORIZONTAL DATUM BASED ON GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE NAD 83, VERTICAL DATUM BASED ON NAVD 88.

NOTE:
STRIPING SHOWN FOR LAYOUT PURPOSES

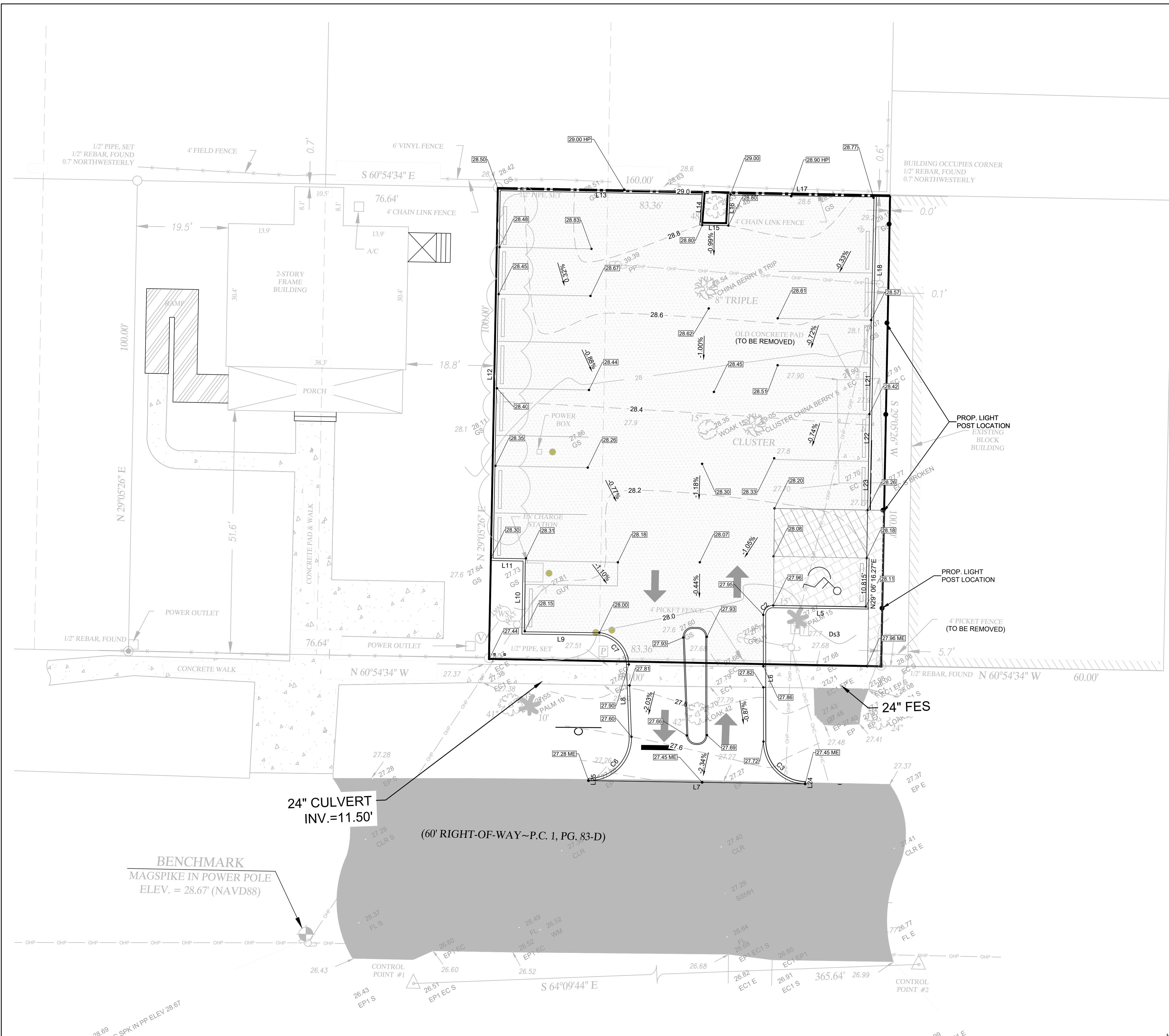
NOT RELEASED FOR CONSTRUCTION

REVISIONS

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4

SHEET:



- LEGEND**
- PROPOSED ASPHALT PAVEMENT
 - PROPOSED CONCRETE
 - EXISTING CONCRETE
 - EXISTING ASPHALT PAVEMENT
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - CULVERT
 - PROPOSED WATER LINE
 - PROPOSED SEWER LINE
 - PROPOSED SPOT ELEVATION
 - PROPOSED SPOT ELEVATION AT LOW POINT
 - PROPOSED SPOT ELEVATION AT HIGH POINT
 - PROPOSED SPOT ELEVATION TO MATCH EXISTING

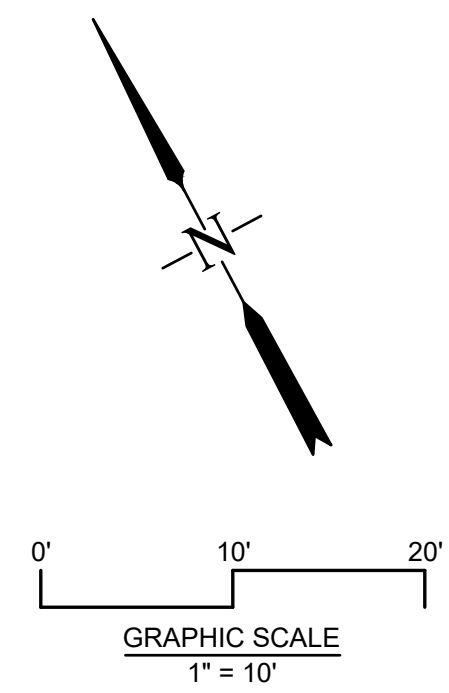
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REVISIONS



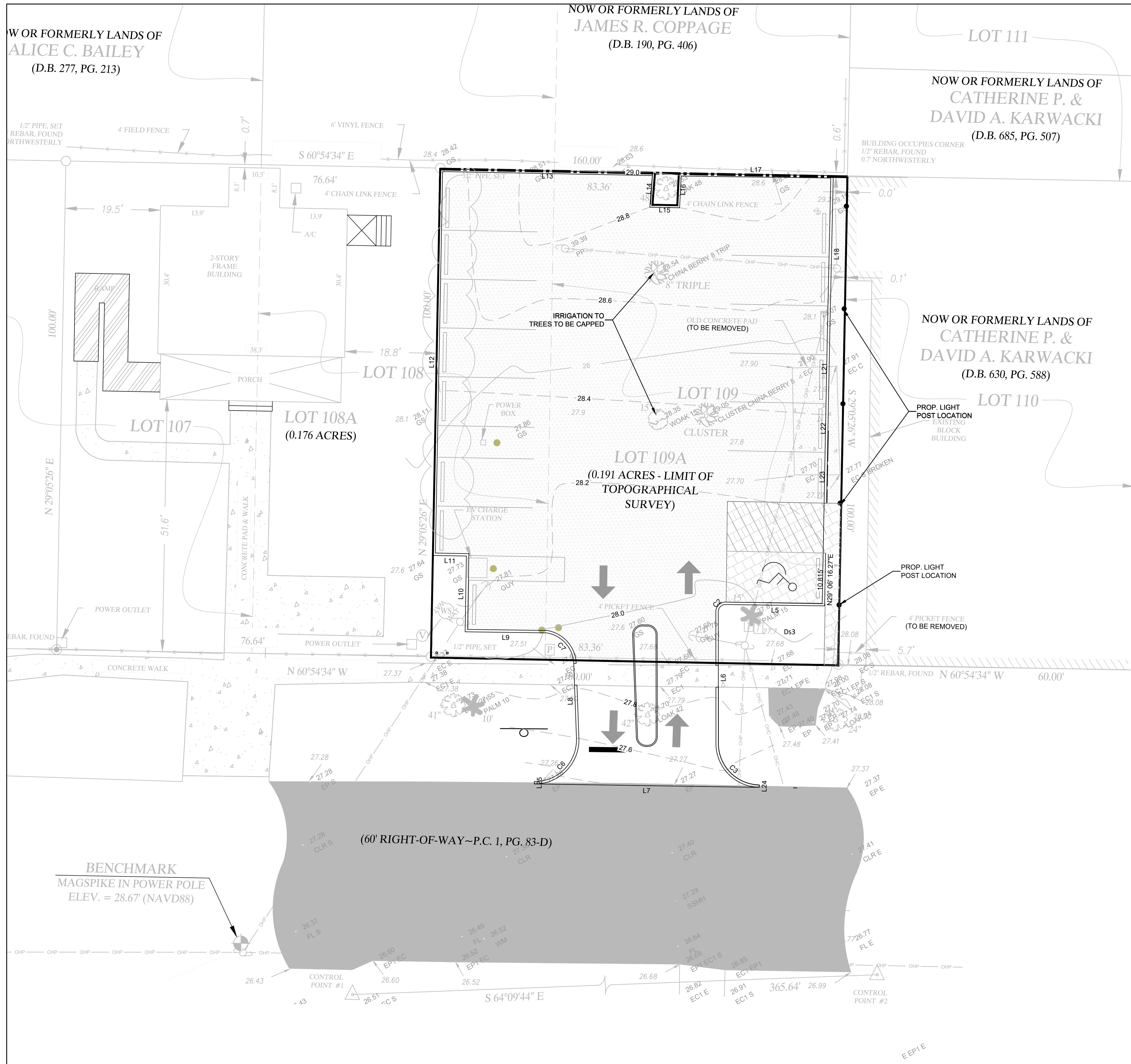
GRADING PLAN
LOT 109A
DARIEN, GA
 PREPARED FOR:
 CITY OF DARIEN

DATE: 2023-05-22
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NOTE:
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5
 SHEET:



LEGEND

- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- EXISTING CONCRETE
- EXISTING ASPHALT PAVEMENT
- CRUSHED SHELL
- PROPOSED CULVERT PIPE
- PROPOSED WATER LINE
- PROPOSED SEWER LINE

- NOTES:**
- HORIZONTAL DATUM BASED ON GEORGIA STATE PLAN COORDINATE SYSTEM, EAST ZONE. NAD83 VERTICAL DATUM BASED ON NAVD-88.
 - THE MINIMUM HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER LINES, SEWER LINES AND STORM DRAINS SHALL CONFORM TO THE LATEST GEORGIA EPD REQUIREMENTS. A MINIMUM OF 1.5' SEPARATION SHALL BE OBSERVED AT ALL TIMES.
 - SANITARY SEWER MAINS AND SEWER LATERALS CROSSING OVER WATER MAINS MUST BE INSTALLED WITH C900 PVC WATER PIPE AT THE CROSSING. THE STICK OF C900 PVC WATER PIPE MUST BE CENTERED OVER THE CROSSING.
 - PIPE SHALL BE LAID WITH A MINIMUM COVER OF FORTY TWO (42) INCHES IN PAVED AREAS AND THIRTY SIX (36) INCHES IN UNPAVED AREAS WITH AN ALLOWABLE MAXIMUM OF SIXTY (60) INCHES. COVER IN ALL AREAS SHALL BE MEASURED FROM CROWN OF PIPE TO FINISH GRADE. REDUCTIONS IN PIPE COVER REQUIREMENTS REQUIRE THE APPROVAL OF THE JWSC. COVER REQUIREMENTS ARE SHOWN ON THE JWSC STANDARD DETAILS.
 - GREATER DEPTHS ARE PERMISSIBLE WHEN REQUIRED TO CLEAR OBSTRUCTIONS, CONFLICTS, ETC. THE CONTRACTOR SHALL CONTACT THE JWSC IN ADVANCE FOR INSTRUCTIONS AS TO THE MODIFICATIONS NECESSARY. A DETAIL FOR UTILITY CONFLICTS IS SHOWN ON THE JWSC STANDARD DETAILS.

NOT RELEASED FOR CONSTRUCTION

REVISIONS

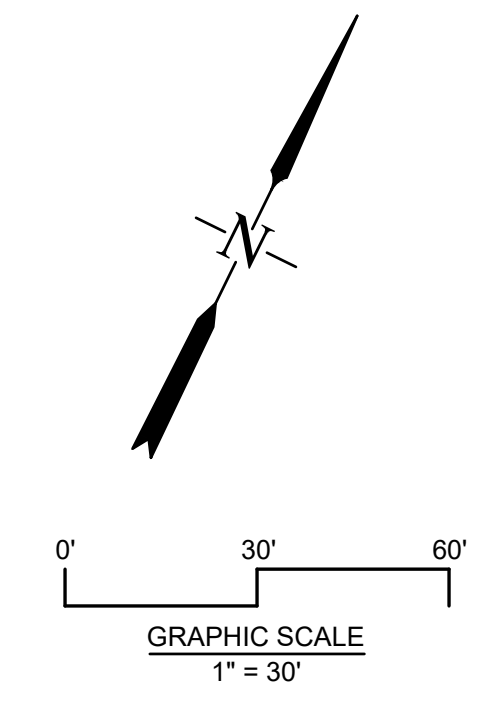


UTILITY PLAN
LOT 109A
DARIEN, GA
 PREPARED FOR:
 CITY OF DARIEN

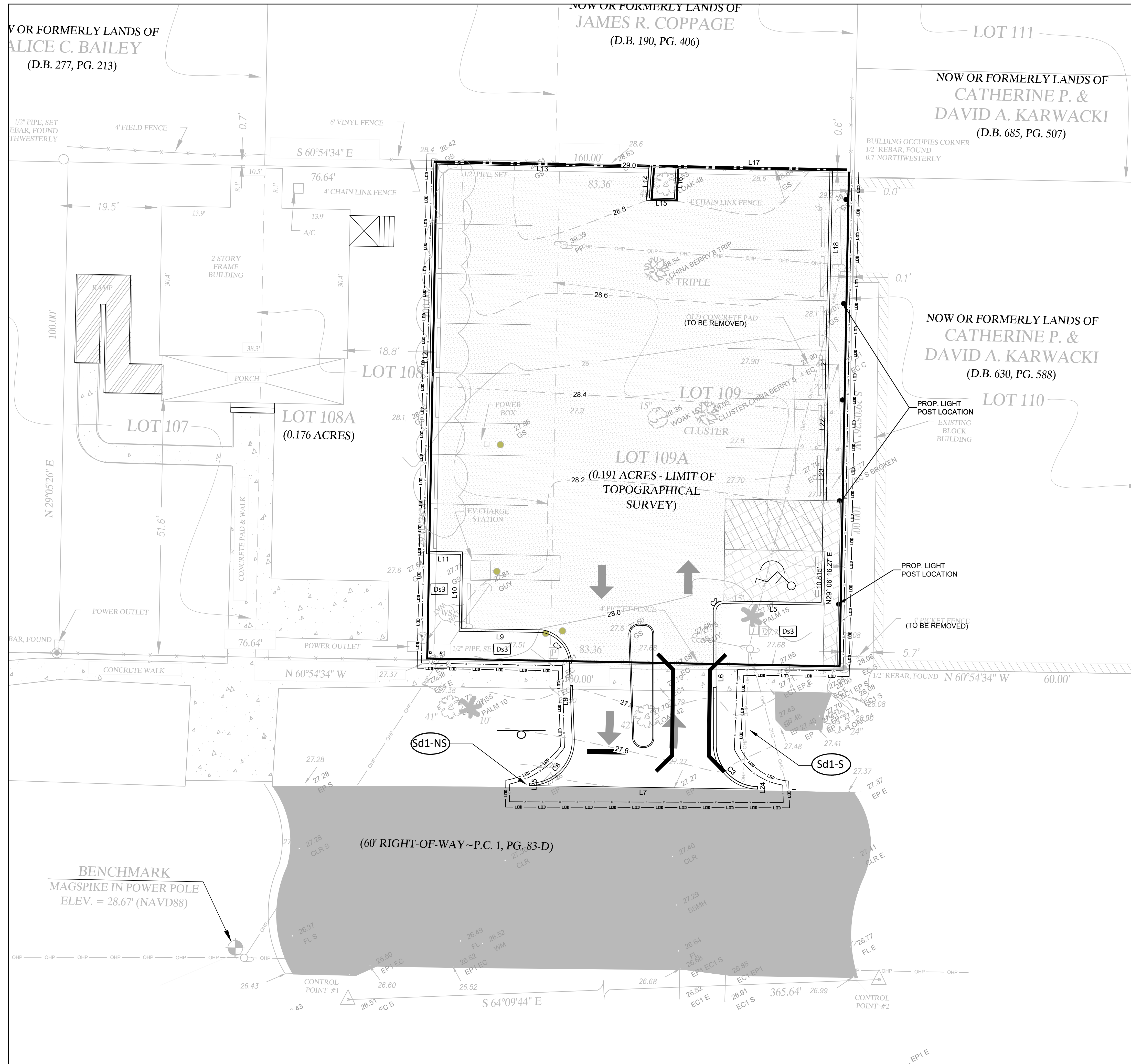
DATE: 2023-05-22
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6
 SHEET:

NOTE:
 HORIZONTAL DATUM BASED ON GEORGIA STATE PLAN COORDINATE SYSTEM, EAST ZONE NAD 83, VERTICAL DATUM BASED ON NAVD 88.



U.S. HIGHWAY 17



- ES&PC LEGEND**
- (Co) CONSTRUCTION EXIT
 - (Sd1-NS) SEDIMENT BARRIER SILT FENCE - (TYPE A) NON-SENSITIVE
 - (Sd1-S) SEDIMENT BARRIER SILT FENCE - (TYPE C) SENSITIVE
 - 2-ROWS
 - (Du) DUST CONTROL
 - (Ds2) TEMPORARY SEEDING
 - (Ds3) PERMANENT SEEDING
 - (LOD) LIMIT OF DISTURBANCE
 - (Ma) SOILS
 - SOILS DELINEATION

NOT RELEASED FOR CONSTRUCTION

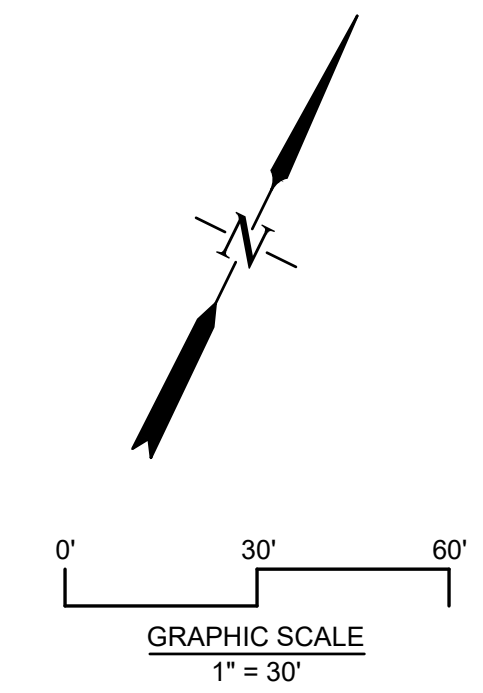
REVISIONS

NO.	DATE	DESCRIPTION



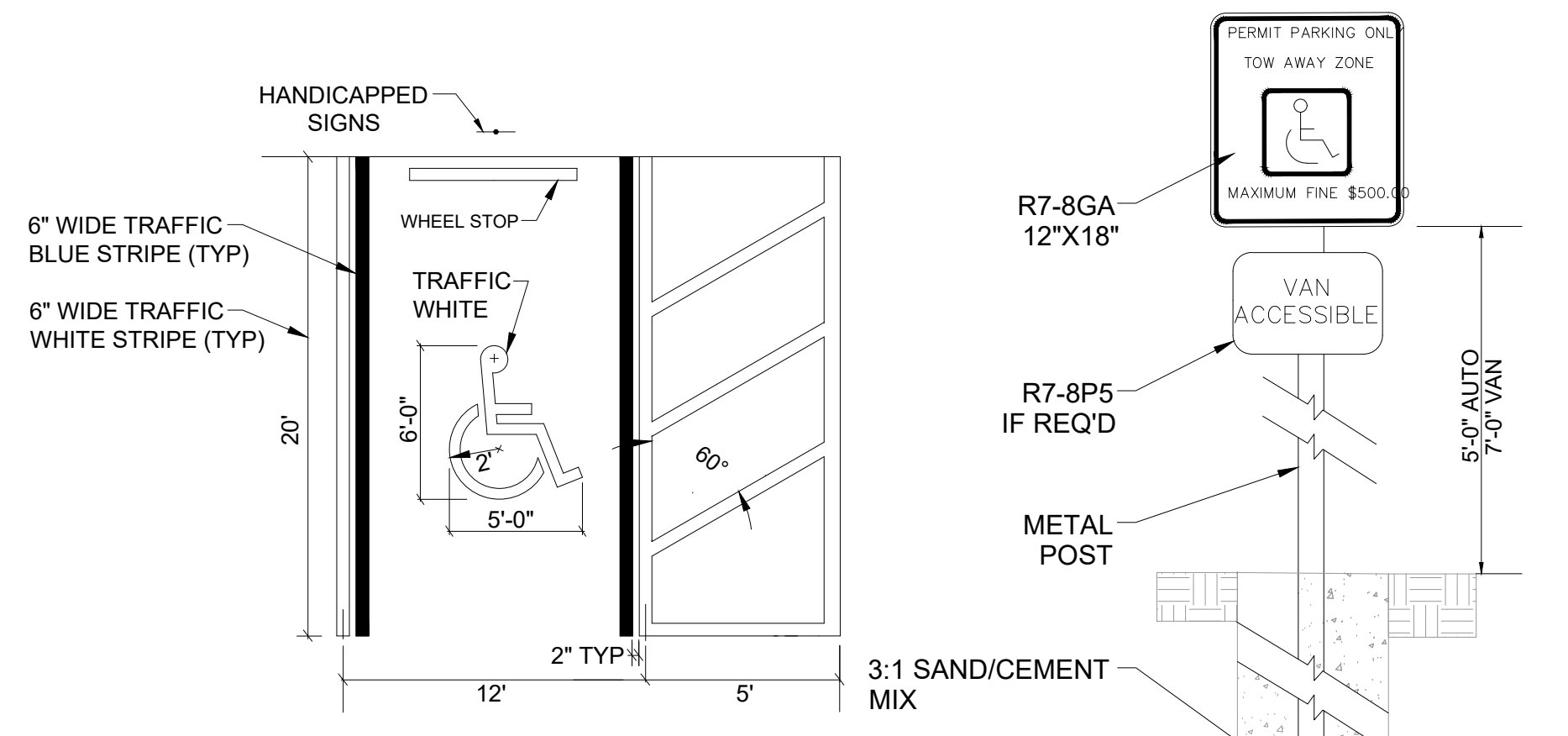
ES & PC PLAN
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DARIEN, GA
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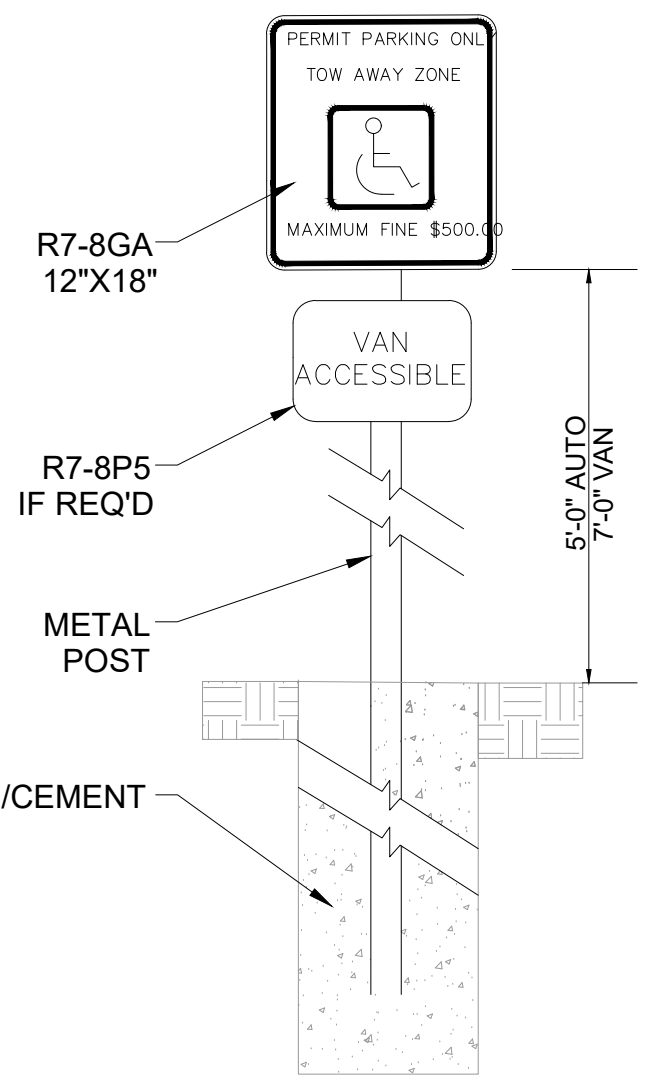
NOTE:
 HORIZONTAL DATUM BASED ON GEORGIA STATE PLANE COORDINATE SYSTEM, EAST ZONE NAD 83, VERTICAL DATUM BASED ON NAVD 88.

7
 SHEET:

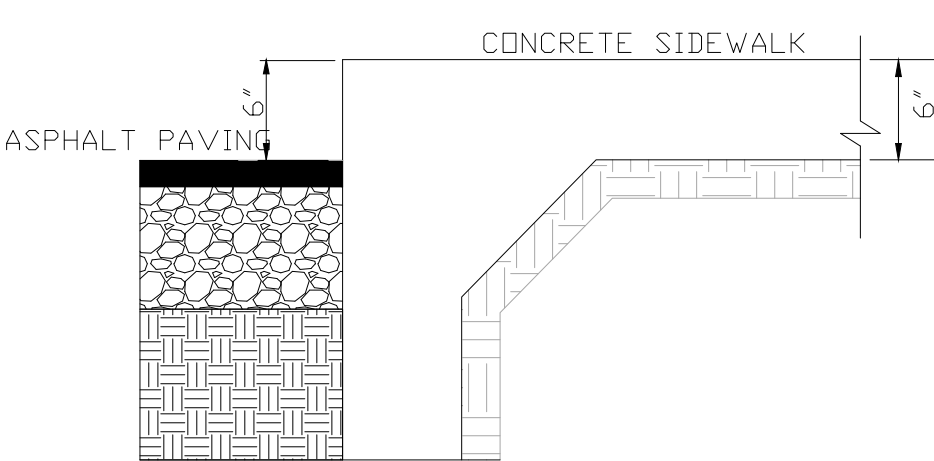


NOTE: ALL PAVEMENT MARKINGS TO BE THERMOPLASTIC

HANDICAPPED STALL
NTS

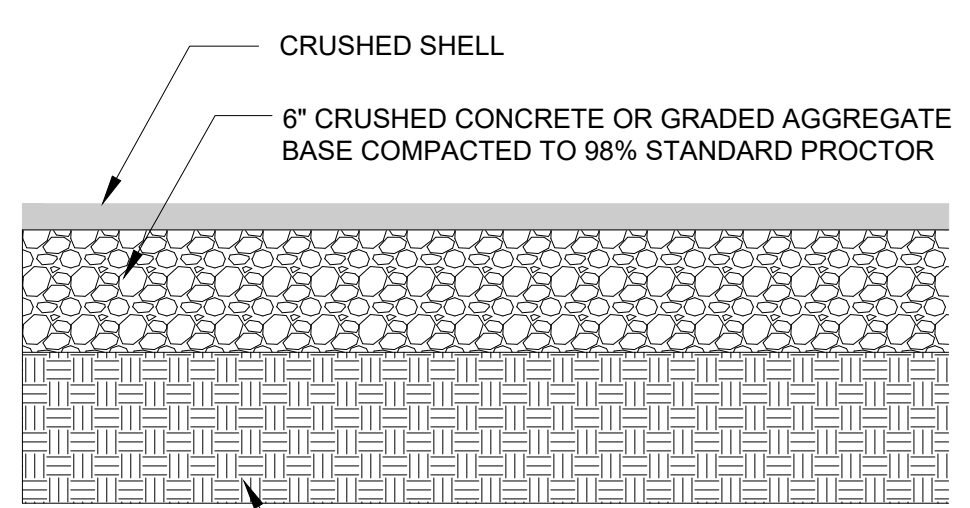


HANDICAPPED PARKING SIGN
NTS

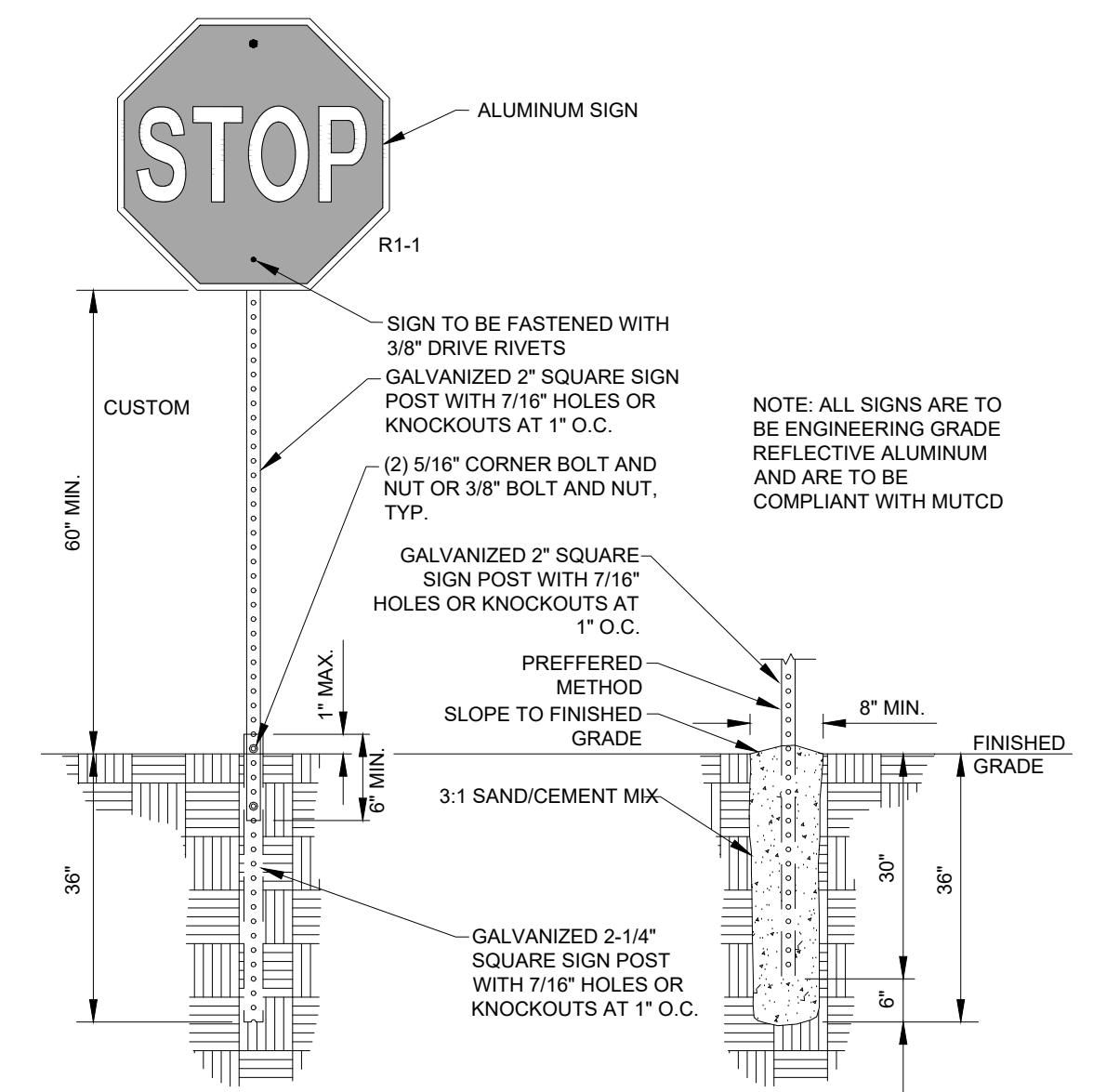


- NOTES:
1. CONTRACTION JOINTS TO BE SPACED AT 4' INTERVALS FOR 2' AND 4' SIDEWALKS, 5' INTERVALS FOR 5' SIDEWALKS, AND 6' INTERVALS FOR 6' SIDEWALKS.
 2. FOR 8' AND 10' SIDEWALKS, SPACE CONTRACTION JOINTS AT 4' AND 5' INTERVALS AND PROVIDE A LONGITUDINAL CONTRACTION JOINT ALONG THE CENTERLINE.
 3. CONTRACTION JOINTS SHALL BE 1" DEEP AND EDGED WITH A 1/8" RADIUS
 4. USE TURN DOWN EDGE WHERE SIDEWALK ABUTS EDGE OF PAVEMENT WITH NO CURB.
 5. 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED EVERY 50' AND WHERE CONCRETE ABUTS CURBING OR OTHER STRUCTURES. EXPANSION JOINT MATERIAL SHALL BE VISIBLE WITH NO CONCRETE OVERLAYING THE MATERIAL.

SIDEWALK WITH TURN DOWN EDGE
NTS

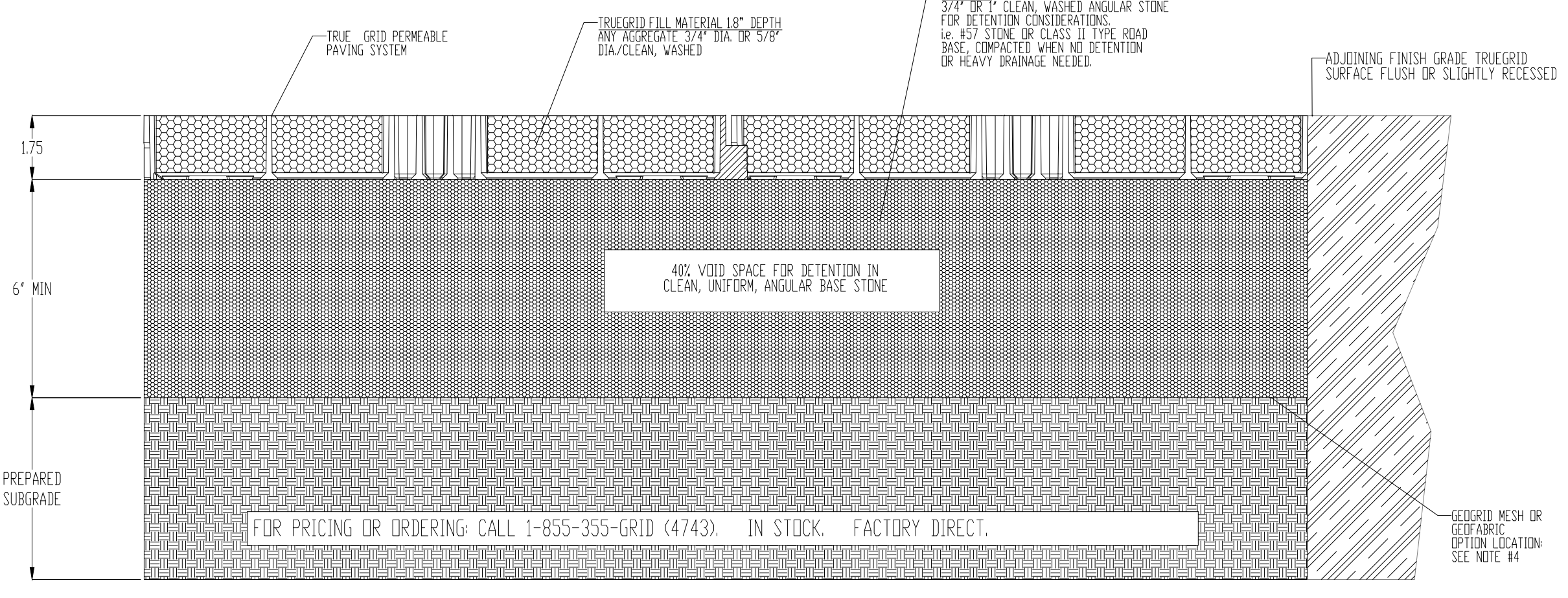
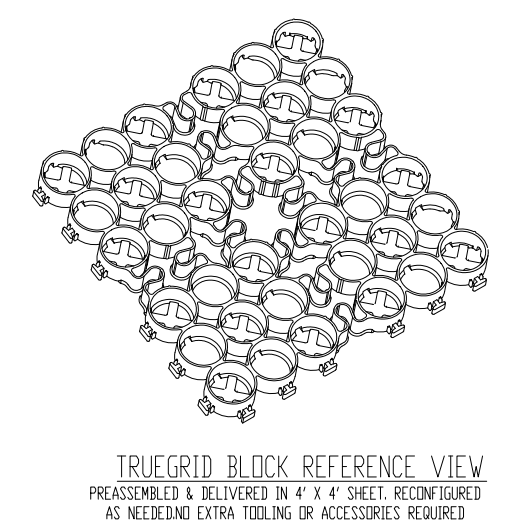


CRUSHED SHELL PAVING SECTION
NTS



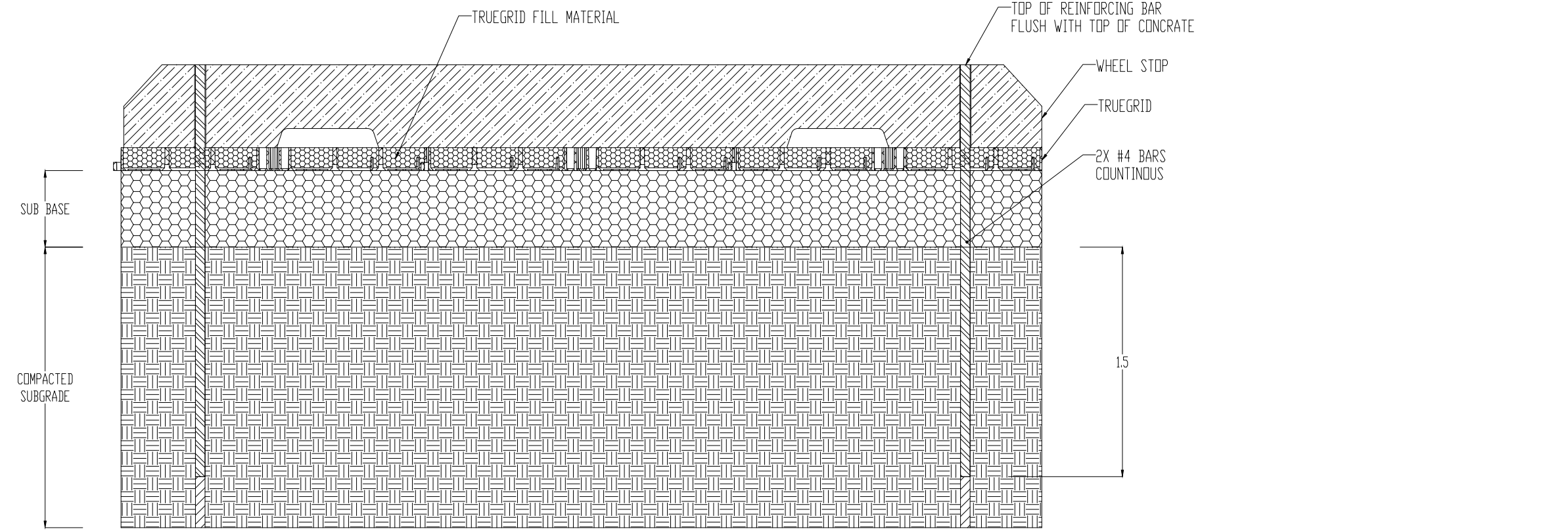
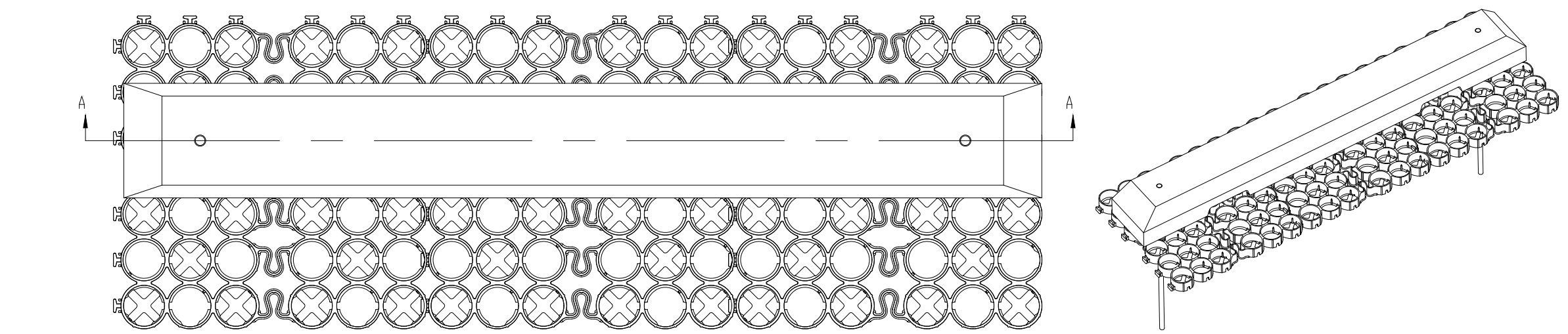
POST AND SIGNAGE INSTALLATION DETAIL
SCALE: N.T.S.

- NOTES:
1. SUB-BASE DEPTH AND PREPARATION IS DEPENDENT ON SITE CONDITIONS PLUS LOADING REQUIREMENTS.
 2. TRUEGRID PRO PLUS PRODUCTS DESIGNED FOR LOAD CAPACITIES OF 120,000 LBS PER SQ. FT. TRUEGRID PRODUCTS STRENGTHEN WITH FILL MATERIAL.
 3. TRUEGRID PRO PLUS PRODUCTS ARE SUFFICIENTLY RATED FOR H-20 /HS-20 LOADING AND GREATER.
 4. GEOTRID MESH OR GEOTEXTILE MAY BE REQUIRED BETWEEN SUB-GRADE & SUB-BASE FOR CERTAIN SOILS AND SITE SPECIFIC REQUIREMENTS.
 5. INCREASE SUB-BASE DEPTH FOR INCREASED STORM WATER DETENTION.
 6. NO STAKING NECESSARY WITH TRUEGRID PRO PLUS WHEN SLOPE IS BELOW 10 DEGREES. ASSESS PROJECT, AS NEEDED.
 7. FINAL ENGINEERED CROSS SECTION AGGREGATES AND DEPTH SHOULD ALLOW FOR EXPECTED INFILTRATION RATES, STORAGE CAPACITIES, OUTLET FLOW RATES, AND OTHER SITE SPECIFIC CONDITIONS AND LOAD REQUIREMENTS.
 8. THIS CROSS SECTION IS FOR INFORMATION ONLY.



GRAVEL FILL MEDIUM LOAD TRUEGRID PRO PLUS

APPLICATION:
PARKING LOT, RV PARKING,
PARKING PADS, DRIVEWAYS



NOT RELEASED
FOR
CONSTRUCTION

REVISIONS

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15 GARDNER BLVD. LAWRENCEVILLE, GA 30046
WWW.ROBERTSCIVILENGINEERING.COM

CONSTRUCTION DETAILS
LOT 109A
DARIEN, GA
PREPARED FOR:
CITY OF DARIEN

DATE: 2023-05-22
PROJECT NUMBER: 22221
DRAWN BY: MS
CHECKED BY: JN
SCALE: NTS

8

SHEET:

REVISIONS

15 GARDNER GARDNER / SANMANN / JACKSONVILLE / CONSTRUCTION
WWW.ROBERTSCIVILENGINEERING.COM

CONSTRUCTION DETAILS

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