

Waukesha County, Minooka and Mukwonago Park Restrooms

Waukesha, New Berlin, and Mukwonago, Wisconsin

PROJECT

SEAL

Civil	Architectural	Structural	Plumbing	Mechanical	Electrical
Graef One Honey Creek Corporate Center, 125 South 84th Street, Suite 401 Milwaukee, Wisconsin 53214 Ph 414-259-1500 Fx 414-259-0037	Engberg Anderson 320 East Buffalo Street Suite 500 Milwaukee, Wisconsin 53202 Ph 414-944-9000 Fx 414-944-9100	Graef One Honey Creek Corporate Center, 125 South 84th Street, Suite 401 Milwaukee, Wisconsin 53214 Ph 414-259-1500 Fx 414-259-0037	Graef One Honey Creek Corporate Center, 125 South 84th Street, Suite 401 Milwaukee, Wisconsin 53214 Ph 414-259-1500 Fx 414-259-0037	Graef One Honey Creek Corporate Center, 125 South 84th Street, Suite 401 Milwaukee, Wisconsin 53214 Ph 414-259-1500 Fx 414-259-0037	Graef One Honey Creek Corporate Center, 125 South 84th Street, Suite 401 Milwaukee, Wisconsin 53214 Ph 414-259-1500 Fx 414-259-0037
T100 Title Sheet C001 Overall Demolition and Erosion Control Plan C100 Site Layout, Grading, and Utility Plan- - Picnic Area Minooka 1 and 2 C101 Site Layout, Grading, and Utility Plan- - Picnic Area Minooka 5 C102 Site Layout, Grading, and Utility Plan- - Picnic Area Mukwonago 2&3 C900 Site Construction Details	A100 Floor Plans, Exterior Elevations & Building Sections A102 Interior Elevations, Door and Window Types & Schedules A103 Wall Sections A104 Details	S000 Design Specifications and General Notes S100 Foundation and Roofing Plans S101 Sections S102 Sections S103 Sections and Schedules	P000 Plumbing Cover Sheet P100 Plumbing Floor Plans P200 Plumbing Isometrics	M100 Mechanical Symbols, Abbreviations, and Sheet Index, and Mechanical Floor Plans M200 Mechanical Schedules, Details, and Schematics	E100 Electrical Symbols, Abbreviations, Sheet Index and Site Plans E101 Electrical Site Plan E200 Electrical Floor Plans and Schedules E300 Electrical Schedules

**Waukesha County Parks
Minooka and Mukwonago
Park Restrooms**

Minooka Park | Mukwonago Park
 1927 E. Sunset Dr. | S100 W31900 County Hwy L0
 Waukesha, WI 53186 | Mukwonago, WI 53149

Owner
 Waukesha County Parks & Land Use
 515 West Moreland Boulevard
 Waukesha, Wisconsin 53188
 Project No. 122219.00

Issued For:

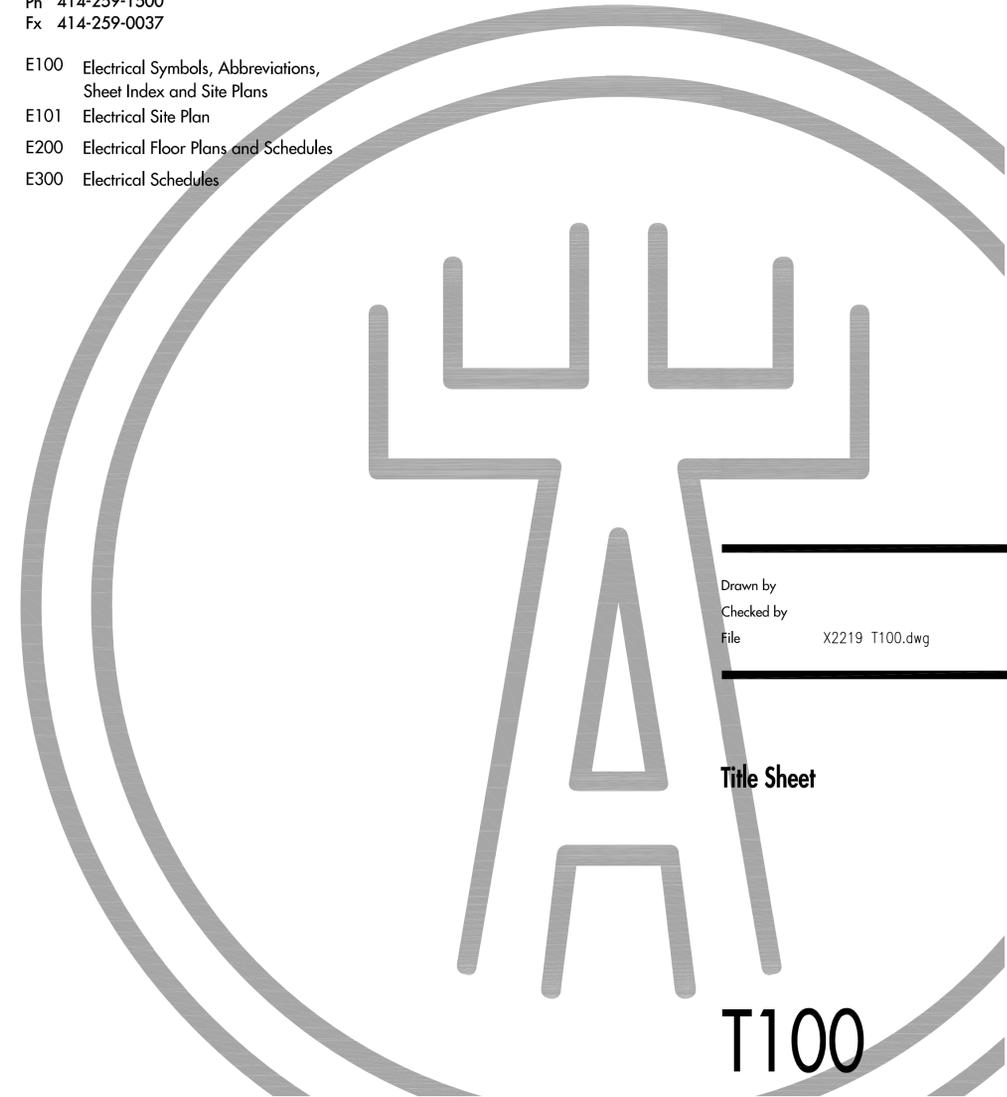
No.	Description	Date
01	Issued for Bidding	02-04-2014



PROPOSED RESTROOM
(CITY OF WAUKESHA)

PROPOSED RESTROOM
(CITY OF NEW BERLIN)

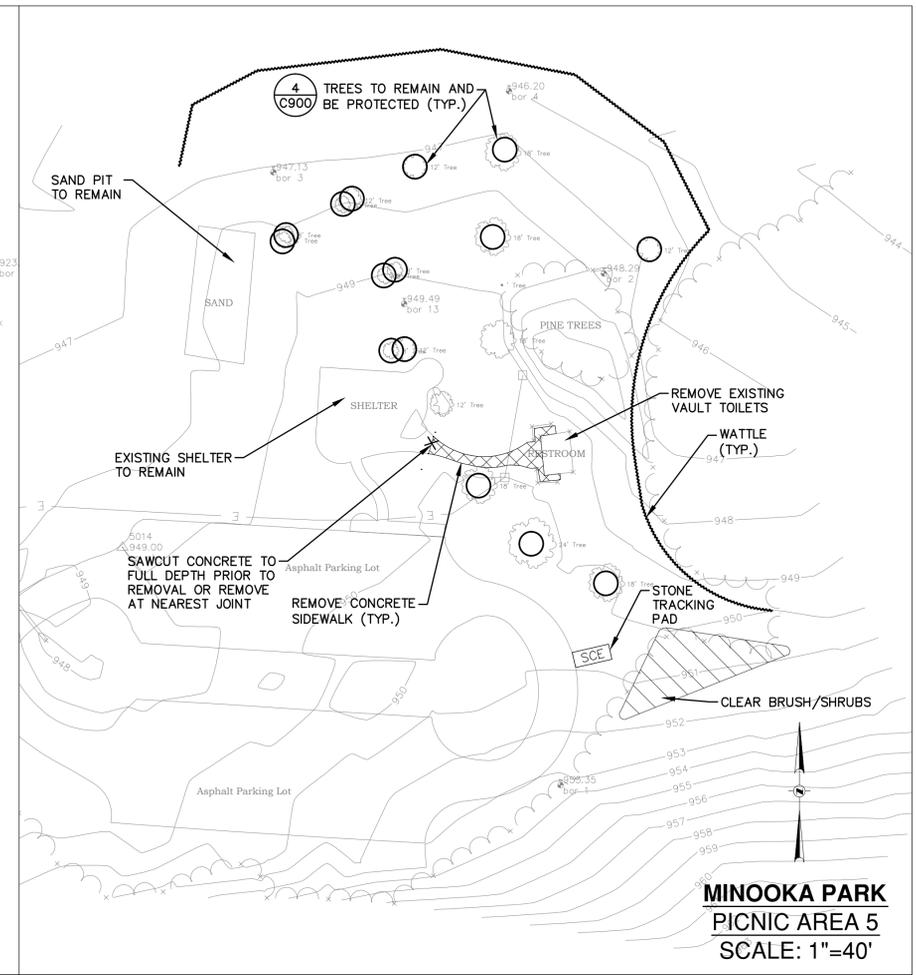
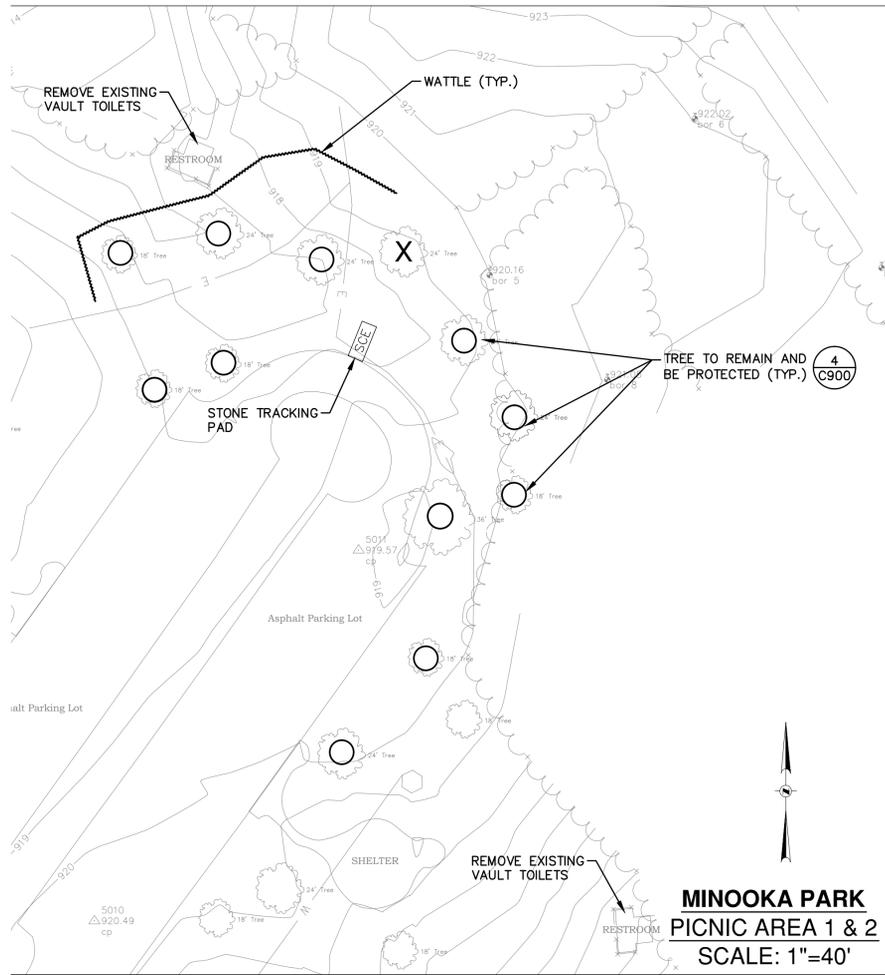
PROPOSED RESTROOM
(TOWN OF MUKWONAGO)



Drawn by
 Checked by
 File X2219 T100.dwg

Title Sheet

T100



LEGEND

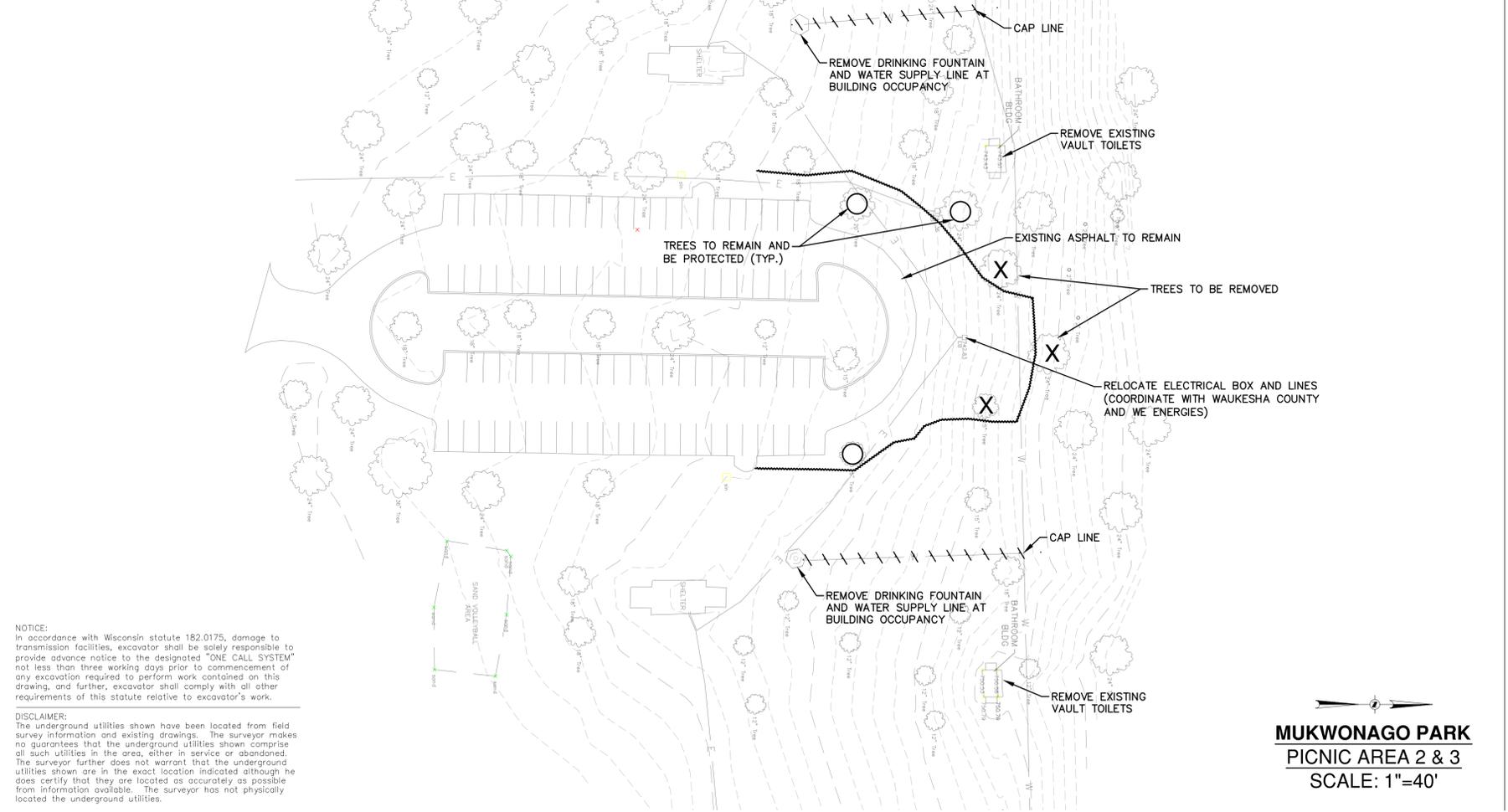
- CONCRETE PAVEMENT REMOVAL
- X X X X X X X X - SAWCUT
- X - TREE REMOVAL
- STONE TRACKING PAD
- WATTLE
- TREE PROTECTION

EROSION CONTROL NOTES:

1. CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF CITY OF WAUKESHA, CITY OF NEW BERLIN, TOWN OF MUKWONAGO, AND WAUKESHA COUNTY, AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE DEPARTMENT OF NATURAL RESOURCES OF WISCONSIN (WDNR) "CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS".
2. ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF THE EXISTING SURFACE MATERIAL ON SITE.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING THE PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT THE END OF EACH WORKDAY.
4. EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
5. PERIODIC STREET SWEEPING SHALL BE COMPLETED TO MAINTAIN THE ADJACENT PAVEMENT FREE OF DUST AND DIRT.
6. CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:
 - A. INSTALL WATTLES AND STONE CONSTRUCTION ENTRANCE IN THE LOCATIONS INDICATED ON THIS PLAN.
 - B. REMOVE EXISTING PAVEMENT, TREES, AND OTHER ABOVE GROUND APPURTENANCES NOTED FOR REMOVAL.
 - C. PERFORM ROUGH GRADING.
 - D. INSTALL UTILITIES.
 - E. CONSTRUCT BUILDING.
 - F. INSTALL PAVEMENT AND LANDSCAPING.
 - G. REMOVE EROSION CONTROL DEVICES ONCE THE SITE WORK IS COMPLETE AND SITE WORK IS APPROVED BY WAUKESHA COUNTY PARKS.
7. SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE BEST MANAGEMENT PRACTICES (BMP) SPECIFIED BY THE WDNR TECHNICAL STANDARDS. WATER SHALL NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, ADJACENT SITES, OR RECEIVING CHANNELS.
8. WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING BUT NOT LIMITED TO GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
9. SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORK DAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THAT WORK DAY.
10. ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY SEEDING, TEMPORARY OR PERMANENT SEEDING AND MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT BMP.
11. IF SOIL OR DIRT STORAGE PILES REMAIN FOR MORE THAN 14 DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS OR OTHER EQUIVALENT BMP.
12. NOTIFY THE CITY OF CITY OF WAUKESHA, CITY OF NEW BERLIN, TOWN OF MUKWONAGO, AND WAUKESHA COUNTY WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.
13. NOTIFY THE CITY OF CITY OF WAUKESHA, CITY OF NEW BERLIN, TOWN OF MUKWONAGO, AND WAUKESHA COUNTY OF THE COMPLETION OF ANY BMP WITHIN THE NEXT WORKING DAY AFTER INSTALLATION.
14. OBTAIN PERMISSION IN WRITING FROM THE CITY OF CITY OF WAUKESHA, CITY OF NEW BERLIN, TOWN OF MUKWONAGO, AND WAUKESHA COUNTY PRIOR TO MODIFYING THE EROSION CONTROL PLAN.
15. REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
16. KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE.

GENERAL NOTES

1. BASE PLAN CONSISTS OF A SURVEY PREPARED BY WAUKESHA COUNTY. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO.
2. SEE ARCHITECTURAL DRAWINGS FOR DETAILS OF EXISTING BUILDING REMOVAL. BUILDINGS SHALL ALSO HAVE THE EXISTING CONCRETE HOLDING TANKS PUMPED DRY, THE CONCRETE FLOORS SHALL BE PUNCHED FOR DRAINAGE, AND THEY SHALL BE BACKFILLED WITH CLEAN STRUCTURAL FILL.
3. CONTRACTOR SHALL PHASE CONSTRUCTION FENCING AS TO ALLOW PUBLIC ACCESS TO EXISTING PATHWAYS FOR THE MAXIMUM DURATION AND EXTENT PRACTICAL.
4. TREE PROTECTION FENCING LOCATIONS SHOWN ARE APPROXIMATE. ALL EXISTING TREES OUTSIDE OF PROPOSED GRADING LIMITS ARE INTENDED TO REMAIN. FINAL LOCATIONS OF FENCING SHALL BE DETERMINED IN THE FIELD AND AS IDENTIFIED ON DETAIL 4/C900. ADDITIONAL FENCING MAY BE REQUIRED. COORDINATE WITH OWNER'S REPRESENTATIVE. TREE PROTECTION FENCE SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION.



NOTICE:
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER:
The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

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Minooka and Mukwonago
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Drawn by	SJF
Checked by	JFP
File	C_00_C001_Demo-EC_102.dwg

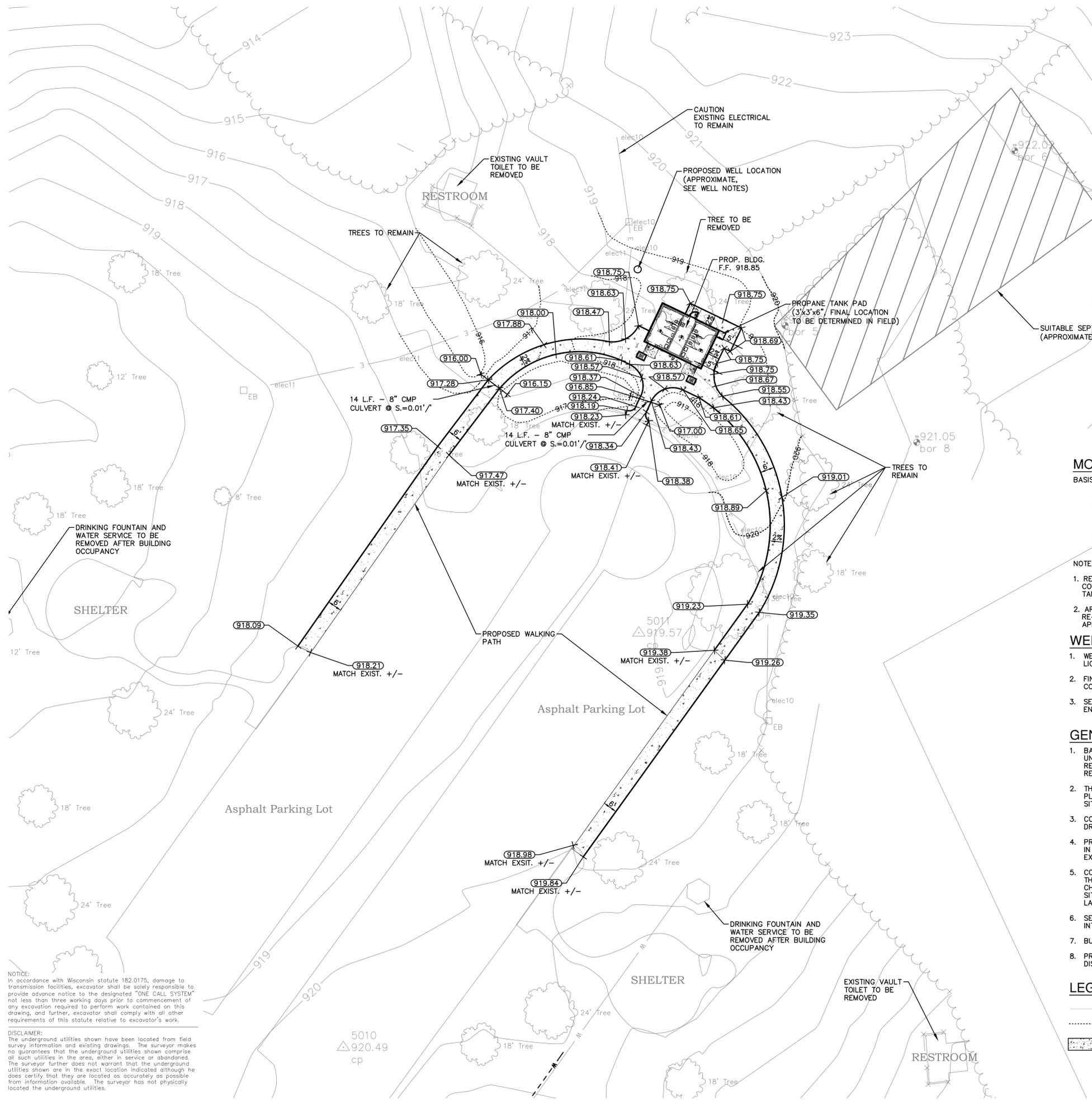
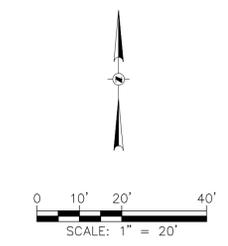
**Overall Demolition and
Erosion Control Plan**

**Waukesha County Parks
Minooka and Mukwonago
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MOUND SEPTIC SYSTEM GUIDELINES

BASIS:
 *PER WI DEPT. OF SAFETY AND PROFESSIONAL SERVICES CH. 383
 300 PEOPLE PER DAY (PER WAUKESHA COUNTY PARKS)
 3.5 GALLONS PER PERSON PER DAY (GPD)
 2 FLOOR DRAINS (25 GPD)
 PEAK FACTOR: 1.5
 DESIGN WASTEWATER FLOW (DWF)
 300 PEOPLE x 3.5 GPD = 1050 GALLONS
 2 FLOOR DRAINS x 25 GPD = 50 GALLONS
 1.5 x (1050 + 50) = 1650 GALLONS

- NOTES:**
- REFER TO BADGERLAND TESTING SOILS REPORTS AND WAUKESHA COUNTY REQUIREMENTS FOR DESIGN CRITERIA FOR SIZING OF SEPTIC TANKS AND INFILTRATION CELLS.
 - AREA DISTURBED FOR SEPTIC FIELD INSTALLATION SHALL BE RE-SEEDDED BY CONTRACTOR WITH A NATIVE PRAIRIE SEED MIX AS APPROVED BY WAUKESHA COUNTY PARKS.

WELL NOTES

- WELL LOCATION PERFORMANCE, AND PUMP SELECTION TO BE MADE BY A LICENSED WELL DRILLER TO ACHIEVE REQUIRED PERFORMANCE LEVELS.
- FINAL PRESSURE TANK SELECTION TO BE MADE BY INTERIOR PLUMBING CONTRACTOR AND COORDINATED WITH INTERIOR PLUMBING DESIGNER.
- SEE PLUMBING DRAWINGS FOR COORDINATION OF WATER SERVICE SIZING AND ENTRY TO BUILDING.

GENERAL NOTES

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- THE CONTRACTOR SHALL GRADE THE SITE TO THE FINISHED GRADE INDICATED ON THIS PLAN AND PARK STAFF SHALL BE RESPONSIBLE FOR SEEDING AND MULCHING OF THE SITE.
- COORDINATE FINAL BUILDING SITES AND COLUMN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- PROPOSED SIDEWALK AT RESTROOM BUILDINGS SHALL BE GRADED AT NO MORE THAN 2% IN ANY DIRECTION. OTHER SIDEWALK TO BE GRADED AS SHOWN OR TO MATCH EXISTING GRADE BUT NOT GREATER THAN 5%.
- CONTRACTOR SHALL RETAIN LICENSED SEPTIC SYSTEM DESIGNER AND CONTRACTOR IN THE STATE OF WISCONSIN AND PROVIDE SYSTEM DESIGN IN ACCORDANCE WITH DSPS CH. 383. REFER TO SOIL REPORTS FOR EACH SITE BY BADGERLAND SOIL TESTING FOR SITE SPECIFIC SOIL INFORMATION. DESIGN SHALL ALSO INCLUDE PIPING AND TANK LAYOUT FROM RESTROOM TO SEPTIC FIELD.
- SEE PLUMBING DRAWINGS FOR CONTINUATION OF WATER PIPING AND SEWER LATERALS INTO RESTROOM BUILDINGS.
- BUILDING TYPE IS S2B PER THE ARCHITECTURAL DRAWINGS.
- PROVIDE 4" TOPSOIL, FINISH GRADE AND INSTALL LAWN SEED MIX FOR ALL AREAS DISTURBED BY GRADING AND EROSION CONTROL MEASURES, UNLESS OTHERWISE NOTED.

LEGEND

- 980 —EXISTING CONTOUR
- 980 —PROPOSED CONTOUR
- PROPOSED CONCRETE SIDEWALK

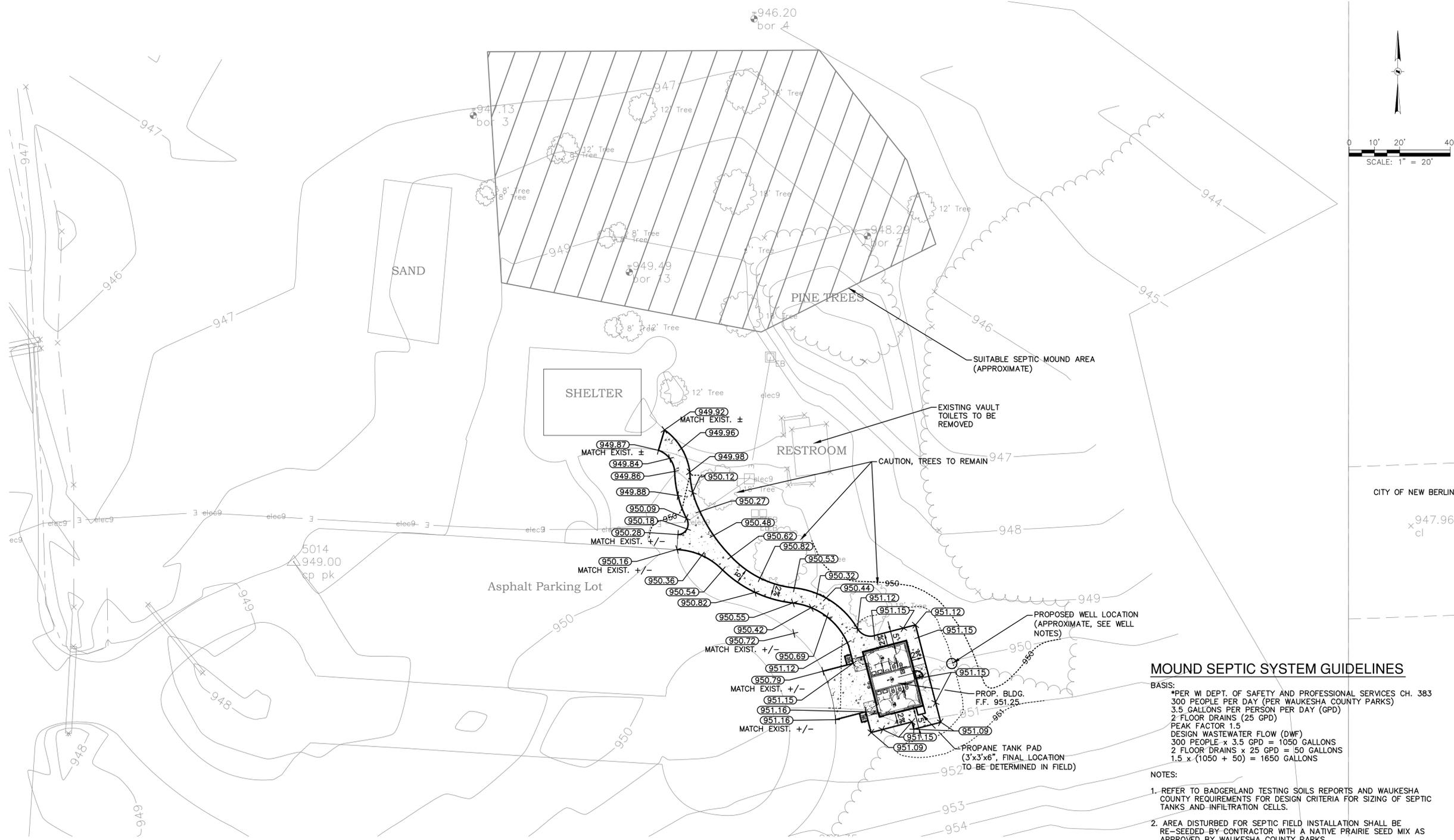
**Site Layout, Grading
and Utility Plan
Picnic Area 1 & 2**

Drawn by SJF
 Checked by JFP
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**Waukesha County Parks
 Minooka and Mukwonago
 Park Restrooms**

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CITY OF NEW BERLIN

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Site Layout, Grading
 and Utility Plan
 Picnic Area 5

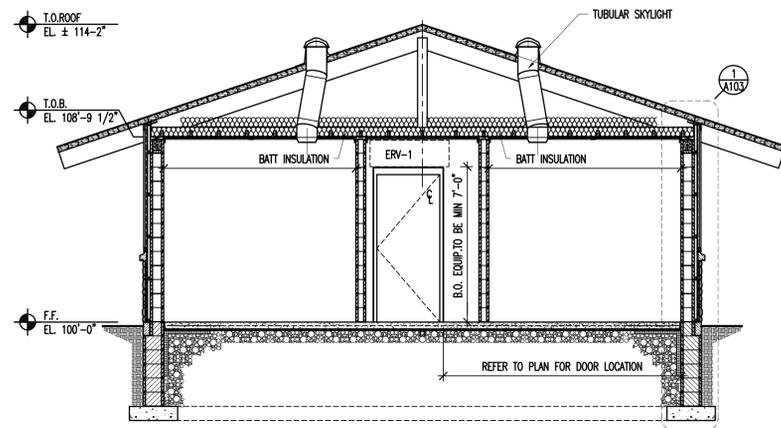
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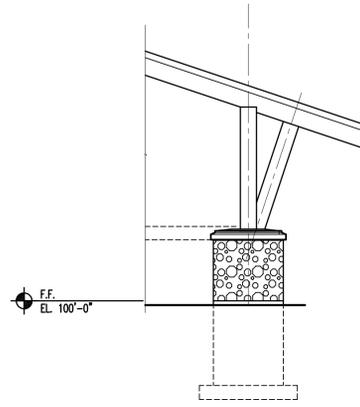
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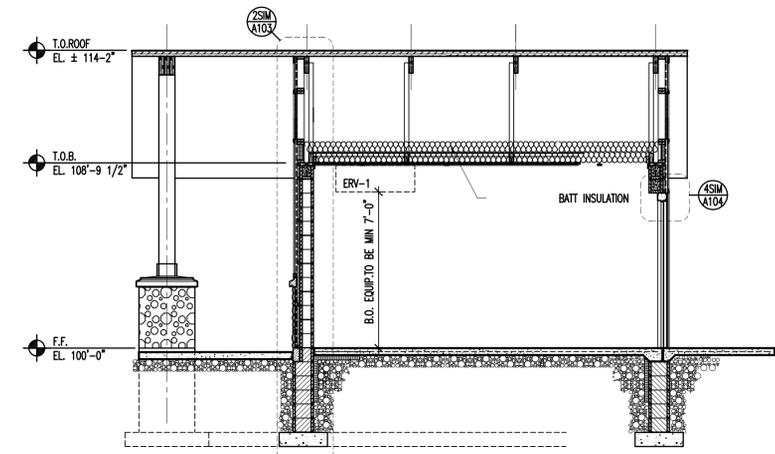
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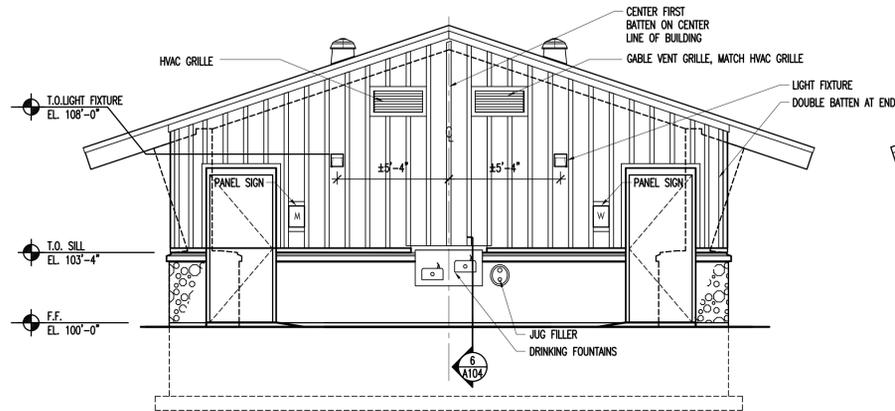
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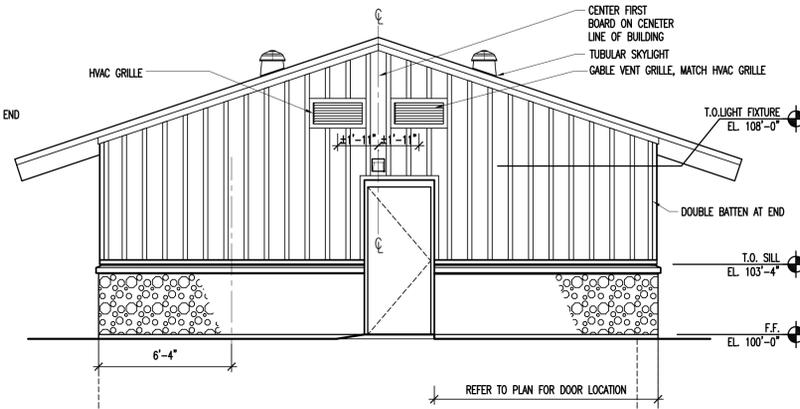
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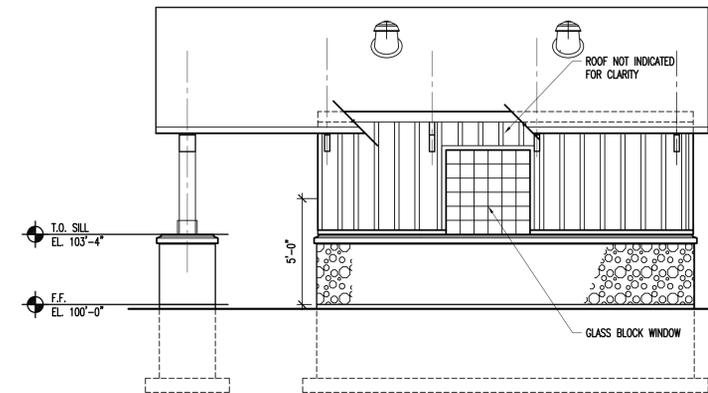
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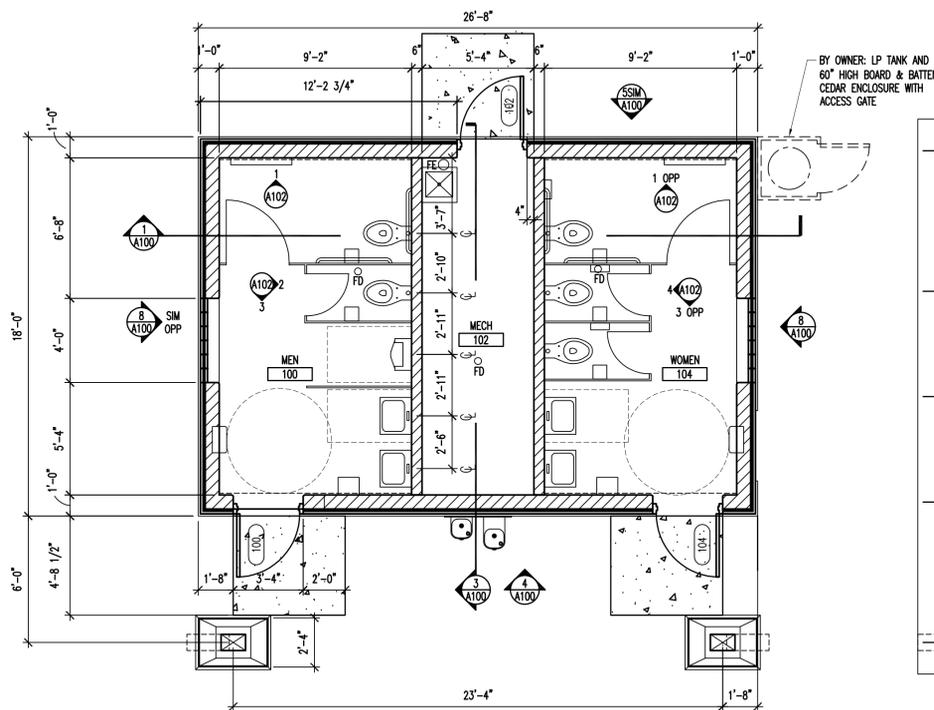
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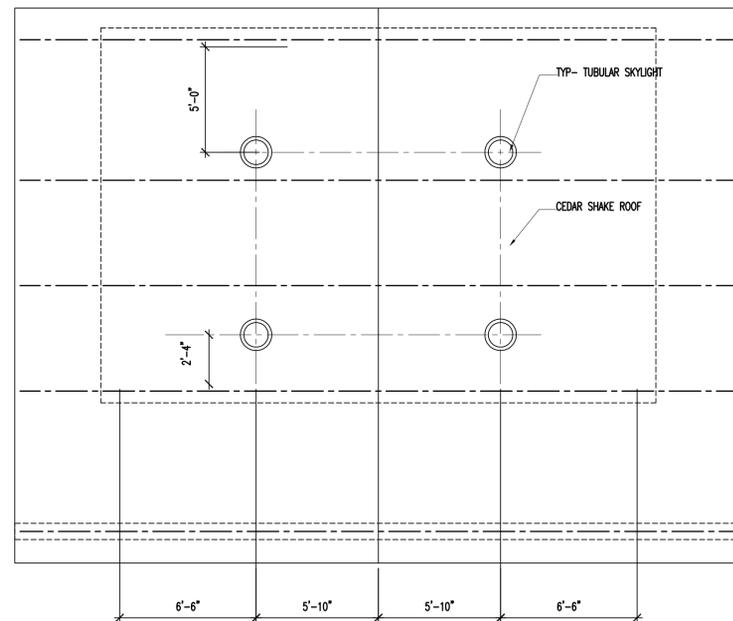
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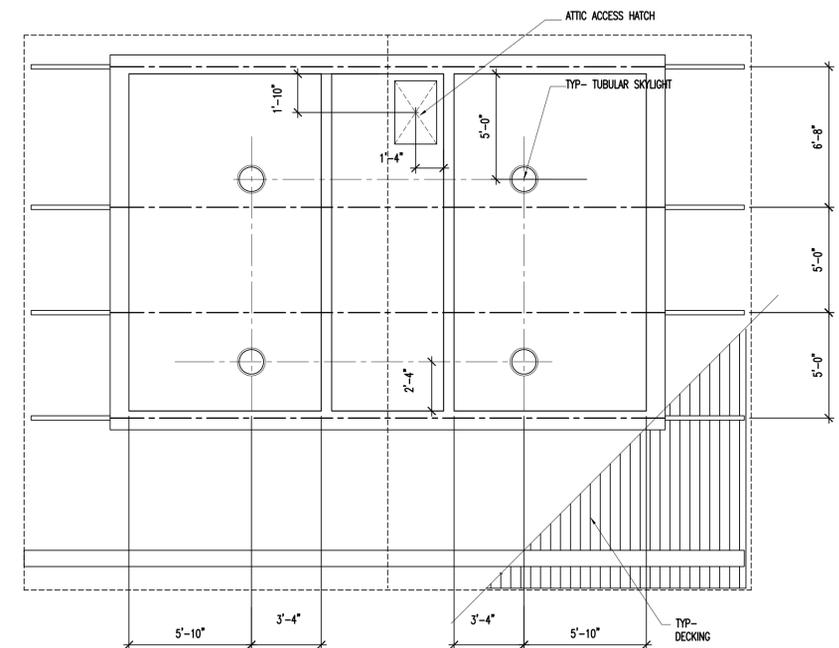
8 Exterior Elevation
SCALE: 1/4"=1'-0"



10 Floor Plan
SCALE: 1/4"=1'-0"



11 Roof Plan
SCALE: 1/8"=1'-0"



12 Reflected Ceiling Plan
SCALE: 1/8"=1'-0"

Drawn by
Checked by
File X2219 A100,A104, A103.DWG

Floor Plans, Exterior
Elevations and Building Sections

**Waukesha County Parks
Minooka and Mukwonago
Park Restrooms**

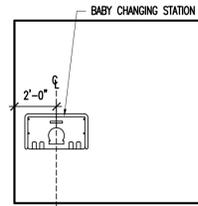
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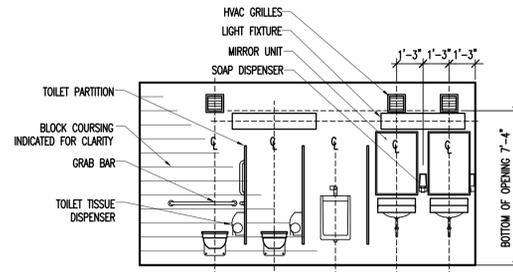
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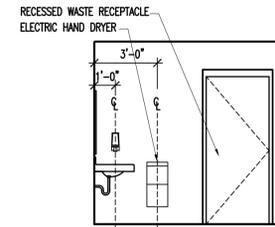
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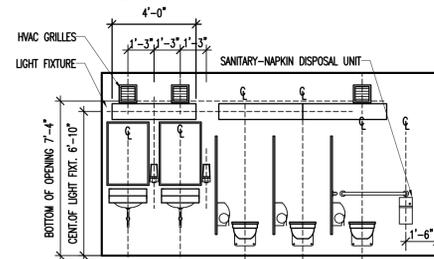
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A102 SCALE: 1/4"=1'-0"



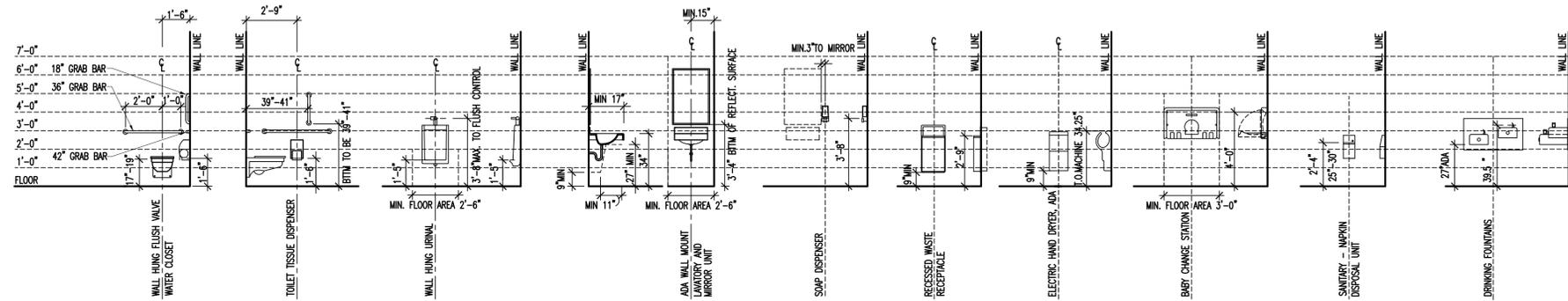
2 Interior Elevation
A102 SCALE: 1/4"=1'-0"



3 Interior Elevation
A102 SCALE: 1/4"=1'-0"



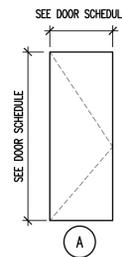
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A102 SCALE: 1/4"=1'-0"



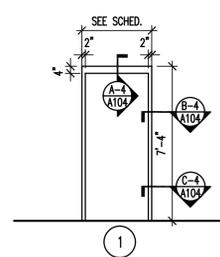
7 Generic Toilet Accessories and Mounting Heights
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DOOR SCHEDULE

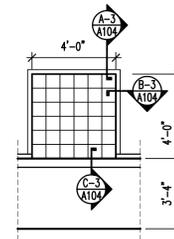
DOOR NUMBER	DOOR				FRAME			HARDWARE SET
	TYPE	MAT'L	FINISH	SIZE	TYPE	MAT'L	FINISH	
100	A	HM	PT-	3'-0" X 7'-0"	1	HM	PT-	HG-1
102	A	HM	PT-	3'-0" X 7'-0"	1	HM	PT-	HG-2
104	A	HM	PT-	3'-0" X 7'-0"	1	HM	PT-	HG-1



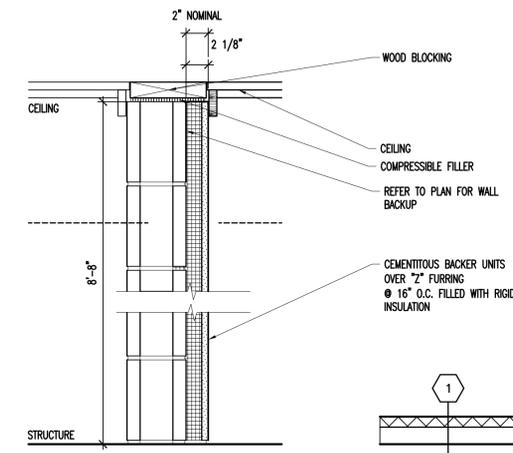
8 Door Types
A102 SCALE: 1/4"=1'-0"



9 Frame Types
A102 SCALE: 1/4"=1'-0"



10 Glass Block Window
A102 SCALE: 1/4"=1'-0"



11 Furring Wall - Wall Type 1
A102 SCALE: 1-1/2"=1'-0"

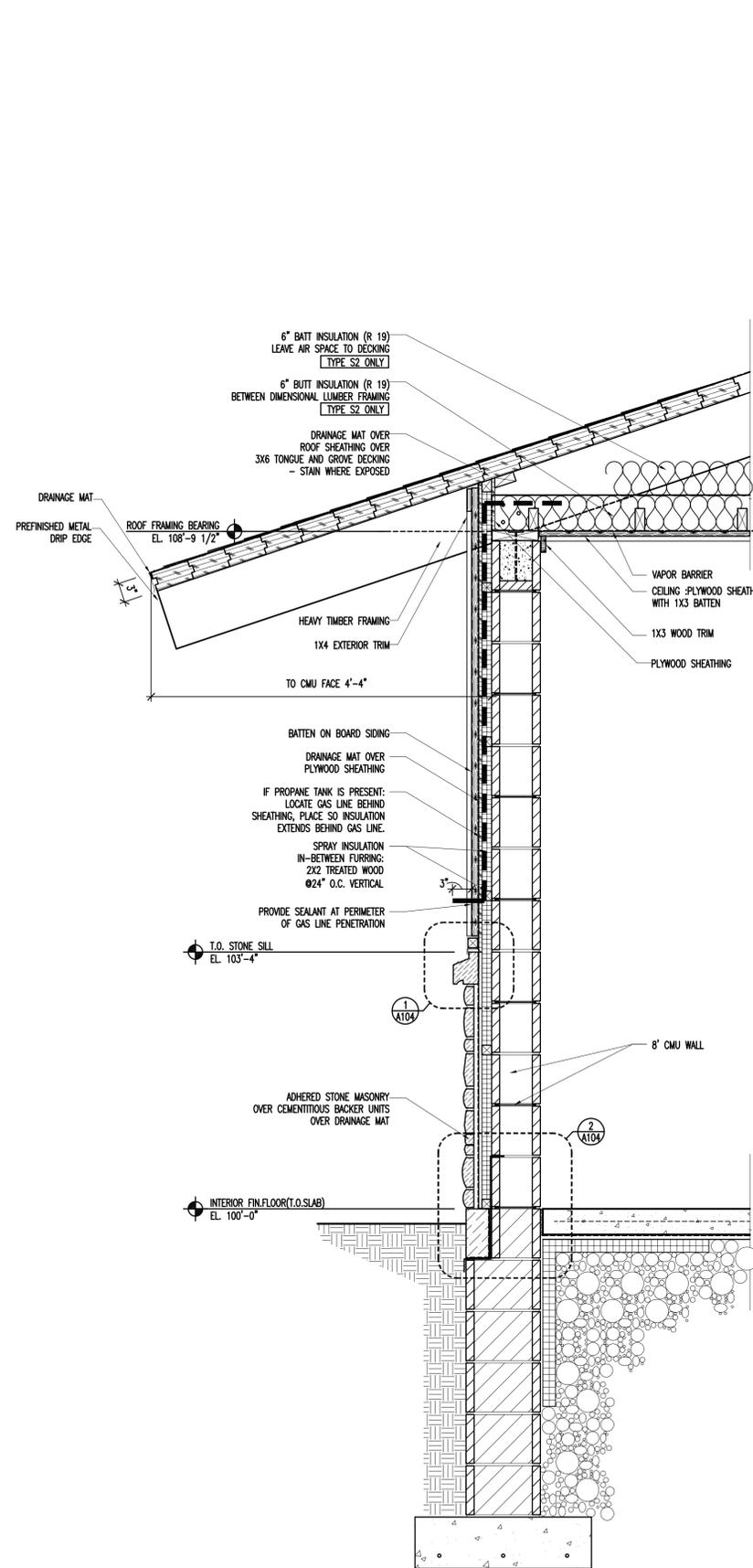
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File X2219 A102.dwg

Interior Elevations
Door and Windows
Types and Schedules

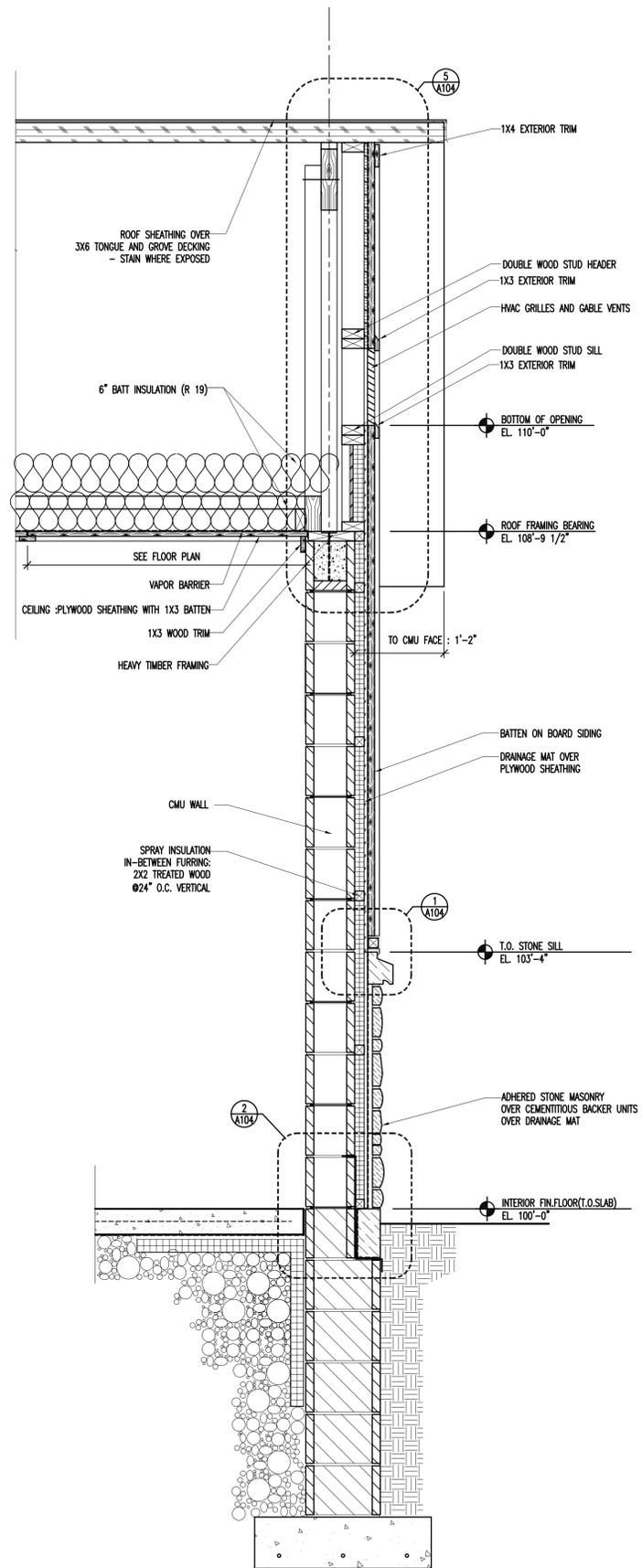
**Waukesha County Parks
Minooka and Mukwonago
Park Restrooms**

Minooka Park | Mukwonago Park
1927 E. Sunset Dr. | S100 W31900 County Hwy L0
Waukesha, WI 53186 | Mukwonago, WI 53149
Owner
Waukesha County Parks & Land Use
515 West Moreland Boulevard
Waukesha, Wisconsin 53188
Project No. 122219.00

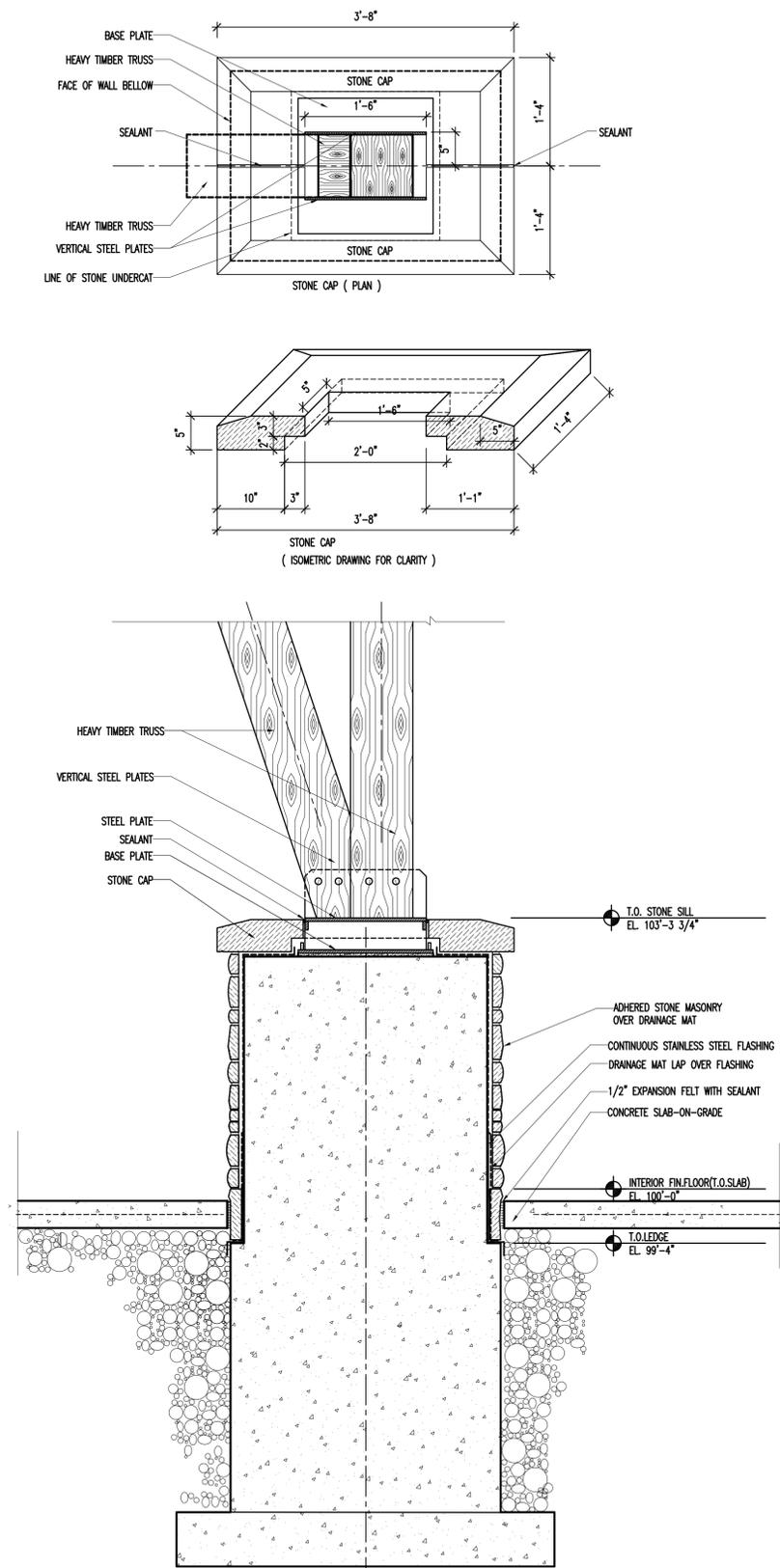
No.	Description	Date
01	Issued for Bidding	02-04-2014



1 Wall Section
A103 SCALE: 1"=1'-0"



2 Wall Section
A104 SCALE: 3"=1'-0"



3 Wall Section
A103 SCALE: 3"=1'-0"

Wall Sections

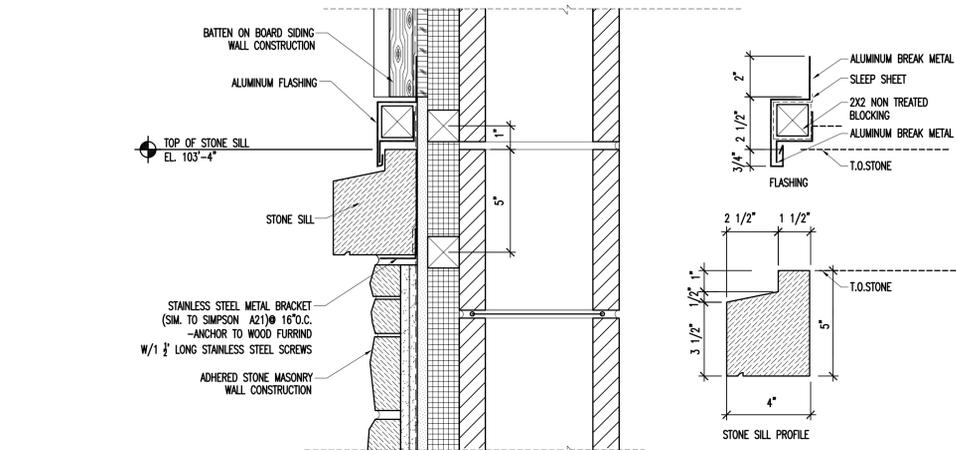
Drawn by
Checked by
File X2219 A100,A104, A103.DWG

**Waukesha County Parks
Minooka and Mukwonago
Park Restrooms**

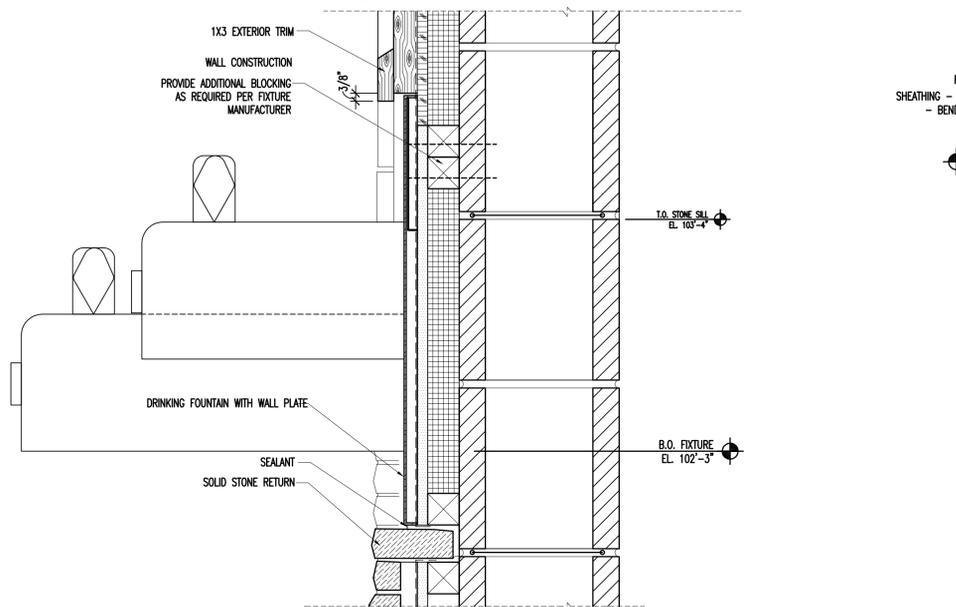
Minooka Park | Mukwonago Park
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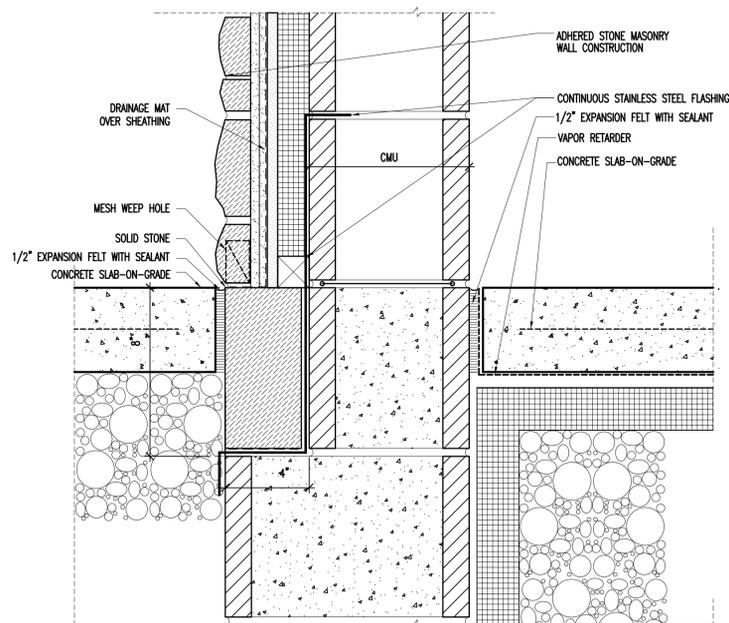
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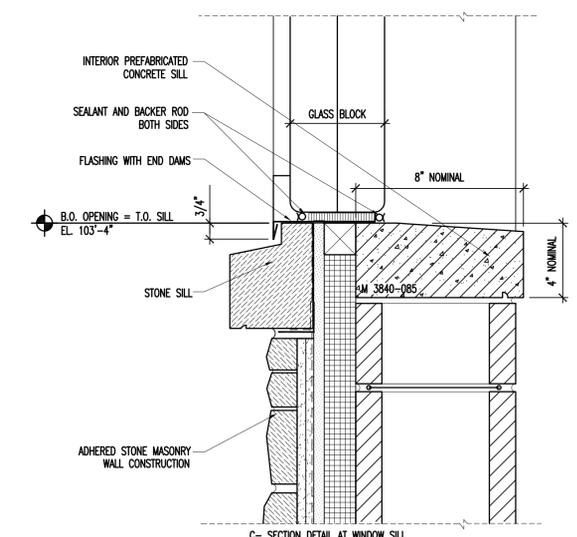
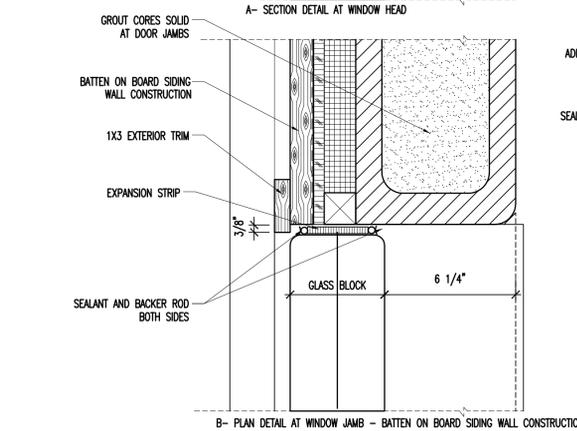
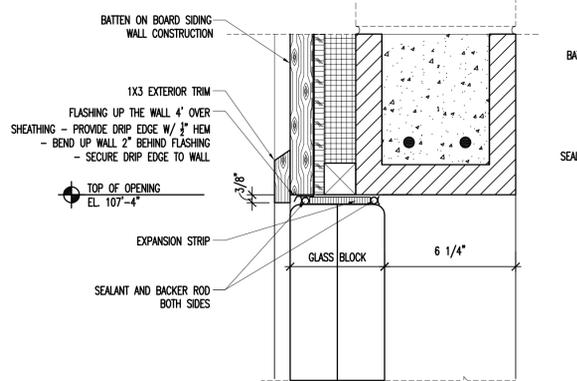
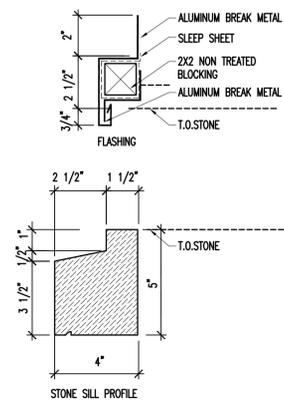
1 Stone Sill
SCALE: 1"=1'-0"



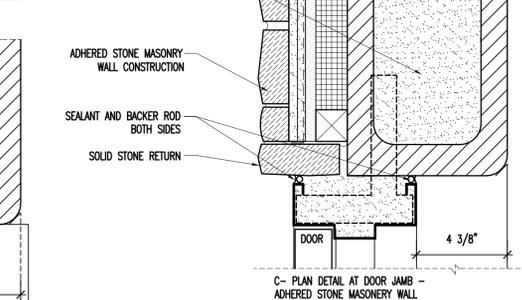
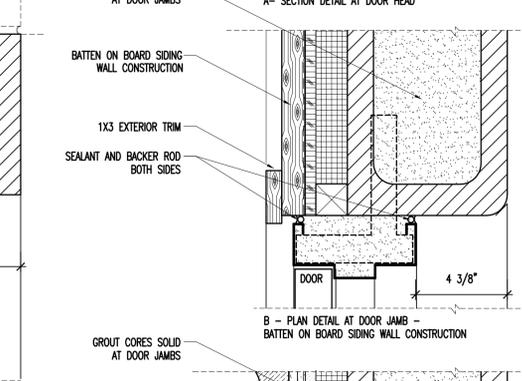
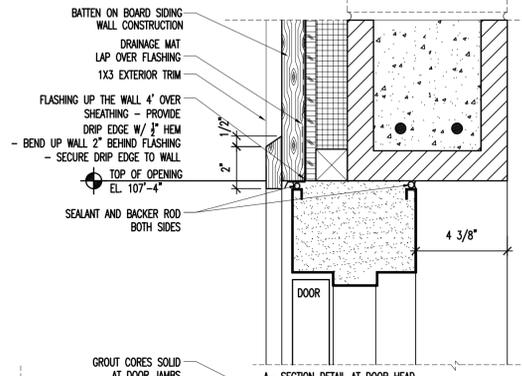
6 Drinking Fountains
SCALE: 1"=1'-0"



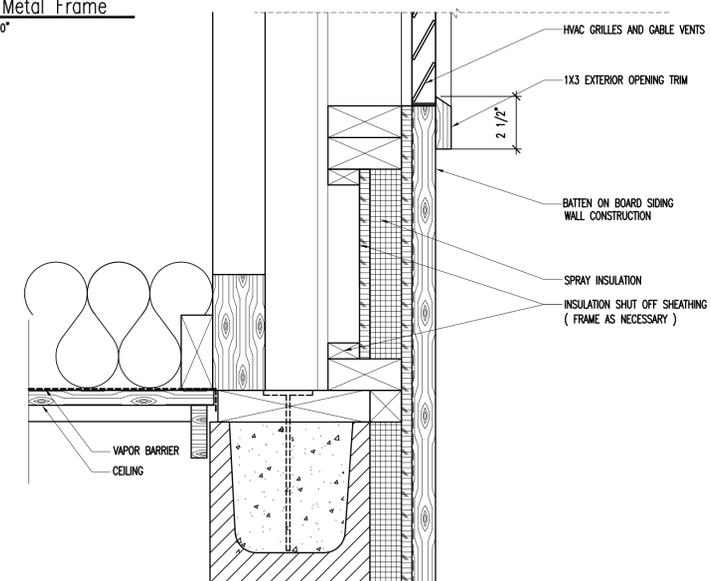
2 Stone Sill at Grade, Typical
SCALE: 3"=1'-0"



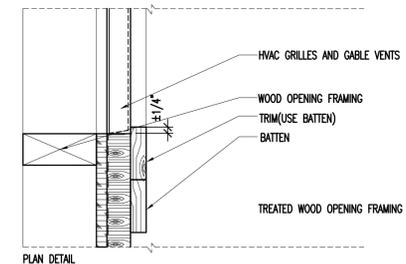
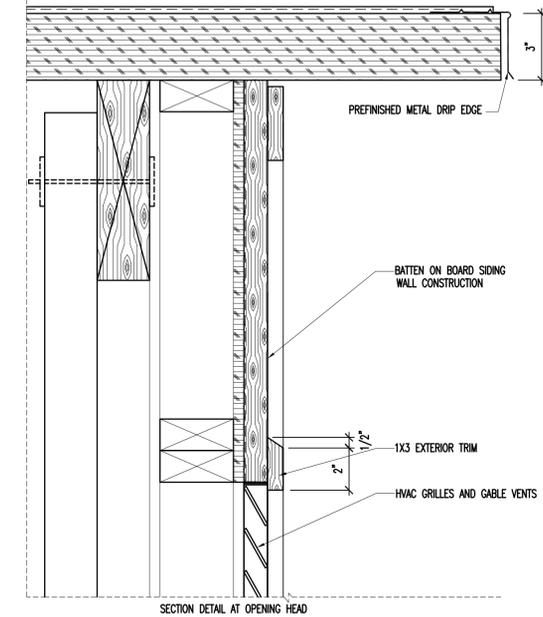
3 Glass Block Window
SCALE: 3"=1'-0"



4 Hollow Metal Frame
SCALE: 3"=1'-0"



5 HVAC Grilles and Gable Vents
SCALE: 3"=1'-0"



Details

Drawn by
Checked by
File X2219 A100,A104, A103.DWG

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Minooka and Mukwonago
Park Restrooms

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DESIGN SPECIFICATIONS

- DESIGN IS IN ACCORDANCE WITH THE STATE OF WISCONSIN AND THE 2009 INTERNATIONAL BUILDING CODE.
- MINIMUM 28 DAY CONCRETE CYLINDER STRENGTH SHALL BE:

FOOTINGS	3000 PSI
SLABS ON GROUND	3000 PSI
PIERS	3000 PSI
FOUNDATION WALLS	3000 PSI
- REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
- CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 TYPE II NORMAL WEIGHT UNITS.
- MORTAR SHALL CONFORM TO ASTM C270 TYPE S.
- MASONRY GROUT SHALL CONFORM TO ASTM C476. MINIMUM COMPRESSIVE STRENGTH SHALL BE $f_c = 3000$ PSI.
- MINIMUM COMPRESSIVE STRENGTH OF UNREINFORCED CONCRETE MASONRY CONSTRUCTION SHALL BE $f_m = 1500$ PSI.
- MINIMUM COMPRESSIVE STRENGTH OF REINFORCED CONCRETE MASONRY CONSTRUCTION SHALL BE $f_m = 1500$ PSI.
- STRUCTURAL STEEL PLATES, ANGLES, CHANNELS, AND OTHER ROLLED MEMBERS SHALL CONFORM TO ASTM A36.
- STRUCTURAL WOOD FRAMING SHALL CONFORM TO NFPA NATIONAL DESIGN SPECIFICATIONS (OR MEET ALL THE MINIMUM PUBLISHED VALUES) AS FOLLOWS:

STUDS, CAPS, AND SILLS: HEAVY TIMBER FRAMING:	SPECIES - SPRUCE-PINE-FIR SPECIES - WESTERN CEDARS	GRADE - NO. 2 GRADE - NO. 2 OR BETTER
--	---	---
- ASSUMED BEARING CAPACITY FOR SPREAD FOOTINGS IS 2000 PSF.
- DESIGN LOADS:

FLOOR LIVE LOADS (IBC 2009) CORRIDORS (ON "AT GRADE" LEVELS)	100 PSF
MINIMUM ROOF LIVE LOAD	20 PSF
ROOF SNOW LOAD (ASCE 7-05)	
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	$I_s = 1.0$
GROUND SNOW LOAD	$P_g = 30$ PSF
FLAT ROOF SNOW LOAD	$P_f = 25$ PSF
EXPOSURE FACTOR	$C_e = 1.0$
THERMAL FACTOR	$C_t = 1.2$
WIND LOAD (ASCE 7-05)	
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	$I_w = 1.0$
BASIC WIND SPEED	$V = 90$ MPH
EXPOSURE	B
INTERNAL PRESSURE COEFFICIENT	$G_c p_i = +/- 0.18$
COMPONENTS AND CLADDING	REFER TO TABLE THIS SHEET
SEISMIC LOAD (IBC 2009)	
OCCUPANCY CATEGORY	II
IMPORTANCE FACTOR	$I_s = 1.0$
SPECTRAL RESPONSE ACCELERATIONS	$S_S = 0.109$ g $S_1 = 0.044$ g $S_DS = 0.116$ g $S_D1 = 0.071$ g
SPECTRAL RESPONSE COEFFICIENTS	
SEISMIC RESPONSE COEFFICIENT	$C_s = 0.058$
RESPONSE MODIFICATION FACTOR	$R = 2$
SOIL SITE CLASS	D
SEISMIC DESIGN CATEGORY	B
BASIC SEISMIC FORCE RESISTING SYSTEM	ORDINARY REINFORCED MASONRY SHEAR WALLS EQUIVALENT LATERAL FORCE PROCEDURE
ANALYSIS PROCEDURE	6 KIPS
DESIGN BASE SHEAR	
- RESISTANCE TO LATERAL LOADS ON STRUCTURE IS PROVIDED BY ORDINARY REINFORCED MASONRY SHEAR WALLS AND ROOF DIAPHRAGMS. CONTRACTOR SHALL PROVIDE SUFFICIENT TEMPORARY BRACING UNTIL ALL LATERAL SUPPORT SYSTEMS ARE IN PLACE AND FUNCTIONAL.
- ALL STRUCTURAL FRAMING AND CONNECTIONS HAVE BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR POTENTIAL LOADINGS ENCOUNTERED DURING CONSTRUCTION. ANY INVESTIGATION OF THE STRUCTURAL FRAMING AND CONNECTIONS FOR ADEQUACY DURING THE CONSTRUCTION PROCESS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND ALL JOB SITE SAFETY.

GENERAL NOTES

EARTHWORK

- FOOTINGS SHALL BE CAST ON UNDISTURBED SUBSOIL. IF DESIGN CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS SHOWN, FOOTINGS MUST BE LOWERED. CONSULT ENGINEER BEFORE PROCEEDING.
- NO HOLES, TRENCHES OR DISTURBANCES OF THE SOIL SHALL BE ALLOWED WITHIN THE VOLUME DESCRIBED BY 45 DEGREE LINES SLOPING FROM THE BOTTOM EDGE OF THE FOOTING. IF SUCH ARE REQUIRED, FOOTINGS MUST BE LOWERED.
- BACKFILL EVENLY ON EACH SIDE OF FOUNDATION WALLS AND RETAINING WALLS.
- TOPSOIL AND FILL BELOW SLABS ON GROUND SHALL BE REMOVED. AGGREGATE BASE COURSE UNDER SLABS ON GROUND SHALL BE BANKRUN GRAVEL COMPACTED TO 6-INCH LAYERS (EXCEPT WHERE LOOSE FILL IS INDICATED ON PLANS). PROVIDE A MINIMUM OF 6" AGGREGATE BASE COURSE BELOW SLABS ON GROUND.
- BACKFILL AGAINST INTERIOR FOUNDATION WALLS SHALL BE AS SPECIFIED COMPACTED TO MAXIMUM 6-INCH LAYERS.
- BACKFILL AGAINST EXTERIOR FOUNDATION WALLS SHALL BE AS SPECIFIED COMPACTED TO MAXIMUM 6-INCH LAYERS.
- PROVIDE MINIMUM 24 INCHES OF FREE DRAINING AGGREGATE OVER ALL DRAIN TILES AND 4 INCHES BELOW.

CONCRETE

- FORMWORK SHALL BE DESIGNED IN ACCORDANCE WITH THE ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION.
- REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION, UNLESS OTHERWISE NOTED.
- LAP ALL WALL BARS WITH CLASS B SPLICES UNLESS OTHERWISE DETAILED.
- CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318-08.
- SLABS ON GRADE SHALL BE CAST ALLOWING A SUFFICIENT NUMBER OF JOINTS TO ADEQUATELY CONTROL SHRINKAGE CRACKING. SAWCUTTING SHALL BE DONE AS SOON AS SAWCUT WILL NOT RAVEL CONCRETE OR WITHIN 16 HOURS MAXIMUM OF INITIAL POURING OPERATION. MAXIMUM SIZE OF PANELS SHALL BE 15 FEET BY 15 FEET.
- ALLOW AT LEAST 24 HOURS BEFORE POURING ADJACENT WALL SECTIONS BETWEEN CONSTRUCTION JOINTS. MAXIMUM LENGTH OF POUR TO BE 40 FEET.
- DO NOT PLACE OR CUT HOLES IN CONCRETE SLABS, WALLS OR COLUMNS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- PIPES AND CONDUITS EMBEDDED IN OR PASSING THROUGH STRUCTURAL MEMBERS MUST BE APPROVED BY THE STRUCTURAL ENGINEER. PIPE AND CONDUITS EMBEDDED IN CONCRETE SHALL NOT BE LARGER THAN 2 INCHES IN OUTSIDE DIAMETER AT THEIR WIDEST POINT OR FITTING.
- ELECTRICAL CONDUIT OR PIPES EMBEDDED IN OR PASSING THROUGH SLABS OR WALLS SHALL BE LOCATED AND PLACED SO THAT:
 1. THEY ARE NOT CLOSER THAN THREE DIAMETERS ON CENTER.
 2. THE CONCRETE COVER IS NOT LESS THAN 2 INCHES.
 3. THEY RUN BETWEEN REINFORCING AND DO NOT DISPLACE IT IN ANY MANNER.

- ALUMINUM CONDUITS SHALL NOT BE PLACED IN CONCRETE.
- CHAMFER ALL EXPOSED CONCRETE CORNERS. SEE ARCHITECTURAL/STRUCTURAL DRAWINGS FOR REQUIREMENTS.
- CONCRETE SHALL BE TESTED BY THE OWNER'S TESTING LAB. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
- PROPER CURING PROCEDURES SHALL BE USED FOR SLAB ON GRADE TO PREVENT CURLING.
- CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE MIXES.

CONCRETE MASONRY

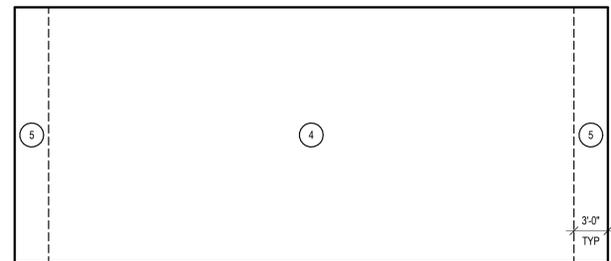
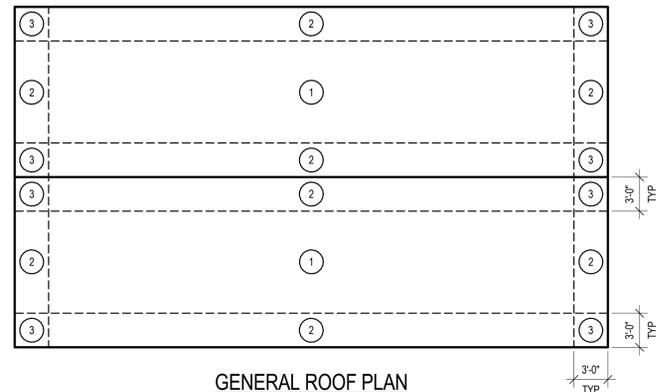
- PRODUCTION AND CONSTRUCTION OF CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES", ACI 530-08, AND THE NOMA "TEK MANUAL FOR CONCRETE MASONRY DESIGN AND CONSTRUCTION", LATEST EDITION.
- COLD WEATHER CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE IMAC "RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY AND CONSTRUCTION", LATEST EDITION.
- CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED.
- MASONRY WALLS SHALL BE ADEQUATELY BRACED TO RESIST WIND FORCES UNTIL PERMANENT DESIGN SUPPORTS ARE IN PLACE AND FUNCTIONAL. BRACING SHALL BE DESIGNED BY THE CONTRACTOR.
- PROVIDE DOWELS INTO FOUNDATION THE SAME SIZE AND NUMBER AS WALL REINFORCING.
- LAP REINFORCING BARS 48 DIAMETERS.
- CONCRETE MASONRY WALLS SHALL BE REINFORCED AT EVERY OTHER BED JOINT WITH 9 GAGE LADDER TYPE JOINT REINFORCEMENT.
- VERTICAL BARS SHOWN ON THE DESIGN DRAWINGS SHALL BE PLACED IN A CONTINUOUS UNOBSTRUCTED CELL OF NOT LESS THAN 3 INCHES BY 4 INCHES.
- ALL BOND BEAMS AND PLASTERS SHALL BE REINFORCED AS SHOWN ON THE DESIGN DRAWINGS AND FILLED WITH GROUT.
- ALL DOOR AND WINDOW JAMBS SHALL BE GROUTED SOLID 8 INCHES WIDE UNLESS SHOWN OTHERWISE.
- WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW BEAM REACTIONS SHALL BE 16 INCHES DEEP BY 32 INCHES LONG.
- WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW LINTEL REACTIONS SHALL BE 16 INCHES DEEP BY 16 INCHES LONG.

WOOD FRAMING

- ERECTION OF ALL WOOD FRAMING SHALL CONFORM TO THE NATIONAL FOREST PRODUCTS ASSOCIATION DESIGN SPECIFICATIONS, AMERICAN PLYWOOD ASSOCIATION, AND THE STATE OF WISCONSIN BUILDING CODE, LATEST EDITIONS.
- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE ENGINEER.
- ALL STRUCTURAL SYSTEMS RELATING TO WOOD FRAMING WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH THE SUPPLIER'S INSTRUCTIONS AND REQUIREMENTS.
- LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS. THE LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE INDICATED IN THE "DESIGN SPECIFICATIONS". DO NOT APPLY ANY CONSTRUCTION LOADS UNTIL STRUCTURAL FRAMING IS PROPERLY CONNECTED TOGETHER AND UNTIL ALL TEMPORARY BRACING IS IN PLACE.
- INSTALL ALL SHEATHING WITH THE LONG DIMENSIONS OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS, ALLOW 1/8-INCH SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
- ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF STAPLES IS PROHIBITED.
- WALL AND ROOF SHEATHING NAILS SHALL BE HOT-DIPPED GALVANIZED.
- NAILING OF WOOD FRAMING MEMBERS SHALL CONFORM TO THE MINIMUM NAILING SCHEDULE.
- ALL FRAMING EXPOSED TO THE WEATHER OR IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE-TREATED IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS ASSOCIATION SPECIFICATIONS. WHERE POSSIBLE, ALL CUTS AND HOLES SHOULD BE COMPLETED BEFORE TREATMENT. CUTS AND HOLES DUE TO THE ON-SITE FABRICATION SHALL BE BRUSHED WITH 2 COATS OF COPPER NAPHTHENATE SOLUTION CONTAINING A MINIMUM OF 2% METALLIC COPPER IN SOLUTION (PER AWWA STANDARD M4).
- PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS, AND OTHER ACCESSORIES SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR APPROVED EQUAL. INSTALL ALL ACCESSORIES PER THE MANUFACTURER'S REQUIREMENTS. ALL STEEL SHALL HAVE A MINIMUM THICKNESS OF 0.04 INCHES (PER ASTM A653) AND BE GALVANIZED (G60 COATING).

MISCELLANEOUS

- DIMENSIONS OF EXISTING CONSTRUCTION OR CONSTRUCTION IN PROGRESS SHALL BE VERIFIED AND COORDINATED PRIOR TO FABRICATION OF STRUCTURAL COMPONENTS.
- VERIFY AND COORDINATE WITH ALL CONTRACTORS THE LOCATION OF ALL ARCHITECTURAL AND MECHANICAL APPURTENANCES AND OPENINGS.
- EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ.
- ADHESIVE ANCHORS SHALL BE HILTI HIT-HY 150 MAX SD.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE FOLLOWING ITEMS PRIOR TO FABRICATION: MASONRY, REBAR, & WOOD TRUSSES.



GENERAL WALL ELEVATION

AREA	DESIGN WIND PRESSURE, PSF							DESCRIPTION
	EFFECTIVE WIND AREA, SF							
	1	10	20	50	100	200	> 500	
1	-17	-17	-16	-16	-15	-15	-15	ROOF INTERIOR ZONE
2	-29	-29	-26	-23	-21	-21	-21	END ZONE REGION OF THE ROOF SURFACE LOCATED WITHIN 3'-0" OF THE BUILDING PERIMETER
3	-42	-42	-39	-36	-33	-33	-33	END ZONE REGION OF THE ROOF SURFACE LOCATED WITHIN 3'-0" OF THE BUILDING CORNER
4 (+)	18	18	17	16	15	15	14	WALL INTERIOR ZONE
4 (-)	-20	-20	-19	-18	-17	-16	-15	
5 (+)	18	18	17	16	15	15	14	END ZONE REGION OF THE WALL SURFACE LOCATED WITHIN 3'-0" OF THE BUILDING CORNER
5 (-)	-24	-24	-22	-20	-19	-17	-15	

NOTES:

1. NEGATIVE PRESSURES ACT AWAY FROM COMPONENT SURFACE. POSITIVE PRESSURES ACT TOWARD COMPONENT SURFACES.
2. WIND UPLIFT PRESSURE ON ROOF OVERHANGS SHALL BE 42 PSF IN AREA 2 OVERHANGS, 64 PSF IN AREA 3 OVERHANGS. WIND UPLIFT PRESSURE ON CANOPIES SHALL BE 15 PSF IN AREA 1, 29 PSF IN AREAS 2 & 3 OVERHANGS.

WIND PROVISIONS FOR COMPONENTS AND CLADDING TABLE

Drawn by JJJ
Checked by RWP
File

Design Specifications
and General Notes

Waukesha County Parks
Minooka and Mukwonago
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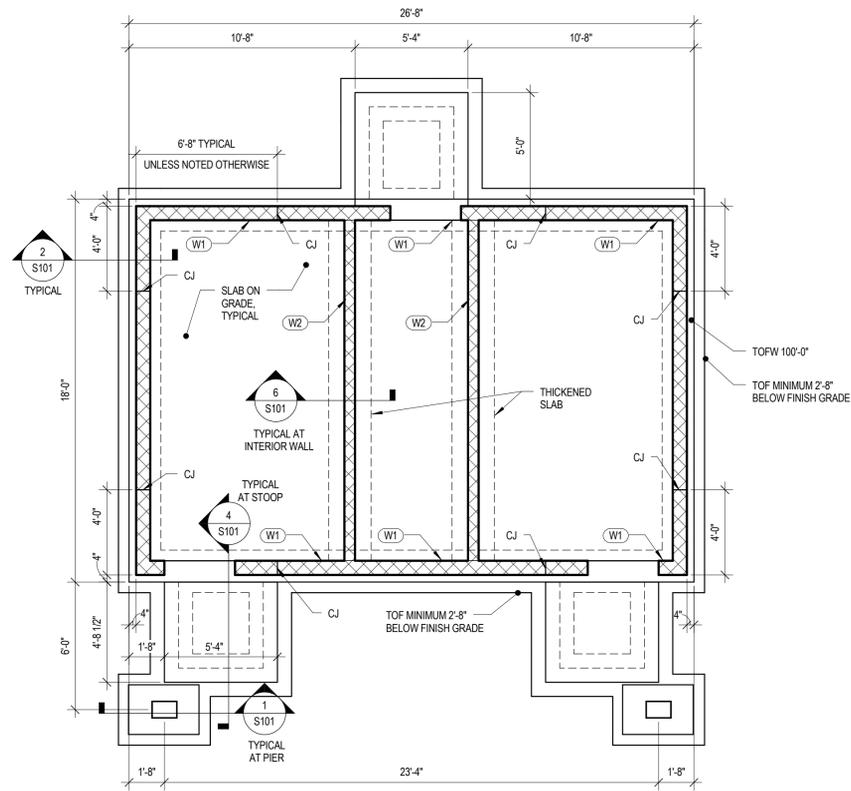
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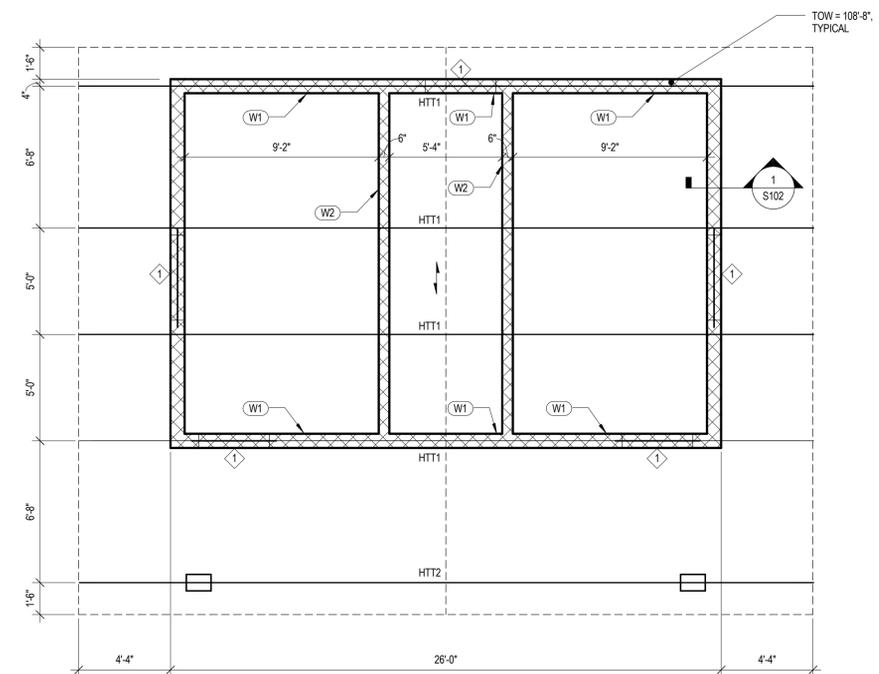
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1 TYPE S2 FOUNDATION PLAN
1/4" = 1'-0"

- FOR GENERAL NOTES AND DESIGN SPECIFICATION, REFER TO SHEET S000.
- TOP OF FOUNDATION (TOF) ELEVATION NOTED IN PLAN.
- TOP OF FOUNDATION WALL (TOFW) ELEVATION NOTED ON PLAN.
- CJ = CMU WALL VERTICAL CONTROL JOINT. REFER TO DETAIL 3/S103.
- TYPE S2 BUILDING IS HEATED YEAR ROUND.
- TYPICAL FLOOR = 4" SLAB ON GRADE REINFORCED WITH 3.5 LB/CU YARD W.R. GRACE STRUX 9040 FIBER REINFORCEMENT. TOP OF SLAB ELEVATION 100'-0" UNLESS NOTED OTHERWISE ON PLAN.
- FOR VAPOR RETARDER LOCATION AND TYPICAL SUBGRADE REQUIREMENTS REFER TO DETAIL 3/S101.
- FOR TYPICAL CONCRETE FOUNDATION WALL CORNER, REFER TO DETAIL 5/S101.
- FOR TYPICAL CMU WALL OPENINGS, REFER TO DETAILS 1 AND 2/S103.
- FOR TYPICAL CMU WALL BOND BEAM CORNERS, REFER TO DETAIL 4/S103.
- (Wx) = WALL TYPE, SEE S103 FOR MASONRY WALL REINFORCING SCHEDULE.



2 TYPE S2 ROOF FRAMING PLAN
1/4" = 1'-0"

- FOR GENERAL NOTES AND DESIGN SPECIFICATION, REFER TO SHEET S000.
- TOP OF WALL (TOW) ELEVATION NOTED ON PLAN.
- TYPICAL ROOF = 5/16" APA RATED PLYWOOD SHEATHING, EXPOSURE 1 OVER 3/6 TONGUE AND GROOVE DECKING. SHEATHING SHALL BE SECURED TO FRAMING WITH 10d NAILS AT 6" OC EDGES. SHEATHING SHALL BE SECURED USING 12"x24" PATTERN INTERIOR OF FIELD.
- EACH PIECE OF DECKING SHOULD BE TOENAILED AT EACH SUPPORT WITH ONE 40d NAIL AND FACE NAILED WITH ONE 60d NAIL. COURSES SHALL BE SPIKED TO EACH OTHER WITH 8 INCH SPIKES AT INTERVALS NOT TO EXCEED 30 INCHES THROUGH PREDRILLED EDGE HOLES AND WITH ONE SPIKE AT A DISTANCE NOT EXCEEDING 10 INCHES FROM EACH PIECE.
- (Wx) = WALL TYPE, SEE S103 FOR MASONRY WALL REINFORCING SCHEDULE.
- (X) = LINTEL, SEE S103 FOR LINTEL SCHEDULE.
- HTT# = HEAVY TIMBER TRUSS TYPES, REFER TO SHEET S102.
- → = DIRECTION IN WHICH ROOF DECKING SPANS.

Drawn by JJJ
Checked by RWP
File

Foundation & Roof Framing
Plans

S100

Waukesha County Parks
Minooka and Mukwonago
Park Restrooms

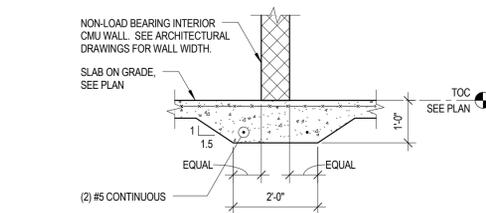
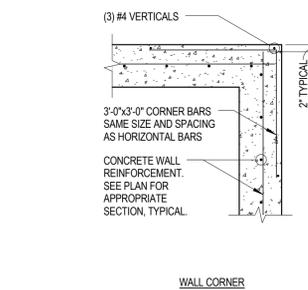
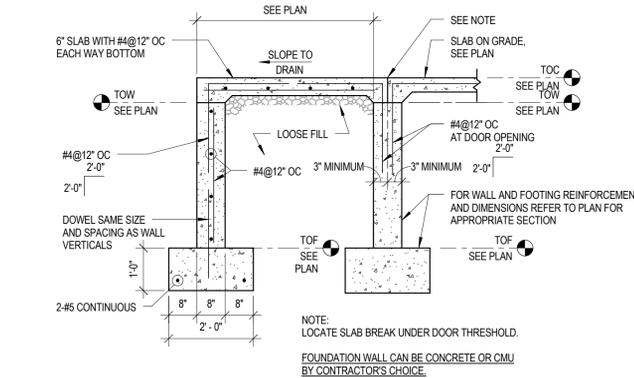
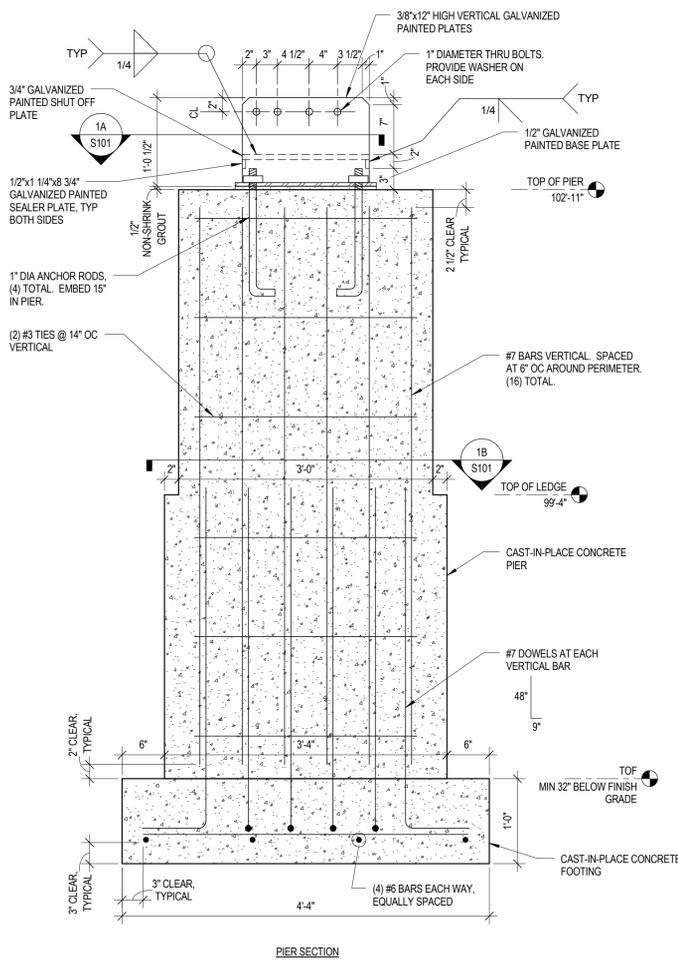
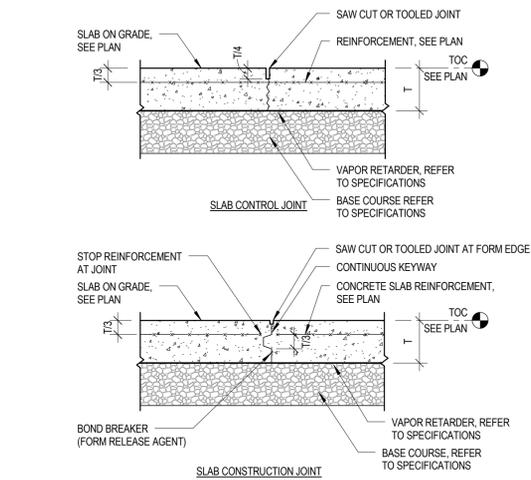
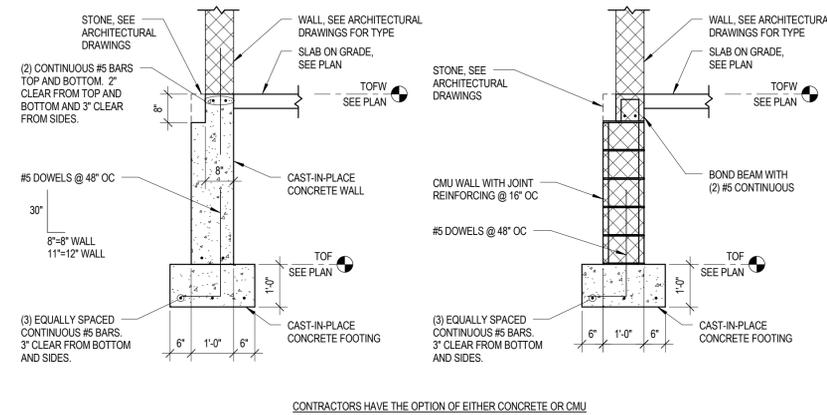
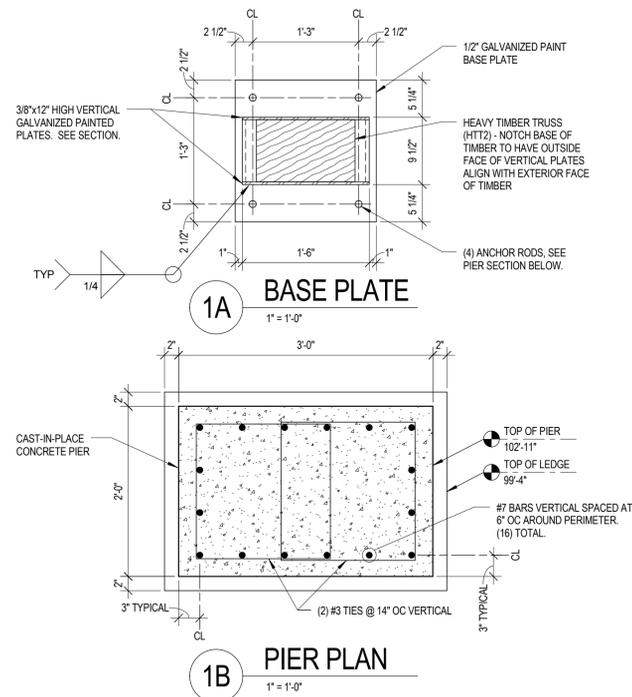
Minooka Park | Mukwonago Park
1927 E. Sunset Dr. | S100 W31900 County Hwy L0
Waukesha, WI 53186 | Mukwonago, WI 53149

Owner
Waukesha County Parks & Land Use
515 West Moreland Boulevard
Waukesha, Wisconsin 53188

Project No 122219.00

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Sections

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Checked by RWP
File

S101

Waukesha County Parks
Minooka and Mukwonago
Park Restrooms

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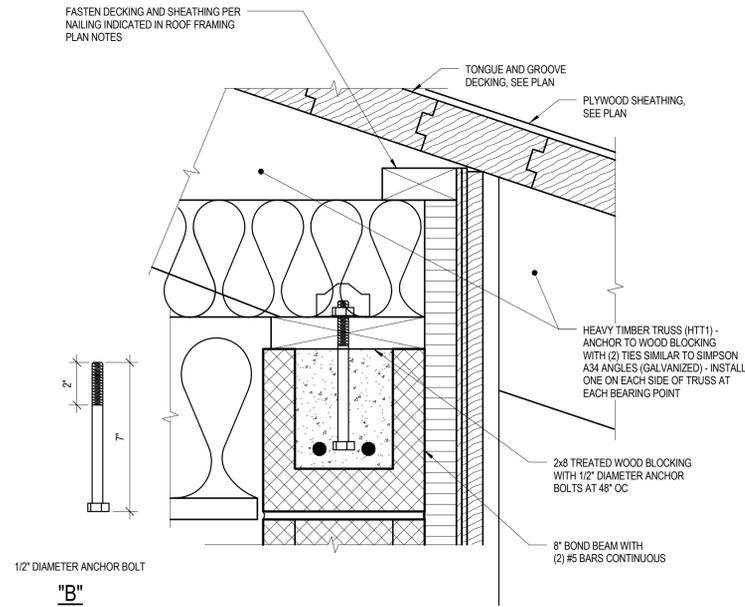
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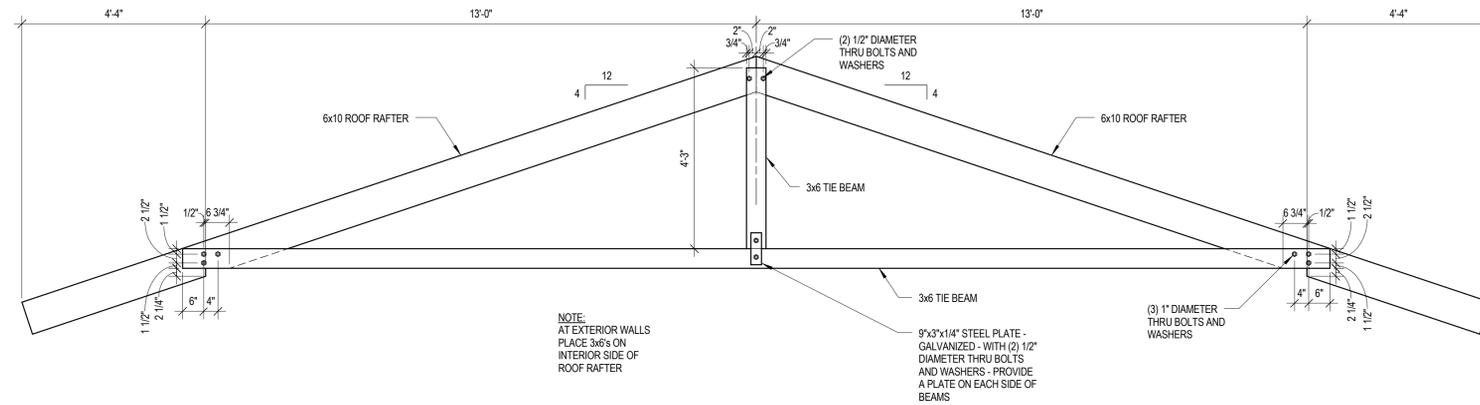
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Sections

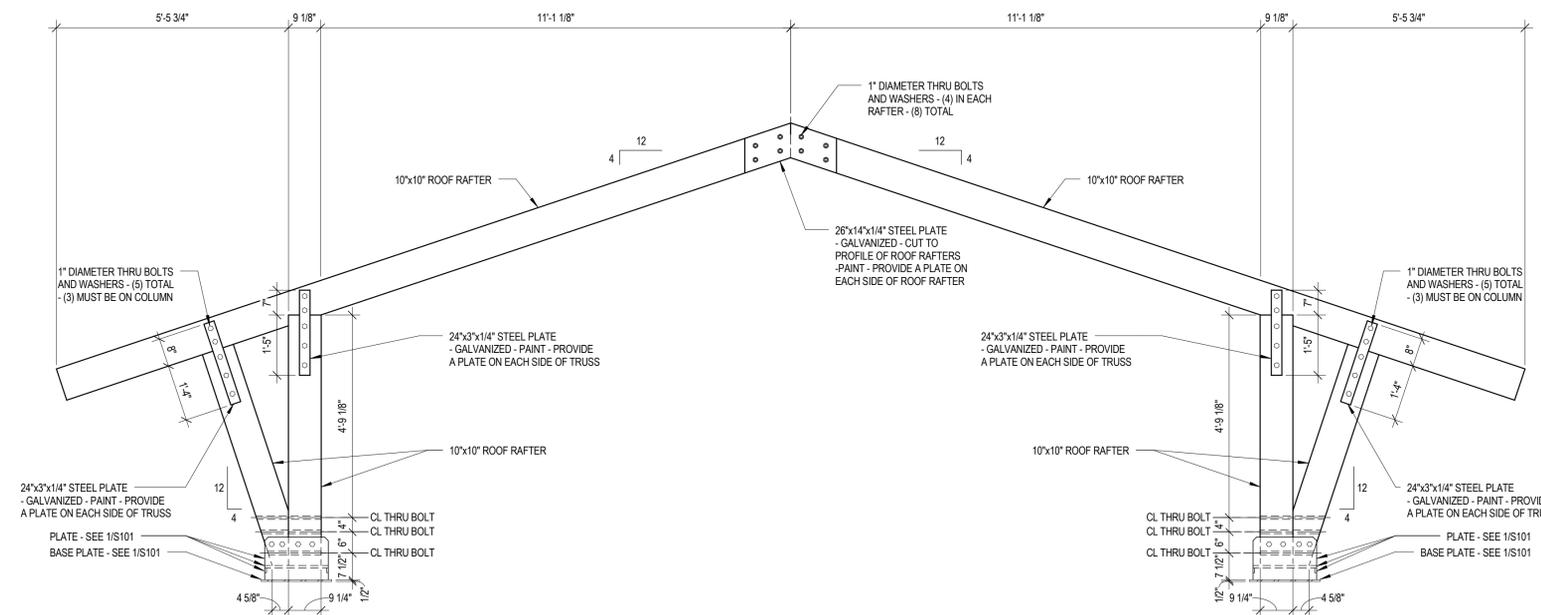
S102



1 SECTION
3" = 1'-0"



2 HEAVY TIMBER TRUSS - HTT1
1/2" = 1'-0"



3 HEAVY TIMBER TRUSS - HTT2
1/2" = 1'-0"

Waukesha County Parks
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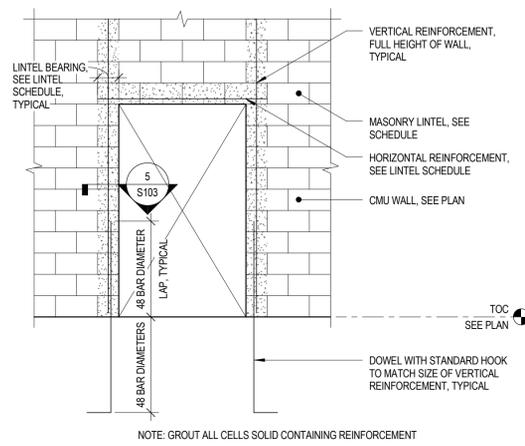
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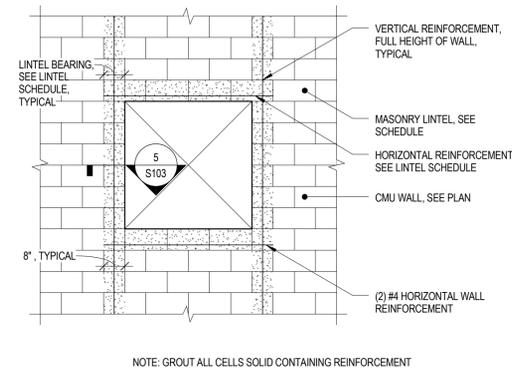
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File

Sections and Schedules

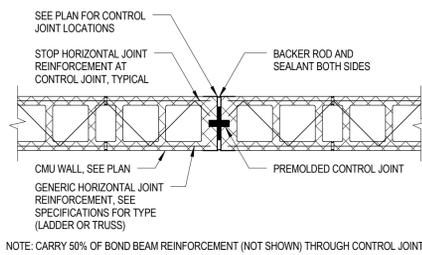
S103



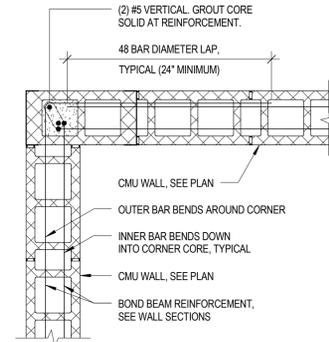
1 CMU WALL DOOR OPENING
3/8" = 1'-0"



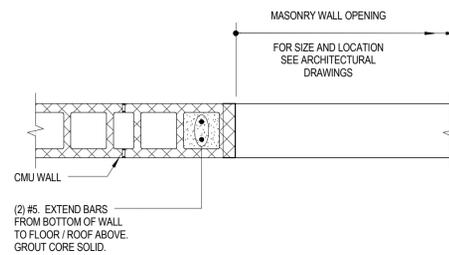
2 CMU WALL PUNCHED OPENING
3/8" = 1'-0"



3 CMU WALL VERTICAL CONTROL JOINT
1" = 1'-0"



4 BOND BEAM CORNER
1" = 1'-0"

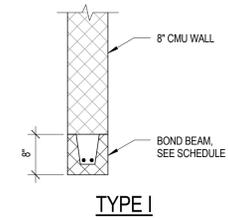


5 CMU WALL OPENING SECTION
1" = 1'-0"

LINTEL SCHEDULE				
MARK	TYPE	SIZE	BEARING LENGTH	REMARKS
◇	I	8" BOND BEAM WITH (2) #5 BOTTOM	8"	SEE DETAIL 5 ON THIS SHEET FOR JAMB DETAIL

LINTEL SCHEDULE NOTES:

- SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS.
- COORDINATE BOTTOM OF LINTEL ELEVATION WITH ARCHITECTURAL PLANS.
- ALL DIMENSIONS ARE NOMINAL, MASONRY DIMENSIONS UNLESS NOTED OTHERWISE.
- FOR CMU LINTELS, CONTRACTOR TO PROVIDE TEMPORARY SHORING UNTIL MASONRY HAS PROPERLY SET (3 DAYS MINIMUM).

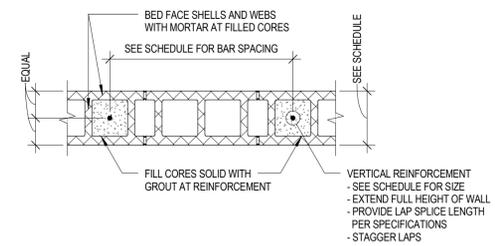


TYPE I

MASONRY WALL REINFORCING SCHEDULE			
TYPE	NOMINAL THICKNESS	REINFORCING	REMARKS
W1	8"	#4@48" O.C. VERTICAL CENTERED IN WALL	
W2	6"	#4@48" O.C. VERTICAL CENTERED IN WALL	

MASONRY WALL REINFORCING SCHEDULE NOTES:

- PROVIDE TYPICAL VERTICAL REINFORCING AT WALL ENDS AND EACH SIDE OF CONTROL JOINTS. REINFORCE FIRST TWO CELLS EACH SIDE OF OPENINGS FULL HEIGHT OF WALL WHERE THE USE OF STEEL LINTELS INTERRUPTS VERTICAL CONTINUITY OF WALL. SHIFT REINFORCED CELLS PAST LINTEL BEARING AND GROUT WALL SOLID BELOW END OF LINTELS.
- PROVIDE DOWELS FOR VERTICAL REINFORCING INTO FOUNDATION WALLS AND FOOTINGS BELOW PER DETAILS.
- SEE GENERAL NOTES AND DETAILS FOR HORIZONTAL JOINT REINFORCING AND BOND BEAM REQUIREMENTS.
- UNLESS DETAILED OR OTHERWISE CALLED OUT, PROVIDE CMU LINTELS PER LINTEL SCHEDULE OVER OPENINGS IN MASONRY WALLS.
- PROVIDE CONTINUOUS HORIZONTAL JOINT REINFORCING IN ALL WALLS AS PER SPECIFICATIONS.
- SEE PLAN & DETAILS FOR ADDITIONAL WALL REINFORCING & GROUTING REQUIREMENTS NOT COVERED IN THIS SCHEDULE.



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PLUMBING ABBREVIATIONS

AFF	- ABOVE FINISHED FLOOR	MAX	- MAXIMUM
AFG	- ABOVE FINISHED GRADE	MB	- MOP BASIN
ALT	- ALTERNATE	MC	- MECHANICAL CONTRACTOR
AP	- ACCESS PANEL	MEP	- MECHANICAL ELECTRICAL AND PIPING
ASSY	- ASSEMBLY	MEZZ	- MEZZANINE
BFF	- BELOW FINISHED FLOOR	MFR	- MANUFACTURER
BLDG	- BUILDING	MH	- MANHOLE
BOP	- BOTTOM OF PIPE	MIN	- MINIMUM
		MISC	- MISCELLANEOUS
CFCI	- CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	NA	- NOT APPLICABLE
CLG	- CEILING	NO	- NUMBER
CO	- CLEANOUT	NTS	- NOT TO SCALE
COND	- CONDUCTOR	OD	- OUTSIDE DIAMETER
CTR	- CENTER	P	- PUMP
CU	- COPPER	PC	- PLUMBING CONTRACTOR
CW	- COLD WATER	PD	- PRESSURE DROP
CWFU	- COLD WATER FIXTURE UNITS	PLBG	- PLUMBING
DD	- DRAIN DECK	POC	- POINT OF CONNECTION
DET	- DETAIL	PRV	- PRESSURE RELIEF VALVE
DFU	- DRAINAGE FIXTURE UNITS	PSF	- POUNDS PER SQUARE FOOT
DIA	- DIAMETER	PSI	- POUNDS PER SQUARE INCH
DIM	- DIMENSION	PSIA	- POUNDS PER SQUARE INCH ABSOLUTE
DN	- DOWN	PSIG	- POUNDS PER SQUARE INCH GAUGE
DS	- DOWNSPOUT	PVC	- POLYVINYL CHLORIDE
DT	- DRAIN TILE		
DWG.	- DRAWING	RAD	- RADIUS
		RD	- ROOF DRAIN
E	- EXISTING	REC	- RECESSED
EEW	- EMERGENCY EYEWASH	REQD	- REQUIRED
EFF.	- EFFICIENCY	RF	- ROOF
ELEC	- ELECTRICAL	RPM	- REVOLUTIONS PER MINUTE
ELEV	- ELEVATION	RPZ	- REDUCED PRESSURE ZONE VALVE
EM	- EMERGENCY	RV	- RELIEF VALVE
EQUIP	- EQUIPMENT	S	- SLOPE
ES	- EMERGENCY SHOWER	SCH	- SCHEDULE
ETR	- EXISTING TO REMAIN	SH	- SHOWER
EWC	- ELECTRIC WATER COOLER	SPEC	- SPECIFICATION
EWH	- ELECTRIC WATER HEATER	SQ	- SQUARE
EXST	- EXISTING	SS	- SERVICE SINK
EXT	- EXTERIOR	STD	- STANDARD
		T&P	- TEMPERATURE AND PRESSURE
F	- FUTURE	TD	- TRENCH DRAIN
FCO	- FLOOR CLEANOUT	TDFU	- TOTAL DRAIN FIXTURE UNITS
FD	- FLOOR DRAIN	TEMP	- TEMPERATURE
FFE	- FINISHED FLOOR ELEVATION	TOB	- TOP OF BEAM
FLR	- FLOOR	TOD	- TOP OF DECK
FP	- FIREPROOF	TOJ	- TOP OF JOIST
FT	- FEET	TOS	- TOP OF SLAB
FU	- FIXTURE UNITS	T STAT	- THERMOSTAT
		TWU	- TOTAL WATER FIXTURE UNITS
GAL	- GALLON	TYP	- TYPICAL
GC	- GENERAL CONTRACTOR	V	- VENT
GPM	- GALLONS PER MINUTE	VEL	- VELOCITY
GPH	- GALLONS PER HOUR	VOL	- VOLUME
		VTR	- VENT THRU ROOF
HB	- HOSE BIBB	W	- WIDTH
HD	- HUB DRAIN	W/	- WITH
HP	- HORSE POWER	W/O	- WITHOUT
HVAC	- HEATING, VENTILATING & AIR CONDITIONING	WC	- WATER COLUMN
HW	- HOT WATER	WSFU	- WATER SUPPLY FIXTURE UNITS
HWFU	- HOT WATER FIXTURE UNITS	WG	- WATER GAUGE
ID	- INSIDE DIAMETER		
IE	- INVERT ELEVATION		
IN	- INCHES		
L	- LAVATORY		
LWT	- LEAVING WATER TEMPERATURE		

PIPE FITTINGS

	FLANGE		ELBOW DOWN
	UNION		ELBOW UP
	ANCHOR		TEE DOWN
	PIPE GUIDE		TEE UP
	ECCENTRIC REDUCER		PIPE CAP
	CONCENTRIC REDUCER		VALVE IN VERTICAL
	TEE BRANCH		DOUBLE WYE
	LINE CONTINUATION BREAK		WYE
	PLUMBING FIXTURE STOPS		WYE WITH VENT UP
	PIPELINE STRAINER		

DRAINS AND CLEANOUTS

	FD1 FLOOR DRAIN		FIXTURE WASTE TRAP
	RD1 ROOF DRAIN		WALL CLEANOUT
	HD1 HUB DRAIN		FLOOR CLEANOUT
	FS1 FLOOR DRAIN		

WATER SUPPLY CALCULATION

USING THE FORMULA, FIND THE PRESSURE AVAILABLE FOR UNIFORM LOSS (PSI/100' OF PIPE)

$$A = \frac{8 - (C + 2) D^{1.75}}{100}$$

WHERE:

- A. 16.28 PRESSURE AVAILABLE FOR UNIFORM LOSS (PSI/100' OF PIPE)
- B. 65 AVAILABLE PRESSURE AT POINT OF CONNECTION TO EXISTING SYSTEM.
- C. 25 PRESSURE NEEDED AT CONTROLLING FIXTURE.
- D. 6.51 DIFFERENCE IN ELEVATION BETWEEN CONNECTION POINT AND CONTROLLING FIXTURE IN FEET 15 X .434 PSI/FT
- E. 10 PRESSURE LOSS DUE TO WATER SOFTENERS, WATER TREATMENT DEVICES, INSTANTANEOUS WATER HEATERS, AND BACKFLOW PREVENTORS. CONVENTIONAL WATER HEATERS USUALLY DO NOT HAVE A PRESSURE LOSS.
- F. 255 DEVELOPED LENGTH FROM CONNECTION POINT TO CONTROLLING FIXTURE IN FEET 120 X 1.5.

WITH PRESSURE AVAILABLE FOR UNIFORM LOSS, GO TO APPLICABLE TABLE FOR DISTRIBUTION SIZING.

PLUMBING SYMBOLS
AND ABBREVIATIONS

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PIPING SYSTEM LABELS

WATER PIPING SYSTEMS:

	COLD WATER
	HOT WATER
	HOT WATER RETURN
	COMPRESSED AIR
	COOLANT SUPPLY
	COOLANT RETURN
	EXISTING COLD WATER
	EXISTING PROCESSED WATER

SITE PIPING SYSTEMS:

	FIRE MAIN
	FORCE MAIN
	SANITARY SEWER
	STORM SEWER
	WATER LINE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	REMOVE EXISTING EQUIPMENT

WASTE AND VENT SYSTEMS:

	CONDENSATE DRAIN
	CLEARWATER VENT
	CLEARWATER WASTE
	OVERFLOW DRAIN LINE
	STORM
	UNDERFLOOR FOR WASTE OR SOIL, SUBSOIL, STORM & FORCE MAIN
	SANITARY VENT

NOTE:
(E) PRIOR TO SYSTEM TYPE DENOTES EXISTING PIPING
(F) PRIOR TO SYSTEM TYPE DENOTES FUTURE PIPING

PIPE VALVES AND SPECIALTIES

	ANGLE VALVE		BACKFLOW PREVENTER
	BALANCING VALVE		HOSE BIBB
	BALL VALVE		PRESSURE GAUGE
	BUTTERFLY VALVE		THERMOMETER
	CHECK VALVE		WALL HYDRANT
	DRAIN VALVE		WATER HAMMER ARRESTOR
	GAS SHUTOFF VALVE		PRESSURE RELIEF VALVE
	GATE VALVE		

REFERENCE SYMBOLS

	DETAIL REFERENCE TOP DESIGNATES DETAIL NUMBER BOTTOM DESIGNATES SHEET NUMBER		EQUIPMENT NAME AND NUMBER
	SECTION REFERENCE TOP DESIGNATES SECTION NUMBER BOTTOM DESIGNATES SHEET NUMBER		PLAN NOTE NUMBER
	ELEVATION SYMBOL		REVISION NUMBER
			POINT OF CONNECTION
			POINT OF DISCONNECTION

PLUMBING DRAIN SCHEDULE

TAG	MANUFACTURER	MODEL NO.	REMARKS
FD-1	ZURN	Z415-B	CAST IRON BODY, ADJUSTABLE STRAINER HEAD, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH NICKEL BRONZE TOP.
FCO	ZURN	Z1400-BP	CAST IRON BODY, ADJUSTABLE FLOOR CLEANOUT WITH NICKEL BRONZE TOP AND GAS AND WATERTIGHT ABS TAPERED BRONZE PLUG (USE IN FINISHED AREAS).
		Z1474	CAST IRON BODY, HEAVY DUTY CLEANOUT HOUSING, WITH NICKEL BROZE TOP AND INTERNAL CLEANOUT (USE IN UNFINISHED AREAS, MECHANICAL ROOMS, JANITOR CLOSETS, ETC.).
WCO	ZURN	Z1468	ROUND STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW, BRONZE RAISED HEX HEAD PLUG.
CO	ZURN	Z1440-BP	CAST IRON BODY FERRULE WITH BRONZE PLUG.
EXP-1	AMTROL	WELL_XTROL WX-252	86 GALLON, STEEL SHELL, HEAVY DUTY BUTYL DIAPHRAGM, POLYPROPYLENE LINER, WITH TUF-KOTE PAINT COATING, 22" DIA. X 62" HIGH.

PLUMBING EQUIPMENT SCHEDULE

TAG	MANUFACTURER	MODEL NO.	REMARKS
POU-1	EEMAX	EX144TC	POINT OF USE TANKLESS WATER HEATER, 15 KW, 240 VAC, 64 A, 68 DEGREE TEMPERATURE RISE @ 1.5 GPM. UNIT SHALL HAVE A POWER MODE CONTROL TO INCREASE OR DECREASE THE WATER OUTPUT TEMPERATURE.
POU-2	EEMAX	EX65	POINT OF USE TANKLESS WATER HEATER, 6.5 KW, 240 VAC, 27 A, 44 DEGREE TEMPERATURE RISE @ 1.0 GPM. UNIT SHALL HAVE A POWER MODE CONTROL TO INCREASE OR DECREASE THE WATER OUTPUT TEMPERATURE.
HB-1	WOODFORD	40 SERIES	EXPOSED AUTOMATIC DRAINING, WITH INTEGRAL VACUUM BREAKER, 3/4" HOSE THREAD NOZZLE, AND LOOSE TEE KEY.
HB-2	WOODFORD	65 SERIES	FROST FREE, EXPOSED AUTOMATIC DRAINING, WITH INTEGRAL VACUUM BREAKER, 3/4" HOSE THREAD NOZZLE, AND LOOSE TEE KEY.

Drawn by MHS
Checked by RAK
File

PLUMBING COVER SHEET

Waukesha County Parks
Minooka and Mukwonago
Park Restrooms

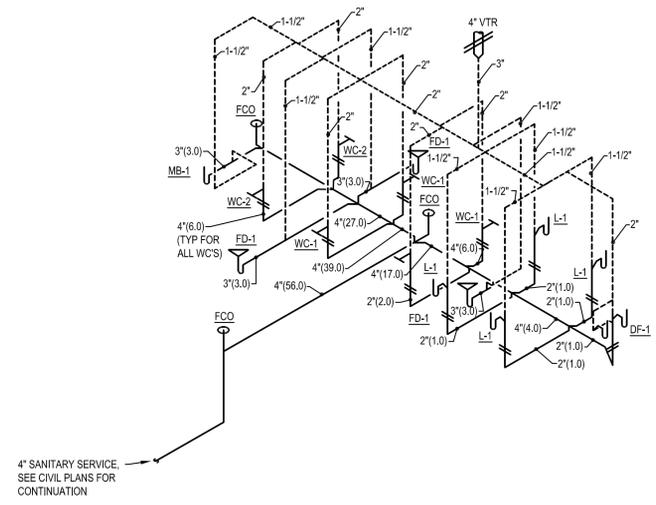
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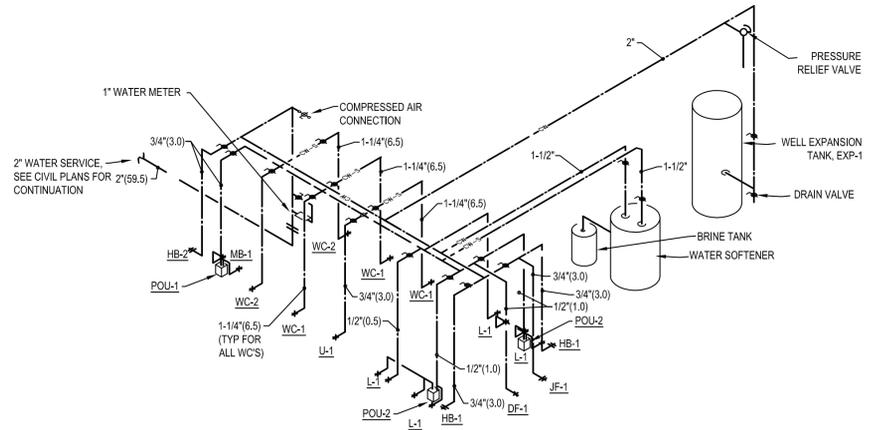
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1
BUILDING TYPE S2
SANITARY AND VENT ISOMETRIC
SCALE: 1/4"=1'-0"



2
BUILDING TYPE S2
DOMESTIC WATER SUPPLY ISOMETRIC
SCALE: 1/4"=1'-0"

Drawn by MHS
Checked by RAK
File

PLUMBING ISOMETRICS

MECHANICAL SYMBOLS AND ABBREVIATIONS

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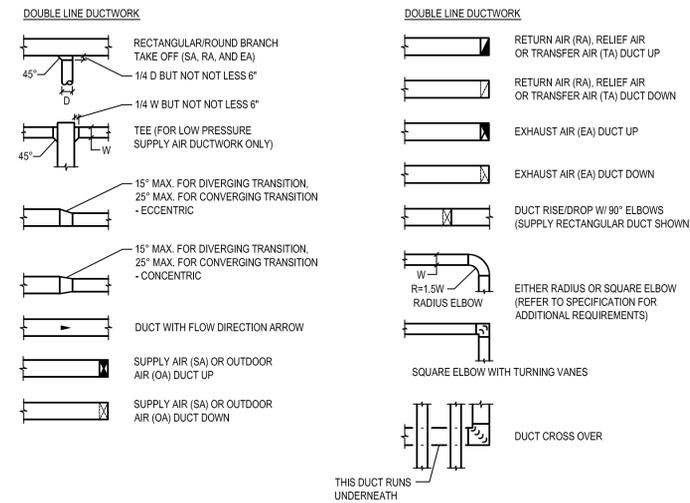
MECHANICAL ABBREVIATIONS

AFF - ABOVE FINISHED FLOOR	MBH - THOUSANDS OF BTU PER HOUR
BOD - BOTTOM OF DUCT	MC - MECHANICAL CONTRACTOR
BTU - BRITISH THERMAL UNITS	MCA - MINIMUM CIRCUIT AMPACITY
BTUH - BRITISH THERMAL UNITS PER HOUR	MFR - MANUFACTURER
CFM - CUBIC FEET PER MINUTE	OA - OUTSIDE AIR
CONTR- CONTRACTOR	PC - PLUMBING CONTRACTOR
DEG - DEGREES	PD - PRESSURE DROP
EA - EXHAUST AIR	PH - PHASE
EAT - ENTERING AIR TEMPERATURE	PLBG - PLUMBING
EC - ELECTRICAL CONTRACTOR	RA - RETURN AIR
ELEC - ELECTRICAL	RPM - REVOLUTIONS PER MINUTE
ESP - EXTERNAL STATIC PRESSURE	SA - SUPPLY AIR
EWT - ENTERING WATER TEMPERATURE	SCH - SCHEDULE
EXH - EXHAUST	SHT - SHEET
F - FAHRENHEIT	SP - STATIC PRESSURE
FLA - FULL LOAD AMPS	SPEC - SPECIFICATION
FPM - FEET PER MINUTE	TEMP - TEMPERATURE
FT - FEET	T STAT - THERMOSTAT
GBD - GRAVITY BACKDRAFT DAMPER	TYP - TYPICAL
GC - GENERAL CONTRACTOR	UC - UNDERCUT DOOR
HP - HORSEPOWER	1" (BY GENERAL CONTRACTOR)
IN - INCHES	V - VOLTS
LAT - LEAVING AIR TEMPERATURE	W/ - WITH
	W/O - WITHOUT

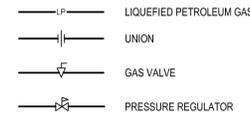
MECHANICAL EQUIPMENT ABBREVIATIONS

EF - EXHAUST FAN
EWH - ELECTRIC WALL HEATER
ERV - ENERGY RECOVERY VENTILATOR
F - FILTER
GF - GAS FURNACE
WPL - WEATHERPROOF LOUVER

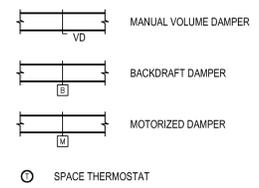
DUCTWORK FITTINGS



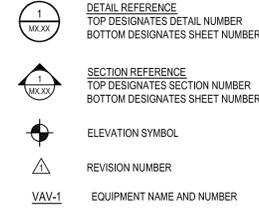
PIPING SYMBOLS



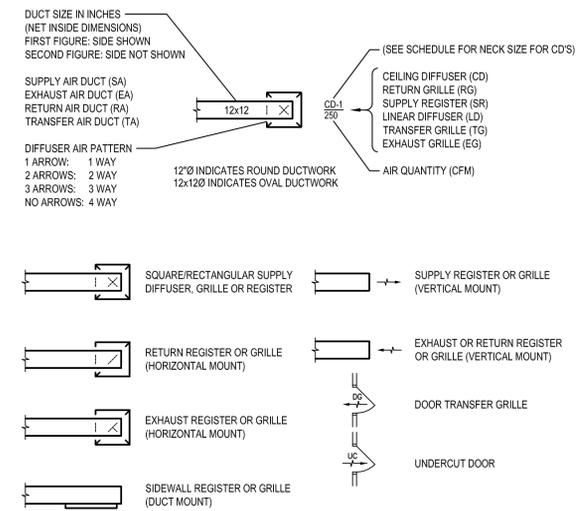
DAMPERS AND CONTROLS



GENERAL SYMBOLS



DIFFUSER, GRILLE, AND REGISTER NOTATION



MECHANICAL SHEET INDEX

M100	MECHANICAL SYMBOLS, ABBREVIATIONS AND SHEET INDEX, AND MECHANICAL FLOOR PLAN
M200	MECHANICAL SCHEDULES, SCHEMATICS, AND DETAIL



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Waukesha County Parks Minooka & Mukwonago Park Restrooms

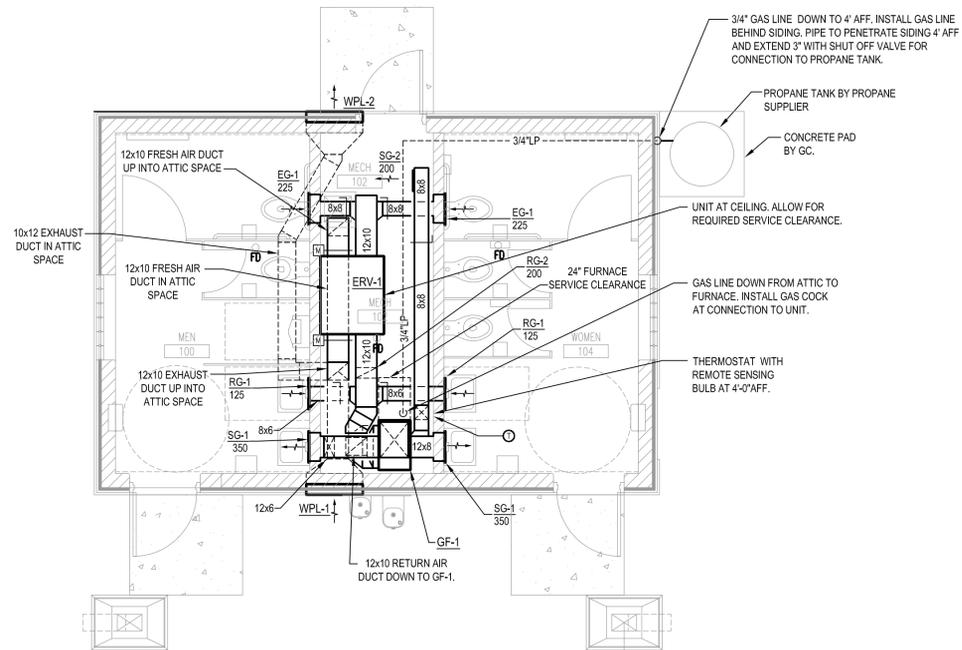
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S-2 HVAC NOTES:

- INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE.
- PROVIDE FLEXIBLE DUCT CONNECTIONS AT ERV-1 AND GF-1.
- COORDINATE LP PIPING AND VALVING REQUIREMENTS WITH LP SUPPLIER.

CONTROL:
TOILET ROOMS SHALL MAINTAIN 55°F (ADJUSTABLE) WHEN IN HEATING MODE. THERMOSTAT SHALL CONTROL FURNACE HEATING. ON A CALL FOR HEAT, FURNACE BURNER CYCLES ON/OFF TO MAINTAIN SETPOINT TEMPERATURE.

ERV-1 AND GF-1 SUPPLY FAN SHALL BE CONTROLLED BY OCCUPANCY SENSORS WHEN THE SPACE IS OCCUPIED. MOTORIZED DAMPERS SHALL OPEN WHEN ERV-1 TURNS ON AND CLOSE WHEN ERV-1 TURNS OFF. WHEN INDEXED TO OCCUPIED MODE FROM OCCUPANCY SENSOR, THE ERV FANS SHALL OPERATE CONTINUOUSLY ALONG WITH THE FURNACE FAN. DURING UNOCCUPIED MODE, THE ERV SHALL BE OFF.

1 TYPE S-2 MECHANICAL FLOOR PLAN
M100 SCALE: 1/4"=1'-0"

Drawn by JAB
Checked by ELH
File 2012-0102-M100.dwg

Mechanical Symbols,
Abbreviations and Sheet Index,
and Mechanical Floor Plan

M100

Waukesha County Parks
Minooka & Mukwonago
Park Restrooms

Minooka Park
1927 E. Sunset Dr.
Waukesha, WI 53186

Mukwonago Park
S100 W31900 County Hwy L0
Mukwonago, WI 53149

Owner
Waukesha County Parks & Land Use
515 West Moreland Boulevard
Waukesha, Wisconsin 53188
Project No. **122219.00**

Issued For:
No. Description Date
01 Issued for Bidding 02-04-2014

WEATHERPROOF LOUVERS (WPL)																	
UNIT NO.	LOCATION	SERVES	DESIGN (CFM)	SIZE (IN)			MAX. APD (IN. WC)	MAX. VEL. (FPM)	FREE AREA (SQ. FT.)	BLADE ANGLE	BLADE TYPE	CONSTRUCTION	FINISH	SCREEN	MANUFACTURER	MODEL	REMARKS
				L	H	D											
WPL-1	S2	INTAKE	450	32	12	6	0.08	705	0.64	35	-	ALUMINUM	-	BIRD	GREENHECK	ESD-635	1.2
WPL-2	S2	EXHAUST	450	32	12	6	0.08	705	0.64	35	-	ALUMINUM	-	BIRD	GREENHECK	ESD-635	1.2

NOTES:

- LOUVERS TO BE INSTALLED BOTTOM OF LOUVER 10'-0" AFF.
- COLOR TO BE SELECTED BY ARCHITECT.

GAS FURNACE (GF)																
UNIT NO.	SERVICE	UNIT ARRANGEMENT	SUPPLY FAN			HEATING SECTION					ELECTRICAL				MANUFACTURER	MODEL
			TOTAL CFM	OUTSIDE AIR CFM	EXT. S.P. (IN WC)	E.A.T. (°F)	L.A.T. (°F)	INPUT MBH	OUTPUT MBH	AFUE %	VOLT	PH	MCA	MOCP		
GF-1	S-2	VERTICAL SIDE RETURN	900	450	0.5	50	107	60	56	92	120	1	6.1	15	CARRIER	58MCB

NOTES:

- PROVIDE WITH DISCONNECT SWITCH.
- PROVIDE SIDE MOUNT FILTER RACK AND 1" PLEATED FILTER.
- PROVIDE WITH 2" PVC VENT AND INTAKE, THROUGH ROOF WITH CONCENTRIC ROOF TERMINATION.
- PROVIDE 1/2" BURNER CONDENSATE DRAIN TO FLOOR DRAIN.
- PROVIDE WITH ELECTRIC THERMOSTAT WITH REMOTE SENSING BULB. REMOTE SENSING BULB TO BE INSTALLED IN RETURN DUCT OF 104-WOMENS.
- FURNACE SHALL BE SUITABLE FOR LP GAS.

DIFFUSER, REGISTER, & GRILLE SCHEDULE													
UNIT TAG	SERVICE	AIRFLOW CFM	MAXIMUM APD (IN WC)	MAXIMUM NC	DUCT SIZE	BLADE SPACING IN.	PATTERN	FINISH	MATERIAL	MOUNTING	MFR.	MODEL NO.	REMARKS
SG-1	SUPPLY	350	.10	30	16x8	1/2	DOUBLE DEFLECTION	WHITE	STEEL	SURFACE	TITUS	301RL-HD	1.2
SG-2	SUPPLY	200	.10	30	10x6	1/2	DOUBLE DEFLECTION	WHITE	STEEL	SURFACE	TITUS	301RL-HD	1.2
RG-1	RETURN	125	.10	30	16x8	1/2	40 DEG FIXED	WHITE	STEEL	SURFACE	TITUS	355RL-HD	1.2
RG-2	RETURN	200	.10	30	10x6	1/2	40 DEG FIXED	WHITE	STEEL	SURFACE	TITUS	355RL-HD	1,2,3
EG-1	EXHAUST	225	.10	30	16x8	1/2	40 DEG FIXED	WHITE	STEEL	SURFACE	TITUS	355RL-HD	1.2

NOTES:

- PROVIDE HEAVY DUTY STEEL GRILLE.
- PROVIDE WITH OPPOSED BLADE DAMPER WITH SCREWDRIVER SLOT OPERATOR.
- INSTALL IN BOTTOM OF RETURN DUCT.

MOTOR CONTROL SCHEDULE												
UNIT	HP, MCA, OR KW	VOLTS/PH	MOTOR STARTER				CONTROL			DISCONNECT BY		
			TYPE	FURN BY	LOCATION	ACCESSORIES	TYPE	FURN BY	LOCATION	TYPE	FURN BY	LOCATION
GF-1	6.1 MCA	120/1	MS	MANF	INT.	-	AUTO	MC	NEAR	NFDS	MC	NEAR / ON
ERV-1	9 MCA	120/1	MS	MANF	INT.	-	AUTO	MC	NEAR	NFDS	MANF	INT

NOTES:

- HVAC CONTRACTOR SHALL COORDINATE MOTOR STARTERS AND DISCONNECTS WITH ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL DRAWINGS.

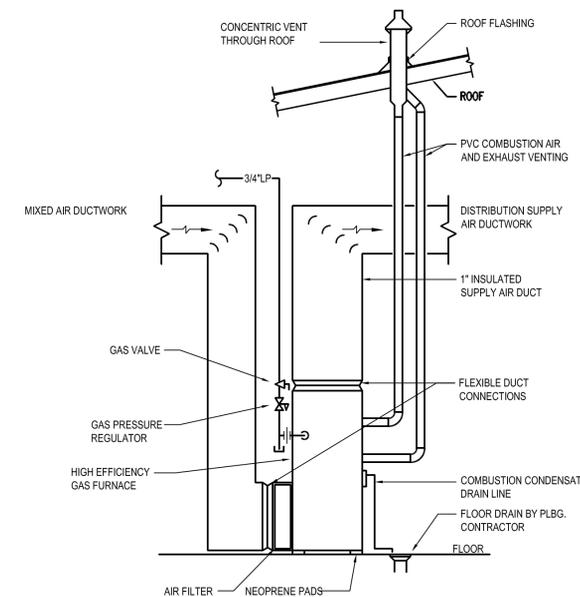
MOTOR CONTROL ABBREVIATIONS

- | | |
|---|--|
| 1. MS - MANUAL STARTER | 8. INT. - MOUNTING INTEGRAL TO THE UNIT, PROVIDE FACTORY MOUNTED WHEN POSSIBLE |
| 2. FVNR - FULL VOLTAGE, NON-REVERSING, MAGNETIC STARTER | 9. REMOTE - MOUNT REMOTE FROM UNIT LOCATION, SEE PLANS FOR DETAILS |
| 3. VFD - VARIABLE FREQUENCY DRIVE | 10. E.C. - ELECTRICAL CONTRACTOR |
| 4. MANF. - EQUIPMENT MANUFACTURER | 11. T.C. - TEMPERATURE CONTROLS CONTRACTOR |
| 5. NFDS - NON-FUSED DISCONNECT SWITCH, MOUNTED NEAR MOTOR | 12. M.C. - MECHANICAL CONTRACTOR |
| 6. NEAR - MOUNT IN SIGHT OF EQUIPMENT, PREFERABLY WITHIN THE SAME ROOM | 13. MAN - MANUAL CONTROL |
| 7. ON - MOUNT ON UNIT IN LOCATION APPROVED BY EQUIPMENT MANUFACTURER & ENGINEER | 14. AUTO - AUTOMATIC CONTROL, LOCAL TO UNIT |
| | 13. BAS - BUILDING AUTOMATION SYSTEM BASED CONTROL |

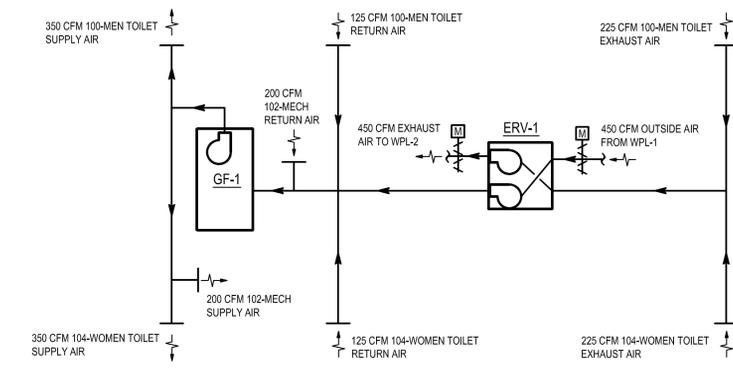
PACKAGED ENERGY RECOVERY VENTILATOR (ERV)														
UNIT NO.	TYPE	SUPPLY			EXHAUST			WINTER EFFICIENCY %	UNIT ELECTRICAL				MFR.	MODEL
		CFM	ESP "WC	FAN HP	CFM	ESP "WC	FAN HP		VOLTS	PH	MCA	MAX FUSE SIZE		
ERV-1	STATIC PLATE	450	0.65	0.6	450	0.65	0.6	70	120	1	9	15	RENEWAIRE	EV450N

NOTES:

- PROVIDE WITH NON-FUSED DISCONNECT AND 2" MERV 8 FILTERS FOR EXHAUST AND SUPPLY AIR.
- INSTALL 7'-0" AFF. PROVIDE 2x8 BETWEEN MASONRY WALL TO HANG ERV FROM. HANG FROM BOTTOM OF TRUSS WHERE POSSIBLE WITH THREADED ROD.
- PROVIDE BOTTOM FILTER ACCESS.
- PROVIDE FANS WITH ECM MOTORS.



1 FURNACE DETAIL
M200 SCALE: NO SCALE



2 S-2 AIRFLOW SCHEMATIC
M200 SCALE: NO SCALE

Drawn by JAB
Checked by ELH
File 2012-0102-M200.dwg

Mechanical Schedules, Schematics,
and Detail

ELECTRICAL SYMBOLS AND ABBREVIATIONS

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS INDICATED HERE ARE USED IN DRAWINGS AND MAY NOT APPLY TO CURRENT PROJECT. ADDITIONAL SYMBOLS MAY BE INDICATED ON DRAWINGS.

ELECTRICAL ABBREVIATIONS

1P	- ONE POLE	KVAR	- KILOVOLT AMPERE REACTIVE
2P	- TWO POLE	KW	- KILOWATT
3P	- THREE POLE	LTG	- LIGHTING
1P,1W	- ONE POLE, ONE WIRE	MCB	- MAIN CIRCUIT BREAKER
1P,2W	- ONE POLE, TWO WIRE	MC	- MECHANICAL CONTRACTOR
2P,2W	- TWO POLE, TWO WIRE	MISC	- MISCELLANEOUS
2P,3W	- TWO POLE, THREE WIRE	MH	- MANHOLE
A	- AMPERE	MLO	- MAIN LUGS ONLY
AC	- ALTERNATING CURRENT	MTD	- MOUNTED
AFF	- ABOVE FINISHED FLOOR	MTG	- MOUNTING
AFG	- ABOVE FINISHED GRADE	N/A	- NOT APPLICABLE
AIC	- AMPERE INTERRUPTING CAPACITY	NEC	- NATIONAL ELECTRIC CODE
ARCH	- ARCHITECT	NIC	- NOT IN CONTRACT
ATS	- AUTOMATIC TRANSFER SWITCH	#	- NUMBER
BFF	- BELOW FINISHED FLOOR	NTS	- NOT TO SCALE
BFG	- BELOW FINISHED GRADE	P	- POLE
BLDG	- BUILDING	PB	- PULL BOX
C	- CONDUIT	PC	- PLUMBING SYSTEM CONTRACTOR
CAT	- CATALOG	PH	- PHASE
CB	- CIRCUIT BREAKER	PNL	- PANEL OR PANELBOARD
CKT	- CIRCUIT	PP	- POWER PANEL
CLG	- CEILING MOUNTED	PR	- PAIR
CT	- CURRENT TRANSFORMER	PRI	- PRIMARY
CU	- COPPER	PVC	- POLYVINYL CHLORIDE
CL	- CENTERLINE	REC	- RECESSED
D	- DEDICATED DEVICE	RSC	- REFRIGERATOR
DC	- DIRECT CURRENT	SEC	- SECONDARY
Δ	- DELTA	SN	- SOLID NEUTRAL
DISC	- DISCONNECT	SP	- SPARE
DWG	- DRAWING	SS	- STAINLESS STEEL
E	- ELECTRICAL CONTRACTOR	ST	- SHUNT TRIP
EC	- ELECTRIC METALLIC TUBING	STP	- SHIELDED TWISTED PAIR
EMT	- ELECTRIC METALLIC TUBING	SUSP	- SUSPENDED
FLA	- FULL LOAD AMPS	T	- TAMPER RESISTANT SAFETY RECEPTACLE
GC	- GENERAL CONTRACTOR	TP	- TWISTED PAIR
GFI	- GROUND FAULT INTERRUPTER	TYP	- TYPICAL
GFPE	- GROUND FAULT PROTECTION EQUIPMENT	UG	- UNDERGROUND
GND	- GROUND	UTP	- UNSHIELDED TWISTED PAIR
GRC	- GALVANIZED RIGID CONDUIT	UOI	- UNLESS OTHERWISE INDICATED
H	- HANDHOLE	V	- VOLT
HP	- HORSEPOWER	W	- WATT
HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING	WP	- WEATHERPROOF
HZ	- HERTZ (CYCLE) PER SECOND	XFMR	- TRANSFORMER
JB	- JUNCTION BOX	Y	- WYE
KVA	- KILOVOLT AMPERE	ZAM	- ZONE ADAPTER MODULE

ELECTRICAL SYMBOLS

	○	SURFACE MOUNTED		X	OCCUPANCY SENSOR - CEILING MOUNTED
	□	WALL MOUNTED		C	CONTACTOR
	○	SUSPENDED, PENDENT, CHAIN, STEM, OR CABLE HUNG		T	TIME CLOCK
	A-1b	LIGHT FIXTURE DESIGNATION - (A) INDICATES FIXTURE TYPE (SEE SCHEDULE) - (1) INDICATES CIRCUIT NUMBER (PANEL BOUNDS AS INDICATED ON DRAWINGS) - (b) INDICATES CONTROL DESIGNATION (IF NOT INDICATED, CONTROLLED VIA SWITCH AT ROOM ENTRY)		PC	PHOTOCELL
	X, a	SWITCH - MOUNTED 3'-6" AFF, UOI - (a) INDICATES SWITCH DESIGNATION - SINGLE POLE, UOI - (X) INDICATES SWITCH TYPE: (2) TWO POLE (3) THREE WAY (4) FOUR WAY (DLS) DUAL LEVEL SWITCH (K) KEY OPERATED (P) WITH PILOT LIGHT		DS	DAYLIGHT SENSOR
	□	TRANSFORMER - PAD MOUNTED		X	SPECIAL PURPOSE OUTLET - (X) INDICATES DEVICE IDENTIFICATION (SEE SPECIAL OUTLET SCHEDULE)
	■	PANELBOARD - SURFACE MOUNTED - (SEE SCHEDULE)		X	MOTOR CONNECTION - (X) INDICATES MOTOR IDENTIFICATION (SEE MOTOR STARTER SCHEDULE)
	X xxx	EQUIPMENT REFERENCE - TOP DESIGNATES EQUIPMENT TYPE: (LP) LIGHTING PANEL (RP) RECEPTACLE PANEL - BOTTOM DESIGNATES EQUIPMENT ID		Y, X	DUPLEX RECEPTACLE - MOUNTED 1'-6" AFF, UOI - (X) INDICATES CIRCUIT NUMBER - (Y) INDICATES TYPE: (GFCI) GROUND FAULT INTERRUPTING (WP) WEATHERPROOF
				Y, X	DUPLEX RECEPTACLE - MOUNTED 6" ABOVE COUNTER - (X) INDICATES CIRCUIT NUMBER - (Y) INDICATES TYPE: (GFCI) GROUND FAULT INTERRUPTING (WP) WEATHERPROOF

ELECTRICAL SHEET INDEX

E100	ELECTRICAL SYMBOLS, ABBREVIATIONS, SHEET INDEX, & SITE PLAN
E101	ELECTRICAL SITE PLAN
E200	ELECTRICAL FLOOR PLAN & SCHEDULES
E300	ELECTRICAL SCHEDULES

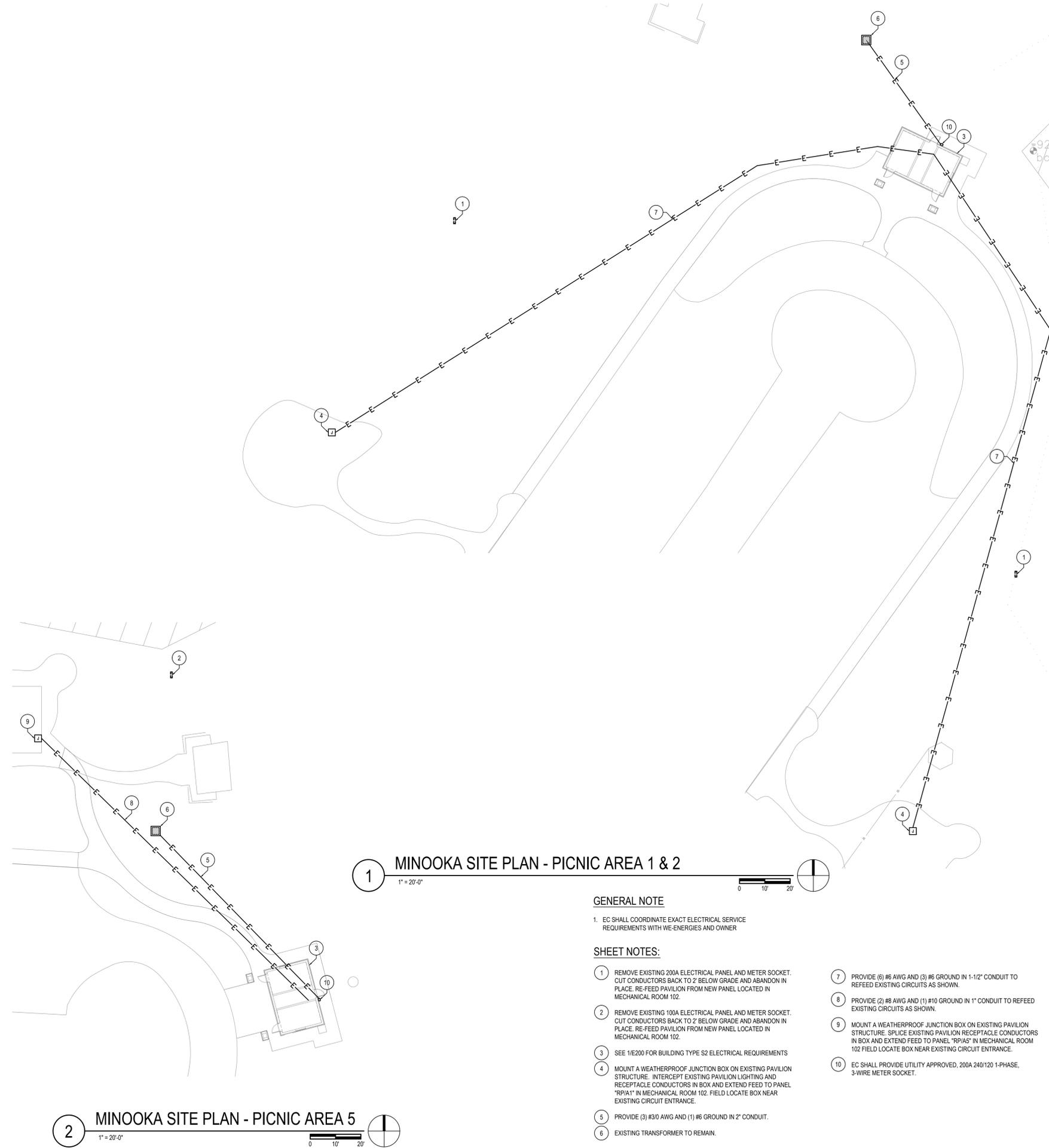
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1 MINOOKA SITE PLAN - PICNIC AREA 1 & 2
1" = 20'-0"

GENERAL NOTE

1. EC SHALL COORDINATE EXACT ELECTRICAL SERVICE REQUIREMENTS WITH WE-ENERGIES AND OWNER

SHEET NOTES:

- 1 REMOVE EXISTING 200A ELECTRICAL PANEL AND METER SOCKET. CUT CONDUCTORS BACK TO 2' BELOW GRADE AND ABANDON IN PLACE. RE-FEED PAVILION FROM NEW PANEL LOCATED IN MECHANICAL ROOM 102.
- 2 REMOVE EXISTING 100A ELECTRICAL PANEL AND METER SOCKET. CUT CONDUCTORS BACK TO 2' BELOW GRADE AND ABANDON IN PLACE. RE-FEED PAVILION FROM NEW PANEL LOCATED IN MECHANICAL ROOM 102.
- 3 SEE 1/E200 FOR BUILDING TYPE S2 ELECTRICAL REQUIREMENTS
- 4 MOUNT A WEATHERPROOF JUNCTION BOX ON EXISTING PAVILION STRUCTURE. INTERCEPT EXISTING PAVILION LIGHTING AND RECEPTACLE CONDUCTORS IN BOX AND EXTEND FEED TO PANEL "RPIA1" IN MECHANICAL ROOM 102. FIELD LOCATE BOX NEAR EXISTING CIRCUIT ENTRANCE.
- 5 PROVIDE (3) #30 AWG AND (1) #6 GROUND IN 2" CONDUIT.
- 6 EXISTING TRANSFORMER TO REMAIN.
- 7 PROVIDE (6) #6 AWG AND (3) #6 GROUND IN 1-1/2" CONDUIT TO REFEED EXISTING CIRCUITS AS SHOWN.
- 8 PROVIDE (2) #8 AWG AND (1) #10 GROUND IN 1" CONDUIT TO REFEED EXISTING CIRCUITS AS SHOWN.
- 9 MOUNT A WEATHERPROOF JUNCTION BOX ON EXISTING PAVILION STRUCTURE. SPLICE EXISTING PAVILION RECEPTACLE CONDUCTORS IN BOX AND EXTEND FEED TO PANEL "RPIA5" IN MECHANICAL ROOM 102 FIELD LOCATE BOX NEAR EXISTING CIRCUIT ENTRANCE.
- 10 EC SHALL PROVIDE UTILITY APPROVED, 200A 240/120 1-PHASE, 3-WIRE METER SOCKET.

2 MINOOKA SITE PLAN - PICNIC AREA 5
1" = 20'-0"

ELECTRICAL SYMBOLS, ABBREVIATIONS, SHEET INDEX, & SITE PLANS

**Waukesha County Parks
Minooka & Mukwonago
Park Restrooms**

Minooka Park | Mukwonago Park
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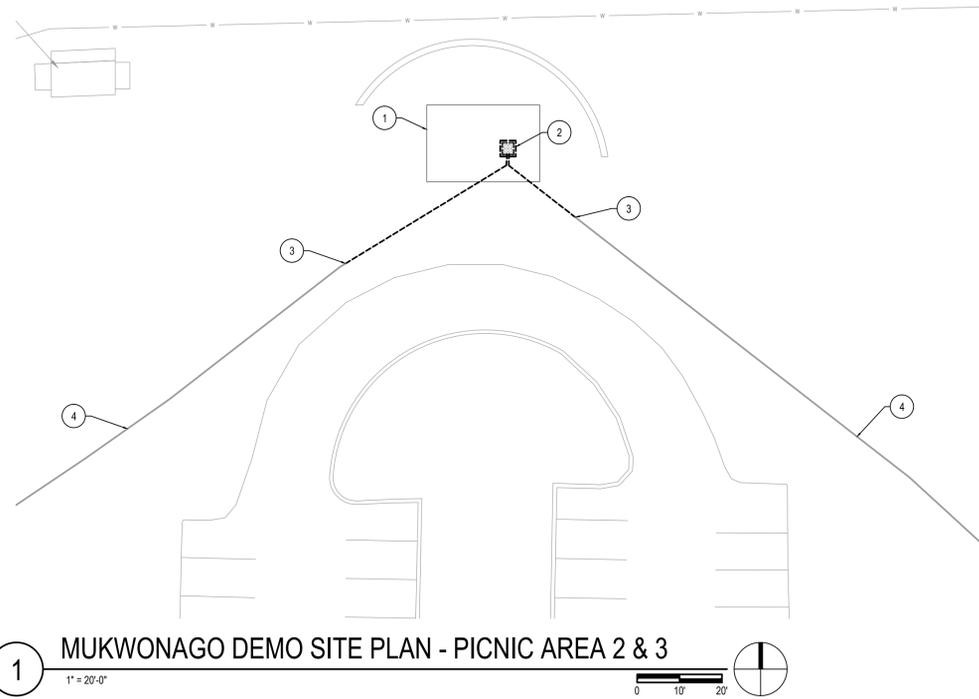
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GENERAL NOTE

1. EC SHALL COORDINATE EXACT ELECTRICAL SERVICE REQUIREMENTS WITH WE-ENERGIES AND OWNER

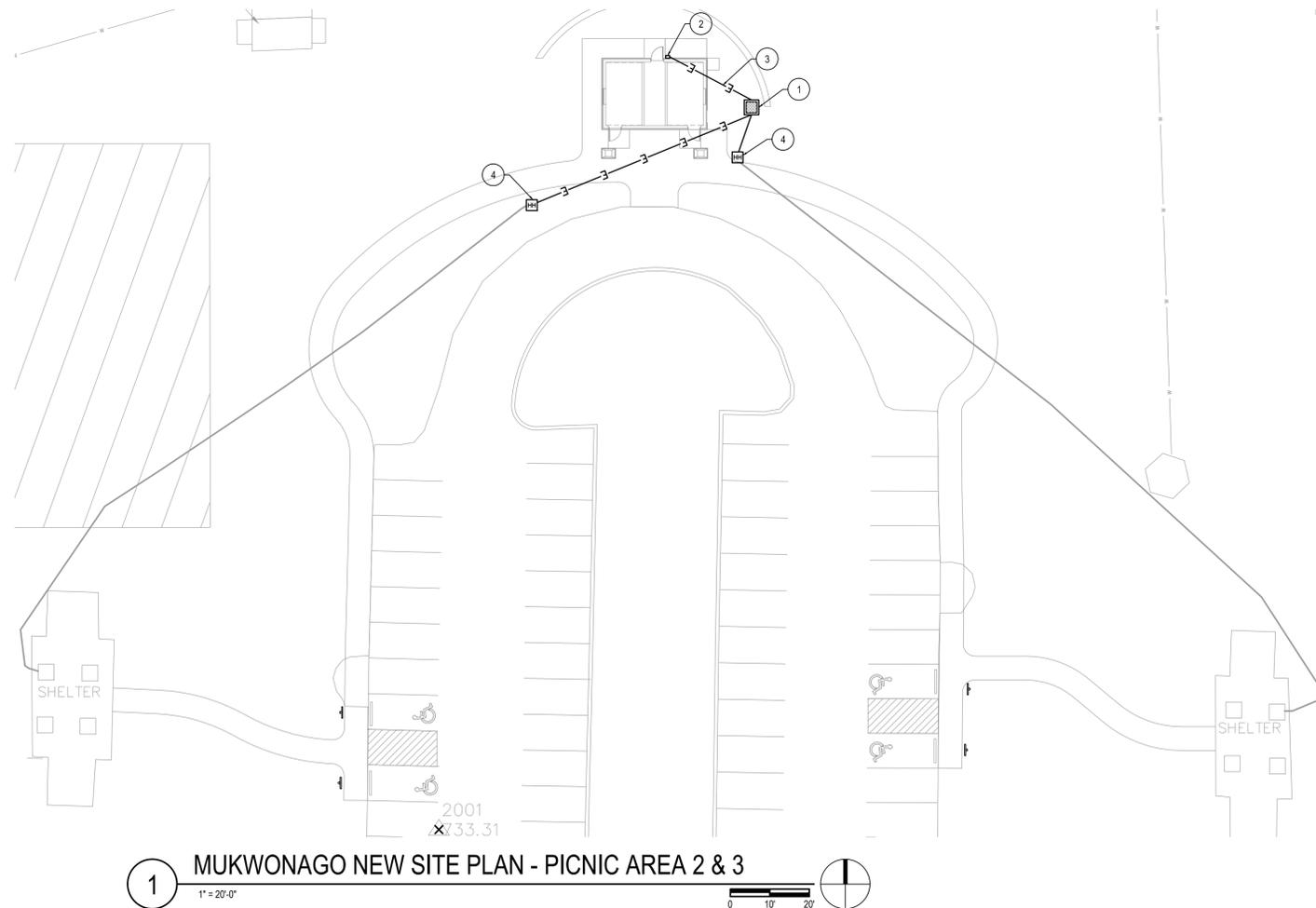
DEMO SHEET NOTES:

1. PROPOSED BATHROOM BUILDING LOCATION.
2. EXISTING TRANSFORMER TO BE RELOCATED. CONTRACTOR SHALL COORDINATE RELOCATION OF TRANSFORMER WITH LOCAL UTILITY.
3. PULL BACK EXISTING CONDUCTORS FEEDING SHELTER BUILDINGS.
4. EXISTING UNDERGROUND CONDUIT AND CONDUCTORS TO REMAIN.



NEW SHEET NOTES:

1. PROPOSED LOCATION FOR EXISTING TRANSFORMER. CONTRACTOR SHALL PROVIDE UTILITY APPROVED CONCRETE PAD FOR TRANSFORMER. COORDINATE RELOCATION OF EXISTING TRANSFORMER WITH WE ENERGIES.
2. EC SHALL PROVIDE UTILITY APPROVED, 200A 240/120 1-PHASE, 3-WIRE METER SOCKET.
3. PROVIDE (3) #3/0 AWG AND (1) #6 GROUND IN 2" CONDUIT.
4. PROVIDE 17 X 30 X 24 POLYMER CONCRETE HAND HOLE. EXTEND CONDUCTORS TO NEW TRANSFORMER LOCATION.



Drawn by **HMC**
Checked by **AW**
File **2012010201_E100.dwg**

ELECTRICAL SITE PLAN

E101

LIGHT FIXTURE SCHEDULE

NOTE: SEE SPECIFICATIONS SECTIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING FIXTURE AND INSTALLATION REQUIREMENTS. PROVIDE OPTIONS AND ACCESSORIES REFERENCED BY THE COLUMN TITLED "OPTIONS/ACCESSORIES". MANUFACTURERS LISTED AS ACCEPTABLE SHALL MEET ALL REQUIREMENTS AND FEATURES INDICATED. ACCEPTABLE MANUFACTURERS MUST MEET THE PHOTOMETRIC PERFORMANCE OF THE LISTED UNIT.

ABBREVIATIONS: DW = DRY WALL ES = EXPOSED STRUCTURE LG = LAY-IN GRID P = PENDANT PL = PLASTER PO = POLE R = RECESS S = SURFACE V = VARIES W = WALL MOUNTED

DES	LAMP DATA			DESCRIPTION	LIGHT FIXTURE		VOLTS	MOUNT	CEILING TYPE	FIXTURE DEPTH	OPTIONS / ACCESSORIES	ACCEPTABLE MANUFACTURES	SEE NOTES
	QTY	TYPE	COLOR		MANUFACTURE	CATALOG SERIES							
A	--	LED	--	EXTERIOR LED WALL PACK	DAYBRITE	WTN-24-U-BK	120	W	--	--	---	COOPER, LITHONIA, LSI	1
C	2	F32T8	--	4FT LINEAR FLUORESCENT	LUMINAIRE	VPF-8-4-F32T8-120-CP-GRY-CW-ST/SC-PRS	120	W	--	--	---	COOPER, DAYBRITE, LSI	1
D	1	32W PLT	--	15" SURFACE MOUNT ROUND	KENALL	RHR15-W	120	S	--	--	---	COOPER, DAYBRITE, LSI	1
EBU	2	LED	--	EMERGENCY BATTERY UNIT	LITHONIA	ELMZLED	120	W	--	--	---	COOPER, DAYBRITE, LSI	1

LIGHT FIXTURE SCHEDULE NOTES:

1. SEE ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION AND MOUNTING HEIGHTS.

MOTOR STARTER SCHEDULE

GENERAL ABBREVIATIONS: N/A NOT APPLICABLE, FLA FULL LOAD AMPS, KVA KILOVOLT-AMPERES, KW KILOWATT, HP HORSE POWER, MCA MINIMUM CIRCUIT AMPS, MAN MANUAL START SWITCH, FVNR FULL VOLTAGE NON-REVERSING, FVR FULL VOLTAGE REVERSING, VFD VARIABLE FREQUENCY DRIVE, TS2W TWO SPEED, 2 WINDING, TS1W TWO SPEED, 1 WINDING, DC PROVIDE WITH SPARE SET OF DRY CONTACTS, 2 SETS NORMALLY OPEN & 1 SET NORMALLY CLOSED, DS INTEGRAL DISCONNECT SWITCH, HOA INTEGRAL HAND-OFF-AUTO SELECTOR SWITCH, TS FACE MOUNTED ON-OFF TOGGLE SWITCH, PB FACE MOUNTED ON-OFF PUSH BUTTON SWITCH, PL(G) FACE MOUNTED PILOT LIGHT INDICATING STATUS (COLOR OF LIGHT: G=GREEN, Y=YELLOW, R=RED, W=WHITE), FDS FUSIBLE DISCONNECT SWITCH, NFDS NON-FUSED DISCONNECT SWITCH, CBD CIRCUIT BREAKER DISCONNECT, COMB COMBINATION STARTER, CAP CORD AND PLUG, EM EQUIPMENT MANUFACTURE, EC ELECTRICAL CONTRACTOR, MC MECHANICAL CONTRACTOR, PC PLUMBING CONTRACTOR, FPC FIRE PROTECTION CONTRACTOR

GENERAL NOTES:
 A. OBTAIN SUPPLIERS SHOP DRAWINGS / WIRING DIAGRAMS TO VERIFY LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN.
 B. FURNISH HACR TYPE BREAKERS FOR ALL HVAC EQUIPMENT.
 C. ELECTRICAL CONTRACTOR SHALL INSTALL ALL STARTS AND DISCONNECTS AND PROVIDE ALL WIRING AND CONDUIT NEEDED FOR COMPLETE SYSTEM.
 D. ALL MOTORS SHALL BE PROVIDED WITH A DISCONNECT SWITCH LOCATED PER NEC REQUIREMENTS.

EQUIPMENT NUMBER	LOAD	VOLT	PHASE	LOCATION	DESCRIPTION	FED FROM		BREAKER		BRANCH WIRING				STARTER			DISCONNECT		SEE NOTES
						PANEL	CKT	SIZE	POLE	#	SIZE	GND	CONDUIT	TYPE	FURNISHED BY	ACCESSORIES	TYPE	FURNISHED BY	
1	-	-	-	-	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	6.1 MCA	120	1	102	GF-1	RPIA	6	20	1	2	#12	#12	3/4"	MAN	MC	--	NFDS	MC	1.2
4	9.0 MCA	120	1	102	ERV-1	RPIA	8	20	1	2	#12	#12	3/4"	MAN	MC	--	NFDS	EM	1.2
5	FRAC	120	1	102	MOTORIZED DAMPER	RPIA	27	20	1	2	#12	#12	3/4"	MAN	EM	--	NFDS	MC	1
6	FRAC	120	1	102	MOTORIZED DAMPER	RPIA	27	20	1	2	#12	#12	3/4"	MAN	EM	--	NFDS	MC	1

MOTOR STARTER SCHEDULE NOTES:

1. ELECTRICAL CONTRACTOR TO COORDINATE EXACT REQUIREMENTS AND LOCATION WITH MECHANICAL CONTRACTOR.
 2. OCCUPANCY SENSOR IN ROOM SHALL BE PROVIDED WITH AUXILIARY CONTACTS TO CONTROL MECHANICAL EQUIPMENT. EC SHALL COORDINATE WITH MECHANICAL CONTRACTOR WITH EXACT REQUIREMENTS.

SPECIAL PURPOSE OUTLET SCHEDULE

#	SERVING	LOC	FEED FROM		BREAKER		WIRING				VOLT	PHASE	LOAD	SEE NOTE
			PANEL	CIRCUIT	SIZE	POLE	#	SIZE	GND	COND				
1	ELECTRIC HAND DRYERS	100	RPIA	21	20	1	2	#12	#12	3/4"	120	1		1.6
2	ELECTRIC HAND DRYERS	104	RPIA	23	20	1	2	#12	#12	3/4"	120	1		1.6
3	WATER HEATER (POU-1)	102	RPIA	9,11,13,15	40	2	2	#8	#10	3/4"	240	1	15 KW	2.7,9
4	WATER HEATER (POU-2)	102	RPIA	-	40	2	2	#8	#10	3/4"	240	1	6.5 KW	2.9,10
5	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-
6	WATER SOFTNER	102	RPIA	29	20	1	2	#12	#12	3/4"	120	1	1.5 KW	2.8
FS	FLUSH SENSOR	100 / 104	RPIA	25	20	1	2	#12	#12	3/4"	120	1		2
LS	LAVATORY SENSOR	100 / 104	RPIA	25	20	1	2	#12	#12	3/4"	120	1		2

SPECIAL PURPOSE OUTLET SCHEDULE NOTES:

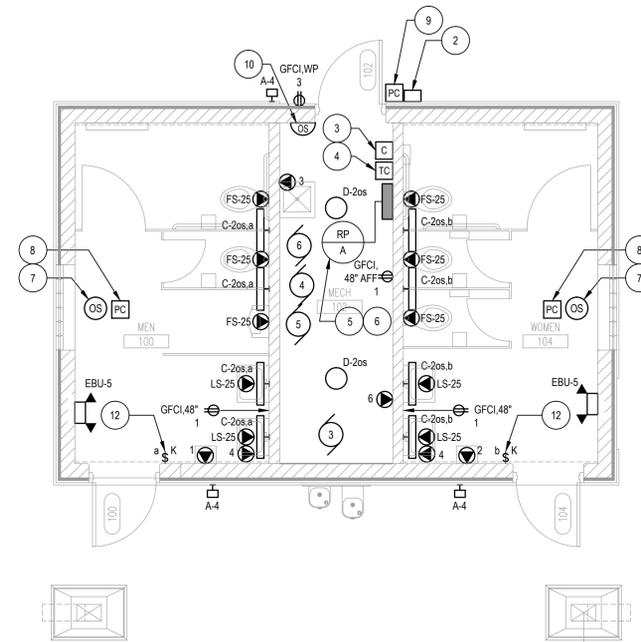
1. EC SHALL COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ARCHITECT PRIOR TO ROUGH-IN.
 2. EC SHALL COORDINATE EXACT LOCATION AND REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
 3. EC SHALL COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
 4. EC SHALL INSTALL NON-FUSED DISCONNECT SWITCH PROVIDED BY MC.
 5. EC SHALL INSTALL MANUAL STARTER PROVIDED BY MC.
 6. EC SHALL INSTALL AND WIRE ELECTRIC HAND DRYER PROVIDED BY OTHERS.
 7. PROVIDE (2) DEDICATED CIRCUITS PER MANUFACTURE.
 8. EC SHALL PROVIDE 20A 120V 1P DUPLEX RECEPTACLE.
 9. PROVIDE DISCONNECT SWITCH ADJACENT TO WATER HEATER, ONE PER CIRCUIT.
 10. SEE PANEL SCHEDULE FOR CIRCUIT.

GENERAL NOTES:

1.) ALL CIRCUITS TO BE FED FROM PANEL "RPIA". UOI. SEE PANEL SCHEDULE FOR FURTHER DETAILS.
 2.) SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS PERTAINING TO TYPE S2 REQUIREMENTS.

SHEET NOTES:

1. NOT USED
 2. EC TO PROVIDE 200A 240V/120 1-PHASE, 3-WIRE METER SOCKET. COORDINATE EXACT REQUIREMENTS WITH LOCAL UTILITY
 3. EC TO PROVIDE ELECTRICALLY HELD LIGHTING CONTACTOR SQUARE D MODEL LG40 OR APPROVED EQUAL.
 4. EC TO PROVIDE ELECTRONIC ASTRONOMICAL TIME CLOCK IN AN INTERMATIC MODEL ET8215C OR APPROVED EQUAL. EC SHALL WIRE FOR PHOTOCELL "ON" AND TIME CLOCK "OFF" CONFIGURATION.
 5. EC TO PROVIDE 200A 240V 1P 3W PANEL SEE PANEL SCHEDULE ON SHEET E300 FOR FURTHER REQUIREMENTS. FOR MINOOKA PARK AREA1&2 REFER TO PANEL "RPIA1" SCHEDULE. FOR MINOOKA PARK AREA 5 REFER TO PANEL "RPIA5" SCHEDULE. FOR MUKWONAGO PARK AREA 2&3 REFER TO PANEL "RPIA2" SCHEDULE.
 6. PROVIDE (3) #30 AWG AND (1) #6 GROUND IN 2" CONDUIT FROM METER SOCKET TO ELECTRICAL PANEL.
 7. EC PROVIDE CEILING MOUNTED OCCUPANCY SENSOR WATTSTOPPER DT-300 OR APPROVED EQUAL. EC SHALL WIRE OCCUPANCY SENSOR AFTER KEYED SWITCH
 8. EC SHALL PROVIDE PHOTOCELL WATTSTOPPER LS-102 FOR INTERIOR LIGHT CONTROL. PHOTOCELL TO TURN "OFF" FIXTURES FOR DAYLIGHT THROUGH SKY LIGHT.
 9. EC SHALL PROVIDE PHOTOCELL WATTSTOPPER FOR EXTERIOR LIGHTING CONTROL. EC SHALL WIRE FOR PHOTOCELL "ON" AND TIME CLOCK "OFF" CONFIGURATION.
 10. EC SHALL PROVIDE A SINGLE POLE OCCUPANCY SENSOR WALL SWITCH MODEL DW-100 OR APPROVED EQUAL.
 11. NOT USED
 12. EC SHALL PROVIDE KEYED SWITCH. SWITCH SHALL BE WIRED AHEAD OF OCCUPANCY SENSOR.



1 TYPE S2 - ELECTRICAL FLOOR PLAN
 1/4" = 1'-0"

Engberg Anderson
 MILWAUKEE • MADISON • TUCSON

GRÄEF
 ONE HONEY CREEK CORPORATE CENTER
 125 SOUTH 84TH STREET, SUITE 401
 MILWAUKEE, WI 53214-1470
 P: 414.259.1590
 F: 414.259.0037
 www.graef-usa.com

**Waukesha County Parks
 Minooka & Mukwonago
 Park Restrooms**

Minooka Park | Mukwonago Park
 1927 E. Sunset Dr. | S100 W31900 County Hwy L0
 Waukesha, WI 53186 | Mukwonago, WI 53149
 Owner
 Waukesha County Parks & Land Use
 515 West Moreland Boulevard
 Waukesha, Wisconsin 53188
 Project No **122219.00**

Issued For:
 No. Description Date
01 Issued for Bidding 02-04-2014

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 Checked by **AW**
 File **2012010201_E200.dwg**

**ELECTRICAL FLOOR PLAN &
 SCHEDULES**

PANELBOARD SCHEDULE: RP/A2

VOLTAGE:	240/120	MAIN TYPE:	MCB	BUS MATERIAL:	COPPER
PHASE/WIRE:	1P / 3W	MAIN RATING:	200 AMPS	BUS RATING:	225 AMPS
SVC. ENTRANCE LABEL:	YES	TVSS:	NO	ENCLOSURE:	NEMA 1
MINIMUM AIC:	NO	FEED-THRU LUGS:	NO	200% NEUTRAL:	NO
IS SERIES RATED ALLOWE	NO	MOUNTING:	SURFACE	PANELBOARD TYPE:	BRANCH CIRCUIT

CCT #	LOAD TYPE	LOAD DESCRIPTION	VA	TRIP / POLE		TRIP / POLE	VA	LOAD TYPE	LOAD DESCRIPTION	CCT #	
1	R	RECEPTACLES	540	20/1	A	A	20/1	320	L	INTERIOR LIGHTS	2
3	R	EXTERIOR RECEPTACLES	180	20/1	B	B	20/1	108	L	EXTERIOR LIGHTS	4
5	L	EBU	5	20/1	A	A	20/1	732	M	MOTOR #3	6
7		SPARE		20/1	B	B	20/1	1,080	LM	MOTOR #4	8
9	E	SPO #3	3,750	40/2	A	A	20/1			SPARE	10
11	E	--	3,750	X	B	B	40/2	3,250	E	SPO #4	12
13	E	SPO #3	3,750	40/2	A	A	X	3,250	E	--	14
15	E	--	3,750	X	B	B	20/1			SPARE	16
17	E	SPO #4	3,250	40/2	A	A	20/1			SPARE	18
19	E	--	3,250	X	B	B	20/1			SPARE	20
21	E	SPO #1	1,749	20/1	A	A	20/1			SPARE	22
23	E	SPO #2	1,749	20/1	B	B	20/1			SPARE	24
25	E	SPO #LS & SPO #FS	500	20/1	A	A	20/1			SPARE	26
27	M	MOTOR #5 & #6	500	20/1	B	B	20/1			SPARE	28
29	E	SPO #6	500	20/1	A	A	20/1			SPARE	30
ABBREVIATIONS:		PHASE		A		B		TOTAL CONNECTED (VA):		35,963	
ST = SHUNT TRIP				18,346		17,617		TOTAL CONNECTED (A):		149.85	
GFCI = GROUND FAULT CIRCUIT INTERRUPTOR		LOAD TYPE ABBREVIATIONS						TOTAL DEMAND (VA):		35,153	
HACR = HEATING AND AIR-CONDITIONING RATED		R = RECEPTACLE		M = MOTOR				TOTAL DEMAND (A):		146.47	
HB = HANDLE-BLOCKING DEVICE		L = LIGHTING		LM = LARGEST MOTOR							
		E = EQUIPMENT		K = KITCHEN							

PANEL SCHEDULE NOTES:

- PANEL SHALL BE INSTALLED IN THE MECHANICAL ROOM 102 OF MUKWONAGO BATHROOM BUILDING IN AREA 2&3.

PANELBOARD SCHEDULE: RP/A1

VOLTAGE:	240/120	MAIN TYPE:	MCB	BUS MATERIAL:	COPPER
PHASE/WIRE:	1P / 3W	MAIN RATING:	300 AMPS	BUS RATING:	400 AMPS
SVC. ENTRANCE LABEL:	YES	TVSS:	NO	ENCLOSURE:	NEMA 1
MINIMUM AIC:	NO	FEED-THRU LUGS:	NO	200% NEUTRAL:	NO
IS SERIES RATED ALLOWE	NO	MOUNTING:	SURFACE	PANELBOARD TYPE:	BRANCH CIRCUIT

CCT #	LOAD TYPE	LOAD DESCRIPTION	VA	TRIP / POLE		TRIP / POLE	VA	LOAD TYPE	LOAD DESCRIPTION	CCT #	
1	R	RECEPTACLES	540	20/1	A	A	20/1	320	L	INTERIOR LIGHTS	2
3	R	EXTERIOR RECEPTACLES	180	20/1	B	B	20/1	108	L	EXTERIOR LIGHTS	4
5	L	EBU	5	20/1	A	A	20/1	732	M	MOTOR #3	6
7		SPARE		20/1	B	B	20/1	1,080	LM	MOTOR #4	8
9	E	SPO #3	3,750	40/2	A	A	20/1	1,920	L	EXISTING PAVILION 1 LIGHTS	10
11	E	--	3,750	X	B	B	40/2	3,250	E	SPO #4	12
13	E	SPO #3	3,750	40/2	A	A	X	3,250	E	--	14
15	E	--	3,750	X	B	B	20/1	1,440	R	EXISTING PAVILION 1 RECEPTACLES (GFCI)	16
17	E	SPO #4	3,250	40/2	A	A	20/1	1,440	R	EXISTING PAVILION 1 RECEPTACLES (GFCI)	18
19	E	--	3,250	X	B	B	20/1	1,920	L	EXISTING PAVILION 2 LIGHTS	20
21	E	SPO #1	1,749	20/1	A	A	20/1	1,440	R	EXISTING PAVILION 2 RECEPTACLES (GFCI)	22
23	E	SPO #2	1,749	20/1	B	B	20/1	1,440	R	EXISTING PAVILION 3 RECEPTACLES (GFCI)	24
25	E	SPO #LS & SPO #FS	500	20/1	A	A	20/1			SPARE	26
27	M	MOTOR #5 & #6	500	20/1	B	B	20/1			SPARE	28
29	E	SPO #6	500	20/1	A	A	20/1			SPARE	30
ABBREVIATIONS:		PHASE		A		B		TOTAL CONNECTED (VA):		45,563	
ST = SHUNT TRIP				23,146		22,417		TOTAL CONNECTED (A):		189.85	
GFCI = GROUND FAULT CIRCUIT INTERRUPTOR		LOAD TYPE ABBREVIATIONS						TOTAL DEMAND (VA):		45,833	
HACR = HEATING AND AIR-CONDITIONING RATED		R = RECEPTACLE		M = MOTOR				TOTAL DEMAND (A):		190.97	
HB = HANDLE-BLOCKING DEVICE		L = LIGHTING		LM = LARGEST MOTOR							
		E = EQUIPMENT		K = KITCHEN							

PANEL SCHEDULE NOTES:

- PANEL SHALL BE INSTALLED IN THE MECHANICAL ROOM 102 OF MINOOKA BATHROOM BUILDING IN AREA 1&2.

PANELBOARD SCHEDULE: RP/A5

VOLTAGE:	240/120	MAIN TYPE:	MCB	BUS MATERIAL:	COPPER
PHASE/WIRE:	1P / 3W	MAIN RATING:	200 AMPS	BUS RATING:	225 AMPS
SVC. ENTRANCE LABEL:	YES	TVSS:	NO	ENCLOSURE:	NEMA 1
MINIMUM AIC:	NO	FEED-THRU LUGS:	NO	200% NEUTRAL:	NO
IS SERIES RATED ALLOWE	NO	MOUNTING:	SURFACE	PANELBOARD TYPE:	BRANCH CIRCUIT

CCT #	LOAD TYPE	LOAD DESCRIPTION	VA	TRIP / POLE		TRIP / POLE	VA	LOAD TYPE	LOAD DESCRIPTION	CCT #	
1	R	RECEPTACLES	540	20/1	A	A	20/1	320	L	INTERIOR LIGHTS	2
3	R	EXTERIOR RECEPTACLES	180	20/1	B	B	20/1	108	L	EXTERIOR LIGHTS	4
5	L	EBU	5	20/1	A	A	20/1	732	M	MOTOR #3	6
7		SPARE		20/1	B	B	20/1	1,080	LM	MOTOR #4	8
9	E	SPO #3	3,750	40/2	A	A	20/1	1,440	R	EXISTING PAVILION RECEPTACLES	10
11	E	--	3,750	X	B	B	40/2	3,250	E	SPO #4	12
13	E	SPO #3	3,750	40/2	A	A	X	3,250	E	--	14
15	E	--	3,750	X	B	B	20/1			SPARE	16
17	E	SPO #4	3,250	40/2	A	A	20/1			SPARE	18
19	E	--	3,250	X	B	B	20/1			SPARE	20
21	E	SPO #1	1,749	20/1	A	A	20/1			SPARE	22
23	E	SPO #2	1,749	20/1	B	B	20/1			SPARE	24
25	E	SPO #LS & SPO #FS	500	20/1	A	A	20/1			SPARE	26
27	M	MOTOR #5 & #6	500	20/1	B	B	20/1			SPARE	28
29	E	SPO #6	500	20/1	A	A	20/1			SPARE	30
ABBREVIATIONS:		PHASE		A		B		TOTAL CONNECTED (VA):		37,403	
ST = SHUNT TRIP				19,786		17,617		TOTAL CONNECTED (A):		155.85	
GFCI = GROUND FAULT CIRCUIT INTERRUPTOR		LOAD TYPE ABBREVIATIONS						TOTAL DEMAND (VA):		36,593	
HACR = HEATING AND AIR-CONDITIONING RATED		R = RECEPTACLE		M = MOTOR				TOTAL DEMAND (A):		152.47	
HB = HANDLE-BLOCKING DEVICE		L = LIGHTING		LM = LARGEST MOTOR							
		E = EQUIPMENT		K = KITCHEN							

PANEL SCHEDULE NOTES:

- PANEL SHALL BE INSTALLED IN THE MECHANICAL ROOM 102 OF MINOOKA BATHROOM BUILDING IN AREA 5.



MILWAUKEE • MADISON • TUCSON



ONE HONEY CREEK CORPORATE CENTER
125 SOUTH 84TH STREET, SUITE 401
MILWAUKEE, WI 53214-1470

P: 414.259.1590
F: 414.259.0037
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Owner
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ELECTRICAL SCHEDULES

