700 Cottage Grove - Climate Controlled Storage Building

700 Cottage Grove Road, LLC

IDEAL BUILDERS

ANGUS-YOUNG
ARCHITECTS/ENGINEERS
Janesville | Madison

700 Cottage Grove Road
Madison, WI 53716

700 Cottage Grove - Climate Controlled Storage Building

AY PROJECT NUMBER: 75710

CONCEPTUAL RENDERING:

THIS IMAGE IS A CONCEPTUAL RENDERING AND IS PROPOSED FOR ILLUSTRATIVE PURPOSES ONLY. THE IMAGE DOES NOT REPRESENT ANY CONSTRUCTION OR DETAILING INFORMATION. REFER TO DRAWING SET FOR FURTHER SPECIFICS.

SHEET INDEX:

REGULATORY DATA:

BUILDING CODES:
OVERALL BUILDING: 2015 INTERNATIONAL BUILDING CODE
2015 INTERNATIONAL FIRE CODE
2013 NFPA 10
2010 NFPA 13

ACCESSIBILITY: 2009 ANSI A117.1

USE AND OCCUPANCY CLASSIFICATION:
GROUP S1 - MODERATE HAZARD STORAGE

TYPE OF CONSTRUCTION:
TYPE II-A

FIRE PROTECTION SYSTEM:
AUTOMATIC SPRINKLER SYSTEM - NFPA 13

GENERAL BUILDING HEIGHT AND AREA:

AREA:	
TOTAL MAXIMUM ALLOWABLE	104,000 (PER SECTION 506.2)
TOTAL ACTUAL	84,852 SF
STORIES:	
MAXIMUM ALLOWABLE	5 STORIES
ACTUAL	4 STORIES
HEIGHT:	
MAXIMUM ALLOWABLE	85' - 0"
ACTUAL	50' - 0"

LOCATION MAP:

ISSUANCES / REVISIONS		
NO:	**DESCRIPTION:**	**DATE:**
1	LAND USE APPICATION - CONDITIONAL USE & DEMO PERMIT	2023.02.27

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT TEAM

OWNER:

700 Cottage Grove Road, LLC
700 Cottage Grove Road
Madison, WI 53716

CONTACT: Max Jacobson
EMAIL: jacobsonmax@gmail.com
PHONE: (608) 282-5866

ARCHITECT:

ANGUS-YOUNG
316 W Washington Ave
Madison, WI 53703

CONTACT: Jeff Davis
EMAIL: j.davis@angusyoung.com
PHONE: 608-756-2326

SCHEMATIC DESIGN SIGN-OFF

THESE DRAWINGS HAVE BEEN REVIEWED BY THE OWNER AND ARE ACCEPTED WITH THE CORRECTIONS INDICATED. THE DESIGN CONCEPTS; SITE IMPROVEMENTS; LAYOUT OF WALLS, DOORS AND WINDOWS ON THE FLOOR PLANS; BUILDING SCALE, APPEARANCE AND EXTERIOR MATERIALS WERE REVIEWED. THE CONSTRUCTION BUDGET HAS BEEN REVIEWED AND IS ACCEPTABLE. WITH THIS APPROVAL, THE OWNER ACKNOWLEDGES THE COMPLETION OF THE SCHEMATIC DESIGN PHASE OF THE PROJECT AND DIRECTS THE ARCHITECT TO PROCEED WITH THE DESIGN DEVELOPMENT PHASE.

Date

35	30	25	20	15	10	05
34	29	24	19	14	09	04
33	28	23	18	13	08	03
32	27	22	17	12	07	02
31	26	21	16	11	06	01

DETAILS IN THIS SET ARE PLACED ON THE SHEETS AND NUMBERED WITH RESPECT TO THE GRID ABOVE. CONSEQUENTLY, DETAILS ON A GIVEN SHEET MAY OR MAY NOT BE NUMBERED CONSECUTIVELY.

TITTLE

608.756.2326
www.angusyoung.co

COVER SHEET

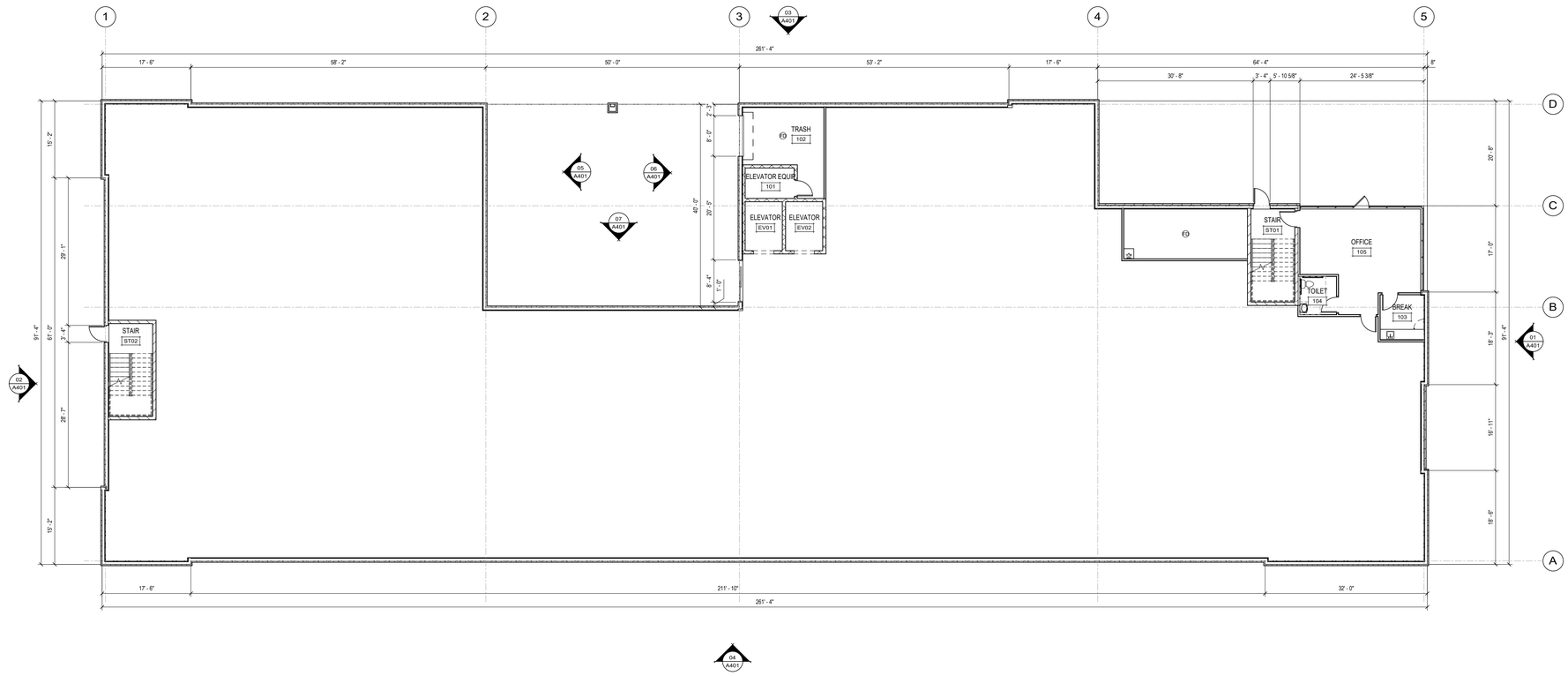
G001

C:\Revit\LocalProjects\75710nvA-V2019_ay_jslaney.rvt

Sheet Size: 30" x 42" (Arch E1)

FLOOR PLAN GENERAL NOTES

1. ALL DOOR FRAMES SHALL BE LOCATED 3" OFF ADJACENT WALLS UNLESS NOTED OTHERWISE.
2. REFER TO WALL TYPES SCHEDULE FOR WALL CONSTRUCTION.
3. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR PENETRATIONS THROUGH WALL.
4. WALL CONSTRUCTION IS DIMENSIONED FROM STUD TO STUD, SEE FLOOR PLAN FOR APPLICABLE DIMENSIONS.
5. FIRE EXTINGUISHER CABINETS (FEC) SHALL BE SEMI-RECESSED IN WALLS.
6. REFER TO EXTERIOR BUILDING ELEVATIONS FOR EXTERIOR WINDOW TYPES DENOTED AS:



NORTH

FIRST FLOOR

SCALE: 3/32" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

ANGUS-YOUNG
ARCHITECTS/ENGINEERS

Janesville | Madison

700 Cottage Grove Road, LLC

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700 Cottage Grove Road
Madison, WI 53716

IDEAL BUILDERS

ISSUANCES / REVISIONS		
NO:	DESCRIPTION:	DATE:
1	LAND USE APPICATION - CONDITIONAL USE & DEMO PERMIT	2023.02.27

3/27/2023 10:43:06 AM

PROJECT NUMBER
75710

APPROVED BY
AYA

REVIEWED BY
AYA

DRAWN BY
Author

FIRST FLOOR PLAN

A101

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Sheet Size: 30" x 42" (Arch E1)

FLOOR PLAN GENERAL NOTES

1. ALL DOOR FRAMES SHALL BE LOCATED 3" OFF ADJACENT WALLS UNLESS NOTED OTHERWISE.
2. REFER TO WALL TYPES SCHEDULE FOR WALL CONSTRUCTION.
3. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR PENETRATIONS THROUGH WALL.
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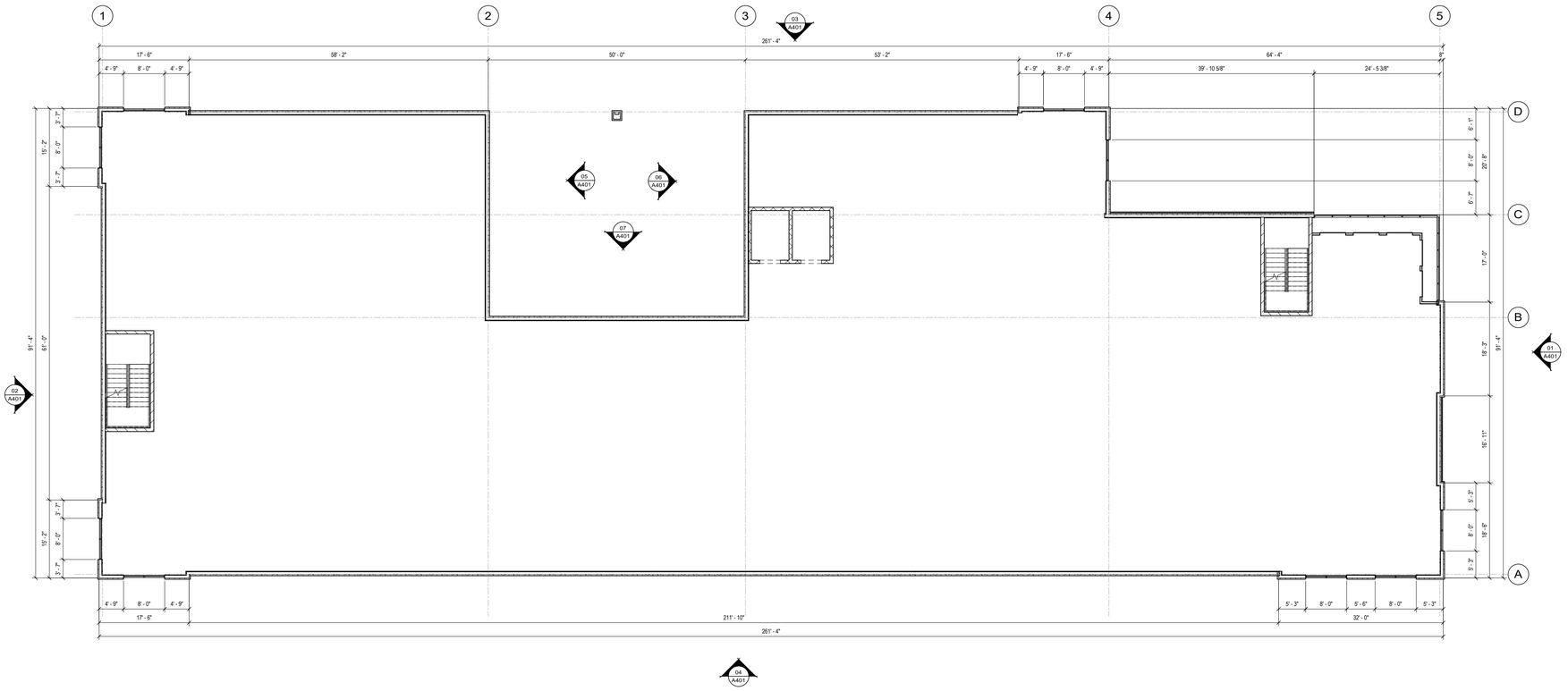

NORTH

SECOND FLOOR

SCALE: 3/32" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

ANGUS-YOUNG
ARCHITECTS/ENGINEERS
Janesville | Madison

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IDEAL BUILDERS

ISSUANCES / REVISIONS		
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PROJECT NUMBER
75710

APPROVED BY
Approver

REVIEWED BY
Checker

DRAWN BY
Author

SECOND FLOOR PLAN

A102

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Sheet Size: 30" x 42" (Arch E1)

FLOOR PLAN GENERAL NOTES

1. ALL DOOR FRAMES SHALL BE LOCATED 3" OFF ADJACENT WALLS UNLESS NOTED OTHERWISE.
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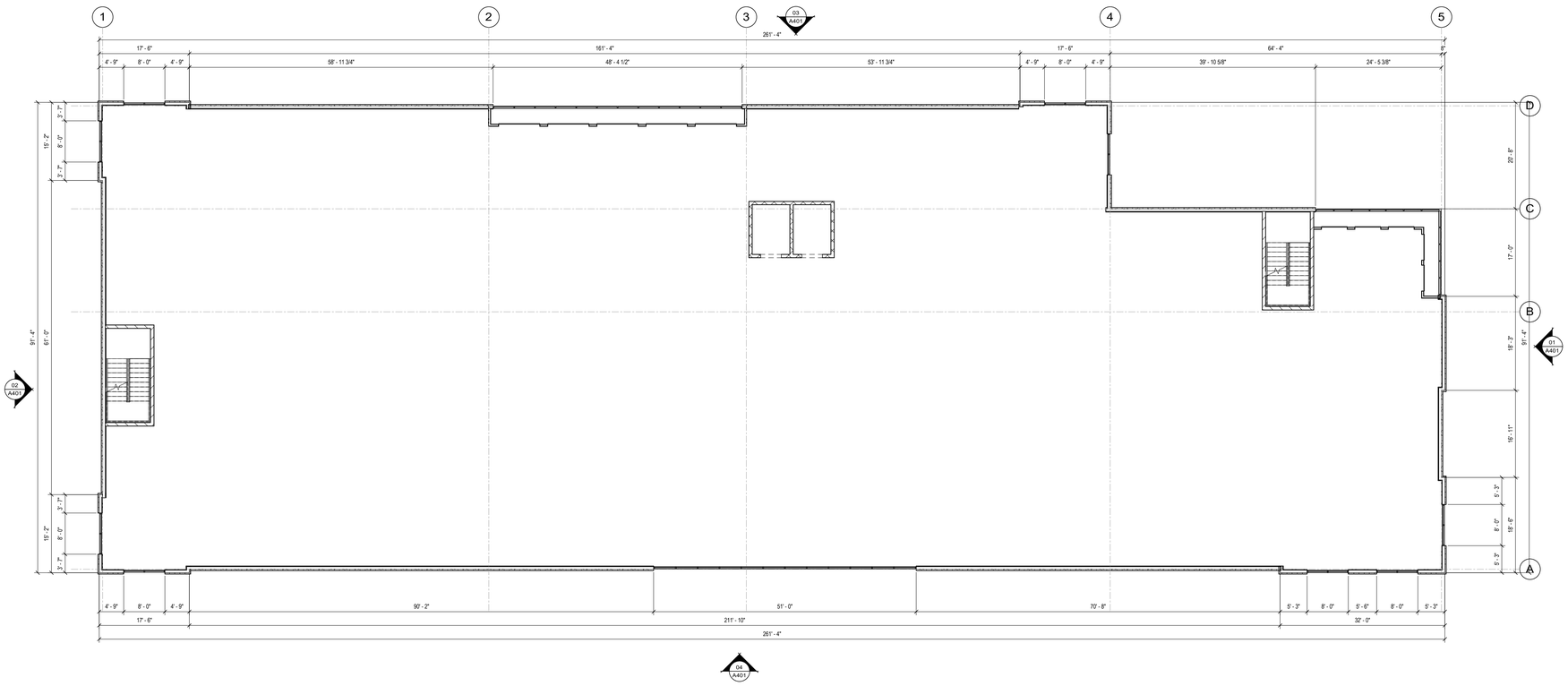

NORTH

THIRD FLOOR

SCALE: 3/32" = 1'-0"

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ARCHITECTS/ENGINEERS

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IDEAL BUILDERS

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THIRD FLOOR PLAN

A103

Sheet Size: 30" x 42" (Arch E1)

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FLOOR PLAN GENERAL NOTES

1. ALL DOOR FRAMES SHALL BE LOCATED 3" OFF ADJACENT WALLS UNLESS NOTED OTHERWISE.
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3. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR PENETRATIONS THROUGH WALL.
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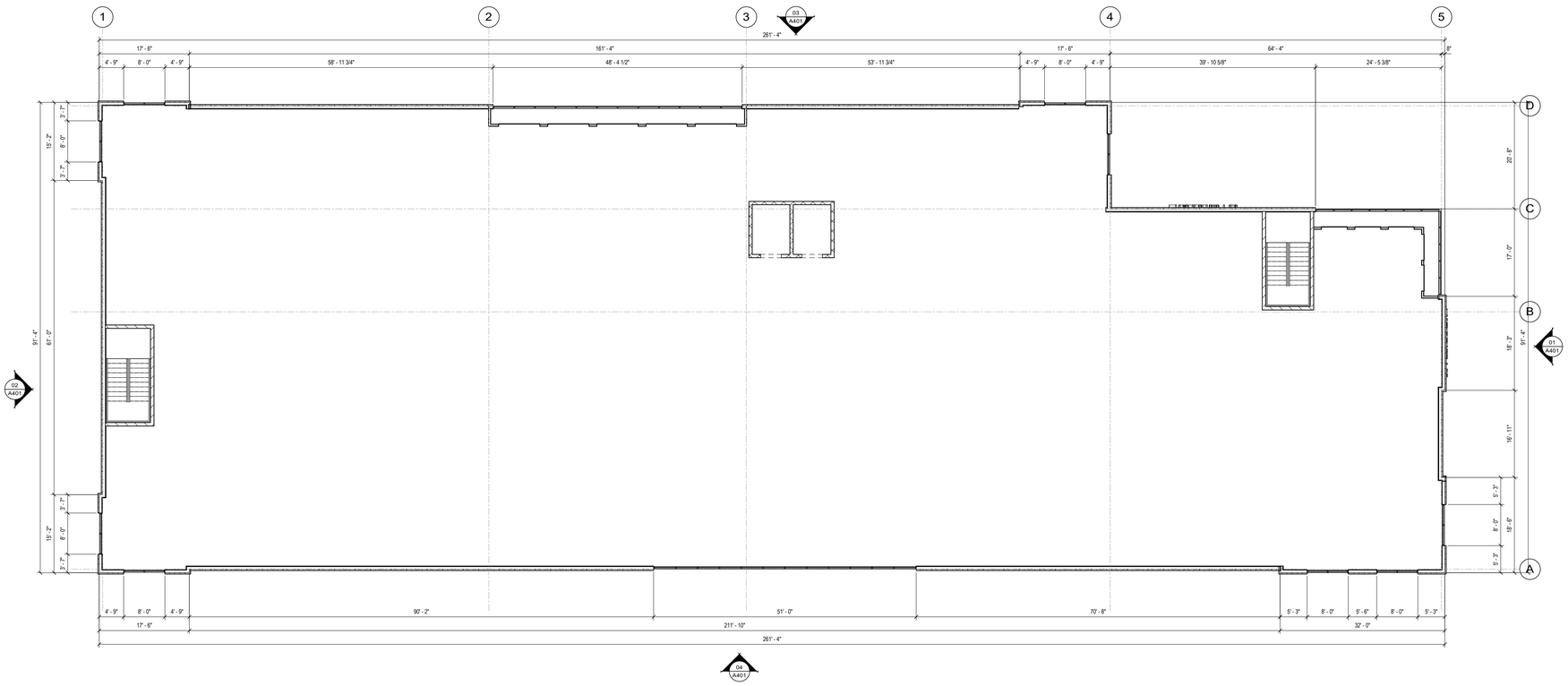
6. REFER TO EXTERIOR BUILDING ELEVATIONS FOR EXTERIOR WINDOW TYPES DENOTED AS:



NORTH

FOURTH FLOOR

SCALE: 3/32" = 1'-0"

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Sheet Size: 30" x 42" (Arch E1)

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ANGUS-YOUNG
ARCHITECTS/ENGINEERS

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Madison, WI 53716

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APPROVED BY
Approver

REVIEWED BY
Checker

DRAWN BY
Author

FOURTH FLOOR PLAN

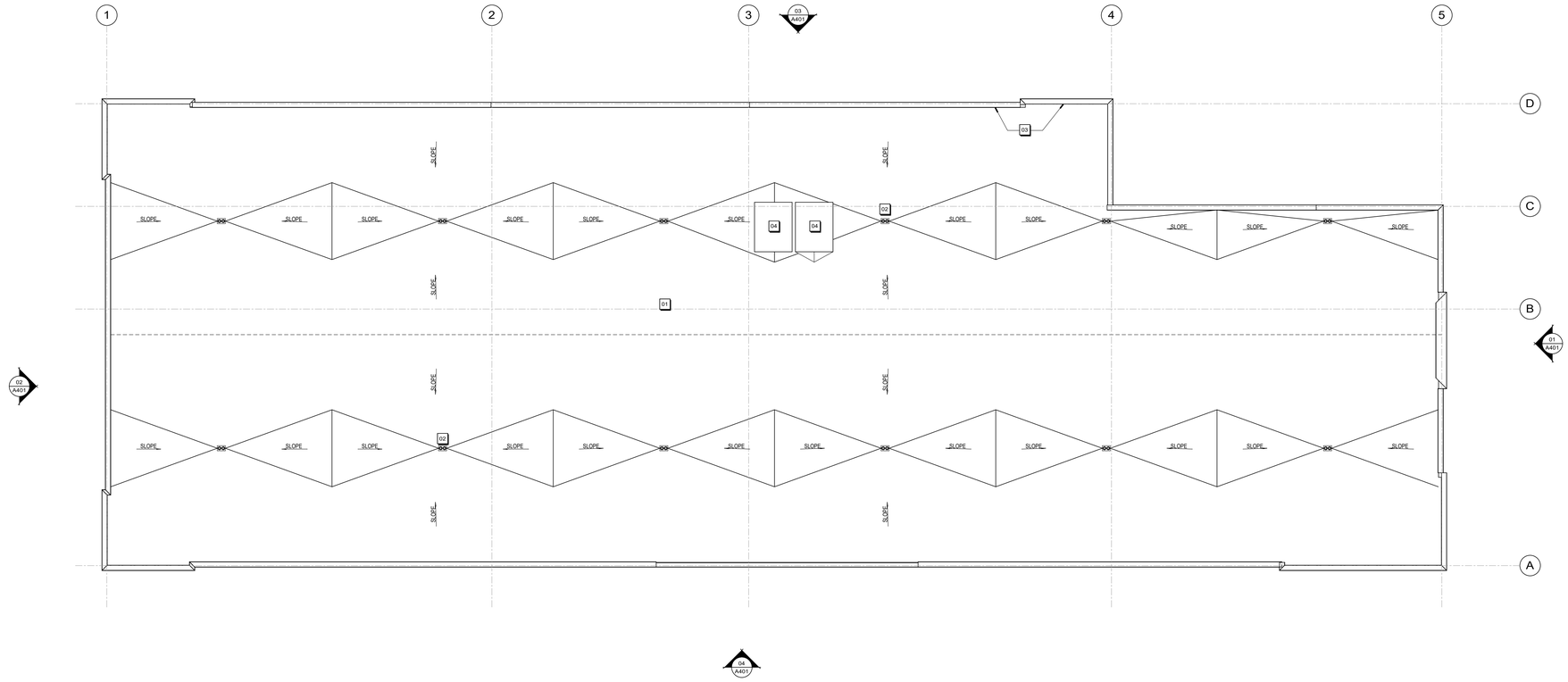
A104

ROOF PLAN NOTES:

1. REFER TO ELECTRICAL, MECHANICAL AND PLUMBING DRAWING FOR PENETRATIONS THROUGH ROOF. GENERAL CONTRACTOR SHALL FLASH ALL ROOF PENETRATIONS AND MECHANICAL SUPPORTS IN ACCORDANCE WITH THE DRAWINGS AND THE MANUFACTURERS RECOMMENDATIONS TO OBTAIN ROOF WARRANTY.
2. ALL ROOF PENETRATING OBJECTS SHALL BE PAINTED TO MATCH COLOR OF ROOF
3. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ROOF CURB BLOCKING AND LEVELING OF CURB TOPS

KEYNOTES:

- 01 FULLY ADHERED SINGLE PLY EPDM MEMBRANE ROOF
- 02 ROOF DRAIN AND OVERFLOW
- 03 PREFINISHED METAL PARAPET COPING CAP
- 04 RAISED ROOF FOR ELEVATOR OVERRUN WITH CRICKET



NORTH

ROOF PLAN

SCALE: 3/32" = 1'-0"

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Janesville | Madison

700 Cottage Grove Road, LLC

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ROOF PLAN

A105

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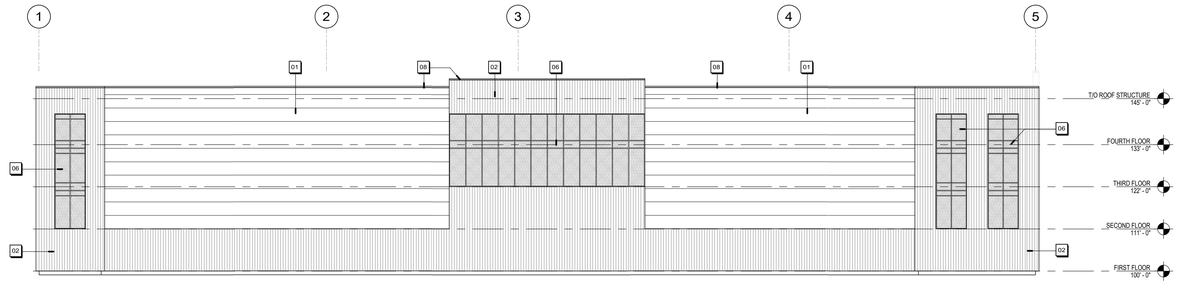
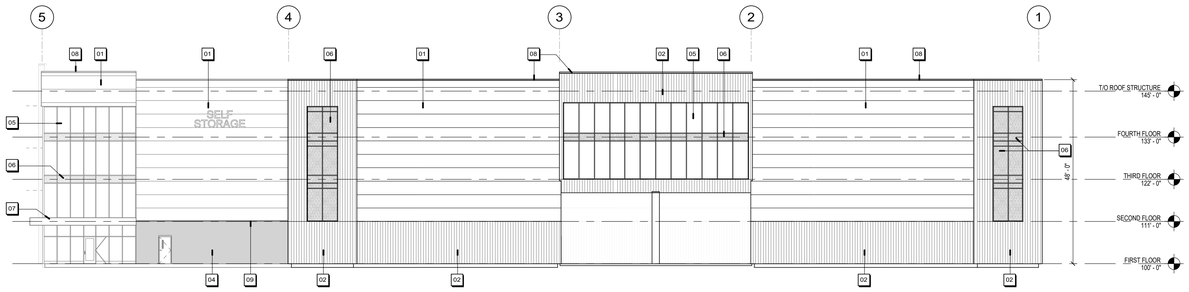
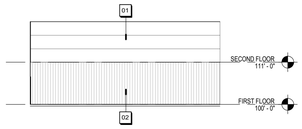


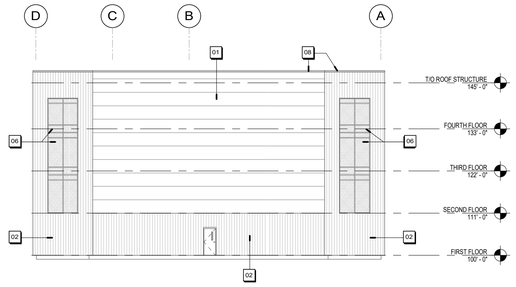
04 A401 WEST ELEVATION
SCALE: 1/16" = 1'-0"



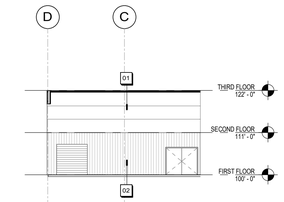
03 A401 EAST ELEVATION
SCALE: 1/16" = 1'-0"



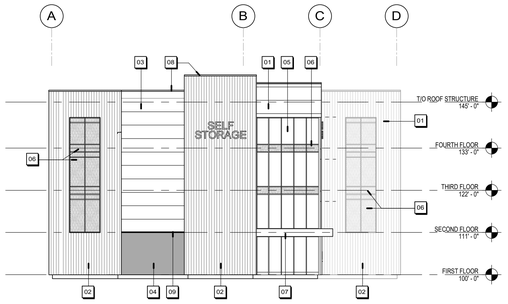
07 A401 EAST ELEVATION (HIDDEN)
SCALE: 1/16" = 1'-0"



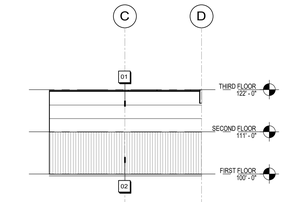
02 A401 NORTH ELEVATION
SCALE: 1/16" = 1'-0"



06 A401 NORTH ELEVATION (HIDDEN)
SCALE: 1/16" = 1'-0"



01 A401 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



05 A401 SOUTH ELEVATION (HIDDEN)
SCALE: 1/16" = 1'-0"

EXTERIOR ELEVATION GENERAL NOTES

1. BIRD SAFE GLASS SHALL INCORPORATE A PATTERN OF VISUAL MARKERS THAT ARE EITHER:
   A) DOTS OR OTHER ISOLATED SHAPES THAT ARE 1/4" DIAMETER OR LARGER AND SPACED NO MORE THAN TWO INCH (2") BY TWO INCH (2") PATTERN.
   B) LINES THAT ARE 1/8" IN WIDTH OR GREATER AND SPACED NO MOARE THAN 2" APART

KEYNOTES

01	INSULATED METAL PANEL (WHITE), HORIZONTAL
02	INSULATED METAL PANEL (LIGHT GRAY), VERTICAL
03	INSULATED METAL PANEL (MULTIPLE COLORS), HORIZONTAL
04	MASONRY (GRAY BLEND)
05	STOREFRONT GLAZING
06	STOREFRONT GLAZING - SPANDREL GLASS
07	ALUMINUM CLAD CANOPY
08	METAL COPING CAP
09	CAST STONE CAP

PRELIMINARY - NOT FOR CONSTRUCTION

ANGUS-YOUNG
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IDEAL BUILDERS

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2/27/2023 10:43:26 AM

PROJECT NUMBER
75710

APPROVED BY
AYA

REVIEWED BY
AYA

DRAWN BY
JPS

EXTERIOR ELEVATIONS

A401

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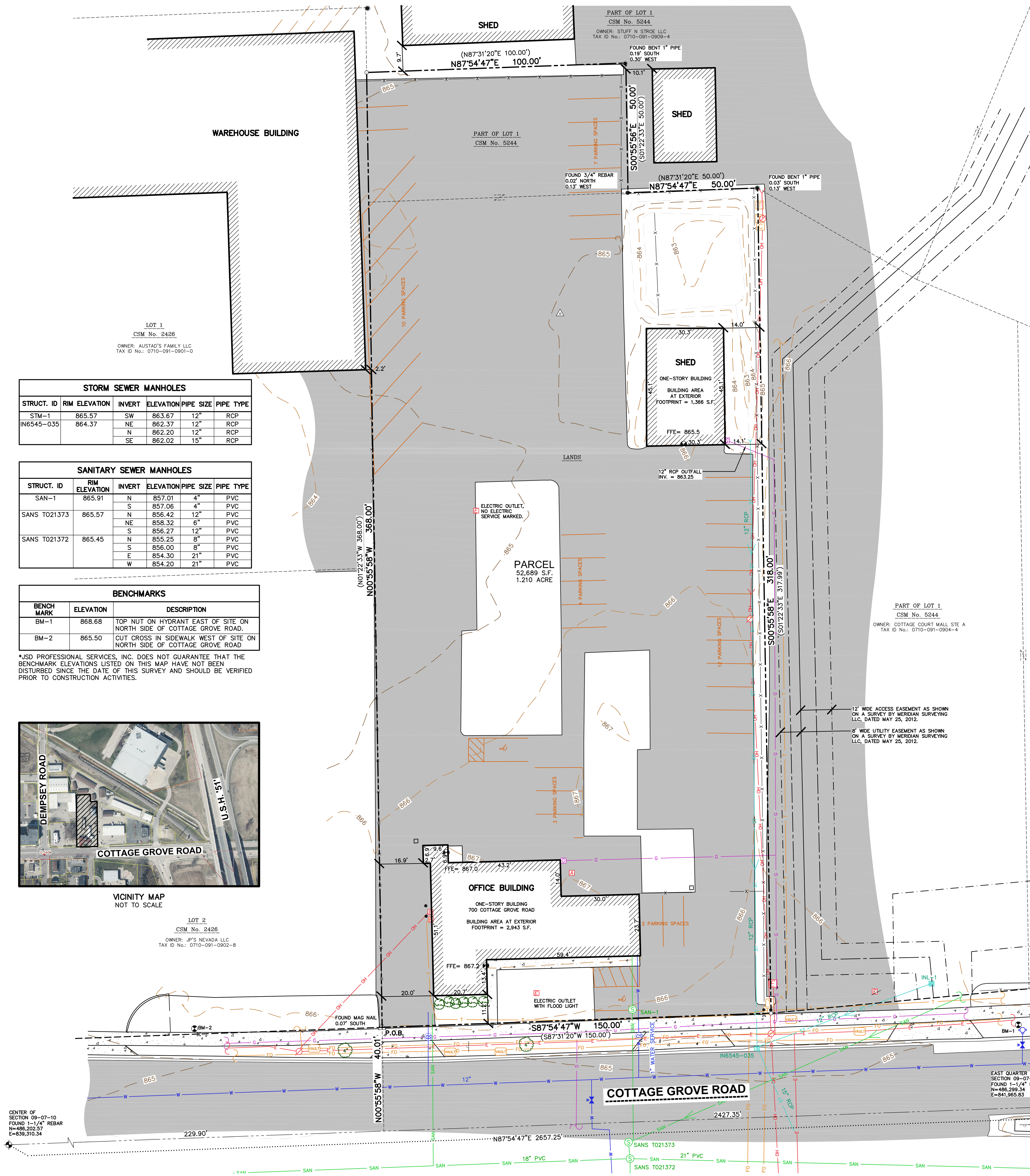
Sheet Size: 30" x 42" (Arch E1)

ALTA/NSPS LAND TITLE SURVEY

PART OF LOT 1, CERTIFIED SURVEY MAP No. 5244 AND PART OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, LOCATED IN THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 09, TOWNSHIP 07 NORTH, RANGE 10 EAST, CITY OF MADISON, DANE COUNTY, WISCONSIN.



STORM SEWER MANHOLES					
STRUCT. ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
STM-1	865.57	SW	863.67	12"	RCP
IN6545-035	864.37	NE	862.37	12"	RCP
		N	862.20	12"	RCP
		SE	862.02	15"	RCP

SANITARY SEWER MANHOLES					
STRUCT. ID	RIM ELEVATION	INVERT	ELEVATION	PIPE SIZE	PIPE TYPE
SAN-1	865.91	N	857.01	4"	PVC
		S	857.06	4"	PVC
SANS T021373	865.57	N	856.42	12"	PVC
		NE	858.32	6"	PVC
		S	856.27	12"	PVC
SANS T021372	865.45	N	855.25	8"	PVC
		S	856.00	8"	PVC
		E	854.30	21"	PVC
		W	854.20	21"	PVC

BENCHMARKS		
BENCH MARK	ELEVATION	DESCRIPTION
BM-1	868.68	TOP NUT ON HYDRANT EAST OF SITE ON NORTH SIDE OF COTTAGE GROVE ROAD.
BM-2	865.50	CUT CROSS IN SIDEWALK WEST OF SITE ON NORTH SIDE OF COTTAGE GROVE ROAD

*JSD PROFESSIONAL SERVICES, INC. DOES NOT GUARANTEE THAT THE BENCHMARK ELEVATIONS LISTED ON THIS MAP HAVE NOT BEEN DISTURBED SINCE THE DATE OF THIS SURVEY AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.

VICINITY MAP
NOT TO SCALE

LEGEND

- GOVERNMENT CORNER
- 1" IRON PIPE FOUND
- ¾" REBAR FOUND
- PK/MAG NAIL FOUND
- CHISELED 'X' FOUND
- 3/4" x 24" REBAR SET (1.50 LBS/LF)
- BENCHMARK
- FINISHED FLOOR SHOT LOCATION
- SIGN
- SANITARY MANHOLE
- WATER VALVE
- CURB STOP/SERVICE VALVE
- SQUARE CASTED INLET
- CURB INLET
- GAS REGULATOR/METER
- ELECTRIC TRANSFORMER
- ELECTRIC PEDESTAL
- ELECTRIC METER
- AIR CONDITION UNIT
- POWER POLE W/GUY
- VAULT
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- DECIDUOUS TREE
- BUSH
- HANDICAP PARKING
- PARCEL BOUNDARY
- SECTION LINE
- RIGHT-OF-WAY LINE
- PLATTED LOT LINE
- EASEMENT LINE
- FENCE LINE
- SAN — SANITARY SEWER
- W — WATER LINE
- ST — STORM SEWER
- G — NATURAL GAS
- OH — OVERHEAD LINE
- E — UNDERGROUND ELECTRIC
- FO — FIBER OPTIC
- BUILDING
- 865 — INDEX CONTOUR
- 864 — INTERMEDIATE CONTOUR
- +864.29 SPOT ELEVATION
- BITUMINOUS PAVEMENT
- CONCRETE PAVEMENT
- PAVEMENT STRIPING
- END OF FLAGGED UTILITIES
- ( ) DENOTES RECORD DATA DEPICTING THE SAME LINE ON THE GROUND AS RETRACED BY THIS SURVEY

NOTES

1. FIELD WORK PERFORMED ON JANUARY 17 AND 18, 2023.
2. BEARINGS FOR THIS SURVEY AND MAP ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, DANE COUNTY. THE SOUTH LINE OF THE NORTHEAST QUARTER OF SECTION 09-07-10, RECORDED AS N87°54'47"E.
3. ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). BENCHMARK IS A 1.25" REBAR MARKING THE CENTER OF SECTION 09, T07N, R10E, ELEVATION = 864.17'
4. CONTOUR INTERVAL IS ONE FOOT.
5. SUBSURFACE UTILITIES AND FEATURES SHOWN ON THIS MAP HAVE BEEN APPROXIMATED BY LOCATING SURFICIAL FEATURES AND APPURTENANCES, LOCATING DIGGERS HOTLINE FIELD MARKINGS AND BY REFERENCE TO UTILITY RECORDS AND MAPS. DIGGER'S HOTLINE TICKET No.'s 20230300026 AND 20230300028, WITH A CLEAR DATE OF JANUARY 20, 2023.
6. UTILITY COMPANIES CONTACTED THRU DIGGERS HOTLINE:
   - CITY OF MADISON ENGINEERING
   - MADISON GAS AND ELECTRIC COMPANY (ELECTRIC AND GAS)
   - CHARTER COMMUNICATIONS
   - MCI
   - AT&T DISTRIBUTION
   - SPRINT
   - US SIGNAL
   - LEVEL 3 IS NOW CENTURYLINK
7. BEFORE EXCAVATION, APPROPRIATE UTILITY COMPANIES SHOULD BE CONTACTED. FOR EXACT LOCATION OF UNDERGROUND UTILITIES, CONTACT DIGGERS HOTLINE, AT 1.800.242.8511.
8. OVERHEAD UTILITIES AND POLES HAVE NO EASEMENT OF RECORD.

NOTES CORRESPONDING TO TABLE A REQUIREMENTS:

ITEM 3 THE SUBJECT PROPERTY LIES IN ZONE X, AREA OF MINMAL FLOOD HAZARD, PER FEMA MAP NUMBER 55025C0429H, EFFICTIVE DATE OF SEPTEMBER 17, 2014.

ITEM 9 THERE ARE 38 PARKING SPACES AND 2 HANDICAP SPACES FOR A TOTAL OF 40 PARKING SPACES.

ITEM 16 THERE IS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS AT THE TIME OF THIS SURVEY.

ITEM 17 THERE ARE NO PROPOSED CHANGES IN THE STREET RIGHT-OF-WAY LINES PER CITY OF MADISON ENGINEERING DEPARTMENT. THERE IS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS AT THE TIME OF THE SURVEY.

ITEM 18 THERE ARE NO OFFSITE EASEMENTS FOR THE SUBJECT PROPERTY.

ITEM 20 EXECUTE A PUBLIC UTILITY LOCATE.

NOTES CORRESPONDING TO SCHEDULE B-SECTION TWO EXCEPTIONS

(OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT No.: 123010078, COMMITMENT DATE: JANUARY 4, 2023 AT 7:44 A.M.)

(11) ASSIGNMENT OF RENTS FROM GROVE BARN LLC TO STATE BANK OF CROSS PLAINS, DATED APRIL 30, 2020, RECORDED APRIL 30, 2020, AS #5583712.
THIS ITEM DOES AFFECT THE SUBJECT PROPERTY AND IS NOT GRAPHIC IN NATURE, THEREFORE IT IS NOT PLOTTED HEREON.

(12) PUBLIC OR PRIVATE RIGHTS IN THAT PART OF THE INSURED PREMISES WHICH MAY BE LAID OUT OR USED FOR HIGHWAY PURPOSES OR RIGHTS OF WAY.
THIS ITEM DOES NOT AFFECT THE SUBJECT PROPERTY AND IS NOT PLOTTED HEREON.

(13) ENCROACHMENT AGREEMENT RECORDED AS #3261257.
THIS ITEM DOES NOT AFFECT THE SUBJECT PROPERTY AND IS NOT PLOTTED HEREON.

(14) DECLARATION OF CONDITIONS, COVENANTS AND RESTRICTIONS FOR MAINTENANCE OF STORMWATER MANAGEMENT MEASURES RECORDED AS #4245977.
THIS ITEM DOES AFFECT THE SUBJECT PROPERTY AND IS NOT GRAPHIC IN NATURE, THEREFORE IT IS NOT PLOTTED HEREON.

(15) EASEMENT RECORDED AS #4965434.
THIS ITEM DOES NOT AFFECT THE SUBJECT PROPERTY AND IS NOT PLOTTED HEREON.

LEGAL DESCRIPTION (AS FURNISHED)

(OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT No.: 123010078, COMMITMENT DATE: JANUARY 4, 2023 AT 7:44 A.M.)

THAT PART OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 9, TOWNSHIP 7 NORTH, RANGE 10 EAST OF THE FOURTH PRINCIPAL MERIDIAN, IN THE CITY OF MADISON, DANE COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTH LINE OF THE NORTHEAST 1/4 OF SAID SECTION 9, DISTANT 230 FEET EAST OF, AS MEASURED ALONG THE SOUTH LINE OF SAID QUARTER SECTION FROM THE CENTER OF SAID SECTION 9; THENCE EAST ALONG THE SOUTH LINE OF SAID QUARTER SECTION, A DISTANCE OF 150 FEET; THENCE NORTH ALONG A LINE PARALLEL WITH THE WEST LINE OF SAID QUARTER SECTION, A DISTANCE OF 358 FEET; THENCE WEST ALONG A LINE PARALLEL WITH THE SOUTH LINE OF SAID QUARTER SECTION, A DISTANCE OF 150 FEET; THENCE SOUTH ALONG A LINE PARALLEL WITH THE WEST LINE OF SAID QUARTER SECTION A DISTANCE OF 358 FEET TO THE POINT OF BEGINNING; EXCEPT THAT PART CONVEYED TO THE CITY OF MADISON BY QUIT CLAIM DEED RECORDED IN VOL. 811 OF DEEDS, PAGE 68, AS #1149604.

AND

PART OF LOT 1 OF CERTIFIED SURVEY MAP NO. 5244 RECORDED IN THE DANE COUNTY REGISTER OF DEEDS OFFICE IN VOL. 24 OF CERTIFIED SURVEY MAPS, PAGE 12, AS #2021193, IN THE CITY OF MADISON, DANE COUNTY, WISCONSIN, DESCRIBED AS FOLLOWS: COMMENCING AT THE EAST QUARTER CORNER OF SECTION 9, TOWNSHIP 7 NORTH, RANGE 10 EAST; THENCE SOUTH 87° 31' 20" WEST, 2276.64 FEET, ALONG THE SOUTH LINE OF SAID NORTHEAST 1/4, TO A POINT NORTH 87° 31' 20" EAST, 380 FEET FROM THE SOUTHWEST CORNER OF SAID NORTHEAST 1/4; THENCE NORTH 1° 22' 33" WEST, 358 FEET; THENCE SOUTH 87° 31' 20" WEST, 50 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUING SOUTH 87° 31' 20" WEST, 100 FEET; THENCE NORTH 1° 22' 33" WEST, 50 FEET, PARALLEL WITH THE WEST LINE OF SAID NORTHEAST 1/4; THENCE NORTH 87° 31' 20" EAST, 100 FEET; THENCE SOUTH 1° 22' 33" EAST, 50 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION.

FOR INFORMATIONAL PURPOSES ONLY:

ADDRESS: 700 COTTAGE GROVE ROAD, MADISON, WI 53716

TAX KEY NUMBER: 251/0710-091-0903-6

SURVEYOR'S CERTIFICATE

TO:

i) GROVE BARN LLC,
ii) 700 COTTAGE GROVE ROAD, LLC,
iii) STATE BANK OF CROSS PLAINS,
iii) OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY,

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 9, 13, 16, 17, 18 AND 20 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JANUARY 18, 2023.

JOHN KREBS, S-1878
PROFESSIONAL LAND SURVEYOR
Email: john.krebs@jsdinc.com
Website: www.jsdinc.com

DATE

WISCONSIN JOHN KREBS S-1878 McFARLAND, WISCONSIN LAND SURVEYOR

CREATE THE VISION TELL THE STORY
jsdinc.com
MADISON REGIONAL OFFICE
161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
P. 608.848.5060

CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:

PROJECT:
700 COTTAGE GROVE RD.

PROJECT LOCATION:
700 COTTAGE GROVE ROAD
MADISON, WI 53716
DANE COUNTY

north

SCALE IN FEET
20' 0 20'
SCALE 1" = 20'

MODIFICATIONS:

#	Date:	Description:
1	2/27/2023	LAND USE SUBMITTAL
2		
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14		
15		

Prepared By:	JK	01/20/23
Reviewed By:	TJB	01/20/23
Approved By:	TJB	01/20/23

SHEET TITLE:
ALTA/NSPS LAND TITLE SURVEY

SHEET NUMBER:
C001

PROJECT NO: 23-13025

File: I:\2023\2313025\DWG\Survey Sheets\2313025 ALTA.dwg Layout: 24x36 User: mhaase Plotted: Feb 27, 2023 - 8:53am Xrefs:

GENERAL NOTES

1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
2. ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND MUNICIPAL REQUIREMENTS.
3. EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
4. NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
5. JSD SHALL BE HELD HARMLESS AND DOES NOT WARRANT ANY DEVIATIONS BY THE OWNER/CONTRACTOR FROM THE APPROVED CONSTRUCTION PLANS THAT MAY RESULT IN DISCIPLINARY ACTIONS BY ANY OR ALL REGULATORY AGENCIES.

DEMOLITION NOTES

1. THIS PLAN INDICATES ITEMS ON THE PROPERTY INTENDED FOR DEMOLITION BASED ON THE CURRENT SITE DESIGN THAT HAVE BEEN IDENTIFIED BY A REASONABLE OBSERVATION OF THE EXISTING CONDITIONS THROUGH FIELD SURVEY RECONNAISSANCE, "DIGGER'S HOTLINE" LOCATION, AND GENERAL "STANDARD OF CARE". THERE MAY BE ADDITIONAL ITEMS THAT CAN NOT BE IDENTIFIED BY A REASONABLE ABOVE GROUND OBSERVATION, OF WHICH THE ENGINEER WOULD HAVE NO KNOWLEDGE OR MAY BE A PART OF ANOTHER DESIGN DISCIPLINE. IT IS THE CONTRACTOR'S/BIDDER'S RESPONSIBILITY TO REVIEW THE PLANS, INSPECT THE SITE AND PROVIDE THEIR OWN DUE DILIGENCE TO INCLUDE IN THEIR BID WHAT ADDITIONAL ITEMS, IN THEIR OPINION, MAY BE NECESSARY FOR DEMOLITION. ANY ADDITIONAL ITEMS IDENTIFIED BY THE CONTRACTOR/BIDDER SHALL BE IDENTIFIED IN THE BID AND REPORTED TO THE ENGINEER OF RECORD. JSD TAKES NO RESPONSIBILITY FOR ITEMS ON THE PROPERTY THAT COULD NOT BE LOCATED BY A REASONABLE OBSERVATION OF THE PROPERTY OR OF WHICH THEY WOULD HAVE NO KNOWLEDGE.
2. CONTRACTOR SHALL KEEP ALL STREETS AND PRIVATE DRIVES FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
3. ALL TREES WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNLESS SPECIFICALLY CALLED OUT FOR PROTECTION. ALL TREES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY AND STUMPS SHALL BE GROUND TO PROPOSED SUBGRADE.
4. ALL LIGHT POLES TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY, INCLUDING BASE AND ALL APPURTENANCES. SALVAGE FOR RELOCATION. COORDINATE RELOCATION AND/OR ABANDONMENT OF ALL ELECTRIC LINES WITH ELECTRICAL ENGINEER AND OWNER PRIOR TO DEMOLITION.
5. ABANDONED/REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO REPLACE ALL SIDEWALK AND CURB AND GUTTER ABUTTING THE PROPERTIES, WHICH IS DAMAGED BY THE CONSTRUCTION, OR ANY SIDEWALK AND CURB AND GUTTER THAT THE CITY ENGINEER DETERMINES NEEDS TO BE REPLACED BECAUSE IT IS NOT AT A DESIRABLE GRADE REGARDLESS OF WHETHER THE CONDITION EXISTED PRIOR TO BEGINNING CONSTRUCTION.
7. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
   - 7.1. EXAMINE ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - 7.2. VERIFYING UTILITY ELEVATIONS AND NOTIFYING ENGINEER OF ANY DISCREPANCIES. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCIES ARE RESOLVED.
   - 7.3. NOTIFYING ALL UTILITIES PRIOR TO THE REMOVAL OF ANY UNDERGROUND UTILITIES.
   - 7.4. NOTIFYING THE DESIGN ENGINEER AND LOCAL CONTROLLING MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION.
8. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
9. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
10. CONTRACTOR TO COORDINATE PRIVATE UTILITY REMOVAL / ABANDONMENT AND NECESSARY RELOCATION WITH RESPECTIVE UTILITY COMPANY. COORDINATION REQUIRED PRIOR TO CONSTRUCTION.
11. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH THE APPROVED MUNICIPALITY RECYCLING PLAN.
12. ANY CONTAMINATED SOILS SHALL BE REMOVED IN ACCORDANCE WITH FEDERAL AND STATE REGULATIONS TO AN APPROVED LANDFILL.
13. ALL EXISTING UTILITIES TO BE FIELD LOCATED AND FLAGGED BY CONTRACTOR.
14. EXISTING FIBER OPTIC LINE TO BE CLEARLY MARKED PRIOR TO ANY EXCAVATION. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES OCCUR IN THE LOCATION SHOWN OR PROPOSED IMPROVEMENTS IMPACTING EXISTING FIBER OPTIC LINE LOCATION.
15. SEWER ABANDONMENT SHALL BE IN ACCORDANCE WITH SECTION 3.2.24, OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST ADDITION, AND CITY OF MADISON SPECIFICATIONS.
16. WATER ABANDONMENT SHALL BE IN ACCORDANCE WITH SECTION 4.14.0 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN WISCONSIN, LATEST ADDITION, AND CITY OF MADISON SPECIFICATIONS.
17. ALL PERIMETER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF DEMOLITION ACTIVITIES. CONTRACTOR SHALL KEEP ALL STREETS AND PAVEMENT FREE AND CLEAR OF ALL CONSTRUCTION RELATED DIRT, DUST AND DEBRIS.
18. BUILDING REMOVALS SHALL BE BY A QUALIFIED CONTRACTOR. CONTRACTOR TO FOLLOW ALL DEMOLITION REGULATIONS, DISCONNECT ALL UTILITIES, OBTAIN ALL APPLICABLE PERMITS AND DISPOSE OF ALL BUILDING MATERIALS IN APPROPRIATE LANDFILLS. DEMOLISHED MATERIALS SHALL NOT BE BURIED ON SITE. IF ENCOUNTERED, ANY CONTAMINATED SOILS SHALL BE REMOVED TO A LANDFILL IN ACCORDANCE WITH APPROPRIATE STATE AND FEDERAL REGULATIONS.
19. CONTRACTOR TO REMOVE EXISTING UTILITY PIPE OR PROVIDE PIPE BACK-FILLING AFTER REMOVAL OF EXISTING UTILITIES WITHIN BUILDING FOOTPRINT USING "LOW DENSITY CONCRETE/FLOWABLE FILL".
20. RESTORATION OF THE EXISTING ROADWAY RIGHT-OF-WAYS ARE CONSIDERED INCIDENTAL AND SHOULD BE PART OF THE COST OF THE UNDERGROUND IMPROVEMENTS, DEMOLITION AND REMOVAL. THIS INCLUDES CURB & GUTTER, SIDEWALK, TOPSOIL, SEEDING AND MULCHING.

CONSTRUCTION SEQUENCING

1. INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND TEMPORARY CONSTRUCTION ENTRANCE.
2. STRIP AND STOCKPILE TOPSOIL, INSTALL SILT FENCE AROUND PERIMETER OF STOCKPILE.
3. CONDUCT ROUGH GRADING EFFORTS AND INSTALL CHECK DAMS WITHIN DRAINAGE DITCHES AS NEEDED.
4. INSTALL UTILITY PIPING AND STRUCTURES, IMMEDIATELY INSTALL INLET PROTECTION.
5. COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
6. PLACE TOPSOIL AND IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL MEASURES AS INDICATED ON PLANS.
7. EROSION CONTROLS SHALL NOT BE REMOVED UNTIL SITE IS FULLY STABILIZED OR 70% VEGETATIVE COVER IS ESTABLISHED.

CONTRACTOR MAY MODIFY SEQUENCING AFTER ITEM NO. 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

PAVING NOTES

1. GENERAL
   - 1.1. ALL PAVING SHALL CONFORM TO "STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION, APPLICABLE CITY OF MADISON ORDINANCES AND THE GEOTECHNICAL REPORT PREPARED BY CGC, INC. DATED JANUARY 23, 2023.
   - 1.2. ALL PAVING DIMENSIONS ARE TO FACE OF CURB UNLESS SPECIFIED OTHERWISE.
   - 1.3. SURFACE PREPARATION – NOTIFY ENGINEER/OWNER OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
   - 1.4. ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET MUNICIPALITY REQUIREMENTS.
2. ASPHALTIC CONCRETE PAVING SPECIFICATIONS
   - 2.1. CODES AND STANDARDS – THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACE COURSE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460 AND 465 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, CURRENT EDITION. HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS STATE HIGHWAY SPECIFICATIONS.
   - 2.2. WEATHER LIMITATIONS – APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° F (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (–1° C).
   - 2.3. GRADE CONTROL – ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
   - 2.4. CRUSHED AGGREGATE BASE COURSE – THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS.
   - 2.5. BINDER COURSE AGGREGATE – THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460 AND 315, STATE HIGHWAY SPECIFICATIONS.
   - 2.6. SURFACE COURSE AGGREGATE – THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460 AND 465, STATE HIGHWAY SPECIFICATIONS.
   - 2.7. ASPHALTIC MATERIALS – THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
3. CONCRETE PAVING SPECIFICATIONS
   - 3.1. CONCRETE PAVING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 415 AND 416 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 3.2. CONCRETE PAVEMENT SHALL BE REINFORCED WITH NOVOMESH 950 (OR EQUAL) FIBER REINFORCEMENT AT A RATE OF 5 LBS/CUBIC YARD.
   - 3.3. CURING COMPOUNDS SHALL CONFORM TO SECTION 415 OF THE STATE HIGHWAY SPECIFICATIONS.
   - 3.4. CONTRACTOR SHALL PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS OF ONE-QUARTER CONCRETE THICKNESS AT AN EQUAL RATIO OF LENGTH TO WIDTH WHEREVER POSSIBLE WITH A MAXIMUM LENGTH BETWEEN JOINTS OF 8' ON CENTER.
   - 3.5. CONTRACTOR SHALL PROVIDE EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 24' ON CENTER.
   - 3.6. EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.
   - 3.7. ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK-26UV CONCRETE SEALANT.
4. PAVEMENT MARKING SPECIFICATIONS
   - 4.1. USE 4" WIDE, HIGH VISIBILITY YELLOW LATEX PAINT FOR STALL LINES.
   - 4.2. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
   - 4.3. ALL PAVEMENT MARKINGS INCLUDING: STOP BARS, CROSSWALKS, DIRECTIONAL ARROWS, PARKING STALL LINES, ADA STALL MARKINGS, NO PARKING ZONES, DROP-OFF/PICK-UP ZONES SHALL BE PAINTED WITH LATEX PAINT PER SPECIFICATIONS.
   - 4.4. 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.

GRADING AND SEEDING NOTES

1. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES, MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR COMPUTATIONS OF ALL GRADING QUANTITIES. WHILE JSD PROFESSIONAL SERVICES, INC. ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARDS OF CARE. THEREFORE, NO GUARANTEE CAN BE MADE FOR A BALANCED SITE.
3. PARKING LOT AND DRIVEWAY ELEVATIONS ARE PAVEMENT GRADES, NOT TOP OF CURB GRADES, UNLESS OTHERWISE NOTED.
4. ANY WORK WITHIN RIGHT-OF-WAY SHALL BE PROPERLY PERMITTED AND COORDINATED WITH THE APPROPRIATE OFFICIALS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. ALL GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS.
5. CONTRACTOR SHALL PROVIDE NOTICE TO THE MUNICIPALITY IN ADVANCE OF ANY SOIL DISTURBING ACTIVITIES, IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.
6. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
7. CONTRACTOR SHALL CHISEL-PLOW OR DEEP TILL WITH DOUBLE TINES ALL STORMWATER MANAGEMENT FACILITIES JUST PRIOR TO SODDING AND/OR SEEDING AND MULCHING TO PROMOTE INFILTRATION.
8. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
9. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
10. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.
11. ALL EXPOSED SOIL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 30 DAYS AND REQUIRE VEGETATIVE COVER FOR LESS THAN 1 YEAR, REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059 AND CITY OF MADISON ORDINANCE.

UTILITY NOTES

1. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATIONS OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR/OWNER SHALL CALL "DIGGER'S HOTLINE" PRIOR TO ANY CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, THE PRIME CONTRACTOR IS RESPONSIBLE FOR:
EXAMINING ALL SITE CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - VERIFYING ALL ELEVATIONS, LOCATIONS AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS. NOTIFY ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - NOTIFYING ALL UTILITIES PRIOR TO INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
   - COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
3. ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN – AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
4. SPECIFICATIONS SHALL COMPLY WITH THE CITY OF MADISON SPECIAL PROVISIONS.
5. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.
6. CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
7. CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVER NIGHT AS REQUIRED IN CONSTRUCTION SITES WHERE THE POTENTIAL FOR PEDESTRIAN INJURY EXISTS.
8. CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT ALL UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH THE FINISHED GRADES OF THE AREAS EFFECTED BY THE CONSTRUCTION.
9. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
10. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AS-BUILT CONDITIONS OF THE DESIGNATED IMPROVEMENTS IN ORDER THAT THE APPROPRIATE DRAWINGS CAN BE PREPARED, IF REQUIRED. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE ENGINEER AS WORK PROGRESSES.
12. STORM SEWER SPECIFICATIONS –

    PIPE – REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS III (MINIMUM) C-76 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. HIGH DENSITY DUAL-WALL POLYETHYLENE CORRUGATED PIPE SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S".

    INLETS – INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE. NO. 28 OF THE "STANDARD SPECIFICATIONS", OR APPROVED EQUAL WITH A 1'-8" X 2'-6" MAXIMUM OPENING. CURB FRAME & GRATE SHALL BE NEENAH R-3067 WITH TYPE R GRATE, OR EQUAL.

    BACKFILL AND BEDDING – STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

    FIELD TILE CONNECTION – ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER. TILE LINES CROSSED BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.

    MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL.
13. WATER MAIN SPECIFICATIONS –

    PIPE – DUCTILE IRON PIPE SHALL BE CLASS 52 CONFORMING TO AWWA C151 AND CHAPTER 8.18.0 OF THE "STANDARD SPECIFICATIONS". POLYVINYL CHLORIDE (PVC) PIPE SHALL MEET THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 150, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS. NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH BLUE INSULATION TRACER WIRE AND CONFORM WITH SPS 382.30(11)(h).

    VALVES AND VALVE BOXES – GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.

    HYDRANTS – HYDRANTS SHALL CONFORM TO THE SPECIFICATIONS OF THE CITY OF MADISON. THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 23-INCHES (SEE DETAIL).

    BEDDING AND COVER MATERIAL – PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS". GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".
14. SANITARY SEWER SPECIFICATIONS –

    PIPE – SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35, WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.

    BEDDING AND COVER MATERIAL – BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A). BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE HAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."

    BACKFILL – BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS." GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL. LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."

    MANHOLES – MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL SPECIAL PROVISIONS OF THE CITY OF MADISON.

    MANHOLE FRAMES AND COVERS – MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1642 WITH TYPE "B" SELF SEALING LIDS, NON-ROCKING OR EQUAL.
15. WATERMAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6 FEET. INSULATION AND INSTALLATION OF INSULATION SHALL BE CONFORMING WITH CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).

EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE TO NOTIFY ENGINEER OF RECORD AND OFFICIALS OF ANY CHANGES TO THE EROSION CONTROL AND STORMWATER MANAGEMENT PLANS. ENGINEER OF RECORD AND APPROPRIATE CITY OF MADISON OFFICIALS MUST APPROVE ANY CHANGES PRIOR TO DEVIATION FROM THE APPROVED PLANS.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) TECHNICAL STANDARDS (REFERRED TO AS BMP'S) AND CITY OF MADISON ORDINANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COPY OF THESE STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL EROSION CONTROL MEASURES WHICH MAY BE NECESSARY TO MEET UNFORESEEN FIELD CONDITIONS.
5. INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN. MODIFICATIONS TO THE APPROVED EROSION CONTROL DESIGN IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS IS ALLOWED IF MODIFICATIONS CONFORM TO BMP'S. ALL DESIGN MODIFICATIONS MUST BE APPROVED BY THE CITY OF MADISON PRIOR TO DEVIATION OF THE APPROVED PLAN.
4. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED BY STATE INSPECTORS, LOCAL INSPECTORS, COUNTY INSPECTORS AND/OR ENGINEER OF RECORD SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
5. INSPECTIONS AND MAINTENANCE OF ALL EROSION CONTROL MEASURES SHALL BE ROUTINE (ONCE PER WEEK MINIMUM) TO ENSURE PROPER FUNCTION OF EROSION CONTROLS AT ALL TIMES. EROSION CONTROL MEASURES ARE TO BE IN WORKING ORDER AT THE END OF EACH WORK DAY.
6. ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE INSPECTED WITHIN 24 HOURS OF ALL RAIN EVENTS EXCEEDING 0.5 INCHES. ANY DAMAGED EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY UPON INSPECTION.
7. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. ADDITIONAL LOCATIONS OTHER THAN AS SHOWN ON THE PLANS MUST BE PRIOR APPROVED BY THE MUNICIPALITY. CONSTRUCTION ENTRANCES SHALL BE 50' LONG AND NO LESS THAN 12" THICK BY USE OF 3" CLEAR STONE. CONSTRUCTION ENTRANCES SHALL BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
8. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST AFTER THE END OF EACH WORK DAY AND AS REQUESTED BY THE CITY OF MADISON.
9. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS.
10. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES. IF STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES IS REQUIRED. IF DISTURBANCE OCCURS BETWEEN NOVEMBER 15TH AND MAY 15TH, THE MULCHING SHALL BE PERFORMED BY HYDRO-MULCHING WITH A "TACKIFIER."
11. DITCH CHECKS AND APPLICABLE EROSION NETTING/MATTING SHALL BE INSTALLED IMMEDIATELY AFTER COMPLETION OF GRADING EFFORTS WITHIN DITCHES/SWALES TO PREVENT SOIL TRANSPORTATION.
12. EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.):
    - A. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    - B. BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    - C. DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH THE DEWATERING TECHNICAL STANDARD NO. 1061 PRIOR TO RELEASE INTO THE STORM SEWER, RECEIVING STREAM, OR DRAINAGE DITCH.
13. ALL SLOPES 4:1 OR GREATER SHALL BE STABILIZED WITH CLASS I, TYPE B EROSION MATTING OR APPLICATION OF A WISCONSIN DEPARTMENT OF TRANSPORTATION (WisDOT) APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING. EROSION MATTING AND/OR NETTING USED ONSITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND WDNR TECHNICAL STANDARDS 1052 AND 1053.
14. CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO CONTROL DUST ARISING FROM CONSTRUCTION OPERATIONS. REFER TO WDNR TECHNICAL STANDARD 1068.
15. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL LAND DISTURBING CONSTRUCTION ACTIVITY AT THE SITE HAS BEEN COMPLETED AND THAT A UNIFORM PERENNIAL VEGETATIVE COVER HAS BEEN ESTABLISHED WITH A DENSITY OF AT LEAST 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES.
16. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON COMPLETION OF THE PROJECT IN ACCORDANCE WITH WDNR REQUIREMENTS AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.
17. STABILIZATION PRACTICES:
    - 17.1. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. NO MORE THAN SEVEN (7) DAYS SHALL PASS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED UNLESS:
    - 17.2. THE INITIATION STABILIZATION MEASURES BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS CEASED IS PRECLUDED BY SNOW COVER. IN THAT EVENT, STABILIZATION SHALL BE INITIATED AS SOON AS PRACTICABLE.
    - 17.3. CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN FOURTEEN (14) DAYS FROM WHEN ACTIVITY CEASED, (I.E. THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN FOURTEEN (14) DAYS. IN THAT EVENT, STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH (7) DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED.
    - 17.4. STABILIZATION MEASURES SHALL BE DETERMINED BASED ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION ACTIVITY HAS CEASED, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND LENGTH OF TIME MEASURE MUST BE EFFECTIVE. THE FOLLOWING ARE ACCEPTABLE STABILIZATION MEASURES:
      - PERMANENT SEEDING; IN ACCORDANCE WITH APPROVED CONSTRUCTION SPECIFICATION
      - TEMPORARY SEEDING; MAY CONSIST OF SPRING OATS(100LBS/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
      - HYDRO-MULCHING WITH A TACKIFIER
      - GEOTEXTILE EROSION MATTING
      - SODDING

STORMWATER FACILITIES CONSTRUCTION NOTES

1. ENGINEER SHALL BE NOTIFIED PRIOR TO INSTALLATION OF STORMWATER MANAGEMENT FACILITIES. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES SHALL BE OBSERVED AND DOCUMENTED BY THE ENGINEER, OR AN OWNER'S REPRESENTATIVE.
2. STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AFTER SUBSTANTIAL COMPLETION OF FINAL SITE GRADING AND SOILS HAVE BEEN STABILIZED.
3. AREAS USED FOR TEMPORARY SEDIMENT BASINS SHALL BE REMOVED IN THEIR ENTIRETY AFTER CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES.
4. CONSTRUCTION TRAFFIC, HEAVY EQUIPMENT AND SOIL STOCKPILES SHALL NOT BE PLACED IN AREAS WHERE PROPOSED STORMWATER MANAGEMENT FACILITIES ARE LOCATED.
5. NATIVE SOIL INFILTRATION RATES BELOW STORMWATER FACILITIES SHALL BE VERIFIED BY THE OWNER'S GEOTECHNICAL ENGINEER PRIOR INSTALLATION OF FACILITIES. NATIVE SOIL INFILTRATION RATES SHALL BE EQUAL TO OR GREATER THAN DESIGN INFILTRATION RATES.
6. NATIVE SOILS SHALL BE BLENDED A MINIMUM OF TWO FEET PRIOR TO INSTALLATION OF STORMWATER INFILTRATION FACILITIES TO BREAKUP ANY LOWER PERMEABILITY SEAMS THAT MAY BE PRESENT.
7. THICKER SILT OR CLAY LAYERS SHALL BE OVER-EXCAVATED AND BACKFILLED WITH GRANULAR MATERIALS CONFORMING TO SPECIFICATIONS PER WDNR TECH STANDARD 1004.

CITY TRAFFIC ENGINEERING NOTES

1. THE RIGHT-OF-WAY IS THE SOLE JURISDICTION OF THE CITY OF MADISON AND IS SUBJECT TO CHANGE AT ANY TIME PER THE RECOMMENDED PLAN BUY TRAFFIC ENGINEERING AND CITY ENGINEERING DEPARTMENT.

LEGEND

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- BUILDING SETBACK LINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB AND GUTTER
- 8" CONCRETE RIBBON CURB
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- 959 — PROPOSED 1 FOOT CONTOUR
- 960 — PROPOSED 5 FOOT CONTOUR
- 959 — EXISTING 1 FOOT CONTOUR
- 960 — EXISTING 5 FOOT CONTOUR
- SAWCUT EXISTING PAVEMENT
- DEMOLITION – REMOVAL OF PAVEMENT MARKINGS
- DEMOLITION – REMOVAL OF ASPHALT SURFACES
- DEMOLITION – REMOVAL OF CONCRETE SURFACES
- DEMOLITION – REMOVAL OF BUILDINGS/STRUCTURES
- DEMOLITION – REMOVAL OF STORM UTILITIES
- DEMOLITION – REMOVAL OF DRY UTILITIES
- DEMOLITION – REMOVAL OF LANDSCAPE BEDDING
- PROTECT & PRESERVE EXISTING TREE
- BOLLARD
- BOLLARD WITH ADA PARKING SIGN
- BIKE RACK
- TREE REMOVAL
- SHRUB REMOVAL
- SAWCUT EXISTING PAVEMENT
- SANITARY SEWER
- W — WATERMAIN
- STORM SEWER
- 8'x4'x4" INSULATION (PLAN VIEW)
- 8'x4'x4" INSULATION (PROFILE VIEW)
- SF — SILT FENCE
- RIP-RAP
- CONSTRUCTION ENTRANCE
- EROSION MATTING
- FG: XXX.XX — SPOT ELEVATION
  - EP – EDGE OF PAVEMENT
  - FG – FINISH GRADE
  - EC – EDGE OF CONCRETE
  - BOC – BACK OF CURB
  - MATCH – MATCH EXISTING GRADE
  - HP – HIGH POINT
  - SW – SIDEWALK
- INLET PROTECTION

CITY FORESTRY NOTES

1. ALL PROPOSED STREET TREE REMOVALS WITHIN THE RIGHT OF WAY SHALL BE REVIEWED BY CITY FORESTRY BEFORE THE PLAN COMMISSION MEETING. STREET TREE REMOVALS REQUIRE APPROVAL AND A TREE REMOVAL PERMIT ISSUED BY CITY FORESTRY. ANY STREET TREE REMOVALS REQUESTED AFTER THE DEVELOPMENT PLAN IS APPROVED BY THE PLAN COMMISSION OR THE BOARD OF PUBLIC WORKS AND CITY FORESTRY WILL REQUIRE A MINIMUM OF A 72-HOUR REVIEW PERIOD WHICH SHALL INCLUDE THE NOTIFICATION OF THE ALDERPERSON WITHIN WHO'S DISTRICT IS AFFECTED BY THE STREET TREE REMOVAL(S) PRIOR TO A TREE REMOVAL PERMIT BEING ISSUED.
2. AS DEFINED BY THE SECTION 107.13 OF CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION: NO EXCAVATION IS PERMITTED WITHIN 5 FEET OF THE TRUNK OF THE STREET TREE OR WHEN CUTTING ROOTS OVER 3 INCHES IN DIAMETER. IF EXCAVATION IS NECESSARY, THE CONTRACTOR SHALL CONTACT MADISON CITY FORESTRY (266-4816) PRIOR TO EXCAVATION. CITY OF MADISON FORESTRY PERSONNEL SHALL ASSESS THE IMPACT TO THE TREE AND TO ITS ROOT SYSTEM PRIOR TO WORK COMMENCING. TREE PROTECTION SPECIFICATIONS CAN BE FOUND ON THE FOLLOWING WEBSITE: HTTPS://WWW.CITYOFMADISON.COM/BUSINESS/PW/SPECS.CFM
3. CONTRACTOR SHALL TAKE PRECAUTIONS DURING CONSTRUCTION TO NOT DISFIGURE, SCAR, OR IMPAIR THE HEALTH OF ANY STREET TREE. CONTRACTOR SHALL OPERATE EQUIPMENT IN A MANNER AS TO NOT DAMAGE THE BRANCHES OF THE STREET TREE(S). THIS MAY REQUIRE USING SMALLER EQUIPMENT AND LOADING AND UNLOADING MATERIALS IN A DESIGNATED SPACE AWAY FROM TREES ON THE CONSTRUCTION SITE. ANY DAMAGE OR INJURY TO EXISTING STREET TREES (EITHER ABOVE OR BELOW GROUND) SHALL BE REPORTED IMMEDIATELY TO CITY FORESTRY AT 266-4816. PENALTIES AND REMEDIATION SHALL BE REQUIRED.
4. SECTION 107.13(G) OF CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ADDRESSES SOIL COMPACTION NEAR STREET TREES AND SHALL BE FOLLOWED BY CONTRACTOR. THE STORAGE OF PARKED VEHICLES, CONSTRUCTION EQUIPMENT, BUILDING MATERIALS, REFUSE, EXCAVATED SPOILS OR DUMPING OF POISONOUS MATERIALS ON OR AROUND TREES AND ROOTS WITHIN FIVE (5) FEET OF THE TREE OR WITHIN THE PROTECTION ZONE IS PROHIBITED.
5. ON THIS PROJECT, STREET TREE PROTECTION ZONE FENCING IS REQUIRED. THE FENCING SHALL BE ERECTED BEFORE THE DEMOLITION, GRADING OR CONSTRUCTION BEGINS. THE FENCE SHALL INCLUDE THE ENTIRE WIDTH OF TERRACE AND, EXTEND AT LEAST 5 FEET ON BOTH SIDES OF THE OUTSIDE EDGE OF THE TREE TRUNK. DO NOT REMOVE THE FENCING TO ALLOW FOR DELIVERIES OR EQUIPMENT ACCESS THROUGH THE TREE PROTECTION ZONE.
6. STREET TREE PRUNING SHALL BE COORDINATED WITH MADISON FORESTRY AT A MINIMUM OF TWO WEEKS PRIOR TO THE START OF CONSTRUCTION FOR THIS PROJECT. ALL PRUNING SHALL FOLLOW THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A300 – PART 1 STANDARDS FOR PRUNING.
7. ADDITIONAL STREET TREES ARE NEEDED FOR THIS PROJECT. TREE PLANTING SPECIFICATIONS CAN BE FOUND IN SECTION 209 OF CITY OF MADISON STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (WEBSITE: HTTPS://WWW.CITYOFMADISON.COM/BUSINESS/PW/SPECS.CFM) – ALL STREET TREE PLANTING LOCATIONS AND TREE SPECIES WITHIN THE RIGHT OF WAY SHALL BE DETERMINED BY CITY FORESTRY. A LANDSCAPE PLAN AND STREET TREE PLANTING PLAN SHALL BE SUBMITTED IN PDF FORMAT TO CITY FORESTRY FOR APPROVAL OF PLANTING LOCATIONS WITHIN THE RIGHT OF WAY AND TREE SPECIES. ALL AVAILABLE STREET TREE PLANTING LOCATIONS SHALL BE PLANTED WITHIN THE PROJECT BOUNDARIES.
8. AT LEAST ONE WEEK PRIOR TO STREET TREE PLANTING, CONTRACTOR SHALL CONTACT CITY FORESTRY AT (608) 266-4816 TO SCHEDULE INSPECTION AND APPROVAL OF NURSERY TREE STOCK AND REVIEW PLANTING SPECIFICATIONS WITH THE LANDSCAPER.

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161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
P. 608.848.5060

CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:
**3480 LEFLORE COURT
VERONA, WI 53593**

PROJECT:
CLIMATE CONTROLLED STORAGE BUILDING

PROJECT LOCATION:
**700 COTTAGE GROVE ROAD
MADISON, WISCONSIN 53716**

PLAN MODIFICATIONS:

#	Date:	Description:
1	02/27/2023	LAND USE SUBMITTAL
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Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
NOTES & LEGEND

SHEET NUMBER:
C100

JSD PROJECT NO: 2313025

COTTAGE GROVE ROAD

REMOVE EXISTING CONC. DRIVEWAY AND CURB & GUTTER. REMOVE CURB & GUTTER TO NEAREST EXISTING JOINTS.

REMOVE/ABANDON EX. WATER AND SANITARY SERVICES PER CITY OF MADISON STANDARDS. PLUG PERMIT#:ENGSRP: 2023-0XXXX

PROTECT ALL EXISTING FACILITIES WITHIN TERRACE & R.O.W, TYP.

REMOVE EX. ELEC. RECEPTICAL & LIGHTING INCLUDING ALL CONDUIT/WIRING

PRESERVE & PROTECT EXISTING TREE

DEMOLITION – REMOVAL OF CONCRETE SURFACES AND BASE COURSE

EX: 865.83

EX: 865.55

EX: 865.43

EX: 865.39

REMOVE EXISTING CONC. DRIVEWAY AND CURB & GUTTER. REMOVE CURB & GUTTER TO NEAREST EXISTING JOINTS.

REMOVE EXISTING CHAIN LINK FENCE AND GATE

REMOVE EXISTING OVERHEAD ELEC. SERVICE & METER. COORDINATE SERVICE DISCONNECT WITH MG&E

REMOVE EXISTING BUILDINGS/STRUCTURES

EXISTING BUILDING

REMOVE EXISTING AIR CONDITION UNIT

REMOVE/ABANDON IN-PLACE EXISTING WATER AND SEWER LATERALS. REFER TO UTILITY PLAN FOR CONNECTION LOCATIONS OF NEW WATER & SEWER LATERALS.

REMOVE EXISTING GAS SERVICE PIPING & METER. COORDINATE SERVICE DISCONNECT WITH MG&E

REMOVE ASPHALT PARKING LOT & BASE COURSE

REMOVE EXISTING CHAIN LINK FENCE ALONG WEST BOUNDARY

REMOVE ELECTRIC OUTLET. NO ELECTRIC SERVICE MARKED.

PRESERVE AND PROTECT EXISTING POLE AND OVERHEAD UTILITY LINES

REMOVE ASPHALT PARKING LOT & BASE COURSE

REMOVE ASPHALT PARKING LOT & BASE COURSE

CONTRACTOR SHALL COORDINATE DISCONNECT OF GAS SERVICE WITH MG&E

REMOVE EXISTING BUILDINGS/STRUCTURES

EXISTING BUILDING

REMOVE EXISTING CHAIN LINK FENCE ALONG SOUTH BOUNDARY

EXISTING SHED

REMOVE EXISTING RIP-RAP & STONE

REMOVE EXISTING LUMBER OIL & GREASE BAFFLE

REMOVE EXISTING CHAIN LINK FENCE ALONG EAST BOUNDARY

EXISTING SHED

PRESERVE AND PROTECT EXISTING POLE AND OVERHEAD UTILITY LINES

THE RIGHT OF WAY IS THE SOLE JURISDICTION OF THE CITY OF MADISON AND IS SUBJECT TO CHANGE AT ANY TIME PER THE RECOMMENDED PLAN BY TRAFFIC ENGINEERING AND CITY ENGINEERING DEPARTMENT

north

SCALE IN FEET

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CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:
3480 LEFLORE COURT VERONA, WI 53593

PROJECT:
CLIMATE CONTROLLED STORAGE BUILDING

PROJECT LOCATION:
700 COTTAGE GROVE ROAD MADISON, WISCONSIN 53716

PLAN MODIFICATIONS:

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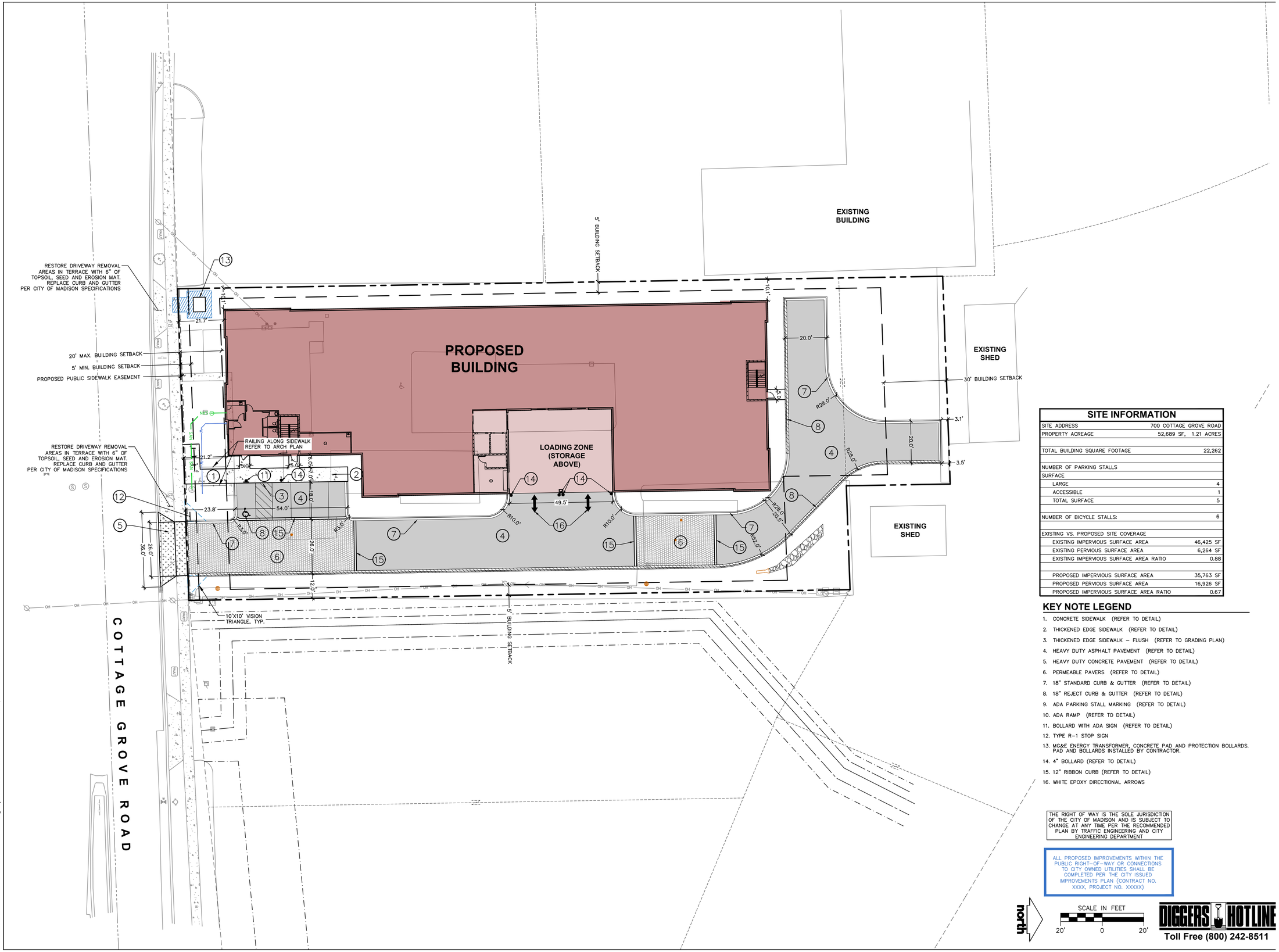
Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C200

JSD PROJECT NO: 2313025



SITE INFORMATION

SITE ADDRESS	700 COTTAGE GROVE ROAD
PROPERTY ACREAGE	52,689 SF, 1.21 ACRES
TOTAL BUILDING SQUARE FOOTAGE	22,262
NUMBER OF PARKING STALLS	
SURFACE	
LARGE	4
ACCESSIBLE	1
TOTAL SURFACE	5
NUMBER OF BICYCLE STALLS:	6
EXISTING VS. PROPOSED SITE COVERAGE	
EXISTING IMPERVIOUS SURFACE AREA	46,425 SF
EXISTING PERVIOUS SURFACE AREA	6,264 SF
EXISTING IMPERVIOUS SURFACE AREA RATIO	0.88
PROPOSED IMPERVIOUS SURFACE AREA	35,763 SF
PROPOSED PERVIOUS SURFACE AREA	16,926 SF
PROPOSED IMPERVIOUS SURFACE AREA RATIO	0.67

KEY NOTE LEGEND

1. CONCRETE SIDEWALK (REFER TO DETAIL)
2. THICKENED EDGE SIDEWALK (REFER TO DETAIL)
3. THICKENED EDGE SIDEWALK – FLUSH (REFER TO GRADING PLAN)
4. HEAVY DUTY ASPHALT PAVEMENT (REFER TO DETAIL)
5. HEAVY DUTY CONCRETE PAVEMENT (REFER TO DETAIL)
6. PERMEABLE PAVERS (REFER TO DETAIL)
7. 18" STANDARD CURB & GUTTER (REFER TO DETAIL)
8. 18" REJECT CURB & GUTTER (REFER TO DETAIL)
9. ADA PARKING STALL MARKING (REFER TO DETAIL)
10. ADA RAMP (REFER TO DETAIL)
11. BOLLARD WITH ADA SIGN (REFER TO DETAIL)
12. TYPE R-1 STOP SIGN
13. MG&E ENERGY TRANSFORMER. CONCRETE PAD AND PROTECTION BOLLARDS. PAD AND BOLLARDS INSTALLED BY CONTRACTOR.
14. 4" BOLLARD (REFER TO DETAIL)
15. 12" RIBBON CURB (REFER TO DETAIL)
16. WHITE EPOXY DIRECTIONAL ARROWS

THE RIGHT OF WAY IS THE SOLE JURISDICTION OF THE CITY OF MADISON AND IS SUBJECT TO CHANGE AT ANY TIME PER THE RECOMMENDED PLAN BY TRAFFIC ENGINEERING AND CITY ENGINEERING DEPARTMENT

ALL PROPOSED IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY OR CONNECTIONS TO CITY OWNED UTILITIES SHALL BE COMPLETED PER THE CITY ISSUED IMPROVEMENTS PLAN (CONTRACT NO. XXXX, PROJECT NO. XXXXX)

north

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20' 0 20'

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Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
C300

JSD PROJECT NO: 2313025

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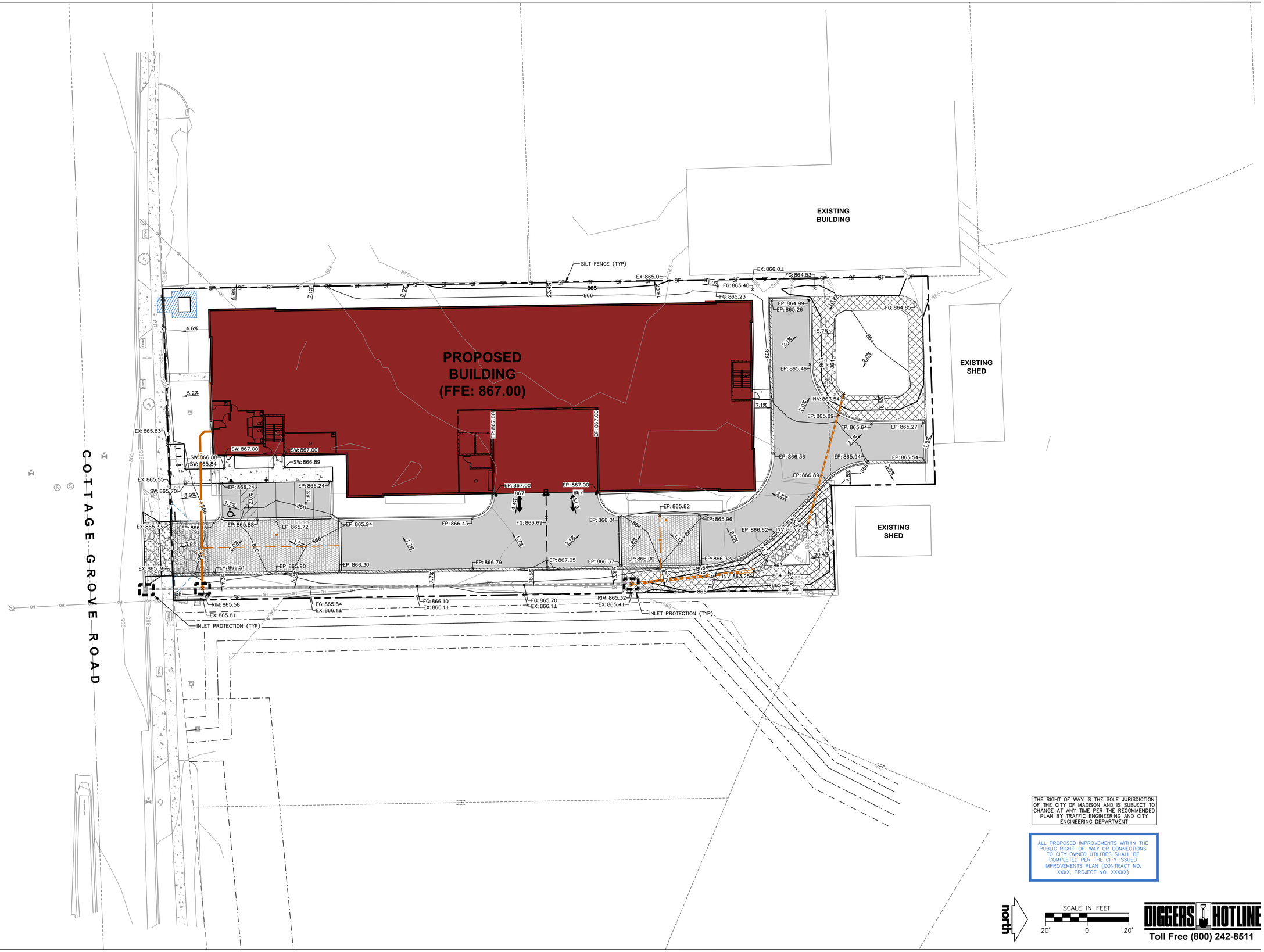

File: I:\2023\2313025\DWG\Civil Sheets\2313025 - ConDocs.dwg Layout: C400 GRADING & EC User: mhaase Plotted: Feb 27, 2023 - 9:20am Xref's:

JSD

CREATE THE VISION TELL THE STORY

jsdinc.com

MADISON REGIONAL OFFICE
161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
P. 608.848.5060

CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:
3480 LEFLORE COURT VERONA, WI 53593

PROJECT:
CLIMATE CONTROLLED STORAGE BUILDING

PROJECT LOCATION:
700 COTTAGE GROVE ROAD MADISON, WISCONSIN 53716

PLAN MODIFICATIONS:

#	Date:	Description:
1	02/27/2023	LAND USE SUBMITTAL
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Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
GRADING & EROSION CONTROL PLAN

SHEET NUMBER:
C400

JSD PROJECT NO: 2313025

COTTAGE GROVE ROAD

SANITARY LATERAL CLEANOUT, TYP.

4" PVC SANITARY LATERAL 51 LF @ 2.08%

CONNECT TO EX. MANHOLE STRUCTURE RIM: 865.9± (W) INV: 857.0± (S) EX. INV: 957.0 (4")

CONTRACTOR TO ABANDON EX. LATERAL TO NORTH INSIDE MANHOLE WITH CAP/PLUG

SANITARY INVERT @ BLDG INV: 858.06 REFER TO INTERIOR PLUMBING PLANS FOR CONNECTION

45 LF OF 4" D.I. WATER SERVICE. MAINTAIN 6.5FT OF COVER MIN. REFER TO INTERIOR PLUMBING PLANS FOR CONNECTION

ROOF DRAIN CONNECTION REFER TO INTERIOR PLUMBING INSTALL BACK FLOW PREVENTION DEVICE WITH INTERIOR PLUMBING INV: 863.00

PROPOSED BUILDING

REMOVE/ABANDON IN-PLACE EX. SEWER AND WATER SERVICES. REFER TO NOTES ON SHEET C100

CONNECT TO EX. WATER SERVICE. CONTRACTOR TO CONFIRM EX. SIZE, DEPTH & LOCATION. REPORT ANY DISCREPANCIES TO ENGINEER

80 LF 12 IN PVC @ 0.80%

OBSERVATION WELL. SEE DETAIL

CONNECT TO PIPE WITH INSERTA-TEE INV: 863.60

4 IN PVC PERF. UNDERDRAIN

206 LF OF 12 IN RCP @ -0.45%

OBSERVATION WELL. SEE DETAIL

4 IN PVC PERF. UNDERDRAIN

CONNECT TO PIPE WITH INSERTA-TEE INV: 863.60

STO B
W INV: 863.25 (8")

STO B-1
E INV: 863.50 (8")

65 LF OF 8 IN HDPE @ -0.38%

EX STO INL A
RIM: 864.37
N INV: 862.20 (EX 12" RCP)
NE INV: 862.37 (EX 12" RCP)
SE INV: 862.02 (EX 15" RCP)

FIELD POURD CONCRETE COLLAR CONNECTION
RIM: 865.32
N INV: 863.25 (12")
S INV: 863.25 (12")

STO EW A-1
S INV: 863.25 (12")

53 LF OF 12 IN RCP @ 0.00%

27 LF OF 12 IN RCP @ -0.45%

STO MH A-1
RIM: 865.58
N INV: 862.32 (EX 12" RCP)
S INV: 862.32 (EX 12" RCP)
W INV: 862.32 (12" PVC)

CONTRACTOR NOTES

REFER TO SHEET C100 NOTES AND LEGEND FOR PLAN LINEWORK, HATCHING AND SYMBOL IDENTIFICATION

THE RIGHT OF WAY IS THE SOLE JURISDICTION OF THE CITY OF MADISON AND IS SUBJECT TO CHANGE AT ANY TIME PER THE RECOMMENDED PLAN BY TRAFFIC ENGINEERING AND CITY ENGINEERING DEPARTMENT

ALL PROPOSED IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY OR CONNECTIONS TO CITY OWNED UTILITIES SHALL BE COMPLETED PER THE CITY ISSUED IMPROVEMENTS PLAN (CONTRACT NO. XXXX, PROJECT NO. XXXXX)

north

SCALE IN FEET
20' 0 20'

DIGGERS HOTLINE
Toll Free (800) 242-8511

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161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
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CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:
3480 LEFLORE COURT VERONA, WI 53593

PROJECT:
CLIMATE CONTROLLED STORAGE BUILDING

PROJECT LOCATION:
700 COTTAGE GROVE ROAD MADISON, WISCONSIN 53716

PLAN MODIFICATIONS:

#	Date:	Description:
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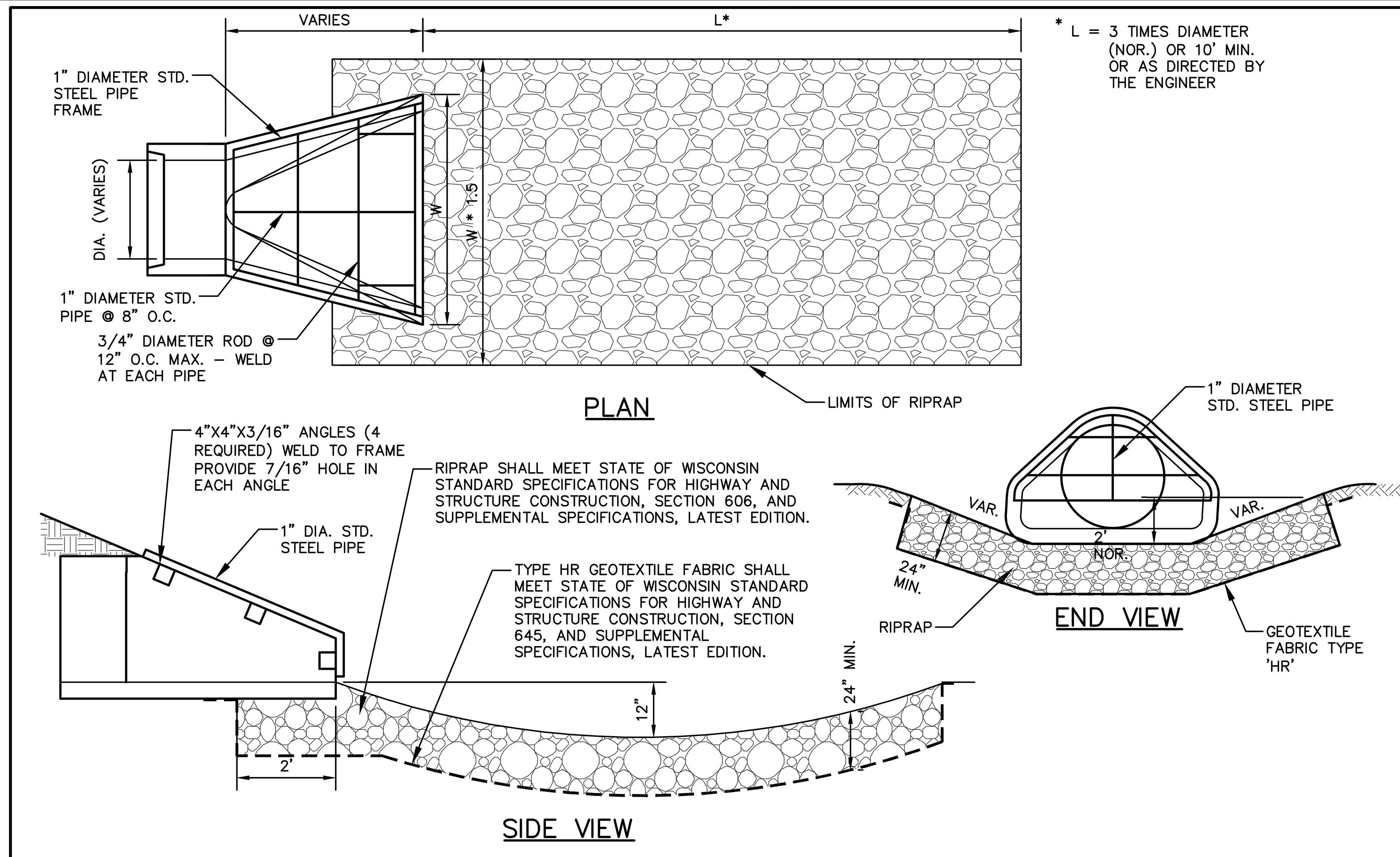
Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
UTILITY PLAN

SHEET NUMBER:
C500

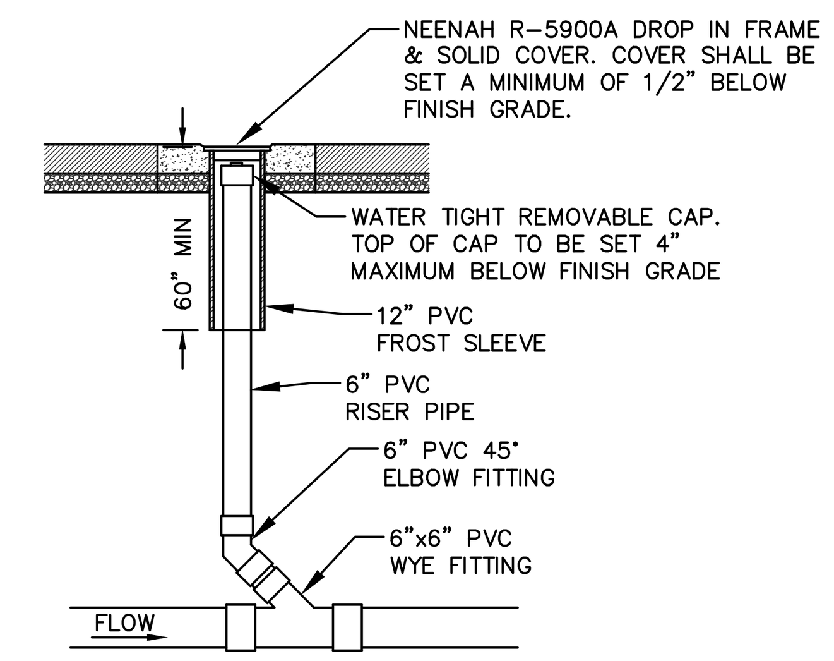
JSD PROJECT NO: 2313025

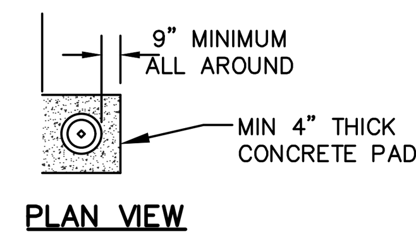


APRON ENDWALL W/ GRATE - RIPRAP

N.T.S.

REV. 12-7-2018





Comm Table 82.35		
Dia of Lateral	Min Dia of Cleanout Riser	Min Dia of Riser Cap
1.5	1.5	1.5
2	1.5	1.5
3	3	2.5
4	4	3.5
5	5	4
6	6	5
8+	6	6

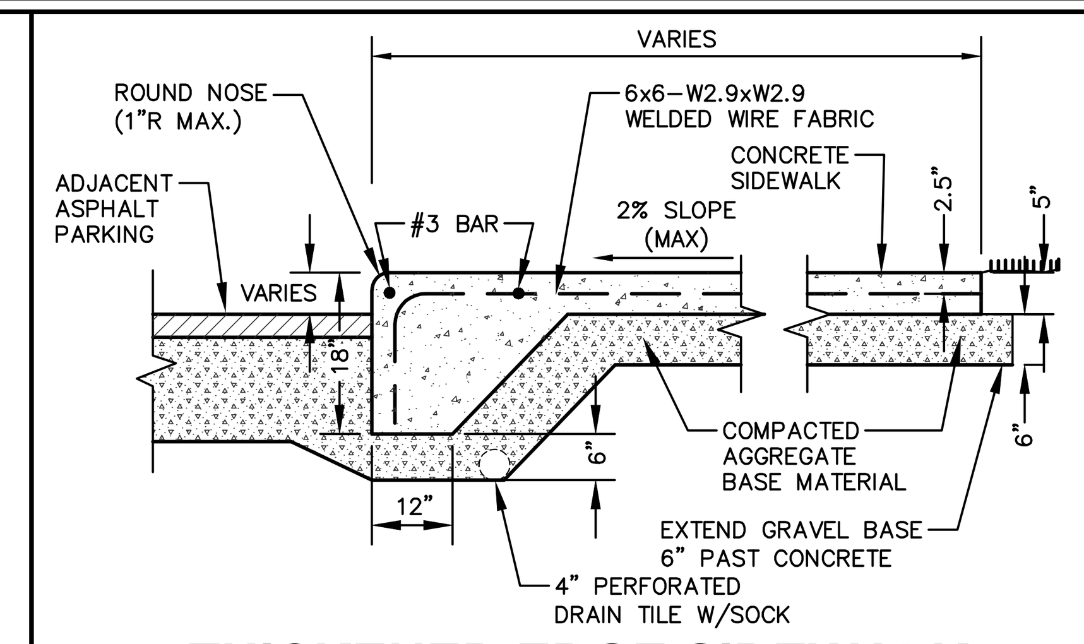
Neenah Grates
R-5900A 12-inch Pipe

NOTE:
CLEANOUT PIPING AND FITTINGS SHALL MATCH SANITARY SEWER LATERAL MATERIAL

SANITARY SEWER CLEANOUT

N.T.S.

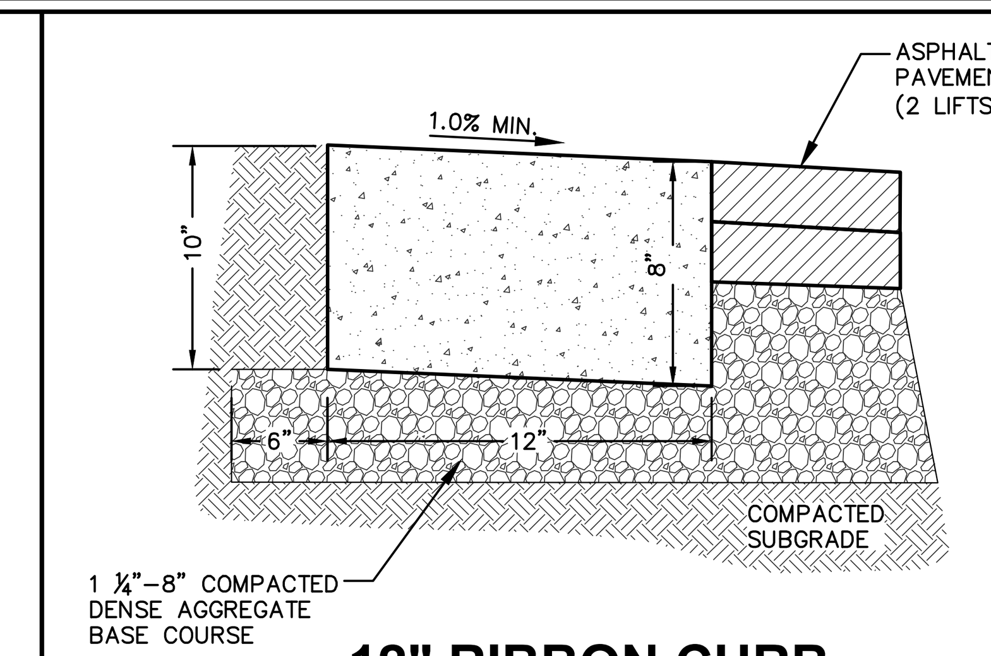
REV. 12-6-2018



THICKENED EDGE SIDEWALK

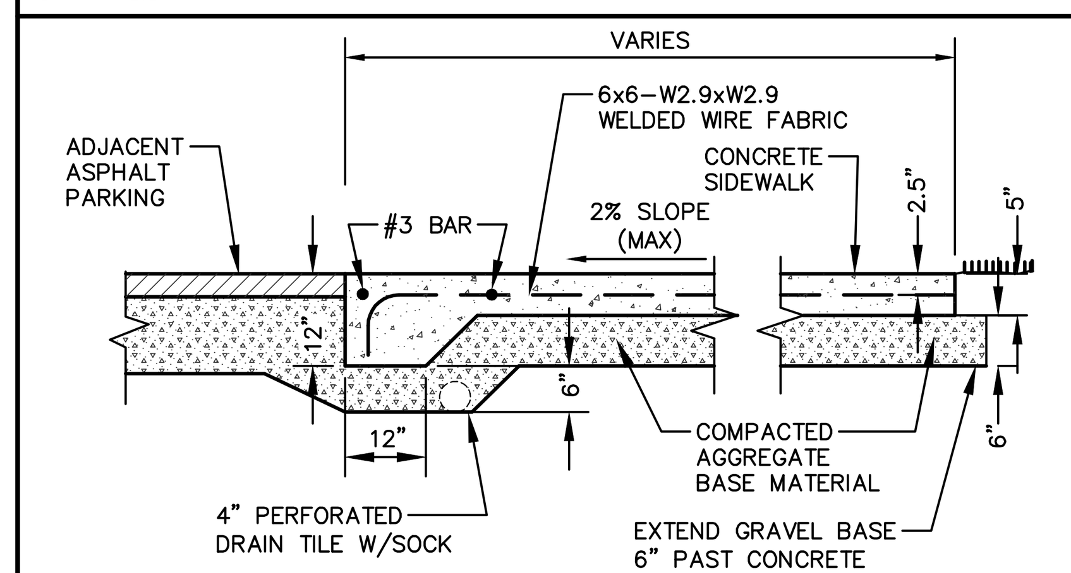
N.T.S.

REV. 07-14-2020



12" RIBBON CURB

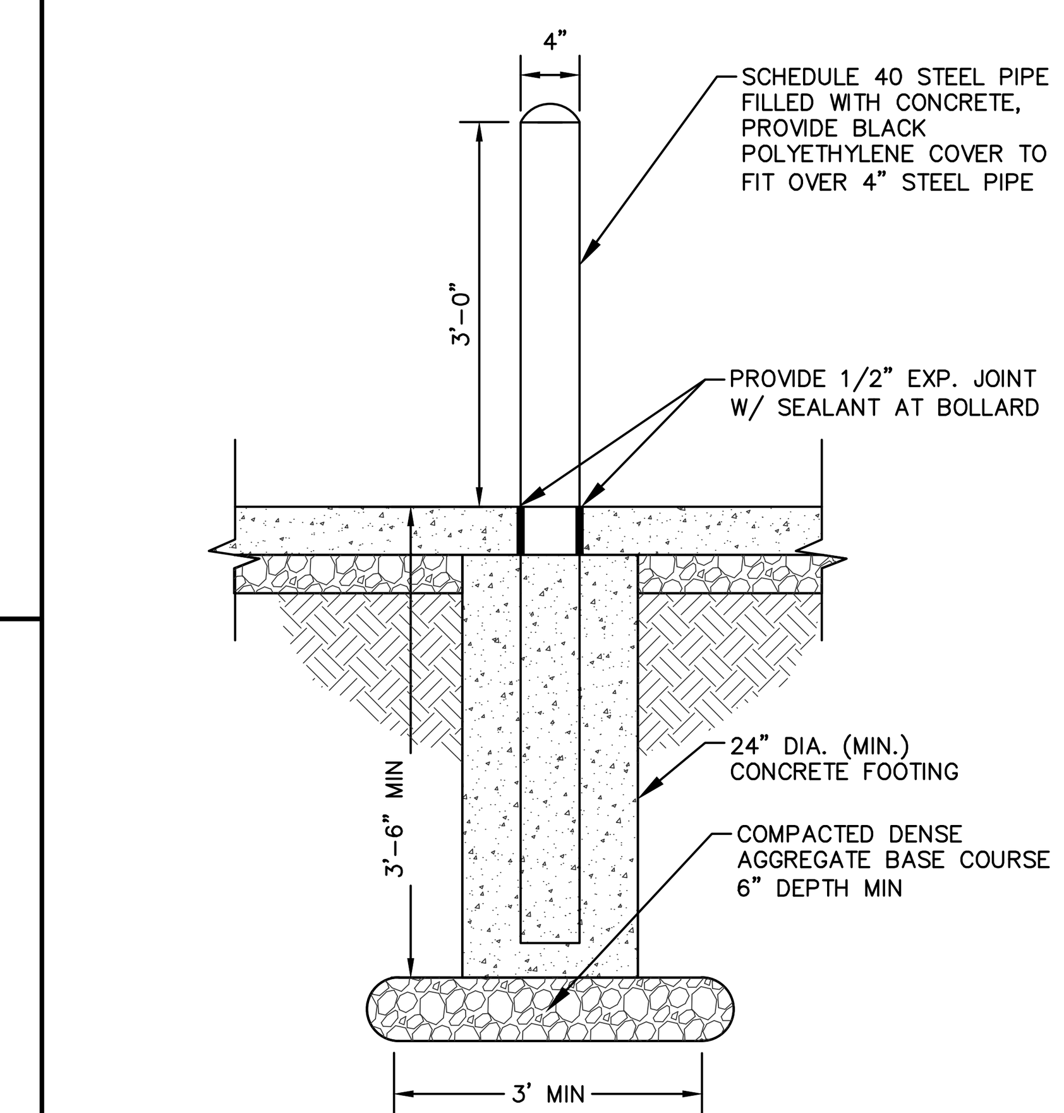
N.T.S.



THICKENED EDGE SIDEWALK - FLUSH

N.T.S.

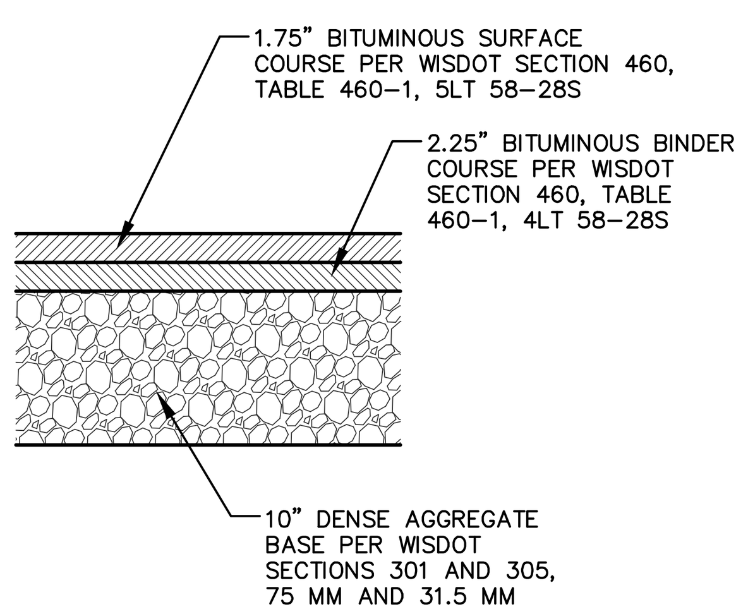
REV. 07-14-2020



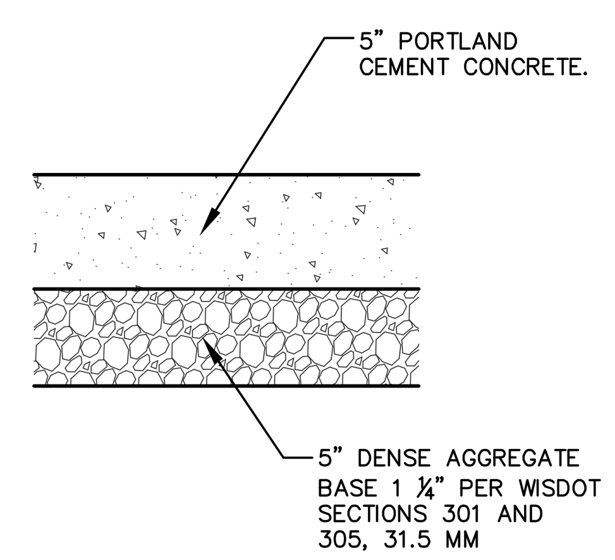
CONCRETE BOLLARD

N.T.S.

REV. 12-17-2018



STANDARD ASPHALT
PAVEMENT SECTION



CONCRETE SIDEWALK
SECTION

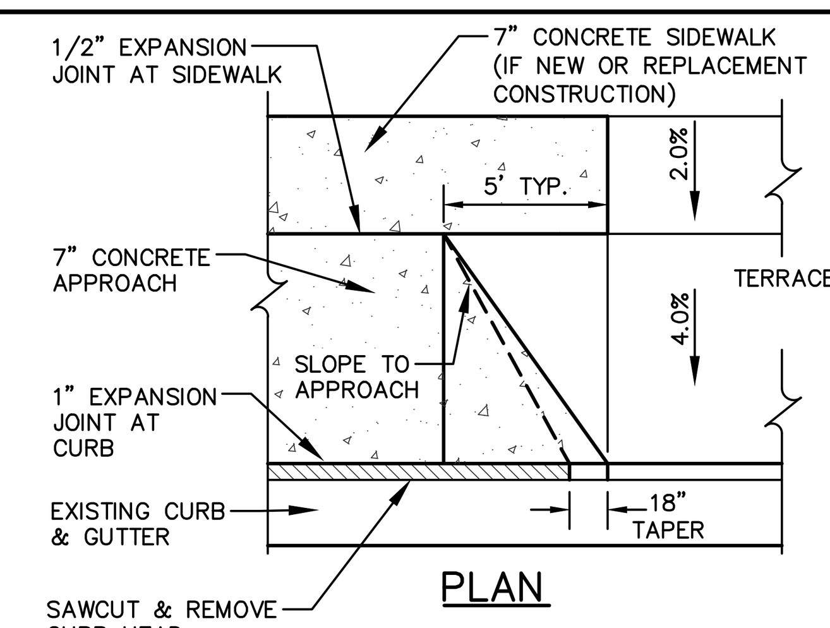
GENERAL NOTES:

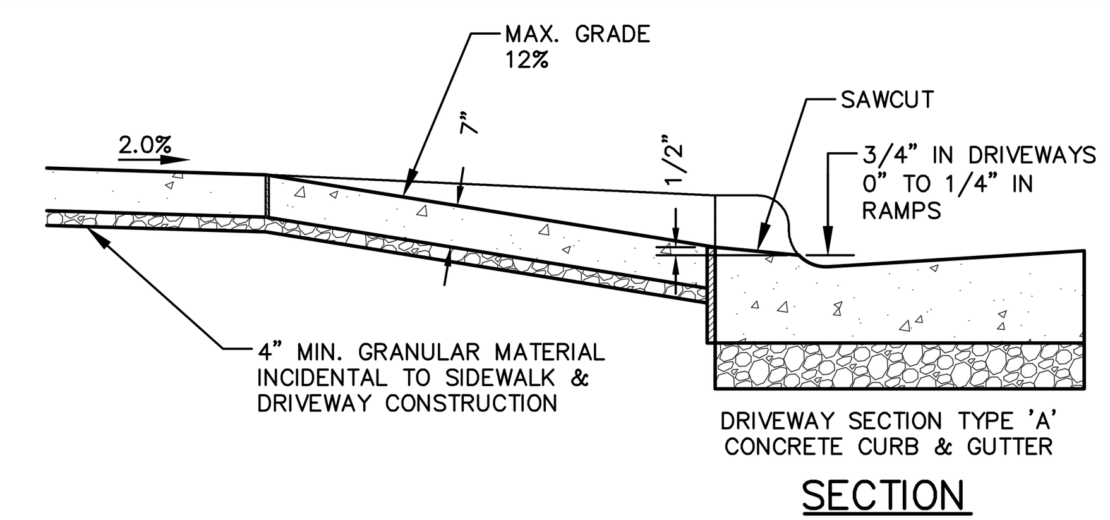
1. REFER TO PAVEMENT RECOMMENDATIONS IN THE GEOTECHNICAL INVESTIGATION REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND THE PAVEMENT RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL INVESTIGATION REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
2. WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, COMPACTION REQUIREMENTS:
   - BITUMINOUS CONCRETE: REFER TO SECTION 460-3.
   - BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION.
3. CONCRETE EQUIPMENT PADS SHALL HAVE A MINIMUM 5" THICK PORTLAND CEMENTER CONCRETE OVER COMPACTED 5" THICK DENSE GRADED BASE WITH REINFORCEMENT FOR CRACK CONTROL.

PAVEMENT SECTIONS

N.T.S.

REV. 7-01-2019

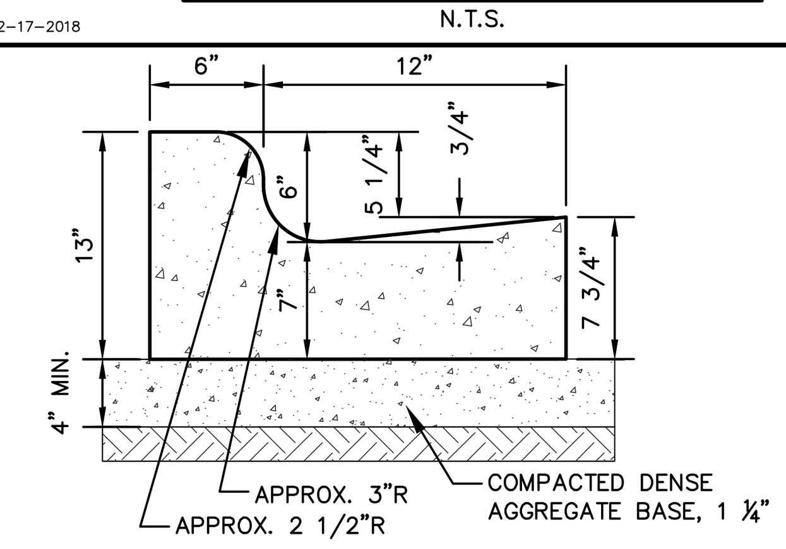




COMMERCIAL ENTRANCE

N.T.S.

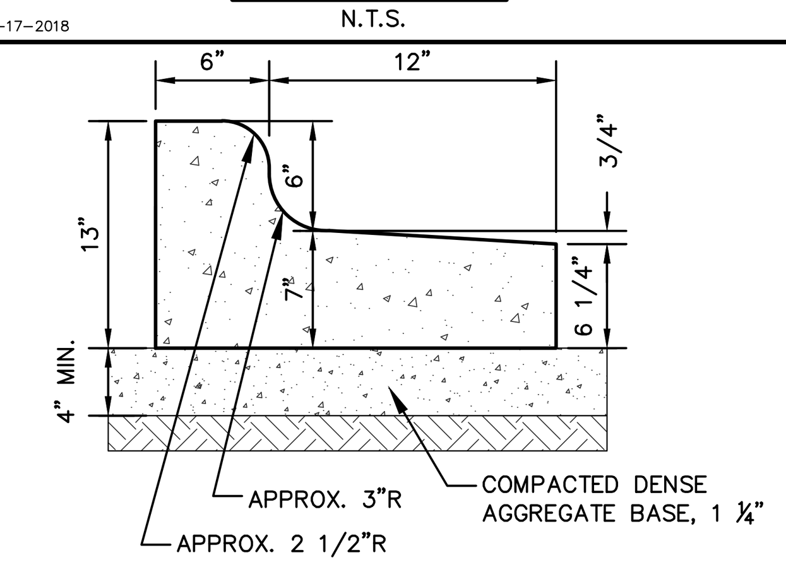
REV. 2-12-2021



18" STANDARD CURB & GUTTER

N.T.S.

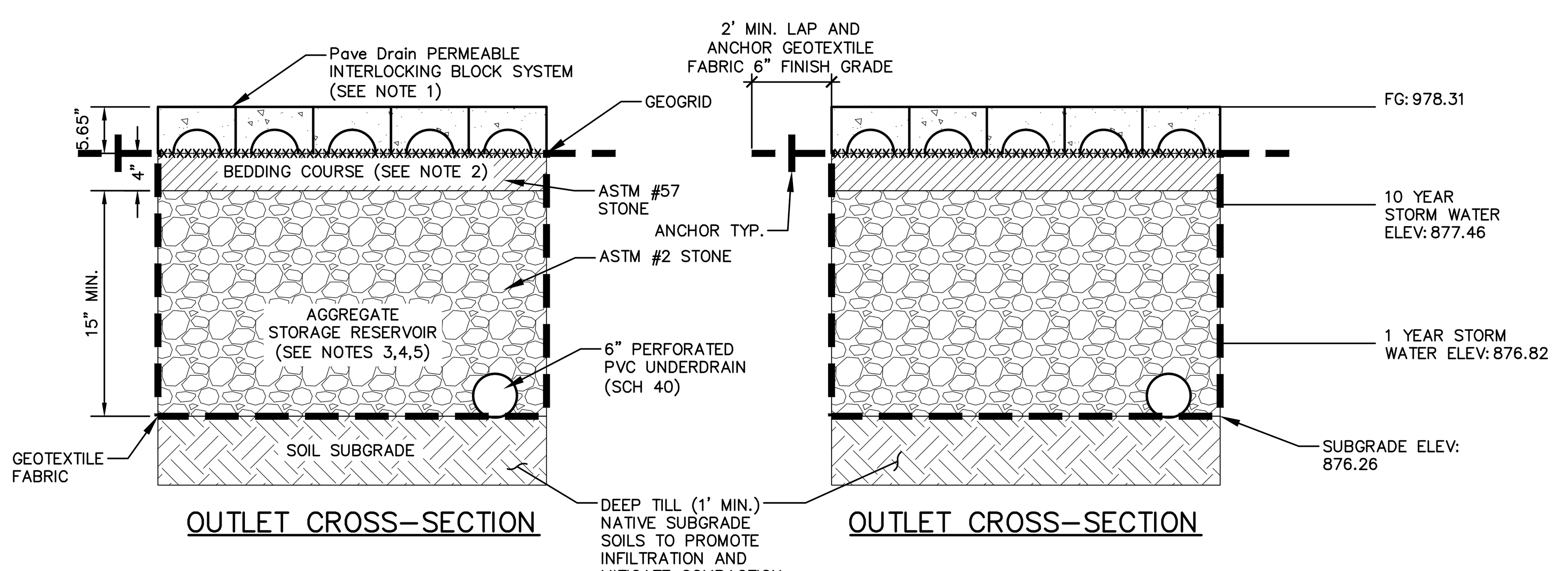
REV. 12-17-2018



18" REJECT CURB & GUTTER

N.T.S.

REV. 12-17-2018

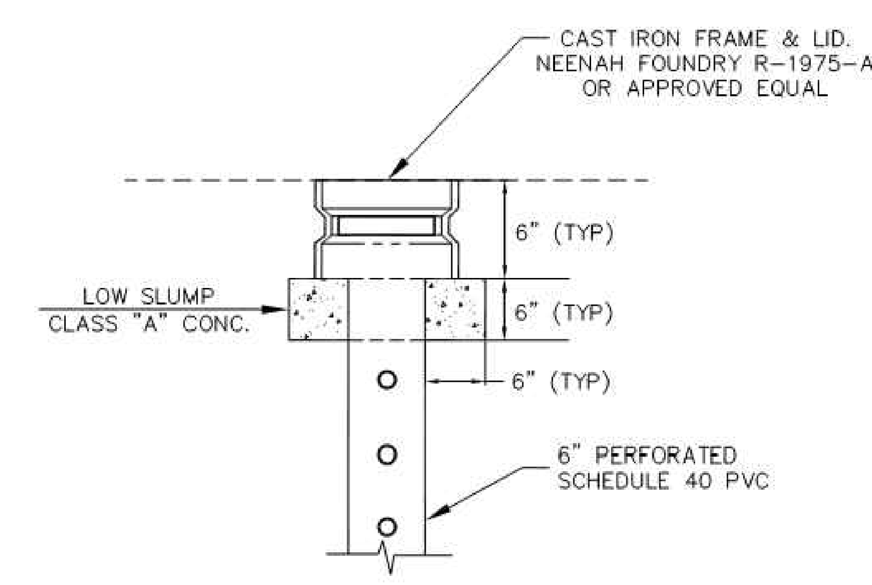


GENERAL NOTES:

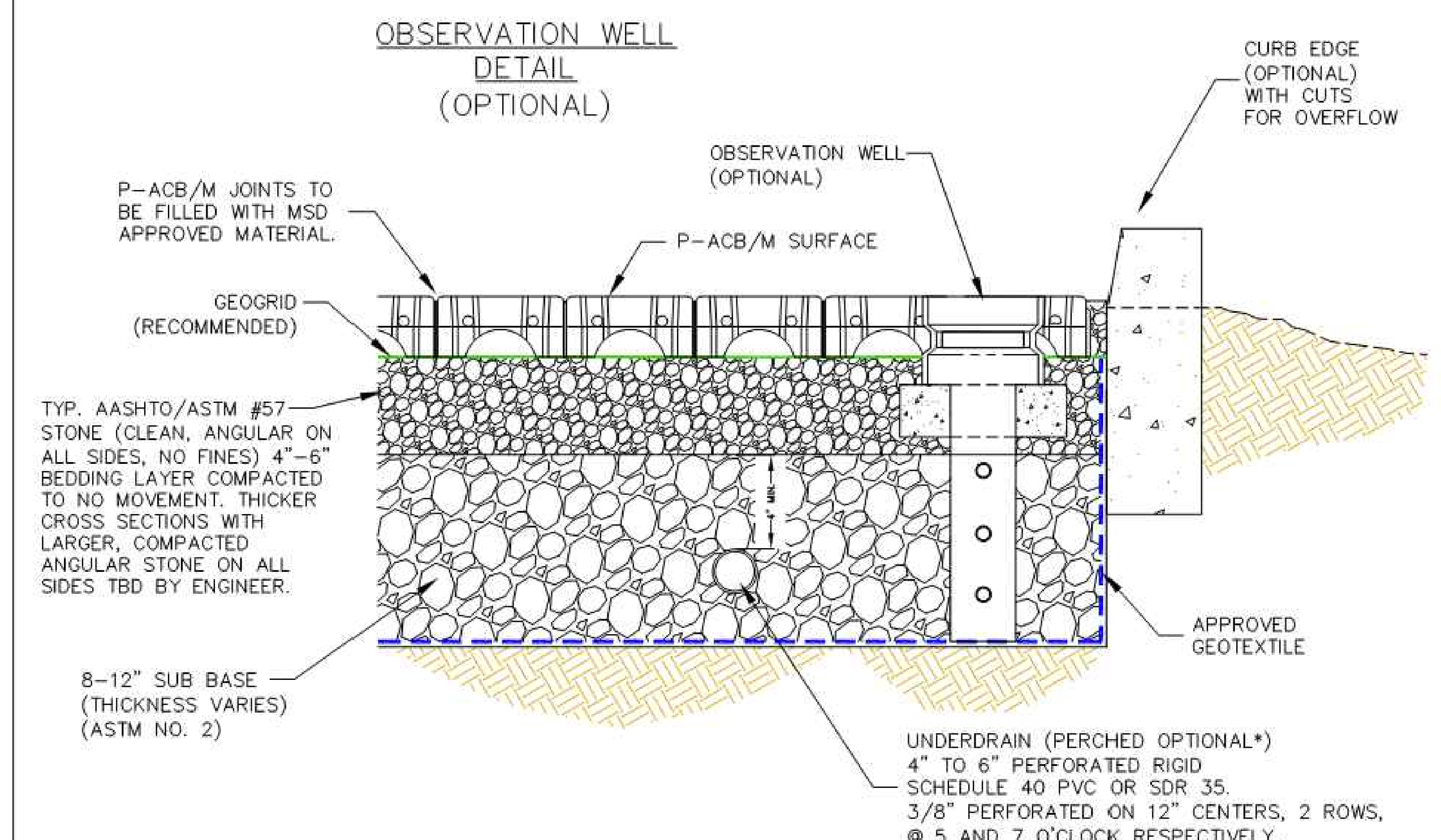
1. PAVEMENT SURFACE PERCENT VOIDS SHALL BE LESS THAN 25%.
2. BEDDING COURSE SHALL CONSIST OF ASTM 57 STONE COMPACTED TO NO MOVEMENT.
3. AGGREGATE STORAGE RESERVOIR DEPTH SHALL BE A MINIMUM OF 15 INCHES.
4. BEDDING COURSE AND STORAGE RESERVOIR AGGREGATES SHALL HAVE A MINIMUM POROSITY OF 40% CAN BE CONSIDERED AGGREGATE STORAGE RESERVOIR.
5. UNDERDRAINS CAN BE LOCATED WITHIN OR BELOW THE AGGREGATE STORAGE RESERVOIR. UNDERDRAINS (OR EQUIVALENT) ARE REQUIRED IF THE AGGREGATE STORAGE RESERVOIR DRAIN DOWN TIME WILL EXCEED 72 HOURS. REFER TO UTILITY PLAN FOR UNDERDRAIN LAYOUT.
6. PERMEABLE BLOCKS TO BE INSTALLED A MIN. OF ½" BELOW ADJACENT HARDSCAPE
7. REFER TO SPEC SECTION 32 14 13.19 FOR FURTHER DETAILS AND MATERIAL SPECIFICATIONS

PERMEABLE BLOCKS

N.T.S.



OBSERVATION WELL
DETAIL
(OPTIONAL)



PERMEABLE - ARTICULATING CONCRETE BLOCK/MAT
TYPICAL SECTION

* THE NEED FOR A PERCHED UNDERDRAIN IS OPTIONAL AND IS DEPENDENT ON THE INFILTRATION RATE OF THE SUBGRADE SOIL. PLASTIC SOILS SHOULD NOT PERCH THE UNDERDRAIN. THE HORIZONTAL AND VERTICAL LOCATION OF ALL UNDERDRAINS SHALL BE DETERMINED BY THE ENGINEER, AND SHOWN ON THE PLANS.

* ADDITIONAL UNDERDRAINS MAY BE PERCHED ABOVE THE REQUIRED STORAGE ELEVATION AND WITHIN THE STORAGE BED IN ORDER TO PROTECT THE PAVER BLOCKS FROM UPFLOWS RESULTING FROM SURCHARGE.

PAVEDRAIN
STANDARD DETAIL
OBSERVATION WELL
CROSS-SECTION
SCALE: N.T.S.

PAVE DRAIN
PH: (888) 575-5339
WWW.PAVEDRAIN.COM
Email: info@pavedrain.com

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Toll Free (800) 242-8511

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MADISON REGIONAL OFFICE
161 HORIZON DRIVE, SUITE 101
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CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:
**3480 LEFLORE COURT
VERONA, WI 53593**

PROJECT:
CLIMATE CONTROLLED STORAGE BUILDING

PROJECT LOCATION:
**700 COTTAGE GROVE ROAD
MADISON, WISCONSIN 53716**

PLAN MODIFICATIONS:

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Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
DETAILS

SHEET NUMBER:
C600

JSD PROJECT NO: 2313025

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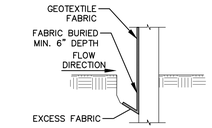
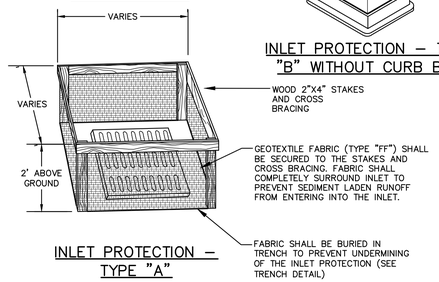
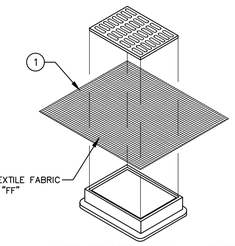


NOTE: 2' MINIMUM POST DEPTH. ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

TRENCH DETAIL



INLET PROTECTION – TYPE "A"



INLET PROTECTION – TYPE "B" WITHOUT CURB BOX

GENERAL NOTES:

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

(1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER OF FACILITATE MAINTENANCE OR REMOVAL.

(2) FOR INLET PROTECTION, TYPE "C" (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

(3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT A WOOD 2X4

INSTALLATION NOTES:

TYPE "B" & "C"

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHODS TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

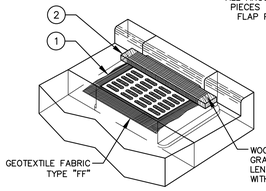
INSTALLATION NOTES:

TYPE "D"

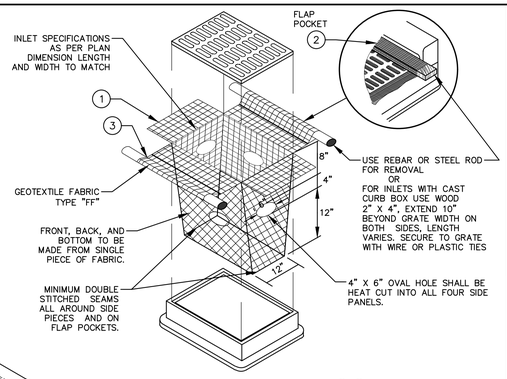
DO NOT INSTALL INLET PROTECTION TYPE "D" IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3 INCHES OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3 INCHES. WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCHES CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4 INCHES FROM THE BOTTOM OF THE BAG.



INLET PROTECTION – TYPE "C" WITH CURB BOX

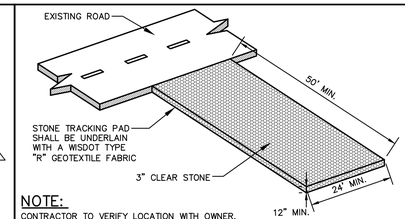


INLET PROTECTION – TYPE "D"

REV. 11-19-2018

INLET PROTECTION

N.T.S.

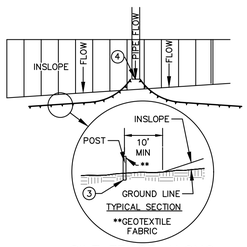


NOTE:
CONTRACTOR TO VERIFY LOCATION WITH OWNER.

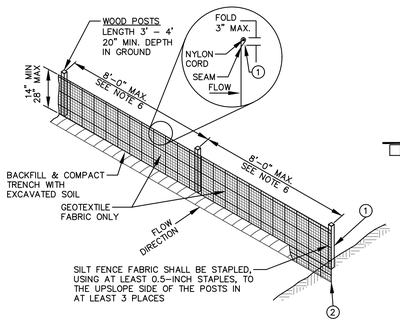
CONSTRUCTION ENTRANCE

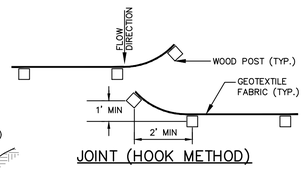
N.T.S.

REV. 12-10-2018

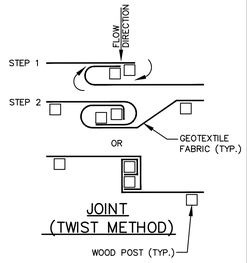


SILT FENCE ALONG SLOPES & OUTFALLS

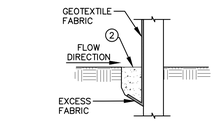




JOINT (HOOK METHOD)

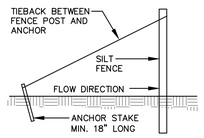


JOINT (TWIST METHOD)



NOTE:
ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS.

TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT REQUIRED)

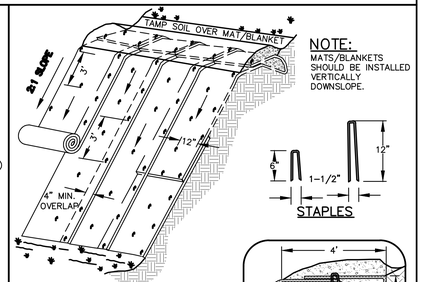
GENERAL NOTES:

1. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8–INCHES OF FABRIC IN A 4–INCH WIDE AND 6–INCH DEEP TRENCH OR 6–INCH DEEP V–TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
2. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1.125–INCHES x 1.125–INCHES OF DRIED OAK OR HICKORY.
4. SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
5. SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
6. POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8–FEET FOR WOVEN & 3–FEET FOR NON–WOVEN)

REV. 7-01-2019

SILT FENCE

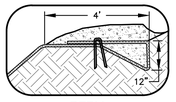
N.T.S.



ISOMETRIC VIEW
TYPICAL SLOPE SOIL STABILIZATION

NOTE:
MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.

STAPLES



BERM

GENERAL NOTES:

1. EROSION MAT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1052 "NON–CHANNEL EROSION MAT".
2. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.
3. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
4. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
5. ONLY WisDOT EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) APPROVED MATS SHALL BE ALLOWED. REFER TO EROSION CONTROL PLAN FOR EXACT MAT CLASSIFICATION.

REV. 11-19-2018

EROSION MATTING

N.T.S.

DIGGERS HOTLINE
Toll Free (800) 242-8511

JSD
CREATE THE VISION TELL THE STORY
jsdinc.com
MADISON REGIONAL OFFICE
161 HORIZON DRIVE, SUITE 101
VERONA, WISCONSIN 53593
P. 608.848.5060

CLIENT:
700 COTTAGE GROVE ROAD, LLC

CLIENT ADDRESS:
3480 LEFLORE COURT VERONA, WI 53593

PROJECT:
CLIMATE CONTROLLED STORAGE BUILDING

PROJECT LOCATION:
700 COTTAGE GROVE ROAD MADISON, WISCONSIN 53716

PLAN MODIFICATIONS:

#	Date:	Description:
1	02/27/2023	LAND USE SUBMITTAL
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

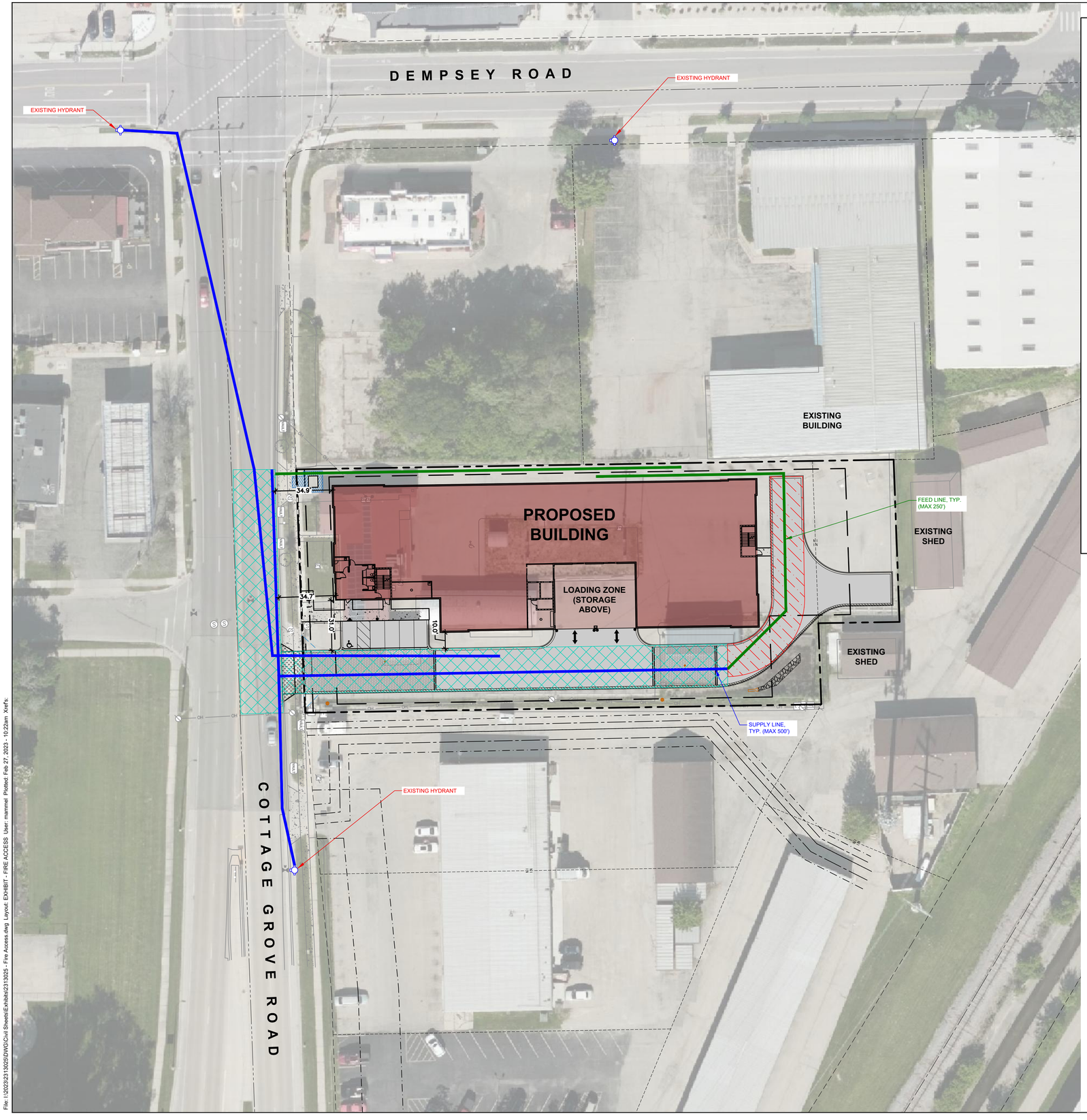
Designed By: CHG
Reviewed By: MRH
Approved By:

SHEET TITLE:
DETAILS

SHEET NUMBER:
C601

JSD PROJECT NO: 2313025

File: \2022\2313025\DWG\Civil Sheets\2313025 - ConDocs.dwg Layout: C601 DETAILS User: inewman Plotted: Feb 24, 2023 - 4:37pm Xref's:



City of Madison Fire Department

314 W Dayton Street, Madison, WI 53703
Phone: 608-266-4420 • Fax: 608-267-1100 • E-mail: *fire@cityofmadison.com*

Project Address:	700 COTTAGE GROVE ROAD MADISON, WI 53716
Contact Name & Phone #:	MATT HAASE (608-848-5060)

FIRE APPARATUS ACCESS AND FIRE HYDRANT WORKSHEET

1. Is the building completely protected by an NFPA 13 or 13R automatic fire sprinkler system?	☒ Yes	☐ No	☐ N/A
If non-sprinklered, fire lanes extend to within 150-feet of all portions of the exterior wall?	☐ Yes	☐ No	☐ N/A
If sprinklered, fire lanes are within 250-feet of all portions of the exterior wall?	☒ Yes	☐ No	☐ N/A
2. Is the fire lane constructed of concrete or asphalt, designed to support a minimum load of 85,000 lbs?	☒ Yes	☐ No	☐ N/A
a) Is the fire lane a minimum unobstructed width of at least 20-feet?	☒ Yes	☐ No	☐ N/A
b) Is the fire lane unobstructed with a vertical clearance of at least 13½-feet?	☒ Yes	☐ No	☐ N/A
c) Is the minimum inside turning radius of the fire lane at least 28-feet?	☒ Yes	☐ No	☐ N/A
d) Is the grade of the fire lane not more than a slope of 8%?	☒ Yes	☐ No	☐ N/A
e) Is the fire lane posted as fire lane? (Provide detail of signage.)	☐ Yes	☒ No	☐ N/A
f) Is a roll-able curb used as part of the fire lane? (Provide detail of curb.)	☐ Yes	☒ No	☐ N/A
g) Is part of a sidewalk used as part of the required fire lane? (Must support +85,000 lbs.)	☐ Yes	☒ No	☐ N/A
3. Is the fire lane obstructed by security gates or barricades? If yes:	☐ Yes	☒ No	☐ N/A
a) Is the gate a minimum of 20-feet clear opening?	☐ Yes	☐ No	☒ N/A
b) Is an approved means of emergency operations installed, key vault, padlock or key switch?	☐ Yes	☐ No	☒ N/A
4. Is the Fire lane dead-ended with a length greater than 150-feet?	☒ Yes	☐ No	☐ N/A
If yes, does the area for turning around fire apparatus comply with IFC D103?	☒ Yes	☐ No	☐ N/A
5. Is any portion of the building to be used for high-piled storage in accordance with IFC Chapter 3206.6 If yes, see IFC 3206.6 for further requirements.	☐ Yes	☐ No	☒ N/A
6. Is any part of the building greater than 30-feet above the grade plane?	☒ Yes	☐ No	☐ N/A
If yes, answer the following questions:			
a) Is the aerial apparatus fire lane parallel to one entire side of the building and covering at least 25% of the perimeter?	☒ Yes	☐ No	☐ N/A
b) Is the near edge of the aerial apparatus fire lane between 15' and 30' from the building?	☐ Yes	☒ No	☐ N/A
c) Are there any overhead power or utility lines located across the aerial apparatus fire lane?	☐ Yes	☒ No	☐ N/A
d) Are there any tree canopies expected to grow across the aerial fire lane? (Based on mature canopy width of tree species)	☐ Yes	☒ No	☐ N/A
e) Does the aerial apparatus fire lane have a minimum unobstructed width of 26-feet?	☒ Yes	☐ No	☐ N/A
f) Is the space between the aerial lane and the building free of trees exceeding 20' in heights?	☒ Yes	☐ No	☐ N/A
7. Are all portions of the required fire lanes within 500-feet of at least (2) hydrants?	☒ Yes	☐ No	☐ N/A
Note: Distances shall be measured along the path of the hose lay as it comes off the fire apparatus.			
a) Is the fire lane at least 26' wide for at least 20-feet on each side of the hydrants?	☒ Yes	☐ No	☐ N/A
b) Is there at least 40' between a hydrant and the building?	☒ Yes	☐ No	☐ N/A
c) Are the hydrant(s) setback no less than 5-feet nor more than 10-feet from the curb or edge of the street or fire lane?	☐ Yes	☒ No	☐ N/A
d) Are hydrants located in parking lot islands a minimum of 3½-feet from the hydrant to the curb?	☐ Yes	☐ No	☒ N/A
e) Are there no obstructions, including but not limited to: power poles, trees, bushes, fences, posts located, or grade changes exceeding 1½-feet, within 5-feet of a fire hydrant?	☒ Yes	☐ No	☐ N/A

Note: Hydrants shall be installed and in-service prior to combustible construction on the project site.

Attach an additional sheet if further explanation is required for any answers.

This worksheet is based on **MGO 34.503** and **IFC 2021 Edition Chapter 5 and Appendix D**; please see the codes for further information.

Revised 06/2022

LEGEND

- PROPERTY LINE
- RIGHT–OF–WAY
- EASEMENT LINE
- BUILDING OUTLINE
- BUILDING OVERHANG
- BUILDING SETBACK LINE
- PAVEMENT SETBACK LINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- 20' WIDE FIRE LANE
- 26' WIDE FIRE LANE – AERIAL APPARATUS
- HYDRANT LOCATION

north

SCALE IN FEET
30' 0 30'

DIGGERS HOTLINE
Toll Free (800) 242-8511

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PROJECT LOCATION:
700 COTTAGE GROVE ROAD
MADISON, WISCONSIN 53716

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14		
15		

Designed By: **CHG**
Reviewed By: **MRH**
Approved By:

SHEET TITLE:
FIRE ACCESS PLAN

SHEET NUMBER:
EXHIBIT

JSD PROJECT NO: 2313025

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ANGUS-YOUNG
ARCHITECTS/ENGINEERS

700 COTTAGE GROVE

FEBRUARY 24, 2023

ANGUS-YOUNG
ARCHITECTS/ENGINEERS

700 COTTAGE GROVE

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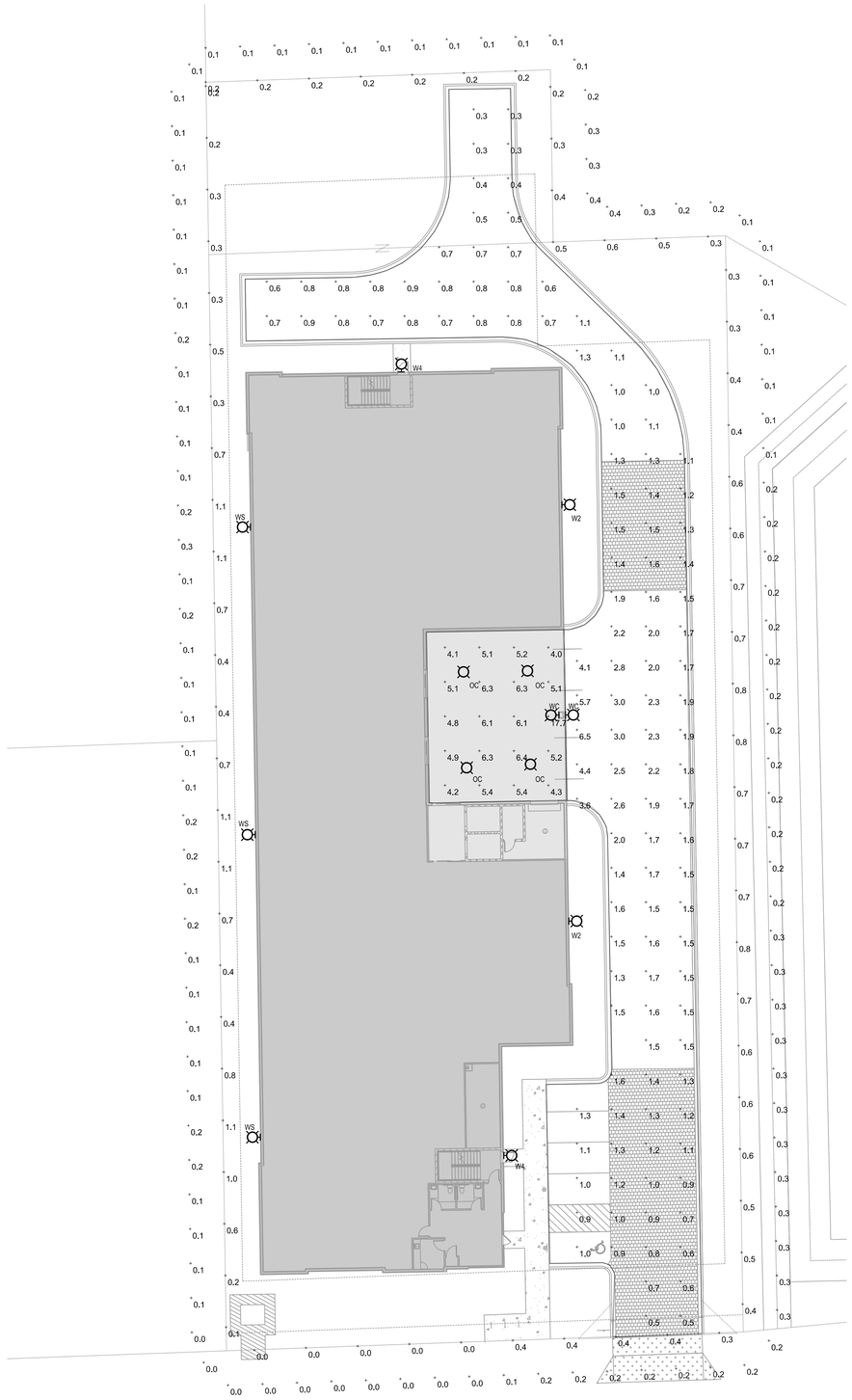
700 COTTAGE GROVE

FEBRUARY 24, 2023



Schedule						
Label	Manufacturer	Catalog	Description	LLF	Total Output	Input Power
OC	COOPER LIGHTING SOLUTIONS - LUMARK (FORMERLY EATON)	CLCS17	FIXED CCT CANOPY, 56W, 4000K	0.9	7732	56.6
W2	COOPER LIGHTING SOLUTIONS - McGRAW-EDISON (FORMERLY EATON)	GWC-SA2B-740-U-SL2-HSS	GALLEON WALL LUMINAIRE (2) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD	0.9	9870	86
W4	COOPER LIGHTING SOLUTIONS - McGRAW-EDISON (FORMERLY EATON)	GWC-SA2B-740-U-T4FT-HSS	GALLEON WALL LUMINAIRE (2) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD	0.9	8460	86
WC	COOPER LIGHTING SOLUTIONS - LUMIERE (FORMERLY EATON)	9004-W2-FL-LED4080-M--BK-L1-UNV	LUMIERE LANTERRA 9004 LED WALL LUMINAIRE, FLUSH LENS, MEDIUM FLOOD OPTIC, BLACK HOUSING.	0.9	2359	19.7
WS	COOPER LIGHTING SOLUTIONS - INVUE (FORMERLY EATON)	CCW-SA-740-1A-U-SL2-HSS	INVUE WALL PACK LIGHT SQUARE LUMINAIRE WITH SL2-HSS DISTRIBUTION LENS	0.9	1854	18.2

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
LIGHT TRESPASS	+	0.2 fc	0.4 fc	0.0 fc	N/A	N/A
PARKING LOT	+	1.4 fc	6.5 fc	0.3 fc	21.7:1	4.7:1
PROPERTY LINE	+	0.5 fc	1.1 fc	0.0 fc	N/A	N/A
UNDER CANOPY	+	5.9 fc	17.7 fc	4.0 fc	4.4:1	1.5:1

GENERAL NOTES

1. PHOTOMETRIC CALCULATIONS SHOWN DO NOT INCLUDE CONTRIBUTIONS OF EXISTING TO REMAIN LIGHT FIXTURES OUTSIDE OF SCOPE OF WORK AND PROPERTY.
2. EXTERIOR LIGHT FIXTURES ARE TO BE CONTROLLED VIA HOUSE TIMECLOCK AND PHOTOCELL.
3. LIGHT TRESPASS IS CALCULATED 10'-0" FROM PROPERTY LINE AT A HEIGHT OF 4'-0" AFG.
4. TYPE W2 AND W4 FIXTURES ARE TO BE WALL MOUNTED AT 30'-0" TO BOTTOM AFG UNLESS NOTED OTHERWISE.
5. TYPE OC FIXTURES ARE TO BE SURFACE MOUNTED UNDER CANOPY.
6. TYPE WS FIXTURES ARE TO BE WALL MOUNTED AT 15'-0" AFG UNLESS NOTED OTHERWISE.
7. TYPE WC FIXTURES ARE TO BE WALL MOUNTED AT 10'-0" AFG UNLESS NOTED OTHERWISE.
8. ALL EXTERIOR LIGHT FIXTURES, POLES, AND ACCESSORIES ARE TO BE DARK BRONZE.

NORTH

SITE LIGHTING PHOTOMETRIC CALCULATIONS

SCALE: 1"=20'-0"

0' 10' 20' 40'

PRELIMINARY - NOT FOR CONSTRUCTION

SCALE: 1"=20'-0"

PLOTTED BY: bfallon

X:\75710\cad\75710bES01.dgn

ORIGINAL SIZE: 24" x 36"

ANGUS-YOUNG
ARCHITECTS/ENGINEERS
Janesville | Madison

700 COTTAGE GROVE, LLC

CLIMATE CONTROLLED STORAGE BUILDING

700 COTTAGE GROVE ROAD
MADISON, WI 53716

ISSUANCES / REVISIONS		
NO:	DESCRIPTION:	DATE:
01	CITY DAT SUBMITTAL	01/27/2023

2:31 AM 2/23/2023

PROJECT NUMBER
75710

APPROVED BY
JAD

REVIEWED BY
JAD

DRAWN BY
BJF

SITE LIGHTING PHOTOMETRIC CALCULATIONS

ES01

Project		**Catalog #**	CLCS17	**Type**	OC
Prepared by		**Notes**		**Date**	

Lumark AP

CLCS Canopy

Surface / Canopy Luminaire

Product Features

Selectable lumens · seleCCTable colors · DUSK-TO-DAWN

Interactive Menu

Product Certifications

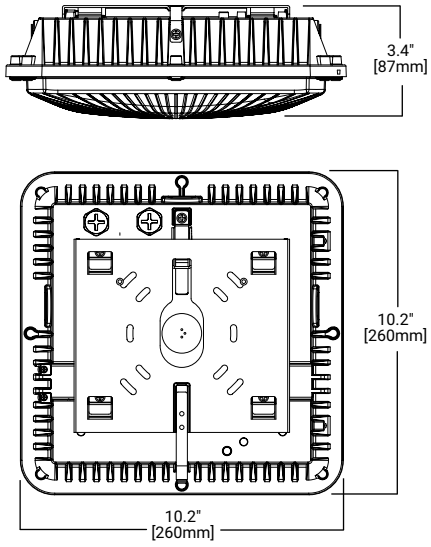
cULus CERTIFIED · DLC QPL LISTED · FC CLASS A CAN ICES-005 · RoHS COMPLIANT · IP65 · ISTI SYSTEMS CERTIFIED · 5 YEAR LIMITED WARRANTY

Quick Facts

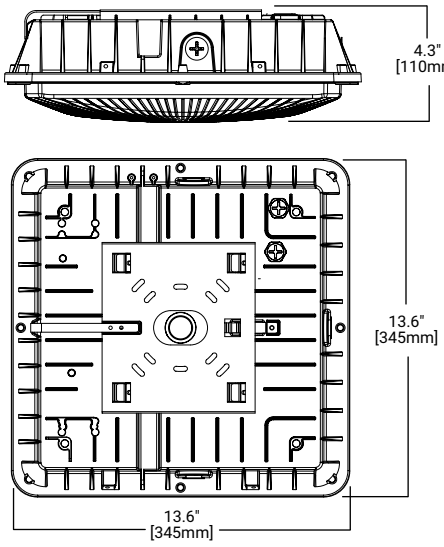
- Fixed output and selectable configurations available across 2 housing sizes
- Lumen packages range from 5,500 - 17,600 lumens (40W - 120W)
- Replaces 150W up to 400W HID equivalent
- Efficacies up to 153 lumens per watt at maximum output
- Energy and maintenance savings up to 86% versus HID solutions

Dimensional Details

CLCS15 / CLCS17



CLCS40



Stock Ordering Information

Catalog Logic	Description			
Model Number [1]	Lumens / Wattage	Color Temperature	Voltage	Controls
CLCS15=Small LED Canopy	5,500 / 40W	4000K / 80CRI	120-277V, 50/60Hz	–
CLCS17=Small LED Canopy	8,000 / 60W	4000K / 80CRI	120-277V, 50/60Hz	–
CLCS17S=Small LED Canopy	Selectable Lumens: 5,500-8,000 / 40-60W	Selectable CCT: 3000,4000,5000K / 80CRI	120-277V, 50/60Hz	–
CLCS17S-PC=Small LED Canopy	Selectable Lumens: 5,500-8,000 / 40-60W	Selectable CCT: 3000,4000,5000K / 80CRI	120-277V, 50/60Hz	Factory-installed button-type photocontrol
CLCS40S=Large LED Canopy	Selectable Lumens: 13,600-17,600 / 90-120W	Selectable CCT: 3000,4000,5000K / 80CRI	120-277V, 50/60Hz	–

NOTES:
1. DesignLights Consorium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.

Product Specifications

Construction
- Die-cast aluminum housing with four 1/2" NPT side conduit entries
- Tethered, quick mount plate for surface or junction box mounting
- Pendant mount via 3/4" NPT pipe (not supplied)

Optics
- UV-resistant polycarbonate lens

Electrical
- Selectable SKUs offer 2 wattages selections (high / low) and 3 CCTs. Default settings are highest wattage and 4000K CCT.
- -40°C minimum operating temperature
- 40°C maximum operating temperature
- >0.9 power factor
- <20% total harmonic distortion
- 0-10V dimming driver is standard

Typical Applications
- Bank and pharmacy drive-thrus, covered side walks, hospitality, and healthcare entryways

Finish
- Standard color is bronze

Shipping Data
- CLCS15: 6.4 lbs. (2.9 kgs.)
- CLCS17: 6.4 lbs. (2.9 kgs.)
- CLCS40: 11.4 lbs. (5.2 kgs.)

Warranty
- Standard five-year warranty

Energy and Performance Data

View CLCS IES Files

Power and Lumens

Light Engine		CLCS15 (Fixed Output)	CLCS17 (Fixed Output)	CLCS17S (Set to 40W)	CLCS17S (Set to 60W)	CLCS40S (Set to 90W)	CLCS40S (Set to 120W)
Power (Watts)		39	56	39	56	91	123
Input Current @ 120V (A)		0.970	0.467	0.323	0.467	0.715	0.970
Input Current @ 277V (A)		0.153	0.210	0.153	0.210	0.341	0.440
Color Temperature							
3000K CCT	Lumens	--	--	5,323	7,337	12,614	16,123
	BUG Rating	--	--	B2-U2-G1	B3-U2-G2	B3-U3-G2	B4-U3-G3
	Lumens per Watt	--	--	138	131	138	131
4000K CCT	Lumens	5,671	7,956	5,671	7,956	13,562	17,627
	BUG Rating	B2-U2-G1	B3-U2-G2	B2-U2-G1	B3-U2-G2	B3-U3-G2	B4-U3-G3
	Lumens per Watt	151	147	151	147	153	149
5000K CCT	Lumens	--	--	5,739	7,939	13,605	17,427
	BUG Rating	--	--	B2-U2-G1	B3-U2-G2	B3-U3-G2	B4-T3-G3
	Lumens per Watt	--	--	149	142	149	141

Lumen Maintenance

Configuration (Up to 40°C)	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
Up to 60W	82%	>134,000
Up to 120W	84%	>146,000

Project		**Catalog #**	GWC-SA2B-740-U-SL2-BZ-HSS	**Type**	W2
Prepared by		**Notes**		**Date**	

McGraw-Edison

GWC Galleon Wall

Wall Mount Luminaire

Product Features

Light ARchitect™

Interactive Menu

Product Certifications

1 1 2

Quick Facts

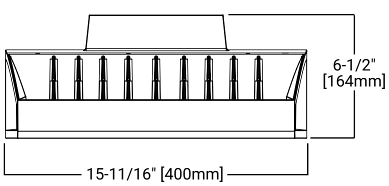
- Choice of thirteen high-efficiency, patented AccuLED Optics
- Downward and inverted wall mounting configurations
- Eight lumen packages from 3,215 up to 17,056
- Efficacies up to 154 lumens per watt

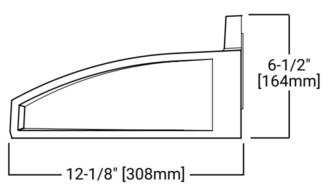
Connected Systems

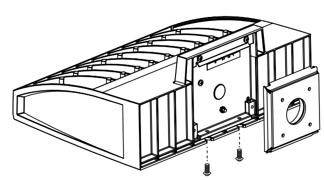
- WaveLinx
- Enlighted

Dimensional Details

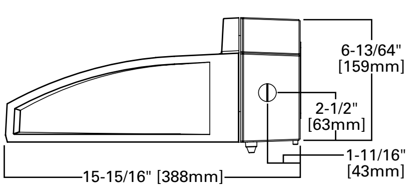
Net Weight: 17.0 lbs (7.7 kgs)



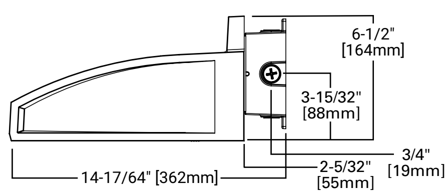




GWC with CBP option installed
(Thru-Branch Back Box accessory MA1059XX)



GWC with accessory BB/GWCXX Back Box installed



NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

COOPER Lighting Solutions

Ordering Information

SAMPLE NUMBER: **GWC-SA2C-740-U-T4FT-GM**

Product Family [1]	Light Engine		Color Temperature	Voltage	Distribution	Finish
	Configuration	Drive Current				
GWC=Galleon Wall **BAA-GWC**=Galleon Wall, Buy American Act Compliant [35] **TAA-GWC**=Galleon Wall, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares [2]	**A**=615mA **B**=800mA **C**=1000mA **D**=1200mA [4]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [3, 4]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [6,7] **9**=347V [6] **DV**=277-480V DuraVolt Drivers [7, 8, 37]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Controls and Systems Options** (Add as Suffix)	**Accessories** (Order Separately) [36]
F=Single Fused (120, 277 or 347V. Must Specify Voltage) **FF**=Double Fused (208, 240 or 480V. Must Specify Voltage) **10K**=10kV Surge Module **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two-Circuit Light Engine [38] **DIM**=External 0-10V Dimming Leads [9, 10] **CBP**=Battery Pack with Back Box, Cold Weather Rated [2, 4, 14, 33] **CBP-CEC**=Battery Pack with Back Box, Cold Weather Rated, CEC compliant [2, 4, 14] **BB**=Shipped with Back Box Accessory [39] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **HSS**=Factory Installed House Side Shield [23] **GRSBK**=Factory Installed Glare Shield, BK [4, 27] **GRSWH**=Factory Installed Glare Shield, WH [4, 27] **UPL**=Uplight Housing [13] **HA**=50°C High Ambient [12] **LCF**=Light Square Trim Plate Painted to Match Housing [22] **MT**=Factory Installed Mesh Top **CC**=Coastal Construction finish [5] **CE**=CE Marking and Small Terminal Block [24] **AHD145**=After Hours Dim, 5 Hours [16] **AHD245**=After Hours Dim, 6 Hours [16] **AHD255**=After Hours Dim, 7 Hours [16] **AHD355**=After Hours Dim, 8 Hours [16] **DALI**=DALI Driver [11]	**BPC**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) **PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [15] **FADC**=Field Adjustable Dimming Controller [40] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [19,34] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [19,34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [19,34] **MS-LXX**=Motion Sensor for On/Off Operation [17, 18, 19] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [17, 18, 19] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [29, 30] **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle [29, 30] **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [31, 32] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [31, 32] **WOBXX**=WaveLinx Sensor with Bluetooth, 7'-15' [31, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15'-40' [31, 32] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height [19, 20, 21] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height [19, 20, 21]	**OA/RA1013**=Photocontrol Shorting Cap **OA/RA1016**=NEMA Photocontrol - Multi-Tap 105-285V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1027**=NEMA Photocontrol - 480V **MA1252**=10kV Circuit Module Replacement **MA1059XX**=Thru-branch Back Box (Must Specify Color) **BB/GWCXX**=Back Box (Must Specify Color) **LS/HSS**=Field Installed House Side Shield [23, 25] **LS/GRSBK-2PK**=Glare Shield, Black [25, 27] **LS/GRSWH-2PK**=Glare Shield, White [25, 27] **LS/PFS**=Perimeter Shield, Black [28] **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [17] **WOLC-7P-10A**=WaveLinx Outdoor Control Module (7-pin) [26, 29] **SWPD4-XX**=Wavelinx Wireless Sensor, 7' – 15' Mounting Height [29, 30, 31, 32] **SWPD5-XX**=Wavelinx Wireless Sensor, 15' – 40' Mounting Height [29, 30, 31, 32]

NOTES:

1. DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details.
2. Two light squares with CBP options limited to 25°C. CBP not available in combination with sensor options at 1200mA.
3. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Exact luminaire wattage available in IES files. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
4. Not available with HA option.
5. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
6. Require the use of a step down transformer. Not available in combination with sensor options at 1200mA.
7. 480V not to be used with ungrounded or impedance grounded systems.
8. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit www.signify.com/duravolt for more information.
9. Cannot be used with other control options.
10. Low voltage control leads extended 18" from fixture.
11. Not available in 1200mA. When used with CBP or HA options, only available with single light square.
12. Not available in 1200mA, UPL or CBP options. Available with single light square.
13. Not available with SL2, SL3, SL4, HA, CBP, PR or PR7 options.
14. Operates a single light square only. Operates at -20°C to +40°C. Backbox is non-IP rated. Control option limited to BPC.
15. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
16. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
17. The FSIR-100 configuration tool is required to adjust parameters such as high and low modes, sensitivity, time delay and cutoff. Consult your lighting representative at Cooper Lighting Solutions for more information.
18. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting.)
19. Includes integral photosensor.
20. Enlighted wireless sensors are factory installed requiring network components in appropriate quantities.
21. White sensor shipped on all housing color options.
22. Not available with HSS or GRS options.
23. Not for use with 5NQ, 5MQ, 5WQ or RW optics. The light square trim plate is painted black when the HSS option is selected.
24. CE is not available with the 1200, DALI, LWR, MS, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
25. One required for each light square.
26. Requires PR7.
27. Not for use with T4FT, T4W or SL4 optics.
28. Set of 4 pcs. Once set required per Light Square.
29. Cannot be used in conjunction with additional photocontrol or other controls systems (BPC, PR, PR7, MS, LWR).
30. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
31. Requires ZW or ZD receptacle.
32. Replace XX with sensor color (WH, BZ, or BK).
33. Specify 120V or 277V.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Not available in 1 square configuration at 800mA or below. Not available with any control option except SPB.
38. 2L not available with FF, AHD or DALI options. Controls and/or battery packs operate only one of the two circuits when 2L is specified. 2L with controls options not available with 347V or 480V.
39. Not available with CBP or CBP-CEC options.
40. Cannot be used with PR7 or other motion response control options.

Product Specifications

Construction

- Driver enclosure thermally isolated from optics for optimal thermal performance
- Die-cast aluminum heat sinks
- IP66 rated housing
- 1.5G vibration rated

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 13 optical distributions
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED driver assembly mounted for ease of maintenance
- Standard with 0-10V dimming
- Optional 10kV or 20kV surge module
- Suitable for operation in -40°C to 40°C ambient environments; Optional 50°C high ambient (HA) configuration

Mounting

- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish

- Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Typical Applications

- Exterior Wall, Walkway

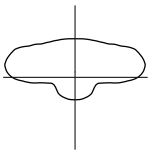
Warranty

- Five-year warranty

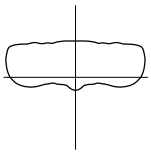
Optical Distributions

Asymmetric Area Distributions

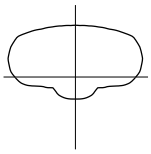
T2 (Type II)



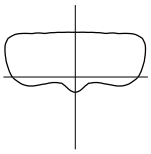
SL2 (Type II with Spill Control)



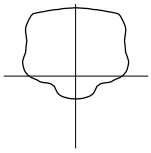
T3 (Type III)



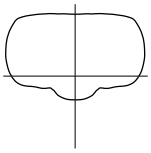
SL3 (Type III with Spill Control)



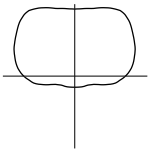
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

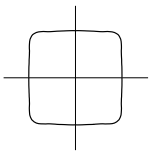


SL4 (Type IV with Spill Control)

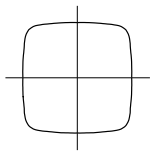


Symmetric Distributions

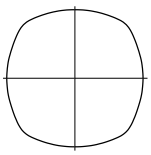
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

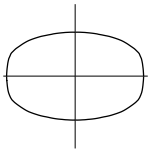


5WQ (Type V Square Wide)

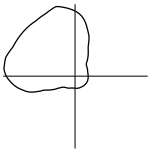


Specialized Distributions

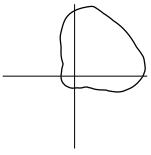
RW (Rectangular Wide Type I)



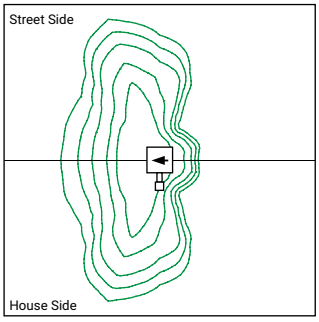
SLL (90° Spill Light Eliminator Left)



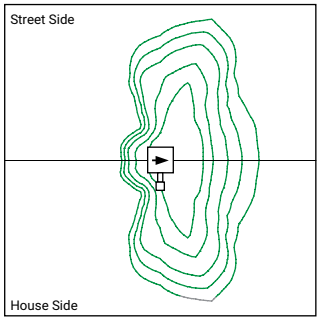
SLR (90° Spill Light Eliminator Right)



Optic Orientation



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

Energy and Performance Data

Lumen Multiplier

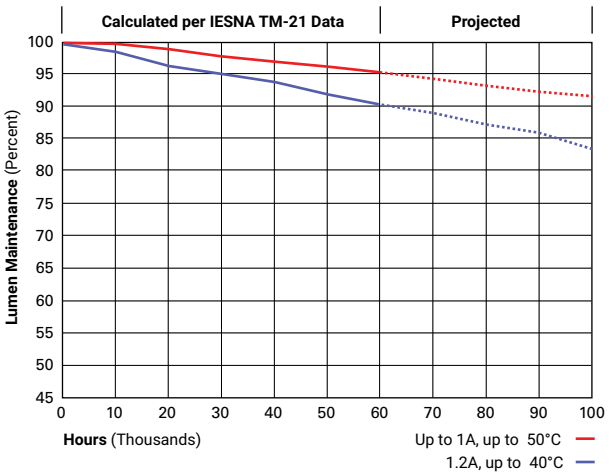
Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

FADC Settings

FADC Position	Lumen Multiplier
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	> 416,000
1.2A	Up to 40°C	> 90%	> 205,000



Energy and Performance Data

View GWC Galleon Wall IES files

4000K/5000K/6000K CCT, 70 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	4,883	5,989	7,412	8,131	9,543	11,703	14,485	15,891
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	Lumens per Watt	144	136	126	121	145	136	128	123
T3	Lumens	4,978	6,105	7,556	8,288	9,729	11,929	14,764	16,196
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
T4FT	Lumens	5,008	6,140	7,599	8,337	9,783	11,998	14,850	16,290
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	147	140	129	124	148	140	131	126
T4W	Lumens	4,942	6,060	7,502	8,229	9,658	11,843	14,658	16,080
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
	Lumens per Watt	145	138	127	123	146	138	130	125
SL2	Lumens	4,874	5,979	7,399	8,117	9,528	11,684	14,461	15,863
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
	Lumens per Watt	143	136	125	121	144	136	128	123
SL3	Lumens	4,976	6,104	7,555	8,287	9,727	11,927	14,763	16,194
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
SL4	Lumens	4,729	5,799	7,178	7,873	9,239	11,333	14,025	15,387
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4
	Lumens per Watt	139	132	122	118	140	132	124	119
5NQ	Lumens	5,134	6,296	7,793	8,547	10,033	12,303	15,226	16,704
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	151	143	132	128	152	143	135	129
5MQ	Lumens	5,228	6,412	7,935	8,705	10,216	12,529	15,508	17,011
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	134	130	155	146	137	132
5WQ	Lumens	5,242	6,428	7,956	8,728	10,244	12,563	15,548	17,056
	BUG Rating	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	135	130	155	146	138	132
SLL/SLR	Lumens	4,373	5,365	6,640	7,283	8,547	10,481	12,973	14,231
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	129	122	113	109	130	122	115	110
RW	Lumens	5,087	6,238	7,721	8,472	9,941	12,190	15,088	16,553
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	150	142	131	126	151	142	134	128

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

3000K CCT, 80 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	**Lumens**	3,880	4,759	5,890	6,461	7,583	9,300	11,510	12,628
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
T3	**Lumens**	3,956	4,851	6,004	6,586	7,731	9,479	11,732	12,870
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	116	110	102	98	117	110	104	100
T4FT	**Lumens**	3,980	4,879	6,038	6,625	7,774	9,534	11,800	12,945
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	117	111	102	99	118	111	104	100
T4W	**Lumens**	3,927	4,816	5,961	6,539	7,675	9,411	11,648	12,778
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	116	109	101	98	116	109	103	99
SL2	**Lumens**	3,873	4,751	5,880	6,450	7,571	9,285	11,491	12,605
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
SL3	**Lumens**	3,954	4,851	6,004	6,585	7,729	9,478	11,731	12,868
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	116	110	102	98	117	110	104	100
SL4	**Lumens**	3,758	4,608	5,704	6,256	7,342	9,006	11,145	12,227
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3
	Lumens per Watt	111	105	97	93	111	105	99	95
5NQ	**Lumens**	4,080	5,003	6,193	6,792	7,973	9,776	12,099	13,274
	BUG Rating	B2-U0-G0	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens per Watt	120	114	105	101	121	114	107	103
5MQ	**Lumens**	4,154	5,095	6,305	6,917	8,118	9,956	12,323	13,518
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	122	116	107	103	123	116	109	105
5WQ	**Lumens**	4,166	5,108	6,322	6,936	8,140	9,983	12,355	13,553
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	123	116	107	104	123	116	109	105
SLL/SLR	**Lumens**	3,475	4,263	5,276	5,787	6,792	8,329	10,309	11,309
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	102	97	89	86	103	97	91	88
RW	**Lumens**	4,042	4,957	6,135	6,732	7,900	9,687	11,990	13,154
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	119	113	104	100	120	113	106	102

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

Control Options

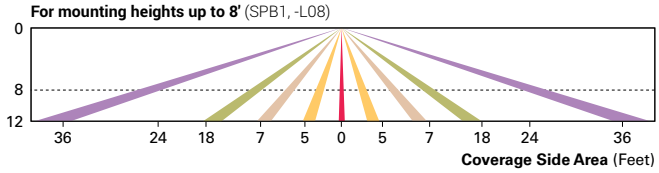
0-10V This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR, and PR7) Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

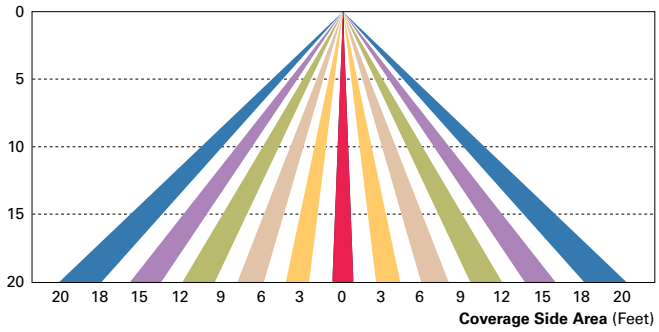
After Hours Dim (AHD) This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

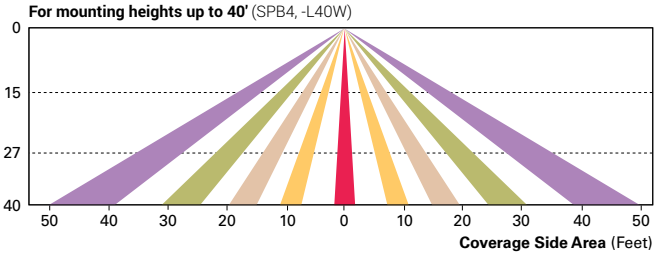
For mounting heights up to 8' (SPB1, -L08)



For mounting heights up to 20' (SPB2, -L20)

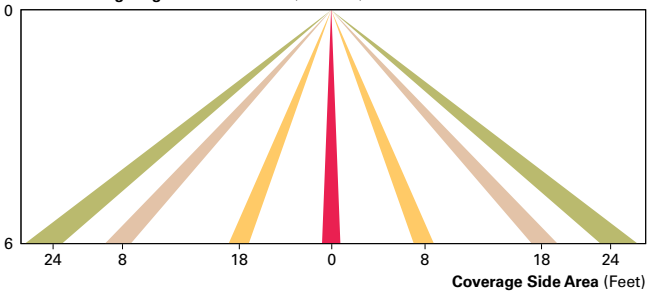


For mounting heights up to 40' (SPB4, -L40W)

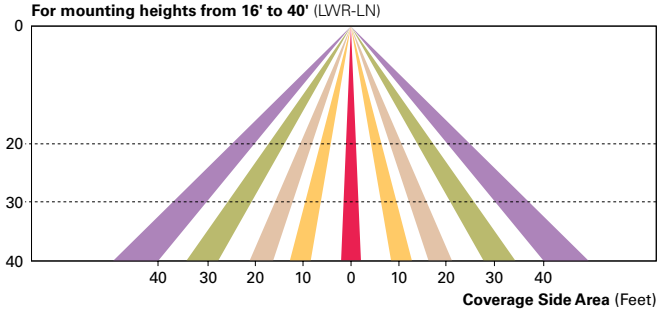


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted control system is a connected lighting solution, combining LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes while collecting valuable data about building performance and use. Software applications utilizing energy dashboards maximize data inputs to help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A) The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P. 770-486-4800
www.cooperlighting.com

Project		**Catalog #**	GWC-SA2B-740-U-SL2-BZ-HSS	**Type**	W2
Prepared by		**Notes**		**Date**	

McGraw-Edison

GWC Galleon Wall

Wall Mount Luminaire

Product Features

Light ARchitect™

BAA Buy American Act – Compliant Options Available

Interactive Menu

Product Certifications

DLC Listed [1] · DLC Listed Premium [1] · ISO Systems Certified · UL Certified · FC Class A · IP66 · IDA Dark Sky Approved [2] · 5 Year Limited Warranty

Quick Facts

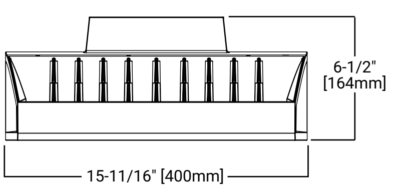
- Choice of thirteen high-efficiency, patented AccuLED Optics
- Downward and inverted wall mounting configurations
- Eight lumen packages from 3,215 up to 17,056
- Efficacies up to 154 lumens per watt

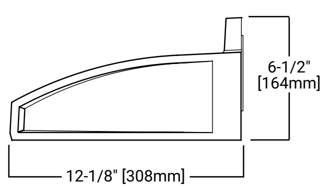
Connected Systems

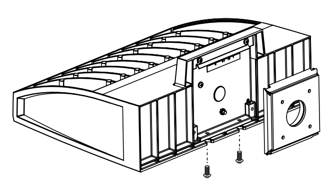
- WaveLinx
- Enlighted

Dimensional Details

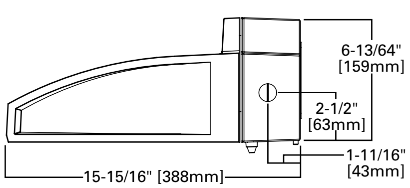
Net Weight: 17.0 lbs (7.7 kgs)



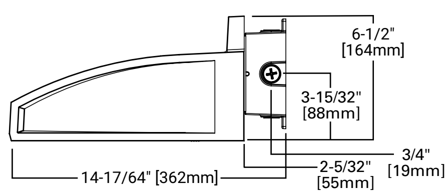




GWC with CBP option installed
(Thru-Branch Back Box accessory MA1059XX)



GWC with accessory BB/GWCXX Back Box installed



NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: **GWC-SA2C-740-U-T4FT-GM**

Product Family [1]	Light Engine		Color Temperature	Voltage	Distribution	Finish
	Configuration	Drive Current				
GWC=Galleon Wall **BAA-GWC**=Galleon Wall, Buy American Act Compliant [35] **TAA-GWC**=Galleon Wall, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares [2]	**A**=615mA **B**=800mA **C**=1000mA **D**=1200mA [4]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [3, 4]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [6,7] **9**=347V [6] **DV**=277-480V DuraVolt Drivers [7, 8, 37]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **5NQ**=Type V Square Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Controls and Systems Options** (Add as Suffix)	**Accessories** (Order Separately) [36]
F=Single Fused (120, 277 or 347V. Must Specify Voltage) **FF**=Double Fused (208, 240 or 480V. Must Specify Voltage) **10K**=10kV Surge Module **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two-Circuit Light Engine [38] **DIM**=External 0-10V Dimming Leads [9, 10] **CBP**=Battery Pack with Back Box, Cold Weather Rated [2, 4, 14, 33] **CBP-CEC**=Battery Pack with Back Box, Cold Weather Rated, CEC compliant [2, 4, 14] **BB**=Shipped with Back Box Accessory [39] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **HSS**=Factory Installed House Side Shield [23] **GRSBK**=Factory Installed Glare Shield, BK [4, 27] **GRSWH**=Factory Installed Glare Shield, WH [4, 27] **UPL**=Uplight Housing [13] **HA**=50°C High Ambient [12] **LCF**=Light Square Trim Plate Painted to Match Housing [22] **MT**=Factory Installed Mesh Top **CC**=Coastal Construction finish [5] **CE**=CE Marking and Small Terminal Block [24] **AHD145**=After Hours Dim, 5 Hours [16] **AHD245**=After Hours Dim, 6 Hours [16] **AHD255**=After Hours Dim, 7 Hours [16] **AHD355**=After Hours Dim, 8 Hours [16] **DALI**=DALI Driver [11]	**BPC**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) **PR**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [15] **FADC**=Field Adjustable Dimming Controller [40] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [19,34] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [19,34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [19,34] **MS-LXX**=Motion Sensor for On/Off Operation [17, 18, 19] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [17, 18, 19] **ZW**=WaveLinx-enabled 4-PIN Twistlock Receptacle [29, 30] **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle [29, 30] **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [31, 32] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [31, 32] **WOBXX**=WaveLinx Sensor with Bluetooth, 7'-15' [31, 32] **WOFXX**=WaveLinx Sensor with Bluetooth, 15'-40' [31, 32] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height [19, 20, 21] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height [19, 20, 21]	**OA/RA1013**=Photocontrol Shorting Cap **OA/RA1016**=NEMA Photocontrol - Multi-Tap 105-285V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1027**=NEMA Photocontrol - 480V **MA1252**=10kV Circuit Module Replacement **MA1059XX**=Thru-branch Back Box (Must Specify Color) **BB/GWCXX**=Back Box (Must Specify Color) **LS/HSS**=Field Installed House Side Shield [23, 25] **LS/GRSBK-2PK**=Glare Shield, Black [25, 27] **LS/GRSWH-2PK**=Glare Shield, White [25, 27] **LS/PFS**=Perimeter Shield, Black [28] **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [17] **WOLC-7P-10A**=WaveLinx Outdoor Control Module (7-pin) [26, 29] **SWPD4-XX**=Wavelinx Wireless Sensor, 7' – 15' Mounting Height [29, 30, 31, 32] **SWPD5-XX**=Wavelinx Wireless Sensor, 15' – 40' Mounting Height [29, 30, 31, 32]

NOTES:

1. DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details.
2. Two light squares with CBP options limited to 25°C. CBP not available in combination with sensor options at 1200mA.
3. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Exact luminaire wattage available in IES files. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
4. Not available with HA option.
5. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
6. Require the use of a step down transformer. Not available in combination with sensor options at 1200mA.
7. 480V not to be used with ungrounded or impedance grounded systems.
8. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit www.signify.com/duravolt for more information.
9. Cannot be used with other control options.
10. Low voltage control leads extended 18" from fixture.
11. Not available in 1200mA. When used with CBP or HA options, only available with single light square.
12. Not available in 1200mA, UPL or CBP options. Available with single light square.
13. Not available with SL2, SL3, SL4, HA, CBP, PR or PR7 options.
14. Operates a single light square only. Operates at -20°C to +40°C. Backbox is non-IP rated. Control option limited to BPC.
15. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
16. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
17. The FSIR-100 configuration tool is required to adjust parameters such as high and low modes, sensitivity, time delay and cutoff. Consult your lighting representative at Cooper Lighting Solutions for more information.
18. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting.)
19. Includes integral photosensor.
20. Enlighted wireless sensors are factory installed requiring network components in appropriate quantities.
21. White sensor shipped on all housing color options.
22. Not available with HSS or GRS options.
23. Not for use with 5NQ, 5MQ, 5WQ or RW optics. The light square trim plate is painted black when the HSS option is selected.
24. CE is not available with the 1200, DALI, LWR, MS, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
25. One required for each light square.
26. Requires PR7.
27. Not for use with T4FT, T4W or SL4 optics.
28. Set of 4 pcs. Once set required per Light Square.
29. Cannot be used in conjunction with additional photocontrol or other controls systems (BPC, PR, PR7, MS, LWR).
30. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
31. Requires ZW or ZD receptacle.
32. Replace XX with sensor color (WH, BZ, or BK).
33. Specify 120V or 277V.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Not available in 1 square configuration at 800mA or below. Not available with any control option except SPB.
38. 2L not available with FF, AHD or DALI options. Controls and/or battery packs operate only one of the two circuits when 2L is specified. 2L with controls options not available with 347V or 480V.
39. Not available with CBP or CBP-CEC options.
40. Cannot be used with PR7 or other motion response control options.

Product Specifications

Construction

- Driver enclosure thermally isolated from optics for optimal thermal performance
- Die-cast aluminum heat sinks
- IP66 rated housing
- 1.5G vibration rated

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 13 optical distributions
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED driver assembly mounted for ease of maintenance
- Standard with 0-10V dimming
- Optional 10kV or 20kV surge module
- Suitable for operation in -40°C to 40°C ambient environments; Optional 50°C high ambient (HA) configuration

Mounting

- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish

- Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Typical Applications

- Exterior Wall, Walkway

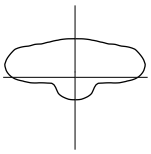
Warranty

- Five-year warranty

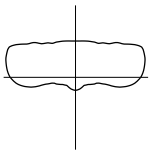
Optical Distributions

Asymmetric Area Distributions

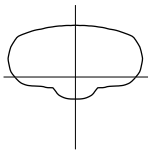
T2 (Type II)



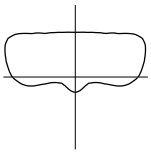
SL2 (Type II with Spill Control)



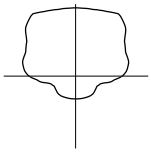
T3 (Type III)



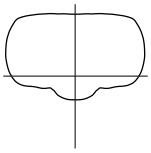
SL3 (Type III with Spill Control)



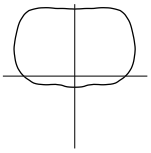
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

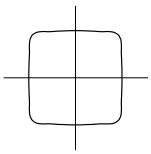


SL4 (Type IV with Spill Control)

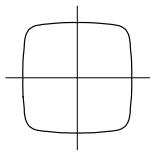


Symmetric Distributions

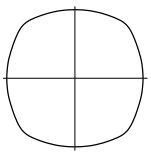
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

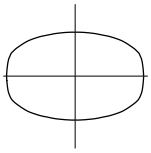


5WQ (Type V Square Wide)

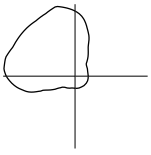


Specialized Distributions

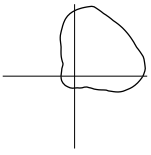
RW (Rectangular Wide Type I)



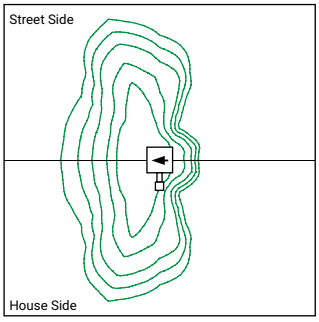
SLL (90° Spill Light Eliminator Left)



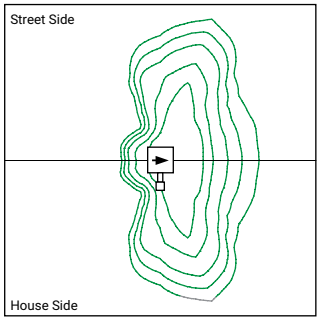
SLR (90° Spill Light Eliminator Right)



Optic Orientation



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

Energy and Performance Data

Lumen Multiplier

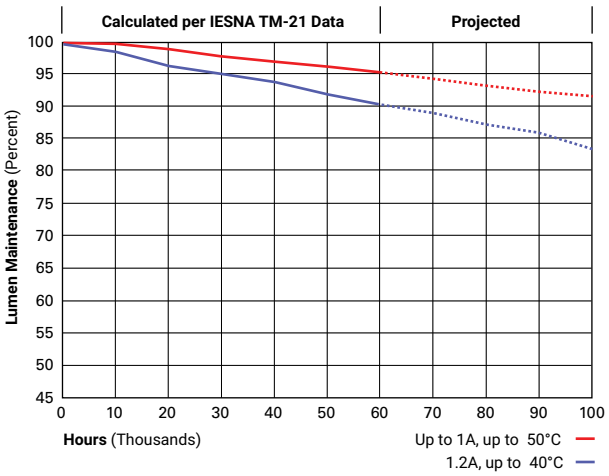
Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

FADC Settings

FADC Position	Lumen Multiplier
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Lumen Maintenance

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	> 416,000
1.2A	Up to 40°C	> 90%	> 205,000



Energy and Performance Data

View GWC Galleon Wall IES files

4000K/5000K/6000K CCT, 70 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	Lumens	4,883	5,989	7,412	8,131	9,543	11,703	14,485	15,891
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	Lumens per Watt	144	136	126	121	145	136	128	123
T3	Lumens	4,978	6,105	7,556	8,288	9,729	11,929	14,764	16,196
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
T4FT	Lumens	5,008	6,140	7,599	8,337	9,783	11,998	14,850	16,290
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	147	140	129	124	148	140	131	126
T4W	Lumens	4,942	6,060	7,502	8,229	9,658	11,843	14,658	16,080
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
	Lumens per Watt	145	138	127	123	146	138	130	125
SL2	Lumens	4,874	5,979	7,399	8,117	9,528	11,684	14,461	15,863
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
	Lumens per Watt	143	136	125	121	144	136	128	123
SL3	Lumens	4,976	6,104	7,555	8,287	9,727	11,927	14,763	16,194
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	146	139	128	124	147	139	131	126
SL4	Lumens	4,729	5,799	7,178	7,873	9,239	11,333	14,025	15,387
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4
	Lumens per Watt	139	132	122	118	140	132	124	119
5NQ	Lumens	5,134	6,296	7,793	8,547	10,033	12,303	15,226	16,704
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	151	143	132	128	152	143	135	129
5MQ	Lumens	5,228	6,412	7,935	8,705	10,216	12,529	15,508	17,011
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	134	130	155	146	137	132
5WQ	Lumens	5,242	6,428	7,956	8,728	10,244	12,563	15,548	17,056
	BUG Rating	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	154	146	135	130	155	146	138	132
SLL/SLR	Lumens	4,373	5,365	6,640	7,283	8,547	10,481	12,973	14,231
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	129	122	113	109	130	122	115	110
RW	Lumens	5,087	6,238	7,721	8,472	9,941	12,190	15,088	16,553
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	150	142	131	126	151	142	134	128

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

3000K CCT, 80 CRI

Number of Light Squares		1				2			
Drive Current		615mA	800mA	1050mA	1.2A	615mA	800mA	1050mA	1.2A
Nominal Power (Watts)		34	44	59	67	66	86	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.16
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (A)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (A)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	**Lumens**	3,880	4,759	5,890	6,461	7,583	9,300	11,510	12,628
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
T3	**Lumens**	3,956	4,851	6,004	6,586	7,731	9,479	11,732	12,870
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	116	110	102	98	117	110	104	100
T4FT	**Lumens**	3,980	4,879	6,038	6,625	7,774	9,534	11,800	12,945
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	117	111	102	99	118	111	104	100
T4W	**Lumens**	3,927	4,816	5,961	6,539	7,675	9,411	11,648	12,778
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
	Lumens per Watt	116	109	101	98	116	109	103	99
SL2	**Lumens**	3,873	4,751	5,880	6,450	7,571	9,285	11,491	12,605
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	114	108	100	96	115	108	102	98
SL3	**Lumens**	3,954	4,851	6,004	6,585	7,729	9,478	11,731	12,868
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	116	110	102	98	117	110	104	100
SL4	**Lumens**	3,758	4,608	5,704	6,256	7,342	9,006	11,145	12,227
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3	B1-U0-G3
	Lumens per Watt	111	105	97	93	111	105	99	95
5NQ	**Lumens**	4,080	5,003	6,193	6,792	7,973	9,776	12,099	13,274
	BUG Rating	B2-U0-G0	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens per Watt	120	114	105	101	121	114	107	103
5MQ	**Lumens**	4,154	5,095	6,305	6,917	8,118	9,956	12,323	13,518
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	122	116	107	103	123	116	109	105
5WQ	**Lumens**	4,166	5,108	6,322	6,936	8,140	9,983	12,355	13,553
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	123	116	107	104	123	116	109	105
SLL/SLR	**Lumens**	3,475	4,263	5,276	5,787	6,792	8,329	10,309	11,309
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3
	Lumens per Watt	102	97	89	86	103	97	91	88
RW	**Lumens**	4,042	4,957	6,135	6,732	7,900	9,687	11,990	13,154
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
	Lumens per Watt	119	113	104	100	120	113	106	102

*** Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.**

Control Options

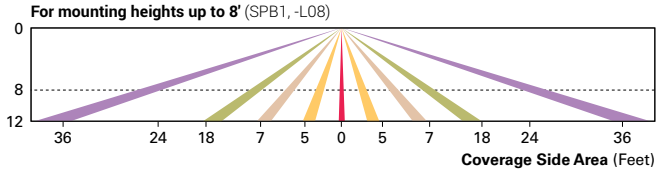
0-10V This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR, and PR7) Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

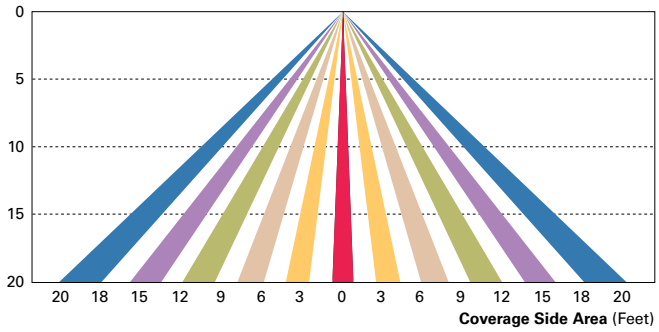
After Hours Dim (AHD) This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

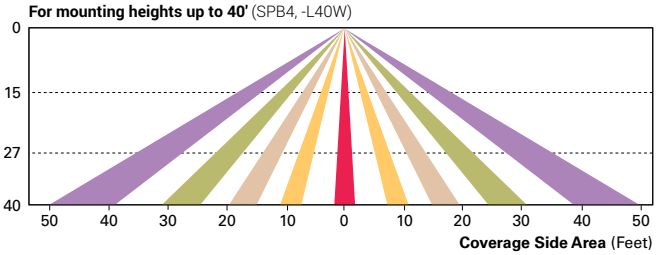
For mounting heights up to 8' (SPB1, -L08)



For mounting heights up to 20' (SPB2, -L20)

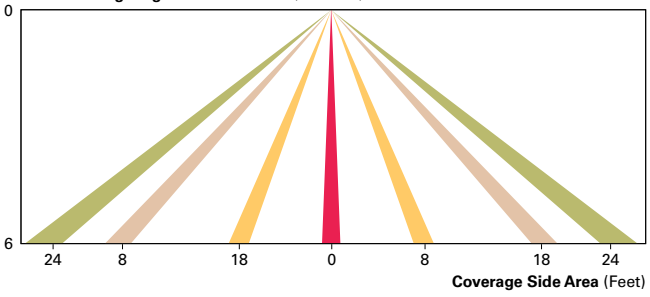


For mounting heights up to 40' (SPB4, -L40W)

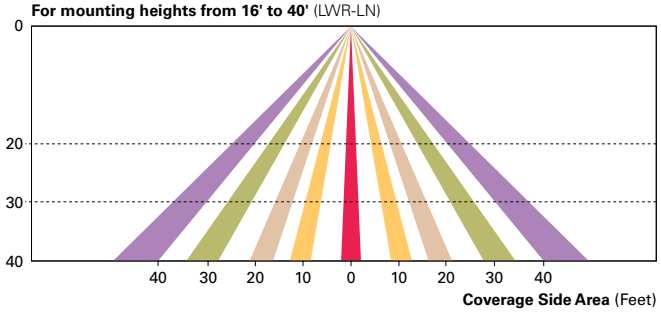


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted control system is a connected lighting solution, combining LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes while collecting valuable data about building performance and use. Software applications utilizing energy dashboards maximize data inputs to help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A) The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P. 770-486-4800
www.cooperlighting.com

DESCRIPTION

Lanterra 9004-W1 (Up or Down) and 9004-W2 (Up and Down) are 4.25" O.D., line voltage cylinder fixtures with dimmable LED. The luminiare comes in various mountings, surface mount with integral driver in the housing, remote driver mount with round and square wall plates and square wall integral driver, all of which can be mounted over standard 4 inch j-box. The luminaire also comes with various field replaceable optics and premium color tuning option. It also comes with various lens, louvers and colors or dichroic filters, which can combine up to two at once to create multiple lighting effects. The fixture may be used indoors or outdoors and carries IP66 rating.

Lumiere

Catalog #	9004-W2-FL-LED4080-MM-BZ-L1-UNV	**Type** WC
Project		
Comments		**Date**
Prepared by		

SPECIFICATION FEATURES

Material
Housing, hood and mounting stem are precision-machined from corrosion resistant billet stock 6061-T6 aluminum.

Finish
Fixtures constructed from 6061-T6 aluminum are double protected by an ROHS complaint chemical film undercoating and polyester powder coat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

Hood
Hood is removable and accepts up to two internal accessories at once (lenses, louvers and filters) to achieve multiple lighting effects. Weep holes prevents water and mineral stains from collecting on the lens, even in the straight up position. The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

Gasket
Housing and hood are sealed with a high temperature silicone O-ring gasket to prevent water intrusion.

Lens
Tempered glass lens, factory sealed with high temperature silicone O-ring to prevent water intrusion and breakage due to thermal stock.

Hardware
Stainless steel hardware is standard to provide maximum corrosion resistance.

Electrical
Long life LED system coupled with electronic driver (120-277V/50-60Hz) is compatible with TRIAC (Trailing Edge), ELV (Forward phase) and 0-10V dimming to deliver optical performance. Light can be dimmed from 100-1% while maintaining constant CCT. It will operate in -30°C to 50°C unless noted otherwise. The driver incorporates surge protection. LED's are available in 2700K, 3000K, 3500K at 90CRI and 97CRI, 4000K at 80CRI and 97CRI, 5000K at 80CRI and are industry leading high output with 87% lumen maintenance at 60,000hrs.

Compliance
Components are UL recognized and luminaires are cULus listed for 50˚C ambient environments unless noted otherwise, wet location listed, and ROHS compliant. IP66 Rated. Options to meet Buy American Act requirements

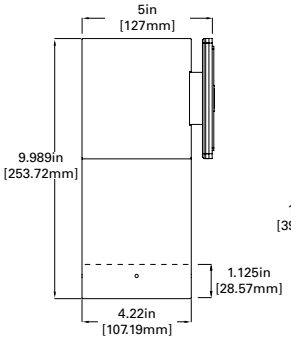
Warranty
Lumiere warrants the Lanterra series of fixtures against defects in material and workmanship for five (5) years. Auxiliary equipment such as LED drivers carries the original manufacturer's warranty.

Lanterra 9004

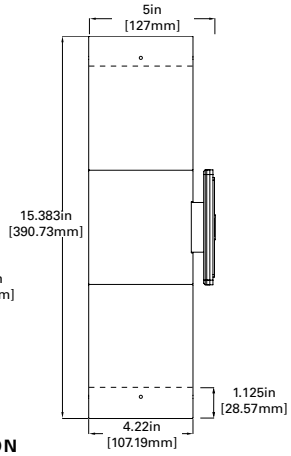
LED
INTERIOR / EXTERIOR
CYLINDER FLOOD LIGHT
CERTIFICATION DATA
cULus - 1598
Wet Location Listed - IP66
LM79/LM80 Compliant
ROHS Compliant
10W LED, L70/102,000@25° Celcius
20W LED, L70/102,000@25° Celcius
30W LED, L70/102,000@25° Celcius

DIMENSIONS

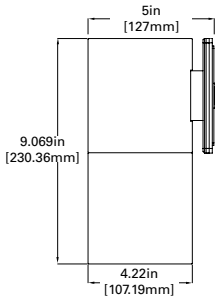
9004-W1-RW



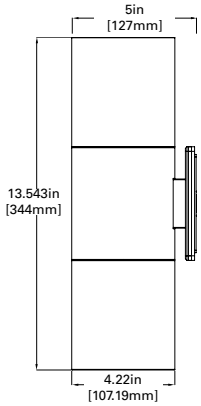
9004-W2-RW



9004-W1-FL



9004-W2-FL



ORDERING INFORMATION

DOMESTIC PREFERENCES [9]	SERIES	DIRECTION	HOOD	LED CCT & CRI	FIELD REPLACEABLE OPTIC 1	FIELD REPLACEABLE OPTIC 2 [2]	FINISH	LIGHT LEVEL	VOLTAGE	MOUNTING	OPTIONS
[Blank]=Standard **BAA**=Buy American Act	9004	W1 Up or W2 [5] Down Up and Down	RW Standard-Recessed Lens with weep holes - Outdoor RI Recessed Lens with no weep holes - Indoor FL Flush lens hood	**Standard CRI** LED2790 - 2700K, 90 CRI LED 3090 - 3000K, 90 CRI LED 3590 - 3500K, 90 CRI LED 4080 - 4000K, 80 CRI LED 5080 - 5000K, 80 CRI **Premium CRI** LED 2797 - 2700K, 97 CRI LED 3097 - 3000K, 97 CRI LED 3597 - 3500K, 97 CRI LED 4097 - 4000K, 97 CRI	S Spot M Medium F Flood W Wide Flood	S Spot M Medium F Flood W Wide Flood	**Standard Paint Finish** BK Black BZ Bronze CS City Silver WT White	L1 Light Level 1 (10W) L2 Light Level 2 (20W) L3 Light Level 3 (30W) LC1 Light Level Color 1 (12W) LC2 Light Level Color 2 (20W)	UNV 120-277V	Surface Mount - Wall, Ceiling, Ground RSM Round Surface Mount- mounts directly to junction box Thermal Limitations (unless otherwise noted 50C) 9004-W1-xxx-L3-xxx-RSM (45C) 9004-W2-xxx-L3-xxx-RSM (35C) 9004-W2-xxx-LC2-xxx-RSM (40C) Remote Driver Housing WRR [8] Remote Driver Housing - Round Wall Plate WRS [8] Remote Driver Housing - Square Wall Plate Thermal Limitations (unless otherwise noted 50C) 9004-W1-xxx-L3-xxx-WRx (45C) 9004-W2-xxx-L3-xxx-WRx (35C) 9004-W2-xxx-LC2-xxx-WRx (40C) Integral Driver Mount WIS [3,4] Wall Integral Driver Plate Thermal Limitations (unless otherwise noted 45C) 9004-(W1,W2)-xx-L1-xx-WIS (50C)	SVPD2 [5] Stand-alone integral sensor

Notes: 1. Order LC remote separately
2. Only available for double head option (W2)
3. 9004-W1 not available in LC2, L3
4. 9004-W2 not available in L2, L3, LC1 and LC2
5. Only available for Single head, Up or down (W1) with RSM only
6. W2 doubles input wattage listed
7. Only available for LEDCR
8. Remote Driver distance up to 60', For L3 (30W) remote distance up to 15'
9. Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
10. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

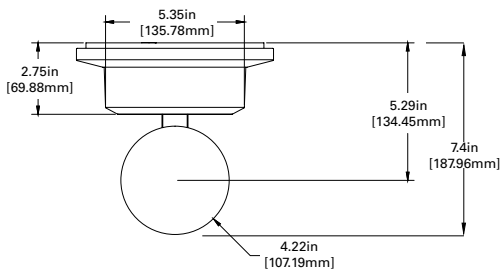
ACCESSORIES - ORDER SEPARATELY

ACCESSORIES [10]								OPTICS	
LCTL1RZRT452L-PK	Light Comissioning Tool (LCT)	**Filters**		**Lens**		**Louver**		LLR-S-3-4	15° Spot
ISHH01LUM	Programming Remote for sensor	F71-4	Peach Dichroic	LSL-4	Linear Spread Lens	LVR-4	45° Hex Cell Louver	LLR-M-3-4	25° Medium
ISHH02LUM	Personal Control Remote for sensor	F72-4	Amber Dichroic	DIF-4	Diffused Lens			LLR-F-3-4	36° Flood
		F73-4	Green Dichroic	OSL-4	Overall Spread Lens			LLR-W-3-4	60° Wide Flood
		F74-4	Medium Blue					LLR-K-3-4	Spot, Medium, Flood, Wide Flood Optic Kit
		F75-4	Yellow Dichroic						
		F76-4	Red Dichroic					LLR-S-LC-3-4	20° Spot - Color tuning optic
		F77-4	Dark Blue Dichroic					LLR-M-LC-3-4	32° Medium - Color tuning optic
		F78-4	Light Blue Dichroic					LLR-F-LC-3-4	42° Flood - Color tuning optic
		F79-4	Neutral Density Dichroic					LLR-W-LC-3-4	56° Wide Flood - color tuning optic
		F80-4	Magenta Dichroic					LR-K-LC-3-4	Spot, Medium, Flood, Wide Flood Color tuning optic Kit
		F22-4	Red Color						
		F33-4	Blue Color						
		F44-4	Green Color						
		F55-4	Yellow Color						
		F66-4	Mercury Color						

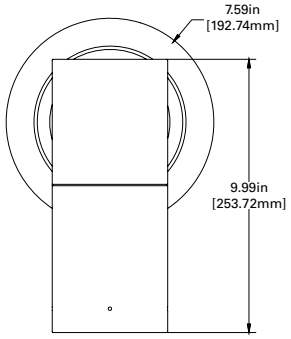
MOUNTINGS

ROUND SURFACE MOUNT (RSM)

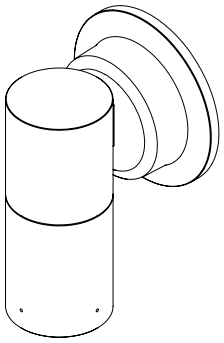
RSM-W1 (Up or down)



TOP VIEW



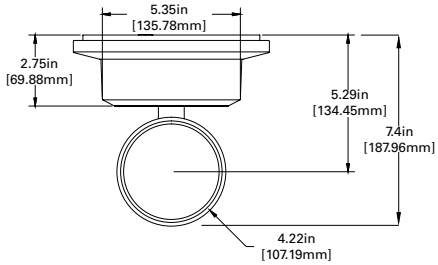
FRONT VIEW



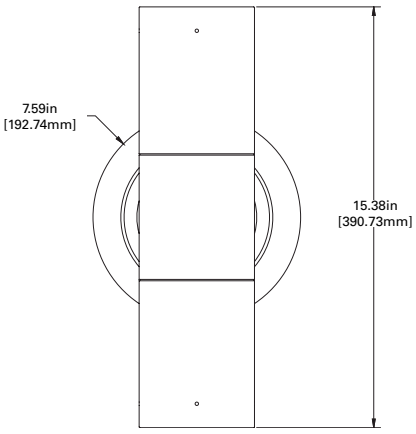
ISO VIEW

ROUND SURFACE MOUNT (RSM)

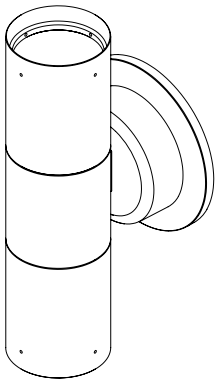
RSM-W2 (Up and down)



TOP VIEW



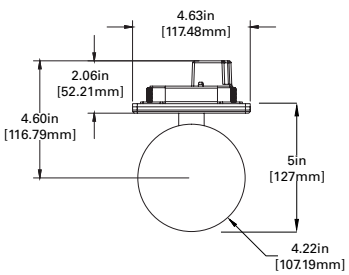
FRONT VIEW



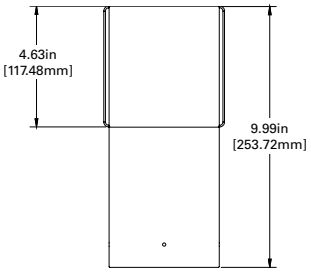
ISO VIEW

WALL INTEGRAL DRIVER PLATE (WIS)

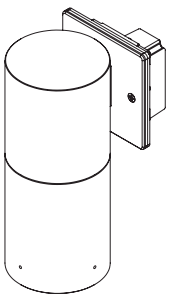
WIS-W1 (Up or down)



TOP VIEW



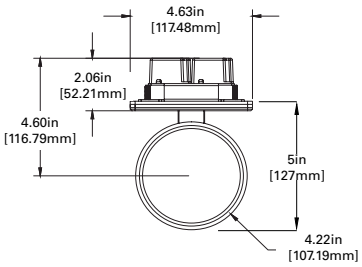
FRONT VIEW



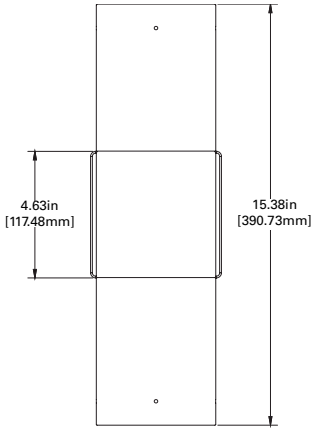
ISO VIEW

WALL INTEGRAL DRIVER PLATE (WIS)

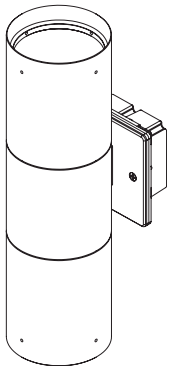
WIS-W2 (Up and down)



TOP VIEW



FRONT VIEW

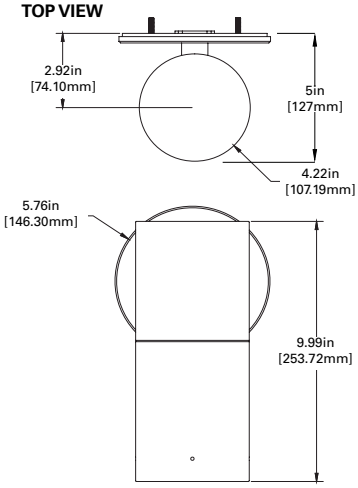


ISO VIEW

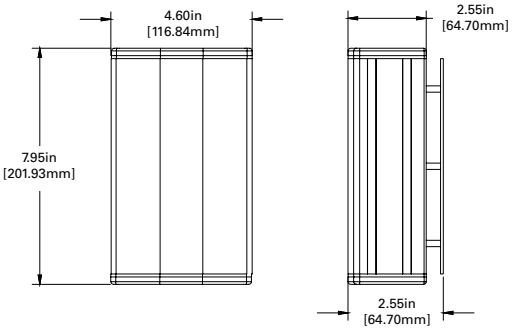
REMOTE DRIVER HOUSING ROUND WALL (WRR)

WRR-W1 (Up or down), as shown
WRS-W1 (Square option also available)

TOP VIEW

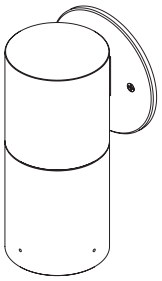


FRONT VIEW



Remote Driver distance up to 60',
For L3 remote distance up to 15'

REMOTE BOX

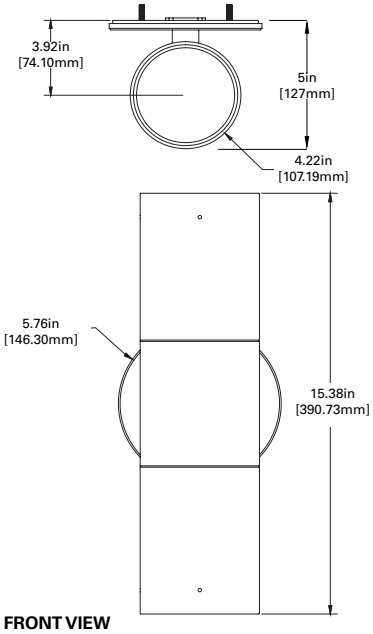


ISO VIEW

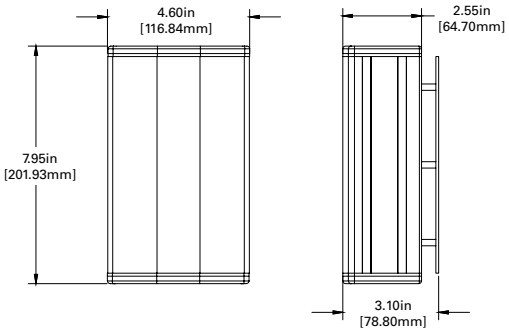
REMOTE DRIVER HOUSING ROUND WALL (WRR)

WRR-W2 (Up and down)
WRS-W2 (Square option also available)

TOP VIEW

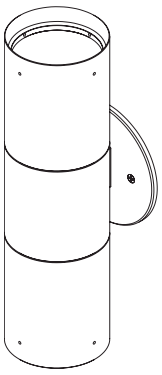


FRONT VIEW



Remote Driver distance up to 60',
For L3 remote distance up to 15'

REMOTE BOX



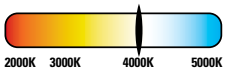
ISO VIEW

PHOTOMETRICS

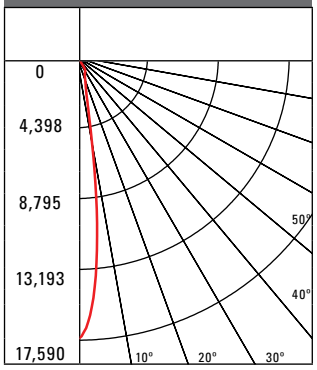
Test Number	P29496
Lumcat	9004-[W1]-X-FL-LED4080-S-BK-L3-UNV
Lumens	2801 Lm
Watts	28.6 W
LPW	97.9 Lm/W
CCT	4000K
SC (0/90/45)	0.27 / 0.27 / 0.27
Beam Angle	15.9°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	4397.5	0.4	0.4
4'	1099.4	1	1
6'	488.6	1.6	1.6
8'	274.8	2	2
10'	175.9	2.6	2.6
15'	78.2	4	4
20'	44	5.4	5.4
30'	19.5	8.2	8.2
40'	11	10.8	10.8

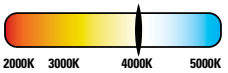
CANDELA TABLE

Angle	0-deg
0	17590
5	13640
10	5616
15	2329
20	1555
30	1057
40	161
50	11
60	4
70	1
80	0
90	0

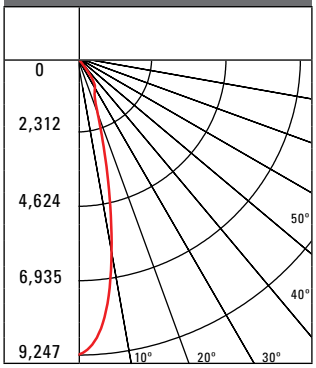
Test Number	29497
Lumcat	9004-[W1]-X-FL-LED4080-M-BK-L3-UNV
Lumens	2826 Lm
Watts	28.6 W
LPW	98.8 Lm/W
CCT	4000K
SC (0/90/45)	0.43 / 0.43 / 0.44
Beam Angle	25.5°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	2311.8	0.8	0.8
4'	577.9	1.6	1.6
6'	256.9	2.4	2.4
8'	144.5	3.4	3.4
10'	92.5	4.2	4.2
15'	41.1	6.4	6.4
20'	23.1	8.6	8.6
30'	10.3	12.8	12.8
40'	5.8	17.2	17.2

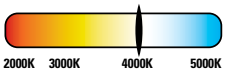
CANDELA TABLE

Angle	0-deg
0	9247
5	8453
10	6140
15	3506
20	1860
30	1098
40	170
50	13
60	4
70	1
80	0
90	0

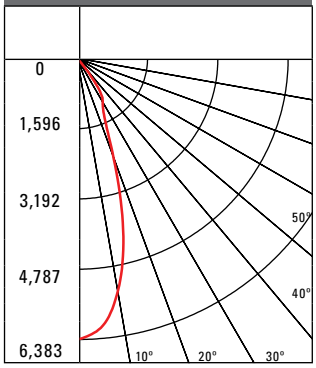
Test Number	P29498
Lumcat	9004-[W1]-X-FL-LED4080-F-BK-L3-UNV
Lumens	2871 Lm
Watts	28.5 W
LPW	100.7 Lm/W
CCT	4000K
SC (0/90/45)	0.58 / 0.58 / 0.56
Beam Angle	35.1°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	1595.8	1	1
4'	398.9	2.2	2.2
6'	177.3	3.4	3.4
8'	99.7	4.6	4.6
10'	63.8	5.8	5.8
15'	28.4	8.6	8.6
20'	16	11.6	11.6
30'	7.1	17.4	17.4
40'	4	23.2	23.2

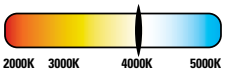
CANDELA TABLE

Angle	0-deg
0	6383
5	6141
10	5345
15	4027
20	2423
30	1153
40	178
50	6
60	4
70	1
80	0
90	0

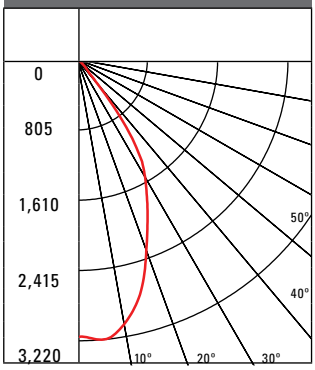
Test Number	P29499
Lumcat	9004-[W1]-X-FL-LED4080-W-BK-L3-UNV
Lumens	2790 Lm
Watts	28.5 W
LPW	97.9 Lm/W
CCT	4000K
SC (0/90/45)	0.86 / 0.86 / 0.91
Beam Angle	58.5°

COLOR METRIC SUMMARY

TM-30-15	Rf = 82.5 Rg = 94.3
CRI/CIE	Ra = 83.1 R9 = 11.4



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	796.9	1.6	1.6
4'	199.2	3.4	3.4
6'	88.5	5	5
8'	49.8	6.8	6.8
10'	31.9	8.4	8.4
15'	14.2	12.8	12.8
20'	8	17	17
30'	3.5	25.6	25.6
40'	2	34.2	34.2

CANDELA TABLE

Angle	0-deg
0	3173
5	3220
10	3082
15	2784
20	2321
30	1560
40	366
50	95
60	25
70	3
80	0
90	0

CCT/CRI	LED2790	LED3090	LED3590	LED4080	LED5080	LED2797	LED3097	LED3597	LED4097
FC Multiplier	0.754	0.798	0.808	1.000	1.039	0.699	0.706	0.801	0.793

Light Level	L1	L2	L3
FC Multiplier	0.418	0.772	1.000

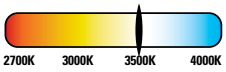
Note: Photometric tables show lumen output for W1 only. For W2 (Up and Down) option, uplight and downlight both match lumen output as W1.

PHOTOMETRICS (PREMIUM COLOR TUNING)

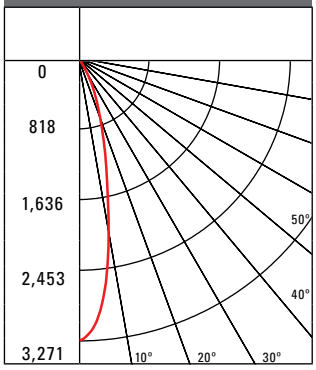
Test Number	P29571
Lumcat	9004-[W1]-X-FL-[LEDCB, LEDCR]-S-BK-LC-UNV
Lumens	853 Lm
Watts	24 W
LPW	35.5 Lm/W
CCT	3500K
SC (0/90/45)	0.41 / 0.41 / 0.45
Beam Angle	24.1°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	817.8	0.8	0.8
4'	204.4	1.6	1.6
6'	90.9	2.4	2.4
8'	51.1	3.2	3.2
10'	32.7	4	4
15'	14.5	6	6
20'	8.2	8	8
30'	3.6	12	12
40'	2	16.2	16.2

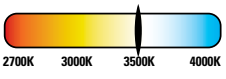
CANDELA TABLE

Angle	0-deg
0	3271
5	2929
10	2021
15	1231
20	747
30	227
40	5
50	1
60	0
70	0
80	0
90	0

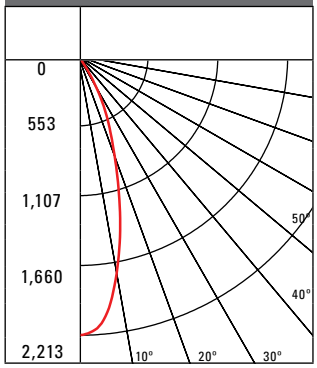
Test Number	P29572
Lumcat	9004-[W1]-X-FL-[LEDCB, LEDCR]-M-BK-LC-UNV
Lumens	853 Lm
Watts	24 W
LPW	35.5 Lm/W
CCT	3500K
SC (0/90/45)	0.55 / 0.55 / 0.58
Beam Angle	33.7°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	553.2	1	1
4'	138.3	2.2	2.2
6'	61.5	3.2	3.2
8'	34.6	4.4	4.4
10'	22.1	5.4	5.4
15'	9.8	8.2	8.2
20'	5.5	11	11
30'	2.5	16.4	16.4
40'	1.4	22	22

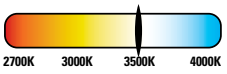
CANDELA TABLE

Angle	0-deg
0	2213
5	2126
10	1754
15	1279
20	845
30	288
40	3
50	1
60	1
70	0
80	0
90	0

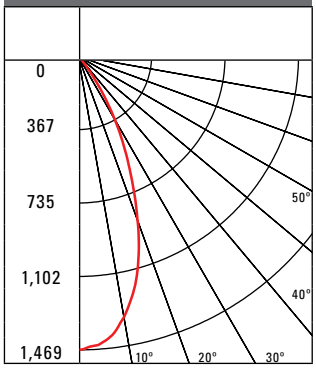
Test Number	P29573
Lumcat	9004-[W1]-X-FL-[LEDCB, LEDCR]-F-BK-LC-UNV
Lumens	834 Lm
Watts	24 W
LPW	34.8 Lm/W
CCT	3500K
SC (0/90/45)	0.72 / 0.72 / 0.71
Beam Angle	44.7°

COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5



CANDLE POWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	367.2	1.4	1.4
4'	91.8	2.8	2.8
6'	40.8	4.2	4.2
8'	23	5.6	5.6
10'	14.7	7	7
15'	6.5	10.6	10.6
20'	3.7	14.2	14.2
30'	1.6	21.4	21.4
40'	0.9	28.6	28.6

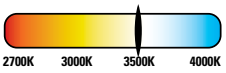
CANDELA TABLE

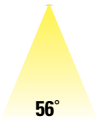
Angle	0-deg
0	1469
5	1435
10	1324
15	1135
20	865
30	368
40	36
50	3
60	3
70	0
80	0
90	0

Test Number	P29574
Lumcat	9004-[W1]-X-FL-[LEDCB, LEDCR]-W-BK-LC-UNV
Lumens	806 Lm
Watts	24 W
LPW	33.6 Lm/W
CCT	3500K
SC (0/90/45)	0.85/ 0.85 / 0.86
Beam Angle	55.8°

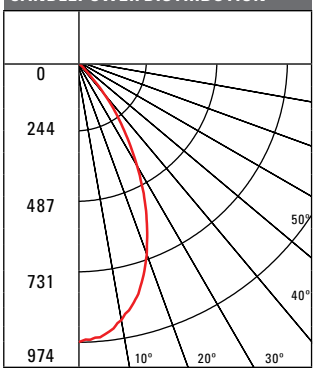
COLOR METRIC SUMMARY

TM-30-15	Rf = 90.6 Rg = 100.4
CRI/CIE	Ra = 92.7 R9 = 67.5





CANDLEPOWER DISTRIBUTION



CONE OF LIGHT

Horizontal Illuminance on Floor			
MH	FC	L	W
2'	243.5	1.6	1.6
4'	60.9	3.4	3.4
6'	27.1	5	5
8'	15.2	6.8	6.8
10'	9.7	8.4	8.4
15'	4.3	12.8	12.8
20'	2.4	17	17
30'	1.1	25.6	25.6
40'	0.6	34	34

CANDELA TABLE

Angle	0-deg
0	974
5	960
10	910
15	835
20	715
30	424
40	157
50	6
60	4
70	3
80	0
90	0

Note: Photometric tables show lumen output for W1 only. For W2 (Up and Down) option, uplight and downlight both match lumen output as W1.

LUMEN TABLE

		9004-[W1] Regressed Hood - Black								
		L1 - 10 W			L2 - 20 W			L3 - 30W		
		CBCP	Lumens	LPW	CBCP	Lumens	LPW	CBCP	Lumens	LPW
Spot 15°	LED2790	5584	783	79.5	10310	1445	71.9	13357	1872	65.7
	LED3090	5907	828	84.1	10906	1529	76.1	14130	1981	69.5
	LED3590	5983	839	85.1	11047	1549	77.0	14311	2006	70.4
	LED4080	7401	1038	105.3	13666	1916	95.3	17705	2482	87.1
	LED5080	7689	1078	109.4	14197	1990	99.0	18393	2578	90.5
	LED2797	5175	726	73.7	9556	1340	66.6	12380	1736	60.9
	LED3097	5224	732	74.4	9646	1352	67.3	12497	1752	61.5
	LED3597	5926	831	84.3	10941	1534	76.3	14175	1987	69.7
	LED4097	5869	823	83.5	10836	1519	75.6	14038	1968	69.1
Medium Flood 25°	LED2790	2907	781	79.2	5368	1441	71.7	6954	1867	65.5
	LED3090	3075	826	83.8	5678	1525	75.8	7357	1975	69.3
	LED3590	3115	836	84.9	5751	1544	76.8	7451	2001	70.2
	LED4080	3853	1035	105.0	7115	1910	95.0	9218	2475	86.8
	LED5080	4003	1075	109.1	7391	1984	98.7	9576	2571	90.2
	LED2797	2695	723	73.4	4975	1336	66.5	6446	1731	60.7
	LED3097	2720	730	74.1	5022	1348	67.1	6505	1747	61.3
	LED3597	3085	828	84.1	5696	1529	76.1	7380	1981	69.5
	LED4097	3055	820	83.3	5642	1515	75.4	7309	1962	68.9
Flood 36°	LED2790	2006	792	80.4	3704	1463	72.8	4799	1895	66.3
	LED3090	2122	838	85.1	3918	1547	77.0	5076	2004	70.1
	LED3590	2149	849	86.2	3969	1567	78.0	5142	2030	71.0
	LED4080	2659	1050	106.6	4910	1939	96.4	6361	2512	87.8
	LED5080	2762	1091	110.7	5101	2014	100.2	6608	2609	91.2
	LED2797	1859	734	74.5	3233	1356	67.4	4448	1756	61.4
	LED3097	1877	741	75.2	3466	1368	68.1	4490	1773	62.0
	LED3597	2129	841	85.3	3931	1552	77.2	5093	2011	70.3
	LED4097	2108	832	84.5	3893	1537	76.5	5044	1991	69.6
Wide Flood 60°	LED2790	1012	753	76.4	1869	1390	69.2	2422	1801	63.0
	LED3090	1071	796	80.8	1977	1470	73.2	2562	1905	66.6
	LED3590	1085	807	81.9	2003	1489	74.1	2595	1929	67.5
	LED4080	1342	998	101.3	2478	1842	91.7	3210	2387	83.5
	LED5080	1394	1037	105.2	2574	1914	95.2	3335	2480	86.7
	LED2797	938	698	70.8	1733	1288	64.1	2245	1669	58.4
	LED3097	947	704	71.5	1749	1300	64.7	2266	1685	58.9
	LED3597	1074	799	81.1	1984	1475	73.4	2570	1911	66.8
	LED4097	1064	791	80.3	1965	1461	72.7	2545	1893	66.2

TM30 DATA

	CCT/CRI	Rf	Rg	Ra	R9
9004	2790	90.9	98.9	91.7	58.3
	3090	90.8	99.1	92.5	62.6
	3590	90.6	100.4	92.7	67.5
	4080	82.5	94.3	83.1	11.4
	5080	81.6	94.1	82	6
	2797	94.9	100	98.1	86.9
	3097	94	100.3	97.8	88.9
	3597	92.9	99.3	97.2	89.1
	4097	91.5	98.7	95.4	84

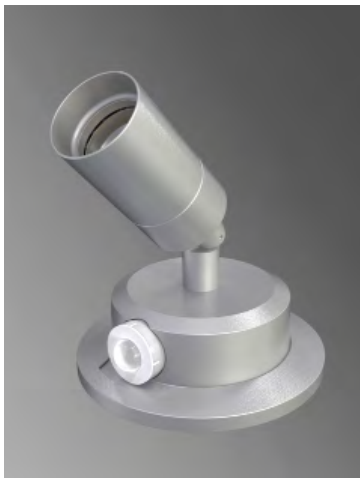
LUMEN MAINTENANCE

Ambient Tempurature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C, 40°C, 50°C	> 87%	> 102,000

POWER TABLE

Number of Heads	Light Level	Input Current (A) at 120 VAC	Input Current (A) at 277 VAC	Input Power (W)
W1	L1	0.08	0.03	10
	L2	0.177	0.088	20.93
	L3	0.252	0.118	30.02
	LC1	0.1	0.085	11.4
	LC2	0.183	0.088	21.44
W2	L1	0.16	0.06	20
	L2	0.354	0.176	41.86
	L3	0.504	0.236	60.04
	LC1	0.2	0.17	22.8
	LC2	0.366	0.176	42.88

INTEGRATED SENSOR - SVPD2



The Lanterra Cylinder 9004 with Integrated Sensor technology provides automatic energy savings without sacrificing performance. Traditionally, these types of energy savings required coordination between the luminaire and a lighting control system. The Lanterra Cylinder 9004 delivers superior lighting with integrated PIR occupancy sensing and daylighting controls.

Capture the benefits of traditional lighting controls, without complicated circuit planning or special wiring. The Lanterra Cylinder 9004 delivers automatic ON to an energy saving light level, while ensuring lighting is turned OFF when the space is unoccupied.

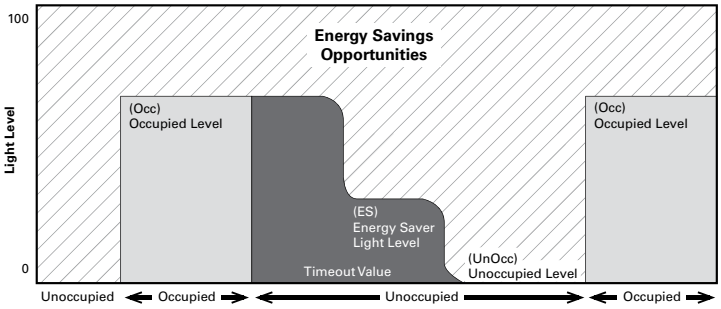
The SVPD2 sensor is configured for outdoor use, so the integral daylight sensor will enable the luminaire to automatically adjust to daylight conditions by turning off when sufficient sunlight is present. Consult factory for indoor configuration.

Occupied light levels and unoccupied light levels can be adjusted using the integrated sensor programming remote (Catalog Number: ISHH01LUM). While the default unoccupied level is OFF, a lower light level can be saved instead using the programming remote. The integrated sensor personal remote (Catalog Number: ISHH02LUM) provides code compliant manual raise, lower, ON, OFF control.

The Lanterra Cylinder 9004 with Integrated Sensor is easy to install with no special wiring and ensures energy savings out-of-the-box with default control settings.

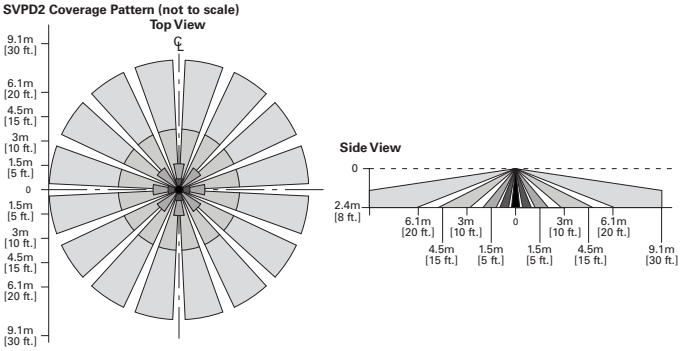
HOW IT WORKS

- As the user enters the space controlled by the integral sensor, the lighting turns ON to the occupied light level.
- Lighting will remain at the occupied level until the space is unoccupied. This will start the occupancy timeout period (default 20 minutes).
- If the space remains unoccupied for half of the timeout period, the lighting will automatically reduce to the Energy Saver light level (default matches occupied level). This adjustable light level is often set to half of the occupied daylight level using the programming remote.
- At the end of the timeout period the lighting will go to the unoccupied light level. This adjustable light level uses the OFF default setting.
- If sufficient sunlight is present, the luminaire will remain OFF, regardless of occupancy.

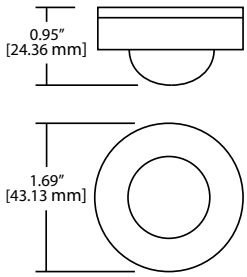


Coverage

SVPD2 Coverage Pattern (not to scale)



Sensor Dimensions

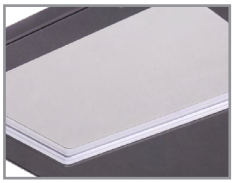


Optional Remote Controls

ISHH01LUM Programming Remote

ISHH02LUM Personal Control Remote

Project		**Catalog #**	CCW-SA1A-740-U-SL2-BZ-HSS	**Type**	WS
Prepared by		**Notes**		**Date**	



WaveStream

LightSquares

Invue

ClearCurve Wall

Wall Mount Luminaire

Interactive Menu

Product Certifications

ISO CERTIFIED, IP66, DLC LISTED [1], DLC LISTED PREMIUM [1], UL CERTIFIED, 5 YEAR LIMITED WARRANTY, BAA BUY AMERICAN ACT AVAILABLE

Quick Facts

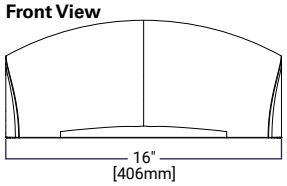
- Available with Visual Comfort or Discrete optics configurations
- Lumen packages range from 1,600 up to 12,000 lumens (18W - 110W)
- Efficacy up to 149 lumens per watt

Connected Systems

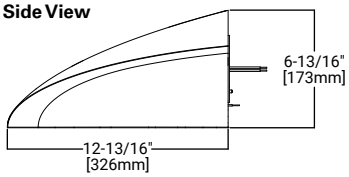
- WaveLinx

Dimensional Details

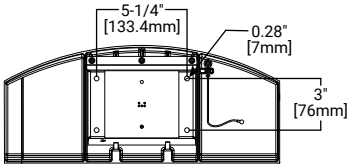
Front View



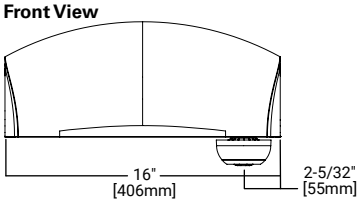
Side View



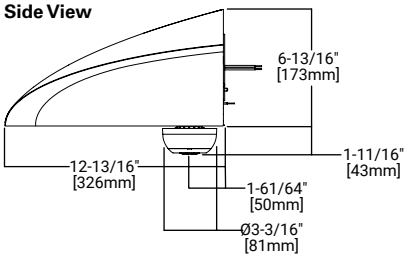
Back View

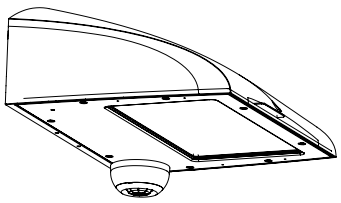


Front View



Side View





NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.

Ordering Information

SAMPLE NUMBER: **CCW-VA4-740-U-T4W-GM**

Product Family [1]	Light Engine Visual Comfort Configurations	Color Temperature	Voltage	Distribution	Finish
CCW=ClearCurve Wall **BAA-CCW**=ClearCurve Wall Buy American Act Compliant [26] **TAA-CCW**=ClearCurve Wall Trade Agreements Act Compliant [26]	**VA1**=Wavestream, 2,800 lumens **VA2**=Wavestream, 3,800 lumens **VA3**=Wavestream, 4,500 lumens **VA4**=Wavestream, 6,000 lumens **VA5**=Wavestream, 8,000 lumens [2] **VA6**=Wavestream, 10,000 lumens [2] **Discrete Configurations**: **SA1**=1 Light Square; **SA2**=2 Light Squares **Drive Current**: **A**=350mA; **B**=450mA; **C**=615mA; **D**=800mA; **E**=1050mA; **F**=1200mA [3]	**727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **835**=80CRI, 3500K **840**=80CRI, 4000K **850**=80CRI, 5000K **AMB**=Amber 590nm	**U**=Universal, 120-277V **H**=347-480V **C**=277-480V **9**=347V **8**=480V [4]	**T1**=Type I [5] **T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control [5] **SL3**=Type III w/Spill Control [5] **SL4**=Type IV w/Spill Control [5] **SLL**=90° Spill Light Eliminator Left [5] **SLR**=90° Spill Light Eliminator Right [5]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)

FF=Double Fuse
10MSP=10kV MOV Surge Protective Device
20MSP=20kV MOV Surge Protective Device
20K=20kV UL 1449 Fused Surge Protective Device
2L=Two Circuits [5, 6, 7]
EBP=Emergency Battery Pack (Ambient Temp, 0° to 40°C) [7, 8]
CBP=Cold Weather Emergency Battery Pack (Ambient Temp, -20° to 40°C) [7, 8]
CBP-CEC=Cold Weather Emergency Battery Pack, CEC Compliant (Ambient Temp, -20° to 40°C) [7, 8]
ITS=Internal Transfer Switch, UL Recognized Component [7]
L90=Optics Rotated 90° Left [5]
R90=Optics Rotated 90° Right [5]
HSS= House Side Shield (Factory Installed) [5, 9]
C1=1/2" NPT Double Conduit Entry
C2= 3/4" NPT Double Conduit Entry
HA=50°C High Ambient Temperature [10]
TR=Tamper Resistant Hardware
CC=Coastal Construction [11]
DALI=DALI Driver [12, 13]
BPC=Button Type Photocontrol [7, 12]
PR=NEMA 3-PIN Twistlock Photocontrol Receptacle [5, 7, 14]
PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle [5, 7, 14]
AHD145=After Hours Dim, 5 Hours [15]
AHD245=After Hours Dim, 6 Hours [15]
AHD255=After Hours Dim, 7 Hours [15]
AHD355=After Hours Dim, 8 Hours [15]
MS/DIM-L08=Motion Sensor for Dimming Operation, Up to 8' Mounting Height [7, 12, 16]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [7, 12, 16]
SPB1=Motion Sensor for Dimming Operation, BLE Interface, Up to 8' Mounting Height [7, 12, 17]
SPB2=Motion Sensor for Dimming Operation, BLE Interface, 8' - 20' Mounting Height [7, 12, 17]
ZD=DALI-enabled 4-PIN Twistlock Receptacle [7, 12, 18, 19]
ZW=Wavelinx-enabled 4-PIN Twistlock Receptacle [7, 12, 18, 19]
SWPD4XX=Wavelinx Wireless Sensor, 7' - 15' Mounting Height [7, 12, 18, 19, 20, 21]
SWPD5XX=Wavelinx Wireless Sensor, 15' - 40' Mounting Height [7, 12, 18, 19, 20, 21]
X=No 10k surge protector

Accessories (Order Separately) [27]

OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=NEMA Photocontrol - 120V
OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1027=NEMA Photocontrol - 480V
LS/HSS=House Side Shield [5, 22]
FSIR-100=Wireless Configuration Tool for Motion Sensor [23]
SWPD4-XX=WaveLinx Wireless Sensor, 7' - 15' Mounting Height [18, 19, 20, 21, 25]
SWPD5-XX=WaveLinx Wireless Sensor, 15' - 40' Mounting Height [18, 19, 20, 21, 25]
WOLC-7P-10A=WaveLinx Outdoor Control Module (7-PIN) [24, 25]

NOTES:
1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Only available with T4W.
3. Not available with 2 Light Squares (SA2x).
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Not available with Visual Comfort Light Engines (VAx).
6. Not available with 1 Light Square (SA1x). Not available with VAx.
7. Option is not available with other emergency options (2L, EBP, CBP, CBP-CEC, or ITS), photocontrols / receptacles (BPC, PR, or PR7), or controls systems (MS, ZD or ZW).
8. Only available with Universal, 120-277V (UNV) voltage. Not available with VA6 or SA2E Light Engines.
9. Light Square trim plate will be painted Black when HSS option is selected.
10. Not available with VA6 or SA2E Light Engine. Not available with emergency options (EBP, CBP, or CBP-CEC).
11. Not available with TR option. Finish tested to over 5,000-hours per ASTM B117. Scribe rating of 9 per ASTM D1654.
12. Not available with voltages 347-480V (H) or 277-480V (C).
13. Not available with emergency options (EBP, CBP, CBP-CEC, or ITS) or controls systems (MS or ZW) or controls systems (MS, ZD or ZW)
14. If 347-480V (H) or 277-480V (C) voltage is specified, use a photocontrol that matches the input voltage used (either 277V, 347V, or 480V).
15. Requires the use of photocontrol BPC or PR or PR7. See After Hours Dim supplemental guide for additional information.
16. Utilizes the Wattstopper sensor FSP-211. Sensor color white unless specified otherwise via PDR.
17. Utilizes the Wattstopper sensor FSP-3xx. Sensor color determined by product finish.
18. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F).
19. In order for the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more Wavelinx application information.
20. Replace XX with sensor color (WH, BZ or BK).
21. Requires 4-PIN twistlock receptacle option (ZD or ZW) option.
22. Must order one per Light Square when ordering as a field-installable accessory (1 or 2).
23 This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
24. Requires 7-PIN NEMA twistlock photocontrol receptacle (PR7) option. The WOLC-7 cannot be used in conjunction with other controls system (MS, ZD, ZW, SPB1 or SPB2). Only for use at 120-347V.
25. IEEE 802.15.4 communication standard
26. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
27. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction
- Low copper content, die-cast aluminum housing provides a clean smooth aesthetic
- Patent pending housing design
- IP66 rated
- 1.5G vibration rated

Optics
- Visual Comfort WaveStream TM technology or high-efficiency injection-molded AccuLED
- Comprehensive range of Color Temperature choices
- Visual Comfort - Four optical distributions utilizing patented visual comfort WaveStreamTM technology
- Visual Comfort - 6 lumen packages, ranging from 2,800 to 10,000 lumens
- AccuLED – 18 distributions including HSS shielding
- AccuLED – 11 lumen packages, ranging from 1,600 to 12,000 lumens
- AccuLED - Patented, high-efficiency injection molded AccuLED Optics technology

Electrical
- Approx. 90% lumen maintenance at 60,00 hours
- 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation
- 10kV surge module standard
- 10MSP, 20MSP, 20kv and X are optional
- Standard with 0-10V dimming
- Suitable for operation in -40°C to 40°C ambient environment
- Optional 50°C high ambient (HA) configurations available

Mounting
- Gasketed and zinc plated rigid steel mounting attachment
- "Hook-N-Lock" mechanism for easy installation

Finish
- Finishes include white, black, bronze, gray, dark platinum and graphite metallic
- RAL and custom color matches available
- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Coastal Construction (CC) option available, providing 5,000 hour salt spray rating per ASTM B117, with a scribe rating of 9 per ASTM D1654

Warranty
- Five year warranty

Energy and Performance Data

Supplemental Performance Guide

VA Performace

Lumen Package	VA1	VA2	VA3	VA4	VA5	VA6
Power Wattage (Watts)*	28.5W	41W	49W	58.6W	78W	106W
Input Current (mA) @120V	240	340	406	493	676	933
Input Current (mA) @277V	105	148	175	221	285	388
Power Wattage (Watts)*	31.5W	44W	53.5W	65W	83W	115W
Input Current (mA) @347V	93	125	155	188	237	321
Input Current (mA) @480V	67	92	114	138	175	243

Supplemental Performance Guide

SA Performace

Lumen Package	SA1A (350mA)	SA1B (450mA)	SA1C (615mA)	SA1D (800mA)	SA1E (1050mA)	SA1F (1200mA)	SA2A (350mA)	SA2B (450mA)	SA2C (615mA)	SA2D (800mA)	SA2E (1050mA)
Power Wattage (Watts)*	18W	24W	32W	44W	59W	67W	37W	47W	64W	84W	111W
Input Current (mA) @120V	150	200	270	370	490	564	320	400	538	700	925
Input Current (mA) @277V	72	90	120	162	210	251	150	184	236	303	397
Power Wattage (Watts)*	21W	26.5W	35W	47W	61.5W	72W	42W	53W	70W	89W	116W
Input Current (mA) @347V	63	78	100	135	180	210	123	154	201	257	335
Input Current (mA) @480V	45	57	75	99	131	153	90	113	147	188	245

Energy and Performance Data

VA Performace

Supplemental Performance Guide

CCT	Optics		VA1	VA2	VA3	VA4	VA5	VA6
730	T2 (Type II)	Lumens	2,709	3,627	4,290	5,519	--	--
		Lumens per Watt	90.9	90	89	85	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,765	3,701	4,377	5,631	--	--
		Lumens per Watt	92	90	90	87.2	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,230	4,368	5,116	6,257	--	--
		Lumens per Watt	107	107	104	97	--	--
		BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	3,122	4,254	5,049	6,140	7,720	9,785
		Lumens per Watt	108	109	108	107	104	96.8
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
740	T2 (Type II)	Lumens	2,794	3,741	4,424	5,692	--	--
		Lumens per Watt	93.8	92	92	88	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,851	3,817	4,514	5,807	--	--
		Lumens per Watt	95	93	92	89.9	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,332	4,505	5,276	6,453	--	--
		Lumens per Watt	110	111	108	99.9	--	--
		BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	3,220	4,388	5,207	6,332	7,961	10,091
		Lumens per Watt	111	112	111	110	107	99.8
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
827	T2 (Type II)	Lumens	2,452	3,282	3,882	4,995	--	--
		Lumens per Watt	82.3	81	80	77	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T3 (Type III)	Lumens	2,502	3,349	3,961	5,096	--	--
		Lumens per Watt	83	82	81	78.9	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4FT (Type IV Forward Throw)	Lumens	2,924	3,954	4,630	5,662	--	--
		Lumens per Watt	97	97	94	87.7	--	--
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	2,826	3,850	4,569	5,557	6,986	8,856
		Lumens per Watt	97	98	98	97	94	87.6
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3
830	T2 (Type II)	Lumens	2,542	3,404	4,026	5,179	--	--
		Lumens per Watt	85	84	83	80	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,595	3,473	4,108	5,284	--	--
		Lumens per Watt	86	85	84	81.8	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,031	4,099	4,801	5,871	--	--
		Lumens per Watt	100	101	98	90.9	--	--
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	2,930	3,992	4,738	5,762	7,244	9,182
		Lumens per Watt	101	102	101	100	98	90.8
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3

Energy and Performance Data

VA Performace

Supplemental Performance Guide

CCT	Optics		VA1	VA2	VA3	VA4	VA5	VA6
835	T2 (Type II)	Lumens	2,588	3,464	4,097	5,271	--	--
		Lumens per Watt	86.8	86	85	82	--	--
		BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	--	--
	T3 (Type III)	Lumens	2,641	3,535	4,181	5,378	--	--
		Lumens per Watt	88	86	86	83.3	--	--
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	--	--
	T4FT (Type IV Forward Throw)	Lumens	3,085	4,172	4,886	5,976	--	--
		Lumens per Watt	102	103	100	92.5	--	--
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	--	--
	T4W (Type IV Wide)	Lumens	2,982	4,064	4,822	5,864	7,373	9,346
		Lumens per Watt	103	104	103	102	99	92.4
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
730	T1 (Type I)	Lumens	2,208	2,768	3,546	4,618	5,651	5,906	5,132	6,435	8,243	10,357	11,252
		Lumens per Watt	121	118	111	106	98	94	141	137	129	124	103
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	2,220	2,784	3,566	4,644	5,683	5,939	5,161	6,471	8,289	10,415	11,316
		Lumens per Watt	122	119	111.4	106.3	98.8	95	141.8	138.3	129.5	125	103.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,609	2,018	2,585	3,366	4,120	4,305	3,741	4,691	6,009	7,550	8,203
		Lumens per Watt	88.4	86.2	80.8	77	71.6	68.9	102.8	100.2	93.9	90.6	75
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	2,249	2,820	3,612	4,704	5,756	6,016	5,227	6,554	8,396	10,549	11,462
		Lumens per Watt	123.6	120.5	112.9	107.6	100.1	96.3	143.6	140	131.2	126.6	104.9
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T3-HSS (Type III House Side Shield)	Lumens	1,622	2,034	2,606	3,393	4,153	4,340	3,771	4,728	6,057	7,610	8,268
		Lumens per Watt	89.1	86.9	81.4	77.6	72.2	69.4	103.6	101	94.6	91.4	75.6
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	2,224	2,789	3,572	4,652	5,693	5,950	5,170	6,482	8,304	10,434	11,336
		Lumens per Watt	122.2	119.2	111.6	106.5	99	95.2	142	138.5	129.8	125.3	103.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,613	2,023	2,591	3,374	4,129	4,315	3,750	4,702	6,023	7,568	8,222
		Lumens per Watt	88.6	86.4	81	77.2	71.8	69	103	100.5	94.1	90.8	75.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2

Energy and Performance Data

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
730	T4W (Type IV Wide)	Lumens	2,242	2,810	3,600	4,688	5,737	5,996	5,210	6,533	8,369	10,515	11,424
		Lumens per Watt	123.2	120.1	112.5	107.3	99.8	95.9	143.1	139.6	130.8	126.2	104.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,624	2,037	2,609	3,397	4,158	4,345	3,776	4,734	6,065	7,620	8,279
		Lumens per Watt	89.2	87	81.5	77.7	72.3	69.5	103.7	101.2	94.8	91.5	75.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	2,203	2,762	3,538	4,608	5,639	5,893	5,121	6,421	8,226	10,335	11,229
		Lumens per Watt	121	118	110.6	105.4	98.1	94.3	140.7	137.2	128.5	124.1	102.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,785	2,238	2,867	3,734	4,570	4,776	4,150	5,203	6,665	8,375	9,099
		Lumens per Watt	98.1	95.7	89.6	85.4	79.5	76.4	114	111.2	104.1	100.5	83.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	2,200	2,759	3,534	4,602	5,632	5,886	5,115	6,413	8,216	10,322	11,215
		Lumens per Watt	120.9	117.9	110.4	105.3	98	94.2	140.5	137	128.4	123.9	102.6
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,835	2,300	2,947	3,838	4,696	4,908	4,265	5,348	6,850	8,607	9,351
		Lumens per Watt	100.8	98.3	92.1	87.8	81.7	78.5	117.2	114.3	107	103.3	85.6
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	2,164	2,714	3,476	4,527	5,540	5,789	5,031	6,308	8,080	10,153	11,031
		Lumens per Watt	118.9	116	108.6	103.6	96.3	92.6	138.2	134.8	126.3	121.9	100.9
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,834	2,299	2,945	3,836	4,694	4,906	4,263	5,345	6,847	8,603	9,347
		Lumens per Watt	100.8	98.3	92	87.8	81.6	78.5	117.1	114.2	107	103.3	85.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Eliminator Right)	Lumens	1,925	2,413	3,091	4,026	4,927	5,149	4,474	5,610	7,186	9,029	9,810
		Lumens per Watt	105.8	103.1	96.6	92.1	85.7	82.4	122.9	119.9	112.3	108.4	89.7
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,596	2,001	2,563	3,337	4,084	4,268	3,709	4,651	5,958	7,485	8,133
		Lumens per Watt	87.7	85.5	80.1	76.4	71	68.3	101.9	99.4	93.1	89.9	74.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Eliminator Left)	Lumens	1,925	2,413	3,091	4,026	4,927	5,149	4,474	5,610	7,186	9,029	9,810
		Lumens per Watt	105.8	103.1	96.6	92.1	85.7	82.4	122.9	119.9	112.3	108.4	89.7
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,596	2,001	2,563	3,337	4,084	4,268	3,709	4,651	5,958	7,485	8,133
		Lumens per Watt	87.7	85.5	80.1	76.4	71	68.3	101.9	99.4	93.1	89.9	74.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2

Energy and Performance Data

SA Performace

Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
740	T1 (Type I)	Lumens	2,292	2,874	3,681	4,794	5,867	6,132	5,328	6,680	8,558	10,752	11,682
		Lumens per Watt	126	123	115	110	102	98	146	143	134	129	107
		BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	2,305	2,890	3,702	4,821	5,900	6,166	5,358	6,718	8,606	10,813	11,748
		Lumens per Watt	126.6	123.5	115.7	110.3	102.6	98.7	147.2	143.5	134.5	129.8	107.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,671	2,095	2,684	3,495	4,277	4,470	3,884	4,870	6,239	7,838	8,516
		Lumens per Watt	91.8	89.5	83.9	80	74.4	71.5	106.7	104.1	97.5	94.1	77.9
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	2,335	2,927	3,750	4,883	5,976	6,246	5,427	6,805	8,717	10,953	11,900
		Lumens per Watt	128.3	125.1	117.2	111.7	103.9	99.9	149.1	145.4	136.2	131.5	108.9
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	T3-HSS (Type III House Side Shield)	Lumens	1,684	2,112	2,705	3,523	4,311	4,506	3,915	4,909	6,288	7,901	8,584
		Lumens per Watt	92.5	90.2	84.5	80.6	75	72.1	107.6	104.9	98.3	94.9	78.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	2,309	2,895	3,709	4,830	5,911	6,177	5,368	6,730	8,622	10,833	11,769
		Lumens per Watt	126.9	123.7	115.9	110.5	102.8	98.8	147.5	143.8	134.7	130	107.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,675	2,100	2,690	3,503	4,287	4,480	3,893	4,881	6,253	7,857	8,536
		Lumens per Watt	92	89.7	84.1	80.2	74.6	71.7	107	104.3	97.7	94.3	78.1
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	2,327	2,918	3,738	4,867	5,957	6,225	5,409	6,783	8,689	10,917	11,861
		Lumens per Watt	127.9	124.7	116.8	111.4	103.6	99.6	148.6	144.9	135.8	131.1	108.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,686	2,114	2,708	3,527	4,316	4,511	3,920	4,915	6,296	7,911	8,595
		Lumens per Watt	92.7	90.4	84.6	80.7	75.1	72.2	107.7	105	98.4	95	78.6
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	2,287	2,868	3,674	4,784	5,855	6,119	5,317	6,666	8,540	10,730	11,658
		Lumens per Watt	125.7	122.6	114.8	109.5	101.8	97.9	146.1	142.4	133.4	128.8	106.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,854	2,324	2,977	3,877	4,744	4,958	4,308	5,402	6,920	8,695	9,447
		Lumens per Watt	101.8	99.3	93	88.7	82.5	79.3	118.4	115.4	108.1	104.4	86.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	2,285	2,864	3,669	4,778	5,848	6,111	5,310	6,658	8,529	10,717	11,643
		Lumens per Watt	125.5	122.4	114.7	109.3	101.7	97.8	145.9	142.3	133.3	128.7	106.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,905	2,388	3,059	3,984	4,876	5,096	4,428	5,552	7,112	8,936	9,709
		Lumens per Watt	104.7	102.1	95.6	91.2	84.8	81.5	121.6	118.6	111.1	107.3	88.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	2,247	2,817	3,609	4,700	5,751	6,011	5,223	6,549	8,389	10,541	11,452
		Lumens per Watt	123.5	120.4	112.8	107.5	100	96.2	143.5	139.9	131.1	126.5	104.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3

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CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
740	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,904	2,387	3,058	3,982	4,873	5,093	4,426	5,549	7,109	8,932	9,704
		Lumens per Watt	104.6	102	95.6	91.1	84.8	81.5	121.6	118.6	111.1	107.2	88.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Eliminator Right)	Lumens	1,998	2,505	3,209	4,179	5,115	5,345	4,645	5,824	7,461	9,374	10,184
		Lumens per Watt	109.8	107.1	100.3	95.6	89	85.5	127.6	124.4	116.6	112.5	93.2
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,657	2,077	2,661	3,465	4,240	4,432	3,851	4,828	6,185	7,771	8,443
		Lumens per Watt	91	88.8	83.1	79.3	73.7	70.9	105.8	103.2	96.6	93.3	77.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Eliminator Left)	Lumens	1,998	2,505	3,209	4,179	5,115	5,345	4,645	5,824	7,461	9,374	10,184
		Lumens per Watt	109.8	107.1	100.3	95.6	89	85.5	127.6	124.4	116.6	112.5	93.2
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,657	2,077	2,661	3,465	4,240	4,432	3,851	4,828	6,185	7,771	8,443
		Lumens per Watt	91	88.8	83.1	79.3	73.7	70.9	105.8	103.2	96.6	93.3	77.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
827	T1 (Type I)	Lumens	1,685	2,113	2,706	3,524	4,313	4,507	3,917	4,911	6,291	7,904	8,588
		Lumens per Watt	93	90	85	81	75	72	108	105	98	95	79
		BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	1,694	2,124	2,721	3,544	4,337	4,533	3,939	4,938	6,326	7,949	8,636
		Lumens per Watt	93.1	90.8	85	81.1	75.4	72.5	108.2	105.5	98.8	95.4	79
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,228	1,540	1,973	2,569	3,144	3,286	2,855	3,580	4,586	5,762	6,260
		Lumens per Watt	67.5	65.8	61.6	58.8	54.7	52.6	78.4	76.5	71.7	69.2	57.3
		BUG Rating	B0-U0-G0	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2
	T3 (Type III)	Lumens	1,716	2,152	2,756	3,590	4,393	4,591	3,990	5,002	6,408	8,051	8,747
		Lumens per Watt	94.3	92	86.1	82.1	76.4	73.5	109.6	106.9	100.1	96.7	80
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2

Energy and Performance Data

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Supplemental Performance Guide

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
827	T3-HSS (Type III House Side Shield)	Lumens	1,238	1,552	1,989	2,590	3,169	3,312	2,878	3,609	4,623	5,808	6,310
		Lumens per Watt	68	66.3	62.1	59.3	55.1	53	79.1	77.1	72.2	69.7	57.7
		BUG Rating	B0-U0-G0	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	1,698	2,128	2,726	3,550	4,345	4,541	3,946	4,947	6,338	7,963	8,652
		Lumens per Watt	93.3	91	85.2	81.2	75.6	72.7	108.4	105.7	99	95.6	79.2
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,231	1,544	1,977	2,575	3,151	3,293	2,862	3,588	4,597	5,776	6,275
		Lumens per Watt	67.6	66	61.8	58.9	54.8	52.7	78.6	76.7	71.8	69.3	57.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	1,711	2,145	2,748	3,578	4,379	4,576	3,977	4,986	6,387	8,025	8,719
		Lumens per Watt	94	91.7	85.9	81.9	76.2	73.2	109.2	106.5	99.8	96.3	79.8
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,240	1,554	1,991	2,593	3,173	3,316	2,882	3,613	4,628	5,815	6,318
		Lumens per Watt	68.1	66.4	62.2	59.3	55.2	53.1	79.2	77.2	72.3	69.8	57.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	1,681	2,108	2,700	3,517	4,304	4,498	3,908	4,900	6,278	7,887	8,570
		Lumens per Watt	92.4	90.1	84.4	80.5	74.8	72	107.4	104.7	98.1	94.7	78.4
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,363	1,708	2,188	2,850	3,488	3,645	3,167	3,971	5,087	6,392	6,944
		Lumens per Watt	74.9	73	68.4	65.2	60.7	58.3	87	84.9	79.5	76.7	63.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	1,679	2,106	2,697	3,512	4,299	4,492	3,904	4,895	6,270	7,878	8,559
		Lumens per Watt	92.3	90	84.3	80.4	74.8	71.9	107.2	104.6	98	94.6	78.3
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,400	1,756	2,249	2,929	3,584	3,746	3,255	4,081	5,228	6,569	7,137
		Lumens per Watt	76.9	75	70.3	67	62.3	59.9	89.4	87.2	81.7	78.9	65.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	1,652	2,071	2,653	3,455	4,228	4,418	3,839	4,814	6,167	7,748	8,418
		Lumens per Watt	90.8	88.5	82.9	79.1	73.5	70.7	105.5	102.9	96.4	93	77
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,400	1,755	2,248	2,927	3,582	3,744	3,253	4,079	5,226	6,566	7,133
		Lumens per Watt	76.9	75	70.2	67	62.3	59.9	89.4	87.2	81.6	78.8	65.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Elimina-tor Right)	Lumens	1,469	1,842	2,359	3,072	3,760	3,929	3,414	4,281	5,484	6,891	7,487
		Lumens per Watt	80.7	78.7	73.7	70.3	65.4	62.9	93.8	91.5	85.7	82.7	68.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,218	1,527	1,956	2,547	3,117	3,258	2,831	3,549	4,547	5,713	6,207
		Lumens per Watt	66.9	65.2	61.1	58.3	54.2	52.1	77.8	75.8	71	68.6	56.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2

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CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
827	SLL (90° Spill Light Elimina-tor Left)	Lumens	1,469	1,842	2,359	3,072	3,760	3,929	3,414	4,281	5,484	6,891	7,487
		Lumens per Watt	80.7	78.7	73.7	70.3	65.4	62.9	93.8	91.5	85.7	82.7	68.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,218	1,527	1,956	2,547	3,117	3,258	2,831	3,549	4,547	5,713	6,207
		Lumens per Watt	66.9	65.2	61.1	58.3	54.2	52.1	77.8	75.8	71	68.6	56.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
830	T1 (Type I)	Lumens	1,821	2,284	2,925	3,809	4,662	4,872	4,234	5,308	6,800	8,544	9,283
		Lumens per Watt	100	98	91	87	81	78	116	113	106	103	85
		BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	1,832	2,296	2,942	3,831	4,688	4,900	4,258	5,338	6,838	8,592	9,335
		Lumens per Watt	100.6	98.1	91.9	87.7	81.5	78.4	117	114.1	106.8	103.1	85.4
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,328	1,665	2,132	2,777	3,398	3,552	3,086	3,870	4,957	6,228	6,767
		Lumens per Watt	73	71.1	66.6	63.5	59.1	56.8	84.8	82.7	77.5	74.8	61.9
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	1,855	2,326	2,980	3,880	4,749	4,963	4,312	5,407	6,927	8,703	9,455
		Lumens per Watt	101.9	99.4	93.1	88.8	82.6	79.4	118.5	115.5	108.2	104.5	86.5
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T3-HSS (Type III House Side Shield)	Lumens	1,338	1,678	2,149	2,799	3,426	3,580	3,111	3,901	4,997	6,278	6,821
		Lumens per Watt	73.5	71.7	67.2	64.1	59.6	57.3	85.5	83.3	78.1	75.4	62.4
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	1,835	2,301	2,947	3,838	4,697	4,908	4,265	5,348	6,851	8,608	9,352
		Lumens per Watt	100.8	98.3	92.1	87.8	81.7	78.5	117.2	114.3	107	103.3	85.6
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,331	1,669	2,137	2,783	3,406	3,560	3,094	3,879	4,969	6,243	6,783
		Lumens per Watt	73.1	71.3	66.8	63.7	59.2	57	85	82.9	77.6	74.9	62.1
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	1,849	2,318	2,970	3,868	4,733	4,947	4,298	5,389	6,904	8,675	9,425
		Lumens per Watt	101.6	99.1	92.8	88.5	82.3	79.1	118.1	115.2	107.9	104.1	86.2
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,340	1,680	2,152	2,803	3,430	3,585	3,115	3,905	5,003	6,286	6,830
		Lumens per Watt	73.6	71.8	67.3	64.1	59.6	57.4	85.6	83.4	78.2	75.5	62.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	1,818	2,279	2,919	3,801	4,652	4,862	4,225	5,297	6,786	8,526	9,263
		Lumens per Watt	99.9	97.4	91.2	87	80.9	77.8	116.1	113.2	106	102.4	84.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,473	1,847	2,365	3,080	3,770	3,940	3,423	4,292	5,499	6,909	7,506
		Lumens per Watt	80.9	78.9	73.9	70.5	65.6	63	94	91.7	85.9	82.9	68.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	1,815	2,276	2,915	3,797	4,646	4,856	4,220	5,291	6,778	8,516	9,252
		Lumens per Watt	99.7	97.3	91.1	86.9	80.8	77.7	115.9	113	105.9	102.2	84.6
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3

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CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
830	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,514	1,898	2,431	3,166	3,874	4,049	3,518	4,411	5,651	7,100	7,714
		Lumens per Watt	83.2	81.1	76	72.4	67.4	64.8	96.7	94.3	88.3	85.2	70.6
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	1,785	2,239	2,868	3,734	4,570	4,776	4,150	5,204	6,666	8,376	9,100
		Lumens per Watt	98.1	95.7	89.6	85.5	79.5	76.4	114	111.2	104.2	100.5	83.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,513	1,897	2,430	3,164	3,872	4,047	3,517	4,409	5,649	7,097	7,711
		Lumens per Watt	83.1	81.1	75.9	72.4	67.3	64.8	96.6	94.2	88.3	85.2	70.5
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLR (90° Spill Light Elimina-tor Right)	Lumens	1,588	1,991	2,550	3,321	4,064	4,247	3,691	4,628	5,928	7,448	8,093
		Lumens per Watt	87.2	85.1	79.7	76	70.7	68	101.4	98.9	92.6	89.4	74
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,316	1,650	2,114	2,753	3,369	3,521	3,060	3,837	4,915	6,175	6,709
		Lumens per Watt	72.3	70.5	66.1	63	58.6	56.3	84.1	82	76.8	74.1	61.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Elimina-tor Left)	Lumens	1,588	1,991	2,550	3,321	4,064	4,247	3,691	4,628	5,928	7,448	8,093
		Lumens per Watt	87.2	85.1	79.7	76	70.7	68	101.4	98.9	92.6	89.4	74
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,316	1,650	2,114	2,753	3,369	3,521	3,060	3,837	4,915	6,175	6,709
		Lumens per Watt	72.3	70.5	66.1	63	58.6	56.3	84.1	82	76.8	74.1	61.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
835	T1 (Type I)	Lumens	1,889	2,368	3,033	3,950	4,834	5,052	4,390	5,505	7,052	8,860	9,626
		Lumens per Watt	104	101	95	90	84	81	121	118	110	106	88
		BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	T2 (Type II)	Lumens	1,899	2,381	3,050	3,973	4,862	5,081	4,415	5,536	7,091	8,910	9,680
		Lumens per Watt	104.4	101.8	95.3	90.9	84.5	81.3	121.3	118.3	110.8	107	88.6
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
	T2-HSS (Type II House Side Shield)	Lumens	1,377	1,726	2,211	2,880	3,524	3,683	3,200	4,013	5,141	6,459	7,017
		Lumens per Watt	75.6	73.8	69.1	65.9	61.3	58.9	87.9	85.7	80.3	77.5	64.2
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	T3 (Type III)	Lumens	1,924	2,412	3,090	4,024	4,924	5,146	4,472	5,607	7,183	9,025	9,805
		Lumens per Watt	105.7	103.1	96.6	92.1	85.6	82.3	122.9	119.8	112.2	108.3	89.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2

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835	T3-HSS (Type III House Side Shield)	Lumens	1,388	1,740	2,229	2,903	3,552	3,713	3,226	4,045	5,182	6,511	7,073
		Lumens per Watt	76.3	74.4	69.7	66.4	61.8	59.4	88.6	86.4	81	78.2	64.7
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4FT (Type IV Forward Throw)	Lumens	1,903	2,386	3,056	3,980	4,870	5,090	4,423	5,546	7,104	8,926	9,698
		Lumens per Watt	104.5	101.9	95.5	91.1	84.7	81.4	121.5	118.5	111	107.2	88.7
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
	T4FT-HSS (Type IV Forward Throw House Side Shield)	Lumens	1,380	1,730	2,217	2,886	3,532	3,692	3,208	4,022	5,153	6,474	7,034
		Lumens per Watt	75.8	73.9	69.3	66.1	61.4	59.1	88.1	85.9	80.5	77.7	64.4
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	T4W (Type IV Wide)	Lumens	1,918	2,404	3,080	4,011	4,908	5,130	4,457	5,589	7,159	8,995	9,773
		Lumens per Watt	105.4	102.7	96.2	91.8	85.4	82.1	122.5	119.4	111.9	108	89.4
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	T4W-HSS (Type IV Wide House Side Shield)	Lumens	1,390	1,742	2,232	2,906	3,557	3,717	3,230	4,050	5,188	6,519	7,082
		Lumens per Watt	76.3	74.5	69.7	66.5	61.9	59.5	88.7	86.5	81.1	78.3	64.8
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL2 (Type II w/ Spill Control)	Lumens	1,885	2,363	3,027	3,942	4,824	5,042	4,381	5,493	7,037	8,841	9,606
		Lumens per Watt	103.6	101	94.6	90.2	83.9	80.7	120.4	117.4	109.9	106.1	87.9
		BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	SL2-HSS (Type II w/ Spill Control, House Side Shield)	Lumens	1,527	1,915	2,453	3,194	3,909	4,086	3,550	4,451	5,702	7,165	7,784
		Lumens per Watt	83.9	81.8	76.7	73.1	68	65.4	97.5	95.1	89.1	86	71.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL3 (Type III w/ Spill Control)	Lumens	1,882	2,360	3,023	3,937	4,818	5,036	4,376	5,486	7,028	8,831	9,594
		Lumens per Watt	103.4	100.9	94.5	90.1	83.8	80.6	120.2	117.2	109.8	106	87.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3
	SL3-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,570	1,968	2,521	3,283	4,018	4,199	3,649	4,575	5,860	7,363	8,000
		Lumens per Watt	86.2	84.1	78.8	75.1	69.9	67.2	100.2	97.7	91.6	88.4	73.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SL4 (Type III w/ Spill Control)	Lumens	1,852	2,321	2,974	3,872	4,739	4,953	4,304	5,396	6,913	8,685	9,436
		Lumens per Watt	101.7	99.2	92.9	88.6	82.4	79.2	118.2	115.3	108	104.3	86.3
		BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SL4-HSS (Type III w/ Spill Control, House Side Shield)	Lumens	1,569	1,967	2,520	3,281	4,016	4,197	3,647	4,572	5,858	7,360	7,996
		Lumens per Watt	86.2	84.1	78.7	75.1	69.8	67.1	100.2	97.7	91.5	88.4	73.2
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2

Energy and Performance Data

Supplemental Performance Guide

SA Performace

CCT	Optics		1A (350mA)	1B (450mA)	1C (600mA)	1D (800mA)	1E (1050mA)	1F (1200mA)	2A (350mA)	2B (450mA)	2C (600mA)	2D (800mA)	2E (1050mA)
835	SLR (90° Spill Light Eliminator Right)	Lumens	1,647	2,064	2,644	3,444	4,215	4,405	3,827	4,799	6,148	7,724	8,392
		Lumens per Watt	90.5	88.2	82.6	78.8	73.3	70.5	105.1	102.5	96.1	92.7	76.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLR-HSS (90° Spill Light Eliminator Right, House Side Shield)	Lumens	1,365	1,712	2,192	2,855	3,494	3,652	3,173	3,979	5,097	6,404	6,957
		Lumens per Watt	75	73.1	68.5	65.3	60.8	58.4	87.2	85	79.6	76.9	63.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	SLL (90° Spill Light Eliminator Left)	Lumens	1,647	2,064	2,644	3,444	4,215	4,405	3,827	4,799	6,148	7,724	8,392
		Lumens per Watt	90.5	88.2	82.6	78.8	73.3	70.5	105.1	102.5	96.1	92.7	76.8
		BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3
	SLL-HSS (90° Spill Light Eliminator Left, House Side Shield)	Lumens	1,365	1,712	2,192	2,855	3,494	3,652	3,173	3,979	5,097	6,404	6,957
		Lumens per Watt	75	73.1	68.5	65.3	60.8	58.4	87.2	85	79.6	76.9	63.7
		BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2

SA Performace

CCT	Optics		1 Square	2 Square
Amber	T1 (TYPE I)	Lumens	747	1,736
		Lumens per Watt	37	43
		BUG Rating	B1-U0-G1	B1-U0-G1
	T2 (TYPE II)	Lumens	749	1,741
		Lumens per Watt	37	43
		BUG Rating	B0-U0-G0	B0-U0-G1
	T2-HSS (TYPE II HOUSE SIDE SHIELD)	Lumens	552	1,284
		Lumens per Watt	28	32
		BUG Rating	B0-U0-G0	B0-U0-G0
	T3 (TYPE III)	Lumens	781	1,817
		Lumens per Watt	39	45
		BUG Rating	B0-U0-G0	B1-U0-G1

CCT	Optics		1 Square	2 Square
Amber	T3-HSS (TYPE III HOUSE SIDE SHIELD)	Lumens	564	1,312
		Lumens per Watt	28	33
		BUG Rating	B0-U0-G0	B0-U0-G0
	T4FT (TYPE IV FORWARD THROW)	Lumens	760	1,768
		Lumens per Watt	38	44
		BUG Rating	B0-U0-G1	B0-U0-G1
	T4FT-HSS (TYPE IV FORWARD THROW HOUSE SIDE SHIELD)	Lumens	563	1,308
		Lumens per Watt	28	33
		BUG Rating	B0-U0-G0	B0-U0-G1
	T4W (TYPE IV WIDE)	Lumens	776	1,804
		Lumens per Watt	39	45
		BUG Rating	B0-U0-G1	B1-U0-G1

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SA Performace

CCT	Optics		1 Square	2 Square
Amber	T4W-HSS (TYPE IV WIDE HOUSE SIDE SHIELD)	Lumens	559	1,299
		Lumens per Watt	28	32
		BUG Rating	B0-U0-G0	B0-U0-G1
	SL2 (TYPE II W/ SPILL CONTROL)	Lumens	773	1,797
		Lumens per Watt	38	45
		BUG Rating	B0-U0-G1	B1-U0-G1
	SL2-HSS (TYPE II W/ SPILL CONTROL, HOUSE SIDE SHIELD)	Lumens	606	1,408
		Lumens per Watt	30	35
		BUG Rating	B0-U0-G0	B0-U0-G1
	SL3 (TYPE III W/ SPILL CONTROL)	Lumens	758	1,762
		Lumens per Watt	38	44
		BUG Rating	B0-U0-G1	B0-U0-G1

CCT	Optics		1 Square	2 Square
Amber	SL3-HSS (TYPE III W/ SPILL CONTROL, HOUSE SIDE SHIELD)	Lumens	636	1,480
		Lumens per Watt	32	37
		BUG Rating	B0-U0-G0	B0-U0-G1
	SL4 (TYPE III W/ SPILL CONTROL)	Lumens	748	1,740
		Lumens per Watt	37	43
		BUG Rating	B0-U0-G1	B0-U0-G1
	SL4-HSS (TYPE III W/ SPILL CONTROL, HOUSE SIDE SHIELD)	Lumens	629	1,463
		Lumens per Watt	31	36
		BUG Rating	B0-U0-G1	B0-U0-G1

Energy and Performance Data

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

Lumen Maintenance (TM-21)

Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 (Hours)**
25ºC	94.4%	90.4%	89.0%	83.0%	>199,000
40ºC	94.6%	90.9%	89.4%	83.9%	>212,000
50ºC	91.8%	87.0%	85.2%	78.2%	>151,000

NOTES:
* Supported by IESTM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IESTM-21 and LM-80.

Control Options

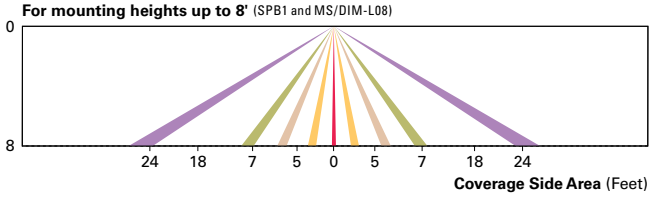
0-10V
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

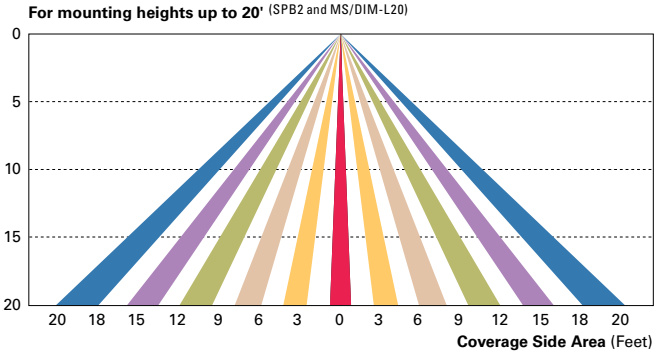
After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB and MS/DIM)
These sensors are factory installed in the luminaire, dimming after five minutes of no motion detected. When motion is detected, the luminaire output is 100%. Includes an integral photocell that can be programmed for "dusk-todawn" operation. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The MS/DIM requires the FSIR-100 programming tool to adjust factory defaults. Two lens options provide optimal coverage patterns for mounting heights up to 20'.

For mounting heights up to 8' (SPB1 and MS/DIM-L08)



For mounting heights up to 20' (SPB2 and MS/DIM-L20)



WaveLinx Receptacle (ZW)
Includes the WaveLinx control module, integrated 4-Pin receptacle, and standard 0-10V dimming driver, enabling the subsequent addition of a WaveLinx sensor.

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