Village of Germantown ...Willkommen

Fee must accompany application
- ☐ $700 Minor Addition
- ☐ $1,240 Construction <10,000 SF
- ☐ $2,095 Construction 10,000 SF to 50,000
- ☒ $3,460 Industrial Construction >50,000 SF
- ☐ $3,460 Commercial Construction >50,000
- ☐ $200 Plan Commission Consultation
- ☐ $125 Fire Department Plan Review

PAID JK DATE 8.19.19

SITE PLAN REVIEW APPLICATION

Pursuant to Section 17.43 of the Municipal Code

Please read and complete this application carefully. All applications must be signed and dated.

1 APPLICANT OR AGENT

Jay Knetter
JKnetter Architects, Inc.
N16 W23217 Stone Ridge Dr.
Suite 300
Waukesha, WI. 53188
Phone (262) 278-4383
E-Mail jayke@jaknetter.com

PROPERTY OWNER

Erica Roberts
Glue Dots International
W186 N11676 Morse Drive
Germantown, WI. 53022
Phone (262) 437-7885
E-Mail eroberts@gluedots.com

2 PROPERTY ADDRESS

W186 N11676 Morse Drive | Glue Dots International

3 NEIGHBORING USES – Specify name and type of use, e.g. Enviro Tech – Industrial, Smith – Residential, etc.

North	South	East	West
Multi-spec Industrial	Germantown Fire Dept.	KLH Industries Inc.	Mees Industrial

4 READ AND INITIAL THE FOLLOWING:

JK I am aware of the Village of Germantown ordinance requiring fire sprinklers in most new construction.

JK I understand that all new development is subject to Impact and/or Connection Fees that must be paid before building permits will be issued.

JK I understand that an incomplete application will be withdrawn from the Plan Commission agenda and that all resubmissions to the Plan Commission are subject to a new application fee.

5 SIGNATURES – ALL APPLICATION MUST BE SIGNED BY OWNER!

Applicant 8.19.19 Date

Owner 8.19.19 Date

architecture
interior design
JAKnetter Architects

N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

August 19, 2019

Jeff Retzlaff
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

RE: Proposed Glue Dots International Building Expansion Design Narrative
W186 N11676 Morse Drive

Jeff,
On behalf of Glue Dots International (an Ellsworth Company) we are submitting a Site Plan design package to the Village of Germantown for review and approval at the October 14th Plan Commission meeting. Glue Dots International (GDI) has made a commitment to upgrading and expanding their existing facility in the Germantown Business Park to include a 68,387 SF building expansion. This building addition expansion will include the demolition of one of their adjacent facilities, The Glue Factory, in order to maximize usable area and connectivity of resources within a single building. As a result, there will be the need to combine (3) parcels into one CSM. The Glue Dots International expansion will be the next step in creating a single campus industrial facility that will merge (3) businesses together (GDI, The Glue Factory and Heartland Adhesives) while promoting the Ellsworth Adhesives model of good design aesthetics to showcase their expertise in the marketplace. GDI is a specialty manufacturer with 50 employees focused on pressure sensitive and hotmelt adhesives, converting services, and instant adhesive products for the industrial, commercial and consumer marketplace.

The building expansion will maintain painted load-bearing precast panels in a contextual manner with the same painting scheme as the current building. There will be a new central office area that will house the operations team and utilize a second floor mezzanine. Decorative horizontal metal panel will be utilized to help identify the office area and provide additional interest in breaking up the long façade. The south end of the addition will provide a secluded loading dock area necessary for raw and finish good deliveries and shipping. This dock area will provide on-site maneuvering of trucks with a right turn only access drive off of Maple Road. Additionally, this will assist in fire department access. Additional car parking will be extended along Maple Road with landscaping and site lighting.

Please feel free to contact me directly with any questions at 262-751-0840.
Sincerely,
JAKnetter ARCHITECTS, Inc.

Jay Knetter, AIA
President

SITE PLAN REVIEW CHECKLIST

Pursuant to Section 17.43 of the Municipal Code

This checklist provides a summary of requirements found in the Municipal Code. It is intended purely as a guide for developers and should not substitute for a full review of the Code and applicable regulations. (Revised 1/02)

GENERAL INFORMATION

- [x] Provide Completed Checklist with submittal
- [x] Names and addresses of owner/developer/designer
- [x] Graphic scale, north arrow
- [x] Location sketch
- [x] Size of site (gross and net acreage)
- [x] Existing zoning
- [x] Adjacent zoning and uses
- [ ] Number of residents (subdivisions)
- [x] Number of employees 50 employees @ 6pl.

EXISTING SITE INFORMATION

- [x] Dimensions of site and lot lines (pipes found, pipes set, monuments)
- [x] Existing grades (2' contours minimum)
- [x] Adjacent property grades (within 10' minimum of property lines)
- [x] Adjacent structures (within 20' minimum of property lines)
- [x] Drainage systems and structures
- [x] Natural features (woods, streams, lakes, ponds, outcroppings)
- [x] Wetland boundaries (provide date of staking) N.A.
- [x] Floodplain elevation and boundaries
- [x] Environmental concerns (underground tanks, etc)
- [x] Roads, curbs, parking lots, pavement areas
- [x] Structures (location, size)
- [x] Rights-of-Way (existing/ultimate)
- [x] Easements (drainage, utility)
- [x] Existing utilities (sanitary, water, electric, gas, telephone)
- [x] Benchmark locations and elevations
- [x] Location of fences, wells, borings, etc.

ARCHITECTURAL PLANS

- [x] Existing building location
- [x] Existing building elevations/materials
- [x] Proposed use (use list from Section 17.45) # 10
- [x] Statement of design intent (narrative)
- [x] Proposed floor plans (dimension)
- [x] Square footage (total and individual rooms/stores)
- [x] Proposed elevations (dimension)
- [x] Proposed building height
- [x] Proposed materials and colors (material sample board required for new construction) will bring to meeting
- [x] Proposed signage (elevations, color, square footage, height, construction material, lighting)
- [x] Details of any special features

PROPOSED SITE PLAN

- [x] Grading and spot elevations
- [x] Erosion control measures (silt fencing, hay bales, rip-rap, tracking mat, stockpile locations)
- [x] Stormwater management
  - stormwater management design report
  - general drainage pattern
  - swales w/ arrows for direction of flow
  - pond design with outfalls
  - culverts (location/size)
- [x] Utilities (size, invert elevations, length, slope, etc.)
  - sanitary
  - water
  - stormsewer
- [x] Building location (dimension)
- [x] Building elevation (finished grade)
- [x] Location of proposed signage
- [x] Details of outside storage (including trash receptacles)
- [x] Setbacks (clearly marked and dimensioned)
- [x] Vehicular entrances (dimension to centerline of nearest intersection)
- [x] Streets (dimension and direction for one-ways)
- [x] Curve radii
- [x] Sidewalks (dimension)
- [x] Parking areas (show striping/spot elevations)
- [x] Parking setback from property line
- [x] Loading areas (dimension)
- [x] Lot coverage
  - Square footage total
  - Impervious surfaces total (%)
  - Green space total (%)
  - Percent permitted (over/under %)
- [x] Municipal utility connections
  - Sanitary sewer (pipe size/elevations)
  - Water (size, valve location, elevations)
  - Location of hydrants
- [x] Easement for public water mains

LIGHTING PLAN

- ☑ Major improvements for context
- ☑ Location/nature of existing fixtures
- ☑ Location of proposed fixtures
- ☑ Photometric report (to scale on plan)
- ☑ Manufacturers cut-sheets of all fixtures
- ☑ Lighting schedule
  - key to plan
  - number/type of fixtures
  - output (wattage)
- ☑ Installation details as appropriate

LANDSCAPING PLAN

- ☑ Major improvements for context (building, drives, walks)
- ☑ Proposed outdoor amenities (benches, paths, etc.)
- ☑ Existing vegetation
  - Species
  - Size
  - Approximate canopy in plan
- ☑ Vegetation to be destroyed
  - List and show location
- ☑ Proposed method of saving existing vegetation during construction

- ☑ Proposed landscape features (berms, fountains)
- ☑ Existing/proposed lighting
- ☑ Irrigation/watering systems (locate outlets)
- ☑ Plant lists or schedules
  - Keyed to plan
  - Number of each species
  - Size when planted (caliper)
- ☑ Installation details/staking

MODEL SUBMITTAL INCLUDES THE FOLLOWING PLANS:

1. Cover / Title Page
2. Existing Conditions Survey
3. General Site Plan
4. Grading, Paving & Erosion Control Plan
5. Utility Plan
6. Site Details (curbing, catch basins, detention ponds, pavement, erosion control and sign details)
7. Landscape Plan
8. Landscape details (planting schedule, berming cross-sections, method of installation)
9. Lighting Plan
10. Floor Plan
11. Exterior Building Elevations
12. Building Material Sample Board

In addition to the items on this list, Village Staff and/or the Plan Commission may require additional drawings and data to be submitted for approval.

If any public improvements or work is to be done in the Public Right-of-Way, the Village will require that a Developer's Agreement be submitted and approved by the Village Board.

VILLAGE OF GERMANTOWN PLAN COMMISSION SUBMITTAL FOR:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DRIVE

GERMANTOWN, WI 53022

JAK architecture + interior design

JAKnetter Architects

N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

ISSUANCES

VILLAGE OF GERMANTOWN PLAN COMMISSION SUBMITTAL	19 AUGUST 2019

19 AUGUST 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

COVER

TS100

ABBREVIATIONS

A	
A/C	air condition
A/E	Architect/Engineer
ACT	acoustical ceiling tile
ADDL	additional
ADD	addendum
AFC	above finished counter
AFF	above finished floor
AFG	above finished grade
AFS	above finished slab
ALT	alternate
ALUM	aluminum
APPD	approved
APT	apartment
AP	acoustic panel
ASC	above suspended ceiling
B	
BB	baseboard
BB	bulletin board
BLDG	building
BLT	borrowed light
BLW	below
BPL	base plate
BO	bottom of
BOS	bottom of steel
C	
CB	catch basin
CB	construction bulletin
CF/CI	contractor furnished, contractor installed
CF/OI	contractor furnished, owner installed
CF/VI	contractor furnished, vendor installed
CG	corner guard
CH BD	chalkboard
CIP	cast-in-place
CJ	control joint
C	(continued)
CNJ	construction joint
CL	centerline
CLR	ceiling clear
CM	construction management
CMU	concrete masonry unit
CO	cleanout
COL	column
CONC	concrete
CORR	corridor
CONT	continuous
CPT	carpet
CSWK	casework
CT	ceramic tile
CTB	ceramic tile base
D	
DEMO	demolition
DEPT	department
DF	drinking fountain
DFS	door and frame schedule
DIA	diameter
DP	decorative panel
DR	door
DR FR	door frame
DTL	detail
DS	downspout
DW	dishwasher
DWG	drawing
E	
E	east
EIFS	exterior insulation & finish system
EL	elevation
EJ	expansion joint
ELEC	electric, electrical
ELEV	elevator
EPS	expanded polystyrene board
EQ	equal
EXIST	existing
EXP	expand, expansion
EXT	exterior
F	
F	female
F	filler
FA	fire alarm
FA	fluid applied
FAB	fabric
FAX	facsimile
FC	file cabinet
FD	floor drain
FEC	fire extinguisher cabinet
FHC	fire hose cabinet
FLR	floor
FM	factory mutual
FM	floor mat
FO	finished opening
FP	fire protection
FP	fireproof
FPL	fireplace
FT	feet, foot
FTG	footing
G	
GA	gauge
GALV	galvanized
GB	grab bar
GC	general contractor
GL	glass
GLT	glass tile
GLU LAM	glue laminated wood
GR	grade, grading
GT	grout
GYP BD	gypsum board
H	
HB	hose bibb
HC	hollow core
HCP	handicapped
HM	hollow metal
HORIZ	horizontal
HSKP	housekeeping
HGT	height
HVAC	heating,ventilating & air conditioning
HW	hot water
HWY	highway
I	
ID	inside diameter
INSUL	insulation
INT	interior
J	
JA	janitor sink
L	
LAM	laminate
LAV	lavatory
LL	live load
M	
MAX	maximum
MC	modular carpet tile
MECH	mechanical
MFR	manufacturer
MICRO	microwave oven
MIN	minimum
MIN	minute
MISC	miscellaneous
MO	masonry opening
MS	mop sink
MTL	metal
N	
N	north
NA	not applicable
NIC	not in contract
NO	number
NM	nominal
NS	no scale
NTS	not to scale
O	
OC	on center
OD	outside diameter
OF/CI	owner furnished, contractor installed
OF/OI	owner furnished, owner installed
OF/VI	owner furnished, vendor installed
OH DR	overhead (coiling) door
OPH	opposite hand
OPNG	opening
P	
PLYWD	plywood
PNL	panel
PREFAB	prefabricated
PREFIN	prefinished
PSI	pounds per square inch
PT	paint, painted
PTN	partition
Q	
QT	quary tile
QTB	quarry tile base
R	
RB	resilient base
RCP	reflected ceiling plan
RD	roof drain
REBAR	reinforcing steel bars
REC	recess
REF	reference
REF	refrigerator
RF	resilient flooring
REV	revision
RFS	room finish schedule
RO	rough opening
S	
S	south
SAN	sanitary
SC	sealed concrete
SC	solid core
SF	square foot
SIM	similar
SS	solid surface
SST	stainless steel
ST	stain
ST	stair
STN	stone
STNB	stone base
STRUCT	structure
T	
T&M	time & materials
TEMP	temperature
TER	terrazzo
TERB	terrazzo base
TFF	top of finish floor
TKBD	tackboard
TO	top of
TOB	top of beam
TOC	top of concrete
TOJ	top of joist
TOPO	topography
TOS	top of slab
TOS	top of steel
TV	television
TYP	typical
U	
UNO	unless noted otherwise
V	
VEND	vending machine
VERT	vertical
VF/CI	vendor furnished, contractor installed
VF/OI	vendor furnished, owner installed
VF/VI	vendor furnished, vendor installed
VNR	veneer
VIF	verify in field
W	
W	west
W/	with
W/O	without
WC	water closet
WC	wall covering
WD	wood
WDB	wood base
WDV	wood veneer
WH	water heater
WP	wall protection
WP	workpoint
WT	window treatment
X	
XPS	extruded polystyrene board (insulated)

PROJECT TEAM

OWNER
GLUE DOTS INTERNATIONAL

W186N11676 MORSE DRIVE
GERMANTOWN, WI 53022
PHONE: (262) 437-7885

PROJECT CONTACT: ERICA ROBERTS, VP
DIRECT PHONE: (262) 422-3883
EMAIL ADDRESS: eroberts@gluedots.com

OWNER'S REP
MC GROUP

N19W24200 RIVERWOOD DRIVE
WAUKESHA, WI 53188
PHONE: (262) 522-7000

PROJECT CONTACT: RIC MILLER
DIRECT PHONE: (262) 227-4895
EMAIL ADDRESS: ricmiller@mcgroup-gbs.com

GENERAL CONTRACTOR
MIRON CONSTRUCTION

10700 RESEARCH DRIVE, STE 100
MILWAUKEE, WI 53226
PHONE: (414) 308-1510
FAX: (414) 431-0933

PROJECT CONTACT: ANDRE LORENZEN
DIRECT PHONE: (414) 308-1523
EMAIL ADDRESS:andre.lorenzen@miron-construction.com

CIVIL ENGINEERING
HARDWOOD ENGINEERING CONSULTANTS

255 NORTH 21ST STREET
MILWAUKEE, WI 53233
PHONE: (414) 475-5554
FAX: (414) 773-9240

PROJECT CONTACT: TOM OLEJNICZAK, PE
DIRECT PHONE: (414) 918-1240
EMAIL ADDRESS: tom.olejniczak@hecl.com

LANDSCAPE
HARDWOOD ENGINEERING CONSULTANTS

255 NORTH 21ST STREET
MILWAUKEE, WI 53233
PHONE: (414) 475-5554
FAX: (414) 773-9240

PROJECT CONTACT: TOM DISALVO, ASLA
DIRECT PHONE: (414) 918-1454
EMAIL ADDRESS: tom.disalvo@hecl.com

SITE LIGHTING
HARDWOOD ENGINEERING CONSULTANTS

255 NORTH 21ST STREET
MILWAUKEE, WI 53233
PHONE: (414) 475-5554
FAX: (414) 773-9240

PROJECT CONTACT: ERIK KOPP
DIRECT PHONE: (141) 918-1234
EMAIL ADDRESS: Erik.Kopp@hecl.com

ARCHITECTURAL
JAKnetter ARCHITECTS

N16 W23217 STONE RIDGE DRIVE, STE 300
WAUKESHA, WI 53188
PHONE: (262) 518-9800

PROJECT CONTACT: JAY KNETTER, AIA
DIRECT PHONE: (262) 278-4383
EMAIL ADDRESS: jayk@jaknetter.com
PROJECT CONTACT: DENNIS KLINGEMANN
DIRECT PHONE: (262) 278-4767
EMAIL ADDRESS: dennisk@jaknetter.com

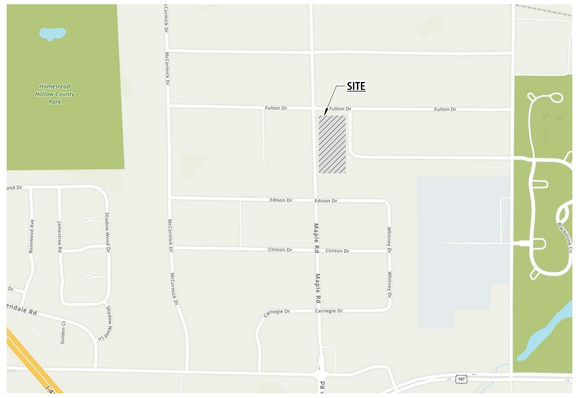
SHEET INDEX

PROJECT DATA

PROJECT DATA	
OWNER	
	GLUE DOTS INTERNATIONAL (AN ELLSWORTH COMPANY)
LOCATION	
MUNICIPALITY:	GERMANTOWN
COUNTY:	WASHINGTON
STATE:	WISCONSIN
APPLICABLE BUILDING CODES	
	WISCONSIN COMMERCIAL BUILDING CODE 2015 IBC AS MODIFIED BY CHAPTERS SPS 361-366
	2015 INTERNATIONAL EXISTING BUILDING CODE
	VILLAGE OF GERMANTOWN M-1 LIMITED INTERNATIONAL DISTRICT.
CONSTRUCTION CLASSIFICATION	
	IIB
OCCUPANCY GROUP	
	(B) BUSINESS, (S-1) MODERATE-HAZARD STORAGE, (F-1) MODERATE-HAZARD FACTORY, (H-3) STORAGE
PROJECT TYPE	
	BUILDING ADDITION
NUMBER OF STORIES	
	1 + MEZZANINE
BLDG ADDITION GROSS AREA (SQ FT)	
	68,387 SF, W/ 6,003 SF OFFICE MEZZANINE AND 2,150 SF STORAGE MEZZANINE
FIRE PROTECTION	
FIRE ALARM	COMPLETE
FIRE SUPRESSION:	COMPLETE
MONITORING TYPE	REMOTE SUPERVISION
NFPA STANDARD USED	13
FIRE RESISTIVE RATINGS	
STAIR ENCLOSURES	1 HOUR
ELEVATOR ENCLOSURES	1 HOUR
FLOORS	0 HOUR
ROOFS	0 HOUR
EXTERIOR WALLS	0 HOUR
ELEVATOR EQUIPMENT ROOMS	1 HOUR
NON-SPRINKLERED PRIMARY ELECTRICAL ROOM	1 HOUR

BUILDING DESCRIPTION AND INFORMATION	
1.	THIS 68,387 SF BUILDING ADDITION HAS BEEN DESIGNED WITH THE INTENT OF SUPPORTING THE EXISTING INDUSTRIAL WAREHOUSE & ADHESIVES PROCESS OF GOODS FOR GLUE DOTS INTERNATIONAL.
2.	ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES. MAINTAIN CODE REQUIRED FIRE RESISTANCE RATINGS AND ENCLOSURES.
3.	ALL EGRESS DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF KEY OR SPECIAL KNOWLEDGE.
4.	THIS BUILDING IS COMPLETELY SPRINKLERED.
5.	ALL CONTRACTORS AND TRADES TO REFER TO ALL SHEETS OF THE SET FOR INFORMATION TO COMPLETE THEIR WORK.
6.	ALL CONSTRUCTION AND/OR TRADES MUST COORDINATE THEIR WORK AND LOCATION WITH OTHER CONTRACTORS AND/OR TRADES.
7.	ANY DISCREPANCIES OR UNUSUAL EXISTING CONDITIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF JAK ARCHITECTS FOR FURTHER DIRECTION. DO NOT SCALE DRAWINGS.
8.	THIS BUILDING WILL HAVE EXIT LIGHT SIGNAGE, EMERGENCY LIGHTING, SMOKE DETECTORS, FIRE ALARM, STROBES, AND FIRE EXTINGUISHERS AS REQUIRED BY CODE.
9.	THIS PROJECT WILL HAVE DESIGN/BUILD MEP/FP DESIGN. EACH RESPECTIVE DESIGN/BUILD MEP SUBCONTRACTOR WILL BE REQUIRED TO PROVIDE FINAL DESIGN DOCUMENTS FOR STATE REVIEW AND APPROVAL AND MEET ALL APPLICABLE CODES, AS THEY WILL BE CONSIDERED DESIGNER OF RECORD.

VICINITY MAP



JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

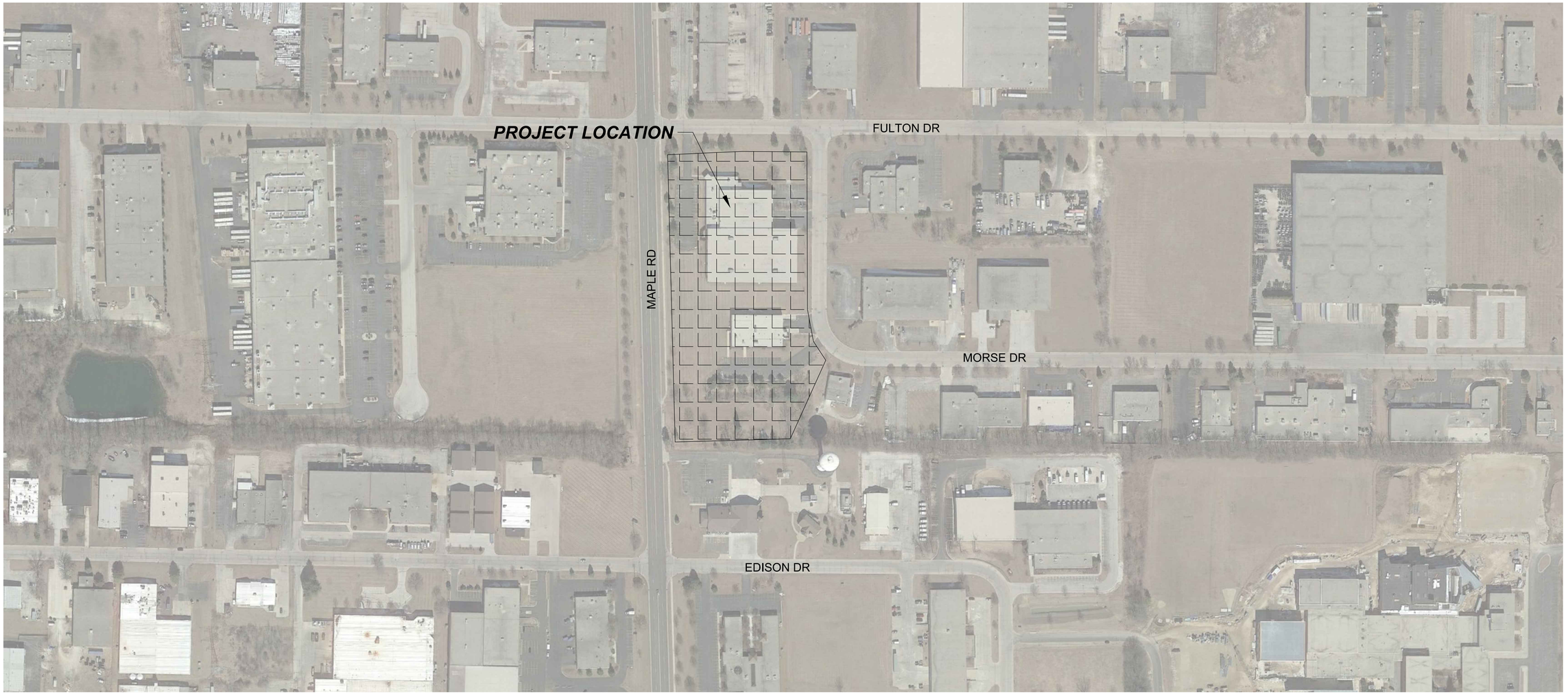
#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

INDEX

TS101



LEGEND:

UTILITY

EXISTING:

- WATERMAIN
- BURIED ELECTRIC
- OVERHEAD WIRE
- GAS LINE
- SANITARY SEWER
- STORM SEWER
- UTILITY POLE
- LIGHT POLE
- SANITARY MANHOLE
- FIRE HYDRANT
- WATER VALVE
- STORM SEWER STRUCTURE

PROPOSED:

- WATERMAIN
- ELECTRICAL LINE
- GAS LINE
- SANITARY SEWER
- STORM SEWER
- WATER VALVE
- STORM SEWER STRUCTURE
- FLARED END SECTION

GRADING

EXISTING:

- MAJOR CONTOUR
- MINOR CONTOUR
- EXISTING SPOT ELEVATION (EXIST 100.00)

PROPOSED:

- MAJOR CONTOUR
- MINOR CONTOUR
- SPOT ELEVATION (FINISHED GRADE, TOP OF PAVEMENT, FLANGE OF CURB) (100.00)
- DOOR ELEVATION (DOOR 100.00)
- GROUND GRADE AT BUILDING (GR 100.00)
- SPOT ELEVATION (T/C - TOP OF CURB, E/P - EDGE OF PAVEMENT) (100.50T/C, 100.00E/P)
- RETAINING WALL SPOT ELEVATION (T/W - TOP OF WALL, B/W - GROUND GRADE AT BOTTOM) (100.50T/W, 100.00B/W)
- FLARED END SECTION (PIPE SIZE, INVERT ELEVATION) (12" FES, 100.00B/W)
- DRAINAGE FLOW DIRECTION
- EMERGENCY OVERFLOW ROUTE

SITE

EXISTING:

- EXISTING PARKING COUNT
- EXISTING SIGN
- EXISTING ADA PARKING SPACE

PROPOSED:

- PARKING COUNT
- ADA PARKING SPACE
- SIGN
- TRUNCATED DOMES
- PAVEMENT MARKING DIRECTIONAL ARROWS

DIGGER'S HOTLINE — DIAL BEFORE YOU DIG — 1-800-242-8511

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 THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

GENERAL NOTES AND SPECIFICATIONS:

1. THE EXISTING SITE INFORMATION ON THIS PLAN WAS TAKEN FROM A SITE SURVEY PROVIDED BY CAPITOL SURVEY ENTERPRISES. THE ENGINEER MAKES NO WARRANTY OR REPRESENTATION WITH REFERENCE TO THE ACCURACY AND COMPLETENESS OF THE EXISTING CONDITIONS INDICATED OR NOT INDICATED ON THE ENGINEERING PLANS PROVIDED. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING SITE CONDITIONS INCLUDING UNDERGROUND UTILITIES, UNDERGROUND UTILITY ELEVATIONS, BUILDING SETBACKS AND EXISTING BUILDING LOCATIONS. THE CONTRACTOR SHALL INFORM THE OWNER AND ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WITH WORK. QUESTIONS REGARDING THE EXISTING SURVEY SHALL BE DIRECTED TO THE PARTIES LISTED ABOVE.
2. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL TO BE CONNECTED TO (VERIFYING ELEVATION, LOCATION AND SIZE). SHOULD THE EXISTING UTILITY NOT BE AS INDICATED ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR EVALUATION.
3. ALL UTILITY CONSTRUCTION SHALL ADHERE TO THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (2003), AS WELL AS, THE MUNICIPAL CONSTRUCTION STANDARDS AND THE DEPT. OF SAFETY AND PROFESSIONAL SERVICES SEC. 382-387.
4. ALL PERMITS MUST BE RECEIVED FROM THE MUNICIPALITY AND WDNR (IF REQUIRED) PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ALL APPLICABLE PERMITS ARE RECEIVED PRIOR TO STARTING CONSTRUCTION.
5. NOTIFY THE PUBLIC WORKS INSPECTION DEPT. AT LEAST 48 HOURS BEFORE STARTING CONSTRUCTION.
6. BACKFILL REQUIREMENTS AND ROADWAY/SIDEWALK RESTORATION SHALL ADHERE TO LOCAL STANDARDS (GRANULAR BACKFILL UNDER OR WITHIN 5' OF CURBS, SIDEWALK, OR PAVEMENT. SPOIL MAY BE USED ELSEWHERE. SLURRY BACKFILL WILL BE REQUIRED IN PUBLIC ROADWAYS.)
7. ALL BUILDING UTILITIES SHALL BE VERIFIED WITH THE ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
8. ALL PROPOSED WATERMAIN SHALL BE PVC SDR 18, CLASS 150, AWWA C900 WITH ELASTOMERIC JOINTS.
9. PROPOSED SANITARY SEWER PIPE SHALL BE PVC, ASTM D-3034, SDR 35 WITH RUBBER GASKETED JOINTS CONFORMING TO ASTM D-3212.
10. PROPOSED STORM SEWER SHALL BE PVC, ASTM D-3034, SDR 35 WITH RUBBER ELASTOMERIC JOINTS CONFORMING TO ASTM D-3212 (UNLESS OTHERWISE NOTED).
11. A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NONMETALLIC UTILITIES MUST BE PROVIDED. PROVIDE TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS SECTIONS 182.0715(2R) OF THE STATE STATUTES.
12. UTILITY TRENCHES SHALL BE MECHANICALLY COMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
13. ALL MANHOLES, CATCH BASINS, INLETS, VALVES BOXES, ETC WITHIN THE PROJECT AREA SHALL BE RESET AND ADJUSTED TO MATCH FINISH GRADE.
14. ALL EXCAVATED OR STRIPPED MATERIALS NOT BEING REPLACED IN UTILITY TRENCHES OR BEING USED FOR FILL SHALL BE REMOVED FROM THE SITE, UNLESS OTHERWISE DIRECTED BY THE OWNER.
15. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING & FOUNDATION DETAILS AND ORIENTATION.
16. ALL ON-SITE CONCRETE CURB AND GUTTER TO BE 18" WIDE VERTICAL FACE, UNLESS OTHERWISE NOTED. REVERSE OR REGULAR STYLE CURB DENOTED ON PLANS.
17. ALL CURB ELEVATIONS ARE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED. SEE CURB DETAIL FOR TOP OF CURB ELEVATIONS.
18. ALL CURB RADII ARE MEASURED TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
19. CONTRACTOR SHALL MATCH PROPOSED CONCRETE CURB AND GUTTER, SIDEWALK AND PAVEMENT TO EXISTING IN ELEVATION AND ALIGNMENT.
20. REMOVAL OF CURB AND GUTTER, SIDEWALK AND PAVEMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE WISCONSIN D.O.T.
21. ALL CONCRETE FOR CURB AND GUTTER, ROADWAY AND SIDEWALKS MUST CONFORM TO THE STANDARD SPECIFICATIONS FOR READY MIXED CONCRETE. MINIMUM 28 DAY COMPRESSIVE STRENGTH TEST MUST EQUAL 4000 PSI.
22. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL PROPERTY CORNERS.
23. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES OR SITE IMPROVEMENTS. CONTRACTOR SHALL DOCUMENT ALL EXISTING DAMAGE PRIOR TO START OF CONSTRUCTION AND NOTIFY CONSTRUCTION MANAGER OF ANY FINDINGS.
24. PROJECT SAFETY ON-SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
25. CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING SOIL CONDITIONS, CONSTRUCTION MANAGER MAY HAVE SOILS REPORT FOR MORE INFO.
26. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE OWNER WITH A SET OF MARKED UP PLANS (AS-BUILTS) SHOWING ANY CHANGES DURING CONSTRUCTION.

CIVIL SHEET INDEX:

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JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

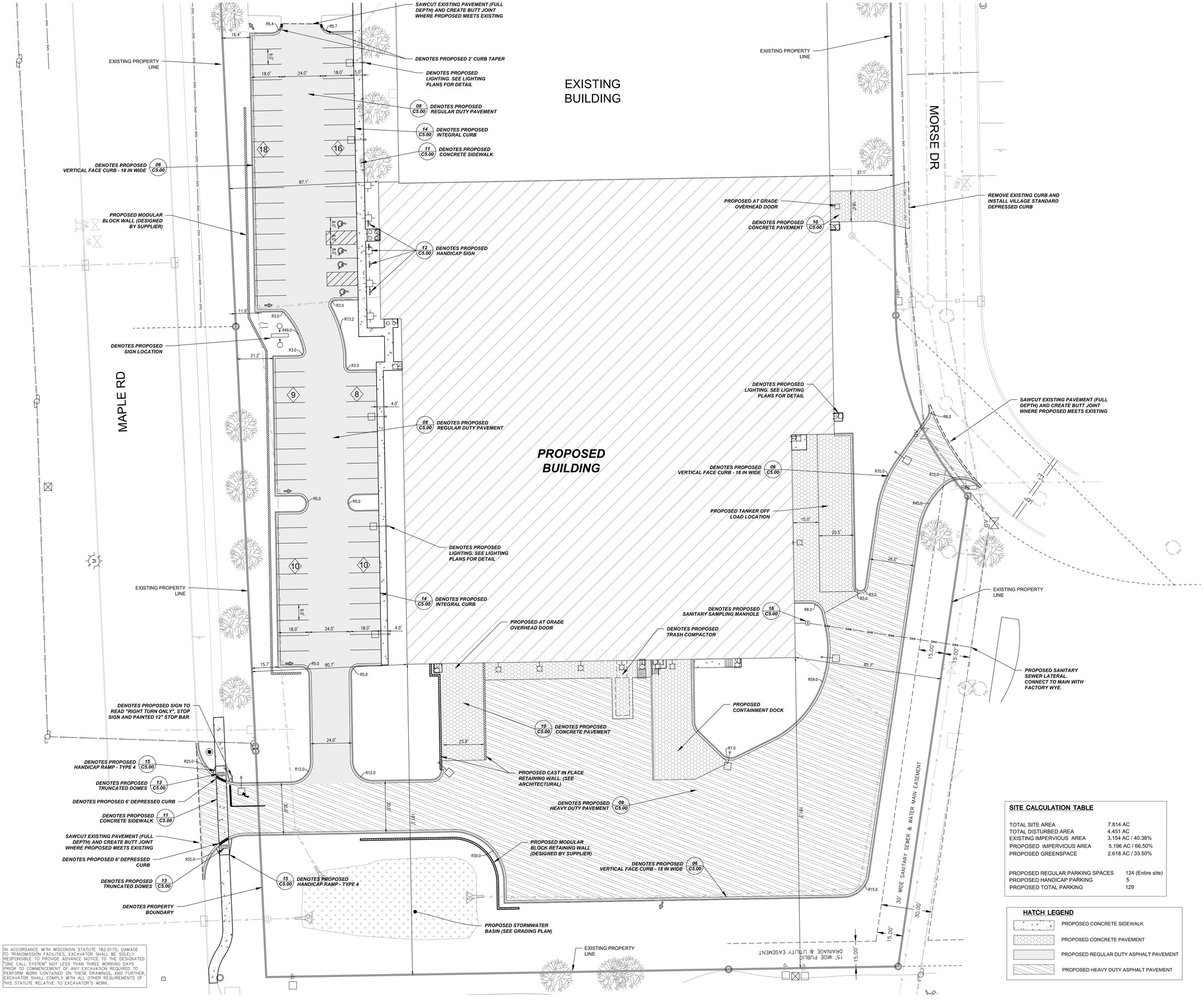
PROJECT NUMBER | PROJECT MANAGER

SITE PLAN - OVERALL

0' 100' 120' 220'
SCALE: 1" = 120'

North

C1.10



DIGGER'S HOTLINE CALL BEFORE YOU DIG 1-800-242-8511

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 THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

SITE CALCULATION TABLE

TOTAL SITE AREA	7.814 AC
TOTAL DISTURBED AREA	4.451 AC
EXISTING IMPERVIOUS AREA	3.154 AC / 40.36%
PROPOSED IMPERVIOUS AREA	5.196 AC / 66.50%
PROPOSED GREENSPACE	2.618 AC / 33.50%
PROPOSED REGULAR PARKING SPACES	124 (Entire site)
PROPOSED HANDICAP PARKING	5
PROPOSED TOTAL PARKING	129

HATCH LEGEND

- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- PROPOSED REGULAR DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT

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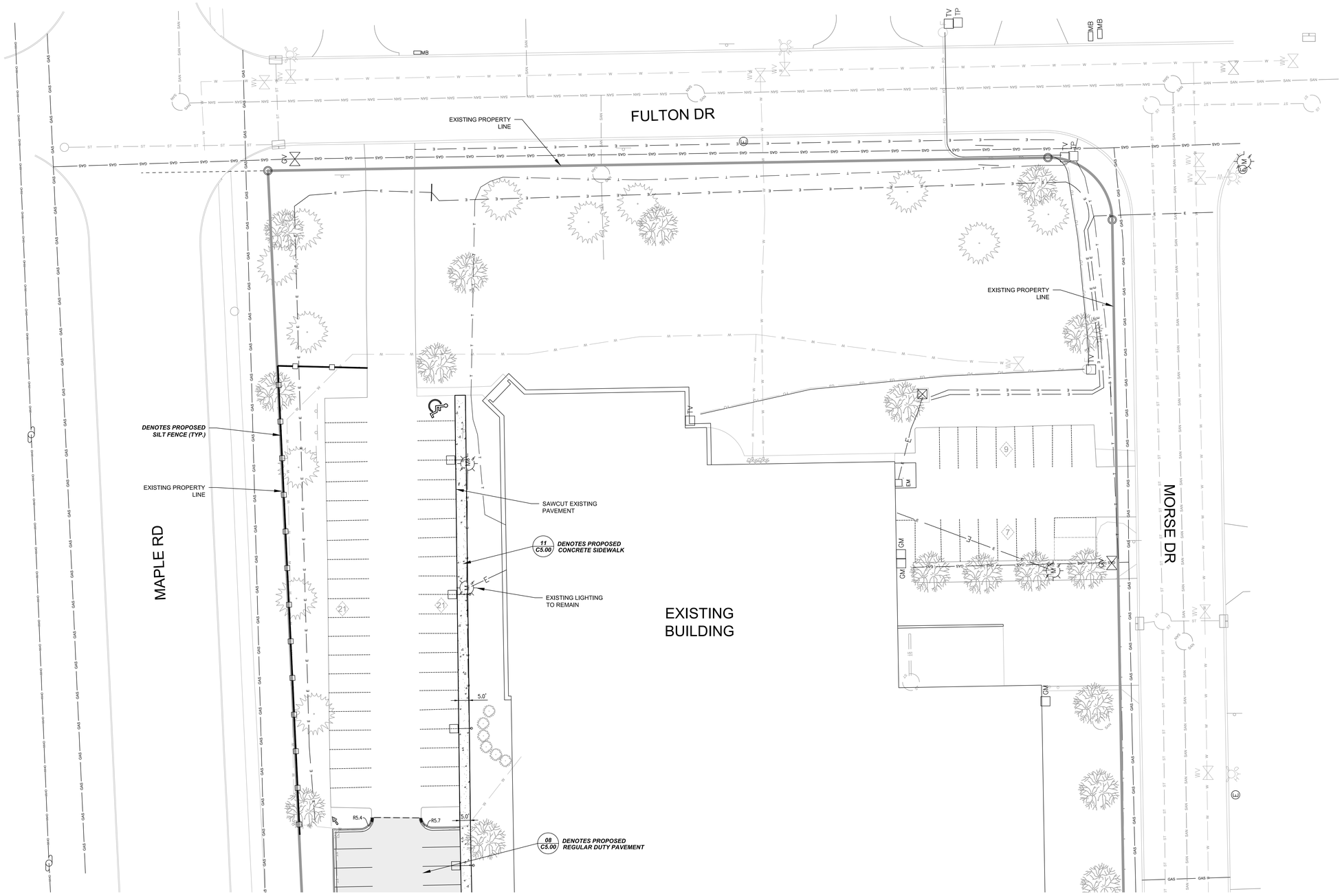
PROJECT NUMBER | PROJECT MANAGER

SITE PLAN - DETAILED SOUTH

0' 10' 20' 30'
SCALE: 1" = 20'
North

C1.11



DIGGER'S HOTLINE
TEN DAYS BEFORE YOU DIG
1-800-242-8511

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HATCH LEGEND

- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- PROPOSED REGULAR DUTY ASPHALT PAVEMENT
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT

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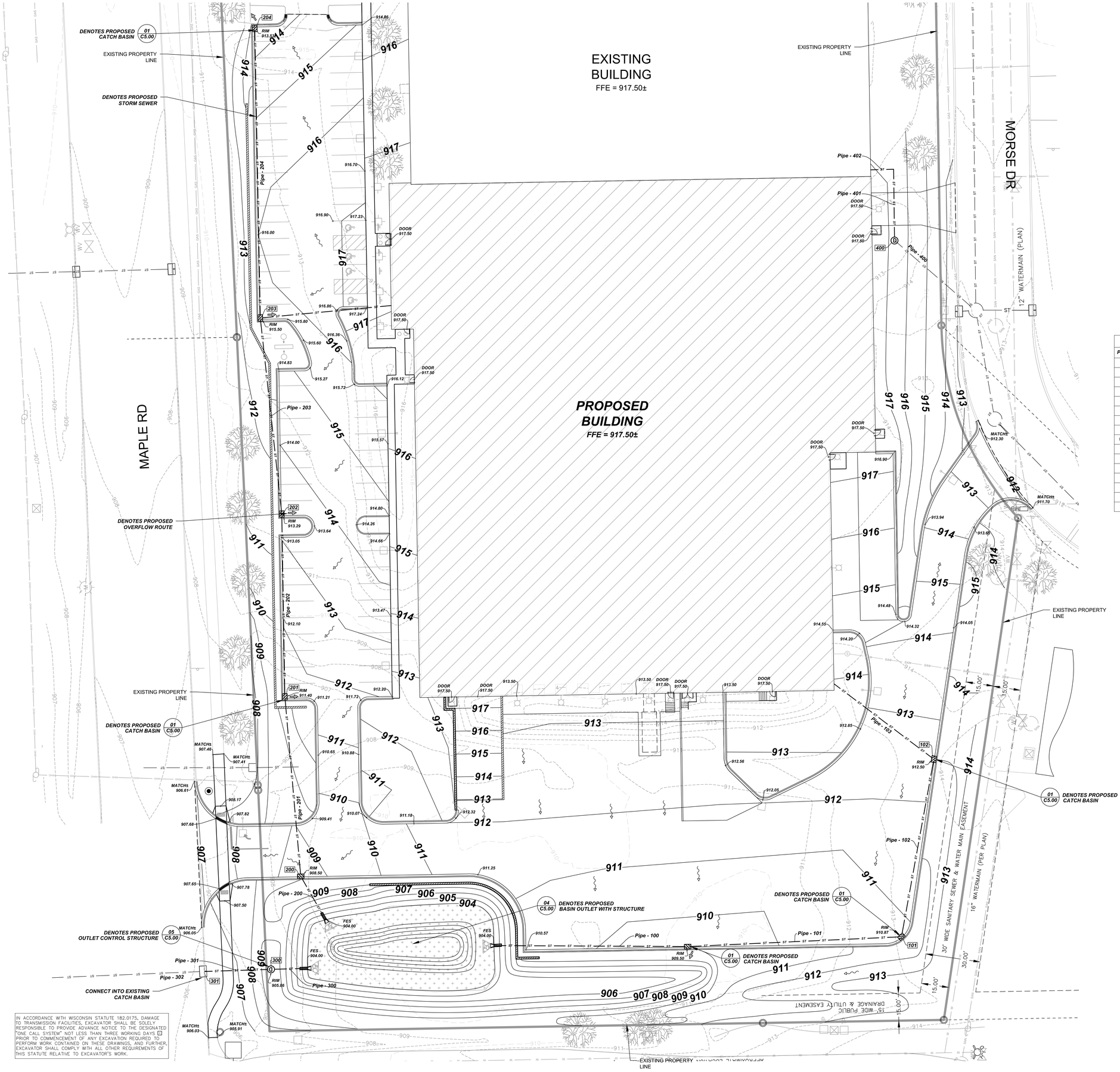
19 AUGUST 2019

PROJECT NUMBER | PROJECT MANAGER

SITE PLAN - DETAILED NORTH

0' 10' 20' 30'
SCALE: 1" = 20'
North

C1.12



Storm Structure Table	
#	Structure Details
100	CATCH BASIN - CURB RIM = 909.50 Pipe - 101 = 905.06 Pipe - 100 = 905.06
101	CATCH BASIN - CURB RIM = 910.87 Pipe - 102 = 906.23 Pipe - 101 = 906.23
102	CATCH BASIN - CURB RIM = 912.50 Pipe - 102 = 907.22 Pipe - 103 = 907.22
200	CATCH BASIN - CURB RIM = 908.50 Pipe - 201 = 904.27 Pipe - 200 = 904.27
201	CATCH BASIN - CURB RIM = 911.40 Pipe - 202 = 905.26 Pipe - 201 = 905.26
202	CATCH BASIN - CURB RIM = 913.29 Pipe - 203 = 906.26 Pipe - 202 = 906.26
203	CATCH BASIN - CURB RIM = 915.50 Pipe - 204 = 907.34 Pipe - 203A = 907.34 Pipe - 203 = 907.34
204	CATCH BASIN - CURB RIM = 913.53 Pipe - 204 = 908.92
300	OUTLET CONTROL STRUCTURE (SEE DETAIL) RIM = 905.86 Pipe - 300 = 904.00 Pipe - 301 = 904.00
301	EXISTING CATCH BASIN - CURB RIM = 905.82 Pipe - 301 = 903.00 Pipe - 302 = 902.10
400	CATCH BASIN (3' DIA) RIM = 912.26 Pipe - 400 = 909.02 Pipe - 401 = 909.89

Storm Pipe Table					
Pipe Name	Size	Material	Length	Slope	Description
Pipe - 100	12	PVC	106	1.00%	
Pipe - 101	12	PVC	117	1.00%	
Pipe - 102	12	PVC	99	1.00%	
Pipe - 103	12	PVC	68	1.00%	
Pipe - 200	12	PVC	27	1.00%	
Pipe - 201	12	PVC	99	1.00%	
Pipe - 202	12	PVC	100	1.00%	
Pipe - 203	12	PVC	108	1.00%	
Pipe - 203A	12	PVC	72	3.70%	
Pipe - 204	12	PVC	158	1.00%	
Pipe - 300	12	PVC	20	0.00%	
Pipe - 301	12	PVC	37	2.68%	
Pipe - 302	24	RCP	34	1.00%	Existing Pipe
Pipe - 400	18	RCP	55	0.95%	Existing Pipe
Pipe - 401	18	PVC	39	1.00%	
Pipe - 402	18	PVC	13	1.00%	

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W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

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19 AUGUST 2019

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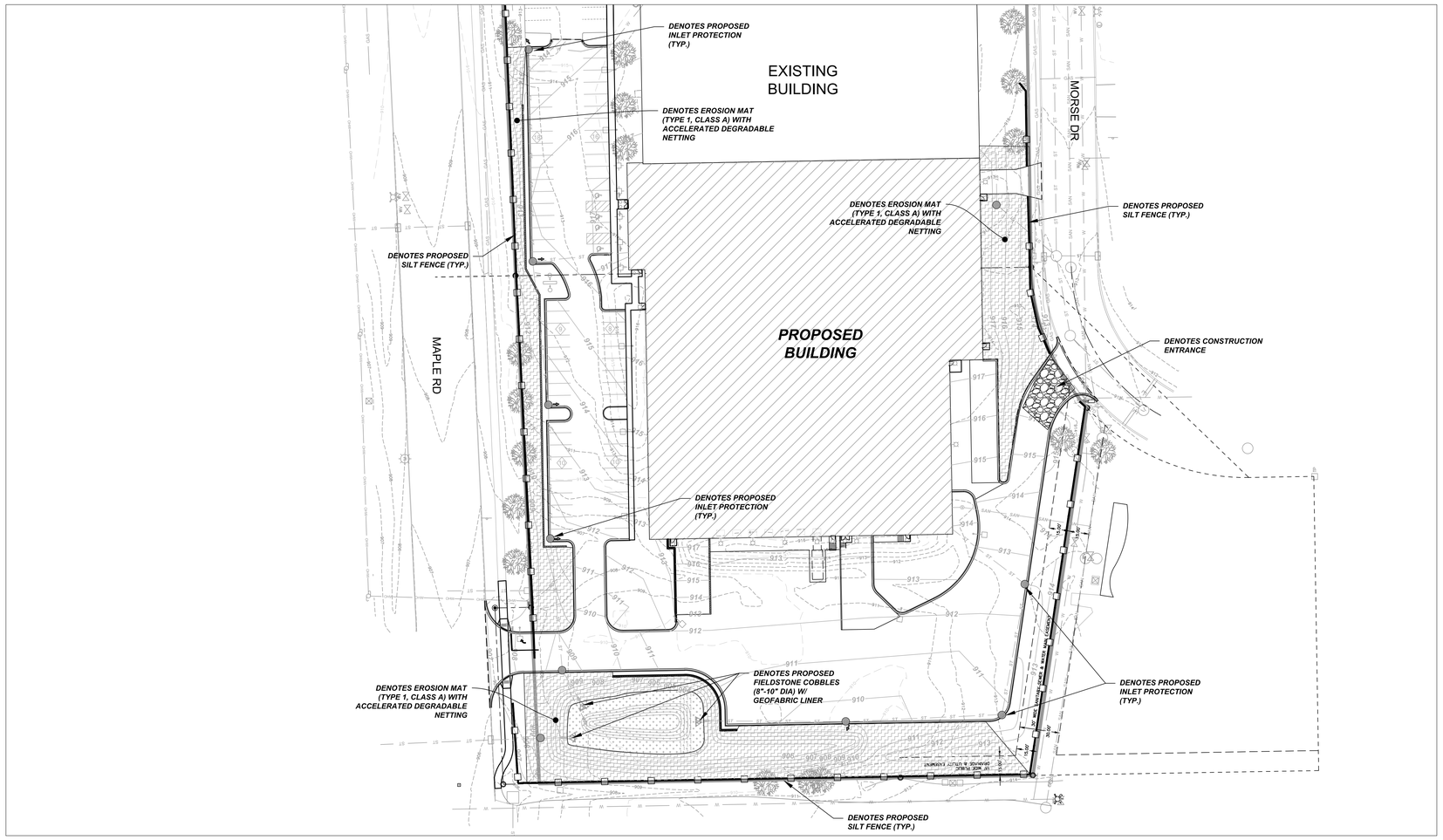
GRADING PLAN

0' 10' 20' 30'
SCALE: 1" = 20'
North

C1.20



EROSION CONTROL NOTES AND PHASING

1. WDNR PERMIT COVERAGE IS REQUIRED. POST WDNR CERTIFICATE OF PERMIT COVERAGE ON SITE AND MAINTAIN UNTIL CONSTRUCTION ACTIVITIES HAVE CEASED, THE SITE IS STABILIZED, AND A NOTICE OF TERMINATION IS FILED WITH WDNR.
2. KEEP A COPY OF THE CURRENT EROSION CONTROL PLAN ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
3. SUBMIT PLAN REVISIONS OR AMENDMENTS TO THE ENGINEER AT LEAST 5 DAYS PRIOR TO FIELD IMPLEMENTATION.
4. CONTRACTOR IS RESPONSIBLE FOR ROUTINE SITE INSPECTIONS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. KEEP INSPECTION REPORTS ON-SITE AND MAKE THEM AVAILABLE UPON REQUEST.
5. INSPECT AND MAINTAIN ALL INSTALLED EROSION CONTROL PRACTICES UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
6. WHEN POSSIBLE: PRESERVE EXISTING VEGETATION (ESPECIALLY ADJACENT TO SURFACE WATERS), MINIMIZE LAND-DISTURBING CONSTRUCTION ACTIVITY ON SLOPES OF 20% OR MORE, MINIMIZE SOIL COMPACTION, AND PRESERVE TOPSOIL.
7. REFER TO THE WDNR STORMWATER CONSTRUCTION TECHNICAL STANDARDS AT http://dnr.wi.gov/topic/stormwater/standards/const_standards.html.
8. INSTALL PERIMETER EROSION CONTROLS AND ROCK TRACKING PAD CONSTRUCTION ENTRANCE(S) PRIOR TO ANY LAND-DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRUBBING. USE WDNR TECHNICAL STANDARD STONE TRACKING PAD FOR ROCK CONSTRUCTION ENTRANCE(S).
9. INSTALL INLET PROTECTION PRIOR TO LAND-DISTURBING ACTIVITIES IN THE CONTRIBUTING DRAINAGE AREA AND/OR IMMEDIATELY UPON INLET INSTALLATION. COMPLY WITH WDNR TECHNICAL STANDARD STORM DRAIN INLET PROTECTION FOR CONSTRUCTION SITES #1060.
10. STAGE CONSTRUCTION GRADING ACTIVITIES TO MINIMIZE THE CUMULATIVE EXPOSED AREA. CONDUCT TEMPORARY GRADING FOR EROSION CONTROL PER WDNR TECHNICAL STANDARD TEMPORARY GRADING PRACTICES FOR EROSION CONTROL #1067.
11. PERMITTING OF GROUNDWATER DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR. GROUNDWATER DEWATERING IS SUBJECT TO A DNR WASTEWATER DISCHARGE PERMIT AND A DNR HIGH CAPACITY WELL APPROVAL IF CUMULATIVE PUMP CAPACITY IS 70 GPM OR MORE.
12. PROVIDE ANTI-SCOUR PROTECTION AND MAINTAIN NON-EROSIVE FLOW DURING DEWATERING. PERFORM DEWATERING OF ACCUMULATED SURFACE RUNOFF IN ACCORDANCE WITH WDNR TECHNICAL STANDARD DE-WATERING #1061.
13. COMPLETE AND STABILIZE WET POND PRIOR TO MASS LAND DISTURBANCE TO CONTROL RUNOFF DURING CONSTRUCTION. REMOVE SEDIMENT AS NEEDED TO MAINTAIN 3 FEET OF DEPTH TO THE OUTLET, AND PROPERLY DISPOSE OF SEDIMENT REMOVED DURING MAINTENANCE (REFER TO NR 528). CONSTRUCT AND MAINTAIN THE SEDIMENT BASIN PER WDNR TECHNICAL STANDARD SEDIMENT BASIN #1064 AND SEDIMENT TRAP # 1063.
14. INSTALL AND MAINTAIN SILT FENCING PER WDNR TECHNICAL STANDARD SILT FENCE #1056. REMOVE SEDIMENT FROM BEHIND SILT FENCES AND SEDIMENT BARRIERS BEFORE SEDIMENT REACHES A DEPTH THAT IS EQUAL TO ONE-HALF OF THE FENCE AND/OR BARRIER HEIGHT.
15. REPAIR BREAKS AND GAPS IN SILT FENCES AND BARRIERS IMMEDIATELY. REPLACE DECOMPOSING STRAW BALES (TYPICAL BALE LIFE IS 3 MONTHS). LOCATE, INSTALL, AND MAINTAIN STRAW BALES PER WDNR TECHNICAL STANDARD DITCH CHECKS #1062.
16. INSTALL AND MAINTAIN FILTER SOCKS IN ACCORDANCE WITH WDNR TECHNICAL STANDARD INTERIM MANUFACTURED PERIMETER CONTROL AND SLOPE INTERRUPTION PRODUCTS # 1071.
17. IMMEDIATELY STABILIZE STOCKPILES AND SURROUND STOCKPILES AS NEEDED WITH SILT FENCE OR OTHER PERIMETER CONTROL IF STOCKPILES WILL REMAIN INACTIVE FOR 7 DAYS OR LONGER.
18. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR 14 DAYS OR LONGER.
    - BETWEEN SEPTEMBER 15 AND OCTOBER 15: STABILIZE WITH MULCH, TACKIFIER, AND A PERENNIAL SEED MIXED WITH WINTER WHEAT, ANNUAL OATS, OR ANNUAL RYE, AS APPROPRIATE FOR REGION AND SOIL TYPE
    - OCTOBER 15 THROUGH COLD WEATHER: STABILIZE WITH A POLYMER AND DORMANT SEED MIX, AS APPROPRIATE FOR REGION AND SOIL TYPE.
19. STABILIZE AREAS OF FINAL GRADING WITHIN 7 DAYS OF REACHING FINAL GRADE.
20. SWEEP/CLEAN UP ALL SEDIMENT/TRASH THAT MOVES OFF-SITE DUE TO CONSTRUCTION ACTIVITY OR STORM EVENTS BEFORE THE END OF THE SAME WORKDAY OR AS DIRECTED BY THE WDNR/MUNCIPALITY. SEPARATE SWEPT MATERIALS (SOILS AND TRASH) AND DISPOSE OF APPROPRIATELY.
21. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST PER WDNR TECHNICAL STANDARD DUST CONTROL ON CONSTRUCTION SITES # 1068.
22. PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, OR OTHER CONSTRUCTION MATERIALS) AND DO NOT ALLOW THESE MATERIALS TO BE CARRIED BY RUNOFF INTO THE RECEIVING CHANNEL.
25. FOR NON-CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED SLOPES 4:1 OR GREATER (OR AS SHOWN ON THE PLAN), PROVIDE CLASS I TYPE TYPE A (WITH ACCELERATED DEGRADABLE NETTING) EROSION CONTROL MATTING. SELECT EROSION MATTING FROM WDOT'S PRODUCT ACCEPTABILITY LIST (PAL); INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD NON-CHANNEL EROSION MAT #1052.
23. FOR CHANNELIZED FLOW ON DISTURBED OR CONSTRUCTED AREAS (OR AS SHOWN ON THE PLANS), PROVIDE NORTH AMERICAN GREEN SC150 (OR APPROVED EQUAL) EROSION CONTROL MATTING. INSTALL AND MAINTAIN PER WDNR TECHNICAL STANDARD CHANNEL EROSION MAT #1053,
24. MAKE PROVISIONS FOR WATERING DURING THE FIRST 8 WEEKS FOLLOWING SEEDING OR PLANTING OF DISTURBED AREAS WHENEVER MORE THAN 7 CONSECUTIVE DAYS OF DRY WEATHER OCCUR.
25. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES (SUCH AS TEMPORARY SEDIMENT BASINS, DITCH CHECKS, EROSION CONTROL MATTING, SILT FENCING, FILTER SOCKS, WATTLES, SWALES, ETC.), OR AS DIRECTED BY WDNR/MUNICIPALITY
26. NOTICE OF TERMINATION: WHEN THE SITE HAS BEEN FULLY STABILIZED AND ALL STORMWATER DISCHARGES FROM THE SITE AUTHORIZED UNDER THE NOI PERMIT HAVE BEEN ELIMINATED, A NOTICE OF TERMINATION SHALL BE FILED WITH THE DNR. CONTRACTOR SHALL SUBMIT A COMPLETED NOTICE OF TERMINATION APPLICATION IN ACCORDANCE WITH THE PERMIT REQUIREMENTS TO THE SITE OWNER FOR EXECUTION PRIOR TO FINAL PAYMENT.

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
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CONSULTANT

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255 North 21st Street | Milwaukee, WI 53233
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PROJECT INFORMATION:

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W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER | PROJECT MANAGER

EROSION CONTROL PLAN

0' 20' 40' 60'
SCALE: 1" = 40'
North

C1.30

GENERAL NOTES:

DETAIL OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

WHEN POSSIBLE THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE, WITH THE ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.

① CROSS BRACE WITH 2" x 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.

② MINIMUM 14 GAGE WIRE REQUIRED. FOLD FABRIC 3" OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS ON 12" C-C.

EXCAVATE A TRENCH A MINIMUM OF 4" WIDE AND 4" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.

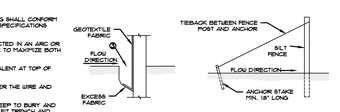
③ WIRE SUPPORT FENCE SHALL BE 14 GAGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6". SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12" C-C.

④ GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4" OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED.

⑤ STEEL POSTS SHALL BE STUDDED "TEE" OR "U TYPE" WITH A MINIMUM WEIGHT OF 1.28 lbs/l.n. ft. (WITHOUT ANCHORS). FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE A MINIMUM SIZE OF 4" DIA. OR 1-1/2" x 3-1/2" EXCEPT WOOD POSTS FOR GEOTEXTILE FABRIC REINFORCED WITH NETTING SHALL BE A MINIMUM SIZE OF 1-1/8" x 1-1/8" OAK OR HICKORY.

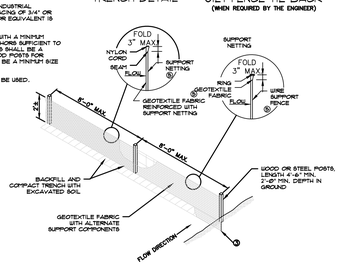
⑥ ALTERNATIVES A AND B ARE EQUAL AND EITHER MAY BE USED.

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

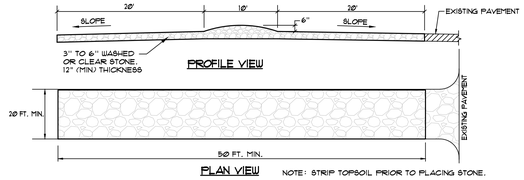


TRENCH DETAIL

SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

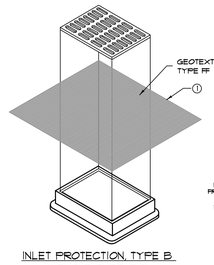


SILT FENCE DETAIL
NTS

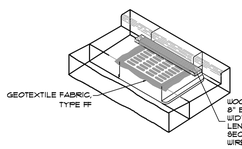


NOTE: STRIP TOPSOIL PRIOR TO PLACING STONE.

CONSTRUCTION ENTRANCE AND TRACKING PAD DETAIL
NTS



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES:

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

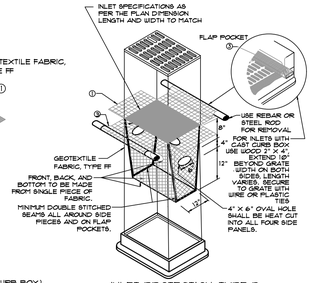
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO 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.

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

FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



INLET PROTECTION, TYPE D

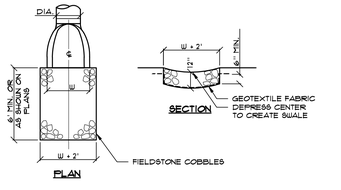
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE) ③

INSTALLATION NOTES:

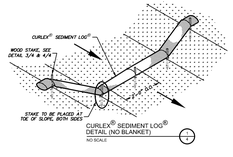
TYPES B & C:
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A DELIN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

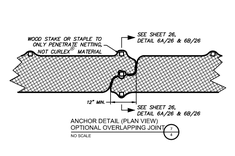
TYPE D:
DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30" MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE BETWEEN THE INLET WALLS AND THE BAG MEASURED 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 IF 4" FROM THE BOTTOM OF THE BAG.

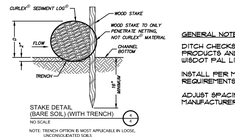
INLET PROTECTION
NTS



FIELDSTONE COBBLES AT PIPE ENDWALL 105
NTS 11/19/10







GENERAL NOTES:

DITCH CHECKS SHALL BE MANUFACTURED PRODUCTS AND LISTED ON THE CURRENT WISDOT PAL LIST.

INSTALL PER MANUFACTURERS REQUIREMENTS.

ADJUST SPACING AS NEEDED TO MEET MANUFACTURERS REQUIREMENTS.

DITCH CHECK
NTS

EROSION CONTROL LEGEND

SILT FILTER FENCE	
CONSTRUCTION ENTRANCE	
EROSION MAT	
DITCH CHECK	
INLET SEDIMENT GUARD	

DIGGER'S HOTLINE — CALL BEFORE YOU DIG — 1-800-242-8511

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 THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

DIGGER'S HOTLINE CALL BEFORE YOU DIG 1-800-242-8511

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 THESE DRAWINGS, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

JAK architecture + interior design
JAKnetter Architects
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WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

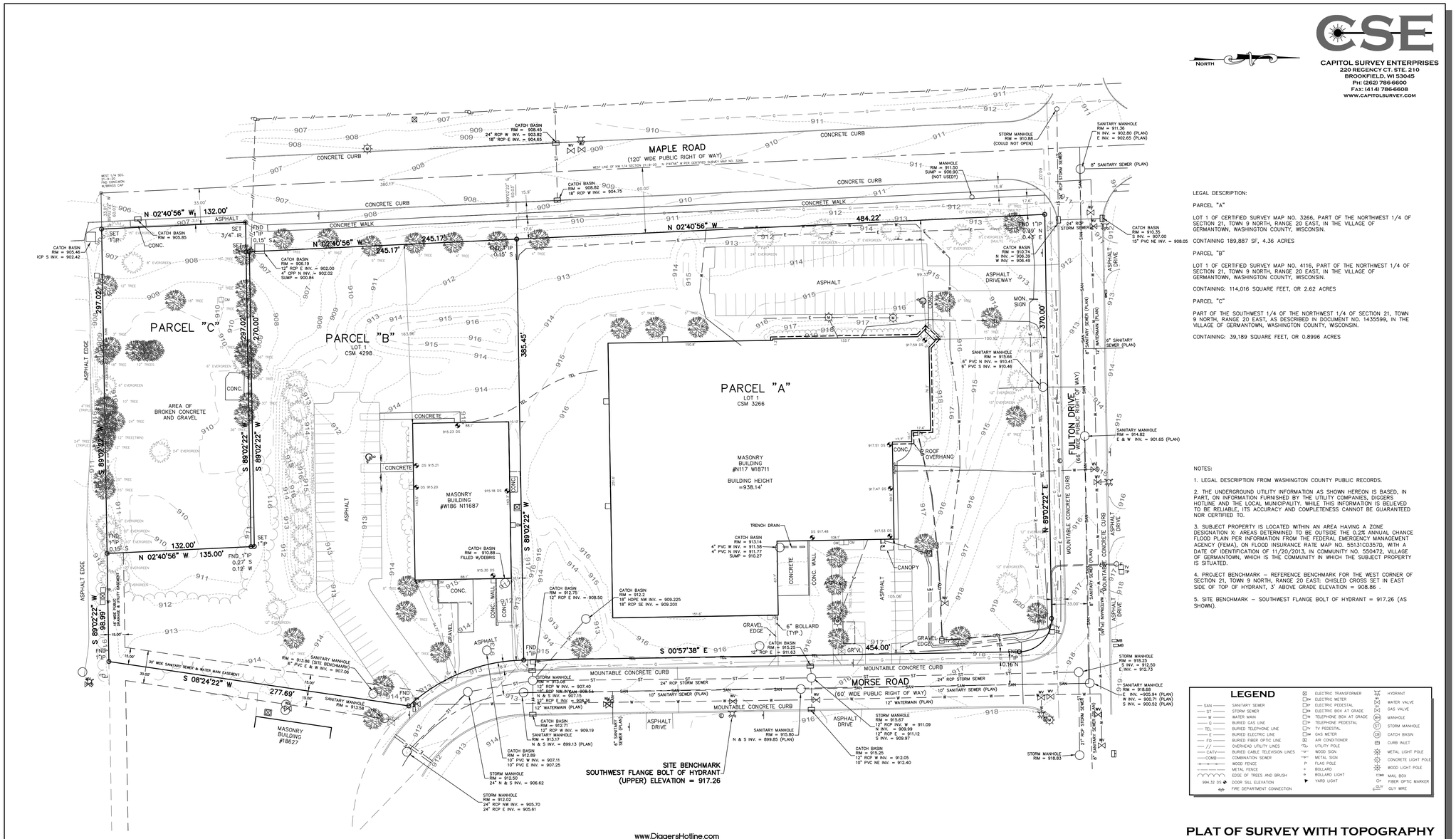
19 AUGUST 2019

PROJECT NUMBER | PROJECT MANAGER

DEMOLITION PLAN

0' 10' 20' 30'
SCALE: 1" = 20'
North

C1.40



CAPITOL SURVEY ENTERPRISES
220 REGENCY CT. STE. 210
BROOKFIELD, WI 53045
PH: (262) 786-6600
FAX: (414) 786-6608
WWW.CAPITOLSURVEY.COM

LEGAL DESCRIPTION:

PARCEL "A"

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, PART OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CONTAINING 189,887 SF, 4.36 ACRES

PARCEL "B"

LOT 1 OF CERTIFIED SURVEY MAP NO. 4116, PART OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CONTAINING: 114,016 SQUARE FEET, OR 2.62 ACRES

PARCEL "C"

PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, AS DESCRIBED IN DOCUMENT NO. 1435599, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CONTAINING: 39,189 SQUARE FEET, OR 0.8996 ACRES

NOTES:

1. LEGAL DESCRIPTION FROM WASHINGTON COUNTY PUBLIC RECORDS.

2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, ON INFORMATION FURNISHED BY THE UTILITY COMPANIES, DIGGERS HOTLINE AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

3. SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION X; AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN PER INFORMATION FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 55131C0357D, WITH A DATE OF IDENTIFICATION OF 11/20/2013, IN COMMUNITY NO. 550472, VILLAGE OF GERMANTOWN, WHICH IS THE COMMUNITY IN WHICH THE SUBJECT PROPERTY IS SITUATED.

4. PROJECT BENCHMARK – REFERENCE BENCHMARK FOR THE WEST CORNER OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST: CHISLED CROSS SET IN EAST SIDE OF TOP OF HYDRANT, 3' ABOVE GRADE ELEVATION = 908.86 .

5. SITE BENCHMARK – SOUTHWEST FLANGE BOLT OF HYDRANT = 917.26 (AS SHOWN).

LEGEND

SAN	SANITARY SEWER	ELECTRIC TRANSFORMER	HYDRANT
ST	STORM SEWER	ELECTRIC METER	WATER VALVE
W	WATER MAIN	ELECTRIC PEDESTAL	GAS VALVE
G	BURIED GAS LINE	ELECTRIC BOX AT GRADE	MANHOLE
TEL	BURIED TELEPHONE LINE	TELEPHONE BOX AT GRADE	STORM MANHOLE
E	BURIED ELECTRIC LINE	TELEPHONE PEDESTAL	CATCH BASIN
FO	BURIED FIBER OPTIC LINE	TV PEDESTAL	CURB INLET
OHU	OVERHEAD UTILITY LINES	GAS METER	METAL LIGHT POLE
CATV	BURIED CABLE TELEVISION LINES	AIR CONDITIONER	CONCRETE LIGHT POLE
COMB	COMBINATION SEWER	UTILITY POLE	WOOD LIGHT POLE
	WOOD FENCE	WOOD SIGN	MAIL BOX
	METAL FENCE	METAL SIGN	FIBER OPTIC MARKER
	EDGE OF TREES AND BRUSH	FLAG POLE	GUY WIRE
994.32 DS	DOOR SILL ELEVATION	BOLLARD	
FD	FIRE DEPARTMENT CONNECTION	BOLLARD LIGHT	
		YARD LIGHT	

PLAT OF SURVEY WITH TOPOGRAPHY

FOR

GLUE DOTS
W186 N11687 MORSE DRIVE
GERMANTOWN, WI

DRAWN BY:	NJF	DATE:	APRIL 30, 2019
CHECKED BY:	MJB	DRAWING No.	P - 1
CSE JOB No.:	12 - 064	SHEET	1 OF 1

I CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY, AND THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION AND DIMENSIONS OF ALL VISIBLE STRUCTURES THEREON, BOUNDARY FENCES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY.

THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO, WITHIN ONE (1) YEAR FROM DATE THEREOF.

APRIL 30, 2019
DATE

MICHAEL J. BERRY R.L.S.
REGISTERED LAND SURVEYOR S-2545

WISCONSIN MICHAEL J. BERRY S-2545 BROOKFIELD, WI LAND SURVEYOR

www.DiggersHotline.com
DIGGERS HOTLINE
DIAL 811 OR (800) 242-8511

GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
1 INCH = 40 FT.

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GlueDots Adhesive Products

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

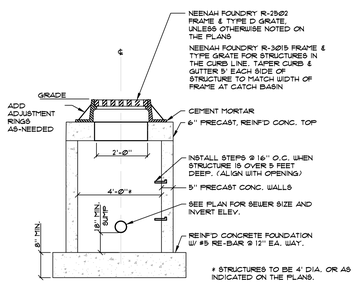
PROJECT NUMBER | PROJECT MANAGER

EXISTING SURVEY

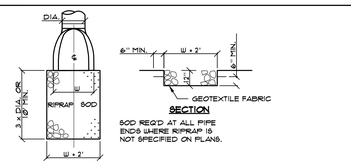
SCALE: 1" = 40'

North

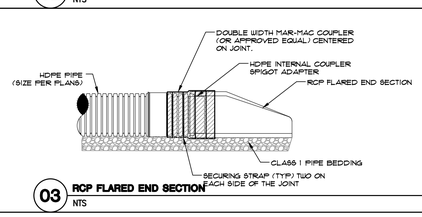
C1.50



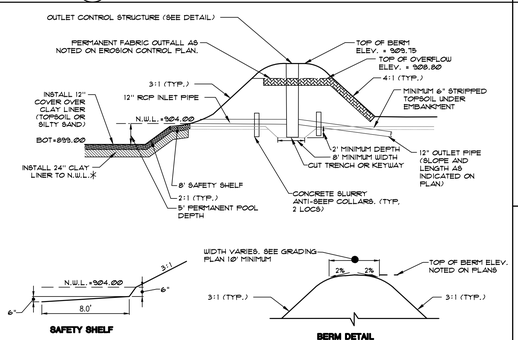
01 CATCH BASIN
NTS



02 RIP RAP AT ENDWALL
NTS



03 RCP FLARED END SECTION
NTS

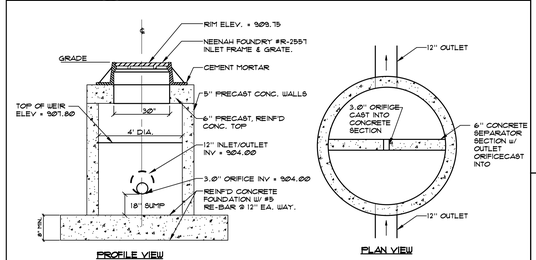


*NOTE: FOR AREAS WHERE THE IN-SITU SOILS ARE NOT SUITABLE AS A LINER (PER A GEOTECHNICAL REPRESENTATIVE), THE CONTRACTOR SHALL INSTALL A LINER PER THE DETAIL WITH THE FOLLOWING PROPERTIES:

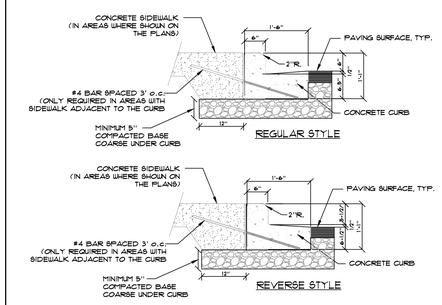
CLAY LINER TO HAVE THE FOLLOWING PROPERTIES: PI > 12 ; LL ≥ 25
MOISTURE CONTENT + Ø-2% ABOVE OPTIMUM

PLACE LINER IN 9" LIFTS, COMPACT TO 90% MODIFIED PROCTOR

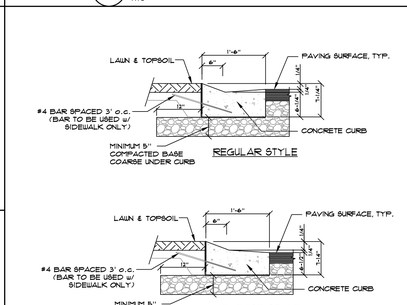
04 BASIN OUTLET WITH STRUCTURE
NTS



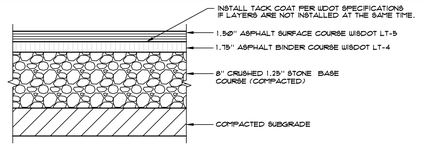
05 OUTLET CONTROL STRUCTURE
NTS



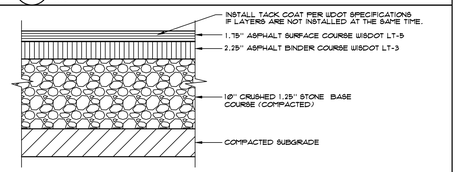
06 VERTICAL FACE CURB - 18 IN WIDE
NTS



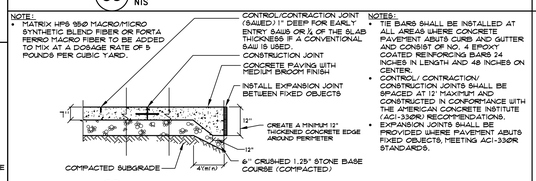
07 DEPRESSED CURB - 18 IN WIDE
NTS



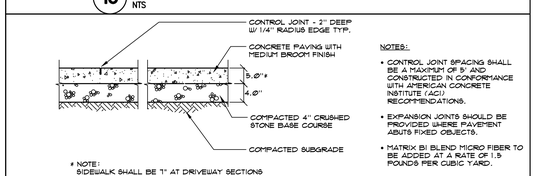
08 REGULAR DUTY PAVEMENT
NTS



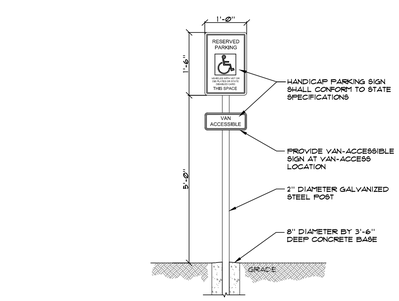
09 HEAVY DUTY PAVEMENT
NTS



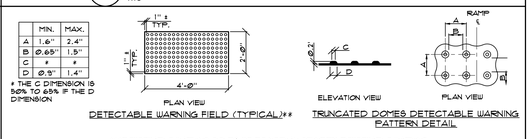
10 CONCRETE PAVEMENT
NTS



11 CONCRETE SIDEWALK
NTS

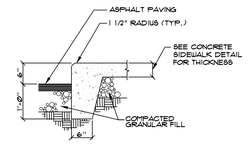


12 HANDICAP SIGN
NTS

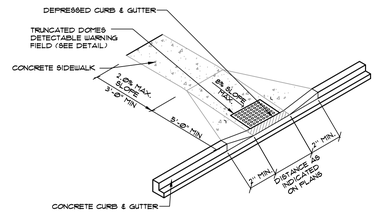


***DETECTABLE WARNING FIELDS TO BE NEENAH FOUNDRY DETECTABLE WARNING FIELDS (OR APPROVED EQUAL) UNPAINTED NATURAL COLOR AND FIELD WEATHERED PRIOR TO INSTALLATION (VERIFY COLOR W/ OWNER PRIOR TO INSTALLATION)

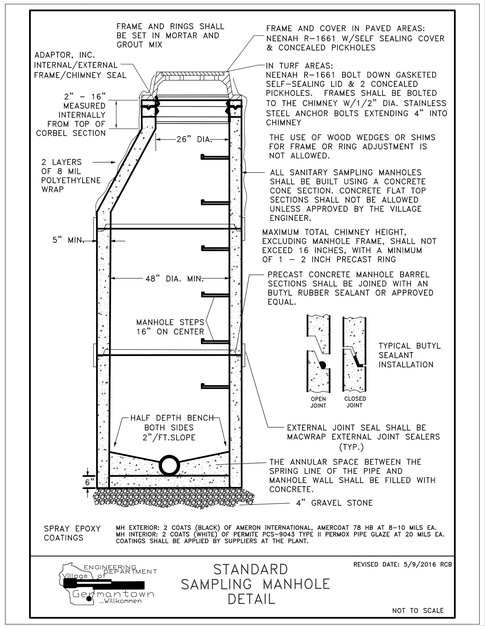
13 TRUNCATED DOMES
NTS



14 INTEGRAL CURB
NTS



15 HANDICAP RAMP - TYPE 4
NTS



16 SANITARY SAMPLING MANHOLE
NTS

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JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

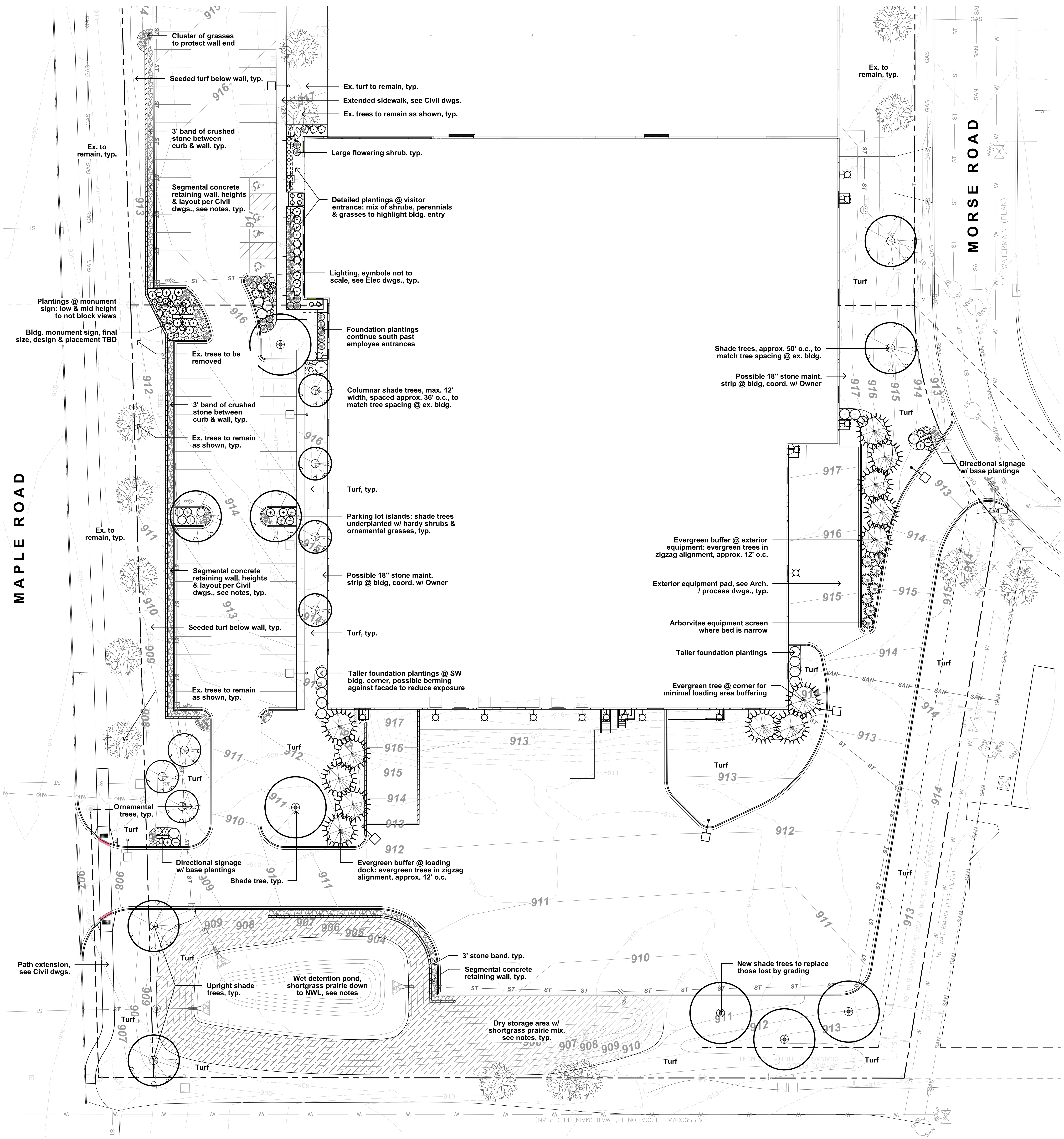
#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER | PROJECT MANAGER

CONSTRUCTION DETAILS

C5.00



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WAUKESHA, WI 53188 | www.jaknetter.com
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GlueDots Adhesive Products

CONSULTANT

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255 North 21st Street | Milwaukee, WI 53233
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PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

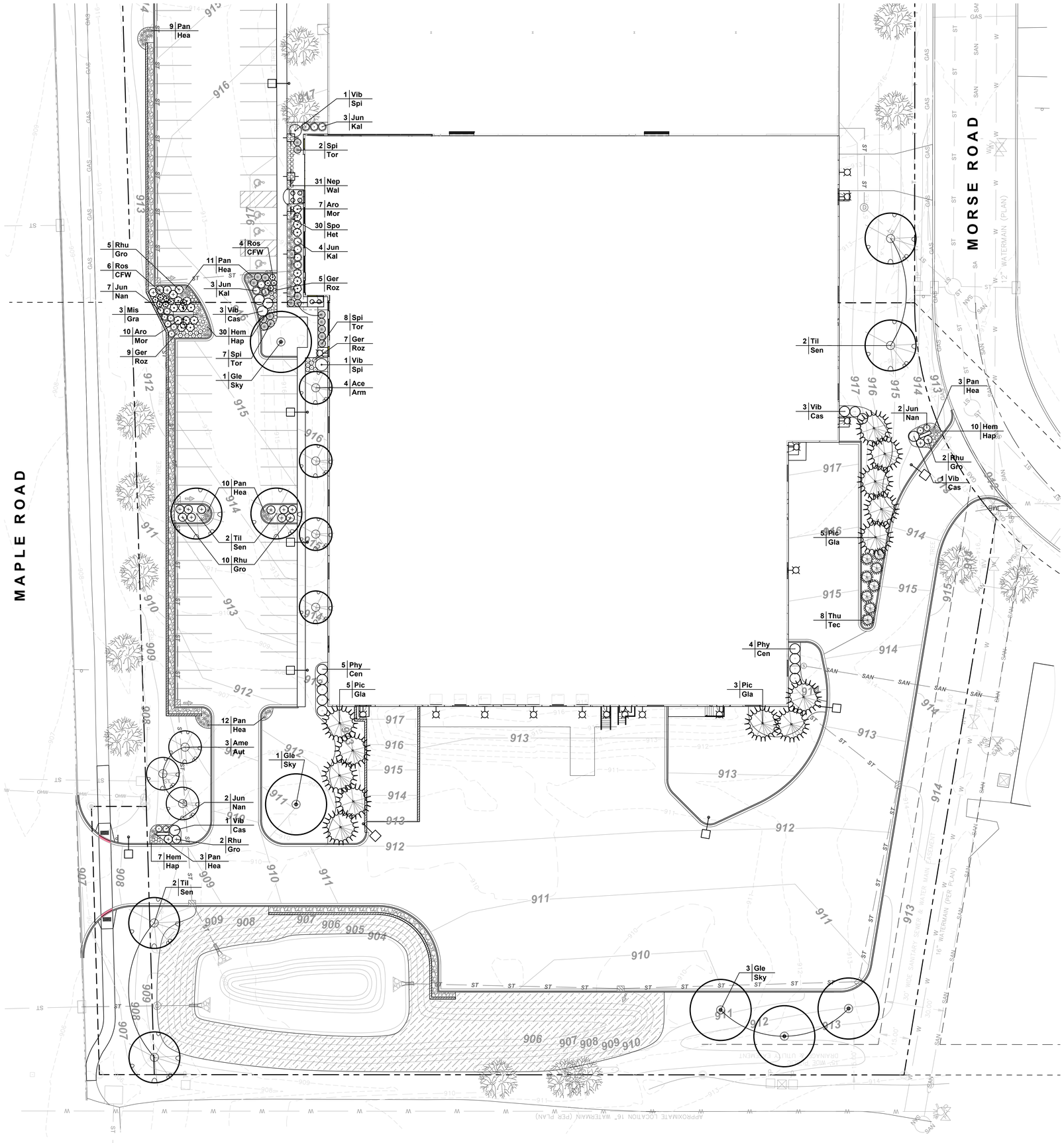
PROJECT NUMBER	PROJECT MANAGER

LANDSCAPE PLAN

SCALE: 1" = 20'

North

L1.00



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PROJECT INFORMATION:

GLUE DOTS
INTERNATIONAL
BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION
SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

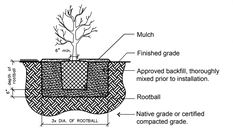
PROJECT NUMBER	PROJECT MANAGER

PLANTING
PLAN

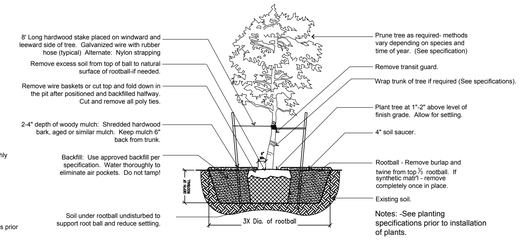
SCALE: 1" = 20'

North

L1.00



2 Shrub Planting Detail
Not To Scale



1 Tree Planting Detail
Not To Scale

General Notes

1.01 All landscape installation & maintenance to conform with all applicable local codes & ordinances, including (but not limited to) select portions of Village of Germantown Municipal Code.

1.02 See Site dwgs. for work limits, scope of construction, hardscape, dimensions &/or construction notes. See Civil dwgs. for all hardscape, grading, stormwater management, site utilities & erosion control. See Landscape dwgs. for landscape plans, site amenities, details, schedules, notes. See Architectural dwgs. for all construction. See Electrical drawings for all power, circuiting, lighting & access control.

1.03 Contractor shall provide shop drawings and material submittals of **all** hardscape & landscape construction elements shown in plan set for Landscape Architect review prior to construction, including (but not limited to) ornamental fencing & all access control equipment.

1.04 Contractor to provide samples for Landscape Architect's approval on all colors, finishes & materials prior to construction, including (but not limited to) topsoil, gravels, mulches, seed mixes et al.

1.05 Caution: underground utilities are present on site. The Contractor shall verify location of all above- and below-grade utilities, both public & private, prior to commencement of site construction. If unanticipated above- or below-grade conditions are encountered, notify Client & Landscape Architect prior to proceeding. Coordinate with local public utility locating entity as needed.

1.06 Contractor to verify hardscape layout prior to construction. Contact Landscape Architect if discrepancies are found.

1.07 Contractor to limit construction traffic to within work limit lines. All adjacent damage shall be the responsibility of the contractor to restore. See Civil drawings for limits of disturbance.

1.08 Existing trees to remain on site shall be protected. Contractor shall erect snow fencing @ 15' R from trunk or @ tree driplines, whichever is farther. All construction traffic, storage, compaction, parking or other disturbance within protection zones shall be prevented for the duration of construction, except to complete work specifically indicated in the site plans.

1.09 All written dimensions supersede scaled dimensions. All dimensions are taken from face of curb, wall or existing building foundations.

Landscape Notes

2.01 Rough grading & topsoil import/spreading are to be completed by others. Finish grading, seed area and ornamental planting bed preparation shall be the landscape contractor's responsibility. Verify all existing site and grading conditions prior to construction.

2.02 All areas disturbed by site construction shall be fine graded and restored with vegetative cover as shown. See plans for cover types & locations, see specifications for materials & installation.

2.03 Contractor shall verify plant quantities shown on plan. Symbol quantities take precedence over plant keys except where noted in the plant schedule. Contractor shall forward a material list to the Landscape Architect prior to construction identifying all quantities, species, sizes & plant sources to be used on the project.

2.04 All plant materials shall conform to the schedule and shall meet quality requirements outlined in the ANLA "American Standard for Nursery Stock", ANSI Z60.1-2004.The Landscape Architect reserves the right to reject any substandard planting material. Such rejected material shall be removed from the project site immediately.

2.05 The Owner's representative shall be allowed to inspect and approve trees at the nursery prior to delivery to the site.

2.06 All nursery tags/labels shall be left on plant materials until the project punch-list inspection is completed by the Landscape Architect. Untagged materials will be assumed to be deficient.

2.07 All planting beds shall contain screened blended topsoil mix to a min. depth of 18". All turf, low-mow & shortgrass prairie areas shall have min. 6". Suitable existing soil may be used & mixed if previously approved. Subgrade shall be tilled and/or scarified prior to placement of topsoil. Contractor shall be responsible for obtaining soil tests for existing or imported topsoil. Soil testing results shall include (but is not limited to) soil pH, % organic matter, phosphorus, potassium, calcium & texture (percentages of sand, silt and/or clay.) Remove excessive clay, gravel & stones detrimental to healthy plant growth. Remove all debris greater than 1" diameter.

2.08 Contractor shall be responsible for ensuring that all tree pits & planting areas drain properly. Notify Landscape Architect if drainage or moisture problems are encountered while planting.

2.09 Contractor shall backfill all trees, shrubs & evergreens with a mix of 1/3 plant starter mix & 2/3 remaining soil. Plant Starter Mix shall be provided by Liesener Soils, Cedarburg WI, or approved equal.

2.10 All perennial and groundcover areas shall receive a 3" layer of plant starter mix and perennial starter fertilizer, rototilled into the top 6" of blended topsoil in beds.

2.11 Unless otherwise shown, all perennials & shrubs to be planted in triangular arrangements. For plants not shown individually, refer to the spacing shown in the plant schedule.

2.12 Stone mulch areas shall include1-2" of decomposed / crushed granite installed over woven geotextile fabric & contained w/ metal edging.

2.13 Bed edging shall be as follows:

- Metal edging shall be installed at the building maint. strip. Edging shall be 3/16" x 4" alum. mill-finish. Permaloc "CleanLine" or "ProSlide", or approved equal.
- 6" deep shovel-cut edging shall be installed at all other locations, typ.

2.14 Contractor shall provide positive drainage away from all structures for a minimum of 10'.

2.15 Contractor shall be responsible for providing base bid comprehensive landscape establishment, maintenance and warranty care for one year after installation. Work shall include all watering, weeding, pruning, fertilizing, pest management & spring / fall clean-ups. Prior to beginning installation, the contractor shall submit a 12-mo. calendar for review/approval including all anticipated maintenance activities.

Seeding Notes & Mixes

3.01 This work shall consist of preparing the seed beds and furnishing, sowing and mulching the required seed on the various seeded areas, as outlined in the site plans and specifications. All turf restoration shall be seeded turf unless otherwise noted.

3.02 Rough grading, drainage work, topsoiling and fine grading shall be completed before sowing the seed mixes. The areas to be seeded shall be worked with plow chisels, discs & harrows, soil finishers and/or other appropriate equipment until a reasonably even and loose seedbed is obtained. Seed beds shall be prepared immediately in advance of the seeding. If proposed seed areas are weedy, contractor to apply herbicide or other weed control measures to eliminate weeds. Conform with seed supplier's specifications if required.

3.03 Confirm that anticipated project schedule date(s) fall within the respective seed supplier's approved calendar prior to installation. Installations completed outside of acceptable seeding dates shall be the performed at the sole responsibility and expense of the contractor. For dormant seeding, a min. of one over-seed application in the following season will be required.

3.04 Seeds shall be PLS and will be mixed in accordance w/ mfr's specifications. Provide invoices, bag-tags or mix analysis results for approval prior to installation.

3.05 The seed mixtures shall be sown by means of equipment adapted to the purpose. Mechanical distribution (i.e. Truax seed drill, Brillion seeder, cultipacker, slit-seeder, drop spreader or broadcast spreader) are the only accepted methods. No hand-broadcasting of seed.

3.06 No seeding shall occur if the wind exceeds 12 MPH.

3.07 Coordinate erosion control and/or mulching with Civil dwgs:

- In sloped areas steeper than 4:1, erosion matting shall be installed by others. Landscape installation shall be coordinated with the erosion control contractor.
- In areas with slopes between 4:1 and 8:1, landscape contractor shall apply clean hay or straw mulch, free of debris and seeds, on all newly seeded areas. Mulch shall be uniformly spread over the designated area at a rate of 55 bales per acre or as indicated in the respective seed supplier's specifications. Mulch material shall be chopped and blown into the seeded area.
- Lightweight E.C. matting and/or hydromulch will be accepted as a no-cost alternate if approved by Landscape Architect prior to application.

3.08 See Civil dwgs for erosion control devices. Coordinate with erosion control contractor where required to ensure that topsoil, seeding and/or mat installations are properly coordinated.

3.09 Contractor shall b e responsible for obtaining soil tests for all seeded areas. Soil testing results shall include (but is not limited to) soil pH, % organic matter, phosphorus, potassium, calcium & texture (percentages of sand, silt and/or clay.) Remove excessive clay, gravel & stones detrimental to healthy plant growth. Remove all debris greater than 1" diameter. If necessary, supply soil amendments required for specified seed mixes and/or coordinate alternate mixes if soils cannot be properly conditioned.

3.10 Seed mix substitutions will be considered only if submitted for approval 10 days before the close of bidding. All mixes shall be installed & maintained per supplier's specifications.

BLUEGRASS MIX:
"Deluxe 50 Mix" shall be supplied by Reinders, Elm Grove WI, 262-786-3300. Apply @ 6 lbs per 1000 GSF.

SHORTGRASS PRAIRIE MIX:
"Shortgrass Prairie For Dry Soils" shall be supplied by Prairie Nursery, Westfield WI, 800-476-9453. Apply @ 10 lbs per AC, plus Annual Rye cover crop @ 5 lbs / AC in spring or 15 lbs / AC in fall.

3.11 Contractor shall be responsible for providing base bid comprehensive seed area establishment, maintenance and warranty care for all seeded areas:

- Bluegrass areas shall be for one full season after installation. Work shall include all watering, weeding, fertilizing & mowing. Assume 24 mowings per season. Re-seed any bare areas larger than 1 sq. ft. after 60 days of establishment.

- All other seed areas shall be for two seasons after installation. Work shall include all watering, weeding (both spot herbicide and/or hand-pulling, depending on necessity), spring / fall clean-up & mowing. Assume 4-5 mowings in the first season, then 3-4 mowings in the second season. All mowings shall be timed to cut weeds but not desirable species. Re-seed any bare areas larger than 1 sq. ft. after 60 days of establishment.

- Prior to beginning installation, the contractor shall submit a 24-month calendar for review/approval including all anticipated maintenance activities.

Hardscape / Amenity Notes

4.01 Segmental concrete retaining walls: Construct as shown. Provide fully detailed shop drawings for review, stamped by a Wisconsin-licensed structural engineer. Color shall be TBD, selected from standard range. See Civil dwgs. for wall layout & TOW / BOW elevations. System shall be from the following options, or approved equal:

- Keystone 'Compac' straight split-face
- Unilock 'Pisa2'
- Versalok 'Standard'

4.02 Monument & directional signage: By Owner.

Plant Schedule

Note: Finall species per Owner approval

Symbol	Qty Prop.	Botanical Name	Common Name	Native or Cultivar?	Installed Size	Root	Spacing	Notes
Shade Trees								
Ace Arm		Acer x. fremannii 'Armstron'	Armstrong Columnar Maple		2.5" Cal.	B/B	As Shown	50x15'
Gle Sky		Gleditsia tri. 'Skyline'	Skyline Honeylocust		2.5" Cal.	B/B	As Shown	50x35'
Til Sen		Tilia americana 'Sentry'	Sentry Linden		2.5" Cal.	B/B	As Shown	50x25'
Ornamental Trees								
Ame Aut		Amelanchier x. 'Autumn Brilliance'	Autumn Brilliance Serviceberry	*	8' Ht.	B/B	As Shown	25x25' heavy 3-stem
Evergreen Trees								
Pic Gla		Picea glauca var. densata	Black Hills Spruce		7' Ht.	B/B	As Shown	20x15'
Large Shrubs								
Thu Tec		Thuja occidentalis 'Technito'	Technito Dwarf Arborvitae		6' Ht.	B/B	As Shown	20x8'
Deciduous Shrubs								
Phy Cen		Physocarpus opu. 'Center Glow'	Center Glow Ninebark	*	30-36" Ht.	7 Gal.	As Shown	8x8'
Rhu Gro		Rhus aromatica 'Gro Low'	Gro Low Sumac	*	12-15" Ht.	2 Gal.	48" o.c.	1x5'
Ros CFW		Rosa 'Carefree Wonder'	Carefree Wonder Shrub Rose		15-18" Ht.	2 Gal.	36" o.c.	3x3'
Spi Tor		Spiraea betula 'Tor'	Tor Birchleaf Spirea		15-18" Ht.	2 Gal.	42" o.c.	3x4'
Vib Spi		Viburnum carlesii 'Spiced Bouquet'	Spiced Bouquet Dwarf KSpice Viburnum		30-36" Ht.	7 Gal.	60" o.c.	7x7'
Vib Cas		Viburnum cassinoides	Withrod Viburnum	*	30-36" Ht.	7 Gal.	60" o.c.	6x6'
Evergreen Shrubs								
Jun Kal		Juniperus pfitz. 'Kallay Compact'	Kallay Compact Juniper		24" sprd.	7 Gal.	60" o.c.	4x8'
Jun Nan		Juniperus procumbens 'Nana'	Dwarf Japanese Garden Juniper		24" sprd.	7 Gal.	48" o.c.	1x4'
Perennials & Grasses								
Ger Roz		Geranium 'Rozanne'	Rozanne Geranium		4.5"	Cont.	18-24" o.c.	1x2'
Hem Hap		Hemerocallis 'Happy Returns'	Happy Returns Daylily		4.5"	Cont.	18-24" o.c.	2x2'
Mis Gra		Miscanthus 'Gracillimus'	Gracillimus Maidenhairgrass		1 Gal.	Cont.	36" o.c.	6x3'
Pan Hea		Panicum 'Heavy Metal'	Heavy Metal Switchgrass		1 Gal.	Cont.	30-36" o.c.	4x2'
Nep Wal		Nepeta 'Walker's Low'	Walker's Low Catmint		4.5"	Cont.	18" o.c.	1x2'
Spo Het		Sporobolus heterolepsis	Prairie Dropseed	*	1 Gal.	Cont.	18-24" o.c.	Qty's per plant keys

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WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

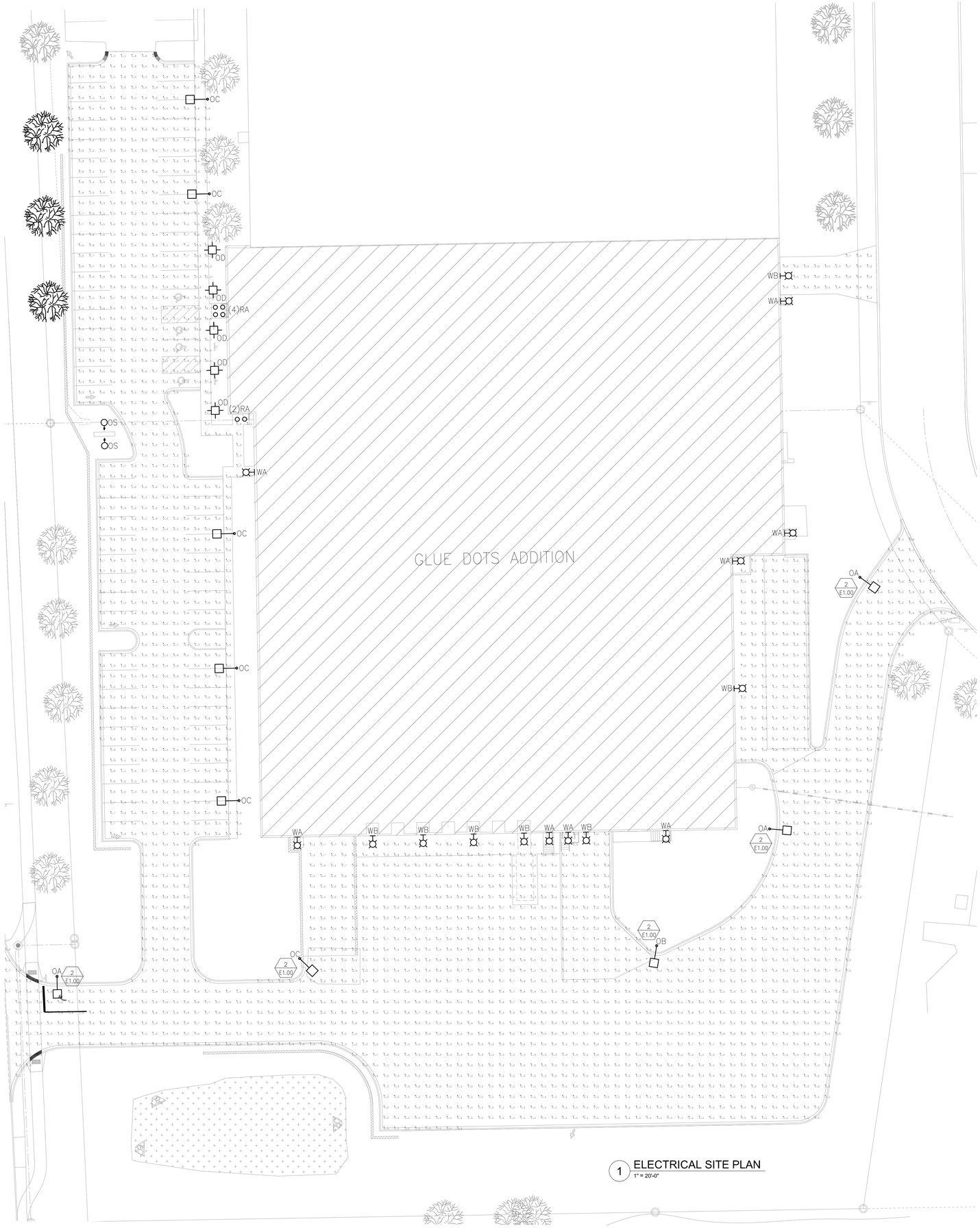
PROJECT NUMBER | PROJECT MANAGER

LANDSCAPE DETAILS SCHEDULES & NOTES

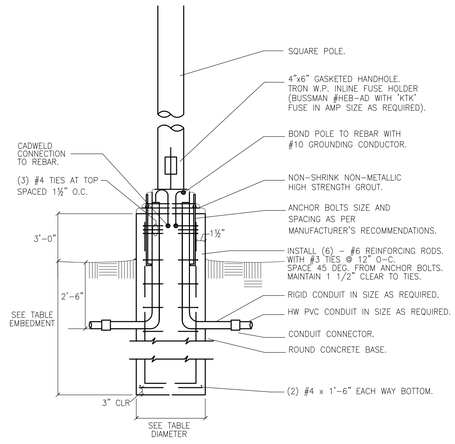
SCALE: 1" = 20'

North

L5.00



1 ELECTRICAL SITE PLAN
1" = 20'-0"



7 POLE BASE DETAIL
NO SCALE

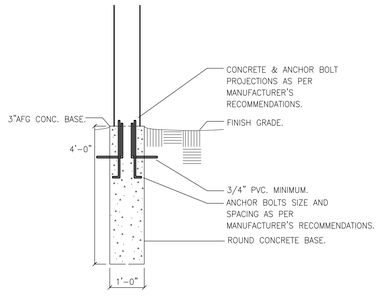
NOTES:
1. DIMENSIONS GIVEN ARE MINIMUM. PROVIDE POLE BASE DIAMETER AND DEPTH AS REQUIRED IN ACCORDANCE WITH LOCAL SOIL AND WIND VELOCITY CONDITIONS.

2. ALL LIGHTING POLE CONCRETE BASES SHALL BE LOCATED A MINIMUM OF 12 INCHES OFF THE FACE OF THE CURBING EDGE OF SIDEWALK OR CENTERED WITHIN AN ISLAND. IN ALL CASES, HOWEVER, FINAL LOCATIONS OF LIGHTING POLES MUST BE VERIFIED WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

3. ALL DIMENSIONS POLE BASE ARE FOR BIDDING ONLY. POLE BASE SHALL MATCH THOSE AT EXISTING POLES, IF APPLICABLE.

POLE HEIGHT	BASE EMBEDMENT/DIAMETER			
	1 HEAD	2 HEAD	3 HEAD	4 HEAD
15'-0"	6'-6"/2'-0"	6'-6"/2'-0"	6'-6"/2'-0"	6'-6"/2'-0"
20'-0"	6'-6"/2'-0"	6'-6"/2'-0"	8'-0"/2'-0"	8'-0"/2'-0"
25'-0"	6'-6"/2'-0"	8'-0"/2'-0"	9'-0"/2'-0"	10'-0"/2'-0"
30'-0"	8'-0"/2'-6"	9'-0"/2'-6"	10'-0"/2'-6"	10'-0"/2'-6"

NOTES:
1. TABLE IS BASED ON SOIL BEARING PRESSURE OF 3000 PSF. AND A LATERAL BEARING PRESSURE OF 200 PSF/FT.



8 BOLLARD BASE DETAIL
NO SCALE

NOTES:
1. DIMENSIONS GIVEN ARE MINIMUM. PROVIDE BOLLARD BASE DIAMETER AND DEPTH AS REQUIRED IN ACCORDANCE WITH LOCAL SOIL AND WIND VELOCITY CONDITIONS.

2. ALL BOLLARD CONCRETE BASES SHALL BE LOCATED A MINIMUM OF 6 INCHES OFF THE FACE OF THE CURBING OR CENTERED WITHIN AN ISLAND. IN ALL CASES, HOWEVER, FINAL LOCATIONS OF BOLLARDS MUST BE VERIFIED WITH THE ARCHITECT/ENGINEER PRIOR TO INSTALLATION.

2 TYPES OA / OB / OC / WB / WC
NO SCALE

NOTES:
1. Type OA - Lumark PRV-A40-D-UNV-T2-SA-BK Series (Pole Mtd., Type II Dist.)
2. Type OB - Lumark PRV-A40-D-UNV-T4-SA-BK Series (Pole Mtd., Type III Dist.)
3. Type OC - Lumark PRV-A40-D-UNV-T4-SA-BK Series (Pole Mtd., Type IV Dist.)
4. Type WB - Lumark PRV-A40-D-UNV-T2-WM-BK Series (Wall Mtd., Type II Dist.)
5. Type WC - Lumark PRV-A40-D-UNV-T4-WM-BK Series (Wall Mtd., Type IV Dist.)

3 TYPE OD
NO SCALE

NOTES:
1. Type OD - Targettl MB-B-41-42-360-L3-40-FE Series

4 TYPE RA
NO SCALE

NOTES:
1. Type RA - Halo HC4-15-D010-HM4-12-840-41-MD-H Series

5 TYPE WA
NO SCALE

NOTES:
1. Type WA - Lumark AXCS3A SERIES

6 TYPE OS
NO SCALE

NOTES:
1. Type OS - Lumark NFFLD-S SERIES

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CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.449.5504 | www.hecl.com

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W186N11676 MORSE DR GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER	PROJECT MANAGER

ELECTRICAL SITE PLAN

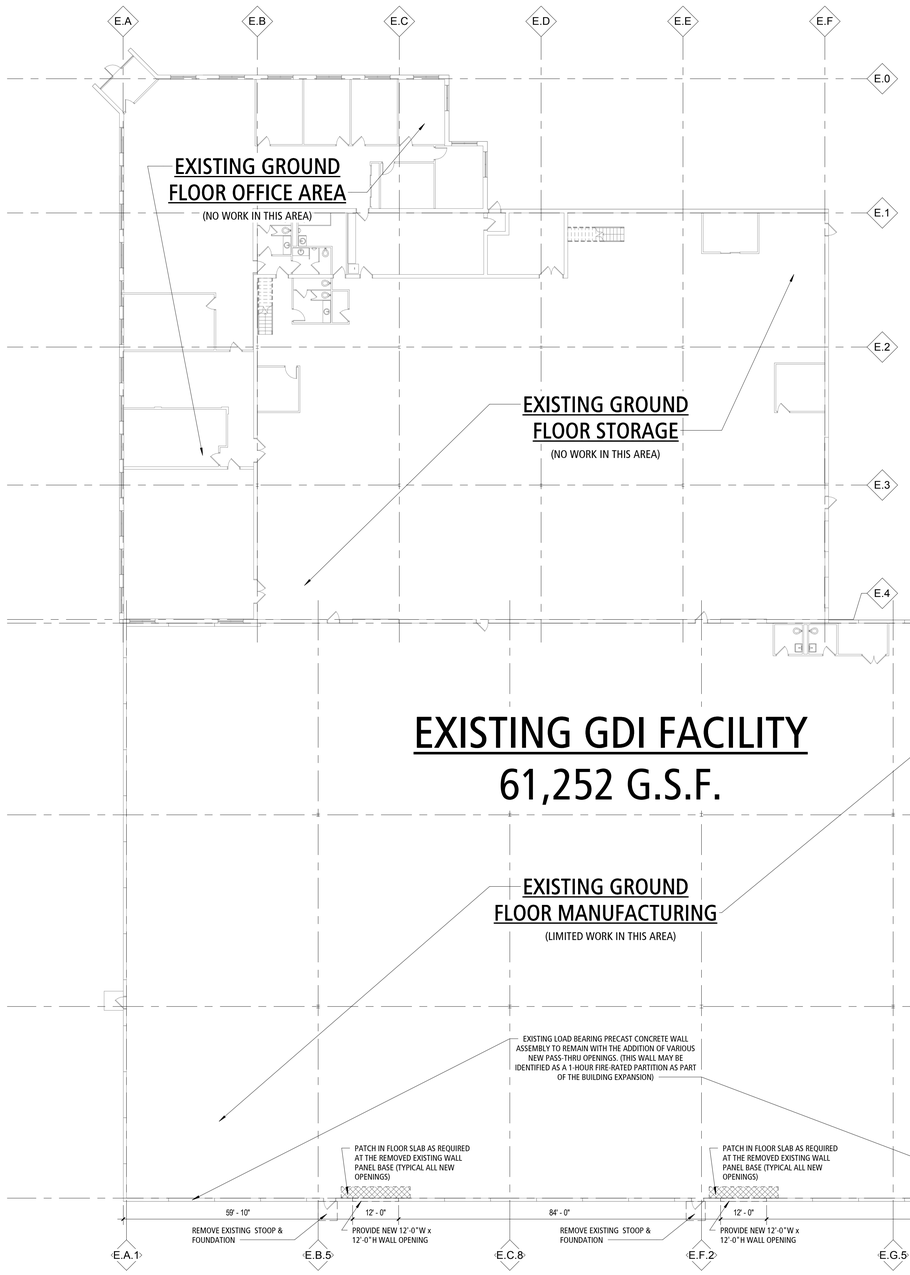
SCALE: 1" = 20'

North

E1.00

DEMOLITION PLAN LEGEND	
	EXISTING WALL TO REMAIN
	EXISTING WALL TO BE REMOVED
	EXISTING DOOR TO REMAIN
	EXISTING DOOR TO BE REMOVED

GENERAL NOTES - DEMOLITION	
1.	COORDINATE REMOVAL OF EXISTING CABINETS AND CASEWORK WITH OWNER. SALVAGE OR REMOVE AS DIRECTED.
2.	COORDINATE REMOVAL OF EXISTING DOORS, FRAMES, AND HARDWARE WITH OWNER. SALVAGE OR REMOVE AS DIRECTED.
3.	REFER TO ROOM FINISH SCHEDULE TO IDENTIFY ALL AREAS BEING ALTERED INCLUDING ROOMS WHERE ALTERATIONS ARE LIMITED TO NEW FINISHES. AT ALL ALTERED LOCATIONS, REMOVE ALL INTERIOR AND WALL MOUNTED ITEMS. REMOVE ALL FINISHES AND RESIDUAL GLUE. PREPARE SURFACES FOR NEW FINISH APPLICATION.
4.	SEE MEP AND HVAC PLANS (IF AVAILABLE) FOR ADDITIONAL DEMOLITION ITEMS AND NOTES. DESIGN / BUILD CONTRACTOR SHALL COORDINATE AND PERFORM WORK.
5.	PATCH AND REPAIR FLOOR IN PREPARATION FOR NEW FLOORING WHERE WALLS HAVE BEEN REMOVED.
6.	PATCH AND REPAIR CEILING GRID SYSTEM WHERE WALLS AND PARTITIONS HAVE BEEN REMOVED.



35 GROUND LEVEL FLOOR DEMO
1/16" = 1'-0"

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office 262 513 9800 | fax 262 513 9815

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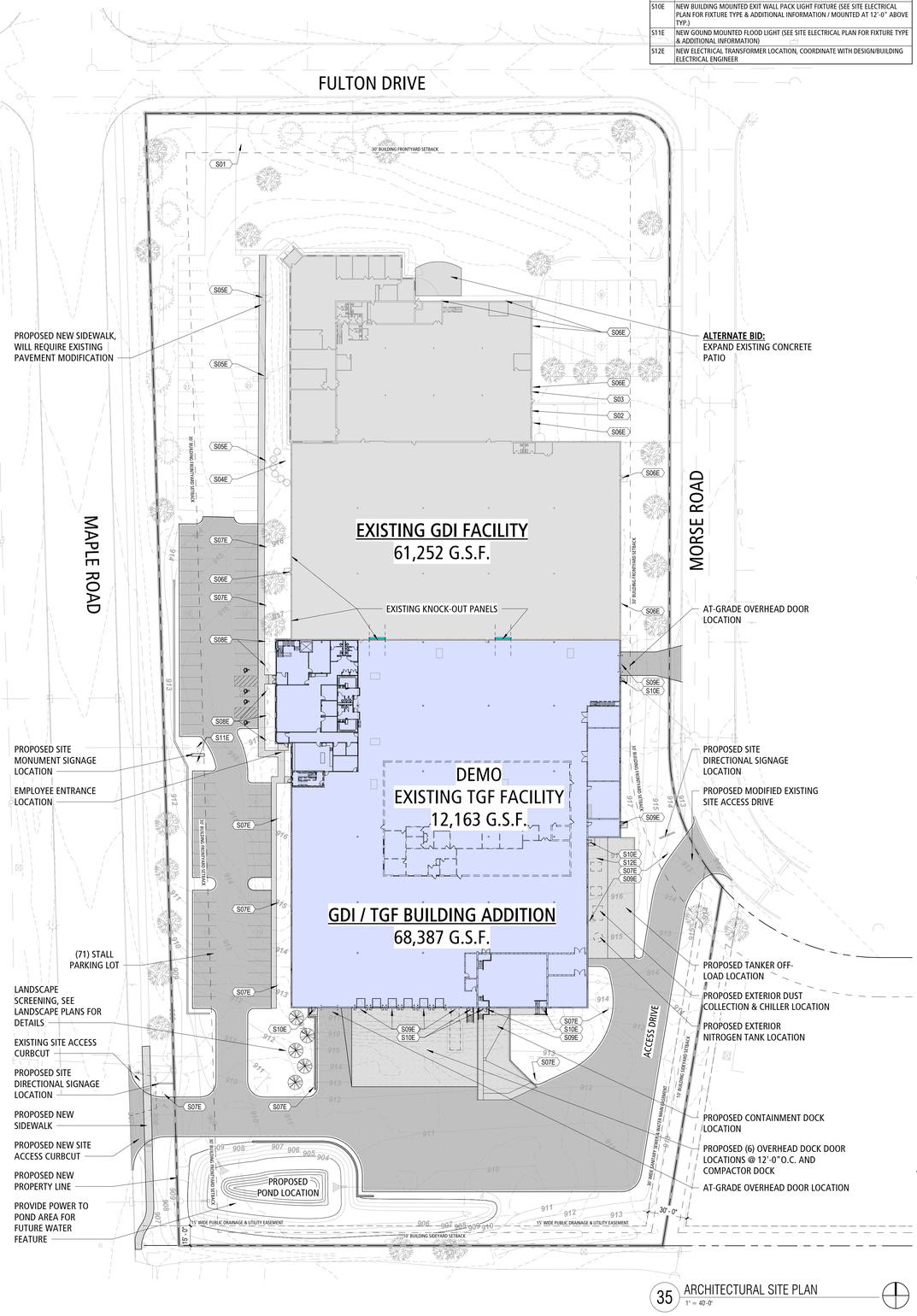
19013-01	DK

DEMOLITION FLOOR PLAN

AD100

KEYNOTES - SITE PLAN	
KEY	KEYNOTE DESCRIPTION
S01	EXISTING SITE MONUMENT AND/OR DIRECTIONAL SIGNAGE SHALL REMAIN
S02	EXISTING DOCK LOCATION SHALL REMAIN
S03	EXISTING DRIVE IN OVERHEAD DOOR SHALL REMAIN
S04E	EXISTING ELECTRICAL TRANSFORMER SHALL REMAIN
S05E	EXISTING SITE POLE MOUNTED LIGHT FIXTURE
S06E	EXISTING BUILDING MOUNTED WALL PACK LIGHT FIXTURE
S07E	NEW SITE POLE MOUNTED LIGHT FIXTIRE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION - POLE MOUNTED / 3'-0" CONCRETE BASE WITH 22'-0" POLE (MATCH EXISTING POLE TYPE, ROUND OR SQUARE))
S08E	NEW SITE BOLLARD LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
S09E	NEW BUILDING MOUNTED LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / SURFACE MOUNTED AT 17'-0" ABOVE FINISHED FLOOR)
S10E	NEW BUILDING MOUNTED EXIT WALL PACK LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / MOUNTED AT 12'-0" ABOVE TYP.)
S11E	NEW GOUND MOUNTED FLOOD LIGHT (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
S12E	NEW ELECTRICAL TRANSFORMER LOCATION, COORDINATE WITH DESIGN/BUILDING ELECTRICAL ENGINEER



35 ARCHITECTURAL SITE PLAN
1" = 40'-0"

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19 AUGUST 2019

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19013-01	DK

ARCHITECTURAL SITE PLAN

AS100

35 OVERALL COLOR SITE PLAN
1" = 40'-0"

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PLAN COMMISSION
SUBMITAL

REVISIONS

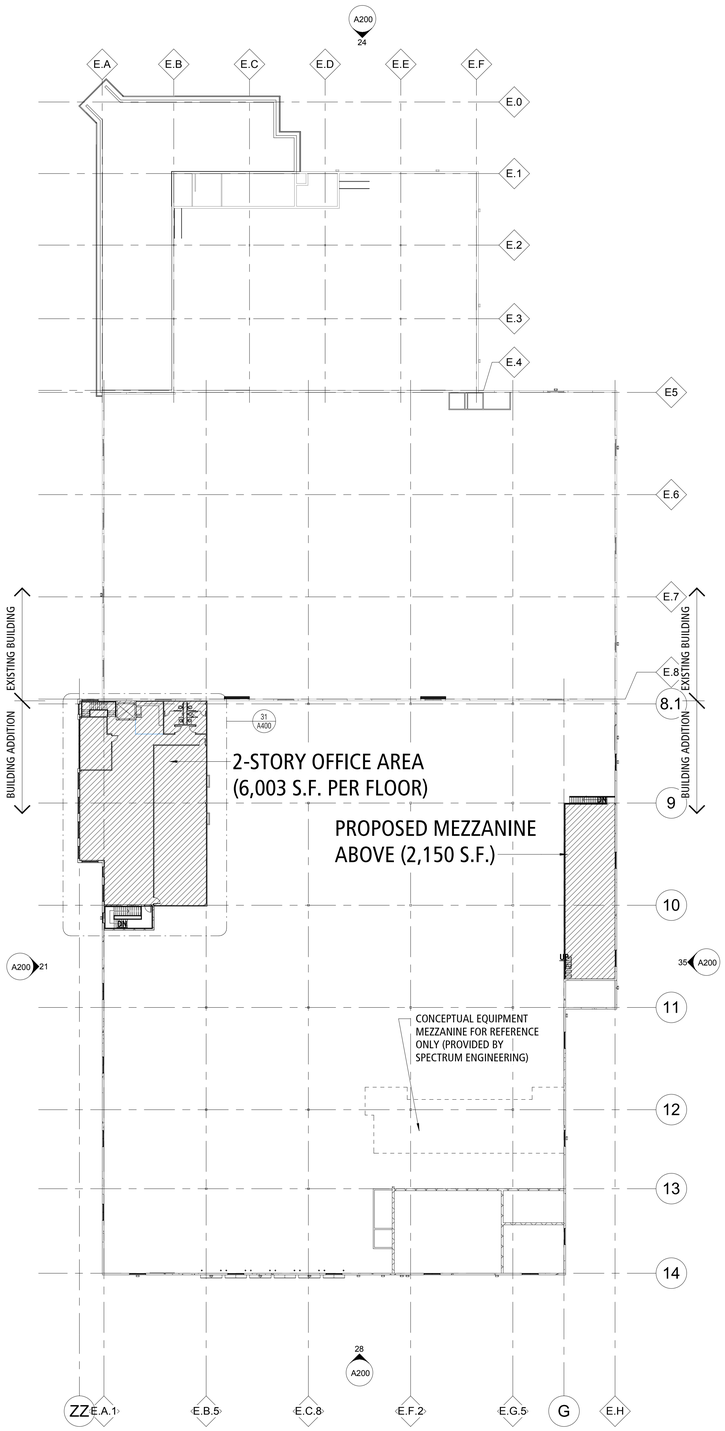
#	DATE	DESCRIPTION

19 AUGUST 2019

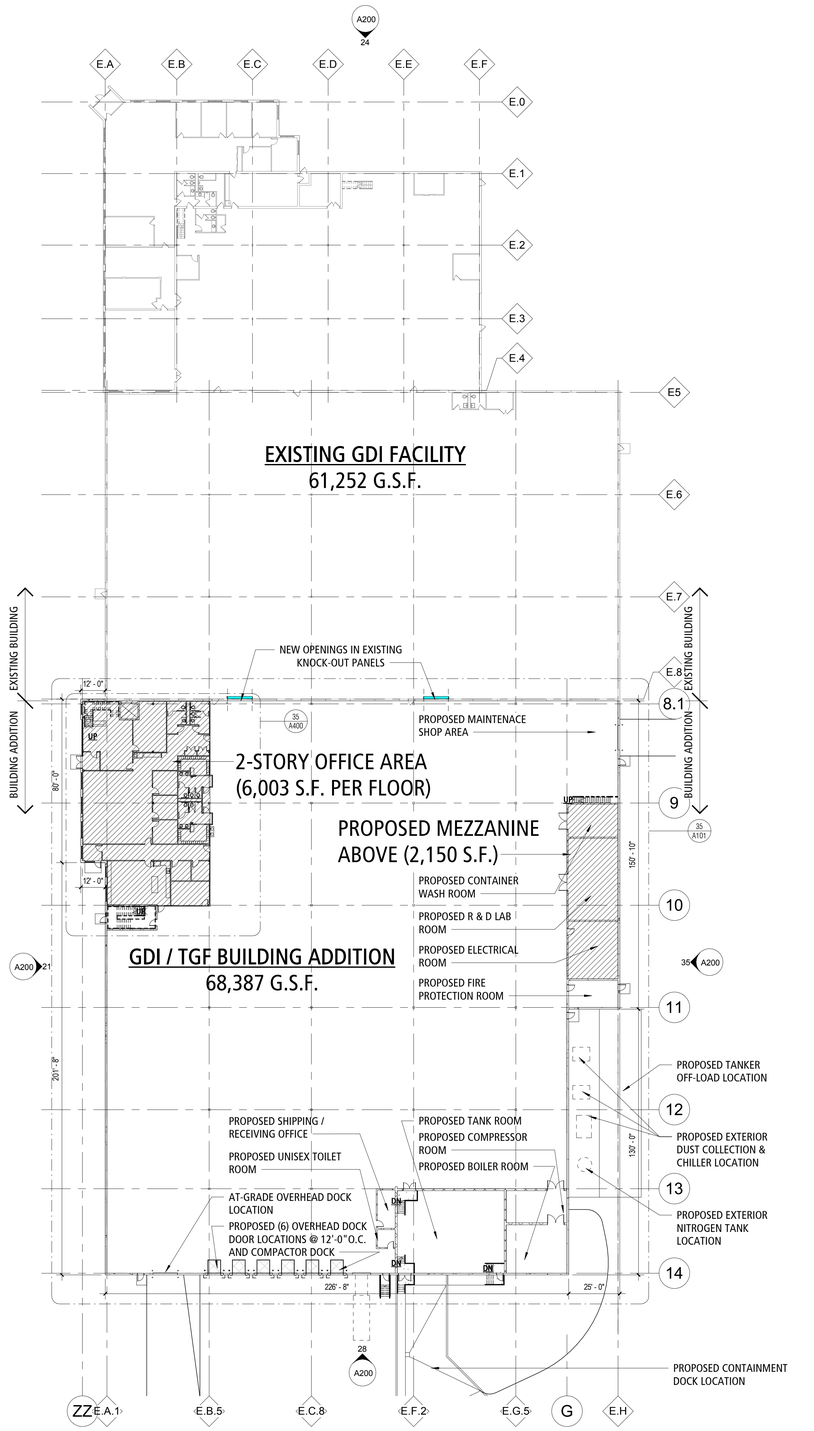
PROJECT NUMBER	PROJECT MANAGER
19013-01	DZ

ARCHITECTURAL
COLORED SITE PLAN

AS110



32 OVERALL MEZZANINE LEVEL FLOOR
1" = 30'-0"



35 OVERALL GROUND LEVEL FLOOR
1" = 30'-0"

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OVERALL FLOOR PLANS

A100

35 GROUND LEVEL FLOOR - ADDITION
1/16" = 1'-0"

FLOOR PLAN LEGEND

- EXISTING WALL TO REMAIN
- NEW WALL CONSTRUCTION
- DOOR - NEW CONSTRUCTION
- ### — DOOR NUMBER - REFER TO DOOR SCHEDULE
- # — WALL TYPE - REFER TO SHEET A000
- F## — KEYNOTE - REFER TO KEYNOTE LEGEND
- FE — FIRE EXTINGUISHER (WALL / COLUMN J-HOOK CONNECTION)
- FEC — ACADEMY, CLEAR ALUMINUM. VERTICAL DUO, SEMI-RECESSED FIRE EXTINGUISHER CABINET BY SL INDUSTRIES OR EQUAL

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
2'-0" (WIDE) x 3'-6" (HIGH), REINFORCED, TRENCH (BANK POURED GRADE BEAM) POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER TRENCH (BANK POURED) POURED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION PERPENDICULAR TO THE EXTERIOR WALL AS AN EXTENSION OF THE PERIMETER TRENCH FORMED FOUNDATION WALL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
7" REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGH THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
4" NORMAL WEIGHT CONCRETE ON 2" COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH 3" BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AD STRUCTURAL COLUMN FRAMING SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (3.5"/3"/3.5") R-13 MIN., WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN LINDSEY 'GRIP TITE' 66 ACRYLIC MASONRY PRIMER AND (2) COATS 'WEATHERGUARD' 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL: 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN +/-10'-12' LENGTHS APPROXIMATELY, WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTO/THROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. AIR & MOISTURE BARRIER OVER 5/8" GLASS-MAT GYPSUM SHEATHING BOARD ("DENSGLASS SHEATING" OR COMPARABLE PRODUCT): ASTM C 1177/C 1177M, WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E , BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHING, EXTERIOR METAL CLOSERS AD SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STILE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME; 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FAÇADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUCCOBOND METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60-MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL: 60-MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD AT THE OUTSIDE CORNER LOCATIONS; AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FACER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANESYSTEM & INSULATION AND SHOULD FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O/C WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSED/BOX DOWNSPOUTS WITH BRACKETS AS REQUIRED (DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR). PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAW CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE 'NB' SIZE 2'-6" WIDE x 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULTED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE x 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE x 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL: VERIFY SEALER/SHELTER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 35,000# MECHANICAL DOCK LEVELER OR 7'x8', 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE x 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY-CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD FRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL, PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2(MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLUNE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIOR/INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE x 1 1/2" HIGH BENT STEEL CHECKER PLATE NOSING WELDED TO STEEL GRATE TREADS. (MCNICHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW"

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

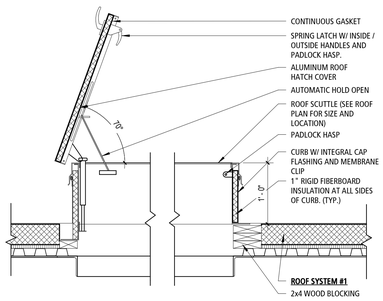
#	DATE	DESCRIPTION

19 AUGUST 2019

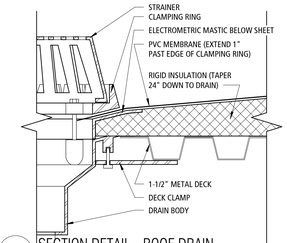
PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

GROUND LEVEL ADDITION FLOOR PLAN

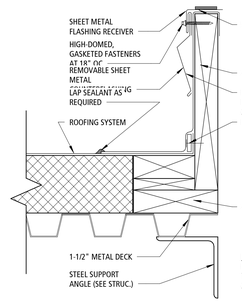
A101



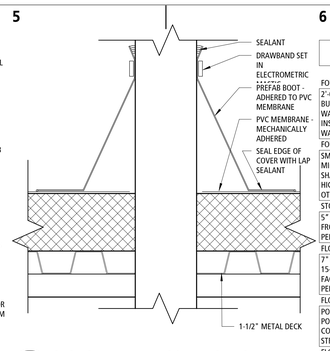
3 SECTION DETAIL - ROOF HATCH
1" = 1'-0"



4 SECTION DETAIL - ROOF DRAIN
3" = 1'-0"

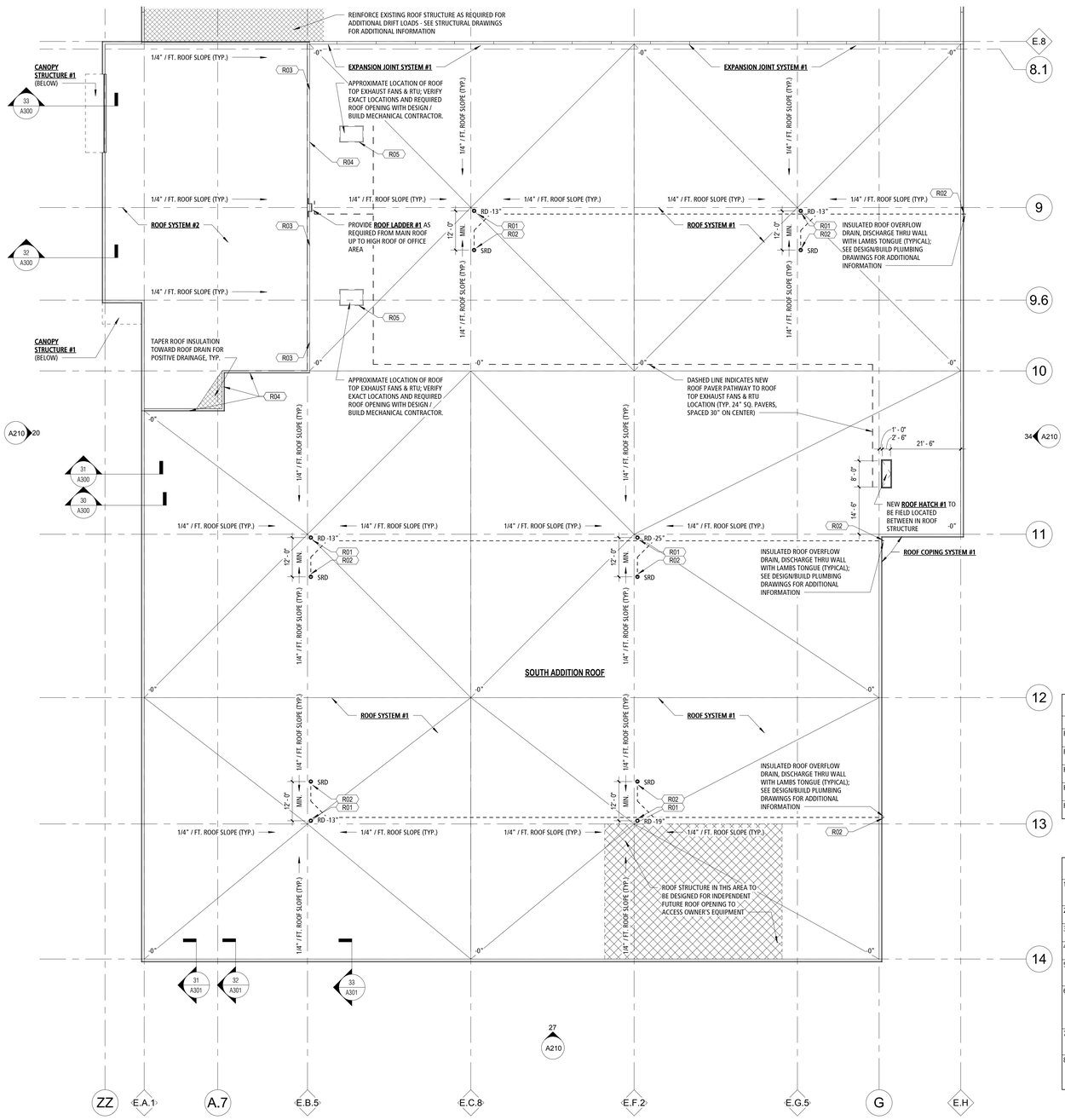


5 SECTION DETAIL - ROOF CURB
3" = 1'-0"



6 SECTION DETAIL - ROOF FLASHING
3" = 1'-0"

EXISTING ROOF TO REMAIN



KEYNOTES - ROOF PLAN	
KEY	KEYNOTE DESCRIPTION
R01	ROOF CONDUCTOR LOCATION - SEE STRUCTURAL DRAWINGS. PROVIDE 48" STAINLESS STEEL PROTECTORS @ BASE OF PIPES
R02	DAYLIGHT SECONDARY ROOF DRAIN 18" A.F.F. - DAYLIGHT WITH BRASS LAMBS TOGUE (EXTERIOR), PROVIDE 48" STAINLESS STEEL PROTECTORS @ BASE OF PIPES
R03	CONTINUOUS GUTTER EDGE, DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR
R04	EXTEND EPDM ROOF MEMBRANE VERTICALLY ON FACE OF ADJACENT PRECAST WALL PANEL 12" ABOVE ROOF LEVEL
R05	ROOF TOP UNIT (RTU) LOCATION, VERIFY EXACT LOCATIONS AND REQUIRED ROOF OPENING WITH DESIGN / BUILD MECHANICAL CONTRACTOR

GENERAL NOTES - ROOF PLAN	
1.	THE SOUTH BUILDING ADDITION ROOF AREAS HAVE A SLOPED STEEL STRUCTURE FOR ROOF DRAINAGE. THE ROOF ELEVATIONS INDICATED ARE RELATIVE TO THE SPECIFIC ROOF AREA.
2.	THE ROOF ELEVATIONS INDICATED ARE RELATIVE TO CONSTANT JOIST BEARING ELEVATIONS AT EXTERIOR WALLS.
3.	R-26 MINIMUM ROOF INSULATION SYSTEM REQUIRED. SEE BUILDING ASSEMBLIES FOR ROOF TYPES.
4.	DESIGN AND SIZE OF ROOF DRAINAGE SYSTEM BY PLUMBING DESIGN/BUILD MEP CONTRACTOR.
5.	ROOF DRAINS TO BE LOCATED AT LOW POINT OF TRUSS GIRDER OR BEAM, SEE STRUCTURAL DRAWINGS. PROVIDE INSULATION AROUND CONDUCTORS AT ROOF PENETRATIONS AND ATTACH STRUCTURAL COLUMNS AS REQUIRED.
6.	INSULATED OVERFLOW DRAINS ARE LOCATED 12'-0" AWAY FROM MAIN ROOF DRAINS. THE INSULATED OVERFLOW ROOF DRAINS WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS INDICATED AND DROP VERTICALLY TO A HEIGHT OF 1'-6" ABOVE FINISHED FLOOR ELEVATION. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION.
7.	PROVIDE SPECIAL JOIST AT INDICATED LOCATIONS FOR RTU'S UNIT SIZE. ACTUAL LOCATION AND WEIGHT TO BE VERIFIED BY HVAC DESIGN/BUILD MEP CONTRACTOR - SEE STRUCTURAL DRAWINGS FOR DETAILS.
8.	ROOF TOP UNITS (RTUs) HAVE BEEN IDENTIFIED FOR INFORMATIONAL PURPOSES AS CONCEPTUAL DESIGN INFORMATION. THE EXACT LOCATION, SIZE AND QUANTITY MAY CHANGE SLIGHTLY AS MECHANICAL DESIGN IS FINALIZED THROUGH THE DESIGN/BUILD PROCESS.

35 T.O. PRECAST SECOND LVL
1/16" = 1'-0"

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
2'-0" (WIDE) x 3'-6" (HIGH), REINFORCED, TRENCH (BANK POURED GRADE BEAM) POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER TRENCH (BANK POURED) POURED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION PERPENDICULAR TO THE EXTERIOR WALL AS AN EXTENSION OF THE PERIMETER TRENCH FORMED FOUNDATION WALL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
7" REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGH THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA-FLEX) AT COLUMNS, CMU WALLS AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
4" NORMAL WEIGHT CONCRETE ON 2" COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH 3" BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AD STRUCTURAL COLUMN FRAMING SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (3.5"/3"/3.5") R-13 MIN., WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN LINDSEY 'GRIP TITE' 66 ACRYLIC MASONRY PRIMER AND (2) COATS 'WEATHERGUARD' 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL: 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN +/-10'-12' LENGTHS APPROXIMATELY, WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTOTHROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. AIR & MOISTURE BARRIER OVER 5/8" GLASS-MAT GYPSUM SHEATHING BOARD ("DENSGLASS SHEATING" OR COMPARABLE PRODUCT): ASTM C 1177/C 1177M, WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E , BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHING, EXTERIOR METAL CLOSERS AD SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STILE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME; 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FAÇADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUCCOBOND METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60-MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL: 60-MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD AT THE OUTSIDE CORNER LOCATIONS; AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FACER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANE SYSTEM & INSULATION AND SHOULD FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O/C WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSED/BOX DOWNSPOUTS WITH BRACKETS AS REQUIRED (DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR). PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAW CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE "NB" SIZE 2'-6" WIDE x 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULTED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE x 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE x 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL; VERIFY SEALER/SHELTER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 35,000# MECHANICAL DOCK LEVELER OR 7'x8', 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE x 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY-CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD FRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL. PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2(MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLUINE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIOR/INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE T5 SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE x 1 1/2" HIGH RENT STEEL CHECKER PLATE NOSING WELDED TO STEEL GRATE TREADS. (MCNICHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED " SAFETY YELLOW"

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

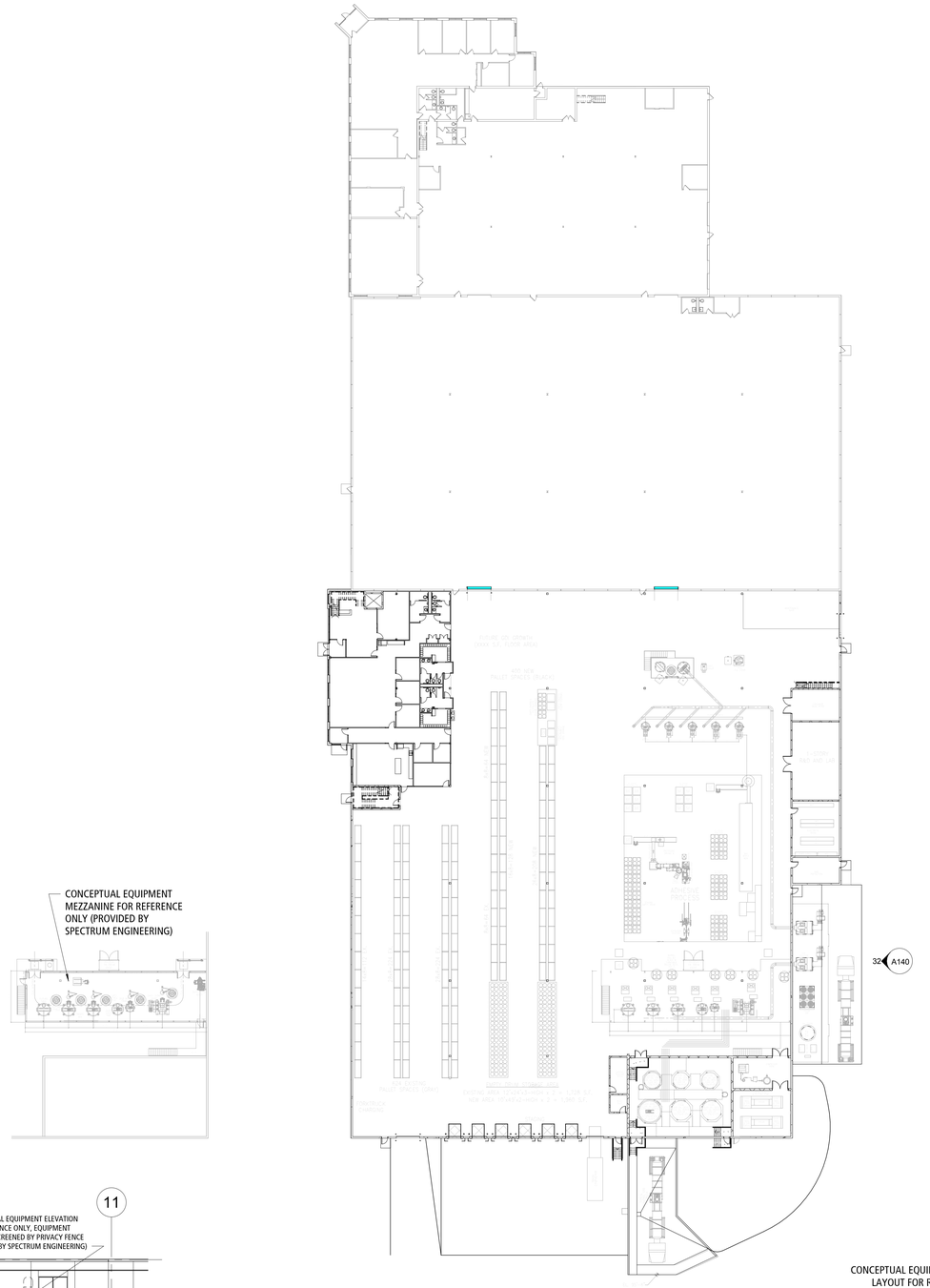
#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

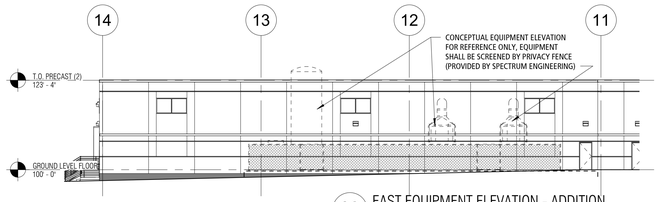
ADDITION ROOF PLAN

A121



CONCEPTUAL EQUIPEMNT AND RACKING LAYOUT FOR REFERENCE ONLY (PROVIDED BY SPECTRUM ENGINEERING)

35 GROUND LEVEL EQUIPMENT PLAN
1" = 30'-0"



32 EAST EQUIPMENT ELEVATION - ADDITION
1/16" = 1'-0"

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

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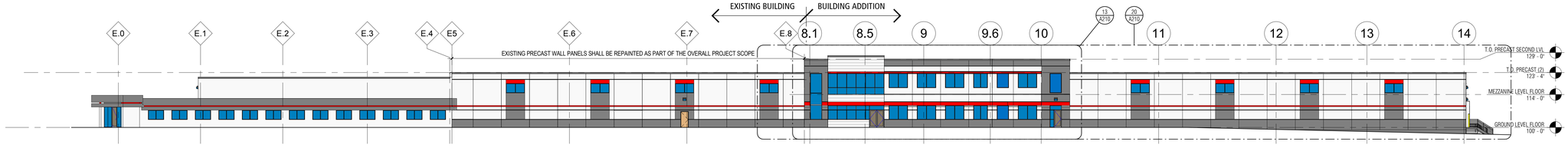
EQUIPMENT PLAN (FOR REFERENCE ONLY)

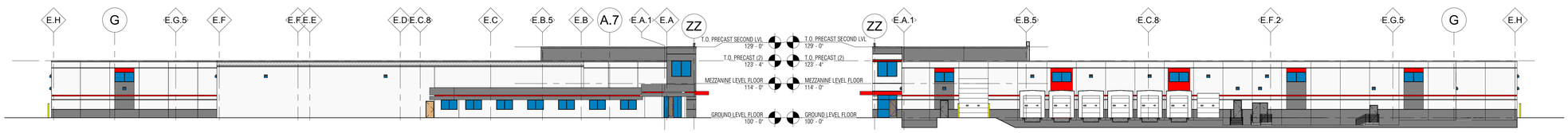
A140

10 NW VIEW OF ENTRANCE

14 SW VIEW OF ENTRANCE

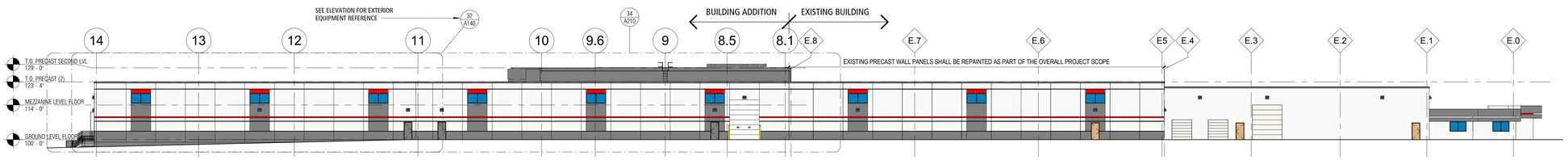


21 OVERALL WEST BUILDING ELEVATION
1" = 20'-0"



24 OVERALL NORTH BUILDING ELEVATION
1" = 20'-0"

28 OVERALL SOUTH BUILDING ELEVATION
1" = 20'-0"



35 OVERALL EAST BUILDING ELEVATION
1" = 20'-0"

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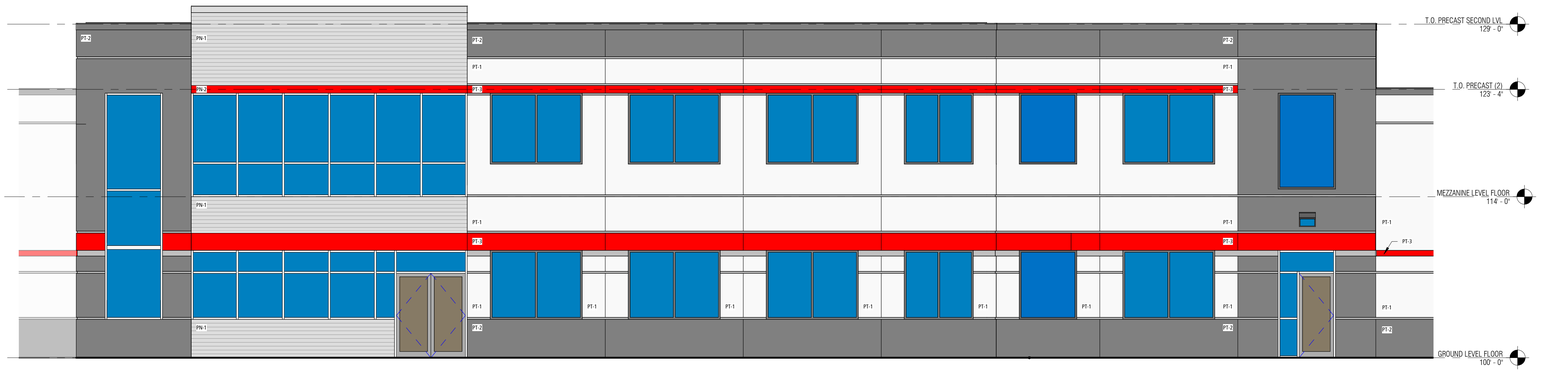
OVERALL BUILDING ELEVATIONS

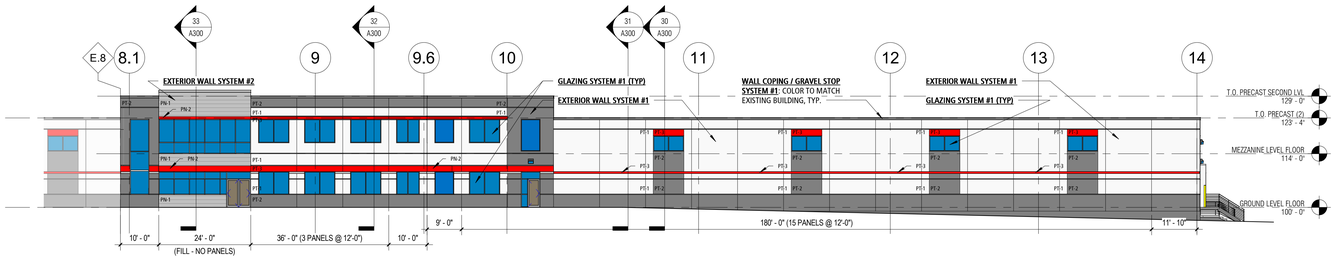
A200

EXTERIOR MATERIAL FINISH SCHEDULE

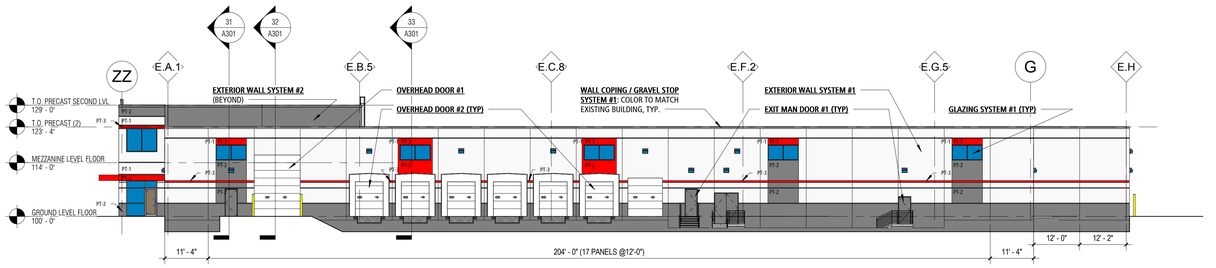
EXTERIOR ALUMINUM WINDOW / DOOR FINISH	BRONZE ALUMINUM - THERMALLY BROKEN GLAZING SYSTEM W/ 1" INSULATED LOW-E BRONZE ANNEALED TINTED GLASS.	**PAINT INFORMATION**	
GLASS	1" BRONZE LOW-E GLASS BY PPG - REFER TO BUILDING ASSEMBLIES FOR MORE INFORMATION	**COLOR 1 (PT-1):**	'WHITE' | TBD #
PREFINISHED METAL FLASHING, COPING, ETC.	PREFINISHED METAL COPING. MATCH EXISTING, COLOR: MATCH EXISTING	**COLOR 2 (PT-2):**	'GREY' | TBD #
METAL TRIM / CANOPY	PREFINISHED METAL PANEL. COLOR: 'RED' FASCIA AND 'GREY' SOFFIT	**COLOR 3 (PT-3):**	'RED' | TBD #
NOTES:	1. PROVIDE SEALANT COLOR SAMPLES TO ARCHITECT FOR APPROVAL. 2. PROVIDE COPING, BREAK METAL, PAINT DRAW DOWNS, ETC. SAMPLES TO ARCHITECT FOR APPROVAL.	**METAL PANEL 1 (PN-1):**	HORIZONTAL ACCENT PANEL 'LIGHT GREY' | RIBBED, TBD #
		METAL PANEL 2 (PN-2):	ALUCCOBOND 'RED' | FLUSH



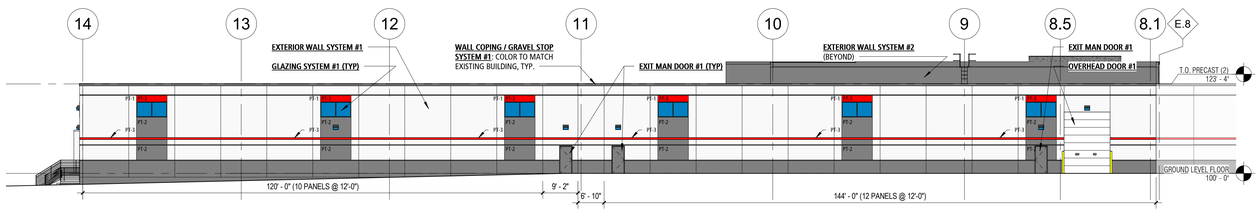
13 ENLARGED WEST BUILDING ELEVATION - ADDITION
3/16" = 1'-0"



20 OVERALL WEST BUILDING ELEVATION - ADDITION
1/16" = 1'-0"



27 OVERALL SOUTH BUILDING ELEVATION - ADDITION
1/16" = 1'-0"



34 OVERALL EAST BUILDING ELEVATION - ADDITION
1/16" = 1'-0"

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
2'-0" (WIDE) x 3'-6" (HIGH), REINFORCED, TRENCH (BANK POURED GRADE BEAM) POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER TRENCH (BANK POURED) POURED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION PERPENDICULAR TO THE EXTERIOR WALL AS AN EXTENSION OF THE PERIMETER TRENCH FORMED FOUNDATION WALL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
7" REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGH THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
4" NORMAL WEIGHT CONCRETE ON 2" COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH 3" BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AD STRUCTURAL COLUMN FRAMING SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (3.5"/3"/3.5") R-13 MIN., WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN LINDSEY 'GRIP TITE' 66 ACRYLIC MASONRY PRIMER AND (2) COATS 'WEATHERGUARD' 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL: 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN +/-10'-12' LENGTHS APPROXIMATELY, WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTOTHROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. AIR & MOISTURE BARRIER OVER 5/8" GLASS-MAT GYPSUM SHEATHING BOARD ("DENSGLASS SHEATING" OR COMPARABLE PRODUCT): ASTM C 1177/C 1177M, WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E , BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHING, EXTERIOR METAL CLOSERS AD SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STILE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME; 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FAÇADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUCCOBOND METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60-MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE; 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL: 60-MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD AT THE OUTSIDE CORNER LOCATIONS; AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FACER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANESYSTEM & INSULATION AND SHOULD FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O/C WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSEDBOX DOWNSPOUTS WITH BRACKETS AS REQUIRED (DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR). PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAW CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE 'NB' SIZE 2'-6" WIDE x 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULTED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE x 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE x 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL; VERIFY SEALER/SHELTER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 35,000# MECHANICAL DOCK LEVELER OR 7'x8', 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE x 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY-CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD FRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL, PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2(MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLUINE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIORINTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE x 1 1/2" HIGH BENT STEEL CHECKER PLATE NOSING WELDED TO STEEL GRATE TREADS. (MCNICHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW"

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

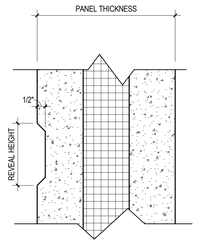
#	DATE	DESCRIPTION

19 AUGUST 2019

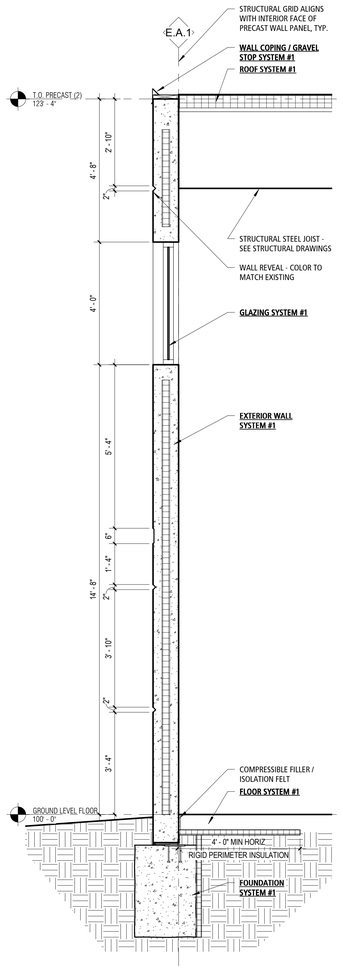
PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

ENLARGED ELEVATIONS

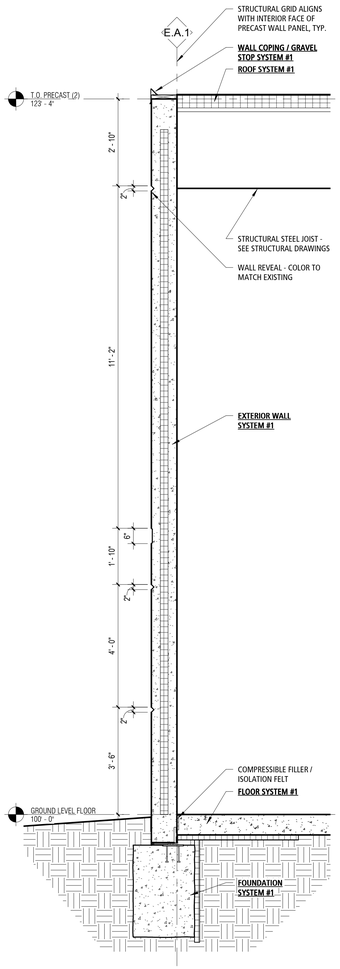
A210



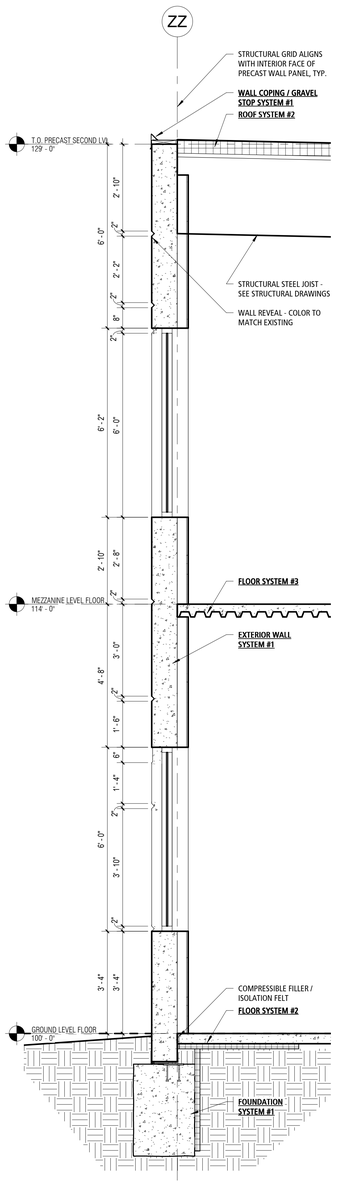
5 PRECAST REVEAL DETAIL (TYPICAL)
3" = 1'-0"



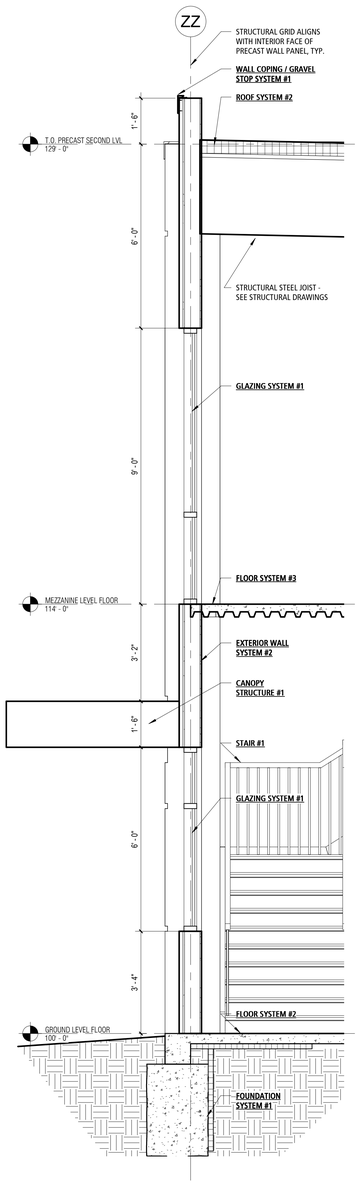
30 SECTION - CLERESTORY WINDOW
1/2" = 1'-0"



31 SECTION - TYPICAL PANEL
1/2" = 1'-0"



32 SECTION - TYPICAL OFFICE AREA
1/2" = 1'-0"



33 SECTION - OFFICE ENTRY
1/2" = 1'-0"

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
2'-0" (WIDE) x 3'-6" (HIGH), REINFORCED, TRENCH (BANK POURED GRADE BEAM) POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER TRENCH (BANK POURED) POURED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION PERPENDICULAR TO THE EXTERIOR WALL AS AN EXTENSION OF THE PERIMETER TRENCH FORMED FOUNDATION WALL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
7" REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGH THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
4" NORMAL WEIGHT CONCRETE ON 2" COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH 3" BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AD STRUCTURAL COLUMN FRAMING SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (3.5"/3"/3.5") R-13 MIN., WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN LINDSEY 'GRIP TITE' 66 ACRYLIC MASONRY PRIMER AND (2) COATS 'WEATHERGUARD' 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL: 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN +/-10'-12' LENGTHS APPROXIMATELY, WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTOTHROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. AIR & MOISTURE BARRIER OVER 5/8" GLASS-MAT GYPSUM SHEATHING BOARD ("DENSGLASS SHEATING" OR COMPARABLE PRODUCT): ASTM C 1177/C 1177M. WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E , BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHING, EXTERIOR METAL CLOSERS AD SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STILE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME; 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FAÇADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUCCOBOND METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60-MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL: 60-MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD AT THE OUTSIDE CORNER LOCATIONS; AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FACER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANESYSTEM & INSULATION AND SHOULD FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O/C WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSED/BOX DOWNSPOUTS WITH BRACKETS AS REQUIRED (DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR). PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAW CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE "NB" SIZE 2'-6" WIDE x 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULTED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE x 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE x 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 40" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL; VERIFY SEALER/SHELTER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 35,000# MECHANICAL DOCK LEVELER OR 7'x8', 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE x 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY-CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD FRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL, PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #2(MEZZANINE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #3 (SHIP'S LADDER)
PAINTED STEEL CHANNEL STRINGER WITH BAR GRATE TREADS, 68 DEGREE STEEP INCLUNE STAIR WITH 1'-0" MAX. RISERS AND 6" DEEP TREADS. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIORINTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE x 1 1/2" HIGH BENT STEEL CHECKER PLATE NOSING WELDED TO STEEL GRATE TREADS. (MCNICHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

HANDRAIL #1
PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENT OF 1'-0" PAST THE NOSE OF THE TREAD AT TOP AND BOTTOM OF STAIR. PRIME AND PAINT GRAY. PROVIDE WALL MOUNTED SINGLE LINE HANDRAIL ON EXTERIOR WALL. CORE AND PLACE RAILING IN PLACE, GROUT SOLID AND CAULK.

BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW"

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GLUE DOTS INTERNATIONAL BUILDING EXPANSION

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GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

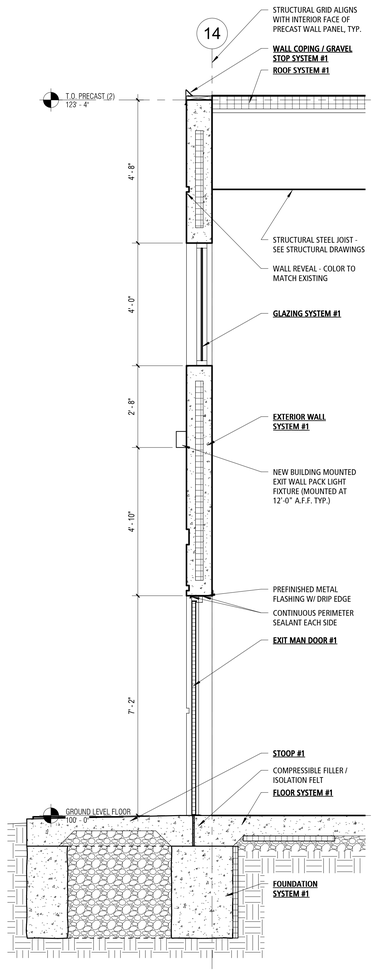
#	DATE	DESCRIPTION

19 AUGUST 2019

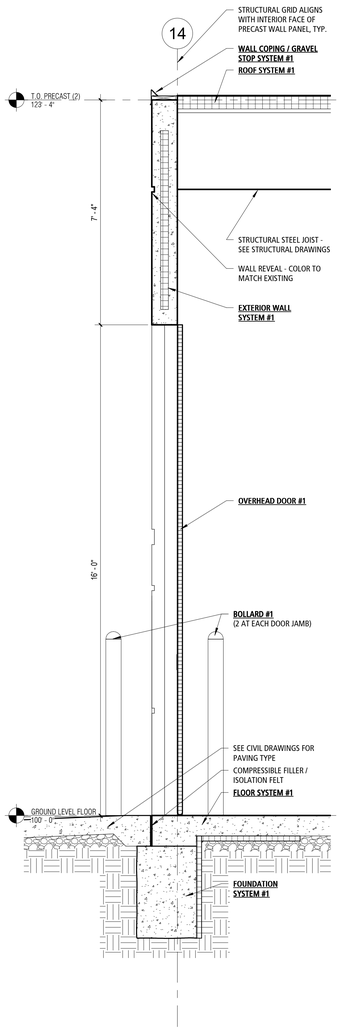
PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

WALL SECTIONS

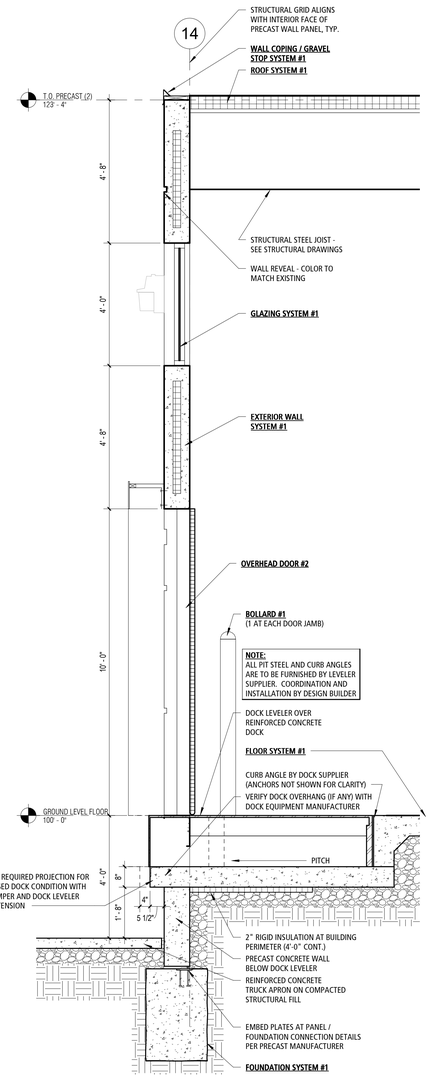
A300



31 SECTION - EXIT MAN DOOR
1/2" = 1'-0"



32 SECTION - DRIVE THRU DOOR
1/2" = 1'-0"



33 SECTION - TYPICAL DOCK
1/2" = 1'-0"

BUILDING ASSEMBLIES

FOUNDATION SYSTEM #1 (TYPICAL)
2'-0" (WIDE) x 3'-6" (HIGH), REINFORCED, TRENCH (BANK POURED GRADE BEAM) POURED-IN-PLACE CONCRETE FOUNDATION WALL AT BUILDING PERIMETER. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FOUNDATION SYSTEM #2 (EXPOSED)
SMOOTH FACED REINFORCED, FORMED POURED-IN-PLACE CONCRETE RETAINING FOUNDATION WALL. PROVIDE 2" RIGID INSULATION (R-10 MIN) 4'-0" MINIMUM VERTICAL ON THE INTERIOR FACE OF THE FOUNDATION WALL AT ALL EXTERIOR WALLS. TOP OF FOUNDATION WALL SHALL BE 1'-0" BELOW FINISH FLOOR LEVEL. PROVIDE AND INSTALL 2" RIGID INSULATION HORIZONTALLY FROM INSIDE FOUNDATION WALL. HIGH DENSITY RIGID INSULATION TO BE USED HORIZONTALLY IN WAREHOUSE AREA. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

STOOP #1
5" SLAB-ON-GRADE CONCRETE STOOP WITH POSITIVE SLOPE AWAY FROM THE DOOR, OVER TRENCH (BANK POURED) POURED-IN-PLACE FROST RESISTANT 4'-0" BELOW GRADE CONCRETE FOUNDATION PERPENDICULAR TO THE EXTERIOR WALL AS AN EXTENSION OF THE PERIMETER TRENCH FORMED FOUNDATION WALL. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #1 (TYPICAL - PRODUCTION)
7" REINFORCED STRUCTURAL FIBER POURED-IN-PLACE CONCRETE SLAB-ON-GRADE AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 15-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED WAREHOUSE LOCATIONS THROUGHOUT THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS, AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #2 (TYPICAL - OFFICE)
POURED-IN-PLACE CONCRETE SLAB-ON-GRADE WITH STEEL REINFORCING AS SPECIFIED IN STRUCTURAL DRAWINGS. PROVIDE 10-MIL POLYETHYLENE VAPOR BARRIER OVER COMPACTED STONE BASE IN ALL FINISHED "OFFICE AREA" LOCATIONS THROUGH THE FACILITY PER CODE PRIOR TO PLACING CONCRETE SLAB. PROVIDE PRE-MOLDED JOINT FILL (VERSA FLEX) AT COLUMNS, CMU WALLS AND PERIMETER. (SEE STRUCTURAL DRAWINGS FOR FLOOR SLAB REINFORCING, CONTROL JOINT LOCATIONS, AND SPECIFIC INFORMATION).

FLOOR SYSTEM #3 (OFFICE MEZZANINE)
4" NORMAL WEIGHT CONCRETE ON 2" COMPOSITE DECK WITH SHEAR STUDS OVER WIDE FLANGE BEAM AND COLUMN STRUCTURAL FLOOR SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

FLOOR SYSTEM #4 (STORAGE MEZZANINE)
HOLLOW CORE PRECAST CONCRETE PLANK WITH 3" BONDED CONCRETE TOPPING SET ON W-FLANGE STEEL BEAM AD STRUCTURAL COLUMN FRAMING SYSTEM. (SEE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER SPECIFIC INFORMATION.)

EXTERIOR WALL SYSTEM #1
10" NOMINAL FORMED INSULATED PRECAST CONCRETE (3.5"/3"/3.5") R-13 MIN., WET CAST SMOOTH FACED LOAD-BEARING ARCHITECTURAL PANELS WITH 1/2" DEEP FORMED HORIZONAL REVEALS AND SMOOTH FINISH AS DEPICTED IN EXTERIOR ELEVATIONS. EXTERIOR FACE OF PANELS TO BE PAINTED WITH HALLMAN LINDSEY 'GRIP TITE' 66 ACRYLIC MASONRY PRIMER AND (2) COATS 'WEATHERGUARD' 176, FLAT, 100% ACRYLIC PAINT. ALL DOORS AND WINDOW OPENINGS TO BE FORMED INTEGRAL DRIP AT THE HEAD OF THE OPENING AND POSITIVE SLOPED SILL. PROVIDE SEALANT AND BACKER ROD AT ALL VERTICAL PANEL JOINTS (INTERIOR AND EXTERIOR). SEE ELEVATIONS AND WALL SECTIONS FOR LOCATIONS OF REVEALS, PANEL ARTICULATIONS AND WALL PANEL LAYOUT. REFER TO EXTERIOR MATERIAL SCHEDULE FOR PAINT COLOR SELECTIONS.

EXTERIOR WALL SYSTEM #2
PROVIDE & INSTALL: 24 GAUGE 36" WIDE PREFINISHED RIBBED DEEP-DECK CORRUGATED METAL WALL PANELS, INSTALLED HORIZONTALLY IN +/-10'-12' LENGTHS APPROXIMATELY, WITH STANDARD CONCEALED FASTENER WITH NEOPRENE WASHERS AND INTO/THROUGH THE VERTICAL WALL FRAMING MEMBERS BELOW. AIR & MOISTURE BARRIER OVER 5/8" GLASS-MAT GYPSUM SHEATHING BOARD ("DENSGLASS SHEATING" OR COMPARABLE PRODUCT): ASTM C 1177/C 1177M. WITH FIBERGLASS MAT LAMINATED TO BOTH SIDES AND WITH MANUFACTURER'S STANDARD EDGES. INSTALL EXTERIOR SHEATHING ON 6" STRUCTURAL STEEL STUDS 16" O.C. WITH BATT INSULATION AND 5/8" GYPSUM BOARD INTERIOR FINISH. PROVIDE CONTROL JOINTS AS REQUIRED PER STRUCTURAL REQUIREMENTS.

GLAZING SYSTEM #1
"TRIFAB 451T SYSTEM" BY KAWNEER. THIS IS A CENTER GLAZED STOREFRONT SYSTEM: 2" WIDE X 4.5" DEEP IN BRONZE ANODIZED ALUMINUM FRAME (MATCH EXISTING). REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF MULLION. 1" INSULATED LOW-E , BRONZE TINTED GLASS UNITS WITH THERMAL BREAK, SILL FLASHING, EXTERIOR METAL CLOSERS AD SHIMS ATTACHED TO OPENINGS AS INDICATED. ALL FULL-LITE GLASS ALUMINUM DOORS TO BE MEDIUM STILE FRAMES. PROVIDE TEMPERED GLAZING AS REQUIRED. PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

GLAZING COMPOSITION
INSULATED GLASS: 1" BRONZE TINTED INSULATED GLASS UNIT IN THERMALLY BROKEN ANODIZED ALUMINUM FRAME; 1/4" CLEAR, 1/2" AIR SPACE, 1/4" LOW-E COATING ON BRONZE TINTED (MATCH EXISTING). PROVIDE ARCHITECT WITH SAMPLE FOR FINAL APPROVAL.

CANOPY STRUCTURE #1
PRIMED EXTERIOR HORIZONTAL STEEL CHANNEL AND TUBE STEEL STRUCTURAL SUPPORTS AND FRAMING. SKELETON FRAME ATTACHED TO BUILDING FAÇADE WITH EMBED PLATES AND CONNECTIONS TO THE STRUCTURAL STEEL FRAME AND/OR PRECAST WALL PANELS OF THE BUILDING. FRAME UNDERSIDE OF CANOPY WITH METAL STUDS AND ALUCCOBOND METAL PANELS (OR SIMILAR) FOR SOFFIT AND FASCIA CONDITIONS. PROVIDE AND INSTALL ADHERED EPDM MEMBRANE WITH TAPERED RIGID INSULATION SLOPED TO SIDES OF CANOPY WITH SCUPPER OPENINGS. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS.

ROOF SYSTEM #1 (BALLASTED)
WASHED STONE BALLAST (NOMINAL RATE OF 10#/SF IN FIELD, 12#/SF AT THE PERIMETER AND 15#/SF IN THE CORNER AREAS) OVER 60-MIL EPDM MEMBRANE ON (2) LAYERS OF 2.6" POLYISOCYANURATE INSULATION WITH STAGGERED JOINTS WITH FELT OR GLASS-FIBER MAT FACER ON BOTH MAJOR SURFACES AND MINIMUM R-26. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES AND POSITIVE DRAINAGE. 20 GA. MINIMUM METAL DECK OVER STRUCTURAL STEEL JOISTS. STRUCTURAL STEEL TO PITCH TO INSULATED ROOF DRAINS. INSTALL INSULATED OVERFLOW ROOF DRAINS THAT WILL EXTEND TO THE ADJACENT EXTERIOR WALL AS DEPICTED ON THE ROOF PLAN AND DROP VERTICALLY TO DAYLIGHT SCUPPER AT 18" A.F.F. PROVIDE PREFINISHED THRU-WALL STEEL PIPE DRAIN WITH FINISHED TRIM AT EXTERIOR PRECAST WALL PENETRATION. (SEE STRUCTURAL DRAWINGS FOR ROOF FRAMING, PITCH AND OTHER SPECIFIC INFORMATION.)

ROOF SYSTEM #2 (ADHERED)
PROVIDE & INSTALL: 60-MIL EPDM MEMBRANE FULLY ADHERED AND ASSOCIATED 60 MIL EPDM FLASHINGS. A MECHANICALLY FASTENED BASE LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD AT A RATE OF 8 PER BOARD IN THE FIELD, 16 PER BOARD AT THE PERIMETER, AND 32 PER BOARD AT THE OUTSIDE CORNER LOCATIONS; AND A FULLY ADHERED TOP LAYER OF 2.6" POLYISOCYANURATE ROOF INSULATION BOARD IN INSULATION ADHESIVE. PROVIDE TAPERED ROOF INSULATION AS REQUIRED FOR SADDLES. POLYISOCYANURATE ROOF INSULATION BOARD SHOULD CONFORM TO ASTM C1289, TYPE 2, CLASS 2, GRADE 2 WITH A COATED GLASS FACER. OFFSET INSULATION JOINTS A MINIMUM OF SIX INCHES (6"). ALL MATERIALS AND DETAILS MUST BE ACCEPTABLE TO THE MANUFACTURER OF THE ROOF MEMBRANE/SYSTEM & INSULATION AND SHOULD FOLLOW THE MANUFACTURER'S CURRENT APPLICATION INSTRUCTIONS. (SEE STRUCTURAL DRAWINGS FOR INFORMATION ON STRUCTURALLY SLOPED METAL ROOF DECK OVER STRUCTURAL STEEL JOISTS.)

EXPANSION JOINT SYSTEM #1
PROVIDE & INSTALL: CONTINUOUS 3" HOLLOW FOAM BACKER ROD WITH 24" WIDE EPDM FLASHING STRIP. ADHERE TO ROOFING SYSTEM & NEW BASE OF WALL BLOCKING AS REQUIRED.

WALL COPING / GRAVEL STOP SYSTEM #1
PREFINISHED 2-PIECE METAL WALL COPING WITH 6" FACE ON 2X WOOD ROOF BLOCKING, ANCHORED SECURELY TO TOP OF EXTERIOR WALL SYSTEM AT 4'-0" O/C WITH 3/8" DIAMETER ANCHORS. EXTEND ROOF MEMBRANE OVER WALL AND TERMINATE UNDER COPING SYSTEM. REFER TO EXTERIOR MATERIAL SCHEDULE FOR COLOR SELECTIONS (MATCH EXISTING). PROVIDE GRAVEL STOP ROOF COPING AT A MAJORITY OF ROOF AREA.

GUTTER / DOWNSPOUT #1
CONTINUOUS 24 GAUGE PREFINISHED METAL GUTTER WITH SUPPORT STRAPS & BRACKETS AS REQUIRED. PROVIDE 24 GAUGE PREFINISHED METAL ENCLOSED/BOX DOWNSPOUTS WITH BRACKETS AS REQUIRED (DOWNSPOUT LOCATIONS AS RECOMMENDED BY ROOFING CONTRACTOR). PROVIDE SPLASH BLOCKS AT ALL DOWNSPOUT LOCATIONS.

FLASHING SYSTEM #1
AT CANOPY STRUCTURE #1 PROVIDE PREFINISHED, 22-GA. METAL COUNTER FLASHING PER CODE AT LINTELS OF OPENING. ADHESIVE BACKED OVER STAINLESS STEEL METAL DRIP EDGE REGLET SAW CUT INTO PRECAST WALL PANEL OR RETURN AND TERMINATE TO ALUMINUM SYSTEM. INSTALL SEALANT A METAL FLASHING AND EXTERIOR MATERIAL.

ROOF HATCH #1
PROVIDE TYPE 'NB' SIZE 2'-6" WIDE x 8'-0" LONG ROOF ACCESS HATCH BY BILCO ON STRUCTURALLY FRAMED OPENING. HATCH IS PRIMED AND PAINTED TO MATCH WALL COPING / GRAVEL STOP SYSTEM #1.

ROOF LADDER #1
PROVIDE AND INSTALL EXTERIOR STEEL ROOF ACCESS LADDER FOR ROOF ACCESS PER OSHA REQUIREMENTS, FROM MAIN ROOF TO THE HIGH ROOF OF OFFICE AREAS. PRIME AND FINISH PAINT DARK GRAY. PROVIDE WITH INTEGRAL GUARDRAIL EXTENSIONS.

EXIT MAN DOOR #1
14 GA. GALVANIZED INSULTED LAMINATED CORE FOLLOW METAL DOOR (FLUSH AND/OR NARROW LITE), PAINTED. REFER TO EXTERIOR MATERIAL SCHEDULE FOR SELECTED COLORS, PRIME & PAINT. INSULATED HOLLOW METAL FRAMES WITH THRESHOLD, WEATHER STRIPPING AND DRIP CAP HEAD.

OVERHEAD DOOR #1 (DRIVE THRU)
12'-0" WIDE x 16'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND ELECTRIC OPERATOR, VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE.

OVERHEAD DOOR #2 (TYPICAL DOCK)
9'-0" WIDE x 10'-0" HIGH HEAVY DUTY INSULATED PREFINISHED STEEL OVERHEAD DOOR WITH (2) VISION PANELS AND WEATHER STRIPPING. VERTICAL TRACK ASSEMBLY AND FRAME TO HAVE GALVANIZED FINISH. ELECTRIC OPERATOR WITH 45" SWING ARM DOCK LIGHT. PROVIDE DOCK SEAL; VERIFY SEALER/SHELTER AND OTHER REQUIREMENTS WITH MANUFACTURER. PROVIDE 35,000# MECHANICAL DOCK LEVELER OR 7'x8', 50,000# AIR-BAG DOCK LEVELER (RITE HITE OR EQUAL) AT RECESSED DOCK DOOR LOCATIONS - VERIFY PIT DIMENSIONS WITH DOCK LEVELER MANUFACTURER. PROVIDE RUBBER BUMPERS WITH 3/4" DIAMETER GALVANIZED EXPANSION BOLTS FOR ANCHORING. INTERIOR AND EXTERIOR FACE OF DOOR TO BE PREFINISHED WHITE. PROVIDE DOKLOK & RED / GREEN SAFETY LIGHTS.

OVERHEAD DOOR #3 (INTERIOR)
12'-0" WIDE x 12'-0" HIGH HIGH SPEED COILING RAPID ROLL DOOR WITH ALUMINUM PROFILE WITH HEAVY DUTY WIND RIB REINFORCEMENTS AND SELF-REPAIRING BREAKAWAYS. VERTICAL TRACK AND FRAME ASSEMBLY TO BE GALVANIZED STEEL. MOTOR HOUSING ASSEMBLY TO BE PREFINISHED WITH DOOR PREFINISHED WHITE.

ELEVATOR #1
SCHINDLER 3300 MRL TRACTION ELEVATOR WITH FREQUENCY-CONTROLLED DRIVE WITH 3,500# CAPACITY. STANDARD TWO SPEED LEFT FRONT OPENING, WOOD FRAIN PLASTIC LAMINATE INTERIOR WALLS, BRUSHED STAINLESS STEEL CAR DOOR AND FRONT, CEILING AND HANDRAIL. PIT DETAILS AND SHAFT SIZE TO BE VERIFIED WITH ELEVATOR MANUFACTURER.

STAIR #1 (OFFICE)
PAINTED STEEL CHANNEL STRINGER WITH CONCRETE FILLED PAN TREAD UNDER RUBBER TREAD MATERIAL. PAINTED STEEL BALUSTERS AND INTERMEDIATE MEMBERS PER CODE AND STAIR SECTION DRAWINGS. STAIR HANDRAILS TO MEET EXTENSION REQUIREMENTS OF 1'-0" BEYOND THE NOSE OF THE STAIR TREAD PER CODE. REFER TO ROOM FINISH SCHEDULE FOR TREAD AND RISER FINISH.

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STAIR #4 (DOCK ACCESS)
GALVANIZED EXTERIOR/INTERIOR STEEL STAIR WITH C-CHANNEL STRINGERS BOLTED TO CONCRETE SLAB AND PRECAST CONCRETE WALL PANEL AT DOOR LANDING LOCATION. PROVIDE TS SUPPORT COLUMN AT LANDING CORNER. 7" HIGH RISERS AND 11" DEEP TREADS. STAIR TREADS TO HAVE 1 1/2" WIDE x 1 1/2" HIGH BENT STEEL CHECKER PLATE NOSING WELDED TO STEEL GRATE TREADS. (MCNICHOLS BAR GRATE TREADS ACCEPTABLE) TREADS TO BE BOLTED OR WELDED TO C-CHANNEL STRINGERS. HANDRAILS BOTH SIDES PER CODE WITH 3'-6" GUARDRAIL AT LANDING WITH (2) HORIZONTAL BARS.

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BOLLARD #1 (TYPICAL)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, EXTEND DOWN 4'-0" BELOW SLAB. CROWN TOP OF CONCRETE. PAINT "SAFETY YELLOW."

BOLLARD #2 (MECH. MOUNTED)
6" DIAMETER, 4'-0" TALL CONCRETE FILLED PIPE BOLLARD, MECHANICALLY MOUNTED TO FLOOR SLAB. CROWN TOP OF CONCRETE. PAINTED "SAFETY YELLOW"

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GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

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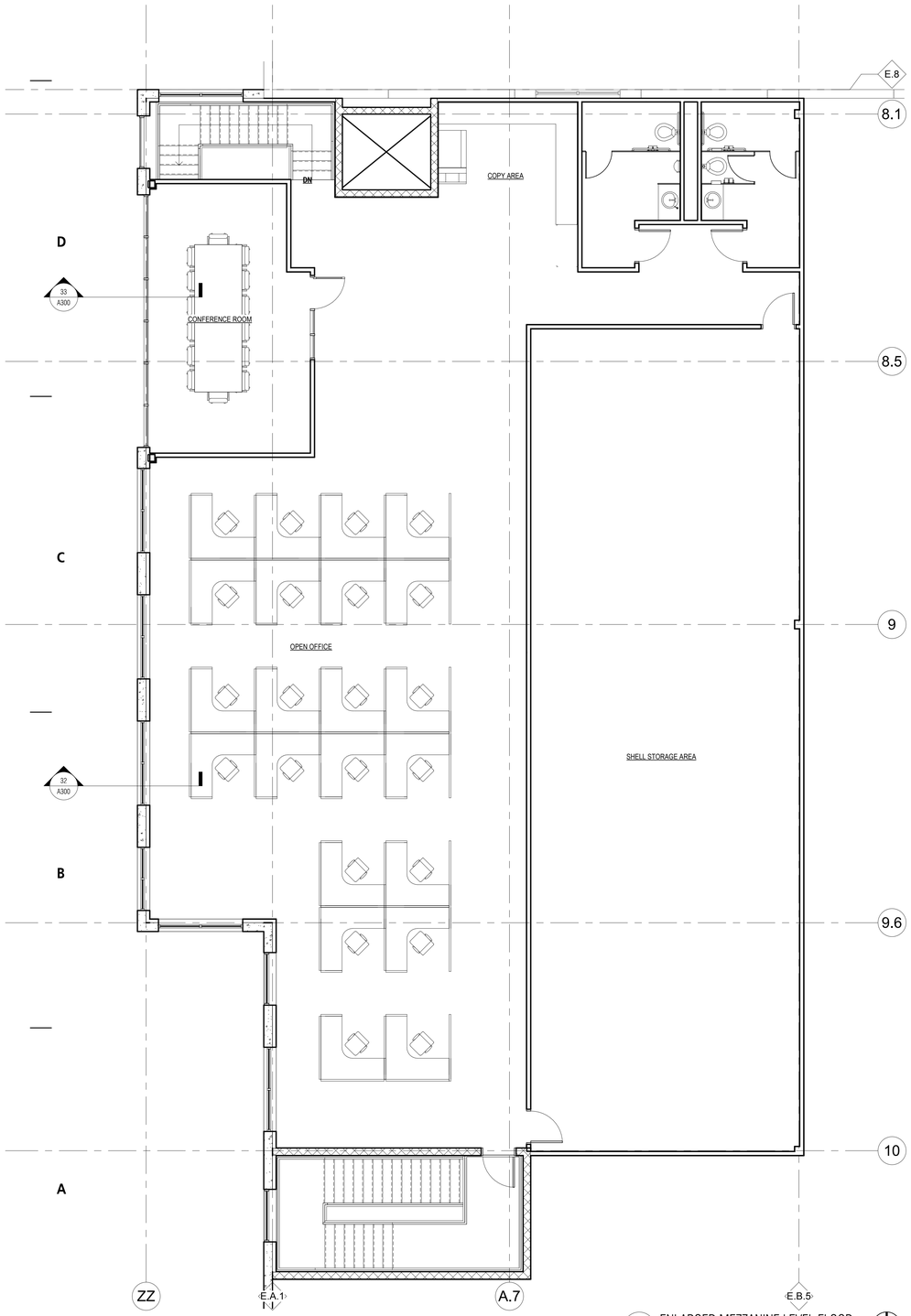
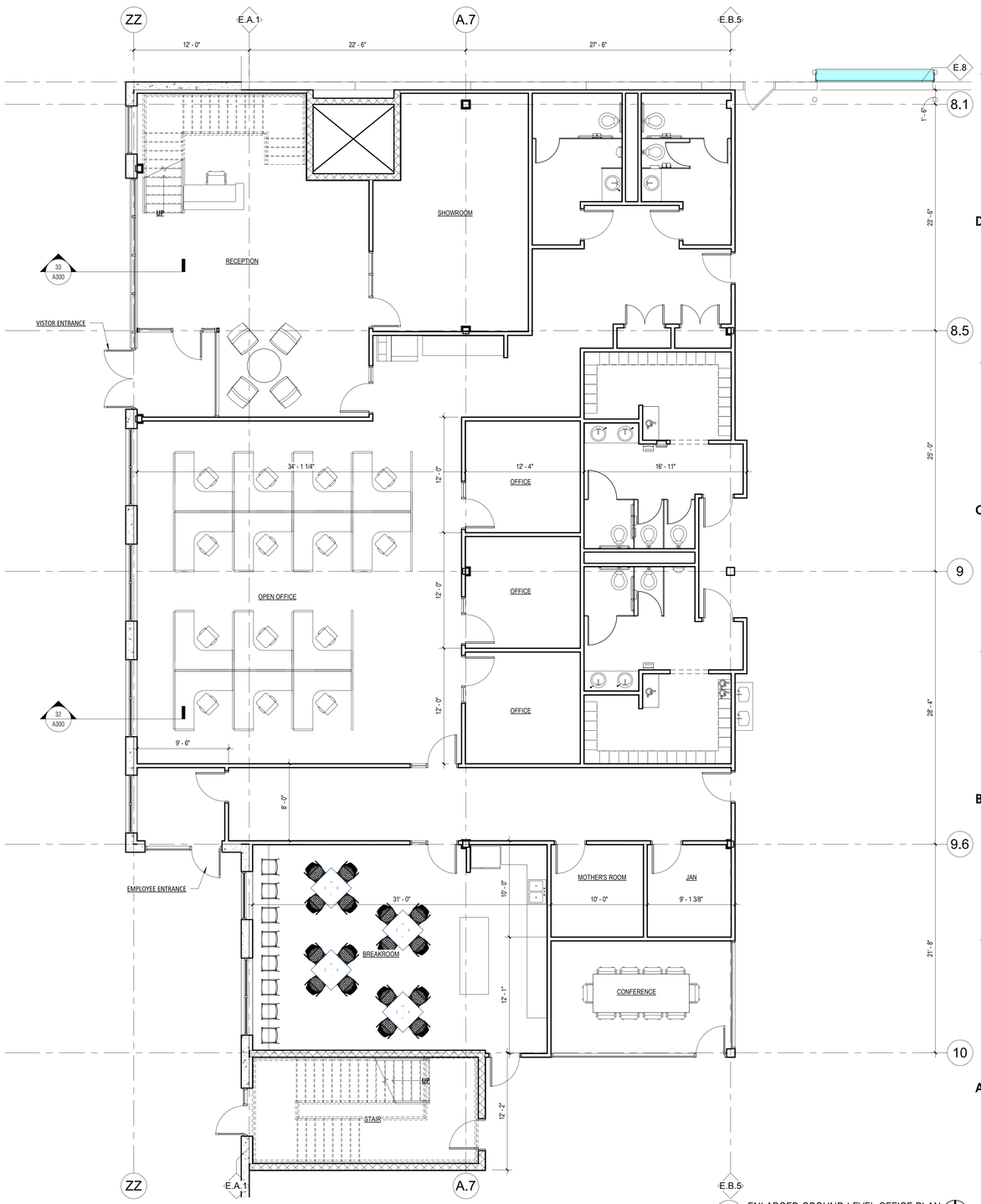
WALL SECTIONS

A301



31 ENLARGED MEZZANINE LEVEL FLOOR
3/16" = 1'-0"



35 ENLARGED GROUND LEVEL OFFICE PLAN
3/16" = 1'-0"

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GlueDots Adhesive Products

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19013-01	DK

ENLARGED OFFICE AREA

A400

THE SIGMA GROUP
Single Source. Sound Solutions.

September 16, 2019 Project Reference #18858

Via email: jretzlaff@village.germantown.wi.us

Groundwater Technical Review Committee
c/o Mr. Jeff Retzlaff, Village Planner
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

Subject: **Environmental Assessment Report**
Glue Dots International Building Expansion
N117W18711 Fulton Drive
Germantown, WI 53022

Dear Committee Members:

The Glue Dots International (GDI) facility located at N117W18711 Fulton Drive, Germantown, WI, submitted their proposed building expansion project to the Village of Germantown Plan Commission on August 19, 2019. After submitting to the Plan commission, GDI was informed by the Village of Germantown that GDI is subject to the Wellhead Protection Ordinance because the facility is located within the Village's Groundwater Protection Overlay District for Well #5 and Well #7 and because the facility uses Hazardous chemical identified by OSHA criteria, 40 CFR 370. Accordingly, a Conditional Use Permit (CUP) is required.

In accordance with Village of Germantown City Ordinance #15-10 Wellhead Protection 17.40 established by the Wisconsin Legislature in § 62.23(7)(a) and (c), Wisconsin Statue, on behalf of Glue Dots International (GDI), The Sigma Group, Inc. (Sigma) has prepared a Conditional Use Permit (CUP) Application including supporting documentation defined in 17.40.11(3) for the proposed GDI building expansion project. Supporting documentation defined in 17.40.11(3) includes the following:

a) *A site plan map with all building and structure footprints, driveways, sidewalks, parking lots, stormwater management structures, groundwater monitoring wells, and 2-foot ground elevation contours.*
b) *A business plan and/or other documentation which describes in detail the use, activities, and structures proposed.*
c) *An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.*
d) *An operational safety plan, which details the operational procedures for material processes and containment, best management practices, stormwater runoff management, and groundwater monitoring.*
e) *A contingency plan which addresses in detail the actions that will be taken should a contamination event caused by the proposed use, activities, or structures occur.*

The Site Plan Map was previously submitted on August 19, 2019 as the part of the Plan Commission Submittal; C1.20 – Grading Plan C1.50 – Existing Survey are provided as attachments to this CUP application to satisfy item 17.40.11(3)(a).

Sigma has prepared a Business, Operational Safety, and Contingency Plan to satisfy items 17.40.11(3)(b), (d), and (e). Sigma has also prepared a draft Environmental Assessment Report to satisfy item 17.40.11(3)(c). The Business, Operational safety, and Contingency Plan and the draft Environmental Assessment Report are included in the CUP application.

Currently, GDI is working with engineering and architectural consultants to finalize design details and conduct a geotechnical evaluation. Geotechnical soil borings were completed at the Site on September 13, 2019. GDI is currently waiting to receive the geotechnical report. GDI intends to finalize building expansion project design by mid-November. Additionally, Sigma is working on retrieving well construction information for Well #7. Therefore, Sigma will not finalize the environmental assessment report, included in the CUP Application until all the proposed building expansion design is finalized and the geotechnical report is reviewed.

Per conversation with the Village of Germantown Groundwater Technical Review Committee on September 10, 2019, the draft CUP is to be submitted by September 18, 2019 and is to be finalized within 90 days of draft submittal.

Please call or contact us should you have any questions or require additional information.

Respectfully submitted,

THE SIGMA GROUP, INC.

Robert Peschel, PE
Senior Project Manager
414.643.4150
rpeschel@thesigmagroup.com

Morgan Schroeder
Staff Engineer
414. 643.4103
mschroeder@thesigmagroup.com

cc: Erica Roberts – Glue Dots International

Attachment: Conditional Use Permit Application

Village of Germantown ...Willkommen

Fee must accompany application

☑ ~~$1460~~ Paid _____ Date 9/16/19

CONDITIONAL USE PERMIT APPLICATION

Pursuant to Section 17.42 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Robert Peschel, PE

The Sigma Group, Inc

1300 West Canal Street

Milwaukee, WI

Phone (414)643-4150

Fax (414)643-4210

E-Mail rpeschel@thesigmagroup.com

PROPERTY OWNER

Erica Roberts

Glue Dots International

W186 N11676 Morse Drive

Germantown, WI

Phone (262) 437-7885

eroberts@gluedots.com

2 TO WHOM SHOULD THE PERMIT BE ISSUED?

Glue Dots International

3 PROPERTY ADDRESS

W186 N11676 Morse Drive, Germantown, WI

TAX KEY NUMBER

212972; 212955; 212996

4 DESCRIPTION OF EXISTING OPERATION

Briefly describe the use as it exists today, including use, size, number of employees, hours of operation, etc. If this permit involves new construction, describe the current status of the property, e.g. "vacant." Use additional pages as necessary.

The GDI site currently includes three parcels and two buildings; the 61,252 SF GDI facility, located at N117W18711 Fulton Drive, Germantown, WI and the 12, 163 SF Glue Factory building located at W186N11687 Morse Drive, Germantown. GDI is an adhesive manufacturer with 50 employees at the current GDI facility. The GDI facility operates Monday through Friday.

5 DESCRIPTION OF PROPOSED OPERATION

Write the name of the proposed conditional use exactly as it appears in the Municipal Code.

Chemical Manufacturers (Standard Industrial Classification major Group 28)

Describe the proposed use, including size, number of employees, hours of operation and extent of any new construction/alterations.

GDI's site currently includes three parcels to be combined into one Certified Survey Map. It is proposed that the Glue Factory building will be demolished and the existing GDI facility be expanded to include a 68,387 SF building addition. The GDI building expansion project would result in a total footprint of 129,639 SF The proposed expansion will employ 10 additional employees and will operate Monday through Friday.

METES AND BOUNDS LEGAL DESCRIPTION OF PROPERTY — REQUIRED

6 Attach pages as necessary.

N117W18711 Fulton Drive, Germantown
Tax Parcel ID number: 212972
4.35-acres
PT of NW CSM 3266 Lot 1 V1412 P348

W186N11687 Morse Drive, Germantown
Tax Parcel ID number: 212955
2.62-acres
PT of SW NW Lot 1 CSM 4298 V1424 P447

W188N11614 Maple Road, Germantown
Tax Parcel ID number: 212996
1.00-acres
PT of SW NW DOC 1435599

SUPPORTING DOCUMENTATION:

7

- [X] Site plan and elevations for new construction (can be conceptual)
- [ ] Photos of existing use and/or proposed use operating elsewhere
- [X] Draft Environmental Assessment Report
- [X] Business, Operational Safety, and Contingency Plan

READ AND INITIAL THE FOLLOWING:

8

EJR I understand that the Village is under no obligation to issue a Conditional Use Permit and will do so only if the applicant successfully demonstrates that the proposed use is harmonious with the neighborhood and the long range goals of the Village.

EJR I will notify the Village if any aspect of the conditional use changes. I understand that failure to do so may result in the revocation of the CUP.

EJR I understand that a Conditional Use Permit is valid only if the conditions and restrictions of the permit are met. I understand that failure to comply with any aspect of the permit may result in revocation.

SIGNATURES — ALL APPLICATIONS MUST BE SIGNED BY OWNER!

9

Robert Rosch 9/16/2019
Applicant Date

Erica K Roloff 9/16/19
Owner Date

GLUE DOTS INTERNATIONAL, LLC

Date	Invoice Number	Comment	Amount	Discount Amount	Net Amount
9/16/2019	CONDITIONAL US		1,460.00	0.00	1,460.00

Check: 032300	9/16/2019	VILLAGE OF GERMANTOWN	Check Total:	1,460.00

GLUE DOTS INTERNATIONAL
GERMANTOWN, WISCONSIN
LEGAL DESCRIPTION

September 2019

N117W18711 FULTON DRIVE, GERMANTOWN

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, PART OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

4.35-ACRES

TAX PARCEL ID NUMBER: 212972

W186N11687 MORSE DRIVE, GERMANTOWN

LOT 1 OF CERTIFIED SURVEY MAP NO. 4116, PART OF THE NW 1/4 OF SECTION 21, T9N, R20E, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

2.62-ACRES

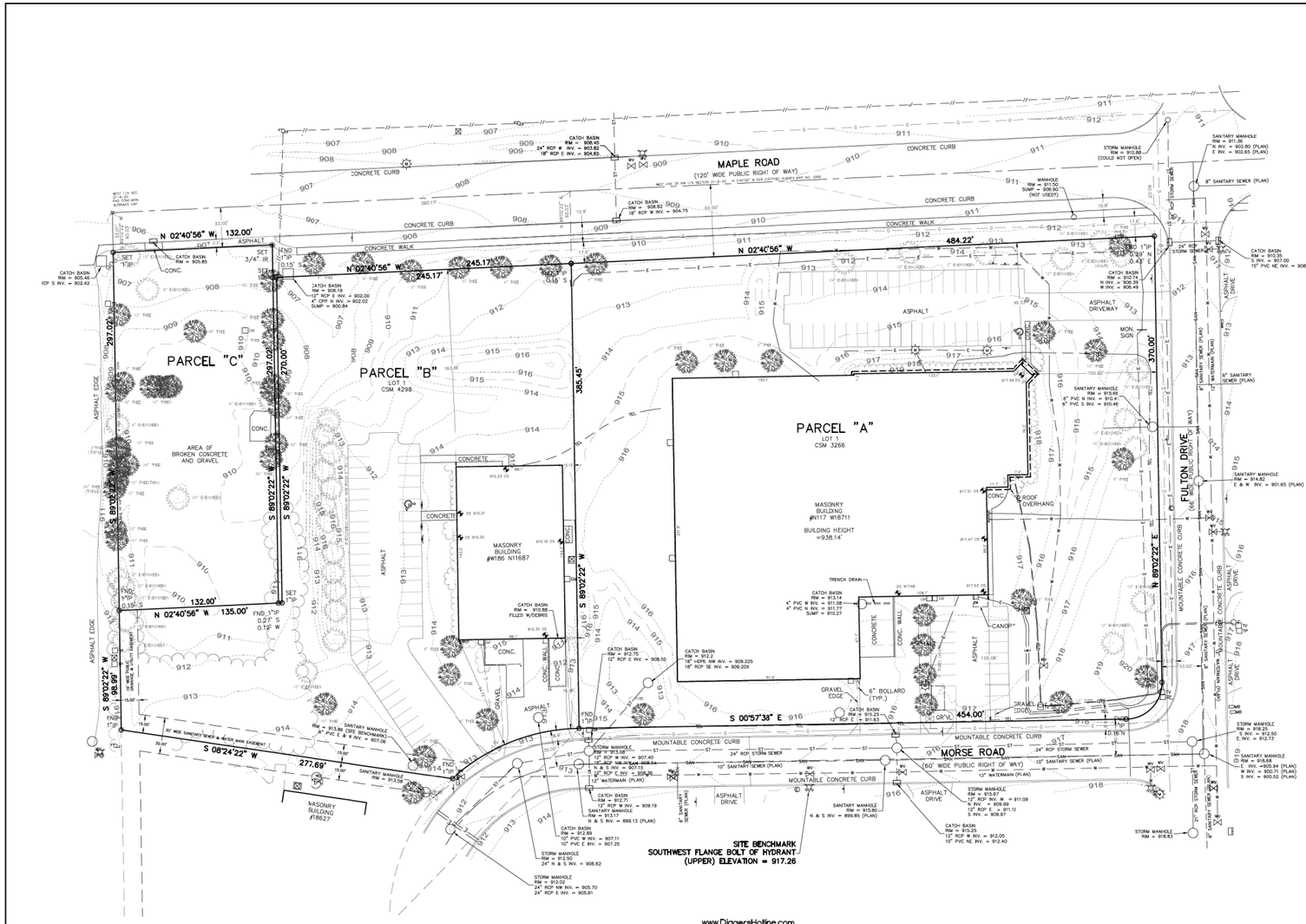
TAX PARCEL ID NUMBER: 212955

W188N11614 MAPLE ROAD, GERMANTOWN

PART OF THE SW 1/4 OF THE NW 1/4 OF SECTION 21, T9N, R20E, AS DESCRIBED IN DOCUMENT NO. 1435599, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

1.00-ACRES

TAX PARCEL ID NUMBER: 212996



CSE

CAPITOL SURVEY ENTERPRISES
220 REGENCY CT. STE. 210
BROOKFIELD, WI 53045
PH: (262) 786-6600
FAX: (414) 786-6608
WWW.CAPITOLSURVEY.COM

LEGAL DESCRIPTION:

PARCEL "A"

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, PART OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CONTAINING 189,887 SF, 4.36 ACRES

PARCEL "B"

LOT 1 OF CERTIFIED SURVEY MAP NO. 4116, PART OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CONTAINING: 114,016 SQUARE FEET, OR 2.62 ACRES

PARCEL "C"

PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, AS DESCRIBED IN DOCUMENT NO. 1435599, IN THE VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CONTAINING: 39,189 SQUARE FEET, OR 0.8996 ACRES

NOTES:

1. LEGAL DESCRIPTION FROM WASHINGTON COUNTY PUBLIC RECORDS.

2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, ON INFORMATION FURNISHED BY THE UTILITY COMPANIES, DIGGERS HOTLINE AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

3. SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN PER INFORMATION FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 55131C0357D, WITH A DATE OF IDENTIFICATION OF 11/20/2013, IN COMMUNITY NO. 550472, VILLAGE OF GERMANTOWN, WHICH IS THE COMMUNITY IN WHICH THE SUBJECT PROPERTY IS SITUATED.

4. PROJECT BENCHMARK – REFERENCE BENCHMARK FOR THE WEST CORNER OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST: CHISLED CROSS SET IN EAST SIDE OF TOP OF HYDRANT, 3' ABOVE GRADE ELEVATION = 908.86 .

5. SITE BENCHMARK – SOUTHWEST FLANGE BOLT OF HYDRANT = 917.26 (AS SHOWN).

LEGEND

SAN —	SANITARY SEWER	ELECTRIC TRANSFORMER	HYDRANT
ST —	STORM SEWER	ELECTRIC METER	WATER VALVE
W —	WATER MAIN	ELECTRIC PEDESTAL	GAS VALVE
G —	BURIED GAS LINE	ELECTRIC BOX AT GRADE	MANHOLE
TEL —	BURIED TELEPHONE LINE	TELEPHONE PEDESTAL	STORM MANHOLE
E —	BURIED ELECTRIC LINE	TV PEDESTAL	CATCH BASIN
FO —	BURIED FIBER OPTIC LINE	GAS METER	CURB INLET
OHW —	OVERHEAD UTILITY LINES	UTILITY POLE	METAL LIGHT POLE
CATV —	BURIED CABLE TELEVISION LINES	WOOD SIGN	CONCRETE LIGHT POLE
CONC —	CONCRETION SEWER	METAL BOX	WOOD LIGHT POLE
—	WOOD FENCE	FLAG POLE	MAIL BOX
—	METAL FENCE	BOLLARD	FIBER OPTIC MARKER
	EDGE OF TREES AND BRUSH	BOLLARD LIGHT	GUY WIRE
894.32 TW	DOOR SILL ELEVATION	YARD LIGHT	
FDC	FIRE DEPARTMENT CONNECTION		

I CERTIFY THAT I HAVE SURVEYED THE ABOVE DESCRIBED PROPERTY, AND THE ABOVE MAP IS A TRUE REPRESENTATION THEREOF AND SHOWS THE SIZE AND LOCATION OF THE PROPERTY, ITS EXTERIOR BOUNDARIES, THE LOCATION AND DIMENSIONS OF ALL VISIBLE STRUCTURES THEREON, BOUNDARY FENCES, APPARENT EASEMENTS AND ROADWAYS AND VISIBLE ENCROACHMENTS, IF ANY.

THIS SURVEY IS MADE FOR THE EXCLUSIVE USE OF THE PRESENT PROPERTY, AND ALSO THOSE WHO PURCHASE, MORTGAGE, OR GUARANTEE THE TITLE THERETO, WITHIN ONE (1) YEAR FROM DATE THEREOF.

APRIL 30, 2019
DATE

MICHAEL J. BERRY R.L.S.
REGISTERED LAND SURVEYOR S-2545

WISCONSIN MICHAEL J. BERRY S-2545 BROOKFIELD, WI LAND SURVEYOR

www.DiggersHotline.com
DIGGERS HOTLINE
DIAL 811 OR (800) 242-8511

PLAT OF SURVEY WITH TOPOGRAPHY

FOR

GLUE DOTS
W186 N11687 MORSE DRIVE
GERMANTOWN, WI

DRAWN BY:	NJF	DATE:	APRIL 30, 2019
CHECKED BY:	MJB	DRAWING NO.	P - 1
CSE JOB NO.:	12 - 064	SHEET	1 OF 1

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hwked.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR GERMANTOWN, WI 53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

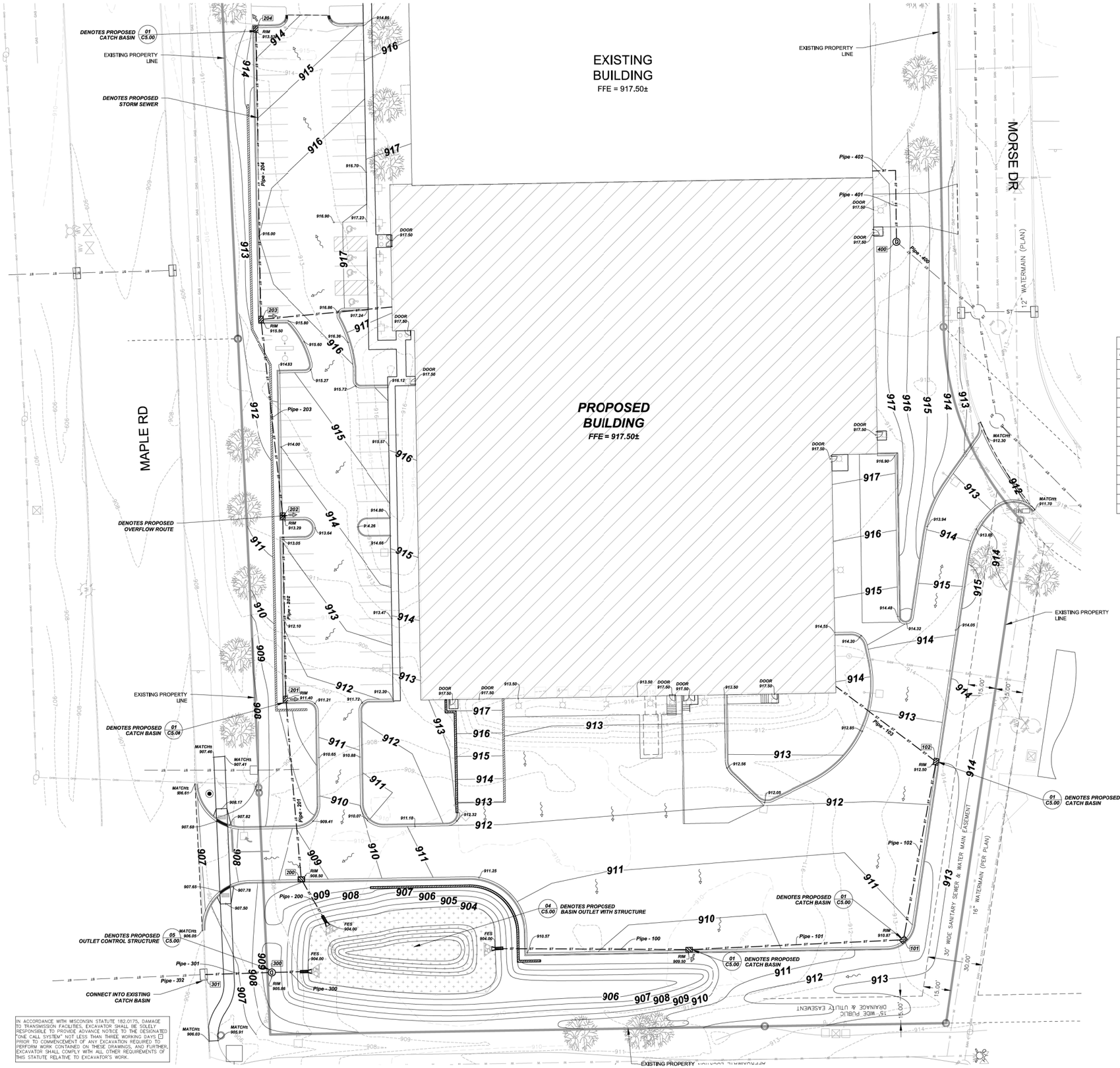
PROJECT NUMBER | PROJECT MANAGER

EXISTING SURVEY

SCALE: 1" = 40'

North

C1.50



Storm Structure Table	
#	Structure Details
100	CATCH BASIN - CURB RIM = 909.20 Pipe - 101 = 905.06 Pipe - 100 = 905.06
101	CATCH BASIN - CURB RIM = 910.87 Pipe - 102 = 906.23 Pipe - 101 = 906.23
102	CATCH BASIN - CURB RIM = 912.50 Pipe - 102 = 907.22 Pipe - 103 = 907.22
200	CATCH BASIN - CURB RIM = 908.50 Pipe - 201 = 904.27 Pipe - 200 = 904.27
201	CATCH BASIN - CURB RIM = 911.40 Pipe - 202 = 905.26 Pipe - 201 = 905.26
202	CATCH BASIN - CURB RIM = 913.29 Pipe - 203 = 906.26 Pipe - 202 = 906.26
203	CATCH BASIN - CURB RIM = 915.50 Pipe - 204 = 907.34 Pipe - 203A = 907.34 Pipe - 203 = 907.34
204	CATCH BASIN - CURB RIM = 913.53 Pipe - 204 = 908.92
300	OUTLET CONTROL STRUCTURE (SEE DETAIL RIM = 905.86 Pipe - 300 = 904.00 Pipe - 301 = 904.00
301	EXISTING CATCH BASIN - CURB RIM = 905.82 Pipe - 301 = 903.00 Pipe - 302 = 902.10
400	CATCH BASIN (3' DIA) RIM = 912.26 Pipe - 400 = 909.02 Pipe - 401 = 909.89

Storm Pipe Table					
Pipe Name	Size	Material	Length	Slope	Description
Pipe - 100	12	PVC	106	1.00%	
Pipe - 101	12	PVC	117	1.00%	
Pipe - 102	12	PVC	99	1.00%	
Pipe - 103	12	PVC	68	1.00%	
Pipe - 200	12	PVC	27	1.00%	
Pipe - 201	12	PVC	99	1.00%	
Pipe - 202	12	PVC	100	1.00%	
Pipe - 203	12	PVC	108	1.00%	
Pipe - 203A	12	PVC	72	3.70%	
Pipe - 204	12	PVC	158	1.00%	
Pipe - 300	12	PVC	20	5.00%	
Pipe - 301	12	PVC	37	2.68%	
Pipe - 302	24	RCP	34	1.00%	Existing Pipe
Pipe - 400	18	RCP	55	3.96%	Existing Pipe
Pipe - 401	18	PVC	39	1.00%	
Pipe - 402	18	PVC	13	1.00%	

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

CONSULTANT

Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5504 | www.hec1.com

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER | PROJECT MANAGER

GRADING PLAN

0' 10' 20' 30'
SCALE: 1" = 20'
North

C1.20

September 16, 2019 Project Reference #18858

Groundwater Technical Review Committee
c/o Mr. Jeff Retzlaff, Village Planner
Village of Germantown
N112 W17001 Mequon Road
Germantown, WI 53022

Subject: **Draft Environmental Assessment Report**
Glue Dots International Building Expansion
N117W18711 Fulton Drive
Germantown, WI 53022

Dear Committee Members:

On behalf of Glue Dots International (GDI), The Sigma Group, Inc. (Sigma) has prepared this Draft Environmental Assessment Report for the proposed GDI Building Expansion project at the above-referenced property (the "Site").

The Site is located within the Wellhead Protection Area (WPA) for Village of Germantown Well #5 and Well #7 as established by Section 17.40, Germantown Code "Wellhead Protection Ordinance" (copy provided in **Attachment A)**. Additionally, the site is also located in proximity to Village of Germantown Well #3.

Accordingly, a Conditional Use Permit (CUP) from the Village of Germantown is required for the proposed building addition construction. This document is intended to satisfy Section 17.40.11(3)(c) of the Germantown Code ("An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.") and to be incorporated and submitted with other documents required in the Code to obtain the CUP for this project.

BACKGROUND INFORMATION

Project Site

The Site is located in the southwest ¼ of the northwest ¼ of Section 21, Township 9 North, Range 20 East in the Village of Germantown, Washington County, Wisconsin. Please see attached **Figure 1 Site Location Map** and **Figure 2 Site Plan Map**.

The GDI site is located within the Wellhead Protection Area for Well #5 and Well #7, an area of the Village of Germantown that lies within the recharge areas for municipal water supply wells, as defined in subsection 17.40.05 of City Ordinance #15-10 Wellhead Protection. Therefore, the GDI facility is subject to the regulations specified in the Wellhead Protection Ordinance, as previously stated. Please see **Attachment B - Village of Germantown Figure 1 – Wellhead Protection Areas**.

Figure 3 – Site Vicinity Map shows the location of Germantown Well #3, Well #5, and Well #7 in relation to the location of the GDI site. Well #5 and Well #7 are adjacent to each other are located approximately

6,000 feet southeast of the Site. Well #3 is located approximately 2,100 feet east of the Site, and but it not located within its wellhead protection area.

Geology & Hydrogeology

Well #5: originally constructed on December 22, 1987 to a depth of 405 feet below grade. The geology encountered during the drilling of Well #5 is representative of the regional geology, although shallow unconsolidated soil deposits may vary locally. According to the Well Constructor's Report, the static water level is at a depth of 19 feet below grade. At Well #5, the geology included:

- 0 to 385 feet: Limestone
- 385 to 405 feet: Shale

Well #7: Information about Well #7 is pending. Sigma has requested this information form the Village.

Well #3: originally constructed in 1967 to a depth of 1,282 feet below grade and was reconstructed on August 10, 2018. Reconstruction of Well #3 involved abandonment from 965 to 1,286 feet below grade. The uppermost 531 feet of the well is sealed with steel casing such that groundwater originates from the deeper dolomite and sandstone formations between 531 feet and 965 feet below grade; the static water level is at a depth of 265 feet below grade. The geology encountered during the drilling of Well #3 is representative of the regional geology, although shallow unconsolidated soil deposits may vary locally. At Well #3, the geology included:

- 0 to 12 feet: Clay
- 12 to 375 feet: Outwash
- 275 to 510 feet: Shale
- 510 to 725 feet: Limestone/ Dolomite (well casing terminates in this unit)
- 725 to 1,282: Sandstone

Copies of the well construction reports and geologic log as provided by the Wisconsin Department of Natural Resources are included in **Attachment C – Well Construction Reports**.

Geotechnical soil borings are scheduled to be completed at the Site on September 13, 2019 to evaluate physical soil conditions and develop geotechnical recommendations for building, pavement and stormwater management system construction. Sigma will evaluate the findings when the report becomes available and summarize our findings in a subsequent submittal to the Village.

PROPOSED BUILDING EXPANSION PROJECT

GDI is a specialty manufacturer focused on pressure sensitive and hotmelt adhesives, converting services, and instant adhesive products for the industrial, commercial, and consumer use. GDI plans to upgrade and expand their existing facility in the Germantown Business Park to include a 68,387 SF building expansion. This building expansion will include the demolition of their adjacent facilities, The Glue Factory, in order to maximize usable area and connectivity of resources within a single building. The Glue Dots International expansion will be the next step in creating a single campus industrial facility that will merge three businesses together, GDI, The Glue Factory, and Heartland Adhesives.

The GDI site currently includes three parcels to be combined into one Certified Survey Map (CSM). This site has two buildings, the GDI facility, located at N117W18711 Fulton Drive, Germantown, WI and the Glue Factory building located at W186N11687 Morse Drive, Germantown. In an effort to maximize

usable area and connectivity of resources, it is proposed that the existing Glue Factory building will be demolished and the GDI facility be expanded. A pre-demolition hazardous materials inspection has been conducted by Sigma in accordance with United States Environmental Protection Agency (USEPA) and Wisconsin Department of Natural Resources (WDNR) regulations for the demolition of Glue Factory building with results pending analysis and interpretation.

Facility Design

Proposed architectural and civil engineering drawings are included in the CUP application package. Following is a brief overview of the relevant plan drawings as related to potential risks and impacts of the proposed Site development and operations.

- During construction, erosion control measures consistent with industry standards and regulatory requirements are specified on the civil engineering plans. No adverse affects to surface waters or groundwater are expected so long as the erosion control features are installed and maintained per the civil engineering plans.

- The 68,387 SF building expansion footprint is located within the 4.897-acre site which includes three parcels to be combined into one CSM. The building expansion will create a two-story facility that will merge GDI, The Glue Factory, and Heartland Adhesives.

The two-story building will have the following functional areas:

- First Floor-Interior
  - Bulk Chemical Storage with secondary containment
  - Dry storage racks chemical/product
  - Adhesive process
    - Hot Melt Adhesive Process
    - Water-based Adhesive Process
  - Research and Development Lab
  - Electrical Room
  - Office Area
  - Fork Truck Charging
  - Maintenance Shop
  - Container Washroom
  - Compressor Room
  - Boiler Room
  - Shipping and Receiving Office
  - Liquid Nitrogen Bulk Storage

- Second Floor-Interior
  - Office Area
  - Mezzanine

- Exterior
  - Liquid Nitrogen Delivery curbed pad
  - Containment dock for delivery of chemicals
  - Loading and Unloading Truck Docks
  - Trash Compactor

- Dust Collection System
- Stormwater management system

Note: The design of the proposed building addition and related manufacturing processes is currently being finalized and is in expected to be completed by mid-November, 2019. At that time additional information will be provided to the Village.

Delivery/Transfer

Chemicals/product at the GDI facility are handled and transferred following written standard operating procedures. All vehicles entering the site for delivery will enter the GDI site (west side of site) off of Maple Road. Once entering the site, vehicles will back into the appropriate delivery/transfer area. Upon completion of delivery vehicles will exit to Morse Drive (east side of site). To ensure safety and line-of-sight, GDI will remove necessary trees along Maple Road. Delivery/transfer areas are described below.

- A containment dock will be located along the southeast corner of the building for bulk container deliveries. The maximum containment capacity for the containment dock is yet to be determined but is expected to be approximately 6,000 gallons. The containment valve will be shut during deliveries and will remain open at all other times. Stormwater collected in this area will be directed to the wet retention pond.

- Totes, drums, and pallets will be delivered using the loading dock area along the southern face of the building at the overhead doors. The overhead doors will be protected with a canopy cover.

- A tanker load area with concrete pad and curb will be located along the eastern edge of the building for liquid nitrogen deliveries. The maximum capacity of deliveries is yet to be determined but is expected to be less than 5,000 gallons.

Chemical/Product Storage

The GDI facility uses variety of hydrocarbon resins, oil and petroleum distillate products, and plasticizers in the manufacturing and ancillary processes. Chemicals/product used at the GDI facility are included in GDI's **Business, Operational Safety, and Contingency Plan** provided in the CUP application package. These materials will be in containers (tanks, totes, drums, etc.) that are compatible with their contents and will be stored in the following areas and in individual containers located at the point of use. The building expansion project will have the following chemical/product storage areas accompanied with necessary engineering controls and containment.

- Bulk containers are stored in an interior room, designed to provide secondary containment.
- Dry storage racks storing chemical/product containers will be contained by the building; floor drains are not located in the dry storage area.
- Liquid Nitrogen is stored in along the east side of the building in a tank.

As required, under the Emergency Planning and Community Right-to-Know Act (EPCRA), GDI will submit a SARA 302 notification should there be any Extremely Hazardous Substances (EHS) over the Threshold Planning Quantity (TPQ) located onsite and will submit SARA 313 Tier 2 Emergency and Hazardous

Chemical Inventory Forms as appropriate annually in accordance with the deadlines set forth in the regulation.
Additionally, GDI has a corporate Chemical Spill Procedure that describes the required response actions for both 'incidental spills' (i.e. less than 1 gallon) and those that require notification of their internal emergency response team and in accordance with 40 CFR 112 Spill Prevention, Control, and Countermeasure (SPCC) Regulation, GDI will prepare a SPCC Plan.

GDI's **Business, Operational Safety, and Contingency Plan** provides specific chemical/product storage information and is included in the associated CUP application package.

Stormwater Management

A stormwater management analysis was conducted by Harwood Engineering Consultants, dated August 19, 2019, and is included as **Attachment D – Stormwater Management Report**, for the 4.897-acre site. The report follows Village of Germantown, Milwaukee Metropolitan Sewerage District (MMSD), and WDNR requirements.

Proposed watershed conditions outlined in the attached Stormwater Management Report utilize a wet retention basin located in the southwest portion of the site, that will collect stormwater from the roof, south, and west portions of the site; this area accounts for approximately 3.816 acres, 78 percent of the Site. The wet retention basin will manage stormwater quantity and quality from the site. Precipitation that falls on the ground surface, pavements and green space surfaces, will follow ground surface topography and be directed to either storm sewer catch basins that discharge to the wet retention pond or local storm sewer. Municipal water and sanitary sewer utilities are present in the adjacent road right-of-ways to serve the Site in the future, as are other subsurface utilities (e.g., electric and communication lines).

The wet retention basin will manage stormwater quantity and quality from the site. The wet retention basin will be constructed using a clay liner to prevent seepage from the wet retention basin to the surrounding environment and groundwater; to ultimately protect the wellhead protection area. Stormwater runoff will generally be directed towards the wet retention basin and stormwater catch basins in the adjacent streets.

The Proposed Drainage Area Map for the building expansion project, included the associated CUP application package, shows the areas of the site and whether they will be directed to the wet retention pond or local storm sewer. The area of the site where delivery/transfer will occur will be constructed with a combination of concrete and heavy-duty asphalt with curb and storm sewer will capture and convey stormwater and any inadvertent spills of material to the wet retention basin in the southwest corner of the site.

The GDI facility operations are classified as Standard Industrial Classification (SIC) code: 28910200, adhesives . In accordance with NR 216, the facility will either obtain a general WPDES permit for stormwater associated with industrial activity or will apply for a 'No Exposure' exclusion. A Storm Water Pollution Prevention Plan (SWPPP) will be developed that will include Best Management Practices (BMPs) if a WPDES permit is issued. In addition, GDI will follow the Village of Germantown's Stormwater Maintenance Manual for Private Facilities.

Process Wastewater

The main sanitary sewer lateral will connect the new addition with the municipal system in Morse Drive at the southeast corner of the building and a sampling manhole will be installed immediately outside of the building for facility process wastewater sampling activities.

The floor drain system services the two new process, hot melt adhesives and water-based adhesives, included in the proposed building expansion project. The floor drain system also services the container washroom, constructed with a sloped floor directed to a floor drain. The floor drain system connects along the eastern area of the building interior. Any spills within the new addition, other than within the bulk storage containment area, would be contained within the building walls and collected at the sanitary sewer floor drains.

GDI's process wastewater is generated from the water-based adhesive process and wash operations and are subject the Milwaukee Metropolitan Sewerage District's Rules, Chapter 11. Accordingly, the GDI will submit a Notice of Intent (NOI) to the District for authorization to discharge process wastewater from the facility. Chapter 11 also requires notification of any spills that are collected and conveyed to the sanitary sewer.

Further information about the facility operations is included in the associated CUP application package.

ENVIRONMENTAL ASSESSMENT EVALUATION

It is understood that all material handling and manufacturing operations will take place within the proposed building; the only outdoor operations will include bulk raw product delivery/transfer at the containment dock located along the southeast wall of the building, the curbed transfer location for liquid nitrogen along the east side of the building, and the overhead door delivery station located along the south side of the building. Sigma understands that GDI has a proven materials management track record and that these same raw and finished product handling practices will continue to be used in the expanded facility.

No adverse effects to surface waters or groundwater are expected so long as the storm sewer features are installed per the civil engineering plans and maintained.

It is understood that GDI will comply with all local, regional, state, and federal legislation as outlined in their **Business, Operational Safety, and Contingency Plan**, included in the associated CUP application package.

Therefore, it is Sigma's professional opinion that to the extent feasible, based upon scientific, engineering and economic factors, the proposed GDI building expansion project employs designs and technologies which are state of the art, such that they diminish the potential for wellhead contamination.

This document has been prepared by Robert Peschel, P.E., a licensed Professional Engineer in the State of Wisconsin. Mr. Peschel has over 30 years of experience as an environmental engineer and has completed numerous environmental site investigation, remediation, and brownfield redevelopment projects in Wisconsin. The document was also reviewed by Sigma's Geosciences Group Leader, Mr. Randy Boness, P.G.

Please call or contact us should you have any questions or require additional information.

Sincerely,

THE SIGMA GROUP, INC.

Robert Peschel, PE
Senior Project Engieer
414.643.4150
rpeschel@thesigmagroup.com

Morgan Schroeder
Staff Engineer
414. 643.4103
mschroeder@thesigmagroup.com

Enclosures:

- Figure 1 - Site Location Map
- Figure 2 - Site Plan Map
- Figure 3 – Site Vicinity Map
- Attachment A - Section 17.40, Germantown Code "Wellhead Protection Ordinance"
- Attachment B - Village of Germantown Figure 1 – Wellhead Protection Areas
- Attachment C – Well Construction Reports
- Attachment D – Stormwater Management Report

cc: Erica Roberts – Glue Dots International
Ric Miller – MC Group
Randy Boness, P. G. – The Sigma Group

FIGURES

Located in the SW 1/4 of the NW 1/4, Section 21, T9N, R20E
Gerrmantown USGS MAP Quadrangle
7.5 minute, 1 : 24,000 Topographic Map Collection

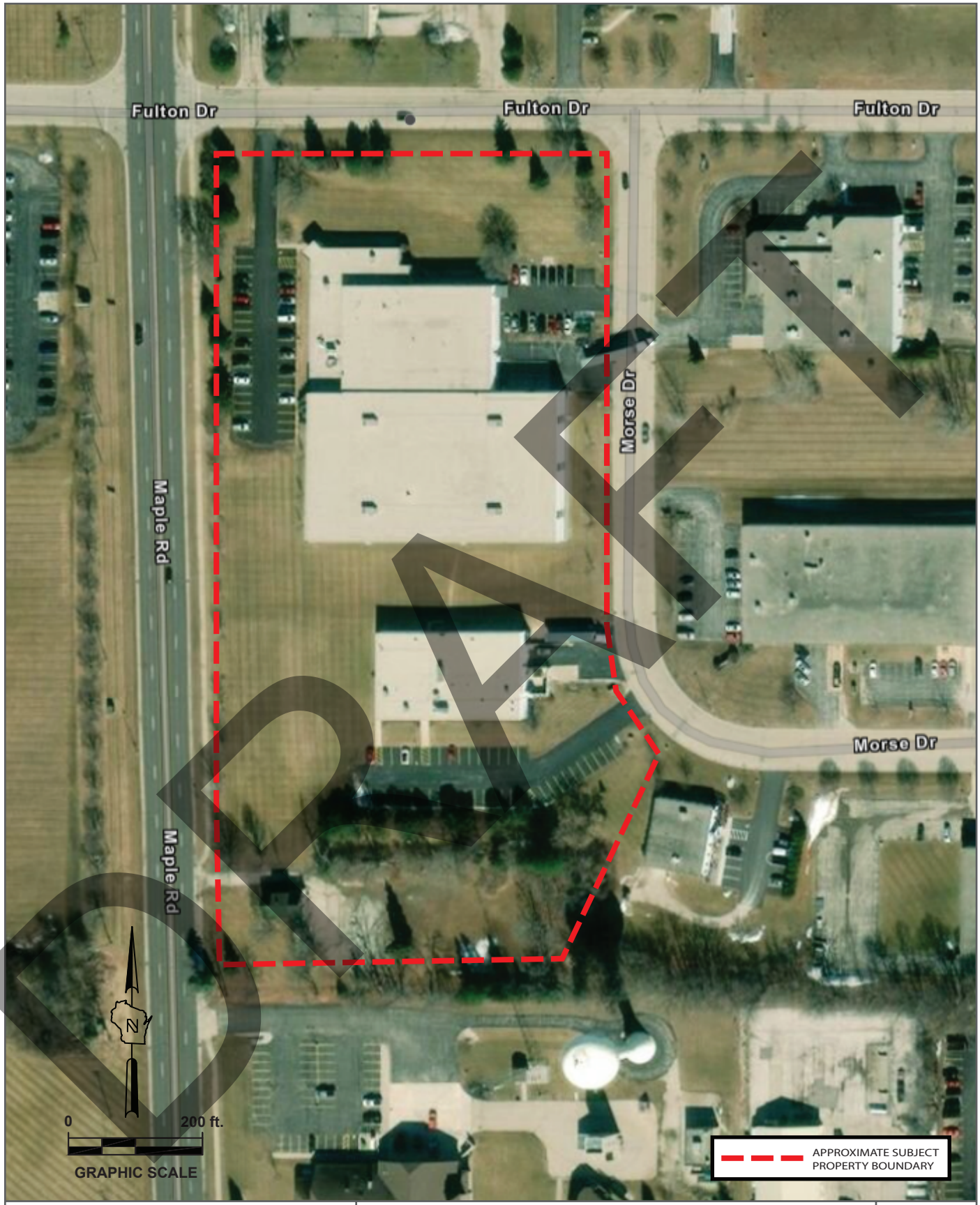
Project : 18858 | Directory: CAD | Filename: 18858_Fig 1_SLM.pdf | Created By: MRS | Date: 09/09/2019

THE SIGMA GROUP
Single Source. Sound Solutions.

SITE LOCATION MAP

N117W18711 FULTON DRIVE
GERMANTOWN, WISCONSIN

FIGURE
1



Project: 18858 | Directory: Figures | Filename: 18858_Fig 2_SPM.pdf | Created By: MRS | Date: 09/09/2019

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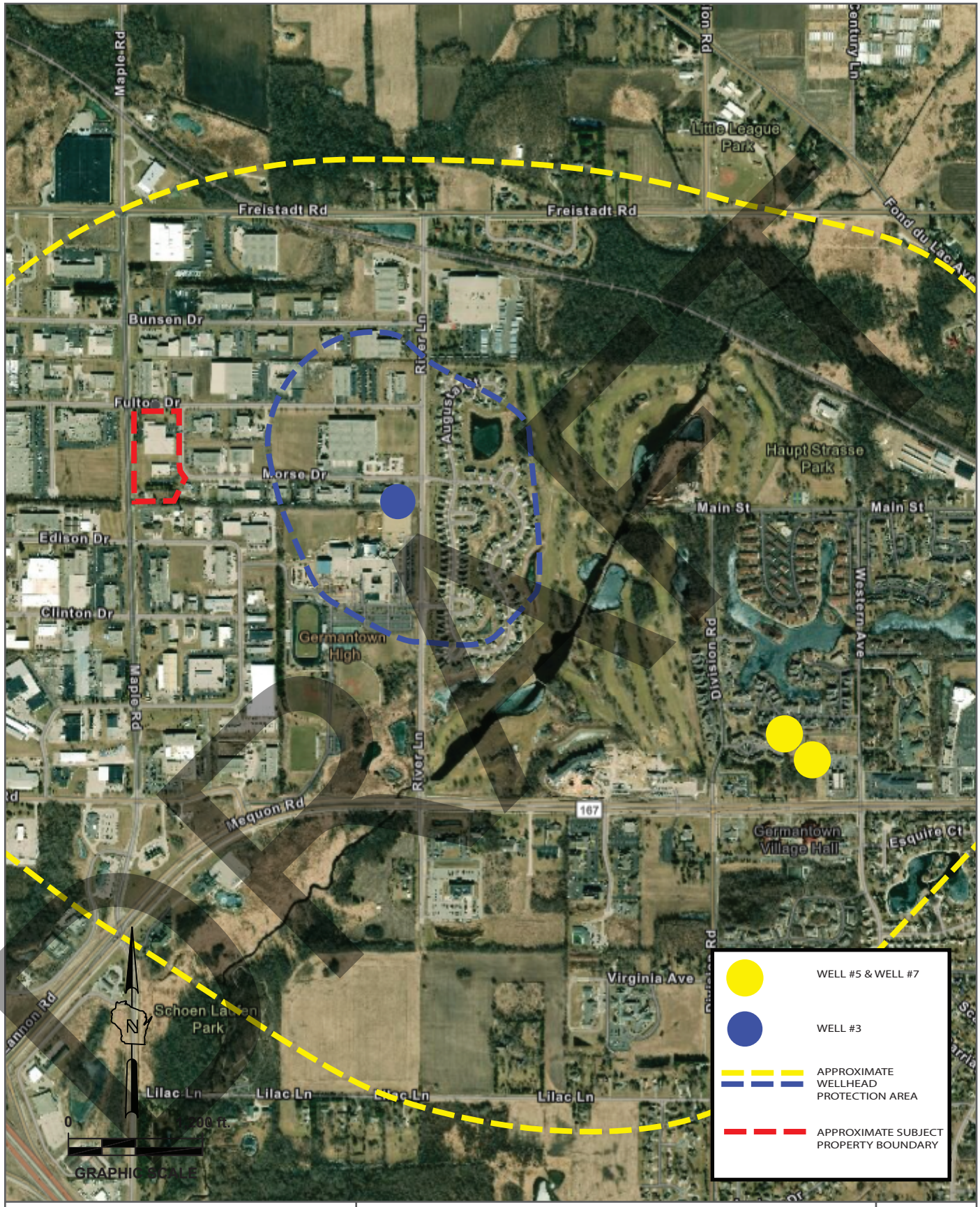
SITE PLAN MAP

N117W18711 FULTON DRIVE
GERMANTOWN, WISCONSIN

FIGURE
2



Project: 18858 | Directory: Figures | Filename: 18858_Fig 3_SVM.pdf | Created By: MRS | Date: 09/11/2019

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SITE VICINITY MAP

117W18711 FULTON DRIVE
GERMANTOWN, WISCONSIN

FIGURE
3

ATTACHMENT A

SECTION 17.40, GERMANTOWN CODE "WELLHEAD PROTECTION ORDINANCE"

17.40 - WELLHEAD PROTECTION. (Cr. Ord. #15-10)

17.40.01 **PURPOSE AND AUTHORITY.**

(1) Purpose . The residents of the Village of Germantown depend exclusively on groundwater for a safe drinking water supply. Certain land use practices and activities can seriously threaten or degrade groundwater quality. The purpose of this Wellhead Protection Ordinance is to institute land use regulations and restrictions protecting the municipal water supply of the Village of Germantown and promote the public health, safety and general welfare of the residents.

(2) Authority . Statutory authority of the Village to enact these regulations was established by the Wisconsin Legislature in §62.23(7)(a) and (c), Wis. Stats. Under these statutes, the Village has the authority to enact this ordinance to encourage the protection of groundwater resources.

17.40.02 **APPLICATION OF REGULATIONS.** The regulations specified in this Wellhead Protection Ordinance shall apply to those areas of the Village of Germantown that lie within the recharge areas for municipal water supply wells as defined in subsection 17.40.05, and are in addition to the requirements in the underlying zoning district, if any. If there is a conflict between this ordinance and the zoning ordinance, the more restrictive provision shall apply.

17.40.03 **DEFINITIONS.**

(1) Aquifer . A saturated, permeable geologic formation that contains and will yield significant quantities of water.

(2) Cone of Depression . The area around a well, in which the water level has been lowered at least 1/10 of a foot by pumping of the well.

(3) Facilities . A general term referring to land uses, business operations, activities, developed property, or material stored.

(4) Five-Year Time of Travel . The recharge area upgradient of the cone of depression, the outer boundary of which it is determined or estimated that groundwater will take 5 years to reach a pumping well.

(5) Municipal Water Supply . The municipal water supply of the Village of Germantown.

(6) Person . An individual, partnership, association, corporation, municipality or state agency, or other legal entity.

(7) Recharge Area . The area which encompasses all areas or features that, by surface infiltration of water that reaches the zone of saturation of an aquifer, supplies groundwater to a well.

(8) Thirty-Day Time of Travel . The recharge area upgradient of a well, or its cone of depression, the outer boundary of which it is determined or estimated that groundwater will take 30 days to reach a pumping well.

(9) Well Field . A piece of land used primarily for the purpose of locating wells to supply a municipal water system.

(10) Well . A boring into the earth for the purpose of extracting groundwater for supply to the municipal water supply.

(11) Zone of Saturation . The area of unconsolidated, fractured or porous material that is saturated with water and constitutes groundwater.

17.40.04 **GROUNDWATER TECHNICAL REVIEW COMMITTEE.**

(1) The Germantown Groundwater Technical Review Committee shall consist of all of the following:

(a) The Village Planner/Zoning Administrator.

(b) The Village Public Works Director.

(c) The Village Engineer

(d) The Fire Chief.

(e) The Superintendent of the Water Utility.

(2) The purpose of the Germantown Groundwater Technical Review Committee is to provide objective and scientific technical review of requests for conditional use permits and make recommendations to the Plan Commission and ultimately to the Village Board to grant or deny conditional use permits based upon the facts discovered in that review, to make recommendations on any and all conditions placed on a conditional use permit, and to give advice on matters concerning groundwater.

(3) Professional Services. The Village may retain the services of professional consultants (including engineer, environmental specialist, hydrologist, and other experts) to assist the Village in the Village's review of a proposal or submittal coming before the Germantown Water Technical Review Committee. The submittal of a proposal by a petitioner shall be construed as an agreement to pay for such professional review services applicable to the proposal. The Village may apply the charges for these services to the petitioner along with an administrative fee. Review fees which are applied to the petitioner, but which are not paid, may be assigned by the Village as a special assessment to the subject property.

17.40.05 **GROUNDWATER PROTECTION OVERLAY DISTRICT.** A Groundwater Protection Overlay District may be created to institute land use regulations and restrictions within a defined area which contributes water directly to a municipal water supply and thus promotes public health, safety, and welfare. The district is intended to protect the groundwater recharge area for the existing or future municipal water supply from contamination.

17.40.06 **SUPREMACY OF THIS DISTRICT.** The regulations of an overlay district will apply in addition to all other regulations which occupy the same geographic area. The provisions of any zoning districts that underlay this overlay district will apply except when provisions of the Groundwater Protection Overlay District are more stringent.

17.40.07 **GROUNDWATER PROTECTION OVERLAY DISTRICTS BOUNDARIES.** The boundaries of the Groundwater Protection Overlay Districts are referenced as being part of the Germantown zoning map being an overlay district to the zoning map. The locations and boundaries of the zoning districts established by this ordinance are set forth on the Village of Germantown Municipal Wellhead Protection Areas Map which is incorporated herein and hereby made a part of this ordinance. Said map, together with everything shown thereon and all amendments thereto, shall be as much a part of this ordinance as though fully set forth and described herein.

17.40.08 **PERMITTED USES.**

(1) Subject to the conditions for existing uses listed in subsection 17.40.12 the following are the only permitted uses within the groundwater protection overlay district.

(a) Public and private parks, and playgrounds provided there are no on-site wastewater disposal systems or holding tanks.

(b) Wildlife and natural and woodland areas.

(c) Biking, hiking, skiing, nature, equestrian and fitness trails.

(d) Residential which is municipally sewered and free of flammable and combustible liquid underground storage tanks.

(e) Agricultural uses in accordance with the county soil conservation department's best management practices guidelines.

(f) Single-family residences on a minimum lot of 20,000 square feet with a private on-site sewage treatment system receiving less than 8,000 gallons per day, which meets the County and State health standards for the effluent, and free of flammable or combustible liquid underground storage tanks.

(g) Commercial, institutional, industrial or office establishments which are municipally sewered subject to the prohibited and conditional uses listed in subsections 17.40.10 and 17.40.11.

17.40.09 **SEPARATION DISTANCE REQUIREMENTS.**

(1) The following separation distances as specified in § NR 811.16(4)(d), Wis. Adm. Code, shall be maintained. Measurements shall be from the well head to the specified structure, facility, edge of landfill or storage area as described in items (a) through (f) below.

(a) Fifty feet between a public water supply well and a stormwater sewer main or any sanitary sewer main constructed of water main materials and joints which is pressure tested in place to meet current AWWA 600 specifications. NOTE: Current AWWA 600 specifications are available for inspection at the office of the Wisconsin Department of Natural Resources, the Secretary of State's office and the office of the Revisor of Statutes.

(b) Two hundred feet between a public water supply well and any sanitary sewer main not meeting the above specifications, any sanitary sewer lift station or single-family residential fuel oil tank.

(c) Four hundred feet between a public water supply well and a septic system receiving less than 8,000 gallons per day, or a stormwater detention, retention, infiltration or drainage basin.

(d) Six hundred feet between a well and any gasoline or fuel oil storage tank installation that has received written approval from the Wisconsin Department of Commerce (hereafter Commerce) or its designated agent under § COMM 10.10, Wis. Adm. Code.

(e) One thousand feet between a well and land application of municipal, commercial or industrial waste; industrial, commercial or municipal waste water lagoons or storage structures; manure stacks or storage structures; and septic tanks or soil adsorption units receiving 8,000 gallons per day or more.

(f) Twelve hundred feet between a well and any solid waste storage, transportation, transfer, incineration, air curtain destructor, processing, wood burning, one-time disposal or small demolition facility; sanitary landfill; coal storage area; salt or deicing material storage area; gasoline or fuel oil storage tanks that have not received written approval from Commerce or its designated agent under § COMM 10.10, Wis. Adm. Code; bulk fuel storage facilities; and pesticide or fertilizer handling or storage facilities.

17.40.10 **PROHIBITED USES.**

(1) The following uses are prohibited:

(a) Buried hydrocarbon, petroleum or hazardous chemical storage tanks. (Hazardous chemicals are identified by OSHA criteria under 40 CFR Part 370.)

(b) Radioactive waste facilities.

(c) Coal storage.

(d) Industrial lagoons, pits or natural or manmade containment structures, primarily of earthen materials used for storage or treatment of wastewater, fermentation leachates or sludge.

(e) Landfills and any other solid waste facility, except post-consumer recycling.

(f) Manure and animal waste storage except animal waste storage facilities regulated by the County.

(g) Pesticide and fertilizer dealer.

(h) Railroad yards and maintenance stations.

(i) Rendering plants and slaughterhouses.

(j) Salt or deicing material storage for the purpose of distribution.

(k) Septage or sludge spreading.

(l) Septage, wastewater, or sewage lagoons.

(m) Motor vehicular filling stations.

(n) Wood preserving operations.

17.40.11 **CONDITIONAL USES.**

(1) Any person may request a conditional use permit for certain uses, activities and structures within the Groundwater Protection Overlay District not prohibited in subsection 17.40.10.

(2) The uses, activities, and structures that may be conditionally allowed are:

(a) Jewelry plating and metal plating.

(b) Machine or metal working shops as the principal business.

(c) Commercial, institutional, or office establishments utilizing a private on-site wastewater treatment system.

(d) Cemeteries.

(e) Chemical manufacturers (Standard Industrial Classification Major Group 28).

(f) Dry cleaners.

(g) Nonmetallic earthen materials extraction or sand and gravel pits.

(h) Salvage or junk yards.

(i) Stockyards and feedlots.

(j) Research labs, universities and hospitals.

(k) Exposed hydrocarbon, petroleum or hazardous chemical storage tanks. (Hazardous chemicals are identified by OSHA criteria under 40 CFR Part 370.) This shall not apply to residential LP gas tanks which are permitted under subsection 17.40.08(1)(i).

(l) Storage or processing of extremely hazardous substances, radioactive materials or substances listed in Table 1, Ch. NR 140, Wis. Adm. Code (Extremely hazardous substances are identified by SARA/EPCRA criteria under 40 CFR Parts 302 and 355.)

(m) Septage or sludge storage or treatment

(n) Motor vehicular service stations, repair, renovation and body working.

(3) All requests for a conditional use permit shall be submitted in writing to the Germantown Village Planning and Zoning Department, and shall include all of the following:

(a) A site plan map with all building and structure footprints, driveways, sidewalks, parking lots, stormwater management structures, groundwater monitoring wells, and 2-foot ground elevation contours.

(b) A business plan and/or other documentation which describes in detail the use, activities, and structures proposed.

(c) An environmental assessment report prepared by a licensed environmental engineer which details the risk to, and potential impact of, the proposed use, activities, and structures on groundwater quality.

(d) An operational safety plan, which details the operational procedures for material processes and containment, best management practices, stormwater runoff management, and groundwater monitoring.

(e) A contingency plan which addresses in detail the actions that will be taken should a contamination event caused by the proposed use, activities, or structures occur.

(4) All applicants submitting a request for a conditional use permit shall reimburse the Village for all consultant fees and expenses and technical review committee expenses associated with this review, plus administrative costs and processing fees.

(5) All conditional use permits granted shall be subject to conditions that will include environmental and safety monitoring determined necessary to afford adequate protection of the public water supply. These conditions shall include all of the following:

(a) Provide current copies of all federal, state and local facility operation approval or certificates and on-going environmental monitoring results to the Village.

(b) Establish environmental or safety structures/monitoring to include an operational safety plan, material processes and containment, operations monitoring, best management practices, stormwater runoff management, and groundwater monitoring.

(c) Replace equipment or expand in a manner that improves the environmental and safety technologies in existence.

(d) Prepare, file and maintain a current contingency plan which details the response to any emergency which occurs at the facility, including notifying municipal, county and state officials. Provide a current copy to the Village.

(6) The Germantown Village Board shall decide upon a request for a conditional use permit only after full consideration of the recommendations made by the Germantown Groundwater Technical Review Committee. Any conditions above and beyond those specified in conditional uses, subsection (5) herein that are recommended by the Germantown Groundwater Technical Review Committee may be applied to the granting of the conditional use permit.

17.40.12 **REQUIREMENTS FOR EXISTING FACILITIES REQUIRING A CONDITIONAL USE OR LISTED AS A PROHIBITED USE.** Existing facilities within the Groundwater Protection Overlay District at the time of enactment of such district which require a conditional use or are listed as a prohibited use in subsection 17.40.11 or subsection 17.40.10 all of which are incorporated herein as if fully set forth.

(1) The owners or operators of such facilities as above which exist within the district at the time of enactment shall, within 45 days of enactment, provide copies of all current, and within 30 days of receipt, revised or new Federal, State and local facility operation approvals, permits or certificates; operational safety plan and on-going environmental monitoring results to the Village.

(2) The owners or operators of such facilities as above which exist within the district at the time of enactment of a district shall have the responsibility of devising, filing and maintaining, with the Village, a current contingency plan which details how they intend to respond to any emergency which may cause or threaten to cause environmental pollution that occurs at their facility, including notifying municipal, county and state officials.

(3) In the event of casualty loss causing damage or destruction to building improvements exceeding 50% of the assessed valuation thereof, or the desire to expand or enlarge building improvements, the cost of which will reasonably be anticipated to exceed 50% of the assessed valuation thereof, the owners or operators of such facilities shall be granted a conditional use permit, in accordance with this Code, and subsection 17.40.11 above, to repair, rebuild, or expand such facilities, provided that the conditions imposed shall generally require that:

(a) To the extent feasible, based upon scientific, engineering and economic factors, the building improvements shall be repaired, restored or rebuilt employing designs and technologies which are state of the art, such that they diminish the potential for wellhead contamination, and

(b) To the extent feasible, based upon scientific, engineering, and economic factors, the replacement or augmentation of equipment and machinery and the installation thereof, which diminishes potential for wellhead contamination. This section does not apply to normal maintenance or minor repairs.

17.40.13 **CHANGING TECHNOLOGY.**

(1) The uses prohibited by this district are prohibited based upon the combined pollution experience of many individual uses, and the technology generally employed by a particular use considered to be of a high risk for pollution to the groundwater resource. As the technology of other uses change to low or non-risk materials or methods, upon petition from such use, after conferring with the Groundwater Technical Review Committee or other expert opinion, and after appropriate public notice and hearing, the Village through appropriate procedures and actions to change these provisions of the Germantown Municipal Code may remove from the designated prohibited uses such uses as are demonstrated convincingly that they no longer pose a groundwater pollution hazard.

(2) In dealing with uses which attempt to become permissible, under the terms of this district, by continuing to utilize pollutant materials but altering their processing, storage and handling, it is not the intention to accept alternate or reduced hazards as the basis for making a use permissible. It is the intention to continue a prohibition on such uses until the technology of the use removes reliance upon the pollutant materials or processes deemed to be a groundwater hazard.

17.40.14 **ENFORCEMENT AND PENALTY.**

(1) Penalty . Any person who violates, neglects or refuses to comply with any of the provisions of this ordinance shall be subject to a penalty as provided in section 17.40 of this Municipal Code.

(2) Injunction . The Village of Germantown may, in addition to any other remedy, seek injunction or restraining order against the party alleged to have violated the provisions herein, the cost of which shall be charged to the defendant in such action.

(3) Cleanup Costs . As a substitute for, and in addition to any other action, the Village of Germantown may commence legal action against both the person who releases the contaminants and the owner of the facility whereupon the contaminants were released to recover the costs, together with the costs of prosecution. Any person who causes the release of any contaminants which may endanger or contaminate the municipal water supply system associated with a Groundwater Protection Overlay District shall immediately cease such discharge and immediately initiate cleanup satisfactory to the Village of Germantown and the other State and Federal regulatory agencies.

The person who releases such contaminants and the person who owns the facility whereon the contaminants have been released shall be jointly and severally responsible for the cost of cleanup, consultant, or other contractor fees, including all administrative costs for oversight, review and documentation, including the Village employees, equipment, and mileage.

17.40.15 **CONFLICT, INTERPRETATION AND SEVERABILITY.**

(1) Conflict and Interpretation of Provisions . If the provisions of the different chapters of this Code conflict with or contravene each other, the provisions of each chapter shall prevail as to all matters and questions arising out of the subject matter of such chapter. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum and are not deemed a limitation or repeal of any other power granted by Wisconsin Statutes. Where any terms or requirements of this ordinance may be inconsistent or conflicting, the most restrictive requirements or interpretations shall apply.

(2) Severability of Code Provisions . If any section, subsection, sentence, clause or phrase of the Code is for any reason held to be invalid or unconstitutional by reason of any decision of any court of competent jurisdiction, such decision shall not affect the validity of any other section, subsection, sentence, clause or phrase or portion thereof. The Village Council hereby declares

that they would have passed this Code and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases or portions may be declared invalid or unconstitutional.

ATTACHMENT B

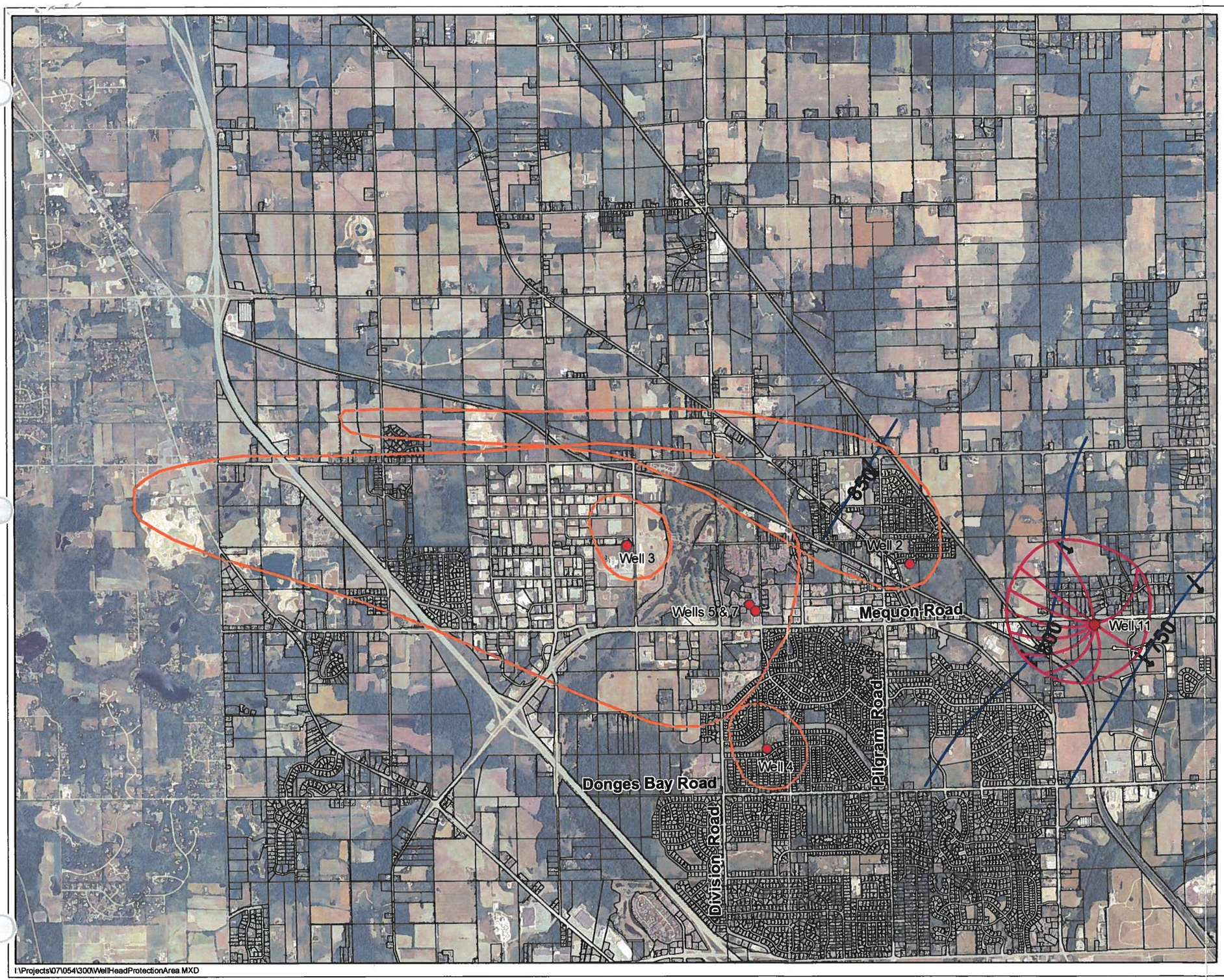
VILLAGE OF GERMANTOWN FIGURE 1 – WELLHEAD PROTECTION AREAS

Figure 1

Wellhead Protection Areas for Germantown Well No. 11*

Village of Germantown
Washington County, Wisconsin

*WHPA for Well 11 delineated by Ruekert-Mielke, 2010 in Amendment No. 1 to Wellhead Protection Plan for Municipal Well Nos. 2, 3, 3, 5, & 7 delineated by Graef, 2008



Legend

- Village Well Sites
- Direction of Groundwater Flow
- 800 Potentiometric Surface Elevation of Sandstone Aquifer (Static Condition)
- Wellhead Protection Area Well 11 (Based on 5-Year TOT)
- Graef Wellhead Protection Areas Wells 2-5 & 7 (Based on 5-Year TOT)

N
W E
S

0 1,500 3,000 6,000 9,000
Feet

I:\Projects\07\054\300\WellHeadProtectionArea.MXD

ATTACHMENT C

WELL CONSTRUCTION REPORTS

WWW = BH 277 Well #5

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:
White Copy – Division's Copy
Green Copy – Driller's Copy
Yellow Copy – Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-1 Rev. 5-85

JAN 5 1988

WN-938-G

1. COUNTY: Washington

CHECK (✓) ONE: ☐ Town ☑ Village ☐ City — Name: Germantown

2. LOCATION: NW, NW, NW ¼ Section or Gov't. Lot ✓ | Section: 22 | Township: 9N | Range: 20E

OR – Grid or Street No. | Street or Road Name: Western Ave & Meguon

AND – If available subdivision name, lot & block No.: Well Location enclosed

3. NAME ☑ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE: Village of Germantown

ADDRESS: P.O. Box 337

POST OFFICE: Germantown | ZIP CODE: WI 53022

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain C.I.	Sanitary Bldg. Drain Other	Sanitary Bldg. Sewer C.I.	Sanitary Bldg. Sewer Other	Floor Drain Connected To: C.I. Sewer	Floor Drain Connected To: Other Sewer	Storm Bldg. Drain C.I.	Storm Bldg. Drain Other	Storm Bldg. Sewer C.I.	Storm Bldg. Sewer Other
		City Sewer								

Street Sewer San.	Street Sewer Storm	Other Sewers C.I.	Other Sewers Other	Foundation Drain Connected to: Sewer	Foundation Drain Connected to: Sewage Sump	Foundation Drain Connected to: Clearwater Sump	Sewage Sump C.I.	Sewage Sump Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pnuematic Tank
				Clearwater Dr.	Sewage Sump	Clearwater Sump		Nothing in				Seepage Pit; Seepage Bed; Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well; Pump; Tank	Nonconforming Existing								

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin; Concrete Floor Only; Concrete Floor and Partial Concrete Walls	Other (Describe)
						Well No. 5

5. Well is intended to supply water for: Village

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
18	Surface	100	12	100	405

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification

Dia. (in.)	Mfg. & Method of Assembly	From (ft.)	To (ft.)
12 I.D.	new pipe	Surface	102'-5"
49.56	ASTM A.53B		
12¾ X 375			
Hydro tested 1540 psi.			
W.S.P.			

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Cement & Water	Surface	100
127 bags	750 gal Water	

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Lime stone	Surface	385
Dolomite	385	405
Virtually no soil over the Niagara.		
DNR permanent well # 87933		

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool ☑ Rotary-hammer w/drilling mud & air ☐ Jetting with
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air
☐ Rotary-w/drilling mud ☐ Reverse Rotary ☐ Water

11. MISCELLANEOUS DATA

Yield Test: 96 Hrs. at 800 GPM

Depth from surface to normal water level 1 Ft.

Depth of water level when pumping 19 Ft. Stabilized ☑ Yes ☐ No

Well construction completed on 12-22 19 87

Well is terminated 24 inches ☑ above ☐ below final grade

Well disinfected upon completion ☑ Yes ☐ No

Well sealed watertight upon completion ☑ Yes ☐ No

Sp. cap. = 44.4 gpm/ft

Water sample sent to S.L.H. Dist laboratory on 12-18 19 87

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

884310 plot

Signature: Marvin Hofer

cc: SED SGS WELL LOG BOOK

Registered Well Driller

Business Name and Complete Mailing Address: N9899 Hwy 23 Wi. Dells 53965

SEE OTHER SIDE

WN739

Figure 3


GERMANTOWN WATER UTILITY
Wisconsin Unique Well Number (WUWN): BH246 (Well # 3)
BH246
Germantown
CMW
IPC
CSL
MGC
Selected Public Water Supply Well
Other Water Supply Wells (Public or Private)
Source Water Assessment Area
Potential Contaminant Source
Potential Contaminant Source
Potential Contaminant Source
Municipalities
N
0
100 Meters
0
400 Feet
The specific locations of drinking water wells and surface water intakes are sensitive information. To prevent misuse of this information DNR staff may not provide this information outside of the Department. Information requests should be directed to Jeff Helmuth, (608) 266-5234, jeffrey.helmuth@dnr.state.wi.us
Tuesday, April 15, 2003

Well Construction Report
WISCONSIN UNIQUE WELL NUMBER ZR551

Drinking Water and Groundwater - DG/5
Department of Natural Resources, Box 7921
Madison WI 53707
Form 3300-077A

Property Owner	GERMANTOWN, VILLAGE OF
Phone #	
Mailing Address	MEQUON RD PO BOX 337
City	GERMANTOWN
State	WI
Ziip Code	53022
County	Washington
Co. Permit #	
Notification #	
Completed	08-10-2018
Well Constructor (Business Name)	C T W CORP
Lic. #	364
Facility ID # (Public Wells)	267010590
Address	21500 W GOOD HOPE RD LANNON WI 53046-9720
Well Plan Approval #	
Approval Date (mm-dd-yyyy)	
Hicap Permanent Well #	87902
Common Well #	3
Specific Capacity	300

3. Well serves # of MUNICIPALITY
Municipal/Community
Heat Exchange_____# of drillholes

Hicap Well ? Yes
Hicap Property ? No
Hicap Potable ? No

1. Well Location
Village of GERMANTOWN

Fire # (if avail.)

Street Address or Road Name and Number
RIVER LANE

Subdivision Name	Lot #	Block #

Latitude / Longitude in Decimal Degree (DD)				Method Code
43.2286	°N	-88.1332	°W	GPS008

SE	NW	Section	Township	Range
or Govt Lot #		21	9 N	20 E

2. Well Type Reconstruction
of previous unique well # BH246 constructed in 1967
Reason for replaced or reconstructed well ?
WATER QUALITY

Construction Type Other

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
20	Surface	9
19.30	9	531
13.30	531	1282

Upper Enlarged Drillhole		Lower Open Bedrock
No	Rotary - Mud Circulation	No
Yes	Rotary - Air	Yes
No	Rotary - Air & Foam	No
No	Drill-Through Casing Hammer	
No	Reverse Rotary	
No	Cable-tool Bit ____in. dia...	No
No	Dual Rotary	No
No	Temp. Outer Casing ____in. dia	
No	Removed? ____depth ft. (If NO explain on back side)	

Geology Codes				**8. Geology** Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
		C		C-CLAY	Surface	12
		O		O-OUTWASH	12	375
		H		H-SHALE	375	510
		L		L-LIMESTONE/DOLOMITE	510	725
		N		N-SANDSTONE	725	1282

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
20	EXISTING BLACK STEEL	Surface	9
14	EXISTING BLACK STEEL	0	531
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

7. Grout or Other Sealing Material
Method TREMIE PIPE - PUMPED

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
NEAT CEMENT GROUT	Surface	531	0

9. Static Water Level
265 ft. below ground surface

10. Pump Test
Pumping level 405 ft. below surface
Pumping at 700 GP H for 8 Hrs.
Pumping Method ? Test Pump

11. Well Is
12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ? No

Filled & Sealed Well(s) as needed? No

13. Constructor / Supervisory Driller	Lic #	Date Signed
TS	364	09-10-2018
Drill Rig Operator	Lic or Reg #	Date Signed

4a. Potential Contamination Sources Is the well located in floodplain ? No

Comment: WELL WAS ABANDONED WITH 810CU FT CHLORINATED PEA STONE FROM 965' TO 1282'. 60 CU FT OF TREMIE PIPE PUMPED NEAT GROUT FROM 925' TO 965'. 324CU FT OF CHLORINATED PEA STONE FROM 912' TO 925'. 54CU FT OF TREMIE PIPE PUMPED NEAT CEMENT GROUT FROM 891' TO 912'.

Water Quality Text:

Water Quantity Text:

Difficulty Text:

Abandonment Type	Abandonment Date	Procedure	Reason
Permanent	08/10/2018	CHLORINATED PEA STONE/NEAT CEMENT	WATER QUALITY

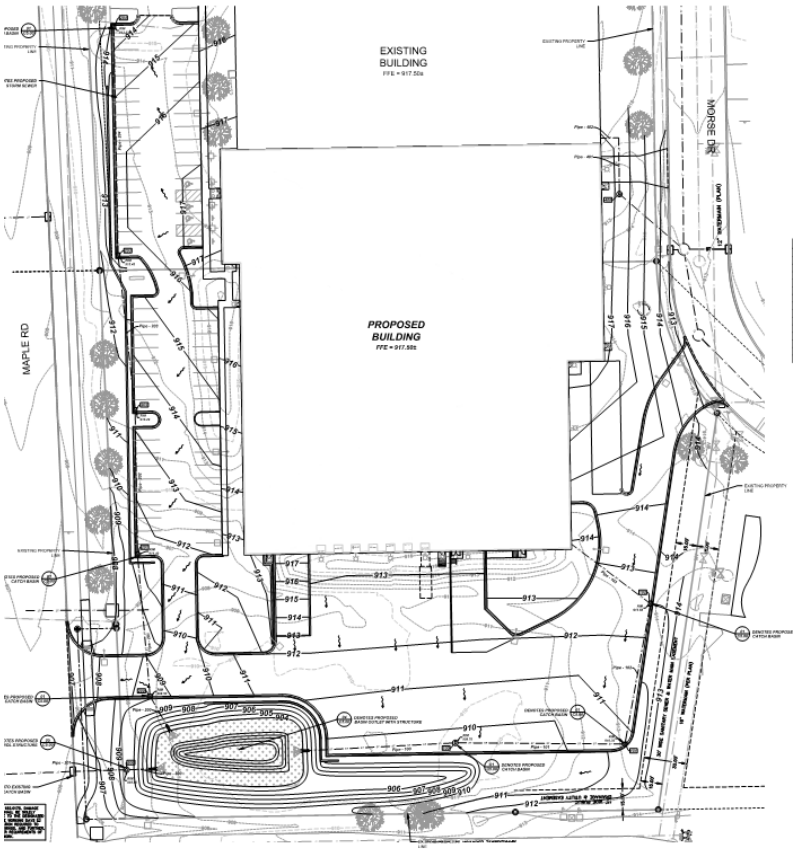
Created On: 09-04-2018 Created by: TROYSIMONAR Updated On: 09-17-2018 Updated by: TROYSIMONAR

ATTACHMENT D

STORMWATER MANAGEMENT REPORT

STORMWATER MANAGEMENT REPORT

FOR



Glue Dots International

Date: August 19, 2019

Prepared By: Harwood Engineering Consultants, Ltd.

Nathan F. Schmit, P.E.
255 North 21st Street
Milwaukee, WI 53233
Ph: 414-475-5554
Reviewed By: Thomas B. Olejniczak, P.E., LEED AP
Project Number: 19-1115.00

Introduction

Glue Dots International is located at N117W18711 Fulton Dr in the Village of Germantown, Wisconsin. This stormwater management report describes the practices that were used to meet the Village of Germantown, MMSD, and Wisconsin Department of Natural Resources (WDNR) stormwater management requirements.

Method of Analysis and Requirements

- Stormwater quantity management analysis was completed using HydroCAD-10.0 modeling software. Runoff curve numbers were determined from the NRCS tables within the TR-55 handbook. The rainfall events used in this analysis were based on NRCS values for Washington County for 2-YR and 100-YR , 24-hour events (2.65 inches and 6.41 inches, respectively).
- Stormwater quality analysis was completed utilizing WinSLAMM V.10.2.0. The on-site water quality design was completed using the 1969 Milwaukee rainfall files provided by WinSLAMM modeling software as well as the date ranges required by WDNR NR151.
- On-site storm sewer calculations were completed utilizing the Rational Method and Manning's equation, as well as, the Atlas 14 rainfall values.
- The stormwater quantity requirements for this site are dictated by the Village of Germantown, MMSD, and the WDNR. The volumetric design procedure will be used to meet the requirements of chapter 13.
- Stormwater quality requirements are dictated by the WDNR and require that this project achieve a reduction of 40% total suspended solids (TSS) for parking and roadway areas on the site, when compared with using no controls at all. The ***Water Quality Summary*** section summarizes the water quality methods and results on-site.

Soils Information

A geotechnical exploration is currently being completed on the site. This section will be updated with the final report when the results are received.

Infiltration

This project is a re-development and exempt from infiltration requirements per NR 151.

Existing Watershed Conditions (See Existing Conditions Exhibit)

The existing site includes the existing Glue Dots industrial building along with the associated parking and drive aisles. The existing terrain of the property slopes downward away from the building.

This report will analyze 4.897 acres of the site. The existing site was split in two drainage areas.

EX-1 – This area includes the West and South portions of the site that drain to existing site sewer in Maple Road. It includes paved, roofed and greenspace areas.

EX-2 - This area includes the East portions of the site that drain to existing site sewer in Morse Road. It includes paved, roof and greenspace areas.

The table below summarizes the existing watershed characteristics.

Existing Conditions Summary:

Sub-Area Name	Area (acres)	Curve Number	Time of Concentration (min)
EX-1	4.174	81	27.6
EX-2	0.723	82	11.0
Total	4.897		

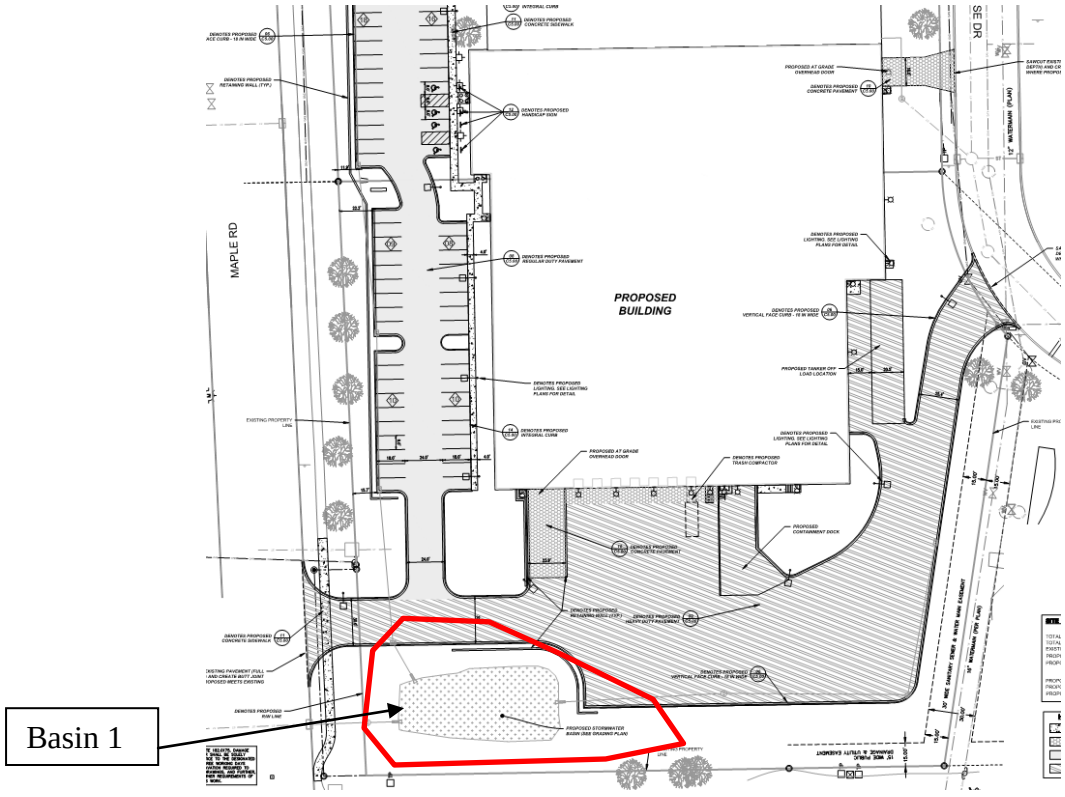
Existing Site Release Rate Summary:

Storm Event	Total Existing Release (cfs)
2-yr	4.52
10-yr	8.64
100-yr	18.55

Proposed Watershed Conditions

The proposed site improvements include 1 building addition to the existing building to the North, totaling roughly 68,387 SF. Along with the building addition, the parking lot, drives and site utilities will be reconfigured and re-constructed.

The proposed condition analyzes the same 4.897 acres as the existing conditions. A wet retention basin will be constructed to manage the stormwater quantity and quality from the site. It will be located on the southwest portion of the site.



The site was split into four drainage areas as described below:

PR-1 – Includes a portion of the proposed roof and the South portions of the site that are tributary to the stormwater basin.

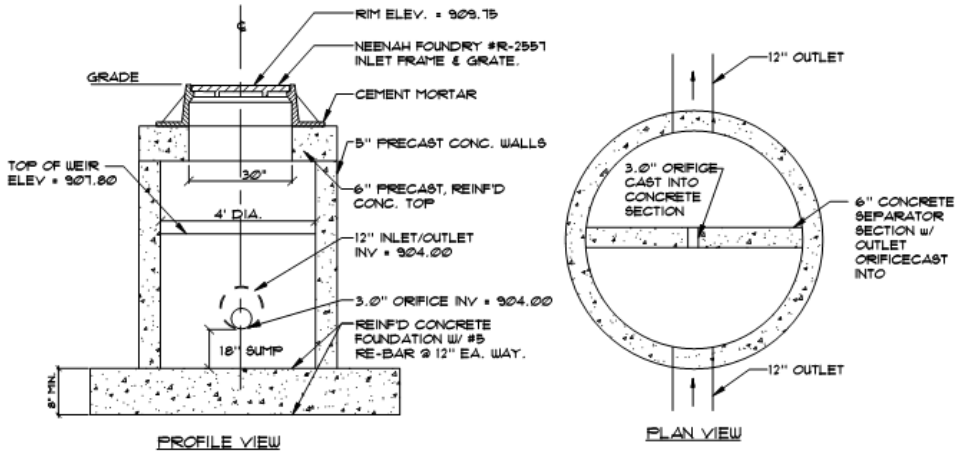
PR-2 – Includes a portion of the proposed roof and the West portions of the site that are tributary to the stormwater basin.

UD-1 – This area includes the portions of the West side of the site that will be released undetained. It includes paved and greenspace areas.

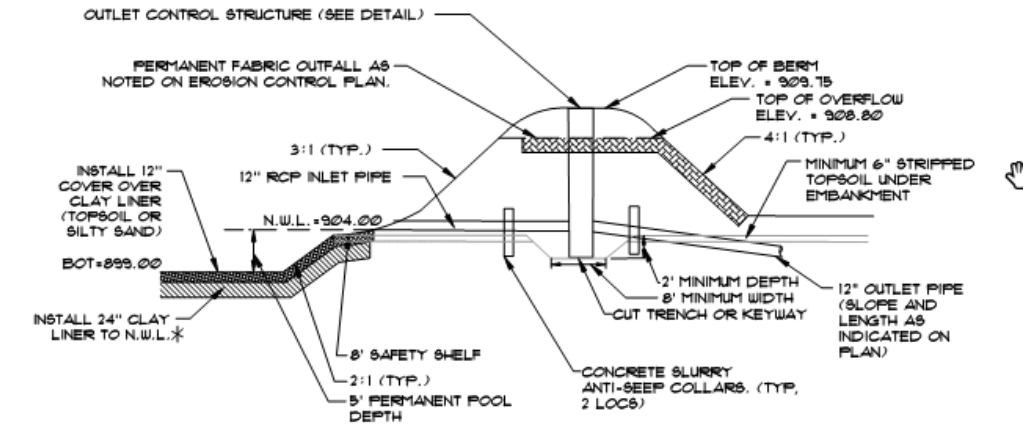
UD-2 – This area includes the portions of the East, side of the site that will be released undetained. It includes paved and greenspace areas.

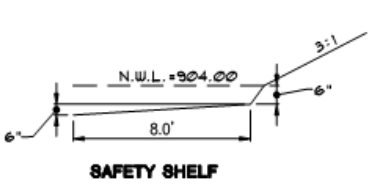
Proposed Conditions Summary:

Sub-Area Name	Area (acres)	Curve Number	Time of Concentration (min)
PR-1	2.338	91	18.1
PR-2	1.478	96	6.0
UD-1	0.701	85	6.0
UD-2	0.380	78	6.0
Total	4.897		

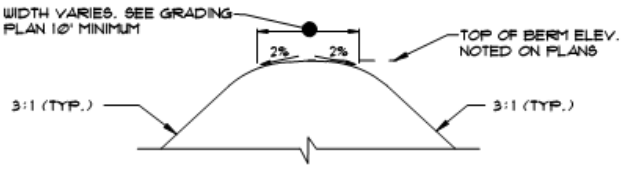


05 **OUTLET CONTROL STRUCTURE**
NTS





SAFETY SHELF



BERM DETAIL

*NOTE: FOR AREAS WHERE THE IN-SITU SOILS ARE NOT SUITABLE AS A LINER (PER A GEOTECHNICAL REPRESENTATIVE), THE CONTRACTOR SHALL INSTALL A LINER PER THE DETAIL WITH THE FOLLOWING PROPERTIES:

CLAY LINER TO HAVE THE FOLLOWING PROPERTIES: PI > 12 ; LL ≥ 25
MOISTURE CONTENT = 0-2% ABOVE OPTIMUM

PLACE LINER IN 9" LIFTS, COMPACT TO 90% MODIFIED PROCTOR

04 **BASIN OUTLET WITH STRUCTURE**
NTS

Stormwater Basin 1 Summary:

Storm Event	Elevation	Release Rate (cfs)
2-yr	906.68	0.38
10-yr	907.78	0.45
100-yr	908.46	7.30

Overall On-Site Stormwater Volume Comparison Summary:

The volumetric design procedure was used for this project to show the site meets the requirements of MMSD chapter 13. The volumetric design procedure analyzes the volume of water leaving the site for both the existing and proposed conditions. Based on MMSD chapter 13 requirements, the volume during the critical time period for the proposed conditions must be less than the volume for the critical time period under the existing condition.

This site is located in the Menomonee River watershed. The length of the critical time period for the Menomonee River Watershed is 9.5 hours. The critical time starts at 11.75 hours and ends at 21.25 hours.

The table below summarizes the volume from the study area under both the existing and proposed conditions and shows the volume under the proposed conditions is less than the existing conditions during the critical time period, meeting the requirements of MMSD chapter 13. Additional tables and hydrographs supporting this summary can be found in the ***Proposed Conditions*** section of the report.

Storm Event	Existing Volume (ac-ft)*	Proposed Volume (ac-ft)*	% Volume Reduction (Proposed vs. Existing)
2-yr	0.414	0.367	11.35
100-yr	1.563	1.205	22.90

*During the critical time period of 11.75 hours to 21.25 hours.

Water Quality and Analysis

The proposed development was modeled using the water quality software WinSLAMM (Ver. 10.2.0). Wisconsin Department of Natural Resources requires this redevelopment site to provide a 40% TSS reduction for the new roadway and parking areas as compared to using no runoff management controls.

The stormwater basin has been modeled in WinSLAMM and show that the site exceeds the 40% requirements. See the **Water Quality** section for exhibits and calculations that demonstrate that the site meets the 40% reduction requirement.

Erosion Control Plan

Approximately 4.5 acres of the existing site will be disturbed for this project. The Erosion Control Plan shows the methods and locations proposed to stabilize the site during and after the development project.

Prior to initiating construction onsite, the silt filter fence and the construction entrance tracking pad shall be installed in an effort to minimize sediment travelling offsite.

Construction activities shall be staged, as much as possible, to limit the combined disturbed area.

Upon completing the grading and swales, the erosion control matting shall be installed. Silt fencing shall be maintained throughout the construction process and repaired and replaced as needed.

Sediment tracking shall be minimized to the maximum extent practicable. Roadways are to be swept of debris at the end of each work day, as needed.

Disturbed areas shall be stabilized as soon as grading is completed. Restoration and seeding methods shall follow the landscaping plans and Town standards.

Dust control shall be maintained onsite with the use of a water truck if substantial dust becomes airborne.

During construction, the site shall be inspected by the contractor weekly and after every 0.5” or greater rainfall to evaluate the conditions of the erosion control practices and resolve any issues. The inspections shall be documented and maintained onsite and follow Wisconsin Department of Commerce Chapter Comm. 60.

After the site work has been substantially completed and the areas have become stabilized, the stormwater management basins, inlet and outlets, and outlet control structure shall be inspected and cleaned if necessary to

remove all sediment deposits transported during construction. After all areas have been stabilized, the temporary erosion control methods should be removed permanently

Operation and Maintenance

Routine inspection and maintenance is required to maximize the long term water quantity and quality benefits provided by the stormwater management basins.

Culverts and inlets/outlets should be visually inspected after any large event and at a minimum of once per year. The outlet control structure should also be inspected after any large event, as well as, a minimum of twice per year (remove any debris that might create a blockage, including the grate on flared end section).

In regards to the stormwater management basins controlling weeds in areas within the basin, as well as, the side slopes is required throughout the life of the basin. Weed control should be accomplished through spot applications of herbicides only, not broadcast or sprayed. Herbicide applications should be performed by trained professionals with proper equipment and understanding of herbicide properties. A healthy stand of turf grass in areas above the basin serves as an additional sediment filter. Areas of bare soil shall be reseeded and mulched as needed. Tree seedlings within the areas upslope of the basin can be removed and/or controlled with a routine mowing schedule.

The basin area shall be routinely inspected for litter, floating debris, weeds and tree seedlings, and sediment build up. Sediment within the basin bottom shall be safely removed and disposed of on an as needed basis to maintain water quality functions.

A copy of inspections performed, as well as, any preventative and/or required maintenance shall be logged and kept on site or with the property owner.

Conclusion

The proposed stormwater management features for the Glue Dots International Building Addition has been designed to meet the requirements of the Village of Germantown and Wisconsin Department of Natural Resources with respect to stormwater quantity, quality, and erosion control.

EXISTING BUILDING

Denotes Tc Path

MAPLE RD

MORSE DR

EXISTING BUILDING

EX-2

EX-1

Denotes Tc Path

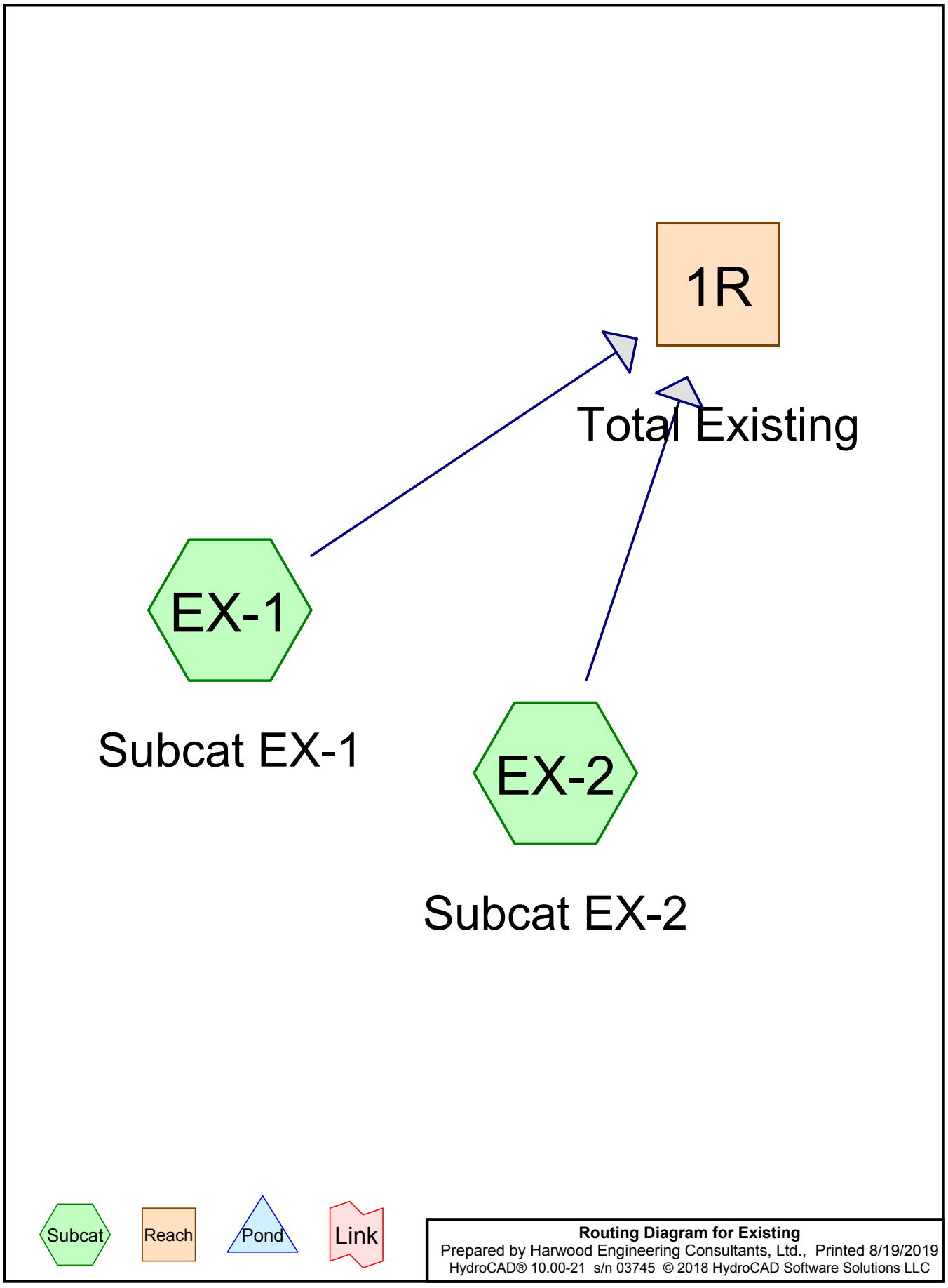
Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

Glue Dots International

Existing Drainage Area Map

North

Scale: 1" = 50'



Routing Diagram for Existing
Prepared by Harwood Engineering Consultants, Ltd., Printed 8/19/2019
HydroCAD® 10.00-21 s/n 03745 © 2018 HydroCAD Software Solutions LLC

Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>1.04"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=4.04 cfs 0.361 af

Subcatchment EX-2: Subcat EX-2 Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>1.08"
Flow Length=103' Tc=11.0 min CN=82 Runoff=1.20 cfs 0.065 af

Reach 1R: Total Existing Inflow=4.52 cfs 0.426 af
Outflow=4.52 cfs 0.426 af

Total Runoff Area = 4.897 ac Runoff Volume = 0.426 af Average Runoff Depth = 1.04"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Summary for Subcatchment EX-1: Subcat EX-1

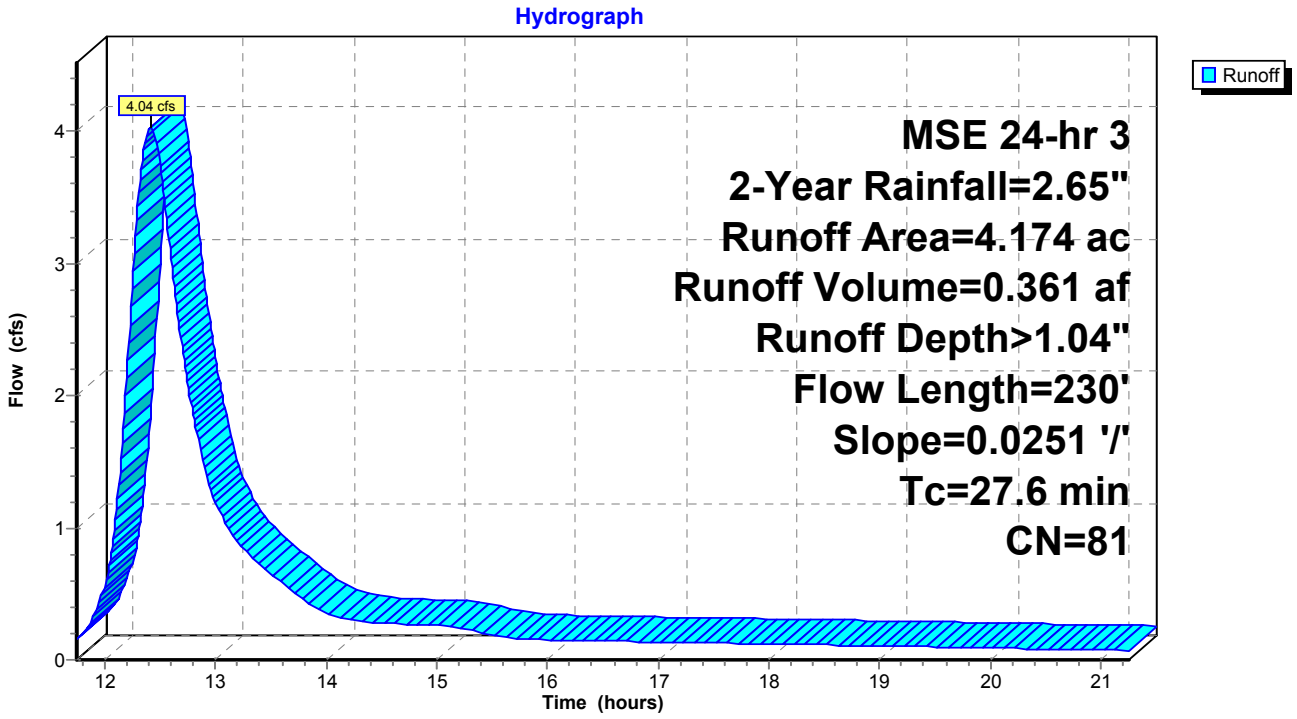
Runoff = 4.04 cfs @ 12.42 hrs, Volume= 0.361 af, Depth> 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1



Summary for Subcatchment EX-2: Subcat EX-2

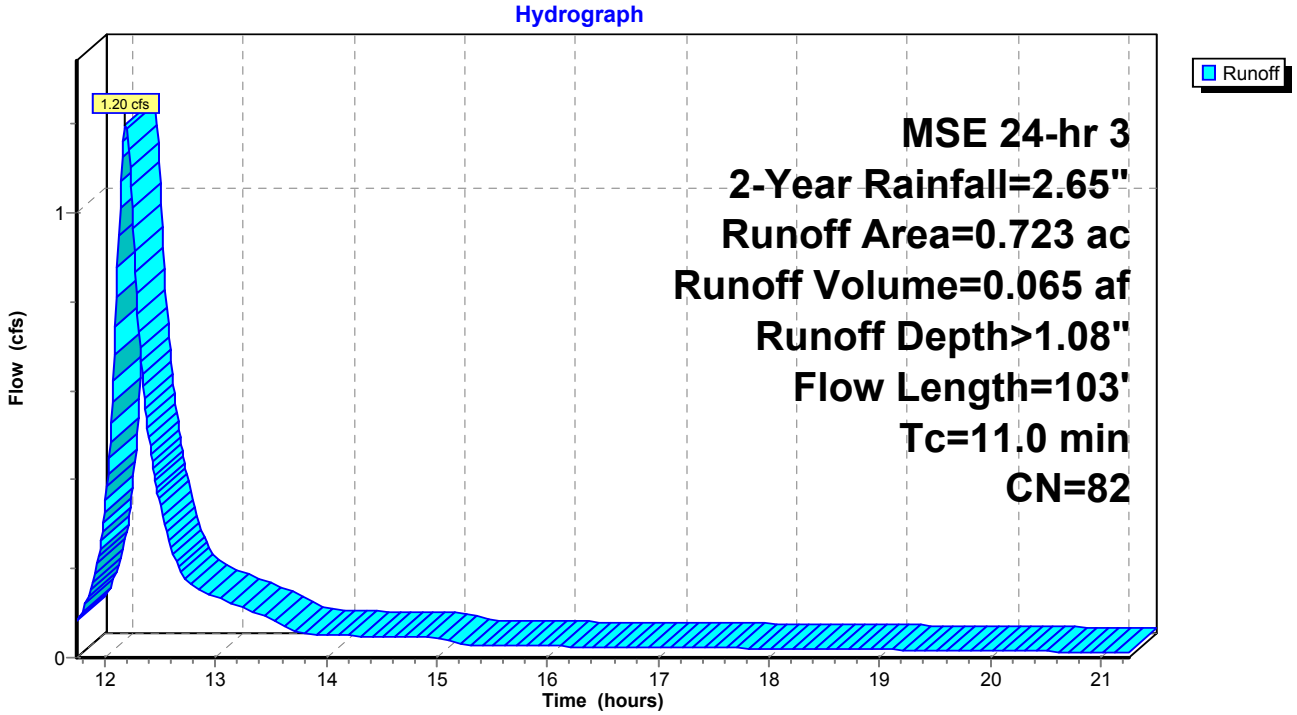
Runoff = 1.20 cfs @ 12.19 hrs, Volume= 0.065 af, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2

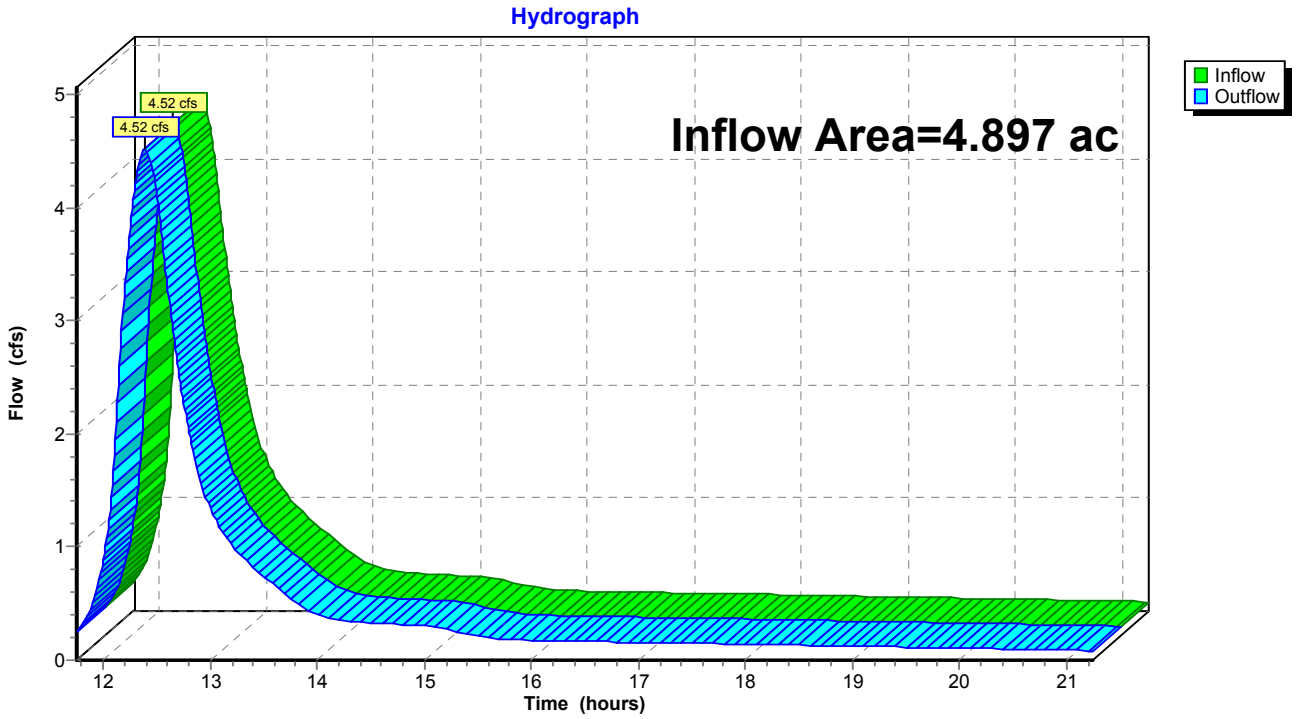


Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 1.04" for 2-Year event
Inflow = 4.52 cfs @ 12.39 hrs, Volume= 0.426 af
Outflow = 4.52 cfs @ 12.39 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>1.90"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=7.71 cfs 0.662 af

Subcatchment EX-2: Subcat EX-2 Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>1.93"
Flow Length=103' Tc=11.0 min CN=82 Runoff=2.23 cfs 0.116 af

Reach 1R: Total Existing Inflow=8.64 cfs 0.778 af
Outflow=8.64 cfs 0.778 af

Total Runoff Area = 4.897 ac Runoff Volume = 0.778 af Average Runoff Depth = 1.91"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Summary for Subcatchment EX-1: Subcat EX-1

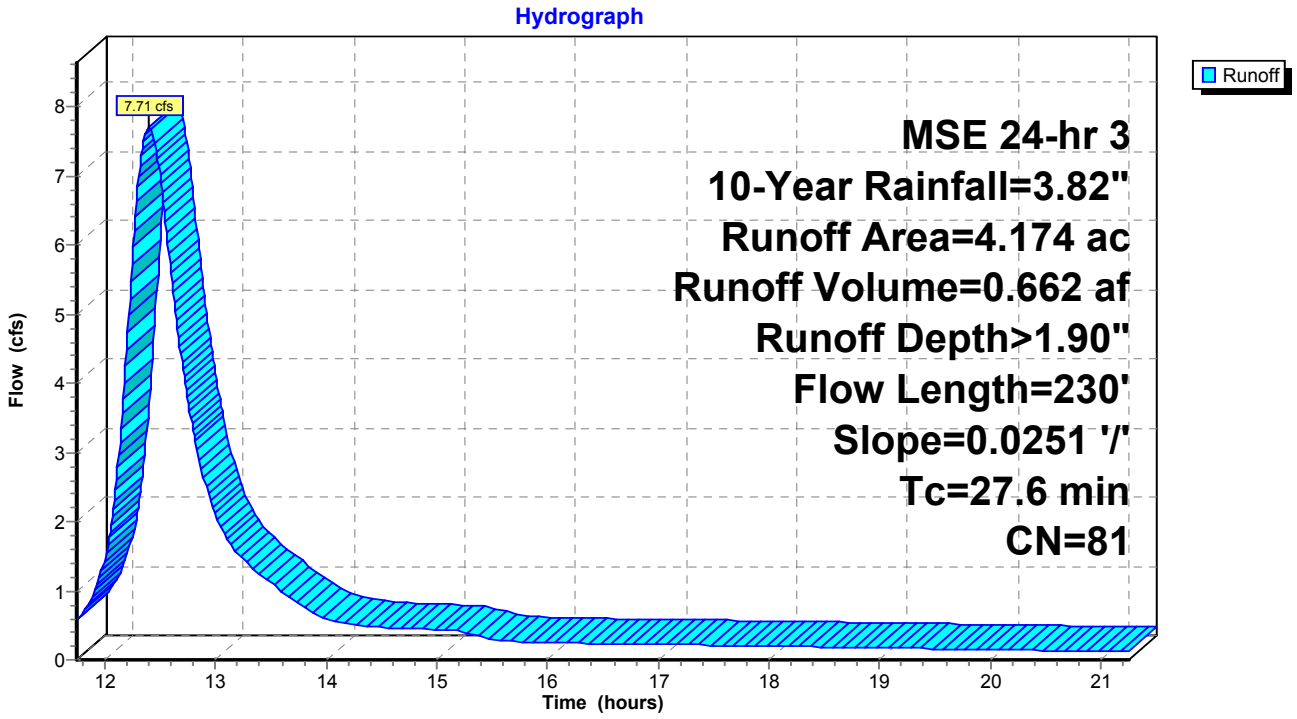
Runoff = 7.71 cfs @ 12.40 hrs, Volume= 0.662 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1



Summary for Subcatchment EX-2: Subcat EX-2

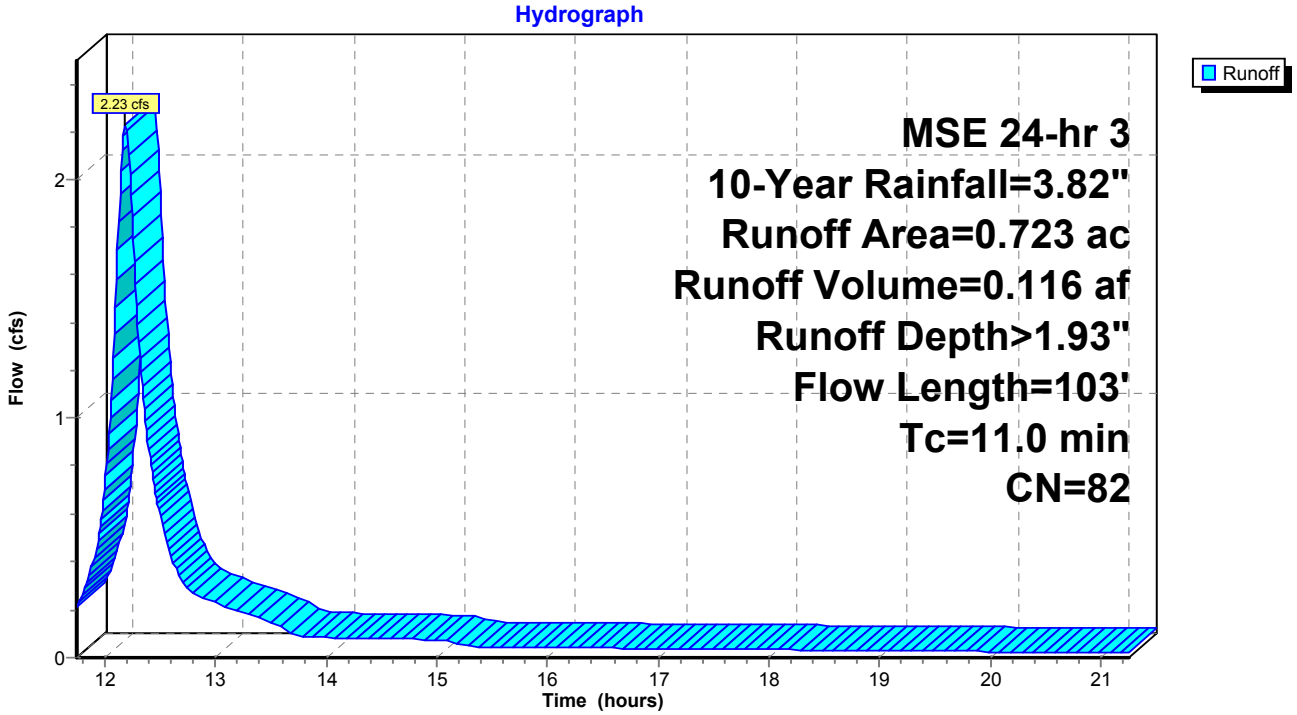
Runoff = 2.23 cfs @ 12.19 hrs, Volume= 0.116 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2

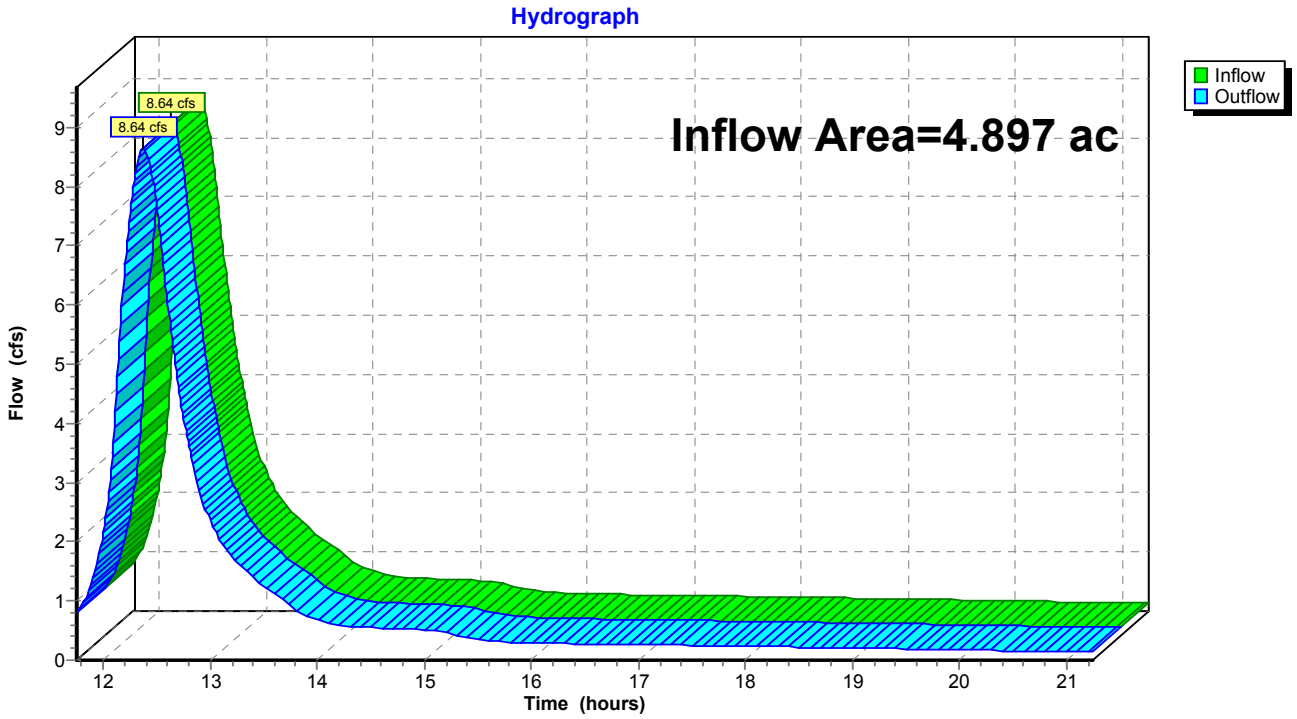


Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 1.91" for 10-Year event
Inflow = 8.64 cfs @ 12.36 hrs, Volume= 0.778 af
Outflow = 8.64 cfs @ 12.36 hrs, Volume= 0.778 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>3.95"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=16.59 cfs 1.373 af

Subcatchment EX-2: Subcat EX-2 Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>3.90"
Flow Length=103' Tc=11.0 min CN=82 Runoff=4.65 cfs 0.235 af

Reach 1R: Total Existing Inflow=18.55 cfs 1.608 af
Outflow=18.55 cfs 1.608 af

Total Runoff Area = 4.897 ac Runoff Volume = 1.608 af Average Runoff Depth = 3.94"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Summary for Subcatchment EX-1: Subcat EX-1

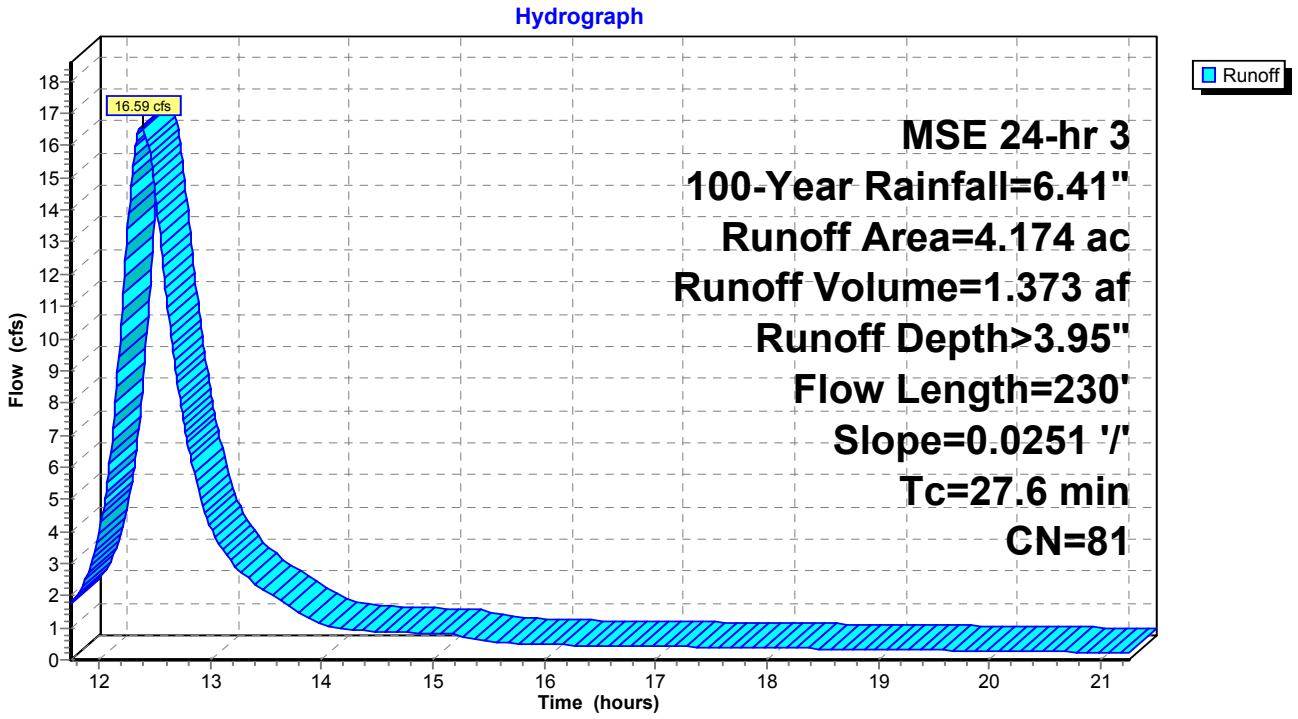
Runoff = 16.59 cfs @ 12.39 hrs, Volume= 1.373 af, Depth> 3.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1



Summary for Subcatchment EX-2: Subcat EX-2

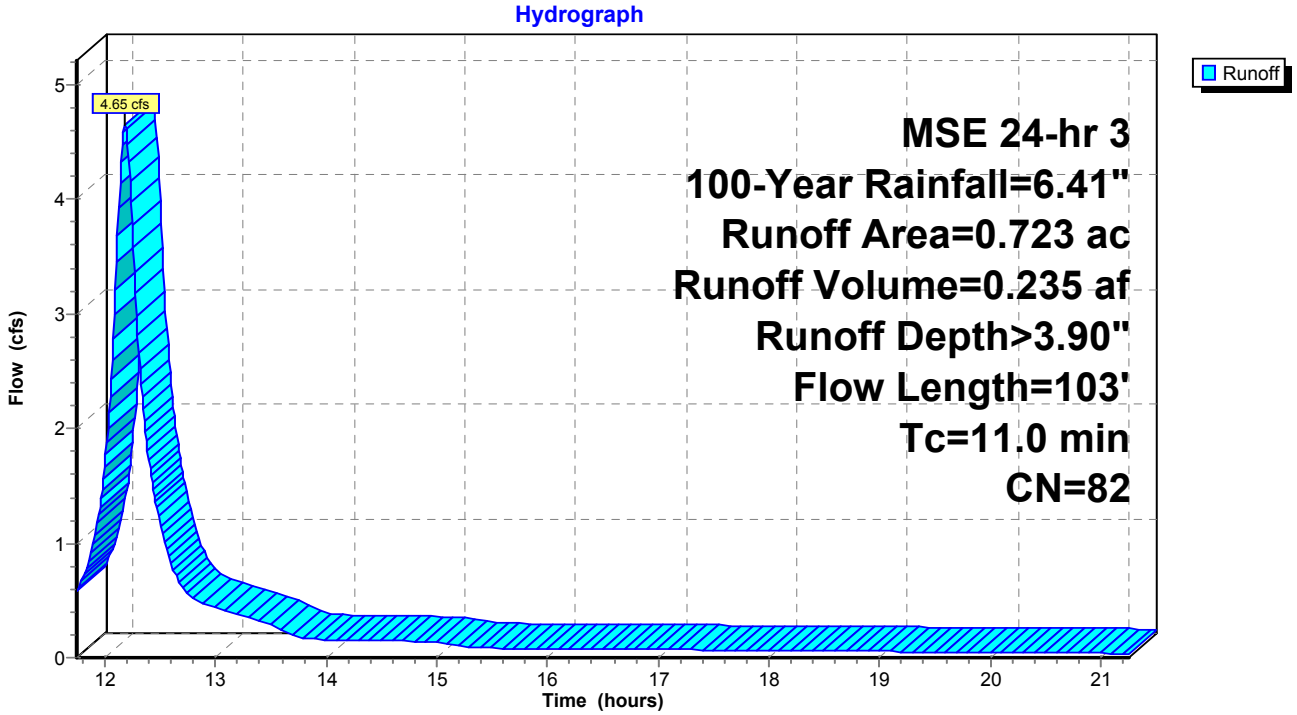
Runoff = 4.65 cfs @ 12.18 hrs, Volume= 0.235 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2

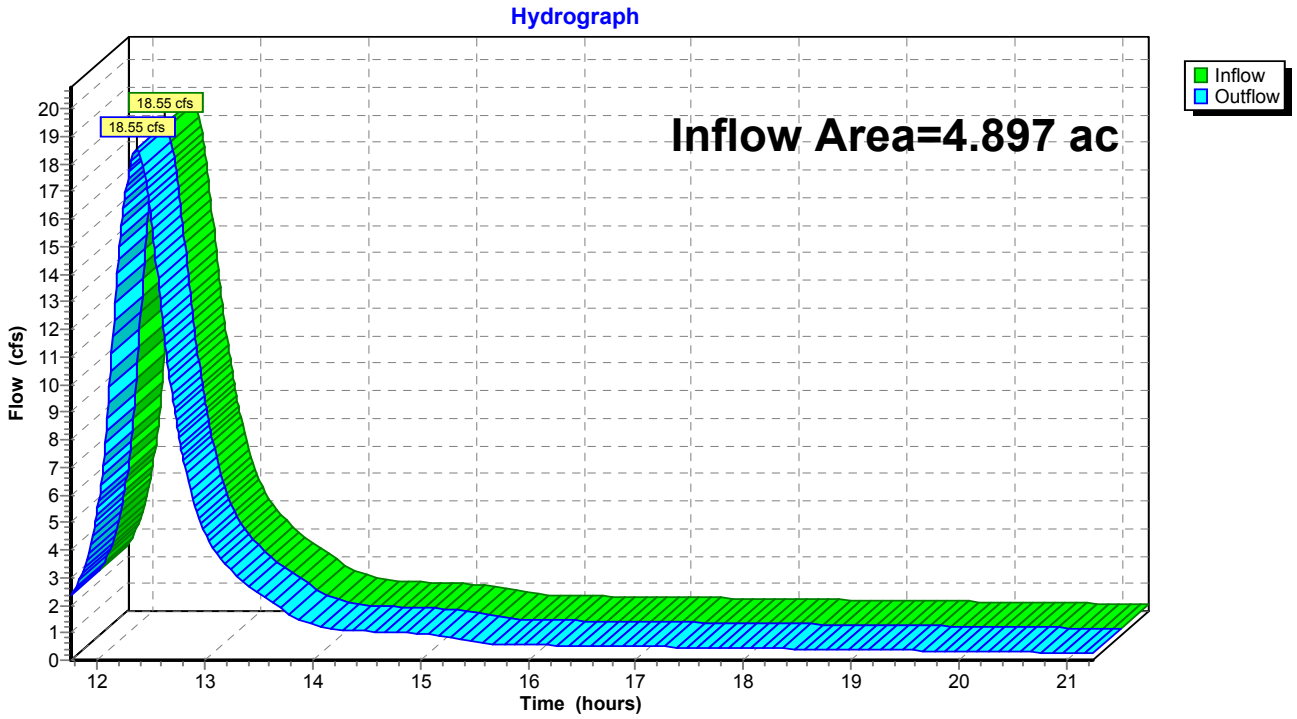


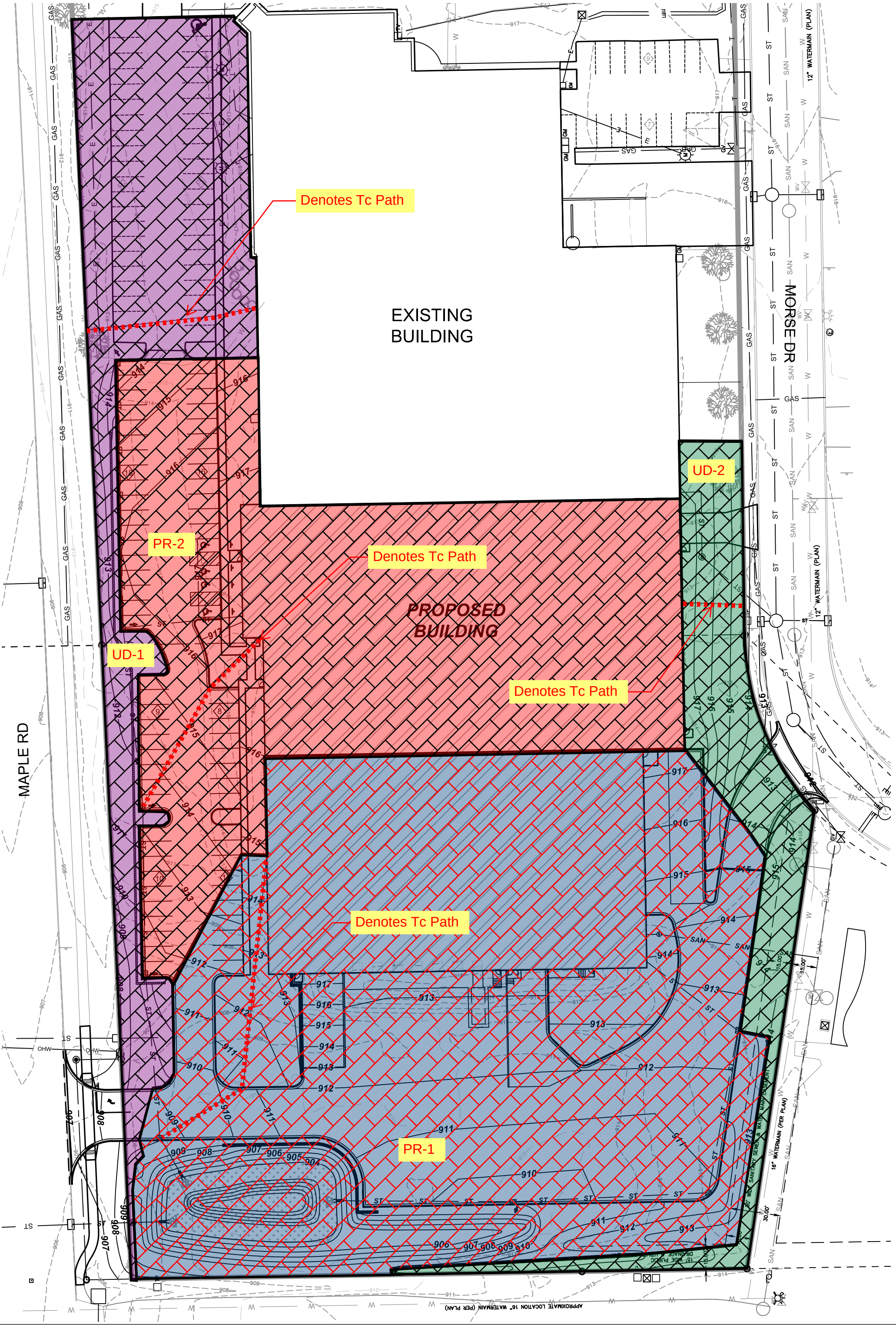
Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 3.94" for 100-Year event
Inflow = 18.55 cfs @ 12.36 hrs, Volume= 1.608 af
Outflow = 18.55 cfs @ 12.36 hrs, Volume= 1.608 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing





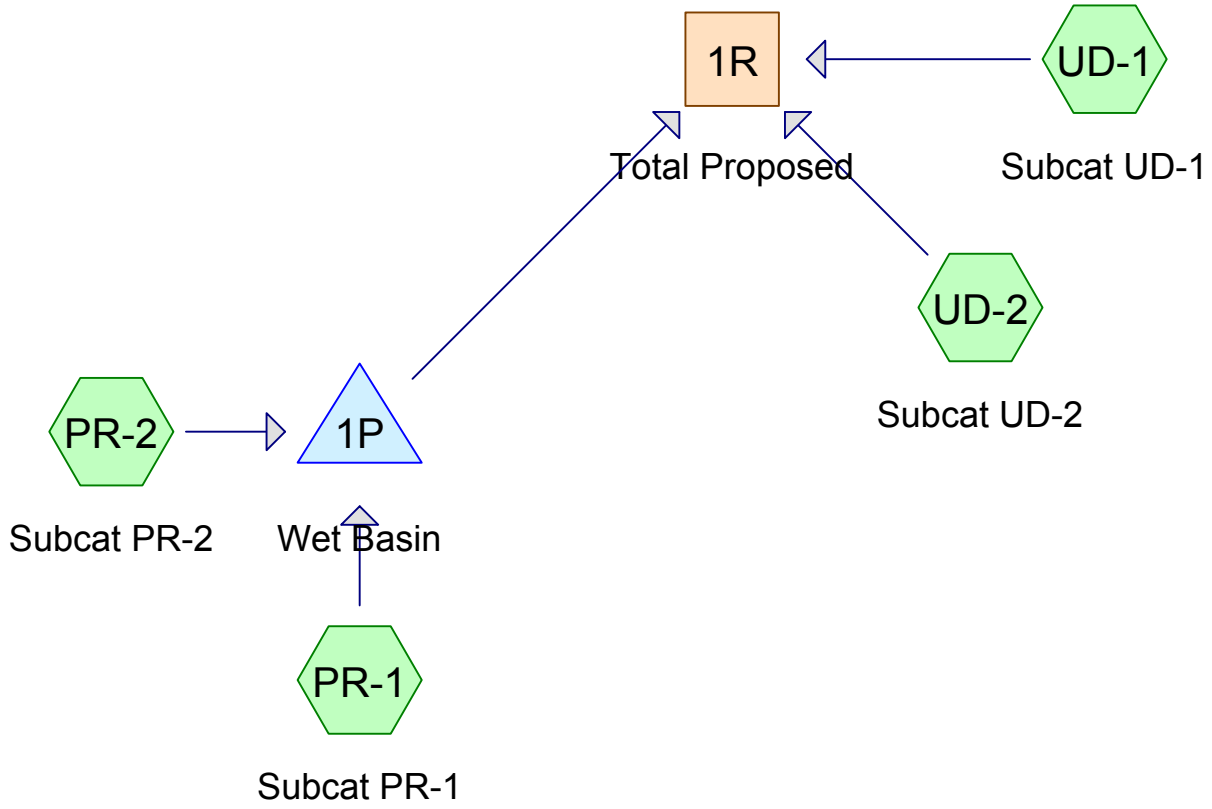
Harwood Engineering Consultants
255 North 21st Street Milwaukee Wisconsin 53233
414.475.5554 414.773.9299 fax harwood@hecl.com

Glue Dots

Proposed Drainage Area Map

North

Scale: 1" = 50'



Subcat Reach Pond Link

Routing Diagram for Proposed
Prepared by Harwood Engineering Consultants, Ltd., Printed 8/19/2019

Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>1.60"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=4.78 cfs 0.312 af

Subcatchment PR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>1.80"
Flow Length=249' Tc=6.0 min CN=96 Runoff=5.53 cfs 0.222 af

Subcatchment UD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>1.20"
Tc=0.0 min CN=85 Runoff=2.04 cfs 0.070 af

Subcatchment UD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>0.87"
Tc=0.0 min CN=78 Runoff=0.81 cfs 0.027 af

Reach 1R: Total Proposed Inflow=3.12 cfs 0.434 af
Outflow=3.12 cfs 0.434 af

Pond 1P: Wet Basin Peak Elev=906.68' Storage=23,681 cf Inflow=8.59 cfs 0.534 af
Outflow=0.38 cfs 0.336 af

Total Runoff Area = 4.898 ac Runoff Volume = 0.632 af Average Runoff Depth = 1.55"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

Summary for Subcatchment PR-1: Subcat PR-1

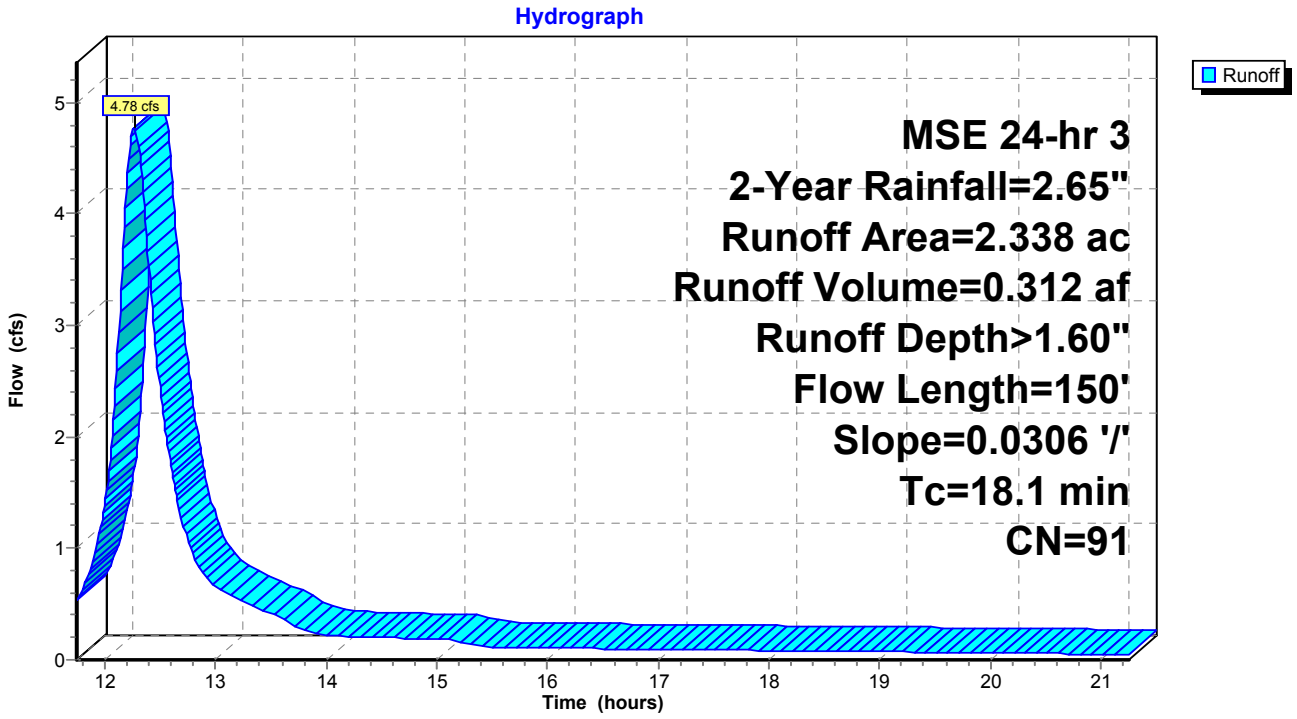
Runoff = 4.78 cfs @ 12.27 hrs, Volume= 0.312 af, Depth> 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1



Summary for Subcatchment PR-2: Subcat PR-2

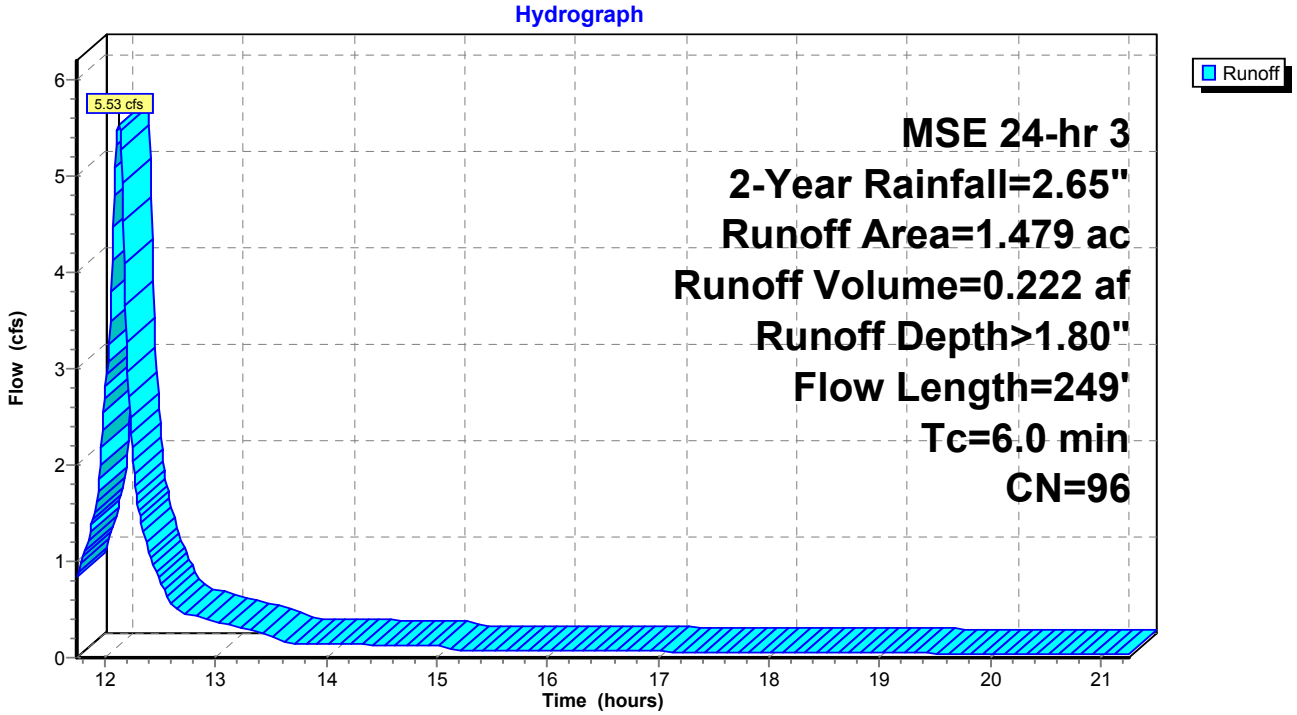
Runoff = 5.53 cfs @ 12.13 hrs, Volume= 0.222 af, Depth> 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



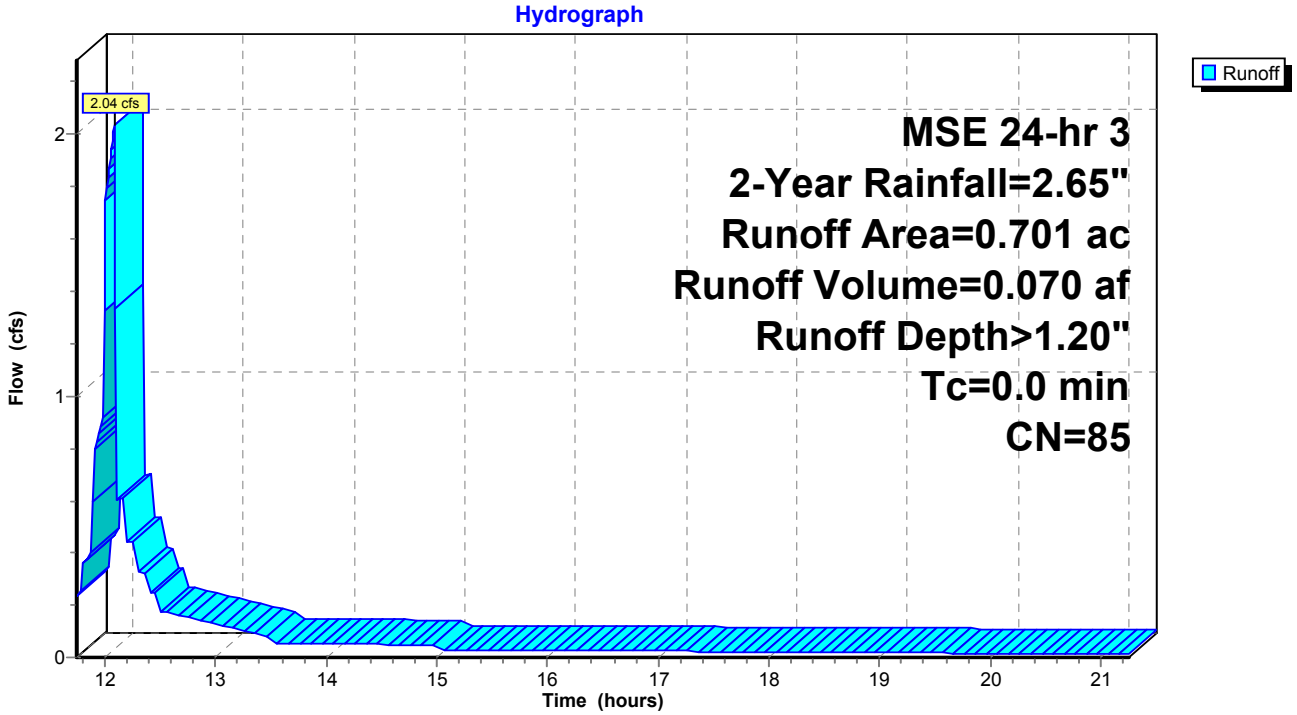
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 2.04 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



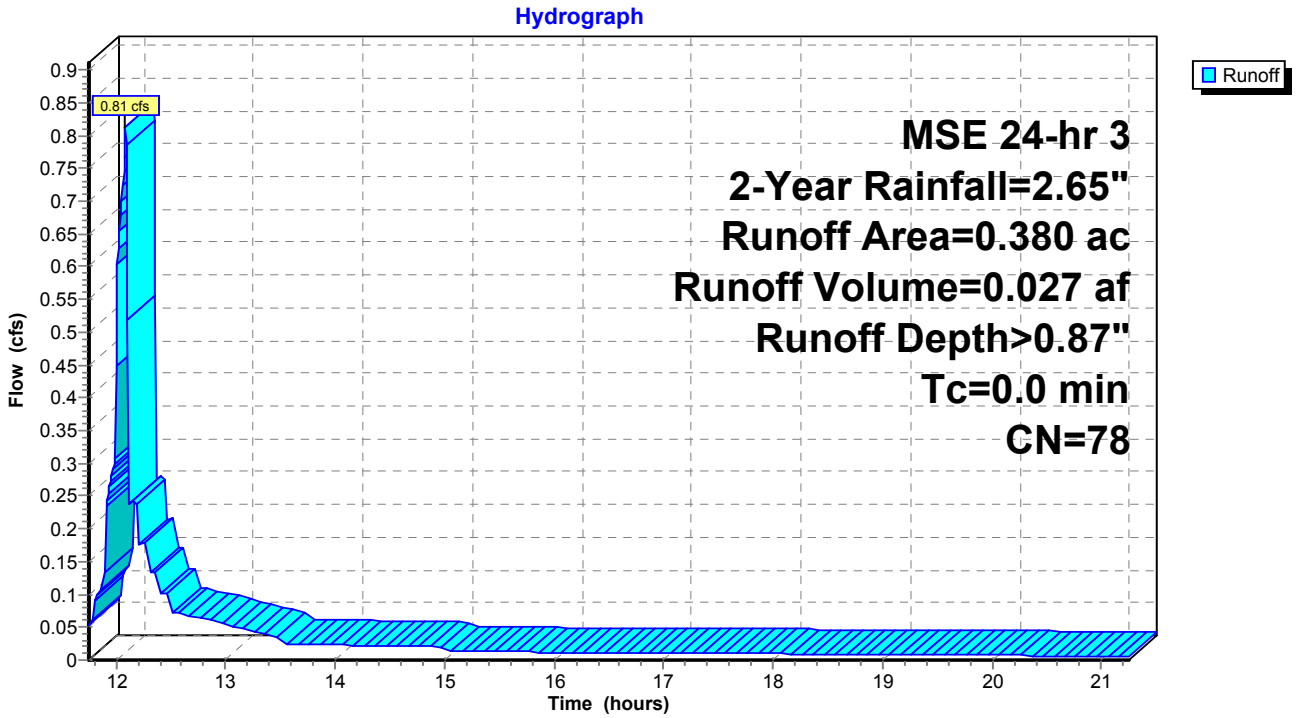
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 0.81 cfs @ 12.09 hrs, Volume= 0.027 af, Depth> 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

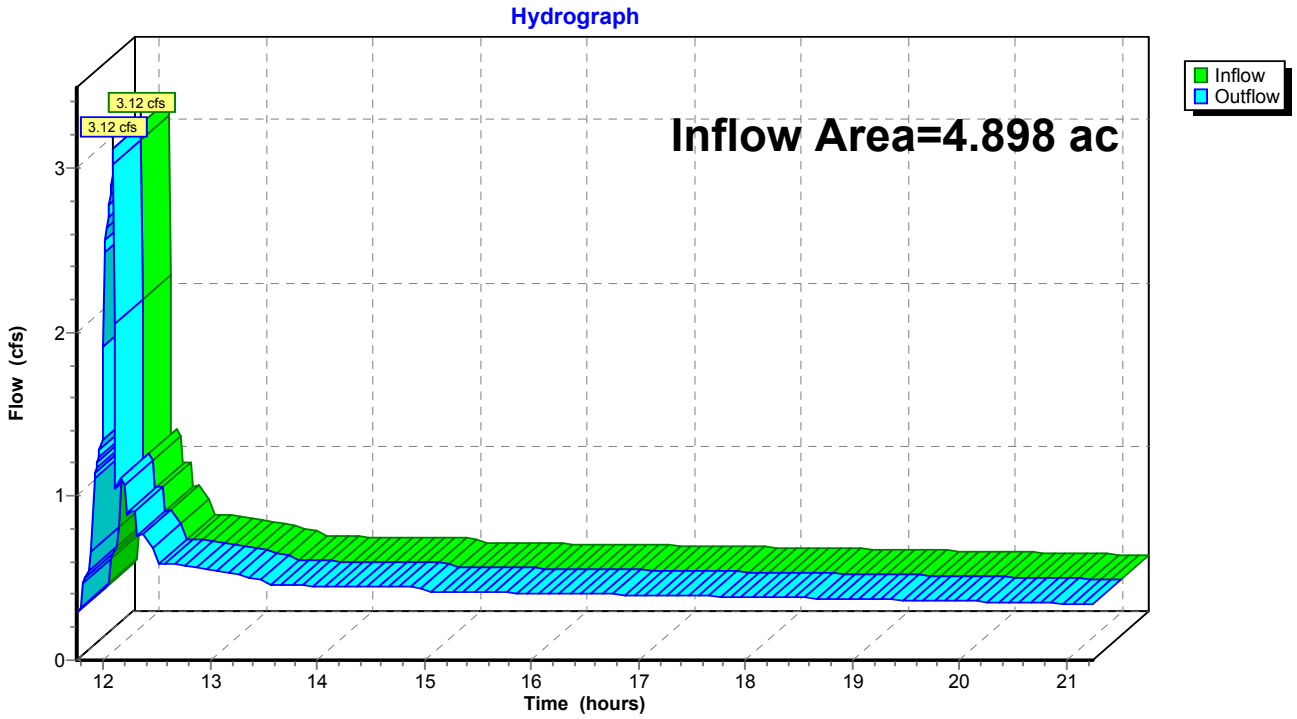


Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 1.06" for 2-Year event
Inflow = 3.12 cfs @ 12.09 hrs, Volume= 0.434 af
Outflow = 3.12 cfs @ 12.09 hrs, Volume= 0.434 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 1.68" for 2-Year event
Inflow = 8.59 cfs @ 12.14 hrs, Volume= 0.534 af
Outflow = 0.38 cfs @ 13.91 hrs, Volume= 0.336 af, Atten= 96%, Lag= 106.1 min
Primary = 0.38 cfs @ 13.91 hrs, Volume= 0.336 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf
Peak Elev= 906.68' @ 13.91 hrs Surf.Area= 7,967 sf Storage= 23,681 cf (15,794 cf above start)

Plug-Flow detention time= 526.3 min calculated for 0.154 af (29% of inflow)
Center-of-Mass det. time= 254.3 min (1,062.2 - 807.9)

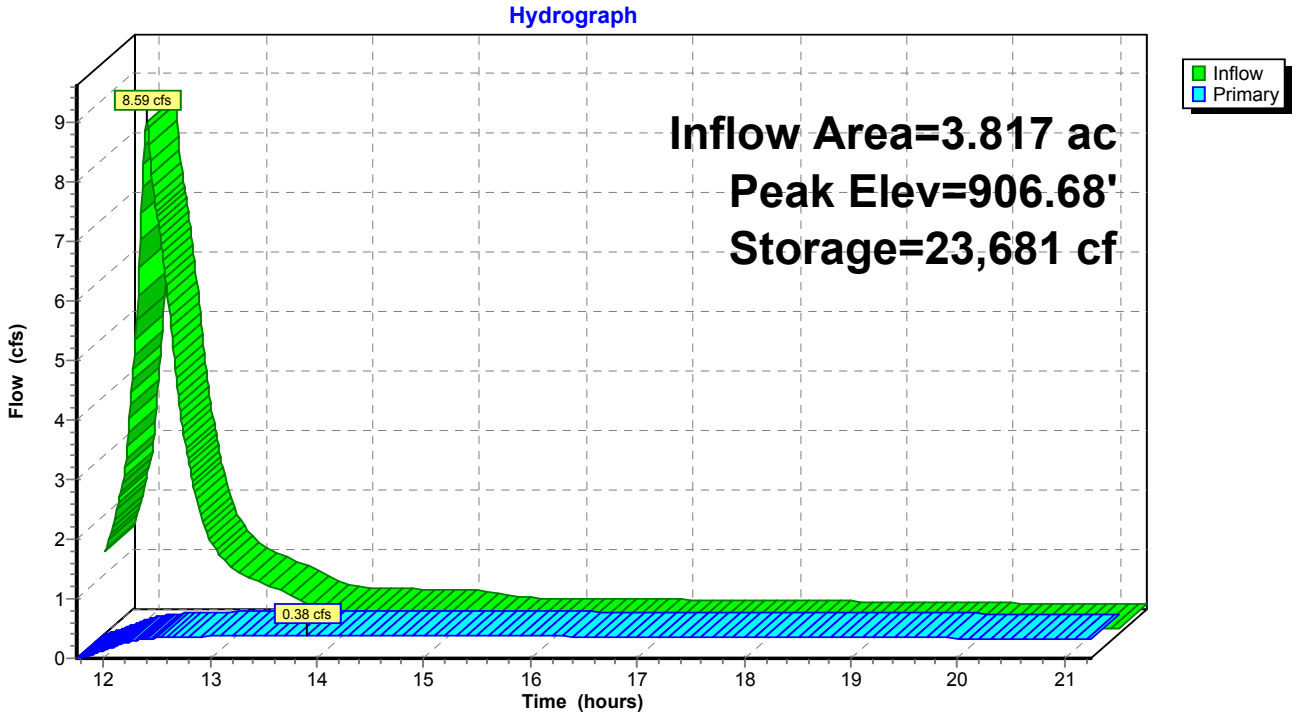
Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	**12.0" Round Culvert** L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	907.80'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Primary	908.80'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.38 cfs @ 13.91 hrs HW=906.68' (Free Discharge)
- **1=Culvert** (Passes 0.38 cfs of 6.81 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.38 cfs @ 7.69 fps)
  - **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Wet Basin



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>2.52"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=7.64 cfs 0.491 af

Subcatchment PR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>2.67"
Flow Length=249' Tc=6.0 min CN=96 Runoff=8.19 cfs 0.329 af

Subcatchment UD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>2.04"
Tc=0.0 min CN=85 Runoff=3.46 cfs 0.119 af

Subcatchment UD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>1.64"
Tc=0.0 min CN=78 Runoff=1.50 cfs 0.052 af

Reach 1R: Total Proposed Inflow=5.21 cfs 0.588 af
Outflow=5.21 cfs 0.588 af

Pond 1P: Wet Basin Peak Elev=907.78' Storage=33,385 cf Inflow=13.24 cfs 0.820 af
Outflow=0.45 cfs 0.417 af

Total Runoff Area = 4.898 ac Runoff Volume = 0.990 af Average Runoff Depth = 2.43"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

Summary for Subcatchment PR-1: Subcat PR-1

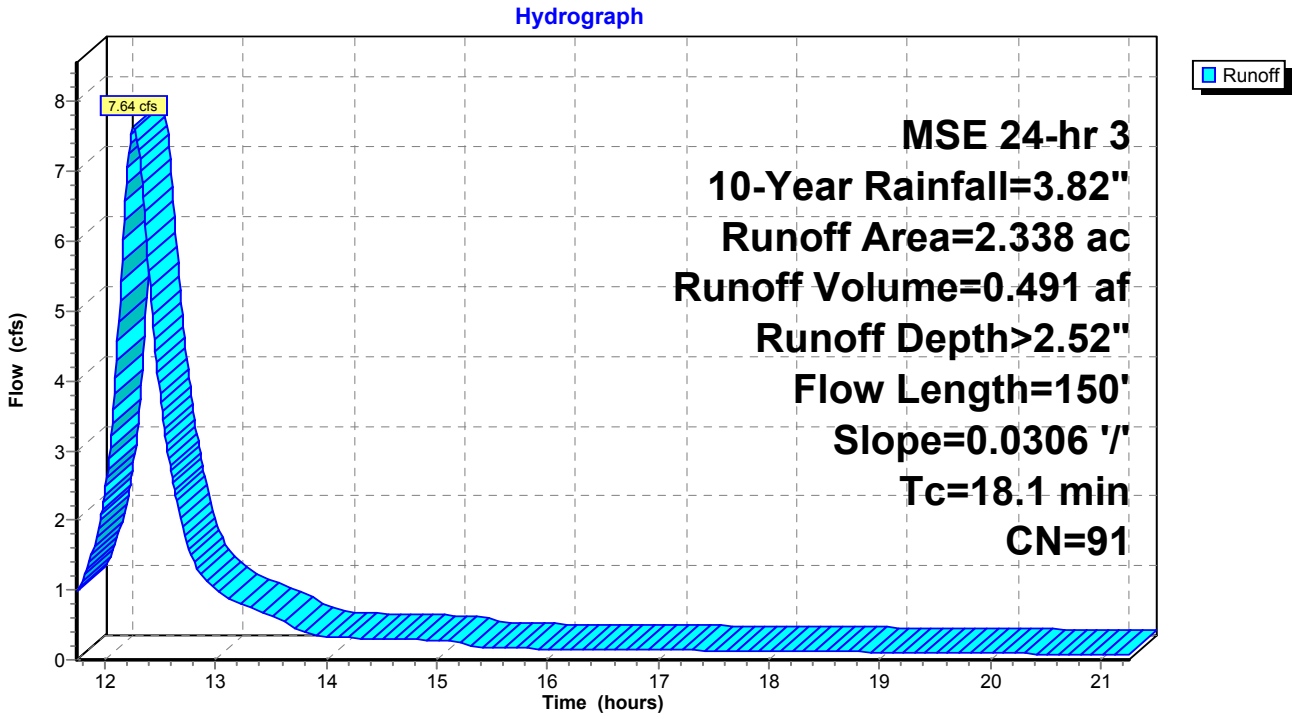
Runoff = 7.64 cfs @ 12.26 hrs, Volume= 0.491 af, Depth> 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1



Summary for Subcatchment PR-2: Subcat PR-2

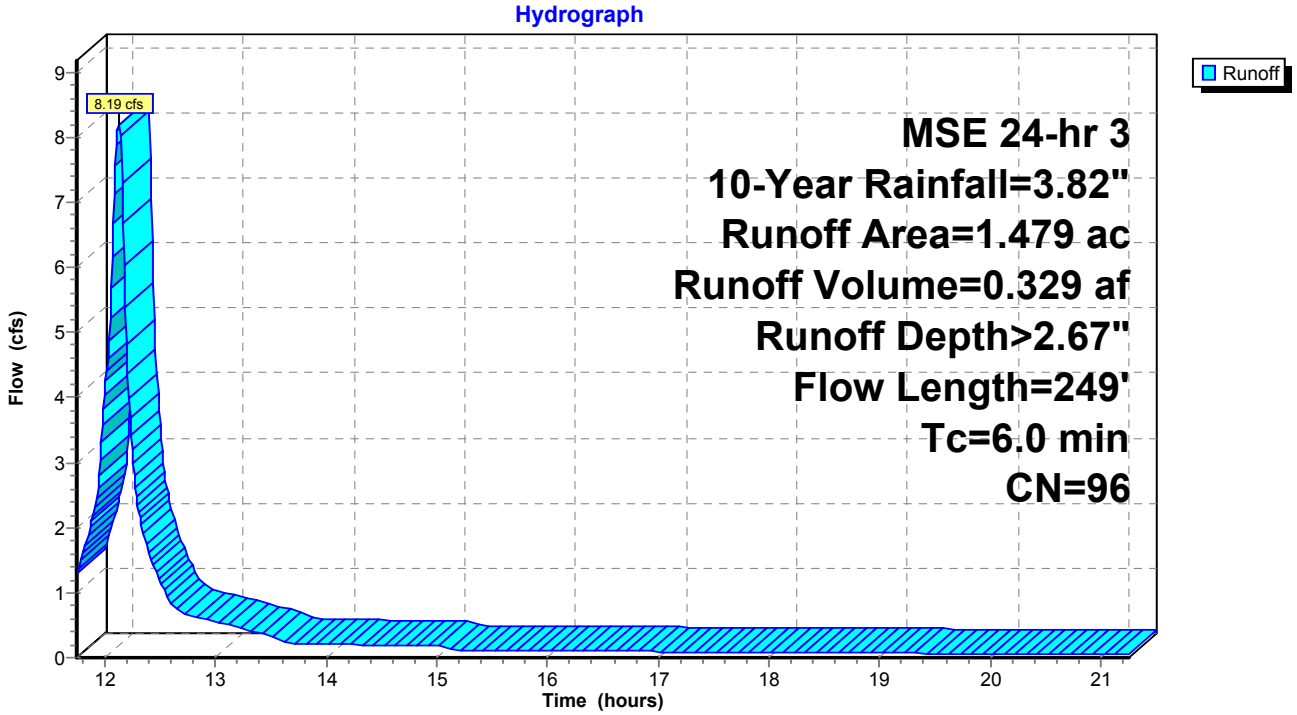
Runoff = 8.19 cfs @ 12.13 hrs, Volume= 0.329 af, Depth> 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



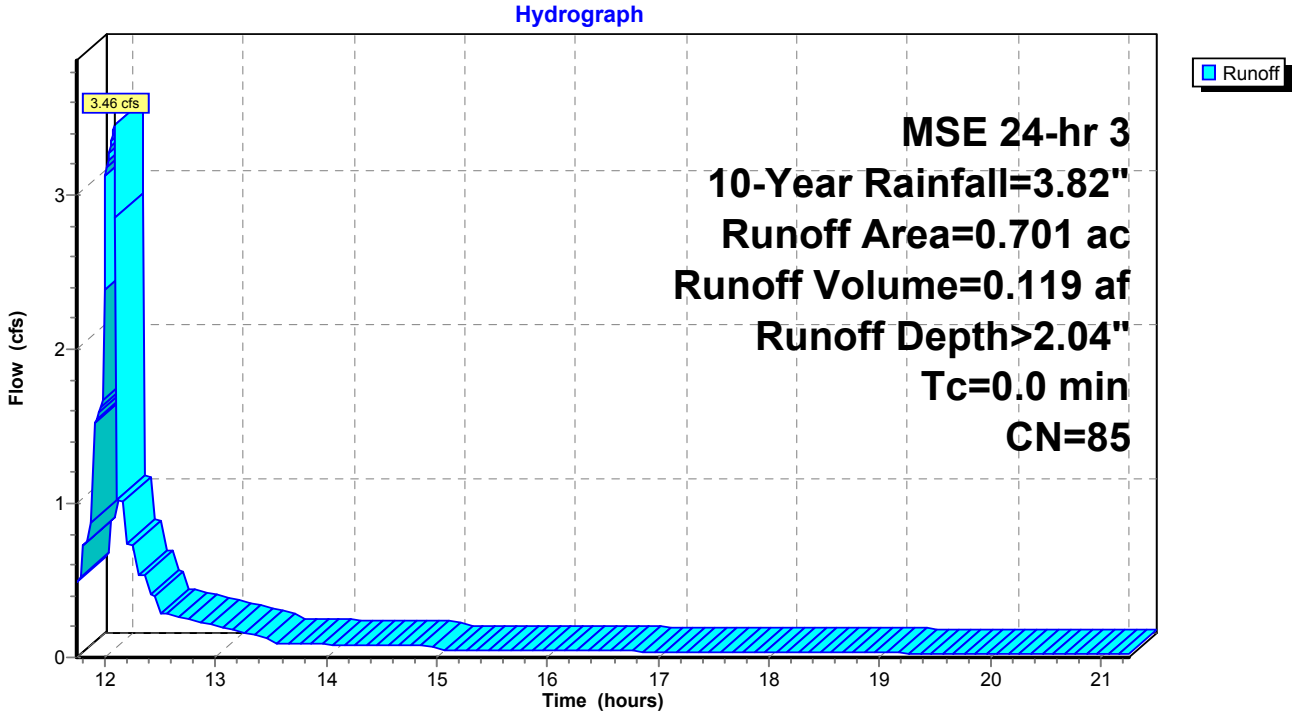
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 3.46 cfs @ 12.09 hrs, Volume= 0.119 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



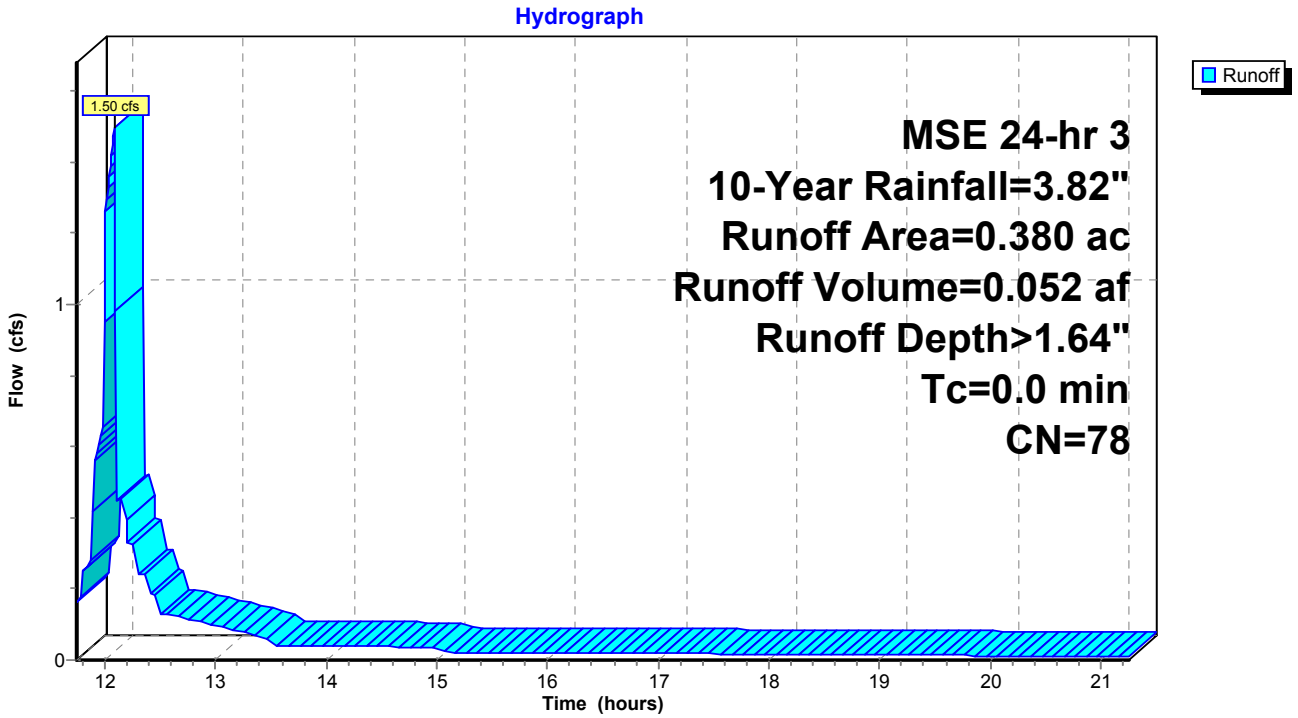
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 1.50 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

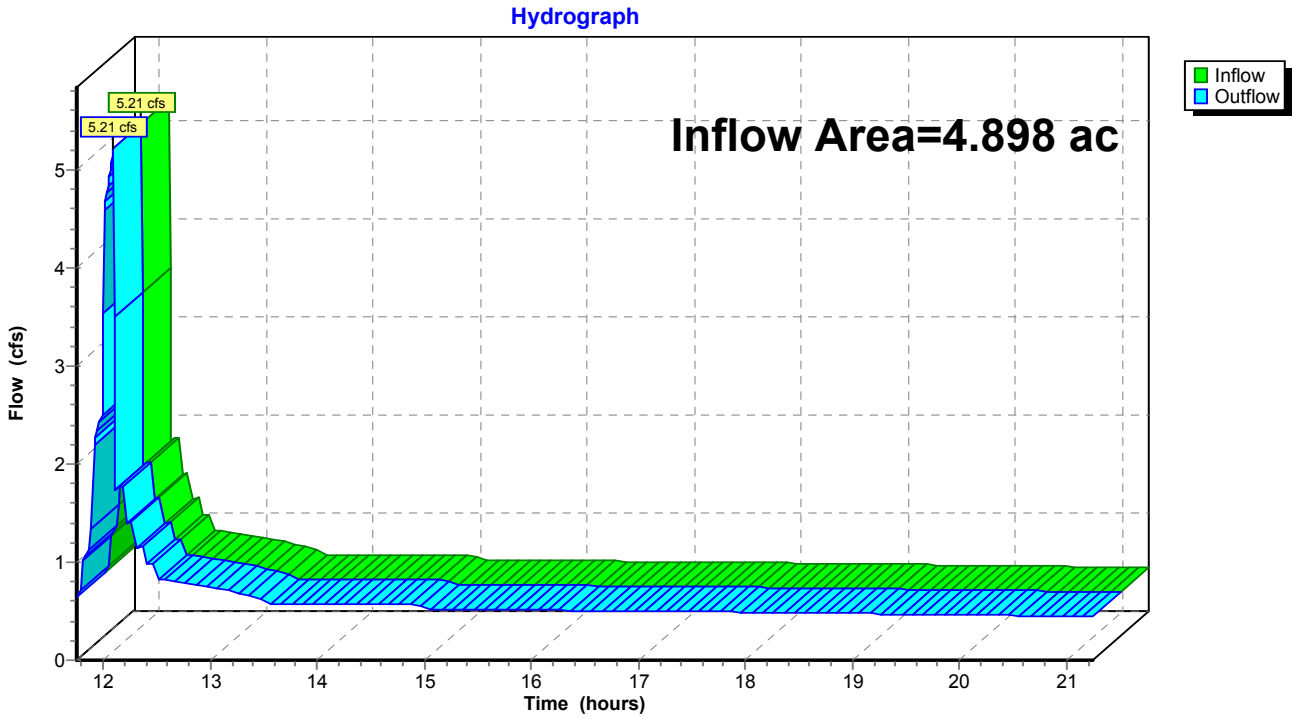


Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 1.44" for 10-Year event
Inflow = 5.21 cfs @ 12.09 hrs, Volume= 0.588 af
Outflow = 5.21 cfs @ 12.09 hrs, Volume= 0.588 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 2.58" for 10-Year event
Inflow = 13.24 cfs @ 12.14 hrs, Volume= 0.820 af
Outflow = 0.45 cfs @ 15.05 hrs, Volume= 0.417 af, Atten= 97%, Lag= 174.6 min
Primary = 0.45 cfs @ 15.05 hrs, Volume= 0.417 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf
Peak Elev= 907.78' @ 15.05 hrs Surf.Area= 9,667 sf Storage= 33,385 cf (25,498 cf above start)

Plug-Flow detention time= 497.1 min calculated for 0.234 af (29% of inflow)
Center-of-Mass det. time= 262.6 min (1,068.1 - 805.5)

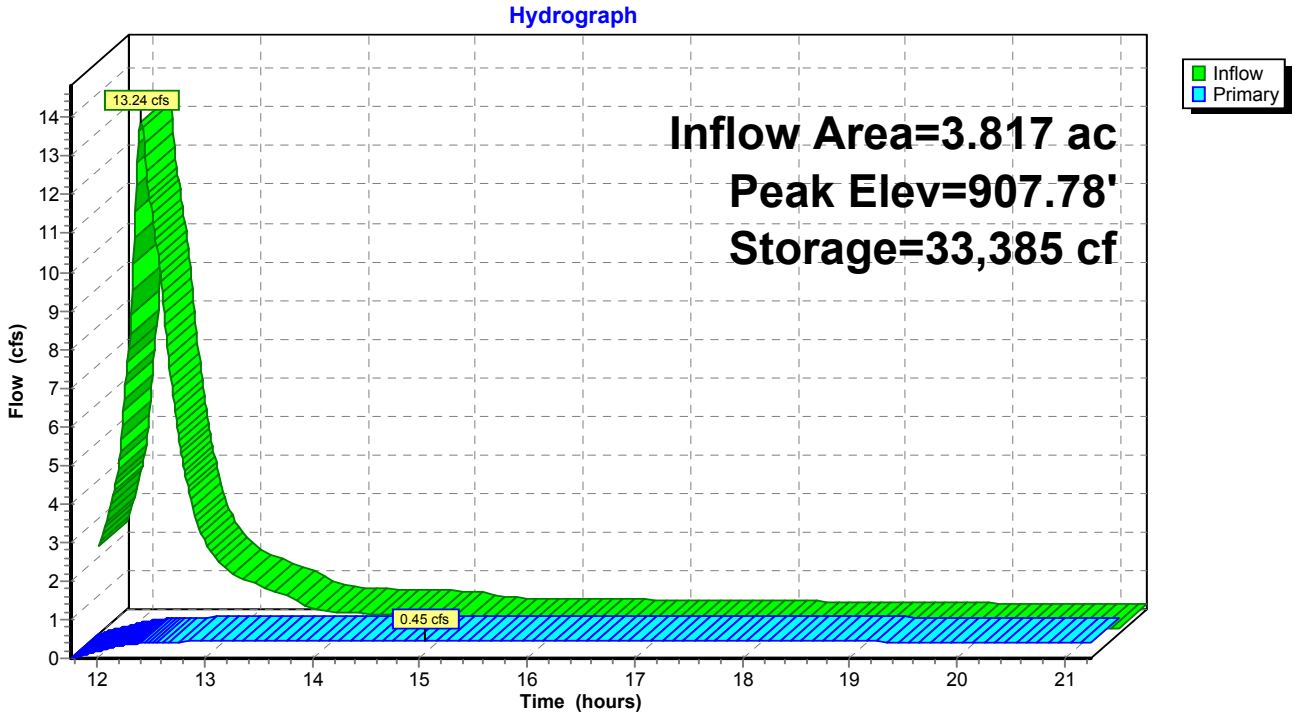
Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	**12.0" Round Culvert** L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	907.80'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Primary	908.80'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.45 cfs @ 15.05 hrs HW=907.78' (Free Discharge)
- **1=Culvert** (Passes 0.45 cfs of 8.55 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.45 cfs @ 9.20 fps)
  - **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Wet Basin



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>4.54"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=13.94 cfs 0.885 af

Subcatchment PR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>4.56"
Flow Length=249' Tc=6.0 min CN=96 Runoff=14.02 cfs 0.562 af

Subcatchment UD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>3.92"
Tc=0.0 min CN=85 Runoff=6.64 cfs 0.229 af

Subcatchment UD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>3.48"
Tc=0.0 min CN=78 Runoff=3.20 cfs 0.110 af

Reach 1R: Total Proposed Inflow=10.17 cfs 1.303 af
Outflow=10.17 cfs 1.303 af

Pond 1P: Wet Basin Peak Elev=908.46' Storage=40,366 cf Inflow=23.47 cfs 1.447 af
Outflow=7.30 cfs 0.964 af

Total Runoff Area = 4.898 ac Runoff Volume = 1.786 af Average Runoff Depth = 4.38"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

Summary for Subcatchment PR-1: Subcat PR-1

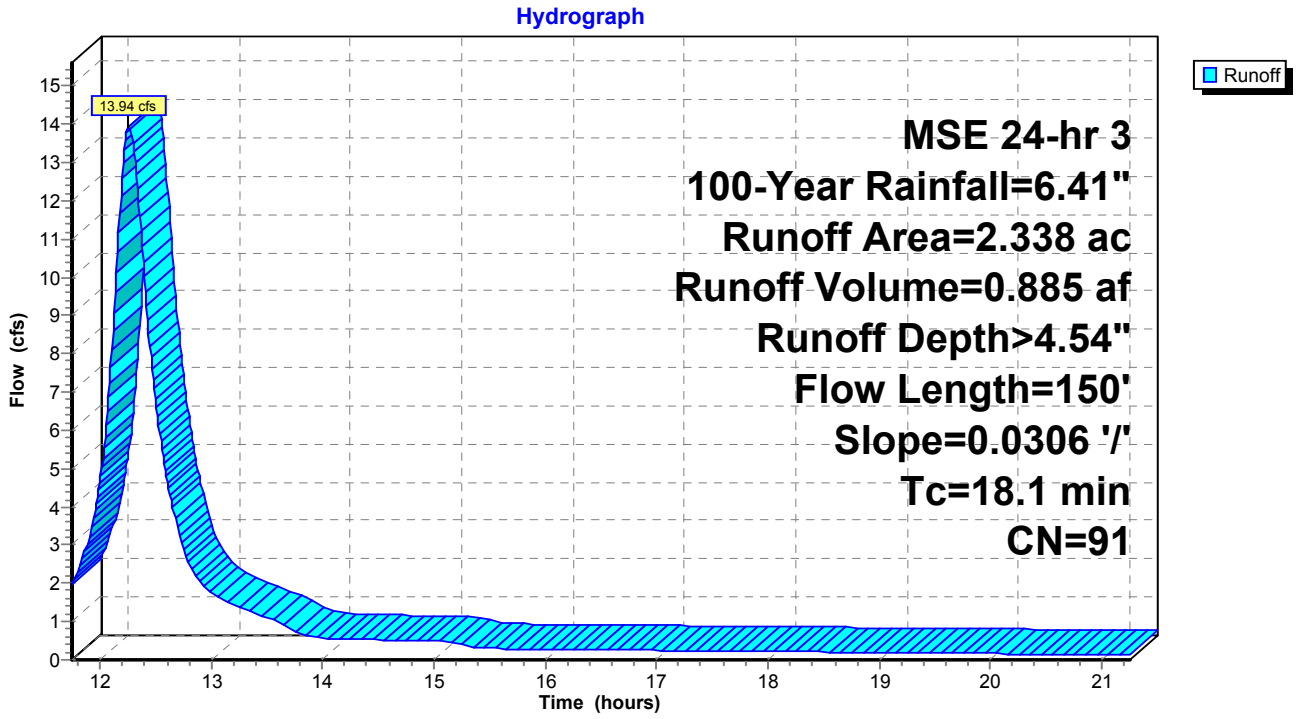
Runoff = 13.94 cfs @ 12.26 hrs, Volume= 0.885 af, Depth> 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1



Summary for Subcatchment PR-2: Subcat PR-2

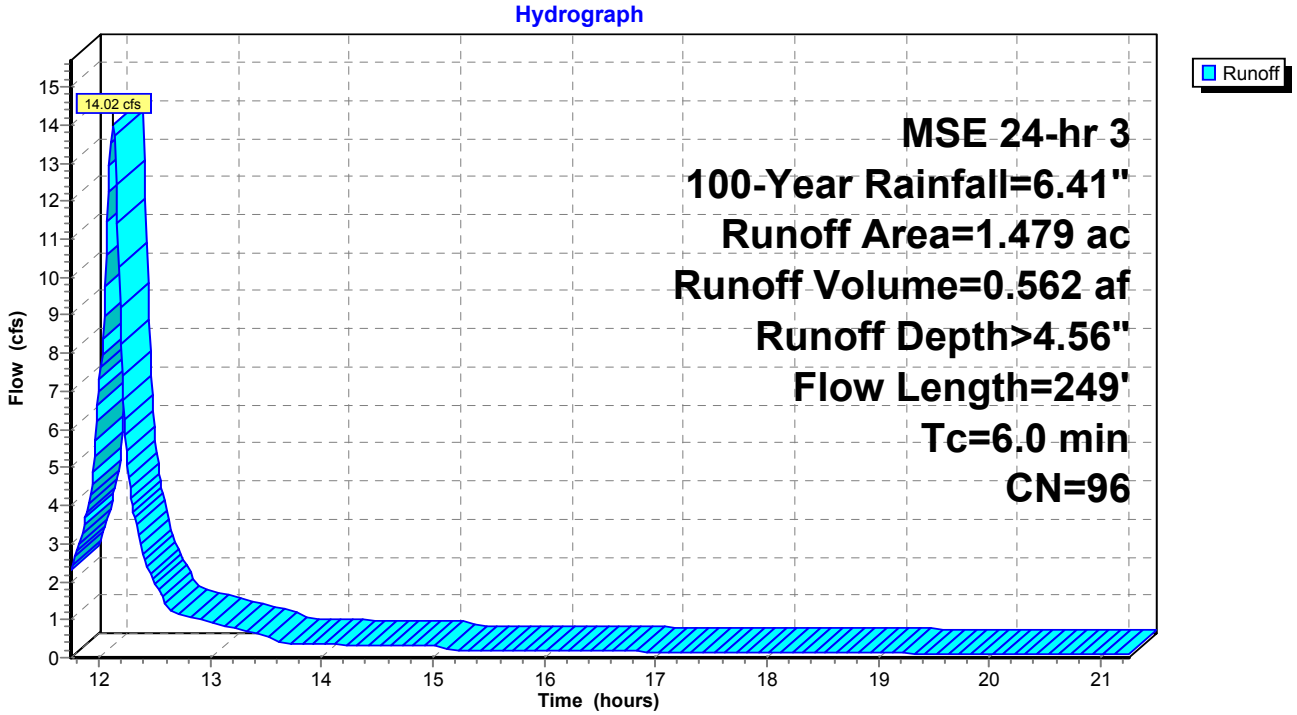
Runoff = 14.02 cfs @ 12.13 hrs, Volume= 0.562 af, Depth> 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



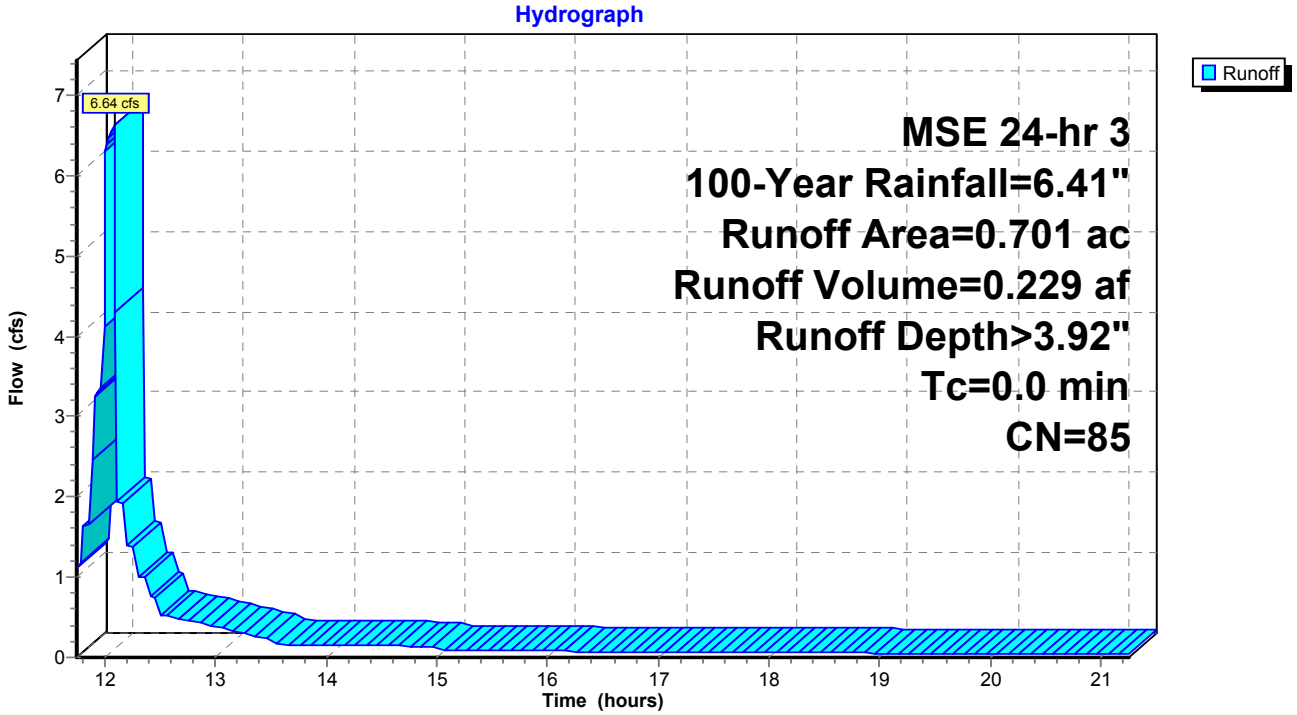
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 6.64 cfs @ 12.09 hrs, Volume= 0.229 af, Depth> 3.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



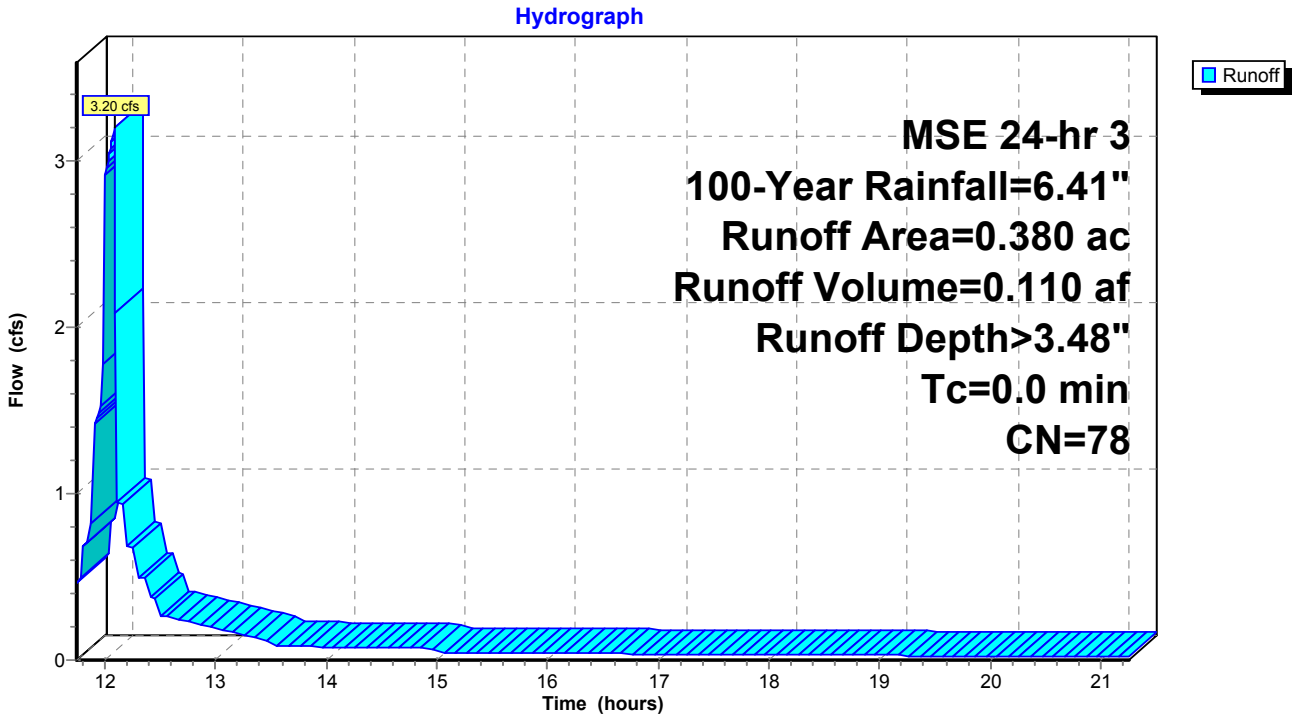
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 3.20 cfs @ 12.09 hrs, Volume= 0.110 af, Depth> 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

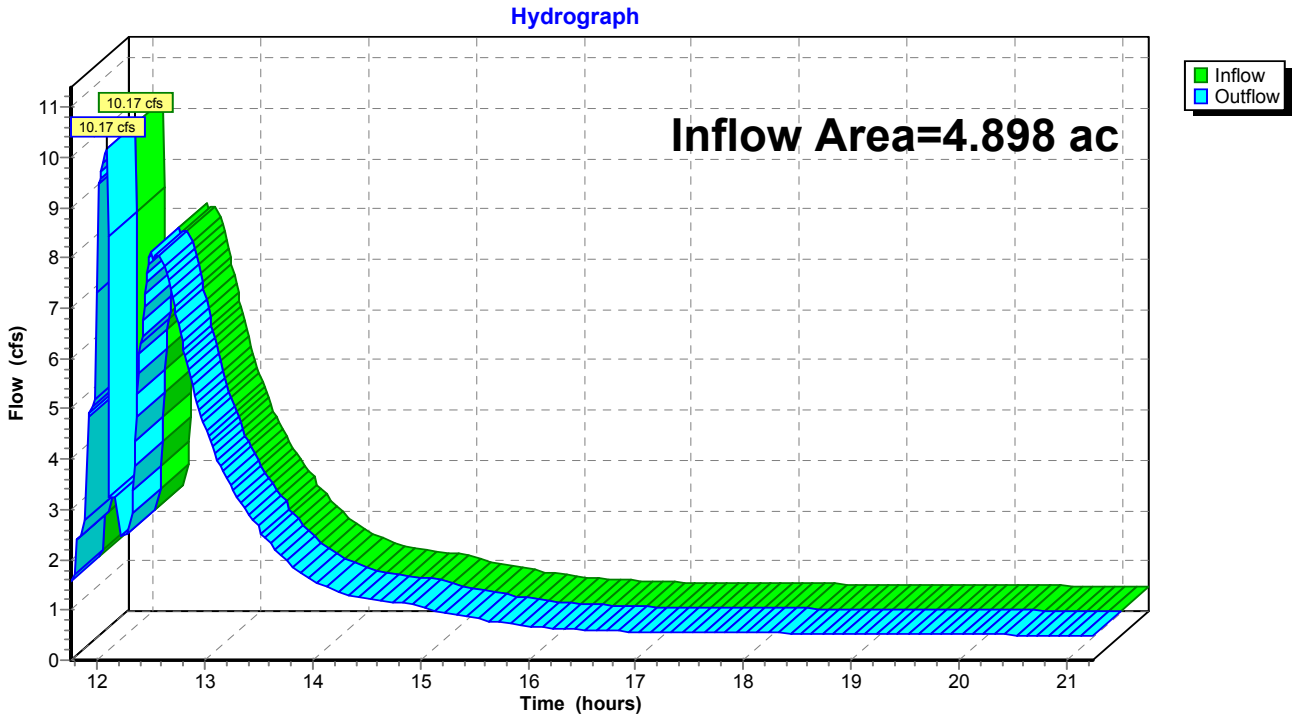


Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 3.19" for 100-Year event
Inflow = 10.17 cfs @ 12.09 hrs, Volume= 1.303 af
Outflow = 10.17 cfs @ 12.09 hrs, Volume= 1.303 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 4.55" for 100-Year event
Inflow = 23.47 cfs @ 12.14 hrs, Volume= 1.447 af
Outflow = 7.30 cfs @ 12.56 hrs, Volume= 0.964 af, Atten= 69%, Lag= 24.6 min
Primary = 7.30 cfs @ 12.56 hrs, Volume= 0.964 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf
Peak Elev= 908.46' @ 12.56 hrs Surf.Area= 10,675 sf Storage= 40,366 cf (32,479 cf above start)

Plug-Flow detention time= 225.8 min calculated for 0.780 af (54% of inflow)
Center-of-Mass det. time= 112.8 min (916.2 - 803.4)

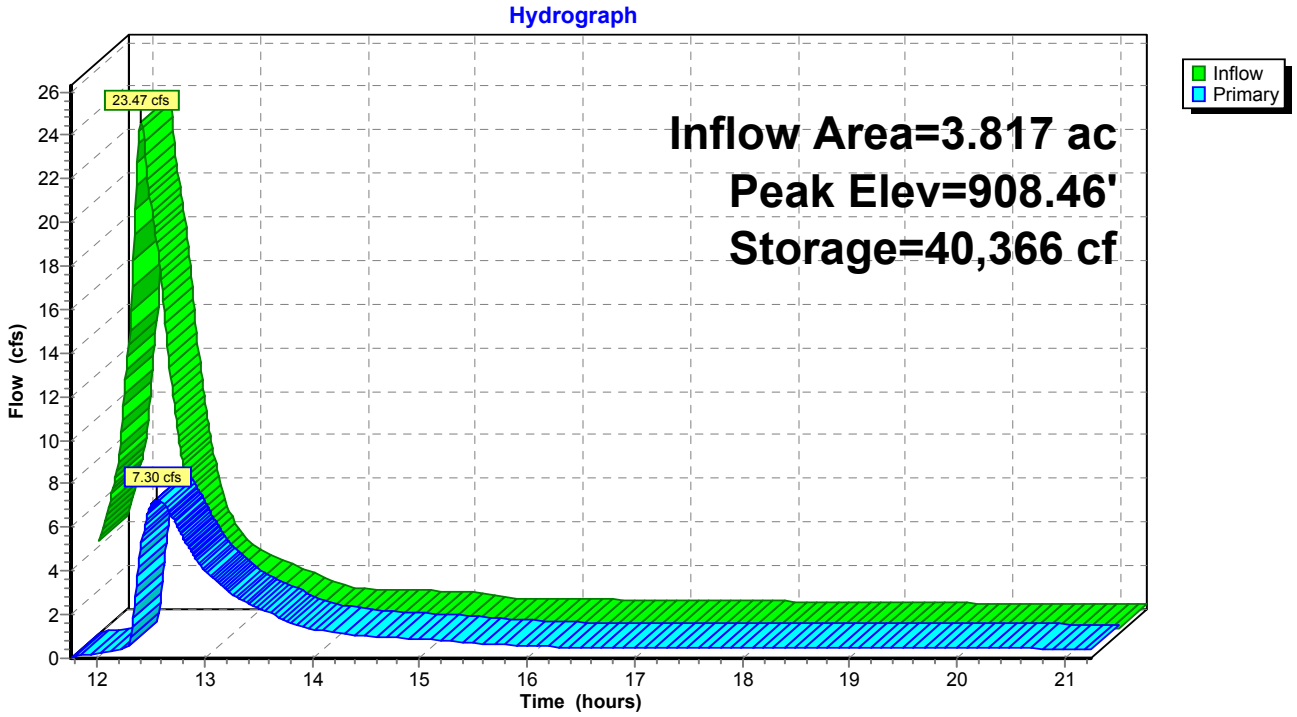
Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	**12.0" Round Culvert** L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	907.80'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Primary	908.80'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

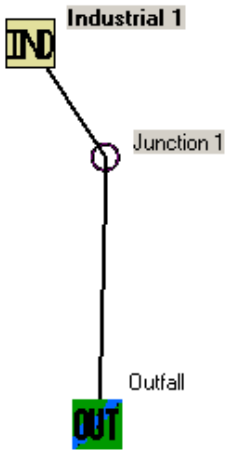
Primary OutFlow Max=7.29 cfs @ 12.56 hrs HW=908.46' (Free Discharge)
- **1=Culvert** (Passes 7.29 cfs of 9.47 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.49 cfs @ 10.03 fps)
  - **3=Sharp-Crested Rectangular Weir** (Weir Controls 6.80 cfs @ 2.66 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Wet Basin



Data file name: H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed Pvmt Only.mdb
WinSLAMM Version 10.2.0
Rain file name: C:\WinSLAMM Files\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/02 End of Winter Season: 03/12
Date: 08-19-2019 Time: 08:42:08
Site information:

LU# 1 - Industrial: Industrial 1 Total area (ac): 1.494
     13 - Paved Parking 1: 1.494 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz



File Name:

H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed Pvmt Only.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	118007		0.66	250.0	1842	
Outfall Total with Controls	118007	0.00 %	0.66	250.0	1842	0.00 %
Current File Output: Annualized Total After Outfall Controls	119646	Years in Model Run:	0.99		1867	

Print Output Summary to Text File

Print Output Summary to .csv File

Total Area Modeled (ac): 1.494

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall Flow Duration Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.66	Poor
With Controls	0.66	Poor

The proposed pavement area with no controls produces 1842 lbs of solids. The proposed site controls will need to remove at least 40% of this which comes to 736.8 lbs.

Data file name: H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed - Wet Basin.mdb
WinSLAMM Version 10.2.0
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/28
Date: 08-19-2019 Time: 08:30:01
Site information:

LU# 1 - Industrial: PR-1 Total area (ac): 2.339
  1 - Roofs 1: 0.676 ac. Flat Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  13 - Paved Parking 1: 0.995 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  31 - Sidewalks 1: 0.012 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 0.656 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

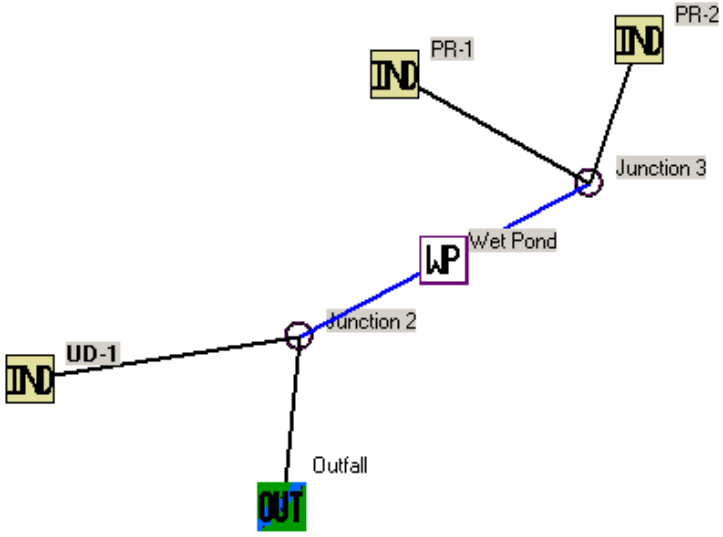
LU# 2 - Industrial: UD-1 Total area (ac): 1.082
  13 - Paved Parking 1: 0.359 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  31 - Sidewalks 1: 0.025 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 0.698 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Industrial: PR-2 Total area (ac): 1.479
  1 - Roofs 1: 0.894 ac. Flat Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  13 - Paved Parking 1: 0.447 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  31 - Sidewalks 1: 0.036 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 0.102 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Particle Size Distribution file name: Not needed - calculated by program
Initial stage elevation (ft): 5
Peak to Average Flow Ratio: 3.8
Maximum flow allowed into pond (cfs): No maximum value entered
Outlet Characteristics:
Outlet type: Sharp Crested Weir
1. Sharp crested weir length (ft): 4
2. Sharp crested weir height from invert: 1.95
3. Sharp crested weir invert elevation above datum (ft): 8.8

Outlet type: Orifice 1
1. Orifice diameter (ft): 0.25
2. Number of orifices: 1
3. Invert elevation above datum (ft): 5
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 10
2. Weir crest width (ft): 10
3. Height from datum to bottom of weir opening: 9.8
Pond stage and surface area

Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)	Other Outflow (cfs)
0	0.00	0.0000	0.00	0.00
1	0.01	0.0121	0.00	0.00
2	1.00	0.0191	0.00	0.00
3	2.00	0.0270	0.00	0.00
4	3.00	0.0350	0.00	0.00
5	4.00	0.0440	0.00	0.00
6	5.00	0.0990	0.00	0.00
7	6.00	0.1180	0.00	0.00
8	7.00	0.1590	0.00	0.00
9	8.00	0.1950	0.00	0.00
10	9.00	0.2300	0.00	0.00
11	10.00	0.2630	0.00	0.00
12	10.75	0.2630	0.00	0.00



Wet Detention Control Device

Pond Number 1

Drainage System Control Practice

	Stage (ft)	Area (acres)	Cumulative Volume (ac-ft)
0	0.00	0.0000	0.000
1	0.01	0.0121	0.000
2	1.00	0.0191	0.016
3	2.00	0.0270	0.039
4	3.00	0.0350	0.070
5	4.00	0.0440	0.109
6	5.00	0.0990	0.181
7	6.00	0.1180	0.289
8	7.00	0.1590	0.428
9	8.00	0.1950	0.605
10	9.00	0.2300	0.817
11	10.00	0.2630	1.064
12	10.75	0.2630	1.261
13			
14			
15			
16			
17			

Recalculate Cumulative Volume

Select Particle Size Distribution File

Not needed - calculated by program

Initial Stage Elevation (ft): 5.00

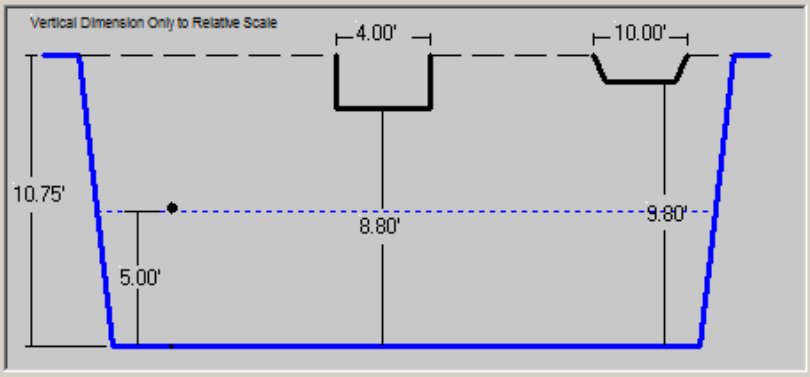
Peak to Average Flow Ratio: 3.80

Maximum Inflow into Pond (cfs) Enter 0 or leave blank for no limit:

Copy Pond Data | Paste Pond Data

Enter fraction (greater than 0) that you want to modify all pond areas by and then select 'Modify Pond Areas' button: 0.00

Modify Pond Areas



Delete Pond | Cancel | Continue

Control Practice # : 1 | CP Index # : 1

Remove — Sharp Crested Weir

Weir Length (ft)	4.00
Height from datum to bottom of weir opening (ft)	8.80

Add — V-Notch Weir

Weir Angle (<180 degrees)	
Height from datum to bottom of weir opening (ft)	
Number of V-Notch weirs	

Remove — Orifice Set 1

Orifice Diameter (ft)	0.25
Invert elevation above datum (ft)	5.00
Number of orifices in set	1

Add — Orifice Set 2

Orifice Diameter (ft)	
Invert elevation above datum (ft)	
Number of orifices in set	

Add — Orifice Set 3

Orifice Diameter (ft)	
Invert elevation above datum (ft)	
Number of orifices in set	

Add — Stone Weeper

Width at bottom of weeper (ft)	
Weeper side slope (_H:1V)	
Upstream side slope (_H:1V)	
Downstream side slope (_H:1V)	
Horizontal flow path length at top of weeper (ft)	
Average rock diameter (ft)	
Distance from bottom to top of weeper (ft)	
Height from datum to bottom of weeper (ft)	

Add — Vertical Stand Pipe

Pipe diameter (ft)	
Height above datum (ft)	

Add | Add

Month	Evaporation (in/day)	Water Withdraw Rate (ac-ft/day)
Jan	0.00	0.000
Feb	0.00	0.000
Mar	0.00	0.000
Apr	0.00	0.000
May	0.00	0.000
Jun	0.00	0.000
Jul	0.00	0.000
Aug	0.00	0.000
Sep	0.00	0.000
Oct	0.00	0.000
Nov	0.00	0.000
Dec	0.00	0.000

Add | Add

Stage (ft)	Natural Seepage Rate (in/hr)	Other Outflow Rate (cfs)
0.00	0.00	0.000
0.01	0.00	0.000
1.00	0.00	0.000
2.00	0.00	0.000
3.00	0.00	0.000
4.00	0.00	0.000
5.00	0.00	0.000

Remove — Broad Crested Weir [Required]

Weir crest length (ft)	10.00
Weir crest width (ft)	10.00
Height from datum to bottom of weir opening (ft)	9.80

Add — Seepage Basin

Infiltration rate (in/hr)	
Width of device (ft)	
Length of device (ft)	
Invert elevation of seepage basin inlet above datum (ft)	

File Name:

H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed - Wet Basin.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	279478		0.48	145.2	2533	
Outfall Total with Controls	279109	0.13 %	0.47	56.74	988.6	60.97 %
Current File Output: Annualized Total After Outfall Controls	282985	Years in Model Run:	0.99		1002	

Print Output Summary to Text File

Print Output Summary to .csv File

Total Area Modeled (ac): 4.900

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall Flow Duration Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.48	Poor
With Controls	0.47	Poor

The wet pond removed 1544 lbs of solids which is greater than the 736.8 lbs needed

BUSINESS, OPERATIONAL SAFETY, AND CONTINGENCY PLAN

Glue Dots International, Inc.

Germantown, WI

September 2019

BUSINESS, OPERATIONAL SAFETY, AND CONTINGENCY PLAN

Glue Dots International, Inc.

Table of Contents

1. INTRODUCTION

Glue Dots International's (GDI) site currently includes three parcels which are to be combined into one Certified Survey Map (CSM). This site has two buildings, the GDI facility, located at N117W18711 Fulton Drive, and the Glue Factory building located at W186N11687 Morse Drive. In an effort to maximize usable area and connectivity of resources, GDI intends to demolish the Glue Factory building and expand the GDI facility.

Please see **Attachment A – Architectural Site Plan**.

The GDI site is located within an area of the Village of Germantown that lies within the recharge areas for municipal water supply wells as defined in subsection 17.40.05 of City Ordinance #15-10 Wellhead Protection. Therefore, the GDI facility is subject to the regulations specified in the Wellhead Protection Ordinance.

This Business, Operational Safety, and Contingency Plan (Plan) has been prepared in accordance with City Ordinance #15-10 Wellhead Protection 17.40 established by the Wisconsin Legislature in § 62.23(7)(a) and (c), Wisconsin Statue.

2. PURPOSE

It is understood that the residents of the Village of Germantown depend exclusively on groundwater for a safe drinking water supply. The purpose of this Plan is to comply with the City Ordinance #15-10 Wellhead Protection and to ensure the protection of the municipal water supply of the Village of Germantown.

3. OPERATIONS

The existing GDI facility conducts adhesive processing (described below in section 3.1). The building expansion project will incorporate two new processes, a hot melt adhesive process and a water-based adhesive process (described below in sections 3.2 and 3.3)

3.1 Adhesive Processing

The existing GDI building will continue to perform its current manufacturing operations which consist of converting raw material in a solid form, delivered in drums and/or boxes, to a product form by heating and shaping/molding. This process is located in **Area A** of **Figure 1** – **Facility Operations**.

3.2 Hot Melt Adhesive Process

GDI's hot melt adhesive process involves Tackifier Resins, Styrenic Block Copolymers, and Liquid Plasticizers that are added to a mixing vessel and heated to 350 °F. These raw materials are either added as liquid and piped in from bulk storage tanks, or as solids that are contained in 55-lb bags and hand loaded into the mixing vessels. After the raw materials are added, the vessel is put under a vacuum and allowed to mix for a given amount of time that is specified for the product. After the adhesive is created, it is pumped to the packaging area where it can be packaged as 55-gallon drums or onto smaller packaging lines which use a water-wax mixture to create small eighth-inch diameter pellets, and a water bath system to create 2-pound pillows of adhesives. While the product is being pumped out of the mixing vessel for packaging, a nitrogen blanket is pumped into the tank to reduce oxidation. This process is located in **Area B** of **Figure 1** – **Facility Operations**.

3.3 Water-Based Adhesive Process

GDI's water-based adhesive process involves solid raw materials that are dispersed in water to create adhesive. The dispersion/mixing process can occur at a range of temperatures from ambient to 200 °F. The raw materials are mostly powders and are weighed out to specific amounts prior to being added to the mixing kettles. After the batch is dispersed it is packaged into a range of containers including totes, drums pails, and gallon jugs. Each disperser/mixer is then rinsed out with water in a wash station. **Area C** of **Figure 1** – **Facility Operations**.

3.4 Container Washing

Various manufacturing process containers will be washed in the designated washroom. The area has sloped floor and floor drain connected to the municipal sanitary sewer system.

Please see **Attachment B - GDI SDS Summary of Raw Materials.**

4. OPERATIONAL SAFETY

4.1 Operational Procedures for Material Processes and Containment

GDI's standard operating procedures include the following with respect to material management and containment:

Bulk Material Management

- Bulk unloading of chemical/product occurs at the containment dock, located at the southeast corner of the facility. The containment dock is designed to provide containment for spills. The capacity for the containment dock has yet to be determined but is expected to be approximately 6,000 gallons. This area is shown as **Area D** of **Figure 1** – **Facility Operations**.
- GDI has a written standard operating procedure for receiving bulk chemical/product deliveries, which includes verifying capacity of receiving containers prior to transfer of chemical/product.
- Bulk containers are stored in an interior room, designed to provide secondary containment. This area is shown as **Area E** of **Figure 1** – **Facility Operations**.

Dry Storage Material Management

- Dry storage racks storing chemical/product containers will be contained by the building; floor drains are not located in the dry storage area. This area is shown as **Area F** of **Figure 1** – **Facility Operations**.
- Certain chemical/product containers are kept on secondary containment pallets where appropriate to minimize the risk of incompatible interaction.
- Chemical/product containers are kept closed/sealed when not in use.

Liquid Nitrogen Storage

Nitrogen is received in bulk and stored in a cryogenic tank. Should there be a leak from the tank it would result in a release to the atmosphere. This area is shown as **Area G** of **Figure 1** – **Facility Operations**.

4.2 Best Management Practices

GDI implements the following best management practices as part of their operations.

- Standard operating procedures are followed for a number of activities including adhesive blending/production, wash operations, and shipping/receiving.
- General good housekeeping practices are maintained (i.e. organized, labeled, clean, etc.).
- Safety/good housekeeping inspections will be conducted.

4.3 Stormwater Runoff Management

A stormwater management analysis was conducted by Harwood Engineering Consultants, dated August 19, 2019, and is included as **Attachment C – Stormwater Management Report,** for the 4.897-acre site. The report follows Village of Germantown, Milwaukee Metropolitan Sewerage District (MMSD), and Wisconsin Department of Natural Resources requirements. GDI's Proposed Building Expansion Project includes the construction of a wet retention basin, located in the southwest portion of the site. The wet retention basin will manage stormwater quantity and quality. The wet retention basin will be constructed using a clay liner to prevent seepage from the wet retention basin to the surrounding environment and groundwater; to ultimately protect the wellhead protection area. Stormwater runoff will generally be directed towards the wet retention basin and stormwater catch basins in the adjacent streets.

In accordance with NR 216, the facility will either obtain a general WPDES permit for storm water associated with industrial activity or will apply for a 'No Exposure' exclusion. A Storm Water Pollution Prevention Plan (SWPPP) will be developed if a permit is issued.

In addition, GDI will follow the Village of Germantown's Stormwater Maintenance Manual for Private Facilities.

4.4 Groundwater Monitoring

There are currently no groundwater monitoring structures at the GDI site. There are no plans for groundwater monitoring structures to be included in the proposed Building Expansion Project.

5. CONTINGENCY PLAN

5.1 Description of Discharges

GDI's process wastewater is generated from the water-based adhesive process and from container wash operations. GDI will submit a Notice of Intent (NOI) to the MMSD for authorization to discharge process wastewater from the facility.

5.2 Description of Chemicals Used

GDI uses a variety of hydrocarbon resins, oil and petroleum distillate products, and plasticizers in the manufacturing and ancillary processes. These materials are maintained in containers (tanks, totes, drums, etc.) that are compatible with their contents. A summary of chemicals is included in **Attachment B - GDI SDS Summary of Raw Materials.**

Chemicals/product are stored in the following areas and in individual containers located at the point of use throughout the facility.

- Bulk containers are stored in an interior room with a recessed floor, designed to provide secondary containment. This area is shown as **Area E** of **Figure 1** – **Facility Operations**.

- Chemical/product containers in the dry storage rack area will be contained by the building; floor drains are not located in the dry storage area. This area is shown as **Area F** of **Figure 1** – **Facility Operations**.

- Liquid Nitrogen is stored along the east side of the building in a cryogenic tank. This area is shown as **Area G** of **Figure 1** – **Facility Operations**.

As required, under the Emergency Planning and Community Right-to-Know Act (EPCRA), GDI will submit a SARA 302 Emergency Planning Notification (EPN) should there be any Extremely Hazardous Substances (EHS) over the Threshold Planning Quantity (TPQ) located onsite and will submit SARA 312 Tier 2 Emergency and Hazardous Chemical Inventory reports as appropriate for chemicals onsite over the reporting thresholds.

5.3 Procedures to Prevent Adverse Impact from Accidental Spills

Inspection and Maintenance of Storage Areas

GDI maintains good housekeeping practices for employee safety and product quality requirements. Oil and chemical storage and usage areas are routinely observed as part of daily operations. In addition, regular safety/good housekeeping inspections are conducted.

Handling and Transfer of Materials

Materials are handled and transferred following written standard operating procedures. Chemical/product will be delivered to three areas where transfer operations will be conducted.

- A containment dock will be located along the southeast corner of the building for bulk material deliveries. The containment dock is designed with curbing to provide a secondary containment. Capacity for the containment dock has yet to be determined but is expected to be approximately 6,000 gallons. The curbing is designed with a valve to allow stormwater to be discharged from the containment area. The valve will be shut during deliveries and will remain open at all other times. Stormwater collected in this area will be directed to the wet retention pond. This area is shown as **Area D** of **Figure 1** – **Facility Operations**.

- Totes and pallets will be delivered using the loading area along the southern face of the building where overhead doors will be located. This area is shown as **Area H** of **Figure 1** – **Facility Operations**.

- A tanker loading area with concrete pad and curb will be located along the eastern edge of the building for liquid nitrogen deliveries. This area is shown as **Area G** of **Figure 1** – **Facility Operations**.

Employee Training
All members of the GDI Emergency Response Team are trained annually. All GDI employees working in the immediate area of chemicals with the potential of a spill, participate in a general spill cleanup/control orientation and are trained annually.

Containment Structures/Equipment
Spills that occur at the facility will be contained by structures, the building, or active response measures to prevent the material from being released to the environment (open sewer, pervious surface, groundwater well, ditch, etc.).

- Bulk unloading of chemical/product occurs at the containment dock, located at the southeast corner of the facility. The containment dock is designed to provide containment for spills. Capacity for the containment dock has yet to be determined but is expected to be approximately 6,000 gallons. This area is shown as **Area D** of **Figure 1** – **Facility Operations**.
- Bulk containers are stored in an interior room with a recessed floor, designed to provide secondary containment. This area is shown as **Area E** of **Figure 1** – **Facility Operations**.
- Chemical/product containers in the dry storage rack area will be contained by the building; floor drains are not located in the dry storage area. This area is shown as **Area F** of **Figure 1** – **Facility Operations**.
- Certain chemical/product containers are kept on secondary containment pallets where appropriate to minimize the risk of incompatible interaction.

Spill Response Procedure and Equipment
GDI has a corporate Chemical Spill Procedure that describes the required response actions for both 'incidental spills' (i.e. less than 1 gallon) and those that require notification of their internal emergency response team and/or notification of external agencies or response contractors for assistance.

GDI has spill response kits containing sorbent materials and equipment to control, contain, and clean-up spills.

In accordance with 40 CFR 112 Spill Prevention, Control, and Countermeasure (SPCC) Regulation, GDI will prepare a SPCC Plan. The SPCC Plan will describe the measures in place to prevent oil spills and to control and respond to a spill if one should occur.

Collection and Disposal of Spilled Material
Should a spill occur, trained members of the spill response team will engage in clean-up activities under direct supervision of the area manager and utilizing the appropriate level of PPE required for the spilled material. Chemical SDSs will be consulted and recommendations will be adhered to. Recovered material and wastes generated during cleanup (e.g. PPE, sorbents, etc.) will be containerized, labeled, and managed offsite as appropriate.

6. SPILL NOTIFICATION PROCEDURE

In the event of a spill, the employee observing the spill will immediately alert others in the area, notify the supervisor, and contact a member of the Emergency Response Team. The Emergency Response Team member will conduct an initial assessment to determine the appropriate external notification, if necessary.

EMERGENCY TELEPHONE NUMBERS

Internal Notification			
Contact		**Office**	**Cell**
Emergency Response Team Coordinator:	Erica Roberts	(262) 437-7885	(262) 422-3883
Alternative Emergency Response Team Member:	Jackie Flood	(262) 509-8799	(262) 352-5404
External Notification			
Agency		**Emergency**	**Non-emergency**
Fire Department:	Germantown Fire Dept.	911	(262) 253-7795
Police Department:	Germantown Police Dept.	911	(262) 253 -7780
Hospital:	Community Memorial	---	(262) 251-1000
Environmental Contractor:	One Step Environmental	(262) 284-8950	---
	The Sigma Group	(414) 643-4200	(414) 643-4200
Germantown Water Utility:	Paul Haugen	(262) 808-7464	(262) 253-8254
National Response Center (NRC):		(800) 424-8802	---
U.S. EPA Region 5:		(312) 353-2318	---
Local Emergency Planning Committee (LEPC):		(262) 548-7580	---
Wisconsin Spill Hotline:		(800) 943-0003	---

The following releases to the environment (i.e. to a sewer, water body, or pervious surface) must be reported:

Release	**Report to**
1 gallon or more of gasoline	Wisconsin Spill Hotline
5 gallons or more of other petroleum products	Wisconsin Spill Hotline
A Reportable Quantity (RQ) or more of a hazardous substance	NRC, Wisconsin Spill Hotline, and LEPC
A Reportable Quantity (RQ) or more of an Extremely Hazardous Substance (EHS)	NRC, Wisconsin Spill Hotline and LEPC

7. CERTIFICATION STATEMENT

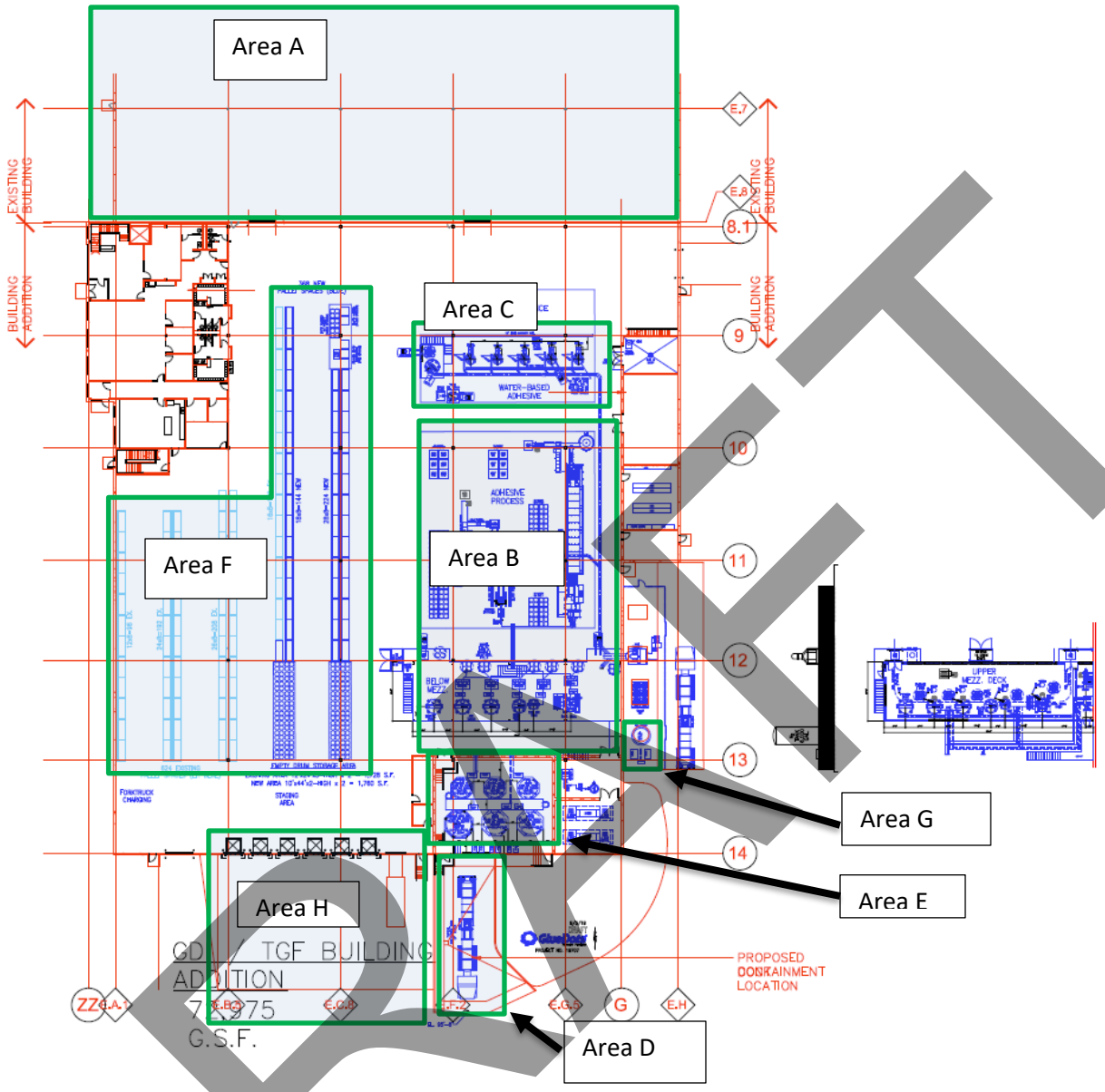
"Based on my inquiry of the person or persons directly responsible for managing compliance with the pretreatment standard for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the Toxic Organics Management Plan submitted to the control authority."

_____ _____

Name and Title **Date**

FIGURE 1

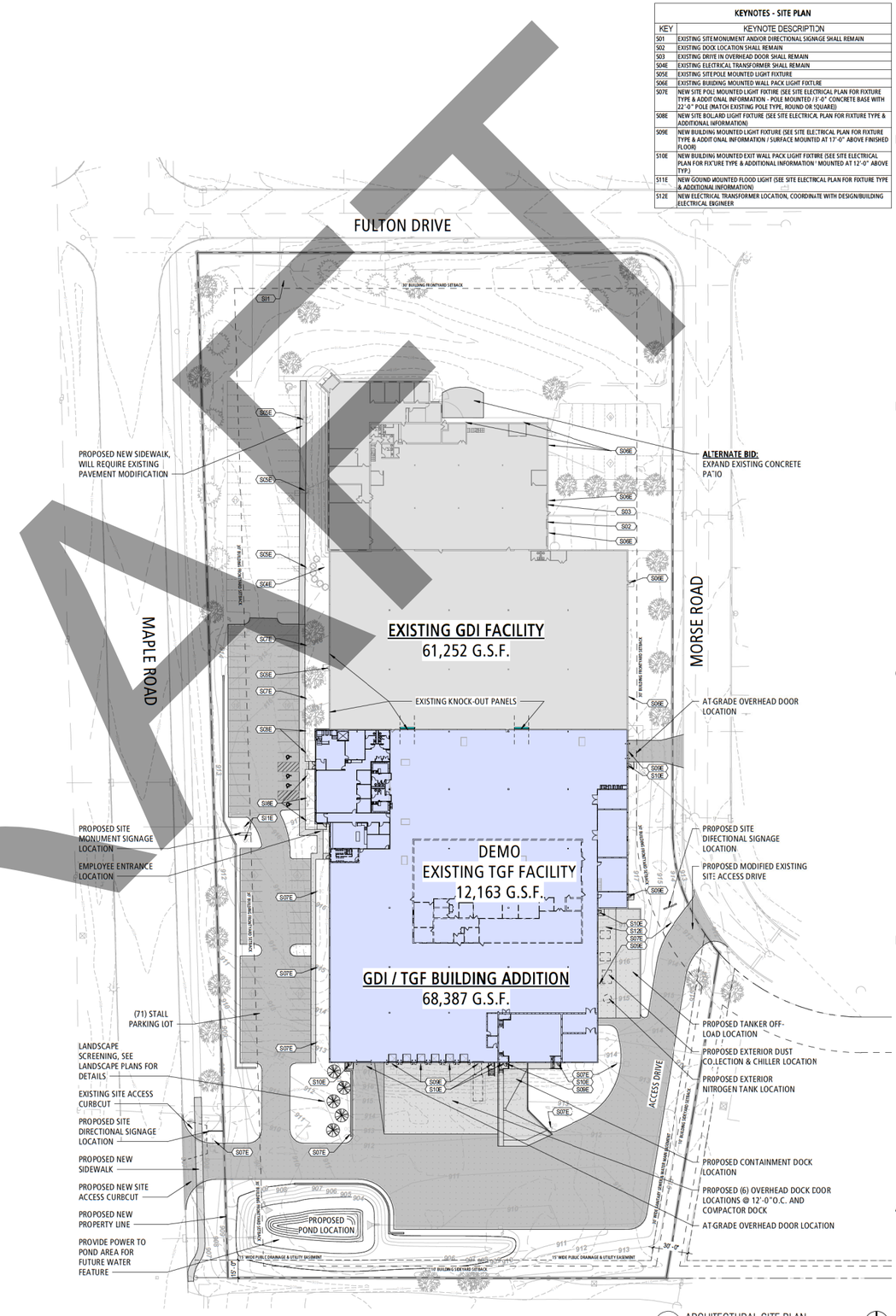
FACILITY OPERATIONS


Area A
Area C
Area F
Area B
Area G
Area E
Area H
Area D
EXISTING BUILDING
BUILDING ADDITION
PROPOSED CONTAINMENT LOCATION
G.S.F.

ATTACHMENT A

ARCHITECTURAL SITE PLAN

KEYNOTES - SITE PLAN	
KEY	KEYNOTE DESCRIPTION
501	EXISTING SITE MONUMENT AND/OR DIRECTIONAL SIGNAGE SHALL REMAIN
502	EXISTING DOCK LOCATION SHALL REMAIN
503	EXISTING DRIVE IN OVERHEAD DOOR SHALL REMAIN
504E	EXISTING ELECTRICAL TRANSFORMER SHALL REMAIN
505E	EXISTING SITE POLE MOUNTED LIGHT FIXTURE
506E	EXISTING BUILDING MOUNTED WALL PACK LIGHT FIXTLRE
507E	NEW SITE POLE MOUNTED LIGHT FIXTIRE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION - POLE MOUNTED 17-0" CONCRETE BASE WITH 22'-0" POLE (MATCH EXISTING POLE TYPE, ROUND OR SQUARE))
508E	NEW SITE BOLARD LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
509E	NEW BUILDING MOUNTED LIGHT FIXTURE (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION / SURFACE MOUNTID AT 17'-0" ABOVE FINISHED FLOOR)
510E	NEW BUILDING MOUNTED EXIT WALL PACK LIGHT FIXTIRE (SEE SITE ELECTRICAL PLAN FOR FIX'URE TYPE & ADDITIONAL INFORMATION ' MOUNTED AT 12'-0" ABOVE TYP.)
511E	NEW GOUND MOUNTED FLOOD LIGHT (SEE SITE ELECTRICAL PLAN FOR FIXTURE TYPE & ADDITIONAL INFORMATION)
512E	NEW ELECTRICAL TRANSFORMER LOCATION, COORDINATE WITH DESIGN/BUILDING ELECTRICAL ENGINEER



35 ARCHITECTURAL SITE PLAN
1" = 40'-0"

JAK architecture + interior design
JAKnetter Architects
N16 W23217 STONE RIDGE DRIVE, SUITE 300
WAUKESHA, WI 53188 | www.jaknetter.com
office 262 513 9800 | fax 262 513 9815

GlueDots Adhesive Products

PROJECT INFORMATION:

GLUE DOTS INTERNATIONAL BUILDING EXPANSION

W186N11676 MORSE DR
GERMANTOWN, WI
53022

DRAWING ISSUANCE:

PLAN COMMISSION SUBMITTAL

REVISIONS

#	DATE	DESCRIPTION

19 AUGUST 2019

PROJECT NUMBER	PROJECT MANAGER
19013-01	DK

ARCHITECTURAL SITE PLAN

AS100

ATTACHMENT B

GDI SDS SUMMARY OF RAW MATERIALS

GLUEDOTS
CHEMICAL HAZARD AND CLASS (LIQUIDS)

Process	CHEMICAL NAME	SUPPLIER	DESCRIPTION	2018 USAGE (POUNDS)	TANKER SIZE (GALLONS)	MAX. AMOUNT ON-SITE AT ONE TIME (LBS)	STORAGE CONTAINER SIZE	STORAGE CONTAINER TYPE/MTL.	STORAGE LOCATION	FLASH POINT (F)	HEATED TEMP. (F)	BOILING POINT (F)	LIQUID CLASS	TOXIC OR OTHER HAZARD	NFPA 704			COMMENTS
															HEALTH	FLAMM.	REACTIVITY	
Adhesive	Wingtack EXTRA Molten	Craw Valley	Hydrocarbon Resin	268,185	5,400	96,000 (12,000 gal)	13,500 gal	C.S. Tank	Tank Farm	437	350-400	N/A	Class IIIB	Not Classified	1	1	0	
Adhesive	Wingtack 10	Total	Hydrocarbon Resin	106,398	5,400	(5,500 gal)	6,200 gal	C.S. Tank	Tank Farm	266	250-350	N/A	Class IIIB	Not Classified	1	1	0	
Adhesive	Krystol 380	Petro-Canada	White Oil	108,840	5,400	39,969 (5,500 gal)	6,200 gal	C.S. Tank	Tank Farm	482	350	N/A	Class IIIB	Toxic or Possibly Highly Toxic (1)	1	1	0	Replaced by Drakeol 35
Adhesive	Drakeol 35	Calumet	White Mineral Oil	0	5,400	39,877 (5,500 gal)	6,200 gal	C.S. Tank	Tank Farm	233.6	350	424.4	Class IIIB	Toxic or Possibly Highly Toxic (2)	Not classified			
Adhesive	INDOPOL H100	INEOS Oligomers	Polybutene	25,805		10,000	275 gal	Totes	Pallet Racking	257	350	N/A	Class IIIB	No Data	0	1	0	
Adhesive	Calsol 5550	Calumet	Petroleum Distillate	?			275 gal	Totes	Pallet Racking	429.8	350	1382	Class IIIB	Toxic or Possibly Highly Toxic (3)	Not classified			
Adhesive	Agitan 299	Munzing	Defoamer	132		132			Pallet Racking	>212	60		Class IIIB					
Adhesive	Dee Fo 215	Munzing	Defoamer	1,600		450	55 gal	Drum	Pallet Racking	>300	60		Class IIIB					
Adhesive	Indopol L-14	INEOS Oligomers	Polybutene	397		450	55 gal	Drum	Pallet Racking	>239	350		Class IIIB		1	1	0	
Adhesive	Luba-print 280W	Munzing	wax additive	0					Pallet Racking						1	1	0	
Adhesive	Brightener repitan 00003	REPI LLC	Optical Brightener	0					Pallet Racking									
Adhesive	TPC 1285	TPC Group	Liquid Plasticizers	0					Pallet Racking	>410	350		Class IIIB	Eye irritant 2B	1	1	0	
Adhesive	TPC 1160	TPC Group	Liquid placsticizers	7,700		7,700	55 gal	Drum	Pallet Racking	>410	350		Class IIIB		0	1	0	
Adhesive	TPC 1105	TPC Group	Polyisobutylene	0					Pallet Racking	470 Open Cup,	350		Class IIIB		0	2	0	
Water Based	Acrysol 6038-A	Dow	Emulsion	450		450	55 gal	Drum	Pallet Racking		200	212			Not Classified			
Water Based	Acticide GA	THOR	Biocidal	1,350		450	55 gal	Drum	Pallet Racking	NA	100	212			3	0	0	
Water Based	Acticide OTW	THOR	Biocidal	120		450	55 gal	Drum	Pallet Racking		100	212			3	0	0	
Water Based	Aqua Ammonia 26	Tanner Industries	Ammonium Hydroxide	450		450	55 gal	Drum	Pallet Racking					Serious Eye Damage, Corrosive to sk	3	1	0	
Water Based	Aquabead 525-E	MPI	Aqueous Solution	450		450	55 gal	Drum	Pallet Racking						Not classified			
Water Based	Aquamix 115	Polyone Corp	Water based mixture	40		40	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Aquamix 125	Polyone Corp	Water based mixture	600		300	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Aquamix 129	Polyone Corp	Water based mixture	1		40	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Aquamix 132	Polyone Corp	Water based mixture	800		400	5 gal	Pail	Pallet Racking						Not classified			
Water Based	Black 43190	Ruscoe Company	Colouring Agent	5		40	5 gal	Pail	Pallet Racking	392					Not classified			
Water Based	Black LFD4343	Sun Chemical Corp	Colouring Agent	150		150	5 gal	Pail	Pallet Racking			212			1	0	0	
Water Based	Caustic 50	Westlake Chemical	Sodium Hydroxide	2,000		1,000	55 gal	drum	Pallet Racking			298		Corrosive to skin	Not classified			
Water Based	Covinax 210-00	Franklin Internationa	Liquid adhesive	450		450	55 gal	Drum	Pallet Racking	>200		210			1	1	0	
Water Based	Covinax 383-00	Franklin Internationa	Liquid adhesive	40		40	5 gal	Pail	Pallet Racking	>200		210			0	0	0	
Water Based	Diethylene Glycol	Sigma-Aldrich	Diethylene Glycol	10		40	5 gal	Pail	Pallet Racking	289		473			0	1	0	
Water Based	Disperoll C-74	Covestro LLC	Rubber Aqueous Solution	12,000		4,000	475 gal	Totes	Pallet Racking			212			Not classified			
Water Based	Dur-o-set C-310	Celanese	Polyvinyl Acetate Homopolymer	2,000		2,000	475 gal	Totes	Pallet Racking			212			1	0	0	
Water Based	Dur-o-set E-200	Celanese	Vinyl Acetate Ethylene Copolymer	6,000		2,000	476 gal	Totes	Pallet Racking			212			Not classified			
Water Based	Dur-o-set E-351	Celanese	Vinyl Acetate Ethylene Copolymer	4,000		2,000	477 gal	Totes	Pallet Racking			212			1	0	0	
Water Based	Elvace 737	HB Fuller	Water based mixture	8,000		2,000	478 gal	Totes	Pallet Racking			212			0	0	0	
Water Based	Flexbond 165	Ashland	Emulsion	10,000		2,000	479 gal	Totes	Pallet Racking	175 (calculated)		212		Combustible Liquid	1	1	0	
Water Based	Flexbond AV-190	Ashland		450		450	55 gal	Drum	Pallet Racking	>212		212		Not considered Hazardous	1	1	0	
Water Based	Glycerin	Pricetech Group	Glycerin	<450		450	55 gal	Drum	Pallet Racking	405		580			0	1	0	
Water Based	Hystretch V-43	Lubrizol	Modified Acrylic Polymer	<40		40	5 gal	Pail	Pallet Racking			212			1	1	0	
Water Based	Inchremez PR-65	InChem Corp	Butylated Phenolic Resin	10		450	55 gal	Drum	Pallet Racking	90		240		Flammable	Not classified			
Water Based	Joncryl 74-A	BASF	Water based mixture	<450		450	55 gal	Drum	Pallet Racking	>212		212			Not classified			
Water Based	Latex Low (Belchem 407)	Belmont Chemical C	Rubber Aqueous Solution	<40		40	5 gal	Pail	Pallet Racking			212			Not classified			
Water Based	Leucophor T4	Clariant	Fluorescent Brightener	2		40	5 gal	Pail	Pallet Racking			205			1	1	0	
Water Based	Propylene Glycol	Barton Solvents	Propylene Glycol	<450		450	55 gal	Drum	Pallet Racking	217.4		369			0	1	0	
Water Based	Rhodoline 999	Solvay USA	Defoamer	<300		450	475gal	Totes	Pallet Racking	511		199-572			2	1	0	
Water Based	RV-0122 White	Chromaflo	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-0262 Black	Chromaflo	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-0313 Blue	Chromaflo	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-60085 Orange	Chromaflo	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	RV-80199 Lemon	Chromaflo	Colouring Agent	<250		40	5 gal	Pail	Pallet Racking				Class IIIB		Not classified			
Water Based	S-1505P-L	SNP Inc	Polyvinyl Alcohol	1,200		4,000	475	Totes	Pallet Racking			212			Not classified			
Water Based	SA-200 (Synthbond)	Stynthomer	Styrene Acrylic Copolymer	14,000		4,000	475	Totes	Pallet Racking	>212		212		es Eye Irritation and organ damage through pro	Not classified			
Water Based	Surfynol 420	Evonik	Surfacant	<40		40	5 gal	Pail	Pallet Racking	>230		552		Eye Damage and Skin Sensitization	Not classified			
Water Based	Surfynol TG	Evonik	Surfacant	1,000		1,000	5 gal	Pail	Pallet Racking	>237		>399		Eye Damage and Skin Sensitization, Acute	Not classified			
Water Based	Tertigol NP-9	Barton Solvents	Alkyl Aryl Plyglycol ether	<5		40	5 gal	Pail	Pallet Racking	230					2	1	0	
Water Based	Vinac DPN890	Celanese	Water based mixture	<450		450	55 gal	Drum	Pallet Racking			212			1	0	0	
Water Based	Vinnapas EAF68	Vinnapas	aqueous polymer dispersion	900		900	55 gal	Drum	Pallet Racking			212			Not classified			
Water Based	Vinnapas EP 7000	Vinnapas	aqueous polymer dispersion	<450		450	55 gal	Drum	Pallet Racking			212		Not Hazardous	Not classified			
Water Based	Vtac 9001	Valpac	Tackifier Dispersion	6,000		3,000	55 gal	Drum	Pallet Racking			212			1	0	0	
Water Based	White E-18091	Akrochem Corp	Colouring Agent	<40		40	5 gal	Pail	Pallet Racking						Not classified			
Water Based	White E-18811	Akrochem Corp	Colouring Agent	<40		40	5 gal	Pail	Pallet Racking						2	1	0	

= Material is heated above its flashpoint.

(1) LC50(inhalation dust/mist) > 5.2 mg/l in 4 hrs = >1.3 mg/l in 1 hr

(2) LC50(inhalation dust/mist) > 5.0 mg/l in 4 hrs = >1.25 mg/l in 1 hr

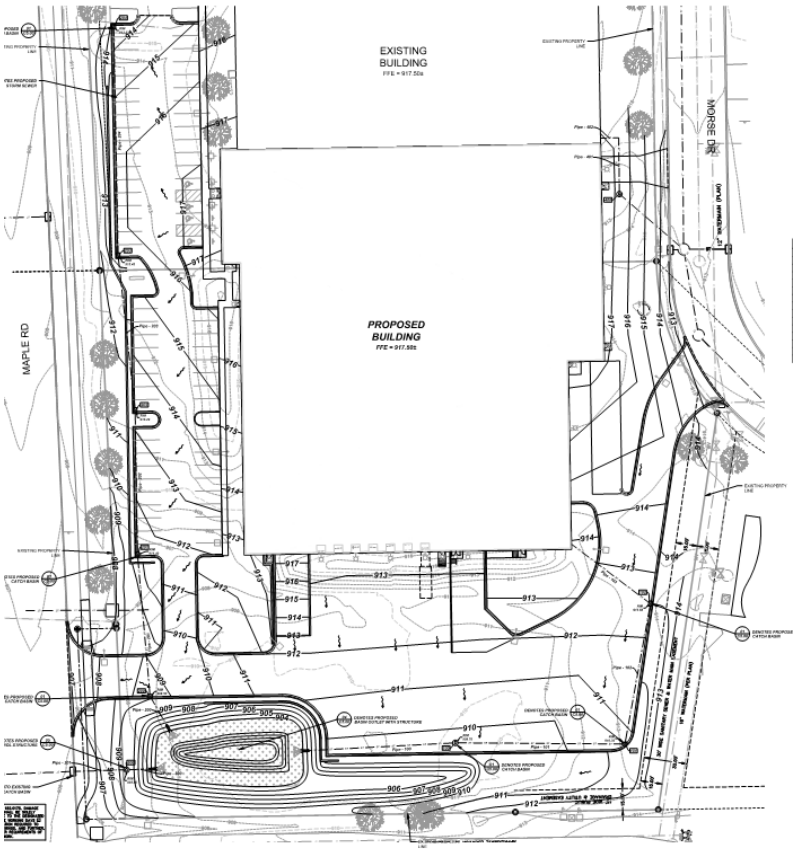
(3) LC50(inhalation dust/mist) > 5.7 mg/l in 4 hrs = >1.425 mg/l in 1 hr

ATTACHMENT C

STORMWATER MANAGEMENT REPORT

STORMWATER MANAGEMENT REPORT

FOR



Glue Dots International

Date: August 19, 2019

Prepared By: Harwood Engineering Consultants, Ltd.

Nathan F. Schmit, P.E.
255 North 21st Street
Milwaukee, WI 53233
Ph: 414-475-5554
Reviewed By: Thomas B. Olejniczak, P.E., LEED AP
Project Number: 19-1115.00

Introduction

Glue Dots International is located at N117W18711 Fulton Dr in the Village of Germantown, Wisconsin. This stormwater management report describes the practices that were used to meet the Village of Germantown, MMSD, and Wisconsin Department of Natural Resources (WDNR) stormwater management requirements.

Method of Analysis and Requirements

- Stormwater quantity management analysis was completed using HydroCAD-10.0 modeling software. Runoff curve numbers were determined from the NRCS tables within the TR-55 handbook. The rainfall events used in this analysis were based on NRCS values for Washington County for 2-YR and 100-YR , 24-hour events (2.65 inches and 6.41 inches, respectively).
- Stormwater quality analysis was completed utilizing WinSLAMM V.10.2.0. The on-site water quality design was completed using the 1969 Milwaukee rainfall files provided by WinSLAMM modeling software as well as the date ranges required by WDNR NR151.
- On-site storm sewer calculations were completed utilizing the Rational Method and Manning's equation, as well as, the Atlas 14 rainfall values.
- The stormwater quantity requirements for this site are dictated by the Village of Germantown, MMSD, and the WDNR. The volumetric design procedure will be used to meet the requirements of chapter 13.
- Stormwater quality requirements are dictated by the WDNR and require that this project achieve a reduction of 40% total suspended solids (TSS) for parking and roadway areas on the site, when compared with using no controls at all. The ***Water Quality Summary*** section summarizes the water quality methods and results on-site.

Soils Information

A geotechnical exploration is currently being completed on the site. This section will be updated with the final report when the results are received.

Infiltration

This project is a re-development and exempt from infiltration requirements per NR 151.

Existing Watershed Conditions (See Existing Conditions Exhibit)

The existing site includes the existing Glue Dots industrial building along with the associated parking and drive aisles. The existing terrain of the property slopes downward away from the building.

This report will analyze 4.897 acres of the site. The existing site was split in two drainage areas.

EX-1 – This area includes the West and South portions of the site that drain to existing site sewer in Maple Road. It includes paved, roofed and greenspace areas.

EX-2 - This area includes the East portions of the site that drain to existing site sewer in Morse Road. It includes paved, roof and greenspace areas.

The table below summarizes the existing watershed characteristics.

Existing Conditions Summary:

Sub-Area Name	Area (acres)	Curve Number	Time of Concentration (min)
EX-1	4.174	81	27.6
EX-2	0.723	82	11.0
Total	4.897		

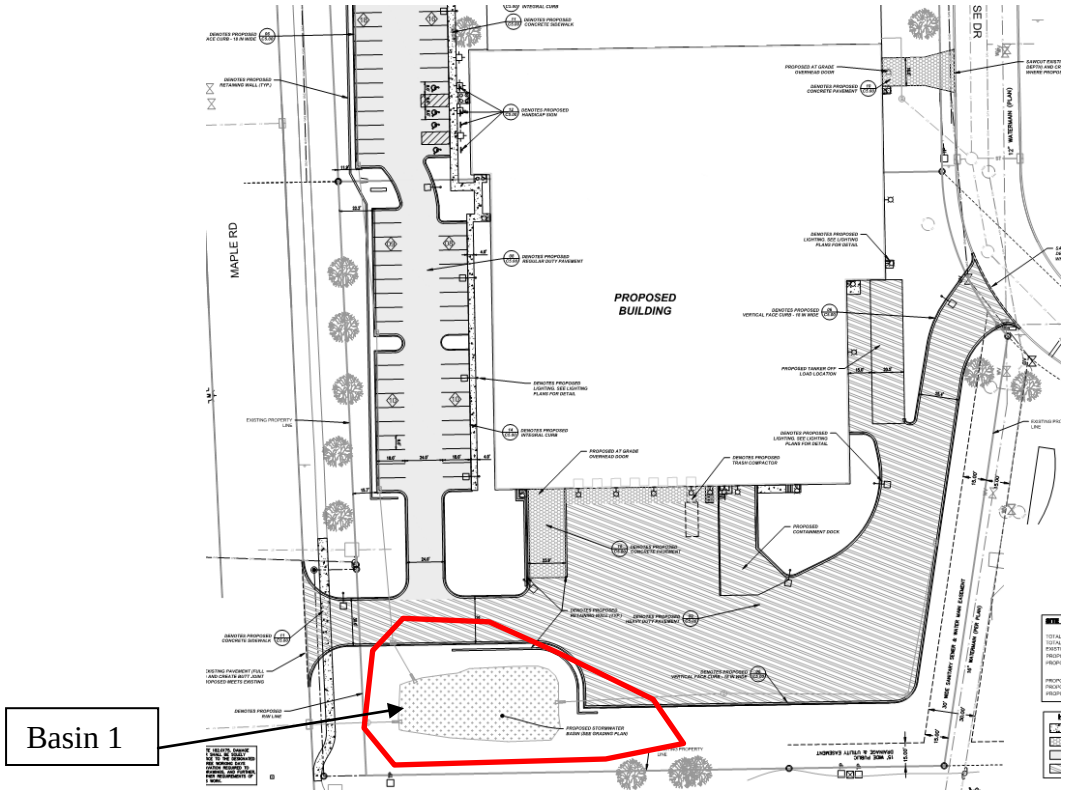
Existing Site Release Rate Summary:

Storm Event	Total Existing Release (cfs)
2-yr	4.52
10-yr	8.64
100-yr	18.55

Proposed Watershed Conditions

The proposed site improvements include 1 building addition to the existing building to the North, totaling roughly 68,387 SF. Along with the building addition, the parking lot, drives and site utilities will be reconfigured and re-constructed.

The proposed condition analyzes the same 4.897 acres as the existing conditions. A wet retention basin will be constructed to manage the stormwater quantity and quality from the site. It will be located on the southwest portion of the site.



The site was split into four drainage areas as described below:

PR-1 – Includes a portion of the proposed roof and the South portions of the site that are tributary to the stormwater basin.

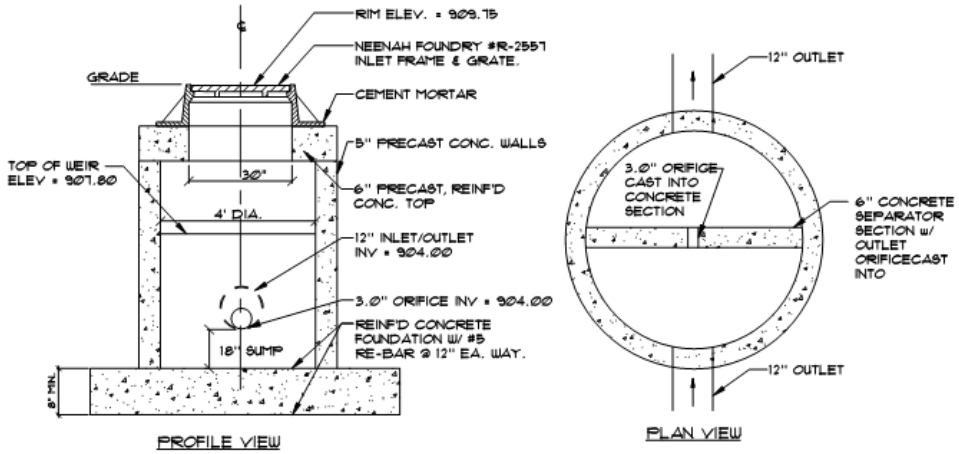
PR-2 – Includes a portion of the proposed roof and the West portions of the site that are tributary to the stormwater basin.

UD-1 – This area includes the portions of the West side of the site that will be released undetained. It includes paved and greenspace areas.

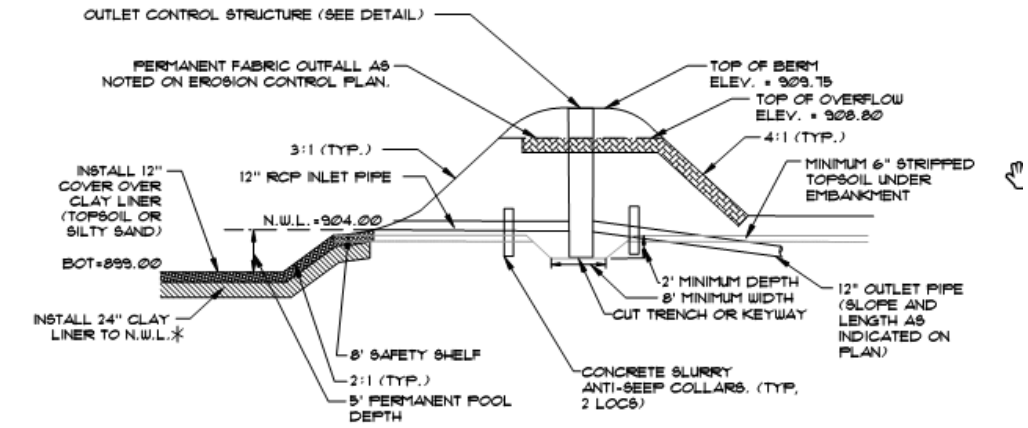
UD-2 – This area includes the portions of the East, side of the site that will be released undetained. It includes paved and greenspace areas.

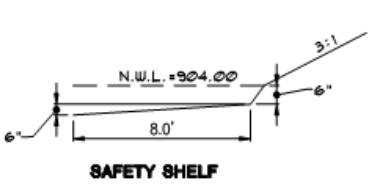
Proposed Conditions Summary:

Sub-Area Name	Area (acres)	Curve Number	Time of Concentration (min)
PR-1	2.338	91	18.1
PR-2	1.478	96	6.0
UD-1	0.701	85	6.0
UD-2	0.380	78	6.0
Total	4.897		

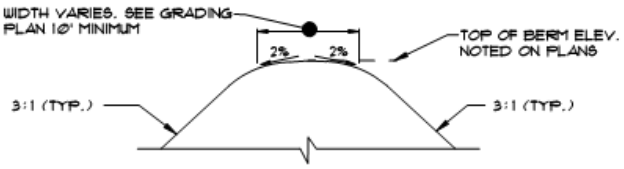


05 **OUTLET CONTROL STRUCTURE**
NTS





SAFETY SHELF



BERM DETAIL

*NOTE: FOR AREAS WHERE THE IN-SITU SOILS ARE NOT SUITABLE AS A LINER (PER A GEOTECHNICAL REPRESENTATIVE), THE CONTRACTOR SHALL INSTALL A LINER PER THE DETAIL WITH THE FOLLOWING PROPERTIES:

CLAY LINER TO HAVE THE FOLLOWING PROPERTIES: PI > 12 ; LL ≥ 25
MOISTURE CONTENT = 0-2% ABOVE OPTIMUM

PLACE LINER IN 9" LIFTS, COMPACT TO 90% MODIFIED PROCTOR

04 **BASIN OUTLET WITH STRUCTURE**
NTS

Stormwater Basin 1 Summary:

Storm Event	Elevation	Release Rate (cfs)
2-yr	906.68	0.38
10-yr	907.78	0.45
100-yr	908.46	7.30

Overall On-Site Stormwater Volume Comparison Summary:

The volumetric design procedure was used for this project to show the site meets the requirements of MMSD chapter 13. The volumetric design procedure analyzes the volume of water leaving the site for both the existing and proposed conditions. Based on MMSD chapter 13 requirements, the volume during the critical time period for the proposed conditions must be less than the volume for the critical time period under the existing condition.

This site is located in the Menomonee River watershed. The length of the critical time period for the Menomonee River Watershed is 9.5 hours. The critical time starts at 11.75 hours and ends at 21.25 hours.

The table below summarizes the volume from the study area under both the existing and proposed conditions and shows the volume under the proposed conditions is less than the existing conditions during the critical time period, meeting the requirements of MMSD chapter 13. Additional tables and hydrographs supporting this summary can be found in the ***Proposed Conditions*** section of the report.

Storm Event	Existing Volume (ac-ft)*	Proposed Volume (ac-ft)*	% Volume Reduction (Proposed vs. Existing)
2-yr	0.414	0.367	11.35
100-yr	1.563	1.205	22.90

*During the critical time period of 11.75 hours to 21.25 hours.

Water Quality and Analysis

The proposed development was modeled using the water quality software WinSLAMM (Ver. 10.2.0). Wisconsin Department of Natural Resources requires this redevelopment site to provide a 40% TSS reduction for the new roadway and parking areas as compared to using no runoff management controls.

The stormwater basin has been modeled in WinSLAMM and show that the site exceeds the 40% requirements. See the **Water Quality** section for exhibits and calculations that demonstrate that the site meets the 40% reduction requirement.

Erosion Control Plan

Approximately 4.5 acres of the existing site will be disturbed for this project. The Erosion Control Plan shows the methods and locations proposed to stabilize the site during and after the development project.

Prior to initiating construction onsite, the silt filter fence and the construction entrance tracking pad shall be installed in an effort to minimize sediment travelling offsite.

Construction activities shall be staged, as much as possible, to limit the combined disturbed area.

Upon completing the grading and swales, the erosion control matting shall be installed. Silt fencing shall be maintained throughout the construction process and repaired and replaced as needed.

Sediment tracking shall be minimized to the maximum extent practicable. Roadways are to be swept of debris at the end of each work day, as needed.

Disturbed areas shall be stabilized as soon as grading is completed. Restoration and seeding methods shall follow the landscaping plans and Town standards.

Dust control shall be maintained onsite with the use of a water truck if substantial dust becomes airborne.

During construction, the site shall be inspected by the contractor weekly and after every 0.5” or greater rainfall to evaluate the conditions of the erosion control practices and resolve any issues. The inspections shall be documented and maintained onsite and follow Wisconsin Department of Commerce Chapter Comm. 60.

After the site work has been substantially completed and the areas have become stabilized, the stormwater management basins, inlet and outlets, and outlet control structure shall be inspected and cleaned if necessary to

remove all sediment deposits transported during construction. After all areas have been stabilized, the temporary erosion control methods should be removed permanently

Operation and Maintenance

Routine inspection and maintenance is required to maximize the long term water quantity and quality benefits provided by the stormwater management basins.

Culverts and inlets/outlets should be visually inspected after any large event and at a minimum of once per year. The outlet control structure should also be inspected after any large event, as well as, a minimum of twice per year (remove any debris that might create a blockage, including the grate on flared end section).

In regards to the stormwater management basins controlling weeds in areas within the basin, as well as, the side slopes is required throughout the life of the basin. Weed control should be accomplished through spot applications of herbicides only, not broadcast or sprayed. Herbicide applications should be performed by trained professionals with proper equipment and understanding of herbicide properties. A healthy stand of turf grass in areas above the basin serves as an additional sediment filter. Areas of bare soil shall be reseeded and mulched as needed. Tree seedlings within the areas upslope of the basin can be removed and/or controlled with a routine mowing schedule.

The basin area shall be routinely inspected for litter, floating debris, weeds and tree seedlings, and sediment build up. Sediment within the basin bottom shall be safely removed and disposed of on an as needed basis to maintain water quality functions.

A copy of inspections performed, as well as, any preventative and/or required maintenance shall be logged and kept on site or with the property owner.

Conclusion

The proposed stormwater management features for the Glue Dots International Building Addition has been designed to meet the requirements of the Village of Germantown and Wisconsin Department of Natural Resources with respect to stormwater quantity, quality, and erosion control.

EXISTING BUILDING

Denotes Tc Path

MAPLE RD

MORSE DR

EXISTING BUILDING

EX-2

EX-1

Denotes Tc Path

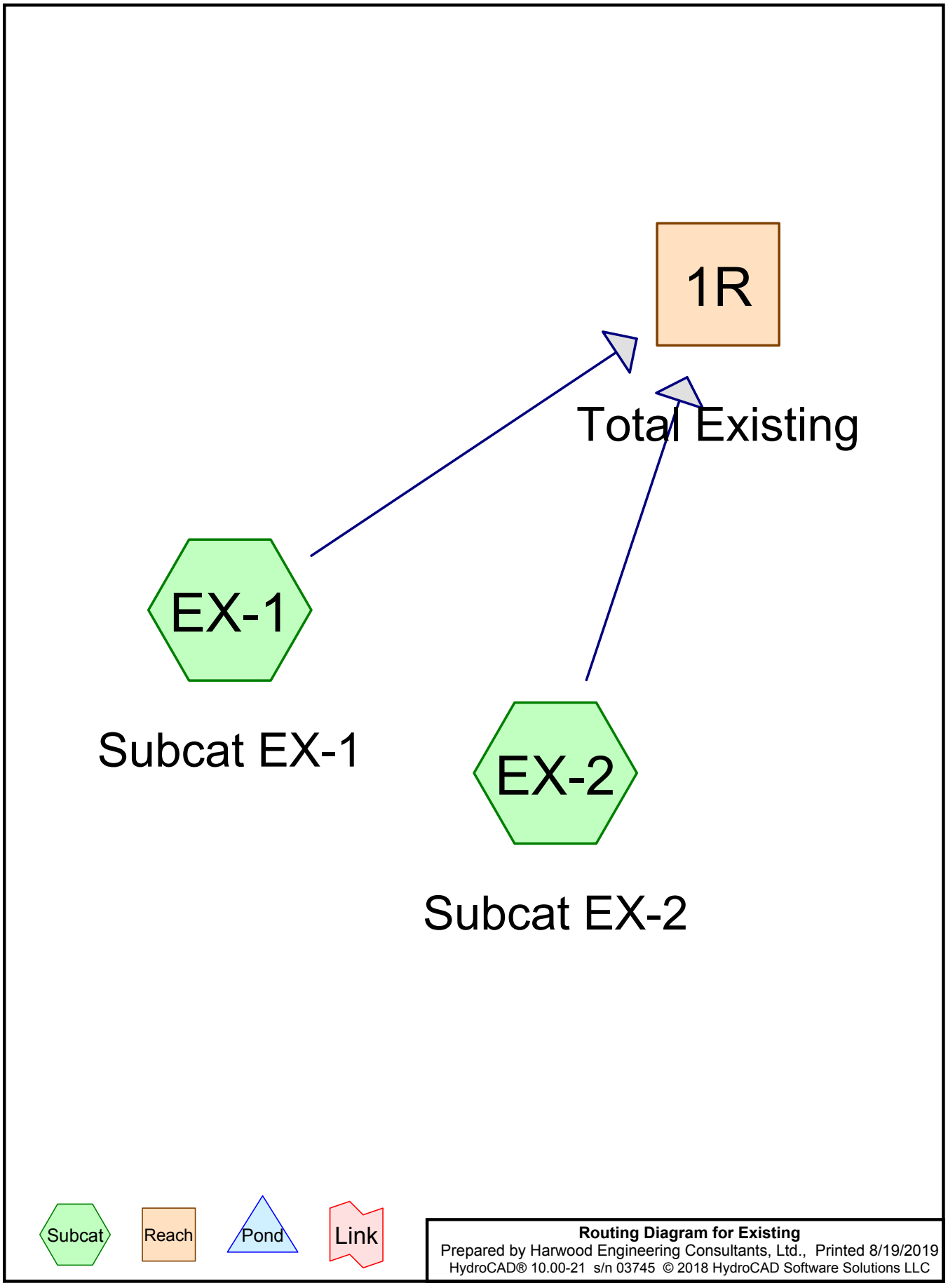
Harwood Engineering Consultants
255 North 21st Street | Milwaukee, WI 53233
P 414.475.5554 | www.hecl.com

Glue Dots International

Existing Drainage Area Map

North

Scale: 1" = 50'



Routing Diagram for Existing
Prepared by Harwood Engineering Consultants, Ltd., Printed 8/19/2019
HydroCAD® 10.00-21 s/n 03745 © 2018 HydroCAD Software Solutions LLC

Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>1.04"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=4.04 cfs 0.361 af

Subcatchment EX-2: Subcat EX-2 Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>1.08"
Flow Length=103' Tc=11.0 min CN=82 Runoff=1.20 cfs 0.065 af

Reach 1R: Total Existing Inflow=4.52 cfs 0.426 af
Outflow=4.52 cfs 0.426 af

Total Runoff Area = 4.897 ac Runoff Volume = 0.426 af Average Runoff Depth = 1.04"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Summary for Subcatchment EX-1: Subcat EX-1

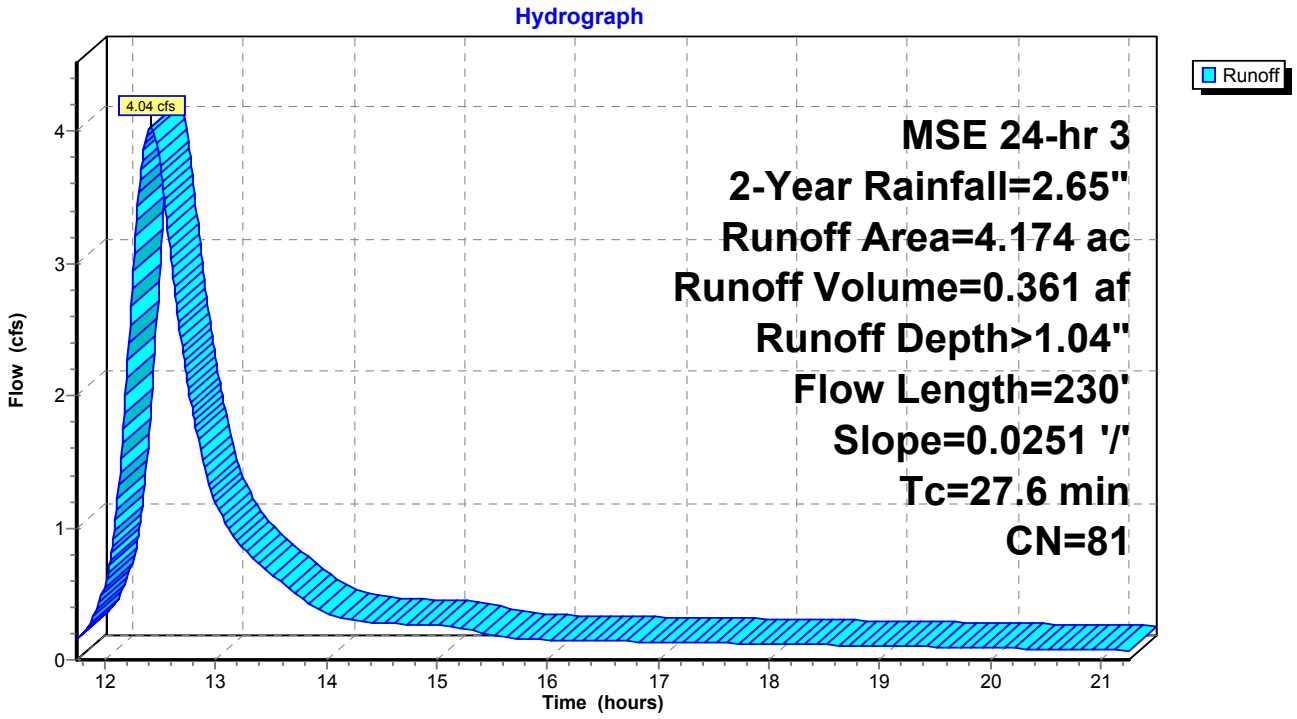
Runoff = 4.04 cfs @ 12.42 hrs, Volume= 0.361 af, Depth> 1.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1



Summary for Subcatchment EX-2: Subcat EX-2

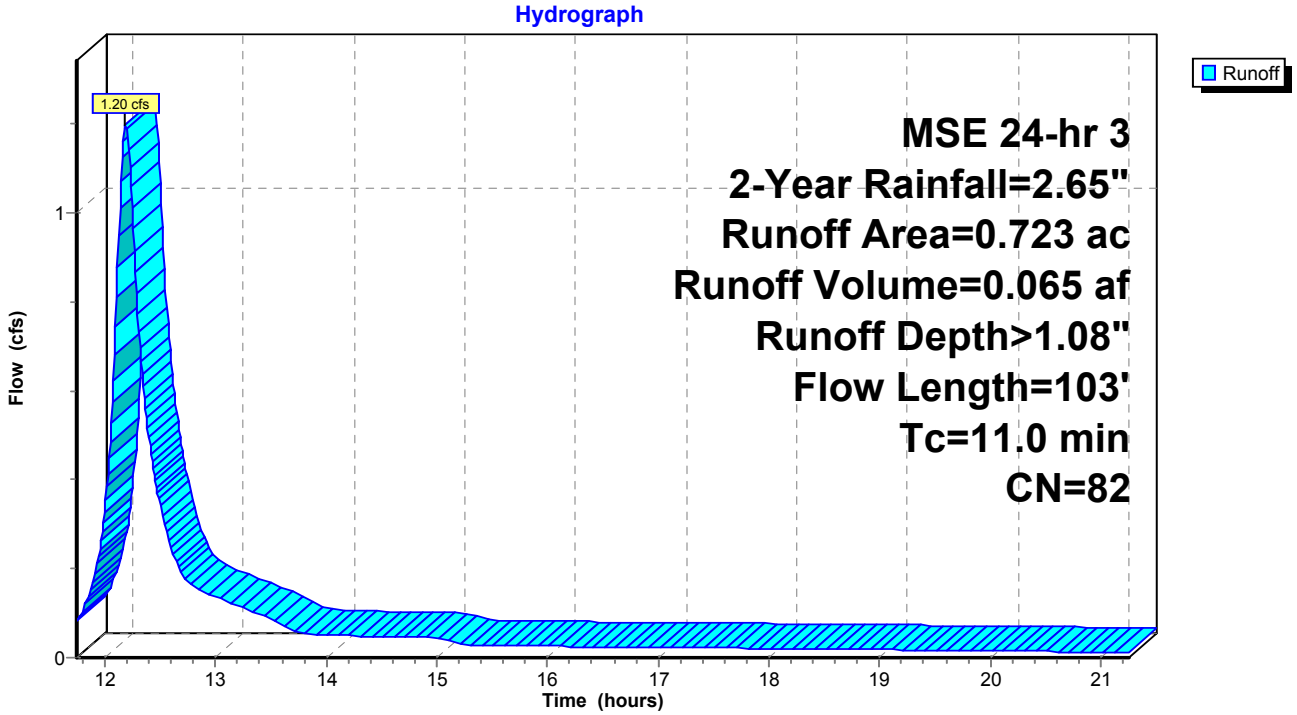
Runoff = 1.20 cfs @ 12.19 hrs, Volume= 0.065 af, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2

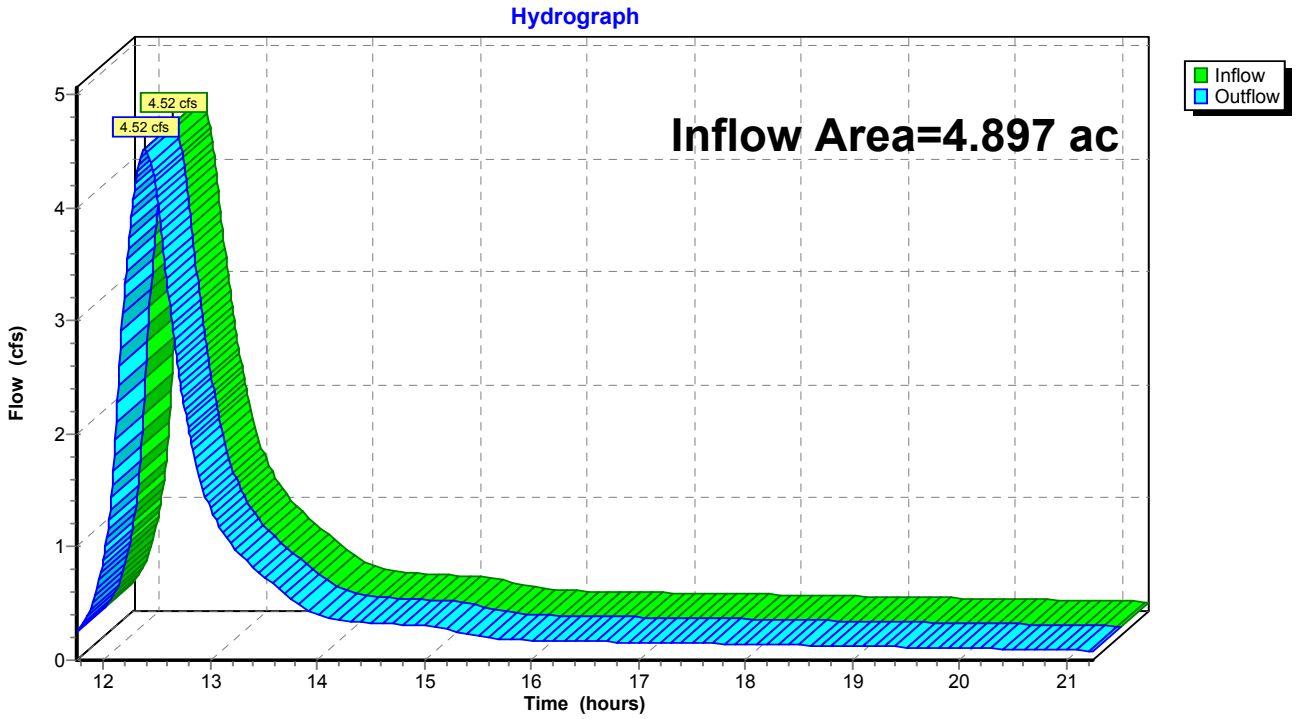


Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 1.04" for 2-Year event
Inflow = 4.52 cfs @ 12.39 hrs, Volume= 0.426 af
Outflow = 4.52 cfs @ 12.39 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>1.90"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=7.71 cfs 0.662 af

Subcatchment EX-2: Subcat EX-2 Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>1.93"
Flow Length=103' Tc=11.0 min CN=82 Runoff=2.23 cfs 0.116 af

Reach 1R: Total Existing Inflow=8.64 cfs 0.778 af
Outflow=8.64 cfs 0.778 af

Total Runoff Area = 4.897 ac Runoff Volume = 0.778 af Average Runoff Depth = 1.91"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Summary for Subcatchment EX-1: Subcat EX-1

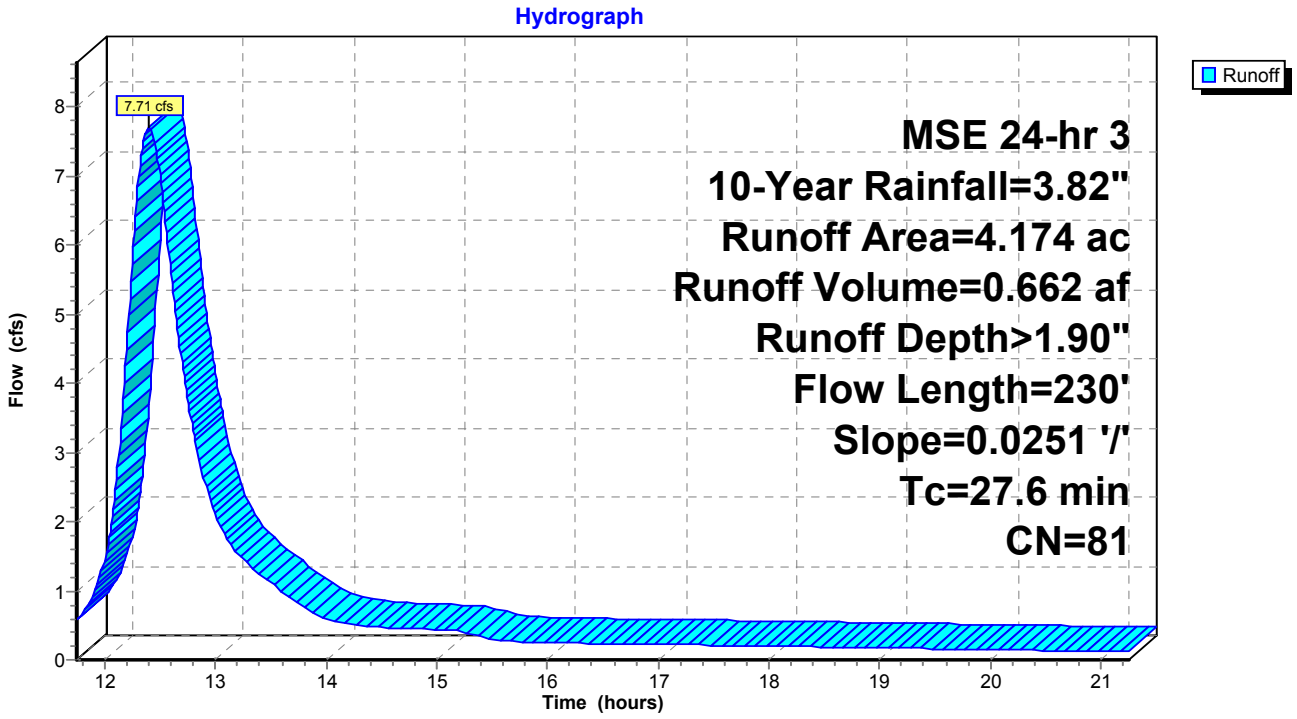
Runoff = 7.71 cfs @ 12.40 hrs, Volume= 0.662 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1



Summary for Subcatchment EX-2: Subcat EX-2

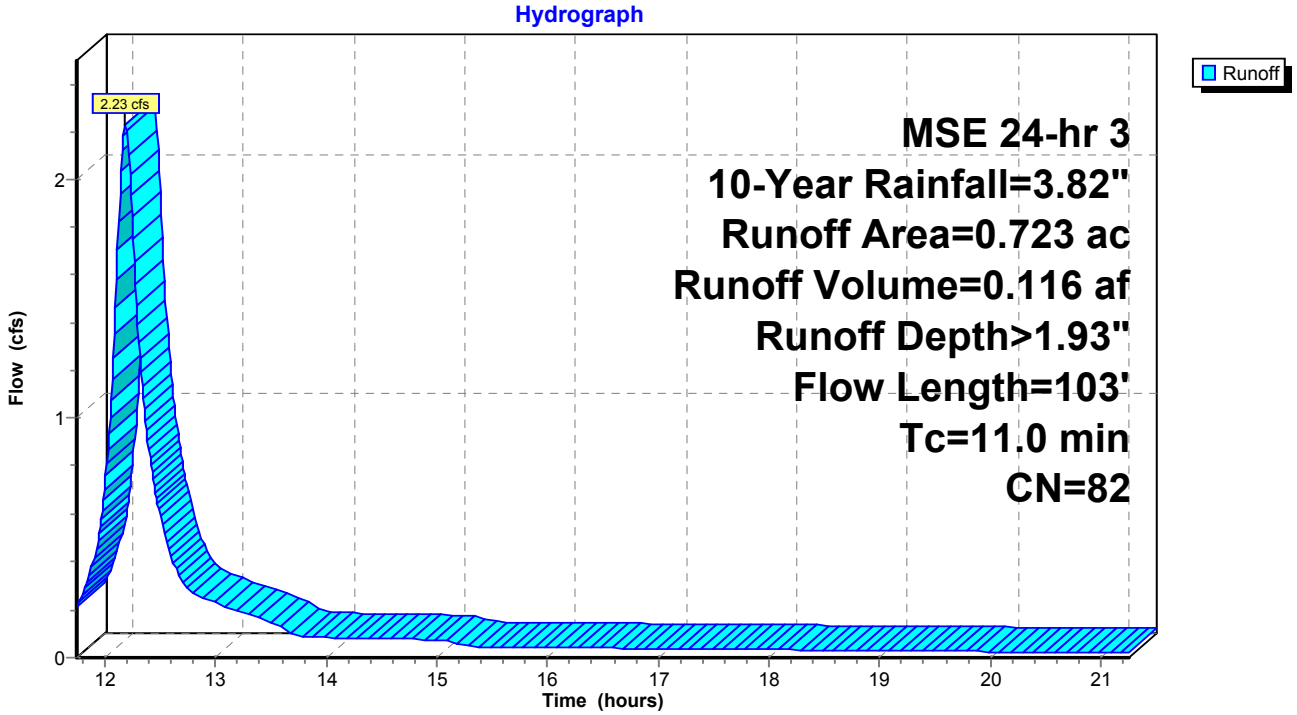
Runoff = 2.23 cfs @ 12.19 hrs, Volume= 0.116 af, Depth> 1.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2

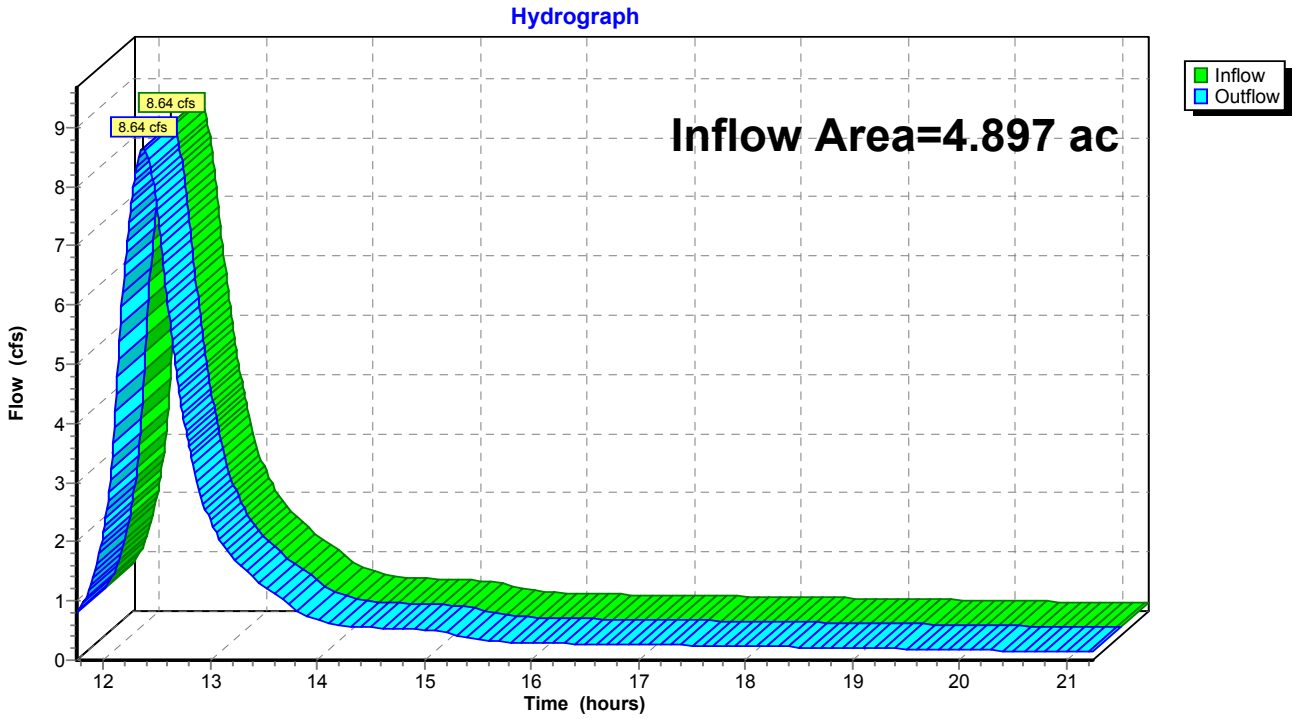


Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 1.91" for 10-Year event
Inflow = 8.64 cfs @ 12.36 hrs, Volume= 0.778 af
Outflow = 8.64 cfs @ 12.36 hrs, Volume= 0.778 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment EX-1: Subcat EX-1 Runoff Area=4.174 ac 28.02% Impervious Runoff Depth>3.95"
Flow Length=230' Slope=0.0251 '/' Tc=27.6 min CN=81 Runoff=16.59 cfs 1.373 af

Subcatchment EX-2: Subcat EX-2 Runoff Area=0.723 ac 32.68% Impervious Runoff Depth>3.90"
Flow Length=103' Tc=11.0 min CN=82 Runoff=4.65 cfs 0.235 af

Reach 1R: Total Existing Inflow=18.55 cfs 1.608 af
Outflow=18.55 cfs 1.608 af

Total Runoff Area = 4.897 ac Runoff Volume = 1.608 af Average Runoff Depth = 3.94"
71.29% Pervious = 3.491 ac 28.71% Impervious = 1.406 ac

Summary for Subcatchment EX-1: Subcat EX-1

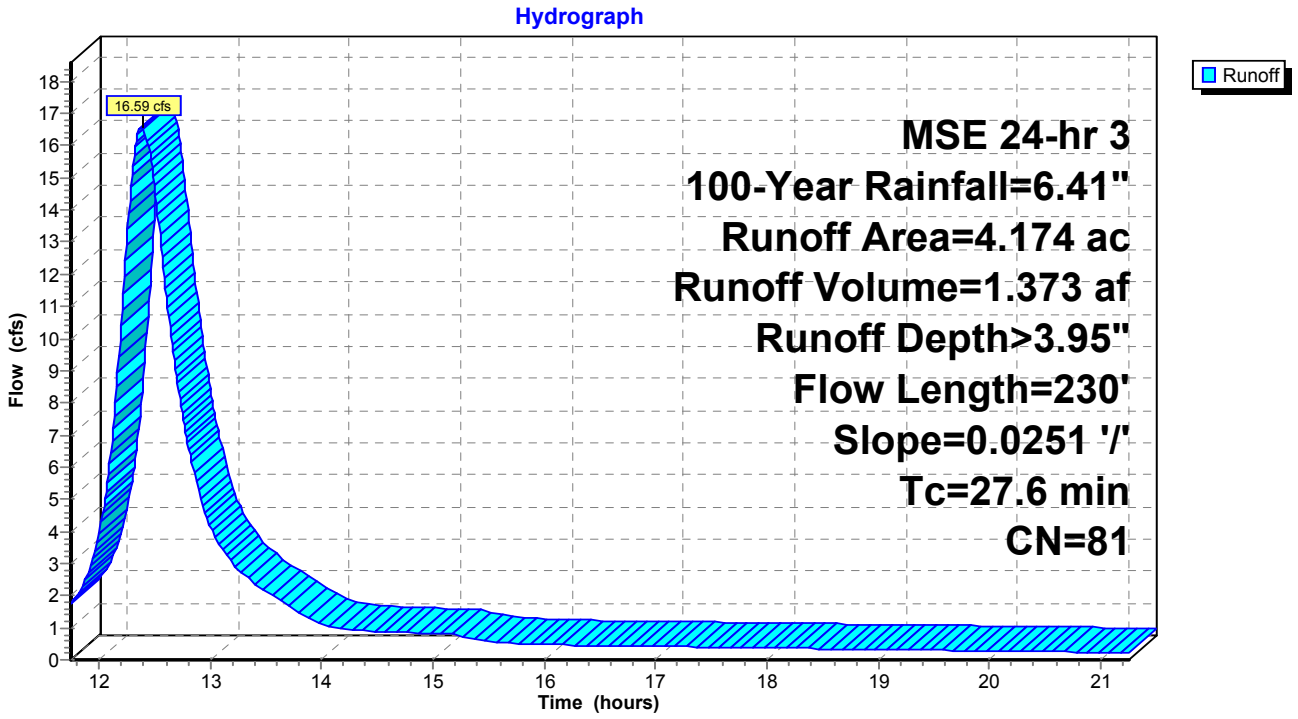
Runoff = 16.59 cfs @ 12.39 hrs, Volume= 1.373 af, Depth> 3.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
3.004	74	>75% Grass cover, Good, HSG C
0.887	98	Paved parking, HSG C
0.254	98	Roofs, HSG C
0.029	98	Sidewalks, Good, HSG C
4.174	81	Weighted Average
3.004		71.98% Pervious Area
1.169		28.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.6	230	0.0251	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment EX-1: Subcat EX-1



Summary for Subcatchment EX-2: Subcat EX-2

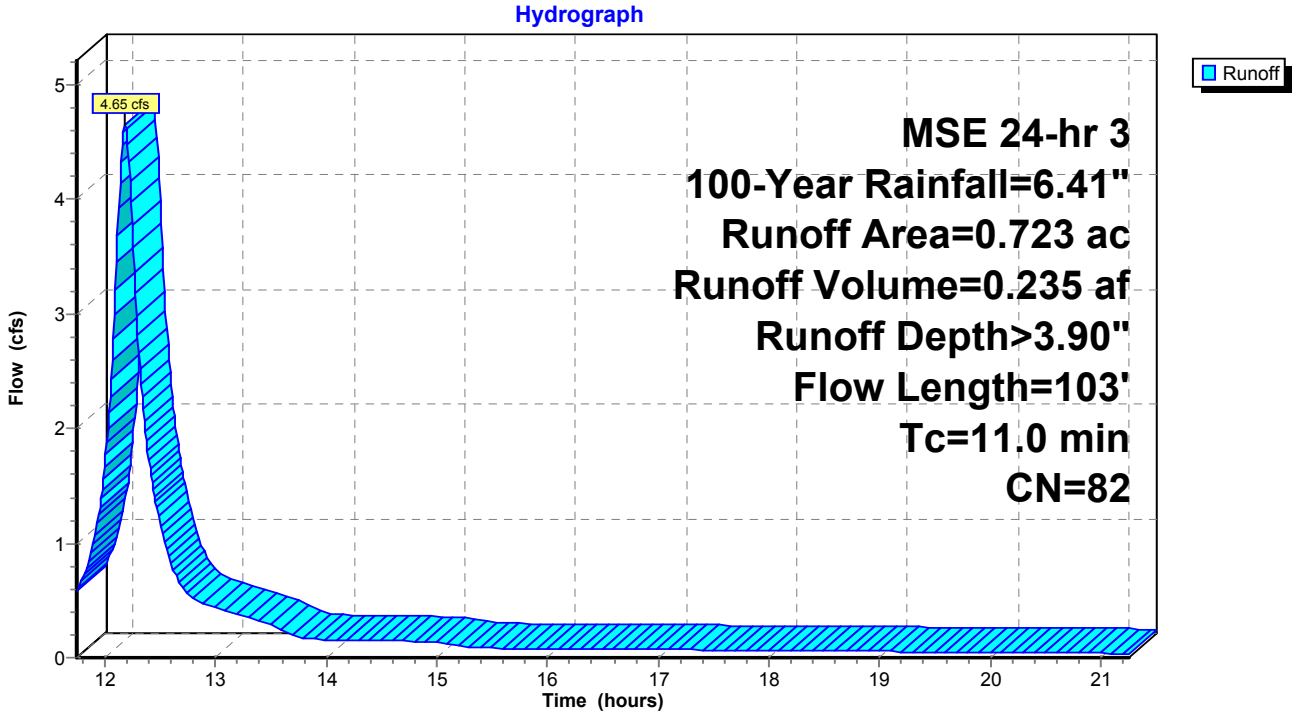
Runoff = 4.65 cfs @ 12.18 hrs, Volume= 0.235 af, Depth> 3.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.487	74	>75% Grass cover, Good, HSG C
0.168	98	Paved parking, HSG C
0.067	98	Roofs, HSG C
0.001	98	Sidewalks, Good, HSG C
0.723	82	Weighted Average
0.487		67.32% Pervious Area
0.236		32.68% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	37	0.0200	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"
4.0	66	0.1000	0.27		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.70"
11.0	103	Total			

Subcatchment EX-2: Subcat EX-2

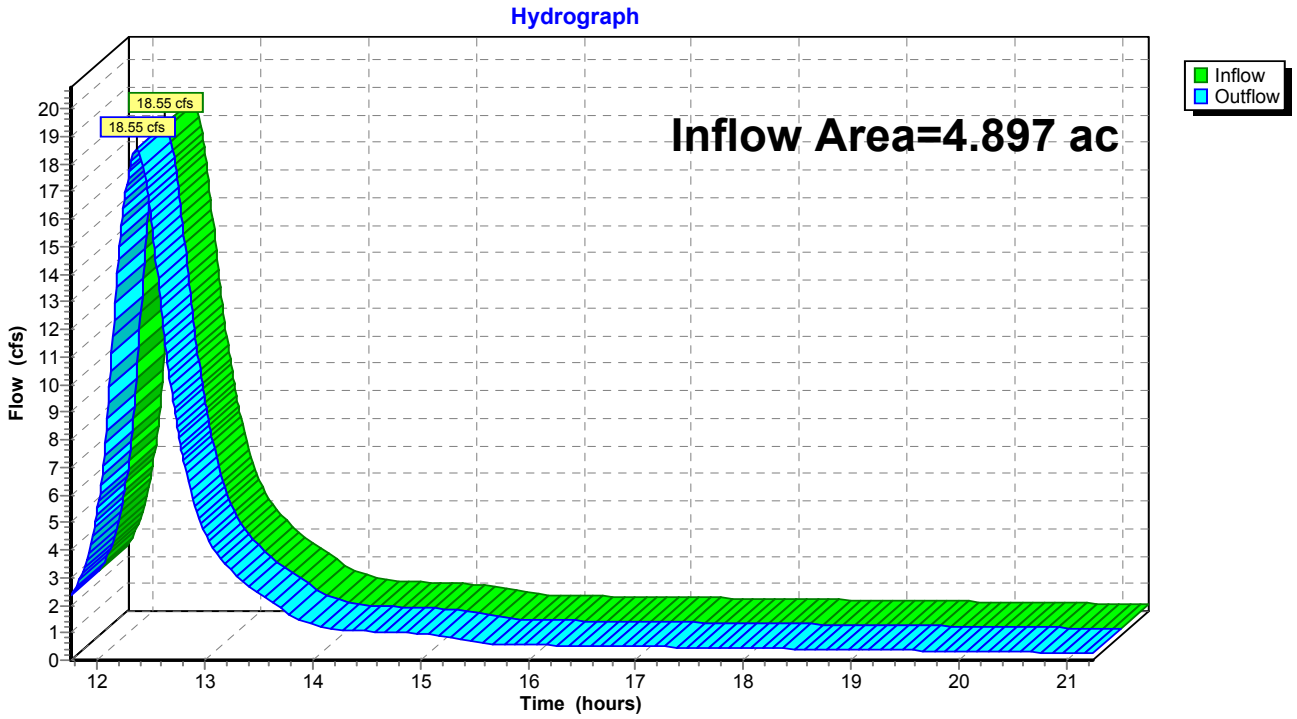


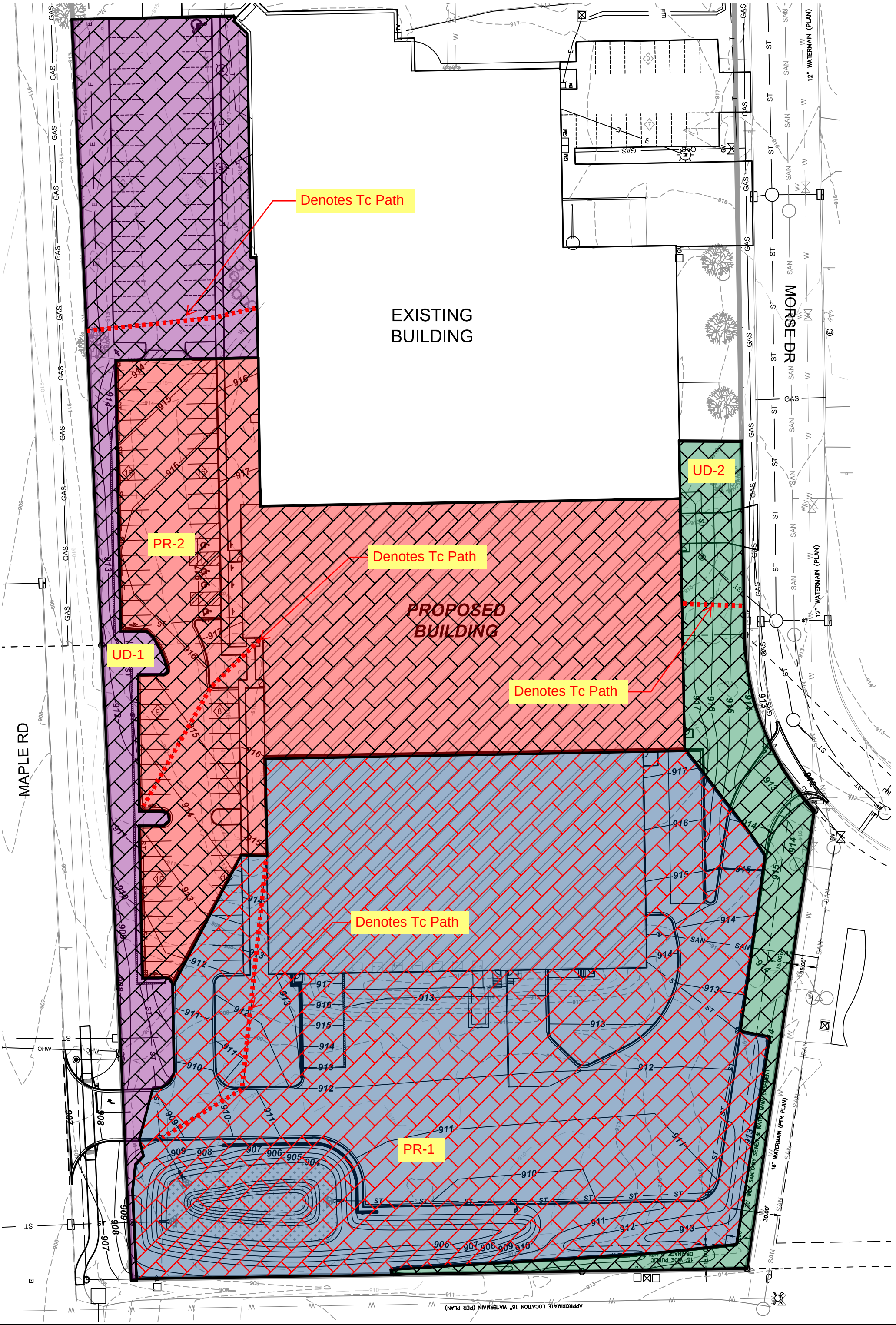
Summary for Reach 1R: Total Existing

Inflow Area = 4.897 ac, 28.71% Impervious, Inflow Depth > 3.94" for 100-Year event
Inflow = 18.55 cfs @ 12.36 hrs, Volume= 1.608 af
Outflow = 18.55 cfs @ 12.36 hrs, Volume= 1.608 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Existing





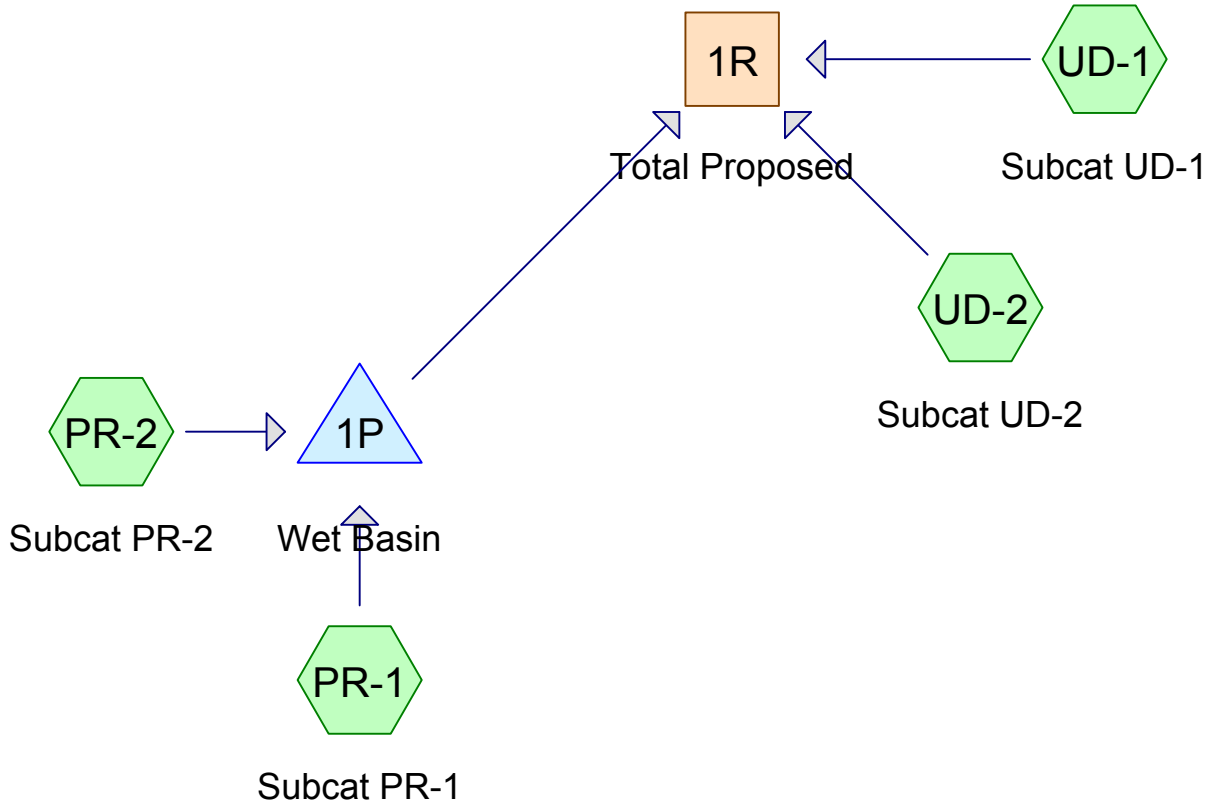
Harwood Engineering Consultants
255 North 21st Street Milwaukee Wisconsin 53233
414.475.5554 414.773.9299 fax harwood@hecl.com

Glue Dots

Proposed Drainage Area Map

North

Scale: 1" = 50'



Subcat Reach Pond Link

Routing Diagram for Proposed
Prepared by Harwood Engineering Consultants, Ltd., Printed 8/19/2019

Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>1.60"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=4.78 cfs 0.312 af

Subcatchment PR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>1.80"
Flow Length=249' Tc=6.0 min CN=96 Runoff=5.53 cfs 0.222 af

Subcatchment UD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>1.20"
Tc=0.0 min CN=85 Runoff=2.04 cfs 0.070 af

Subcatchment UD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>0.87"
Tc=0.0 min CN=78 Runoff=0.81 cfs 0.027 af

Reach 1R: Total Proposed Inflow=3.12 cfs 0.434 af
Outflow=3.12 cfs 0.434 af

Pond 1P: Wet Basin Peak Elev=906.68' Storage=23,681 cf Inflow=8.59 cfs 0.534 af
Outflow=0.38 cfs 0.336 af

Total Runoff Area = 4.898 ac Runoff Volume = 0.632 af Average Runoff Depth = 1.55"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

Summary for Subcatchment PR-1: Subcat PR-1

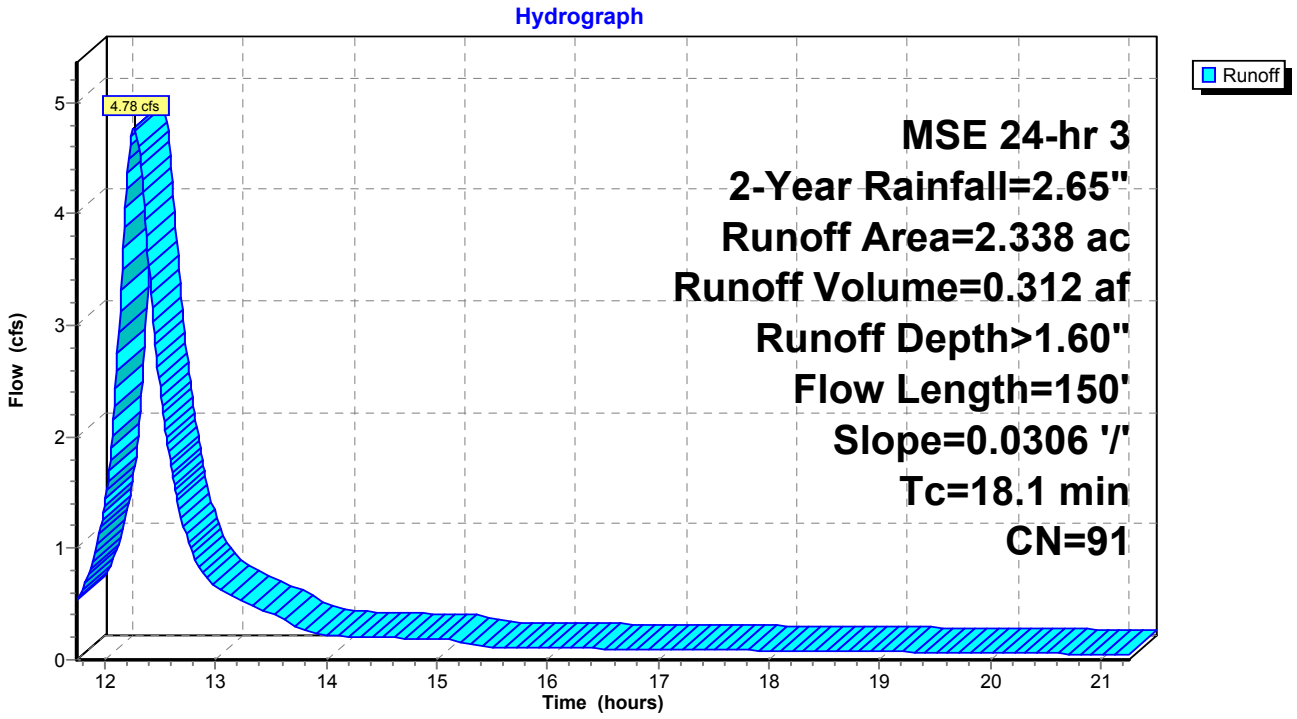
Runoff = 4.78 cfs @ 12.27 hrs, Volume= 0.312 af, Depth> 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1



Summary for Subcatchment PR-2: Subcat PR-2

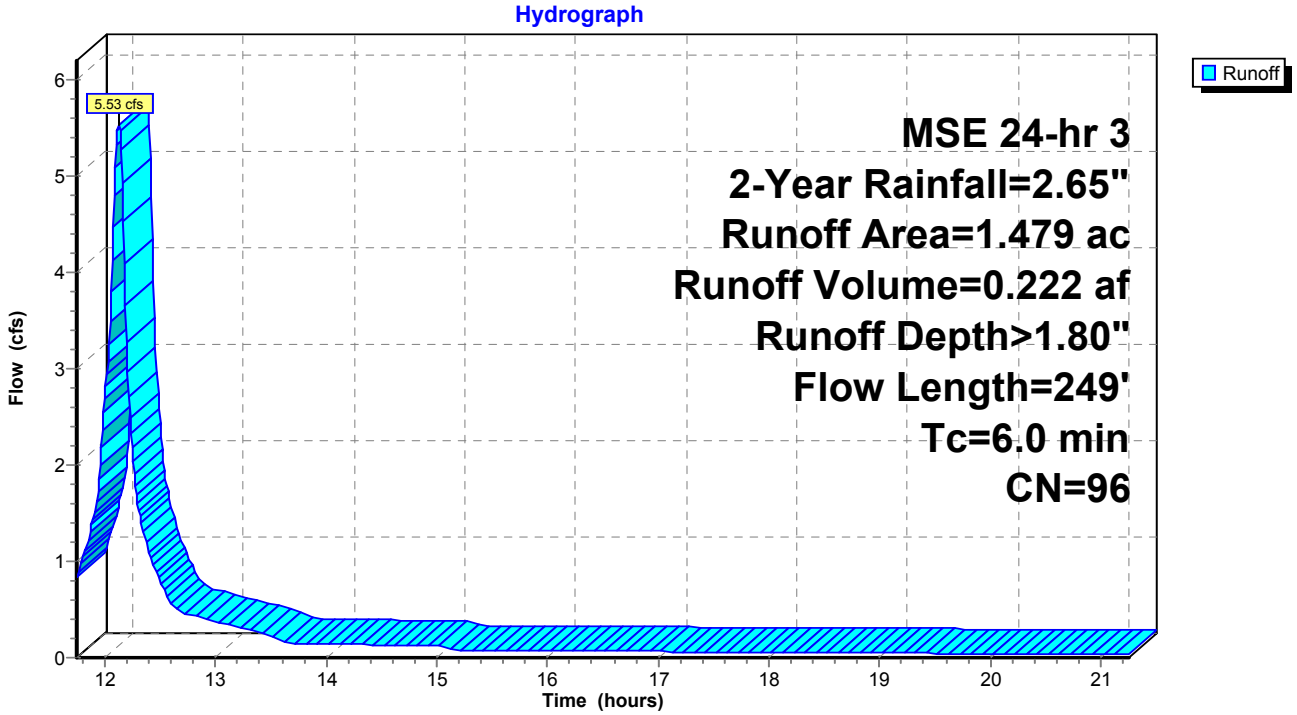
Runoff = 5.53 cfs @ 12.13 hrs, Volume= 0.222 af, Depth> 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



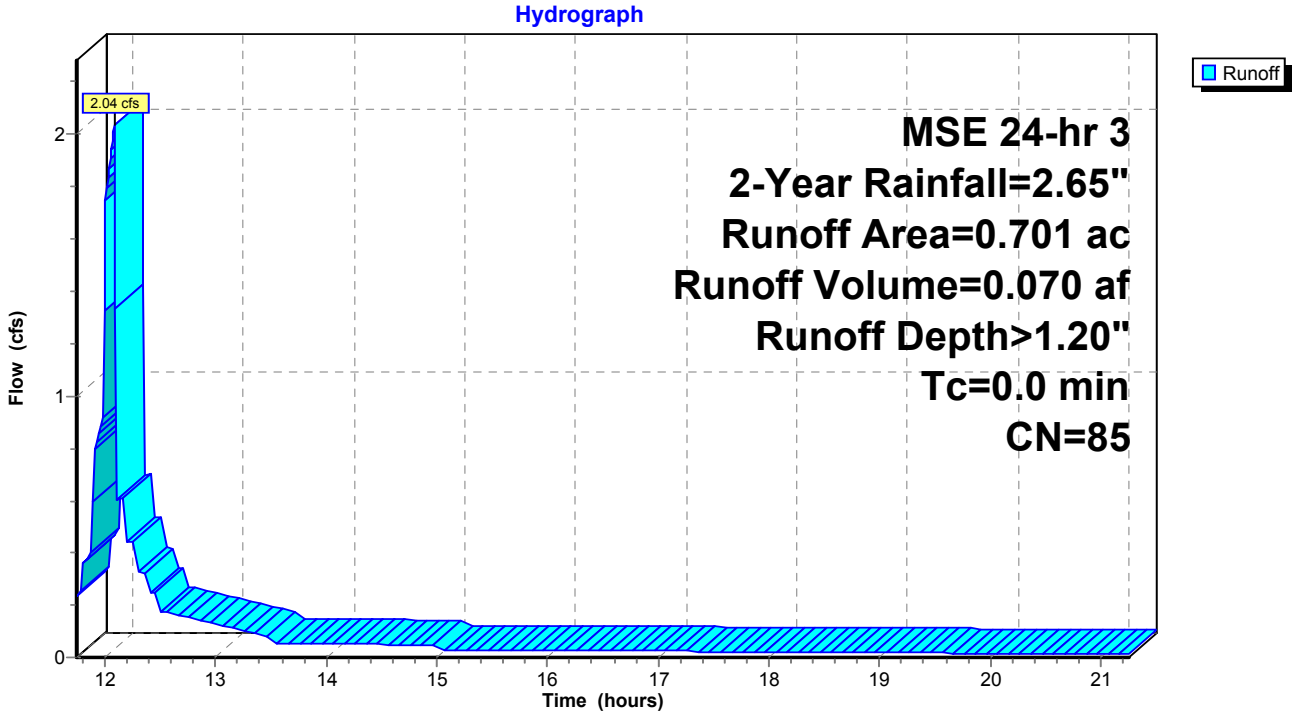
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 2.04 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



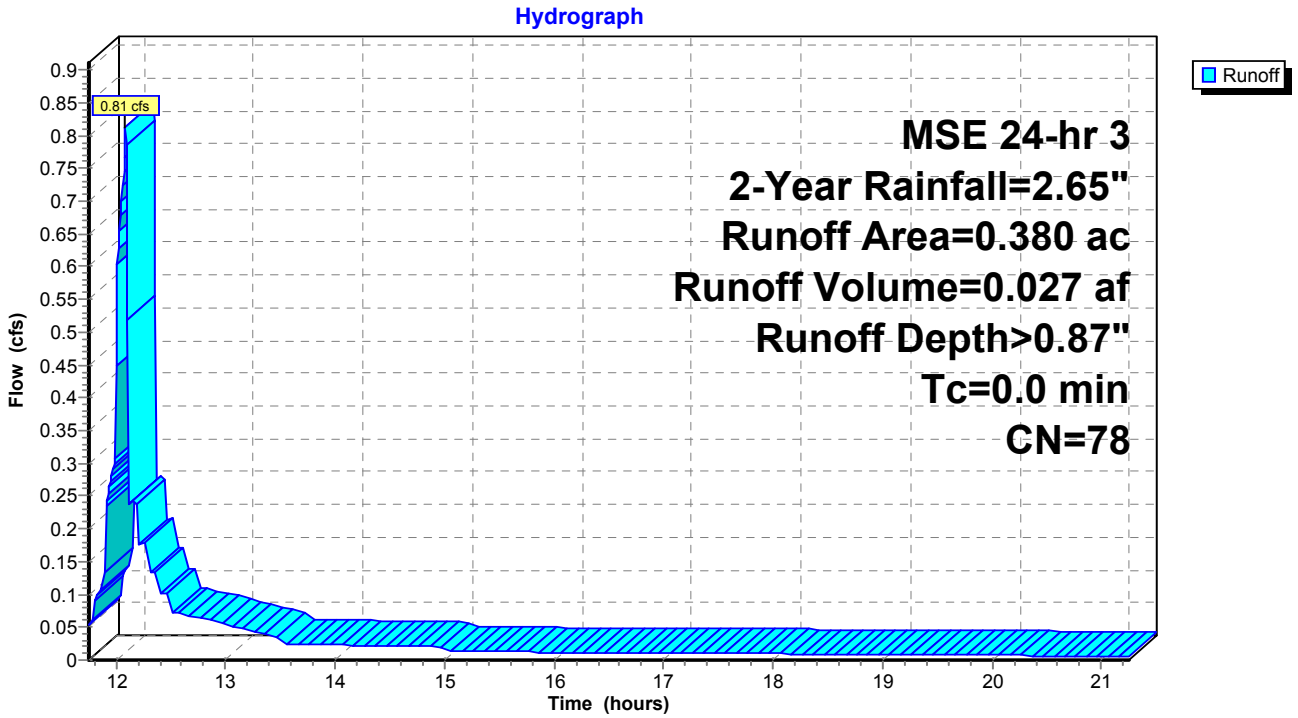
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 0.81 cfs @ 12.09 hrs, Volume= 0.027 af, Depth> 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 2-Year Rainfall=2.65"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

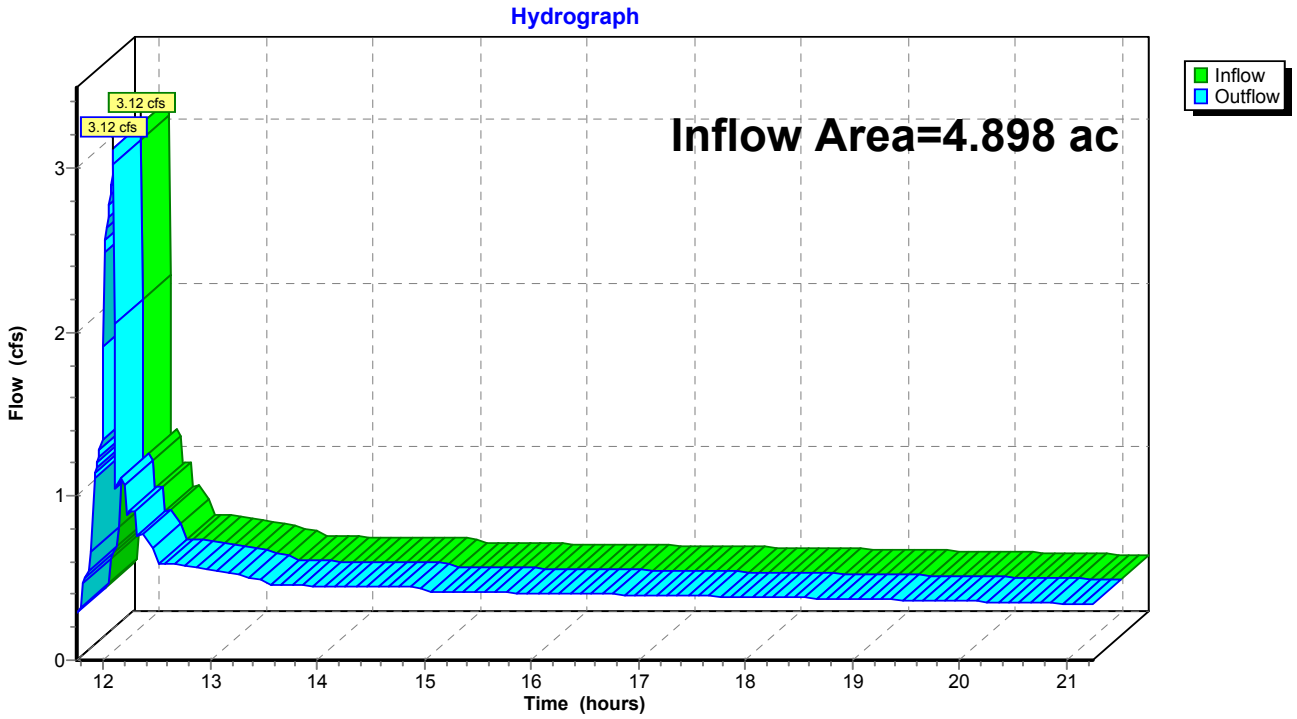


Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 1.06" for 2-Year event
Inflow = 3.12 cfs @ 12.09 hrs, Volume= 0.434 af
Outflow = 3.12 cfs @ 12.09 hrs, Volume= 0.434 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 1.68" for 2-Year event
Inflow = 8.59 cfs @ 12.14 hrs, Volume= 0.534 af
Outflow = 0.38 cfs @ 13.91 hrs, Volume= 0.336 af, Atten= 96%, Lag= 106.1 min
Primary = 0.38 cfs @ 13.91 hrs, Volume= 0.336 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf
Peak Elev= 906.68' @ 13.91 hrs Surf.Area= 7,967 sf Storage= 23,681 cf (15,794 cf above start)

Plug-Flow detention time= 526.3 min calculated for 0.154 af (29% of inflow)
Center-of-Mass det. time= 254.3 min (1,062.2 - 807.9)

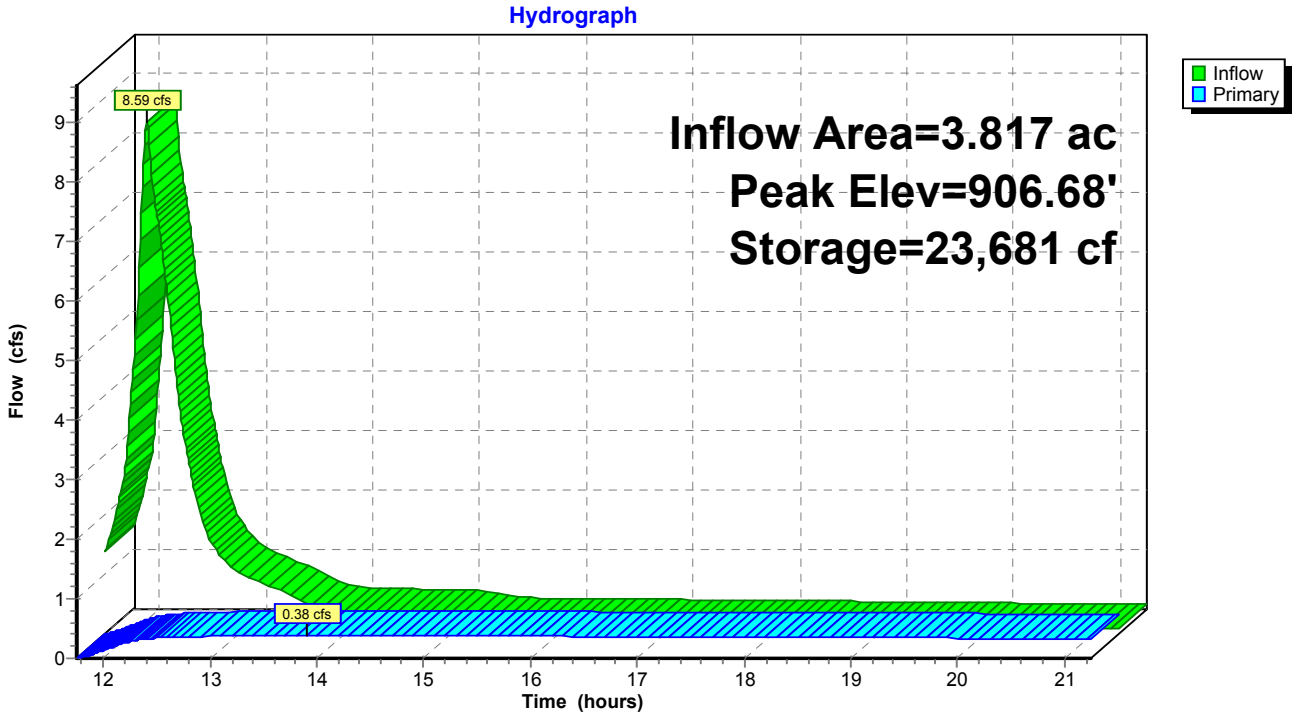
Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	**12.0" Round Culvert** L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	907.80'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Primary	908.80'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.38 cfs @ 13.91 hrs HW=906.68' (Free Discharge)
- **1=Culvert** (Passes 0.38 cfs of 6.81 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.38 cfs @ 7.69 fps)
  - **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Wet Basin



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>2.52"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=7.64 cfs 0.491 af

Subcatchment PR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>2.67"
Flow Length=249' Tc=6.0 min CN=96 Runoff=8.19 cfs 0.329 af

Subcatchment UD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>2.04"
Tc=0.0 min CN=85 Runoff=3.46 cfs 0.119 af

Subcatchment UD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>1.64"
Tc=0.0 min CN=78 Runoff=1.50 cfs 0.052 af

Reach 1R: Total Proposed Inflow=5.21 cfs 0.588 af
Outflow=5.21 cfs 0.588 af

Pond 1P: Wet Basin Peak Elev=907.78' Storage=33,385 cf Inflow=13.24 cfs 0.820 af
Outflow=0.45 cfs 0.417 af

Total Runoff Area = 4.898 ac Runoff Volume = 0.990 af Average Runoff Depth = 2.43"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

Summary for Subcatchment PR-1: Subcat PR-1

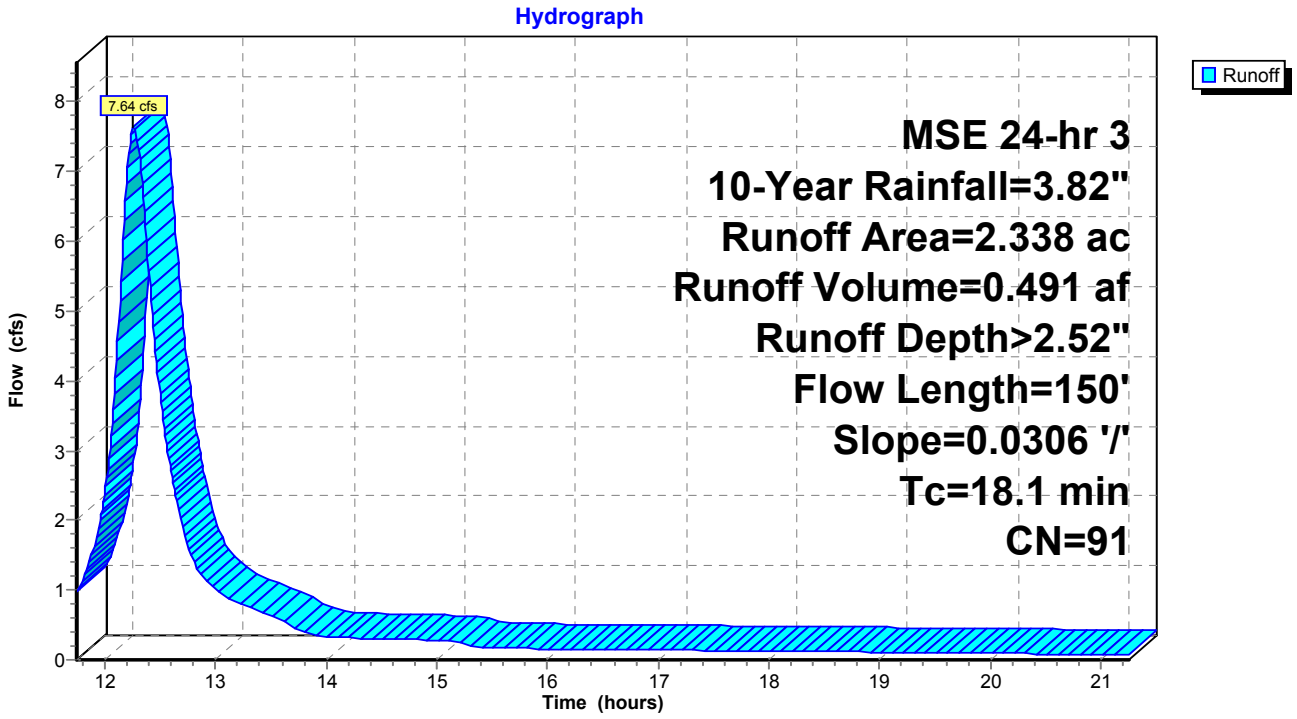
Runoff = 7.64 cfs @ 12.26 hrs, Volume= 0.491 af, Depth> 2.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1



Summary for Subcatchment PR-2: Subcat PR-2

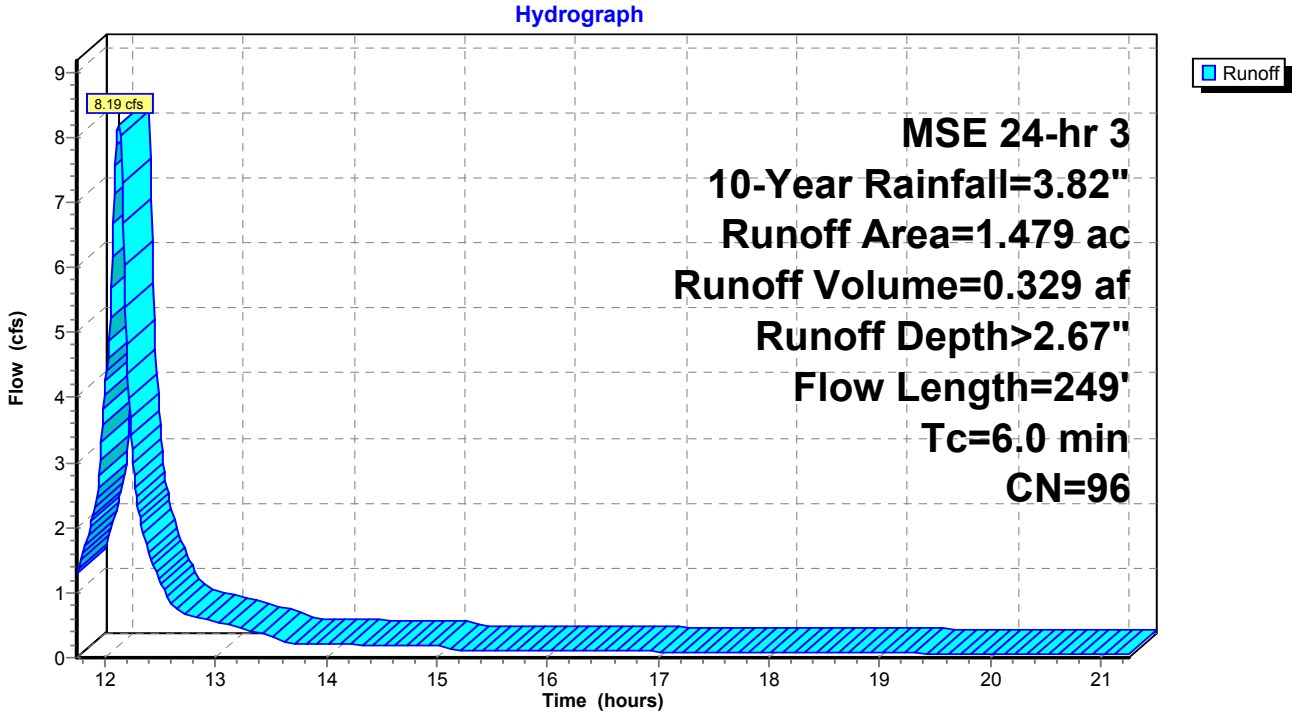
Runoff = 8.19 cfs @ 12.13 hrs, Volume= 0.329 af, Depth> 2.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



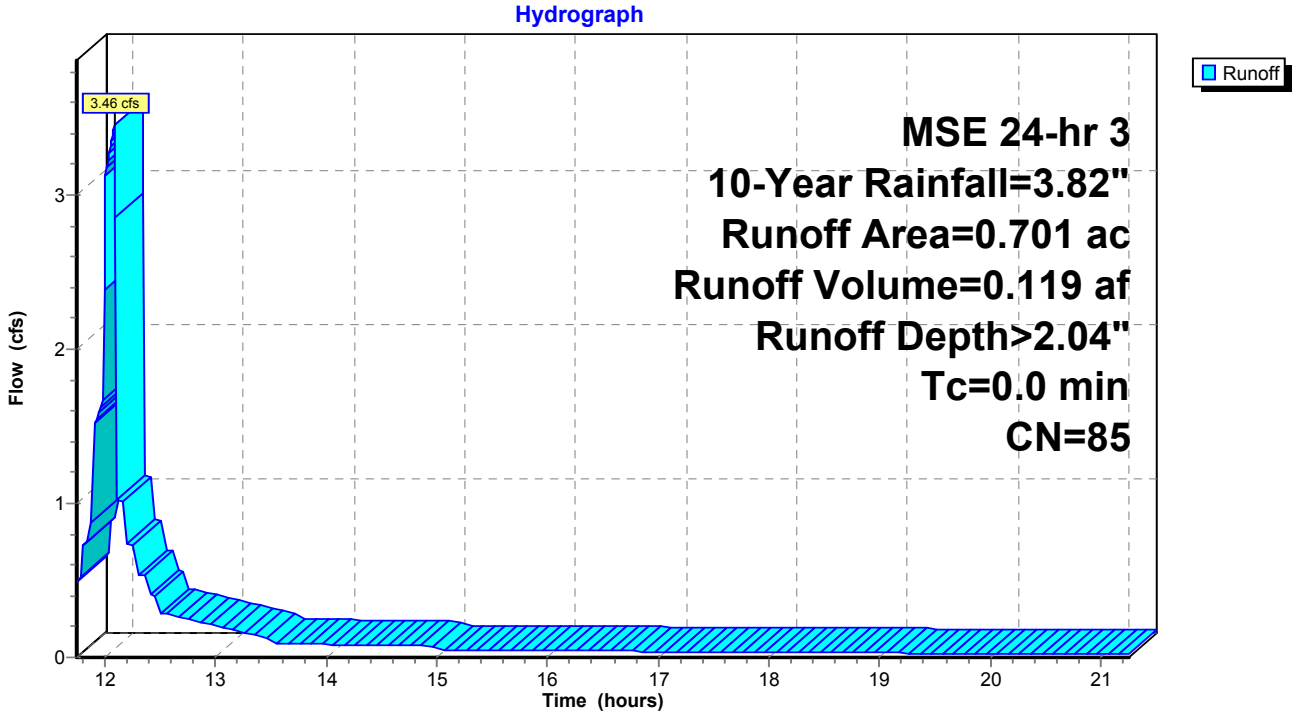
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 3.46 cfs @ 12.09 hrs, Volume= 0.119 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



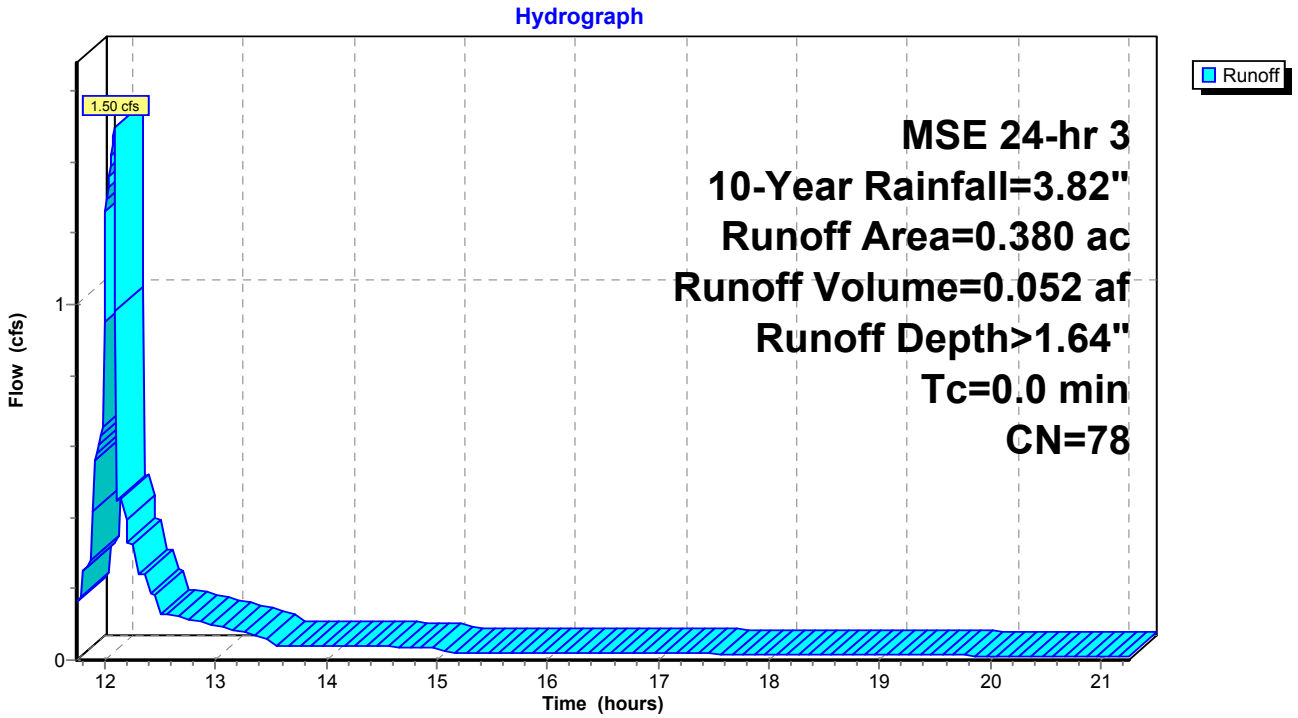
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 1.50 cfs @ 12.09 hrs, Volume= 0.052 af, Depth> 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 10-Year Rainfall=3.82"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

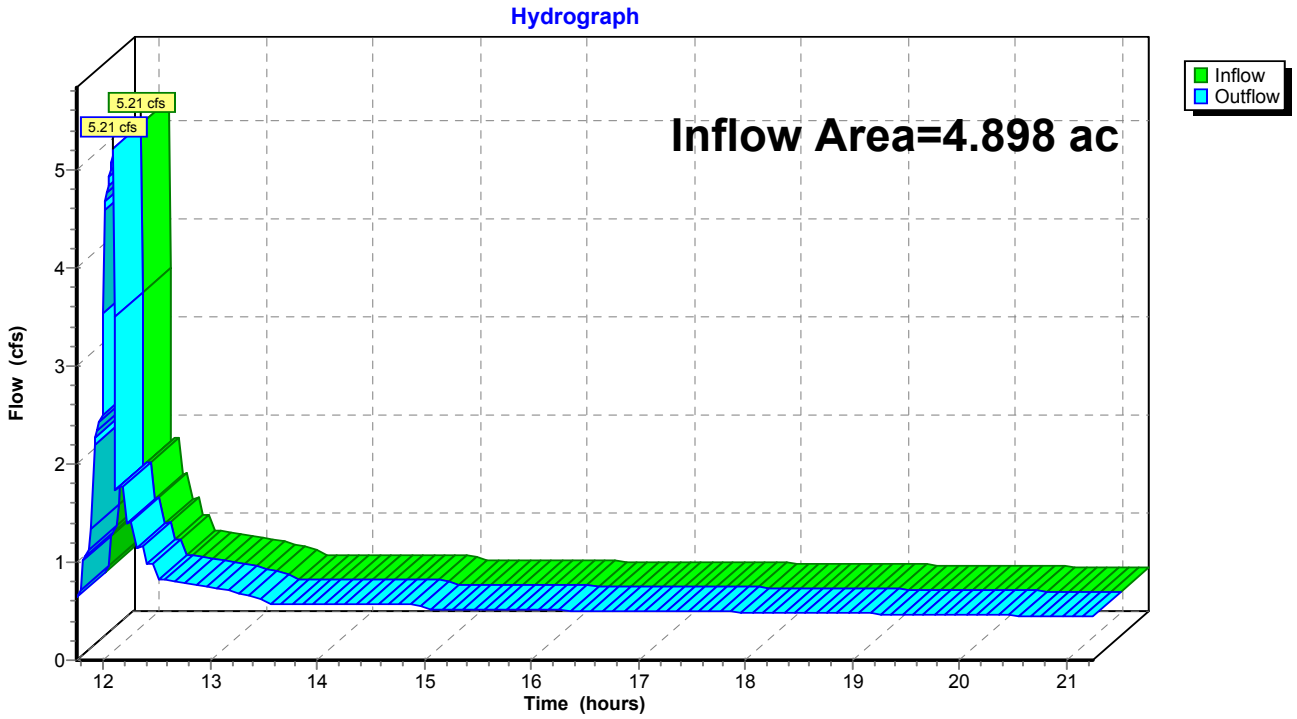


Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 1.44" for 10-Year event
Inflow = 5.21 cfs @ 12.09 hrs, Volume= 0.588 af
Outflow = 5.21 cfs @ 12.09 hrs, Volume= 0.588 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 2.58" for 10-Year event
Inflow = 13.24 cfs @ 12.14 hrs, Volume= 0.820 af
Outflow = 0.45 cfs @ 15.05 hrs, Volume= 0.417 af, Atten= 97%, Lag= 174.6 min
Primary = 0.45 cfs @ 15.05 hrs, Volume= 0.417 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf
Peak Elev= 907.78' @ 15.05 hrs Surf.Area= 9,667 sf Storage= 33,385 cf (25,498 cf above start)

Plug-Flow detention time= 497.1 min calculated for 0.234 af (29% of inflow)
Center-of-Mass det. time= 262.6 min (1,068.1 - 805.5)

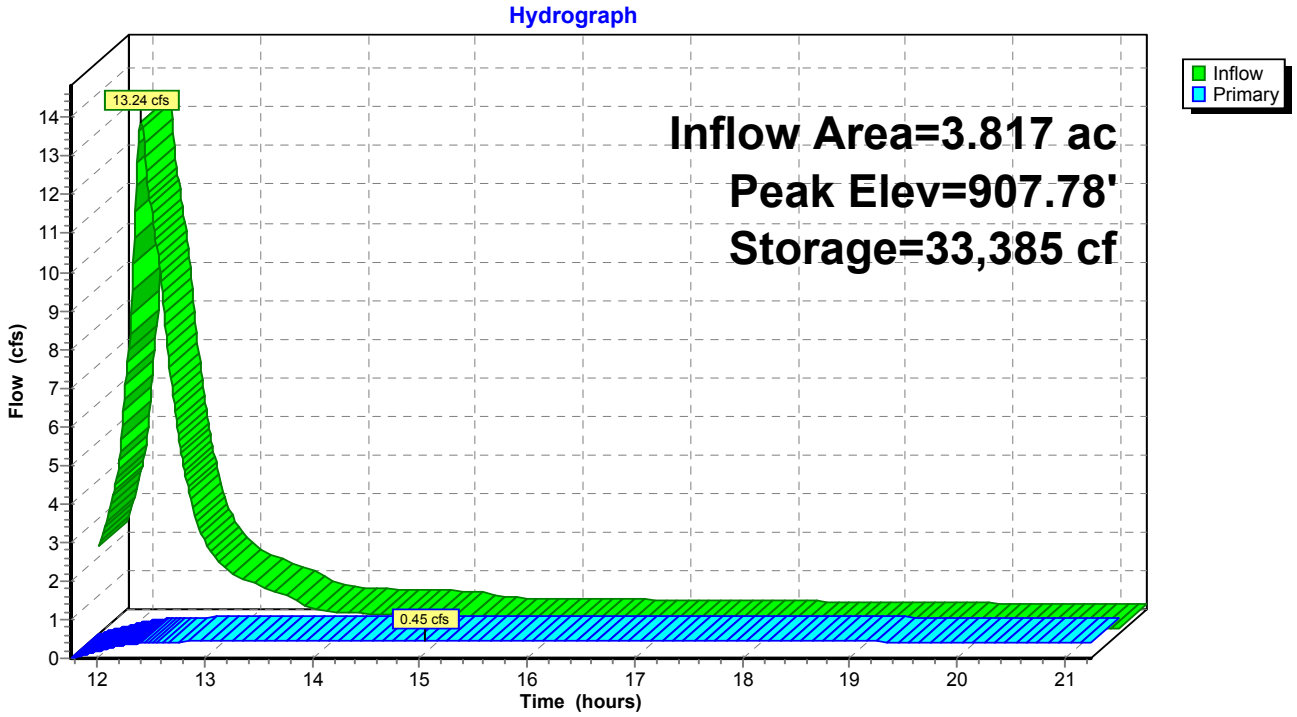
Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	**12.0" Round Culvert** L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	907.80'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Primary	908.80'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.45 cfs @ 15.05 hrs HW=907.78' (Free Discharge)
- **1=Culvert** (Passes 0.45 cfs of 8.55 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.45 cfs @ 9.20 fps)
  - **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Wet Basin



Time span=11.75-23.75 hrs, dt=0.01 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment PR-1: Subcat PR-1 Runoff Area=2.338 ac 71.95% Impervious Runoff Depth>4.54"
Flow Length=150' Slope=0.0306 '/' Tc=18.1 min CN=91 Runoff=13.94 cfs 0.885 af

Subcatchment PR-2: Subcat PR-2 Runoff Area=1.479 ac 93.11% Impervious Runoff Depth>4.56"
Flow Length=249' Tc=6.0 min CN=96 Runoff=14.02 cfs 0.562 af

Subcatchment UD-1: Subcat UD-1 Runoff Area=0.701 ac 45.24% Impervious Runoff Depth>3.92"
Tc=0.0 min CN=85 Runoff=6.64 cfs 0.229 af

Subcatchment UD-2: Subcat UD-2 Runoff Area=0.380 ac 17.34% Impervious Runoff Depth>3.48"
Tc=0.0 min CN=78 Runoff=3.20 cfs 0.110 af

Reach 1R: Total Proposed Inflow=10.17 cfs 1.303 af
Outflow=10.17 cfs 1.303 af

Pond 1P: Wet Basin Peak Elev=908.46' Storage=40,366 cf Inflow=23.47 cfs 1.447 af
Outflow=7.30 cfs 0.964 af

Total Runoff Area = 4.898 ac Runoff Volume = 1.786 af Average Runoff Depth = 4.38"
29.72% Pervious = 1.456 ac 70.28% Impervious = 3.442 ac

Summary for Subcatchment PR-1: Subcat PR-1

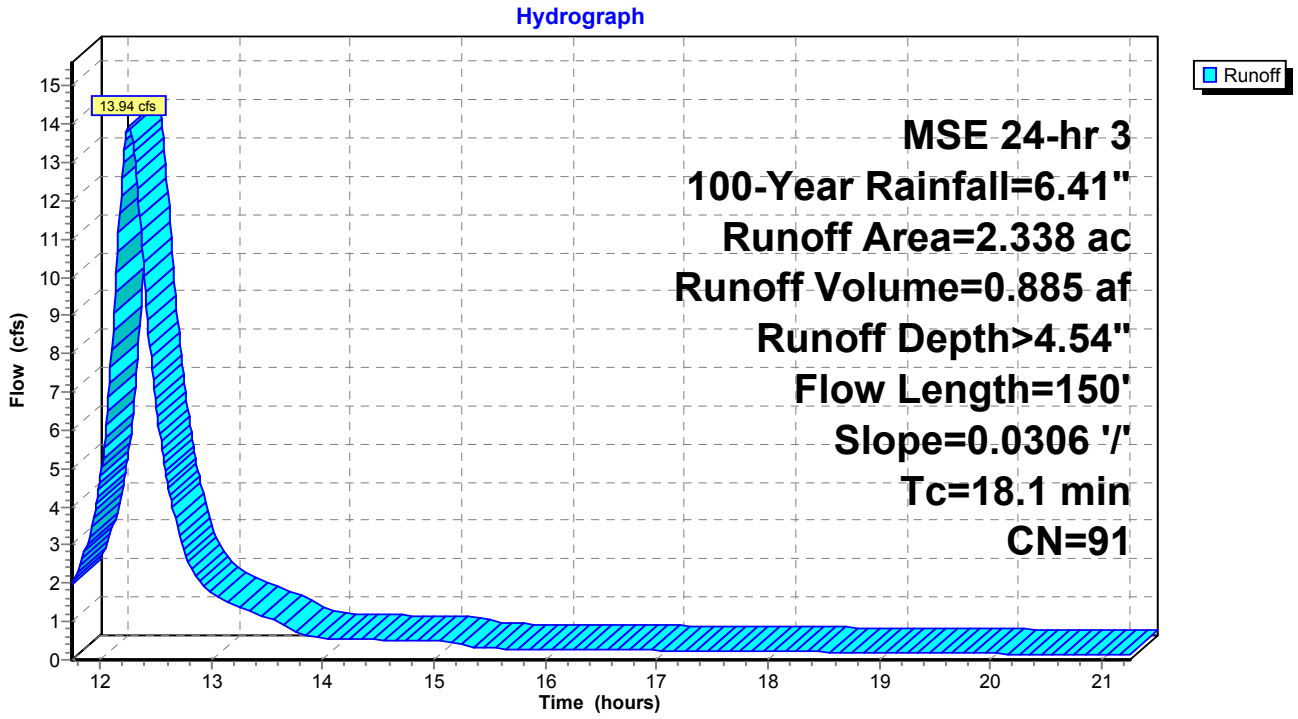
Runoff = 13.94 cfs @ 12.26 hrs, Volume= 0.885 af, Depth> 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.656	74	>75% Grass cover, Good, HSG C
0.995	98	Paved parking, HSG C
0.676	98	Roofs, HSG C
0.012	98	Sidewalks, Good, HSG C
2.338	91	Weighted Average
0.656		28.05% Pervious Area
1.682		71.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.1	150	0.0306	0.14		**Sheet Flow,** Grass: Dense n= 0.240 P2= 2.70"

Subcatchment PR-1: Subcat PR-1



Summary for Subcatchment PR-2: Subcat PR-2

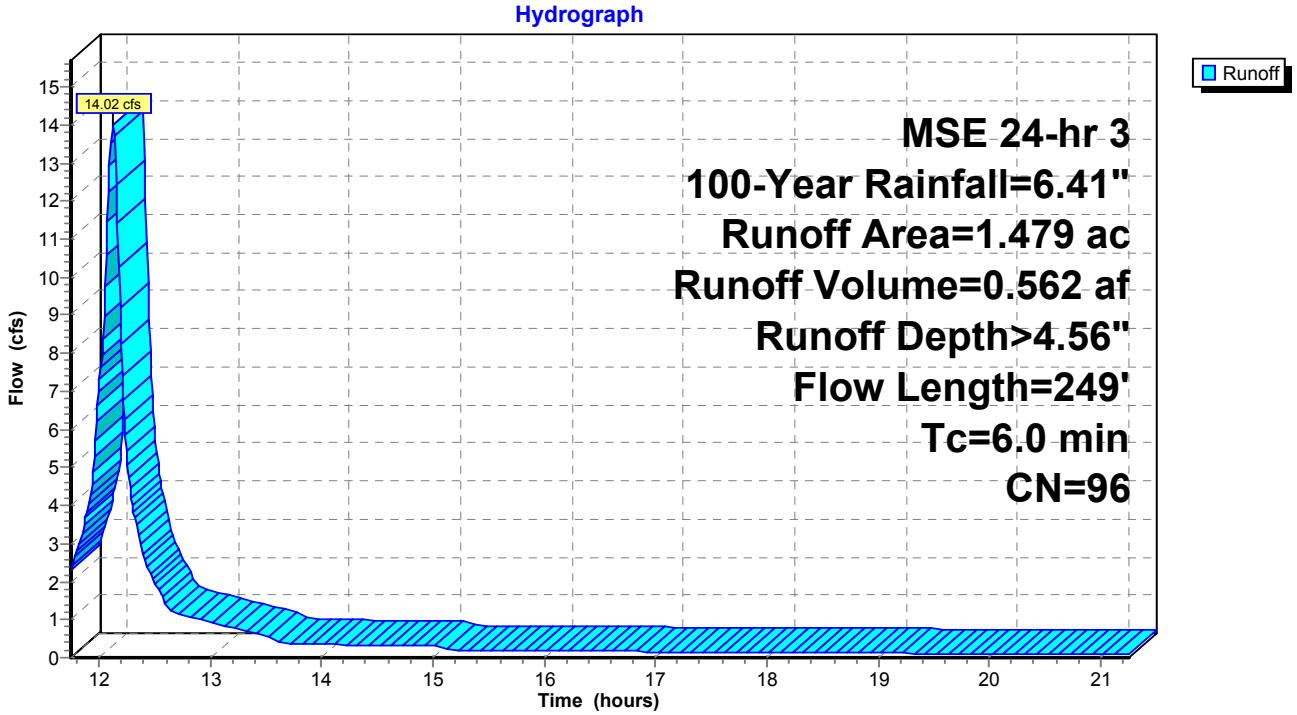
Runoff = 14.02 cfs @ 12.13 hrs, Volume= 0.562 af, Depth> 4.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.102	74	>75% Grass cover, Good, HSG C
0.447	98	Paved parking, HSG C
0.894	98	Roofs, HSG C
0.036	98	Sidewalks, Good, HSG C
1.479	96	Weighted Average
0.102		6.89% Pervious Area
1.377		93.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	66	0.0228	1.23		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.70"
0.9	183	0.0273	3.35		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.8	249	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PR-2: Subcat PR-2



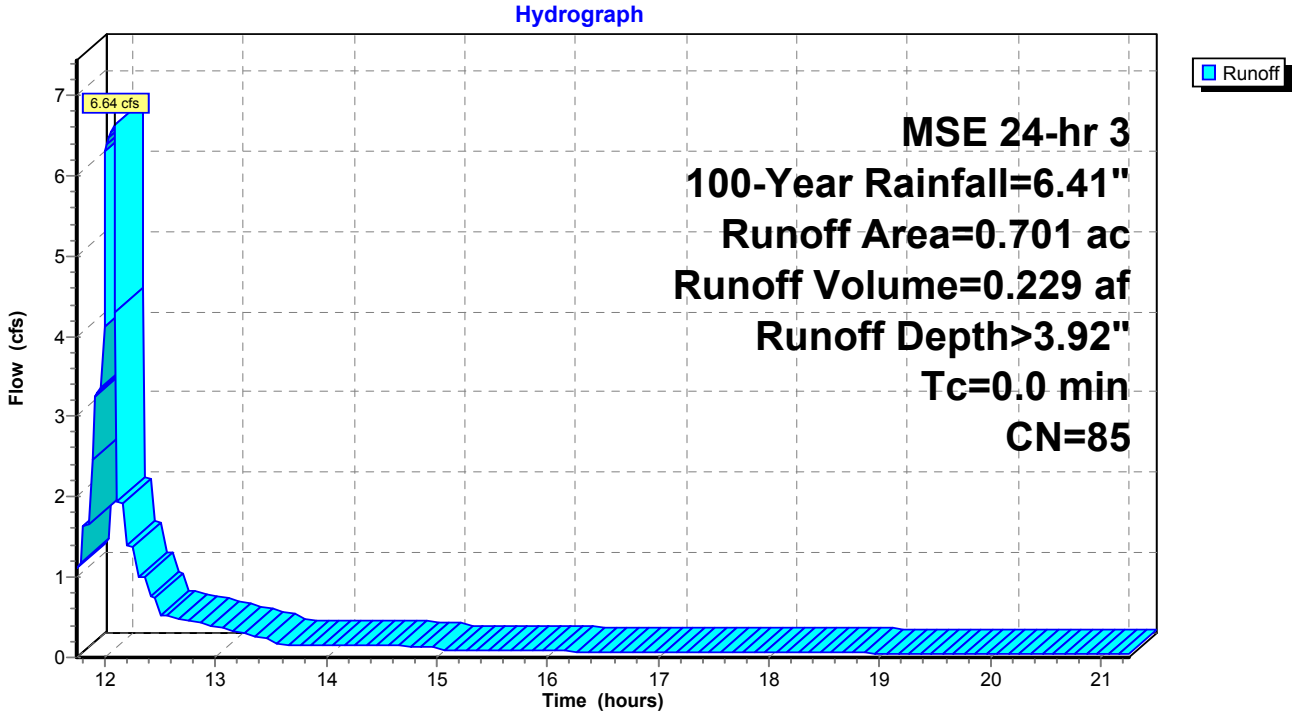
Summary for Subcatchment UD-1: Subcat UD-1

Runoff = 6.64 cfs @ 12.09 hrs, Volume= 0.229 af, Depth> 3.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.384	74	>75% Grass cover, Good, HSG C
0.294	98	Paved parking, HSG C
0.000	98	Roofs, HSG C
0.024	98	Sidewalks, Good, HSG C
0.701	85	Weighted Average
0.384		54.76% Pervious Area
0.317		45.24% Impervious Area

Subcatchment UD-1: Subcat UD-1



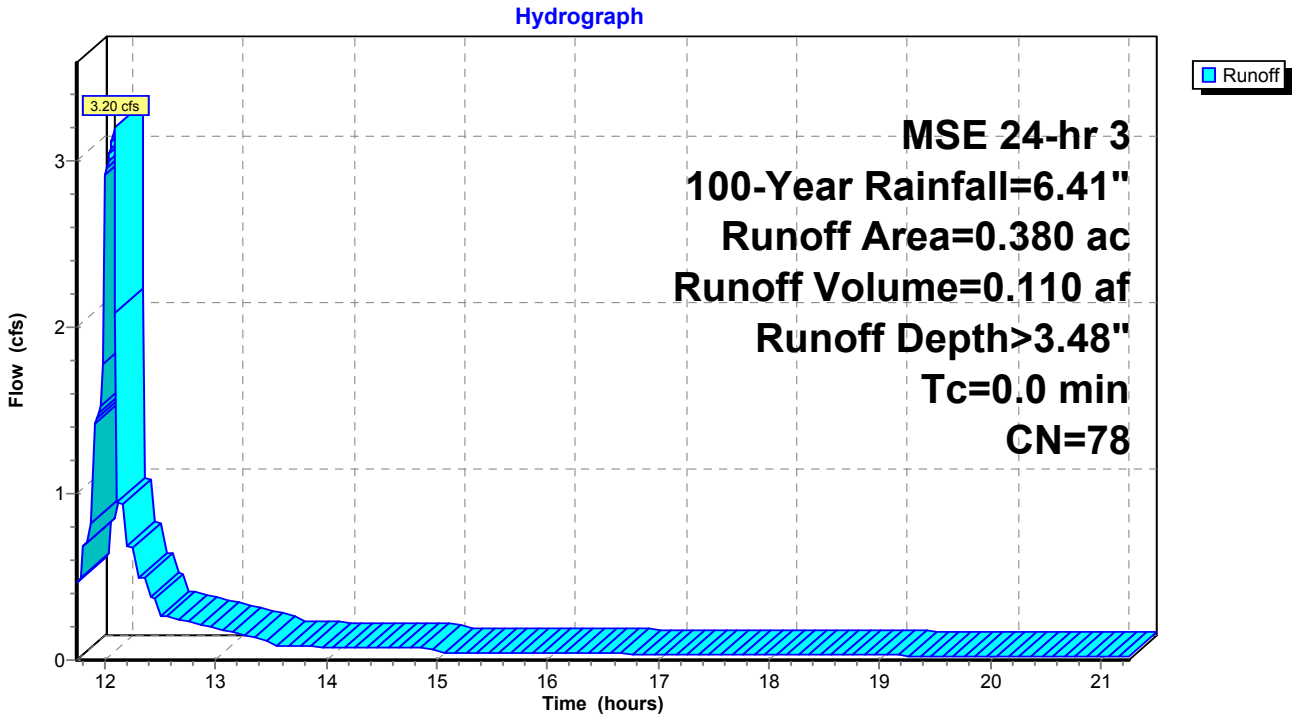
Summary for Subcatchment UD-2: Subcat UD-2

Runoff = 3.20 cfs @ 12.09 hrs, Volume= 0.110 af, Depth> 3.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
MSE 24-hr 3 100-Year Rainfall=6.41"

Area (ac)	CN	Description
0.314	74	>75% Grass cover, Good, HSG C
0.065	98	Paved parking, HSG C
0.001	98	Sidewalks, Good, HSG C
0.380	78	Weighted Average
0.314		82.66% Pervious Area
0.066		17.34% Impervious Area

Subcatchment UD-2: Subcat UD-2

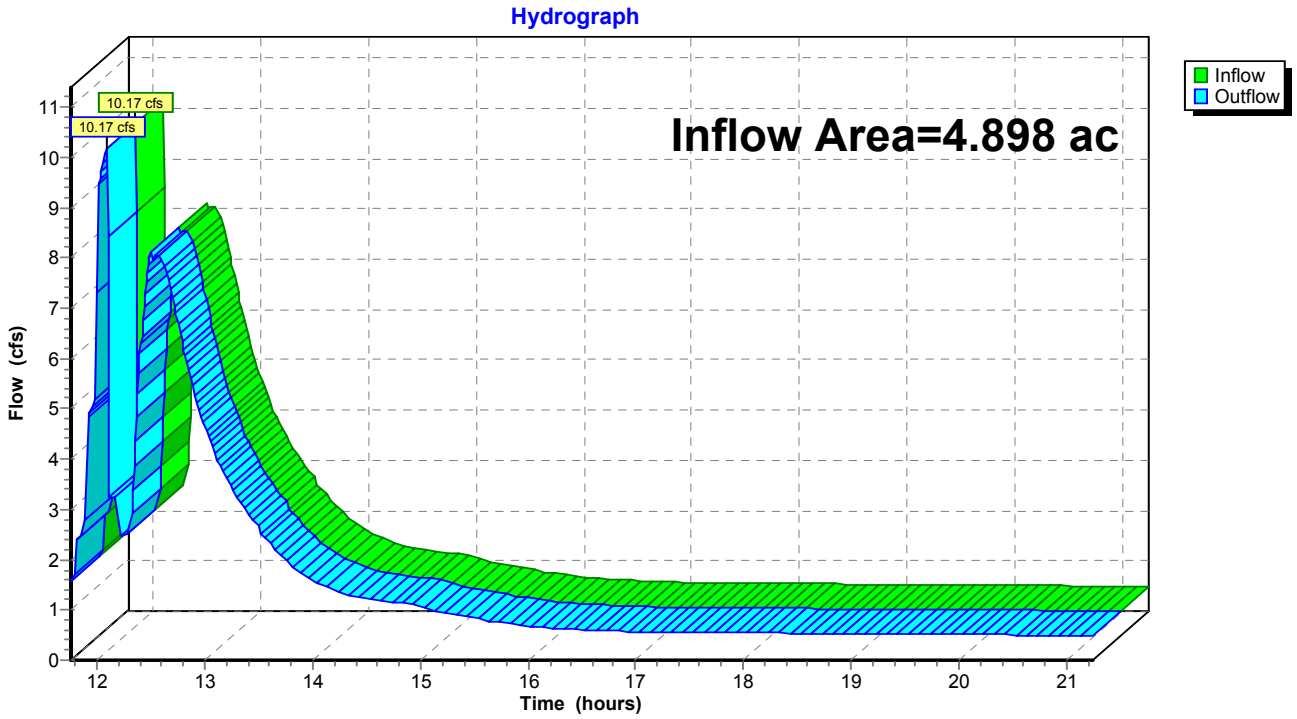


Summary for Reach 1R: Total Proposed

Inflow Area = 4.898 ac, 70.28% Impervious, Inflow Depth > 3.19" for 100-Year event
Inflow = 10.17 cfs @ 12.09 hrs, Volume= 1.303 af
Outflow = 10.17 cfs @ 12.09 hrs, Volume= 1.303 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs

Reach 1R: Total Proposed



Summary for Pond 1P: Wet Basin

Inflow Area = 3.817 ac, 80.15% Impervious, Inflow Depth > 4.55" for 100-Year event
Inflow = 23.47 cfs @ 12.14 hrs, Volume= 1.447 af
Outflow = 7.30 cfs @ 12.56 hrs, Volume= 0.964 af, Atten= 69%, Lag= 24.6 min
Primary = 7.30 cfs @ 12.56 hrs, Volume= 0.964 af

Routing by Stor-Ind method, Time Span= 11.75-23.75 hrs, dt= 0.01 hrs
Starting Elev= 904.00' Surf.Area= 4,312 sf Storage= 7,887 cf
Peak Elev= 908.46' @ 12.56 hrs Surf.Area= 10,675 sf Storage= 40,366 cf (32,479 cf above start)

Plug-Flow detention time= 225.8 min calculated for 0.780 af (54% of inflow)
Center-of-Mass det. time= 112.8 min (916.2 - 803.4)

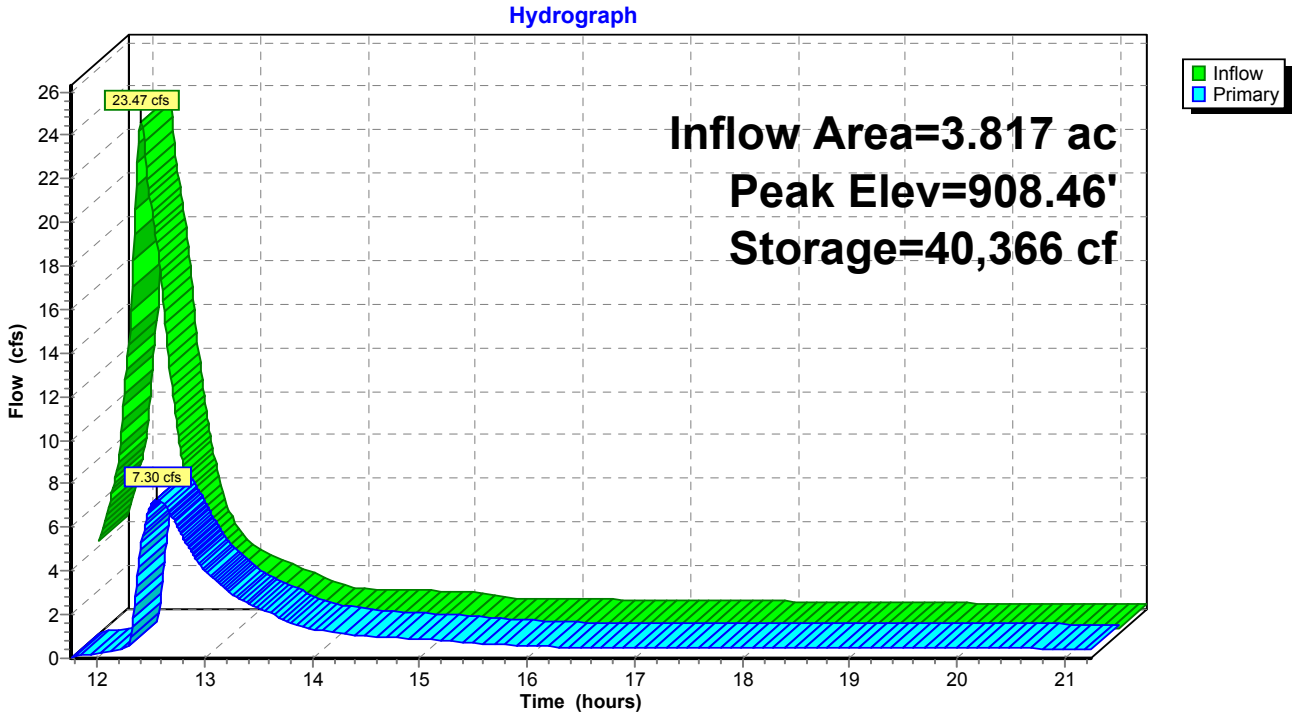
Volume	Invert	Avail.Storage	Storage Description
#1	899.00'	54,909 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
899.00	530	0	0
900.00	834	682	682
901.00	1,170	1,002	1,684
902.00	1,534	1,352	3,036
903.00	1,928	1,731	4,767
904.00	4,312	3,120	7,887
905.00	5,159	4,736	12,623
906.00	6,910	6,035	18,657
907.00	8,475	7,693	26,350
908.00	10,012	9,244	35,593
909.00	11,448	10,730	46,323
909.75	11,448	8,586	54,909

Device	Routing	Invert	Outlet Devices
#1	Primary	904.00'	**12.0" Round Culvert** L= 24.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 904.00' / 903.76' S= 0.0100 '/' Cc= 0.900 n= 0.011 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	904.00'	**3.0" Vert. Orifice/Grate** C= 0.600
#3	Device 1	907.80'	**4.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#4	Primary	908.80'	**10.0' long x 10.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

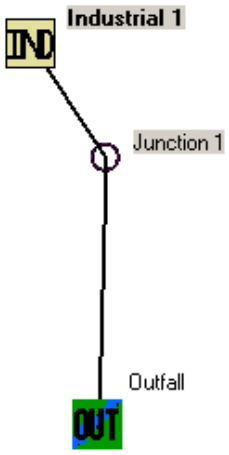
Primary OutFlow Max=7.29 cfs @ 12.56 hrs HW=908.46' (Free Discharge)
- **1=Culvert** (Passes 7.29 cfs of 9.47 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.49 cfs @ 10.03 fps)
  - **3=Sharp-Crested Rectangular Weir** (Weir Controls 6.80 cfs @ 2.66 fps)
- **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 1P: Wet Basin



Data file name: H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed Pvmt Only.mdb
WinSLAMM Version 10.2.0
Rain file name: C:\WinSLAMM Files\Rain Files\WI Milwaukee 69.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/02 End of Winter Season: 03/12
Date: 08-19-2019 Time: 08:42:08
Site information:

LU# 1 - Industrial: Industrial 1 Total area (ac): 1.494
     13 - Paved Parking 1: 1.494 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz



File Name:

H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed Pvmt Only.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	118007		0.66	250.0	1842	
Outfall Total with Controls	118007	0.00 %	0.66	250.0	1842	0.00 %
Current File Output: Annualized Total After Outfall Controls	119646	Years in Model Run:	0.99		1867	

Print Output Summary to Text File

Print Output Summary to .csv File

Total Area Modeled (ac): 1.494

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall Flow Duration Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.66	Poor
With Controls	0.66	Poor

The proposed pavement area with no controls produces 1842 lbs of solids. The proposed site controls will need to remove at least 40% of this which comes to 736.8 lbs.

Data file name: H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed - Wet Basin.mdb
WinSLAMM Version 10.2.0
Rain file name: C:\WinSLAMM Files\Rain Files\WisReg - Milwaukee WI 1969.RAN
Particulate Solids Concentration file name: C:\WinSLAMM Files\v10.1 WI_AVG01.pscx
Runoff Coefficient file name: C:\WinSLAMM Files\WI_SL06 Dec06.rsvx
Residential Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Institutional Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Commercial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Industrial Street Delivery file name: C:\WinSLAMM Files\WI_Com Inst Indust Dec06.std
Other Urban Street Delivery file name: C:\WinSLAMM Files\WI_Res and Other Urban Dec06.std
Freeway Street Delivery file name: C:\WinSLAMM Files\Freeway Dec06.std
Apply Street Delivery Files to Adjust the After Event Load Street Dirt Mass Balance: False
Pollutant Relative Concentration file name: C:\WinSLAMM Files\WI_GEO03.ppdx
Source Area PSD and Peak to Average Flow Ratio File: C:\WinSLAMM Files\NURP Source Area PSD Files.csv
Cost Data file name:
Seed for random number generator: -42
Study period starting date: 01/05/69 Study period ending date: 12/31/69
Start of Winter Season: 12/06 End of Winter Season: 03/28
Date: 08-19-2019 Time: 08:30:01
Site information:

LU# 1 - Industrial: PR-1 Total area (ac): 2.339
  1 - Roofs 1: 0.676 ac. Flat Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  13 - Paved Parking 1: 0.995 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  31 - Sidewalks 1: 0.012 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 0.656 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

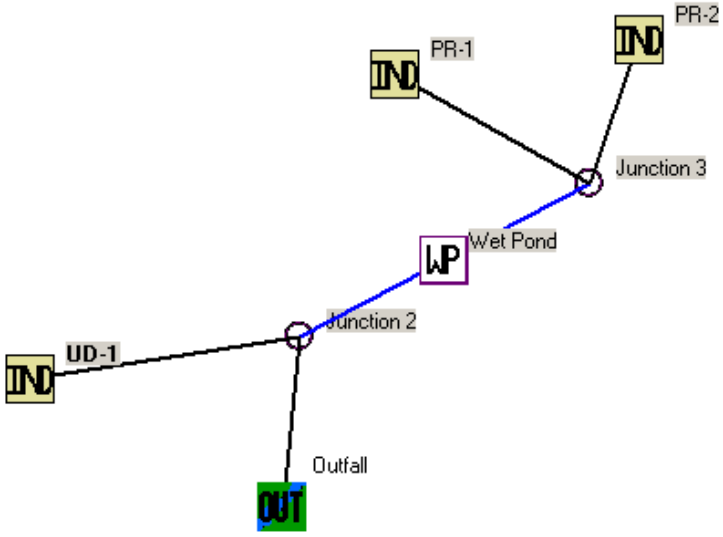
LU# 2 - Industrial: UD-1 Total area (ac): 1.082
  13 - Paved Parking 1: 0.359 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  31 - Sidewalks 1: 0.025 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 0.698 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

LU# 3 - Industrial: PR-2 Total area (ac): 1.479
  1 - Roofs 1: 0.894 ac. Flat Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  13 - Paved Parking 1: 0.447 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  31 - Sidewalks 1: 0.036 ac. Connected Source Area PSD File: C:\WinSLAMM Files\NURP.cpz
  45 - Large Landscaped Areas 1: 0.102 ac. Normal Silty Source Area PSD File: C:\WinSLAMM Files\NURP.cpz

Particle Size Distribution file name: Not needed - calculated by program
Initial stage elevation (ft): 5
Peak to Average Flow Ratio: 3.8
Maximum flow allowed into pond (cfs): No maximum value entered
Outlet Characteristics:
Outlet type: Sharp Crested Weir
1. Sharp crested weir length (ft): 4
2. Sharp crested weir height from invert: 1.95
3. Sharp crested weir invert elevation above datum (ft): 8.8

Outlet type: Orifice 1
1. Orifice diameter (ft): 0.25
2. Number of orifices: 1
3. Invert elevation above datum (ft): 5
Outlet type: Broad Crested Weir
1. Weir crest length (ft): 10
2. Weir crest width (ft): 10
3. Height from datum to bottom of weir opening: 9.8
Pond stage and surface area

Entry Number	Stage (ft)	Pond Area (acres)	Natural Seepage (in/hr)	Other Outflow (cfs)
0	0.00	0.0000	0.00	0.00
1	0.01	0.0121	0.00	0.00
2	1.00	0.0191	0.00	0.00
3	2.00	0.0270	0.00	0.00
4	3.00	0.0350	0.00	0.00
5	4.00	0.0440	0.00	0.00
6	5.00	0.0990	0.00	0.00
7	6.00	0.1180	0.00	0.00
8	7.00	0.1590	0.00	0.00
9	8.00	0.1950	0.00	0.00
10	9.00	0.2300	0.00	0.00
11	10.00	0.2630	0.00	0.00
12	10.75	0.2630	0.00	0.00



Wet Detention Control Device

Pond Number 1

Drainage System Control Practice

	Stage (ft)	Area (acres)	Cumulative Volume (ac-ft)
0	0.00	0.0000	0.000
1	0.01	0.0121	0.000
2	1.00	0.0191	0.016
3	2.00	0.0270	0.039
4	3.00	0.0350	0.070
5	4.00	0.0440	0.109
6	5.00	0.0990	0.181
7	6.00	0.1180	0.289
8	7.00	0.1590	0.428
9	8.00	0.1950	0.605
10	9.00	0.2300	0.817
11	10.00	0.2630	1.064
12	10.75	0.2630	1.261
13			
14			
15			
16			
17			

Recalculate Cumulative Volume

Select Particle Size Distribution File

Not needed - calculated by program

Initial Stage Elevation (ft): 5.00

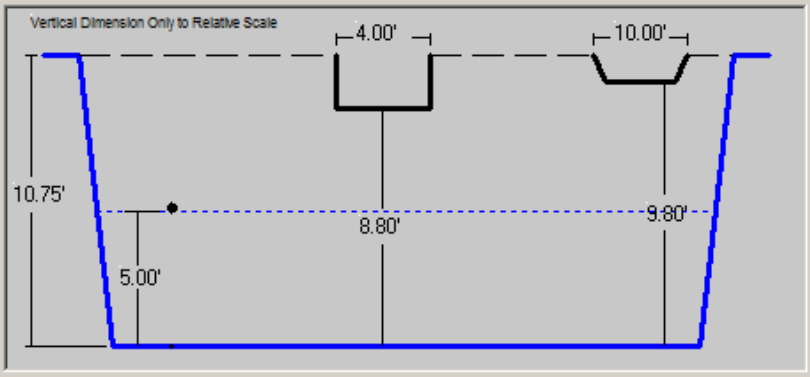
Peak to Average Flow Ratio: 3.80

Maximum Inflow into Pond (cfs) Enter 0 or leave blank for no limit:

Copy Pond Data | Paste Pond Data

Enter fraction (greater than 0) that you want to modify all pond areas by and then select 'Modify Pond Areas' button: 0.00

Modify Pond Areas



Delete Pond | Cancel | Continue

Control Practice # : 1 | CP Index # : 1

Remove — Sharp Crested Weir

Weir Length (ft)	4.00
Height from datum to bottom of weir opening (ft)	8.80

Add — V-Notch Weir

Weir Angle (<180 degrees)	
Height from datum to bottom of weir opening (ft)	
Number of V-Notch weirs	

Remove — Orifice Set 1

Orifice Diameter (ft)	0.25
Invert elevation above datum (ft)	5.00
Number of orifices in set	1

Add — Orifice Set 2

Orifice Diameter (ft)	
Invert elevation above datum (ft)	
Number of orifices in set	

Add — Orifice Set 3

Orifice Diameter (ft)	
Invert elevation above datum (ft)	
Number of orifices in set	

Add — Stone Weeper

Width at bottom of weeper (ft)	
Weeper side slope (_H:1V)	
Upstream side slope (_H:1V)	
Downstream side slope (_H:1V)	
Horizontal flow path length at top of weeper (ft)	
Average rock diameter (ft)	
Distance from bottom to top of weeper (ft)	
Height from datum to bottom of weeper (ft)	

Add — Vertical Stand Pipe

Pipe diameter (ft)	
Height above datum (ft)	

Add | Add

Month	Evaporation (in/day)	Water Withdraw Rate (ac-ft/day)
Jan	0.00	0.000
Feb	0.00	0.000
Mar	0.00	0.000
Apr	0.00	0.000
May	0.00	0.000
Jun	0.00	0.000
Jul	0.00	0.000
Aug	0.00	0.000
Sep	0.00	0.000
Oct	0.00	0.000
Nov	0.00	0.000
Dec	0.00	0.000

Add | Add

Stage (ft)	Natural Seepage Rate (in/hr)	Other Outflow Rate (cfs)
0.00	0.00	0.000
0.01	0.00	0.000
1.00	0.00	0.000
2.00	0.00	0.000
3.00	0.00	0.000
4.00	0.00	0.000
5.00	0.00	0.000

Remove — Broad Crested Weir [Required]

Weir crest length (ft)	10.00
Weir crest width (ft)	10.00
Height from datum to bottom of weir opening (ft)	9.80

Add — Seepage Basin

Infiltration rate (in/hr)	
Width of device (ft)	
Length of device (ft)	
Invert elevation of seepage basin inlet above datum (ft)	

File Name:

H:\DWGS\2019\19-1115.00 - Glue Dots - Glue Factory Addition - Preliminary Design\C\Engineering\Stormwater\SLAMM\Proposed - Wet Basin.mdb

Outfall Output Summary

	Runoff Volume (cu. ft.)	Percent Runoff Reduction	Runoff Coefficient (Rv)	Particulate Solids Conc. (mg/L)	Particulate Solids Yield (lbs)	Percent Particulate Solids Reduction
Total of All Land Uses without Controls	279478		0.48	145.2	2533	
Outfall Total with Controls	279109	0.13 %	0.47	56.74	988.6	60.97 %
Current File Output: Annualized Total After Outfall Controls	282985	Years in Model Run:	0.99		1002	

Print Output Summary to Text File

Print Output Summary to .csv File

Total Area Modeled (ac): 4.900

Total Control Practice Costs

Capital Cost	N/A
Land Cost	N/A
Annual Maintenance Cost	N/A
Present Value of All Costs	N/A
Annualized Value of All Costs	N/A

Perform Outfall Flow Duration Curve Calculations

Receiving Water Impacts Due To Stormwater Runoff

(CWP Impervious Cover Model)

	Calculated Rv	Approximate Urban Stream Classification
Without Controls	0.48	Poor
With Controls	0.47	Poor

The wet pond removed 1544 lbs of solids which is greater than the 736.8 lbs needed

Village of Germantown
...Willkommen

Fee must accompany application
☐ $2,900 with public improvements
☒ $1,960 no public improvements
Paid [signature] Date 8-20-19

CERTIFIED SURVEY MAP APPLICATION

Pursuant to Section 18.06 of the Municipal Code

Please read and complete this application carefully. **All applications must be signed and dated.**

1 APPLICANT OR AGENT

Tom Olejniczak
Harwood Engineering
255 N 21st Street, Milwaukee WI 53233
Phone (414) 918-1240
Fax ( )
E-Mail tom.olejniczak@hecl.com

PROPERTY OWNER

Erica Roberts
Glue Dots International
N117W18711 Fulton Dr, Germantown WI 53022
Phone (262) 437-7885
E-Mail eroberts@gluedots.com

2

PROPERTY ADDRESS OR GENERAL LOCATION	TAX KEY NUMBER
N117W18711 Fulton Dr, Germantown WI 53022	212972, 212955, 212996

3 PURPOSE OF LAND SPLIT

Building addition to the existing Glue Dots International building	Will the land split require rezoning? No	
	From	To

4 READ AND INITIAL THE FOLLOWING:

T.O. I understand that the Certified Survey Map is not valid until recorded at the Washington County Register of Deeds. The Village will record the document and charge the applicant all applicable recording fees.

T.O. I understand that the Map will not be placed on the Village Board agenda until all the technical corrections to the CSM are made, the payment of any outstanding impact fees are paid to the Village Clerk's Department, and the original signed and stamped copy of the Map is submitted on the proper paper.

T.O. I understand that parcels created outside the Sewer Service Area will require a soil test. I also understand that all properties abutting a State Highway will require DOT approval and I will be responsible for securing such approval prior to recording.

T.O. I understand all delinquent property taxes on any of the properties involved shall be paid prior to recording.

5 SIGNATURES -- ALL APPLICATIONS MUST BE SIGNED BY OWNER!

[signature] 2019-08-19
Applicant Date

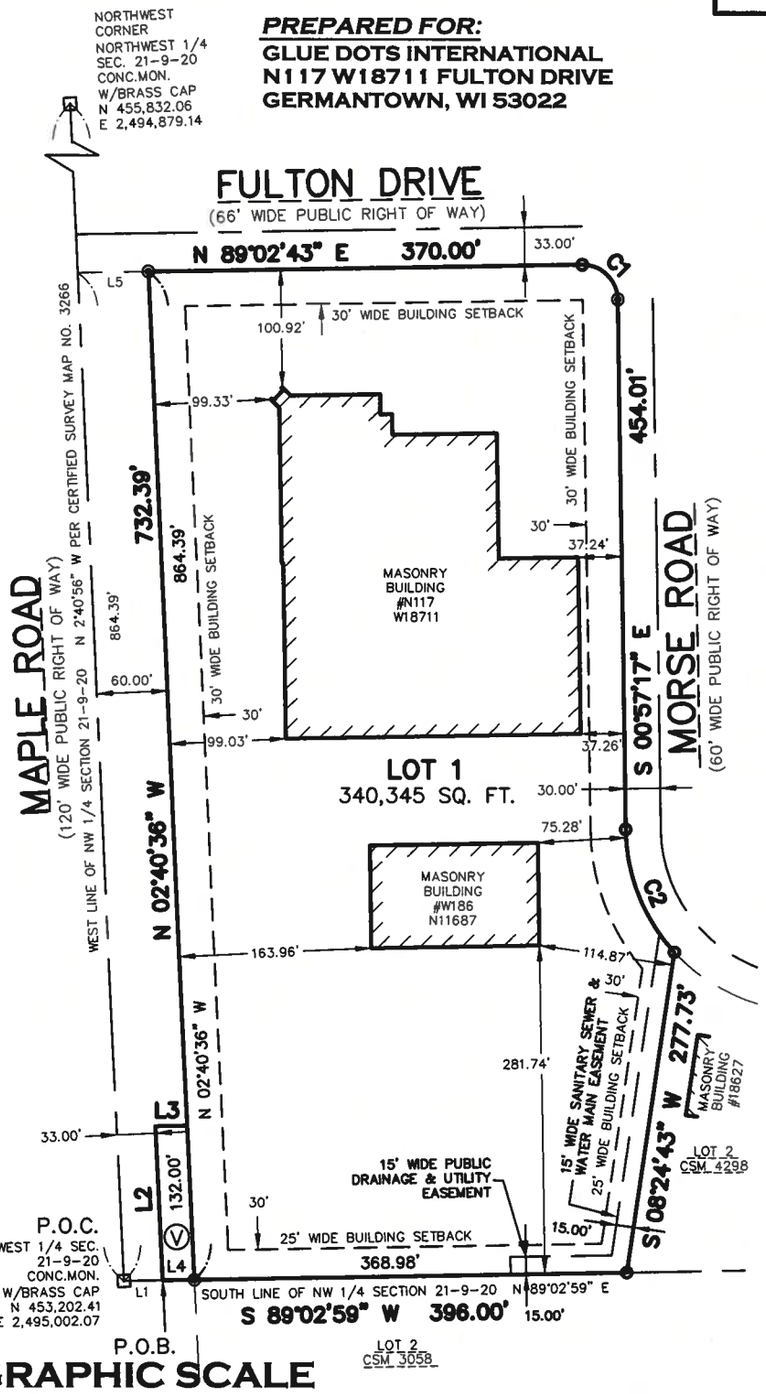
[signature] 8/19/19
Owner Date

CERTIFIED SURVEY MAP NO._____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTH WEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CSE
CAPITOL SURVEY ENTERPRISES
220 REGENCY CT STE 210
BROOKFIELD, WI 53045
PH: (262)-786-6600
WWW.CAPITOLSURVEY.COM

PREPARED FOR:
GLUE DOTS INTERNATIONAL
N117 W18711 FULTON DRIVE
GERMANTOWN, WI 53022



GRAPHIC SCALE

150 0 150 300

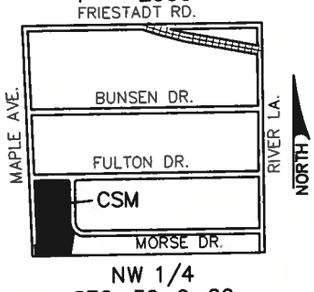
1 inch = 150 ft.

ALL BEARINGS REFER TO THE WEST LINE THE NORTHWEST 1/4 OF SECTION 21-9-20, WHICH HAS A BEARING OF N 02°40'56" W.

NORTH

VICINITY MAP

1" = 2000'



NW 1/4
SEC. 36-9-20

◉ INDICATES 1 INCH DIA. IRON PIPE, 18 IINCHES IN LENGTH, WEIGHING 1.68 LBS PER LINEAL FOOT, SET.

○ INDICATES 1 INCH DIA. IRON PIPE, FOUND.

Ⓥ 3,565 SQUARE FEET DEDICATED TO MAPLE ROAD.

SUBJECT PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION X: AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN, PER INFORMATION FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), ON FLOOD INSURANCE RATE MAP NO. 55131C0357D, WITH A DATE OF IDENTIFICATION OF NOVEMBER 20, 2013, IN COMMUNITY NO. 550472, VILLAGE OF GERMANTOWN, WHICH IS THE COMMUNITY IN WHICH THE SUBJECT PROPERTY IS SITUATED.

SUBJECT PROPERTY ZONED:
M-1 LIMITED BUSINESS DISTRICT

SETBACKS FOR AREAS ZONE M-1:
FRONT = 30'
SIDES = 25'
REAR = 25'

SEE SHEET 2 FOR LINE AND CURVE TABLE.

WISCONSIN
MICHAEL J. BERRY
S-2545
BROOKFIELD, WI
LAND SURVEYOR

THIS INSTRUMENT DRAFTED BY NICHOLAS J. FIRER

CERTIFIED SURVEY MAP NO. _____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

STATE OF WISCONSIN)
MILWAUKEE COUNTY) SS

I, MICHAEL J BERRY, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY:

THAT I HAVE SURVEYED, DIVIDED, MAPPED, AND DEDICATED, LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHWEST 1/4 OF SAID SECTION; THENCE N 89°02'59" E 33.01 FEET ALONG THE SOUTH LINE OF SAID 1/4 SECTION; THENCE N 02°40'35" W 132.00 FEET; THENCE N 89°02'43" E 27.02 FEET TO THE EAST LINE OF MAPLE ROAD; THENCE N 02°40'36" W 732.39 FEET ALONG SAID EAST LINE TO THE SOUTH LINE OF FULTON DRIVE; THENCE N 89°02'43" E 370.00 FEET ALONG SAID SOUTH LINE; THENCE SOUTHEASTERLY 47.13 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE SOUTHWEST, WHOSE RADIUS IS 30.00 FEET, AND WHOSE CHORD BEARS S 45°57'34" E 42.43 FEET; THENCE S 00°57'17" E 454.01 FEET; THENCE SOUTHEASTERLY 115.87 FEET ALONG THE ARC OF A CURVE WHOSE CENTER LIES TO THE NORTHEAST, WHOSE RADIUS IS 160.00 FEET; AND WHOSE CHORD BEARD S 21°42'09" E 113.36 FEET; THENCE S 08°24'43" W 277.73 FEET TO THE SOUTH LINE OF SAID 1/4 SECTION; THENCE S 89°02'59" W 396.00 FEET TO THE POINT OF BEGINNING.

CONTAINING: 343,910 SQUARE FEET OR 7.8951 ACRES

THAT I HAVE MADE SUCH SURVEY, LAND DIVISION, MAP AND DEDICATION BY THE DIRECTION OF GLUE DOTS INTERNATIONAL, OWNER OF SAID LAND.

THAT SUCH MAP IS A CORRECT REPRESENTATION OF ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND THE DIVISION THEREOF MADE.

THAT I HAVE FULLY COMPLIED WITH THE PROVISIONS OF CHAPTER 236.34 OF THE STATUTES OF THE STATE OF WISCONSIN AND CHAPTER 18 OF THE VILLAGE OF GERMANTOWN CODE OF ORDINANCES IN SURVEYING, DIVIDING, AND MAPPING THE SAME.

DATED THIS 19TH DAY OF AUGUST, 2016.

MICHAEL J BERRY
PROFESSIONAL LAND SURVEYOR,
S-2545
STATE OF WISCONSIN

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 89°02'59" E	33.01'
L2	N 02°40'35" W	132.00'
L3	N 89°02'43" E	27.02'
L4	S 89°02'59" W	27.02'
L5	S 89°02'59" W	60.03'

CURVE TABLE					
CURVE	ARC	RADIUS	BEARING	CHD. LENGTH	DELTA
C1	47.13'	30.00'	S 45°57'34" E	42.43'	90°00'35"
C2	115.87'	160.00'	S 21°42'09" E	113.36'	41°29'38"

WISCONSIN
MICHAEL J. BERRY
S-2545
BROOKFIELD, WI
LAND SURVEYOR

THIS INSTRUMENT DRAFTED BY NICHOLAS J. FIRER

CERTIFIED SURVEY MAP NO. _____

LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.

CORPORATE OWNER'S CERTIFICATE

GLUE DOTS INTERNATIONAL, A COMPANY DULY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF THE STATE OF WISCONSIN, AS OWNER, CERTIFIES THAT SAID CORPORATION CAUSED THE LAND DESCRIBED ON THIS MAP TO BE SURVEYED, DIVIDED, MAPPED AND DEDICATED AS REPRESENTED ON THIS MAP, AND SUBMITTED TO THE VILLAGE OF GERMAN TOWN AS REQUIRED IN ACCORDANCE WITH THE ORDINANCES OF THE VILLAGE OF GERMAN TOWN.

IN WITNESS WHEREOF, THE ABOVE NAMED COMPANY HAS CAUSED THESE PRESENTS TO BE SIGNED BY _____, ITS REGISTERED AGENT, AT _____ , WISCONSIN, THIS_____DAY OF _____, 2019.

_____
REGISTERED AGENT

STATE OF WISCONSIN)
WAUKESHA COUNTY) SS

PERSONALLY CAME BEFORE ME THIS_____DAY OF_____, 2019_____, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

_____
NOTARY PUBLIC
STATE OF WISCONSIN
MY COMMISSION EXPIRES:

VILLAGE OF GERMANTOWN PLAN COMMISSION APPROVAL

THIS CERTIFIED SURVEY MAP IS HEREBY APPROVED BY THE PLAN COMMISSION OF THE VILLAGE OF GERMANTOWN ON THIS DAY_____OF_____, 2019.

_____ _____
DEAN WOLTER, VILLAGE PRESIDENT DATE

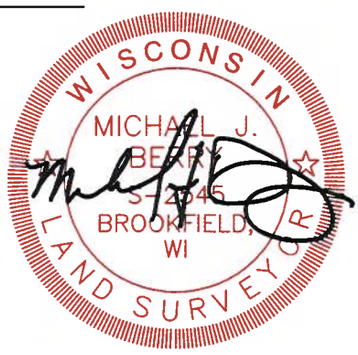
_____ _____
DEANNA BRAUNSCHWEIG, VILLAGE CLERK DATE

VILLAGE OF GERMANTOWN BOARD APPROVAL

THIS CERTIFIED SURVEY MAP, BEING A DIVISION OF LOT 1 OF CERTIFIED SURVEY MAP NO. 3266, LOT 1 AND OUTLOT 1 OF CERTIFIED SURVEY MAP NO. 4116, AND LANDS IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 21, TOWN 9 NORTH, RANGE 20 EAST, VILLAGE OF GERMANTOWN, WASHINGTON COUNTY, WISCONSIN.
HAVING BEEN APPROVED BY THE PLANNING COMMISSION BEING THE SAME, IS HEREBY APPROVED AND ACCEPTED BY THE VILLAGE BOARD OF TRUSTEES OF THE VILLAGE OF GERMANTOWN ON THIS_____DAY OF_____, 2019.

_____ _____
DEAN WOLTER, VILLAGE PRESIDENT DATE

_____ _____
DEANNA BRAUNSCHWEIG, VILLAGE CLERK DATE



THIS INSTRUMENT DRAFTED BY NICHOLAS J. FIRER