

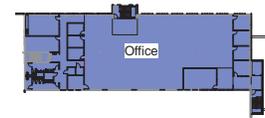
Parking Requirements

Land Use	Area	Parking Spaces
Outside Storage 1 Space/2,500 SF	95,850 SF	39
General Manufacturing/ Industrial 1 Space/500 SF	49,054 SF	99
Warehousing, Storage: 1 space/1,000 SF	40,078 SF	41
Office 1 Space/285 SF	9,683 SF (1st Floor) 11,665 SF (2nd Floor)	75

Total Parking Spaces Required: 254
Total Parking Spaces: 254 (Including 7 Handicap)



SF Calculations - First Floor & Site Plan
 1" = 40'-0"



SF Calculations - Second Floor
 1" = 40'-0"

COMM: 14005
10/27/14

REVISIONS

Anvil - Spec Shop
 1201 8th St W
 Bloomington, MN

DD 18



CITY OF BLOOMINGTON STANDARD NOTES

- NO PARKING ON PUBLIC STREETS AND RIGHT-OF-WAY, CIRCULATION DRIVES, OR FIRE LINES. PREPARE ON-SITE CONSTRUCTION MANAGEMENT SPACE FOR EMPLOYEES PARKING, MATERIALS, EQUIPMENT, FIELD STORAGE, AND OTHER CONSTRUCTION RELATED ITEMS. ALL CONSTRUCTION RELATED LOADING, UNLOADING, AND STOCKPILING TO OCCUR ON-SITE AND OFF OF PUBLIC STREETS AND RIGHT-OF-WAY. Temporary street signs, lighting, and addresses shall be provided during construction.
- Contractor shall obtain a Public Works Permit Application for obstructions and concrete work within the right-of-way. Permit is required prior to removal or installation. Contact Sean Jenkins at 952-563-4545 or sjenkins@cityofbloomington.mn.us for permit application and fee information.
- Public Works permit application for underground work within the right-of-way is required prior to removal or installation of sanitary sewer, water or storm water within the public right-of-way. Contact Utilities at 952-563-4568 for permit application and fee information.
- Use approved inlet protection of all active storm sewer inlets; no boxes allowed for inlet protection and/or ditch checks.
- Utility service additions/removals to be at the Developer's expense.
- Designate all approved parking stalls with white 4" wide striping.
- All public sidewalks shall not be obstructed.
- Street lighting and interconnect conduit must be exposed for City inspection prior to pouring concrete or backfilling excavations in the City right-of-way.
- Storage of materials or equipment shall not be allowed on public streets or within public right-of-way.
- Restore City street by complying with the City Street Improvement Policy; contact Utilities (952-563-4568) for the requirements.
- Temporary street signs, lighting, and addresses shall be provided during construction.
- MnDOT to review projects adjacent to I-35W right-of-way.

GRADING NOTES

- All elevations shown are to final surfaces.
- Contractor is responsible for obtaining a National Pollutant Discharge Elimination System (NPDES) General Storm Water Permit for Construction Activity before construction begins.

EROSION CONTROL NOTES

- Contractor is responsible for all notifications and inspections required by General Storm Water Permit.
- All erosion control measures shown shall be installed prior to grading operations and maintained until all areas disturbed have been restored.
- Sewer paved public streets as necessary where construction sediment has been deposited.
- Each area disturbed by construction shall be restored per the specifications within 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Temporary soil stockpiles must have silt fence around them and cannot be placed in surface waters, including storm water conveyance systems such as curb and gutter systems, or conduits and ditches.
- All pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.
- Excess concrete/water from concrete trucks shall be disposed of in portable washout concrete basin or disposed of in a contained area.

INSPECTION AND MAINTENANCE

- The site must be inspected once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5 inches in 24 hours.
- All inspections and maintenance conducted must be recorded in writing and records retained with the SMPPPP.
- Areas of the site that have undergone final stabilization, may have the inspection of these areas reduced to once per month.
- All silt fence must be repaired, replaced, or supplemented within 24 hours when they become nonfunctional or the sediment reaches 1/3 of the height of the fence.
- Surface waters and conveyance systems must be inspected for evidence of sediment being deposited. Removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints.
- Construction site vehicle exit locations must have sediment removed from off-site paved surfaces within 24 hours of discovery.
- Infiltration areas shall be graded to finished grade when all contributing drainage areas have been stabilized. Protect infiltration area from sediment and heavy equipment compaction during/after construction with silt fence.

POLLUTION PREVENTION MANAGEMENT

- All solid waste must be disposed of off-site per the MPCA disposal requirements.
- All hazardous waste must be properly stored with restricted access to storage areas to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA Regulations.

UTILITY NOTES

- Bring sewer services all the way into the proposed building to accommodate City inspection and testing.
- Bring water main all the way into the proposed building (i.e. up to meters and/or fire service equipment) to accommodate City inspection and testing.
- Verify all service locations and inverts with mechanical engineer before construction.
- All watermain to have a minimum of 8' and maximum of 10' of cover.
- Tap of live water mains to be done by City forces; however, they shall be paid for and coordinated by the Contractor.
- Combination Fire and Domestic services must terminate with a thread on flange or an M4 to flange adapter.
- There shall be at least a 10-foot horizontal separation between water and sewer lines.
- Water mains crossing storm or sanitary sewers shall have a minimum of 18-inch vertical separation.

1200 WEST 14TH STREET, SUITE 504, MAPLE VALLEY, MN 55124-7960 (612) 431-4143
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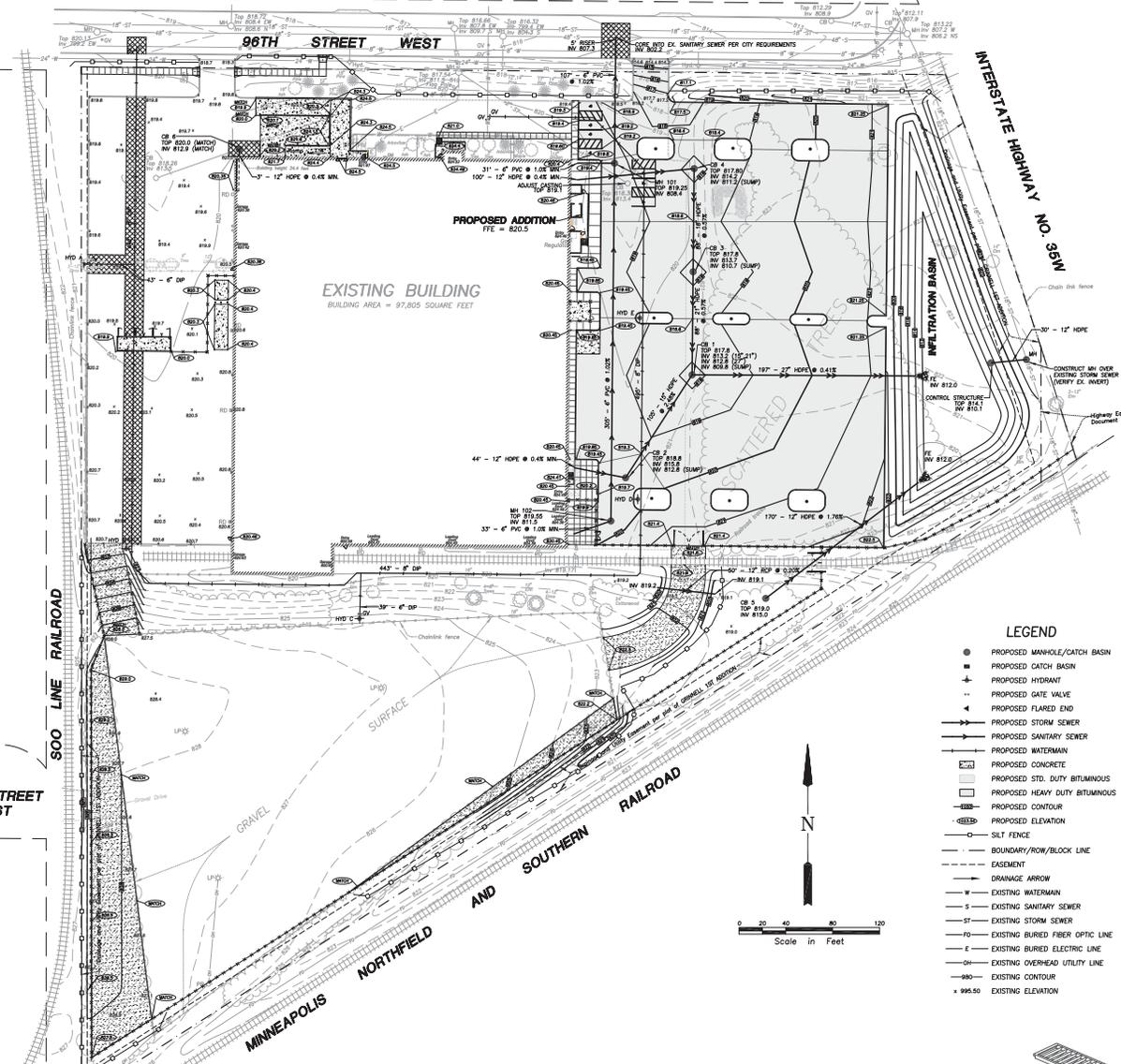
Always under the seal and signature of the professional engineer or other duly licensed professional under the laws of the State of Minnesota.
 PROJECT NO. 03-10-000000 DWG FILE: 030000.DWG
 Name: _____ Date: _____
 Title: _____

Rehder & Associates, Inc.
 Civil Engineers, Planners and Land Surveyors
 14150 13TH AVE. NORTH, SUITE 100, FORT BLISS, MN 55124
 PROJECT NO. 03-10-000000 DWG FILE: 030000.DWG

COMM: 14005
 10/27/14
 REVISIONS:

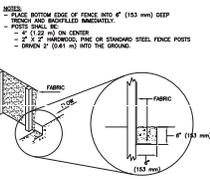
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 1201 96th St. W
 Bloomington, MN

GRADING, DRAINAGE & UTILITY PLAN

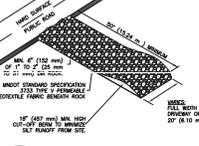


LEGEND

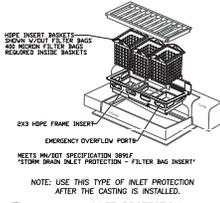
- PROPOSED MANHOLE/CATCH BASIN
- PROPOSED CATCH BASIN
- ⊕ PROPOSED HYDRANT
- ⊥ PROPOSED GATE VALVE
- ◄ PROPOSED FLARED END
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED STD. DUTY BITUMINOUS
- PROPOSED HEAVY DUTY BITUMINOUS
- PROPOSED CONCRETE
- PROPOSED ELEVATION
- SILT FENCE
- BOUNDARY/ROW/BLOCK LINE
- EASEMENT
- DRAINAGE ARROW
- W EXISTING WATERMAIN
- S EXISTING SANITARY SEWER
- ST EXISTING STORM SEWER
- FO EXISTING BURIED FIBER OPTIC LINE
- E EXISTING BURIED ELECTRIC LINE
- OH EXISTING OVERHEAD UTILITY LINE
- EXISTING CONTOUR
- + 996.50 EXISTING ELEVATION



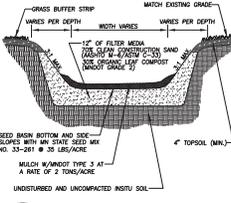
1 C1 SILT FENCE NO SCALE



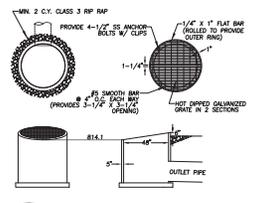
2 C1 ROCK CONSTRUCTION ENTRANCE NO SCALE



3 C1 INLET PROTECTION (INFRASAFE OR EQUAL) NO SCALE

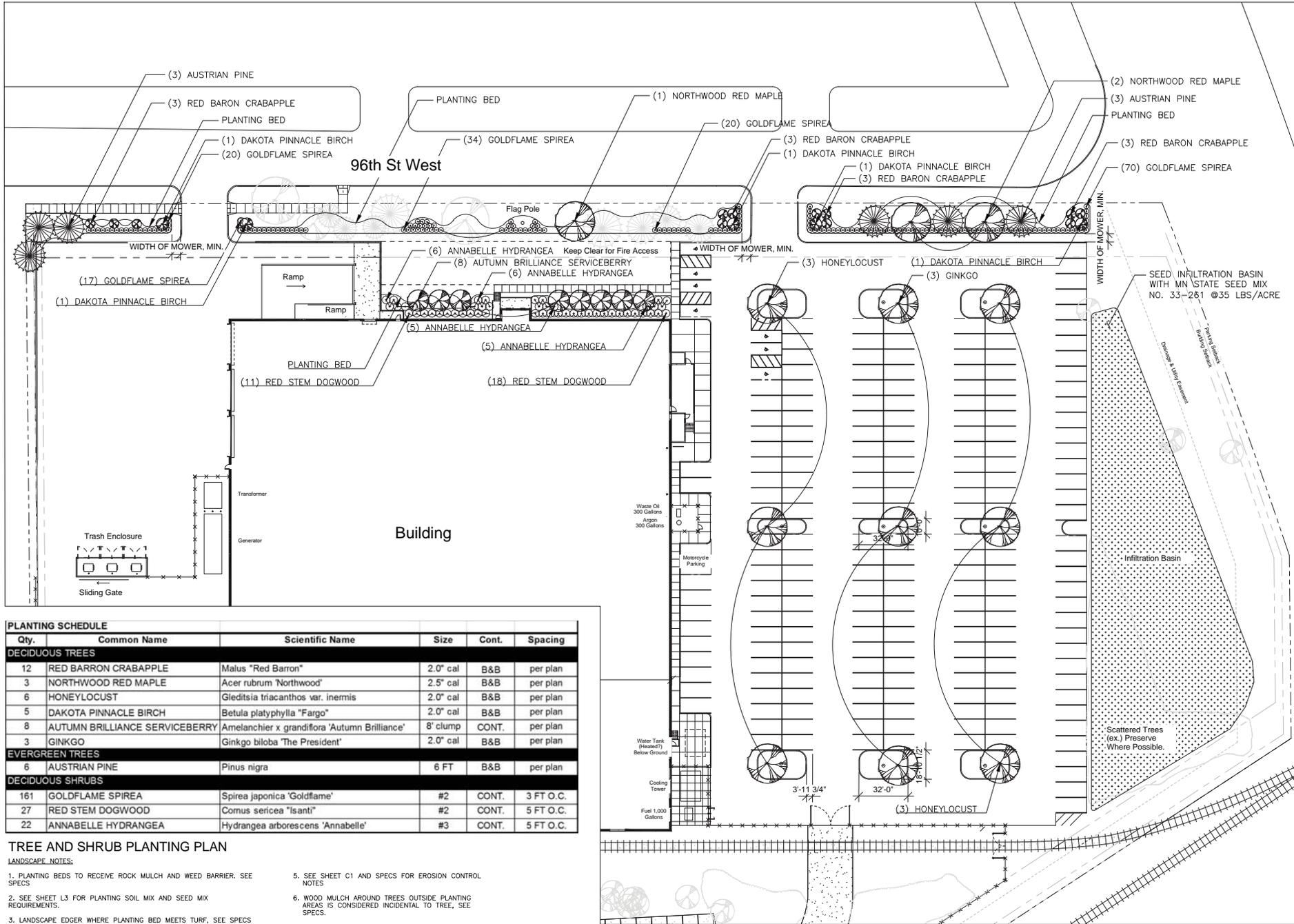


4 C1 INFILTRATION BASIN X-SECTION NO SCALE



5 C1 CONTROL STRUCTURE NO SCALE





PLANTING SCHEDULE					
Qty.	Common Name	Scientific Name	Size	Cont.	Spacing
DECIDUOUS TREES					
12	RED BARRON CRABAPPLE	Malus "Red Barron"	2.0" cal	B&B	per plan
3	NORTHWOOD RED MAPLE	Acer rubrum "Northwood"	2.5" cal	B&B	per plan
6	HONEYLOCUST	Gleditsia triacanthos var. inermis	2.0" cal	B&B	per plan
5	DAKOTA PINNACLE BIRCH	Betula platyphylla "Fargo"	2.0" cal	B&B	per plan
8	AUTUMN BRILLIANCE SERVICEBERRY	Amelanchier x grandiflora 'Autumn Brilliance'	8" clump	CONT.	per plan
3	GINKGO	Ginkgo biloba 'The President'	2.0" cal	B&B	per plan
EVERGREEN TREES					
6	AUSTRIAN PINE	Pinus nigra	6 FT	B&B	per plan
DECIDUOUS SHRUBS					
161	GOLDFLAME SPIREA	Spiraea japonica 'Goldflame'	#2	CONT.	3 FT O.C.
27	RED STEM DOGWOOD	Cornus sericea "Isanti"	#2	CONT.	5 FT O.C.
22	ANNABELLE HYDRANGEA	Hydrangea arborescens 'Annabelle'	#3	CONT.	5 FT O.C.

TREE AND SHRUB PLANTING PLAN

LANDSCAPE NOTES:

1. PLANTING BEDS TO RECEIVE ROCK MULCH AND WEED BARRIER. SEE SPECS
2. SEE SHEET L3 FOR PLANTING SOIL MIX AND SEED MIX REQUIREMENTS.
3. LANDSCAPE EDGER WHERE PLANTING BED MEETS TURF, SEE SPECS
4. STAKE AND VERIFY LAYOUT IN FIELD FOR ARCHITECT APPROVAL.
5. SEE SHEET C1 AND SPECS FOR EROSION CONTROL NOTES
6. WOOD MULCH AROUND TREES OUTSIDE PLANTING AREAS IS CONSIDERED INCIDENTAL TO TREE. SEE SPECS.
7. REMOVE AND RELOCATE (IF POSSIBLE) EXISTING TREES ALONG NORTH FAÇADE OF BUILDING.

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COMM: XXXX
PLANTING PLAN

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L1

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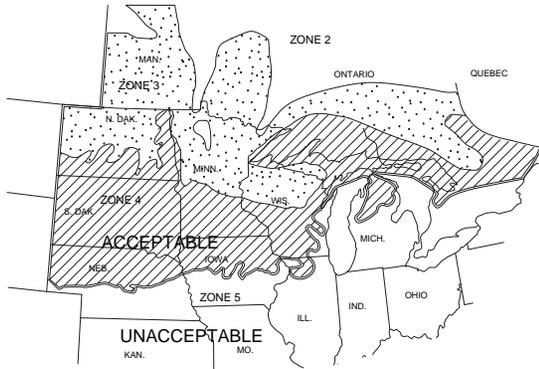
FOR ALL PLANT STOCK, DOCUMENT ACCEPTABILITY FOR HARDINESS IN THE MINNESOTA ZONE WHERE THE PROJECT SITE IS LOCATED, AS FOLLOWS:

A. PLANT STOCK CONTINUOUSLY GROWN FOR AT LEAST THE LAST TWO YEARS WITHIN THE ACCEPTABLE LIMITS SHOWN.

OR

B. PLANT STOCK, GROWN OUTSIDE THE ACCEPTABLE GROWING RANGE LIMITS, HAVING THE SEED SOURCE OR ROOT AND GRAFT STOCK ORIGINATING FROM THE ACCEPTABLE LIMITS SHOWN.

ZONE MAP		
ZONES	LEGEND	APPROXIMATE MIN. TEMP.
2	[Pattern]	-40TO -50°F
3	[Pattern]	-30TO -40°F
4	[Pattern]	-20TO -30°F

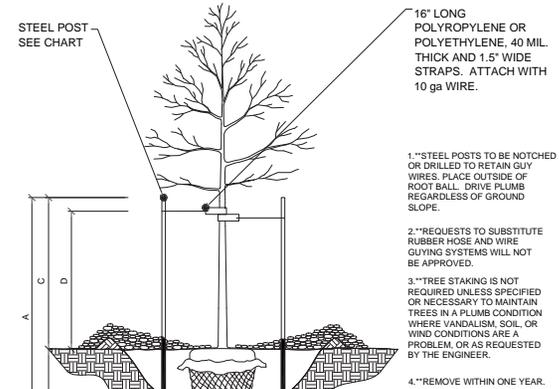
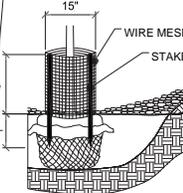


ACCEPTABLE PLANT STOCK GROWING RANGE LIMITS
SOURCE: USDA PLANT HARDINESS ZONE MAP

- FORM A DOUBLE-LAYERED CYLINDER USING 6.25" GRID GALVANIZED WELDED WIRE MESH (HARDWARE CLOTH). OVERLAP THE CUT END 2".
- DRIVE TWO 1" x 1" OPPOSING HEARTWOOD WHITE OAK STAKES INTO THE GROUND 7" FROM THE CENTER OF THE TREE STEM.
- SECURE THE MESH CYLINDER TO THE OUTSIDE OF THE STAKES USING EITHER: SCREWS AND WASHERS OR RATCHET-LOCKING TIES ALONG THE OVERLAP. SPACE APPROXIMATELY 4" ON CENTER ALONG THE OVERLAP.
 - SCREWS SHALL BE ROUND HEAD GALVANIZED 1/8" DIA. x 3/4" LONG WITH WASHERS.
 - RATCHET-LOCK TIES SHALL BE NYLON AND AT LEAST 8" LONG.
- EMBED THE LOWER EDGE OF THE MESH CYLINDER 1" BELOW THE SOIL SURFACE WITHOUT DISTURBING THE TREE ROOTS.
- CUT EDGES WILL NOT BE PERMITTED AT THE TOP OF THE CYLINDER. STAKE WILL BE FLUSH WITH THE TOP OF THE CYLINDER.
- MULCH WITHIN THE CYLINDER SHALL NOT EXCEED 3" DEPTH AND SHALL BE PULLED BACK FROM THE TRUNK AS SPECIFIED IN MULCH PLACEMENT DETAIL.
- THE BOTTOM WHORL OF PINE BRANCHES MAY HAVE TO BE REMOVED TO PERMIT INSTALLATION OF 12" MIN. HEIGHT RODENT GUARDS.
- INSTALL ON ALL DECIDUOUS, PINE AND LARCH TREES. DO NOT INSTALL ON SPRUCE TREES.

RODENT PROTECTION - IF NECESSARY / INCIDENTAL

24" MIN. HT. FOR DECIDUOUS TREES
12" MIN. HT. FOR CONIFEROUS TREES

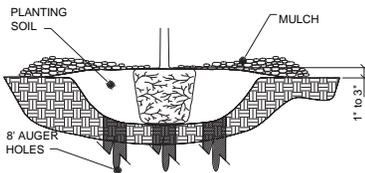


- STEEL POSTS TO BE NOTCHED OR DRILLED TO RETAIN GUY WIRES. PLACE OUTSIDE OF ROOT BALL. DRIVE PLUMB REGARDLESS OF GROUND SLOPE.
- REQUESTS TO SUBSTITUTE RUBBER HOSE AND WIRE GUYING SYSTEMS WILL NOT BE APPROVED.
- TREE STAKING IS NOT REQUIRED UNLESS SPECIFIED OR NECESSARY TO MAINTAIN TREES IN A PLUMB CONDITION WHERE VANDALISM, SOIL, OR WIND CONDITIONS ARE A PROBLEM, OR AS REQUESTED BY THE ENGINEER.
- REMOVE WITHIN ONE YEAR.

STEEL POST SIZING

CALIPER	STEEL POST TYPE	A	B	C	D
LESS THEN 4 INCHES	ROLLED STEEL FENCE POST (MnDOT 3403) OR APPROVED EQUAL.	7'-0"	3'-0" MIN.	4'-0"	3'-0"
GREATER THEN 4 INCHES	10', 2.2 LB. FLANGED CHANNEL STEEL SIGN POST (MnDOT 3401) OR APPROVED EQUAL.	10'-0"	4'-0" MIN.	6'-0"	5'-0"

STAKING AND GUYING - IF NECESSARY - INCIDENTAL

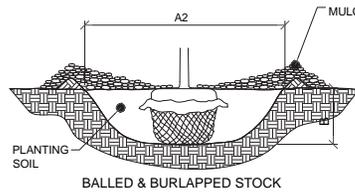


INSTALL GRANULAR FILTER -OPTION FOR POOR DRAINAGE

- EXCAVATE HOLE OR BED TO ALLOW PLACING THE TOP OF ROOT MASS 1"-3" HIGHER THAN FINISHED GRADE.
- AUGER 8" DIAMETER HOLES ENTIRELY THROUGH IMPERVIOUS OR POORLY DRAINED HARD PAN SOIL LAYER TO ADEQUATELY DRAIN SUBSOIL.
- TEST FOR POSITIVE DRAINAGE. RE-AUGER AN ADDITIONAL 8" IF NECESSARY FOR POSITIVE DRAINAGE.
- THOROUGHLY BACKFILL AUGER HOLES WITH A UNIFORM INCORPORATED MIXTURE OF 50% SAND AND 50% INPLACE SOIL.
- COMPLETE PLANTING ACCORDING TO INSTALLATION OF PLANTS (Mn/DOT2571.3F).

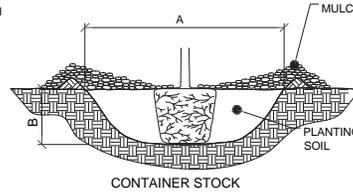
NOTE:
1. THE NEED FOR USING PLANTING DETAILS FOR POORLY DRAINED SOILS AND WHICH TYPE TO USE ARE DETERMINED BY THE CONTRACTOR, SUBJECT TO ENGINEER APPROVAL.

INSTALLATION OF PLANTS



BALLED & BURLAPPED STOCK

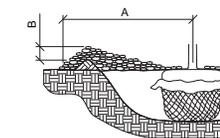
- SCARIFY SIDES AND BOTTOM OF HOLE.
- PROCEED WITH CORRECTIVE PRUNING.
- SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. INSTALL PLANT SO THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE WITH BURLAP AND WIRE BASKET, IF USED, INTACT.
- SLIT REMAINING TREATED BURLAP AT 6" INTERVALS.
- BACKFILL TO WITHIN APPROXIMATELY 12" OF THE TOP OF THE ROOTBALL, THEN WATER PLANT. REMOVE THE TOP 1/3 OF THE BASKET OR THE TOP TWO HORIZONTAL RINGS WHICHEVER IS GREATER. REMOVE ALL BURLAP AND NAILS FROM THE TOP 1/3 OF THE BALL. REMOVE ALL TWINE. REMOVE OR CORRECT STEM GIRDLING ROOTS.
- PLUMB AND BACKFILL WITH PLANTING SOIL.
- WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
- BACK FILL VOIDS AND WATER SECOND TIME.
- PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.



CONTAINER STOCK

- SCARIFY SIDES AND BOTTOM OF HOLE.
- PROCEED WITH CORRECTIVE PRUNING OF TOP AND ROOT.
- REMOVE CONTAINER AND SCORE OUTSIDE OF SOIL MASS TO REDIRECT AND PREVENT CIRCLING FIBROUS ROOTS. REMOVE OR CORRECT STEM GIRDLING ROOTS.
- SET PLANT ON UNDISTURBED NATIVE SOIL OR THOROUGHLY COMPACTED PLANTING SOIL. INSTALL PLANT SO THE TOP OF THE ROOT FLARE IS AT OR UP TO 2" ABOVE THE FINISHED GRADE.
- PLUMB AND BACKFILL WITH PLANTING SOIL.
- WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
- BACK FILL VOIDS AND WATER SECOND TIME.
- PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

TYPE OF PLANT	MULCH PLACEMENT	
	A FROM CENTER OF PLANT TO OUTSIDE EDGE OF MULCH	B DEPTH OF MULCH
CONIFEROUS TREES	3' MIN.	4'-6"
DECIDUOUS TREES	3' MIN.	4'-6"
CONIFEROUS SHRUBS	3' MIN.	4'-6"
DECIDUOUS SHRUBS	3' MIN.	4'-6"
VINES	2' MIN.	4'-6"
PERENNIALS	2' MIN.	3'-4"
MACHINE-TRANSPLANTED TREES	12" BEYOND EDGE OF HOLE	4'-6"



MULCH PLACEMENT FOR PLANTINGS OUTSIDE PLANTING BED

- PULL MULCH BACK NO LESS THAN 3" AND NO MORE THAN 6" FROM TREE TRUNKS.
- SUBSIDING OR DETERIORATING MULCH IS ACCEPTABLE THROUGHOUT THE CONTRACT IF THE MULCH DEPTH IS MAINTAINED AT A MINIMUM 3" DEPTH.
- IF THE MULCH DEPTH IS LESS THAN 3" ADDITIONAL MULCH IS REQUIRED TO PROVIDE THE MINIMUM DEPTH SPECIFIED IN CHART BELOW.
- MULCH CONTAMINATED WITH SOIL MUST BE REMOVED AND REPLACED.

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COMM: XXXX

PLANTING DETAILS

Anvil-Spec Shop
1201 56th Street
Bloomington, MN 55431

L2

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INFILTRATION BASIN SEED MIX

33-261 Stormwater South & West					
Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
big bluestem	<i>Andropogon gerardii</i>	2.24	2.00	5.72%	7.35
fringed brome	<i>Bromus ciliatus</i>	2.24	2.00	5.73%	8.10
bluejoint	<i>Calamagrostis canadensis</i>	0.07	0.06	0.18%	6.40
slender wheatgrass	<i>Elymus trachycaulus</i>	1.12	1.00	2.85%	2.53
Virginia wild rye	<i>Elymus virginicus</i>	1.68	1.50	4.28%	2.31
switchgrass	<i>Panicum virgatum</i>	0.43	0.38	1.07%	1.93
fowl bluegrass	<i>Poa palustris</i>	1.19	1.06	3.03%	50.70
Indian grass	<i>Sorghastrum nutans</i>	0.13	0.12	0.36%	0.55
prairie cordgrass	<i>Spartina pectinata</i>	0.43	0.38	1.07%	0.91
Total Grasses		9.53	8.50	24.29%	80.78
awl-fruited sedge	<i>Carex stipala</i>	0.28	0.25	0.71%	3.10
dark green bulrush	<i>Scirpus atrovirens</i>	0.21	0.19	0.54%	31.70
woolgrass	<i>Scirpus cyperinus</i>	0.07	0.06	0.18%	39.00
Total Sedges and Rushes		0.56	0.50	1.43%	73.80
Canada anemone	<i>Anemone canadensis</i>	0.08	0.07	0.19%	0.20
marsh milkweed	<i>Asclepias incarnata</i>	0.12	0.11	0.32%	0.20
leafy beggarticks	<i>Bidens frondosa</i>	0.12	0.11	0.31%	0.20
flat-topped aster	<i>Doellingeria umbellata</i>	0.07	0.06	0.17%	1.50
spotted Joe pye weed	<i>Eutrochium maculatum</i>	0.07	0.06	0.18%	2.19
autumn sneezeweed	<i>Helenium autumnale</i>	0.15	0.13	0.36%	5.97
obedient plant	<i>Physostegia virginiana</i>	0.08	0.07	0.21%	0.30
tall coneflower	<i>Rudbeckia laciniata</i>	0.08	0.07	0.21%	0.37
New England aster	<i>Symphotrichum novae-angliae</i>	0.08	0.07	0.19%	1.56
blue vervain	<i>Verbena hastata</i>	0.06	0.05	0.15%	1.85
golden alexanders	<i>Zizia aurea</i>	0.22	0.20	0.56%	0.79
Total Forbs		1.12	1.00	2.85%	15.13
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	71.43%	11.14
Total Cover Crop		28.02	25.00	71.43%	11.14
Totals:		39.23	35.00	100.00%	180.85
Purpose:	Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms.				
Planting Area:	Tailgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

COVER CROP SEED MIXES

21-111 Oats Cover Crop					
Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix	Seeds/ sq ft
Oats	<i>Avena sativa</i>	112.08	100.00	100.00%	44.54
Totals:		112.08	100.00	100.00%	44.54
Purpose:	Temporary cover crop for spring and summer plantings				
Planting Area:	Statewide				

21-112 Winter Wheat Cover Crop					
Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix	Seeds/ sq ft
Winter Wheat	<i>Triticum aestivum</i>	112.09	100.00	100.00%	26.08
Totals:		112.09	100.00	100.00%	26.08
Purpose:	Temporary cover crop for fall plantings				
Planting Area:	Statewide				

SEEDING NOTES:

- SEE SHEET L1 FOR PLANTING PLANS
- SEE SHEET L1 FOR SEEDING EXTENTS
- SEE DETAIL 4 ON SHEET C1 FOR INFILTRATION BASIN SECTION
- COVER CROP SHOULD BE OATS IF SEED MIX IS INSTALLED BETWEEN OCTOBER 15TH – AUGUST 1ST.
COVER CROP SHOULD BE WINTER WHEAT IF MIX IS INSTALLED BETWEEN AUGUST 1ST – OCTOBER 15TH.
- MULCH AND BLANKET REQUIRED FOR SEED IS INCIDENTAL TO SEED INSTALLATION, SEE SPECS.

SOIL NOTES:

- STOCKPILE EXISTING TOPSOIL AND RE-SPREAD AS INCIDENTAL.
 - IRRIGATED PLANTING BEDS PLANTING SOIL MIX: 6 INCHES NATIVE TOPSOIL WITH 6 INCHES MNDOT TYPE II COMPOST MIXED IN.
 - IRRIGATED SOD PLANTING SOIL MIX: 6 INCHES NATIVE TOPSOIL WITH 1 INCH MNDOT TYPE II COMPOST MIXED IN.
 - INFILTRATION BASIN SOIL MIX/FILTER MEDIA: 12" OF 70% CLEAN CONSTRUCTION SAND MIXED WITH 30% ORGANIC LEAF COMPOST (MNDOT TYPE II)



7200 001 0701 SHEET DATE: 04/14/14 FILE: 04/14/14 001-256 (20) 44-1433

LANSKAP ARCHITECTS
 123 North Third Street, Suite 100
 Minneapolis, MN 55401
 Tel: 612.338.1111 Fax: 612.338.1112
 www.lanskap.com

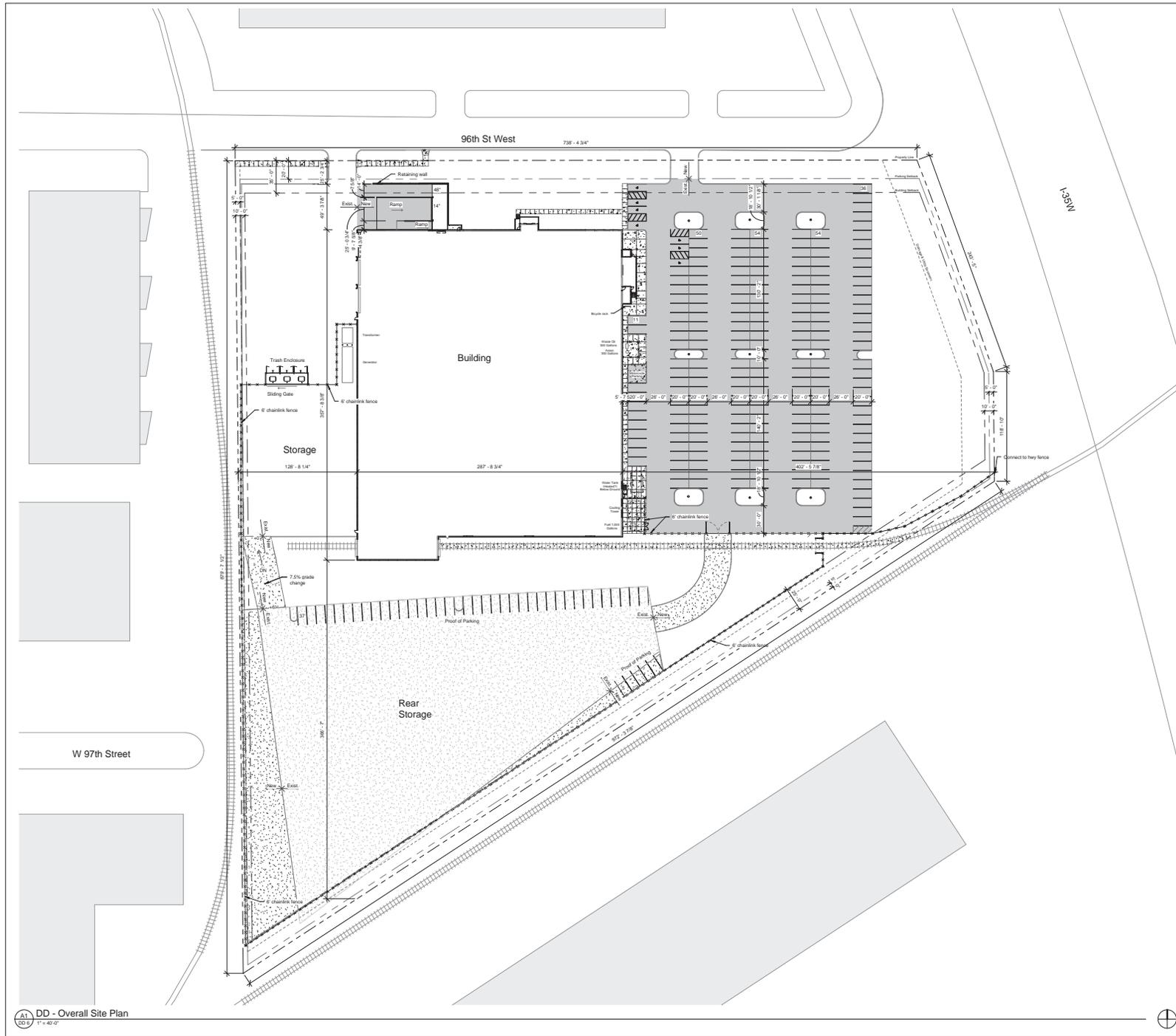


COMM: XXXX

SEED MIXES & SOIL

Anvil- Spec Shop
 1201 56th Street
 Bloomington, MN 55431

L3



Site Statistics		
Site Square Footage	493,548 SF	
Building Footprint	98,815 SF	
Site Coverage & Floor Area Ratio	20%	
Total Parking Spaces Required	254	
Total Parking Spaces	254 (including 7 Handicap)	
Parking Calculations		
Land Use	Area	Parking Spaces
Outside Storage 1 Space/2,500 SF	95,800 SF	39
General Manufacturing Industrial 1 Space/500 SF	48,054 SF	99
Warehousing/Storage 1 Space/1,000 SF	40,078 SF	41
Office 1 Space/285 SF	9,883 SF (1st Floor) 11,669 SF (2nd Floor)	75
Building Statistics		
Gross Square Footage	110,480 SF	
Type of Construction	Roof 1	Type HB
Height of Roofs Above Grade	Roof 2	24'-0"
		30'-0"
Elevations Above Mean Sea Level		
Floor/Roof	Survey	Drawing Elevations
Lower Floor	820'	(89'-0")
First Floor	824'	(100'-0")
Second Floor	830'	(112'-0")
Roof 1	848'	(124'-0")
Roof 2	860'	(130'-0")

COMM: 14005
10/27/14

REVISIONS

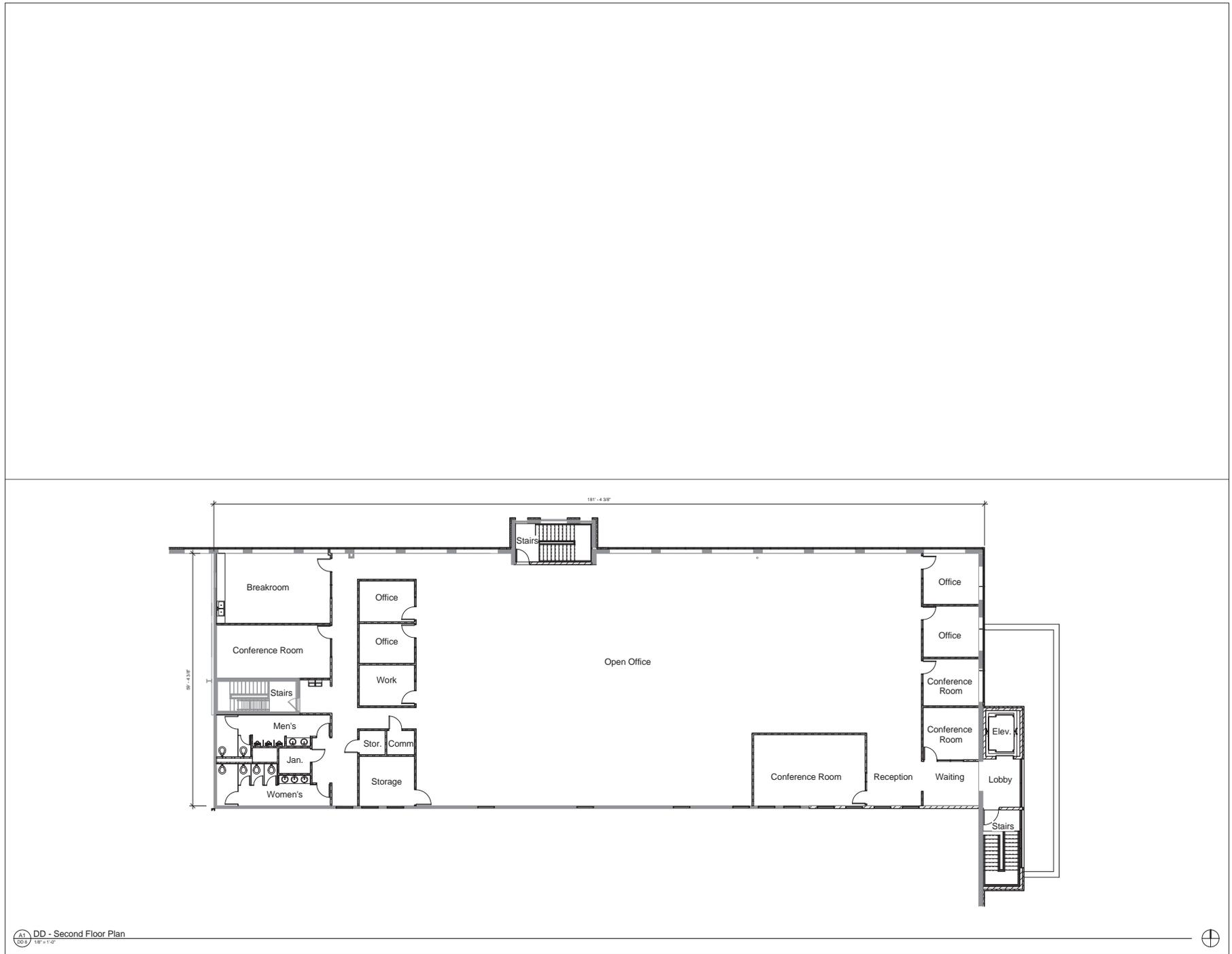
Anvil - Spec Shop
1207 8th St W
Bloomington, MN
Site Plan

DD 6

Preliminary

DD - Overall Site Plan
1" = 40'-0"

DATE: 10/27/14
DRAWN BY: [Name]
CHECKED BY: [Name]
SCALE: 1" = 40'-0"



COMM: 14005
10/27/14

REVISIONS

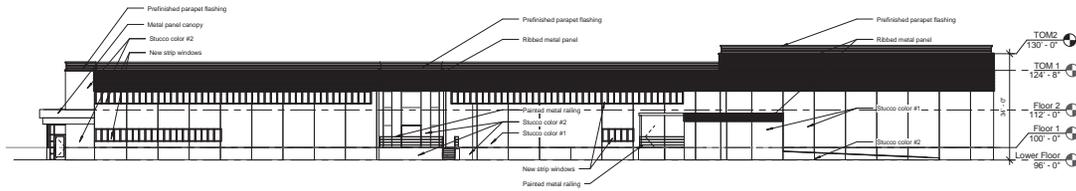
Anvil - Spec Shop
1001 6th St W
Bloomington, MN

Second Floor Plan

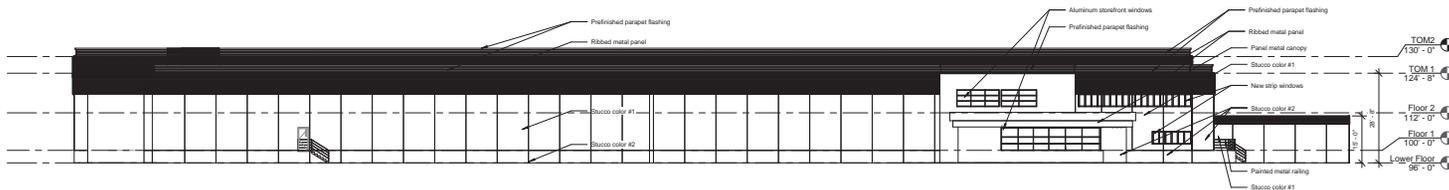
DD 8

DD - Second Floor Plan
1/8" = 1'-0"

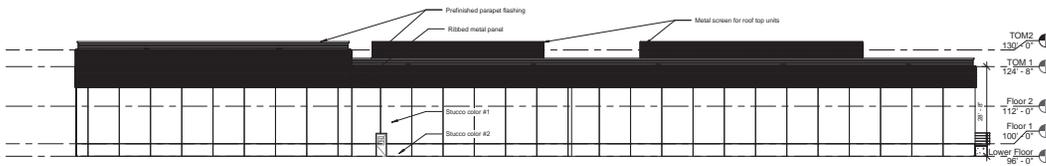
Preliminary



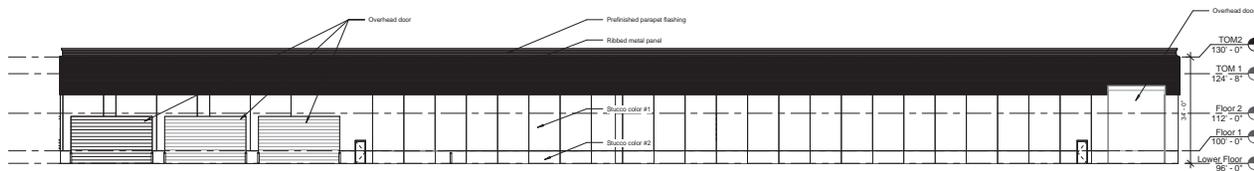
DD - North Elevation
116' x 112'



DD - East Elevation
116' x 112'



DD - South Elevation
116' x 112'



DD - West Elevation
116' x 112'

COMM: 14005
10/27/14

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Anvil - Spec Shop
1011 9th St W
Bloomington, MN

DD 9
Exterior Elevations

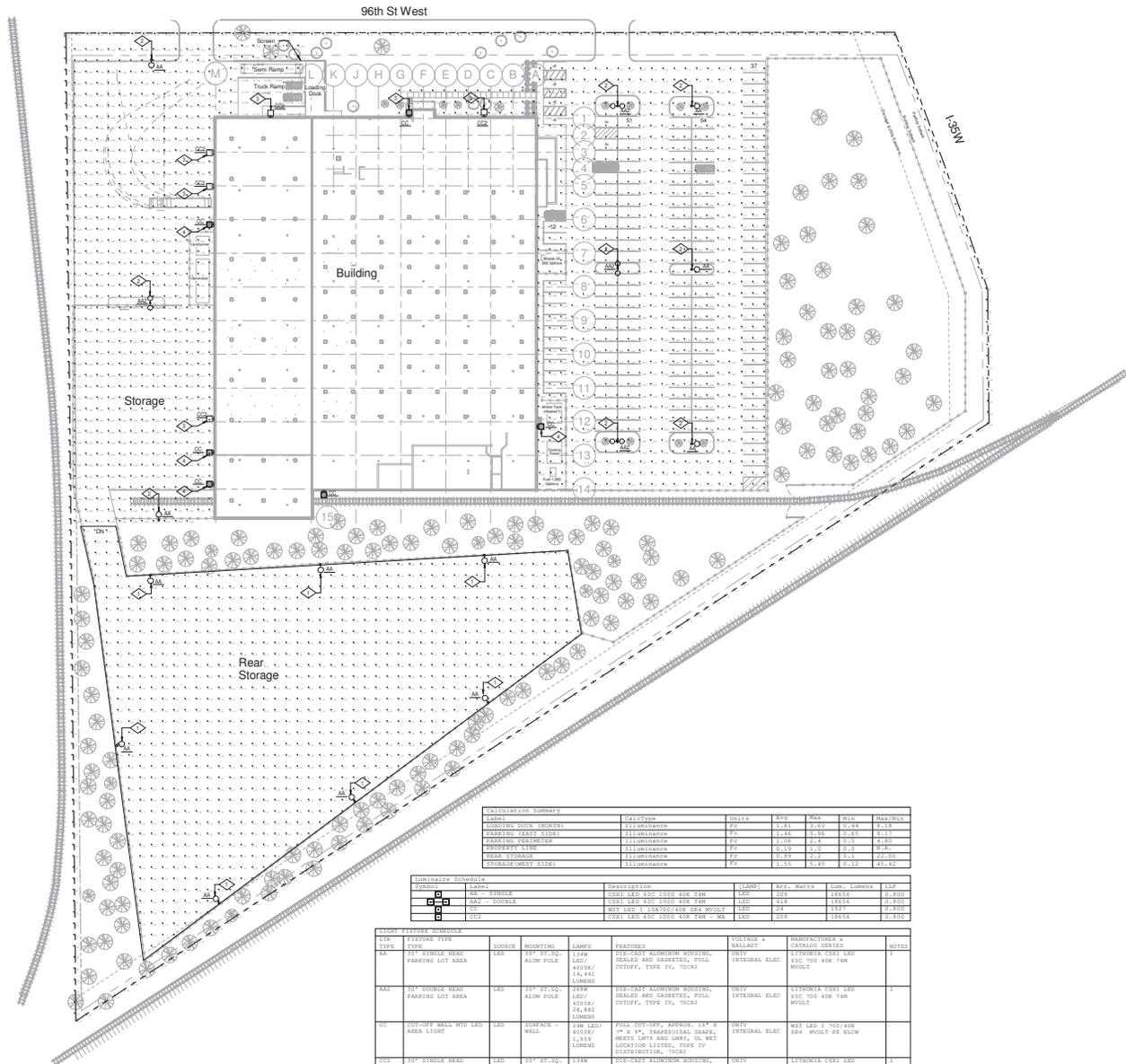


LIGHTING GENERAL NOTES

- A. LIGHT FIXTURES SHALL BE CIRCUITED FROM PANELS AS INDICATED BY THE CIRCUITING BOUNDARY SHOWN ON THE PLAN UNLESS NOTED OTHERWISE.
- B. PROVIDE MINIMUM #14 AWG FOR HOMERUNS THAT EXCEED 100 FEET FOR 120 VOLTS AND 25 FEET FOR 277 VOLTS.
- C. FOR EXACT LOCATIONS OF LIGHT FIXTURES, REFER TO AND COORDINATE WITH CIVIL PLANS.
- D. COORDINATE FIXTURE LOCATIONS WITH STRUCTURAL AND MECHANICAL TRADES PRIOR TO INSTALLATION.
- E. MAINTAIN FIRE RATING WHERE CONDUIT, FIXTURES, ETC. PENETRATE A FIRE RATED STRUCTURE.
- F. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE RATED WALLS AND CEILING. FIRE PROOF ALL PENETRATIONS AS REQUIRED.
- G. REFER TO MECHANICAL DRAWINGS AND COORDINATE WITH ELECTRICAL CONTRACTOR FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT.
- H. UPDATE ALL PANEL DIRECTORIES AT THE COMPLETION OF THE PROJECT. SUBMIT ALL UPDATED PANEL DIRECTORIES TO THE ENGINEER FOR REVIEW.
- I. ALL SWIMMING CIRCUITS SHALL HAVE A DEGRADED NEUTRAL CONDUCTOR UNDER NO CIRCUMSTANCES SHOULD A NEUTRAL CONDUCTOR BE SHARED BETWEEN DAMPED CIRCUITS.

KEY NOTES

- 1. LIGHT FIXTURES IN THE REAR STORAGE AREA SHALL BE CONTROLLED BY:
 - A. INTEGRAL PHOTOCELL
 - B. INTEGRAL MOTOR SENSOR
 - C. BUILDINGS LIGHTING CONTROL PANEL
- 2. POLE MOUNTED LIGHT FIXTURE SHALL BE CONTROLLED BY:
 - A. INTEGRAL PHOTOCELL
 - B. BUILDINGS LIGHTING CONTROL PANEL
- 3. BUILDING MOUNTED LIGHT FIXTURE SHALL BE CONTROLLED BY:
 - A. INTEGRAL PHOTOCELL
 - B. BUILDINGS LIGHTING CONTROL PANEL
- 4. BUILDING MOUNTED LIGHT FIXTURE WITH INTEGRAL EMERGENCY EGRESS SHALL BE CONTROLLED BY:
 - A. INTEGRAL PHOTOCELL
 - B. BUILDINGS LIGHTING CONTROL PANEL



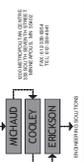
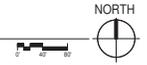
Calculation Summary	Calc. Type	Columns	AVG	Max	Min	Max	Min
PARKING DOCK (WEST)	ILLUMINANCE	72	1.81	3.43	0.244	0.28	
PARKING DOCK (EAST)	ILLUMINANCE	72	1.16	1.78	0.245	0.28	
PARKING PERVAZIER	ILLUMINANCE	72	1.15	1.74	0.245	0.28	
REAR STORAGE	ILLUMINANCE	72	0.19	1.0	0.24	0.28	
STORAGE (WEST SIDE)	ILLUMINANCE	72	1.55	3.43	0.212	0.28	

Item	Description	Quantity	Unit	Material	Notes
1	200' LED 400-1000 WATT	200	LF	200' LED 400-1000 WATT	
2	200' LED 400-1000 WATT	200	LF	200' LED 400-1000 WATT	
3	200' LED 400-1000 WATT	200	LF	200' LED 400-1000 WATT	

Item	Fixture Type	Mounting	Height	Notes
1A	30" SINGLE BEAM	30" 90° SQ. ALUM. POLE	11'6"	SEE-SEE ALUMINUM HOUSING, SEALED AND GASKETED, FULL CUTOFF, TYPE IV, TCSA1
1B	30" SINGLE BEAM	30" 90° SQ. ALUM. POLE	11'6"	SEE-SEE ALUMINUM HOUSING, SEALED AND GASKETED, FULL CUTOFF, TYPE IV, TCSA1
1C	W/DOFF WALL MOUNTED AREA LIGHT	W/DOFF WALL MOUNTED	24" LED/400W	FULL CUTOFF, APPROX. 18" X 18" X 9", TRIANGULAR HOUSING, MEETS LMTS AND LMTS, OR WET LOCATION LISTING, TYPE IV DISTRIBUTION, TCSA1
1D	30" SINGLE BEAM	30" 90° SQ. ALUM. POLE	11'6"	SEE-SEE ALUMINUM HOUSING, SEALED AND GASKETED, FULL CUTOFF, TYPE IV, TCSA1

NOTES:
 1. PROVIDE BREAKAWAY FUSE HOLDERS AND FUSES IN BASE OF POLE. WHERE POSSIBLE, PROVIDE FACTORY ASSEMBLED WIRING HARNESS FOR POLES. PROVIDE CONCRETE BASE FOR POLES (24" DIAMETERS), NOT LESS THAN 42" DEEP AND EQUAL TO 1/5 THE HEIGHT OF THE POLE. CONDUIT SHALL BE A MINIMUM OF 24" BELOW GRADE. SIZE POLE FOR 100 MPH WIND LOADING, UNLESS OTHERWISE NOTED.

1 SITE PLAN - LIGHTING
 1" = 40'-0"



PROJECT: ZIEGLER - ANVIL BLDG
 ISSUE DATE: 08/20/14

COM: Project Issue Date

REVISIONS:

ZIEGLER - ANVIL BLDG
 SITE PLAN - LIGHTING

E2.0

Case 7272ABC-14



Anvil - Spec Shop - Preliminary View of Entrance

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14

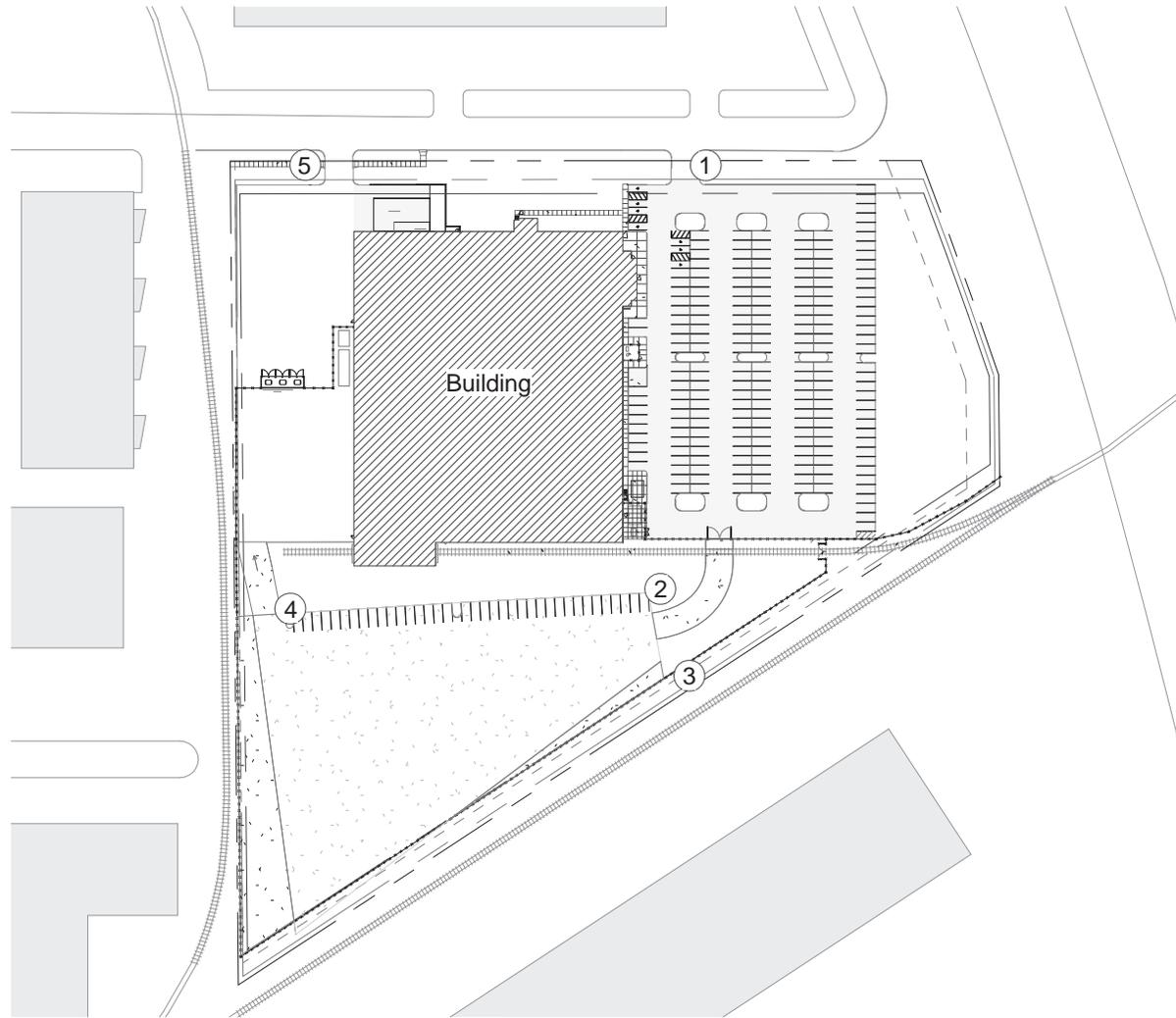


Anvil - Spec Shop - Preliminary Aerial View

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14



(All views are taken 5' above the ground plane of 96'-0" with the main floor at 100'-0")

Anvil - Spec Shop - View Key Plan

Scale: 1" = 200'-0"

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14



Anvil - Spec Shop - View 1

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14

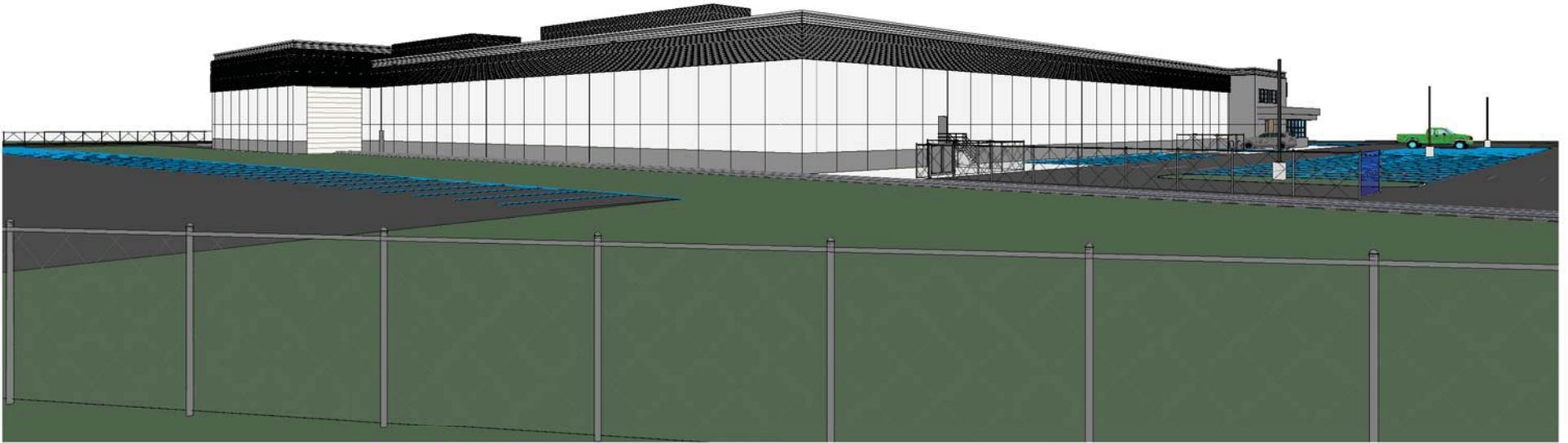


Anvil - Spec Shop - View 2

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14

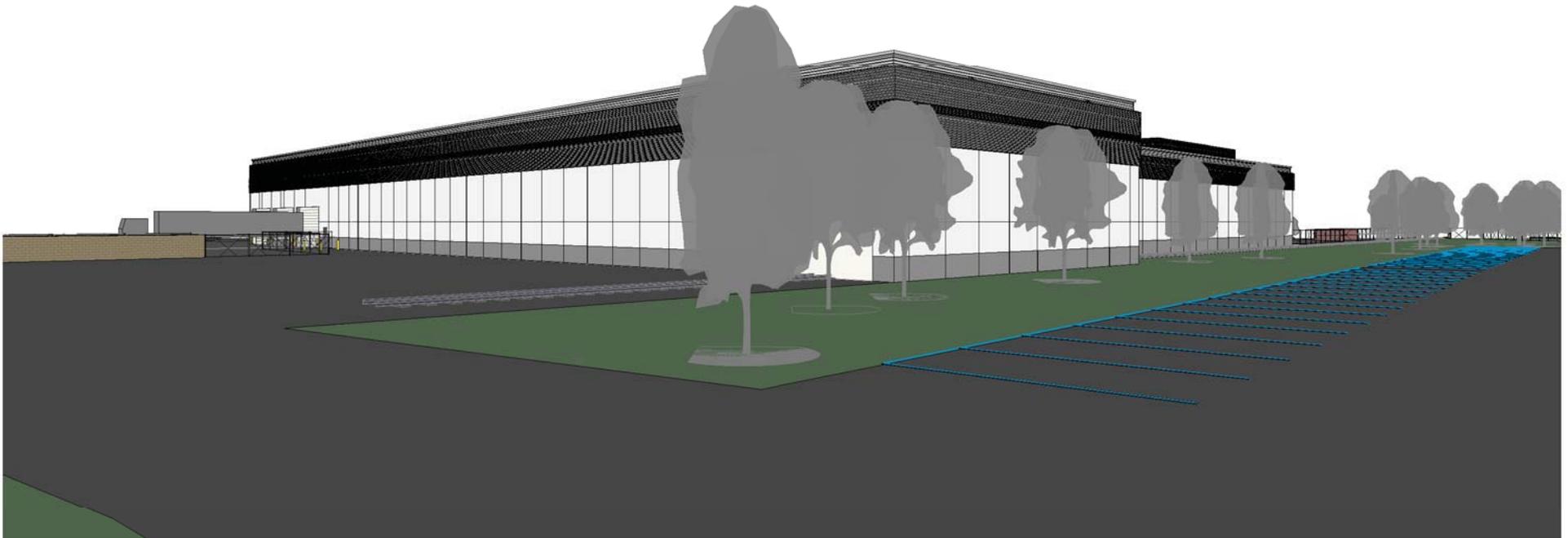


Anvil - Spec Shop - View 3

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14



Anvil - Spec Shop - View 4

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14



Anvil - Spec Shop - View 5

Comm. No.: 14005
Date: 10/27/14



Case 7272ABC-14

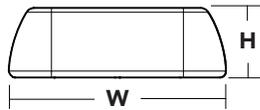
CSX1 LED LED Area Luminaire



CONTOUR

Specifications

EPA:	0.7 ft ² (0.07 m ²)
Length:	23-1/2" (59.7 cm)
Width:	18-1/2" (46.9 cm)
Height:	5-7/8" (14.9 cm)
Weight (max):	37 lbs (16.8 kg)



Catalog Number

Notes

Type

AA, AA2 & CC2

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The Contour® Series luminaires offer traditional square dayforms with softened edges for a versatile look that complements many applications.

The CSX1 combines the latest in LED technology with the familiar aesthetic of the Contour® Series for stylish, high-performance illumination that lasts. It is ideal for replacing traditional metal halide in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: CSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD

CSX1 LED	60C							
Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting	Options	Finish (required)
CSX1 LED	60C 60 LEDs	700 700 mA 1000 1000 mA (1 A)	40K 4000K 50K 5000K	T2M Type II T3M Type III T4M Type IV T5M Type V TFTM Forward throw	MVOLT ¹ 120 ¹ 208 ¹ 240 ¹ 277 ¹ 347 480	Shipped included SPA Square pole mounting RPA Round pole mounting WBA Wall bracket Shipped Separately² SPUMBA Square pole universal mounting adaptor RPUMBA Round pole universal mounting adaptor KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ³	Shipped installed PER NEMA twist-lock receptacle only (no controls) DCR Dimmable and controllable via ROAM® (no controls) ⁴ DMG 0-10V dimming driver (no controls) ⁵ HS House-side shield ² SF Single fuse (120, 277, 347V) ⁶ DF Double fuse (208, 240, 480V) ⁶ DS Dual switching ^{7,8} 2ELED Emergency LED secondary source (2 modules) battery pack (-20°C min. operating temperature) BL30 Bi-level switched dimming, nominal 30% ^{8,9} BL50 Bi-level switched dimming, nominal 50% ^{8,9} Shipped separately² VG Vandal guard BS Bird-deterrent spikes	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Drilling

Template #8

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ¹⁰
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ¹⁰
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ¹⁰
SCU	Shorting cap ¹⁰
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) ³
PUMBA DDBXD U*	Round and square pole universal mounting bracket adaptor (specify finish)
CSX1HS U	House-side shield (includes 2 shields)
CSX1VG U	Vandal guard accessory
CSX1BS U	Bird-deterrent spikes accessory

For more control options, visit [DTL](#) and [ROAM](#) online.

CSX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles.

DM19AS	Single unit	DM29AS	2 at 90° *
DM28AS	2 at 180°	DM39AS	3 at 90° *
DM49AS	4 at 90° *	DM32AS	3 at 120° **

Example: SSA 20 4C DM19AS DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.

*Round pole top must be 3.25" O.D. minimum.
**For round pole mounting (RPA) only.

Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

- #### NOTES
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
 - Also available as a separate accessory; see Accessories information at left.
 - Requires "SPA" mounting option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
 - Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Add'l hardware and services required for ROAM® deployment; call 1-800-442-6745.
 - Not available with 347 or 480V.
 - Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
 - Provides 50% dimming capability via two independent drivers, each operating half the luminaire. Available with MVOLT and two light engines only. N/A with PER, DCR, DMG or 2ELED.
 - Requires an additional switched line.
 - Dimming driver standard. MVOLT only. Not available with DCR.
 - Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item.



Case 7272ABC-14

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	Performance Package	System Watts	Dist. Type	40K (4000K, 70 CRI)					50K (5000K, 67 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60C (60 LEDs)	700 mA	60C 700 --K	134W	T2M	13,662	3	0	3	102	14,651	3	0	3	109
				T3M	14,461	3	0	3	108	15,508	3	0	3	116
				T4M	14,441	2	0	3	108	15,486	3	0	3	116
				T5M	14,494	4	0	2	108	15,543	4	0	2	116
				TFTM	14,643	2	0	3	109	15,703	2	0	3	117
	1000 mA	60C 1000 --K	209W	T2M	17,652	3	0	3	84	19,028	3	0	3	91
				T3M	18,684	3	0	3	89	20,141	3	0	4	96
				T4M	18,658	3	0	4	89	20,113	3	0	4	96
				T5M	18,726	5	0	3	90	20,187	5	0	3	97
				TFTM	18,919	3	0	3	91	20,395	3	0	4	98

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C	1.02
10°C	1.01
20°C	1.00
25°C	1.00
30°C	1.00
40°C	0.99

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the CSX1 LED 60C platform in a 25°C ambient, based on 100,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.94	0.90	0.83

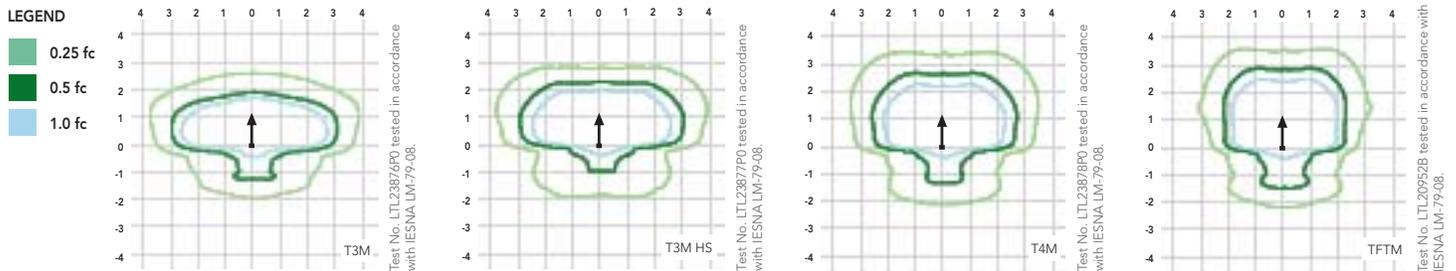
Electrical Load

Number of LEDs	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
60C	700	134W	1.321	0.756	0.659	0.580	0.462	0.337
	1000	209W	2.068	1.198	1.056	0.943	0.764	0.605

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's CSX1 homepage.

Isofootcandle plots for the CSX1 LED 60C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

INTENDED USE

The Contour Series LED area luminaire is ideal for streets, walkways, parking lots, and surrounding areas that call for high-performance LED lighting in a transitional dayform.

CONSTRUCTION

Single-piece die cast housing has a unique flow-through design that allows for optimized thermal management through convective cooling. A metallic screen covers the top of the housing, preventing debris build-up while allowing natural cleaning of the heat sinks. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver and electronics are thermally isolated from the light engine(s), ensuring long life. Housing is completely sealed against moisture and environmental contaminants.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling.

OPTICS

Precision-molded acrylic lenses provide optimal luminaire spacing and improved uniformity. Lenses are indexed to the circuit board to ensure consistent optical alignment and delivering repeatable photometric performance. Light engines are available in standard 4000K (70 CRI) or optional 5000K (67 CRI) configurations. The CSX1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engines consist of 60 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L70). Class 1 electronic driver designed to have a power factor >90%, THD <20%, with an expected life of 100,000 hours with <1% failure rate. Easily-serviceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

Integral arm provides easy installation to a pole and assists in alignment and leveling. Secure connection withstands up to 3.0 G vibration load rating per ANSI C136.31. The CSX1 utilizes the AERIS™ series pole drilling pattern for SPA and RPA options; wall mounting bracket also available. Available mast arm adapter accessory accepts horizontal tenons up to 2-3/8" O.D.

LISTINGS

CSA Certified to U.S. and Canadian standards. Light engines and luminaire are IP66 rated. **U.S. Patent No. D632830. U.S. Patent No. D653,382 S.**

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

WARRANTY

Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.



Case 7272ABC-14

WST LED Architectural Wall Sconce



Inverted available with WLU option only.



Catalog Number

Notes

Type
CC

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The classic Architectural Wall Sconce is now available with the latest in LED technology. The result is a long-life, maintenance-free product with typical energy savings of 75% compared to metal halide versions. The integral battery backup option provides emergency egress lighting, without the use of a back-box or remote gear, so installations maintain their aesthetic integrity.

The WST LED is ideal for replacing existing 50 – 175W metal halide wall-mounted products. The expected service life is 20+ years of nighttime use.

Specifications

Luminaire

Height: 7-1/4"
(18.4 cm)

Width: 16-1/4"
(41.3 cm)

Depth: 9-1/8"
(23.2 cm)

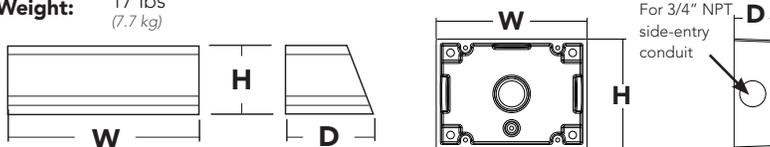
Weight: 17 lbs
(7.7 kg)

Optional Back Box (BBW)

Height: 4"
(10.2 cm)

Width: 5-1/2"
(14.0 cm)

Depth: 1-1/2"
(3.8 cm)



Ordering Information

EXAMPLE: WST LED 2 10A700/40K SR3 MVOLT DBBTXD

Series	Light Engines	Performance Package	Distribution	Voltage	Mounting	Options ³	Finish (required)
WST LED	1 One engine (10 LEDs)	700 mA options: 10A700/30K 3000K 10A700/40K 4000K 10A700/50K 5000K	SR2 Type II	MVOLT ¹	Shipped included (blank) Surface mount	Shipped installed PE Photoelectric cell, button type ^{4,5} SF Single fuse (120, 277, 347V) ⁴ DF Double fuse (208, 240, 480V) ⁴ DMG 0-10V dimming driver (no controls) ELCW Emergency battery backup ⁶ WLU Wet location door for up orientation ⁷ PIR Motion/ambient light sensor ⁸	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone
	2 Two engines (20 LEDs)		SR3 Type III	120 ¹			
		SR4 Type IV	208 ¹				

Emergency Battery Operation

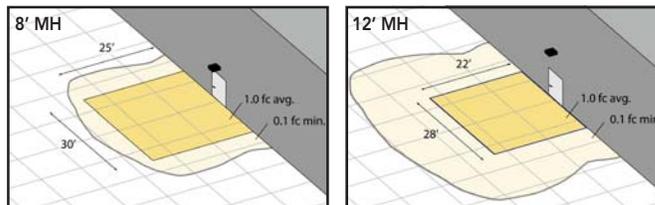
The emergency battery backup (ELCW option) is integral to the luminaire - no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

All ELCW configurations include an independent secondary driver with an integral relay to immediately detect AC power loss. Dual light engines are wired in parallel so both engines operate in emergency mode and provide additional component redundancy. These design features meet various interpretations of NFPA 70/NEC 2008 - 700.16

The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples at right show illuminance of 1 fc average and 0.1 fc minimum of the single-engine Type IV product in emergency mode.

WST LED 1 10A700/40K SR4 MVOLT ELCW
10' x 10' Gridlines
8' and 12' Mounting Height



NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with photocell (PE option) or fusing (SF, DF options).
- May also be ordered separately as an accessory. Ex: WSBBW DDBXD U. Must specify finish.
- Must be ordered with fixture; cannot be field installed.
- Not available with MVOLT option. Button photocell (PE) can be ordered with a dedicated voltage option. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- Not available with 480V option. Not available with motion/ambient light sensor (PIR).
- Integral battery pack is rated for -20° to 60°C operating temperature. ELCW warranty is 3-year period. Not available with 347V or 480V. Not available with WLU.
- WLU not available with PIR or ELCW.
- Specifies the SensorSwitch SFOD-7-ODP control (photocell included); see Motion Sensor Guide for details. Not available with "PE" option (button type photocell). Dimming driver standard. Not available with WLU, VG or WG.



Case 7272ABC-14

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%. Actual performance may differ as a result of end-user environment and application.

Light Engines	Drive Current (mA)	Performance Package	System Watts (MVOLT ¹)	Dist. Type	40K (4000K, 70 CRI)				
					Nominal Lumens	B	U	G	LPW
1 (10 LEDs)	700	10A700/--K	24W	SR2	2,005	1	0	1	84
				SR3	2,029	1	0	1	84
				SR4	1,959	1	0	1	82
2 (20 LEDs)	700	10A700/--K	47W	SR2	3,944	1	0	1	84
				SR3	4,028	1	0	1	86
				SR4	3,851	1	0	1	82

1 See electrical load chart for 347/480V system watts.

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C	1.10
10°C	1.06
20°C	1.02
25°C	1.00
30°C	0.98
40°C	0.92

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **WST LED 2 10A700** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.94	0.88	0.77

Electrical Load

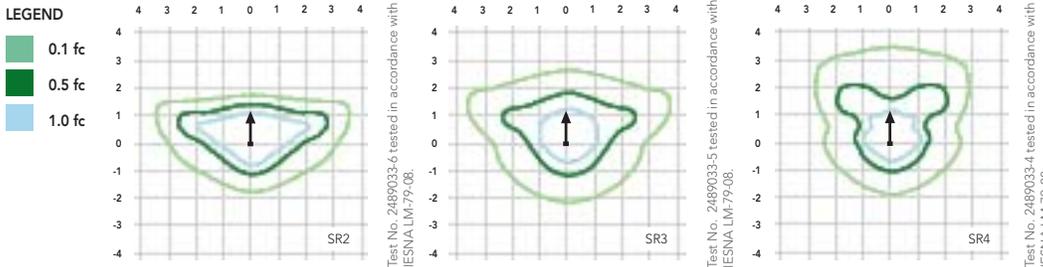
Light Engines	Drive Current (mA)	System Watts	Current (A)					
			120	208	240	277	347	480
1	700	24W	0.24	0.14	0.12	0.1	-	-
		29W ¹	-	-	-	-	0.09	0.07
2	700	47W	0.44	0.27	0.23	0.20	-	-
		53W ¹	-	-	-	-	0.17	0.12

1 Higher wattage is due to electrical losses from step-down transformer.

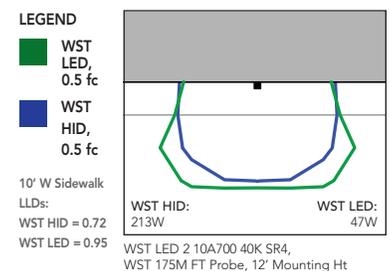
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [WST LED homepage](#).

Isofootcandle plots for the WST LED 2 10A700/40K SR2, SR3, and SR4. Distances are in units of mounting height (12).



Distribution overlay comparison to 175W metal halide.



FEATURES & SPECIFICATIONS

INTENDED USE

The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Precision-molded acrylic lenses are engineered for superior distribution, uniformity, and spacing in wall-mount applications. Light engines are 4000K (70 CRI). The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 25°C, L77). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The integral bubble level on the mounting plate provides assistance for level placement on every installation.

LISTINGS

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated; luminaire is IP65 rated and suitable for wet locations when mounted with the lenses down. WLU option offers wet location listing in "up" orientation. Rated for -30°C minimum ambient.

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

WARRANTY

Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Specifications subject to change without notice.

