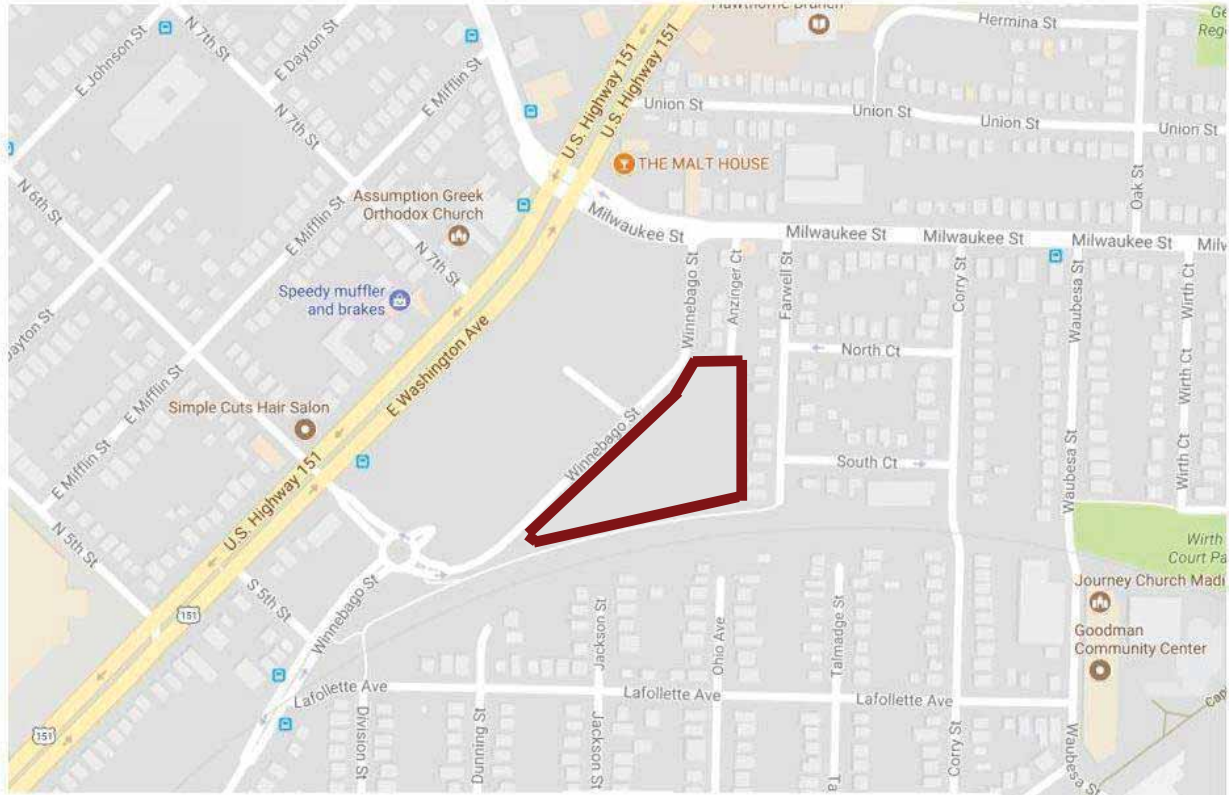


# GRAND FAMILY HOUSING

Union Corners Grand family project is a new construction development consisting of a mix of affordable and market-rate units for families. Specifically, this development will be targeting grand families (grandparents raising grandchildren) and kinship families (family members raising other family members' children). The project will include 59 units total between two buildings, both three stories in height. The buildings will have access to underground parking with apartments and community space above. The project will also include the following interior amenities: community room, supportive service office, business center, and fitness center. In addition, additional community space is anticipated to serve a mix of residents ranging from children to seniors. Outdoor space will include a playground and community gardens. The project is the third piece of a master development on this site by Gorman & Company, Inc. who acquired a 5 acre parcel from the City of Madison in exchange for implementing the master development. Previous phases include the UW Health Clinic and a 90-unit, multi-family, mixed-income development.

The Grand family project includes a partnership with Lutheran Social Services (LSS) to provide supportive services. Space on the first floor has been designed to accommodate these services on-site.



PROJECT LOCATOR MAP



200 ft



COMMUNITY GARDEN LOCATION - NORTH EAST CORNER OF SITE



BIKE PATH LOOKING EAST - WEST CORNER OF SITE



BIKE PATH LOOKING WEST - MIDDLE OF SITE



BIKE PATH LOOKING WEST - EAST CORNER OF SITE

# SITE CONTEXT

## GRAND FAMILY HOUSING

UNION CORNERS - MADISON WI.

A Gorman & Company Neighborhood



SIMPLE TWO STORY MASONRY BUILDING CORNER OF WINNEBAGO AND MILWAUKEE



METAL QUONSET HUT TYPICAL EAST SIDE ECLECTIC AESTHETIC



NEWLY BUILT APARTMENTS ACROSS WINNEBAGO FROM SITE LOOKING EAST



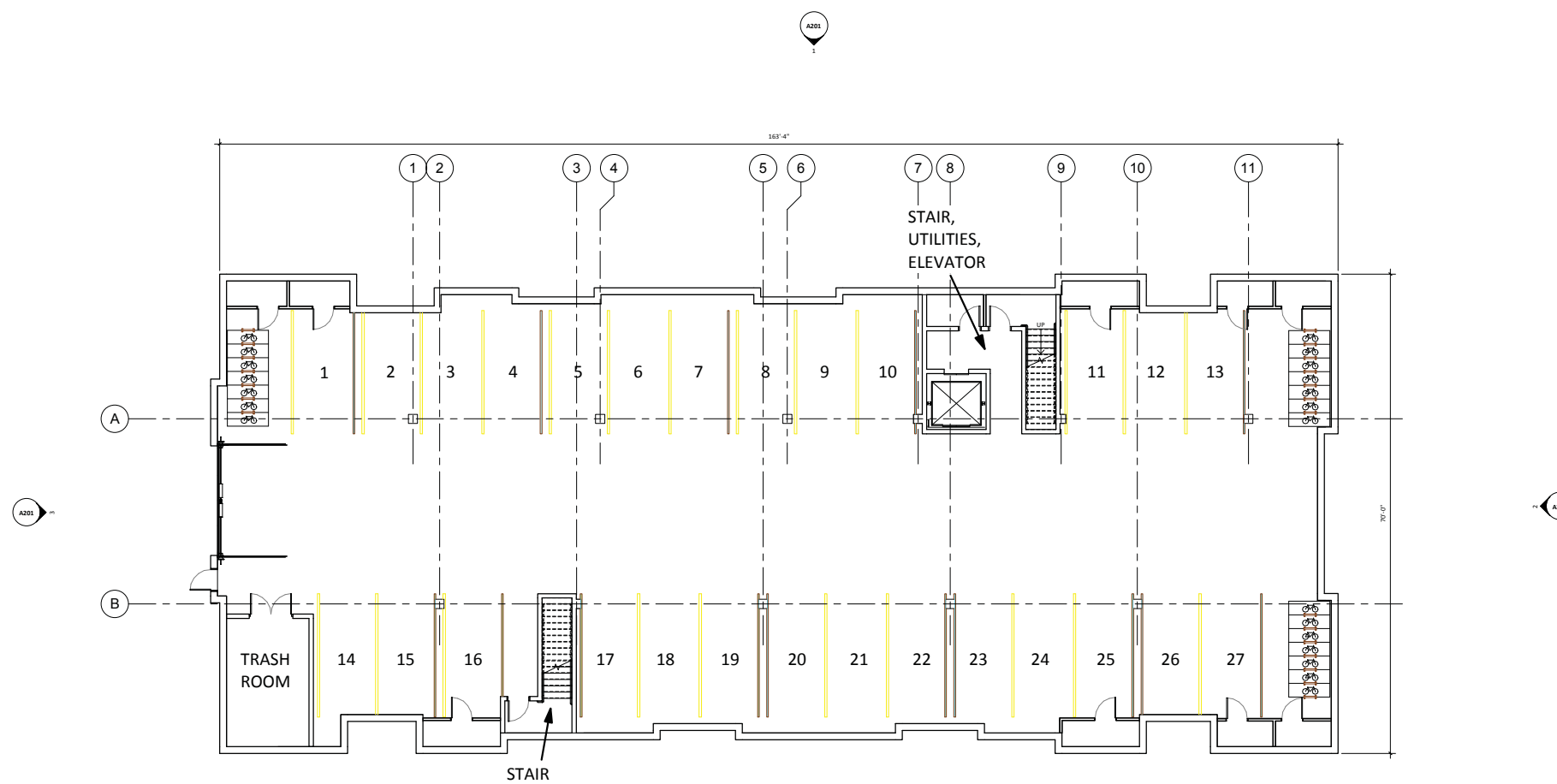
NEWLY BUILT APARTMENTS ACROSS WINNEBAGO FROM SITE LOOKING WEST

## ADJACENT BUILDING CONTEXT



# Union Corners GrandFamily Concept

**GRAND FAMILY - BUILDING #6**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704



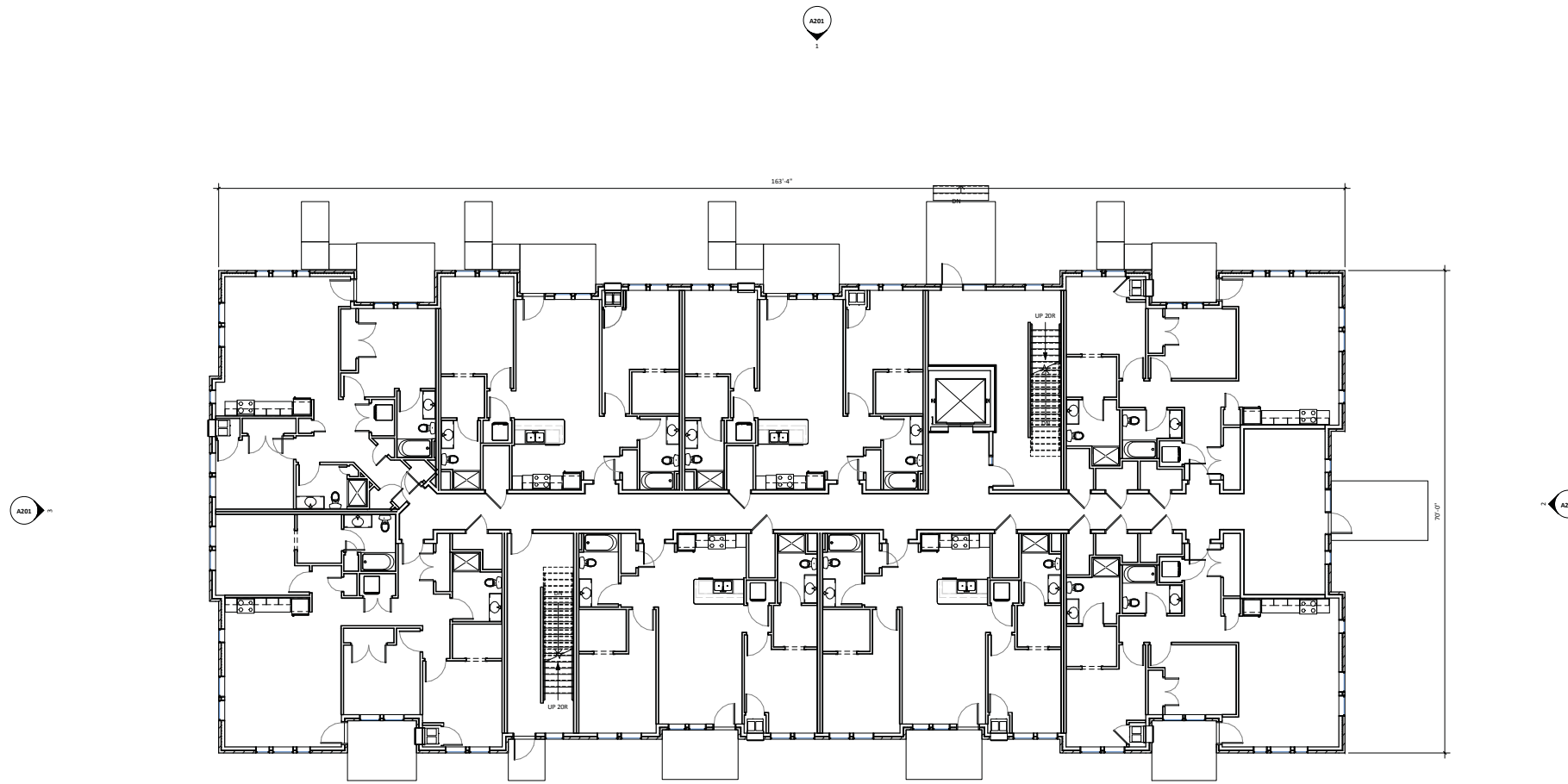
**1 PARKING LEVEL OVERALL PLAN**  
SCALE: 1/8" = 1'-0"

Schematic	
Project No.	Project Number
Plot Date:	12/20/2017 9:31:34 AM
Drawn by:	Author
Date	Issue Description

Sheet Title  
PARKING LEVEL PLAN -  
OVERALL

Sheet No.  
**A101**

**GRAND FAMILY - BUILDING #6**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704



**1 GROUND FLOOR OVERALL PLAN**  
SCALE: 1/8" = 1'-0"

**Schematic**

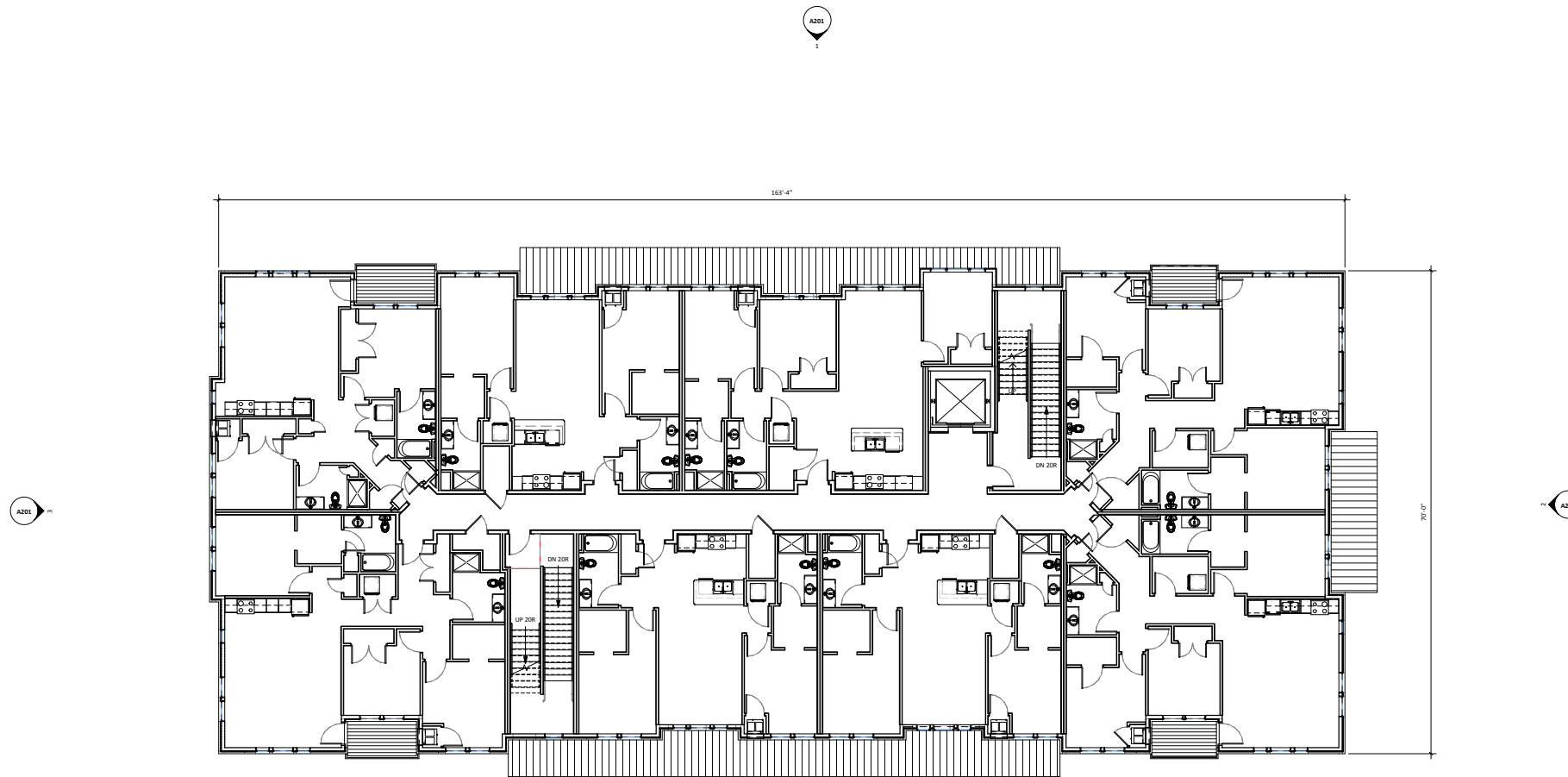
Project No.	Project Number
Plot Date:	12/20/2017 9:31:34 AM
Drawn by:	Author

Date	Issue Description
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Sheet Title  
GROUND FLOOR PLAN -  
OVERALL

Sheet No.  
**A111**

**GRAND FAMILY - BUILDING #6**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704



**1 2ND FLOOR OVERALL PLAN**  
SCALE: 1/8" = 1'-0"



**Schematic**

Project No.	Project Number
Plot Date:	12/20/2017 9:31:35 AM
Drawn by:	Author

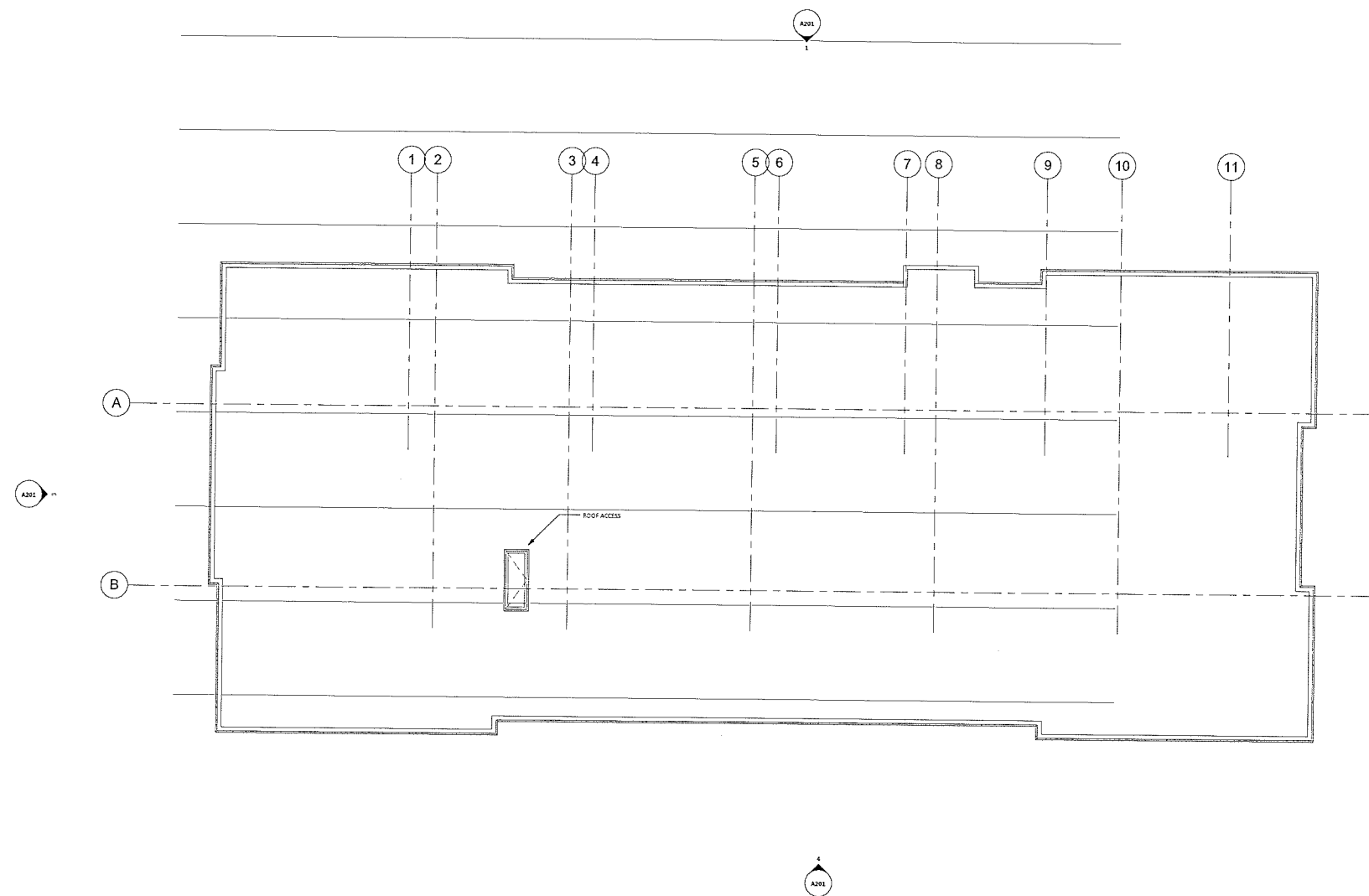
Date	Issue Description

Sheet Title  
2ND FLOOR PLAN -  
OVERALL

Sheet No.

**A121**

**GRAND FAMILY - BUILDING #6**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704



**1 ROOF PARAPET**  
SCALE: 1/8" = 1'-0"

Schematic	
Project No.	Project Number
Plot Date:	12/2/2017 8:51:54 AM
Drawn by:	Author
Date	Issue Description

Sheet Title  
**ROOF PLAN - OVERALL**

Sheet No.  
**A141**





**1 NORTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**2 EAST ELEVATION**  
SCALE: 1/8" = 1'-0"



**3 WEST ELEVATION**  
SCALE: 1/8" = 1'-0"



**4 SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"

**GRAND FAMILY - BUILDING #6**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704

Schematic	
Project No.	Project Number
Plot Date:	12/20/2017 9:31:43 AM
Drawn by:	Author
Date	Issue Description

Sheet Title  
EXTERIOR BUILDING  
ELEVATIONS

Sheet No.  
**A201**

**GRAND FAMILY - BUILDING #7**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704

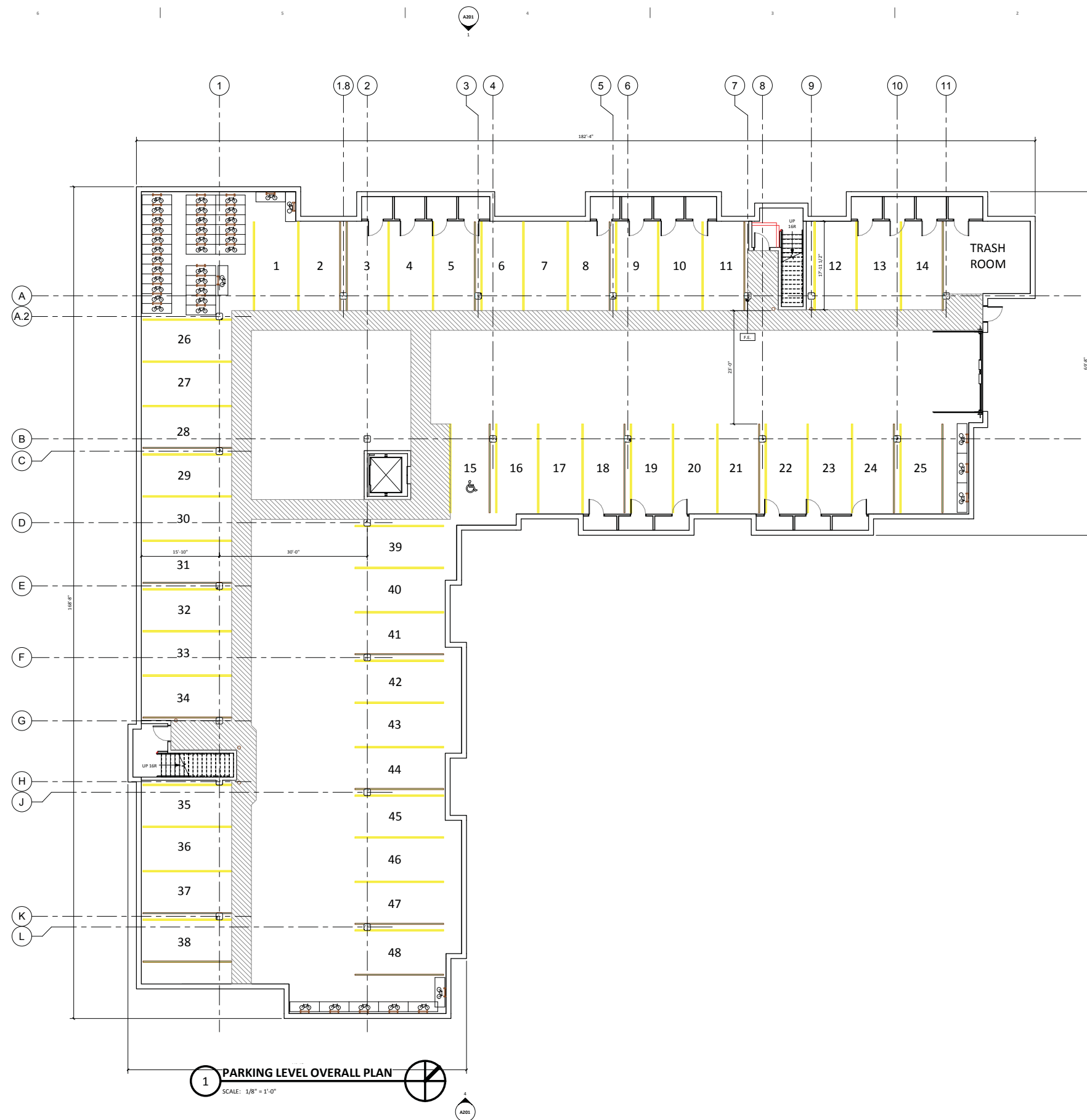
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Project No. \_\_\_\_\_ Project Number \_\_\_\_\_  
Plot Date: 12/20/2017 9:55:04 AM  
Drawn by: \_\_\_\_\_ Author \_\_\_\_\_

Date	Issue Description

Sheet Title  
**PARKING LEVEL PLAN -  
OVERALL**

Sheet No.  
**A101**



**1 PARKING LEVEL OVERALL PLAN**  
SCALE: 1/8" = 1'-0"

**GRAND FAMILY - BUILDING #7**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704

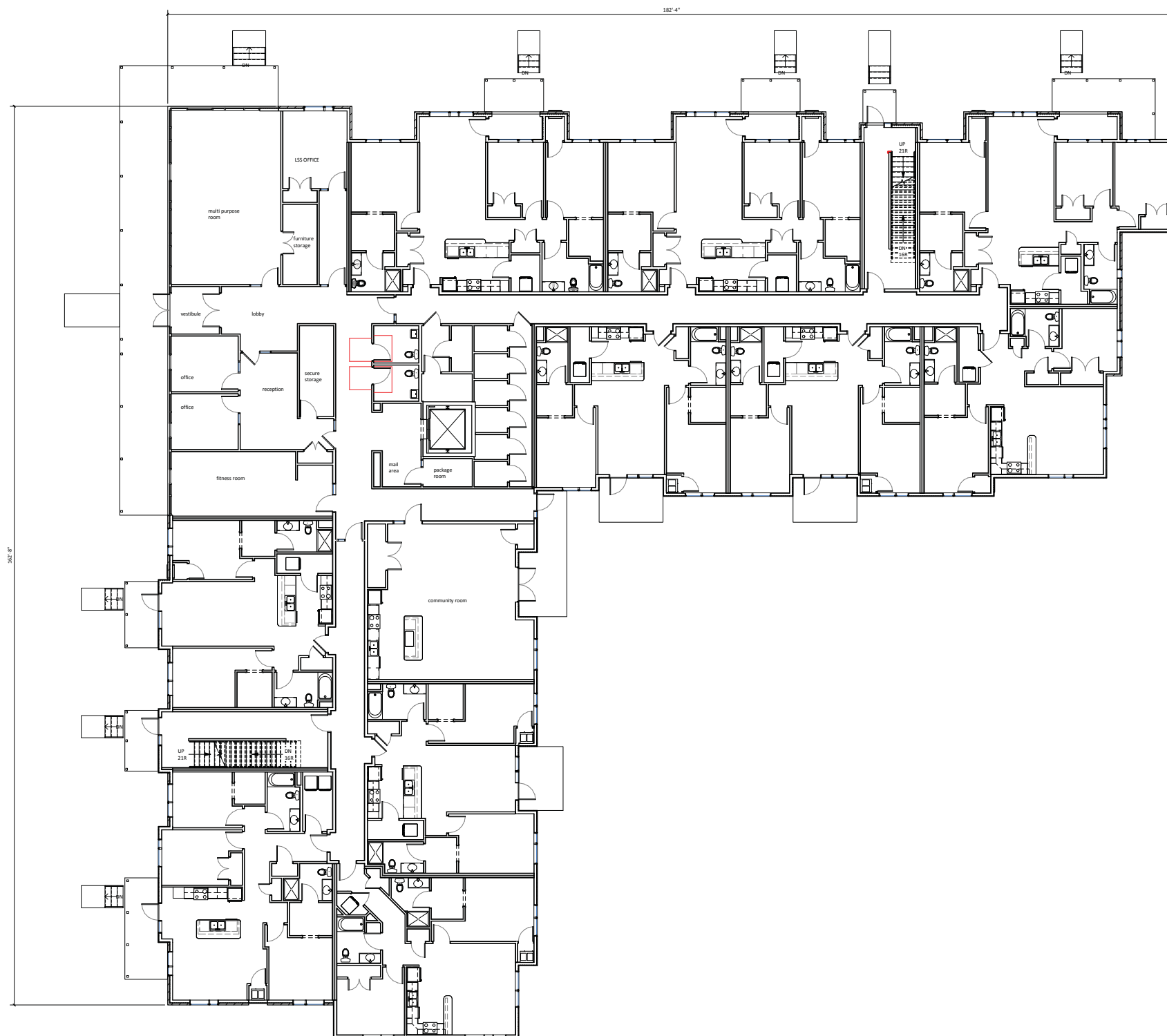
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Project No. \_\_\_\_\_ Project Number \_\_\_\_\_  
Plot Date: 12/29/2017 9:55:05 AM  
Drawn by: \_\_\_\_\_ Author \_\_\_\_\_

Date	Issue Description

Sheet Title  
GROUND FLOOR PLAN -  
OVERALL

Sheet No.  
**A111**



**1 GROUND FLOOR OVERALL PLAN**  
SCALE: 1/8" = 1'-0"

**GRAND FAMILY - BUILDING #7**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704

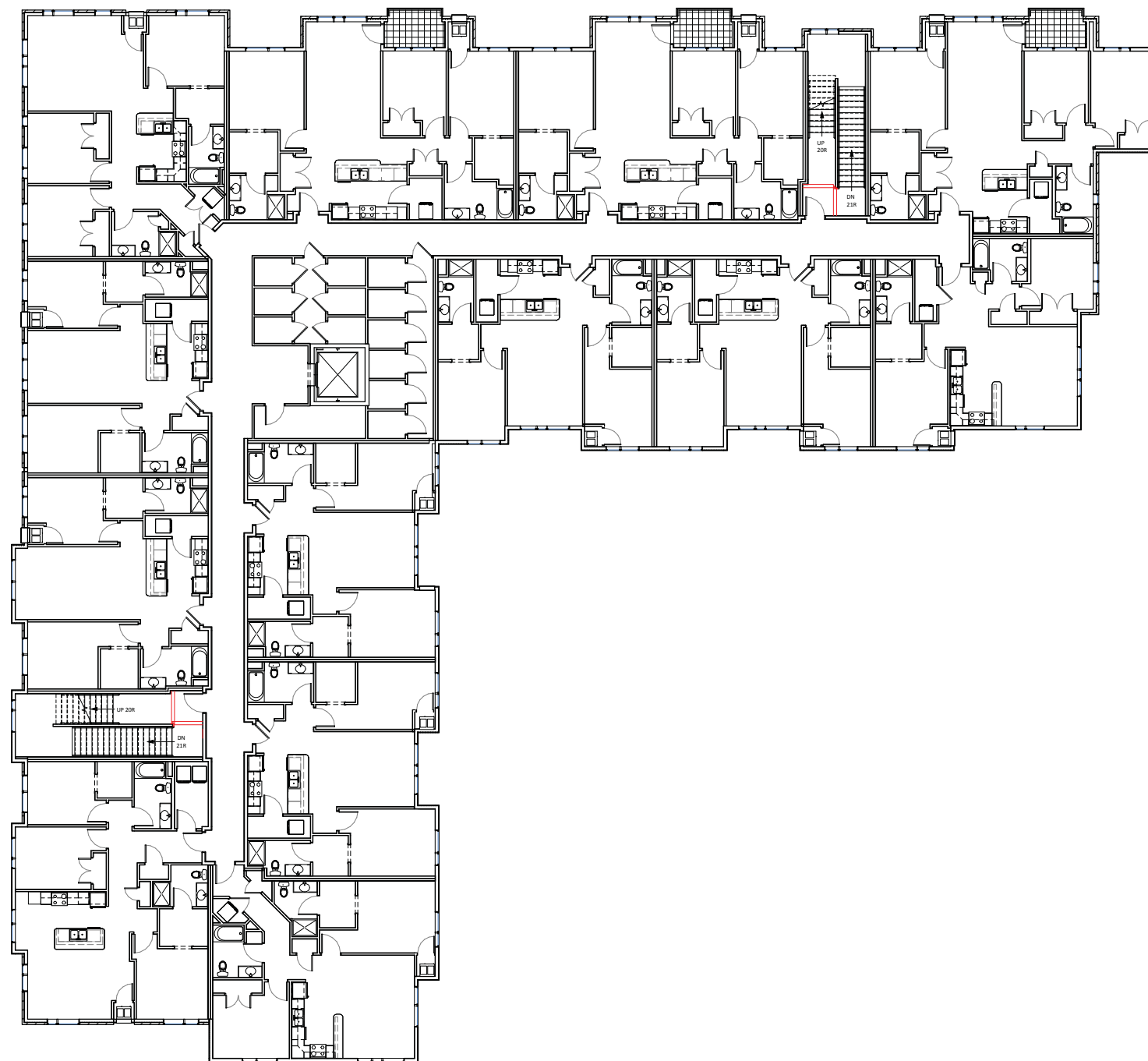
**SCHEMATIC**

Project No.      Project Number  
Plot Date:      12/20/2017 9:55:06 AM  
Drawn by:      Author

Date      Issue Description

Sheet Title  
2ND FLOOR PLAN -  
OVERALL

Sheet No.  
**A121**

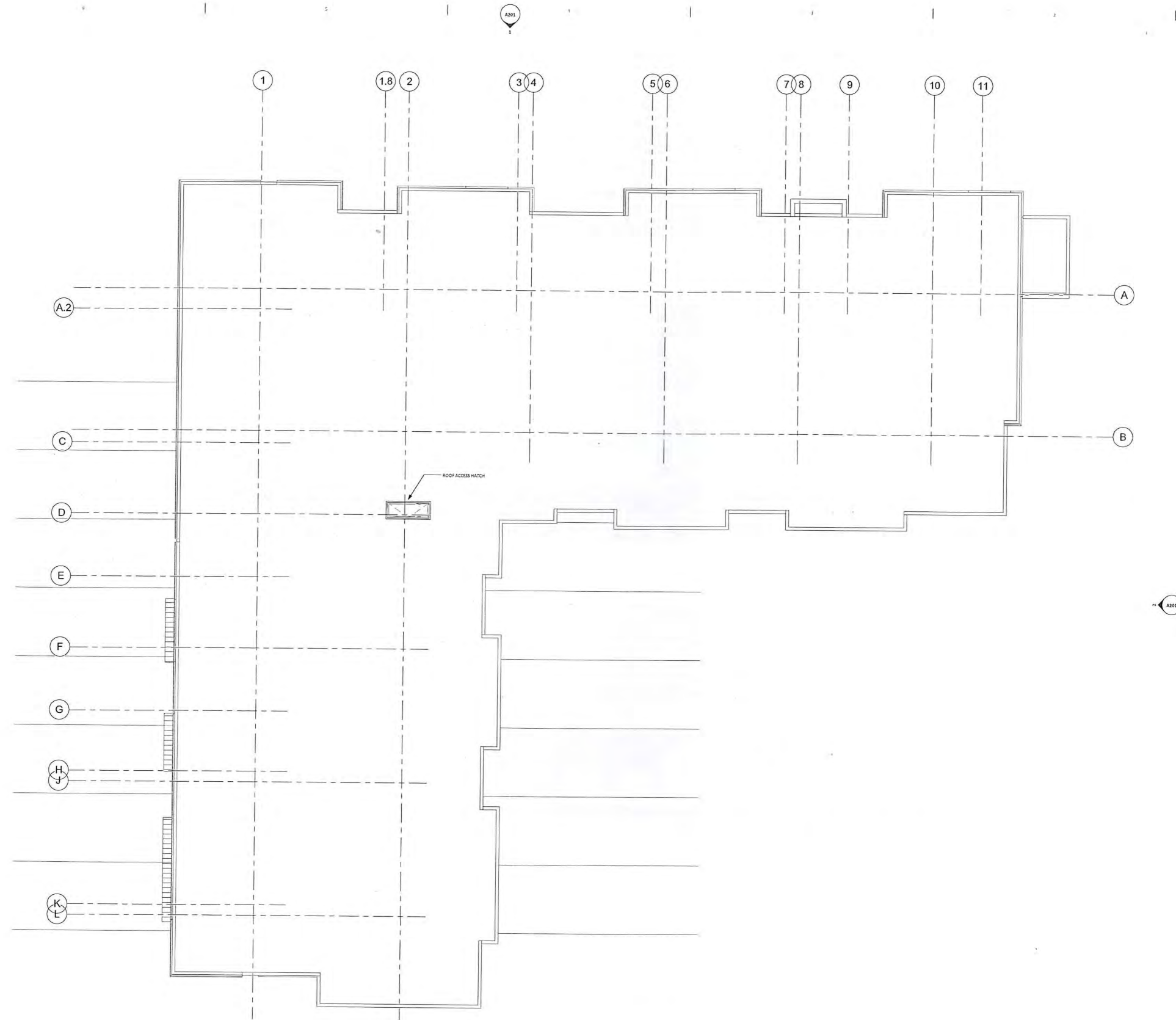


**1 2ND FLOOR OVERALL PLAN**  
SCALE: 1/8" = 1'-0"



A201

**GRAND FAMILY - BUILDING #7**  
 at UNION CORNERS  
 WINNEBAGO STREET  
 MADISON, WI 53704



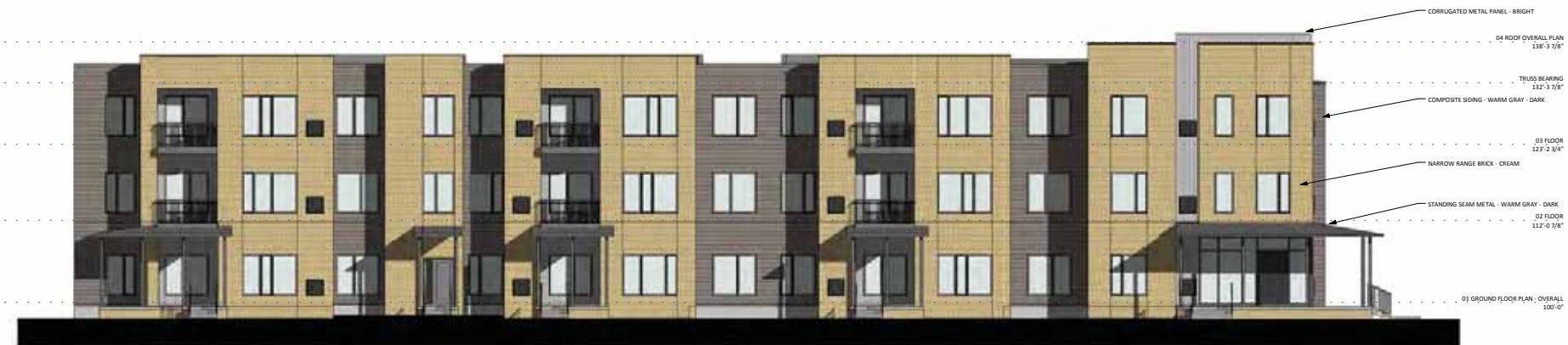
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 SCALE: 1/8" = 1'-0"

**SCHEMATIC**

Project No.	Project Number
Plot Date:	12/21/2017 8:32:03 AM
Drawn by:	Author
Date	Issue Description

Sheet Title  
 ROOF PLAN - OVERALL

Sheet No.  
**A141**



**1 NORTH ELEVATION**  
SCALE: 1/8" = 1'-0"



**2 EAST ELEVATION**  
SCALE: 1/8" = 1'-0"



**3 WEST ELEVATION**  
SCALE: 1/8" = 1'-0"



**4 SOUTH ELEVATION**  
SCALE: 1/8" = 1'-0"

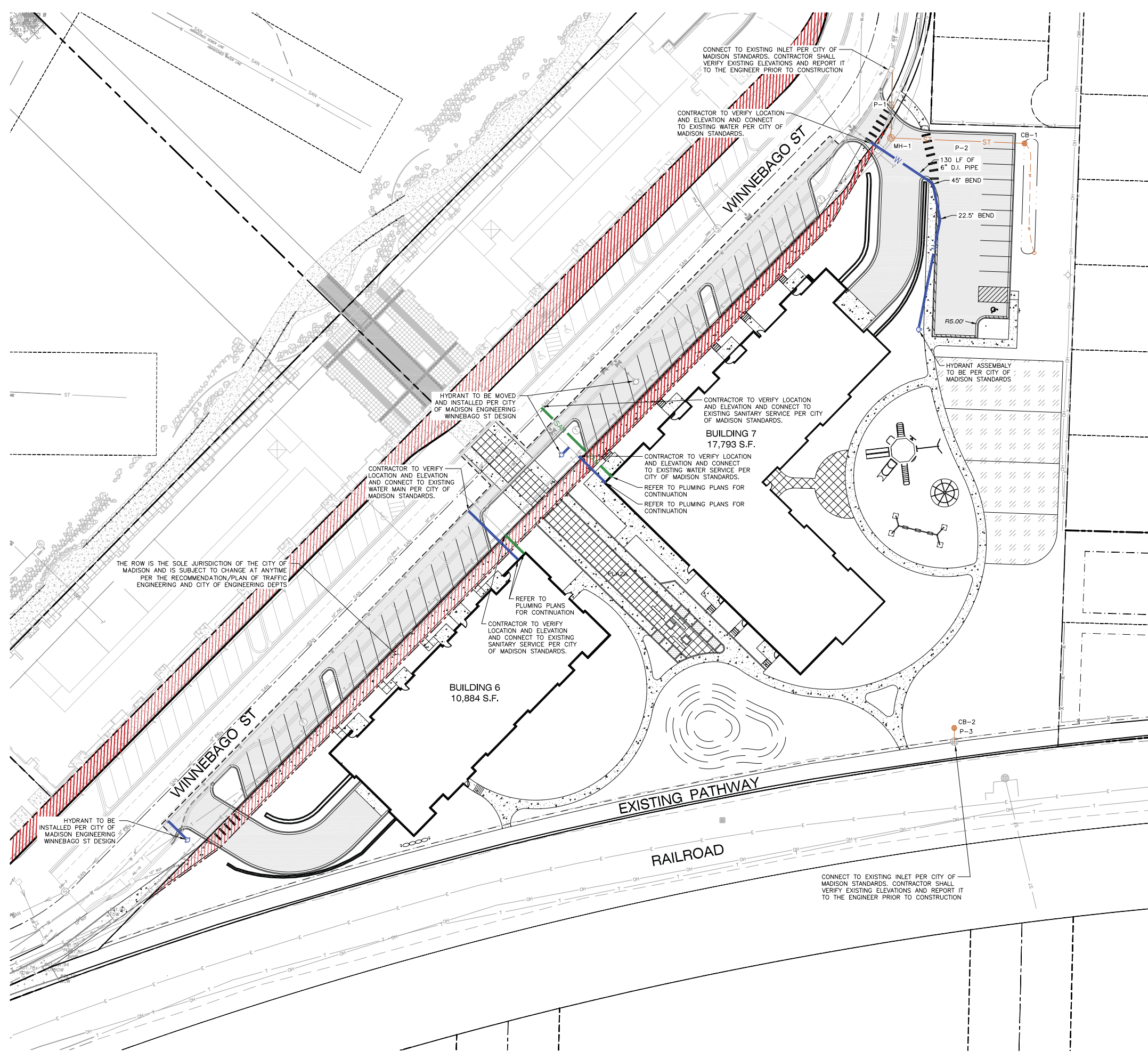
**GRAND FAMILY - BUILDING #7**  
at UNION CORNERS  
WINNEBAGO STREET  
MADISON, WI 53704

SCHEMATIC	
Project No.	Project Number
Plot Date:	12/20/2017 9:55:13 AM
Drawn by:	Author
Date	Issue Description

Sheet Title  
**EXTERIOR BUILDING  
ELEVATIONS**

Sheet No.  
**A201**

File: I:\2017\176095\DWG\17-8095\_Construction\_Documents.dwg Layout: C300 User: msanders Plotted: Dec 18, 2017 5:48pm Xref's:



- LEGEND (UTILITY PLAN)**
- PROPERTY LINE
  - RIGHT-OF-WAY
  - EASEMENT LINE
  - BUILDING OUTLINE
  - EDGE OF PAVEMENT
  - REJECT CURB AND GUTTER
  - MOUNTABLE CURB
  - ASPHALT PAVEMENT
  - HEAVY DUTY ASPHALT PAVEMENT
  - CONCRETE PAVEMENT
  - HEAVY DUTY CONCRETE PAVEMENT
  - STORMWATER MANAGEMENT AREA
  - BOULDER RETAINING WALL
  - MODULAR BLOCK RETAINING WALL
  - LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
  - ADA PARKING BOLLARDS/SIGNS
  - SANITARY SEWER
  - WATERMAIN
  - STORM SEWER

- UTILITY NOTES:**
- IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS WITHIN THE PLAN BECOME APPARENT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
  - 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.
  - THE CONTRACTOR SHALL INSTALL A PEDESTRIAN FENCE AROUND ALL EXCAVATIONS TO BE LEFT OPEN OVER NIGHT AS REQUIRED.
  - THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH ENGINEERING PLANS DESIGNED TO MEET ORDINANCES AND REQUIREMENTS OF THE MUNICIPALITY AND WISDOT, WDSPS, AND WDNR.
  - PRIOR TO CONSTRUCTION, THE 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 UTILITY ELEVATIONS AND NOTIFYING ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
    - NOTIFYING ALL UTILITIES PRIOR TO THE 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.
  - 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.
  - 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.
  - 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.
  - CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY DURING THE CONSTRUCTION OF IMPROVEMENTS.
  - CONTRACTOR SHALL CONTACT THE CITIES PUBLIC WORKS DEPARTMENT A MINIMUM OF 48 HOURS BEFORE CONNECTING TO PUBLIC UTILITIES. CONTRACTOR TO VERIFY SIZE AND DEPTH OF EXISTING UTILITY SERVICES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONNECTING.
  - CONTRACTOR MUST CONTACT AND IS REQUIRED TO NOTIFY THE CITIES WATER UTILITY 48 HOURS IN ADVANCE OF CONNECTING TO THE PUBLIC UTILITY.
  - ALL PRIVATE SANITARY BUILDING PIPE AND TUBING SHALL CONFORM TO SPS 384.30-2.
  - ALL PRIVATE STORM BUILDING PIPE AND TUBING SHALL CONFORM TO SPS 384.30-3.
  - ALL PRIVATE PIPE AND TUBING FOR WATER SERVICE SHALL CONFORM TO SPS 384.30-4.
  - ALL PRIVATE STORM PIPE SHALL CONFORM TO SPS 382.40(8)(B)4.A.
  - ALL PRIVATE PIPE SHALL BE INSTALLED PER SPS 382.40-8 INCLUDING AT LEAST 8' OF HORIZONTAL DISTANCE BETWEEN WATER PIPING AND SANITARY SEWER FROM CENTER OF PIPE TO CENTER OF PIPE AND 6' OF SEPARATION BETWEEN STORM SEWER AND WATER PIPING.
  - ALL LOCATIONS WHERE STORM SEWER AND WATER MAIN ARE CROSSING AND LESS THAN 3 FEET OF VERTICAL/HORIZONTAL SEPARATION IS PROVIDED, WATER MAIN SHALL BE INSULATED PER STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN LATEST EDITION. INSULATION SHALL CREATE A "BOX" ENCLOSED THE TOP AND SIDES OF WATER MAIN.

north

SCALE IN FEET

**DIGGERS HOTLINE**

Toll Free (800) 242-8511

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

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CLIENT:

**GORMAN**  
& COMPANY, INC.

CLIENT ADDRESS:  
**200 NORTH MAIN STREET  
OREGON, WI, 53575**

PRELIMINARY  
NOT FOR CONSTRUCTION

---

PROJECT:  
**UNION CORNERS  
LOT 1 GRADFAMILY**

---

PROJECT LOCATION:  
**CITY OF MADISON, WI  
DANE COUNTY**

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PLAN MODIFICATIONS:	Date:	Description:
1	12.20.17	LAND USE SUBMITTAL
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Design/Drawn: MSS 12-14-2017  
Approved: MSS 12-14-2017

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SHEET TITLE:  
**UTILITY PLAN**

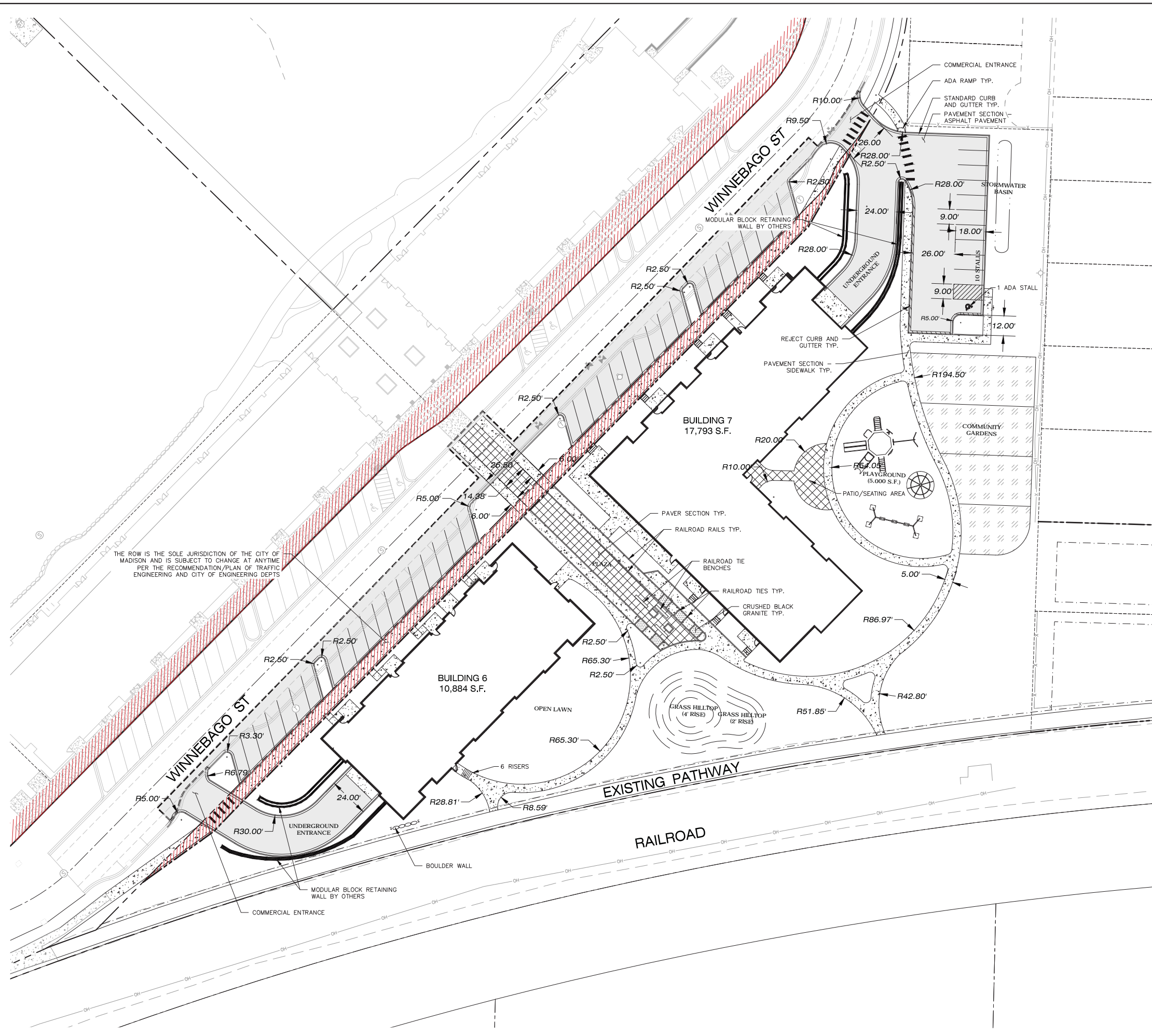
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SHEET NUMBER:  
**C300**

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JSD PROJECT NO: 17-8095

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**LEGEND (SITE PLAN)**

[Symbol]	PROPERTY LINE
[Symbol]	RIGHT-OF-WAY
[Symbol]	EASEMENT LINE
[Symbol]	BUILDING SETBACK LINE
[Symbol]	PAVEMENT SETBACK LINE
[Symbol]	BUILDING OUTLINE
[Symbol]	EDGE OF PAVEMENT
[Symbol]	STANDARD CURB AND GUTTER
[Symbol]	REJECT CURB AND GUTTER
[Symbol]	MOUNTABLE CURB
[Symbol]	ASPHALT PAVEMENT
[Symbol]	HEAVY DUTY ASPHALT PAVEMENT
[Symbol]	CONCRETE PAVEMENT
[Symbol]	HEAVY DUTY CONCRETE PAVEMENT
[Symbol]	SAWCUT EXISTING PAVEMENT
[Symbol]	STORMWATER MANAGEMENT AREA
[Symbol]	BOULDER RETAINING WALL
[Symbol]	MODULAR BLOCK RETAINING WALL
[Symbol]	LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
[Symbol]	ADA PARKING BOLLARDS/SIGNS

- GENERAL NOTES:**
- REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
  - ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND THE MUNICIPAL REQUIREMENTS.
  - EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
  - NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
  - 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.

- SITE PLAN NOTES**
- ALL DIMENSIONS TO FACE OF CURB AND/OR EDGING OF CONCRETE UNLESS OTHERWISE NOTED.
  - ALL RADI TO FACE OF CURB AND/OR EDGING OF CONCRETE UNLESS OTHERWISE NOTED.
  - ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET THE REQUIREMENTS OF THE CITY OF MADISON.
  - 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.
  - CONTRACTOR SHALL PROVIDE EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 24' ON CENTER.
  - EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.
  - ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK-26UV CONCRETE SEALANT.
  - MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
  - 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.
  - 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 HIGH VISIBILITY YELLOW LATEX PAINT PER SPECIFICATIONS.

**SITE INFORMATION BLOCK**

Site Address	WINNEBAGO ST
Existing Site Acreage (total)	3.17
Proposed Site Acreage (total)	3.05
Number of Building Stories (above grade)	4
Total Building Square Footage	28,676 SF
Use of property	MULTI-FAMILY
Number of parking stalls:	
Surface	
Large Stall	9
Accessible	1
Total Surface	10
Existing vs. Proposed Site Coverage:	
Existing Impervious Surface Area	5,428 S.F.
Existing Pervious Surface Area	132,657 S.F.
Proposed Impervious Surface Area	57,964 S.F.
Proposed Pervious Surface Area	74,894 S.F.
Proposed Impervious Surface Area Ratio	.44

\*calculated with proposed site acreage 3.05



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VERONA, WISCONSIN 53593  
P. 608.848.5060

CLIENT:

CLIENT ADDRESS:  
**200 NORTH MAIN STREET  
OREGON, WI, 53575**

PROJECT:  
**UNION CORNERS  
LOT 1 GRADFAMILY**

PROJECT LOCATION:  
**CITY OF MADISON, WI  
DANE COUNTY**

PLAN MODIFICATIONS:	Date:	Description:
1	12.20.17	LAND USE SUBMITTAL
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Design/Drawn: TKG 09-18-2017  
Approved: TKG 09-18-2017  
JLF 10-04-2017

SHEET TITLE:  
**SITE PLAN**

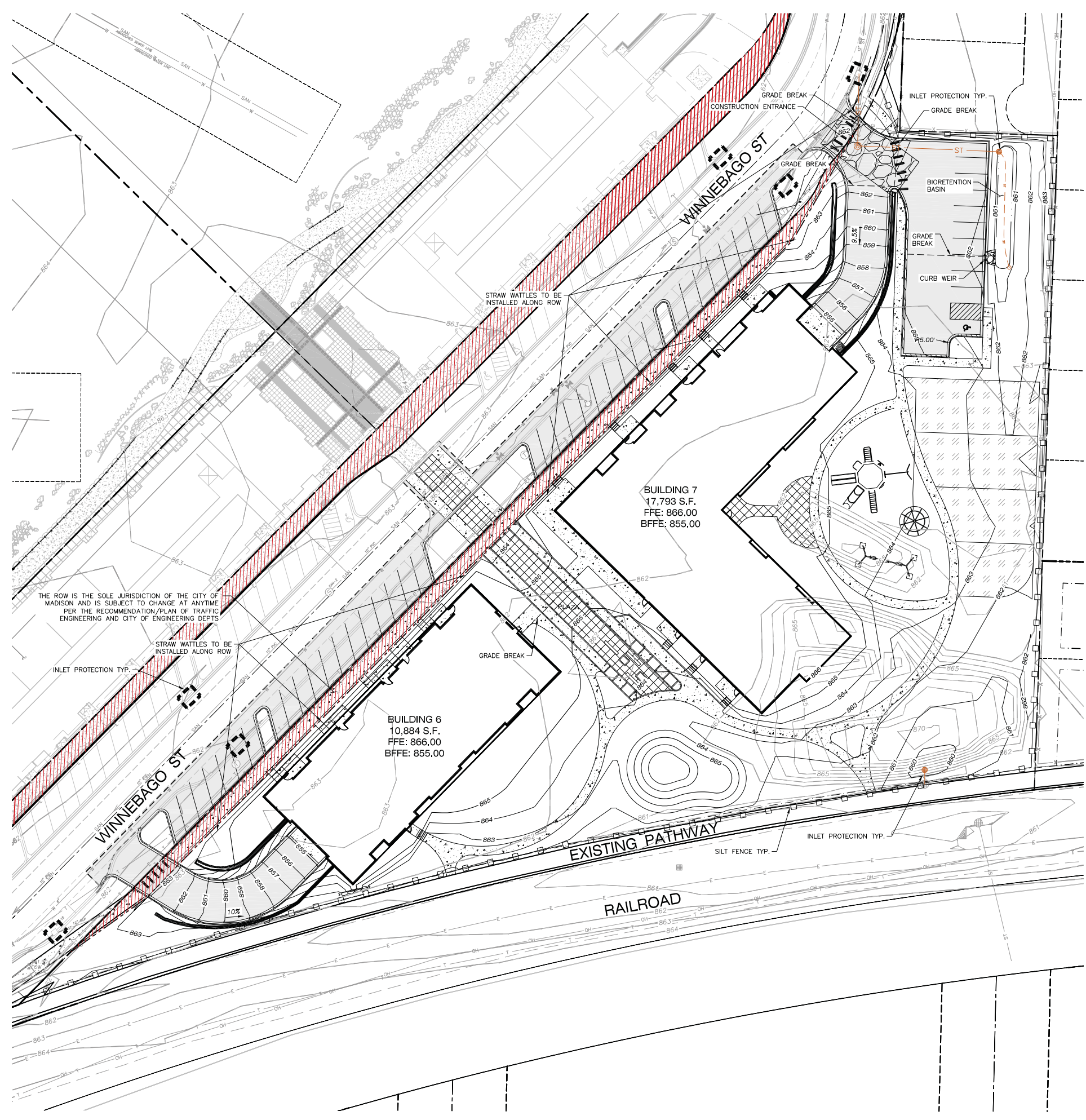
SHEET NUMBER:  
**C100**

JSD PROJECT NO: 17-8095

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**LEGEND (GRADING & EROSION CONTROL PLAN)**

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB
- ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- STORMWATER MANAGEMENT AREA
- BOULDER RETAINING WALL
- MODULAR BLOCK RETAINING WALL
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING BOLLARDS/SIGNS
- 864 --- PROPOSED 1 FOOT CONTOUR
- 865 --- PROPOSED 1 FOOT CONTOUR
- DRAINAGE DIRECTION
- ST --- STORM SEWER
- ST --- UNDERDRAIN
- SILT FENCE
- INLET PROTECTION, TYPE D
- SPOT ELEVATION
- EP --- EDGE OF PAVEMENT
- FG --- FINISH GRADE
- EC --- EDGE OF CONCRETE
- TS --- TOP OF STEP
- TB --- BOTTOM OF STEP
- RIM --- RIM ELEVATION
- GRADE BREAK

**CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS (CSECR) NOTES:**

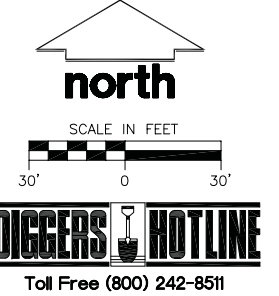
1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF NATURAL RESOURCES EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS WHICH ARE AVAILABLE AT: <http://www.dnr.state.wi.us/runoff/stormwater/techstds.htm>
2. INSTALL EROSION CONTROL MEASURES PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIALS AS SHOWN ON PLAN. MODIFICATIONS TO SEDIMENT CONTROL DESIGN MAY BE CONDUCTED TO MEET UNFORESEEN FIELD CONDITIONS IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS.
3. 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.
4. INSPECT EROSION CONTROL MEASURES AFTER EACH 1/2" OR GREATER RAINFALL. REPAIR ANY DAMAGE OBSERVED DURING THE INSPECTION.
5. 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% OF THE COVER FOR THE UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES.
6. INSTALL A TRACKING PAD, 50' LONG AND NO LESS THAN 12" THICK BY USE OF 3" CLEAR STONE. TRACKING PADS ARE TO BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO THE ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
7. INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES.
8. 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.
9. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED BY STATE INSPECTORS, LOCAL INSPECTORS, AND/OR ENGINEER SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
10. ALL SLOPES 4:1 OR GREATER SHALL BE STABILIZED WITH CLASS I, TYPE B EROSION MATTING AND DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING, WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. REFER BELOW TO NOTE NO. FIFTEEN (15) FOR STABILIZATION PRACTICES FOR POTENTIAL INTERIM STABILIZATION.
11. CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON VEGETATIVE STABILIZATION AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.
12. CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO CONTROL DUST ARISING FROM CONSTRUCTION OPERATIONS. REFER TO WDNR TECHNICAL STANDARD 1068.
13. **STABILIZATION PRACTICES:**
  - 13.1. \* 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:
    - \* 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.
    - \* 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.
    - \* 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
  - 13.2. \* 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.
  - 13.3. \* 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.
  - 13.4. \* 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

**GRADING AND SEEDING NOTES**

1. ALL DISTURBED AREAS SHALL BE SODDED AND/OR SEEDDED AND MULCHED IMMEDIATELY FOLLOWING GRADING ACTIVITIES. SOD/SEED MIX TO BE IN ACCORDANCE WITH LANDSCAPE PLAN.
2. 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.
3. CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES WITH SILT FENCING FOR EROSION CONTROL UNTIL CONSTRUCTION IS COMPLETED AND NOTICE OF TERMINATION FILED.
4. 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.
5. CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
6. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
7. THE CONTRACTOR SHALL NOTIFY THE CITY OF MADISON TWO (2) WORKING DAYS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
8. IF GRADING ACTIVITIES STOP ON ANY PORTION OF LAND FOR 14 OR MORE CALENDAR DAYS, THE AREA IN QUESTION MUST BE TEMPORARILY STABILIZED.
9. ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.

**CONSTRUCTION SEQUENCING**

1. INSTALL EROSION CONTROL MEASURES PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. STRIP TOPSOIL.
3. INSTALL ALL SWALES AND TEMP SEED BASIN
4. EXCAVATE BUILDING FOUNDATIONS.
5. COMPLETE ALL OTHER GRADING.
6. INSTALL STORM SEWER & INLET PROTECTION MEASURES.
7. INSTALL AGGREGATE BASE COURSE AND PAVING IN PARKING AREAS.
8. STABILIZE NEWLY GRADED SOILS.
9. COMPLETE EXTERIOR BUILDING WORK AND DOWNSPOUTS.
10. REGRADE & STABILIZE TEMPORARY SEDIMENT BASIN.



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VERONA, WISCONSIN 53593  
P. 608.848.5060



CLIENT ADDRESS:  
**200 NORTH MAIN STREET  
OREGON, WI, 53575**

PROJECT:  
**UNION CORNERS  
LOT 1 GRADFAMILY**

PROJECT LOCATION:  
**CITY OF MADISON, WI  
DANE COUNTY**

PLAN MODIFICATIONS:	Date:	Description:
1	12.20.17	LAND USE SUBMITTAL
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Design/Drawn: MSS 12/13/2017  
Approved: MSS 12/13/2017

SHEET TITLE:  
**GRADING & EROSION  
CONTROL PLAN**

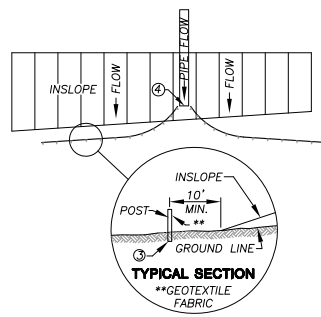
SHEET NUMBER:  
**C200**

JSD PROJECT NO: 17-8095

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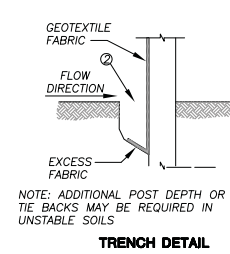
**PRELIMINARY  
NOT FOR CONSTRUCTION**



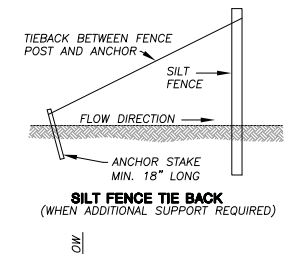


**SILT FENCE ALONG SLOPES & OUTFALLS**

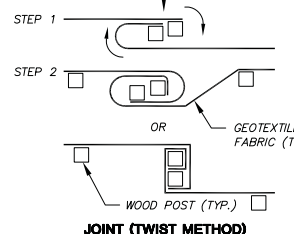
- SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8 INCHES OF FABRIC IN A 4" WIDE AND 6" DEEP TRENCH OR 6 INCH DEEP V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCHES SHALL NOT BE EXCAVATED WIDER OR DEEPER THAN NECESSARY FOR PROPER INSTALLATION.
- FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
- WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" x 1 1/8" OF DRIED OAK OR HICKORY.
- SILT FENCE TO EXTEND ABOVE THE TOP OF PIPE.
- SILT FENCE CONSTRUCTION AND GEOTEXTILE FABRIC SHALL CONFORM TO WDNR TECHNICAL STANDARD 1056.
- POST SPACING SHALL BE SELECTED BASED ON GEOTEXTILE FABRIC (8'-0" FOR WOVEN & 3'-0" FOR NON-WOVEN)



**TRENCH DETAIL**



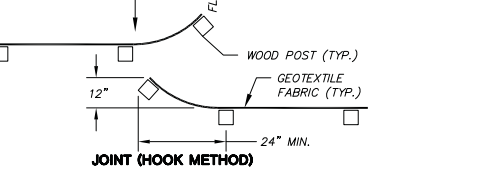
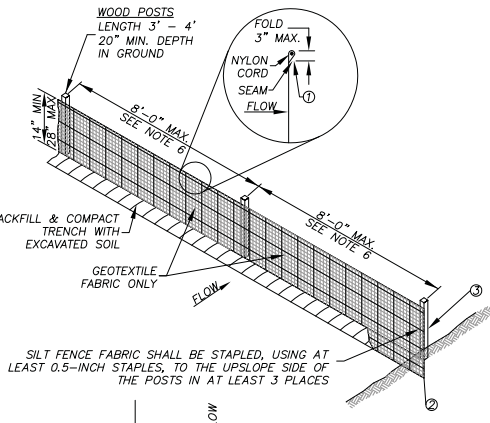
**SILT FENCE TIE BACK**



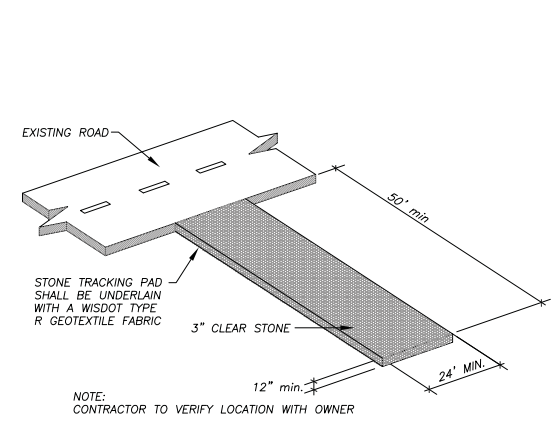
**JOINT (TWIST METHOD)**

**SILT FENCE**

N.T.S.

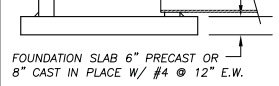
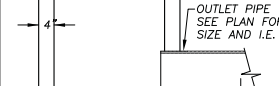
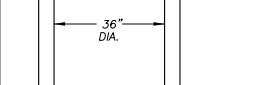
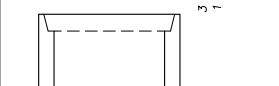
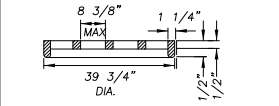
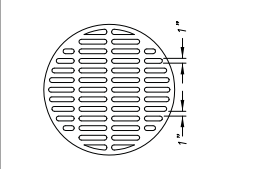


**JOINT (HOOK METHOD)**



**CONSTRUCTION ENTRANCE**

N.T.S.



**36" DIAMETER STORM INLET**

N.T.S.

IN BELL GRATE IS CUSTOM MANUFACTURED BY THE NEENAH FOUNDRY COMPANY TO MEET ASTM A-48 CLASS 35 B AND AASHTO M105 SPECIFICATIONS - GRATE HYDRAULICS ARE AVAILABLE UPON REQUEST

GRATES ARE AASHTO H20 LOAD RATED

GRATE SETS FLUSH WITH TOP OF CATCH BASIN BELL

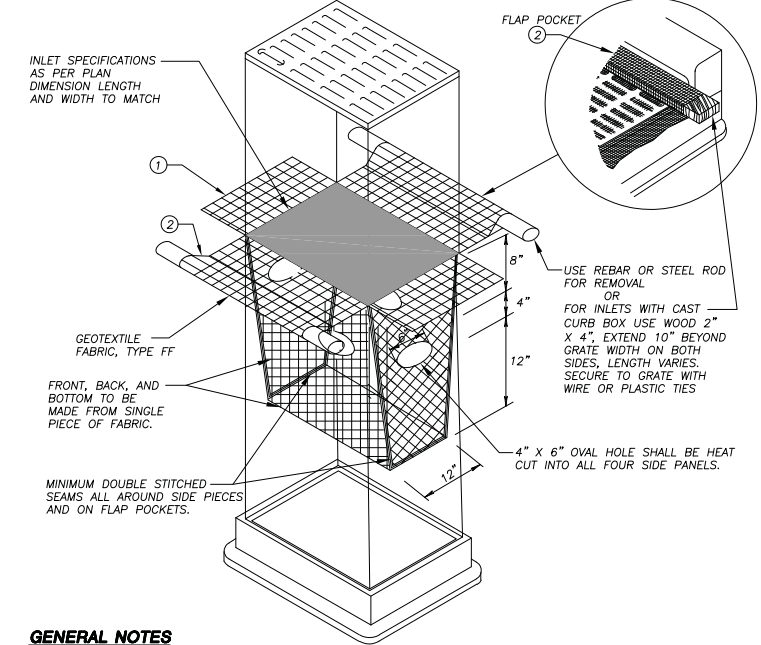
PRECAST REINFORCED CONCRETE CATCH BASIN IS MANUFACTURED TO MEET ASTM C-478 AND AASHTO M199 SPECIFICATIONS

STANDARD CATCH BASIN BARREL HEIGHTS: 0'-6", 1'-0", 2'-0", 3'-0" AND 4'-0"

STOCK 36" DIA. CATCH BASINS AVAILABLE WITH OR WITHOUT A 6" THICK INTEGRAL BASE OR AS SPECIFIED

CATCH BASIN JOINT MATERIAL: CONSEAL CS-102 AND/OR CS-202 AS MANUFACTURED BY CONCRETE SEALANTS INC., WHICH MEETS OR EXCEEDS REQUIREMENTS OF FEDERAL SPECIFICATION SS-5-210 (210A), AASHTO M-198B AND ASTM C-990

PIPE TO CATCH BASIN CONNECTORS: KOR-N-SEAL AS MANUFACTURED BY NPC INC., WHICH MEETS OR EXCEEDS REQUIREMENTS OF ASTM C-923



**GENERAL NOTES**

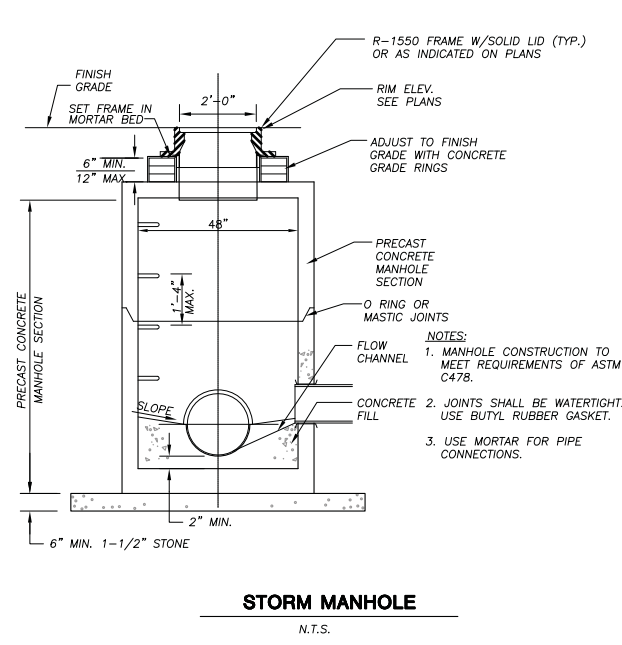
- INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.
- MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
- WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
- FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
  - FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

**INSTALLATION NOTES**

- DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
- TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" 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". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

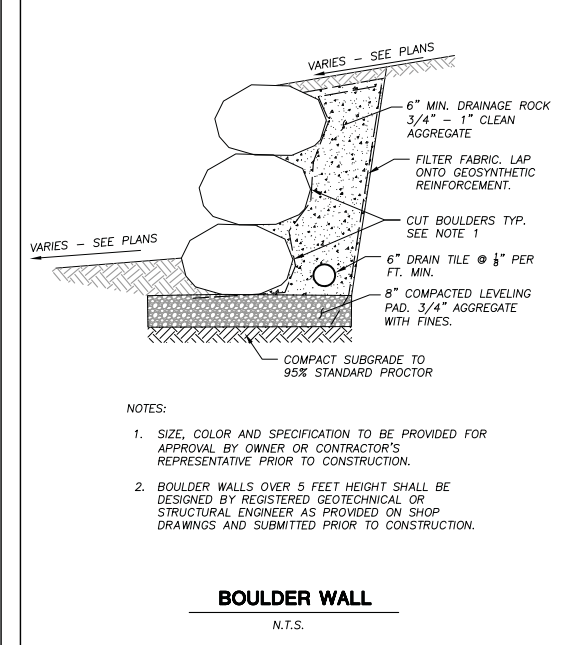
**INLET PROTECTION, TYPE D**

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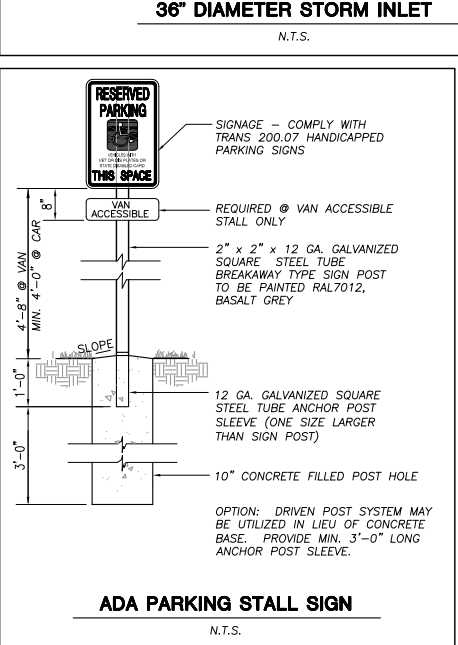
**STORM MANHOLE**

N.T.S.



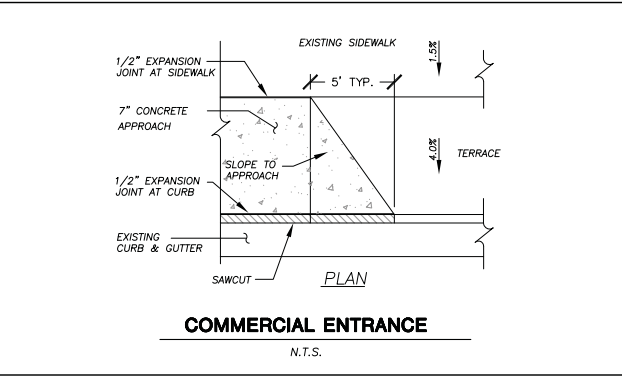
**BOULDER WALL**

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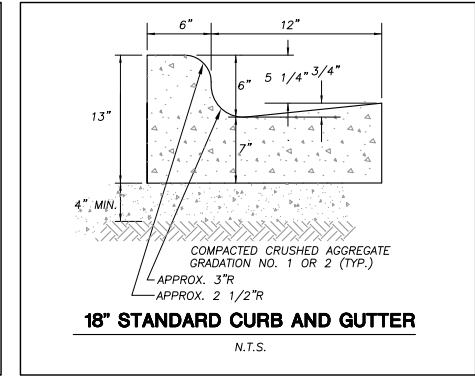
**ADA PARKING STALL SIGN**

N.T.S.



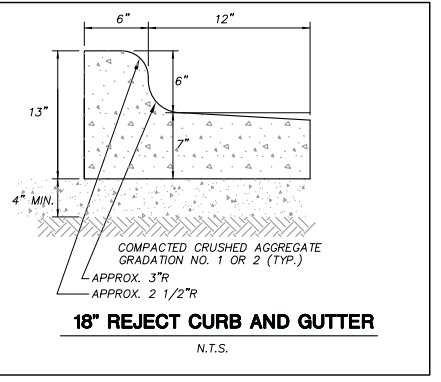
**COMMERCIAL ENTRANCE**

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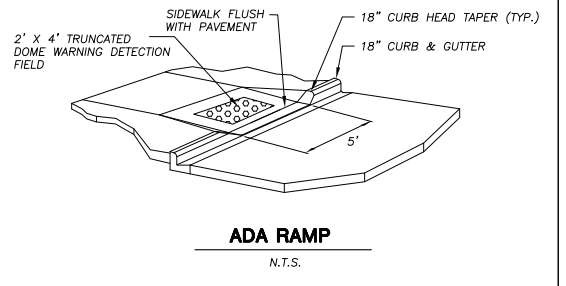
**18" STANDARD CURB AND GUTTER**

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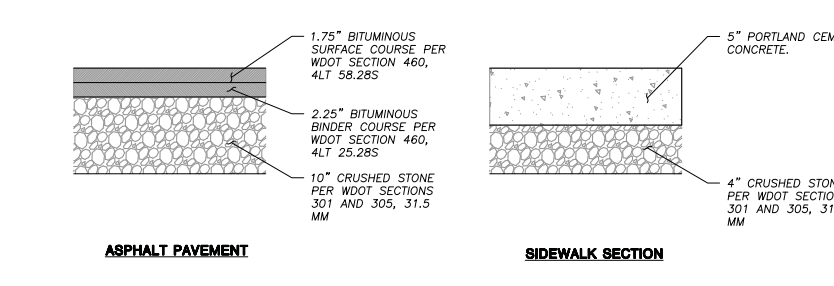
**18" REJECT CURB AND GUTTER**

N.T.S.



**ADA RAMP**

N.T.S.



**ASPHALT PAVEMENT**

**SIDEWALK SECTION**

- NOTES:
- REFER TO GEOTECHNICAL REPORT TO BE PERFORMED TO DETERMINE PROPER THICKNESS, IF THERE ARE ANY DISCREPANCIES BETWEEN THIS DETAIL AND GEOTECHNICAL REPORT, THE GEOTECHNICAL REPORT SHALL GOVERN.
  - WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, INCLUDING SUPPLEMENTAL SPECIFICATIONS, BUT EXCLUDING LIMITATIONS IN SECTION 460.3.2 RESTRICTING LAYER THICKNESS BY AGGREGATE SIZE.
  - COMPACTION REQUIREMENTS:
    - BITUMINOUS CONCRETES REFER TO SECTION 460-3.
    - BASE COURSE; REFER TO SECTION 301.3.4.2, STANDARD COMPACTION
    - MIXTURE TYPE E-0.3 BITUMINOUS PAVEMENT IS RECOMMENDED; REFER TO SECTION 460, TABLE 460-2 OF THE STANDARD SPECIFICATIONS.
    - CONCRETE PADS SHALL HAVE A WIRE REINFORCEMENT MESH (W6X6, 2.9X2.9) FOR CRACK CONTROL.

**PAVEMENT SECTIONS**

N.T.S.



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CLIENT ADDRESS:  
**200 NORTH MAIN STREET  
OREGON, WI, 53575**

PROJECT:  
**UNION CORNERS  
LOT 1 GRADFAMILY**

PROJECT LOCATION:  
**CITY OF MADISON, WI  
DANE COUNTY**

NO.	DATE	DESCRIPTION
1	12.26.17	LAND USE SUBMITTAL
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Design/Drawn: MSS 12-15-2017  
Approved: MSS 12-15-2017

SHEET TITLE:  
**DETAILS**

SHEET NUMBER:  
**C400**

JSD PROJECT NO: 17-8095



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PLAN MODIFICATIONS:	Date:	Description:
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Design/Drawn: MSS 12-15-2017  
Approved: MSS 12-15-2017

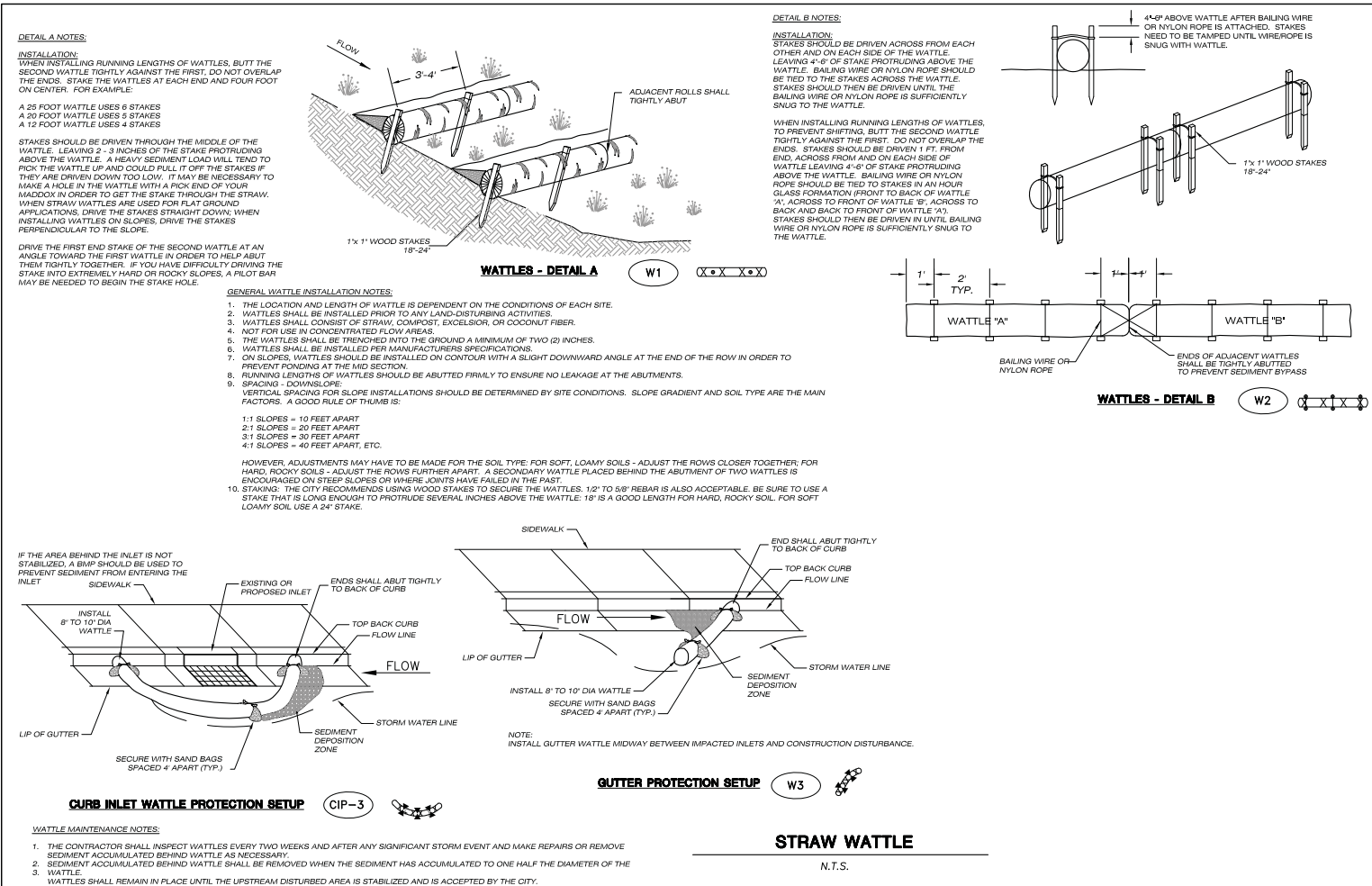
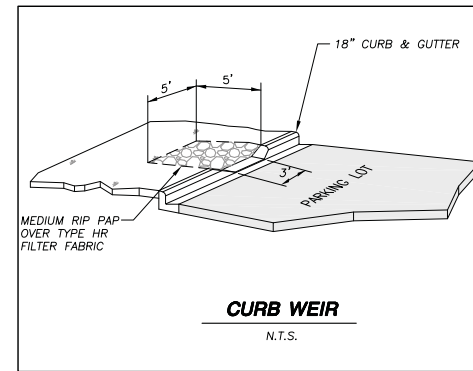
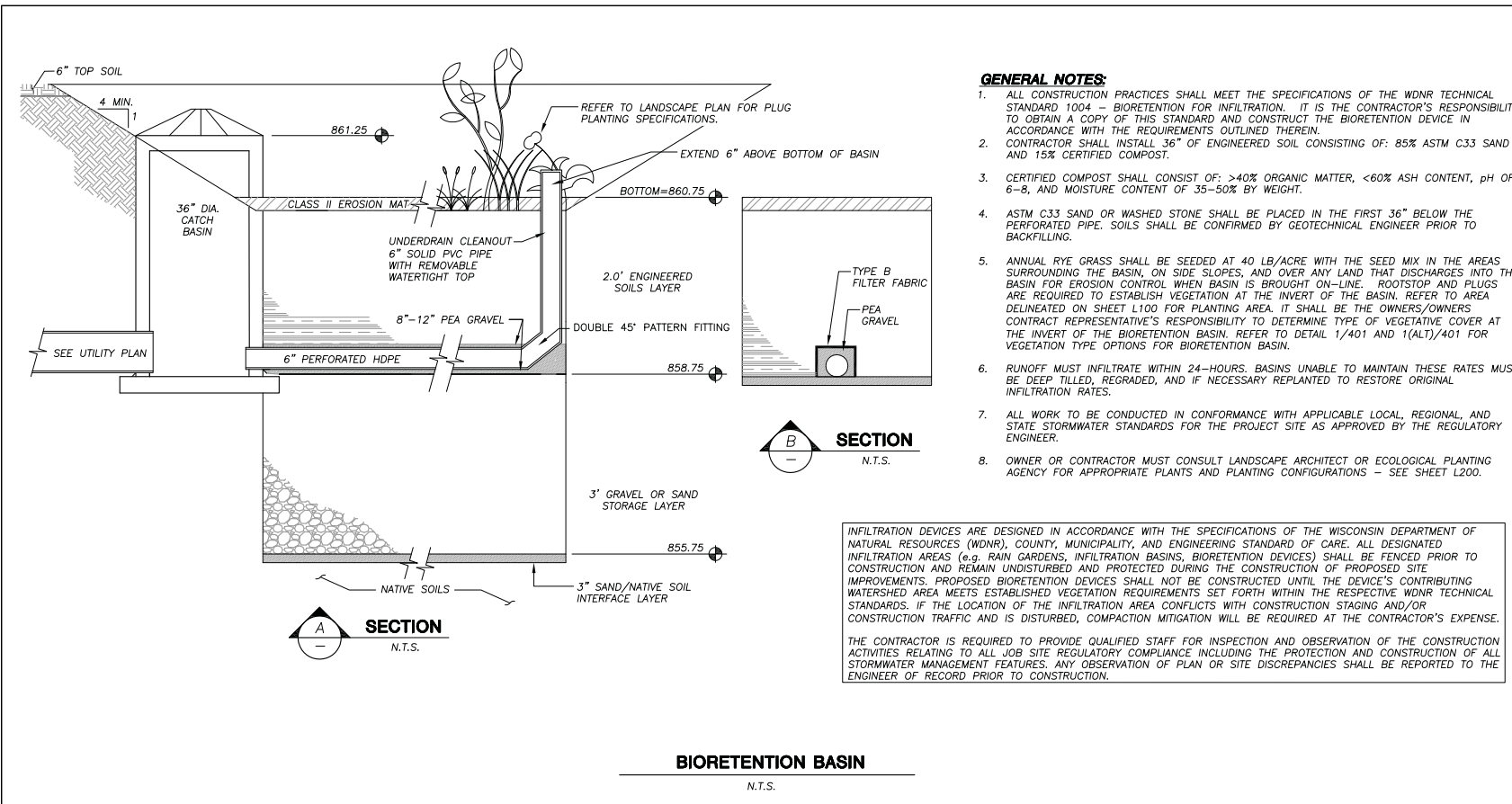
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JSD PROJECT NO:

17-8095



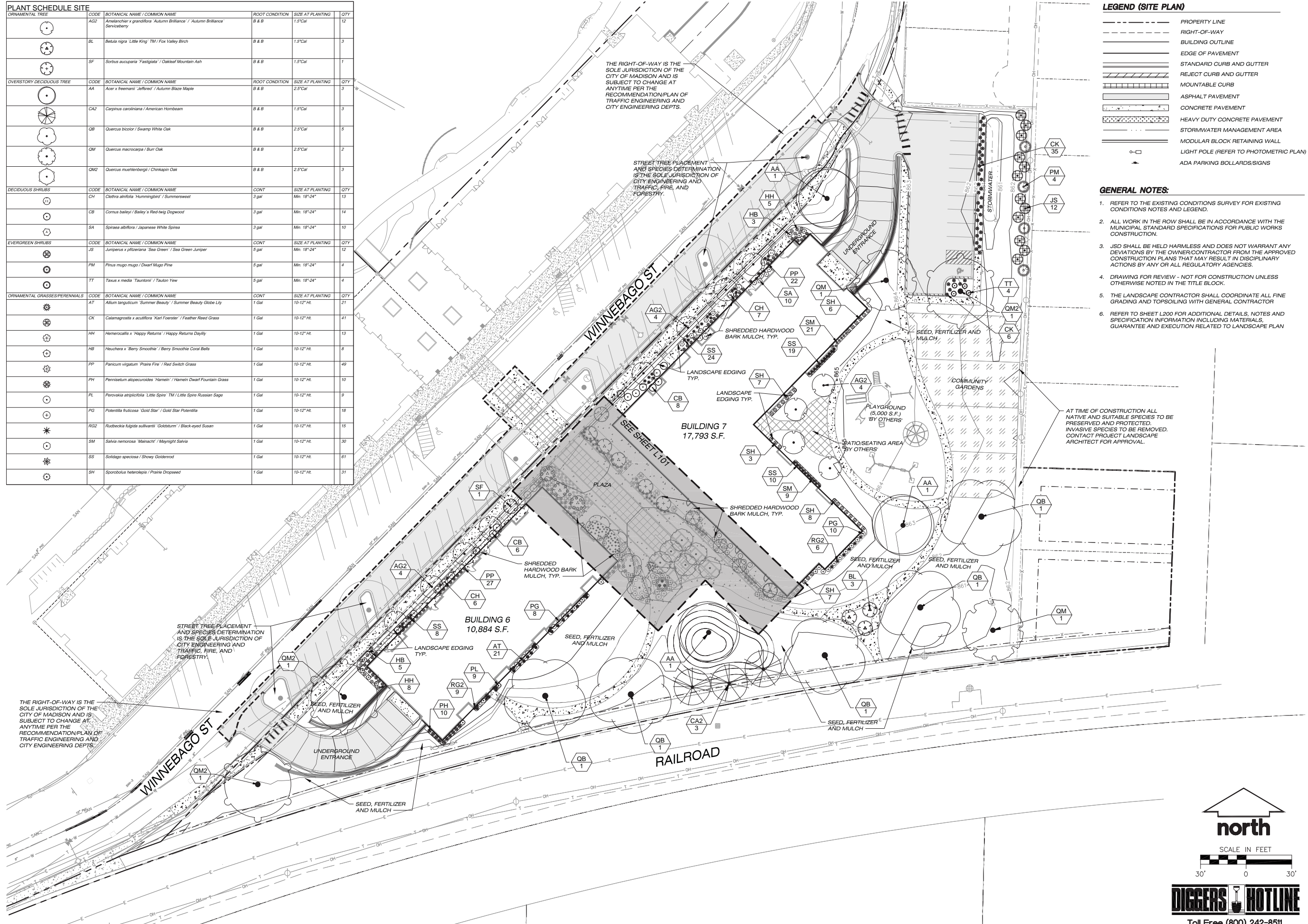


PLANT SCHEDULE SITE					
ORNAMENTAL TREE	CODE	BOTANICAL NAME / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	QTY
	AG2	Amenlanche x grandiflora 'Autumn Brilliance' / Autumn Brilliance Serviceberry	B & B	1.5' Cal	12
	BL	Betula nigra 'Little King' TM / Fox Valley Birch	B & B	1.5' Cal	3
	SF	Sorbus aucuparia 'Fastigiate' / Oakleaf Mountain Ash	B & B	1.5' Cal	1
OVERSTORY DECIDUOUS TREE	CODE	BOTANICAL NAME / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	QTY
	AA	Acer x freemanii 'Jeffers' / Autumn Blaze Maple	B & B	2.5' Cal	3
	CA2	Carpinus caroliniana / American Hornbeam	B & B	1.5' Cal	3
	QB	Quercus bicolor / Swamp White Oak	B & B	2.5' Cal	5
	QM	Quercus macrocarpa / Burr Oak	B & B	2.5' Cal	2
	QM2	Quercus muhlenbergii / Chinkapin Oak	B & B	2.5' Cal	3
DECIDUOUS SHRUBS	CODE	BOTANICAL NAME / COMMON NAME	CONT	SIZE AT PLANTING	QTY
	CH	Ceanothus alifolia 'Hummingbird' / Summersweet	3 gal	Min. 18"-24"	13
	CB	Cornus baileyi / Bailey's Red-twig Dogwood	3 gal	Min. 18"-24"	14
	SA	Spiraea alifolia / Japanese White Spiraea	3 gal	Min. 18"-24"	10
EVERGREEN SHRUBS	CODE	BOTANICAL NAME / COMMON NAME	CONT	SIZE AT PLANTING	QTY
	JS	Juniperus x pfitzeriana 'Sea Green' / Sea Green Juniper	5 gal	Min. 18"-24"	12
	PM	Pinus mugo mugo / Dwarf Mugo Pine	5 gal	Min. 18"-24"	4
	TT	Taxus x media 'Tautoni' / Tauton Yew	5 gal	Min. 18"-24"	4
ORNAMENTAL GRASSES/PERENNIALS	CODE	BOTANICAL NAME / COMMON NAME	CONT	SIZE AT PLANTING	QTY
	AT	Alumina sanguinum 'Summer Beauty' / Summer Beauty Globe Lily	1 Gal	10-12" HL	21
	CK	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	1 Gal	10-12" HL	41
	HH	Hemerocallis x 'Happy Returns' / Happy Returns Daylily	1 Gal	10-12" HL	13
	HB	Heuchera x 'Berry Smoothie' / Berry Smoothie Coral Bells	1 Gal	10-12" HL	8
	PP	Panicum virgatum 'Prairie Fire' / Red Switch Grass	1 Gal	10-12" HL	49
	PH	Pennisetum alpestricoides 'Hamel' / Hameln Dwarf Fountain Grass	1 Gal	10-12" HL	10
	PL	Perovskia atriplicifolia 'Little Spire' TM / Little Spire Russian Sage	1 Gal	10-12" HL	9
	PG	Potentilla fruticosa 'Gold Star' / Gold Star Potentilla	1 Gal	10-12" HL	18
	RG2	Rudbeckia fulgida sylvatica 'Goldsturm' / Black-eyed Susan	1 Gal	10-12" HL	15
	SM	Salvia nemorosa 'Mansueti' / Maynight Salvia	1 Gal	10-12" HL	30
	SS	Solidago speciosa / Showy Goldenrod	1 Gal	10-12" HL	61
	SH	Sporobolus heterolepis / Prairie Dropseed	1 Gal	10-12" HL	31

**LEGEND (SITE PLAN)**

- PROPERTY LINE
- RIGHT-OF-WAY
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- STORMWATER MANAGEMENT AREA
- MODULAR BLOCK RETAINING WALL
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING BOLLARDS/SIGNS

- GENERAL NOTES:**
- REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
  - ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
  - 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.
  - DRAWING FOR REVIEW - NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
  - THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
  - REFER TO SHEET L200 FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN



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

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CLIENT:

**GORMAN**  
& COMPANY, INC.

---

CLIENT ADDRESS:  
**200 NORTH MAIN STREET  
OREGON, WI, 53575**

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PROJECT:  
**UNION CORNERS  
LOT 1 GRADFAMILY**

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PROJECT LOCATION:  
**CITY OF MADISON, WI  
DANE COUNTY**

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PLAN MODIFICATIONS:	Date:	Description:
1	12.20.17	LAND USE SUBMITTAL
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Design/Drawn: TKG 09-18-2107  
Approved: MAS 10-17-2017

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SHEET TITLE:  
**LANDSCAPE PLAN**

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SHEET NUMBER:  
**L100**

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JSD PROJECT NO: 17-8095

PRELIMINARY  
NOT FOR CONSTRUCTION

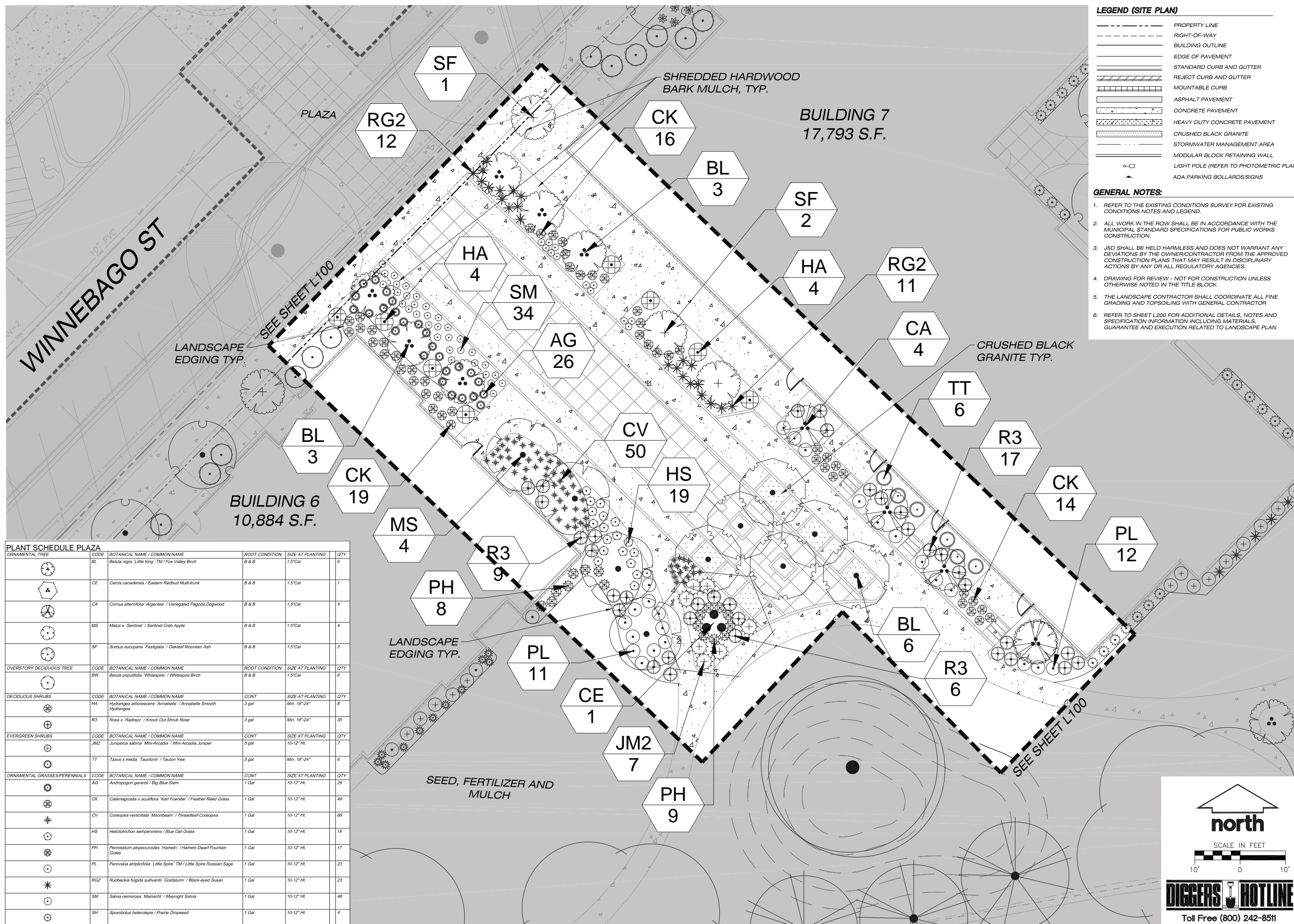
north

SCALE IN FEET

**DIGGERS HOTLINE**  
Toll Free (800) 242-8511

File: L:\2017\178095\DWG\17-8095\_Landscape\_Plan.dwg Layout: L100 (22x34) User: jgustin Plotted: Dec 19, 2017 - 12:41pm Xref's: 17-8095 Union Corners

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**LEGEND (SITE PLAN)**

- PROPERTY LINE
- - - RIGHT-OF-WAY
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- CRUSHED BLACK GRANITE
- STORMWATER MANAGEMENT AREA
- MODULAR BLOCK RETAINING WALL
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING BOLLARDS/SIGNS

- GENERAL NOTES:**
1. REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
  2. ALL WORK IN THE ROW SHALL BE IN ACCORDANCE WITH THE MUNICIPAL STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
  3. 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.
  4. DRAWING FOR REVIEW - NOT FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE TITLE BLOCK.
  5. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL FINE GRADING AND TOPSOILING WITH GENERAL CONTRACTOR
  6. REFER TO SHEET L200 FOR ADDITIONAL DETAILS, NOTES AND SPECIFICATION INFORMATION INCLUDING MATERIALS, GUARANTEE AND EXECUTION RELATED TO LANDSCAPE PLAN

PLANT SCHEDULE PLAZA					
ORNA	CODE	BOTANICAL NAME / COMMON NAME	ROOT CONDITION	SIZE AT PLANTING	QTY
ORNA	BL	Betula nigra 'Little King' TM / Fox Valley Birch	B & B	1.5' Cal	6
ORNA	CE	Cercis canadensis / Eastern Redbud Multi-trunk	B & B	1.5' Cal	1
ORNA	CA	Cornus alternifolia 'Argentea' / Variegated Pagoda Dogwood	B & B	1.5' Cal	4
ORNA	MS	Malus x 'Sentinel' / Sentinel Crab Apple	B & B	1.5' Cal	4
ORNA	SF	Sorbus aucuparia 'Fastigiata' / Oakleaf Mountain Ash	B & B	1.5' Cal	3
ORNA	BW	Betula populifolia 'Whitespire' / Whitespire Birch	B & B	1.5' Cal	8
ORNA	HA	Hydrangea arborescens 'Annabelle' / Annabelle Smooth Hydrangea	3 gal	Min. 18"-24"	8
ORNA	R3	Rosa x 'Radrazz' / Knock Out Shrub Rose	3 gal	Min. 18"-24"	35
ORNA	JM2	Juniperus sabina 'Mini-Arcadia' / Mini Arcadia Juniper	5 gal	10-12" Ht.	7
ORNA	TT	Taxus x media 'Tauntoni' / Tauntion Yew	5 gal	Min. 18"-24"	6
ORNA	AG	Andropogon gerardi / Big Blue Stem	1 Gal	10-12" Ht.	26
ORNA	CK	Calamagrostis x acutiflora 'Karl Foerster' / Feather Reed Grass	1 Gal	10-12" Ht.	49
ORNA	CV	Carex verticillata 'Moonbeam' / Threadleaf Carex	1 Gal	10-12" Ht.	66
ORNA	HS	Helictotrichon sempervirens / Blue Oat Grass	1 Gal	10-12" Ht.	19
ORNA	PH	Pennisetum alopecuroides 'Hameln' / Hameln Dwarf Fountain Grass	1 Gal	10-12" Ht.	17
ORNA	PL	Perovskia atriplicifolia 'Little Spire' TM / Little Spire Russian Sage	1 Gal	10-12" Ht.	23
ORNA	RG2	Rudbeckia fulgida sultivari' Goldsturm' / Black-eyed Susan	1 Gal	10-12" Ht.	23
ORNA	SM	Salvia nemorosa 'Mairacht' / Maynight Salvia	1 Gal	10-12" Ht.	46
ORNA	SH	Sporobolus heterolepis / Prairie Dropseed	1 Gal	10-12" Ht.	4

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PROJECT:  
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LOT 1 GRADFAMILY**

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PROJECT LOCATION:  
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DANE COUNTY**

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Design/Drawn: TKG 09-18-2107  
Approved: MAS 10-17-2017

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SHEET TITLE:  
**COURTYARD  
LANDSCAPE PLAN**

---

SHEET NUMBER:  
**L101**

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JSD PROJECT NO: 17-8095

**north**

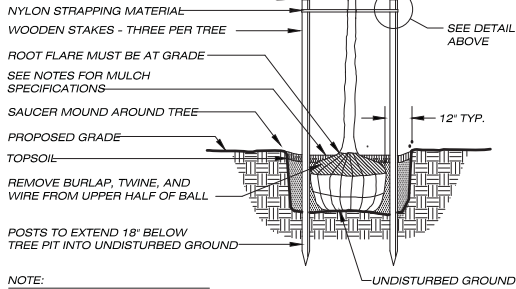
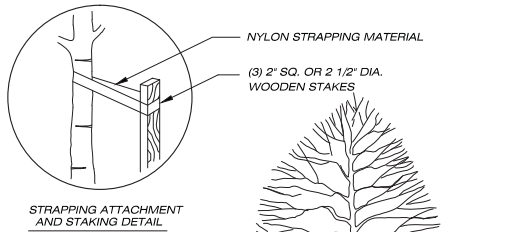
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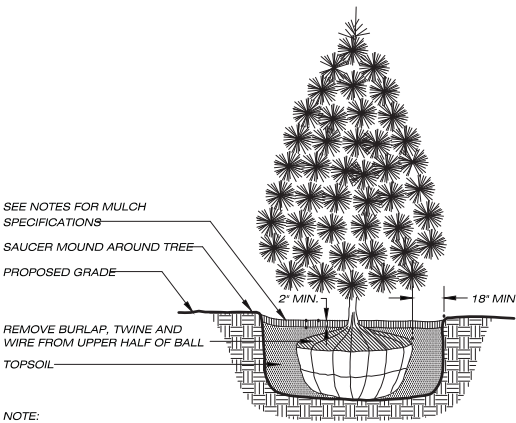
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**PRELIMINARY  
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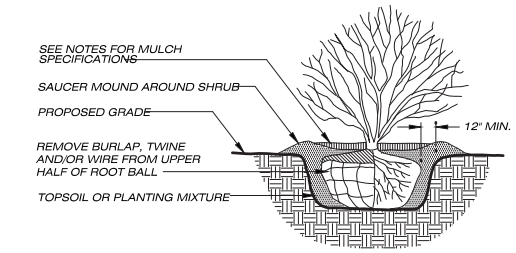
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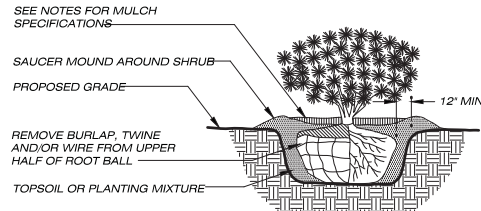
**1**  
**L200** **DECIDUOUS TREE PLANTING DETAIL**  
N.T.S.



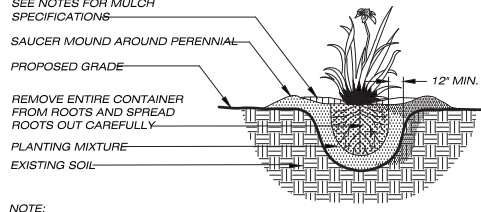
**2**  
**L200** **EVERGREEN TREE PLANTING DETAIL**  
N.T.S.



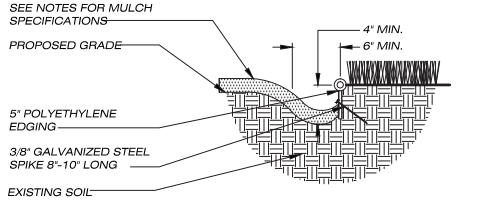
**3**  
**L200** **DECIDUOUS SHRUB PLANTING DETAIL**  
N.T.S.



**4**  
**L200** **EVERGREEN SHRUB PLANTING DETAIL**  
N.T.S.



**5**  
**L200** **PERENNIAL/ORNAMENTAL GRASS PLANTING DETAIL**  
N.T.S.



**6**  
**L200** **LANDSCAPE EDGING DETAIL**  
N.T.S.



**CITY OF MADISON**  
**LANDSCAPE WORKSHEET**  
Section 28.142 Madison General Ordinance

Project Location / Address: UNION CORNERS, MADISON, WI 53704  
 Name of Project: GORMAN - GRAND FAMILY DEVELOPMENT  
 Owner / Contact: GORMAN  
 Contact Phone: (608) 848-5060 Contact Email: JUSTIN.FRAHM@USDINC.COM

**\*\* Landscape plans for zoning lots greater than ten thousand (10,000) square feet in size MUST be prepared by a registered landscape architect. \*\***

**Applicability**

The following standards apply to all exterior construction and development activity, including the expansion of existing buildings, structures and parking lots, except the construction of detached single-family and two-family dwellings and their accessory structures. The entire development site must be brought up to compliance with this section unless all of the following conditions apply, in which case only the affected areas need to be brought up to compliance:

- The area of site disturbance is less than ten percent (10%) of the entire development site during any ten (10) year period.
- Gross floor area is only increased by ten percent (10%) during any ten (10) year period.
- No demolition of a principal building is involved.
- Any displaced landscaping elements must be replaced on the site and shown on a revised landscaping plan.

**Landscape Calculations and Distribution**

Required landscaped areas shall be calculated based upon the total developed area of the property. Developed area is defined as that area within a single contiguous boundary which is made up of structures, parking, driveways and decking/loading facilities, but excluding the area of any building footprint at grade, land designated for open space uses such as athletic fields, and unexcavated land area on the same zoning lot. There are three methods for calculating landscape points depending on the size of the lot and Zoning District:

- For all lots except those described in (b) and (c) below, five (5) landscape points shall be provided for each three hundred (300) square feet of developed area.
 

Total square footage of developed area	29,288
Total landscape points required	489

- For lots larger than five (5) acres, points shall be provided at five (5) points per three hundred (300) square feet for the first five (5) developed acres, and one (1) point per one hundred (100) square feet for all additional acres.
 

Total square footage of developed area	
Five (5) acres =	217,800 square feet
First five (5) developed acres =	3,630 points
Remainder of developed area	
Total landscape points required	

- For the Industrial - Limited (IL) and Industrial - General (IG) districts, one (1) point shall be provided per one hundred (100) square feet of developed area.
 

Total square footage of developed area	
Total landscape points required	

10/2013

**Tabulation of Points and Credits**

Use the table to indicate the quantity and points for all existing and proposed landscape elements.

Plant Type/ Element	Minimum Size at Installation	Points	Credits/ Existing Landscaping		New/ Proposed Landscaping	
			Quantity	Points Achieved	Quantity	Points Achieved
Overstory deciduous tree	2 1/2 inch caliper measured diameter at breast height (dbh)	35			22	770
Tall evergreen tree (i.e. pine, spruce)	5-6 feet tall	35				
Ornamental tree	1 1/2 inch caliper	15			35	525
Upright evergreen shrub (i.e. arbutus)	3-4 feet tall	10				
Shrub, deciduous	#3 gallon container size, Min. 12"-24"	3			80	240
Shrub, evergreen	#3 gallon container size, Min. 12"-24"	4			33	132
Ornamental grasses/ perennials	#1 gallon container size, Min. 8"-18"	2			575	1150
Ornamental/ decorative fencing or wall	n/a	4 per 10 linear ft.				
Existing significant specimen tree	Minimum size: 2 1/2 inch caliper dbh. *Trees must be within developed area and cannot comprise more than 30% of total required points.	14 per caliper inch dbh. Maximum points per tree: 200				
Landscape furniture for public seating and/or transit connections	* Furniture must be within developed area, publicly accessible, and cannot comprise more than 5% of total required points.	5 points per "seat"				
<b>Sub Totals</b>						<b>2,817</b>

Total Number of Points Provided 2,817

\* As determined by ANSI, ANLA - American standards for nursery stock. For each size, minimum plant sizes shall conform to the specifications as stated in the current American Standard for Nursery Stock.

**GENERAL NOTES**

- GENERAL: ALL WORK IN THE R-O-W AND PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS. 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. LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE DONE TO UTILITIES. CONTRACTOR MUST CALL 1-800-382-5544 FOR UTILITY LOCATIONS AT LEAST THREE DAYS PRIOR TO DIGGING. HAND DIG AND INSTALL ALL PLANTS THAT ARE NEAR EXISTING UTILITIES. PROTECT PREVIOUSLY INSTALLED WORK OF OTHER TRADES. CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.
- DELIVERY AND HANDLING: DO NOT DELIVER MORE PLANT MATERIALS THAN CAN BE PLANTED IN ONE DAY, UNLESS ADEQUATE, APPROPRIATE AND SECURE STORAGE IS PROVIDED AND APPROVED BY OWNER'S REPRESENTATIVE. AT ALL TIMES, PROTECT ALL PLANT MATERIALS FROM WIND AND DIRECT SUN. DELIVER PLANTS WITH LEGIBLE IDENTIFICATION LABELS. PROTECT PLANTS DURING DELIVERY AND DO NOT PRUNE PRIOR TO DELIVERY. ALL TREES AND SHRUBS SHALL BE PLANTED ON THE DAY OF DELIVERY; IF THIS IS NOT POSSIBLE, PROTECT THE PLANT MATERIALS NOT PLANTED BY STORING THEM IN A SHADED, SECURE AREA, PROTECTING THE ROOT MASS WITH WET SOIL, MULCH, HAY OR OTHER SUITABLE MEDIUM. CONTRACTOR TO KEEP ALL PLANT MATERIALS ADEQUATELY WATERED TO PREVENT ROOT DESICCATION. DO NOT REMOVE CONTAINER GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING. DO NOT PICK UP CONTAINER OR BALLED PLANTS BY STEM OR ROOTS. ALL PLANTS SHALL BE LIFTED AND HANDLED FROM THE BOTTOM OF THE CONTAINER OR BALL. PERFORM ACTUAL PLANTING ONLY WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH LOCALLY ACCEPTED BEST HORTICULTURAL PRACTICES.
- MATERIALS - PLANTS: ALL PLANTS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1-2004. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST 2 YEARS. PLANTS SHALL BE FRESHLY DUG (DURING THE MOST RECENT FAVORABLE HARVEST SEASON). PLANTS SHALL BE SO TRAINED IN DEVELOPMENT AND APPEARANCE AS TO BE UNQUESTIONABLY SUPERIOR IN FORM, COMPACTNESS, AND SYMMETRY. PLANTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF, AND FREE OF DISEASE AND INSECTS (ADULT EGGS, PUPAE OR LARVAE). THEY SHALL HAVE HEALTHY, WELL-DEVELOPED ROOT SYSTEMS AND SHALL BE FREE FROM PHYSICAL DAMAGE OR OTHER CONDITIONS THAT WOULD PREVENT THRIVING GROWTH. PLANTS SHALL BE OF THE HIGHEST QUALITY, POSSESS TYPICAL GROWTH HABITS AND FORM FOR THEIR SPECIES AND BE FREE OF INJURY. PARKWAY TREES AND PARKING LOT TREES SHALL HAVE A MINIMUM BRANCHING HEIGHT OF SIX (6) FEET ABOVE THE GROUND TO ALLOW ADEQUATE VISUAL AND PHYSICAL CLEARANCE.
- PRUNING: THE CONTRACTOR SHALL PRUNE ALL TREES AND REPAIR ANY INJURIES THAT OCCURRED DURING THE PLANTING PROCESS. DOUBLE LEADERS, DEAD BRANCHES, AND LIMBS DAMAGED OR BROKEN DURING THE PLANTING PROCESS SHALL BE PRUNED. THIS SHALL BE THE ONLY PRUNING ALLOWED AT PLANTING. PRUNING SHALL CONFORM TO AMERICAN STANDARD FOR TREE CARE OPERATIONS, ANSI A300. PRUNE TREES IN ACCORDANCE WITH NAA GUIDELINES. DO NOT TOP TREES. PRUNE SHRUBS ACCORDING TO STANDARD HORTICULTURAL PRACTICES. ON CUTS OVER 3/4" IN DIAMETER AND BRUISES OR SCARS ON BARK, TRACE THE INJURED CAMBIAL LAYER BACK TO LIVING TISSUE AND REMOVE. SMOOTH AND SHAPE WOUNDS SO AS NOT TO RETAIN WATER. TREAT THE AREA WITH AN APPROVED INCONSPICUOUS LATEX BASED ANTISEPTIC TREE PAINT, IF PRUNING OCCURS IN SEASON. DO NOT PRUNE ANY OAK TREES DURING THE MONTHS FROM APRIL TO OCTOBER.
- CLEANUP: DISPOSED OF EXCESS SOIL. REMOVE ALL CUTTINGS AND WASTE MATERIALS. SOIL, BRANCHES, BINDING AND WRAPPING MATERIALS, REJECTED PLANTS, OR OTHER DEBRIS RESULTING FROM ANY PLANTING SHALL BE PROMPTLY CLEANED UP AND REMOVED. THE WORK AREA SHALL BE KEPT SAFE AND NEAT AT ALL TIMES. UNDER NO CIRCUMSTANCES SHALL THE ACCUMULATION OF SOIL, BRANCHES OR OTHER DEBRIS BE ALLOWED UPON A PUBLIC PROPERTY IN SUCH A MANNER AS TO RESULT IN A PUBLIC SAFETY HAZARD. LIKEWISE, UNDER NO CIRCUMSTANCES SHALL ANY DEBRIS OR INCIDENTAL MATERIALS BE ALLOWED UPON ADJACENT PRIVATE PROPERTY.

**LANDSCAPE MATERIAL NOTES**

- MATERIALS - SOIL: PLANTING SOIL SHALL MEET THESE REQUIREMENTS:
  - PLANTING AREAS = 24"
  - TREE PITS = SEE DETAILS
- PLANTING SOIL TO BE A MINIMUM 24" DEPTH, UNLESS OTHERWISE SPECIFIED AS ABOVE OR ON DETAILS. TOPSOIL TO BE CLEAN, FRIABLE LOAM FROM A LOCAL SOURCE, FREE FROM STONES OR DEBRIS OVER 3/4" IN DIAMETER, AND FREE FROM TOXINS. TOPSOIL SHALL HAVE A pH VALUE BETWEEN 6 AND 7. TOPSOIL AND PLANTING SOIL SHALL BE TESTED TO CONFORM TO THESE SPECIFICATIONS AND SHALL BE AMENDED TO MEET THESE SPECIFICATIONS. PROVIDE TEST RESULTS TO OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT. DO NOT PLACE FROZEN OR MUDDY TOPSOIL. APPLY SOIL AMENDMENTS TO ALL LANDSCAPE AREAS PER SOIL TEST.
- MATERIALS - SHREDDED HARDWOOD BARK MULCH: ALL PLANTING AREAS LABELED ON PLAN SHALL RECEIVE CERTIFIED WEED FREE SHREDDED HARDWOOD BARK MULCH OVER ALL PLANTING AREAS. SHREDDED HARDWOOD BARK MULCH SIZE & COLOR TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. FERTILIZER SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, COUNTY AND STATE OF WISCONSIN REQUIREMENTS. SHREDDED HARDWOOD BARK MULCH AREAS SHALL NOT RECEIVE WOVEN WEED BARRIER FABRIC.
- MATERIALS - CRUSHED BLACK GRANITE: ALL PLANTING AREAS LABELED ON PLAN IN PLAZA AREA SHALL RECEIVE 2" DEPTH OF CRUSHED BLACK GRANITE. SIZE & COLOR TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. CRUSHED BLACK GRANITE AREAS SHALL RECEIVE WOVEN WEED BARRIER FABRIC.
- MATERIALS - TREE & SHRUB RINGS: ALL TREES AND/OR SHRUBS PLANTED IN SEEDED LAWN AREAS TO BE INSTALLED WITH A MINIMUM 5" DIAMETER SHREDDED HARDWOOD BARK MULCH TREE RING SPREAD TO A CONSISTENT DEPTH OF 4 INCHES. ALL TREE RINGS SHOULD BE INSTALLED WITH A 5" DEPTH SHOVEL CUT EDGE, ANGLED 45 DEGREES INTO SOIL AT A 5" DIAMETER ABOUT THE CENTER OF THE TREE PLANTING. A PRE-EMERGENT GRANULAR HERBICIDE WEED-PREVENTER SHOULD BE MIXED WITH MULCH USED TO INSTALL TREE RING AS WELL AS TOPICALLY APPLIED TO FINISHED INSTALLATION OF TREE RING.
- MATERIALS - EDGING: EDGING SHALL BE 5" DEEP, POLYETHYLENE EDGING. OWNER'S REPRESENTATIVE SHALL APPROVE PRODUCT SPECIFICATION PROVIDED BY LANDSCAPE CONTRACTOR.
- MATERIALS - SEED: DISTURBED LAWN AREAS LABELED ON PLAN AS SUCH, SHALL BE SPREAD BY HAND BROADCAST METHOD OR APPROPRIATE SPREADER EQUIPMENT WITH EARTH CARPETS MADISON PARKS OR EQUIVALENT AS APPROVED BY THE OWNER'S REPRESENTATIVE. INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. IN ADDITION TO LAWN SEED, ANNUAL RYE SHALL BE APPLIED TO ALL DISTURBED AREAS AT A RATE OF 1 1/2 LBS PER 1000 SQUARE FEET. FERTILIZE AND MULCH PER MANUFACTURER'S RECOMMENDATIONS.
- MATERIALS - BIORETENTION BASIN/PRAIRIE SEED MIX: AREAS SPECIFIED ON PLAN TO BE BROADCAST SEEDED WITH 'DIVERSE PRAIRIE FOR MEDIUM SOILS' SEED MIX, AS PROVIDED BY PRAIRIE NURSERY, P.O. BOX 306, WESTFIELD, WISCONSIN, 53964, TEL. 608-296-3679 (OR APPROVED EQUIVALENT). INSTALL SEED WITH SUPPLEMENTAL MATERIALS AND AMENDMENTS AS RECOMMENDED BY SEED SUPPLIER AND AT RATES AND OPTIMUM TIMES OF THE YEAR AS RECOMMENDED BY THE SEED SUPPLIER TO ENSURE SUCCESSFUL GERMINATION AND SEED/ROOT ZONE GROWTH DEVELOPMENT. REFER TO PRODUCT SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.

**CONTRACTOR AND OWNER RESPONSIBILITY NOTES**

- GUARANTEE: THE CONTRACTOR SHALL GUARANTEE ALL PLANTS THROUGH ONE (1) YEAR AFTER ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PLANTS SHALL BE ALIVE AND IN HEALTHY AND FLOURISHING CONDITION AT THE END OF THE GUARANTEE PERIOD. THE CONTRACTOR SHALL REPLACE (AT NO COST TO OWNER) ANY PLANTS THAT ARE DEAD OR NOT IN A VIGOROUS THRIVING CONDITION. REPLACEMENT PLANTS SHALL BE OF THE SAME KIND AND SIZE AS ORIGINALLY SPECIFIED UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE. RESTORE BEDS AS NECESSARY FOLLOWING PLANT REPLACEMENT, INCLUDING BUT NOT LIMITED TO BEDDING, EDGING, MULCH, ETC. REPLACE PLANTS DAMAGED AT TIME OF PLANTING. REPAIR AREAS DISTURBED IN ANY WAY DURING PLANT REPLACEMENT AT NO COST TO OWNER. CONTRACTOR SHALL PROVIDE A TWO (2)-YEAR STRAIGHTENING GUARANTEE FOR ALL TREES.
- CONTRACTOR IS RESPONSIBLE FOR STAKING THE PLANT MATERIALS FOR REVIEW BY OWNER'S REPRESENTATIVE PRIOR TO DIGGING AND PLACEMENT AND SHALL COORDINATE ALL FINE GRADING AND RESTORATION WITH THE GRADING CONTRACTOR.
- MAINTENANCE: (CONTRACTOR) FOR ALL PLANTINGS, SEEDED LAWN AREAS: THE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AND LAWN AREAS FOR A MINIMUM TIME PERIOD OF 60 DAYS, UNTIL FINAL ACCEPTANCE BY OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATELY WATERING PLANTS AND LAWN/TURFGRASS DURING THIS 60 DAY ESTABLISHMENT PERIOD. CONTRACTOR IS RESPONSIBLE FOR THE ESTABLISHMENT OF HEALTHY VIGOROUS PLANT MATERIALS AND LAWN/TURFGRASS GROWTH. CONTRACTOR IS ALSO RESPONSIBLE FOR ANY PRUNING OF PLANT MATERIALS, AND SHAPING AND/OR REPLACEMENT OR SUPPLEMENT OF DEFICIENT SHREDDED HARDWOOD BARK MULCH DURING THIS PERIOD. LONG TERM PLANT MATERIALS AND LAWN/TURFGRASS MAINTENANCE AND ANY PROGRAM FOR SUCH IS THE RESPONSIBILITY OF THE OWNER. ALL PLANTINGS AND LAWN/TURFGRASS AREAS SHALL BE MAINTAINED IN A MANICURED CONDITION UNTIL THE TIME WHEN THE OWNER'S ACCEPTANCE IS GIVEN.
- MAINTENANCE: (OWNER) THE OWNER IS RESPONSIBLE FOR THE CONTINUED MAINTENANCE, REPAIR AND REPLACEMENT OF ALL LANDSCAPING MATERIALS AND WEED BARRIER FABRIC AS NECESSARY FOLLOWING THE ONE (1) YEAR CONTRACTOR GUARANTEE PERIOD.



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

CLIENT:



CLIENT ADDRESS:  
200 NORTH MAIN STREET  
OREGON, WI, 53575

PROJECT:  
**UNION CORNERS**  
**LOT 1 GRADFAMILY**

PROJECT LOCATION:  
**CITY OF MADISON, WI**  
**DANE COUNTY**

PLAN MODIFICATIONS #	Date	Description
1	12.20.17	LAND USE SUBMITTAL
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Design/Drawn: TKG 09-18-2017  
Approved: MAS 10-17-2017

SHEET TITLE:  
**LANDSCAPE**  
**DETAILS, NOTES &**  
**SPECIFICATIONS**

SHEET NUMBER:

**L200**

JSD PROJECT NO:

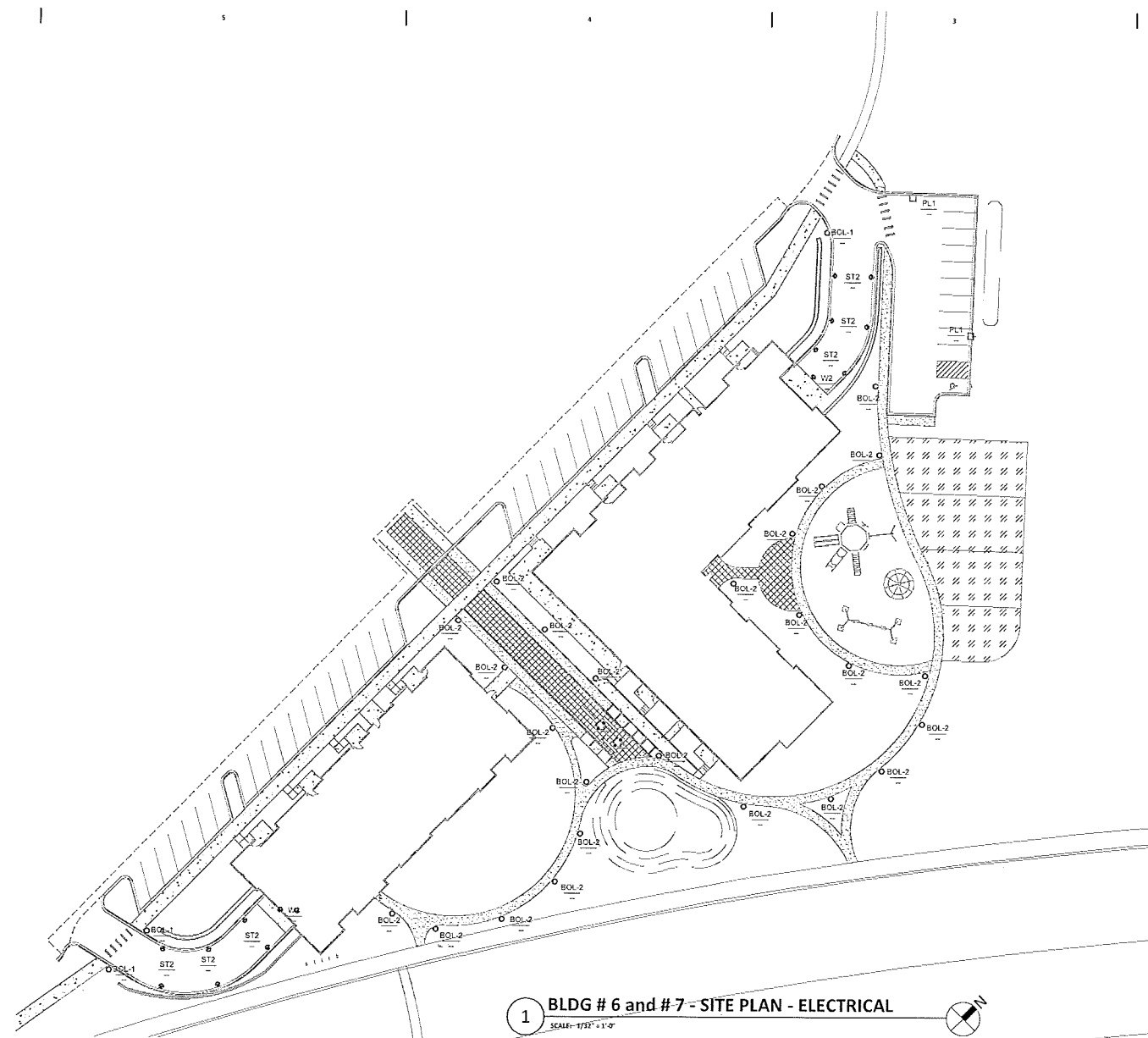
17-8095



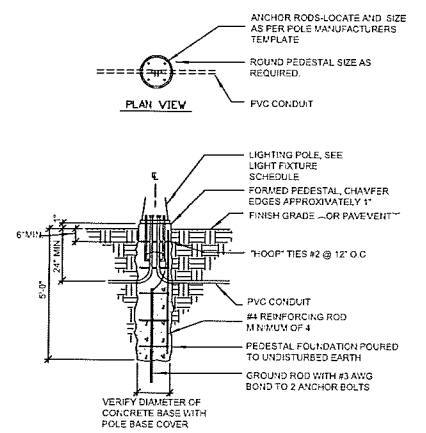
Toll Free (800) 242-8511

**PRELIMINARY**  
**NOT FOR CONSTRUCTION**

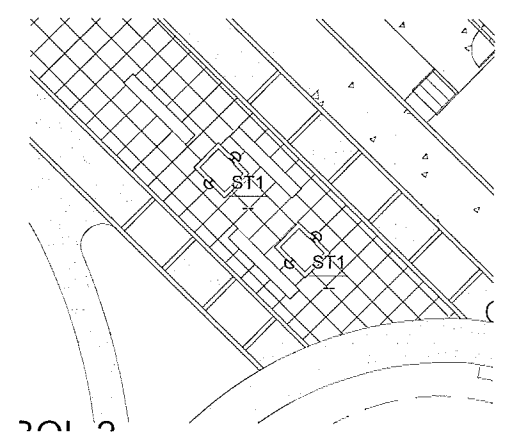




**1 BLDG # 6 and # 7 - SITE PLAN - ELECTRICAL**  
 SCALE: 1/32" = 1'-0"



**2 FIXTURE TYPY PL1 BASE MOUNTING DETAIL**  
 SCALE: NTS



**3 PLANTERS - SITE PLAN - ELECTRICAL**  
 SCALE: 1/8" = 1'-0"

**CIRCUITRY & LIGHTING CONTROL NOTES:**

- LIGHTING CIRCUITRY TO BE FED FROM BUILDING # XXX LIGHTING HOUSE PANEL "L-1"
- CIRCUIT NUMBERS FOR LIGHTING IS INDICATED BY NUMBER UNDER FIXTURE TYPE. "NONE" RUNS ARE SHOWN FOR OVERRIDING OR MORE EXACT INTENTIONS.
- TYPICAL FIXTURE TYPE AND CIRCUIT NUMBER:  
 A1 - FIXTURE TYPE  
 10 - CIRCUIT NO
- CIRCUIT NUMBERS FOR POWER DEVICES/EQUIPMENT IS INDICATED ADJACENT TO THE SYMBOL
- PROVIDE LIGHTING CONTROL FROM LOW VOLTAGE LIGHTING CONTROL PANEL LVBP-1. SEE CIRCUITS LISTED ON THE PANELBOARD SCHEDULES AND LOW VOLTAGE RELAY SCHEDULE
- WIRING SCHEDULE:
  - 1 2 #8 XHHW + GR, 2" PVC CONDUIT
  - 2 4 #8 XHHW + GR, 2" PVC CONDUIT MINIMUM
  - 3 8 #8 XHHW + GR, 2-1/2" PVC CONDUIT MINIMUM
  - 4 3 #6 XHHW + GR, 2" PVC CONDUIT MINIMUM
  - 5 3 #8 XHHW + GR, 2" PVC CONDUIT MINIMUM

**SPECIFIC NOTES (POWER):**

- 1 PROVIDE TRANSITION CABINET FOR SECONDARY SIDE OF OF TRANSFORMER TO BUILDING CABLE TRANSITIONS - COORDINATE WITH UTILITY, AND GO FOR EXACT LOCATION
- 2 PEDESTAL MOUNTED VWP RATED RECEPTACLE BOX WITH LOCKING COVER - COLLECT # TLI-10-VIS-PED, WITH 2 DUPLEX RECEPTACLES - CONCRETE BASE TO BE COMBINED WITH BOLLARDS - COORDINATE WITH VFRS

**SPECIFIC NOTES (COMMUNICATIONS):**

- C1 COMMUNICATIONS CONDUITS - PROVIDE (TWO) 4" CONDUIT SETS, EACH FOR CABLE AND TELEPHONE, FOR ENTRANCE CABLES BY UTILITIES. COORDINATE EXACT LOCATION WITH UTILITIES AND CIVIL CONTRACTOR. RUN CONDUITS OUT 5' FROM BUILDING. PROVIDE LABELED RED FLAG, STAKED 24" ABOVE GRADE IF BACKFILLED PRIOR TO CABLES BEING INSTALLED (CAP ENDS OF CONDUITS). SEE SHEET E100 FOR INTERIOR CONTINUATION
- C2 PROVIDE SECURITY ENTRANCE VIA "LONG READER" FOR KEY DOOR ENTRANCE/SECURITY SYSTEM READER FOR GARAGE DOOR OPERATION. MOUNT ABOVE GARAGE DOOR

**ELECTRICAL GENERAL NOTES:**

- CONTRACTOR TO PROVIDE QUANTITY OF CONDUITS AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR (GC) WHEN RUNNING CONDUIT IN EXPOSED STRUCTURE AREAS SO AS TO RUN CONDUIT IN PARALLEL AND PERPENDICULAR PATHS TO BUILDING ELEMENTS
- ALL PAINTING OF ALL EXPOSED CONDUIT WILL BE BY THE G.C. AND WILL MATCH SURFACE UPON WHICH IT IS ATTACHED
- ALL CONDUIT SHALL BE ROUTED A MINIMUM OF 36" BELOW FINISHED GRADE. EXACT METHOD OF ROUTING OUTDOOR LIGHTING WIRING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR, UNLESS OTHERWISE NOTED. ALL EXTERIOR LIGHTING WIRING SHALL BE #8AWG COPPER AND SHALL BE ROUTED IN SCHEDULE 40 PVC. MINIMUM CONDUIT SIZE IS 1" (AT CONNECTION TO FIXTURES)
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL APPURTENANCES NECESSARY FOR A COMPLETE AND CODE COMPLIANT INSTALLATION
- ALL FIXTURES, POLES, ARMS, BASES, ETC. SHALL BE PROVIDED WITH FACTORY APPLIED POWDER PAINT FINISH. THE ELECTRICAL CONTRACTOR SHALL PAINT ANY EXPOSED EQUIPMENT TO MATCH
- NO CONTINUOUS CONDUIT RUN SHALL EXCEED 100 FEET (30 METERS) WITHOUT A JUNCTION BOX
- CONTACT LOCAL ELECTRICAL UTILITY TO COORDINATE FINAL ELECTRICAL UTILITY CONNECTIONS, LOCATIONS, INSTALLATION, ETC. UTILITY IS TO PROVIDE PRIMARY CONDUIT AND WIRING TO PAD MOUNTED TRANSFORMERS (W/ PAD MOUNTED CT) LOCATED APPROXIMATELY WHERE SHOWN ON PLANS. SITE ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND WIRING TO MAIN ELECTRICAL ROOM. COORDINATE LOCATIONS OF SERVICE ENTRANCE CONDUIT W/ GENERAL CONTRACTOR FOR EXACT LOCATIONS OF MAIN DISTRIBUTION PANELS
- CONTACT LOCAL TELEPHONE AND CABLE UTILITY TO COORDINATE FINAL CONNECTIONS, LOCATIONS, INSTALLATION, ETC. PROVIDE UNDERGROUND PVC CONDUIT FROM UTILITY CONNECTION POINT TO LOCATION OF COMMUNICATIONS BOARD LOCATED IN MAIN ELECTRICAL ROOM. OBTAIN PLAN APPROVAL PRIOR TO STARTING WORK. OWNER SHALL PAY CONNECTION CHARGES

REAL ESTATE DEVELOPMENT & MANAGEMENT  
 200 N. MAIN STREET  
 OREGON, WI 53575

Seal

Consultant  
**BEAR VALLEY ENGINEERING, INC.**  
 COMMERCIAL BUILDING SPECIALISTS  
 1250 FEMRITE DRIVE,  
 SUITE 200  
 MADISON, WI 53716

GRAND FAMILY HOUSING  
 UNION CORNERS  
 2507 WINNEBAGO STREET  
 MADISON, WISCONSIN 53704

**CONSTRUCTION DOCUMENTS**

Project No. \_\_\_\_\_  
 Plot Date: December 27, 2017  
 Drawn by: BVE  
 USER

Date	Issue Description
December 27, 2017	Issued For Review
XXXXX	XXXXX

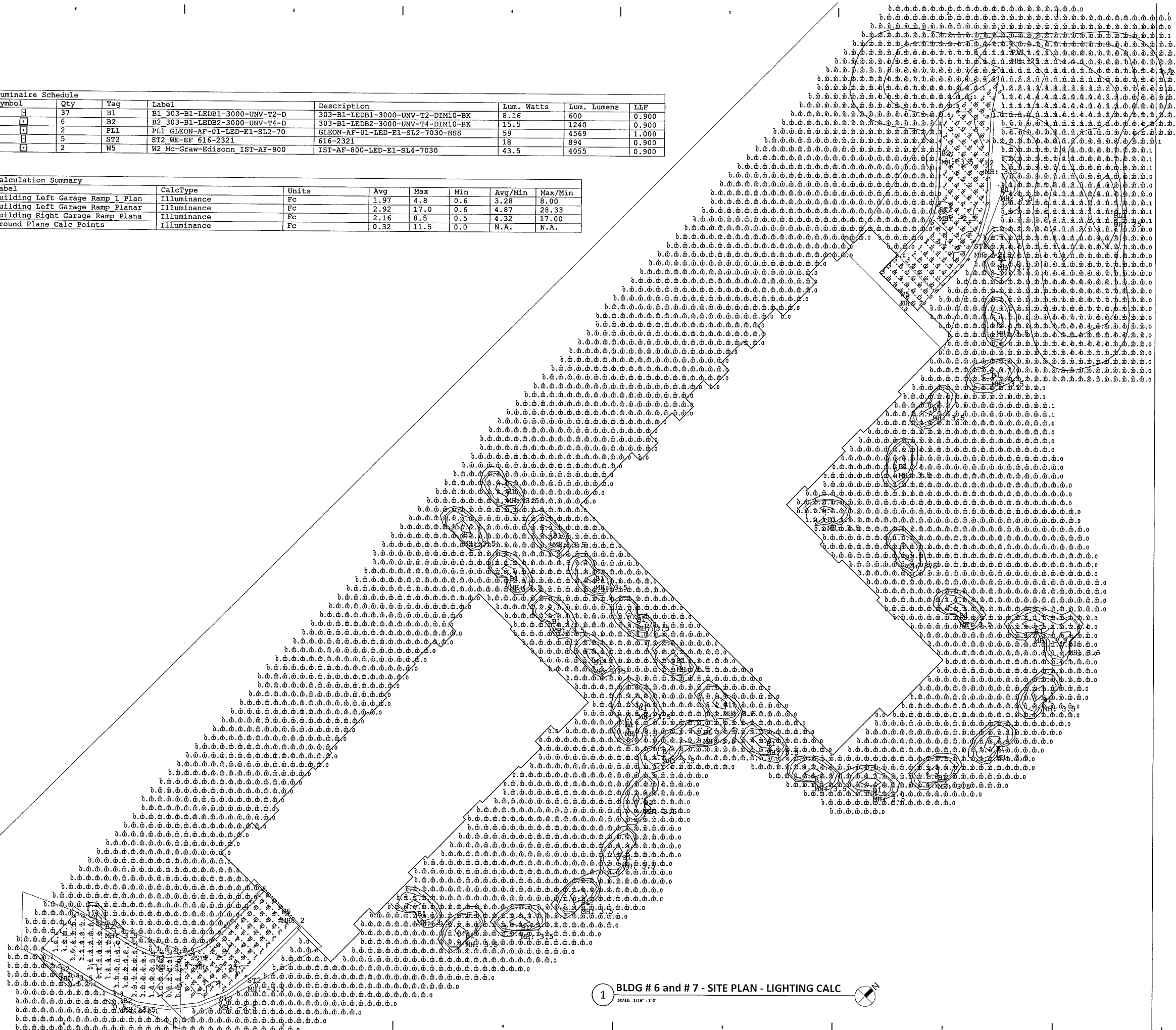
Sheet Title

SITE PLAN  
 - ELECTRICAL

Sheet No. **ES01**

Symbol	Qty	Tag	Label	Description	Lum. Watts	Lum. Lumens	LLF
□	37	B1	B1 303-B1-LEDB1-3000-UNV-T2-D	303-B1-LEDB1-3000-UNV-T2-DIM10-BK	8.16	600	0.900
□	6	B2	B2 303-B1-LEDB2-3000-UNV-T4-D	303-B1-LEDB2-3000-UNV-T4-DIM10-BK	15.5	1240	0.900
□	2	PL1	PL1 GLEON-AF-01-LED-E1-SL2-70	GLEON-AF-01-LED-E1-SL2-7030-HSS	59	4569	1.000
□	5	ST2	ST2 WE-EF 616-2321	616-2321	18	894	0.900
□	2	W5	W2 Mc-Graw-Edisonn IST-AF-800	IST-AF-800-LED-E1-SL4-7030	43.5	4055	0.900

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Building Left Garage Ramp 1 Plan	Illuminance	Fc	1.97	4.8	0.6	3.28	8.00
Building Left Garage Ramp Planar	Illuminance	Fc	2.92	17.0	0.6	4.87	28.33
Building Right Garage Ramp Plana	Illuminance	Fc	2.16	8.5	0.5	4.32	17.00
Ground Plane Calc Points	Illuminance	Fc	0.32	11.5	0.0	N.A.	N.A.



1 BLDG # 6 and # 7 - SITE PLAN - LIGHTING CALC  
SCALE: 1/16" = 1'-0"

REAL ESTATE DEVELOPMENT & MANAGEMENT  
200 N. MAIN STREET  
OREGON, WI 53575

Seal

Consultant  
**BEAR VALLEY ENGINEERING, INC.**  
COMMERCIAL BUILDING SPECIALISTS  
1250 FEMRITE DRIVE, SUITE 200  
MADISON, WI 53716

**GRAND FAMILY HOUSING  
UNION CORNERS  
2507 WINNEBAGO STREET  
MADISON, WISCONSIN 53704**

**CONSTRUCTION DOCUMENTS**

Project No. \_\_\_\_\_  
Plot Date: December 27, 2017  
Drawn by: BVE  
USER

Date: December 27, 2017  
Issue Description: Issued For Review  
XXXXX XXXXX

Sheet Title

SITE PLAN  
- LIGHTING  
CALCULATIONS

Sheet No.  
**ES01-CALC**

## Memorandum

[www.jsdinc.com](http://www.jsdinc.com)

To: Jeff Benedict – City of Madison  
From: Matt Saunders E.I.T.  
Re: Union Corners Lot 1 Grandfamily Stormwater Management Plan  
JSD Project #: 17-8095  
Date: December 15, 2017  
cc: Mike Grzesiak, P.E. (JSD), Justin Frahm (JSD)

---

This memorandum shall serve as the stormwater management plan for the proposed Union Corners Lot 1 Grandfamily project detailing compliance with City of Madison and Wisconsin Department of Natural Resources Chapters NR151 & NR216 erosion control and storm water management plan requirements.

### Background:

The proposed Union Corners project is located at the physical address 2507 Winnebago Street in the City of Madison, more specifically the parcel known as Lot 1 of CSM No. 11774. The lot consists of consists of 3.17 acres of open grass areas. Existing conditions map can be found in **Attachment 1**.

Project scope includes construction of two mixed use residential and commercial buildings with underground parking. Building A has an approximate footprint of 10,884 square feet and Building B has an approximate footprint of 17,793 square feet. Additionally, proposed improvements include on-street asphalt parking, an on-site asphalt parking lot, a bioretention basin, pedestrian paths, community gardens, playground area, plaza, and landscaping features.

Stormwater runoff from the proposed parking lot will be routed to a bioretention basin and treated before being released offsite. The treatment facility will provide total suspended solids and oil and grease control as required by City of Madison Code of Ordinances and WDNR regulations. Proposed Construction Plans of the improvements can be found in **Attachment 3**.

The predominant soil type within the site is Virgil silt loam (VwA) which has a hydrologic soil group classification B/D. Soil information can be found in **Attachment 2**.

WDNR wetland mapping indicates there are no delineated wetlands within or adjacent to the proposed site. However, there are wetland indicating hydric soils located onsite. There are no waterways or bodies of water adjacent to the site.

Previously the site was fully developed as a commercial property but has since been demolished and is currently an empty lot. The site is being repurposed from the previous commercial use into a proposed mixed-use property. Discussions with city engineering have determined that the site shall be considered a redevelopment project, thus subject to redevelopment stormwater management standards.

### Design:

Proposed improvements will have approximately 2.66 acres of disturbed area. The stormwater management facility has been designed to target the 60% sediment reduction on all new exposed parking areas. Stormwater directed to the bioretention basin will be treated for sediment reduction and oil and

grease control before discharging to a private storm sewer system. Stormwater runoff will drain to a curb weir and discharge into the bioretention basin.

WinSLAMM was used to calculate the percent of suspended solids removed through the bioretention device. The bioretention basin will reduce the suspended solids lost by approximately 88%. See **Attachment 4** for details on total suspended solids calculations. Also see **Attachment 5** for hydrologic calculations.

### **Erosion Control:**

Erosion control measures onsite will conform to the Wisconsin Department of Natural Resources Technical Standards, Dane County Chapter 14 Erosion Control and Stormwater Management as well as City of Madison requirements. These measures include, but are not limited to; construction entrance, silt fencing, straw wattles, grading, seeding, mulching, erosion matting, and temporary sediment ponds as necessary. Construction sequencing shall be as follows:

1. Install silt fence in appropriate locations and stone tracking pad on all entrances to be used by construction vehicles.
2. Install all erosion control measures as noted on the Grading and Erosion Control Plan.
3. Complete mass grading.
4. Install all utilities.
5. Construct proposed buildings.
6. Install storm sewer system and protect all openings per the erosion control plan.
7. Install aggregate base course within paved areas.
8. Install asphaltic pavement.
9. Place topsoil
10. Seed and mulch
11. Remove temporary erosion control practices.

For more detailed requirements regarding erosion control and grading efforts, refer to the attached proposed construction plans in **Attachment 3**.

### **Conclusion:**

The stormwater management features for the Union Corners Lot 1 Grandfamily project have been designed in accordance with development standards within the City of Madison Code of Ordinances and WDNR standards NR151 and NR216. Improvements include the development of two mixed use commercial and residential buildings, asphalt parking areas, pedestrian paths, community gardens, playground area, plaza, landscaping features, and a bioretention basin. Stormwater runoff from the parking area will be directed to a bioretention basin for total suspended solids reduction and oil and grease control as required, and will ultimately discharge to a storm sewer system.

### **Attachments:**

**Attachment 1: Existing Conditions Map**

**Attachment 2: Soil Information**

**Attachment 3: Construction Plans**

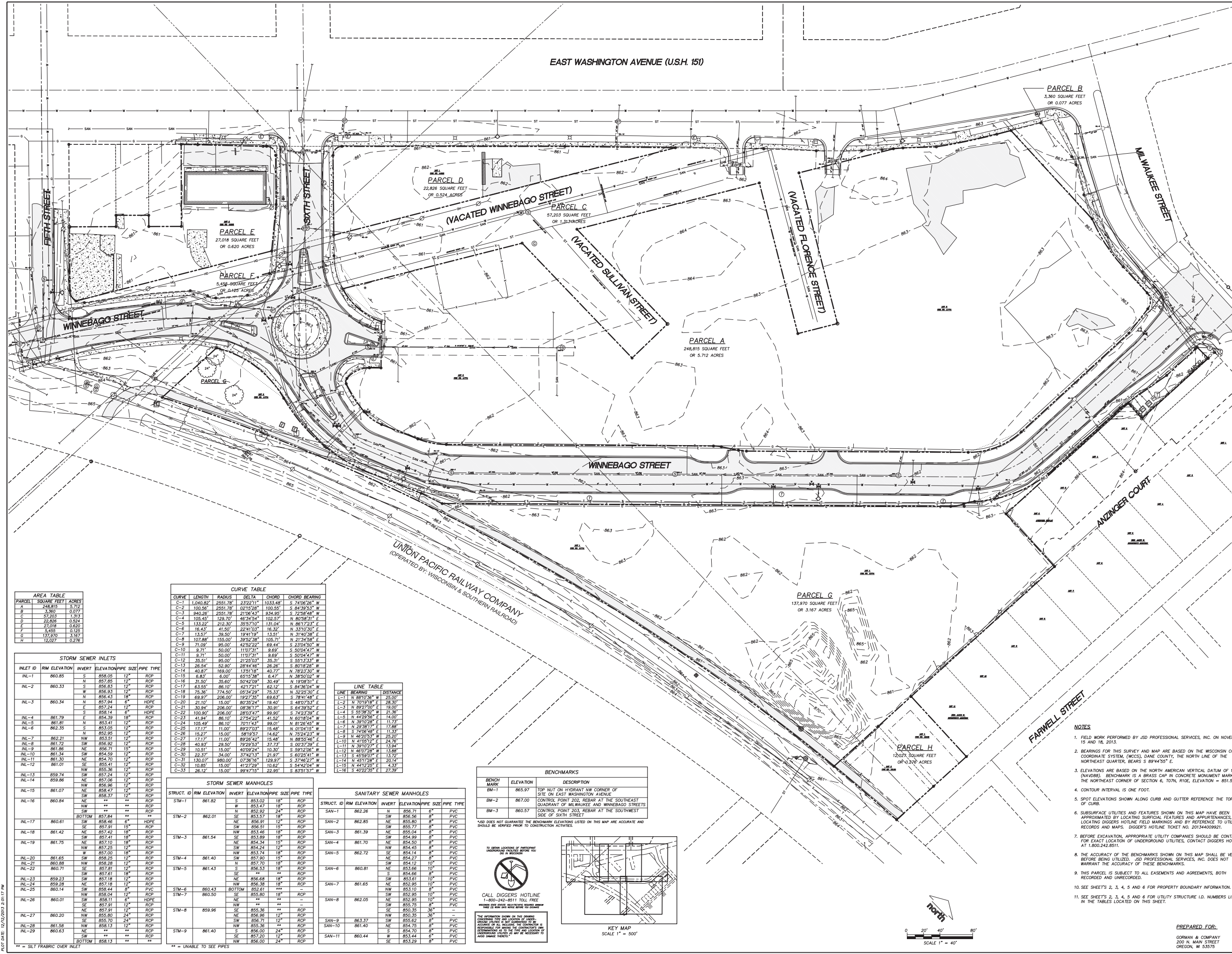
**Attachment 4: Total Suspended Calculations**

**Attachment 5: Hydrologic Calculations**

**ATTACHMENT 1**

**EXISTING CONDITIONS SURVEY**

EAST WASHINGTON AVENUE (U.S.H. 151)



AREA TABLE with columns for Parcel, Square Feet, and Acres.

CURVE TABLE with columns for Curve, Length, Radius, Delta, Chord, and Chord Bearing.

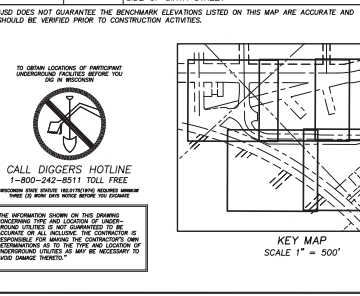
LINE TABLE with columns for Line, Bearing, and Distance.

STORM SEWER INLETS table listing inlet IDs, elevations, pipe sizes, and types.

STORM SEWER MANHOLES table listing structure IDs, elevations, pipe sizes, and types.

SANITARY SEWER MANHOLES table listing structure IDs, elevations, pipe sizes, and types.

BENCHMARKS table listing benchmark IDs, elevations, and descriptions.



- NOTES: 1. FIELD WORK PERFORMED BY JSD PROFESSIONAL SERVICES, INC. ON NOVEMBER 15 AND 16, 2013. 2. BEARINGS FOR THIS SURVEY AND MAP ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM...

Professional Services logo, project information (PROJECT NO. 13-5984, FILE NO. E-182), and a metadata table with columns for Date, Drawn By, Checked By, Approved By, and Description.

Union Corner's Lot 1 Grandfamily

**ATTACHMENT 2**  
**SOILS INFORMATION**



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Dane County, Wisconsin**



December 12, 2017



# Contents

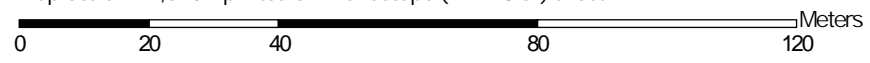
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<b>Preface</b> .....	2
<b>Soil Map</b> .....	5
Soil Map.....	6
Legend.....	7
Map Unit Legend.....	8
Map Unit Descriptions.....	8
Dane County, Wisconsin.....	10
BbB—Batavia silt loam, gravelly substratum, 2 to 6 percent slopes.....	10
VwA—Virgil silt loam, gravelly substratum, 0 to 3 percent slopes.....	11

Custom Soil Resource Report  
Soil Map







































Map Scale: 1:1,510 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



## MAP LEGEND

- Area of Interest (AOI)**
- Area of Interest (AOI) 
- Soils**
- Soil Map Unit Polygons 
- Soil Map Unit Lines 
- Soil Map Unit Points 
- Special Point Features**
- Blowout 
- Borrow Pit 
- Clay Spot 
- Closed Depression 
- Gravel Pit 
- Gravelly Spot 
- Landfill 
- Lava Flow 
- Marsh or swamp 
- Mine or Quarry 
- Miscellaneous Water 
- Perennial Water 
- Rock Outcrop 
- Saline Spot 
- Sandy Spot 
- Severely Eroded Spot 
- Sinkhole 
- Slide or Slip 
- Sodic Spot 
- Spoil Area 
- Stony Spot 
- Very Stony Spot 
- Wet Spot 
- Other 
- Special Line Features 
- Water Features**
- Streams and Canals 
- Transportation**
- Rails 
- Interstate Highways 
- US Routes 
- Major Roads 
- Local Roads 
- Background**
- Aerial Photography 

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dane County, Wisconsin  
 Survey Area Data: Version 16, Oct 5, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 16, 2013—Aug 29, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BbB	Batavia silt loam, gravelly substratum, 2 to 6 percent slopes	0.2	4.2%
VwA	Virgil silt loam, gravelly substratum, 0 to 3 percent slopes	4.7	95.8%
<b>Totals for Area of Interest</b>		<b>4.9</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The

## Custom Soil Resource Report

delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Dane County, Wisconsin

### BbB—Batavia silt loam, gravelly substratum, 2 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* t919  
*Mean annual precipitation:* 28 to 33 inches  
*Mean annual air temperature:* 46 to 52 degrees F  
*Frost-free period:* 135 to 160 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Batavia, gravelly substratum, and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Batavia, Gravelly Substratum

##### Setting

*Landform:* Outwash plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Deep loess over loamy outwash

##### Typical profile

*H1 - 0 to 10 inches:* silt loam  
*H2 - 10 to 44 inches:* silty clay loam  
*H3 - 44 to 50 inches:* gravelly clay loam  
*H4 - 50 to 60 inches:* gravelly coarse sand

##### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* High (about 9.9 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Other vegetative classification:* High AWC, adequately drained (G095BY008WI)  
*Hydric soil rating:* No

## Custom Soil Resource Report

### **VwA—Virgil silt loam, gravelly substratum, 0 to 3 percent slopes**

#### **Map Unit Setting**

*National map unit symbol:* 2wsqx  
*Elevation:* 750 to 1,150 feet  
*Mean annual precipitation:* 31 to 35 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 110 to 171 days  
*Farmland classification:* All areas are prime farmland

#### **Map Unit Composition**

*Virgil, gravelly substratum, and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### **Description of Virgil, Gravelly Substratum**

##### **Setting**

*Landform:* Outwash plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Parent material:* Loess over calcareous, stratified sandy and gravelly outwash

##### **Typical profile**

*Ap - 0 to 9 inches:* silt loam  
*E - 9 to 13 inches:* silt loam  
*Bt - 13 to 44 inches:* silty clay loam  
*2BC - 44 to 49 inches:* sandy loam  
*2C - 49 to 79 inches:* stratified gravel to sand

##### **Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)  
*Depth to water table:* About 0 to 24 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Occasional  
*Calcium carbonate, maximum in profile:* 20 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Available water storage in profile:* High (about 9.8 inches)

##### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* B/D  
*Other vegetative classification:* High AWC, high water table (G095BY007WI)  
*Hydric soil rating:* No

## Custom Soil Resource Report

### Minor Components

#### **Sebewa**

*Percent of map unit:* 4 percent  
*Landform:* Outwash plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

#### **Drummer, drained**

*Percent of map unit:* 4 percent  
*Landform:* Outwash plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes

#### **Sable**

*Percent of map unit:* 2 percent  
*Landform:* Outwash plains  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Hydric soil rating:* Yes





# Surface Water Data Viewer Map



## Legend

- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled excavated pond
  - Filled/draind wetland
  - Wetland too small to delineate
- Filled Points
  - Filled Areas
- Wetland Class Areas
  - Wetland
  - Upland
- NRCS Wetspots
- Wetland Indicators
- Intermittent Streams
  - 24K Hydrography Streams and Rivers
  - 24K Hydrography Lakes and Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water
- Index to EN\_Image\_Basemap\_Leaf\_...

0.1 0 0.03 0.1 Miles

NAD\_1983\_HARN\_Wisconsin\_TM

1: 1,980

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

## Notes

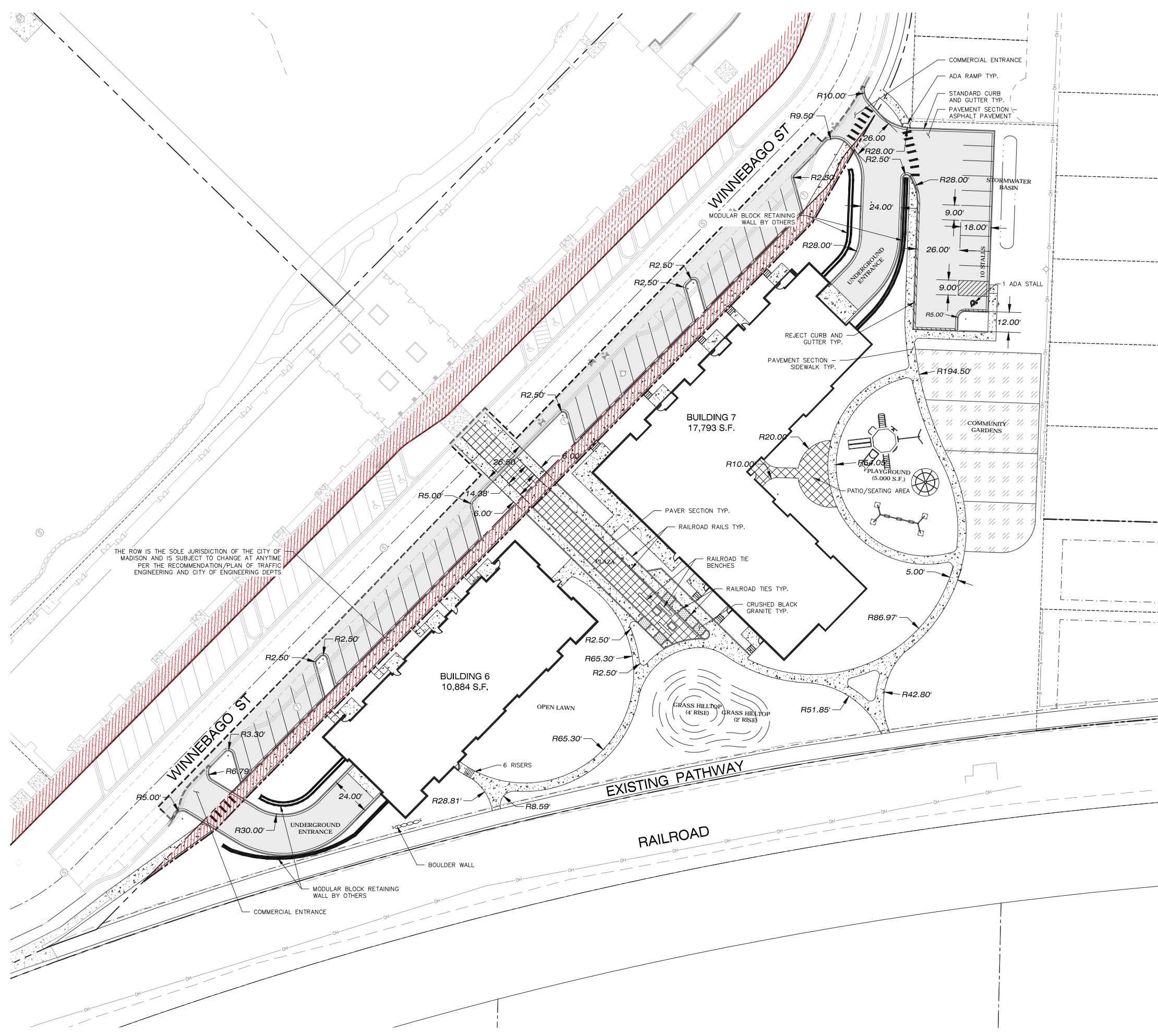
Union Corner's Lot 1 Grandfamily

## **ATTACHMENT 3**

### **PROPOSED CONSTRUCTION PLANS**



File: I:\2017\176095\DWG\17-8095 Construction Document.dwg Layout: C100 User: Ijustin Plotted: Dec 19, 2017 11:09am Xref's:



**LEGEND (SITE PLAN)**

- PROPERTY LINE
- RIGHT-OF-WAY
- EASEMENT LINE
- BUILDING SETBACK LINE
- PAVEMENT SETBACK LINE
- BUILDING OUTLINE
- EDGE OF PAVEMENT
- STANDARD CURB AND GUTTER
- REJECT CURB AND GUTTER
- MOUNTABLE CURB
- ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- SAWCUT EXISTING PAVEMENT
- STORMWATER MANAGEMENT AREA
- BOULDER RETAINING WALL
- MODULAR BLOCK RETAINING WALL
- LIGHT POLE (REFER TO PHOTOMETRIC PLAN)
- ADA PARKING BOLLARDS/SIGNS

- GENERAL NOTES:**
- REFER TO THE EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGENDS.
  - ALL WORK IN THE ROW AND/OR PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN AND THE MUNICIPAL REQUIREMENTS.
  - EXISTING GRADE SPOT ELEVATIONS SHOWN FOR INFORMATIONAL PURPOSES. DURING CONSTRUCTION MATCH EXISTING GRADES AT CONSTRUCTION LIMITS.
  - NO SITE GRADING OUTSIDE OR DOWNSLOPE OF PROPOSED SILT FENCE LOCATION. NO LAND DISTURBANCE BEYOND PROPERTY LINES.
  - 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.

- SITE PLAN NOTES**
- ALL DIMENSIONS TO FACE OF CURB AND/OR EDGING OF CONCRETE UNLESS OTHERWISE NOTED.
  - ALL RADI TO FACE OF CURB AND/OR EDGING OF CONCRETE UNLESS OTHERWISE NOTED.
  - ANY REQUIRED REPLACEMENT OF PUBLIC CURB AND GUTTER SHALL MATCH EXISTING AND MEET THE REQUIREMENTS OF THE CITY OF MADISON.
  - 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.
  - CONTRACTOR SHALL PROVIDE EXPANSION JOINTS IN SIDEWALKS AT A MAXIMUM 24' ON CENTER.
  - EXTERIOR CONCRETE SURFACES SHALL BE BROOM FINISHED.
  - ALL CONCRETE SURFACES TO BE SEALED WITH TYPE TK-26UV CONCRETE SEALANT.
  - MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
  - 2' x 4' TRUNCATED DOME WARNING DETECTION FIELD SHALL BE PLACED AT ALL ADA RAMPS.
  - 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 HIGH VISIBILITY YELLOW LATEX PAINT PER SPECIFICATIONS.

SITE INFORMATION BLOCK	
Site Address	WINNEBAGO ST
Existing Site Acreage (total)	3.17
Proposed Site Acreage (total)	3.05
Number of Building Stories (above grade)	4
Total Building Square Footage	28,676 SF
Use of property	MULTI-FAMILY
Number of parking stalls:	
Surface	
Large Stall	9
Accessible	1
Total Surface	10
Existing vs. Proposed Site Coverage:	
Existing Impervious Surface Area	5,428 S.F.
Existing Pervious Surface Area	132,657 S.F.
Proposed Impervious Surface Area	57,964 S.F.
Proposed Pervious Surface Area	74,894 S.F.
Proposed Impervious Surface Area Ratio	.44
<small>*calculated with proposed site acreage 3.05</small>	



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

---

CLIENT:

CLIENT ADDRESS:  
**200 NORTH MAIN STREET  
OREGON, WI, 53575**

---

PROJECT:  
**UNION CORNERS  
LOT 1 GRADFAMILY**

---

PROJECT LOCATION:  
**CITY OF MADISON, WI  
DANE COUNTY**

---

PLAN MODIFICATIONS:	Date:	Description:
1	12.20.17	LAND USE SUBMITTAL
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Design/Drawn: TKG 09-18-2017  
Approved: TKG 09-18-2017  
JLF 10-04-2017

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SHEET TITLE:  
**SITE PLAN**

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SHEET NUMBER:  
**C100**

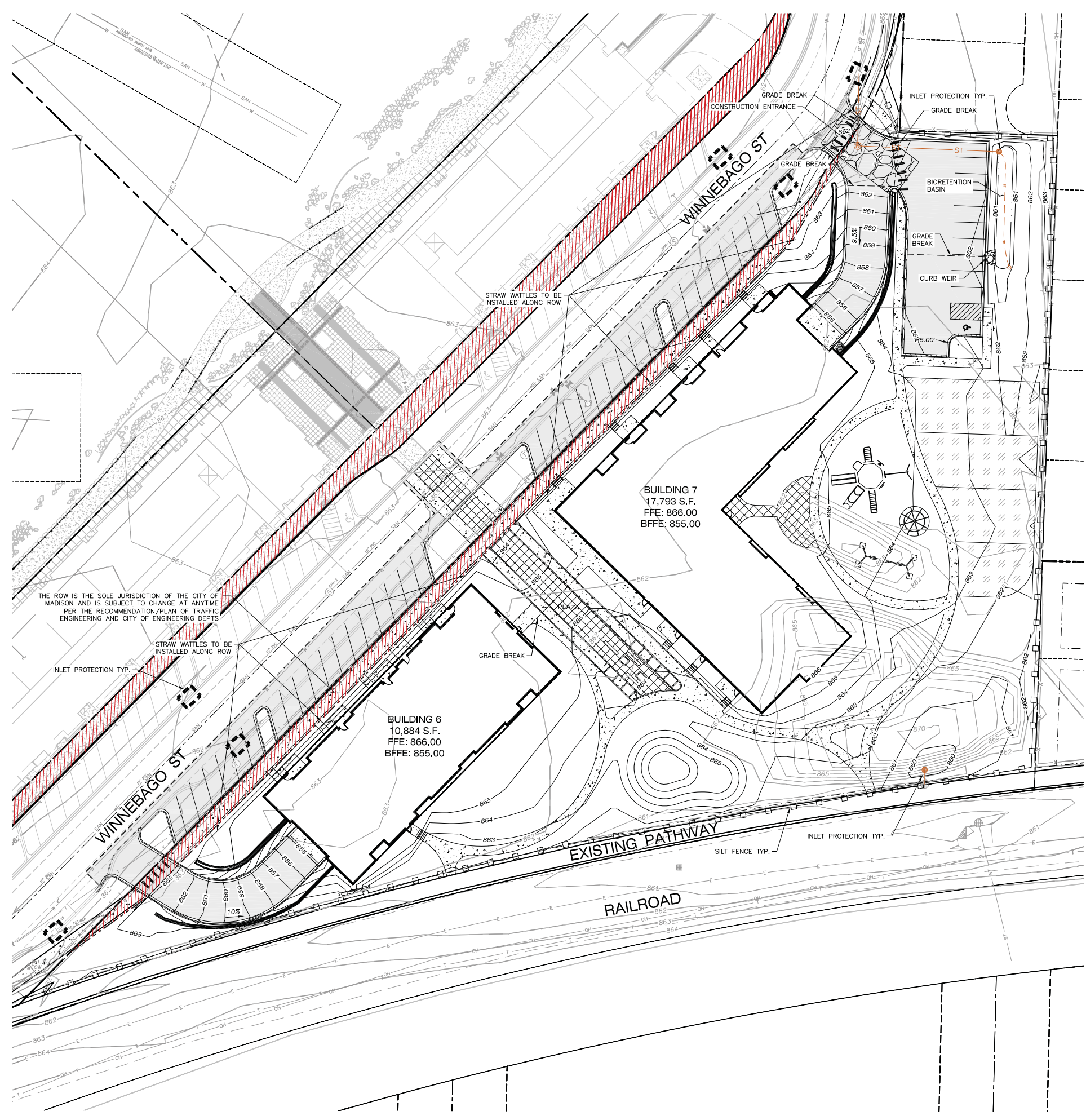
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JSD PROJECT NO: 17-8095

PRELIMINARY  
NOT FOR CONSTRUCTION

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File: I:\2017\176095\DWG\17-8095\_Construction\_Documents.dwg Layout: C200 User: msanders Plotted: Dec 18, 2017 5:46pm Xref's:



**LEGEND (GRADING & EROSION CONTROL PLAN)**

- |           |  |     |                          |
|-----------|--|-----|--------------------------|
| ---       | PROPERTY LINE                          | --- | PROPOSED 1 FOOT CONTOUR  |
| - - -     | RIGHT-OF-WAY                           | --- | PROPOSED 1 FOOT CONTOUR  |
| - · - · - | EASEMENT LINE                          | →   | DRAINAGE DIRECTION       |
| ---       | BUILDING OUTLINE                       | --- | ST                       |
| ---       | EDGE OF PAVEMENT                       | --- | ST                       |
| ---       | STANDARD CURB AND GUTTER               | --- | UNDERDRAIN               |
| ---       | REJECT CURB AND GUTTER                 | --- | SILT FENCE               |
| ---       | MOUNTABLE CURB                         | □   | INLET PROTECTION, TYPE D |
| ---       | ASPHALT PAVEMENT                       | ○   | SPOT ELEVATION           |
| ---       | HEAVY DUTY ASPHALT PAVEMENT            | ○   | EP - EDGE OF PAVEMENT    |
| ---       | CONCRETE PAVEMENT                      | ○   | FG - FINISH GRADE        |
| ---       | HEAVY DUTY CONCRETE PAVEMENT           | ○   | EC - EDGE OF CONCRETE    |
| ---       | STORMWATER MANAGEMENT AREA             | ○   | TS - TOP OF STEP         |
| ---       | BOULDER RETAINING WALL                 | ○   | TS - BOTTOM OF STEP      |
| ---       | MODULAR BLOCK RETAINING WALL           | ○   | RIM - RIM ELEVATION      |
| ---       | LIGHT POLE (REFER TO PHOTOMETRIC PLAN) | --- | GRADE BREAK              |
| ---       | ADA PARKING BOLLARDS/SIGNS             | --- |                          |

**CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS (CSECR) NOTES:**

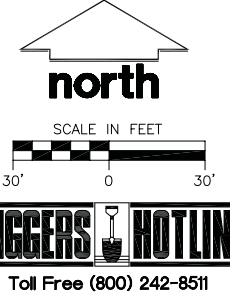
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE CURRENT DEPARTMENT OF NATURAL RESOURCES EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS WHICH ARE AVAILABLE AT: <http://www.dnr.state.wi.us/runoff/stormwater/techstds.htm>
- INSTALL EROSION CONTROL MEASURES PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIALS AS SHOWN ON PLAN. MODIFICATIONS TO SEDIMENT CONTROL DESIGN MAY BE CONDUCTED TO MEET UNFORESEEN FIELD CONDITIONS IF MODIFICATIONS CONFORM TO WDNR TECHNICAL STANDARDS.
- 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.
- INSPECT EROSION CONTROL MEASURES AFTER EACH 1/2" OR GREATER RAINFALL. REPAIR ANY DAMAGE OBSERVED DURING THE INSPECTION.
- 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% OF THE COVER FOR THE UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR THAT EMPLOY EQUIVALENT PERMANENT STABILIZATION MEASURES.
- INSTALL A TRACKING PAD, 50' LONG AND NO LESS THAN 12" THICK BY USE OF 3" CLEAR STONE. TRACKING PADS ARE TO BE MAINTAINED BY THE CONTRACTOR IN A CONDITION WHICH WILL PREVENT THE TRACKING OF MUD OR DRY SEDIMENT ONTO THE ADJACENT PUBLIC STREETS AFTER EACH WORKING DAY OR MORE FREQUENTLY AS REQUIRED.
- INSTALL EROSION CONTROLS ON THE DOWNSTREAM SIDE OF STOCKPILES.
- EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.):
  - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
  - BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
  - 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.
- ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED BY STATE INSPECTORS, LOCAL INSPECTORS, AND/OR ENGINEER SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
- ALL SLOPES 4:1 OR GREATER SHALL BE STABILIZED WITH CLASS I, TYPE B EROSION MATTING AND DRAINAGE SWALES SHALL BE STABILIZED WITH CLASS II, TYPE B EROSION MATTING, WITHIN 7 DAYS OF REACHING FINAL GRADE AND/OR AS SOON AS CONDITIONS ALLOW. REFER BELOW TO NOTE NO. FIFTEEN (15) FOR STABILIZATION PRACTICES FOR POTENTIAL INTERIM STABILIZATION.
- CONTRACTOR/OWNER SHALL FILE A NOTICE OF TERMINATION UPON VEGETATIVE STABILIZATION AND/OR PROPERTY SALE IN ACCORDANCE WITH WDNR REQUIREMENTS.
- CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO CONTROL DUST ARISING FROM CONSTRUCTION OPERATIONS. REFER TO WDNR TECHNICAL STANDARD 1068.
- STABILIZATION PRACTICES:**
  - 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:
    - 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.
    - 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.
    - 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(100LB/ACRE) AND/OR WHEAT OR CEREAL RYE (150LB/ACRE)
      - HYDRO-MULCHING WITH A TACKIFIER
      - GEOTEXTILE EROSION MATTING
      - SODDING

**GRADING AND SEEDING NOTES**

- 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.
- 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.
- CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES WITH SILT FENCING FOR EROSION CONTROL UNTIL CONSTRUCTION IS COMPLETED AND NOTICE OF TERMINATION FILED.
- 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.
- CONTRACTOR SHALL WATER ALL NEWLY SODDED/SEEDED AREAS DURING THE SUMMER MONTHS WHENEVER THERE IS A 7 DAY LAPSE WITH NO SIGNIFICANT RAINFALL.
- CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SODDING AND/OR SEEDING AND MULCHING.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF MADISON TWO (2) WORKING DAYS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- IF GRADING ACTIVITIES STOP ON ANY PORTION OF LAND FOR 14 OR MORE CALENDAR DAYS, THE AREA IN QUESTION MUST BE TEMPORARILY STABILIZED.
- ALL SLOPES 20% OR GREATER SHALL BE TEMPORARY SEEDED, MULCHED, OR OTHER MEANS OF COVER PLACED ON THEM WITHIN 2 WEEKS OF DISTURBANCE.

**CONSTRUCTION SEQUENCING**

- INSTALL EROSION CONTROL MEASURES PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- STRIP TOPSOIL.
- INSTALL ALL SWALES AND TEMP SEED BASIN
- EXCAVATE BUILDING FOUNDATIONS.
- COMPLETE ALL OTHER GRADING.
- INSTALL STORM SEWER & INLET PROTECTION MEASURES.
- INSTALL AGGREGATE BASE COURSE AND PAVING IN PARKING AREAS.
- STABILIZE NEWLY GRADED SOILS.
- COMPLETE EXTERIOR BUILDING WORK AND DOWNSPOUTS.
- REGRADE & STABILIZE TEMPORARY SEDIMENT BASIN.



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161 HORIZON DRIVE, SUITE 101  
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P. 608.848.5060



CLIENT ADDRESS:  
200 NORTH MAIN STREET  
OREGON, WI, 53575

PROJECT:  
UNION CORNERS  
LOT 1 GRADFAMILY

PROJECT LOCATION:  
CITY OF MADISON, WI  
DANE COUNTY

PLN MODIFICATIONS:	Date:	Description:
1	12.20.17	LAND USE SUBMITTAL
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Design/Drawn: MSS 12/13/2017  
Approved: MSS 12/13/2017

SHEET TITLE:  
GRADING & EROSION  
CONTROL PLAN

SHEET NUMBER:  
**C200**

JSD PROJECT NO: 17-8095

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UNION CORNERS PHASE II SITE LUMINAIRE SCHEDULE								
TYPE	DESCRIPTION	LAMP SOURCE	DEL. LUMENS	CCT	MOUNTING	MANUFACTURER & SERIES	VOLTAGE	INPUT WATTS
B1	42" HIGH TYPE II LATERAL THROW EXTERIOR BOLLARD. BLACK FINISH.	LED	600	3000	BOLLARD	LUMIERE 303-B1-LEDB1-3000-UNV-T2-DIMELV-BK-42	UNV	9
B2	42" HIGH TYPE IV FORWARD THROW BOLLARD. BLACK FINISH.	LED	1240	3000	BOLLARD	LUMIERE 303-B1-LEDB2-3000-UNV-T4-DIMELV-BK-42	UNV	16
PL1	TYPE 2 DISTRIBUTION AREA LIGHT WITH SHARP CUTOFF BACKLIGHT. PROVIDE WITH SQUARE STRAIGHT STEEL 22.5' POLE. MOUNT ON 2.5' RAISED CONCRETE BASE. BLACK FINISH.	LED	4570	3000	POLE	MCGRAW EDISON GALLEON GLEON-AF-01-LED-E1-SL2-BK-7030	UNV	59
ST2	LARGE CONCRETE POUR EXTERIOR STEPLIGHT, BLACK FINISH. MOUNT AT 36" AFG.	LED	890	3000	RECESSED/WALL	WE-EF QRI374 616-2321/ 616-9330	UNV	18
W2	TRAPEZOIDAL CUTOFF LUMINAIRE, BLACK FINISH.	LED	4055	3000	WL	MCGRAW EDISON IST-AF-800LED-E1-SL4-BK-7030	UNV	44

GENERAL NOTE: ALWAYS REFER TO MANUFACTURER DATA FOR DIMMER COMPATIBILITY AND DETAILS. SOME DIMMERS REQUIRE A NEUTRAL IN THE WALL BOX.

KEY	
CL	CEILING
CV	COVE
RE	RECESSED
SP	SUSPENDED
WL	WALL

DIMMING
NON-DIM
NON-DIM
NON-DIM
NON-DIM
NON-DIM
NON-DIM

**DESCRIPTION**

Eon 303-B1-LEDB1 is a compact, low profile, dimmable, LED bollard that provides downlight only via a fixed head. 303-B1-LEDB1 has a single head on one side of the luminaire. The bollard comes standard with universal input LED driver (120-277V, 50/60 Hz). Dimming is achieved with a standard ELV, reverse phase dimming driver or an optional 0-10V dimming driver. Eon fixtures may be used indoors or outdoors and carry an IP66 rating. The patented LumaLevel™ leveling system provides quick installation, easy adjustment, secure mounting and protection from vibration.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

**SPECIFICATION FEATURES**

**Construction**

The head of the 303-B1-LEDB1 is precision machined from corrosion-resistant 6061-T6 aluminum. Body is extruded aluminum and adjustable mounting base is cast from corrosion resistant aluminum alloy. Stainless steel hardware is included. Four (4) 3/8" x 12" galvanized anchor bolts and a galvanized steel anchor bolt template are standard. Specify option -LAB and order the anchor bolt/template kit separately (Catalog: 7581-01PK).

**Optical**

LightBAR™ and optical assembly are sealed by a clear, impact resistant tempered glass lens. The optical assembly is available in three distributions: T2 (lateral throw), T4 (forward throw) and T5X (Flood). Available in several color temperatures: 2700K, 3000K, 3500K,

4000K and TSAM (Amber). Both color temperature and distribution must be specified when ordering – see catalog logic for details. An edge-lit option is available.

**Electrical**

The bollard is standard with an ELV trailing edge phase dimmable driver that accepts a universal input (120-277, 50/60Hz). An optional 0-10V universal dimming driver is also available. Both driver options incorporate surge protection. The receptacle option incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. The photocell option comes in either a 120V or 277V. Please see Option section for more detail.

**Finish**

Luminaire and mounting base are double protected by a RoHS compliant chemical film undercoating and polyester powdercoat paint finish. The mounting base is painted black. The luminaire housing and head are available in a variety of standard colors. RAL and custom color matches are available upon request. As an option, the Eon bollards are also available in colors to match other outdoor Eaton product lines, such as Invue. See the Finish section in the ordering detail for more detail.

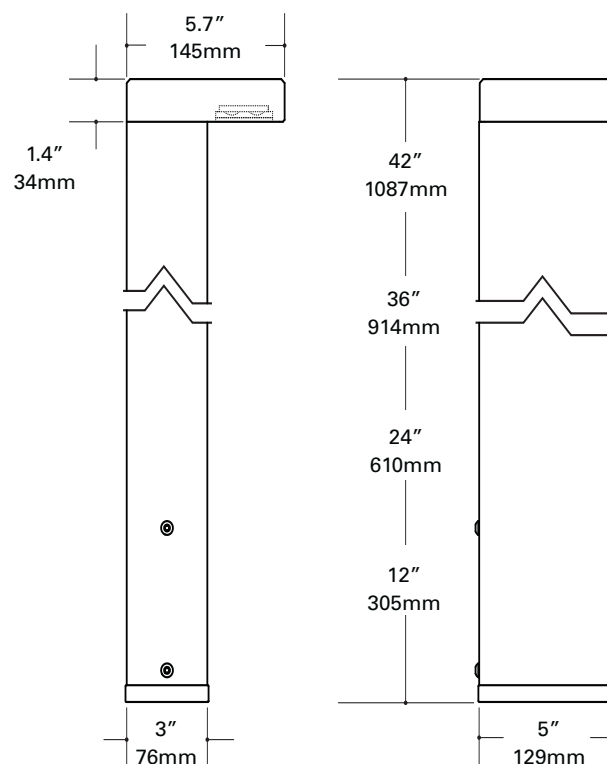
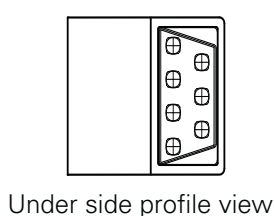
**Warranty**

Lumière warrants the EON 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.



**303-B1-LEDB1**  
EON LED

**APPLICATIONS:**  
BOLLARD



**CERTIFICATION DATA**

UL and cUL Wet Location Listed  
LM79 / LM80 Compliant  
ROHS Compliant  
IP66 Ingressed Protection Rated

**TECHNICAL DATA**

50°C Maximum Temperature Rating  
External Supply Wiring 90°C Minimum



**ORDERING INFORMATION**

Sample Number: 303-B1-LEDB1-2700-120-T2-DIM10-BK-42-EDGE-PC1-RFL-LAB

Series <sup>9</sup>	Color Temperature	Input Voltage	Optics	Dimming	Finish <sup>3</sup>	Height <sup>4</sup>	Options <sup>6</sup>
303-B1-LEDB1 Head contains one (1) Mini LightBAR™	2700=2700K 3000=3000K 3500=3500K 4000= 4000K TSAM=Turtle Safe Amber (585-595nm)	UNV=120-277V <sup>1</sup> 120=120V 277=277V <sup>2</sup>	T2 =Type II, Lateral Throw T4 =Type IV, Forward Throw T5X =Type V, Extra Wide Flood	DIMELV=Trailing Edge Phase Dimming Driver DIM10=0-10V Dimming Driver	Painted BK=Black BZ=Bronze CS=City Silver WT=White Premium Paint AP=Grey DP=Dark Platinum GM=Graphite Metallic	12=12" <sup>5</sup> 24=24" 36=36" 42=42"	EDGE=Edge lit glass lens PC1=Photocontrol 120V <sup>7</sup> PC2=Photocontrol 208-277V <sup>7</sup> RIU=Receptacle - In Use (120V Only) <sup>7</sup> RFL=Receptacle - Flip-Lid (120V Only) <sup>7</sup> LAB=Less Anchor Bolts & Template <sup>8</sup>

**NOTES:** 1 Universal Voltage (UNV) is standard unless specifying Photocontrol or Receptacle (RIU or RFL - 120V) options. 2 Specify for PC2 option only. 3 Custom and RAL color matching available upon request. Consult factory for further information. 4 Bollard heights are nominal (shown in inches). 5 12" length not available with RIU or RFL options. 6 Add suffix in the order shown. 7 Must specify voltage when ordering. 8 When specifying LAB option the anchor bolts and template need to be ordered separately 7581-01PK. 9 DesignLights Consortium™ Qualified and classified for DLC Standard. Refer to [www.designlights.org](http://www.designlights.org) for details on exact qualified EON 303-B1-LEDB1 product as not all configurations are DLC classified.





**LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	TM-21 Reported L70(10k) (Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 60,000	365,000
40°C			
50°C			

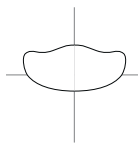
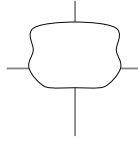
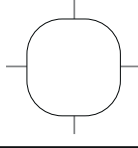
**CURRENT DRAW**

Model	Line Voltage	Current Draw
303-B1-LEDB1	120-277V, 50/60Hz	0.068A

**MAX LOAD RATING**

Options	Line Voltage	Max Load Rating
PC1	120V, 50/60Hz	1000VA, 8.3A
PC2	208-277V, 50/60Hz	
RIU or RFL	120V, 50/60Hz	1800VA, 15A

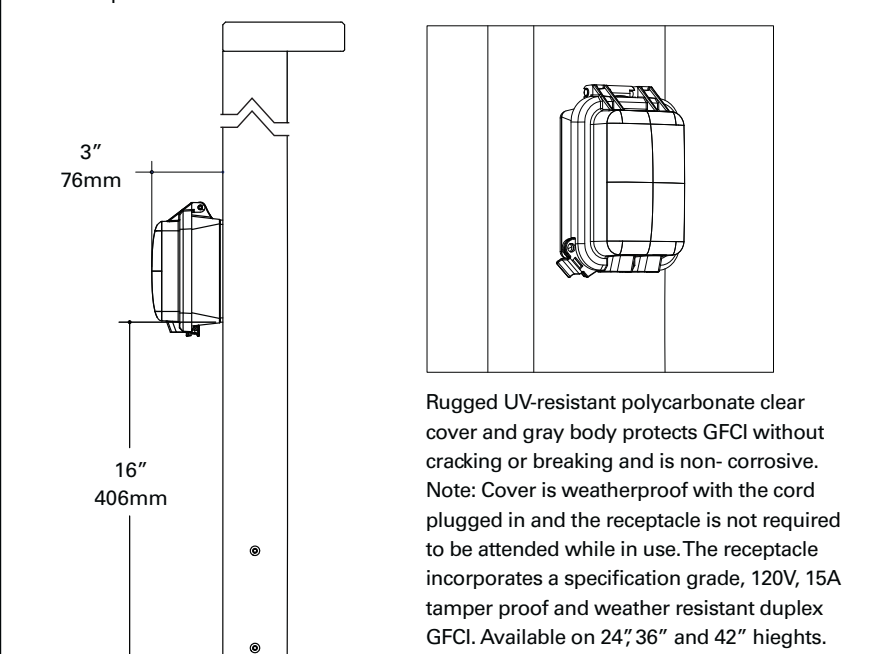
**LUMENS - CRI/CCT TABLE**

Optic Type	Distribution	Watts	Delivered Lumens	LPW	CCT (K) / Color	CRI nom. / Wavelength	B-U-G Rating
T2 (Lateral Throw)		8.5	361	44	2700	95	B0-U0-G0
			600	74	3000	75	
			419	51	3500	85	
			661	81	4000	75	
T4 (Forward Throw)		8.5	353	43	2700	95	B0-U0-G0
			587	72	3000	75	
			410	50	3500	85	
			647	79	4000	75	
T5X (Extra Wide Flood)		8.5	180	28	TSAM (Amber)	585-595nm	B0-U0-G0
			316	39	2700	95	
			525	65	3000	75	
			367	45	3500	85	
6.5	161	25	TSAM (Amber)	585-595nm			

**OPTIONS**

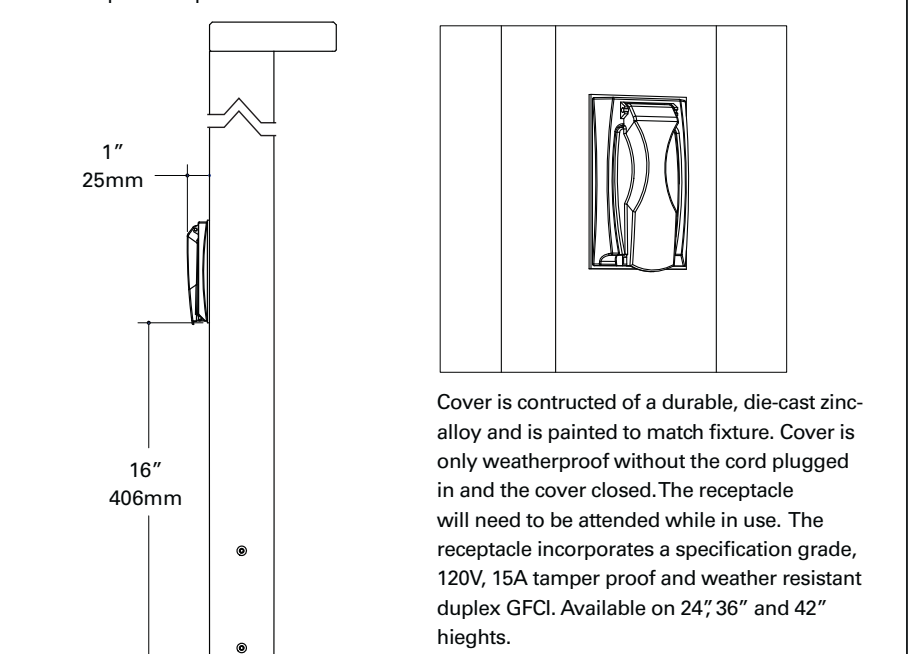
**Receptacle Options (120V Only)**

**RIU - Receptacle In-Use**



Rugged UV-resistant polycarbonate clear cover and gray body protects GFCI without cracking or breaking and is non-corrosive. Note: Cover is weatherproof with the cord plugged in and the receptacle is not required to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" heights.

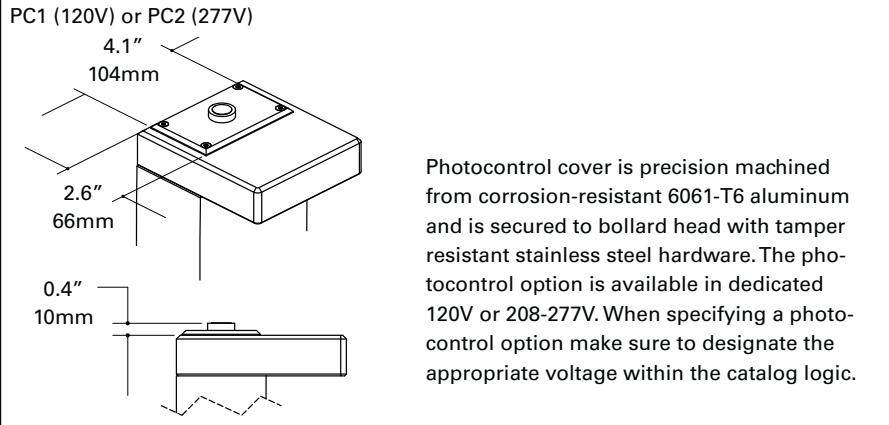
**RFL - Receptacle Flip Lid**



Cover is constructed of a durable, die-cast zinc-alloy and is painted to match fixture. Cover is only weatherproof without the cord plugged in and the cover closed. The receptacle will need to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" heights.

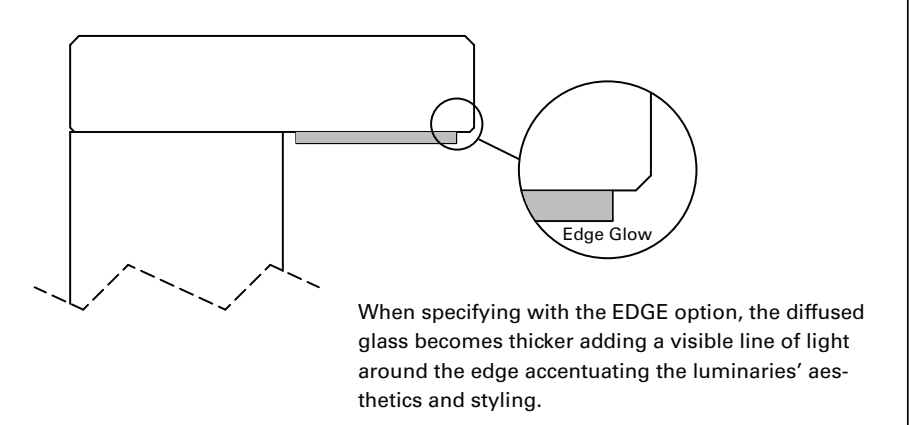
**Photocontrol**

**PC1 (120V) or PC2 (277V)**



Photocontrol cover is precision machined from corrosion-resistant 6061-T6 aluminum and is secured to bollard head with tamper resistant stainless steel hardware. The photocontrol option is available in dedicated 120V or 208-277V. When specifying a photocontrol option make sure to designate the appropriate voltage within the catalog logic.

**Edge**



When specifying with the EDGE option, the diffused glass becomes thicker adding a visible line of light around the edge accentuating the luminaries' aesthetics and styling.

**TECHNICAL NOTES:**

- Adjustable mounting base - Cast aluminum mounting base is equipped with the patented LumaLevel™ leveling system that includes mounting base, 70 shore neoprene base, stainless steel hardware and a slot to accommodate two inbound and outbound 3/4" conduits. It provides quick installation, easy adjustment, secure mounting and protection from vibration.



## Photometric Report (Type C)

Filename: B1\_303-B1-LEDB1-3000-UNV-T2-DIM10-BK.ies  
 [TEST] P174930 TEST IS SCALED FROM IESNA LM-79-08 TEST  
 DATA (P33867)  
 [TESTLAB] INNOVATIONS CENTER-P3  
 [ISSUEDATE] 6/4/2015  
 [MANUFAC] EATON - LUMIERE (FORMER COOPER LIGHTING)  
 [LUMCAT] 303-B1-LEDB1-3000-UNV-T2-DIM10-BK  
 [LUMINAIRE] LUMIERE EON 303-B1, SINGLE HEAD BOLLARD,  
 SINGLE LED BAR. TYPE II LATERAL THROW OPTICS, CLEAR  
 GLASS LENS.  
 [LAMP] (7) 3000K CCT, 75 CRI LEDS

Maximum Candela = 561.3 at 75 H 62.5 V

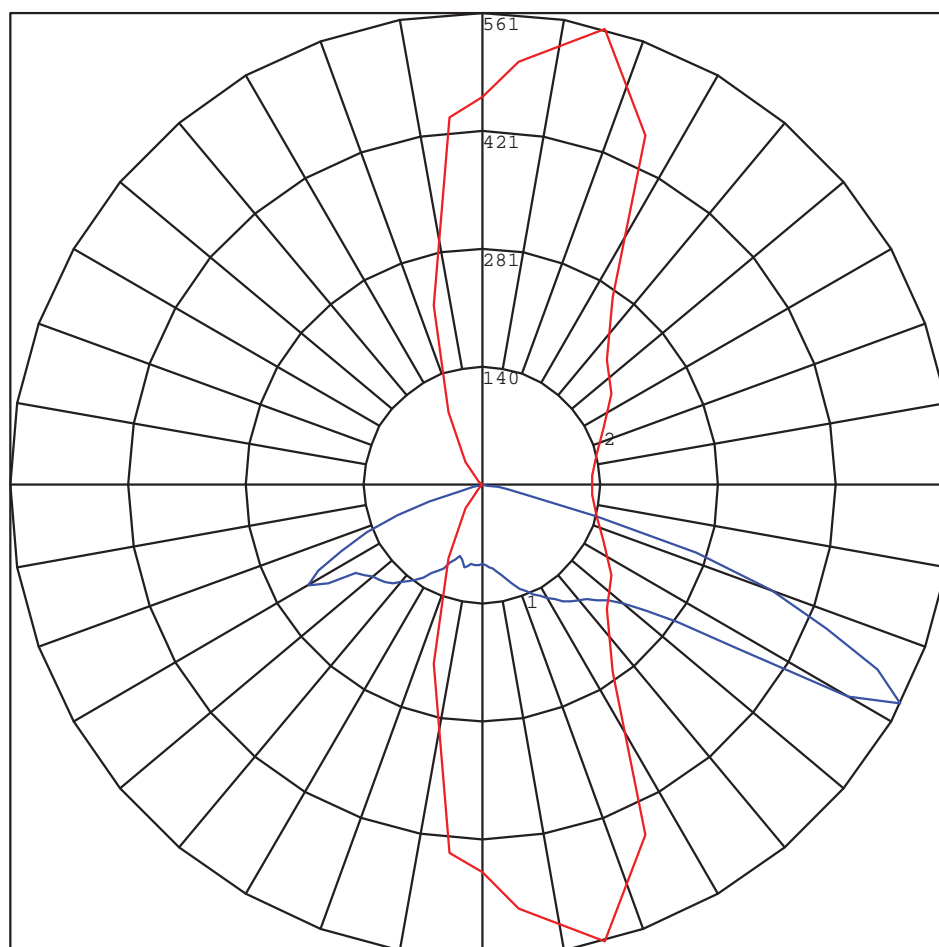
### Classification:

Road Classification: Type II, Short, N.A. (deprecated)  
 Upward Wast Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 73  
 Indoor Classification: Direct  
 BUG Rating : B0-U0-G0

### Polar Candela Curves:

Vertical Plane Through:  
 1) 75 - 255 Horizontal

Horizontal Cone Through:  
 2) 62.5 Vertical





## Photometric Report (Type C)

Filename: B1\_303-B1-LEDB1-3000-UNV-T2-DIM10-BK.ies  
 [TEST] P174930 TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33867)  
 [TESTLAB] INNOVATIONS CENTER-P3  
 [ISSUEDATE] 6/4/2015  
 [MANUFAC] EATON - LUMIERE (FORMER COOPER LIGHTING)  
 [LUMCAT] 303-B1-LEDB1-3000-UNV-T2-DIM10-BK  
 [LUMINAIRE] LUMIERE EON 303-B1, SINGLE HEAD BOLLARD, SINGLE LED BAR. TYPE II LATERAL THROW OPTICS, CLEAR GLASS LENS.  
 [LAMP] (7) 3000K CCT, 75 CRI LEDS

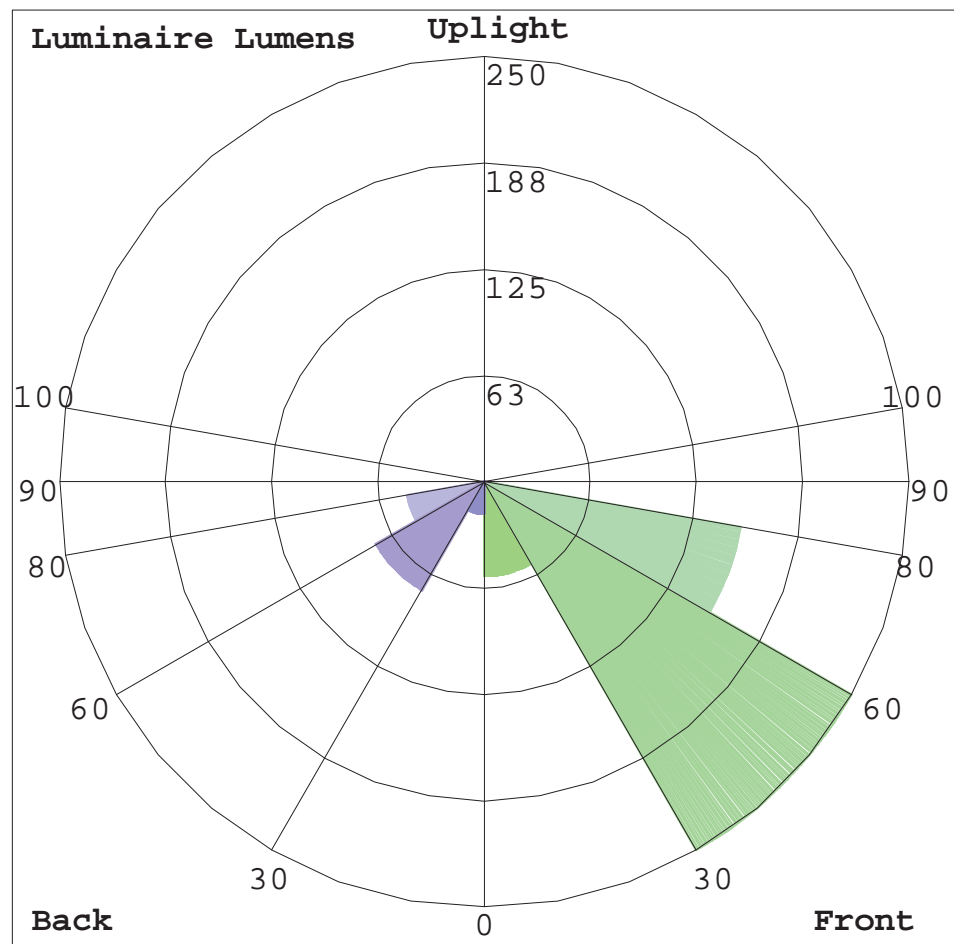
Maximum Candela = 561.3 at 75 H 62.5 V

### Classification:

Road Classification: Type II, Short, N.A. (deprecated)  
 Upward Waste Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 73  
 Indoor Classification: Direct  
 BUG Rating : B0-U0-G0

### LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	55.5	N.A.	9.3
FM (30-60)	250.1	N.A.	41.7
FH (60-80)	153.3	N.A.	25.6
FVH (80-90)	2.4	N.A.	0.4
BL (0-30)	18.7	N.A.	3.1
BM (30-60)	73.3	N.A.	12.2
BH (60-80)	45.8	N.A.	7.6
BVH (80-90)	0.4	N.A.	0.1
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	599.5	N.A.	100.0
BUG Rating	B0-U0-G0		



**DESCRIPTION**

Eon 303-B1-LEDB2 is a compact, low profile, dimmable, LED bollard that provides downlight only via a fixed head. 303-B1-LEDB2 has a single head on one side of the luminaire. The bollard comes standard with universal input LED drivers (120-277V, 50/60 Hz). Dimming is achieved with a standard ELV, reverse phase dimming driver or an optional 0-10V dimming driver. Eon fixtures may be used indoors or outdoors and carry an IP66 rating. The patented LumaLevel™ leveling system provides quick installation, easy adjustment, secure mounting and protection from vibration.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

**SPECIFICATION FEATURES**

**Construction**

The head of the 303-B1-LEDB2 is precision machined from corrosion-resistant 6061-T6 aluminum. Body is extruded aluminum and adjustable mounting base is cast from corrosion resistant aluminum alloy. Stainless steel hardware is included. Four (4) 3/8" x 12" galvanized anchor bolts and a galvanized steel anchor bolt template are standard. Specify option -LAB and order the anchor bolt/template kit separately (Catalog: 7581-01PK).

**Optical**

LightBAR™ and optical assembly are sealed by a clear, impact resistant tempered glass lens. The optical assembly is available in three distributions: T2 (lateral throw), T4 (forward throw) and T5X (Flood). Available in several color temperatures: 2700K, 3000K, 3500K,

4000K and TSAM (Amber). Both color temperature and distribution must be specified when ordering – see catalog logic for details. An edge-lit option is available.

**Electrical**

The bollard is standard with an ELV trailing edge phase dimmable driver that accepts a universal input (120-277, 50/60Hz). The standard driver is ELV trailing edge phase dimmable. An optional 0-10V dimming driver is also available. Both driver options incorporate surge protection. The receptacle option incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. The photocell option comes in either a 120V or 277V. Please see Option section for more detail.

**Finish**

Luminaire and mounting base are double protected by a RoHS compliant chemical film undercoating and polyester powdercoat paint finish. The mounting base is painted black. The luminaire housing and head are available in a variety of standard colors. RAL and custom color matches are available upon request. As an option, the Eon bollards are also available in colors to match other outdoor Eaton product lines, such as Invue. See the Finish section in the ordering detail for more detail. The LightBAR™ cover plates are standard white.

**Warranty**

Lumière warrants the EON 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.



**303-B1-LEDB2**  
EON LED

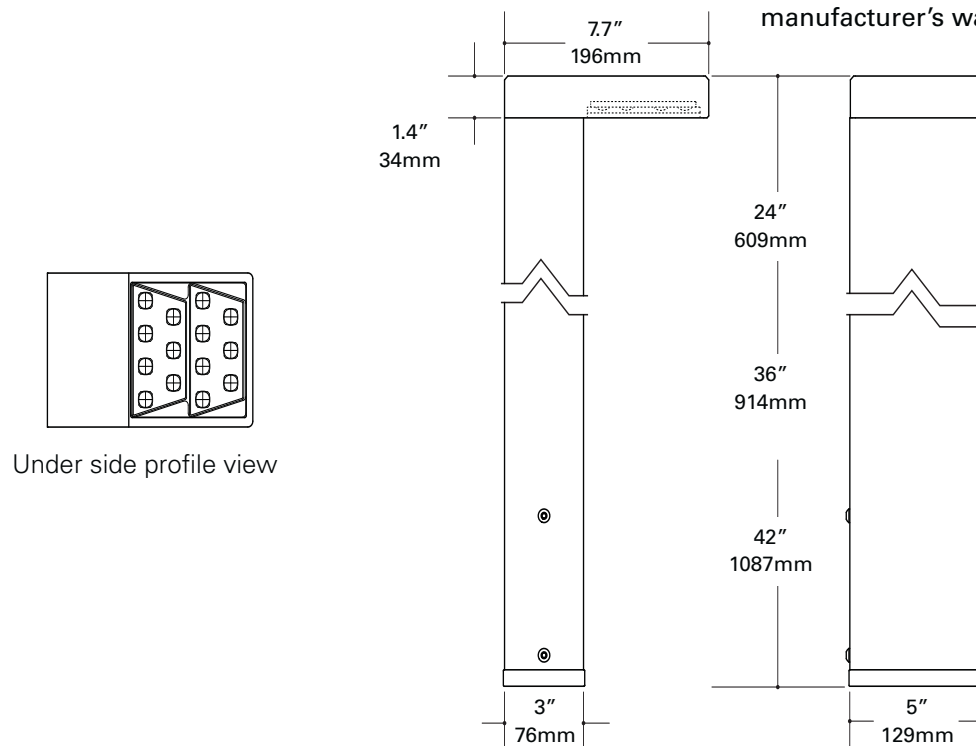
**APPLICATIONS:**  
BOLLARD

**CERTIFICATION DATA**

UL and cUL Wet Location Listed  
LM79 / LM80 Compliant  
ROHS Compliant  
IP66 Ingress Protection Rated

**TECHNICAL DATA**

50°C Maximum Temperature Rating  
External Supply Wiring 90°C Minimum



**ORDERING INFORMATION**

Sample Number: 303-B1-LEDB2-2700-120-T2-DIM10-BK-42-EDGE-PC1-RFL-LAB

Series <sup>8</sup>	Color Temperature	Input Voltage	Optics	Dimming	Finish <sup>3</sup>	Height <sup>4</sup>	Options <sup>5</sup>
303-B1-LEDB2 Head contains two (2) Mini LightBAR™	2700=2700K 3000=3000K 3500=3500K 4000= 4000K TSAM=Turtle Safe Amber (585-595nm)	UNV=120-277V <sup>1</sup> 120=120V 277=277V <sup>2</sup>	T2 =Type II, Lateral Throw T4 =Type IV, Forward Throw T5X =Type V, Extra Wide Flood	DIMELV=Trailing Edge Phase Dimming Driver DIM10=0-10V Dimming Driver	Painted BK=Black BZ=Bronze CS=City Silver WT=White Premium Paint AP=Grey DP=Dark Platinum GM=Graphite Metallic	24=24" 36=36" 42=42"	EDGE=Edge lit glass lens PC1=Photocontrol 120V <sup>6</sup> PC2=Photocontrol 208-277V <sup>6</sup> RIU=Receptacle - In Use (120V Only) <sup>6</sup> RFL=Receptacle - Flip-Lid (120V Only) <sup>6</sup> LAB=Less Anchor Bolts & Template <sup>7</sup>

NOTES: 1 Universal Voltage (UNV) is standard unless specifying Photocontrol or Receptacle (RIU or RFL - 120V) options. 2 Specify for PC2 option only. 3 Custom and RAL color matching available upon request. Consult factory for further information. 4 Bollard heights are nominal (shown in inches). 5 Add suffix in the order shown. 6 Must specify voltage when ordering. 7 When specifying LAB option the anchor bolts and template need to be ordered separately 7581-01PK. 8 DesignLights Consortium™ Qualified and classified for DLC Standard. Refer to [www.designlights.org](http://www.designlights.org) for details on exact qualified EON 303-B1-LEDB2 product as not all configurations are DLC classified.

**LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	TM-21 Reported L70(10k) (Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 60,000	365,000
40°C			
50°C			

**CURRENT DRAW**

Model	Line Voltage	Current Draw
303-B1-LEDB2	120-277V, 50/60Hz	0.13A

**MAX LOAD RATING**

Options	Line Voltage	Max Load Rating
PC1	120V, 50/60Hz	1000VA, 8.3A
PC2	208-277V, 50/60Hz	
RIU or RFL	120V, 50/60Hz	1800VA, 15A

**LUMENS - CRI/CCT TABLE**

Optic Type	Distribution	Watts	Delivered Lumens	LPW	CCT (K) / Color	CRI nom./ Wavelength	B-U-G Rating
T2 (Lateral Throw)		15.5	783	51	2700	95	B1-U0-G1
			1300	84	3000	75	
			909	59	3500	85	
			1433	93	4000	75	
T4 (Forward Throw)		15.5	747	48	2700	95	B0-U0-G0
			1241	80	3000	75	
			868	56	3500	85	
			1368	88	4000	75	
T5X (Extra Wide Flood)		15.5	380	29	TSAM (Amber)	585-595nm	B1-U0-G0
			682	44	2700	95	
			1132	73	3000	75	
			792	51	3500	85	
		12.1	347	27	TSAM (Amber)	585-595nm	

**OPTIONS**

**Receptacle Options (120V Only)**

**RIU - Receptacle In-Use**

Rugged UV-resistant polycarbonate clear cover and gray body protects GFCI without cracking or breaking and is non-corrosive. Note: Cover is weatherproof with the cord plugged in and the receptacle is not required to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" heights.

**RFL - Receptacle Flip Lid**

Cover is constructed of a durable, die-cast zinc-alloy and is painted to match fixture. Cover is only weatherproof without the cord plugged in and the cover closed. The receptacle will need to be attended while in use. The receptacle incorporates a specification grade, 120V, 15A tamper proof and weather resistant duplex GFCI. Available on 24", 36" and 42" heights.

**Photocontrol**

**PC1 (120V) or PC2 (277V)**

Photocontrol cover is precision machined from corrosion-resistant 6061-T6 aluminum and is secured to bollard head with tamper resistant stainless steel hardware. The photocontrol option is available in dedicated 120V or 208-277V. When specifying a photocontrol option make sure to designate the appropriate voltage within the catalog logic.

**Edge**

When specifying with the EDGE option, the diffused glass becomes thicker adding a visible line of light around the edge accentuating the luminaires' aesthetics and styling.

**TECHNICAL NOTES:**

- Adjustable mounting base - Cast aluminum mounting base is equipped with the patented LumaLevel™ leveling system that includes mounting base, 70 shore neoprene base, stainless steel hardware and a slot to accommodate two inbound and outbound 3/4" conduits. It provides quick installation, easy adjustment, secure mounting and protection from vibration.



## Photometric Report (Type C)

Filename: B3\_303-B1-LEDB2-3000-UNV-T4-DIM10-BK.ies  
 [TEST] P174954 TEST IS SCALED FROM IESNA LM-79-08 TEST  
 DATA (P33871)  
 [TESTLAB] INNOVATIONS CENTER-P3  
 [ISSUEDATE] 6/4/2015  
 [MANUFAC] EATON - LUMIERE (FORMER COOPER LIGHTING)  
 [LUMCAT] 303-B1-LEDB2-3000-UNV-T4-DIM10-BK  
 [LUMINAIRE] LUMIERE EON 303-B1, SINGLE HEAD BOLLARD,  
 DOUBLE LED BAR. TYPE IV FORWARD THROW OPTICS, CLEAR  
 GLASS LENS.  
 [LAMP] (14) 3000K CCT, 75 CRI LEDS

Maximum Candela = 802.4 at 45 H 66 V

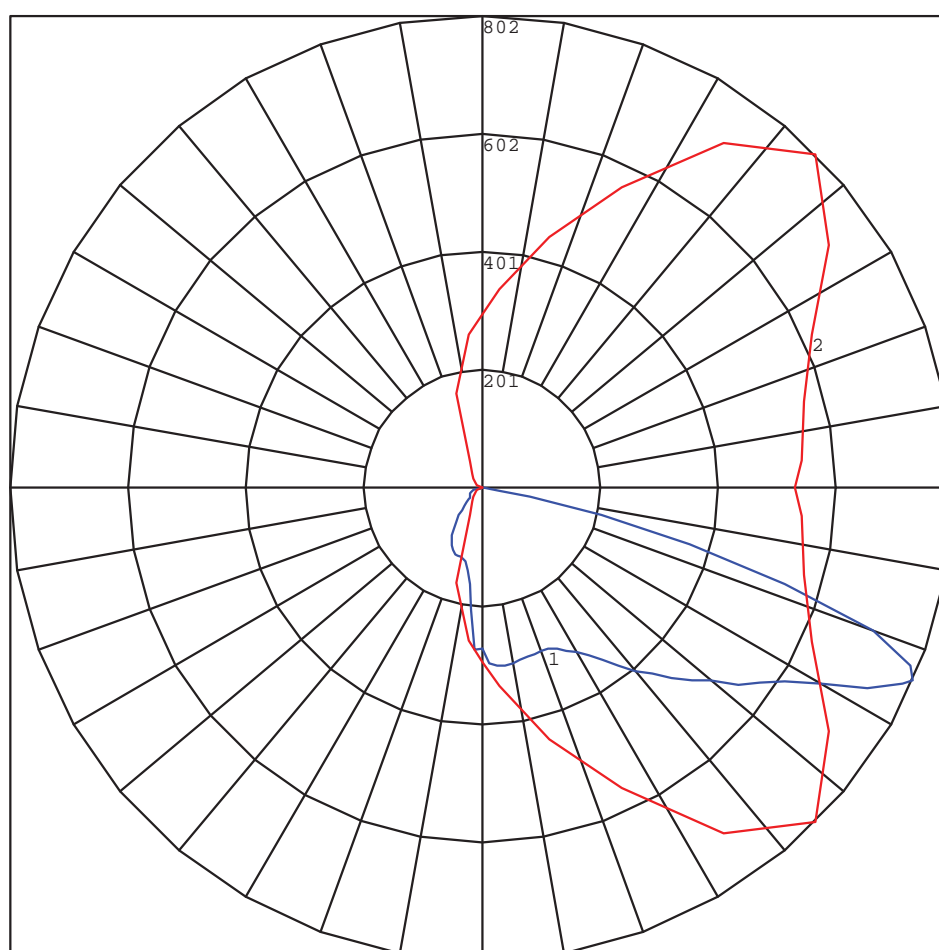
### Classification:

Road Classification: Type IV, Short, N.A. (deprecated)  
 Upward Wast Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 80  
 Indoor Classification: Direct  
 BUG Rating : B0-U0-G0

### Polar Candela Curves:

Vertical Plane Through:  
 1) 45 - 225 Horizontal

Horizontal Cone Through:  
 2) 66 Vertical





## Photometric Report (Type C)

Filename: B3\_303-B1-LEDB2-3000-UNV-T4-DIM10-BK.ies  
 [TEST] P174954 TEST IS SCALED FROM IESNA LM-79-08 TEST  
 DATA (P33871)  
 [TESTLAB] INNOVATIONS CENTER-P3  
 [ISSUEDATE] 6/4/2015  
 [MANUFAC] EATON - LUMIERE (FORMER COOPER LIGHTING)  
 [LUMCAT] 303-B1-LEDB2-3000-UNV-T4-DIM10-BK  
 [LUMINAIRE] LUMIERE EON 303-B1, SINGLE HEAD BOLLARD,  
 DOUBLE LED BAR. TYPE IV FORWARD THROW OPTICS, CLEAR  
 GLASS LENS.  
 [LAMP] (14) 3000K CCT, 75 CRI LEDS

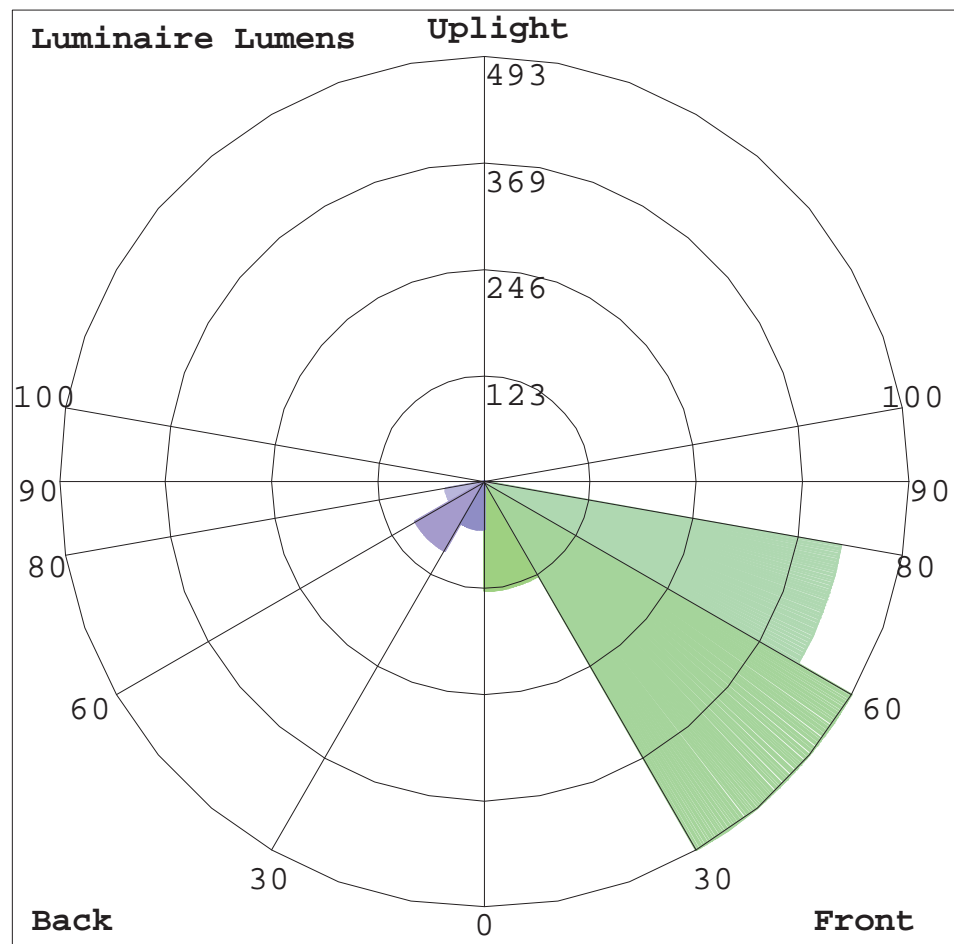
Maximum Candela = 802.4 at 45 H 66 V

### Classification:

Road Classification: Type IV, Short, N.A. (deprecated)  
 Upward Waste Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 80  
 Indoor Classification: Direct  
 BUG Rating : B0-U0-G0

### LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	125.6	N.A.	10.1
FM (30-60)	492.6	N.A.	39.7
FH (60-80)	420.6	N.A.	33.9
FVH (80-90)	8.2	N.A.	0.7
BL (0-30)	55.0	N.A.	4.4
BM (30-60)	91.8	N.A.	7.4
BH (60-80)	45.3	N.A.	3.7
BVH (80-90)	1.3	N.A.	0.1
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	1240.4	N.A.	100.0
BUG Rating	B0-U0-G0		



PL1

# McGraw-Edison

## DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated and UL/cUL Listed for wet locations.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

### Optics

Patented, high-efficiency injection-molded AccuLED Optics technology. Optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT 70 CRI. Optional 3000K, 5000K and 6000K CCT.

### Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 600mA, 800mA and 1200mA drive currents (nominal).

### Mounting

**STANDARD ARM MOUNT:** Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the

arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. **QUICK MOUNT ARM:** Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

### Finish

Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

### Warranty

Five-year warranty.

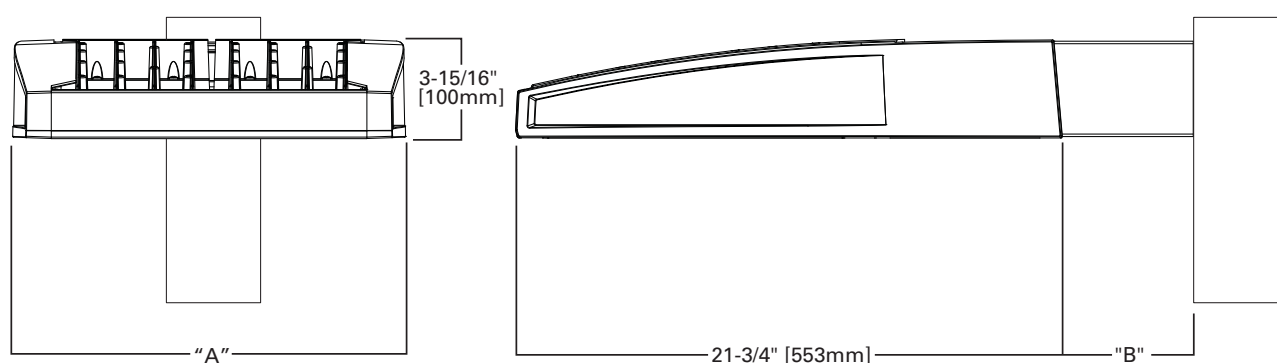


## GLEON GALLEON LED

1-10 Light Squares  
Solid State LED

AREA/SITE LUMINAIRE

## DIMENSIONS

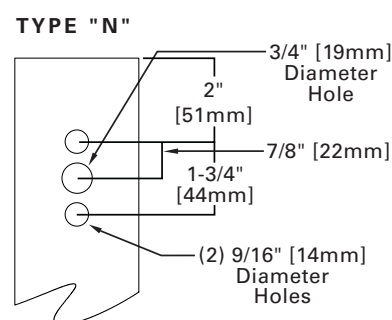


### DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length <sup>1</sup>	Weight with Arm (lbs.)	EPA with Arm <sup>2</sup> (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.

### DRILLING PATTERN



### CERTIFICATION DATA

UL/cUL Wet Location Listed  
ISO 9001  
LM79 / LM80 Compliant  
3G Vibration Rated  
IP66 Rated  
DesignLights Consortium™ Qualified\*

### ENERGY DATA Electronic LED Driver

>0.9 Power Factor  
<20% Total Harmonic Distortion  
120V-277V 50/60Hz  
347V & 480V 60Hz  
-40°C Min. Temperature  
40°C Max. Temperature  
50°C Max. Temperature (HA Option)



\*www.designlights.org



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## ORDERING INFORMATION

Sample Number: GLEON-AF-04-LED-E1-T3-GM-QM

Product Family <sup>1,2</sup>	Light Engine	Number of Light Squares <sup>3</sup>	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AF=1A Drive Current	01=1 02=2 03=3 04=4 05=5 06=6 07=7 <sup>4</sup> 08=8 <sup>4</sup> 09=9 <sup>5</sup> 10=10 <sup>5</sup>	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V <sup>6</sup> 480=480V <sup>6,7</sup>	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square 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 AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm <sup>8</sup> MA=Mast Arm Adapter <sup>9</sup> WM=Wall Mount QM=Quick Mount Arm (Standard Length) <sup>10</sup> QMEA=Quick Mount Arm (Extended Length) <sup>11</sup>
Options (Add as Suffix)					Accessories (Order Separately)		
<p>7030=70 CRI 3000K<sup>12</sup> 8030=80 CRI 3000K<sup>13</sup> 7050=70 CRI 5000K<sup>12</sup> 7060=70 CRI 6000K<sup>12</sup> 600=Drive Current Factory Set to Nominal 600mA<sup>14</sup> 800=Drive Current Factory Set to Nominal 800mA<sup>14</sup> 1200=Drive Current Factory Set to Nominal 1200mA<sup>14,15</sup> F=Single Fuse (120, 277 or 347V. Must Specify Voltage) FF=Double Fuse (208, 240 or 480V. Must Specify Voltage) 2L=Two Circuits<sup>16,17</sup> DIM=External 0-10V Dimming Leads P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle R=NEMA Twistlock Photocontrol Receptacle AHD145=After Hours Dim, 5 Hours<sup>18</sup> AHD245=After Hours Dim, 6 Hours<sup>18</sup> AHD255=After Hours Dim, 7 Hours<sup>18</sup> AHD355=After Hours Dim, 8 Hours<sup>18</sup> HA=50°C High Ambient<sup>19</sup> MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height<sup>20,21</sup> MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height<sup>20,22</sup> MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height<sup>20,23</sup> MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range)<sup>20,24</sup> MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height<sup>20,21,25</sup> MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height<sup>20,22,25</sup> MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height<sup>20,23,25</sup> MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range)<sup>20,24,25</sup> MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height<sup>20,21</sup> MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height<sup>20,22</sup> MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height<sup>20,23</sup> MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range)<sup>20,24</sup> LWR-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height<sup>26</sup> LWR-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height<sup>26</sup> L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right MT=Factory Installed Mesh Top TH=Tool-less Door Hardware LCF=Light Square Trim Plate Painted to Match Housing<sup>27</sup> HSS=Factory Installed House Side Shield<sup>28</sup> CE=CE Marking<sup>29</sup></p>					<p>OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor<sup>20</sup> GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares GLEON-QM=Quick Mount Arm Kit GLEON-QMEA=Quick Mount Extended Arm Kit LS/HSS=Field Installed House Side Shield<sup>28,30</sup></p>		

- NOTES:**
- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
  - DesignLights Consortium™ Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details.
  - Standard 4000K CCT and minimum 70 CRI.
  - Not compatible with extended quick mount arm (QMEA).
  - Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
  - Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
  - 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).
  - May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
  - Factory installed.
  - Maximum 8 light squares.
  - Maximum 6 light squares.
  - Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
  - Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
  - 1 Amp standard. Use dedicated IES files for 600mA, 800mA and 1200mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
  - Not available with HA option.
  - 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in AF-02 through AF-04 requires a larger housing, normally used for AF-05 or AF-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
  - Not available with LumaWatt wireless sensors.
  - Requires the use of P photocontrol or the PER7 or R photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
  - 50°C lumen maintenance data applies to 600mA, 800mA and 1A drive currents.
  - The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
  - Approximately 22' detection diameter at 8' mounting height.
  - Approximately 40' detection diameter at 20' mounting height.
  - Approximately 60' detection diameter at 40' mounting height.
  - Approximately 100' detection diameter at 40' mounting height.
  - Replace X with number of Light Squares operating in low output mode.
  - LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See [www.eaton.com/lighting](http://www.eaton.com/lighting) for LumaWatt application information.
  - Not available with house side shield (HSS).
  - Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
  - CE is not available with the LWR, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only.
  - One required for each Light Square.



## Photometric Report (Type C)

Filename: PL1\_GLEON-AF-01-LED-E1-SL2-7030-HSS.ies  
 [TEST] P192789 TEST IS SCALED FROM IESNA LM-79-08 TEST  
 DATA (P24287)  
 [TESTLAB] Innovations Center P2  
 [ISSUEDATE] 7/21/2016  
 [MANUFAC] EATON - MCGRAW-EDISON (FORMER COOPER  
 LIGHTING)  
 [LUMCAT] GLEON-AF-01-LED-E1-SL2-7030-HSS  
 [LUMINAIRE] GALLEON AREA AND ROADWAY LUMINAIRE (1) 70  
 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND  
 TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD

Maximum Candela = 6291.8 at 67 H 67 V

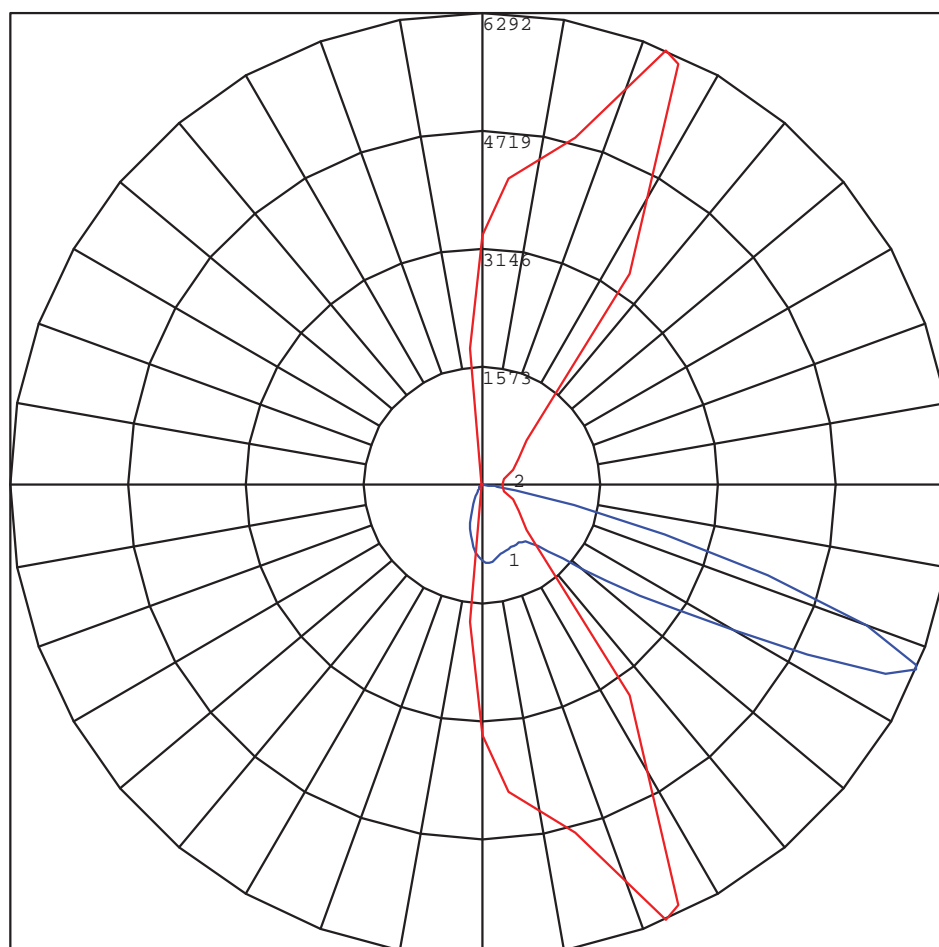
### Classification:

Road Classification: Type II, Short, N.A. (deprecated)  
 Upward Wast Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 77  
 Indoor Classification: Direct  
 BUG Rating : B1-U0-G1

### Polar Candela Curves:

Vertical Plane Through:  
 1) 67 - 247 Horizontal

Horizontal Cone Through:  
 2) 67 Vertical





## Photometric Report (Type C)

Filename: PL1\_GLEON-AF-01-LED-E1-SL2-7030-HSS.ies  
 [TEST] P192789 TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
 [TESTLAB] Innovations Center P2  
 [ISSUEDATE] 7/21/2016  
 [MANUFAC] EATON - MCGRAW-EDISON (FORMER COOPER LIGHTING)  
 [LUMCAT] GLEON-AF-01-LED-E1-SL2-7030-HSS  
 [LUMINAIRE] GALLEON AREA AND ROADWAY LUMINAIRE (1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD

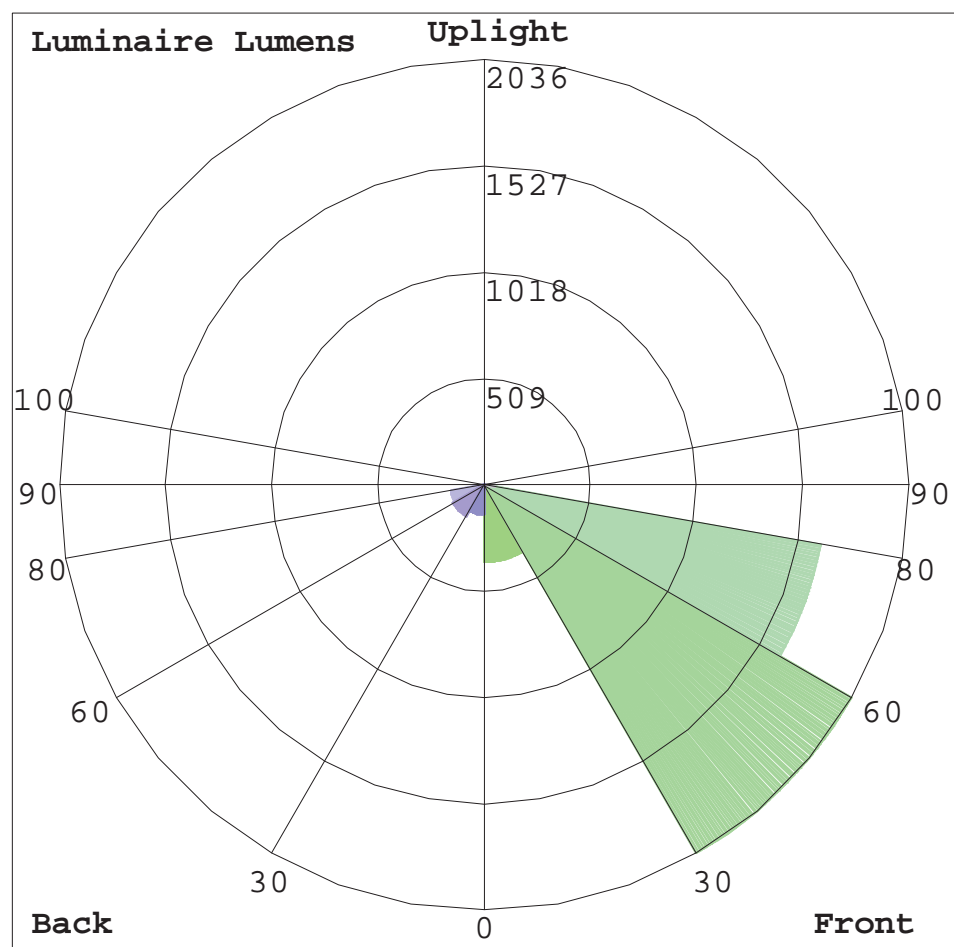
Maximum Candela = 6291.8 at 67 H 67 V

### Classification:

Road Classification: Type II, Short, N.A. (deprecated)  
 Upward Waste Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 77  
 Indoor Classification: Direct  
 BUG Rating : B1-U0-G1

### LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	368.6	N.A.	8.1
FM (30-60)	2036.0	N.A.	44.6
FH (60-80)	1638.0	N.A.	35.9
FVH (80-90)	52.0	N.A.	1.1
BL (0-30)	141.6	N.A.	3.1
BM (30-60)	170.5	N.A.	3.7
BH (60-80)	159.9	N.A.	3.5
BVH (80-90)	2.5	N.A.	0.1
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	4569.1	N.A.	100.0
BUG Rating	B1-U0-G1		



# QRI374 LED

## 616-2321

1/3

**we-ef**

ST2



### Description

IP55. Recessed LED wall luminaire. Shielded light source. Suitable for installation in cavity wall construction or concrete pour construction using optional installation blockout.

**Beam Type** asymmetric, forward-throw

**Lamp Type** 14 LED 14W (3000K)

**CRI** 80

**Gear Type** electronic gear

### Nominal Luminous Flux (lm)

LED Lumens 100 lm

LEDs 14

Total Lumens 1400 lm

Tj 85 °C

### Rated Luminous Flux (lm)

LED Lumens 63.9 lm

Total Lumens 894.2 lm

Ta 25 °C

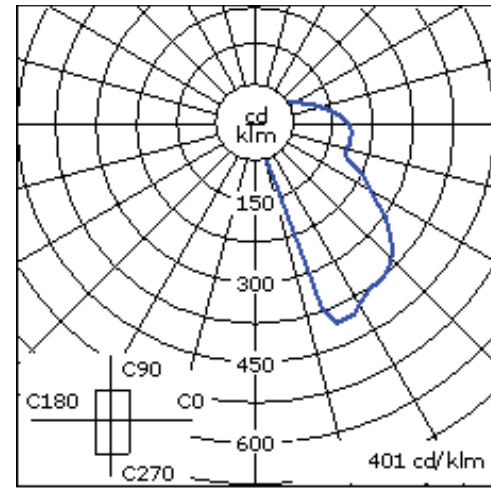
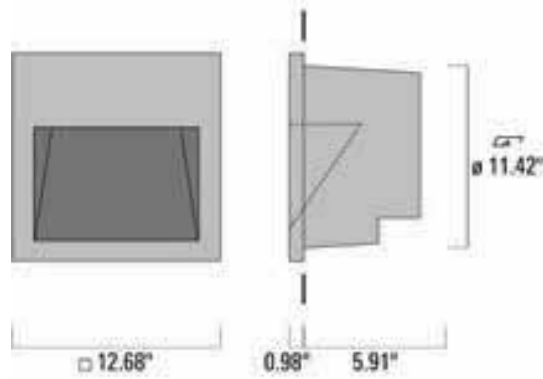
**Rated Input Power** 18 W

# QRI374 LED

616-2321

2/3

**we-ef**



## Material Specification

Body:	Luminaire body and lens frame constructed in die cast aluminum.
Weight (lbs):	16.00
Lens:	Tempered glass lens.
Gasket:	Silicone rubber gasket
Fasteners:	PCS polymer coated stainless steel
Ingress protection:	IP55
Impact protection:	IK10
Corrosion protection:	5CE
Finish:	Powder coat finish in Black RAL9004, White RAL9016, Grey Metallic RAL9007 or Dark Bronze RAL8019.
Mounting:	Suitable for installation in cavity wall construction or concrete pour construction using optional installation blackout.

## Electrical Specification

Power supply:	Integral [ECG] LED driver in 120 or 277 volt. Specify voltage.
Cable:	Suitable for through wiring.

## Ambient Temperature

Ta less than 25 deg C

# QRI374 LED

616-2321

3/3



## Mounting Accessories

### Installation blackout

Optional mounting accessories for concrete pour installations. Installation blackout. Suitable for installing recesses wall luminaire in concrete pour installations. Serve as rough-in housing prior to installation of luminaire. Includes hardware necessary for attachment to formwork.

C1

■ 616-9330 Installation blackout BQR30-I

7.09





## Photometric Report (Type C)

Filename: ST2\_WE-EF\_616-2321.ies

[TEST] LM 2473

[TESTLAB] WE-EF

[ISSUEDATE] 20 Sep 2013

[MANUFAC] WE-EF USA

[LUMCAT] 616-2321

[LUMINAIRE] QRI374-LED, Wall Luminaires / Recessed

QRI374-LD-14/14W Painted;QRI374-LED, Wall Luminaires / Recessed

[LAMPCAT] 14 LED white 14W (3000K)

[LAMP] 14 LED, Warm White - 120° angle of beam

LEDLUMENS=100.0 lm, LEDs No=14, TOTALLUMENS= 1400.0 lm

, Tj=85° LEDLUMENS=63.9 lm, LEDs No=14, TOTALLUMENS= 894.2 lm, Ta=25°C

Maximum Candela = 561.4 at 0 H 22.5 V

### Classification:

Road Classification: Type III, Very Short, N.A. (deprecated)

Upward Wast Light Ratio: 0.24

Luminaire Efficacy Rating (LER): 50

Indoor Classification: Semi-Direct

BUG Rating : B0-U3-G1

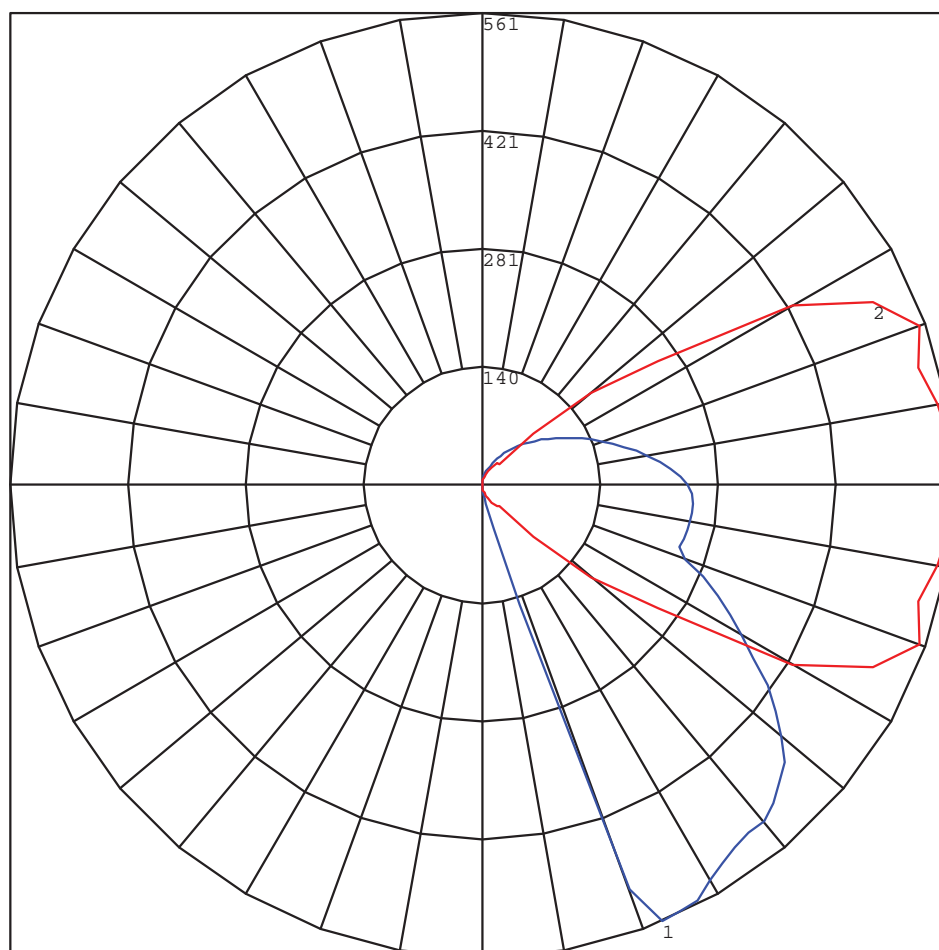
### Polar Candela Curves:

Vertical Plane Through:

1) 0 - 180 Horizontal

Horizontal Cone Through:

2) 22.5 Vertical





## Photometric Report (Type C)

Filename: ST2\_WE-EF\_616-2321.ies

[TEST] LM 2473

[TESTLAB] WE-EF

[ISSUEDATE] 20 Sep 2013

[MANUFAC] WE-EF USA

[LUMCAT] 616-2321

[LUMINAIRE] QRI374-LED, Wall Luminaires / Recessed

QRI374-LD-14/14W Painted;QRI374-LED, Wall Luminaires / Recessed

[LAMPCAT] 14 LED white 14W (3000K)

[LAMP] 14 LED, Warm White - 120° angle of beam

LEDLUMENS=100.0 lm, LEDs No=14, TOTALLUMENS= 1400.0 lm

, Tj=85° LEDLUMENS=63.9 lm, LEDs No=14, TOTALLUMENS= 894.2 lm, Ta=25°C

Maximum Candela = 561.4 at 0 H 22.5 V

### Classification:

Road Classification: Type III, Very Short, N.A. (deprecated)

Upward Waste Light Ratio: 0.24

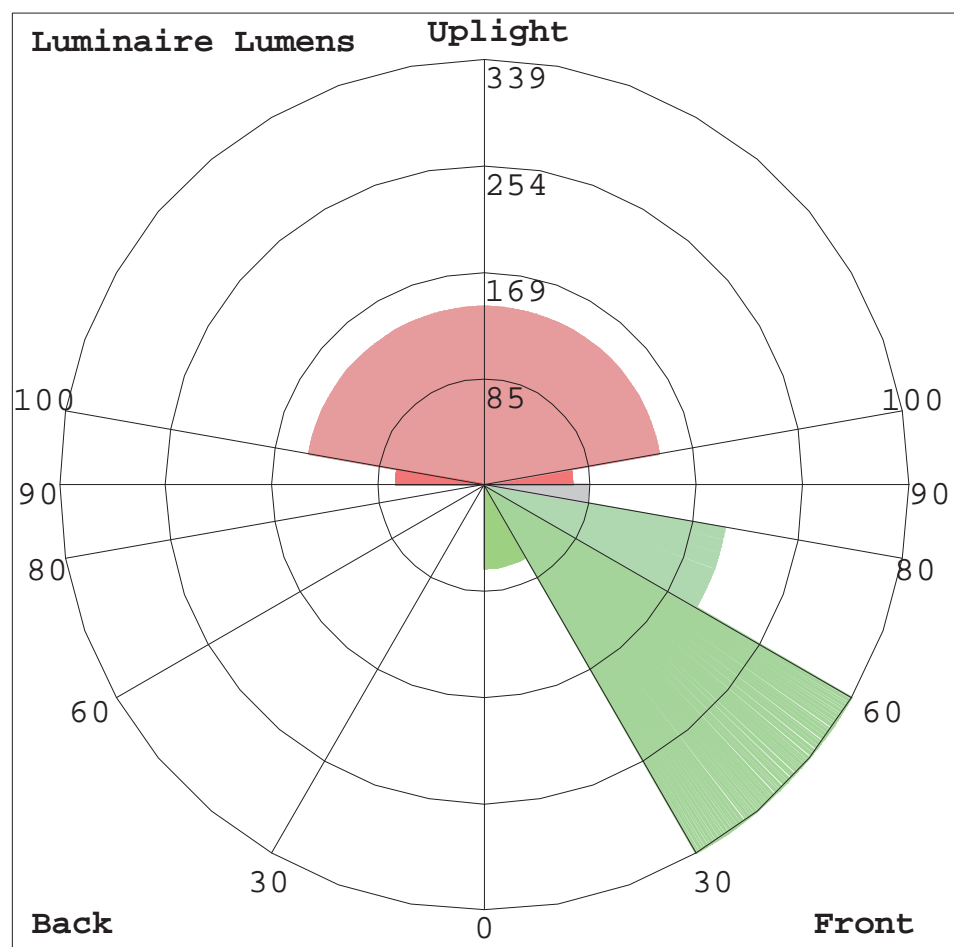
Luminaire Efficacy Rating (LER): 50

Indoor Classification: Semi-Direct

BUG Rating : B0-U3-G1

### LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	66.2	N.A.	7.4
FM (30-60)	338.6	N.A.	37.9
FH (60-80)	195.0	N.A.	21.8
FVH (80-90)	82.5	N.A.	9.2
BL (0-30)	0.0	N.A.	0.0
BM (30-60)	0.0	N.A.	0.0
BH (60-80)	0.0	N.A.	0.0
BVH (80-90)	0.0	N.A.	0.0
UL (90-100)	70.3	N.A.	7.9
UH (100-180)	141.7	N.A.	15.9
Total	894.3	N.A.	100.0
BUG Rating	B0-U3-G1		





**DESCRIPTION**

The Impact Elite family of wall luminaires is the ideal complement to site design. Incorporating modular LightSquares technology, the Impact Elite luminaire provides outstanding uniformity and energy-conscious illumination. Combined with a rugged construction, the Impact Elite luminaire is the ideal facade and security luminaire for zones surrounding schools, office complexes, apartments and recreational facilities. UL/cUL listed for wet locations.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

**SPECIFICATION FEATURES**

**Construction**

Heavy-wall, die-cast aluminum housing and removable hinged door frame for precise tolerance control and repeatability. Hinged door inset for clean mating with housing surface and secured via two captive fasteners. Optional tamper-resistant Torx™ head fasteners offer vandal resistant access to the electrical chamber.

**Optics**

Choice of 10 patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K, 5000K and 5700K CCT.

**Electrical**

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and are suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightSquares feature an IP66 enclosure rating and maintain greater than 90% lumen maintenance at 60,000 hours per IESNA TM-21. Emergency egress options for -20°C ambient environments and occupancy sensor available.

**Mounting**

Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact Elite "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws concealed but accessible from bottom of fixture.

**Finish**

Cast components finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

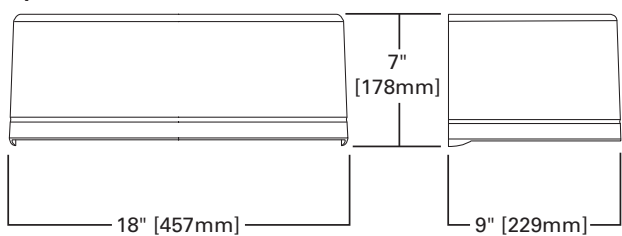
**Warranty**

Five-year warranty.

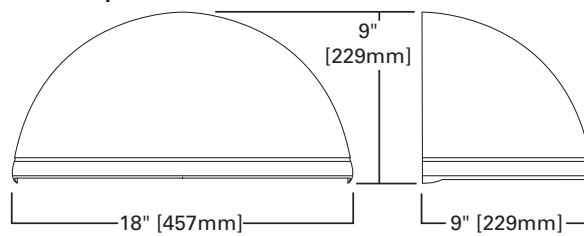


**DIMENSIONS**

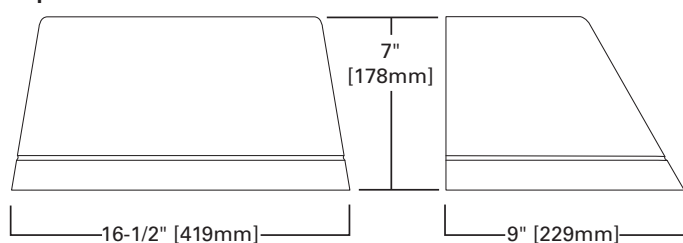
**Cylinder**



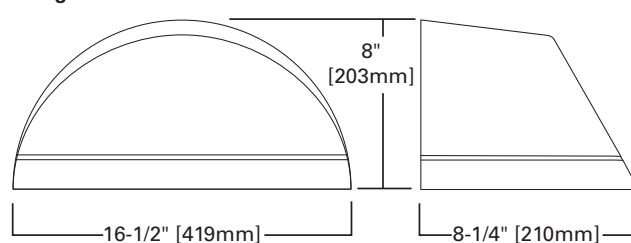
**Quarter Sphere**



**Trapezoid**



**Wedge**



**ISC/ISS/IST/ISW  
IMPACT ELITE LED**

**1 LightSquare  
Solid State LED**

**WALL MOUNT LUMINAIRE**

**CERTIFICATION DATA**

UL/cUL Listed  
LM79 / LM80 Compliant  
IP66 LightSquare  
DesignLights Consortium® Qualified\*  
ISO 9001

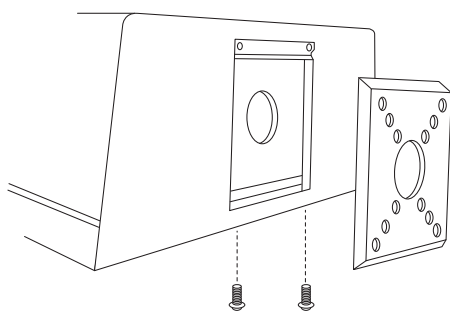
**ENERGY DATA**

**Electronic LED Driver**  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V/50 & 60Hz, 347V/60Hz,  
480V/60Hz  
-40°C Minimum Temperature  
40°C Ambient Temperature Rating

**SHIPPING DATA**

**Approximate Net Weight:**  
18 lbs. (8 kgs.)

**HOOK-N-LOCK MOUNTING**



\*www.designlights.org



**POWER AND LUMENS**

1 LightSquare (AF)		Cylinder (ISC) and Quarter Sphere (ISS)						Trapezoid (IST) and Wedge (ISW)					
Drive Current (mA)		350	450	600	800	1000	1200	350	450	600	800	1000	1200
Power (Watts)	120-277V	20.3	25.5	33.4	43.9	55.1	66.2	20.3	25.5	33.4	43.9	55.1	66.2
Current (A)	120V	0.17	0.22	0.29	0.38	0.48	0.56	0.17	0.22	0.29	0.38	0.48	0.56
	277V	0.09	0.10	0.13	0.17	0.21	0.25	0.09	0.10	0.13	0.17	0.21	0.25
Power (Watts)	347V or 480V	23.3	28.7	36.6	49.5	60.7	70.1	23.3	28.7	36.6	49.5	60.7	70.1
Current (A)	347V	0.07	0.08	0.11	0.15	0.18	0.21	0.07	0.08	0.11	0.15	0.18	0.21
	480V	0.05	0.06	0.08	0.11	0.13	0.16	0.05	0.06	0.08	0.11	0.13	0.16
<b>Optics</b>													
T2	Lumens	2,336	2,934	3,827	4,791	5,663	6,444	2,498	3,136	4,091	5,122	6,054	6,889
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
T3	Lumens	2,385	2,994	3,906	4,889	5,779	6,577	2,504	3,144	4,101	5,133	6,068	6,905
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
T4FT	Lumens	2,360	2,963	3,866	4,839	5,720	6,509	2,530	3,177	4,145	5,188	6,133	6,979
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
T4W	Lumens	2,386	2,996	3,908	4,892	5,783	6,581	2,500	3,139	4,095	5,126	6,059	6,895
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SL2	Lumens	2,257	2,834	3,697	4,628	5,470	6,225	2,413	3,030	3,953	4,948	5,849	6,656
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SL3	Lumens	2,220	2,787	3,636	4,552	5,380	6,122	2,365	2,970	3,874	4,849	5,732	6,523
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SL4	Lumens	2,110	2,649	3,456	4,326	5,113	5,818	2,234	2,805	3,660	4,581	5,415	6,162
	BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
SLL/SLR	Lumens	1,990	2,498	3,259	4,080	4,823	5,488	2,154	2,705	3,529	4,418	5,222	5,942
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2	B1-U1-G2
RW	Lumens	2,380	2,988	3,898	4,880	5,768	6,564	2,465	3,095	4,037	5,054	5,974	6,798
	BUG Rating	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U0-G0	B3-U1-G1	B3-U1-G1	B3-U1-G1	B3-U1-G1	B3-U1-G1	B3-U1-G1

**LUMEN MAINTENANCE**

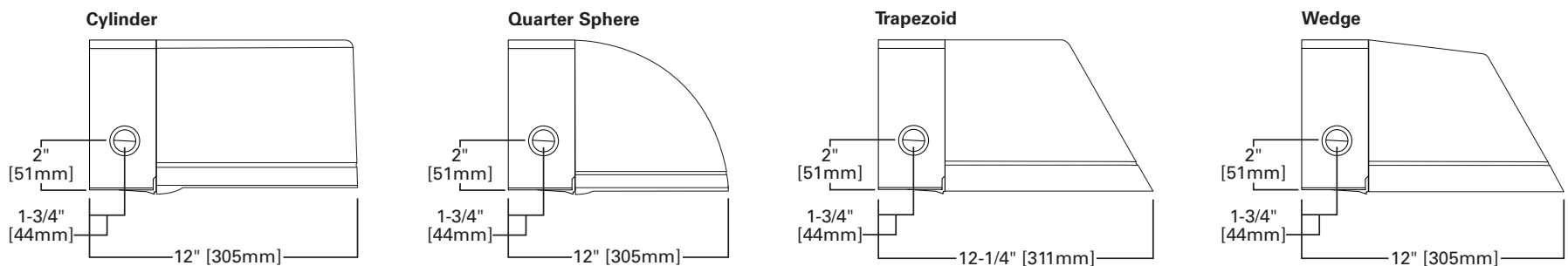
Current	Ambient Temperature	25000 Hours*	50000 Hours*	60000 Hours*	100000 Hours*	Theoretical L70 (Hours)*
Up to 1.2A	Up to 40°C	>95%	>91%	>90%	>83%	20,4000

\*Data calculated based on TM-21 calculator.

**LUMEN MULTIPLIER**

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

**THRUWAY BACK BOX**



**ORDERING INFORMATION**

Sample Number: ISC-AF-1200-LED-E1-T3-BZ

Product Family <sup>1</sup>	Light Engine	Drive Current	Lamp Type	Voltage	Distribution	Color
<b>ISC</b> =Impact Elite LED Small Cylinder <b>ISS</b> =Impact Elite LED Small Quarter Sphere <b>IST</b> =Impact Elite LED Small Trapezoid <b>ISW</b> =Impact Elite LED Small Wedge	<b>AF</b> =(1) LightSquare	<b>350</b> =Drive Current Factory Set to 350mA <b>450</b> =Drive Current Factory Set to 450mA <b>600</b> =Drive Current Factory Set to 600mA <b>800</b> =Drive Current Factory Set to 800mA <b>1000</b> =Drive Current Factory Set to 1000mA <b>1200</b> =Drive Current Factory Set to 1200mA <sup>2</sup>	<b>LED</b> =Solid State Light Emitting Diodes	<b>E1</b> =Electronic (120-277V) <b>347</b> =347V <sup>2</sup> <b>480</b> =480V <sup>2,3</sup>	<b>T2</b> =Type II <b>T3</b> =Type III <b>T4FT</b> =Type IV Forward Throw <b>T4W</b> =Type IV Wide <b>SL2</b> =Type II w/Spill Control <b>SL3</b> =Type III w/Spill Control <b>SL4</b> =Type IV w/Spill Control <b>SLL</b> =90° Spill Light Eliminator Left <b>SLR</b> =90° Spill Light Eliminator Right <b>RW</b> =Rectangular Wide Type I	<b>AP</b> =Grey <b>BZ</b> =Bronze <b>BK</b> =Black <b>DP</b> =Dark Platinum <b>GM</b> =Graphite Metallic <b>WH</b> =White
<b>Options</b> (Add as Suffix)				<b>Accessories</b> (Order Separately) <sup>17</sup>		
<b>7030</b> =70 CRI / 3000K CCT <sup>4</sup> <b>7050</b> =70 CRI / 5000K CCT <sup>4</sup> <b>7060</b> =70 CRI / 5700K CCT <sup>4</sup> <b>8030</b> =80 CRI / 3000K CCT <sup>4</sup> <b>PER7</b> =NEMA 7-PIN Twistlock Photocontrol Receptacle <sup>2,5,6</sup> <b>P</b> =Button Type Photocontrol (Available in 120, 208, 240 or 277V. Must Specify Voltage) <b>HA</b> =50°C High Ambient <sup>7</sup> <b>AHD145</b> =After Hours Dim, 5 Hours, 50% <sup>8</sup> <b>AHD245</b> =After Hours Dim, 6 Hours, 50% <sup>8</sup> <b>AHD255</b> =After Hours Dim, 7 Hours, 50% <sup>8</sup> <b>AHD355</b> =After Hours Dim, 8 Hours, 50% <sup>8</sup> <b>MS/DIM-LXX</b> =Motion Sensor for Dimming Operation <sup>9,10,11</sup> <b>LWR-LW</b> =LumaWatt Pro Wireless Sensor, Wide Lens for 8' - 16' Mounting Height <sup>11,12</sup> <b>LWR-LN</b> =LumaWatt Pro Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height <sup>11,12</sup> <b>BBB</b> =Battery Pack with Back Box (Specify 120V or 277V) <sup>13</sup> <b>CWB</b> =Cold Weather Battery Pack with Back Box (Specify 120V or 277V) <sup>14</sup> <b>LCF</b> =LightSquare Trim Plate Matches Housing Finish <b>HSS</b> =Factory Installed House Side Shield <sup>15</sup> <b>ULG</b> =Uplight Glow <sup>5,6</sup> <b>TR</b> =Tamper Resistant Hardware <b>X</b> =Driver Surge Protection (6kV) Only <sup>16</sup>				<b>MA1253</b> =10kV Circuit Module Replacement <b>MA1254-XX</b> =Thruway Back Box - Impact Elite Trapezoid <b>MA1255-XX</b> =Thruway Back Box - Impact Elite Cylinder <b>MA1256-XX</b> =Thruway Back Box - Impact Elite Quarter Sphere <b>MA1257-XX</b> =Thruway Back Box - Impact Elite Wedge <b>FSIR-100</b> =Wireless Configuration Tool for Occupancy Sensor		

- NOTES:**
- Standard 4000K CCT and greater than 70 CRI.
  - Not available with ULG option.
  - 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).
  - Exextended lead times apply.
  - Not available with ISS or ISW.
  - Not available with LWR-XX or MS/DIM-LXX.
  - Suitable for 50°C provided no options other than motion sensor are included and driver output set to 1.A or less.
  - Requires the use of P photocontrol or the PER7 photocontrol receptacle with photocontrol accessory. Not available with 350mA drive current. See After Hours Dim supplemental guide for additional information.
  - Specify lens in place of XX. Round to next highest option based on mounting height. Available options are 08, 20 and 40W.
  - The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
  - Includes integral photocell.
  - LumaWatt Pro wireless sensors are factory installed and requiring network components in appropriate quantities. See [www.eaton.com/lighting](http://www.eaton.com/lighting) for LumaWatt Pro application information.
  - LED standard integral battery pack is rated for minimum operating temperature 32°F (0°C). Operates downlight for 90-minutes.
  - LED cold weather integral battery pack is rated for minimum operating temperature -4°F (-20°C). Operates downlight for 90-minutes.
  - Only for use with SL2, SL3 and SL4 distributions. The LightSquare trim plate is painted black when the HSS option is selected.
  - Removes additional surge module.
  - Specify color in place of XX.



## Photometric Report (Type C)

Filename: W5\_Mc-Graw-Edisonn\_IST-AF-800-LED-E1-SL4-7030.ies  
 [TEST] P227116 TEST IS SCALED FROM IESNA LM-79-08 TEST  
 DATA (P35947)  
 [TESTLAB] INNOVATION CENTER-P3  
 [ISSUEDATE] 7/28/2017  
 [MANUFAC] EATON - MCGRAW-EDISON (FORMER COOPER  
 LIGHTING)  
 [LUMCAT] IST-AF-800-LED-E1-SL4-7030  
 [LUMINAIRE] IMPACT ELITE LED TRAPEZOID LUMINAIRE LIGHT  
 SQUARE WITH ACCUED OPTICS-TYPE IV W/SPILL CONTROL  
 [LAMP] (16) 3000K CCT, 70 CRI LEDs

Maximum Candela = 3452.6 at 39 H 69 V

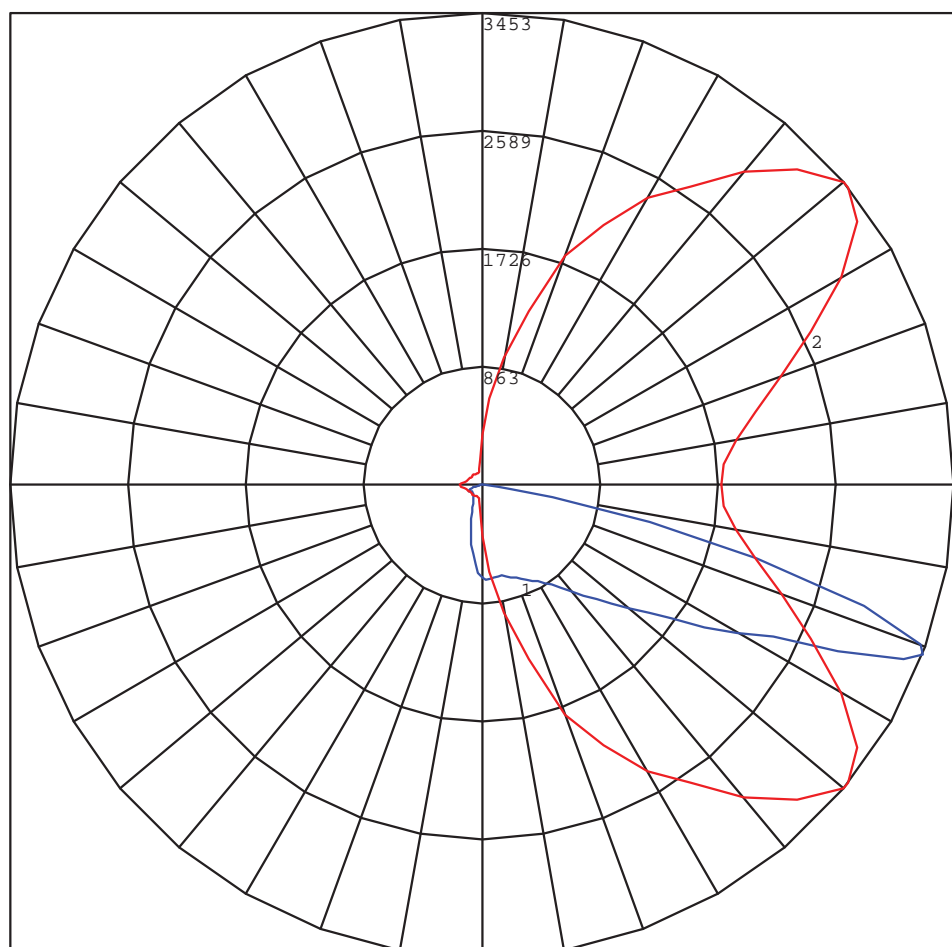
### Classification:

Road Classification: Type IV, Short, N.A. (deprecated)  
 Upward Wast Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 93  
 Indoor Classification: Direct  
 BUG Rating : B1-U1-G1

### Polar Candela Curves:

Vertical Plane Through:  
 1) 39 - 219 Horizontal

Horizontal Cone Through:  
 2) 69 Vertical





## Photometric Report (Type C)

Filename: W5\_Mc-Graw-Edisonn\_IST-AF-800-LED-E1-SL4-7030.ies  
 [TEST] P227116 TEST IS SCALED FROM IESNA LM-79-08 TEST  
 DATA (P35947)  
 [TESTLAB] INNOVATION CENTER-P3  
 [ISSUEDATE] 7/28/2017  
 [MANUFAC] EATON - MCGRAW-EDISON (FORMER COOPER  
 LIGHTING)  
 [LUMCAT] IST-AF-800-LED-E1-SL4-7030  
 [LUMINAIRE] IMPACT ELITE LED TRAPEZOID LUMINAIRE LIGHT  
 SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL  
 [LAMP] (16) 3000K CCT, 70 CRI LEDs

Maximum Candela = 3452.6 at 39 H 69 V

### Classification:

Road Classification: Type IV, Short, N.A. (deprecated)  
 Upward Waste Light Ratio: 0.00  
 Luminaire Efficacy Rating (LER): 93  
 Indoor Classification: Direct  
 BUG Rating : B1-U1-G1

### LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	298.1	N.A.	7.4
FM (30-60)	1533.8	N.A.	37.8
FH (60-80)	1644.4	N.A.	40.6
FVH (80-90)	64.6	N.A.	1.6
BL (0-30)	138.4	N.A.	3.4
BM (30-60)	245.1	N.A.	6.0
BH (60-80)	117.4	N.A.	2.9
BVH (80-90)	12.1	N.A.	0.3
UL (90-100)	1.1	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	4055.0	N.A.	100.0
BUG Rating	B1-U1-G1		

