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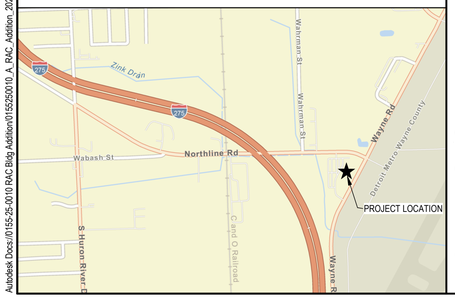
PROJECT LOCATION MAP



CITY OF ROMULUS

ROMULUS ATHLETIC CENTER BUILDING ENTRY ADDITION

35765 Northline Rd, Romulus, MI 48174

OHM PROJECT NO. 0155-25-0010

BIDS

ISSUED: 3/25/2026

OWNER

CITY OF ROMULUS
KEVIN KRAUSE, DIRECTOR OF COMM. SAFETY & DEVELOPMENT
11111 WAYNE ROAD
ROMULUS, MICHIGAN 48174
(734) 942-7500
KKRAUSE@ROMULUSGOV.COM

ARCHITECT

OHM-ADVISORS
CHRISTOPHER OZOG
34000 PLYMOUTH ROAD
LIVONIA, MICHIGAN 48150
(734) 522-6711

CIVIL ENGINEER	STRUCTURAL ENGINEER	MECH. PLUMB. & FP	ELECTRICAL ENGINEER
I Certify That The Discipline Plans Were Prepared Under My Direct Supervision	I Certify That The Discipline Plans Were Prepared Under My Direct Supervision	I Certify That The Discipline Plans Were Prepared Under My Direct Supervision	I Certify That The Discipline Plans Were Prepared Under My Direct Supervision

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ISSUED FOR: BIDS 3/25/2026

PROJECT NUMBER 0155-25-0010
PM
CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174
COVER & DRAWING INDEX

G-000

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BUILDING SUMMARY

PROJECT DESCRIPTION

LOCATION — Romulus, MI

Project Description: The existing building consists of 88,396 square feet and proposed new work is 2,415 square feet. The interior renovation includes an expanded vestibule, additional storage room, new multi-use room and egress improvements.

BUILDING CODE INFORMATION

BUILDING — 2021 Michigan Rehabilitation Code for Existing Buildings

Following codes when referenced by Michigan Rehabilitation Code for Existing Buildings:

BUILDING	2021 Michigan Building Code
MECHANICAL	2021 Michigan Mechanical
PLUMBING	2021 Michigan Plumbing Code
ELECTRICAL	2023 National Electrical Code
ENERGY	2021 International Energy Conservation Code referencing ANSI/ASHRAE/IESNA standard 90.1-2019
FUEL GAS CODE	2021 International Fuel Gas
FIRE	2021 International Fire Code
LIFE SAFETY	NFPA 101, 2012
ACESSIBILITY	2017 ICC/ANSI A117.1 & Michigan Barrier Free Design 2010 & Americans with Disabilities Act Accessible Guidelines (ADAAG)

PROJECT INFORMATION

USE AND OCCUPANCY	EXISTING	PROPOSED
OCCUPANCY CLASSIFICATION	A-3 ASSEMBLY / RECREATION POOL / AQUANTIC CENTER / GYMNASIUM / COMMUNITY HALLS	SAME AS EXISTING
TYPE OF CONSTRUCTION		
	EXISTING	PROPOSED
CONSTRUCTION TYPE	IIB	IIB
FIRE PROTECTION SYSTEMS		
AUTOMATIC SPRINKLER SYSTEM:	YES	YES
NFPA REQUIREMENTS:		13
HAZARD CLASS:	AS INDICATED ON FIRE PROTECTION DRAWINGS	
PORTABLE FIRE EXTINGUISHERS	YES	CLASS: ABC, K IN KITCHENS
FIRE ALARM AND DETECTION:	MONITORED FIRE ALARM SYSTEM	
ALTERATION LEVEL 2	REQUIRED IN WORK AREA	
ADDITION	REQUIRED	
MANUAL SINGLE PULL	NO	
EMERGENCY VOICE/ALARM COMMUNICATION	YES	
AUTOMATIC SMOKE DETECTION	PARTIAL	
SMOKE ALARMS	NO	
FIRE DEPARTMENT COMMUNICATION SYSTEM	NO	
EMERGENCY ALARM SYSTEMS		
GAS DETECTION SYSTEM	NO	
FLAMMABLE-GAS DETECTION SYSTEM	NO	
CO2 SYSTEM	NO	
REFRIGERANT DETECTOR	NO	
SMOKE CONTROL	NO	
FIRE COMMAND CENTER	NO	
FIRE DEPARTMENT CONNECTION	YES	
CARBON MONOXIDE DETECTION	NO	
MEANS OF EGRESS		
COMMON PATH OF TRAVEL	A: 75'	
MEANS OF EGRESS SIZING		
STAIRS	.2 INCHES PER OCCUPANT	
OTHER EGRESS COMPONENTS	.15 INCHES PER OCCUPANT	
NUMBER OF EXITS		
OCCUPANT LOAD PER STORY	MINIMUM NUMBER OF EXITS	EXITS PROVIDED
1-500	2	
501-1,000	3	
MORE THAN 1,000	4	
		10
TRAVEL DISTANCE	250'	
DEAD END CORRIDORS	20'	

COMPLIANCE METHOD : WORK AREA

REFER TO PLAN FOR LOCATIONS OF CLASSIFICATION OF WORK

ALTERATIONS LEVEL 2 (CHAPTER 8)

GENERAL (801)

COMPLY WITH LEVEL 1 REQUIREMENTS

ALL NEW CONSTRUCTION ELEMENTS, COMPONENTS, SYSTEMS, AND SPACES SHALL COMPLY WITH THE REQUIREMENTS OF MICHIGAN BUILDING CODE.

EXCEPTION: NEWLY INSTALLED ELECTRICAL EQUIPMENT SHALL COMPLY WITH SECTION 806

FIRE PROTECTION (803)

FIRE ALARM SYSTEM SHALL BE INSTALLED (NFPA 72)
ALARM NOTIFICATION APPLIANCES WITHIN WORK AREA SHALL BE PROVIDED, TIED INTO EXISTING ALARM SYSTEM AND AUTOMATICALLY ACTIVATED

ELECTRICAL (806)

ALL NEWLY INSTALLED ELECTRICAL EQUIPMENT AND WIRING RELATING TO WORK DONE IN WORK AREA COMPLY WITH NFPA 70

MECHANICAL (807)

ALL NEW AND RECONFIGURED SPACES IN WORK AREA SHALL BE PROVIDED WITH NATURAL OR MECHANICAL VENTILATION IN ACCORDANCE WITH THE MICHIGAN MECHANICAL CODE.

ADDITION (CHAPTER 11)

HEIGHTS AND AREAS (1102)

GENERAL BUILDING LIMITATIONS

	ALLOWED / REQUIRED	ACTUAL / PROVIDED
HEIGHT OF BUILDING	75 FEET	17' - 0" (ADDITION)
NUMBER OF STORIES	3 (A-3)	1 STORY
AREA	UNLIMITED (507.6)	90,811 SQ. FT.
		(88,396 EXIST + 2,415 ADDITION)

ENERGY EFFICIENCY [ASHRAE 90.1-2019]

CLIMATE ZONE	SPACE CATEGORY	COMPLIANCE PATH
[TABLE B1-1] 5	NONRESIDENTIAL	PRESCRIPTIVE
COMPONENT	**CODE [TABLE 5.5.5]**	
BUILDING ENVELOPE	ASSEMBLY MAX	INSULATION MIN / PROVIDED
WALLS, BELOW GRADE	N/A	N/A / N/A
WALLS, ABOVE GRADE	U-0.090	R-11.4 C.I. / R-24 C.I.
FLOORS	N/A	N/A / N/A
SLAB-ON-GRADE FLOORS	F-0.520	R-15 FOR 24 IN.
OPAQUE DOORS	U-0.370	U-0.500
ROOF	U-0.032	R-30 C.I. / R-30 C.I.
FENESTRATION [TABLE 5.5.5]		ASSEMBLY MAX. / SHGC / VT
VERTICAL FENESTRATION	FIXED	U-0.36 / SHGC-0.38 / 1.10
0% - 40%	OPERABLE	U-0.45 / SHGC-0.33 / 1.10
METAL FRAMING	ENTRANCE DOORS	U-0.63 / SHGC-0.33 / 1.10
SKYLIGHT	ALL TYPES	U-0.50 / SHGC-0.40 / NR

PLUMBING FIXTURE CALCULATIONS - BUILDING

	REQUIRED	PROVIDED (EXISTING)
MEN		
WC	5	7
UR	3	8
LAV	5	10
SHOWER	AS DETERMINTED BY AHJ	4
WOMEN		
WC	16	14
LAV	5	10
SHOWER	AS DETERMINTED BY AHJ	6
FAMILY / UNISEX		
WC	2	8
LAV	2	8
SHOWER	AS DETERMINTED BY AHJ	6
MOP SINK	1	2
FOUNTAIN	4	6 (3-HI/LOW PAIRS)

PLUMBING FIXTURE CALCULATIONS - EVENT CENTER

	REQUIRED	PROVIDED (EXISTING)
MEN		
WC	1	1
UR	1	2
LAV	1	2
WOMEN		
WC	3	3
LAV	1	2
TOILET ROOM (STAFF ONLY)		
WC	0	1
LAV	0	1
MOP SINK	1	1
FOUNTAIN	1	0 *

* If drinking fountains located outside the Event Center are rendered inaccessible due to closure of the Recreation Center, the Event Center shall provide potable water to occupants by means of containerized potable water at no cost.

SCHEDULE OF DEFERRED SUBMITTALS

DESCRIPTION	PROFESSIONAL SEAL
1. COLD-FORMED METAL FRAMING 2. FIRE ALARM SYSTEM	

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PROJECT NUMBER 0155-25-0010 — PM — CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

CODE COMPLIANCE SUMMARY

G-100

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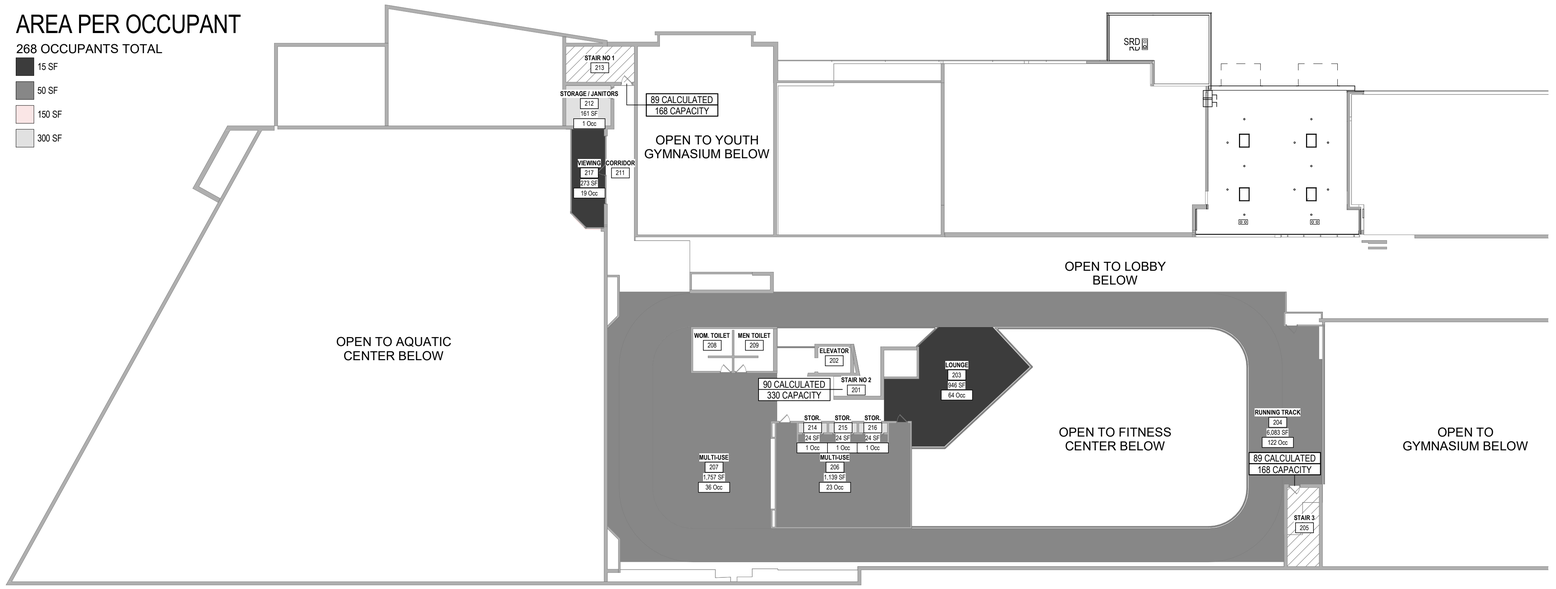
AREA PER OCCUPANT

268 OCCUPANTS TOTAL

- 15 SF
- 50 SF
- 150 SF
- 300 SF



2 MEZZANINE CODE PLAN

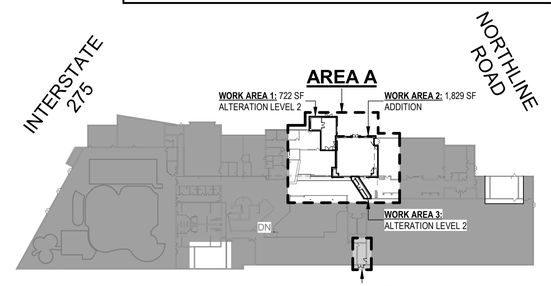
3/64" = 1'-0"

CODE PLAN LEGEND

ROOM NAME 101 150 SF 1,254 Occ	ROOM NAME ROOM NUMBER ROOM AREA NUMBER OF OCCUPANTS
XXX CALCULATED XXX CAPACITY	CALCULATED OCCUPANT LOAD AT EGRESS COMPONENT CAPACITY OF EGRESS COMPONENT
(X'-X")	TRAVEL DISTANCE TO NEAREST EXIT
Path Label	PATH OF EGRESS TRAVEL TRAVEL DISTANCE TO EXITS = 300 FT MAX COMMON PATH OF TRAVEL = 75' MAX DEAD ENDS = 20' MAX
MAX DIAGONAL DISTANCE: 13' - 0" EXIT SEPARATION REQUIRED: 6' - 6"	MAXIMUM DIAGONAL DISTANCE & REQUIRED EXIT SEPARATION
EXIT SEPARATION: 10' - 0"	EXIT SEPARATION DISTANCE
	0-HOUR SMOKE PARTITION
	1-HOUR SMOKE BARRIER
	1-HOUR FIRE RATING
	2-HOUR FIRE RATING
	3-HOUR FIRE RATING
	4-HOUR FIRE RATING
	FIRE RATED EXIT ENCLOSURE (1 HR FIRE RATED WALL & CEILING/FLOOR ASSEMBLY - SEE PLAN AND DETAILS)

PORTABLE FIRE EXTINGUISHERS

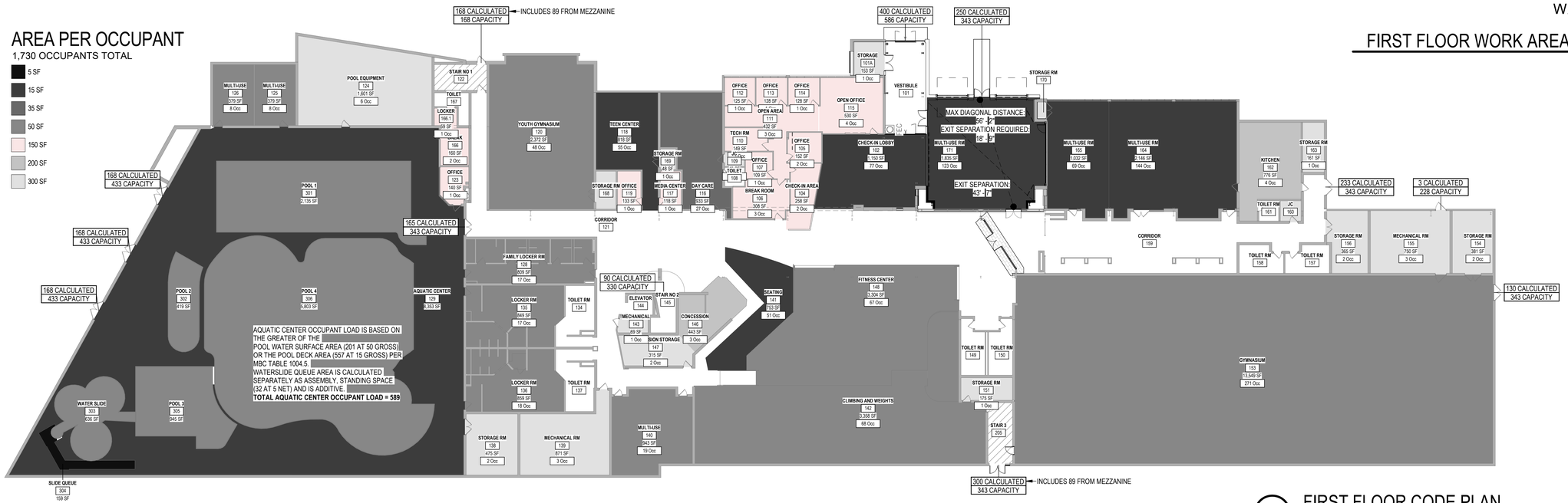
	FIRE EXTINGUISHERS	FIRE EXTINGUISHER CABINET	FIRE-X RATED CABINET
MULTI-PURPOSE CHEMICAL (CLASS ABC)	FE	FEC	FEC-X
WET CHEMICAL (CLASS K)	FE	FEC	FEC-X



AREA PER OCCUPANT

1,730 OCCUPANTS TOTAL

- 5 SF
- 15 SF
- 35 SF
- 50 SF
- 150 SF
- 200 SF
- 300 SF



1 FIRST FLOOR CODE PLAN

3/64" = 1'-0"

FIRST FLOOR WORK AREA PLAN

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd. Romulus, MI 48174

CODE COMPLIANCE PLANS

G-101

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01 00 00: GENERAL REQUIREMENTS

1. THE CONTRACT DOCUMENTS, WHICH INCLUDE BUT ARE NOT LIMITED TO THE PLAN NOTES, SPECIFICATIONS, CONTRACT TERMS AND CONDITIONS, AND SUPPLEMENTAL CONDITIONS, LIST VARIOUS FIRMS AND AGENCIES HAVING VARYING LEVELS OF AUTHORITY OVER THE WORK. THE FOLLOWING ASSOCIATIONS OF AUTHORITY SHALL BE CONSIDERED PART OF THE CONTRACT AND SHALL BE HONORED BY THE CONTRACTOR UNLESS ALTERED IN WRITING BY THE OWNER.
   A. CONTRACTOR = TO BE DETERMINED (REQUIREMENTS OF CONTRACTOR SHALL EQUALLY APPLY TO ANY VENDOR, SUBCONTRACTOR, OR SERVICE PROVIDER RETAINED BY THE CONTRACTOR)
   B. SURVEYOR = SHALL BE RETAINED BY THE CONTRACTOR FOR STAKING, LAYOUT, MEASUREMENT, AND AS-BUILT RECORD AT NO ADDITIONAL EXPENSE TO THE OWNER.
   C. OWNER = ROMULUS ATHLETIC CENTER (CONTACT:)
   D. OWNER'S REPRESENTATIVE = ANY DELEGATE FROM ENGINEER, OWNER, OR TESTING AGENCY. OWNER MAY DESIGNATE OR CHANGE SPECIFIC REPRESENTATIVES FOR EACH PROJECT REQUIREMENT AT ANY TIME.
   E. ENGINEER/ARCHITECT = OHM ADVISORS (CONTACT: CHRISTOPHER OZOG, AIA, CDT, CSI – (734) 466-4475)
   F. TESTING AGENCY = DESIGNATED AND RETAINED BY THE OWNER
   G. UTILITY AUTHORITIES = SEE COVER SHEET
   H. RIGHT-OF-WAY = NOT APPLICABLE – CONTRACTOR SHALL PERFORM ALL WORK AND STAGING WITHIN PROPERTY LIMITS OF ROMULUS ATHLETIC CENTER
   I. CONSTRUCTION/BUILDING PERMITTING = CITY OF ROMULUS, BUILDING DEPARTMENT
   J. TRAFFIC CONTROL REGULATION = MICHIGAN MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD)
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE, AND LOCAL PERMITS FOR THE PROPOSED WORK AT NO ADDITIONAL COST TO THE OWNER.
3. CONTRACTOR SHALL PROVIDE ALL MATERIALS, PERSONNEL, AND EQUIPMENT NECESSARY TO COMPLY WITH ALL NOTES AND REQUIREMENTS CONTAINED WITHIN THE CONTRACT DOCUMENTS, INCLUDING THE PLAN DRAWINGS AND DETAILS, AT NO ADDITIONAL COST TO THE OWNER. COMPLIANCE WITH THE PROJECT REQUIREMENTS CONTAINED HEREIN SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND THE RESPECTIVE LUMP SUM OR UNIT PRICE COST(S).
4. DO NOT SCALE DRAWINGS. ANY DIMENSIONAL INFORMATION REQUIRED WHICH IS NOT INDICATED ON DRAWING DIMENSION STRINGS SHALL BE OBTAINED FROM THE ENGINEER.
5. MATERIALS, METHODOLOGIES, PROCEDURES THAT REFER TO "MDOT" SHALL CONFORM TO MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND APPLICABLE SPECIAL PROVISIONS. REFERENCES TO PAYMENT WITHIN THE REFERENCED MDOT DOCUMENTS SHALL NOT APPLY TO THIS CONTRACT; ALL PAYMENT SHALL BE IN ACCORDANCE WITH THE METHOD OF PAYMENT AS DESCRIBED IN THE CONTRACT DOCUMENTS AND/OR OWNER'S PURCHASE ORDER LANGUAGE.
6. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ACTIVITIES THAT WILL OR MAY REQUIRE ACCEPTANCE, INSPECTION, OR ANY TESTING DESCRIBED HEREIN.
7. SAFETY NOTICE: CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK; THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ON-SITE REVIEW OF THE CONTRACTOR'S PERFORMANCE DOES NOT ALLEVIATE THE CONTRACTOR'S SAFETY REQUIREMENTS.
8. EQUIPMENT, SOIL STOCKPILES, JOB TRAILERS, VEHICLES, AND OTHER MATERIALS SHALL ONLY BE STORED IN AN OWNER-APPROVED AREA THAT PREVENTS ENVIRONMENTAL DAMAGE, IS DEVOID OF MATURE TREES, AND IS ISOLATED FROM DRAINAGE FACILITIES, WETLANDS, STREAMS, AND TRAFFIC PATTERNS.
9. CONTRACTOR SHALL UNLOAD MATERIAL IN A SAFE AND CAREFUL MANNER WHICH PREVENTS DAMAGE TO THE MATERIAL AND EXISTING SITE FEATURES. DROPPING PIPE, STRUCTURES, FITTINGS, CASTINGS, OR OTHER BRITTLE OR FRAGILE MATERIAL OFF OF TRUCKS IS PROHIBITED.
10. WORK RESTRICTIONS: ALL DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE RESTRICTED TO NORMAL DAYLIGHT WORKING HOURS MONDAY THROUGH SATURDAY UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITIES TO THE SITE BOUNDARIES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE OR DISTURBANCE TO THE ADJACENT PROPERTIES OR RIGHT-OF-WAY OCCURRING DURING THIS CONTRACT, AT NO COST TO THE OWNER.
11. SCHEDULE WORK WITH OWNER TO FIT OWNER'S OPERATIONS, TO FACILITATE COMPLETION OF THIS WORK, TO COORDINATE WITH AND EXPEDITE NEW CONSTRUCTION WORK ON PROJECT.
12. PROJECT MEETINGS: ATTEND REGULAR MEETINGS WITH OWNER'S REPRESENTATIVE AND SUBCONTRACTORS AS DIRECTED BY OWNER'S REPRESENTATIVE.
13. COORDINATE SEQUENCING OF WORK TO OCCUR DURING CONDITIONS OF TEMPERATURE, HUMIDITY, EXPOSURE, FORECAST WEATHER, AND STATUS OF PROJECT COMPLETION, WHICH WILL ENSURE BEST POSSIBLE RESULTS FOR EACH UNIT OF WORK.
14. COORDINATE WORK BETWEEN TRADES FOR THE MOST EFFICIENT SEQUENCE OF INSTALLATION, TO PREVENT SPACE CONFLICTS, AND TO PROVIDE CLEARANCES REQUIRED BY CODE, DRAWINGS, AND THE MANUFACTURER.
15. PROVIDE COORDINATION DRAWINGS AND SKETCHES TO DEPICT MEANS AND METHODS AS NECESSARY FOR COORDINATION OF TRADES, TEMPORARY CONTROLS AND BARRIERS, SEQUENCING, MATERIALS LOADING AND UNLOADING, DISPOSAL, AND TO ENSURE PROTECTION OF FINISHED WORK.
16. SUBMIT CONSTRUCTION SCHEDULE TO THE OWNER'S REPRESENTATIVE WITHIN 30 DAYS OF CONTRACT AWARD AND AT LEAST WEEKLY WITH A TWO-WEEK LOOK AHEAD BREAKING DOWN TASKS AND DEPENDENCIES. SCHEDULE SHALL IN GANNT CHART OR CALENDAR FORMAT. INCLUDE PROCUREMENT, SUBMITTAL REVIEW, MOBILIZATION, AND INSPECTION IN ADDITION TO FIELD WORK.
17. SUBMITTALS: TRANSMIT REQUIRED SUBMITTALS AND SHOP DRAWINGS VIA EMAIL OR OTHER ELECTRONIC METHOD AS DIRECTED BY THE ENGINEER. ALLOW 10 (TEN) BUSINESS DAYS FOR REVIEW OF INITIAL SUBMITTALS AND EACH RE-SUBMITTAL IN CONSTRUCTION SCHEDULE. TRANSMIT EACH SUBMITTAL SEPARATELY. INCLUDE COVER SHEET AND INDICATE SPECIFICATION, DRAWING, TYPE, AND VARIANCE (IF APPLICABLE) FOR EACH SUBMITTAL. MAINTAIN A SUBMITTAL LOG FOR OWNER REVIEW. THE CONTRACTOR IS RESPONSIBLE FOR FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS; REVIEW BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT.
18. TEMPORARY FACILITIES AND CONTROLS SHALL BE KEPT IN NEAT AND WORKING ORDER AND OPERATED IN A SAFE AND EFFICIENT MANNER. CONTRACTOR SHALL NOT ALLOW HAZARDOUS, DANGEROUS OR UNSANITARY CONDITIONS, OR PUBLIC NUISANCES TO DEVELOP OR PERSIST ON THE SITE.
19. INSTALL TEMPORARY UTILITIES AS NECESSARY TO PREVENT OUTAGES DURING UTILITY WORK.
20. ALL UTILITY INSTALLATIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE JURISDICTION'S STANDARD DETAILS, SPECIFICATIONS, AND REQUIREMENTS, WHERE APPLICABLE.
21. NOTICE SHALL BE GIVEN BY THE CONTRACTOR, UNLESS WAIVED BY THE AUTHORITY HAVING JURISDICTION, TO ALL USERS TO AFFECTED BY A PROPOSED UTILITY OUTAGE, AT LEAST 48 HOURS IN ADVANCE OF THE PROPOSED OUTAGE.
22. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR SHALL VERIFY AND RECORD ELEVATIONS UNLESS DIRECTED OTHERWISE BY THE OWNER'S REPRESENTATIVE.

01 55 26: TRAFFIC CONTROL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS CONES, BARRICADES, SIGNS, FLAGGERS, TEMPORARY PAVEMENT MARKINGS, FENCES, AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY CONFORMING TO LOCAL TRAFFIC CONTROL STANDARDS. TRAFFIC AND PEDESTRIAN CONTROLS SHALL PROHIBIT TRAFFIC OVER NEW PAVEMENT, LANDSCAPING, RESTORATION, PAINT, OR ANY OTHER NEWLY INSTALLED FEATURE UNTIL THE OWNER'S REPRESENTATIVE AUTHORIZES OPENING TO TRAFFIC.
2. CONTRACTOR SHALL MAINTAIN AN ACCESSIBLE ROUTE FOR PEDESTRIANS AND EMERGENCY VEHICLES AND PERSONNEL TO ADJACENT BUILDINGS AT ALL TIMES.
3. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN FOR ANY WORK ADJACENT TO OR WITHIN THE PUBLIC RIGHT-OF-WAY.

01 56 00: TEMPORARY BARRIERS AND ENCLOSURES

1. INSTALL TEMPORARY CONSTRUCTION FENCE TO SECURE THE SITE AND PROTECT THE PUBLIC. SITE SECURITY IS THE CONTRACTOR'S RESPONSIBILITY; THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
2. TREE PROTECTION: UNLESS OTHERWISE DIRECTED, ALL TREES SHALL BE PROTECTED FROM WOUNDS TO THE BARK AND FOLIAGE.
3. THE CRITICAL ROOT ZONE OF ALL TREES (1.5 FEET RADIUS FOR EACH INCH OF DIAMETER AT BREAST HEIGHT) SHALL BE PROTECTED FROM COMPACTION AND GRADING.
4. CHANGES IN TEMPORARY SITE DRAINAGE AND PONDING THAT AFFECT THE PROTECTED TREES IS PROHIBITED.
5. THE CRITICAL ROOT ZONE OF TREES SHALL BE SURROUNDED BY A HIGH-VISIBILITY FENCE (4 FT IN HEIGHT).
6. ANY EXISTING TREE THAT IS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. TREE WILL BE CONSIDERED DAMAGED IF THE CRITICAL ROOT ZONE IN COHESIVE SOILS IS COMPACTED OR IF THERE ARE SIGNIFICANT WOUNDS THAT COULD CONTRIBUTE TO ROT OR DISTRESS.

01 71 00: EXAMINATION AND PREPARATION

1. PRIOR TO THE WORK, PREPARE AND SUBMIT PRE-CONSTRUCTION VIDEO OR PHOTOS, CONSTRUCTION AND TREE PROTECTION FENCE PLANS, SHOP DRAWINGS, AND PRODUCT INFORMATION.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF BURIED UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES ON THE PLANS ON THE SAME DAY THEY ARE DISCOVERED.
3. UTILITY CONTACTS – PRIVATE:
   ELECTRIC – DTE ENERGY / AAPS
   GAS – DTE ENERGY
   CABLE/DATA/FIBER – COMCAST
   PHONE – AT&T
4. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATIONS AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER'S REPRESENTATIVE OF DISCREPANCIES IN THE PLANS.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE OWNER'S REPRESENTATIVE. THE ENGINEER, ARCHITECT, AND OWNER ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE LOCATION OR DEPTH OF ANY EXISTING UTILITY SHOWN OR NOT SHOWN ON THE PROJECT DRAWINGS.
6. PRE-CONSTRUCTION PHOTOGRAPHS OR VIDEO: SHOW EXISTING CONDITIONS OF ADJOINING CONSTRUCTION, INCLUDING FINISH SURFACES, THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY CONSTRUCTION OPERATIONS.

02 41 13: SELECTIVE SITE DEMOLITION

1. TAKE MEASURES AS NECESSARY AND REASONABLE TO PROTECT EXISTING PROPERTY, UTILITIES, AND FEATURES FROM DAMAGE DURING DEMOLITION ACTIVITIES.
2. TEMPORARY SHORING: DESIGN, PROVIDE, AND MAINTAIN SHORING, BRACING, AND STRUCTURAL SUPPORTS AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF CONSTRUCTION AND FINISHES TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED.
3. TOPSOIL STRIPPING: STRIP THE FULL DEPTH OF TOPSOIL ONLY FROM THOSE AREAS THAT WILL BE DISTURBED BY EXCAVATION, FILLING, CONSTRUCTION, OR COMPACTION BY EQUIPMENT.
4. TEMPORARY STOCKPILES: PROTECTIVE MEASURES SHALL BE INCORPORATED BY THE CONTRACTOR TO ENSURE SAFETY AND CONTROL EROSION ASSOCIATED WITH THE TEMPORARY STOCKPILES. STOCKPILE STRIPPED TOPSOIL WITHOUT INTERMIXING WITH ANY OTHER MATERIAL – BORROW TOPSOIL TO REPLACE MATERIAL CONTAMINATED BY THE CONTRACTOR SHALL BE AT THE CONTRACTOR'S EXPENSE.
5. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE SALVAGED OR REINSTALLED.
6. REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, AND DELIVER TO OWNER READY FOR REUSE. CLEAN SALVAGED ITEMS. TRANSPORT ITEMS TO OWNER'S STORAGE AREA DESIGNATED BY OWNER. PROTECT ITEMS FROM DAMAGE, LOSS, AND THEFT DURING TRANSPORT AND STORAGE.
7. REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, PREPARE FOR REUSE, AND REINSTALL WHERE INDICATED.
8. EXCAVATED MATERIALS NOT NEEDED OR NOT SUITABLE FOR FILL SHALL BE DISPOSED OFFSITE.
9. DISPOSAL: ALL DEMOLITION AND REMOVED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF-SITE IN ACCORDANCE TO ALL FEDERAL, STATE, AND LOCAL HAULING AND DISPOSAL REGULATIONS UNLESS DIRECTED OTHERWISE BY THE OWNER. DISPOSAL IN WETLANDS AND FLOODPLAINS IS PROHIBITED. BURNING ON-SITE IS PROHIBITED.
10. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE SELECTIVE DEMOLITION OPERATIONS BEGAN.
11. SAWCUT AND REMOVE EXISTING PAVEMENT AND AGGREGATE BASE FROM PAVED AREAS TO A DEPTH NECESSARY TO CONSTRUCT THE PROPOSED CROSS SECTION AT THE PLAN FINISH GRADES. GRADE SUBGRADE TO CORRESPOND TO PROPOSED FINISH GRADE OF PAVEMENTS – MAINTAIN MINIMUM THICKNESS.

31 23 00: EXCAVATION AND FILL (EARTHWORK)

1. ONE-CALL UTILITY LOCATING: MISSDIG – 811 OR 800-482-7171. CONTRACTOR SHALL CALL AND OPEN AN EXCAVATION TICKET A MINIMUM OF 3 WORKING DAYS PRIOR TO ANY EXCAVATION. WHEN MARKINGS AND FLAGS ARE DISRUPTED OR DESTROYED – CALL FOR REMARKING.
2. SUBMITTALS: MATERIAL TEST REPORTS FOR EACH BORROW SOIL (ONE PER SOURCE) AND EACH TYPE OF JOB EXCAVATED FILL. REPORT SHALL INCLUDE CLASSIFICATION ACCORDING TO ASTM D 2487 (USCS), SIEVE ANALYSIS (ASTM C 136), LABORATORY COMPACTION CURVE ACCORDING TO ASTM D 1557 (MODIFIED PROCTOR), AND MATERIALS CERTIFICATION.
3. BEDDING FOR UTILITY STRUCTURES AND PIPING: SHALL BE GRANULAR FILL OR STONE FILL.
4. BACKFILL FOR UTILITY STRUCTURES AND PIPING: SHALL BE GRANULAR FILL BENEATH PAVEMENT, WALKS, ROADS, AND WITHIN A 1:1 ENVELOPE OF THE EDGE OF PAVEMENT OR BACK OF CURB. MAY BE COMPACTED JOB EXCAVATED FILL IN OTHER AREAS.
5. EMBANKMENT (FILL): SOILS PLACED AND COMPACTED ABOVE ORIGINAL OR NATURAL GROUND LINE SUCH THAT FUTURE SITE IMPROVEMENTS WILL BE CONSTRUCTED ABOVE OR NEAR THE PLACED SOILS. SHALL BE COMPACTED, ACCEPTABLE JOB EXCAVATED FILL OR COMPACTED GRANULAR FILL.
6. EXCAVATION (CUT): REMOVAL OF MATERIAL ENCOUNTERED ABOVE SUBGRADE ELEVATIONS AND TO LINES AND DIMENSIONS INDICATED.
7. IMPERVIOUS FILL: CLAYEY GRAVEL AND SAND MIXTURE CAPABLE OF COMPACTING TO A DENSE STATE.
8. GRANULAR FILL: SHARP SAND, GRAVEL, OR CRUSHED STONE THAT IS FREE FROM LUMPS OF CLAY AND SOFT OR FLAKY MATERIAL AND SHALL CONFORM TO THE GRADATION OF MDOT SPECIFICATION TABLE 902-3 FOR MDOT CLASS I UNLESS OTHERWISE STATED ON THE PLANS OR PERMITTED BY THE OWNER'S REPRESENTATIVE. MAY BE IMPORTED OR JOB EXCAVATED IF IT MEETS THE REQUIREMENTS.
9. STONE FILL: CRUSHED LIMESTONE MEETING THE REQUIREMENTS OF MDOT SPECIFICATION TABLE 902-1 FOR CLASS 6A, 6AA, OR 6AAA. CRUSHED CONCRETE SHALL NOT BE USED.
10. JOB EXCAVATED FILL: ACCEPTABLE ONLY IF CLASSIFIED AS GW, GP, GM, SW, SP, AND SM ACCORDING TO ASTM D 2487 OR A COMBINATION OF THESE GROUPS AND IS FREE FROM FROZEN EARTH, BOULDERS, ROCKS, STONES LARGER THAN 2 INCH IN SIZE, DEBRIS, VEGETATION, BLUE AND GRAY CLAY, AND ORGANIC MATERIAL.
11. UNSATISFACTORY OR UNSUITABLE SOIL MATERIALS: ASTM D 2487 SOIL CLASSIFICATION GROUPS GC, SC, ML, MH, CL, CH, OL, OH, AND PT.
12. PROVIDE APPROVED BORROW SOIL MATERIALS FROM OFF-SITE WHEN SUFFICIENT APPROVED SOIL MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS. CONTRACTOR SHALL CALCULATE CUT AND FILL QUANTITIES AND SHALL IMPORT AND EXPORT MATERIALS NECESSARY TO COMPLY WITH THE PROJECT PLANS, DETAILS, AND SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
13. TOPSOIL STRIPPING: STRIP AND SALVAGE THE FULL DEPTH OF TOPSOIL FROM AREAS REQUIRING EXCAVATION OR EMBANKMENT.
14. SALVAGE EXCAVATED MATERIALS AS NEEDED FOR USE AS FILL OR BACKFILL. SEGREGATE SALVAGED MATERIALS AND PREVENT CONTAMINATION. BORROW SOILS NEEDED TO REPLACE REJECTED MATERIALS SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
15. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE EXCAVATION AT ALL TIMES. USE SHORING, TRENCH BOXES, SLOPING, BENCHING, DEWATERING AS NEEDED TO ENSURE THE SAFETY OF WORKERS, INSPECTORS, TESTERS, AND OBSERVERS. UNATTENDED EXCAVATIONS SHALL BE BARRICADED AND/OR FENCED TO PREVENT ACCIDENTS – CONTRACTOR IS RESPONSIBLE FOR PUBLIC SAFETY ANY EXCAVATIONS THEY CREATE.
16. CONTRACTOR, OR THEIR SURVEYOR, SHALL CALCULATE THE SUBGRADE ELEVATION REQUIRED FOR EXCAVATION AND FILL WORK BY REFERENCING THE PROPOSED FINAL GRADE, COMPARING IT TO THE EXISTING GRADE, AND BACK-CALCULATING THE SUBGRADE ELEVATION BASED ON THE PROJECT PLANS, DETAILS, SPECIFICATIONS, AND/OR DIRECTION OF THE OWNER'S REPRESENTATIVE REGARDING THE FINISH SURFACE OR PAVEMENT CROSS SECTION.
17. SURVEYOR SHALL PROVIDE STAKING FOR GRADING, FILL THICKNESS, CUT AND FILL LIMITS, AND ANY OTHER FIELD CONTROL NEEDED TO COMPLETE THE WORK IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS.
18. CONTAMINATED SOILS ARE NOT ANTICIPATED TO BE ENCOUNTERED. IF CONTAMINATED SOILS ARE EXCAVATED, THEY SHALL BE ISOLATED FROM OTHER MATERIALS, PROTECTED FROM SPREADING CONTAMINANTS INTO STORM SEWERS AND WATERWAYS, AND SHALL BE DISPOSED OF ACCORDING TO LOCAL AND STATE REGULATIONS.
19. EXCAVATE TO INDICATED ELEVATIONS AND DIMENSIONS WITHIN A TOLERANCE OF PLUS OR MINUS 0.10-FEET.
20. EXCAVATED MATERIALS SHALL BE PLACED ON THE UPHILL SIDES OF TRENCHES, WHERE POSSIBLE, AND SHALL BE SET BACK 10 FEET FROM THE TRENCH.
21. TRENCH OR EXCAVATE TO ALLOW FOR PROPER PIPE LINE AND GRADE, UTILITY STRUCTURE INSTALLATION, BRACING AND SHORING (IF NEEDED), AND TO ALLOW FOR THE PROPOSED PAVEMENT OR RESTORATION CROSS-SECTION PER THE PLANS. EXCESS EXCAVATION, NOT DIRECTED BY THE OWNER'S REPRESENTATIVE AND NOT NEEDED TO INSTALL UTILITIES OR SITE IMPROVEMENTS SHALL BE BACKFILLED WITH COMPACTED GRANULAR FILL AT THE CONTRACTOR'S EXPENSE. SOFT OR WET TRENCH SUBGRADE SHALL BE REMOVED AND BACKFILLED WITH COMPACTED GRANULAR FILL.
22. PROTECT BENCHMARKS, FENCES, STRUCTURES, UTILITIES, PAVEMENTS, PROTECTION ZONES, PLANTS/LANDSCAPING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTH MOVING OPERATIONS.
23. DRIED OR CRUSTED COHESIVE SOILS SHALL BE PLOWED, DISKED OR OTHERWISE BROKEN UP BEFORE COMPACTION. IF WATER IS ADDED TO FILLS, THE LAYER SHALL BE SPREAD IN EVEN LIFTS, MOISTENED AS NECESSARY, THOROUGHLY MIXED, AND COMPACTED.
24. PRIOR TO PLACING ANY SOIL MATERIAL OR PAVEMENTS, THE UNDERLYING COURSE OR SUBGRADE SHALL BE CLEANED OF ALL FOREIGN/ORGANIC SUBSTANCES, ALL FROZEN MATERIALS REMOVED, AND THE SURFACE SHALL MEET COMPACTION AND SURFACE TOLERANCES. PLACEMENT OF SUBSEQUENT LAYERS OF SOIL MATERIAL SHALL NOT BE PERFORMED UNTIL THE UNDERLYING MATERIAL HAS BEEN VERIFIED AND ACCEPTED BY THE TESTING AGENCY TO HAVE MET THE CONDITION, GRADATION, WATER CONTENT, AND COMPACTION AS REQUIRED BY THE DESIGN.
25. FILL AND BACKFILL MATERIALS SHALL BE PLACED UNIFORMLY ON AN ACCEPTABLE SOIL SURFACE AND COMPACTED IN 8-INCH LIFTS UNLESS THE CONTRACTOR CAN DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THAT ACCEPTABLE COMPACTION CAN BE ACHIEVED IN THICKER LIFTS.
26. COMPACTION EQUIPMENT: SHEEPSFOOT ROLLER FOR COHESIVE MATERIALS; VIBRATORY FOR GRANULAR MATERIALS (SAND, STONE, AND GRAVEL). WORK FROM OUTSIDE TO THE CENTER WITH ROLLERS, OVERLAPPING ON SUCCESSIVE TRIPS AT LEAST ONE-HALF THE WIDTH OF THE ROLLER. ALTERNATE TRIPS OF THE ROLLER SHALL BE SLIGHTLY DIFFERENT LENGTHS.
27. PLACE EMBANKMENT AND BACKFILL AT OPTIMAL DENSITY TO ALLOW FOR MINIMUM COMPACTION. WET OR SLOPPY BACKFILL SHALL NOT BE PERMITTED. FILL AND BACKFILL SHALL BE PLACED WITH A WATER CONTENT OF PLUS OR MINUS 2% OF THE OPTIMUM (ASTM D 1557).
28. MAXIMUM UNIT WEIGHT SHALL BE DETERMINED BY ASTM D 1557 (MODIFIED PROCTOR), AASHTO DESIGNATION T-180, OR BY THE CONE DENSITY METHOD DEVELOPED BY MDOT, AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
29. COMPACT FILL, BACKFILL, SUBGRADE AND EMBANKMENTS TO 95% UNLESS OTHERWISE INDICATED ON PLANS AND DETAILS. COMPACTION SHALL BE MEASURED RELATIVE TO THE MAXIMUM DRY DENSITY PER ASTM D 1557 (MODIFIED PROCTOR METHOD).
30. TESTING AGENCY SHALL PERFORM IN-PLACE DENSITY CHECKS (ASTM D1556 – SAND CONE OR ASTM D6938 – NUCLEAR GAUGE) AT THE FOLLOWING INTERVALS: UNDER SIDEWALK: 1 PER 100 SFT; UNDER ROADS AND PARKING LOTS: 1 PER 500 SFT, UTILITY TRENCHES 1 PER 100 FT OF PIPE. TESTING AGENCY HAS AUTHORITY TO STOP OR REJECT WORK FOR QUALITY ON BEHALF OF THE OWNER.
31. GRADE AREAS TO A SMOOTH SURFACE. SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND STRUCTURES TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES: UNPAVED AREAS: PLUS OR MINUS 1 INCH. WALKS: PLUS OR MINUS 1 INCH. PAVEMENTS: PLUS OR MINUS 1/2 INCH.
32. SURPLUS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY BY THE CONTRACTOR.
33. UNSATISFACTORY SOIL AND WASTE MATERIAL SHALL BE REMOVED. INCLUDING TRASH, AND DEBRIS, AND LEGALLY DISPOSED OF IT OFF THE OWNER'S PROPERTY.

31 25 00: EROSION AND SEDIMENTATION CONTROLS

1. SESC REGULATOR – WAYNE COUNTY
2. SUBMITTALS: PRODUCT INFORMATION FOR EACH MATERIAL PROPOSED FOR USE, INCLUDING AGGREGATE / RIPRAP (INCLUDE GRADATION ANALYSIS), GEOSYNTHETICS, MULCH AND MULCH BLANKETS, TURF REINFORCEMENT MATS, SILT FENCE, DEWATERING FILTER BAGS, EROSION EELS, WATTLES, AND INLET FILTERS.
3. TEMPORARY CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR TO CONTROL EROSION OF EARTH AND TO MAINTAIN QUALITY OF DISCHARGED RUNOFF DURING THE ACTIVITIES DESCRIBED IN THIS CONTRACT AND SHOWN ON THE CONTRACT PLANS. REMOVE AND DISPOSE OF TEMPORARY MEASURES AFTER THE CONCLUSION OF ASSOCIATED WORK WHEN PERMANENT CONTROL MEASURES AND RESTORATION ARE FUNCTIONING FULLY, THE SITE IS STABILIZED (ESTABLISHMENT OF VEGETATION OR THE PROPER PLACEMENT, GRADING OR COVERING OF SOIL TO ENSURE RESISTANCE TO SOIL EROSION, SLIDING OR OTHER EARTH MOVEMENT) AND ONLY UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
4. PERMANENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR TO CONTROL EROSION OF EARTH AND MAINTAIN QUALITY OF DISCHARGED RUNOFF DURING AND AFTER EXECUTION OF THE CONTRACT. COMPLETE PERMANENT SOIL EROSION CONTROL MEASURES FOR THE EARTH CHANGE WITHIN FIVE (5) CALENDAR DAYS AFTER FINAL GRADING OR UPON COMPLETION OF FINAL EARTH CHANGE.
5. COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION FOR EARTH CHANGES, STORMWATER QUALITY, AND RUNOFF DISCHARGE. INSPECT AND MAINTAIN ALL CONTROL MEASURES DAILY. INSPECTIONS BY THE OWNER OR A REGULATOR MAY OCCUR AND RESULT IN DIRECTION FOR MAINTENANCE OR EXPANSION OF INSTALLED MEASURES; CONTRACTOR SHALL COMPLY AT NO ADDITIONAL COST.
6. NO DEMOLITION, CUTTING, GRADING, EARTH CHANGE, EXCAVATION, OR CONSTRUCTION SHALL BE PERFORMED PRIOR TO FULL IMPLEMENTATION OF CONTROL MEASURES.
7. DESIGN, CONSTRUCT, AND COMPLETE THE EARTH CHANGE IN A MANNER THAT LIMITS THE EXPOSED AREA OF DISTURBED LAND FOR THE SHORTEST PERIOD OF TIME. CONTROL MEASURES SHALL BE INSTALLED TO CONVEY WATER AROUND, THROUGH OR FROM THE EARTH CHANGE AT A NON-EROSIVE VELOCITY. REMOVE SEDIMENT CAUSED BY ACCELERATED SOIL EROSION FROM RUNOFF WATER BEFORE IT LEAVES THE SITE OF THE EARTH CHANGE.
8. INSTALL TEMPORARY INLET FILTERS AT ALL ADJACENT AND DOWN-GRADIENT STORM WATER INLETS, CATCH BASINS, AND MANHOLES THAT MAY BE IMPACTED BY RUNOFF FROM THE CONSTRUCTION ACTIVITIES.
9. REPLACE INLET FILTERS THAT HAVE HOLES OR ARE INUNDATED WITH SEDIMENT. STORM DRAINS MUST BE PROTECTED FROM DUST, SEDIMENT, AND DEBRIS. CATCH BASIN INLET FILTERS SHALL BE MAINTAINED CLEAN AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD.
10. SILT FENCE SHALL BE INSTALLED AROUND ALL DISTURBED EARTH AND MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. PERFORM SILT FENCE REPAIR OR REPLACEMENT AS NECESSARY ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. MAINTENANCE INCLUDES THE REMOVING OF BUILT-UP SEDIMENT ACCUMULATES TO ½ THE HEIGHT OF THE FENCE. CONTRACTOR SHALL REMOVE, REPLACE, RETRENCH, OR RE-BACKFILL THE FENCE IF IT FAILS OR IS DAMAGED BY

32 12 16: ASPHALT PAVING

1. THIS SECTION INCLUDES BITUMINOUS CONCRETE (ASPHALT) ROADS, PARKING LOTS, DRIVEWAYS, OVERLAYS, AND SHARED USE PATHS.
2. HOT-MIX ASPHALT SHALL MEET MATERIALS, WORKMANSHIP, AND APPLICABLE REQUIREMENTS OF MDOT SPECIFICATIONS, EXCEPT AS MODIFIED BELOW.
3. SUBMITTALS: PRODUCT DATA FOR EACH TYPE OF PRODUCT. JOB MIX DESIGN INCLUDING CERTIFICATIONS AND SOURCES SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. SUBMIT AN ASPHALT QUALITY CONTROL PLAN FOR APPROVAL PRIOR TO PAVING. SUBMIT COPIES OF ALL TEST RESULTS FOR EMULSIFIED ASPHALT, BITUMINOUS MATERIALS, AND CERTIFIED COPIES OF THE MANUFACTURER'S TEST REPORTS INDICATING TEMPERATURE VISCOSITY RELATIONSHIP FOR CUTBACK ASPHALT AND COMPLIANCE WITH APPLICABLE SPECIFIED REQUIREMENTS.
4. AGGREGATES, COARSE AND FINE, SHALL COMPLY WITH MDOT SECTION 902.09. MINERAL FILLER SHALL COMPLY WITH MDOT SPECIFICATION 902.11.
5. BINDER SHALL BE PG 64-218. TACK COAT SHALL BE SS-1H IN ACCORDANCE WITH MDOT SPECIFICATION TABLE 904-5
6. MDOT MARSHALL MIX DESIGNS SHALL COMPLY WITH THE DESIGN CRITERIA AND VOLUMETRIC PROPERTIES OF MDOT SPECIAL PROVISION 12AP-501F-01, AVAILABLE UPON REQUEST.
7. MDOT SUPERPAVE MIX DESIGNS AND AGGREGATES SHALL COMPLY WITH MDOT SECTIONS 501 AND 902.
8. ENVIRONMENTAL FACTORS FOR MATERIAL PLACEMENT. DO NOT PLACE THE HOT-MIX ASPHALT UPON A WET SURFACE OR WHEN THE SURFACE TEMPERATURE OF THE UNDERLYING COURSE IS LESS THAN 45°F. THE TEMPERATURE REQUIREMENTS MAY BE WAIVED BY THE OWNER, IF REQUESTED; HOWEVER, ALL OTHER REQUIREMENTS, INCLUDING COMPACTION, SHALL BE MET. APPLY BITUMINOUS COAT ONLY WHEN THE SURFACE TO RECEIVE THE COAT IS DRY. APPLY COAT ONLY WHEN THE ATMOSPHERIC TEMPERATURE IN THE SHADE IS 50 DEGREES OR ABOVE WHEN THE TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES F FOR THE 12 HOURS PRIOR TO APPLICATION.
9. ASPHALT PATCHING. SAWCUT PERIMETER OF PATCH EXTENDING 12 INCHES INTO SOUND MATERIAL. APPLY TACK COAT TO VERTICAL SURFACES. FILL WITH HOT MIX ASPHALT BASE COURSE MIX FOR FULL DEPTH AND COMPACT FLUSH WITH ADJACENT SURFACE WHILE STILL BOT.
10. SURFACE PREPARATION. PROOFROLL AGGREGATES PRIOR TO PAVING; PERFORM SUBGRADE UNDERCUT AND/OR AGGREGATE REPLACEMENT AND COMPACTION AS NEEDED FOR A STABLE PAVING SURFACE. APPLY TACK COAT UNIFORM RATE OF 0.05 TO 0.15 GALLONS PER SQUARE YARD TO EXISTING PAVEMENTS AND ALLOW TO CURE. IMMEDIATELY BEFORE APPLYING THE BITUMINOUS COAT, REMOVE ALL LOOSE MATERIAL, DIRT, CLAY, OR OTHER OBJECTIONABLE MATERIAL FROM THE SURFACE.
11. PRIME COAT APPLICATION: PRIME COAT SHALL BE APPLIED IN A UNIFORM, CONTINUOUS SPREAD AT THE RATE OF NOT LESS THAN 0.2 GALLONS, AND NOT MORE THAN 0.3 GALLONS, PER SQUARE YARD APPLIED IN TWO APPLICATIONS.
12. ASPHALT PLACEMENT. PLACE AND COMPACT THE MIX AT A TEMPERATURE SUITABLE FOR OBTAINING DENSITY, SURFACE SMOOTHNESS, AND OTHER SPECIFIED REQUIREMENTS. UPON ARRIVAL, PLACE THE MIXTURE TO THE FULL WIDTH BY AN ASPHALT PAVER: IT SHALL BE STRUCK OFF IN A UNIFORM LAYER OF SUCH DEPTH THAT, WHEN THE WORK IS COMPLETED, IT WILL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND CONTOUR INDICATED. REGULATE THE SPEED OF THE PAVER TO ELIMINATE PULLING AND TEARING OF THE ASPHALT MAT. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. UNLESS OTHERWISE PERMITTED, PLACEMENT OF THE MIXTURE SHALL BEGIN ALONG THE CENTERLINE OF A CROWNED SECTION OR ON THE HIGH SIDE OF AREAS WITH A ONE-WAY SLOPE.
13. APPLICATION RATES. PLACE IN ACCORDANCE WITH MDOT RECOMMENDED RATES BASED ON THE MIXTURE. ADDITIONAL SPECIFICATION MAY BE REQUESTED FROM THE ENGINEER.
14. JOINTS. PLACE THE MIXTURE IN CONSECUTIVE ADJACENT STRIPS HAVING A MINIMUM WIDTH OF 10 FEET. THE LONGITUDINAL JOINT IN ONE COURSE SHALL OFFSET THE LONGITUDINAL JOIN IN THE COURSE IMMEDIATELY BELOW BY AT LEAST 1 FOOT; HOWEVER, THE JOINT IN THE SURFACE COURSE SHALL BE AT THE CENTERLINE OF THE PAVEMENT. TRANSVERSE JOINT IN ADJACENT LANES SHALL BE OFFSET A MINIMUM OF 10 FEET. ON ISOLATED AREAS WHERE IRREGULARITIES OR UNAVOIDABLE OBSTACLES MAKE THE USE OF MECHANICAL SPREADING AND FINISHING EQUIPMENT IMPRACTICAL, THE MIXTURE MAY BE SPREAD AND LUTED BY HAND TOOLS.
15. COMPACTION. COMPACT TO 97.0% OF MAXIMUM. AFTER PLACING, THE MIXTURE SHALL BE THOROUGHLY AND UNIFORMLY COMPACTED BY ROLLING. COMPACT THE SURFACE AS SOON AS POSSIBLE WITHOUT CAUSING DISPLACEMENT, CRACKING OR SHOVING, BEFORE THE MIXTURE COOLS BELOW 185°F. THE SEQUENCE OF ROLLING OPERATIONS AND THE TYPE OF ROLLERS USED SHALL BE AT THE DISCRETION OF THE CONTRACTOR. THE SPEED OF THE ROLLER SHALL, AT ALL TIMES, BE SUFFICIENTLY SLOW TO AVOID DISPLACEMENT OF THE HOT MIXTURE AND BE EFFECTIVE IN COMPACTION. PERFORM BREAKDOWN ROLLING, THEN INTERMEDIATE ROLLING, AND FINISH ROLLING WHILE THE MIXTURE IS STILL HOT TO ACHIEVE REQUIRED DENSITY AND REMOVE ROLLER MARKS. PERFORM COMPACTION OF THE MAT AND SHAPE/BEVEL EDGES WHILE THE MIXTURE IS STILL HOT. PROTECT THE MAT AFTER FINAL ROLLING WITH BARRICADES TO PREVENT VEHICULAR TRAFFIC UNTIL COOLED AND HARDENED.
16. ANY DISPLACEMENT OCCURRING AS A RESULT OF REVERSING THE DIRECTION OF THE ROLLER, OR FROM ANY OTHER CAUSE, SHALL BE CORRECTED AT ONCE. FURNISH SUFFICIENT ROLLERS TO HANDLE THE OUTPUT OF THE PLANT. CONTINUE ROLLING UNTIL THE SURFACE IS OF UNIFORM TEXTURE, TRUE TO GRADE AND CROSS SECTION, AND THE REQUIRED FIELD DENSITY IS OBTAINED. TO PREVENT ADHESION OF THE MIXTURE TO THE ROLLER, KEEP THE WHEELS PROPERLY MOISTENED BUT WITHOUT EXCESSIVE WATER. IN AREAS NOT ACCESSIBLE TO THE ROLLER, THE MIXTURE SHALL BE THOROUGHLY COMPACTED WITH HAND TAMPERS.
17. CORRECTIONS. ANY MIXTURE THAT BECOMES LOOSE AND BROKEN, MIXED WITH DIRT, CONTAINS CHECK-CRACKING, OR IS IN ANY WAY DEFECTIVE SHALL BE REMOVED FULL DEPTH, REPLACED WITH FRESH HOT MIXTURE AND IMMEDIATELY COMPACTED TO CONFORM TO THE SURROUNDING AREA. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. SKIN PATCHING WILL NOT BE ALLOWED.
18. PAVEMENT THICKNESS TOLERANCE. BASE AND LEVELING COURSES SHALL BE PLACED AND COMPACTED WITHIN 1/2 INCH OF THE DESIGN COURSE THICKNESS. WEARING COURSES SHALL BE PLACED AND COMPACTED WITHIN 1/4 INCH OF THE DESIGN COURSE THICKNESS. TOTAL VARIATION SHALL BE LESS THAN 1/4-INCH. CORE FOR THICKNESS TWICE PER DAY, FILL CORE HOLES WITH HMA AND COMPACT.
19. PAVEMENT SURFACE SMOOTHNESS. COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS. BASE COURSE AND LEVELING COURSE SHALL BE PLUS OR MINUS 0.25-INCH. WEARING COURSE SHALL BE PLUS OR MINUS 0.125-INCH. CROWNED SURFACES: TEST WITH CROWNED TEMPLATE CENTERED AND AT RIGHT ANGLE TO CROWN. MAXIMUM ALLOWABLE VARIANCE FROM TEMPLATE IS 1/4 INCH.
20. DENSITY TESTING. DETERMINE MAXIMUM DENSITY BY THE ROLLING METHOD. TEST AT LEAST ONCE PER 6,000 SQUARE FEET OF PLACEMENT AT LEAST 4 TIMES PER DAY. TESTING SHALL BE BY NUCLEAR GAUGE PER ASTM D2950.
21. ROLLING METHOD. MEASURE AND DOCUMENT EACH PASS OF THE FINISH ROLLER UNTIL THE IN-PLACE DENSITY, MEASURED WITH THE NUCLEAR GAUGE, INDICATES A DECREASE IN VALUE. THE PREVIOUS RECORDED DENSITY SHALL BE DEEMED OPTIMAL AND USED AS THE MAXIMUM DENSITY FOR THE DAY.
22. PRICE ADJUSTMENT/REJECTION FOR COMPACTION. OWNER MAY ADJUST PRICE BY AT A RATE OF 5% OF PRICE PER 1% OF DENSITY VARIANCE BELOW REQUIRED FOR BETWEEN .1% AND 4.0% OF DEFICIENCY. 4.1% TO 5.0% VARIANCE SHALL BE PAID AT HALF PRICE. MORE THAN 5.0% VARIANCE IS REJECTED AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
23. SAMPLE AND TEST FOR % BITUMEN AND SIEVE PER ASTM D2172 ONCE PER 250 TONS OF PLACED MATERIAL.
24. OWNER MAY ADJUST FINAL PAYMENT FOR PARAMETERS OUT OF SPECIFICATION IN ACCORDANCE WITH MDOT SPECIAL PROVISION 12SP-501J-05, AVAILABLE UPON REQUEST.
25. BITUMINOUS TACK AND PRIME COATS SHALL MEET REQUIREMENTS OF MDOT DIVISION 9.

32 13 13: CONCRETE PAVING

1. THIS SECTION SHALL SPECIFY CONCRETE PARKING LOT AND ROAD PAVEMENT, CONCRETE WALKS AND APPROACHES, AND CONCRETE CURB AND GUTTER.
2. CONCRETE WORK SHALL MEET THE REQUIREMENTS OF MDOT, ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE", AND THE REQUIREMENTS BELOW.
3. SUBMIT EACH PRODUCT FOR APPROVAL PRIOR TO PLACEMENT. SUBMITTALS SHALL INCLUDE STRENGTH TESTS WITHIN 6 MONTHS, AIR CONTENT, SLUMP, WATER TO CEMENT RATIO, AND CEMENTITIOUS MATERIAL CERTIFICATES.
4. MIX DESIGNS SHALL MEET MINIMUM COMPRESSIVE STRENGTH AS NOTED IN THE PLANS AND DETAILS. AIR CONTENT - BETWEEN 5.5 TO 8.0 PERCENT, BASED ON MEASUREMENTS MADE IMMEDIATELY AFTER DISCHARGE FROM THE MIXER. SLUMP SHALL BE 3 INCHES PLUS OR MINUS 1 INCH PER ASTM C143/C143M UNLESS A WATER REDUCING ADMIXTURE IS USED. WATER TO CEMENT RATIO SHALL BE 0.45 SUBMIT A PRODUCT COMPLIANT WITH MDOT THAT WILL PREVENT ALKALI-SILICA REACTION (ASR) BY INCLUDING SLAG OR A LOW ALKALI CEMENT
5. WHITE CURING COMPOUND SHALL BE ASTM C 309, TYPE 2
6. TRANSPARENT CURING COMPOUND SHALL BE ASTM C 309, TYPE 1-D, CLASS B WITH FUGITIVE DYE.
7. REINFORCEMENT BARS AND STEEL SHALL CONFORM TO MDOT SECTIONS 905 AND 914.
8. REMOVAL OF EXISTING CONCRETE CURB AND GUTTER, CONCRETE SLAB AND CONCRETE SIDEWALK SHALL BE TO THE NEXT CLOSEST JOINT OUTSIDE OF THE PLANNED REMOVAL AREA.
9. CONCRETE CURB AND GUTTER REPLACED DURING CONSTRUCTION SHALL MATCH THE CROSS SECTION OF THE REMAINING CONCRETE CURB AND GUTTER.
10. REPLACEMENT PAVEMENT SECTIONS TO MATCH OR EXCEED EXISTING CROSS SECTION.
11. FINAL PAVEMENT ELEVATIONS SHALL COINCIDE WITH PRE-EXISTING ADJOINING SURFACE ELEVATIONS AND PRE-EXISTING SURFACE DRAINAGE SLOPES SHALL BE MAINTAINED UNLESS ALTERATIONS ARE CALLED OUT ON THE PLANS OR DIRECTED BY THE OWNER'S REPRESENTATIVE.
12. UNDER OWNER'S REPRESENTATIVE OBSERVANCE, PROOF-ROLL SUBGRADE. SOFT POCKETS AND RUTTING AREAS SHALL BE REPAIRED BY FOLLOWING "SUBGRADE UNDERCUT"
13. PLACE AND COMPACT BASE COURSE(S) PER THE PLAN DETAIL. FACILITATE DENSITY TESTING DURING BASE COURSE PLACEMENT.
14. WEATHER RESTRICTIONS: DO NOT PLACE CONCRETE WHEN THE AIR TEMPERATURE REACHES 40 DEGREES F AND IS FALLING, OR IS ALREADY BELOW THAT POINT. MAKE PROVISIONS TO PROTECT THE CONCRETE FROM FREEZING DURING THE SPECIFIED CURING PERIOD. THE TEMPERATURE OF THE CONCRETE AS PLACED SHALL NOT EXCEED 90 DEGREES F. THE MIXING WATER AND/OR AGGREGATES SHALL BE COOLED, IF NECESSARY, TO MAINTAIN A SATISFACTORY PLACING TEMPERATURE. FOLLOW PROCEDURES RECOMMENDED IN ACI 305R "HOT WEATHER CONCRETING." CONCRETE SHALL NOT BE PLACED DURING RAIN EVENTS THAT WOULD SATURATE THE CONCRETE UNLESS OWNER-APPROVED ADEQUATE MEASURES ARE TAKEN BY THE CONTRACTOR TO ENSURE THE QUALITY OF THE PRODUCT.
15. CURING AND PROTECTION - FOLLOW ACI 308R "GUIDE TO CURING CONCRETE." PROTECT CONCRETE AGAINST LOSS OF MOISTURE AND RAPID TEMPERATURE CHANGES FOR AT LEAST 7 DAYS FROM THE BEGINNING OF THE CURING OPERATION. PROTECT UNHARDENED CONCRETE FROM RAIN AND FLOWING WATER. ALL EQUIPMENT NEEDED FOR ADEQUATE CURING AND PROTECTION OF THE CONCRETE SHALL BE ON HAND AND READY FOR USE BEFORE ACTUAL CONCRETE PLACEMENT BEGINS. PROTECTION SHALL BE PROVIDED AS NECESSARY TO PREVENT CRACKING OF THE PAVEMENT DUE TO TEMPERATURE CHANGES AND MOISTURE DURING THE CURING PERIOD. INADEQUATE CURING SHALL BE GROUNDS FOR REJECTION OF THE WORK AND REMOVAL AND REPLACEMENT BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
16. TESTING AGENCY SHALL PERFORM ALL TESTS AND MAY STOP OR REJECT WORK OR PRODUCTS NOT MEETING PROJECT REQUIREMENTS.
17. TESTING AGENCY SHALL CREATE 1 SET OF 4 COMPRESSIVE STRENGTH CYLINDERS EVERY 50 CY, AT LEAST TWICE PER DAY PER ASTM C 172 AND ASTM C 31. CONTRACTOR SHALL CREATE ADDITIONAL TEST CYLINDERS FOR VERIFICATION OF THE TESTING AGENCY'S RESULTS.
18. STRENGTH TESTING: - EACH RESULT SHALL BE THE AVERAGE OF 2 TEST CYLINDERS FROM THE SAME SAMPLE TESTED AT 28 DAYS, UNLESS OTHERWISE SPECIFIED OR APPROVED. CONCRETE SPECIFIED ON THE BASIS OF COMPRESSIVE STRENGTH WILL BE CONSIDERED SATISFACTORY IF THE AVERAGES OF ALL SETS OF THREE CONSECUTIVE STRENGTH TEST RESULTS EQUAL OR EXCEED THE SPECIFIED STRENGTH, AND NO INDIVIDUAL STRENGTH TEST RESULT FALLS BELOW THE SPECIFIED STRENGTH BY MORE THAN 500 PSI.
19. AIR CONTENT: TWO (2) ASTM C173/C173M TESTS PER CLASS OF CONCRETE DURING EACH SHIFT WITH ADDITIONAL TESTS WHEN WORKABILITY IS VARIABLE. IF RESULTS ARE OUT OF TOLERANCE, THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO HAVE THE AIR CONTENT CORRECTED AT THE PLANT. ADDITIONAL TESTS FOR AIR CONTENT WILL BE PERFORMED ON EACH TRUCKLOAD OF MATERIAL UNTIL SUCH TIME AS THE AIR CONTENT IS WITHIN THE TOLERANCE SPECIFIED.
20. SLUMP TEST - TWO (2) SLUMP TESTS SHALL BE MADE OF EACH CLASS OF CONCRETE FOR EVERY 250 CUBIC YARDS, OR FRACTION THEREOF, OF CONCRETE PLACED DURING EACH SHIFT. ADDITIONAL TESTS SHALL BE PERFORMED WHEN EXCESSIVE VARIATION IN THE WORKABILITY OF THE CONCRETE IS NOTED OR WHEN EXCESSIVE CRUMBLING OR SLUMPING IS NOTED ALONG THE EDGES OF SLIP-FORMED CONCRETE.
21. THICKNESS EVALUATION - THE ANTICIPATED THICKNESS OF THE CONCRETE SHALL BE DETERMINED PRIOR TO PLACEMENT BY PASSING A TEMPLATE THROUGH THE FORMED SECTION OR BY MEASURING THE DEPTH OF OPENING OF THE EXTRUSION TEMPLATE OF THE CURB FORMING MACHINE. IF A SLIP FORM PAVER IS USED FOR PLACEMENT, THE SUBGRADE SHALL BE TRUE TO GRADE PRIOR TO CONCRETE PLACEMENT AND THE THICKNESS WILL BE DETERMINED BY MEASURING EACH EDGE OF THE COMPLETED SLAB.
22. CONCRETE REJECTED PRIOR TO PLACEMENT SHALL BE REMOVED FROM THE SITE. CONCRETE REJECTED AFTER PLACEMENT SHALL BE SAWCUT (FULL DEPTH) AND REMOVED FROM THE SITE AND REPLACED IN KIND WITH ACCEPTABLE MATERIALS WHICH MEET THE CONTRACT REQUIREMENTS, UNLESS A PRICE ADJUSTMENT IS ACCEPTED BY THE OWNER.
23. DO NOT DISCHARGE CONCRETE/GROUT WASHOUT INTO STORM DRAINS OR SEWERS. PERFORM WASHING OF CONCRETE TRUCKS IN DESIGNATED AREAS OR AT AN APPROVED OFFSITE LOCATION.
24. CONCRETE DISCHARGE AREAS SHALL BE 50 FEET FROM STORM DRAINS, BODIES OF WATER AND DITCHES, SHALL BE LINED TO PREVENT SEEPAGE, AND SHALL BE IN A PIT TO PREVENT RUN-OFF OF WASTE WATER.
25. ONCE CONCRETE WASHOUT HAS HARDENED, BREAK UP AND DISPOSE OF PROPERLY. DISPOSAL OF HARDENED CONCRETE/GROUT SHOULD OCCUR ON A REGULAR BASIS. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES PROVIDED ONCE THE WASHOUT AREA IS 75% FULL.
26. CONCRETE JOINTS AND SEALANT: ALL JOINTS SHALL BE SAWCUT NO LATER THAN 12 HOURS AFTER POURING. JOINT SPACING AND PATTERN SHALL COMPLY WITH ACI 301.
27. CONCRETE JOINT FILLER SEALANT SHALL BE ASTM D 6690 TYPE II COMPLIANT WITH MDOT SECTION 914.04.
28. JOINTS SHALL BE CONSTRUCTED, SAWED, AND SEALED IN ACCORDANCE WITH MDOT SECTION 602, INCIDENTAL TO THE CONCRETE WORK.
29. CURING PERIOD - FOLLOWING APPLICATION OF THE MATERIAL MAINTAIN PROTECTIVE MEASURES TO PROVIDE SUFFICIENT TIME TO ALLOW THE SEALANT TO BE TACK FREE.
30. TRAFFIC CONTROLS - KEEP TRAFFIC OFF SURFACES FRESHLY TREATED WITH SEALANT. PROVIDE SUFFICIENT WARNING SIGNS AND BARRICADES SO THAT TRAFFIC WILL NOT TRAVEL OVER FRESHLY TREATED SURFACES.

32 90 00: PLANTING (RESTORATION)

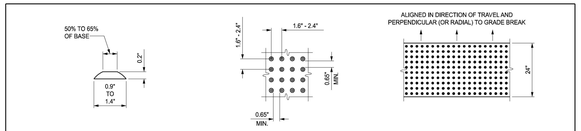
1. THIS SECTION INCLUDES GRASSES, GEOTEXTILE LINER, TOPSOIL, FERTILIZERS, AND MULCHES.
2. SUBMIT RESTORATION PROCEDURE, SEEDS, FERTILIZERS, GEOSYNTHETICS, TOPSOIL ANALYSIS, MULCH SAMPLES AND/OR PLANTS FOR APPROVAL PRIOR TO EXECUTING THE WORK.
3. ALL DISTURBED UNPAVED LAWN AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, THE CONTRACTOR MAY USE SOD, SEED AND MULCH, OR HYDROSEED, UNLESS OTHERWISE NOTED. THESE AREAS SHALL BE WATERED BY THE CONTRACTOR UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
4. ALL PLANTINGS AND RESTORED AREAS SHALL BE MAINTAINED AND WARRANTIED BY THE CONTRACTOR FOR ONE YEAR UNLESS EXPLICITLY DIRECTED OTHERWISE BY THE OWNER.
5. TOPSOIL SHALL BE ASTM D 5268, PH RANGE OF 5.5 TO 7.0, 5 PERCENT ORGANIC MATERIAL MINIMUM, FREE OF STONES 1 INCH OR LARGER IN ANY DIMENSION, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.
6. TOPSOIL PLACEMENT:
   A. BEFORE SPREADING THE TOPSOIL, ASSURE THAT ALL NECESSARY EROSION AND SEDIMENT CONTROL PRACTICES ARE IN PLACE AND FUNCTIONING PROPERLY. THESE PRACTICES MUST BE MAINTAINED UNTIL THE SITE IS PERMANENTLY STABILIZED.
   B. GRADING - MAINTAIN GRADES ON THE AREAS TO BE TOPSOILED ACCORDING TO THE APPROVED PLAN AND DO NOT ALTER THEM BY ADDING TOPSOIL.
   C. IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, LOOSEN OR SCARIFY THE SUBGRADE TO THE SPECIFIED DEPTH.
   D. TOPSOIL SHALL NOT BE SPREAD WHILE IT IS FROZEN OR MUDDY OR WHEN THE SUBSOIL IS FROZEN OR MUDDY.
   E. COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT AVOID EXCESSIVE COMPACTION, AS IT INCREASES RUNOFF AND INHIBITS SEED GERMINATION AND SEEDLING GROWTH.
7. ALL DISTURBED OR NEW DETENTION AREAS ARE TO BE SEEDED AND MULCHED USING AN APPROVED SEED MIX.
8. ALL PROPOSED SLOPES ARE TO BE GRADED TO 4H:1V OR FLATTER, UNLESS OTHERWISE INDICATED ON PLANS.
9. SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS UNLESS OTHERWISE NOTED. ELEVATIONS SHOWN AT STRUCTURES ARE TO FINISH GRADE UNLESS OTHERWISE INDICATED.
10. FINISHED GRADING SHALL BE COMPLETED ACCORDING TO THE GRADING PLAN CONTOURS AND SPOT GRADES. THE CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING, INCLUDING ADJACENT TRANSITION AREAS. PROVIDE A SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCES, WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS, WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS, AND EXISTING GRADES. AREAS THAT HAVE BEEN FINISH GRADED SHALL BE PROTECTED FROM SUBSEQUENT CONSTRUCTION OPERATIONS.
11. AFTER THE SITE GRADING IS COMPLETED, IF EXCESS SOIL MATERIAL OR DEMOLITION DEBRIS EXISTS, THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS SOIL AND DEBRIS MATERIAL IN A MANNER ACCEPTABLE TO THE OWNER AND THE REGULATING AGENCIES INVOLVED.
12. DISTURBED AREAS SHALL BE SLOPED AND GRADED TO RESTORE ORIGINAL DRAINAGE PATTERNS, OR PROVIDE POSITIVE DRAINAGE WHERE NEEDED.
13. RESTORATION OF NON-PAVED AREAS SHALL BE WITH SALVAGED OR IMPORTED TOPSOIL AND PLANTED IN ACCORDANCE WITH THE LANDSCAPE PLANS OR SEEDED AND MULCHED. SEEDED SLOPES GREATER THAN 1V:6H SHALL BE STABILIZED WITH SEED AND STAKED MULCH BLANKETS.

33 10 00: WATER UTILITIES

1. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER UTILITY UNLESS DULY AUTHORIZED TO DO SO, IN WRITING, BY THE AUTHORITY HAVING JURISDICTION AND THE OWNER. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR.
2. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER MAIN CROSSINGS WITH SANITARY SEWER OR STORM SEWER.
3. WHERE A VERTICAL SEPARATION BETWEEN PROPOSED UTILITIES AND EXISTING FRANCHISE UTILITIES IS NOT FEASIBLE, CONTRACTOR SHALL PROVIDE A CONCRETE CRADLE (MDOT S3 OR EQUIVALENT; 6" MIN. THICKNESS) TO PROTECT BOTH UTILITIES.
4. WATER UTILITY INSTALLATION SHALL FULLY COMPLY WITH THE REQUIREMENTS, APPROVAL PROCESS, SPECIFICATIONS, AND STANDARD DETAILS OF THE AUTHORITY HAVING JURISDICTION OVER THE WATER UTILITY.

33 40 00: STORM DRAINAGE UTILITIES

1. SUBMITTALS: FOR EACH PRODUCT: PIPE - PRODUCT DATA, STRUCTURES, CASTINGS, COVERS, AND GRATES - SHOP DRAWINGS. CERTIFICATES FOR ALL MATERIALS. PIPE TELEVISING VIDEOS.
2. UNDERDRAIN AND SEWER PIPE SHALL BE OF THE TYPE AND CLASS AS SPECIFIED IN THE PLANS AND SHALL BE INSTALLED TO THE LINE, INVERT, AND GRADE NOTED. STRUCTURES SHALL BE CONSTRUCTED AT THE LOCATION SHOWN AND SHALL BE OF THE SIZE AND TYPE CALLED OUT. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
3. PLACE PIPE AND STRUCTURES ON SUITABLE, COMPACTED BEDDING MATERIAL. BELL HOLES SHALL EXCAVATED SO THE FULL LENGTH OF THE PIPE BARREL WILL BEAR UNIFORMLY. PIPE SHALL BE CLEANED OF DEBRIS AND PUSHED TIGHT TO FORM A SMOOTH, CONTINUOUS INVERT.
4. WHEN STRUCTURES AND/OR PIPE ARE FIELD FITTED TO ACCOMMODATE A CONFLICT, PIPE SLOPE SHALL BE HELD TO PLAN TO ENSURE DRAINAGE.
5. PRECAST REINFORCED CONCRETE MANHOLES, INLETS, AND CATCH BASINS SHALL CONFORM TO ASTM C 478 AND THE PLAN DETAILS.
6. PROTECT THE PIPE FROM DAMAGE, ABRASION, DISTORTION, BOWING, OR WARPING. 12'-6" PIPE LENGTHS WITH DEVIATE MORE THAN 1" FROM STRAIGHT, AS JUDGED BY THE OWNER'S REPRESENTATIVE, SHALL NOT BE USED.
7. ADJUSTMENT: USE METAL ADJUSTMENT RINGS, A CONCRETE COLLAR, MASONRY ON A FULL MORTAR BED OR OTHER OWNER REPRESENTATIVE APPROVED METHOD. MAXIMUM ADJUSTMENT WITH RINGS IS 15". SET ALL COVERS AND CASTINGS AT THE FINISH GRADE OR 'RIM' ELEVATION UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
8. TAPPING: TAKE CARE NOT TO DAMAGE THE STRUCTURE - REPAIR ALL DAMAGE AT CONTRACTOR'S EXPENSE. FILL VOIDS WITH MORTAR AND STRIKE SMOOTH WITH THE INNER WALL.
9. ALL STRUCTURES AND PIPES SHALL BE THOROUGHLY CLEANED BEFORE THEY ARE ACCEPTED.
10. TELEVISE PIPES AND PROVIDE VIDEOS FOR OWNER REVIEW AFTER BACKFILL AND COMPACTION, BUT PRIOR TO PAVING ATOP BURIED STORM SEWER. TELEVISE IN ACCORDANCE WITH PACP PROCEDURES.



DOME SECTION | DOME SPACING | DOME ALIGNMENT

DETECTABLE WARNING DETAILS

NOTES:

DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION, RECONSTRUCTION, OR ALTERATION OF STREETS, CURBS, OR SIDEWALKS IN THE PUBLIC RIGHT OF WAY.

CURB RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

RAMPS SHALL BE PROVIDED AT ALL CORNERS OF AN INTERSECTION WHERE THERE IS EXISTING OR PROPOSED SIDEWALK AND CURB. RAMPS SHALL ALSO BE PROVIDED AT MARKED AND/OR SIGNALIZED MID-BLOCK CROSSINGS.

SURFACE TEXTURE OF THE RAMP SHALL BE THAT OBTAINED BY A COARSE BROOMING, TRANSVERSE TO THE RUNNING SLOPE.

SIDEWALK SHALL BE RAMPED WHERE THE DRIVEWAY CURB IS EXTENDED ACROSS THE WALK.

CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE RAMP. WHERE CONDITIONS PERMIT, IT IS DESIRABLE THAT THE SLOPE OF THE RAMP BE IN ONLY ONE DIRECTION, PARALLEL TO THE DIRECTION OF TRAVEL.

RAMP WIDTH SHALL BE INCREASED, IF NECESSARY, TO ACCOMMODATE SIDEWALK SNOW REMOVAL EQUIPMENT NORMALLY USED BY THE MUNICIPALITY.

WHEN 5' MINIMUM WIDTHS ARE NOT FEASIBLE, RAMP WIDTH MAY BE REDUCED TO NOT LESS THAN 4' AND LANDINGS TO NOT LESS THAN 4' x 4'.

CURB RAMPS WITH A RUNNING SLOPE ≤ 5% DO NOT REQUIRE A TOP LANDING. HOWEVER, ANY CONTINUOUS SIDEWALK OR PEDESTRIAN ROUTE CROSSING THROUGH OR INTERSECTING THE CURB RAMP MUST INDEPENDENTLY MAINTAIN A CROSS SLOPE NOT GREATER THAN 2.1% PERPENDICULAR TO ITS OWN DIRECTION(S) OF TRAVEL.

DETECTABLE WARNING SURFACE COVERAGE IS 24" MINIMUM IN THE DIRECTION OF RAMP/PATH TRAVEL AND THE FULL WIDTH OF THE RAMP/PATH OPENING EXCLUDING CURBED OR FLARED CURB TRANSITION AREAS. A BORDER OFFSET NOT GREATER THAN 2" MEASURED ALONG THE EDGES OF THE DETECTABLE WARNING IS ALLOWABLE. FOR RADIAL CURB THE OFFSET IS MEASURED FROM THE ENDS OF THE RADIUS.

FOR NEW ROADWAY CONSTRUCTION, THE RAMP CROSS SLOPE MAY NOT EXCEED 2.1%. FOR ALTERATIONS TO EXISTING ROADWAYS, THE CROSS SLOPE MAY BE TRANSITIONED TO MEET AN EXISTING ROADWAY GRADE. THE CROSS SLOPE TRANSITION SHALL BE APPLIED UNIFORMALY OVER THE FULL LENGTH OF THE RAMP.

THE MAXIMUM RUNNING SLOPE OF 8.3% IS RELATIVE TO A FLAT (0%) REFERENCE. HOWEVER, IT SHALL NOT REQUIRE ANY RAMP OR SERIES OF RAMPS TO EXCEED 15 FEET IN LENGTH NOT INCLUDING LANDINGS OR TRANSITIONS.

DRAINAGE STRUCTURES SHOULD NOT BE PLACED IN LINE WITH RAMPS. THE LOCATION OF THE RAMP SHOULD TAKE PRECEDENCE OVER THE LOCATION OF THE DRAINAGE STRUCTURE. WHERE EXISTING DRAINAGE STRUCTURES ARE LOCATED IN THE RAMP PATH OF TRAVEL, USE A MANUFACTURER'S ADA COMPLIANT GRATE. OPENINGS SHALL NOT BE GREATER THAN ½". ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.

THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.

CROSSWALK AND STOP LINE MARKINGS, IF USED, SHALL BE

JOB BENCHMARK #200
DESCRIPTION
ELEV 647.85

JOB BENCHMARK #201
DESCRIPTION
ELEV 647.36

JOB BENCHMARK #2001
DESCRIPTION
ELEV 645.67

TRAVERSE POINT #100
N 259548.25
E 13388635.27 ELEV 645.49

TRAVERSE POINT #101
N 259687.68
E 13388658.56 ELEV 645.51

TRAVERSE POINT #102
N 259756.81
E 13388912.63 ELEV 645.23

BENCHMARK ELEVATIONS NOTE:
BENCHMARK ELEVATIONS SHOWN ON THESE PLANS ARE BASED ON NAVD88 DATUM.

N

GRAPHIC SCALE: HALF 20 feet, FULL 10 feet
0 5 10 20 30

EXISTING

- SPRINKLER HEAD
- LIGHT/DECOR LAMP POLE
- TP # SURVEY TRAVERSE POINT
- CONCRETE
- ASPHALT
- CONIFEROUS SHRUB
- DECIDUOUS SHRUB
- DECIDUOUS TREE
- CLEAN OUT
- SIGN
- SQUARE CATCH BASIN
- UTILITY POLE
- LIGHT/DECOR LAMP POLE
- ELEC — ELECTRICAL *
- 12" WM — WATER MAIN/SERVICE
- 12" SAN — SANITARY SEWER
- 12" STM — STORM SEWER

NOTES:

1. EXISTING CONDITIONS ARE PRESENTED BASED ON TOPOGRAPHIC SURVEY BY OHM ADVISORS (10/31/2025). ALL EXISTING INFORMATION PRESENTED IN THESE PLANS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR, ANY DISCREPANCIES IN THE PLAN SHALL BE MADE AWARE TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
2. ONE-CALL UTILITY LOCATING: MISSDIG – 811 OR 800-482-7171. CONTRACTOR SHALL OPEN AN EXCAVATION TICKET A MINIMUM OF 3 WORKING DAYS PRIOR TO ANY EXCAVATION. WHEN MARKINGS AND FLAGS ARE DISRUPTED OR DESTROYED – CALL FOR REMARKING.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATIONS AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES IN THE PLANS.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE OWNER'S REPRESENTATIVE. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE LOCATION OR DEPTH OF ANY EXISTING UTILITY SHOWN OR NOT SHOWN ON THE PROJECT DRAWINGS.

811 Know what's **below.** **Call** before you dig.

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ISSUED FOR	DATE
BIDS	2026/03/25

PROJECT NUMBER 0155-25-0010
PM
CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

EXISTING CONDITIONS

C-110

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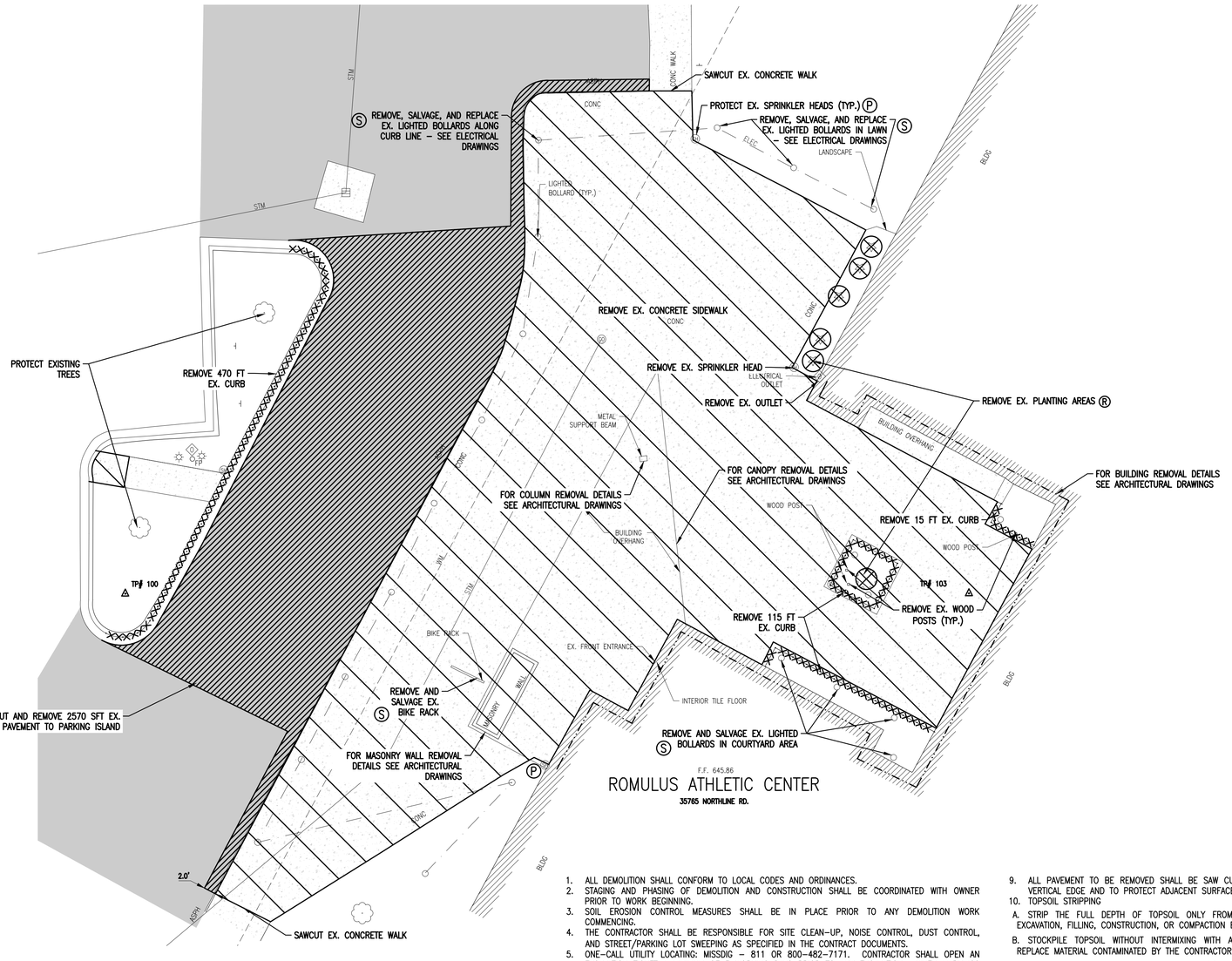

1. ALL DEMOLITION SHALL CONFORM TO LOCAL CODES AND ORDINANCES.
2. STAGING AND PHASING OF DEMOLITION AND CONSTRUCTION SHALL BE COORDINATED WITH OWNER PRIOR TO WORK BEGINNING.
3. SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY DEMOLITION WORK COMMENCING.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CLEAN-UP, NOISE CONTROL, DUST CONTROL, AND STREET/PARKING LOT SWEEPING AS SPECIFIED IN THE CONTRACT DOCUMENTS.
5. ONE-CALL UTILITY LOCATING: MISSDIG – 811 OR 800-482-7171. CONTRACTOR SHALL OPEN AN EXCAVATION TICKET A MINIMUM OF 3 WORKING DAYS PRIOR TO ANY EXCAVATION. WHEN MARKINGS AND FLAGS ARE DISRUPTED OR DESTROYED – CALL FOR REMARKING.
6. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATIONS AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES IN THE PLANS. THE CONTRACTOR SHALL VERIFY THE DEPTH OF ELECTRICAL CONDUIT BEFORE SCARIFYING GRAVEL SURFACE AND PROTECT IN PLACE DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY ELECTRICAL CONDUIT DAMAGED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE OWNER'S REPRESENTATIVE. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE LOCATION OR DEPTH OF ANY EXISTING UTILITY SHOWN OR NOT SHOWN ON THE PROJECT DRAWINGS.
8. ALL TREES LARGER THAN 6" DIA. WITHIN THE CONSTRUCTION AREAS SHALL BE PROTECTED FROM DAMAGE, UNLESS IDENTIFIED FOR REMOVAL. TREES IDENTIFIED FOR REMOVAL SHALL INCLUDE THE COMPLETE REMOVAL OF THE STUMP AT NO ADDITIONAL COST TO THE OWNER.
9. ALL PAVEMENT TO BE REMOVED SHALL BE SAW CUT TO THE FULL DEPTH TO PROVIDE A SMOOTH VERTICAL EDGE AND TO PROTECT ADJACENT SURFACES FROM DAMAGE.
10. TOPSOIL STRIPPING

A. STRIP THE FULL DEPTH OF TOPSOIL ONLY FROM THOSE AREAS THAT WILL BE DISTURBED BY EXCAVATION, FILLING, CONSTRUCTION, OR COMPACTION BY EQUIPMENT.

B. STOCKPILE TOPSOIL WITHOUT INTERMIXING WITH ANY OTHER MATERIAL – BORROW TOPSOIL TO REPLACE MATERIAL CONTAMINATED BY THE CONTRACTOR SHALL BE AT THE CONTRACTOR'S EXPENSE.

C. TEMPORARY STABILIZATION OF THE STOCKPILE(S) SHALL BE COMPLETED WITHIN SEVEN (7) DAYS OF THE FORMATION OF THE STOCKPILE, IF IT IS TO REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN THIRTY (30) DAYS.

12. TEMPORARY STOCKPILES: PROTECTIVE MEASURES SHALL BE INCORPORATED BY THE CONTRACTOR TO ENSURE SAFETY AND CONTROL EROSION ASSOCIATED WITH THE TEMPORARY STOCKPILES.
13. DISPOSAL: ALL DEMOLITION AND REMOVED MATERIAL BECOMES THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF-SITE IN ACCORDANCE TO ALL FEDERAL, STATE, AND LOCAL HAULING AND DISPOSAL REGULATIONS UNLESS DIRECTED OTHERWISE BY THE OWNER. DISPOSAL IN WETLANDS AND FLOODPLAINS IS PROHIBITED. BURNING ON-SITE IS PROHIBITED.

N

GRAPHIC SCALE: HALF FULL
20 feet
10 feet
0 5 10 20 30

REMOVAL LEGEND

- SIDEWALK REMOVAL
- HMA SURFACE REMOVAL
- (S) SALVAGE
- (R) REMOVE
- (P) PROTECT
- CURB AND GUTTER, REM
- TREE/SHRUB, REM

Know what's **below.**
Call before you dig.

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ISSUED FOR: BIDS — DATE: 2026/03/25
REVISION — DESCRIPTION

PROJECT NUMBER: 0155-25-0010
PM
CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

DEMOLITION AND REMOVAL PLAN

C-120

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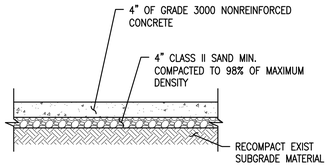
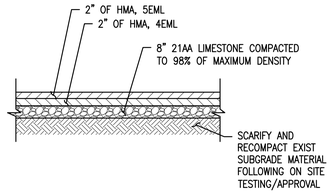
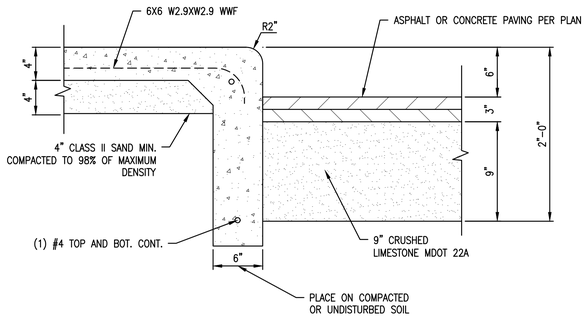


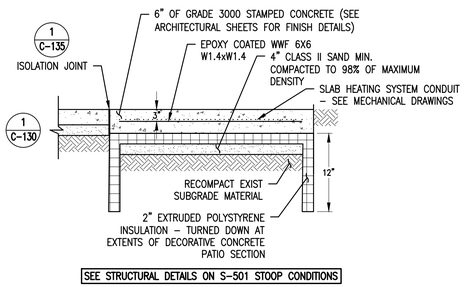
1 TYPICAL CONCRETE SIDEWALK DETAIL
NOT TO SCALE



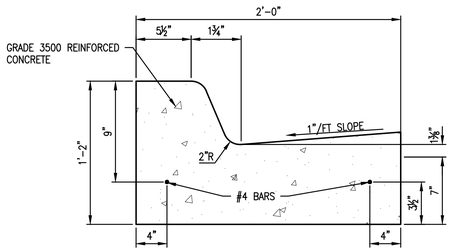
2 TYPICAL ASPHALT PAVEMENT DETAIL
NOT TO SCALE



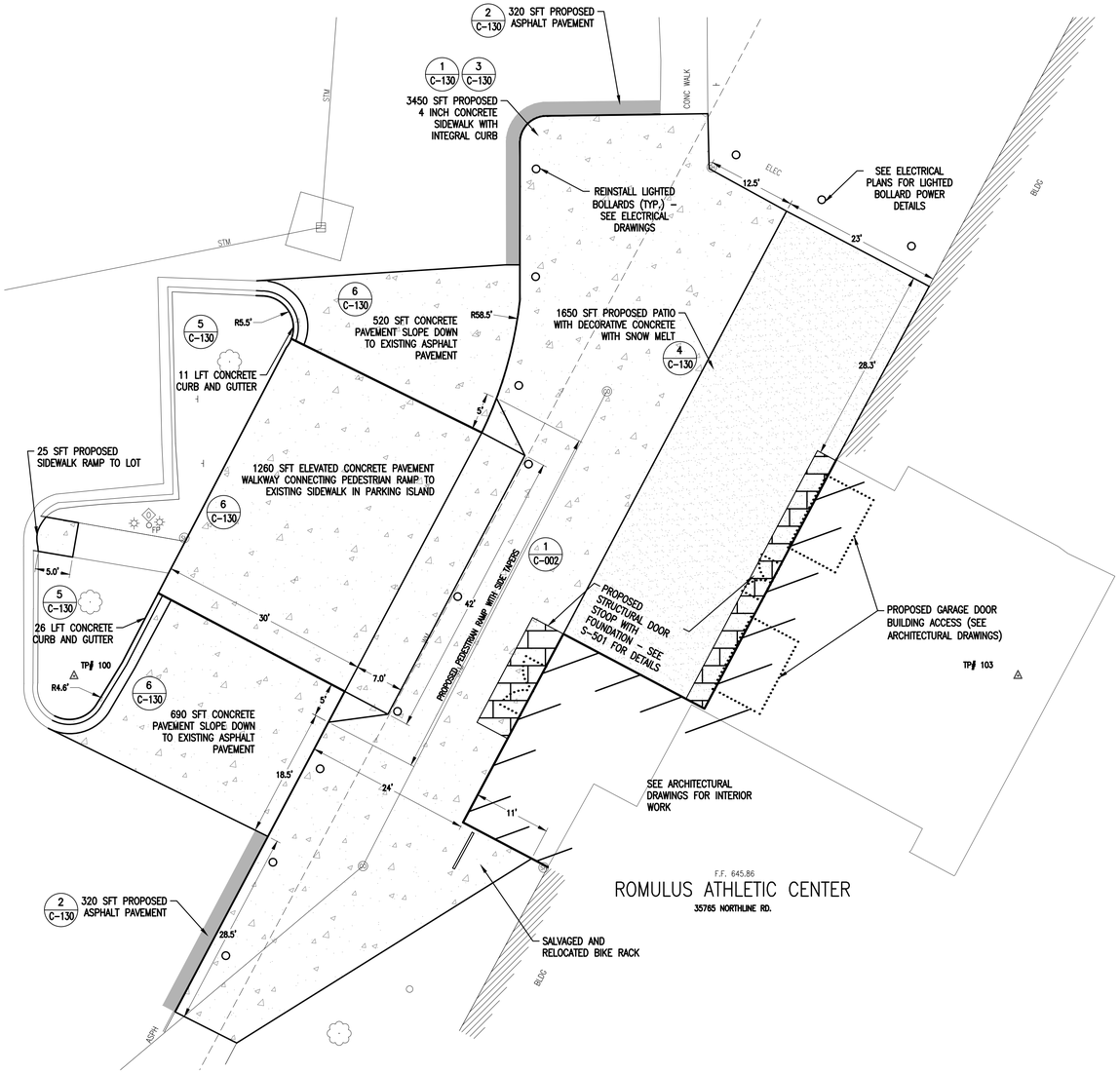
3 SIDEWALK WITH INTEGRAL CURB
NOT TO SCALE

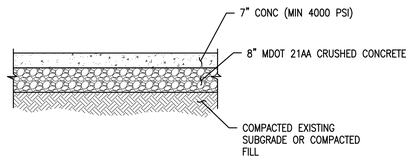


4 DECORATIVE CONCRETE WITH SNOW MELT DETAIL
NOT TO SCALE

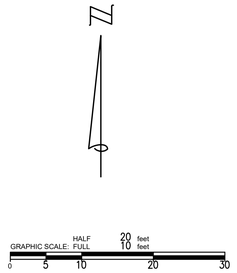


5 MDOT TYPE F-4 CONCRETE CURB AND GUTTER DETAIL
NOT TO SCALE





6 CONCRETE PAVEMENT DETAIL
NOT TO SCALE



EXISTING

- SPRINKLER HEAD
- LIGHT/DECOR LAMP POLE
- TP # SURVEY TRAVERSE POINT
- CONIFEROUS SHRUB
- DECIDUOUS SHRUB
- DECIDUOUS TREE
- CLEAN OUT
- SIGN

PROPOSED

- ASPHALT
- CONCRETE SIDEWALK, BROOM FINISH
- DECORATIVE CONCRETE PATIO
- CONCRETE PAVEMENT
- STRUCTURAL DOOR STOOP
- LIGHTED BOLLARD

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REVISION — DESCRIPTION

PROJECT NUMBER: 0155-25-0010
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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

SITE LAYOUT PLAN

C-130

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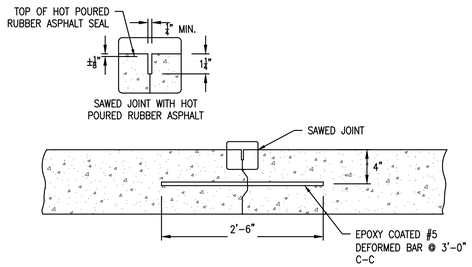
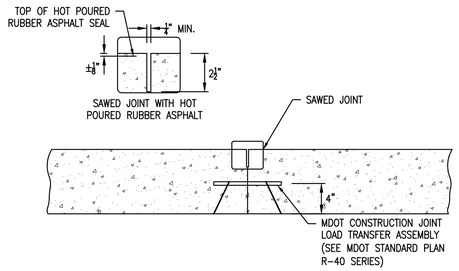
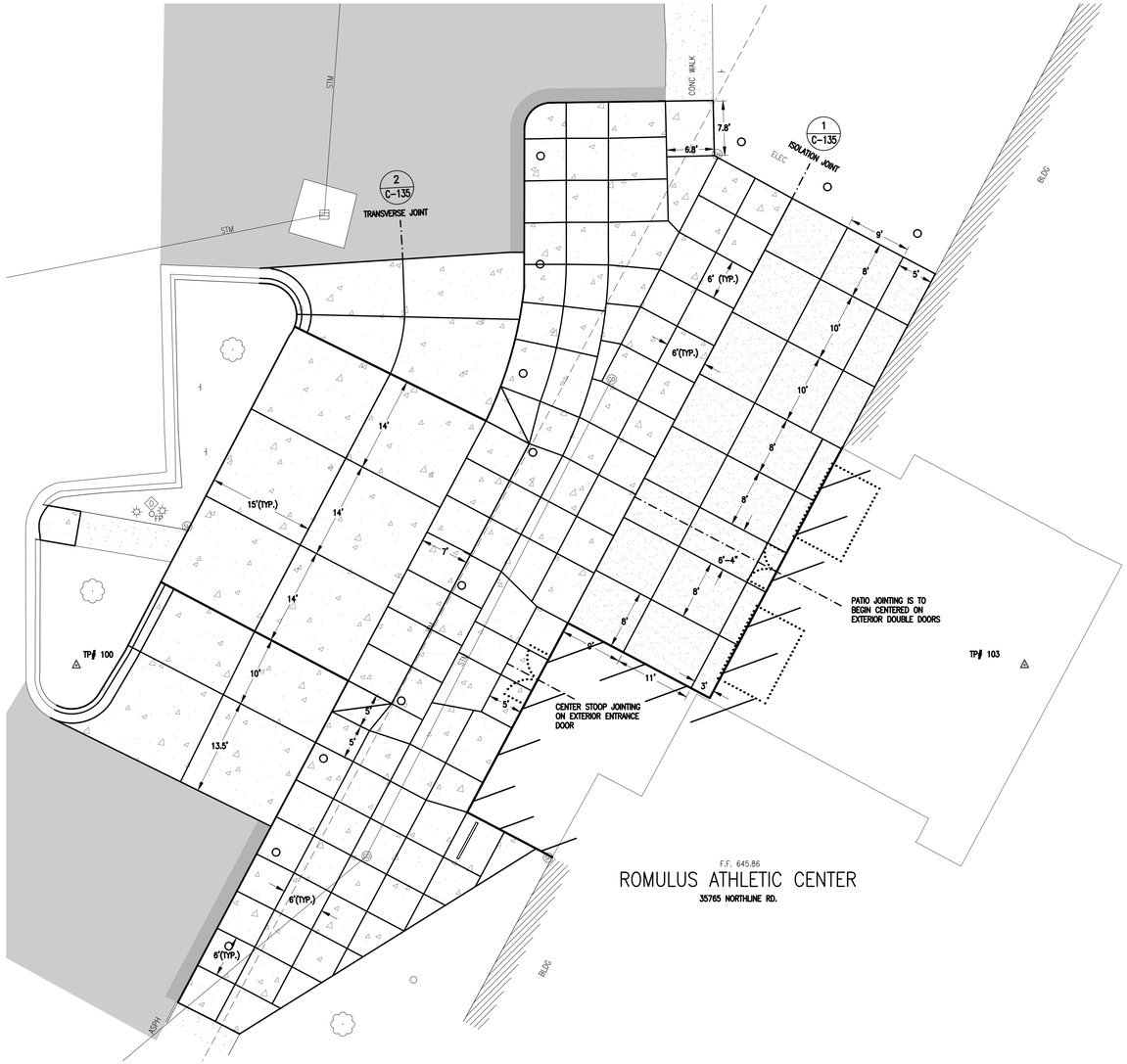


1 ISOLATION JOINT DETAIL
NOT TO SCALE



2 TRANSVERSE JOINT DETAIL
NOT TO SCALE



N

GRAPHIC SCALE: FULL HALF
20 feet
10 feet
0 5 10 20 30

EXISTING

- SPRINKLER HEAD
- LIGHT/DECOR LAMP POLE
- TP # SURVEY TRAVERSE POINT
- CONCRETE
- ASPHALT
- CONIFEROUS SHRUB
- DECIDUOUS SHRUB
- DECIDUOUS TREE
- CLEAN OUT
- SIGN

PROPOSED

- ASPHALT
- CONCRETE SIDEWALK, BROOM FINISH
- DECORATIVE CONCRETE PATIO
- CONCRETE PAVEMENT
- LIGHTED BOLLARD

811 Know what's **below.** **Call** before you dig.

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REVISION	DESCRIPTION	DATE
ISSUED FOR	BIDS	2026/03/25

PROJECT NUMBER 0155-25-0010 | PM CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

CONCRETE JOINTING PLAN

C-135

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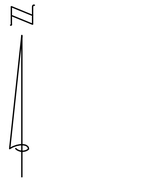
ABBREVIATION KEY

AC	ACRE
ADJ	ADJUST
ASPH	ASPHALT
BC	BACK OF CURB
BF	BARRIER FREE
C+G	CURB AND GUTTER
CB	CATCH BASIN (STORM)
CF	CUBIC FEET
CL	CENTERLINE
COMM	COMMUNICATION UTILITY (PHONE, CABLE, DATA, ETC)
CONC	CONCRETE
CPE	CORRUGATED POLYETHYLENE (PIPE)
CY	CUBIC YARD
DI	DUCTILE IRON
DIA	DIAMETER
ELEC	ELECTRICAL
EX	EXISTING
FC	FACE OF CURB
FL	FLOWLINE
FG	FINISH GRADE / SURFACE (NON-PAVED AREA)
FM	FORCEMAIN
FT	FEET
GV	GATE VALVE
GV+B	GATE VALVE AND BOX
GV+W	GATE VALVE AND WELL
IN	INCHES
MH	MANHOLE STRUCTURE
OHM	OHM ADVISORS
PAVT	PAVEMENT
PROP	PROPOSED
RCP	REINFORCED CONCRETE PIPE
REM	REMOVE (AND DISPOSE)
RIM	TOP OF STRUCTURE CASTING
SAN	SANITARY SEWER / SERVICE
SF	SQUARE FEET
STM	STORM SEWER
SVC	SERVICE (WATER/SANITARY)
SY	SQUARE YARD
T/	TOP OF _____
TC	TOP OF CURB
TP	TOP OF PAVEMENT
TW	TOP OF WALK
WM	WATER MAIN / SERVICE

ROMULUS ATHLETIC CENTER

35765 NORTHLINE RD.



GRAPHIC SCALE: FULL 20 feet, HALF 10 feet

0 5 10 20 30

EXISTING

- SPRINKLER HEAD
- LIGHT/DECOR LAMP POLE
- TP # SURVEY TRAVERSE POINT
- CONCRETE
- ASPHALT
- CONIFEROUS SHRUB
- DECIDUOUS SHRUB
- DECIDUOUS TREE
- CLEAN OUT
- SIGN

PROPOSED

- ASPHALT
- CONCRETE
- DECORATIVE CONCRETE
- 749.25 FG PROPOSED SPOT GRADE
- 665 / 664 EXISTING CONTOUR
- 840 / 839 PROPOSED CONTOUR

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ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

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GRADING PLAN

C-170

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STRUC. ABBR.

A	
&	AND
@	AT
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL (ARCHITECT)
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	
BF	BOTH FACES
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BTWN	BETWEEN
C	
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
D	
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIST	DISTANCE
DL	DEAD LOAD
E	
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ENG	ENGINEER
ENTR	ENTRANCE
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXP	EXPANSION (EXPOSED)
EXST	EXISTING
F	
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FIN	FINISH / FINISHED
FT	FOOT / FEET
FTG	FOOTING
G	
GA	GAGE
GALV	GALVANIZED
H	
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
I	
IN	INCH / INCHES
INSUL	INSULATION
J	
JST	JOIST
JT	JOINT

STRUC. ABBR.

L	
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LOW POINT
LT	LEFT
M	
MAX	MAXIMUM
MBC	MICHIGAN BUILDING CODE
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
N	
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
No.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O	
OC	ON CENTER
OH	OVERHEAD
P	
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
Q	
QTY	QUANTITY
R	
REINF	REINFORCE
REQD	REQUIRED
REV	REVISE / REVISION
RO	ROUGH OPENING
RT	RIGHT
S	
SIM	SIMILAR
SOG	SLAB ON GRADE
SQ FT	SQUARE FOOT / FEET
SQ IN	SQUARE INCH / INCHES
STL	STEEL
T	
T&B	TOP & BOTTOM
TEMP	TEMPERATURE / TEMPERED
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
U	
UNO	UNLESS NOTED OTHERWISE
V	
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	
W/	WITH
W/O	WITHOUT
WF	WIDE FLANGE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
Y	
YD	YARD

BUILDING LOADS

BUILDING CLASSIFICATION II

LIVE LOADS

1.	UNIFORM FLOOR LIVE LOAD	100 psf
2.	ROOF LOAD - SEE SNOW LOAD	20 psf
3.	INTERIOR WALL LATERAL LIVE LOAD	5 psf

DEAD LOADS

1.	MATERIAL DEAD LOAD	20 psf

SNOW LOADS

BALANCED SNOW

1.	GROUND SNOW LOAD, P_G	38 psf
2.	FLAT-ROOF SNOW LOAD AT COURTYARD, P_F	22 psf
3.	FLAT-ROOF SNOW LOAD AT ENTRY, P_F	45 psf
4.	SNOW EXPOSURE FACTOR, C_E	1.0
5.	RISK CATEGORY	1.0
6.	SNOW LOAD IMPORTANCE FACTOR, I_S	1.0
7.	ROOF THERMAL FACTOR, C_T	1.0

DRIFT SNOW

SEE DIAGRAMS

WIND LOADS $V_{ASD}=V_{ULT}(0.6)^{1/2}$ $Q_{ASD}=Q_{ULT}(0.6)$

LOAD OR VARIABLE — LOADS PROVIDED IN ASD

1.	ULTIMATE DESIGN WIND SPEED (3-SECOND GUST)	108 mph
2.	RISK CATEGORY	II
3.	WIND EXPOSURE CATEGORY	D
4.	INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDING)	± 0.18
5.	MAIN WIND FORCE RESISTING SYSTEM (MAX ROOF UPLIFT AT OVERHANG)	20 psf
6.	MAIN WIND FORCE RESISTING SYSTEM (MAX WALL)	17 psf
7.	COMPONENTS & CLADDING DESIGN PRESSURE (ZONE 1)	+16, -40 psf
8.	COMPONENTS & CLADDING DESIGN PRESSURE (ZONE 2)	+16, -53 psf
9.	COMPONENTS & CLADDING DESIGN PRESSURE (ZONE 3)	+16, -63 psf
10.	COMPONENTS & CLADDING DESIGN PRESSURE (ZONE 4)	+26, -29 psf
11.	COMPONENTS & CLADDING DESIGN PRESSURE (ZONE 5)	+26, -33 psf

EARTHQUAKE DESIGN DATA

LOAD VARIABLE

1.	RISK CATEGORY	II
2.	SEISMIC IMPORTANCE FACTOR, I_E	1.0
3.	MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER, S_S	0.108 g
4.	MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETER, S1	0.048 g
5.	SITE CLASS	D
6.	SEISMIC DESIGN CATEGORY	A
7.	BASIC SEISMIC FORCE RESISTING SYSTEM: STEEL ORDINARY CONCENTRICALLY BRACED FRAME	
8.	SEISMIC RESPONSE COEFFICIENT(S), C_S (SECTION 12.8.1.1)	0.035
9.	RESPONSE MODIFICATION COEFFICIENT(S), R(SECTION 12.2-1)	3.25
10.	ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE, SECTION 12.8	

MISCELLANEOUS DESIGN DATA

LOAD VARIABLE

1.	FLOOD LOAD	NONE
2.	SPECIAL LOADS	NONE
3.	SYSTEMS REQUIRING SPECIAL INSPECTION FOR SEISMIC RESISTANCE	NONE

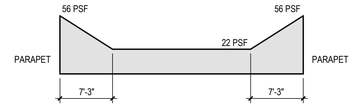
ASSUMED SOIL BEARING STRENGTH

2000 psf

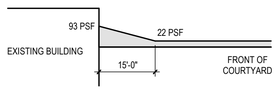
CONTRACTOR SHALL VERIFY SOIL BEARING CAPACITY PRIOR TO CONSTRUCTION

NOTES

1. APPLICABLE CODE IS 2021 MICHIGAN BUILDING CODE.
2. APPLICABLE TECHNICAL CODE IS ASCE/ SEI 7-16.
3. WIND LOAD BASED ON ASCE 7-16
   A. MWFS: CHAPTER 28, PART 2, METHOD 2
   B. C&C: CHAPTER 30, PART 1, METHOD 1
4. LOADS ARE BASED ON SECTION 16 OF MBC 2021 UNLESS OTHERWISE NOTED.



SNOW DRIFT OVER COURTYARD, E-W



SNOW DRIFT OVER COURTYARD, N-S

GENERAL NOTES - STRUCTURAL

1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS OCCUR BETWEEN DOCUMENTS, THE STRICTEST PROVISION SHALL GOVERN.
2. THE CONTRACTOR SHALL LIMIT THE AMOUNT OF LOAD IMPOSED UPON THE STRUCTURAL FRAMING SYSTEM DURING CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER OF POTENTIAL CONSTRUCTION LOADS DEEMED EXCESSIVE BY THE CONTRACTOR.
3. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED SELF SUPPORTING, STABLE STRUCTURE UNLESS OTHERWISE INDICATED. THEY DO NOT INDICATE THE MEANS OR METHOD OF CONSTRUCTION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE, CONSTRUCTION SEQUENCE AND PROVIDE ALL MEASURES OR TEMPORARY BRACING NECESSARY TO ENSURE THE STABILITY AND SAFETY OF THE STRUCTURE AND ITS COMPONENTS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EARTH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND GIN POLES, ETC.
4. ALL MATERIALS AND WORKMANSHIP SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE GOVERNING BUILDING CODE: MICHIGAN BUILDING CODE, 2021.
5. ALL SHOP DRAWINGS PREPARED BY SUPPLIERS, SUBCONTRACTORS, ETC. SHALL BE REVIEWED BY THE ARCHITECT/ENGINEER FOR CONFORMANCE WITH DESIGN INTENT ONLY. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION. ENGINEERS APPROVAL OF SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR FIT, QUANTITY AND CONSTRUCTION QUALITY CONTROL.
6. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL RELEVANT DIMENSIONS AND ELEVATIONS FOR EQUIPMENT INSTALLATIONS AGAINST APPROVED MANUFACTURERS CERTIFIED EQUIPMENT DRAWINGS AND COORDINATING ANY REQUIREMENTS WITH SHOP DRAWINGS AND WORK.
7. MECHANICAL FRAMING LOADS, OPENINGS AND SUPPORT STRUCTURE ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE WITH MECHANICAL AND OTHER TRADES TO VERIFY EQUIPMENT SIZE AND LOCATIONS. ANY CHANGES IN EQUIPMENT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD.
8. THE CONTRACTOR SHALL INFORM THE ENGINEER/ARCHITECT OF ANY DEVIATIONS FROM THE DRAWINGS. DO NOT CUT OR MODIFY STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
9. DRAWINGS ARE INTENDED TO BE PRINTED PER THE SCALE PROVIDED. THE CONTRACTOR SHALL CONTACT THE ENGINEER IF ADDITIONAL DIMENSIONS ARE REQUIRED.
10. CONTRACTOR SHALL NOT MIX GALVANIZED AND STAINLESS STEEL AT ANY TIME. ANY METAL PARTS IN CONTACT WITH OTHER METAL PARTS SHALL BE OF A SIMILAR METAL.
11. CONTRACTOR SHALL RECOGNIZE EFFECTS OF THERMAL MOVEMENTS AND MOISTURE CONTENT CHANGES OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD AND CONSIDER THESE EFFECTS DURING CONSTRUCTION AND/OR ERECTION SEQUENCES.
12. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE AND FUNCTIONING SYSTEMS, INCLUDING BUT NOT LIMITED TO, PROVIDING (AT NO ADDITIONAL COST) ITEMS NOT SPECIFICALLY SHOWN IN THESE DRAWINGS WHICH ARE NORMALLY CONSIDERED NECESSARY.

SOILS AND EARTHWORK

1. SOIL INVESTIGATIONS HAVE NOT BEEN PERFORMED FOR THIS PROJECT. OWNER-SUPPLIED PLANS HAVE BEEN USED TO DETERMINE BEARING CAPACITY.
2. CONTRACTOR SHALL VERIFY SOIL BEARING CAPACITY PRIOR TO CONSTRUCTION.
3. SPECIAL DESIGN AND CONSTRUCTION PROVISIONS FOR THIS PROJECT'S FOUNDATIONS:
   A. NONE
4. INCLUDE IN THE WORK PROVIDING ALL EQUIPMENT, MATERIAL, AND QUALIFIED LABOR NECESSARY FOR EXCAVATION, SHORING, DEWATERING SYSTEMS, BACKFILL, AND COMPACTION OF SOILS, AS REQUIRED TO CONSTRUCT STRUCTURES TO THE LINE AND GRADE AS SHOWN ON THE PLANS.
5. FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL TELEPHONE (800) 482-7171 NOT LATER THAN THREE BUSINESS DAYS PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" ALERT SYSTEM.
6. EXCAVATE TO ELEVATIONS AND DIMENSIONS SHOWN ON THE PLANS WITHIN A TOLERANCE OF +/- 0.10 FEET. EXCAVATE BY HAND TO FINAL GRADE FOR FOOTINGS.
7. NOTIFY THE ENGINEER FOR AN INSPECTION WHEN THE EXCAVATION HAS REACHED SUB-GRADE ELEVATION. IF UNSUITABLE BEARING MATERIALS ARE ENCOUNTERED AT SUB-GRADE ELEVATION, EXCAVATE AND REPLACE SUCH MATERIALS AS DIRECTED BY ENGINEER.
8. SATISFACTORY SOIL MATERIALS ARE DEFINED AS GRANULAR MATERIALS CLASSIFIED AS GW, GP, GM, SW, SP, SW-SM, SP-SM OR SM BY THE UNIFIED SOILS CLASSIFICATION SYSTEM, ASTM D2487. LIMIT AMOUNT OF FINE MATERIAL PASSING NO. 200 SIEVE TO LESS THAN 8% MAXIMUM.
9. UNSATISFACTORY SOIL MATERIALS ARE DEFINED AS SOILS CLASSIFIED AS GC, SW-SC, SP-SC, SC, ML, MH, CL, CH, OL, OH, AND PT BY THE UNIFIED SOIL CLASSIFICATION SYSTEM, OR ANY ORGANIC MATERIAL. "MARL" IS AN UNSATISFACTORY SOIL MATERIAL.
10. BACKFILL ALL STRUCTURAL WORK WITH SATISFACTORY SOIL MATERIALS AND ENGINEERED FILL AS SHOWN ON PLANS. DO NOT BACKFILL WITH FROZEN MATERIALS. DO NOT PLACE ROCKS LARGER THAN 3" DIAMETER IN BACKFILL.
11. COMPACT SOILS BELOW FOOTINGS T0 A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED BY MODIFIED PROCTOR, ASTM D1557.
12. COMPACT BACKFILL IN LAYERS TO MINIMUM 95% MAXIMUM DENSITY AS DETERMINED BY MODIFIED PROCTOR, OR MICHIGAN CONE TEST.

FOOTING SCHEDULE

SCHEDULE NOTES:

1. PROVIDE HORIZ HOOKS ON ALL VERTICAL BARS, TURNED OUT AWAY FROM CENTERLINE. (#5 = 12", #8 = 24")
2. PROVIDE "L" 30"x30" FOR #5 HORIZONTAL LAP BARS AT ALL CORNERS.
3. PROVIDE #5 BARS @ 36" OC PERPENDICULAR TO BOTTOM FOOTING BARS FOR WALL FOOTINGS.
4. REFER TO PLANS FOR STRIP FOOTING LENGTHS. EXISTING CONDITIONS TO BE VIF

MARK	FOOTING SIZE L	W	D	REINFORCING	NOTES
F1	54"	96"	12"	(5) #6 BARS TRANSVERSE, T&B, (10) #6 BARS LONG, T&B	FOOTINGS AT FRONT ENTRY
F2	48"	48"	12"	(4) #5 BARS EW, T&B	
F3	54"	54"	12"	(5) #6 BARS EW, T&B	
F4	60"	60"	12"	(5) #6 BARS EW, 3" FROM BOTTOM OF FOOTING (BOTTOM BARS ONLY)	
WF1		24"	12"	#5 AT 12" OC EW BOTTOM BARS AND #5 AT 12" OC TOP TRANSVERSE	TYPICAL WALL FOOTING
WF2		36"	12"	#6 AT 12" OC T&B LONG, AND #6 AT 12" OC BOTTOM TRANSVERSE	FRONT COURTYARD WALL

STRUCTURAL STEEL NOTES

1. COMPLY WITH CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES - THE LATEST APPLICABLE EDITION
2. STRUCTURAL STEEL PLATES, ANGLES, CHANNELS AND S-SHAPE MEMBERS: ASTM A36, Fy=36KSI.
3. ANCHOR RODS: ASTM F1554, GRADE 36.
4. STRUCTURAL STEEL WIDE FLANGE SECTIONS: ASTM A992, GRADE 50, Fy=50KSI.
5. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE B, Fy=46KSI.
6. STEEL PIPE: ASTM A53, GRADE B, Fy=35KSI.
7. USE ASTM A325N, 3/4" DIA FOR ALL BOLTS IN STANDARD ROUND HOLES UNLESS NOTED OTHERWISE ON THE PLANS.
8. SUBMIT SHOP DRAWINGS FROM STRUCTURAL STEEL FABRICATOR FOR APPROVAL OF THE ENGINEER, PRIOR TO FABRICATION. FOLLOW STANDARD PRACTICES SET FORTH IN THE AISC MANUAL "DETAILING FOR STEEL CONSTRUCTION" FOR DETAIL DRAWINGS OF THE MEMBERS AND THEIR CONNECTIONS. INDICATE WELDS, USING STANDARD AWS WELDING SYMBOLS. SHOW SIZE LENGTH AND TYPE OF EACH WELD.
9. BEAM AND LINTEL BEARINGS ON MASONRY WALLS SHALL BE 6 INCHES MINIMUM, UNLESS OTHERWISE NOTED. CENTER BEARING ON WALLS, UNLESS OTHERWISE NOTED.
10. STEEL FABRICATOR SHALL DESIGN AND FABRICATE STEEL AND STEEL CONNECTIONS IN ACCORDANCE WITH AISC UNLESS CONNECTIONS ARE INDICATED ON THE DRAWINGS.
11. ALL BOLTED CONNECTIONS SHALL BE BEARING TYPE N UNLESS OTHERWISE NOTED.
12. ALL STRUCTURAL STEEL MEMBERS AND ACCESSORIES UNLESS NOTED OTHERWISE, SHALL RECEIVE ONE SHOP PRIME COAT OF PROTECTIVE PAINT PRIOR TO DELIVERY TO JOBSITE. FINISH PAINT ALL STRUCTURAL STEEL AND CONNECTIONS, AFTER ERECTION AS SPECIFIED BY ARCHITECT.
13. WHERE MEMBERS ARE NOTED TO BE GALVANIZED, PROVIDE HOT DIPPED GALVANIZING IN ACCORDANCE WITH ASTM A123. PROVIDE FIELD TOUCH-UP OF ABRADED OR DAMAGED GALVANIZED COATINGS WITH HIGH-ZINC-DUST-CONTENT PAINT WITH DRY FILM CONTAINING NOT LESS THAN 94% ZINC DUST BY WEIGHT COMPLYING WITH SSPC-PAINT 20. ALL EXTERIOR FRAMING AND FRAMING IN DIRECT CONTACT WITH CMU SHALL BE GALVANIZED.
14. DESIGN, CONSTRUCTION AND REMOVAL OF ALL TEMPORARY SUPPORTS AND BRACING (SEE AISC CODE OF STANDARD PRACTICE) IS THE RESPONSIBILITY OF THE STEEL ERECTORS.
15. WELDING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE - STEEL (AWS D1.1-CURRENT) PUBLISHED BY THE AMERICAN WELDING SOCIETY. PERFORM WELDING BY CERTIFIED WELDERS. USE E70XX ELECTRODE.
16. DO NOT USE STEEL FRAMING CONNECTIONS WHICH REQUIRE EITHER MEMBER TO BE COMPLETELY DISCONNECTED (NUTS REMOVED FROM BOLTS) FOR INSTALLATION OF THE SUCCEEDING MEMBER.

MASONRY NOTES

1. CONSTRUCT MASONRY IN ACCORDANCE WITH ACI 530.1/ASCE 6-CURRENT EDITION.
2. PROVIDE NORMAL WEIGHT CONCRETE UNIT MASONRY UNITS MANUFACTURED IN ACCORDANCE WITH ASTM C90, F'm = 2,000 PSI.
3. GROUT VOIDS AS INDICATED ON THE DRAWINGS, WITH GROUT CONFORMING TO ASTM C476. GROUT BLOCK CORES UNDER BEAM BEARINGS AND AT LEAST 8" EACH SIDE OF BEARING. PROVIDE SLUMP BETWEEN 8 AND 11 INCHES.
4. LAY UNIT MASONRY IN A RUNNING BOND PATTERN UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE PLANS. TOOLS ALL JOINTS, ALL SURFACES.
5. MORTAR SHALL BE TYPE S COMPLYING WITH ASTM C270 IS REQUIRED.
6. PROTECT MASONRY BY COVERING TOP OF WALLS WITH WATERPROOF SHEETING AT THE END OF EACH DAY. DO NOT LAY WET OR FROZEN BRICK, STONE, OR BLOCK. PROVIDE TEMPORARY HEAT WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT. MAINTAIN MINIMUM 50 DEGREE TEMPERATURE FOR 48 HOURS AFTER PLACING MASONRY.
7. GROUT ALL CORES CONTAINING REBAR AND VOIDS WHERE INDICATED.
8. ALL CORES BELOW GRADE SHALL BE GROUTED SOLID UP TO FINISHED FLOOR ELEVATION.
9. CORES CONTAINING EXPANSION OR ADHESIVE ANCHORS SHALL BE GROUTED SOLID.
10. ALL VERTICAL REINFORCEMENT SHALL BE CONTINUOUS THROUGH BOND BEAMS. ALL HORIZONTAL REINFORCEMENT IN BOND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE BENT BARS OF THE SAME SIZE AND NUMBER WITH A LAP OF 48 BAR DIAMETERS (12" MINIMUM).
11. COORDINATE WALL OPENINGS AND OTHER WALL CONFIGURATIONS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL, AND OTHER DISCIPLINES.
12. POST INSTALLED ANCHORS OR REBAR SHALL BE ANCHORED INTO MASONRY WITH POWERS PE1000 + EPOXY INJECTION ADHESIVE, OR AN APPROVED EQUAL. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLED INSTRUCTIONS. SEE DETAILS FOR MINIMUM EMBEDMENT.
13. UNLESS OTHERWISE CALLED OUT FOR ON PLANS, PROVIDE HORIZONTAL JOINT REINFORCEMENT IN ALTERNATE COURSES (16" OC) USING 9 GAUGE DURATRUSS OR EQUAL.

BAR SIZE	MINIMUM LAP SPLICE f'm = 1,500 psi	MINIMUM LAP SPLICE f'm = 1,900 psi	COMMENTS
#3	18"	18"	
#4	26"	24"	
#5	40"	35"	MIN 8" CMU
#6	74"	66"	MIN 8" CMU
#7	101"	89"	MIN 12" CMU
#8	151"	135"	MIN 12" CMU

* LAP SPLICE LENGTHS SHOWN ARE FOR UNCOATED BARS WITH 2" MINIMUM CLEAR COVER AND 2" MINIMUM CLEAR SPACING. INCREASE LAP LENGTH BY 50% IF USING EPOXY COATED BARS. LAP LENGTHS SHOWN ARE FOR REINFORCEMENT WITH A YIELD STRENGTH OF 60,000 PSI (60 KSI).

STEEL DECKING NOTES

1. STEEL DECKING (ROOF AND FLOOR) SHALL BE GALVANIZED STEEL SHEET CONFORMING WITH SDI. STEEL DECKING SHALL NOT BE WELDED.
2. STEEL DECKING INSTALLATION AND CONNECTIONS SHALL CONFORM WITH SDI.

CONCRETE PIER SCHEDULE

MARK	COLUMN SIZE	REINFORCING	NOTES
P1	14 x 14	(6) #6 VERT BAR AND #3 TIES AT 12" OC	TOP OF PIER AT 99'-6"

WALL SCHEDULE

MARK	WIDTH	REINFORCING/CONSTRUCTION	NOTES
WM1	8"	#5 AT 32" OC CENTERED IN CORE WITH W1.7 WIRE LADDER TIES AT 16" OC	TYPICAL MASONRY WALL
WM2	12"	#7 AT 8" OC CENTERED IN CORE WITH W1.7 WIRE LADDER TIES AT 16" OC	FRONT COURTYARD WALL
WC1	8"	#5 AT 18" OC VERT AND #4 AT 12" OC HORIZ, CENTERED ON WALL	
WC2	16"	#5 AT 18" OC VERT AND #4 AT 12" OC HORIZ, EF	
WC3	20"	#6 AT 16" OC EF, STAGGERED TO BE CONTINUOUS WITH MASONRY WALL ABOVE, #4 AT 8" OC HORIZ BAR EF	COURTYARD FOUNDATION WALL

CONCRETE NOTES

1. PROVIDE MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTH OF 4,000 PSI (f'c = 4,000 PSI). PROVIDE NORMAL WEIGHT CONCRETE, WITH 6% ≥ 1.5% ENTRAINED AIR FOR EXTERIOR APPLICATIONS . MAXIMUM W/C RATIO < 0.50, AND MAXIMUM 4" SLUMP, UNLESS SUPER-PLASTICIZERS ARE USED. USE OF SUPER-PLASTICIZERS IS SUBJECT TO PRIOR APPROVAL BY THE ENGINEER. DO NOT PROVIDE AIR CONTENT > 3% FOR TROWEL FINISHED SLABS. DO NOT PROVIDE AIR CONTENT >3% FOR TROWEL FINISHED SLABS.
2. PROVIDE READY-MIX CONCRETE CONFORMING TO ASTM C-94.
3. CONCRETE SHALL BE PLACED IN ACCORDANCE WITH ACI 117, 301, 305R, 306.1, AND 308.1, LATEST APPLICABLE EDITION.
4. PLACE ANCHOR RODS SET IN CONCRETE TO RECEIVE STRUCTURAL STEEL WITHIN TOLERANCES SPECIFIED IN THE LATEST APPLICABLE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" IN LIEU OF TOLERANCES SPECIFIED IN ACI "STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".
5. REINFORCING STEEL CONFORMING TO ASTM A-615, GRADE 60 IS REQUIRED. PLACE REINFORCING STEEL IN CONFORMANCE WITH CRSI MANUAL OF STANDARD PRACTICE.
6. CONFORM TO ASTM A706/A706M, GRADE 60 FOR REINFORCING STEEL TO BE WELDED. PLACE REINFORCING STEEL IN CONFORMANCE WITH CRSI MANUAL OF STANDARD PRACTICE. WELD REINFORCED STEEL IN ACCORDANCE WITH AWS D1.4 PERFORM WELDING BY CERTIFIED WELDERS. USE E70XX ELECTRODES. DO NOT WELD REINFORCEMENT UNLESS DETAILED AS SUCH. DO NOT WELD REINFORCEMENT UNLESS DETAILED AS SUCH.
7. POST INSTALLED ANCHORS OR REBAR SHALL BE ANCHORED INTO CONCRETE WITH POWERS PE1000+ EPOXY INJECTION ADHESIVE, OR AN APPROVED EQUAL. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION INSTRUCTIONS. SEE DETAILS FOR MINIMUM EMBEDMENT.

BAR SIZE	REINFORCEMENT LAP SPLICE LENGTH+ f'c = 3,000 psi TOP BARS*	f'c = 3,000 psi ALL OTHER BARS	f'c = 4,000 psi TOP BARS*	f'c = 4,000 psi ALL OTHER BARS	f'c = 5,000 psi TOP BARS*	f'c = 5,000 psi ALL OTHER BARS
#3	28"	22"	24"	19"	22"	17"
#4	37"	29"	33"	25"	29"	23"
#5	47"	36"	40"	31"	36"	28"
#6	56"	43"	49"	38"	44"	34"
#7	81"	63"	70"	54"	63"	49"
#8	93"	72"	81"	62"	72"	56"

* TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE BELOW BAR.

\+ LAP SPLICE LENGTHS SHOWN ARE CLASS B SPLICE LENGTHS FOR UNCOATED OR GALVANIZED BARS WITH CLEAR COVER OF db OR MORE AND WITH CLEAR SPACING OF 2db OR MORE. INCREASE LAP LENGTHS BY 50% FOR EPOXY COATED OR DUAL ZINC-EPOXY COATED BARS WITH CLEAR COVER LESS THAN 3db OR WITH CLEAR SPACING LESS THAN 6db. INCREASE LAP LENGTHS BY 20% FOR EPOXY COATED OR DUAL ZINC-EPOXY COATED BARS WITH CLEAR COVER OF 3db OR MORE AND WITH CLEAR SPACING OF 6db OR MORE. SPLICE LENGTHS SHOWN ARE FOR NORMAL WEIGHT CONCRETE AND REINFORCEMENT WITH A YIELD STRENGTH OF 60,000 PSI (60 KSI).

8. REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER AS LISTED BELOW UNLESS OTHERWISE NOTED.
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED EARTH: 3"
   B. CONCRETE CAST AGAINST FORMS BUT EXPOSED TO EARTH OR WEATHER
      1. NO. 5 OR SMALLER 1 1/2"
      2. GREATER THAN NO. 5 2"
   C. SLAB ON GRADE: 2" FROM T/SLAB

LIGHT GAUGE METAL FRAMING NOTES

1. ALL LOAD BEARING LIGHT GAUGE METAL FRAMING SHALL BE Fy= 50,000 PSI. NON-LOAD BEARING MEMBERS MAY BE Fy= 36,000 PSI.
2. CONTRACTOR SHALL SUPPLY MATERIAL AND FOLLOW THE REQUIREMENTS OF AISI S200-12 AND AISI 201-12. MEMBERS SHALL BE 20 GAUGE MIN (0.0329 INCHES) WITH G60 COATING UNLESS NOTED OTHERWISE.
3. CONNECTIONS SHALL BE SELF TAPPING SCREWS MEETING THE REQUIREMENTS OF ASTM C1513 OR WELDS IN ACCORDANCE WITH AISI S100 AND AWS D1.3. SCREWS SHALL BE SPACED AT A MINIMUM OF 3 TIMES THE NOMINAL DIAMETER OF THE SCREW. THE MINIMUM EDGE DISTANCE FOR SCREWS SHALL BE 1.5 TIMES THE NOMINAL DIAMETER.
4. PROVIDE SLIP TRACK AT NON-BEARING WALLS TO ALLOW FOR FLOOR/ROOF DEFLECTIONS. SLIP TRACK SHALL ALLOW FOR 1/2" MINIMUM DEFLECTION U.N.O.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF MICHIGAN. SHOP DRAWINGS SHALL SHOW SIZE, GAUGE AND GRADES OF ALL COLD FORM METAL FRAMING PRODUCTS TO BE USED, CONNECTOR TYPES, ORIENTATION AND SIZES, BEARINGS AND UPLIFT REQUIREMENTS (WHERE APPLICABLE). ALL LOAD CASES INVESTIGATED AND MAXIMUM STRESSES IN EACH MEMBER SHALL ALSO BE INCLUDED.

LOOSE LINTEL & FRAMING NOTES

FOR ALL FRAMING & OPENINGS IN WALLS, INCLUDING THOSE FOR DOORWAYS, DUCTS & EQUIPMENT, PROVIDE (1) ANGLE FOR EACH 4" OF WALL THICKNESS AS FOLLOWS:

1. SPANS TO 4'-0": L3 1/2x3 1/2x5/16
2. SPANS 4'-1" TO 7'-0": L5x3 1/2x5/16
3. SPANS LARGER THAN 7'-0": REFER TO LINTEL SCHEDULE

LINTEL BEARING (MIN)

1. SPANS TO 4'-0": 6" EACH END
2. SPANS 4'-1" TO 7'-0": 8" EACH END
3. SPANS LARGER THAN 7'-0": PROVIDE BEAMS WITH PLATES AS SHOWN ON PLANS

NOTES:

1. ALL OPENINGS ARE NOT SHOWN IN THE FRAMING PLANS. REFER TO ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS AND DETAILS FOR OPENINGS AND RECESSES.
2. WHERE ARE NOT DETAILED OR NOTED, PROVIDE LINTELS FOR ALL OPENINGS PER ABOVE LOOSE LINTEL SCHEDULE.
3. EQUIPMENT SUSPENDED FROM STEEL JOISTS: USE ANGLE LINTEL, SPAN (3) JOIST MIN, TOP CHORD, WELD OR CLAMP TO JOIST.
4. FOR OPENINGS ON FLOOR AND ROOF DECKS, PROVIDE DAL1 ANGLES EACH SIDE, FASTEN TO JOISTS AND DECK WITH CLIPS AND SCREWS.
5. ALL EXTERIOR, EXPOSED STL LINTELS SHALL BE HOT DIPPED GALVANIZED.

STEEL JOISTS AND GIRDER NOTES

1. STEEL BA

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STATEMENT OF SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE (MBC) CHAPTER 17 AND AS MODIFIED HEREIN.
2. DESIGNATIONS:
   - SI — SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFICATIONS FROM RECOGNIZED AGENCIES SUCH AS AWS, ACI, INTERNATIONAL CODE COUNCIL (IBC), MASONRY INSTITUTE OF MAY BE A FIRM WITH MULTIPLE SPECIALISTS AND A PROJECT MANAGER PROVIDING REPORTS.
   - TA — TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES TESTING.
   - SE — SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE, STEEL JOISTS, COLD FORMED FRAMING ASSEMBLIES, ETC. SPECIALTY ENGINEER SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDITION TO THE SPECIAL INSPECTION.
3. TA, AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPILE AND SUBMIT INSPECTION RECORDS TO THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM COMPLIES WITH CONTRACT DOCUMENTS, REMEDIAL WORK PERFORMED, RETESTS.
4. SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ON THE SAME DAY OF THE INSPECTION TO THE ENGINEER OF RECORD. FORMAL REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINAL REPORT WITH A SUMMARY OF ALL TESTS PERFORMED AND RESULTS TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704.2.4.
5. SI, & TA SHALL BE ENGAGED BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN BUILDING CODE.
6. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE FABRICATOR MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND QUALITY CONTROL PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING...
7. REFER TO SPECIAL INSPECTION SCHEDULES AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL QUALITY CONTROL TESTING AND INSPECTIONS.

SPECIAL INSPECTION REQUIREMENTS - SOIL AND FOUNDATIONS

INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	MBC REFERENCE	SPECIFICATION	RESPONSIBLE AGENT
	CONTINUOUS	PERIODIC				
1. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.		X		1705.6	312316 - EXCAVATION	SI/TA
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X		1705.6	312316 - EXCAVATION	SI
3. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X		1705.6	-	SI
4. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	X			1705.6	312316 - EXCAVATION	SI/TA
5. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.		X		1705.6	312323 - FILL	SI/TA

SPECIAL INSPECTION REQUIREMENTS - CONCRETE CONSTRUCTION

INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	MBC REFERENCE	SPECIFICATION	RESPONSIBLE AGENT
	CONTINUOUS	PERIODIC				
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.		X	ACI 318: CH 20, 25.2, 25.3, 26.6.1-26.6.3		032000 - CONCRETE REINFORCING	SI
2. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X	ACI 318: 26.11.1.2(b)		031000 - CONCRETE FORMING AND ACCESSORIES	SI/SE/TA
3. INSPECT FORMWORK FOR PROPER PREPARATION AND CLEANLINESS PRIOR TO CONCRETE PLACEMENT.		X	ACI 318: 26.5.2		031000 - CONCRETE FORMING AND ACCESSORIES	SI/TA
4. INSPECT ANCHORS AND EMBEDMENTS CAST IN CONCRETE.		X	ACI 318: 17.8.2		033000 - CIP CONCRETE	SI/TA
5. VERIFY USE OF REQUIRED DESIGN MIX.		X	ACI 318: CH 19, 26.4.3, 26.4.4		033000 - CIP CONCRETE	SI/TA
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X		ASTM C172 ASTM C31 ACI 318: 26.4, 26.12		033000 - CIP CONCRETE	SI/TA
7. NSPECT CONCRETE PLACEMENT FOR PROPER PLACEMENT TECHNIQUES.	X		ACI 318: 26.5		033000 - CIP CONCRETE	SI
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X	ACI 318: 26.5.3-26.5.5		033000 - CIP CONCRETE	SI
9. INSPECT ANCHORS POST-INSTALLED IN HARDENED MEMBERS.					033000 - CIP CONCRETE	SI/TA
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X		ACI 318: 17.8.2.4			
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 11. A.		X	ACI 318: 17.8.2			

SPECIAL INSPECTION REQUIREMENTS - COLD-FORMED STEEL FRAMING

INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	IBC REFERENCE	SPECIFICATION	RESPONSIBLE AGENT
	CONTINUOUS	PERIODIC				
1. VERIFY MEMBER SIZE, THICKNESS AND GRADE COMPLY WITH PROJECT REQUIREMENTS.		X			054000 - COLD-FORMED METAL FRAMING	SI
2. VERIFY CONNECTIONS AND FRAMING DETAILS. COMPLY WITH PROJECT REQUIREMENTS.		X				SI
3. VERIFY PERMANENT BRACING AND BRIDGING IS INSTALLED ACCORDING TO PROJECT REQUIREMENTS.		X				SI

SPECIAL INSPECTION REQUIREMENTS - MASONRY: LEVEL B QUALITY ASSURANCE

MINIMUM PRECONSTRUCTION VERIFICATION

VERIFICATION OF f'm IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.4 B PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE.

MINIMUM SPECIAL INSPECTION

INSPECTION TASK	INSPECTION TYPE		REFERENCE CRITERIA		SPECIFICATION	RESPONSIBLE AGENT
	CONTINUOUS	PERIODIC	TMS 402 ACI 530 ASCE 5	TMS 602 ACI 530.1 ASCE 6		
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.		X		ART 1.5	042000 - UNIT MASONRY	SI
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					042000 - UNIT MASONRY	SI
A. PROPORTIONS OF SITE-PREPARED MORTAR.		X		ART 2.1, 2.6A		
B. CONSTRUCTION OF MORTAR JOINTS.		X		ART 3.2B, 3.3B		
C. LOCATION AND CONDITION OF REINFORCEMENT, CONNECTORS, REINFORCEMENT POSITIONERS AND CONTROL JOINTS.		X		ART 3.2A, 3.4		
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:					042000 - UNIT MASONRY	SI/TA
A. GROUT SPACE.		X		ART 3.2D, 3.2F		
B. GRADE, TYPE, SIZE AND CONDITION OF REINFORCEMENT AND ANCHOR RODS.		X	SEC 6.1	ART 2.4, 3.2A, 3.2E, 3.4		
C. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND REINFORCEMENT POSITIONERS.		X	SEC 6.1, 6.2.1, 6.2.2, 6.2.7	ART 3.2E, 3.4		
D. PROPORTIONS OF SITE-PREPARED GROUT.		X		ART 2.6B		
E. CONSTRUCTION OF MORTAR JOINTS.		X		ART 3.3B		
4. VERIFY DURING CONSTRUCTION:					042000 - UNIT MASONRY	SI/TA
A. SIZE, LOCATION AND ENDING PATTERN OF STRUCTURAL ELEMENTS AND CONTROL JOINT LAYOUT.		X		ART 3.3F		
B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.		X	SEC 1.2.1(e), 6.1.4.3, 6.2.1	ART 3.4		
C. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F).		X		ART 1.8C, 1.8D		

MBC REFERENCE SECTION 1705.4 AND TABLE 3.1.2 TMS 402/ACI1530/ASCE 5.

SPECIAL INSPECTION REQUIREMENTS - STRUCTURAL STEEL

INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	MBC REFERENCE	SPECIFICATION	RESPONSIBLE AGENT
	QC	QA				
1. INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.	SEE TASK LIST BELOW	SEE TASK LIST BELOW	AISC QUALITY CERTIFICATION	1704.2.5	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR FOR QC SI FOR QA
A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.						
2. SPECIAL INSPECTIONS AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS, STRUCTURES AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.		SEE TASK LIST BELOW	AISC QUALITY CERTIFICATION	1705.2	051200 - STRUCTURAL STEEL FRAMING	SI
A. SPECIAL INSPECTION OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEEL ELEMENTS SHALL BE LIMITED TO WELDING INSPECTION OF WELDS AT THE BASE OF CANTILEVERED RAIL POSTS.		SEE TASK LIST BELOW	AISC QUALITY CERTIFICATION	170.5.1	051200 - STRUCTURAL STEEL FRAMING	SI

- QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.
- QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, PURCHASER, OWNER, OR ENGINEER OF RECORD
- O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
- P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.

INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	MBC REFERENCE	SPECIFICATION	RESPONSIBLE AGENT
	QC	QA				
INSPECTION OF BOLTING:						
1. INSPECTION TASKS PRIOR TO BOLTING:			AISC 360, SECTION N5 TABLE N5.6-1	1705.2	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR/ERECTOR FOR QC SI/TA FOR QA
A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS.	P	O				
B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	O	O				
C. PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE.	O	O				
D. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	O	O				
E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	O	O				
F. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS.	O	O				
2. INSPECTION TASKS DURING BOLTING.			AISC 360, SECTION N5 TABLE N5.6-2	1705.2	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR/ERECTOR FOR QC SI/TA FOR QA
A. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED.	O	O				
B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	O	O				
C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING.	O	O				
3. INSPECTION TASKS AFTER BOLTING:			AISC 360, SECTION N5 TABLE N5.6-3	1705.2	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR/ERECTOR FOR QC SI/TA FOR QA
A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	P	O				

- QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.
- QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, PURCHASER, OWNER, OR ENGINEER OF RECORD
- O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
- P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.

INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	MBC REFERENCE	SPECIFICATION	RESPONSIBLE AGENT
	QC	QA				
INSPECTION OF WELDING:						
1. INSPECTION TASKS PRIOR TO WELDING:			AISC 360, SECTION N5 TABLE N5.4-1	1705.2	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR/ERECTOR FOR QC SI/TA FOR QA
A. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	P	O				
B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	P	O				
C. MATERIAL IDENTIFICATION (TYPE/GRADE).	O	O				
D. WELDER IDENTIFICATION SYSTEM.	O	O				
E. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY): • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF AVAILABLE)	O	O				
F. CONFIGURATION OF FINISH AND ACCESS HOLES.	O	O				
G. FIT-UP OF FILLET WELDS: • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	O	O				
H. CHECK WELDING EQUIPMENT.	O					
2. INSPECTION TASKS DURING WELDING:			AISC 360, SECTION N5 TABLE N5.4-2	1705.2	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR/ERECTOR FOR QC SI/TA FOR QA
A. USE OF QUALIFIED WELDERS.	O	O				
B. CONTROL AND HANDLING OF WELDING CONSUMABLES: • PACKAGING • EXPOSURE CONTROL	O	O				
C. NO WELDING OVER CRACKED TACK WELDS.	O	O				
D. ENVIRONMENTAL CONDITIONS: • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	O	O				
E. WPS FOLLOWED: • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) • PROPER POSITION (F, V, H, OH)	O	O				
F. WELDING TECHNIQUES: • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	O	O				
3. INSPECTION TASKS AFTER WELDING:			AISC 360, SECTION N5 TABLE N5.4-3	1705.2	051200 - STRUCTURAL STEEL FRAMING	FABRICATOR/ERECTOR FOR QC SI/TA FOR QA
A. WELDS CLEANED.	O	O				
B. SIZE, LENGTH AND LOCATION OF WELDS.	P	O				
C. WELDS MEET VISUAL ACCEPTANCE CRITERIA: • CRACK PROHIBITION. • WELD/BASE-METAL FUSION. • CRATER CROSS SECTION. • WELD PROFILES. • WELD SIZE. • UNDERCUT. • POROSITY.	P	O				
D. REPAIR ACTIVITY.	P	O				
E. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	P	O				

- QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR.
- QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, PURCHASER, OWNER, OR ENGINEER OF RECORD
- O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
- P: PERFORM THESE TASKS FOR EACH BOLTED CONNECTION.

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd. Romulus, MI 48174

SPECIAL INSPECTION REQUIREMENTS

S-002

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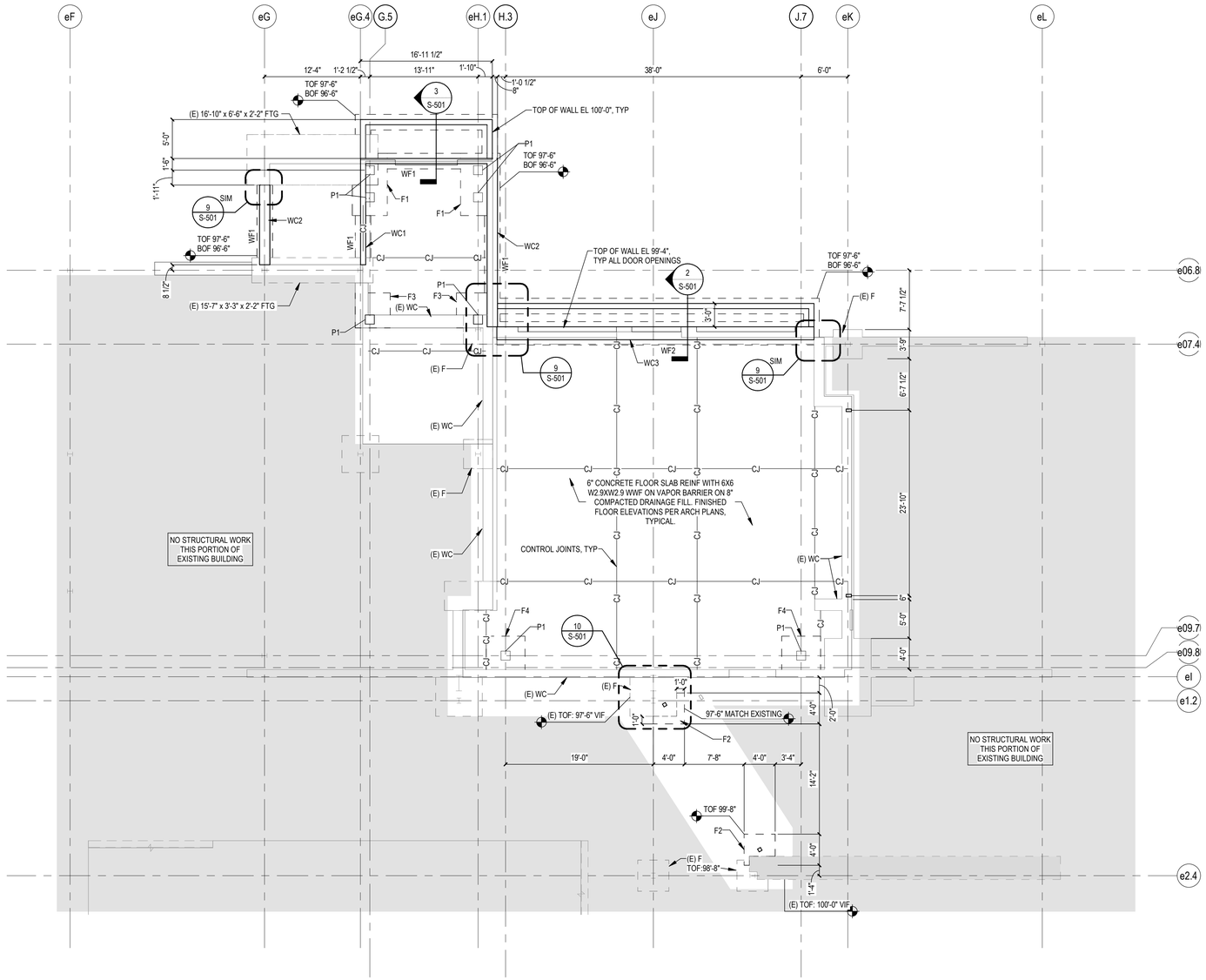
3/24/2026 11:09:03 AM

GENERAL NOTES - FOUNDATION

1. REFER TO ARCHITECTURAL SHEETS AD-101, AD-111, AND AD-201 FOR DEMOLITION PLAN.



1 PARTIAL FIRST FLOOR FOUNDATION PLAN - ADDITION

1/8" = 1'-0"

N

KEY PLAN

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PROJECT NUMBER
0155-25-0010

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

PARTIAL FOUNDATION AND FIRST FLOOR PLAN - ADDITION

S-101

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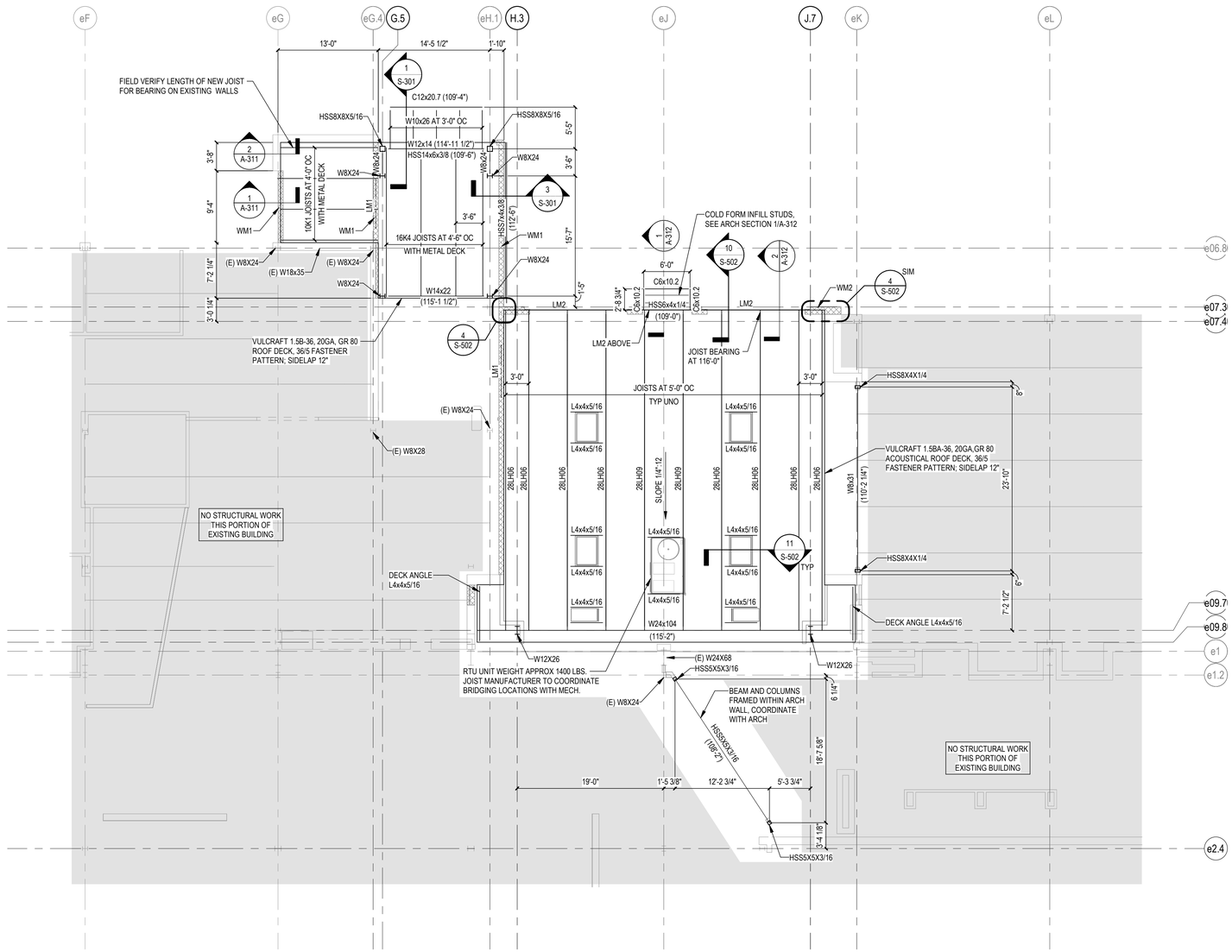
3/24/2026 11:09:04 AM

GENERAL NOTES - FRAMING

1. PREFER TO ARCHITECTURAL SHEETS AD-101, AD-111, AND AD-201 FOR DEMOLITION PLAN.



1 PARTIAL FRAMING PLAN - ADDITION
1/8" = 1'-0"

N

KEY PLAN

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PROJECT NUMBER 0155-25-0010
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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
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PARTIAL FRAMING PLAN - ADDITION

S-102

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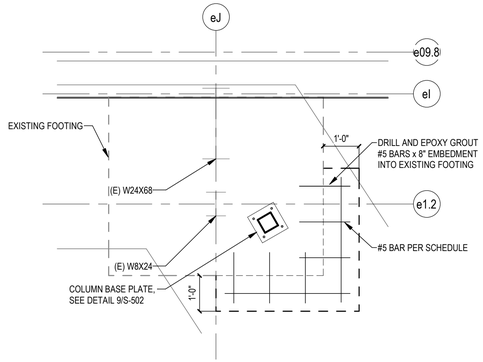
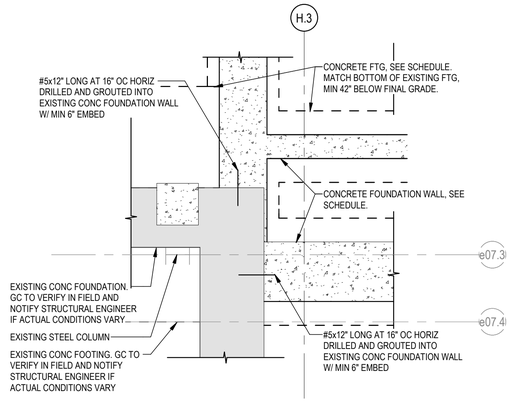
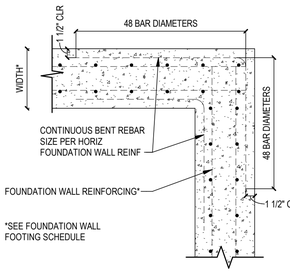


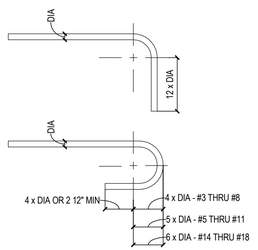
10 NEW FOUNDATION TO EX FOUNDATION CONNECTION 2
1/2" = 1'-0"



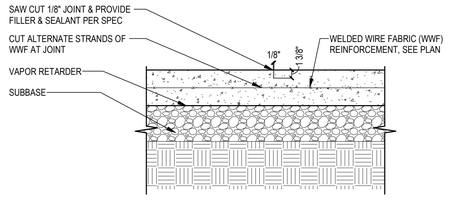
9 NEW FOUNDATION TO EX FOUNDATION CONNECTION
1/2" = 1'-0"



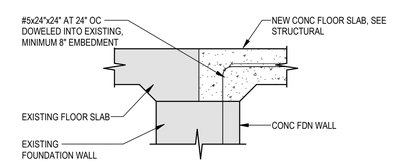
8 TYP WALL CORNER REINFORCING
1" = 1'-0"



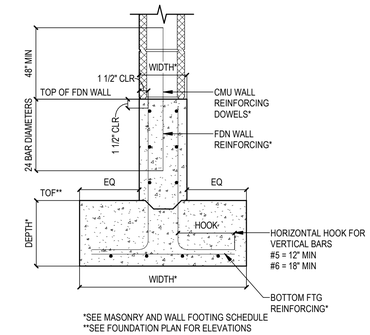
7 TYP REBAR HOOK RADIUS
1" = 1'-0"



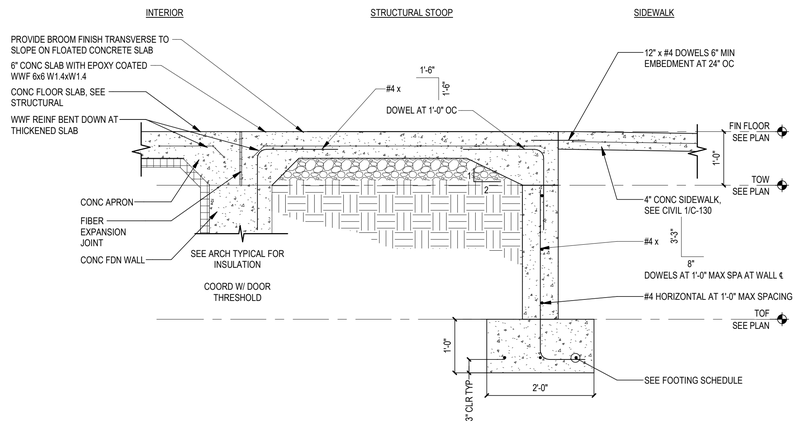
6 TYP SLAB ON GRADE SAW-CUT JOINT
1" = 1'-0"



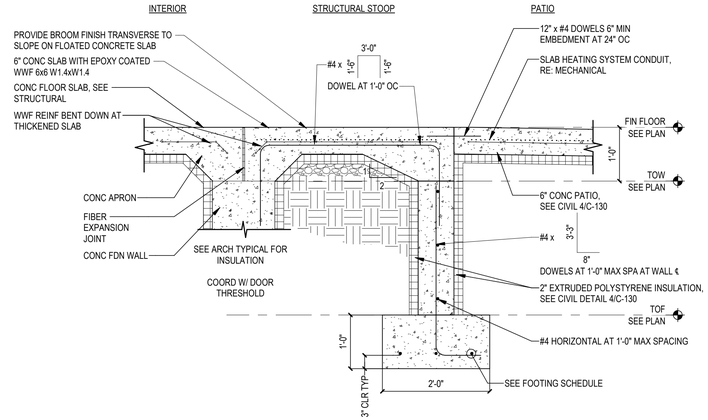
5 TYP SLAB AT INT OPENING DETAIL
1" = 1'-0"



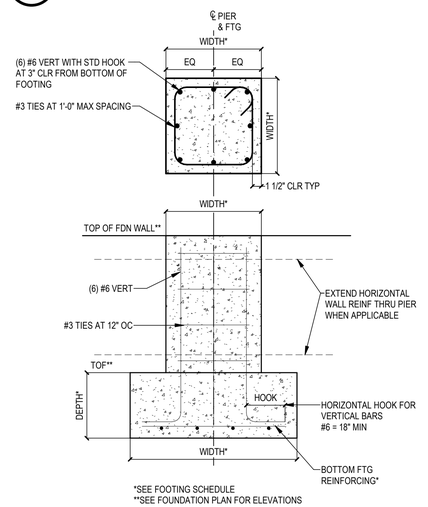
4 TYP WALL FOOTING REINFORCEMENT
1" = 1'-0"



3 STOOP FOUNDATION AT SIDEWALK
3/4" = 1'-0"



2 STOOP FOUNDATION AT PATIO
3/4" = 1'-0"



1 TYP CONCRETE PIER
1" = 1'-0"

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

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STRUCTURAL DETAILS

S-501

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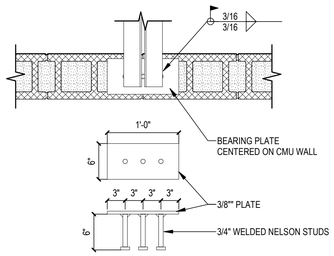
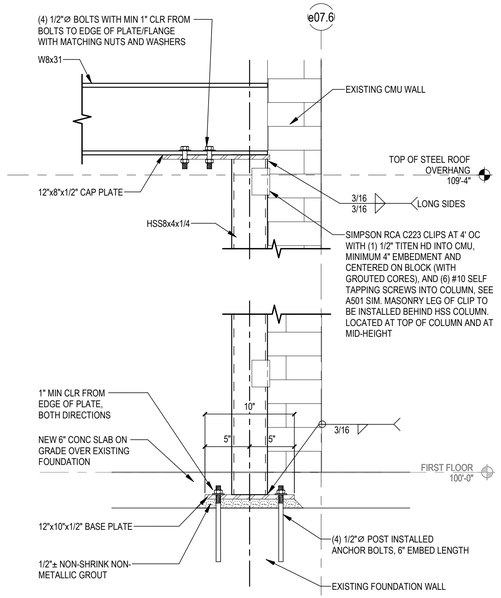


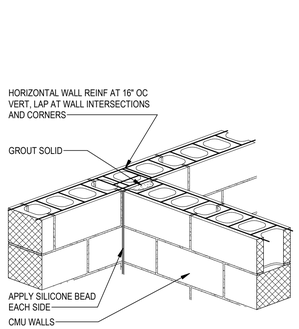
14 TYP STEEL JOIST BEARING PLATE AT NEW WALLS

1" = 1'-0"



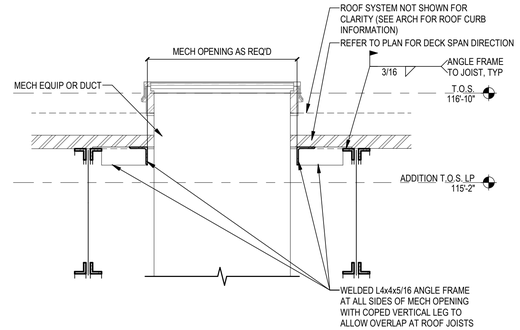
13 PARTITION WALL BEAM TO COLUMN CONNECTION

1 1/2" = 1'-0"



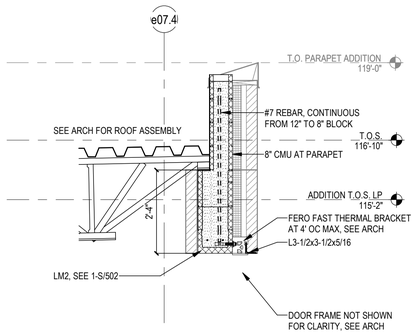
12 TYP CMU HORIZONTAL REINF.

3/4" = 1'-0"



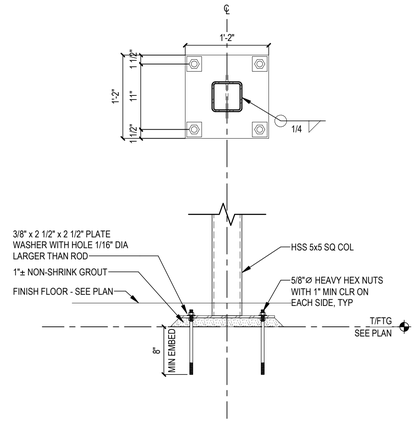
11 ROOF PENETRATION ANGLE FRAME DETAIL

3/4" = 1'-0"



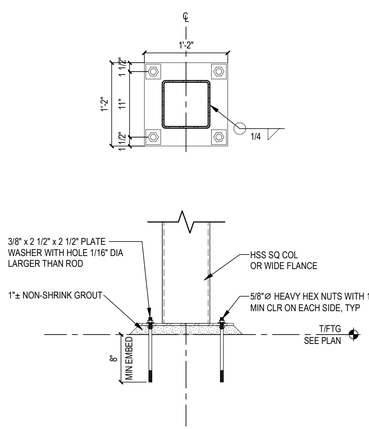
10 JOIST BEARING ON MASONRY DETAIL

1/2" = 1'-0"



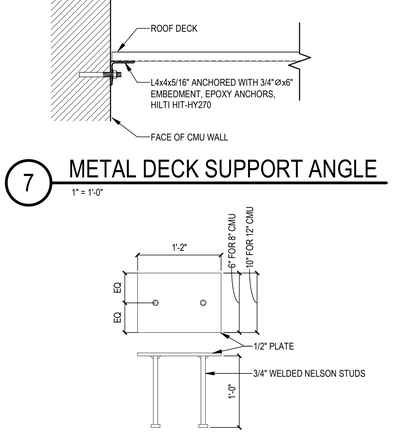
9 MOMENT BASE PLATE AT DIAGONAL WALL

1" = 1'-0"



8 TYP COLUMN BASE PLATE

1" = 1'-0"

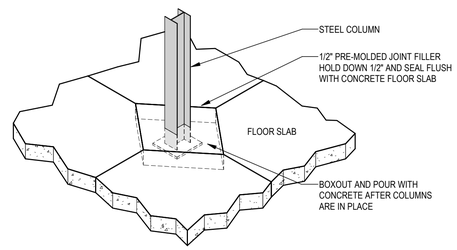


7 METAL DECK SUPPORT ANGLE

1" = 1'-0"

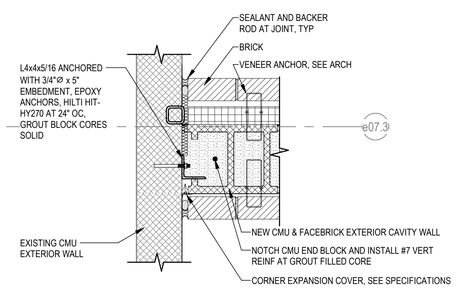
6 TYP STEEL BEAM BEARING PLATE

1" = 1'-0"



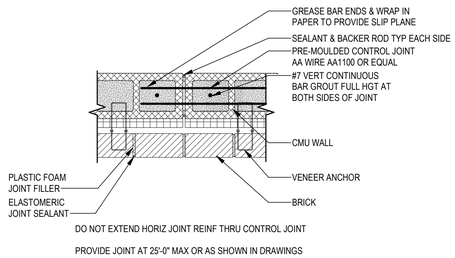
5 TYP SLAB ISOLATION JOINT AT STEEL COLUMN

1" = 1'-0"



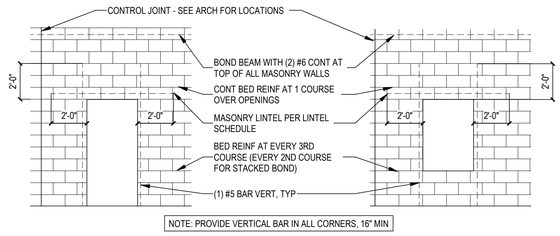
4 CMU WALL CONNECTION

1" = 1'-0"



3 TYP CMU CONTROL JOINT

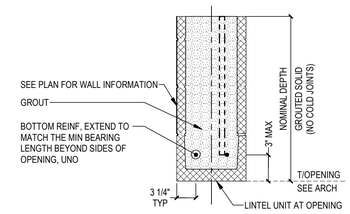
1" = 1'-0"



2 TYP MASONRY OPENING REINF IN ELEV

1/4" = 1'-0"

NOTE:
VERT REINF AT JAMBS IS TO EXTEND THROUGH LINTEL.



MASONRY LINTEL SCHEDULE					
MARK	MIN BEARING	NOMINAL WIDTH	NOMINAL DEPTH	BOTTOM REINF	COMMENTS
LM1	8"	8"	16"	(2) #4	TYPICAL LINTEL IN 8" MASONRY WALL
LM2	12"	12"	28"	(2) #6	LINTELS IN 12" MASONRY WALL

1 MASONRY LINTEL SCHEDULE

1" = 1'-0"

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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

STRUCTURAL DETAILS

S-502

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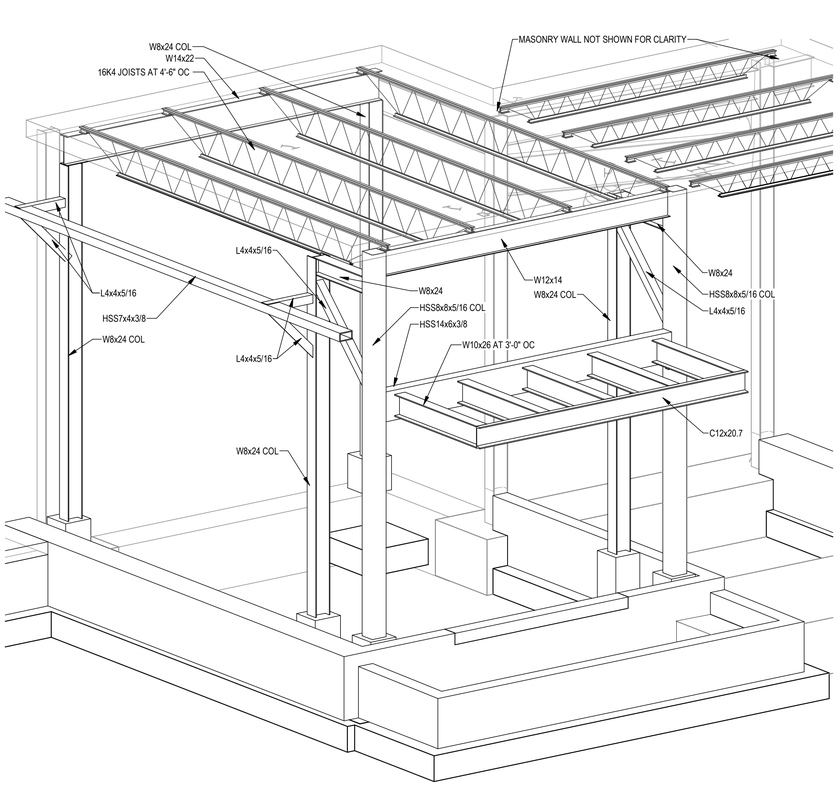
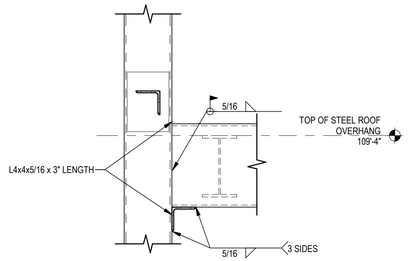


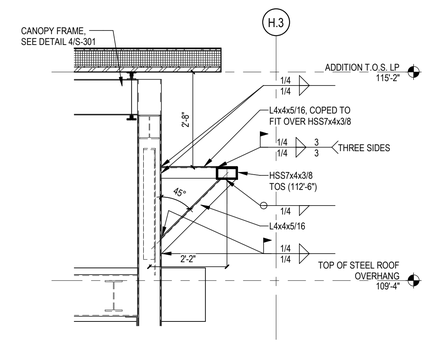
2 VESTIBULE ISOMETRIC VIEW

NTS - FOR REFERENCE ONLY



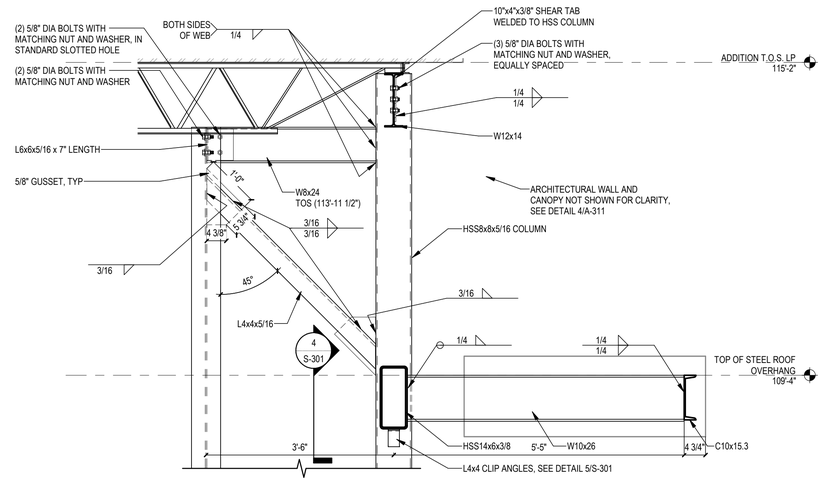
4 CANOPY HSS14 TO HSS8 CONNECTION

1" = 1'-0"



3 VESTIBULE SECTION

1/2" = 1'-0"



1 ENTRY CANOPY DETAIL

3/4" = 1'-0"

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PROJECT NUMBER 0155-25-0010
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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

STRUCTURAL SECTIONS

S-301

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ABBREVIATIONS

SEE LEGENDS ON A-002 FOR ACCESSORY ABBREVIATIONS

A	
&	AND
@	AT
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B	
BOT	BOTTOM
BRK	BRICK
BSMT	BASEMENT
C	
CJ	CONTROL JOINT
CL	CENTER LINE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
D	
DN	DOWN
DS	DOWNSPOUT
E	
EA	EACH
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EQ	EQUAL
EXST	EXISTING
F	
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FHC	FIRE HOSE CABINET
FO	FACE OF
FRTW	FIRE RETARDANT TREATED WOOD
FSP	FIRE STANDPIPE
FT	FOOT / FEET
FTG	FOOTING
G	
GB	GYPSUM BOARD
GYP	GYPSUM
H	
HD	HEAD
HDW	HARDWARE
HVAC	HEATING-VENTILATING-AIR CONDITIONING
HW	HOT WATER

ABBREVIATIONS

SEE LEGENDS ON A-002 FOR ACCESSORY ABBREVIATIONS

I	
IN	INCH / INCHES
L	
LB	POUND
LDG	LANDING LEVEL
M	
MAX	MAXIMUM
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
N	
NA	NOT APPLICABLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
No.	NUMBER
NTS	NOT TO SCALE
O	
OC	ON CENTER
OPP	OPPOSITE
OPP HND	OPPOSITE HAND
P	
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
Q	
QTY	QUANTITY
R	
R	RISER
RD	ROOF DRAIN
RO	ROUGH OPENING
S	
SAB	SOUND ATTENUATION BLANKET INSULATION
SD	SMOKE DETECTOR
SF	SQUARE FOOT
SIM	SIMILAR
SQ IN	SQUARE INCH
T	
T	TREAD
T&B	TOP & BOTTOM
TYP	TYPICAL
U	
UNO	UNLESS NOTED OTHERWISE
V	
VIF	VERIFY IN FIELD
W	
W/	WITH
W/O	WITHOUT
WWF	WELDED WIRE FABRIC

GENERAL NOTES - ARCHITECTURAL

1. DO NOT SCALE DRAWINGS. IF DIMENSIONS CANNOT BE DETERMINED OR DOCUMENTS ARE IN CONFLICT, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUATION OF WORK
2. ALL WALL DIMENSIONS ARE TO FACE OF STUD OR MASONRY, UNO.
3. FIELD VERIFY ALL PROJECT CONDITIONS PRIOR TO THE START OF WORK, AND AS NEEDED THROUGHOUT THE DURATION OF CONSTRUCTION. BRING ANY DISCREPANCIES WHICH MAY SIGNIFICANTLY AFFECT NEW CONSTRUCTION WORK TO THE ATTENTION OF THE ARCHITECT FOR REVIEW
4. WHERE NEW WALL CONSTRUCTION ABUTS EXISTING, IN-LINE, AND/OR ON PLANS, DIRECTLY ALIGN NEW FINISH WALL SURFACE(S) WITH EXISTING
5. WHERE NEW WALL CONSTRUCTION ABUTS WINDOW MULLION(S) ON PLANS, CENTER WALL ON CENTER LINE OF MULLION, UNO
6. ALL WOOD BLOCKING AND BACKING SHALL BE FIRE-RETARDANT TREATED, UNO
7. INFORMATION SHOWN IN ONE LOCATION ON THE DRAWINGS IS THE SAME AS IF SHOWN ON MULTIPLE LOCATIONS
8. TYPICAL CONDITIONS ARE NOTED ONLY ONCE
9. COORDINATE OPENINGS AND PENETRATIONS BETWEEN TRADES
10. FLOOR LEVELS BETWEEN ADJACENT MATERIALS MUST NOT EXCEED 1/4". PROVIDE APPROPRIATE TRANSITION STRIPS OR LEVEL FLOORS AS REQUIRED
11. FLOORS MUST BE MADE LEVEL TO NO LESS THAN 1/8" IN 10', USING A 10' STRAIGHTEDGE
12. PROVIDE REQUIRED FILLERS, SEALANT, OR TRIM AS NECESSARY TO CLOSE GAPS BETWEEN ADJACENT MATERIALS
13. WALLS SCHEDULED TO RECEIVE PAINT ARE TO BE PAINTED TO 6" ABOVE CEILING HEIGHT

ARCHITECTURAL SYMBOLS LEGEND

VIEW REFERENCES

- 1 / X-XXX — DETAIL INDICATOR
- SIM / 1 / X-XXX — SECTION DETAIL INDICATOR
- 1 / X-XXX — ALTERNATE DETAIL / SECTION DETAIL INDICATOR
- SIM / 1 / X-XXX — WALL SECTION INDICATOR
- SIM / 1 / X-XXX — BUILDING SECTION INDICATOR
- SIM / 1 / X-XXX — EXTERIOR ELEVATION INDICATOR
- SIM / 1 / X-XXX — INTERIOR ELEVATION INDICATOR
- SIM / 1 / X-XXX — 3D VIEW INDICATOR

ACCESSIBILITY

- 67" DIAMETER WHEELCHAIR TURNING SPACE ICC A117.1 - 304.3
- T-SHAPED WHEELCHAIR TURNING SPACE ICC A117.1 - 304.3
- CLEAR FLOOR SPACE ICC A117.1 - 305.3
- INTERNATIONAL SYMBOL OF ACCESSIBILITY ICC A117.1 - 703.6.3.1

NOTES & ANNOTATIONS

- e — INDICATES EXISTING
- XX — SHEET KEYNOTE INDICATOR
- 00 00 00.A — REFERENCE KEYNOTE INDICATOR
- /1 — REVISION INDICATOR
- ROOM NAME / 101 / 150 SF / 1,254 Occ — ROOM IDENTIFIER (ROOM NUMBER, ROOM AREA, OCC. COUNT)
- M8V — WALL TYPE INDICATOR
- W1 — WINDOW / LOUVER INDICATOR (REFER TO WINDOW SCHEDULE)
- 101A — DOOR INDICATOR (REFER TO DOOR SCHEDULE)
- GL-1 — GLAZING INDICATOR (REFER TO PROJECT MANUAL)
- 1 — GLAZING MODIFIER (REFER TO STOREFRONT ELEVATIONS)
- N — NORTH INDICATOR (PLAN NORTH, TRUE NORTH)

BUILDING ELEMENTS

- NEW CONSTRUCTION
- NEW MASONRY CONSTRUCTION
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- DOORS / CLEARANCE LINES

INDICATOR LINES

- CENTER LINE
- LEVEL XXX' - XX" — ELEVATION MARK
- SEE 1 / A101 / MATCHLINE — MATCHLINE
- e1 — EXISTING GRID LINE
- 1 — PROPOSED GRID LINE
- B1.1 — BUILDING LINE
- SEPARATION INDICATOR (PROPOSED / EXISTING)
- PROPERTY LINE INDICATOR (N/S 90.00 E/W, 100' - 0", EXISTING CORNER, PROPOSED CORNER)

FINISHES

- ROOM FINISH INDICATOR (ROOM NAME 101; PT-2 ROOM NUMBER; VB-1 WALL FINISH; BASE; CPT-P FLOOR FINISH)
- ? XXX — FINISH INDICATOR
- 6'-4" / PT-2 — FINISH EXTENT INDICATOR
- CT / LVT / TS-1 — TRANSITION STRIP INDICATOR

FF&E

- S2436-12-RF — CASEWORK INDICATOR (REFER TO INTERIOR ELEVATIONS)
- VISUAL DISPLAY BOARD INDICATOR (IEMB 24"/0"; CB = CHALKBOARD, MB = MARKER BOARD, TB = TACK BOARD, TS = TACK STRIP; LENGTH)
- TC-1 — ACCESSORY, FURNITURE, FIXTURE, AND EQUIPMENT INDICATOR
- SIGNAGE INDICATOR (REFER TO SCHEDULE)

MATERIAL SYMBOL LEGEND

- CONCRETE
- CONCRETE MASONRY UNITS
- FACE BRICK
- NATURAL STONE
- CAST STONE
- ALUMINUM
- STEEL
- WOOD
- ROUGH WOOD
- SHIM
- PLYWOOD
- BATT INSULATION
- RIGID INSULATION
- MINERAL WOOL INSULATION
- WOOD BOARD SIDING NARROW
- WOOD BOARD SIDING WIDE
- ACOUSTICAL TILE
- GYPSUM WALL BOARD
- 4x4 TILE
- 8x8 TILE
- 12x12 TILE
- EARTH / COMPACT FILL
- POROUS FILL

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

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ARCHITECTURAL NOTES & SYMBOLS

A-001

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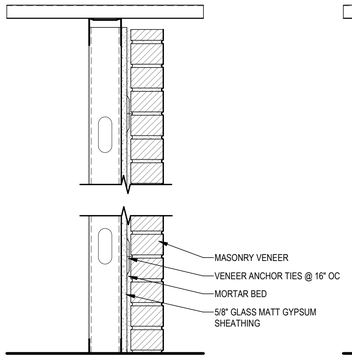
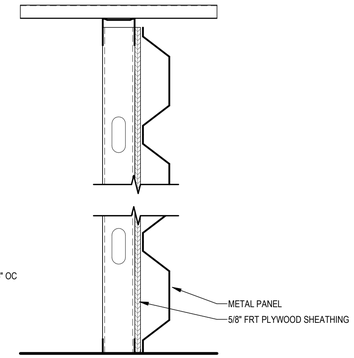
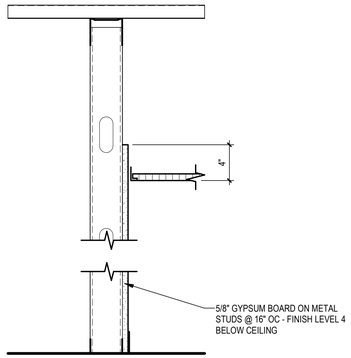


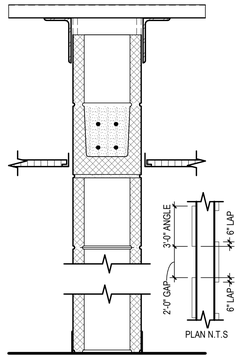
TYPE 'V'
PARTITION WALL



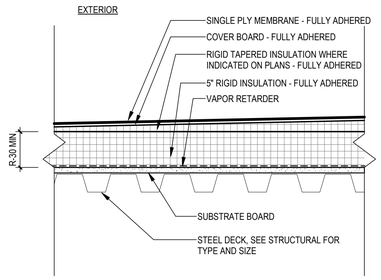
TYPE 'S'
PARTITION WALL



TYPE 'R'
PARTITION WALL



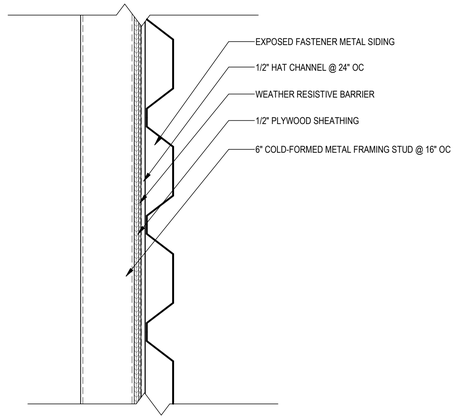
TYPE 'M'
MASONRY WALL

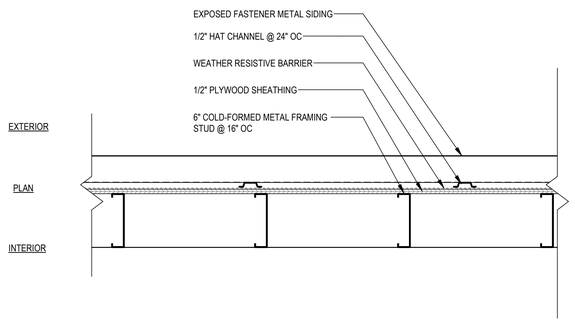


MEMBRANE ROOF SYSTEM ON METAL DECK

ROOF ASSEMBLY
SINGLE PLY ROOFING
FULLY ADHERED MEMBRANE ROOF SYSTEM
STEEL DECK

ROOF TYPE 1
ROOF TYPE 1A - SLOPE VIA TAPER INSULATION
ROOF TYPE 1B - SLOPE VIA STRUCTURE

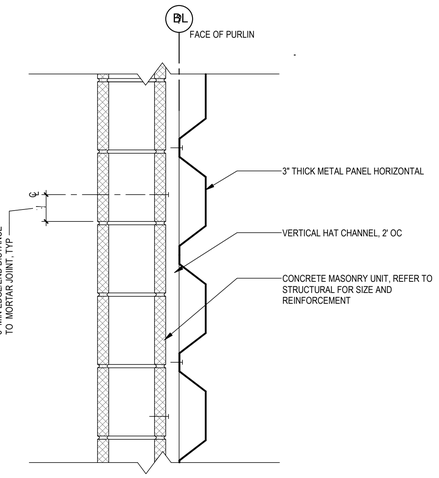


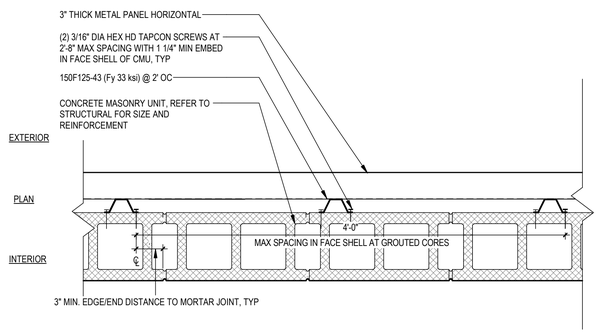


METAL SIDING ON GIRTS

WALL ASSEMBLY
METAL PANEL SYSTEMS
EXPOSED FASTENER METAL PANEL
LIGHT-GAUGE METAL FRAMING

WALL TYPE MP-2

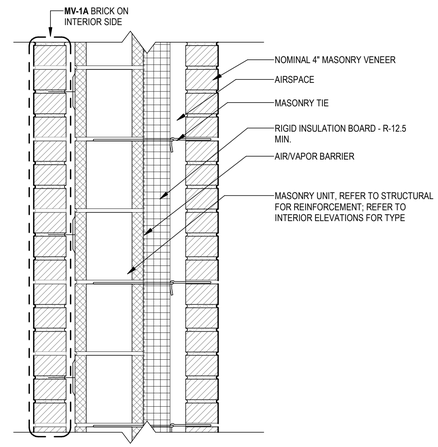


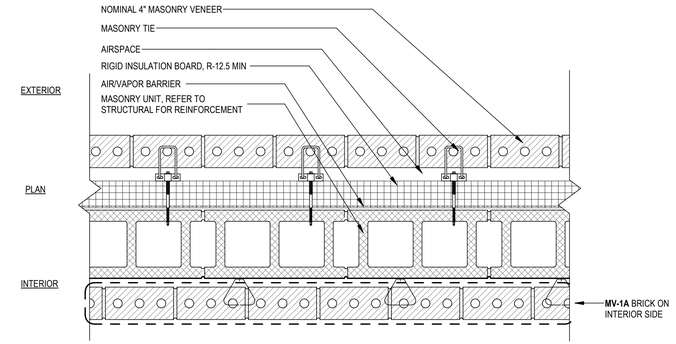


METAL PANEL ON CONCRETE MASONRY UNIT

WALL ASSEMBLY
METAL PANEL SYSTEMS
EXPOSED FASTENER METAL PANEL
REINFORCED CONCRETE MASONRY UNIT

WALL TYPE MP-1





MASONRY VENEER ON MASONRY BACKUP

MV-1A BRICK ON INTERIOR SIDE

WALL ASSEMBLY
MASONRY CLAD
CONCRETE MASONRY UNIT
REINFORCED CONCRETE MASONRY UNIT

WALL TYPE MV-1

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ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd. Romulus, MI 48174

BUILDING ASSEMBLIES

A-010

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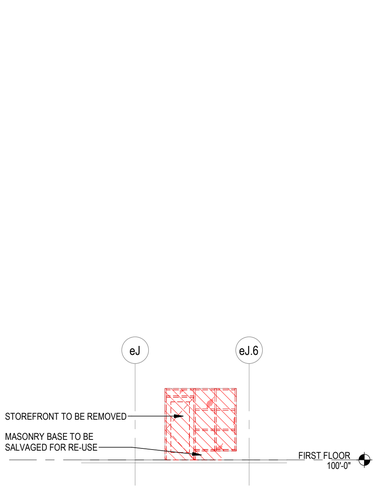
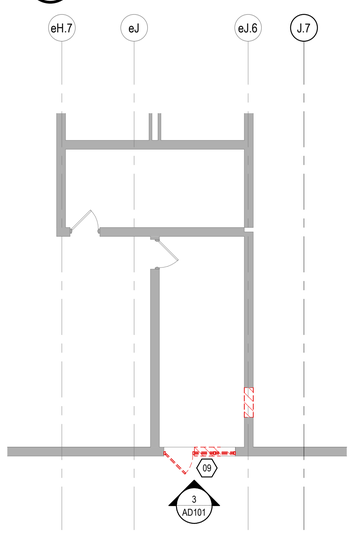


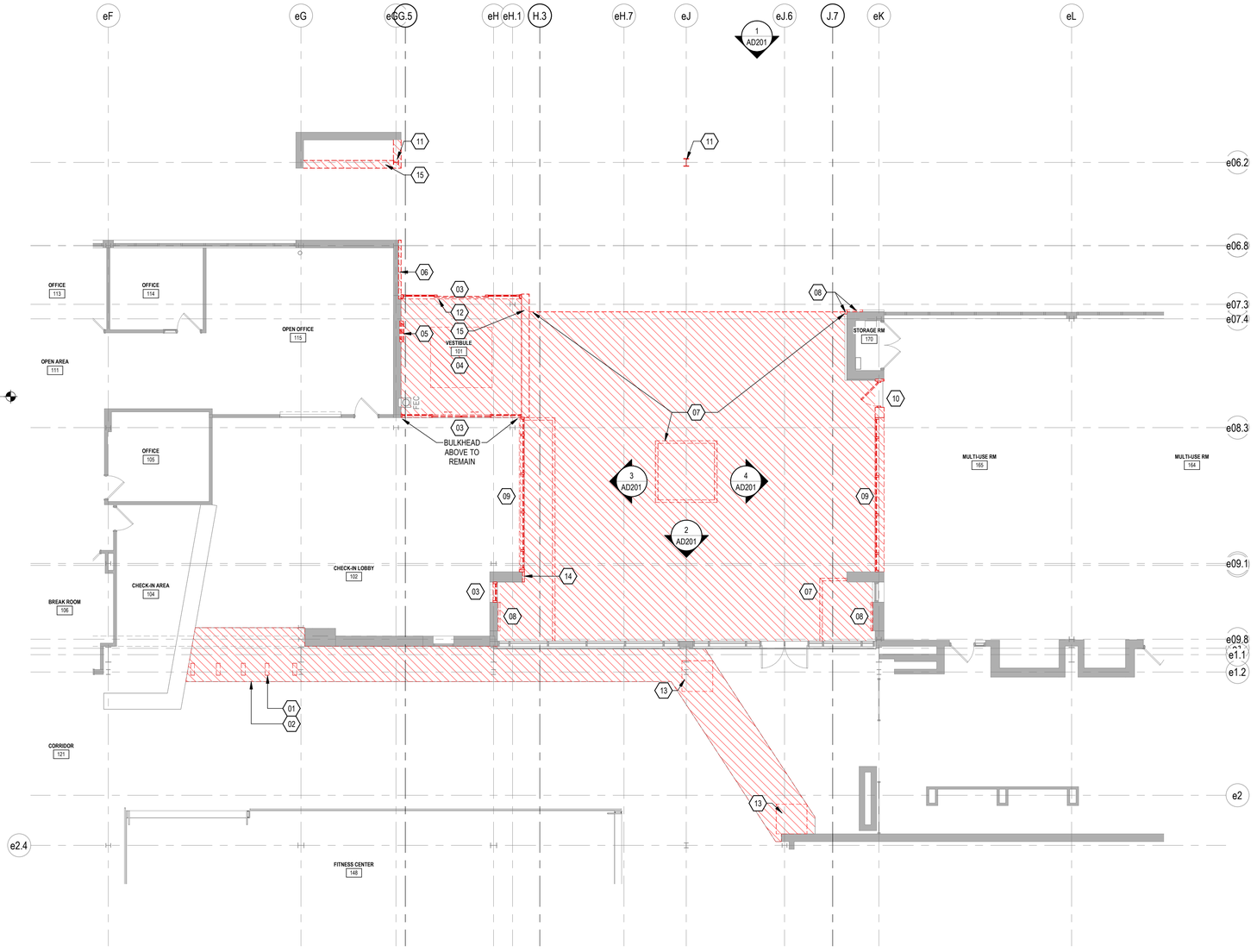
3 PARTIAL DEMOLITION ELEVATION - AREA D

1/8" = 1'-0"



2 PARTIAL FIRST FLOOR DEMOLITION PLAN - AREA D

1/8" = 1'-0"



1 PARTIAL FIRST FLOOR DEMOLITION PLAN - ADDITION

1/8" = 1'-0"

N

GENERAL NOTES - DEMOLITION PLANS

1. ALL DEMOLITION WORK IS TO BE COORDINATED WITH ABATEMENT WORK BY OWNER. REFER TO MECHANICAL, ELECTRICAL, & PLUMBING DEMOLITION PLANS FOR ADDITIONAL INFORMATION. COORDINATE DEMOLITION WORK WITH EXISTING SECURITY AND TECHNOLOGY BY OTHERS
2. PROVIDE DUST-PROOF CONSTRUCTION BARRIERS TO SEPARATE AND SECURE THE CONSTRUCTION AREA FROM THE REMAINDER OF THE BUILDING. PROVIDE TEMPORARY FILTERS AT RETURN AIR DUCTWORK AS REQUIRED TO MINIMIZE THE SPREAD OF DUST THROUGHOUT THE BUILDING
3. KEEP MEANS OF EGRESS OPEN, PROPERLY ILLUMINATED, AND FREE OF OBSTRUCTIONS AT ALL TIMES
4. PROVIDE TEMPORARY SHORING AND PROTECT STRUCTURE TO REMAIN AS REQUIRED TO MAINTAIN THE STRUCTURAL STABILITY OF BUILDING ELEMENTS TO REMAIN DURING DEMOLITION THROUGH COMPLETION OF WORK

XX SHEET KEYNOTES - DEMO. PLAN

01	REMOVE EXISTING TURNSTILES; COORDINATE W/ ELECRICAL
02	SAWCUT ALONG EXISTING GROUT JOINTS WHERE POSSIBLE AND REMOVE EXISTING TILE.
03	REMOVE EXISTING STOREFRONT
04	REMOVE EXISTING FLOORING AND BASE
05	REMOVE EXISTING MECHANICAL; REF: MECHANICAL
06	REMOVE EXISTING SCORED CMU VENEER
07	REMOVE EXISTING CONCRETE PLAZA AND CURBS; REF: CIVIL
08	REMOVE EXISTING METAL PANEL; REF: DEMOLITION ELEVATIONS
09	REMOVE EXISTING STOREFRONT; SALVAGE MASONRY BASE FOR RE-USE; REF: DEMILITION ELEVATIONS FOR EXTENT
10	REMOVE EXISTING ENTRANCE AND STOREFRONT; REF: DEMOLITION ELEVATIONS FOR EXTENT
11	REMOVE STRUCTURAL STEEL ASSOCIATED WITH ENTRY CANOPY AND AS INDICATED
12	RESUPPORT EXISTING PARAPET FRAMING TO EXISTING BEAM AT COLUMN LINE e07.3 REMOVE FRAMING BELOW BOTTOM FLANGE AS REQUIRED TO ROUTE MECHANICAL DUCTWORK.
13	SLAB REMOVAL FOR NEW COLUMN FOOTINGS; REF: STRUCTURAL
14	COMPOSITE METAL PANEL SYSTEM TO BE REMOVED DOWN TO FACE OF MASONRY
15	MASONRY TO BE REMOVED

DEMOLITION PLAN LEGEND

WALL INDICATION (RE: WALL TYPES FOR WALL CONSTRUCTION)

EXISTING TO REMAIN — EXISTING TO BE REMOVED

KEY PLAN

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PARTIAL FIRST FLOOR DEMOLITION PLAN - ADDITION

AD101

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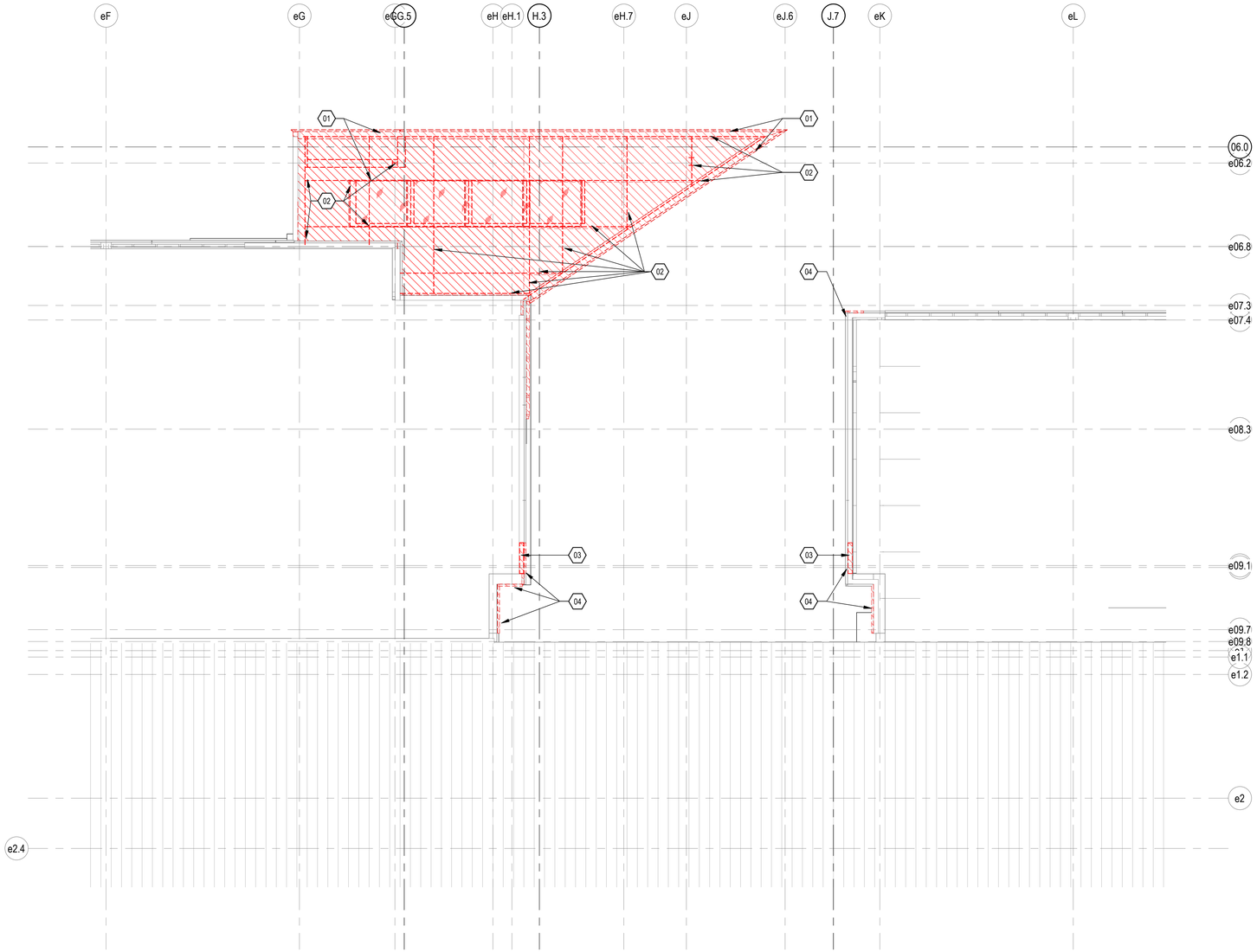


1 PARTIAL ROOF DEMOLITION PLAN - ADDITION

1/8" = 1'-0"

SHEET KEYNOTES - DEMO. ROOF PLAN

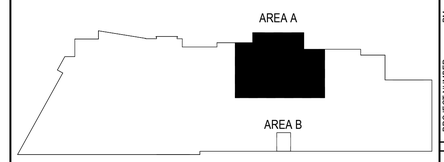
01	METAL PANEL CANOPY, ASSOCIATED SKYLIGHTS, DRAINS, AND ROOFING TO BE REMOVED; REF: MECHANICAL
02	REMOVE STRUCTURAL STEEL ASSOCIATED WITH ENTRY CANOPY AND AS INDICATED
03	PORTION OF PARAPET TO BE REMOVED, MODIFY EXISTING COPING TO MAINTAIN WEATHERTIGHTNESS REF: NEW WORK PLANS
04	REMOVE EXISTING METAL PANEL; REF: DEMOLITION ELEVATIONS

DEMOLITION ROOF PLAN LEGEND

ROOF INDICATION

EXISTING ROOF SYSTEM TO BE REMOVED.

KEY PLAN



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PARTIAL ROOF DEMOLITION PLAN - ADDITION

AD111

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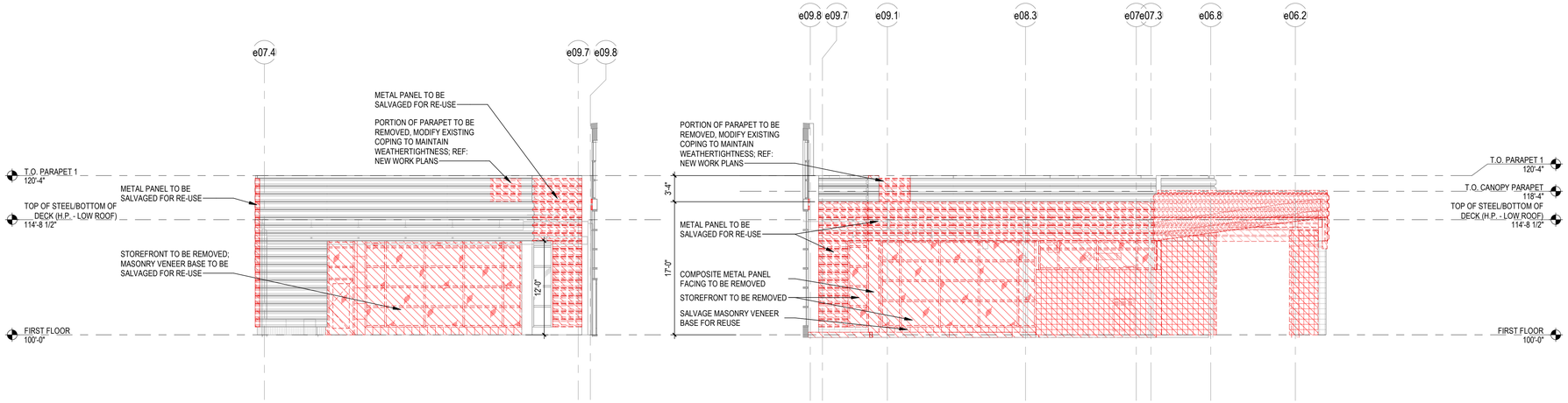
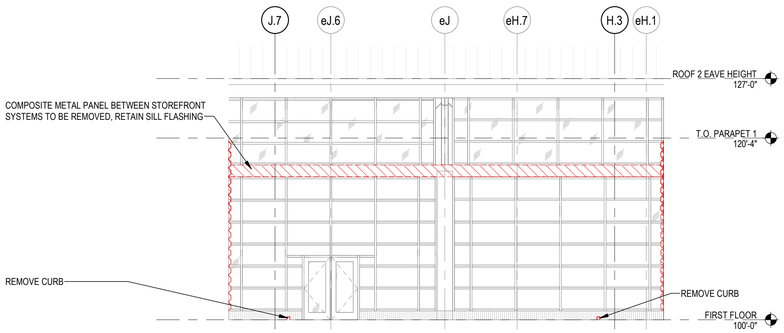


4 PARTIAL WEST DEMOLITION ELEVATION

1/8" = 1'-0"

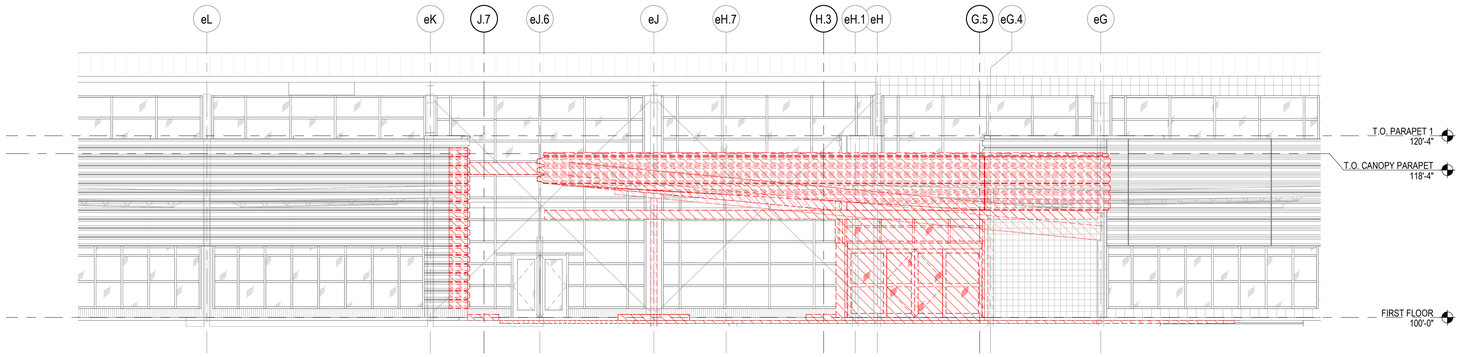
3 PARTIAL EAST DEMOLITION ELEVATION

1/8" = 1'-0"



2 NORTH COURTYARD DEMOLITION ELEVATION

1/8" = 1'-0"



1 NORTH DEMOLITION ELEVATION

1/8" = 1'-0"

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DEMOLITION ELEVATIONS

AD201

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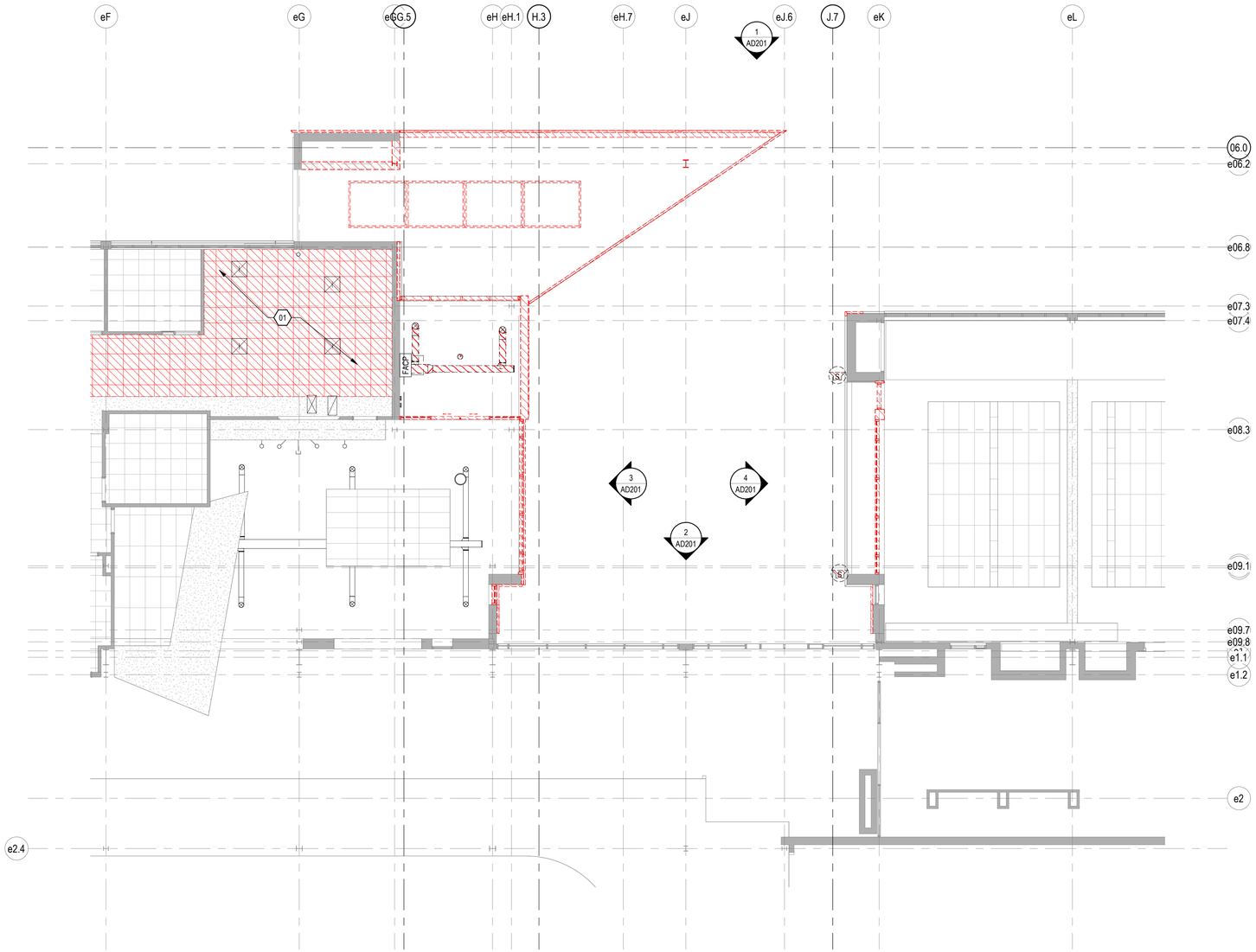


1 PARTIAL FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN - ADDITION

1/8" = 1'-0"

GENERAL NOTES - DEMOLITION PLANS

1. ALL DEMOLITION WORK IS TO BE COORDINATED WITH ABATEMENT WORK BY OWNER. REFER TO MECHANICAL, ELECTRICAL, & PLUMBING DEMOLITION PLANS FOR ADDITIONAL INFORMATION. COORDINATE DEMOLITION WORK WITH EXISTING SECURITY AND TECHNOLOGY BY OTHERS
2. PROVIDE DUST-PROOF CONSTRUCTION BARRIERS TO SEPARATE AND SECURE THE CONSTRUCTION AREA FROM THE REMAINDER OF THE BUILDING. PROVIDE TEMPORARY FILTERS AT RETURN AIR DUCTWORK AS REQUIRED TO MINIMIZE THE SPREAD OF DUST THROUGHOUT THE BUILDING
3. KEEP MEANS OF EGRESS OPEN, PROPERLY ILLUMINATED, AND FREE OF OBSTRUCTIONS AT ALL TIMES
4. PROVIDE TEMPORARY SHORING AND PROTECT STRUCTURE TO REMAIN AS REQUIRED TO MAINTAIN THE STRUCTURAL STABILITY OF BUILDING ELEMENTS TO REMAIN DURING DEMOLITION THROUGH COMPLETION OF WORK

SHEET KEYNOTES - DEMO. RCP

01 REMOVE AND REPLACE EXISTING CEILING TILES AND GRID AS REQUIRED FOR PLUMBING, MECHANICAL, AND ELECTRICAL WORK; REF: MECHANICAL AND ELECTRICAL DRAWINGS

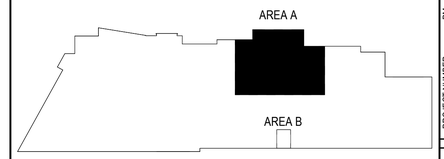
DEMOLITION RCP LEGEND

CEILING INDICATION

EXISTING CEILING SYSTEM TO BE REMOVED.

EXISTING CEILING SYSTEM TO BE REMOVED.
NEW GRID TO REFLECT EXISTING GRID LAYOUT & HEIGHT WITHIN SPACE, UNO

KEY PLAN



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PARTIAL FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN - ADDITION

AD701

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FINISH ABBR.

BASE	
EX	EXISTING (NO NEW FINISH)
NB	NO BASE
RB	RESILIENT BASE

CEILINGS	
ACT	ACOUSTICAL CEILING TILE
EX	EXISTING (NO NEW FINISH)
EXP	EXPOSED
PT	PAINT

FLOORS	
CF	SPECIAL CONCRETE FINISH
CONCS	SEALED CONCRETE
CT	CERAMIC TILE
SC	CONCRETE - STAMPED

WALLS	
CMU	SCORED CMU
EX	EXISTING (NO NEW FINISH)
MP	METAL PANEL
MV	MASONRY VENEER
PT	PAINT

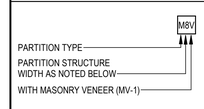
GENERAL NOTES - PLANS

1. FIRST FLOOR REFERENCE ELEVATION 100'-0" = 645.86' (NAVD 88 DATUM, REFER TO CIVIL.)
2. DO NOT SCALE DRAWINGS. IF DIMENSIONS CANNOT BE DETERMINED OR DOCUMENTS ARE IN CONFLICT, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUATION OF WORK
3. REFER TO A-001 FOR MATERIAL / REFERENCE SYMBOLS AND ABBREVIATIONS
4. REFER TO LIFE SAFETY DRAWINGS (G-SERIES) FOR LOCATIONS AND EXTENTS OF RATED ASSEMBLIES, AS WELL AS FIRE EXTINGUISHER LOCATIONS. IF PARTITION DESIGNATION DISCREPANCY OCCURS BETWEEN THE CODE DRAWINGS AND FLOOR PLANS, PROVIDE THE PARTITION TYPE INDICATED WITH THE MOST STRINGENT REQUIREMENTS
5. REFER TO A-900 SERIES FOR FURNITURE, FIXTURE, & EQUIPMENT PLANS
6. REFER TO A-800 SERIES FOR ROOM FINISH PLANS
7. REFER TO A-011 FOR ALL ASSEMBLY TYPES
8. REFER TO A-002 FOR ACCESSORY MOUNTING DIAGRAMS AND TYPICAL TOILET ROOM TYPES
9. REFER TO A-600 SERIES FOR DOOR, WINDOW, AND STOREFRONT INFORMATION AND DETAILS
10. REFER TO A-600 SERIES FOR ROOM FINISH SCHEDULE
11. ALL MASONRY DIMENSIONS ARE NOMINAL, UNO
12. ALL DIMENSIONS ARE FROM COLUMN REFERENCE LINE TO FACE OF STUD, UNO
13. PARTITION TYPE 'J' TO BE APPLIED TO ALL INTERIOR EXISTING WALL CONDITIONS TO REMAIN, UNO
14. ALL INTERIOR COLUMN WRAPS TO BE PARTITION TYPE 'K', UNO
15. ALL DOORS TO BE 4" FROM FINISH FACE OF WALL TO HINGE, UNO

SHEET KEYNOTES - PLAN

01	INFILL OPENING WITH SCORED BLOCK; TO BE PAINTED
02	INFILL AREA WITH NEW TILE; PATTERN AND DIRECTION TO MATCH EXISTING TILE
03	INFILL EXISTING CURTAINWALL
04	PATCH AND REPAIR WALL AS REQ'D. WALL TO RECIEVE NEW VWC AS INDICATED IN SPECS AND NEW RB TO MATCH EXISTING
05	STEP DOWN TO SIDEWALK; REF: CIVIL
06	SITE LIGHTING; REF: ELECTRICAL

PARTITION TYPES KEY



NUMERIC CHARACTER	METAL STUD SIZE	MASONRY BLOCK SIZE
0	7/8"	-
1	1-5/8"	-
2	2-1/2"	-
3	3-5/8"	-
4	4"	3-5/8"
6	6"	5-5/8"
8	8"	7-5/8"
10	-	9-5/8"
12	-	11-5/8"

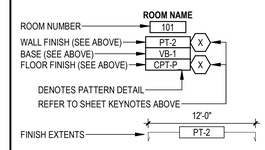
PLAN LEGEND

- NEW CONSTRUCTION
- NEW MASONRY CONSTRUCTION
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- EXISTING DOOR TO REMAIN
- DOORS
- CLEARANCE LINES
- RE: A-601 FOR DOOR SCHEDULE

ROOM FINISH INDICATOR

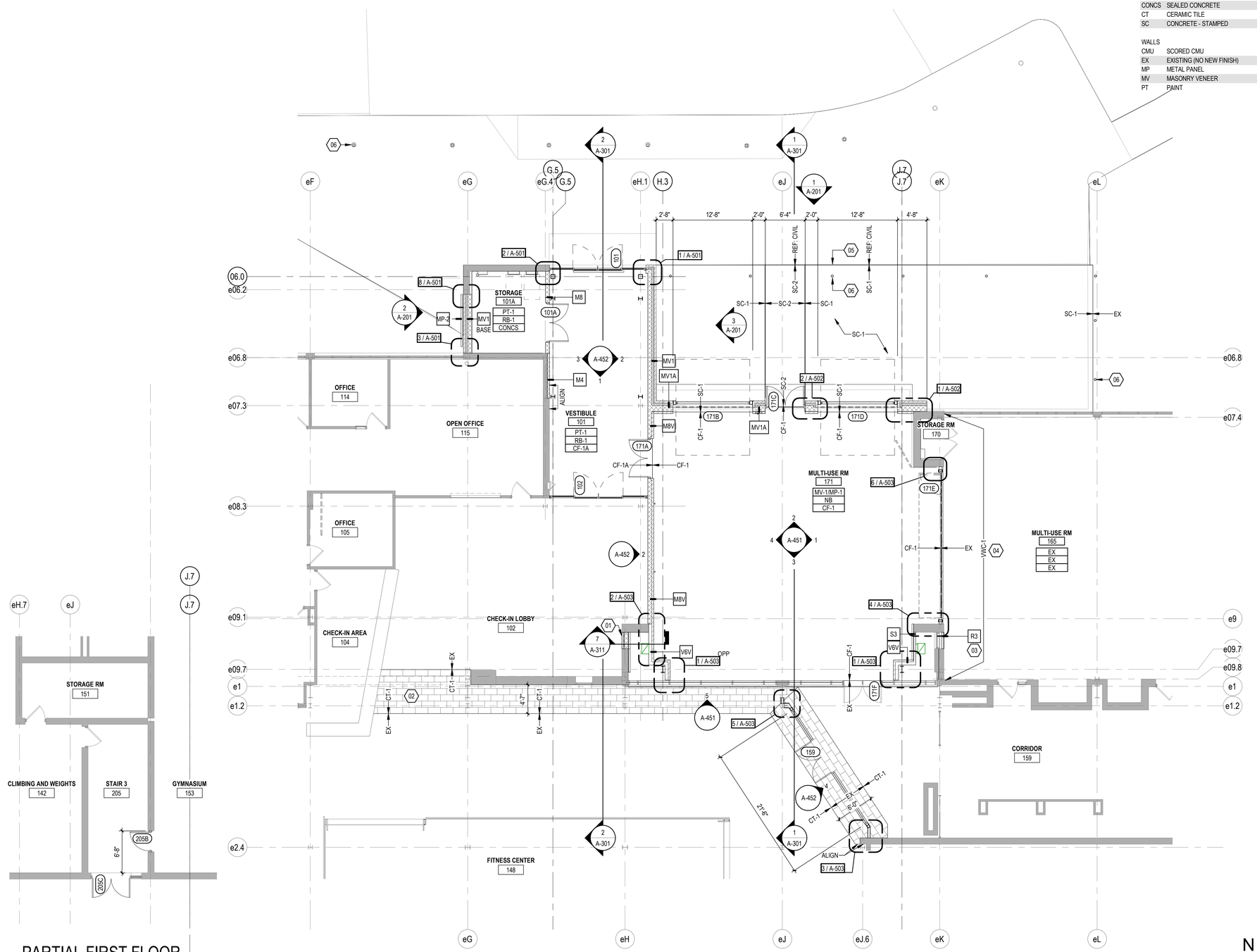
ROOM NAME AND NUMBER PLUS GENERAL ROOM FINISH INFORMATION. FINISH TAGS SHALL APPLY TO ALL LIKE MATERIALS WITHIN A ROOM (UNO).

FINISH LEGEND
FINISH LEGEND IS GENERAL. REFER TO SPECIFICATIONS FOR SPECIFIC FINISH INFORMATION. MULTIPLE FINISH TYPES ARE DENOTED BY NUMBER FOLLOWING ABBREVIATION.



? PL-1 PLASTIC LAMINATE TYPE / COLOR (TAG APPLIES TO ALL CABINETS AND/OR COUNTERTOPS WITHIN THAT SPACE, UNO)

KEY PLAN



PARTIAL FIRST FLOOR PLAN AREA D

2 — 1/8" = 1'-0"

PARTIAL FIRST FLOOR PLAN - ADDITION

1 — 1/8" = 1'-0"

N

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PARTIAL FIRST FLOOR PLAN - ADDITION

A-101

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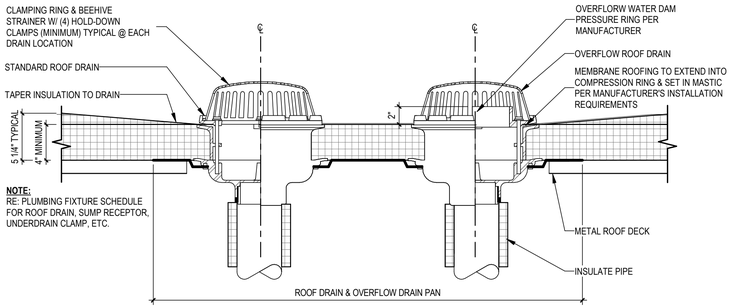
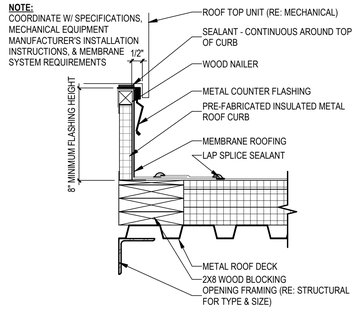


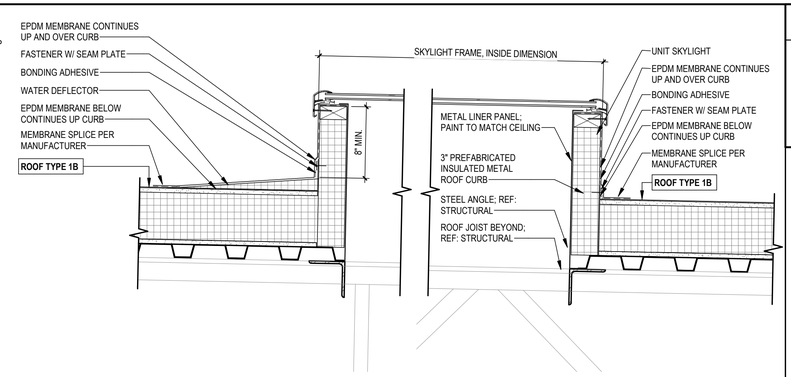
4 ROOF SUMP DETAIL

1 1/2" = 1'-0"



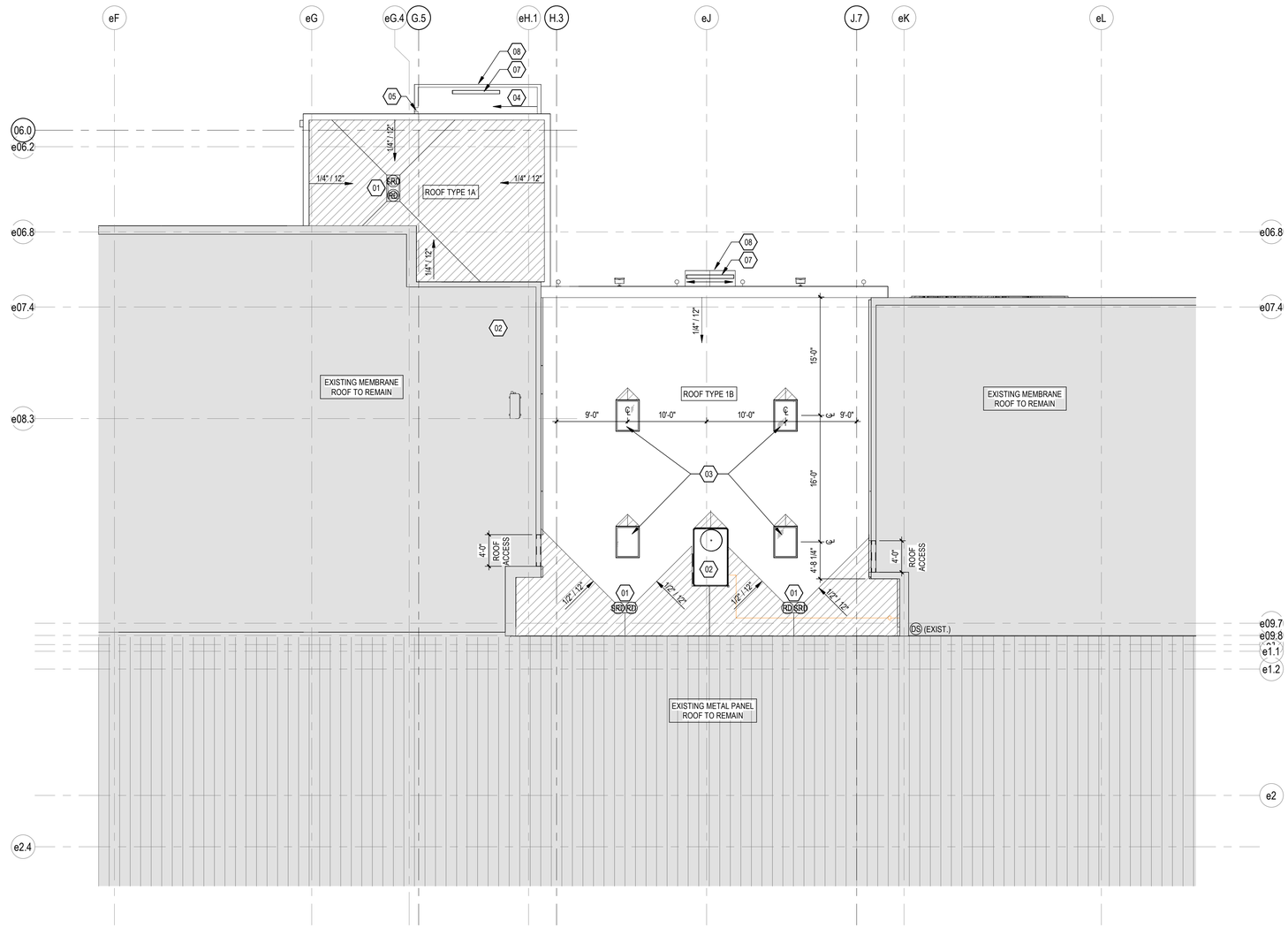
3 MECHANICAL CURB DETAIL

1 1/2" = 1'-0"



2 UNIT SKYLIGHT CURB DETAIL

1 1/2" = 1'-0"



1 PARTIAL ROOF PLAN - ADDITION

1/8" = 1'-0"

N

GENERAL NOTES - ROOF PLAN

1. COORDINATE PENETRATIONS AND ROOF MOUNTED EQUIPMENT WITH MECHANICAL, PLUMBING, ELECTRICAL AND STRUCTURAL DRAWINGS
2. ALL ROOF PENETRATIONS SHALL BE SEALED WITH APPROPRIATE MATERIAL
3. ALL EXPOSED METAL ELEMENTS TO BE PRE-FINISHED. COLOR AS SELECTED BY ARCHITECT
4. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON FINISHES & INSTALLATION REQUIREMENTS
5. PROVIDE TAPERED INSULATION AS INDICATED FOR POSITIVE DRAINAGE
6. ALL ROOFS ARE TO HAVE POSITIVE SLOPE TO ROOF DRAINS

SHEET KEYNOTES - ROOF PLAN

01	ROOF DRAIN AND OVERFLOW; REF: MECHANICAL AND DETAIL 4 THIS SHEET
02	MECHANICAL EQUIPMENT; REF: MECHANICAL AND DETAIL 3 THIS SHEET
03	SKYLIGHT; REF: DETAIL 2 THIS SHEET
04	SHIM ROOF SHEATHING AS REQUIRED TO ACHIEVE POSITIVE DRAINAGE
05	STAINLESS STEEL SCUPPER PAN INTEGRATED WITH DRIP EDGE FLASHING. FULLY ADHERE EPDM MEMBRANE TO EDGE FLASHING FLANGE. EXTEND OUTLET MINIMUM 1" BEYOND EXTERIOR WALL PLANE; REF: 5/A-501
07	DIMENSIONAL LETTER SIGNAGE
08	EDGE OF CANOPY BELOW

ROOF LEGEND

- INDICATES AREA OF MEMBRANE ROOF (EXISTING)
- INDICATES AREA OF METAL PANEL ROOF (EXISTING)
- (UNSHADED) INDICATES AREA OF 60 MIL PVC ROOF SYSTEM
- INDICATES AREA OF TAPERED INSULATION
- RD — ROOF DRAIN
- SRD — SECONDARY ROOF DRAIN
- X :12 — ROOF SLOPE
- EXPANSION JOINT

KEY PLAN

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PARTIAL ROOF PLAN - ADDITION

A-111

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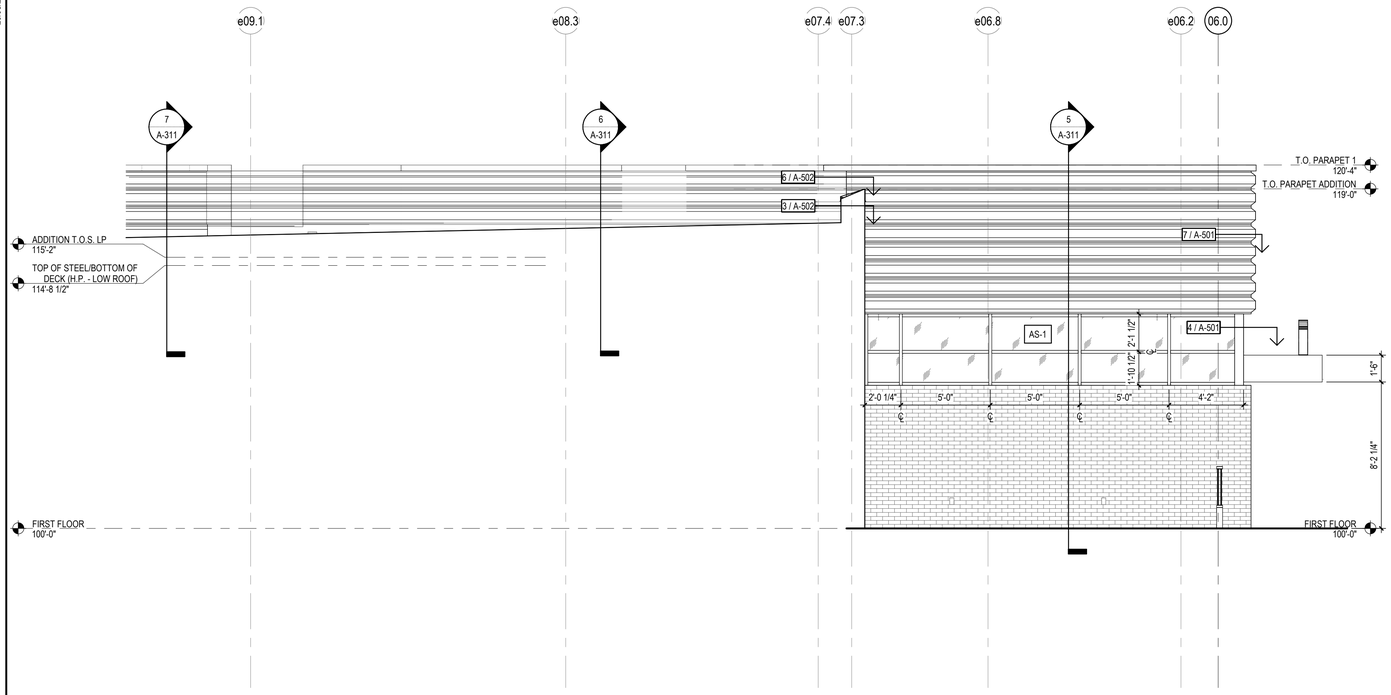
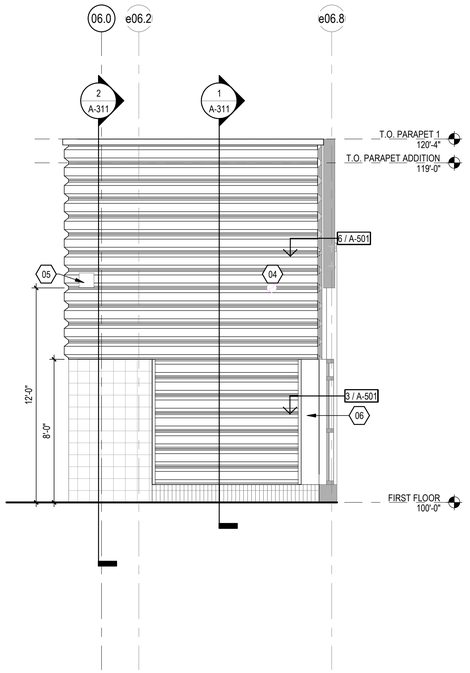
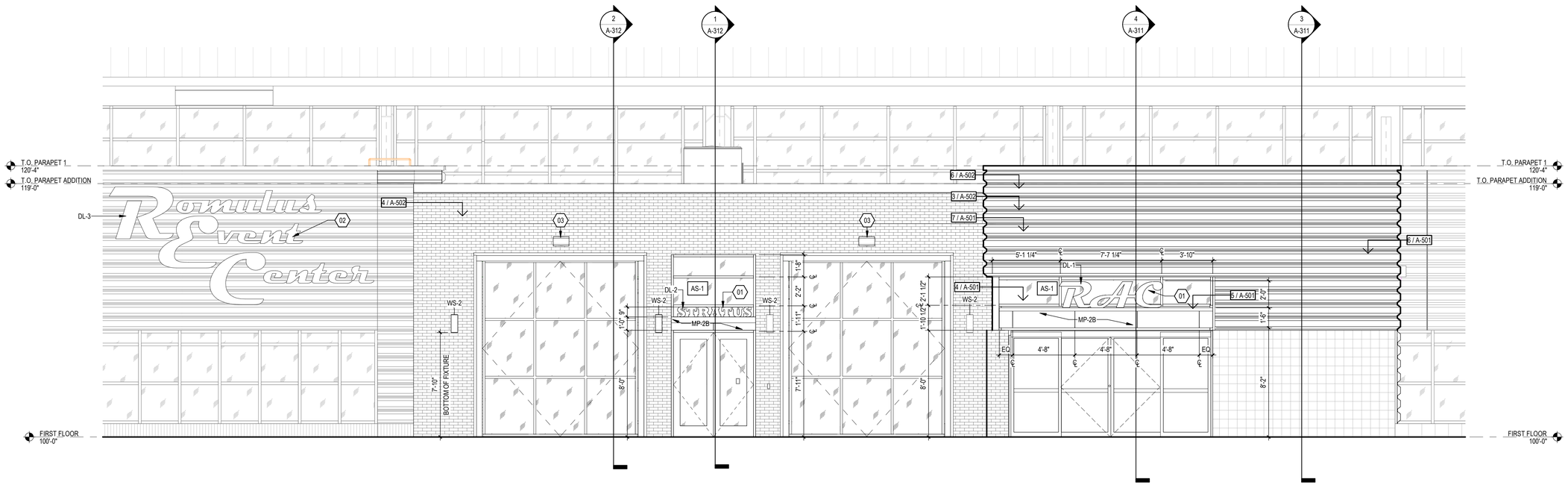


3 EAST ENTRANCE ELEVATION
1/4" = 1'-0"



2 WEST ENTRANCE ELEVATION
1/4" = 1'-0"



1 PARTIAL NORTH ELEVATION
1/4" = 1'-0"

GENERAL NOTES - ELEVATIONS

1. ALL PENETRATIONS SHALL BE SEALED WITH APPROPRIATE MATERIAL
2. ALL EXPOSED METAL ELEMENTS TO BE PRE-FINISHED; COLOR AS SELECTED BY ARCHITECT
3. REFER TO PROJECT MANUAL FOR ADDITIONAL INFORMATION ON FINISHES & INSTALLATION REQUIREMENTS

SHEET KEYNOTES - EXT. ELEVATION

XX	
01	DIMENSIONAL LETTER SIGNAGE MOUNTED ON CANOPY, FINAL WORDING AND FONT TO BE COORDINATED WITH OWNER
02	DIMENSIONAL LETTER SIGNAGE ON STANDOFFS, FINAL WORDING AND FONT TO BE COORDINATED WITH OWNER
03	OUTDOOR SPEAKER; REF: ELECTRICAL
04	OVERFLOW ROOF DRAIN OUTLET; REF: MECHANICAL
05	SNOW MELT SENSOR; REF: MECHANICAL
06	MP-2C COMPOSITE METAL PANEL

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EXTERIOR ELEVATIONS

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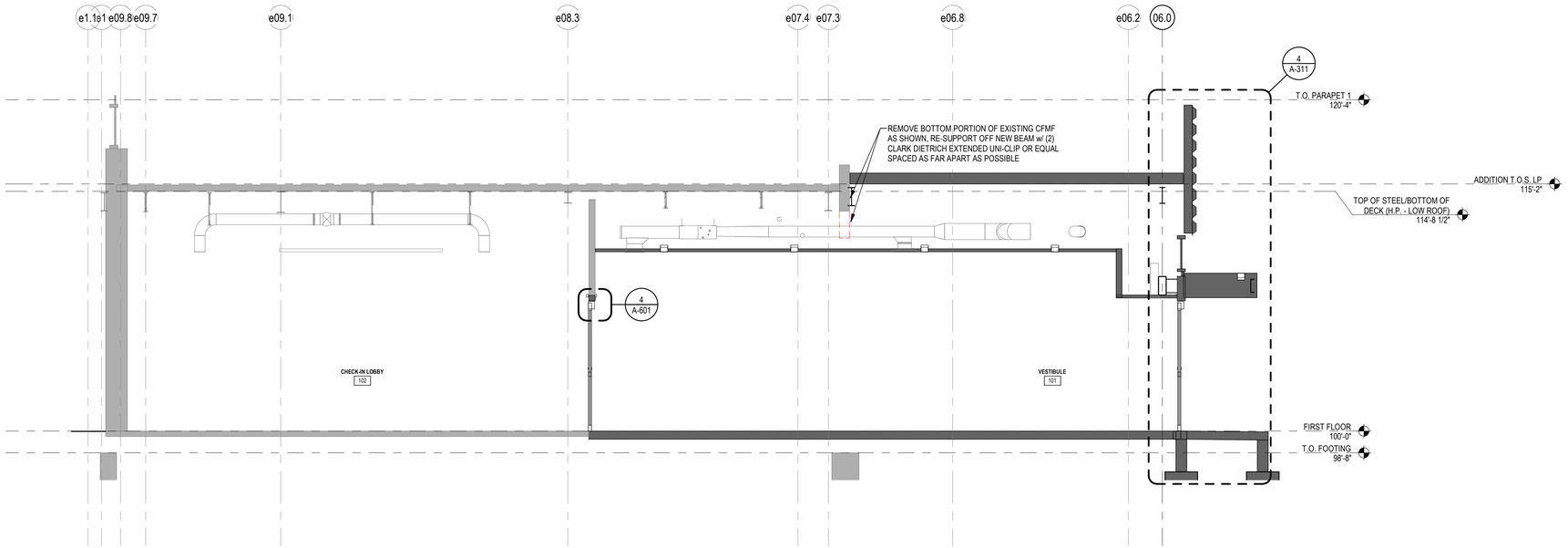
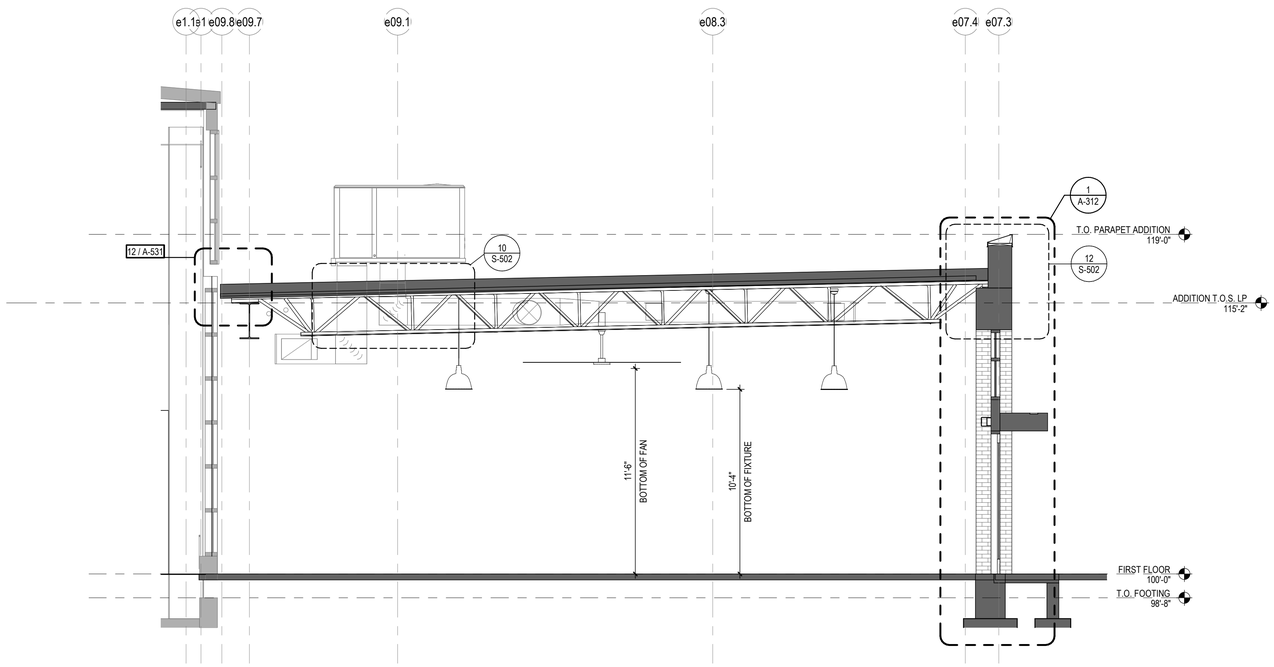


2 PARTIAL BUILDING SECTION NS 1

1/4" = 1'-0"



1 PARTIAL BUILDING SECTION NS 2

1/4" = 1'-0"

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BUILDING SECTIONS

A-301

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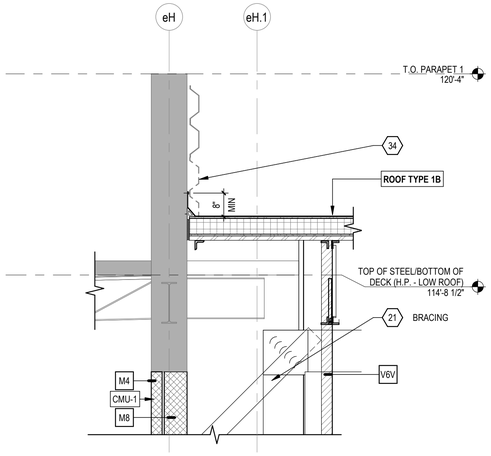
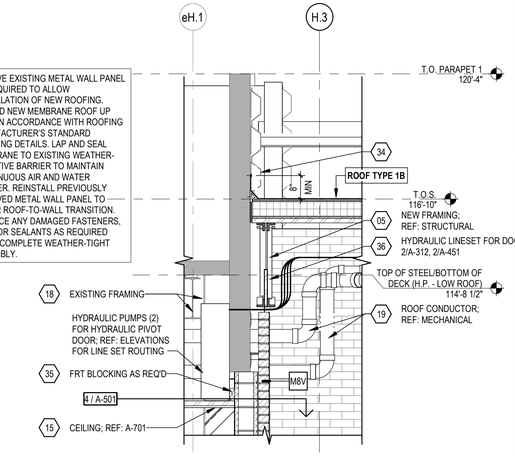
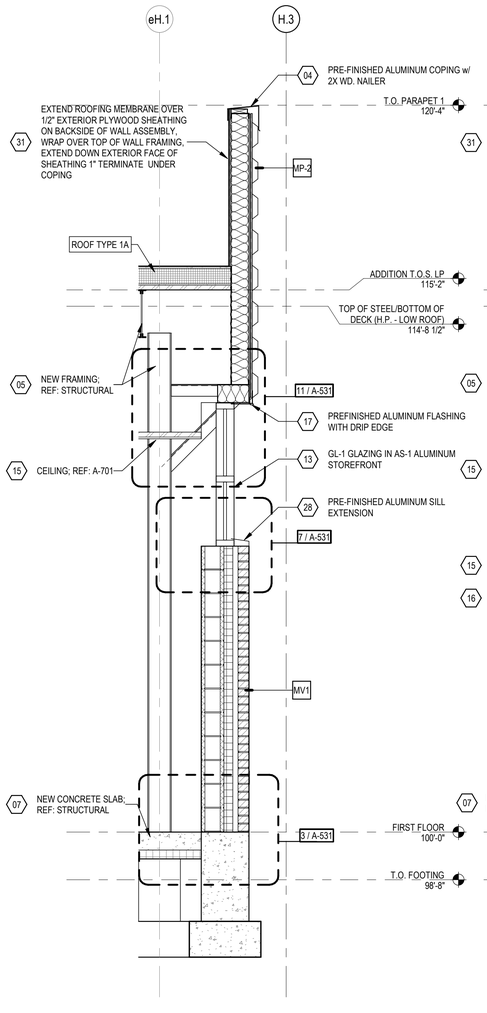


7 WALL SECTION E3
1/2" = 1'-0"

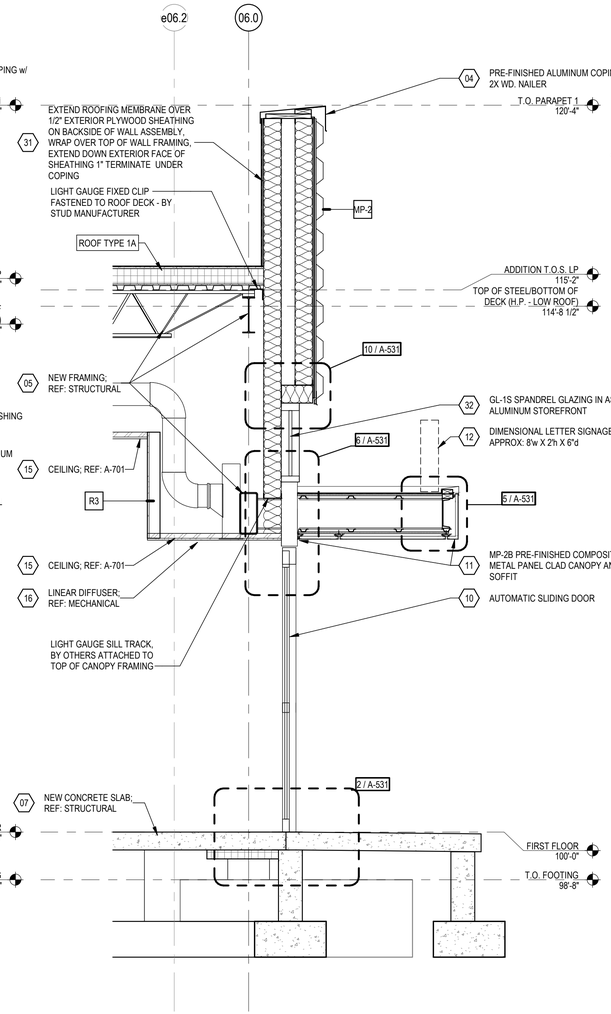
34 REMOVE EXISTING METAL WALL PANEL AS REQUIRED TO ALLOW INSTALLATION OF NEW ROOFING. EXTEND NEW MEMBRANE ROOF UP WALL IN ACCORDANCE WITH ROOFING MANUFACTURER'S STANDARD FLASHING DETAILS. LAP AND SEAL MEMBRANE TO EXISTING WEATHER-RESISTIVE BARRIER TO MAINTAIN CONTINUOUS AIR AND WATER BARRIER. REINSTALL PREVIOUSLY REMOVED METAL WALL PANEL TO COVER ROOF-TO-WALL TRANSITION. REPLACE ANY DAMAGED FASTENERS, TRIM, OR SEALANTS AS REQUIRED FOR A COMPLETE WEATHER-TIGHT ASSEMBLY.



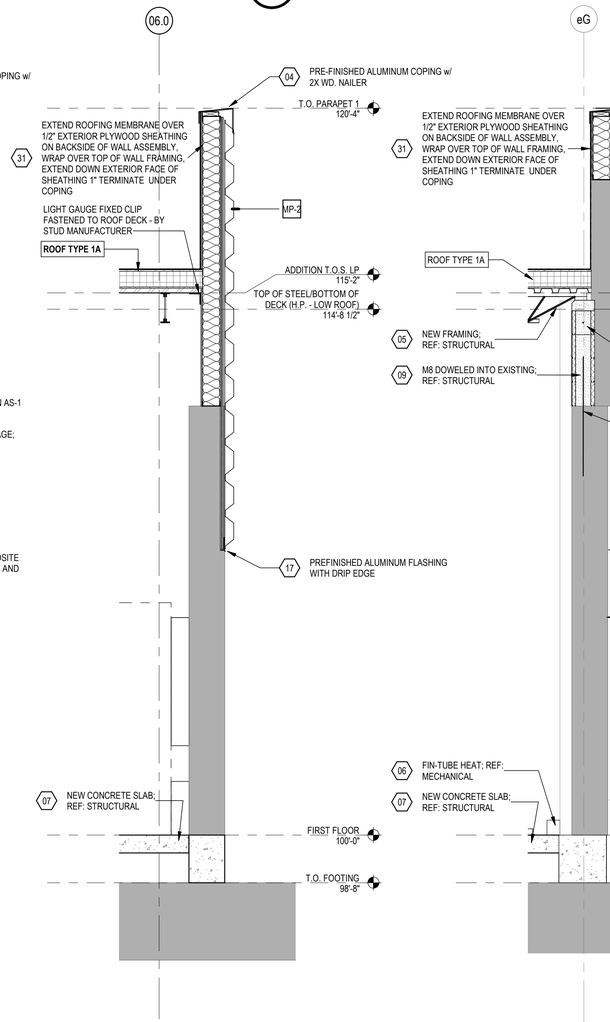
6 WALL SECTION E2
1/2" = 1'-0"



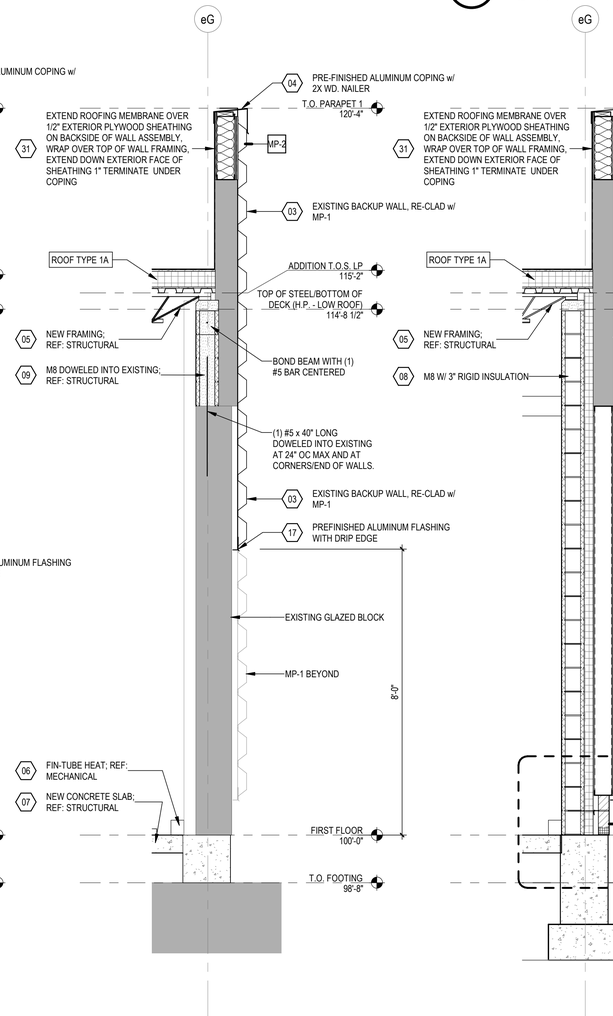
5 WALL SECTION E1
1/2" = 1'-0"



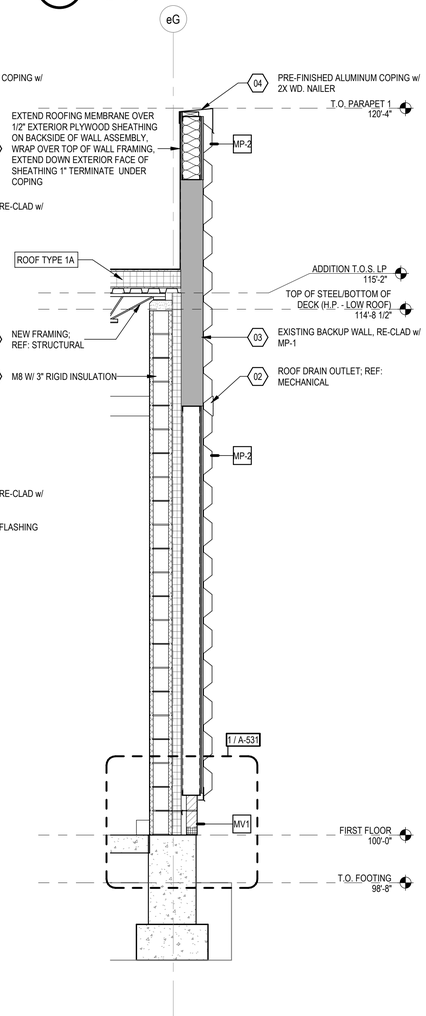
4 WALL SECTION N2
1/2" = 1'-0"



3 WALL SECTION N1
1/2" = 1'-0"



2 WALL SECTION W2
1/2" = 1'-0"



1 WALL SECTION W1
1/2" = 1'-0"

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WALL SECTIONS

A-311

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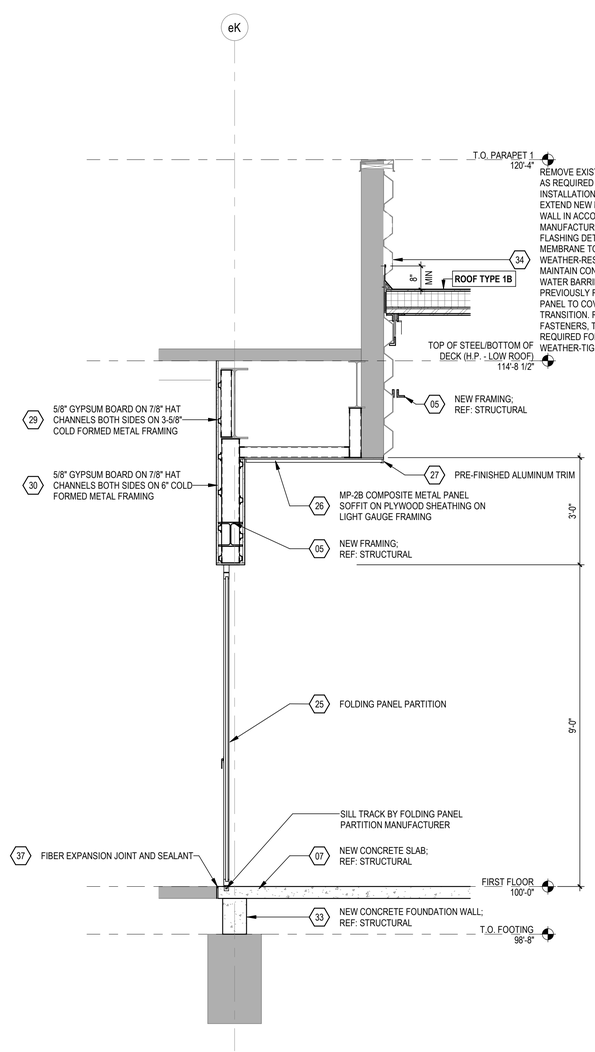
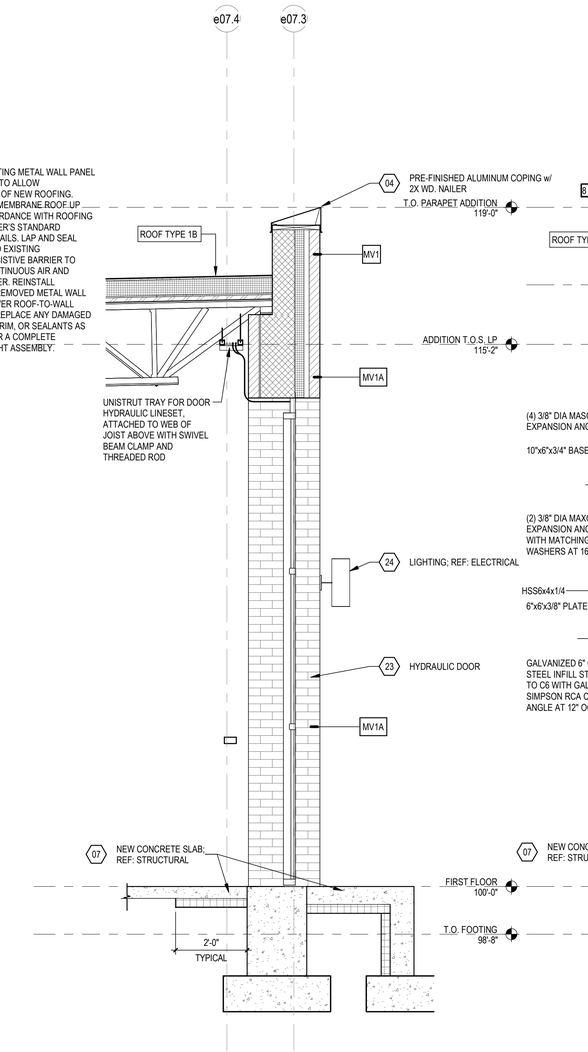
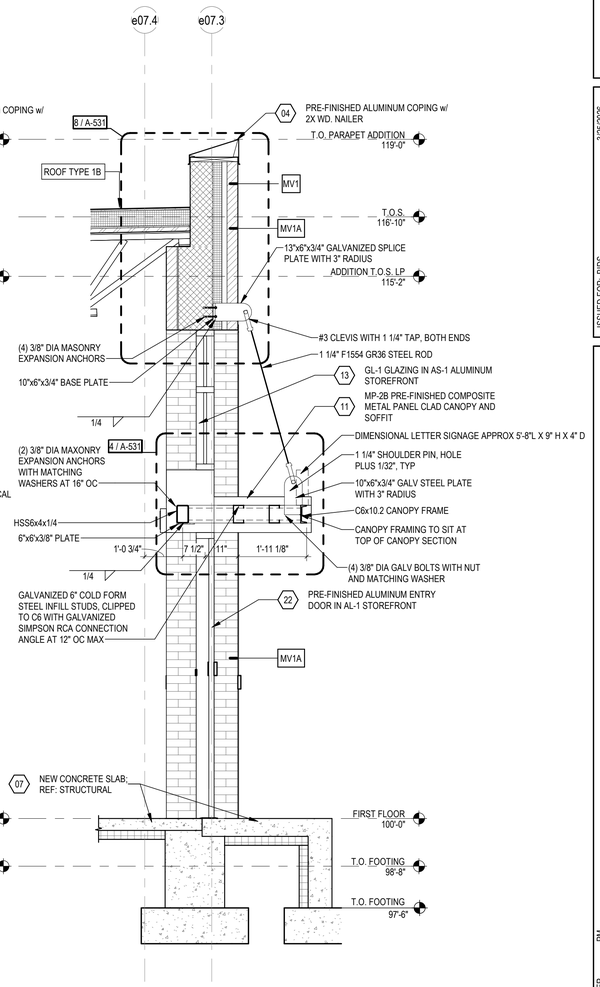
26/03/24 12:51:51



3 WALL SECTION AT PANEL DOOR
1/2" = 1'-0"



2 WALL SECTION N4
1/2" = 1'-0"



1 WALL SECTION N3
1/2" = 1'-0"

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3/25/2026

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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
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WALL SECTIONS

A-312

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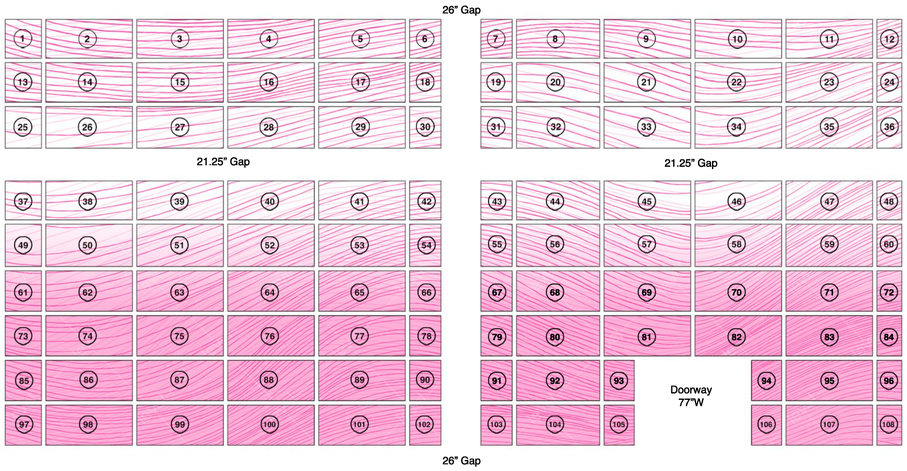
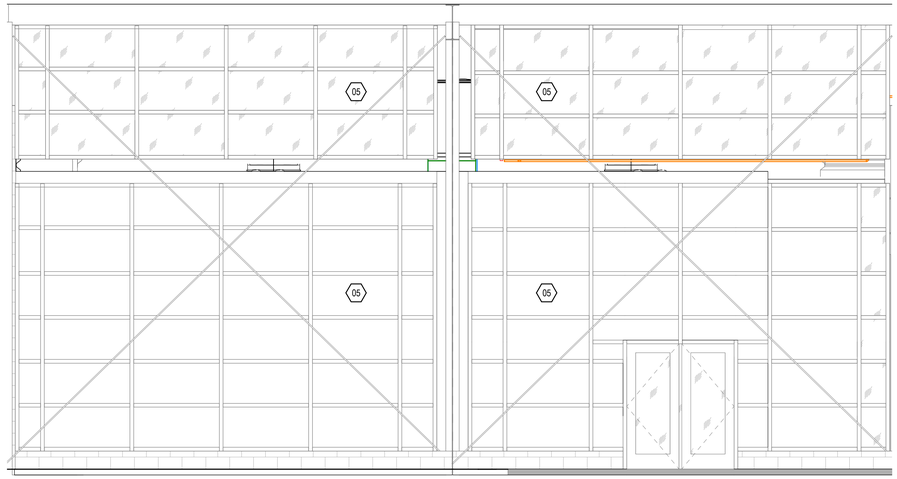


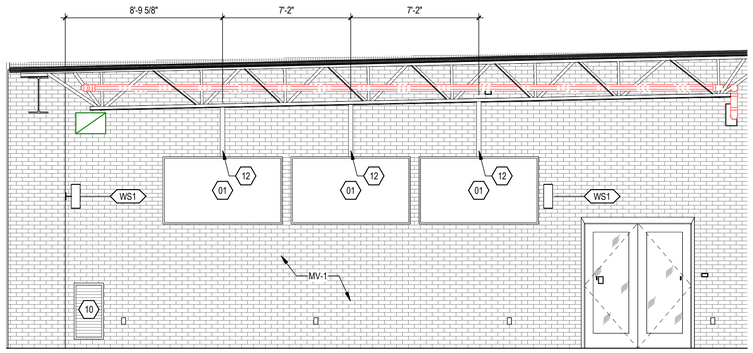


5A CORRIDOR SIDE EXISTING STOREFRONT WINDOW FILM PATTERN

N.T.S

5 CORRIDOR SIDE EXISTING STOREFRONT

1/4" = 1'-0"

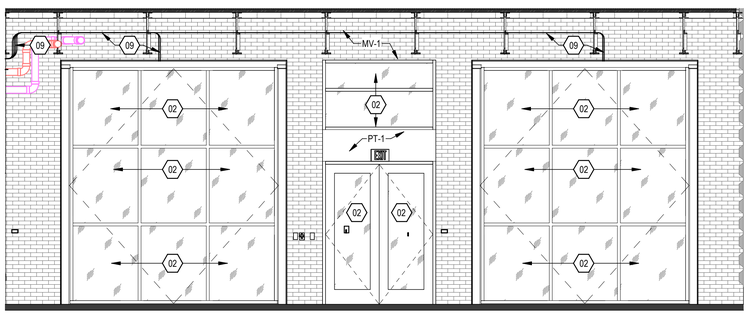


4 171 _MULTI-USE WEST

1/4" = 1'-0"

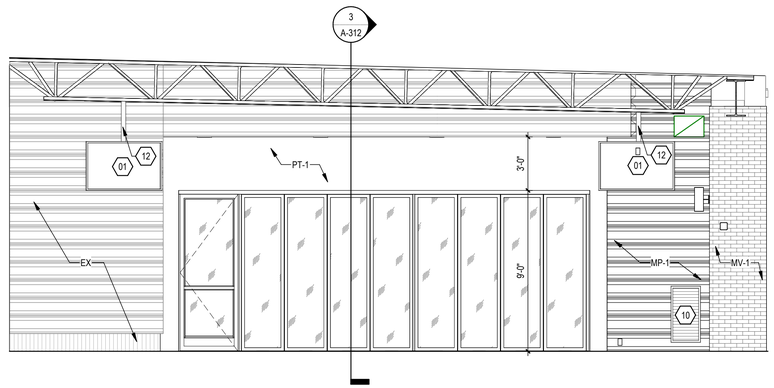
3 171 _MULTI-USE SOUTH

1/4" = 1'-0"



2 171 _MULTI-USE NORTH

1/4" = 1'-0"



1 171 _MULTI-USE EAST

1/4" = 1'-0"

GENERAL NOTES - INTERIOR ELEVATIONS

1. T - INDICATES TEMPERED GLASS

SHEET KEYNOTES - INT. ELEVATION

01	MONITOR BY OWNER; REF: ELEC
02	APPLY SOLAR FILM, WF-2
03	FUTURE ART WALL, BY OWNER
04	OPEN TO BEYOND
05	APPLY WINDOW FILM WF-1 TO ALL GLASS PANELS ON EXISTING STOREFRONT; REFER TO ELEVATION 5A FOR CONCEPTUAL GRAPHICAL INTENT
06	FUTURE SHELVING, BY OWNER
07	DIMENSIONAL LETTER SIGNAGE SURFACE MOUNTED, FINAL WORDING AND FONT TO BE COORDINATED WITH OWNER
08	PATCH / REPAINT AS REQ'D FOLLOWING ADJACENT CONSTRUCTION
09	HYDRAULIC LINESET FOR DOOR, SECURE TO CMU BACKUP WITH CUSHIONED PIPE CLAMPS. DO NOT ATTACH TO BRICK VENEER. INSTALL IN A NEAT AND DELIBERATE MANNER. ROUTE TO UNISTRUT TRAY ATTACHED TO WEB OF JOIST ABOVE WITH SWIVEL BEAM CLAMP AND THREADED ROD, REFER TO 2/A-312 FOR ADDITIONAL DETAILS
10	RETURN AIR GRILLE: REF: MECHANICAL
11	PATCH COMPOSITE METAL PANEL AT PREVIOUS LIGHT FIXTURE LOCATION W/ PRE-FINISHED ALUMINUM TRIM TO MATCH; FASTEN WITH COLOR MATCHED RIVETS
12	TELESCOPING, ROTATING MONITOR POLE, SUSPENDED FROM UNISTRUT, INCLUDE CHASE FOR POWER AND DATA CONNECTION TO MONITORS; PRE-FINISHED MATTE BLACK
13	VINYL SIGNAGE ON GLASS; COORDINATE FONT AND SIZING WITH OWNER

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CITY OF ROMULUS TIFA BOARD
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INTERIOR ELEVATIONS

A-451

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GENERAL NOTES - INTERIOR ELEVATIONS

1. T - INDICATES TEMPERED GLASS

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01	MONITOR BY OWNER; REF: ELEC
02	APPLY SOLAR FILM, WF-2
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06	FUTURE SHELVING, BY OWNER
07	DIMENSIONAL LETTER SIGNAGE SURFACE MOUNTED, FINAL WORDING AND FONT TO BE COORDINATED WITH OWNER
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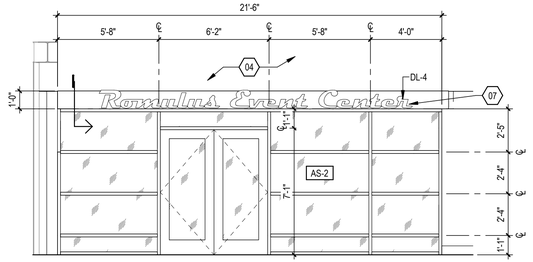
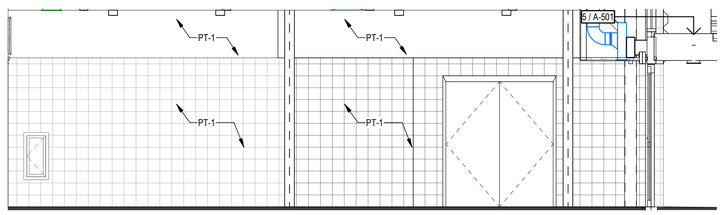
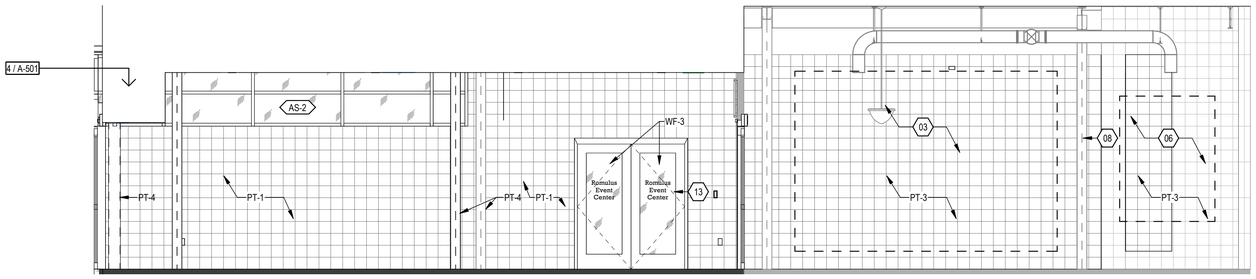
13	VINYL SIGNAGE ON GLASS; COORDINATE FONT AND SIZING WITH OWNER



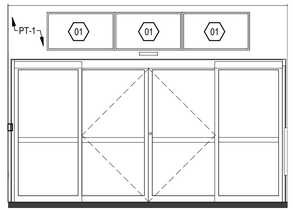
4 INTERIOR ENTRANCE ELEVATION
1/4" = 1'-0"



3 101_VESTIBULE_WEST
1/4" = 1'-0"



2 101_VESTIBULE_EAST
1/4" = 1'-0"



1 101_VESTIBULE_SOUTH
1/4" = 1'-0"

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INTERIOR ELEVATIONS

A-452

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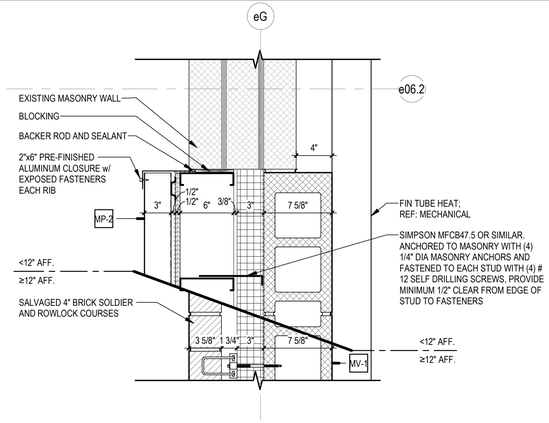
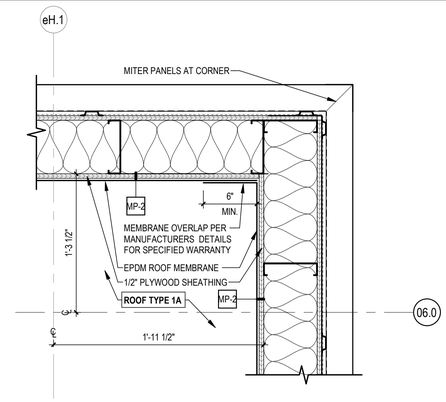


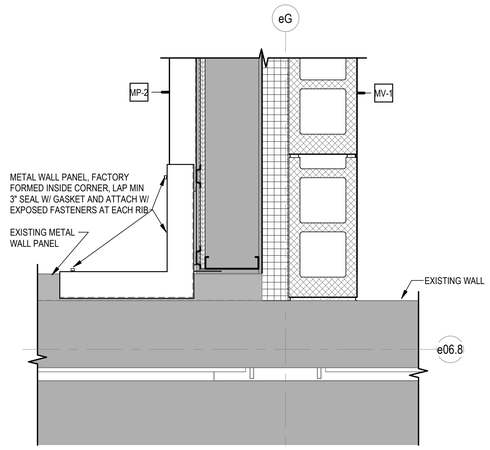
8 VESTIBULE - PLAN DETAIL 2

1 1/2" = 1'-0"



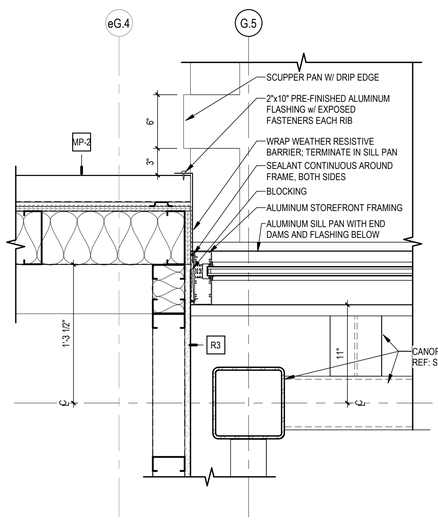
7 VESTIBULE - PLAN DETAIL 4 @ METAL PANEL

1 1/2" = 1'-0"



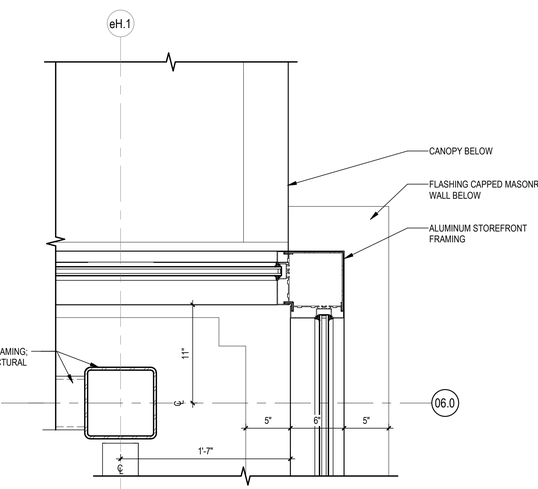
6 VESTIBULE - PLAN DETAIL 1 AT METAL PANEL

1 1/2" = 1'-0"



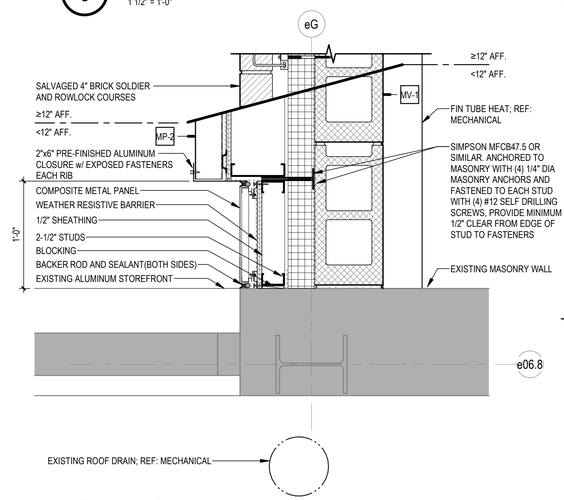
5 VESTIBULE - PLAN DETAIL 3 @ WINDOW

1 1/2" = 1'-0"



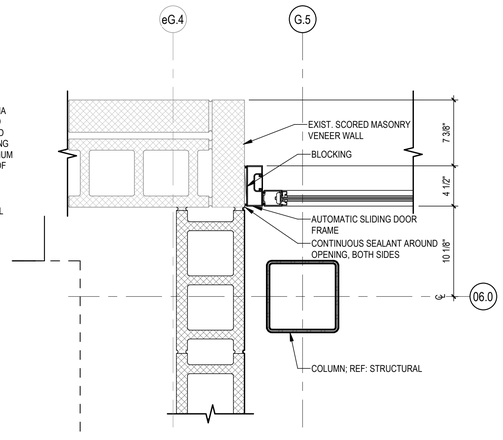
4 VESTIBULE - PLAN DETAIL 4 @ WINDOW

1 1/2" = 1'-0"



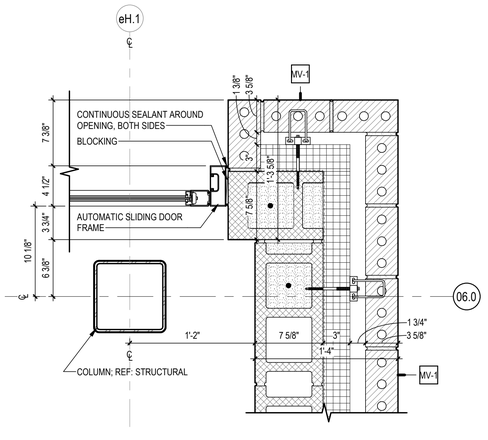
3 VESTIBULE - PLAN DETAIL 1

1 1/2" = 1'-0"



2 VESTIBULE - PLAN DETAIL 3

1 1/2" = 1'-0"



1 VESTIBULE - PLAN DETAIL 4

1 1/2" = 1'-0"

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PLAN DETAILS

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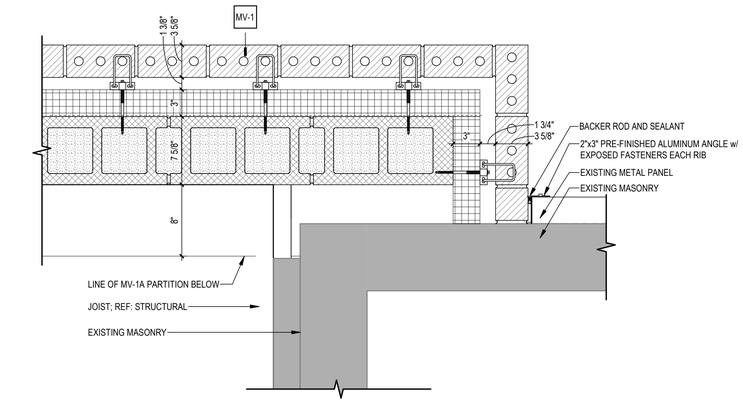
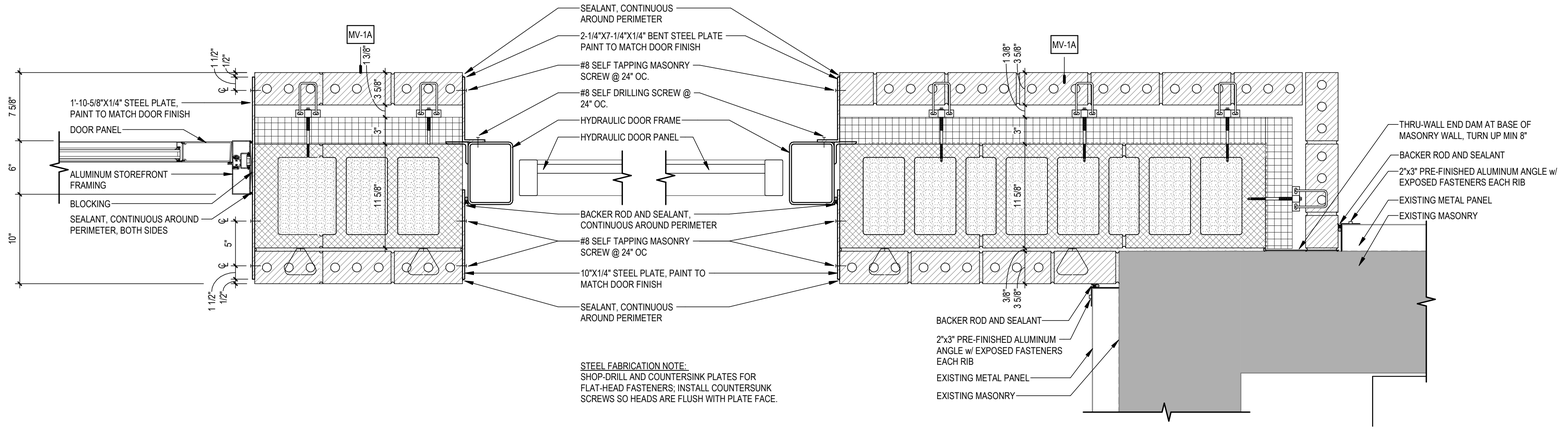


4 EXTERIOR - CORNER DETAIL @EXISTING WALL METAL PANEL
1 1/2" = 1'-0"



2 EXTERIOR - STOREFRONT AND OVERHEAD JAMBS
1 1/2" = 1'-0"

1 EXTERIOR - CORNER DETAIL @ EXISTING WALL
1 1/2" = 1'-0"

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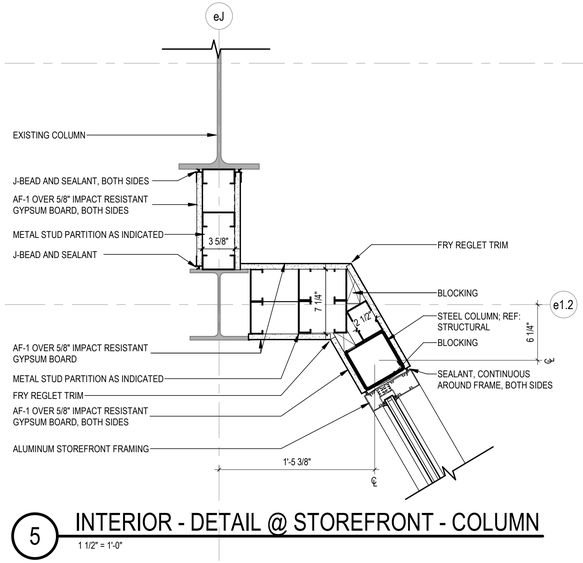
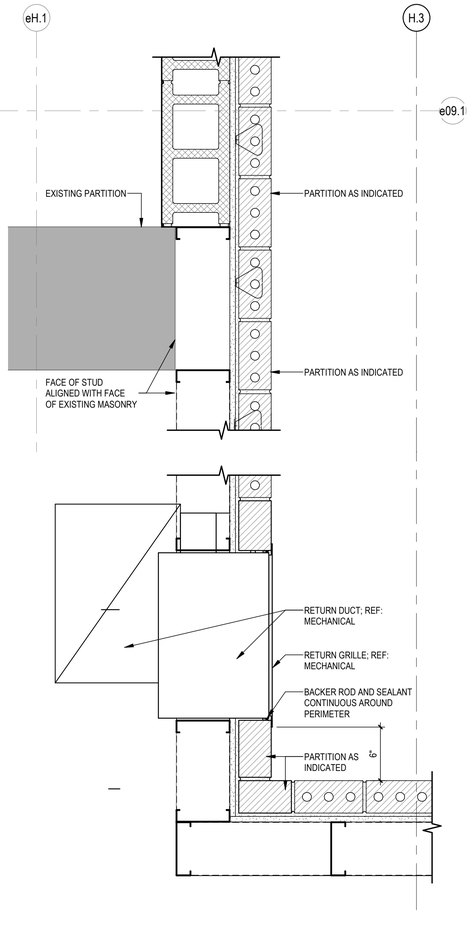


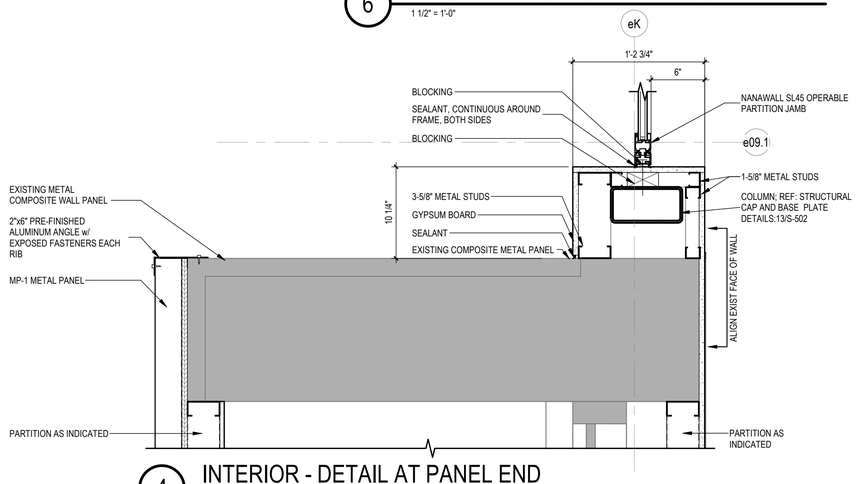
5 INTERIOR - DETAIL @ STOREFRONT - COLUMN

1 1/2" = 1'-0"



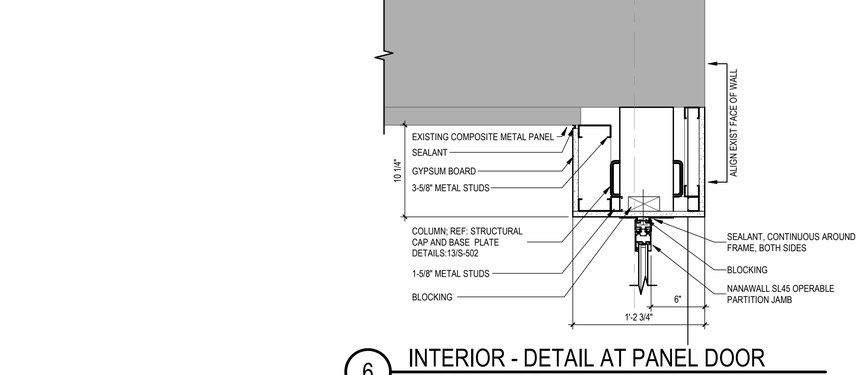
2 INTERIOR - DETAIL @ WEST WALL

1 1/2" = 1'-0"



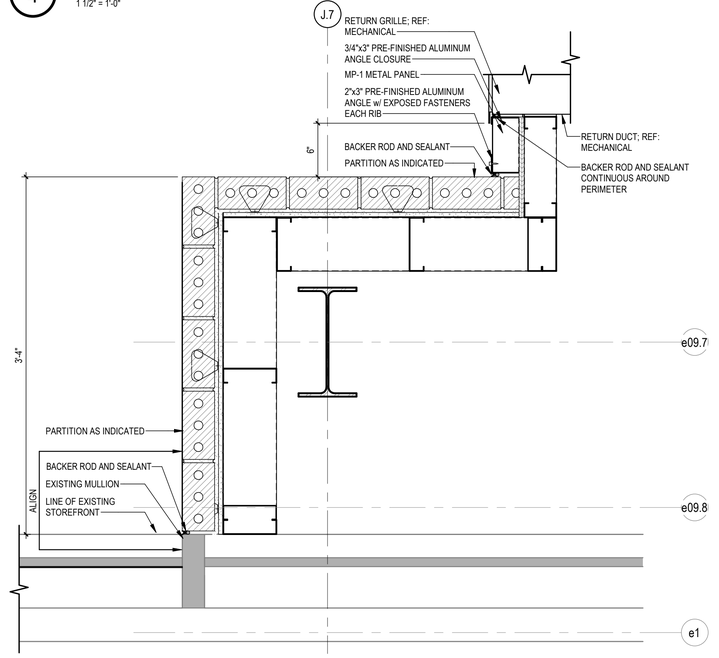
4 INTERIOR - DETAIL AT PANEL END

1 1/2" = 1'-0"



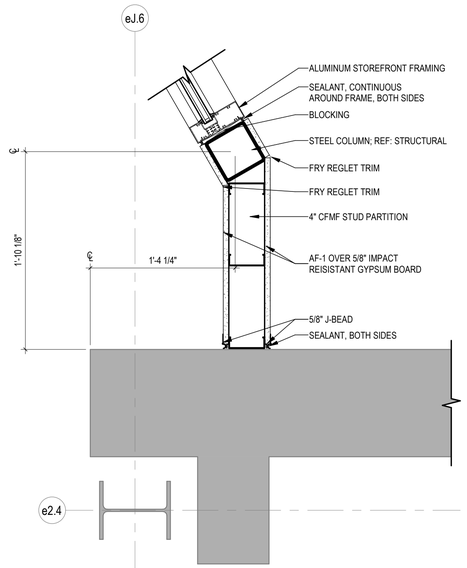
6 INTERIOR - DETAIL AT PANEL DOOR

1 1/2" = 1'-0"



1 INTERIOR - DETAIL @ SOUTH WALL

1 1/2" = 1'-0"



3 INTERIOR - DETAIL @ STOREFRONT - WALL

1 1/2" = 1'-0"

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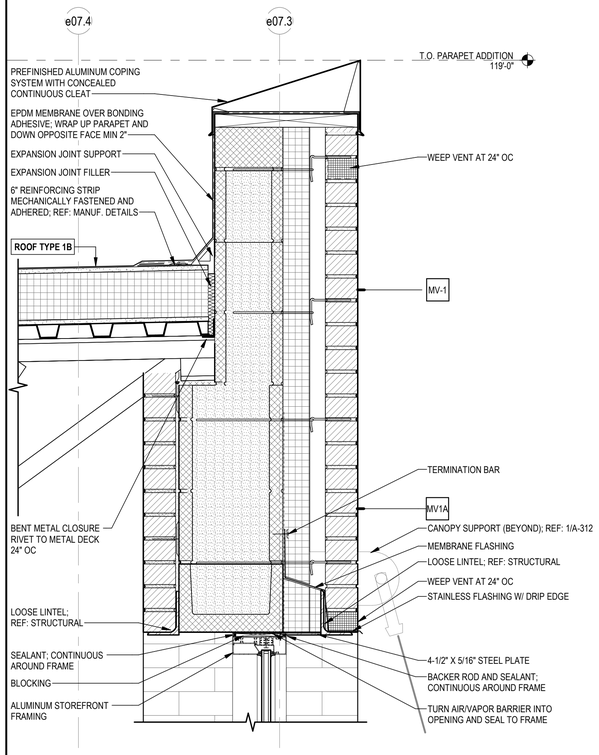
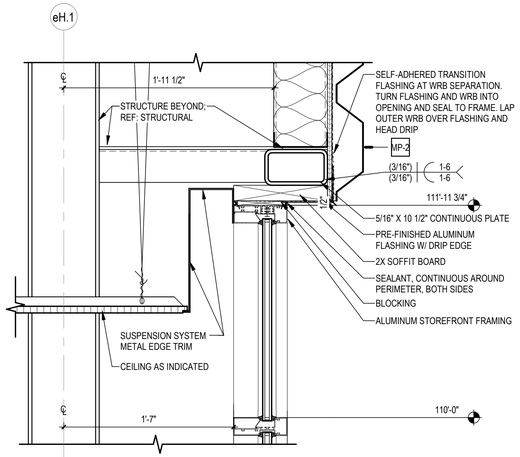
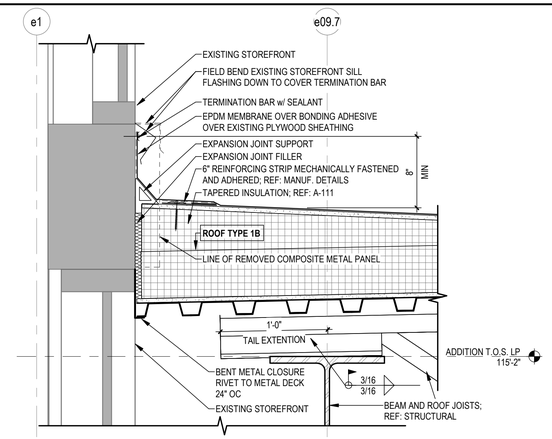


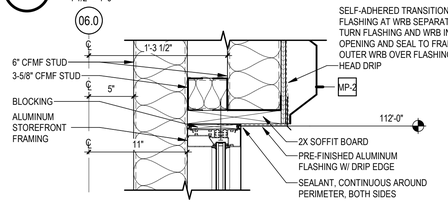
8 SECTION @ MULTI-USE STOREFRONT HEAD
1 1/2" = 1'-0"



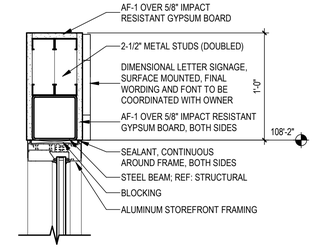
11 Det_Sect_E1_Head
1 1/2" = 1'-0"



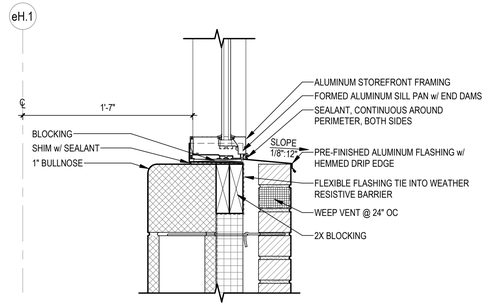
12 DETAIL @ EXISTING STOREFRONT
1 1/2" = 1'-0"



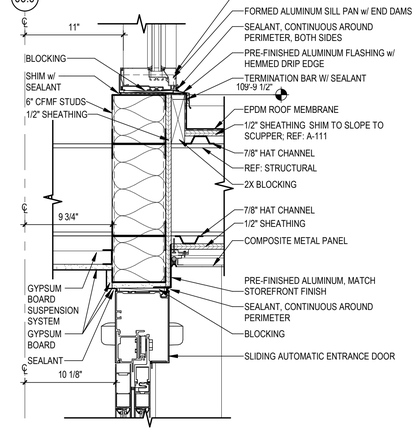
10 Det_Sect_N2_Soffit
1 1/2" = 1'-0"



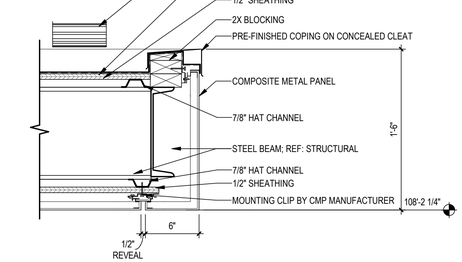
9 INTERIOR - DETAIL AT STOREFRONT HEAD
1 1/2" = 1'-0"



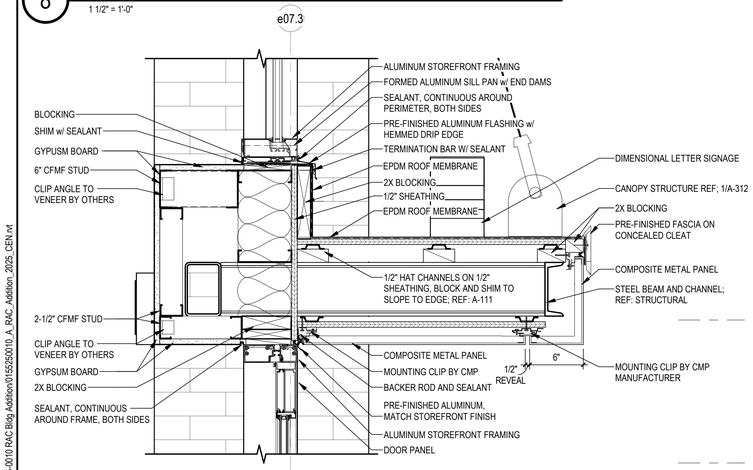
7 Det_Sect_E1_Sill
1 1/2" = 1'-0"



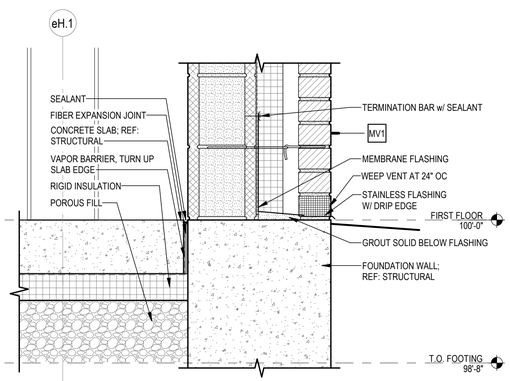
6 Det_Sect_N2_DrHdCan
1 1/2" = 1'-0"



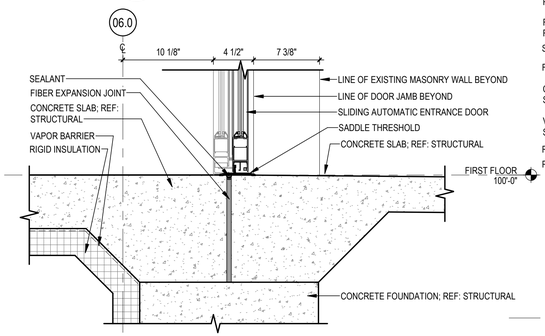
5 Det_Sect_N2_DrHdCanEnd
1 1/2" = 1'-0"



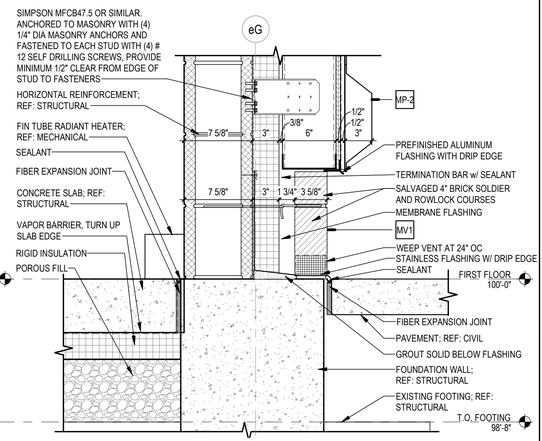
4 SECTION @ MULTI-USE CANOPY
1 1/2" = 1'-0"



3 Det_Sect_E1_Base
1 1/2" = 1'-0"



2 Det_Sect_N2_Sill
1 1/2" = 1'-0"



1 Det_Sect_W1_Base
1 1/2" = 1'-0"

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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

SECTION DETAILS

A-531

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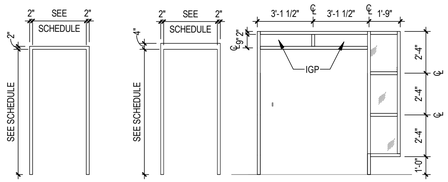
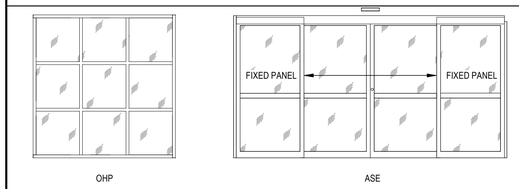
DOOR FRAME TYPES

MFR = REFER TO MANUFACTURER



DOOR TYPES



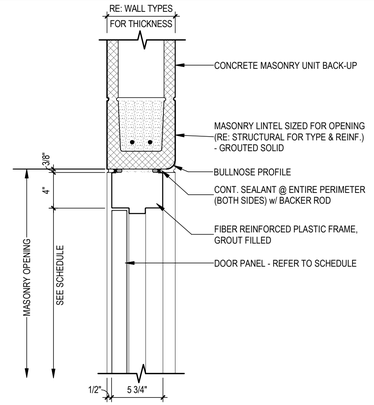
DOOR SCHEDULE

SCHEDULE KEY:

MARK:	TYPE:	DOOR MATERIAL:	FRAME MATERIAL:	DOOR / FRAME FINISH:	GLAZING TYPE:	DETAIL:	FIRE RATING:	HARDWARE SET:
AS SPECIFIED ON FLOOR PLANS	REFER TO LEGENDS ON THIS SHEET	AL ALUMINUM EXIST EXISTING TO REMAIN FRP FIBERGLASS REINFORCED PLASTIC	AL ALUMINUM EXIST EXISTING TO REMAIN FRP FIBERGLASS REINFORCED PLASTIC	EXST EXISTING TO REMAIN PF PRE-FINISHED	REFER TO PROJECT MANUAL DIVISION 08 FOR GLAZING TYPE DESIGNATIONS	REFER TO DETAILS AS INDICATED	IN MINUTES	REFER TO PROJECT MANUAL DIVISION 08 FOR HARDWARE SCHEDULE

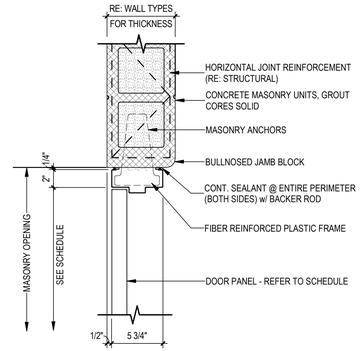
SCHEDULE NOTES:
1. EXISTING DOOR AND FRAME. REVERSE DOOR SWING; HARDWARE TO BE REPLACED AS SCHEDULED

REV.	MARK	SIZE			NO. OF LEAFS	DOOR			FRAME				GLAZING TYPE	DETAIL			FIRE RATING		HDW	NOTES
		WIDTH	HEIGHT	THICK.		TYPE	MAT'L	FINISH	TYPE	MAT'L	FINISH	DEPTH		HEAD	JAMB	THRSH	WALL	LBL.		
	101	15'-4"	7'-11 1/2"	0"	2	ASE	AL	PF (BLK)	MFR	AL	PF (BLK)	4 1/2"	GL-1	6/A-531	1/A-501	2/A-531			1B	
	101A	6'-0"	7'-0"	1 3/4"	2	F	FRP	PF (GRY)	F2	AL	PF (CLR)	5 3/4"		3	2	1			2	
	102	15'-4"	7'-11 1/2"	0"	2	ASE	AL	PF (CLR)	MFR	AL	PF (CLR)	4 1/2"	GL-1	4	1/A-501 SIM.				1A	
	159	6'-0"	7'-0"	1 3/4"	2	FG	AL	PF (CLR)		AL	PF (CLR)	6"	GL-2						3A	
	171A	6'-0"	7'-0"	1 3/4"	2	FG	AL	PF (BLK)	F2	AL	PF (BLK)	5 3/4"	GL-2						3B	
	171B	12'-8"	13'-8"	2"	1	OHP	MFR	PF (BLK)	MFR	MFR	PF (BLK)		GL-1		1/A-502				9	
	171C	6'-0"	7'-10"	1 3/4"	2	FG	AL	PF (BLK)		AL	PF (BLK)	6"	GL-1		2/A-502	1			5	
	171D	12'-8"	13'-8"	2"	1	OHP	MFR	PF (BLK)	MFR	MFR	PF (BLK)		GL-1		1/A-502				9	
	171E	3'-3"	8'-8 3/4"	1 3/4"	1	XFG	MFR	PF (BLK)	MFR	MFR	PF (BLK)	1 3/4"	GL-1						4	
	171F	6'-0"	7'-0"	1 3/4"	2	FG	EXIST			EXIST		6"	EXIST	EXIST	EXIST	EXIST			8	1
	205B	3'-0"	7'-0"	1 3/4"	1	F	FRP	PF (GRY)	F2	FRP	PF (GRY)	5 3/4"					60	45	6	
	205C	6'-0"	7'-0"	1 3/4"	2	FG	AL	PF (CLR)		AL	PF (CLR)	6"	GL-1 / IGP			1			7	



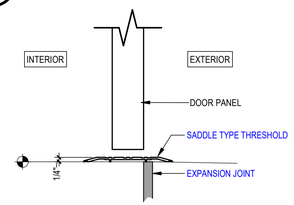
3 DOOR HEAD DETAIL

1 1/2" = 1'-0"



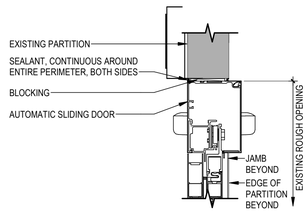
2 DOOR JAMB DETAIL

1 1/2" = 1'-0"



1 THRESHOLD DETAIL

3" = 1'-0"



4 INTERIOR AUTOMATIC SLIDING DOOR HEAD DETAIL

1 1/2" = 1'-0"

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

OPENING SCHEDULE & TYPICAL DETAILS

A-601

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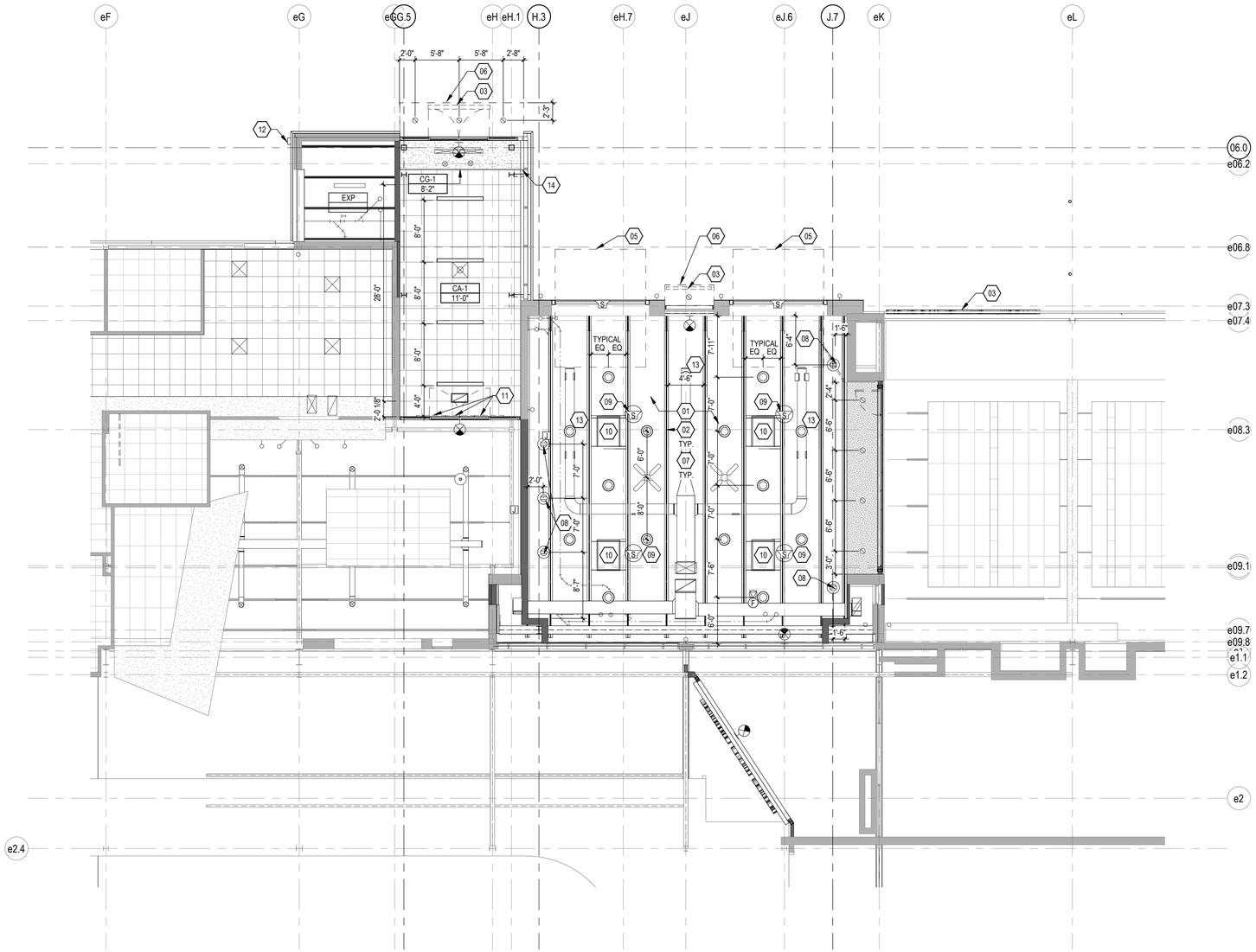


1 PARTIAL FIRST FLOOR REFLECTED CEILING PLAN - ADDITION

1/8" = 1'-0"

N

GENERAL NOTES - CEILING PLANS

1. DO NOT SCALE DRAWINGS. IF DIMENSIONS CANNOT BE DETERMINED OR DOCUMENTS ARE IN CONFLICT, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUATION OF WORK
2. REFER TO PROJECT INFORMATION SHEET FOR MATERIAL / REFERENCE SYMBOLS AND ABBREVIATIONS
3. REFER TO MECHANICAL, ELECTRICAL, FIRE SUPPRESSION & TECHNOLOGY DRAWINGS FOR QUANTITY AND TYPE OF CEILING MOUNTED FIXTURES / DEVICES
4. ALL CEILING MOUNTED FIXTURES, DEVICES, ETC. ARE TO BE CENTERED WITHIN THE CEILING TILE, UNO
5. THE TYPICAL HEIGHT FOR SUSPENDED CEILINGS SHALL BE 'XXX'. UNO
6. PROVIDE CONTROL JOINTS @ 30'-0" OC MAX AT ALL GYPSUM BOARD BULKHEADS. LOCATE TO BE EVENLY SPACED OR TO ALIGN WITH COLUMN CENTERLINES, ADJACENT WALLS, OR OTHER ARCHITECTURAL ELEMENTS. REVIEW PROPOSED LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION
7. REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS FOR MOUNTING LOCATIONS OF ITEMS WHERE NO CEILINGS ARE REQUIRED OR INDICATED
8. REFER TO ELECTRICAL DRAWINGS FOR LIGHTING FIXTURE SCHEDULE
9. REFER TO MECHANICAL DRAWINGS FOR DIFFUSER FIXTURE SCHEDULE

XX SHEET KEYNOTES - RCP

01	ACOUSTIC METAL DECK, TO BE PAINTED PT-2
02	EXPOSED STRUCTURAL MEMBERS TO BE PAINTED PT-2
03	NEW BUILDING SIGNAGE; REF: ELEVATIONS
04	EXTERIOR SPEAKER MOUNTED ABOVE HYDRAULIC DOOR; REF: ELECTRICAL
05	LINE OF HYDRAULIC DOOR IN OPEN POSITION
06	LINE OF CANOPY ABOVE
07	EXPOSED PLUMBING, FIRE SUPPRESSION LINES, ELECTRICAL CONDUITS, JUNCTION BOXES AND MECHANICAL DUCTS TO BE PAINTED PT-2
08	POWER AND DATA FOR OVERHEAD POLE MOUNTED TELEVISION; REF: ELECTRICAL
09	CEILING MOUNTED SPEAKER; REF: ELECTRICAL
10	SKYLIGHT
11	WALL MOUNTED MONITOR BY OWNER; REF: ELECTRICAL
12	SNOW SENSOR; REF: MECHANICAL
13	SUSPEND FIXTURE FROM 1-5/8" METAL CHANNEL FRAMING, UNISTRUT P1000 OR SIMILAR, SPANNING BETWEEN ADJACENT STRUCTURAL JOISTS. ATTACH CHANNEL TO JOIST BOTTOM CHORDS USING, BEAM CLAMPS, UNISTRUT P2785 OR SIMILAR. MOUNT JUNCTION BOX TO CHANNEL WITH CHANNEL NUTS AND APPROPRIATE BRACKETS. ALL COMPONENTS TO BE GALVANIZED, PAINTED TO MATCH CEILING FINISH.
14	PRE-FINISHED ALUMINUM CLOSURE, ALIGN WITH FACE OF MULLION

REFLECTED CEILING PLAN LEGEND

CEILING TYPES

CA-1 — CEILING TYPE
X' - X" — CEILING ELEVATION

CA-1 2X2 ACOUSTICAL LAY-IN CEILING TILE

CG-1 GYPSUM BOARD CEILING

MP-2A COMPOSITE METAL PANEL CEILING

LIGHT FIXTURES

(REFER TO ELECTRICAL DRAWINGS)

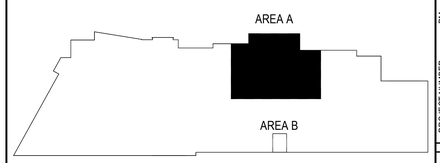
- SURFACE / CEILING MOUNT
- EMERGENCY SURFACE / CEILING MOUNT
- PENDANT / CHAIN MOUNT
- EMERGENCY PENDANT / CHAIN MOUNT
- RECESSED MOUNT
- EMERGENCY RECESSED MOUNT
- COMBINATION FAN / LIGHT
- TRACK STRIP
- WALL MOUNT (INT.) (EXT.)
- EMERGENCY WALL MOUNT (INT.) (EXT.)
- EXTERIOR POLE MOUNT
- EXTERIOR POST MOUNT
- INTERIOR EMERGENCY WALL PACK
- EXIT SIGN (WALL) (CEILING)
- CEILING FAN (LIGHT) (NO LIGHT)

HVAC DEVICES

(REFER TO MECHANICAL DRAWINGS)

- RECTANGULAR CEILING DIFFUSER / GRILLE
- LINEAR DIFFUSER
- CIRCULAR CEILING DIFFUSER / GRILLE
- JET DIFFUSERS
- FLOOR REGISTER / GRILLE
- TRANSFER GRILLE
- WALL DIFFUSER / GRILLE
- FIRE PROTECTION SPRINKLER HEAD
- PS F — FIRE ALARM PULL STATION
- ACCESS DOOR

KEY PLAN



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ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd. Romulus, MI 48174

PARTIAL FIRST FLOOR REFLECTED CEILING PLAN - ADDITION

A-701

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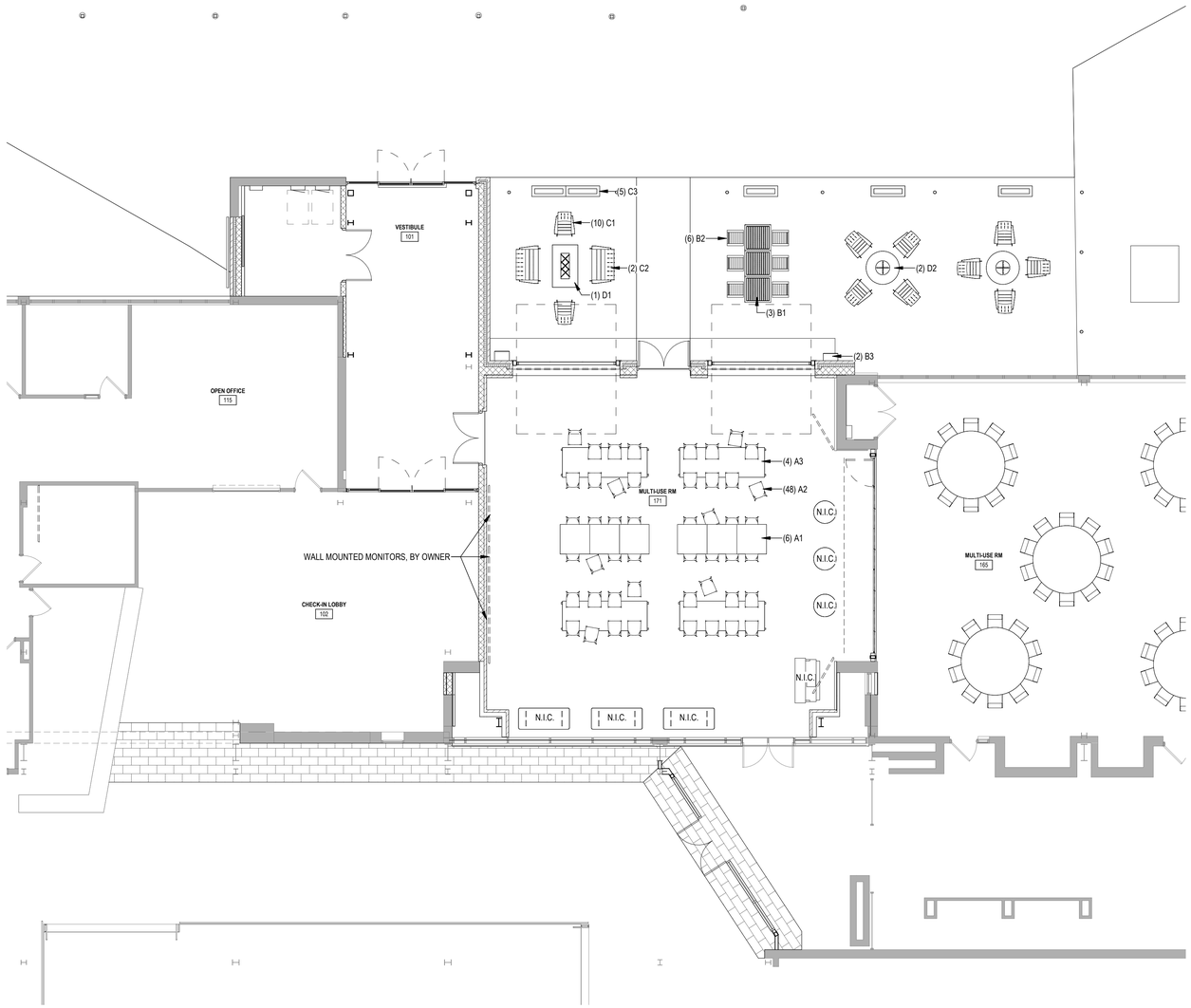

1 FIRST FLOOR FURNITURE FIXTURE & EQUIPMENT PLAN

1/8" = 1'-0"

GENERAL NOTES - FF&E PLANS

1. PLACEHOLDER
2. PLACEHOLDER
3. PLACEHOLDER

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CITY OF ROMULUS TIFA BOARD

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FIRST FLOOR FURNITURE FIXTURE & EQUIPMENT PLAN

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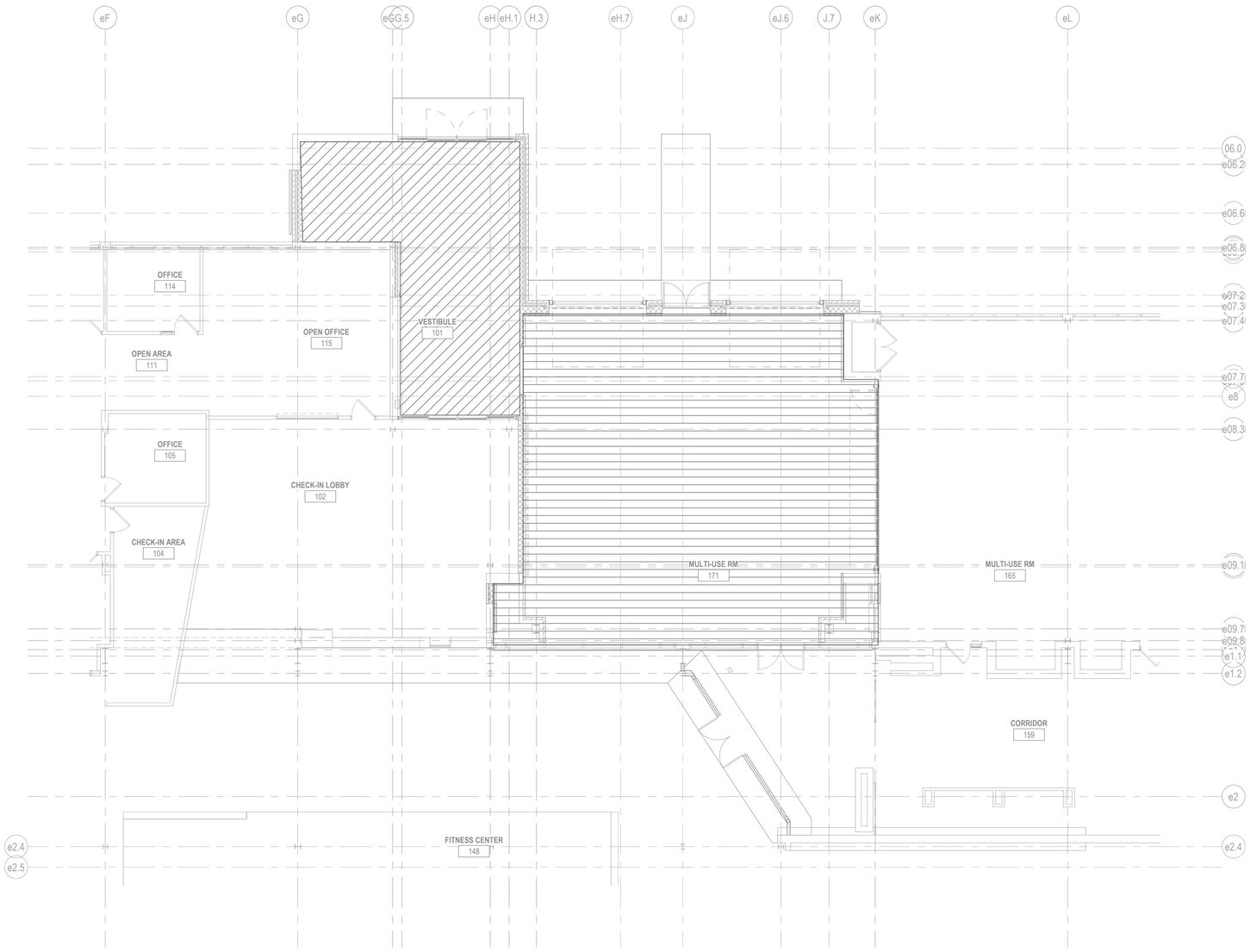

1 FIRST FLOOR FIRE SUPPRESSION PLAN

1/8" = 1'-0"

GENERAL NOTES - FIRE PROTECTION

1. CONTRACTOR MUST PROVIDE DETAILED HYDRAULIC DESIGN AND OBTAIN APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION BEFORE STARTING WORK.
2. WET TYPE SYSTEM DESIGN FOR OCCUPIED SPACES SHALL BE LIGHT HAZARD NFPA-13 CODE WITH A DESIGN DENSITY OF NOT LESS THAN 0.10 GPM PER SQ FT OVER THE HYDRAULICALLY MOST REMOTE 1500 SQ FT BASED ON SPRINKLER HEAD SELECTED AND SPACING PER HEAD.
3. COORDINATE PIPING AND SPRINKLER HEAD LOCATIONS WITH OTHER TRADES.
4. ALL SPRINKLER HEADS MUST BE CENTERED IN CEILING TILES.
5. CONTRACTOR TO PROVIDE FLOW TEST RESULTS TO ENGINEER.
6. COORDINATE SYSTEM SHUTDOWNS WITH OWNER.

KEY PLAN

FIRE PROTECTION SYMBOLS LEGEND

AREAS	FIRE DEPT. CONNECTIONS
AREA OF NEW CONSTRUCTION OCCUPIED AREAS, PROVIDE LIGHT HAZARD DESIGN DENSITY	FDC — TWO-WAY SIAMESE BUILDING MOUNTED
AREA OF RENOVATION OCCUPIED AREAS, PROVIDE LIGHT HAZARD DESIGN DENSITY	

N

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PARTIAL FIRST FLOOR FIRE SUPPRESSION PLAN

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MECHANICAL ABBREVIATIONS

A	
A	AIR
AAV	AUTOMATIC AIR VENT
AD	ACCESS DOOR/PANEL
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
AS	AIR SEPARATOR
B	
B	BOILER
BDD	BACK DRAFT DAMPER
BFP	BACK FLOW PREVENTER
C	
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRID
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CND	STEAM CONDENSATE
COND	CONDENSING UNIT
CONV	CONVECTOR
CR	CONDENSATE RETURN
CUH	CABINET UNIT HEATER
D	
DB	DRY BULB
DIA Ø	DIAMETER
DN	DOWN
E	
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EXST	EXISTING
F	
FCU	FAN COIL UNIT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FOOT / FEET
FTR	FIN TUBE RADIATION
°F	FAHRENHEIT DEGREE
G	
G	NATURAL / LP GAS
GA	GAUGE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	
HC	HOT WATER COIL
HP	HORSEPOWER
HPS	HIGH PRESSURE STEAM
HRU	HEAT RECOVERY UNIT
HTWR	HEATING WATER RETURN
HTWS	HEATING WATER SUPPLY
HVAC	HEATING VENTILATING & AIR CONDITIONING
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
I	
IDU	INDOOR UNIT
IN	INCH / INCHES

MECHANICAL ABBREVIATIONS

K	
KH	KITCHEN HOOD
L	
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB
LF	LINEAL FEET
LPS	LOW PRESSURE STEAM
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
M	
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPS
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
MUA	MAKE-UP AIR UNIT
O	
OA	OUTSIDE AIR
OD	OVERFLOW DRAIN
ODU	OUTDOOR UNIT
P	
P	PUMP
PH	PHASE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
R	
R	SUPPLY REGISTER
RA	RETURN AIR
RAD	RADIANT HEATER
RD	ROOF DRAIN
RD	ROOF DRAIN
RF	RETURN FAN
RH	GRAVITY RELIEF HOOD
RPM	REVOLUTIONS PER MINUTE
S	
SA	SUPPLY AIR
SC	STEAM COIL
SD	SMOKE DAMPER
SF	SUPPLY FAN
SP	STATIC PRESSURE
STD	STANDARD
STM	STEAM
SWG	SIDE WALL GRILLE
SWR	SIDE WALL REGISTER
T	
TYP	TYPICAL
U	
UH	UNIT HEATER
V	
V	VENT
VAV	VARIABLE AIR VOLUME
VD	VANED DIFFUSER
VIF	VERIFY IN FIELD
W	
WH	WATER HEATER
WPD	WATER PRESSURE DROP

GENERAL NOTES - PLUMBING

1. ALL PLUMBING EQUIPMENT AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE 2021 STATE OF MICHIGAN PLUMBING CODE AND THE 2021 INTERNATIONAL PLUMBING CODE.
2. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A PLUMBING PERMIT AND INSPECTIONS. A FINAL INSPECTION CERTIFICATE SHALL BE SUBMITTED BEFORE FINAL PAYMENT WILL BE ISSUED.
3. DRAWINGS INDICATE REQUIRED SIZES AND POINTS OF TERMINATION OF PIPES AND SUGGESTED ROUTES. IT IS NOT THE INTENTION OF THE DRAWINGS TO INDICATE ALL NECESSARY OFFSETS. INSTALL WORK IN MANNER TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. DO NOT SCALE FROM DRAWINGS.
4. THE PLUMBING CONTRACTOR SHALL FURNISH SHOP DRAWINGS ON FIXTURES, APPURTENANCES AND MATERIALS THAT THEY INTEND TO FURNISH, FOR APPROVAL TO OWNER.
5. PROTECT EXISTING TO REMAIN BUILDING COMPONENTS FROM DAMAGE DURING DEMOLITION AND NEW CONSTRUCTION.
6. PROTECT ALL EQUIPMENT AND FIXTURES STORED OR SET IN PLACE ON JOB.
7. ALL VENT LINES SHALL BE INSTALLED VERTICAL OR SLOPED UP TO VTR.
8. ALL PIPING TO BE CONCEALED UNLESS OTHERWISE NOTED ON PLANS.
9. EACH RISER SHALL BE VALVED IN AN ACCESSIBLE LOCATION.
10. EACH PLUMBING FIXTURE SHALL BE PROVIDED WITH AN ACCESSIBLE SHUT OFF VALVE ON SUPPLY LINES.
11. PROVIDE FIRESTOPPING AT ALL NEW AND EXISTING PENETRATIONS OF FIRE RATED FLOOR AND WALL ASSEMBLIES.
12. COORDINATE AND SCHEDULE ALL CONNECTIONS TO EXISTING SYSTEMS AND SYSTEM SHUT-DOWNS WITH OWNER'S REPRESENTATIVES.
13. A BOUND MANUAL SHALL BE SUBMITTED UPON COMPLETION WITH MAINTENANCE INSTRUCTIONS, PARTS LISTS, AND MANUFACTURER'S WARRANTIES. ALSO A WARRANTY FROM THE PLUMBING CONTRACTOR, ALONG WITH RECORD DRAWINGS SHALL BE SUBMITTED AT THIS TIME.

GENERAL NOTES - MECHANICAL

1. DRAWINGS INDICATE REQUIRED SIZES AND POINTS OF TERMINATION OF PIPES AND DUCTS AND SUGGESTED ROUTES. IT IS NOT THE INTENTION THE OF DRAWINGS TO INDICATE ALL NECESSARY OFFSETS. INSTALL WORK IN MANNER TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. DO NOT SCALE FROM DRAWINGS.
2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZES, LOCATION, ELEVATIONS, AND DETAILS OF ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK.
3. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE PATCHING, CAPPING, OR REPAIRING OF WALLS, FLOOR, AND ROOF WHERE OPENINGS OCCUR AS A RESULT OF REMOVAL OF MECHANICAL AND ELECTRICAL COMPONENTS AS PART OF THIS CONTRACT, UNLESS THE OPENING IS BEING RE-USED OR ENLARGED IN THE RENOVATION WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EQUIPMENT AND MATERIALS IN A "NEW" CONDITION DURING CONSTRUCTION.
5. PROVIDE BALANCE DAMPERS FOR EACH DIFFUSER/GRILLE AND BRANCH DUCT.
6. ALL EXTERNALLY ISOLATED HVAC EQUIPMENT SHALL HAVE FLEXIBLE DUCT CONNECTORS.
7. ALL CONDENSATE DRAIN PIPING TO TERMINATE TO DRAIN VIA AIR GAP.
8. COORDINATE ROOF MOUNTED EQUIPMENT SIZES WITH ARCHITECTURAL TRADES PRIOR TO CONSTRUCTION.
9. ROOF OPENINGS SHALL BE SEALED WEATHER-TIGHT AND WITH ROOFING MATERIALS COMPATIBLE WITH EXISTING ROOF MEMBRANE. CONTRACTOR SHALL NOT VOID ROOF WARRANTY.
10. DUCT ACCESS PANELS SHALL BE PROVIDED AT ALL FIRE DAMPERS, FIRE/SMOKE DAMPERS, MOTORIZED DAMPERS, AND DUCT SMOKE DETECTORS. WHERE NECESSARY, CEILING ACCESS PANELS SHALL BE PROVIDED AS WELL.
11. INSTALL ALL NEW EQUIPMENT IN COMPLIANCE WITH THE MANUFACTURER'S REQURIED CLEARANCES. ALL DISCONNECTS AND HIGH VOLTAGE ELECTRICAL PANELS SHALL HAVE THE CLEARANCE REQUIRED BY NEC ARTICLE 110 (36" FOR 120/208V, 42" FOR 227/460V, AND 48" WHEN FACING ONE ANOTHER).
12. ROUTE ALL CONTROL WIRING TO THE THERMOSTATS WITHIN THE SOFFITS AND WALLS WHEREVER POSSIBLE. WIRING IN ANY WALLS OR EXPOSED SHALL BE IN CONDUIT. WHERE CONNECTING T IN EXPOSED AREAS, CONTROL WIRING SHALL BE RUN IN EXPOSED PAINTED CONDUIT. CONDUIT COLOR SHALL BE COORDINATED WITH ARCHITECT.

PLUMBING FIXURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	CATALOG NO.	TRIM	REMARKS	CW	HW	WASTE	VENT	ADA
RD-1	COMBINATION PRIMARY AND OVERFLOW DRAIN	ZURN	Z165	NO HUB OUTLET WITH ALUMINUM DOME	PROVIDE OUTLET FOR APPLICATION					

ROOM VENTILATION DATA - RTU-1

ROOM	SQFT	REQUIRED EXHAUST FLOW (CFM/SQFT)	REQUIRED EXHAUST FLOW (CFM/PLUMBING FIXTURE)	PLUMBING FIXTURE QUANTITY	REQUIRED EXHAUST AIR (CFM)	PROVIDED EXHAUST AIR (CFM)	OCCUPANTS/1000 SQFT	NUMBER OF OCCUPANTS	RA CFM/SQFT	RP CFM/ OCCUPANT	REQUIRED OUTDOOR AIRFLOW (RA+RP) (CFM)	PROVIDED OUTDOOR AIRFLOW (CFM)
171 MULTI-USE RM	2000	---	---	---	0	0	50	100	0.06	5	620	620
										TOTAL	620	

GAS LOAD SCHEDULE

MARK	DESCRIPTION	BTU / HOUR	CU FT / HOUR	REMARKS
N/A	EX. LOAD	14523185	14,005	
RTU-1	ROOF TOP UNIT	200000	193	
TOTALS:		14523185	14198	

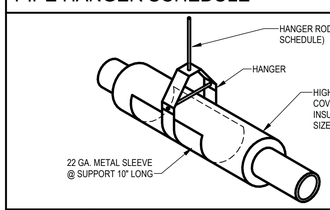
NOTE: ALL GAS LINE SIZES BASED ON DELIVERY PRESSURE OF 2 PSI.

PLUMBING PIPE INSULATION SCHEDULE

PIPE SYSTEM	THICKNESS	TYPE	REMARKS
ROOF & OVERFLOW DRAINS	1"	FIBERGLASS	SELF SEALING W/PVC FITTING COVERS

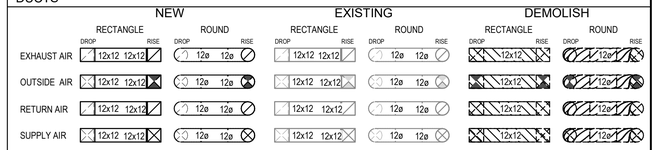
1. FOR PIPING NO LARGER THAN 1 1/2", INSULATION THICKNESS SHALL BE 1", FOR PIPING 1 1/2" AND LARGER, INSULATION THICKNESS SHALL BE 1 1/2"

PIPE HANGER SCHEDULE

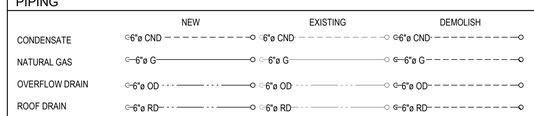


PIPE SIZE (NOMINAL)	HANGER SPACING (FT)				HANGER ROD SIZE
	STEEL	CAST IRON	COPPER	PVC/ABS	
1 1/2"	5	-	6	3	3/8"
3/4"	6	-	6	4	3/8"
1"	7	-	6	4	3/8"
1 1/4"	8	-	6	4	3/8"
1 1/2"	9	5	10	4	3/8"
2"	10	5	10	4	3/8"
2 1/2"	10	-	10	4	1/2"
3"	10	5	10	4	1/2"
4"	10	5	10	4	1/2"
5"	10	5	10	-	1/2"
6"	10	5	10	-	1/2"

DUCTS



PIPING



HVAC SYMBOLS LEGEND

DIFFUSERS, GRILLES, TAGS AND SYMBOLS

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3/25/2026
ISSUED FOR: BIDS

PROJECT NUMBER 0155-25-0010
PM
CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174
MECHANICAL NOTES AND SYMBOLS

M-001

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GENERAL NOTES -MECHANICAL DEMOLITION

1. ALL BIDDING CONTRACTORS ARE REQUIRED TO FIELD VERIFY EXISTING CONDITIONS AND DESIGN INTENT, COORDINATE WITH THE CM, AND PERFORM A CONSTRUCTABILITY ANALYSIS PRIOR TO SUBMITTING A BID. QUESTIONS OR COMMENTS SHALL BE SUBMITTED IN WRITING DURING THE BIDDING PHASE. NO ADDITIONAL COSTS TO THE PROJECT WILL BE ACCEPTED AFTER PROJECT AWARD FOR CHANGES DUE TO LACK OF KNOWLEDGE OF EXISTING CONDITIONS OR LACK OF COORDINATION.
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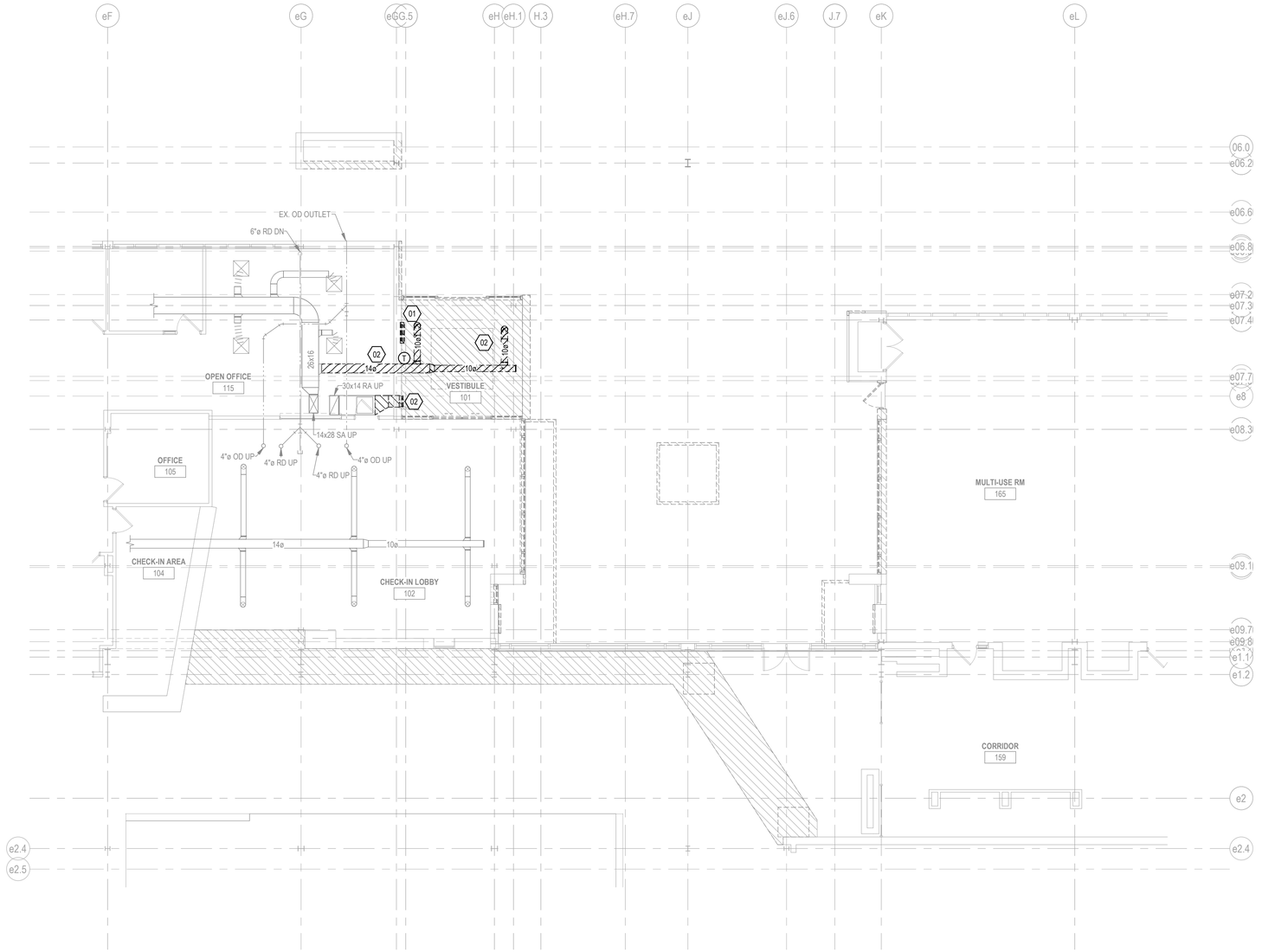
3. ANY DEVICE/EQUIPMENT NO LONGER NEEDED SHALL BE PROPERLY DISPOSED OF.

SHEET KEYNOTES - MECH. DEMOLITION

01	REMOVE CABINET UNIT HEATER AND ASSOCIATED THERMOSTAT, INFILL.
02	REMOVE DUCTWORK AND ANY ASSOCIATED AIR TERMINALS BACK TO MAIN AND CAP.



1 PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

N

KEY PLAN

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PROJECT NUMBER 0155-25-0010 | PM | CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

PARTIAL FIRST FLOOR MECHANICAL DEMOLITION PLAN

MD101

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GENERAL NOTES - MECHANICAL HVAC

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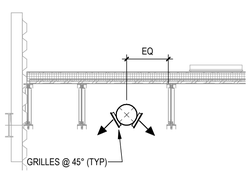
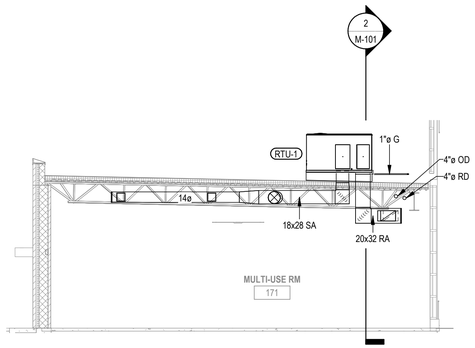
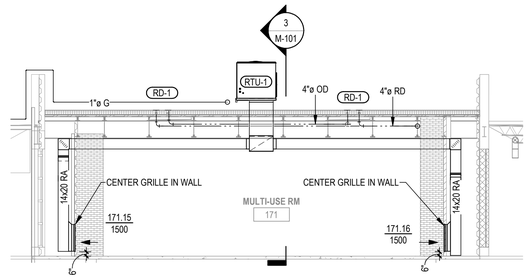
6. COORDINATE LOCATIONS OF THE THERMOSTATS AND SENSORS WITH OTHER TRADES.



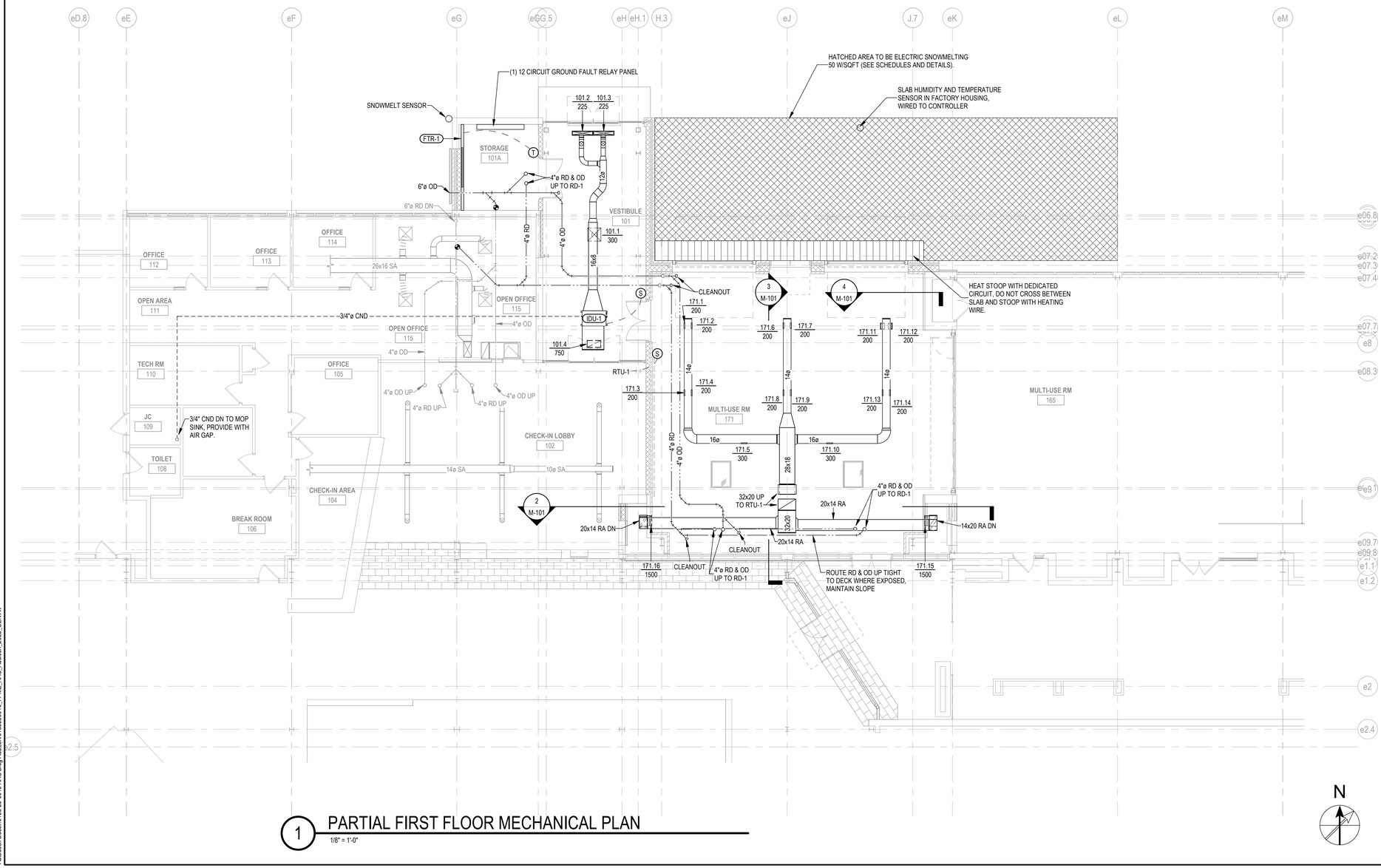
4 EAST - WEST SECTION AT SUPPLY
1/4" = 1'-0"



3 NORTH - SOUTH SECTION
1/8" = 1'-0"



2 EAST - WEST SECTION AT RETURN
1/8" = 1'-0"



1 PARTIAL FIRST FLOOR MECHANICAL PLAN
1/8" = 1'-0"

N

KEY PLAN

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ISSUED FOR: BIDS
3/25/2026

PROJECT NUMBER 0155-25-0010
PM CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd. Romulus, MI 48174

PARTIAL FIRST FLOOR MECHANICAL PLAN

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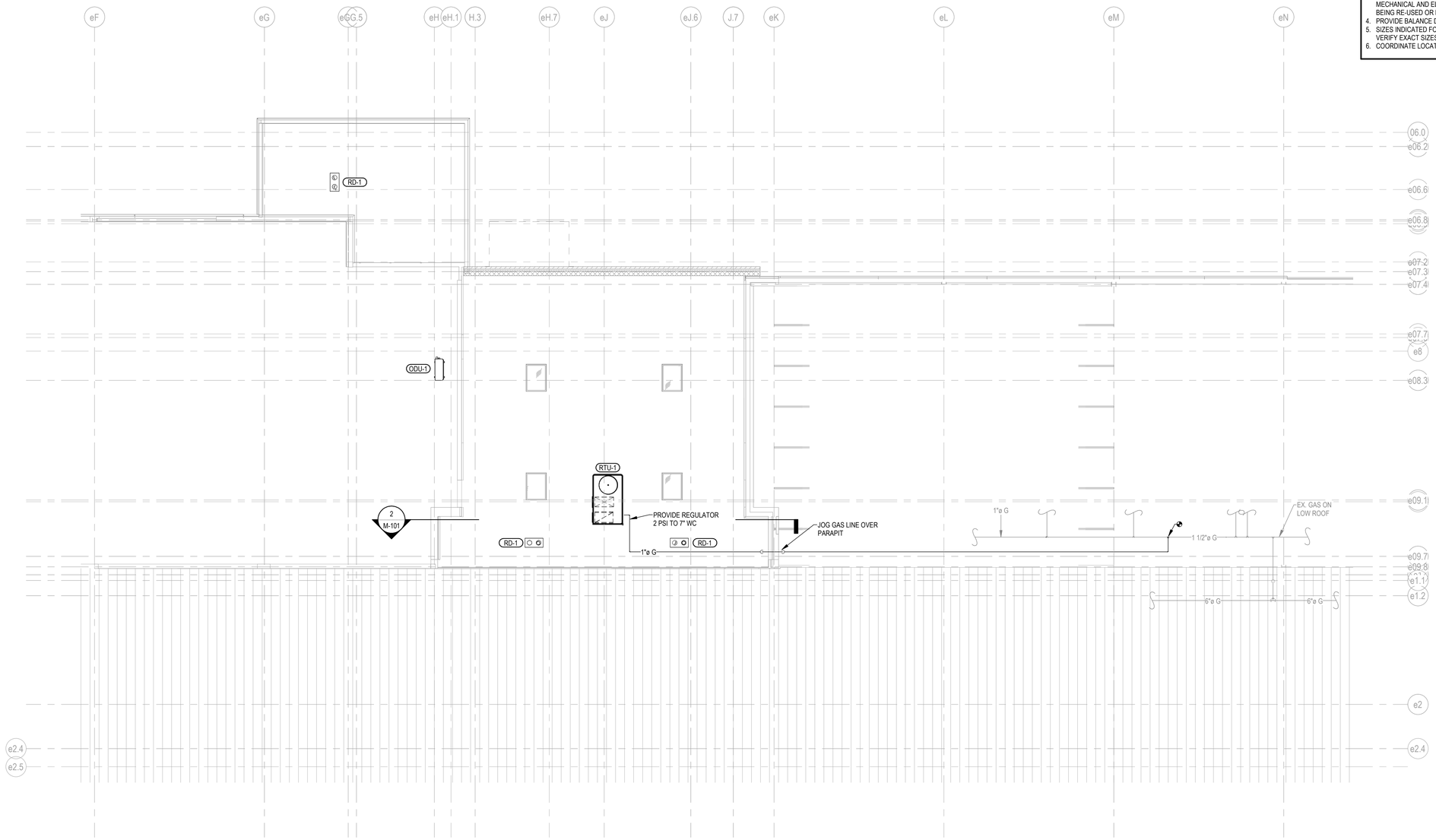

1 PARTIAL ROOF MECHANICAL PLAN

1/8" = 1'-0"

N

KEY PLAN

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

PARTIAL ROOF MECHANICAL PLAN

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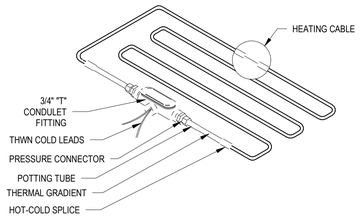
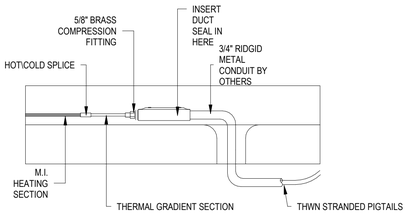
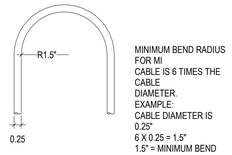


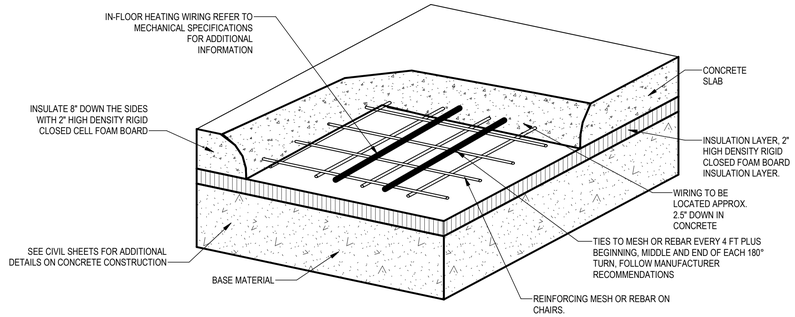
8 SINGLE CONDUCTOR M.I. CABLE ASSEMBLY
N.T.S



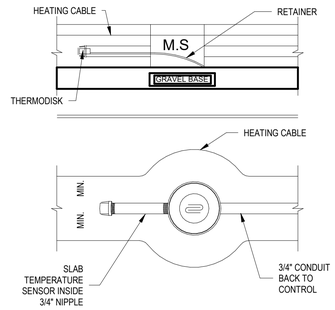
7 TYPICAL SECTIONAL DETAIL
N.T.S



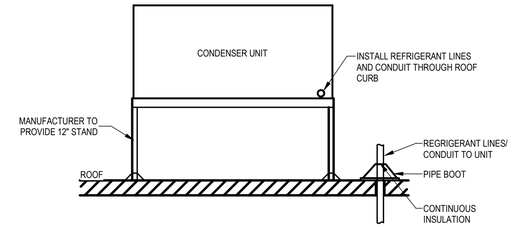
6 MINIMUM BEND RADIUS FOR MI CABLE
N.T.S



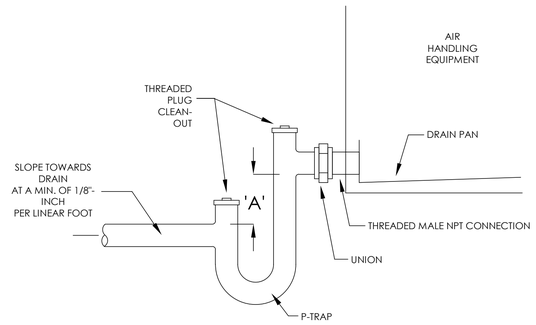
5 SNOW MELT CONCRETE DETAIL
N.T.S



4 SENSOR DETAILS
N.T.S



3 ROOF MOUNTED CONDENSER DETAIL
N.T.S



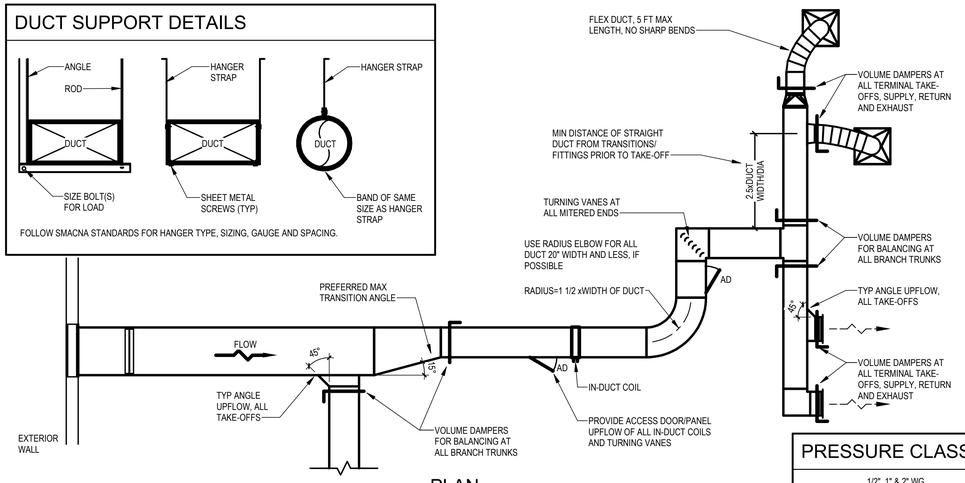
NOTES:
1. CONDENSATE PIPE SIZE SHALL BE FULL SIZE OF UNIT DRAIN CONNECTION, MIN. SIZE OF 3/4-INCH.
2. STEM HEIGHT 'A' SHALL BE A MINIMUM OF 1-INCH GREATER THAN FAN SUCTION PRESSURE. MINIMUM HEIGHT SHALL BE 3-INCHES.

2 CONDENSATE DRAIN TRAP DETAILS
N.T.S

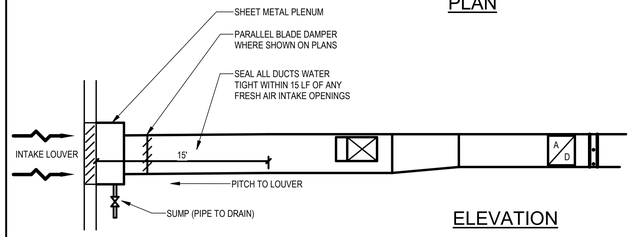
DUCTWORK REQUIREMENTS

DUCT SUPPORT DETAILS

FOLLOW SMACNA STANDARDS FOR HANGER TYPE, SIZING, GAUGE AND SPACING.



PLAN



ELEVATION

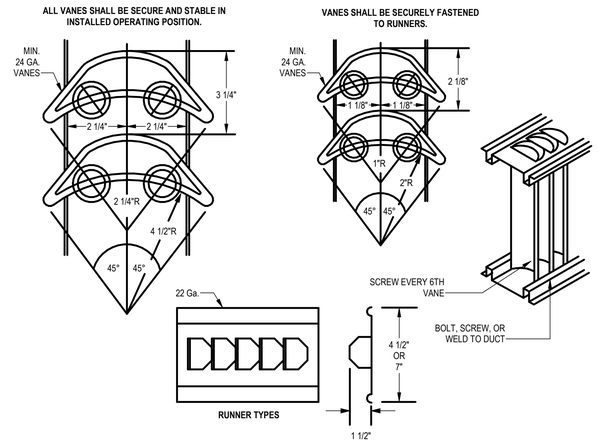
PRESSURE CLASS

1/2", 1" & 2" WG
CFM PER 100 SQ FT @ 1" WG

SEAL CLASS	C
RECTANGULAR DUCT	24
ROUND DUCT	12

NOTES

1. ITEMS AS SHOWN ARE THE MINIMUM REQUIRED AND SHALL BE PROVIDED BY THE CONTRACTOR WHETHER SHOWN ON THE FOLLOWING PLANS OR NOT.
2. LISTED DUCT SIZES INDICATE THE INSIDE CLEAR DIMENSIONS, NOT INCLUDING DUCT LINER.
3. ALL FLAT SURFACES ON DUCTS AND FITTINGS SHALL BE EITHER CROSS BROKE OR BEADED.
4. DUCT SEAMS SHALL BE EITHER PITTSBURG OR BUTTON LOCK.
5. STANDING RIB CLEATS ARE REQUIRED ON DUCTS HAVING WIDTHS OF 24" OR MORE.
6. ALL JOINTS IN SHEET METAL SHALL BE SEALED WITH AN APPROVED DUCT SEALANT.
7. ALL DAMPERS MUST HAVE A POSITION INDICATOR ON THE SHAFT.
8. DAMPERS GREATER THAN 8" IN WIDTH MUST BE OPPOSED BLADE.



1 TYPICAL TURNING VANE DETAIL
N.T.S

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

MECHANICAL DETAILS

M-501

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ROOF TOP UNIT SCHEDULE

MARK	SERVICE	LOCATION	SA CFM	OA CFM	ESP (IN-WG)	SUPPLY FAN					COOLING DATA					GAS HEATING						ELECTRICAL				NOTES
						TYPE	QUANTITY	MOTOR HP	RPM	ESP (IN-WG)	REFRIGERANT	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT DB/WB (°F)	LAT DB/WB (°F)	PRESSURE	EDB (°F)	LDB (°F)	INPUT (MBH)	OUTPUT (MBH)	MIN EFFICENCY	V/PH/HZ	MCA	MOCP	FILTER	
RTU-1	171 MULTI-USE RM	ROOF	3,000	620	1.5	BC PLENUM	1	3	1319	1.54	R-454B	90.4	75	78.24/64.69	54.95/54.46	7" WC	57	106	200	162	80%	460/3/60	22	25	MERV-8	ALL

NOTES:
1. INCLUDE WITH MODULATING HOT GAS REHEAT.
2. 10:1 MINIMUM GAS HEATING TURNDOWN.
3. FULL ENTHALPY ECONOMIZING.
4. 12" MINIMUM ABOVE ROOF INSULATED CURB.
5. UNIT TO HAVE 3 STAGE COOLING.
6. INCLUDE DUCT MOUNTED HUMIDITY SENSOR FOR REHEAT CONTROL.
7. INCLUDE DUCT MOUNTED CO2 SENSOR FOR OA MODULATION.
8. UNIT TO CONTAIN STAND ALONE CONTROLS. PROVIDE REMOTE PROGRAMMABLE SENSOR. REFER TO SEQUENCE OF OPERATION SHEET M-602.
9. INCLUDE SMOKE DETECTOR, PROVIDED BY THE ELECTRICAL CONTRACTOR, INSTALLED BY THE MECHANICAL CONTRACTOR.

MINI-SPLIT INDOOR UNIT SCHEDULE

MARK	LOCATION	TYPE	COOLING CAPACITY (BTU/HR)	HEATING CAPACITY (BTU/HR)	SUPPLY CFM (L / M / H)	SEER 2	HSPF2	V/PH/HZ	MANUFACTURER	MODEL	NOTES
IDU-1	VESTIBULE	SLIM DUCT	24000	28000	512/636/742	19.3	9	208/1/60	MITSUBISHI	PEAD-AA24NL	ALL

NOTES:
1. INDOOR UNIT IS POWERED BY THE OUTDOOR UNIT.
2. PROVIDE WITH CONDENSATE PUMP AND REMOTE PROGRAMMABLE THERMOSTAT.
3. COOLING CAPACITIES BASED ON INDOOR TEMPERATURES OF 80 DEG F DB / 67 DEG F WB.
4. HEATING CAPACITIES BASED ON INDOOR TEMPERATURES OF 70 DEG F DB / 60 DEG F WB.

MINI-SPLIT OUTDOOR UNIT SCHEDULE

MARK	LOCATION	SERVICE	NOMINAL CAPACITY (TONS)	ELECTRICAL			MANUFACTURER	WEIGHT	MODEL	NOTES
				V/PH/HZ	MCA	MOCP				
ODU-1	ON ROOF	IDU-1	2	208/1/60	24	40	MITSUBISHI	231	PUZ-AK24NLHZ	ALL

NOTES:
1. SINGLE POINT POWER CONNECTION. OUTDOOR UNIT POWERS THE INDOOR UNIT.
2. PROVIDE WITH DISCONNECT SWITCH.
3. PROVIDE WITH LOW AMBIENT WIND BAFFLE. UNIT TO OPERATE DOWN TO -40°F.
4. PROVIDE WITH 12" STAND.
5. COOLING CAPACITIES BASED ON INDOOR TEMPERATURES OF 80 DEG F DB / 67 DEG F WB.
6. HEATING CAPACITIES BASED ON INDOOR TEMPERATURES OF 70 DEG F DB / 60 DEG F WB.

ELECTRIC SNOWMELT SCHEDULE

CIRCUIT	HEATING LENGTH(FT)/ SPACING(IN)	THERMAL GRADIENT LENGTH (FT)	COLD LEAD LENGTH (FT)	CABLE TYPE	WATTS/FT	TOTAL KW	VOLTAGE	AMPS	NOTES
1-18	249/6	2.5	VIF	1 CONDUCTOR MINERAL INSULATED	24.78	6.17	460/1	12.8	ALL

NOTES:
1. BASED ON DELTA THERM.
2. PROVIDE WITH (1) 12 CIRCUIT RELAY PANEL.
3. PROVIDE WITH AUTOMATIC SNOW MELTING CONTROLLER (120V).
4. PROVIDE WITH GROUND SLAB SENSOR FOR TEMPERATURE AND HUMIDITY IN HOUSING.
5. PROVIDE WITH AERIAL MOUNTED SNOW SENSOR.
6. PROVIDE WITH REMOTE CONTROL PANEL.
7. PROVIDE WITH BRASS MARKER EMBEDDED IN CONCRETE.

ELECTRIC FIN TUBE RADIATION SCHEDULE

MARK	LOCATION	V/PH/HZ	KW	LENGTH	MANUFACTURER	MODEL	NOTES
FTR-1	STORAGE 101A	115/1/60	1.0	8'	STERLING	SBT-PD	1

NOTES: 1. PROVIDE WITH THERMOSTAT & WIREMOLD AS NECESSARY.

AIR TERMINAL SCHEDULE

MARK	SUPPLY	RETURN	FLOW (CFM)	DIMENSIONS (IN)	DUCT CONNECTOR (IN)	MANUFACTURER	MODEL	NOTES
101.1	X		300	24X24	10	PRICE	SPD	ALL
101.2	X		225	36x8	8	PRICE	SDS150 3 SLOT	ALL
101.3	X		225	36x8	8	PRICE	SDS150 3 SLOT	ALL
101.4		X	750	24x12		PRICE	80	ALL
171.1	X		200	10X6		PRICE	SDG	ALL
171.2	X		200	10X6		PRICE	SDG	ALL
171.3	X		200	10X6		PRICE	SDG	ALL
171.4	X		200	10X6		PRICE	SDG	ALL
171.5	X		300	10X8		PRICE	SDG	ALL
171.6	X		200	10X6		PRICE	SDG	ALL
171.7	X		200	10X6		PRICE	SDG	ALL
171.8	X		200	10X6		PRICE	SDG	ALL
171.9	X		200	10X6		PRICE	SDG	ALL
171.10	X		300	10X8		PRICE	SDG	ALL
171.11	X		200	10X6		PRICE	SDG	ALL
171.12	X		200	10X6		PRICE	SDG	ALL
171.13	X		200	10X6		PRICE	SDG	ALL
171.14	X		200	10X6		PRICE	SDG	ALL
171.15		X	1,500	36X18		PRICE	630	ALL
171.16		X	1,500	36X18		PRICE	630	ALL

NOTES:
1. NOISE CRITERIA NOT TO EXCEED 25.
2. AIR DEVICE FINISH TO BE DETERMINED BY OWNER & ARCHITECT.
3. AIR DEVICES ARE TO BE SUPPLIED WITH OPPOSED BLADE DAMPER OR DUCT DAMPER INSTALLED.
4. CONTRACTOR TO COORDINATE BORDER WITH CEILING TYPE (LAY-IN OR PLASTER).

MECHANICAL PIPE INSULATION SCHEDULE

ITEM	THICKNESS	INSULATION TYPE	JACKET TYPE	MINIMUM INSTALLED R-VALUE	NOTES
REFRIGERANT SUCTION	1"	ELASTOMERIC	PROVIDE UV PROTECTION COATING IF OUTDOORS	6	
REFRIGERANT LIQUID	1"	ELASTOMERIC	PROVIDE UV PROTECTION COATING IF OUTDOORS	6	

INDOOR DUCT INSULATION SCHEDULE

ITEM	THICKNESS	INSULATION TYPE	JACKET TYPE	MINIMUM INSTALLED R-VALUE	NOTES
CONCEALED, ROUND AND FLAT-OVAL, SUPPLY AIR DUCT	1-1/2"	FIBERGLASS BLANKET	FACTORY APPLIED FSK	3.5	
CONCEALED, RECTANGULAR, SUPPLY AIR DUCT	1-1/2"	FIBERGLASS BLANKET	FACTORY APPLIED FSK	3.5	
CONCEALED, RECTANGULAR, RETURN AIR DUCT	1-1/2"	FIBERGLASS BLANKET	FACTORY APPLIED FSK	3.5	
CONCEALED SUPPLY AIR PLENUM	1-1/2"	FIBERGLASS BLANKET	FACTORY APPLIED FSK	3.5	
CONCEALED RETURN AIR PLENUM	1-1/2"	FIBERGLASS BLANKET	FACTORY APPLIED FSK	3.5	
EXPOSED, ROUND AND FLAT-OVAL, SUPPLY AIR DUCT	1-1/2"	FIBERGLASS BLANKET SEE NOTES	FACTORY APPLIED PSK	3.5	NOT INSULATED UNLESS OTHERWISE NOTED
EXPOSED, RECTANGULAR, SUPPLY AIR DUCT	1-1/2"	FIBERGLASS BOARD	FACTORY APPLIED PSK	3.5	NOT INSULATED UNLESS OTHERWISE NOTED
EXPOSED, RECTANGULAR, EXHAUST AIR DUCT	2	FIBERGLASS BOARD SEE NOTES	FACTORY APPLIED PSK	6	NOT INSULATED UNLESS 10 FT FROM EXTERIOR WALL OR IN UNCONDITIONED SPACES
EXPOSED, RECTANGULAR, RETURN AIR DUCT	1-1/2"	FIBERGLASS BOARD SEE NOTES	FACTORY APPLIED PSK	3.5	NOT INSULATED UNLESS IN UNCONDITIONED SPACES
EXPOSED SUPPLY AIR PLENUM	1-1/2"	SEE NOTES	FACTORY APPLIED PSK	3.5	FIBERGLASS BLANKET SHALL BE USED IN UNOCCUPIED AREAS, FIBERGLASS BOARD SHALL BE USED IN OCCUPIED AREAS OR WHERE NOTED
EXPOSED RETURN AIR PLENUM	1-1/2"	SEE NOTES	FACTORY APPLIED PSK	3.5	FIBERGLASS BLANKET SHALL BE USED IN UNOCCUPIED AREAS, FIBERGLASS BOARD SHALL BE USED IN OCCUPIED AREAS OR WHERE NOTED

ALL DUCTS WITHIN 25' OF MOTORS, INSTALL 1" MANVILLE LINO-COUSTIC DUCT LINER OR EQUAL, EXCLUDING OUTSIDE AIR DUCT. DUCT LINER IS FOR ACOUSTICAL PURPOSES ONLY AND EXTERNAL INSULATION IS REQUIRED AS SPECIFIED.

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ISSUED FOR: BIDS
3/25/2026

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PM CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

MECHANICAL SCHEDULES

M-601

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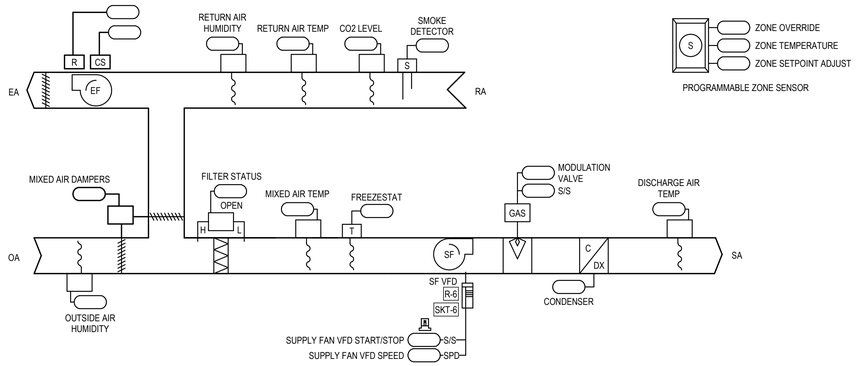

1 RTU-1 SEQUENCE OF OPERATION
N.T.S

PROGRAMMABLE ZONE SENSOR

RTU SHALL RUN ON STAND ALONE CONTROLS FROM THE UNIT CONTROLLER, CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY SENSORS & ASSOCIATED DEVICES SHOWN FOR CONTROL THAT ARE NOT FACTORY OPTIONS ON THE UNIT.

OCCUPIED:
DURING OCCUPIED PERIODS, THE SUPPLY AND EXHAUST FAN SHALL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER SHALL OPEN TO MAINTAIN MINIMUM VENTILATION REQUIREMENTS. THE DX COOLING SHALL STAGE AND THE GAS HEATING VALVE SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. IF ECONOMIZING IS ENABLED THE OUTSIDE AIR DAMPER SHALL ALSO MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. IF THE DISCHARGE AIR TEMPERATURE SENSOR FAILS THE DX COOLING SHALL BE DISABLED, THE GAS HEATING VALVE SHALL CLOSE AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS.

UNOCCUPIED:
WHEN UNOCCUPIED, THE SUPPLY FAN SHALL CYCLE TO MAINTAIN NIGHTIME SETBACK TEMPERATURES. THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED.
UNOCCUPIED TEMPERATURE SHALL BE 60 DEG F (ADJ). WHEN OUTSIDE AIR TEMPERATURE IS BELOW 60 DEG F.
UNOCCUPIED TEMPERATURE SHALL BE 75 DEG F (ADJ) WHEN OUTSIDE AIR TEMPERATURE IS ABOVE 60 DEG F.

OPTIMAL START:
THE UNIT CONTROLLER SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED ZONE SETPOINTS AND ZONE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS. AT OPTIMAL START, THE UNIT SHALL BE ENERGIZED AS NEEDED WITH THE OUTSIDE AIR DAMPER CLOSED. HEATING SHALL BE ENABLED WHENEVER THE OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F (ADJ.). ON A RISE IN SPACE TEMPERATURE TO 70°F (ADJ.), THE UNIT SHALL ENTER OCCUPIED MODE.

FREEZE PROTECTION:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS.

RETURN AIR SMOKE DETECTION:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A RETURN AIR SMOKE DETECTOR STATUS.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE RTU UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFETIES. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME. THE SUPPLY FAN SPEED SHALL BE SET BY THE BALANCER BASED ON SCHEDULED AIRFLOWS.

EXHAUST FAN:
THE EXHAUST FAN SHALL RUN ANYTIME THE RTU UNIT IS COMMANDED TO RUN, UNLESS SHUTDOWN ON SAFTIES. TO PREVENT SHORT CYCLING THE EXHAUST FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINUMUM RUNTIME. THE EXHAUST FAN SHALL RUN ACCORDING TO FACTORY SETTINGS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

ALARMS SHALL BE PROVIDED AS FOLLOWS:
SUPPLY FAN VFD FAULT.
EXHAUST FAN FAULT.

DISCHARGE AIR TEMPERATURE SETPOINT:
MONITOR THE DISCHARGE AIR TEMPERATURE AND SHALL MAINTAIN A DISCHARGE AIR TEMPERATURE SETPOINT RESET BASED ON DEVIATION FROM ZONE TEMPERATURE. BELOW 60 DEG F (ADJ.) HEATING MODE SHALL BE ACTIVE, AND ABOVE 65 DEG F (ADJ.) COOLING MODE SHALL BE ACTIVE.

IN HEATING MODE:
THE INITIAL DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE 82°F (ADJ.)
AS HEATING DEMAND INCREASES, THE SETPOINT SHALL INCREMENTALLY RESET UP TO A MAXIMUM OF 85°F (ADJ.).
AS HEATING DEMAND DECREASES, THE SETPOINT SHALL INCREMENTALLY RESET DOWN TO A MINIMUM OF 72°F (ADJ.).
IN COOLING MODE:
THE INITIAL DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE 60°F (ADJ.)
AS COOLING DEMAND INCREASES, THE SETPOINT SHALL INCREMENTALLY RESET UP TO A MINIMUM OF 55°F (ADJ.).
AS COOLING DEMAND DECREASES, THE SETPOINT SHALL INCREMENTALLY RESET DOWN TO A MINIMUM OF 68°F (ADJ.).

COOLING STAGE:
SHALL MEASURE THE DISCHARGE AIR TEMPERATURE AND STAGE THE COOLING TO MAINTAIN ITS COOLING SETPOINT. TO PREVENT SHORT CYCLING, THE STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.
THE COOLING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS GREATER THAN 65°F (ADJ.).
AND THE ECONOMIZER IS DISABLED OR FULLY OPEN.
AND THE SUPPLY FAN STATUS IS ON.
AND THE HEATING IS NOT ACTIVE.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS 5°F (ADJ.) GREATER THAN SETPOINT.
COMPRESSOR FAULT.

GAS HEATING STAGE:
THE HEATING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS LESS THAN 60°F (ADJ.).
AND THE SUPPLY FAN STATUS IS ON.
THE GAS HEATING VALVE SHALL MODULATE ACCORDING TO FACTORY SETTINGS TO MEET SETPOINTS STATED ABOVE ON HEATING MODE.
THE GAS HEATING VALVE SHALL OPEN WHENEVER:
DISCHARGE AIR TEMPERATURE DROPS FROM 40°F TO 35°F (ADJ.).
OR THE FREEZESTAT IS ON.
AND THE SUPPLY FAN IS ON.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
LOW DISCHARGE AIR TEMP: IF THE DISCHARGE AIR TEMPERATURE IS 5°F (ADJ.) LESS THAN SETPOINT.

ECONOMIZER:
SHALL MEASURE THE MIXED AIR TEMPERATURE AND MODULATE THE MIXED AIR DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2°F (ADJ.) LESS THAN THE DISCHARGE AIR TEMPERATURE SETPOINT.
THE OUTSIDE AIR DAMPERS SHALL MAINTAIN A MINIMUM ADJUSTABLE POSITION PER RTU SCHEDULE WHENEVER OCCUPIED.

DURING ECONOMIZING THE EXHAUST FAN SHALL RUN.
THE ECONOMIZER SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F (ADJ.).
AND THE OUTSIDE AIR ENTHALPY IS LESS THAN 22 BTU/LB (ADJ.)
AND THE OUTSIDE AIR TEMPERATURE IS LESS THAN THE RETURN AIR TEMPERATURE.
AND THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY.
AND THE SUPPLY FAN STATUS IS ON.

MIXED AIR DAMPERS SHALL RETURN TO MINIMUM ADJUSTABLE POSITION WHENEVER:
MIXED AIR TEMPERATURE DROPS FROM 40°F TO 35°F (ADJ.).
OR THE FREEZESTAT IS ON.
OR ON LOSS OF SUPPLY FAN STATUS.
THE MIXED AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN WHEN THE UNIT IS OFF. DURING OPTIMAL START UP THE MIXED AIR DAMPER SHALL OPERATE AS DESCRIBED IN THE OCCUPIED MODE EXCEPT THAT THE OUTSIDE AIR DAMPER SHALL MODULATE TO FULLY CLOSED.

CO2 CONTROL:
DURING OCCUPIED MODE, THE RTU SHALL BE STARTED AT ITS MINIMUM OUTSIDE AIR VOLUME SHOWN ON THE RTU SCHEDULE. THE CO2 LEVEL SHALL BE MONITORED BY THE CO2 SENSOR IN THE RETURN DUCT AT THE RTU. IF THE CO2 LEVEL EXCEEDS 600 PPM (ADJ.) FOR 10 MINUTES (ADJ.) THE OUTSIDE AIR DAMPER SHALL BEGIN TO MODULATE OPEN PROPORTIONALLY. IF CO2 LEVELS EXCEED 1000 PPM (ADJ.) THE OUTSIDE DAMPER SHALL OPEN FULLY. IF CO2 LEVELS EXCEED 1200 PPM, AN ALARM IS GENERATED.

RETURN AIR HUMIDITY:
MONITOR THE RETURN AIR HUMIDITY AND USE AS REQUIRED FOR ECONOMIZER CONTROL.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR HUMIDITY: IF THE RETURN AIR HUMIDITY IS GREATER THAN 70% (ADJ.).

RETURN AIR TEMPERATURE:
MONITOR THE RETURN AIR TEMPERATURE AND HUMIDITY FOR ENTHALPY CALCULATION AND ECONOMIZER FUNCTION.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS GREATER THAN 90°F (ADJ.).
LOW RETURN AIR TEMP: IF THE RETURN AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

DISCHARGE AIR TEMPERATURE:
MONITOR THE DISCHARGE AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH SUPPLY AIR TEMP: AIR TEMPERATURE IS GREATER THAN 120°F (ADJ.).
LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

MECHANICAL DIAGRAMS

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ELECTRICAL ABBREVIATIONS

_SPECIAL	
Φ	PHASE
A	
A	AMPERE
AFF	ABOVE FINISHED FLOOR
C	
C	CONDUIT
CAT	CATALOGUE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CMU	CONCRETE MASONRY UNIT
CO.	COMPANY
CUH	CABINET UNIT HEATER
E	
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EWC	ELECTRIC WATER COOLER
F	
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
G	
G	GROUND FAULT CIRCUIT INTERRUPTER
GND	EQUIPMENT GROUND
H	
HVAC	HEATING VENTILATING & AIR CONDITIONING
K	
K	KEY OPERATED DEVICE
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
L	
LED	LIGHT EMITTING DIODE
M	
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MISC	MISCELLANEOUS
MLO	MAIN LUG ONLY
MTD	MOUNTED
N	
NEU	NEUTRAL
No.	NUMBER
P	
PL	PILOT
R	
RECEPT	RECEPTACLE
T	
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
U	
UGE	UNDERGROUND ELECTRIC
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
V	
V	VOLT
VA	VOLT-AMPERES
W	
W	WIRE
WAP	WIRELESS ACCESS POINT
WP	WEATHERPROOF
X	
XFMR	TRANSFORMER

GENERAL NOTES - ELECTRICAL

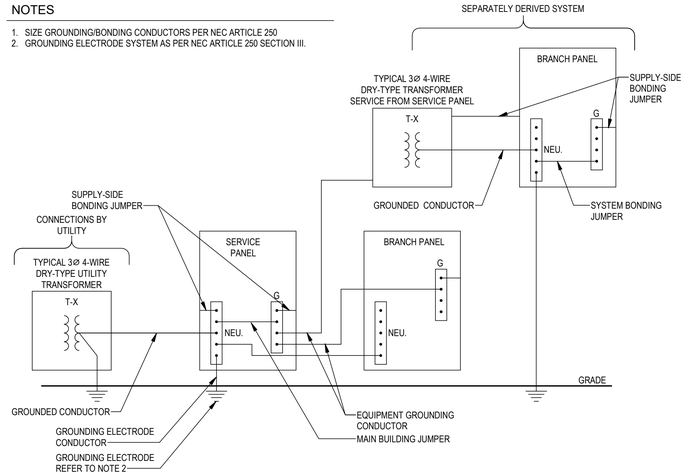
1. ALL ELECTRICAL INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT NATIONAL ELECTRICAL CODE, CURRENT STATE OF MICHIGAN ELECTRICAL CODE (PART 8), AND ANY LOCAL AMENDMENTS.
2. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF AN ELECTRICAL PERMIT AND SCHEDULING OF THE NECESSARY INSPECTIONS. UPON COMPLETION OF THE WORK THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE OWNER EVIDENCE OF INSPECTION APPROVAL.

GROUNDING BONDING DIAGRAM

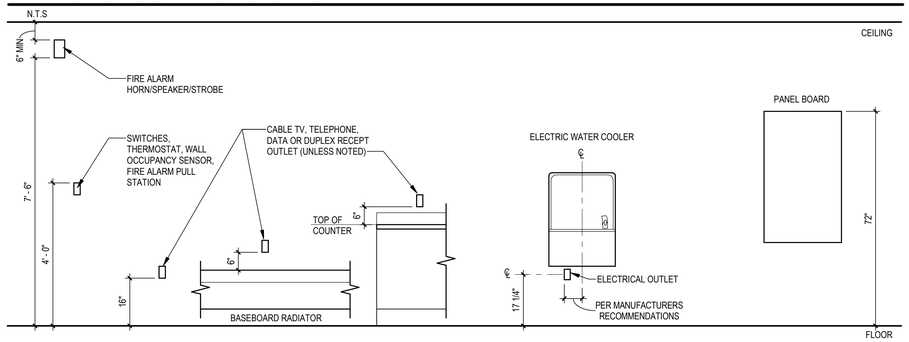
N.T.S

NOTES

1. SIZE GROUNDING/BONDING CONDUCTORS PER NEC ARTICLE 250
2. GROUNDING ELECTRODE SYSTEM AS PER NEC ARTICLE 250 SECTION III.



TYPICAL MOUNTING HEIGHTS



ELECTRICAL SYMBOLS LEGEND

LIGHT FIXTURES

- e LF-1 — LIGHT FIXTURE INDICATOR
- H — HUB CONTROLLER
- Z — LIGHTING ZONE
- SURFACE / CEILING MOUNT
- EMERGENCY SURFACE / CEILING MOUNT
- PENDANT / CHAIN MOUNT
- EMERGENCY PENDANT / CHAIN MOUNT
- RECESSED MOUNT
- EMERGENCY RECESSED MOUNT
- COMBINATION FAN / LIGHT
- TRACK STRIP
- (INT.) (EXT.) WALL MOUNT
- (INT.) (EXT.) EMERGENCY WALL MOUNT
- EXTERIOR POLE MOUNT
- EXTERIOR POST MOUNT
- EMERGENCY WALL PACK
- (WALL) (CEILING) (W/ LIGHTS) EXIT SIGN
- (LIGHT)(NO LIGHT) CEILING FAN

POWER DISTRIBUTION

- DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- COMBINATION MOTOR STARTER WITH DISCONNECT SWITCH
- MOTOR STARTER
- M — ELECTRICAL METER
- DP## — DISTRIBUTION PANEL
- PP## — ELECTRICAL POWER PANEL SURFACE MOUNT
- PP## — ELECTRICAL POWER PANEL FLUSH MOUNT
- LP## — LIGHITNG CONTROL PANEL
- R — RELAY
- T — ELECTRICAL TRANSFORMER
- PB — ELECTRICAL PULL BOX
- JUNCTION BOX
- (CLG) (WALL) (FLR)
- SINGLE PHASE MOTOR
- THREE PHASE MOTOR
- VFD — VARIABLE FREQUENCY DRIVE

RACEWAY / CONDUCTOR NOTES

1. MINIMUM SIZE OF RIGID CONDUIT SHALL BE 3/4".
2. MINIMUM SIZE OF FLEX CONDUIT SHALL BE 1/2".
3. MINIMUM SIZE WALL BOX IN CMU SHALL BE 4"X4".
4. MINIMUM SIZE OF UNDERGROUND CONDUIT SHALL BE 1 1/4".
5. CONDUIT AND CONDUCTORS NOT CALLED OUT ON PLANS SHALL BE 3/4" CONDUIT w/(2) #12AWG + #12 GND, UNO.

RECEPTACLE OUTLETS

- SIMPLEX RECEPTACLE
- DUPLEX GROUNDED RECEPTACLE
  - CTR MOUNTED ABOVE COUNTER
  - G GROUND FAULT CIRCUIT INTERRUPTER
  - GC GFCI - MOUNTED ABOVE COUNTER
  - T TAMPER-PROOF
  - U DUAL USB PORTS
  - UC DUAL USB PORTS ABOVE COUNTER
  - WP WEATHERPROOF RECEPT & COVER, GFI
- 208/240/480V, 1ϕ STRAIGHT BLADE RECEPTACLE
- QUADRUPLEX RECEPTACLE
- DUPLEX RECEPTACLE ON EMERGENCY POWER
- FLOOR BOX
- CEILING BOX
- SPECIALTY RECEPTACLE

SWITCHES

SWITCHES: X = DESIGNATION BELOW, H = HUB CONTROLLER, Z = LIGHTING ZONE

- 1 SINGLE POLE
- 2 TWO POLE
- 3 THREE WAY
- 4 FOUR WAY
- DM DIMMER
- F FAN
- K KEY OPERATED
- LV LOW VOLTAGE
- M MOTION DETECTION
- O OCCUPANCY SENSOR
- P PILOT LIGHT
- T TIMER

SENSORS

- D DAYLIGHT
- M MOTION DETECTION
- O OCCUPANCY
- V VACANCY
- H = HUB CONTROLLER
- Z = LIGHTING ZONE

(CEILING) (WALL)

- PUSH BUTTON
- EMERGENCY STOP BUTTON
- PC — PHOTOCELL
- CEILING MOUNTED PULL SWITCH
- H## — WIRELESS NETWORK LIGHTING CONTROLLER (HUB) H# = CONTROLLER INDICATOR
- SX — LIGHTING CONTROL SCHEME NUMBER

SECURITY

- CR — CARD READER
- DC — MAGNETIC SWITCH (DOOR CONTACT)
- DL — ELECTRONIC DOOR LOCK
- DO — MOTORIZED DOOR OPERATOR
- ES — ELECTRIC STRIKE
- K — KEYPAD ENTRY DEVICE
- EC — ENTRANCE CALL SYSTEM
- (CEILING) (WALL) (360 VIEW) SECURITY CAMERA
- PANIC ALARM SPEAKER/STROBE

FIRE ALARM SYSTEM

- OUTDOOR BELL / CHIME
- SMOKE DETECTOR
- SA — SMOKE DETECTOR WITH AUDIBLE BASE
- CO — SMOKE/CARBON MONOXIDE DETECTOR
- DUCT SMOKE DETECTOR
- HD — HEAT DETECTOR

(CLG) (WALL)

- FIRE ALARM HORN/STROBE
- FIRE ALARM STROBE
- FIRE ALARM SPEAKER
- FIRE ALARM SPEAKER/STROBE
- F — FIRE ALARM PULL STATION
- DH — ELECTROMAGNETIC DOOR HOLD OPEN
- ELR — END OF LINE RESISTOR
- FS — FIRE ALARM FLOW SWITCH
- PS — FIRE ALARM PRESSURE SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- FAA — FIRE ALARM ANNUNCIATOR PANEL
- FACP — FIRE ALARM CONTROL PANEL
- HSS — HOOD SUPPRESSION SYSTEM FIRE ALARM CONTACT

TELEPHONE/COMMUNICATIONS

(CLG) (WALL) (FLR) (FURN)

X = NUMBER AND TYPE OF PORTS

- C COAXIAL PORT
- D DATA PORT
- H HDMI PORT
- P PHONE PORT
- W WIRELESS ACCESS POINT

(CEILING) (WALL)

- SPEAKER
- IC — INTERCOM CALL BOX
- B — BELL
- M — MICROPHONE JACK
- PS — POWER SUPPLY
- WG — REQUIRES WIRE GUARD
- NURSE — NURSE CALL MAIN PANEL
- N — NURSE CALL PULL STATION
- NURSE CALL LIGHT
- CLOCK

OTHER SYMBOLS

- XX-X — EQUIPMENT INDICATOR
- e — INDICATES EXISTING

WIRES

	NEW	EXISTING	DEMOLISH
POWER CIRCUIT WIRING			
UNDERGROUND WIRING			
SWITCH LOOP WIRING			
UN-SWITCHED HOT WIRING			
LOW VOLTAGE WIRING			
DATA WIRING			

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ISSUED FOR: BIDS 3/25/2026

PROJECT NUMBER 0155-25-0010 PM CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd. Romulus, MI 48174

ELECTRICAL NOTES AND SYMBOLS

E-001

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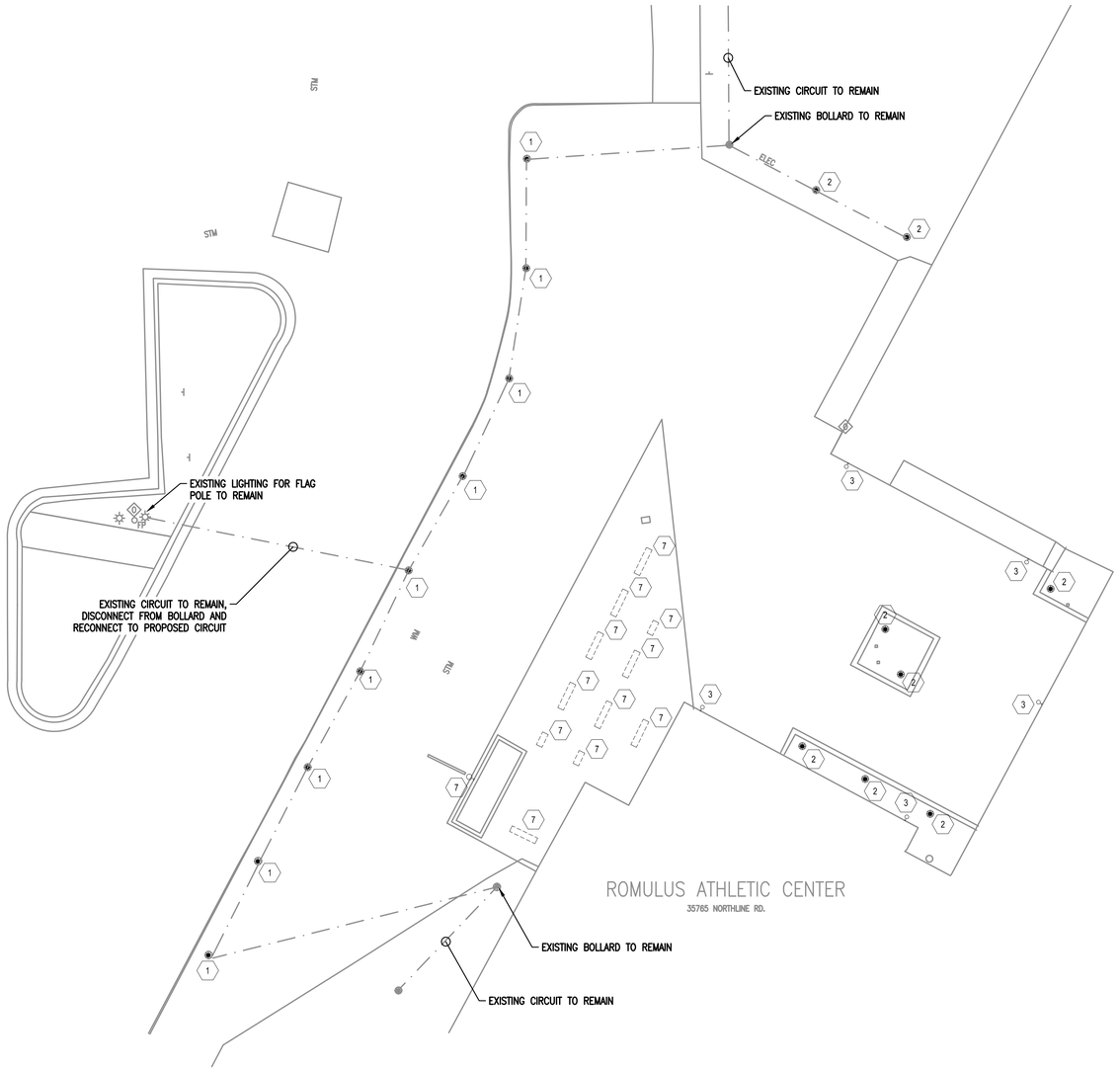
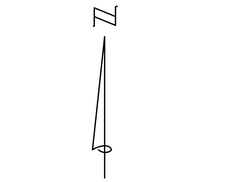


1 ELECTRICAL DEMOLITION SITE PLAN
1" = 10'



GENERAL DEMOLITION NOTES

1. DRAWINGS SHOW MAJOR DEMOLITION ONLY; THE CONTRACTOR SHALL PROVIDE ALL DEMOLITION FOR THE COMPLETION OF THE WORK WHETHER EXPLICITLY SHOWN OR NOT.
2. THE OWNER RESERVES THE RIGHT TO KEEP ANY REMOVED EQUIPMENT OR MATERIALS. ALL DEMOLITION DEBRIS TO BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED LANDFILL.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY EXTERIOR OPENINGS MADE FROM DEMOLITION WORK TO ENSURE THEY ARE WEATHER TIGHT AT THE END OF EACH DAY.
4. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL PATCHING WHERE CONDUITS AND JUNCTION BOXES ARE REMOVED UNLESS OTHERWISE NOTED.
5. ANY JUNCTION BOXES REMAINING IN PLACE THAT HAVE HAD DEVICES REMOVED ARE TO RECEIVE BLANK COVER PLATES MATCHING PROJECT REQUIREMENTS.
6. CONDUITS AND CONDUCTORS ABANDONED AS PART OF THE WORK SHALL BE DEMOLISHED WHERE NOT BURIED IN WALLS OR UNDERGROUND. CAP OR PLUG ANY ABANDONED CONDUITS THAT REMAIN.
7. WHERE DEVICES ARE REMOVED FROM THE MIDDLE OF A CIRCUIT, THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ROUTE THE CIRCUIT TO MAINTAIN CIRCUIT INTEGRITY TO REMAINING DEVICES.
8. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND IN EXISTING CONDITIONS.
9. CONTRACTOR TO COORDINATE WITH THE OWNER OR ENGINEER A MINIMUM OF 24 HOURS IN ADVANCE OF SHUTTING OFF OR DISCONNECTING ANY UTILITIES. CONTRACTOR TO ENSURE ALL EXISTING SYSTEMS TO REMAIN ARE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE ENGINEER/OWNER.
10. CONTRACTOR TO TAKE ALL PRECAUTIONS NECESSARY TO PROTECT ITEMS NOT INTENDED TO BE DEMOLISHED AND TO RESTORE TO EXISTING CONDITIONS ANY ITEMS DAMAGED THAT WERE NOT INTENDED TO BE DEMOLISHED.

ELECTRICAL DEMOLITION KEYNOTES

(#) DENOTES PLAN KEY NOTE ITEM USING NUMBERS BELOW.

1. EXISTING BOLLARDS TO BE REMOVED FOR SALVAGE AND REINSTALLED IN NEW SIDEWALK. REMOVAL SHALL INCLUDE ALL CABLING BACK TO SOURCE EQUIPMENT. ABANDON CONDUIT IN PLACE OR REMOVE COMPLETELY.
2. EXISTING BOLLARD TO BE REMOVED FOR SALVAGE.
3. EXISTING WALL MOUNTED LIGHT TO BE REMOVED FOR SALVAGE.
4. DISCONNECT CABINET UNIT HEATER. REMOVE CONDUCTORS BACK TO SOURCE.
5. DISCONNECT DOOR OPERATOR. REUSE CIRCUIT FOR NEW DOOR OPERATOR.
6. REMOVE LIGHT. REMOVE CONDUIT AND CONDUCTORS BACK TO SOURCE.
7. REMOVE LIGHT. EXISTING CIRCUIT LP-HE-41 TO BE REUSED FOR PROPOSED OUTDOOR LIGHTING.

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BIDS	3/25/2026

REVISION	DESCRIPTION

PROJECT NUMBER 0155-25-0010 | PM CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

ELECTRICAL DEMOLITION PLAN

ED101

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3/24/2026 11:10:49 AM

GENERAL NOTES - ELECTRICAL DEMOLITION

1. DRAWINGS SHOW MAJOR DEMOLITION ONLY; THE CONTRACTOR SHALL PROVIDE ALL DEMOLITION FOR THE COMPLETION OF THE WORK WHETHER EXPLICITLY SHOWN OR NOT.
2. THE OWNER RESERVES THE RIGHT TO KEEP ANY REMOVED EQUIPMENT OR MATERIALS. ALL DEMOLITION DEBRIS TO BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED LANDFILL.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY EXTERIOR OPENINGS MADE FROM DEMOLITION WORK TO ENSURE THEY ARE WEATHER TIGHT AT THE END OF EACH DAY.
4. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL PATCHING WHERE CONDUITS AND JUNCTION BOXES ARE REMOVED UNLESS OTHERWISE NOTED.
5. ANY JUNCTION BOXES REMAINING IN PLACE THAT HAVE HAD DEVICES REMOVED ARE TO RECEIVE BLANK COVER PLATES MATCHING PROJECT REQUIREMENTS.
6. CONDUITS AND CONDUCTORS ABANDONED AS PART OF THE WORK SHALL BE DEMOLISHED WHERE NOT BURIED IN WALLS OR UNDERGROUND. CAP OR PLUG ANY ABANDONED CONDUITS THAT REMAIN.
7. WHERE DEVICES ARE REMOVED FROM THE MIDDLE OF A CIRCUIT, THE CONTRACTOR SHALL BE RESPONSIBLE TO RE-ROUTE THE CIRCUIT TO MAINTAIN CIRCUIT INTEGRITY TO REMAINING DEVICES.
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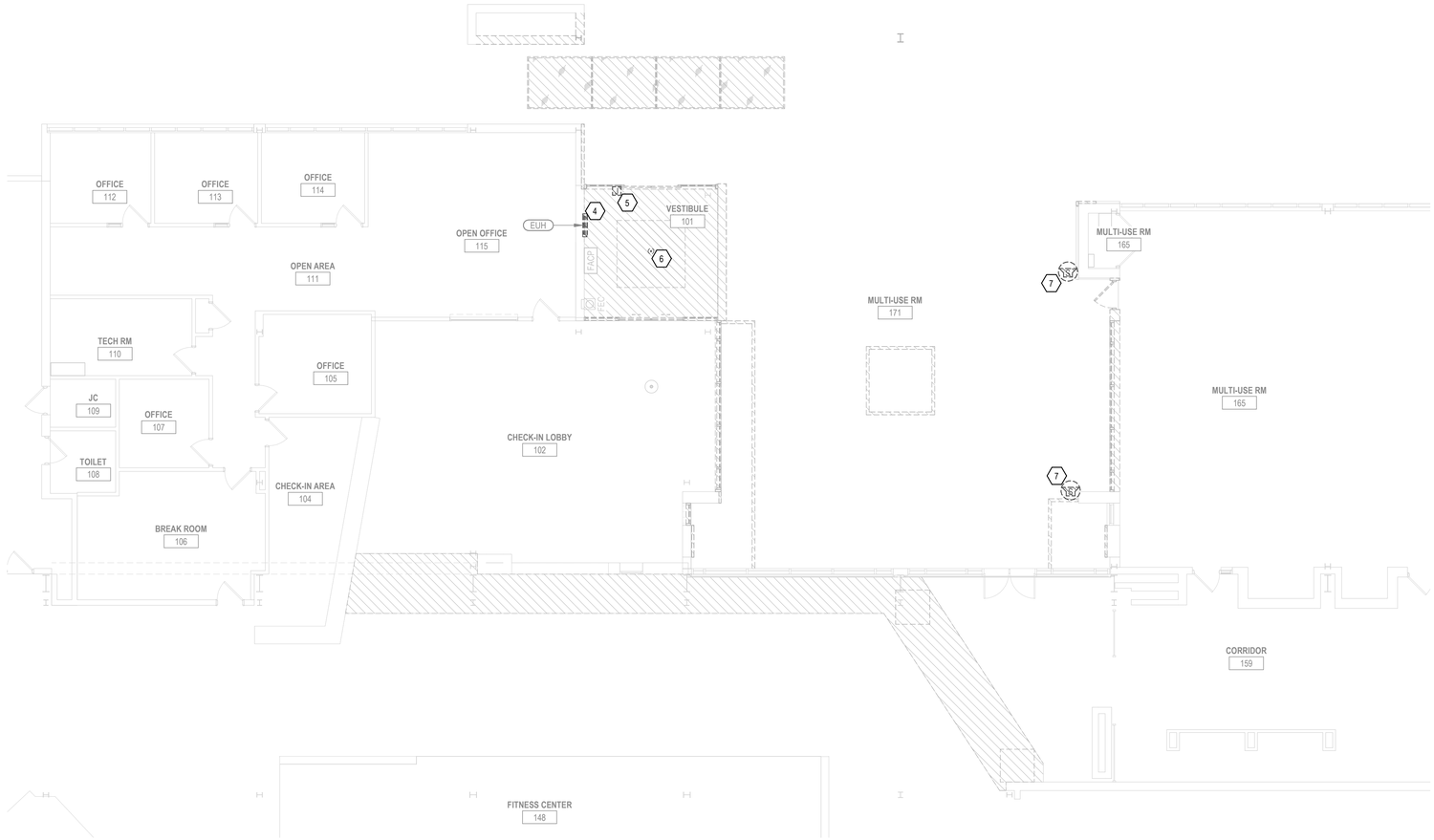
10. CONTRACTOR TO TAKE ALL PRECAUTIONS NECESSARY TO PROTECT ITEMS NOT INTENDED TO BE DEMOLISHED AND TO RESTORE TO EXISTING CONDITIONS ANY ITEMS DAMAGED THAT WERE NOT INTENDED TO BE DEMOLISHED.

(XX) SHEET KEYNOTES - ELEC. DEMOLITION

1	EXISTING BOLLARDS TO BE REMOVED FOR SALVAGE AND REINSTALLED IN NEW SIDEWALK.
2	EXISTING BOLLARD TO BE REMOVED FOR SALVAGE.
3	EXISTING WALL MOUNTED LIGHT TO BE REMOVED FOR SALVAGE.
4	DISCONNECT CABINET UNIT HEATER. REMOVE CONDUIT AND CONDUCTORS BACK TO SOURCE.
5	DISCONNECT DOOR OPERATOR, REUSE CIRCUIT FOR NEW DOOR OPERATOR.
6	REMOVE LIGHT. REMOVE CONDUIT AND CONDUCTORS BACK TO SOURCE.
7	EXISTING SPEAKERS TO BE REMOVED.



1 PARTIAL FIRST FLOOR ELECTRICAL DEMOLITION PLAN - ADDITION

1/8" = 1'-0"

N

KEY PLAN

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ISSUED FOR: BIDS

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

PARTIAL FIRST FLOOR ELECTRICAL DEMOLITION PLAN

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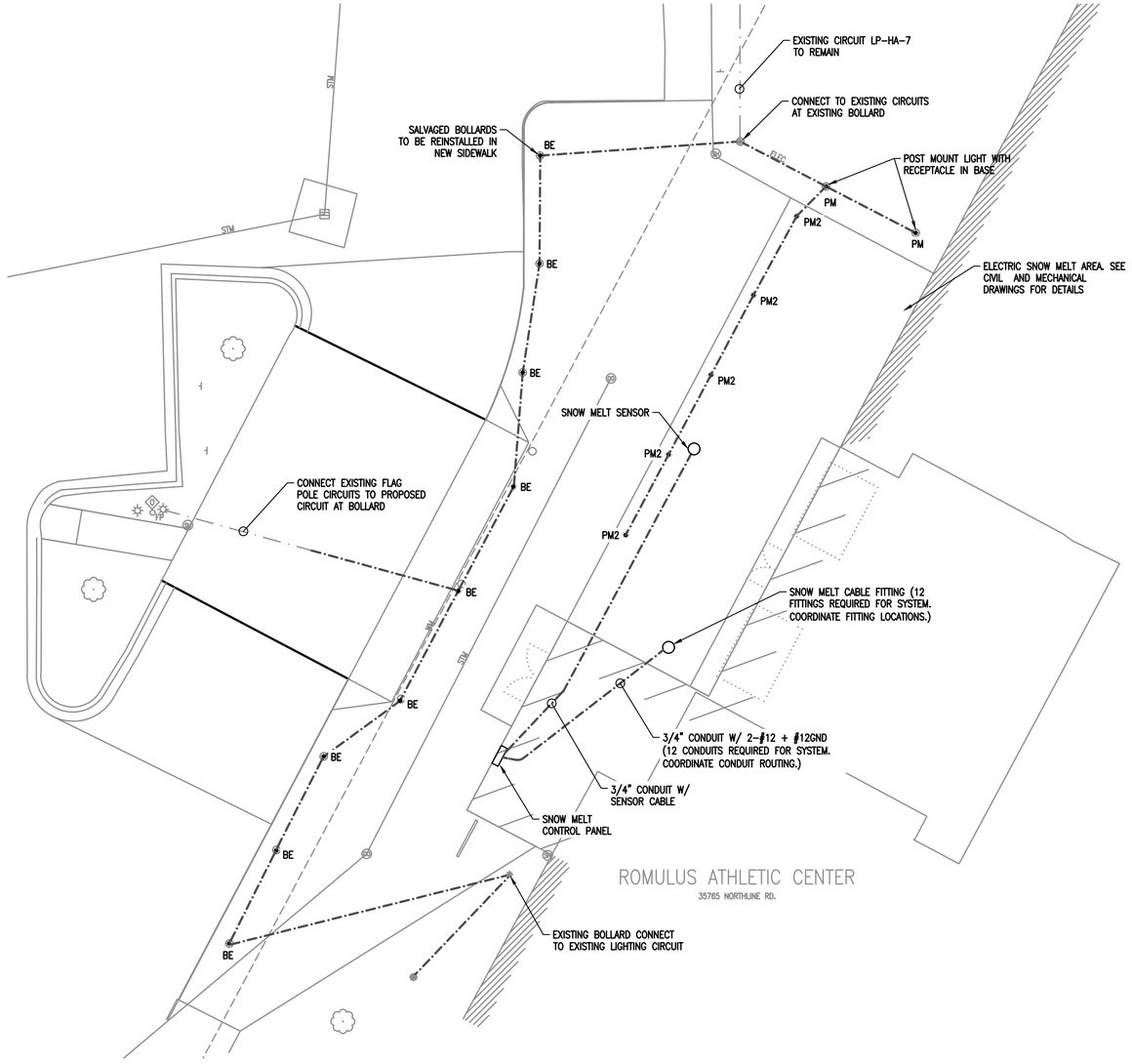

1 **ELECTRICAL SITE PLAN**
1" = 10'

N

GRAPHIC SCALE: FULL 20 feet / HALF 10 feet
0 5 10 20 30

NOTES:
1. REFER TO CIVIL AND MECHANICAL DRAWINGS FOR SPECIFIC DIMENSIONS AND REQUIREMENTS FOR THE SNOW MELT SYSTEM.
2. SNOW MELT SYSTEM REQUIRES 12 CABLE FITTINGS. COORDINATE LOCATIONS AND CONDUIT ROUTING.
3. SALVAGED TYPE BE FIXTURES TO BE REINSTALLED. RECONNECT TO EXISTING CIRCUITS.

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PROJECT NUMBER 0155-25-0010
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CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd. Romulus, MI 48174
ELECTRICAL SITE PLAN

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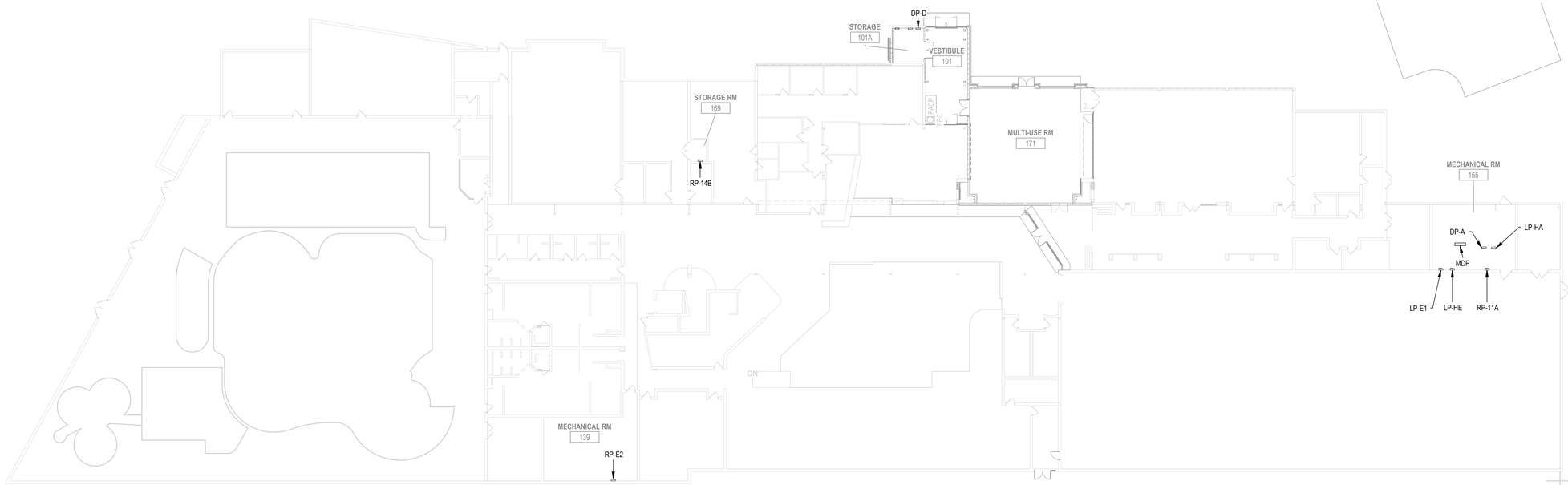

1 OVERALL FIRST FLOOR ELECTRICAL PLAN

3/64" = 1'-0"

N

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FIRST FLOOR ELECTRICAL PLAN

EP101

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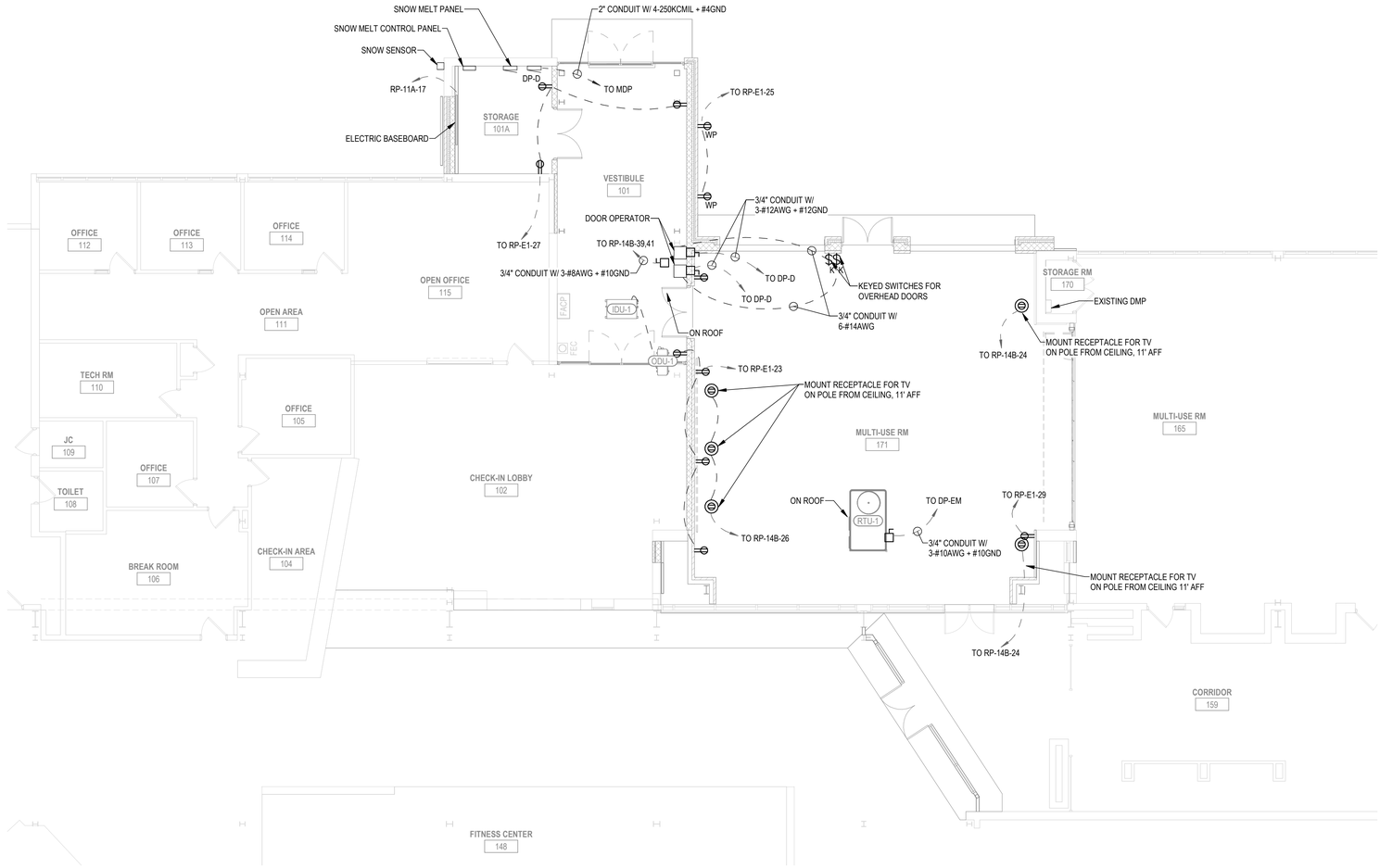

1 PARTIAL FIRST FLOOR POWER PLAN - ADDITION

1/8" = 1'-0"

KEY PLAN

N

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PARTIAL FIRST FLOOR POWER PLAN

EP102

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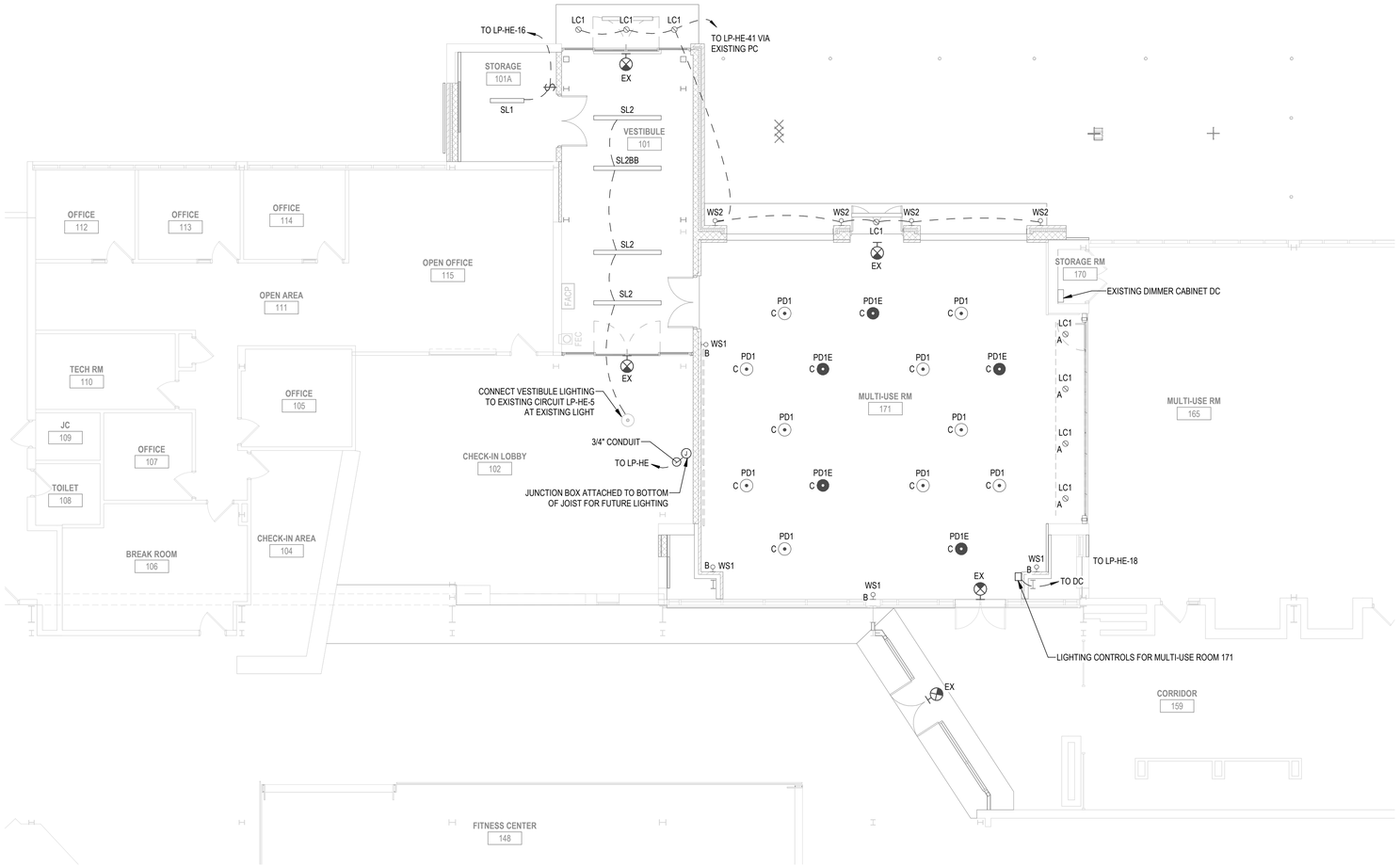
GENERAL NOTES - LIGHTING

1. OUTDOOR LIGHTING MOUNTED TO THE BUILDING, SHALL BE CONNECTED TO EXISTING OUTDOOR LIGHTING CIRCUITS LP-HE-41.
2. LIGHTING IN ROOM 171 SHALL BE CONNECTED TO DIMMER CONTROLS. THE DIMMER CABINET IN RM 170 SHALL CONTROL THE LIGHTING IN RM 171. THE LIGHTING SHALL BE DIVIDED INTO THREE ZONES FOR DIMMING. REFER TO DETAIL 5 ON SHEET E-501.
3. EXIT SIGNS AND BATTERY BACKUP FIXTURES REQUIRE UNSWITCHED HOT FROM ROOMS LIGHTING CIRCUIT.



1 PARTIAL FIRST FLOOR LIGHTING PLAN - ADDITION

1/8" = 1'-0"

N

KEY PLAN

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PARTIAL FIRST FLOOR LIGHTING PLAN

EL101

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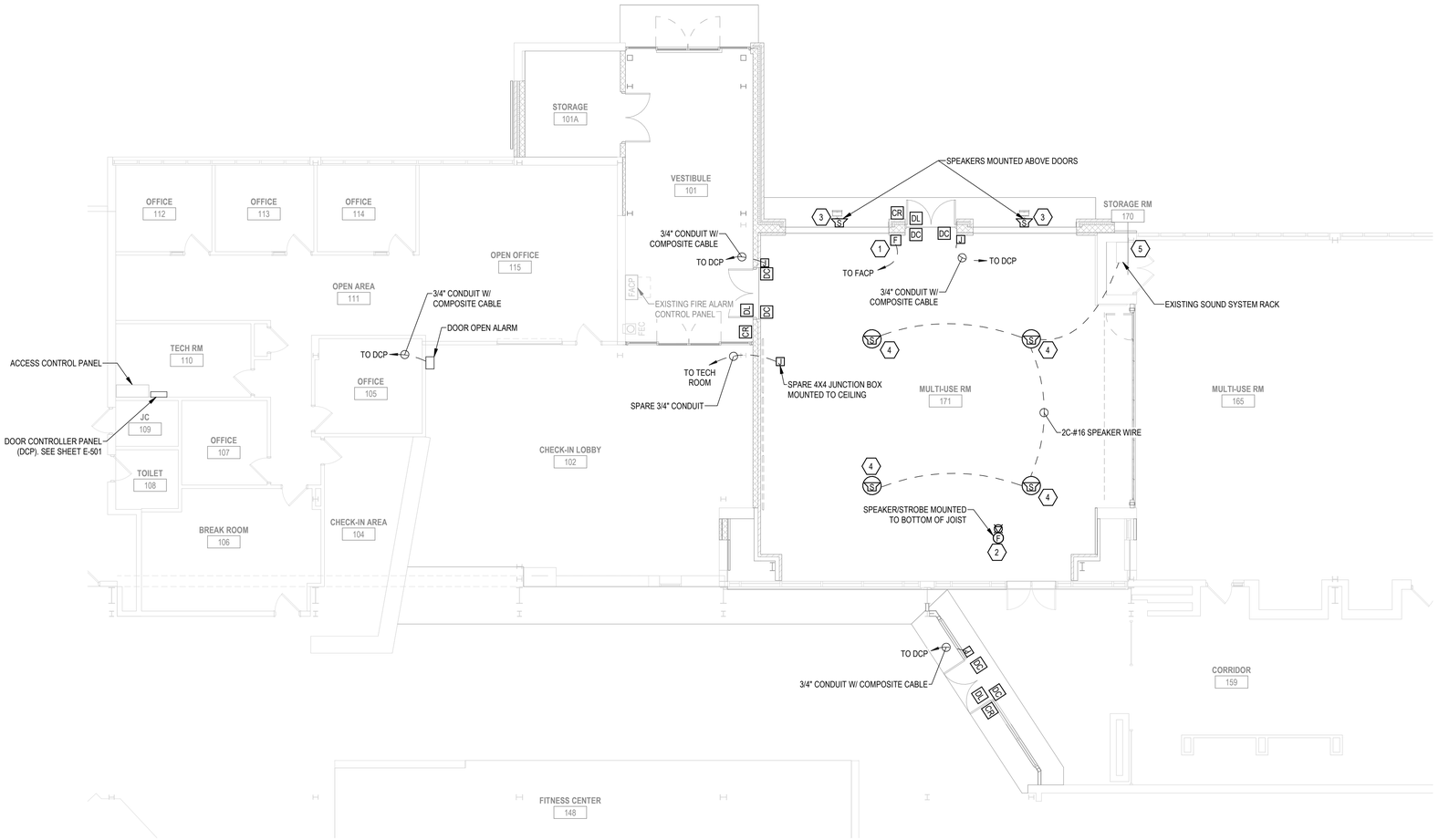
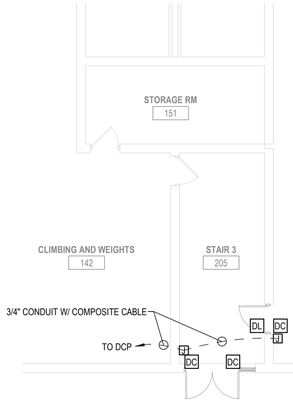
SHEET KEYNOTES - LOW VOLTAGE

1	PROVIDE NEW PULL STATION AND CONNECT TO EXISTING SYSTEM. PULL STATION SHALL BE A NATIONAL TIME AND SIGNAL MODEL 540 SERIES. CONNECT TO NEAREST EXISTING SIGNALING LINE CIRCUIT AND MATCH EXISTING CABLING AND CONDUIT.
2	PROVIDE NEW SPEAKER STROBE AND CONNECT TO EXISTING SYSTEM. STROBE SHALL BE A NATIONAL TIME AND SIGNAL MODEL SG-CXCLPSSZ. CONNECT TO NEAREST EXISTING NOTIFICATION APPLIANCE CIRCUIT AND MATCH EXISTING CABLING AND CONDUIT.
3	OUTSIDE SPEAKER SHALL BE CONNECTED TO THE SOUND SYSTEM IN STORAGE ROOM 170. OUTDOOR SPEAKERS SHALL BE JBL 25C WITH MOUNTING BRACKET. CONNECT SPEAKERS TO SOUND SYSTEM RACK W/2C-#16 SPEAKER WIRE.
4	MULTI-USE ROOM 171 SPEAKERS SHALL BE CONNECTED TO SOUND SYSTEM IN STORAGE ROOM 170. SPEAKERS SHALL BE JBL 65C. CONNECT SPEAKERS TO SOUND SYSTEM RACK W/2C-#16 SPEAKER WIRE.
5	PROVIDE AMPLIFIER INSTALLED IN EXISTING SOUND SYSTEM RACK. AMPLIFIER SHALL BE JBL CSA2302-300WATT 2 CHANNEL AMPLIFIER. SEE DETAIL SHEET E-501



1 PARTIAL FIRST FLOOR LOW VOLTAGE PLAN - ADDITION

1/8" = 1'-0"



2 PARTIAL FIRST FLOOR LOW VOLTAGE PLAN - AREA D

1/8" = 1'-0"

KEY PLAN

N

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0155-25-0010

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd. Romulus, MI 48174

PARTIAL FIRST FLOOR ELECTRICAL LOW VOLTAGE PLAN

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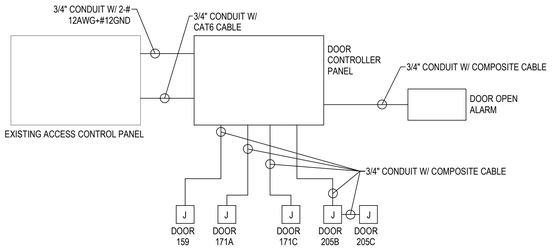
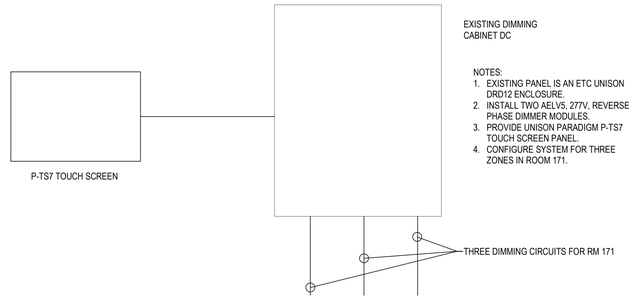


6 ACCESS CONTROL SYSTEM

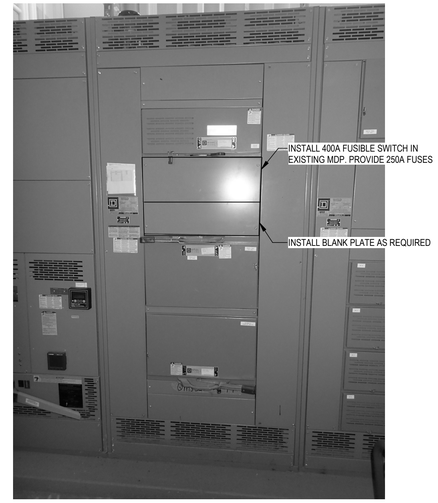
1/8" = 1'-0"



NOTES:
1. EXISTING PANEL IS AN ETC UNISON DRD12 ENCLOSURE.
2. INSTALL TWO AELV5, 277V, REVERSE PHASE DIMMER MODULES.
3. PROVIDE UNISON PARADIGM P-TS7 TOUCH SCREEN PANEL.
4. CONFIGURE SYSTEM FOR THREE ZONES IN ROOM 171.

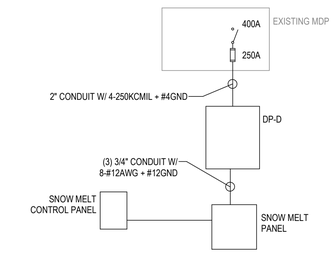
5 MULTI-USE ROOM DIMMING CABINET

1/8" = 1'-0"



3 EXISTING MDP DETAIL

1/8" = 1'-0"



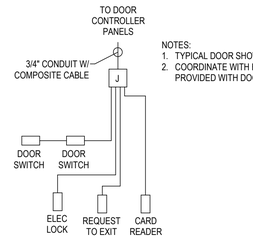
NOTES:
1. PROVIDE NEW 400A FUSIBLE SWITCH IN MDP. PROVIDE 250A FUSES.

2 SNOW MELT SYSTEM DIAGRAM

1/8" = 1'-0"

4 PA SYSTEM RACK DETAIL

1/8" = 1'-0"

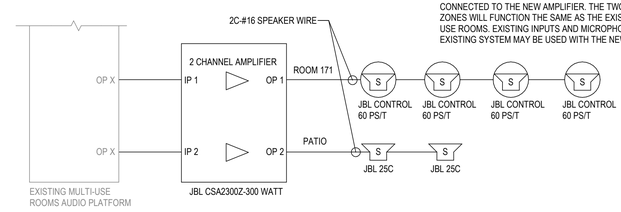


NOTES:
1. TYPICAL DOOR SHOWN.
2. COORDINATE WITH HARDWARE PROVIDED WITH DOOR.

7 ACCESS CONTROL DOOR DETAIL

1/8" = 1'-0"

NOTES:
1. THE EXISTING PA SYSTEM FOR THE MUTI-USE ROOMS WILL BE EXPANDED FOR THE ADDITION. A TWO CHANNEL AMPLIFIER WILL BE ADDED TO THE EXISTING SYSTEM FOR TWO NEW ZONES, ROOM 171 AND PATIO.
2. OUTPUTS FROM THE EXISTING SYSTEM WILL BE CONNECTED TO THE NEW AMPLIFIER. THE TWO NEW ZONES WILL FUNCTION THE SAME AS THE EXISTING MULTI-USE ROOMS. EXISTING INPUTS AND MICROPHONES TO THE EXISTING SYSTEM MAY BE USED WITH THE NEW ZONES.



1 MULTI-USE ROOMS PA SYSTEM

1/8" = 1'-0"

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CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd. Romulus, MI 48174

ELECTRICAL DETAILS

E-501

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3/24/2026 11:10:52 AM

BRANCH PANEL: DP-D

LOCATION: STORAGE 101A
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: NEMA 12
VOLTS: 480/277 Wye
PHASES: 3
WIRES: 4
SCCR RATING:
MAINS TYPE: MCB
MAINS RATING: 250 A
MCB RATING: 250 A

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A	B	C	CKT	A	B	C	CKT	AMP	POLE	WIRE	IDENTIFICATION
SNOW MELT #1	12	2	20	1	0.00			2		0.00		2	20	2	12	SNOW MELT #7
				3		0.00		4			0.00	4				
SNOW MELT #2	12	2	20	5			0.00	6			0.00	6	20	2	12	SNOW MELT #8
				7	0.00			8		0.00		8				
SNOW MELT #3	12	2	20	9		0.00		10			0.00	10	20	2	12	SNOW MELT #9
				11			0.00	12			0.00	12				
SNOW MELT #4	12	2	20	13	0.00			14		0.00		14	20	2	12	SNOW MELT #10
				15		0.00		16			0.00	16				
SNOW MELT #5	12	2	20	17			0.00	18			0.00	18	20	2	12	SNOW MELT #11
				19	0.00			20		0.00		20				
SNOW MELT #6	12	2	20	21		0.00		22			0.00	22	20	2	12	SNOW MELT #12
				23			0.00	24			0.00	24				
				25			0.00	26				26	20	3	12	DOOR OPERATOR
				27				28			0.00	28				
				29				30			0.00	30				
				31			0.00	32				32	20	3	12	DOOR OPERATOR
				33				34			0.00	34				
				35				36			0.00	36				
				37				38				38				
				39				40				40				
				41				42				42				
				43				44				44				
				45				46				46				
				47				48				48				
				49				50				50				
				51				52				52				
				53				54								
CONNECTED LOAD: (kVA)					0.00		0.00			0.00						

DIMMER CONTROL CABINET

DESCRIPTION	ZONE	DIMMING	ON/OFF SWITCHING
ROOM 171	A	M	M
ROOM 171	B	M	M
ROOM 171	C	M	M

1. EXISTING PANEL IS AN ETC UNISON DRD12
2. PROVIDE TWO AELV5, 277, REVERSE PHASE DIMMER MODULES IN EXISTING CABINET.

EXISTING BRANCH PANEL: RP-11A

LOCATION: TOILET 108
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: Type 1
VOLTS: 120/208 Wye
PHASES: 3
WIRES: 4
SCCR RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
SCOREBOARDS	12	1	20	1	0.00			0.00			2	20	1	12	FOR PROJECTOR
SCOREBOARDS	12	1	20	3		0.00			0.00		4	20	1	12	MOTORIZED SCREEN
SCOREBOARD CONTROLS	12	1	20	5			0.00			0.00	6	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	7	0.00			0.00			8	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	9		0.00			0.00		10	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	11			0.00			0.00	12	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	13	0.00			0.00			14	20	1	12	MOTORIZED BACKBOARD
A/V SOURCE RACK	12	1	20	15		0.00			0.00		16	20	1	12	MOTORIZED BACKBOARD
FTR-1 RM 101A	12	1	20	17			0.00			0.00	18	20	1	12	MOTORIZED BACKBOARD
SPARE	12	1	20	19	0.00			0.00			20	20	1	12	MOTORIZED BACKBOARD
SPARE	12	1	20	21		0.00			0.00		22	20	1	12	MOTORIZED BACKBOARD
SPARE	12	1	20	23			0.00			0.00	24	20	1	12	SPARE
SPACE	12	1	--	25	--			0.00			26	20	1	12	5 RECEPT
ECUH-2	10	2	30	27		0.00			0.00		28	20	1	12	3 RECEPT. ROOF
				29			0.00			0.00	30	20	1	12	SPARE
ECUH-5	8	2	35	31	0.00			0.00			32	20	1	12	EF-1, EF-2
				33		0.00			0.00		34	20	1	12	EF-4 3/4HP
ECUH-4	8	2	35	35			0.00			0.00	36	20	1	12	EF-3 1/6HP
				37	0.00			0.00			38	20	1	12	WH-1, WH-2
ECUH-3	10	2	30	39		0.00			0.00		40	20	1	12	CP-1
				41			0.00			0.00	42	20	1	12	SPARE
CONNECTED LOAD: (kVA)					0.00		0.00			0.00					

EXISTING BRANCH PANEL: RP-E1

LOCATION: TOILET 108
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: Type 1
VOLTS: 120/208 Wye
PHASES: 3
WIRES: 4
SCCR RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A
MCB RATING: 1 A

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
4 RECEPT	12	1	20	1	0.00			0.00			2	20	1	12	TEL B.B. QUAD RECEPT
TS.FS.AV	12	1	20	3		0.00			0.00		4	20	1	12	TEL B.B. QUAD RECEPT
4 RECEPT	12	1	20	5			0.00			0.00	6	20	1	12	ELEVATOR
4 RECEPT	12	1	20	7	0.00			0.00			8	20	1	12	ELEVATOR
5 RECEPT	12	1	20	9		0.00			0.00		10	20	1	12	ELEVATOR
2 RECEPT	12	1	20	11			0.00			0.00	12	20	1	12	ELEVATOR
GD	12	1	20	13	0.00			0.00			14	20	1	12	5 RECEPT
4 RECEPT	12	1	20	15		0.00			0.00		16	20	1	12	4 RECEPT
4 RECEPT	12	1	20	17			0.00			0.00	18	20	1	12	5 RECEPT
GD	12	1	20	19	0.00			0.00			20	20	1	12	JB FOR DOOR
2 RECEPT	12	1	20	21		0.00			0.00		22	20	1	12	SPARE
MPR RM 171 REC	12	1	20	23			0.00			0.00	24	20	1	12	SPARE
VESTIBULE/PATIO REC	12	1	20	25	0.00			0.00			26	20	1	12	SPARE
STORAGE 101A REC	12	1	20	27		0.00			0.00		28	20	1	12	SPARE
MPR 171 REC	12	1	20	29			0.00			0.00	30	20	1	12	SPARE
SPACE	12	1	--	31	--			--			32	--	1	12	SPACE
SPACE	12	1	--	33		--			--		34	--	1	12	SPACE
SPACE	12	1	--	35			--			--	36	--	1	12	SPACE
SPACE	12	1	--	37	--			--			38	--	1	12	SPACE
SPACE	12	1	--	39		--			--		40	--	1	12	SPACE
SPACE	12	1	--	41			--			--	42	--	1	12	SPACE
CONNECTED LOAD: (kVA)					0.00		0.00			0.00					

EXISTING BRANCH PANEL: RP-14B

LOCATION: TOILET 108
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: Type 1
VOLTS: 120/208 Wye
PHASES: 3
WIRES: 4
SCCR RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
3 RECEPT	12	1	20	1	0.00			0.00			2	20	1	12	2 TV
1 GD	12	1	20	3		0.00			--		4	--	1	12	SPACE
2 RECEPT	12	1	20	5			0.00			--	6	--	1	12	SPACE
4 RECEPT	12	1	20	7	0.00			--			8	--	1	12	SPACE
5 RECEPT	12	1	20	9		0.00			--		10	--	1	12	SPACE
2 EWC	12	1	20	11			0.00			--	12	--	1	12	SPACE
VENDING MACHINE	12	1	20	13	0.00			--			14	--	1	12	SPACE
VENDING MACHINE	12	1	20	15		0.00			--		16	--	1	12	SPACE
VENDING MACHINE	12	1	20	17			0.00			--	18	--	1	12	SPACE
MEDIA CENTER REC. #117	12	1	20	19	0.00			0.00			20	20	1	12	SPARE
MEDIA CENTER REC. #117	12	1	20	21		0.00			0.00		22	20	1	12	SPARE
MEDIA CENTER REC. #117	12	1	20	23			0.00			0.00	24	**20**	**1**	**12**	**MPR RM 171 TV**
SPACE	12	1	--	25	--			0.00			26	**20**	**1**	**12**	**MPR RM 171 TV**
SPACE	12	1	--	27		--			0.00		28	20	1	12	TV
SPACE	12	1	--	29			--			0.00	30	20	1	12	2 TV
SPARE	12	1	20	31	0.00			0.00			32	20	1	12	SPARE
SPARE	12	1	20	33		0.00			0.00		34	20	1	12	AHU-1 CONTROLS
(2) FTR-1 2KW EACH	10	2	30	35			0.00			0.00	36	20	1	12	AHU-2 CONTROLS
				37	0.00			0.00			38	20	1	12	JB HEAT TRACE
ODU-1	8	2	35	39		0.00			0.00		40	20	1	12	SPARE
				41			0.00			0.00	42	20	1	12	SPARE
CONNECTED LOAD: (kVA)					0.00		0.00			0.00					

LIGHTING FIXTURE SCHEDULE

SCHEDULE NOTES:
1. REUSE EXISTING FIXTURE
2. REQUIRES UNSWITCHED HOT
3.

TYPE	DESCRIPTION	MFR.	CATALOG #	LAMPS	WATTS	NOTES
BE	EXISTING BOLLARD					SALVAGED BOLLARD TO BE REINSTALLED 1
EX	EXIT SIGN	LITHONIA	TLE-1-R-EL-N	LED	1	
LC1	DOWNLIGHT	LIHTONIA	WF6-LED-27K30K35K-90CRI-MW	LED	14	
PD1	PENDANT	SPECTRUM LIGHTING	DB1211GV-55L-35K-D010X-HM-MWI-MB	LED	39	
PD1E	PENDANT	SPECTRUM LIGHTING	DB1211GV-55L-35K-D010X-HM-MWI-MB-E MCR	LED	39	BATTERY BACKUP 2
PM	POST MOUNT	STERNBERG	PT-08FT-RT403-26L-30-T4-MDL03-SV2-FDH -GFI-LPIUC-BKT	LED		GFI RECEPTACLE WITH IN USE COVER
PM2	BOLLARD	STERNBERG	RT4-42IN-26L-30-T4-MDL03-SV2-FHD-BKT	LED	32	
SL1	ENCLOSED AND GASKETED	LITHONIA	CLX-L48-4000LM-SEF-L/LENS-WD-MVOLT-40K-80CRI	LED	26	
SL2	6" RECESSED	FINELITE	HP-6-R-D-H-835-F-96LG-277-SC	LED		
SL2BB	6" RECESSED	FINELITE	HP-6-R-D-H-835-F-96LG-277-SC-LGD18W	LED		BATTERY BACKUP 2
WS1	WALL MOUNT	WAC LIGHTING	DS-WD06-N-30S	LED	37	
WS2	WALL MOUNT	ALVALIGHT	BRIANNA-15-3500-MT1-BLK	LED		

EXISTING BRANCH PANEL: LP-HE

LOCATION: TOILET 108
SUPPLY FROM:
MOUNTING: SURFACE
ENCLOSURE: Type 1
VOLTS: 120/208 Wye
PHASES: 3
WIRES: 4
SCCR RATING:
MAINS TYPE: MLO
MAINS RATING: 200 A

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
8X100+3X460 VIA CE1	12	1	20	1	0.00			0.00			2	20	1	12	SPARE
7X460+7X50+1X140 VIA CE1	12	1	20	3		0.00			0.00		4	20	1	12	SPARE
5X210+9X100+2X920 VIA CE1	12	1	20	5			0.00			0.00	6	20	1	12	SPARE
15X40+23X100	12	1	20	7	0.00			0.00			8	20	1	12	SPARE
17X40+13X100+1X70+2X150	12	1	20	9		0.00			0.00		10	20	1	12	SPARE
21X100+4B0	12	1	20	11			0.00			0.00	12	20	1	12	SPARE
64X50	12	1	20	13	0.00			0.00			14	20	1	12	SPARE
7X210+22X40	12	1	20	15		0.00			0.00		16	**20**	**1**	**12**	**STORAGE RM 101A**
4X50+600+12X40+360+210+6X100	12	1	20	17			0.00			0.00	18	20	1	12	SPARE
33X100	12	1	20	19	0.00			--			20	--	1	12	SPACE
7X460	12	1	20	21		0.00			--		22	--	1	12	SPACE
2X920+2X460	12	1	20	23			0.00			--	24	--	1	12	SPACE
3X920	12	1	20	25	0.00			--			26	--	1	12	SPACE
2X920+2X460	12	1	20	27		0.00			--		28	--	1	12	SPACE
2X920+2X460	12	1	20	29			0.00			--	30	--	1	12	SPACE
3X920	12	1	20	31	0.00			--			32	--	1	12	SPACE
3X920	12	1	20	33		0.00			--		34	--	1	12	SPACE
2X920+2X460	12	1	20	35			0.00			--	36	--	1	12	SPACE
SPARE	12	1	20	37	0.00			--			38	--	1	12	SPACE
SPARE	12	1	20	39		0.00			--		40	--	1	12	SPACE
1X210+2X100+13X50 OUTDOOR EM...	12	1	20	41			0.00			--	42	--	1	12	SPACE
CONNECTED LOAD: (kVA)					0.00		0.00			0.00					

EXISTING PANEL: DP-EM

LOCATION: TOILET 108
VOLTS: 480/277 Wye
PHASES: 3
MCB RATING: 600 A
MAINS TYPE:

NOTES:

INDENTIFICATION	SLOT	FUSE	NUMBER OF POLES	Load
T-E1	1	100 A	3	0 kVA
SPARE	2	0 A	3	0 kVA
ACCU-1	3	45 A	3	0 kVA
HVAC-17	4	35 A	3	0 kVA
ACCU-2	5	25 A	3	0 kVA
HVAC-5	6	25 A	3	0 kVA
HVAC-12	7	25 A	3	0 kVA
HVAC-13	8	25 A	3	0 kVA
SPARE	9	0 A	1	0 kVA
SPARE	10	0 A	1	0 kVA
HVAC-19	11	25 A	1	0 kVA
MAU-1	12	15 A	1	0 kVA
MAU-2	13	15 A	1	0 kVA
ERV-1	14	15 A	1	0 kVA
ERV-2	15	15 A	1	0 kVA
ERV-2	16	15 A	1	0 kVA
ERV-3	17	15 A	1	0 kVA
LP-HE	18	200 A	1	0 kVA
SPARE	19	0 A	1	0 kVA
ELEVATOR	20	50 A	1	0 kVA
HVAC-18	21	35 A	1	0 kVA
SUMP PUMP	22	15 A	1	0 kVA
RTU-1	23	**25 A**	**1**	**0 kVA**
SPARE	24	20 A	1	0 kVA
SPARE	25	20 A	1	0 kVA
			CONNECTED LOAD:	0 kVA

OHM
ARCHITECTS ENGINEERS PLANNERS
OHM-ADVISORS.COM

ISSUED FOR: BIDS 3/25/2026

PROJECT NUMBER 0155-25-0010
PM CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

ELECTRICAL SCHEDULES

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