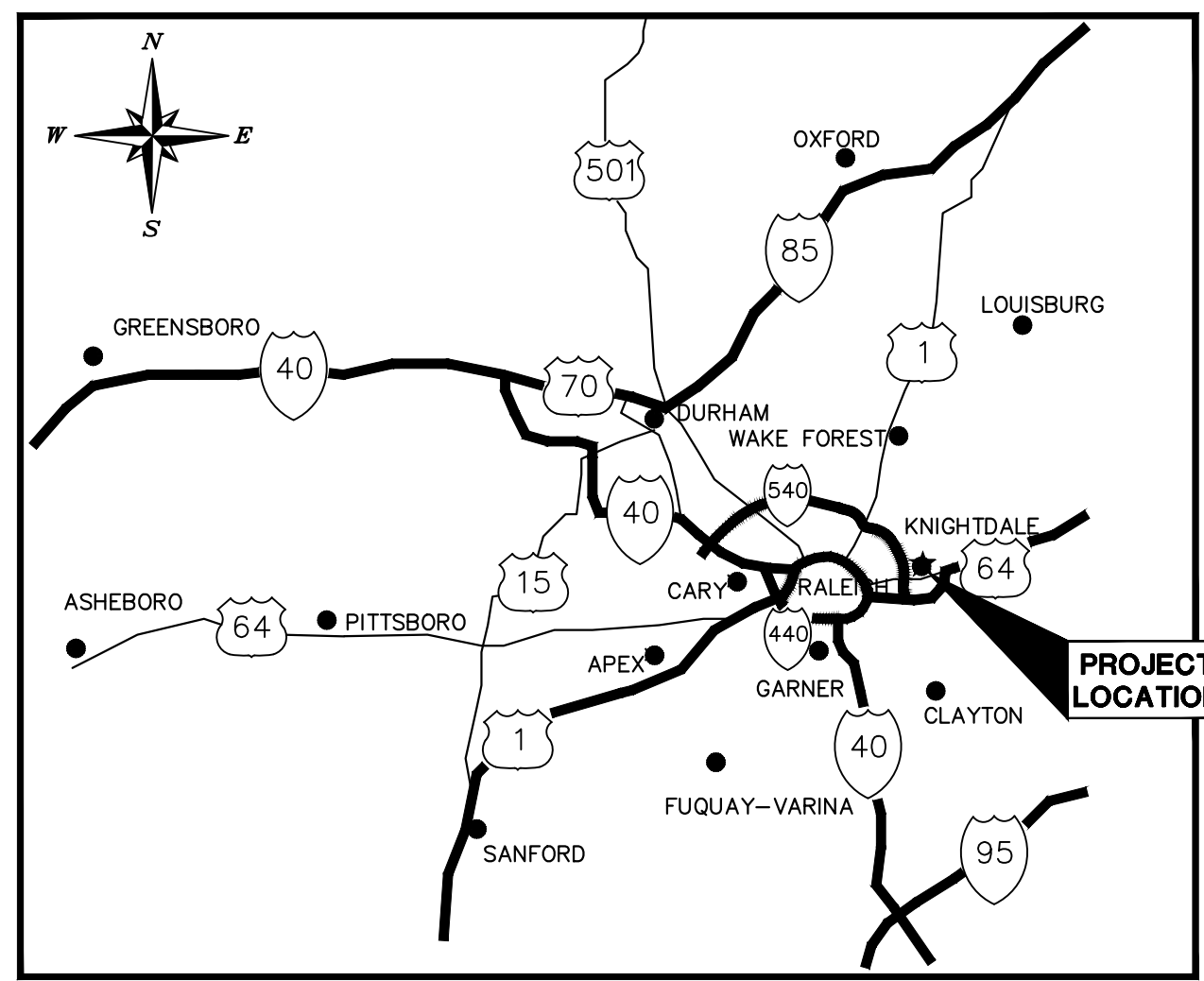
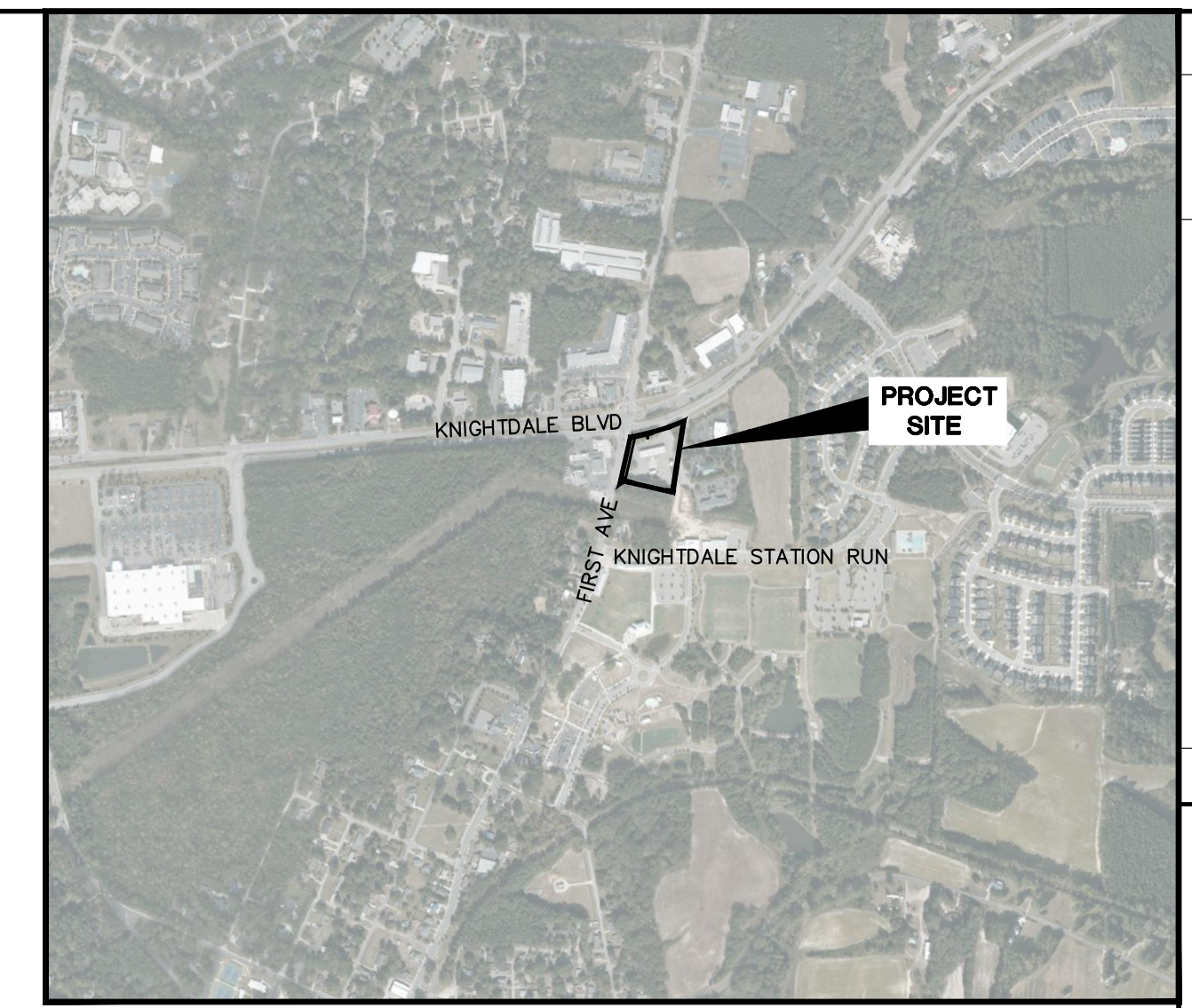


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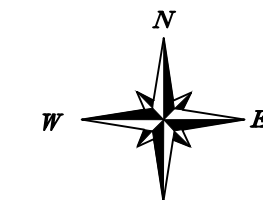


PROJECT LOCATION
NTS

MASTER PLAN SUBMITTAL FOR:
EP MART #10
 7604 KNIGHTDALE BOULEVARD
 KNIGHTDALE, NC 27545
 TOWN OF KNIGHTDALE PROJECT #ZMA-13-21



VICINITY MAP



SCALE: 1" = 1000'

EXISTING SITE AREA: 2.33 AC
 SITE AREA AFTER DEDICATION: 2.23 AC
 EXISTING/PROPOSED USE: CONVENIENCE STORE WITH FUEL SALES
 EXISTING ZONING: HB (HIGHWAY BUSINESS)
 PROPOSED ZONING: HBCU (HIGHWAY BUSINESS CONDITIONAL USE)
 PARKING REQUIRED
 MAXIMUM: 3.5 PER KSF GFA = 3.5 * 6.6 KSF = 23 SPACES
 MINIMUM: 1/2 OF MAXIMUM = 12 SPACES
 BICYCLE SPACES: 2
 PARKING PROVIDED
 REGULAR: 21 SPACES
 ADA: 2 SPACES
 ELECTRIC VEHICLE: 6 SPACES
 BICYCLE SPACES: 2
 IMPERVIOUS AREA CALCULATIONS
 PRE-DEVELOPMENT: 71,900 SF (1.65 AC)
 POST-DEVELOPMENT: 61,800 SF (1.42 AC)
 IMPERVIOUS AREA IS REDUCED THEREFORE NO STORM WATER TREATMENT IS REQUIRED.

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS
C1.1	DEMOLITION PLAN
C2.0	SITE PLAN
C3.0	GRADING AND DRAINAGE PLAN
C4.0	UTILITY PLAN
C5.0	ARCHITECTURAL ELEVATIONS
C5.1	ARCHITECTURAL ELEVATIONS
C5.2	ARCHITECTURAL ELEVATIONS
C5.3	ARCHITECTURAL ELEVATIONS
C5.4	ARCHITECTURAL ELEVATIONS
C5.5	ARCHITECTURAL ELEVATIONS
L1.0	LANDSCAPE PLAN
I1.0	LIGHTING PLAN
I1.1	LIGHTING DETAILS
I1.2	LIGHTING DETAILS
I1.3	LIGHTING DETAILS

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

WATER ALLOCATION: EXISTING WATER CUSTOMER.

PROJECT OWNER AND CONSULTANT

SITE DEVELOPER: EASTERN PETROLEUM CORP.
 dba EP MART
 PO BOX 398
 ENFIELD, NC 27823
 PHONE: (252) 445-6806
 ATTN: YVONNE JONES

CIVIL ENGINEER: KIMLEY-HORN AND ASSOCIATES, INC.
 421 FAYETTEVILLE ST., SUITE 600
 RALEIGH, NORTH CAROLINA 27601
 PHONE: (919) 653-2927
 ATTN: CHRIS BOSTIC, P.E.
 chris.bostic@kimley-horn.com

LANDSCAPE ARCHITECT: KIMLEY-HORN AND ASSOCIATES, INC.
 421 FAYETTEVILLE ST., SUITE 600
 RALEIGH, NORTH CAROLINA 27601
 PHONE: (919) 678-4170
 ATTN: MATT GROSS, PLA
 matt.gross@kimley-horn.com

SURVEYOR: TIMMONS GROUP
 5410 TRINITY ROAD
 RALEIGH, NC 27607
 PHONE: (919) 779-4854

PREPARED IN THE OFFICE OF:

Kimley»Horn

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 PHONE: (919) 677-2000

NC CERTIFICATE OF AUTHORIZATION: F-0102

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SEAL:

JUNE 27, 2022

JOB NUMBER:
017311002

SHEET NUMBER
C0.0

COVER SHEET

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 EP MART

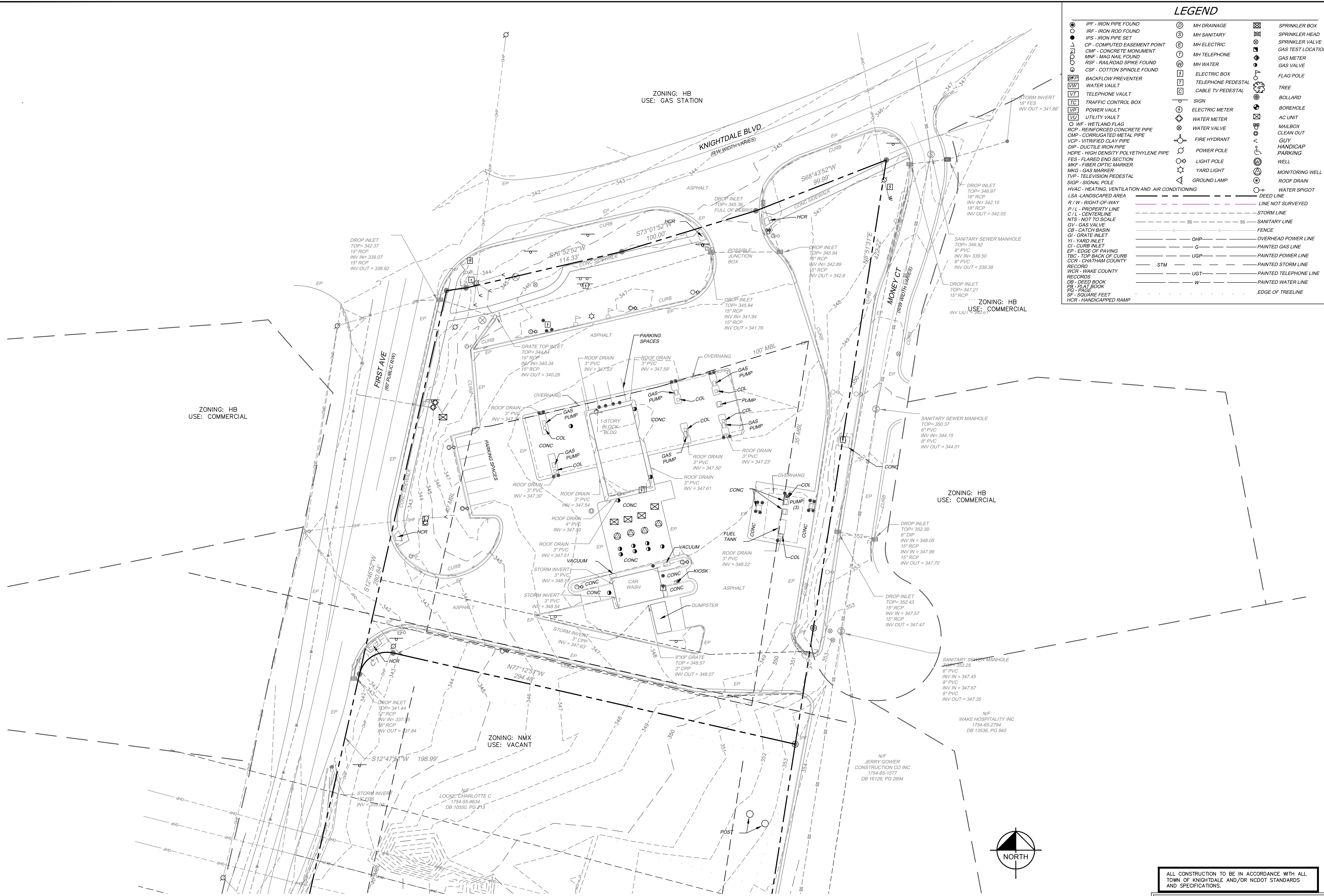
TOWN OF KNIGHTDALE NORTH CAROLINA

KHA PROJECT
 017311002
 DATE
 06/27/2022
 SCALE AS SHOWN
 DESIGNED BY XXX
 DRAWN BY XXX
 CHECKED BY COB

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1	TOWN COMMENTS	07/22/22	COB

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LEGEND			
●	IPF - IRON PIPE FOUND	⊗	SPRINKLER BOX
○	IRF - IRON ROD FOUND	⊗	SPRINKLER HEAD
●	IPS - IRON PIPE SET	⊗	SPRINKLER VALVE
○	CP - COMPUTED EASEMENT POINT	⊗	GAS TEST LOCATION
○	CMP - CONCRETE MONUMENT	⊗	GAS METER
○	MNF - MAG NAIL FOUND	⊗	GAS VALVE
○	RSF - RAILROAD SPIKE FOUND	⊗	FLAG POLE
○	CSF - COTTON SPINDLE FOUND	⊗	TREE
⊗	BACKFLOW PREVENTER	⊗	BOLLARD
⊗	WATER VAULT	⊗	BOREHOLE
⊗	TELEPHONE VAULT	⊗	AC UNIT
⊗	TRAFFIC CONTROL BOX	⊗	MAILBOX
⊗	POWER VAULT	⊗	CLEAN OUT
⊗	UTILITY VAULT	⊗	GUY
⊗	WF - WETLAND FLAG	⊗	HANDICAP PARKING
⊗	RCP - REINFORCED CONCRETE PIPE	⊗	WELL
⊗	CMP - CORRUGATED METAL PIPE	⊗	MONITORING WELL
⊗	VCP - VITRIFIED CLAY PIPE	⊗	ROOF DRAIN
⊗	DIP - DUCTILE IRON PIPE	⊗	WATER SPIGOT
⊗	HDPE - HIGH DENSITY POLYETHYLENE PIPE	⊗	DEED LINE
⊗	FES - FLARED END SECTION	⊗	LINE NOT SURVEYED
⊗	MKG - GAS MARKER	⊗	STORM LINE
⊗	TYP - TELEVISION PEDESTAL	⊗	SANITARY LINE
⊗	SGP - SIGNAL POLE	⊗	FENCE
⊗	YLD - YARD LIGHT	⊗	OHP - OVERHEAD POWER LINE
⊗	GL - GROUND LAMP	⊗	G - PAINTED GAS LINE
⊗		⊗	UGP - PAINTED POWER LINE
⊗		⊗	STM - PAINTED STORM LINE
⊗		⊗	UGT - PAINTED TELEPHONE LINE
⊗		⊗	W - PAINTED WATER LINE
⊗		⊗	EDGE OF TREELINE

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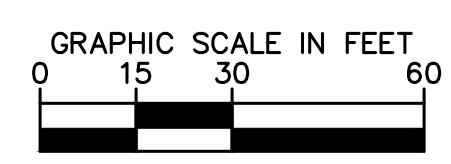
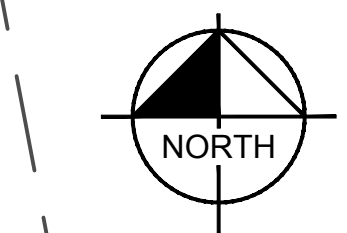
KHA PROJECT	017311002
DATE	06/27/2022
SCALE	AS SHOWN
DESIGNED BY	XXX
DRAWN BY	XXX
CHECKED BY	COB

EXISTING CONDITIONS

EP MART #10
 PREPARED FOR
EP MART
 TOWN OF KNIGHTDALE
 NORTH CAROLINA

SHEET NUMBER
C1.0

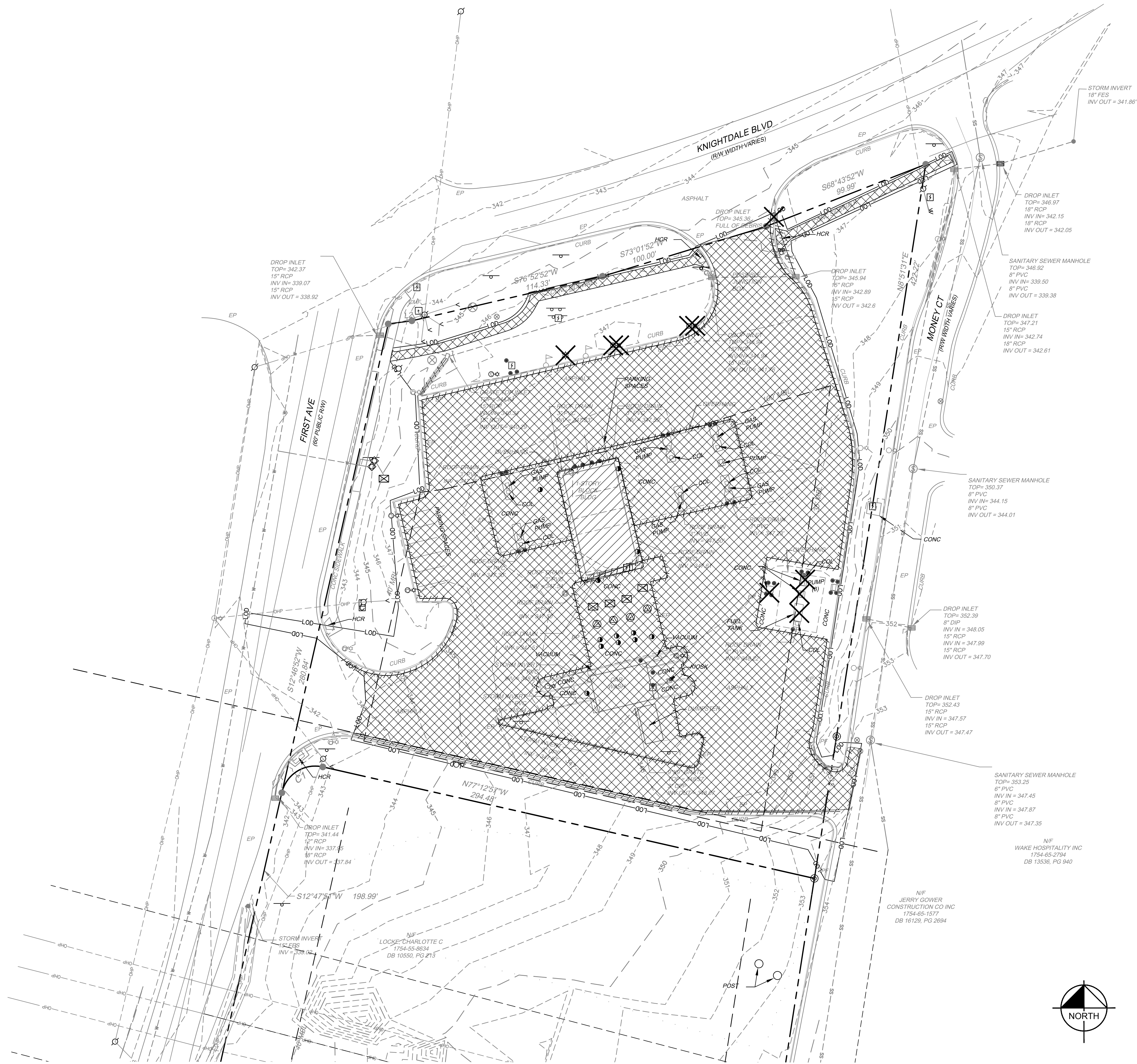
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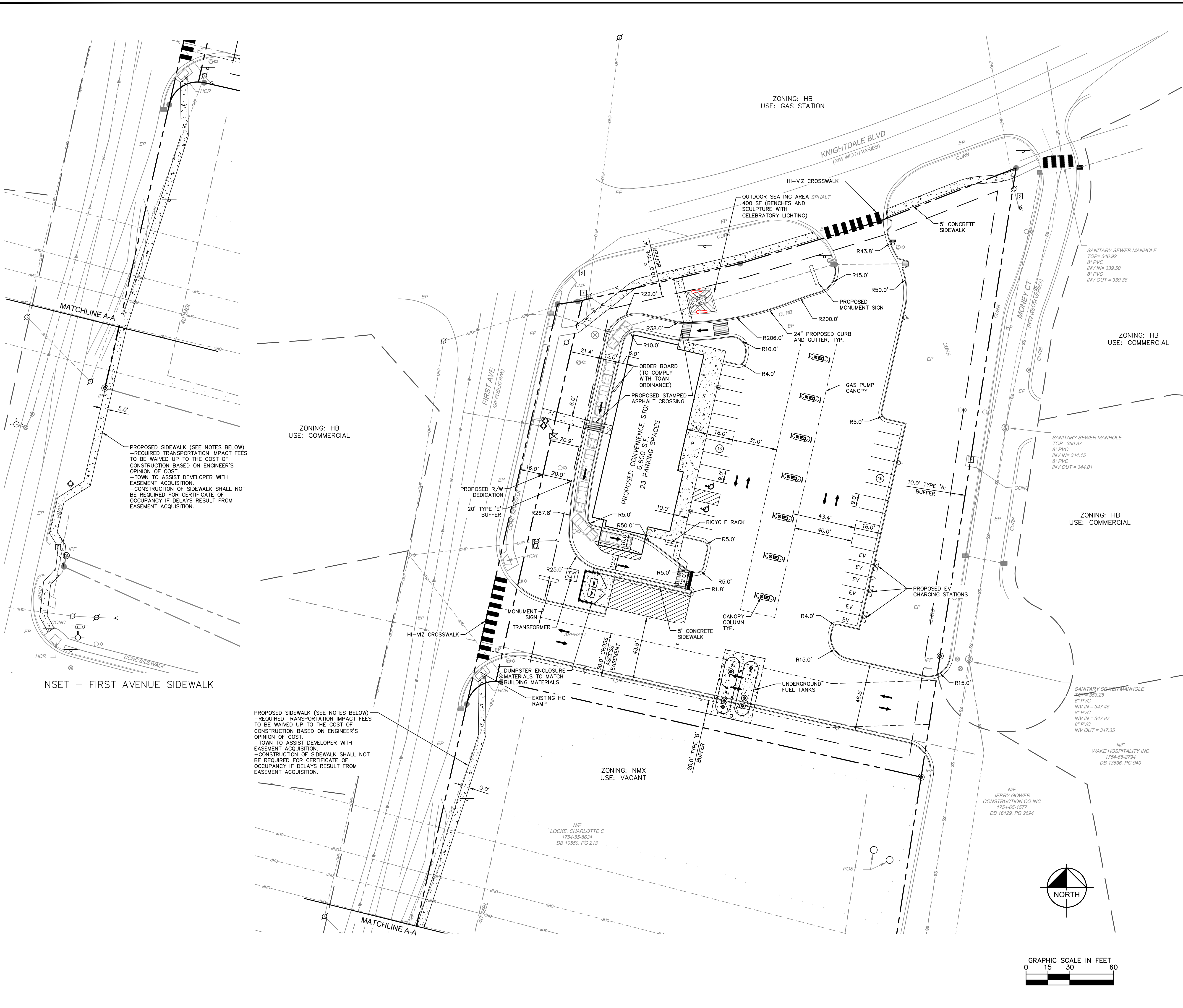
DEMOLITION LEGEND	
	PROPERTY LINE
	CLEARING LIMITS
	DEMOLISH SITE ITEM
	DEMOLISH UNDERGROUND UTILITY
	ABANDON UTILITY IN PLACE
	SAWCUT
	DEMOLISH SITE ITEM/TREE TO BE REMOVED
	BUILDINGS TO BE REMOVED
	SIDEWALK/PAVEMENT TO BE REMOVED

PRELIMINARY
NOT FOR CONSTRUCTION

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	<p>DEMOLITION PLAN</p>											
<p>EP MART #10 PREPARED FOR EP MART</p>	<p>TOWN OF KNIGHTDALE NORTH CAROLINA</p>					<p>SHEET NUMBER C1.1</p>						
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>07/22/22</td> <td>COB</td> </tr> </tbody> </table>						No.	DATE	BY	1	07/22/22	COB	<p>TOWN COMMENTS</p>
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SITE LEGEND	
	PROPERTY LINE
	EASEMENT LINE
	FENCE
	PARKING SPACE COUNT
	SIGN (SEE PLAN)
	LIGHT POLE
	WHEEL STOP
	ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
	DIRECTIONAL PAVEMENT ARROWS
	LIGHT DUTY ASPHALT
	HEAVY DUTY ASPHALT
	STANDARD DUTY CONCRETE
	HEAVY DUTY CONCRETE
	CONCRETE SIDEWALK
	ADA PATH

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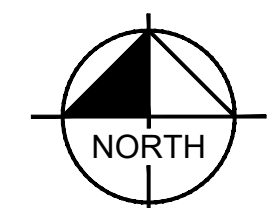
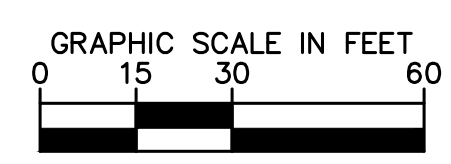
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DATE	06/27/2022
SCALE	AS SHOWN
DESIGNED BY	XXX
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SITE PLAN

EP MART #10
 PREPARED FOR
EP MART
 TOWN OF KNIGHTDALE
 NORTH CAROLINA

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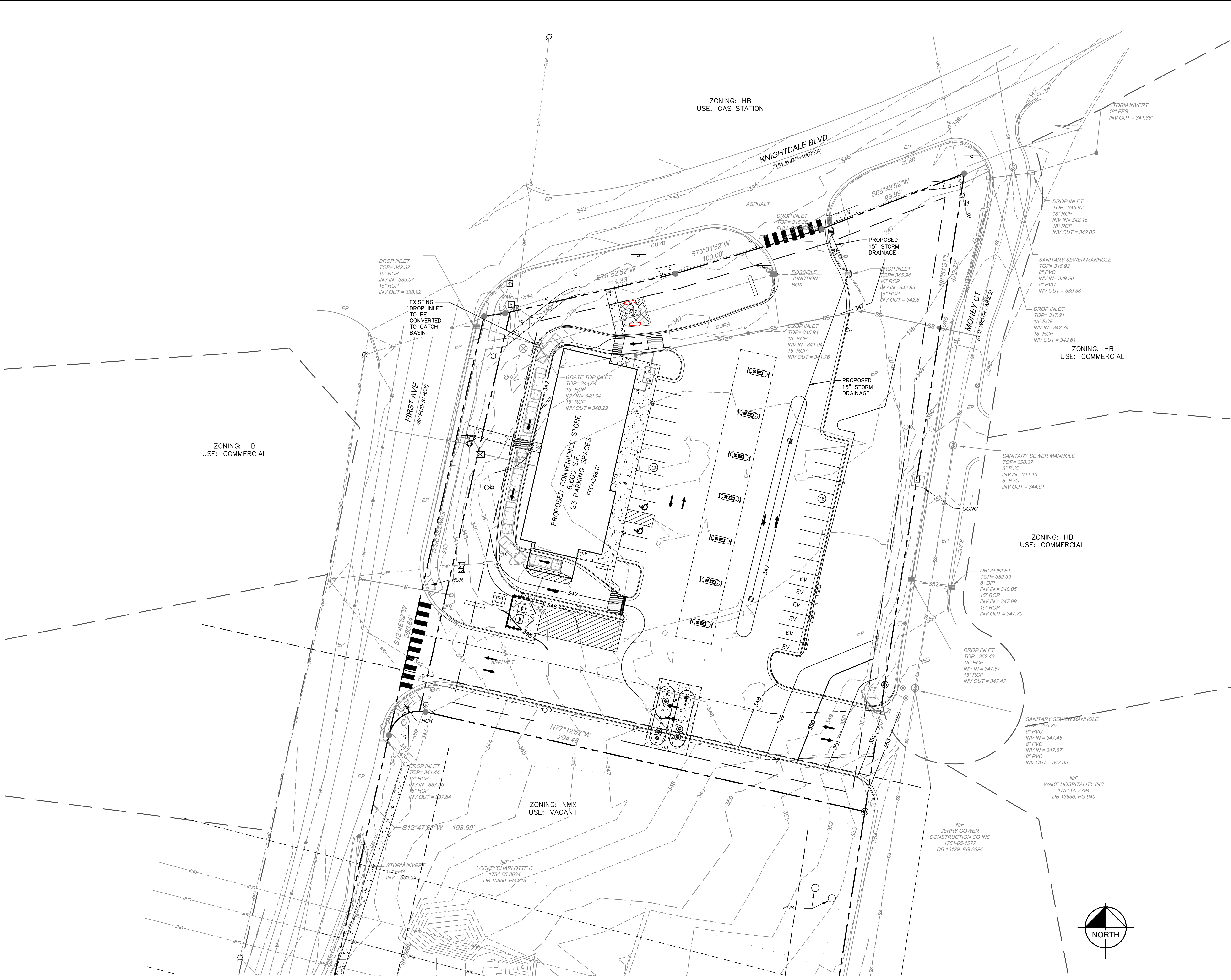


PROPOSED SIDEWALK (SEE NOTES BELOW)
 -REQUIRED TRANSPORTATION IMPACT FEES TO BE WAIVED UP TO THE COST OF CONSTRUCTION BASED ON ENGINEER'S OPINION OF COST.
 -TOWN TO ASSIST DEVELOPER WITH EASEMENT ACQUISITION.
 -CONSTRUCTION OF SIDEWALK SHALL NOT BE REQUIRED FOR CERTIFICATE OF OCCUPANCY IF DELAYS RESULT FROM EASEMENT ACQUISITION.

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INSET - FIRST AVENUE SIDEWALK

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GRADING AND DRAINAGE LEGEND	
	PROPERTY LINE
	TEMPORARY CONSTRUCTION EASEMENT
	STORM DRAIN
	ROOF DRAIN
	LIMITS OF DISTURBANCE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SILT FENCE
	TREE PROTECTION FENCE
	ACCESSIBLE ROUTE
	SPOT ELEVATION (FLOW LINE)
	HIGH POINT
	LOW POINT
	CATCH BASIN (CB)
	MANHOLE (SDMH)
	CLEANOUT (SDCO)
	DROP INLET (DI)
	AREA DRAIN (AD)
	FLOW ARROW

NO.	REVISIONS	DATE	BY
1	TOWN COMMENTS	07/22/22	COB

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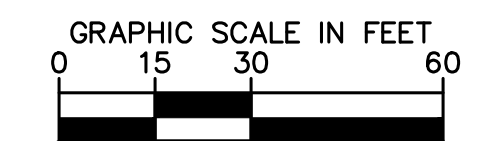
KHA PROJECT	017 311002
DATE	06/27/2022
SCALE	AS SHOWN
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GRADING AND DRAINAGE PLAN

EP MART #10
 PREPARED FOR
EP MART
 NORTH CAROLINA
 KNIGHTDALE

SHEET NUMBER
C3.0

- NOTE:
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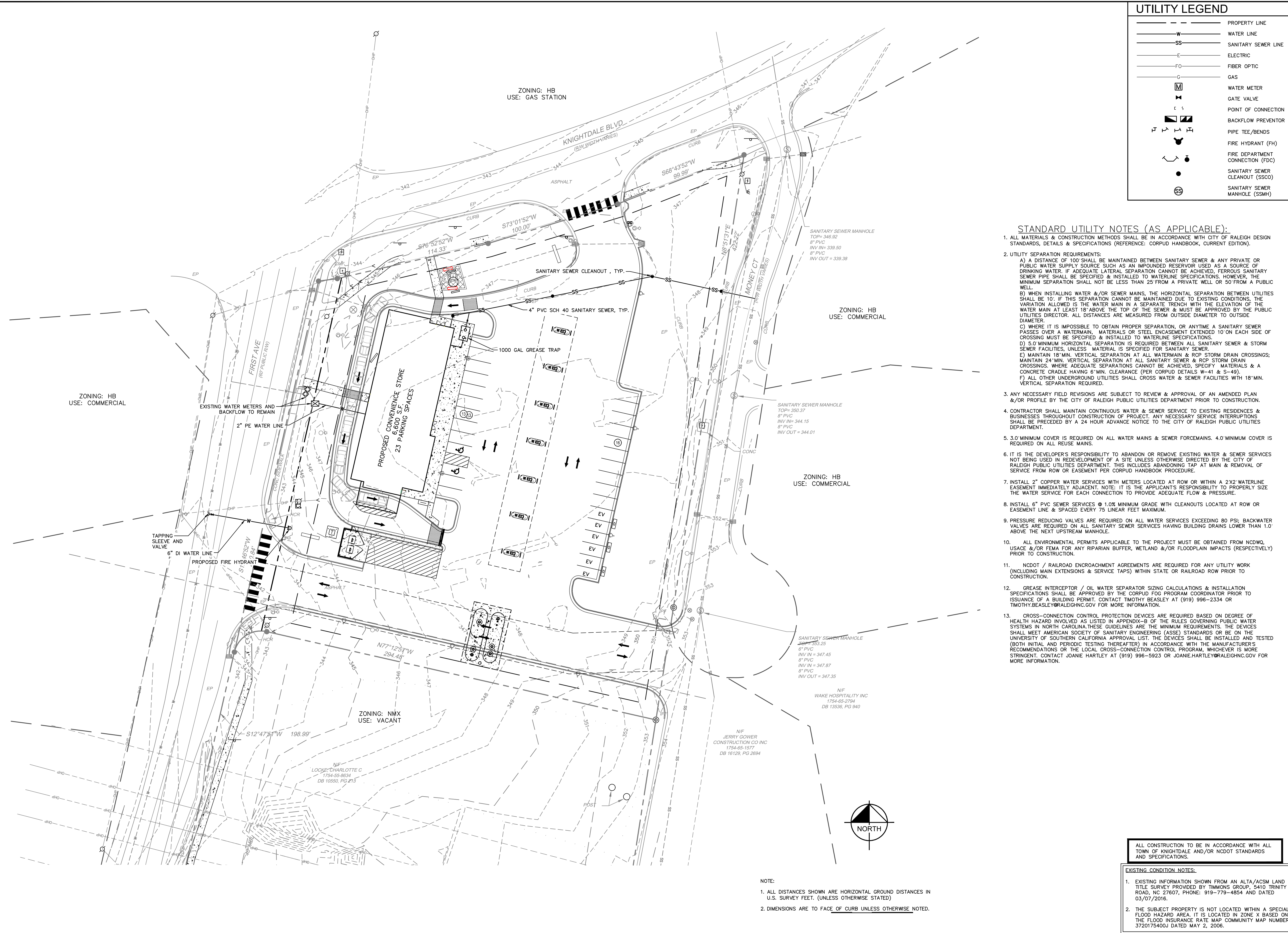


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UTILITY LEGEND	
	PROPERTY LINE
	WATER LINE
	SANITARY SEWER LINE
	ELECTRIC
	FIBER OPTIC
	GAS
	WATER METER
	GATE VALVE
	POINT OF CONNECTION
	BACKFLOW PREVENTOR
	PIPE TEE/BENDS
	FIRE HYDRANT (FH)
	FIRE DEPARTMENT CONNECTION (FDC)
	SANITARY SEWER CLEANOUT (SSCO)
	SANITARY SEWER MANHOLE (SSMH)

STANDARD UTILITY NOTES (AS APPLICABLE):

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION).
- UTILITY SEPARATION REQUIREMENTS:
 - A) A SEPARATION OF 100 SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25 FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - B) WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - C) WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, MATERIALS OR STEEL ENCASUREMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - D) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - E) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS, WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
 - F) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL 2" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
- INSTALL 6" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75' LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKFLOW VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIMOTHY BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

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ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

- EXISTING CONDITION NOTES:**
- EXISTING INFORMATION SHOWN FROM AN ALTA/ACSM LAND TITLE SURVEY PROVIDED BY TIMMONS GROUP, 5410 TRINITY ROAD, NC 27607, PHONE: 919-779-4854 AND DATED 03/07/2016.
 - THE SUBJECT PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA. IT IS LOCATED IN ZONE X BASED ON THE FLOOD INSURANCE RATE MAP COMMUNITY MAP NUMBER 3720175400J DATED MAY 2, 2006.

NO.	REVISIONS	DATE	BY
1	TOWN COMMENTS	07/22/22	COB

Kimley»Horn
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 421 FLORENCEVILLE ROAD, SUITE 600, RALEIGH, NC 27601
 PHONE: 919-477-2000 FAX: 919-677-2050
 WWW.KIMLEY-HORN.COM
 #K-0102

KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
017311002	06/27/2022	AS SHOWN	XXX	XXX	COB

UTILITY PLAN

EP MART #10
 PREPARED FOR
EP MART
 TOWN OF KNIGHTDALE
 NORTH CAROLINA

SHEET NUMBER
C4.0

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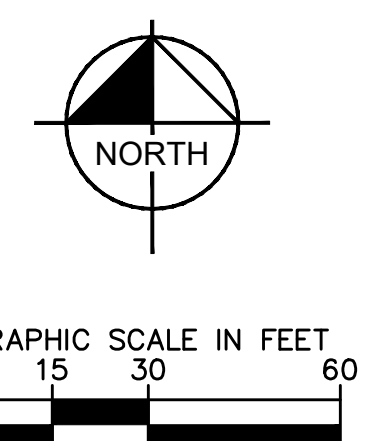


SITE LEGEND	
	PROPERTY LINE
	EASEMENT LINE
	FENCE
	PARKING SPACE COUNT
	SIGN (SEE PLAN)
	LIGHT POLE
	WHEEL STOP
	ACCESSIBLE PARKING MARKING (V INDICATES VAN ACCESSIBLE)
	DIRECTIONAL PAVEMENT ARROWS
	STANDARD DUTY CONCRETE

NOTES:

- FINAL PROPOSED PLANTING CONDITIONS ARE INTENDED TO BE SUPPLEMENTARY TO EXISTING PRESERVED VEGETATION. ANY CREDIT FOR EXISTING PRESERVED VEGETATION THAT COUNTS TOWARDS LANDSCAPE REQUIREMENTS WILL BE DEDUCTED FROM THE FINAL PLANTING PLAN PENDING FIELD VERIFICATION.

PLANT SCHEDULE									
CANOPY TREES									
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT			
AR2	8	ACER BURGERSIANUM	TRIDENT MAPLE	8.6B	2" MIN.	8-10' HT.			
IS	3	ILEX OPACA 'SATYR HILL'	SATYR HILL AMERICAN HOLLY	8.6B	2" MIN.	8-10' HT.			
PC	8	PISTACIA CHINENSIS	CHINESE PISTACHE	8.6B	2.5" MIN.	8-10' HT.			
QL	8	QUERCUS LYRATA	OVERCUP OAK	8.6B	2.5" MIN.	8-10' HT.			
UA	4	ULMUS PARVIFOLIA 'ALLEE' TM	ALLEE LACEBARK ELM	8.6B	2.5" MIN.	8-10' HT.			
UNDERSTORY TREES									
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	CAL.	HEIGHT			
CF	17	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY EASTERN REDBUD	8.6B	2" MIN.	8-10' HT.			
ML	19	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM DWARF SOUTHERN MAGNOLIA	8.6B	2" MIN.	8-10' HT.			
SHRUBS									
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HEIGHT				
AR2	11	ARELIX X GRANDIFLORA 'RADANCE'	RADIANCE GLOSSY ABELIA	3 GAL.	18" MIN.				
BS	47	BUXUS SEMPERVIRENS	COMMON BOXWOOD	3 GAL.	18" MIN.				
CA	37	CAMELLIA JAPONICA 'APRIL DAWN'	APRIL DAWN CAMELLIA	3 GAL.	24" MIN.				
HL	18	HYDRANGEA PANICULATA 'LIMELIGHT'	LIMELIGHT PANICLE HYDRANGEA	3 GAL.	24" MIN.				
IG	89	ILEX GLABRA	INKBERRY HOLLY	3 GAL.	18" MIN.				
IV	148	ILEX VOMITORIA	YALPON HOLLY	3 GAL.	18" MIN.				
LG	67	LOROPETALUM CHINENSE	CHINESE FRINGE FLOWER	3 GAL.	18" MIN.				
MS	57	MISCANTHUS SINENSIS 'ADAGIO'	ADAGIO EULALIA GRASS	3 GAL.	18" MIN.				
RV	2	RHODODENDRON VASEYI	PINKSHELL AZALEA	3 GAL.	18" MIN.				
TD	12	THUJA OCCIDENTALIS 'DEGROOT'S SPIRE'	DEGROOT'S SPIRE ARBORVITAE	7 GAL.	48" MIN.				
TP	42	THUJA PLICATA '4EVER'	FOREVER GOLDY™ WESTERN RED CEDAR	7 GAL.	48" MIN.				
GROUND COVERS									
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	SPACING				
AV	89	ANNUALS	ANNUALS	POT / FLAT	18" o.c.				
CH	15,303 SF	CYNODON DACTYLON '419 HYBRID'	BERMUDA GRASS	SOD					
LB	77	LAVANDULA ANGSTUFOLIA 'BABY BLUE'	BABY BLUE ENGLISH LAVENDER	POT / FLAT	18" o.c.				



ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL TOWN OF KNIGHTDALE AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

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Kimley-Horn

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 #F-0102

NO. 1

DATE 07/22/22

BY

KHA PROJECT 017311002

DATE 06/27/2022

SCALE AS SHOWN

DESIGNED BY SDB

DRAWN BY SDB

CHECKED BY AMR

REVISIONS

1 TOWN COMMENTS 07/22/22 COB

EP MART #10

PREPARED FOR

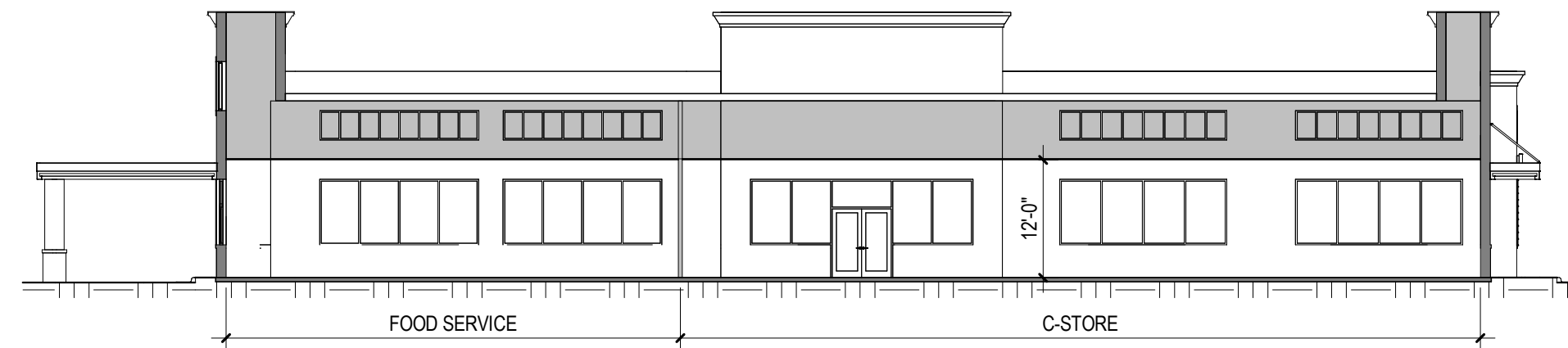
EP MART

TOWN OF KNIGHTDALE

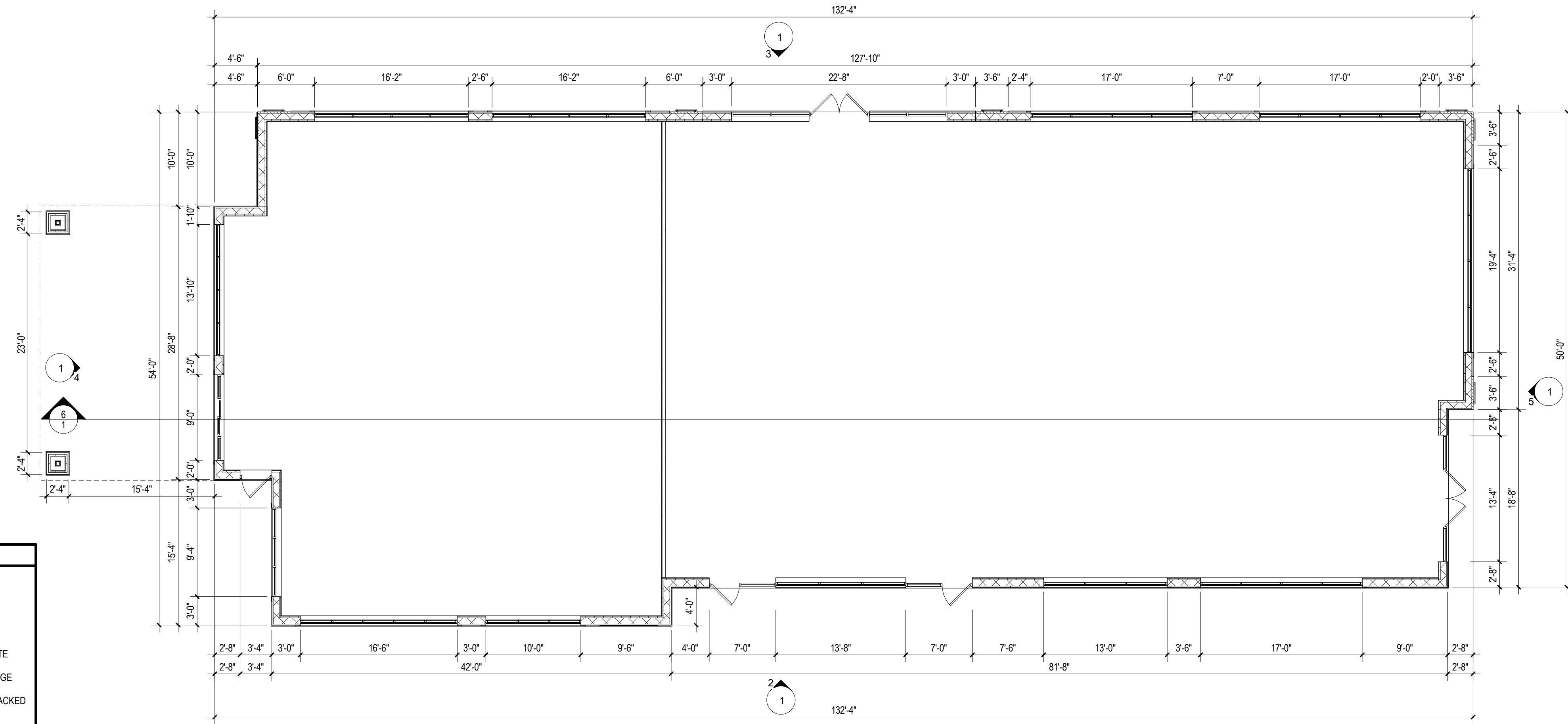
NORTH CAROLINA

SHEET NUMBER

EX-1



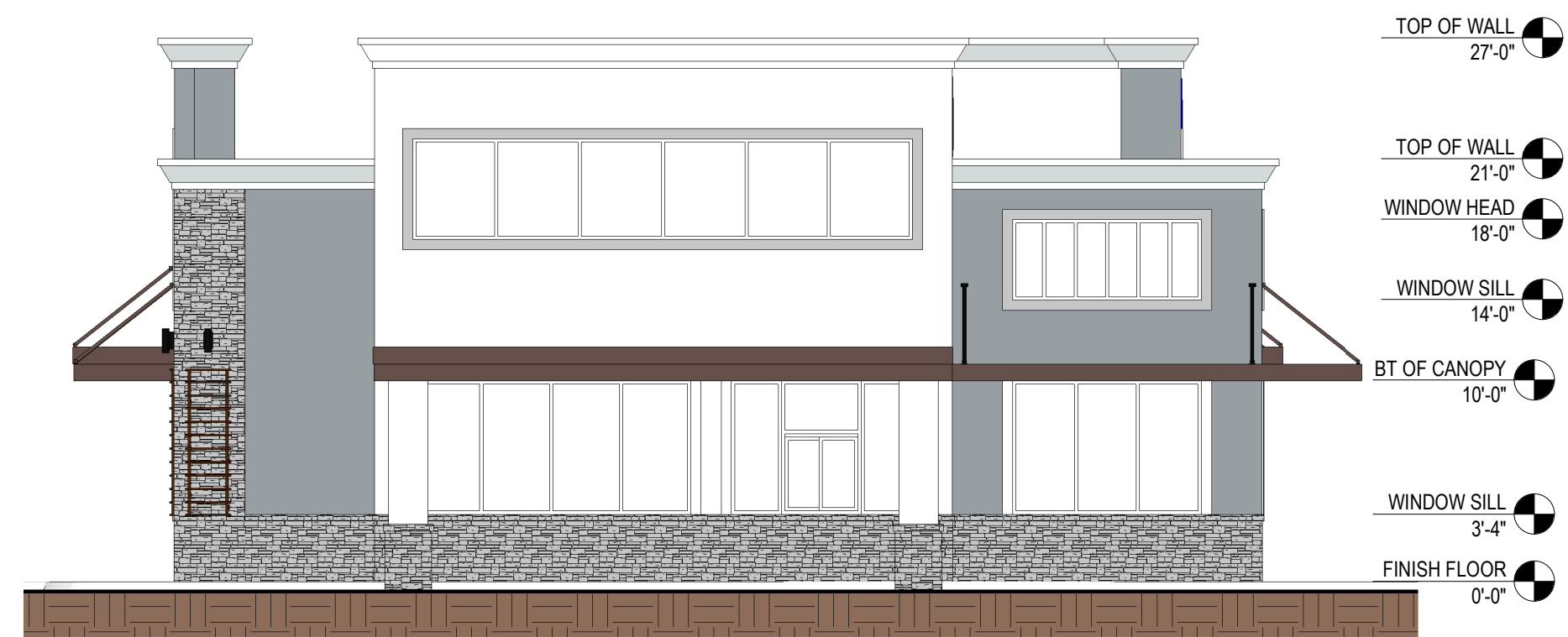
6 BUILDING SECTION
1/16" = 1'-0"



1 1-Level
1/8" = 1'-0"

COLOR LEGEND	
CORNICE PAINT -	SW 7072 ONLINE
MAIN WALL PAINT -	SW 7075 WEB GRAY
AWNING PAINT -	SW 6006 BLACK BEAN
TRIM AND ACCENT 1 PAINT -	SW 7035 AESTHETIC WHITE
ACCENT 2 PAINT -	SW 6886 RAUCOUS ORANGE
STONE -	NICHIHA KURASTONE STACKED STONE MOUNTAIN GRAY

*ACTUAL SAMPLES HAVE BEEN ORDERED. WILL SUPPLY UPON RECEIPT



4 LEFT ELEVATION
1/8" = 1'-0"



2 FRONT ELEVATION
1/8" = 1'-0"

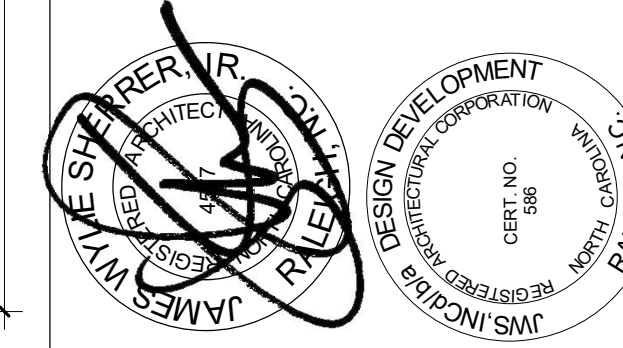
-USE OF UPPER GLASS IS TO GIVE 2 STORY APPEARANCE - A C-STORE. AN ALLOWED USE. CAN NOT FUNCTION AS A 2 STORY SPACE.



3 REAR ELEVATION
1/8" = 1'-0"



5 RIGHT ELEVATION
1/8" = 1'-0"



8/11/2022

FOR SITE PLAN APPROVAL

EP MART
KNIGHTDALE, NORTH CAROLINA

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No.	Description	Date
PROJECT #:	220047	
DATE:	8/1/2022	
FLOOR PLAN		



EP MART
KNIGHTDALE, NORTH CAROLINA

The logo for designdevelopment ARCHITECTS, featuring a square icon to the left of the text "designdevelopment" in a sans-serif font, with "ARCHITECTS" in a smaller font below it.



EP MART
KNIGHTDALE, NORTH CAROLINA

 **designdevelopment**
ARCHITECTS

3

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The logo for designdevelopment ARCHITECTS. It features a square icon with a smaller square inside, followed by the text "designdevelopment" in a lowercase sans-serif font, with "design" in red and "development" in black. Below this, the word "ARCHITECTS" is written in a smaller, all-caps sans-serif font.



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KNIGHTDALE, NORTH CAROLINA

The logo for designdevelopment ARCHITECTS. It features a square icon with a smaller square inside, followed by the text "designdevelopment" in a lowercase sans-serif font, with "design" in red and "development" in black. Below this, the word "ARCHITECTS" is written in a smaller, all-caps sans-serif font.

5

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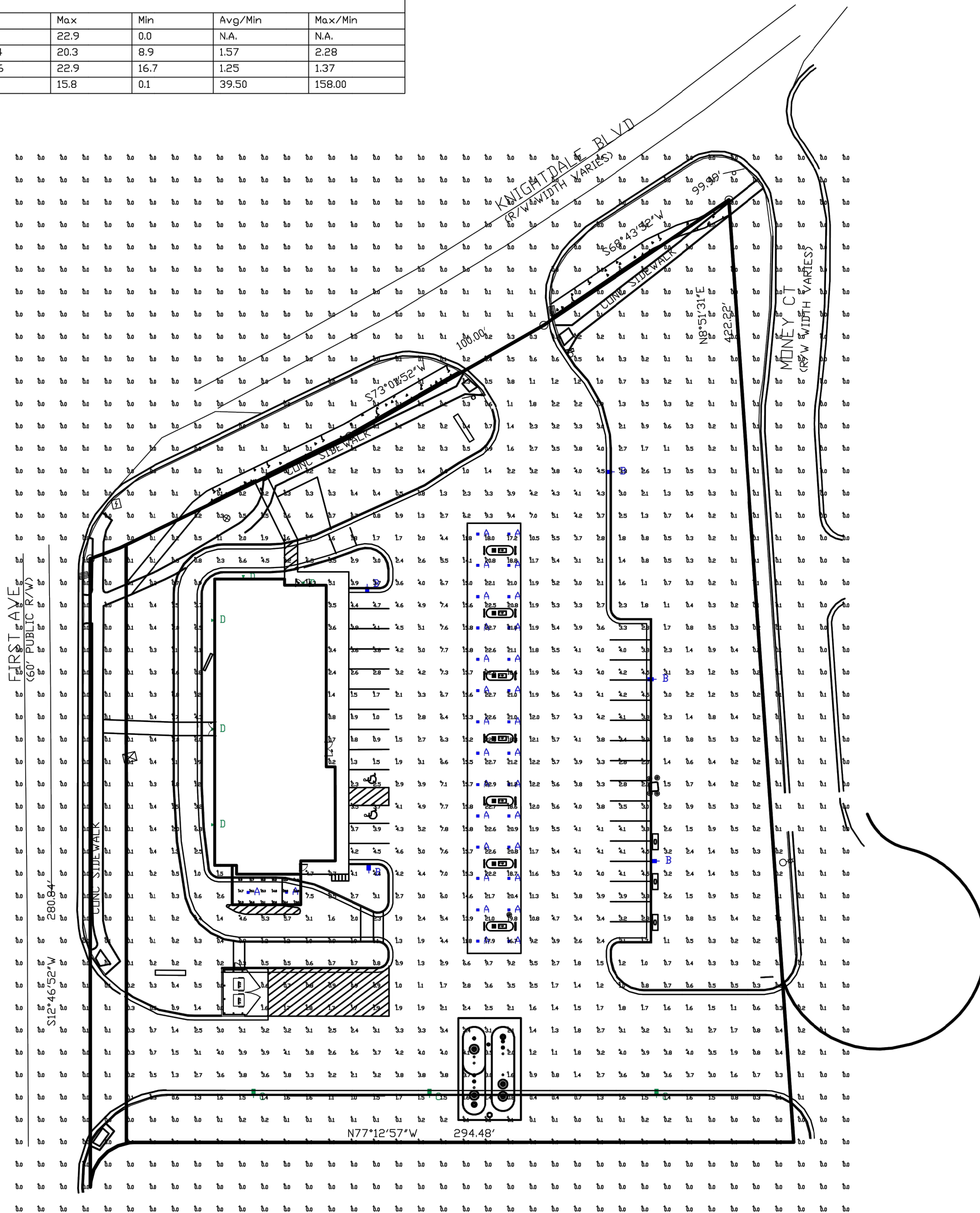
KNIGHTDALE, NORTH CAROLINA



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Symbol	Qty	Label	Arrangement	Description	LLD	LDD	LLF	Arr. Lum. Lumens	Arr. Watts	BUG Rating
	30	A	SINGLE	CRUS-SC-SLW-50 MTD @ 15' GAS, 10' PAY CANDPY	1.000	1.000	1.000	5955	38	B2-U0-G1
	5	B	SINGLE	MRS-LED-18L-SIL-FT-50-70CRI-SINGLE-22'POLE+2'BASE	1.000	1.000	1.000	16890	135	B2-U0-G2
	3	C	SINGLE	MRS-LED-18L-SIL-FT-50-70CRI-IL-SINGLE-22'POLE+2'BASE	1.000	1.000	1.000	10931	135	B1-U0-G2
	5	D	SINGLE	XWS-LED-03L-FTW-50-80CRI MTD @ 10'	1.000	1.000	1.000	3793	26	B1-U0-G1

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	1.66	22.9	0.0	N.A.	N.A.
PAY CANDPY	Illuminance	Fc	13.94	20.3	8.9	1.57	2.28
CANDPY	Illuminance	Fc	20.86	22.9	16.7	1.25	1.37
INSIDE CURB	Illuminance	Fc	3.95	15.8	0.1	39.50	158.00



**PHOTOMETRIC EVALUATION
NOT FOR CONSTRUCTION**

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LEDs and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted. Fixture nomenclature noted does not include mounting hardware or poles. This drawing is for photometric evaluation purposes only and should not be used as a construction document or as a final document for ordering product.

Total Project Watts
Total Watts = 2350

LIGHTING PROPOSAL LD-155813

EP MART
KNIGHTDALE BLVD & FIRST AVE
KNIGHTDALE, NC

DATE: 06-27-2022
REV: 1
SHEET 1 OF 1

SCALE: 1"=30'

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NO. _____

REVISIONS _____

DATE 07/22/2022

BY _____

KHA PROJECT 017311002

DATE 06/27/2022

SCALE AS SHOWN

DESIGNED BY XXX

DRAWN BY XXX

CHECKED BY XXX

LIGHTING PLAN

EP MART #10

PREPARED FOR
EP MART

NORTH CAROLINA

SHEET NUMBER

11.0

TOWN OF KNIGHTDALE

Scottsdale® Legacy (CRUS) LED Canopy Luminaire



OVERVIEW	
Lumen Package	5,000 - 22,000
Wattage Range	38 - 152
Efficacy Range (LPW)	114 -156
Weight (lbs/kg)	23 (10.4)

FEATURES & SPECIFICATIONS

Construction

- Features an ultra-slim 1 1/16" profile die-cast housing, with flat clear tempered glass lens. Unit is water-resistant, sealed and IP66 rated. Integral designed heat sink does not trap dirt and grime, ensuring cool running performance over the life of the fixture.
- Standard color is white and is finished with LSI's DuraGrip® polyester powder coat process. DuraGrip withstands extreme weather changes without cracking or peeling.
- Luminaire assembly incorporates a pressure stabilizing vent breather to prevent seal fatigue and failure.

Optical System

- Features an array of select, mid-power, high brightness, high efficiency LED, 3000K, 4000K, 5000K color temperature, 80 CRI (nominal).
- Choice of Symmetric or Asymmetric distribution. Asymmetric provides a wider distribution pattern.
- Six Lumen Packages: 5,000, 9,000, 10,000, 13,000, 18,000 and 22,000 Lumens.

Electrical

- High performance factory programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection with integral 6kV surge protection that meets IEEE C62.41.2 and ANSI C82.77-5 Location Category C Low standards. Custom lumen and wattage packages available.
- Additional field replaceable 10kV surge protection device that meets a minimum

QUICK LINKS

- Ordering Guide
- Performance
- Photometrics
- Dimensions

Category C Low operation (per ANSI/IEEE C62.41.2) is standard.

Driver components are fully encased in potting for moisture resistance. Complies with IEC and FCC standards. 0-10 V dimming supplied standard with all drive currents.

Die-cast aluminum, wet location rated driver/electrical enclosure is elevated above canopy deck to prevent water entry, provide easy "knock-out" connection of primary wiring and acts as the primary heatsink ensuring cool operation of internal components for longer life. Seals to optical housing via one-piece molded silicone gasket.

Universal voltage power supply, 120-277 VAC, 50/60 HZ and 347-480 VAC, 50/60 HZ input.

-40°C to 55°C (-40°F to 131°F) ambient operating temperature. (Varies based on lumen package and mounting style see performance data for specifics.)

Minimum 60,000 to 100,000 hours depending upon the ambient temperature of the installation location (see performance data for specifics.)

Hazardous Location

- Designed for lighter than air fuel applications. Product is suitable for Class 1 Divisions 2 only when properly installed per LSI installation instructions. See lscorp.com for specific guidance. Not available on SLW packages available.

Installation

- One-person installation.
- Installs in a 12" or 16" deck pan. Deck



penetration consists of a 4" hole, simplifying installation and water sealing. Unit is designed to quickly retrofit into existing Scottsdale (4") hole as well as openings for Encore and Encore Top Access and to reconnect wiring for the SC/ECTA without having to relocate the conduit.

Retro panels are available for existing Encores as well as kits for recessed and 2x2 installations (see separate spec sheets). Support brackets are provided standard, to prevent sagging of deck.

Warranty

- LSI LED fixtures carry a 5-year warranty (contact your LSI representative for extended warranty options.)

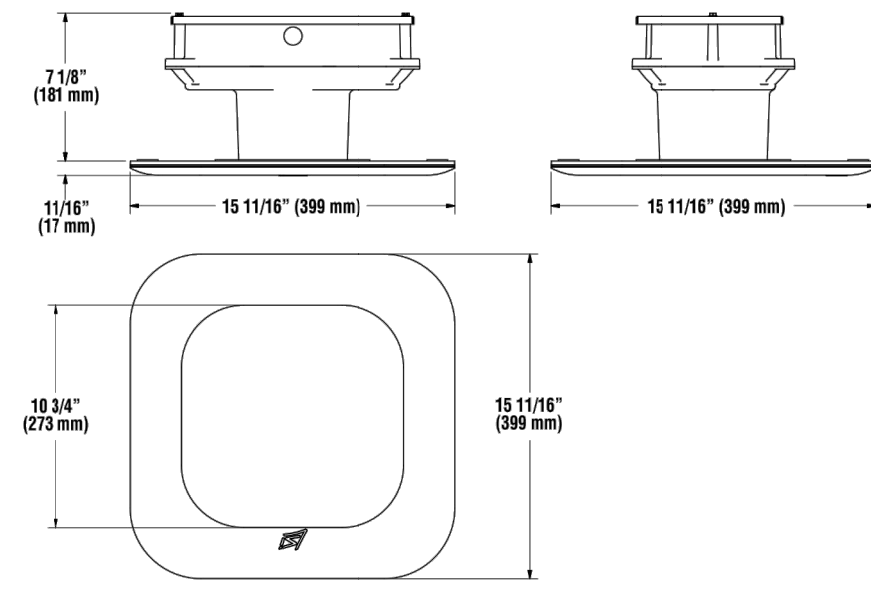
Listings

- UL and ETL listed to UL 1598, UL 8750 and other U.S. and International safety standards. Suitable for wet locations.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DPL to confirm which versions are qualified.

- Meets Buy American Act requirements.
- IDA compliant with 3000K or lower color temperature.

PRODUCT DIMENSIONS



Scottsdale® Legacy LED Canopy Luminaire (CRUS)

ORDERING GUIDE

Prefix	Distribution	Light Source	Drive Current	Color Temp	Input Voltage	Finish	Options
CRUS - LED Canopy Luminaire	SC - Symmetric AC - Asymmetric	LED	SLW - Super Low Watt VLW - Very Low Watt LW - Low Watt SS - Super Saver HS - High Output VHO - Very High Output Custom Lumen Packages*	50 - 5,000K 40 - 4,000K 30 - 3,000K	UE - Universal Voltage (120 - 277V) HV - High Voltage 347 - 480V	WHT - White BRZ - Bronze BLK - Black	HL - Hazardous Location

FOOTNOTES:
1. AC circuit utilizes a reflector which alters the beam from a standard SC distribution.
2. Not available on SLW.
3. Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.

Accessory Ordering Information (Accessories are field installed)

Description	Order Number	Description	Order Number
Retrofit Panels - EC / ECTA / SCF to CRUS, for 16" Deck Panel	529846	Retrofit RIC Cover Panel Blank (no holes)	354702
Retrofit Panels - ECTA / SCF to CRUS, for 12" Deck Panel	530281	KIT - Hole Plugs and Silicons (enough for 25 retrofits)	1305640
Retrofit 2x2 Cover Panel Blank (no holes)	357282		

PERFORMANCE

Lumen Package	Distribution	3000K CCT				4000K CCT				5000K CCT				Wattage
		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
VHO	SC	21301	140	84-00-02	21835	144	84-00-02	22987	150	84-00-02			152	
	AC	17888	114	85-00-03	17798	117	85-00-03	18662	122	85-00-03				
HO	SC	17889	143	85-00-01	18348	146	85-00-02	19071	152	84-00-02			125	
	AC	14582	116	85-00-02	14655	119	85-00-02	15548	124	85-00-02				
SS	SC	13113	141	85-00-01	13449	144	85-00-01	13980	150	85-00-01			93	
	AC	11468	129	85-00-02	11761	126	85-00-02	12226	131	85-00-02				
SC	SC	10427	144	85-00-01	10724	148	85-00-01	11148	154	85-00-01				
LW	AC	9145	126	82-00-02	9379	129	82-00-02	9749	134	82-00-02			73	
VW	SC	8783	146	85-00-01	9008	149	85-00-01	9364	155	85-00-01			60	
	AC	7881	127	85-00-01	7978	131	85-00-01	8189	136	85-00-01				
SW	SC	586	146	85-00-01	578	149	85-00-01	594	156	82-00-01				
	AC	4884	128	81-00-01	5009	131	81-00-01	5207	136	81-00-01			38	

*LEDs are frequently updated therefore values are nominal.

Lumen Package	Wattage	3000K CCT					
		120V	200V	240V	277V	347V	480V
VHO	152	1.27	0.73	0.64	0.56	0.44	0.32
HO	124	1.03	0.6	0.52	0.45	0.36	0.26
SS	92	0.77	0.44	0.38	0.33	0.27	0.19
LW	72	0.6	0.35	0.3	0.26	0.21	0.15
VW	60	0.5	0.29	0.25	0.22	0.17	0.13
SW	38	0.32	0.18	0.16	0.14	0.11	0.08

Lumen Package	Wattage	4000K CCT					
		120V	200V	240V	277V	347V	480V
VHO	152	1.27	0.73	0.64	0.56	0.44	0.32
HO	124	1.03	0.6	0.52	0.45	0.36	0.26
SS	92	0.77	0.44	0.38	0.33	0.27	0.19
LW	72	0.6	0.35	0.3	0.26	0.21	0.15
VW	60	0.5	0.29	0.25	0.22	0.17	0.13
SW	38	0.32	0.18	0.16	0.14	0.11	0.08

Lumen Package	Wattage	5000K CCT					
		120V	200V	240V	277V	347V	480V
VHO	152	1.27	0.73	0.64	0.56	0.44	0.32
HO	124	1.03	0.6	0.52	0.45	0.36	0.26
SS	92	0.77	0.44	0.38	0.33	0.27	0.19
LW	72	0.6	0.35	0.3	0.26	0.21	0.15
VW	60	0.5	0.29	0.25	0.22	0.17	0.13
SW	38	0.32	0.18	0.16	0.14	0.11	0.08

Lumen Package	Wattage	3000K CCT					
		120V	200V	240V	277V	347V	480V
VHO	152	1.27	0.73	0.64	0.56	0.44	0.32
HO	124	1.03	0.6	0.52	0.45	0.36	0.26
SS	92	0.77	0.44	0.38	0.33	0.27	0.19
LW	72	0.6	0.35	0.3	0.26	0.21	0.15
VW	60	0.5	0.29	0.25	0.22	0.17	0.13
SW	38	0.32	0.18	0.16	0.14	0.11	0.08

FOOTNOTES:
1 - Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-luminaire testing.
2 - In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on
3 - In accordance with IESNA TM-21-11, Calculator Values represent time durations that exceed six times NA LM-80 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED).

Mirada Small Area (MRS) Outdoor LED Area Light



OVERVIEW	
Lumen Package	6,000 - 24,000
Wattage Range	41 - 196
Efficacy Range (LPW)	112 - 156
Fixture Weight lbs (kg)	20 (9.1)

QUICK LINKS

- Ordering Guide
- Performance
- Photometrics
- Dimensions

FEATURES & SPECIFICATIONS

- Standard Universal Voltage (120-277 VAC) input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- Power factor: >90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficiency LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.

- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377
- Minimum CRI of 70.
- Integral louver (L) and house-side shield (H) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK08 rated luminaire per IEC 61626 mechanical impact code
- DesignLights Consortium® Listings in progress.

Specifications and dimensions subject to change without notice.

Scottsdale® Legacy LED Canopy Luminaire (CRUS)

PHOTOMETRICS

Luminaire photometry has been conducted by an accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See <http://www.lsi-industries.com/products/led-lighting-solutions.aspx> for detailed photometric data.

CRUS-SC-SS-50

LUMINAIRE DATA

Type 5 Distribution	5000 Kelvin, 80 CRI
Description	5000 Kelvin, 80 CRI
Delivered Lumens	13,980
Watts	93
Efficacy	150
IES Type	Type VS - Very Short
BUG Rating	85-U0-G1

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30°)	3654.2	26%
Medium (30-60°)	7541.2	54%
High (60-90°)	2641.4	19%
Very High (90-180°)	143.2	1%
Uplight (90-180°)	0	0%
Total Flux	13980	100%

15' Mounting Height/15' Grid Spacing
5 FC 2 FC 1 FC .5 FC

CRUS-SC-SS-50

LUMINAIRE DATA

Type 3 Distribution	5000 Kelvin, 80 CRI
Description	5000 Kelvin, 80 CRI
Delivered Lumens	12,226
Watts	93
Efficacy	131
IES Type	Type III, Very Short
BUG Rating	85-U0-G2

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30°)	3240.3	27%
Medium (30-60°)	6245.5	51%
High (60-90°)	2594.6	21%
Very High (90-180°)	146.1	1%
Uplight (90-180°)	0	0%
Total Flux	12227	100%

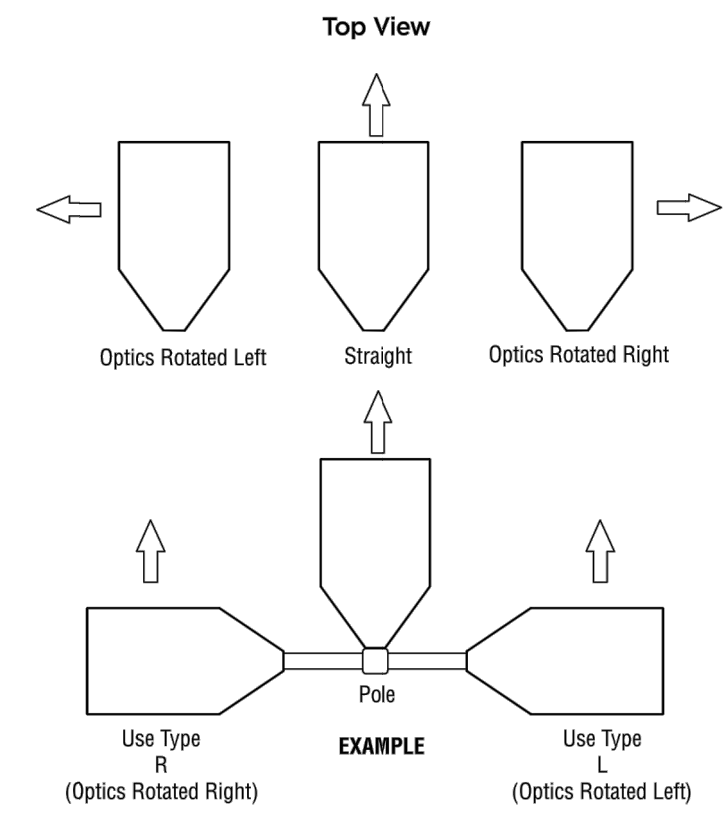
15' Mounting Height/15' Grid Spacing
5 FC 2 FC 1 FC .5 FC

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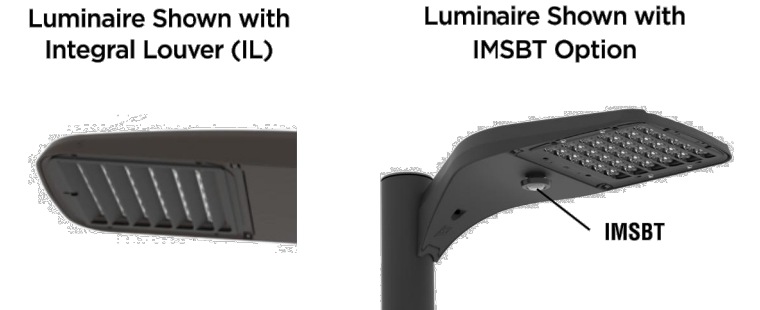
Mirada Small Area Light (MRS)

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)
Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.



7 Pin Photoelectric Control
7-pin ANSI C136-41-2015 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).



Mirada Small Area Light (MRS)

PERFORMANCE

Table with columns: Delivered Lumens, Distribution, CRI, 3000K CCT, 4000K CCT, 5000K CCT, and Wattage. Rows include models 6L, 9L, 12L, 15L, 18L, 21L, and 24L.

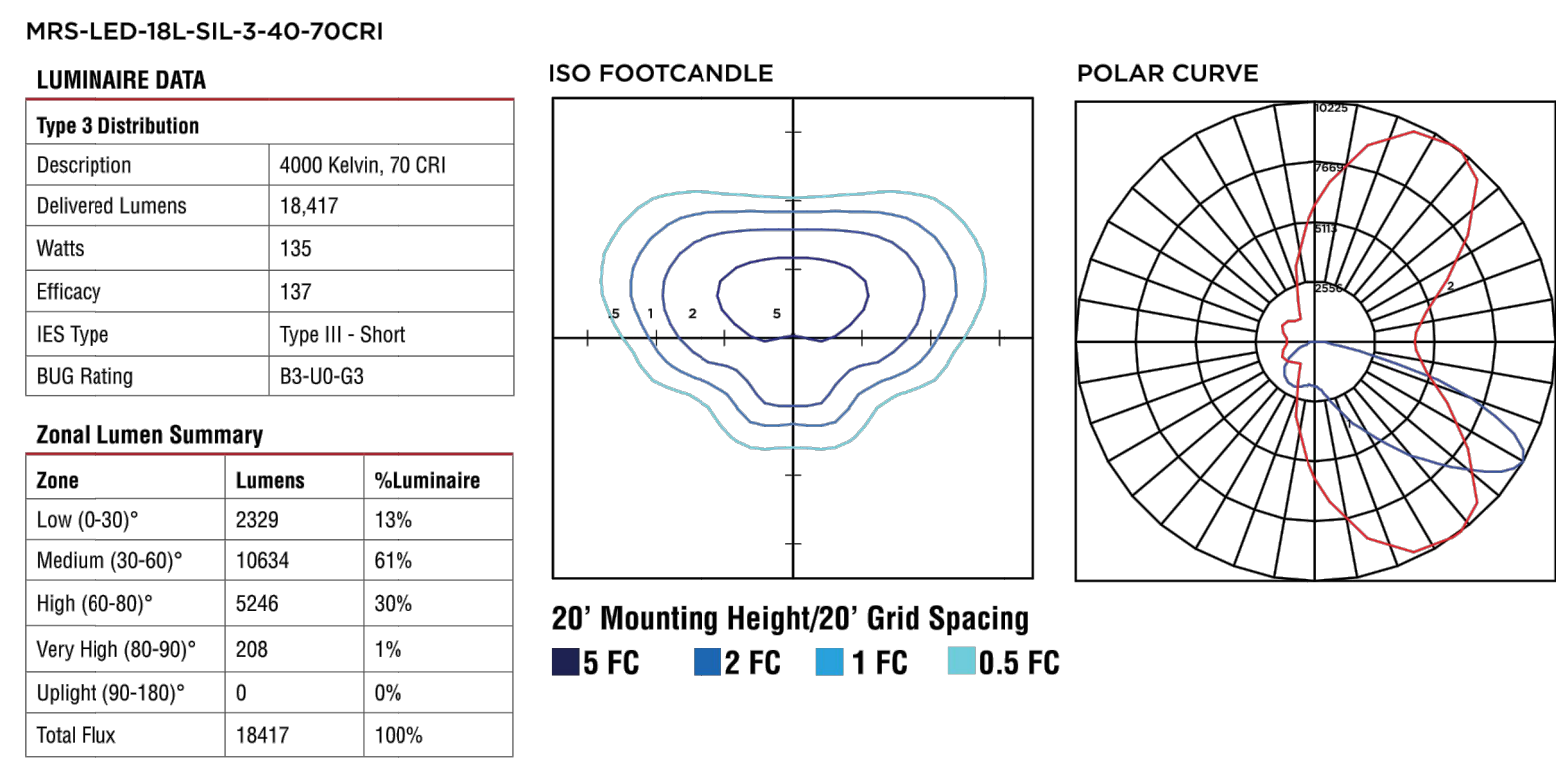
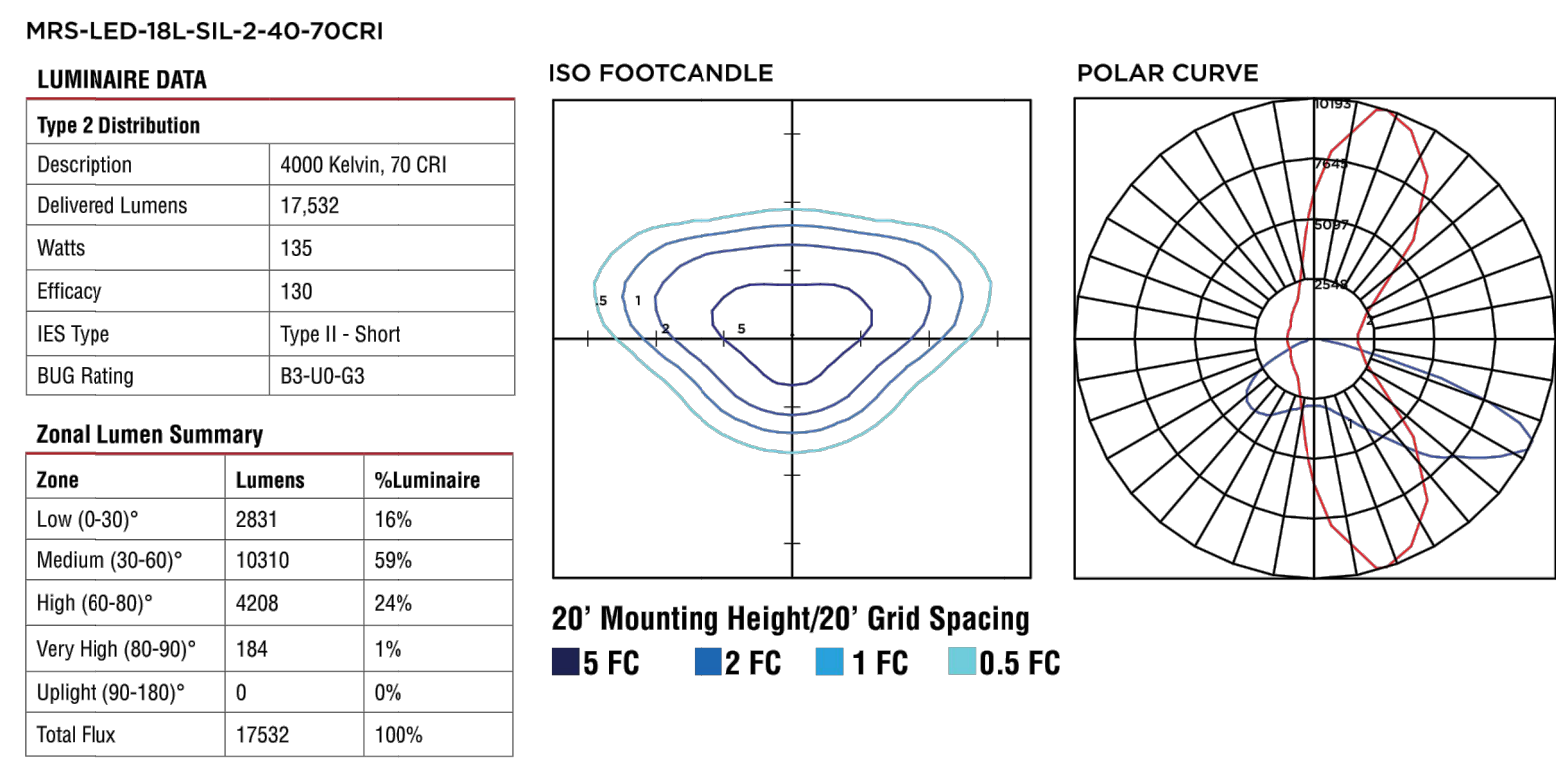
Table with columns: Ambient Temp, Recommended Lumen Maintenance, and Footnotes. Includes electrical data and lumen maintenance values.



Mirada Small Area Light (MRS)

PHOTOMETRICS

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%. See <http://www.lsi-industries.com/products/led-lighting-solutions.aspx> for detailed photometric data.



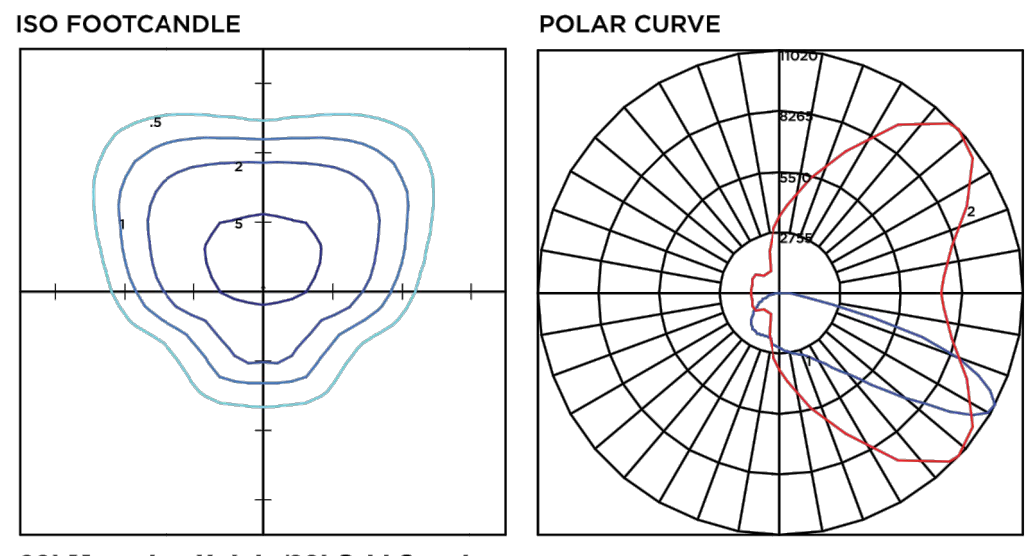
Mirada Small Area Light (MRS)

PHOTOMETRICS (CONT)

MRS-LED-18L-SIL-FT-40-70CRI

LUMINAIRE DATA table for MRS-LED-18L-SIL-FT-40-70CRI.

Zonal Lumen Summary table for MRS-LED-18L-SIL-FT-40-70CRI.

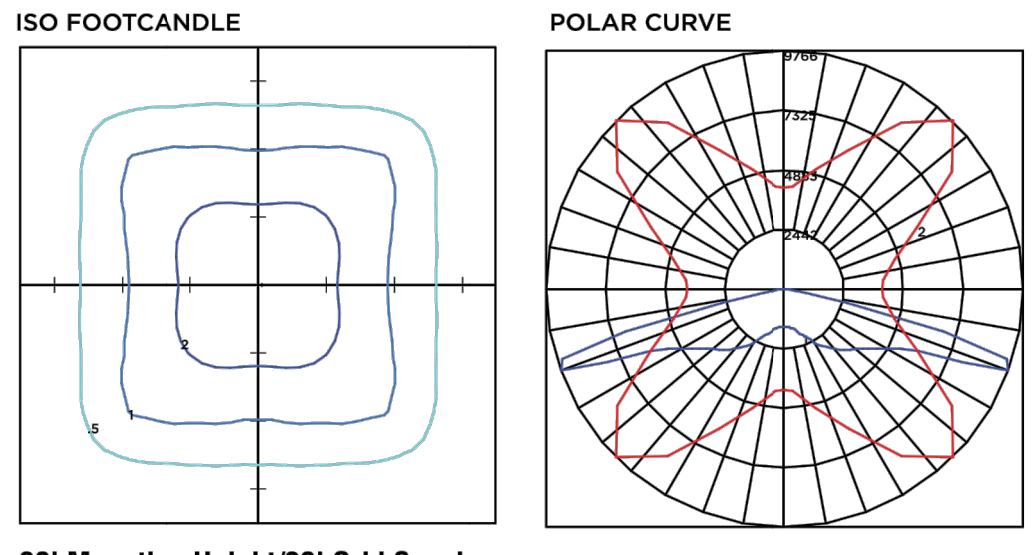


20' Mounting Height/20' Grid Spacing

MRM-LED-30L-SIL-SW-40-70CRI

LUMINAIRE DATA table for MRM-LED-30L-SIL-SW-40-70CRI.

Zonal Lumen Summary table for MRM-LED-30L-SIL-SW-40-70CRI.

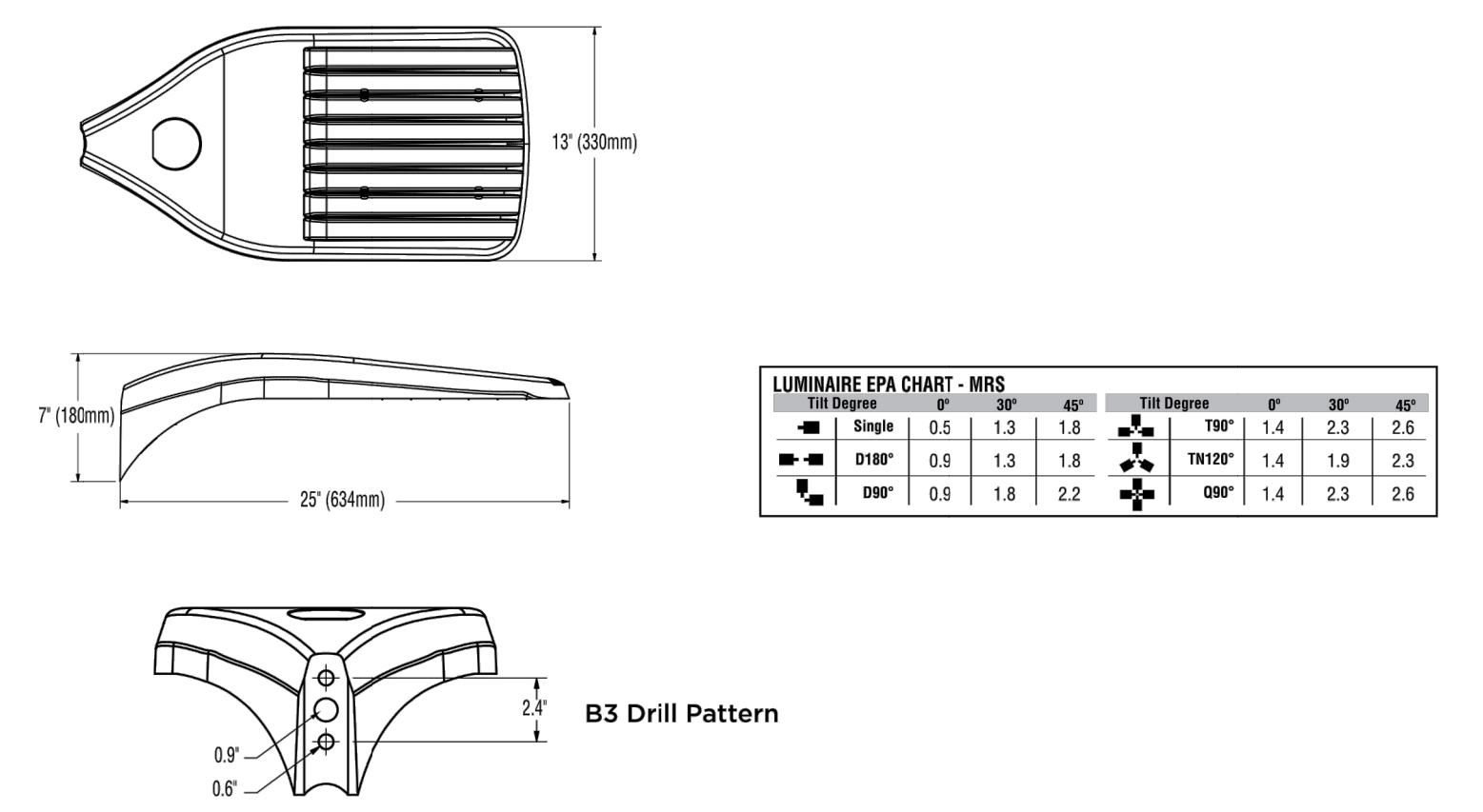


20' Mounting Height/20' Grid Spacing



Mirada Small Area Light (MRS)

PRODUCT DIMENSIONS



CONTROLS

AirLink Wireless Lighting Controller
The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.
[Click here to learn more about AirLink.](#)

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)
Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.
[Click here to learn more about IMSBT.](#)

AirLink Blue
Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components: Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.
[Click here to learn more about AirLink Blue.](#)



Mirada Small Area Light (MRS)

POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.
[Click here to learn more details about poles & brackets.](#)



Table with columns: No., REVISIONS, COMMENTS, DATE, BY.

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Table with columns: KHA PROJECT, DATE, SCALE, DESIGNED BY, DRAWN BY, CHECKED BY.

LIGHTING DETAILS

EP MART #10 PREPARED FOR EP MART NORTH CAROLINA SHEET NUMBER 11.2

