

# Millipore Sigma

## HPAPI Expansion Project

### Verona, Wisconsin

#### Project Scope

The project scope is an addition to the Millipore Sigma facility located at 1101 Kettle Moraine Trail, Verona, WI 53593. The facility currently produces Active Pharmaceutical Ingredients (API). This site includes spaces for administration, manufacturing, quality control lab, office space, locker room, break room, and material handling rooms.

The expansion will provide the capability to produce Highly Potent Active Pharmaceutical Ingredients (HPAPI). The manufacturing capacity expansion will include the addition of six Kilo labs designed for an OEL <1ng/m<sup>3</sup>. The expansion will also house storage rooms, dispensing, Quality Control Lab, office space, locker rooms, break room, and records retention room.

#### System Description

The HPAPI Expansion Project consists of a two-level facility. The following is a description of some of the features of the new facility:

- A. To provide access to the building from the new employee parking area on the northeast side of the site, a two-story entry area has been incorporated in the northeast side of the complex. This entry will include a Lobby, an MRL (machine room-less) Elevator, and stairs for access/egress of the Second Level. From the Lobby area the employees will have direct access to the Restrooms and Locker Rooms.
- B. Located on Level 1 are the Kilo Labs, PPE staging, Clean Equipment Storage, the new location for the Waste Dock, Hazardous Waste Storage, the new location for Dispensing, and other support facilities. This level also contains the QC Lab, various Category Labs, and future accommodations for the Nuclear Magnetic Resonance

(NMR) system. On this level in the existing facilities are three main areas where renovation is planned for repurposing the spaces after the existing functions have been relocated to the new facility. There is a description of the renovations in the section identifying Repurposing of Existing Facilities.

- C. The new facilities included on Level 2 are a Break Room and two large Conference Rooms. New Offices, High Density Storage, IT Room, Control Room, Rest Rooms, and support rooms are also included on this level. There are major Mechanical and Electrical rooms on this level. On Level 2, in the existing building, renovation of one area is described further in this section.

For continuity of the building exterior, the exterior architectural systems; exterior wall of brick and insulated metal panel, glazing, and roof systems shall match the existing building exterior materials. Specific products and systems will be based on the original construction materials and systems.

The interior architectural systems; floors, walls, ceilings, doors and windows, for the expansion shall match the existing applicable process and lab areas, general spaces such as offices, conference areas, break areas, and utility areas.

## Federal, State and Local Codes

The expansion project will be reviewed under the State of Wisconsin current Building Code which is the State adopted version of the 2015 International Building Code with State of Wisconsin Amendments. The Amendments include the State of Wisconsin Administrative Chapters SPS 361 through Chapter SPS 366.

## City of Verona Parking Requirements

The current City of Verona Parking requirements for the existing building uses are abbreviated below. Refer to City of Verona Ordinance Sec. 13-1-244 for more detail on parking requirements.

## Site Parking

There are two options available to develop the required number of parking spaces. One option is to use prescribed parking ratios defined in the City of Verona Ordinances or provide number of spaces for peak headcount based on number of employees and contract employees.

Millipore Sigma has advised that the final design should account for an additional 100 spaces beyond the existing parking count. The current design includes:

- 63 Existing Spaces
- Additional 100 spaces +/-
- New Site Total = 163 spaces+/-

### Fire Protection and Fire Water Containment

The building will be full sprinklered. The records retention room will have an FM 200 system to preserve the integrity of the records in the event of fire. All rooms containing solvents will have drains to allow fire water to contained in the existing fire water containment structure. These include the cold storage room, dispensing, hazardous waste storage and the kilo labs.

### Back Up Power and Uninterruptable Power Systems (UPS)

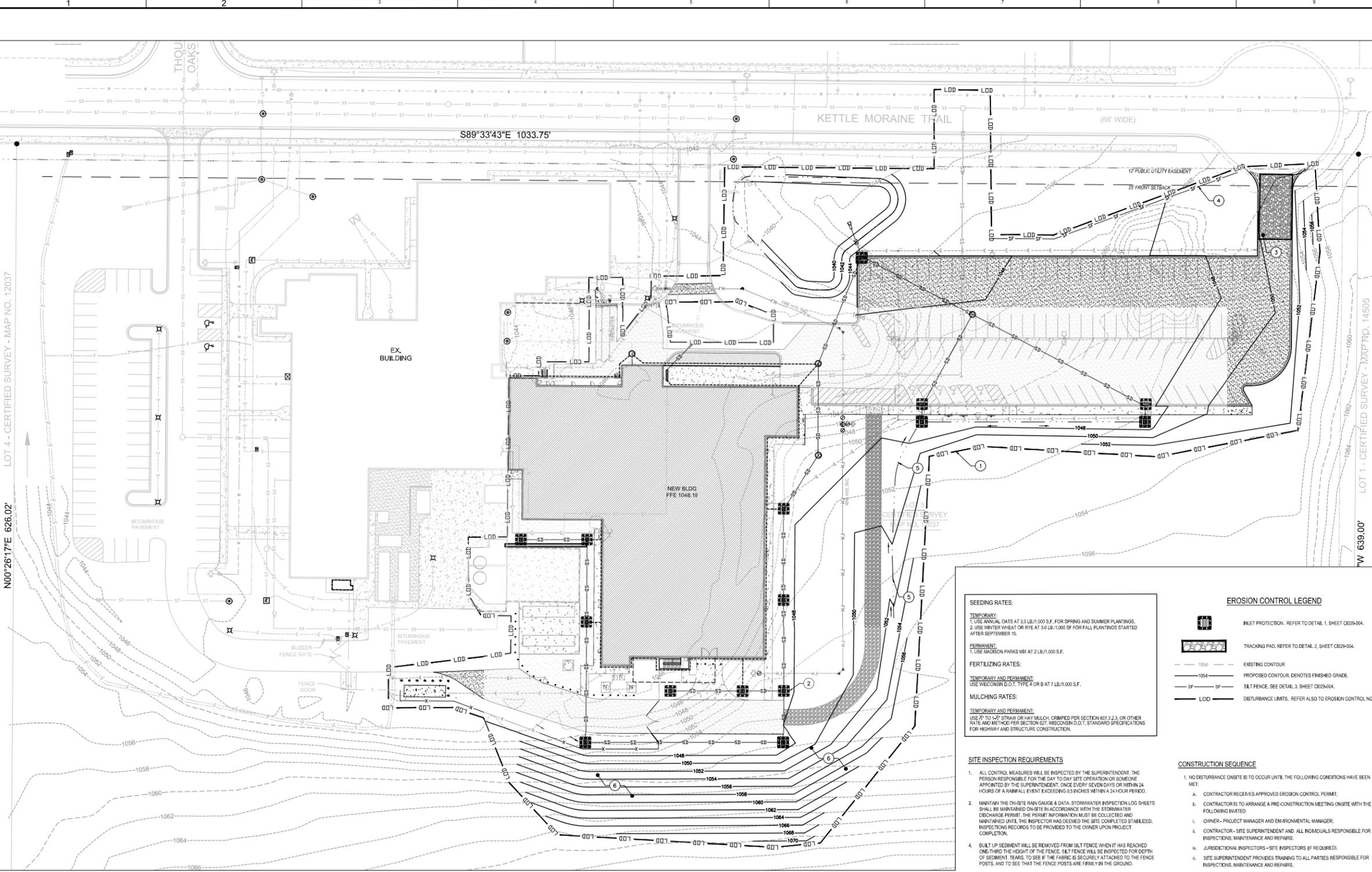
A new 2500KVA back up generator will be installed to support critical systems in the facility. UPS systems will be provided to support controls, networks and other devices that cannot tolerate power interruptions.

### Waste and Air Emissions

The site has a zero discharge waste permit. All materials from the production process will be collected and shipped off site for waste disposal. There are no connections to the sanitary waste system in any of the production areas.

The air systems are being designed to contain highly toxic materials. The materials will be handled in "isolators". Ventilation from the isolators and manufacturing space will be double HEPA filtered.





- ### EROSION CONTROL PLAN KEYNOTES
- LIMITS OF DISTURBANCE - (TYP.)
  - INLET PROTECTION & STORM INLET FILTER (TYP.). REFER TO DETAILS 1 & 4, SHEET 17FFV101-C023-004.
  - TRACKING PAD. REFER TO DETAIL 2, SHEET 17FFV101-C023-004.
  - SILT FENCE (TYP.). REFER TO DETAIL 3, SHEET 17FFV101-C023-004.
  - CHANNEL EROSION MAT (DITCHLINER) FOR ENTIRE LENGTH OF SWALE.
  - NON-CHANNEL EROSION MAT FOR ENTIRE SLOPE OF HILL WHERE GRADING OCCURS.

- ### EROSION CONTROL NOTES
- DISTURBED AREA = 4.75 ACRES±.
  - CONTRACTOR SHALL LIMIT UTILITY AND STORM DRAIN TRENCHING TO THE MINIMUM REQUIRED FOR EACH DAY'S UTILITY INSTALLATION.
  - ALL DEWATER SHALL BE PERFORMED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSERVATION PRACTICE STANDARD "DEWATERING" (109F1).
  - ALL SEEDING SHALL BE PERFORMED IN ACCORDANCE WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSERVATION PRACTICE STANDARD "SEEDING" (105F).
  - ALL ROADS DRIVES SHALL BE KEPT FREE OF SOIL TRACKING. ANY SOIL TRACKED ONTO PAVED AREAS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
  - BASED ON SITE GEOTECHNICAL INVESTIGATIONS, GROUNDWATER LEVELS ARE ANTICIPATED TO BE WELL BELOW PLANNED EXCAVATION DEPTHS. ANY INCIDENTAL TRENCH DEWATERING FOLLOWING RAINFALL SHALL BE DISCHARGED TO AN APPROVED DEVICE. REFER TO DEWATERING PLAN THIS SHEET.
  - PROTECT ANY OPEN STORM DRAIN PIPE ENDS WITH PLYWOOD AND GRAVEL AT THE END OF EACH DAY AND PRIOR TO ANY RAINFALL EVENTS.
  - REFER TO GRADING AND DRAINAGE PLAN FOR STORM DRAIN DESIGN INFORMATION.
  - REFER TO THE STORMWATER AND EROSION CONTROL CALCULATIONS REPORT FOR MORE DETAIL ON WATERSHED SIZES, IF APPLICABLE.
  - REFER TO THE STORMWATER AND EROSION CONTROL CALCULATIONS REPORT FOR SOIL LOSS RATE CALCULATIONS, IF APPLICABLE.
  - SITE EROSION CONTROL SHALL BE COMPLIANT WITH CITY OF MADISON PERFORMANCE STANDARDS AT A MINIMUM, IMPLEMENTED EROSION CONTROL SHALL:
    - PREVENT GULLY AND BANK EROSION.
    - LIMIT TOTAL OFF-SITE PERMISSIBLE ANNUAL AGGREGATE SOIL LOSS FOR EXPOSED AREAS RESULTING FROM SHEET AND RILL EROSION TO AN ANNUAL CUMULATIVE RATE NOT TO EXCEED 3.0 TONS PER ACRE PER YEAR.
    - WITHIN TEN (10) WORKING DAYS OF THE ACTUAL START OF WORK - ENTER THE WEBSITE AND DOCUMENT THAT THE PRACTICES HAVE BEEN INSTALLED IN ACCORD WITH THE APPROVED PLAN.
    - PROVIDE WEEKLY AND EVEN DRYEN EROSION CONTROL INSPECTION DOCUMENTATION OF THE CONDITION OF THE PRACTICES AND NOTE ANY REPAIRS NEEDED AND ACTIONS TAKEN.
    - WITHIN TEN (10) WORKING DAYS OF COMPLETION OF THE PROJECT, ENTER THE PROJECT AND NOTE THAT THE PROJECT HAS BEEN TERMINATED AND NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE DEPARTMENT OF THE NATURAL RESOURCES OR DEPARTMENT OF COMMERCE.
    - UPON WRITTEN OR VERBAL NOTICE BY AN AGENT OF THE CITY OF MADISON TO THE CONTRACTOR OR THE CONTRACTOR'S DESIGNATED REPRESENTATIVE REGARDING AN EROSION CONTROL ACTION OR REPAIR NEEDED TO BRING THE SITE INTO COMPLIANCE THE CONTRACTOR SHALL HAVE NOT LESS THAN 24 HOURS MORE THAN 72 HOURS TO BRING THE PROJECT SITE INTO COMPLIANCE AND DOCUMENT THOSE ACTIONS ON THE WEBSITE. THE TIME ALLOTTED TO BRING THE SITE INTO COMPLIANCE SHALL BE NOTED ON THE NOTICE.

STABILIZATION TIMEFRAMES		
SITE AREA DESCRIPTION	STABILIZATION	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES, SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

- ### SEEDING RATES:
- TEMPORARY:**  
 1. USE ANNUAL CATS AT 3.0 LB./1,000 S.F. FOR SPRING AND SUMMER PLANTINGS.  
 2. USE WINTER WHEAT OR RYE AT 3.0 LB./1,000 S.F. FOR FALL PLANTINGS STARTED AFTER SEPTEMBER 15.
- PERMANENT:**  
 1. USE MADISON PARKS MIX AT 2 LB./1,000 S.F.
- ### FERTILIZING RATES:
- TEMPORARY AND PERMANENT:**  
 USE WISCONSIN D.O.T. TYPE A OR B AT 7 LB./1,000 S.F.
- ### MULCHING RATES:
- TEMPORARY AND PERMANENT:**  
 USE 2" TO 4" STRAW OR HAY MULCH, CRIMPED PER SECTION 607.3.2.3, OR OTHER RATE AND METHOD PER SECTION 607. WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

- ### SITE INSPECTION REQUIREMENTS
- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT. THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, ONCE EVERY SEVEN DAYS OR WITHIN 24 HOURS OF A RAINFALL EVENT EXCEEDING 0.5 INCHES WITHIN A 24 HOUR PERIOD.
  - MAINTAIN THE ON-SITE RAIN GAUGE & DATA. STORMWATER INSPECTION LOG SHEETS SHALL BE MAINTAINED ON-SITE IN ACCORDANCE WITH THE STORMWATER DISCHARGE PERMIT. THE PERMIT INFORMATION MUST BE COLLECTED AND MAINTAINED UNTIL THE INSPECTOR HAS DEEMED THE SITE COMPLETED STABILIZED. INSPECTION RECORDS TO BE PROVIDED TO THE OWNER UPON PROJECT COMPLETION.
  - BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
  - TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
  - REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS WITH 72 HOURS OF THE REQUEST.
  - THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILING OUT THE INSPECTION AND MAINTENANCE REPORT.
  - PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ON-SITE IN GOOD WORKING ORDER.
  - GROUND STABILIZATION: SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE, AS APPLICABLE:
    - ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
    - ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS POSSIBLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
    - ALL AREAS DISTURBED, NOT PERMANENTLY STABILIZED WITH AN IMPROVED SURFACE (E.G. ASPHALT, CONCRETE, BUILDING) ARE TO BE PERMANENTLY STABILIZED.

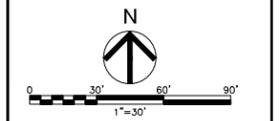
- ### EROSION CONTROL LEGEND
- INLET PROTECTION. REFER TO DETAIL 2, SHEET C023-004.
  - TRACKING PAD. REFER TO DETAIL 2, SHEET C023-004.
  - EXISTING CONTOUR
  - PROPOSED CONTOUR, DENOTES FINISHED GRADE.
  - SILT FENCE. SEE DETAIL 3, SHEET C023-004.
  - DISTURBANCE LIMITS. REFER ALSO TO EROSION CONTROL NOTES.

- ### CONSTRUCTION SEQUENCE
- NO DISTURBANCE ON-SITE IS TO OCCUR UNTIL THE FOLLOWING CONDITIONS HAVE BEEN MET:
    - CONTRACTOR RECEIVES APPROVED EROSION CONTROL PERMIT.
    - CONTRACTOR IS TO ARRANGE A PRE-CONSTRUCTION MEETING ON-SITE WITH THE FOLLOWING INVITED:
      - OWNER - PROJECT MANAGER AND ENVIRONMENTAL MANAGER.
      - CONTRACTOR - SITE SUPERINTENDENT AND ALL INDIVIDUALS RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIRS.
      - JURISDICTIONAL INSPECTORS - SITE INSPECTORS (IF REQUIRED).
      - SITE SUPERINTENDENT PROVIDES TRAINING TO ALL PARTIES RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIRS.
  - ONCE THESE CONDITIONS HAVE BEEN MET, THE OWNER SHOULD PROVIDE THE CONTRACTOR WRITTEN NOTIFICATION TO BEGIN INSTALLATION OF EROSION AND SEDIMENT CONTROL. (ES&S) DEVICES IN THE ORDER PRESCRIBED BELOW UNLESS OTHERWISE APPROVED IN WRITING BY CITY OF MADISON.
  - INSTALL PERIMETER EROSION CONTROL MEASURES.
  - CALL FOR ON-SITE INSPECTION BY OWNER AND OBTAIN WRITTEN NOTIFICATION OF COMPLIANCE FROM JURISDICTIONAL INSPECTOR.
  - BEGIN SITE GRADING, UTILITY, AND OTHER IMPROVEMENT INSTALLATION. PROTECT ANY UNFINISHED STORM DRAIN PIPE ENDS UTILIZING PLYWOOD AND GRAVEL PIPE END PROTECTION. MAINTAIN EXISTING BIOPRETENTION AREA IN PLACE AS LONG AS REASONABLY POSSIBLE FOR USE AS SEDIMENT BASIN.
  - MAINTAIN ALL EROSION CONTROL DEVICES AS NEEDED THROUGHOUT CONSTRUCTION.
  - INSTALL AND MAINTAIN GROUND COVER AS SHOWN ON THE STABILIZATION TIMEFRAME SCHEDULE SHOWN ON THIS SHEET.
  - COMPLETE GRADING AND SITE IMPROVEMENTS.
  - CALL FOR ON-SITE MEETING TO OBTAIN APPROVAL FOR REMOVAL OF TEMPORARY EROSION CONTROL MEASURES AND STABILIZE THESE AREAS.
- ### DUST CONTROL
- VEGETATIVE COVER**  
 FOR DISTURBED AREAS NOT SUBJECT TO TRAFFIC, VEGETATION PROVIDES THE MOST PRACTICAL METHOD OF DUST CONTROL.
- MULCH**  
 WHEN PROPERLY APPLIED, MULCH OFFERS A FAST, EFFECTIVE MEANS OF CONTROLLING DUST.
- MAINTENANCE**  
 MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.

### SHEET NOTES

- #### EXISTING SITE PLAN LEGEND
- LIGHT POLE
  - SIGN
  - INLET
  - CATCHBASIN
  - SANITARY MANHOLE
  - EXISTING HYDRANT
  - EXISTING WATER VALVE
  - TELEPHONE
  - ELECTRIC
  - GAS
  - SANITARY SEWER
  - STO - STORM SEWER
  - W - WATER MAIN
  - BUILDING SETBACK
  - EXISTING FIREWATER
  - EXISTING CONTOUR
  - ELECTRICAL BOX
  - TELEPHONE PEDESTAL
  - GAS METER
  - EXISTING SHRUB
  - EXISTING DECIDUOUS TREE
  - EXISTING EVERGREEN TREE
  - CARD READER
  - CHAINLINK FENCE
  - CURB AND GUTTER

- #### PROPOSED SITE LEGEND
- ASPHALT
  - CONCRETE
  - GRASS / LANDSCAPE
  - STORM SEWER CATCH BASIN
  - STORM SEWER MANHOLE
  - STORM SEWER END WALL AND RIP RAP APPROX.
  - PROPOSED CHAIN LINK FENCE
  - PROPOSED FORCE MAIN LINE
  - PROPOSED STORM DRAIN LINE
  - PROPOSED SANITARY SEWER LINE
  - PROPOSED WATER LINE
  - PROPOSED NATURAL GAS
  - PROPOSED SWALE
  - FOUNDATION DRAIN



NOTE:  
 ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DESCRIPTION
A	LR	06/08/2020	ISSUED FOR PERMIT
1	LR	04/03/2020	APPROVALS AND DATE OF CURRENT REVISION

CHECKED: JEG  
 DISCIPLINE: JEG  
 DATE: 04/03/2020  
 DRAWN: LR  
 DESIGNED: LR  
 DATE: 04/03/2020

PRELIMINARY  
 NOT FOR CONSTRUCTION

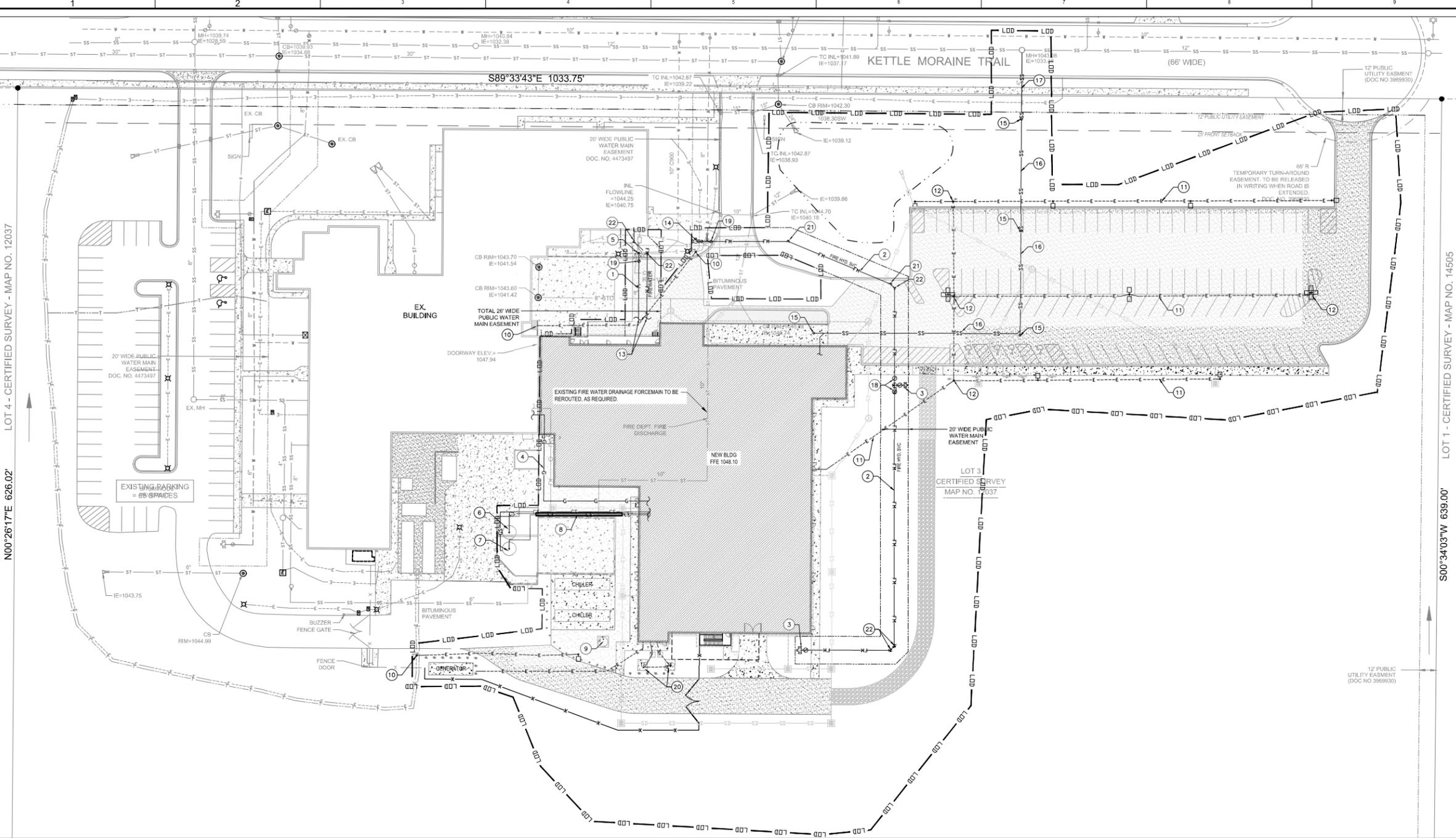
**Jacobs**  
 111 CORNING ROAD, SUITE 200, GARY, IN 47716 - U.S.A.  
 Phone: 919.859.5000 FAX: 919.859.5151

JACOBS PROJECT NO. 17FFV101  
 CLIENT: **Milipore Sigma**  
 HPAPI SITE EXPANSION  
 1101 KETTLE MORaine TRAIL  
 VERONA, WI

DRAWING TITLE: **CIVIL EROSION CONTROL PLAN**

JACOBS DRAWING NUMBER: **17FFV101-C023-001**  
 CLIENT DRAWING NUMBER:





- UTILITY NOTES**
- 1 8" DI WATER FEED FOR FIRE AND DOMESTIC WATER SERVICE
  - 2 8" DI FIRE HYD. SVC
  - 3 FIRE HYDRANT ASSEMBLY, TYP. PER DETAIL 7.04, SHEET 17FFV01-C029-002.
  - 4 NATURAL GAS LINE
  - 5 8"x10" TSAV WITH THRUST BLOCK PER DETAIL 7.13, SHEET 17FFV01-C029-002.
  - 6 EXISTING AQUEOUS HIGH-POTENT WASTE TANK
  - 7 EXISTING AQUEOUS HIGH-POTENT WASTE TANK (FLAMMABLE/ ORGANIC WASTE TANK)
  - 8 NEW PIPE BRIDGE WILL BE ROUTED TO EXISTING RACK IN TANK FARM
  - 9 CHILLED WATER BUFFER TANK - GA BY OTHERS
  - 10 NEW ELECTRICAL LINE TO RELOCATED POLE LIGHT. SPLICE TO EXISTING AREA LIGHTING CIRCUIT IN NEW HAND HOLE. FIELD TRACE THE EXISTING UNDERGROUND LIGHTING CIRCUIT BEFORE DIGGING. REFER TO ELECTRICAL PLANS.
  - 11 ELECTRICAL LINE. REFER TO ELECTRICAL PLANS.
  - 12 HAND HOLE SHALL BE QUARTZ POLYMER CONCRETE OPEN BOTTOM STYLE ENCLOSURE OR APPROVED EQUAL.
  - 13 WATER FEED AND FIREWATER CONNECTIONS. REFER TO MECHANICAL PLANS FOR CONTINUATION.
  - 14 RELOCATED FIRE HYDRANT. INSTALL NEW TEE AND NEW VALVE PER DETAIL 7.04, SHEET 17FFV01-C029-002.
  - 15 TRAFFIC BEARING CLEANOUT PER DETAIL 2, SHEET 17FFV01-C029-002.
  - 16 6" PVC SANITARY SEWER LATERAL
  - 17 NEW 6" PVC SANITARY SEWER LATERAL CONNECTION TO EXISTING MANHOLE. (EXISTING SERVICE STUB TO SITE IS 4" PER RECORD.)
  - 18 POST INDICATOR VALVE PER DETAIL 1, SHEET 17FFV01-C029-002.
  - 19 WATER MAIN VALVE ACCESS STRUCTURE PER DETAIL 7.05, SHEET 17FFV01-C029-002.
  - 20 11.25 DEGREE BEND WITH THRUST BLOCK PER DETAIL 7.13, SHEET 17FFV01-C029-002.
  - 21 22.25 DEGREE BEND WITH THRUST BLOCK PER DETAIL 7.13, SHEET 17FFV01-C029-002.
  - 22 45 DEGREE BEND WITH THRUST BLOCK PER DETAIL 7.13, SHEET 17FFV01-C029-002.

- UTILITY NOTES**
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
  2. WATER LINES SHALL BE INSTALLED PER CITY OF MADISON STANDARDS AND SPECIFICATIONS.
  3. MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE BETWEEN ALL UTILITIES IF NOT SPECIFIED BY PROVIDER. IN ALL CASES, MAINTAIN SEPARATION AS REQUIRED BY PROVIDER.
  4. VERIFY ALL SIZES, INVERTS, AND LOCATIONS OF BUILDING UTILITY SERVICES.
  5. FIREWATER HOLDING TANK AND PIPING SHALL BE COORDINATED WITH SITE UTILITY, STORM DRAIN, RETAINING WALLS, SEWERLINES, AND OTHER SITE CONDITIONS. EXCAVATION AND TANK INSTALLATION SHALL NOT ENCRoACH INTO THE 1:1 SLOPE BEGINNING AT THE TOE OF THE BUILDING FOUNDATION. REFER ALSO TO PLUMBING PLANS. INSTALL 12" WIDE x 8" DEEP CONCRETE COLLAR AROUND MANHOLE TOP.

OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.

THIS PLAN IS NOT INTENDED TO BE USED FOR BUILDING OR ADJACENT FACILITY LAYOUT. REFER TO ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS FOR FINAL LAYOUT.

**SHEET NOTES**

**EXISTING SITE PLAN LEGEND**

- LIGHT POLE
- △ SIGN
- INLET
- CATCH BASIN
- SANITARY MANHOLE
- EXISTING HYDRANT
- EXISTING WATER VALVE
- TELEPHONE
- ELECTRIC
- GAS
- SANITARY SEWER
- STORM SEWER
- WATER MAIN
- BUILDING SETBACK
- EXISTING FIREWATER
- EXISTING CONTOUR
- ELECTRICAL BOX
- TELEPHONE PEDESTAL
- GAS METER
- EXISTING SHRUB
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- GARD READER
- CHAINLINK FENCE
- CURB AND GUTTER

**PROPOSED SITE LEGEND**

- ASPHALT
- CONCRETE
- GRASS / LANDSCAPE
- STORM SEWER CATCH BASIN
- STORM SEWER MANHOLE
- STORM SEWER END WALL AND RIP RAP APRON
- POST INDICATOR VALVE
- FIRE HYDRANT ASSEMBLY
- WATER VALVE
- FITTINGS
- PROPOSED ELECTRICAL LINE
- PROPOSED CHEMICAL SEWER
- PROPOSED CHAIN LINK FENCE
- PROPOSED FORCE MAIN LINE
- PROPOSED STORM DRAIN LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- PROPOSED NATURAL GAS
- PROPOSED SWALE
- LOD - LIMIT OF DISTURBANCE
- TRENCH DRAIN
- LIGHTS

0 30' 60' 90'

1"=30'

N

NOTE: ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DRAWING REVISION DESCRIPTION
1	KB	04/03/2020	ISSUED FOR PERMIT
2	KB	05/14/2020	ISSUED FOR DESIGN
3	KB	04/28/2020	ISSUED FOR CLIENT REVIEW
4	KB	04/03/2020	ISSUED FOR ESTIMATE

CHECKED	DATE	APPROVALS AND DATE OF CURRENT REVISION
JEG		
JEG	04/03/2020	
A. RICE		

DRAWN	DATE	DRAWING CREATION DATE
KB		
KB	04/03/2020	

PE OR RA REGISTRATION SEAL

PRELIMINARY  
NOT FOR CONSTRUCTION

**Jacobs**

111 CORNING ROAD, SUITE 200, CARY, NC 27513 - U.S.A.  
Phone: 919.859.5000, FAX: 919.859.5151

JACOBS PROJECT NO. 17FFV01

CLIENT

**Milipore Sigma**

HPAPI SITE EXPANSION  
1101 KETTLE MORaine TRAIL  
VERONA, WI

DRAWING TITLE

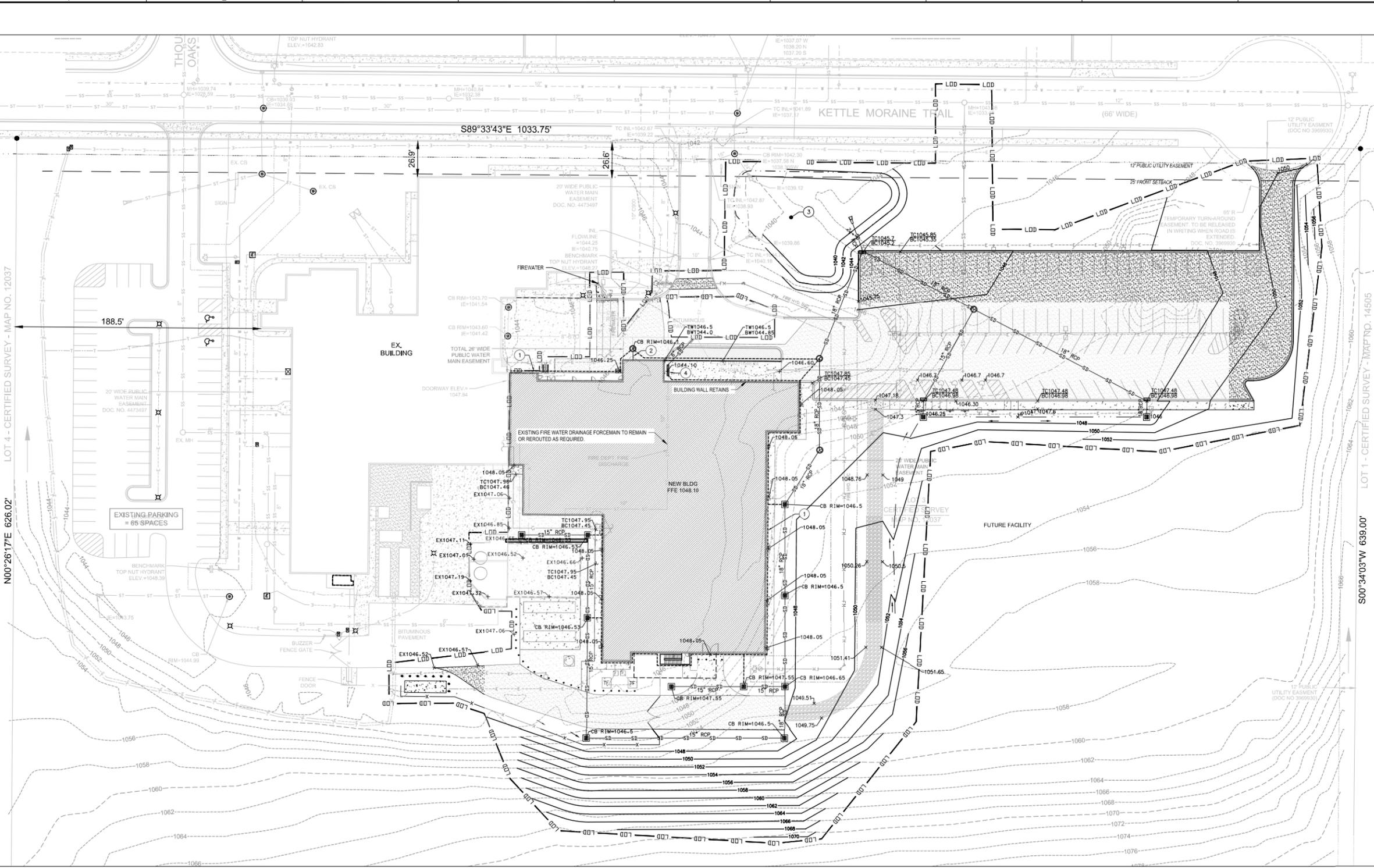
CIVIL  
UTILITY PLAN

JACOBS DRAWING NUMBER

17FFV01-C024-001

CLIENT DRAWING NUMBER

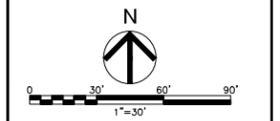
17FFV01-C024-001.dwg



- GRADING PLAN KEYNOTES**
- ① 4" PERFORATED PVC FOUNDATION DRAIN (TYP.)
  - ② ROOF LEADER (TYP.), REFER TO MECHANICAL PLANS.
  - ③ STORMWATER MANAGEMENT AREA
  - ④ TRENCH DRAIN, REFER TO STRUCTURAL PLANS.

- SHEET NOTES**
- EXISTING SITE PLAN LEGEND**
- LIGHT POLE
  - △ SIGN
  - INLET
  - CATCHBASIN
  - SANITARY MANHOLE
  - EXISTING HYDRANT
  - EXISTING WATER VALVE
  - TELEPHONE
  - ELECTRIC
  - GAS
  - SANITARY SEWER
  - STORM SEWER
  - WATER MAIN
  - BUILDING SETBACK
  - EXISTING FIREWATER
  - EXISTING CONTOUR
  - ELECTRICAL BOX
  - TELEPHONE PEDESTAL
  - GAS METER
  - EXISTING SHRUB
  - EXISTING DECIDUOUS TREE
  - EXISTING EVERGREEN TREE
  - CARD READER
  - CHAINLINK FENCE
  - CURB AND GUTTER

- PROPOSED SITE LEGEND**
- ASPHALT
  - CONCRETE
  - GRASS / LANDSCAPE
  - STORM SEWER CATCH BASIN
  - STORM SEWER MANHOLE
  - STORM SEWER END WALL AND RIP RAP APRON
  - PROPOSED CHAIN LINK FENCE
  - PROPOSED FORCE MAIN LINE
  - PROPOSED STORM DRAIN LINE
  - PROPOSED SANITARY SEWER LINE
  - PROPOSED WATER LINE
  - PROPOSED NATURAL GAS
  - PROPOSED SWALE
  - UTILITY TO BE DEMOLISHED
  - FOUNDATION DRAIN



NOTE: ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DRAWING REVISION DESCRIPTION
D	KB	04/03/2020	ISSUED FOR PERMIT
C	KB	05/14/2020	ISSUED FOR DESIGN
B	KB	04/28/2020	ISSUED FOR CLIENT REVIEW
A	KB	04/03/2020	ISSUED FOR ESTIMATE

CHECKED	DATE	APPROVALS AND DATE OF CURRENT REVISION
JEG		
JEG	DATE: 04/03/2020	
A. RICE		

DRAWN	DATE	DRAWING CREATION DATE
KB		
KB	DATE: 04/03/2020	

PE OR RA REGISTRATION SEAL

PRELIMINARY  
NOT FOR CONSTRUCTION

**Jacobs**  
 111 CORNING ROAD, SUITE 200, CARY, NC 27513 - U.S.A.  
 Phone: 919.859.5000, FAX: 919.859.5151

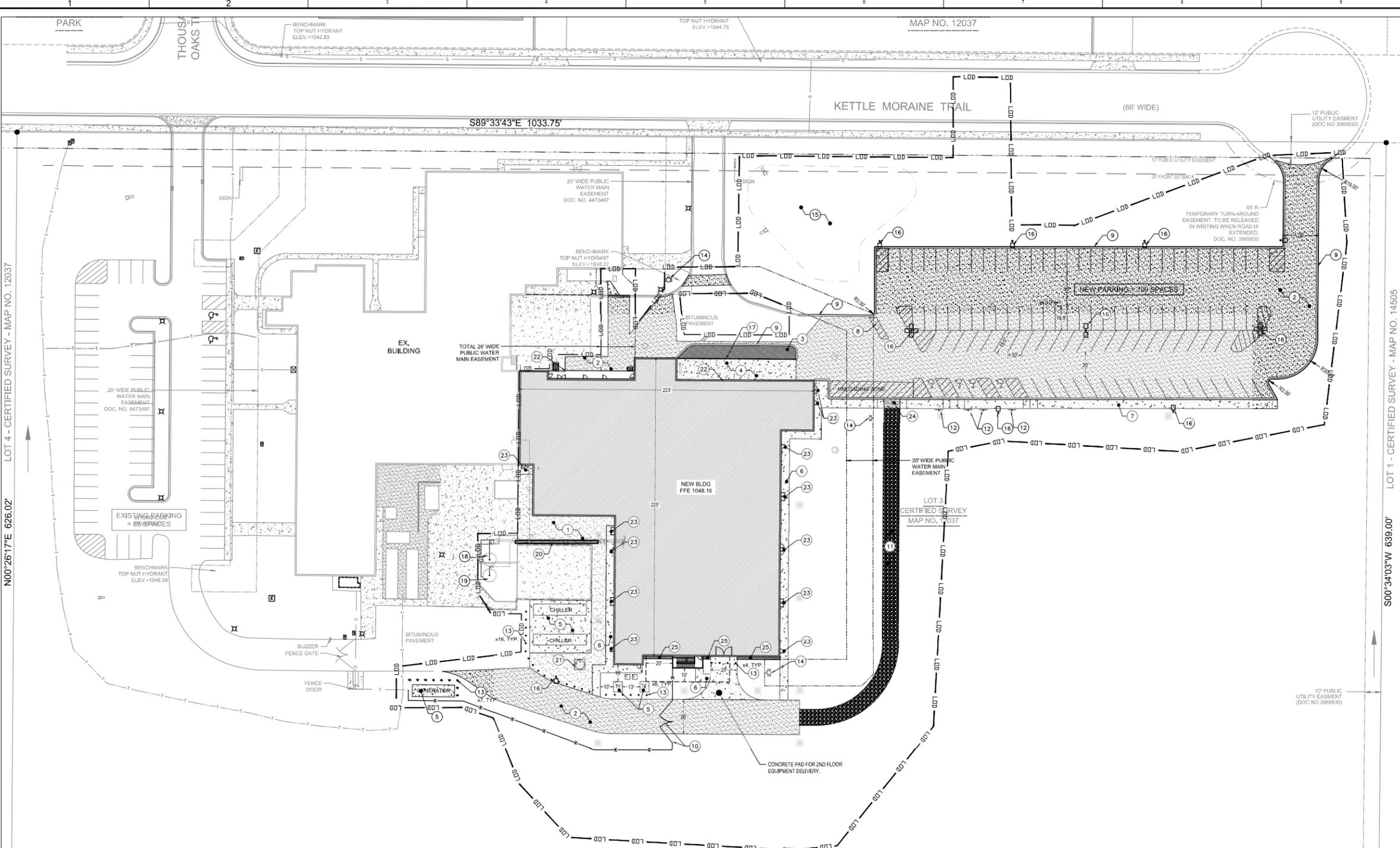
JACOBS PROJECT NO. 17FFV101

CLIENT  
**Milipore Sigma**  
 HPAPI SITE EXPANSION  
 1101 KETTLE MORAIN TRAIL  
 VERONA, WI

DRAWING TITLE  
**CIVIL  
 GRADING PLAN**

JACOBS DRAWING NUMBER  
**17FFV101-C1025-001**

CLIENT DRAWING NUMBER  
 17FFV101-C1025-001.dwg



- SITE PLAN KEYNOTES**
- 1 LIGHT DUTY ASPHALT - 2" SURFACE COAT, 1.5" BINDER, 12" ABC STONE PER DETAIL 5, SHEET 17FFV01-CI026-001
  - 2 HEAVY DUTY ASPHALT - 3" SURFACE COAT, 3" BINDER, 12" ABC STONE PER DETAIL 5, SHEET 17FFV01-CI026-001
  - 3 LANDSCAPING AREA
  - 4 8" CONCRETE LOADING DOCK
  - 5 CONCRETE PAD. REFER TO STRUCTURAL PLANS
  - 6 6" CONCRETE SIDEWALK PER DETAIL 1, SHEET 17FFV01-CI029-001
  - 7 6.5" CONCRETE SIDEWALK PER DETAIL 1, SHEET 17FFV01-CI029-001
  - 8 YELLOW STRIPING (PAINTED) NO DELINEATORS OR CONCRETE
  - 9 18" CURB AND GUTTER (TYP.) PER DETAIL 2, SHEET 17FFV01-CI029-001
  - 10 FENCE AND GATE
  - 11 12" GRAVEL ROAD
  - 12 ACCESSIBLE PARKING SIGNS (TYP.)
  - 13 BOLLARD (TYP.) PER DETAIL 4, SHEET 17FFV01-CI029-001
  - 14 FIRE HYDRANT (TYP.)
  - 15 PROPOSED STORMWATER MANAGEMENT AREA
  - 16 STREET LIGHTS. REFER TO ELECTRICAL PLANS
  - 17 RETAINING WALL WITH HANDRAIL BY OTHER
  - 18 AQUEOUS HIGH-POTENT WASTE TANK
  - 19 AQUEOUS HIGH-POTENT WASTE TANK (FLAMMABLE/ ORGANIC WASTE TANK)
  - 20 NEW PIPE BRIDGE WILL BE ROUTED TO EXISTING RACK IN TANK FARM
  - 21 CHILLED WATER BUFFER TANK - GA BY OTHERS
  - 22 BUILDING WALL RETAINS
  - 23 DOORWAY LANDING. REFER TO STRUCTURAL PLANS
  - 24 HEAVY DUTY CONCRETE
  - 25 2" WIDE MOW STRIP PER DETAIL 3, SHEET 17FFV01-CI029-001.

**SHEET NOTES**

**EXISTING SITE PLAN LEGEND**

- LIGHT POLE
- △ SIGN
- INLET
- ⊙ CATCHBASIN
- ⊙ SANITARY MANHOLE
- ⊙ EXISTING HYDRANT
- ⊙ EXISTING WATER VALVE
- TELEPHONE
- ELECTRIC
- GAS
- SS SANITARY SEWER
- ST STORM SEWER
- W WATER MAIN
- BUILDING SETBACK
- EXISTING FIREWATER
- EXISTING CONTOUR
- ELECTRICAL BOX
- TELEPHONE PEDESTAL
- GAS METER
- EXISTING SHRUB
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- CARD READER
- CHAINLINK FENCE
- CURB AND GUTTER
- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE

**PROPOSED SITE PLAN LEGEND**

- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE
- GRASS / LANDSCAPE
- STORM SEWER CATCH BASIN
- STORM SEWER MANHOLE
- STORM SEWER END WALL AND RIP RAP APRON
- ⊙ HYDRANT
- PROPOSED CHAIN LINK FENCE
- PROPOSED SANITARY SEWER LINE
- PROPOSED SWALE
- LIMIT OF DISTURBANCE
- FOUNDATION DRAIN
- TRENCH DRAIN
- LIGHTS

0 30' 60' 90'  
1"=30'

NOTE: ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DRAWING REVISION DESCRIPTION
1	KB	04/03/2020	ISSUED FOR PERMIT
2	KB	05/14/2020	ISSUED FOR DESIGN
3	KB	04/28/2020	ISSUED FOR CLIENT REVIEW
4	KB	04/03/2020	ISSUED FOR ESTIMATE

CHECKED	DATE	APPROVALS AND DATE OF CURRENT REVISION
JEG		
JEG	04/03/2020	
A. RICE		
A. RICE	04/03/2020	

DRAWING CREATION DATE: 04/03/2020

DRAWN BY: KB DATE: 04/03/2020

DESIGNED BY: KB DATE: 04/03/2020

PE OR RA REGISTRATION SEAL

PRELIMINARY  
NOT FOR CONSTRUCTION

**Jacobs**

111 CORNING ROAD, SUITE 200, CARY, NC 27513 - U.S.A.  
Phone: 919.858.5000 FAX: 919.858.5151

JACOBS PROJECT NO. 17FFV01

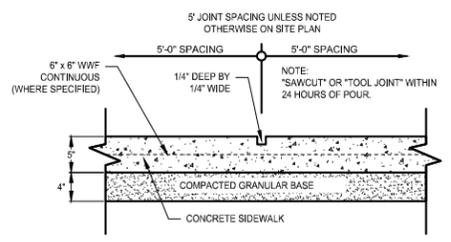
CLIENT  
**Milipore Sigma**

HPAPI SITE EXPANSION  
1101 KETTLE MORaine TRAIL  
VERONA, WI

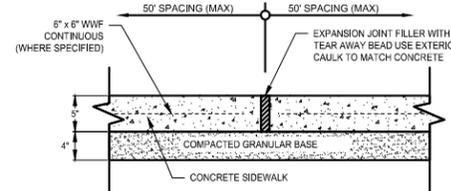
DRAWING TITLE  
**CIVIL  
SITE PLAN**

JACOBS DRAWING NUMBER  
**17FFV01-CI026-001**

CLIENT DRAWING NUMBER  
17FFV01-CI026-001.dwg

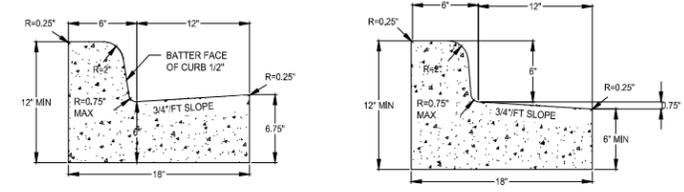


SIDEWALK CONTROL JOINT



SIDEWALK EXPANSION JOINT

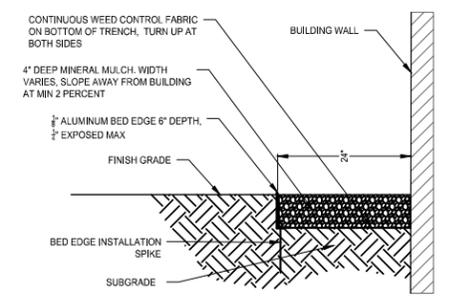
1 CONCRETE SIDEWALK NOT TO SCALE



CURB AND GUTTER CROSS SECTION

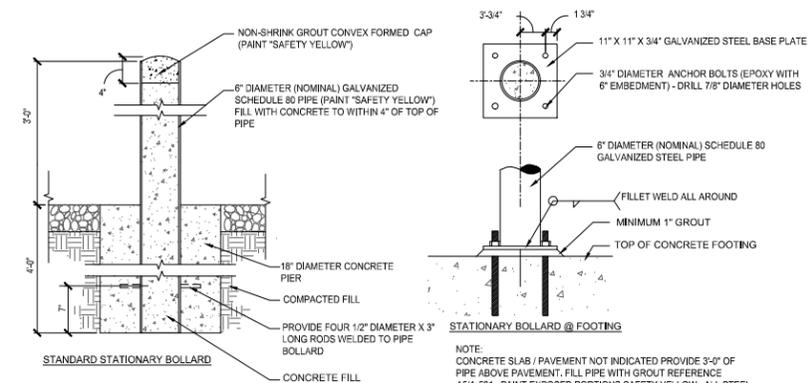
CURB AND GUTTER SPILL SECTION

2 18" CONCRETE CURB AND GUTTER NOT TO SCALE



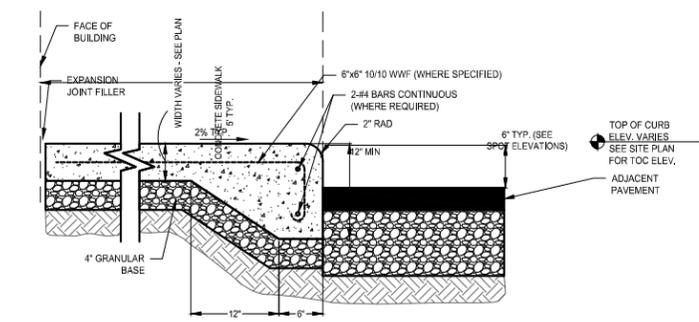
NOTES:  
 1. MULCH SHALL BE GRADED IN THE DIRECTION OF FINISH GRADE NOT GREATER THAN 5 PERCENT.  
 2. MULCH FINISH GRADE SHALL BE 1" BELOW ADJACENT CURBING OR CONCRETE PAVEMENT.

3 MOW STRIP NOT TO SCALE

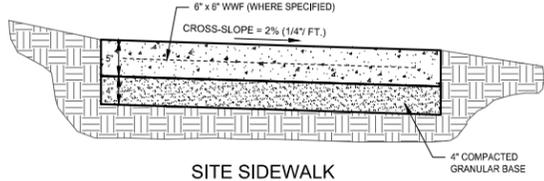


NOTE: CONCRETE SLAB / PAVEMENT NOT INDICATED PROVIDE 3'-0" OF PIPE ABOVE PAVEMENT. FILL PIPE WITH GROUT REFERENCE A5A-521. PAINT EXPOSED PORTIONS SAFETY YELLOW. ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.

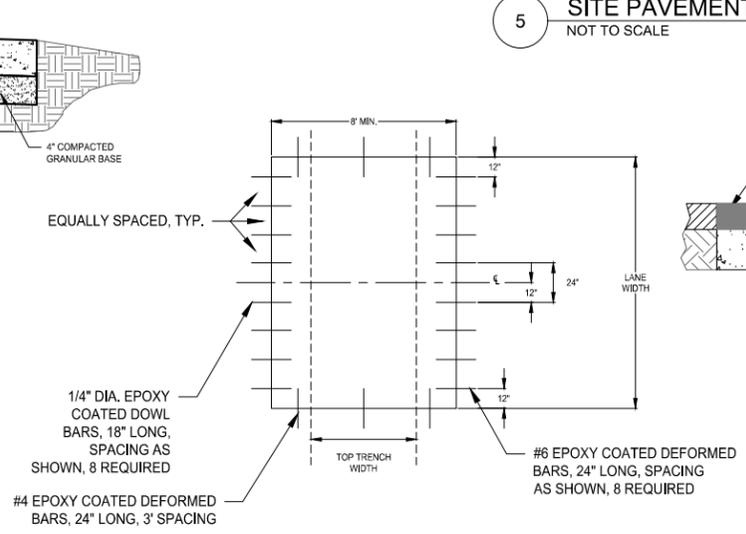
4 PIPE BOLLARD NOT TO SCALE



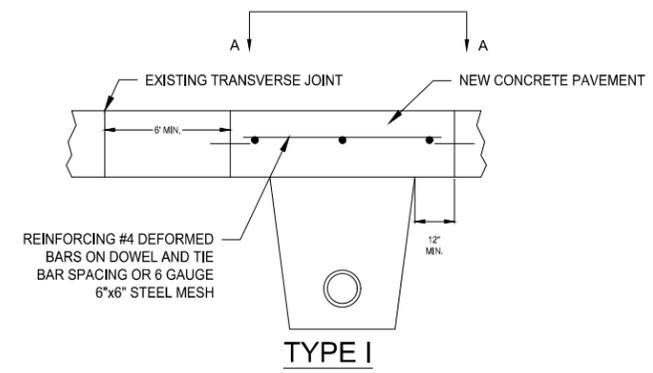
SIDEWALK ADJACENT TO PARKING



SITE SIDEWALK



SECTION A-A



TYPE I

TYPE I UTILITY TRENCH PATCH

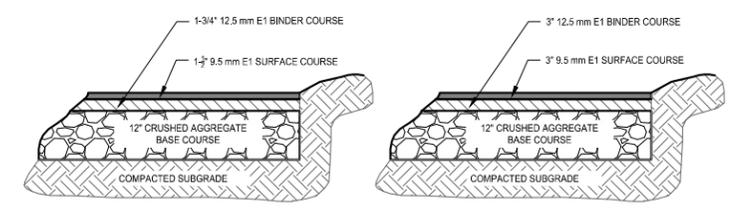
THE PAVEMENT SHALL BE REMOVED IN TWO STAGES. THE INITIAL PAVEMENT REMOVAL SHALL BE LIMITED TO THE AREA OF THE PROPOSED TRENCH. FULL-DEPTH SAWCUTTING WILL NOT BE REQUIRED FOR THIS PHASE OF THE PAVEMENT REMOVAL. AFTER THE TRENCH HAS BEEN BACKFILLED AND COMPACTED, AND AFTER THE BASE HAS BEEN RESTORED IN THE AREA OF THE TRENCH, AND AFTER SAWCUTTING THE NEW JOINTS THE FULL DEPTH OF THE EXISTING PAVEMENT, THE REMAINING PAVEMENT TO BE REMOVED SHALL BE REMOVED WITHOUT DISTURBING THE EXISTING BASE.

THE SIZE OF THE PATCH SHALL BE DETERMINED BY THE TOP WIDTH OF THE TRENCH, THE LOCATION AND SKEW OF THE EXISTING TRANSVERSE JOINTS, THE CONDITIONS OF THE EXISTING PAVEMENT, AND THE CONDITION OF THE BASE. NEW TRANSVERSE JOINTS SHALL BE PARALLEL TO THE EXISTING TRANSVERSE JOINTS, AND SHALL BE A MINIMUM OF ONE FOOT FROM THE TRENCH. THE DISTANCE BETWEEN NEW AND EXISTING TRANSVERSE JOINTS SHALL BE A MINIMUM OF SIX FEET, MEASURED PERPENDICULARLY TO THE JOINTS. THE PATCH SHALL BE A MINIMUM OF EIGHT FEET IN LENGTH AND SHALL HAVE THE SAME WIDTH AS THE PAVEMENT LANE.

THE PATCH SHALL BE NINE INCHES IN THICKNESS, OF HIGH EARLY STRENGTH CONCRETE DOWELED AND TIED WITH EPOXY COATED COATED BARS, AND REINFORCED, ALL IN ACCORDANCE WITH THE TYPICAL SECTION.

THE TRANSVERSE EDGES OF THE FINISHED PATCH SHALL BE FLUSH WITH THE EDGES OF THE EXISTING CONCRETE PAVEMENT. THE LONGITUDINAL SURFACE SHALL FORM A STRAIGHT LINE FROM EDGE TO EDGE WITHIN A TOLERANCE OF ~1/8 INCH.

6 UTILITY TRENCH PAVEMENT PATCHES NOT TO SCALE

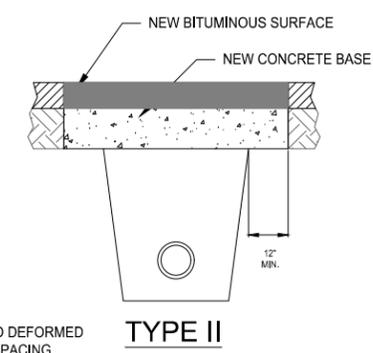


STANDARD DUTY

HEAVY DUTY

NOTE: USE HEAVY DUTY ASPHALT FOR ALL DRIVE AISLES AND TRUCK LOADING AREAS. USE STANDARD DUTY IN ALL OTHER LOCATIONS.

5 SITE PAVEMENT NOT TO SCALE



TYPE II

TYPE II UTILITY TRENCH PATCH

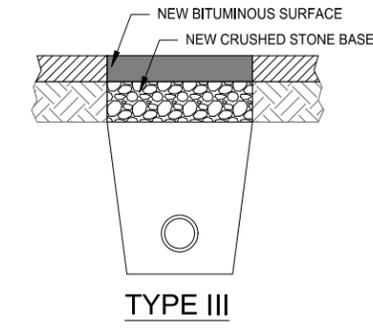
THE PATCH SHALL BE 7" HIGH EARLY STRENGTH CONCRETE BASE OVERLAID WITH BITUMINOUS SURFACE COURSE. WHERE SPECIFIED, OR DIRECTED BY THE ENGINEER, THE BASE SHALL BE CONSTRUCTED OF BITUMINOUS BASE COURSE MATERIAL, SHALL BE THE SAME THICKNESS AS THE EXISTING BASE, AND SHALL BE LAID IN TWO OR MORE COMPACTED LIFTS OF NOT MORE THAN 3" IN THICKNESS EACH.

THE PAVEMENT ALONG THE PATCH SHALL BE SAWCUT, FULL DEPTH. THE EDGES OF THE PATCH SHALL BE VERTICAL, FREE OF LOOSE STONES OR CONCRETE PIECES, AND SHALL BE THOROUGHLY WETTED JUST PRIOR TO POURING THE NEW CONCRETE BASE.

THE TOP OF THE NEW CONCRETE BASE SHALL BE FLUSH WITH THE TOP OF THE EXISTING BASE.

PRIOR TO PLACING THE BITUMINOUS SURFACE COURSE, THE EDGES OF THE PATCH AND THE SURFACE OF THE NEW CONCRETE BASE SHALL BE THOROUGHLY TACKED WITH LIQUID ASPHALT.

THE BITUMINOUS SURFACE COURSE SHALL BE THE SAME THICKNESS AS THE EXISTING BITUMINOUS AND SHALL BE LAID IN ONE OR MORE COURSES AS DIRECTED BY THE ENGINEER. THE BITUMINOUS SURFACE COURSE SHALL BE MACHINE LAID WHERE DIRECTED BY THE ENGINEER. WHERE THE BITUMINOUS SURFACE COURSE IS MACHINE LAID, AND IS NOT MORE THAN 3" IN THICKNESS, THE BITUMINOUS SURFACE COURSE MAY BE LAID IN ONE LIFT.



TYPE III

TYPE III UTILITY TRENCH PATCH

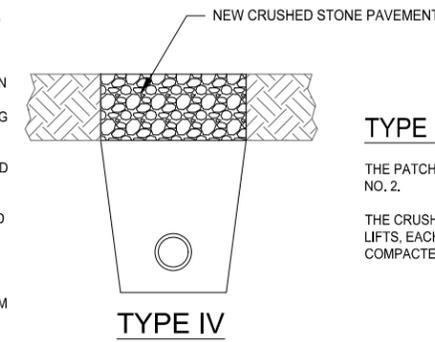
THE PATCH SHALL BE 8" CRUSHED STONE BASE COURSE, GRADATION NO. 2, OVERLAID WITH BITUMINOUS SURFACE COURSE EQUAL IN THICKNESS TO THE EXISTING BITUMINOUS PAVEMENT, 3" MINIMUM THICKNESS.

THE PAVEMENT ALONG THE PATCH SHALL BE SAWCUT, FULL DEPTH, THE EDGES OF THE EXISTING BITUMINOUS PAVEMENT SHALL BE FREE OF LOOSE STONES OR PAVEMENT MATERIAL.

THE CRUSHED STONE BASE COURSE SHALL BE INSTALLED IN TWO LIFTS, THE LOWER LIFT SHALL BE THOROUGHLY MECHANICALLY COMPACTED PRIOR TO PLACING THE UPPER LIFT.

THE BITUMINOUS SURFACE COURSE SHALL BE LAID IN TWO LIFTS, THE BITUMINOUS SURFACE COURSE SHALL BE MACHINE LAID WHERE DIRECTED BY THE ENGINEER. WHERE THE BITUMINOUS SURFACE COURSE IS MACHINE LAID AND IS NOT MORE THAN 3" IN THICKNESS, THE BITUMINOUS SURFACE COURSE MAY BE IN ONE LIFT.

PRIOR TO PLACING THE BITUMINOUS SURFACE COURSE, THE EDGES OF THE PATCH AND THE SURFACE OF THE CRUSHED STONE BASE SHALL BE TACKED AND PRIMED WITH LIQUID ASPHALT.



TYPE IV

TYPE IV UTILITY TRENCH PATCH

THE PATCH SHALL BE 9" CRUSHED STONE BASE COURSE, GRADATION NO. 2.

THE CRUSHED STONE BASE COURSE SHALL BE INSTALLED IN THREE LIFTS, EACH LIFT SHALL BE THOROUGHLY MECHANICALLY COMPACTED PRIOR TO PLACING SUCCEEDING LIFTS.

NOTE: ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DESCRIPTION
A	KB	05/08/2020	ISSUED FOR PERMIT
1	JEG	04/03/2020	APPROVALS AND DATE OF CURRENT REVISION
2	JEG	04/03/2020	CHECKED
3	JEG	04/03/2020	DISCIPLINE
4	KB	04/03/2020	DATE
5	KB	04/03/2020	DRAWING CREATION DATE
6	KB	04/03/2020	DATE



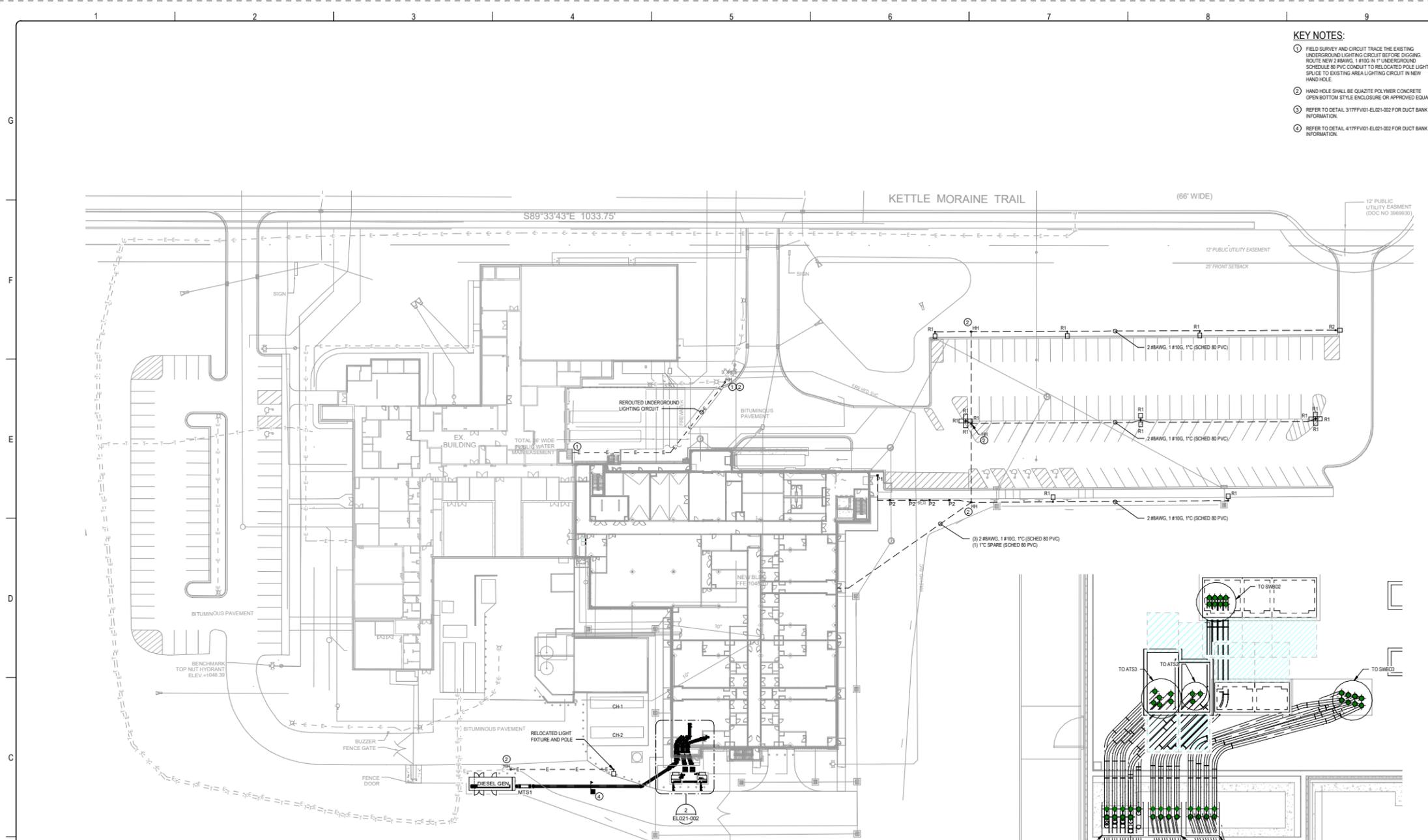
JACOBS PROJECT No. 17FFV01  
 CLIENT Milipore Sigma  
 HPAPI SITE EXPANSION  
 1101 KETTLE MORRAN TRAIL  
 PERKINS, WI

DRAWING TITLE  
 CIVIL  
 SITE DETAILS

JACOBS DRAWING NUMBER  
 17FFV01-C1029-001

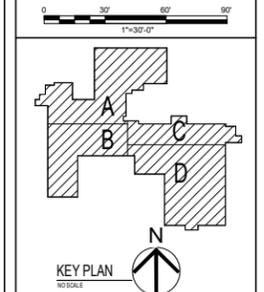
CLIENT DRAWING NUMBER  
 17FFV01-C1029-001





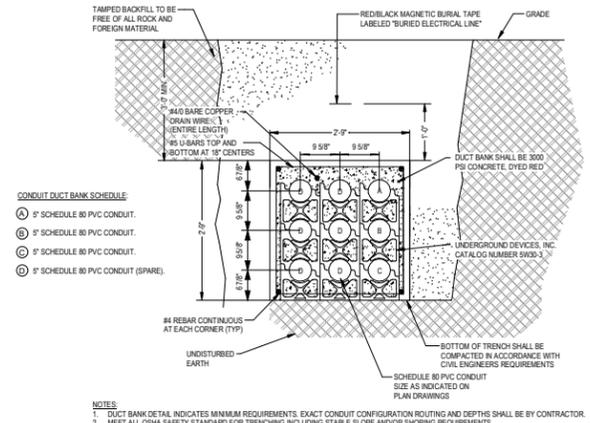
- KEY NOTES:**
- FIELD SURVEY AND CIRCUIT TRACE THE EXISTING UNDERGROUND LIGHTING CIRCUIT BEFORE DIGGING. ROUTE NEW 2 #8AWG, 1 #10G IN 1" UNDERGROUND SCHEDULE 80 PVC CONDUIT TO RELOCATED POLE LIGHT. SPLICE TO EXISTING AREA LIGHTING CIRCUIT IN NEW HAND HOLE.
  - HAND HOLE SHALL BE QUARTZ POLYMER CONCRETE OPEN BOTTOM STYLE ENCLOSURE OR APPROVED EQUAL.
  - REFER TO DETAIL 317FFV01-EL021-002 FOR DUCT BANK INFORMATION.
  - REFER TO DETAIL 417FFV01-EL021-002 FOR DUCT BANK INFORMATION.

- GENERAL NOTES:**
- ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION.
  - REFERENCE DRAWING NO. 17FFV01-EL021-001 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
  - REFERENCE SINGLE LINE DRAWINGS NO. 17FFV01-EL022-001 THROUGH 17FFV01-EL022-004 AND PANELBOARD SCHEDULE DRAWINGS NO. 17FFV01-EL027-002 THROUGH 17FFV01-EL027-010 FOR FEEDER AND BRANCH CIRCUIT INFORMATION. PROVIDE WIRE AND CONDUIT AS SPECIFIED AND CONNECT COMPLETE AS SHOWN.
  - ELECTRICAL CONTRACTOR SHALL COORDINATE AS REQUIRED WITH GENERAL CONTRACTOR AND OTHER TRADES TO AVOID INTERFERENCES WITH OTHER TRADES. ALL DEVICES AND EQUIPMENT SHALL HAVE LOCATIONS FIELD VERIFIED PRIOR TO ROUGH-IN.
  - ELECTRICAL CONTRACTOR SHALL REFERENCE ARCHITECTURAL DRAWINGS FOR EQUIPMENT AND MILLWORK DETAILS AND COORDINATE EXACT MOUNTING LOCATIONS AS REQUIRED AND WITH ALL OTHER TRADES.
  - ELECTRICAL CONTRACTOR SHALL MAKE ALL ADJUSTMENTS AND VERIFY LOCATIONS FOR FURNITURE AND OUTLETS SUCH THAT THEY ARE SUITABLE FOR THEIR INTENDED PURPOSE. RACKWAYS SHALL BE CONCEALED WITHIN THE WALLS AND CEILING TO THE EXTENT POSSIBLE.
  - WHERE USED THE TERM 'PROVIDE' SHALL MEAN 'TURNISH AND INSTALL'.
  - DEDICATED EQUIPMENT WORKING CLEARANCES ARE INDICATED WITH HATCHINGS.

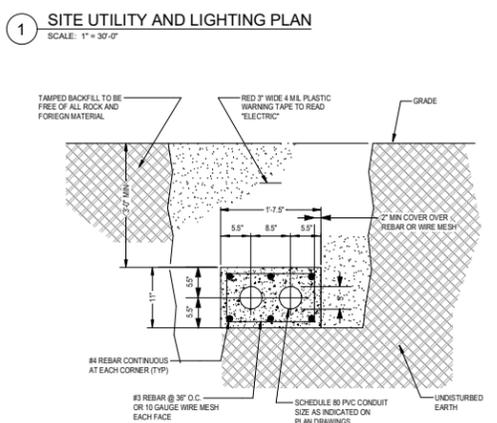


NOTE: ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

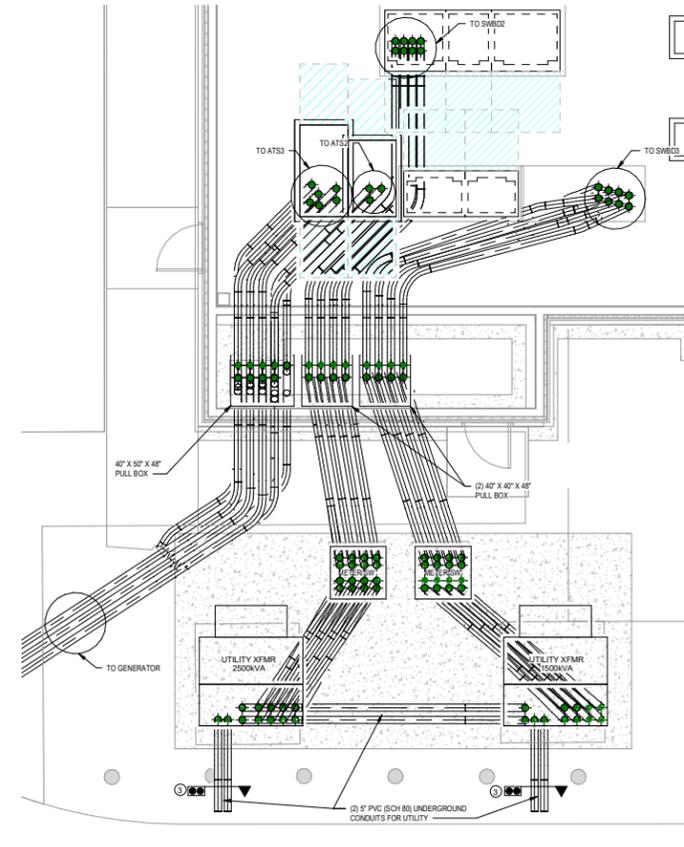
B	SFK	05/14/2020	ISSUE FOR DESIGN
A	SFK	10/06/2020	ISSUE FOR REVIEW
REV	BY	DATE	DRAWING REVISION DESCRIPTION
APPROVALS AND DATE OF CURRENT REVISION			
CHECKED:	S. KARIUS	DATE:	05/14/2020
DISC LEAD:	S. KARIUS		
PNR:	S. SANDHINE		
DRAWN:	D. WILLIAMS	DATE:	
DESIGNED:	C. WOLFFEN		



**4 REINFORCED CONCRETE ENCASED DUCTBANK - 9 CONDUIT**  
SCALE: NONE



**3 REINFORCED CONCRETE ENCASED DUCTBANK - 2 CONDUIT**  
SCALE: NONE



**2 ENLARGED SERVICE PLAN**  
SCALE: 1/4\"/>

DO NOT SCALE THIS DRAWING

PE OR RA REGISTRATION SEAL  
PRELIMINARY  
NOT FOR CONSTRUCTION

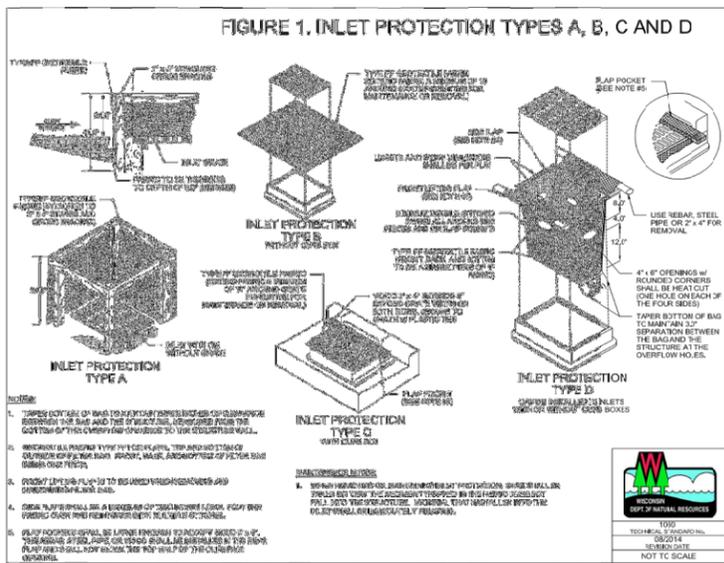
**Jacobs**  
111 COLUMBIA ROAD, SUITE 200, CHRY, NC 27014, U.S.A.  
Phone: 919.859.5000 FAX: 919.859.5151

JACOBS PROJECT No. 17FFV01  
CLIENT  
**MILIPORE SIGMA**  
HPAPI EXPANSION  
1101 KETTLE MORAIN TRAIL  
VERONA, WI

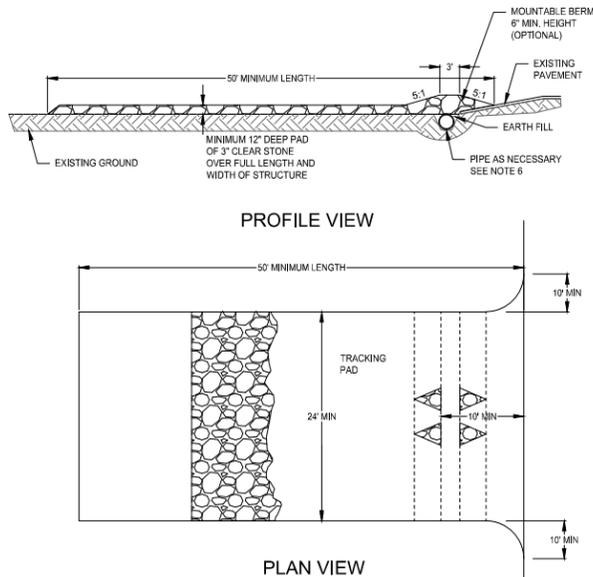
DRAWING TITLE  
**ELECTRICAL  
SITE UTILITY AND LIGHTING  
PLAN**

JACOBS DRAWING NUMBER  
**17FFV01-EL021-002**

CLIENT DRAWING NUMBER

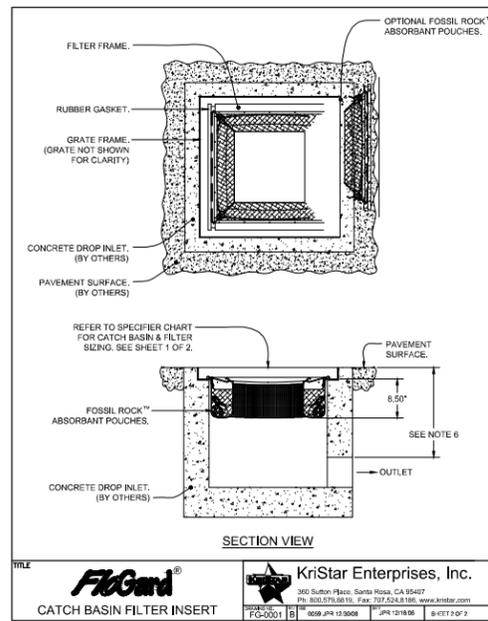


1 INLET PROTECTION  
NOT TO SCALE

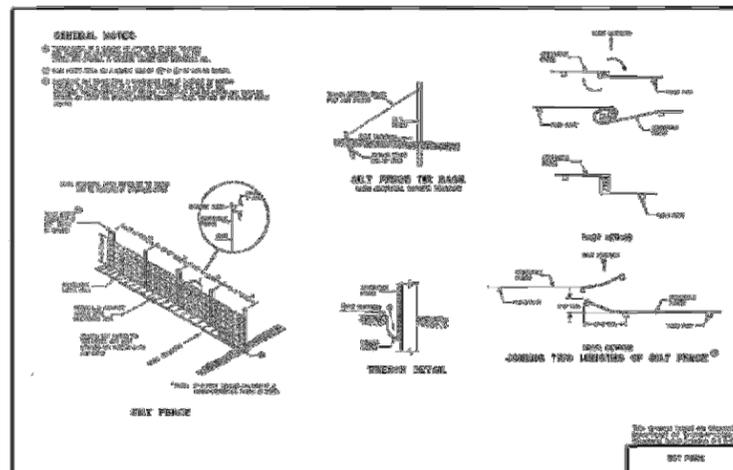
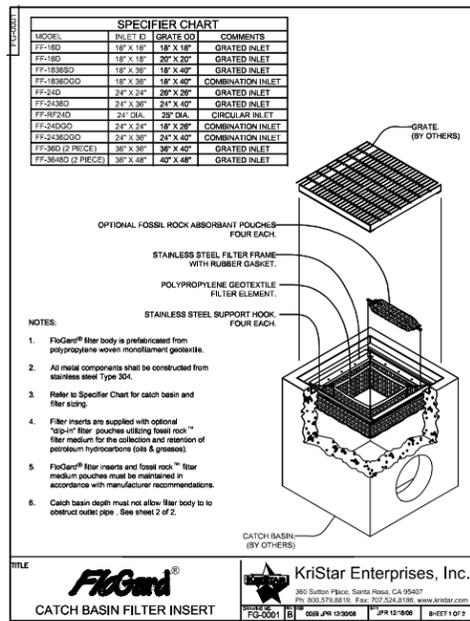


1. FOLLOW WISCONSIN DNR TECHNICAL STANDARD 1057 FOR FURTHER DETAILS AND INSTALLATION.
2. LENGTH - MINIMUM OF 50'.
3. WIDTH - 24" MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
4. ON SITES WITH A HIGH GROUND WATER TABLE OR WHERE SATURATED CONDITIONS EXIST, GEOTEXTILE FABRICS SHALL BE PLACED OVER EXISTING GROUND PRIOR TO PLACING STONE. FABRIC SHALL BE WISDOT TYPE-HR GEOTEXTILE FABRIC.
5. STONE - CRUSHED 3" CLEAR STONE SHALL BE PLACED AT LEAST 12" DEEP OVER THE ENTIRE LENGTH AND WIDTH OF ENTRANCE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARDS CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND MINIMUM OF 6" STONE OVER THE PIPE. PIPE SHALL BE SIZED ACCORDING TO THE DRAINAGE REQUIREMENTS. WHEN THE ENTRANCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE SHALL NOT BE NECESSARY. THE MINIMUM PIPE DIAMETER SHALL BE 6". CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF SAID PIPE.
7. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED WHERE CONSTRUCTION TRAFFIC ENTERS AND/OR LEAVES THE CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE TRACKING PAD.

2 TRACKING PAD  
NOT TO SCALE



4 STORM INLET FILTER  
NOT TO SCALE



3 SILT FENCE  
NOT TO SCALE

NOTE:  
ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DESCRIPTION
A	KB	05/08/2020	ISSUED FOR PERMIT

PE OR RA REGISTRATION SEAL  
PRELIMINARY  
NOT FOR CONSTRUCTION

**Jacobs**  
111 CORNING ROAD SUITE 200 CARY, NC 27513 - U.S.A.  
Phone: 919.855.5000 FAX: 919.859.5151

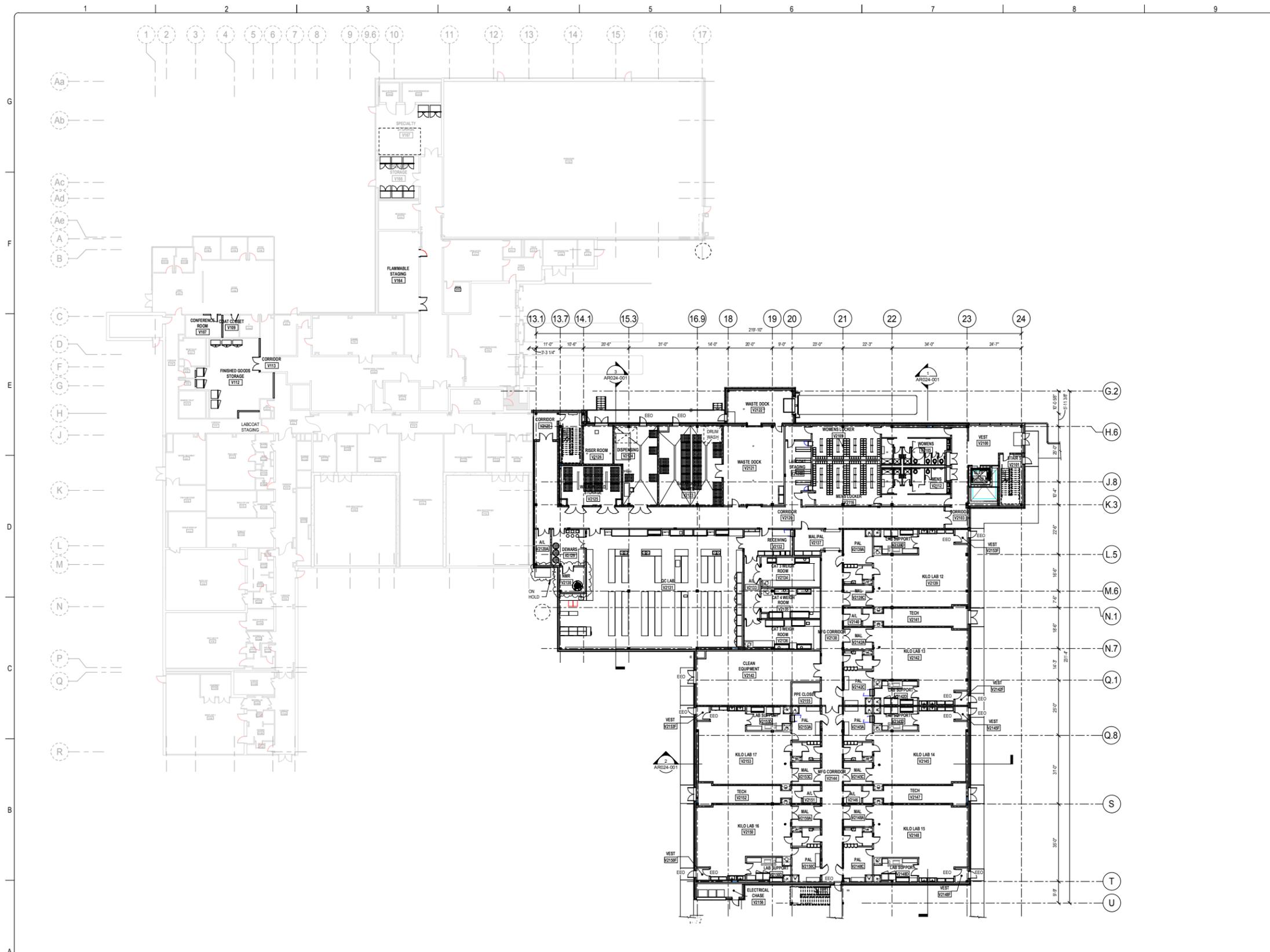
JACOBS PROJECT No. 17FFV101

CLIENT  
**Milipore Sigma**  
HPAPI SITE EXPANSION  
1101 KETTLE MORRANE TRAIL  
PERONA, WI

DRAWING TITLE  
**CIVIL**  
EROSION CONTROL DETAILS

JACOBS DRAWING NUMBER  
17FFV101-C1029-004

CLIENT DRAWING NUMBER



FIRST FLOOR - OVERALL FLOOR PLAN  
SCALE: 1/16" = 1'-0"

DO NOT SCALE THIS DRAWING

10

KEY PLAN  
NO SCALE

NOTE:  
ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DESCRIPTION
C	JA	05/14/2020	ISSUE FOR DESIGN
B	MY	04/28/2020	ISSUE FOR REVIEW
A	JA	04/09/2020	ISSUE FOR ESTIMATE

CHKD	DATE	APPROVALS AND DATE OF CURRENT REVISION
CHECKED: M. KELLY	DATE: 05/14/2020	
DISC LEAD: M. KELLY	DATE: 05/14/2020	
DRN: J. ANDERSON	DATE: 05/14/2020	
DESIGNED: J. ANDERSON	DATE: 05/14/2020	

PRELIMINARY  
NOT FOR CONSTRUCTION

111 CORNING ROAD, SUITE 200, GARY, IN 47434 U.S.A.  
Phone: 919.859.5000 FAX: 919.859.5151

JACOBS PROJECT No. 17FFV01

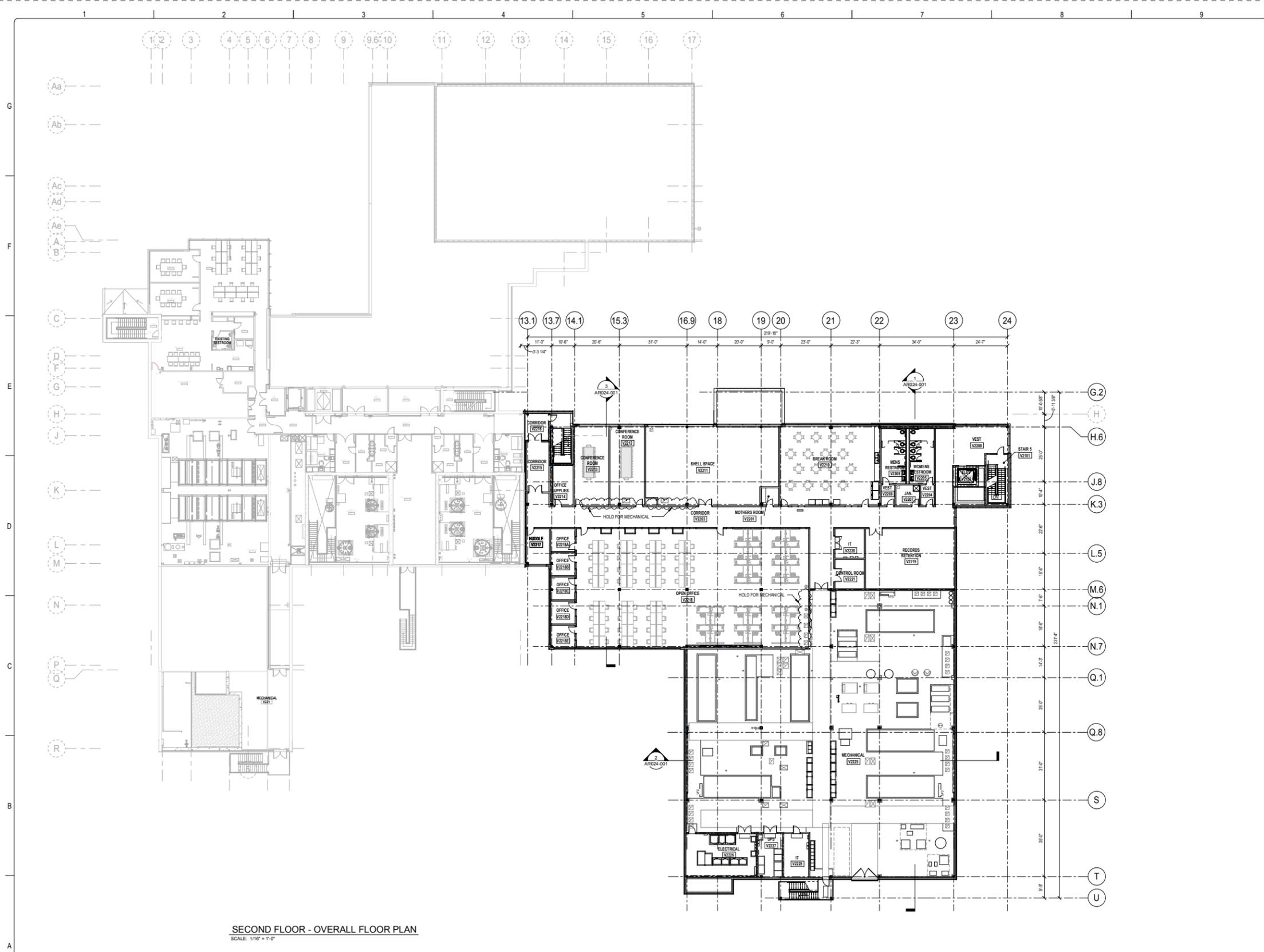
CLIENT  
**MILIPORE SIGMA**

HPAPI EXPANSION  
1151 KETTLE MORaine TRAIL  
VERONA, WI

DRAWING TITLE  
ARCHITECTURAL  
OVERALL FIRST FLOOR PLAN

JACOBS DRAWING NUMBER  
17FFV01-AR021-100

CLIENT DRAWING NUMBER



SECOND FLOOR - OVERALL FLOOR PLAN  
SCALE: 1/16" = 1'-0"

KEY PLAN  
NO SCALE

NOTE:  
ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DESCRIPTION
C	JA	05/14/2020	ISSUE FOR DESIGN
B	MY	04/28/2020	ISSUE FOR REVIEW
A	JA	04/09/2020	ISSUE FOR ESTIMATE

APPROVALS AND DATE OF CURRENT REVISION
CHECKED: M. KELLY DATE: 05/14/2020
DISC LEAD: M. KELLY DATE: 05/14/2020
PR: S. SUNDHINE DATE: 05/14/2020
DRAWN: J. ANDERSON DATE: 05/14/2020
DESIGNED: J. ANDERSON DATE: 05/14/2020

PRELIMINARY  
NOT FOR CONSTRUCTION

111 CORKING ROAD, SUITE 200, GARY, IN 47834 U.S.A.  
Phone: 919.859.5000 FAX: 919.859.5151

JACOBS PROJECT No. 17FFV01

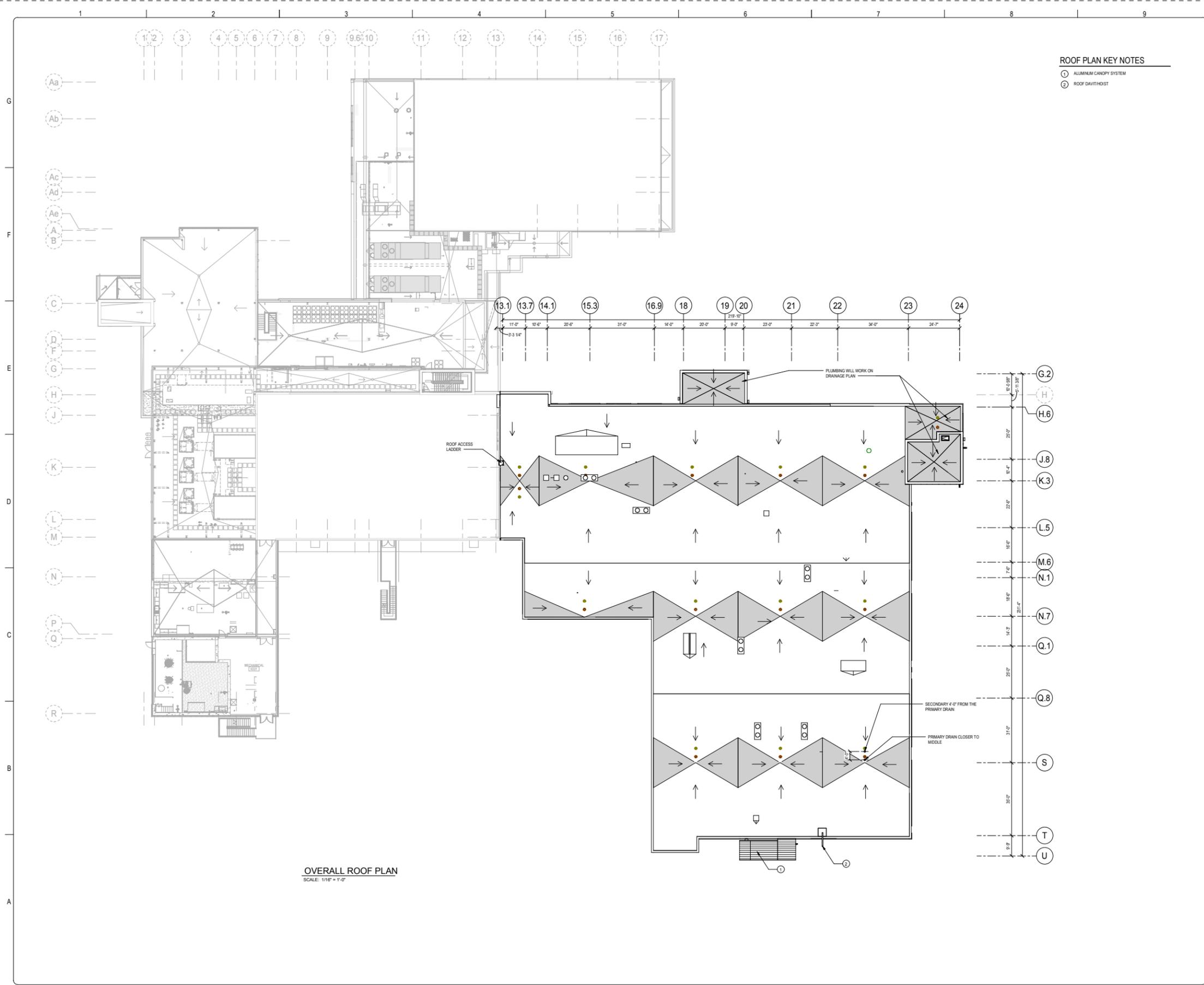
CLIENT  
**MILIPORE SIGMA**

HPAPI EXPANSION  
1151 KETTLE MORAIN TRAIL  
VERONA, WI

DRAWING TITLE  
ARCHITECTURAL  
OVERALL SECOND FLOOR PLAN

JACOBS DRAWING NUMBER  
**17FFV01-AR021-200**

CLIENT DRAWING NUMBER

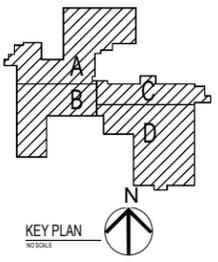


**ROOF PLAN KEY NOTES**

- ① ALUMINUM CANOPY SYSTEM
- ② ROOF DAVITHOIST

**ROOF NOTES**

- ◇ TAPERED INSULATION NOMINAL 1/4 INCH PER FOOT SLOPE
- BASE ROOF INSULATION SHALL BE 2 LAYERS OF 3 INCH POLYISO



REV	BY	DATE	DESCRIPTION
C	JA	05/14/2020	ISSUE FOR DESIGN
B	MY	04/29/2020	ISSUE FOR REVIEW
A	JA	04/09/2020	ISSUE FOR ESTIMATE

APPROVALS AND DATE OF CURRENT REVISION

CHECKED: M. KELLY	DATE: 05/14/2020
DISC LEAD: M. KELLY	
PR: S. SUNDHINE	
DRAWN: J. ANDERSON	DATE: 05/14/2020
DESIGNED: J. ANDERSON	

PE OR RA REGISTRATION SEAL

PRELIMINARY  
NOT FOR CONSTRUCTION



JACOBS PROJECT No. 17FFV01

CLIENT  
**MILLIPORE SIGMA**

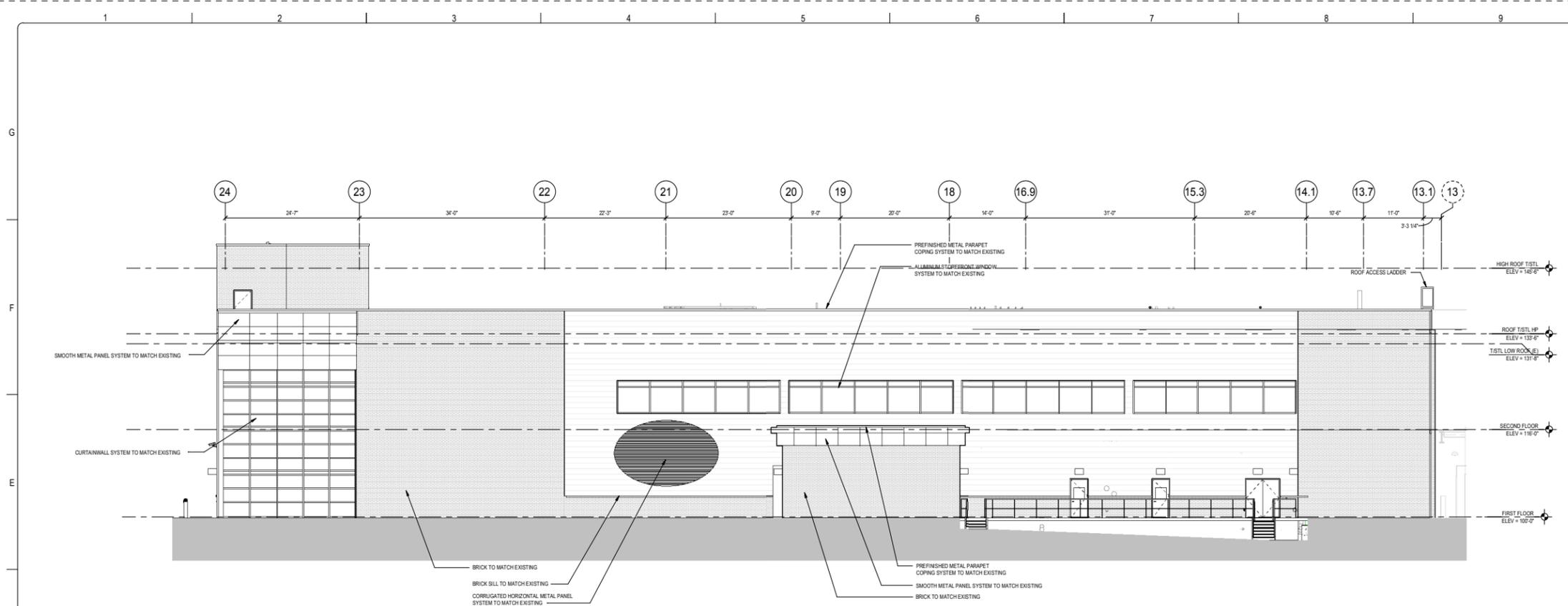
HPAPI EXPANSION  
1151 KETTLE MORaine TRAIL  
VERONA, WI

DRAWING TITLE  
**ARCHITECTURAL  
OVERALL ROOF PLAN**

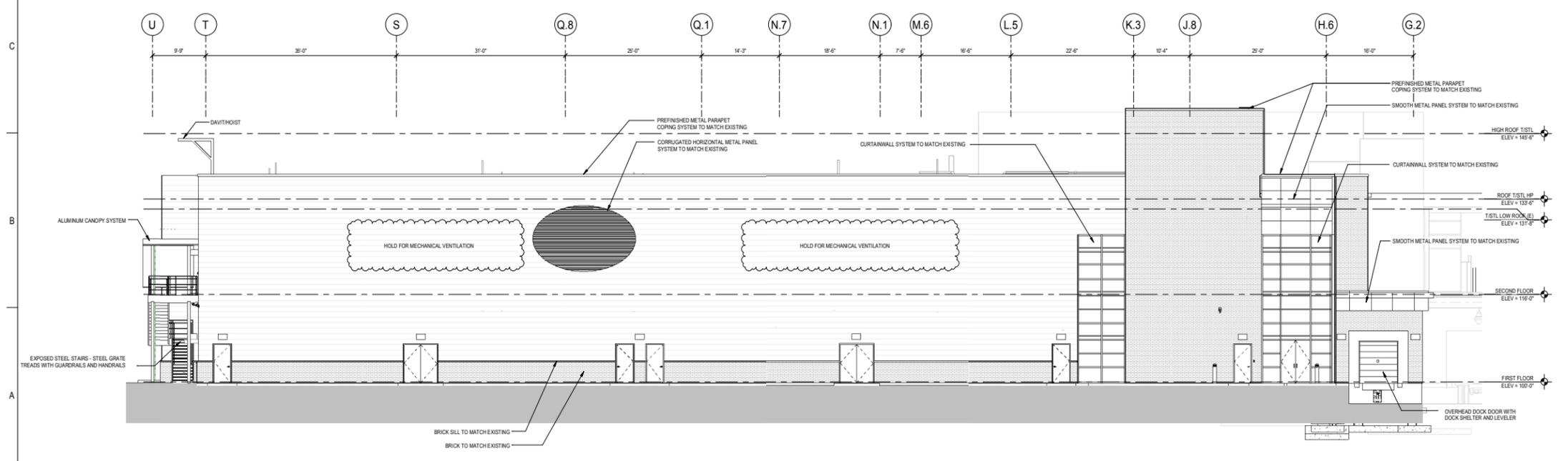
JACOBS DRAWING NUMBER  
**17FFV01-AR021-300**

CLIENT DRAWING NUMBER

**OVERALL ROOF PLAN**  
SCALE: 1/16" = 1'-0"

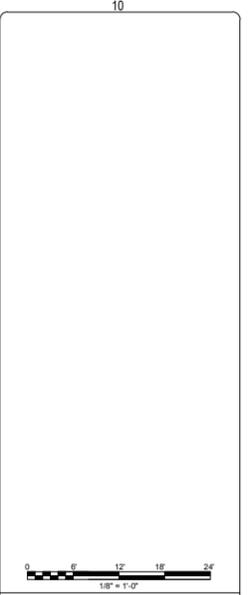


1 NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



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

DO NOT SCALE THIS DRAWING



NOTE:  
ALL CURRENT REVISIONS ARE IDENTIFIED WITH A TRIANGLE AND AN ALPHA OR NUMERIC CHARACTER. ONLY PREVIOUS NUMBERED REVISION TRIANGLES WILL REMAIN AND ONLY CURRENT REVISION CLOUDS WILL BE DISPLAYED.

REV	BY	DATE	DESCRIPTION
C	JA	05/14/2020	ISSUE FOR DESIGN
B	MY	04/28/2020	ISSUE FOR REVIEW
A	JA	04/09/2020	ISSUE FOR ESTIMATE

APPROVALS AND DATE OF CURRENT REVISION

CHECKED: M. KELLY	DATE: 05/14/2020
DISC LEAD: M. KELLY	
DR: S. SANDHINE	
DRAWING CREATION DATE	
DRAWN: J. ANDERSON	DATE: 05/14/2020
DESIGNED: J. ANDERSON	

PE OR RA REGISTRATION SEAL

PRELIMINARY  
NOT FOR CONSTRUCTION



JACOBS PROJECT No. 17FFV01

CLIENT  
**MILIPORE SIGMA**

HPAPI EXPANSION  
1151 KETTLE MORAIN TRAIL  
VERONA, WI

DRAWING TITLE  
**ARCHITECTURAL  
EXTERIOR ELEVATIONS**

JACOBS DRAWING NUMBER  
**17FFV01-AR025-001**

CLIENT DRAWING NUMBER

