# OFFICE BUILDING AND MAINTENANCE GARAGE

PREPARED FOR

# MUHLENBERG TOWNSHIP AUTHORITY

MUHLENBERG TOWNSHIP, BERKS COUNTY, PENNSYLVANIA BY



1047 North Park Road PO Box 6307 Reading, PA 19610-0307 P: 610.621.2000 F: 610.621.2001 **LEHIGH VALLEY** Roma Corporate Center, F: 610.621.2001 LANCASTER 701 Creekside Lane Lititz, PA 17543 P: 717.568.2678 F: 610.621.2001



INDEX TO DRAWINGS

100608.0063 C.0-01



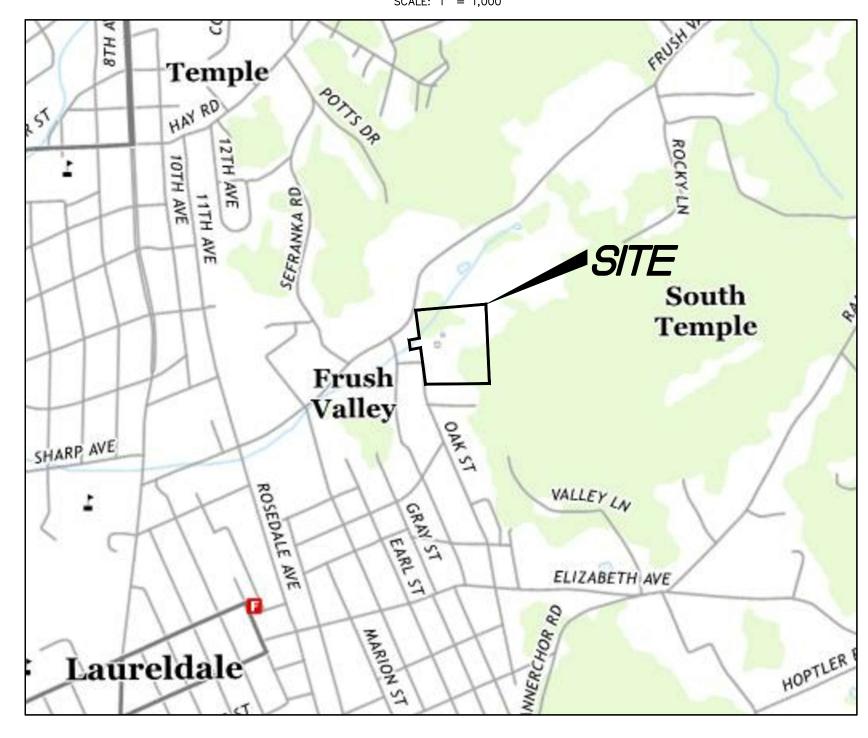
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## PA ONE CALL INFORMATION

PA ONE CALL SERIAL NUMBER: 20192631456

MUNICIPALITY: MUHLENBERG TOWNSHIP, BERKS COUNTY IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 AND TO CONTACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

## **LOCATION MAP**



## OWNER AND DEVELOPER:

MUHLENBERG TOWNSHIP AUTHORITY 2840 KLITZTOWN ROAD READING, PA 19605

## SOURCE OF TITLE:

BEING THE SAME PROPERTY WHICH READING SUBURBAN WATER COMPANY BY DEED DATED JULY 19, 1940 AND RECORDED IN DEED BOOK VOLUME 834, PAGE 626, BERKS COUNTY RECORDS AT READING, PENNSYLVANIA, GRANTED AND CONVEYED UNTO MUHLENBERG TOWNSHIP AUTHORITY.

## PROJECT DESCRIPTION:

THIS PROJECT PROPOSES THE DEMOLITION OF AN EXISTING MAINTENANCE GARAGE AND CLEAR CUTTING OF TREES FOR THE CONSTRUCTION OF A PROPOSED MAINTENANCE GARAGE AND OFFICE.

## ELEVATION DATUM:

COORDINATES ARE BASED ON NORTH AMERICAN DATUM OF 1983 AND ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, OBTAINED BY A VIRTUAL REFERENCE SPATIAL SYSTEM.

#### TRACT SIZE: 13.61 ACRES

TAX PIN NUMBER

#### DESCRIPTION MH.1-01 GARAGE AREA MECHANICAL HVAC PLAN DWG NO. MH.1-02 OFFICE AREA MECHANICAL HVAC PLAN C.0-01 **COVER SHEET** GARAGE AREA MECHANICAL PIPING PLAN C.0-02 LEGENDS AND NOTES OFFICE AREA MECHANICAL PIPING PLAN C.1-01 SITE PLAN MECHANICAL SCHEDULES AND LEGEND **EXISTING CONDITIONS PLAN** MECHANICAL DETAILS DEMOLITION PLAN MECHANICAL DETAILS C.2-01 GRADING PLAN MECHANICAL FLOW DIAGRAMS C.2-50 EROSION AND SEDIMENT CONTROL PLAN GARAGE AREA DOMESTIC WATER PLUMBING PLAN **EROSION AND SEDIMENT CONTROL DETAILS** OFFICE AREA DOMESTIC WATER PLUMBING PLAN **EROSION AND SEDIMENT CONTROL DETAILS** GARAGE AREA SANITARY PLUMBING PLAN **EROSION AND SEDIMENT CONTROL NARRATIVE** OFFICE AREA SANITARY PLUMBING PLAN C.2-60 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN PLUMBING SCHEDULES AND LEGEND POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS FLOW DIAGRAMS AND RISER DIAGRAMS POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS FP.1-01 GARAGE AREA FIRE PROTECTION PLAN C.2-63 POST CONSTRUCTION STORMWATER MANAGEMENT NARRATIVE FP.1-02 OFFICE AREA FIRE PROTECTION PLAN UTILITY PLAN C.3-01 **ELECTRICAL** C.3-02 UTILITY PROFILES EP.1-01 ELECTRICAL SITE PLAN C.5-01 LANDSCAPE PLAN GARAGE AREA ELECTRICAL POWER PLAN CONSTRUCTION DETAILS OFFICE AREA ELECTRICAL POWER PLAN C.6-02 CONSTRUCTION DETAILS GARAGE AREA LIGHTING PLAN **STRUCTURAL** OFFICE AREA LIGHTING PLAN STRUCTURAL NOTES SINGLE LINE DIAGRAM STRUCTURAL NOTES AND SCHEDULE **ARCHITECTURAL** GARAGE FOUNDATION PLAN ARCHITECTURAL DATA SHEET S.1-02 OFFICE FOUNDATION PLAN CODE PLAN GARAGE WALL AND LINTEL PLAN TYPICAL ANSI A117.1-2009 STANDARDS S.1-04 OFFICE ROOF FRAMING PLAN FLOOR PLAN S.1-05 ENLARGED PLANS GARAGE AREA FLOOR PLAN S.3-01 **SECTIONS ENLARGED OFFICE PLAN** S.3-02 SECTIONS **CEILING PLANS** S.3-03 **SECTIONS ROOF PLAN** S.4-01 DETAILS **EXTERIOR ELEVATIONS** S.4-02 **DETAILS BUILDING SECTIONS** S.4-03 **DETAILS** WALL SECTIONS S.4-04 DETAILS WALL SECTIONS & DETAILS **ENLARGED PLANS AND INTERIOR ELEVATIONS** DOOR AND WINDOW SCHED DOOR AND WINDOW DETAILS FINISH PLAN

MECHANICAL/PLUMBING

|                | <u>LEGEND</u>                   |   | <u>LEGEND</u>  |
|----------------|---------------------------------|---|--|
| <b>\$</b>      | EXISTING LIGHT                  | 280                                     | PROPOSED MAJOR CONTOUR   |
| <b>00</b> **   | EXISTING TREE                   | 279                                     | PROPOSED MINOR CONTOUR   |
| -              | EXISTING SIGN                   | 283.63 ×                                | PROPOSED SPOT ELEVATION  |
| <b>X</b>       | EXISTING FIRE HYDRANT           |   | = PROPOSED CONCRETE CURB   |
| Ē              | EXISTING ELECTRIC MANHOLE       | x x                                     | PROPOSED FENCING   |
| g              | — EXISTING GASLINE              | • •                                     | PROPOSED GUIDE RAIL  |
| w              | — EXISTING WATERLINE            |   | PROPOSED TREE  |
| x x            | — EXISTING FENCE                |   | PROPOSED TREE  |
| ========       | = EXISTING STORM SEWER          |   | PROPOSED SHRUB   |
| <u> </u>       | EXISTING SANITARY SEWER         |   |  |
|                | EXISTING TYPE M INLET           |   | PROPOSED HANDICAP PARKING  |
|                | EXISTING TYPE C INLET           |   |  |
| 0              | EXISTING PARKING METER          | 8                                       | PROPOSED PARKING SPACES  |
| ٥              | EXISTING TRAFFIC SIGNAL         |   | PROPOSED STORM PIPE  |
| <u>&amp;</u>   | EXISTING HANDICAP PARKING       | <u> </u>                                | PROPOSED WATER SERVICE   |
| ①              | EXISTING TELEPHONE MANHOLE      | <u>12"</u> <u>D.I.</u>                  | PROPOSED FIRE SERVICE  |
| (W)            | EXISTING WATER MANHOLE          |   | PROPOSED CATCH BASIN   |
| $\circ$        | EXISTING STORM MANHOLE          | $-\bowtie$ $-$                          | PROPOSED GATE VALVE  |
| \$             | EXISTING SANITARY MANHOLE       | <b>⊗</b><br>¥                           | PROPOSED YARD HYDRANT  |
| O/H Wires      | EXISTING OVERHEAD UTILITY LINES | o CO                                    | PROPOSED CLEANOUT  |
| □ <i>G. V.</i> | EXISTING GAS VALVE              | <u>6"</u> P <u>VC</u>                   | PROPOSED SANITARY PIPE   |
|                | EXISTING WATER CURB STOP        | SAN MH-1                                | PROPOSED SANITARY MANHOLE  |
| ⊗ <i>W. V.</i> | EXISTING WATER VALVE            | ——— Е ———                               | PROPOSED ELECTRICAL LINE   |
| • S.Co.        | EXISTING SANITARY CLEANOUT      |   | — PROPOSED GAS PIPE  |
| Ø              | EXISTING UTILITY POLE           | MH-5 O                                  | PROPOSED STORM MANHOLE   |
| <b>�</b>       | EXISTING BENCHMARK              |   | PROPOSED FIRE HYDRANT  |
| ⊡              | EXISTING MONUMENT               | <del>- o -</del>                        | PROPOSED SIGN  |
| 0              | EXISTING PROPERTY CORNER        | •                                       | PROPOSED PIPE BOLLARD  |
| <b>(</b>       | EXISTING MONITORING WELL        | *************************************** | PROPOSED GRASS   |
| 0              | EXISTING MAILBOX                |   |  |
|                | EXISTING TREEROW                |   | PROPOSED CONCRETE  |
| 0              | — EXISTING GUIDERAIL            |   |  |
| e              | — EXISTING UG ELECTRIC          |   | PROPOSED STANDARD PAVING   |
| t              | — EXISTING UG TELEPHONE         |   |  |
| c              | — EXISTING UG CABLE             |   | PROPOSED HEAVY DUTY PAVING   |
|                | — EXISTING MAJOR CONTOUR        |   |  |
|                | EXISTING MINOR CONTOUR          |   | PROPSED AREA OF DEMOLITION   |
|                | EXISTING PROPERTY LINE          | ///.:                                   | The second secon |
| R-1<br>R-3     | EXISTING ZONING BOUNDARY        |   |  |

EXISTING CONCRETE CURB

—— — EXISTING BUILDING SETBACK LINE

## **GENERAL NOTES:**

- 1. EXISTING SITE CONDITIONS SURVEYED BY SPOTTS, STEVENS AND MCCOY, INC. ON JULY 2019.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ALL KNOWN OR VISIBLE TO SURFACE UTILITIES HAVE BEEN SHOWN ON THE PLAN. SOME EXPLORATORY DIGGING MAY BE REQUIRED BY THE CONTRACTOR TO ACCURATELY LOCATE AND VERIFY LOCATION, SIZE, MATERIAL AND APPURTENANCES OF ON-SITE UTILITIES.
- 3. DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT ALL PEDESTRIAN WALKWAYS AND VEHICULAR DRIVEWAY AREAS WITH APPROPRIATE BARRICADES AND WARNING DEVICES. TEMPORARY CONSTRUCTION FENCING SHALL BE IMPLEMENTED TO KEEP THE AREA OF DISTURBANCE FREE OF NON-CONSTRUCTION RELATED PERSONNEL. THE CONTRACTOR SHALL UTILIZE TRAFFIC CONTROL DEVICES, EMPLOY FLAG MAN OR TRAFFIC CONTROL PERSONNEL AS NECESSARY TO ENSURE VEHICULAR MOTORISTS NAVIGATE THE WORK ZONE SAFELY.
- 4. CONTRACTOR SHALL SAFEGUARD ALL UTILITIES DURING CONSTRUCTION.
- 5. THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO SANITARY SEWER FACILITIES, STORMWATER MANAGEMENT FACILITIES, THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
- 6. LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLAN HAVE BEEN DEVELOPED FROM EXISTING UTILITY RECORDS AND/OR ABOVE GROUND EXAMINATION OF THE SITE. COMPLETENESS OR ACCURACY OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. THE CONTRACTOR(S) IS (ARE) REPONSIBLE TO CONTACT EACH UTILITY COMPANY OR AUTHORITY AT LEAST THREE (3) DAYS BEFORE ANY EXCAVATION OF EXISTING UTILITIES. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL INVESTIGATE EXISTING UNDERGROUND UTILITY LOCATIONS, RESEARCH PUBLIC AND SITE UTILITY RECORDS, AND DIG TEST PITS IN AREAS TO THE EXTENT NECESSARY TO VERIFY EXISTING UTILITY DEPTHS AND LOCATIONS AND TO VERIFY THAT STORM DRAINAGE AND UTILITY SYSTEMS PIPE, EXCAVATION, FIILL AND GRADING MAY BE INSTALLED IN COMPLIANCE WITH ORIGINAL DESIGN AND REFERENCE STANDARDS. IF THE CONTRACTOR DETERMINES THAT THE ORIGINAL DESIGN IS IN CONFLICT WITH THE EXISTING UTILITIES, HE SHALL IMMEDIATELY NOTIFY THE DESIGN PROFESSIONAL OF SUCH CONFLICT. CONTRACTOR IS CAUTIONED NOT TO ORDER ANY MATERIALS OR PERFORM ANY FURTHER WORK UNTIL SUCH VERIFICATION AND/OR DESIGN PROTESTATION CLARIFICATION HAS BEEN PROVIDED. CONTRACTOR WILL BE REQUIRED TO REPAIR ALL DAMAGE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED MUNICIPAL PERMITS.
- 7. PURSUANT TO PA ACT 121 (2008), NOTIFICATION TO THE "ONE-CALL SYSTEM" IS REQUIRED AT LEAST THREE (3) WORKING DAYS PRIOR TO DISTURBING EARTH WITH ANY TYPE OF POWERED EQUIPMENT. CALL 1-800-242-1776.
- 8. ALL CONSTRUCTION IMPROVEMENTS SHALL BE LOCATED, DESIGNED, INSTALLED AND/OR CONSTRUCTED IN ACCORDANCE WITH ALL CURRENT STANDARDS SPECIFIC BY MUHLENBERG TOWNSHIP. IF NOT COVERED, THEN PENNDOT PUBLICATION 408-SPECIFICATIONS AND PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION RC SERIES SHALL APPLY, UNLESS OTHERWISE NOTED ON THE PLANS.
- 9. ALL FINISH GRADING IS TO BE DONE SO AS TO ENSURE POSITIVE DRAINAGE TOWARD THE APPROPRIATE INLET OR DRAINAGE FACILITY.
- 10. SPOT ELEVATIONS INDICATE FINISH SURFACE ELEVATION UNLESS OTHERWISE NOTED ON THE PLAN. ALL GRADES SHALL BE SMOOTH AND CONTINUOUS.
- 11. ALL DIMENSIONS AND CONDITIONS MUST BE CHECKED AND VERIFIED IN THE FIELD BEFORE STARTING WORK. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE OWNER'S ENGINEER FOR A RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- 12. ALL ADA ACCESS ROUTES, RAMPS AND PARKING AREAS SHALL BE CONSTRUCTION IN ACCORDANCE WITH THE ADAAG (2010), ANSI A117.1-2003 AND/OR OTHER BUILDING CODES, WHERE REQUIRED.
- 13. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN DETAILED "AS-BUILT" INFORMATION OF THE LATERALS, BENDS, VALVES, DROP CONNECTIONS, ETC. OF ALL UTILITY LINE CONSTRUCTION.
- 14. THE PROJECT SITE DRAINS TO AN UNNAMED TRIBUTARY TO LAUREL RUN, WHICH IS CLASSIFIED AS WARM WATER FISHERY (WWF) ACCORDING TO PA CHAPTER 93 WATER QUALITY STANDARDS.
- 15. THE PROJECT AREA IS NOT LOCATED WITHIN THE 100-YEAR FLOODPLAIN.
- 16. THERE ARE NO KNOWN WETLANDS WITHIN THE PROJECT AREA.

PUBLICATION 408.

- 17. ALL STORMWATER CONVEYANCE AND MANAGEMENT FACILITIES (BASINS, SWALES, PIPES, AND INFILTRATORS) SHOWN ON THIS PLAN ARE PERMANENT AND ARE NOT TO BE REMOVED OR FILLED WITHOUT APPROVAL BY THE MUNICIPALITY.
- 18. THE OWNER IS RESPONSIBLE FOR ALL EXTERIOR MAINTENANCE OF THE PROPERTY. THE MAINTENANCE OF THE UTILITIES OUTSIDE OF PUBLIC RIGHT-OF-WAY LINES INCLUDING STORMWATER FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER.
- 19. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED FOR CONSTRUCTION.
- 20. ALL PARKING AREAS SHALL BE LINE PAINTED, EACH PARKING SPACE SHALL BE DELINEATED WITH FOUR INCH PAINTED LINES. ALL LINE PAINTING PLACEMENT SHALL BE IN ACCORDANCE WITH PENNDOT

| _ |              |  |      |  |                       |                       | _                  |                                     |
|---|--------------|--|------|--|-----------------------|-----------------------|--------------------|-------------------------------------|
|   |              |  |      |  |                       |                       | KMF                | APVD                                |
|   |              |  |      |  |                       |                       | KMF                | CHKD                                |
|   |              |  |      |  |                       |                       | KMF                | MADE CHKD APVD                      |
|   |              |  |      |  |                       |                       | BIDDING            | DESCRIPTION                         |
|   |              |  |      |  |                       |                       | 02/07/20 BIDDING   | DATE                                |
|   |              |  |      |  |                       |                       | 0                  | CN                                  |
|   | RELEASED FOR |  | מוחח |  | NO! つりと! ひNO HOL ! ON | PROJECT MANAGER: NIMT | BASE BY: HMM N.B.: | DRAWN BY: MBD DESIGNED BY: AW CHKD: |
|   |              |  |      |  |                       |                       |                    |                                     |
|   |              |  |      |  |                       |                       |                    |                                     |

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OFFICE BUILDING AND MAINTENANCE GARAGE

LEGENDS AND NOTES

MUHLENBERG TOWNSHIP, BERKS COUNTY, PA

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DATE DIGITAL FILENAME

100608.0063

WORK ORDER NUMBER

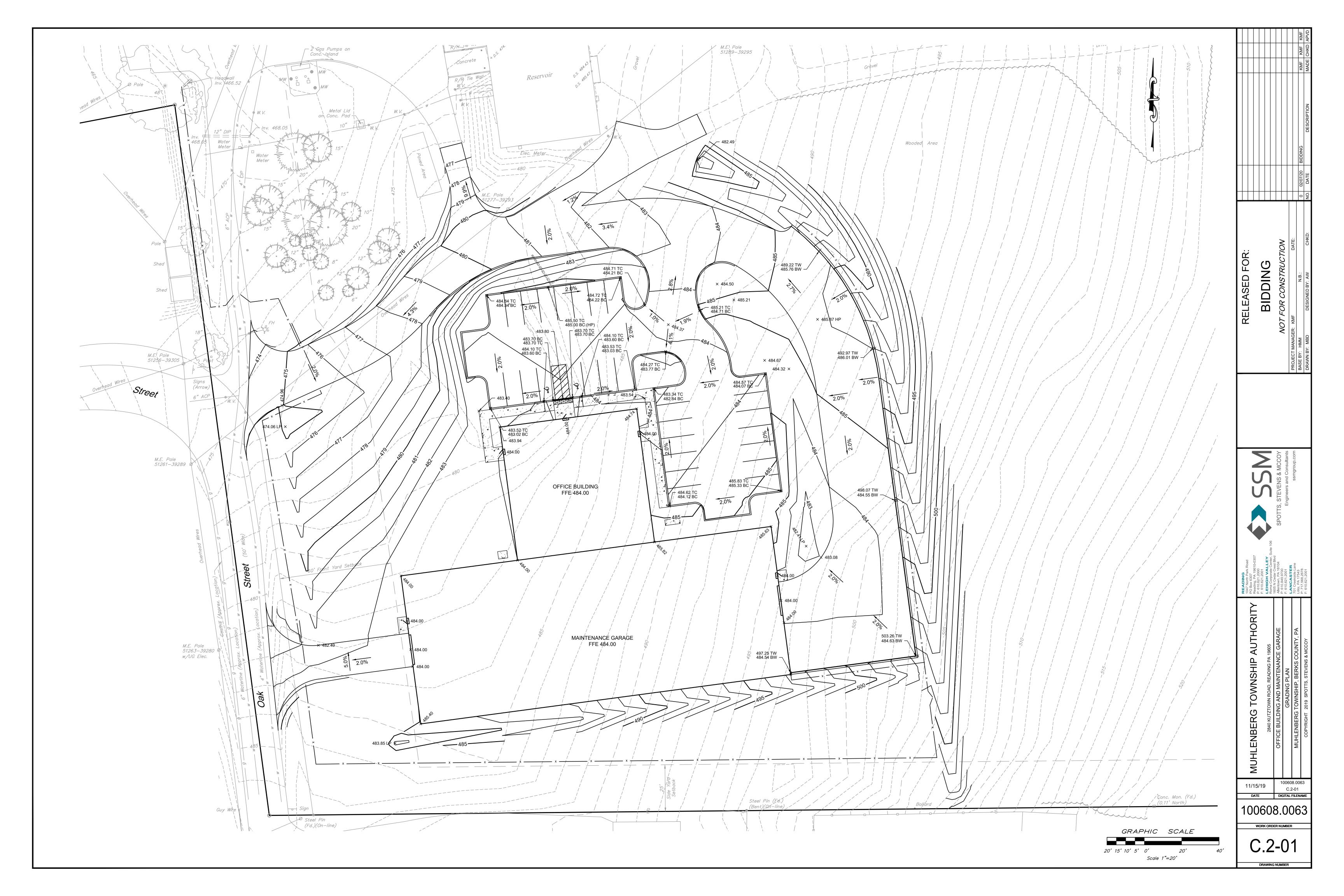
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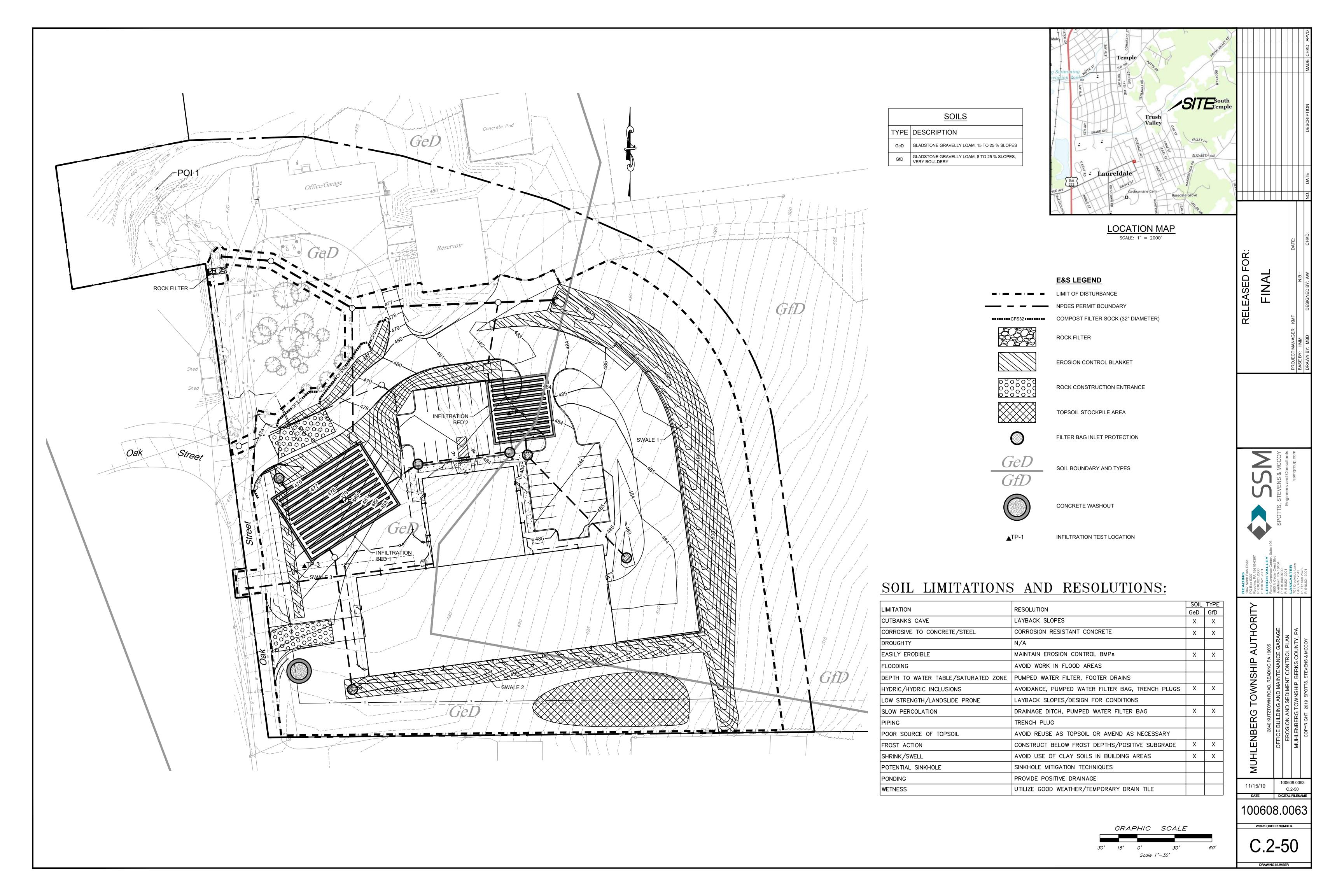
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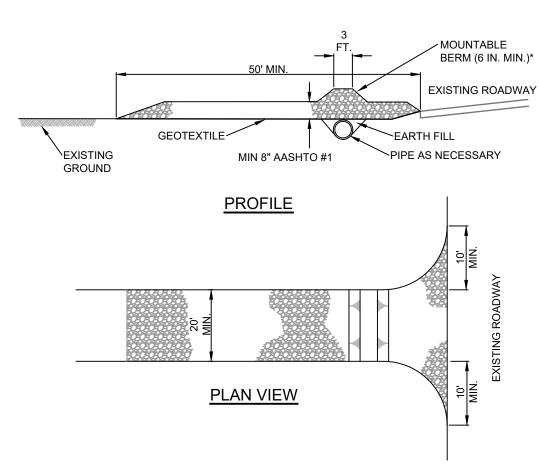












\* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

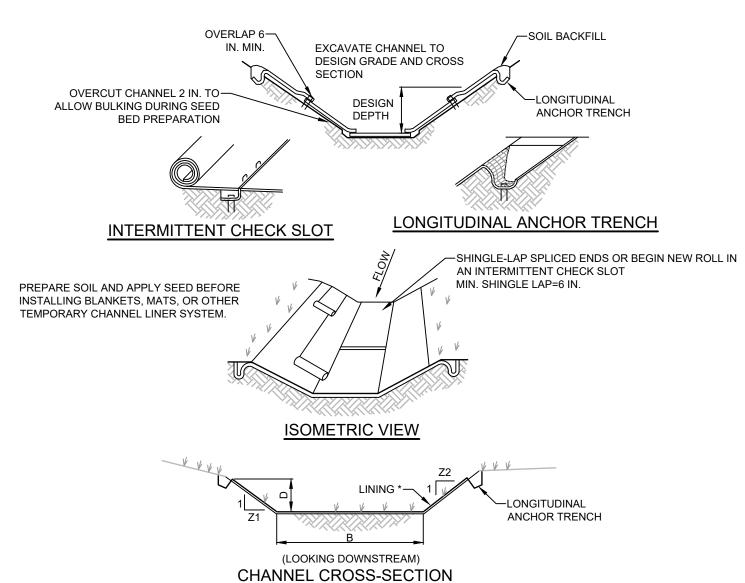
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

#### STANDARD CONSTRUCTION DETAIL #3-1 **ROCK CONSTRUCTION ENTRANCE** NOT TO SCALE



\* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

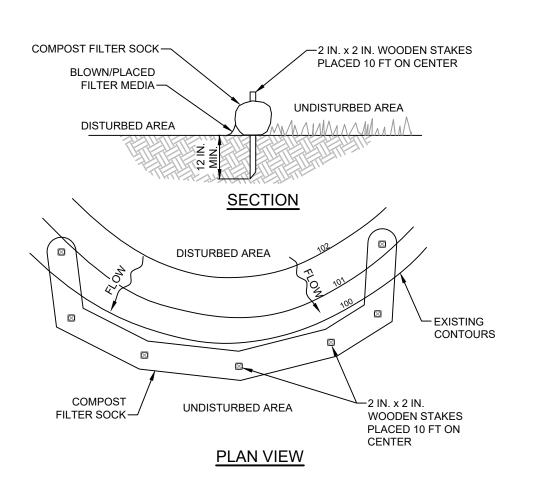
| CHANNEL<br>NO. | STATIONS | BOTTOM<br>WIDTH<br>B<br>(FT) | DEPTH<br>D<br>(FT) | TOP<br>WIDTH<br>W<br>(FT) | Z1<br>(FT) | Z2<br>(FT) | LINING * |
|----------------|----------|------------------------------|--------------------|---------------------------|------------|------------|----------|
|                |          |                              |                    |                           |            |            |          |
|                |          |                              |                    |                           |            |            |          |

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

#### STANDARD CONSTRUCTION DETAIL #6-1 **VEGETATED CHANNEL** NOT TO SCALE



SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM

THE SLOPE OF ITS TRIBUTARY AREA. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

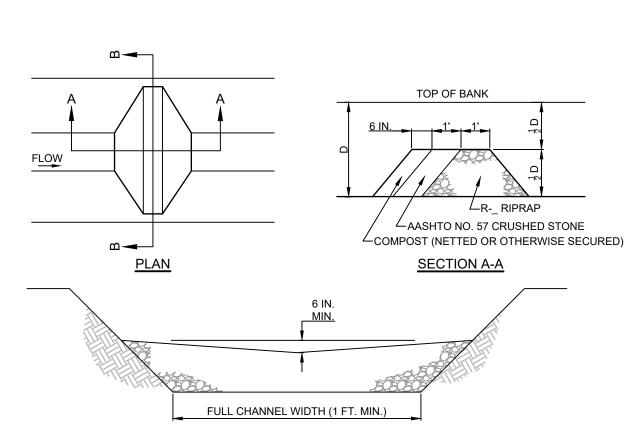
SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

> STANDARD CONSTRUCTION DETAIL #4-1 COMPOST FILTER SOCK NOT TO SCALE



-1 IN. REBAR FOR

ISOMETRIC VIEW

**SECTION VIEW** 

SHALL BE REQUIRED FOR ALL INSTALLATIONS.

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

EARTHEN BERM TO BE STABILIZED WITH-

TEMPORARY OR PERMANENT VEGETATION

NOTES:

BAG REMOVAL FROM

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM

BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS

SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN

BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL

REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT

STANDARD CONSTRUCTION DETAIL #4-16

FILTER BAG INLET PROTECTION - TYPE M INLET

BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

—EXPANSION RESTRAINT

-2 IN X 2 IN. X 3/4 IN. RUBBER BLOCK

**PLAN VIEW** 

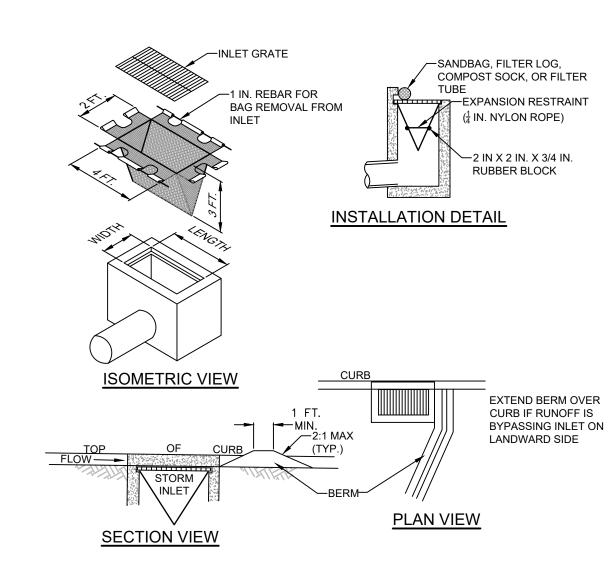
**INSTALLATION DETAIL** 

1/4 IN. NYLON ROPE)

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

SECTION B-B

STANDARD CONSTRUCTION DETAIL #4-14



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

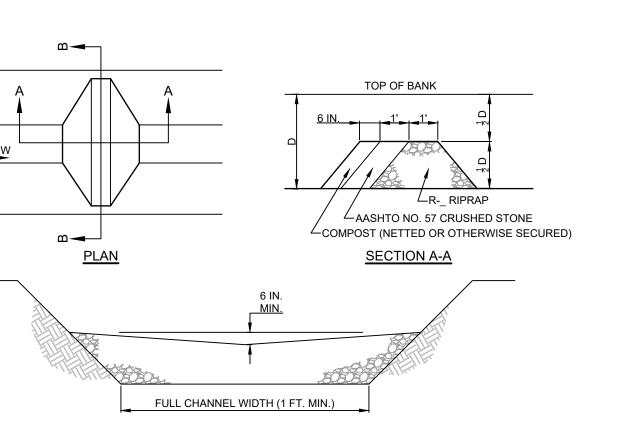
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

#### STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION - TYPE C INLET NOT TO SCALE



FOR D > 3 FT. - USE R-4 FOR  $D \ge 2$  FT. TO D < 3 FT. - USE R-3 SIZE FILTER LOCATION NOT APPLICABLE FOR D < 2 FT.

## NOTES:

| READING<br>1047 North Park Road<br>1047 North Park Road<br>Po Box 6307<br>Reading, PA 19610-0307<br>P: 610,621,2000<br>F: 610,621.2001 | LEHIGH VALLEY Roma Corporate Center, Suite 106 | 1605 N Cedar Crest Blvd Allentown, PA 18104 SPOTTS, STEVENS & MCCOY                           | Engineers and Consultants            | 701 Creekside Lane ssmgroup.com Litit, PA 17543        | 2001   |
|--|--|---|--------------------------------------|--|--|
| MUHLENBERG TOWNSHIP AUTHORITY P. B. B. C. S. S. O. F. 610.621.2001 F. 610.621.2001 F. 610.621.2001                                     | 2840 KUTZTOWN ROAD, READING PA 19605           | OFFICE BUILDING AND MAINTENANCE GARAGE OFFICE BUILDING AND MAINTENANCE GARAGE P: 610 849 9770 | EROSION AND SEDIMENT CONTROL DETAILS | MUHLENBERG TOWNSHIP, BERKS COUNTY, PA Lititz, PA 17543 | COPYRIGHT 2019 SPOTTS, STEVENS & MCCOY F: 610.621.2001 |
| 11/15/19   | )  |   | C.2                                  | 8.006<br>2-51<br>FILEN                                 |  |
| 1006   | 0  | 8.  | 00                                   | )6   | 3  |

STARTING AT TOP OF SLOPE, ROLL BLANKETS IN DIRECTION OF WATER FLOW PREPARE SEED BED (INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED) PRIOR TO BLANKET INSTALLATION THE BLANKET SHOULD — OVERLAP BLANKET ENDS 6 IN. MIN. WITH-REFER TO MANUF. RECOMMENDED NOT BE STRETCHED; IT THE UPSLOPE BLANKED OVERLYING THE STAPLING PATTERN FOR STEEPNESS MUST MAINTAIN GOOD DOWNSLOPE BLANKET (SHINGLE STYLE). AND LENGTH OF SLOPE BEING

INSTALL BEGINNING OF ROLL IN

6 IN. x 6 IN. ANCHOR TRENCH.

STAPLE, BACKFILL AND COMPACT SOIL

NOTES:

SOIL CONTACT

BLANKET EDGES STAPLED

AND OVERLAPPED

(4 IN. MIN.)

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

STAPLE SECURELY.

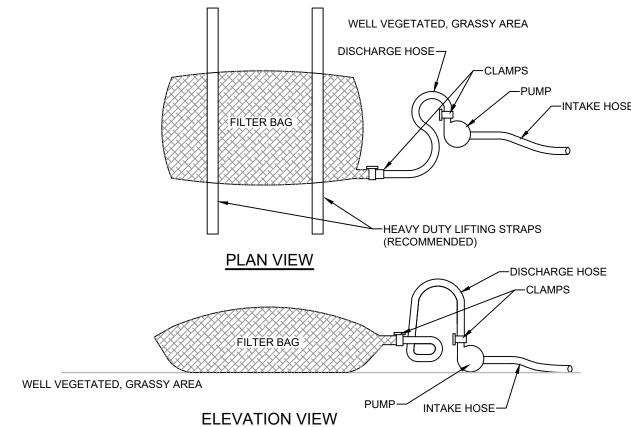
SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

> STANDARD CONSTRUCTION DETAIL #11-1 EROSION CONTROL BLANKET INSTALLATION NOT TO SCALE



#### NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

| PROPERTY                 | TEST METHOD | MINIMUM STANDARD |
|--------------------------|-------------|------------------|
| AVG. WIDE WIDTH STRENGTH | ASTM D-4884 | 60 LB/IN         |
| GRAB TENSILE             | ASTM D-4632 | 205 LB           |
| PUNCTURE                 | ASTM D-4833 | 110 LB           |
| MULLEN BURST             | ASTM D-3786 | 350 PSI          |
| UV RESISTANCE            | ASTM D-4355 | 70%              |
| AOS % RETAINED           | ASTM D-4751 | 80 SIEVE         |

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

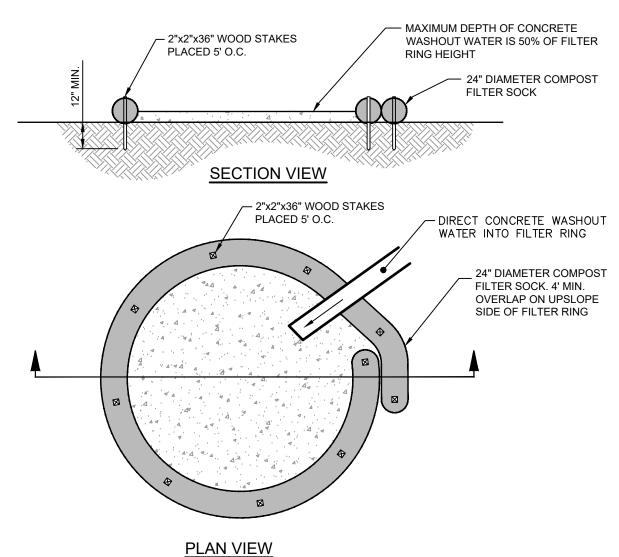
NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

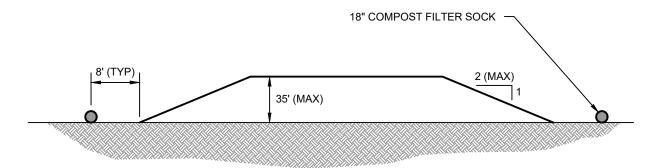
STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG



- I LITTO VIL
- 1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
- 2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED

COMPOST SOCK WASHOUT

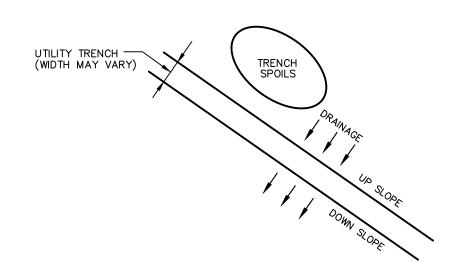
NOT TO SCALE



#### NOTES:

- 1. STOCKPILE HEIGHT SHALL NOT EXCEED 35'.
- 2. TOPSOIL STOCKPILES SHALL BE SEEDED IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATIONS, AT THE END OF EACH WORKING DAY.
- 3. STOCKPILES SHALL BE SURROUNDED BY 18" COMPOST FILTER SOCKS (OR THE DOWNSTREAM EDGE IF ON A SLOPE) ALONG EXISTING LEVEL GRADE AT LEAST 8' FROM THE BASE OF THE STOCKPILE SIDE SLOPES. ACCUMULATED SEDIMENT SHALL BE REMOVED ONCE IT REACHES 1/2 THE HEIGHT OF THE SOCKS

## TOPSOIL STOCKPI



- NOTES:

  1. ALL TRENCH SPOILS SHALL BE SIDE CAST ON THE UP SLOPE SIDE OF THE TRENCH.

  2. ALL DISTURBED AREAS SHALL BE STABILIZED PRIOR TO
- ALL DISTURBED AREAS SHALL BE STABILIZED PRIOR TO THE END OF EACH WORKING DAY (WITH COMPACTED GRAVEL, SEEDING AND MULCH, MULCH CONTROL NETTING OR RIP—RAP DEPENDING ON CONDITIONS AND LOCATION).

TRENCH SPOIL SIDE CAST DETAIL

NOT TO SCALE

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|               |   |  |  |  |                      |                    |   |
|               |   |  |  |  |                      |                    |   |
|               |   |  |  |  |                      |                    |   |
| NELEASED FOR. |   |  |  |  | PROJECT MANAGER: KMF | BASE BY: HMM N.B.: |   |

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OFFICE BUILDING AND MAINTENANCE GARAGE

EROSION AND SEDIMENT CONTROL DETAILS

MUHLENBERG TOWNSHIP, BERKS COUNTY, PA

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DATE DIGITAL FILENAME

100608.0063

WORK ORDER NUMBER

C.2-52

#### SOILS INFORMATION

ACCORDING TO THE USDA NRCS WEB SOIL SURVEY, SITE SOILS INCLUDE THE GLADSTONE GRAVELLY LOAM. THIS SOIL IS LOCAL COLLUVIUM AND RESIDUUM WEATHERED FROM GRANITE AND GNEISS. IT IS WELL DRAINED, WITH A DEPTH TO LITHIC BEDROCK BETWEEN 60 AND 100 INCHES, AND A DEPTH TO THE WATER TABLE OF MORE THAN 80 INCHES. REFER TO APPENDIX C FOR A COPY OF THE WEB SOIL SURVEY.

SITE SOILS USE LIMITATIONS
REFER TO THE TABLE ON THE E&S PLAN (SHEET C.2-50) FOR ALL SOIL LIMITATIONS AND RESOLUTIONS.

#### LAND USES: PAST, PRESENT, AND PROPOSED

BEFORE THE PROPERTY WAS DEVELOPED, THE SITE WAS PREDOMINATELY WOODLANDS. THE PROPERTY, AS IT IS TODAY, WAS DEVELOPED IN THE 1960S. THE PROPERTY IS CURRENTLY USED BY MUHLENBERG TOWNSHIP AUTHORITY AS A STORAGE AND MAINTENANCE FACILITY, AND IS MAINLY COVERED WITH BUILDINGS, PAVED DRIVEWAYS, OPEN GRASS AREAS, AND UNDEVELOPED WOODLANDS. THE PROPOSED FUTURE USE OF THE PROPERTY IS THE SAME AS IT IS TODAY.

#### RECEIVING WATERS OF THE COMMONWEALTH CH. 93 CLASSIFICATION

THE PROJECT SITE DRAINS TO AN UNT OF LAUREL RUN, WHICH IS CLASSIFIED AS WARM WATER FISHERY AND MIGRATORY FISHERY (WWF, MF) ACCORDING TO PA CHAPTER 93 WATER QUALITY STANDARDS. THERE ARE NO WETLANDS ON THE PROJECT SITE, NOR IS THE SITE LOCATED WITHIN THE FEMA 100-YEAR FLOODPLAIN.

#### DESCRIPTION OF BMPS

#### **BMPS USED PRIOR TO CONSTRUCTION**

PRIOR TO THE START OF CONSTRUCTION, A STAGING AREA WILL BE ESTABLISHED IN A LOCATION MUTUALLY AGREED UPON BY THE CONTRACTOR AND THE OWNER. THE STAGING AREA SHALL BE MAINTAINED IN AN ORDERLY FASHION AND WILL BE REQUIRED TO INSTALL ALL NECESSARY BMP MEASURES IN ORDER TO ALLOW NON-SEDIMENT LADEN RUNOFF FROM THE STAGING AREA. ROCK CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS INDICATED ON THE PLANS.

## BMPS USED DURING CONSTRUCTION DURING CONSTRUCTION, ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE

INSTALLED IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS PROVIDED ON THE PLANS AND IN THIS REPORT. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND STABILIZED PRIOR TO SITE DISTURBANCE AND CONSTRUCTION. THE FOLLOWING TEMPORARY CONTROL MEASURES WILL BE USED DURING CONSTRUCTION ACTIVITIES:

- ROCK CONSTRUCTION ENTRANCE.
   EROSION CONTROL BLANKET.
- 3. COMPOST FILTER SOCK.
- FILTER BAG INLET PROTECTION
   PUMPED WATER FILTER BAG.
- 6. CONCRETE WASHOUT.
   7. ROCK FILTER.

#### BMPS USED AFTER CONSTRUCTION

AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETE, ALL REMAINING DISTURBED AREAS WILL BE STABILIZED WITH PERMANENT SEEDING. AFTER FINAL STABILIZATION (MINIMUM UNIFORM 70% PERENNIAL VEGETATION COVER OR PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION AND SEDIMENTATION) HAS BEEN ACHIEVED, THE CONTRACTOR MUST REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS. ANY AREAS THAT ARE DISTURBED DURING REMOVAL OF THE TEMPORARY CONTROL MEASURES MUST BE STABILIZED IMMEDIATELY. ALL PERMANENT CONTROL MEASURES USED AFTER CONSTRUCTION SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS PROVIDED ON THE PLANS AND IN THIS REPORT. THE FOLLOWING PERMANENT CONTROL MEASURES WILL BE USED AFTER CONSTRUCTION:

1. PERMANENT STABILIZATION.

#### STAGING OF EARTHMOVING ACTIVITIES

#### GENERAL COMMENT

- 1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROLS PROPOSED FOR THIS PROJECT. EROSION AND SEDIMENT CONTROLS SHALL BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE WITHIN THE TRIBUTARY AREAS OF THOSE CONTROLS.
- 2. A COPY OF THE EROSION & SEDIMENT CONTROL PLANS SHALL BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH PENNSYLVANIA STATE LAW.
- 3. THE GENERAL CONTRACTOR SHALL NOTIFY THE BERKS COUNTY CONSERVATION
  DISTRICT AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION
- 4. ALL CONSTRUCTION VEHICLES AND EQUIPMENT ACCESSING OR LEAVING THE LIMITS OF DISTURBANCE SHALL DO SO VIA A ROCK CONSTRUCTION ENTRANCE AT A LOCATION SHOWN ON THE PLANS OR SHALL ACCESS THE LIMITS OF DISTURBANCE VIA THE MACADAM ROAD SURFACE. ALL CONSTRUCTION VEHICLES SHALL BE ADEQUATELY CLEANED OF ALL SEDIMENT PRIOR TO LEAVING THE SITE VIA THE MACADAM ROAD SURFACE. OTHERWISE, ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE VIA A FLATBED TRAILER AND SHALL BE LOADED WITHIN THE LIMITS OF DISTURBANCE. THE FLATBED TRAILER SHALL REMAIN ON THE MACADAM ROAD SURFACE AT ALL TIMES.
- 5. CONSTRUCTION SHALL REMAIN WITHIN THE LIMITS OF DISTURBANCE UNTIL THE WORK IS STABILIZED. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- 6. AREAS UTILIZED FOR CONSTRUCTION STAGING AND LAY DOWN SHALL BE STABILIZED AT ALL TIMES DURING CONSTRUCTION.
- 7. ALL STRIPPING OF VEGETATION, GRADING, FILLING AND EXCAVATION SHALL BE DONE IN SUCH A WAY AS TO MINIMIZE EROSION. WHEREVER NOTED ON THE PLANS, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED AND SUPPLEMENTED. DISTURBED AREAS SHALL BE KEPT TO A PRACTICAL MINIMUM AND STABILIZED AS QUICKLY AS POSSIBLE IN ACCORDANCE WITH THE TEMPORARY OR PERMANENT MEASURES OUTLINED IN THE SEEDING AND MULCHING SCHEDULES.
- 8. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER. STOCKPILES SHALL BE STABILIZED IMMEDIATELY.
- ALL CONSTRUCTED AND DISTURBED SLOPES (3:1 OR STEEPER) SHALL BE SEEDED AND STABILIZED WITH EROSION CONTROL BLANKET.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
   FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR
- 12. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- 13. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY A COUNTY CONSERVATION DISTRICT OR DEP FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- 14. SEDIMENT REMOVED FROM EROSION AND SEDIMENT CONTROLS MAY BE USED AS TOPSOIL, IF SUITABLE, OR SHALL BE PROPERLY DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS AND DRAINAGE SWALES, OR DISPOSED OF LEGALLY, OFFSITE.
- 15. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 4 INCHES PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 6 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL 3:1 OR GREATER SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- 6. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A DIRT BAG FILTRATION DEVICE (I.E.: PUMPED WATER FILTER BAG), OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER STABILIZED AREAS DOWNSTREAM OF ANY EARTH DISTURBANCE. DISCHARGE POINTS SHOULD BE ESTABLISHED TO PROVIDE FOR

MAXIMUM DISTANCE TO ACTIVE WATERWAYS.

ALTERNATIVE METHOD OF CONTROL

17. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.

18. STORMWATER RUNOFF SHALL BE PREVENTED FROM ENTERING STORM SEWER

FACILITIES VIA AN OPEN TRENCH. IF ANY EMERGENCY REPAIRS/REPLACEMENT OF

IMMEDIATE ACTION SHALL BE TAKEN TO RESTORE THE CONTROLS OR PROVIDE AN

STORM SEWER FACILITIES MUST OCCUR, RUNOFF SHALL BE PREVENTED FROM ENTERING THE FACILITIES AT THE POINTS OF REPAIR/REPLACEMENT.

9. UPON REDUCTION, LOSS OR FAILURE OF THE EROSION AND SEDIMENT CONTROLS,

- 20. WHERE EROSION AND SEDIMENT CONTROLS ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE GENERAL CONTRACTOR SHALL IMMEDIATELY CONTACT THE BERKS COUNTY CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN FIVE (5) DAYS OF THE INITIAL CONTACT.
- 21. IN THE EVENT THAT ARCHEOLOGICAL ARTIFACTS ARE DISCOVERED, THE GENERAL CONTRACTOR SHALL ENSURE PROTECTION AND REPORT THE DISCOVERY TO THE OWNER AND THE DIRECTOR OF THE BUREAU OF HISTORIC PRESERVATION, HISTORICAL AND MUSEUM COMMISSION, P.O. BOX 1026, HARRISBURG, PA 17120.
- 22. IF SINKHOLES ARE ENCOUNTERED DURING CONSTRUCTION, THE OWNER SHALL RETAIN THE SERVICES OF A QUALIFIED GEOLOGIST OR GEOTECHNICAL ENGINEER FOR THEIR PROFESSIONAL OPINION AND REMEDIAL RECOMMENDATIONS.
- 23. ANY AND ALL SEDIMENT TRACKED ONTO ADJACENT ROADS OR PARKING AREAS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION AREA, BY THE END OF EACH WORKING DAY. REMOVAL MAY BE COMPLETED THROUGH USE OF MECHANICAL OR HAND TOOLS, BUT SEDIMENT SHALL NEVER BE WASHED OFF THE ROAD SURFACE WITH WATER.
- 24. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES EXCEED 4 DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES.
- 25. UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE OPERATOR SHALL IMMEDIATELY STABILIZE THE DISTURBED AREAS SO AS TO PROTECT FROM ACCELERATED EROSION. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MAY BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS, WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN 1 YEAR, MUST BE STABILIZED IN ACCORDANCE WITH PERMANENT SEEDING SPECIFICATIONS.
- 26. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE BERKS COUNTY CONSERVATION DISTRICT FOR A FINAL INSPECTION PRIOR TO THE REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROLS.
- 27. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS SHALL BE STABILIZED IMMEDIATELY.
- 28. ALTERNATE PRODUCTS TO THOSE SPECIFIED ON THE DRAWINGS MUST BE REVIEWED AND APPROVED AS EQUAL BY THE OWNER, ENGINEER AND CONSERVATION DISTRICT.
- 29. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 E. SEQ. AND 287.1 ET SEQ.
- 30. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE OPERATOR SHALL ASSURE THAT EACH SPOIL OR BORROW AREA HAS AN EROSION AND SEDIMENT CONTROL PLAN APPROVED BY THE GOVERNING CONSERVATION DISTRICT, AND WHICH IS BEING IMPLEMENTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 102 REGULATIONS. THE OPERATOR SHALL NOTIFY THE BERKS COUNTY CONSERVATION DISTRICT IN WRITING OF ALL RECEIVING SPOIL AND BORROW AREAS ONCE THEY HAVE BEEN IDENTIFIED.
- 31. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE BERKS COUNTY CONSERVATION DISTRICT OR DEP.
- 32. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

#### CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. THE GENERAL CONTRACTOR SHALL TAKE INTO ACCOUNT THE LOCAL WEATHER FORECAST PRIOR TO BEGINNING ANY EXCAVATION ACTIVITIES.

DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE LANCASTER COUNTY CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL CONTACT ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE LANCASTER COUNTY CONSERVATION DISTRICT TO SCHEDULE AN ON-SITE PRECONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.

- INSTALL ROCK CONSTRUCTION ENTRANCES AS INDICATED. ALL CONSTRUCTION VEHICLES SHALL ENTER AND LEAVE THE SITE AT THESE LOCATIONS.
- VEHICLES SHALL ENTER AND LEAVE THE SITE AT THESE LOCATIONS.

  2. DELINEATE AND MARK THE LIMIT OF DISTURBANCE (I.E. SURVEY STAKES, POST AND ROPE, ORANGE CONSTRUCTION FENCE, ETC.). ALL CONSTRUCTION ACTIVITIES SHALL REMAIN WITHIN THIS LIMIT AT ALL TIMES.
- INSTALL COMPOST FILTER SOCKS AS INDICATED.
   INSTALL ROCK FILTER AS INDICATED.
- INSTALL ROCK FILTER AS INDICATED.
   DEMOLISH EXISTING SITE FEATURES AS INDICATED.
- 6. CLEAR AND GRUB THE SITE WITHIN THE LIMIT OF DISTURBANCE.
  7. BEGIN EARTHMOVING AND BULK CUT ACTIVITIES. EXCESS CUT SHALL BE EXPORTED OFF SITE.
- 8. CONSTRUCT THE RETAINING WALL. EXCAVATION FOR BACKFILL SHALL BE STOCKPILED ON SITE.
- FOLLOWING THE CONSTRUCTION OF THE RETAINING WALL, BEGIN CONSTRUCTION OF THE PROPOSED BUILDING.
   CONCURRENT WITH THE BUILDING CONSTRUCTION, INSTALL INFILTRATION BEDS
- AND ASSOCIATED STORM SEWER PIPING. THE CONSTRUCTION OF THE INFILTRATION BEDS IS A CRITICAL STAGE. REFER TO THE PCSM PLAN FOR SPECIFIC CONSTRUCTION REQUIREMENTS.

  11. IN RELATION TO STORM SEWER CONSTRUCTION, THE QUANTITY OF EXCAVATION COMPLETED IN ONE (1) DAYS' TIME SHALL BE LIMITED TO THE AMOUNT OF PIPING WHICH CAN BE INSTALLED IN ONE (1) WORKING DAYS' TIME PERIOD. ALL EXCAVATED MATERIALS SHALL BE DEPOSITED UPSLOPE OF THE TRENCH. AS SOON

AS THE PIPE IS INSTALLED, PLACE DESIGNATED DIRECT COVER AND DESIGNATED

BACKFILL TRENCH AT END OF EACH WORK DAY. INITIAL GRADE MAY BE SLIGHTLY

- LOWER THAN SURROUNDING ELEVATIONS TO MINIMIZE RUNOFF.

  12. IMMEDIATELY FOLLOWING INLET CONSTRUCTION, INSTALL FILTER BAG INLET PROTECTION ON ALL INLETS.
- 13. GRADE SITE TO PROPOSED ELEVATIONS. INSTALL EROSION CONTROL BLANKET AS INDICATED

TRENCH BACKFILL. AND RESTORE TRENCH TO NEAR ORIGINAL ELEVATION.

14. AT THE CONCLUSION OF BUILDING CONSTRUCTION, INSTALL PAVING AS INDICATED.
 15. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS SHALL BE STABILIZED IMMEDIATELY. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST

## BMP MAINTENANCE AND OPERATION PROGRAM

SLIDING OR OTHER MOVEMENTS.

- THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE COMPLETE CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL FACILITIES.
- 2. STOCKPILES OF WOOD CHIPS, CRUSHED STONE, AND OTHER MULCHES SHALL BE READILY AVAILABLE AT THE PROJECT SITE AT ALL TIMES.
- 3. UNTIL THE SITE HAS ACHIEVED FINAL STABILIZATION, THE GENERAL CONTRACTOR SHALL PROPERLY IMPLEMENT, OPERATE AND MAINTAIN ALL EROSION AND SEDIMENT CONTROLS. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROLS FOR CONDITION AND INTEGRITY AFTER EACH STORM EVENT, AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING SHALL BE PERFORMED IMMEDIATELY. A WRITTEN REPORT MUST BE COMPLETED TO DOCUMENT EACH INSPECTION AND ALL BMP REPAIR, REPLACEMENT, AND MAINTENANCE ACTIVITIES. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN THE FOLLOWING MANNER:

#### ROCK CONSTRUCTION ENTRANCE:

A. ROCK CONSTRUCTION ENTRANCE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

#### EROSION CONTROL BLANKET:

- A. PREPARE (FERTILIZE, SEED, ETC.) SOIL PRIOR TO INSTALLING BLANKET.
   B. BEGIN INSTALLATION AT THE TOP OF THE SLOPE TO BE STABILIZED. ANCHOR THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT AFTER STAPLING BLANKET INTO THE TRENCH.
- C. ROLL THE BLANKETS DOWN OR HORIZONTALLY ACROSS THE SLOPE.

  D. STAPLE THE EDGES OF PARALLEL BLANKETS TO PROVIDE APPROXIMATELY 2"
- OF OVERLAP.

  E. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

#### COMPOST FILTER SOCK:

- A. INSPECT SOCKS AFTER EVERY RUNOFF EVENT. ANY NECESSARY REPAIRS
- SHALL BE MADE IMMEDIATELY.

  B. REMOVE ACCUMULATED SEDIMENT AS NEEDED AND WHEN SEDIMENT

ACCUMULATES TO 1/2 THE HEIGHT OF THE SOCKS.

#### FILTER BAG INLET PROTECTION:

- FILTER BAGS SHALL TRAP ALL PARTICLES LARGER THAN 150 MICRONS.
  INSTALL FILTER BAGS ACCORDING TO THE MANUFACTURER'S
- SPECIFICATIONS.

  C. INSPECT INLET FILTER BAGS ON A WEEKLY BASIS AND AFTER EACH RUNOFF
- EVENT.

  D. REMOVE SEDIMENT FROM INLET FILTER BAGS AFTER EACH STORM EVENT, OR

WHEN THE DISTANCE BETWEEN THE GRATE AND THE SEDIMENT LEVEL IS

E. CLEAN AND/OR REPLACE FILTER BAGS WHEN THE BAG IS ONE-HALF FULL.
F. REPLACE DAMAGED FILTER BAGS.
G. COMPLETE NEEDED REPAIRS IMMEDIATELY AFTER THE INSPECTION.

#### PUMPED WATER FILTER BAG:

REDUCED TO 18"

- A. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS.
- B. GEOTEXTILE MATERIAL SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
- C. REPLACE FILTER BAGS WHEN THEY BECOME ONE-HALF FULL.
  D. PLACE BAGS ON 6" AASHTO #57 STONE IN A WELL-VEGETATED AREA.
  E. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.

#### CONCRETE WASHOUT:

- A. WASHOUTS SHALL BE INSPECTED DAILY.
- B. DAMAGED OR LEAKING WASHOUTS SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY
- C. ACCUMULATED MATERIALS SHALL BE REMOVED WHEN THEY REACH 75% CAPACITY.
- PLASTIC LINERS SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

#### ROCK FILTER:

- A. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF THE HEIGHT OF THE FILTER.
- B. UPON STABILIZATION OF ENTIRE CONTRIBUTORY DRAINAGE AREA, REMOVE ACCUMULATED SEDIMENT AND REMOVE ROCK FILTER WITH MINIMAL DISTURBANCE TO STREAM BED.
- C. ROCK FILTER SHALL SPAN THE ENTIRE WIDTH BETWEEN STREAM BANKS AND SHALL HAVE A MINIMUM DEPTH OF TWO FEET.
  D. THE ROCK FILTER SHALL BE ORIENTED SUCH THAT ALL RUNOFF FROM THE WORK ZONE MUST PASS THROUGH THE FILTER.
- 4. IF CONCENTRATED FLOWS ARE IDENTIFIED THAT ARE NOT ADDRESSED IN THIS REPORT, THE APPROPRIATE STEPS SHALL BE TAKEN TO MITIGATE THE CONDITION. CHANGES TO THE DESIGN, CONFIGURATION OR TIMING OF ELEMENTS DESCRIBED IN THIS REPORT MUST BE REPORTED TO THE APPROPRIATE REGULATORY AUTHORITIES. THE FOLLOWING INSTRUCTIONS SHALL BE FOLLOWED:
- A. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE APPROPRIATE ACTION SHALL BE TAKEN TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND/OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, CRUSHED STONE AND OTHER MULCHES SHALL BE HELD ONSITE TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF FROSION
- B. THE GENERAL CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE
- III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.

  C. A COPY OF THIS EROSION AND SEDIMENT CONTROL REPORT AND PLANS SHALL BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH PENNSYLVANIA STATE LAW.

## PROCEDURES FOR DISPOSAL OF MATERIALS

POTENTIAL CONSTRUCTION WASTES ANTICIPATED FROM THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO: TOPSOIL/FILL MATERIAL, CONCRETE WASH WATER, BUILDING MATERIALS, AND EXCAVATED ROCK. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE, RECYCLED, OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ.

EXCAVATED MATERIAL SHALL BE PLACED DIRECTLY INTO CONSTRUCTION VEHICLES.
ANY SOIL OR ROCK THAT IS REMOVED FROM THE SITE WILL REQUIRE A SEPARATE
EROSION AND SEDIMENTATION CONTROL PLAN PROVIDED BY THE CONTRACTOR. ALL
SOILS REMOVED FROM AN E&S BMP DURING ROUTINE MAINTENANCE SHALL BE REMOVED
FROM THE PROJECT AREA AND TAKEN AS SOIL STOCKPILE TO THE OFF-SITE STOCKPILE
AREA

## GEOLOGIC CONDITIONS WITH POTENTIAL TO CAUSE POLLUTION

THERE ARE NO NATURALLY OCCURRING GEOLOGIC FORMATIONS OR CONDITIONS THAT COULD CAUSE POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

## POTENTIAL THERMAL IMPACTS

THERE IS A POTENTIAL FOR THERMAL IMPACTS ON SURFACE WATERS DURING CONSTRUCTION. THE PROJECT IS DESIGNED TO LIMIT THE AMOUNT OF REQUIRED EARTH DISTURBANCE. ADDITIONALLY, RUNOFF DISCHARGED FROM THE PROJECT SITE WILL FLOW OVER GRASS AREAS AND VEGETATED SWALES BEFORE ENTERING THE CREEK. THESE MEASURES SHALL BE SUFFICIENT TO REDUCE/ELIMINATE THE POTENTIAL FOR THERMAL IMPACTS DURING CONSTRUCTION.

THERE IS A POTENTIAL FOR THERMAL IMPACTS ON SURFACE WATERS AFTER CONSTRUCTION. THE PROJECT PROPOSES TO COMPLETELY INFILTRATE THE DIFFERENCE IN THE 2-YEAR STORM. ADDITIONALLY, RUNOFF DISCHARGED FROM THE PROJECT SITE WILL FLOW OVER GRASS AREAS AND VEGETATED SWALES BEFORE ENTERING THE CREEK. THESE MEASURES SHALL BE SUFFICIENT TO REDUCE/ELIMINATE THE POTENTIAL FOR THERMAL IMPACTS AFTER CONSTRUCTION.

## SEEDING AND MULCHING SCHEDULES

- TEMPORARY SEEDING

  A. TEMPORARY SEEDING SHALL BE DONE IN DISTURBED AREAS WHERE NO ACTIVE WORK WILL BE PERFORMED. ANY DISTURBED AREA ON WHICH
- ACTIVITY HAS CEASED MUST BE SEEDED AND MULCHED IMMEDIATELY.

  B. DURING NON-GERMINATING PERIODS, ONLY MULCH SHOULD BE APPLIED AT THE RECOMMENDED RATES.
- C. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE (1) YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEED MIXTURE.
- DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE DISTURBED AGAIN WITHIN ONE (1) YEAR MUST BE SEEDED WITH A PERMANENT SEED MIXTURE AND MULCHED.
- TEMPORARY SEEDING STEPS:
- (1) APPLY AGRICULTURAL LIMESTONE OR HYDRATED LIME AT A RATE OF ONE (1) TON PER ACRE.
  (2) APPLY FERTILIZER AT THE APPLICATION RATE OF 50-50-50 (N-P2O5-K2O)
- POUNDS PER ACRE (LBS./ACRE).

  (3) WORK THE LIMESTONE AND FERTILIZER INTO THE SOIL.

  (4) UTILIZE THE FOLLOWING SEEDING TYPES, RATES AND TIME SCHEDULE:

## TEMPORARY SEEDING

SEASON RATE TYPE

PERMANENT SEED MIXTURE AND MULCHED.

A MINIMUM DEPTH OF 6 INCHES.

THREE (3) TONS PER ACRE.

MARCH 1 TO AUGUST 15 40 LBS./ACRE ANNUAL RYEGRASS AUGUST 16 TO OCTOBER 15 168 LBS./ACRE WINTER RYE

- (5) APPLY HAY OR STRAW MULCH (IN ACCORDANCE WITH SECTION NO. 5)
   AT A RATE OF THREE (3) TONS PER ACRE.
   F. ALL SEED SHALL BE LABELED, DATED AND THE QUALITY CONSISTENT WITH SECTION NO. 2.
- PERMANENT SEEDING
   A. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE DISTURBED AGAIN WITHIN ONE (1) YEAR MUST BE SEEDED WITH A
- B. SEEDING SHALL BE DONE DURING PERIODS FROM APRIL 15TH TO OCTOBER 1ST, UNLESS OTHERWISE DIRECTED. IF SEEDING IS DONE AFTER OCTOBER 1ST. DORMANT SEED MUST BE USED AND DISTURBED AREAS MUST BE
- MULCHED.

  C. DISTURBED FINAL GRADED AREAS SHALL BE PERMANENTLY SEEDED AS
- FOLLOWS:

  (1) AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A

  MINIMUM DEPTH OF 4 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

  AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 6 INCHES OF

  TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL 3:1 OR

  GREATER SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- (2) A SOIL ANALYSIS IS RECOMMENDED, BUT IN LIEU OF AN ANALYSIS APPLY GROUND LIMESTONE OR HYDRATED LIME AND FERTILIZER AT RATES RECOMMENDED IN SECTION NO. 3 (OR AS SUGGESTED BY THE SOILS TEST RESULTS [ONE (1) TEST PER 25 ACRES]).
- (3) THE LIMESTONE AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO
- (4) SEED SHALL NOT BE PLANTED AFTER HEAVY RAIN OR WATERING.
- (5) ALL SEED USED SHALL BE LABELED IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT IN EFFECT AT THE TIME OF PURCHASE. INERT MATTER SHALL NOT EXCEED 15% AND BLUE TAG CERTIFIED SEED SHALL BE SUPPLIED WHEREVER POSSIBLE.
- (6) SMOOTH AND FIRM SEED BED WITH CULTIPACKER OR SIMILAR EQUIPMENT PRIOR TO SEEDING. APPLY SEED UNIFORMLY BY HYDROSEEDING. COVER SEEDS WITH ½" OF SOIL (MINIMUM) WITH
- (7) APPLY MULCH (IN ACCORDANCE WITH SECTION NO. 5) AT A RATE OF

#### PERMANENT SEEDING

| SEASON  | RATE             | TYPE  |
|---|------------------|---|
| MARCH 1 TO JUNE 1 &<br>AUGUST 15 TO OCTOBER 1 | 4 LBS./1000 S.F. | WINTER RYE 70%<br>TALL FESCUE 22%<br>RED TOP 2%<br>BIRDSFOOT TREFOIL 6% |
| OCTOBER 1 TO MARCH 1 &<br>JUNE 1 TO AUGUST 15 | 3 LBS./1000 S.F. | WINTER RYE 47%<br>RED TOP* 53%  |

[(\*)USE DORMANT SEED, UNIFORMLY APPLIED, WORKED INTO A DEPTH OF ½ INCH. THE USE OF MULCH IS REQUIRED. THE USE OF NETTING OR EROSION CONTROL MATS MAY BE REQUIRED.]

SEEDING PERIODS AND SPECIFICATIONS MAY VARY DUE TO SITE CONDITIONS AND VARIANCES FROM THE TIME THIS REPORT IS WRITTEN AND APPROVED. IT MAY BE NECESSARY TO ADAPT SEED SPECIFICATION, VARIETIES, AND QUANTITIES. FOR SPECIAL CONDITIONS CONSULT "GUIDELINES FOR RECLAMATION OF SEVERELY DISTURBED AREAS", PENNSYLVANIA STATE UNIVERSITY.

- 3. FERTILIZER: APPLY GROUND LIMESTONE OR HYDRATED LIME AT A RATE OF 4 TONS PER ACRE AND 100-200-200 POUNDS PER ACRE (LBS./ACRE) FERTILIZER. THESE MATERIALS WILL BE UNIFORMLY APPLIED AND WORKED INTO THE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES.
- 4. HYDROSEEDING: AGRICULTURAL GRADE LIMESTONE AND WATER (4000 LBS. LIMESTONE/1000 GALLONS OF H2O PER ACRE) ALONG WITH THE SEED SHALL BE AS SPECIFIED ABOVE, AND FERTILIZER SHALL BE APPLIED AT A RATE OF 50-100-100 POUNDS PER ACRE (LBS./ACRE). SHOULD FERTILIZER BE APPLIED WITH AN INOCULANT, THE MIXTURE SHALL NOT REMAIN IN A SLURRY FOR MORE THAN ONE HOUR. SYNTHETIC MULCH BINDER, SUCH AS CURASOL, DCA-70 OR TERRE-TACK SHALL BE USED PER THE MANUFACTURER'S INSTRUCTIONS TO ANCHOR THE MULCH. THE CONTRACTOR IS RESPONSIBLE FOR PROPER STABILIZATION. IF SEVERAL APPLICATIONS OF HYDROSEEDING ARE REQUIRED TO OBTAIN PROPER STABILIZATION, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT
- RE-APPLICATION IS DONE.

  5. MULCHING: MULCHING SHALL BE APPLIED AS FOLLOWS:

PER ACRE WITH SUITABLE EQUIPMENT.

C FROSION CONTROL BLANKETS

- A. STRAW
  APPLY STRAW MULCH, FREE FROM UNDESIRABLE SEEDS AND COARSE
  MATERIAL, AT A RATE OF THREE (3) TONS PER ACRE. CHECK MULCHED
  AREAS PERIODICALLY AND IMMEDIATELY AFTER STORMS AND HIGH WINDS.
  REPLACE DAMAGED OR MISSING MULCH. APPLY A TACKIFIER AFTER
  APPLYING THE STRAW MULCH. THE TACKIFIER MAY BE CUT-BACK ASPHALT
  OR POLYMER SPRAY. APPLY THE TACKIFIER AT A RATE OF 100-150 GALLONS
- B. FLEXTERRA FLEXIBLE GROWTH MEDIUM (FGM)
  ALL CONSTRUCTED AND DISTURBED SLOPES (3:1 OR GREATER) SHALL BE
  SEEDED AND STABILIZED WITH FLEXTERRA FLEXIBLE GROWTH MEDIUM (FGM),
  AS INDICATED, AT THE END OF EACH WORKING DAY. FGM SHALL BE APPLIED
  IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

# THE USE AND INSTALLATION OF EROSION CONTROL BLANKETS OR NETTING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION AND SHALL BE SELECTED FOR THE PROPER APPLICATION AND CONDITIONS.

2. APPLICANTS AND/OR OPERATORS MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT THE FILL MATERIAL ASSOCIATED WITH THIS PROJECT QUALIFIES AS CLEAN FILL. DEFINITIONS OF CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE ARE PROVIDED BELOW. ALL FILL MATERIAL MUST BE USED IN ACCORDANCE WITH THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL", DOCUMENT NUMBER 258-2182-773. A COPY OF THIS POLICY IS AVAILABLE ONLINE AT

WWW.DEPWEB.STATE.PA.US. UNDER THE HEADING QUICK ACCESS ON THE LEFT

SIDE OF THE SCREEN, CLICK "FORMS AND PUBLICATIONS." ON THE LEFT SIDE OF

THE SCREEN CLICK "TECHNICAL GUIDANCE DOCUMENTS - FINAL." THEN TYPE THE

DOCUMENT NUMBER 258-2182-773 INTO THE SEARCH WINDOW AND CONDUCT THE

- SEARCH. CLICK ON "MANAGEMENT OF FILL."

  CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS
- ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

  3. CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE

OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED

4. ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM F-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM F-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND ONLINE.

ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT

DEPARTMENT'S POLICY "MANAGEMENT OF FILL."

NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL." FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE

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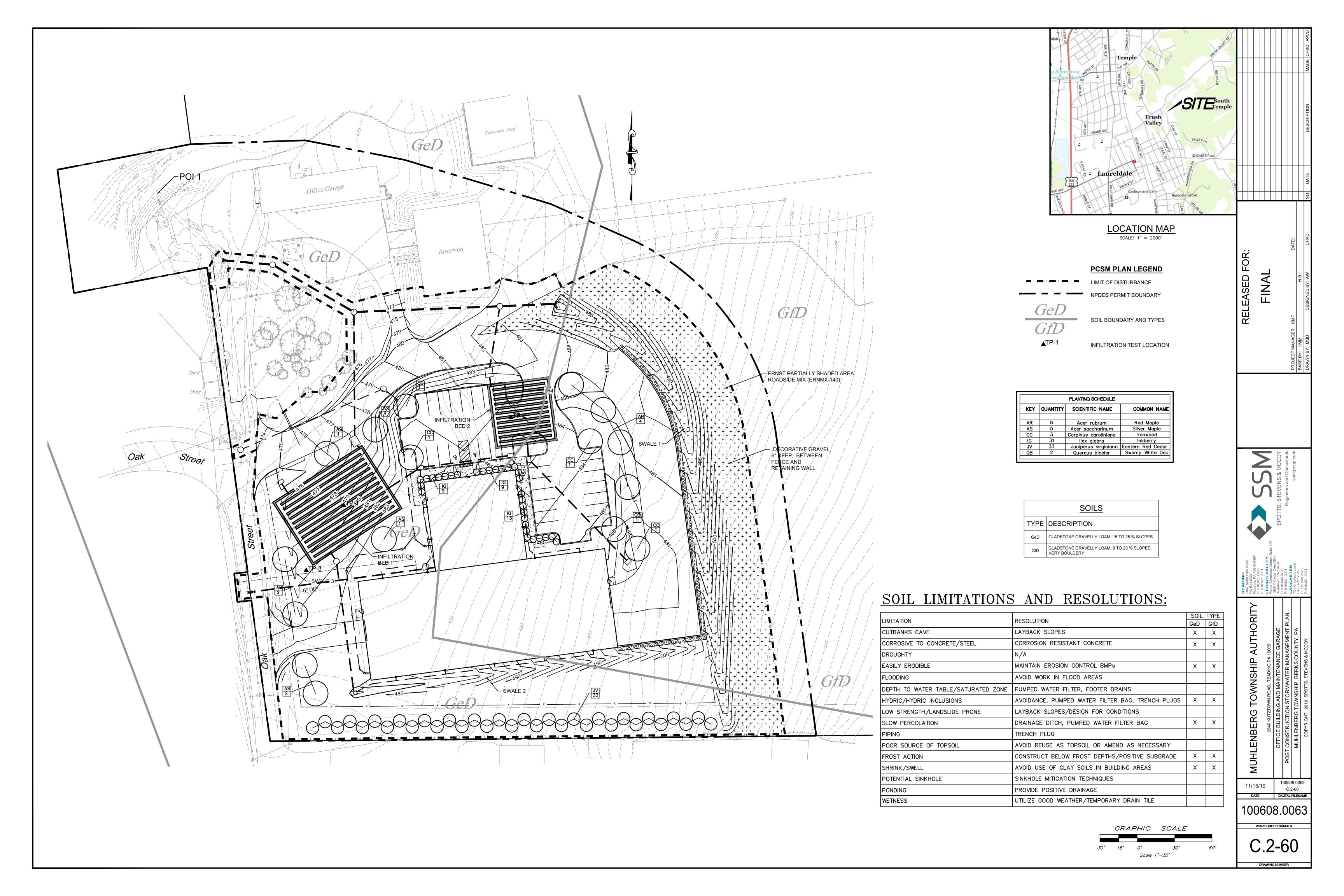
1UHLENBERG TOWNSHIP AUTHORIT
2840 KUTZTOWN ROAD, READING PA 19605
OFFICE BUILDING AND MAINTENANCE GARAGE
EROSION AND SEDIMENT CONTROL NOTES
MITHE ENBERG TOWNSHIP REPKS COLINITY DA

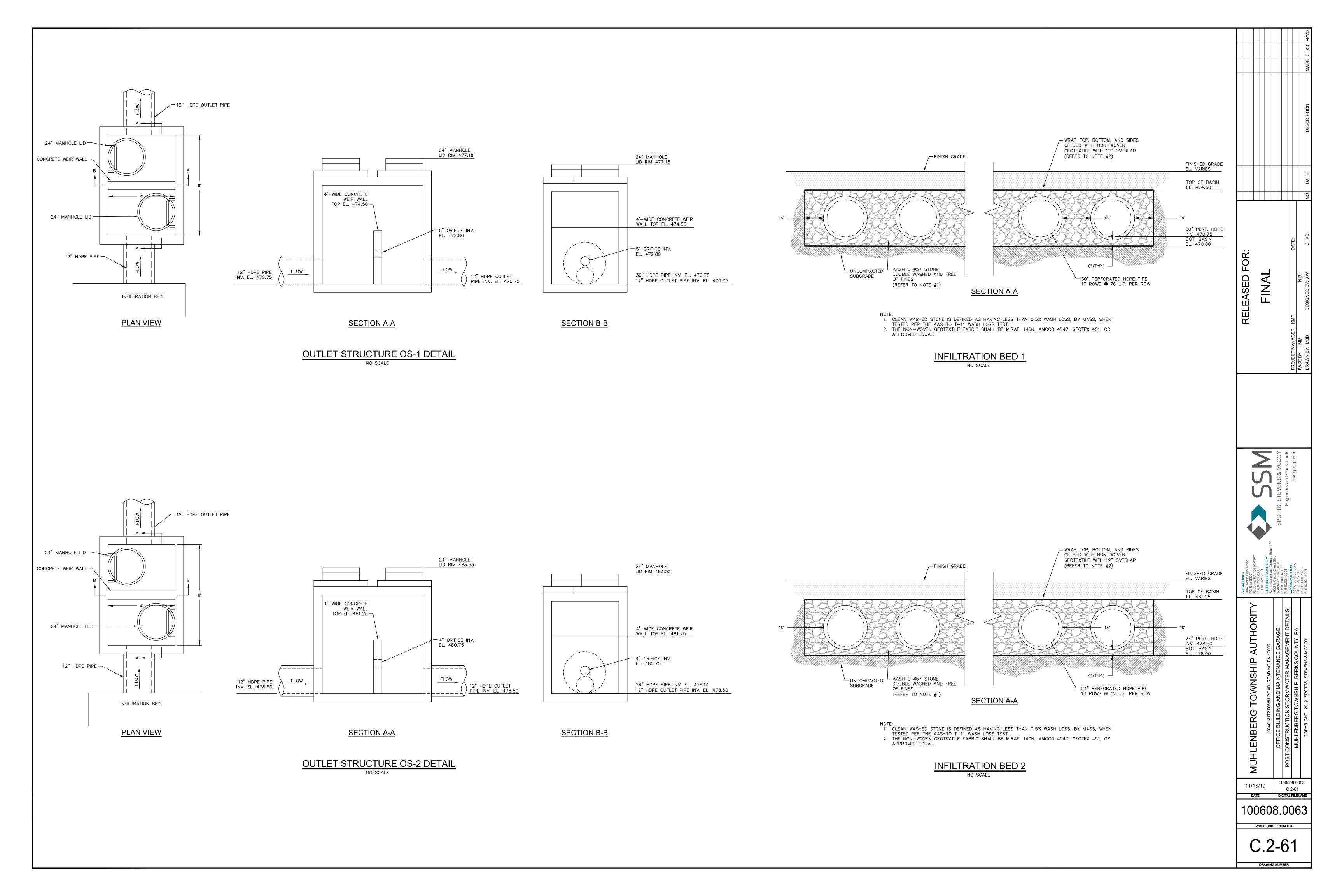
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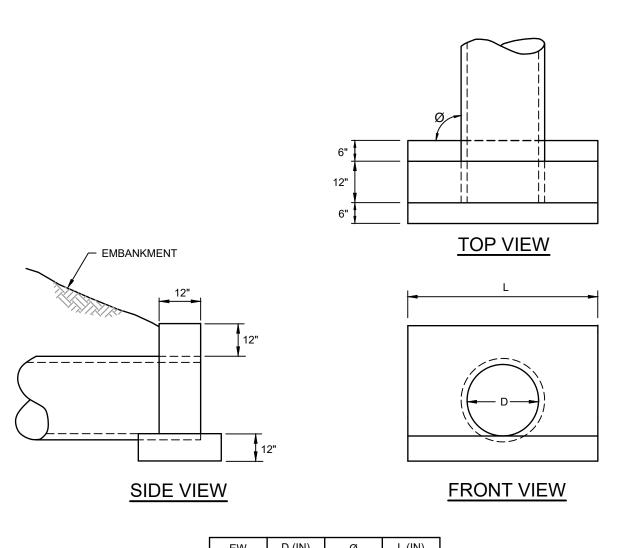
C.2-5

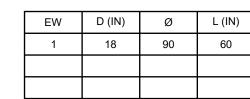
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DRAWING NUM





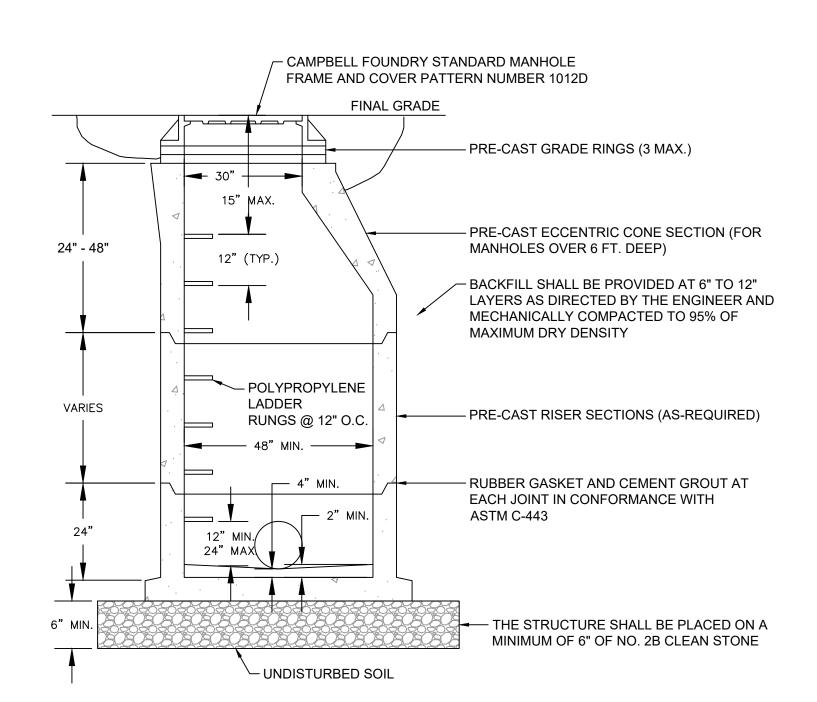




#### NOTES:

SEE RC-31M FOR REINFORCEMENT REQUIREMENTS.
 USE CLASS A CEMENT CONCRETE.

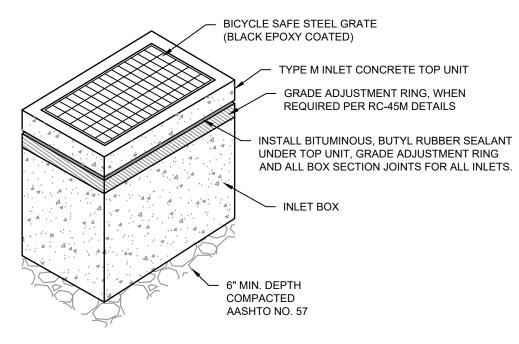
## TYPE D ENDWALL



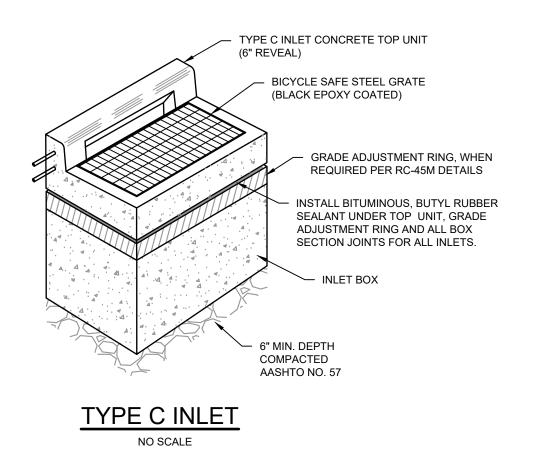
## NOTES

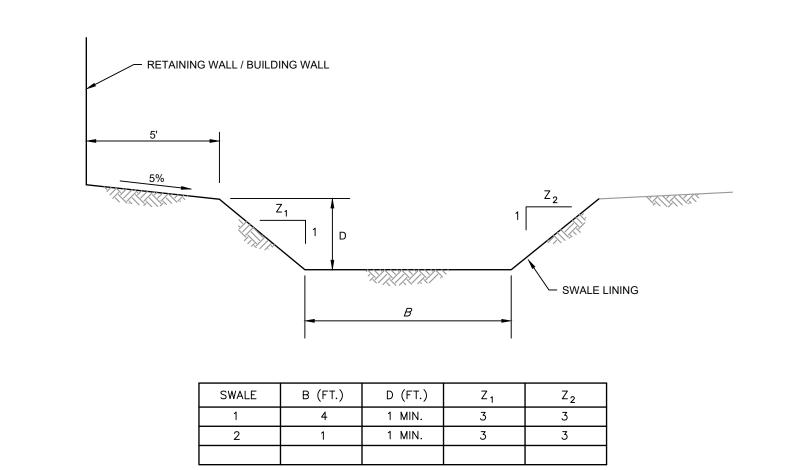
- 1. THE STORM MANHOLE CONCRETE STRUCTURE SHALL BE PRECAST CONCRETE TO MEET A MINIMUM OF HS-25 LOADING. ALL UNITS SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE APPROPRIATE ASTM, ACI, AND AASHTO STANDARDS. ALL PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUP TO PRODUCE A LEAK-PROOF JOINT.
- 2. THE INLET FRAME AND GRATE/COVER SHALL BE CAMPBELL FOUNDRY PATTEN NO. 1012D, OR APPROVED EQUAL.
- 3. ALL PIPES SHALL EXTEND NO MORE THAN 1 INCH INTO THE STRUCTURE.
- 4. SUITABLE EXCAVATED SOIL MAY BE USED AS BACKFILL IN NON-STRUCTURALLY SUPPORTING AREAS OF AS DIRECTED BY THE MUNICIPAL ENGINEER. AREAS SUPPORTING ANY STRUCTURE SHALL BE BACKFILLED USING DENSE GRADED AGGREGATE OR AS DIRECTED BY THE ENGINEER.
- 5. THE INSIDE DIAMETER IS A MINIMUM DIMENSION. INSIDE DIAMETER TO BE ADJUSTED AS NECESSARY TO ACCOMMODATE STORM PIPE SIZES AND ALIGNMENT.
- 6. ALL MANHOLES SHALL CONFORM TO PENNDOT SPECIFICATIONS.

# STORM MANHOLE DETAIL NO SCALE

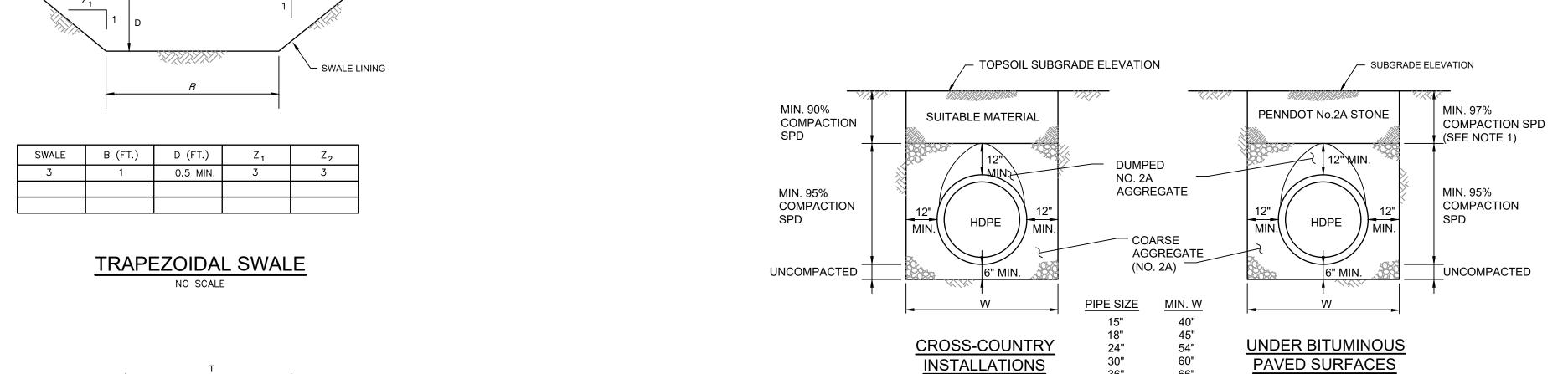


TYPE M INLET





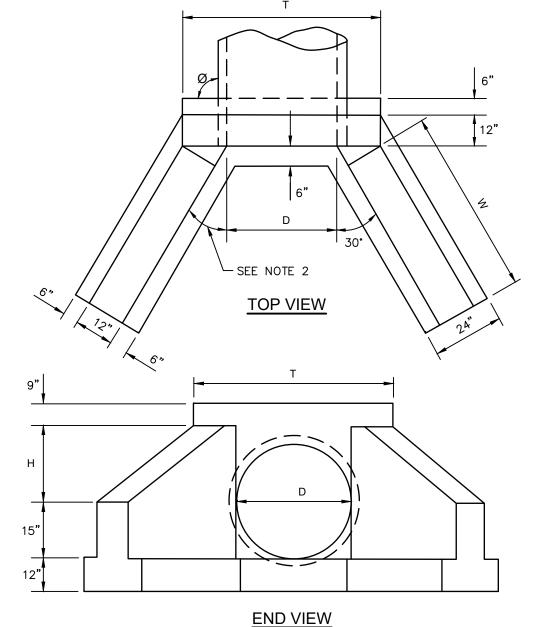
## TRAPEZOIDAL SWALE ALONG RETAINING WALL / BUILDING WALL



NOTES:
1. COMPACT TOP 36" TO 100% PER PENNDOT PUBLICATION 408,

2. SPD IS STANDARD PROTECTOR DENSITY.

TRENCH & BACKFILL FOR
HIGH-DENSITY POLYETHYLENE PIPE

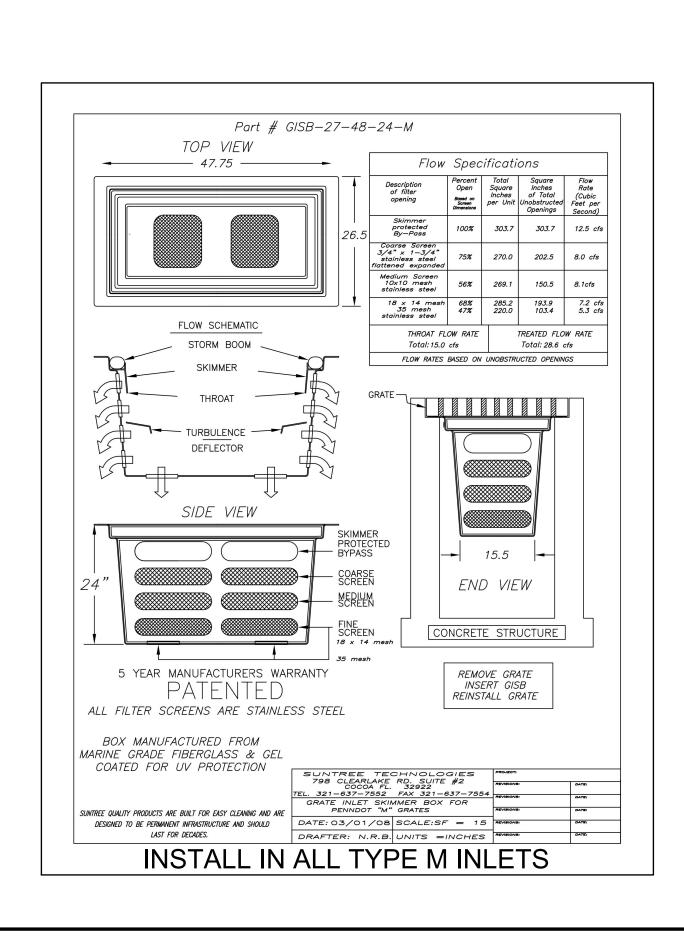


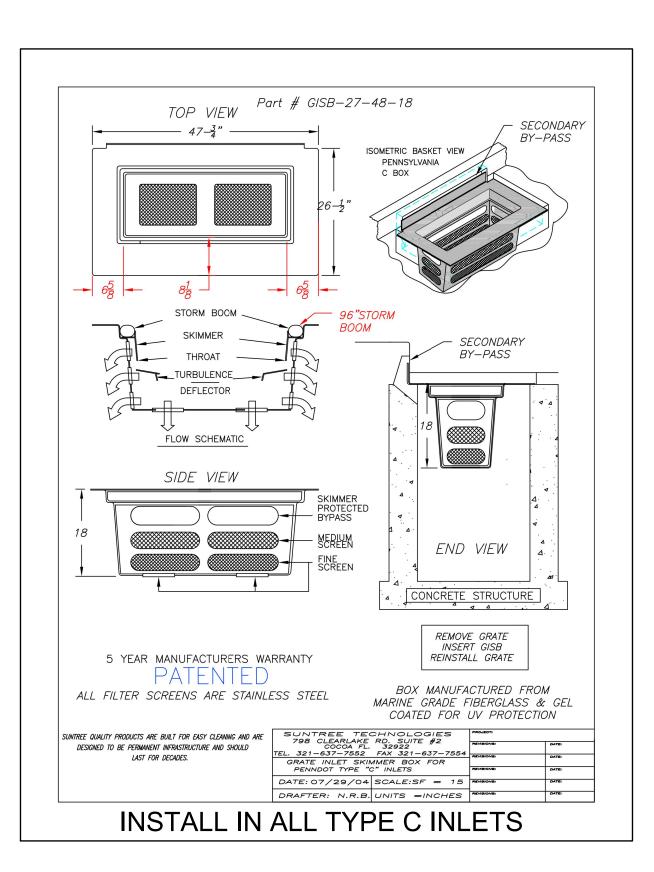
| HW | D (IN) | H (IN) | T (IN) | W (IN) | ø  |
|----|--------|--------|--------|--------|----|
| 1  | 18     | 12     | 55     | 24     | 90 |
|    |        |        |        |        |    |
|    |        |        |        |        |    |

## NOTES:

SEE RC-31M FOR REINFORCEMENT REQUIREMENTS.
 FOR Ø OTHER THAN 90° SEE RC-31M FOR WINGWALL DIMENSIONS, ANGLES AND OVERALL TOP LENGTH.
 USE CLASS A CEMENT CONCRETE.

## TYPE D-W ENDWALL







#### **OPERATION AND MAINTENANCE NOTES**

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPS ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY WITH THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMPS AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER §102.7(B)(5) (RELATING TO PERMIT TERMINATION).

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION, OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPS OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS LOCATED ON THE PROPERTY.

INSPECTIONS SHALL BE PERFORMED AS NOTED FOR EACH BMP AND ANNUALLY. A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES SHALL BE PROVIDED ANNUALLY.

#### UNDERGROUND INFILTRATION BED

- 1. THE LOT OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE UNDERGROUND INFILTRATION BED AND FOR PROVIDING A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
- 2. VEGETATED AREAS THAT ARE TRIBUTARY TO THE INFILTRATION BED SHALL BE MAINTAINED IN GOOD CONDITION. AREAS DEVOID OF VEGETATION (BARE SPOTS) SHALL BE REVEGETATED IMMEDIATELY UPON DISCOVERY.
- 3. ALL OUTLET STRUCTURES, INLETS, MANHOLES, CLEANOUTS, AND ANY OTHER STRUCTURES ASSOCIATED WITH OR UPSTREAM OF THE BED SHALL BE INSPECTED FOR LITTER AND SEDIMENT ACCUMULATION EVERY SIX (6) MONTHS AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (GREATER THAN 1 INCH OF RAINFALL). ANY DAMAGE OR BLOCKAGE TO THE INLETS OR OTHER STRUCTURES SHALL ALSO BE REPAIRED OR REMOVED. ALL MAINTENANCE, INCLUDING BUT NOT LIMITED TO, REMOVAL OF TRASH/LITTER, REMOVAL OF SEDIMENT ACCUMULATION, REMOVAL OF MISCELLANEOUS DEBRIS, AND REPAIR/SEAL CRACKS IN CONCRETE STRUCTURES MUST BE INITIATED IMMEDIATELY AFTER THE INSPECTION. THE LITTER AND SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS.
- 4. THE INFILTRATION BED SHALL BE INSPECTED EVERY SIX (6) MONTHS AND WITHIN 48 HOURS AFTER EVERY MAJOR STORM EVENT (GREATER THAN 1 INCH OF RAINFALL) FOR LITTER AND SEDIMENT ACCUMULATION IN THE BED. EXCESSIVE LITTER AND SEDIMENT ACCUMULATION SHALL BE REMOVED IMMEDIATELY AFTER THE INSPECTION AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS.
- 5. THE INFILTRATION BED SHALL COMPLETELY DRAIN DOWN IN LESS THAN 72 HOURS FROM THE END OF A RAINFALL EVENT. IF THE FACILITY DOES NOT COMPLETELY DRAIN DOWN WITHIN 72 HOURS, THE DESIGN ENGINEER SHALL BE CONTACTED TO DETERMINE THE APPROPRIATE REMEDIATION MEASURE.

## STORM SEWER SYSTEM

- 1. THE LOT OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORM SEWER SYSTEM AND FOR PROVIDING A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
- 2. ALL ONSITE INLETS, MANHOLES, JUNCTION BOXES, END WALLS, AND PIPING SHALL BE INSPECTED FOR LITTER AND SEDIMENT ACCUMULATION EVERY SIX (6) MONTHS OR WHEN ACCUMULATION HINDERS OPERATION OF THE FACILITY. ALL MAINTENANCE, INCLUDING BUT NOT LIMITED TO, REMOVAL OF TRASH/LITTER, REMOVAL OF SEDIMENT ACCUMULATION, REMOVAL OF MISCELLANEOUS DEBRIS, AND REPAIR/SEAL CRACKS IN CONCRETE STRUCTURES MUST BE INITIATED IMMEDIATELY AFTER THE INSPECTION. SYSTEMS SHALL BE FLUSHED EVERY FIVE (5) YEARS. THE LITTER AND SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS.
- 3. VEGETATED AREAS THAT ARE TRIBUTARY TO THE STORM SEWER SYSTEM SHALL BE MAINTAINED IN GOOD CONDITION. AREAS DEVOID OF VEGETATION (BARE SPOTS) SHALL BE REVEGETATED IMMEDIATELY UPON DISCOVERY.

#### VEGETATED SWALES

- 1. THE LOT OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE VEGETATED SWALES AND FOR PROVIDING A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
- 2. ALL SWALES SHALL BE INSPECTED FOR LITTER AND SEDIMENT ACCUMULATION AND FOR AREAS DEVOID OF VEGETATION (BARE SPOTS) EVERY SIX (6) MONTHS. ALL MAINTENANCE, INCLUDING BUT NOT LIMITED TO, REMOVAL OF TRASH/LITTER, REMOVAL OF SEDIMENT ACCUMULATION, REMOVAL OF TREE BRANCHES/LIMBS, REMOVAL OF MISCELLANEOUS DEBRIS. AND RESEEDING OF BARE SPOTS MUST BE INITIATED IMMEDIATELY AFTER THE INSPECTION. THE LITTER AND SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE STATE REGULATIONS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY.
- 3. MOW AND TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION. DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY. MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING.

#### SNOUT® INLET INSERTS

- 1. THE LOT OWNER OF RECORD IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE SNOUT® INLET INSERTS AND FOR PROVIDING A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIR AND MAINTENANCE ACTIVITIES.
- 2. ROUTINE SNOUT® MAINTENANCE SHALL CONSIST OF THE FOLLOWING MEASURES AND GUIDELINES, AS PROVIDED BY THE MANUFACTURER:
- A. A SNOUT® EQUIPPED INLET SHALL BE INSPECTED EVERY MONTH
- FOR THE FIRST YEAR AFTER INSTALLATION. B. MEASUREMENTS SHALL BE TAKEN AFTER EVERY RAIN EVENT OF
- 0.5 INCHES OR MORE TO DETERMINE SEDIMENT DEPTH. C.THE STRUCTURE SHALL BE SCHEDULED FOR MAINTENANCE WHEN THE SUMP IS HALF FULL (I.E. 2 FEET OF MATERIAL HAS ACCUMULATED IN A 4 FEET SUMP) OR ANNUALLY, WHICHEVER ONE

COMES FIRST. SEDIMENT REMOVAL AND ROUTINE MAINTENANCE

- SHALL BE PERFORMED WITH A VACUUM TRUCK. D. THE OIL ABSORBENT BOOM SHALL BE CHECKED ON A MONTHLY BASIS AND SERVICED/REPLACED WHEN MORE THAN 2/3 OF THE BOOM IS SUBMERGED (INDICATIVE OF A SATURATED STATE). IN THE EVENT OF AN OIL SPILL ON SITE, THE OIL ABSORBENT BOOM SHALL BE REPLACED IMMEDIATELY.
- E. AN ANNUAL INSPECTION OF THE ANTI-SIPHON VENT SHALL BE CONDUCTED ON THE SNOUT® HOOD. A SIMPLE FLUSHING OF THE VENT OR GENTLE RODDING WITH A FLEXIBLE WIRE SHALL BE SUFFICIENT IN MAINTAINING THE ANTI-SIPHON PROPERTIES. OPENING AND CLOSING THE ACCESS HATCH ONCE A YEAR INSURES A LIFETIME OF TROUBLE-FREE SERVICE.

#### UNDERGROUND INFILTRATION BED CONSTRUCTION SEQUENCE

- 1. THE AREA TO BE USED FOR STORMWATER INFILTRATION (HEREAFTER, "SUBJECT AREA") SHALL BE DELINEATED WITH ORANGE SAFETY FENCE PRIOR TO START OF CONSTRUCTION TO PREVENT COMPACTION OF THE AREA.
- 2. THE SUBJECT AREA SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT SHALL NOT BE ALLOWED TO BE WASHED BACK INTO THE SUBJECT AREA WHEN THE BOTTOM OF THE FACILITY IS OPEN OR WHEN THE AGGREGATE IS IN PLACE AND EXPOSED. DURING SITE CONSTRUCTION, ALL INFILTRATION FACILITY COMPONENTS SHALL BE PROTECTED FROM SEDIMENTATION USING STORM INLET PROTECTION IN CONFORMANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) CHAPTER 102 REGULATIONS, AS AMENDED, AND THE EROSION AND SEDIMENTATION POLLUTION CONTROL MANUAL, AS AMENDED. INLET PROTECTION SHALL REMAIN UNTIL THE CONTRIBUTORY DRAINAGE AREA HAS ACHIEVED FULL STABILIZATION.
- EXCAVATE TO THE PROPOSED SUBGRADE ELEVATION OF THE BED. COMPACTION OF THE SUBJECT AREA IS PROHIBITED. EQUIPMENT AND OTHER TRAFFIC SHALL BE PROHIBITED FROM TRAVELING OVER THE SUBJECT AREA, EXCEPT AS PROVIDED FOR HEREIN. ONLY HAND-HELD EQUIPMENT SHALL BE USED WITHIN THE SUBJECT AREA. OTHER EQUIPMENT MAY BE USED AROUND THE PERIMETER - BUT OUTSIDE OF - THE SUBJECT AREA FOR PURPOSES OF EXCAVATION AND TO SUPPLY SOILS AND AGGREGATE.
- WHERE THE CONFIGURATION OF THE FACILITY DICTATES THAT ANYTHING OTHER THAN HAND HELD EQUIPMENT MUST OPERATE WITHIN THE SUBJECT AREA, EXCAVATION AND FILL PLACEMENT SHALL BE ACCOMPLISHED SUCH THAT THE HEAVY EQUIPMENT IS NEVER WITHIN THE SUBJECT AREA. FOR EXCAVATION OPERATIONS, THE EXCAVATOR SHALL WORK FROM HIGHER GROUND AND PROCEED IN A BACKWARDS DIRECTION, MOVING AWAY FROM THE FINISHED EXCAVATION AREA. FOR FILL OPERATIONS, AGGREGATE SHALL BE PLACED STARTING AT THE PERIMETER OF THE SUBJECT AREA AND PUSHED FORWARD, SUCH THAT EQUIPMENT IS NEVER WITHIN THE SUBJECT AREA UNLESS IT IS ON TOP OF AT LEAST EIGHTEEN (18) INCHES OF AGGREGATE. IF THE CONTRACTOR INTENDS TO UTILIZE ANYTHING OTHER THAN HAND HELD EQUIPMENT WITHIN THE SUBJECT AREA, THE CONTRACTOR SHALL, TWO (2) WEEKS PRIOR TO SUCH USE, PROVIDE SPOTS, STEVENS AND MCCOY WITH A LIST OF EQUIPMENT TO BE USED WITHIN THE SUBJECT AREA. THE LIST SHALL INCLUDE EQUIPMENT SPECIFICATIONS AND SHALL BE ACCOMPANIED BY ENGINEERING CALCULATIONS CERTIFYING THAT THE EQUIPMENT WILL EXERT A PRESSURE OF 5 PSI OR LESS ON THE SUBGRADE OF THE INFILTRATION FACILITY.
- 4. INSTALL UPSTREAM AND DOWNSTREAM CONTROL STRUCTURES, CLEANOUTS, PERFORATED PIPING, AND ALL OTHER NECESSARY STORMWATER STRUCTURES.
- 5. THE BOTTOM OF INFILTRATION BEDS SHALL BE SCARIFIED IMMEDIATELY PRIOR TO THE PLACEMENT OF THE GEOTEXTILE FABRIC AT THE BOTTOM OF THE BED.
- GEOTEXTILE AND BED AGGREGATE SHALL BE PLACED IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION AND INSTALLATION OF STRUCTURES, ONLY UNIFORMLY GRADED CLEAN AGGREGATE, FREE OF FINES, SLATE, SHALE, CLAY, SILT, AND VEGETATIVE MATERIAL SHALL BE USED. THE AGGREGATE SHALL HAVE A MINIMUM VOID RATIO OF 40% AND A WASH LOSS OF NO MORE THAN 0.5%. THESE VALUES APPLY TO THE AGGREGATE WITHIN THE BED. THE SUPPLIER OF THE AGGREGATE SHALL PROVIDE CERTIFICATION OF THE VOID RATIO OF THE AGGREGATE DELIVERED TO THE SITE. GEOTEXTILE SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND SHALL OVERLAP A MINIMUM OF EIGHTEEN (18) INCHES.
- 7. INSTALL COVER OVER THE BED (STONE SUBBASE AND PAVING, OR TOPSOIL AND SEEDING).
- 8. ONCE ALL TRIBUTARY AREAS ARE SUFFICIENTLY STABILIZED. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS.

## **CRITICAL STAGES**

- 1. THE CONSTRUCTION OF THE FOLLOWING STORMWATER BMPS ARE CRITICAL STAGES OF CONSTRUCTION AND MUST BE OBSERVED BY A LICENSED PROFESSIONAL ENGINEER OR QUALIFIED DESIGNEE.
- a. INFILTRATION BEDS
- 2. THE PERMITTEE OR CO-PERMITTEE (CONTRACTOR) SHALL NOTIFY SPOTS, STEVENS AND MCCOY TO ALLOW FOR THE COORDINATION OF THE CONSTRUCTION OBSERVATION AND INSPECTION OF THE SPECIFIED WORK REQUIRED BY THE NPDES PERMIT CONDITIONS.
- 3. ALTHOUGH THE DESCRIPTION OF WORK IS GENERAL IN NATURE. THE CONSTRUCTION OF EACH STORMWATER BMP REQUIRES OBSERVATION AND INSPECTION OF MULTIPLE STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL KEEP SPOTS, STEVENS AND MCCOY AND THE OWNER APPRAISED OF PROGRESS IN A TIMELY MANNER TO ADEQUATELY ALLOW FOR THE OBSERVATION AND INSPECTION OF ALL CRITICAL STAGES OF CONSTRUCTION.
- 4. IN THE EVENT THE SPECIFIED WORK IS NOT BEING CONSTRUCTED PER THE APPROVED PLAN OR AS INTENDED BY THE DESIGN, ALL CONSTRUCTION OF THE SPECIFIED WORK SHALL CEASE, AND MAY NOT RESUME UNTIL AUTHORIZED BY SPOTS, STEVENS AND MCCOY

#### **NPDES PERMIT NOTES**

- 1. THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE ON SITE FOR REVIEW AND INSPECTION BY THE CONSERVATION DISTRICT OR DEP.
- 2. A LICENSED PROFESSIONAL OR QUALIFIED DESIGNEE SHALL BE PRESENT ONSITE AND RESPONSIBLE FOR CRITICAL STAGES (I.E. INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPS, STRUCTURALLY ENGINEERED BMPS, OR OTHER BMPS DEEMED APPROPRIATE BY DEP OR THE DISTRICT) OF IMPLEMENTATION OF THE APPROVED PCSM PLAN.
- 3. PERMITTEE'S REQUESTING A RENEWAL OF COVERAGE UNDER GENERAL PERMIT MUST SUBMIT TO THE BERKS COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOI, AT LEAST 90 DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE.
- 4. PERMITTEE'S REQUESTING A RENEWAL OF COVERAGE UNDER INDIVIDUAL PERMIT MUST SUBMIT TO THE BERKS COUNTY CONSERVATION DISTRICT AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE NOI, AT LEAST 180 DAYS PRIOR TO THE EXPIRATION DATE OF THE COVERAGE.
- 5. ALL EARTHMOVING CONTRACTORS MUST BE ADDED AS CO-PERMITTEES TO THE NPDES PERMIT.
- 6. SITE INSPECTIONS AND MONITORING REPORTS THE PERMITTEE AND CO-PERMITTEE(S) SHALL COMPLY WITH ALL MONITORING AND REPORTING REQUIREMENTS, AS OUTLINED IN PART A.2 OF THE NPDES PERMIT. THE PERMITTEE AND CO-PERMITTEE(S) SHALL ENSURE THAT SITE INSPECTIONS ARE CONDUCTED AT LEAST WEEKLY AND AFTER EACH MEASURABLE PRECIPITATION EVENT (1/4" OF RAIN OR MORE) BY QUALIFIED PERSONNEL. A WRITTEN REPORT SHALL BE KEPT FOR EACH INSPECTION IN ACCORDANCE WITH THE REQUIREMENTS OF PART A.2.A.
- A. THE DEP "VISUAL INSPECTION CHECKLIST" SHOULD BE COMPLETED FOR EACH INSPECTION AND SHOULD BE AVAILABLE ON-SITE FOR INSPECTION BY DEP OR COUNTY CONSERVATION DISTRICT PERSONNEL.
- 7. UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER SECTION 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPS IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH SECTION 102.4 AND SECTION 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO BERKS COUNTY CONSERVATION DISTRICT. ALLOWING THE NPDES PERMIT TO EXPIRE WITHOUT AN NOT IS DETERMINED TO BE A VIOLATION OF THE NPDES PERMIT.
- A. THE PERMITTEE SHALL INCLUDE WITH THE NOT "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL CERTIFYING PROPER INSTALLATION AND ACCURACY OF RECORD DRAWINGS REFLECTING AS-BUILT CONDITIONS.

#### PERMIT TERMINATION

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPS IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH § § 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PREMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:

- 1. THE FACILITY NAME, ADDRESS, AND LOCATION. 2. THE OPERATOR NAME AND ADDRESS.
- 3. THE PERMIT NUMBER.
- 4. THE REASON FOR PERMIT TERMINATION.
- 5. IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH § 102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

#### SOILS INFORMATION

ACCORDING TO THE USDA NRCS WEB SOIL SURVEY, SITE SOILS INCLUDE THE GLADSTONE GRAVELLY LOAM. THIS SOIL IS LOCAL COLLUVIUM AND RESIDUUM WEATHERED FROM GRANITE AND GNEISS IT IS WELL DRAINED, WITH A DEPTH TO LITHIC BEDROCK BETWEEN 60 AND 100 INCHES, AND A DEPTH TO THE WATER TABLE OF MORE THAN 80 INCHES. REFER TO APPENDIX C FOR A COPY OF THE WEB SOIL

SITE SOILS USE LIMITATIONS REFER TO THE TABLE ON THE PCSM PLAN (SHEET C.2-60) FOR ALL SOIL LIMITATIONS AND RESOLUTIONS.

#### RECEIVING WATERS OF THE COMMONWEALTH CH. 93 CLASSIFICATION

THE PROJECT SITE DRAINS TO AN UNT OF LAUREL RUN, WHICH IS CLASSIFIED AS WARM WATER FISHERY AND MIGRATORY FISHERY (WWF, MF) ACCORDING TO PA CHAPTER 93 WATER QUALITY STANDARDS. THERE ARE NO WETLANDS ON THE PROJECT SITE, NOR IS THE SITE LOCATED WITHIN THE FEMA 100-YEAR FLOODPLAIN.

#### CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH CHAPTER 102 REGULATIONS BEFORE ANY FOLLOWING STAGE IS INITIATED. THE GENERAL CONTRACTOR SHALL TAKE INTO ACCOUNT THE LOCAL WEATHER FORECAST PRIOR TO BEGINNING ANY EXCAVATION ACTIVITIES.

DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE LANCASTER COUNTY CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL CONTACT ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE LANCASTER COUNTY CONSERVATION DISTRICT TO SCHEDULE AN ON-SITE PRECONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATION.

- INSTALL ROCK CONSTRUCTION ENTRANCES AS INDICATED. ALL CONSTRUCTION VEHICLES SHALL ENTER AND LEAVE THE SITE AT THESE LOCATIONS.
- DELINEATE AND MARK THE LIMIT OF DISTURBANCE (I.E. SURVEY STAKES, POST AND ROPE, ORANGE CONSTRUCTION FENCE, ETC.). ALL CONSTRUCTION ACTIVITIES SHALL REMAIN WITHIN THIS LIMIT AT ALL TIMES.
- INSTALL COMPOST FILTER SOCKS AS INDICATED.
- INSTALL ROCK FILTER AS INDICATED.
- DEMOLISH EXISTING SITE FEATURES AS INDICATED CLEAR AND GRUB THE SITE WITHIN THE LIMIT OF DISTURBANCE.
- BEGIN EARTHMOVING AND BULK CUT ACTIVITIES. EXCESS CUT SHALL BE EXPORTED OFF SITE.
- CONSTRUCT THE RETAINING WALL. EXCAVATION FOR BACKFILL
- SHALL BE STOCKPILED ON SITE. FOLLOWING THE CONSTRUCTION OF THE RETAINING WALL, BEGIN
- CONSTRUCTION OF THE PROPOSED BUILDING. CONCURRENT WITH THE BUILDING CONSTRUCTION, INSTALL INFILTRATION BEDS AND ASSOCIATED STORM SEWER PIPING.
- THE CONSTRUCTION OF THE INFILTRATION BEDS IS A CRITICAL STAGE. REFER TO THE PCSM PLAN FOR SPECIFIC CONSTRUCTION REQUIREMENTS. 11. IN RELATION TO STORM SEWER CONSTRUCTION, THE QUANTITY
- OF EXCAVATION COMPLETED IN ONE (1) DAYS' TIME SHALL BE LIMITED TO THE AMOUNT OF PIPING WHICH CAN BE INSTALLED IN ONE (1) WORKING DAYS' TIME PERIOD. ALL EXCAVATED MATERIALS SHALL BE DEPOSITED UPSLOPE OF THE TRENCH. AS SOON AS THE PIPE IS INSTALLED, PLACE DESIGNATED DIRECT COVER AND DESIGNATED TRENCH BACKFILL, AND RESTORE TRENCH TO NEAR ORIGINAL ELEVATION. BACKFILL TRENCH AT END OF EACH WORK DAY. INITIAL GRADE MAY BE SLIGHTLY LOWER THAN SURROUNDING ELEVATIONS TO MINIMIZE RUNOFF.
- 12. IMMEDIATELY FOLLOWING INLET CONSTRUCTION, INSTALL FILTER BAG INLET PROTECTION ON ALL INLETS.
- 13. GRADE SITE TO PROPOSED ELEVATIONS. INSTALL EROSION CONTROL BLANKET AS INDICATED.
- 14. AT THE CONCLUSION OF BUILDING CONSTRUCTION, INSTALL PAVING AS INDICATED.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED. TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS SHALL BE STABILIZED IMMEDIATELY. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO

## PROCEDURES FOR DISPOSAL OF MATERIALS

RESIST SLIDING OR OTHER MOVEMENTS.

POTENTIAL CONSTRUCTION WASTES ANTICIPATED FROM THIS PROJECT INCLUDE BUT ARE NOT LIMITED TO: TOPSOIL/FILL MATERIAL, CONCRETE WASH WATER, BUILDING MATERIALS, AND EXCAVATED ROCK. ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE, RECYCLED, OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ.

EXCAVATED MATERIAL SHALL BE PLACED DIRECTLY INTO CONSTRUCTION VEHICLES. ANY SOIL OR ROCK THAT IS REMOVED FROM THE SITE WILL REQUIRE A SEPARATE EROSION AND SEDIMENTATION CONTROL PLAN PROVIDED BY THE CONTRACTOR. ALL SOILS REMOVED FROM AN E&S BMP DURING ROUTINE MAINTENANCE SHALL BE REMOVED FROM THE PROJECT AREA AND TAKEN AS SOIL STOCKPILE TO THE OFF-SITE STOCKPILE AREA.

## **GEOLOGIC CONDITIONS WITH POTENTIAL TO CAUSE POLLUTION**

THERE ARE NO NATURALLY OCCURRING GEOLOGIC FORMATIONS OR CONDITIONS THAT COULD CAUSE POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

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| ssmgroup.com             | PROJECT MANAGER: KMF |  |  |  |
|                          | BASE BY: HMM N.B.:   |  |  |  |

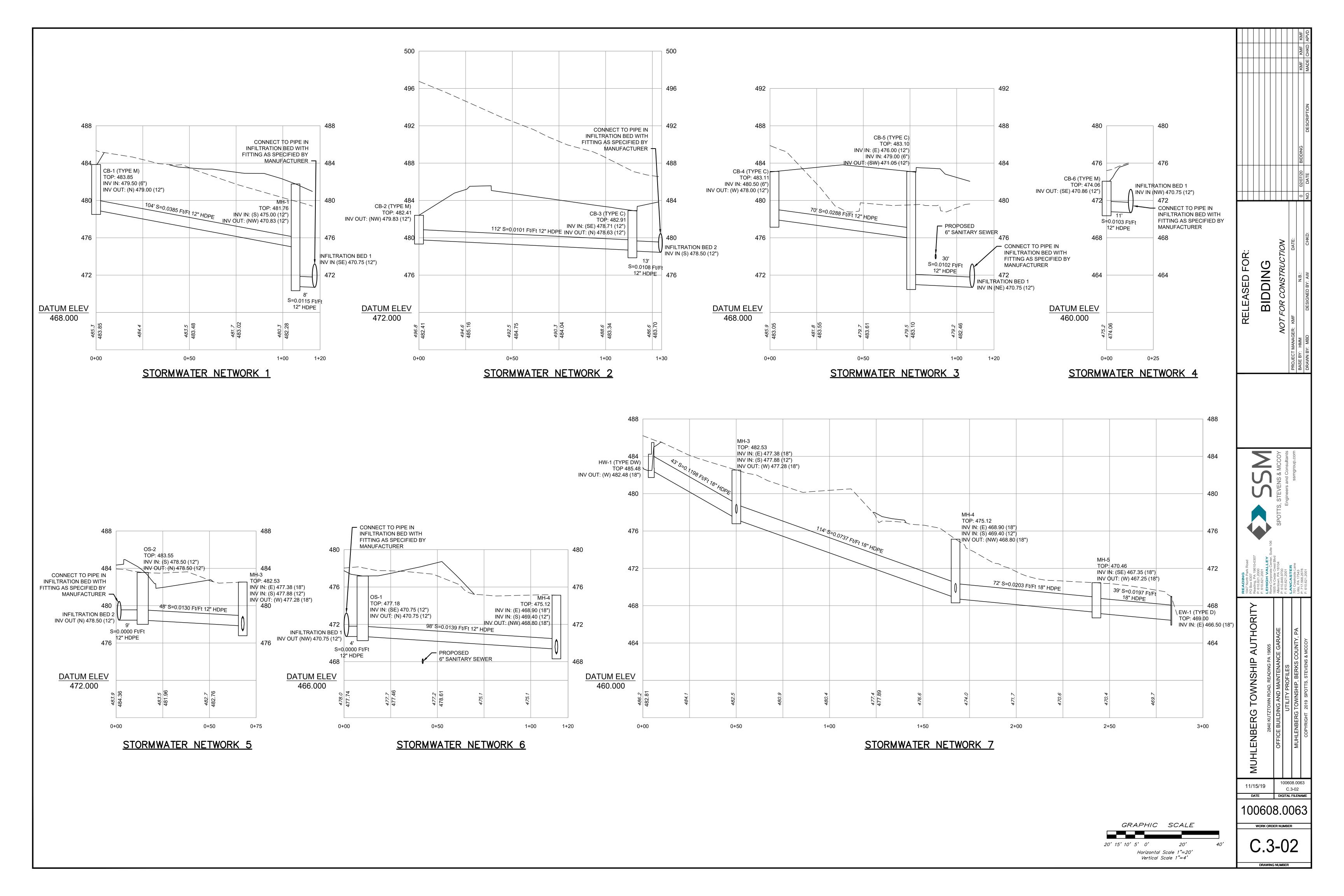
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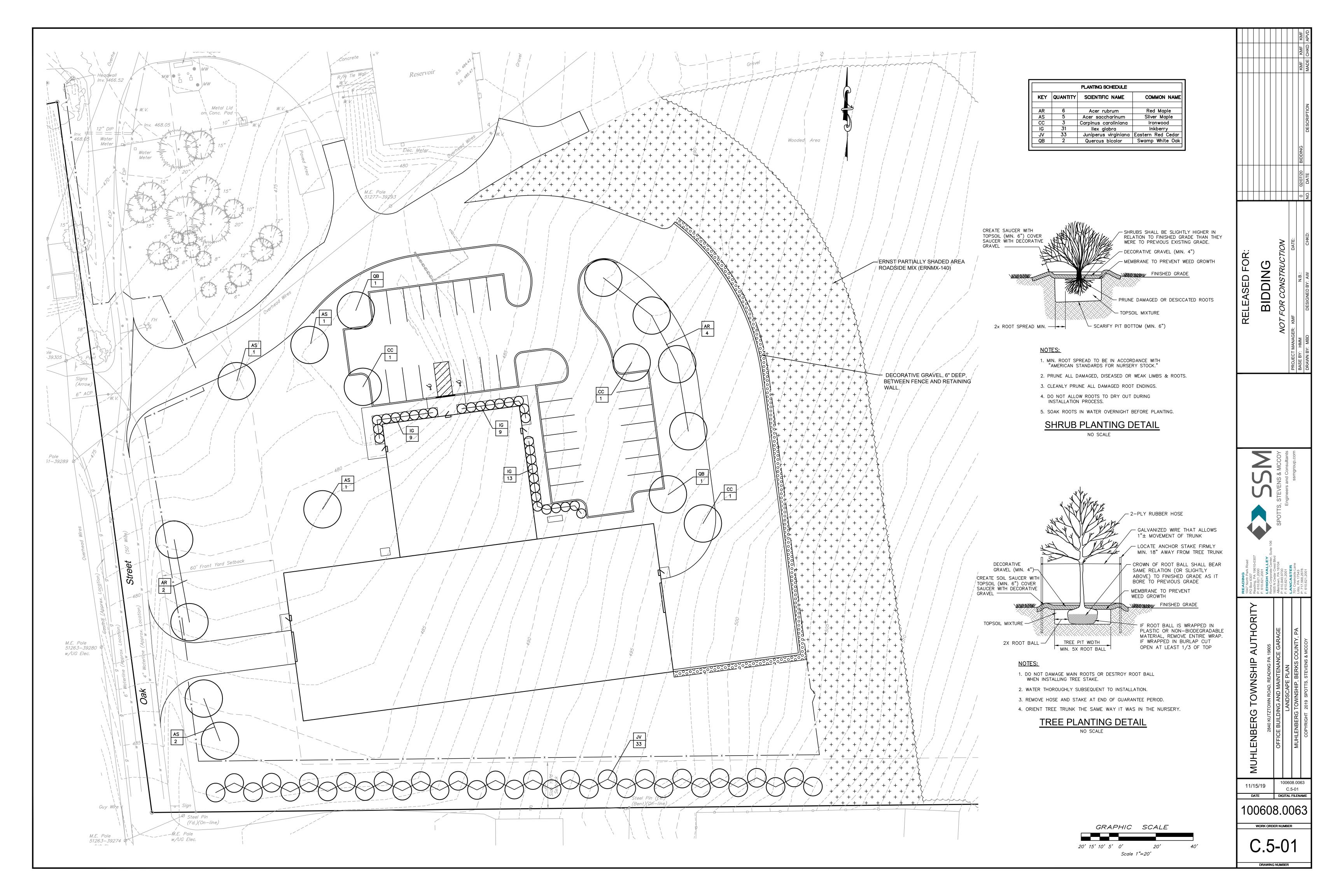
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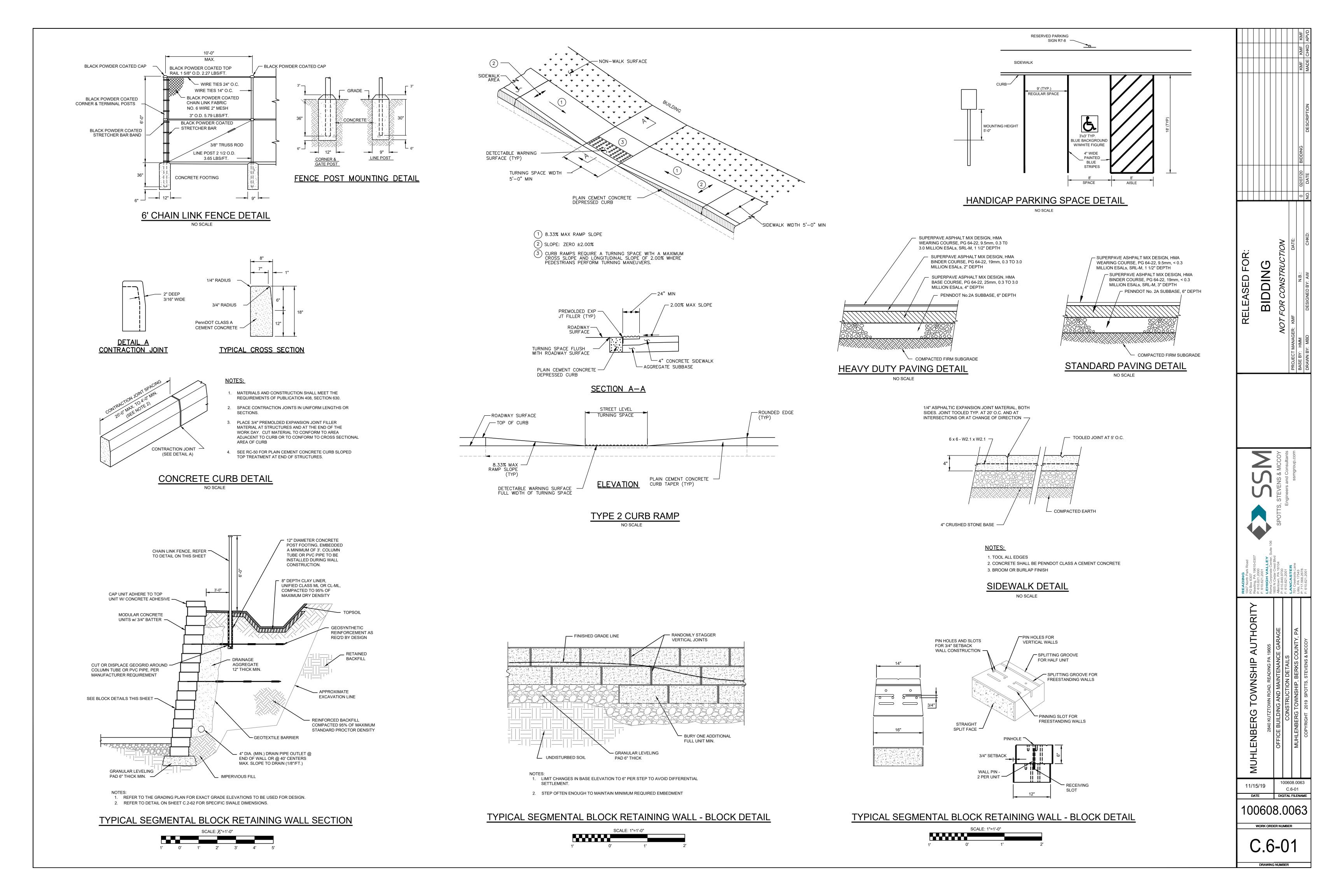
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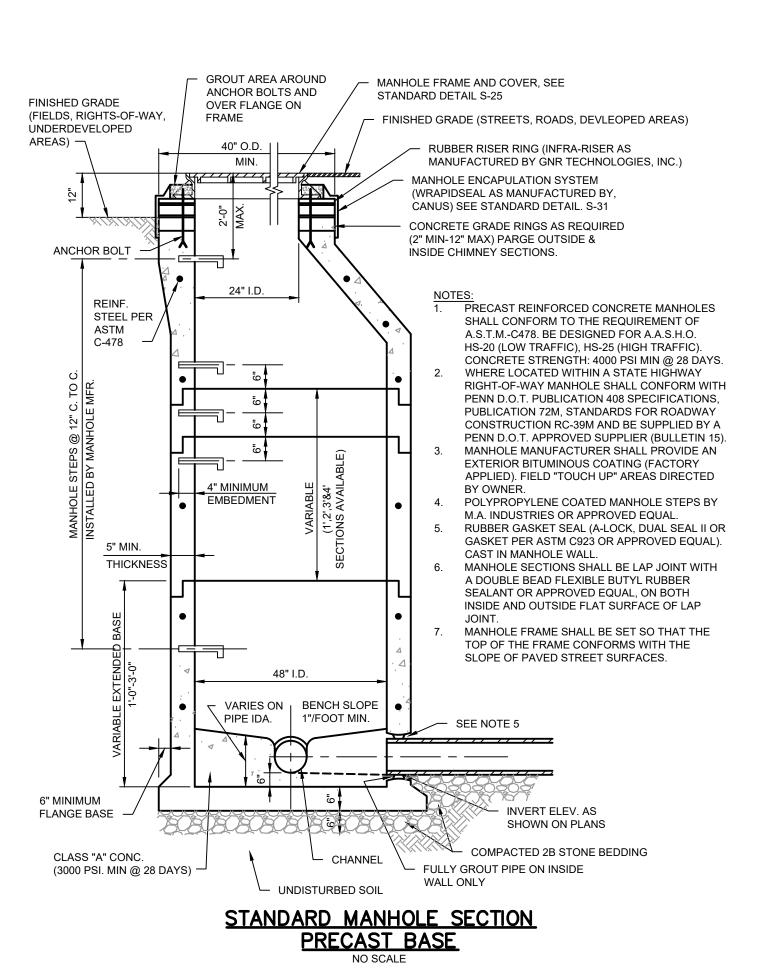
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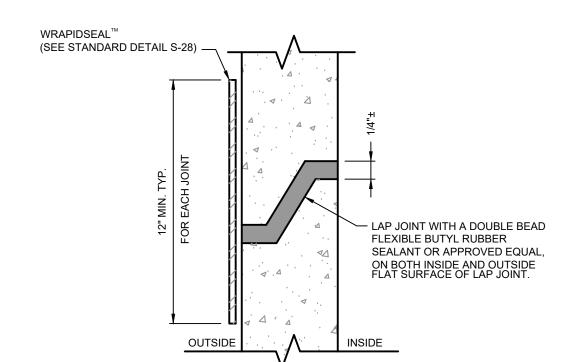




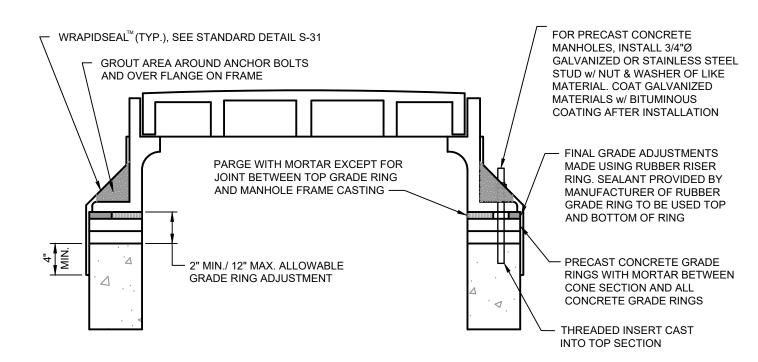






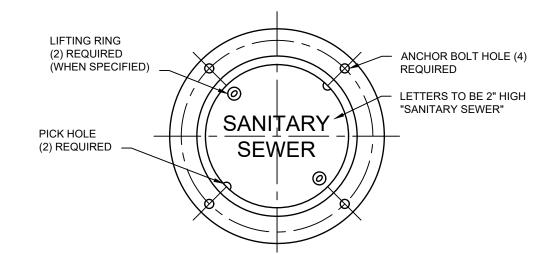


MANHOLE JOINT DETAIL

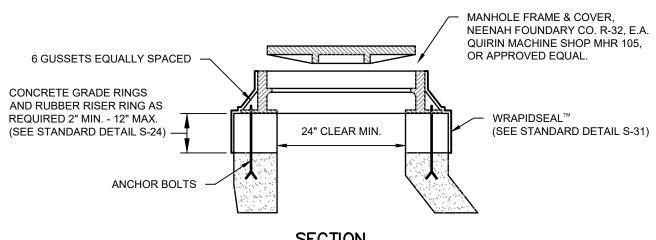


- 1. GRADE ADJUSTMENTS TO BE MADE USING RUBBER RISER RINGS (INFRA-RISER AS MANUFACTURED BY GNR TECHNOLOGIES) AND CONCRETE GRADE RINGS.
- 2. MINIMUM ADJUSTMENT BY GRADE RINGS IS 2". MAXIMUM IS 12".
- 3. WHERE ADJUSTMENT IS GREATER THAN 2", CONCRETE GRADE RINGS ARE TO BE USED TO WITHIN 2" OF THE FINAL GRADE. THE REMAINING VERTICAL ADJUSTMENT SHALL BE MADE UP WITH THE RUBBER GRADE RING.
- 4. ALL NON-SHRINK CONCRETE GROUT SHALL BE TROWELED SMOOTH.
- 5. CONCRETE SURFACES SHALL BE CLEAN AND DRY PRIOR TO PARGING.
- 6. FRAME SHALL BE SET SO THAT THE TOP OF THE FRAME CONFORMS WITH THE SLOPE OF PAVED SURFACES. FOR UNPAVED AREAS, FRAME TO HAVE 18" HEIGHT FROM EXISTING GRADE. GRADE RINGS ARE NOT REQUIRED IN UNPAVED AREAS.

# MANHOLE GRADE RING DETAIL NO SCALE



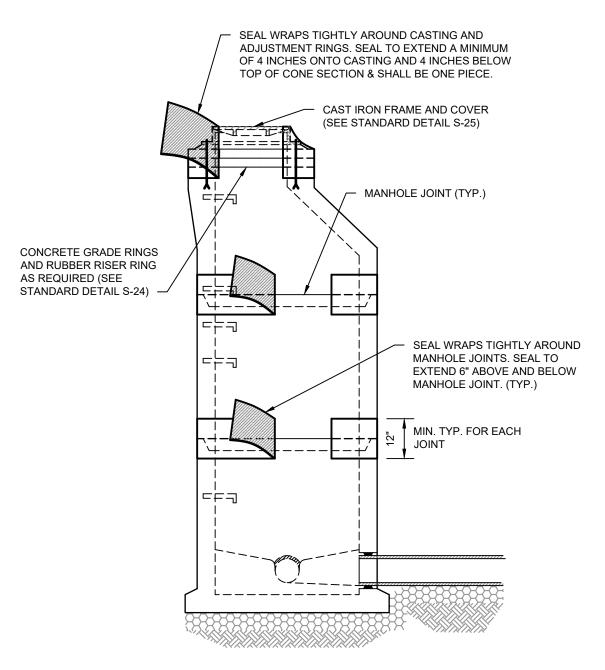




## 1. CAST IRON SHALL HAVE MINIMUM TENSILE STRENGTH OF 30.000 LBS.

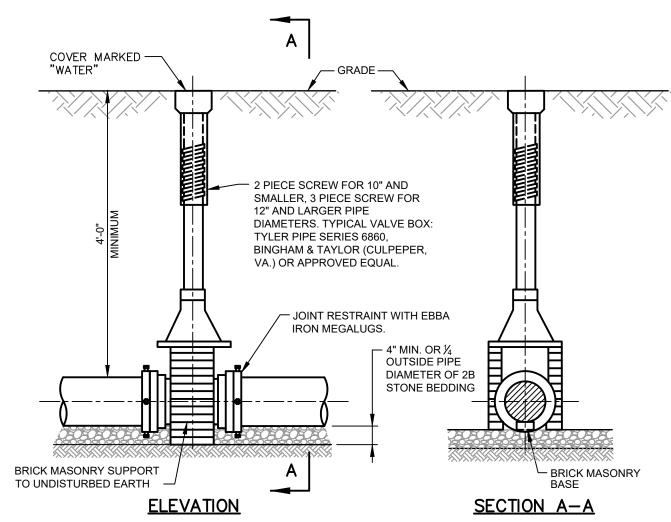
- PER SQUARE INCH AND BE DESIGNED FOR HS-20 TRAFFIC LOADING. 2. REQUEST BOLT DOWN LID MODEL FROM MANUFACTURER WHEN
- SPECIFIED. (STAINLESS STEEL BOLTS (4). 3. SIZE AND POSITION OF LETTERS TO BE CONFIRMED BY CLIENT.
- 4. PROVIDE (2) LIFTING RINGS WHEN SPECIFIED.
- PROVIDE (2) CONCEALED WATERTIGHT PICK HOLES. PROVIDE WATERPROOF NEOPRENE SEALING GASKET.
- PROVIDE FOUR 1" DIAMETER ANCHOR BOLT HOLES. 8. MARKER POSTS SHALL BE INSTALLED TO MARK MANHOLE LOCATIONS IN OPEN FIELD INSTALLATIONS.
- STANDARD MANHOLE FRAME & COVER INSTALLATION

NO SCALE



- 1. MANHOLE SEAL TO BE WRAPIDSEAL MANUFACTURED BY CANUSA-CPS
- 2. MANHOLE JOINT SEALS INSTALLED AS DIRECTED BY THE ENGINEER AND ON ALL JOINTS 10' OR MORE BELOW FINISHED GRADE.

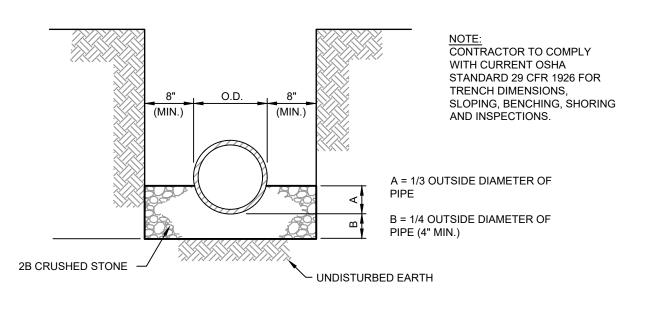
## HEAT SHRINKABLE MANHOLE SEAL



- 1. ALL VALVES SHALL CONFORM TO AWWA C515 FOR RESILIENT SEATED GATE VALVES AS MANFACTURED
- BY AMERICAN FLOW CONTROL OR APPROVED EQUAL..
- 2. VALVE BOX BASES TO BE: No. 4 DOME - VALVES 4" AND SMALLER No. 6 ROUND - 6" AND 8" VALVES
- No. 160 OVAL 10" TO 24" VALVES 3. MECHANICAL JOINTS WITH JOINT RESTRAINT FOR ALL VALVES AND FITTINGS. PROVIDE FIELD LOCK GASKETS 60 LF IN AND OUT OF ALL VALVES AND

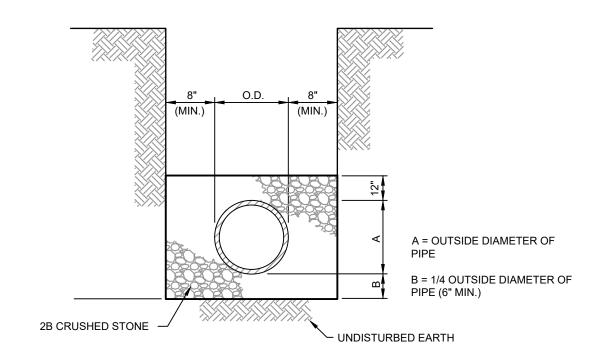
## GATE VALVE DETAIL

NOT TO SCALE



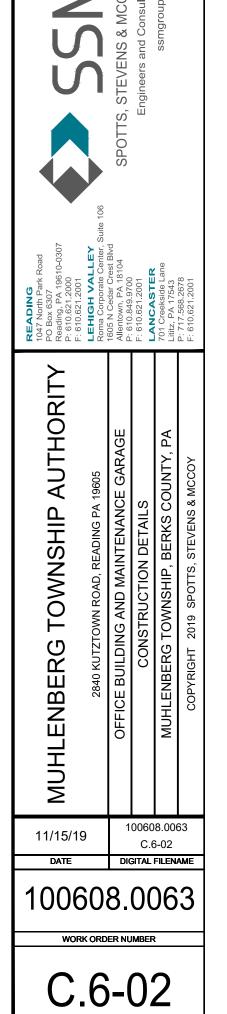
#### WATER MAINS AND FORCE MAINS

## CRUSHED STONE BEDDING FOR D.I.P. AND OTHER RIGID PIPE



CONTRACTOR TO COMPLY WITH CURRENT OSHA STANDARD 29 CFR 1926 FOR TRENCH DIMENSIONS, SLOPING, BENCHING, SHORING AND INSPECTIONS.

## CRUSHED STONE BEDDING FOR PVC AND OTHER FLEXIBLE PIPE



**BIDDING** 

**ROOF LOADS** ROOF LIVE LOAD ROOF SNOW LOAD GROUND SNOW LOAD - Pa: FLAT ROOF SNOW LOAD - P SNOW EXPOSURE FACTOR - Ce: SNOW LOAD IMPORTANCE FACTOR - Is:

WIND LOAD RISK CATEGORY BASIC WIND SPEED - V (3-SEC. GUST) WIND LOAD EXPOSURE CATEGORY INTERNAL PRESSURE COEFFICIENT WIND DESIGN PRESSURE

THERMAL FACTOR - Ct:

SEISMIC LOAD SEISMIC DESIGN CATEGORY: SEISMIC USE GROUP: SPECTRAL RESPONSE COEFFICIENT - SDS: SPECTRAL RESPONSE COEFFICIENT - SDI: SITE CLASS: BASIC SEISMIC FORCE RESISTING SYSTEM:

WIND LOAD CONTROLS DESIGNS FOR LATERAL FORCES

ANALYSIS PROCEDURE:

## **MISCELLANEOUS NOTES:**

1. THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL 1.1. DISCREPANCIES FOUND IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED IN WRITING TO THE

APPLICABLE CODE: IBC 2015 EDITION

LIGHT-FRAME (METAL STUD) WALLS SHEATHED WITH WOOD

STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE

PRE-ENGINEERED METAL BUILDING FRAMES.

50 psf + 15 psf (PARTITIONS)

250 psf

30 psf

30 psf

± 0.18

0.205

0.097

20 psf (MIN)

30 psf + SNOW DRIFT

105 mph (ULTIMATE)

**EQUIVALENT LATERAL** 

FORCE PROCEDURE

OFFICE: 25 psf

GARAGE: 25 psf

ENGINEER FOR CLARIFICATION. 2. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH CIVIL, ARCHITECTURAL, MECHANICAL, PLUMBING, AND SPRINKLER DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP DRAWINGS AND WORK. DISCREPANCIES FOUND IN THESE DRAWINGS AND SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED IN WRITING TO THE ARCHITECT FOR CLARIFICATION. IN CASE OF CONFLICT BETWEEN THE GENERAL NOTES, DETAILS, AND SPECIFICATIONS, THE

MOST STRINGENT REQUIREMENTS SHALL APPLY. 2. ALL WORK SHALL CONFORM TO THE LATEST EDITIONS OF APPLICABLE LOCAL AND STATE BUILDING CODES AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC). INSPECTIONS, AS REQUIRED BY CODE MUST BE PROVIDED

3. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD. 4. NO CHANGE IN SIZE OR DIMENSION OF THE STRUCTURAL MEMBERS SHALL BE MADE WITHOUT WRITTEN APPROVAL OF THE

5. OPENINGS 1'-4" OR LESS ON A SIDE ARE GENERALLY NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUCH OPENINGS. 8. SCALES ON THE DRAWINGS ARE FOR INFORMATION ONLY. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED BY SCALING

FROM THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR OVERALL DIMENSIONS. 9. THE CONTRACTOR SHALL INFORM THE ENGINEER OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE ENGINEER OF

RECORD REVIEW OF SHOP DRAWINGS, PROJECT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ENGINEER OF RECORD OF SUCH DEVIATION AT THE SUBMISSION, AND THE ENGINEER OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. 10. CONTRACTOR SHALL COORDINATE THE GENERAL REQUIREMENTS OF TYPICAL DETAILS WITH PROJECT CONDITIONS, PLANS,

SPECIFICATIONS, AND SECTIONS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THEIR SHOP

11. ALL CONTRACTORS AND SUBCONTRACTORS ARE RESPONSIBLE FOR ALL NOTES AND ITEMS THAT MAY PERTAIN TO THEIR TRADE. FAILURE TO READ THESE NOTES DOES NOT PERMIT THE CONTRACTOR TO DEVIATE FROM THEIR REQUIREMENTS. 12. THE CONTRACTOR SHALL INFORM THE ENGINEER OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT

DOCUMENTS. THE CONTRACTOR SHALL NOT BE RELIEVED OF THE RESPONSIBILITY OF SUCH DEVIATION BY THE ENGINEER OF RECORD REVIEW OF SHOP DRAWINGS, PROJECT DATA, ETC., UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ENGINEER OF RECORD OF SUCH DEVIATION AT THE SUBMISSION, AND THE ENGINEER OF RECORD HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION.

13. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION: THE CONTRACTOR SHALL HIRE AN ENGINEER AS NECESSARY FOR THEIR DESIGN.

14. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY DAMAGE TO ADJACENT STRUCTURES AND

15. THE CONTRACTOR SHALL PERSONALLY SUPERVISE ALL WORK AND SHALL BE PRESENT ONSITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ADEQUATE PERSONNEL FOR THE PROPER COORDINATION AND EXPEDITING

16. THE CONTRACTOR SHALL PROVIDE DEWATERING AS REQUIRED DURING EXCAVATION AND CONSTRUCTION. 17. ALL TYPICAL DETAILS NOT CUT ON PLAN APPLY AT ALL APPROPRIATE LOCATIONS. COORDINATE TYPICAL DETAILS

## FOUNDATION NOTES:

FOUNDATION SOIL BEARING PRESSURE: 2800 PSF AT 5 FT BELOW GRADE, 4000 PSF AT 15 FT BELOW GRADE. FOUNDATION SHALL BE PLACED ON VIRGIN SOIL AT FLEVATIONS INDICATED ON DRAWINGS

THE ENGINEER SHALL APPROVE ALL BEARING STRATA PRIOR TO PLACEMENT OF THE CONCRETE FOOTINGS EXAMINE THE SITE, RECORDS OF EXISTING UTILITIES AND CONSTRUCTION TO DETERMINE THE CONDITIONS UNDER WHICH

THE CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND BE THOROUGHLY FAMILIAR WITH THE SITE AND SUBGRADE INFORMATION GIVEN THEREIN. ALL SITE PREPARATION AND EXCAVATION WORK IS TO BE PERFORMED IN STRICT ACCORDANCE WITH THE REPORT OF GEOTECHNICAL INVESTIGATION PREPARED BY CERTIFIED TESTING LABORATORY (CTL) DATED NOVEMBER 26, 2010

INSTALL CRACK CONTROL OR CONSTRUCTION JOINTS AT 30-FOOT MAXIMUM CENTERS IN WALLS. LOCATIONS SHALL BE

APPROVED BY ENGINEER. TOP OF FOOTING ELEVATIONS ARE NOTED (000.00')

TOP OF PIER OR WALL ELEVATIONS ARE NOTED [000.00'] ALL TOPSOIL, SOIL FILL, AND SOFT SUBSOIL SHALL BE REMOVED AND, IF NECESSARY, REPLACED WITH COMPACTED LOAD-BEARING FILL MATERIALS. TEST PITS OR SOIL BORINGS SHALL BE CONDUCTED TO DETERMINE THE LOCATION OF THE

ANY UNDERCUT AND REPLACEMENT WITH COMPACTED LOAD-BEARING FILL SHALL EXTEND LATERALLY BEYOND FOOTINGS A

DISTANCE AT LEAST EQUAL TO THE DEPTH OF THE UNDERCUT. AFTER UNDERCUTTING AND REMOVAL OF UNSUITABLE SOIL, THE EXPOSED UNDERLYING RESIDUAL SOILS IN THE PROPOSED BUILDING AREA SHALL BE PROOFROLLED AND COMPACTED. SOFT AND/OR UNSTABLE AREAS DISCLOSED BY THE PROOFROLLING SHALL BE ROLLED UNTIL STABILITY IS OBTAINED OR UNTIL FURTHER UNDERCUT TO FIRM MATERIAL IS

FOOTINGS SHALL BE BASED ON STIFF SUBSOIL OR LOAD-BEARING FILL MATERIALS WITH A MINIMUM DEPTH OF AT LEAST TWO FEET OR ONE-HALF THE FOOTING WIDTH, WHICHEVER IS GREATER, BELOW THE FOUNDATION BEARING LEVEL.

PLACE LOAD-BEARING FILL MATERIALS IN LAYERS NOT MORE THAN EIGHT INCHES IN LOOSE THICKNESS FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN FOUR INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. FILL MATERIAL SHALL BE MOISTENED OR AFRATED AS NECESSARY.

EACH LIFT SHALL BE COMPACTED TO AN AVERAGE DRY DENSITY OF NOT LESS THAN 98% OF THE MAXIMUM DRY DENSITY

ACCORDING TO ASTM D698 (STANDARD PROCTOR) FOR ALL FOOTING AND FLOOR SUBGRADES. THE SUB-FLOOR MATERIALS SHALL CONSIST OF AT LEAST FOUR TO SIX INCHES OF GRAVEL OR CRUSHED STONE. THE SUB-FLOOR MATERIALS SHALL BE COMPACTED BY AT LEAST FOUR COVERAGES OF A HEAVY-DUTY VIBRATORY ROLLER OR UNTIL NO FURTHER COMPACTION IS OBSERVED. SEE THE DRAWINGS AND SPECIFICATIONS FOR THE VAPOR BARRIER SIZE,

TYPE AND LOCATION IN AREAS WHERE SOFT/LOOSE ZONES OR POSSIBLE VOIDS EXIST AT DEPTH, NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY. SUCH AREAS SHOULD BE UNDERCUT AND REPLACED WITH COMPACTED LOAD-BEARING FILL. OR FLOWABLE CONCRETE FILL AS DIRECTED BY THE DESIGN PROFESSIONAL. IN ADDITION, FOOTINGS SHOULD BE OVERSIZED AND PROPORTIONED FOR A REDUCED ALLOWABLE BEARING CAPACITY, AS DETERMINED BY THE STRUCTURAL ENGINEER, TO

BETTER DISTRIBUTE FOUNDATION LOADS AND SPAN ANY LOCALIZED SOFT/LOOSE ZONE OR VOID AREAS.

## STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISC'S CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES' AND SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN', LATEST

2. STEEL MATERIALS ASTM A 992, Fv=50,000 ps W-SHAPES: CHANNELS ANGLES ASTM A 36. Fv=36.000 psi PLATE AND BAR ASTM A 36, Fy=36,000 ps **COLD-FORMED HOLLOW** ASTM A 500, GRADE B STRUCTURAL SECTIONS Fy=46,000 psi HOT-FORMED HOLLOW ASTM A 501, Fy=46,000 psi STRUCTURAL SECTIONS ASTM A 53. TYPE E OR S STEEL PIPE GRADE B, Fy=36,000 psi 3. CONNECTOR MATERIALS

ASTM A325 AND ASTM F1852, TYPE 1, TENSION CONTROL HIGH STRENGTH BOLT-NUT-WASHER BOLTS ASSEMBLY WITH HEX OR ROUND HEADS AND SPLINED ENDS. WELDING ELECTRODES COMPLY WITH AWS REQUIREMENT

UNHEADED ANCHOR RODS ASTM F1554, GRADE 36, Fy=36,000 psi BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL BE AISC STANDARD FULL DEPTH CONNECTIONS, UNLESS NOTED OTHERWISE, WHERE REACTIONS ARE INDICATED ON THE DRAWINGS. THE CONNECTION SHALL BE PROVIDED BY THE FABRICATOR. DETAILS AND CALCULATIONS. PREPARED BY A LICENSED ENGINEER. SHALL BE PART OF THE SHOP DRAWING

5. ALL CONNECTIONS SHALL BE HIGH-STRENGTH FRICTION BOLTS OR WELDS OF EQUAL STRENGTH. ANCHOR BOLTS AND FIELD CONNECTIONS OF GIRTS FOR SHEAR SHALL BE UNFINISHED BOLTS.

6 FLEVATION OF TOP OF STEEL MEMBERS ARE NOTED (+ -) 7. METAL DECKING SHALL BE INSTALLED IN 3 SPAN CONDITIONS MINIMUM.

#### **CONCRETE NOTES:**

REINFORCED CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318, LATEST EDITION

CONCRETE MIX REQUIREMENTS (ACI 301 4.1): MIX DESIGNS FOR ALL CONCRETE COMPONENTS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW IN ACCORDANCE WITH ASTM C94 AND THE FOLLOWING CHARACTERISTICS: A. EXTERIOR FLATWORK AND GARAGE FLOOR CONCRETE MIX: COMPRESSIVE STRENGTH 4000 psi. WATER CEMENT RATIO, 0.44 MAX AIR ENTRAINED TO 4% +1%

B. INTERIOR FLATWORK CONCRETE MIX: COMPRESSIVE STRENGTH 4000 psi. WATER CEMENT RATIO, 0.50 MAX FOUNDATION CONCRETE MIX: COMPRESSIVE STRENGTH 3000 psi. WATER CEMENT RATIO 0.50 MAX. AIR ENTRAINED TO 4% ±1% SLUMP OF CONCRETE SHALL NOT EXCEED 4" UNLESS A HIGH RANGE WATER-REDUCING ADMIXTURE IS USED. THE SLUMP OF CONCRETE FOR FOUNDATIONS PRIOR TO ADDITION OF A HIGH RANGE WATER REDUCING ADMIXTURE SHALL NOT EXCEED 4". THE SLUMP OF CONCRETE CONTAINING HIGH RANGE WATER-REDUCING ADMIXTURE SHALL NOT EXCEED 10".

3 CONCRETE MATERIALS: A. CEMENT: ASTM C150, TYPE 1

AGGREGATE: ASTM C33, SUBJECT TO ACI 301 4.2. WATER: ASTM C94, CLEAN AND NOT DETRIMENTAL TO CONCRETE

REINFORCING MATERIALS REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED

WELDED STEEL WIRE FABRIC: ASTM A185, PLAIN TYPE, IN FLAT SHEETS. 5. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE, UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS "B" SPLICES

|          | LAP SPLICE SCHEDULE |         |                   |         |                     |  |  |  |
|----------|---------------------|---------|-------------------|---------|---------------------|--|--|--|
|          |                     |         | I SPLICES<br>HES) |         | COMPRESSION         |  |  |  |
| BAR SIZE | TOP                 | BARS    | OTHER             | R BARS  | SPLICES<br>(INCHES) |  |  |  |
|          | CLASS A             | CLASS B | CLASS A           | CLASS B | , ,                 |  |  |  |
| #3       | 16                  | 21      | 12                | 16      | 12                  |  |  |  |
| #4       | 21                  | 28      | 16                | 21      | 15                  |  |  |  |
| #5       | 27                  | 35      | 21                | 27      | 19                  |  |  |  |
| #6       | 35                  | 46      | 27                | 35      | 23                  |  |  |  |
| #7       | 48                  | 62      | 37                | 48      | 26                  |  |  |  |
| #8       | 63                  | 82      | 48                | 63      | 30                  |  |  |  |
| #9       | 80                  | 104     | 61                | 80      | 34                  |  |  |  |
| #10      | 101                 | 131     | 78                | 101     | 38                  |  |  |  |
| #11      | 125                 | 162     | 95                | 125     | 42                  |  |  |  |

6. MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT AS FOLLOWS: CAST AGAINST EARTH

CONCRETE EXPOSED TO EARTH OR WATER: 2" CLEAR ALL OTHER CONCRETE: ¾" CLEAR

7. MINIMUM CONCRETE SLAB REINFORCEMENT SHALL BE AS FOLLOWS: PLACE ALL REINFORCING AND WWF 11/2" BELOW TOP OF SLAB WHERE APPLICABLE

4" FLOOR SLAB ON GRADE 6X6-W2.1XW2.1 JOINT FILLERS: ASTM D1751, ASPHALT IMPREGNATED FIBERBOARD, PREMOLDED EXPANSION JOINT FILLER AS MANUFACTURED BY

MASONITE BUILDING & INDUSTRIAL GROUP, OR APPROVED EQUAL 9. JOINT SEALANT: THROUGHOUT THE WORK, SEAL AND CAULK JOINTS TO PROVIDE A POSITIVE BARRIER AGAINST PASSAGE OF

MOISTURE AND PASSAGE OF AIR. A. SEALANT TYPE A: INTERIOR SURFACES ACRYLIC LATEX, COMPLYING WITH ASTM CC-834-76. ACCEPTABLE PRODUCTS: (1)

B. SEALANT TYPE B: EXTERIOR SURFACES ONE-PART, NON-SAGGING SILICONE MATERIAL, COMPLYING WITH ASTM C920, CLASS 50 MEDIUM MODULUS, ACCEPTABLE PRODUCTS: DOW CORNING 795 SILICONE BUILDING SEALANT SEALANT TYPE C: INTERIOR CONC. CONTROL JOINTS MULTI-COMPONENT SELF-LEVELING 100% SOLIDS RAPID CURING

POLYUREA JOINT FILLER, COMPLYING WITH ASTM D-2240. ACCEPTABLE PRODUCTS: L&M JOINT TITE 750 10. COLD-WEATHER PLACING SHALL COMPLY WITH THE PROVISIONS OF ACI-306R. THE USE OF CALCIUM CHLORIDE, SALT, AND OTHER MATERIALS CONTAINING ANTI FREEZE AGENTS OR CHEMICAL ACCELERATORS SHALL NOT BE PERMITTED UNLESS OTHERWISE ACCEPTED IN THE MIX DESIGN.

11. HOT-WEATHER PLACING SHALL COMPLY WITH THE PROVISIONS OF ACI-305 12. WORKABILITY SHALL NOT BE ACHIEVED THROUGH ADDITION OF WATER. WATER REDUCING ADMIXTURES (PLASTICIZERS) SHALL BE USED TO INCREASE WORKARII ITY

13. CURE CONCRETE IN ACCORDANCE WITH ACI 301, SECTION 5.3.6. IF A CURING COMPOUND IS USED, IT MUST BE COMPATIBLE WITH 14. CONTRACTOR SHALL PROVIDE ALL BOLSTERS, CHAIRS, BAR POSITIONERS, ETC. AS REQUIRED TO SET REBAR AND SLAB WWF TO

REQUIRED DIMENSIONS. 15. PROVIDE CONTINUOUS REINFORCEMENT AROUND CORNERS AND AT INTERSECTIONS.

16. UNLESS OTHERWISE DETAILED. PROVIDE #4 X 5'-0" LONG BAR AT ALL REENTRANT CORNERS 17. ALL FOOTING DOWELS SHALL BE THE SAME SIZE, NUMBER AND GRADE AS VERTICAL REINFORCEMENT UNLESS OTHERWISE

18. CONTROL JOINTS FOR SLABS ON GRADE SHALL BE SAW CUT IN ACCORDANCE WITH THE PATTERN AS INDICATED ON THE STRUCTURAL DRAWINGS. THE SPACING OF CONTROL JOINTS SHALL BE ARRANGED SUCH THAT THE AREA OF CONCRETE SLAB BETWEEN CONTROL JOINTS DOES NOT EXCEED 100 SF (MAX.). COORDINATE WITH THE STRUCTURAL CONTRACT DRAWINGS FOR TYPICAL CONTROL JOINT DETAILS, DIAMOND SHAPES SHALL BE PROVIDED AT ALL COLUMNS

19. UNLESS OTHERWISE SPECIFIED, A THIRD PARTY TESTING LABORATORY SHALL BE EMPLOYED BY THE CONTRACTOR FOR EVALUATION AND QUALITY CONTROL OF CONCRETE PLACED. FREQUENCY OF CONCRETE TESTING SHALL MEET THE

REQUIREMENTS OF ACI 318 AT A MINIMUM UNLESS OTHERWISE REQUIRED BY THE LOCAL BUILDING CODE. 20. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL SLEEVES, INSERTS, ANCHOR BOLTS AND OTHER EMBEDDED ITEMS AS REQUIRED BY OTHER TRADES.

## MASONRY NOTES:

1. MASONRY CONSTRUCTION SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURES" (ACI 530) AND "SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF LOAD-BEARING CONCRETE MASONRY" (N.C.M.A.)

2. MASONRY MATERIALS: CONCRETE MASONRY UNITS MIN COMP. STRENGTH = 1500 PSI AT 28 DAYS ON NET AREA MORTAR - TYPE M OR S ASTM C270 GROUT ASTM C476

MIN COMP. STRENGTH = 3000 psi SLUMP BETWEEN 8 AND 11 INCHES 3. REINFORCING MATERIALS: ASTM A615. GRADE 60. DEFORMED REINFORCING BARS

JOINT REINFORCING ASTM A 951 0 148" RODS MIN 4. UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE FOLLOWING MINIMUM REINFORCING SHALL BE USED. ALL CORES WITH REINFORCING SHALL BE GROUTED SOLID. (2) #5 BARS - (1) PER CORE

BENEATH STEEL OR CONCRETE LINTELS (1) #5 BAR INTERIOR NON-LOADBEARING WALLS #4 BARS AT 48" o.c. VERTICAL HORIZONTAL JOINT REINF. AT 16" o.c

5. ALL MASONRY TO BE ERECTED IN RUNNING BOND WITH FULL MORTAR BEDS.

THE FOUNDATION WHEN DOWELING INTO THE WALL

DO NOT SUBSTITUTE MORTAR FOR GROUT. . DO NOT USE ADDITIVES CONTAINING CHLORIDES

8. MASONRY WALLS SHALL BE ANCHORED TO ALL FLOORS AND ROOFS WHICH PROVIDE LATERAL SUPPORT FOR THE WALLS. 9. BOND BEAMS WITH HORIZONTAL REINFORCEMENT NOT LESS THAN (2) #5 REBAR SHALL BE PROVIDED CONTINUOUSLY AT STRUCTURALLY CONNECTED ROOF AND FLOOR LEVELS. AT THE TOP OF WALLS. AT THE BOTTOM OF WALLS OR IN THE TOP OF

10. AT INTERSECTING WALLS PROVIDE CONTINUITY IN JOINT REINFORCING USING PRE-FABRICATED 'L' AND 'T' SECTIONS. AT ABUTTING WALLS USE RIGID METAL ANCHORS NOT MORE THAN 24" o.c. 11. PROVIDE 1/4" THICK NEOPRENE BEARING PADS BENEATH ALL BEARING LINTELS AT MASONRY OPENINGS GREATER THAN 6'-0"

UNLESS NOTED OTHERWISE. NEOPRENE SHALL BE 60 DUROMETER MATERIAL. 12. ALL CMU THAT HAS ONE OR MORE FACES BELOW GRADE SHALL BE GROUTED SOLID. VERTICAL REINFORCING BARS SHALL BE SECURED AGAINST DISPLACEMENT PRIOR TO GROUTING BY GALVANIZED BAR POSITIONERS SPACED AT INTERVALS NOT TO EXCEED 112 BAR DIAMETERS. PROVIDE A MINIMUM OF 2 BAR POSITIONERS PER INDIVIDUAL BAR.

13. SUBMIT CHECKED SHOP DRAWINGS FOR ENGINEER APPROVAL WHICH DETAIL THE LOCATION, SIZE AND POSITION IN THE CMU CORE FOR ALL VERTICAL REINFORCEMENT. 14. ALL STEEL COLUMNS, LINTELS, BEAMS ETC. EMBEDDED IN EXTERIOR WALL SHALL BE PROTECTED FROM MOISTURE BY AN

ARCHITECT APPROVED WATERPROOFING MATERIAL OR BY A PARGING COAT OF CEMENT MORTAR 15. MASON TO DESIGN, FURNISH AND INSTALL ALL REQUIRED SHORING FOR ERECTION OF THE CMU MASONRY WALLS AND PIERS

## TESTING:

A THIRD PARTY TESTING AGENCY SHALL CAST AND TEST ONE (1) SET OF FOUR (4) CYLINDERS FOR NOT LESS THAN EACH 150 CY OR 5,000 SF OF WALLS/SLAB. TEST CYLINDERS ARE NOT REQUIRED WHEN THE TOTAL VOLUME OF CONCRETE IN A GIVEN CLASS IS LESS THAN 50 CY

CYLINDERS TO BE TESTED AT 7 DAYS (1 CYL.) AND AT 28 DAYS (AVERAGE OF 2 CYL.) WITH ONE SPARE. THREE COPIES OF THE

TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER. SLUMP TESTS SHALL BE MADE FOR EACH BATCH OF CONCRETE DELIVERED.

MIN. SLUMP: 3" MAX. SLUMP: 5"

PROVIDE SPECIAL INSPECTIONS AS REQUIRED BY IBC 2015, CHAPTER 17.

## TIMBER NOTES:

ALL WOOD FRAMING SHALL BE FABRICATED, ERECTED, AND BRACED IN ACCORDANCE WITH THE NATIONAL DESIGN

SPECIFICATION FOR WOOD CONSTRUCTION, LATEST EDITION. ALL SAWN LUMBER SHALL BE HEM-FIR #2, U.N.O. 19% MAXIMUM MOISTURE CONTENT OR BETTER. THE MINIMUM DESIGN VALUES SHALL BE:

Fb = 850 psi ' Fb= 1 100 PSI Fv = 150 psi Fv= 150 PSI Fc = 1300 psi E = 1.300.000 psE= 1,500,000 PSI MINIMUM DESIGN VALUES FOR PARALLAM (PSL) MEMBERS SHALL BE: Fb = 2900 psiFv = 290 psi

E = 2,000,000 psMINIMUM DESIGN VALUES FOR MICROLLAM (LVL) MEMBERS SHALL BE Fb = 2600 psi

Fv = 285 psiFc = 2510 psi

Fc = 2900 psi

PRESERVERS ASSOCIATION (AWPA)

E = 1.900.000 psiALL FRAMING HANGERS, CLIPS, HOLDOWNS, STRAPS AND ANCHORS SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. ALL CONNECTORS SHALL MEET ASTM SPEC. A526, 16 GA. MINIMUM. PROVIDE BETWEEN EACH BEAM, JOIST, RAFTER, OR PURLIN AND SUPPORTING MEMBER. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS WITH

A RATED LOAD CAPACITY EQUAL TO OR EXCEEDING THE IMPOSED LOADING REQUIREMENTS. ALL WOOD PLATES BEARING ON CONCRETE, EXPOSED TO WEATHER, AND ALL WOOD DESIGNATED AS "PT" SHALL BE PRESSURE TREATED LUMBER UNLESS NOTED OTHERWISE. PRESSURE TREATED LUMBER SHALL BE SOUTHERN PINE (SP) NO. 2 OR BETTER, PRESSURE TREATED WITH APPROVED WOOD PRESERVATIVE IN ACCORDANCE WITH AMERICAN WOOD

ALL DOUBLE JOISTS SHALL BE SPIKED TOGETHER WITH 10d NAILS @ 16" o.c. ALL WALLS SHALL HAVE DOUBLE TOP PLATES. SPLICE A MINIMUM OF 4'-0". AT INTERSECTIONS, LAP AND NAIL WITH (3) 16d

NAIL IN ACCORDANCE WITH IBC TABLE 2304.9.1 "FASTENING SCHEDULE." COMMON STEEL WIRE NAIL TYPE, UNO. ALL WOOD BEAMS MADE UP OF 3 OR MORE MEMBERS AND ARE SIDE LOADED W/ JOIST HANGERS SHALL BE BOLTED

TOGETHER WITH 1/2"Ø BOLTS @ 32" o.c STORAGE OF ALL LUMBER ON SITE SHALL BE KEPT OFF GROUND, UNDER COVER AND PROTECTED FROM DAMAGE.

ALL LUMBER SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED. ALL PLYWOOD SHALL MEET THE REQUIREMENTS OF THE PLYWOOD DESIGN SPECIFICATIONS AS PUBLISHED BY THE AMERICAN PLYWOOD ASSOCIATION AND THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.

LATEST EDITION ALL PLYWOOD ROOF SHEATHING SHALL BE SECURED WITH PLY CLIPS AT CENTERLINE OF PLYWOOD SPAN AND AT ALL EDGES PARALLEL TO SPAN.

PLYWOOD SHEATHING SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS. WOOD TRUSS JOISTS ARE TO BE DESIGNED BY THE MANUFACTURER, ALL CALCULATIONS SHALL BE SEALED BY A REGISTERED ENGINEER AND SHALL BE SUBMITTED FOR APPROVAL BY THE STRUCTURAL ENGINEER. SEE "TRUSS NOTES." ON SHEET \$4.09.

#### TRUSS NOTES:

LIMITED TO:

WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE IBC AND ACCEPTED ENGINEERING PRACTICE. MEMBERS ARE PERMITTED TO BE JOINED BY NAILS, GLUE, BOLTS, TIMBER CONNECTORS, METAL CONNECTOR PLATES OR OTHER APPROVED FRAMING DEVICES.

LUMBER FOR TRUSS FABRICATION SHALL BE SPECIES AND GRADE STAMPED, KILN DRIED, AND STRESS GRADED IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

A. SUBMIT STRUCTURAL CALCULATIONS FOR TRUSS DESIGNS PREPARED BY THE MANUFACTURER BEARING THE SEAL OF A REGISTERED ENGINEER FOR APPROVAL BY THE STRUCTURAL ENGINEER. CALCULATIONS SHALL INCLUDE, BUT ARE NOT

a. DESCRIPTION OF THE DESIGN CRITERIA b. ENGINEERING ANALYSIS DEPICTING STRESS AND DEFLECTION REQUIREMENTS FOR EACH TRUSS APPLICATION

c. SELECTION OF TRUSS COMPONENTS AND ACCESSORIES VERIFICATION OF ATTACHMENTS TO STRUCTURE AND/OR ADJACENT FRAMING COMPONENTS

NOTE: TRUSS CONFIGURATIONS SHOWN ON PLANS ARE APPROXIMATE THE WRITTEN, GRAPHIC AND PICTORIAL DEPICTION OF EACH INDIVIDUAL TRUSS SHALL BE PROVIDED TO THE BUILDING

OFFICIAL AND APPROVED PRIOR TO INSTALLATION, TRUSS DESIGN DRAWINGS SHALL ALSO BE PROVIDED WITH THE SHIPMENT OF TRUSSES DELIVERED TO THE JOB SITE. TRUSS DESIGN DRAWINGS SHALL INCLUDE, AT A MINIMUM, THE INFORMATION SPECIFIED BELOW: A. SLOPE OR DEPTH, SPAN AND SPACING;

B. LOCATION OF JOINTS AND SUPPORT LOCATIONS; REQUIRED BEARING WIDTHS:

D. DESIGN LOADS AS APPLICABLE: TOP CHORD LIVE LOAD (INCLUDING SNOW LOADS);

TOP CHORD DEAD LOAD; G. BOTTOM CHORD LIVE LOAD;

H. BOTTOM CHORD DEAD LOAD; I. CONCENTRATED LOADS AND THEIR POINTS OF APPLICATION AS APPLICABLE; J. CONTROLLING WIND AND EARTHQUAKE LOADS AS APPLICABLE;

K. ADJUSTMENTS TO LUMBER AND METAL CONNECTOR PLATE DESIGN VALUE FOR CONDITIONS OF USE; EACH REACTION FORCE AND DIRECTION:

M. METAL CONNECTOR PLATE TYPE, SIZE, THICKNESS OR GAGE, AND THE DIMENSIONED LOCATION OF EACH METAL CONNECTOR PLATE EXCEPT WHERE SYMMETRICALLY LOCATED RELATIVE TO THE JOINT INTERFACE;

 LUMBER SIZE, SPECIES AND GRADE FOR EACH MEMBER O. CONNECTION REQUIREMENTS FOR:

a. TRUSS TO TRUSS; b. TRUSS PLY TO PLY; AND

c. FIELD SPLICES. P. CALCULATED DEFLECTION RATIO AND MAXIMUM VERTICAL AND HORIZONTAL DEFLECTION FOR LIVE AND TOTAL LOAD AS

Q. MAXIMUM AXIAL TENSION AND COMPRESSION FORCES IN THE TRUSS MEMBERS; REQUIRED PERMANENT INDIVIDUAL TRUSS MEMBER BRACING AND METHOD PER IBC 2303.4.1.2, UNLESS A SPECIFIC TRUSS MEMBER PERMANENT BRACING PLAN FOR THE ROOF OR FLOOR STRUCTURAL SYSTEM IS PROVIDED BY A

REGISTERED DESIGN PROFESSIONAL S. TRUSS PLACEMENT DIAGRAM IDENTIFYING LOCATION FOR EACH TRUSS AND REFERENCES TO TRUSS DRAWINGS. ERECTION . INSTALLATION OF TRUSSES SHALL BE MADE BY EXPERIENCED QUALIFIED PERSONNEL TO ASSURE PROPER PLACEMENT

AND HANDLING, INCLUDING INSTALLATION OF PERMANENT AND TEMPORARY BRACING. CUTTING, DRILLING, OR NOTCHING ANY OF THE TRUSS MEMBERS IS NOT PERMITTED WITHOUT DESIGNER APPROVAL. ERECTOR SHALL NOT ALTER TRUSS SPACING WITHOUT RECEIVING WRITTEN APPROVAL FROM THE TRUSS DESIGNER.

HEAVY CONSTRUCTION LOADS SUCH AS STACKS OF PLYWOOD, GYPSUM WALLBOARD, PILES OF ROOFING GRAVEL BRICKS, AIR CONDITIONING UNITS, ETC. SHALL NEVER BE PLACED ON TRUSSES BEFORE THEY ARE PROPERLY BRACED. SUCH LOADS SHALL BE LIMITED TO EIGHT SHEETS (OR EQUIVALENT WEIGHT) AND LOCATED AS CLOSE TO A SUPPORT AS

E. MECHANICAL EQUIPMENT SHOULD BE LOCATED ONLY ON THE TRUSSES SPECIFICALLY DESIGNED TO SUPPORT IT. THE UNITS SHALL NOT BE SET ON ANY OTHER TRUSSES TEMPORARILY UNLESS PROPERLY SHORED. WHEN ERECTING BY HAND, TRUSSES ARE SLID INTO POSITION OVER THE SIDE WALL AND ROTATED INTO POSITION. THE

TRUSS SHALL BE SUPPORTED AT THE PEAK, OR AT THE QUARTER POINTS. TRUSSES LARGE ENOUGH TO BE ERECTED BY MECHANICAL MEANS MUST EMPLOY ADEQUATE SLINGS, TAG LINES, BOOMS AND/OR SPREADER BARS TO CONTROL MOVEMENT OF THE TRUSS AND PREVENT LATERAL BENDING . FOR LIFTING TRUSSES WITH SPANS IN EXCESS OF SIXTY (60) FEET, IT IS RECOMMENDED THAT A STRONG-BACK BE USED THE STRONG-BACK SHOULD BE ATTACHED TO THE TOP CHORD AND WEB MEMBERS AT INTERVALS OF APPROXIMATELY

TEN (10) FEET, AND SHALL BE AT OR ABOVE MID-HEIGHT OF THE TRUSS SO AS TO PREVENT OVERTURNING. TRUSSES MAY BE ERECTED SINGLY OR BANDED TOGETHER. TRUSSES THAT DO NOT MEET INTERIOR LOAD BEARING WALLS SHOULD BE SHIMMED.

BETWEEN ADJACENT TRUSSES AS TEMPORARY BRACING IS NOT PERMITTED

6. CONTINUOUS LATERAL BRACING

A. BRACING MATERIALS SHALL BE FURNISHED BY THE BUILDER OR ERECTION CONTRACTOR. B. CONTINUOUS LATERAL BRACING IS DEFINED AS BRACING REQUIRED TO REDUCE THE BUCKLING LENGTH OF THE INDIVIDUAL TRUSS MEMBERS. LATERAL BRACING IS A PART OF THE TRUSS DESIGN AND SHALL BE SPECIFIED ON THE TRUSS DESIGN DRAWINGS.

TEMPORARY BRACING A. FOR WOOD TRUSSES TEMPORARY BRACING SHALL BE NOT LESS THAN 2x4 DIMENSION LUMBER AND SHALL BE NAILED

WITH TWO DOUBLE HEADED 16d NAILS. FOR METAL TRUSSES TEMPORARY BRACING SHALL BE NOT LESS THAN 3 - 0 5/8" x 16 GA METAL STUDS. ALL TEMPORARY BRACING SHALL BE AS LONG AS PRACTICAL FOR HANDLING. THE USE OF SHORT SPACER PIECES

D. DIAGONAL CROSS BRACING SHALL BE IN THE PLANE FORMED BY THE TOP CHORDS, IN THE PLANE OF THE BOTTOM CHORDS. & PERPENDICULAR TO THE TRUSS WEB MEMBERS. DIAGONAL BRACING SHALL BE ATTACHED TO ALL WEB MEMBERS REQUIRING LATERAL BRACING. THE DIAGONAL BRACING SHALL BE INSTALLED AT APPROXIMATELY A 45 DEGREE ANGLE TO THE LATERAL BRACING. DIAGONAL BRACING SHALL BE

ATTACHED TO THE OPPOSITE SIDE OF THE SAME MEMBER REQUIRING LATERAL BRACING F. THE END TRUSS MUST BE ADEQUATELY BRACED TO THE GROUND BEFORE THE SETTING OF ANY INTERIOR TRUSSES. THE GROUND BRACES SHALL BE LOCATED DIRECTLY IN LINE WITH ALL OF THE ROWS OF TOP CHORD CONTINUOUS LATERAL

G. ERECTOR SHALL INSTALL SUFFICIENT TEMPORARY BRACING TO HOLD THE TRUSSES PLUMB, IN ALIGNMENT, & IN A SAFE CONDITION UNTIL THE PERMANENT BRACING, DECKING, AND/OR SHEATHING CAN BE INSTALLED.

H. TOP CHORD PLANE - SEE TRUSS BRACING DETAIL WEB MEMBER PLANE - SEE TRUSS BRACING DETAIL

BOTTOM CHORD PLANE - SEE TRUSS BRACING DETAIL

PERMANENT BRACING

A. TOP CHORD PLANE - SEE TRUSS BRACING DETAIL B. WEB MEMBER PLANE - THE TEMPORARY BRACING SHALL REMAIN IN PLACE AS THE PERMANENT BRACING.

. BOTTOM CHORD PLANE - THE TEMPORARY BRACING SHALL REMAIN IN PLACE AS THE PERMANENT BRACING.

## **COLD-FORMED FRAMING NOTES**

COLD-FORMED METAL FRAMING DESIGN SHALL BE IN ACCORDANCE WITH AISI'S SPECIFICATION FOR THE DESIGN

OF COLD-FORMED STEEL STRUCTURAL MEMBERS, LATEST EDITION. MEMBERS SIZE INFORMATION INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE CONSIDERED MINIMUM REQUIREMENTS, AND SHALL BE VERIFIED BY DESIGN.

SHOP DRAWINGS AND STRUCTURAL CALCULATIONS, SHALL BE PREPARED BY A QUALIFIED STRUCTURAL ENGINEER, SHALL BE SUBMITTED INCLUDING LAYOUT, SPACINGS, SIZES, THICKNESSES, AND TYPES OF COLD-FORMED METAL FRAMING, FABRICATION, AND FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS. LOADING CRITERIA AND PERFORMANCE REQUIREMENTS ARE INDICATED IN THE SPECIFICATIONS

THE PHYSICAL AND STRUCTURAL PROPERTIES LISTED BY SSMA, "STEEL STUD MANUFACTURERS ASSOCIATION". SHALL BE USED AS THE BASIS OF DESIGN. ALL MEMBERS SHALL BE IDENTIFIED USING THE SSMA STANDARD NOMENCI ATURE AND PRODUCT IDENTIFICATION

THE FOLLOWING MINIMUM PROPERTIES, CALCULATED IN ACCORDANCE WITH THE LATEST AISI SHALL BE

PROVIDED: MOMENT OF INERTIA IX (IN 4) A (IN 2)

RESISTING MOMENT MR (IN-LB) WHEREVER POSSIBLE BEAMS, JOISTS, AND STUDS SHALL BE POSITIONED DIRECTLY ABOVE WALL STUDS BELOW, OTHERWISE, TRACK SECTIONS MUST BE REINFORCED WITH LOCATIONS AND DETAILS INDICATED ON THE SHOP DRAWINGS. SPLICING OF TRACK SECTIONS BETWEEN STUDS IS NOT PERMITTED

AXIALLY LOADED STUDS SHALL HAVE FULL BEARING AGAINST INSIDE TRACK WEB PRIOR TO STUD AND TRACK ATTACHMENT. SPACES IN AXIALLY LOADED STUDS SHALL NOT BE PERMITTED. PROVIDE STUD WALLS AT LOCATIONS INDICATED ON PLANS AS "SHEAR WALLS" FOR FRAME STABILITY AND

LATERAL LOAD RESISTANCE PRIOR TO THE INSTALLATION OF WALL OR ROOF SHEATHING. OTHERWISE TEMPORARY BRACING SHALL BE PROVIDED UNTIL ERECTION IS COMPLETED. TEMPORARY BRACING SHALL BE DESIGNED AND INCLUDED IN THE SHOP DRAWING SUBMISSION. WALL STUD BRIDGING SHALL BE ATTACHED IN A MANNER TO PREVENT STUD ROTATION. BRIDGING ROWS SHALL

BE SPACED ACCORDING TO THE SHOP DRAWINGS STRUCTURAL MEMBERS REINFORCING THE TOP AND/OR BOTTOM TRACK SHALL BE BUTT-WELDED AT INTERSECTIONS AND TO STRUCTURAL BEAMS, HEADERS, LINTELS, AND COLUMNS.

## SHOP DRAWINGS:

SUBMIT THREE (3) PRINTS OR DIGITAL (PDF) COPY OF EACH OF ALL SHOP DRAWINGS FOR REVIEW. SHOP DRAWINGS MUST BE CHECKED BY THE DETAILER PRIOR TO SUBMISSION; FAILURE TO DO SO WILL BE CAUSE FOR

SHOP DRAWINGS MUST BE SUBMITTED IN ORIGINAL SIZE. REPRODUCTIONS SHALL NOT BE REDUCED IN SIZE. ALL REVISIONS TO SHOP DRAWINGS AFTER THE FIRST SUBMISSION MUST BE IDENTIFIED ON SUBSEQUENT

SUBMISSIONS. REVIEW OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF ANY CONTRACT REQUIREMENT, EVEN IF SUCH ITEMS ARE NOT SHOWN ON THE SHOP DRAWINGS

ANY CHANGES PROPOSED BY THE DETAILER MUST BE CLEARLY IDENTIFIED ON THE SHOP DRAWINGS AND. UPON THE REQUEST OF THE ENGINEER, PROVIDE CALCULATIONS TO SUBSTANTIATE SUCH CHANGE. CONTRACTORS SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AT LEAST TEN (10) WORKING DAYS PRIOR TO THE

REQUIRED DATE FOR SUBMITTAL RETURN. THE APPROVAL OF SHOP DRAWINGS WILL BE FOR ARRANGEMENT ONLY AND SHALL NOT RELIEVE THE

CONTRACTOR OF THE RESPONSIBILITY FOR ERRORS, OMISSIONS OR THE ACCURACY OF HIS OWN DIMENSIONS. CONTRACTOR SHALL FURNISH DIMENSIONED COORDINATED SHOP DRAWINGS AT ALL LEVELS FOR REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.

NO CONSTRUCTION SHALL COMMENCE PRIOR TO THE APPROVAL OF SHOP DRAWINGS. SUBMIT PRODUCT DATA FOR PROPOSED SUBSTITUTIONS DEMONSTRATING EQUIVALENCE TO SPECIFIED

PRODUCTS SHOWN ON DRAWINGS.

SPECIAL INSPECTIONS

PROVIDE STRUCTURAL TESTS AND INSPECTIONS IN COMPLIANCE WITH THE REQUIREMENTS OF THE IBC 2015, CHAPTER 17, AND THE PROJECT SPECIFICATIONS

THE ITEMS CHECKED WITH AN "X" IN THE SPECIAL INSPECTION SCHEDULE SHALL BE INSPECTED IN ACCORDANCE WITH IBC 2015, CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTOR FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO PROJECT SPECIFICATIONS, AND THE STRUCTURAL NOTES. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE REGISTERED DESIGN PROFESSIONAL AND THE BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL AND THE BUILDING OFFICIAL.

INSPECTION OF FABRICATED ITEMS IS REQUIRED FOR WORK PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP TO REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. SPECIAL INSPECTION IS NOT REQUIRED FOR WORK PERFORMED BY AN APPROVED FABRICATOR PER IBC SECTION 1704.2.5.2.

WORK REQUIRING SPECIAL INSPECTION (IBC 1704) PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE. INSPECTION REQUIREMENTS FOR SYSTEMS DESIGNED BY OTHERS SHALL BE DEFINED BY THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THEIR DESIGN.

CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON THE SITE AT ALL TIMES OBSERVING THE

INSPECTION FOR PREFABRICATED CONSTRUCTION SHALL BE THE SAME AS IF THE MATERIAL USED IN THE CONSTRUCTION OOK PLACE ON SITE. CONTINUOUS INSPECTION WILL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVEI AGENCY CERTIFIES THE CONSTRUCTION AND FURNISHES EVIDENCE OF COMPLIANCE. INSPECTION OF DRILLED CONCRETE ANCHORS, INCLUDING EXPANSION AND ADHESIVE GROUTED ANCHORS, SHALL INCLUDE VISUAL OF DRILLED HOLF DEPTH, SPACING, EDGE DISTANCES AND HOLF CLEANING, FOR GROUTED ANCHORS, GROUT

SPECIAL INSPECTION NOT REQUIRED FOR DRIVEWAYS AND SIDEWALKS SPECIAL INSPECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC 360 CHAPTER N. THE STEEL FRAME SHALL BE INSPECTED FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS INCLUDING BRACING, STIFFENING,

INSTALLATION SHALL BE OBSERVED AND GROUT PRODUCT SPECIFICATION AND PREPARATION SHALL BE VERIFIED.

MEMBER LOCATIONS AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION. ALL STRUCTURAL STEEL, HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL MEET APPLICABLE MATERIAL STANDARDS PER AISC 360 CHAPTER N TABLES N5.6-1 AND N5.6-3.

ALL WELDS SHALL BE VISUALLY INSPECTED. ALL COMPLETE PENETRATION WELDS SHALL BE TESTED ULTRASONICALLY OR BY USING ANOTHER APPROVED METHOD. WELDING INSPECTION PROCEDURES INCLUDING WELD MATERIAL SHALL BE IN ACCORDANCE WITH AISC 360 CHAPTER N TABLES N5.4-1.N.5.4-2 AND N5.4-3. CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER

a. WARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS b. ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL c. ROCEDURES FOR EXERCISING CONTROL WITH THE CONTRACTOR'S ORGANIZATION THE METHOD AND FREQUENCY

PROVIDE INSPECTIONS AND TESTS AS INDICATED IN INSPECTION AND TESTING OF CAST-IN-PLACE CONCRETE: DIVISION 01

OF REPORTING AND DISTRIBUTION OF THE REPORTS d. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION SEE SPECIFICATION FOR ADDITIONAL INSPECTION AND TESTING REQUIREMENTS

OF THE PROJECT SPECIFICATIONS

TRUSS LOADING/DEFLECTION

PRIOR TO THE COMMENCEMENT OF WORK WHICH SHALL CONTAIN THE FOLLOWING:

LIVE LOAD DEFLECTION LIMIT: L/360 OR 0.75" MAXIMUM

TOTAL LOAD DEFLECTION 1" MAXIMUM

TOP CHORD LOADING: LIVE: SEE NOTES DEAD: 15 PSF + OVERFRAMING

**BOTTOM CHORD LOADING:** 

DEAD: 10 PSF

LIVE: SEE NOTES

ALL TRUSS DIMENSIONS SHOWN ARE APPROXIMATE FOR DESIGN PURPOSES -CONTRACTOR IS RESPONSIBLE FOR EXACT DIMENSIONS OF BEARING LOCATIONS.

TRUSS CONFIGURATIONS SHOWN ARE APPROXIMATE. ACTUAL DESIGN OF WOOD TRUSSES TO BE BY THE TRUSS MANUFACTURER. SUBMIT CALCULATIONS PER SPECS.

 $\Box$ 

 $\Box$ 100608.0063

DATE DIGITAL FILENAME 100608.0063

02/07/20

| COLUMN PIER SCHEDULE |                              |        |              |  |  |  |  |  |
|----------------------|------------------------------|--------|--------------|--|--|--|--|--|
| MARK                 | SIZE                         | REINF. | TIES         |  |  |  |  |  |
| 1                    | 12" x 12"                    | 4 #5   | #3 @ 12"     |  |  |  |  |  |
|                      | 16" x 24"                    | 8 #4   | (2) #3 @ 12" |  |  |  |  |  |
|                      | 16" x 24" 16 #5 (5) #3 @ 12" |        |              |  |  |  |  |  |
| (IV)                 | 30" x 34"                    | 8 #4   | (2) #3 @ 12" |  |  |  |  |  |

| CC         | COLUMN FOOTING SCHEDULE |                   |  |  |  |  |  |
|------------|-------------------------|-------------------|--|--|--|--|--|
| MARK       | SIZE                    | REINF.            |  |  |  |  |  |
| <b>F</b> 1 | 3'-0" x 3'-0" x 1'-0"   | 3 #5 (E.W., E.F.) |  |  |  |  |  |
| F2         | 3'-6" x 3'-6" x 1'-0"   | 3 #5 (E.W., E.F.) |  |  |  |  |  |
| <b>F</b> 3 | 4'-0" x 4'-0" x 1'-0"   | 4 #5 (E.W., E.F.) |  |  |  |  |  |
| <b>F</b> 4 | 4'-6" x 4'-6" x 1'-6"   | 5 #5 (E.W., E.F.) |  |  |  |  |  |
| F5         | 5'-0" x 5'-0" x 1'-2"   | 6 #5 (E.W., E.F.) |  |  |  |  |  |
| F6         | 6'-0" X 6'-0" X 1'-0"   | 6 #6 (E.W., E.F.) |  |  |  |  |  |
| <b>F</b> 7 | 6'-0" x 6'-0" x 1'-6"   | 6 #6 (E.W., E.F.) |  |  |  |  |  |
| (F8)       | 6'-6" x 6'-6" x 1'-0"   | 7 #6 (E.W., E.F.) |  |  |  |  |  |
| F9         | 7'-0" x 7'-0" x 1'-8"   | 8 #6 (E.W., E.F.) |  |  |  |  |  |
| (F10)      | 7'-6" X 7'-6" X 1'-8"   | 8 #6 (E.W., E.F.) |  |  |  |  |  |

| DESIGN LOAD SCHED            | UL               | E                |   |
|------------------------------|------------------|------------------|---|
| COMPONENT                    | OFFICE MAIN ROOF | GARAGE MAIN ROOF |   |
| TOP CHORD. DEAD LOAD         | 6                |                  | - |
| BOTTOM CHORD DEAD LOAD       | 8                |                  |   |
| M/E/P LOAD                   | 5                | 5                |   |
| COLLATERAL LOAD              |                  | 20               | ) |
| STRUCTURE SELF WT. (ASSUMED) | 6                | 15               | , |
| TOTAL DEAD LOAD              | 25               | 5 40             | ) |
| LIVE LOAD                    | 30               | 30               | ) |
| TOTAL LOAD                   | 55               | 5 70             | ) |
| IBC 2015                     |                  |                  |   |

|         | NON-LOADBEARII | NG CONCR      | RETE LINTEL | . SCHEDUL | .E      |
|---------|----------------|---------------|-------------|-----------|---------|
|         | SPAN           | 8             | " CMU       | 12"       | СМИ     |
|         | SPAIN          | MAIN STIRRUPS |             |           |         |
|         | 4'-0" OR LESS  | (2) #4        | #3 @ 3"     | (2) #5    | #3 @ 3" |
| 8" DEEP | 4'-1" TO 6'-0" | (2) #4        | #3 @ 3"     | (2) #5    | #3 @ 3" |
| 8       | 6'-1" TO 8'-0" | (2) #4        | #3 @ 3"     | (2) #5    | #3 @ 3" |

- 1. CONCRETE STRENGTH f'c = 4,000 PSI MINIMUM 2. REINFORCING STRENGTH fy = 60,000 PSI
- 3. THE MAIN REINFORCING SHOWN IS THE BARS REQUIRED PER LAYER EACH LINTEL SHALL HAVE A TOP AND BOTTOM LAYER.
- 4. STIRRUPS SHALL EXTEND 1/3 SPAN FROM EACH END MINIMUM.
- 5. LINTELS SHALL HAVE A MINIMUM OF 8" BEARING AT EACH END.

|           | STEEL LINT  | EL SCHEDULE FOR NO                                  | ON-LOADBEARING WA  | LLS  |
|-----------|---|---|--|--|
| WALL      |   | CLEA  | R SPAN   |  |
| THICKNESS | 4'-0" OR LESS   | 4'-1" TO 6'-0"                                      | 6'-1" TO 8'-0"   | 8'-1" TO 10'-0"                                    |
| 4" CMU    | ∠3½ x 3½ x ½ (DET 21/S.4-02)  | Δ4 x 3½ x 5/16" (LLV) (DET 21/S.4-02)               | Δ5 x 3½ x 5/6" (LLV) (DET 21/S.4-02)                     | ム5 x 3½ x 5億" (LLV) (DET 21/S.4-02                 |
| 8" CMU    | (2) $\angle 3\frac{1}{2} \times 3\frac{1}{2} \times \frac{5}{16}$ " -OR- WT7x15 (DET 22/S.4-02)         | (2) ∠3½ x 3½ x ½"<br>-OR- WT7x15<br>(DET 22/S.4-02) | (2) ∠5 x 3½ x ½" (LLV)<br>-OR- WT7x15<br>(DET 22/S.4-02) | W8x10 w/ <del>1</del> "x0'-7" ዊ<br>(DET 23/S.4-02) |
| 12" CMU   | (3) $\angle 4 \times 3\frac{1}{2} \times \frac{3}{8}$ " (LLV)<br>-OR- W8x10 w/ $\frac{1}{4}$ "x0'-11" R | (3) ∠4 x 3½ x ¾ (LLV)<br>-OR- W8x10 w/ ¼ x0'-11" ₽  | (3) ∠5 x 3½ x ½ (LLV)<br>-OR- W8x10 w/ ¼"x0'-11" ዊ       | W8x10 w/ <del>1</del> "x0'-11"   ቺ                 |

- 1. LINTEL SIZES SHALL BE AS NOTED ABOVE. LINTELS SHALL BE GALVANIZED FOR EXTERIOR EXPOSURE AS REQ'D.
- LENGTH OF LINTEL TO BE FULL OPENING AND A MINIMUM OF 8" BEARING ON EACH END.
   CONTRACTOR TO SUPPLY AND INSTALL LINTELS IN THE FOLLOWING LOCATIONS:
- a. ABOVE ALL METAL FRAMES IN MASONRY WALLS b. ABOVE ALL BUILT-IN ITEMS (SUCH AS CABINET HEATERS, CONVECTORS, LOUVERS, ACCESS PANELS, BRICK
- GRILLES, WINDOWS, ETC.) c. AT ALL LOCATIONS WHERE NOTED ON THE PLANS AND/OR WALL SECTIONS.
- 4. PROVIDE CLOSURE PLATES FOR LINTELS IN CAVITY WALLS SEE DETAILS ON DWG S.4-02.

| TYPICAL SHEA                   | ATHING FASTE | NING SCHEDULE   |                            |
|--------------------------------|--------------|-----------------|----------------------------|
| SHEATHING MATERIAL             | THICKNESS    | FASTENER        | SPACING                    |
| GYPSUM WALLBOARD @ SHEAR WALLS | 5/8"         | 5d COOLER NAILS | 8" @ EDGES,<br>8" @ FIELD  |
| PLYWOOD ROOF SHEATHING         | 5/8"         | 10d NAILS       | 6" @ EDGES,<br>12" @ FIELD |

- NOTES:

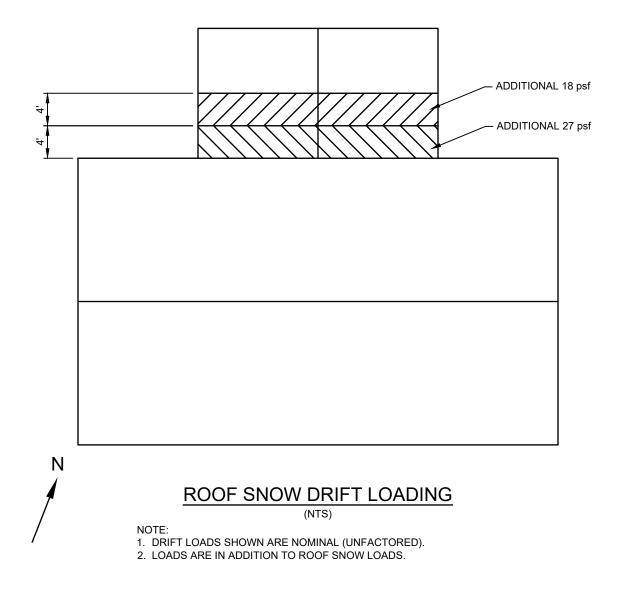
  1. FOR SHEATHING NOT LISTED, COMPLY WITH IBC FASTENING REQUIREMENTS. IF FASTENING VARIES BETWEEN IBC, STRUCTURAL DRAWINGS AND ARCHITECTURAL DRAWINGS COMPLY WITH THE MOST STRINGENT REQUIREMENTS.
- 2. EDGE NAILING APPLIES TO ALL PANEL EDGES, INCLUDING EDGES AT OPENINGS. FIELD NAILING APPLIES TO ALL
- INTERMEDIATE FRAMING. 3. PROVIDE FULL 4'-0"X8'-0" SHEATHING PANELS EXCEPT AT FRAMING AND EDGES. INDIVIDUAL PIECES OF PANEL SHALL BE
- NOT LESS THAN 2'-0" IN EITHER DIMENSION OR 8 SQ. FT. IN AREA. 4. PROVIDE FURRING OR BACKING OF THICKNESS AS REQUIRED TO MAINTAIN A COMMON WALL PLANE. COORDINATE AS
- REQUIRED FOR PROPER OVERALL WALL THICKNESS. 5. ALL HARDWARE IN CONTACT WITH PRESSURE TREATED LUMBER OR CONCRETE SHALL BE HOT-DIPPED GALVANIZED.

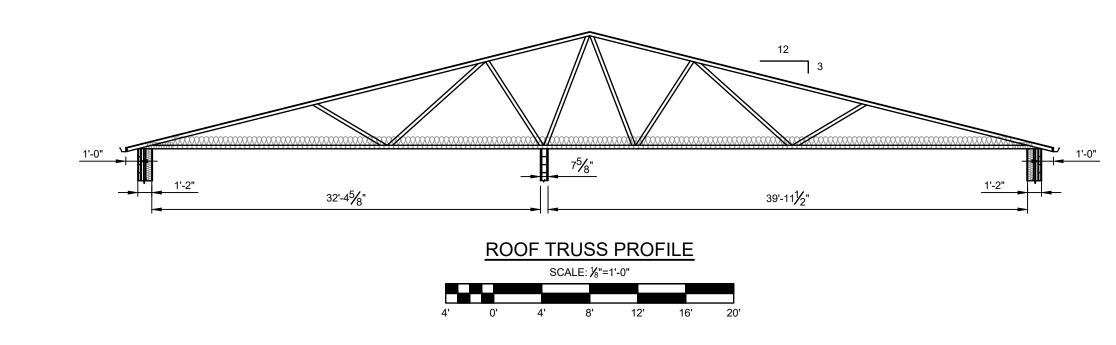
|       | HEADER          | SCHEDULE            |        |
|-------|-----------------|---------------------|--------|
| MARK  | SIZE            | POST                | DETAIL |
| HDR-1 | (2) 600-S162-43 | (1) JACK & (1) KING | H      |
| HDR-2 | (2) 600-S200-43 | (1) JACK & (1) KING | <br>   |
| HDR-3 | (2) 800-S162-43 | (1) JACK & (2) KING |        |

NOTES:

1. COMPLY WITH EDGE NAILING REQUIREMENTS AT OPENINGS. 2. SEE ARCHITECTURAL DRAWINGS FOR INSULATED HEADER REQUIREMENTS.

|      |                       | POST SC                                     | HEDULE                |  |
|------|-----------------------|---|-----------------------|--|
| MARK | SIZE                  | BASE CONNECTION                             | CAP CONNECTION        | COMMENT                                    |
| P-1  | HSS 3.500 x 0.216     | BASE PLATE TYPE D PER<br>DETAIL 11 / S.4-01 | CAP PLATE PER SECTION | SEE ARCHITECTURAL DRAWINGS FOR COLUMN WRAP |
| P-2  | (2) 600-S162-43 BOXED | -   | -                     | -  |

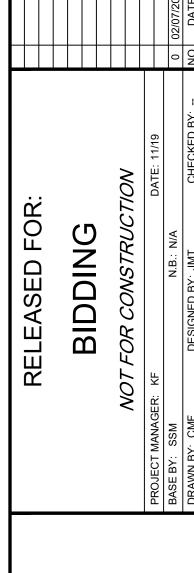




## PRE-ENGINEERED METAL BUILDING NOTES:

FABRICATION OF THE STEEL BUILDING FRAMES.

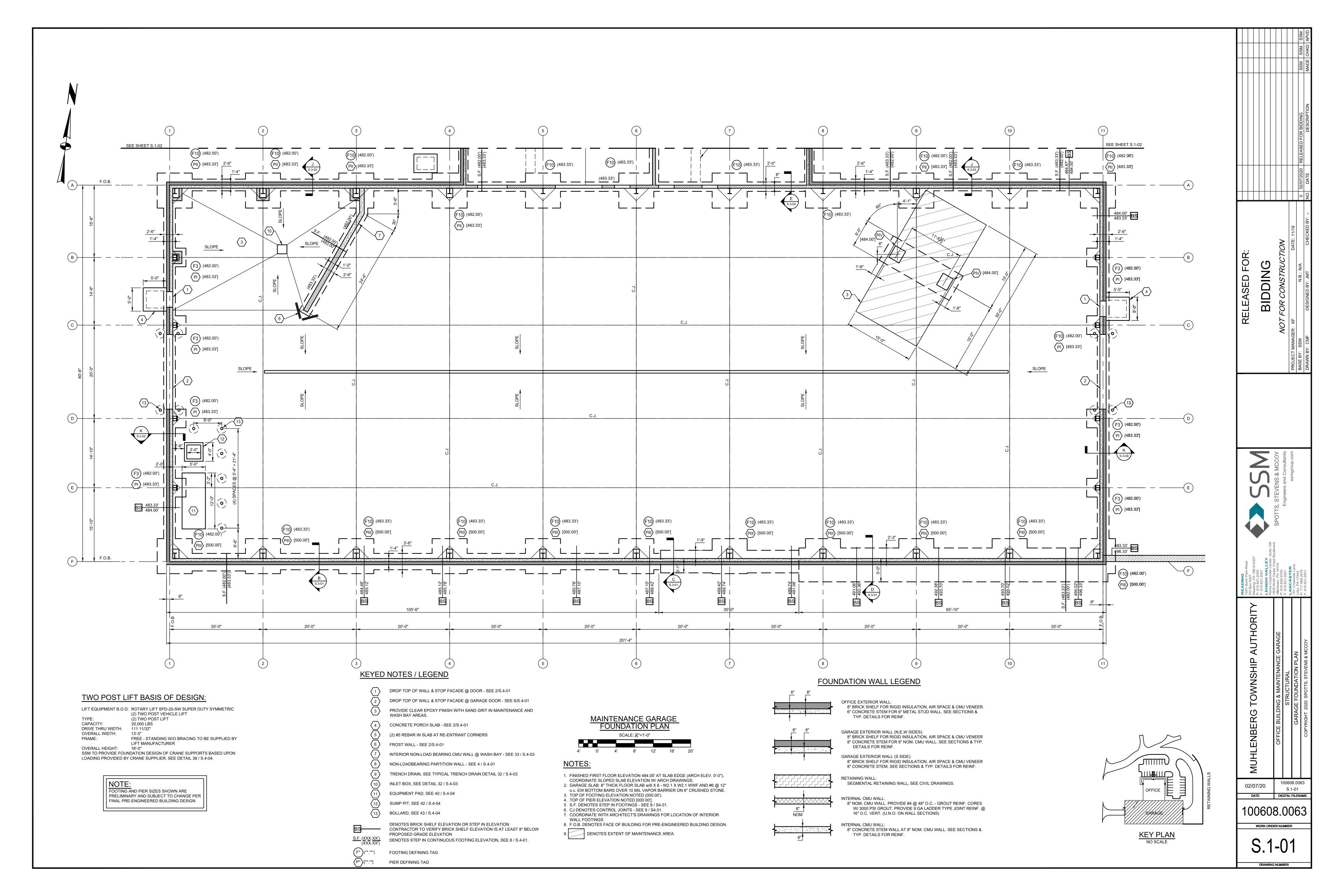
- RIGID FRAMES SHALL BE SPACED AS INDICATED ON THE DRAWINGS, BUT OVERALL DIMENSIONS AND CONSTRUCTION DETAILS MAY VARY TO SUIT MANUFACTURER'S STANDARD DESIGN.
- THE BUILDING SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE BUILDING CODE LISTED ABOVE AND CONTRACT SPECIFICATIONS.
- THE DESIGN OF THE ANCHOR RODS SIZES, QUANTITIES AND LOCATIONS AS WELL AS BASE PLATES SHALL BE CALCULATED FOR A PINNED BASE SUPPORT.
- THE DIMENSIONS, TOLERANCES OUTLINED IN THE AWS CODE UNDER WORKMANSHIP AND TOLERANCES APPLICABLE TO HOT ROLLED UNDER THE AISC "STANDARD MILL PRACTICE" SECTION SHALL BE REQUIRED IN THE
- 5. THE BUILDING FRAMES SHALL BE DESIGNED FOR THE LATERAL DEFLECTION LIMIT DEFINED IN THE SPECIFICATION, FOR AT THE HIGHEST BUILDING EAVE HEIGHT FOR THE BASIC WIND SPEED AND THE SEISMIC PARAMETERS LISTED
- 6. A COMPLETE DESIGN ANALYSIS BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF PENNSYLVANIA SHALL BE SUBMITTED FOR INFORMATION ONLY. THE DESIGN ANALYSIS SHALL INCLUDE A LIST OF THE DESIGN LOADS, LOADS TRANSMITTED TO THE FOUNDATIONS, RIGID FRAME DESIGN, X-BRACING, MISC BRACING, ANCHOR
- ROD SIZES, ANCHOR BOLT LAYOUT, LOCATION OF EMBEDDED ITEMS, AND ERECTION DRAWINGS. 7. DESIGN LOADS SHALL CONFORM TO THE LIVE, WIND, AND SEISMIC LOAD PARAMETERS GIVEN ABOVE AND PER THE CONTRACT SPECIFICATIONS. THE ROOF DEAD LOAD SHALL INCLUDE SELF WEIGHT PLUS A UNIFORM 20 PSF COLLATERAL LOAD. BUILDING DEAD LOADS ARE WEIGHTS OF THE BUILDING COMPONENTS. LOAD COMBINATIONS SHALL BE IN ACCORDANCE WITH THE LOADS LISTED ABOVE AND MBMA. THE BUILDING STRESSES SHALL BE
- ALLOWABLE STRESS DESIGN (ASD) AND COMPLY WITH AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS. 8. RIGID FRAME ANCHOR ROD SIZES SHALL BE DESIGNED BY THE METAL BUILDING MANUFACTURER AND FURNISHED
- BY THE CONTRACTOR. THE ANCHOR ROD SIZES AND LAYOUT SHALL BE SUBMITTED FOR INFORMATION ONLY. THE FINAL COLUMN BASE REACTIONS, COLUMN LOCATIONS, ANCHOR ROD SIZES AND ANCHOR ROD SPACING SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. ALL FOOTINGS, FOUNDATIONS, ANCHOR RODS AND PILASTERS HAVE BEEN DESIGNED BASED ON ASSUMED LOADINGS AND REACTIONS. THE FOUNDATION SHOP DRAWINGS SHALL NOT BE SUBMITTED UNTIL THE PRE-ENGINEERED METAL BUILDING SHOP DRAWINGS, THE
- COLUMN BASE REACTIONS, AND FOUNDATION VERIFICATION HAVE BEEN APPROVED. 10. SEE CONTRACT SPECIFICATION 13 34 19 FOR ADDITIONAL INFORMATION.

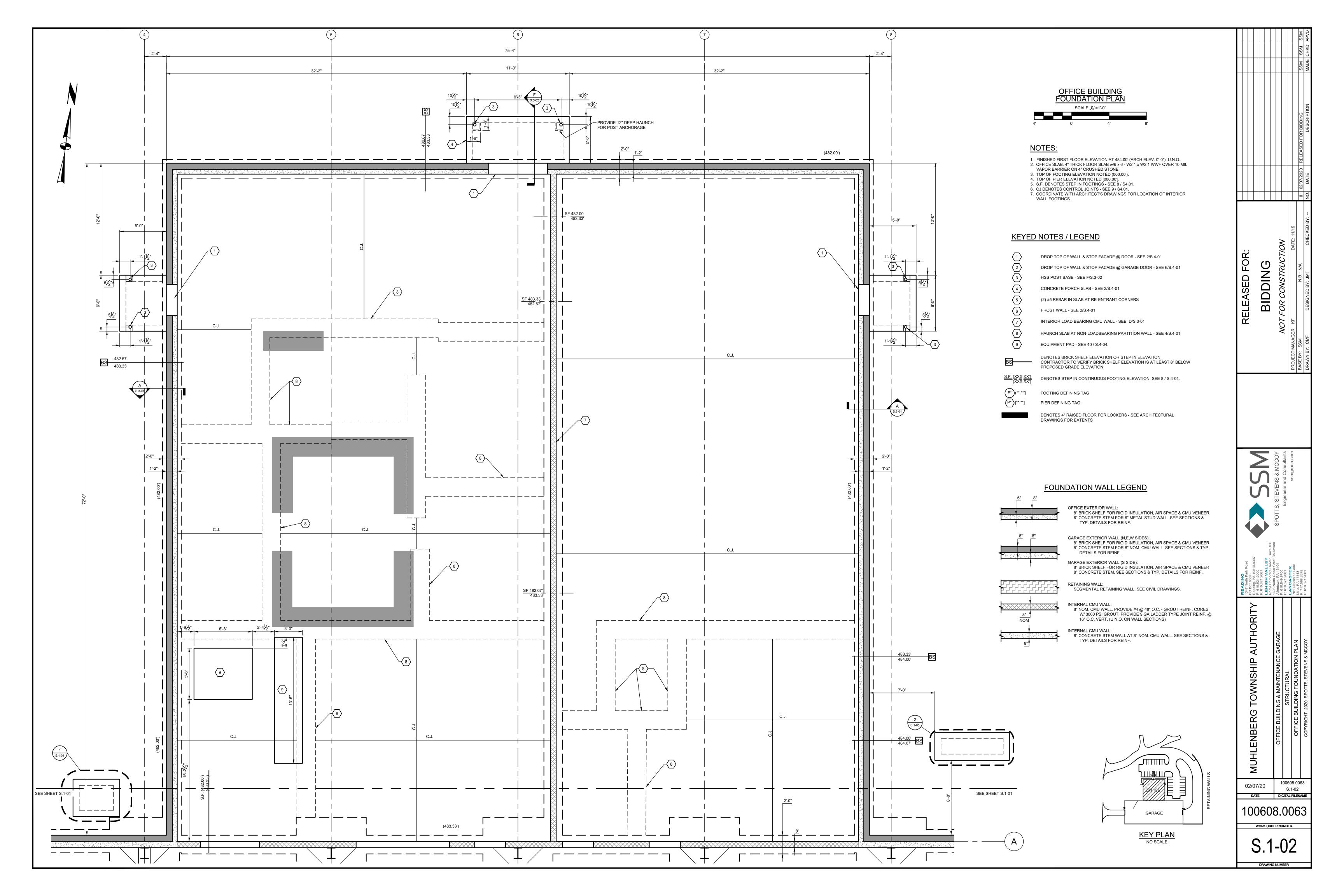


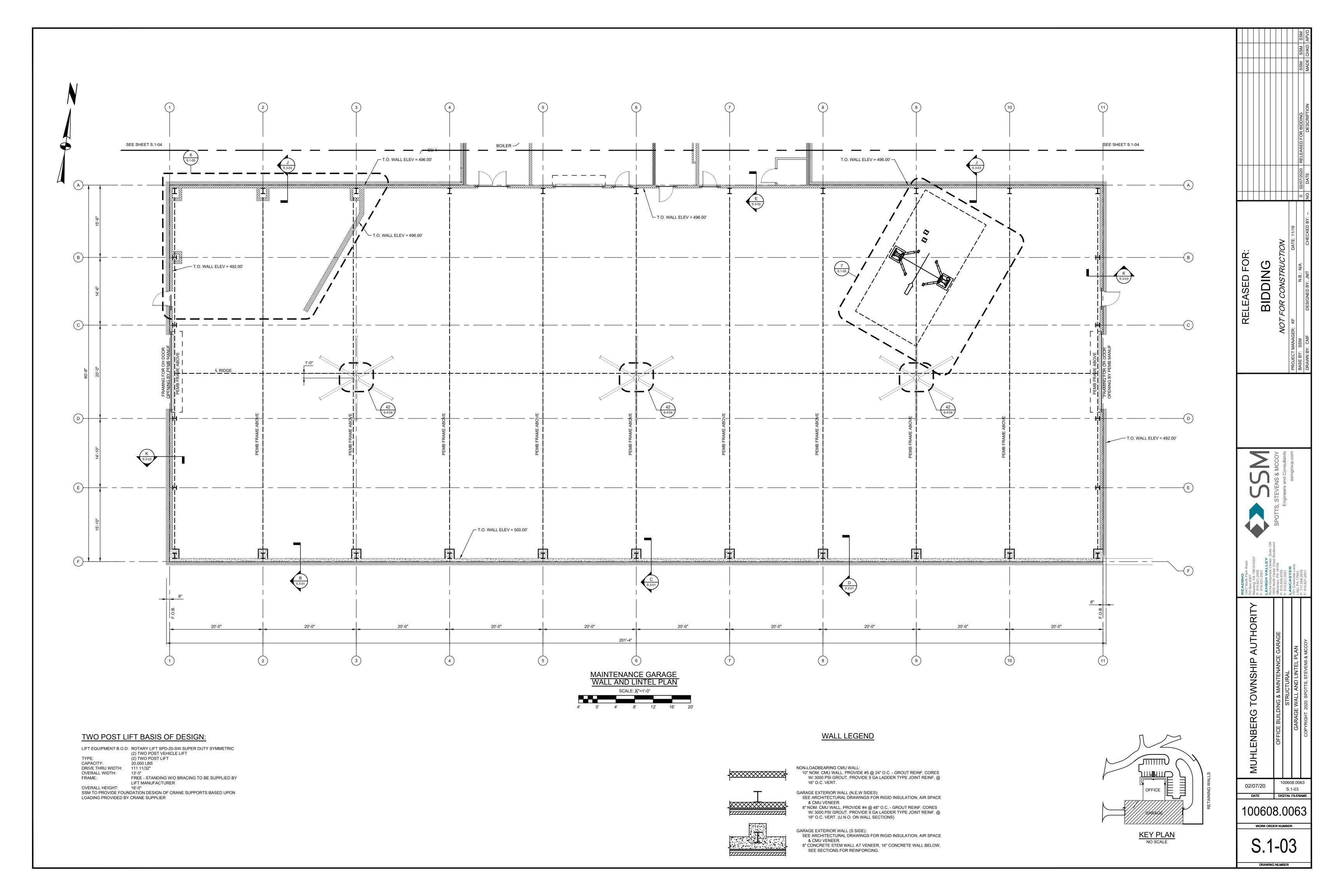


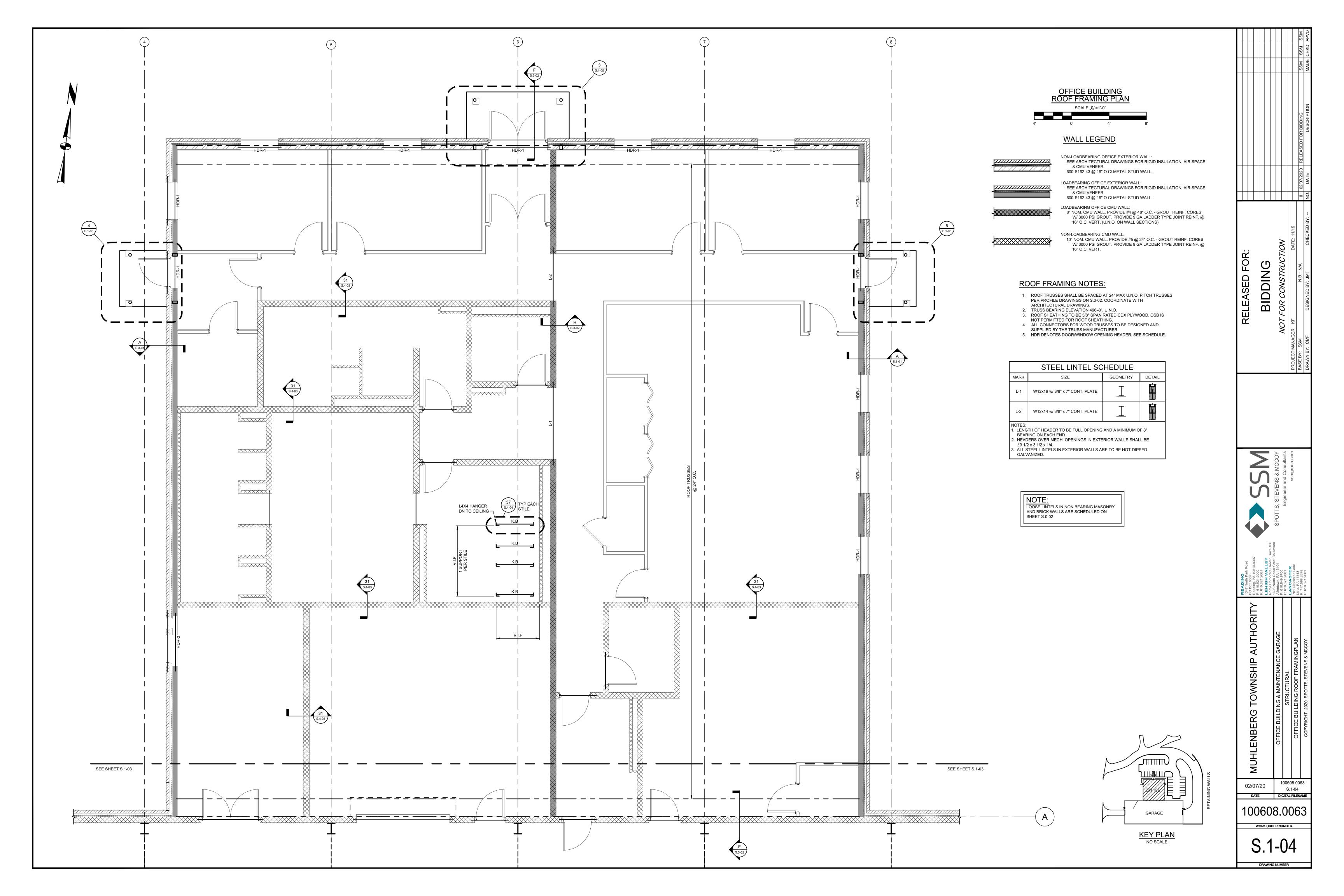
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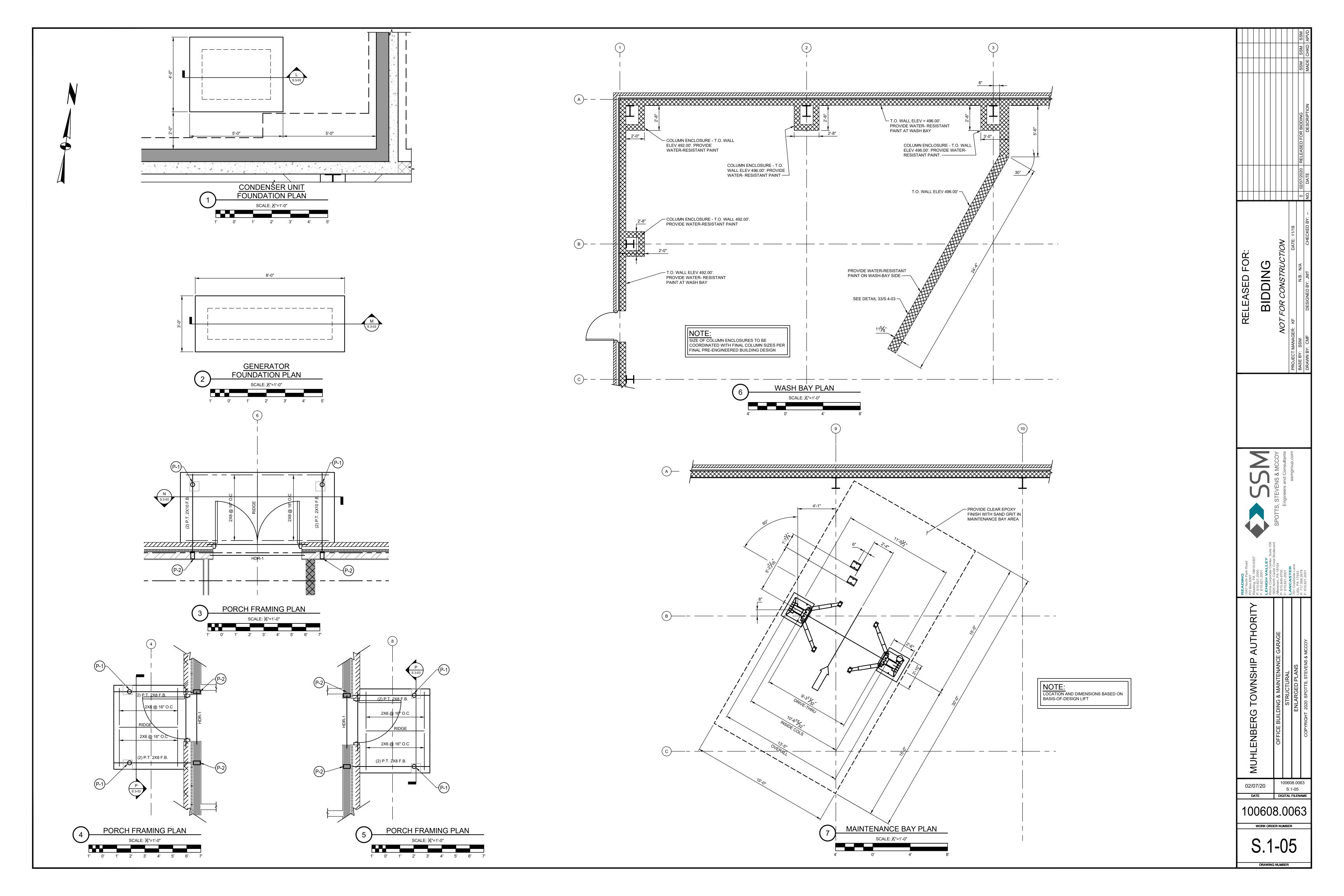
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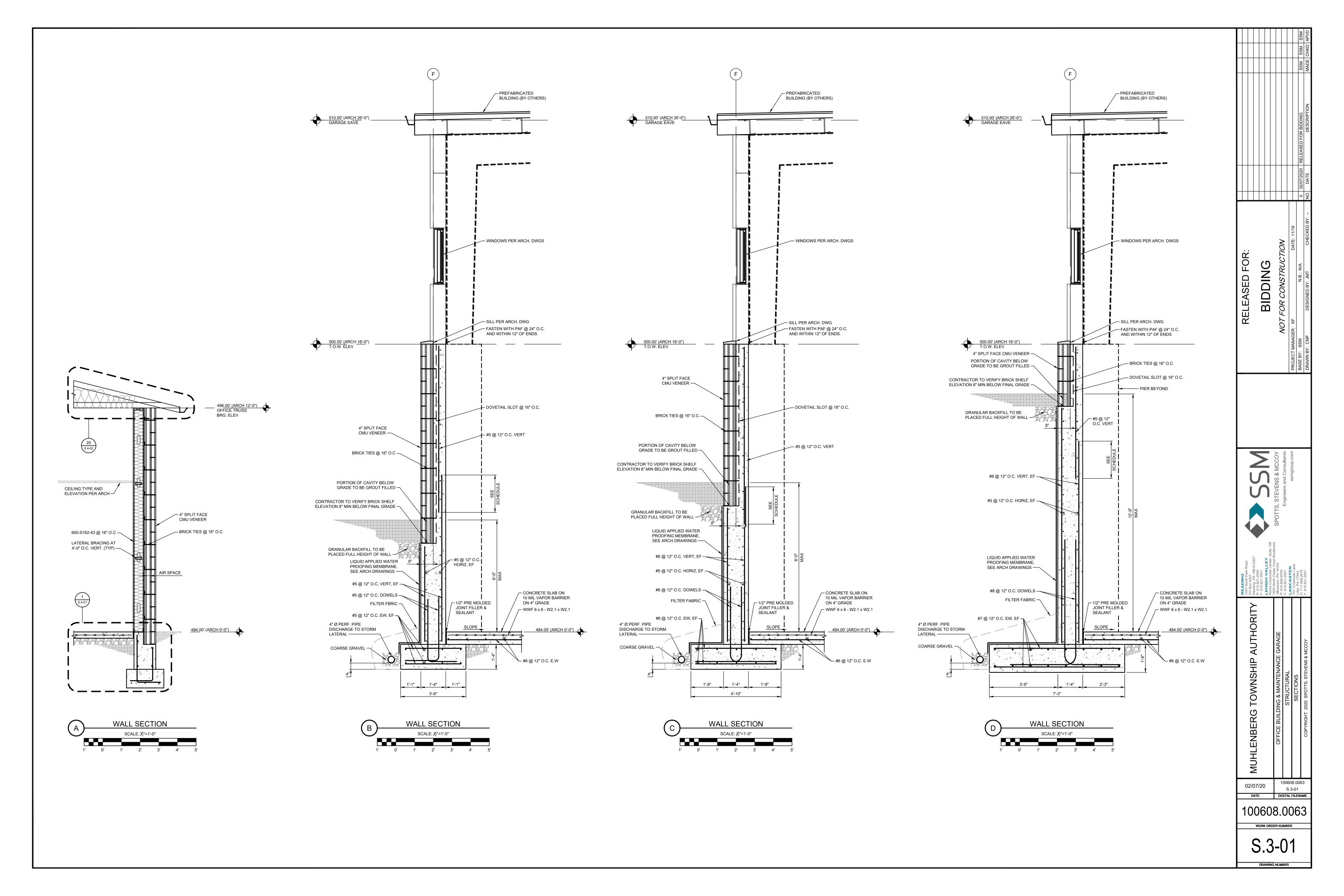


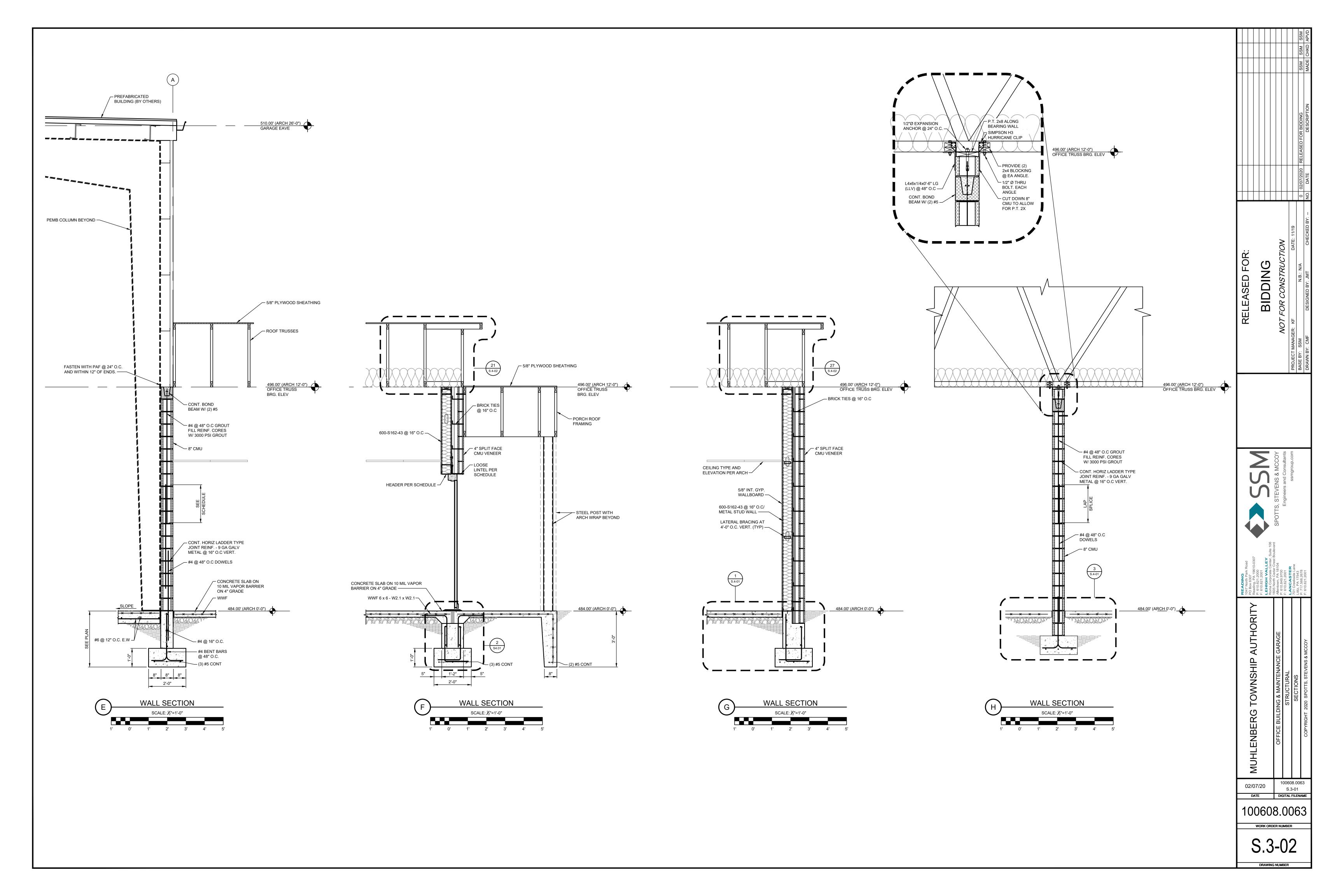


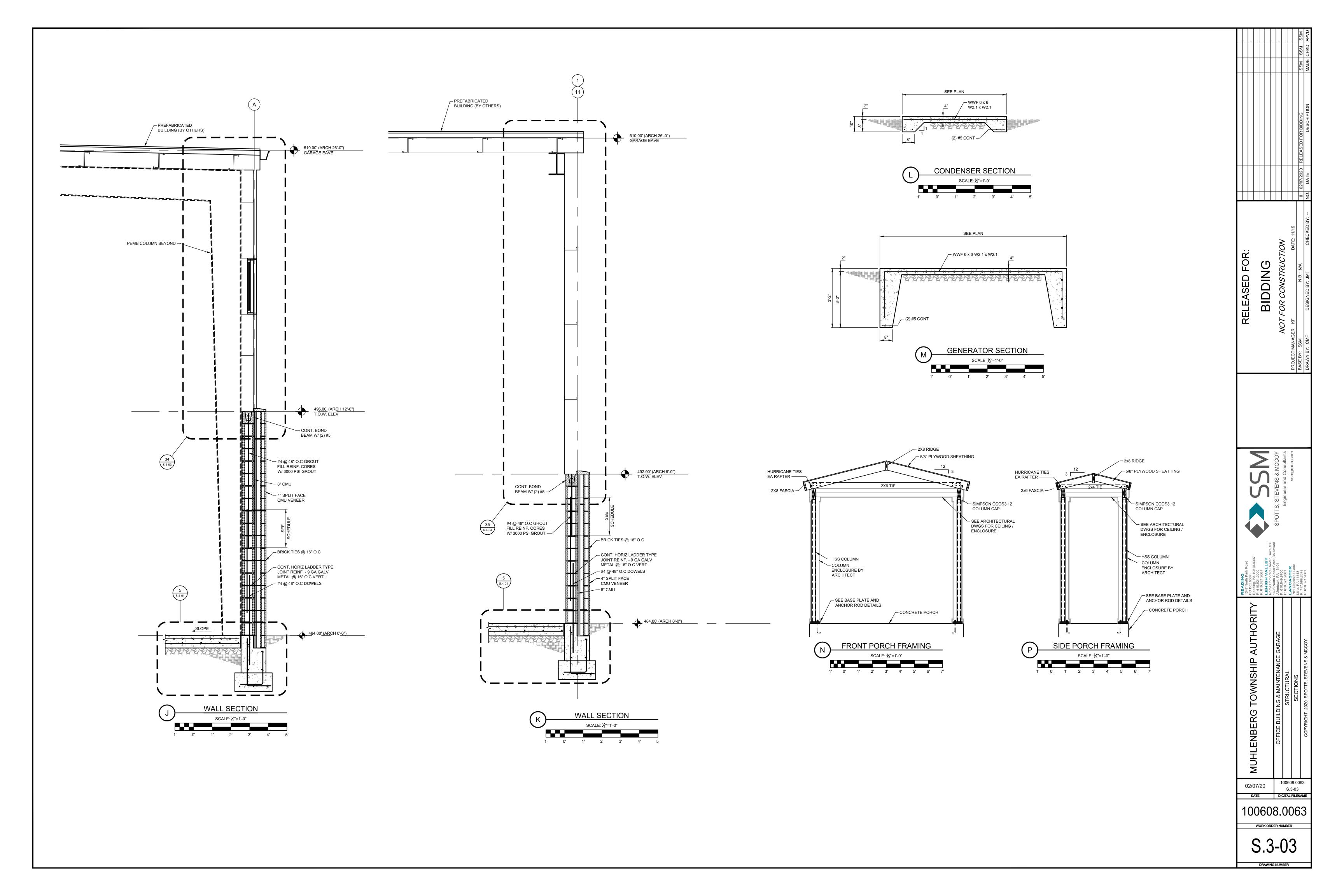


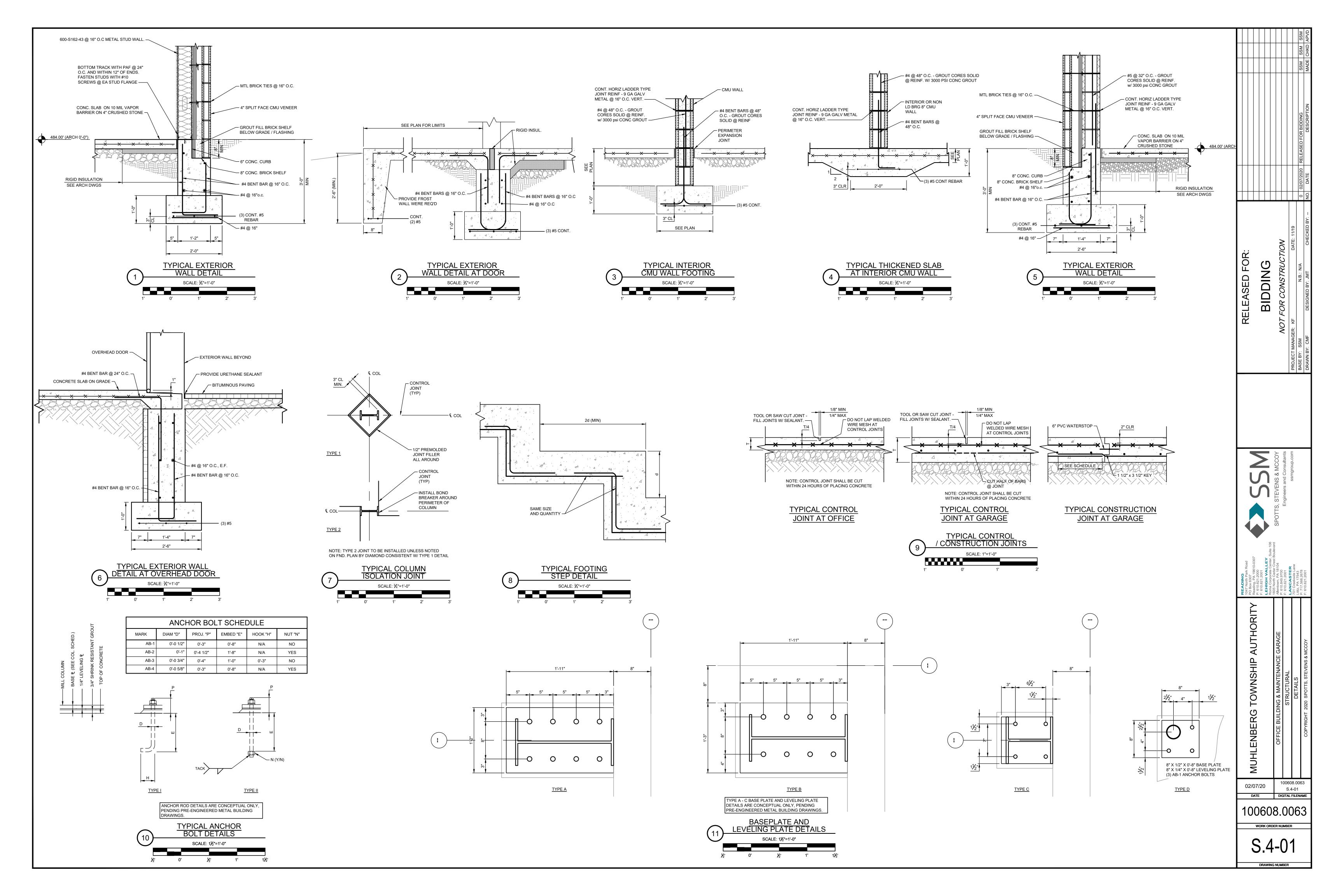


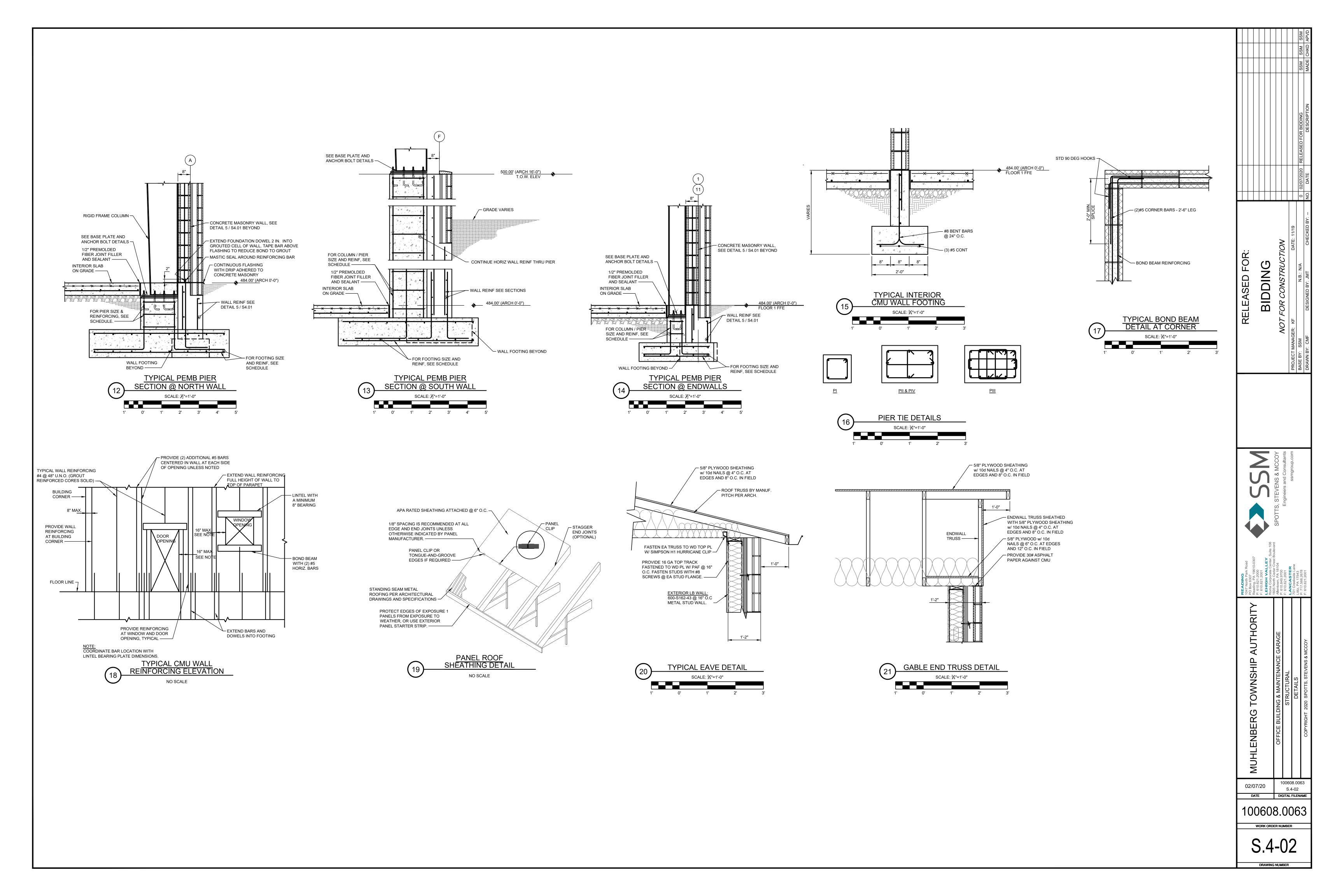


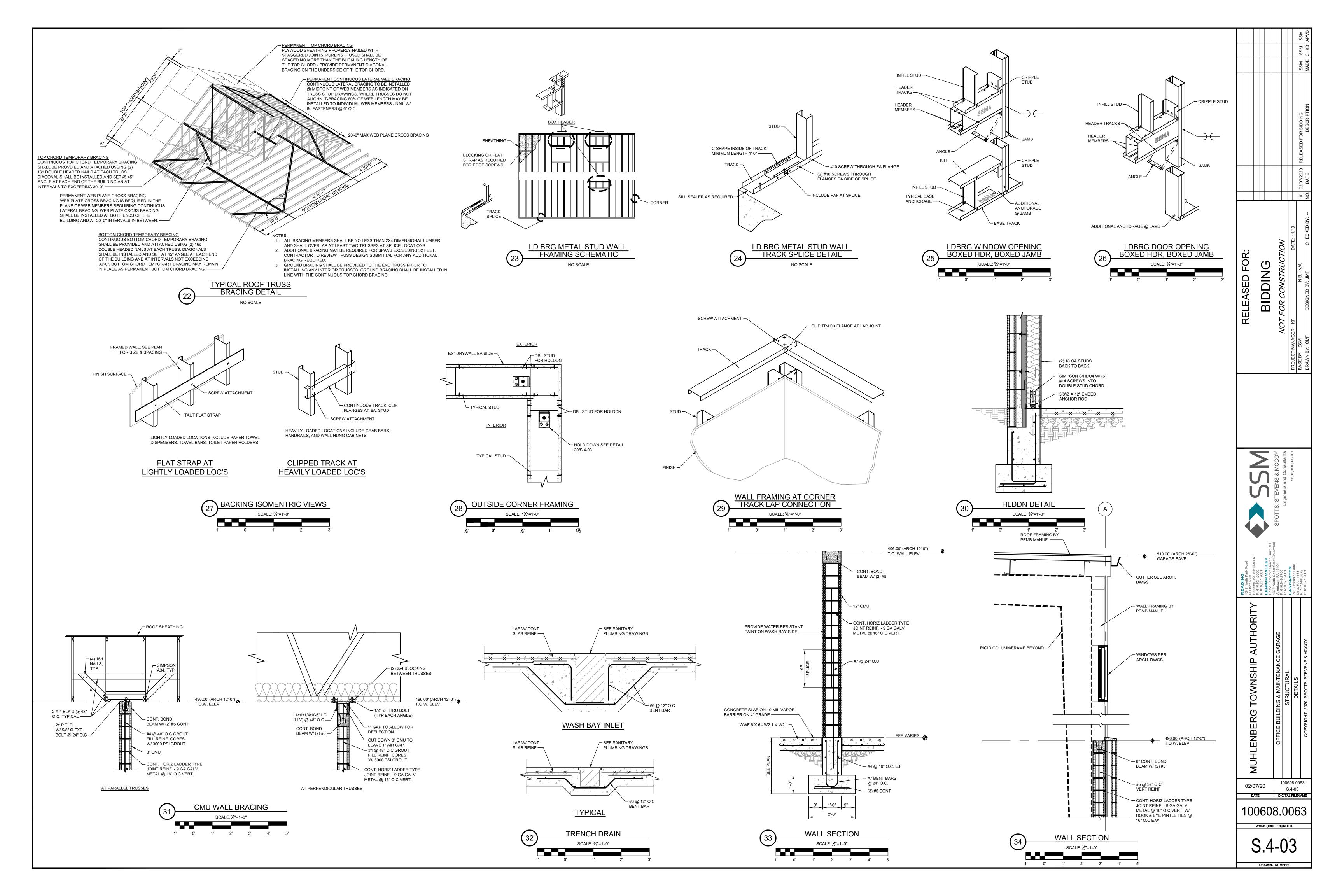


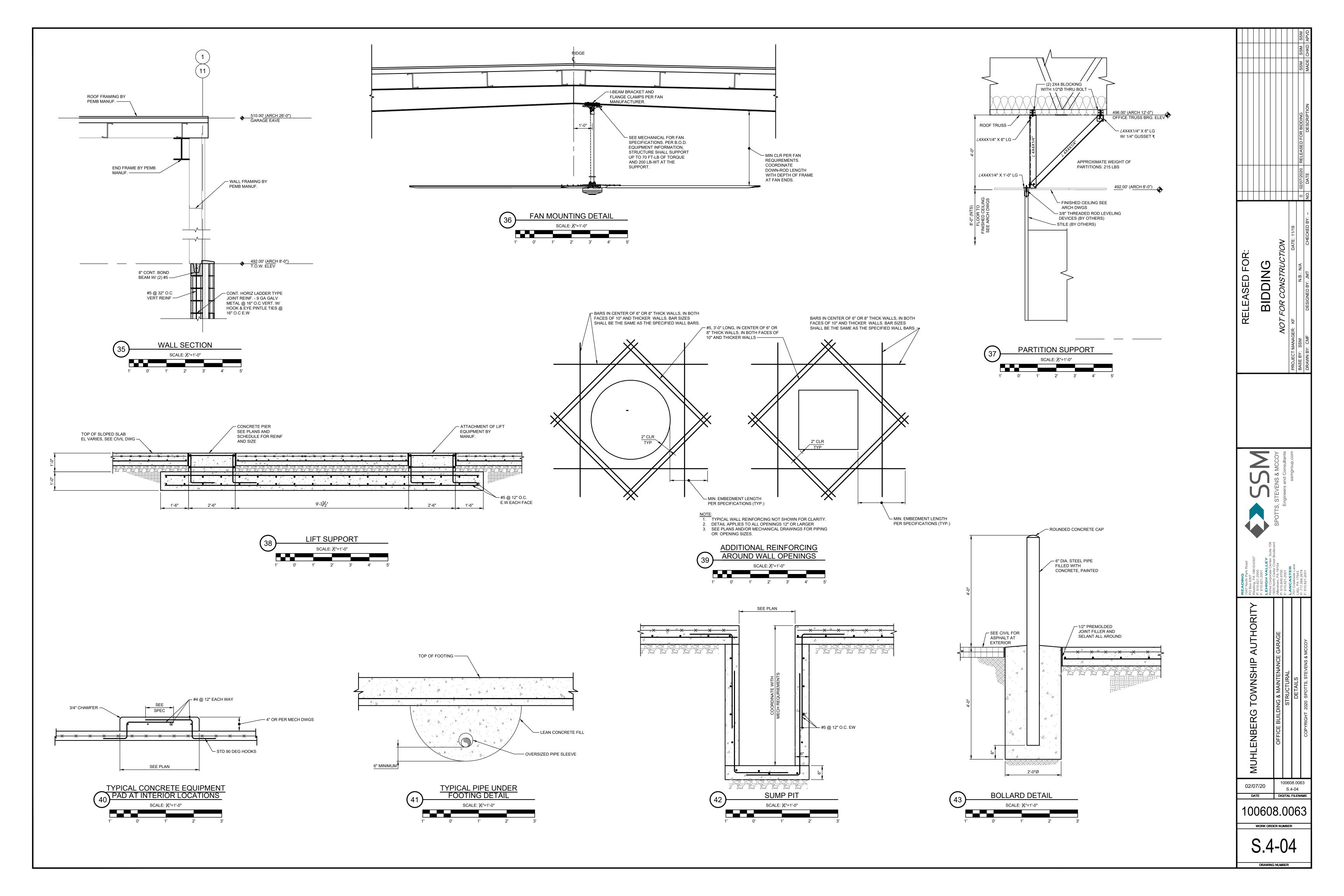




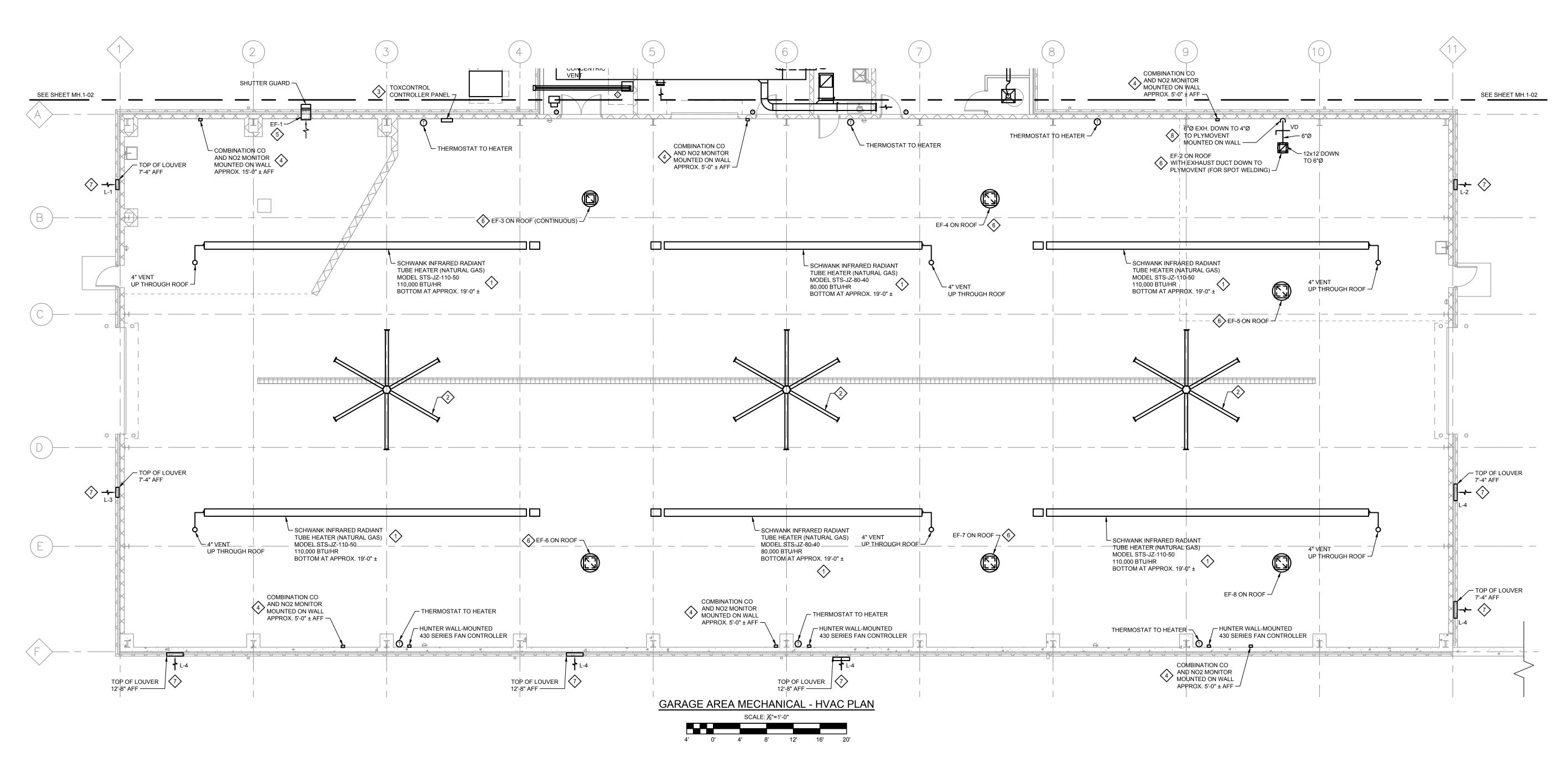












## **INSTALLATION NOTES:**

- PROVIDE NEW SCHWANK PREMIERSCHWANK COMMERCIAL/INDUSTRIAL NATURAL GAS TUBE HEATER AS INDICATED. PROVIDE WITH TRU-TEMP 24V SET BACK THERMOSTAT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE MOUNTING HEIGHT WITH STRUCTURE AND OTHER PIPING AND EQUIPMENT.
- PROVIDE NEW HUNTER TITAN 18, 18' DIAMETER INDUSTRIAL FAN, 95 RPM, 1 HP, 208V, SINGLE PHASE, WEIGHT APPROXIMATELY 183 POUNDS. PROVIDE WITH WALL MOUNTED CONTROLLER. COORDINATE INSTALLATION WITH OTHER CONTRACTORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE NEW TOXALERT TOXCONTROL MODEL TOXC-12 CONTROLLER PANEL FOR THE CARBON MONOXIDE AND NITROGEN DIOXIDE DETECTION SYSTEM. THE GAS DETECTION SYSTEM SHALL BE TIED INTO EXHAUST FANS EF-4, EF-5, EF-6, EF-7, AND EF-8. COORDINATE INSTALLATION WITH OTHER CONTRACTORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE NEW TOXALERT SENSOR MODULE, MODEL TOX-EC-CO/NO2. SENSOR MODULE TO BE A CARBON MONOXIDE AND NITROGEN DIOXIDE SENSOR. COORDINATE INSTALLATION WITH OTHER CONTRACTORS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE NEW SIDEWALL EXHAUST FAN. REFER TO THE EXHAUST FAN SCHEDULE ON DRAWING M.4-01. CONTRACTOR TO PROVIDE ADDITIONAL SUPPORT FOR EXHAUST FAN AS REQUIRED. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- PROVIDE NEW DOWNBLAST ROOFTOP EXHAUST FAN. REFER TO THE EXHAUST FAN SCHEDULE ON DRAWING M.4-01. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- PROVIDE NEW LOUVER IN THE WALL. REFER TO THE LOUVER SCHEDULE ON DRAWING M.4-01. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. COORDINATE INSTALLATION WITH OTHER CONTRACTORS.
- PROVIDE NEW MINIMAN MMH-100-21 PLYMOVENT, 300 CFM, 7'-0" WORKING RADIUS, 4"Ø CONNECTION SIZE. PROVIDE WITH WALL BRACKET AND SWIVEL JOINT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

## **EXHAUST FANS SEQUENCE OF OPERATION:**

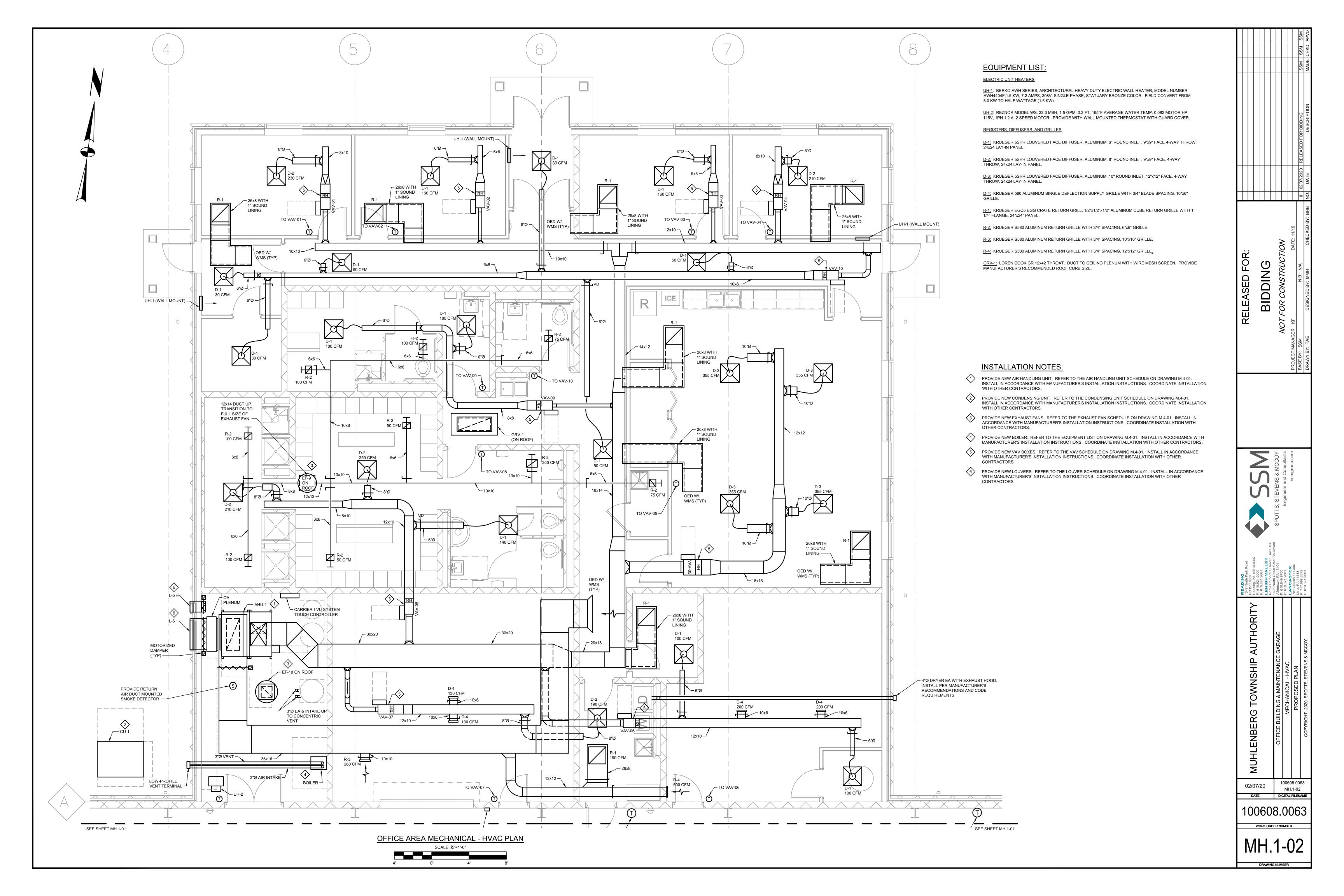
- EF-1:

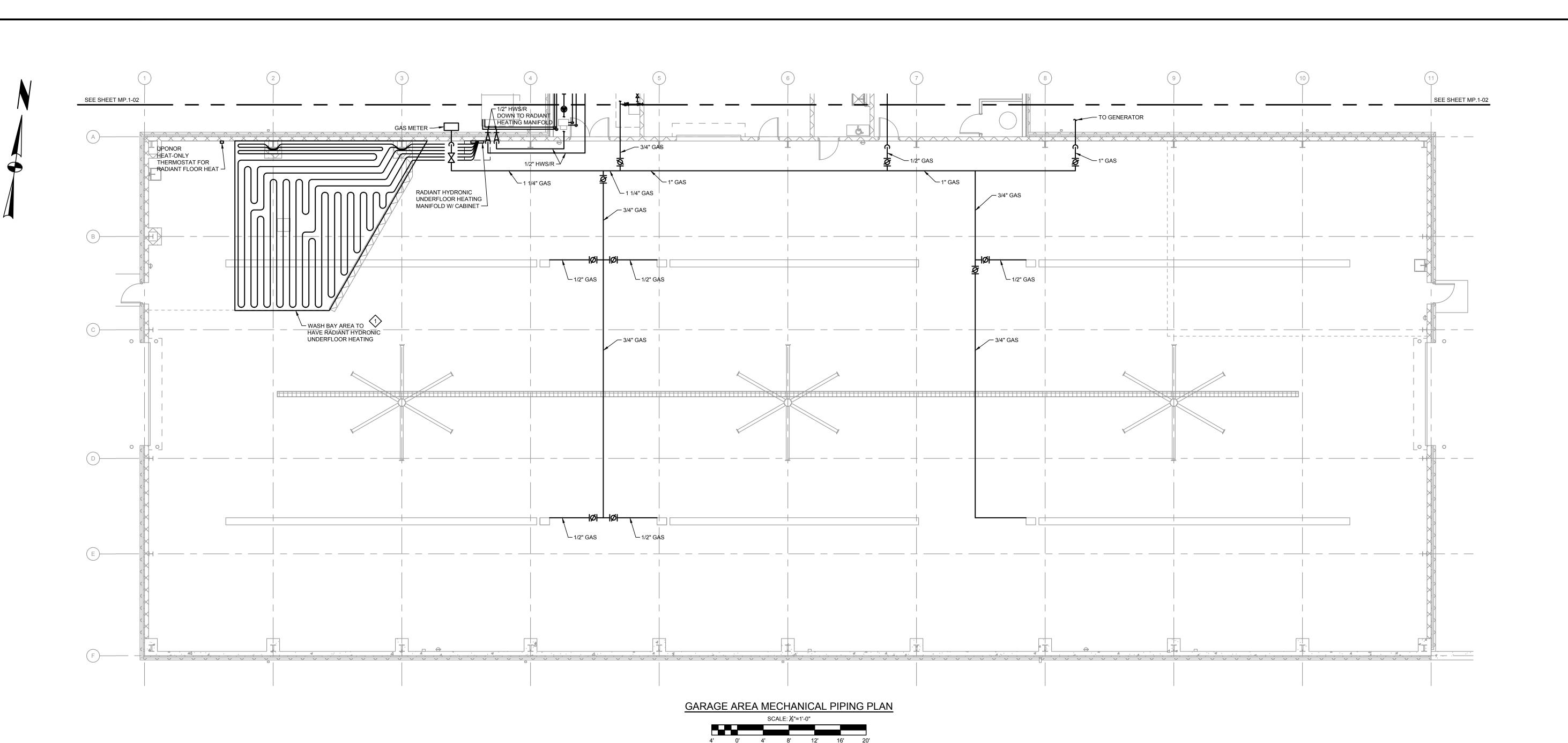
  1. EF-1 SHALL BE OPERATED VIA A WALL MOUNTED SWITCH. WHEN THE WASH BAY AREA IS IN USE, THE USER MAY TURN ON THE EXHAUST FAN. LOUVER DAMPER IS INTERLOCKED WITH THE EXHAUST FAN. REFER TO THE ELECTRICAL DRAWING EP.1-02.
- EF-2:

  1. EF-2 SHALL BE OPERATED VIA A WALL MOUNTED SWITCH. WHEN THE MAINTENANCE AREA IS IN USE AND WELDING IS BEING DONE, THE USER MAY TURN ON THE EXHAUST FAN. LOUVER DAMPER IS INTERLOCKED WITH THE EXHAUST FAN. REFER TO THE ELECTRICAL DRAWING EP.1-02.
- EF-3:
  1. EF-3 SHALL OPERATE AT A CONTINUOUS RATE OF 800 CFM. LOUVER DAMPER IS INTERLOCKED WITH THE EXHAUST FAN. REFER TO THE ELECTRICAL DRAWING EP.1-02.
- EF-4, EF-5, EF-6, EF-7 AND EF-8:

  1. EXHAUST FANS SHALL BE TIED INTO THE GAS MONITORING SYSTEM. WHEN A GAS CONCENTRATION IS DETECTED, THE EXHAUST FANS SHALL TURN ON. LOUVER DAMPERS ARE INTERLOCKED WITH EXHAUST FANS FOR EACH LOUVER. REFER TO THE ELECTRICAL DRAWING EP 1-02

|            |                                     |   |                 |  |                                  |                                       |                           | _             |                     | SSM                                 |                                    |
|------------|-------------------------------------|---|-----------------|--|----------------------------------|---------------------------------------|---------------------------|---------------|---------------------|-------------------------------------|------------------------------------|
|            |                                     |   |                 |  |                                  |                                       |                           |               |                     | SSM SSM SSM                         |                                    |
|            |                                     |   |                 |  |                                  |                                       |                           |               |                     | SSIV                                |                                    |
|            |                                     |   |                 |  |                                  |                                       |                           |               |                     | 0 02/07/2020 RELEASED FOR BIDDING   |                                    |
|            |                                     | 1_  |                 |  |                                  |                                       |                           |               |                     | 0                                   |                                    |
|            |                                     |   |                 |  |                                  | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | <b>^</b>                  | 44.40         | DAIE: 11/19         |                                     |                                    |
| (<br>(     | TOK:                                |   | (               | <u>כ</u>                                       |                                  | 717010                                | NOTION CONSTRUCTION       | (             | U.                  | N.B.: N/A                           |                                    |
|            | KELEASED FC                         |   |                 | מוחחומ   |                                  | 10/10/                                | 2000                      |               |                     | N.B.                                |                                    |
| L          | KELE,                               |   | ב               | ם  |                                  | 77.70                                 | としてい                      | Ļ             | ΚF                  |                                     |                                    |
|            |                                     |   |                 |  |                                  | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | <b>&gt;</b>               | L C           | PROJECT MANAGER: KF | SSM                                 |                                    |
|            |                                     |   |                 |  |                                  |                                       |                           |               | PROJECT             | BASE BY: SSM                        |                                    |
|            |                                     |   |                 |  |                                  |                                       |                           |               |                     |                                     |                                    |
|            |                                     |   |                 |  |                                  | SPOLLS, SLEVENS & MCCOY               | Engineers and Consultants | moo dilolomss |                     |                                     |                                    |
|            |                                     |   |                 | 106  |                                  |                                       |                           |               |                     |                                     |                                    |
| <u>ING</u> | 1047 North Park Road<br>PO Box 6307 | Reading, PA 19610-0307<br>P: 610.621.2000 | 21.2001         | LEHIGH VALLEY  Boms Corporate Center Suite 106 | 1605 North Cedar Crest Boulevard | Allentown, PA 18104                   | 21.2001                   | LANCASTER     | 701 Creekside Lane  | 、17543<br>68.2678                   | 21 2001                            |
| READING    |                                     |   | F: 610.621.2001 | LEHIG  | 1605 No                          | Allentown, PA 18                      | F: 610.621.2001           | LANC          | 701 Cree            | Lititz, PA 17543<br>P: 717.568.2678 | F: 610 621 2001                    |
|            |                                     | IOHLENBERG LOWINGHIP AUTHORITY            |                 |  |                                  | OFFICE BUILDING & MAINTENANCE GARAGE  | CAVH I I VINONICA         |               | NA IS CHOOSE        |                                     | CODA & SUBCITE STATE OF THE SUBCES |
|            | 02/                                 | ∑<br>07,                                  | /20             | )  |                                  | 1                                     |                           | 60a<br>H.     |                     | 006:<br>01                          | 3                                  |
| _          | 1 C                                 | DATE                                      |                 | -<br>6C  | ±<br>3(                          |                                       | GITA                      | AL F          | TILI                | ENA                                 |                                    |
|            |                                     |   |                 |  |                                  | RNI                                   |                           |               |                     |                                     |                                    |

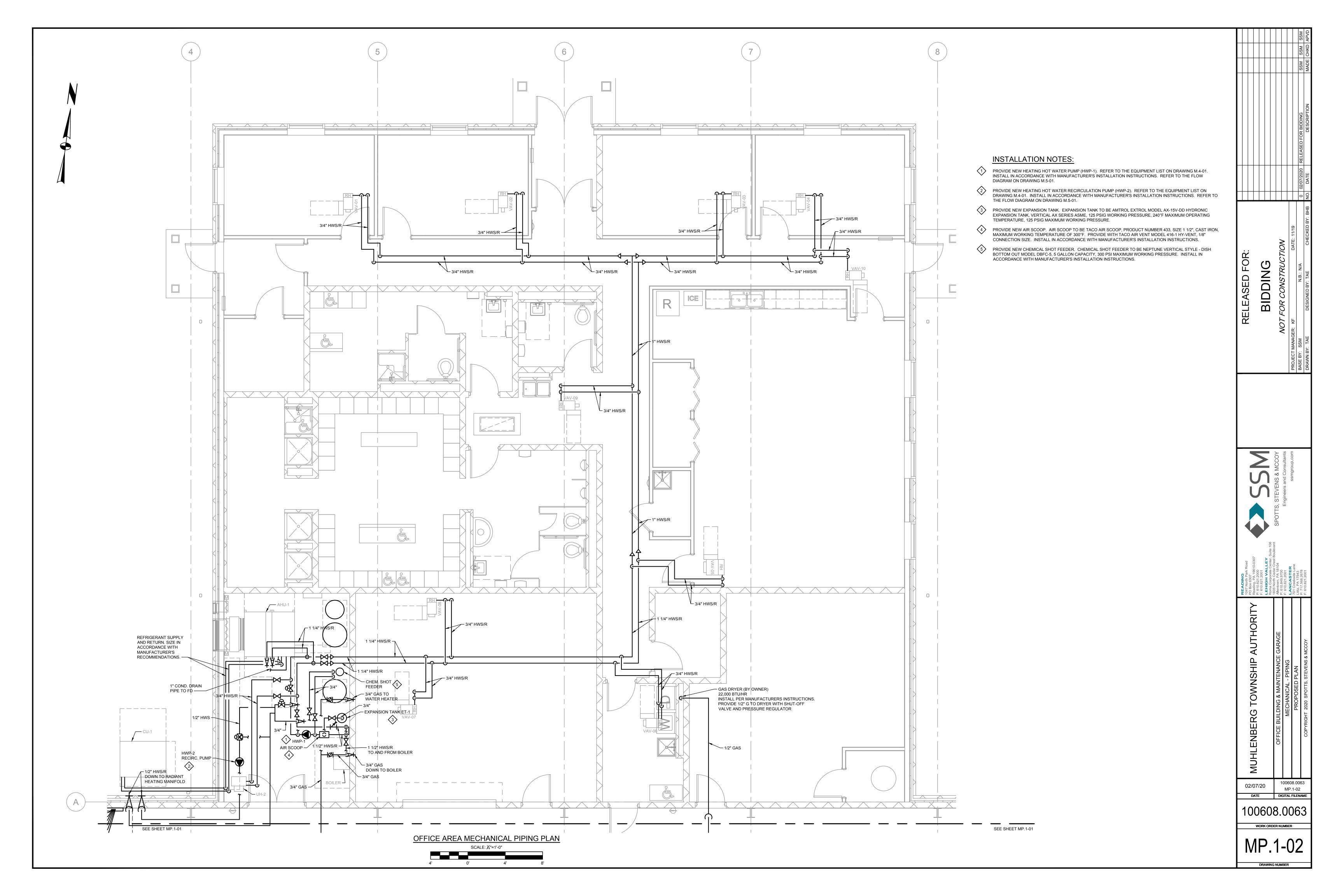




## INSTALLATION NOTES:

PROVIDE PACKAGED UPONOR RADIANT HYDRONIC UNDERFLOOR HEATING SYSTEM IN THE WASH BAY AREA. CONTACT AUSTIN LIND WITH UPONOR AT 952-679-5234 FOR COORDINATION. HOT WATER SUPPLY TEMP FOR RADIANT HEATING SYSTEM TO BE 95°F, RETURN TEMP TO BE 75°F. PROVIDE WITH STAINLESS-STEEL MANIFOLD ASSEMBLY, 3 LOOPS, SINGLE-ZONE PUMP RELAY, HEAT-ONLY THERMOSTAT WITH TOUCHSCREEN, SLAB SENSOR, MANIFOLD WALL CABINET, AND BRASS MANIFOLD PRESSURE TEST KIT. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND COORDINATE INSTALLATION WITH OTHER CONTRACTORS. REFER TO THE FLOW DIAGRAM ON DRAWING M.5-01.

|   |                                     |   |                 |   |  |                                 |  |                     | SSMS                                | MADE CHKD AF                           |
|---|-------------------------------------|---|-----------------|---|--|---------------------------------|--|---------------------|-------------------------------------|--|
|   |                                     |   |                 |   |  |                                 |  |                     | SSM                                 | MADE                                   |
|   |                                     |   |                 |   |  |                                 |  |                     | RELEASED FOR BIDDING                | DESCRIPTION                            |
|   |                                     |   |                 |   |  |                                 |  |                     | 02/02/2020                          |  |
|   |                                     |   |                 |   |  |                                 |  |                     | 0                                   | HB NO.                                 |
| - GO | Ë,                                  |   |                 |   | 1401101  | 2012                            | Critical Control of Co | DAIE: 11/19         |                                     | CHECKED BY: BHB NO. DATE               |
|   | AELEASED FU                         |   | _               | מבטבובת                                       |  | パン・プレ かんりょうしょう                  |  |                     | N.B.: N/A                           | DESIGNED BY: TAE                       |
|   |                                     |   |                 |   | 107  |                                 |  | PROJECT MANAGER: RF | BASE BY: SSM                        | DRAWN BY: TAE                          |
| READING                                 | 1047 North Park Road<br>PO Box 6307 | Keading, PA 19610-0307<br>P: 610.621.2000 | F: 610.621.2001 | LEHIGH VALLEY  Doma Connecte Corter Suite 106 | Allentown, PA 18104 SPOIIS, SIEVENS & MCCOY B: 8:10 849 9700 | F: 610.621.2001                 | LANCASTER  | ane                 | Lititz, PA 17543<br>P: 717.568.2678 | F: 610.621.2001                        |
|   |                                     |   |                 | 0   |  |                                 |  |                     |                                     |  |
|   |                                     |   |                 |   | OFFICE BUILDING & MAINTENANCE GARAGE                         | SNIGIG - IVOINVENTORI - DIDINIC |  | DROPOSED DI AN      |                                     | COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY |
|   | 02/                                 |   |                 | )   | 1  | 1000<br>M                       | 608<br>P.  | 8.0<br>1-0          | 0006                                | 3                                      |
|   | 02/                                 | 07/<br>PATE                               |                 |   | 1  | 1006<br>M                       | 608<br>P.  | 8.(<br>1-(          | 006;<br>01                          | 3<br>ME                                |



| Γ |         |         |             |                   |                    |                     |         |        |                              |                                 |                  | Δ     | ΔIR HΔ | VIDI IN | IG LINI | IT SCHEI | JIII E             |                  |       |       |     |                         |         |    |         |          |     |      |       |
|---|---------|---------|-------------|-------------------|--------------------|---------------------|---------|--------|------------------------------|---------------------------------|------------------|-------|--------|---------|---------|----------|--------------------|------------------|-------|-------|-----|-------------------------|---------|----|---------|----------|-----|------|-------|
|   | TAG     | MAKE    | MODEL       | SUPPLY<br>AIRFLOW | OUTDOOR<br>AIRFLOW | TOTAL SP<br>(IN-WG) | FAN RPM | FAN HP | TOTAL<br>COOLING<br>CAPACITY | SENSIBLE<br>COOLING<br>CAPACITY | DX COIL<br>MODEL |       | AT     |         | AT      | REFRIG.  | HEATING<br>CAPCITY | HW COIL<br>MODEL | EAT   | LAT   | GPM | FLUID PRES.<br>DROP (FT |         |    | ELECTRI | CAL DATA |     |      | NOTES |
|   |         |         |             | (CFM)             | (CFM)              | (                   |         |        | (MBH)                        | (MBH)                           | WODEL            | °F DB | °F WB  | °F DB   | °F WB   |          | (MBH)              | WODEE            | °F DB | °F DB |     | WG)                     | VOLTAGE | PH | HZ      | FLA      | MCA | MOCP |       |
|   | AHU-1 ( | CARRIER | 39L SIZE 10 | 4,230             | 950                | 3.49                | 1800    | 5      | 137.71                       | 110.17                          | 28NE             | 78.80 | 64.60  | 54.98   | 53.65   | R410A    | 132.79             | 28NB             | 53.50 | 81.45 | 9   | 0.90                    | 208     | 3  | 60      | 14       | 17  | 30   | 1     |
|   |         |         |             |                   |                    |                     |         |        |                              |                                 |                  |       |        |         |         |          |                    |                  |       |       |     |                         |         |    |         |          |     |      |       |

## NOTES:

1. PROVIDE WITH CARRIER i-VU SYSTEM TOUCH CONTROLLER.

|      |         |            |                     |                            |                     |     | _    |         |       | CON  | IDENS | SING L  | JNIT S   | CHED      | ULE  |      |      |         |    |    |               |                      |                   |                   |       |
|------|---------|------------|---------------------|----------------------------|---------------------|-----|------|---------|-------|------|-------|---------|----------|-----------|------|------|------|---------|----|----|---------------|----------------------|-------------------|-------------------|-------|
| TAG  | MAKE    | MODEL      | NOMINAL<br>CAPACITY | NET<br>COOLING<br>CAPACITY | TOTAL<br>POWER (KW) | EER | IEER | REFRIG. |       |      |       | SOUND F | POWER LE | VELS (dB) |      |      |      |         |    | E  | ELECTRICAL DA | ATA                  |                   |                   | NOTES |
|      |         |            | (TONS)              | (MBH)                      |                     |     |      | '       | TOTAL | 63   | 125   | 250     | 500      | 1000      | 2000 | 4000 | 8000 | VOLTAGE | PH | HZ | MCA           | FUSE OR<br>HACR BRKR | DISCONNECT<br>FLA | DISCONNECT<br>LRA |       |
| CU-1 | CARRIER | 38AUD14(D) | 12.5                | 148                        | 13.50               | 11  | 13   | R410A   | 85.2  | 64.8 | 68.9  | 71.4    | 82.8     | 79.0      | 74.2 | 69.0 | 61.9 | 208     | 3  | 60 | 59            | 80                   | 60                | 309               | 1,2,3 |
|      |         |            |                     |                            |                     |     |      |         |       |      |       |         |          |           |      |      |      |         |    |    |               |                      |                   |                   | 1     |

- 1. PROVIDE WITH MOTORMASTER HEAD PRESSURE CONTROL.
- 2. PROVIDE WITH HOT GAS BYPASS.
- 3. PROVIDE WITH CONVENIENCE OUTLET.

|       |            |        |            |                          | EXH    | HAUST FAN          | SCHEDUL | .E    |      |         |             |     |  |            |
|-------|------------|--------|------------|--------------------------|--------|--------------------|---------|-------|------|---------|-------------|-----|--|------------|
| TAG   | MAKE       | MODEL  | CATALOG    | FAN TYPE                 | DRIVE  | EXHAUST<br>AIRFLOW | SP      | MOTOR | FAN  | EL      | ECTRICAL DA | ·ΤΑ | SPACE SERVED   | NOTES      |
| 170   | IWAKL      | WIODEL | NUMBER     | TANTIL                   | DIVIVE | CFM                | IN-W.G. | HP    | RPM  | VOLTAGE | PHASE       | HZ  | OF AGE GERVED  | NOTES      |
| EF-1  | LOREN COOK | XPHD   | 12XPH26D17 | SIDEWALL                 | DIRECT | 1000               | -       | 1/4   | 1725 | 120     | 1           | 60  | GARAGE   | 1,2        |
| EF-2  | LOREN COOK | ACE-D  | 90C15DH    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 300                | .5      | 1/8   | 1426 | 120     | 1           | 60  | GARAGE   | 3,4,5,6    |
| EF-3  | LOREN COOK | ACE-D  | 120C13D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 800                | .25     | 1/4   | 952  | 120     | 1           | 60  | GARAGE   | 4,6,7,8    |
| EF-4  | LOREN COOK | ACE-D  | 150C15D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 2200               | .25     | 3/4   | 1156 | 120     | 1           | 60  | GARAGE   | 4,9,10,11  |
| EF-5  | LOREN COOK | ACE-D  | 150C15D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 2200               | .25     | 3/4   | 1156 | 120     | 1           | 60  | GARAGE   | 4,9,10,11  |
| EF-6  | LOREN COOK | ACE-D  | 150C15D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 2200               | .25     | 3/4   | 1156 | 120     | 1           | 60  | GARAGE   | 4,9,10,11  |
| EF-7  | LOREN COOK | ACE-D  | 150C15D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 2200               | .25     | 3/4   | 1156 | 120     | 1           | 60  | GARAGE   | 4,9,10,11  |
| EF-8  | LOREN COOK | ACE-D  | 150C15D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 2200               | .25     | 3/4   | 1156 | 120     | 1           | 60  | GARAGE   | 4,9,10,11  |
| EF-9  | LOREN COOK | ACE-D  | 120C15D    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 950                | .40     | 1/4   | 1158 | 120     | 1           | 60  | MEN'S RESTROOM,<br>LOCKER ROOM,<br>SHOWERS; WOMEN'S<br>RESTROOM(S) | 4,6,7,9,12 |
| EF-10 | LOREN COOK | ACE-D  | 90C15DH    | DOWNBLAST<br>CENTRIFUGAL | DIRECT | 250                | .40     | 1/8   | 1258 | 120     | 1           | 60  | MECHANICAL ROOM  | 3,4,5,6    |
|       |            |        |            |                          |        |                    |         |       |      |         |             |     |  |            |

- 1. PROVIDE WITH STL SHUTTER GUARD.
- 2. PROVIDE WITH NEMA-3 DISCONNECT SWITCH. 3. PROVIDE WITH BD-12 DAMPER.
- 4. PROVIDE WITH NEMA-1 DISCONNECT SWITCH.
- 5. PROVIDE WITH RCG 16-13.5H ROOF CURB W/ TRAY. 6. PROVIDE WITH FAN SPEED CONTROLLER, 5 AMP 120 VOLT.
- 7. PROVIDE WITH BD-14 DAMPER. 8. PROVIDE WITH RCG 18-13.5H ROOF CURB W/ TRAY.
- 9. PROVIDE WITH BD-18 DAMPER.
- 10. PROVIDE WITH RCG 22-13.5H ROOF CURB W/ TRAY.
- 11. PROVIDE WITH FAN SPEED CONTROLLER, 10 AMP 120V PREWIRE.
- 12. PROVIDE PROGRAMMABLE TIME CLOCKS WITH EXHAUST FAN, REFER TO THE SPECIFICATIONS AND ELECTRICAL

|        |         |       |            | V           | AV SCHEDULE  |                      |                      |              |       |
|--------|---------|-------|------------|-------------|--|----------------------|----------------------|--------------|-------|
| TAG    | MAKE    | MODEL | INLET SIZE | ORIENTATION | SPACE SERVED   | MAX AIRFLOW<br>(CFM) | MIN AIRFLOW<br>(CFM) | REHEAT (MBH) | NOTES |
| VAV-1  | KRUEGER | LMHS  | 6          | RH          | OFFICE 101   | 230                  | 150                  | 6.6          | 1     |
| VAV-2  | KRUEGER | LMHS  | 4          | RH          | OFFICE 102   | 160                  | 120                  | 5.2          | 1     |
| VAV-3  | KRUEGER | LMHS  | 4          | RH          | OFFICE 104   | 160                  | 120                  | 5.1          | 1     |
| VAV-4  | KRUEGER | LMHS  | 6          | RH          | OFFICE 105   | 210                  | 160                  | 6.6          | 1     |
| VAV-5  | KRUEGER | LMHS  | 14         | RH          | LUNCH ROOM 116   | 1,420                | 500                  | 21.1         | 1     |
| VAV-6  | KRUEGER | LMHS  | 8          | RH          | STORAGE ROOM 118, IT 117, AND<br>EQUIPMENT 119                 | 600                  | 350                  | 14.8         | 1     |
| VAV-7  | KRUEGER | LMHS  | 6          | RH          | STORAGE ROOM 121 AND CORRIDOR<br>120                           | 450                  | 400                  | 17.1         | 1     |
| VAV-8  | KRUEGER | LMHS  | 8          | RH          | MEN'S LOCKERS 111, MEN'S SHOWER<br>112, AND MEN'S RESTROOM 113 | 600                  | 350                  | 14.6         | 1     |
| VAV-9  | KRUEGER | LMHS  | 4          | RH          | WOMEN'S LOCKERS 109  | 200                  | 100                  | 4.4          | 1     |
| VAV-10 | KRUEGER | LMHS  | 6          | RH          | CORRIDOR 106, UNIFORM 108, VEST.<br>103, AND VEST 107          | 220                  | 150                  | 5.9          | 1     |
|        |         |       |            |             |  |                      |                      |              |       |

## NOTES:

1. PROVIDE WITH CARRIER ZS-PRO THERMOSTAT.

# **EQUIPMENT LIST:**

BOILER: PROVIDE BOILER EQUAL TO BURNHAM MODEL K2WT-150B NATURAL GAS BOILER, 150 MBH MAX INPUT, 15 MBH MIN INPUT, 142 MBH D.O.E. HEATING CAPACITY, 123 MBH AHRI NET RATING, 3" VENT & INTAKE CONNECTIONS. PROVIDE WITH GRUNDFOS MAGFILTER PRO XL RESIDENTIAL MAGNETIC FILTER; LWCO MANUAL RESET KIT - H5 CABLE, 24V AND OUTDOOR AIR SENSOR; AUXILIARY HIGH LIMIT/MANUAL RESET 210° MAX; IMMERSION WELL FOR AUXILIARY HIGH LIMIT, 1/2" OPTION; CONDENSATE NEUTRALIZER; 3" CPVC STARTER KIT WITH 3" VENT TERMINATIONS; IPEX LOW PROFILE VENT TERMINATION KIT, CIRCULATING PUMP, AND SAGE ZONE CONTROL

HEATING HOT WATER PUMP (HWP-1):
PROVIDE HEATING HOT WATER PUMP EQUAL TO BELL AND GOSSETT SERIES ECOCIRC XL N HIGH EFFICIENCY LARGE WET ROTOR CIRCULATOR, MODEL 65-130, STAINLESS STEEL BODY. DUTY POINT FLOW TO BE APPROXIMATELY 21 GPM, DUTY POINT HEAD TO BE 44 FT.; 1.0 HP MOTOR POWER, 2912 RPM AT DUTY POINT, SUITABLE FOR 180°F WATER, 208V SINGLE PHASE.

HEATING HOT WATER RECIRCULATION PUMP (HWP-2):
PROVIDE HEATING HOT WATER RECIRCULATION PUMP EQUAL TO BELL AND GOSSETT HIGH EFFICIENCY LARGE WET ROTOR CIRCULATOR WITH ECM MOTOR, SERIES ECOCIRC XL N MODEL 55-45, STAINLESS STEEL BODY. DUTY POINT FLOW TO BE APPROXIMATELY 1.5 GPM, DUTY POINT HEAD TO BE 20 FT.; 0.088 HP ELECTRICAL INPUT POWER, .5 MOTOR POWER, 2749 RPM AT DUTY POINT, SUITABLE FOR 100°F WATER, 208V SINGLE PHASE.

RETURN AIR CONTROL DAMPER:
PROVIDE MOTORIZED CONTROL DAMPER EQUAL TO POTTORFF CD-41 WITH 24 VOLT ELECTRONIC MODULATING DAMPER ACTUATOR. INTERLOCK WITH AIR HANDLING UNIT OUTDOOR AIR DAMPER.

|     | LOUVER SCHEDULE |         |                                      |                                   |         |             |              |             |       |  |  |  |  |  |  |
|-----|-----------------|---------|--------------------------------------|-----------------------------------|---------|-------------|--------------|-------------|-------|--|--|--|--|--|--|
| TAG | MAKE            | MODEL   | TYPE                                 | MAX INTAKE<br>VOLUME FLOW<br>RATE | SP      |             | DIMENSIONS   |             | NOTES |  |  |  |  |  |  |
|     |                 |         |                                      | CFM                               | IN-W.G. | WIDTH (IN.) | HEIGHT (IN.) | DEPTH (IN.) |       |  |  |  |  |  |  |
| L-1 | POTTORFF        | EXD-645 | COMBINATION<br>LOUVER/DAMPER         | 1000                              | 0.15    | 18          | 36           | 6           | 1,2,3 |  |  |  |  |  |  |
| L-2 | POTTORFF        | EXD-645 | COMBINATION<br>LOUVER/DAMPER         | 300                               | 0.15    | 18          | 24           | 6           | 1,2,3 |  |  |  |  |  |  |
| L-3 | POTTORFF        | EXD-645 | COMBINATION<br>LOUVER/DAMPER         | 800                               | 0.15    | 18          | 24           | 6           | 1,2,3 |  |  |  |  |  |  |
| L-4 | POTTORFF        | EXD-645 | COMBINATION<br>LOUVER/DAMPER         | 2200                              | 0.15    | 30          | 48           | 6           | 1,2,3 |  |  |  |  |  |  |
| L-5 | POTTORFF        | EFD-437 | EXTRUDED ALUMINUM<br>DRAINABLE BLADE | 250                               | 0.05    | 14          | 14           | 4           | 2,4,5 |  |  |  |  |  |  |
| L-6 | POTTORFF        | EFD-437 | EXTRUDED ALUMINUM<br>DRAINABLE BLADE | 4230                              | .05     | 40          | 40           | 4           | 2,4,6 |  |  |  |  |  |  |
|     |                 |         |                                      |                                   |         |             |              |             |       |  |  |  |  |  |  |

- 1. PROVIDE WITH 120V ELECTRIC ACTUATOR, NEMA 1.
- 2. PROVIDE WITH BIRD/INSECT SCREEN. 3. PROVIDE WITH BAKED ENAMEL FINISH.
- 4. PROVIDE WITH DAMPER EQUAL TO POTTORFF MODEL CD-41 (2-POSITION SPRING RETURN).
- 5. PROVIDE WITH DAMPER ACTUATOR EQUAL TO POTTORFF MODEL TFB120, 120V, 2.5W. 6. PROVIDE WITH 24V ELECTRIC DAMPER ACTUATOR, INTERLOCK WITH AIR HANDLING UNIT RETURN DAMPER.

| MECHANICAL LEGEND |  |
|-------------------|--|
|                   |  |

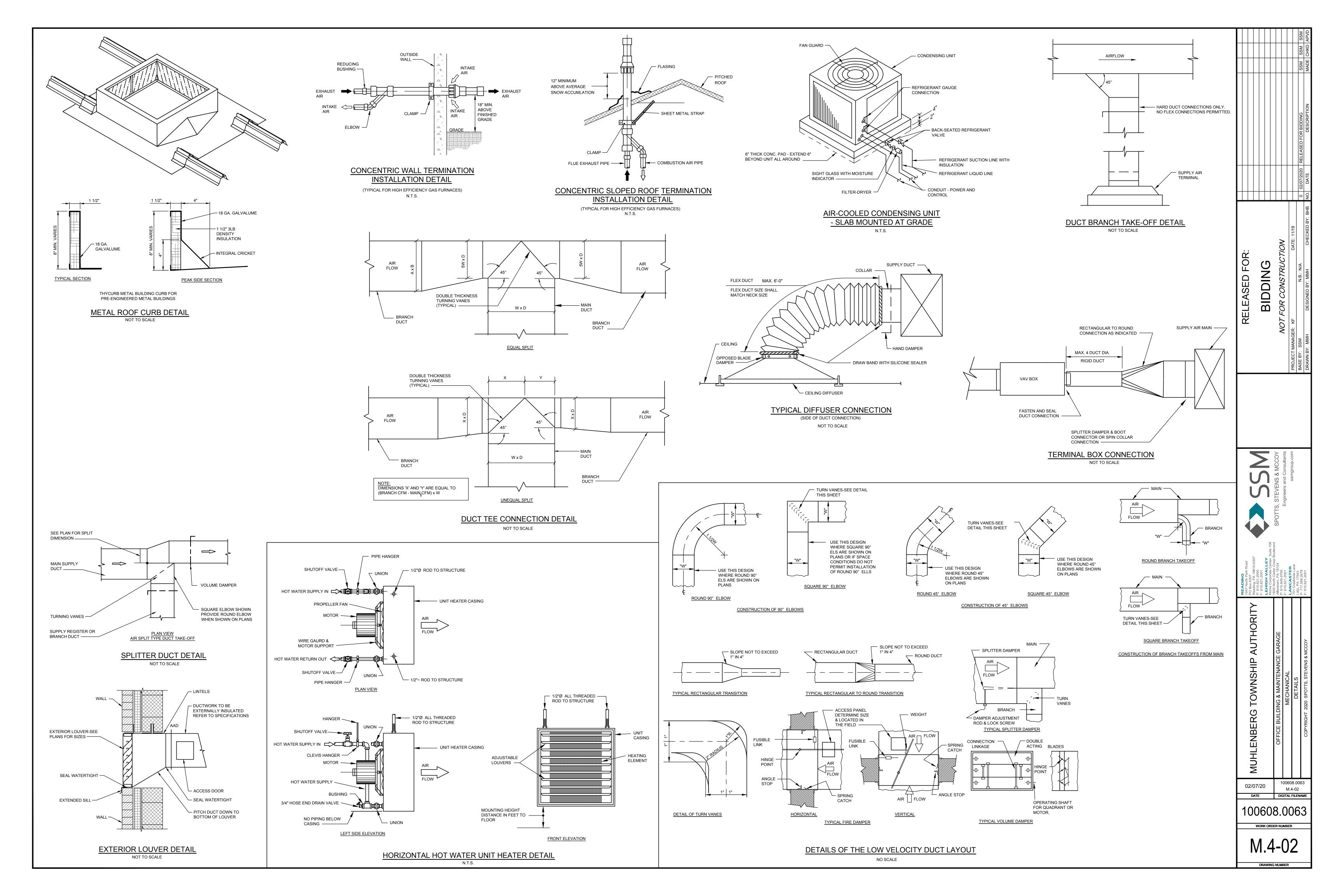
| $-\!\!\bowtie\!\!-\!$ | SHUTOFF VALVE                            | _24x12_                      |                          |
|---|--|------------------------------|--------------------------|
| <u> — Б</u>   | BALL VALVE                               |                              | DUCT SIZE                |
| <b>─</b> ₩  | BUTTERFLY VALVE                          | +                            | DIRECTION OF FLOW        |
| $ \bigvee$ -  | GATE VALVE                               |                              | DUCT SECTION, RETURN AIR |
| <b>AP</b> -   | DIFFERENTIAL PRESSURE SENSOR             |                              | DUCT SECTION, SUPPLY AIR |
| T <sub>S</sub> -  | TEMPERATURE SENSOR                       | + + +                        | VOLUME DAMPER            |
| <u> </u>  |  | <del></del>                  | TRANSITION               |
|   | PRESSURE REDUCING VALVE                  |                              |                          |
|   | MOTOR OPERATED VALVE-2 WAY               |                              | TURNING VANES            |
| —— <del>—</del> ——  | MOTOR OPERATED VALVE-3 WAY               | - <b>'</b> M                 | MOTOR OPERATED DAMPER    |
|   | CHECK VALVE                              | <del>-</del> AD <del>-</del> | ACCESS DOOR              |
| — <b>\</b> ₹  | REDUCED PRESSURE BACKFLOW PREVENTER      | + 11 +                       | FIRE DAMPER              |
| <del></del>   | STRAINER W/ BLOWDOWN                     | £                            | FLEXIBLE CONNECTION      |
| ▼<br>Ā  | RELIEF VALVE                             | $\boxtimes$                  | SUPPLY AIR DIFFUSER      |
| <del></del>   | AIR VENT - MANUAL                        |                              | RETURN AIR DIFFUSER      |
| <u> </u>  | AIR VENT - AUTOMATIC                     |                              | FLEX DUCT                |
| <b>⊘</b> <sup>P</sup>   | PRESSURE GAUGE W/ GAUGE COCK             |                              | EXISTING ITEM            |
| <del></del>   | THERMOMETER                              | <i></i>                      | ITEM TO DEMOLISH         |
|   | CALIBRATED BALANCING VALVE               |                              | NEW ITEM                 |
| ——————————————————————————————————————  | PIPING FLEXIBLE CONNECTION               |                              | CONNECTION TO EXISTING   |
| ——  | UNION                                    |                              | EXTENT OF DEMOLITION     |
| ""<br>———————————————————————————————————   | REDUCER                                  | #                            | INSTALLATION NOTE        |
| FM C  | FLOW METER                               | <#><br>\(\pi\)               | REMOVAL NOTE             |
|   | PIPING UP                                | <i>™</i> / A.F.G.            | ABOVE FINISHED GRADE     |
| <u></u>   | PIPING DOWN                              | A.F.F.                       | ABOVE FINISHED FLOOR     |
|   | TEE DOWN                                 | T.O.P.                       | TOP OF PIPE              |
| <u> </u>  | TEE UP                                   | B.O.P.                       | BOTTOM OF PIPE           |
| <u> </u>  | 45 - ELBOW                               | T.O.D.                       | TOP OF DUCT              |
|   | CONTINUATION                             | B.O.D.                       | BOTTOM OF DUCT           |
| <b>_</b>  | FLOW ARROW                               | (E)                          | EXISTING                 |
| ——CHWS——  | CHILLED WATER SUPPLY                     | (RBF)                        | RUN BELOW FLOOR          |
| CHWR  | CHILLED WATER RETURN                     | (RAC)                        | RUN ABOVE CEILING        |
| ——HWS——   | HOT WATER SUPPLY                         | DIA                          | DIAMETER                 |
| ——HWR——   | HOT WATER RETURN                         | SA                           | SUPPLY AIR               |
| ——c—  | CONDENSATE                               | RA                           | RETURN AIR               |
| MU  | MAKE-UP WATER                            | CFM                          | CUBIC FEET PER MINUTE    |
| v   | VENT PIPING                              | СМ                           | CONSTRUCTION MANAGER     |
| RL  | REFRIGERANT LIQUID                       | GC                           | GENERAL CONTRACTOR       |
| RS  | REFRIGERANT SUCTION                      | PC                           | PLUMBING CONTRACTOR      |
| ——FOS——   | FUEL OIL SUPPLY                          | EC                           | ELECTRICAL CONTRACTOR    |
| ——FOR——   | FUEL OIL RETURN                          | AFF                          | ABOVE FINISHED FLOOR     |
|   | CONDENSER WATER SUPPLY                   | AHU                          | AIR HANDLING UNIT        |
|   | CONDENSER WATER RETURN                   | СН                           | CABINET HEATER           |
| T   | THERMOSTAT                               | С                            | CONVECTOR                |
| $\Theta$  | HUMIDISTAT                               | EF                           | EXHAUST FAN              |
| ©   | CARBON DIOXIDE SENSOR (CO <sub>2</sub> ) | FC                           | FAN COIL                 |
| <u>s</u>  | TEMPERATURE SENSOR                       | FT                           | FIN TUBE                 |
| (T) <sub>R</sub>  | THERMOSTAT - REVERSE ACTING              | UH                           | UNIT HEATER              |
| T <sub>N</sub>  | THERMOSTAT - NITE SET-BACK               | UV                           | UNIT VENTILATOR          |
|   | EQUIPMENT DESIGNATION                    | MAU                          | MAKE UP AIR UNIT         |
|   | EQUIT WENT DEGIGNATION                   | OAI                          | OUTDOOR AIR INTAKE       |
|   |  |                              |                          |

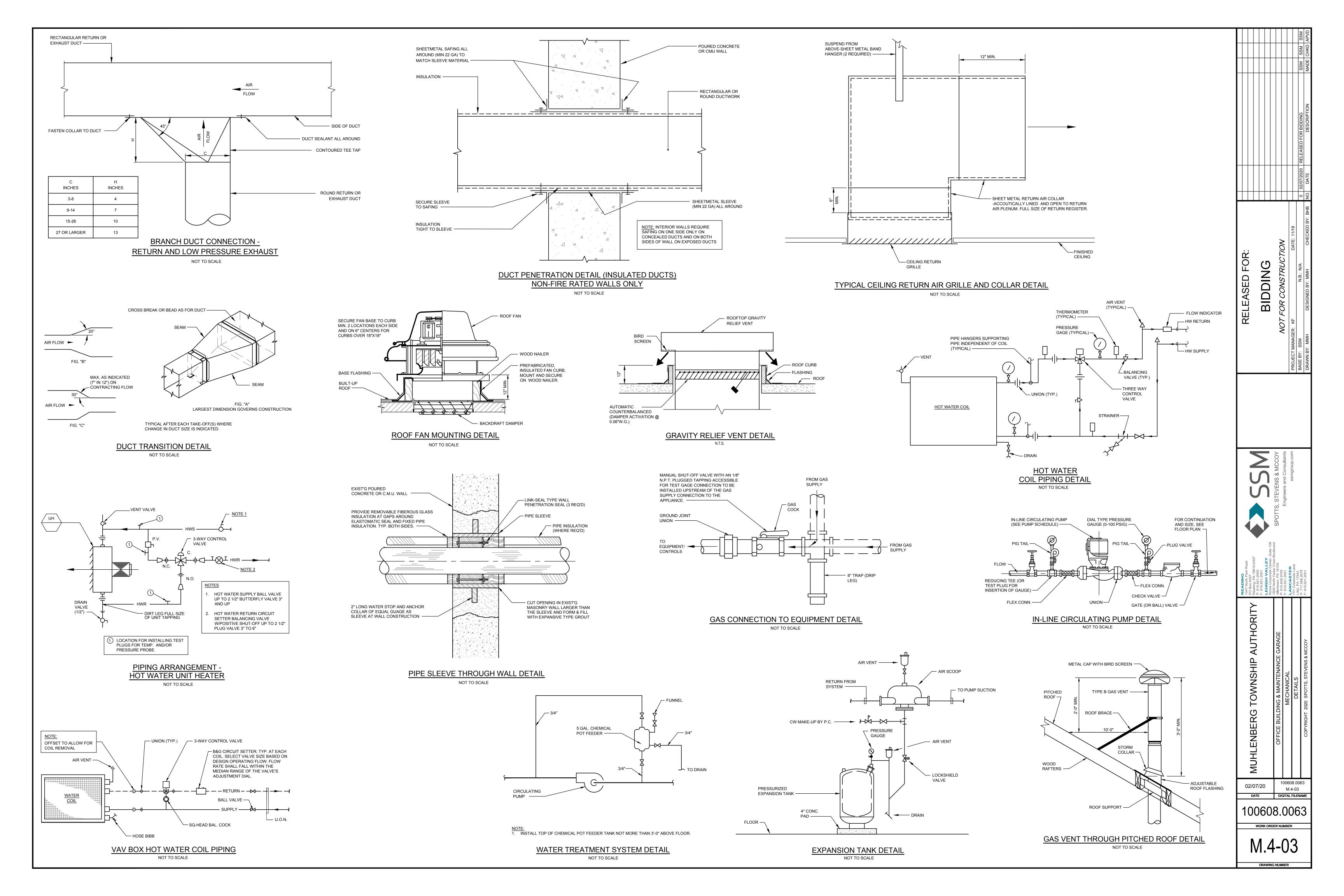
|  | SPOTTS, S  | Engi                         |  |  |
|--|--|------------------------------|--|--|
| READING 1047 North Park Road PO Box 6307 Reading, PA 19610-0307 P: 610.621.2000 F: 610.621.2001 LEHIGH VALLEY Roam Corporate Center, Suite 106 | 1605 North Cedar Crest Boulevard<br>Allentown, PA 18104<br>P: 610,849,9700 | F: 610.621.2001<br>LANCASTER | 701 Creekside Lane<br>Lititz, PA 17543 | P: 717.568.2678<br>F: 610.621.2001     |
| MUHLENBERG TOWNSHIP AUTHORITY  | OFFICE BUILDING & MAINTENANCE GARAGE                                       | MECHANICAL                   | SCHEDULES AND LEGEND                   | COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY |
| 02/07/20   | 1  | 0060                         | 8.00                                   | 63                                     |

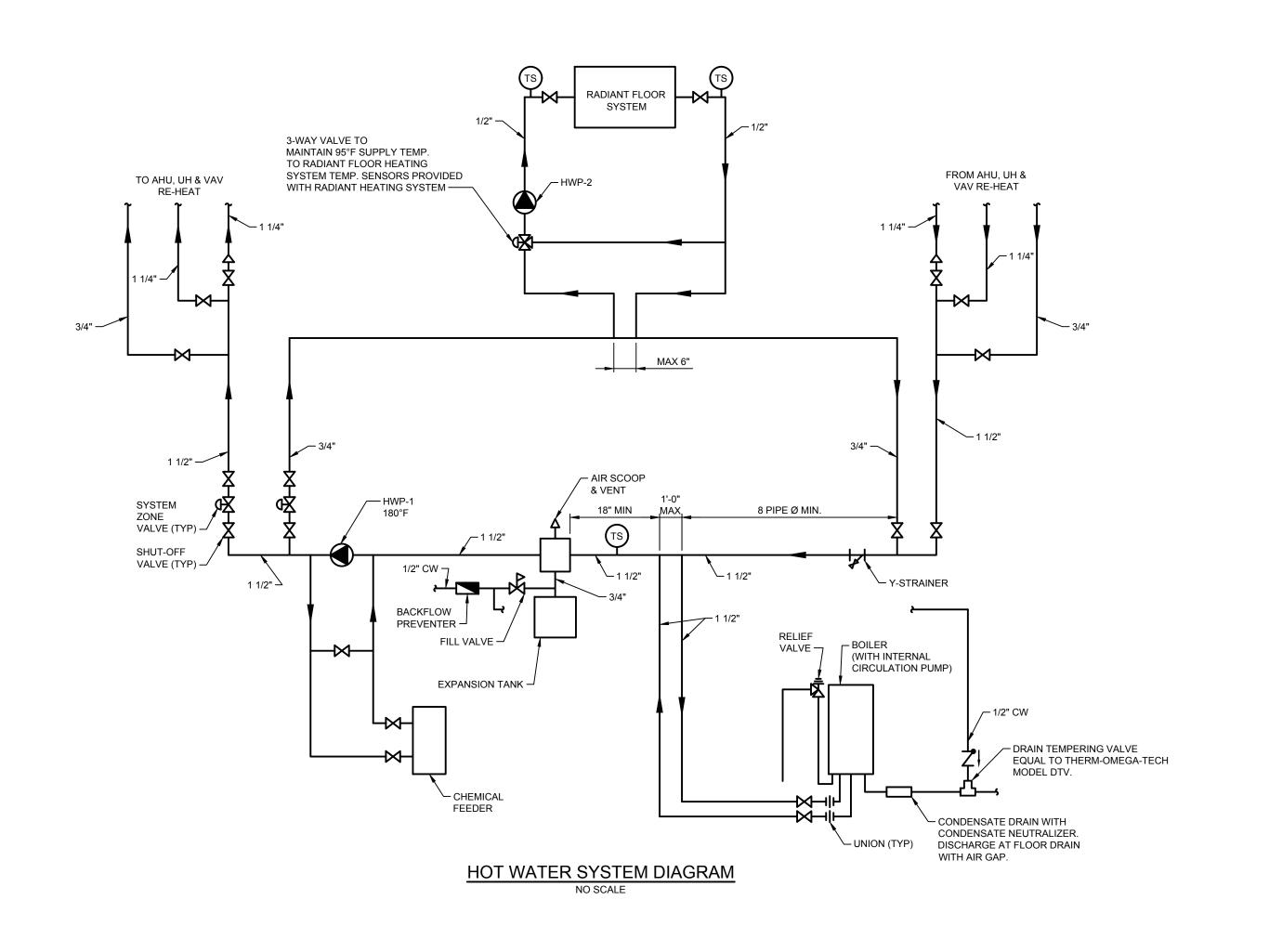
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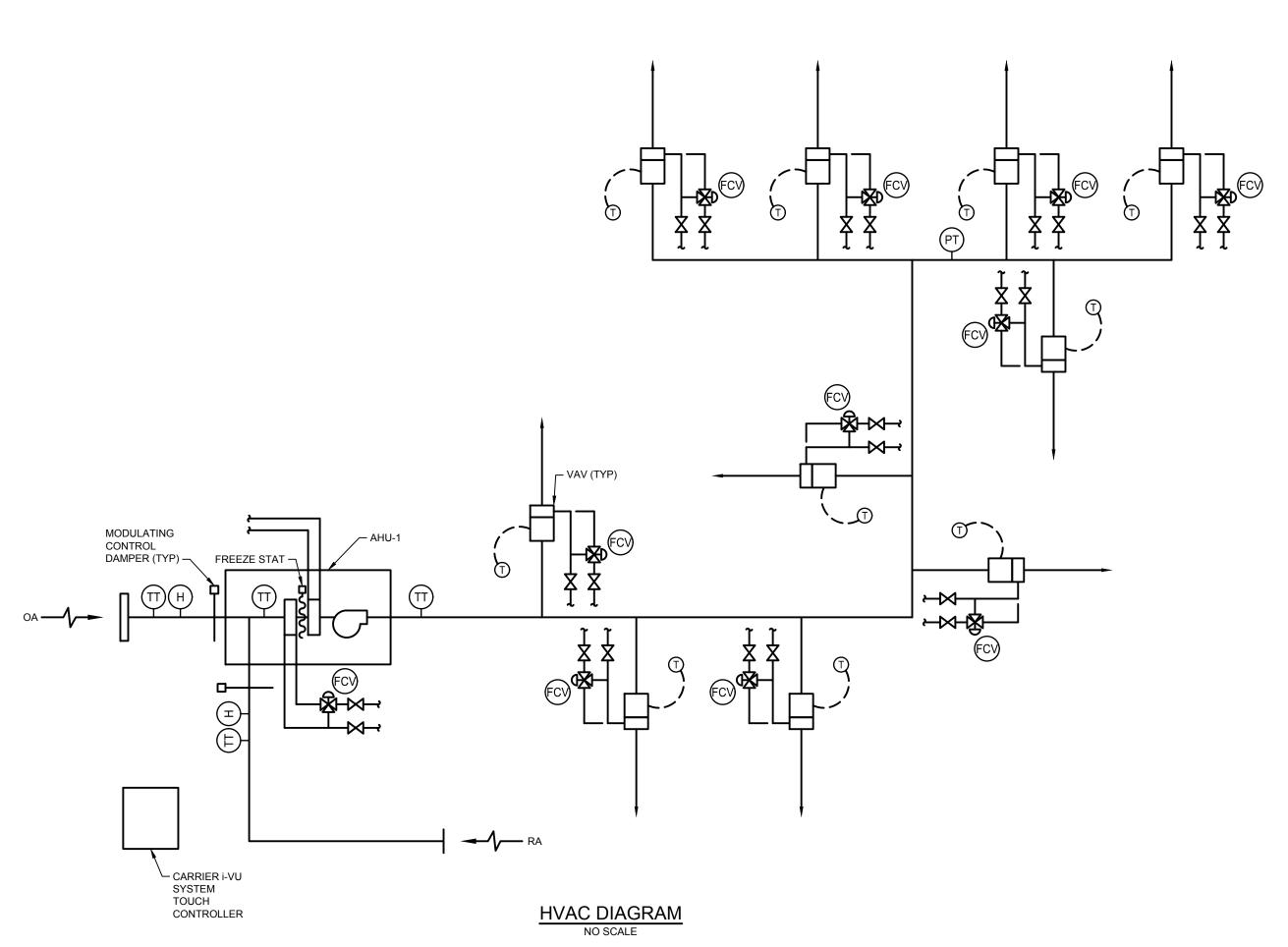
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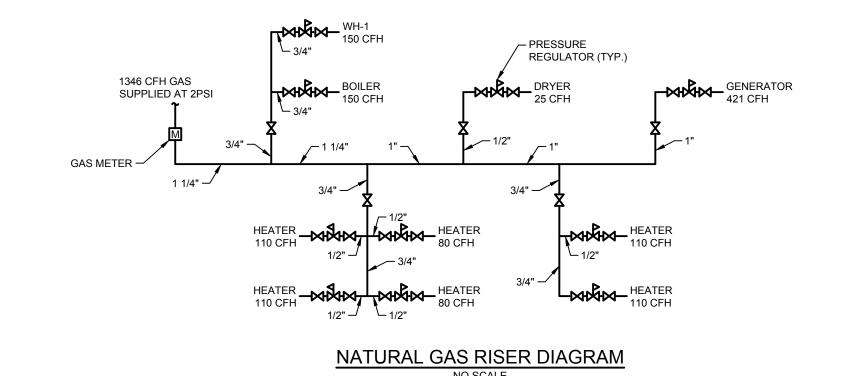
**BIDDING** 





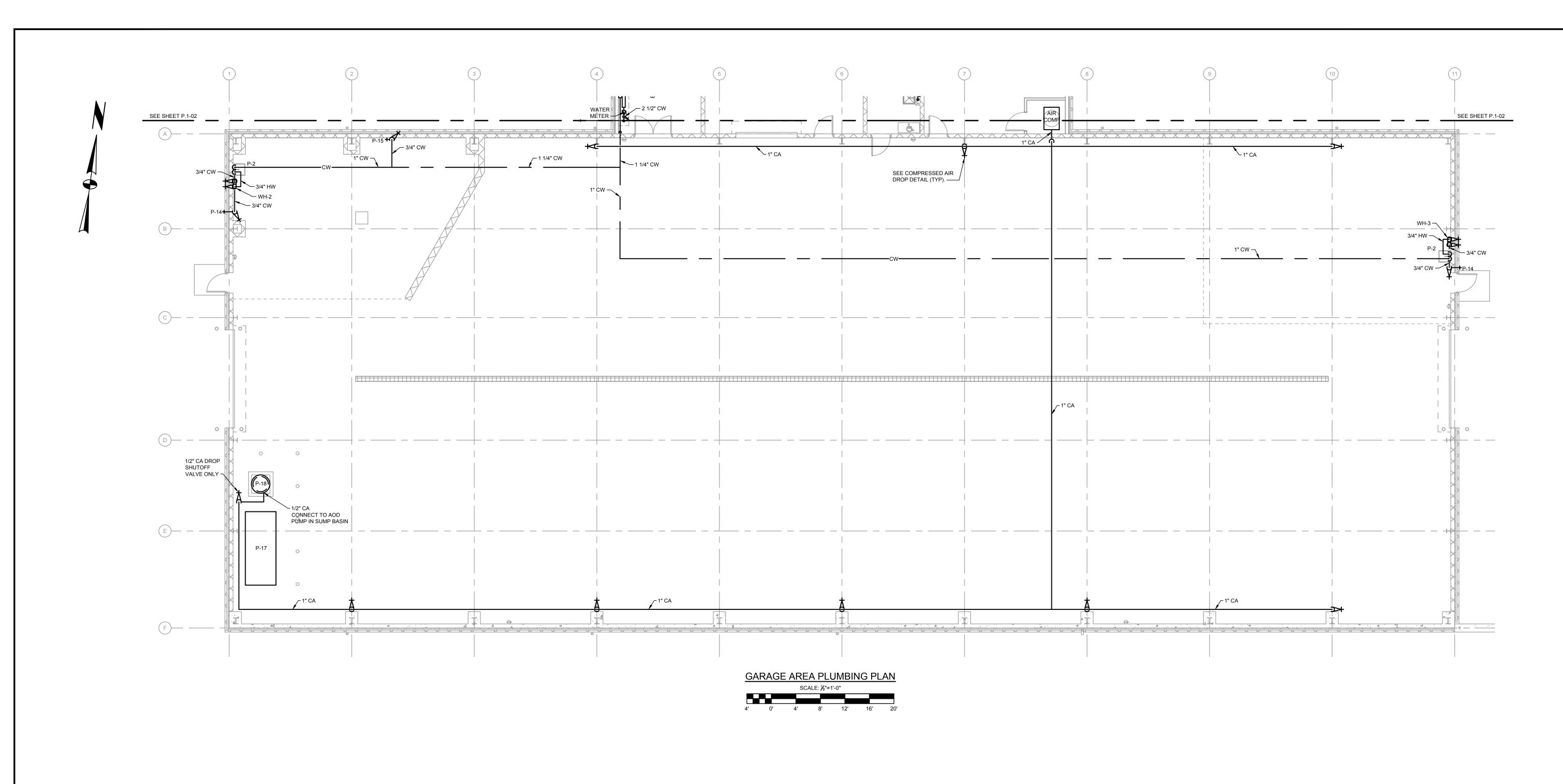


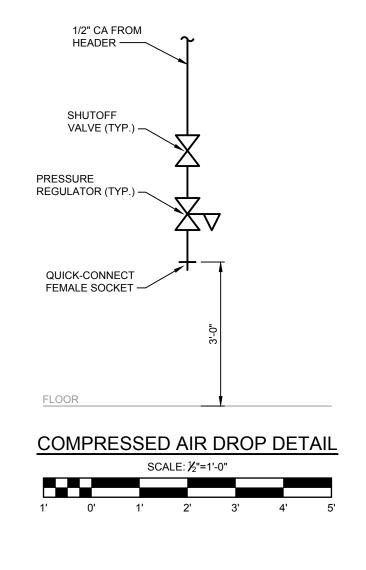




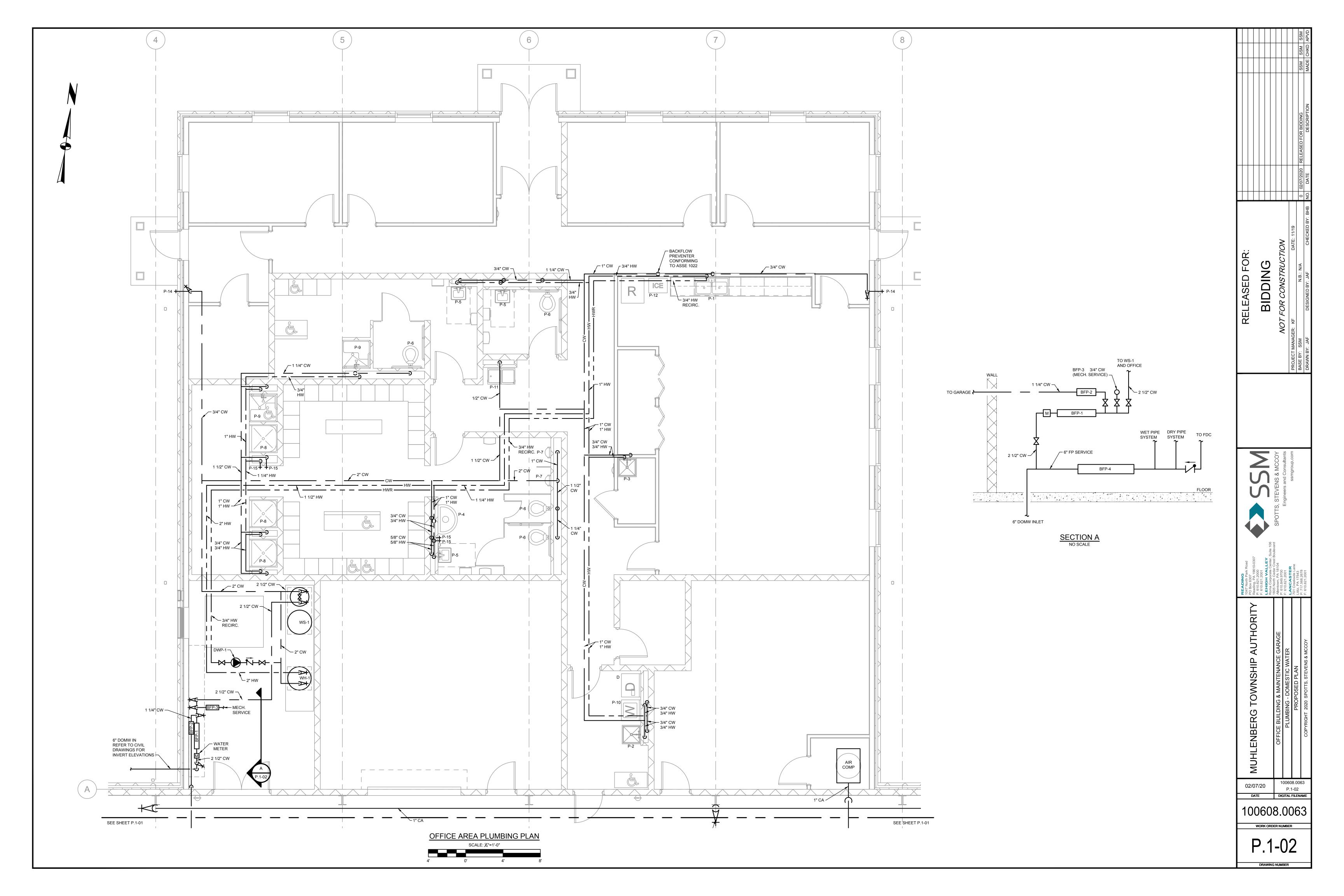
| FOR:   | <u>5</u>   | MOITOLIG                             | NOCION                    | DATE: 11/19                  | N.B.: N/A                           | H CHECKED BY: BHB                      |  |
|--|--|--------------------------------------|---------------------------|------------------------------|-------------------------------------|--|--|
| RELEASED FOR:  | BIDDING  | NOT FOR CONSTRUCTION                 |                           | ΚF                           | N.B.:                               | DESIGNED BY: MMH                       |  |
|  |  |                                      |                           | PROJECT MANAGER: KF          | BASE BY: SSM                        | DRAWN BY: MMH                          |  |
|  |  |                                      |                           |                              |                                     |  |  |
|  |  | SPOTTS, STEVENS & MCCOY              | Engineers and Consultants | ssmgroup.com                 |                                     |  |  |
| TEADING<br>1047 North Park Road<br>PO Box 6307<br>Reading, PA 19610-0307 | P: 610.621.2000 F: 610.621.2001 LEHIGH VALLEY Roma Corporate Center, Suite 106 | Allentown, PA 18104 P: 610.849.9700  | F: 610.621.2001           | LANCASTER 701 Creekside Lane | Lititz, PA 17543<br>P: 717 568 2678 | F: 610.621.2001                        |  |
| MUHI FNRFRG TOWNSHIP AUTHORITY   |  | OFFICE BUILDING & MAINTENANCE GARAGE | MECHANICAL                |                              |                                     | COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY |  |
| 02/0<br>DA   |  |                                      | M                         | 08.0<br>.5-0                 | 1                                   |  |  |
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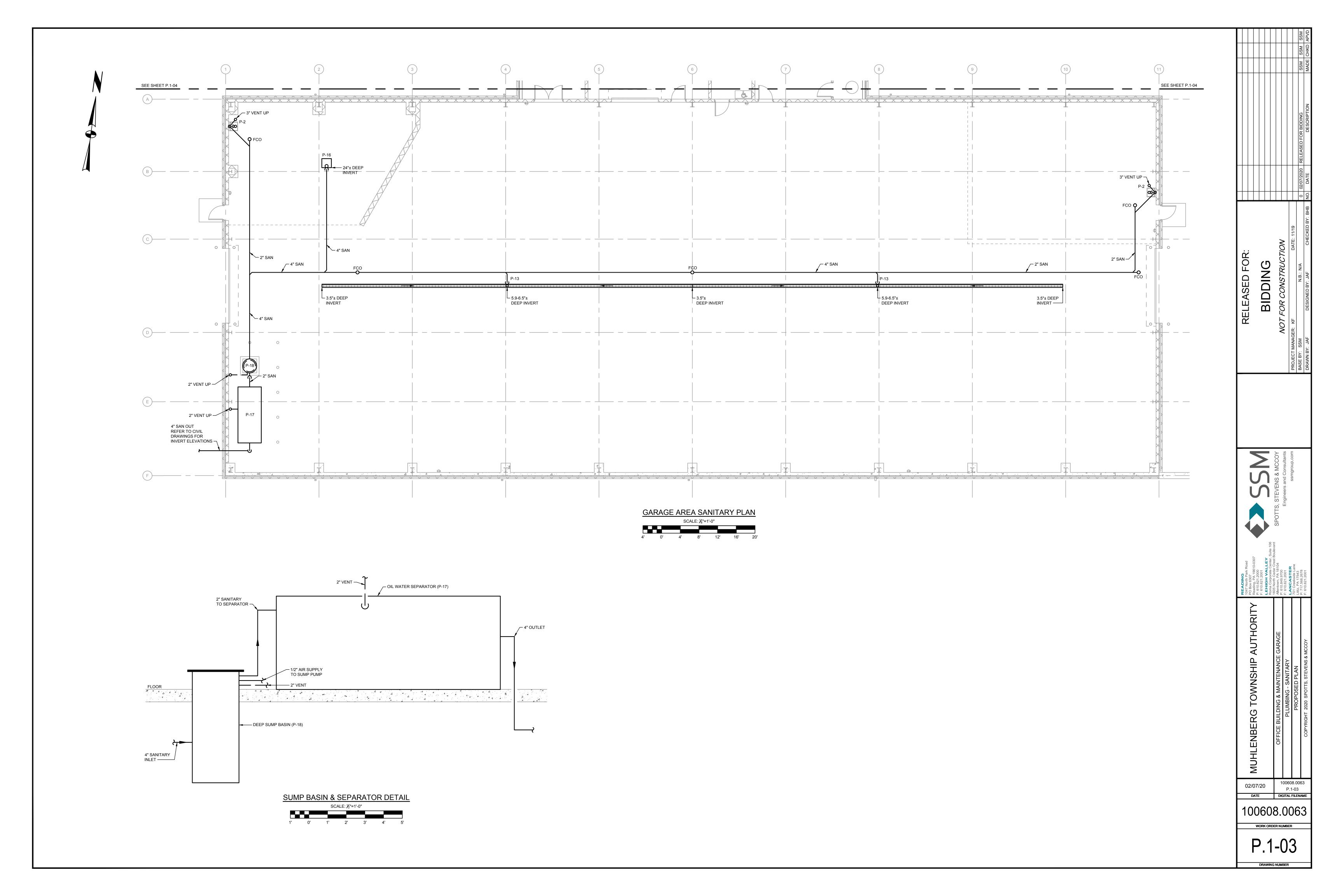
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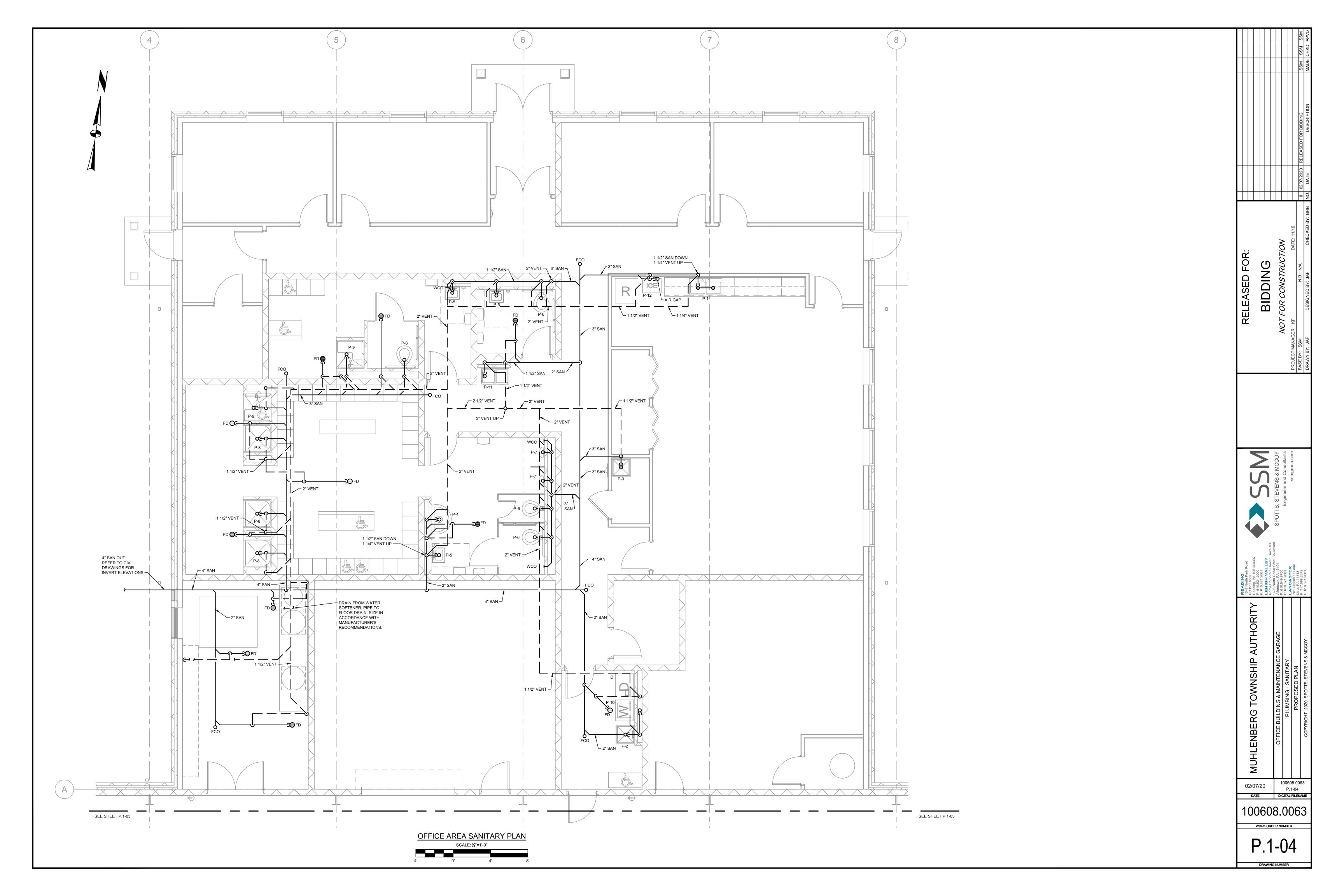




| M                                      | S                                 |                     |   |                                      |                                  |               |                 |   |  |                                 |   |
|--|-----------------------------------|---------------------|---|--------------------------------------|----------------------------------|---------------|-----------------|---|--|---------------------------------|---|
| DESCRIPTION                            | 02/07/2020 RELEASED FOR BIDDING   |                     |   |                                      |                                  |               |                 |   |  |                                 |   |
| DATE                                   | 02/02/2020                        |                     |   |                                      |                                  |               |                 |   |  |                                 |   |
|  | 0                                 |                     |   |                                      |                                  |               |                 |   |  |                                 |   |
| DESIGNED BY: JAF CHECKED BY: BHB NO.   | N.B.: N/A                         | DATE: 11/19         |   | WOITUI IGESINOO GO                   |                                  | מומפ          |                 |   |  | RFI FASED FOR                   |   |
| DRAWN BY: JAF                          | BASE BY: SSM                      | PROJECT MANAGER: KF |   |                                      |                                  |               |                 |   | <u> </u>                               |                                 |   |
| F: 610.621.2001                        | Litiz, PA 1743<br>P: 777-568.2678 | 701 Creekside Lane  | F: 610.621.2001 Engineers and Consultants | SPOILS                               | 1605 North Cedar Crest Boulevard | LEHIGH VALLEY | F: 610.621.2001 | Reading, PA 19610-0307<br>P: 610 621,2000 |  | READING<br>1047 North Park Road |   |
| COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY |                                   | PROPOSED PLAN       | PLUMBING - DOMESTIC WATER                 | OFFICE BUILDING & MAINTENANCE GARAGE |                                  |               |                 |   | VIIOCUTI IV GIUSINIVICE GODGIND IUI IN |                                 |   |
| COPYRIGHT 2020                         |                                   |                     | PLU                                       | OFFICE B(                            |                                  |               |                 | MOULEINDE                                 |  |                                 |   |
|  | 0063                              | 08.0                | 006                                       |                                      |                                  | )             | /20             | <u>≥</u>                                  |  | 0                               | _ |
| IE                                     | 0063<br>1                         | 08.0<br>.1-0        | 006<br>P.                                 | 1                                    |                                  |               |                 | 2<br>07/<br>ATE                           | 2/(                                    |                                 |   |
| IE                                     | 0063<br>1                         | 08.0<br>.1-0        | 006<br>P.                                 | 1<br>3.                              |                                  | 60            | 6               | 2<br>07/<br>ATE                           | 2/(                                    |                                 |   |







|          |                     |         |            |          |      | PLUMB             | ING FIXTUR   | RE SCHEDULE  |
|----------|---------------------|---------|------------|----------|------|-------------------|--------------|--|
|          |                     | ı       | PIPING CON | NECTIONS |      | BASIS OF DESIG    | iN           |  |
| ITEM NO. | DESCRIPTION         | SAN     | VENT       | CW       | HW   | MANUFACTURER      | MODEL        | NOTES  |
| P-1      | KITCHEN SINK        | 1 1/2"  | 1 1/4"     | 3/4"     | 3/4" | KOHLER            | K-3847-3     | TOP-MOUNT, DOUBLE EQUAL BOWL CONFIGURATION, 9" DEPTH, STAINLESS STEEL.   |
| P-2      | SERVICE SINK        | 2"      | 1 1/2"     | 3/4"     | 3/4" | FIAT PRODUCTS     | TAT1         | SINGLE BOWL LAUNDRY TUB WITH LEGS, INCLUDES FAUCET WITH 4" CENTERSET/4" BLADE HANDLES/6-3/4" SWING SPOUT/AERATOR AND HOSE ADAPTOR.   |
| P-3      | MOP SINK            | 3"      | 1 1/2"     | 3/4"     | 3/4" | FIAT PRODUCTS     | MSBIDTG2424  | MOP SERVICE BASIN, MOLDED STONE, INCLUDES SS STRAINER/FAUCET/HOSE AND BRACKET/MOP BRACKET/QUICK DRAIN CONNECTOR.   |
| P-4      | WASH FOUNTAIN       | 1 1/2"  | 1 1/4"     | 5/8"     | 5/8" | BRADLEY           | WF2703       | 36" SEMI-CIRCULAR, 3-USERS, STAINLESS STEEL, FOOT ACTIVATION TYPE.   |
| P-5      | LAVATORY            | 1 1/2"  | 1 1/4"     | 5/8"     | 5/8" | KOHLER            | K-2005       | WALL-MOUNT, SINGLE BOWL, COLOR - WHITE (0), PROVIDE KOHLER LAV FAUCET K-400T20-4ANA.   |
| P-6      | WATER CLOSET        | 3"      | 2"         | 1 1/4"   | N/A  | KOHLER            | K04325       | WALL-MOUNT, SIPHON JET, 1.28 GPF, COLOR - WHITE (0), PROVIDE KOHLER FLUSHOMETER K-10673-SV AND KOHLER TOILET SEAT K-4666-CA.   |
| P-7      | URINAL              | 3"      | 2"         | 1"       | N/A  | KOHLER            | K-5016-ET    | WALL-MOUNT, SIPHON JET, 0.5 OR 1.0 GPF, COLOR - WHITE (0), PROVIDE KOHLER FLUSHOMETER K-10675-SV.  |
| P-8      | SHOWER              | 2"      | 1 1/2"     | 3/4"     | 3/4" | BEST BATH SYSTEMS | KPACKB36XXS  | 36" WIDE BARRIER FREE SHOWER. PROVIDE WITH SYMMONS VALVE PACKAGE WITH 1.5 GPM HAND HELD SHOWER AND 30" GLIDE BAR KIT, 22"x16" PADDED SEAT WITH LEGS, 42"x74" WHITE VINYL SHOWER CURTAIN, 35.5" CURTAIN ROD KIT, 3' T-SHAPED WATERSTOPPER, 18" AND 24" SS SAFETY BARS, 2" NO CAULK BRASS DRAIN.   |
| P-9      | ADA SHOWER          | 2"      | 1 1/2"     | 3/4"     | 3/4" | BEST BATH SYSTEMS | KPACKATXX38  | 38" DEEP ADA TRANSFER SHOWER. PROVIDE WITH SYMMONS VALVE PACKAGE WITH 1.5 GPM HAND HELD SHOWER AND 30" GLIDE BAR KIT, 32"x16" PHENOLIC SEAT WITH LEGS, 42"x74" WHITE VINYL SHOWER CURTAIN, 37.5" CURTAIN ROD KIT, WHITE SURFACE MOUNT SOAP DISH, 3' T-SHAPED WATERSTOPPER - GREY, 12" / 18" / 27" SS SAFETY BARS, 2" NO CAULK BRASS DRAIN. |
| P-10     | WASHING MACHINE     | 2"      | 1 1/2"     | 3/4"     | 3/4" | Х                 | Х            | PROVIDED BY OWNER.   |
| P-11     | DRINKING FOUNTAIN   | 1 1/2"  | 1 1/4"     | 1/2"     | N/A  | ELKAY             | LZSTL8LC     | BI-LEVEL, ADA FILTERED, 8 GPH, 115V/60HZ, WALL-MOUNT, 5 AMPS.  |
| P-12     | ICE MACHINE         | 2"      | 1 1/2"     | 3/8"     | N/A  | MANITOWOC         | IYT0450A-161 | PROVIDED BY OWNER. 30" AIR COOLED HALF DICE ICE MACHINE, 115 V, SINGLE PHASE. PROVIDE MANITOWOC D-570 ICE STORAGE BIN. PROVIDE WATER FILTER AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.  |
| P-13     | TRENCH DRAIN        | 4"      | N/A        | N/A      | N/A  | ZURN              | Z556-HD      | 6-3/4" WIDE REVEAL, HEAVY-DUTY FRAME ASSEMBLY, 4" THROAT, 20" OR 40" NOMINAL GRATE LENGTH.   |
| P-14     | HOSE BIB (OUTSIDE)  | N/A     | N/A        | 3/4"     | N/A  | MIFAB             | MHY-26       | ENCASED NON-FREEZE LOW LEAD WALL HYDRANT, 16" WALL THICKNESS   |
| P-15     | HOSE BIB (INSIDE)   | N.A     | N/A        | 3/4"     | 3/4" | PRIER             | C-168        | ANIT-SIPHON HOSE BIBB, HANDLE OPERATED, 3/4" INLET, SATIN NICKEL PLATED.   |
| P-16     | CATCH BASIN         | 4"      | N/A        | N/A      | N/A  | ZURN              | Z887-24-HD   | 23.25" WIDE REVEAL, 24.625" LONG, 24" DEEP CATCH BASIN WITH HEAVY-DUTY FRAME ASSEMBLY.   |
| P-17     | OIL WATER SEPARATOR | 2" / 4" | 2"         | N/A      | N/A  | HIGHLAND TANK     | R-HTC-2000   | RECTANGULAR ABOVE GROUND OIL WATER SEPARATOR, MINIMUM 1200 GALLON CAPACITY (TANK SPECIFIED: 2000 GALLONS). PROVIDE FLOAT SENSOR ALARMS FOR HIGH LIQUID LEVEL (SHUTS DOWN PUMP IN SUMP BASIN) AND HIGH OIL STORAGE (OIL NEEDS TO BE CLEANED OUT OF SEPARATOR). 2" SAN INLET, 4" SAN OUTLET.   |
| P-18     | SUMP BASIN          | 4" / 2" | 2"         | N/A      | N/A  | HIGHLAND TANK     | DSB-600      | DEEP SUMP BASIN WITH INFLUENT DIAPHRAGM PUMP (AIR POWERED, 40 GPM (20 SCFM @ 40 PSI). SUPPLY COMPRESSED AIR TO PUMP INSIDE DSB (REGULATOR INCLUDED WITH PUMP). PROVIDE FLOAT SENSOR ALARM FOR HIGH LIQUID LEVEL. 4" SAN INLET, 2" SAN OUTLET.  |
| FD       | FLOOR DRAIN         | 2"      | 1 1/2"     | N/A      | N/A  | ZURN              | FD-2322-NH2  | LOW PROFILE ADJUSTABLE FLOOR DRAIN. PROVIDE WITH 2" SURE SEAL TRAP GUARD (MODEL #: 97041) OR EQUAL.  |
| D        | DRYER               | N/A     | 1 1/2"     | N/A      | N/A  | х                 | Х            | NATURAL GAS DRYER. PROVIDED BY OWNER.  |

|      |             |          | GAS     | <b>WATER</b>       | HEATE    | R SCHE  | DULE           |                |         |
|------|-------------|----------|---------|--------------------|----------|---------|----------------|----------------|---------|
| ITEM | TYPE / FUEL | TANK     | INPUT   | RECOVERY           | GAS VENT | VOLTAGE | BASIS OF I     | DESIGN         | NOTES   |
| NO.  | THETTOLL    | CAPACITY | 1141 01 | GPH @ Δ°F          | SIZE     | VOLTAGE | MANUFACTURER   | MODEL          | NOTES   |
| WH-1 | GAS         | 60       | 150 MBH | 182 GPH @<br>Δ80°F | 3"       | 115     | BRADFORD WHITE | EF-60T-150E-3N | 1, 2, 3 |

- PROVIDE AMTROL ST-5C THERMAL EXPANSION TANK.
   PROVIDE MAXITROL GAS PRESSURE REGULATING VALVE.
- 3. PROVIDE WITH CONCENTRIC VENT KIT.

|      | ELECTRIC WATER HEATER SCHEDULE |          |         |         |           |            |                    |              |           |       |  |  |  |
|------|--------------------------------|----------|---------|---------|-----------|------------|--------------------|--------------|-----------|-------|--|--|--|
| ITEM | TYPE / FUEL                    | TANK     | WATTAGE | VOLTAGE | AMPERAGE  | ACTIVATION | GPM @ Δ°F          | BASIS OF I   | DESIGN    | NOTES |  |  |  |
| NO.  | TTPE/FOEL                      | CAPACITY | WATTAGE | VOLTAGE | AWIFERAGE | GPM        | OIW W AI           | MANUFACTURER | MODEL     | NOTES |  |  |  |
| WH-2 | ELECTRIC                       | 0        | 28 KW   | 208 V   | 135 A     | 0.25       | 2.4 GPM @<br>Δ80°F | AO SMITH     | C4LA-280X |       |  |  |  |
| WH-3 | ELECTRIC                       | 0        | 28 KW   | 208 V   | 135 A     | 0.25       | 2.4 GPM @<br>Δ80°F | AO SMITH     | C4LA-280X |       |  |  |  |

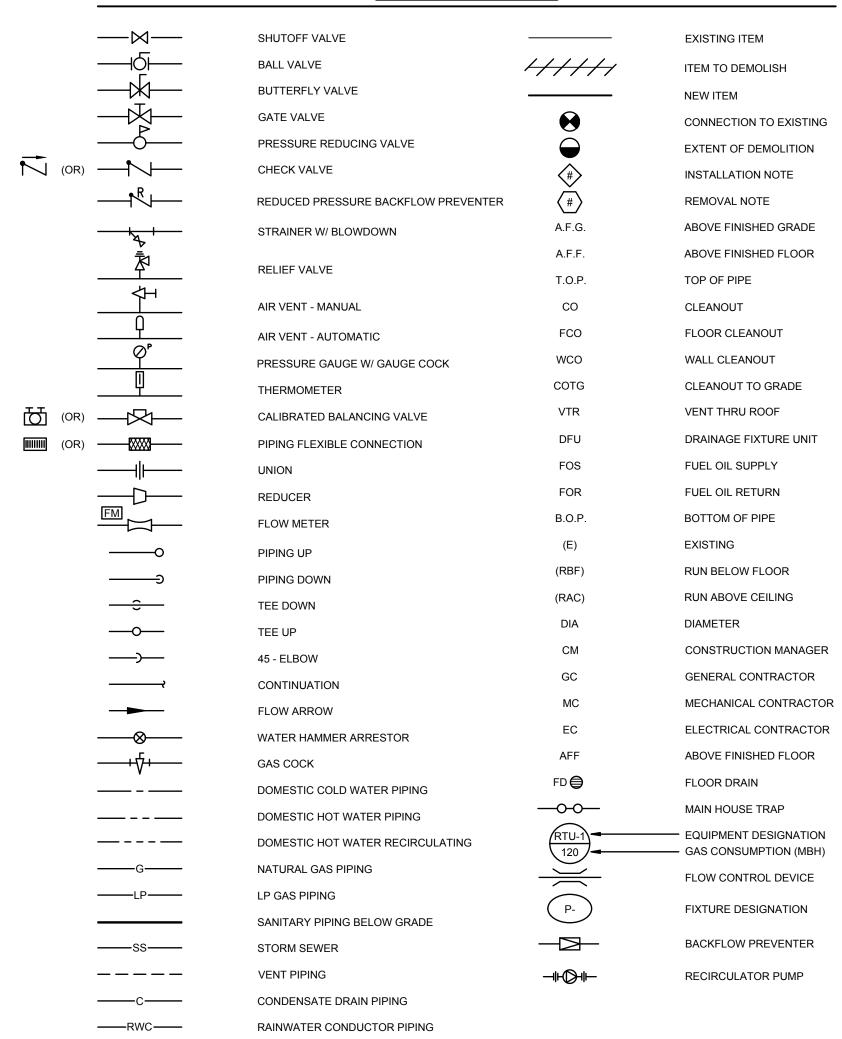
|             | PUMP SCHEDULE |                          |             |         |       |                       |               |   |  |  |  |  |
|-------------|---------------|--------------------------|-------------|---------|-------|-----------------------|---------------|---|--|--|--|--|
| ITEM<br>NO. | FLOW (GPM)    | PRESSURE<br>DROP (FT HD) | INPUT POWER | VOLTAGE | PHASE | BASIS OF DESIGN NOTES |               |   |  |  |  |  |
| DWP-1       | 1             | 2                        | 0.0023 HP   | 115     | 4     | MANUFACTURER          | MODEL         | 1 |  |  |  |  |
| DVVP-1      | ı             | 2                        | 0.0023 HP   | 115     | '     | BELL & GOSSETT        | ECOCIRC 19-16 | 1 |  |  |  |  |

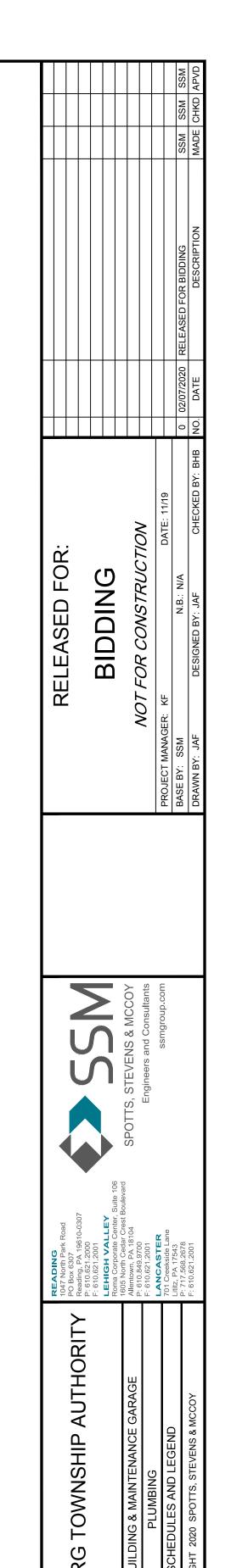
1. PROVIDE WITH STAINLESS STEEL PUMP BODY.

| BACKFLOW PREVENTER SCHEDULE |              |        |                      |              |       |       |  |  |  |
|-----------------------------|--------------|--------|----------------------|--------------|-------|-------|--|--|--|
| TAG                         | TYPE         | SIZE   | SERVICE              | BASIS OF DE  | ESIGN | NOTES |  |  |  |
| TAG                         | TIPE         | SIZE   | SERVICE              | MANUFACTURER | MODEL | NOTES |  |  |  |
| BFP-1                       | DOUBLE CHECK | 2 1/2" | DOMW INLET           | WATTS        | LF007 |       |  |  |  |
| BFP-2                       | DOUBLE CHECK | 1 1/4" | GARAGE CW            | WATTS        | LF007 |       |  |  |  |
| BFP-3                       | DOUBLE CHECK | 3/4"   | MECHANICAL<br>SYSTEM | WATTS        | LF007 |       |  |  |  |

|             |                             | V                       | VATER SOF                    | TENER S                  | SCHEDULE                     |                  |         |
|-------------|-----------------------------|-------------------------|------------------------------|--------------------------|------------------------------|------------------|---------|
| ITEM<br>NO. | RESIN QUANTITY<br>(CU. FT.) | CONNECTING<br>PIPE SIZE | SALT TANK<br>CAPACITY (LBS.) | MAX. DRAIN<br>FLOW (GPM) | RECHARGE<br>WATER USE (GAL.) | BASIS OF DES     | IGN     |
| WS-1        | 6                           | מיי                     | 1500                         | 12                       | 271                          | MANUFACTURER     | MODEL   |
| VV 3-1      | 0                           | _                       | 1300                         | 12                       | 271                          | ECOWATER SYSTEMS | EW61026 |

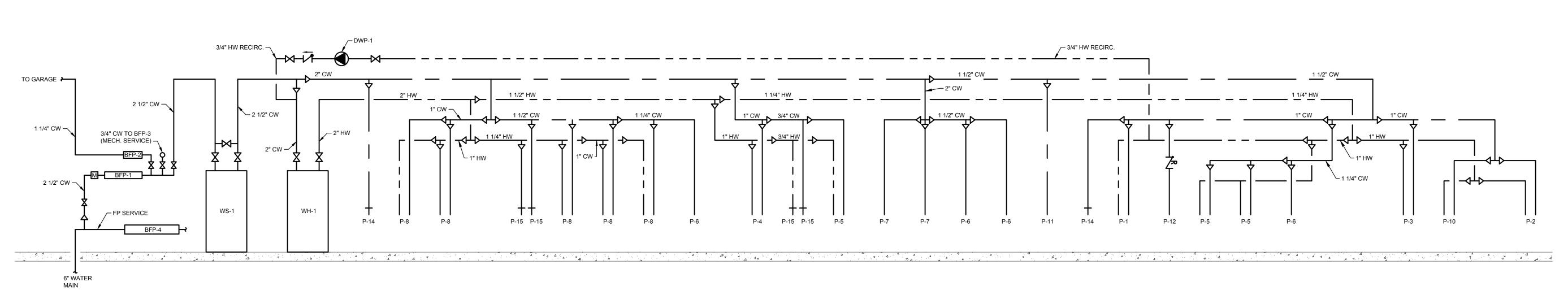
# PLUMBING LEGEND





02/07/20

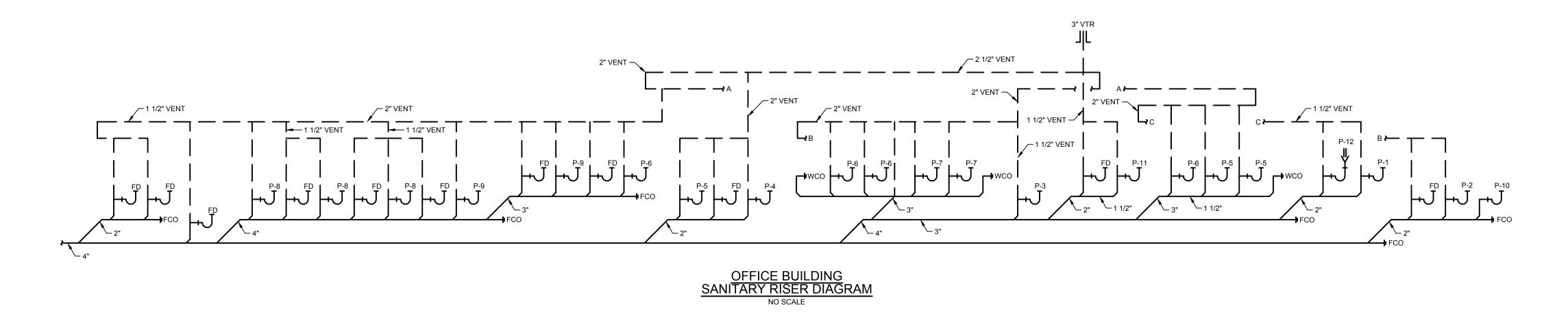
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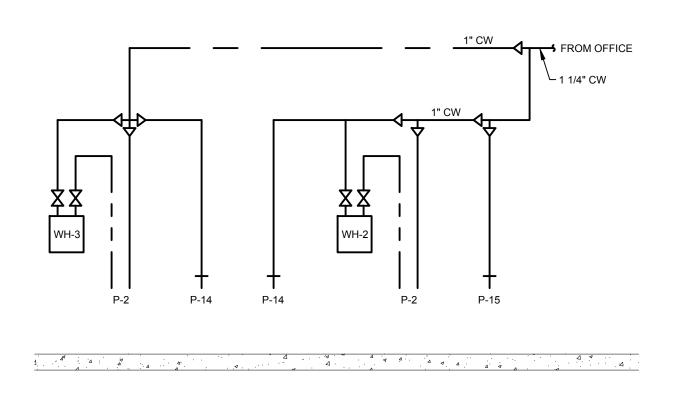


OFFICE BUILDING
DOMESTIC WATER RISER DIAGRAM

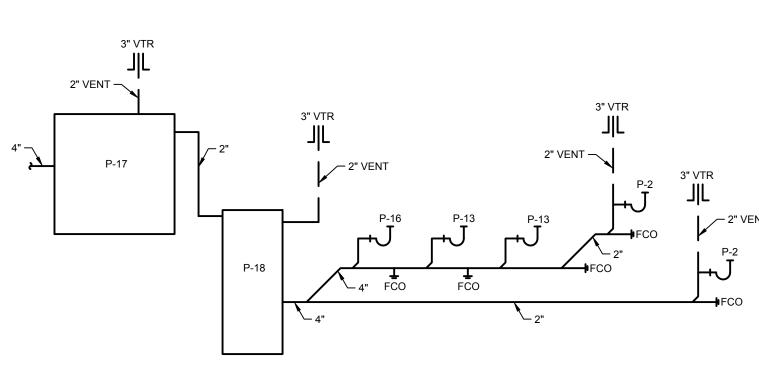
# **GENERAL NOTES**

 SEE PLUMBING FIXTURE SCHEDULE FOR FIXTURE NOMENCLATURE.
 SEE PLUMBING FIXTURE SCHEDULE FOR DOMESTIC WATER, SANITARY, AND VENT CONNECTION SIZES AT FIXTURES.

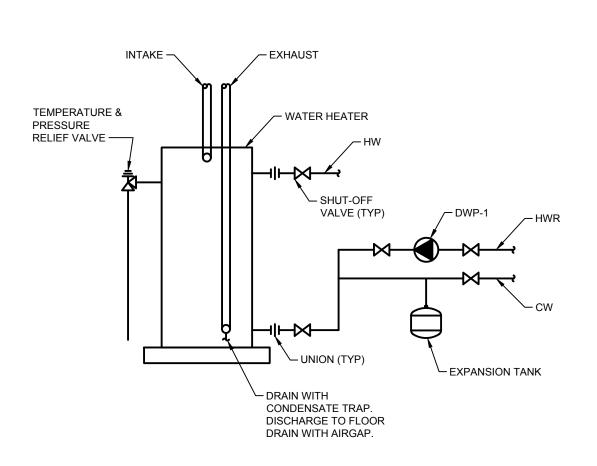




GARAGE DOMESTIC WATER RISER DIAGRAM
NO SCALE



GARAGE SANITARY RISER DIAGRAM
NO SCALE



TANK TYPE WATER HEATER DIAGRAM
NO SCALE

100608.0063

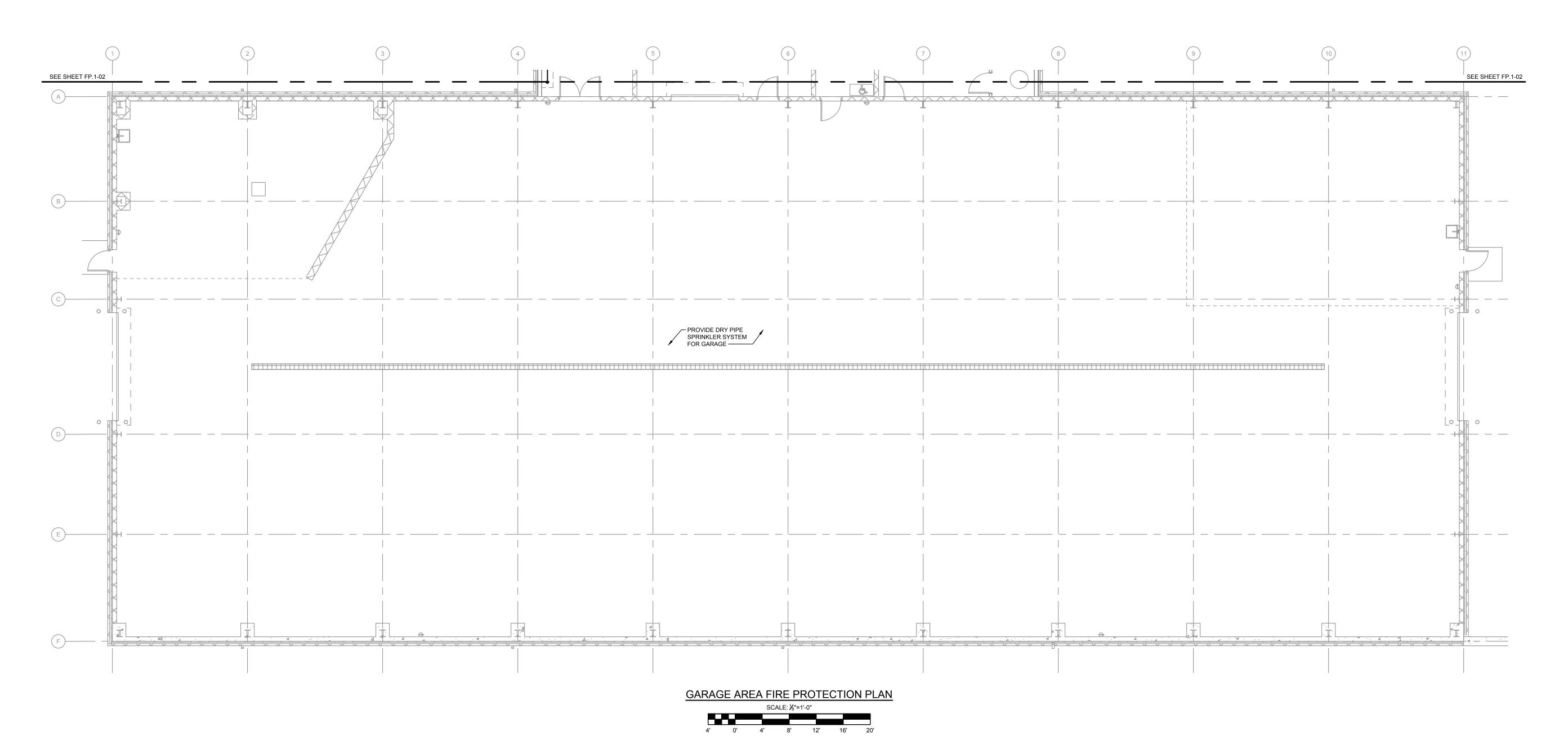
WORK ORDER NUMBER

TOWNSHIP AUTHORIT

**BIDDING** 

P.5-01





SYSTEM DESIGN CRITERIA

LOCATION: MUHLENBERG TOWNSHIP, PA

BUILDING CONSTRUCTION: NON-COMBUSTIBLE

OCCUPANCY: GROUP B AND GROUP S (SEE ARCHITECTURAL DRAWINGS)

DESIGN BASIS: 2015 INTERNATIONAL BUILDING CODE 2015 INTERNATIONAL FIRE CODE NFPA 13 - 2013 EDITION

AREA CLASSIFICATIONS

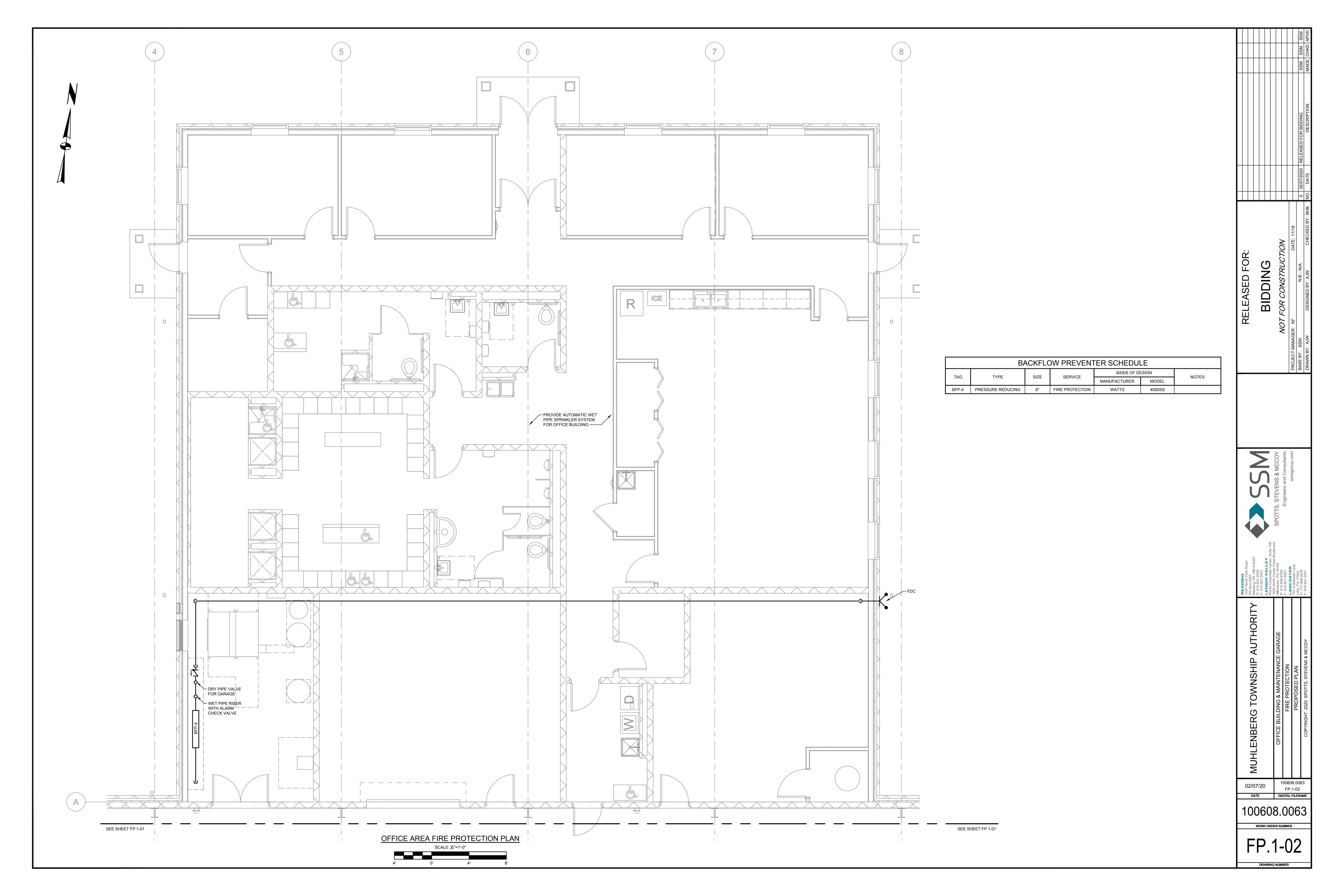
LIGHT HAZARD: OFFICE AREAS, CONFERENCE ROOM, BREAK ROOM, LUNCH ROOM, LOCKER ROOMS, RESTROOMS.

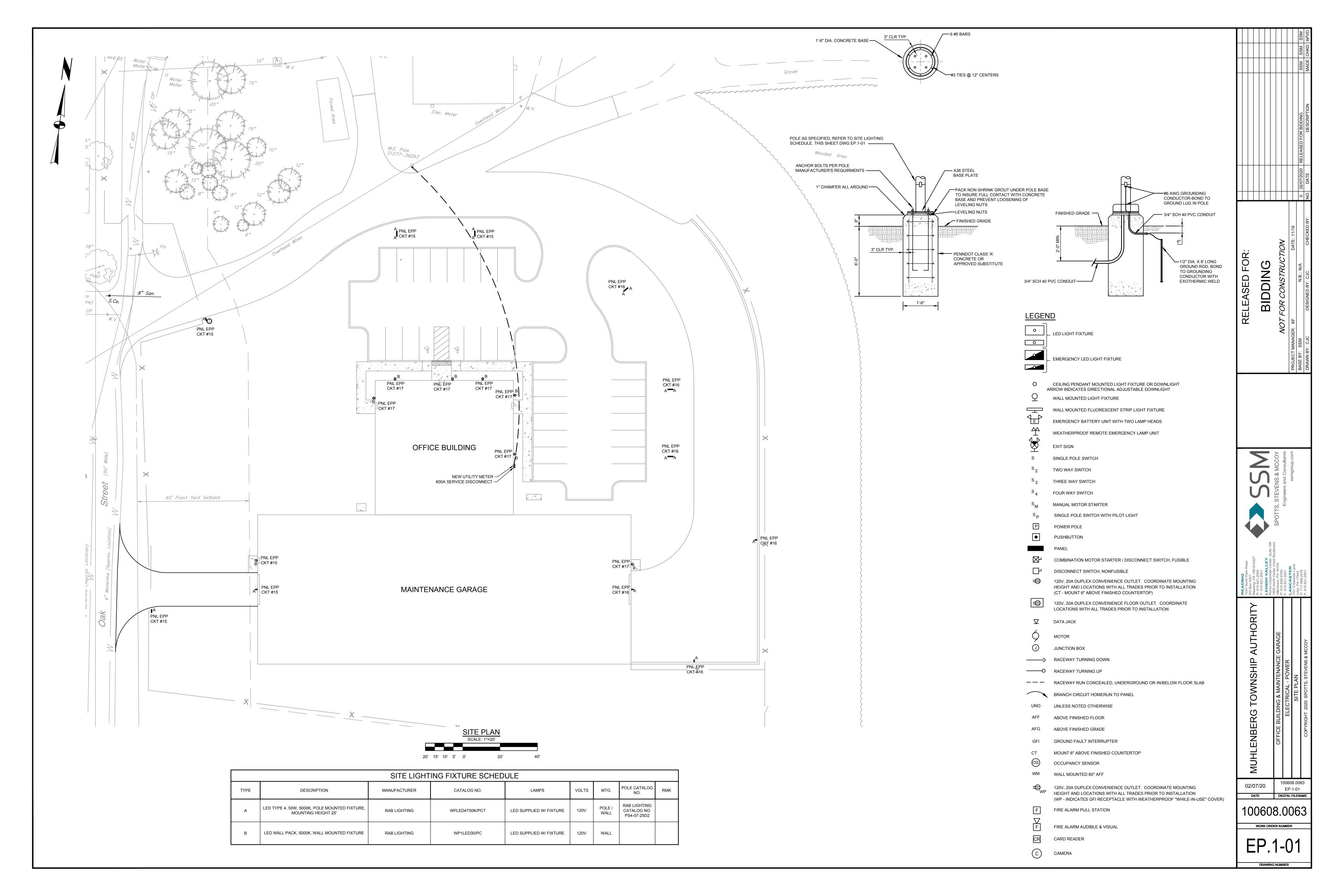
ORDINARY HAZARD: GARAGE AREA

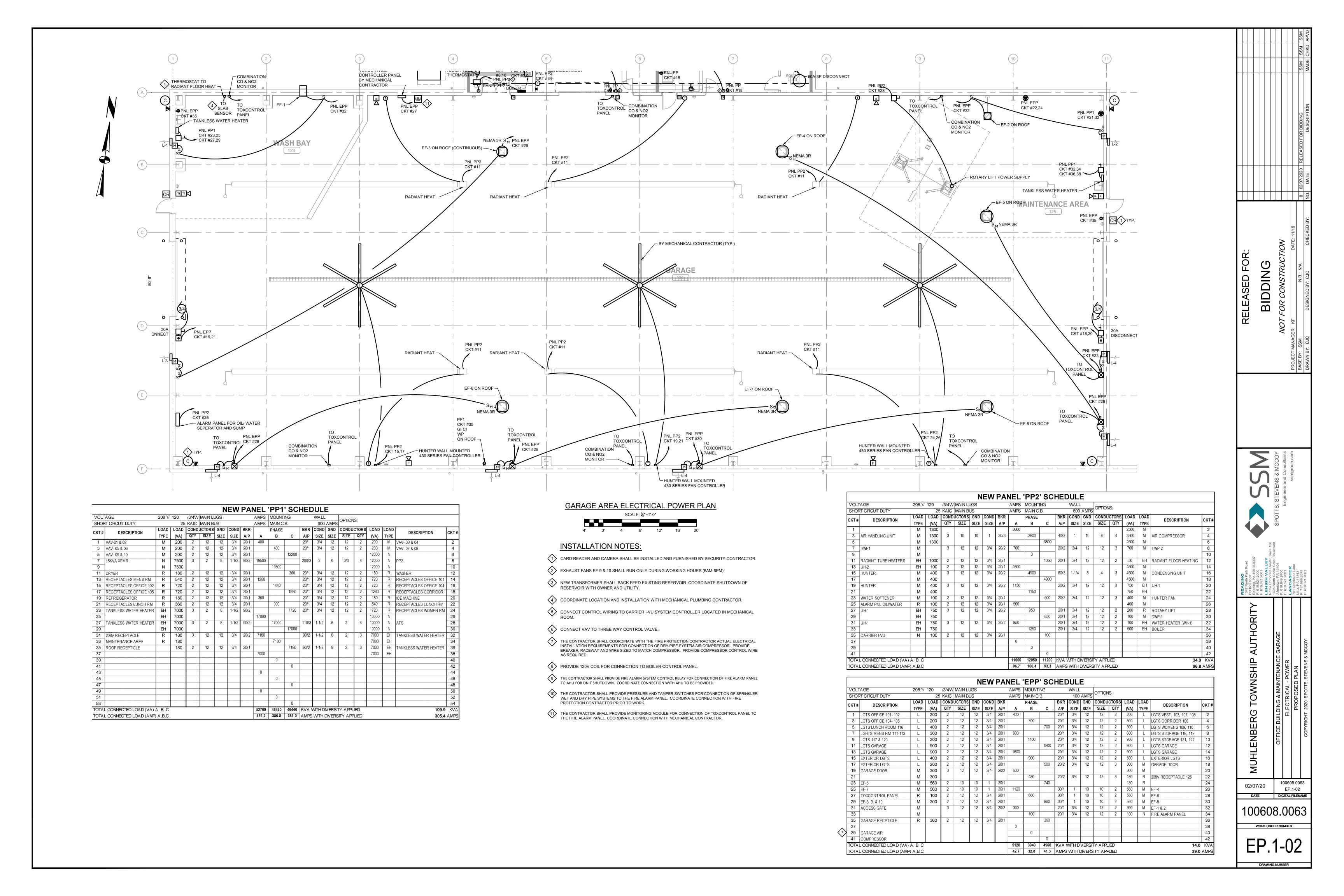
| FIR       | FIRE PROTECTION                  | WATER SUP                   | PLY INF         | ORMATI            | ON            |
|-----------|----------------------------------|-----------------------------|-----------------|-------------------|---------------|
| DATE      | ATE LOCATION OF RESIDUAL HYDRANT | LOCATION OF FLOW<br>HYDRANT | STATIC<br>(PSI) | RESIDUAL<br>(PSI) | FLOW<br>(GPM) |
| 1/14/2020 | R1 3450 OAK STREET               | 3761 OAK STREET             | 83              | 63                | 670           |
| 1/14/2020 | R2 SEFRANKA ROAD                 | 3701 OAR STREET             | 94              | 90                | 070           |

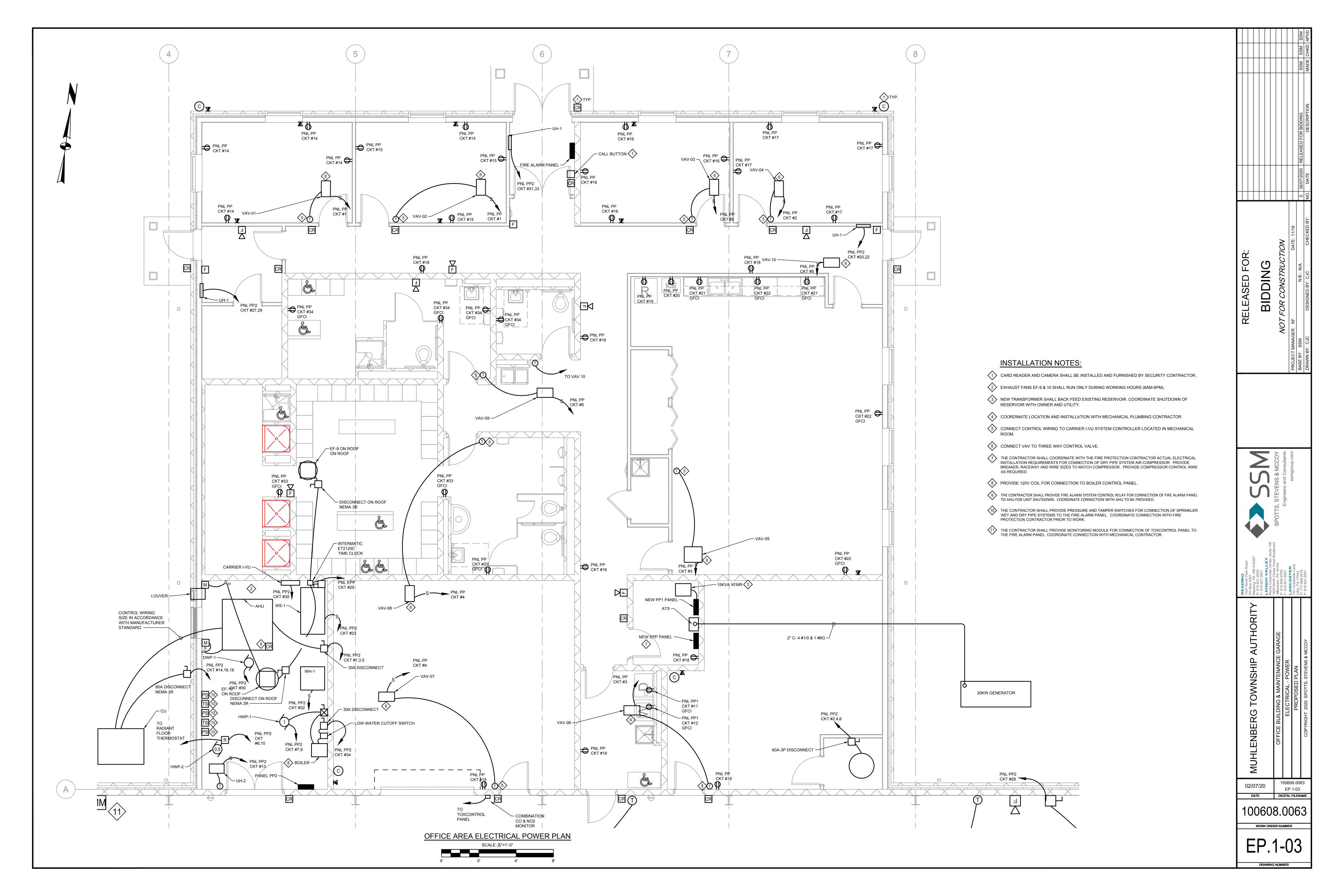
|                            | NC NC   | DATE: 11/19            | 0 02/07/2020 RELEASED FOR BIDDING | CHECKED BY: BHB NO. DATE               |
|----------------------------|---|------------------------|-----------------------------------|--|
| BIDDING                    | NOT FOR CONSTRUCTION                                  | PROJECT MANAGER: KF    | BASE BY: SSM N.B.: N/A            | DRAWN BY: AJW DESIGNED BY: AJW         |
|                            | 4   | LANCASTER SSmgroup.com | P: 717.568.2678                   | F: 610.621.2001                        |
| LENBERG TOWNSHIP AUTHORITY | OFFICE BUILDING & MAIN LENANCE GARAGE FIRE PROTECTION | PROPOSED PLAN          |                                   | COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY |
| MUHLENBER                  | OFFICE  |                        |                                   | COF                                    |

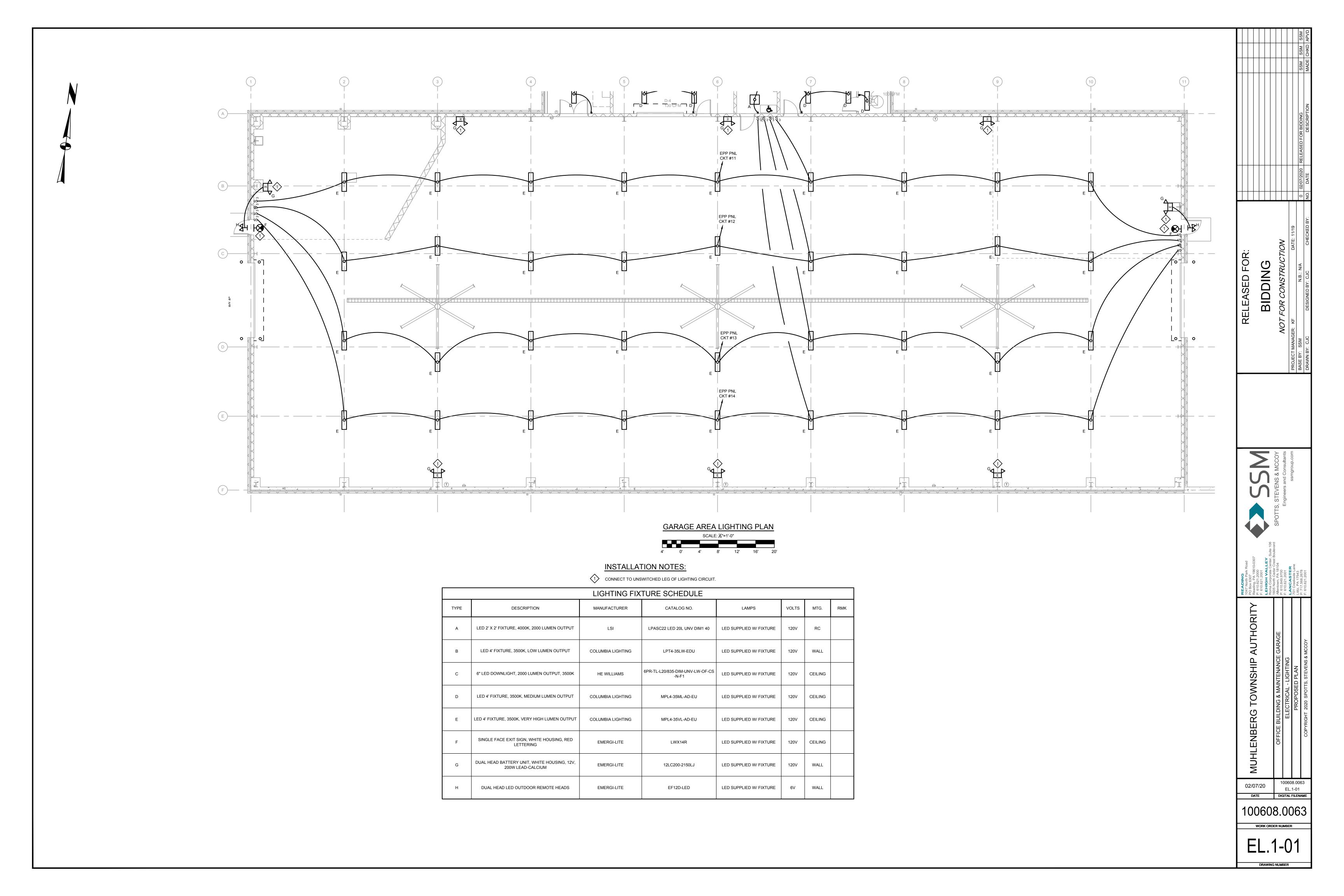
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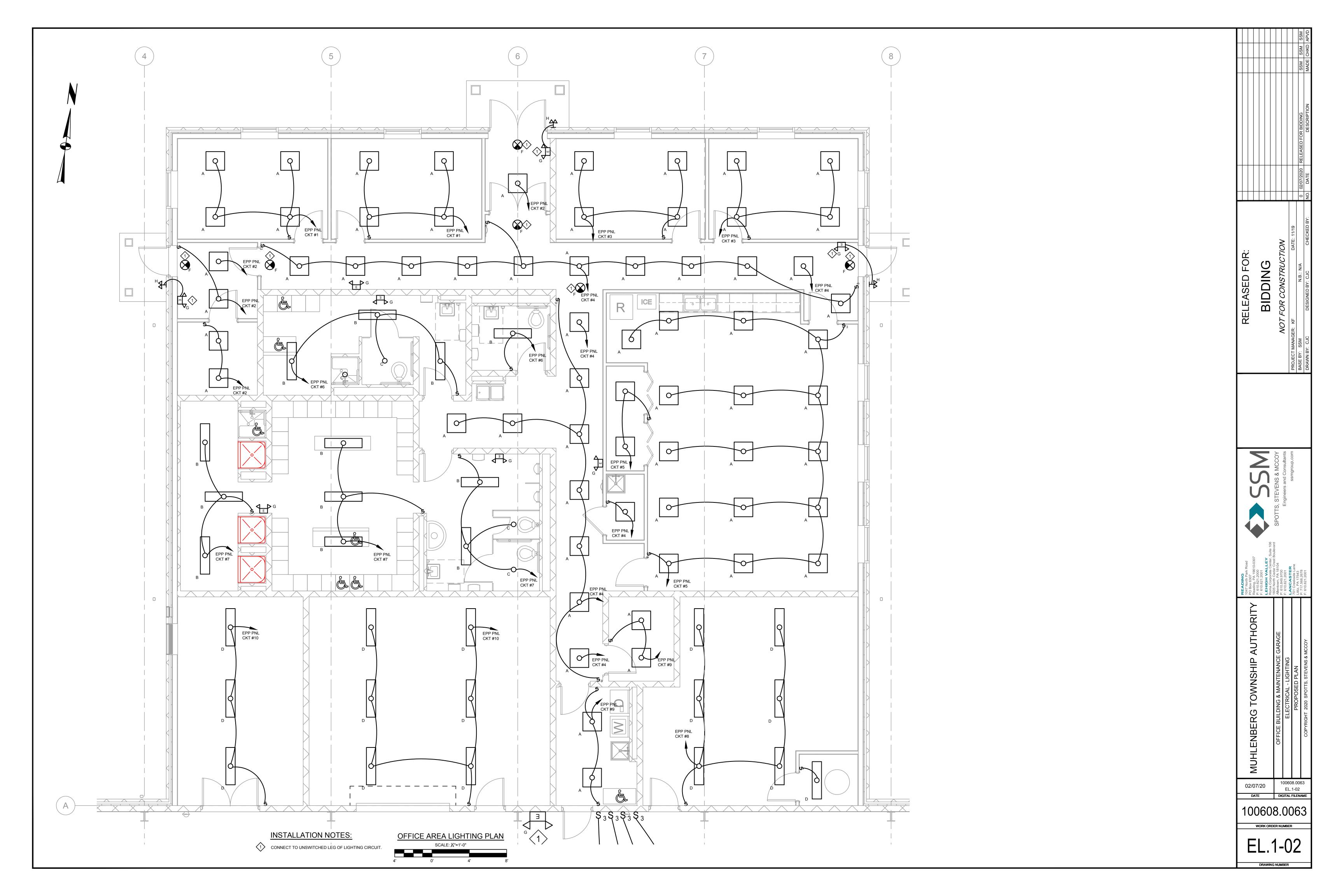


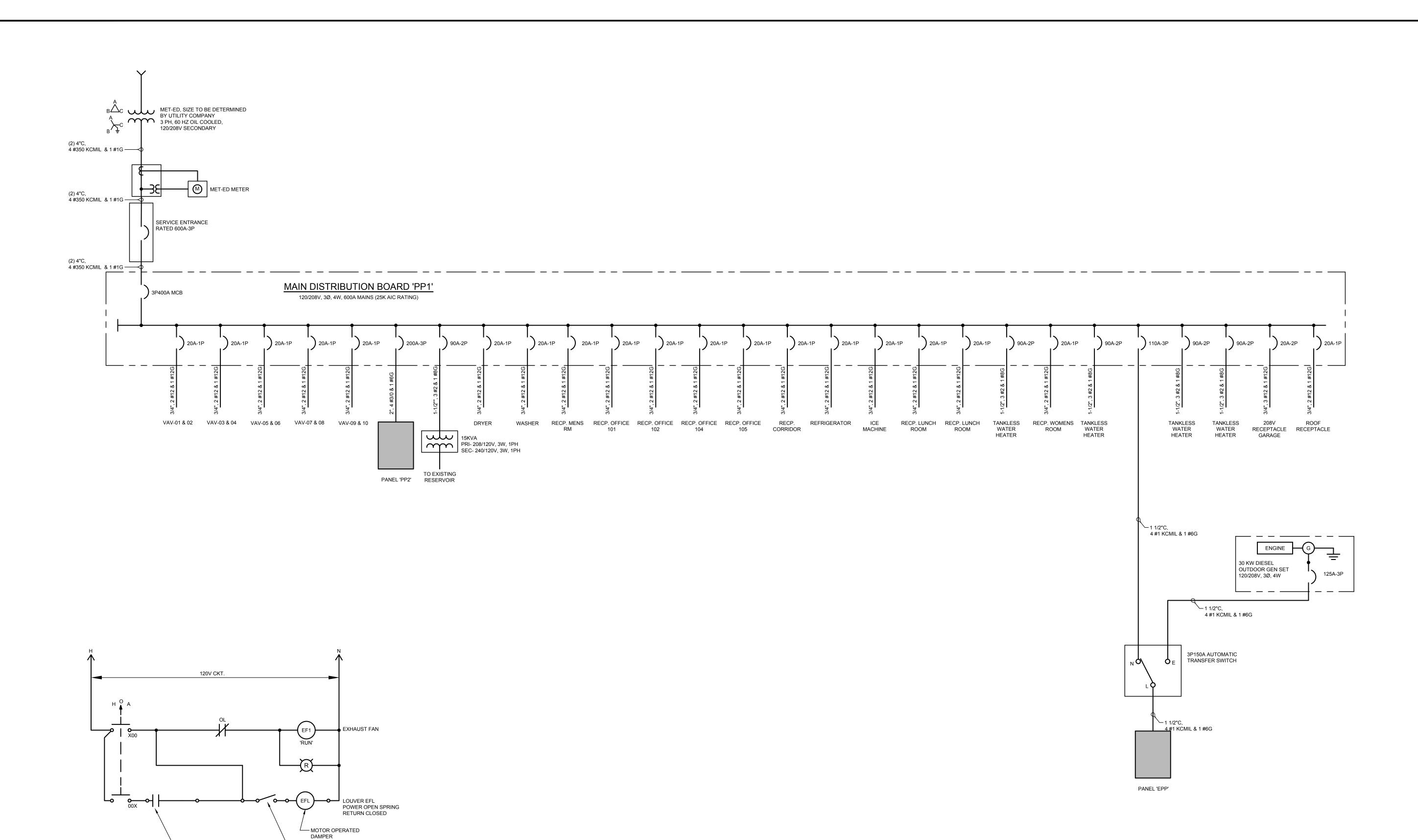












LOCATED IN TOXCONTROL PANEL

EXHAUST FAN- EF-4 THROUGH EF-8 CONTROL WIRING DIAGRAM

EF-4 DAMPER OPERATOR

DISCONNECT

| Copyriging   Copyrigity   Cop   | 1                                      | SSM                                   |  | 1  |  |     |                 |   |                                     |         |
|--|--|---------------------------------------|--|--|--|-----|-----------------|---|-------------------------------------|---------|
| Common Part  |  | RELEASED FOR BIDDING                  |  |  |  |     |                 |   |                                     |         |
| Common Park Road   Common Park   | NO. DATE                               | 0 02/01/2020                          |  |  |  |     |                 |   |                                     |         |
| MUHIENBERG TOWNSHIP AUTHORITY  Read By Control | CJC CHECKED BY:                        |                                       | DATE: 11/19                              | VO(1000100000000000000000000000000000000 | ] NOITOLIGITATONO a  |     |                 |   |                                     |         |
| HATTERBERG TOWNSHIP AUTHORITY  Reading 1047 North Park Road 1047 North P |  | BASE BY: SSM                          | PROJECT MANAGER: KF                      |  |  |     | <br>            |   |                                     | i<br>i  |
| 02/07/20 100608.0063<br>EP.1-02<br>DATE DIGITAL FILENAME<br>100608.0063  |  |                                       | roup.com                                 | nsultants                                | MCCOY  | ( ( | <u></u>         |   |                                     |         |
| 02/07/20 EP.1-02 DATE DIGITAL FILENAME  100608.0063  | F: 610.621.2001                        | Lititz, PA 17543<br>P P: 717.568.2678 | Φ  |  | SPO118   |     | F: 610.621.2001 | Reading, PA 19610-030/<br>P: 610.621.2000 | 1047 North Park Road<br>Po Dex 6307 | READING |
|  |  |                                       | LANCASTER 701 Creekside Lane             | F: 610.621,2001                          | Allentown, PA 18104 SPOL   SPO |     | F: 610.621.2001 |   | VTIGOUTILY GIUSIWINGT OGGGING       | READING |
| WORK ORDER NUMBER  | COPYRIGHT 2020 SPOTTS, STEVENS & MCCOY | 006                                   | LANCASTER  LANCASTER  701 Creekside Lane | п 99 ELECTRICAL - POWER                  | OFFICE BUILDING & MAINTENANCE GARAGE  Allentown, PA 18104 SPOL 13 P: 610.849,9700  |     |                 |   |                                     | READING |

# MUHLENBERG TOWNSHIP AUTHORITY

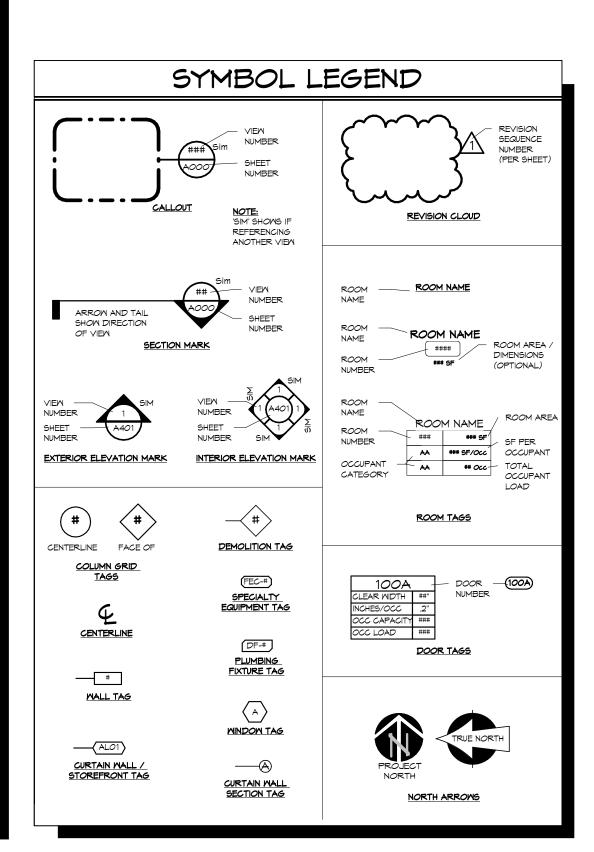
NOTE: ADDITIONAL ABBREVIATION LEGENDS IN SET AS APPLICABLE

# ARCHITECTURAL DATA SHEET

| ACT ACOUSTICAL CELING TILE  A/C  A/D  AMERICANS W/ DISABILITIES  A/C  ADD  ADDENDUM / ADDITIONIAL  ADD  ADDENDUM / ADDITIONAL  ADD  ADDESIVE  EXC  EXISTING TO REMAIN  OC  ON CENTER  OD  OUTSIDE DIAMETER  OD  OUTSIDE DIAMETER  TOM  TOP OF MASONRY  TOM  TOP OF MALL  TOM  TOP OF MASONRY  TOM  TOP OF MALL  TOM  TOP OF MALL  TOM  TOP OF MALL  TOM  TOP OF MASONRY  TOM  TOP OF FRAME  TOM  TOP OF MASONRY  TOM  TOP OF MALL  TOM  TOP OF MASONRY  TOM  TOP OF MALL  TOM  TOP OF MALL  TOM  TOM  TOM  TOP OF MALL  TOM  TOM  TOP OF MALL  TOM  TOM  TOP OF MALL  TOM  TOM  TOM  TOM  TOP OF MALL  TOM  TOM  TOM  TOM  TOM  TOM  TOM  T  | F   |              |  |            |                            |               |                                       |              |                        |
|--|-----|--------------|--|------------|----------------------------|---------------|---------------------------------------|--------------|------------------------|
| F / LE   |     |              | ٨٣   | FDC        | EVERIBER BOLVETVEENE       | <b>N</b> 1100 | NOT IN CONTRACT                       | TURECU       | TURECUOLE              |
| ASOVE ASOVE AS CALCULATIONS AS A CACCUTOR WAS A CACCUTOR OF A CACCUTOR O |     |              |  |            |                            |               |                                       |              |                        |
| ACOUSTINAL COUNTINAL ACT ACCUSTON CHARLES ACCU |     |              |  |            |                            |               | *                                     |              |                        |
| ACT ACCUSTACL CELING TLE  ACT ACCUSTACL CELING TLE  ACT ACCUSTACL CELING TLE  ACT ACCUSTACL CELING TO PROBLETS  AC |     | . — .        |  |            |                            |               | · · = · · · · · —                     |              |                        |
| ACO AR CONDITIONNO ETR ENTER COLER CO COLONATION TO PROMOTE TO PROMOTE TO PROMOTE TO COLOR TO COLONATION OF THE COLOR COLONATION OF THE COLOR COLONATION OF THE COLOR CO |     | ACOUST       | ACOUSTICAL   | ES         | EACH SIDE                  | NTS           | NOT TO SCALE                          | Т <i>О</i> В | TOP OF BEAM / BEARING  |
| ADD ADDROM / ADDROM SET  |     | ACT          | ACOUSTICAL CEILING TILE  | EST        | ESTIMATE(D)                | OA            | OVERALL                               | TOC          | TOP OF CONCRETE        |
| ADD ADDROM / ADDROM SET  |     | A/C          | AIR CONDITIONING   | ETR        | EXISTING TO REMAIN         | 00            |                                       | TOF          | TOP OF FRAME           |
| ACT  |     |              | – –  | l '        |                            |               |                                       |              |                        |
| ADD ACCENDED / ADDITIONAL ADD ACTION ACTION OF THE ACTION  |     |              |  |            |                            |               | • •                                   |              |                        |
| APPEANS APPEANS OF POTENTIAL PARTIES OF POTENTIAL P |     |              |  | · ·        |                            | 1             |                                       |              |                        |
| ADJ. ADJSTABLE / ADJACENT METHOD COR PROPERTY OF PLOOR PROPERTY OF PLOOP PROPERTY OF PLOOR PROPERTY OF |     |              |  |            |                            |               |                                       |              |                        |
| APP ABOVE TIME-ED FLOOR APP AND A RANDLIN BUTT TO A CONTROL THE PRED PRESENT SPEED S |     | ADH          |  | EXP        | EXPANSION                  | OH            |                                       | TPD          | TOILET PAPER DISPENSER |
| AND ARRICAL NO JUST AL AL ARRICAN STATUTE of PER PRES ENTROUSINES CASHETY OF PER PRES AND SAFE PRES  |     | ADJ          | ADJUSTABLE / ADJACENT  | EXT        | EXTERIOR                   | OPNG          | OPENING                               | TV           | TELEVISION             |
| AND ARRICAL NO JUST AL AL ARRICAN STATUTE of PER PRES ENTROUSINES CASHETY OF PER PRES AND SAFE PRES  |     | AFF          | ABOVE FINISHED FLOOR   | FD         | FLOOR DRAIN                | OPP           | OPPOSITE                              | TYP          | TYPICAL                |
| ALA  |     |              |  |            |                            |               | · · · · · · · · · · · · · · · · · · · |              |                        |
| ATT ATTENATE  ATT ATTENATE  AND AND MALE AND   |     |              |  |            |                            |               |                                       |              |                        |
| ALTERNATE ALM ALMINAM  |     | AIA          |  |            |                            | ·             | . —                                   |              |                        |
| ALLM   ALLMAN  |     |              |  | —          |                            | PERF          |                                       | UL           |                        |
| ANCHOR   ANCHORASE   FLS(S)   FLOOR(INC)     |     | ALT          | ALTERNATE  | FIN        | FINISH / FINISHED          | PERIM         | PERIMETER                             |              | LABORATORIES           |
| ANCHOR   ANCHORASE   FLS(S)   FLOOR(INC)     |     | ALUM         | ALUMINUM   | FL         | FLUSHED                    | PF            | PRE-FINISHED                          | UNEX         | UNEXCAVATED            |
| AND   AND   AND   AND   PER   FIRE RATED     |     | ANCH         | ANCHOR / ANCHORAGE   | FLR(G)     | FLOOR(ING)                 | PL            | PLATE                                 | UNO          | UNLESS NOTED           |
| APPROX   APPROXIMATE   ACCHITECT / ACCHITECTURAL   FET   FIELD STANDATION   PLANDATION   PLAND   |     |              |  |            |                            |               | PLASTIC, LAMINATE                     |              |                        |
| ARCH RECHIECT / RICHITECTURAL ATTO ATTENDO BLOCK B |     |              |  |            | · · · - · · · ·            | . —           |                                       | UTU          |                        |
| ATTENTION   FO   |     |              | ,  |            |                            |               |                                       |              |                        |
| AVE  |     |              |  |            |                            |               |                                       |              |                        |
| DO   |     | ATTN         | ATTENTION  | F <i>O</i> | FACE OF                    | PLMD          | PLYWOOD                               | VAPB         | VAPOR BARRIER          |
| BLOS   BLOS   BLOS   BLOCKING   FOW   FACE OF WALL   POB   POB   POST OF CARTED   VICT   VINT. COMPOSITION   VIDE   VID   |     | AVG          | AVERAGE  | FOB        | FURNISHED BY OTHERS        | PMF           | PRE-MOLDED FILLER                     | VAPR         | VAPOR RETARDER         |
| BLOS   BLOS   BLOS   BLOCKING   FOW   FACE OF WALL   POB   POB   POST OF CARTED   VICT   VINT. COMPOSITION   VIDE   VID   | - 1 | BD           | BOARD  | FOF        | FACE OF FINISH             | PNT(D)        | PAINT(ED)                             | VΒ           | VINYL BASE             |
| BLUGS  | - 1 |              |  |            |                            |               | ** * *                                |              | VINYL COMPOSITION TILE |
| BOD   BOTTOM OF DECK   FT  | - 1 |              |  |            |                            | '             |                                       |              |                        |
| BOD   BOTTOM OF DECK   FTG   FOOTNG   PSF   FOUNDS PERS SQUARE FOOR   NAME   SOURCE   PSF   FOUNDS PERS SQUARE FOOR   NAME   PSF   FOUNDS PERS SQUARE FOOR   NOW   PSF   PSF   FOUNDS PERS SQUARE FOOR   NAME   PSF   FOUNDS PERS SQUARE FOOR   NOW   PSF   PSF   FOUNDS PERS SQUARE FOOR   NAME   PSF   FOUNDS PERS SQUARE FOOR   NOW   NAME   PSF   FOUNDS PERS SQUARE FOOR     | - 1 |              |  |            |                            | – –           |                                       |              |                        |
| BOS  | - 1 |              |  |            |                            | ' '           | · · · · · · · · · · · · · · · · · · · |              |                        |
| BOM  | - 1 |              |  |            |                            |               |                                       |              |                        |
| BBMT   | - 1 | B05          | BOTTOM OF STEEL  | GA         | GAUGE                      | PSI           | POUNDS PER SQUARE INCH                | M            | WEST / WIDE            |
| BTYNN  |     | BOM          | BOTTOM OF WALL   | GALY       | GALVANIZED                 | PT            | PRESSURE TREATED                      | MB           | MOOD BASE              |
| BTYNN  |     | BSMT         | BASEMENT   | GWB        | GYPSUM WALL BOARD          | PVC           | POLY VINYL CHLORIDE                   | MC           | WATER CLOSET           |
| BUL   BULLETN   BR6   BEARING   CAP   CA   |     | · · ·        | _ · · · · - · · · ·  |            |                            | ' ' -         |                                       |              |                        |
| BILL   BILL   BILL   BILL   BILG   BRS   BARING   CAB   CABINET   CAB      |     |              |  |            |                            |               |                                       |              |                        |
| BBG  |     |              |  |            |                            |               |                                       |              |                        |
| CAB  |     |              |  |            |                            |               | •                                     |              |                        |
| CER CERMIC CI CONTINUIS INSULATION CIP CAST IN-PLACE CI CONTROL JOINT CIP CONTROL JOINT CIP CONTROL JOINT CIP CAST IN-PLACE CI CONTROL JOINT CIP CONTROL JOINT CONTROL CONTROL JOINT |     | BRG          | BEARING  |            | HIGH                       | RAD           |                                       |              | MITHOUT                |
| CI CONTINUOS INSULATION CIP CAST IN-PLACE CIJ CAST IN-PLACE CIJ CONTROL JOINT CLX CAULK CL CENTER LINE CLG CONCECT CON |     | CAB          | CABINET  | HC         | HANDICAPPED                | RB            | RUBBER BASE                           | MMF          | MELDED MIRE FABRIC     |
| CIP  |     | CER          | CERAMIC  | HCMD       | HOLLOW CORE MOOD DOOR      | RCP           | REFLECTED CEILING PLAN                | XPS          | EXPANDED POLYSTYRENE   |
| C.J.   CONTROL JOINT   |     | Cl           | CONTINUOUS INSULATION  | HGT        | HEIGHT                     | RD            | ROOF DRAIN                            | YR           | YEAR                   |
| C.J.   CONTROL JOINT   |     | CIP          | CAST IN-PLACE  | НМ         | HOLLOW METAL               | REC           | RECESSED                              |              |                        |
| CLK  |     | Ca l         | CONTROLLIOINT  | HORIZ      | HORIZONTAL                 | RFF           | REFRIGERATOR                          |              |                        |
| C.L  |     |              |  |            |                            | l · —·        |                                       |              |                        |
| CLG  |     |              |  |            |                            |               |                                       |              |                        |
| CLO CLOSET CR CLEAR CMU CONCRETE MASONRY UNIT COL COLUMN COMP COMPONENT(S) CONE CONSTRUCTION CONST CONSTRUCTION IN NOHES CONST CONSTRUCTION IN NOHES CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR IN NOHES CONTRACTOR IN NOHES CONTRACTOR IN NOHES SCHED SCHEDULE SCH |     |              |  |            |                            | 1             |                                       |              |                        |
| CAR CLEAR CMU CONCRETE MASONRY UNIT COL COLLIMN COMP COMPONENT(S) CONC CONCRETE C |     |              |  |            |                            |               |                                       |              |                        |
| CMU CONCRETE MASONRY UNIT COL COLUMN COMP COMPONENT(S) CONE CONSTRUCTION CONET CONSTRUCTION CONT CONTRUCTION CONT CONTRUCTION CONT CONTRUCTION CORR CONTRACTOR CONTRUCTION CORR CORRIDOR CORR CORRIDOR CORR CORRIDOR CORR CORRIDOR CORR CORRIDOR COTOR CONTRUCTION CORR CORRIDOR CORR CORRIDOR COTOR CONTRUCTION CORR CORRIDOR CORR CORRIDOR COTOR CONTRUCTION CORR CORRIDOR CORR |     |              |  | HVAC       |                            | . , ,         |                                       |              |                        |
| COL  |     |              |  |            |                            |               |                                       |              |                        |
| COMPONENT(G) CONST COMPONENT(G) CONST CONSTRUCTION CONST CONSTRUCTION CONTR CONTRACTOR CONTR CONTRACTOR CONTR CONTRACTOR CONTR CONTRACTOR CORD CORDINATE CORR CORRIGOR CO |     | CMU          | CONCRETE MASONRY UNIT  | IBC        | INTERNATIONAL BUILDING     |               | ROUGH OPENING                         |              |                        |
| CONC CONCRETE CONST CONSTRUCTION IN INCHES CONT CONTINUOUS CONT CONTINUOUS CONT CONTRACTOR CONTRACTOR CONTRACTOR CORRESPONTATE INSUL INCLUDICED/(ING) SEC SECRETARY SEC SECRETARY CORRESPONTATE INSUL INSULATIED / INSULATION SEC SECRETARY SEC SEC SECRETARY SEC SEC SECTARY SEC  |     | COL          | COLUMN   |            | CODE                       | RTU           | ROOF TOP UNIT                         |              |                        |
| CONST CONSTRUCTION CONT CONTINUOUS INC INCAPPORATED INC INCAPPORATED INC INCAPPORATED CONTR CONTRACTOR CONTR CONTRACTOR CORR CORRIDOR CORR CORRIDOR CT CORRIDOR CT CORRIDOR CT CERAMIC TILE JT JOINT D DRYER LAW(D) LAMINATED / SEC SECRETARY SEC SEC SECRETARY SEC SEC SECRETARY SEC SECRETARY SEC  |     | COMP         | COMPONENT(S)   | ID         | INSIDE DIAMETER / INTERIOR | RMC           | RAIN WATER CONDUCTOR                  |              |                        |
| CONT CONTINUOUS CONTRACTOR CONTRACTOR NOLL INCLIDIZED(INC) SEC SECRETARY CORR CORD CORDINATE CORR CORRIDOR NYT INTERIOR SP SQUARE FOOT(AGE) SEC SECTION SP SQUARE FOOT(AGE) SECT SECTION SP SUARE FOOT(AGE) SECT SECTION SP SQUARE FOOT(AGE) SECT SECTION SP SUARE FOOT(AGE) SECT SECTION SP SQUARE FOOT SP SOOT AGAINMENT SP SOOT AGAINMENT SP SOOT AGAINMENT SP SOOT AGAI |     | CONC         | CONCRETE   |            | DESIGN                     | 5             | SOUTH                                 |              |                        |
| CONT CONTINUOUS CONTRACTOR CONTRACTOR NOLL INCLIDIZED(INC) SEC SECRETARY CORR CORD CORDINATE CORR CORRIDOR NYT INTERIOR SP SQUARE FOOT(AGE) SEC SECTION SP SQUARE FOOT(AGE) SECT SECTION SP SUARE FOOT(AGE) SECT SECTION SP SQUARE FOOT(AGE) SECT SECTION SP SUARE FOOT(AGE) SECT SECTION SP SQUARE FOOT SP SOOT AGAINMENT SP SOOT AGAINMENT SP SOOT AGAINMENT SP SOOT AGAI |     | CONST        | CONSTRUCTION   | l in       | INCHES                     | SCHED         | SCHEDULE                              |              |                        |
| CONTR CONTRACTOR CORD COORDINATE NSUL NISULATED / INSULATION SF SQUARE FOOT(AGE) SF SQUARE |     | CONT         | CONTINUOUS   | INC        | INCORPORATED               | SCWD          | SOLID CORF WOOD DOOR                  |              |                        |
| CORD CORDINATE CORR CORRIDOR INT INTERIOR CTOP COUNTERTOP CT CERAMIC TILE CM CURTAIN MALL D D DRYGER DEMO DEMOLITION DIPPT DEPARTMENT DIA DIAMETER DIA DIAMETER DIA DIAMETER DIA DOWN DIAMETER DIA DOWN DIA DOWN DIAMETER DIA DOWN DI |     |              |  |            |                            |               |                                       |              |                        |
| CORR CORNIDOR CTOP COUNTERTOP COUNTERTOP CT CERAMIC TILE CM CURTAIN WALL D DRYGER DBL DOUBLE DEMO DEMOLITION LTD LIMITED DFPT DEPARTMENT DF DRINKING FOUNTAIN DIA DIAMETER DIM DIMERSION DMAND DISPENSER LVT LUXURY VINYL PLANK DIM DEMOLITO DN DOWN MATL MATERIAL D DOWN DSFENSER DIM DOWN D DISPENSER DIM DOWN D DOWN MATL MATERIAL D DOWN D DOWN MATL MARKER BOARD DT DOWNSPOUT DF DRAWING DETAIL DW DISPENSER DIM DISPENSER DIM DOWNSPOUT DF DOWNSPOUT DF DETAIL DW DISPENSER DIM DISPENSER DIM DIAMSHER DIM DISPENSER DIM DOWNSPOUT DF DOWNSPOUT DF DOWNSPOUT DF DOWNSPOUT DF DETAIL DW DISPENSER DIM DISPENSER DIM DISPENSER DIM DISPENSER DIM DISPENSER DIM DOWNSPOUT DF DOWNSPOUT DF DOWNSPOUT DF DOWNSPOUT DF DOWNSPOUT DF DETAIL DW DISPENSER DIM MECH MECHANICAL DW DISPENSER DIM MECH MECHANICAL DW DISPENSER DIM DETAIL DW DISPENSER DIM DETAIL DW DISPENSER DIM DETAIL DW DISPENSER DIM DETAIL DW DISPENSER DIM STANDARD DY STANDARD DY STANDED DY STANDE |     |              |  | · ·        |                            |               |                                       |              |                        |
| CTOP COUNTERTOP CT CERAMIC TILE CT CONTAIN VALL L LENGTH D DRYTER LAM(D) LAMINATE(D) SM SURFACE MOUNTED SM SURFACE SMANDE SPEC(S) SP | - 1 |              |  | 1          |                            |               |                                       |              |                        |
| CT CERAMIC TILE CAN CURTAIN WALL D DRYER LAM(D) LAMINATE(D) DBL DOUBLE LAV LAVATORY DEMO DEMOLITION LITD LIMITED DEMO DEMOLITION DEPT DEPARTMENT DF DRINKING FOUNTAIN DIA DIAMETER DIM DISPENSER DIM DIMENSION DN DOWN MATL MATERIAL DR DOWN DR DETAIL DW DISHNASHER DW DRAWING DR DOWN DW MECH MECHANICAL DW DISHNASHER DW DRAWING E E EAST MIN MINIMM STRUCT BE ASCH EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEMP TEMPORARY / TEMPERED   | - 1 |              |  |            |                            |               |                                       |              |                        |
| CM CURTAIN WALL D DRYER D DRYER D DOUBLE DEMO DEMOLITION DEPT DEPARTMENT DF DRINKING FOUNTAIN DIA DIA DIA DISPENSER DIM  |     | CTOP         | COUNTERTOP   |            | JANITOR'S CLOSET           |               |                                       |              |                        |
| CM CURTAIN WALL D DRYER D DRYER D DOUBLE DEMO DEMOLITION DEPT DEPARTMENT DF DRINKING FOUNTAIN DIA DIA DIA DISPENSER DIM  | - 1 | CT           | CERAMIC TILE   | TL         | TAIOL                      | SHTNG         | SHEATHING                             |              |                        |
| D PRYER DEL DOUBLE DEL DOUBLE DEMO DEMOLITION DEFT DEPARTMENT DF DEPARTMENT DF PRINCING FOUNTAIN DIA DIAMETER DIM DIMESION DIM DIMESION DN DOWN DN DW DISHWASHER DW DN DISHWASHER DN D   | - 1 | CM           | CURTAIN MALL   | L          | LENGTH                     | SIM           | SIMILAR                               |              |                        |
| DBL DOUBLE DEMO DEMOLITION DEPT DEPARTMENT DF DRINKING FOUNTAIN DIA DIAMETER DIA DI | - 1 |              |  | LAM(D)     |                            |               | · · · · · · · · · · · · · · · · · · · |              |                        |
| DEMO DEMOLITION LTD LIMITED DEPT DEPARTMENT DF DRINKING FOUNTAIN DIA DIAMETER LVT LUXURY VINYL PLANK DISP DISPENSER LVT LOVER DIM DIMENSION DIM DIMENSION DR DOWN MATL MATERIAL DS DOWNSPOUT DT DETAIL DW DISHWASHER DE E AST E E AST E A EACH EIFS EXTERIOR INSULATION & MISC ELEC ELECTRIC / ELECTRICAL MO MASONRY OPENING ELEC ELECTRIC / ELECTRICAL ELEVATION (VIEW) MTL METAL MTD MUTANLY METAL MTD MUSHARA MARIMAM SPEC(S) SPEC(FY / SPECIFICATION(S) STAINLESS STELL SCAULD TRANSMISSION COEFFICIENT  STO STUD STANDARD STANDA | - 1 |              |  | ,          |                            |               |                                       |              |                        |
| DEPT DEPARTMENT DF DRINKING FOUNTAIN DF DRINKING FOUNTAIN DIA DIAMETER DIA DIAMETER DISP DISPENSER LVR LOUVER DIM DIMENSION DN DOWN MATL MATERIAL DS DOWNSPOUT DT DETAIL DW DISHWASHER DW DISHWASHER DW DISHWASHER DW DISHWASHER DW DRAWING E E AST EAST EAST EAST EAST EAST EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS EIEC ELECTRIC / ELECTRICAL ELEV ELEVATION (HEIGHT) ELEV ELEVATION (HEIGHT) ELVR LVR LAMINARY VINYL PLANK SQ SQUARE SPT SPOUT SPOUT SQUARE SSP SOLID SURFACE SSF SOLID SURFACE STATALSMISSION COEFFICIENT STUD STANDARD STNUD STANDARD STNUD STANDARD STNUD STANDARD STNUD STANDARD STNUC STRUCT STRUCTURAL SUSP SUSPENDED SYS SYSTEM(S) T TREAD TO READ THE AGO OF TEMPORARY / TEMPERED   |     |              |  |            |                            |               |                                       |              |                        |
| DF DRINKING FOUNTAIN DIA DIAMETER DIA DIAMETER LVT LUXURY VINYL FLANK DISP DISPENSER DIM DIMENSION DIMENSION DOWN DOWN DOWN DOWN DS DOWNSPOUT DTL DETAIL DW DISHIVASHER DW DISHIVASHER DW DORAWING E EAST E AST E AST EN EXTERIOR INSULATION & MISC MISCELLANEOUS E FINISH SYSTEM ELEC ELECTRIC / ELECTRICAL E ELEVATION (HEIGHT) E ELEV ELEVATION (VIEW) E LEVATOR  DIAMETER LVY LUXURY VINYL PLANK DSQ SQUARE DSG STAINLESS STEEL DSG STAINLESS STEEL DSG STAINLESS STEEL DSG STANAGE ST/STOR STORAGE ST/STOR SOUND TRANSMISSION COEFFICIENT DST STUD DTL DETAIL DD STANDARD STN(D) STANDARD STN(D) STANCED) STN(D) STANCED) STN(D) STANCED) STN(D) STANCED) SUSP SUSPENDED T TREAD TO BE DETERMINED TELL TELEPHONE TEMP TEMPORARY / TEMPERED  | - 1 |              |  |            |                            |               |                                       |              |                        |
| DIA DIAMETER DISP DISPENSER LVR LOUVER DIM DIMENSION DIM DOWN DOWN DR DOOR DS DOWNSPOUT DTL DETAIL DW DISHWASHER DW DISHWASHER DW DOR DWG DRAWING EA EACH EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS EILEC ELECTRIC / ELECTRICAL ELEV ELEVATION (VIEW) ELEV ELEVATION (VIEW) ELEVE ELEVATION (VIEW) DISPENSIOR LVR LOUVER DANNING MANUF LOUVER DANNING MANUF LOUVER DWG DISHWASHER DISPENSIOR DWG DRAWING EVER DANNING EXTERIOR INSULATION & MISC MISCELLANEOUS ELEC ELECTRIC / ELECTRICAL ELEV ELEVATION (VIEW) MTL METAL  EVER DANNING MANUF MANUFACTURER STATILESS STEEL SSF SOLID SURFACE ST/SOF STORAGE STORAGE ST/SOF STORAGE STORAGE STORAGE STORAGE STORAGE STORAGE STORAGE STO |     |              |  |            |                            |               |                                       |              |                        |
| DISP DISPENSER DIM DIMENSION MANUF MANUFACTURER ST/STOR STORAGE DN DOWN DOWN MATL MATERIAL DS SOUND TRANSMISSION COEFFICIENT DS DOWNSPOUT MB MARKER BOARD DTL DETAIL DTL DETAIL MDF MEDIUM DENSITY FIBERBOARD STN(D) STANDARD DW DISHWASHER DWG DRAWING E E EAST EACH EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM MLDG MOULDING ELEC ELECTRIC / ELECTRICAL ELEV ELEVATION (HEIGHT) MR MISTANDER MIN MIND MRE MOSTURE RESISTANT MIN MOSTURE RESISTANT TELE TEMP TEMPORARY / TEMPERED  |     | DF           | DRINKING FOUNTAIN  | LVP        | LUXURY VINYL PLANK         | 5Q            | SQUARE                                |              |                        |
| DIM DIMENSION MANUF MANUFACTURER ST/STOR STORAGE DN DOWN MATL MATERIAL STC SOUND TRANSMISSION DR DOOR MAX MAXIMIM COEFFICIENT DS DOWNSPOUT MB MARKER BOARD STD STIND DTL DETAIL MDF MEDIM DENSITY STND STANDARD DW DISHWASHER FIBERBOARD STN(D) STANCED) DWG DRAWING MECH MECHANICAL STL STELL E EAST MIN MINIMM STRUCT STRUCTURAL EA EACH MIR MIRROR(ED) SUSP SUSPENDED EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS SYS SYSTEM(S) FINISH SYSTEM MLDG MOULDING T TREAD  ELEC ELECTRIC / ELECTRICAL MO MASONRY OPENING ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE ELVR ELEVATOR MTL METAL  STO SOUND TRANSMISSION COEFFICIENT STND STANDARD STN(D) STANDARD STN(D) STANDARD STN(D) STANDED STRUCT STRUCTURAL SUSP SUSPENDED TO SUSP SUSPENDED TO TREAD TO READ TO READ TO SECOND TRANSMISSION COEFFICIENT TO SOUND TRANSMISSION COEFFICIENT STVC SOUND TRANSMISSION COEFFICIENT STND STANDARD STN(D) STANDARD STN(D) STANDED STRUCT STRUCTURAL SUSP SUSPENDED TO SUSPENDED TO BE DETERMINED THE TELEPHONE TEMPORARY / TEM |     | DIA          | DIAMETER   | LVT        | LUXURY VINYL TILE          | 55            | STAINLESS STEEL                       |              |                        |
| DN DOWN DR DOOR MAX MAXIMM DS DOWNSPOUT MB MARKER BOARD DTL DETAIL DW DISHWASHER DW DISHWASHER DW DRAWING E E EAST MIN MINIMM STRUCT EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM MIDG MASONRY OPENING ELEC ELECTRIC / ELECTRICAL E ELEVATION (VIEW) ELEV ELEVATION (VIEW) ELEV ELEVATOR  MAX MAXIMM MAXIMM COEFFICIENT  STO SOUND TRANSMISSION COEFFICIENT STD STUD STANDARD STN(D) STAIN(ED) STAIN(ED) STN(D) STAIN(ED) STAIN(ED) STRUCT STRUCTURAL STRUCT STRUCTURAL SUSP SUSPENDED T TREAD T TREAD T TREAD T TREAD TO BE DETERMINED ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE TEMP TEMPORARY / TEMPERED   |     | DISP         | DISPENSER  | LVR        | LOUVER                     | SSF           | SOLID SURFACE                         |              |                        |
| DN DOWN DR DOOR MAX MAXIMM DS DOWNSPOUT MB MARKER BOARD DTL DETAIL DW DISHWASHER DW DISHWASHER DW DRAWING E E EAST MIN MINIMM STRUCT EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM MIDG MASONRY OPENING ELEC ELECTRIC / ELECTRICAL E ELEVATION (VIEW) ELEV ELEVATION (VIEW) ELEV ELEVATOR  MAX MAXIMM MAXIMM COEFFICIENT  STO SOUND TRANSMISSION COEFFICIENT STD STUD STANDARD STN(D) STAIN(ED) STAIN(ED) STN(D) STAIN(ED) STAIN(ED) STRUCT STRUCTURAL STRUCT STRUCTURAL SUSP SUSPENDED T TREAD T TREAD T TREAD T TREAD TO BE DETERMINED ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE TEMP TEMPORARY / TEMPERED   |     | DIM          | DIMENSION  | MANUE      | MANUFACTURER               | ST/STOR       | STORAGE                               |              |                        |
| DR DOOR DS DOWNSPOUT DTL DETAIL DW DISHWASHER DW DRAWING E E EAST EACH EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM ELEC ELECTRICAL ELEVATION (VIEW) ELEV ELEVATION (VIEW) MAX MAXIMUM MB MARKER BOARD STD STUD STND STANDARD STND STANDARD STN(D) STAIN(ED) STN(D) STAIN(ED) STN(D) STAIN(ED) STRUCT STRUCTURAL STRUCT STRUCTURAL SUSP SUSPENDED SUSP SUSPENDED T TREAD TO READ TO RECOVE THE DOWNSTORY OPENING T TREAD TO BE DETERMINED ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE TEMP TEMPORARY / TEMPERED   |     |              |  |            |                            |               | •                                     |              |                        |
| DS DOWNSPOUT MB MARKER BOARD STUD  DTL DETAIL MDF MEDIUM DENSITY STND STANDARD  DW DISHWASHER FIBERBOARD STN(D) STAIN(ED)  DWG DRAWING MECH MECHANICAL STL STEEL  E EAST MIN MINIMUM STRUCTURAL  EA EACH MIR MIRROR(ED) SUSP SUSPENDED  EIFS EXTERIOR INSULATION & MISC MOULDING SYS SYSTEM(S)  FINISH SYSTEM MOULDING TO TREAD  ELEC ELECTRIC / ELECTRICAL MO MASONRY OPENING  ELE ELEVATION (HEIGHT) MNTD MOUNT(ED) TO BE DETERMINED  ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE  ELVR ELEVATOR MTL METAL TEMP TEMPORARY / TEMPERED   |     |              |  |            |                            | 5,0           |                                       |              |                        |
| DTL DETAIL DW DISHWASHER STND STANDARD STN(D) STAIN(ED) STL STEEL STL STEEL STRUCT STRUCTURAL STRUCT STRUCTURAL SUSP SUSPENDED SUSP SUSPENDED SUSP SUSPENDED SYS SYSTEM(S) T TREAD ELEC ELECTRIC / ELECTRICAL MO MASONRY OPENING ELE ELECTRIC / ELECTRICAL MO MASONRY OPENING ELEVATION (HEIGHT) ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT ELVR ELEVATOR MTL METAL  STND STANDARD STAN | - 1 |              |  |            |                            | GT-           |                                       |              |                        |
| DW DISHWASHER DWG DRAWING E E EAST E E EAST E E EACH EIFS EXTERIOR INSULATION & MICH MICHANICAL ELEC ELECTRIC / ELECTRICAL ELEC ELEVATION (HEIGHT) ELEV ELEVATION (VIEW) ELVR ELEVATIOR  FIBERBOARD STN(D) STAIN(ED) STRUCT STRUCTURAL STRUCT STRUCTURAL SUSP SUSPENDED SUSP SUSPENDED SYS SYSTEM(S) T TREAD TO BE DETERMINED TO BE DETERMINED TO BE DETERMINED TELL TELEPHONE TELL TELEPHONE TELL TELEPHONE TEMP TEMPORARY / TEMPERED   | - 1 |              |  |            |                            |               | 1                                     |              |                        |
| DMG DRAWING E EAST MIN MINIMUM STRUCT STRUCTURAL SUSP SUSPENDED SUSP SYSTEM(S) FINISH SYSTEM MLDG MOULDING ELEC ELECTRIC / ELECTRICAL EL ELEVATION (HEIGHT) ELEV ELEVATOR  MECH MECHANICAL MIN MINIMUM STRUCT STRUCTURAL SUSP SUSPENDED SYS SYSTEM(S) T TREAD TO BE DETERMINED TO BE DETERMINED TO BE DETERMINED TELL TELEPHONE TELL TELEPHONE TELL TEMPORARY / TEMPERED   | - 1 |              |  | MUH        |                            |               |                                       |              |                        |
| E EAST MIN MINIMUM STRUCT STRUCTURAL EA EACH MIR MIRROR(ED) SUSP SUSPENDED EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS SYS SYSTEM(5) FINISH SYSTEM MLDG MOULDING T TREAD ELEC ELECTRIC / ELECTRICAL MO MASONRY OPENING T&G TONGUE & GROOVE EL ELEVATION (HEIGHT) MNTD MOUNT(ED) TBD TO BE DETERMINED ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE ELVR ELEVATOR MTL METAL TEMPORARY / TEMPERED  | - 1 |              |  |            |                            | , , ,         |                                       |              |                        |
| EA EACH EIFS EXTERIOR INSULATION & MIR MIRROR(ED) FINISH SYSTEM ELEC ELECTRIC / ELECTRICAL EL ELEVATION (HEIGHT) ELEV ELEVATOR  MIR MIRROR(ED) MISC MISCELLANEOUS MISCELLANEOUS MISCELLANEOUS MISCELLANEOUS MISC MISCELLANEOUS MISCELLANE | - 1 | DMG          | DRAMING  | MECH       | MECHANICAL                 | STL           | STEEL                                 |              |                        |
| EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM MLDG MOULDING  ELEC ELECTRIC / ELECTRICAL ELE ELEVATION (HEIGHT) ELEV ELEVATION (VIEW) ELVR ELEVATOR  MISC MISCELLANEOUS MUDG MOULDING  MO MASONRY OPENING MASONRY OPENING MOUNT(ED)  MOUNT(ED)  MOUNT(ED)  MR MOISTURE RESISTANT TEL TELEPHONE TEMP TEMPORARY / TEMPERED  | - 1 | E            | EAST   | MIN        | MINIMUM                    | STRUCT        | STRUCTURAL                            |              |                        |
| EIFS EXTERIOR INSULATION & MISC MISCELLANEOUS FINISH SYSTEM MLDG MOULDING  ELEC ELECTRIC / ELECTRICAL ELE ELEVATION (HEIGHT) ELEV ELEVATION (VIEW) ELVR ELEVATOR  MISC MISCELLANEOUS MUDG MOULDING  MO MASONRY OPENING MASONRY OPENING MOUNT(ED)  MOUNT(ED)  MOUNT(ED)  MR MOISTURE RESISTANT TEL TELEPHONE TEMP TEMPORARY / TEMPERED  | - 1 | EA           | EACH   | MIR        | MIRROR(ED)                 | SUSP          | SUSPENDED                             |              |                        |
| FINISH SYSTEM  ELEC ELECTRIC / ELECTRICAL  MO MASONRY OPENING  EL ELEVATION (HEIGHT)  ELEV ELEVATION (VIEW)  ELVR ELEVATOR  MLDG MOULDING  MASONRY OPENING  MO MASONRY OPENING  MOUNT(ED)  MOUNT(ED)  MR MOISTURE RESISTANT  TEL TELEPHONE  TEMP TEMPORARY / TEMPERED  | - 1 |              |  |            | ** * *                     |               |                                       |              |                        |
| ELEC ELECTRIC / ELECTRICAL MO MASONRY OPENING T&G TONGUE & GROOVE EL ELEVATION (HEIGHT) MOUNT(ED) TO BE DETERMINED ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE ELVR ELEVATOR MTL METAL TEMPORARY / TEMPERED  | - 1 | <del>_</del> |  |            |                            |               |                                       |              |                        |
| EL ELEVATION (HEIGHT) MNTD MOUNT(ED) TBD TO BE DETERMINED  ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE  ELVR ELEVATOR MTL METAL TEMPORARY / TEMPERED   | - 1 | EL EC        |  |            |                            |               |                                       |              |                        |
| ELEV ELEVATION (VIEW) MR MOISTURE RESISTANT TEL TELEPHONE ELVR ELEVATOR MTL METAL TEMPORARY / TEMPERED   | - 1 |              |  |            |                            |               |                                       |              |                        |
| ELVR ELEVATOR MTL METAL TEMPORARY / TEMPERED   | - 1 |              | the state of the s |            | ** * *                     | 1             |                                       |              |                        |
|  | - 1 |              |  |            |                            |               |                                       |              |                        |
| ENG ENGINEER N NORTH THK THICK   | - 1 |              |  |            |                            |               |                                       |              |                        |
|  | - 1 | ENG          | ENGINEER   | N          | NORTH                      | THK           | THICK                                 |              |                        |

ABBREVIATIONS

NOTE: ABBREVIATIONS MAY OR MAY NOT SHOW PERIODS



# GENERAL CONSTRUCTION NOTES

I. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND │ 7. CONTRACTOR SHALL COORDINATE ALL

2. CONTRACTOR SHALL COMPLY WITH AND PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE LAWS, STATUTES, ORDINANCES, LAWFUL ORDERS AND REGULATIONS. IF THE CONTRACTOR RECOGNIZES THAT PORTIONS OF THE CONTRACT DOCUMENTS DO NOT CONFORM WITH APPLICABLE STANDARDS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT, THE CONSTRUCTION MANAGER (IF APPLICABLE) AND THE OWNER, IN WRITING, BEFORE PROCEEDING WITH THE WORK.

EXISTING CONDITIONS PRIOR TO START OF WORK.

3. ALL INFORMATION CONTAINED IN THE SPECIFICATIONS IS PART OF THE CONTRACT DOCUMENTS. ANY DISCREPANCIES BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT, IN WRITING, PRIOR TO COMMENCING WORK. UNLESS NOTED OTHERWISE, THE MORE STRINGENT/HIGHER QUALITY/MORE EXPENSIVE CONDITION WILL APPLY.

4. THE CONTRACTOR SHALL NOT SCALE DRAWINGS.
DIMENSIONS ARE LABELED ON DRAWINGS. IN THE
EVENT OF OMISSION OR DISCREPANCY OF
NECESSARY DIMENSIONS OR INFORMATION, NOTIFY
THE ARCHITECT IN WRITING.

5. EACH CONTRACTOR SHALL COORDINATE ITS WORK WITH OTHER TRADES. EACH CONTRACTOR WHO FAILS TO COORDINATE ITS WORK WITH OTHER TRADES SHALL BEAR ALL COSTS OF EACH TRADE TO REMEDY THE RELATED CONDITION, INCLUDING DISCONNECTION, REMOVAL, PATCHING, AND REINSTALLATION OF AFFECTED ELEMENTS.

6. EACH CONTRACTOR SHALL PROTECT ALL ADJACENT CONSTRUCTION AND SYSTEMS FROM DAMAGE BY ITS WORK. EACH CONTRACTOR WHO FAILS TO SUFFICIENTLY PROTECT ADJACENT CONSTRUCTION SHALL BEAR ALL COSTS OF REPAIR OR REPLACEMENT OF ADJACENT CONSTRUCTION OR SYSTEMS. DAMAGE TO ELEMENTS TO REMAIN SHALL BE PATCHED AND REPAIRED.

INSPECTIONS AND TESTING WITH OWNER'S INDEPENDENT TESTING AGENCY AND LOCAL CODE OFFICIALS.

8. PLAN DIMENSIONS ARE TO FACE OF STUD, FACE OF MASONRY OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE.

9. ALL DIMENSIONS LISTED AS 'CLEAR', 'HOLD', 'MIN'

OR 'MAX' ARE ABSOLUTE AND NOT SUBJECT TO CONSTRUCTION TOLERANCES.

10. EXISTING CONSTRUCTION IS SHOWN FOR REFERENCE ONLY AND IS ASSUMED. FOR ANY EXISTING CONSTRUCTION AFFECTED BY NEW WORK, INCLUDING DEMOLITION, VERIFY IN FIELD.

11. CIVIL, STRUCTURAL, ELECTRICAL, PLUMBING, HVAC AND FOOD SERVICE INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS ARE FOR REFERENCE ONLY. REFER TO EACH DISCIPLINE'S DRAWINGS FOR SPECIFIC INFORMATION.

12. FOR ALL INSTALLED EQUIPMENT, PLUMBING FIXTURES, DOORS, WINDOWS, ETC., VERIFY ALL ROUGH OPENING DIMENSIONS WITH MANUFACTURER'S

INSTALLATION INSTRUCTIONS.

13. PROVIDE CONCEALED, IN-WALL BLOCKING, SUFFICIENT TO SUPPORT ALL CASEWORK, PLUMBING FIXTURES, TOILET ACCESSORIES, SPECIALTY EQUIPMENT AND MISCELLANEOUS ITEMS.

14. ALL CODE REQUIRED SIGNAGE SHALL BE INCLUDED IN CONTRACT. QUANTITY, TYPE AND LOCATIONS TO BE APPROVED BY CODE OFFICIAL.

15. EACH CONTRACTOR SHALL PREPARE ALL SUBSTRATES AS REQUIRED FOR INSTALLATION OF THEIR PORTION OF WORK.

Issue Date: 02/07/20

AOOO

SH JOB NO. 19-080

SIGNAGE NOTES:

& ICC A117.1 - 2009 CHAPTER 7

PROVIDE SIGNAGE AS REQUIRED BY IBC 2009

TYP. SIGNAGE DETAIL

MEN

MOMEN

RESTROOM

1. UNIVERSAL "WHEELCHAIR" SYMBOLS ON PAINTED ALUMINUM

AS PER IBC TABLE 2902.1

NOTE: ALL REQUIRED QUANTITIES ROUND UP

**OFFICE**101 172 5F

TO FE

**OFFICE**102 173 SF

 GARAGE

 124
 13549 SF

 ST
 46 Occ

"NOT AN EXIT" -

68' TO FE

SIGNAGE ON DOOR

106

2. CHARACTERS AND BACKGROUND SHALL HAVE EGGSHELL, MATTE, OR OTHER NON-GLARE FINISH 3. CHARACTERS AND BACKGROUND SHALL CONTRAST, EITHER LIGHT CHARACTERS ON DARK BACKGROUND OR DARK CHARACTERS ON LIGHT BACKGROUND

4. PROVIDE BRAILLE AND RAISED LETTERING 5. PERMANENT IDENTIFICATION PROVIDED FOR ROOMS AND SPACES SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR 11 ta

6. WHERE THERE IS NO WALL SPACE TO LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE-LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL 7. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3' OF SIGNAGE

MITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR

-----

9" - ALSO REFER

TO ANSI TABLE

103.1.11

FINISHED FLOOR

VEST. /

UNIFORM

## PLUMBING FIXTURE CALCULATIONS

SHIM AS REQD.

RECESSED FIRE EXTINGUISHER

SHIM AS REQD.

EXTINGUISHER AND CABINET

**P** 

CABINET

REFER TO FLOOR -PLAN & DATA SHEET

FOR WALL TYPE(S)

TYP. NON-RATED FIRE

DETAIL & FE MOUNT HGT

| OCCUPANCY                                | MATER (   | CLOSETS   | LAVAT   | ORIES            | BATHTUBS / | DRINKING                 | SERVICE SINKS/ |
|--|---|---|---|------------------|------------|--------------------------|----------------|
| TYPE                                     | MALE  | FEMALE  | MALE  | FEMALE           | SHOMERS    | FOUNTAINS                | KITCHEN SINKS  |
| B - 67<br>OCCUPANTS<br>(# 33.5 / # 33.5) | 1 PER 25 FOR THE FIRST<br>50 AND 1 PER 50 FOR<br>THE REMAINDER<br>EXCEEDING 50 = 1.34 | 1 PER 25 FOR THE<br>FIRST 50 AND 1 PER 50<br>FOR THE REMAINDER<br>EXCEEDING 50 = 1.34 | 1 PER 40 FOR THE FIRST<br>80 AND 1 PER 80 FOR THE<br>REMAINDER EXCEEDING 80<br>= 0.84 |                  | N/A        | 1 PER 100<br>= 0.67      |                |
| S - 61<br>OCCUPANTS<br>(30.5 M / 30.5 F) | 1 PER 100 = 0.31  | 1 PER 100 = 0.31  | 1 PER 100 = 0.31  | 1 PER 100 = 0.31 | N/A        | 1 PER<br>1,000 =<br>0.06 |                |
|  |   |   |   |                  |            |                          |                |

**OFFICE**105 171 SF

| (# 33.5 / # 33.5)                        | THE REMAINDER<br>EXCEEDING 50 = 1.34 | EXCEEDING 50 = 1.34  | REMAINDER EXCEEDING 80<br>= 0.84 | = 0.84               |                                   |                          |                   |
|--|--------------------------------------|----------------------|----------------------------------|----------------------|-----------------------------------|--------------------------|-------------------|
| 5 - 61<br>OCCUPANTS<br>(30.5 M / 30.5 F) | 1 PER 100 = 0.31                     | 1 PER 100 = 0.31     | 1 PER 100 = 0.31                 | 1 PER 100 = 0.31     | N/A                               | 1 PER<br>1,000 =<br>0.06 |                   |
|  |                                      |                      |                                  |                      |                                   |                          |                   |
| TOTAL<br>REQUIRED<br>FIXTURES            | 1.65 (ROUND UP TO 2)                 | 1.65 (ROUND UP TO 2) | 1.15 (ROUND UP TO 2)             | 1.15 (ROUND UP TO 2) | 0                                 | 0.74 (ROUND<br>UP TO 1)  | 1 SERVICE<br>SINK |
| TOTAL<br>PROVIDED<br>FIXTURES            | 4                                    | 2                    | 2                                | 2                    | 4 MALE SHOWERS<br>1 FEMALE SHOWER | 1 HIGH/LOM               | 1 SERVICE<br>SINK |

OFFICE

CORRIDOR •••••••••

TACTILE EXIT SIGNAGE TYP

LUNCH ROOM

AT 49 Occ

 STORAGE

 118
 437 SF

 ST
 2 Occ

••••••••••••••••••••••

## OCCUPANT COUNT SCHEDULE - IBC TABLE 1004.1.1 - FLOOR 1

| ASSEMBL | ·Y                         |          |                     |                 |                         |
|---------|----------------------------|----------|---------------------|-----------------|-------------------------|
| Number  | Room Name                  | Area     | Occ Type<br>Primary | Area per<br>Occ | Occ<br>Count<br>Primary |
| 116     | LUNCH ROOM                 | 730 SF   | AT                  | 15              | 49                      |
| TOTAL L | EVEL OCC FOR OCCUPANCY TYP | PE HERE: |                     |                 | 49                      |
|         |                            |          |                     |                 |                         |

| BUSINESS |                            |          |                     |                 |                         |
|----------|----------------------------|----------|---------------------|-----------------|-------------------------|
| Number   | Room Name                  | Area     | Occ Type<br>Primary | Area per<br>Occ | Occ<br>Count<br>Primary |
| 101      | OFFICE                     | 172 SF   | BU                  | 100             | 2                       |
| 102      | OFFICE                     | 173 SF   | BU                  | 100             | 2                       |
| 104      | OFFICE                     | 171 SF   | BU                  | 100             | 2                       |
| 105      | OFFICE                     | 171 SF   | BU                  | 100             | 2                       |
| TOTAL L  | EVEL OCC FOR OCCUPANCY TYP | PE HERE: |                     |                 | 8                       |

| Room Name | Area   | Occ Type<br>Primary | Area per<br>Occ                    | Occ<br>Count<br>Primary                 |
|-----------|--------|---------------------|------------------------------------|---|
| MOMENS    | 213 SF | LK                  | 50                                 | 3                                       |
| LOCKERS   | 308 SF | LK                  | 50                                 | 7                                       |
|           | MOMENS | MOMENS 213 SF       | Room NameAreaPrimaryWOMENS213 SFLK | Room NameAreaPrimaryOccWOMENS213 SFLK50 |

| Number | Room Name        | Area     | Occ Type<br>Primary | Area per<br>Occ | Occ<br>Count<br>Primary |
|--------|------------------|----------|---------------------|-----------------|-------------------------|
| 118    | STORAGE          | 437 SF   | ST                  | 300             | 2                       |
| 121    | STORAGE          | 578 SF   | ST                  | 300             | 2                       |
| 122    | MECH.            | 301 SF   | ST                  | 300             | 2                       |
| 123    | MASH BAY         | 904 SF   | ST                  | 300             | 4                       |
| 124    | GARAGE           | 13549 SF | ST                  | 300             | 46                      |
| 125    | MAINTENANCE AREA | 1226 SF  | ST                  | 300             | 5                       |

|                        | PANT COUNT<br>Y AND TOTAL |
|------------------------|---------------------------|
| Occ Type<br>Primary    | Occ Count Primar          |
|                        |                           |
| AT                     | 4                         |
| BU                     |                           |
| LK                     | 1.                        |
| ST                     | 6                         |
| Total                  |                           |
| Building<br>Occupants: | 12                        |
| Occupants:             |                           |
|                        |                           |

|   |                             | OCCUPANT COUNT LEGE<br>IBC TABLE 1004.1.1   | ND   |
|---|-----------------------------|---|--|
|   |                             | GROSS (G) NET (N)   |  |
|   | AC                          | ASSEMBLY CHAIRS   | (N) 7 SF N/OCC   |
|   | AF                          | ASSEMBLY FIXED SEATING<br>AF NO DIVIDING ARMS<br>AFD DIVIDED BY ARMS  | 18 IN/OCC<br>SEAT COUNT  |
|   | AG<br>AS<br>AT<br>BU        | AGRICULTURAL BUILDING<br>ASSEMBLY STANDING<br>ASSEMBLY TABLES AND CHAIRS<br>BUSINESS  | (G) 300 SF/OCC<br>(N) 5 SF/OCC<br>(N) 15 SF/OCC<br>(G) 100 SF/OCC  |
|   | CR<br>DC<br>DM<br>EC<br>ECS | COURTROOM (NON-FIXED SEATING) DAY CARE DORMITORY EDUCATIONAL CLASSROOM EDUCATIONAL CLASSROOM SUPPLEMENTAL - THESE SPACES ARE SUPPLEMENTAL USE AND WILL TAKE OCUPANTS FROM OTHER SPACES WHEN IN USE (NOT INCLUDED IN PLUMBING FIXTURE COUNTS | (N) 35 SF/OCC<br>(G) 50 SF/OCC<br>(N) 20 SF/OCC<br>(N) 20 SF/OCC   |
|   | EX                          | EXERCISE WITH EQUIPMENT   | (G) 50 SF/OCC  |
|   | <br> 0<br> 5                | INSTITUTIONAL INPATIENT TREATMENT INSTITUTIONAL OUTPATIENT INSTITUTIONAL SLEEPING   | (G) 240 SF/OCC<br>(G) 100 SF/OCC<br>(G) 120 SF/OCC                 |
|   | KC<br>LR<br>LS<br>LK        | KITCHEN COMMERCIAL<br>LIBRARY READING ROOM<br>LIBRARY STACKS<br>LOCKER ROOMS  | (G) 200 SF/OCC<br>(N) 50 SF/OCC<br>(G) 100 SF/OCC<br>(G) 50 SF/OCC |
| 7 | МТ                          | MERCANTILE MTA AREAS ON OTHER FLOORS MTB BASEMENTS MTG GROUND/PRIMARY FLOOR MTS STORAGE, STOCK, SHIPPING  | (G) 30 SF/OCC<br>(G) 30 SF/OCC                                     |
|   | N/A<br>PG<br>RS<br>SP       | NOT APPLICABLE<br>PARKING GARAGE<br>RESIDENTIAL<br>STAGES AND PLATFORMS   | 0 SF/OCC<br>(G) 200 SF/OCC<br>(G) 200 SF/OCC<br>(N) 15 SF/OCC      |
|   | SR                          | SKATING RINKS AND POOLS<br>SRP RINK / POOL<br>SRD DECKS   | (G) 50 SF/OCC<br>(G) 15 SF/OCC                                     |
|   | ST<br>MH                    | ACCESSORY STORAGE<br>WAREHOUSE  | (G) 300 SF/OCC<br>(G) 500 SF/OCC                                   |

|         | CODE LEGEND  |  |  |  |  |  |  |
|---------|--|--|--|--|--|--|--|
|         |  |  |  |  |  |  |  |
|         | FIRE EXTINGUISHER PATH                                 |  |  |  |  |  |  |
| 000000  | EGRESS PATH  |  |  |  |  |  |  |
|         | ACCESSIBLE CLEARANCES                                  |  |  |  |  |  |  |
| (FEC-A) | FIRE EXTINGUISHER CABINET W/<br>ABC EXTINGUISHER       |  |  |  |  |  |  |
| (FE-A)  | ABC FIRE EXTINGUISHER -<br>SURFACE MOUNTED WALL HANGER |  |  |  |  |  |  |
| DF-1    | HI-LO DRINKING FOUNTAIN                                |  |  |  |  |  |  |
|         | ILLUMINATED EXIT SIGN                                  |  |  |  |  |  |  |

| (FE-A) | ABC FIRE EXTINGUISHER -<br>SURFACE MOUNTED WALL HAN                  |
|--------|--|
| DF-1   | HI-LO DRINKING FOUNTAIN  |
|        | ILLUMINATED EXIT SIGN  |
| _      | TACTILE EXIT SIGNAGE   |
|        | ACCESSIBLE ELEMENT<br>(DOES NOT INDICATE ALL<br>ACCESSIBLE ELEMENTS) |
|        |  |

# CODE INFORMATION

PROJECT NAME: MUHLENBERG TOWNSHIP AUTHORITY OFFICE BUILDING & MAINTENANCE GARAGE

PROJECT LOCATION: READING, PA 19605 MUHLENBERG TOWNSHIP

PROJECT OCCUPANCY: USE GROUP B (BUSINESS) & S1 (STORAGE), NON SEPARATED BH PROJECT: NO. 19-080

BUILDING SITE FOOTPRINT = 21,935 SQUARE FEET

BUILDING FULLY SPRINKLERED

BUILDING AREA INFORMATION (IBC CHAPTER 2 DEFINITIONS): FIRST FLOOR = 20,892 SQUARE FEET (BUSINESS: 3,652 SF, STORAGE: 17,240 SF)

BUILDING HEIGHT INFORMATION (IBC CHAPTER 2 DEFINITIONS): 1-STORY

## SCOPE OF WORK

NEW CONSTRUCTION OF A BUSINESS OFFICE & MAINTENANCE GARAGE

## APPLICABLE BUILDING AND LIFE SAFETY CODES

| 2015 (IBC) | INTERNATIONAL BUILDING CODE WITH 2018 IBC ACCESSIBILITY PROVISIONS |
|------------|--|
| 2009 (ICC) | ANSI A117.1  |
| 2015 (IMC) | INTERNATIONAL MECHANICAL CODE                                      |

2015 (IPC) INTERNATIONAL PLUMBING CODE 2015 (IECC) 2015 (IFC) 2014 (NEC) 2010

| INTERNATIONAL ENERGY CONSERVATION CODE  |
|---|
| INTERNATIONAL FIRE CODE                 |
| NATIONAL ELECTRIC CODE (NFPA-70)        |
| DOJ ADA STANDARDS FOR ACCESSIBLE DESIGN |
|   |

| CODE FOR EXISTING BUILDING PATH TO COMPLIANCE: (SEE EXISTING BUILDING CODE INFORMATION THIS DWG)  | REQUIRED   | PROVIDED   | REFERENCE<br>(SECTION)  |
|---|--|--|---|
| USE AND OCCUPANCY CLASSIFICATION  |  | B" & "S-1"   | IBC 304   |
| CONSTRUCTION CLASSIFICATION   | Y<br>FULLY-SPR   | В  | IBC 602   |
| OCCUPANT LOAD   |  |  |   |
| TOTAL BUILDING OCCUPANTS (SEE OCCUPANT COUNT SCHEDULE - DMG A-011)  | 128 000  | CUPANTS  | IBC TABLE<br>1004.1.2   |
| HEIGHT AND AREA LIMITATIONS   | MAXIMUM  | PROVIDED   | CHAPTER 5   |
| ALLOMABLE HEIGHT  | 40'  | 28'  | IBC TABLE 504.3   |
| ALLOWABLE NUMBER OF STORIES<br>ABOVE GRADE PLANE  | 2  | 1  | IBC TABLE 504.4   |
| TABLE ALLOMABLE AREA  | 36,000 SF<br>(SINGLE STORY, FULLY<br>SPRINKLERED)  | 20,892 SF  | IBC TABLE 506.2<br>IBC 506.3  |
| FIRE RESISTIVE CONSTRUCTION   |  |  | CHAPTER 6   |
| PRIMARY STRUCTURAL FRAME  | O-HR   | O-HR   | IBC TABLE 601   |
| BEARING WALLS (EXTERIOR)  | O-HR   | O-HR   | IBC TABLES 601 4  |
|   |  |  | 705.2   |
| BEARING WALLS (INTERIOR)  | O-HR   | O-HR   | IBC TABLE 601   |
| NON-BEARING WALLS (EXTERIOR)  NON-BEARING WALLS (INTERIOR)  | O-HR   | O-HR   | IBC TABLE 601 \$ 705.2  IBC TABLE 601   |
|   |  |  |   |
| FLOOR CONSTRUCTION & SECONDARY MEMBERS  ROOF CONSTRUCTION & SECONDARY MEMBERS   | 0-HR<br>0-HR   | 0-HR<br>0-HR   | IBC TABLE 601   |
|   | 0-HR   | 0-HR   | IBC TABLE 601   |
| MALLS (EXTERIOR) BASED ON BUILDING<br>FIRE SEPARATION DISTANCE  | >30'   | O-11K  | IDO IMBLE 602   |
| OPENING REQUIREMENTS  | O-HR   | N/A  | IBC TABLE 716.5   |
|   |  |  |   |
| ROOF ASSEMBLY INFORMATION   |  |  | IBC CHAPTER 15  |
| FIRE CLASSIFICATION   | CLASS "C"  | CLASS "C"  | IBC TABLE 1505.1  |
| MEANS OF EGRESS (SPRINKLERED BUILDING)  | (STAIR ONLY  | ROOM<br>^ MIN. 6'-8"   | IBC CHAPTER 10<br>IBC 1011.3,<br>1003.2 \$ 1208.2   |
| EGRESS WIDTH PER OCCUPANT<br>STAIRWAY WIDTHS<br>(TOTAL OCCUPANTS / # OF EXITS X 0.30)   | N/A  | N/A  | IBC 1005.1 & 1014.8<br>PROJECTIONS  |
| DOORS / CORRIDORS / RAMPS<br>(TOTAL OCCUPANTS / # OF EXITS X 0.20)  | 5.12" OCC<br>LOAD MIDTH  | 33"  | IBC 1005.1 & 1003.3.3<br>PROJECTIONS  |
| MINIMUM NUMBER OF EXITS PER<br>OCCUPANT LOAD  | 2 REQ'D.   | 5 PROVIDED   | IBC TABLE<br>1006.3.1   |
| DEAD END CORRIDOR   | MAX. 50 FT.  | 42 FT.   | IBC 1020.4  |
| CORRIDOR WIDTH - 44" MIN.   | 44" MIN.   | 60" MIN.   | IBC TABLE 1020.2<br>1003.3.3<br>PROJECTIONS   |
| COMMON PATH OF EGRESS TRAVEL  | MAX. 75 FT.  | < 75 FT.   | IBC TABLE<br>1006.3.2(2)  |
| MINIMUM EGRESS 32" CLEAR MIN.,<br>DOOR OPENING -  | 32" MIN.   | 33"  | IBC 1010.1.1  |
| EXIT ACCESS TRAVEL DISTANCE /   | MAX. 250 FT.   | 175 FT.  | BC TABLE 1017.2   |
| TRAVEL DISTANCE TO EXIT   |  |  | ID 4 4000 F   |
| TRAVEL DISTANCE TO EXIT EXIT ACCESS TO A PUBLIC WAY   | REQUIRED   | PROVIDED   | IBC 1028.5  |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES   | MIN. 60%   | 100%   | IBC 1105.1  |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS   |  | 100%<br>PROVIDED   | IBC 1105.1  |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  | MIN. 60%   | 100%   | IBC 1105.1  |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  | MIN. 60%<br>REQUIRED   | 100% PROVIDED FULLY SPRINKLERED  | IBC 1105.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11   |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  | MIN. 60% REQUIRED  NOT REQUIRED  | 100% PROVIDED FULLY SPRINKLERED N/A  | IBC 1105.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11   |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION   | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  | 100% PROVIDED FULLY SPRINKLERED  N/A N/A   | IBC 1105.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11  IBC 907  IBC 907   |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  | 100% PROVIDED FULLY SPRINKLERED N/A N/A N/A  | IBC 1105.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11  IBC 907  IBC 907  IBC 907.4.2  |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION   | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED                                      | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC 904.11  IBC 907  IBC 907  IBC 907.4.2  IBC 1008   |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION  EXIT SIGNS  | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  REQUIRED                                | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED PROVIDED                             | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC 404.11  IBC 907  IBC 907  IBC 907.4.2  IBC 1008  IBC 1013   |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION   | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED                                      | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC 907.1  IBC 907.1  IBC 907.4.2  IBC 1008  IBC 1013   |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION  EXIT SIGNS  FIRE EXTINGUISHERS  CLASS A FIRE HAZARDS  | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  REQUIRED  1                             | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED PROVIDED 2                           | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11  IBC 907  IBC 907.4.2  IBC 1008  IBC 1013  IBC TABLE 906.3(1) & (2, 2A = 3,000                                |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION  EXIT SIGNS  FIRE EXTINGUISHERS  CLASS A FIRE HAZARDS  (ORDINARY 2-A)  | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  REQUIRED  1 75' MAX.  MINIMUM           | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED PROVIDED 2                           | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11  IBC 907  IBC 907  IBC 907.4.2  IBC 1008  IBC 1013  IBC TABLE 906.3(1) & (2)  2A = 3,000  MAX. S.F.           |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION  EXIT SIGNS  FIRE EXTINGUISHERS  CLASS A FIRE HAZARDS  (ORDINARY 2-A)  INTERIOR FINISHES  CORRIDORS PROVIDING EXIT ACCESS | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  REQUIRED  1  75' MAX.  MINIMUM  CLASS C | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED PROVIDED 2 65' MAX.                  | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11  IBC 907  IBC 907  IBC 907.4.2  IBC 1008  IBC 1013  IBC 1013  IBC TABLE 906.3(1) & (2)  2A = 3,000  MAX. 5.F. |
| TRAVEL DISTANCE TO EXIT  EXIT ACCESS TO A PUBLIC WAY  ACCESSIBLE PUBLIC ENTRIES  ACCESSIBLE MEANS OF EGRESS  AUTOMATIC SPRINKLER SYSTEMS  FIRE ALARM & DETECTION SYSTEMS  FIRE ALARM  DETECTION  MANUAL FIRE ALARM BOXES  MEANS OF EGRESS ILLUMINATION  EXIT SIGNS  FIRE EXTINGUISHERS  CLASS A FIRE HAZARDS  (ORDINARY 2-A)  INTERIOR FINISHES                                 | MIN. 60% REQUIRED  NOT REQUIRED  NOT REQUIRED  NOT REQUIRED  REQUIRED  REQUIRED  1  75' MAX.  MINIMUM  CLASS C | 100% PROVIDED FULLY SPRINKLERED  N/A N/A N/A PROVIDED PROVIDED 2 65' MAX.  CLASS A, B OR C | IBC 1105.1  IBC 1009.1  IBC 1009.1  IBC CHAPTER 9, SECTION 903 & 904.11  IBC 907  IBC 907  IBC 907.4.2  IBC 1008  IBC 1013  IBC 1013  IBC TABLE 906.3(1) & (2)  2A = 3,000  MAX. 5.F. |

EXTERIOR - (CODE REQUIRED MINIMUM)

INTERIOR - (CODE REQUIRED MINIMUM)

REQUIRED PROVIDED

REQUIRED

PROVIDED

IBC 1111 & ICC A117.1 - 703

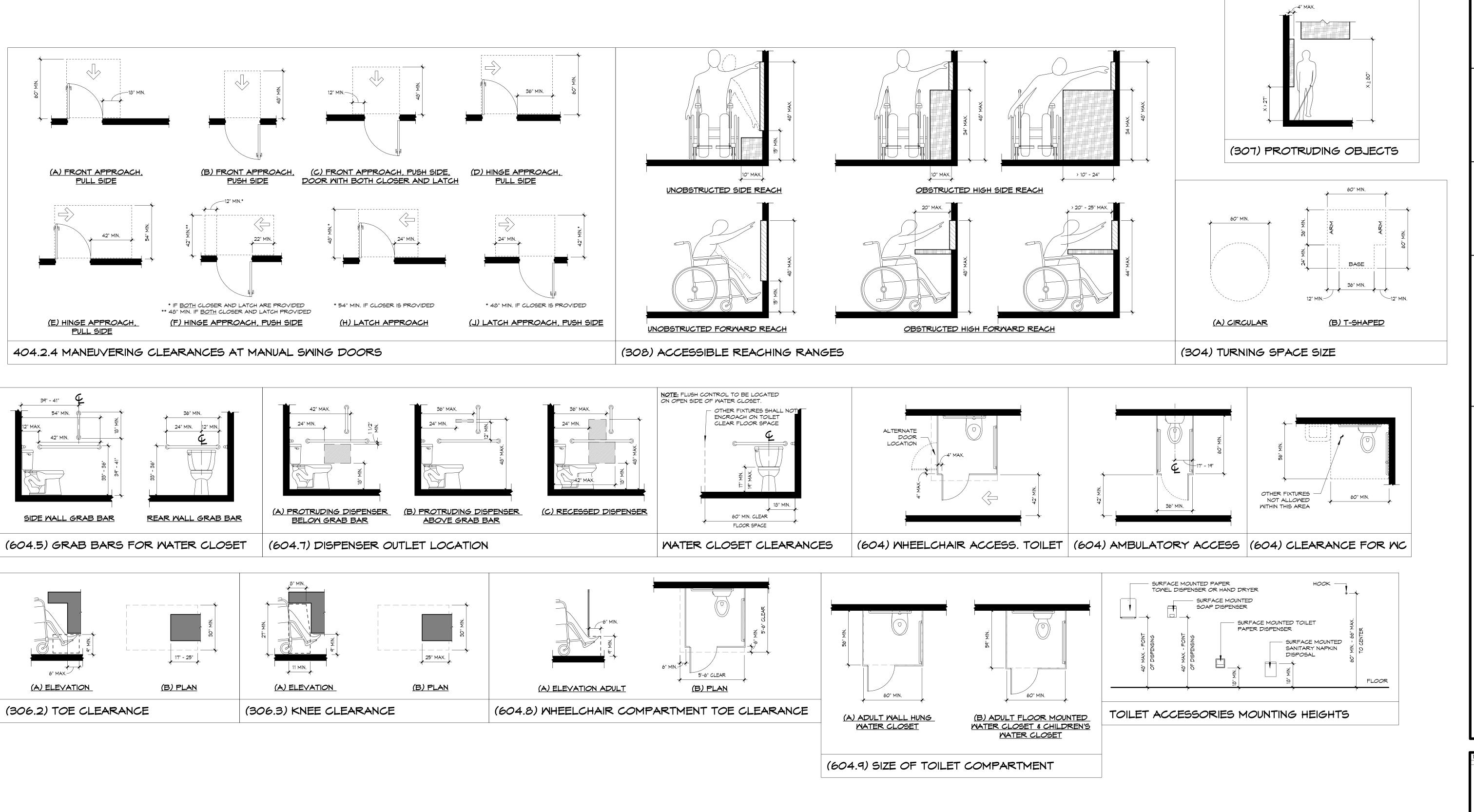


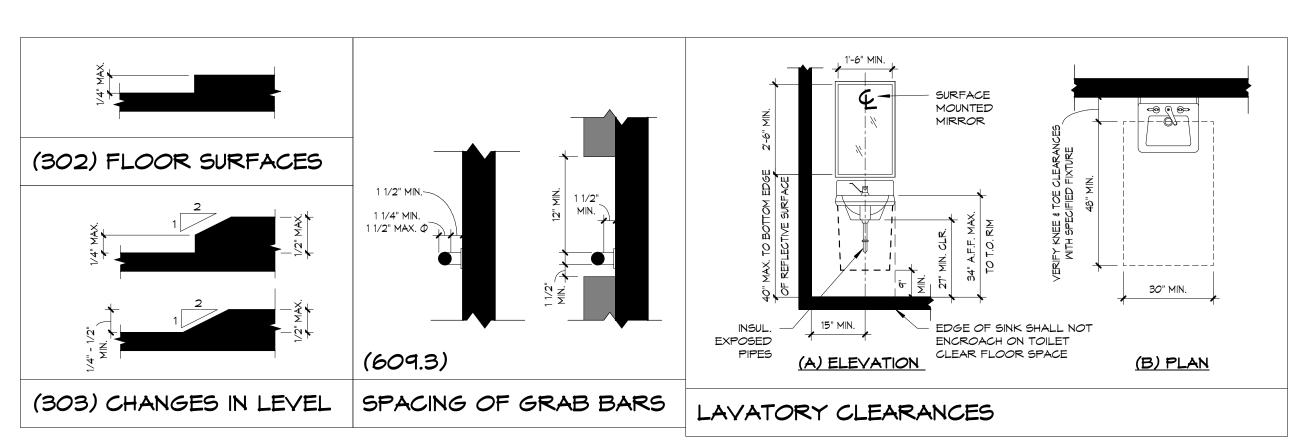
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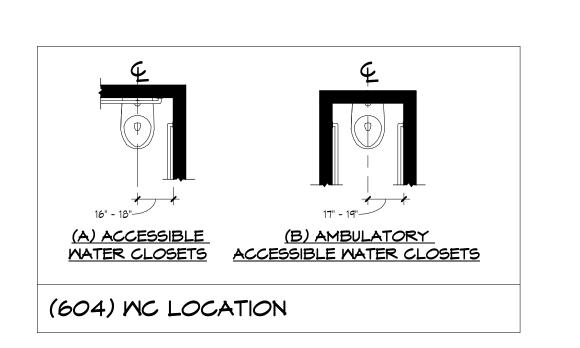
CODE PLAN

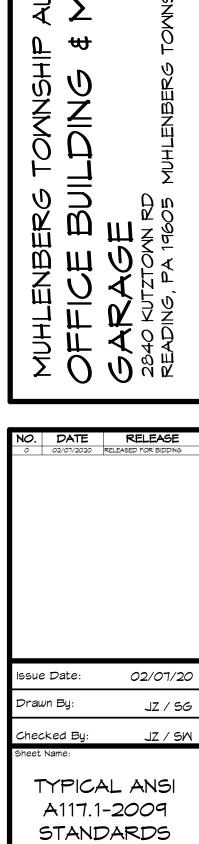
CODE PLAN - FLOOR 1

3/32" = 1'-0"





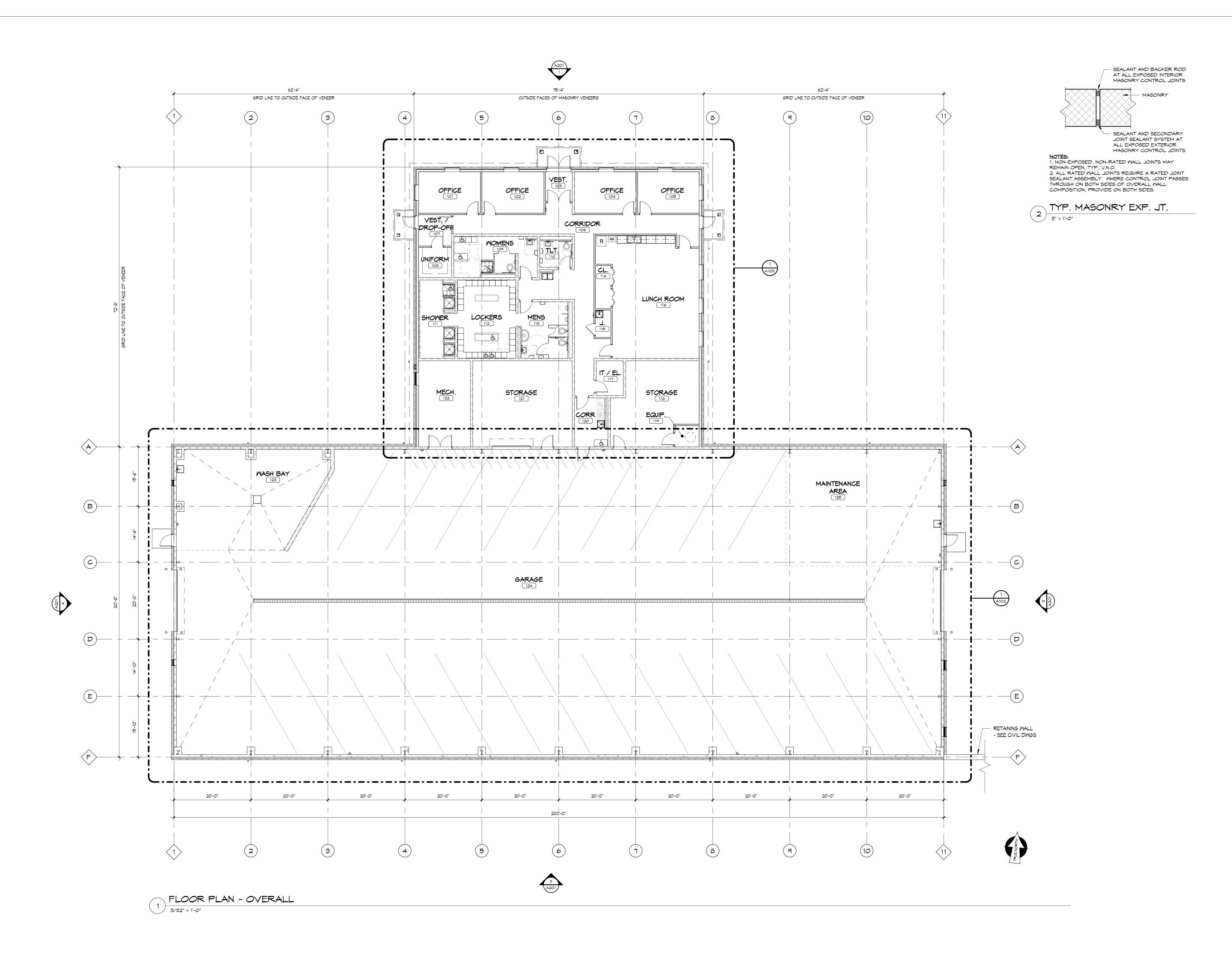




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BH JOB NO.

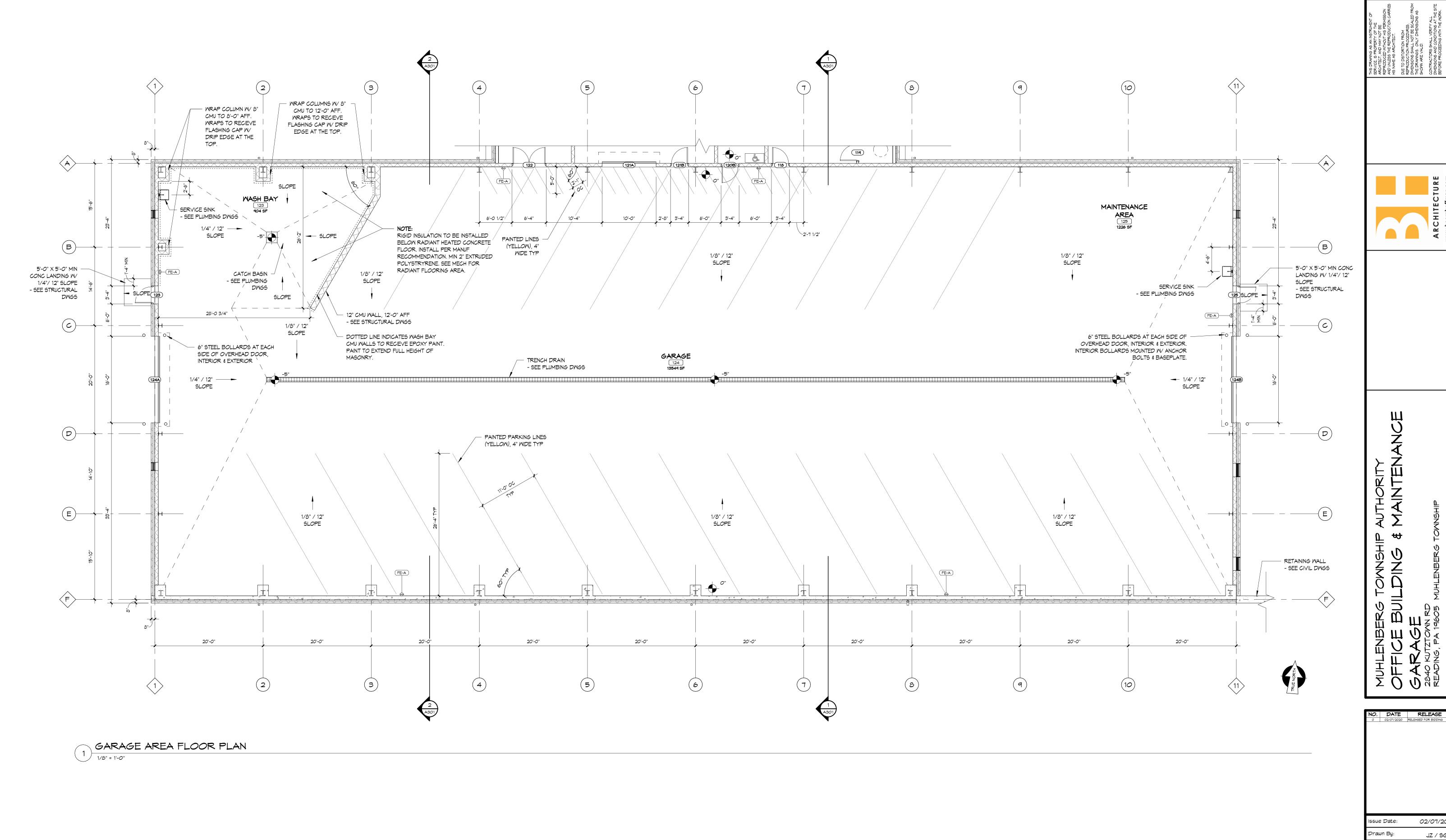
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Issue Date: 02/07/20 Drawn By: JZ / 5G

FLOOR PLAN

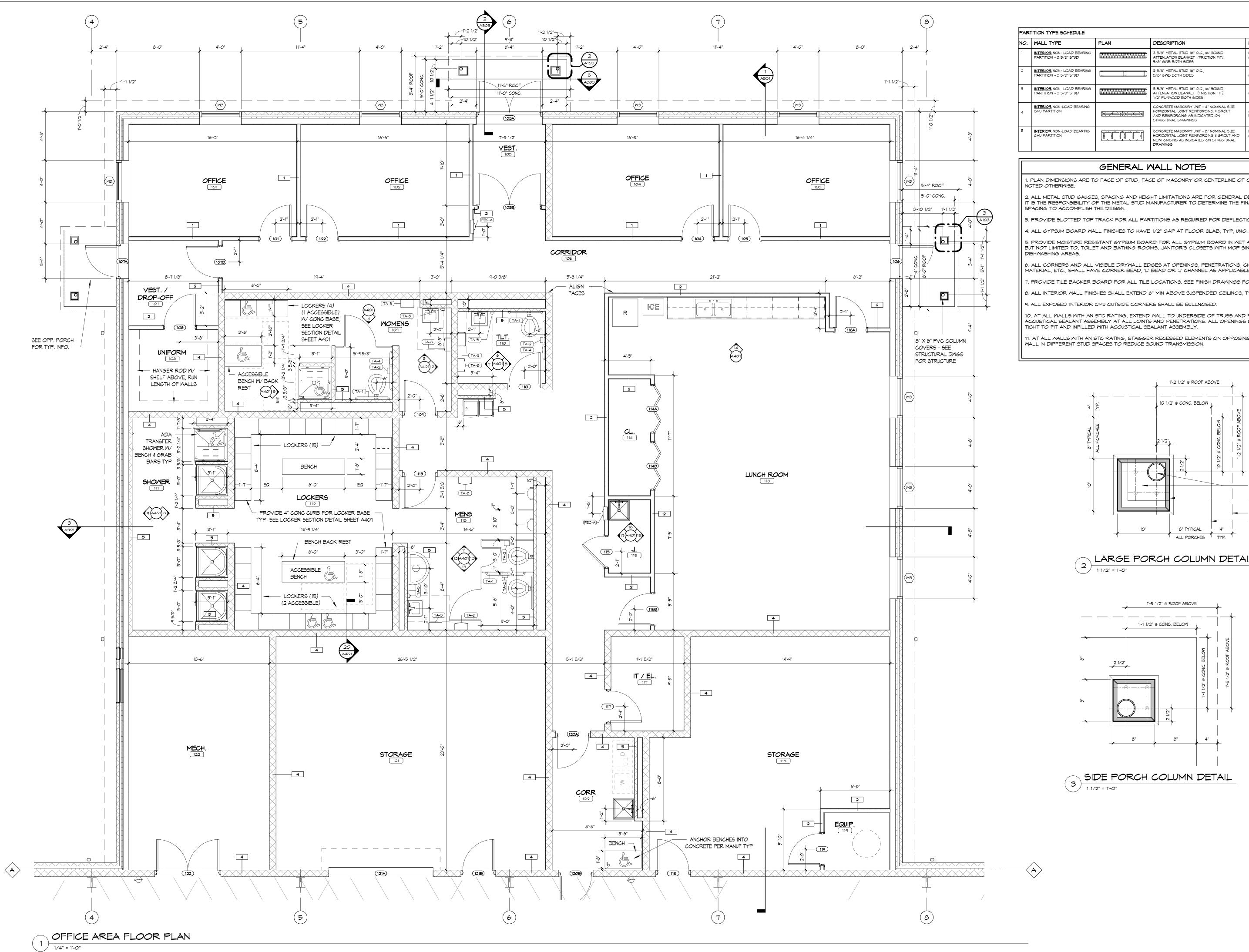
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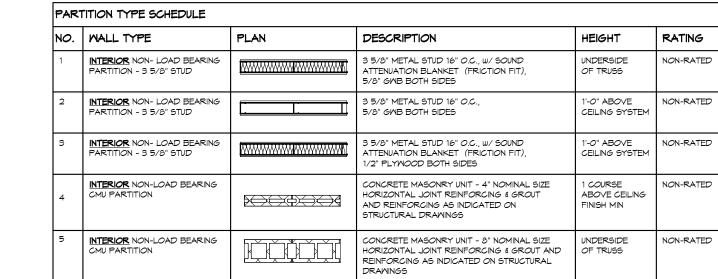


Issue Date: 02/07/20 JZ / 5G

GARAGE AREA

FLOOR PLAN

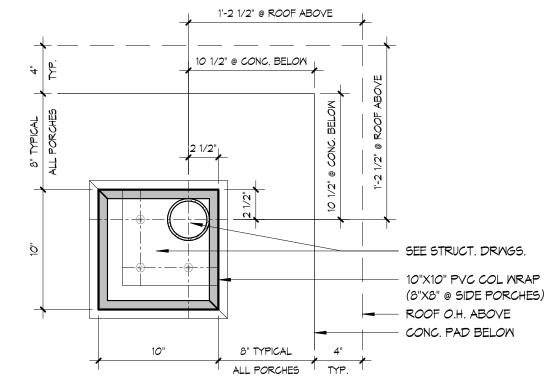




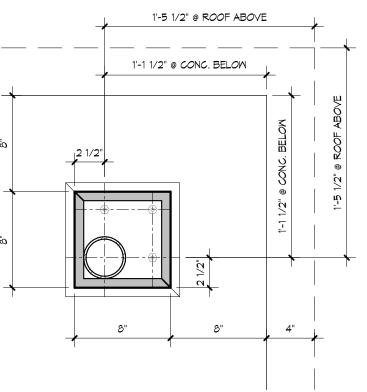
## GENERAL WALL NOTES

1. PLAN DIMENSIONS ARE TO FACE OF STUD, FACE OF MASONRY OR CENTERLINE OF COLUMN, UNLESS

- 2. ALL METAL STUD GAUGES, SPACING AND HEIGHT LIMITATIONS ARE FOR GENERAL DESIGN PURPOSES. IT IS THE RESPONSIBILITY OF THE METAL STUD MANUFACTURER TO DETERMINE THE FINAL GAUGES AND SPACING TO ACCOMPLISH THE DESIGN.
- 3. PROVIDE SLOTTED TOP TRACK FOR ALL PARTITIONS AS REQUIRED FOR DEFLECTION.
- 5. PROVIDE MOISTURE RESISTANT GYPSUM BOARD FOR ALL GYPSUM BOARD IN MET AREAS, SUCH AS, BUT NOT LIMITED TO, TOILET AND BATHING ROOMS, JANITOR'S CLOSETS WITH MOP SINKS, LAUNDRY AND
- 6. ALL CORNERS AND ALL VISIBLE DRYWALL EDGES AT OPENINGS, PENETRATIONS, CHANGES IN MATERIAL, ETC., SHALL HAVE CORNER BEAD, 'L' BEAD OR 'J' CHANNEL AS APPLICABLE.
- 7. PROVIDE TILE BACKER BOARD FOR ALL TILE LOCATIONS. SEE FINISH DRAWINGS FOR LOCATIONS. 3. ALL INTERIOR WALL FINISHES SHALL EXTEND 6" MIN ABOVE SUSPENDED CEILINGS, TYP, UNO.
- 10. AT ALL WALLS WITH AN STC RATING, EXTEND WALL TO UNDERSIDE OF TRUSS AND PROVIDE ACOUSTICAL SEALANT ASSEMBLY AT ALL JOINTS AND PENETRATIONS. ALL OPENINGS SHALL BE CUT
- 11. AT ALL WALLS WITH AN STC RATING, STAGGER RECESSED ELEMENTS ON OPPOSING SIDES OF THE WALL IN DIFFERENT STUD SPACES TO REDUCE SOUND TRANSMISSION.



2 LARGE PORCH COLUMN DETAIL
1 1/2" = 1'-0"

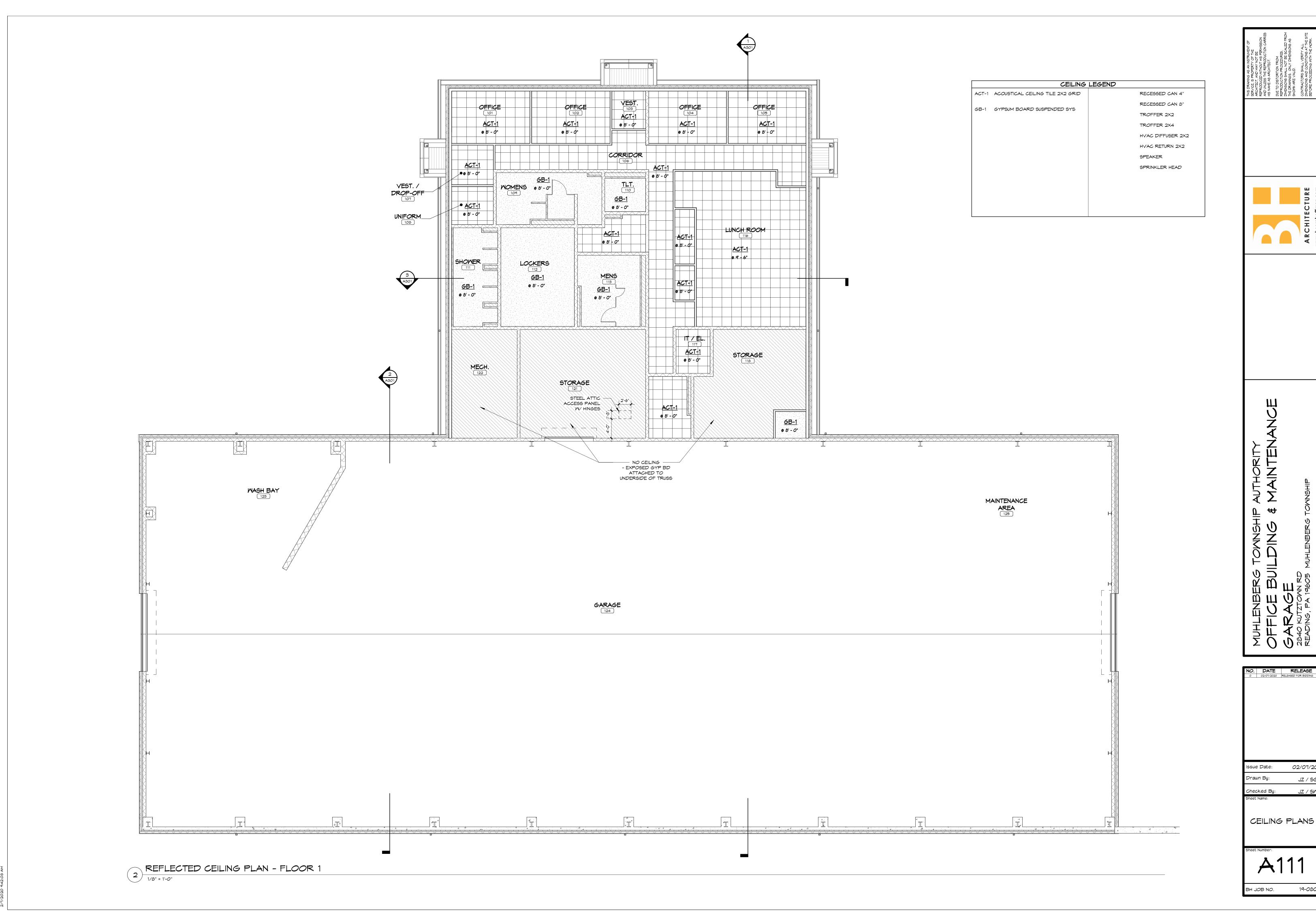


SIDE PORCH COLUMN DETAIL

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Checked By: ENLARGED OFFICE PLAN

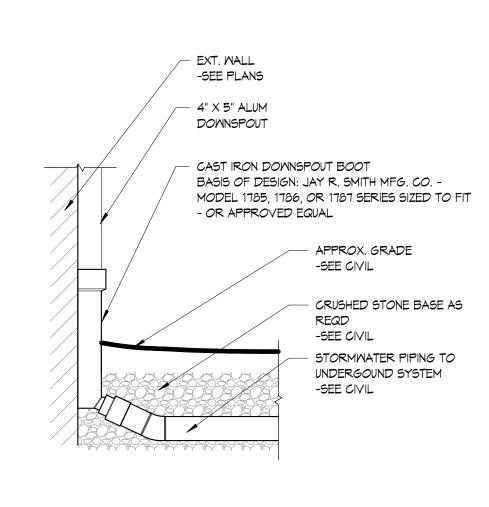
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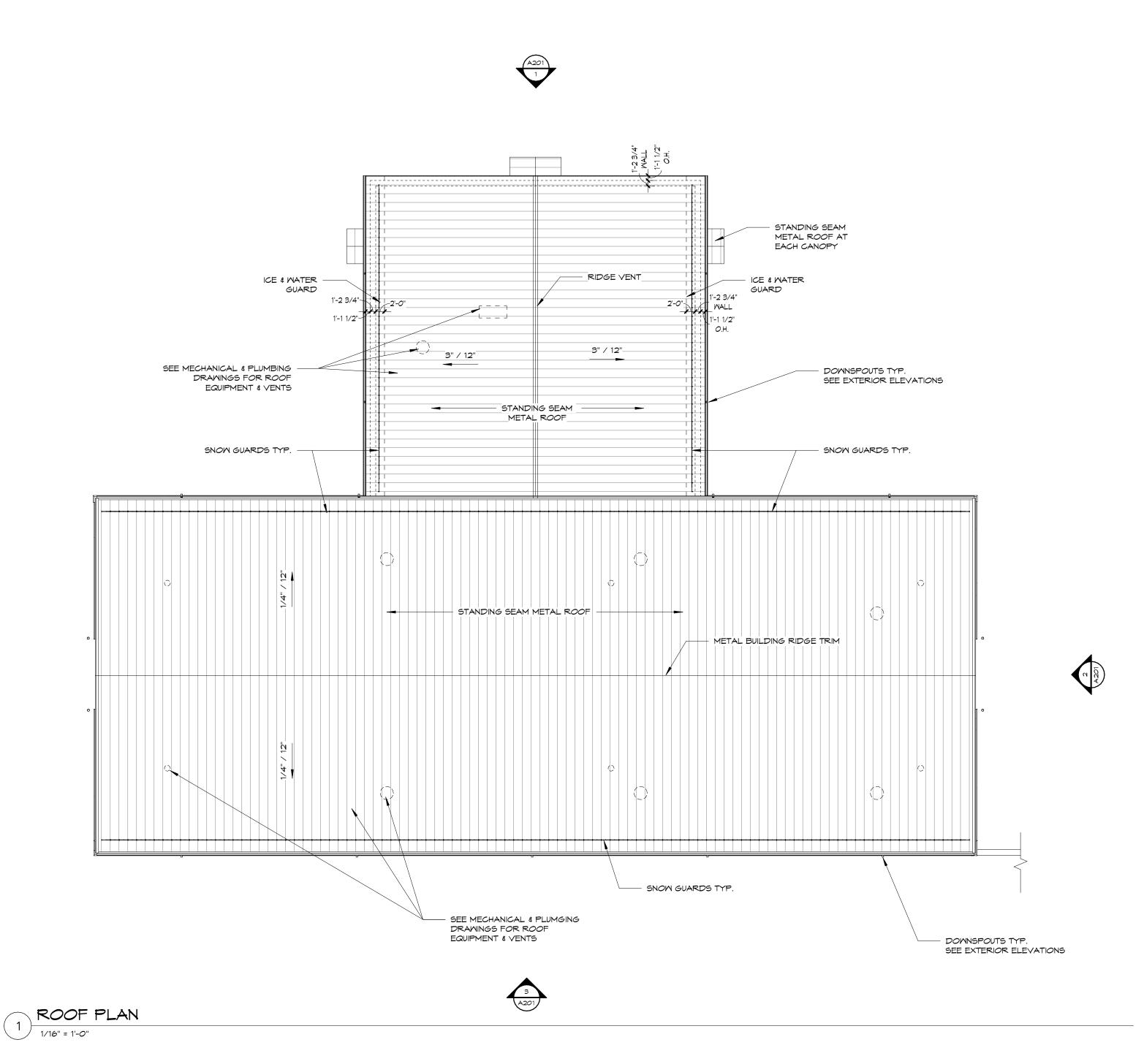
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CEILING PLANS

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2 DOWNSPOUT BOOT DETAIL
3/4" = 1'-0"



10HLENBERG TOWNSHIP AUTHORITY
2FFICE BUILDING & MAINTENANCE
340 KUTZTOWN RD
EADING, PA 19605 MUHLENBERG TOWNSHIP

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Checked By: JZ / S

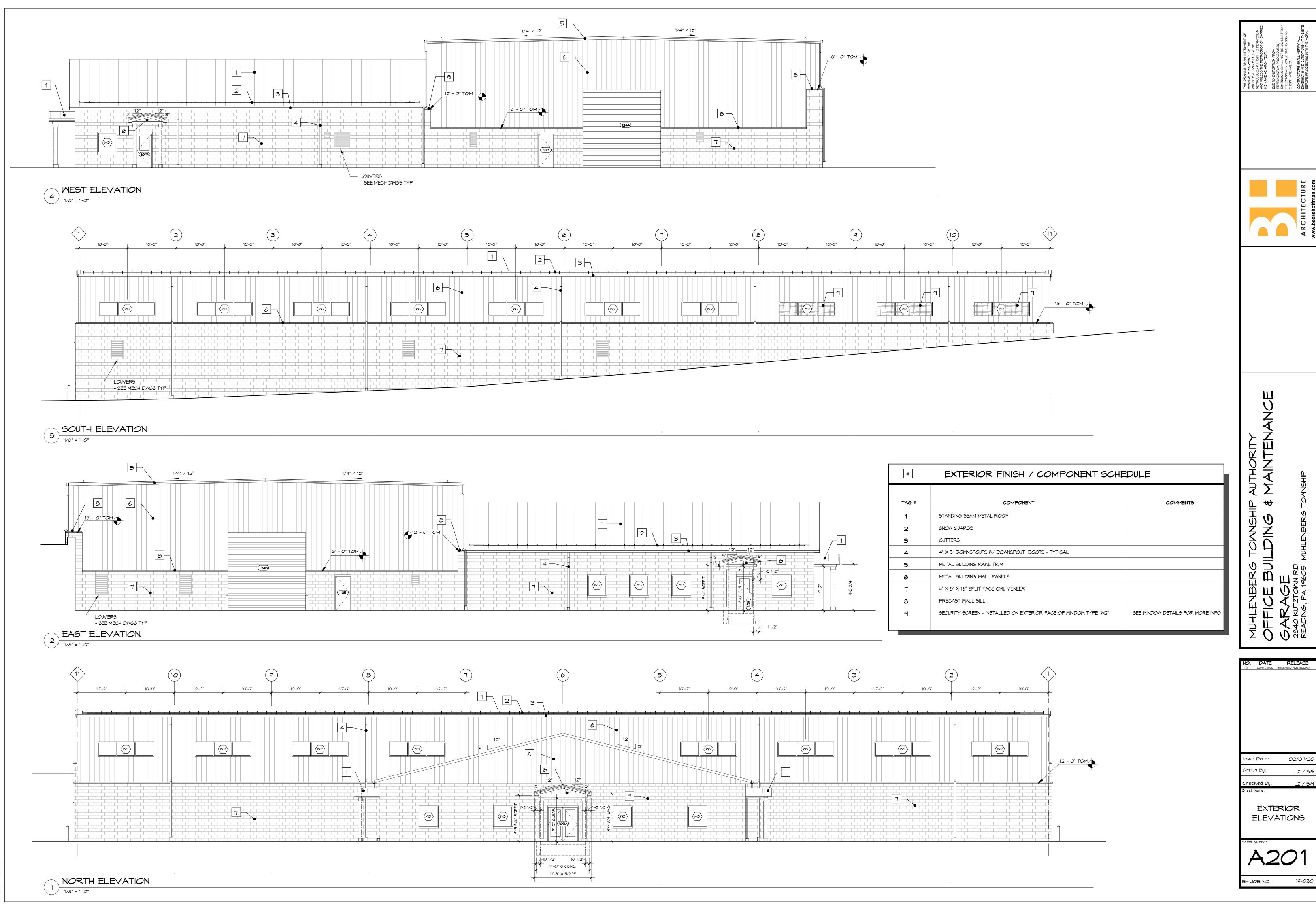
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ROOF PLAN

A112

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MA 80:54:00 05057



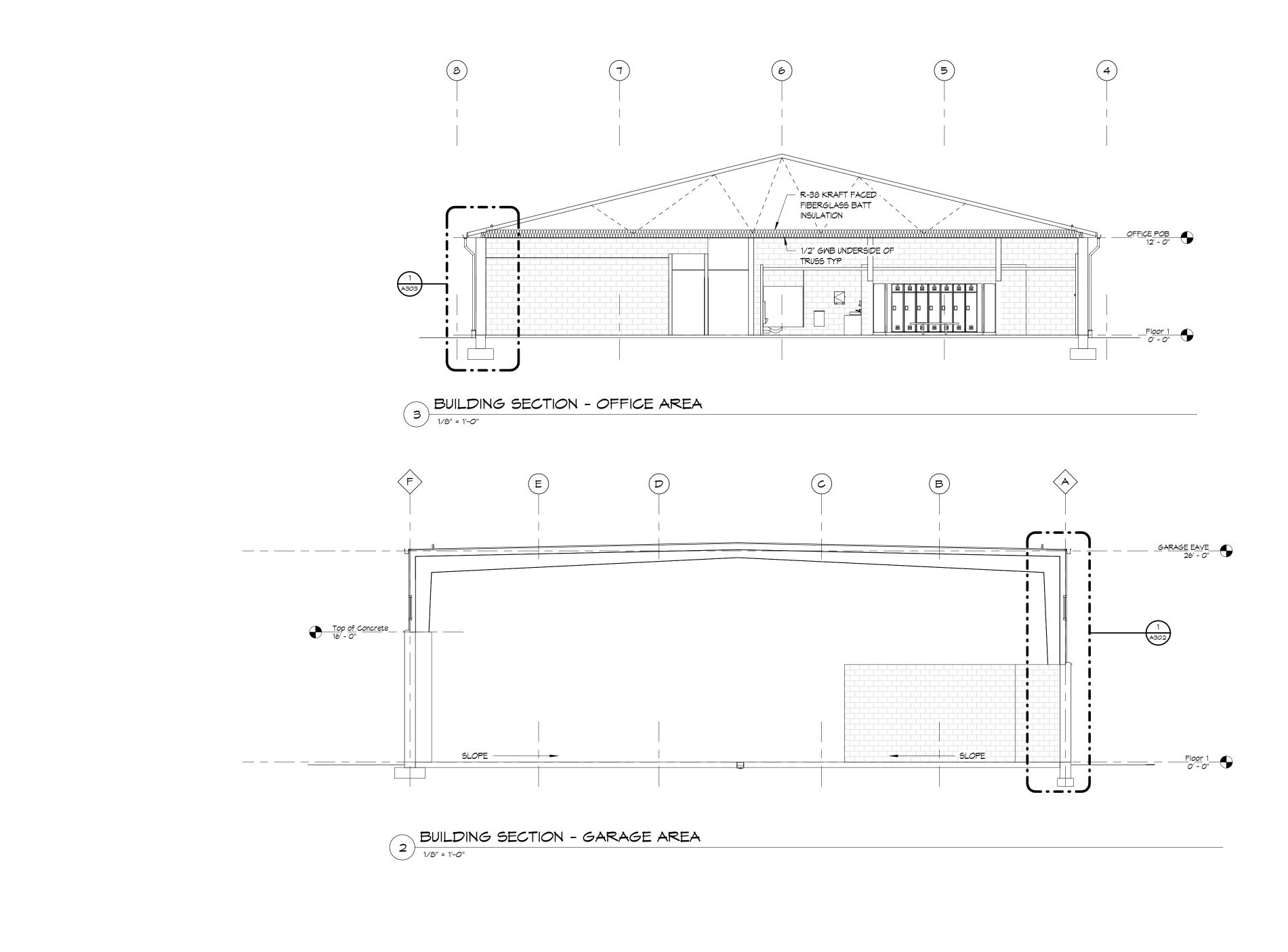


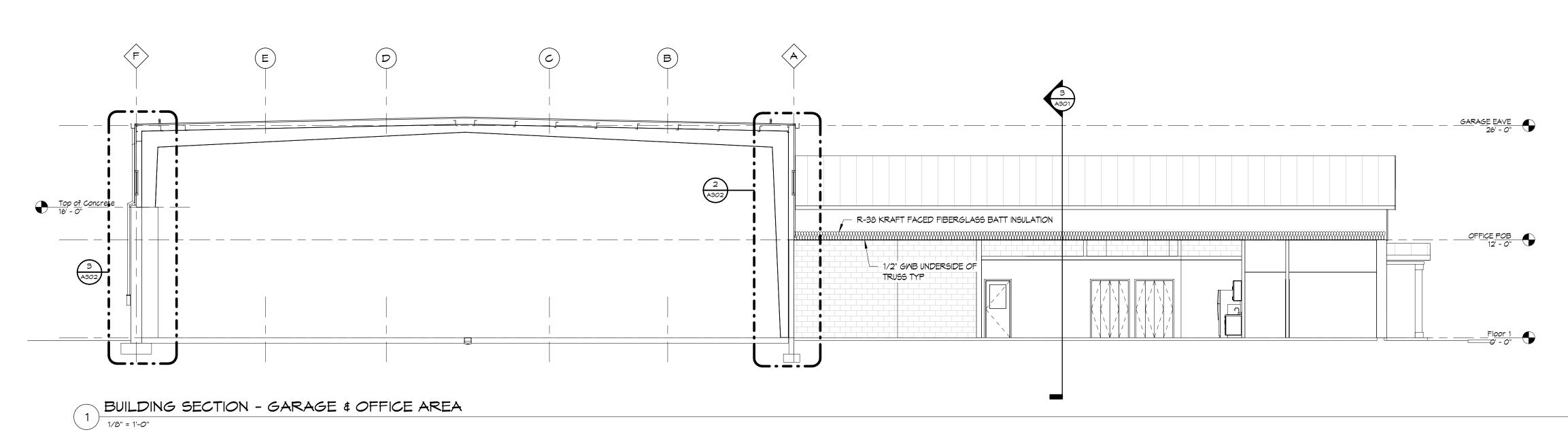
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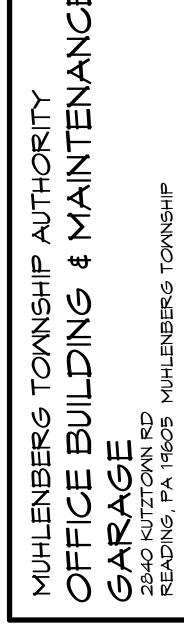
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EXTERIOR ELEVATIONS



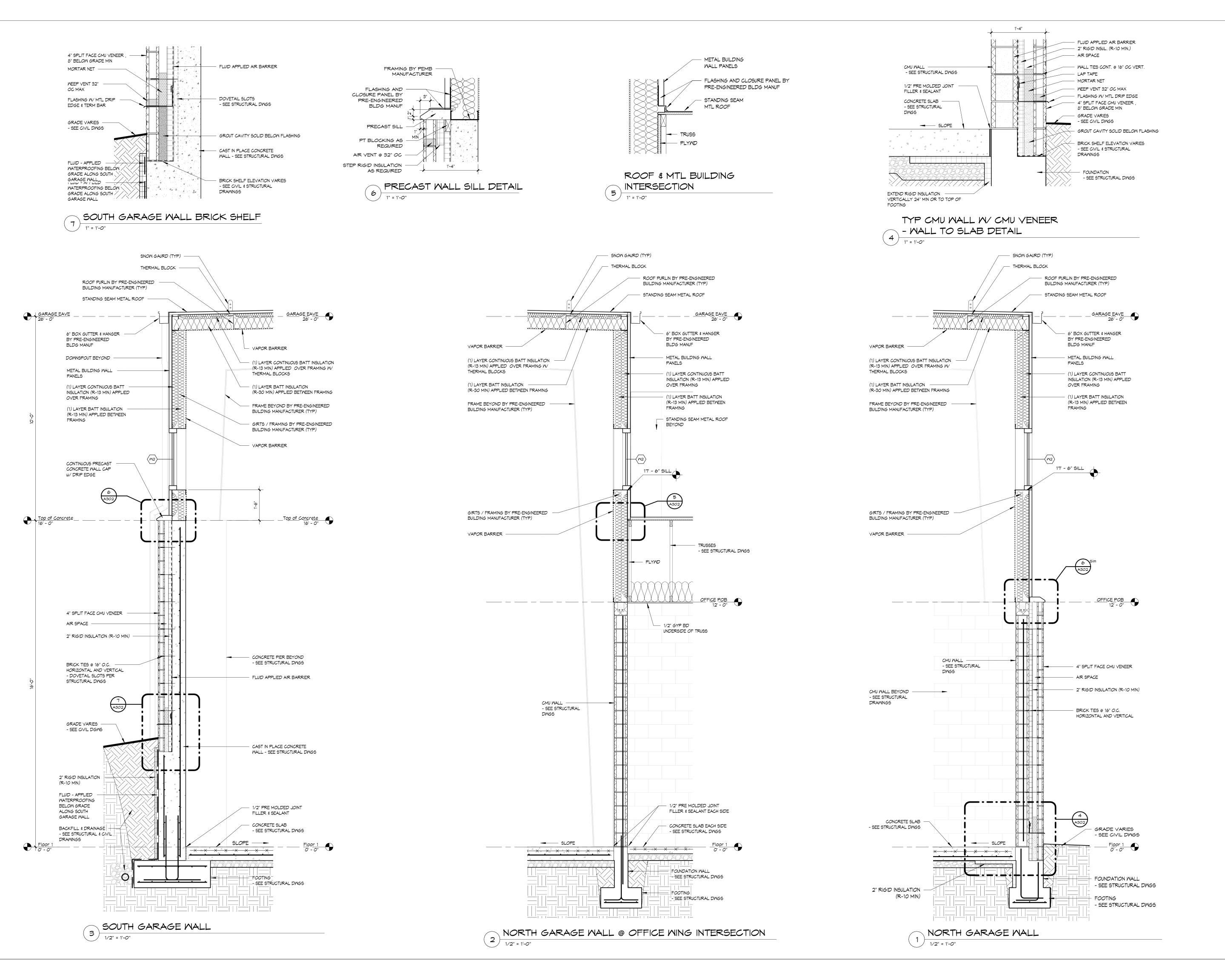




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SECTIONS



DUE TO DISTORTION FROM
REPRODUCTION PROCEDIRES,
DIMENSIONS PALL
THE TRAMINGS, ONLY DIMENSIONS
SHOWN ARE VALID.
CONTRACTORS SHALL VERIFY ALL
DIMENSIONS SHALL VERIFY ALL VE

ARCHITECTURE www.beershoffman.com

CE BUILDING & MAINT AGE TZTOWN RD 7, PA 19605 MUHLENBERG TOWNSHIP

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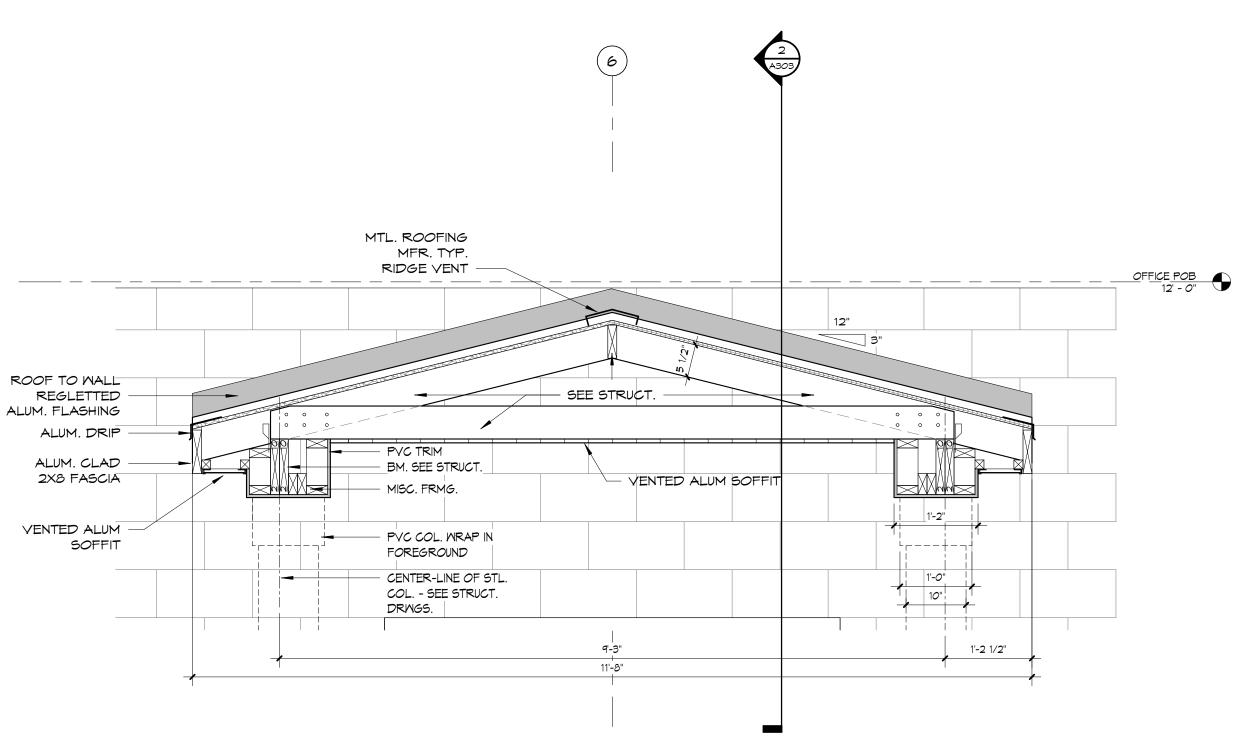
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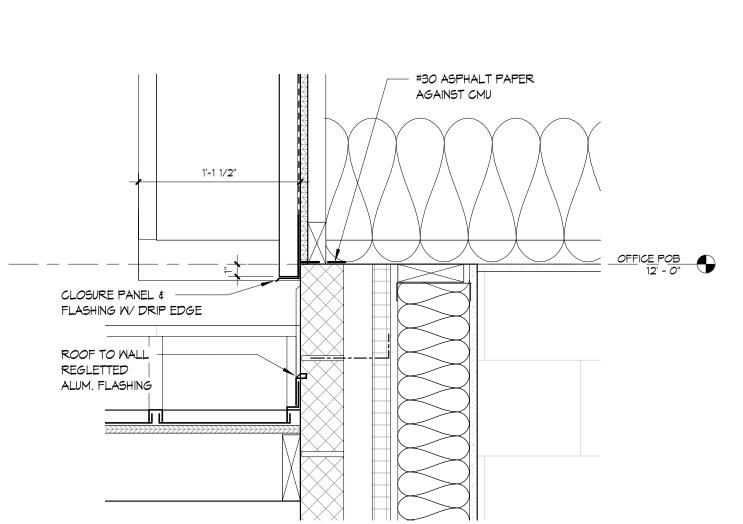
Orawn By: JZ / S

Checked By: JZ / S

Sheet Name:

WALL SECTIONS



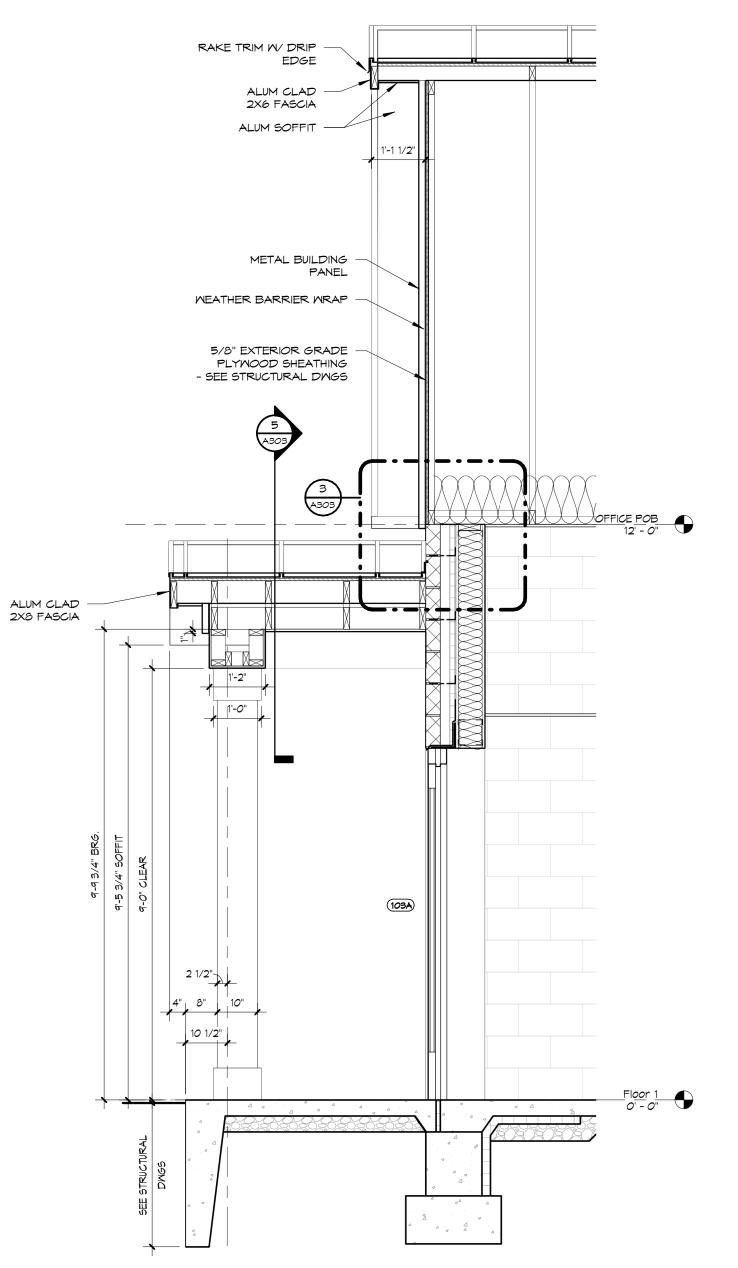


NORTH ENTRY CANOPY SECTION - EAST & MEST CANOPIES

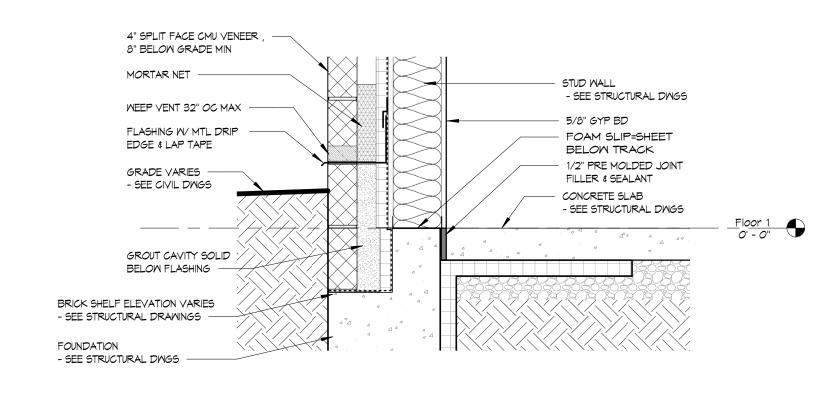
5 SIMILAR

5 3/4" = 1'-0"

NORTH OFFICE WALL @ ENTRY CANOPY - DETAIL 3 11/2" = 1'-0"

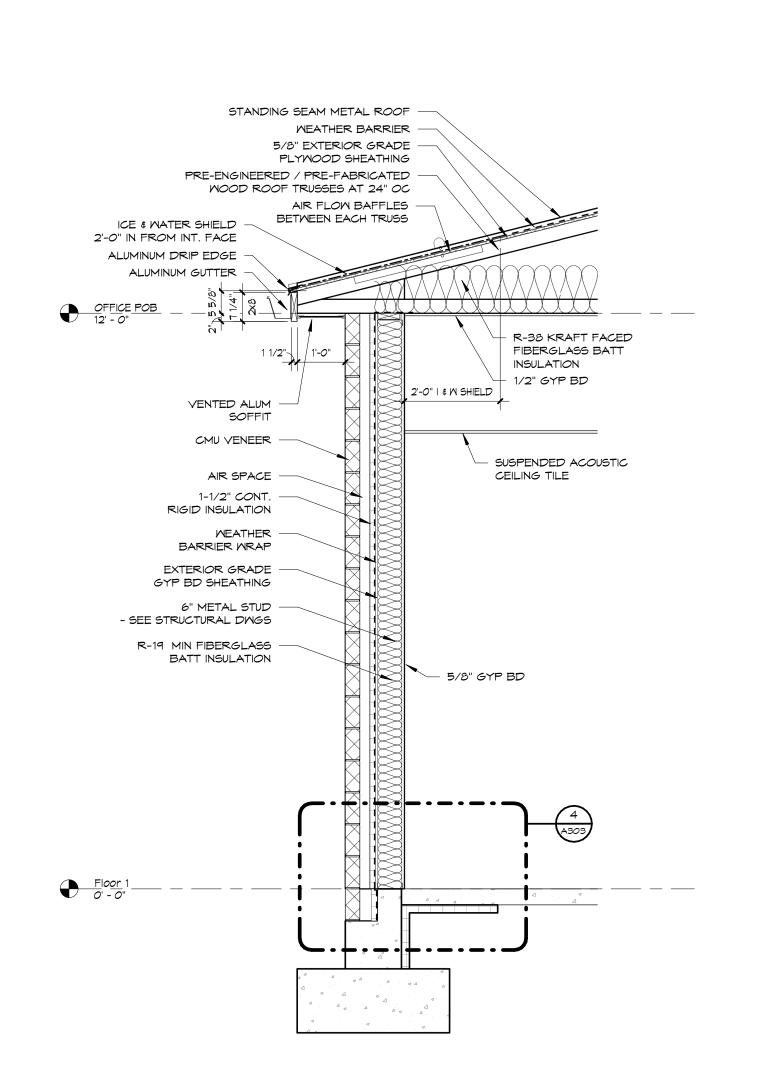


NORTH OFFICE WALL @ ENTRY CANOPY 2 1/2" = 1'-0"



TYP STUD WALL W/ CMU VENEER - WALL TO SLAB DETAIL

1" = 1'-0"



EAST OFFICE WALL

1/2" = 1'-0"

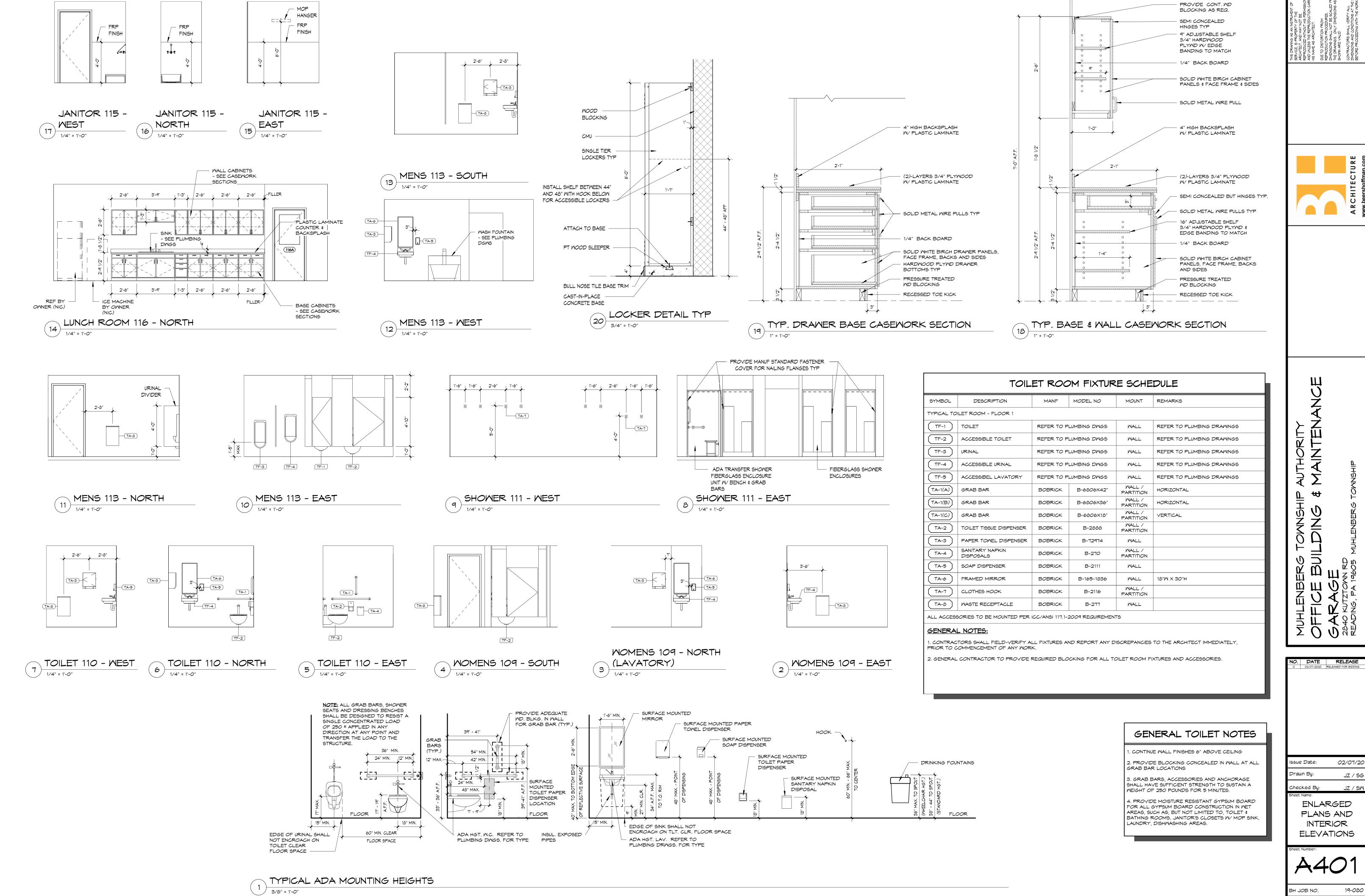
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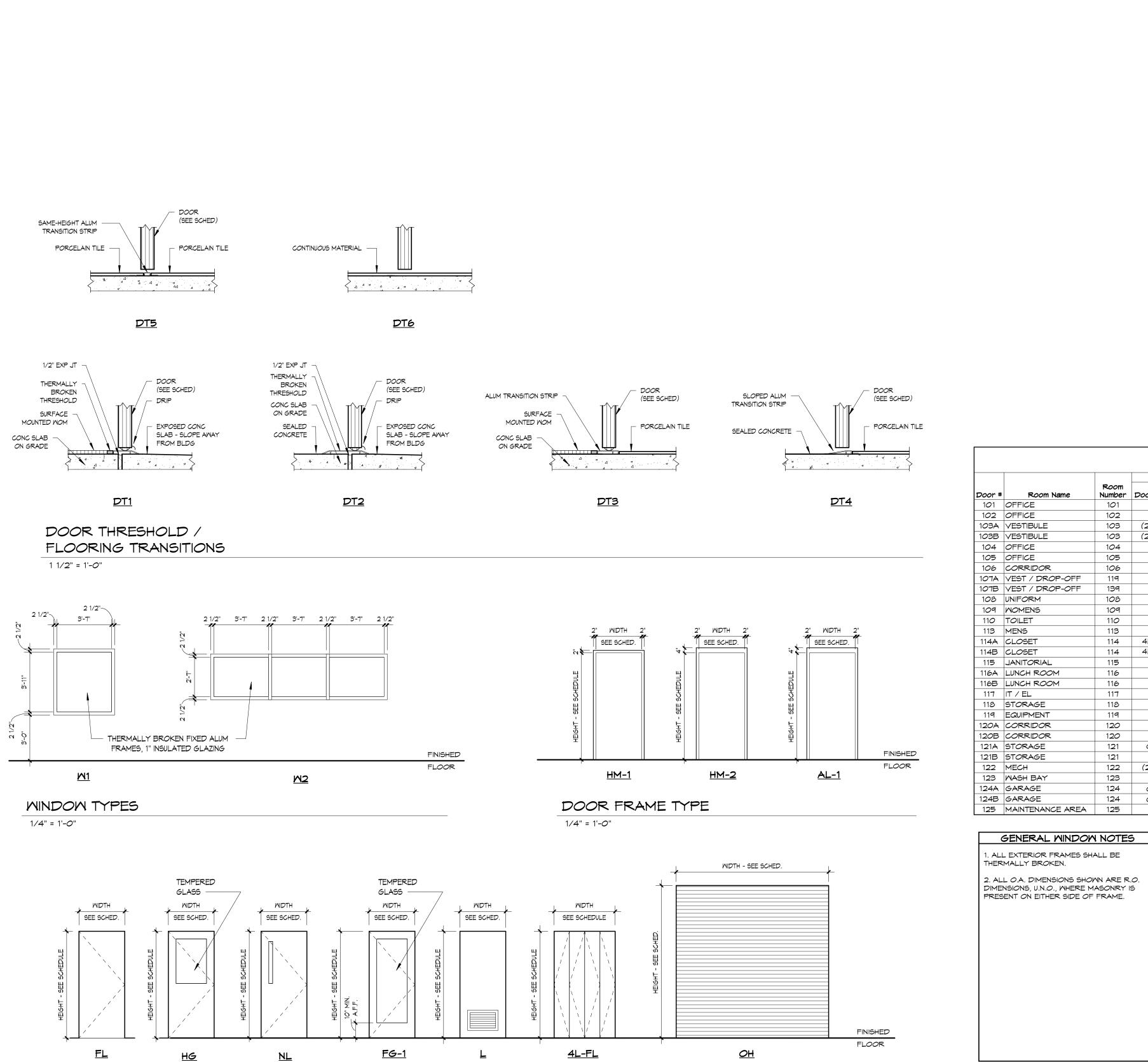
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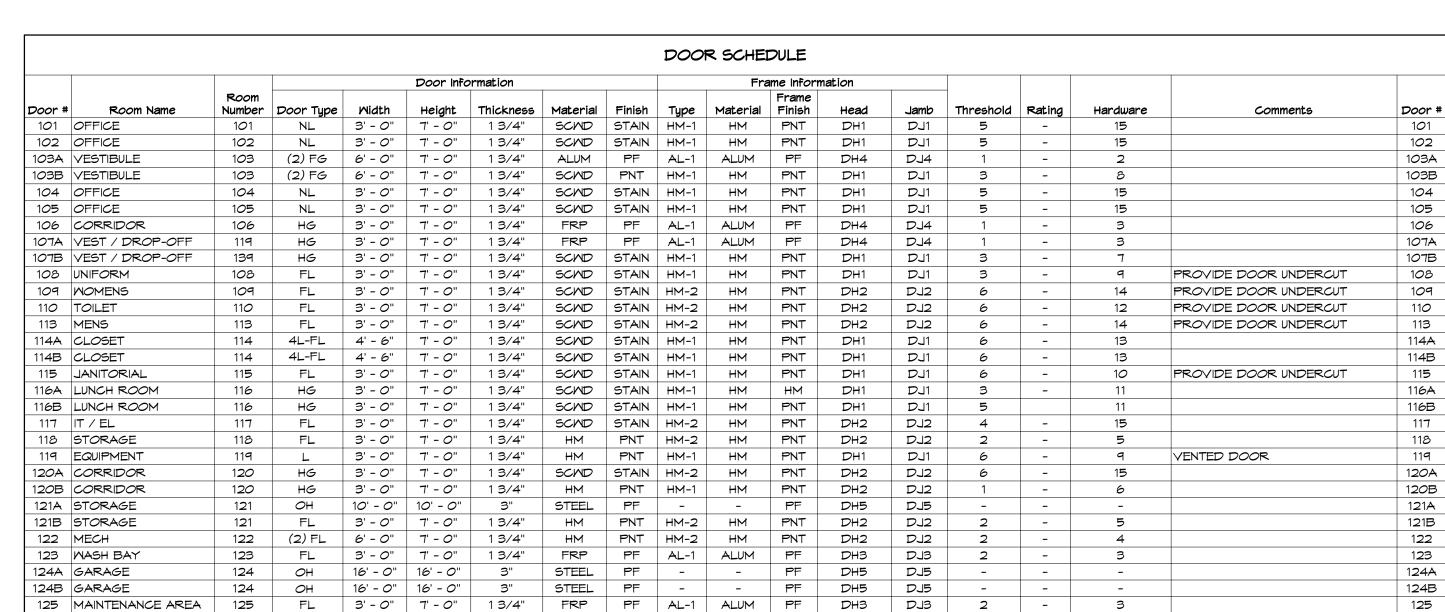
MALL SECTIONS & DETAILS

19-080 BH JOB NO.



02/07/20





WINDOW / DOOR ABBREVIATIONS

ALUMINUM

CURTAIN MALL

FULL GLASS FLUSHED

GALVANIZED

INSULATED LOUVERED MESH

PRE-FINISHED PAINT(ED)

STEEL STAIN(ED)

MOOD

NARROW LIGHT OVERHEAD SOLID CORE STORE FRONT

SLIDING - PANEL TYPE STAINLESS STEEL

HOLLOW CORE HALF GLASS HOLLOW METAIL

TWO LEAF - PANEL TYPE

FOUR LEAF - PANEL TYPE SIX PANEL

2L-XX 4L-XX 6P

CM FG FL GALV

HC HG HM INSUL LV M PF PNT(D)

NL OH SC SF

SL-XX SS STL ST(ND) MD

| -1 | HM   | PNT | DH1 | DJ1 | 5 | - | 15 |                       | 104  |
|----|------|-----|-----|-----|---|---|----|-----------------------|------|
| -1 | HM   | PNT | DH1 | DJ1 | 5 | - | 15 |                       | 105  |
| -1 | ALUM | PF  | DH4 | DJ4 | 1 | - | 3  |                       | 106  |
| -1 | ALUM | PF  | DH4 | DJ4 | 1 | - | 3  |                       | 107A |
| -1 | HM   | PNT | DH1 | DJ1 | 3 | - | 7  |                       | 107B |
| -1 | HM   | PNT | DH1 | DJ1 | 3 | - | 9  | PROVIDE DOOR UNDERCUT | 108  |
| 2  | HM   | PNT | DH2 | DJ2 | 6 | - | 14 | PROVIDE DOOR UNDERCUT | 109  |
| 2  | HM   | PNT | DH2 | DJ2 | 6 | - | 12 | PROVIDE DOOR UNDERCUT | 110  |
| 2  | HM   | PNT | DH2 | DJ2 | 6 | - | 14 | PROVIDE DOOR UNDERCUT | 113  |
| -1 | HM   | PNT | DH1 | DJ1 | 6 | - | 13 |                       | 114A |
| -1 | HM   | PNT | DH1 | DJ1 | 6 | - | 13 |                       | 114B |
| -1 | HM   | PNT | DH1 | DJ1 | 6 | - | 10 | PROVIDE DOOR UNDERCUT | 115  |
| -1 | HM   | HM  | DH1 | DJ1 | 3 | - | 11 |                       | 116A |
| -1 | HM   | PNT | DH1 | DJ1 | 5 |   | 11 |                       | 116B |
| 2  | HM   | PNT | DH2 | DJ2 | 4 | - | 15 |                       | 117  |
| 2  | HM   | PNT | DH2 | DJ2 | 2 | - | 5  |                       | 118  |
| -1 | HM   | PNT | DH1 | DJ1 | 6 | - | 9  | VENTED DOOR           | 119  |
| 2  | HM   | PNT | DH2 | DJ2 | 6 | - | 15 |                       | 120A |
| -1 | HM   | PNT | DH2 | DJ2 | 1 | - | 6  |                       | 120B |
|    | -    | PF  | DH5 | DJ5 | - | - | -  |                       | 121A |
| 2  | HM   | PNT | DH2 | DJ2 | 2 | - | 5  |                       | 121B |
| 2  | HM   | PNT | DH2 | DJ2 | 2 | - | 4  |                       | 122  |
| -1 | ALUM | PF  | DH3 | DJ3 | 2 | - | 3  |                       | 123  |
|    | -    | PF  | DH5 | DJ5 | - | - | -  |                       | 124A |
|    | -    | PF  | DH5 | DJ5 | - | - | -  |                       | 124B |
| -1 | ALUM | PF  | DH3 | DJ3 | 2 | - | 3  |                       | 125  |

| GENERAL HARDWARE NOTES  |
|---|
| 1. ALL HARDWARE SHALL BE BRUSHED ALUM. FINISH OR AS OTHERWISE SELECTED BY OWNER |
| 2. G.C. TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL OF ALL DOOR HARDWARE    |
| 3. SEE SPECIFICATIONS FOR DOOR HARDWARE SET INFORMATION.                        |

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MUHLENBERG TOMNSHIP A
OFFICE BUILDING & N
OARAGE
2840 KUTZTOMN RD
READING, PA 19605 MUHLENBERG TOWN

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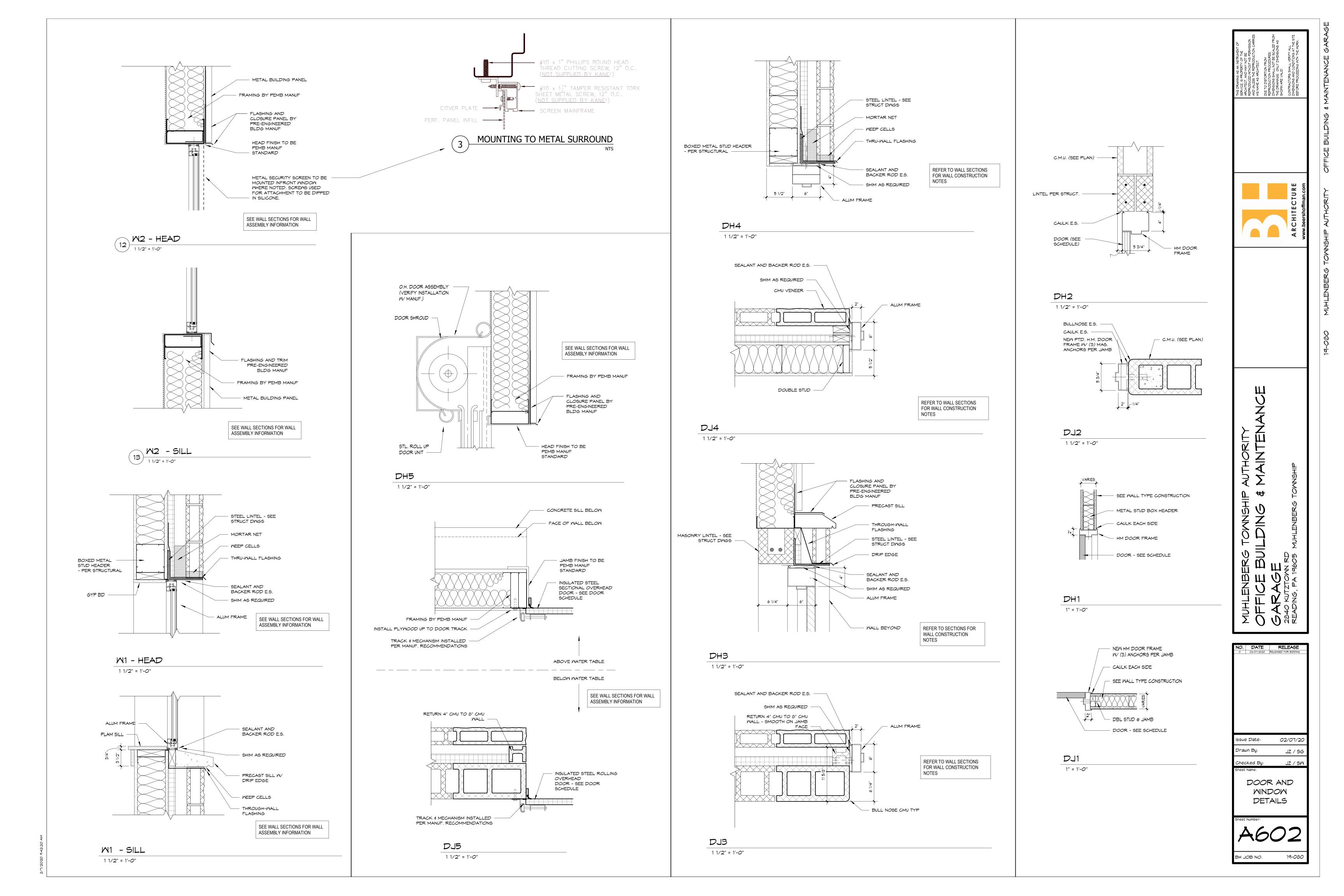
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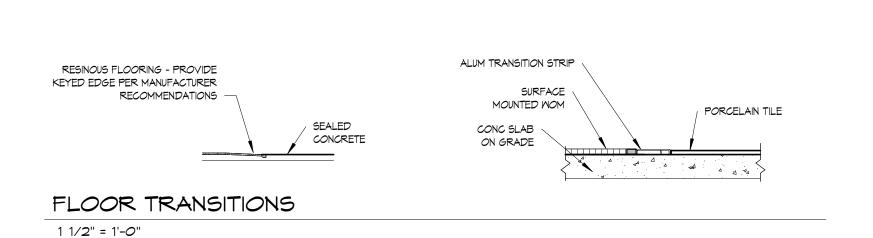
DOOR AND MINDOM SCHED

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DOOR TYPES

1/4" = 1'-0"

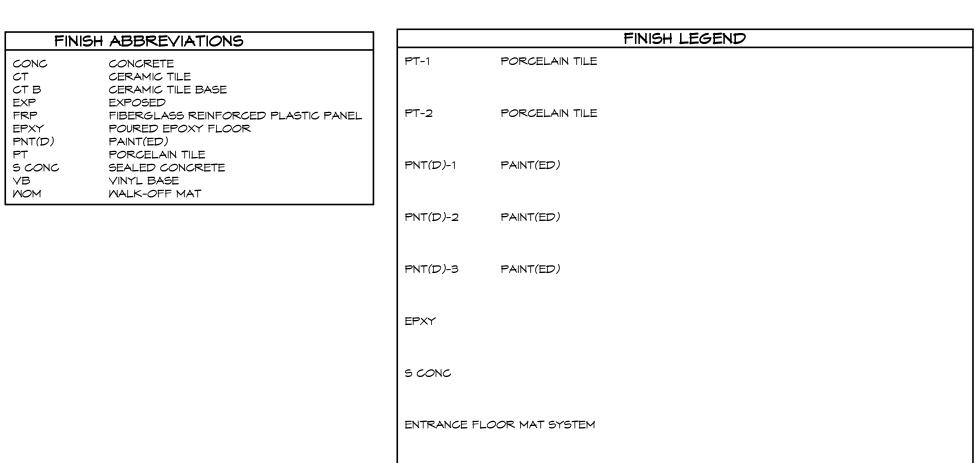






- . ANY MODIFICATION AND/OR CHANGES TO FINISH SELECTIONS MUST BE SUBMITTED TO ARCHITECT FOR APPROVAL

  2. CONTRACTOR TO FOLLOW ALL MANUFACTURERS WRITTEN SPECIFICATIONS AND
- PROCEDURE. 3. PROVIDE TRANSITION STRIP AT ALL FLOORING MATERIAL CHANGES AND TRANSITIONS, I.E., CERAMIC TILE TO CARPET, SHEET VINYL TO CARPET, ETC. PROFILE MINIMAL AS
- POSSIBLE. FINISHED TO MATCH FLOORING. 1. WHERE FLOORING TRANSITION OCCURS AT DOORS, PROVIDE TRANSITION STRIP AS APPLICABLE AND CENTER UNDER DOOR IN CLOSED POSITION.
- 5. ALL ACCESS PANELS, ELECTRICAL PANELS AND/OR MECHANICAL GRILLES THAT OCCUR IN MALLS, SHALL BE PAINTED TO MATCH ADJACENT SURFACE, NOTIFY ARCHITECT IS A CONDITION OCCURS IN WALLS THAT HAVE A FINISH OTHER THAN PAINT, SUCH AS VINYL WALL COVERINGS, ETC.
- . COORDINATE LOCATION AND QUANITY OF COUNTER GROMMETS ON SITE. GROMMETS SHALL BE 3" PLASTIC TO MATCH COUNTERTOP. GC TO SUBMIT SUBMITTAL FOR APPROVAL, UNLESS NOTED OTHERWISE.
- 7. ALL CABINETS SHALL BE FINISHED ON ALL EXPOSED SURFACES WITH FINISHED INTERIORS, UNLESS NOTED OTHERWISE



|        |                  | ROOM FIN     | ISH SCHEDU  | LE - FLOOR  | <b>5</b> T |          |
|--------|------------------|--------------|-------------|-------------|------------|----------|
| Number | Name             | Floor Finish | Base Finish | Mall Finish | Area       | Comments |
| 101    | OFFICE           | PT-1         | VINYL BASE  | PNT-1       | 172 SF     |          |
| 102    | OFFICE           | PT-1         | VINYL BASE  | PNT-1       | 173 SF     |          |
| 103    | VEST.            | MOM-1        | ∨B-1        | PNT-1       | 54 SF      |          |
| 104    | OFFICE           | PT-1         | CT B        | PNT-1       | 171 SF     |          |
| 105    | OFFICE           | PT-1         | CT B        | PNT-1       | 171 SF     |          |
| 106    | CORRIDOR         | PT-2         | PT BASE     | PNT-1       | 687 SF     |          |
| 107    | VEST. / DROP-OFF | MOM-1        | ∨B-1        | PNT-1       | 69 SF      |          |
| 108    | UNIFORM          | PT-2         | PT BASE     | PNT-1       | 67 SF      |          |
| 109    | MOMENS           | PT-2         | PT BASE     | PNT-2       | 213 SF     |          |
| 110    | TLT.             | PT-2         | PT BASE     | PNT-2       | 58 SF      |          |
| 111    | SHOWER           | PT-2         | PT BASE     | PNT-2       | 171 SF     |          |
| 112    | LOCKERS          | PT-2         | PT BASE     | PNT-2       | 308 SF     |          |
| 113    | MENS             | PT-2         | PT BASE     | PNT-2       | 182 SF     |          |
| 114    | CL.              | PT-1         | VINYL BASE  | PNT-1       | 45 SF      |          |
| 115    | J.               | PT-2         | PT BASE     | PNT-1       | 28 SF      |          |
| 116    | LUNCH ROOM       | PT-1         | VINYL BASE  | PNT-1       | 730 SF     |          |
| 117    | IT / EL.         | S CONC       | VINYL BASE  | PNT-2       | 63 SF      |          |
| 118    | STORAGE          | S CONC       | VINYL BASE  | PNT-2       | 437 SF     |          |
| 119    | EQUIP.           | S CONC       | VINYL BASE  | PNT-2       | 34 SF      |          |
| 120    | CORR             | EPXY-1       | EPXY COVE   | PNT-1       | 104 SF     |          |
| 121    | STORAGE          | S CONC       | VINYL BASE  | PNT-2       | 578 SF     |          |
| 122    | MECH.            | S CONC       | VINYL BASE  | PNT-2       | 301 SF     |          |
| 123    | MASH BAY         | EPXY-2       | EPXY COVE   | PNT-2       | 904 SF     |          |
| 124    | GARAGE           | 5 CONC       |             | PNT-2       | 13549 SF   |          |
| 125    | MAINTENANCE AREA | EPXY-2       | EPXY COVE   | PNT-2       | 1226 SF    |          |

| FINISH SCHEDULE COMMENTS   |  |  |  |  |
|--|--|--|--|--|
| 1. ALL WINDOWS IN OFFICES AND LUNCH ROOM TO RECIEVE VERTICAL BLINDS. |  |  |  |  |
|  |  |  |  |  |
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| MUHLENBERG TOWNSHIP AUTHORIT |     |
|------------------------------|-----|
| <br>OFFICE BUILDING & MAINTE | 111 |
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|                              |     |

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| sue Date: | 02/07/20 |
|-----------|----------|
| rawn By:  | JZ / SG  |
|           | •        |

FINISH PLAN

OFFICE

VEST. /

DROP-OFF

UNIFORM/

OFFICE

CORRIDOR

ICE - -

LUNCH ROOM

STORAGE

FLOORING

<u>LEGEND</u>

ENTRANCE FLOOR MAT SYSTEM