PROPERTY DATA:

PARCEL ID:	R.B. 1330, PG. 353 TAX MAP #:107H, PARCEL 001.01
ADDRESS:	INTERSECTION OF STATE HWY #76 & RAYMOND HIRSCH DRIVE WHITE HOUSE, TENNESSEE 37188
PROPERTY AREA:	1.58± ACRES (68,827± S.F.)
ZONING:	C-2: GENERAL COMMERCIAL DISTRICT
PROPOSED USE:	SERVICE STATION / CONVENIENCE STORE
BUILDING SETBACKS:	STREETS (40 FEET); SOUTH (35 FEET); WEST (35 FEET)
BUILDING AREA:	4,608± S.F. (0.07%)
IMPERVIOUS AREAS:	48.733± S.F. (70.81%)
OPEN SPACE AREA:	20,094± S.F. (29.19% OF PROPERTY)
FLOODPLAIN DESIGNATION:	FLOOD DESIGNATION: FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE 500-YR FLOOD PLAIN). AS INDICATED BY THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 47147C0410C, EFFECTIVE DATE: APRIL 16, 2008; PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

A. GENERAL NOTES

1. GENERAL SCOPE OF WORK INCLUDES:
   BUILDING
   CANOPY
   FUEL TANKS
   PIPING AND DISPENSERS
   PARKING
2. REQUIRED PARKING:
   RETAIL STORES = 1 SPACE PER 150 S.F.
   3,936 S.F. = 27 SPACES
   PROVIDED PARKING: (PARKING DIMENSIONS: 9'Wx18'L)
   (2) ADA PARKING SPACE
   (27) STANDARD PARKING SPACES
3. THE ADJACENT INTERSECTION IS SIGNALIZED

B. SITE WORK

1. PROPOSED DRIVE APPROACH

C. BUILDING

1. STANDARD #3900-R V10 BUILDING (82'-0" X 48'-0")

D. EXTERIOR APPEARANCE & SIGNAGE

1. (2) NEW 60 SQ.FT. GROUND MOUNT SIGN
2. CANOPY SIGNAGE: EMBOSSED LOGO SIGN
3. CANOPY SIGNAGE: LED ILLUMINATED CHANNEL LETTERS

E. DISPENSERS

1. (5) 3+0 DISPENSERS, SUMPS, AND ISLANDS
2. (3) 3+1 DISPENSERS, SUMPS, AND ISLANDS

F. UNDERGROUND STORAGE TANKS

1. (1) 12,000 GALLON TANK FOR PREMIUM & E-85
2. (1) 20,000 GALLON TANK FOR UNLEADED
3. (1) 12,000 GALLON TANK FOR DIESEL

G. CANOPY

1. 193'-0" x 28'-0" CANOPY PER CURRENT STANDARDS.

H. YARD

1. AIR ISLAND
2. TRASH ENCLOSURE
3. CONCRETE TANK SLAB
4. CONCRETE PAVEMENT
5. CONCRETE SIDEWALK
6. BIKE RACK
7. BUILDING LANDSCAPE STRIP

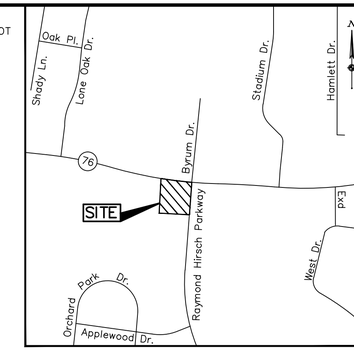
NOTES:

REFERENCE DIMENSIONS ARE SHOWN TO PROVIDE INFORMATION TO THE PERMITTING AGENCIES AND NOT FOR LAYOUT PURPOSES FOR CONTRACTOR.

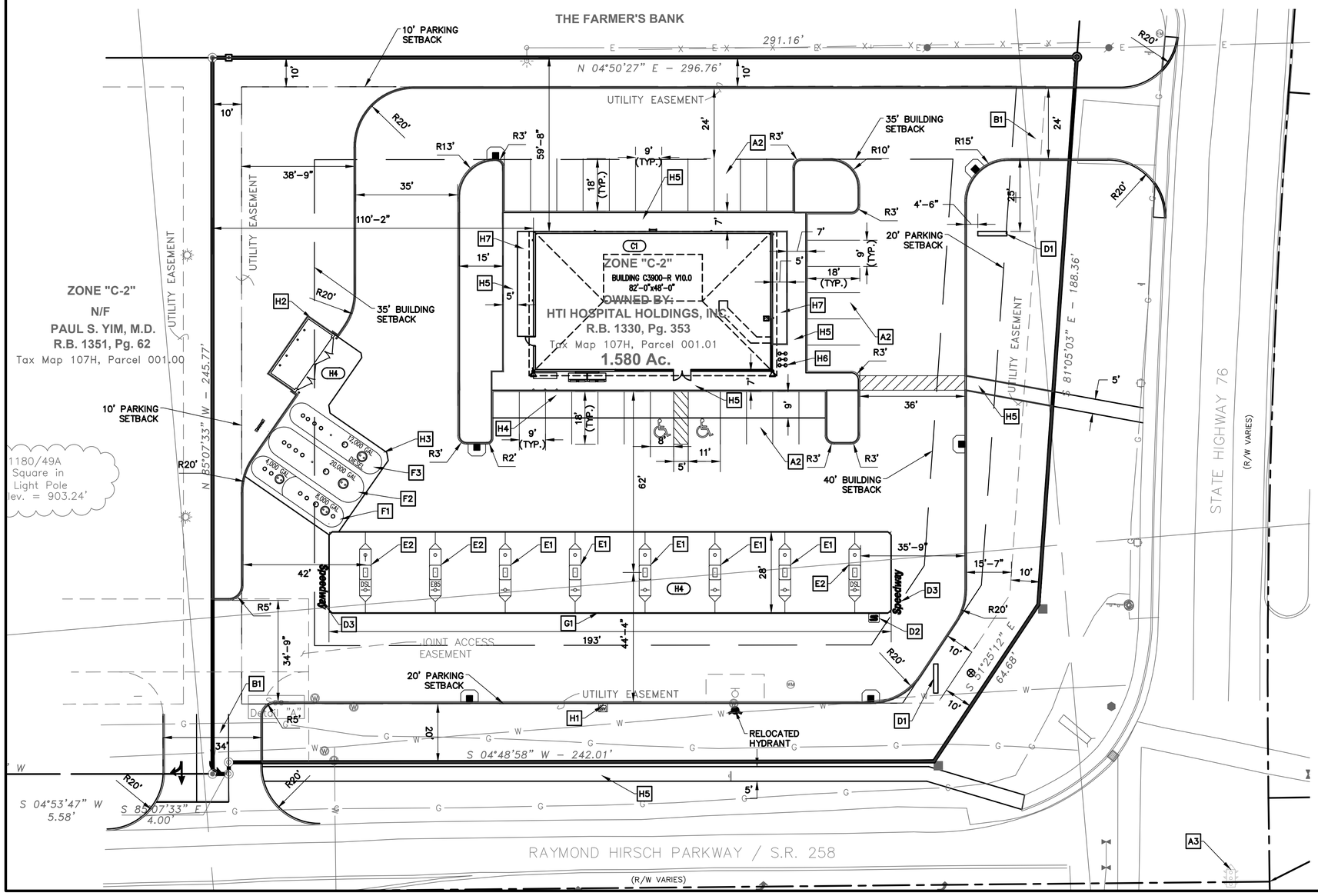
STORMWATER MANAGEMENT FOR THIS SITE WILL MEET THE REQUIREMENTS OF THE CITY OF WHITE HOUSE ENGINEER'S OFFICE.

ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.

ALL CONSTRUCTION SHALL BE COMPLETED IN A SINGLE PHASE.



LOCATION MAP
NO SCALE



OWNER/DEVELOPER:

500 SPEEDWAY DRIVE
ENON, OHIO. 45323
PHONE: (937) 864 3000

ENGINEER:

CESO INC.
2800 CORPORATE EXCHANGE DRIVE
SUITE 160
COLUMBUS, OHIO. 43231
PHONE: (614) 794-7080

LEGEND

EXISTING

- EX. DRAINAGE MANHOLE
- EX. CURB INLET
- EX. CATCH BASIN
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. WATER MANHOLE
- EX. WATER METER
- EX. POWER POLE
- EX. TELEPHONE POLE
- EX. GAS VALVE
- EX. SIGN
- EX. BOLLARD
- EX. MAILBOX
- ST — EX. STORM SEWER
- W — EX. WATER LINE
- G — EX. GAS LINE
- OHE — EX. OVERHEAD ELECTRIC
- EX. FENCE
- 1120 — EX. CONTOUR (MAJOR)
- 1117 — EX. CONTOUR (MINOR)
- TC — EX. TELECOMMUNICATION
- SS — EX. SANITARY SEWER

PROPOSED

- PROP. CATCH BASIN
- PROP. DRAINAGE MANHOLE
- PROP. CLEANOUT
- PROP. DOWN SPOUT
- PROP. SANITARY MANHOLE
- PROP. SANITARY CLEANOUT
- PROP. LIGHT
- PROP. AIR STATION
- PROP. CONCRETE STOP
- PROP. DETECTABLE STRIP
- PROP. MONUMENT SIGN
- PROP. GAS PUMP
- 8"SAN — PROP. SANITARY SEWER
- STM — PROP. STORM SEWER
- W — PROP. WATER LINE
- GS — PROP. GAS SERVICE
- UGE — PROP. U.G. ELECTRIC

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www.cesoinc.com
PROJECT NO. 4846

Speedway®

Prepared By:
Speedway
Engineering and Construction Dept.
Enon, OH 45323

NO.	REVISIONS	DRAWN BY	PROJ. MGR.	DESIGN ENGR.	CHECKED BY

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ZONING PLOT PLAN
NEW BUILD

RAYMOND HIRSCH AND STATE HWY 76
ROBERTSON COUNTY
WHITE HOUSE, TN

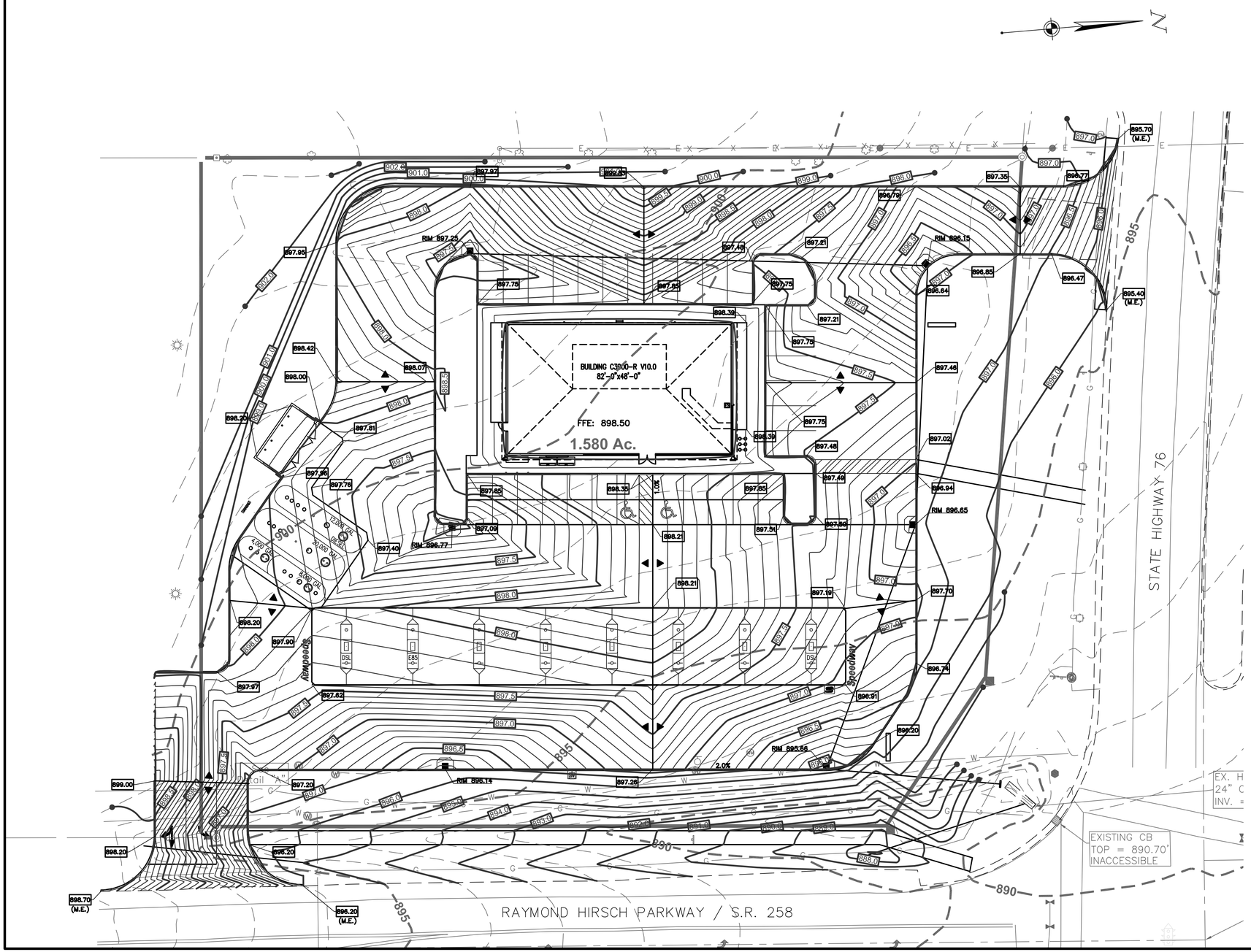
STORE OR BLDG NO.	100147
VERSION OR AFE NO.	128324
SCALE	0 10 20 Scale: 1" = 20'

DESIGN TEAM		DATE
DGNR.	J. BRAUNSCHWEIGER	11/06/12
P.MGR.	J. HOSTASA	11/06/12
RVWR.	B. MILLER	11/06/12

DRWG. NO.
100147-Z1

LEGEND

+ XXX.XX	EXISTING ELEVATION
XXX.XX*	EXISTING INTERPOLATED ELEVATION
XXX.XX	NEW PAVEMENT ELEVATION (UNLESS NOTED OTHERWISE)
XXX	EXISTING CONTOUR
XXX.X	NEW CONTOUR
XXX	NEW GRASS CONTOUR
	PAVEMENT CROWN LINE



NOTE: ALL SPOT GRADES ARE TOP OF PAVEMENT ELEVATIONS UNLESS OTHERWISE SPECIFIED.

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NO.	REVISIONS	DESIGNER	PROJ. MGR.	ENGINEER	DATE

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PRELIMINARY GRADING PLAN
NEW BUILD
RAYMOND HIRSCH AND STATE HWY 76
ROBERTSON COUNTY
WHITE HOUSE, TN

STORE OR BLDG NO. **100147**

VERSION OR AFE NO. **128324**

SCALE 0 10 20
Scale: 1" = 20'

DESIGN TEAM		DATE
DGNR.	J. BRAUNSCHWEIGER	11/06/12
P.MGR.	J. HOSTASA	11/06/12
RVWR.	N. HERSHBERGER	11/06/12

DRWG. NO. **100147-CG**

PIPING & UTILITIES LEGEND

- NEW PRODUCT PIPING
- NEW VENT & STAGE II PIPING
- STORM SEWER
- SANITARY SEWER
- GAS LINE
- WATER LINE
- ELECTRIC LINE

STORM STRUCTURES

STRUCTURE #1 - HEADWALL
TOP = 889.00
PR. 12" SW INV.= 887.50
EX. 24" NE INV. = 886.00

STRUCTURE #2 -2' x 2' CB
RIM = 895.66
PR. 12" W INV. = 888.33
PR. 18" N INV. = 887.73
PR. 12" S INV. = 889.33

STRUCTURE #3 - 2' x 2' CB
RIM = 895.90
PR. 12" N INV. = 890.55

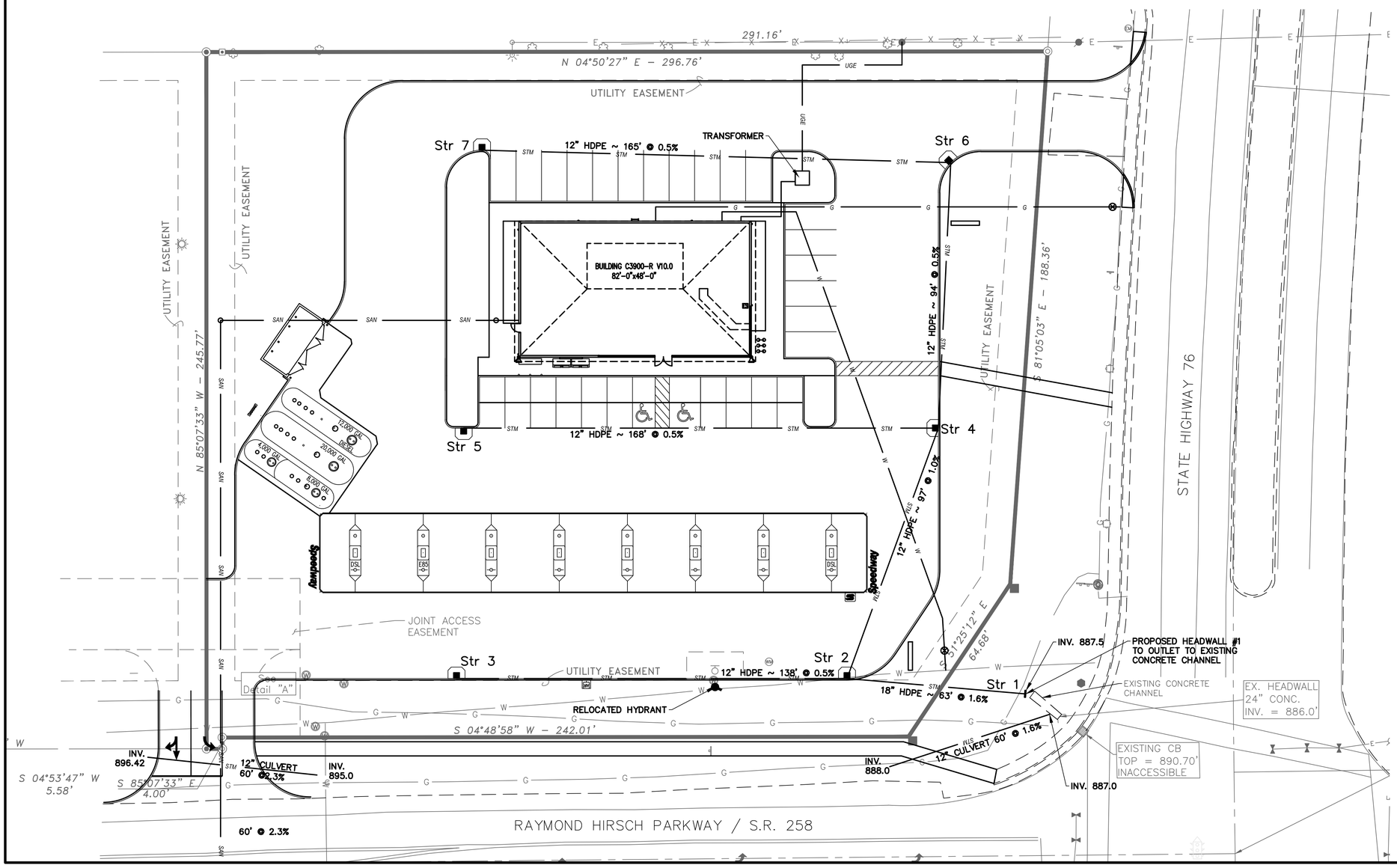
STRUCTURE #4 - 2' x 2' CB
RIM = 896.65
PR. 12" E INV. = 889.83
PR. 12" S INV. = 889.93
PR. 12" W INV. = 889.93

STRUCTURE #5 - 2' x 2' CB
RIM = 897.06
PR. 12" N INV. = 891.77

STRUCTURE #6 - 2' x 2' CB
RIM = 896.15
PR. 12" S INV. = 890.50
PR. 12" E INV. = 890.40

STRUCTURE # 7 - 2' x 2' CB
RIM = 897.25
PR. 12" N INV. = 891.33

CONTRACTOR SHALL VERIFY INVERT ELEVATIONS AND OTHER CRITICAL DIMENSIONS LISTED ON THESE DRAWINGS WHERE UTILITY TIE-INS ARE TO BE MADE. VERIFICATION SHALL BE COMPLETED PRIOR TO INSTALLATION OF NEW UTILITIES. ANY SIGNIFICANT DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.



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PROJECT NO. 4846

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Enon, OH 45323

NO.	REVISIONS	DESIGNER DATE	PROJ. MGR. DATE	REVIEWER DATE

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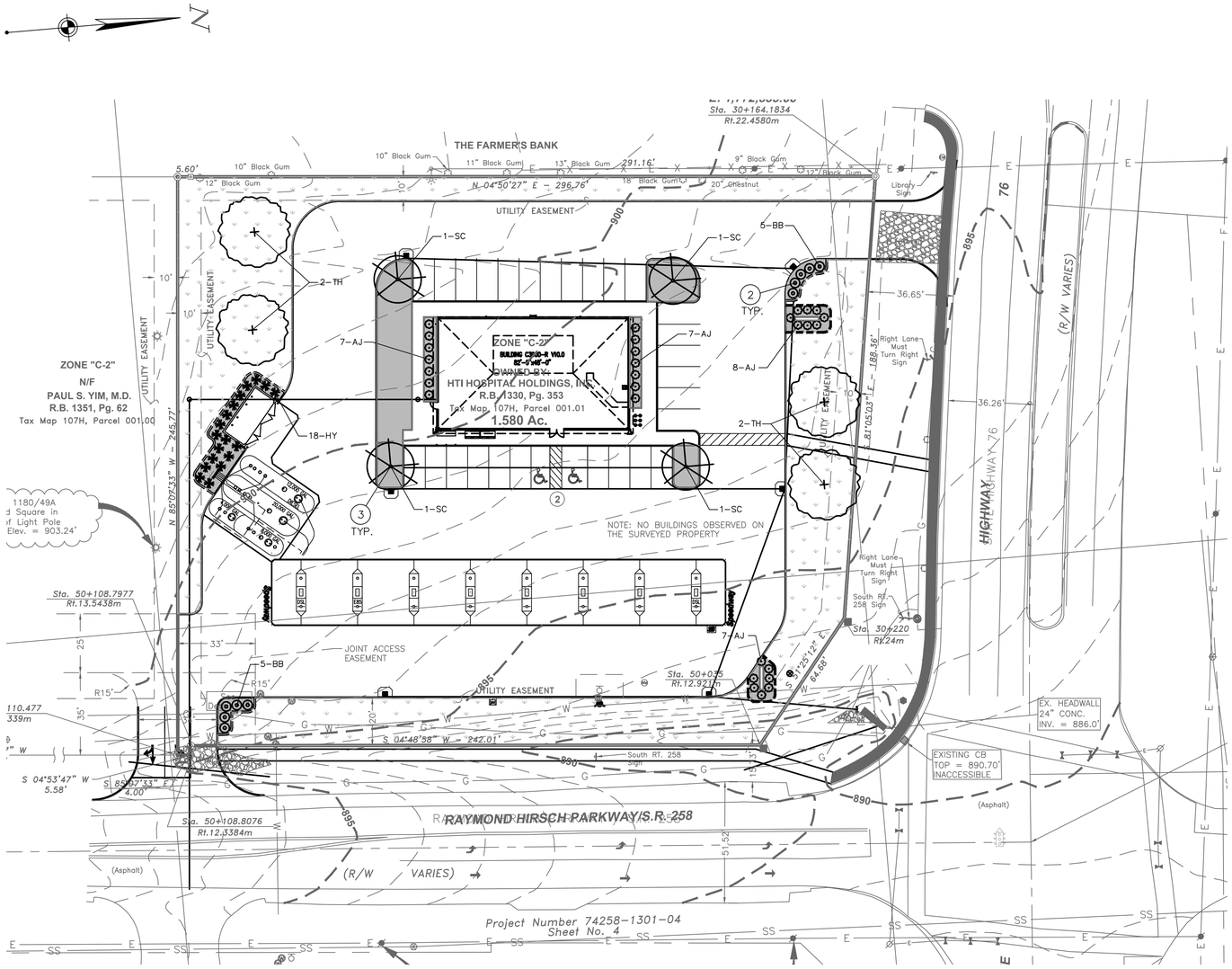
PRELIMINARY UTILITY PLAN
NEW BUILD

RAYMOND HIRSCH AND STATE HWY 76
ROBERTSON COUNTY
WHITE HOUSE, TN

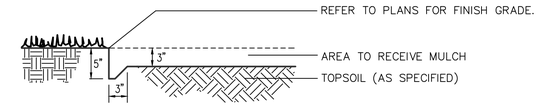
STORE OR BLDG NO. **100147**
VERSION OR AFE NO. **128324**
SCALE 0 10 20
Scale: 1" = 20'

DESIGN TEAM		DATE
DGNR.	J. BRAUNSCHWEIGER	11/06/12
P.MGR.	J. HOSTASA	11/06/12
RVWR.	N. HERSHBERGER	11/06/12

DRWG. NO. **100147-CU**

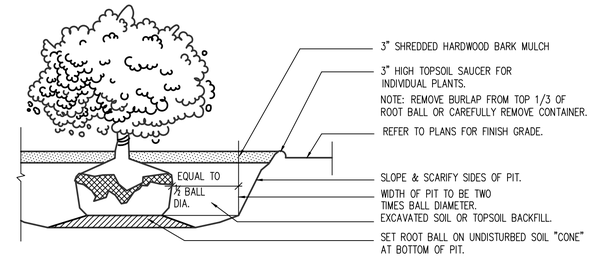


NOTE: ALIGN SPADE EDGE SO AS TO MINIMIZE LARGE OPEN AREAS WITHOUT PLANT MATERIAL.



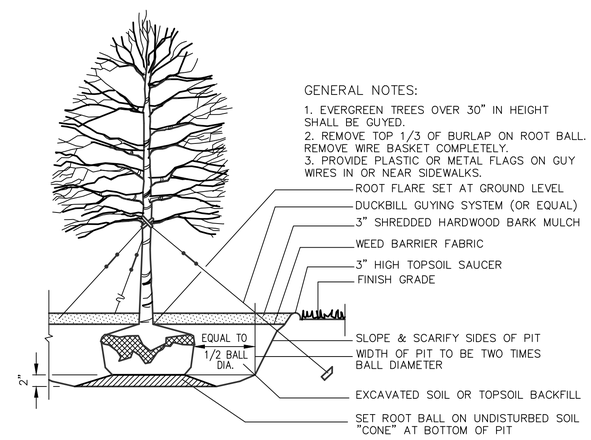
1 SPADE EDGE

NO SCALE



2 SHRUB PLANTING

NO SCALE



3 TREE PLANTING

NO SCALE

GENERAL LANDSCAPE NOTES

1. THE CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK.
2. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICIAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN OR EQUIVALENT.
3. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS ORIGINAL GRADE BEFORE DIGGING.
4. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT TIME OF PLANTING. WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL SHALL BE CUT THROUGH THE SURFACE IN TWO VERTICAL LOCATIONS.
5. ALL PLANTS SHALL BE SPRAYED WITH AN ANTIDESSICANT WITHIN 24 HOURS AFTER PLANTING.
6. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24-HOUR PERIOD AFTER PLANTING.
7. ALL "MULCHED PLANT BEDS" TO BE FULLY MULCHED AND COVERED WITH 3" MIN DEPTH OF SHREDDED HARDWOOD BARCK MULCH OVER PROPERLY ANCHORED POROUS WEED BARRIERFABRIC SUCH AS AGRITEX MAT ,TYPAR, OR EQUAL. SEPARATE PLANT BED FROM ADJACENT LAWN AREAS WITH A SPADE EDGE (REFER TO DETAIL THIS SHEET).
8. ALL AREAS NOTED "GRADE AND SEED" AND "MULCHED PLANT BED" WILL RECEIVETOP SOIL AS INDICATED IN STANDARD SPECIFICATIONS.
9. THE CONTRACTOR SHALL REFER TO THE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PLANT SCHEDULE

SYM.	QTY.	PLANT NAME	INSTALLATION SIZE	MATURE HT/SPD	SPACING
DECIDUOUS TREE					
TH	4	THORNLESS HONEYLOCUST – GLEDITSIA TRIACANTHOS 'INERMIS'	1.75" cal. B/B	45'/30'	SEE PLAN
ORNAMENTAL TREE					
SC	4	FLOWERING CRABAPPLE – MALUS HOPA	1.75" cal. B/B	20'/20'	SEE PLAN
SHRUBS					
HY	18	HICKS YEW – TAXUS x MEDIA 'HICKSII'	24" Hgt.	10'/4'	4' O.C.
AJ	29	ANDORA JUNIPER – JUNIPERUS COMMUNIS DUPRESSO PLUMOSA	24" Hgt.	3'/5'	4' O.C.
BB	10	BURNING BUSH – EUONYMUS ALATUS 'COMPACTUS'	24" Hgt.	5'/5'	5' O.C.

MULCHED AREA

SEEDED AREA

SPADE EDGE

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PROJECT NO. 4846

Speedway®

Prepared By:
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Enon, OH 45323

NO.	REVISIONS	DRAWN BY / DATE	DESIGNED BY / DATE	REVIEWED BY / DATE

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LANDSCAPE PLAN NEW BUILD

RAYMOND HIRSCH AND STATE HWY 76
ROBERTSON COUNTY
WHITE HOUSE, TN

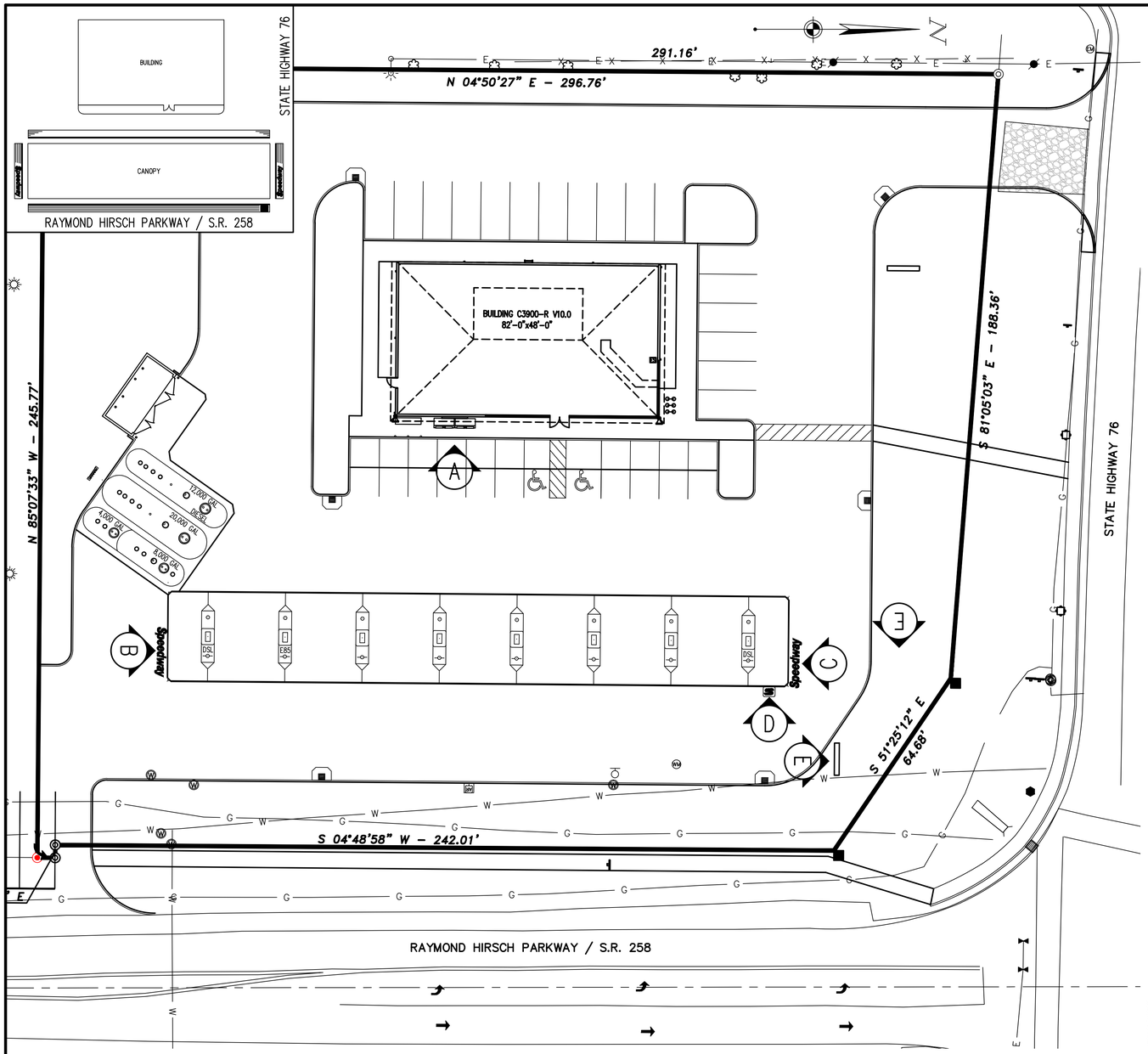
STORE OR BLDG NO. 100147

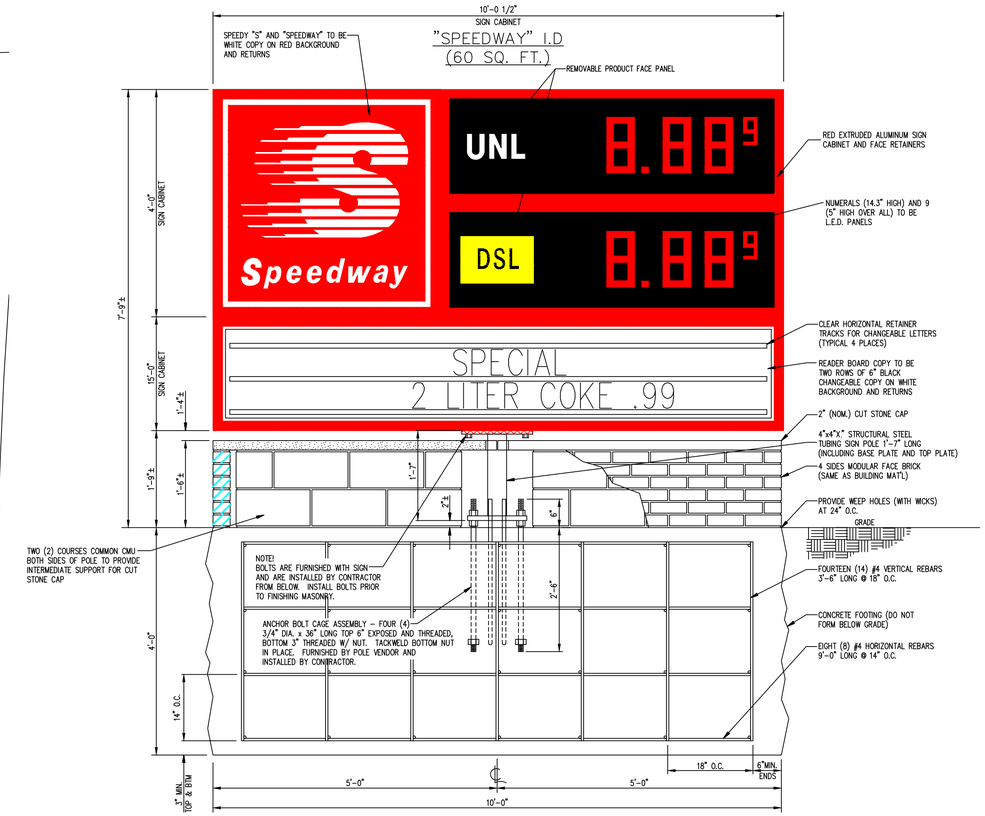
VERSION OR AFE NO. 128324

SCALE 0 10 20
Scale: 1" = 20'

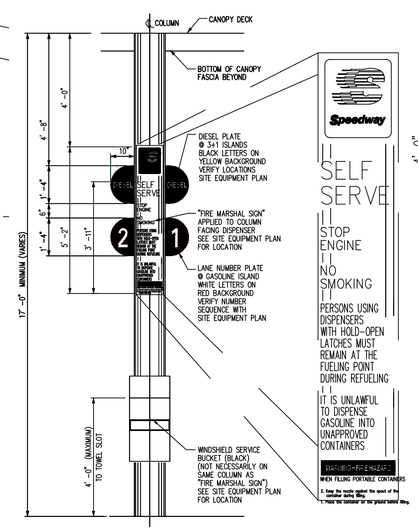
DESIGN TEAM		DATE
DGNR.	J. BRAUNSCHWEIGER	11/02/12
P.MGR.	J. HOSTASA	11/02/12
RVWR.	N. HERSHBERGER	11/02/12

DRWG. NO. 100147-LP

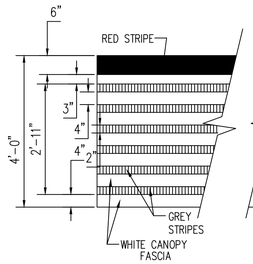




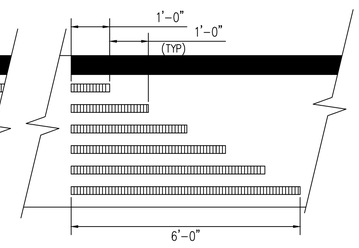
E 60 SQ. FT. "SPEEDWAY" GROUND MOUNTED SIGN DETAIL
NOT TO SCALE



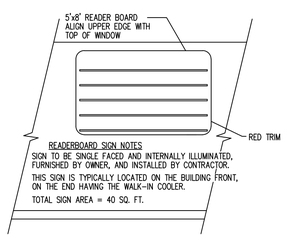
FRONT ELEVATION @ FIRE MARSHAL SIGN AND WINDSHIELD SERVICE BUCKET
SCALE: 3/8 " = 1'–0"



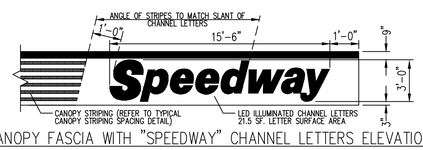
CANOPY STRIPE SPACING
SCALE: 1/2 " = 1'–0"



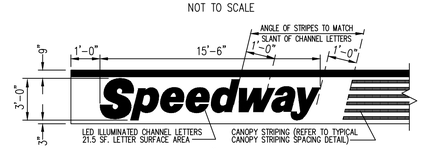
PARTIAL STRIPE DETAIL
SCALE: 1/2 " = 1'–0"



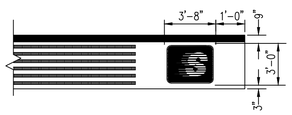
A READER BOARD ELEVATION "A"
NOT TO SCALE



B CANOPY FASCIA WITH "SPEEDWAY" CHANNEL LETTERS ELEVATION "B"
NOT TO SCALE



C CANOPY FASCIA WITH "SPEEDWAY" CHANNEL LETTERS ELEVATION "C"
NOT TO SCALE



D CANOPY FASCIA WITH "S" LOGO ELEVATION "D"
NOT TO SCALE

GRAPHICS – INSTALLATION

ITEM	FURNISHED BY:	INSTALLED BY:	REMARKS
DISPENSER DECALS	V	C	
FIRE MARSHAL SIGN	O	C	SEE SITE EQU. PLAN
LANE NUMBER PLATES	O	C	SEE SITE EQU. PLAN
BUILDING READERBOARD	O	C	
CANOPY FASCIA SIGNS	V	C	ELECTRICAL BY CONTRACTOR
BUILDING ADDRESS NUMERALS	O	C	

O – OWNER V – OWNER'S VENDOR C – CONTRACTOR

SIGNAGE

REF. LET.		LOCATION	MESSAGE	ILLUMINATION	DIMENSION	AREA
		BUILDING – SEE GRAPHICS CONTROL DRAWING				
A		BUILDING WALL	READER BOARD	ILLUMINATED	5' x 8'	40.0 SF
					BUILDING TOTAL	40.0 SF
		CANOPY – SEE GRAPHICS CONTROL DRAWING				
B		SHORT SIDE (N)	SPEEDWAY	ILLUMINATED	LETTER FACING	46.5 SF
C		SHORT SIDE (S)	SPEEDWAY	ILLUMINATED	LETTER FACING	46.5 SF
D		LONG SIDE (E)	MOVING "S" LOGO	ILLUMINATED	3.66 x 3	11.0 SF
					CANOPY TOTAL	104.0 SF
		GROUND MOUNT – SEE SIGN DRAWING				
E		NORTHEAST CORNER (N)	TRADEMARK/PRICE	ILLUMINATED		60.0 SF
E		NORTHEAST CORNER (N)	TRADEMARK/PRICE	ILLUMINATED		60.0 SF
					GROUND MOUNT TOTAL	120.0 SF
					SITE TOTAL	264.0 SF

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PROJECT NO. 4846

Speedway®
Prepared By:
Speedway
Engineering and Construction Dept.
Enon, OH 45323

NO.	REVISIONS	DESIGNER PROVIDE	PROJ. MGR. REVIEW	REGIONAL REVIEW

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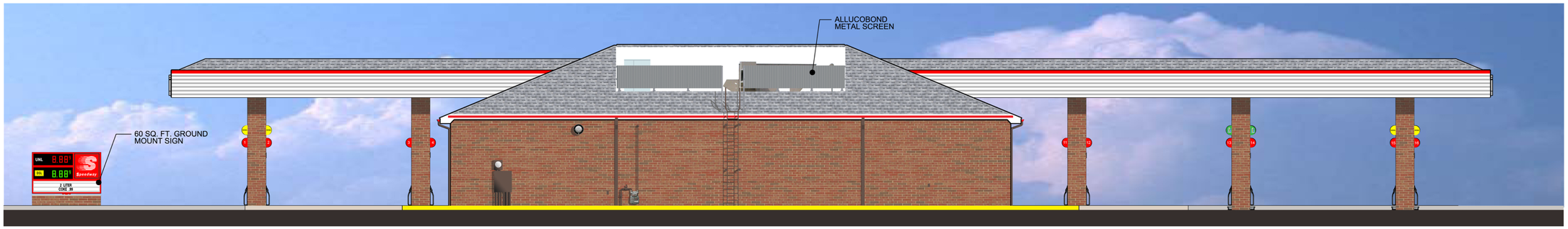
SIGNAGE PLAN & DETAILS
NEW BUILD
RAYMOND HIRSCH AND STATE HWY 76
ROBERTSON COUNTY
WHITE HOUSE, TN

STORE OR BLDG NO. 100147
VERSION OR AFE NO. 128324
SCALE 0 10 20 Scale: 1 = 20

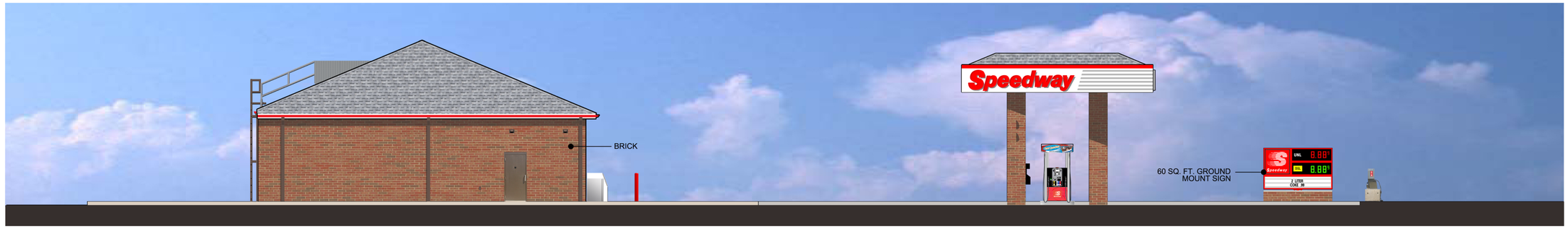
DESIGN TEAM		DATE
DGNR.	J. BRAUNSCHWEIGER	11/06/12
P.MGR.	J. HOSTASA	11/06/12
RVWR.	N. HERSHBERGER	11/06/12

DRWG. NO. 100147-SS

FRONT ELEVATION



REAR ELEVATION



LEFT ELEVATION

RIGHT ELEVATION

Speedway®

Prepared By:
Speedway
Engineering and Construction Dept.
Elmore, OH 43323

NO.	REVISIONS	DESIGNER PROJ. MGR. REVIEWER DATE	DATE	DATE

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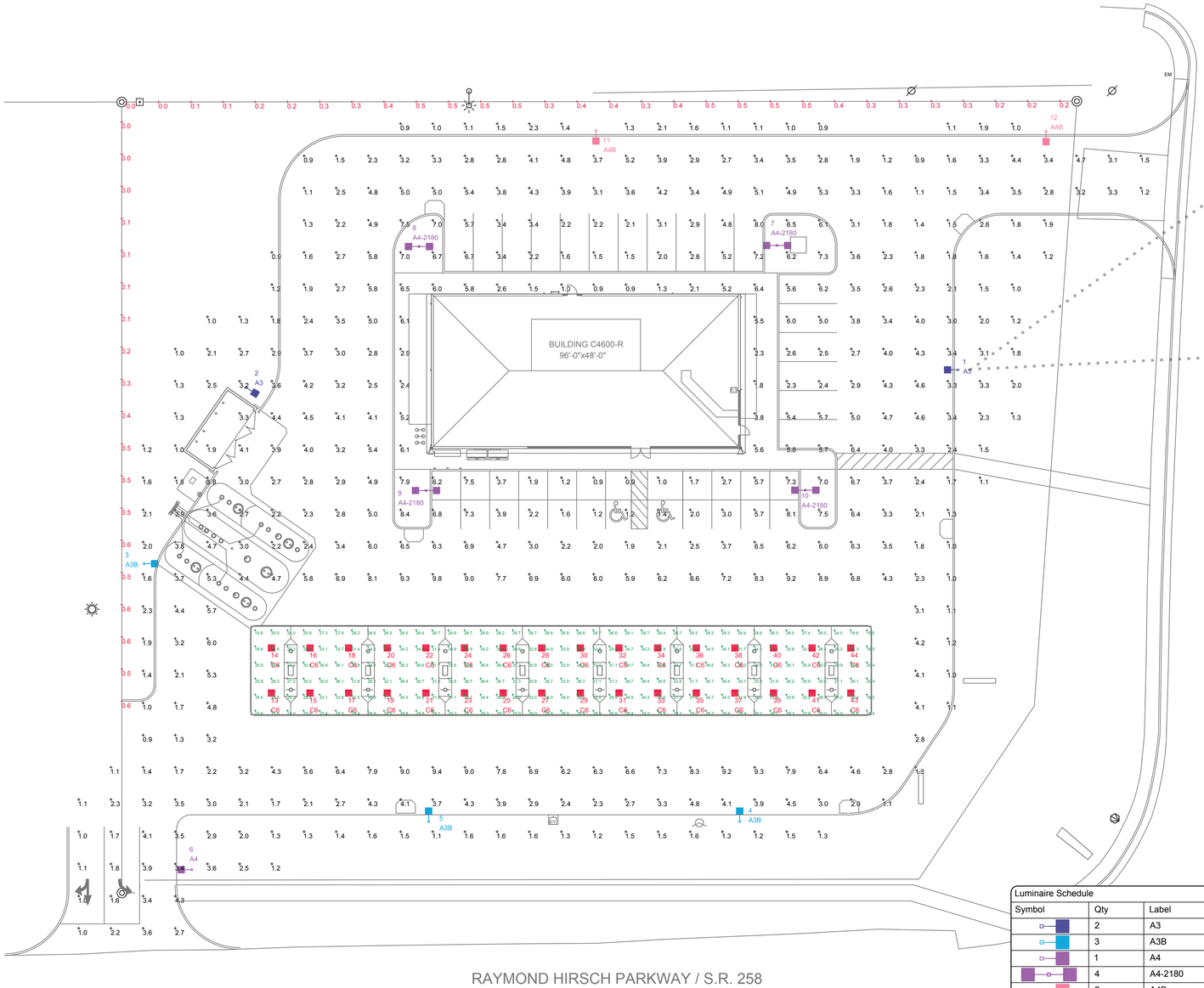
BUILDING ELEVATIONS
NEW BUILD
RAYMOND HIRSCH AND STATE HWY 76
ROBERTSON COUNTY
WHITE HOUSE, TN

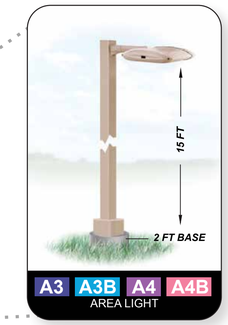
STORE OR BLDG NO.	100147
VERSION OR AFE NO.	AFE#
SCALE	0 — 8' 18" = 1'-0"

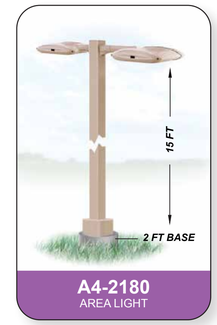
DESIGN TEAM		DATE
DGNR.	S. FARRELL	12/12/12
P.MGR.	J. HOSTASA	12/12/12
RVWR.	PLEASANTS, T.	12/12/12

DRWG. NO.
100147-ELEV

ESCTIMES:,:ESTIMONES:
$SDH-SPEC$:,$SDH-SPEC$:,$SDH-SPEC$:,$SDH-SPEC$







Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Lumens	LLF	Total Watts	Manufacturer	Description
	2	A3	SINGLE	10026	0.970	266	BETALED, A DIVISION OF RUUD LIGHTING	ARE-EDG-3M-DA-08-D-UL-BZ-525
	3	A3B	SINGLE	7417	0.970	399	BETALED, A DIVISION OF RUUD LIGHTING	ARE-EDG-3MB-DA-08-D-UL-BZ-525
	1	A4	SINGLE	10575	0.970	133	BETALED, A DIVISION OF RUUD LIGHTING	ARE-EDG-4M-DA-08-D-UL-BZ-525
	4	A4-2180	BACK-BACK	10575	0.970	1064	BETALED, A DIVISION OF RUUD LIGHTING	ARE-EDG-4M-DA-08-D-UL-BZ-525
	2	A4B	SINGLE	7966	0.970	266	BETALED, A DIVISION OF RUUD LIGHTING	ARE-EDG-4MB-DA-08-D-UL-BZ-525
	32	C6	SINGLE	9423	0.980	3264	BETALED, A DIVISION OF RUUD LIGHTING	CAN-304-SL-RS-06-D-UL-WH-525

Luminaire Location Summary			
LumNo	Label	MTG HEIGHT	Tilt
1 - 2	A3	17	0
3 - 5	A3B	17	0
6	A4	17	0
7 - 10	A4-2180	17	0
11 - 12	A4B	17	0
13 - 44	C6	16.5	0

Calculation Summary					
Label	Avg	Max	Min	Avg/Min	Max/Min
OVERALL SITE	3.49	9.8	0.9	3.88	10.89
PROPERTY LINE SOUTH	0.33	0.6	0.0	N.A.	N.A.
PROPERTY LINE WEST	0.32	0.5	0.0	N.A.	N.A.
UNDER CANOPY	30.19	36.7	15.4	1.96	2.38

FOOTCANDLE LEVELS CALCULATED AT GRADE USING PREDICTED LUMEN VALUES AFTER 25K HRS OF OPERATION

VIEW MORE PRODUCT INFO

GRAPHIC SCALE IN FEET

0 10 20 40 60 80 100

SCALE:	DATE:	LAYOUT BY:
1" = 20'	11/9/12	DAR

Illumination results shown on this lighting design are based on project parameters provided by the manufacturer listed, used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying compliance with any applicable electrical, lighting, or energy code.

PROJECT NAME:
SPEEDWAY #100147
WHITE HOUSE, TN

Building, canopy, dispenser & sign images for reference only. These images may vary. Any revisions to these images may not be reflected on this lighting plan.

DWG SIZE	SHEET	DRAWING NUMBER:
D	1 OF 2	RL-0918-S1

red leonard ASSOCIATES
5630 BRIDGETOWN RD. STE. 2
CINCINNATI, OH 45248
(513) 574-9500

AREA LIGHTS

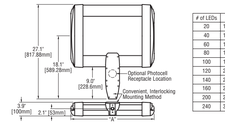
ARE-EDG-3M-DA — THE EDGE® LED Area Light – Type III Medium

Rev. Date: 8/23/11

QTY - 2
LABEL - A3
3M SINGLE

QTY - 3
LABEL - A3B
3MB SINGLE BACKSHIELD

Notes:



# of LEDs	Dim. "A"
20	12.00" [306mm]
40	12.00" [306mm]
60	14.00" [357mm]
80	16.00" [408mm]
100	18.00" [459mm]
120	20.00" [510mm]
140	22.00" [560mm]
160	24.00" [611mm]
200	28.00" [713mm]
240	32.00" [814mm]

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current Not Field Adjustable	Factory-Installed Options Please type additional options in manually on the lines provided above.
ARE	EDG	3M[1] 3MB[2]	DA[3]	02 04 06 08 10 12 14 16 20 24	D	UL Universal 120–277V UH Universal 347–480V 34 347V	SV Silver BK Black BZ Bronze PB Platinum Bronze WH White	350 350mA 525[4] 525mA 700[5] 700mA	43K 4300K Color Temperature[6] DIM 0–10V Dimming[7,8,9] F Fuse[10,11,12] HL HiLow (175/350/525, dual circuit input)[13] P Photocell[12,14] R NEMA Photocell Receptacle[12,15,16] ML Multi-Level (75/525)[13]

Footnotes

1. IESNA Type III Medium distribution
2. IESNA Type III Medium distribution w/ backlight control
3. Direct mounting arm for use with 3-4" (76–152mm) square or round pole
4. Available on fixtures with 20–160 LEDs
5. Available on fixtures with 20–60 LEDs
6. Color temperature per fixture; 6000K standard; minimum 70 CRI
7. Control by others
8. Refer to dimming spec sheet for availability and additional information
9. Not available when UH voltage is selected
10. When code dictates fusing use time delay fuse
11. Not available with all multi-level options. Refer to the multi-level spec sheet for availability and additional information
12. Refer to multi-level spec sheet for availability and additional information
13. Must specify voltage other than UH
14. Intended for horizontal mounting
15. Photocell by others

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Type III Medium @ 6000K	B	U	G	Rating[11]	Initial Delivered Lumens – Type III Medium w/ backlight control @ 6000K	B	U	G	Rating[11]	Initial Delivered Lumens – Type III Medium @ 4300K	B	U	G	Rating[11]	Initial Delivered Lumens – Type III Medium w/ backlight control @ 4300K	B	U	G	Rating[11]	System Watts 120–480V	Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	Total Current @ 347	Total Current @ 480V	L_{70} Hours[12] @ 25° C (77° F)	50K Hours Lumen Maintenance Factor[7] @ 15° C (59° F)
350mA Fixture Operating at 25° C (77° F)																												
20	1,814 (002)	1	1	1	1,342 (002)	0	1	1	1	1,012 (001)	1,672 (002)	1	1	1	1,237 (002)	0	1	1	1	0,931 (001)	26	0.20	0.11	0.10	0.09	0.07	>150,000	93%
40	3,628 (004)	2	1	2	2,683 (004)	0	1	1	2	1,983 (003)	3,343 (004)	2	1	1	2,473 (004)	0	1	1	2	1,862 (003)	47	0.40	0.21	0.19	0.15	0.13	>150,000	
60	5,371 (06)	2	2	2	3,973 (06)	1	2	2	2	2,937 (05)	4,950 (06)	2	2	2	3,662 (06)	1	2	2	2	2,758 (05)	68	0.59	0.30	0.26	0.20	0.16	>150,000	
80	7,181 (08)	2	2	2	5,298 (08)	1	2	2	2	3,916 (07)	6,617 (08)	2	2	2	4,882 (08)	1	2	2	2	3,677 (07)	90	0.77	0.38	0.34	0.26	0.20	>150,000	
100	8,929 (10)	3	3	3	6,605 (10)	1	3	3	3	5,230 (10)	8,229 (10)	3	3	3	6,088 (10)	1	3	3	3	4,911 (10)	113	0.96	0.47	0.42	0.32	0.24	>150,000	
120	10,714 (12)	3	3	3	7,908 (12)	1	3	3	3	6,267 (12)	9,871 (12)	3	3	3	7,294 (12)	1	3	3	3	5,886 (12)	135	1.15	0.56	0.50	0.38	0.28	>150,000	
140	12,499 (14)	3	3	3	9,209 (14)	1	3	3	3	7,304 (14)	11,513 (14)	3	3	3	8,499 (14)	1	3	3	3	6,861 (14)	157	1.34	0.65	0.58	0.44	0.32	>150,000	
160	14,282 (16)	3	3	3	10,520 (16)	1	3	3	3	8,341 (16)	13,155 (16)	3	3	3	9,706 (16)	1	3	3	3	7,837 (16)	179	1.54	0.75	0.68	0.51	0.39	>150,000	
200	17,777 (20)	3	3	3	13,095 (20)	1	3	3	3	10,379 (20)	16,375 (20)	3	3	3	12,080 (20)	1	3	3	3	9,754 (20)	224	1.92	0.95	0.84	0.64	0.49	>150,000	
240	21,333 (24)	3	3	3	15,715 (24)	1	3	3	3	12,454 (24)	19,651 (24)	3	3	3	14,494 (24)	1	3	3	3	11,705 (24)	268	2.30	1.14	1.00	0.77	0.58	>150,000	
525mA Fixture Operating at 25° C (77° F)																												
20	2,539 (02)	1	1	1	1,878 (02)	0	1	1	1	1,340 (02)	2,341 (02)	1	1	1	1,731 (02)	0	1	1	1	1,235 (02)	37	0.31	0.17	0.16	0.12	0.10	>150,000	92%
40	5,079 (04)	2	2	2	3,757 (04)	1	2	2	2	2,679 (03)	4,681 (04)	2	2	2	3,462 (04)	1	2	2	2	2,469 (03)	75	0.57	0.29	0.26	0.21	0.16	>150,000	
60	7,520 (06)	2	2	2	5,562 (06)	1	2	2	2	3,965 (05)	6,930 (06)	2	2	2	5,127 (06)	1	2	2	2	3,655 (05)	102	0.87	0.44	0.39	0.30	0.22	>150,000	
80	10,048 (08)	3	3	3	7,431 (08)	1	3	3	3	5,294 (07)	9,261 (08)	3	3	3	6,853 (08)	1	3	3	3	4,884 (07)	135	1.14	0.56	0.49	0.39	0.29	>150,000	
100	12,051 (10)	3	3	3	9,247 (10)	1	3	3	3	6,589 (09)	11,571 (10)	3	3	3	8,525 (10)	1	3	3	3	6,077 (09)	172	1.47	0.75	0.67	0.51	0.38	>150,000	
120	14,061 (12)	3	3	3	11,061 (12)	1	3	3	3	8,428 (12)	13,634 (12)	3	3	3	10,047 (12)	1	3	3	3	7,635 (12)	204	1.76	0.88	0.78	0.60	0.44	>150,000	
140	15,932 (14)	3	3	3	12,886 (14)	1	3	3	3	9,861 (14)	15,978 (14)	3	3	3	11,679 (14)	1	3	3	3	8,947 (14)	233	2.01	0.99	0.87	0.69	0.51	>150,000	
160	18,711 (16)	3	3	3	14,757 (16)	1	3	3	3	11,294 (16)	18,750 (16)	3	3	3	13,370 (16)	1	3	3	3	10,259 (16)	265	2.29	1.11	0.98	0.78	0.58	>150,000	
700mA Fixture Operating at 25° C (77° F)																												
20	3,192 (02)	1	1	1	2,581 (02)	0	1	1	1	2,058 (02)	2,942 (02)	1	1	1	2,400 (02)	0	1	1	1	1,924 (02)	50	0.42	0.22	0.20	0.15	0.12	>150,000	90%
40	6,383 (04)	2	2	2	5,162 (04)	1	2	2	2	4,116 (03)	5,883 (04)	2	2	2	4,799 (04)	1	2	2	2	3,848 (03)	101	0.85	0.43	0.39	0.29	0.23	>150,000	
60	9,543 (04)	2	2	2	7,718 (04)	1	2	2	2	6,153 (05)	8,795 (04)	2	2	2	6,655 (05)	1	2	2	2	5,347 (05)	151	1.27	0.64	0.58	0.43	0.34	>150,000	
80	12,668 (06)	2	2	2	10,246 (06)	1	2	2	2	8,169 (07)	11,675 (06)	2	2	2	9,029 (06)	1	2	2	2	7,126 (06)	200	1.68	0.85	0.77	0.62	0.49	>150,000	
100	15,793 (08)	3	3	3	12,774 (08)	1	3	3	3	10,184 (08)	14,551 (08)	3	3	3	11,304 (08)	1	3	3	3	8,917 (08)	250	2.09	1.06	0.96	0.77	0.61	>150,000	
120	18,915 (10)	3	3	3	15,302 (10)	1	3	3	3	12,199 (10)	17,426 (10)	3	3	3	13,543 (10)	1	3	3	3	10,706 (10)	299	2.50	1.27	1.15	0.92	0.73	>150,000	
140	21,944 (12)	3	3	3	17,750 (12)	1	3	3	3	14,044 (12)	20,183 (12)	3	3	3	15,692 (12)	1	3	3	3	12,494 (12)	347	2.90	1.47	1.33	1.07	0.85	>150,000	
160	24,933 (16)	3	3	3	20,161 (16)	1	3	3	3	15,888 (16)	22,900 (16)	3	3	3	17,810 (16)	1	3	3	3	14,282 (16)	394	3.29	1.67	1.51	1.21	0.96	>150,000	

* For recommended lumen maintenance factor data see TD-13 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.iesna.org/PDF/Errattas/TM-15-07BugRatingsAddendum.pdf

NOTE: All data subject to change without notice.

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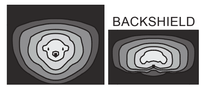
Made in the U.S.A. of U.S. and imported parts.
Meets Buy American requirements within the ARRA.



BACKSHIELD

ARE - EDG - 3M/MB - DA - 08 - D - UL - BZ - 525

AREA LIGHTS

ARE-EDG-4M-DA — THE EDGE® LED Area Light – Type IV Medium

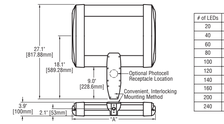
Rev. Date: 8/23/11

QTY - 1
LABEL - A4
4M SINGLE

QTY - 4
LABEL - A4-2180
4M SINGLE

QTY - 2
LABEL - A4B
4MB SINGLE BACKSHIELD

Notes:



# of LEDs	Dim. "A"
20	12.00" [306mm]
40	12.00" [306mm]
60	14.00" [357mm]
80	16.00" [408mm]
100	18.00" [459mm]
120	20.00" [510mm]
140	22.00" [560mm]
160	24.00" [611mm]
200	28.00" [713mm]
240	32.00" [814mm]

Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current Not Field Adjustable	Factory-Installed Options Please type additional options in manually on the lines provided above.
ARE	EDG	4M[1] 4MB[2]	DA[3]	02 04 06 08 10 12 14 16 20 24	D	UL Universal 120–277V UH Universal 347–480V 34 347V	SV Silver BK Black BZ Bronze PB Platinum Bronze WH White	350 350mA 525[4] 525mA 700[5] 700mA	43K 4300K Color Temperature[6] DIM 0–10V Dimming[7,8,9] F Fuse[10,11,12] HL HiLow (175/350/525, dual circuit input)[13] P Photocell[12,14] R NEMA Photocell Receptacle[12,15,16] ML Multi-Level (75/525)[13]

Footnotes

1. IESNA Type IV Medium distribution
2. IESNA Type IV Medium distribution w/ backlight control
3. Direct mounting arm for use with 3-4" (76–152mm) square or round pole
4. Available on fixtures with 20–160 LEDs
5. Available on fixtures with 20–60 LEDs
6. Color temperature per fixture; 6000K standard; minimum 70 CRI
7. Control by others
8. Refer to dimming spec sheet for availability and additional information
9. Can't exceed specified drive current. Consult factory if exceeding drive current is necessary
10. Not available when UH voltage is selected
11. When code dictates fusing use time delay fuse
12. Not available with all multi-level options. Refer to the multi-level spec sheet for availability and additional information
13. Refer to multi-level spec sheet for availability and additional information
14. Must specify voltage other than UH
15. Intended for horizontal mounting
16. Photocell by others

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Type IV Medium @ 6000K	B	U	G	Rating[11]	Initial Delivered Lumens – Type IV Medium w/ backlight control @ 6000K	B	U	G	Rating[11]	Initial Delivered Lumens – Type IV Medium @ 4300K	B	U	G	Rating[11]	Initial Delivered Lumens – Type IV Medium w/ backlight control @ 4300K	B	U	G	Rating[11]	System Watts 120–480V	Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	L_{70} Hours[12] @ 25° C (77° F)	50K Hours Lumen Maintenance Factor[7] @ 15° C (59° F)
350mA Fixture Operating at 25° C (77° F)																												
20	1,919 (002)	1	1	1	1,441 (002)	0	1	1	1	1,083 (001)	1,763 (002)	1	1	1	1,324 (002)	0	1	1	1	0,995 (001)	26	0.20	0.11	0.10	0.09	0.07	>150,000	93%
40	3,838 (04)	2	1	2	2,882 (04)	0	1	1	2	2,166 (03)	3,526 (04)	2	1	1	2,648 (04)	0	1	1	2	1,990 (03)	47	0.40	0.21	0.19	0.15	0.12	>150,000	
60	5,685 (06)	2	2	2	4,267 (06)	1	2	2	2	3,207 (05)	5,221 (06)	2	2	2	3,953 (06)	1	2	2	2	3,013 (05)	68	0.58	0.30	0.26	0.20	0.16	>150,000	
80	7,604 (08)	2	2	2	5,690 (08)	1	2	2	2	4,274 (07)	6,982 (08)	2	2	2	5,244 (08)	1	2	2	2	4,017 (07)	90	0.77	0.38	0.34	0.26	0.20	>150,000	
100	9,419 (10)	2	2	2	7,095 (10)	1	2	2	2	5,281 (09)	8,681 (10)	2	2	2	6,539 (10)	1	2	2	2	5,339 (10)	111	0.95	0.47	0.42	0.32	0.24	>150,000	
120	11,302 (12)	3	2	3	8,513 (12)	1	3	2	3	6,429 (10)	10,417 (12)	3	2	3	7,846 (12)	1	3	2	3	6,408 (10)	132	1.15	0.56	0.50	0.38	0.28	>150,000	
140	13,129 (14)	3	3	3	9,887 (14)	1	3	3	3	7,577 (12)	12,098 (14)	3	3	3	9,113 (14)	1	3	3	3	7,477 (12)	157	1.34	0.67	0.61	0.47	0.35	>150,000	
160	15,000 (16)	3	3	3	11,294 (16)	1	3	3	3	8,725 (14)	13,820 (16)	3	3	3	10,414 (16)	1	3	3	3	8,546 (14)	179	1.54	0.77	0.68	0.51	0.38	>150,000	
200	18,675 (20)	3	3	3	14,065 (20)	1	3	3	3	10,861 (20)	17,207 (20)	3	3	3	12,965 (20)	1	3	3	3	10,637 (20)	224	1.92	0.95	0.84	0.65	0.48	>150,000	
240	22,411 (24)	3	3	3	16,877 (24)	1	3	3	3	13,544 (24)	20,655 (24)	3	3	3	15,557 (24)	1	3	3	3	12,765 (24)	268	2.30	1.14	1.00	0.77	0.58	>150,000	
525mA Fixture Operating at 25° C (77° F)																												
20	2,678 (02)	1	1	1	2,017 (02)	0	1	1	1	1,451 (02)	2,469 (02)	1	1	1	1,859 (02)	0	1	1	1	1,337 (02)	37	0.31	0.17	0.16	0.12	0.10	>150,000	92%
40	5,357 (04)	2	2	2	4,035 (04)	1	2	2	2	2,902 (03)	4,938 (04)	2	2	2	3,718 (04)	1	2	2	2	2,674 (03)	75	0.57	0.29	0.26	0.21	0.16	>150,000	
60	7,932 (06)	2	2	2	5,974 (06)	1	2	2	2	4,294 (05)	7,310 (06)	2	2	2	5,506 (06)	1	2	2	2	3,959 (05)	102	0.87	0.44	0.39	0.30	0.22	>150,000	
80	10,575 (08)	3	3	3	7,962 (08)	1	3	3	3	5,734 (07)	9,747 (08)	3	3	3	7,342 (08)	1	3	3	3	5,292 (07)	135	1.14	0.56	0.49	0.39	0.29	>150,000	
100	13,186 (10)	3	3	3	9,932 (10)	1	3	3	3	7,139 (09)	12,153 (10)	3	3	3	9,154 (10)	1	3	3	3	6,583 (09)	172	1.47	0.75	0.67	0.51	0.38	>150,000	
120	15,829 (12)	3	3	3	11,919 (12)	1	3	3	3	9,132 (12)	14,583 (12)	3	3	3	10,985 (12)	1	3	3	3	8,273 (12)	204	1.76	0.88	0.78	0.60	0.44	>150,000	
140	18,372 (14)	3	3	3	13,842 (14)	1	3	3	3	10,597 (14)	16,937 (14)	3	3	3	12,758 (14)	1	3	3	3	9,692 (14)	233	2.01	0.99	0.87	0.69	0.51	>150,000	
160	21,000 (16)	3	3	3	15,820 (16)	1	3	3	3	12,116 (16)	19,356 (16)	3	3	3	14,580 (16)	1	3	3	3	11,111 (16)	265	2.29	1.11	0.98	0.78	0.58	>150,000	
700mA Fixture Operating at 25° C (77° F)																												
20	3,271 (02)	1	1	1	2,430 (02)	0	1	1	1	2,000 (02)	3,015 (02)	1	1	1	2,259 (02)	0	1	1	1	1,870 (02)	50	0.42	0.22	0.20	0.15	0.12	>150,000	90%
40	6,543 (04)	2	2	2	4,860 (04)	1	2	2	2	4,000 (03)	6,030 (04)	2	2	2	4,518 (04)	1	2	2	2	3,740 (03)	101	0.85	0.43	0.39	0.29	0.23	>150,000	
60	9,688 (06)	2	2	2	7,200 (06)	1	2	2	2	5,935 (05)	8,929 (06)	2	2	2	6,686 (06)	1	2	2	2	5,533 (05)	151	1.27	0.64	0.58	0.43	0.34	>150,000	
80	9,188 (06)	1	1	1	8,465 (06)	2	1	2	1	6,225 (06)	1,212 (07)	1	1	1	1,118 (07)	2	1	2	1	0,939 (06)	200	1.68	0.85	0.77	0.62	0.49	>150,000	

* For recommended lumen maintenance factor data see TD-13 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.iesna.org/PDF/Errattas/TM-15-07BugRatingsAddendum.pdf

NOTE: All data subject to change without notice.

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Made in the U.S.A. of U.S. and imported parts.
Meets Buy American requirements within the ARRA.

BACKSHIELD

ARE - EDG - 4M/MB - DA - 08 - D - UL - BZ - 525

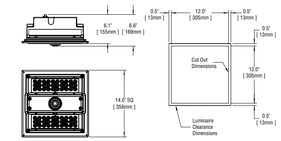
CANOPY LIGHTS

CAN-304-SL-RS — 304 Series LED Recessed Canopy Luminaires

Rev. Date: 6/30/11

QTY - 32
LABEL - C6

Notes:



Product	Family	Optic	Mounting	# of LEDs (x 10)	LED Series	Voltage	Color Options	Drive Current	Factory-Installed Options Please type additional options in manually on the lines provided above.
CAN	304	SL[1]	RS[2]	04 06	D	U Universal 120–277V	SV Silver BZ Bronze BK Black WH White PB Platinum Bronze	700[3] 700mA (Standard) 525 525mA 350 350mA	43K 4300K Color Temperature[4] DIM 0–10V Dimming[5,6] F Fuse[4] ML Multi-Level (75/525)[7]

Footnotes

1. Petroleum Symmetric distribution
2. Recessed mount for single skin canopies
3. Requires marked spacing 48" x 24" x 3" (48" luminaire to luminaire, 24" luminaire to side wall, 6" above luminaire
4. Color temperature per fixture; minimum 70 CRI
5. Control by others
6. Refer to the 304 series dimming spec sheet for availability and additional information
7. Can't exceed specified drive current. Consult factory if exceeding drive current is necessary
8. When code dictates fusing use time delay fuse
9. Refer to the 304 SeriesMulti-Level spec sheet for availability and additional information.

LED PERFORMANCE SPECS

# of LEDs	Initial Delivered Lumens – Sparkle Petroleum @ 6000K	B	U	G	Rating[11]	Initial Delivered Lumens – Sparkle Petroleum @ 4300K	B	U	G	Rating[11]	System Watts 120–480V	Total Current @ 120V	Total Current @ 230V	Total Current @ 277V	Total Current @ 347V	Total Current @ 480V	L_{70} Hours[12] @ 25° C (77° F)	50K Hours Lumen Maintenance Factor @ 15° C (59° F)
350mA Fixture Operating at 25° C (77° F)																		
40	4,593 (04)	2	1	1		4,192 (04)	2	1	1		47	0.39	0.23	0.19	0.15	0.11	>150,000	94%
60	6,711 (06)	2	1	1		6,204 (06)	2	1	1		68	0.59	0.33	0.27	0.20	0.15	>150,000	
525mA Fixture Operating at 25° C (77° F)																		
40	6,361 (04)	2	1	1		5,869 (04)	2	1	1		92	0.58	0.33	0.27	0.21	0.16	>150,000	93%
60	9,396(06)	3	1	1		8,685 (06)	3	1	1		105	0.91	0.48	0.40	0.33	0.22	144,000	
700mA (Standard) Fixture Operating at 25° C (77° F)																		
40	7,724 (04)	2	1	1		7,127 (04)	2	1	1		94	0.81	0.44	0.36	0.28	0.20	131,000	91%
60	11,409 (06)	3	1	1		10,546 (06)	3	1	1		141	1.26	0.66	0.54	0.39	0.28	121,000	

* For recommended lumen depreciation data see TD-13 ** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.iesna.org/PDF/Errattas/TM-15-07BugRatingsAddendum.pdf

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Made in the U.S.A. of U.S. and imported parts.
Meets Buy American requirements within the ARRA.

CAN - 304 - SL - RS - 06 - D - UL - WH - 525

VIEW MORE PRODUCT INFO

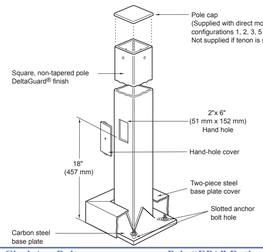
SCALE:	DATE:	LAYOUT BY:	PROJECT NAME:			
NA	11/8/12	NA	SPEEDWAY #100147 WHITE HOUSE, TN			
Illumination results shown on this lighting design are based on project parameters provided by the manufacturer listed, used in conjunction with luminaire test procedures conducted under laboratory conditions. Actual project conditions differing from these design parameters may affect field results. The customer is responsible for verifying compliance with any applicable electrical, lighting, or energy code.			Building, canopy, dispenser & sign images for reference only. These images may vary. Any revisions to these images may not be reflected on this lighting plan.	DWG SIZE: D	SHEET: 2 OF 2	DRAWING NUMBER: RL-0918-S1

fred leonard ASSOCIATES®
5630 BRIDGETOWN RD. STE. 2
CINCINNATI, OH 45248
(513) 574-9500

POLE SELECTION

PS Crown-Weld® Square Straight Steel Poles

Beta Catalog Number:



Notes:

Catalog Number	Height (feet) x Width (inches) x Wall (inches)	Bolt Circle/ Range (inches)	Bolt Size (inches)	Pole "EPA" Ratings Pole Base Wind Velocity 70	80	90	100	110	120	130	140
PS3S10C*†	10 x 3 x 0.125	10/9.3-11	3/4	31.4	23.6	18.2	14.3	11.5	9.3	7.0	6.3
PS3S15C*†	15 x 3 x 0.125	10/9.3-11	3/4	18.5	13.4	9.9	7.4	5.5	4.1	3.0	2.2
PS3S20C*†	20 x 3 x 0.125	10/9.3-11	3/4	11.5	7.8	5.2	3.3	2.0	0.9	0.1	0.0
PS4S10C*†	10 x 4 x 0.125	10/9.3-11	3/4	59.9	45.2	35.1	27.9	22.6	18.5	15.4	12.9
PS4S12C*†	12 x 4 x 0.125	10/9.3-11	3/4	48.4	36.2	27.9	21.9	17.5	14.2	11.6	9.5
PS4S15C*†	15 x 4 x 0.125	10/9.3-11	3/4	36.5	26.9	20.3	15.6	12.1	9.5	7.4	5.8
PS4S17C*†	17 x 4 x 0.125	10/9.3-11	3/4	30.7	22.3	16.6	12.5	9.41	7.1	5.3	3.9
PS4S20C*†	20 x 4 x 0.125	10/9.3-11	3/4	24.0	16.9	12.1	8.7	6.1	4.2	2.7	1.5
PS4S22C*†	22 x 4 x 0.125	10/9.3-11	3/4	20.4	14.0	9.7	6.6	4.3	2.5	1.2	0.1
PS4S25C*†	25 x 4 x 0.125	10/9.3-11	3/4	15.9	10.4	6.6	3.9	1.9	0.4	0.0	0.0
PS4S25S*†	25 x 4 x 0.188	10/9.3-11	3/4	25.3	17.6	12.3	8.5	5.7	3.6	1.9	0.6
PS4S27R*†	27 x 4 x 0.125	10/9.3-11	3/4	22.0	14.9	10.0	6.6	4.0	2.0	0.0	0.0
PS4S30R*†	30 x 4 x 0.125	10/9.3-11	3/4	17.7	11.4	7.1	4.0	1.7	0.0	0.0	0.0
PS4S30H*†	30 x 4 x 0.188	10/9.3-11	3/4	19.5	12.5	7.8	4.4	1.9	0.0	0.0	0.0
PS5S25S*†	25 x 5 x 0.188	10/9.7-11.3	1	43.9	31.4	22.8	16.6	12.1	8.7	6.0	3.8
PS5S30S*†	30 x 5 x 0.188	10/9.7-11.3	1	32.2	21.9	14.9	9.9	6.2	3.4	1.2	0.0
PS6S30S*†	30 x 6 x 0.188	11.5/11.3-12.8	1	50.8	35.7	25.3	17.9	12.4	8.2	4.9	2.4

Mount Configuration*	Color Options
1 Single[1]	BZ
2 Twin @ 180°[1]	BK
3 Twin @ 90°[1]	WH
5 Triple[1]	PB
6 Quad[1]	SV
T Tenon[2]	

Field-Installed Accessories

GFI Outlet Accessory - 120V

REC-GF1BZ REC-GF1PB
REC-GF1BK REC-GF1SV
REC-GF1WH

1-Direct mount pole configuration; add prefix "2" to conguration numbers for fixtures with Fixed 20" mount (i.e. "21", "22", "23", "25", "26") Example PS6S30S21BZ
2-Order tenon separately

General Description
Non-tapered square steel poles are supplied with welded base with cover, four galvanized anchor bolts, masonite mounting template and a pole cap (except tenon mount). Each anchor bolt is provided with two washers and two nuts. Steel pole base has slotted holes. Per National Electrical Code requirements, pole is standard with a 2" x 6" (51 x 152 mm) hand hole, located 18" (457 mm) above bottom of pole base. A #10-32 stainless-steel weld stud with grounding lug is located inside pole, opposite hand hole; a hand hole cover is supplied but shipped separately. In addition, 4" x 27' and 4" x 30' poles include an internal 5/16" steel reinforced sleeve welded inside the bottom 24" of the pole, as well as a reinforcement welded around the hand hole for added strength.

Materials
Square, non-tapered pole of structural steel tubing (ASTM A 500); with a minimum yield strength of 46,000 p.s.i. Welded to a formed carbon steel base plate with a mimimum yield strength of 36,000 p.s.i.

Finish
Exclusive Colorfast DeltaGuard™ finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. The finish is covered by our 7 year limited warranty.

Labels
Beta Lighting square steel poles meet or exceed National Electrical Code Requirements. In the US, Beta square poles are classified by Underwriters Laboratories Inc. for electrical ground bonding; in Canada, they are CSA certified for electrical ground bonding and structural strength.

Patents
US 5,820,255; 6,640,517; Patent pending

INSTALLATION INSTRUCTIONS
RECOMMENDED ANCHOR BOLT PLACEMENT

Document	C1102X0183	Date	4/17/01
Drawing/Page	RKM	DCR#	99-120

NOTES
1. Before pouring foundation, confirm that the pole base configuration matches the masonite anchor bolt template. (See Table 1)
2. 5" (127 mm) and 6" (153 mm) square steel poles and 6" (153 mm) square aluminum poles require a minimum 24" (610 mm) dia. foundation. All other poles require a minimum 18" (457 mm) dia. foundation.

ANCHOR BOLT PLACEMENT

1. Use masonite template provided for anchor bolt placement.
2. Remove all grease, oil, dirt and contaminants from anchor bolts with a suitable solvent.
3. Center anchor bolt group on concrete foundation.
4. Place anchor bolts in a plumb position.
5. Point hook at end of anchor bolt toward the center of the foundation. See Figure 1.
6. Anchor bolt projections should be 3-3/8" (86 mm) minimum to 3-5/8" (92 mm) maximum above top of concrete foundation. See Figure 2.
7. For information concerning recommended foundation reinforcement, see reverse side.

Figure 1

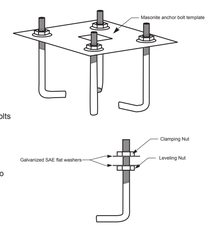


Table 1

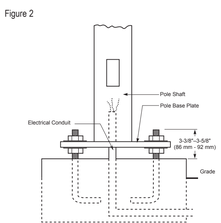
Steel Poles

Pole	Anchor Bolt Size	Bolt Circle
3" (76 mm) sq.	3/4" (19 mm) x 18" (457 mm)	10" (254 mm)
4" (102 mm) sq. x 10'	3/4" (19 mm) x 18" (457 mm)	10" (254 mm)
4" (102 mm) sq. (15'-30')	3/4" (19 mm) x 30" (762 mm)	10" (254 mm)
5" (127 mm) sq.	1" (25 mm) x 36" (914 mm)	10" (254 mm)
6" (153 mm) sq.	1" (25 mm) x 36" (914 mm)	11.5" (292 mm)
4.5" (114 mm) Round	3/4" (19 mm) x18" (457 mm)	8.5" (216 mm)
5.5" (140 mm) Round	3/4" (19 mm) x 30" (762 mm)	8.5" (216 mm)

Aluminum Poles

Pole	Anchor Bolt Size	Bolt Circle
3" (76 mm) sq.	1/2" (13 mm) x 12" (305 mm)	8" (203 mm)
4" (102 mm) sq.	3/4" (19 mm) x 18" (457 mm)	9.25" (235 mm)
5" (127 mm) sq.	1" (25 mm) x 36" (914 mm)	11.5" (292 mm)
6" (153 mm) sq.	1" (25 mm) x 36" (914 mm)	13" (330.2 mm)

Figure 2



INSTALLATION INSTRUCTIONS
4" (102 mm) SQ. STEEL POLE MOUNTING TEMPLATE

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Drawing/Page	JA2	DCR#	07-237

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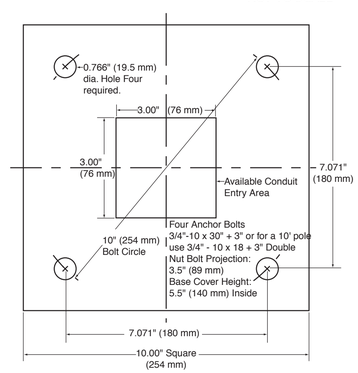
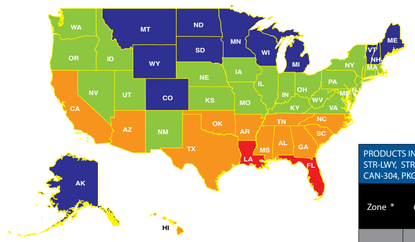


CREE

Series D – Recommended Cree® Outdoor Luminaire
Lumen Maintenance Factors (LMF)



Series D

PRODUCTS INCLUDE:
ARE-EDG, ARE-EDR, SEC-EDG, CAN-EDG, PKG-EDG, INT-EDR, PWY-EDG, SFT-304, FLD-EDG

Zone *	Drive Current [1] (mA)	Initial LMF	25K hr LMF (Projected [3])	50K hr LMF (Projected [3])	100K hr LMF (Calculated [4])
-20 ˚C† (-4 ˚F)	350mA	1.11	1.07	1.03	0.95
	525mA	1.11	1.07	1.02	0.93
	700mA	1.11	1.06	1.01	0.91
-10 ˚C † (14˚F)	350mA	1.09	1.05	1.00	0.92
	525mA	1.09	1.04	0.99	0.89
	700mA	1.09	1.03	0.98	0.87
5˚C (41˚F)	350mA	1.05	1.01	0.96	0.87
	525mA	1.05	1.00	0.95	0.84
	700mA	1.05	0.99	0.93	0.81
10˚C (50˚F)	350mA	1.04	0.99	0.95	0.86
	525mA	1.04	0.98	0.93	0.83
	700mA	1.04	0.98	0.92	0.80
15˚C (59˚F)	350mA	1.03	0.98	0.93	0.84
	525mA	1.03	0.97	0.92	0.81
	700mA	1.03	0.96	0.90	0.78
20˚C (68˚F)	350mA	1.01	0.97	0.92	0.82
	525mA	1.01	0.96	0.90	0.79
	700mA	1.01	0.95	0.88	0.76
25˚C (77˚F)	350mA	1.00	0.95	0.90	0.81
	525mA	1.00	0.94	0.89	0.77
	700mA	1.00	0.93	0.87	0.74
40˚C (104˚F)	350mA	0.96	0.91	0.86	0.76
	525mA	0.96	0.90	0.84	0.72
	700mA	0.96	0.89	0.82	0.67

PRODUCTS INCLUDE:
STR-LWY, STR-SLM, STR-SLM66, ARE-SLM66, BXAB, CAN-227, CAN-304, PKG-304, FLD-OL, INT-304, SFT-227

Zone *	Drive Current [2] (mA)	Initial LMF	25K hr LMF (Projected [3])	50K hr LMF (Projected [3])	100K hr LMF (Calculated [4])
-20 ˚C† (-4 ˚F)	350mA	1.11	1.07	1.03	0.96
	525mA	1.11	1.07	1.03	0.94
	700mA	1.11	1.06	1.01	0.92
-10 ˚C † (14˚F)	350mA	1.09	1.05	1.01	0.93
	525mA	1.09	1.04	1.00	0.91
	700mA	1.09	1.04	0.99	0.88
5˚C (41˚F)	350mA	1.05	1.01	0.97	0.88
	525mA	1.05	1.00	0.95	0.86
	700mA	1.05	0.99	0.94	0.83
	1000mA	1.05	0.98	0.90	0.75
10˚C (50˚F)	350mA	1.04	0.99	0.95	0.87
	525mA	1.04	0.99	0.94	0.84
	700mA	1.04	0.98	0.92	0.81
	1000mA	1.04	0.96	0.88	0.73
15˚C (59˚F)	350mA	1.03	0.98	0.94	0.85
	525mA	1.03	0.98	0.93	0.82
	700mA	1.03	0.97	0.91	0.79
	1000mA	1.03	0.94	0.86	0.70
20˚C (68˚F)	350mA	1.01	0.97	0.92	0.83
	525mA	1.01	0.96	0.91	0.81
	700mA	1.01	0.95	0.89	0.77
	1000mA	1.01	0.93	0.84	0.67
25˚C (77˚F)	350mA	1.00	0.96	0.91	0.82
	525mA	1.00	0.95	0.90	0.79
	700mA	1.00	0.94	0.88	0.75
	1000mA	1.00	0.91	0.82	0.65
40˚C (104˚F)	350mA	0.96	0.92	0.87	0.77
	525mA	0.96	0.91	0.85	0.74
	700mA	0.96	0.89	0.83	0.69
	1000mA	0.96	0.86	0.76	0.55

1 Consult spec sheet for actual drive current availability for all listed products

* Average Nighttime Temperature
† Provided for freezer applications only
Use the LMF values in this chart when performing lighting calculations for Cree® products ONLY.

2 1000mA available on 20-40 SLM, SLM66 and BXAB only

3 In accordance with IESNA TM-21-11, Projected Values represent interpolated values based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

4 In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

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