VOLUME IV
NORTH PLANT ADMINISTRATION OFFICE BUILDING
FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

GENERAL PROJECT DESCRIPTION:
THE PROJECT IS A NEW 6,541 SF ONE-STORY NORTH PLANT ADMINISTRATION OFFICE BUILDING FOR THE SOUTH DAVIS SEWER DISTRICT. THE PROJECT IS LOCATED AT 1800 WEST 1200 WEST, WEST BOUNTIFUL, UTAH. THE PROJECT CONSISTS OF SITE CLEARING, NEW SITE UTILITIES, NEW SITE WORK AROUND THE NEW OFFICE BUILDING AND THE NEW OFFICE BUILDING. THE SITE WORK , SITE PREPARATION AND SITE UTILITIES ARE SHOWN AS PART OF THE SITE DRAWING NOT CONTAINED IN THIS BUILDING SET OF PLANS. THIS OFFICE BUILDING IS AREA 09 OF THE NORTH DAVIS PLANT UPGRADE. THE MANAGEMENT OF THE PROJECT AND BIDDING OF THE PROJECT IS AQUA ENGINEERING. THE SITE WORK DRAWINGS ARE PART OF THE MASTER SET OF PLANS CREATED BY AQUA ENGINEERING.

PROJECT MANAGER:

AQUA ENGINEERING
533 WEST 2300 SOUTH, SUITE 275
BOUNTIFUL, UTAH 84010
CONTACT: BRADLY M. RASMUSSEN, PE #318716
PHONE (801) 299-1327 FAX (801) 299-0153
EMAIL: BRAD.RASMUSSEN@AQUAENG.COM

CONSULTANTS

GEOTECHNICAL ENGINEER:
NINYO & MOORE
CONTACT: ROBERT E. GAMBRELL, PE #11256609
871 ROBINSON DRIVE
NORTH SALT LAKE, UTAH 84054
PHONE (801) 973 - 2500
E-MAIL: WWW.NINYOANDMOORE.COM

STRUCTURAL ENGINEER
REALIZE STRUCTURAL ENGINEERING
CONTACT: RUSSELL D. MERRILL, SE #184004
2880 WEST 4700 SOUTH, SUITE A
SALT LAKE CITY, UTAH 84129
PHONE (801) 930- 9265
E-MAIL: RUSSELL@REAL-SE.COM

MECHANICAL ENGINEER:
DALE R. WILDE CO. CONSULTING ENGINEERS
CONTACT: RAY WILDE PE # 1558674
428 WINCHESTER STREET, SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE (801) 433-1125
E-MAIL: WILDE@DRWCO.COM

ELECTRICAL ENGINEER:
BNA CONSULTING
CONTACT: GOPICHAND PULIVARTHI, PE #12419550, MSEE
4225 WES LAKE PARK BOULEVARD, SUITE #275
WEST VALLEY CITY, UTAH 84120
PHONE (801) 532-2196
E-MAIL: GOPICHAND@BNACONSULTING.COM

SOUTH DAVIS SEWER DISTRICT • ESTABLISHED 1959 •

ARCHITECT PROJECT #24-001
DATE: MARCH 05, 2024 - BID SET

2021 EDITIION IBC - CODE ANALYSIS

1. APPLICABLE CODES:
   CURRENT WEST BOUNTIFUL CITY ORDINANCES
   CURRENT STATE OF UTAH ADOPTED AMENDMENTS
   2021 INTERNATIONAL BLDG CODE (IBC) INCLUDING APPENDIX J
   2021 INTERNATIONAL PLUMBING CODE (IPC)
   2021 INTERNATIONAL FUEL & GAS CODE (IFGC)
   2021 INTERNATIONAL MECHANICAL CODE (IMC)
   2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
   2020 NATIONAL ELECTRICAL CODE (NEC)
   2010 AMERICANS WITH DISABILITIES ACT ACCESSIBLE GUIDELINES (ADAAG)
   2021 INTERNATIONAL FIRE CODE (IFC)
   ANSI A-117.1/2017 ACCESSIBLE CODE
2. THE BLDG IS A 1-STORY ADMINISTRATIVE OFFICE BUILDING FOR THE SEWER DISTRICT OF A BUSINESS B OCCUPANCY. IT ALSO CONTAINS 2 SPACES WITH A-3 OCCUPANCIES. ONE A-3 IS FOR BOARD MEETINGS AND THE OTHER A-3 IS FOR TRAINING SESSIONS FOR EMPLOYEES OF THE DISTRICT.
3. MAIN FLOOR AREA:
   BOARD ROOM 565 GROSS SF (458 NET SF)
   TRAINING ROOM 1,050 GROSS SF (940 NET SF)
   OFFICE AREA 4,926 GROSS SF
   TOTAL 6,541 GROSS SF
4. THE TYPE OF CONSTRUCTION SHALL BE V-B-NS (NON-RATED AND NON-SPRINKLERED CONSTRUCTION). ALL EXTERIOR AND INTERIOR BEARING WALLS ARE 8" OR 10" CMU. THE ROOF SYSTEM WILL BE WOOD CONSISTING OF PRE-FAB WOOD TRUSSES WITH A WOOD ROOF DECK AND INTERIOR STEEL COLUMN AND PRE-FAB WOOD TRUSS GIRDERS.
5. THE BUILDING WILL BE ANALYZED AS A MIXED USE OCCUPANCY WITHOUT OCCUPANCY SEPARATIONS BETWEEN THE A-3 AND B OCCUPANCIES PER SECTION 508.3 & WILL BE ANALYZED PER THE MOIT RESTRICTIVE USE = A-3.
6. ALLOWABLE HEIGHT PER TABLE 504.3 FOR OCCUPANCY A-3 WITH V-B-NS CONSTRUCTION = 40 FEET & ACTUAL MAXIMUM PARAPET HEIGHT = 20'-11" (10" CMU AREA).
7. ALLOWABLE # OF STORIES PER TABLE 504.4 FOR OCCUPANCY A-3 WITH V-B-NS CONSTRUCTION = 1 STORY & ACTUAL IS 1 STORY.
8. BASIC ALLOWABLE AREA PER TABLE 506.2 FOR OCCUPANCY A-3 WITH V-B-NS CONSTRUCTION = 6,000 SF, PER IBC SECTION 506.3 (FRONTAGE INCREASE) WITH SEPARATION ON ALL 4 SIDES GREATER THAN 60 FEET AND PER TABLE 506.3.3 THE ALLOWABLE AREA WILL BE INCRESED BY 75%
   BASIC ALLOWABLE AREA 6,000 SF
   75% INCREASE DUE TO FRONTAGE (75%) 4,500 SF
   ALLOWABLE AREA 10,500 SF AND ACTUAL = 6,541 SF (OK).
9. NO OCCUPANCY SEPARATIONS ARE REQUIRED PER SECTION 508.3.
10. CONSTRUCTION IS TO MEET THE REQUIREMENTS OF CHAPTER 6 AND TABLE 601 TYPE V-B-NS = 0 RATING.
11. EXTERIOR WALLS MAY BE 0 RATING PER SECTION 704.10 & TABLE 705.5 SEPARATION > 30 FT.
12. PER TABLE 705.8, THE BUILDING MAY HAVE UNLIMITED UN-PROTECTED OPENINGS FOR UP/NS > 30 FT.
13. PER SECTION 705.11 EXCEPTION #1, A PARAPET IS NOT REQUIRED ON THE BUILDING.
14. PER CHAPTER 8, TABLE 803.13 SPRINKLERED, ALL INTERIOR WALL & CEILING FINISH MATERIALS WILL BE CLASS C.
15. REQUIRED # OF EXITS & WIDTH PER TABLES 1004.1.2, 1006.2.1 & 1006.3.2(2):
   TRAINING ROOM = 940 NET SF / 15 = 63 OCC/ = 2 EXITS REQ'D & 2 PROVIDED, WIDTH = 9 FT (3 DRS)
   BOARD ROOM = 458 NET SF / 15 = 31 OCC/ = 1 EXIT REQ'D & 1 PROVIDED, WIDTH = 3 FT (1 DR)
   COMBINED TRAINING ROOM + BOARD ROOM = 1,398 NET SF / 15 = 94 OCC/ = 3 EXITS REQ'D & 2 PROVIDED, WIDTH = 15 FT (4 DRS)
   OFFICE AREA = 4,926 / 150 = 33 OCC. = 1 EXIT REQ'D (1006.3.4 EX #2) & 3 PROVIDED 2 WITH DIRECT OUTSIDE EXIT, WIDTH = 9 FT (3 DRS)
   TOTAL BLDG = 127 OCCUPANTS = 2 EXITS REQ'D & 4 PROVIDEDF (= 15 FT (4 DRS).
16. MAXIMUM COMMON PATH OF EGRESS TRAVEL PER TABLE 1006.2.1 FOR A OCCUPANCIES = 75 FT (NON-SPRINKLERS) AND FOR B OCCUPANCIES = 100 FT (NON-SPRINKLERS), MAXIMUM EXIT TRAVEL DISTANCE PER TABLE 1006.3.4(2) FOR SPACES WITH ONE EXIT = 75 FT BOTH A-3 AND B OCCUPANCIES, AND MAXIMUM TRAVEL DISTANCE PER TABLE 1017.2 = 200 FT FOR BOTH A-3 AND B OCCUPANCIES. ALL SPACES MEET THESE REQUIREMENTS. REFER TO EXIT PLAN DIAGRAM ON SHEET A-09A300.
17. EXIT SIGNS PER SECTION 1013 AND EXIT ILLUMINATION PER SECTION 1008 WILL BE PROVIDED. REFER TO PLANS.
18. THE BUILDING MEETS ACCESSIBILITY REQUIREMENTS PER CHAPTER 11 AND ICC/ANSI A117.1-201. ALL MAIN FLOOR BUILDING ENTRANCES ARE ACCESSIBLE AND HAVE ACCESSIBLE PARKING SPACES SERVED BY AN ACCESSIBLE PATH. REFER TO ARCHITECTURAL SITE PLAN SHEET 09A200. ACCESSIBLE PUBLIC TOILET ROOMS ARE ON THE MAIN FLOOR. AN ADDITIONAL ACCESSIBLE UNISEX SPACE IS LOCATED WITHIN THE OFFICE AREA.
19. PLUMBING FIXTURES REQUIRED PER IBC CHAPTER 29 AND TABLE 2902.1 FOR CLASSIFICATION #1 (ASSEMBLY) AND
20. #2 (BUSINESS):
   #1 - ASSEMBLY OCCUPANTS = 63 + 31 = 94 OCCUPANTS - FIXTURES ARE PROVIDED EQUALLY BETWEEN FEMALE & MALE OCCUPANTS = 94 / 2 = 47 MEN AND 47 WOMEN
   WC'S REQ'D = 1 / 125 OCC (MEN) = 1 WC REQUIRED
   WC'S REQ'D = 1 / 65 OCC (WOMEN) = 1 WC REQUIRED
   LAV'S REQ'D = 1 / 200 OCC = 47 / 100 = 1 LAV REQUIRED EACH = (1 M + 1 W)
   DF'S REQ'D = 1 / 500 OCC = 94 / 100 = 1 DF REQUIRED
   SS'S REQ'D = 1 REQUIRD
   #2 - BUSINESS OCCUPANTS = 33 OCCUPANTS - FIXTURES ARE PROVIDED EQUALLY BETWEEN FEMALE & MALE OCCUPANTS = 33 / 2 = 17 MEN AND 17 WOMEN
   WC'S REQ'D = 1 / 25 OCC = 17 / 25 = 1 WC REQUIRED EACH = (1 M + 1 W)
   LAV'S REQ'D = 1 / 40 OCC = 17 / 40 = 1 LAV'S REQUIRED EACH = (1 M + 1 W)
   DF'S REQ'D = 1 / 100 OCC = 33 / 100 = 1 DF REQUIRED
   SS'S REQ'D = 1 REQUIRED

   TOTAL REQUIRED / TOTAL PROVIDED
   NOTE THE USES A-3 OCCUPANCY USES MAY NOT OCCUR AT THE SAME TIME (A-S AT NIGHT AND B DURING THE DAY + TRAINING SESSIONS MAY TYPICALLY INCLUDE THE B OCCUPANCIES
   WC'S REQ'D = 2M + 2W = 4 WC'S REQ'D AND 3 WC'S PROVIDED - PER IPC SECTION 424.2 1 URINAL IN MEN'S TOILET MAY BE SUBSTIRTURE FOR 1 WC + 1 WC IN UNISEX TOILET
   LAV'S REQ'D = 2M + 2W = 8 LAV'S REQ'D AND 5 LAV'S (4 IN PUBLIC TOILETS + 1 IN UNISEX)
   DF'S REQ'D = 2 REQ'D AND 2 PROVIDED (HI/LO EWC) + 1 BREAK ROOM SINK = 3 TOTAL PROVIDED
   SS'S REQ'D = 1 SS'S REQ'D FOR EACH OCCUPANCY AND 1 IS PROVIDED

SCHEDULE OF DRAWINGS

James B. Glascock, Architect P.C.
ARCHITECTURE • PLANNING
4897 REBECCA CIRCLE
SALT LAKE CITY, UTAH 84117
PHONE (801) 272-5133
GLASCOCK@MTCON.NET
UTAH ARCHITECT LICENSE #10136
CONTACT: JAMES GLASCOCK
PHONE (801) 272-5133
GLASCOCK@MTCON.NET

INSTRUCTIONS TO BIDDERS:

PROJECT DESCRIPTION :
THE PROJECT IS A NEW 6,541 SF ONE-STORY NORTH PLANT ADMINISTRATION OFFICE BUILDING FOR THE SOUTH DAVIS SEWER DISTRICT. THE PROJECT IS LOCATED AT 1800 WEST 1200 WEST, WEST BOUNTIFUL, UTAH. THE PROJECT CONSISTS OF SITE CLEARING, NEW SITE UTILITIES, NEW SITE WORK AROUND THE NEW OFFICE BUILDING AND THE NEW OFFICE BUILDING. THE SITE WORK , SITE PREPARATION AND SITE UTILITIES ARE SHOWN AS PART OF THE SITE DRAWING NOT CONTAINED IN THIS BUILDING SET OF PLANS. THIS OFFICE BUILDING IS AREA 09 OF THE NORTH DAVIS PLANT UPGRADE. THE MANAGEMENT OF THE PROJECT AND BIDDING OF THE PROJECT IS AQUA ENGINEERING. THE SITE WORK DRAWINGS ARE PART OF THE MASTER SET OF PLANS CREATED BY AQUA ENGINEERING.

DESCRIPTION OF WORK :
THE WORK CONSISTS OF THE FURNISHING OF ALL LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED OF ALL ITEMS OF WORK NEEDED FOR TOTAL COMPLETION OF THE FOR THE BUILDING PROJECT ONLY AS SHOWN, DESCRIBED OR INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS. ONLY PROPOSALS FOR COMPLETE JOBS WILL BE ACCEPTED.

DRAWINGS AND SPECIFICATIONS :
DRAWINGS AND SPECIFICATIONS MAY BE OBTAINED ONLY FROM THE PROJECT MANAGER, AQUA ENGINEERING OR THROUGH PRE-SELECTED GENERAL CONTRACTORS ONLY. SUB=CONTRACTORS AND SUPPLIERS WHO WISH TO BID ON THIS PROTECT ARE TO CONTACT AQUA ENGINEERING AND/OR ONE OF THE GENERAL CONTRACTORS FOR THE DEADLINE DATE FOR SUBMITTAL OF THEIR BID PROPOSAL.

QUALIFICATIONS OF BIDDERS :
UNSOLICITED BIDS WILL NOT BE ACCEPTED AND WILL BE REJECTED. THE OWNER, AQUA ENGINEERING AND THE ARCHITECT RESERVE THE RIGHT TO REJECT ANY AND ALL SUB-CONTRACTOR BIDS FOR ANY REASON. CONDITIONAL BIDS WILL NOT BE ACCEPTED.

MANDATORY JOBSITE WALK-THROUGH WITH GENERAL CONTRACTOR:
A MANDATORY JOBSITE WALK-THROUGH WITH THE SUB-CONTRACTORS BIDDING THE PROJECT MAY BE COORDINATED WITH THE PROJECT MANAGER. PLEASE CONSULT THE GENERAL CONTRACTORS WHEN THIS IS TO OCCUR FOR SUB-CONTRACTORS. FAILURE TO ATTEND THIS MANDATORY JOBSITE WALK-THROUGH MAY BE CAUSE TO REJECT THAT SUB-CONTRACTORS BID.

PREVIEW OF SITE :
IT IS ASSUMED BY THE SUBMITTAL OF A BID PROPOSAL THAT THE SUB-CONTRACTOR HAS STUDIED THE JOBSITE, PLANS AND SPECIFICATIONS AND IS THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS, ANY PRECAUTIONS REQUIRED, THE WORKING SPACE AVAILABLE AND ANY OTHER NECESSARY CONDITIONS OR ANY PROBLEMS ASSOCIATED WITH THE PROJECT TO PREPARE AN ACCURATE BID PROPOSAL. IF THERE ARE ANY ISSUES OR CONCERNS, THE SUB-CONTRACTOR MUST INFORM THE GENERAL CONTRACTOR AND/OR THE ARCHITECT BY EMAIL 48 HOURS PRIOR TO THE BID SUBMITTAL DEADLINE FOR THE ARCHITECT TO ADDRESS.

BID PROPOSALS :
THE BID PROPOSAL SHALL BE SUBMITTED AS DIRECTED BY THE BID DOCUMENTS PREPARED BY AQUA ENGINEERING.

GENERAL CONDITIONS:
AIA DOCUMENT A201 "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION" IS MADE PART OF THESE SPECIFICATIONS. IT IS ASSUMED BY THE SUBMITTAL OF A BID PROPOSAL THAT THE BIDDER HAS FULL KNOWLEDGE AND UNDERSTANDING OF THIS DOCUMENT. A COPY OF THIS DOCUMENT MAY BE EXAMINED WITHOUT CHARGE AT THE OFFICE OF PROJECT MANAGER, AQUA ENGINERING.

ALTERNATES:

NONE

DIVISION 01 - SPECIAL CONDITIONS

DEFINITIONS :

"OWNER":
SHALL REFER TO SOUTH DAVIS SEWER DISTRICT OR THEIR PROJECT REPRESENTATIVE, MATTHEW MYERS, PE, GENERAL MANAGER SOUTH DAVIS SEWER DISTRICT.

"PROJECT MANAGER":
SHALL REFER TO AQUA ENGINEERING OR TO THEIR PROJECT REPRESENTATIVE, BRADLY M. RASMUSSEN, PE, (801) 299-1327 OR BRAD.RASMUSSEN@AQUAENG.COM

"ARCHITECT":
SHALL REFER TO JAMES B. GLASCOCK, PHONE/FAX (801) 860-8905 OR GLASCOCK@MTCON.NET.

"GENERAL CONTRACTOR":
SHALL REFER TO THE SELECTED PROJECT GENERAL CONTRACTOR OR THEIR PROJECT REPRESENTATIVE (TBD).

"CONTRACTOR" AND/OR "SUBCONTRACTOR":
SHALL REFER TO THE CONTRACTOR/BUILDER LICENSED TO PERFORM SUCH WORK IN THE STATE OF UTAH WHO MAY FURNISH MATERIALS, EQUIPMENT, MACHINERY AND TOOLS AND WHO SHALL FURNISH WORK ON THE JOBSITE.

"SUPPLIER":
SHALL REFER TO A FIRM, INDIVIDUAL OR AGENCY THAT FURNISHES RAW, PROCESSED AND/OR FABRICATED MATERIAL DELIVERED TO THE JOBSITE, BUT PERFORMS NO ON-SITE WORK OTHER THAN DELIVERY.

"CODES":
SHALL REFER TO ALL APPLICABLE CURRENT BUILDING CODES AND STANDARDS IN EFFECT AT THE DATE OF ISSUANCE OF BUILDING PERMITS INCLUDING, BUT NOT LIMITED TO THE 2021 INTERNATIONAL BUILDING CODE (IBC), INCLUDING ALL STATE AMENDMENTS, 2021 INTERNATIONAL FIRE CODE (IFC), 2021 INTERNATIONAL MECHANICAL CODE (IMC), 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2021 INTERNATIONAL PLUMBING CODE (IPC), 2021 INTERNATIONAL FUEL GAS CODE (IFGC), 2020 NEC, ICC/ANSI A117.1-2017 ACCESSIBILITY CODE, 2010 AMERICANS WITH DISABILITIES ACT ACCESSIBLE GUIDELINES (ADAAG), THE WEST BOUNTIFUL CITY FIRE MARSHAL AND THE WEST BOUNTIFUL CITY CURRENT MUNICIPAL AND DEVELOPMENT CODES.

BUILDING PERMITS :
OBTAINING THE MAIN BUILDING PERMIT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GC WILL SUBMIT THE DRAWINGS AND SPECIFICATIONS FOR PLAN CHECK ON BEHALF OF THE OWNER TO THE WEST BOUNTIFUL CITY BUILDING DEPT. THE GC SHALL BE RESPONSIBLE FOR PAYMENT OF THE MAIN BUILDING PERMIT FEES AND PLAN CHECK FEES, AS WELL AS, THE POSTING OF ANY BONDS REQUIRED BY WEST BOUNTIFUL CITY, EXCEPT FOR THOSE SPECIFICALLY REQUIRED OF THE GENERAL CONTRACTOR OR SUB-CONTRACTORS (MECHANICAL, ELECTRICAL AND PLUMBING). ALL CONTRACTORS, SUBCONTRACTORS AND SUPPLIERS ON THIS PROJECT SHALL COMPLY WITH ALL LOCAL, STATE AND NATIONAL BUILDING CODES, ORDINANCES, LAWS AND UTILITY REGULATIONS AND THESE SHALL BECOME A PART OF THESE SPECIFICATIONS. REFER TO ARTICLE 3 OF THE GENERAL CONDITIONS.

LOCAL BUILDING DEPARTMENT INSPECTIONS :
IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR TO COMPLY WITH IBC SECTION 109 REGARDING COORDINATION TO REQUEST THE WEST BOUNTIFUL CITY BUILDING DEPARTMENT FOR ALL REQUIRED INSPECTIONS PRIOR TO COVER-UP.

SPECIAL INSPECTIONS :
REFER TO THE STRUCTURAL DRAWINGS AND NOTES FOR ANY SPECIAL INSPECTIONS REQUIRED BY THE 2021 IBC FOR THIS PROJECT. ANY SPECIAL INSPECTORS WILL BE PAID BY THE OWNER. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE AND REQUEST THESE INSPECTIONS. ANY CORRECTIONS REQUIRED BY THESE SHALL BE AT THE COST OF THE GENERAL CONTRACTOR AND AS NO COST TO THE OWNER.

TESTING AND REPORTS :
REFER TO THE STRUCTURAL DRAWINGS AND NOTES FOR ANY TESTING AND REPORTS REQUIRED BY THE 2021 IBC FOR THIS PROJECT. ANY TEST WILL BE PAID BY THE OWNER. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO COORDINATE AND REQUEST THESE TESTS. ANY RE-TESTS AND/OR CORRECTIONS REQUIRED DUE TO FAILURE OF THESE TESTS SHALL BE AT THE COST OF THE GENERAL CONTRACTOR AND AS NO COST TO THE OWNER.

PLANS AND SPECIFICATIONS :
COMPLETE AND UP-TO-DATE AND CITY PERMIT APPROVED PLANS AND SPECIFICATIONS SHALL BE MAINTAINED IN THE GENERAL CONTRACTOR'S OFFICE. THE GENERAL CONTRACTOR, SUBCONTRACTORS AND SUPPLIERS ARE CAUTIONED THAT ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE CONSTRUCTION DOCUMENTS AND ONLY APPROVED REVISIONS. SUCH FURTHER DRAWINGS OR EXPLANATIONS AS THE ARCHITECT AND/OR ENGINEERS MAY FURNISH TO THE GENERAL CONTRACTOR TO DETAIL AND ILLUSTRATE THE WORK TO BE DONE WILL BE CONSISTENT WITH THE ORIGINAL PLANS AND SPECIFICATIONS AND EACH CONTRACTOR SHALL CONFORM THERETO AS PART OF THIS CONTRACT.

THE GENERAL CONTRACTOR IS TO ENSURE THE ALL SUB-CONTRACTORS AND SUPPLIERS ARE USING ONLY THE MOST CURRENT SET OF PROJECT DOCUMENTS ON THE JOBSITE.

INTERPRETATION OF THE CONTRACT DOCUMENTS :
SHOULD DISCREPANCIES IN OR OMISSIONS FROM THE DRAWINGS AND/OR SPECIFICATIONS BE DISCOVERED, IT WILL BE ASSUMED THAT THE MOST STRINGENT REQUIREMENT INDICATED ON THE PLANS AND SPECIFICATIONS OR AS REQUIRED BY CODES WILL PREVAIL AND HAS BEEN BID AS SUCH. SHOULD A BIDDER BE IN DOUBT AS TO ANY MEANING IN THE DRAWINGS AND/OR SPECIFICATIONS, THE BIDDER SHOULD NOTIFY THE ARCHITECT IN WRITING AT LEAST FIVE (5) WORKING DAYS PRIOR TO SUBMITTAL OF A BID PROPOSAL AND REQUEST A CLARIFICATION.

CHANGES AFTER THE CONTRACT IS LET :
THE OWNER RESERVES THE RIGHT TO MAKE ANY CHANGES, ADDITIONS AND/OR OMISSIONS THAT MAY BE REQUIRED DURING THE PROGRESS OF CONSTRUCTION AND THEY SHALL BE EXECUTED BY THE GENERAL CONTRACTOR WITHOUT IMPAIRING THE CONTRACT. COSTS OF SUCH CHANGES IN SCOPE WILL BE AGREED UPON IN WRITING BY THE OWNER, PROJECT MANAGER AND/OR ARCHITECT AND GENERAL CONTRACTOR BY A CHANGE ORDER BEFORE SUCH CHANGED WORK IS STARTED AND THE AGREED UPON AMOUNT WILL BE ADDED TO OR DEDUCTED FROM THE CONTRACT AMOUNT. THE GENERAL CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR HIS CHECKING AND APPROVAL AN ITEMIZED STATEMENT OF THE VALUE OF ALL LABOR AND MATERIAL PLUS PERCENTAGES INVOLVED IN EACH CHANGE. NO CLAIM FOR EXTRA WORK WILL BE ALLOWED, UNLESS IT IS ORDERED IN WRITING BY A CHANGE ORDER NOR WILL ANY CLAIM BE ALLOWED FOR LOSS OF PROSPECTIVE PROFITS OR PORTIONS OF THE WORK CANCELED. REFER TO ARTICLE 7 OF THE GENERAL CONDITIONS.

WORK DONE BY OWNER'S DIRECT CONTRACTOR(S) :
REFERENCE MAY BE MADE IN THE DRAWINGS AND/OR SPECIFICATIONS TO "WORK DONE BY OWNER" OR "WORK DONE BY OWNER'S DIRECT CONTRACTOR" AND IS NOT TO BE INCLUDED IN THE GENERAL CONTRACTOR'S BID PROPOSAL OR BY ANY SUB-CONTRACTOR'S BID. ANY DAMAGE DONE TO SAID WORK DURING CONSTRUCTION BY ANYONE EMPLOYED BY THE GENERAL CONTRACTOR OR ANY SUBCONTRACTOR EMPLOYED BY THE GENERAL CONTRACTOR WILL BE REPAIRED BY THE CONTRACTOR CAUSING SUCH DAMAGE AT NO ADDITIONAL COST TO THE OWNER. REFER TO ARTICLE 6 OF THE GENERAL CONDITIONS.

THIS GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE THE TIMELY INSTALLATION OF THE WORK AT NO ADDITIONAL COSTS TO THE OWNER.

MATERIALS FURNISHED OR SUPPLIED BY OWNER :
WHERE INDICATED ON THE DRAWINGS OR IN THESE SPECIFICATIONS, IT WILL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO RECEIVE, STORE AND HANDLE ANY MATERIALS THAT IS FURNISHED OR SUPPLIED BY THE OWNER TO BE INSTALLED BY THIS CONTRACT. ANY DAMAGE DONE TO SAID MATERIALS WORK DURING CONSTRUCTION BY ANYONE EMPLOYED BY THE GENERAL CONTRACTOR OR ANY SUBCONTRACTOR EMPLOYED BY THE GENERAL CONTRACTOR WILL BE REPLACED OR ACCEPTABLY REPAIRED BY THE CONTRACTOR CAUSING SUCH DAMAGE AT NO ADDITIONAL COST TO THE OWNER. REFER TO ARTICLE 6, GENERAL CONDITIONS. NOTE THAT THERE MAY BE A SPECIFIC EQUIPMENT AND FURNISHING SCHEDULE OF THOSE ITEMS TO BE OWNER SUPPLIED. THIS SCHEDULE IDENTIFIES WHICH PIECE IS TO BE SUPPLIED, INSTALLED AND CONNECTED BY EITHER THE OWNER'S DIRECT CONTRACTORS OR BY THIS GENERAL CONTRACTOR.

MATERIALS FURNISHED BY CONTRACTORS :
WHERE A BRAND NAME ITEM OF EQUIPMENT AND/OR MATERIAL IS SPECIFIED, THE CONTRACTOR AND/OR SUPPLIER IS TO SUPPLY THE EQUIPMENT AND/OR MATERIAL SO SPECIFIED, UNLESS THE DRAWINGS AND/OR SPECIFICATIONS HAVE BEEN PROPERLY ADDENDED SPECIFICALLY APPROVING THE USE OF AN EQUAL SUBSTITUTE. THE CONTRACTOR AND/OR SUPPLIER ARE RESPONSIBLE FOR EXPEDITING THE DELIVERY OF THEIR EQUIPMENT AND/OR MATERIAL TO THE JOBSITE. IN THE EVENT THAT THE LACK OF MATERIAL IS DELAYING CONSTRUCTION, ANY EXPEDITING COST INCURRED FOR AIR FREIGHT, ETC. WILL BE PAID BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. BEFORE STARTING WORK THE GENERAL CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ARCHITECT AND OWNER THE NAMES OF PROPOSED SUBCONTRACTORS, MANUFACTURERS, DISTRIBUTORS AND/OR SUPPLIERS FOR THE PROJECT. ALL MANUFACTURED ITEMS, MATERIALS, APPLIANCES AND/OR EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED AS DIRECTED BY THE MANUFACTURER UNLESS SPECIFIED TO THE CONTRARY AND APPROVED BY THE ARCHITECT.

APPROVAL OF "OR EQUIVALENT" AND "OR APPROVED EQUIVALENT" :
THE REQUEST FOR WRITTEN APPROVAL FROM THE ARCHITECT OF AN "OR EQUIVALENT" OR "OR APPROVED EQUIVALENT" MUST BE SUBMITTED TO THE ARCHITECT NO LATER THAN FIVE (5) WORKING DAYS PRIOR TO THE BID DATE. THE REQUEST FOR APPROVAL SHALL BE IN ACCORDANCE WITH THE SUBSTITUTIONS SECTION BELOW.

SUBSTITUTIONS :
THE ARCHITECT WILL APPROVE OR DISAPPROVE THE REQUEST FOR SUBSTITUTIONS AND HIS DECISION WILL BE FINAL. THE ARCHITECT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY OR ALL PROPOSALS FOR SUBSTITUTIONS. REQUESTS FOR SUBSTITUTIONS WILL ONLY BE CONSIDERED BY THE ARCHITECT IF THE CONTRACTOR AND/OR SUPPLIER SUBMIT THE FOLLOWING:

1. COMPLETE TECHNICAL DATA INCLUDING DRAWINGS, COMPLETE PERFORMANCE SPECIFICATIONS, TEST DATA AND SAMPLES OF THE ARTICLES PROPOSED FOR SUBSTITUTION.
2. STATEMENT THAT THE PROPOSED SUBSTITUTION IS IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND ALL CODES.
3. A LIST OF ANY OTHER TRADES AND SUBCONTRACTOR WORK, WHICH MAY BE AFFECTED BY THE SUBSTITUTION.
4. THE CONTRACTOR AND/OR SUPPLIER REQUESTING THE SUBSTITUTION SHALL BE RESPONSIBLE FOR ANY EFFECT UPON RELATED WORK IN THE PROJECT AND SHALL PAY ANY ADDITIONAL COSTS GENERATED BY ANY APPROVED SUBSTITUTION.

GUARANTEES AND/OR WARRANTIES :
CONTRACTORS AND/OR SUPPLIERS ARE TO DELIVER THEIR GUARANTEES AND/OR WARRANTIES AS REQUIRED BY THESE SPECIFICATIONS TO THE OWNER BEFORE FINAL PAYMENT. THE EFFECTIVE DATE OF THESE SHALL BEGIN ON THE DATE OF THE PROJECT'S SUBSTANTIAL COMPLETION AS DETERMINED BY THE ARCHITECT. THIS IS NOT THE DATE WHEN MATERIAL WAS SUPPLIED, OR WHEN THE SUBCONTRACTOR COMPLETED WORK. GUARANTEES AND WARRANTIES ARE TO BE MADE OUT DIRECTLY IN FAVOR OF THE OWNER.

MANUFACTURER'S TRADE MARKS AND/OR NAMES :
THE ARCHITECT RESERVES THE RIGHT TO REVIEW AND REQUIRE THE REMOVAL OR RE-DESIGN OF ANY MANUFACTURER'S TRADE MARK(S) AND/OR NAME(S) ON ANY ITEMS, MATERIALS AND/OR EQUIPMENT WHICH WILL BE IN PLAIN VIEW OF THE OCCUPANTS OF THE BUILDING WHEN PLACED IN THEIR FINAL POSITION. SUCH REMOVAL OR REDESIGN WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER. A DECISION ON THE NECESSITY TO REMOVE OR RE-DESIGN MAY BE OBTAINED FROM THE ARCHITECT PRIOR TO SUBMISSION OF A BID PROPOSAL AND MUST BE REQUESTED IN WRITING FIVE (5) WORKING DAYS PRIOR TO THE BID DATE. FAILURE TO OBTAIN SUCH APPROVAL SHALL CONSTITUTE AGREEMENT TO COMPLY WITH THIS REQUIREMENT.

U L LABEL :
WHERE APPLICABLE, ALL MATERIALS AND/OR EQUIPMENT FOR WHICH UNDERWRITER'S LABORATORIES, INC. STANDARDS HAVE BEEN ESTABLISHED AND THEIR LABEL AVAILABLE SHALL BEAR THE APPROPRIATE U.L. LABEL.

SAMPLES AND SHOP DRAWINGS :
PROVIDE THE ARCHITECT WITH SAMPLES AND ELECTRONIC SHOP DRAWINGS AS INDICATED IN THE DRAWINGS AND/OR SPECIFICATIONS WITH A TRANSMITTAL LETTER REQUESTING APPROVAL. LABEL EACH SAMPLE WITH THE EQUIPMENT AND/OR MATERIAL'S NAME, DATE, PROJECT NAME AND OTHER PERTINENT DATA. SUBMIT ALL SAMPLES IN TRIPLICATE AND PROVIDE ELECTRONIC COPIES OF ALL SHOP DRAWINGS. ALL SAMPLES AND SHOP DRAWINGS MUST BE REVIEWED AND STAMPED AS APPROVED AND REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO THE ARCHITECT, OR THEY WILL BE REJECTED AND RETURNED. THE GENERAL CONTRACTOR MUST ALLOW THE ARCHITECT AND OWNER (10) TEN WORKING DAYS FOR REVIEW. REFER TO ARTICLE 3 OF THE GENERAL CONDITIONS,

EXISTING ADJACENT BUILDINGS, PROPERTY, TRAILERS AND VEHICLE PROTECTION :
ALL CONTRACTORS ARE CAUTIONED AND SHALL BE CAREFUL WHEN PERFORMING ANY WORK IN OR NEAR THE PROJECT SITE INCLUDING ADJACENT PROPERTY. ANY DAMAGE TO THE EXISTING PROJECT SITE, ADJACENT BUILDINGS, ADJACENT PROPERTIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND ANY COSTS WILL BE CHARGED THEIR PAYMENTS AT NO ADDITIONAL COST TO THE OWNER.

SAFETY :
THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR AND SUPPLIER SHALL COMPLY WITH THE PROVISIONS OF ALL LOCAL, STATE AND FEDERAL SAFETY REGULATIONS. ATTENTION IS DIRECTED TO THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) WHICH PROVISIONS BECOME A PART OF THESE SPECIFICATIONS. REFER TO ARTICLE 10 OF THE GENERAL CONDITIONS. CONTRACTOR SHALL MAINTAIN AT HIS OFFICE OR OTHER PLACE ON JOBSITE, ARTICLES NECESSARY FOR FIRST AID.

TEMPORARY CONSTRUCTION AND SERVICES :
(NOTE: NOT ALL THESE REQUIREMENTS MAY BE REQUIRED FOR THIS PROJECT)

THE GENERAL CONTRACTOR SHALL PROVIDE AS A MINIMUM THE FOLLOWING ITEMS OF TEMPORARY CONSTRUCTION AND SERVICES AS REQUIRED FOR THE COMPLETE PERFORMANCE OF THE CONTRACT:
PROJECT CONSTRUCTION BARRIER FENCES
TEMPORARY BUILDING SUPPORTS
TEMPORARY CLOSURES OVER OPENINGS
PROTECTION FOR WORK-IN-PLACE
TEMPORARY FIRE PROTECTION
TEMPORARY FIRE ALARM SERVICE
TEMPORARY WATER
TEMPORARY POWER
TEMPORARY HEAT
PUMPING AND/OR DRAINING OF SURFACE AND/OR SUBSURFACE WATER
TEMPORARY TOILET FACILITIES - CONTRACTOR TO PROVIDE PORTABLE SANITARY FACILITIES FOR CONSTRUCTION WORKERS ON THE JOBSITE AT THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. COMPLY WITH 2021 IPC SECTION 311.
CONSTRUCTION DEBRIS - A DUMPSTER FOR CONSTRUCTION MATERIALS IS REQUIRED TO BE ONSITE PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND IS TO BE MAINTAINED ONSITE AT ALL TIMES.
CONTRACTOR TO FILE CONSTRUCTION RECYCLE PROGRAM, IF REQUIRED BY WEST BOUNTIFUL CITY .
REMOVAL OF ALL TEMPORARY CONSTRUCTION AND SERVICES OTHER ITEMS AS REQUIRED BY CODES OR LOCAL ORDINANCES

EQUIPMENT :
THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL EMPLOY METHODS AND EQUIPMENT FOR THE PERFORMANCE OF THEIR WORK TO A SATISFACTORY QUALITY OF WORKMANSHIP AND RATE OF PROGRESS, WHICH WILL ASSURE THE COMPLETION OF THE PROJECT WITHIN THE TIME SCHEDULED BY THE CONTRACT. ALL TOOLS AND EQUIPMENT NECESSARY TO EXECUTE THEIR WORK SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR.

SCAFFOLDING :
EACH CONTRACTOR SHALL FURNISH AND MAINTAIN THEIR OWN SCAFFOLDING AND OTHER SUCH AIDS STANDARD IN THE BUILDING INDUSTRY NECESSARY FOR THE COMPLETION OF THEIR WORK. THESE SHALL BE ERECTED AND LOCATED IN A SAFE AND SECURE MANNER.

PROTECTION OF CONTRACTOR'S WORK :
THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE TO SEE THAT THEIR WORK AND MATERIALS ARE PROTECTED FROM CLIMATIC CONDITIONS, INJURY AND/OR DEFACEMENT. FINISHED WORK SHALL BE COVERED WHERE REQUIRED FOR THOROUGH PROTECTION.

CUTTING, PATCHING AND BLOCKING :
EACH CONTRACTOR SHALL LEAVE ALL CHASES, HOLES, BLOCKING AND OPENINGS OF PROPER SIZE, AND SHAPE IN THEIR WORK FOR THE PROPER INSTALLATION OF THEIR, AND/OR OTHER CONTRACTOR'S WORK. EXCESSIVE CUTTING WILL NOT BE PERMITTED NOR SHALL ANY CONCRETE BE NOTCHED OR CUT UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS, OR UNLESS THE ARCHITECT AUTHORIZES IT IN WRITING.

AS-BUILT DRAWINGS :
THE GENERAL CONTRACTOR SHALL PROVIDE TO THE OWNER (1) COMPLETE SET OF AS-BUILT DRAWINGS. THESE MUST BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND ACCEPTANCE AND REVISED BEFORE FINAL PAYMENTS.

CERTIFICATE OF OCCUPANCY :
THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROMPTLY ARRANGING INSPECTIONS AND OBTAINING ANY APPROVALS NECESSARY FOR THE CERTIFICATE OF OCCUPANCY FROM WEST BOUNTIFUL CITY .

GEOTECHNICAL INVESTIGATION REPORT :
A GEOTECHNICAL (SOILS) INVESTIGATION REPORT ON THE SITE HAS BEEN PREPARED, AND BECOMES A PART OF THESE SPECIFICATIONS. A COPY IS AVAILABLE AT THE GENERAL CONTRACTOR'S OFFICE FOR REVIEW. ALL SUBCONTRACTORS AFFECTED BY THIS REPORT ARE CAUTIONED TO THOROUGHLY INSPECT THIS DOCUMENT. THE CONTRACTOR IS TO FOLLOW ALL RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT FOR THIS PROJECT DATED JULY 7, 2023 AND DESIGNATED AS NINYO & MOORE GEOTECHNICAL INVESTIGATION PROJECT NO. 800272001 .

IN PARTICULAR, PLEASE NOTE THAT THE CONTRACTOR WILL BE REQUIRED TO CONTACT THE GEOTECHNICAL ENGINEER PRIOR TO AND DURING GRADING AND FILL OPERATIONS TO DETERMINE THE ADEQUACY OF SITE PREPARATION, REMOVAL OF ALL UNSUITABLE MATERIAL AND COMPLIANCE WITH COMPACTION REQUIREMENTS TO INSURE THAT THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT HAVE BEEN PROPERLY IMPLEMENTED DURING CONSTRUCTION. THE SITE SHOULD BE INSPECTED IMMEDIATELY AFTER THE MAIN BLDG FOOTING EXCAVATION AND REMOVAL OF MATERIALS HAS OCCURRED TO IDENTIFY PRIOR FILL AREAS OR UNEXPECTED SOIL CONDITIONS THAT MAY UNDERLIE THE SITE. IF THE GEOTECHNICAL ENGINEER DETERMINES THAT ADDITIONAL SOILS AND/OR UNDERGROUND ELEMENTS BEYOND THAT SHOWN AND REQUIRED BY THE CIVIL DRAWINGS ARE TO BE REMOVED AND REPLACED WITH APPROPRIATE FILL MATERIALS, A CHANGE ORDER WILL BE ISSUED BASED UPON THE CUBIC YARDAGE OF THE MATERIALS REMOVED AND REPLACED AND THE COST SHALL BE PER ALTERNATE A.

DIVISION 02 - SITE WORK

SURVEY AND LAYOUT :
THE CONTRACTOR WILL ESTABLISH BENCH MARKS AS NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING THESE REFERENCE POINTS THROUGHOUT THE JOB. THE CONTRACTOR WILL STAKE OUT THE BUILDING SHOWN AS INDICATED ON THE DRAWINGS AND CHECK THE FINAL LOCATION WITH THE CIVIL ENGINEER BEFORE PROCEEDING WITH EXCAVATION.

SITE CLEARING, DEMOLITION AND PREPARATION :
THE CONTRACTOR IS TO CONTACT ALL LOCAL UTILITY COMPANIES AND HAVE THE SITE "BLUE STAKED" TO VERIFY AND TO LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE PROCEEDING WITH ANY CLEARING AND/OR DEMOLITION.

THE CONTRACTOR IS RESPONSIBLE FOR COMPLETELY CLEARING AND DISPOSING FROM THE CONSTRUCTION SITE ALL ORGANIC MATERIALS, BRUSH, SHRUBS, RUBBISH, DEMOLITION DEBRIS, ASPHALT PAVEMENT, EXISTING FILL MATERIALS, TOPSOIL, CURBS AND CONCRETE OR ANY SOFT SOILS FROM BENEATH LOCATIONS OF PROPOSED BUILDING FOOTINGS PER THE DRAWINGS DOWN TO A FIRM, UN-YIELDING NATIVE SUB-GRADE. THE OWNER WILL WALK THE PREMISES WITH THE CONTRACTOR AND MARK ANY SITE ITEMS TO BE MAINTAINED. ALL DEMOLISHED ITEMS SHALL BE DISPOSED OF IN A LEGAL, SAFE AND ORDERLY MANNER WITHOUT DAMAGE TO OTHER PARTS OF THE PREMISES OR ADJACENT PROPERTIES. ANY RESULTING DAMAGE OR LOSS SHALL BE CORRECTED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.

PREPARATION OF THE PROPOSED BUILDING AREA MUST INCLUDE THE COMPLETE REMOVAL OF ANY CONCRETE AND/OR ASPHALT PAVEMENT, NON-ENGINEERED FILL, LOOSE AND/OR DISTURBED SOILS, AND ANY OTHER DELETERIOUS MATERIALS FROM AREAS WHICH WILL ULTIMATELY BE STRUCTURALLY LOADED BY FOUNDATIONS AND FLOOR SLABS. FOLLOWING STRIPPING AND ROUGH GRADING OPERATIONS, AND PRIOR TO THE PLACEMENT OF ANY STRUCTURAL FILL, FOOTINGS, OR FLOOR SLABS ALL EXPOSED NATIVE SUB-GRADES MUST BE CHECKED FOR SOFT SPOTS. ANY UNSTABLE AREAS DETECTED SHOULD BE REMOVED AND REPLACED WITH STRUCTURAL FILL AS DEFINED BY THE GEOTECHNICAL ENGINEER.

EXCAVATION DRAINAGE :
DON'T PERMIT WATER TO ACCUMULATE IN EXCAVATED AREAS. DRAIN OR PUMP TO NATURAL DRAINAGE AREAS. REMOVE ALL FREE WATER FROM THE FOUNDATION PRIOR TO PLACEMENT OF CONCRETE. ADEQUATE SURFACE DRAINAGE MUST BE MAINTAINED DURING CONSTRUCTION.

STRUCTURAL FILL PLACEMENT AND COMPACTION :
THE CONTRACTOR IS TO PROVIDE STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. ALL PROPOSED SOURCES OF IMPORTED FILL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER FOR THE PROJECT PRIOR TO ITS DELIVERY TO THE SITE.

CONCRETE PAVEMENT :
THE CONTRACTOR IS TO PROVIDE CONCRETE PAVEMENT FOR WALKWAYS AS DEFINED BY THE GEOTECHNICAL REPORT AND THE CIVIL DRAWINGS.

FLOOR SLABS :
FLOOR SLABS MUST BE ESTABLISHED UPON NATIVE SUB-GRADE SOILS AND/OR STRUCTURAL FILL AS DEFINED BY THE GEOTECHNICAL REPORT. ALL SLABS SHOULD BE IMMEDIATELY UNDERLAIN BY A MINIMUM OF 4" OF "FREE-DRAINING" GRAVEL MATERIAL. THE GRAVEL MAY BE PLACED DIRECTLY UPON PROPERLY COMPACTED GRANULAR STRUCTURAL FILL AND/OR SUITABLE NATURAL SOILS.

UNDERGROUND UTILITIES AND TRENCH BACKFILL :
UTILITY PIPE TRENCH BACKFILL MUST BE COMPACTED SELECTED IMPORTED MATERIALS WITH MATERIAL AS DEFINED BY THE GEOTECHNICAL REPORT. CHUNKS OF FROZEN SOIL, ORGANICS, ROCK PARTICLES, AND OTHER DELETERIOUS MATERIALS SHOULD NOT BE PERMITTED IN TRENCH BACKFILL MATERIAL. ALL UTILITY PIPES THAT COULD BE NEGATIVELY IMPACTED BY FREEZING SHOULD BE LOCATED BELOW FROST DEPTH. ALL UTILITY TRENCHES SHOULD BE CUT BACK OR BRACED AS REQUIRED TO PROVIDE SAFE TRENCH WORKING CONDITIONS. TRENCH SAFETY IS THE RESPONSIBILITY OF THE UTILITY CONTRACTOR.

FINAL GRADING AND DRAINAGE :
THE FINISH GRADE OF ALL PLANTING, LAWN AND SHRUB AREAS SHALL BE BETWEEN 1/2" TO 1" BELOW GRADE OF ADJACENT PAVEMENT OF ANY KIND. THE GROUND SURFACE SURROUNDING THE EXTERIOR OF THE BUILDING SHOULD BE SLOPED TO DRAIN AWAY FROM THE BUILDING IN ALL DIRECTIONS WITH A MINIMUM SLOPE OF 6" IN THE FIRST 10'. ROOF DOWNSPOUTS MUST DISCHARGE ONTO SPLASH BLOCKS THAT EXTEND BEYOND THE LIMITS OF THE BACKFILL OR BE CONNECTED DIRECTLY TO THE UNDERGROUND STORM DRAIN SYSTEM. ALL SPRINKLER HEADS SHOULD BE AIMED AWAY FROM AND KEPT AT LEAST 2' FROM THE FOUNDATION WALLS. SHOULD ANY QUESTIONS OR PROBLEMS ARISE, CONSULT WITH THE CIVIL ENGINEER FOR EVALUATION BEFORE PROCEEDING.

STORM DRAIN SYSTEM :
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN AND FLUSH THE ADJACENT UNDERGROUND STORM DRAIN SYSTEM IMMEDIATELY PRIOR TO THE DATE OF SUBSTANTIAL COMPLETION TO ENSURE PROPER FUNCTION.

DIVISION 03 - CONCRETE WORK

ANCHOR BOLTS, SLEEVES, REGLETS, ETC :
PROVIDE AS SHOWN OR AS NECESSARY. TAKE CARE NOT TO DISPLACE ANY ITEMS WHILE PLACING CONCRETE.

INTERIOR FLOOR SLAB FINISH :
FINISH MONOLITHIC WITH STRUCTURAL SLAB. SLAB CONCRETE SHALL BE PLACED WITH MINIMUM PRACTICAL SLUMP NOT TO EXCEED 3". THE FRESH LAID SLAB SHALL BE COMPACTED AND SCREEDED UNIFORMLY TO GRADES SHOWN. PUSH LARGE AGGREGATES BELOW SURFACE WITH A SCREEN TAMPER, SCREED AND BULL FLOAT. AS SOON AS SURFACE BECOMES WORKABLE, IT SHALL BE WOOD FLOATED, THEN STEEL TOWELED TO A UNIFORM SMOOTH, TRUE SURFACE. FINISH IN A NEAT AND WORKMANLIKE MANNER. DO NOT WORK FINES TO SURFACE. SURFACE OF FINISHED SLABS SHALL NOT VARY MORE THAN 1/8" IN ANY TEN FOOT DIRECTION. SLOPE ALL SLABS TO DRAINS WHETHER SHOWN ON DRAWINGS OR NOT. BASE UNDER SLAB IS TO BE 4" GRAVEL. PROVIDE SAW-CUT CONTROL JOINTS AT 12' EACH WAY OR AS SHOWN ON THE DRAWINGS.

SIDEWALKS AND EXTERIOR SLABS :
SIDEWALKS AND EXTERIOR SLABS SHALL BE FINISHED AS SPECIFIED ABOVE FOR INTERIOR SLABS. AFTER TROWELLING, EXTERIOR SLABS AND WALKS SHALL RECEIVE A NON-SLIP BROOM FINISH AND BE SCORED WITH LINES AS SHOWN ON DRAWINGS, BUT NOT LESS THAN CONTRACTION JOINTS AT 5' ON CENTER AND EXPANSION JOINTS AT 40' ON CENTER. EXTERIOR SLABS AND SIDEWALKS SHALL BE FORMED WITH SLOPES AS INDICATED ON DRAWINGS AND/OR AS NECESSARY TO INSURE PROPER DRAINAGE AWAY FROM THE BUILDING. NO STEEL TROWEL FINISHES WILL BE PERMITTED ON ANY CONCRETE FLATWORK.

RAMP AND/OR SLOPED WALK FINISH :
SHALL BE FINISHED PER THE SIDEWALKS AND EXTERIOR SLABS SECTION ABOVE. SACK FINISH VERTICAL EXPOSED SURFACES.

CURE AND SEAL :
ALL EXTERIOR SLABS, RAMPS AND WALKWAYS ARE TO RECEIVE AN EXTERIOR CURE AND SEAL, EQUIVALENT TO ASHFORD FORMULA - SEE SPECIFICATIONS IN DIVISION 9.

PATCHING AND CLEANING :
PATCHING WITH GUNITE AND/OR RUBBING SHALL REPAIR DEFECTS IN NEW CONCRETE WORK. REPAIRED SURFACES SHALL DUPLICATE APPEARANCES OF UN-PATCHED WORK. CLEAN EXPOSED CONCRETE SURFACES AND ADJOINING WORK STAINED BY LEAKAGE OF CONCRETE. CHIP VOIDS AND STORE POCKETS TO A DEPTH OF 1" OR MORE AS REQUIRED TO REMOVE ALL LOOSE MATERIAL.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 1036 LICENSED ARCHITECT 03/01/24

Project
22-002

NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date
03/01/24

09A100

DIVISION 03 - CONCRETE WORK (CONTINUED)

CUTTING :
DO ALL CUTTING WITH A SAW CUTTING MACHINE AS REQUIRED.

CONCRETE FORMS AND ACCESSORIES :
WORK SHALL INCLUDE FORMS FOR CAST-IN-PLACE CONCRETE, WITH SHORING, BRACING, AND ANCHORAGE. FORM ACCESSORIES AND STRIPPING OF FORMS. PROVIDE SHOP DRAWINGS SHOWING DIAGRAM OF PROPOSED CONSTRUCTION JOINTS NOT INDICATED ON DRAWINGS. DESIGN FORM WORK IN ACCORDANCE WITH ACI 301 AND 347. FORMS SHALL BE WOOD, CONCEALED SURFACES: LUMBER, NO. 2 COMMON OR BETTER, DRESSED TO SMOOTH CONTACT SURFACES, OR CONCRETE FORM PLYWOOD, MINIMUM FIVE PLY, NIST PS 1, C-D PLUGGED OR BETTER. EXPOSED SURFACES: NON-ABSORPTIVE MEDIUM DENSITY OVERLAY PLYWOOD. METAL, OR OTHER APPROVED MATERIAL THAT WILL NOT ADVERSELY AFFECT SURFACE OF CONCRETE AND WILL PROVIDE OR FACILITATE OBTAINING SPECIFIED SURFACE FINISH. METAL SHALL BE A MINIMUM 16-GAGE STEEL, TIGHT FITTING, AND STIFFENED TO SUPPORT CONCRETE. CARTON FORMS SHALL BE LAMINATED FIBERBOARD MADE WITH WATERPROOF ADHESIVE, COATED WITH WATER RESISTANT COMPOUND, RECTANGULAR SHAPE, CAPABLE OF RESISTING MINIMUM 1000 PSF LOADING WHEN DRY. RETAINERS: 1/4-INCH THICK TEMPERED HARDBOARD OR 1-1/2 INCH THICK 40-PSI COMPRESSIVE STRENGTH EXTRUDED POLYSTYRENE INSULATION. FORM TIES SHALL BE SNAP OFF TYPE, ADJUSTABLE LENGTH, 1-INCH BACK BREAK DIMENSION, FREE OF DEFECTS THAT COULD LEAVE HOLES LARGER THAN 1 INCH IN CONCRETE. FORM RELEASE AGENT SHALL BE NON-STAINING, COLORLESS MINERAL OIL THAT WILL NOT ABSORB MOISTURE, STAIN CONCRETE, OR IMPAIR ADHESION OF COATINGS TO BE APPLIED TO CONCRETE. CONSTRUCTION JOINTS FORMS SHALL BE FORMED GALVANIZED STEEL, MINIMUM 18 GAGES, WITH KEYWAY. ANCHORS AND FASTENERS SHALL BE SIZED AS REQUIRED, SUFFICIENT STRENGTH TO MAINTAIN FORMS IN PLACE WHILE CONCRETE IS PLACED. FORM WORK SHALL BE A CONSTRUCT FORM WORK, SHORING, AND BRACING TO PRODUCE CONCRETE OF REQUIRED SHAPE, LINE, AND DIMENSION. ARRANGE AND ASSEMBLE FORM WORK WITH MINIMUM JOINTS, LOCATED TO ALLOW DISMANTLING WITHOUT DAMAGE TO CONCRETE. MAKE JOINTS WATERTIGHT. PROVIDE CHAMFER STRIPS IN CORNERS OF FORMS TO PRODUCE BEVELED EXTERNAL CORNERS. CLEAN CONTACT AND SCREED SURFACES PRIOR TO CONCRETE PLACEMENT. CONSTRUCTION JOINTS SHALL BE UNLESS OTHERWISE INDICATED ON DRAWINGS, EACH UNIT OF CONSTRUCTION IS A SINGLE UNIT; PLACE CONCRETE CONTINUOUSLY TO PROVIDE MONOLITHIC CONSTRUCTION. OBTAIN ARCHITECT'S APPROVAL OF CONSTRUCTION JOINT LOCATIONS NOT INDICATED ON DRAWINGS .PROVIDE KEYS AND DOWELS IN JOINTS. USE CONSTRUCTION JOINT FORM FOR JOINTS IN FLOOR SLABS. SET SCREED EDGE AT REQUIRED ELEVATION. SECURE TO PREVENT MOVEMENT. FORM RELEASE AGENT SHALL APPLY FORM RELEASE AGENT TO FORM WORK PRIOR TO PLACING REINFORCING, ANCHORING DEVICES, AND EMBEDDED ITEMS; FOLLOW MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW AGENT TO PUDDLE IN FORMS OR TO CONTACT HARDENED CONCRETE AGAINST WHICH FRESH CONCRETE IS TO BE PLACED. INSTALL INSERTS, ANCHOR SLOTS, ANCHOR BOLTS, AND EMBEDDED PARTS REQUIRED FOR ATTACHMENT OF WORK BEFORE CONCRETE IS PLACED. PROVIDE FORMED OPENINGS WHERE REQUIRED FOR PIPES, CONDUITS, SLEEVES, AND OTHER WORK PASSING THROUGH CONCRETE MEMBERS. MAINTAIN IN POSITION DURING CONCRETE PLACEMENT. FORM REMOVAL: DO NOT REMOVE FORM WORK UNTIL CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO RESIST DEAD LOADS PLUS APPLIED LIVE LOADS. INSTALLATION TOLERANCES: CONSTRUCT FORM WORK TO MAINTAIN TOLERANCES REQUIRED BY ACI 301.

CONCRETE REINFORCEMENT :
WORK SHALL INCLUDE REINFORCING BARS, WIRE FABRIC, AND ACCESSORIES FOR CAST-IN-PLACE CONCRETE. PROVIDE SHOP DRAWINGS, WHICH INCLUDE BAR SIZES, SPACING, LAPS, LOCATIONS, AND QUANTITIES OF REINFORCING BARS, WIRE FABRIC, AND ACCESSORIES. PROVIDE BENDING AND CUTTING SCHEDULES. SHOW COMPLETE LAYOUT PLAN FOR EACH LAYER OF REINFORCING. DELIVER REINFORCING TO PROJECT SITE IN BUNDLES MARKED WITH TAGS INDICATING BAR SIZE, LENGTH, AND MARK. HANDLE REINFORCING CAREFULLY TO PREVENT DAMAGE. STORE ABOVE GROUND IN DRY, WELL-DRAINED AREA; PROTECT FROM CORROSION. REINFORCING BARS SHALL MEET ASTM A 615/A 615M, DEFORMED BILLET STEEL, GRADE 60 UNLESS OTHERWISE INDICATED. WELDED WIRE FABRIC SHALL MEET ASTM A 185; FURNISH IN FLAT SHEETS. PROVIDE SPACERS, CHAIRS, BOLSTERS, AND BAR SUPPORTS: SIZED AND SHAPED FOR STRENGTH AND SUPPORT OF REINFORCEMENT DURING CONCRETE PLACEMENT. PROVIDE GALVANIZED OR PLASTIC COATED STEEL FOR SURFACES EXPOSED TO WEATHER. TIE WIRE SHALL BE ANNEALED STEEL, MINIMUM 16 GAGE. ALL FABRICATION SHALL BE IN ACCORDANCE WITH ACI 301 AND CRSI MANUAL. FABRICATION TOLERANCES SHALL BE SHEARED LENGTH, PLUS OR MINUS 1 INCH. BENDS IN STIRRUPS AND TIES, PLUS OR MINUS 1/2 INCH. ALL OTHER BENDS, PLUS OR MINUS 1 INCH. WELDING SHALL BE PER AWS D1.4. TESTING AND INSPECTION SERVICES SHALL BE PROVIDED. IF STEEL IS FROM AN UNDETERMINED ORIGIN OR MANUFACTURER'S MILL CERTIFICATE REPORTS ARE UNAVAILABLE, PERFORM TENSION AND BENDING TESTS ON THREE SEPARATE SAMPLES OF EACH SIZE AND TYPE OF BAR IN EACH 5 TONS OF STEEL. BEFORE PLACING IN WORK, THOROUGHLY CLEAN REINFORCING OF LOOSE RUST, MILL SCALE, DIRT, OIL, AND OTHER MATERIALS THAT COULD REDUCE BONDING. INSPECT REINFORCING LEFT PROTRUDING FOR FUTURE BONDING OR FOLLOWING DELAY IN WORK, AND CLEAN IF NECESSARY. INSTALL REINFORCING BARS. IN ACCORDANCE WITH ACI 301, AND CRSI MANUAL AND PUBLICATIONS 63 AND 65. BEND BARS COLD; DO NOT HEAT OR BEND BY MAKESHIFT METHODS. DISCARD DAMAGED BARS. ACCURATELY POSITION REINFORCING; SECURELY TIE AT INTERSECTIONS. WELDING: AWS D1.4. IF SPECIFIED IN DRAWINGS, INSTALL WIRE FABRIC REINFORCING IN LONGEST PRACTICAL LENGTH. OFFSET END LAPS IN ADJACENT WIDTHS TO PREVENT CONTINUOUS LAP. DO NOT DISPLACE OR DAMAGE VAPOR RETARDER. LOCATE SPLICES NOT INDICATED ON DRAWINGS AT POINTS OF MINIMUM STRESS. INSPECT INSTALLED REINFORCEMENT JUST PRIOR TO CONCRETE PLACEMENT; VERIFY SIZE, QUANTITY, LOCATION, BENDS, SPLICES, CLEARANCES, AND STABILITY OF SUPPORTS AND TIES.

CAST-IN-PLACE CONCRETE :
WORK SHALL INCLUDE CAST-IN-PLACE CONCRETE FOR PAVING, FOUNDATIONS, SLABS ON GRADE, EQUIPMENT PADS, AND BASES FOR LIGHTING FIXTURES. PROVIDE CONCRETE MIX DESIGNS, WHICH SHALL INCLUDE: PROPORTIONS OF CEMENT, FINE AND COARSE AGGREGATES, AND WATER. COMBINED AGGREGATE GRADATION. AGGREGATE SPECIFIC GRAVITIES AND GRADATIONS. WATER/CEMENT RATIO, DESIGN STRENGTH, SLUMP, AND AIR CONTENT. TYPE OF CEMENT AND AGGREGATES. TYPE AND PROPORTION OF ADMIXTURES. SPECIAL REQUIREMENTS FOR PUMPING. RANGE OF AMBIENT TEMPERATURE AND HUMIDITY FOR WHICH DESIGN IS VALID. SPECIAL CHARACTERISTICS OF MIX REQUIRING PRECAUTIONS IN MIXING, PLACING, OR FINISHING TECHNIQUES TO ACHIEVE FINISHED PRODUCT. CONCRETE MIX DESIGN SHALL BE IN ACCORDANCE WITH ACI 301, METHOD 1 OR 2. MIX AND DELIVER CONCRETE TO PROJECT READY MIXED IN ACCORDANCE WITH ASTM C 94. SCHEDULE DELIVERY SO THAT POURS WILL NOT BE INTERRUPTED FOR OVER 15 MINUTES. PLACE CONCRETE ON SITE WITHIN 90 MINUTES AFTER PROPORTIONING MATERIALS AT BATCH PLANT.

COLD WEATHER PLACING: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH THAT COULD BE CAUSED BY FROST, FREEZING ACTIONS, OR LOW TEMPERATURES. COMPLY WITH ACI 306R AND FOLLOWING REQUIREMENTS: AIR TEMPERATURE AT OR EXPECTED TO FALL BELOW 40 DEGREES F: UNIFORMLY HEAT WATER AND AGGREGATES BEFORE MIXING TO OBTAIN A CONCRETE MIXTURE TEMPERATURE OF NOT LESS THAN 50 DEGREES F AND NOT MORE THAN 80 DEGREES F AT POINT OF PLACEMENT. DO NOT USE FROZEN MATERIALS OR MATERIALS CONTAINING ICE OR SNOW.

DO NOT PLACE CONCRETE ON FROZEN SUB-GRADE OR ON SUB-GRADE CONTAINING FROZEN MATERIALS. DO NOT USE CALCIUM CHLORIDE, SALT, AND OTHER MATERIALS CONTAINING ANTIFREEZE AGENTS OR CHEMICAL ACCELERATORS UNLESS OTHERWISE ACCEPTED IN MIX DESIGNS. HOT WEATHER PLACING: PLACE CONCRETE IN ACCORDANCE WITH ACI 305R AND FOLLOWING REQUIREMENTS: COOL INGREDIENTS BEFORE MIXING TO MAINTAIN CONCRETE TEMPERATURE AT TIME OF PLACEMENT BELOW 90 DEGREES F. USE CHILLED MIXING WATER OR CHOPPED ICE IF WATER EQUIVALENT OF ICE IS CALCULATED IN TOTAL AMOUNT OF MIXING WATER. IF REQUIRED, COVER REINFORCING STEEL WITH WATER SOAKED BURLAP SO THAT STEEL TEMPERATURE WILL NOT EXCEED AMBIENT AIR TEMPERATURE. FOG SPRAY FORMS, REINFORCING STEEL, AND SUB-GRADE JUST BEFORE CONCRETE IS PLACED. USE WATER-REDUCING RETARDING ADMIXTURE WHEN REQUIRED BY HIGH TEMPERATURES, LOW HUMIDITY, OR OTHER ADVERSE PLACING CONDITIONS. PORTLAND CEMENT SHALL BE ASTM C 150, TYPE I OR III, GRAY COLOR. AGGREGATES SHALL BE FINE: ASTM C 33, CLEAN, HARD, DURABLE, UNCOATED NATURAL SAND, FREE FROM SILT, LOAM, AND CLAY. COARSE: ASTM C 33, CLEAN, HARD, DURABLE, UNCOATED CRUSHED STONE, MAXIMUM SIZE NO. 467, TABLE NO. 2. WATER SHALL BE CLEAN AND POTABLE. ADMIXTURES TO BE WATER REDUCING OR WATER REDUCING/SET RETARDING: ASTM C 494, TYPE A OR D AND AIR ENTRAINING SHALL BE ASTM C 260. EXPANSION JOINT FILLER SHALL MEET ASTM D 1752, TYPE 1, NON ASPHALTIC. NON SHRINK GROUT SHALL BE PREMIXED, CONSISTING OF NON-METALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING AGENTS; 7,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. BONDING AGENT SHALL BE TWO COMPONENT MODIFIED EPOXY RESIN. VAPOR RETARDER SHALL BE 6 MIL BLACK POLYETHYLENE FILM. CURING COMPOUND SHALL BE ASTM C 309, WATER BASED TYPE. CURING PAPER SHALL BE ASTM C 171, WATERPROOF PAPER OR POLYETHYLENE FILM. MIX PROPORTIONS: IN ACCORDANCE WITH ACI 301. DESIGN CONCRETE TO YIELD CHARACTERISTICS INDICATED. CONCRETE PERMANENTLY EXPOSED TO WEATHER: CONTAIN AIR-ENTRAINING ADMIXTURE TO PRODUCE 4 TO 6 PERCENT AIR BY VOLUME OF CONCRETE. USE ACCELERATING ADMIXTURE IN COLD WEATHER ONLY WHEN APPROVED BY ARCHITECT. USE OF ADMIXTURES WILL NOT REDUCE COLD WEATHER PLACEMENT REQUIREMENTS. NOTIFY ARCHITECT AND TESTING LABORATORY MINIMUM 24 HOURS PRIOR TO PLACING CONCRETE.

ACCURATELY POSITION ANCHOR BOLTS, SLEEVES, CONDUIT, INSERTS, AND ACCESSORIES. DO NOT CUT REINFORCING STEEL TO FACILITATE INSTALLATION OF INSERTS OR ACCESSORIES. REMOVE WATER AND DEBRIS FROM FORMS AND EXCAVATIONS. CLOSE OPENINGS LEFT IN FORMS FOR CLEANING AND INSPECTION. PREPARE PREVIOUSLY PLACED AND EXISTING CONCRETE SURFACES BY CLEANING WITH STEEL WIRE BRUSH AND APPLYING BONDING AGENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PLACE UNDER FLOOR SLABS ON GRADE. LAP JOINTS MINIMUM 6 INCHES. TAPE SEAL LAPS AND PENETRATIONS. PROTECT FROM DAMAGE DURING REINFORCING AND CONCRETE PLACEMENT OPERATIONS. PLACE CONCRETE IN ACCORDANCE WITH ACI 301 AND ACI 318. ENSURE REINFORCEMENT, INSERTS, AND EMBEDDED PARTS ARE NOT DISTURBED DURING CONCRETE PLACEMENT.

DEPOSIT CONCRETE AS NEARLY AS POSSIBLE IN ITS FINAL POSITION TO MINIMIZE HANDLING AND FLOWING. PLACE CONCRETE CONTINUOUSLY BETWEEN PREDETERMINED EXPANSION, CONTROL, AND CONSTRUCTION JOINTS. DO NOT PLACE PARTIALLY HARDENED, CONTAMINATED, OR RE-TEMPERED CONCRETE. DO NOT ALLOW CONCRETE TO FREE-FALL OVER 8 FEET; PROVIDE TREMIES, CHUTES, OR OTHER MEANS OF CONVEYANCE. CONSOLIDATE CONCRETE WITH MECHANICAL VIBRATING EQUIPMENT. HAND COMPACT IN CORNERS AND ANGLES OF FORMS. SCREED SLABS LEVEL, TO FLATNESS TOLERANCE OF 1/4 INCH IN 10 FEET. REMOVE LOOSE AND FOREIGN MATTER FROM CONCRETE; LIGHTLY ROUGHEN BONDING SURFACE. JUST PRIOR TO GROUTING, THOROUGHLY WET CONCRETE SURFACES; REMOVE EXCESS WATER. MIX GROUT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT RE-TEMPER.

DO NOT RE-TEMPER. PLACE GROUT CONTINUOUSLY, BY MOST PRACTICAL MEANS; AVOID ENTRAPPED AIR. DO NOT VIBRATE GROUT. IMMEDIATELY AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE. PROVIDE ARTIFICIAL HEAT TO MAINTAIN TEMPERATURE OF CONCRETE ABOVE MINIMUM SPECIFIED TEMPERATURE FOR DURATION OF CURING PERIOD. KEEP FORMS SUFFICIENTLY WET TO PREVENT CRACKING OF CONCRETE OR LOOSENING OF FORM JOINTS. CURE CONCRETE IN ACCORDANCE WITH ACI 308 ON HORIZONTAL SURFACES: SURFACES TO RECEIVE ADDITIONAL TOPPINGS OR SETTING BEDS. USE CURING PAPER METHOD ON OTHER SURFACES. USE EITHER CURING PAPER OR CURING COMPOUND METHOD. VERTICAL SURFACES, USE EITHER WET CURING OR CURING COMPOUND METHOD. SPRAY CURING COMPOUND ON SURFACES IN TWO COATS, APPLYING SECOND AT RIGHT ANGLE TO FIRST, AT RATE OF 400 SQUARE FEET PER GALLON. RESTRICT TRAFFIC ON SURFACES DURING CURING. SPREAD CURING PAPER OVER SURFACES, LAPPING ENDS AND SIDES MINIMUM 4 INCHES; MAINTAIN IN PLACE BY USE OF WEIGHTS. REMOVE PAPER AFTER CURING. WET CURING METHOD: SPRAY CURING WATER OVER SURFACES AND MAINTAIN WET FOR 7 DAYS. REMOVE EFFLORESCENCE, STAINS, OIL, GREASE, AND FOREIGN MATERIALS FROM EXPOSED SURFACES. TESTING AND INSPECTION SERVICES, DETERMINE AMBIENT TEMPERATURE AND TEMPERATURE OF CONCRETE SAMPLE FOR EACH SET OF TEST CYLINDERS. TEST CYLINDERS. MAKE TEST CYLINDERS IN ACCORDANCE WITH ASTM C 172; ONE SET OF 3 CYLINDERS FOR EACH 100 CUBIC YARDS OR FRACTION THEREOF PLACED IN ANY ONE DAY, FOR EACH DIFFERENT CLASS OF CONCRETE. MOLD AND CURE CYLINDERS IN ACCORDANCE WITH ASTM C 31; TEST CYLINDERS IN ACCORDANCE WITH ASTM C 39; ONE AT 7 DAYS AND TWO AT 28 DAYS. SLUMP TESTS: MAKE SLUMP TESTS AT BEGINNING OF EACH DAY'S PLACEMENT AND FOR EACH SET OF TEST CYLINDERS IN ACCORDANCE WITH ASTM C 143. AIR CONTENT: DETERMINE TOTAL AIR CONTENT OF AIR ENTRAINED CONCRETE FOR EACH STRENGTH TEST IN ACCORDANCE WITH ASTM C 231.

CONCRETE :
A. MINIMUM COMPRESSIVE STRENGTH SHALL BE AS SPECIFIED IN THE STRUCTURAL DRAWINGS FOR ALL WORK.
B. PROTECT WORK FROM PHYSICAL DAMAGE AND HIGH OR LOW TEMPERATURES.
B. FOR INTERIOR AND EXTERIOR FLATWORK MINIMUM COMPRESSIVE STRENGTH: 4,000 PSI IN (28) DAYS.
C. CALCIUM CHLORIDE ADDITIVES ARE NOT ALLOWED.

PRE-CAST CONCRETE ITEMS :
PROVIDE THE FOLLOWING PRECAST OR CAST-N PLACE CONCRETE ITEMS:
A. 1 1/2 INCH X 24 INCH CONCRETE SPLASH BLOCKS UNDER ALL ROOF DRAINS
B. 3" X 12" X 36" LONG PRE-CAST CMU WALL CAPS DOWELED TO CMU MONUMENT SIGN - REFER TO SITE DETAILS
C. PRE-CAST CONCRETE WINDOW SILLS - SEE WINDOW DETAILS

CONCRETE MASONRY UNITS :
HOLLOW LOAD-BEARING UNITS, CONFORMING TO ASTM C90, TYPE N-1 PER 2021 IBC SECTION 2103 (REFER TO EXTERIOR ELEVATIONS):

CMU - 1	BASE OR WAINSCOT OF (4) COURSES OF 10X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR.
CMU - 2	BELT ACCENT BAND OF (1) COURSE OF 10X8X16 SPLIT-FACED COLORED CMU COLOR #2 UNITS LAID IN RUNNING BOND WITH ROUND TOOLED JOINTS WITH MORTAR TO MATCH CMU COLOR.
CMU - 3	MID BAND OF (9) COURSES OF 10X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR.
CMU - 4	HIGH ACCENT BAND OF TO BE (2) COURSES OF 10X8X16 SPLIT-FACED COLORED CMU COLOR #2 UNITS LAID IN RUNNING BOND WITH ROUND TOOLED JOINTS WITH MORTAR TO MATCH CMU COLOR.
CMU - 5	2ND HIGH BAND OF (7) COURSES OF 10X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR
CMU-6	3ND HIGH BAND OF (3) COURSES OF 10X8X16 COLORED CMU IN NATURAL COLOR IN STANDARD FINISH UNITS LAID IN RUNNING BOND WITH ROUND TOOLED JOINTS. MORTAR TO BE NATURAL COLOR.
CMU-7	HIGH BANS OF (5) COURSES OF 10X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR.
CMU-8	BASE OR WAINSCOT OF (4) COURSES OF 8X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR.
CMU-9	BELT ACCENT BAND OF (1) COURSE OF 8X8X16 SPLIT-FACED COLORED CMU COLOR #2 UNITS LAID IN RUNNING BOND WITH ROUND TOOLED JOINTS WITH MORTAR TO MATCH CMU COLOR.
CMU-10	MID BAND OF (9) COURSES OF 8X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR.
CMU-11	HIGH ACCENT BAND OF TO BE (2) COURSES OF 8X8X16 SPLIT-FACED COLORED CMU COLOR #2 UNITS LAID IN RUNNING BOND WITH ROUND TOOLED JOINTS WITH MORTAR TO MATCH CMU COLOR.
CMU-12	2ND HIGH BAND OF (7) COURSES OF 8X8X16 COLORED CMU COLOR #1 STANDARD FINISH UNITS LAID IN STACKED BOND WITH SQUARE RAKED JOINTS. MORTAR TO BE NATURAL COLOR
CMU-13	HIGH BAND OF (3) COURSES OF 8X8X16 COLORED CMU IN NATURAL COLOR IN STANDARD FINISH UNITS LAID IN RUNNING BOND WITH ROUND TOOLED JOINTS. MORTAR TO BE NATURAL COLOR.

INSTALLATION :
ALL EXPOSED FACES OF MASONRY UNITS INSTALLED SHALL BE FREE OF CHIPS, DEFECTS, DEFICIENCIES, SURFACE TREATMENTS AND/OR IMPERFECTIONS. BUILD TRUE AND PLUMB TO DIMENSIONS AS SHOWN ON THE DRAWINGS TO PRESERVE THE UNOBSTRUCTED VERTICAL CONTINUITY OF CELLS. VERTICALLY ALIGN THE WALLS SUFFICIENTLY TO MAINTAIN A CLEAR UNOBSTRUCTED OPENING NOT LESS THAN 3" IN ALL DIRECTIONS. LAY UNITS CLEAN AND DRY IN COMPLIANCE WITH IBC REQUIREMENTS AND PROVIDE REINFORCING AND GROUT AS SHOWN ON THE DRAWINGS OR THE MINIMUM AS REQUIRED BY IBC IF NOT SHOWN. INSULATE ALL UN-GROUTED CELLS OF EXTERIOR BLOCK WALLS. INSTALL LINTELS OVER EVERY OPENING, WHETHER IT IS SHOWN OR NOT SHOWN. COVER WORK AT THE END OF EACH DAY AND PROTECT FROM FREEZING BY TENTING AND HEATING. PROVIDE EXPANSION JOINTS AS SHOWN ON THE DRAWINGS OR AS REQUIRED TO PREVENT DAMAGE TO WALLS.

CLEAN-UP :
CLEAN ALL EXPOSED BLOCK THOROUGHLY AT CONCLUSION OF WORK, WORKING FROM THE TOP DOWNWARD WITH FIBER BRUSHES. REMOVE MORTAR AND MORTAR STAINS USING A NON-ACID CLEANING COMPOUND AND RINSE THOROUGHLY WITH WATER. ALL FINISHED SURFACES OF EXPOSED WORK SHALL BE UNMARKED AND UNMARRED OR WILL BE REDONE AT NO EXPENSE TO THE OWNER.

MORTAR :
PER 2021 IBC, SECTION 2102 AND TABLE NO. 21-D, TYPE S, ASTM C270, USE PORTLAND CEMENT, TYPE I. THE MORTAR COLOR IS TO BE COLORED AS SELECTED BY ARCHITECT. PROVIDE SAMPLES AS DIRECTED BY ARCHITECT.

GROUT :
SHALL CONFORM TO ASTM C476.

REINFORCING STEEL :
ASTM A615 GRADE 60.

PORTLAND CEMENT :
SHALL CONFORM TO ASTM C150, TYPE I, NON-STAINING, NO AIR ENTRAINMENT AND LOW ALKALI.

OTHER MATERIALS :

AGGREGATE:	SHALL CONFORM TO ASTM C144 OR C404.
MASONRY CEMENT:	SHALL CONFORM TO ASTM C91.
LIME:	HYDRATED LIME SHALL CONFORM TO ASTM C207, TYPE S
SAND:	FOR MORTAR SHALL CONFORM TO ASTM C144 AND BIA RECOMMENDATIONS.
WATER:	CLEAR AND POTABLE.

CMU SEALER :
SEE SECTION IN DIVISION NO. 9.

DIVISION 05 STEEL AND METALWORK

METAL FABRICATIONS :
WORK SHALL INCLUDE SHOP FABRICATED FERROUS METAL COMPONENTS, GALVANIZED AND PRIME PAINTED. ALL WORK SHALL COMPLY WITH SHAPES: ASTM A 36/A 36M. PLATE: ASTM A 283. SHEET: ASTM A 366. PIPE: ASTM A 501. TUBE: ASTM A 500. BARS: ASTM A 108. PROVIDE SHOP DRAWINGS WHICH SHOW DIMENSIONS, METAL THICKNESSES, FINISHES, JOINTS, ATTACHMENTS, AND RELATIONSHIP OF WORK TO ADJACENT CONSTRUCTION. FASTENERS SHALL BE: PHILLIPS FLAT HEAD EXPOSED SCREWS COUNTERSUNK, UNLESS NOTED OTHERWISE. ASTM A 307, BOLTS HEXAGONAL HEAD TYPE. PRIMER PAINT SHALL BE SSPC PAINT 15, TYPE 1, RED OXIDE. ANCHORING CEMENT SHALL BE PREMIXED, CEMENTITIOUS BASED. FIT AND SHOP ASSEMBLE ITEMS IN LARGEST PRACTICAL SECTIONS, FOR DELIVERY TO SITE. FABRICATE ITEMS WITH JOINTS TIGHTLY FITTED AND SECURED. GRIND EXPOSED JOINTS FLUSH AND SMOOTH WITH ADJACENT FINISH SURFACE. MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HAIRLINE. EASE EXPOSED EDGES TO SMALL UNIFORM RADIUS. EXPOSED MECHANICAL FASTENINGS: FLUSH COUNTERSUNK SCREWS OR BOLTS, UNOBTRUSIVELY LOCATED, CONSISTENT WITH DESIGN OF COMPONENT EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. SUPPLY COMPONENTS REQUIRED FOR ANCHORAGE OF FABRICATIONS. FABRICATE ANCHORS AND RELATED COMPONENTS OF SAME MATERIAL AND FINISH AS FABRICATION, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. CONCEAL FASTENINGS WHERE POSSIBLE. WELDING TO CONFORM TO AWS D1.1. USE WELDS FOR PERMANENT CONNECTIONS WHERE POSSIBLE. GRIND EXPOSED WELDS SMOOTH. TACK WELDS PROHIBITED ON EXPOSED SURFACES. EXTERIOR FERROUS METAL FINISH COMPONENTS SHALL BE GALVANIZED; ASTM A 123/A 123M, TO 1.25 OUNCES PER SQUARE FOOT. INTERIOR FERROUS METAL FINISH COMPONENTS SHALL BE SHOP PAINTED EXCEPT STEEL TO BE ENCASED IN CONCRETE AND SURFACES TO BE WELDED. SURFACE PREPARATION: SSPC SP2 - HAND TOOL CLEANING OR SP3 - POWER TOOL CLEANING. APPLICATION: ONE COAT; FOLLOW COATING MANUFACTURER'S INSTRUCTIONS. MINIMUM DRY FILM THICKNESS: 2.0 MILS. INSTALL ITEMS IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. INSTALL COMPONENTS PLUMB, LEVEL, AND RIGID. WELDING: AWS D1.1. GRIND AND FILL EXPOSED WELDS; FINISH SMOOTH AND FLUSH. INSTALL SLEEVED COMPONENTS WITH ANCHORING CEMENT. PREVENT CONTACT OF EXTERIOR ALUMINUM AND DISSIMILAR METALS BY USE OF ZINC RICH PAINT, BITUMINOUS COATING, OR NON-ABSORPTIVE GASKETS. CLEAN AND TOUCH UP PRIMER PAINT AT WELDED AND ABRADED SURFACES WITH SAME PRODUCT AS APPLIED IN SHOP. CLEAN AND TOUCH UP GALVANIZED COATINGS AT WELDED AND ABRADED SURFACES IN ACCORDANCE WITH ASTM A 780, ANNEX A2.

TYPES :
SHALL CONFORM TO ASTM A50, ASTM A572 FOR STRUCTURAL STEEL, ASTM A500 GRADE B FOR SQUARE TUBE COLUMNS, ASTM A501 FOR ROUND TUBE COLUMNS AND A53 TYPE HSS PIPE AND ASTM A3 FOR MISCELLANEOUS STEEL.

MISCELLANEOUS METALS :
PROVIDE MASONRY ANGLE LINTELS, STEEL LADDERS, BOLLARDS, BUILT-UP DECORATIVE CHANNELS, PLATES, ETC., AS SHOWN, OR AS NEEDED.

SHOP PRIMING :
SHOP PRIME ALL METAL WORK AFTER FABRICATION. TOUCH-UP ABRADED AREAS AFTER INSTALLATION AND PRIOR TO PAINTING.

CONNECTIONS :
ALL WELDING IS TO BE DONE PER AMERICAN WELDING SOCIETY STANDARDS. ALL WELDS SHALL BE PERFORMED BY AWS CERTIFIED WELDERS & CURRENTLY CERTIFIED IN THE STATE OF UTAH, ELECTRODES EQUALS E70XX. ALL BOLTING IS TO BE DONE PER AISC STANDARDS.

ORNAMENTAL METALS :
SECTION INCLUDES RAILINGS, AND HANDRAILS. SUBMIT SHOP DRAWINGS. SHOW DIMENSIONS, METAL THICKNESSES, FINISHES, JOINTS, ATTACHMENTS, AND RELATIONSHIP OF WORK TO ADJACENT CONSTRUCTION. DESIGN REQUIREMENTS: MINIMUM DESIGN LOADS FOR HANDRAILS AND RAILINGS, CONCENTRATED LATERAL FORCE OF 250 POUNDS AT ANY POINT, UNIFORM LOAD OF 50 POUNDS PER LINEAR FOOT APPLIED IN ANY DIRECTION, MAXIMUM DEFLECTION UNDER LOADING: L/120, AND CONCENTRATED AND UNIFORM LOADS DO NOT NEED TO BE APPLIED SIMULTANEOUSLY. MATERIALS SHALL BE STAINLESS STEEL: ASTM A 480/A 480M OR ASTM A 666; TYPE 304 OR 316, ROLLABLE TEMPER. BOLTS SHALL BE ASTM F593, GRADE OPTIONAL. FIT AND SHOP ASSEMBLE ITEMS IN LARGEST PRACTICAL SECTIONS, FOR DELIVERY TO SITE. FABRICATE ITEMS WITH JOINTS TIGHTLY FITTED AND SECURED, GRIND EXPOSED JOINTS FLUSH AND SMOOTH WITH ADJACENT FINISH SURFACE. MAKE EXPOSED JOINTS BUTT TIGHT, FLUSH, AND HAIRLINE. EASE EXPOSED EDGES TO SMALL UNIFORM RADIUS, EXPOSED MECHANICAL FASTENINGS: FLUSH COUNTERSUNK SCREWS OR BOLTS, UNOBTRUSIVELY LOCATED, CONSISTENT WITH DESIGN OF COMPONENT EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, SUPPLY COMPONENTS REQUIRED FOR ANCHORAGE OF FABRICATIONS. FABRICATE ANCHORS AND RELATED COMPONENTS OF SAME MATERIAL AND FINISH AS FABRICATION, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, AND CONCEAL FASTENINGS WHERE POSSIBLE. INSTALL ITEMS IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. INSTALL COMPONENTS PLUMB, LEVEL, AND RIGID.

SHOP DRAWINGS :
PROVIDE SHOP DRAWING OF ALL FABRICATED STEEL ITEMS OR ASSEMBLIES TO BE SUBMITTED FOR THE ARCHITECT'S REVIEW.

DIVISION 06 CARPENTRY

LUMBER :
PROVIDE CONSTRUCTION GRADE PRESSURE TREATED LUMBER WHENEVER IN CONTACT WITH CONCRETE OR MASONRY. PROVIDE FURRING, CAPS AND NAILERS AS NECESSARY OR AS DETAILED AND FIRE-TREATED WHERE REQUIRED BY CODE. PROVIDE BACKING IN WALLS FOR ALL SHELVES, CABINETS, EQUIPMENT, ACCESSORIES AND GRAB BARS. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL WOOD REQUIREMENTS AND SPECIFICATIONS.

PLYWOOD :
PROVIDE THE TYPES AND THICKNESS AS SHOWN ON THE DRAWINGS OR AS NECESSARY FOR THE PERFORMANCE AS INTENDED. ALL STRUCTURAL PLYWOOD SHALL BE CD EXTERIOR GLUE. COMPLY WITH U.S. PRODUCT STANDARD PS 1-6B. IN THE TABLE AND CHAIR STORAGE, PROVIDE 4' HIGH PLYWOOD WAINSCOT ON GYP BOARD FINISHED WALLS. ALL NEW PLYWOOD WAINSCOTS ARE TO BE PRIMED AND PAINTED.

ROUGH HARDWARE :
SUPPLY AND INSTALL ALL ROUGH HARDWARE TO MAKE A COMPLETE JOB INCLUDING NAILS, BOLTS, SPIKES, ANGLES, METAL CONNECTORS, ETC. AS SHOWN OR AS REQUIRED FOR PROPER CONNECTION.

MINIMUM NAILING :
ALL MATERIALS SHALL BE SIZED TO AN EVEN THICKNESS AND SHALL BE NAILED IN ACCORDANCE WITH THE 2021 IBC NAILING SCHEDULE AND ANY OTHER NAILING SHALL BE IN PROPORTION OR AS DIRECTED AND SHALL BE THOROUGHLY DONE. ANY NAILING SPECIFIED IN THE STRUCTURAL DRAWINGS, NOTES AND/OR SPECIFICATIONS SHALL PREVAIL. THE MOST STRINGENT REQUIREMENT AS DESCRIBED IN THESE DRAWINGS AND SPECIFICATIONS SHALL APPLY IF THERE IS A DISCREPANCY. IF SPLITTING FROM NAILING OCCURS, DRILL HOLES SLIGHTLY SMALLER THAN THE NAIL SIZE.

LUMBER :
PROVIDE CONSTRUCTION GRADE PRESSURE TREATED LUMBER WHENEVER IN CONTACT WITH CONCRETE OR MASONRY. PROVIDE FURRING, CAPS AND NAILERS AS NECESSARY OR AS DETAILED AND FIRE-TREATED WHERE REQUIRED BY CODE. PROVIDE BACKING IN WALLS FOR ALL SHELVES, CABINETS, EQUIPMENT, ACCESSORIES AND GRAB BARS.

SO LID BLOCKING:
SOLID WOOD BLOCKING MUST BE INSTALLED TO SUPPORT THE FOLLOWING ITEMS PRIOR TO THE INSTALLATION OF DRYWALL AND FINISHES; DRYWALL ANCHORS OF ANY TYPE ARE NOT TO BE PERMITTED.
A. SHELVING
B. WALL CABINETS
C. WALL MOUNTED DOOR STOPS
D. MILLWORK

WOOD ROOF TRUSSES :
THE WOOD ROOF TRUSSES SHALL BE FACTORY MANUFACTURED WITH ENGINEERED STRUCTURAL 2X MEMBER WOOD DIAGONAL CHORDS WITH STRUCTURAL WOOD TOP AND BOTTOM CHORDS. THEY ARE TO BE DESIGNED TO FIT FIELD DIMENSIONS AND THE LOADS INDICATED ON THE DRAWINGS. PROVIDE A COMPLETE SET OF SHOP DRAWINGS FOR REVIEW BY THE BUILDING STRUCTURAL ENGINEER PRIOR TO FABRICATION.

FRAMING AND SHEATHING :
WORK SHALL INCLUDE: WALL FRAMING, ROOF AND WALL SHEATHING, FLOOR DECKING, WOOD BLOCKING AND FURRING, TELEPHONE AND ELECTRICAL PANEL BACKBOARDS, ROOF CURBS, AND PRESERVATIVE TREATMENT OF WOOD. ALL MATERIALS SHALL COMPLY WITH: AMERICAN LUMBER STANDARDS COMMITTEE (ALSC); AMERICAN WOOD PRESERVERS ASSOCIATION (AWPA); C2 - LUMBER, TIMBER, BRIDGE TIES, AND MINE TIES, PRESSURE TREATMENT, C9 - PLYWOOD, PRESSURE TREATMENT, C20 STRUCTURAL LUMBER, FIRE-RETARDANT PRESSURE TREATMENT, AND C27 - PLYWOOD, FIRE-RETARDANT PRESSURE TREATMENT; AMERICAN WOOD PRESERVERS BUREAU (AWPB) - QUALITY CONTROL STANDARDS; ENGINEERED WOOD ASSOCIATION (APA): GRADING RULES, AND PRP-108 - PERFORMANCE STANDARDS AND POLICIES FOR STRUCTURAL-USE PANELS; NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST) - PRODUCT STANDARDS: PS 1 - CONSTRUCTION AND INDUSTRIAL PLYWOOD, PS 2 - WOOD-BASED STRUCTURAL-USE PANELS, AND PS 20 - AMERICAN SOFTWOOD LUMBER STANDARD; LUMBER GRADING AGENCY: CERTIFIED BY ALSC, PANEL PRODUCTS: CERTIFIED BY APA, IDENTIFY LUMBER AND PANEL PRODUCTS BY OFFICIAL GRADE MARK. PRESERVATIVE TREATED PRODUCTS: IDENTIFY BY AWPB QUALITY MARK.

STORE MATERIALS MINIMUM 6 INCHES ABOVE GROUND ON FRAMEWORK OR BLOCKING AND COVER WITH PROTECTIVE WATERPROOF COVERING PROVIDING FOR ADEQUATE AIR CIRCULATION. DO NOT STORE SEASONED OR TREATED MATERIALS IN DAMP LOCATION. PROTECT EDGES AND CORNERS OF SHEET MATERIALS FROM DAMAGE. DIMENSION LUMBER SHALL BE GRADING RULES: NIST PS 20. SPECIES SHALL BE ANY COMMERCIAL SOFTWOOD SPECIES. SURFACING SHALL BE SURFACED FOUR SIDES (S4S) UNLESS OTHERWISE INDICATED. MAXIMUM MOISTURE CONTENT SHALL BE 19 PERCENT. GRADES SHALL BE AS INDICATED. PANEL PRODUCTS SHALL BE MANUFACTURED TO NIST PS 1, NIST PS 2, OR APA PRP-108 REQUIREMENTS. SPAN RATING SHALL BE AS APPLICABLE TO SPAN CONDITIONS. EXPOSURE SHALL HAVE EXTERIOR APPLICATIONS: EXTERIOR. INTERIOR APPLICATIONS SHALL HAVE EXPOSURE 1. PANEL GRADE SHALL HAVE APA RATED SHEATHING. FASTENERS: TYPE AND SIZE AS REQUIRED BY CONDITIONS OF USE; HOT DIP GALVANIZED STEEL FOR EXTERIOR USE AND FOR TREATED PRODUCTS, PLAIN STEEL FOR INTERIOR USE. METAL CONNECTORS SHALL HAVE GALVANIZED STEEL, SIZED AND SHAPED TO SUIT FRAMING CONDITIONS. SILL GASKET SHALL HAVE ¼-INCH THICK, PLATE WIDTH, CLOSED CELL POLYETHYLENE OR URETHANE FOAM FROM CONTINUOUS ROLLS. FOR PRESERVATIVE TREATMENT: TREAT WOOD IN FOLLOWING LOCATIONS, WHERE IN CONTACT WITH ROOFING AND RELATED FLASHINGS AND WHERE IN CONTACT WITH MASONRY OR CEMENTITIOUS MATERIALS. TREAT LUMBER IN ACCORDANCE WITH AWPA C2 USING WATERBORNE PRESERVATIVE, WITH RETENTION OF 0.25 PERCENT. TREAT PANEL PRODUCTS IN ACCORDANCE WITH AWPA C9 USING WATERBORNE PRESERVATIVE, WITH RETENTION OF 0.25 PERCENT.

SET MEMBERS LEVEL, PLUMB, AND RIGID. MAKE PROVISIONS FOR ERECTION LOADS, AND FOR TEMPORARY BRACING TO MAINTAIN STRUCTURE SAFE, PLUMB, AND IN TRUE ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRACING. STUD FRAMING: PROVIDE SINGLE BOTTOM PLATE AND DOUBLE TOP PLATES, ANCHOR BOTTOM PLATES TO CONCRETE STRUCTURE WITH ANCHOR BOLTS, PLACE SILL GASKET DIRECTLY UNDER BOTTOM PLATES. PUNCTURE GASKET CLEAN AND FIT TIGHT TO PROTRUDING ANCHOR BOLTS. TRIPLE STUDS AT CORNERS AND PARTITION INTERSECTIONS. ANCHOR STUDS ABUTTING MASONRY OR CONCRETE WITH TOGGLE OR EXPANSION BOLTS. FRAME OPENINGS WITH DOUBLE STUDS AND HEADERS. SPACE SHORT STUDS OVER AND UNDER OPENING TO STUD SPACING. ROOF SHEATHING: PLACE PANELS PERPENDICULAR TO FRAMING MEMBERS WITH ENDS STAGGERED AND SHEET ENDS OVER FIRM BEARING. INSTALL SHEATHING CLIPS BETWEEN ADJACENT SHEETS BETWEEN ROOF FRAMING MEMBERS. LEAVE 1/8-INCH EXPANSION SPACE AT PANEL ENDS AND EDGES. SECURE TO SUPPORTS AT MAXIMUM 6 INCHES ON CENTER ALONG EDGES AND MAXIMUM 12 INCHES ON CENTER IN FIELD OF PANELS. WALL SHEATHING: PLACE PANELS PERPENDICULAR TO FRAMING MEMBERS, WITH ENDS OVER FIRM BEARING AND STAGGERED. LEAVE 1/8-INCH EXPANSION SPACE AT PANEL ENDS AND EDGES. SECURE TO SUPPORTS AT MAXIMUM 6 INCHES ON CENTER ALONG EDGES AND MAXIMUM 12 INCHES ON CENTER IN FIELD OF PANELS. BLOCKING AND FURRING: PROVIDE BLOCKING, NAILERS, GROUNDS, FURRING, AND OTHER SIMILAR ITEMS REQUIRED TO RECEIVE AND SUPPORT WORK. ROOF CURBS: CURB ROOF OPENINGS EXCEPT WHERE PREFABRICATED CURBS ARE PROVIDED. FORM CORNERS BY ALTERNATING LAPPING SIDE MEMBERS. TELEPHONE AND ELECTRICAL PANEL BACKBOARDS: OVERSIZE PANEL BY 12 INCHES ON ALL SIDES. FRAMING MEMBERS TOLERANCES SHALL BE 1/4 INCH FROM TRUE POSITION, MAXIMUM. SURFACE FLATNESS OF SHEATHING AND DECKING TOLERANCES SHALL BE 1/4 INCH IN 10 FEET MAXIMUM.

INTERIOR MILLWORK:
ALL MILLWORK SHALL BE "PREMIUM GRADE" CONSTRUCTION AS SPECIFIED BY THE "ARCHITECTURAL WOODWORK INSTITUTE". EXPOSED STANDING AND RUNNING TRIM IS TO BE FINGER JOINTED MDF FOR PAINT FINISH.

CABINET WORK :
ALL CABINET WORK INDICATED ON THE DRAWINGS IS TO BE FABRICATED, PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. PROVIDE DESIGNS AND FINISHES AS SHOWN ON THE DRAWINGS. ALL WORK IS TO MEET "PREMIUM GRADE" CONSTRUCTION AS SPECIFIED THE "ARCHITECTURAL WOODWORK INSTITUTE". UNLESS NOTED OTHERWISE ALL CABINETS ARE TO HAVE CONCEALED HINGES. ALL BASE CABINETS ARE TO BE PROVIDED WITH HEAVY-DUTY ADJUSTABLE SHELF HARDWARE AND HEAVY-DUTY DRAWER GUIDES. ALL CABINET DOORS AND DRAWERS ARE TO HAVE BRUSHED ALUMINUM WIRE TYPE HANDLES. ALL SHELVES UNDER 24" IN SPAN SHALL BE 3/4" THICK AND OVER 24" AND UNDER 30" IN SPAN SHALL BE 1" THICK AND OVER 30" IN SPAN SHALL BE 1-1/4" THICK. EXPOSED SHELVING IS TO BE AS SELECTED BY THE OWNER. ALL INTERIOR SHELVES AND CABINET INTERIORS SHALL HAVE A MELAMINE FINISH AND ALL EXPOSED SHELVES AND EXPOSED CABINET INTERIORS ARE TO HAVE A PLASTIC LAMINATE FINISH ON ALL EXPOSED SIDES AND ALL FINISHES ARE TO BE PER THE FINISH SCHEDULE. ALL CABINETS/DRAWER INTERIORS ARE TO BE "WHITE" MELAMINE. PROVIDE ALL CABINETS WITH ACCESSIBLE HEIGHTS AND CLEARANCES PER THE 2021 INTERNATIONAL BUILDING CODE (IBC), INCLUDING ALL ADOPTED STATE AMENDMENTS AND THE ICC/ANSI A117.1-2017 AND CURRENT ADA REQUIREMENTS. PROVIDE FOR LOCKS ON ALL LOCKER DOORS.

ALL CABINET FACES IN ALL AREAS: WILSONART TO BE SELECTED BY THE ARCHITECT AND OWNER

COUNTERTOPS :
PROVIDE AND INSTALL COUNTERTOPS AS INDICATED ON THE DRAWINGS AND THE FINISH SCHEDULE. THE FINISHES AND COLORS ARE TO AS SHOWN OR AS SELECTED BY THE ARCHIITECT AND OWNER. COUNGTERTOPSD ARE AS AS FOLLOWS:

PL-1	ALL AREAS:	ALL PLASTIC LAMINATE COUNTERTOPS ARE TO HAVE TRI-COVE EDGE AT WET AREAS AND SQUARE EDGE FRONTS AND BACK SPLASHES IN ALL OTHER AREAS OR AS NOTED ON THE DRAWINGS. ALL EXPOSED COUNTERTOPS CORNERS EXTENDING BEYOND THE CABINETS ARE TO BE RADIUS EDGED. WILSONART - FINAL COLOR TO BE SELECTED BY THE ARCHITECT.
Q-1	TOILET ROOMS	QUARTZ - WHITEWATER QUARTZ SERIES I - WHITE SAND. CONTACT WHITEWATER INC, 3137 SOUTH 300 WEST, SALT LAKE CITY, UTAH 84115. ALL EDGES TO BE CRESCENT SHAPED. FINAL COLOR TO BE SELECTED BY ARCHITECT.

WINDOW SILLS:
PROVIDE AND INSTALL WINDOW SILLS AS INDICATED ON THE DRAWINGS. PROVIDE THE FOLLOWING:

Q-1	WINDOW SILLS:	QUARTZ - WHITEWATER QUARTZ SERIES I - WHITE SAND. CONTACT WHITEWATER INC, 3137 SOUTH 300 WEST, SALT LAKE CITY, UTAH 84115. ALL EDGES TO BE CRESCENT SHAPED. FINAL COLOR TO BE SELECTED BY ARCHITECT.

DIVISION 07 THERMAL AND MOISTURE PROTECTION'

GENERAL :
ALL WORK INSTALLED UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL INSTALLATIONS SHALL BE GUARANTEED FOR A MINIMUM OF 1-YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION UNLESS SPECIFIED OTHERWISE. ALL ROOF INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR BARRIERS OR BREATHER PAPERS INSTALLED WITHIN ROOF-CEILING ASSEMBLIES, WALLS, CRAWL SPACES OR ATTICS, SHALL HAVE A FLAME-SPREAD INDEX OF 75 AND A SMOKE DENSITY NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH 2021 IBC STANDARDS.

SEALANTS, CAULKING AND JOINT SEALERS:
WORK SHALL INCLUDE JOINT BACKUP MATERIALS AND SEALERS. PROVIDE PRODUCT DATA, WHICH INDICATE SEALERS, PRIMERS, BACKUP MATERIALS, BOND BREAKERS, AND ACCESSORIES, PROPOSED FOR USE. PROVIDE SEALER SAMPLES SHOWING AVAILABLE COLORS AND 6-INCH LONG JOINT BACKUP MATERIAL SAMPLES. DO NOT APPLY SEALERS AT TEMPERATURES BELOW 40 DEGREES F UNLESS APPROVED BY SEALER MANUFACTURER. ACCEPTABLE MANUFACTURERS SHALL BE DOW CORNING CORP, GE SILICONES, MAMECO INTERNATIONAL, INC., PECORA CORP., PRODUCTS RESEARCH AND CHEMICAL CORP., SIKA CORP., SONNEBORN BUILDING PRODUCTS, AND TREMCO, INC. JOINT SEALER TYPE 1: ASTM C 920, TYPE M, GRADE P, CLASS 25, USES T, M, A, AND O; MULTI-COMPONENT POLYURETHANE, SELF-LEVELING. MOVEMENT CAPABILITY: PLUS OR MINUS 25 PERCENT. COLOR: TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. JOINT SEALER TYPE 2: ASTM C 920, TYPE M, GRADE NS, CLASS 25, USES T, M, A, AND O; MULTI COMPONENT POLYURETHANE. SHORE A HARDNESS: BETWEEN 45 AND 50. MOVEMENT CAPABILITY: PLUS OR MINUS 25 PERCENT. COLOR: TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. JOINT SEALER TYPE 3: ASTM C 920, TYPE M, GRADE NS, CLASS 25, USES NT, M, A, AND O; MULTI COMPONENT POLYURETHANE, NON-SAG. MOVEMENT CAPABILITY: PLUS OR MINUS 50 PERCENT. COLOR: TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. JOINT SEALER TYPE 4: ASTM C 834, SINGLE COMPONENT ACRYLIC LATEX, NON-SAG. MOVEMENT CAPABILITY: PLUS OR MINUS 7-1/2 PERCENT. COLOR: WHITE. JOINT SEALER TYPE 5: ASTM C 920, TYPE S, GRADE NS, CLASS 25, USES NT, M, G AND A; SINGLE COMPONENT SILICONE, NON-SAG, MILDEWS RESISTANT. MOVEMENT CAPABILITY: PLUS OR MINUS 25 PERCENT. COLOR: TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. JOINT SEALER TYPE 6: ACI 302.1, TWO COMPONENT, GRADE S/L, HIGH SOLIDS EPOXY RESIN. SHORE A HARDNESS: 85 PLUS OR MINUS 10. COLOR: TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. SOURCE: SIKADUR 51 NS/SL BY SIKA CORP. OR APPROVED SUBSTITUTE. PRIMERS, BONDBREAKERS, AND SOLVENTS SHALL BE AS RECOMMENDED BY SEALER MANUFACTURER. JOINT BACKING SHALL BE ASTM D 1565, CLOSED CELL POLYURETHANE FOAM, PREFORMED ROUND JOINT FILLER, NON-ABSORBING, NON-STAINING, RESILIENT, COMPATIBLE WITH SEALER AND PRIMER, RECOMMENDED BY SEALER MANUFACTURER FOR EACH SEALER TYPE. SIZE SHALL BE A MINIMUM 1.25 TIMES JOINT WIDTH. MIX MULTIPLE COMPONENT SEALERS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. MIX WITH MECHANICAL MIXER; PREVENT AIR ENTRAINMENT AND OVERHEATING. CONTINUE MIXING UNTIL COLOR IS COMPLETELY UNIFORM, WITHOUT STREAKS. REMOVE LOOSE AND FOREIGN MATTER THAT COULD IMPAIR ADHESION. IF SURFACE HAS BEEN SUBJECT TO CHEMICAL CONTAMINATION.

SEALER SCHEDULE JOINT LOCATION OR TYPE :	SEALER TYPE
EXTERIOR JOINTS:	
HORIZONTAL JOINTS SUBJECT TO PEDESTRIAN OR VEHICULAR TRAFFIC:	
SLOPES LESS THAN 1/4 INCH PER FOOT	1
SLOPES OF 1/4 INCH PER FOOT OR MORE	2
HORIZONTAL JOINTS SUBJECT TO PEDESTRIAN TRAFFIC	6
OTHER JOINTS	3
INTERIOR JOINTS:	
HORIZONTAL JOINTS SUBJECT TO PEDESTRIAN TRAFFIC	6
JOINTS IN TOILET ROOMS AND COUNTERTOPS	5
JOINTS SUBJECT TO THERMAL MOVEMENT	3
OTHER JOINTS	3

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 1036 LICENSED ARCHITECT 03/01/24

NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Project 22-002

Revisions 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date 03/01/24

09A101

SEALANTS, CAULKING AND JOINT SEALERS: (CONTINUED)

CONTACT SEALER MANUFACTURER FOR RECOMMENDATION. CLEAN AND PRIME JOINTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROTECT ADJACENT SURFACES WITH MASKING TAPE OR PROTECTIVE COVERINGS. SEALER DIMENSIONS:

- MINIMUM JOINT SIZE: 1/4 X 1/4 INCH
- JOINTS 1/4 TO 1/2 INCH WIDE: DEPTH EQUAL TO WIDTH
- JOINTS OVER 1/2 INCH WIDE: DEPTH EQUAL TO ONE HALF OF WIDTH

APPLY PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PERFORM INSTALLATION IN ACCORDANCE WITH ASTM C 804 FOR SOLVENT RELEASE AND ASTM C 790 FOR LATEX BASE SEALERS. INSTALL JOINT BACKING TO MAINTAIN REQUIRED SEALER DIMENSIONS. COMPRESS BACKING APPROXIMATELY 25 PERCENT WITHOUT PUNCTURING SKIN. DO NOT TWIST OR STRETCH. USE BOND BREAKER TAPE WHERE JOINT BACKING IS NOT INSTALLED. FILL JOINTS FULL WITHOUT AIR POCKETS, EMBEDDED MATERIALS, RIDGES, AND SAGS. TOOL SEALER TO SMOOTH PROFILE. APPLY SEALER WITHIN RECOMMENDED TEMPERATURE RANGE. CONSULT MANUFACTURER WHEN SEALER CANNOT BE APPLIED WITHIN THESE TEMPERATURE RANGES. REMOVE MASKING TAPE AND PROTECTIVE COVERINGS AFTER SEALER HAS CURED. CLEAN ADJACENT SURFACES.

ROOF FLASHING AND CAPS:

ALL ROOF FLASHINGS AND CAPS SHALL BE KYNAR PRE-FINISHED 24-GAUGE GALVANIZED IRON AS DETAILED ON THE DRAWINGS AS MANUFACTURED BY VINCENT METAL GOODS COLORKLAD OR EQUIVALENT. PROVIDE FOR THERMAL EXPANSION IN LENGTHS NOT EXCEEDING 10' AND WITHIN 2' OF CORNERS AND INTERSECTIONS INSTALL AND MANUFACTURE PER THE MINIMUM STANDARDS OF SMACNA, LATEST EDITION. PROVIDE SHOP DRAWINGS OF PROFILES. MASONRY WALL REGLETS: WHERE INDICATED ON DRAWINGS OR REQUIRED BY CONSTRUCTION IN THE FIELD, INSTALL FRY SPRINGLOK FLASHING SYSTEM TYPE SM (SURFACE MOUNTED) AS MANUFACTURED BY FRY REGLET CORPORATION OR APPROVED EQUAL IN A KYNAR 500 PRE-FINISHED USE FLASHING AND REGLET MADE BY SAME MANUFACTURER AND INSTALL AS A COMPLETE FLASHING SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL REGLET LEVEL AND TRUE, WITH TOP OF REGLET AT LEAST 7" ABOVE HIGH POINT OF CANT STRIP. LAP ENDS OF REGLET AT STAMPED OFFSET. USE MITERED AND SEALED CORNERS SUPPLIED BY FACTORY. AFTER ROOFING IS APPLIED, INSTALL FRY SPRINGLOK FLASHING. FLASHING MUST HAVE A CONSTANT PRESSURE AGAINST BOTH REGLET AND ROOFING, WITH FLASHING ENDS OVERLAPPED 3" TO INSURE A TIGHT SEAL. THE REGLET IS TO BE 24-GAUGE AND THE FLASHING IS TO BE 26-GAUGE GALVANIZED STEEL. THE COLOR SHALL BE AS SELECTED BY THE ARCHTECT.

WALL REGLETS:

WHERE INDICATED ON DRAWINGS INSTALL FRY SPRINGLOK FLASHING SYSTEM TYPE SM (SURFACE MOUNTED) AS MANUFACTURED BY FRY REGLET CORPORATION OR APPROVED EQUAL IN A KYNAR 500 PRE-FINISHED COLOR. USE FLASHING AND REGLET MADE BY SAME MANUFACTURER AND INSTALL AS A COMPLETE FLASHING SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL REGLET LEVEL AND TRUE, WITH TOP OF REGLET AT LEAST 7" ABOVE HIGH POINT OF CANT STRIP. LAP ENDS OF REGLET AT STAMPED OFFSET. USE MITERED AND SEALED CORNERS SUPPLIED BY FACTORY. AFTER ROOFING IS APPLIED, INSTALL FRY SPRINGLOK FLASHING. FLASHING MUST HAVE A CONSTANT PRESSURE AGAINST BOTH REGLET AND ROOFING, WITH FLASHING ENDS OVERLAPPED 3" TO INSURE A TIGHT SEAL. THE REGLET IS TO BE 24-GAUGE AND THE FLASHING IS TO BE 26-GAUGE GALVANIZED STEEL. THE COLOR SHALL BE AS SELECTED BY THE ARCHITECT..

SINGLE PLY FULLY ADHERED ROOF SYSTEM AND RIGID ROOF INSULATION :

ACCEPTABLE MANUFACTURER OF THE ROOFING SYSTEM SHALL BE FIRESTONE BUILDING PRODUCTS CO., CARMEL, IN. WWW.FIRESTONEBPCO.COM. MANUFACTURER OF INSULATION: SAME MANUFACTURER AS ROOF MEMBRANE. MANUFACTURER OF METAL ROOF EDGING: SAME MANUFACTURER AS ROOF MEMBRANE. METAL ROOF EDGING PRODUCTS BY OTHER MANUFACTURERS ARE NOT ACCEPTABLE. ROOFING SYSTEM DESCRIPTION: 0.60 THICK MEMBRANE OF THERMOPLASTIC OLEFIN (TPO). COMPLY WITH APPLICABLE LOCAL BUILDING CODE REQUIREMENTS. PROVIDE ASSEMBLY HAVING UNDERWRITERS LABORATORIES, INC. (UL) CLASS A FIRE HAZARD CLASSIFICATION. PROVIDE ASSEMBLY MEETING MINIMUM REQUIREMENTS OF FM 1-90 WIND UPLIFT RATING. INSULATION: FIRESTONE 6-INCH MINIMUM TOTAL THICKNESS (R = 40±) PLUS THE THICKNESS OF CRICKETS SLOPED AT 1/4 INCH PER FOOT AS REQUIRED FOR DRAINAGE 4'X4' POLYISOCYANURATE FOAM BOARD, NON-COMPOSITE. ATTACHMENT: ADHERED TO CONCRETE WITH FIRESTONE ISOSTICK FOLLOWING FIRESTONE APPLICATION GUIDELINES. TOP LAYER: FIRESTONE TAPERED POLYISOCYANURATE INSULATION. ATTACHMENT: ADHERED TO BASE LAYER OF POLYISOCYANURATE FOAM BOARD WITH FIRESTONE ISOSTICK FOLLOWING FIRESTONE APPLICATION GUIDELINES. CRICKETS: TAPERED INSULATION OF SAME TYPE AS SPECIFIED FOR TOP LAYER; SLOPE AS INDICATED.

CRICKETS: TAPERED INSULATION OF SAME TYPE AS SPECIFIED FOR TOP LAYER; SLOPE AS INDICATED. FURNISH AND INSTALL ELASTOMERIC SHEET ROOFING SYSTEM, INCLUDING: ROOFING MANUFACTURER'S REQUIREMENTS FOR THE SPECIFIED WARRANTY. PREPARATION OF ROOFING SUBSTRATES. INSULATION. ELASTOMERIC MEMBRANE ROOFING. METAL ROOF EDGING AND COPINGS. FLASHINGS. OTHER ROOFING-RELATED ITEMS SPECIFIED OR INDICATED ON THE DRAWINGS OR OTHERWISE NECESSARY TO PROVIDE A COMPLETE WEATHERPROOF ROOFING SYSTEM. DISPOSAL OF DEMOLITION DEBRIS AND CONSTRUCTION WASTE IS THE RESPONSIBILITY OF CONTRACTOR. PERFORM DISPOSAL IN MANNER COMPLYING WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. COMPLY WITH THE PUBLISHED RECOMMENDATIONS AND INSTRUCTIONS OF THE ROOFING MEMBRANE MANUFACTURER, AT HTTP://MANUAL.FSBP.COM. COMMENCEMENT OF WORK BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGEMENT BY THE CONTRACTOR THAT THIS SPECIFICATION CAN BE SATISFACTORILY EXECUTED, UNDER THE PROJECT CONDITIONS AND WITH ALL NECESSARY PREREQUISITES FOR WARRANTY ACCEPTANCE BY ROOFING MEMBRANE MANUFACTURER. NO MODIFICATION OF THE CONTRACT SUM WILL BE MADE FOR FAILURE TO ADEQUATELY EXAMINE THE CONTRACT DOCUMENTS OR THE PROJECT CONDITIONS.

REFERENCED STANDARDS: THESE STANDARDS FORM PART OF THIS SPECIFICATION ONLY TO THE EXTENT THEY ARE REFERENCED AS SPECIFICATION REQUIREMENTS. ASTM C 1289 - STANDARD SPECIFICATION FOR FACED RIGID CELLULAR POLYISOCYANURATE THERMAL INSULATION BOARD; 2004. ASTM C 1549 - STANDARD TEST METHOD FOR DETERMINATION OF SOLAR REFLECTANCE NEAR AMBIENT TEMPERATURE USING A PORTABLE SOLAR REFLECTOMETER; 2004. ASTM D 638 - STANDARD TEST METHOD FOR TENSILE PROPERTIES OF PLASTICS; 2003. ASTM D 1004 - STANDARD TEST METHOD FOR INITIAL TEAR RESISTANCE OF PLASTIC FILM AND SHEETING; 2003. ASTM D 6878 - STANDARD SPECIFICATION FOR THERMOPLASTIC POLYOLEFIN BASED SHEET ROOFING; 2003. FM 1-28 - DESIGN WIND LOADS; FACTORY MUTUAL SYSTEM; 2002. FM 1-29 - ROOF DECK SECUREMENT AND ABOVE DECK ROOF COMPONENTS; FACTORY MUTUAL SYSTEM; 2005. PS 1 - CONSTRUCTION AND INDUSTRIAL PLYWOOD; 1995. PS 20 - AMERICAN SOFTWOOD LUMBER STANDARD; 2005. SPRI ES-1 - WIND DESIGN STANDARD FOR EDGE SYSTEMS USED WITH LOW SLOPE ROOFING SYSTEMS; 2003. (ANSI/SPRI ES-1).

PROVIDE MEMBRANE MANUFACTURER'S PRINTED DATA SUFFICIENT TO SHOW THAT ALL COMPONENTS OF ROOFING SYSTEM, INCLUDING INSULATION AND FASTENERS, COMPLY WITH THE SPECIFIED REQUIREMENTS AND WITH THE MEMBRANE MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS FOR THE SYSTEM TYPE SPECIFIED; INCLUDE DATA FOR EACH PRODUCT USED IN CONJUNCTION WITH ROOFING MEMBRANE. WHERE UL OR FM REQUIREMENTS ARE SPECIFIED, PROVIDE DOCUMENTATION THAT SHOWS THAT THE ROOFING SYSTEM TO BE INSTALLED IS UL-CLASSIFIED OR FM-APPROVED, AS APPLICABLE; INCLUDE DATA ITEMIZING THE COMPONENTS OF THE CLASSIFIED OR APPROVED SYSTEM. APPLICATOR QUALIFICATIONS: ROOFING INSTALLER SHALL HAVE THE FOLLOWING: FIRESTONE MASTER CONTRACTOR EXPERIENCE. AT LEAST FIVE YEARS EXPERIENCE IN INSTALLING SPECIFIED SYSTEM. DELIVERY, STORAGE AND HANDLING. DELIVER PRODUCTS IN MANUFACTURER'S ORIGINAL CONTAINERS, DRY AND UNDAMAGED, WITH SEALS AND LABELS INTACT AND LEGIBLE. STORE MATERIALS CLEAR OF GROUND AND MOISTURE WITH WEATHER PROTECTIVE COVERING. KEEP COMBUSTIBLE MATERIALS AWAY FROM IGNITION SOURCES. WARRANTY - COMPLY WITH ALL WARRANTY PROCEDURES REQUIRED BY MANUFACTURER, INCLUDING NOTIFICATIONS, SCHEDULING, AND INSPECTIONS. FIRESTONE 20 YEAR RED SHIELD LIMITED WARRANTY COVERING MEMBRANE, ROOF INSULATION, AND MEMBRANE ACCESSORIES. LIMIT OF LIABILITY: NO DOLLAR LIMITATION. SCOPE OF COVERAGE: REPAIR LEAKS IN THE ROOFING SYSTEM CAUSED BY: ORDINARY WEAR AND TEAR OF THE ELEMENTS. UNINTENTIONAL DAMAGE DUE TO NORMAL ROOFTOP INSPECTIONS, MAINTENANCE, OR SERVICE. MANUFACTURING DEFECT IN FIRESTONE BRAND MATERIALS. DEFECTIVE WORKMANSHIP USED TO INSTALL THESE MATERIALS. DAMAGE DUE TO WINDS UP TO 55 MPH (88 KM/H) .NOT COVERED: DAMAGE DUE TO WINDS IN EXCESS OF 55 MPH (88 KM/H). DAMAGE DUE HURRICANES OR TORNADOES. HAIL. INTENTIONAL DAMAGE.

TPO MEMBRANE MATERIALS- MEMBRANE: FLEXIBLE, HEAT WELDABLE SHEET COMPOSED OF THERMOPLASTIC POLYOLEFIN POLYMER AND ETHYLENE PROPYLENE RUBBER; COMPLYING WITH ASTM D 6878, WITH POLYESTER WEFT INSERTED REINFORCEMENT AND THE FOLLOWING ADDITIONAL CHARACTERISTICS: THICKNESS: 0.060 INCH PLUS/MINUS 10 PERCENT, WITH COATING THICKNESS OVER REINFORCEMENT OF 0.030 INCH (0.76 MM) PLUS/MINUS 10 PERCENT. PUNCTURE RESISTANCE: 415 LBF (1868 N), MINIMUM WHEN TESTED IN ACCORDANCE FTM 101C METHOD 2031 SOLAR REFLECTANCE: 0.79, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM C 1549. ACCEPTABLE PRODUCT: ULTRAPLY TPO BY FIRESTONE. CURB AND PARAPET FLASHING: SAME MATERIAL AS MEMBRANE, WITH ENCAPSULATED EDGE WHICH ELIMINATES NEED FOR SEAM SEALING THE FLASHING-TO-ROOF SPLICE; PRECUT TO 18 INCHES (457 MM) WIDE. FORMABLE FLASHING: NON-REINFORCED, FLEXIBLE, HEAT WELDABLE SHEET, COMPOSED OF THERMOPLASTIC POLYOLEFIN POLYMER AND ETHYLENE PROPYLENE RUBBER. THICKNESS: 0.060 INCH (1.52 MM) PLUS/MINUS 10 PERCENT. TENSILE STRENGTH: 1550 PSI (10.7 MPA), MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D 638 AFTER HEAT AGING ELONGATION AT BREAK: 650 PERCENT, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D 638 AFTER HEAT AGING. TEARING STRENGTH: 12 LBF (53 N), MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D 1004 AFTER HEAT AGING. COLOR WHITE. ACCEPTABLE PRODUCT: ULTRAPLY TPO FLASHING BY FIRESTONE. TAPE FLASHING: 5-1/2 INCH (140 MM) NOMINAL WIDE TPO MEMBRANE LAMINATED TO CURED RUBBER POLYMER SEAMING TAPE, OVERALL THICKNESS 0.065 INCH (1.6 MM) NOMINAL; TPO QUICKSEAM FLASHING BY FIRESTONE POURABLE SEALER: TWO-PART POLYURETHANE, TWO-COLOR FOR RELIABLE MIXING; POURABLE SEALER BY FIRESTONE. SEAM PLATES: STEEL WITH BARBS AND GALVALUME COATING; CORROSION-RESISTANCE COMPLYING WITH FM 4470. TERMINATION BARS: ALUMINUM BARS WITH INTEGRAL CAULK LEDGE; 1.3 INCHES (33 MM) WIDE BY 0.10 INCH (2.5 MM) THICK; FIRESTONE TERMINATION BAR BY FIRESTONE CUT EDGE SEALANT: SYNTHETIC RUBBER-BASED, FOR USE WHERE MEMBRANE REINFORCEMENT IS EXPOSED; ULTRAPLY TPO LOW VOC CUT EDGE SEALANT BY FIRESTONE. GENERAL PURPOSE SEALANT: EPDM-BASED, ONE PART, WHITE GENERAL PURPOSE SEALANT; ULTRAPLY TPO GENERAL PURPOSE SEALANT BY FIRESTONE. MOLDED FLASHING ACCESSORIES: UN-REINFORCED TPO MEMBRANE PRE-MOLDED TO SUIT A VARIETY OF FLASHING DETAILS, INCLUDING PIPE BOOTS, INSIDE CORNERS, OUTSIDE CORNERS, ETC.; ULTRAPLY TPO SMALL AND LARGE PIPE FLASHING BY FIRESTONE.

POLYISOCYANURATE BOARD INSULATION: CLOSED CELL POLYISOCYANURATE FOAM WITH BLACK GLASS REINFORCED MAT LAMINATED TO FACES, COMPLYING WITH ASTM C 1289 TYPE II CLASS 1, WITH THE FOLLOWING ADDITIONAL CHARACTERISTICS: THICKNESS: 2". SIZE: 48 INCHES BY 48 INCHES, NOMINAL. EXCEPTION: INSULATION TO BE ATTACHED USING ADHESIVE MAY BE NO LARGER THAN 48 INCHES BY 48 INCHES, NOMINAL. R-VALUE: 2 INCH (64 MM) THICKNESS: 24, MINIMUM COMPRESSIVE STRENGTH: 20 PSI WHEN TESTED IN ACCORDANCE WITH ASTM C 1289. OZONE DEPLETION POTENTIAL: ZERO; MADE WITHOUT CFC OR HCFC BLOWING AGENTS. RECYCLED CONTENT: 19 PERCENT POST-CONSUMER AND 15 PERCENT POST-INDUSTRIAL, AVERAGE. FIRESTONE TAPERED POLYISOCYANURATE INSULATION.

METAL ROOF EDGING AND FASCIA: CONTINUOUS METAL EDGE MEMBER SERVING AS TERMINATION OF ROOF MEMBRANE AND RETAINER FOR METAL FASCIA; WATERTIGHT WITH NO EXPOSED FASTENERS; MOUNTED TO ROOF EDGE NAILER. FASCIA MATERIAL AND FINISH: 24 GAGE, 0.024 INCH (0.06 MM) GALVANIZED STEEL WITH KYNAR 500 FINISH IN MANUFACTURER'S STANDARD COLOR; MATCHING CONCEALED JOINT SPLICE PLATES; FACTORY- PARAPET COPINGS: FORMED METAL COPING WITH GALVANIZED STEEL ANCHOR/SUPPORT CLEATS FOR CAPPING ANY PARAPET WALL; WATERTIGHT, MAINTENANCE FREE, WITHOUT EXPOSED FASTENERS; BUTT TYPE JOINTS WITH CONCEALED SPLICE PLATES; MECHANICALLY FASTENED AS INDICATED; FIRESTONE PTCF. MATERIAL AND FINISH: 24 GAGE, 0.024 INCH (0.06 MM) THICK GALVANIZED STEEL WITH KYNAR 500 FINISH IN MANUFACTURER'S STANDARD COLOR; MATCHING CONCEALED JOINT SPLICE PLATES; FACTORY-INSTALLED PROTECTIVE PLASTIC FILM. ACCESSORY MATERIALS WOOD NAILERS: PS 20 DIMENSION LUMBER, STRUCTURAL GRADE NO. 2 OR BETTER SOUTHERN PINE, DOUGLAS FIR; OR PS 1, APA EXTERIOR GRADE PLYWOOD; PRESSURE PRESERVATIVE TREATED. WIDTH: 3-1/2 INCHES (90 MM), NOMINAL MINIMUM, OR AS WIDE AS THE NAILING FLANGE OF THE ROOF ACCESSORY TO BE ATTACHED TO IT. THICKNESS: SAME AS THICKNESS OF ROOF INSULATION.

INSTALL ROOFING, INSULATION, FLASHINGS, AND ACCESSORIES IN ACCORDANCE WITH ROOFING MANUFACTURER'S PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS FOR THE SPECIFIED ROOFING SYSTEM. WHERE MANUFACTURER PROVIDES NO INSTRUCTIONS OR RECOMMENDATIONS, FOLLOW GOOD ROOFING PRACTICES AND INDUSTRY STANDARDS. COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS. OBTAIN ALL RELEVANT INSTRUCTIONS AND MAINTAIN COPIES AT PROJECT SITE FOR DURATION OF INSTALLATION PERIOD. PERFORM WORK USING COMPETENT AND PROPERLY EQUIPPED PERSONNEL. TEMPORARY CLOSURES, WHICH ENSURE THAT MOISTURE DOES NOT DAMAGE ANY COMPLETED SECTION OF THE NEW ROOFING SYSTEM, ARE THE RESPONSIBILITY OF THE APPLICATOR. COMPLETION OF FLASHINGS, TERMINATIONS, AND TEMPORARY CLOSURES SHALL BE COMPLETED AS REQUIRED TO PROVIDE A WATERTIGHT CONDITION. INSTALL ROOFING MEMBRANE ONLY WHEN SURFACES ARE CLEAN, DRY, SMOOTH AND FREE OF SNOW OR ICE; DO NOT APPLY ROOFING MEMBRANE DURING INCLEMENT WEATHER OR WHEN AMBIENT CONDITIONS WILL NOT ALLOW PROPER APPLICATION; CONSULT MANUFACTURER FOR RECOMMENDED PROCEDURES DURING COLD WEATHER. PROTECT ADJACENT CONSTRUCTION, PROPERTY, VEHICLES, AND PERSONS FROM DAMAGE RELATED TO ROOFING WORK; REPAIR OR RESTORE DAMAGE CAUSED BY ROOFING WORK. PROTECT FROM SPILLS AND OVERSPRAY FROM BITUMEN, ADHESIVES, SEALANTS AND COATINGS. PARTICULARLY PROTECT METAL, GLASS, PLASTIC, AND PAINTED SURFACES FROM BITUMEN, ADHESIVES, AND SEALANTS WITHIN THE RANGE OF WIND-BORNE OVERSPRAY. PROTECT FINISHED AREAS OF THE ROOFING SYSTEM FROM ROOFING RELATED WORK TRAFFIC AND TRAFFIC BY OTHER TRADES. UNTIL READY FOR USE, KEEP MATERIALS IN THEIR ORIGINAL CONTAINERS AS LABELED BY THE MANUFACTURER. CONSULT MEMBRANE MANUFACTURER'S INSTRUCTIONS, CONTAINER LABELS, AND MATERIAL SAFETY DATA SHEETS (MSDS) FOR SPECIFIC SAFETY INSTRUCTIONS. KEEP ALL ADHESIVES, SEALANTS, PRIMERS AND CLEANING MATERIALS AWAY FROM ALL SOURCES OF IGNITION..

EXAMINE ROOF DECK TO DETERMINE THAT IT IS SUFFICIENTLY RIGID TO SUPPORT INSTALLERS AND THEIR MECHANICAL EQUIPMENT AND THAT DEFLECTION WILL NOT STRAIN OR RUPTURE ROOF COMPONENTS OR DEFORM DECK. VERIFY THAT SURFACES AND SITE CONDITIONS ARE READY TO RECEIVE WORK. CORRECT DEFECTS IN THE SUBSTRATE BEFORE COMMENCING WITH ROOFING WORK. EXAMINE ROOF SUBSTRATE TO VERIFY THAT IT IS PROPERLY SLOPED TO DRAINS. VERIFY THAT THE SPECIFICATIONS AND DRAWING DETAILS ARE WORKABLE AND NOT IN CONFLICT WITH THE ROOFING MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS; START OF WORK CONSTITUTES ACCEPTABLE OF PROJECT CONDITIONS AND REQUIREMENTS. PREPARATION - TAKE APPROPRIATE MEASURES TO ENSURE THAT FUMES FROM ADHESIVE SOLVENTS ARE NOT DRAWN INTO THE BUILDING THROUGH AIR INTAKES. PRIOR TO PROCEEDING, PREPARE ROOF SURFACE SO THAT IT IS CLEAN, DRY, AND SMOOTH, AND FREE OF SHARP EDGES, FINS, ROUGHENED SURFACES, LOOSE OR FOREIGN MATERIALS, OIL, GREASE AND OTHER MATERIALS THAT MAY DAMAGE THE MEMBRANE. FILL ALL SURFACE VOIDS IN THE IMMEDIATE SUBSTRATE THAT ARE GREATER THAN 1/4 INCH (6 MM) WIDE WITH FILL MATERIAL ACCEPTABLE INSULATION TO MEMBRANE MANUFACTURER. SEAL, GROUT, OR TAPE DECK JOINTS, WHERE NEEDED, TO PREVENT BITUMEN SEEPAGE INTO BUILDING.

INSULATION AND TAPER INSTALLATION - INSTALL INSULATION IN CONFIGURATION AND WITH ATTACHMENT METHOD(S) SPECIFIED IN PART 2, UNDER ROOFING SYSTEM. INSTALL ONLY AS MUCH INSULATION AS CAN BE COVERED WITH THE COMPLETED ROOFING SYSTEM BEFORE THE END OF THE DAY'S WORK OR BEFORE THE ONSET OF INCLEMENT WEATHER. LAY ROOF INSULATION IN COURSES PARALLEL TO ROOF EDGES. NEATLY AND TIGHTLY FIT INSULATION TO ALL PENETRATIONS, PROJECTIONS, AND NAILERS, WITH GAPS NOT GREATER THAN 1/4 INCH. FILL GAPS GREATER THAN 1/4 INCH WITH ACCEPTABLE INSULATION. DO NOT LEAVE THE ROOFING MEMBRANE UNSUPPORTED OVER A SPACE GREATER THAN 1/4 INCH). ADHESIVE FASTENING: ADHERE INSULATION AND TAPER IN FIRESTONE ISOSTICK FOLLOWING FIRESTONE APPLICATION GUIDELINES

SINGLE-PLY MEMBRANE INSTALLATION - BEGINNING AT LOW POINT OF ROOF, PLACE MEMBRANE WITHOUT STRETCHING OVER SUBSTRATE AND ALLOW TO RELAX AT LEAST 30 MINUTES BEFORE ATTACHMENT OR SPLICING; IN COLDER WEATHER ALLOW FOR LONGER RELAX TIME. LAY OUT THE MEMBRANE PIECES SO THAT FIELD AND FLASHING SPLICES ARE INSTALLED TO SHED WATER. INSTALL MEMBRANE WITHOUT WRINKLES AND WITHOUT GAPS OR FISH MOUTHS IN SEAMS; BOND AND TEST SEAMS AND LAPS IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S INSTRUCTIONS AND DETAILS. INSTALL MEMBRANE ADHERED TO THE SUBSTRATE, WITH EDGE SECUREMENT AS SPECIFIED. ADHERED MEMBRANE: BOND MEMBRANE SHEET TO SUBSTRATE USING MEMBRANE MANUFACTURER'S RECOMMENDED BONDING MATERIAL, APPLICATION RATE, AND PROCEDURES. EDGE SECUREMENT: SECURE MEMBRANE AT ALL LOCATIONS WHERE MEMBRANE TERMINATES OR GOES THROUGH AN ANGLE CHANGE GREATER THAN 2 IN 12 INCHES (1:6) USING MECHANICALLY FASTENED REINFORCED PERIMETER FASTENING STRIPS, PLATES, OR METAL EDGING AS INDICATED OR AS RECOMMENDED BY ROOFING MANUFACTURER. EXCEPTIONS: ROUND PIPE PENETRATIONS LESS THAN 18 INCHES IN DIAMETER AND SQUARE PENETRATIONS LESS THAN 4 INCHES METAL EDGING IS NOT MERELY DECORATIVE; ENSURE ANCHORAGE OF MEMBRANE AS INTENDED BY ROOFING MANUFACTURER.

FLASHING AND ACCESSORIES INSTALLATION - INSTALL FLASHINGS, INCLUDING LAPS, SPLICES, JOINTS, BONDING, ADHESION, AND ATTACHMENT, AS REQUIRED BY MEMBRANE MANUFACTURER'S RECOMMENDATIONS AND DETAILS. METAL ACCESSORIES: INSTALL METAL EDGINGS, GRAVEL STOPS, AND COPINGS IN LOCATIONS INDICATED ON THE DRAWINGS, WITH HORIZONTAL LEG OF EDGE MEMBER OVER MEMBRANE AND FLASHING OVER METAL ONTO MEMBRANE. FOLLOW ROOFING MANUFACTURER'S INSTRUCTIONS REMOVE PROTECTIVE PLASTIC SURFACE FILM IMMEDIATELY BEFORE INSTALLATION. INSTALL WATER BLOCK SEALANT UNDER THE MEMBRANE ANCHORAGE LEG. FLASH WITH MANUFACTURER'S RECOMMENDED FLASHING SHEET UNLESS OTHERWISE INDICATED. WHERE SINGLE APPLICATION OF FLASHING WILL NOT COMPLETELY COVER THE METAL FLANGE, INSTALL ADDITIONAL PIECE OF FLASHING TO COVER THE METAL EDGE IF THE ROOF EDGE INCLUDES A GRAVEL STOP AND SEALANT IS NOT APPLIED BETWEEN THE LAPS IN THE METAL EDGING, INSTALL AN ADDITIONAL PIECE OF SELF-ADHESIVE FLASHING MEMBRANE OVER THE METAL LAP TO THE TOP OF THE GRAVEL STOP; APPLY SEAM EDGE TREATMENT AT THE INTERSECTIONS OF THE TWO FLASHING SECTIONS WHEN THE ROOF SLOPE IS GREATER THAN 1:12, APPLY SEAM EDGE TREATMENT ALONG THE BACK EDGE OF THE FLASHING. FLASHING AT WALLS, CURBS, AND OTHER VERTICAL AND SLOPED SURFACES: INSTALL WEATHER TIGHT FLASHING AT ALL WALLS CURBS, PARAPETS, CURBS, SKYLIGHTS, AND OTHER VERTICAL AND SLOPED SURFACES THAT THE ROOFING MEMBRANE ABUTS TO; EXTEND FLASHING AT LEAST 8 INCHES HIGH ABOVE MEMBRANE SURFACE. USE THE LONGEST PRACTICAL FLASHING PIECES. EVALUATE THE SUBSTRATE AND OVERLAY AND ADJUST INSTALLATION PROCEDURE IN ACCORDANCE WITH MEMBRANE MANUFACTURER'S RECOMMENDATIONS. COMPLETE THE SPLICE BETWEEN FLASHING AND THE MAIN ROOF SHEET WITH SPECIFIED SPLICE ADHESIVE BEFORE ADHERING FLASHING TO THE VERTICAL SURFACE. PROVIDE TERMINATION DIRECTLY TO THE VERTICAL SUBSTRATE AS SHOWN ON ROOF DRAWINGS.

ROOF DRAINS - TAPER INSULATION AROUND DRAIN TO PROVIDE SMOOTH TRANSITION FROM ROOF SURFACE TO DRAIN. USE SPECIFIED PRE-MANUFACTURED TAPERED INSULATION WITH FACER OR SUITABLE BONDING SURFACE TO ACHIEVE SLOPE; SLOPE NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS. POSITION MEMBRANE, THEN CUT A HOLE FOR ROOF DRAIN TO ALLOW 1/2 TO 3/4 INCH OF MEMBRANE TO EXTEND INSIDE CLAMPING RING PAST DRAIN BOLTS. MAKE ROUND HOLES IN MEMBRANE TO ALIGN WITH CLAMPING BOLTS; DO NOT CUT MEMBRANE BACK TO BOLT HOLES APPLY SEALANT ON TOP OF DRAIN BOWL WHERE CLAMPING RING SEATS BELOW THE MEMBRANE. INSTALL ROOF DRAIN CLAMPING RING AND CLAMPING BOLTS; TIGHTEN CLAMPING BOLTS TO ACHIEVE CONSTANT COMPRESSION.

FLASHING AT PENETRATIONS: FLASH ALL PENETRATIONS PASSING THROUGH THE MEMBRANE; MAKE FLASHING SEALS DIRECTLY TO THE PENETRATION. PIPES, ROUND SUPPORTS, AND SIMILAR ITEMS: FLASH WITH SPECIFIED PRE-MOLDED PIPE FLASHINGS WHEREVER PRACTICAL; OTHERWISE USE SPECIFIED SELF-CURING ELASTOMERIC FLASHING. FINISHING AND WALKWAY INSTALLATION - INSTALL WALKWAYS AT ACCESS POINTS TO THE ROOF, AROUND ROOFTOP EQUIPMENT THAT MAY REQUIRE MAINTENANCE, AND WHERE INDICATED ON THE DRAWINGS. FIELD QUALITY CONTROL - INSPECTION BY MANUFACTURER: PROVIDE FINAL INSPECTION OF THE ROOFING SYSTEM BY A TECHNICAL REPRESENTATIVE EMPLOYED BY ROOFING SYSTEM MANUFACTURER SPECIFICALLY TO INSPECT INSTALLATION FOR WARRANTY PURPOSES NOT SALES PERSON) PERFORM ALL CORRECTIONS NECESSARY FOR ISSUANCE OF WARRANTY. CLEANING - CLEAN ALL CONTAMINANTS GENERATED BY ROOFING WORK FROM BUILDING AND SURROUNDING AREAS, INCLUDING BITUMEN, ADHESIVES, SEALANTS, AND COATINGS. REPAIR OR REPLACE BUILDING COMPONENTS AND FINISHED SURFACES DAMAGED OR DEFACED DUE TO THE WORK OF THIS SECTION; COMPLY WITH RECOMMENDATIONS OF MANUFACTURERS OF COMPONENTS AND SURFACES. REMOVE LEFTOVER MATERIALS, TRASH, DEBRIS EQUIPMENT FROM PROJECT SITE AND SURROUNDING AREAS. PROTECTION - WHERE CONSTRUCTION TRAFFIC MUST CONTINUE OVER FINISHED ROOF MEMBRANE, PROVIDE DURABLE PROTECTION AND REPLACE OR REPAIR DAMAGED ROOFING TO ORIGINAL CONDITION. A MINIMUM OF 6" (R = 42) RIGID INSULATION SHALL BE PLACED ALL LOCATIONS. THE ROOF STRUCTURE WILL BE SLOPED AT 1/4" TO THE THE ROOF DRAINS. CRICKETS WILL BE REQUIRED TO SLOPE ROOF AROUND ROOF EQUIPMENT AND AT THE CENTER AT WHICH THE ROOF STRUCTURE WILL BE LEVEL AND REQUIRE A CENTER ROOF CRICKET SLOPED AT 1/4" TO ALL ROOF DRAINS.

ROOF SCUTTLE :

FURNISH AND INSTALL ONE METAL ROOF SCUTTLE, TYPE S, AS MANUFACTURED BY THE BILCO COMPANY, NEW HAVEN, CONNECTICUT OR APPROVED EQUIVALENT. THE COVER SHALL BE 14-GAUGE GALVANIZED METAL WITH RED OXIDE PRIMER WITH A 3" BEADED FLANGE, NEATLY WELDED. COVER INSULATION SHALL BE 1" FIBERGLASS COVERED BY A 22-GAUGE GALVANIZED METAL LINER WITH RED OXIDE PRIMER. THE CURB SHALL BE 12" HIGH, 14-GAUGE GALVANIZED METAL WITH RED OXIDE PRIMER WITH A PREFORMED 3-1/2" FLANGE AND INTEGRAL METAL CAP FLASHING MATCHING THE GAUGE AND MATERIAL OF THE CURB. CURB INSULATION SHALL BE 1" RIGID FIBERBOARD. SCUTTLE SHALL BE COMPLETELY FACTORY ASSEMBLED. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SHALL BE GUARANTEED FOR A PERIOD OF (5) YEARS.

LADDER SAFETY POST :

FURNISH AND INSTALL FACTORY FABRICATED LADDER SAFETY POST MODEL #LU-2 AS MANUFACTURED BY THE BILCO COMPANY, P.O. BOX 1203, NEW HAVEN, CT 06505 OR PRECISION LADDERS, EXTEND-A RAIL. PROVIDE MANUFACTURER'S PRODUCT DATA FOR ALL MATERIALS IN THIS SPECIFICATION. PROVIDE SHOP DRAWINGS SHOWING PROFILES, ACCESSORIES, LOCATION, AND DIMENSIONS. LADDER SAFETY POST MANUFACTURER SHALL PROVIDE THE MANUFACTURER'S WARRANTY PRIOR TO THE CONTRACT CLOSEOUT. ALL MATERIALS SHALL BE DELIVERED IN MANUFACTURER'S ORIGINAL PACKAGING. STORE MATERIALS IN A DRY, PROTECTED, WELL-VENTED AREA. THE CONTRACTOR SHALL THOROUGHLY INSPECT PRODUCT UPON RECEIPT AND REPORT DAMAGED MATERIAL IMMEDIATELY TO DELIVERING CARRIER AND NOTE SUCH DAMAGE ON THE CARRIER'S FREIGHT BILL OF LADING. REMOVE PROTECTIVE WRAPPING IMMEDIATELY AFTER INSTALLATION. VERIFY THAT OTHER TRADES WITH RELATED WORK ARE COMPLETE BEFORE INSTALLING LADDER SAFETY POST(S). MOUNTING SURFACES SHALL BE STRAIGHT AND SECURE; SUBSTRATES SHALL BE OF PROPER WIDTH. OBSERVE ALL APPROPRIATE OSHA SAFETY GUIDELINES FOR THIS WORK. PROVIDE MANUFACTURER'S STANDARD WARRANTY THAT MATERIALS SHALL BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF FIVE YEARS FROM THE DATE OF PURCHASE. SHOULD A PART FAIL TO FUNCTION IN NORMAL USE WITHIN THIS PERIOD, MANUFACTURER SHALL FURNISH A NEW PART AT NO CHARGE. THE LADDER SAFETY POST SHALL BE PRE-ASSEMBLED FROM THE MANUFACTURER. TUBULAR POST SHALL LOCK AUTOMATICALLY WHEN FULLY EXTENDED. SAFETY POST SHALL HAVE CONTROLLED UPWARD AND DOWNWARD MOVEMENT. RELEASE LEVER SHALL DISENGAGE THE POST TO ALLOW IT TO BE RETURNED TO ITS LOWERED POSITION. POST SHALL HAVE ADJUSTABLE MOUNTING BRACKETS TO FIT LADDER RUNG SPACING UP TO 14" ON CENTER AND CLAMP BRACKETS TO ACCOMMODATE LADDER RUNGS UP TO 1-3/4" IN DIAMETER. POST: SHALL BE MANUFACTURED OF HIGH STRENGTH SQUARE TUBING. A PULL UP LOOP SHALL BE PROVIDED AT THE UPPER END OF THE POST TO FACILITATE RAISING THE POST. A STAINLESS STEEL SPRING BALANCING MECHANISM SHALL BE PROVIDED TO PROVIDE SMOOTH, EASY, CONTROLLED OPERATION WHEN RAISING AND LOWERING THE SAFETY POST. ALL MOUNTING HARDWARE SHALL BE TYPE 316 STAINLESS STEEL. FACTORY FINISH SHALL BE HOT DIP GALVANIZED STEEL. VERIFY THAT LADDER SAFETY POST INSTALLATION WILL NOT DISRUPT OTHER TRADES. VERIFY THAT THE LADDER RUNGS ARE DRY, CLEAN, AND FREE OF FOREIGN MATTER. REPORT AND CORRECT DEFECTS PRIOR TO ANY INSTALLATION. SUBMIT PRODUCT DESIGN DRAWINGS FOR REVIEW AND APPROVAL TO THE ARCHITECT BEFORE FABRICATION. THE INSTALLER SHALL CHECK AS-BUILT CONDITIONS AND VERIFY THE MANUFACTURER'S LADDER SAFETY POST DETAILS FOR ACCURACY TO FIT THE APPLICATION PRIOR TO FABRICATION. THE INSTALLER SHALL COMPLY WITH THE LADDER SAFETY POST MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE MANUFACTURER SHALL FURNISH FASTENERS NECESSARY FOR INSTALLING LADDER SAFETY POST ON LADDER.

ROOF DRAINS :

ALL ROOF AREAS SHALL BE PROVIDED WITH MAIN ROOF DRAINS AND OVERFLOW DRAINS. ALL MAIN ROOF DRAIN LINES SHALL BE CONNECTED TO THE SITE STORM DRAIN SYSTEM (REFER TO CIVIL PLANS). OVERFLOW DRAIN INLETS ARE TO BE MOUNTED 2" ABOVE THE MAIN ROOF DRAIN INLET ELEVATIONS AND DAY LIGHTED DIRECTLY TO OUTSIDE WALL AT GROUND LEVEL WITH BRASS TONGUE OUTLETS ONTO PRE-CAST CONCRETE SPLASH BLOCKS REFER TO THE ROOF PLAN AND THE PLUMBING PLANS..

GUTTERS AND DOWNSPOUTS :

PROVIDE AND INSTALL AS SHOWN AND AS DETAILED ON THE DRAWINGS IN KYNAR 500 PRE-FINISHED 24 GAUGE GALVANIZED IRON TO MATCH FLASHINGS AS MANUFACTURED BY VINCENT METAL GOODS COLORKLAD OR EQUIVALENT. SEAL ALL GUTTER CORNERS AND SPLICES. INSTALL SCREEN ALONG STRAINERS AT DOWNSPOUT HEADS. FASTEN DOWNSPOUTS AT EACH END AND EACH SIX FEET OF LENGTH. INSTALL GUTTER WITH SLIGHT SLOPES TO DOWNSPOUTS. ALL DOWNSPOUTS MUST DISCHARGE ONTO CONCRETE SPLASH-BLOCKS. INSTALL AND MANUFACTURE PER MINIMUM STANDARDS OF SMACNA. PROVIDE SHOP DRAWINGS OF PROFILES. COLOR IS TO BE SELECTED BY ARCHITECT.

METAL ROOF PANELS : (CARPORTS)

SHALL SHALL BE 2" HIGH STANDING SEAM MBCI "SUPERLOK" METAL ROOF PANELS AS MANUFACTURED BY MBCI METAL ROOF AND WALL SYSTEMS, DIVISION OF NCI GROUP, INC.; HOUSTON TEXAS OR APPROVED EQUIVALENT. PROVIDE MECHANICALLY-SEAMED, CONCEALED FASTENER, METAL ROOF PANELS: STRUCTURAL METAL ROOF PANEL CONSISTING OF FORMED METAL SHEET WITH VERTICAL RIBS AT PANEL EDGES, INSTALLED BY LAPPING AND MECHANICALLY INTERLOCKING EDGES OF ADJACENT PANELS, AND ATTACHING PANELS TO SUPPORTS USING CONCEALED CLIPS AND FASTENERS IN A WEATHER TIGHT INSTALLATION.

PROVIDE COMPLETE METAL ROOF PANEL ASSEMBLY INCORPORATING TRIM, COPINGS, FASCIAE, GUTTERS AND DOWNSPOUTS, AND MISCELLANEOUS FLASHINGS, IN MANUFACTURER'S STANDARD PROFILES. PROVIDE REQUIRED FASTENERS, CLOSURE STRIPS, THERMAL SPACERS, SPLICE PLATES, SUPPORT PLATES, AND SEALANTS AS INDICATED IN MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE FLASHING AND TRIM TO MATCH MATERIAL, THICKNESS, AND FINISH OF METAL PANEL FACE SHEET. PROVIDE PANEL CLIP OF TYPE SPECIFIED, AT SPACING INDICATED ON APPROVED SHOP DRAWINGS. TOB BE .SINGLE-PIECE FIXED: ASTM A 653/A 653M, G90 (Z180) HOT-DIP GALVANIZED ZINC COATING, CONFIGURED FOR CONCEALMENT IN PANEL JOINTS, AND IDENTICAL TO CLIPS UTILIZED IN TESTS DEMONSTRATING COMPLIANCE WITH PERFORMANCE REQUIREMENTS. PROVIDE PANEL FASTENERS OF SELF-TAPPING SCREWS AND OTHER ACCEPTABLE CORROSION-RESISTANT FASTENERS RECOMMENDED BY ROOF PANEL MANUFACTURER. WHERE EXPOSED FASTENERS CANNOT BE AVOIDED, SUPPLY FASTENERS WITH EPDM OR NEOPRENE GASKETS, WITH HEADS MATCHING COLOR OF METAL PANELS BY MEANS OF FACTORY-APPLIED COATING. PROVIDE MANUFACTURER'S STANDARD OR RECOMMENDED LIQUID AND PREFORMED SEALERS AND TAPES, INCLUDING FACTORY-APPLIED SEAM SEALANT: MANUFACTURER'S STANDARD HOT-MELT TYPE AND STANDARD NON-CURING BUTYL TAPE, AAMA 809.2. PROVIDE METAL ROOF PANEL ASSEMBLY AND ACCESSORIES FROM A SINGLE MANUFACTURER PROVIDING FIXED-BASE ROLL FORMING, AND ACCREDITED UNDER IAS AC 472 PART B. APPROVED MANUFACTURER LISTED IN THIS SECTION WITH MINIMUM FIVE YEARS EXPERIENCE IN MANUFACTURE OF SIMILAR PRODUCTS IN SUCCESSFUL USE IN SIMILAR APPLICATIONS. EXPERIENCED INSTALLER SHALL BE CERTIFIED BY METAL PANEL MANUFACTURER WITH MINIMUM OF FIVE YEARS EXPERIENCE WITH SUCCESSFULLY COMPLETED PROJECTS OF A SIMILAR NATURE AND SCOPE. INSTALLER'S FIELD SUPERVISOR SHALL BE AN EXPERIENCED MECHANIC CERTIFIED BY METAL PANEL MANUFACTURER SUPERVISING WORK ON SITE WHENEVER WORK IS UNDERWAY.

PROVIDE MANUFACTURER'S DATA SHEETS FOR SPECIFIED PRODUCTS. PROVIDE SHOP DRAWINGS WHICH SHOW LAYOUTS OF METAL PANELS. INCLUDE DETAILS OF EACH CONDITION OF INSTALLATION, PANEL PROFILES, AND ATTACHMENT TO BUILDING. PROVIDE DETAILS AT A MINIMUM SCALE 1-1/2-INCH PER FOOT OF EDGE CONDITIONS, JOINTS, FASTENER AND SEALANT PLACEMENT, FLASHINGS, OPENINGS, PENETRATIONS, ROOF ACCESSORIES, LIGHTNING ARRESTING EQUIPMENT, AND SPECIAL DETAILS. MAKE DISTINCTIONS BETWEEN FACTORY AND FIELD ASSEMBLED WORK. INDICATE POINTS OF SUPPORTING STRUCTURE THAT MUST COORDINATE WITH METAL PANEL SYSTEM INSTALLATION. INCLUDE DATA INDICATING COMPLIANCE WITH PERFORMANCE REQUIREMENTS. INCLUDE STRUCTURAL DATA INDICATING COMPLIANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE REPRESENTATIVE COLOR CHARTS OF MANUFACTURER'S FULL RANGE OF COLORS. PROVIDE A 12-INCH LONG SECTION OF EACH METAL PANEL PROFILE. PROVIDE COLOR CHIP VERIFYING COLOR SELECTION. PROVIDE\ PRODUCT TEST REPORTS: INDICATING COMPLIANCE OF PRODUCTS WITH REQUIREMENTS, WITNESSED BY A PROFESSIONAL ENGINEER. PROVIDE SAMPLE COPY OF MANUFACTURER'S STANDARD WARRANTY FORM, IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE METAL PANEL ASSEMBLIES THAT FAIL IN MATERIALS AND WORKMANSHIP WITHIN ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.

PRIOR TO ERECTION OF FRAMING, CONDUCT PRE-INSTALLATION MEETING AT SITE ATTENDED BY MANUFACTURER'S TECHNICAL REPRESENTATIVE AND RELATED TRADE CONTRACTORS. COORDINATE BUILDING FRAMING IN RELATION TO METAL PANEL SYSTEM. EXAMINE METAL PANEL SYSTEM SUBSTRATE AND SUPPORTS WITH INSTALLER PRESENT. INSPECT FOR ERECTION TOLERANCES AND OTHER CONDITIONS THAT WOULD ADVERSELY AFFECT INSTALLATION OF METAL PANEL INSTALLATION. INSPECT METAL PANEL SUPPORT SUBSTRATE TO DETERMINE IF SUPPORT COMPONENTS ARE INSTALLED AS INDICATED ON APPROVED SHOP DRAWINGS. CONFIRM PRESENCE OF ACCEPTABLE SUPPORTS AT RECOMMENDED SPACING TO MATCH INSTALLATION REQUIREMENTS OF METAL PANELS. CONFIRM THAT PANEL SUPPORTS ARE WITHIN TOLERANCES ACCEPTABLE TO METAL PANEL SYSTEM MANUFACTURER BUT NOT GREATER THAN 1/4 INCH IN 20 FOOT IN ANY DIRECTION. CORRECT OUT-OF-TOLERANCE WORK AND OTHER DEFICIENT CONDITIONS PRIOR TO PROCEEDING WITH INSULATED METAL ROOF PANEL SYSTEM INSTALLATION.

PROVIDE METAL PANEL ASSEMBLIES CAPABLE OF WITHSTANDING THE EFFECTS OF INDICATED LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED. DETERMINE LOADS BASED ON UNIFORM PRESSURE, IMPORTANCE FACTOR, EXPOSURE CATEGORY, AND BASIC WIND SPEED INDICATED ON DRAWINGS. WIND UPLIFT TESTING: CERTIFY CAPACITY OF METAL PANELS BY ACTUAL TESTING OF PROPOSED ASSEMBLY PER ASTM E 1592. SNOW LOADS: 30 LBS/SF. WITHSTAND INWARD AND OUTWARD WIND-LOAD DESIGN PRESSURES IN ACCORDANCE WITH APPLICABLE BUILDING CODE WITH MAXIMUM DEFLECTION OF 1/240 OF THE SPAN WITH NO EVIDENCE OF FAILURE. COMPLY WITH ASCE 7, SECTION 9, "EARTHQUAKE LOADS." COMPLY WITH UL 580 FOR WIND-UPLIFT CLASS UL-90.THERMAL MOVEMENTS: ALLOW FOR THERMAL MOVEMENTS FROM VARIATIONS IN BOTH AMBIENT AND INTERNAL TEMPERATURES. ACCOMMODATE MOVEMENT OF SUPPORT STRUCTURE CAUSED BY THERMAL EXPANSION AND CONTRACTION. ALLOW FOR DEFLECTION AND DESIGN FOR THERMAL STRESSES CAUSED BY TEMPERATURE DIFFERENCES FROM ONE SIDE OF THE PANEL TO THE OTHER. METAL ROOF PANELS SHALL BE MECHANICALLY-SEAMED, CONCEALED FASTENER, METAL ROOF PANELS: STRUCTURAL METAL ROOF PANEL CONSISTING OF FORMED METAL SHEET WITH VERTICAL RIBS AT PANEL EDGES, INSTALLED BY LAPPING AND MECHANICALLY INTERLOCKING EDGES OF ADJACENT PANELS, AND ATTACHING PANELS TO SUPPORTS USING CONCEALED CLIPS AND FASTENERS IN A WEATHER TIGHT INSTALLATION FINISH. ALUMINUM-ZINC ALLOY-COATED STEEL SHEET: ASTM A 792/A 792M, STRUCTURAL QUALITY, GRADE 50, COATING CLASS AZ50 (GRADE 340, COATING CLASS AZM150), PRE-PAINTED BY THE COIL-COATING PROCESS PER ASTM A 755/A 755M. PANEL WIDTH: 12 INCHES . PANEL SEAM HEIGHT: 2 INCH .JOINT TYPE: MECHANICALLY SEAMED. SHALL BE 22 GA AND SHALL HAVE A SOLAR WHITE FINISH.

INSTALL SUB-FRAMING, GIRTS, FURRING, AND OTHER MISCELLANEOUS PANEL SUPPORT MEMBERS ACCORDING TO ASTM C 754 AND MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE FLASHINGS AS REQUIRED TO COMPLETE METAL ROOF PANEL SYSTEM. INSTALL IN ACCORDANCE WITH SHEET METAL FLASHING AND TRIM AND APPROVED SHOP DRAWINGS. METAL PANEL INSTALLATION TO BE MECHANICALLY-SEAMED, STANDING SEAM METAL ROOF PANELS: INSTALL WEATHER TIGHT METAL PANEL SYSTEM IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, APPROVED SHOP DRAWINGS, AND PROJECT DRAWINGS. INSTALL METAL ROOF PANELS IN ORIENTATION, SIZES, AND LOCATIONS INDICATED, FREE OF WAVES, WARPS, BUCKLES, FASTENING STRESSES, AND DISTORTIONS. ANCHOR PANELS AND OTHER COMPONENTS SECURELY IN PLACE. PROVIDE FOR THERMAL AND STRUCTURAL MOVEMENT. ATTACH PANELS TO SUPPORTS USING CLIPS, SCREWS, FASTENERS, AND SEALANTS RECOMMENDED BY MANUFACTURER AND INDICATED ON APPROVED SHOP DRAWINGS FASTEN METAL PANELS TO SUPPORTS WITH CONCEALED CLIPS AT EACH LOCATION INDICATED ON APPROVED SHOP DRAWINGS, WITH SPACING AND FASTENERS RECOMMENDED BY MANUFACTURER. CRIMP STANDING SEAMS WITH MANUFACTURER-APPROVED, MOTORIZED SEAMER TOOL SO CLIP, METAL ROOF PANEL, AND FACTORY-APPLIED SEALANT ARE COMPLETELY ENGAGED. WHERE ELEMENTS OF METAL PANEL SYSTEM WILL COME INTO CONTACT WITH DISSIMILAR MATERIALS, TREAT FACES AND EDGES IN CONTACT WITH DISSIMILAR MATERIALS AS RECOMMENDED BY MANUFACTURER.

INSTALL METAL PANEL TRIM, FLASHING, AND ACCESSORIES USING RECOMMENDED FASTENERS AND JOINT SEALERS, WITH POSITIVE ANCHORAGE TO BUILDING, AND WITH WEATHER TIGHT MOUNTING. PROVIDE FOR THERMAL EXPANSION. COORDINATE INSTALLATION WITH FLASHINGS AND OTHER COMPONENTS. INSTALL COMPONENTS REQUIRED FOR A COMPLETE METAL PANEL ASSEMBLY, INCLUDING TRIM, COPINGS, FLASHINGS, SEALANTS, CLOSURE STRIPS, AND SIMILAR ITEMS. COMPLY WITH DETAILS OF ASSEMBLIES UTILIZED TO ESTABLISH COMPLIANCE WITH PERFORMANCE REQUIREMENTS AND MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. PROVIDE CONCEALED FASTENERS EXCEPT WHERE NOTED ON APPROVED SHOP DRAWINGS. SET UNITS TRUE TO LINE AND LEVEL AS INDICATED. INSTALL WORK WITH LAPS, JOINTS, AND SEAMS THAT WILL BE PERMANENTLY WEATHER RESISTANT. INSTALL JOINT SEALERS WHERE INDICATED AND WHERE REQUIRED FOR WEATHERTIGHT PERFORMANCE OF METAL PANEL ASSEMBLIES, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. REMOVE TEMPORARY PROTECTIVE FILMS IMMEDIATELY IN ACCORDANCE WITH METAL ROOF PANEL MANUFACTURER'S INSTRUCTIONS. CLEAN FINISHED SURFACES AS RECOMMENDED BY METAL ROOF PANEL MANUFACTURER. REPLACE DAMAGED PANELS AND ACCESSORIES THAT CANNOT BE REPAIRED TO THE SATISFACTION OF THE ARCHITECT.

EXTERIOR WALL WATER RESISTIVE AND WEATHER & AIR RESISTIVE BARRIER:

INSTALL A WATER RESISTIVE AND WEATHER & AIR RESISTIVE BARRIER ON ALL EXTERIOR WALLS EQUIVALENT TO DUPONT TYVEK COMMERCIAL WRAP D-STYLE 1083. INSTALLERS MUST SHOW THAT THEY ARE A MANUFACTURERS APPROVED INSTALLER AND MUST ADHERE COMPLETELY TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SEAL ALL EDGES PER THE MANUFACTURER. ALL MATERIALS MUST BE FROM ONE DUPONT APPROVED SOURCE. ATTACHED TO THIS SPECIFICATION IS ICC-ES ESR 2375 REPORT. SUBCONTRACTOR MUST SUBMIT ALL DUPONT MANUFACTURERS DATA, SAMPLES AND A C0PY OF THIS ESR REPORT.

EXTERIOR INSULATION FINISH SYSTEM EIFS :

SHALL CONFORM TO CURRENT 2021 IBC AND IBC STANDARDS FURNISH AND INSTALL WHERE INDICATED ON THE DRAWINGS, DRYVIT OUTSULATION SYSTEM STANDARD DPR (DIRT PICKUP RESISTANCE) SAND PEBBLE FINE FINISH, COLOR TO BE SELECTED BY ARCHITECT. CLASS PB, CONSISTING OF AN ADHESIVE, INSULATION BOARD WITH A THICKNESS AS NOTED ON THE DRAWINGS AND DETAILS, BASE COAT WITH REINFORCING MESHES AND FINISH. MECHANICALLY ATTACHED SYSTEMS SHALL CONFORM TO DRYVIT SPECIFICATION DS135. THE CONTRACTOR SHALL BE KNOWLEDGEABLE IN THE PROPER INSTALLATION OF THE DRYVIT OUTSULATION SYSTEM AND SHALL BE EXPERIENCED AND COMPETENT IN THE INSTALLATION OF EIFS AND SHALL POSSESS A CURRENT TRAINED CONTRACTOR CERTIFICATE FROM DRYVIT. ALL COMPONENTS OF THE OUTSULATION SYSTEM SHALL BE OBTAINED FROM DRYVIT OR ITS AUTHORIZED DISTRIBUTORS. INSULATION BOARD SHALL BE LISTED BY DRYVIT SYSTEMS, INC., SHALL BE EXPANDED POLYSTYRENE (EPS) IN ACCORDANCE WITH CURRENT DRYVIT SPECIFICATION FOR INSULATION BOARD DS131, AND SHALL SUBSCRIBE TO THE DRYVIT THIRD PARTY CERTIFICATION AND QUALITY. BASE COAT SHALL BE COMPATIBLE WITH THE EPS INSULATION BOARD AND REINFORCING MESHES. PRIMUS CEMENTITIOUS SHALL BE A LIQUID POLYMER BASED MATERIAL FIELD MIXED WITH PORTLAND CEMENT. REINFORCING MESHES SHALL BE A BALANCED OPEN WEAVE, GLASS FIBER FABRIC TREATED FOR COMPATIBILITY WITH OTHER SYSTEM MATERIALS AND SHALL PROVIDE THE FOLLOWING MINIMUM WEIGHT AND TENSILE STRENGTH: STANDARD - 146 G/SQ M (14.3 OZ/32 SQ YD), 27 G/CM (150 LBS/IN). FINISHES SHALL BE THE STANDARD DPR - DIRT PICKUP RESISTANCE, WATER BASED ACRYLIC COATING WITH INTEGRAL COLOR AND TEXTURE AND FORMULATED WITH DPR CHEMISTRY WITH A TEXTURE WITH INTEGRAL COLOR FOR ALL EIFS SURFACES. PRIMERS AND SEALERS: COLOR PRIME TO BE A WATER BASED, ACRYLIC PRIMER WITH INTEGRAL COLOR; PRYMIT TO BE A WATER BASED ACRYLIC PRIMER AND ADHESION PROMOTER; AND SEAL CLEAR TO BE CLEAR ACRYLIC SEALER. PRIOR TO INSTALLATION OF THE OUTSULATION SYSTEM, THE CONTRACTOR SHALL ENSURE THAT THE SUBSTRATE MEETS ALL MANUFACTURERS' REQUIREMENTS. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT, MANUFACTURER'S PRODUCT DATA SHEETS DESCRIBING PRODUCTS, WHICH WILL BE USED, ON THIS PROJECT. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT (2) SAMPLES OF THE OUTSULATION SYSTEM FOR THE FINISH, TEXTURE, AND COLOR TO BE USED ON THE PROJECT. SAMPLES SHALL BE OF SUFFICIENT SIZE TO ACCURATELY REPRESENT EACH COLOR AND TEXTURE TO BE UTILIZED ON THE PROJECT. DRYVIT SYSTEM, INC. SHALL PROVIDE A WRITTEN, STANDARD FIVE (5) YEAR LIMITED WARRANTY AGAINST DEFECTIVE MATERIALS. COLOR SHALL BE AS SELECTED BY ARCHITECT WITH A SMOOTH SAND PEBBLE TEXTURE.

THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT DRYVIT OUTSULATION SYSTEM APPLICATION INSTRUCTIONS. THE OVERALL MINIMUM BASE COAT THICKNESS SHALL BE SUFFICIENT TO FULLY EMBED THE MESH. THE RECOMMENDED METHOD IS TO APPLY THE BASE COAT IN TWO (2) PASSES.SEALANT SHALL NOT BE APPLIED DIRECTLY TO TEXTURED FINISHES OR BASE COAT SURFACES. DRYVIT OUTSULATION SYSTEM BASE COAT SURFACES IN CONTACT WITH SEALANT SHALL BE COATED WITH SMOOTH OR COLOR PRIME. WHEN INSTALLING THE OUTSULATION SYSTEM, THE NOTCHED TROWEL METHOD OF ADHESIVE APPLICATION SHALL BE USED OVER GYPSUM SHEATHING SUBSTRATES. HIGH IMPACT MESHES SHALL BE INSTALLED AS SPECIFIED AT GROUND LEVEL, HIGH TRAFFIC AREAS AND OTHER AREAS EXPOSED TO OR SUSCEPTIBLE TO IMPACT DAMAGE. THE INSTALLATION OF MACHINE COATED DRYVIT EPS SHAPES AND STARTER BOARDS SHALL BE IN ACCORDANCE WITH DRYVIT PUBLICATION . THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER APPLICATION OF THE OUTSULATION MATERIALS. DRYVIT ASSUMES NO RESPONSIBILITY FOR ON-SITE INSPECTIONS OR APPLICATION OF ITS PRODUCTS. IF REQUIRED, THE CONTRACTOR SHALL CERTIFY IN WRITING THE QUALITY OF WORK PERFORMED RELATIVE TO THE SUBSTRATE SYSTEM, DETAILS, INSTALLATION PROCEDURES WORKMANSHIP AND AS TO THE SPECIFIC PRODUCTS USED. IF REQUIRED, THE EPS SUPPLIER SHALL CERTIFY IN WRITING THAT THE EPS MEETS DRYVIT'S SPECIFICATIONS. IF REQUIRED, THE SEALANT CONTRACTOR SHALL CERTIFY IN WRITING THAT THE SEALANT APPLICATION IS IN ACCORDANCE WITH THE SEALANT MANUFACTURER'S AND DRYVIT'S RECOMMENDATIONS. ALL EXCESS OUTSULATION SYSTEM MATERIALS SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR IN ACCORDANCE WITH CONTRACT PROVISIONS AND AS REQUIRED BY APPLICABLE LAW. ALL SURROUNDING AREAS, WHERE THE OUTSULATION SYSTEM HAS BEEN INSTALLED, SHALL BE LEFT FREE OF DEBRIS AND FOREIGN SUBSTANCES RESULTING FROM THE CONTRACTOR'S WORK. THE OUTSULATION SYSTEM SHALL BE PROTECTED FROM INCLEMENT WEATHER AND OTHER SOURCES OF DAMAGE UNTIL DRY AND PERMANENT PROTECTION IN THE FORM OF FLASHINGS, SEALANTS, ETC. ARE INSTALLED.

RIGID FOUNDATION INSULATION :

PROVIDE AND INSTALL 2" RIGID FOUNDATION INSULATION OF EXTRUDED POLYSTYRENE STYROFOAM (R=14) ON ALL EXTERIOR FOUNDATION WALLS.

RIGID WALL INSULATION :

PROVIDE AND INSTALL 1" RIGID WALL INSULATION OF EXTRUDED POLYSTYRENE STYROFOAM (R=7) ON THE INSIDE FACE OF ALL CMU EXTERIOR WALLS BEFORE EXTERIOR STEEL STUD WALLS ARE INSTALLED.

WALL INSULATION SYSTEM :

ALL EXTERIOR 6" STEEL STUD WALLS ARE TO BE INSULATED WITH A FIBERGLASS BLANKET WITH AN "R" VALUE OF 21 . FIBERGLASS INSULATION SHALL BE UN-FACED WITH A 6-MIL POLYETHYLENE VAPOR BARRIER IN FINISHED WALL LOCATIONS. ALL INSULATION WILL BE CUT TO APPROPRIATE LENGTHS TO AVOID UNSIGHTLY JOINTS. INSTALLATION SHALL BE DONE IN A WORKMANLIKE MANNER WITH A 1-YEAR REPAIR GUARANTEE FIBERGLASS INSULATION SHALL BE EQUAL TO JOHNS MANVILLE.

ACOUSTICAL INSULATION :

PROVIDE AND INSTALL SOUND CONTROL INSULATION FULL HEIGHT IN ALL TOILET ROOM STUD WALLS ADJACENT TO OTHER USE SPACES AND OFFICE AND OTHER WALL AS NOTED IN THE FINISH SCHEDULE. SOUND INSULATION IS TO BE AS MANUFACTURED BY J.M. MANVILLE OR APPROVED EQUIVALENT. INSULATION WILL BE FIBERGLASS NOISE BARRIER BATT INSULATION OF 6" FOR 6" STEEL STUD WALLS AND 3-1/2" FOR 3-5/8" STEEL STUD WALLS THICKNESSES. INSTALLATION OF THE INSULATION WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND SHALL FIT ALL FRAMED SPACES BEHIND ELECTRICAL OUTLETS AND PIPES.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH — JAMES B. GLASCOCK — 1036 — LICENSED ARCHITECT — 03/01/24

NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Project: 22-002

Revisions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date: 03/01/24

09A102

DIVISION 08 - DOORS & WINDOWS

CAULKING :
SEE SPECIFICATIONS IN DIVISION 7.

METAL DOOR AND WINDOW FRAMES :
FRAMES ARE TO BE FABRICATED OF 16-GAUGE COLD ROLLED STEEL. ALL JOINTS ARE TO BE DIE-MITERED WITH INTEGRAL TABS FOR REINFORCEMENT AND INTERLOCKING OF THE JAMBS TO THE HEAD. FRAMES SHALL BE WELDED AND GROUND SMOOTH. FRAMES SHALL BE THOROUGHLY DEGREASED AND CLEANED OF ALL IMPERFECTIONS BEFORE RECEIVING A FACTORY BAKED-ON COAT OF RUST INHIBITIVE PRIMER. ALL FRAMES SHALL BE PROVIDED WITH 9/32" DIAMETER PRESSURE APPLIED RUBBER SILENCERS, (3) PER STRIKE AND (2) PER HEAD FOR DOUBLE OPENINGS, FIELD APPLIED AFTER FINISH PAINTING. FRAMES FOR 1-3/4" DOORS SHALL HAVE 9-GAUGE STEEL UNIVERSAL HINGE TAP PLATE WELDED PROJECTIONS WELDED WITH PROVISIONS FOR 4-1/2" X 4-1/2" TEMPLATE TYPE HINGES AND 14-GAUGE STEEL STRIKE REINFORCEMENT PLATE, EXTRUDED AND FORMED TO THE EQUIVALENT OF 10-GAUGE PROJECTION WELDED WITH PROVISION FOR UNIVERSAL ANSI A115.1 OR A115.2 STRIKE. REINFORCEMENT FOR SURFACE CLOSER SHALL BE 12-GAUGE STEEL. PROPER REINFORCEMENT PER INDUSTRY STANDARDS SHALL BE PROVIDED FOR OTHER HARDWARE WHEN REQUIRED. PROVIDE LABELS, PROFILES, SIZES AND DIMENSIONS AS DETAILED OR SCHEDULED ON THE DRAWINGS OR AS REQUIRED BY THE 2021 IBC. DO NOT PAINT OVER LABELS ON ANY RATED FRAMES. SUBMIT SHOP DRAWINGS FOR REVIEW BY THE ARCHITECT.

METAL DOORS :
DOORS ARE TO BE MANUFACTURED OF THE FINEST QUALITY 18-GAUGE COLD ROLLED OR A-60 GALVANIZED STEEL. ALL DOORS SHALL BE REINFORCED, STIFFENED, INSULATED, AND SOUND DEADENED WITH A SOLID SLAB OF EXPANDED POLYSTYRENE FOAM PERMANENTLY BONDED TO THE INSIDE OF EACH FACE SKIN. BOTH LOCK AND HINGE RAIL EDGE OF THE DOOR MAY HAVE AN EXPOSED HAIRLINE SKIN. LOCK RAIL SHALL BE ONE-PIECE FULL HEIGHT 16-GAUGE PRESSED CHANNEL "X" ELONGATED TEMPLATING. HINGE RAIL SHALL BE ONE-PIECE FULL HEIGHT 14-GAUGE PRESSED CHANNEL MANUFACTURER FORMED WITH PROVISION FOR 4-1/2" X 4-1/2" FULL MORTISE TEMPLATE TYPE HINGES. TOP AND BOTTOM OF DOOR SHALL HAVE A 16-GAUGE STEEL CLOSURE CHANNELS. DOORS SHALL HAVE A BEVELED (1/8" IN 2") LOCK EDGE. ALL DOORS SHALL BE BONDERIZED AND FINISHED AS STANDARD WITH ONE COAT OF BAKED-ON PRIME COAT PAINT. PROPER REINFORCEMENT PER INDUSTRY STANDARDS SHALL BE PROVIDED FOR OTHER HARDWARE WHEN REQUIRED. PROVIDE CLOSER REINFORCEMENT ON ALL DOORS. PROVIDE DOORS AS SHOWN OR SCHEDULED ON THE DRAWINGS. PROVIDE LABELS AS SCHEDULED ON THE DRAWINGS OR AS REQUIRED BY THE 2021 IBC. PROVIDE INSULATED METAL DOORS ON ALL EXTERIOR OPENINGS. DO NOT PAINT OVER LABELS ON ANY RATED DOORS. SUBMIT SHOP DRAWINGS FOR REVIEW BY THE ARCHITECT.

FACTORY FINISHED WOOD DOORS:
WORK SHALL INCLUDE DOORS AS MANUFACTURED BY VT INDUSTRIES ARCHITECTURAL WOOD DOORS OR APPROVED EQUIVALENT. DOORS SHALL BE SMOOTH FINISH SOLID CORE BIRCH DOOR READY TO BE FINISHED WITH A CLEAR COAT FINISH. DOORS SHALL BE SOLID CORE 5-PLY CONSTRUCTION, NON-RATED. PACKAGE DOORS IN HEAVY PLASTIC WITH IDENTIFYING MARKS; SLIT PLASTIC WRAP ON SITE TO PERMIT VENTILATION, BUT DO NOT REMOVE FROM PLASTIC UNTIL READY TO INSTALL. STORE DOORS UPRIGHT WITH AT LEAST 1/4 INCH BETWEEN DOORS, IN PROTECTED, DRY AREA. PROVIDE MANUFACTURER'S 2-YEAR WARRANTY AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP AND WARPAGE BEYOND SPECIFIED AMOUNT. MANUFACTURED UNITS SHALL BE TYPE: AWI SECTION 1300, SOLID CORE, NON-RATED: TYPE PC-5, PARTICLEBOARD CORE WITH STILES AND RAILS BONDED TO CORE. GRADE: AWI PREMIUM GRADE. , BIRCH VENEER FACES, OF QUALITY SUITABLE FOR STAIN OR CLEAR COAT FINISH. ADHESIVES SHALL BE TYPE II - WATER RESISTANT PRE-MACHINING: MACHINE DOORS AT FACTORY IN ACCORDANCE WITH AWI SECTION 1300, TO RECEIVE HARDWARE SPECIFIED ELSEWHERE. . CONDITION DOORS TO AVERAGE HUMIDITY THAT WILL BE ENCOUNTERED AFTER INSTALLATION. INSTALL DOORS PLUMB AND LEVEL. IF FIELD CUTTING FOR HEIGHT IS NECESSARY, CUT BOTTOM EDGE ONLY, 3/4 INCH MAXIMUM. INSTALL DOOR HARDWARE AS INDICATED IN THE HARDWARE SCHEDULE. ENSURE THAT DOORS OPERATE FREELY. INSTALLATION WARP TOLERANCES: WARP SHALL BE A MAXIMUM 1/4 INCH IN ANY 3'-0" X 6'-8" PORTION OF DOOR, MEASURED WITH TAUT STRING OR STRAIGHT EDGE ON CONCAVE FACE OF DOOR. DOORS SHALL BE FACTORY FINISHED WITH PRIMED AND 2 COATS OF PAINT FINISH IN ACCORDANCE WITH AWI STANDARDS.

ALUMINUM INTERIOR SLIDING SERVICE WINDOW :
PROVIDE "DIANE" ALUMINUM, MEDIUM-DUTY INTERIOR SLIDING SERVICE WINDOWS AS INDICATED IN DRAWINGS AND IN SECTIONS AND MANUFACTURED BY CR LAURENCE CO., INC. (800) 421-6144. SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA SUBSTANTIATING THAT PRODUCTS COMPLY. SUBMIT SHOP DRAWINGS FOR FABRICATION AND INSTALLATION OF WINDOWS. INCLUDE DETAILS, ELEVATIONS AND INSTALLATION REQUIREMENT OF FINISH HARDWARE AND CLEANING. PROVIDE PRINTED DATA IN SUFFICIENT DETAIL TO INDICATE COMPLIANCE WITH THE CONTRACT DOCUMENTS._DELIVER WINDOWS CRATED TO PROVIDE PROTECTION DURING TRANSIT AND JOB STORAGE. INSPECT WINDOWS UPON DELIVERY FOR DAMAGE. UNLESS MINOR DEFECTS CAN BE MADE TO MEET THE ARCHITECT'S SPECIFICATIONS AND SATISFACTION, DAMAGED PARTS SHOULD BE REMOVED AND REPLACED. STORE WINDOWS AT BUILDING SITE UNDER COVER IN DRY LOCATION.

CHECK OPENING BY ACCURATE FIELD MEASUREMENT BEFORE FABRICATION. SHOW RECORDED MEASUREMENTS ON SHOP DRAWINGS. COORDINATE FABRICATION SCHEDULE WITH CONSTRUCTION PROGRESS TO AVOID DELAY OF WORK. ALL MATERIAL AND WORKMANSHIP SHALL BE WARRANTED AGAINST DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE ORIGINAL DATE OF PURCHASE. ALUMINUM FRAME MODULES SHALL BE CONSTRUCTED OF 6063-T5 EXTRUDED ALUMINUM. WINDOW ROLLS ON TOP-HUNG BALL BEARING ROLLERS. CATCH LOCKS INCLUDED WITH ALL INTERIOR WINDOWS. OVERALL FRAME SIZES ARE TO BE IN ACCORDANCE WITH THE CONTRACT DRAWINGS. ALL ALUMINUM TO BE BLACK DURANODIC FINISH. THE GLAZING VINYL SUPPLIED IS FOR 1/4" SAFETY GLASS IN THICKNESS. GLASS NOT INCLUDED, TO BE SUPPLIED BY OTHERS. FULL OVERHEAD TRACK. MODEL: DIANE MODEL PASS-THRU D1031 D1032 SYSTEM (0XXO), X = SLIDING PANEL, O = FIXED PANEL, AS VIEWED FROM CLERKS SIDE.

INSTALL WINDOW IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND RECOMMENDATIONS. REPAIR DAMAGED UNITS AS DIRECTED OR REPLACE WITH NEW UNITS. CLEAN FRAME AND GLAZING SURFACES AFTER INSTALLATION, COMPLYING WITH REQUIREMENTS CONTAINED IN THE MANUFACTURER'S INSTRUCTIONS. REMOVE EXCESS GLAZING SEALANT COMPOUNDS, DIRT OR OTHER SUBSTANCES. INSTITUTE PROTECTIVE MEASURES REQUIRED THROUGHOUT THE REMAINDER OF THE CONSTRUCTION PERIOD TO ENSURE THAT ALL THE WINDOWS DO NOT INCUR ANY DAMAGE OR DETERIORATION, OTHER THAN NORMAL WEATHERING, AT THE TIME OF ACCEPTANCE.

ALUMINUM-FRAMED ENTRANCES AND STOREFRONT:
WORK SHALL INCLUDE ALUMINUM ENTRANCE DOORS AND FRAMES, ALUMINUM FRAMED GLAZED STOREFRONT AND, GLASS INFILL PANELS. ACCEPTABLE MANUFACTURERS EQUAL TO KAWNEER TRI-FAB VG451 / 451T FOR EXTERIOR WALLS AND 450 FOR INTERIOR WALLS WITH A ANODIZED BLACK. ACCEPTABLE MANUFACTURERS ARE KAWNEER COMPANY, AMARLITE ARCHITECTURAL PRODUCTS, EFCO CORPORATION, TUBELITE, INC., UNITED STATES ALUMINUM CORP. AND, VISTAWALL ARCHITECTURAL PRODUCTS. ALL DRAWING DETAILS ARE BASED ON THE KAWNEER SYSTEM. DESIGN EXTERIOR SYSTEMS TO WITHSTAND POSITIVE AND NEGATIVE DESIGN WIND LOADS ACTING NORMAL TO WALL PLANE IN ACCORDANCE WITH ICBO WITH DEFLECTION OF ANY MEMBER NOT TO EXCEED L/175, TESTED TO ASTM E 330 AND MOVEMENT CAUSED BY AN AMBIENT TEMPERATURE RANGE OF 120 DEGREES F AND A SURFACE TEMPERATURE RANGE OF 160 DEGREES F. MAXIMUM AIR INFILTRATION AS FOLLOWS, TESTED TO ASTM E 283, ENTRANCES: 1.75 CFM PER MINUTE PER SQUARE FOOT AT PRESSURE DIFFERENTIAL OF 1.57 PSF AND STOREFRONT: 0.06 CFM PER SQUARE FOOT OF FIXED AREA AT PRESSURE DIFFERENTIAL OF 6.24 PSF. STOREFRONT WATER INFILTRATION: NO WATER LEAKAGE, TESTED TO ASTM E 331 AT TEST PRESSURE OF 6.24 PSF. UNIFORM STRUCTURAL LOADING: NO GLASS BREAKAGE OR PERMANENT DAMAGE TO FASTENERS OR SYSTEM COMPONENTS, TESTED TO ASTM E 330 AT 1.5 TIMES THE DESIGN PRESSURE. THERMAL TRANSMITTANCE DUE TO CONDUCTION (UC): MAXIMUM 0.60, TESTED TO AAMA 1503.1 ON TWO 6'-0" X 6'-8" UNITS WITH 1 INCH CLEAR INSULATING GLASS, AND CONDENSATION RESISTANCE FACTOR (CRF): MINIMUM 50, TESTED TO AAMA 1503.1 ON TWO 6'-0" X 6'-8" UNITS WITH 1 INCH CLEAR INSULATING GLASS. INSTALLER SHALL HAVE A MINIMUM OF 2 YEARS DOCUMENTED EXPERIENCE IN WORK OF THIS SECTION. ALL WORK SHALL CONFORM TO APPLICABLE ACCESSIBILITY CODE FOR LOCATING HARDWARE AND FOR DOOR OPENING FORCE REQUIREMENTS. SUBMIT SHOP DRAWINGS THAT INDICATE SYSTEM DIMENSIONS, FRAMED OPENING REQUIREMENTS AND TOLERANCES, TRIM, SEALERS, HARDWARE, AND ACCESSORIES. PROVIDE 12-INCH LONG ALUMINUM FRAMING SYSTEM SAMPLES SHOWING PROFILE AND FINISH AND 12 X 12 INCH DOOR CORNER SHOWING CORNER CONSTRUCTION, REINFORCEMENT, AND GLAZING. PROVIDE SUBMIT CERTIFIED TEST REPORTS RESULTS OF PREVIOUS TESTS BY A RECOGNIZED INDEPENDENT LABORATORY SUBSTANTIATING COMPLIANCE WITH SPECIFIED DESIGN AND PERFORMANCE CRITERIA, CURRENT WITHIN PAST 5 YEARS. ENTRANCES DOORS SHALL BE DOOR TYPE 1 - MEDIUM STILE 500 EXCEPT WITH 10-INCH BOTTOM RAIL. EXTERIOR STOREFRONT LOCATIONS: TRI-FAB II 451T FLUSH GLAZING SYSTEM DESIGNED TO RECEIVE 1 INCH GLASS BY MEANS OF ELASTOMERIC GASKETS, THERMALLY BROKEN; 2 INCH FACE WIDTH X 4-1/2 INCH DEPTH. ALUMINUM EXTRUSIONS SHALL BE ASTM B 221, 6063-T5 ALLOY AND TEMPER. FASTENERS SHALL BE SERIES 300 STAINLESS STEEL FOR WET LOCATIONS AND EXPOSED FASTENERS. AND STAINLESS OR CORROSION RESISTANT COATED STEEL FOR OTHER LOCATIONS. SEALANTS SHALL BE FOR PERIMETER AS SPECIFIED ELSEWHERE IN DIVISION 07 AND FOR INTERNAL SHALL : ASTM C 920, TYPE S, GRADE NS, CLASS 25, USES NT, M, A, AND O; SINGLE COMPONENT SILICONE, NON SAG, PLUS OR MINUS 25 PERCENT MOVEMENT CAPABILITY. DOOR HARDWARE, GLASS, GLAZING GASKETS, AND ACCESSORIES AS SPECIFIED ELSEWHERE IN DIVISION 06. WEATHER STRIPPING SHALL BE REPLACEABLE NONPOROUS, POLYMERIC MATERIAL. FABRICATE WITH MINIMUM CLEARANCES AND SHIM SPACES AROUND PERIMETER, YET ENABLING INSTALLATION AND DYNAMIC MOVEMENT. ACCURATELY FIT AND SECURE JOINTS AND INTERSECTIONS. MAKE JOINTS FLUSH, HAIRLINE, AND WEATHER TIGHT. FABRICATE IN LARGEST PRACTICAL UNITS. CONCEAL FASTENERS AND ATTACHMENTS FROM VIEW. DOORS SHALL BE MECHANICALLY FASTENED AND WELDED CORNER CONSTRUCTION. FABRICATE STILES AND RAILS OF MINIMUM 0.125-INCH THICK EXTRUSIONS AND GLASS STOPS FROM MINIMUM 0.050-INCH THICK EXTRUSIONS. PROVIDE WEATHER STRIPPING AT DOOR HEAD, JAMBS, MEETING STILES, AND SILLS. PREPARE WITH INTERNAL REINFORCEMENTS FOR DOOR HARDWARE.

ALUMINUM FINISH SHALL BE PER AAMA 611; NON-SPECULAR AS-FABRICATED MECHANICAL FINISH, MEDIUM MATTE CHEMICAL FINISH, AND ARCHITECTURAL CLASS I ANODIZED TO 0.0007-INCH MINIMUM THICKNESS. APPLY ONE COAT BITUMINOUS PAINT TO CONCEALED ALUMINUM SURFACES IN CONTACT WITH CEMENTITIOUS MATERIALS OR DISSIMILAR METALS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SHOP DRAWINGS. INSTALL COMPONENTS PLUMB AND LEVEL, IN PROPER PLANE, FREE FROM WARP AND TWIST. PROVIDE ALIGNMENT ATTACHMENTS AND ANCHORS TO PERMANENTLY ATTACH COMPONENTS TO BUILDING STRUCTURE. SET THRESHOLDS AND SILL MEMBERS EXPOSED TO WEATHER IN MASTIC AND SECURE. INSTALL HARDWARE USING TEMPLATES PROVIDED. INSTALL GLASS AND ACCESSORIES. INSTALLATION TOLERANCES: MAXIMUM VARIATION FROM PLUMB OR LEVEL: 1/8 INCH IN 3 FEET OR 1/4 INCH IN ANY 10 FEET, WHICHEVER IS LESS; MAXIMUM MISALIGNMENT OF MEMBERS ABUTTING END TO END: 1/32 INCH; AND, SEALANT SPACE BETWEEN FRAMING MEMBERS AND ADJACENT CONSTRUCTION: MINIMUM 1/2 INCH. ADJUST HARDWARE FOR SMOOTH OPERATION. ADJUST DOOR CLOSERS TO OPERATE DOORS WITH FOLLOWING MAXIMUM OPENING FORCES: INTERIOR DOORS: 5.0 POUNDS; AND, EXTERIOR DOORS: 8.5 POUNDS. TOUCH UP MINOR SCRATCHES AND ABRASIONS TO MATCH ORIGINAL FINISH. ADJUST WEATHERSTRIPPING TO CONTACT APPROPRIATE SURFACES AND FORM WEATHER SEAL.

PROVIDE THE FOLLOWING TYPES0 OF SYSTEMS:
1. ALL EXTERIOR WALLS 2" X 4 1/2" STANDARD STOREFRONT SYSTEM WITH THERMAL BREAK AND 1" INSULATED TEMPERED GLASS WITH LOW E. ALUMINUM FRAME COLOR TO BE BLACK.
2. ALL INTERIOR STOREFRONT IS TO BE 2" X 4 1/2" STANDARD STOREFRONT SYSTEM WITH 1/4" CLEAR TEMPERED GLASS, ALUMINUM FRAME COLOR TO BE BLACK.

ACCESS DOORS:
WORK SHALL INCLUDE ACCESS DOORS AND FRAMES FOR INTERIOR WALL AND CEILING SURFACES. PROVIDE SIZES, TYPES, FINISHES, SCHEDULED LOCATIONS, AND DETAILS OF ADJOINING WORK. ACCEPTABLE MANUFACTURERS: CESCO PRODUCTS, J.L. INDUSTRIES, KARP ASSOCIATES, INC., MILCOR, INC., AND NYSTROM PRODUCTS CO. STEEL SHEET SHALL MEET ASTM A 366, COLD ROLLED. FABRICATE DOOR FRAME OF STEEL SHEET WITH DOORS 16 X 16 INCHES AND SMALLER: MINIMUM 18 GAGE. DOORS OVER 16 X 16 INCHES: MINIMUM 16 GAGE AND FABRICATE FRAME WITH DRYWALL FLANGES. FABRICATE NON-RATED DOOR PANELS OF 14 GAGE STEEL SHEET. WELD, FILL, AND GRIND JOINTS TO FLUSH AND SQUARE APPEARANCE. HARDWARE: PROVIDE CONTINUOUS STEEL HINGES, 175 DEGREE OPENING, SCREWDRIVER OPERATED CAM LATCH. FINISH: ONE COAT RUST-INHIBITING PRIMER PAINT, SPRAYED AND BAKED. INSTALL UNITS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL PLUMB AND LEVEL IN OPENINGS. SECURE RIGIDLY IN PLACE. POSITION UNITS WHERE INDICATED OR WHERE REQUIRED TO PROVIDE CONVENIENT ACCESS TO CONCEALED WORK REQUIRING MAINTENANCE. COORDINATE DOOR LOCATIONS AND SIZES WITH MECHANICAL AND PLUMBING SUB-CONTRACTORS WHERE ACCESS WILL BE REQUIRED IN FINISHED WALLS AND DOORS

GLAZING:
WORK SHALL INCLUDE GLASS FOR OTHER SECTIONS AND UNFRAMED MIRRORS. SIZE GLASS TO WITHSTAND POSITIVE AND NEGATIVE WIND PRESSURE ACTING NORMAL TO PLANE IN ACCORDANCE WITH BUILDING CODE AS MEASURED IN ACCORDANCE WITH ASTM E 330. LIMIT GLASS DEFLECTION TO 1/200 OR FLEXURE LIMIT OF GLASS WITH FULL RECOVERY OF GLAZING MATERIALS, WHICHEVER IS LESS. PROVIDE TEMPERED SAFETY GLASS WHERE REQUIRED BY REGULATORY AGENCIES OR CODE. PERFORM WORK IN ACCORDANCE WITH GANA GLAZING MANUAL AND GANA SEALANT MANUAL FOR GLAZING INSTALLATION METHODS. PERFORM GLAZING WHEN AMBIENT TEMPERATURE IS ABOVE 40 DEGREES F. PERFORM GLAZING ON DRY SURFACES. FOR INSULATING GLASS UNITS, PROVIDE MANUFACTURER'S 10 YEAR WARRANTY AGAINST MATERIAL OBSTRUCTION OF VISION THROUGH UNIT DUE TO INTRUSION OF DUST OR MOISTURE, INTERNAL CONDENSATION, AND FILM FORMATION ON INTERNAL GLASS SURFACES CAUSED BY FAILURE OF HERMETIC SEAL EXCEPT FAILURE CAUSED IN WHOLE OR IN PART BY BREAKAGE OR FRACTURING OF ANY PORTION OF GLASS SURFACE. FOR MIRRORS, PROVIDE MANUFACTURER'S 10-YEAR WARRANTY AGAINST SILVER SPOILAGE RESULTING FROM MANUFACTURING DEFECTS. CLEAR GLASS: ASTM C 1036, TYPE 1 TRANSPARENT FLAT, CLASS 1 CLEAR, QUALITY Q3 GLAZING SELECT. CLEAR TEMPERED GLASS: ASTM C 1048, TYPE 1 TRANSPARENT FLAT, CLASS 1 CLEAR, QUALITY Q3 GLAZING SELECT, KIND FT FULLY TEMPERED. MIRROR GLASS: ASTM C 1036, TYPE I TRANSPARENT FLAT, CLASS 1 CLEAR, QUALITY Q1 MIRROR SELECT. SETTING BLOCKS: ASTM C 864, NEOPRENE OR EPDM, OR ASTM C 1115, SILICONE; 80 TO 90 SHORE A DUROMETER HARDNESS, LENGTH OF 0.1 INCH FOR EACH SQUARE FOOT OF GLAZING OR MINIMUM 4 INCH X WIDTH OF GLAZING RABBET SPACE MINUS 1/16 INCH X HEIGHT TO SUIT GLAZING METHOD AND PANE WEIGHT AND AREA. SPACER SHIMS: ASTM C 864, NEOPRENE OR EPDM, OR ASTM C 1115, SILICONE; 50 TO 60 SHORE A DUROMETER HARDNESS, MINIMUM 3 INCHES LONG X ONE HALF THE HEIGHT OF THE GLAZING STOP X THICKNESS TO SUIT APPLICATION. GAZING GASKETS: ASTM C 864, NEOPRENE OR EPDM, OR ASTM C 1115, SILICONE; EXTRUDED SHAPE TO SUIT GLAZING CHANNEL RETAINING SLOT; BLACK COLOR. MIRROR ADHESIVE SETTING COMPOUND, PRODUCED SPECIFICALLY FOR SETTING MIRRORS BY SPOT APPLICATION METHOD. TEMPERED GLASS SHALL COMPLY WITH ASTM C 1048 FOR TYPE LISTED AND PROCESSED IN HORIZONTAL POSITION SO THAT INHERENT ROLLER DISTORTION WILL RUN PARALLEL TO BUILDING FLOOR LINES AFTER INSTALLATION. SEALED INSULATING GLASS SHALL COMPLY WITH ASTM E 774, GRADE CBA. FABRICATE SPACER BAR FRAME OF TUBULAR ALUMINUM OR GALVANIZED STEEL, FILLED WITH DESICCANT. BOND SPACER BAR FRAME TO GLASS PANES WITH TWIN PRIMARY SEALS. FILL SPACE OUTSIDE FRAME TO GLASS EDGE WITH ELASTOMERIC SEALANT COMPATIBLE WITH OTHER MATERIALS WITH WHICH IT WILL COME IN CONTACT. FOR MIRROR GLASS APPLY ONE COAT OF SILVER, ONE COAT OF ELECTROPLATED COPPER, AND ONE COAT OF ORGANIC MIRROR BACKING COMPOUND TO BACK SURFACE OF GLASS. ARISE AND POLISH EDGES.

FABRICATION TOLERANCES SHALL MEET ASTM C 1036 AND C 1048.ES: WARP. APPLY MANUFACTURER'S LABEL INDICATING TYPE AND THICKNESS TO EACH LIGHT OF GLASS. SHOW POSITION OF EXTERIOR FACE WHEN INSTALLED, WHERE APPLICABLE. ETCH MANUFACTURER'S LABEL ON EACH LIGHT OF TEMPERED GLASS. CLEAN GLAZING RABBETS; REMOVE LOOSE AND FOREIGN MATTER. REMOVE PROTECTIVE COATINGS ON METAL SURFACES. CLEAN GLASS JUST PRIOR TO INSTALLATION. INSTALL GLASS IN ACCORDANCE WITH GLASS MANUFACTURER'S INSTRUCTIONS. MAINTAIN MANUFACTURER'S RECOMMENDED EDGE AND FACE CLEARANCES BETWEEN GLASS AND FRAME MEMBERS. GASKET GLAZING METHOD: SET GLASS AGAINST COMPRESSION GASKET IN FIXED STOP; AFTER GLASS IS INSTALLED AND SUPPORTED, ROLL IN WEDGE GASKET BEGINNING AT TWO ADJACENT CORNERS AND WORKING TOWARD CENTER POINTS. AVOID STRETCHING GASKETS; AND, APPLY SNAP ON SILL MEMBERS WITH GASKET INSTALLED. FOR INSTALLATION OF MIRRORS, APPLY MIRROR ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO COVER MAXIMUM 25 PERCENT OF BACK OF MIRROR. SET MIRROR AND PRESS AGAINST SUBSTRATE TO ENSURE ADHESIVE BOND. LEAVE MINIMUM 1/8-INCH OPEN VENTILATION SPACE BETWEEN MIRROR AND SUBSTRATE OVER 75 PERCENT OF MIRROR AREA. DO NOT SEAL OFF VENTILATION SPACE AT EDGES. PLACE PLUMB AND LEVEL WITHOUT VISIBLE DISTORTION. AFTER INSTALLATION, MARK GLASS WITH AN 'X' USING REMOVABLE PLASTIC TAPE FOR PROTECTION.

PROVIDE THE FOLLOWING:
1. INTERIOR NON-RATED CLERK PASS-THRU WINDOW PROVIDE 1/4" CLEAR SAFETY GLASS IN CR LAURENCE CLERK "DIANE" WINDOW.
2. INTERIOR NON-RATED SIDELITES IN HOLLOW METAL FRAMES AND STOPS. PROVIDE 1/4" CLEAR TEMPERED GLASS..
3. INTERIOR NON-RATED STOREFRONT SYSTEM DOORS AND WINDOWS, PROVIDE .CLEAR 1/4' TEMPERED GLASS.
4. EXTERIOR ALUMINUM STOREFRONT WINDOWS PROVIDE 1" INSULATED NON-RATED TEMPERED GLASS WITH 1/4" SOLAR GREY TINT ON THE EXTERIOR PANE WITH LOW E WITH A 1/4" CLEAR INTERIOR PANE OF GUARDIAN SUNGARD #SNX-62/27 SOLAR GREY (U VALUE OF 0.39 AND SHGC OF 0.27).
5. EXTERIOR ALUMINUM STOREFRONT DOORS PROVIDE 1/ 4" CLEAR TEMPERED GLASS.
6. EXTERIOR CLERESTORY WINDOWS IN STOREFRONT WINDOWS AND IN HOLLOW METAL FRAMES, PROVIDE 1" INSULATED NON-RATED TEMPERED GLASS WITH 1/4" SOLAR GREY TINT ON THE EXTERIOR PANE WITH LOW E WITH A 1/4" OBSCURE GLASS (DESIGN TO BE SELECTED BY ARCHITECT) INTERIOR PANE OF SOLARBAN 60 PANEL (U VALUE OF 0.39 ANDS HGC OF 0.27).
7. 1/4" PLATE GLASS MIRRORS

ACCORDION FOLDING DOOR:
FURNISH AND INSTALL ACCORDION FOLDING PARTITIONS AS INDICATED IN DRAWINGS. MANUFACTURERS SHALL BE IN COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY MODERNFOLD, INC. 215 WEST NEW ROAD, GREENFIELD, IN 46140. 800-869-9685, . ACCORDION DOOR SHALL BE SOUNDMASTER #8 ACCORDION FOLDING PARTITION, MANUALLY OPERATED, TOP SUPPORTED, ACCORDION FOLDING. OPERATION SHALL BE THE MODERNFOLD #800: MANUALLY OPERATED, TOP SUPPORTED, ACCORDION FOLDING. CONSTRUCTION SHALL CONSIST OF STEEL HINGE PLATES WELDED TO 3/16-INCH DIAMETER VERTICAL STEEL RODS, WITH A SINGLE ROW OF PLATES AT THE BOTTOM AND TOP WITH INTERMEDIATE ROWS AT APPROXIMATELY 42-INCH ON CENTER. A HIGH TENSILE ALLOY STEEL TROLLEY YOKE, FUNCTIONING AS A HINGE PIN AT REQUIRED INTERVALS, SUPPORTS THE FRAME ASSEMBLY.

SHALL BE INSTALLED BY A QUALIFIED EXPERIENCED INSTALLER WHO IS CERTIFIED IN WRITING BY THE PARTITION MANUFACTURER, AS QUALIFIED TO INSTALL THE MANUFACTURER'S PARTITION SYSTEMS FOR WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT. PREPARATION OF THE OPENING SHALL CONFORM TO THE DIMENSIONS SPECIFIED, PLUMB, LEVEL, AND IN ACCORDANCE TO BUILDING PRACTICES. ACOUSTICAL PERFORMANCE: TEST PARTITIONS IN AN INDEPENDENT ACOUSTICAL LABORATORY IN ACCORDANCE WITH ASTM E90 TO ATTAIN NO LESS THAN THE STC RATING SPECIFIED. PROVIDE A COMPLETE AND UNEDITED WRITTEN TEST REPORT BY THE TESTING LABORATORY UPON REQUEST. PROVIDE PRODUCT DATA OF MATERIAL DESCRIPTIONS, CONSTRUCTION DETAILS, FINISHES, INSTALLATION DETAILS, AND OPERATING INSTRUCTIONS FOR EACH TYPE OF PARTITION, COMPONENT, AND ACCESSORY SPECIFIED. SHOP DRAWINGS SHALL SHOW LOCATION AND EXTENT OF PARTITIONS. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, ATTACHMENTS TO OTHER CONSTRUCTION, AND ACCESSORIES. INDICATE DIMENSIONS, WEIGHTS, CONDITIONS AT OPENINGS, AND AT STORAGE AREAS, AND REQUIRED INSTALLATION, STORAGE, AND OPERATING CLEARANCES. INDICATE LOCATION AND INSTALLATION REQUIREMENTS FOR HARDWARE AND TRACK, INCLUDING FLOOR TOLERANCES REQUIRED AND DIRECTION OF TRAVEL. INDICATE BLOCKING TO BE PROVIDED BY OTHERS. SETTING DRAWINGS: SHOW IMBEDDED ITEMS AND CUTOUTS REQUIRED IN OTHER WORK, INCLUDING SUPPORT BEAM PUNCHING TEMPLATE. PROVIDE COLOR SAMPLES DEMONSTRATING FULL RANGE OF FINISHES AVAILABLE. VERIFICATION SAMPLES WILL BE AVAILABLE IN SAME THICKNESS AND MATERIAL INDICATED FOR THE WORK.

CLEARLY MARK PACKAGES AND PARTITIONS WITH NUMBERING SYSTEMS USED ON SHOP DRAWINGS. DO NOT USE PERMANENT MARKINGS ON PARTITIONS. PROTECT PARTITIONS DURING DELIVERY, STORAGE, AND HANDLING TO COMPLY WITH MANUFACTURER'S DIRECTION AND AS REQUIRED TO PREVENT DAMAGE. PROVIDE WRITTEN WARRANTY BY MANUFACTURER OF PARTITIONS AGREEING TO REPAIR OR REPLACE ANY COMPONENTS WITH MANUFACTURING DEFECTS. WARRANTY PERIOD SHALL BE TWO (2) YEARS.

CONSTRUCTION SHALL CONSIST OF STEEL HINGE PLATES WELDED TO 3/16-INCH DIAMETER VERTICAL STEEL RODS, WITH A SINGLE ROW OF PLATES AT THE BOTTOM AND TOP WITH INTERMEDIATE ROWS AT APPROXIMATELY 42-INCH ON CENTER. PARTITIONS 9'-0" HIGH SHALL HAVE A DOUBLE ROW OF HINGE PLATES AT THE TOP. A HIGH TENSILE ALLOY STEEL TROLLEY YOKE, FUNCTIONING AS A HINGE PIN AT REQUIRED INTERVALS, SUPPORTS THE FRAME ASSEMBLY. SOUND TRANSMISSION CLASS: LABORATORY ACOUSTICAL PERFORMANCE OF THE FOLDING PARTITION SHALL HAVE BEEN TESTED IN AN INDEPENDENT ACOUSTICAL LABORATORY, IN ACCORDANCE WITH ASTM E90 TEST PROCEDURE, AND SHALL HAVE ATTAINED AN STC RATING OF NO LESS THAN SOUNDMASTER 8 - 39 STC. PARTITION FACE FINISH SHALL BE ACOUSTICAL, NON-WOVEN NEEDLE PUNCH CARPET, WITH FUSED FIBERS TO PREVENT UNRAVELING OR FRAY OF MATERIAL. PARTITION TRIM SHALL BE EXPOSED SWEEP STRIPS OF ONE CONSISTENT COLOR. SOUND SEALS SHALL BE PAIRS OF THREE-LAYER FLEXIBLE SWEEP STRIPS AT TOP AND BOTTOM. VERTICAL FEMALE SOUND CHANNEL SHALL BE POLYURETHANE FOAM LINED. SOUND INSULATION SHALL BE 24-GAGE, V-GROOVED STEEL PANELS AND HEAVY DUTY FLAME RESISTANT ACOUSTICAL MEMBRANE. EACH PANEL ATTACHES TO THE FRAME WITH STEEL LEAF FASTENERS. PAIRS OF FLEXIBLE SWEEP STRIPS SHALL BE PROVIDED AT TOP AND BOTTOM OF THE PARTITION. AIR RELEASE FOR AIR TRAPPED WITHIN THE FOLDING PARTITION SHALL BE ACCOMPLISHED DURING OPERATION BY A SERIES OF 3/8-INCH DIAMETER HOLES THROUGH THE LEAD POST MOLDING. HARDWARE SHALL BE GRIP TYPE HAND PULLS SHALL BE DIE CAST ZINC, SATIN CHROME FINISH. EXTRUDED ALUMINUM OR PLASTIC HAND PULLS WILL NOT BE ACCEPTED. SUSPENSION SYSTEM SHALL BE #5 (FOR SOUNDMASTER 8)SUSPENSION SYSTEM, TRACK AND TROLLEY SIZES MATCHED TO THE SIZE OF THE PARTITION. SUSPENSION TRACKS SHALL BE OF A CONTINUOUS "C" CHANNEL SHAPED TRACK, CONNECTED TO THE STRUCTURAL SUPPORT. CARRIERS FOR THE THE ACCORDION FOLDING PARTITION SHALL BE SUSPENDED FROM THE TRACK BY TWO-WHEEL INTERMEDIATE AND FOUR-WHEEL LEAD TROLLEY ASSEMBLIES. PROVIDE A JAMB-LOCK BACK POST TO BE SECURED TO THE WALL BY THE "JAMB-LOCK" MECHANISM CONCEALED WITHIN THE BACK POST TO PROVIDE A QUICK MEANS OF RELEASING AND REATTACHING THE PARTITION FOR CLEANING AND DECORATIVE PURPOSES.

INSTALLATION: COMPLY WITH PARTITION MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, DRAWINGS, AND APPROVED SHOP DRAWINGS. INSTALL PARTITIONS AND ACCESSORIES AFTER OTHER FINISHING OPERATIONS, INCLUDING PAINTING HAVE BEEN COMPLETED. DEFECTIVE PARTITIONS ARE NOT ACCEPTABLE. CLEAN PARTITION SURFACES UPON COMPLETING INSTALLATION OF PARTITIONS TO REMOVE DUST, DIRT, ADHESIVES, AND OTHER FOREIGN MATERIALS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. PROVIDE FINAL PROTECTION AND MAINTAIN CONDITIONS IN A MANNER ACCEPTABLE TO THE MANUFACTURER AND INSTALLER THAT INSURE OPERABLE PARTITIONS ARE WITHOUT DAMAGE OR DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION. ADJUST PARTITIONS TO OPERATE SMOOTHLY, EASILY, AND QUIETLY THROUGHOUT ENTIRE OPERATIONAL RANGE. LUBRICATE HARDWARE AND OTHER MOVING PARTS. EXAMINE FLOORING, STRUCTURAL SUPPORT, AND OPENING, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF PARTITIONS. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

DOOR HARDWARE:
PROVIDE COMPLETE HARDWARE FOR ALL SWINGING DOORS, SLIDING DOORS AND OTHER DOORS TO THE EXTENT INDICATED. DOOR HARDWARE INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, THE FOLLOWING: MECHANICAL DOOR HARDWARE. ELECTROMECHANICAL DOOR HARDWARE, POWER SUPPLIES, BACK-UPS AND SURGE PROTECTION. CYLINDERS SPECIFIED FOR DOORS IN OTHER SECTIONS. CODES AND REFERENCES: COMPLY WITH THE VERSION YEAR ADOPTED BY THE AUTHORITY HAVING JURISDICTION. ANSI A117.1 - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES. 2021 ICC/IBC - INTERNATIONAL BUILDING CODE. NFPA 80 - FIRE DOORS AND WINDOWS. NFPA 101 - LIFE SAFETY CODE. NFPA 105 - INSTALLATION OF SMOKE DOOR ASSEMBLIES. STATE BUILDING CODES, LOCAL AMENDMENTS. ALL HARDWARE SPECIFIED HEREIN SHALL COMPLY WITH THE FOLLOWING INDUSTRY STANDARDS: ANSI/BHMA CERTIFIED PRODUCT STANDARDS - A156 SERIES AND UL10C - POSITIVE PRESSURE FIRE TESTS OF DOOR ASSEMBLIES.

SUBMITTALS: MANUFACTURER'S PRODUCT DATA SHEETS INCLUDING INSTALLATION DETAILS, MATERIAL DESCRIPTIONS, DIMENSIONS OF INDIVIDUAL COMPONENTS AND PROFILES, OPERATIONAL DESCRIPTIONS AND FINISHES. DOOR HARDWARE SCHEDULE: PREPARED BY OR UNDER THE SUPERVISION OF SUPPLIER, DETAILING FABRICATION AND ASSEMBLY OF DOOR HARDWARE, AS WELL AS PROCEDURES AND DIAGRAMS. COORDINATE THE FINAL DOOR HARDWARE SCHEDULE WITH DOORS, FRAMES, AND RELATED WORK TO ENSURE PROPER SIZE, THICKNESS, HAND, FUNCTION, AND FINISH OF DOOR HARDWARE. FORMAT: COMPLY WITH SCHEDULING SEQUENCE AND VERTICAL FORMAT IN DHI'S "SEQUENCE AND FORMAT FOR THE HARDWARE SCHEDULE." ORGANIZATION: ORGANIZE THE DOOR HARDWARE SCHEDULE INTO DOOR HARDWARE SETS INDICATING COMPLETE DESIGNATIONS OF EVERY ITEM REQUIRED FOR EACH DOOR OR OPENING. ORGANIZE DOOR HARDWARE SETS IN SAME ORDER AS IN THE DOOR HARDWARE SETS AT THE END OF PART 3. SUBMITTALS THAT DO NOT FOLLOW THE SAME FORMAT AND ORDER AS THE DOOR HARDWARE SETS WILL BE REJECTED AND SUBJECT TO RESUBMISSION. CONTENT: INCLUDE THE FOLLOWING INFORMATION: TYPE, STYLE, FUNCTION, SIZE, LABEL, HAND, AND FINISH OF EACH DOOR HARDWARE ITEM. MANUFACTURER OF EACH ITEM. FASTENINGS AND OTHER PERTINENT INFORMATION. LOCATION OF DOOR HARDWARE SET, CROSS-REFERENCED TO DRAWINGS, BOTH ON FLOOR PLANS AND IN DOOR AND FRAME SCHEDULE. EXPLANATION OF ABBREVIATIONS, SYMBOLS, AND CODES CONTAINED IN SCHEDULE. MOUNTING LOCATIONS FOR DOOR HARDWARE. DOOR AND FRAME SIZES AND MATERIALS. SUBMIT THE FINAL DOOR HARDWARE SCHEDULE AT EARLIEST POSSIBLE DATE, PARTICULARLY WHERE APPROVAL OF THE DOOR HARDWARE SCHEDULE MUST PRECEDE FABRICATION OF OTHER WORK THAT IS CRITICAL IN THE PROJECT CONSTRUCTION SCHEDULE. INCLUDE PRODUCT DATA, SAMPLES, SHOP DRAWINGS OF OTHER WORK AFFECTED BY DOOR HARDWARE, AND OTHER INFORMATION ESSENTIAL TO THE COORDINATED REVIEW OF THE DOOR HARDWARE SCHEDULE

SHOP DRAWINGS: DETAILS OF ELECTRIFIED ACCESS CONTROL HARDWARE INDICATING THE FOLLOWING: WIRING DIAGRAMS: UPON RECEIPT OF APPROVED SCHEDULES, SUBMIT DETAILED SYSTEM WIRING DIAGRAMS FOR POWER, SIGNALING, MONITORING, COMMUNICATION, AND CONTROL OF THE ACCESS CONTROL SYSTEM ELECTRIFIED HARDWARE. DIFFERENTIATE BETWEEN MANUFACTURER-INSTALLED AND FIELD-INSTALLED WIRING. INCLUDE THE FOLLOWING: ELEVATION DIAGRAM OF EACH UNIQUE ACCESS CONTROLLED OPENING SHOWING LOCATION AND INTERCONNECTION OF MAJOR SYSTEM COMPONENTS WITH RESPECT TO THEIR PLACEMENT IN THE RESPECTIVE DOOR OPENINGS. COMPLETE (RISERS, POINT-TO-POINT) ACCESS CONTROL SYSTEM BLOCK WIRING DIAGRAMS. ELECTRICAL COORDINATION: COORDINATE WITH RELATED DIVISION 26 ELECTRICAL SECTIONS THE VOLTAGES AND WIRING DETAILS REQUIRED AT ELECTRICALLY CONTROLLED AND OPERATED HARDWARE OPENINGS. KEYING SCHEDULE: PREPARED UNDER THE SUPERVISION OF THE OWNER, SEPARATE SCHEDULE DETAILING FINAL KEYING INSTRUCTIONS FOR LOCKSETS AND CYLINDERS IN WRITING. INCLUDE KEYING SYSTEM EXPLANATION, DOOR NUMBERS, KEY SET SYMBOLS, HARDWARE SET NUMBERS AND SPECIAL INSTRUCTIONS. OWNER TO APPROVE SUBMITTED KEYING SCHEDULE PRIOR TO THE ORDERING OF PERMANENT CYLINDERS. OPERATING AND MAINTENANCE MANUALS: PROVIDE MANUFACTURERS OPERATING AND MAINTENANCE MANUALS FOR EACH ITEM COMPRISING THE COMPLETE DOOR HARDWARE INSTALLATION IN QUANTITY AS REQUIRED IN DIVISION 01, CLOSEOUT SUBMITTALS.

THE MANUAL TO INCLUDE THE NAME, ADDRESS, AND CONTACT INFORMATION OF THE MANUFACTURERS PROVIDING THE HARDWARE AND THEIR NEAREST SERVICE REPRESENTATIVES. THE FINAL COPIES DELIVERED AFTER COMPLETION OF THE INSTALLATION TEST TO INCLUDE "AS BUILT" MODIFICATIONS MADE DURING INSTALLATION, CHECKOUT, AND ACCEPTANCE. WARRANTIES AND MAINTENANCE: SPECIAL WARRANTIES AND MAINTENANCE AGREEMENTS SPECIFIED IN THIS SECTION. MANUFACTURERS QUALIFICATIONS: ENGAGE QUALIFIED MANUFACTURERS WITH A MINIMUM 5 YEARS OF DOCUMENTED EXPERIENCE IN PRODUCING HARDWARE AND EQUIPMENT SIMILAR TO THAT INDICATED FOR THIS PROJECT AND THAT HAVE A PROVEN RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE. INSTALLERS, TRAINED BY THE PRIMARY PRODUCT MANUFACTURERS, WITH A MINIMUM 3 YEARS DOCUMENTED EXPERIENCE INSTALLING BOTH STANDARD AND ELECTRIFIED BUILDERS HARDWARE SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WHOSE WORK HAS RESULTED IN CONSTRUCTION WITH A RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE. DOOR HARDWARE SUPPLIER QUALIFICATIONS: EXPERIENCED COMMERCIAL DOOR HARDWARE DISTRIBUTORS WITH A MINIMUM 5 YEARS DOCUMENTED EXPERIENCE SUPPLYING BOTH MECHANICAL AND ELECTROMECHANICAL HARDWARE INSTALLATIONS COMPARABLE IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT. SUPPLIER RECOGNIZED AS A FACTORY DIRECT DISTRIBUTOR IN GOOD STANDING BY THE MANUFACTURERS OF THE PRIMARY MATERIALS WITH A WAREHOUSING FACILITY IN PROJECT'S VICINITY. SUPPLIER TO HAVE ON STAFF A CERTIFIED ARCHITECTURAL HARDWARE CONSULTANT (AHC) AVAILABLE DURING THE COURSE OF THE WORK TO CONSULT WITH CONTRACTOR, ARCHITECT, AND OWNER CONCERNING BOTH STANDARD AND ELECTROMECHANICAL DOOR HARDWARE AND KEYING. SCHEDULING RESPONSIBILITY: PREPARATION OF DOOR HARDWARE AND KEYING SCHEDULES. OBTAIN EACH TYPE AND VARIETY OF DOOR HARDWARE SPECIFIED IN THIS SECTION FROM A SINGLE SOURCE, QUALIFIED SUPPLIER UNLESS OTHERWISE INDICATED. ELECTRIFIED MODIFICATIONS OR ENHANCEMENTS MADE TO A SOURCE MANUFACTURER'S PRODUCT LINE BY A SECONDARY OR THIRD PARTY SOURCE WILL NOT BE ACCEPTED. PROVIDE ELECTROMECHANICAL DOOR HARDWARE FROM THE SAME MANUFACTURER AS MECHANICAL DOOR HARDWARE, UNLESS OTHERWISE INDICATED.

REGULATORY REQUIREMENTS: COMPLY WITH NFPA 70, NFPA 80, NFPA 101 AND ANSI A117.1 REQUIREMENTS AND GUIDELINES AS DIRECTED IN THE MODEL BUILDING CODE INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: NFPA 70 "NATIONAL ELECTRICAL CODE", INCLUDING ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES LISTED AND LABELED AS DEFINED IN ARTICLE 100 BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE. WHERE INDICATED TO COMPLY WITH ACCESSIBILITY REQUIREMENTS, COMPLY WITH AMERICANS WITH DISABILITIES ACT (ADA), "ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG)," ANSI A117.1 AS FOLLOWS: HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES: SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST. DOOR CLOSERS: COMPLY WITH THE FOLLOWING MAXIMUM OPENING-FORCE REQUIREMENTS INDICATED: INTERIOR HINGED DOORS: 5 LBF APPLIED PERPENDICULAR TO DOOR. FIRE DOORS: MINIMUM OPENING FORCE ALLOWABLE BY AUTHORITIES HAVING JURISDICTION. THRESHOLDS: NOT MORE THAN CO1/2 INCH HIGH. BEVEL RAISED THRESHOLDS WITH A SLOPE OF NOT MORE THAN 1:2. NFPA 101: COMPLY WITH THE FOLLOWING FOR MEANS OF EGRESS DOORS: LATCHES, LOCKS, AND EXIT DEVICES: NOT MORE THAN 15 LBF TO RELEASE THE LATCH. LOCKS SHALL NOT REQUIRE THE USE OF A KEY, TOOL, OR SPECIAL KNOWLEDGE FOR OPERATION. THRESHOLDS: NOT MORE THAN 1/2 INCH HIGH. FIRE-RATED DOOR ASSEMBLIES: PROVIDE DOOR HARDWARE FOR ASSEMBLIES COMPLYING WITH NFPA 80 THAT ARE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, FOR FIRE RATINGS INDICATED, BASED ON TESTING ACCORDING TO NFPA 252 (NEUTRAL PRESSURE AT 40" ABOVE SILL) OR UL-10C. TEST PRESSURE: POSITIVE PRESSURE LABELING. EACH UNIT TO BEAR THIRD PARTY PERMANENT LABEL DEMONSTRATING COMPLIANCE WITH THE REFERENCED STANDARD KEYING CONFERENCE: CONDUCT CONFERENCE TO COMPLY WITH REQUIREMENTS IN DIVISION 01 SECTION "PROJECT MEETINGS."

KEYING CONFERENCE TO INCORPORATE THE FOLLOWING CRITERIA INTO THE FINAL KEYING SCHEDULE DOCUMENT: FUNCTION OF BUILDING, PURPOSE OF EACH AREA AND DEGREE OF SECURITY REQUIRED. PLANS FOR EXISTING AND FUTURE KEY SYSTEM EXPANSION. REQUIREMENTS FOR KEY CONTROL STORAGE AND SOFTWARE. INSTALLATION OF PERMANENT KEYS, CYLINDER CORES AND SOFTWARE. ADDRESS AND REQUIREMENTS FOR DELIVERY OF KEYS. PRE-SUBMITTAL CONFERENCE: CONDUCT COORDINATION CONFERENCE IN COMPLIANCE WITH REQUIREMENTS IN DIVISION 01 SECTION "PROJECT MEETINGS" WITH ATTENDANCE BY REPRESENTATIVES OF SUPPLIER(S), INSTALLER(S), AND CONTRACTOR(S) TO REVIEW PROPER METHODS AND THE PROCEDURES FOR RECEIVING, HANDLING, AND INSTALLING DOOR HARDWARE. PRIOR TO INSTALLATION OF DOOR HARDWARE, CONDUCT A PROJECT SPECIFIC TRAINING MEETING TO INSTRUCT THE INSTALLING CONTRACTORS' PERSONNEL ON THE PROPER INSTALLATION AND ADJUSTMENT OF THEIR RESPECTIVE PRODUCTS. PRODUCT TRAINING TO BE ATTENDED BY INSTALLERS OF DOOR HARDWARE (INCLUDING ELECTROMECHANICAL HARDWARE) FOR ALUMINUM, HOLLOW METAL AND WOOD DOORS. TRAINING WILL INCLUDE THE USE OF INSTALLATION MANUALS, HARDWARE SCHEDULES, TEMPLATES AND PHYSICAL PRODUCT SAMPLES AS REQUIRED. INSPECT AND DISCUSS ELECTRICAL ROUGHING-IN, POWER SUPPLY CONNECTIONS, AND OTHER PREPARATORY WORK PERFORMED BY OTHER TRADES. REVIEW SEQUENCE OF OPERATION NARRATIVES FOR EACH UNIQUE ACCESS CONTROLLED OPENING. REVIEW AND FINALIZE CONSTRUCTION SCHEDULE AND VERIFY AVAILABILITY OF MATERIALS. REVIEW THE REQUIRED INSPECTING, TESTING, COMMISSIONING, AND DEMONSTRATION PROCEDURES. AT COMPLETION OF INSTALLATION, PROVIDE WRITTEN DOCUMENTATION THAT COMPONENTS WERE APPLIED TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS AND ACCORDING TO APPROVED SCHEDULE.

DELIVERY, STORAGE, AND HANDLING: INVENTORY DOOR HARDWARE ON RECEIPT AND PROVIDE SECURE LOCK-UP AND SHELVING FOR DOOR HARDWARE DELIVERED TO PROJECT SITE. DO NOT STORE ELECTRONIC ACCESS CONTROL HARDWARE, SOFTWARE OR ACCESSORIES AT PROJECT SITE WITHOUT PRIOR AUTHORIZATION. TAG EACH ITEM OR PACKAGE SEPARATELY WITH IDENTIFICATION RELATED TO THE FINAL DOOR HARDWARE SCHEDULE, AND INCLUDE BASIC INSTALLATION INSTRUCTIONS WITH EACH ITEM OR PACKAGE. DELIVER, AS APPLICABLE, PERMANENT KEYS, CYLINDERS, CORES, ACCESS CONTROL CREDENTIALS, SOFTWARE AND RELATED ACCESSORIES DIRECTLY TO OWNER VIA REGISTERED MAIL OR OVERNIGHT PACKAGE SERVICE. INSTRUCTIONS FOR DELIVERY TO THE OWNER SHALL BE ESTABLISHED AT THE "KEYING CONFERENCE". OBTAIN AND DISTRIBUTE TO THE PARTIES INVOLVED TEMPLATES FOR DOORS, FRAMES, AND OTHER WORK SPECIFIED TO BE FACTORY PREPARED FOR INSTALLING STANDARD AND ELECTRIFIED HARDWARE. CHECK SHOP DRAWINGS OF OTHER WORK TO CONFIRM THAT ADEQUATE PROVISIONS ARE MADE FOR LOCATING AND INSTALLING HARDWARE TO COMPLY WITH INDICATED REQUIREMENTS. DOOR HARDWARE AND ELECTRICAL CONNECTIONS: COORDINATE THE LAYOUT AND INSTALLATION OF SCHEDULED ELECTRIFIED DOOR HARDWARE AND RELATED ACCESS CONTROL EQUIPMENT WITH REQUIRED CONNECTIONS TO SOURCE POWER JUNCTION BOXES, LOW VOLTAGE POWER SUPPLIES, DETECTION AND MONITORING HARDWARE, AND FIRE AND DETECTION ALARM SYSTEMS. DOOR AND FRAME PREPARATION: RELATED DIVISION 08 SECTIONS (STEEL, ALUMINUM AND WOOD) DOORS AND CORRESPONDING FRAMES ARE TO BE PREPARED, REINFORCED AND PRE-WIRED (IF APPLICABLE) TO RECEIVE THE INSTALLATION OF THE SPECIFIED ELECTRIFIED, MONITORING, SIGNALING AND ACCESS CONTROL SYSTEM HARDWARE WITHOUT ADDITIONAL IN-FIELD MODIFICATIONS.

GENERAL WARRANTY: REFERENCE DIVISION 01, GENERAL REQUIREMENTS. SPECIAL WARRANTIES SPECIFIED IN THIS ARTICLE SHALL NOT DEPRIVE OWNER OF OTHER RIGHTS OWNER MAY HAVE UNDER OTHER PROVISIONS OF THE CONTRACT DOCUMENTS AND SHALL BE IN ADDITION TO, AND RUN CONCURRENT WITH, OTHER WARRANTIES MADE BY CONTRACTOR UNDER REQUIREMENTS OF THE CONTRACT DOCUMENTS. WARRANTY PERIOD: WRITTEN WARRANTY, EXECUTED BY MANUFACTURER(S), AGREEING TO REPAIR OR REPLACE COMPONENTS OF STANDARD AND ELECTRIFIED DOOR HARDWARE THAT FAILS IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD AFTER FINAL ACCEPTANCE BY THE OWNER. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: STRUCTURAL FAILURES INCLUDING EXCESSIVE DEFLECTION, CRACKING, OR BREAKAGE. FAULTY OPERATION OF THE HARDWARE. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING. ELECTRICAL COMPONENT DEFECTS AND FAILURES WITHIN THE SYSTEMS OPERATION. STANDARD WARRANTY PERIOD: ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION, UNLESS OTHERWISE INDICATED. SPECIAL WARRANTY PERIODS: TEN YEARS FOR MORTISE LOCKS AND LATCHES. SEVEN YEARS FOR HEAVY DUTY CYLINDRICAL (BORED) LOCKS AND LATCHES. FIVE YEARS FOR EXIT HARDWARE. TWENTY FIVE YEARS FOR MANUAL SURFACE DOOR CLOSERS. TWO YEARS FOR ELECTROMECHANICAL DOOR HARDWARE. MAINTENANCE TOOLS AND INSTRUCTIONS: FURNISH A COMPLETE SET OF SPECIALIZED TOOLS AND MAINTENANCE INSTRUCTIONS AS NEEDED FOR OWNER'S CONTINUED ADJUSTMENT, MAINTENANCE, AND REMOVAL AND REPLACEMENT OF DOOR HARDWARE. BEGINNING AT SUBSTANTIAL COMPLETION, AND RUNNING CONCURRENT WITH THE SPECIFIED WARRANTY PERIOD, PROVIDE CONTINUOUS (6) MONTHS FULL MAINTENANCE INCLUDING REPAIR AND REPLACEMENT OF WORN OR DEFECTIVE COMPONENTS, LUBRICATION, CLEANING, AND ADJUSTING AS REQUIRED FOR PROPER DOOR OPENING OPERATION. PROVIDE PARTS AND SUPPLIES AS USED IN THE MANUFACTURE AND INSTALLATION OF ORIGINAL PRODUCTS.

PROVIDE DOOR HARDWARE FOR EACH DOOR TO COMPLY WITH REQUIREMENTS IN DOOR HARDWARE SETS AND EACH REFERENCED SECTION THAT PRODUCTS ARE TO BE SUPPLIED UNDER. DESIGNATIONS: REQUIREMENTS FOR QUANTITY, ITEM, SIZE, FINISH OR COLOR, GRADE, FUNCTION, AND OTHER DISTINCTIVE QUALITIES OF EACH TYPE OF DOOR HARDWARE ARE INDICATED IN THE DOOR HARDWARE SETS. PRODUCTS ARE IDENTIFIED BY USING DOOR HARDWARE DESIGNATIONS, AS FOLLOWS: NAMED MANUFACTURER'S PRODUCTS: PRODUCT DESIGNATION AND MANUFACTURER ARE LISTED FOR EACH DOOR HARDWARE TYPE REQUIRED FOR THE PURPOSE OF ESTABLISHING REQUIREMENTS. MANUFACTURERS' NAMES ARE ABBREVIATED IN THE DOOR HARDWARE SCHEDULE. SUBSTITUTIONS: REQUESTS FOR SUBSTITUTION AND PRODUCT APPROVAL FOR INCLUSIVE MECHANICAL AND ELECTROMECHANICAL DOOR HARDWARE IN COMPLIANCE WITH THE SPECIFICATIONS MUST BE SUBMITTED IN WRITING AND IN ACCORDANCE WITH THE PROCEDURES AND TIME FRAMES OUTLINED IN DIVISION 01, SUBSTITUTION PROCEDURES. APPROVAL OF REQUESTS IS AT THE DISCRETION OF THE ARCHITECT, OWNER, AND THEIR DESIGNATED CONSULTANTS.

HINGES: ANSI/BHMA A156.1 CERTIFIED BUTT HINGES WITH NUMBER OF HINGE KNUCKLES AS SPECIFIED IN THE DOOR HARDWARE SETS. PROVIDE THE FOLLOWING HINGE QUANTITY, UNLESS OTHERWISE INDICATED: TWO HINGES: FOR DOORS WITH HEIGHTS UP TO 60 INCHES. THREE HINGES: FOR DOORS WITH HEIGHTS 61 TO 90 INCHES. HINGE SIZE: PROVIDE THE FOLLOWING, UNLESS OTHERWISE INDICATED, WITH HINGE WIDTHS SIZED FOR DOOR THICKNESS AND CLEARANCES REQUIRED: WIDTHS UP TO 3'0": 4-1/2" STANDARD OR HEAVY WEIGHT AS SPECIFIED. SIZES FROM 3'1" TO 4'0": 5" STANDARD OR HEAVY WEIGHT AS SPECIFIED. HINGE WEIGHT AND BASE MATERIAL: UNLESS OTHERWISE INDICATED, PROVIDE THE FOLLOWING: EXTERIOR DOORS: HEAVY WEIGHT, NON-FERROUS, BALL BEARING OR OIL IMPREGNATED BEARING HINGES UNLESS HARDWARE SETS INDICATE STANDARD WEIGHT. INTERIOR DOORS: STANDARD WEIGHT, STEEL, BALL BEARING OR OIL IMPREGNATED BEARING HINGES UNLESS HARDWARE SETS INDICATE HEAVY WEIGHT. HINGE OPTIONS: COMPLY WITH THE FOLLOWING WHERE INDICATED IN THE HARDWARE SETS OR ON DRAWINGS: NON-REMOVABLE PINS: PROVIDE SET SCREW IN HINGE BARREL THAT, WHEN TIGHTENED INTO A GROOVE IN HINGE PIN, PREVENTS REMOVAL OF PIN WHILE DOOR IS CLOSED; FOR THE FOLLOWING APPLICATIONS: OUT-SWINGING EXTERIOR DOORS. OUT-SWINGING ACCESS CONTROLLED DOORS. OUT-SWINGING LOCKABLE DOORS. ACCEPTABLE MANUFACTURERS: HAGER COMPANIES (HA). MCKINNEY PRODUCTS (MK). CONTINUOUS GEARED HINGES: ANSI/BHMA A156.26 CERTIFIED CONTINUOUS GEARED HINGE WITH MINIMUM 0.120-INCH THICK EXTRUDED 6060 T6 ALUMINUM ALLOY HINGE LEAVES AND A MINIMUM OVERALL WIDTH OF 4 INCHES. HINGES ARE NON-HANDED, REVERSIBLE AND FABRICATED TO TEMPLATE SCREW LOCATIONS. PROVIDE CONCEALED FLUSH MOUNT (WITH OR WITHOUT INSET), FULL SURFACE, OR HALF SURFACE, IN STANDARD AND HEAVY DUTY MODELS, AS SPECIFIED IN THE HARDWARE SETS. CONCEALED CONTINUOUS HINGES TO BE U.L. LISTED FOR USE ON UP TO AND INCLUDING 90 MINUTE RATED DOOR INSTALLATIONS AND U.L. LISTED FOR WINDSTORM COMPONENTS WHERE APPLICABLE. FACTORY CUT HINGES FOR DOOR SIZE AND PROVIDE WITH REMOVABLE SERVICE POWER TRANSFER PANEL WHERE INDICATED AT ELECTRIFIED OPENINGS. ACCEPTABLE MANUFACTURERS: MCKINNEY PRODUCTS (MK). PEMKO MANUFACTURING (PE).

DOOR OPERATING TRIM - FLUSH BOLTS AND SURFACE BOLTS: ANSI/BHMA A156.3 AND A156.16, GRADE 1, CERTIFIED AUTOMATIC, SELF-LATCHING, AND MANUAL FLUSH BOLTS AND SURFACE BOLTS. MANUAL FLUSH BOLTS TO BE FURNISHED WITH TOP ROD OF SUFFICIENT LENGTH TO ALLOW BOLT LOCATION APPROXIMATELY SIX FEET FROM THE FLOOR. FURNISH DUST PROOF STRIKES FOR BOTTOM BOLTS. SURFACE BOLTS TO BE MINIMUM 8" IN LENGTH AND U.L. LISTED FOR LABELED FIRE DOORS AND U.L. LISTED FOR WINDSTORM COMPONENTS WHERE APPLICABLE. PROVIDE RELATED ACCESSORIES (MOUNTING BRACKETS, STRIKES, COORDINATORS, ETC.) AS REQUIRED FOR APPROPRIATE INSTALLATION AND OPERATION. ACCEPTABLE MANUFACTURERS: ROCKWOOD MANUFACTURING (RO). TRIMCO (TC). DOOR PUSH PLATES AND PULLS: ANS/BHMA A156.6 CERTIFIED DOOR PUSHES AND PULLS OF TYPE AND DESIGN SPECIFIED BELOW OR IN THE HARDWARE SETS. COORDINATE AND PROVIDE PROPER WIDTH AND HEIGHT AS REQUIRED WHERE CONFLICTING HARDWARE DICTATES. PUSH/PULL PLATES: MINIMUM .050 INCH THICK, SIZE AS INDICATED IN HARDWARE SETS, WITH SQUARE CORNERS AND BEVELED EDGES, SECURED WITH EXPOSED SCREWS UNLESS OTHERWISE INDICATED. DOOR PULL AND PUSH BAR DESIGN: SIZE, SHAPE, AND MATERIAL AS INDICATED IN THE HARDWARE SETS. MINIMUM CLEARANCE OF 2 1/2-INCHES FROM FACE OF DOOR UNLESS OTHERWISE INDICATED. OFFSET PULL DESIGN: SIZE, SHAPE, AND MATERIAL AS INDICATED IN THE HARDWARE SETS. MINIMUM CLEARANCE OF 2 1/2-INCHES FROM FACE OF DOOR AND OFFSET OF 90 DEGREES UNLESS OTHERWISE INDICATED. FASTENERS: PROVIDE MANUFACTURER'S DESIGNATED FASTENER TYPE AS INDICATED IN HARDWARE SETS. ACCEPTABLE MANUFACTURERS: ROCKWOOD MANUFACTURING (RO). TRIMCO (TC).

CYLINDERS AND KEYING - CYLINDER MANUFACTURER TO HAVE MINIMUM (10) YEARS EXPERIENCE DESIGNING SECURED MASTER KEY SYSTEMS AND HAVE ON RECORD A PUBLISHED SECURITY KEYING SYSTEM POLICY. SOURCE LIMITATIONS: OBTAIN EACH TYPE OF KEYED CYLINDER AND KEYS FROM THE SAME SOURCE MANUFACTURER AS LOCKSETS AND EXIT DEVICES, UNLESS OTHERWISE INDICATED. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA). CYLINDERS: ORIGINAL MANUFACTURER CYLINDERS COMPLYING WITH THE FOLLOWING: MORTISE TYPE: THREADED CYLINDERS WITH RINGS AND STRAIGHT- OR CLOVER-TYPE CAM. RIM TYPE: CYLINDERS WITH BACK PLATE, FLAT-TYPE VERTICAL OR HORIZONTAL TAILPIECE, AND RAISED TRIM RING. BORED-LOCK TYPE: CYLINDERS WITH TAILPIECES TO SUIT LOCKS. MORTISE AND RIM CYLINDER COLLARS TO BE SOLID AND RECESSED TO ALLOW THE CYLINDER FACE TO BE FLUSH AND BE FREE SPINNING WITH MATCHING FINISHES. KEYWAY: MANUFACTURER'S STANDARD. KEYING SYSTEM: EACH TYPE OF LOCK AND CYLINDERS TO BE FACTORY KEYED. CONDUCT SPECIFIED "KEYING CONFERENCE" TO DEFINE AND DOCUMENT KEYING SYSTEM INSTRUCTIONS AND REQUIREMENTS. FURNISH FACTORY CUT, NICKEL-SILVER LARGE BOW PERMANENTLY INSCRIBED WITH A VISUAL KEY CONTROL NUMBER AS DIRECTED BY OWNER. INCORPORATE DECISIONS MADE IN KEYING CONFERENCE, AND AS FOLLOWS: MASTER KEY SYSTEM: CYLINDERS ARE OPERATED BY A CHANGE KEY AND A MASTER KEY. KEY QUANTITY: PROVIDE THE FOLLOWING MINIMUM NUMBER OF KEYS: TOP MASTER KEY: FIVE (5), CHANGE KEYS PER CYLINDER: TWO (2), CONSTRUCTION KEYS (WHERE REQUIRED): TEN (10). CONSTRUCTION KEYING: PROVIDE CONSTRUCTION MASTER KEYED CYLINDERS OR TEMPORARY KEYED CONSTRUCTION CORES WHERE SPECIFIED. PROVIDE CONSTRUCTION MASTER KEYS IN QUANTITY AS REQUIRED BY PROJECT CONTRACTOR. REPLACE CONSTRUCTION CORES WITH PERMANENT CORES. FURNISH PERMANENT CORES FOR INSTALLATION AS DIRECTED UNDER SPECIFIED "KEYING CONFERENCE.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH
JAMES B. GLASCOCK
1036
LICENSED ARCHITECT
03/01/24

Project
22-002

NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date
03/01/24

09A103

DIVISION 08 DOORS AND WINDOWS (CONTINUED)

HARDWARE - CONTINUED

MECHANICAL LOCKS AND LATCHING DEVICES - MORTISE LOCKSETS, GRADE 1 (HEAVY DUTY): ANSI/BHMA A156.13, SERIES 1000, OPERATIONAL GRADE 1 CERTIFIED MORTISE LOCKSETS FURNISHED IN THE FUNCTIONS AS SPECIFIED IN THE HARDWARE SETS. LOCKSETS TO BE MANUFACTURED WITH A CORROSION RESISTANT, STAMPED 12 GAUGE MINIMUM FORMED STEEL CASE AND BE FIELD-REVERSIBLE FOR HANDING WITHOUT DISASSEMBLY OF THE LOCK BODY. LOCKSET TRIM (INCLUDING KNOBS, LEVERS, ESCUTCHEONS, ROSES) TO BE THE PRODUCT OF A SINGLE MANUFACTURER. FURNISH WITH STANDARD 2 3/4" BACKSET, 3/4" THROW ANTI-FRICTION STAINLESS STEEL LATCH BOLT, AND A FULL 1" THROW STAINLESS STEEL BOLT FOR DEADBOLT FUNCTIONS. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA) - 8200 SERIES. NO SUBSTITUTION - FACILITY STANDARD. CYLINDRICAL LOCKSETS, GRADE 1 (HEAVY DUTY): ANSI/BHMA A156.2, SERIES 4000, GRADE 1 CERTIFIED CYLINDRICAL (BORED) LOCKSETS FURNISHED IN THE FUNCTIONS AS SPECIFIED IN THE HARDWARE SETS. LOCK CHASSIS FABRICATED OF HEAVY GAUGE STEEL, ZINC DICHROMATE PLATED, WITH THROUGH-BOLTED APPLICATION. FURNISH WITH SOLID CAST LEVERS, STANDARD 2 3/4" BACKSET, AND 1/2" (3/4" AT RATED PAIRED OPENINGS) THROW BRASS OR STAINLESS STEEL LATCH BOLT. LOCKS ARE TO BE NON-HANDED AND FULLY FIELD REVERSIBLE. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA) - 10 LINE. NO SUBSTITUTION - FACILITY STANDARD. LOCK TRIM DESIGN: AS SPECIFIED IN HARDWARE SETS. AUXILIARY LOCKS - CYLINDRICAL DEADLOCKS: ANSI/BHMA A156.5, GRADE 1, CYLINDRICAL TYPE DEADLOCKS TO FIT STANDARD ANSI 161 PREPARATION AND 1 3/8" TO 1 3/4" THICKNESS DOORS. PROVIDE TAPERED COLLARS TO RESIST VANDALISM AND 1" THROW SOLID STEEL BOLT WITH HARDENED STEEL ROLLER PINS. DEADLOCKS TO BE PRODUCTS OF THE SAME SOURCE MANUFACTURER AND KEYWAY AS OTHER LOCKSETS. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA) - 480 SERIES. NO SUBSTITUTION - FACILITY STANDARD. LOCK AND LATCH STRIKES - PROVIDE MANUFACTURER'S STANDARD STRIKE WITH STRIKE BOX FOR EACH LATCH OR LOCK BOLT, WITH CURVED LIP EXTENDED TO PROTECT FRAME, FINISHED TO MATCH DOOR HARDWARE SET, UNLESS OTHERWISE INDICATED, AND AS FOLLOWS: FLAT-LIP STRIKES: FOR LOCKS WITH THREE-PIECE ANTIFRICTION LATCH BOLTS, AS RECOMMENDED BY MANUFACTURER. EXTRA-LONG-LIP STRIKES: FOR LOCKS USED ON FRAMES WITH APPLIED WOOD CASING TRIM. ALUMINUM-FRAME STRIKE BOX: PROVIDE MANUFACTURER'S SPECIAL STRIKE BOX FABRICATED FOR ALUMINUM FRAMING. STANDARDS: COMPLY WITH THE FOLLOWING: STRIKES FOR MORTISE LOCKS AND LATCHES: BHMA A156.13. STRIKES FOR BORED LOCKS AND LATCHES: BHMA A156.2. STRIKES FOR AUXILIARY DEADLOCKS: BHMA A156.5. DUSTPROOF STRIKES: BHMA A156.16.

CONVENTIONAL EXIT DEVICES - GENERAL REQUIREMENTS: ALL EXIT DEVICES SPECIFIED HEREIN SHALL MEET OR EXCEED THE FOLLOWING CRITERIA: AT DOORS NOT REQUIRING A FIRE RATING, PROVIDE DEVICES COMPLYING WITH NFPA 101 AND LISTED AND LABELED FOR "PANIC HARDWARE" ACCORDING TO UL305. PROVIDE PROPER FASTENERS AS REQUIRED BY MANUFACTURER INCLUDING SEX NUTS AND BOLTS AT OPENINGS SPECIFIED IN THE HARDWARE SETS. WHERE EXIT DEVICES ARE REQUIRED ON FIRE RATED DOORS, PROVIDE DEVICES COMPLYING WITH NFPA 80 AND WITH UL LABELING INDICATING "FIRE EXIT HARDWARE". PROVIDE DEVICES WITH THE PROPER FASTENERS FOR INSTALLATION AS TESTED AND LISTED BY UL. CONSULT MANUFACTURER'S CATALOG AND TEMPLATE BOOK FOR SPECIFIC REQUIREMENTS. FIRE EXIT REMOVABLE MULLIONS: PROVIDE KEYED REMOVABLE MULLIONS FOR USE WITH FIRE EXIT DEVICES COMPLYING WITH NFPA 80 THAT ARE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, FOR FIRE AND PANIC PROTECTION, BASED ON TESTING ACCORDING TO UL 305 AND NFPA 252. MULLIONS TO BE USED ONLY WITH EXIT DEVICES FOR WHICH THEY HAVE BEEN TESTED. EXCEPT ON FIRE RATED DOORS, PROVIDE EXIT DEVICES WITH HEX KEY DOGGING DEVICE TO HOLD THE PUSHBAR AND LATCH IN A RETRACTED POSITION. PROVIDE OPTIONAL KEYED CYLINDER DOGGING ON DEVICES WHERE SPECIFIED IN HARDWARE SETS. FLUSH END CAPS: PROVIDE HEAVY WEIGHT IMPACT RESISTANT FLUSH END CAPS MADE OF ARCHITECTURAL METAL IN THE SAME FINISH AS THE DEVICES AS IN THE HARDWARE SETS. PLASTIC END CAPS WILL NOT BE ACCEPTABLE. LEVER OPERATING TRIM: WHERE EXIT DEVICES REQUIRE LEVER TRIM, FURNISH MANUFACTURER'S HEAVY DUTY TRIM WITH COLD FORGED ESCUTCHEONS, BEVELED EDGES, AND FOUR THREADED STUDS FOR THRU-BOLTS. LOCK TRIM DESIGN: AS INDICATED IN HARDWARE SETS,

PROVIDE FINISHES AND DESIGNS TO MATCH THAT OF THE SPECIFIED LOCKSETS. PROVIDED FREE-WHEELING TYPE TRIM WHERE INDICATED. WHERE FUNCTION OF EXIT DEVICE REQUIRES A CYLINDER, PROVIDE AN INTERCHANGEABLE CORE TYPE KEYED CYLINDER (RIM OR MORTISE) AS SPECIFIED IN HARDWARE SETS. VERTICAL ROD EXIT DEVICES: PROVIDE AND INSTALL INTERIOR SURFACE AND CONCEALED VERTICAL ROD EXIT DEVICES AS LESS BOTTOM ROD (LBR) UNLESS OTHERWISE INDICATED. NARROW STILE APPLICATIONS: AT DOORS CONSTRUCTED WITH NARROW STILES, OR AS SPECIFIED IN HARDWARE SETS, PROVIDE DEVICES DESIGNED FOR MAXIMUM 2" WIDE STILES. DUMMY PUSH BAR: NONFUNCTIONING PUSH BAR MATCHING FUNCTIONAL PUSH BAR. RAIL SIZING: PROVIDE EXIT DEVICE RAILS FACTORY SIZED FOR PROPER DOOR WIDTH APPLICATION. THROUGH BOLT INSTALLATION: FOR EXIT DEVICES AND TRIM AS INDICATED IN DOOR HARDWARE SETS. CONVENTIONAL PUSH RAIL EXIT DEVICES (HEAVY DUTY): ANSI/BHMA A156.3, GRADE 1 CERTIFIED PANIC AND FIRE EXIT HARDWARE DEVICES FURNISHED IN THE FUNCTIONS SPECIFIED IN THE HARDWARE SETS. MOUNTING RAILS TO BE FORMED FROM SMOOTH STAINLESS STEEL, BRASS OR BRONZE ARCHITECTURAL MATERIALS NO LESS THAN 0.072" THICK, WITH PUSH RAILS A MINIMUM OF 0.062" THICKNESS. PAINTED OR ALUMINUM METAL RAILS ARE NOT ACCEPTABLE. EXIT DEVICE LATCH TO BE INVESTMENT CAST STAINLESS STEEL, PULLMAN TYPE, WITH DEADLOCK FEATURE. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA) - 80 SERIES. NO SUBSTITUTION - FACILITY STANDARD. CONVENTIONAL PUSH RAIL EXIT DEVICES, ALUMINUM ENTRANCES: ANSI/BHMA A156.3, GRADE 1 CERTIFIED PANIC DEVICES FURNISHED IN THE FUNCTIONS SPECIFIED IN THE HARDWARE SETS. PUSH BAR TO BE MADE OF EXTRUDED ALUMINUM, MAXIMUM PROJECTION OF 3", AVAILABLE IN CLAD OR ANODIZED ARCHITECTURAL FINISHES. EXIT DEVICE DESIGN TO FIT NARROW (MINIMUM 2"), MEDIUM, OR WIDE STILE ALUMINUM DOOR APPLICATIONS. ACCEPTABLE MANUFACTURERS: ADAMS RITE MANUFACTURING (AD) - 8000 SERIES.

WHERE CLOSERS ARE INDICATED TO HAVE MECHANICAL HOLD OPEN, PROVIDE HEAVY DUTY UNITS WITH AN ADDITIONAL BUILT-IN MECHANICAL HOLDER ASSEMBLY DESIGNED TO HOLD OPEN AGAINST NORMAL WIND AND TRAFFIC CONDITIONS. HOLDER TO BE MANUALLY SELECTABLE TO ON-OFF POSITION. WHERE CLOSERS ARE INDICATED TO HAVE A CUSHION-TYPE STOP, PROVIDE HEAVY DUTY ARMS AND BRACKETS WITH SPRING STOP MECHANISM TO CUSHION DOOR WHEN OPENED TO MAXIMUM DEGREE. CLOSERS SHALL NOT BE INSTALLED ON EXTERIOR OR CORRIDOR SIDE OF DOORS; WHERE POSSIBLE INSTALL CLOSERS ON DOOR FOR OPTIMUM AESTHETICS. PROVIDE DROP PLATES OR OTHER ACCESSORIES AS REQUIRED FOR PROPER MOUNTING. CLOSER ACCESSORIES: PROVIDE DOOR CLOSER ACCESSORIES INCLUDING CUSTOM TEMPLATES, SPECIAL MOUNTING BRACKETS, SPACERS AND DROP PLATES, AND THROUGH-BOLT OR SECURITY TYPE FASTENERS AS SPECIFIED IN THE DOOR HARDWARE SETS. DOOR CLOSERS, SURFACE MOUNTED (HEAVY DUTY): ANSI/BHMA A156.4, GRADE 1 SURFACE MOUNTED, HEAVY DUTY DOOR CLOSERS WITH COMPLETE SPRING POWER ADJUSTMENT, SIZES 1 THRU 6; AND FULLY OPERATIONAL ADJUSTABLE ACCORDING TO DOOR SIZE, FREQUENCY OF USE, AND OPENING FORCE. CLOSERS TO BE RACK AND PINION TYPE, ONE PIECE CAST IRON OR ALUMINUM ALLOY BODY CONSTRUCTION, WITH ADJUSTABLE BACKCHECK AND SEPARATE NON-CRITICAL VALVES FOR CLOSING SWEEP AND LATCH SPEED CONTROL. PROVIDE NON-HANDED UNITS STANDARD. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA) - 351 SERIES. NORTON DOOR CONTROLS (NO) - 7500 SERIES.

ARCHITECTURAL TRIM - DOOR PROTECTIVE TRIM: DOOR PROTECTIVE TRIM UNITS TO BE OF TYPE AND DESIGN AS SPECIFIED BELOW OR IN THE HARDWARE SETS. SIZE: FABRICATE PROTECTION PLATES (KICK, ARMOR, OR MOP) NOT MORE THAN 2" LESS THAN DOOR WIDTH (LDW) ON STOP SIDE OF SINGLE DOORS AND 1" LDW ON STOP SIDE OF PAIRS OF DOORS, AND NOT MORE THAN 1" LESS THAN DOOR WIDTH ON PULL SIDE. COORDINATE AND PROVIDE PROPER WIDTH AND HEIGHT AS REQUIRED WHERE CONFLICTING HARDWARE DICTATES. HEIGHT TO BE AS SPECIFIED IN THE HARDWARE SETS. METAL PROTECTION PLATES: ANSI/BHMA A156.6 CERTIFIED METAL PROTECTION PLATES (KICK, ARMOR, OR MOP), FABRICATED FROM THE FOLLOWING. STAINLESS STEEL: 050-INCH THICK, WITH COUNTERSUNK SCREW HOLES (CSK). FASTENERS: PROVIDE MANUFACTURER'S DESIGNATED FASTENER TYPE AS SPECIFIED IN THE HARDWARE SETS. METAL DOOR EDGING: DOOR PROTECTION EDGING FABRICATED FROM A MINIMUM .050-INCH THICK METAL SHEET, FORMED INTO AN ANGLE OR "U" CAP SHAPES, SURFACE OR MORTISED MOUNTED ONTO EDGE OF DOOR. PROVIDE APPROPRIATE LEG OVERLAP TO ACCOUNT FOR PROTECTION PLATES AS REQUIRED. HEIGHT TO BE AS SPECIFIED IN THE HARDWARE SETS. ACCEPTABLE MANUFACTURERS: ROCKWOOD MANUFACTURING (RO). TRIMCO (TC). DOOR STOPS AND HOLDERS - GENERAL: DOOR STOPS AND HOLDERS TO BE OF TYPE AND DESIGN AS SPECIFIED BELOW OR IN THE HARDWARE SETS. OVERHEAD DOOR STOPS AND HOLDERS: ANSI/BHMA A156.6, GRADE 1 CERTIFIED OVERHEAD STOPS AND HOLDERS TO BE SURFACE OR CONCEALED TYPES AS INDICATED IN HARDWARE SETS. TRACK, SLIDE, ARM AND JAMB BRACKET TO BE CONSTRUCTED OF EXTRUDED BRONZE AND SHOCK ABSORBER SPRING OF HEAVY TEMPERED STEEL. PROVIDE NON-HANDED DESIGN WITH MOUNTING BRACKETS AS REQUIRED FOR PROPER OPERATION AND FUNCTION. ACCEPTABLE MANUFACTURERS: RIXSON DOOR CONTROLS (RF). SARGENT MANUFACTURING (SA). ARCHITECTURAL SEALS - THRESHOLDS, WEATHERSTRIPPING, AND GASKET SEALS TO BE OF TYPE AND DESIGN AS SPECIFIED BELOW OR IN THE HARDWARE SETS. PROVIDE CONTINUOUS WEATHERSTRIP GASKETING ON EXTERIOR DOORS AND PROVIDE SMOKE, LIGHT, OR SOUND GASKETING ON INTERIOR DOORS WHERE INDICATED. AT EXTERIOR APPLICATIONS PROVIDE NON-CORROSIVE FASTENERS AND ELSEWHERE WHERE INDICATED. SMOKE LABELED GASKETING: ASSEMBLIES COMPLYING WITH NFPA 105 THAT ARE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, FOR SMOKE CONTROL RATINGS INDICATED, BASED ON TESTING ACCORDING TO UL 1784. PROVIDE SMOKE LABELED PERIMETER GASKETING AT ALL SMOKE LABELED OPENINGS. FIRE LABELED GASKETING: ASSEMBLIES COMPLYING WITH NFPA 80 THAT ARE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, FOR FIRE RATINGS INDICATED, BASED ON TESTING ACCORDING TO UL-10C. PROVIDE INTUMESCENT SEALS AS INDICATED TO MEET UL10C STANDARD FOR POSITIVE PRESSURE FIRE TESTS OF DOOR ASSEMBLIES, AND UBC 7-2, FIRE TESTS OF DOOR ASSEMBLIES. SOUND-RATED GASKETING: ASSEMBLIES THAT ARE LISTED AND LABELED BY A TESTING AND INSPECTING AGENCY, FOR SOUND RATINGS INDICATED, BASED ON TESTING ACCORDING TO ASTM E 1408. REPLACEABLE SEAL STRIPS: PROVIDE ONLY THOSE UNITS WHERE RESILIENT OR FLEXIBLE SEAL STRIPS ARE EASILY REPLACEABLE AND READILY AVAILABLE FROM STOCKS MAINTAINED BY MANUFACTURER. ACCEPTABLE MANUFACTURERS: PEMKO MANUFACTURING (PE). REESE ENTERPRISES, INC. (RS).

ELECTRONIC ACCESSORIES - DOOR POSITION SWITCHES: DOOR POSITION MAGNETIC REED CONTACT SWITCHES SPECIFICALLY DESIGNED FOR USE IN COMMERCIAL DOOR APPLICATIONS. ON RECESSED MODELS THE CONTACT AND MAGNETIC HOUSING SNAP-LOCK INTO A 1" DIAMETER HOLE. SURFACE MOUNTED MODELS INCLUDE WIDE GAP DISTANCE DESIGN COMPLETE WITH ARMORED FLEX CABLING. PROVIDE SPDT, N/O SWITCHES WITH OPTIONAL RARE EARTH MAGNET INSTALLATION ON STEEL DOORS WITH FLUSH TOP CHANNELS. ACCEPTABLE MANUFACTURERS: SECURITRON (SU) - DPS SERIES. POWER SUPPLIES: PROVIDE NATIONALLY RECOGNIZED TESTING LABORATORY LISTED 12VDC OR 24VDC (FIELD SELECTABLE) FILTERED AND REGULATED POWER SUPPLIES. INCLUDE BATTERY BACKUP OPTION WITH INTEGRAL BATTERY CHARGING CAPABILITY IN ADDITION TO OPERATING THE DC LOAD IN EVENT OF LINE VOLTAGE FAILURE. PROVIDE THE LEAST NUMBER OF UNITS, AT THE APPROPRIATE AMPERAGE LEVEL, SUFFICIENT TO EXCEED THE REQUIRED TOTAL DRAW FOR THE SPECIFIED ELECTRIFIED HARDWARE AND ACCESS CONTROL EQUIPMENT. ACCEPTABLE MANUFACTURERS: SARGENT MANUFACTURING (SA) - 3500 SERIES. SECURITRON (SU) - BPS SERIES.

FASTENERS: PROVIDE DOOR HARDWARE MANUFACTURED TO COMPLY WITH PUBLISHED TEMPLATES GENERALLY PREPARED FOR MACHINE, WOOD, AND SHEET METAL SCREWS. PROVIDE SCREWS ACCORDING TO MANUFACTURERS RECOGNIZED INSTALLATION STANDARDS FOR APPLICATION INTENDED. FINISHES - STANDARD: DESIGNATIONS USED IN THE HARDWARE SETS AND ELSEWHERE INDICATE HARDWARE FINISHES COMPLYING WITH ANSI/BHMA A156.18, INCLUDING COORDINATION WITH TRADITIONAL U.S. FINISHES INDICATED BY CERTAIN MANUFACTURERS FOR THEIR PRODUCTS. PROVIDE QUALITY OF FINISH, INCLUDING THICKNESS OF PLATING OR COATING (IF ANY), COMPOSITION, HARDNESS, AND OTHER QUALITIES COMPLYING WITH MANUFACTURER'S STANDARDS, BUT IN NO CASE LESS THAN SPECIFIED BY REFERENCED STANDARDS FOR THE APPLICABLE UNITS OF HARDWARE. PROTECT MECHANICAL FINISHES ON EXPOSED SURFACES FROM DAMAGE BY APPLYING A STRIPPABLE, TEMPORARY PROTECTIVE COVERING BEFORE SHIPPING. EXAMINE SCHEDULED OPENINGS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES, LABELED FIRE DOOR ASSEMBLY CONSTRUCTION, WALL AND FLOOR CONSTRUCTION, AND OTHER CONDITIONS AFFECTING PERFORMANCE. NOTIFY ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS BETWEEN THE DOOR SCHEDULE, DOOR TYPES, DRAWINGS AND SCHEDULED HARDWARE. PROCEED ONLY AFTER SUCH DISCREPANCIES OR CONFLICTS HAVE BEEN RESOLVED IN WRITING. PREPARATION - HOLLOW METAL DOORS AND FRAMES: COMPLY WITH ANSI/DHI A115 SERIES. WOOD DOORS: COMPLY WITH ANSI/DHI A115-W SERIES. INSTALL EACH ITEM OF MECHANICAL AND ELECTROMECHANICAL HARDWARE AND ACCESS CONTROL EQUIPMENT TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND ACCORDING TO SPECIFICATIONS. INSTALLERS ARE TO BE TRAINED AND CERTIFIED BY THE MANUFACTURER ON THE PROPER INSTALLATION AND ADJUSTMENT OF FIRE, LIFE SAFETY, AND SECURITY PRODUCTS INCLUDING: HANGING DEVICES; LOCKING DEVICES; CLOSING DEVICES; AND SEALS. MOUNTING HEIGHTS: MOUNT DOOR HARDWARE UNITS AT HEIGHTS INDICATED IN FOLLOWING APPLICABLE PUBLICATIONS, UNLESS SPECIFICALLY INDICATED OR REQUIRED TO COMPLY WITH GOVERNING REGULATIONS: STANDARD STEEL DOORS AND FRAMES: DHI'S "RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR STANDARD STEEL DOORS AND FRAMES." WOOD DOORS: DHI WDHS.3, "RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR WOOD FLUSH DOORS." WHERE INDICATED TO COMPLY WITH ACCESSIBILITY REQUIREMENTS, COMPLY WITH ANSI A117.1 "ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES." PROVIDE BLOCKING IN DRYWALL PARTITIONS WHERE WALL STOPS OR OTHER WALL MOUNTED HARDWARE IS LOCATED. RETROFITTING: INSTALL DOOR HARDWARE TO COMPLY WITH MANUFACTURER'S PUBLISHED TEMPLATES AND WRITTEN INSTRUCTIONS. WHERE CUTTING AND FITTING ARE REQUIRED TO INSTALL DOOR HARDWARE ONTO OR INTO SURFACES THAT ARE LATER TO BE PAINTED OR FINISHED IN ANOTHER WAY, COORDINATE REMOVAL, STORAGE, AND REINSTALLATION OF SURFACE PROTECTIVE TRIM UNITS WITH FINISHING WORK SPECIFIED IN DIVISION 9 SECTIONS. DO NOT INSTALL SURFACE-MOUNTED ITEMS UNTIL FINISHES HAVE BEEN COMPLETED ON SUBSTRATES INVOLVED. THRESHOLDS: SET THRESHOLDS FOR EXTERIOR AND ACOUSTICAL DOORS IN FULL BED OF SEALANT COMPLYING WITH REQUIREMENTS SPECIFIED IN DIVISION 7 SECTION "JOINT SEALANTS

STORAGE: PROVIDE A SECURE LOCK UP FOR HARDWARE DELIVERED TO THE PROJECT BUT NOT YET INSTALLED. CONTROL THE HANDLING AND INSTALLATION OF HARDWARE ITEMS SO THAT THE COMPLETION OF THE WORK WILL NOT BE DELAYED BY HARDWARE LOSSES BEFORE AND AFTER INSTALLATION. SUPPLIER WILL PERFORM A FINAL FIELD INSPECTION OF INSTALLED DOOR HARDWARE AND STATE IN REPORT WHETHER WORK COMPLIES WITH OR DEVIATES FROM REQUIREMENTS, INCLUDING WHETHER DOOR HARDWARE IS PROPERLY INSTALLED, OPERATING AND ADJUSTED. INITIAL ADJUSTMENT: ADJUST AND CHECK EACH OPERATING ITEM OF DOOR HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. REPLACE UNITS THAT CANNOT BE ADJUSTED TO OPERATE AS INTENDED. ADJUST DOOR CONTROL DEVICES TO COMPENSATE FOR FINAL OPERATION OF HEATING AND VENTILATING EQUIPMENT AND TO COMPLY WITH REFERENCED ACCESSIBILITY REQUIREMENTS. PROTECT ALL HARDWARE STORED ON CONSTRUCTION SITE IN A COVERED AND DRY PLACE. PROTECT EXPOSED HARDWARE INSTALLED ON DOORS DURING THE CONSTRUCTION PHASE. INSTALL ANY AND ALL HARDWARE AT THE LATEST POSSIBLE TIME FRAME. CLEAN ADJACENT SURFACES SOILED BY DOOR HARDWARE INSTALLATION. CLEAN OPERATING ITEMS AS NECESSARY TO RESTORE PROPER FINISH. AND PROVIDE FINAL PROTECTION AND MAINTAIN CONDITIONS THAT ENSURE DOOR HARDWARE IS WITHOUT DAMAGE OR DETERIORATION AT TIME OF OWNER OCCUPANCY. INSTRUCT OWNER'S MAINTENANCE PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN MECHANICAL AND ELECTROMECHANICAL DOOR HARDWARE. THE HARDWARE SETS REPRESENT THE DESIGN INTENT AND DIRECTION OF THE OWNER AND ARCHITECT. THEY ARE A GUIDELINE ONLY AND SHOULD NOT BE CONSIDERED A DETAILED HARDWARE SCHEDULE. DISCREPANCIES, CONFLICTING HARDWARE AND MISSING ITEMS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT WITH CORRECTIONS MADE PRIOR TO THE BIDDING PROCESS. OMITTED ITEMS NOT INCLUDED IN A HARDWARE SET SHOULD BE SCHEDULED WITH THE APPROPRIATE ADDITIONAL HARDWARE REQUIRED FOR PROPER APPLICATION AND FUNCTIONALITY.

FINISH HARDWARE :

GENERAL :

APPLICABLE PROVISIONS OF THE "GENERAL CONDITIONS" GOVERN THIS SECTION. PROVIDE ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS, METHODS LISTED, MENTIONED OR SCHEDULED ON THE DRAWINGS AND/OR HEREIN, INCLUDING ALL MATERIALS AND INCIDENTALS NECESSARY AND REQUIRED FOR THEIR COMPLETION. GENERAL CONTRACTOR SHALL FURNISH ALL ROUGH HARDWARE SUCH AS NAILS, SCREWS, BOLTS, ETC. AND ARE NOT TO BE CONSIDERED PART OF THE FINISH HARDWARE.

SCOPE :

FURNISH ALL HARDWARE TO THE JOBSITE AS SCHEDULED. THE HARDWARE FOR ROOM DOORS IS LISTED IN THE DOOR SCHEDULE IN GROUPS. THE SCHEDULE INDICATES THE ITEM FOR EACH GROUP IN THE DRAWINGS. PROVIDE ALL HARDWARE NECESSARY TO MEET APPLICABLE BUILDING AND FIRE CODES FOR EXITING AND RATINGS WHETHER SCHEDULED OR NOT. THE SUPPLIER SHALL PROVIDE THE ARCHITECT A FINISH HARDWARE SCHEDULE FOR REVIEW AND APPROVAL.

PACKING :

ALL ITEMS OF HARDWARE SHALL BE INDIVIDUALLY PACKED AND LABELED WITH AN "ITEM NUMBER" CORRESPONDING TO THE SCHEDULE.

TEMPLATES :

AS SOON AS THE HARDWARE SCHEDULE HAS BEEN APPROVED, THE HARDWARE SUPPLIER SHALL FURNISH SCHEDULES AND TEMPLATES TO DOOR AND FRAME MANUFACTURERS AS MAY REQUIRE THEM.

KEYING INSTRUCTIONS :

LOCKS SHALL BE MASTER KEYED IN ONE SET, PROVIDE (3) MASTER KEYS AND (5) OF EACH KEY NUMBER. ALL MASTER KEYS SHALL BE DELIVERED DIRECTLY TO THE OWNER. COORDINATE THE NUMBER OF SUB-MASTER SETS WITH OWNER. ALL LOCKS LEADING TO THE SAME PLACE SHALL BE KEYED ALIKE. THE OWNER AND HARDWARE SUPPLIER SHALL MEET AND SET UP THE KEYING SCHEDULE. THE BUILDING WILL BE KEYED TO HAVE A CONSTRUCTION SET AND FOLLOWING SUBSTANTIAL COMPLETION; ALL DOORS WILL BE RE-KEYED IN A FINAL OWNER'S SET, AS DIRECTED BY THE OWNER.

MANUFACTURERS :

THE FOLLOWING MANUFACTURERS' PRODUCTS OR EQUIVALENTS ARE THE BASIS FOR THE HARDWARE SCHEDULE AND ARE ACCEPTABLE FOR USE ON THE PROJECT:

BEARING HINGES	MC	MC KINNEY MANUFACTURING CO.
LOCKSETS, CLOSERS	SA	SARGENT
SILENCERS, KICKPLATES, WALL STOPS	RO	ROCKWOOD
FLUSH BOLTS, LATCH PROTECTORS	RO	ROCKWOOD
RAIN DRIPS, WEATHERSTRIPS, SWEEPS	PE	PEMKO
THRESHOLDS	PE	PEMKO

FINISH :

ALL EXPOSED HARDWARE TO BE US 26D FINISH. ALL DOOR HARDWARE IS TO BE LEVER HANDLED/ HCAP ACCESSIBLE PER 2021 IBC AND ICC A117.1-2017.

HARDWARE GROUP 1 - (DOORS: 1 & 3)
1 EA CYLINDER MORTISE RIM AS REQUIRED, ENTRANCE FUNCTION
1 WALL BUMPER, O409, US32D
PROVIDE EXIT DEVICES ON BOTH DOORS
BALANCE OF HARDWARE BY DOOR MFG INCLUDING CLOSERS, HINGES, ETC.

HARDWARE GROUP 2 - (DOOR: 2- INTERIOR VESTIBULE PAIR OF DOORS)
1 WALL BUMPER, O409, US32D
NO LOCK - PROVIDE PUSH BAR & PULL BAR ON BOTH DOORS
BALANCE OF HARDWARE BY DOOR MFG INCLUDING CLOSERS, HINGES, ETC.

HARDWARE GROUP 3 - (DOOR: #4)
1 EA CYLINDER MORTISE RIM AS REQUIRED, ENTRANCE FUNCTION
1 WALL BUMPER, O409, US32D
PROVIDE EXIT DEVICE
BALANCE OF HARDWARE BY DOOR MFG INCLUDING CLOSERS, HINGES, ETC.

HARDWARE GROUP 4 - (DOOR #5) :
8 HINGES (HEAVY WEIGHT), T4A3386 NRP, 26D, MK
1 REMOVABLE MULLION, 980, PC, SA
1 RIM EXIT DEVICE, 8810, 26D, SA
1 RIM EXIT DEVICE, 8804 ETL MK, 26D, SA
2 DOOR CLOSERS, 351 CPS, EB, SA
2 KICK PLATES, K1050 10", 26D, RO
1 THRESHOLD, 271D, PE
1 SET GASKETING, 2893DV, PE
1 MULLION SEAL, 5110BL, PE
2 SWEEPS 57DV, PE
2 ASTRAGAL, 303DV, PE
1 RAIN DRIP, PE 346C, 80", AL

HARDWARE GROUP 5 - (DOORS: #6 & 7)
4 HINGES (HEAVY WEIGHT), T4A3386 NRP, 26D, MK
1 RIM EXIT DEVICE, 8804 ETL MK, 26D, SA
1 DOOR CLOSER, 351 CPS, EB, SA
1 KICK PLATE, K1050 10", 26D, RO
1 THRESHOLD, 271D, PE
1 GASKETING, 2893DV, PE
1 SWEEP, 57DV, PE
1 WALL BUMPER, O409, 32D
1 FRAME HARNESS, QC-C1500 (AS REQUIRED), MK
1 DOOR HARNESS, QC-C____(AS REQUIRED), MK
1 POWER SUPPLY, AQD SERIES (AS REQUIRED) SU
1 CARD READER, PROVIDED BY ACCESS CONTROL
OPERATION - PRESENTING CARD AT ALL TIMES MOMENTARILY RETRACTS DOOR LOCK

HARDWARE GROUP 6 - (DOOR #10) :
6 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
2 FLUSH BOLTS, 555, 26D, RO
1 DOOR CLOSER, 351 CPSH EN, SA
1 STOREROOM LOCKSET, 8251 LNL MK, 26D, SA
2 SURFACE OH STOP, 9-X36 630, RO
4 PROTECTION PLATES (EA SIDE OF DOOR), OK1050, 10" LDW CSK B4E, 32D, RO
1 ASTRAGAL, 357C PE
2 WALL BUMPERS, O409, 32D, RO
6 DOOR SILENCERS, O608, GREY, RO

HARDWARE GROUP 7 - (DOOR: #11)
3 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
1 CLASSROOM LOCKSET, 28 7G37 LL, 26D, SA
1 DOOR CLOSER, A351 UO EN, SA
1 KICK PLATE, K1050 10", 26D, RO
1 STOP, 406/404/441H (AS REQUIRED), 32D, RO
1 WALL BUMPER, O409, 32D, RO
3 DOOR SILENCERS, O608, GREY, RO

HARDWARE GROUP 8 - (DOORS: #9, 16, 17, 18 & 23)
4 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
1 CLASSROOM LOCKSET, 28 7G37 LL, 26D, SA
1 DOOR CLOSER, A351 UO EN, SA
1 KICK PLATE, K1050 10", 26D, RO
1 STOP, 406/404/441H (AS REQUIRED), 32D, RO
1 WALL BUMPER, O409, 32D, RO
3 DOOR SILENCERS, O608, GREY, RO

HARDWARE GROUP 9 - (DOORS #12, 13, & 20) :
4 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
1 DOOR CLOSER, A351 UO EN, SA
1 ENTRANCE LOCKSET, A11 28 10G05 LL, 26D, SA
1 KICK PLATE, K1050 10", 26D, RO
1 STOP, 406/404/441H (AS REQUIRED), 32D, RO
1 WALL BUMPER, O409, 32D, RO
3 DOOR SILENCERS, O608, GREY, RO
1 FRAME HARNESS, QC-C1500 (AS REQUIRED), MK
1 DOOR HARNESS, QC-C____(AS REQUIRED), MK
1 POWER SUPPLY, AQD SERIES (AS REQUIRED) SU
1 CARD READER, PROVIDED BY ACCESS CONTROL
OPERATION - PRESENTING CARD AT ALL TIMES MOMENTARILY RETRACTS DOOR LOCK

HARDWARE GROUP 10 - (DOORS #14, & 15) :
4 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
1 DOOR CLOSER, A351 UO EN, SA
1 DOOR PULL/PUSH SET, O102 X 70 X 73CL, 32D, SA
2 KICK PLATES (ONE EACH SIDE), K1050 10", 26D, RO
1 STOP, 406/404/441H (AS REQUIRED), 32D, RO
1 WALL BUMPER, O409, 32D, RO
3 DOOR SILENCERS, O608, GREY, RO

HARDWARE GROUP 11 - (DOOR #19) :
4 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
1 DOOR CLOSER, A351 UO EN, SA
1 PRIVACY LOCKSET, A28 10U65 LL, 26D, SA
1 DOOR PULL/PUSH SET, O102 X 70 X 73CL, 32D, SA
2 KICK PLATES (ONE EACH SIDE), K1050 10", 26D, RO
1 STOP, 406/404/441H (AS REQUIRED), 32D, RO
1 WALL BUMPER, O409, 32D, RO
3 DOOR SILENCERS, O608, GREY, RO

HARDWARE GROUP 12 - (DOORS #21,22, 24, 25, 26, 27 & 28)
4 HINGES, CTA2714, 4 1/2 X 4 1/2, 26D, MK
1 DOOR CLOSER, A351 UO EN, SA
1 OFFICE LOCK, 28 7G05 LL MK, 26D, SA
1 KICK PLATE, K1050 10", 26D, RO
1 STOP, 406/404/441H (AS REQUIRED), 32D, RO
1 WALL BUMPER, O409, 32D, RO
3 DOOR SILENCERS, O608, GREY, RO

HARDWARE GROUP 13 - (DOORS #29 & 30)
1 SET TOP RAIL W60 SERIES - SATIN ALUMINUM, PE
ALL OTHER DOOR HARDWARE INCLUDING DOOR STOP - HOLD OPEN LATCH AND ACCESSIBLE HARDWARE TO BE BY DOOR SUPPLIER - SUBMIT FOR ARCHITECT'S APPROVAL

DIVISION 09. FINISHES

GENERAL :

ALL FLOOR, WALL AND CEILING FINISHES ARE TO MEET AND COMPLY WITH APPENDIX IV-A OF THE 2021 IFC AND THE 2021 IBC. INTERIOR WALL FINISHES WHICH ARE TEXTILES AND CEILING TILES SHALL BE TESTED IN ACCORDANCE WITH ASTM E 84 AND HAVE A FLAME SPREAD OF 0-25 AND A SMOKE INDEX OF 0-450.

DRYWALL STEEL STUDS:

ALL INTERIOR NON-LOAD BEARING PARTITION WALLS AS NOTED ON THE DRAWINGS, SHALL BE 3-5/8" OR 6" WIDE X 25-GAUGE DRYWALL STUDS AT 16" OC WITH CONTINUOUS TOP AND BOTTOM CHANNEL TRACKS OR AS INDICATED ON THE DRAWINGS. ALL EXTERIOR CMU PROVIDE 6" WIDE X 20 GAUGE DRYWALL STUDS AT 16" OC. PROVIDE PROVIDE ALL NECESSARY SCREWS AND BRACING AS REQUIRED BY CODE, INDUSTRY AND/OR THE MANUFACTURER'S STANDARDS WHICHEVER ARE MORE STRINGENT UNLESS A SPECIFIC FIRE-RATED CONSTRUCTION IS REQUIRED OR INDICATED ON THE DRAWINGS. REFER TO STRUCTURAL PLANS FOR STRUCTURAL STUDS.

G YPSUM BOARD ASSEMBLIES:

WORK SHALL INCLUDE GYPSUM BOARD, CEMENTITIOUS BACKER UNITS, AND TAPING AND BEDDING OF GYPSUM BOARD. CONSTRUCT ASSEMBLIES TO ACHIEVE FIRE RESISTANCE RATINGS INDICATED ON DRAWINGS, IN ACCORDANCE WITH APPLICABLE GA OR UL DESIGN NUMBER. IF REQUIREMENTS OF ASSEMBLY NUMBERS REFERENCED CONFLICT WITH CONTRACT DOCUMENT REQUIREMENTS, CONFORM TO ASSEMBLY REQUIREMENTS. PERFORM WORK IN ACCORDANCE WITH GA-350 FOR PROJECTS REQUIRING SEISMIC BRACING. MAINTAIN TEMPERATURE IN SPACES IN WHICH WORK IS BEING PERFORMED ABOVE 50 DEGREES F DURING AND AFTER INSTALLATION. REGULAR GYPSUM BOARD: ASTM C 36; 48 INCHES WIDE X THICKNESS INDICATED, MAXIMUM PRACTICAL LENGTH, TAPERED EDGE. FIRE RESISTANT GYPSUM BOARD: ASTM C 36, TYPE X; 48 INCHES WIDE X THICKNESS INDICATED, MAXIMUM PRACTICAL LENGTH, TAPERED EDGE; APPLY TO FIRE RATED ASSEMBLIES. CEMENTITIOUS BACKER UNITS: ANSI A 118.9, HIGH DENSITY, CEMENTITIOUS WITH GLASS FIBER REINFORCING, NOMINALLY 1/2 INCH THICK X 36 INCHES WIDE, MAXIMUM PRACTICAL LENGTH, ENDS AND EDGES SQUARE CUT; APPLY TO WALLS TO RECEIVE CERAMIC TILE. FASTENERS: ASTM C 1002, TYPE W SCREWS, MINIMUM 5/8-INCH PENETRATION INTO FRAMING. ACOUSTICAL INSULATION: ASTM C 665, TYPE I, GLASS FIBER COMPOSITION, UN-FACED.

METAL ACCESSORIES: GALVANIZED STEEL UNLESS OTHERWISE INDICATED. CORNER REINFORCEMENT: GA-216, TYPE CB-100 X 100.CASING: GA-216, TYPE LC. CONTROL JOINTS AS REQUIRED. ACOUSTICAL SEALER: NON-HARDENING, NON-SKINNING, ACOUSTICAL SEALER DESIGNED FOR USE WITH GYPSUM BOARD. JOINT TREATMENT MATERIALS: REINFORCING TAPE AND JOINT COMPOUND; ASTM C 475. INSTALL PANELS AND ACCESSORIES IN ACCORDANCE WITH ASTM C 754, GA-216, AND MANUFACTURER'S INSTRUCTIONS. ACCURATELY CUT PANELS TO FIT AROUND OPENINGS AND PROJECTIONS. DO NOT TEAR FACE PAPER OR BREAK GYPSUM CORE. APPLY PANELS AT NON FIRE-RATED ASSEMBLIES IN MOST ECONOMICAL MANNER, WITH ENDS AND EDGES OCCURRING OVER SUPPORTS. APPLY PANELS AT FIRE-RATED ASSEMBLIES AS REQUIRED BY DESIGN ASSEMBLY. STAGGER JOINTS ON OPPOSITE SIDES OF PARTITIONS. DO NOT LOCATE JOINTS TO ALIGN WITH EDGES OF OPENINGS UNLESS A CONTROL JOINT IS INSTALLED. MECHANICALLY FASTEN PANELS TO FRAMING. PLACE FASTENERS MINIMUM 3/8 INCH FROM EDGES OF PANELS; DRIVE HEADS SLIGHTLY BELOW SURFACE. STAGGER FASTENERS AT ABUTTING EDGES. WHERE RECESSED ITEMS OCCUR IN FIRE RATED PARTITIONS, BOX ITEM ON ALL SIDES WITH GYPSUM BOARD AS REQUIRED TO MAINTAIN CONTINUITY OF FIRE RATING. EXTEND ACOUSTICAL PARTITIONS PAST INTERSECTING NON-ACOUSTICAL PARTITIONS. INSTALL ACOUSTICAL INSULATION TO BUTT TO FRAMING MEMBERS AND ADJACENT CONSTRUCTION. CARRY AROUND PIPES, WIRING, OUTLETS, AND OTHER CONSTRUCTION WITHOUT VOIDS. PRESS AGAINST ONE GYPSUM BOARD SURFACE TO FORM SLIGHT AIR SPACE ON OPPOSITE SIDE. SEAL ACOUSTICAL PARTITIONS AT PERIMETER AND AROUND PENETRATIONS: APPLY CONTINUOUS BEAD OF SEALER BETWEEN GYPSUM PANEL EDGES AND ADJACENT CONSTRUCTION; SEAL SPACE BETWEEN GYPSUM PANELS AT CONTROL JOINTS, PRIOR TO INSTALLING METAL CONTROL JOINT; APPLY SEALER TO PENETRATIONS THROUGH PARTITIONS; AND, IN FIRE RATED PARTITIONS, USE FIRESTOPPING SEALER SPECIFIED IN SECTION 07840. IN NON-FIRE RATED PARTITIONS, USE ACOUSTICAL SEALER.

INSTALL CEMENTITIOUS BACKER UNITS IN ACCORDANCE WITH ANSI A108.11 AND MANUFACTURER'S INSTRUCTIONS. APPLY PANELS HORIZONTALLY, WITH ENDS OCCURRING SUPPORTS. STAGGER END JOINTS IN ADJACENT ROWS. CUT PANELS TO FIT AROUND OPENINGS AND PROJECTIONS. MECHANICALLY FASTEN PANELS TO FRAMING. INSTALL ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL CORNER REINFORCEMENT AT OUTSIDE CORNERS. USE SINGLE LENGTHS WHERE LENGTH OF CORNER DOES NOT EXCEED STANDARD LENGTH.

INSTALL CASINGS WHERE INDICATED AND WHERE GYPSUM BOARD ABUTS DISSIMILAR MATERIALS OR STOPS WITH EDGE EXPOSED. INSTALL CONTROL JOINTS AT CHANGES IN BACKUP MATERIAL, AT MAXIMUM 30 FEET ON CENTER AND ABOVE BOTH JAMBS OF OPENINGS IN PARTITIONS. TREAT JOINTS AND FASTENERS IN GYPSUM BOARD IN ACCORDANCE WITH GA-214.S SURFACES IN PLENUMS AND BEHIND SANITARY WALL PANELS SHALL RECEIVE A LEVEL 1 FINISH. SURFACES TO RECEIVE EGGSHELL PAINT SHALL RECEIVE A LEVEL 4 FINISH. SURFACES TO RECEIVE SEMI GLOSS AND GLOSS PAINTS SHALL RECEIVE A LEVEL 5 FINISH. TAPING, FILLING, AND SANDING IS NOT REQUIRED AT SURFACES BEHIND ADHESIVE APPLIED CERAMIC TILE OR FRP. USE METAL CORNER BEADS ON ALL CORNERS AND TAPED J-METAL EDGES AT ALL ENDS. WRAP-AROUND TYPE J-METAL EDGES WILL NOT BE ALLOWED IN ANY CONDITION.

PAINTING:

THE WORK SHALL INCLUDE TEXTURING OF GYPSUM BOARD AND SURFACE PREPARATION AND FIELD APPLICATION OF PAINTS AND STAINS. SUBMIT MANUFACTURER'S DATA ON MATERIALS PROPOSED FOR USE, INCLUDING PRODUCT DESIGNATION AND GRADE OF EACH COATING TYPE, SURFACE PREPARATION MATERIALS AND PROCEDURES AND PRODUCT ANALYSIS AND PERFORMANCE CHARACTERISTICS FOR EACH COATING TYPE. PROVIDE 3 X 6 INCH SAMPLES OF EACH TYPE COATING SHOWING COLOR AND LUSTER, ON REPRESENTATIVE SUBSTRATE. APPLY EACH COAT STEPPED BACK 1 INCH SO THAT ALL COATS REMAIN EXPOSED. INDICATE TYPE OF MATERIAL USED FOR EACH COAT AND 12 X 12 INCH TEXTURE SAMPLES ON GYPSUM BOARD BACKING. PROVIDE A DETAILED PAINT SCHEDULE INDICATING TYPE AND LOCATION OF SURFACE, COATING MATERIALS, AND NUMBER OF COATS TO BE APPLIED. CONTAINER LABELS SHALL INCLUDE MANUFACTURER'S NAME, TYPE OF PAINT, BRAND NAME, LOT NUMBER, BRAND CODE, COVERAGE, SURFACE PREPARATION, DRYING TIME, CLEANUP REQUIREMENTS, COLOR DESIGNATION, AND INSTRUCTIONS FOR MIXING AND REDUCING. STORE PAINT MATERIALS AT MINIMUM AMBIENT TEMPERATURE OF 45 DEGREES F AND MAXIMUM OF 90 DEGREES F, IN VENTILATED AREA, OR AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS. DO NOT APPLY MATERIALS WHEN SURFACE AND AMBIENT TEMPERATURES OR RELATIVE HUMIDITY ARE OUTSIDE RANGES REQUIRED BY MANUFACTURER. PROVIDE LIGHTING LEVEL OF 80 FOOT-CANDLES MEASURED MID-HEIGHT AT SUBSTRATE SURFACE. PROVIDE 1-GALLON CONTAINERS EXTRA STOCK OF EACH COLOR FINISH COAT. CONTRACT DOCUMENTS ARE BASED ON PRODUCTS BY SHERWIN WILLIAMS CO. EQUIVALENT PRODUCTS BY BENJAMIN MOORE AND CO., DEVOE PAINTS, FULLER O'BRIEN PAINTS, ICI, DULUX PAINTS, PPG ARCHITECTURAL FINISHES, INC AND PRATT AND LAMBERT ARE ACCEPTABLE. COATINGS SHALL BE READY MIXED OF THE TYPES PER PAINT SCHEDULE AT END OF THIS SECTION.

FURNISH ALL COATINGS BY SAME MANUFACTURER UNLESS OTHERWISE SPECIFIED. ACCESSORY MATERIALS SHALL INCLUDE LINSEED OIL, SHELLAC, TURPENTINE, PAINT THINNERS AND OTHER MATERIALS NOT SPECIFICALLY INDICATED BUT REQUIRED TO ACHIEVE FINISHES SPECIFIED; COMMERCIAL QUALITY. PATCHING MATERIALS SHALL BE A LATEX FILLER FASTENER HEAD COVER MATERIALS SHALL BE A LATEX FILLER. GYPSUM BOARD TEXTURE SHALL BE A MULTI PURPOSE TEXTURE FINISH BY UNITED STATES GYPSUM CO. OR APPROVED SUBSTITUTE. MIX COLORS PER THE FINISH SCHEDULE. UNIFORMLY MIX TO THOROUGHLY DISPERSE PIGMENTS. DO NOT THIN IN EXCESS OF MANUFACTURER'S RECOMMENDATIONS. TEST SHOP APPLIED PRIMER FOR COMPATIBILITY WITH SUBSEQUENT COATINGS. MEASURE MOISTURE CONTENT OF SURFACES USING ELECTRONIC MOISTURE METER. DO NOT APPLY COATINGS UNLESS MOISTURE CONTENT OF SURFACES ARE BELOW FOLLOWING MAXIMUMS: GYPSUM BOARD: 12 PERCENT; AND, WOOD: 15 PERCENT, MEASURED TO ASTM D 4442. PROTECT ADJACENT AND UNDERLYING SURFACES. REMOVE OR MASK ELECTRICAL PLATES, HARDWARE, LIGHT FIXTURE TRIM, ESCUTCHEONS, AND FITTINGS PRIOR TO PREPARING SURFACES OR FINISHING. CORRECT DEFECTS AND CLEAN SURFACES CAPABLE OF AFFECTING WORK OF THIS SECTION. SEAL MARKS THAT MAY BLEED THROUGH SURFACE FINISHES WITH SHELLAC. ON IMPERVIOUS SURFACES REMOVE MILDEW BY SCRUBBING WITH SOLUTION OF TRI-SODIUM PHOSPHATE AND BLEACH. RINSE WITH CLEAN WATER AND ALLOW TO DRY. FILL MINOR DEFECTS IN GYPSUM BOARD WITH FILLER COMPOUND. SPOT PRIME DEFECTS AFTER REPAIR. APPLY LIGHT ORANGE PEEL TEXTURE IN ACCORDANCE MANUFACTURER'S INSTRUCTIONS. ON GALVANIZED STEEL REMOVE SURFACE CONTAMINATION AND OILS AND WASH WITH SOLVENT. ON ALUMINUM REMOVE SURFACE CONTAMINATION BY STEAM OR HIGH-PRESSURE WATER. REMOVE OXIDATION WITH ACID ETCH AND SOLVENT WASHING. ON UNCOATED FERROUS METALS REMOVE GREASE, MILL SCALE, WELD SPLATTER, DIRT, AND RUST. WHERE HEAVY COATINGS OF SCALE ARE EVIDENT, REMOVE BY HAND OR POWER TOOL WIRE BRUSHING OR SANDBLASTING; WASH WITH SOLVENT. APPLY TREATMENT OF PHOSPHORIC ACID SOLUTION, ENSURING WELD JOINTS, BOLTS, AND NUTS ARE SIMILARLY CLEANED. SPOT PRIME PAINT AFTER REPAIRS. ON SHOP PRIMED FERROUS METALS SAND AND SCRAPE TO REMOVE LOOSE PRIMER AND RUST. FEATHER EDGES TO MAKE PATCHES INCONSPICUOUS. CLEAN WITH SOLVENT. PRIME BARE STEEL SURFACES. ON INTERIOR WOOD WIPE OFF DUST AND GRIT PRIOR TO SEALING. SEAL KNOTS, PITCH STREAKS, AND SAPPY SECTIONS WITH SEALER. FILL NAIL HOLES AND CRACKS AFTER SEALER HAS DRIED; SAND LIGHTLY BETWEEN COATS. WOOD DOORS: SEAL DOOR TOP AND BOTTOM EDGE SURFACES WITH CLEAR SEALER. ON METAL DOORS PRIME TOP AND BOTTOM EDGES. APPLY PRIMER OR FIRST COAT IMMEDIATELY AFTER SURFACE PREPARATION IS COMPLETE TO PREVENT CONTAMINATION.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 1036 LICENSED ARCHITECT 03/01/24

NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Project 22-002

Revisions 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date 03/01/24

09A104

DIVISION 09 FINISHES (CONTINUED)

PAINTING - CONTINUED
DO NOT APPLY FINISHES TO SURFACES THAT ARE NOT DRY. APPLY COATINGS TO MINIMUM DRY FILM THICKNESS RECOMMENDED BY MANUFACTURER. APPLY EACH COAT OF PAINT SLIGHTLY DARKER THAN PRECEDING COAT UNLESS SPECIFIED OTHERWISE. APPLY COATINGS TO UNIFORM APPEARANCE WITHOUT LAPS, SAGS, CURTAINS, HOLIDAYS, AND BRUSH MARKS. ALLOW APPLIED COATS TO DRY BEFORE NEXT COAT IS APPLIED. SAND BETWEEN COATS ON INTERIOR WOOD AND METAL SURFACES. MATCH FINAL COAT TO APPROVED COLOR SAMPLES. WHERE CLEAR FINISHES ARE SPECIFIED, TINT FILLERS TO MATCH WOOD. WORK FILLERS INTO GRAIN BEFORE SET. WIPE EXCESS FROM SURFACE. PRIME CONCEALED SURFACES OF WOOD IN CONTACT WITH MASONRY OR CEMENTITIOUS MATERIALS WITH ONE COAT PRIMER PAINT. MECHANICAL AND ELECTRICAL COMPONENTS: PAINT FACTORY PRIMED EQUIPMENT; REMOVE UNFINISHED AND PRIMED LOUVERS, GRILLES, COVERS, AND ACCESS PANELS; PAINT SEPARATELY; PAINT EXPOSED AND INSULATED PIPES, CONDUIT, BOXES, DUCTS, HANGERS, BRACKETS, COLLARS, AND SUPPORTS UNLESS FACTORY FINISHED; DO NOT PAINT NAMETAGS OR IDENTIFYING MARKINGS; AND PAINT EXPOSED CONDUIT AND ELECTRICAL EQUIPMENT IN FINISHED AREAS. DO NOT PAINT SURFACES INDICATED ON DRAWINGS OR SPECIFIED TO BE UNPAINTED OR UNFINISHED, SURFACES WITH FACTORY APPLIED FINISH COAT OR INTEGRAL FINISH, ARCHITECTURAL METALS, INCLUDING BRASS, BRONZE, STAINLESS STEEL, AND CHROME PLATING AND FIRE RATING PLATES. MANUFACTURER'S FIELD SERVICES ARE TO ENSURE THAT MATERIALS ARE BEING APPLIED PROPERLY. MAKE DETAILED INSPECTION OF PAINT WORK; TOUCH UP ABRADED, STAINED, AND OTHERWISE DISFIGURED SURFACES OR REFINISH AS REQUIRED. REMOVE PAINT FROM ADJACENT SURFACES.

PREPARATION OF SURFACES :
NO PAINTING SHALL BE COMMENCED UNTIL SURFACES ARE IN PROPER CONDITION TO RECEIVE IT. IF THE PAINTER CONSIDERS ANY SURFACE UNSUITABLE FOR THE PROPER FINISH OF HIS WORK HE SHALL NOTIFY THE CONTRACTOR OF THIS FACT IN WRITING AND HE SHALL NOT APPLY ANY MATERIALS UNTIL SUCH SURFACES HAVE BEEN PROPERLY PREPARED FOR PAINTING. SURFACES TO BE PAINTED SHALL BE CLEANED AND TOUCHED UP WITH KNOT SEALER OR SHELLAC AS REQUIRED BEFORE PAINTING. ALL NECESSARY PUTTYING OF NAIL HOLES, CRACKS AND BLEMISHES SHALL ONLY BE DONE AFTER THE PRIMING COAT HAS BECOME HARD AND DRY.

PAINT MANUFACTURER :
ALL PAINT COLORS ARE TO BE AS INDICATED ON THE DRAWINGS AND SHALL BE AS SELECTED BY THE ARCHITECT. THE MANUFACTURER OF ALL PAINT IS TO BE FROM (1) SOURCE. NOTIFY THE ARCHITECT (2) WEEKS BEFORE STARTING WORK AND MAKE COLOR SAMPLES AS REQUESTED.

PAINT SCHEDULE :
IN ALL CASES THE ARCHITECT WILL HAVE THE FINAL DECISION ON WHAT WILL OR WILL NOT NEED TO BE PAINTED. REFER TO THE FINISH SCHEDULE ON DRAWINGS FOR PAINT COLORS. PROVIDE THE FOLLOWING PAINT FINISHES:

INTERIOR METAL - FERROUS (INCLUDING METAL DOORS & FRAMES) :

FIRST COAT	KEMBOND HS UNIVERSAL METAL PRIMER
SECOND COAT	SEMI-GLOSS INTERIOR ALKYD ENAMEL
THIRD COAT	SEMI-GLOSS INTERIOR ALKYD ENAMEL

INTERIOR DRYWALL (GYPSUM BOARD) :

FIRST COAT	INTERIOR VINYL LATEX PRIMER SEALER
SECOND COAT	INTERIOR EGGSHELL OR STAIN LATEX ENAMEL
THIRD COAT	INTERIOR SATIN LATEX ENAMEL

PLYWOOD WALL WAINSCOT :

BLOCK FILLER OR EQUIVALENT	
FIRST COAT	LATEX PRIMER
SECOND COAT	LATEX SEMI-GLOSS ENAMEL
THIRD COAT	LATEX SEMI-GLOSS ENAMEL

EXTERIOR METAL - FERROUS AND GALVANIZED :

FIRST COAT	OIL PRIMER/SEALER
SECOND COAT	OIL SATIN
THIRD COAT	OIL SATIN

PAINT COLORS:

P-1	ALL GYP BRD WALLS	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-2	ALL GYP BRD CEILINGS	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-3	ACCENT GYP BRD WALLS	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-4	PLYWOOD WOOD WAINSCOT	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-5	ALL HM DOORS & FRAMES	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-6	ALL INTERIOR METAL	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-7	ALL EXTERIOR METAL	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)

CONCRETE CURING AND HARDENING SEALER :
SEAL EXPOSED CONCRETE FLOORS WITH ASHFORD FORMULA MANUFACTURED BY CURECRETE DISTRIBUTION, INC., 1203 WEST SPRING CREEK PLACE SPRINGVILLE, UTAH 84663. THERE ARE NO SUBSTITUTIONS. MANUFACTURER'S SPECIFICATIONS, TEST DATA, AND OTHER DATA REQUIRED PROVING COMPLIANCE WITH THE SPECIFIED REQUIREMENTS SHALL BE SUBMITTED. MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES WHICH WILL BECOME THE BASIS FOR ACCEPTING OR REJECTING ACTUAL INSTALLATION PROCEDURES USED ON THE WORK. PROTECT THE MATERIALS OF THIS SECTION BEFORE AND AFTER INSTALLATION. PROTECT THE WORK AND MATERIALS OF ALL OTHER TRADES. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE REPLACEMENTS AND REPAIRS AS DIRECTED BY THE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.

ALL MATERIAL MUST BE DISPENSED FROM FACTORY NUMBERED AND SEALED DRUMS AND RECORDED FOR THE OWNER'S REVIEW. A CURECRETE DISTRIBUTION TECHNICAL REPRESENTATIVE MUST BE PRESENT ON ALL INITIAL APPLICATIONS TO FAMILIARIZE THE APPLICATOR WITH THE APPLICATION PROCEDURE, UNLESS A FACTORY-CERTIFIED APPLICATOR IS USED. PRODUCT SHALL HAVE THE FOLLOWING ATTRIBUTES: A NON-FILM FORMING CHEMICAL THAT PENETRATES INTO THE CONCRETE WHERE IT CHEMICALLY REACTS WITH THE CONCRETE SALTS THAT HARDENS THE SURFACE AND LOCKS THE PORES OF THE CONCRETE AND DENSIFIES THE CONCRETE INTO A SOLID MASS THAT DOES NOT ALLOW PENETRATION INTO THE CONCRETE SURFACE. THE PERFORMANCE CRITERIA SHALL BE ESTABLISHED BY TESTS CONDUCTED BY RECOGNIZED INDEPENDENT TESTING LABORATORIES. CURING: REDUCE MOISTURE LOSS BY A MINIMUM OF 94% DURING INITIAL 24-HOURS. ABRASION: TABER C-17 WHEEL, MIN, 30% INCREASE IN ABRASION RESISTANCE, OR ASTM C779, 32.5% INCREASE IN ABRASION RESISTANCE AT 30-MINUTES. HARDENING: ASTM C-39, MIN, 38% INCREASE IN COMPRESSIVE STRENGTH AT 28-DAYS (VERSUS UNTREATED CONCRETE.) PERMEABILITY: 7' HEAD OF WATER ON 2.5" AREA. SEEPAGE SHOULD NOT EXCEED .022 CC PER HOUR. CHEMICAL RESISTANCE: THE MANUFACTURER SHALL PROVIDE A CHEMICAL RESISTANCE GUIDE LISTING TEST RESULTS BY AN INDEPENDENT TESTING AGENCY. CURING APPLICATION FOR NEW, STEEL-TROWELLED CONCRETE APPLICATION SHOULD BE MADE IMMEDIATELY FOLLOWING THE FINAL CONCRETE FINISHING OPERATION AS SOON AS THE CONCRETE IS FIRM ENOUGH TO WORK ON. APPLICATION SHALL BE DONE AS DIRECTED BY THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. USE ADEQUATE NUMBERS OF SKILLED WORKERS WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION. NO SATISFACTORY CHEMICAL OR CLEANING PROCEDURE IS AVAILABLE TO REMOVE PETROLEUM STAINS FROM THE CONCRETE SURFACE. PREVENTION IS THEREFORE ESSENTIAL. ALL HYDRAULIC POWERED EQUIPMENT MUST BE DIAPERED TO AVOID STAINING OF THE CONCRETE. NO TRADE WILL PARK VEHICLES ON THE INSIDE SLAB. IF NECESSARY TO COMPLETE THEIR SCOPE OF WORK, DROP CLOTHS WILL BE PLACED UNDER VEHICLES AT ALL TIMES. NO PIPE-CUTTING MACHINE WILL BE USED ON THE INSIDE FLOOR SLAB. STEEL WILL NOT BE PLACED ON INTERIOR SLAB TO AVOID RUST STAINING. ALL EXPOSED CONCRETE SURFACES MUST BE FINISHED IN A SMOOTH, STEEL TROWELLED FINISH. UPON COMPLETION OF THE WORK, AS A CONDITION OF ITS ACCEPTANCE, FURNISH THE OWNER A WRITTEN WARRANTY SIGNED BY AN OFFICER OF CURECRETE DISTRIBUTION, INC.

CMU WALL SEALER :
SEAL ALL EXPOSED EXTERIOR CMU WALLS WITH SURE KLEAN CUSTOM MASONRY SEALER WATER REPELLENT AS MANUFACTURED BY PROSOCO, A CLEAR VOC COMPLIANT SOLVENT BASED SILICON ELASTOMER. DO NOT DILUTE OR ALTER. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING PROTECTION, PRECAUTIONARY CLEANING AND PREPARATION OF SURFACES PRIOR TO INSTALLATION AND SPRAY APPLY IN A UNIFORM MANNER TO ACHIEVE A CONTINUOUS FILM WITH A LOW PRESSURE SPRAY, BRUSH OR ROLLED. PROVIDE MANUFACTURER'S SPECIFICATIONS.

RESILIENT BASE:
WORK SHALL INCLUDE RESILIENT RUBBER WALL BASE AS MANUFACTURED BY ROPPE. PROVIDE 2-INCH LONG SAMPLES IN EACH COLOR. FOR MAINTENANCE, PROVIDE 2 PERCENT OF EACH BASE FOR EXTRA STOCK. RESILIENT BASE SHALL BE THERMOPLASTIC RUBBER. 1/8-INCH .THICKNESS: IN 120-FOOT ROLLS THROUGHOUT THE TENANT SPACE. END UNITS AND OUTSIDE CORNERS SHALL BE PREFORMED IN PROFILE, SIZE, AND COLOR TO MATCH BASE. ADHESIVE SHALL BE WATER BASED, WATERPROOF, RECOMMENDED BY BASE MANUFACTURER. PREPARE SURFACES TO RECEIVE BASE BY REMOVE MATERIALS THAT COULD INTERFERE WITH ADHESION. FILL LOW SPOTS WITH PATCHING COMPOUND; FINISH FLUSH WITH ADJACENT SURFACE. REMOVE HIGH SPOTS, RIDGES AND NIBS. APPLY ADHESIVE CONTINUOUSLY TO BACK OF BASE. DO NOT INSTALL PIECES LESS THAN 6 INCHES LONG. MAINTAIN TOP EDGE TRUE TO LINE AND BOTTOM EDGE IN CONTINUOUS CONTACT WITH FLOOR. BUTT JOINTS TIGHT; BUTT BASE TIGHT TO ADJACENT CONSTRUCTION. MITER AND BUTT INSIDE CORNERS. AT OUTSIDE CORNERS INSTALL PREFORMED CORNER PIECES. AT EXPOSED ENDS, INSTALL PRE-MOLDED UNITS. SCRIBE TO DOORFRAMES AND OTHER INTERRUPTIONS. ALL COLORS ARE TO BE AS SELECTED BY THE ARCHITECT. SHALL BE AS FOLLOWS:

1. RB-1 ROPPE 4" COVED BASE AT LVP FLOORS AND VCT FLOORS.
2. RB-2 ROPPE 4" STRAIGHT BASE AT CARPET TILES.
3. RB-3 ROPPE 6" COVED BASE AT BOTTOM OF FRP WALLS & CONCRETE FLOORS

TRANSITION STRIPS :
PROVIDE SCHLUTER TRANSITION STRIPS AS FOLLOWS:
- TS-1 CERAMIC TILE TO CONCRETE OR LVP FLOORING- RENO-V OR VIN-PRO S - BRUSHED GRAPHITE A80AGRB FINISH
- TS-2 CERAMIC TILE AT BOTTOM 0F WAINSCOT WALL TO CERAMIC FLOOR TILE - DILEX-HK - BRUSHED GRAPHITE A80AGRB FINISH
- TS-3 CERAMIC TILE AT TOP OF WAINSCOT TILE WALLS - SQUARE EDGE JOLLEY - BRUSHED GRAPHITE A80AGRB FINISH
- TS-4 VINYL (LVP)) FLOORING TO VCT FLOORING - RENO-TK, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH
- TS-5 CARPET TO VINYL (LVP) FLOORING - RENO-V, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH
- TS-6 CARPET TO CONCRETE - RENO-V, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH

FRP WALL PANELS (FRP-1) :
PROVIDE AND INSTALL ON TOILET AND LOCKER ROOM SANITARY WALLS IN ALL LOCATIONS AS SHOWN ON THE DRAWINGS. USE 4' X 4' X 3/32" NOMINAL MARLITE PANELS. ALL PANELS ARE TO BE FIBERGLASS REINFORCED POLYESTER PANELS WITH HARMONIZING MOLDINGS, MARLITE BRAND ADHESIVE AND SEALANT AS SUPPLIED BY THE COMMERCIAL DIVISION, MASONITE CORPORATION, DOVER, OHIO. MATERIALS MUST BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS. APPLY FRP PANELS AFTER GYPSUM WALLBOARD WORK OR SURFACE PREPARATION WORK HAS BEEN COMPLETED. JUNCTIONS WITH VINYL COVE BASE MUST BE COMPLETELY SEALED PER LOCAL HEALTH CODE REQUIREMENTS. PROVIDE MARLITE #P-100 OR EQUIVALENT IN HIGH GLOSS FINISH, COLOR IS TO BE "WHITE".

TILE:
WORK SHALL INCLUDE TILE FLOOR AND WALL FINISHES AND TRIM AND ACCESSORIES. ALL WORK SHALL MEET THE CURRENT EDITION OF THE TILE COUNCIL OF AMERICA (TCA) - HANDBOOK FOR CERAMIC TILE INSTALLATION. PROVIDE MANUFACTURER'S PRODUCT DATA INSTALLATION, CLEANING, AND MAINTENANCE INSTRUCTIONS. PROVIDE FULL SIZE TILE SAMPLES IN EACH COLOR AND CURED GROUT SAMPLES IN EACH COLOR. TILE AND TRIM UNITS SHALL MEET ANSI A137.1, STANDARD GRADE. STATIC COEFFICIENT OF FRICTION FOR FLOOR TILE SHALL BE A MINIMUM 0.60, TESTED TO ASTM C 1028 IN DRY CONDITION. DELIVER MORTAR, ADHESIVE, AND GROUT CONTAINERS BEARING HALLMARK-CERTIFYING COMPLIANCE WITH REFERENCE STANDARDS. PROTECT ADHESIVE CONTAINERS FROM FREEZING AND OVERHEATING ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAINTAIN MINIMUM AMBIENT TEMPERATURE OF 50 DEGREES F DURING AND AFTER INSTALLATION. PROVIDE EXTRA STOCK OF 5 PERCENT OF EACH TILE OR 20 TILES, WHICHEVER IS GREATER. SIZE, COLOR, AND SURFACE FINISH TILE REFER TO FINISH SCHEDULE FOR BEADS, COVES, AND BULLNOSE EDGES. TRIM UNITS, COLOR IS TO MATCH TILE. LATEX-PORTLAND CEMENT MORTAR SHALL BE ANSI A118.4, POLYMER MODIFIED DRY E SHALL BE ANSI A118.3, THIN SET BOND TYPE. ORGANIC ADHESIVE SHALL BE ANSI A136.1, TYPE 2, THIN SET BOND TYPE. WATER SHALL BE CLEAN, POTABLE. GROUT TO BE PORTLAND CEMENT TYPE: ANSI A118.6, POLYMER MODIFIED DRY SET TYPE, SANDED. EPOXY TYPE: A118.3. REFER TO FINISH SCHEDULE FOR COLORS. FOR JOINT SEALERS SEE DIVISION 07. CLEAN SURFACES TO REMOVE LOOSE AND FOREIGN MATTER THAT COULD IMPAIR ADHESION. REMOVE RIDGES AND PROJECTIONS. FILL VOIDS AND DEPRESSIONS WITH PATCHING COMPOUND COMPATIBLE WITH SETTING MATERIALS. MAXIMUM VARIATION ALLOWABLE SUBSTRATE TOLERANCES IN SUBSTRATE SURFACE: 1/8 INCH IN 8 FEET. MAXIMUM HEIGHT ALLOWABLE SUBSTRATE TOLERANCES OF ABRUPT IRREGULARITIES: 1/32 INCH. USE ANSI A108.4 THIN SET WITH ORGANIC ADHESIVE METHOD FOR WALLS. USE ANSI A108.6, THIN SET WITH EPOXY ADHESIVE. OTHER LOCATIONS USE METHOD ANSI A108.5, THIN SET WITH LATEX-PORTLAND CEMENT MORTAR. MINIMIZE PIECES LESS THAN ONE HALF SIZE. LOCATE CUTS TO BE INCONSPICUOUS. LAY TILE TO PATTERN SHOWN ON DRAWINGS OR FURNISHED BY ARCHITECT. DO NOT INTERRUPT TILE PATTERN THROUGH OPENINGS. PLACE TILE JOINTS UNIFORM IN WIDTH. ALIGN JOINTS IN WALL AND FLOOR OF SAME-SIZED TILE. FIT TILE AROUND PROJECTIONS AND AT PERIMETER. SMOOTH AND CLEAN CUT EDGES. ENSURE THAT TRIM WILL COMPLETELY COVER CUT EDGES. TRIM INSIDE CORNERS SHALL BE COVE UNITS. OUTSIDE CORNERS SHALL BE BE BULL-NOSED UNITS. BASE TRIM SHALL BE BASE UNITS. EXPOSED TILE ENDS SHALL BE BULL-NOSE UNITS. SOUND TILE AFTER SETTING AND BEFORE GROUTING.

REPLACE HOLLOW SOUNDING UNITS. ALLOW TILE TO SET FOR A MINIMUM OF 48 HOURS BEFORE GROUTING. GROUT TILE JOINTS IN ACCORDANCE WITH ANSI A108.10 WITHOUT EXCESS GROUT. PROVIDE CONTROL JOINTS AT FOLLOWING LOCATIONS: CHANGES IN BACKUP MATERIAL, CHANGES IN PLANE, OVER JOINTS IN SUBSTRATE, MAXIMUM 36 FEET ON CENTER. FORM JOINTS PER TCA METHOD EJ-171. INSTALL JOINT BACKING AND JOINT SEALER IN ALL TILE FLOORS, PROVIDE PROPOSED SEALER. REMOVE AND REPLACE PIECES THAT HAVE BEEN DAMAGED DURING INSTALLATION. PROVIDE PROTECTION FOR COMPLETED WORK USING NON-STAINING SHEET COVERINGS. PROHIBIT TRAFFIC ON TILE FLOORS FOR MINIMUM 3 DAYS AFTER INSTALLATION.

TOILET ROOM FLOOR TILE: PROVIDE AND INSTALL POTENZA GLAZED PORCELAIN 12" X 24" AS MANUFACTURED BY EMSER TILE. USE 3/16-INCH JOINTS LAID IN 1/3 OFFSET RUNNING BOND BRICK HORIZONTAL PATTERN. COLOR OF TILE TO BE SELECTED BY THE ARCHITECT. GROUT COLOR TO BE MAPEI AS SELECTED BY THE ARCHITECT. USE TCA SPECIFICATION F113 FOR THIN-SET CERAMIC FLOOR TILE ON DRY SET MORTAR OR LATEX-PORTLAND CEMENT MORTAR OVER CRACK ISOLATION MATT ON THE CONCRETE SUB FLOOR. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

TOLIET ROOM WAINSCOT WALL TILE: PROVIDE AND INSTALL POTENZA GLAZED PORCELAIN 13" X 13" AS MANUFACTURED BY EMSER TILE. USE 3/16-INCH JOINTS LAID IN STRAIGHT STACKED PATTERN TO 5'-5 ½"± AFF. USE SCHLUTER COVE AT BASE AND SCHLUTER EDGE AT TOP. COLOR OF TILE TO BE SELECTED BY THE ARCHITECT. GROUT COLOR TO BE MAPEI #5105 DRIFTWOOD OR AS SELECTED BY THE ARCHITECT. USE TCA SPECIFICATION W-243 FOR TILE WITH THIN-SET METHOD - DRY-SET OR LATEX PORTLAND CEMENT MORTAR BOND COAT ON GYPSUM BOARD ON STEEL STUDS. FOR SHOWER BASE USE TCA SPECIFICATION W-244 FOR TILE ON DUR-ROCK BOARD ON STEEL STUDS. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

CONDUCTIVE STATIC CONTROL SOLID VINYL TILE :
THE SOLID, HOMOGENEOUS ESD CONDUCTIVE STATIC CONTROL SOLID VINYL TILE SHOWN IN THE FINISH SCHEDULE OR LISTED HEREIN SHALL BE ROPPE ESD CONDUCTIVE STATIC CONTROL FLOORING AS MANUFACTURED BY ROPPE CORPORATION, FOSTORIA, OHIO. IT SHALL BE CONSTRUCTED OF FIRST-QUALITY MATERIALS AND SHALL BE SMOOTH AND FREE FROM IMPERFECTIONS, WHICH DETRACT FROM ITS APPEARANCE. THE ESD STATIC CONTROL SOLID VINYL TILE, CONDUCTIVE, SHALL CONFORM TO ASTM F-1700, CLASS 1, TYPE A. THE RESISTANCE OF THE ESD CONDUCTIVE STATIC CONTROL FLOORING SHALL BE LESS THAN AN AVERAGE OF 1,000,000 OHMS AND SHALL BE MORE THAN AN AVERAGE OF 25,000 OHMS AS TESTED IN ACCORDANCE WITH NFPA 99 2-6.3.8, ASTM F-150, UL 779, AND ANSI/ESD S7.1 AT 10 VOLTS OR 100 VOLTS. THE TILE SHALL BE 1/8" (3.175MM) IN THICKNESS AND OF SIZE 12" X12" AND IN #751 "HAZE GRAY" . ROPPE ROP605 OR ROP604 ESD ADHESIVE MUST BE USED WITH THIS PRODUCT. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

VERIFY THAT CONCRETE FLOORS HAVE CURED A MINIMUM 28 DAYS AND DO NOT EXHIBIT NEGATIVE ALKALINITY, CARBONIZATION, OR DUSTING. CLEAN SUBSTRATE OF LOOSE AND FOREIGN MATTER THAT COULD IMPAIR BOND. FILL CRACKS, VOIDS, AND DEPRESSIONS IN SUBSTRATE WITH LEVELING COMPOUND. GRIND OFF HIGH SPOTS AND PROJECTIONS IN SUBSTRATE; LEAVE SMOOTH AND LEVEL TO 1/4 INCH IN 10 FEET. TEST SUBSTRATE FOR MOISTURE CONTENT TO ASTM F 1869; DO NOT INSTALL FLOORING UNTIL MOISTURE EMISSION LEVEL IS ACCEPTABLE TO FLOORING MANUFACTURER. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. MIX TILE FROM CONTAINER TO ENSURE SHADE VARIATIONS ARE CONSISTENT WHEN TILE IS PLACED. SPREAD ONLY ENOUGH ADHESIVE TO PERMIT INSTALLATION OF MATERIALS BEFORE INITIAL SET. LAY FLOORING WITH JOINTS PARALLEL TO BUILDING LINES TO PRODUCE SYMMETRICAL TILE PATTERN. INSTALL TILE TO PATTERN DIRECTED BY OWNER. ALLOW MINIMUM 1/2 FULL SIZE TILE WIDTH AT ROOM OR AREA PERIMETER. SET FLOORING IN PLACE; PRESS WITH HEAVY ROLLER TO ATTAIN FULL ADHESION. SCRIBE FLOORING TO WALLS, COLUMNS, CABINETS, AND OTHER APPURTENANCES TO PRODUCE TIGHT JOINTS. ENSURE THAT BASE, TRIM, PLATES, OR ESCUTCHEONS WILL COMPLETELY COVER CUT EDGES. EXTEND TILE INTO RECESSES AND UNDER EQUIPMENT. TERMINATE FLOORING AT CENTERLINE OF DOOR OPENINGS WHERE ADJACENT FLOOR FINISH IS DISSIMILAR. INSTALL WHERE TILE STOPS WITH EDGE EXPOSED; SET IN ADHESIVE. CENTER STRIPS UNDER DOORS WHERE FLOORING TERMINATES AT DOOR OPENINGS. INSTALL IN LONGEST PRACTICAL LENGTHS; BUTT ENDS TIGHT. SCRIBE TO ABUTTING SURFACES. APPLY ADHESIVE UNIFORMLY OVER SUBSTRATE; REMOVE ADHESIVE THAT HAS DRIED OR FILMED OVER. ACCURATELY CUT TO REQUIRED SIZES. FIT FRONT LIP TIGHT TO RISERS. CORRECT TILES THAT ARE NOT SEATED; REPLACE DAMAGED TILES. CLEAN TILE, WAX, AND MACHINE BUFF IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW TRAFFIC ON FLOORING UNTIL ADHESIVE HAS SET. COVER AREAS SUBJECT TO TRAFFIC WITH PROTECTIVE COVERING.

PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE. S UBMIT MANUFACTURER'S RECOMMENDED MAINTENANCE PRACTICES FOR THE OF TILE FLOORING AND ACCESSORIES REQUIRED. SUBMIT MANUFACTURER'S TECHNICAL DATA FOR EACH TYPE OF TILE AND ACCESSORY AND SUBMIT SAMPLES OF THE TILE REQUIRED. REFER TO FINISH SCHEDULE FOR LOCATIONS

CARPET TILES:
CARPET SHALL BE 24" X 24" CARPET TILES SET IN A PATTERN AS DIRECTED BY THE ARCHITECT. SHALL BE AS MANUFACTURED BY SHAW OR EQUIVALENT AS SELECTED BY THE ARCHITECT. WORK SHALL INCLUDE CARPET, TRANSITION STRIP AND ACCESSORIES. PROVIDE SHOP DRAWINGS WHICH INDICATE CARPET LOCATIONS, DYE LOT LIMITATIONS, DIRECTION OF CARPET IN EACH ROOM OR AREA, AND TYPE AND LOCATION OF EDGINGS. PROVIDE SAMPLES OF CARPET: 12 X 12 INCH SAMPLES. INSTALLER SHALL HAVE A MINIMUM 2 YEARS DOCUMENTED EXPERIENCE IN WORK OF THIS SECTION. CARPET SHALL BE CLASS I RATED, TESTED TO NFPA 253. DO NOT BEGIN INSTALLATION UNTIL PAINTING AND FINISHING WORK HAVE BEEN COMPLETED. ENVIRONMENTAL REQUIREMENTS: TEMPERATURE OF SPACES AND SUB-FLOOR BETWEEN 65 AND 90 DEGREES F. HUMIDITY IN SPACES TO RECEIVE CARPET BETWEEN 20 AND 65 PERCENT. FURNISH MANUFACTURER'S STANDARD WARRANTIES AS APPLICABLE TO EACH CARPET. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH CARPET. REFER TO FINISH SCHEDULE FOR TYPES AND LOCATIONS OF CARPET. SEAMING MATERIALS SHALL BE AS RECOMMENDED BY CARPET MANUFACTURER. ADHESIVE SHALL BE WATERPROOF, LATEX BASED CEMENT FORMULATED SPECIFICALLY FOR INSTALLING CARPET; RECOMMENDED BY CARPET MANUFACTURER. EDGINGS SHALL BE SCHLUTER OR APPROVED SUBSTITUTE, PROFILE REQUIRED TO SUIT CONDITIONS, COLOR TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. LEVELING COMPOUND SHALL BE WHITE, PREMIXED, LATEX BASED. VERIFY THAT CONCRETE FLOORS HAVE CURED A MINIMUM 28 DAYS AND DO NOT EXHIBIT NEGATIVE ALKALINITY, CARBONIZATION, OR DUSTING. FOR SUBSTRATE PREPARATION REMOVE LOOSE AND FOREIGN MATTER. FILL CRACKS, VOIDS, AND DEPRESSIONS WITH LEVELING COMPOUND. GRIND RIDGES AND HIGH SPOTS SMOOTH. TEST SUBSTRATE FOR MOISTURE CONTENT TO ASTM F 1869; DO NOT INSTALL CARPET UNTIL MOISTURE EMISSION LEVEL IS ACCEPTABLE TO CARPET MANUFACTURER. INSTALL CARPET AND ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VERIFY CARPET MATCH BEFORE CUTTING TO ENSURE MINIMAL VARIATION BETWEEN DYE LOTS. LAY CARPET TIGHT AND FLAT ON SUB-FLOOR, WELL FASTENED AT EDGES, WITH UNIFORM APPEARANCE. PROVIDE MONOLITHIC COLOR, PATTERN, AND TEXTURE MATCH WITHIN ANY ONE ROOM OR AREA. ADHERE CARPET OVER FULL AREA WITHOUT VOIDS. ROLL OUT BUBBLES TOWARD EDGES. JOIN SEAMS WITH HOT SEAMING TAPE. FORM SEAMS STRAIGHT AND FREE OF RIDGES OR GAPS. FIT CARPET TIGHT TO ABUTTING SURFACES AND PENETRATIONS WITHOUT GAPS. ENSURE COVERAGE OF CARPET EDGES BY WALL BASE, TRIM, ESCUTCHEONS, AND COVER PLATES. PROVIDE MONOLITHIC COLOR, PATTERN, AND TEXTURE WITHIN EACH AREA. INSTALL TRANSITION STRIPS WHERE CARPET ABUTS DISSIMILAR FLOORING MATERIALS; SECURE TO SUB-FLOOR. CENTER STRIPS UNDER DOORS WHERE CARPET TERMINATES AT DOOR OPENINGS. INSTALL IN LONGEST PRACTICAL LENGTHS; BUTT ENDS TIGHT. SCRIBE TO ABUTTING SURFACES. CLEAN SPOTS AS RECOMMENDED BY CARPET MANUFACTURER. CUT OFF LOOSE THREADS FLUSH WITH TOP SURFACE. CLEAN WITH COMMERCIAL VACUUM CLEANER. REFER TO FINISH SCHEDULE FOR LOCATIONS. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

LUXURY VINYL PLANKS (LVP) RESILIENT FLOORING:
PROVIDE AND INSTALL LVP FLOORING AND ACCESSORIES AS SHOWN ON THE FINISH SCHEDULE AS MANUFACTURED BY ROPPE. NORTHERN TIMBERS PREMIUM LUXURY VINYL PLANK – SHALL BE AS SELECTED BY THE ARCHITECT. SHALL BE LAID FRONT TO BACK IN A NORTH-SOUTH PATTEN DIRECTION. PROVIDE FACTORY RECOMMENDED PRIMERS, ADHESIVES, SEALANTS AND LEVELING COMPOUNDS. GAUGE: 0.120" (1/8" NOMINAL), LAMINATED CONSTRUCTION: CA. 0.70MM CLEAR PVC WEAR LAYER, CA. 0.07MM PRINT FILM LAYER AND CA. 2.23MM BACKING PLY, WEAR LAYER: 0.03" COMPLY WITH ASTM F 1066, ASTM E648, AND ASTM E662 ,STATIC LOAD LIMIT: ASTM F970(M), 750 PSI, THICKNESS: 3.0MM, PERFORMANCE/GENERAL ASTM F-1066, ABRASION RESISTANCE EN 649: 1996 GROUP T AND, SLIP MEASUREMENT ASTM D2047 >0.5. SUBMIT CERTIFICATION FROM INDEPENDENT TESTING LABORATORY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION THAT LUXURY VINYL TILE COMPLIES WITH THE FOLLOWING FIRE TEST PERFORMANCE REQUIREMENTS: FLAME SPREAD: > 0.45 WATTS/CM2 CLASS I - ASTM E-648 AND SMOKE DENSITY: < 450 PER ASTM E 662. ONLY FACTOR TRAINED AND CERTIFIED INSTALLERS WILL BE ACCEPTABLE. INSTALLER IS TO INSPECT SUB FLOOR SURFACES TO DETERMINE THAT THEY ARE SATISFACTORY. A SATISFACTORY SUB FLOOR SURFACE IS DEFINED AS ONE THAT IS SMOOTH AND FREE FROM CRACKS, HOLES, RIDGES, OR COATINGS PREVENTING ADHESIVE BOND AND OTHER DEFECTS IMPAIRING PERFORMANCE OR APPEARANCE. ON CONCRETE SUB FLOORS, VERIFY THAT CONCRETE SLABS COMPLY WITH ASTM F710 AND THAT SLAB SUBSTRATES ARE DRY AND FREE OF CURING COMPOUNDS, SEALERS, HARDENERS AND OTHER MATERIALS THAT MAY INTERFERE WITH ADHESIVE BOND. DETERMINE ADHESION AND DRYNESS CHARACTERISTICS BY PERFORMING BOND AND MOISTURE TESTS RECOMMENDED BY FLOORING MANUFACTURER. DO NOT ALLOW PREMIUM VINYL TILE WORK TO PROCEED UNTIL SUB FLOOR SURFACES ARE SATISFACTORY. PREPARE SUB FLOOR SURFACE AS FOLLOWS: INSPECTION OF EXISTING SUB FLOOR IS REQUIRED TO ENSURE A SOLID, DRY, CLEAN SUB-FLOOR FOR THE INSTALLATION OF ALL MATERIALS. USE CEMENTITIOUS LEVELING AND PATCHING COMPOUNDS AS RECOMMENDED BY THE VINYL TILE MANUFACTURER FOR FILLING SMALL CRACKS, HOLES AND DEPRESSIONS AND LEVELING SUB FLOORS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR LEVELING EXISTING FLOORS WHOSE SURFACE VARIES UP TO 5/16". NOTIFY GENERAL CONTRACTOR IN WRITING WHERE SUBSTRATE VARIES MORE THAN ABOVE BEFORE PROCEEDING WITH THE WORK. GYPSUM BASED LEVELING COMPOUNDS WILL NOT BE ACCEPTED. REMOVE COATINGS FROM SUB FLOOR SURFACES THAT WOULD PREVENT ADHESIVE BOND, INCLUDING CURING COMPOUNDS INCOMPATIBLE WITH LUXURY VINYL TILE ADHESIVES, PAINTS, OILS, WAXES AND SEALERS. BROOM CLEAN OR VACUUM SURFACES TO BE COVERED, AND INSPECT SUB FLOOR. INSTALL PRODUCT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS USING ONLY MANUFACTURER'S APPROVED ADHESIVES. REMOVE TEMPORARY COVERINGS AND PROTECTION OF ADJACENT WORK AREAS. REPAIR OR REPLACE DAMAGED INSTALLED PRODUCTS. CLEAN INSTALLED PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS PRIOR TO OWNER'S ACCEPTANCE. PROTECT INSTALLED PRODUCT AND FINISHED SURFACES FROM DAMAGE DURING CONSTRUCTION.

PROVIDE EXTRA STOCK: 5 PERCENT OF EACH LVP. SUBMIT MANUFACTURER'S RECOMMENDED MAINTENANCE PRACTICES FOR THE OF LUXURY VINYL PLANK FLOORING AND ACCESSORIES REQUIRED. SUBMIT MANUFACTURER'S TECHNICAL DATA FOR EACH TYPE OF LUXURY VINYL PLANK AND ACCESSORY AND SUBMIT SAMPLES OF THE LUXURY VINYL PLANK REQUIRED, 6" LONG SAMPLES OF RESILIENT EDGE STRIPS AND 2 1/2 INCH LONG SAMPLES OF LUXURY VINYL PLANK ACCESSORIES. REFER TO FINISH SCHEDULE FOR LOCATIONS.

ENTRY MAT:
PROVIDE AND INSTALL WATERHOG CLASSIC ENTRANCE MATS AS MANUFACTURED BY AMERICAN FLOOR MATS. 152 ROLLINS AVENUE #102 ROCKVILLE, MD 20852 800-762-9010; HTTP://WWW.AMERICANFLOORMATS OR EQUIVALENT. COLOR TO BE MEDIUM GREY #600. MATS ARE TO BE MANUFACTURED WITH SURFACE FIBER TYPE: SOLUTION DYED POLYPROPYLENE, OUTSTANDING LIGHTFASTNESS WEIGHT: 24 OZS/SQYD NUB HEIGHT: 1/4" DESIGN: SQUARE "WAFFLE" BACKING TYPE: 100% SBR RUBBER (20% RECYCLED CONTENT) THICKNESS: 0.110" – BORDER; 0.190" NUBS; 0.050" – BETWEEN NUBS DUROMETER: REINFORCED FACE NUBS: FACE NUBS ARE REINFORCED WITH RUBBER TO RESIST CRUSHING, MAINTAINING HIGH PERFORMANCE AND EXTENDING PRODUCT LIFE. "WATER DAM" BORDER: BORDER IS DESIGNED TO HOLD WATER AND DIRT ON MAT KEEPING THEM OFF CARPETS AND FLOORS. UNIQUE RAISED RUBBER BORDER ALLOWS WATERHOG MATS TO HOLD UP TO 1 1/2 GALLONS OF WATER PER SQUARE YARD. SOME STYLES AVAILABLE WITHOUT DAM FOR OUTSIDE USE, SO WATER CAN DRAIN EASILY. • RAISED NUB SURFACE: REMOVES AND TRAPS DIRT AND MOISTURE AND HOLDS IT ON MAT BELOW SHOE LEVEL SO IT IS NOT TRACKED IN. TRIGRIP BACKING: GRIPPING ACTION MINIMIZES MOVEMENT ON MOST CARPETS AND IMPROVES TRACTION ON HARD SURFACES. RUBBER BACKING: LAYS FLAT, WON'T CRACK OR CURL. DURABLE ANTI-STATIC POLYPROPYLENE FACE AND NOT ADVERSELY EFFECTED BY SALT OR ICE MELT. PASSES FLAMMABILITY STANDARD DOC-FF-1-70 • ANTI-STATIC: WATERHOG MATS HAVE A MAXIMUM AVERAGE VOLTAGE OF 1.6 KV AS MEASURED BY THE AATCC 134 ELECTROSTATIC PROPENSITY TEST AND MEETS IBM'S MINIMUM STANDARD FOR ELECTRICAL RESISTANCE (NFPA99).

LAY-IN CEILING PANELS :
PROVIDE AND INSTALL LAY-IN CEILING PANELS IN AN EXPOSED TEE GRID AS SHOWN OR AS INDICATED ON THE DRAWINGS. ALL SYSTEMS SHALL MEET ALL APPLICABLE REQUIREMENTS OF FEDERAL SPECIFICATION SS-S-118B AND "ACOUSTICAL CEILING/USE AND PRACTICE" PUBLISHED BY THE CEILING AND INTERIOR SYSTEMS CONTRACTORS ASSOCIATION (CISCA). PROVIDE THE MANUFACTURER'S TECHNICAL DATA AND SAMPLES OF EACH TYPE IN THE CORRECT COLOR FOR THE ARCHITECT'S REVIEW. ALL CEILING PANELS MUST MEET ALL CODES AND ORDINANCES INCLUDING 2021 IBC STANDARDS. INSTALL ALL WORK IN ACCORDANCE WITH THE QUALITY ASSURANCE PROVISIONS AND ENVIRONMENTAL REQUIREMENTS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS BY AN APPROVED INSTALLER. COORDINATE CEILING PANELS WITH ELECTRICAL AND MECHANICAL TRADES AND REVIEW LAYOUT WITH ARCHITECT PRIOR TO INSTALLATION. ALL SOILED, CHIPPED, DAMAGED OR DISCOLORED TILES WILL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE. PROVIDE THE FOLLOWING PANELS IN LOCATIONS AS INDICATED ON THE DRAWINGS:

ALL SPACES:	NON-RATED, USG INTERIORS, INC. CLASS A "RADAR" 2'X2'X5/8" SLT TEGULAR EDGE, FISSURED LAY-IN, NRC = .55, CAC 33. COLOR IS TO BE "WHITE".

ACOUSTICAL SUSPENSION SYSTEM:
PROVIDE AND INSTALL AN EXPOSED TEE GRID SYSTEM AS SHOWN OR INDICATED ON THE DRAWINGS. ALL MATERIALS SHALL BE INSTALLED SQUARE, LEVEL AND TRUE IN ACCORDANCE WITH ASTM C635-88, ASTM C636-88, AND CISCA. STANDARDS AND SEISMIC BRACED PER THE REQUIREMENTS OF THE 2021 IBC STANDARDS AND ANY LOCAL ORDINANCES. PROVIDE MANUFACTURER'S TECHNICAL DATA AND SAMPLES OF EACH TYPE IN CORRECT COLOR FOR THE ARCHITECT'S REVIEW. AN APPROVED INSTALLER PER THE MANUFACTURER'S SPECIFICATIONS MUST INSTALL ALL MATERIALS. ALL MEMBERS, CLIPS, HANGERS AND SUPPORTS SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE CONDITION. COORDINATE THE LAYOUT OF THE GRID WITH ELECTRICAL AND MECHANICAL TRADES AND REVIEW LAYOUT WITH ARCHITECT PRIOR TO INSTALLATION. ALL EXPOSED GRID SHALL BE CLEANED AND REPAIRS OR REPAINTING COMPLETED BEFORE CEILING PANELS ARE INSTALLED. PROVIDE SEISMIC EDGE SUPPORT PER IBC 2021 AND ICC-ESR-1222 - BERC PERIMETER SEISMIC CONNECTIONS. PROVIDE THE FOLLOWING GRID IN LOCATIONS AS INDICATED ON THE DRAWINGS:

ALL SPACES:	NON-RATED, USG INTERIORS, INC CLASS A, DONN DX OR DXL-24, 24"X24"X15/16" EXPOSED, HEAVY DUTY GRID. COLOR IS TO BE "WHITE". PROVIDE ICC-ESR-1222_BERC PERIMETER SEISMIC CONNECTION CODE APPROVED SEISMIC EDGE CLIPS AT PERIMETER OF CEILING AT WALL

DIVISION 10. SPECIALTIES

FIRE EXTINGUISHERS:
PROVIDE AND INSTALL TWO (2) SEMI-RECESSED MOUNTED CABINETS WITH FIRE EXTINGUISHERS AT LOCATIONS SHOWN ON DRAWINGS AND IN ACCORDANCE WITH THE 2021 IFC STANDARD 10-1, SECTION 1-6.9 AND THE 2021 IFC 1002, UL 711 AND NFPA 10. SHALL BE LARSEN ARCHITECTURAL SERIES OR EQUIVALENT SEMI-RECESSED CABINET WITH PORTABLE FIRE EXTINGUISHER. MOUNT AT HEIGHT REQUIRED BY ACCESSIBLE CODE. COLOR OF THE CABINET IS TO BE WHITE AND THE COLOR OF THE EXTINGUISHERS ARE TO BE RED. PROVIDE SHOP DRAWINGS, WHICH INDICATE RECESSED CABINET LOCATIONS AND MOUNTING HEIGHTS, PRODUCT DATA, WHICH INCLUDES DATA ON EXTINGUISHERS AND BRACKETS, OPERATIONAL FEATURES, MATERIALS, FINISHES, AND ANCHORAGE AND MAINTENANCE DATA, WHICH INCLUDE TEST, REFILL, OR RECHARGE SCHEDULES AND RE-CERTIFICATION REQUIREMENTS, UL 299, CAST STEEL TANK, CABINETS SHALL BE A FORMED-STEEL, SIZED TO ACCOMMODATE EXTINGUISHER. FINISHES FOR CABINETS SHALL BE BAKED ENAMEL AND EXTINGUISHERS SHALL BE A BAKED ENAMEL. MOUNTING HARDWARE SHALL BE THE TYPE BEST SUITED TO EACH APPLICATION. INSTALL CABINETS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SECURE RIGIDLY IN PLACE USING FASTENERS BEST SUITED TO SUBSTRATE. PLACE AN EXTINGUISHER IN EACH CABINET.

PROVIDE THE FOLLOWING:
1. ONE 2A:10 BC RATED RECESSED FIRE EXTINGUISHER IN EACH CABINET WITHIN 75 FOOT TRAVEL DISTANCE TO ALL ROOMS - SEE PLANS FOR LOCATIONS.

TOILET ACCESSORIES:
WORK SHALL INCLUDE TOILET ACCESSORIES AND ATTACHMENT HARDWARE. PROVIDE PRODUCT DATA OF MANUFACTURER'S BROCHURES SHOWING SIZES, DETAILS OF FUNCTION, FINISHES, AND ATTACHMENT METHODS. CONFORM TO APPLICABLE ACCESSIBILITY CODE FOR LOCATING ACCESSORIES. LABEL KEYS AND FORWARD DIRECTLY TO OWNER. ACCEPTABLE MANUFACTURERS: AMERICAN SPECIALTIES, INC. BOBRICK WASHROOM EQUIPMENT CO. BRADLEY CORP. BROCAR, MCKINNEY/PARKER. MATERIALS SHALL BE STAINLESS STEEL SHEETS SHALL MEET ASTM A 480/A 480M OR ASTM A 666; TYPE 304, ROLLABLE TEMPER AND TUBING: ASTM A 269. GALVANIZED STEEL SHALL BE ASTM A 366. PROVIDE STAINLESS STEEL FASTENERS WHERE EXPOSED, HOT DIP GALVANIZED WHERE CONCEALED; TYPE BEST SUITED TO SUBSTRATE CONDITIONS. USE STAINLESS STEEL FOR EXPOSED SURFACES; GALVANIZED STEEL MAY BE USED IN CONCEALED LOCATIONS. FORM EXPOSED SURFACES FROM SINGLE SHEET OF STOCK, FREE FROM JOINTS, AND FLAT, WITHOUT DISTORTION. WELD JOINTS OF FABRICATED COMPONENTS AND GRIND SMOOTH. FABRICATE GRAB BARS OF TUBING, FREE OF VISIBLE JOINTS, RETURN TO WALL WITH END ATTACHMENT FLANGES. PEEN GRIP SURFACES. FABRICATE SOAP DISPENSERS TO OPERATE WITH LESS THAN 5-POUND FORCE. PROVIDE HANGERS, ADAPTERS, ANCHOR PLATES, AND ACCESSORIES REQUIRED FOR INSTALLATION. KEY LOCKS ALIKE; FURNISH SIX KEYS. SHOP ASSEMBLE UNITS AND PACKAGE COMPLETE WITH ANCHORS AND FITTINGS. FINISHES: STAINLESS STEEL: NO. 4 SATINIZING. GALVANIZING: ASTM A 123/A 123M TO 1.25 OUNCES PER SQUARE FOOT. CHROME PLATING: ASTM B 456, TYPE SC 2, POLISHED FINISH. POLYETHYLENE: WHITE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SET PLUMB, LEVEL, SQUARE, AND RIGIDLY ANCHORED. MOUNT ALL ACCESSORIES AT ADA HEIGHTS PER ANSI A-117.1- 2017. PROVIDE TOILET ACCESSORIES BY BOBRICK OR APPROVED EQUIVALENT AS SHOWN ON THE DRAWINGS AND AS SCHEDULED BELOW:

SOAP DISPENSER:	BOBRICK #B-4112 - WALL MOUNTED
SOAP DISPENSER:	BOBRICK #B-822 - DECK MOUNTED
RECESSED PAPER TOWEL & WASTE RECEPTACLE:	BOBRICK #B-3942 (SEMI-RECESSED)
TOILET TISSUE DISPENSER:	BOBRICK #B-69997 (DOUBLE ROLL)
TOILET SEAT COVER DISPENSER:	BOBRICK #B-221
SANITARY NAPKIN DISPOSAL:	BOBRICK #B-254
TOILET GRAB BARS:	BOBRICK #B-6806 X 42" AT ONE SIDE OF THE TOILET, BOBRICK #B-6806 X 18" VERTICAL, BOBRICK #B-6806 X 36" AT THE BACK OF THE TOILET (THESE ARE TO BE 1-1/2" OD SMOOTH STAINLESS STEEL GRAB RAILS MOUNTED AT 36" ABOVE THE FINISHED FLOOR WITH 1-1/2" CLEARANCE FROM THE WALL)
ROBE HOOK:	BOBRICK #B-76717 (FOR PRIVACY ROOMS W/ SINGLE DOORS)
SIGN:	TACTILE HANDICAP ACCESSIBLE SYMBOL WITH UNISEX (WHITE ON BLUE BACKGROUND)
TOILET RM COUNTER MIRROR:	FULL WIDTH X HGT OF WALL ABOVE CTOP (SEE ELEVATIONS)
SS FRAMED MIRRORS WITH SHELF:	BOBRICK #B-166 - 24 X 36 (NO SHELF)
LAVATORY PIPE PROTECTION:	SEE PLUMBING FIXTURE SCHEDULE
MOP HOLDER:	BOBRICK #B-224 X 36"

TOILET PARTITIONS :
PROVIDE AND INSTALL FLOOR SUPPORTED AND HEAD-RAIL BRACED STEEL TOILET PARTITION AND URINAL SCREEN SYSTEMS "ESSENTIAL PRIVACY - 58" WITH 2-COAT POWDER COATED FINISH AS MANUFACTURED BY AAMCO ALL AMERICAN STRUCTURAL PRODUCTS OR APPROVED EQUIVALENT. STAMPED NAMES OR LABELS ON FACES WILL NOT BE PERMITTED. PROVIDE LOCKS AND MANUFACTURER'S STANDARD HEAVY-DUTY HARDWARE AND ACCESSORIES ON ALL DOORS. ALL PRODUCTS ARE TO BE OF THE SAME MANUFACTURER. MINIMUM STEEL SHEET THICKNESS TO BE: PILASTERS: 18-GAUGE; PANELS: 20-GAUGE; AND, DOORS: 20-GAUGE. CORE MATERIAL TO BE MANUFACTURER'S STANDARD SOUND-DEADENING, DOUBLE-FACED HONEYCOMB, IMPREGNATED KRAFT PAPER CORE. PILASTER HINGES, RECESSED LATCH UNIT WITH COMBINATION RUBBER-FACED DOOR STRIKE AND KEEPER AND RUBBER TIPPED BUMPER AND COAT HOOK. PROVIDE STANDARD EXPOSED FASTENERS AND CONCEALED REINFORCEMENT FOR ANCHORAGES. PROVIDE SAMPLES AND SHOP DRAWINGS FOR THE ARCHITECT'S REVIEW. COLOR TO BE AS SELECTED BY ARCHITECT.

CORNER GUARDS:
PROVIDE SURFACE MOUNTED CORNER GUARDS ON ALL OUTSIDE GYPSUM BOARD FINISHED WALL CORNERS. PROVIDE MANUFACTURER'S COMPLETE AND CURRENT PRODUCT DATA FOR EACH PRODUCT REQUIRED, INCLUDING COMPLETE INSTALLATION REQUIREMENTS. PROVIDE SHOP DRAWINGS SHOWING LOCATIONS OF EACH ITEM AND INSTALLATION DETAILS. PROVIDE ELEVATIONS OF NON-STANDARD CONDITIONS. PROVIDE FOR VERIFICATION PROVIDE SAMPLES OF 12-INCH LONG ASSEMBLIES, INCLUDING ONE END CAP, IN COLOR AS SELECTED BY ARCHITECT. PROVIDE SPECIALTY SURFACE MOUNTED CORNER GUARDS OF 1-1/2-INCH WIDE, 0.080-INCH THICK, FOR INSTALLATION BY ADHESIVE, DOUBLE-FACED TAPE, OR SCREWS. PROVIDE APPROPRIATE FASTENERS AND ACCESSORIES AS REQUIRED TO PROPERLY COMPLETE CORNER GUARD INSTALLATION. VERIFY THAT WALLS ARE IN PROPER CONDITION TO RECEIVE INSTALLATION OF CORNER GUARDS. SURFACE MOUNTED CORNER GUARDS MUST BE INSTALLED AFTER WALL FINISHES HAVE BEEN COMPLETED. INSTALL CORNER GUARDS IN FULL COMPLIANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. VERIFY THAT CORNER GUARDS ARE PLUMB AND RIGIDLY SECURED TO SUBSTRATE; MAKE ANY ADJUSTMENTS REQUIRED. CLEAN CORNER GUARDS AND IMMEDIATE AREAS OF INSTALLATION, USING MATERIALS AND METHODS RECOMMENDED BY MANUFACTURER. REMOVE FROM PROJECT SITE PACKAGING AND DEBRIS CAUSED BY INSTALLATION.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH — JAMES B. GLASCOCK — 1036 — LICENSED ARCHITECT — 03/01/24

Project 22-002

NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Date 03/01/24

Revisions 1 2 3 4 5 6 7 8 9 10 11 12 13 14

09A105

DIVISION 09 FINISHES (CONTINUED)

PAINTING - CONTINUED
DO NOT APPLY FINISHES TO SURFACES THAT ARE NOT DRY. APPLY COATINGS TO MINIMUM DRY FILM THICKNESS RECOMMENDED BY MANUFACTURER. APPLY EACH COAT OF PAINT SLIGHTLY DARKER THAN PRECEDING COAT UNLESS SPECIFIED OTHERWISE. APPLY COATINGS TO UNIFORM APPEARANCE WITHOUT LAPS, SAGS, CURTAINS, HOLIDAYS, AND BRUSH MARKS. ALLOW APPLIED COATS TO DRY BEFORE NEXT COAT IS APPLIED. SAND BETWEEN COATS ON INTERIOR WOOD AND METAL SURFACES. MATCH FINAL COAT TO APPROVED COLOR SAMPLES. WHERE CLEAR FINISHES ARE SPECIFIED, TINT FILLERS TO MATCH WOOD. WORK FILLERS INTO GRAIN BEFORE SET. WIPE EXCESS FROM SURFACE. PRIME CONCEALED SURFACES OF WOOD IN CONTACT WITH MASONRY OR CEMENTITIOUS MATERIALS WITH ONE COAT PRIMER PAINT. MECHANICAL AND ELECTRICAL COMPONENTS: PAINT FACTORY PRIMED EQUIPMENT; REMOVE UNFINISHED AND PRIMED LOUVERS, GRILLES, COVERS, AND ACCESS PANELS; PAINT SEPARATELY; PAINT EXPOSED AND INSULATED PIPES, CONDUIT, BOXES, DUCTS, HANGERS, BRACKETS, COLLARS, AND SUPPORTS UNLESS FACTORY FINISHED; DO NOT PAINT NAMETAGS OR IDENTIFYING MARKINGS; AND PAINT EXPOSED CONDUIT AND ELECTRICAL EQUIPMENT IN FINISHED AREAS. DO NOT PAINT SURFACES INDICATED ON DRAWINGS OR SPECIFIED TO BE UNPAINTED OR UNFINISHED, SURFACES WITH FACTORY APPLIED FINISH COAT OR INTEGRAL FINISH, ARCHITECTURAL METALS, INCLUDING BRASS, BRONZE, STAINLESS STEEL, AND CHROME PLATING AND FIRE RATING PLATES. MANUFACTURER'S FIELD SERVICES ARE TO ENSURE THAT MATERIALS ARE BEING APPLIED PROPERLY. MAKE DETAILED INSPECTION OF PAINT WORK; TOUCH UP ABRADED, STAINED, AND OTHERWISE DISFIGURED SURFACES OR REFINISH AS REQUIRED. REMOVE PAINT FROM ADJACENT SURFACES.

PREPARATION OF SURFACES :
NO PAINTING SHALL BE COMMENCED UNTIL SURFACES ARE IN PROPER CONDITION TO RECEIVE IT. IF THE PAINTER CONSIDERS ANY SURFACE UNSUITABLE FOR THE PROPER FINISH OF HIS WORK HE SHALL NOTIFY THE CONTRACTOR OF THIS FACT IN WRITING AND HE SHALL NOT APPLY ANY MATERIALS UNTIL SUCH SURFACES HAVE BEEN PROPERLY PREPARED FOR PAINTING. SURFACES TO BE PAINTED SHALL BE CLEANED AND TOUCHED UP WITH KNOT SEALER OR SHELLAC AS REQUIRED BEFORE PAINTING. ALL NECESSARY PUTTYING OF NAIL HOLES, CRACKS AND BLEMISHES SHALL ONLY BE DONE AFTER THE PRIMING COAT HAS BECOME HARD AND DRY.

PAINT MANUFACTURER :
ALL PAINT COLORS ARE TO BE AS INDICATED ON THE DRAWINGS AND SHALL BE AS SELECTED BY THE ARCHITECT. THE MANUFACTURER OF ALL PAINT IS TO BE FROM (1) SOURCE. NOTIFY THE ARCHITECT (2) WEEKS BEFORE STARTING WORK AND MAKE COLOR SAMPLES AS REQUESTED.

PAINT SCHEDULE :
IN ALL CASES THE ARCHITECT WILL HAVE THE FINAL DECISION ON WHAT WILL OR WILL NOT NEED TO BE PAINTED. REFER TO THE FINISH SCHEDULE ON DRAWINGS FOR PAINT COLORS. PROVIDE THE FOLLOWING PAINT FINISHES:

INTERIOR METAL - FERROUS (INCLUDING METAL DOORS & FRAMES) :

FIRST COAT	KEMBOND HS UNIVERSAL METAL PRIMER
SECOND COAT	SEMI-GLOSS INTERIOR ALKYD ENAMEL
THIRD COAT	SEMI-GLOSS INTERIOR ALKYD ENAMEL

INTERIOR DRYWALL (GYPSUM BOARD) :

FIRST COAT	INTERIOR VINYL LATEX PRIMER SEALER
SECOND COAT	INTERIOR EGGSHELL OR STAIN LATEX ENAMEL
THIRD COAT	INTERIOR SATIN LATEX ENAMEL

PLYWOOD WALL WAINSCOT :
BLOCK FILLER OR EQUIVALENT

FIRST COAT	LATEX PRIMER
SECOND COAT	LATEX SEMI-GLOSS ENAMEL
THIRD COAT	LATEX SEMI-GLOSS ENAMEL

EXTERIOR METAL - FERROUS AND GALVANIZED :

FIRST COAT	OIL PRIMER/SEALER
SECOND COAT	OIL SATIN
THIRD COAT	OIL SATIN

PAINT COLORS:

P-1	ALL GYP BRD WALLS	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-2	ALL GYP BRD CEILINGS	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-3	ACCENT GYP BRD WALLS	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-4	PLYWOOD WOOD WAINSCOT	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-5	ALL HM DOORS & FRAMES	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-6	ALL INTERIOR METAL	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)
P-7	ALL EXTERIOR METAL	ONE COLOR - SHERWIN-WILLIAMS (TO BE SELECTED BY ARCHITECT)

CONCRETE CURING AND HARDENING SEALER :
SEAL EXPOSED CONCRETE FLOORS WITH ASHFORD FORMULA MANUFACTURED BY CURECRETE DISTRIBUTION, INC., 1203 WEST SPRING CREEK PLACE SPRINGVILLE, UTAH 84663. THERE ARE NO SUBSTITUTIONS. MANUFACTURER'S SPECIFICATIONS, TEST DATA, AND OTHER DATA REQUIRED PROVING COMPLIANCE WITH THE SPECIFIED REQUIREMENTS SHALL BE SUBMITTED. MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES WHICH WILL BECOME THE BASIS FOR ACCEPTING OR REJECTING ACTUAL INSTALLATION PROCEDURES USED ON THE WORK. PROTECT THE MATERIALS OF THIS SECTION BEFORE AND AFTER INSTALLATION. PROTECT THE WORK AND MATERIALS OF ALL OTHER TRADES. IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE REPLACEMENTS AND REPAIRS AS DIRECTED BY THE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.

ALL MATERIAL MUST BE DISPENSED FROM FACTORY NUMBERED AND SEALED DRUMS AND RECORDED FOR THE OWNER'S REVIEW. A CURECRETE DISTRIBUTION TECHNICAL REPRESENTATIVE MUST BE PRESENT ON ALL INITIAL APPLICATIONS TO FAMILIARIZE THE APPLICATOR WITH THE APPLICATION PROCEDURE, UNLESS A FACTORY-CERTIFIED APPLICATOR IS USED. PRODUCT SHALL HAVE THE FOLLOWING ATTRIBUTES: A NON-FILM FORMING CHEMICAL THAT PENETRATES INTO THE CONCRETE WHERE IT CHEMICALLY REACTS WITH THE CONCRETE SALTS THAT HARDENS THE SURFACE AND LOCKS THE PORES OF THE CONCRETE AND DENSIFIES THE CONCRETE INTO A SOLID MASS THAT DOES NOT ALLOW PENETRATION INTO THE CONCRETE SURFACE. THE PERFORMANCE CRITERIA SHALL BE ESTABLISHED BY TESTS CONDUCTED BY RECOGNIZED INDEPENDENT TESTING LABORATORIES. CURING: REDUCE MOISTURE LOSS BY A MINIMUM OF 94% DURING INITIAL 24-HOURS. ABRASION: TABER C-17 WHEEL, MIN, 30% INCREASE IN ABRASION RESISTANCE, OR ASTM C779, 32.5% INCREASE IN ABRASION RESISTANCE AT 30-MINUTES. HARDENING: ASTM C-39, MIN, 38% INCREASE IN COMPRESSIVE STRENGTH AT 28-DAYS (VERSUS UNTREATED CONCRETE.) PERMEABILITY: 7' HEAD OF WATER ON 2.5" AREA. SEEPAGE SHOULD NOT EXCEED .022 CC PER HOUR. CHEMICAL RESISTANCE: THE MANUFACTURER SHALL PROVIDE A CHEMICAL RESISTANCE GUIDE LISTING TEST RESULTS BY AN INDEPENDENT TESTING AGENCY. CURING APPLICATION FOR NEW, STEEL-TROWELLED CONCRETE APPLICATION SHOULD BE MADE IMMEDIATELY FOLLOWING THE FINAL CONCRETE FINISHING OPERATION AS SOON AS THE CONCRETE IS FIRM ENOUGH TO WORK ON. APPLICATION SHALL BE DONE AS DIRECTED BY THE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES. USE ADEQUATE NUMBERS OF SKILLED WORKERS WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND THE METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SECTION. NO SATISFACTORY CHEMICAL OR CLEANING PROCEDURE IS AVAILABLE TO REMOVE PETROLEUM STAINS FROM THE CONCRETE SURFACE. PREVENTION IS THEREFORE ESSENTIAL. ALL HYDRAULIC POWERED EQUIPMENT MUST BE DIAPERED TO AVOID STAINING OF THE CONCRETE. NO TRADE WILL PARK VEHICLES ON THE INSIDE SLAB. IF NECESSARY TO COMPLETE THEIR SCOPE OF WORK, DROP CLOTHS WILL BE PLACED UNDER VEHICLES AT ALL TIMES. NO PIPE-CUTTING MACHINE WILL BE USED ON THE INSIDE FLOOR SLAB. STEEL WILL NOT BE PLACED ON INTERIOR SLAB TO AVOID RUST STAINING. ALL EXPOSED CONCRETE SURFACES MUST BE FINISHED IN A SMOOTH, STEEL TROWELLED FINISH. UPON COMPLETION OF THE WORK, AS A CONDITION OF ITS ACCEPTANCE, FURNISH THE OWNER A WRITTEN WARRANTY SIGNED BY AN OFFICER OF CURECRETE DISTRIBUTION, INC.

CMU WALL SEALER :
SEAL ALL EXPOSED EXTERIOR CMU WALLS WITH SURE KLEAN CUSTOM MASONRY SEALER WATER REPELLENT AS MANUFACTURED BY PROSOCO, A CLEAR VOC COMPLIANT SOLVENT BASED SILICON ELASTOMER. DO NOT DILUTE OR ALTER. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING PROTECTION, PRECAUTIONARY CLEANING AND PREPARATION OF SURFACES PRIOR TO INSTALLATION AND SPRAY APPLY IN A UNIFORM MANNER TO ACHIEVE A CONTINUOUS FILM WITH A LOW PRESSURE SPRAY, BRUSH OR ROLLED. PROVIDE MANUFACTURER'S SPECIFICATIONS.

RESILIENT BASE:
WORK SHALL INCLUDE RESILIENT RUBBER WALL BASE AS MANUFACTURED BY ROPPE. PROVIDE 2-INCH LONG SAMPLES IN EACH COLOR. FOR MAINTENANCE, PROVIDE 2 PERCENT OF EACH BASE FOR EXTRA STOCK. RESILIENT BASE SHALL BE THERMOPLASTIC RUBBER. 1/8-INCH .THICKNESS: IN 120-FOOT ROLLS THROUGHOUT THE TENANT SPACE. END UNITS AND OUTSIDE CORNERS SHALL BE PREFORMED IN PROFILE, SIZE, AND COLOR TO MATCH BASE. ADHESIVE SHALL BE WATER BASED, WATERPROOF, RECOMMENDED BY BASE MANUFACTURER. PREPARE SURFACES TO RECEIVE BASE BY REMOVE MATERIALS THAT COULD INTERFERE WITH ADHESION. FILL LOW SPOTS WITH PATCHING COMPOUND; FINISH FLUSH WITH ADJACENT SURFACE. REMOVE HIGH SPOTS, RIDGES AND NIBS. APPLY ADHESIVE CONTINUOUSLY TO BACK OF BASE. DO NOT INSTALL PIECES LESS THAN 6 INCHES LONG. MAINTAIN TOP EDGE TRUE TO LINE AND BOTTOM EDGE IN CONTINUOUS CONTACT WITH FLOOR. BUTT JOINTS TIGHT; BUTT BASE TIGHT TO ADJACENT CONSTRUCTION. MITER AND BUTT INSIDE CORNERS. AT OUTSIDE CORNERS INSTALL PREFORMED CORNER PIECES. AT EXPOSED ENDS, INSTALL PRE-MOLDED UNITS. SCRIBE TO DOORFRAMES AND OTHER INTERRUPTIONS. ALL COLORS ARE TO BE AS SELECTED BY THE ARCHITECT. SHALL BE AS FOLLOWS:

1. RB-1 ROPPE 4" COVED BASE AT LVP FLOORS AND VCT FLOORS.
2. RB-2 ROPPE 4" STRAIGHT BASE AT CARPET TILES.
3. RB-3 ROPPE 6" COVED BASE AT BOTTOM OF FRP WALLS & CONCRETE FLOORS

TRANSITION STRIPS :
PROVIDE SCHLUTER TRANSITION STRIPS AS FOLLOWS:
- TS-1 CERAMIC TILE TO CONCRETE OR LVP FLOORING- RENO-V OR VIN-PRO S - BRUSHED GRAPHITE A80AGRB FINISH
- TS-2 CERAMIC TILE AT BOTTOM 0F WAINSCOT WALL TO CERAMIC FLOOR TILE - DILEX-HK - BRUSHED GRAPHITE A80AGRB FINISH
- TS-3 CERAMIC TILE AT TOP OF WAINSCOT TILE WALLS - SQUARE EDGE JOLLEY - BRUSHED GRAPHITE A80AGRB FINISH
- TS-4 VINYL (LVP)) FLOORING TO VCT FLOORING - RENO-TK, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH
- TS-5 CARPET TO VINYL (LVP) FLOORING - RENO-V, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH
- TS-6 CARPET TO CONCRETE - RENO-V, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH

FRP WALL PANELS (FRP-1) :
PROVIDE AND INSTALL ON TOILET AND LOCKER ROOM SANITARY WALLS IN ALL LOCATIONS AS SHOWN ON THE DRAWINGS. USE 4' X 4' X 3/32" NOMINAL MARLITE PANELS. ALL PANELS ARE TO BE FIBERGLASS REINFORCED POLYESTER PANELS WITH HARMONIZING MOLDINGS, MARLITE BRAND ADHESIVE AND SEALANT AS SUPPLIED BY THE COMMERCIAL DIVISION, MASONITE CORPORATION, DOVER, OHIO. MATERIALS MUST BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS. APPLY FRP PANELS AFTER GYPSUM WALLBOARD WORK OR SURFACE PREPARATION WORK HAS BEEN COMPLETED. JUNCTIONS WITH VINYL COVE BASE MUST BE COMPLETELY SEALED PER LOCAL HEALTH CODE REQUIREMENTS. PROVIDE MARLITE #P-100 OR EQUIVALENT IN HIGH GLOSS FINISH, COLOR IS TO BE "WHITE".

TILE:
WORK SHALL INCLUDE TILE FLOOR AND WALL FINISHES AND TRIM AND ACCESSORIES. ALL WORK SHALL MEET THE CURRENT EDITION OF THE TILE COUNCIL OF AMERICA (TCA) - HANDBOOK FOR CERAMIC TILE INSTALLATION. PROVIDE MANUFACTURER'S PRODUCT DATA INSTALLATION, CLEANING, AND MAINTENANCE INSTRUCTIONS. PROVIDE FULL SIZE TILE SAMPLES IN EACH COLOR AND CURED GROUT SAMPLES IN EACH COLOR. TILE AND TRIM UNITS SHALL MEET ANSI A137.1, STANDARD GRADE. STATIC COEFFICIENT OF FRICTION FOR FLOOR TILE SHALL BE A MINIMUM 0.60, TESTED TO ASTM C 1028 IN DRY CONDITION. DELIVER MORTAR, ADHESIVE, AND GROUT CONTAINERS BEARING HALLMARK-CERTIFYING COMPLIANCE WITH REFERENCE STANDARDS. PROTECT ADHESIVE CONTAINERS FROM FREEZING AND OVERHEATING ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAINTAIN MINIMUM AMBIENT TEMPERATURE OF 50 DEGREES F DURING AND AFTER INSTALLATION. PROVIDE EXTRA STOCK OF 5 PERCENT OF EACH TILE OR 20 TILES, WHICHEVER IS GREATER. SIZE, COLOR, AND SURFACE FINISH TILE REFER TO FINISH SCHEDULE FOR BEADS, COVES, AND BULLNOSE EDGES. TRIM UNITS, COLOR IS TO MATCH TILE. LATEX-PORTLAND CEMENT MORTAR SHALL BE ANSI A118.4, POLYMER MODIFIED DRY E SHALL BE ANSI A118.3, THIN SET BOND TYPE. ORGANIC ADHESIVE SHALL BE ANSI A136.1, TYPE 2, THIN SET BOND TYPE. WATER SHALL BE CLEAN, POTABLE. GROUT TO BE PORTLAND CEMENT TYPE: ANSI A118.6, POLYMER MODIFIED DRY SET TYPE, SANDED. EPOXY TYPE: A118.3. REFER TO FINISH SCHEDULE FOR COLORS. FOR JOINT SEALERS SEE DIVISION 07. CLEAN SURFACES TO REMOVE LOOSE AND FOREIGN MATTER THAT COULD IMPAIR ADHESION. REMOVE RIDGES AND PROJECTIONS. FILL VOIDS AND DEPRESSIONS WITH PATCHING COMPOUND COMPATIBLE WITH SETTING MATERIALS. MAXIMUM VARIATION ALLOWABLE SUBSTRATE TOLERANCES IN SUBSTRATE SURFACE: 1/8 INCH IN 8 FEET. MAXIMUM HEIGHT ALLOWABLE SUBSTRATE TOLERANCES OF ABRUPT IRREGULARITIES: 1/32 INCH. USE ANSI A108.4 THIN SET WITH ORGANIC ADHESIVE METHOD FOR WALLS. USE ANSI A108.6, THIN SET WITH EPOXY ADHESIVE. OTHER LOCATIONS USE METHOD ANSI A108.5, THIN SET WITH LATEX-PORTLAND CEMENT MORTAR. MINIMIZE PIECES LESS THAN ONE HALF SIZE. LOCATE CUTS TO BE INCONSPICUOUS. LAY TILE TO PATTERN SHOWN ON DRAWINGS OR FURNISHED BY ARCHITECT. DO NOT INTERRUPT TILE PATTERN THROUGH OPENINGS. PLACE TILE JOINTS UNIFORM IN WIDTH. ALIGN JOINTS IN WALL AND FLOOR OF SAME-SIZED TILE. FIT TILE AROUND PROJECTIONS AND AT PERIMETER. SMOOTH AND CLEAN CUT EDGES. ENSURE THAT TRIM WILL COMPLETELY COVER CUT EDGES. TRIM INSIDE CORNERS SHALL BE COVE UNITS. OUTSIDE CORNERS SHALL BE BE BULL-NOSED UNITS. BASE TRIM SHALL BE BASE UNITS. EXPOSED TILE ENDS SHALL BE BULL-NOSE UNITS. SOUND TILE AFTER SETTING AND BEFORE GROUTING.

REPLACE HOLLOW SOUNDING UNITS. ALLOW TILE TO SET FOR A MINIMUM OF 48 HOURS BEFORE GROUTING. GROUT TILE JOINTS IN ACCORDANCE WITH ANSI A108.10 WITHOUT EXCESS GROUT. PROVIDE CONTROL JOINTS AT FOLLOWING LOCATIONS: CHANGES IN BACKUP MATERIAL, CHANGES IN PLANE, OVER JOINTS IN SUBSTRATE, MAXIMUM 36 FEET ON CENTER. FORM JOINTS PER TCA METHOD EJ-171. INSTALL JOINT BACKING AND JOINT SEALER IN ALL TILE FLOORS, PROVIDE PROPOSED SEALER. REMOVE AND REPLACE PIECES THAT HAVE BEEN DAMAGED DURING INSTALLATION. PROVIDE PROTECTION FOR COMPLETED WORK USING NON-STAINING SHEET COVERINGS. PROHIBIT TRAFFIC ON TILE FLOORS FOR MINIMUM 3 DAYS AFTER INSTALLATION.

TOILET ROOM FLOOR TILE: PROVIDE AND INSTALL POTENZA GLAZED PORCELAIN 12" X 24" AS MANUFACTURED BY EMSER TILE. USE 3/16-INCH JOINTS LAID IN 1/3 OFFSET RUNNING BOND BRICK HORIZONTAL PATTERN. COLOR OF TILE TO BE SELECTED BY THE ARCHITECT. GROUT COLOR TO BE MAPEI AS SELECTED BY THE ARCHITECT. USE TCA SPECIFICATION F113 FOR THIN-SET CERAMIC FLOOR TILE ON DRY SET MORTAR OR LATEX-PORTLAND CEMENT MORTAR OVER CRACK ISOLATION MATT ON THE CONCRETE SUB FLOOR. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

TOLIET ROOM WAINSCOT WALL TILE: PROVIDE AND INSTALL POTENZA GLAZED PORCELAIN 13" X 13" AS MANUFACTURED BY EMSER TILE. USE 3/16-INCH JOINTS LAID IN STRAIGHT STACKED PATTERN TO 5'-5 $\frac{1}{2}$"± AFF. USE SCHLUTER COVE AT BASE AND SCHLUTER EDGE AT TOP. COLOR OF TILE TO BE SELECTED BY THE ARCHITECT. GROUT COLOR TO BE MAPEI #5105 DRIFTWOOD OR AS SELECTED BY THE ARCHITECT. USE TCA SPECIFICATION W-243 FOR TILE WITH THIN-SET METHOD - DRY-SET OR LATEX PORTLAND CEMENT MORTAR BOND COAT ON GYPSUM BOARD ON STEEL STUDS. FOR SHOWER BASE USE TCA SPECIFICATION W-244 FOR TILE ON DUR-ROCK BOARD ON STEEL STUDS. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

CONDUCTIVE STATIC CONTROL SOLID VINYL TILE :
THE SOLID, HOMOGENEOUS ESD CONDUCTIVE STATIC CONTROL SOLID VINYL TILE SHOWN IN THE FINISH SCHEDULE OR LISTED HEREIN SHALL BE ROPPE ESD CONDUCTIVE STATIC CONTROL FLOORING AS MANUFACTURED BY ROPPE CORPORATION, FOSTORIA, OHIO. IT SHALL BE CONSTRUCTED OF FIRST-QUALITY MATERIALS AND SHALL BE SMOOTH AND FREE FROM IMPERFECTIONS, WHICH DETRACT FROM ITS APPEARANCE. THE ESD STATIC CONTROL SOLID VINYL TILE , CONDUCTIVE, SHALL CONFORM TO ASTM F-1700, CLASS 1, TYPE A. THE RESISTANCE OF THE ESD CONDUCTIVE STATIC CONTROL FLOORING SHALL BE LESS THAN AN AVERAGE OF 1,000,000 OHMS AND SHALL BE MORE THAN AN AVERAGE OF 25,000 OHMS AS TESTED IN ACCORDANCE WITH NFPA 99 2-6.3.8, ASTM F-150, UL 779, AND ANSI/ESD S7.1 AT 10 VOLTS OR 100 VOLTS. THE TILE SHALL BE 1/8" (3.175MM) IN THICKNESS AND OF SIZE 12" X12" AND IN #751 "HAZE GRAY" . ROPPE ROP605 OR ROP604 ESD ADHESIVE MUST BE USED WITH THIS PRODUCT. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

VERIFY THAT CONCRETE FLOORS HAVE CURED A MINIMUM 28 DAYS AND DO NOT EXHIBIT NEGATIVE ALKALINITY, CARBONIZATION, OR DUSTING. CLEAN SUBSTRATE OF LOOSE AND FOREIGN MATTER THAT COULD IMPAIR BOND. FILL CRACKS, VOIDS, AND DEPRESSIONS IN SUBSTRATE WITH LEVELING COMPOUND. GRIND OFF HIGH SPOTS AND PROJECTIONS IN SUBSTRATE; LEAVE SMOOTH AND LEVEL TO 1/4 INCH IN 10 FEET. TEST SUBSTRATE FOR MOISTURE CONTENT TO ASTM F 1869; DO NOT INSTALL FLOORING UNTIL MOISTURE EMISSION LEVEL IS ACCEPTABLE TO FLOORING MANUFACTURER. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. MIX TILE FROM CONTAINER TO ENSURE SHADE VARIATIONS ARE CONSISTENT WHEN TILE IS PLACED. SPREAD ONLY ENOUGH ADHESIVE TO PERMIT INSTALLATION OF MATERIALS BEFORE INITIAL SET. LAY FLOORING WITH JOINTS PARALLEL TO BUILDING LINES TO PRODUCE SYMMETRICAL TILE PATTERN. INSTALL TILE TO PATTERN DIRECTED BY OWNER. ALLOW MINIMUM 1/2 FULL SIZE TILE WIDTH AT ROOM OR AREA PERIMETER. SET FLOORING IN PLACE; PRESS WITH HEAVY ROLLER TO ATTAIN FULL ADHESION. SCRIBE FLOORING TO WALLS, COLUMNS, CABINETS, AND OTHER APPURTENANCES TO PRODUCE TIGHT JOINTS. ENSURE THAT BASE, TRIM, PLATES, OR ESCUTCHEONS WILL COMPLETELY COVER CUT EDGES. EXTEND TILE INTO RECESSES AND UNDER EQUIPMENT. TERMINATE FLOORING AT CENTERLINE OF DOOR OPENINGS WHERE ADJACENT FLOOR FINISH IS DISSIMILAR. INSTALL WHERE TILE STOPS WITH EDGE EXPOSED; SET IN ADHESIVE. CENTER STRIPS UNDER DOORS WHERE FLOORING TERMINATES AT DOOR OPENINGS. INSTALL IN LONGEST PRACTICAL LENGTHS; BUTT ENDS TIGHT. SCRIBE TO ABUTTING SURFACES. APPLY ADHESIVE UNIFORMLY OVER SUBSTRATE; REMOVE ADHESIVE THAT HAS DRIED OR FILMED OVER. ACCURATELY CUT TO REQUIRED SIZES. FIT FRONT LIP TIGHT TO RISERS. CORRECT TILES THAT ARE NOT SEATED; REPLACE DAMAGED TILES. CLEAN TILE, WAX, AND MACHINE BUFF IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW TRAFFIC ON FLOORING UNTIL ADHESIVE HAS SET. COVER AREAS SUBJECT TO TRAFFIC WITH PROTECTIVE COVERING.

PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE. S UBMIT MANUFACTURER'S RECOMMENDED MAINTENANCE PRACTICES FOR THE OF TILE FLOORING AND ACCESSORIES REQUIRED. SUBMIT MANUFACTURER'S TECHNICAL DATA FOR EACH TYPE OF TILE AND ACCESSORY AND SUBMIT SAMPLES OF THE TILE REQUIRED. REFER TO FINISH SCHEDULE FOR LOCATIONS

CARPET TILES:
CARPET SHALL BE 24" X 24" MULTI-LEVEL PATTERN LOOP CARPET TILES SET IN A QUARTER TURN PATTERN. SHALL BE AS MANUFACTURED BY SHAW "CREATIVE ZONE" STYLE #5T596 OR EQUIVALENT AS SELECTED BY THE ARCHITECT. WORK SHALL INCLUDE CARPET, TRANSITION STRIP AND ACCESSORIES. PROVIDE SHOP DRAWINGS WHICH INDICATE CARPET LOCATIONS, DYE LOT LIMITATIONS, DIRECTION OF CARPET IN EACH ROOM OR AREA, AND TYPE AND LOCATION OF EDGINGS. PROVIDE SAMPLES OF CARPET: 12 X 12 INCH SAMPLES. INSTALLER SHALL HAVE A MINIMUM 2 YEARS DOCUMENTED EXPERIENCE IN WORK OF THIS SECTION. CARPET SHALL BE CLASS I RATED, TESTED TO NFPA 253. DO NOT BEGIN INSTALLATION UNTIL PAINTING AND FINISHING WORK HAVE BEEN COMPLETED. ENVIRONMENTAL REQUIREMENTS: TEMPERATURE OF SPACES AND SUB-FLOOR BETWEEN 65 AND 90 DEGREES F. HUMIDITY IN SPACES TO RECEIVE CARPET BETWEEN 20 AND 65 PERCENT. FURNISH MANUFACTURER'S STANDARD WARRANTIES AS APPLICABLE TO EACH CARPET. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH CARPET. REFER TO FINISH SCHEDULE FOR TYPES AND LOCATIONS OF CARPET. SEAMING MATERIALS SHALL BE AS RECOMMENDED BY CARPET MANUFACTURER. ADHESIVE SHALL BE WATERPROOF, LATEX BASED CEMENT FORMULATED SPECIFICALLY FOR INSTALLING CARPET; RECOMMENDED BY CARPET MANUFACTURER. EDGINGS SHALL BE SCHLUTER OR APPROVED SUBSTITUTE, PROFILE REQUIRED TO SUIT CONDITIONS, COLOR TO BE SELECTED FROM MANUFACTURER'S FULL COLOR RANGE. LEVELING COMPOUND SHALL BE WHITE, PREMIXED, LATEX BASED. VERIFY THAT CONCRETE FLOORS HAVE CURED A MINIMUM 28 DAYS AND DO NOT EXHIBIT NEGATIVE ALKALINITY, CARBONIZATION, OR DUSTING. FOR SUBSTRATE PREPARATION REMOVE LOOSE AND FOREIGN MATTER. FILL CRACKS, VOIDS, AND DEPRESSIONS WITH LEVELING COMPOUND. GRIND RIDGES AND HIGH SPOTS SMOOTH. TEST SUBSTRATE FOR MOISTURE CONTENT TO ASTM F 1869; DO NOT INSTALL CARPET UNTIL MOISTURE EMISSION LEVEL IS ACCEPTABLE TO CARPET MANUFACTURER. INSTALL CARPET AND ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. LAY CARPET TIGHT AND FLAT ON SUB-FLOOR, WELL FASTENED AT EDGES, WITH UNIFORM APPEARANCE. ADHERE CARPET OVER FULL AREA WITHOUT VOIDS. FIT CARPET TIGHT TO ABUTTING SURFACES AND PENETRATIONS WITHOUT GAPS. ENSURE COVERAGE OF CARPET EDGES BY WALL BASE, TRIM, ESCUTCHEONS, AND COVER PLATES. INSTALL TRANSITION STRIPS WHERE CARPET ABUTS DISSIMILAR FLOORING MATERIALS; SECURE TO SUB-FLOOR. CENTER STRIPS UNDER DOORS WHERE CARPET TERMINATES AT DOOR OPENINGS. INSTALL IN LONGEST PRACTICAL LENGTHS; BUTT ENDS TIGHT. SCRIBE TO ABUTTING SURFACES. CLEAN SPOTS AS RECOMMENDED BY CARPET MANUFACTURER. CUT OFF LOOSE THREADS FLUSH WITH TOP SURFACE. CLEAN WITH COMMERCIAL VACUUM CLEANER. REFER TO FINISH SCHEDULE FOR LOCATIONS. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE.

LUXURY VINYL TILE (LVT) RESILIENT FLOORING:
PROVIDE AND INSTALL LVT FLOORING AND ACCESSORIES AS SHOWN ON THE FINISH SCHEDULE AS MANUFACTURED BY MOHAWK GROUP "LIVING LOCAL COLLECTION - PREMIUM WOOD" STYLE #C0194. FINAL COLOR SHALL BE AS SELECTED BY THE ARCHITECT. SHALL BE LAID FRONT TO BACK IN A NORTH-SOUTH DIRECTION IN A RANDOM PATTEN. PROVIDE FACTORY RECOMMENDED PRIMERS, ADHESIVES, SEALANTS AND LEVELING COMPOUNDS. GAUGE: 0.120" (2.5 MM OR 1/8" NOMINAL), LAMINATED CONSTRUCTION: 20-MIL (0.5 MM) WEAR LAYER: 0.03" COMPLY WITH ASTM F 1066, ASTM E648, AND ASTM E662 ,STATIC LOAD LIMIT: ASTM F970(M), 750 PSI, THICKNESS: 3.0MM, PERFORMANCE/GENERAL ASTM F-1066, ABRASION RESISTANCE EN 649: 1996 GROUP T AND, SLIP MEASUREMENT ASTM D2047 >0.5. SUBMIT CERTIFICATION FROM INDEPENDENT TESTING LABORATORY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION THAT LUXURY VINYL TILE COMPLIES WITH THE FOLLOWING FIRE TEST PERFORMANCE REQUIREMENTS: FLAME SPREAD: > 0.45 WATTS/CM2 CLASS I - ASTM E-648 AND SMOKE DENSITY: < 450 PER ASTM E 662. ONLY FACTOR TRAINED AND CERTIFIED INSTALLERS WILL BE ACCEPTABLE. INSTALLER IS TO INSPECT SUB FLOOR SURFACES TO DETERMINE THAT THEY ARE SATISFACTORY. A SATISFACTORY SUB FLOOR SURFACE IS DEFINED AS ONE THAT IS SMOOTH AND FREE FROM CRACKS, HOLES, RIDGES, OR COATINGS PREVENTING ADHESIVE BOND AND OTHER DEFECTS IMPAIRING PERFORMANCE OR APPEARANCE. ON CONCRETE SUB FLOORS, VERIFY THAT CONCRETE SLABS COMPLY WITH ASTM F710 AND THAT SLAB SUBSTRATES ARE DRY AND FREE OF CURING COMPOUNDS, SEALERS, HARDENERS AND OTHER MATERIALS THAT MAY INTERFERE WITH ADHESIVE BOND. DETERMINE ADHESION AND DRYNESS CHARACTERISTICS BY PERFORMING BOND AND MOISTURE TESTS RECOMMENDED BY FLOORING MANUFACTURER. DO NOT ALLOW PREMIUM VINYL TILE WORK TO PROCEED UNTIL SUB FLOOR SURFACES ARE SATISFACTORY. PREPARE SUB FLOOR SURFACE AS FOLLOWS: INSPECTION OF EXISTING SUB FLOOR IS REQUIRED TO ENSURE A SOLID, DRY, CLEAN SUB-FLOOR FOR THE INSTALLATION OF ALL MATERIALS. USE CEMENTITIOUS LEVELING AND PATCHING COMPOUNDS AS RECOMMENDED BY THE VINYL TILE MANUFACTURER FOR FILLING SMALL CRACKS, HOLES AND DEPRESSIONS AND LEVELING SUB FLOORS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR LEVELING EXISTING FLOORS WHOSE SURFACE VARIES UP TO 5/16". NOTIFY GENERAL CONTRACTOR IN WRITING WHERE SUBSTRATE VARIES MORE THAN ABOVE BEFORE PROCEEDING WITH THE WORK. GYPSUM BASED LEVELING COMPOUNDS WILL NOT BE ACCEPTED. REMOVE COATINGS FROM SUB FLOOR SURFACES THAT WOULD PREVENT ADHESIVE BOND, INCLUDING CURING COMPOUNDS INCOMPATIBLE WITH LUXURY VINYL TILE ADHESIVES, PAINTS, OILS, WAXES AND SEALERS. BROOM CLEAN OR VACUUM SURFACES TO BE COVERED, AND INSPECT SUB FLOOR. INSTALL PRODUCT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS USING ONLY MANUFACTURER'S APPROVED ADHESIVES. REMOVE TEMPORARY COVERINGS AND PROTECTION OF ADJACENT WORK AREAS. REPAIR OR REPLACE DAMAGED INSTALLED PRODUCTS. CLEAN INSTALLED PRODUCTS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS PRIOR TO OWNER'S ACCEPTANCE. PROTECT INSTALLED PRODUCT AND FINISHED SURFACES FROM DAMAGE DURING CONSTRUCTION.

PROVIDE EXTRA STOCK: 5 PERCENT OF LVT. SUBMIT MANUFACTURER'S RECOMMENDED MAINTENANCE PRACTICES FOR THE OF LUXURY VINYL TILE FLOORING AND ACCESSORIES REQUIRED. SUBMIT MANUFACTURER'S TECHNICAL DATA FOR EACH TYPE OF LUXURY VINYL TILE AND ACCESSORY AND SUBMIT SAMPLES OF THE LUXURY VINYL TILE REQUIRED, 6" LONG SAMPLES OF RESILIENT EDGE STRIPS AND 2 1/2 INCH LONG SAMPLES OF LUXURY VINYL TILE ACCESSORIES. REFER TO FINISH SCHEDULE FOR LOCATIONS.

ENTRY MAT:
PROVIDE AND INSTALL WATERHOG CLASSIC ENTRANCE MATS AS MANUFACTURED BY AMERICAN FLOOR MATS. 152 ROLLINS AVENUE #102 ROCKVILLE, MD 20852 800-762-9010; HTTP://WWW.AMERICANFLOORMATS OR EQUIVALENT. COLOR TO BE MEDIUM GREY #600. MATS ARE TO BE MANUFACTURED WITH SURFACE FIBER TYPE: SOLUTION DYED POLYPROPYLENE, OUTSTANDING LIGHTFASTNESS WEIGHT: 24 OZS/SQYD NUB HEIGHT: 1/4" DESIGN: SQUARE "WAFFLE" BACKING TYPE: 100% SBR RUBBER (20% RECYCLED CONTENT) THICKNESS: 0.110" – BORDER; 0.190" NUBS; 0.050" – BETWEEN NUBS DUROMETER: REINFORCED FACE NUBS: FACE NUBS ARE REINFORCED WITH RUBBER TO RESIST CRUSHING, MAINTAINING HIGH PERFORMANCE AND EXTENDING PRODUCT LIFE. "WATER DAM" BORDER: BORDER IS DESIGNED TO HOLD WATER AND DIRT ON MAT KEEPING THEM OFF CARPETS AND FLOORS. UNIQUE RAISED RUBBER BORDER ALLOWS WATERHOG MATS TO HOLD UP TO 1 1/2 GALLONS OF WATER PER SQUARE YARD. SOME STYLES AVAILABLE WITHOUT DAM FOR OUTSIDE USE, SO WATER CAN DRAIN EASILY. • RAISED NUB SURFACE: REMOVES AND TRAPS DIRT AND MOISTURE AND HOLDS IT ON MAT BELOW SHOE LEVEL SO IT IS NOT TRACKED IN. TRIGRIP BACKING: GRIPPING ACTION MINIMIZES MOVEMENT ON MOST CARPETS AND IMPROVES TRACTION ON HARD SURFACES. RUBBER BACKING: LAYS FLAT, WON'T CRACK OR CURL. DURABLE ANTI-STATIC POLYPROPYLENE FACE AND NOT ADVERSELY EFFECTED BY SALT OR ICE MELT. PASSES FLAMMABILITY STANDARD DOC-FF-1-70 • ANTI-STATIC: WATERHOG MATS HAVE A MAXIMUM AVERAGE VOLTAGE OF 1.6 KV AS MEASURED BY THE AATCC 134 ELECTROSTATIC PROPENSITY TEST AND MEETS IBM'S MINIMUM STANDARD FOR ELECTRICAL RESISTANCE (NFPA99).

LAY-IN CEILING PANELS :
PROVIDE AND INSTALL LAY-IN CEILING PANELS IN AN EXPOSED TEE GRID AS SHOWN OR AS INDICATED ON THE DRAWINGS. ALL SYSTEMS SHALL MEET ALL APPLICABLE REQUIREMENTS OF FEDERAL SPECIFICATION SS-S-118B AND "ACOUSTICAL CEILING/USE AND PRACTICE" PUBLISHED BY THE CEILING AND INTERIOR SYSTEMS CONTRACTORS ASSOCIATION (CISCA). PROVIDE THE MANUFACTURER'S TECHNICAL DATA AND SAMPLES OF EACH TYPE IN THE CORRECT COLOR FOR THE ARCHITECT'S REVIEW. ALL CEILING PANELS MUST MEET ALL CODES AND ORDINANCES INCLUDING 2021 IBC STANDARDS. INSTALL ALL WORK IN ACCORDANCE WITH THE QUALITY ASSURANCE PROVISIONS AND ENVIRONMENTAL REQUIREMENTS AS INDICATED IN THE MANUFACTURER'S SPECIFICATIONS BY AN APPROVED INSTALLER. COORDINATE CEILING PANELS WITH ELECTRICAL AND MECHANICAL TRADES AND REVIEW LAYOUT WITH ARCHITECT PRIOR TO INSTALLATION. ALL SOILED, CHIPPED, DAMAGED OR DISCOLORED TILES WILL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE EXTRA STOCK: 5 PERCENT OF EACH TILE. PROVIDE THE FOLLOWING PANELS IN LOCATIONS AS INDICATED ON THE DRAWINGS:

ALL SPACES: NON-RATED, USG INTERIORS, INC. CLASS A "RADAR" 2'X2'X5/8" SLT TEGULAR EDGE, FISSURED LAY-IN, NRC = .55, CAC 33. COLOR IS TO BE "WHITE".

ACOUSTICAL SUSPENSION SYSTEM:
PROVIDE AND INSTALL AN EXPOSED TEE GRID SYSTEM AS SHOWN OR INDICATED ON THE DRAWINGS. ALL MATERIALS SHALL BE INSTALLED SQUARE, LEVEL AND TRUE IN ACCORDANCE WITH ASTM C635-88, ASTM C636-88, AND CISCA. STANDARDS AND SEISMIC BRACED PER THE REQUIREMENTS OF THE 2021 IBC STANDARDS AND ANY LOCAL ORDINANCES. PROVIDE MANUFACTURER'S TECHNICAL DATA AND SAMPLES OF EACH TYPE IN CORRECT COLOR FOR THE ARCHITECT'S REVIEW. AN APPROVED INSTALLER PER THE MANUFACTURER'S SPECIFICATIONS MUST INSTALL ALL MATERIALS. ALL MEMBERS, CLIPS, HANGERS AND SUPPORTS SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE CONDITION. COORDINATE THE LAYOUT OF THE GRID WITH ELECTRICAL AND MECHANICAL TRADES AND REVIEW LAYOUT WITH ARCHITECT PRIOR TO INSTALLATION. ALL EXPOSED GRID SHALL BE CLEANED AND REPAIRS OR REPAINTING COMPLETED BEFORE CEILING PANELS ARE INSTALLED. PROVIDE SEISMIC EDGE SUPPORT PER IBC 2021 AND ICC-ESR-1222 - BERC PERIMETER SEISMIC CONNECTIONS. PROVIDE THE FOLLOWING GRID IN LOCATIONS AS INDICATED ON THE DRAWINGS:

ALL SPACES: NON-RATED, USG INTERIORS, INC CLASS A, DONN DX OR DXL-24, 24"X24"X15/16" EXPOSED, HEAVY DUTY GRID. COLOR IS TO BE "WHITE". PROVIDE ICC-ESR-1222_BERC PERIMETER SEISMIC CONNECTION CODE APPROVED SEISMIC EDGE CLIPS AT PERIMETER OF CEILING AT WALL

DIVISION 10. SPECIALTIES

FIRE EXTINGUISHERS:
PROVIDE AND INSTALL TWO (2) SEMI-RECESSED MOUNTED CABINETS WITH FIRE EXTINGUISHERS AT LOCATIONS SHOWN ON DRAWINGS AND IN ACCORDANCE WITH THE 2021 IFC STANDARD 10-1, SECTION 1-6.9 AND THE 2021 IFC 1002, UL 711 AND NFPA 10. SHALL BE LARSEN ARCHITECTURAL SERIES OR EQUIVALENT SEMI-RECESSED CABINET WITH PORTABLE FIRE EXTINGUISHER. MOUNT AT HEIGHT REQUIRED BY ACCESSIBLE CODE. COLOR OF THE CABINET IS TO BE WHITE AND THE COLOR OF THE EXTINGUISHERS ARE TO BE RED. PROVIDE SHOP DRAWINGS, WHICH INDICATE RECESSED CABINET LOCATIONS AND MOUNTING HEIGHTS, PRODUCT DATA, WHICH INCLUDES DATA ON EXTINGUISHERS AND BRACKETS, OPERATIONAL FEATURES, MATERIALS, FINISHES, AND ANCHORAGE AND MAINTENANCE DATA, WHICH INCLUDE TEST, REFILL, OR RECHARGE SCHEDULES AND RE-CERTIFICATION REQUIREMENTS, UL 299, CAST STEEL TANK, CABINETS SHALL BE A FORMED-STEEL, SIZED TO ACCOMMODATE EXTINGUISHER. FINISHES FOR CABINETS SHALL BE BAKED ENAMEL AND EXTINGUISHERS SHALL BE A BAKED ENAMEL. MOUNTING HARDWARE SHALL BE THE TYPE BEST SUITED TO EACH APPLICATION. INSTALL CABINETS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SECURE RIGIDLY IN PLACE USING FASTENERS BEST SUITED TO SUBSTRATE. PLACE AN EXTINGUISHER IN EACH CABINET.

PROVIDE THE FOLLOWING:
1. ONE 2A:10 BC RATED RECESSED FIRE EXTINGUISHER IN EACH CABINET WITHIN 75 FOOT TRAVEL DISTANCE TO ALL ROOMS - SEE PLANS FOR LOCATIONS.

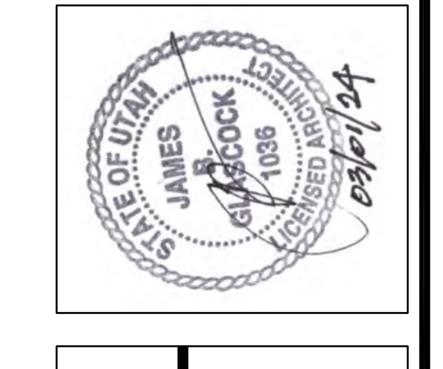
TOILET ACCESSORIES:
WORK SHALL INCLUDE TOILET ACCESSORIES AND ATTACHMENT HARDWARE. PROVIDE PRODUCT DATA OF MANUFACTURER'S BROCHURES SHOWING SIZES, DETAILS OF FUNCTION, FINISHES, AND ATTACHMENT METHODS. CONFORM TO APPLICABLE ACCESSIBILITY CODE FOR LOCATING ACCESSORIES. LABEL KEYS AND FORWARD DIRECTLY TO OWNER. ACCEPTABLE MANUFACTURERS: AMERICAN SPECIALTIES, INC. BOBRICK WASHROOM EQUIPMENT CO. BRADLEY CORP. BROCAR, MCKINNEY/PARKER. MATERIALS SHALL BE STAINLESS STEEL SHEETS SHALL MEET ASTM A 480/A 480M OR ASTM A 666; TYPE 304, ROLLABLE TEMPER AND TUBING: ASTM A 269. GALVANIZED STEEL SHALL BE ASTM A 366. PROVIDE STAINLESS STEEL FASTENERS WHERE EXPOSED, HOT DIP GALVANIZED WHERE CONCEALED; TYPE BEST SUITED TO SUBSTRATE CONDITIONS. USE STAINLESS STEEL FOR EXPOSED SURFACES; GALVANIZED STEEL MAY BE USED IN CONCEALED LOCATIONS. FORM EXPOSED SURFACES FROM SINGLE SHEET OF STOCK, FREE FROM JOINTS, AND FLAT, WITHOUT DISTORTION. WELD JOINTS OF FABRICATED COMPONENTS AND GRIND SMOOTH. FABRICATE GRAB BARS OF TUBING, FREE OF VISIBLE JOINTS, RETURN TO WALL WITH END ATTACHMENT FLANGES. PEEN GRIP SURFACES. FABRICATE SOAP DISPENSERS TO OPERATE WITH LESS THAN 5-POUND FORCE. PROVIDE HANGERS, ADAPTERS, ANCHOR PLATES, AND ACCESSORIES REQUIRED FOR INSTALLATION. KEY LOCKS ALIKE; FURNISH SIX KEYS. SHOP ASSEMBLE UNITS AND PACKAGE COMPLETE WITH ANCHORS AND FITTINGS. FINISHES: STAINLESS STEEL: NO. 4 SATINIZING. GALVANIZING: ASTM A 123/A 123M TO 1.25 OUNCES PER SQUARE FOOT. CHROME PLATING: ASTM B 456, TYPE SC 2, POLISHED FINISH. POLYETHYLENE: WHITE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SET PLUMB, LEVEL, SQUARE, AND RIGIDLY ANCHORED. MOUNT ALL ACCESSORIES AT ADA HEIGHTS PER ANSI A-117.1- 2017. PROVIDE TOILET ACCESSORIES BY BOBRICK OR APPROVED EQUIVALENT AS SHOWN ON THE DRAWINGS AND AS SCHEDULED BELOW:

SOAP DISPENSER:	BOBRICK #B-4112 - WALL MOUNTED
SOAP DISPENSER:	BOBRICK #B-822 - DECK MOUNTED
RECESSED PAPER TOWEL & WASTE RECEPTACLE:	BOBRICK #B-3942 (SEMI-RECESSED)
TOILET TISSUE DISPENSER:	BOBRICK #B-69997 (DOUBLE ROLL)
TOILET SEAT COVER DISPENSER:	BOBRICK #B-221
SANITARY NAPKIN DISPOSAL:	BOBRICK #B-254
TOILET GRAB BARS:	BOBRICK #B-6806 X 42" AT ONE SIDE OF THE TOILET, BOBRICK #B-6806 X 18" VERTICAL, BOBRICK #B-6806 X 36" AT THE BACK OF THE TOILET (THESE ARE TO BE 1-1/2" OD SMOOTH STAINLESS STEEL GRAB RAILS MOUNTED AT 36" ABOVE THE FINISHED FLOOR WITH 1-1/2" CLEARANCE FROM THE WALL)
ROBE HOOK:	BOBRICK #B-76717 (FOR PRIVACY ROOMS W/ SINGLE DOORS)
SIGN:	TACTILE HANDICAP ACCESSIBLE SYMBOL WITH UNISEX (WHITE ON BLUE BACKGROUND)
TOILET RM COUNTER MIRROR:	FULL WIDTH X HGT OF WALL ABOVE CTOP (SEE ELEVATIONS)
SS FRAMED MIRRORS WITH SHELF:	BOBRICK #B-166 - 24 X 36 (NO SHELF)
LAVATORY PIPE PROTECTION:	SEE PLUMBING FIXTURE SCHEDULE
MOP HOLDER:	BOBRICK #B-224 X 36"

TOILET PARTITIONS :
PROVIDE AND INSTALL FLOOR SUPPORTED AND HEAD-RAIL BRACED STEEL TOILET PARTITION AND URINAL SCREEN SYSTEMS "ESSENTIAL PRIVACY - 58" WITH 2-COAT POWDER COATED FINISH AS MANUFACTURED BY AAMCO ALL AMERICAN STRUCTURAL PRODUCTS OR APPROVED EQUIVALENT. STAMPED NAMES OR LABELS ON FACES WILL NOT BE PERMITTED. PROVIDE LOCKS AND MANUFACTURER'S STANDARD HEAVY-DUTY HARDWARE AND ACCESSORIES ON ALL DOORS. ALL PRODUCTS ARE TO BE OF THE SAME MANUFACTURER. MINIMUM STEEL SHEET THICKNESS TO BE: PILASTERS: 18-GAUGE; PANELS: 20-GAUGE; AND, DOORS: 20-GAUGE. CORE MATERIAL TO BE MANUFACTURER'S STANDARD SOUND-DEADENING, DOUBLE-FACED HONEYCOMB, IMPREGNATED KRAFT PAPER CORE. PILASTER HINGES, RECESSED LATCH UNIT WITH COMBINATION RUBBER-FACED DOOR STRIKE AND KEEPER AND RUBBER TIPPED BUMPER AND COAT HOOK. PROVIDE STANDARD EXPOSED FASTENERS AND CONCEALED REINFORCEMENT FOR ANCHORAGES. PROVIDE SAMPLES AND SHOP DRAWINGS FOR THE ARCHITECT'S REVIEW. COLOR TO BE AS SELECTED BY ARCHITECT.

CORNER GUARDS:
PROVIDE SURFACE MOUNTED CORNER GUARDS ON ALL OUTSIDE GYPSUM BOARD FINISHED WALL CORNERS. PROVIDE MANUFACTURER'S COMPLETE AND CURRENT PRODUCT DATA FOR EACH PRODUCT REQUIRED, INCLUDING COMPLETE INSTALLATION REQUIREMENTS. PROVIDE SHOP DRAWINGS SHOWING LOCATIONS OF EACH ITEM AND INSTALLATION DETAILS. PROVIDE ELEVATIONS OF NON-STANDARD CONDITIONS. PROVIDE FOR VERIFICATION PROVIDE SAMPLES OF 12-INCH LONG ASSEMBLIES, INCLUDING ONE END CAP, IN COLOR AS SELECTED BY ARCHITECT. PROVIDE SPECIALTY SURFACE MOUNTED CORNER GUARDS OF 1-1/2-INCH WIDE, 0.080-INCH THICK, FOR INSTALLATION BY ADHESIVE, DOUBLE-FACED TAPE, OR SCREWS. PROVIDE APPROPRIATE FASTENERS AND ACCESSORIES AS REQUIRED TO PROPERLY COMPLETE CORNER GUARD INSTALLATION. VERIFY THAT WALLS ARE IN PROPER CONDITION TO RECEIVE INSTALLATION OF CORNER GUARDS. SURFACE MOUNTED CORNER GUARDS MUST BE INSTALLED AFTER WALL FINISHES HAVE BEEN COMPLETED. INSTALL CORNER GUARDS IN FULL COMPLIANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. VERIFY THAT CORNER GUARDS ARE PLUMB AND RIGIDLY SECURED TO SUBSTRATE; MAKE ANY ADJUSTMENTS REQUIRED. CLEAN CORNER GUARDS AND IMMEDIATE AREAS OF INSTALLATION, USING MATERIALS AND METHODS RECOMMENDED BY MANUFACTURER. REMOVE FROM PROJECT SITE PACKAGING AND DEBRIS CAUSED BY INSTALLATION.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net



NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Project 22-002

Revisions 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date 03/01/24

09A105

DIVISION 10. SPECIALTIES (CONTINUED)

FLAGPOLE SPECIFICATIONS:

PROVIDE ONE ALUMINUM FLAGPOLE AS SHOWN ON DRAWING AND AS SPECIFIED HEREIN, WITH COMPONENTS AS NEEDED FOR A COMPLETE INSTALLATION. FLAGPOLE SHALL BE MANUFACTURER, SUBJECT TO COMPLIANCE WITH REQUIREMENTS, SHALL BE: AMERICAN FLAGPOLE (OR APPROVED EQUIVALENT), 26252 HILLMAN HIGHWAY ABINGDON, VA 24210. 1.800.368.7171 (TELEPHONE). WWW.AMERICANFLAGPOLE.COM . LOCAL SUPPLIER IS COLONIAL FLAG IN SANDY, UTAH. STRUCTURAL PERFORMANCE: PROVIDE FLAGPOLES CAPABLE OF WITHSTANDING THE EFFECTS OF WIND LOADS AS DETERMINED ACCORDING TO NAAMM FP 1001-07, "GUIDE SPECIFICATIONS FOR DESIGN OF METAL FLAGPOLES" OR TO SPECIFIED WIND SPEED, WHICHEVER IS MORE STRINGENT. BASE FLAGPOLE DESIGN ON MAXIMUM STANDARD SIZE NYLON FLAG SUITABLE FOR USE WITH POLE OR FLAG SIZE INDICATED, WHICHEVER IS MORE STRINGENT. PROVIDE PRODUCT DATA FOR EACH TYPE OF FLAGPOLE REQUIRED, SUBMIT MANUFACTURER'S TECHNICAL DATA AND STANDARD INSTALLATION INSTRUCTIONS. ON SHOP DRAWINGS, SHOW GENERAL LAYOUT, JOINTING, ANCHORAGE, SUPPORT SYSTEMS, AND ACCESSORIES. PROVIDE FINISH SAMPLES FOR EACH FINISHED METAL USED ON FLAGPOLES, AS MAY BE REQUIRED. OBTAIN FLAGPOLE AS A COMPLETE UNIT FROM MANUFACTURER, INCLUDING FITTINGS, ACCESSORIES, BASES, AND ANCHORAGE DEVICES. SPIRAL WRAP FLAGPOLES WITH A HEAVY KRAFT PAPER OR OTHER LIGHTWEIGHT WRAPPING AND ENCLOSE IN A HARD FIBER TUBE OR OTHER PROTECTIVE MEANS. STORE BARE FLAGPOLES IN A DRY LOCATION, PROTECTED FROM THE WEATHER AND MOISTURE, AS RECOMMENDED BY THE MANUFACTURER. SHIP TO PROJECT SITE IN ONE PIECE OR AS SPECIFIED. IF MORE THAN ONE PIECE IS NECESSARY, PROVIDE SNUG FITTING PRECISION JOINTS WITH SELF-ALIGNING, INTERNAL SPLICING SLEEVE ARRANGEMENTS FOR WEATHER TIGHT, HAIRLINE FIELD JOINTS.

ALUMINUM FLAGPOLE CONSTRUCTION, FABRICATE FROM SEAMLESS, EXTRUDED TUBING COMPLYING WITH ASTM B 221, ALLOY 6063-T6, HAVING A TENSILE STRENGTH NOT LESS THAN 30,000 PSI WITH A YIELD POINT OF 25,000 PSI. HEAT TREAT AFTER FABRICATION TO COMPLY WITH ASTM B 597, TEMPER T6. PROVIDE CONE-TAPERED FLAGPOLES, PER MANUFACTURER'S STANDARD RATE OF TAPER. ASSEMBLY CONSTRUCTION: IWW FLAGPOLE, 35 FEET NOMINAL MOUNTING HEIGHT, WITH A MINIMUM BASE WALL THICKNESS OF 0.156 INCHES, AND A 7 INCH BUTT DIAMETER. SHIP TO PROJECT SITE IN ONE PIECE. BASE PLATE SHALL BE CAST ALUMINUM SHOE BASE FOR ANCHOR BOLT MOUNTING, WITH (4) FOUR GALVANIZED STEEL ANCHOR BOLTS AND HEX NUTS, AS REQUIRED. FINIAL BALL SHALL BE MANUFACTURER'S STANDARD FLUSH SEAM BALL, SIZED AS INDICATED OR, IF NOT INDICATED, TO MATCH POLE BUTT DIAMETER. SPUN ALUMINUM WITH GOLD ANODIZED FINISH. INTERNAL HALYARD TRUCK ASSEMBLY WITH HOOD FOR CABLE: CAST ALUMINUM NON-FOULING REVOLVING WITH SINGLE PULLEY MOUNTED INSIDE HOOD, STAINLESS STEEL ROLLER BEARINGS, THREADED SPINDLE FOR ATTACHMENT TO TOP OF POLE, AND BRONZE EXIT BUSHING FOR HALYARD.P ROVIDE WITH STAINLESS STEEL BALL BEARINGS. INTERNAL ROPE HALYARD ASSEMBLY: 5/16" (8 MM) DIAMETER, BRAIDED POLYPROPYLENE HALYARD, PLASTIC COATED COUNTERWEIGHT AND SLING ASSEMBLY. CAM CLEAT WITH STAINLESS STEEL FASTENERS MOUNTED TO ALUMINUM PLATE. CAM CLEAT SHALL BE CONCEALED INSIDE THE FLAGPOLE BEHIND A FLUSH ACCESS DOOR HAVING A CYLINDER LOCK AND CONTINUOUS PIANO HINGE. INTERNAL HALYARD, WINCH SYSTEM: 1/8" (3 MM) STAINLESS STEEL AIRCRAFT CABLE WITH PLASTIC COATED COUNTERWEIGHT AND BEADED SLING ASSEMBLY. MECHANICAL WINCH HAVING AUTOMATIC BRAKE SYSTEM AND OPERATED WITH A REMOVABLE HAND CRANK. WINCH SHALL BE CONCEALED INSIDE THE FLAGPOLE BEHIND A FLUSH ACCESS DOOR HAVING A CYLINDER LOCK AND CONTINUOUS PIANO HINGE. HALYARD FLAG SNAPS: PROVIDE 2 SWIVEL SNAP HOOKS PER HALYARD AS FOLLOWS: CHROME PLATED BRONZE, PROVIDED WITH NEOPRENE OR VINYL COVERS. WINCH: MANUALLY OPERATED WINCH SYSTEM WITH REMOVABLE HANDLE. COLLAR: MANUFACTURER'S STANDARD SPUN ALUMINUM FLASH COLLAR TO MATCH FLAGPOLE. CONCRETE: COMPLY WITH REQUIREMENTS OF DIVISION 3 SECTION "CAST IN PLACE CONCRETE".

METAL FINISHES, GENERAL: COMPLY WITH NAAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS" FOR RECOMMENDATIONS FOR APPLYING AND DESIGNATING FINISHES. ALUMINUM: FINISH DESIGNATIONS PREFIXED BY AA CONFORM TO THE SYSTEM ESTABLISHED BY THE ALUMINUM ASSOCIATION FOR DESIGNATING ALUMINUM FINISHES. NATURAL SATIN FINISH: PROVIDE DIRECTIONAL SANDED SATIN FINISH (AA-M33); BUFF COMPLYING WITH AA-M20. BRONZE ANODIC FINISH FOR FINIAL: AA-M32C22A43 (MECHANICAL FINISH: MEDIUM SATIN; CHEMICAL FINISH; ETCHED, MEDIUM MATTE, ANODIC COATING: ARCHITECTURAL CLASS 1, IMPREGNATED COLOR COATING 0.018 MM OR THICKER) COMPLYING WITH AAMMA 611: GOLD COLOR. INSTALL PER FLAGPOLE DETAIL FOR FOUNDATION. EXCAVATE TO NEAT CLEAN LINES IN UNDISTURBED SOIL. REMOVE LOOSE SOIL AND FOREIGN MATTER FROM EXCAVATION AND MOISTEN EARTH BEFORE PLACING CONCRETE. PROVIDE FORMS WHERE REQUIRED DUE TO UNSTABLE SOIL CONDITIONS AND FOR PERIMETER OF FLAGPOLE BASE AT GRADE. SECURE FORMS, FOUNDATION TUBE, FIBERGLASS SLEEVE, OR ANCHOR BOLTS IN POSITION, BRACED TO PREVENT DISPLACEMENT DURING CONCRETING. PLACE CONCRETE IMMEDIATELY AFTER MIXING. COMPACT CONCRETE IN PLACE BY USING VIBRATORS. MOIST-CURE EXPOSED CONCRETE FOR NOT LESS THAN 7 DAYS OR USE A NON-STAINING CURING COMPOUND. TROWEL EXPOSED CONCRETE SURFACES TO A SMOOTH, DENSE FINISH, FREE OF TROWEL MARKS AND UNIFORM IN TEXTURE AND APPEARANCE. PROVIDE POSITIVE SLOPE FOR WATER RUNOFF TO BASE PERIMETER INSTALL FLAGPOLES WHERE SHOWN AND ACCORDING TO SHOP DRAWINGS AND MANUFACTURER'S WRITTEN INSTRUCTIONS. FOUNDATION-TUBE INSTALLATION: INSTALL FLAGPOLE IN FOUNDATION TUBE, SEATED ON BOTTOM PLATE BETWEEN STEEL CENTERING WEDGES. PLUMB FLAGPOLE AND INSTALL HARDWOOD WEDGES TO SECURE FLAGPOLE IN PLACE. PLACE AND COMPACT SAND IN FOUNDATION TUBE AND REMOVE HARDWOOD WEDGES. SEAL TOP OF FOUNDATION TUBE WITH A 2-INCH (50 MM) LAYER OF ELASTOMETRIC SEALANT AND COVER WITH FLASHING COLLAR. BASE PLATE INSTALLATION: INSTALL BASE PLATE OVER ANCHOR BOLTS AND TIGHTEN RETAINING NUTS AND GROUT AROUND BASE WITH 45 DEGREE SLOPE FOR WATER RUNOFF.

FIXED MARKERBOARDS :

PROVIDE FIXED DRY-ERASE NON-MAGNETIC GLASS MARKERBOARDS AS MANUFACTURED BY GLASS MARKERBOARDS: ARROW GLASSWORKS, HOLBROOK, MA 02343 OR EQUIVALENT. PROVIDE SHOP DRAWINGS FOR EACH TYPE OF VISUAL DISPLAY BOARD REQUIRED. PROVIDE TECHNICAL DATA FOR MATERIALS SPECIFIED. PROVIDE SAMPLES TO ILLUSTRATE FINISH AND TEXTURE. PROVIDE MANUFACTURER'S INSTALLATION AND CLEANING INSTRUCTIONS. MANUFACTURER SHALL BE A FIRM ENGAGED IN THE MANUFACTURE OF VISUAL DISPLAY BOARDS IN THE UNITED STATES AND SHALL HAVE A MINIMUM OF 5 YEARS' EXPERIENCE IN THE MANUFACTURE OF VISUAL DISPLAY BOARDS. INCLUDE DATA ON REGULAR CLEANING, STAIN REMOVAL AND PRECAUTIONS. SUBMIT MANUFACTURER'S CERTIFICATION THAT MATERIALS COMPLY WITH SPECIFIC REQUIREMENT AND ARE SUITABLE FOR INTENDED APPLICATION.

FIELD MEASURE PRIOR TO PREPARATION PF THE SHOP DRAWINGS AND FABRICATION TO ENSURE PROPER FIT. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR ACCLIMATING AREA FOR INTERIOR MOISTURE AND TEMPERATURE TO APPROXIMATE NORMAL OCCUPIED CONDITIONS. SCHEDULE DELIVERY OF VISUAL DISPLAY BOARDS WITH SPACES SUFFICIENTLY COMPLETE SO THAT VISUAL DISPLAY BOARDS CAN BE INSTALLED UPON DELIVERY. STORE PRODUCTS IN MANUFACTURER'S UNOPENED PACKAGING UNTIL READY FOR INSTALLATIONS. STORE MATERIALS PROTECTED FROM EXPOSURE TO HARMFUL WEATHER CONDITIONS AND AT TEMPERATURES AND HUMIDITY CONDITIONS RECOMMENDED BY MANUFACTURER. SUBMIT A WARRANTY, STATING THAT UNDER NORMAL USAGE AND MAINTENANCE, AND WHEN INSTALLED IN ACCORDANCE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS WITH A LIFETIME WARRANTY IN NORMAL CONDITIONS, FIVE-YEAR WARRANTY ON GLASS INTEGRITY IN NORMAL CONDITIONS. GUARANTEE COVERS REPLACEMENT OF DEFECTIVE BOARDS BUT DOES NOT INCLUDE COST OF REMOVAL OR REINSTALLATION.

GLASS MARKERBOARD MATERIALS SHALL BE GLASS IS PPG STARPHIRE LOW-IRON GLASS OR LOW-IRON CRYSTAL ETCHED GLASS, THICKNESS STANDARD NOMINAL ¼", STANDARD EDGE SHALL BE A FLAT POLISHED EDGE WITH 1/16" BEVEL. GLASS MARKER WRITING SURFACE SHALL BE A SMOOTH FINISH INTENDED FOR USE WITH DRY-ERASE MARKERS. PROVIDE 4 FT HIGH X 4 FT WIDE AND 4 FT HIGH X 8 FT WIDE GLASS SIZES. BACK PAINTED COLOR SHALL BE WHITE LCBA. MOUNTING METHODS SHALL BE Z-BAR MOUNT HANGER CLIPS - NO VISIBLE MOUNTING HARDWARE. Z-BAR MOUNTING METHOD TO PASS 500 LB. LOAD TEST WITHOUT FAILURE. PROVIDE ALUMINUM ACCESSORY TRAY EQUIPPED WITH DOUBLE-SIDED TAPE AND ONE SET OF MARKER PENS AND ERASER FOR EACH BOARD.

INTERIOR MOISTURE AND TEMPERATURE SHOULD APPROXIMATE NORMAL OCCUPIED CONDITIONS. VERIFY THAT WALL SURFACES ARE TRUE AND PLUMB AND ARE PREPARED AND READY TO RECEIVE BOARDS. DELIVER FACTORY-BUILT UNITS COMPLETELY ASSEMBLED AND OF DIMENSIONS SHOWN IN DETAIL AND IN ACCORDANCE WITH MANUFACTURER'S SHOP DRAWINGS AS APPROVED BY ARCHITECT. A 1/16" GAP SHALL BE MAINTAINED FOR SPACING BETWEEN PANELS ON LARGE MULTIPLE PIECE INSTALLATIONS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR STORAGE AND HANDLING OF UNITS BEFORE INSTALLATION. DO NOT INSTALL ON DAMP WALLS OR IN DAMP AND HUMID WEATHER WITHOUT HEAT IN THE BUILDING. INSTALL LEVEL AND PLUMB, KEEPING PERIMETER TRIM STRAIGHT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. VERIFY THAT ALL ACCESSORIES ARE INSTALLED AS REQUIRED FOR EACH UNIT. AT COMPLETION OF WORK, CLEAN SURFACES AND TRIM IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, LEAVING ALL MATERIALS READY FOR USE.

DIVISIONS 11. EQUIPMENT

OWNER'S OR TENANT'S EQUIPMENT :

REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF OWNER'S EQUIPMENT AND TO THE MECHANICAL & ELECTRICAL DRAWINGS FOR INSTALLATION REQUIREMENTS. COORDINATE WITH OWNER'S REPRESENTATIVE.

OWNER'S APPLIANCES:

AS NOTED ON THE PLANS, THE OWNER WILL PROVIDE THE APPLIANCES AS INDICATED ON THE PLANS. ALL APPLIANCE ROUGH-INS AND HOOK-UPS ARE TO BE INCLUDED IN THE BASE BIDS OF THE GENERAL CONTRACTOR, PLUMBING, MECHANICAL, ELECTRICAL AND OTHER RELATED SUB-CONTRACTORS. REFER TO THE APPLIANCE LOCATIONS AND RELATED NOTES SHOWN ON THE DRAWINGS.

DIVISION 12. FURNISHINGS

WINDOW TREATMENT - HORIZONTAL LOUVER BLINDS:

FURNISH AND INSTALL HORIZONTAL LOUVER BLINDS. PROVIDE AT ALL EXTERIOR WINDOW LOCATIONS. PROVIDE A 12 INCH SQUARE SAMPLE INCLUDING SPECIFIED ELEMENTS OF FINISHED BLIND. DO NOT FABRICATE BLINDS UNTIL SAMPLE HAS BEEN REVIEWED BY THE ARCHITECT. PROVIDE THE COLOR FROM THE FULL RANGE OF THE MANUFACTURER'S COLORS. FOLLOW MANUFACTURERS ILLUSTRATED STEP-BY-STEP INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS. BLINDS SHALL BE 1-INCH HORIZONTAL BLINDS WITH HEAD CHANNEL, PLASTIC WAND TILTER, CORD LOCK, DRUM AND CRADLES, TILT ROD, END BRACE, INSTALLATION BRACKETS INCLUDING INTERMEDIATE BRACKETS WHERE REQUIRED DUE TO LENGTH, BRAIDED LADDERS, 1 INCH PVC SLATS, BOTTOM RAIL AND LIFT CHORD AND MANUAL OPERATORS AND CONTROLS. APPROVED PRODUCTS INCLUDE GRABER AND LEVELOR. INSPECT EXISTING CONDITIONS AND APPROVE MOUNTING SURFACES AND INSTALLATION CONDITIONS BEFORE PROCEEDING WITH WORK. FIELD VERIFY DIMENSIONS OF OPENINGS PRIOR TO ORDERING MATERIALS. WINDOW TREATMENTS ARE TO BE BID AS A PART OF THE FINISH PACKAGE, THE ARCHITECT IS TO SELECT WINDOW TREATMENT TYPES AND COLORS/FINISHES . ALL WINDOW TREATMENTS ARE TO MEET AND COMPLY WITH THE 2021 IFC AND 2021 IBC CLASS III FLAMESPREAD CLASSIFICATION (INDEX 76-200) IN ALL ROOMS AND/OR AREAS.

OWNER'S FURNISHINGS & FIXTURES :

REFER TO THE ARCHITECTURAL DRAWINGS FOR THE FURNISHINGS AND FIXTURES SCHEDULES AND INSTALLATION REQUIREMENTS. COORDINATE WITH OWNER'S REPRESENTATIVE AND VENDOR.

DIVISION 13. SPECIAL CONSTRUCTION

BUILDING ADDRESS:

AN ADDRESS WILL BE PROVIDED ON THE BUILDING ASSIGNED BY THE WEST BOUNTIFUL CITY ENGINEERING DEPARTMENT. THE NUMBERS AND LETTERS SHALL BE VISIBLE FROM THE STREET AND BE A MINIMUM OF 6" HIGH WITH A STROKE OF 1/2 INCH AND SHALL BE ARABIC. THE ADDRESS SHALL BE A CONTRASTING COLOR OF THE BACKGROUND.THERE WILL BE AN ADDITIONAL MONUMENT SIGN WITH THE SAME SIGNAGE REQUIREMENTS.

OWNER SUPPLIED LOGO:

THE OWNER WILL PROVIDE FOR TW0 (2) LARGE LASER CUT METAL SIGN LOGOS TO BE INSTALLED ON THE BUILDING FACE. REFER TO THE BUILDING ELEVATIONS. THEY WILL ALSO PROVIDE TW0 (2) SMALLER LASER CUT METAL SIGN LOGOS TO BE INSTALLED ON THE PROJECT MONUMENT SIGN. THESE WILL BE INSTALLED BY THIS CONTRACTOR. THE INSTALLATION WILL BE BY BLIND ANCHOR BOLTS INTO THE CMU WALLS. THIS CONTRACTOR IS TO COORDINATE THE ANCHOR REQUIREMENTS WITH THE OWNER PRIOR TO THE LASER CUTTING AND PROVIDE THE ANCHORING SYSTEM TO THESE FOUR (4) SIGNS.

INTERIOR BUILDING SIGNAGE:

OWNER'S INTERIOR SIGNAGE SUPPLIER WILL PROVIDE SIGNS FOR ALL INTERIOR SPACES. THE SIGNS WILL ALSO BE TACTILE.

FIRE DEPARTMENT REQUIRED DOOR SIGNAGE:

AFTER A COMPLETE PLAN REVIEW IS PERFORMED BY THE WEST BOUNTIFUL CITY FIRE MARSHAL, THE REQUIRED ROOM, EXIT AND HALL SIGNAGE WILL BE IDENTIFIED TO BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. AT A MINIMUM PROVIDE THE FOLLOWING SIGNS (COORDINATE SIGN DESIGN AND LOCATION WITH ARCHITECT AND OWNER) AS THE MINIMUM SIGNAGE THAT WILL BE REQUIRED BY THE FIRE DEPT BLDG PERMIT REVIEW AND MUST BE INCLUDED IN THE CONTRACTOR'S BID:

1. PROVIDE ONE EXTERIOR SIGN ON MAIN ENTRY DOORS AT SOUTHEAST AND NORTHWEST, INDICATING "FIRE ALARM PANEL". THE SIGN SHALL HAVE LETTERS A MINIMUM OF 4" HIGH AND A MINIMUM STROKE OF 1/4 INCH. THE LETTERS SHALL BE ARABIC AND SHALL BE A CONTRASTING COLOR TO THE BACKGROUND. THESE SIGNS WILL ALSO INDICATE THE ROOM NUMBER WHERE THE FIRE ALARM PANEL IS LOCATED.
2. PROVIDE ONE EXTERIOR OR INTERIOR SIGN AT DOORS INDICATING A DESCRIPTION OF EACH MECHANICAL, ELECTRICAL AND DATA ROOM.

TACTILE EXIT SIGNS:

PER IBC SECTION 1011.3, PROVIDE TACTILE SIGNS STATING "EXIT" AT EACH EXIT DOOR TO AN EGRESS EXIT DISCHARGE DOOR. SPECIFICALLY THESE WILL BE REQUIRED ON THE SIDE OF THE DOOR IN THE EXIT DIRECTION. COORDINATE THESE SIGNS WITH THE OWNER'S BUILDING SIGNAGE DESIGN AND SUPPLIER.

OCCUPANCY SIGNAGE :

PROVIDE THE FOLLOWING:

1. BOARD ROOM #106: MAXIMUM 31 OCCUPANTS SIGN
2. TRAINING ROOM #107 MAXIMUM 63 OCCUPANTS SIGN

DIVISION 14. CONVEYING SYSTEMS

NO WORK

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH
JAMES B. GLASCOCK
1036
LICENSED ARCHITECT
03/01/24

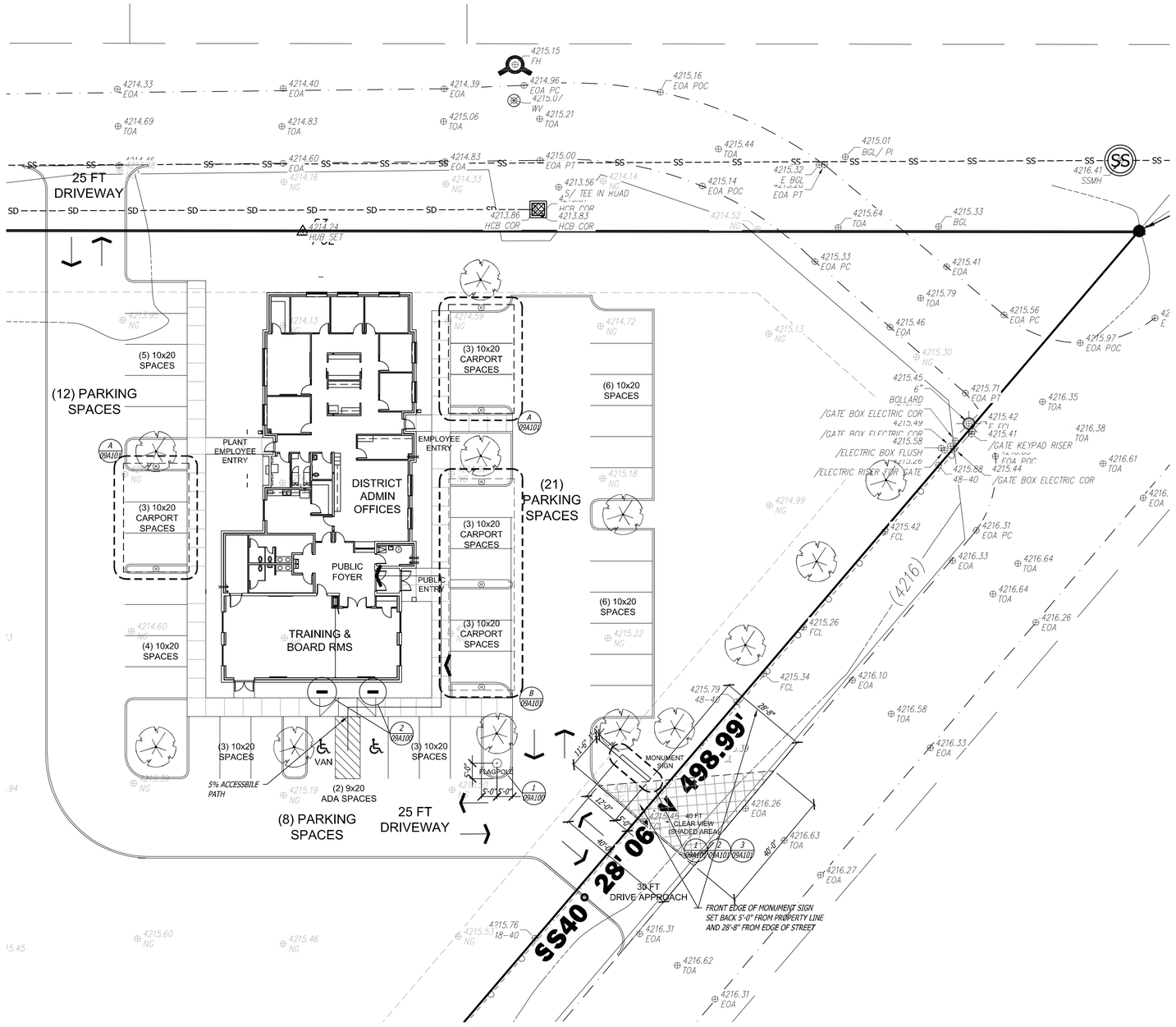
NEW ADMINISTRATION OFFICE BUILDING FOR:
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Project 22-002

Date 03/01/24

Revisions 1 2 3 4 5 6 7 8 9 10 11 12 13 14

09A106

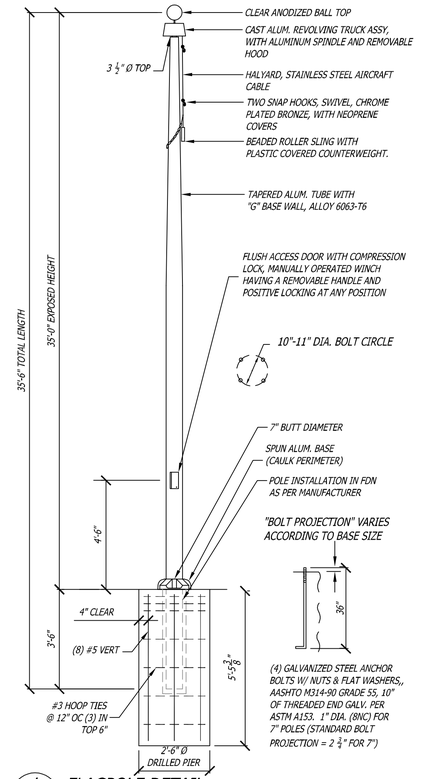


SITE PLAN

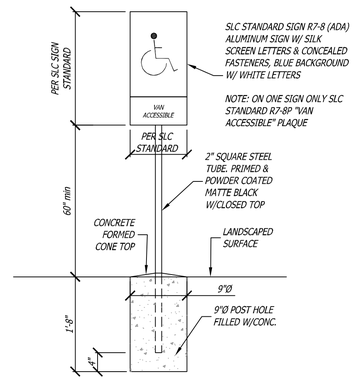
SCALE: 1" = 20'-0"

GRAPHIC SCALE 0 10' 30' 50' / 5' 20' 40'

NORTH



1 09A200 FLAGPOLE DETAIL 3/8" = 1'-0"



2 09A200 HANDICAP ACCESS PARKING SIGN 3/4" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

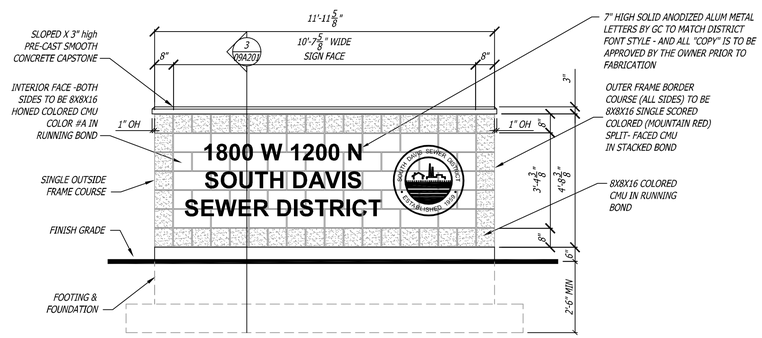
Project 24-001

Revisions

Date 03/01/24

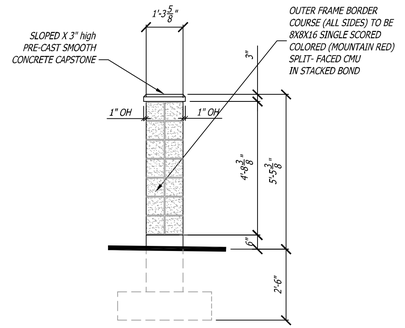
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A200

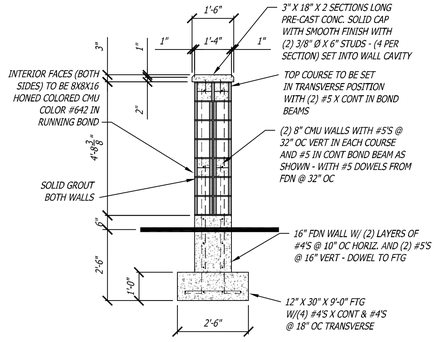


1 09A201 *MONUMENT SIGN - SIGN MIRRORED ON OTHER SIDE*
3/8 = 1'-0"

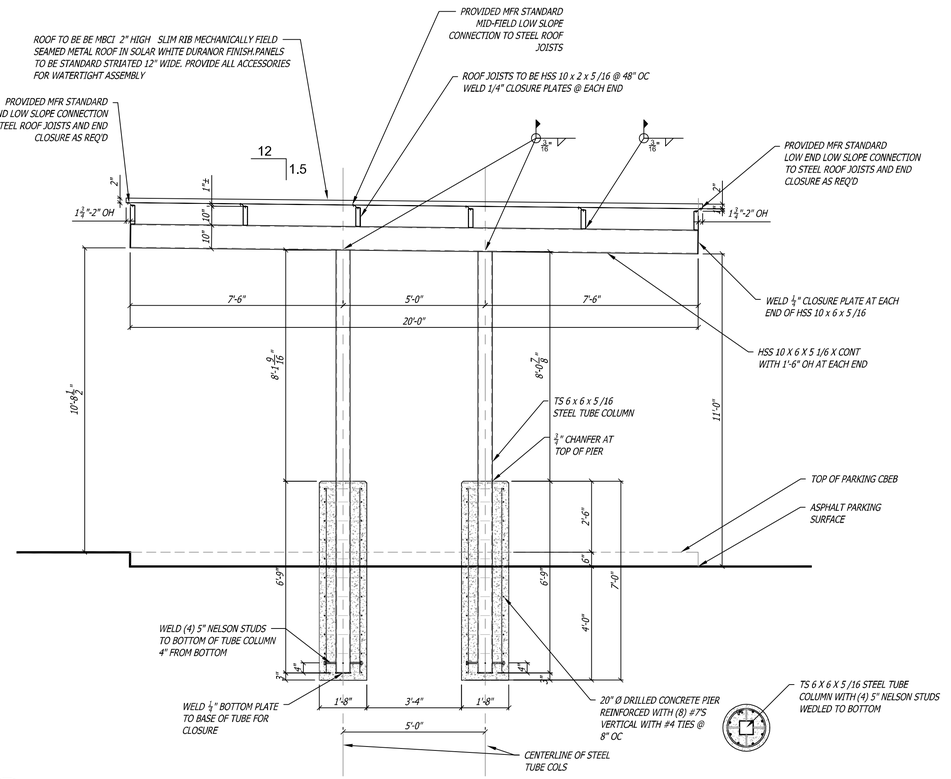
SIGN TO BE GROUND LIT FROM BOTH SIDES - SEE ELECTRICAL SITE PLAN



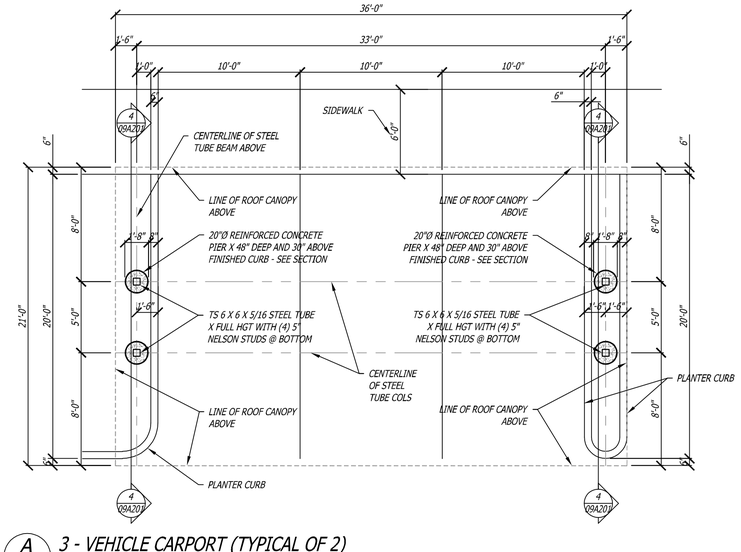
2 09A201 *MONUMENT SIGN SIDE ELEVATION*
3/8" = 1'-0"



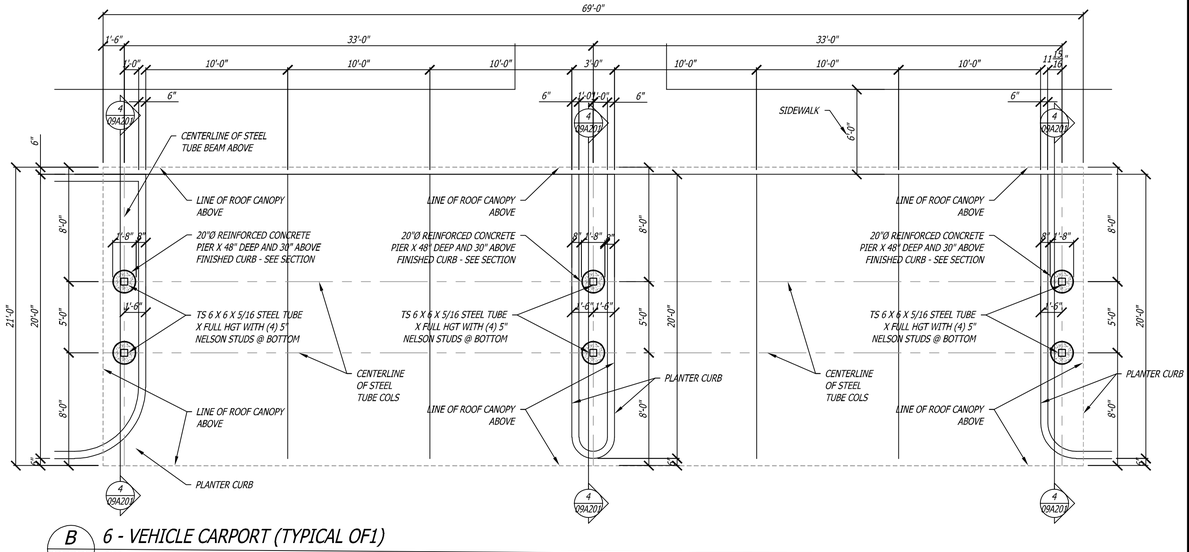
3 09A201 *MONUMENT SIGN SECTION*
3/8" = 1'-0"



4 09A201 *CARPORT SECTION*
3/8" = 1'-0"



A 09A201 *3 - VEHICLE CARPORT (TYPICAL OF 2)*
3/16" = 1'-0"



B 09A201 *6 - VEHICLE CARPORT (TYPICAL OF1)*
3/16" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

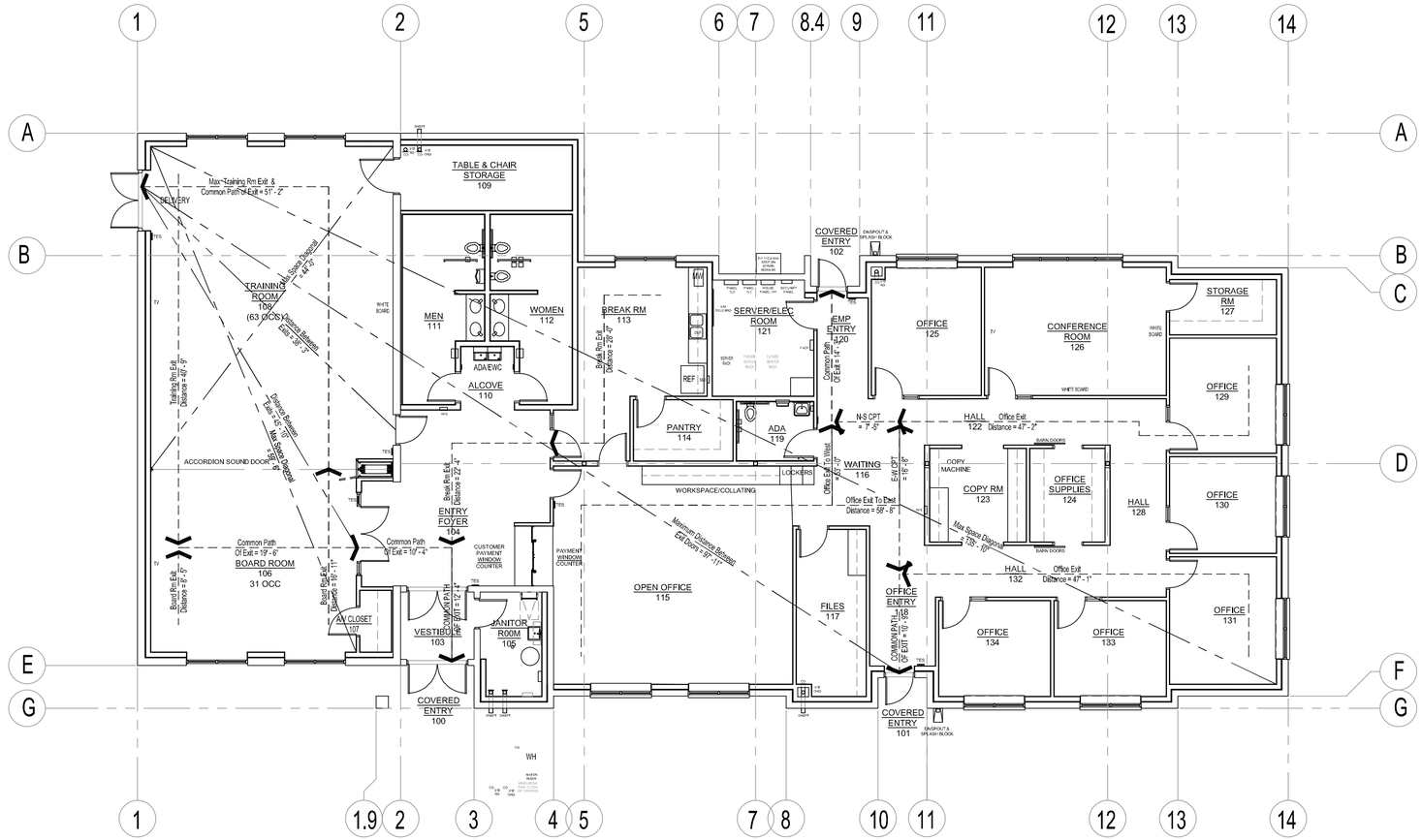
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09A201



EXIT & EGRESS FLOOR PLAN

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

EXIT DISTANCES

GENERAL BUILDING ANALYSIS (REFER TO EXIT DIAGRAM ON THIS SHEET) :

1. *IBC CODE 2021 - OCCUPANT LOADS & EXITS REQUIRED (TABLE 1006.2.1)*
   BOARD ROOM #106 = 458 NET SF / 15 SF / OCCUPANT = 31 OCCUPANTS = 1 EXIT REQUIRED (1 PROVIDED)
   TRAINING ROOM #107 = 941 NET SF / 15 SF / OCCUPANT = 63 OCCUPANTS = 2 EXITS REQUIRED (2 PROVIDED)
   COMBINED BOARD RM + TRAINING RM = 1,399 NET SF / 15 SF / OCCUPANT = 94 OCCUPANTS = 2 EXITS REQ'D (3 PROVIDED)
   REMAINDER OF OFFICE AREA = GROSS BLDG SF = 6,541 SF - 1,615 SF (GROSS SF OF A OCCUPANCY) = 4,926 GROSS SF
   4,926 GROSS SF / 150 SF / OCCUPANT = 33 OCCUPANTS = 1 EXIT REQUIRED (3 PROVIDED).
2. *TOTAL BLDG = 127 OCCUPANTS = 2 EXITS REQUIRED 4 EXITS PROVIDED*
   PER 1007.2.1 MIN DISTANCE BETWEEN EXITS = MAX BLDG DIAGONAL - 135'-10" / 2 = 67'-11" REQUIRED
   AND ACTUAL DISTANCE BETWEEN FURTHEST EXIT DOORS = 97'-11" (OK)
4. *TRAINING ROOM = 2 EXITS REQUIRED. THE MAXIMUM DIAGONAL LENGTH FOR TRAINING ROOM = 44'-0"*
   PER 1007.2.1 MIN DISTANCE BETWEEN EXITS = 44'-0" / 2 = 22'-0"
   ACTUAL DISTANCE BETWEEN EXIT DOORS = 38'-3" > 22'-0" (OK)
5. *COMBINED BOARD ROOM + TRAINING ROOM = 2 EXITS REQUIRED.*
   THE MAXIMUM DIAGONAL LENGTH FOR TRAINING ROOM = 59'-6"
   PER 1007.2.1 MIN DISTANCE BETWEEN EXITS = 59'-6" / 2 = 29'-9"
   ACTUAL DISTANCE BETWEEN EXIT DOORS = 45'-10" > 29'-9" (OK)
6. *MAXIMUM ALLOWABLE HALL DEAD END W/O FS SYSTEM = 20 LF (SECTION 1020.5). THERE ARE NO DEAD END HALLS IN THE BLDG.*
7. *MAXIMUM ALLOWABLE TRAVEL DISTANCE (A OCCUPANCIES) W/O FS SYSTEM = 200 LF (TABLE 1017.2)*
   MAXIMUM ALLOWABLE TRAVEL DISTANCE (A OCCUPANCIES) WITHIN INDIVIDUAL SPACES W/O FS SYSTEM = 75 LF (TABLE 1006.3.4)
   MAXIMUM ALLOWABLE COMMON PATH OF TRAVEL (A OCCUPANCIES) W/O FS SYSTEM = 75 LF (TABLE 1006.2.1)
8. *MAXIMUM ALLOWABLE TRAVEL DISTANCE (B OCCUPANCIES) W/O FS SYSTEM = 200 LF (TABLE 1017.2)*
   MAXIMUM ALLOWABLE TRAVEL DISTANCE (B OCCUPANCIES) WITHIN INDIVIDUAL SPACES W/O FS SYSTEM = 75 LF (TABLE 1006.3.4)
   MAXIMUM ALLOWABLE COMMON PATH OF TRAVEL (B OCCUPANCIES) W/O FS SYSTEM = 75 LF (TABLE 1006.2.1)

INDIVIDUAL SPACE ANALYSIS	*# OF EXITS REQ'D - UNIT DISTANCE + COMMON PATH OF TRAVEL(S)*
BOARD ROOM #106	*EXIT PATH FROM SE CORNER TO NE DOOR = 8'-5" + 19'-6" = 27'-11" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 27'-11" + 10'-4" + 12'-4" = 50'-7" < 200' (OK
BOARD ROOM #106	*EXIT PATH FROM NE CORNER TO SE EXTERIOR DOOR = 16'-11" + 51'-2" = 68'-1' < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 68'-1" < 200' (OK)
TRAINING ROOM #108	*EXIT PATH FROM SE CORNER TO NE DOOR = 40'-9" + 19'-6" = 60'-3" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 60'-3" +10'-4" + 12'-4" = 82'-11" < 200' (OK
TRAINING ROOM #108	*EXIT PATH FROM NE CORNER TO SE EXTERIOR DOOR = 51'-2" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 51'-2" < 200' (OK)
COMBINED ROOMS #106 & 108	*EXIT PATH FROM NE CORNER TO SE EXTERIOR DOOR = 16'-11" + 51'-2" = 69'-1' < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO SE EXTERIOR DOOR = 69'-1" < 200' (OK)
COMBINED ROOMS #106 & 108	*EXIT PATH FROM SE CORNER TO NE DOOR = 40'-9" + 19'-6" = 60'-3" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 60'-3" + 10'-4" + 12'-4" = 82'-11" < 200' (OK)
BREAK ROOM #113	*EXIT PATH FROM NW CORNER TO SE DOOR = 28'-0" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 28'-0" + 22'-4" + 12'-4" = 62'-8" < 200' (OK
OPEN OFFICE #115	*EXIT PATH FROM SE CORNER TO WEST COMMON PATH OF TRAVEL = 53'-0" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO WEST EXTERIOR DOOR = 53'-0" + 14'-7" = 67'-7" < 200' (OK)
OPEN OFFICE #115	*EXIT PATH FROM SE CORNER TO EAST COMMON PATH OF TRAVEL = 58'-8" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 58'-8" + 10'-9" = 69'-5" < 200' (OK)
OFFICE #129	*EXIT PATH FROM NW CORNER TO WEST COMMON PATH OF TRAVEL = 47'-2" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO WEST EXTERIOR DOOR = 47'-2" + 7'-5" + 14'-7" = 69'-2" < 200' (OK)
OFFICE #129	*EXIT PATH FROM NW CORNER TO EAST COMMON PATH OF TRAVEL = 47'-2" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 47'-2" + 16'-8" + 10'-9" = 74'-7" < 200' (OK)
OFFICE #131	*EXIT PATH FROM NE CORNER TO EAST COMMON PATH OF TRAVEL = 47'-1" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 47'-1" + 10'-9" = 57'-10 < 200' (OK)
OFFICE #131	*EXIT PATH FROM NE CORNER TO WEST COMMON PATH OF TRAVEL = 47'-1" + 16'-8" = 69'-9" < 75' (OK)*
	MAXIMUM EXIT DISTANCE TO EAST EXTERIOR DOOR = 69'-9" + 7'-6" + 14'-3" = 91'-6" < 200' (OK)

ALL OTHER SPACES ARE LESS THAN THESE WORST CASE EXIT DISTANCES AND ARE NOT NEEDED TO BE ANALYZED

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES GLASCOCK 11055 REGISTERED ARCHITECT

Project 24-001

Revisions

Date 03/01/24

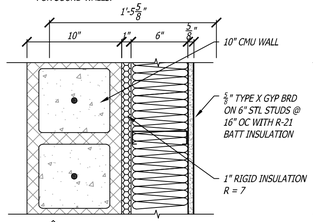
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A300

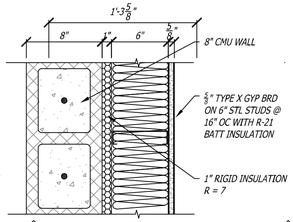
BASIC WALL TYPES

SCALE: 1½" = 1'-0"

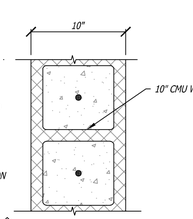
1. SEE FINISH SCHEDULE FOR ADDITIONAL FULL HEIGHT FINISHES TO BE ADDED TO THESE BASIC WALL TYPES
2. 2. ALL STUD WALLS ARE TO RUN FLOOR SLAB TO ROOF ABOVE (ALLOW 1" DEFLECTION).
3. MOST WALL WILL HAVE GYP BOARD STOPPING @ 6" ABOVE GRID EXCEPT AS NOTED ON PLANS OR OTHER DETAILS FOR SOUND WALLS.



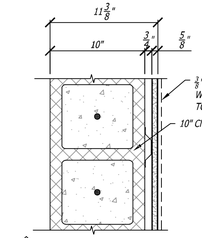
W-1 WALL TYPE 1 — EXTERIOR WALLS



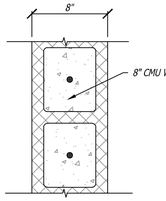
W-2 WALL TYPE 2 — EXTERIOR WALLS



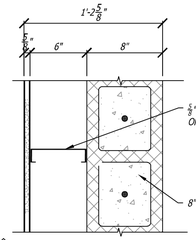
W-3 WALL TYPE 3 — EXTERIOR OR INTERIOR WALLS



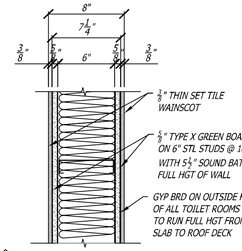
W-4 WALL TYPE 4 — EXTERIOR OR INTERIOR WALLS



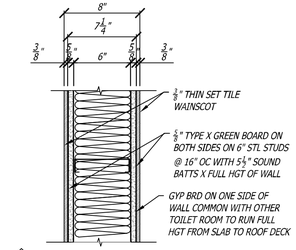
W-5 WALL TYPE 5 — EXTERIOR OR INTERIOR WALLS



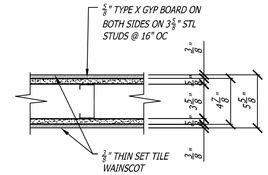
W-6 WALL TYPE 6 — INTERIOR WALLS



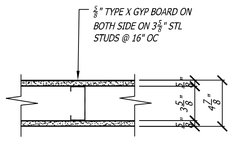
W-7 WALL TYPE 7 — INTERIOR SOUND WALL



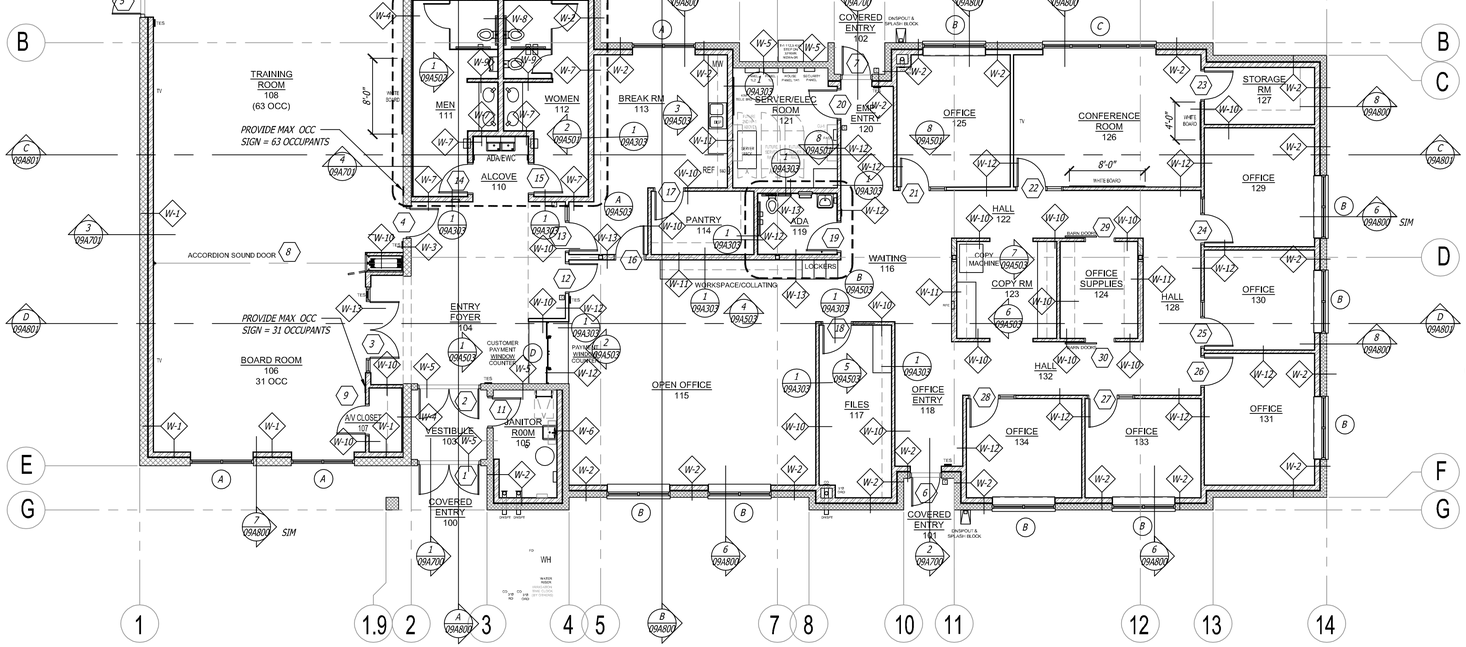
W-8 WALL TYPE 8 — INTERIOR TOILET RM SOUND WALL

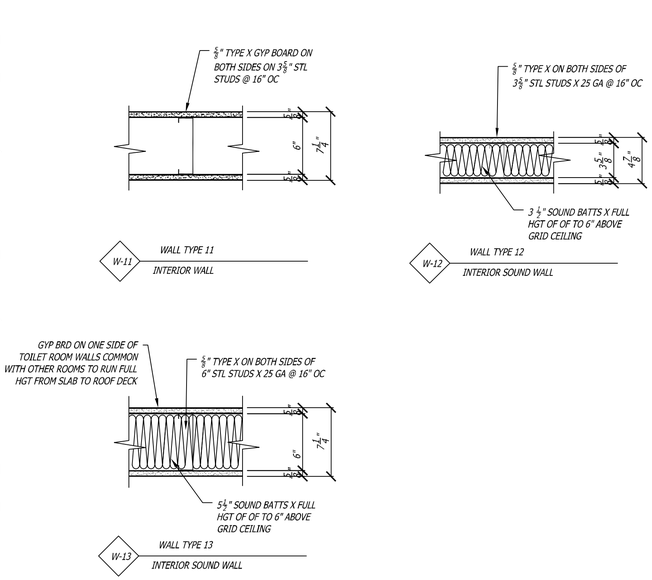


W-9 WALL TYPE 9 — INTERIOR TOILET RM WALL



W-10 WALL TYPE 10 — INTERIOR WALL





FLOOR PLAN

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

BUILDING SF CALCULATIONS:

BOARD ROOM	565 GROSS SF	(458 NET SF)
TRAINING ROOM	1,050 GROSS SF	(940 NET SF)
OFFICE AREA	4,926 GROSS SF	
BUILDING	6,541 GROSS SF	

PLAN NOTES:

ADA	= HANDICAP	RFE	= RECESSED FIRE EXTINGUISHER
EWC	= ELECTRIC WATER COOLER	GB	= 5/8" TYPE X GYP BOARD
TES	= TACTILE EXIT SIGN	STL STD	= STEEL STUD
RD	= MAIN ROOF ROOF DRAIN	C	= CARD READER
ORD	= OVERFLOW ROOF DRAIN	MW	= MICROWAVE
CO	= CLEAN OUT	REF	= REFRIDGERATOR
DNSPOUT	= DOWNSPOUT	DISP	= DISPOSAL
DISC	= DISCONNECT	7	= DOOR NUMBER
XFRMR	= TRANSFORMER	A	= WINDOW NUMBER

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 108 REGISTERED ARCHITECT

Project 24-001

Revisions

Date 03/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A301

PARTITION & FRAMING GENERAL NOTES:

1. PARTITION TYPE INDICATED ARE INDEPENDENT OF APPLIED FINISHES. SEE THE FINISH SCHEDULE AND WALL TYPES FOR WALL FINISHES INCLUDING TILE LAYOUT AND/OR THE DESIGNATIONS ON THE PLANS FOR ADDITIONAL INFORMATION REGARDING APPLIED FINISHES.
2. WHERE PARTITION DESIGNATION ON FLOOR PLANS IS INTERRUPTED BY DOOR OPENINGS, GLAZED PARTITIONS, ETC., CONSTRUCTION ABOVE INTERRUPTION (AND WHERE APPLICABLE BELOW) IS TO BE THE SAME AS THAT DESIGNATED FOR THE PARTITION IN WHICH THE INTERRUPTION OCCURRED & IS TO CONTINUE OVER TOP OF INTERRUPTION.
3. ALL DIMENSIONS ARE FACE OF STUD, CONCRETE, MASONRY OR ROUGH OPENING UNLESS NOTED OTHERWISE.
4. \SEE DETAILS FOR TYPICAL TOP OF WALL CONDITION AT ALL INTERIOR WALLS, STUDS, SOUND BATT INSULATION AND GYPSUM BOARD ARE TO EXTEND TO THE DECK ABOVE.
5. WALL TYPES NOT NOTED ARE ASSUMED TO MATCH ADJACENT ROOMS. SEE OTHER SHEETS FOR FINISHES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
6. SOME METAL STUD PARTITIONS ARE CONSIDERED ACOUSTIC PARTITIONS AND ARE TO RECEIVE A TYPE 1 SOUND ATTENUATION BLANKET. THICKNESS TO MATCH STUD DEPTH, UNLESS NOTED OTHERWISE. REFER TO WALL TYPES AND FINISH SCHEDULE.
7. REFER TO TYPICAL INTERIOR WALL DETAILS ASSOCIATED WITH ALL METAL STUD PARTITIONS.
8. PROVIDE CONTROL JOINTS IN METAL FRAMED WALLS AT APPROXIMATELY 30 FEET ON CENTER. LOCATE AT CORNER ABOVE DOORS OR INSIDE CORNER OF PILASTERS OR OTHER INCONSPICUOUS LOCATION WHERE POSSIBLE. CONSULT WITH ARCHITECT PRIOR TO COMMENCING FRAMING. INSTALL PER CONTROL JOINTS DETAIL.
9. AT WALL OPENINGS FOR PENETRATION OF PIPES, DUCTS, DEVICES, ETC., GYPSUM BOARD IS TO BE CUT TO MATCH THE SHAPE AND DIMENSION OF THE PENETRATING OBJECT AND THE GAP BETWEEN THE OBJECT AND THE WALL IS TO BE SEALED W/ ACOUSTICAL OR FIRE SEALANT ON ALL SIDES WITH A 3/4" JOINT AT ALL SIDES, MAXIMUM. THE OPENING FOR DUCTS OR LARGE PENETRATIONS SHALL BE FRAMED WITH A HEADER, AND AN ANGLED CORNER BRACE IF THE GAP EXCEEDS 3" FROM FRAMING TO THE OPENING.
10. CONTRACTOR TO PROVIDE BLOCKING / BACKING FOR ALL MOUNTED EQUIPMENT. SEE FLOOR PLANS AND INTERIOR ELEVATIONS FOR LOCATION OF CABINETS, GRAB BARS ETC. INSTALL BLOCKING AS DETAILED OR AS REQUIRED TO MOUNT SUCH DEVICES. ALL WOOD BLOCKING IS TO BE FIRE RETARDANT TREATED.
11. WHERE THERE IS LIMITED WATER EXPOSURE: INSTALL ONE LAYER OF 5/8" TYPE X WATER RESISTANT GYPSUM BOARD PER ASTM C1396 (WHERE GYPSUM BOARD OCCURS) ON PARTITION AT THE FOLLOWING LOCATIONS:
    A. WITHIN 2 FEET HORIZONTALLY AND 4 FEET VERTICALLY OF JANITOR'S SINKS
    B. AT OTHER LOCATIONS, I.E. TOILET ROOMS AND BREAK ROOMS, AND IS INDICATED ON THE ARCHITECTURAL FINISH PLANS AND ELEVATIONS.
12. INSTALL ONE LAYER OF 5/8" GLASS MATT TILE BACKER BOARD IN LIEU OF GYPSUM BOARD (WHERE GYPSUM BOARD OCCURS) ON PARTITION WHERE THERE IS NO FIRE RATING AND OVER GYPSUM BOARD FACE LAYER AT FIRE-RATED PARTITIONS AT THE FOLLOWING LOCATIONS.
    A. AT WET LOCATIONS.
    B. WHERE CERAMIC TILE FINISHES ARE INDICATED PER THE FINISH PLANS AND/OR INTERIOR E ELEVATIONS.
    C. AT OTHER LOCATIONS AS INDICATED BY THE ARCHITECTURAL FINISH PLANS AND ELEVATIONS.
13. THE MINIMUM REQUIREMENTS FOR CONSTRUCTION OF EACH PARTITION TYPE ARE INCORPORATED BY REFERENCE AND ARE APPLICABLE TO THE WORK OF THIS PROJECT. HOWEVER, ADDITIONAL AND/OR MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE SPECIFICATIONS AND DRAWINGS. SUCH REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO:
    A. USE 5/8" THICK GYPSUM BOARD THROUGHOUT UNLESS NOTED OTHERWISE.
    B. USE 16" OC MAX STUD SPACING UNLESS NOTED OTHERWISE IN THESE DOCUMENTS. THE SPACING STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MAX SPACING IF ALLOWED IN THESE DOCUMENTS.
    C. USE STUDS OF GAGE INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS. THE GAGE STATED BY THE REFERENCED APPROVAL OR TEST REPORT SHALL BE THE MINIMUM GAGE TESTED, 25 GA (30 MILS) IS THE MINIMUM ALLOWED IN THESE DOCUMENTS.
    D. USE STUDS OF DEPTH INDICATED BY THIS SET OF DOCUMENTS. THE DEPTH STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM DEPTH TESTED DEPTH ALLOWED IN THESE DOCUMENTS.

KEY FOR PARTITION TYPES:

NON-BEARING METAL STUD GAUGE SIZING

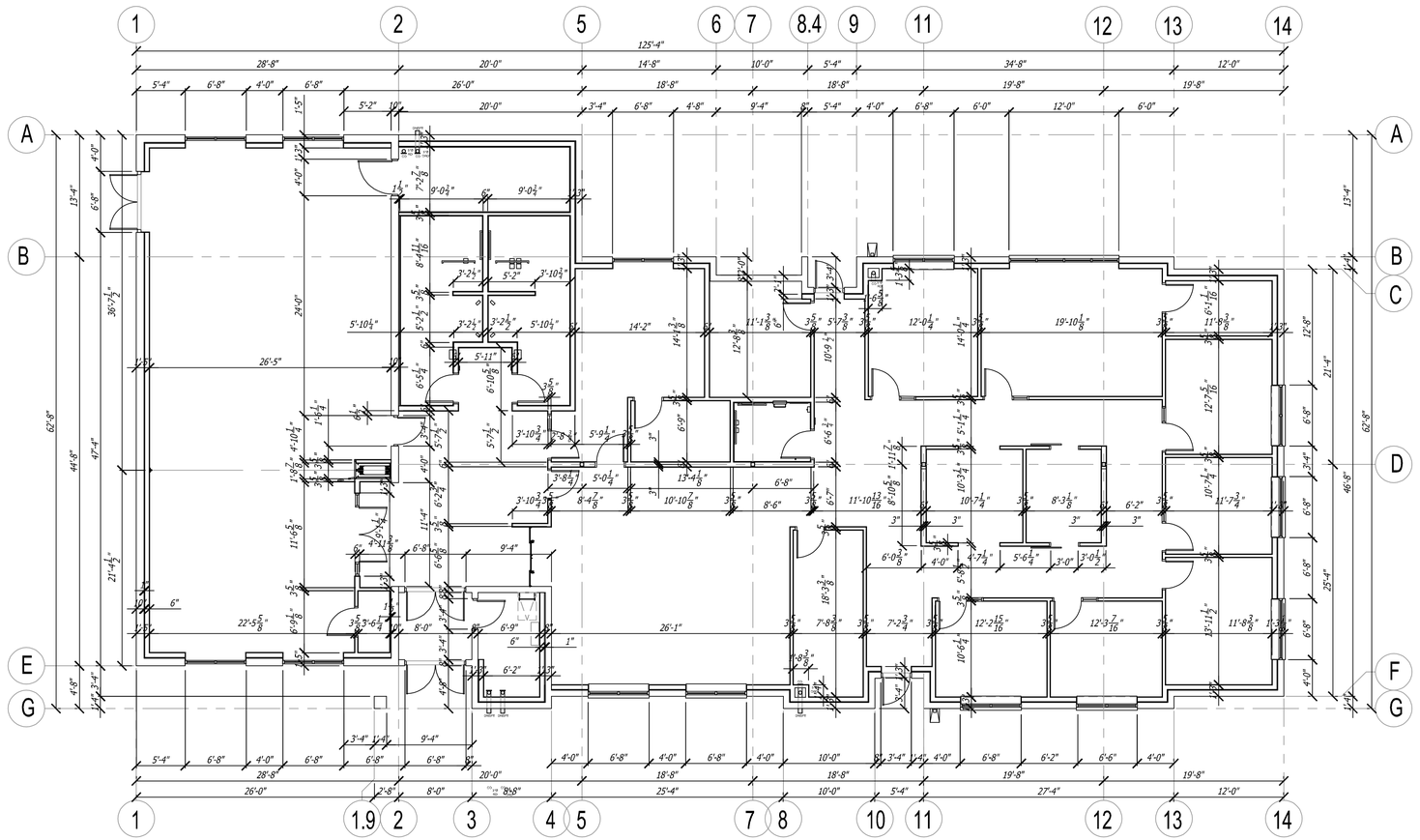
MEMBER DEPTH	MAX STUD HEIGHT	MIN. GA. & SPACING
2-1/2" (250S125-33)	10'-0"	20 @ 16" OC
3-5/8" (362S125-33)	14'-0"	20 @ 16" OC
3-5/8" (362S162-33)	16'-0"	20 @ 16" OC
3-5/8" (362S162-43)	18'-0"	18 @ 16" OC
6" (600s162-33)	24'-0"	20 @ 16" OC
6" (600S162-43)	26'-0"	18 @ 16" OC
6" (600S162-54-50 ksi)	28'-0"	

METAL STUD NOTES:
1. STEEL STUDS SHALL MEET ICC REPORT ER-4943P & THE SSMA STANDARDS.
2. HEIGHT BASED ON CURRENT SSMA CATALOG AND PROJECT REQUIREMENTS.
3. SEE SCHEDULE FOR STUD SPACING AND GAUGE. ALL STUDS AND BRACES SHALL BE 33 KSI UNLESS NOTED OTHERWISE IN THESE DRAWINGS.
4. AT ALL DOORS PROVIDE TWO TABBED 18 GAUGE STUDS AT BOTH SIDES OF JAMB.
5. SEE GENERAL NOTES FOR ADDITIONAL ELEMENTS IN THE INDIVIDUAL WALL TYPES AND SPECIFIC DETAILS, INCLUDING UL RATINGS.

NON-BEARING METAL HEADER SCHEDULE

MAXIMUM SPAN	HEADER	FY
4'-0"	(2) 400S137-43	33 KSI
6'-0"	(2) 600S162-43	33 KSI
8'-0"	(2) 800S162-43	33 KSI

METAL STUD HEADER NOTES:
1. SCHEDULE TO BE USED FOR NON-BEARING WALLS.
2. SEE TYPICAL DETAILS FOR MORE INFORMATION.
3. 4SEE GENERAL NOTES FOR ADDITIONAL ELEMENTS IN THE INDIVIDUAL WALL
4. TYPES AND SPECIFIC DETAILS, INCLUDING UL RATINGS.



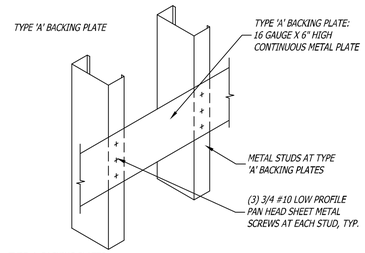
DIMENSION FLOOR PLAN

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

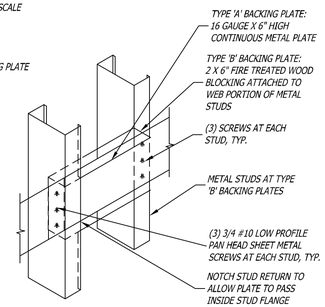
DIMENSION NOTES:
1. ALL INTERIOR DIMENSIONS ARE TO FACE OF NEW OR EXISTING STEEL STUD OR EXISTING GYP BRD.
2. ALL STUD WALLS EXTEND FROM FLOOR SLAB TO ROOF DECK ABOVE - ALLOW 1 DEFLECTION.
3. REFER TO WALL TYPES ON SHEE T 09A303 F OR FINISHES AND THIS SHEET FOR GAUGE OF STEEL STUDS



TYPE 'A' BACKING PLATES:
- AT DOOR STOPS AND BUMPER RAILS
- AT TOILET ACCESSORIES, GRAB BARS, MIRRORS, COAT HOOKS, ETC.
- AT ALL UPPER WALL HUNG CABINETS
- AT ALL BASE CABINETS
- AT ALL FULL HEIGHT CABINETS
-AT WALL MOUNTED ADJUSTABLE SHELVING

1 / 09A302 — TYPICAL TYPE A BACKING PLATE

NOT TO SCALE



TYPE 'B' BACKING PLATES:
TYPE 'B' BACKING PLATE SHALL SUPPORT THE SAME ITEMS AS TYPE "A" BACKING PLATE AT THE CONTRACTOR'S DISCRETION

2 / 09A302 — TYPICAL TYPE B BACKING PLATE

NOT TO SCALE

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES GLASCOCK 10361 REGISTERED ARCHITECT 09/01/24

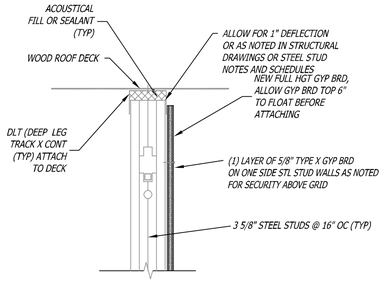
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

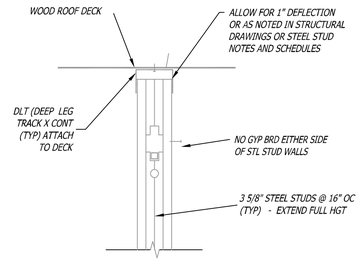
Date 03/01/24

09A302



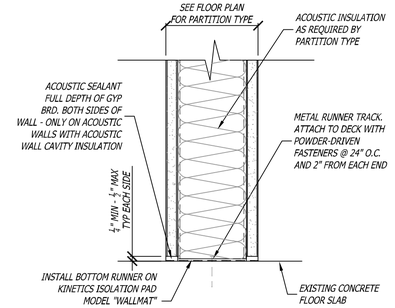
1 09A303 **SLIP TRACK DETAIL @ TOP OF WALL**

1 1/2" = 1'-0" W/ GYP BRD X FULL HGT ONE SIDE



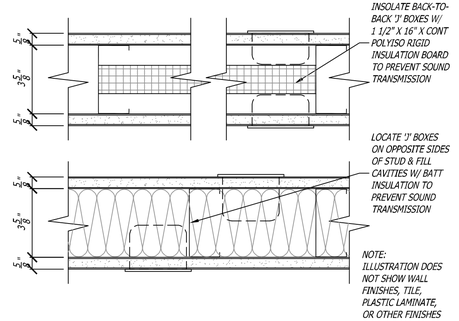
2 09A303 **SLIP TRACK DETAIL @ TOP OF WALL**

1 1/2" = 1'-0"



3 09A303 **TYPICAL ACOUSTIC RATED PARTITION BASE**

3" = 1'-0"



4 09A303 **TYPICAL ELECTRICAL DEVICE DETAIL**

3" = 1'-0" FOR SOUND WALLS ONLY

5 09A303 **TYPICAL NON-SOUND PARTITION BASE**

3" = 1'-0"

NOTE: SEE ROOM FINISH SCHEDULE FOR BASE

6 09A303 **TYPICAL BASE AT TOILET RMS**

3" = 1'-0" AT ADJACENT SPACES

7 09A303 **FIRE EXTINGUISHER CABINET**

3" = 1'-0"

8 09A303 **TYPICAL STUD FRAMED CONTROL JOINT**

3" = 1'-0" LOCATED AT 30'-0" OC" MAXIMUM

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 163086 REGISTERED ARCHITECT 05/01/24

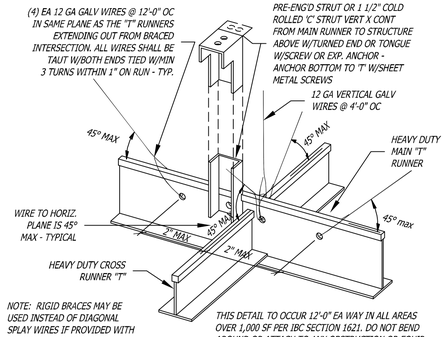
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

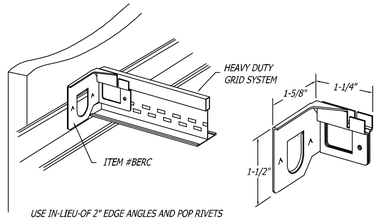
Date 03/01/24

09A303

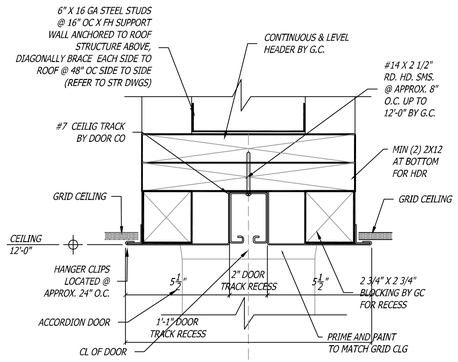


1 GRID CEILING SEISMIC BRACING DETAIL
09A304 NO SCALE

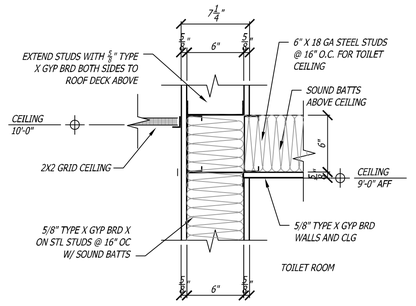
NOTES:
1. PROVIDE PERIMETER WIRES @ 4" OC.
2. CONNECTION TO GRID TO WALL ON TWO (2) ADJACENT WALLS WITH THE OPPOSITE TWO (2) WALL SIDES TO BE ALLOWED TO FLOAT
3. BEAM END RETAINING CLIPS CAN BE USED AS AN ALTERNATIVE TO SPACER BARS IN A SEISMIC CONDITION.
4. BERC - BEAM END RETAINING CLIP - USE IN-LIEU-OF 2" EDGE ANGLES AND POP RIVETS.



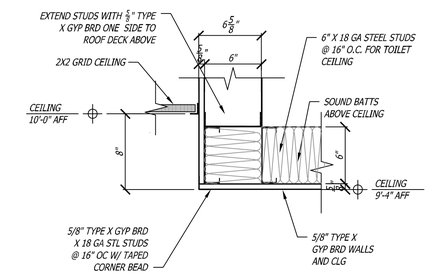
2 GRID CEILING WALL ATTACHMENT
09A304 NTS PER ESR 1222 -12-1277 TYP AT ALL GRID CLG EDGES



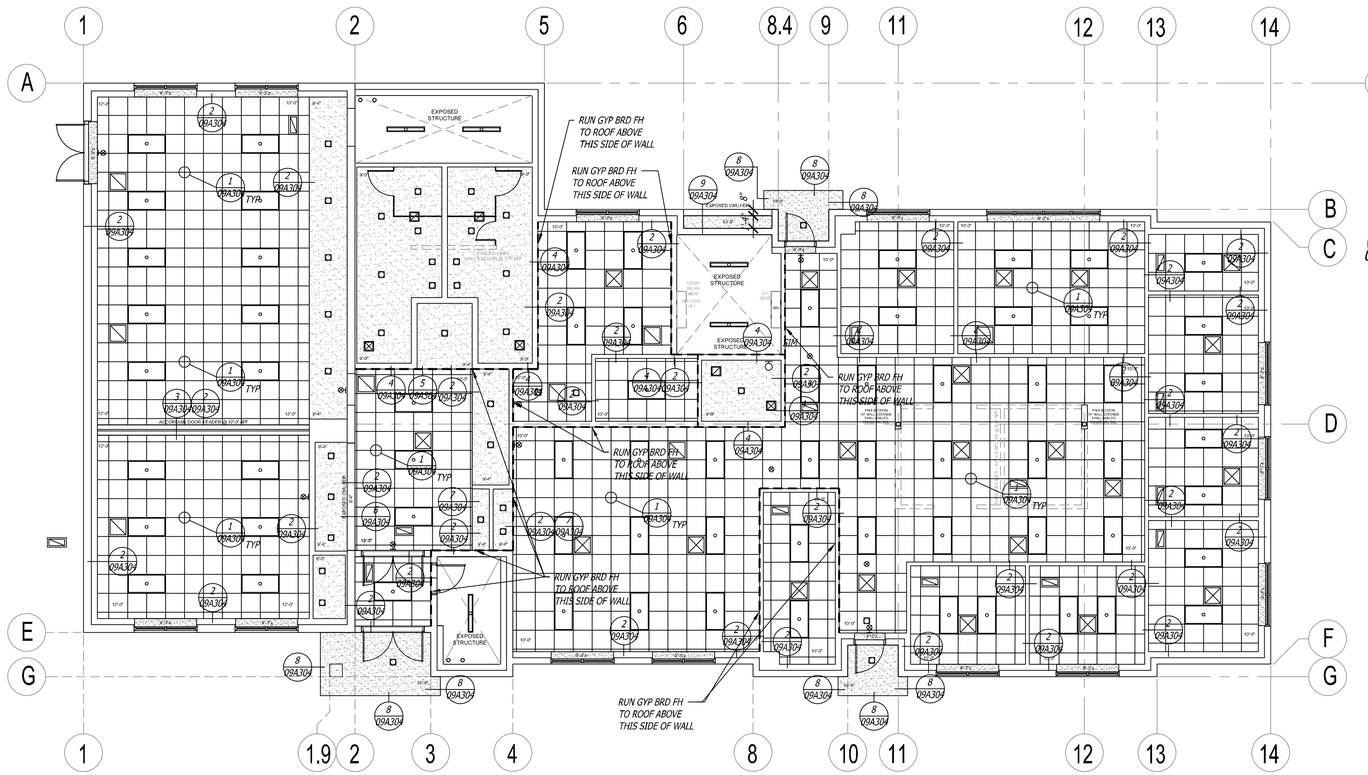
3 ACCORDION DOOR HEAD
09A304 3" = 1'-0" VERIFY DETAIL WITH DOOR MFR



4 TOILET ROOM WALL/CEILING
09A304 1 1/2" = 1'-0" TYPICAL AT ALL TOILET ROOMS



5 CEILING SOFFIT
09A304 1 1/2" = 1'-0" TYPICAL AT ALL GYP BRD SOFFITS AT TOILET VESTIBULE



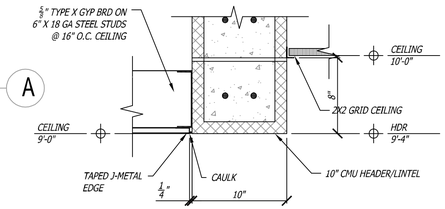
REFLECTED CEILING PLAN

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

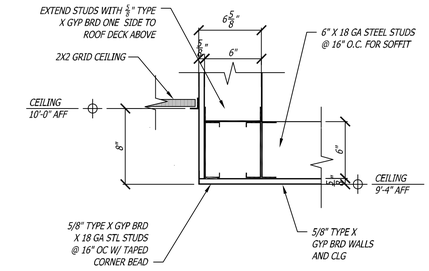
0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

NOTES:
1. THE ENCLOSED CEILING AREAS ARE NOT CONSIDERED A RETURN AIR PLENUM.
2. ALL WALLS IN ROOMS WITH GRID CEILINGS ARE TO HAVE GYP BRD RUN 6" ABOVE THE GRID CEILING EXCEPT FOR WALLS NOTED ON PLANS WHICH ARE TO RUN FULL HEIGHT FOR SOUND ISOLATION BETWEEN ROOMS



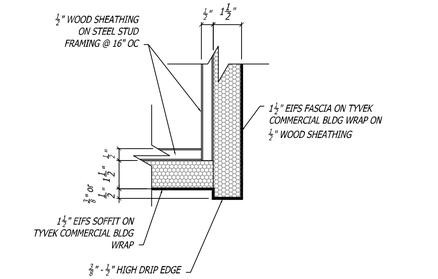
6 CEILING SOFFIT
09A304 1 1/2" = 1'-0" TYPICAL AT ALL GYP BRD SOFFITS



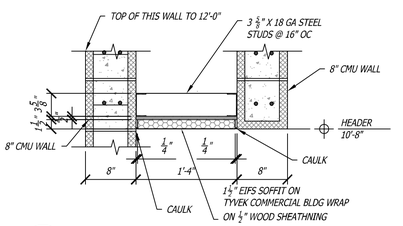
7 CEILING SOFFIT
09A304 1 1/2" = 1'-0" TYPICAL AT ALL GYP BRD SOFFITS

KEY TO SYMBOLS

- 2'X2' NONRATED HEAVY DUTY CEILING TILE & SUSPENDED GRID - WITH SEISMIC BRACING - SEE DETAILS
- 2'X4' GRID MOUNTED LED LIGHT FIXTURE
- 2'X2' GRID MOUNTED LED LIGHT FIXTURE
- 2'X4' GRID MOUNTED EMERGENCY LED LIGHT FIXTURE WITH BATTERY BACK-UP
- PRE-FINISHED NON-RATED SUPPLY AIR DIFFUSER IN 2X4 SUSPENDED GRID CEILING
- PRE-FINISHED NON-RATED RETURN AIR GRILLE IN 2X2 SUSPENDED GRID CEILING
- 5/8" TYPE 'X' INTERIOR OR EXTERIOR GRADE GYP BRD - PRIMED AND PAINTED ON SUSPENDED FRAMING - SEE DETAILS
- (D) (T) CEILING MOUNTED SMOKE OR THERMAL DETECTOR - SEE ELEC
- WALL MOUNTED EXIT SIGN WITH EXIT DIRECTION W/ BATTERY BACK-UP
- CEILING MOUNTED EXIT SIGN WITH EXIT DIRECTION W/ BATTERY BACK-UP
- SURFACE MOUNTED OR EXPOSED LED LIGHT FIXTURE OR J-BOX
- (J)
- RECESSED LED LIGHT FIXTURE
- SURFACE MOUNTED INTERIOR LED WALL LIGHT FIXTURE



8 EIFS SOFFIT DRIP DETAIL
09A304 3" = 1'-0"



9 EIFS SOFFIT
09A304 1" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 10858 REGISTERED ARCHITECT

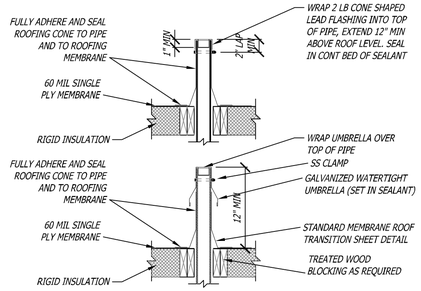
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

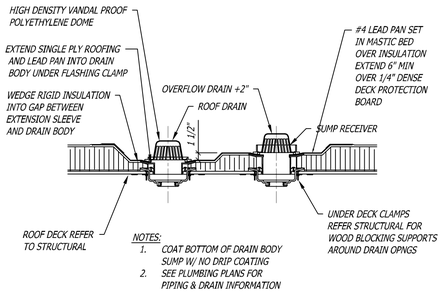
Revisions

Date 03/01/24

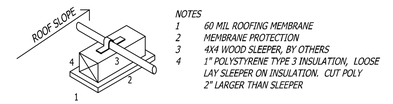
09A304



1 09A400 **ROOF PIPE PENETRATION DETAIL**
NTS VERIFY DETAIL WITH ROOF MFR

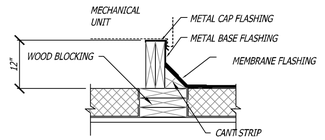


2 09A400 **HIGH/LOW ROOF DRAINS**
NTS VERIFY DETAIL WITH ROOF MFR

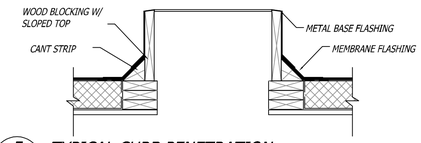


NOTES
1 60 MIL ROOFING MEMBRANE
2 MEMBRANE PROTECTION
3 4X4 WOOD SLEEPER, BY OTHERS
4 1" POLYSTYRENE TYPE 3 INSULATION, LOOSE LAY SLEEPER ON INSULATION. CUT POLY 2" LARGER THAN SLEEPER

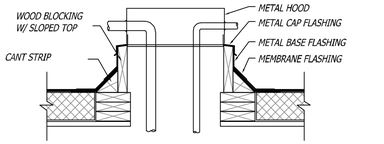
3 09A400 **GAS LINE SUPPORT**
NTS



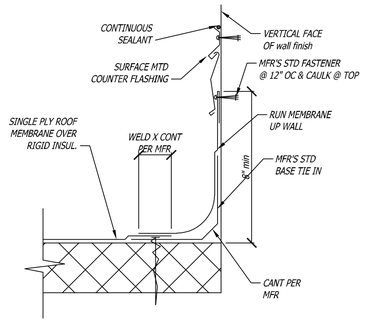
4 09A400 **ROOF MECHANICAL CURB DETAIL**
NTS VERIFY DETAIL WITH ROOF MFR



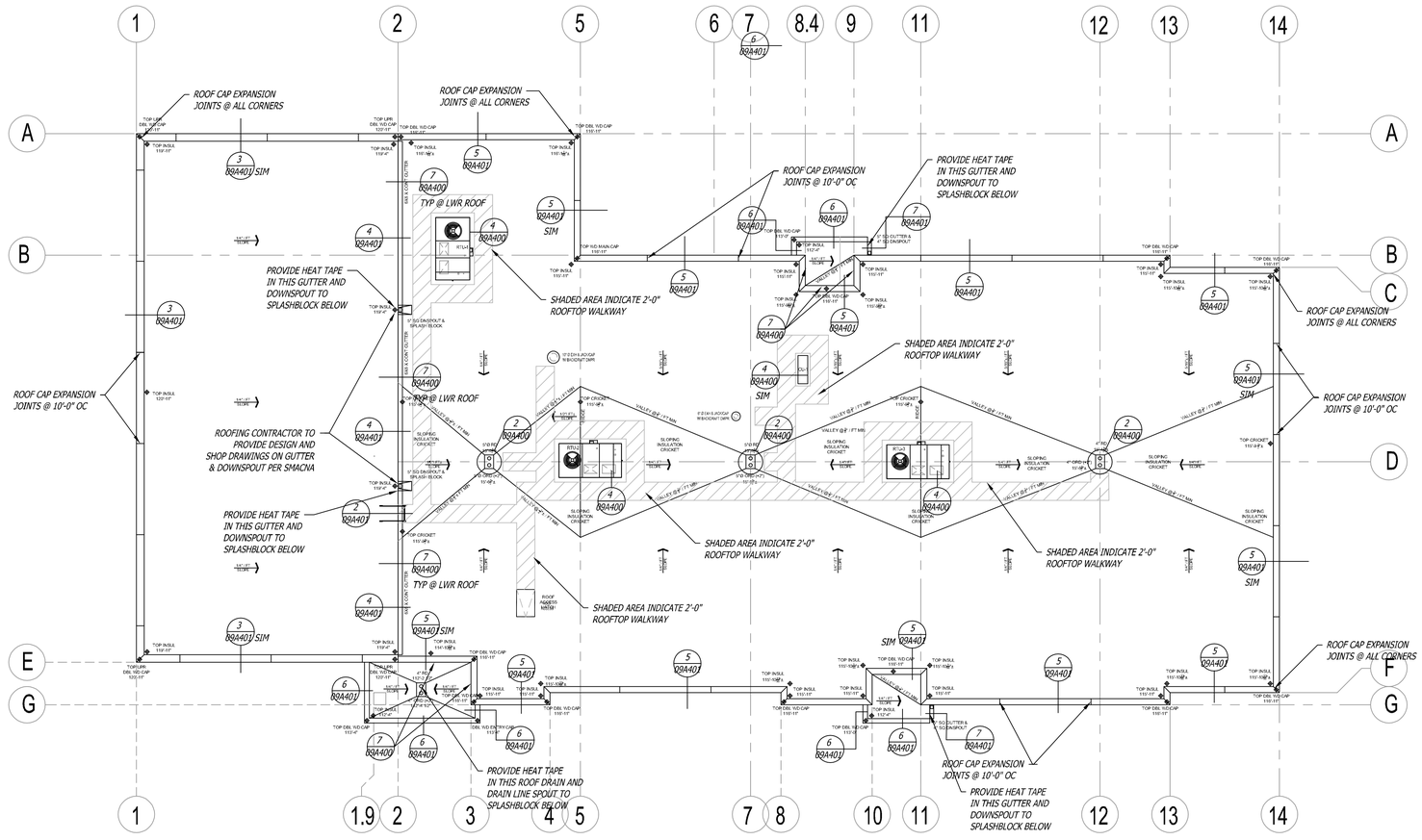
5 09A400 **TYPICAL CURB PENETRATION**
NTS VERIFY DETAIL WITH ROOF MFR



6 09A400 **MULTIPLE CURB PENETRATIONS**
NTS VERIFY DETAIL WITH ROOF MFR



7 09A400 **MEMBRANE ROOF @ VERTICAL WALL**
3" = 1'-0"



ROOF PLAN

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

ROOF NOTES:

1. ROOF WALKWAYS TO BE MEMBRANE ROOF MFR'S STANDARD THICK ROOF MEMBRANE ADHERED TO THE MAIN 60 MIL SINGLE PLY ROOF MEMBRANE SEE SPECS. ROOF WALKWAY TO BE 24" IN WIDTH AND TO EXTEND TO ALL SIDES OF EACH ROOFTOP HVAC UNIT AND ROOF DRAINS FOR MAINTENANCE.
2. ROOF SUB-CONTRACTOR IS TO REVIEW ROOF PLAN, THE MECHANICAL ROOF PLAN, MECHANICAL AND PLUMBING PLANS AND THE ELECTRICAL ROOF PLAN TO DETERMINE THE LOCATIONS AND TYPES OF ROOF PENETRATIONS THEY WILL NEED TO FLASH AND WATERPROOF.
3. THE ROOFTOP UNITS HAVE SUPPLY AND RETURN DUCT OPENINGS THROUGH THE UNIT'S MANUFACTURER SUPPLIED CURB.
4. THE EXHAUST FANS WILL ONLY HAVE THE EXHAUST DUCT OPENINGS IN THE ROOF THROUGH THE UNIT'S MANUFACTURER SUPPLIED CURB.
5. THERE WILL BE AN ELECTRICAL CONDUIT PENETRATION FOR EACH MECHANICAL UNIT THAT HAS ELECTRICAL PROVIDED TO IT. REFER TO THE MECHANICAL SCHEDULE FOR ELECTRICAL REQUIREMENTS.
6. SEE MECHANICAL PLANS FOR TYPICAL GENERIC ROOF CURB DETAILS - (MUST BE EITHER TREATED WOOD OR MANUFACTURER SUPPLIED PREFAB CURB)
7. ALL DETAILS ARE SUBJECT TO THE ROOFING MEMBRANE MANUFACTURER'S STANDARD WATERTIGHT ROOFING DETAILS TO BE SUPPLIED AS PART OF THE SHOP DRAWINGS FOR ALL TYPES OF PENETRATIONS.
8. DETAIL 1/09A400 FOR ALL ROOF PIPE PENETRATIONS. ELECTRICAL CONDUITS WOULD BE SIMILAR. ROOF SUB-CONTRACTOR IS TO REVIEW THE PLUMBING MECHANICAL AND ELECTRICAL PLANS TO DETERMINE THE LOCATIONS AND NUMBER OF VENT PIPES, PLUMBING PIPING AND ELECTRICAL CONDUIT PENETRATIONS. THESE ARE TO BE SHOWN ON THE SHOP DRAWINGS.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

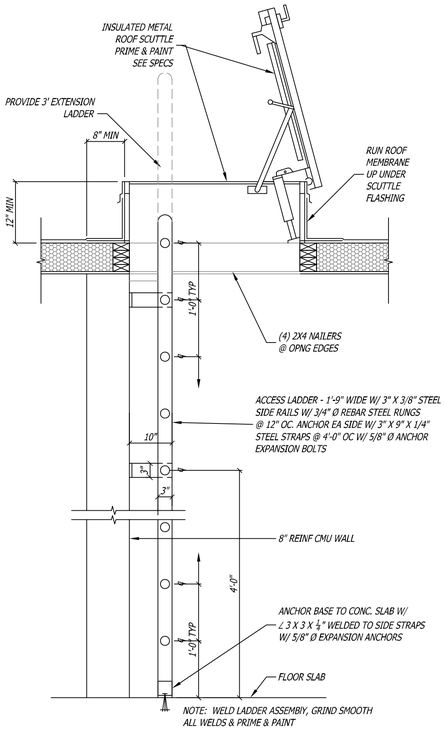
Project
24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

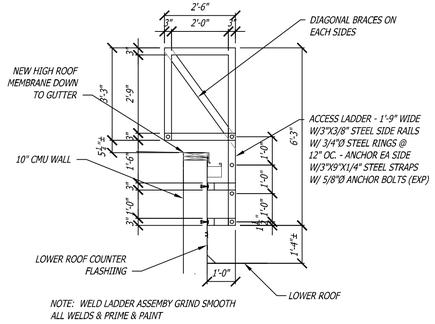
Date
03/01/24

09A400



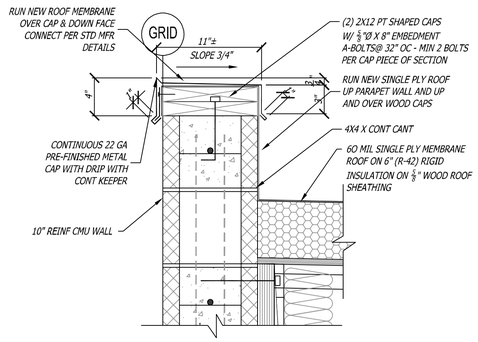
1 LADDER & ROOF HATCH DETAIL

09A401 3/4" = 1'-0" FV ALL DIMENSIONS PRIOR TO FABRICATION



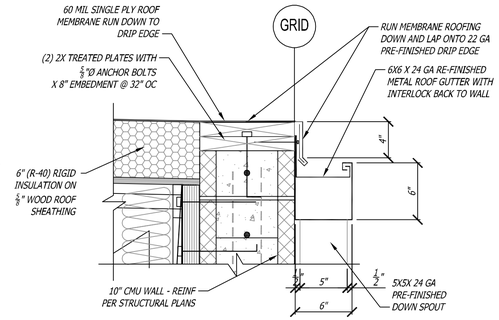
2 ROOF LADDER ON CMU WALL

09A401 3/8" = 1'-0" FV ALL DIMS PRIOR TO FABRICATION



3 HIGH 10" CMU ROOF CAP

09A401 1 ½" = 1'-0"



4 HIGH 10" CMU ROOF @ GUTTER

09A401 1 ½" = 1'-0"

5 TYPICAL 8" CMU ROOF CAP

09A401 1 ½" = 1'-0"

6 TYPICAL ENTRY ROOF CAP

09A401 1 ½" = 1'-0"

7 EMPLOYEE ROOF EDGE DRAIN

09A401 1 ½" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 166 REGISTERED ARCHITECT 03/01/24

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09A401

ROOM FINISH SCHEDULE

ROOM NO.	OFFICE NAME	FLOOR: EXTERIOR CONCRETE SIDEWALK	FLOOR: RECESSED ENTRY MATT	FLOOR: SEALED CONCRETE	FLOOR: LVP (LUXURY VINYL PLANK/TILE)	FLOOR: 12 X 24 THINSET TILE SET AT 1/3 OFFSET PATTERN	FLOOR: CARPET TILE	FLOOR: 12 X 12 STATIC FREE VCT	BASE: 4" STRAIGHT RUBBER BASE	BASE: 4" COVED RUBBER BASE	BASE: 6" COVED RUBBER BASE- CAULK @ BASE & CONC. FLOOR	BASE: COVED SCHLUTER TRIM @ BOTTOM OF WAINSCOT	BASE: NONE	WAINSCOT: 13X13 CERAMIC TILE TO 5'-6"±	WAINSCOT: STANDARD FRP TO 4'-0" AFF AT WET WALL	WAINSCOT: PAINTED PLYWOOD TO 4' AFF ON ALL GYP BOARD WALLS	WAINSCOT: NONE	ROOM NO.	WALLS: NORTH: PAINTED 5/8" TYPE X GB ON 6 MIL VB ON STEEL STUDS @ 16" OC (EXTERIOR WALL)	NORTH: PAINTED 5/8" TYPE X GB ON STEEL STUDS @ 16" OC	NORTH: 5/8" WP DURROCK ON WET WALLS	NORTH: SOUND INSULATTION FH X FW OF WALL	NORTH: EXPOSED CMU WALL TO HAVE SEALED FINISH	EAST: PAINTED 5/8" TYPE X GB ON 6 MIL VB ON STEEL STUDS @ 16" OC (EXTERIOR WALL)	EAST: PAINTED 5/8" TYPE X GB ON STEEL STUDS @ 16" OC	EAST: 5/8" WP DURROCK ON WET WALLS	EAST: SOUND INSULATTION FH X FW OF WALL	EAST: EXPOSED CMU WALL TO HAVE SEALED FINISH	SOUTH: PAINTED 5/8" TYPE X GB ON 6 MIL VB ON STEEL STUDS @ 16" OC (EXTERIOR WALL)	SOUTH: PAINTED 5/8" TYPE X GB ON STEEL STUDS @ 16" OC	SOUTH: 5/8" WP DURROCK ON WET WALLS	SOUTH: SOUND INSULATTION FH X FW OF WALL	SOUTH: EXPOSED CMU WALL TO HAVE SEALED FINISH	WEST: PAINTED 5/8" TYPE X GB ON 6 MIL VB ON STEEL STUDS @ 16" OC (EXTERIOR WALL)	WEST: PAINTED 5/8" TYPE X GB ON STEEL STUDS @ 16" OC	WEST: 5/8" WP DURROCK ON WET WALLS	WEST: SOUND INSULATTION FH X FW OF WALL	WEST: EXPOSED CMU WALL TO HAVE SEALED FINISH	CEILING: NON-RATED 2X2 HEAVY DUTY SUSPENDED GRID WITH ACOUSTICAL TILES	CEILING: PAINTED 5/8" TYPE X GB ON STEEL STUD FRAMING @ 16" OC	CEILING: EXPOSED ROOF STRUCTURE - NOT PAINTED	CEILING: EIFS ON 1 1/2" RIGID INSULATTION ON 1/2" WOOD SHEATHING	HGT AFF	ROOM NO.	PLAN LAYOUT
100	COVERED ENTRY (MAIN BLDG)	○										○				○		100																		9'-4"	100	
101	COVERED ENTRY (EMPLOYEE - EAST)	○										○				○		101																		9'-4"	101	
102	COVERED ENTRY (EMPLOYEE -WEST)	○										○				○		102																		9'-4"	102	
103	VESTIBULE		○						○							○		103				○				○				○				○		10'-0"	103	
104	ENTRY FOYER				○				○							○		104	○	○				○			○			○				○		10'-0"	104	GYP BRD ON EAST AND SOUTH FACES OF WALLS TO EXTEND TO ROOF DECK
105	JANITOR ROOM			○							○				○			105	○	○				○			○			○				○		13'-0"±	105	
106	BOARD ROOM					○			○							○		106		○				○			○			○				○		12'-0"	106	WEST WALL IS THE ACCORDION DOOR
107	AUDIO-VISUAL CLOSET					○			○							○		107		○				○			○			○				○		9'-0"	107	
108	TRAINING ROOM					○			○							○		108				○				○				○				○		12'-0"	108	EAST WALL IS THE ACCORDION DOOR
109	TABLE & CHAIR STORAGE			○					○						○			109	○					○				○						○		13'-0"±	109	
110	ALCOVE					○					○			○				110		○		○			○			○			○				○		9'-4	110	GYP BRD ON SOUTH WALL OF ENTRY TO EXTEND TO ROOF DECK
111	MEN'S TOILET ROOM					○					○			○				111			○	○			○			○			○				○		9'-0"	111	GYP BRD ON SOUTH WALL OF ENTRY TO EXTEND TO ROOF DECK
112	WOMEN'S TOILET ROOM					○					○			○				112		○		○			○			○			○				○		9'-0"	112	GYP BRD ON SOUTH WALL OF ENTRY TO EXTEND TO ROOF DECK
113	BREAK ROOM				○		○		○	○				○				113		○				○				○			○				○		10'-0"	113	GYP BRD ON NORTH AND SOUTH WALLS TO EXTEND TO ROOF DECK
114	PANTRY				○					○				○				114		○	○			○				○			○				○		10'-0"	114	
115	OPEN OFFICE					○			○					○				115		○			○					○		○	○			○			10'-0"	115	GYP BRD ON WEST & SOUTH FACES OF WALLS TO EXTEND TO ROOF DECK
116	WAITING AREA				○					○				○				116		○				○				○			○				○		10'-0"	116	
117	FILES				○					○				○				117		○			○					○			○				○		10'-0"	117	GYP BRD ON OUTSIDE FACE OF ALL 4 WALLS TO EXTEND TO ROOF DECK
118	OFFICE ENTRY	○								○				○				118		○			○					○			○				○		10'-0"	118	
119	ADA UNISEX TOILET ROOM				○						○				○			119		○		○	○					○			○				○		9'-0"	119	GYP BRD ON OUTSIDE FACE OF ALL 4 WALLS TO EXTEND TO ROOF DECK
120	EMPLOYEE ENTRY	○								○				○				120		○				○				○			○				○		10'-0"	120	GYP BRD ON SOUTH FACE OF WALL TO EXTEND TO ROOF DECK
121	SERVER / ELECTRICAL ROOM						○			○				○				121		○			○					○			○				○		13'-0"±	121	
122	HALL				○					○				○				122		○				○				○			○				○		10'-0"	122	
123	COPY ROOM				○					○				○				123		○				○				○			○				○		10'-0"	123	
124	OFFICE SUPPLIES				○					○				○				124		○				○				○			○				○		10'-0"	124	
125	OFFICE					○			○					○				125		○	○			○				○			○				○		10'-0"	125	
126	CONFERENCE ROOM					○			○					○				126		○				○				○		○	○				○		10'-0"	126	
127	STORAGE ROOM					○			○					○				127	○					○				○			○				○		10'-0"	127	
128	HALL				○					○				○				128		○				○				○			○				○		10'-0"	128	
129	OFFICE					○			○					○				129	○					○				○			○				○		10'-0"	129	
130	OFFICE					○			○					○				130	○					○				○			○				○		10'-0"	130	
131	OFFICE					○			○					○				131	○					○				○			○				○		10'-0"	131	
132	HALL				○					○				○				132		○				○				○			○				○		10'-0"	132	
133	OFFICE					○			○					○				133		○				○				○			○				○		10'-0"	133	
134	OFFICE					○			○					○				134		○				○				○			○				○		10'-0"	134	

WEST
SOUTH ROOM NORTH
EAST

NOTES:

1. PRIME AND PAINT ALL GYP BRD WALLS & CEILING WITH PRIMER & 2 COATS
2. ALL WALLS IN ALL ROOMS TO RUN TO ROOF STRUCTURE OR FLOOR STRUCTURE ABOVE. PROVIDE FLEXIBLE TOP CONNECTION TO ALLOW FOR 1" DEFLECTION @ ROOF.
3. ALL EXPOSED STEEL COLUMNS TO BE FILLED, SANDED SMOOTH, PRIMED AND PAINTED

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B GLASCOCK 1088 LICENSED ARCHITECT 03/01/24

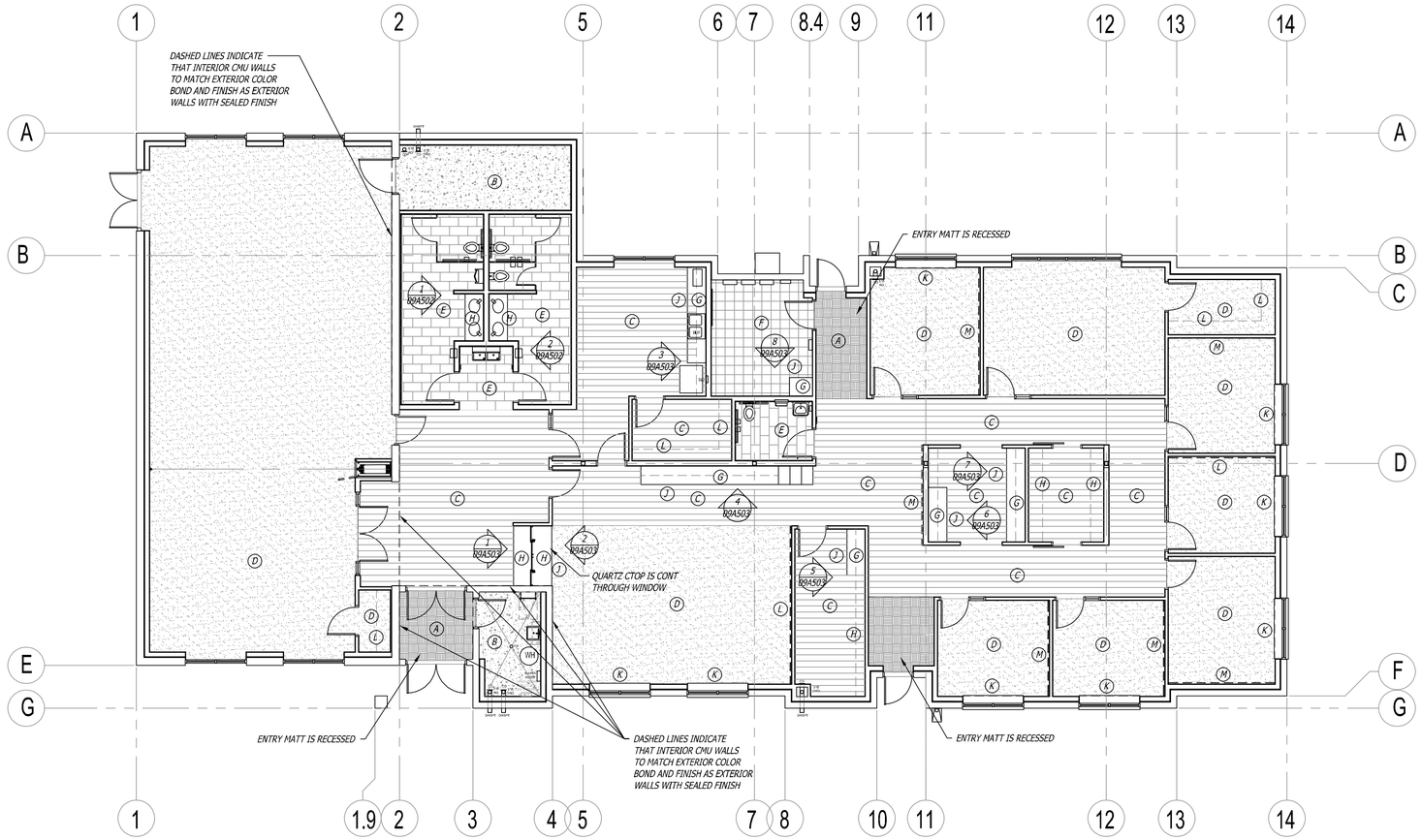
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09A500



FINISH FLOOR PLAN

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

0 1' 2' 3' 4' 5' 10' 15' 20'

NORTH

FLOOR FINISH SCHEDULE:

(A) RECESSED WATERHOG CLASSIC ENTRANCE MATS AS MANUFACTURED BY AMERICAN FLOOR MATS (OR EQUIVALENT) INCLUDING EDGE FINISH. COLOR AND PATTERN TO BE AS SELECTED BY ARCHITECT .

(B) ASHFORD (OR EQUIVALENT) SEALED CONCRETE FLOOR.

(C) LUXURY VINYL TILE (LVT) RESILIENT FLOORING AND ACCESSORIES AS MANUFACTURED BY MOHAWK GROUP "LIVING LOCAL COLLECTION - PREMIUM WOOD" STYLE #C0194 OR EQUIVALENT. 8" x 52" (NOMINAL) PLANKS LAID IN RANDOM PATTERN. COLOR SHALL BE AS SELECTED BY THE ARCHITECT.

(D) 24" x 24" MULTI-LEVEL PATTERN LOOP CARPET TILES AS MANUFACTURED BY SHAW CONTRACT "CREATIVE ZONE" STYLE #5T596 OR EQUIVALENT, INCLUDING TRANSITTION STRIPS AND ACCESSORIES. PATTERN TO BE QUARTER TURN AND COLOR SHALL BE AS SELECTED BY THE ARCHITECT.

(E) POTENZA GLAZED PORCELAIN 12" x 24" AS MANUFACTURED BY EMSER TILE LAID IN ⅓ OFFSET RUNNING BOND BRICK HORIZONTAL PATTERN WITH 3 /16 INCH JOINTS. GROUT COLOR TO BE MAPEI #5105 DRIFTWOOD AND TILE TO BE "IVORY". OR EQUIVALENTS OR AS SELECTED BY THE ARCHITECT.

(F) 12" x 12" SOLID, HOMOGENEOUS ESD CONDUCTIVE STATIC CONTROL SOLID VINYL TILE AS MANUFACTURED BY ROPPE CORPORATION OR EQUIVALENT. COLOR AND PATTERN SHALL BE AS SELECTED BY THE ARCHITECT.

MILLWORK FINISHES:

(G) PL-1 - LAMINATE COUNTERTOPS WITH TRI-COVE EDGE AT WET AREAS & SQUARE EDGE FRONTS AND BACK SPLASHES OTHER AREAS AS MANUFACTURED BY WILSONART OR EQUIVALENT. FINAL COLOR AND PATTERN TO BE SELECTED BY THE ARCHITECT.

(H) Q-1 - QUARTZ COUNTERTOPS - WHITEWATER QUARTZ SERIES 1 - WHITE SAND OR EQUIVALENT. EDGES TO BE CRESCENT SHAPED. FINAL COLOR AND PATTERN TO BE SELECTED BY THE ARCHITECT.

(J) PL-2 - PLASTIC LAMINATE CABINET FACES, DOORS AND DRAWERS AS MANUFACTURED BY WILSONART OR EQUIVALENT. FINAL COLOR AND PATTERN TO BE SELECTED BY THE ARCHITECT.

(K) Q-1 - QUARTZ WINDOW SILLS - WHITEWATER QUARTZ SERIES 1 - WHITE SAND OR EQUIVALENT. EDGES TO BE CRESCENT SHAPED. FINAL COLOR AND PATTERN TO BE SELECTED BY THE ARCHITECT.

(L) 3/ 4" THICK MELAMINE FINSHED ON ALL SIDES SHELVING WITH HD ADJUSTABLE SHELF SUPPORTS.

OTHER FINISHES:

(M) P-3 - ACCENT PAINT IN ONE COLOR, SATIN FINISH- - SHERWIN-WILLIAMS OR EQUIVALENT. FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.

GENERAL FINISH NOTES:

1. P-1 - ALL GYP BOARD WALLS - STANDARD PAINT IN ONE COLOR, EGGSHELL FINISH - SHERWIN-WILLIAMS OR EQUIVALENT. FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
2. P-2 - ALL GYP BOARD WALLS - STANDARD PAINT IN ONE COLOR, EGGSHELL FINISH - SHERWIN-WILLIAMS OR EQUIVALENT. FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
3. P-4 - ALL PLYWOOD WAINSCOT WALLS - STANDARD PAINT IN ONE COLOR, SEMI-GLOSS FINISH - SHERWIN-WILLIAMS OR EQUIVALENT. FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
4. P-5 - ALL HOLLOW METAL (HM DOORS AND FRAMES) - STANDARD PAINT IN ONE COLOR SEMI-GLOSS FINISH - SHERWIN-WILLIAMS OR EQUIVALENT. FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
5. P-5 - ALL INTERIOR EXPOSED METAL - STANDARD PAINT IN ONE COLOR SEMI-GLOSS FINISH - SHERWIN-WILLIAMS OR EQUIVALENT. FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
6. RUBBER BASE:
   - RB-1 ROPPE (OR EQUIVALENT) 4" COVED BASE AT LVP FLOORS AND VCT FLOORS FINAL COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
   - RB-2 ROPPE (OR EQUIVALENT) 4" STRAIGHT BASE AT CARPET TILES. FINAL COLOR TO BE SELECTED BY THE ARCHITECT.
   - RB-3 ROPPE (OR EQUIVALENT) 6" COVED BASE AT BOTTOM OF FRP WALLS & CONCRETE FLOOR. FINAL COLORTO BE SELECTED BY THE ARCHITECT.
7. FRP-1 - 4' X 4' X 3/32" NOMINAL MARLITE #P-100 OR EQUIVALENT) W HITE GLOSS FINISH. FINAL COLORTO BE SELECTED BY THE ARCHITECT.

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES GLASCOCK 166666 REGISTERED ARCHITECT 09/01/24

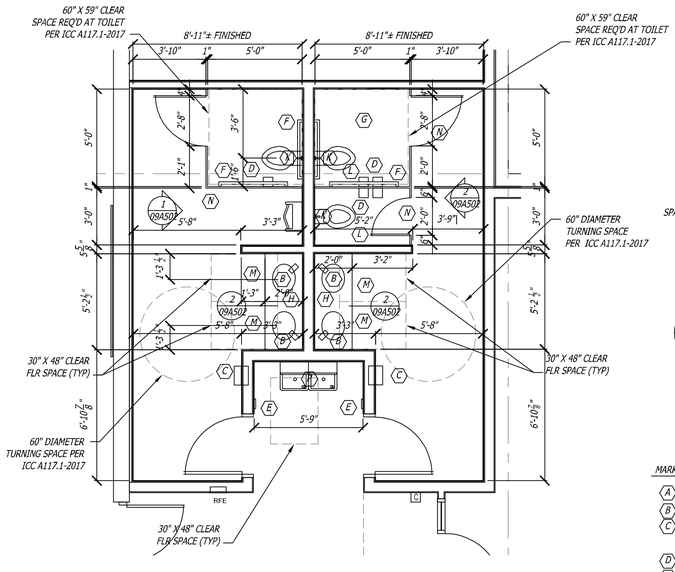
Project 24-001

Revisions

Date 03/01/24

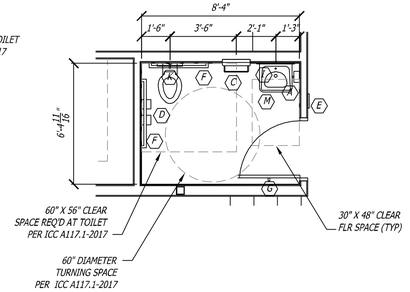
09A501

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH



A 09A502 MEN #111 WOMEN 112, ALCOVE #110

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



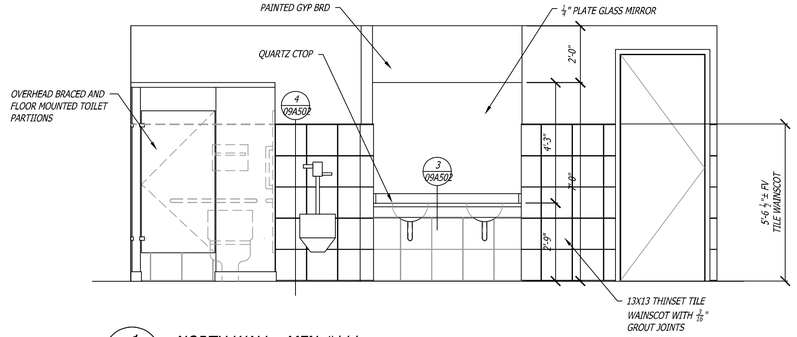
B 09A502 ADA UNISEX #119

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

TOILET ACCESSORY SCHEDULE

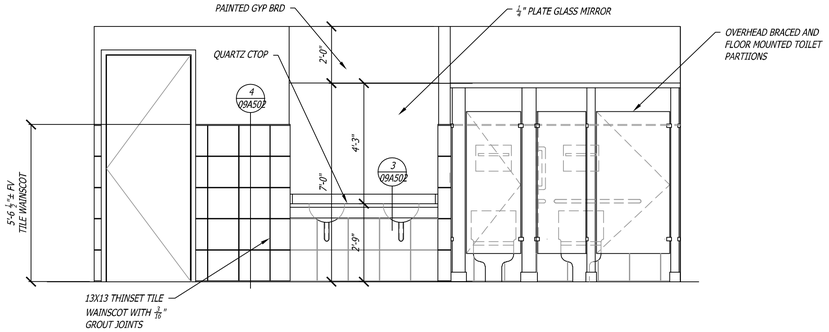
NOTE: ALL ACCESSORIES ARE SURFACE MOUNTED EXCEPT AS NOTED

MARK	DESCRIPTION	MANUFACTURER & MODEL NUMBER
A	SOAP DISPENSER (WALL MOUNTED)	BOBRICK #B-4112
B	SOAP DISPENSER (DECK MTD)	BOBRICK #B-822
C	PAPER TOWEL DISPENSER & WASTE RECEPTACLE	BOBRICK #B-3942 (SEMI-RECESSED)
D	TOILET TISSUE DISPENSER	BOBRICK #B-69997 (DOUBLE ROLL)
E	SIGN	HANDICAP ACCESSIBLE SYMBOL MEN, WOMEN OR UNISEX AS APPROPRIATE
F	GRAB BARS	BOBRICK #B-6806 X 18" VERT, 42" & 36"
G	ROBE HOOK	BOBRICK #B-76717 FOR MAN DOORS
H	LAVATORY MIRROR	FULL WIDTH X HGT OF WALL ABV CTOP
I	SS FRAME MIRROR (NO SHELF)	BOBRICK #B-166 - 24 X 36
J	MOP HOLDER & SHELF	BOBRICK #B-224 X 36"
K	TOILET SEAT COVER DISPENSER	BOBRICK #B-221
L	SANITARY NAPKIN DISPOSAL	BOBRICK #B-254
M	PIPE PROTECTION	SEE PLUMBING FIXTURE SCHEDULE
N	TOILET PARTITION	SEE SPECS FLOOR MTD AND OVERHEAD BRACED
P	HI/LO EWC	SEE PLUMBING FIXTURE SCHEDULE



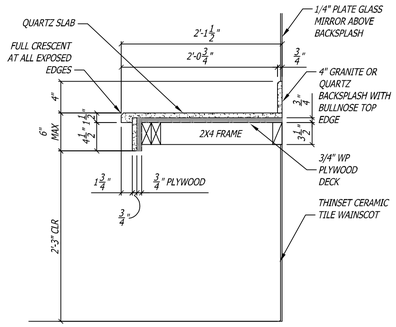
1 09A502 NORTH WALL - MEN #111

SCALE: 3/8" = 1'-0"



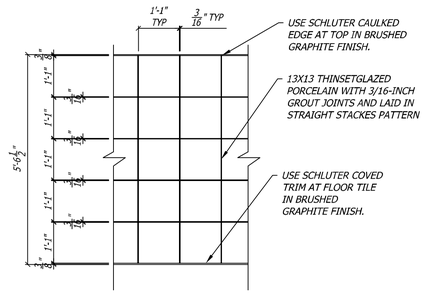
2 09A502 SOUTH WALL - WOMEN #112

SCALE: 3/8" = 1'-0"



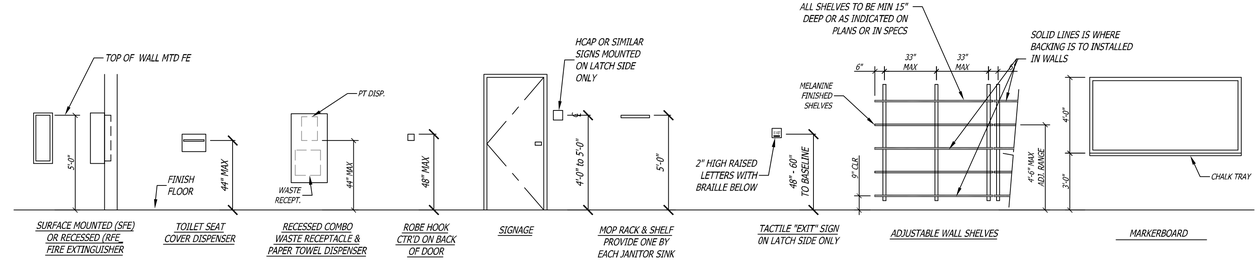
3 09A502 COUNTER DETAIL

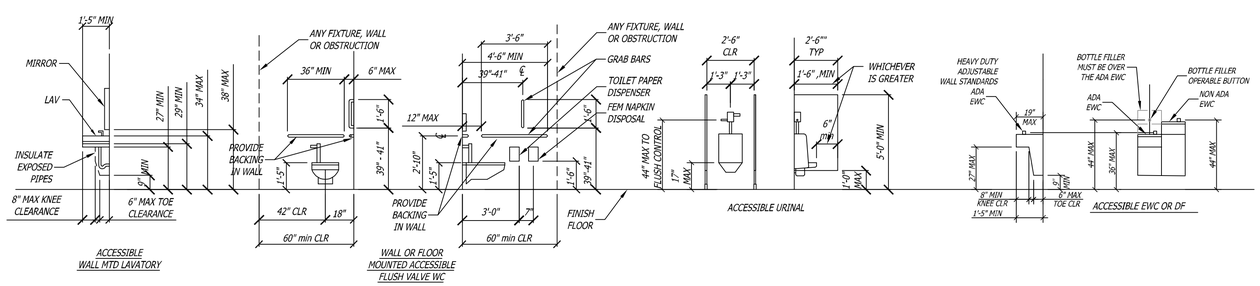
1" = 1'-0"



4 09A502 TILE WAINSCOT DETAIL

1 / 2" = 1'-0"





ACCESSIBLE MOUNTING HEIGHTS

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

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

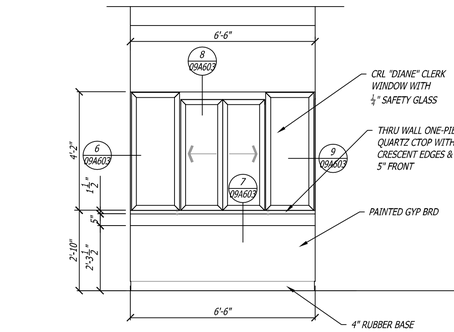
Project 24-001

Revisions

Date 03/01/24

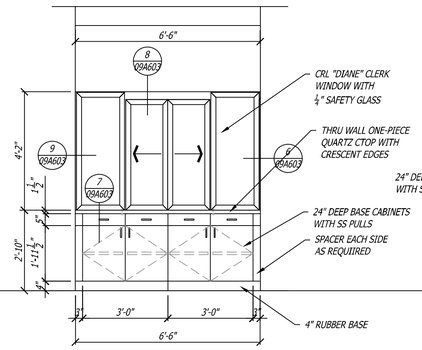
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A502



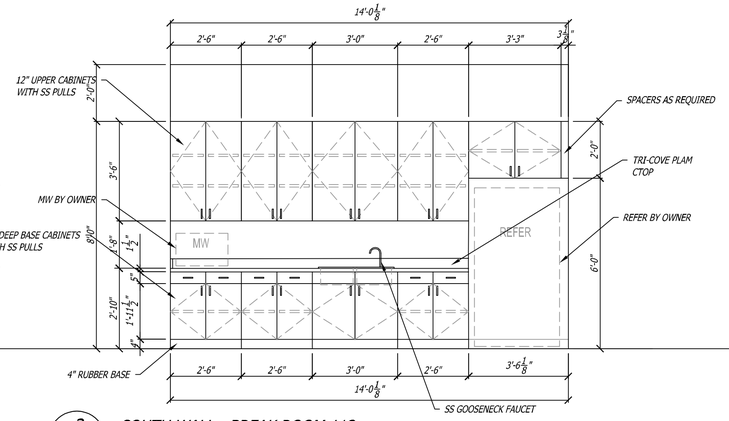
1 09A503 NORTH WALL - FOYER 104 - PAYMENT WINDOW

SCALE: 3/8" = 1'-0"



2 09A503 SOUTH WALL - OFFICE 115 - PAYMENT WINDOW

SCALE: 3/8" = 1'-0"

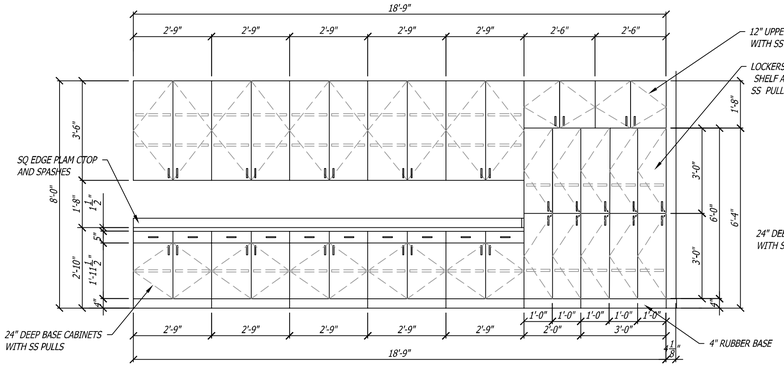


3 09A503 SOUTH WALL - BREAK ROOM 113

SCALE: 3/8" = 1'-0"

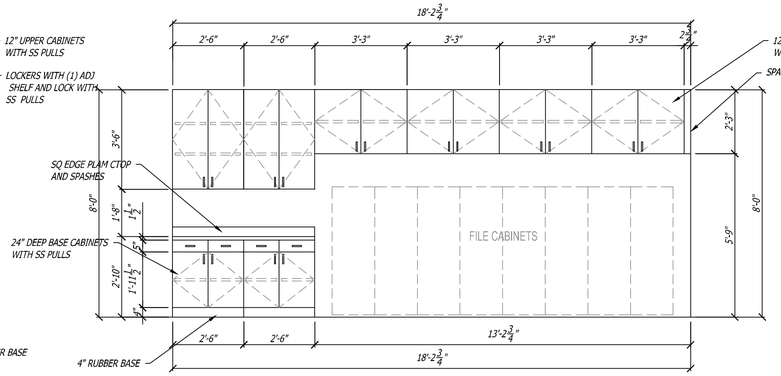
GENERAL MILLWORK NOTES

1. CABINET SIZES ARE SHOWN AS APPROXIMATE SIZES. ALL CABINETS MUST BE FIELD MEASURED AND FIELD VERIFIED PRIOR TO FABRICATION. BRING ANY DISCREPANCIES TO ARCHITECT'S ATTENTION PRIOR TO PREPARATION OF SHOP DRAWINGS. ALL MILLWORK SHALL COMPLY WITH ICC A117.1-2017 REQUIREMENTS.
2. BASE CABINET HEIGHTS TO ALLOW FOR A 1 1/2" THICK COUNTERTOP THICKNESS. COUNTERTOPS ARE TO BE QUARTZ OVER OVER 3/4" THICK WOOD SUBSTRATE. PROVIDE A 4" BACK SPLASH WHERE SHOWN OR IN ALL WET AREAS WHERE THERE ARE SINKS. PROVIDE A 1 1/2" CRESCENT SHAPED EDGE AS SHOWN ON PLANS.
3. ALL UPPER AND LOWER BASE CABINET DEPTHS NOTED ARE MEASURED FROM THE FINISHED BACK OF CABINET TO THE FRONT FACE OF DOOR OR DRAWER FRONT U.N.O.
4. ALL CABINET INTERIORS ARE FINISHED WITH WHITE STANDARD MELAMINE LAMINATE.
5. MILLWORK DIMENSIONS ARE WIDTH X HEIGHT U.N.O.
6. PROVIDE RECESSED BASE AT TOE KICKS OF ALL CABINETS. FINISH WITH 4" RUBBER BASE.
7. ALL COUNTERTOPS HAVE A SIDE SPLASH AT ALL WALLS TO MATCH THE COUNTERTOP FINISH.
8. ALL MILLWORK IS TO BE FINISHED AT ALL SIDES AND ENDS TYPICAL. PROVIDE MATCHING CABINET MATERIAL FILLER PIECES AS REQUIRED TO CLOSE OFF GAPS AT SIDES AND TOPS WHETHER SHOWN OR NOT. CAULK ALL EDGES OF CABINETS AND COUNTERTOPS AT WALLS. COLOR TO MATCH WALL PAINT COLOR.
9. GENERAL CONTRACTOR IS TO COORDINATE WITH MILLWORK SUBCONTRACTOR TO PROVIDE BLOCKING BEHIND ALL CABINETS, SHELF SUPPORTS, WALL HOOKS, TV BRACKETS, AND OWNER SUPPLIED WALL MOUNTED EQUIPMENT. ONLY 2X MATERIAL IS ACCEPTABLE AS BLOCKING BEHIND MILLWORK, SPECIALTY ITEMS.
10. SEE SPECIFICATIONS FOR SELECTIONS FOR BRANDS, COLORS AND TYPES OF COUNTERTOPS AND OTHER FINISHES. PROVIDE SAMPLES FOR OWNER TO APPROVE.
11. ALL BASE CABINETS TO BE MANUFACTURED TO ACCEPT LOCKS EITHER NOW OR IN THE FUTURE. PROVIDE 10% LOCKS ON ALL DOORS AND DRAWERS IN BASE BID. FINAL NUMBER TO BE DETERMINED IN FIELD WITH FUTURE TENANT.



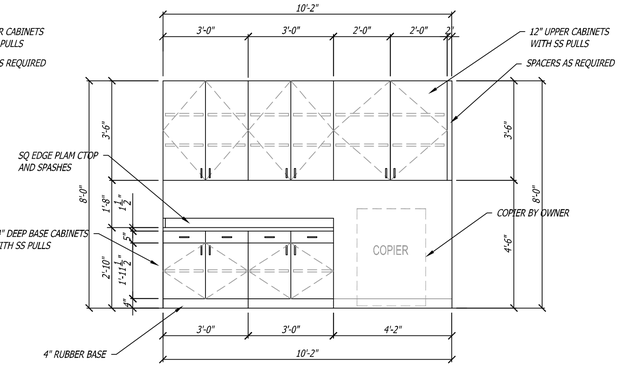
4 09A503 WEST WALL - OPEN OFFICE 115 - COLLATING WORKSPACE

SCALE: 3/8" = 1'-0"



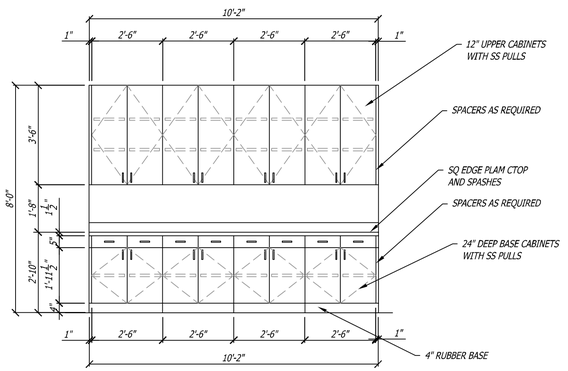
5 09A503 NORTH WALL - FILES 117

SCALE: 3/8" = 1'-0"



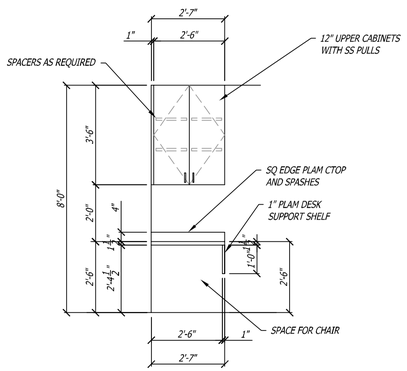
6 09A503 SOUTH WALL - COPY 125

SCALE: 3/8" = 1'-0"



7 09A503 NORTH WALL - COPY 125

SCALE: 3/8" = 1'-0"



8 09A503 WEST WALL - SERVER ROOM 121

SCALE: 3/8" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 1036 REGISTERED ARCHITECT 04/01/24

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09A503

DOOR SCHEDULE

DOOR #	DIMENSIONS WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DETAILS HEAD	JAMB	SILL	HDWE GROUP	FIRE RATING	DOOR #
1	6'-4"	8'-0"	1 3/4"	A	3/09A601	2/09A601	1/09A600	H-1	NR	1
2	6'-4"	8'-0"	1 3/4"	A	3/09A601	2/09A601	2/09A600	H-2	NR	2
3	6'-0"	8'-0"	1 3/4"	B	5/09A601	5/09A601	TS-5	H-1	NR	3
4	3'-0"	8'-0"	1 3/4"	C	5/09A601	2/09A601	TS-5	H-3	NR	4
5	6'-0"	8'-0"	1 3/4"	D	10/09A601	12/09A601	3/09A600	H-4	NR	5
6	3'-0"	8'-0"	1 3/4"	E	10/09A601	13/09A601	4/09A600	H-5	NR	6
7	3'-0"	8'-0"	1 3/4"	E	10/09A601	13/09A601	4/09A600	H-5	NR	7
8	22'-0"	12'-0"	1 3/4"	F	3/09A304	8&9/09A602	NONE	MFR	NR	8
9	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	NONE	H-8	NR	9
10	3'-8"	7'-0"	1 3/4"	H	15/09A601	14/09A601	TS-6	H-6	NR	10
11	3'-0"	7'-0"	1 3/4"	J	15/09A601	14/09A601	5/09A600	H-7	NR	11
12	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	NONE	H-9	NR	12
13	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	NONE	H-9	NR	13
14	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	TS-1	H-10	NR	14
15	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	TS-1	H-10	NR	15
16	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	NONE	H-8	NR	16
17	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	NONE	H-8	NR	17
18	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	NONE	H-8	NR	18
19	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	TS-1	H-11	NR	19
20	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	TS-6	H-9	NR	20
21	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	21
22	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	22
23	3'-0"	8'-0"	1 3/4"	G	1/09A601	1/09A601	NONE	H-8	NR	23
24	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	24
25	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	25
26	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	26
27	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	27
28	3'-0"	8'-0"	1 3/4"	K	1/09A601	1&2/09A602	TS-5	H-12	NR	28
29	3'-0"	8'-0"	1 3/4"	L	6/09A602	7/09A602	NONE	H-13	NR	29
30	3'-0"	8'-0"	1 3/4"	L	6/09A602	7/09A602	NONE	H-13	NR	30

REMARKS

(T) TEMPERED GLASS
(I/O) INSULATED/OBSCURE
(T/T) INSULATED/TEMPERED GLASS

TS-X = SCHULTER THRESHOLD TRIM
NR = NOT RATED
W/ = WITH
SC = SOLID CORE WOOD DOOR

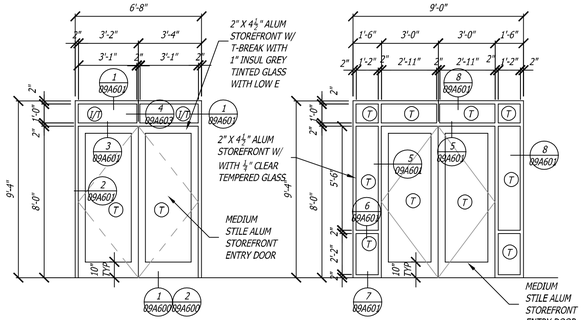
HM = HOLLOW METAL FRAME - PRIMED & PAINTED
AL = ALUMINUM DOOR AND ALUMINUM FRAME
STC = SOUND TRANSMISSION CO-EFFICIENT
ADA = HANDICAP ACCESSIBLE HARDWARE

PROVIDE SCHLUTER TRANSITION STRIPS AS FOLLOWS:

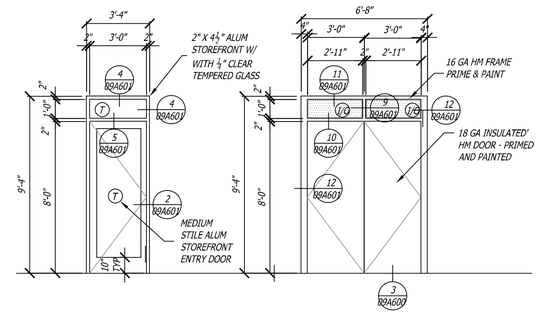
TS-1 CERAMIC TILE TO CONCRETE OR LVP FLOORING- RENO-V OR VIN-PRO S - BRUSHED GRAPHITE A80AGRB FINISH
TS-4 VINYL (LVP)) FLOORING TO VCT FLOORING - RENO-TK, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH
TS-5 CARPET TO VINYL (LVP) FLOORING - RENO-V, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH
TS-6 VINYL (LVP) OR CARPET TO CONCRETE - RENO-V, FINISH: (AE) BRUSHED GRAPHITE A80AGRB FINISH

NOTES:

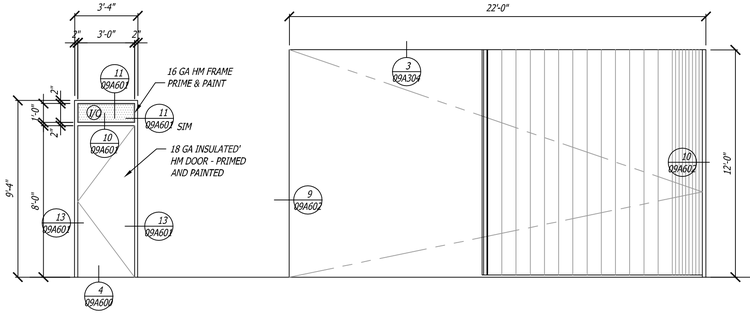
1. ON THESE UPPER GLASS SECTIONS, INSTALL AN OBSCURE GLASS ON THE INSIDE FACE OF THE NEW GLASS WITH CLEAR GLASS ON OUTSIDE FACE. BOTH TEMPERED WITH LOW E



DOOR TYPE A — DOOR TYPE B

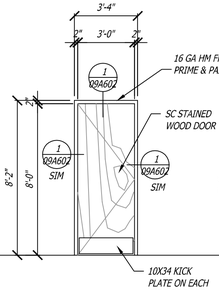


DOOR TYPE C — DOOR TYPE D

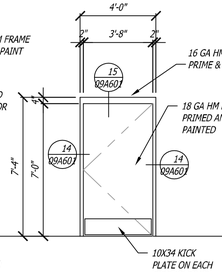


DOOR TYPE E

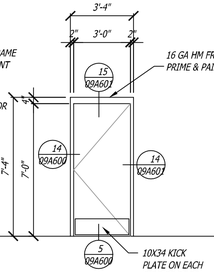
DOOR TYPE F



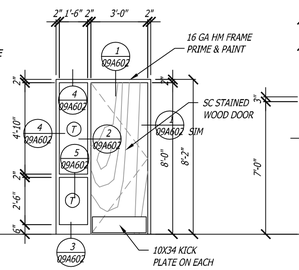
DOOR TYPE G



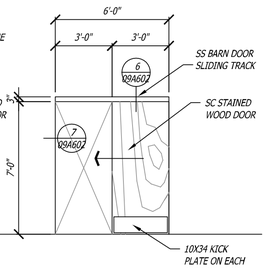
DOOR TYPE H



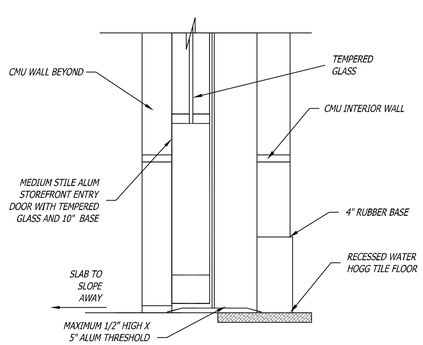
DOOR TYPE J



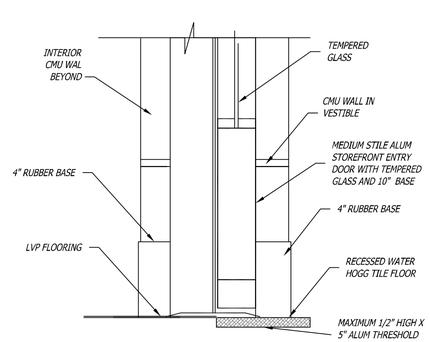
DOOR TYPE K



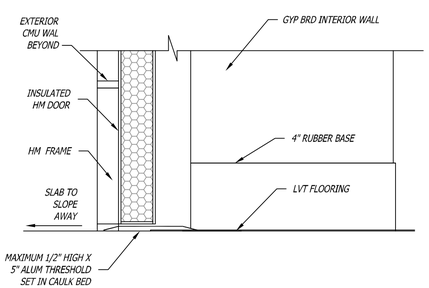
DOOR TYPE L



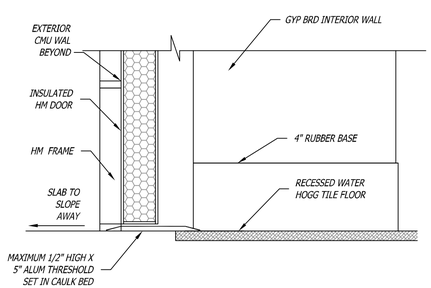
1 09A600 THRESHOLD @ EXT STOREFRONT DOOR 3" = 1'-0"



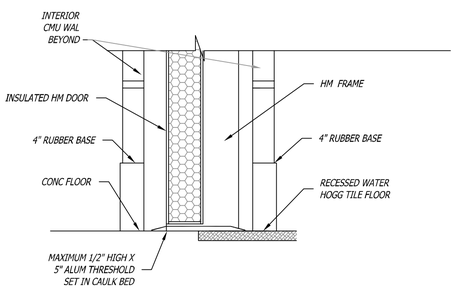
2 09A600 THRESHOLD @ INT STOREFRONT DOOR 3" = 1'-0"



3 09A600 THRESHOLD @ HM DOOR 3" = 1'-0"



4 09A600 THRESHOLD @ HM DOOR @ EMPLOYE ENTRIES 3" = 1'-0"



5 09A600 THRESHOLD @ HM DOOR IN VESTIBULE 3" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B. GLASCOCK 176086 REGISTERED ARCHITECT 09/09/24

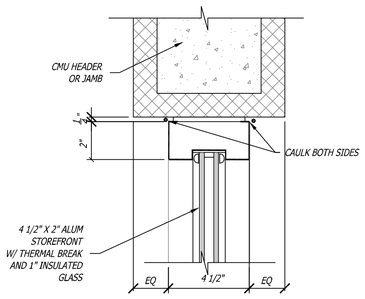
Project 24-001

Revisions

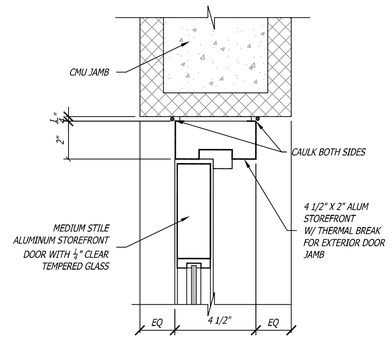
Date 03/01/24

09A600

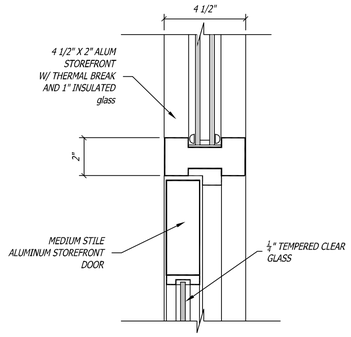
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH



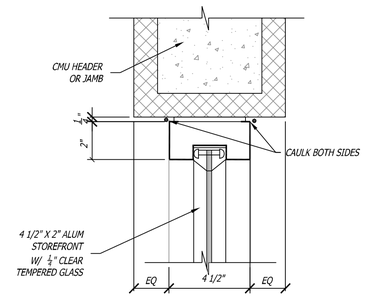
1 EXTERIOR ALUM STOREFRONT WINDOW HEAD
09A601 3" = 1'-0"



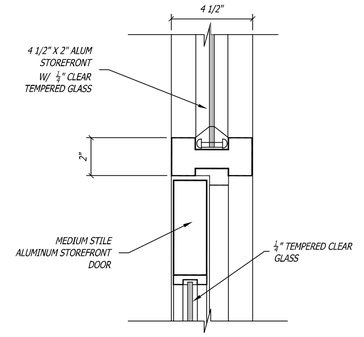
2 EXTERIOR ALUM STOREFRONT DOOR JAMB
09A601 3" = 1'-0" INTERIOR DOOR JAMB SIMILAR (NO T-BREAK IN FRAME)



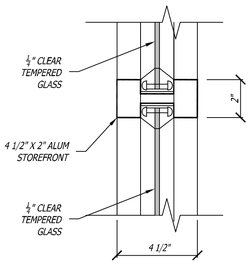
3 EXTERIOR ALUM STOREFRONT DOOR HEAD
09A601 3" = 1'-0" JAMB SIMILAR



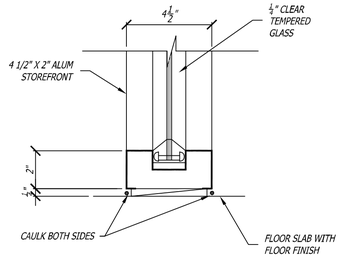
4 INTERIOR ALUM STOREFRONT WINDOW HEAD
09A601 3" = 1'-0" JAMB SIMILAR



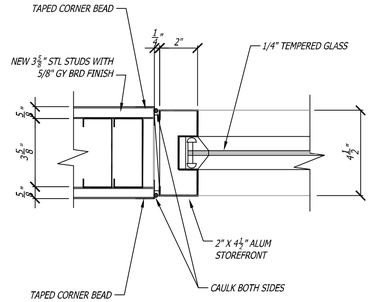
5 INTERIOR ALUM STOREFRONT DOOR HEAD
09A601 3" = 1'-0" JAMB SIMILAR



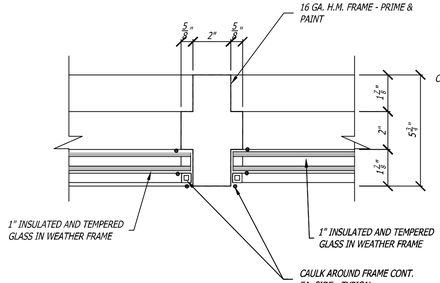
6 INTERIOR STOREFRONT MULLION
09A601 3" = 1'-0"



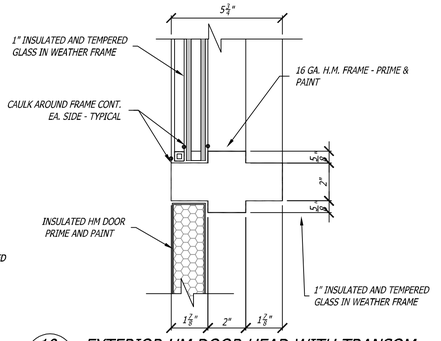
7 INTERIOR STOREFRONT SILL
09A601 3" = 1'-0"



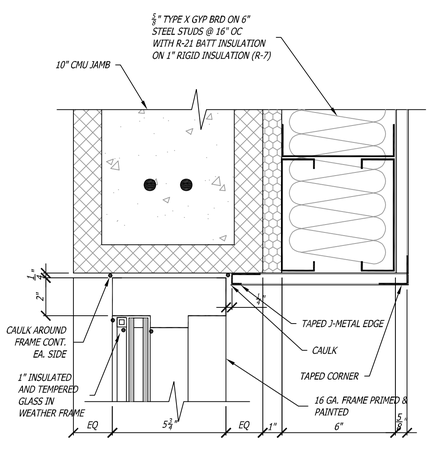
8 STOREFRONT WINDOW HEAD
09A601 3" = 1'-0" JAMB SIMILAR



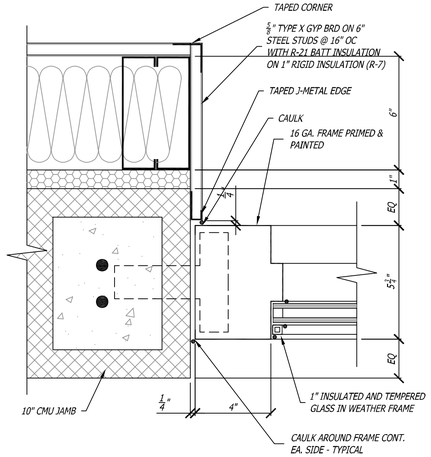
9 EXTERIOR HM WINDOW MULLION
09A601 3" = 1'-0"



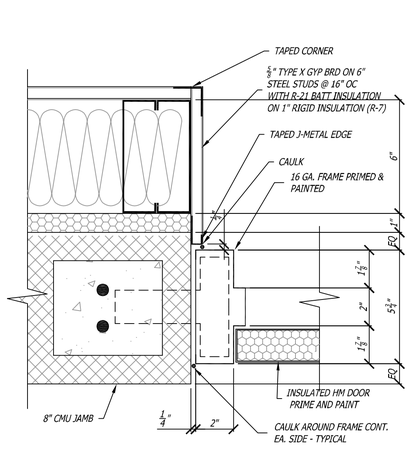
10 EXTERIOR HM DOOR HEAD WITH TRANSOM
09A601 3" = 1'-0"



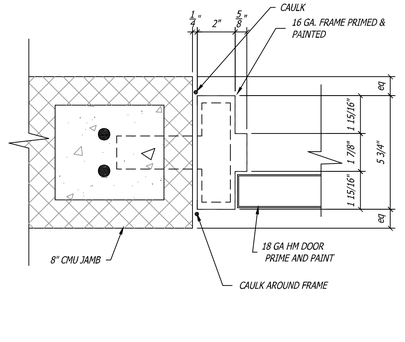
11 2" HM WINDOW HEAD @ CMU WALL
09A601 3" = 1'-0" JAMB SIM



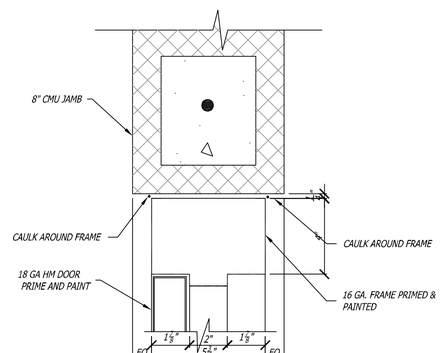
12 4" HM WINDOW JAMB @ CMU WALL
09A601 3" = 1'-0"



13 2" HM DOOR JAMB @ EXTERIOR CMU WALL
09A601 3" = 1'-0"



14 2" HM DOOR JAMB @ INTERIOR CMU WALL
09A601 3" = 1'-0"



15 4" HM DOOR JAMB @ INTERIOR CMU WALL
09A601 3" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

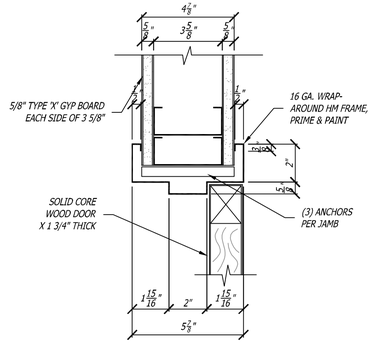
Project 24-001

Revisions

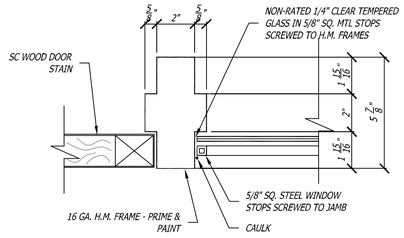
Date 03/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

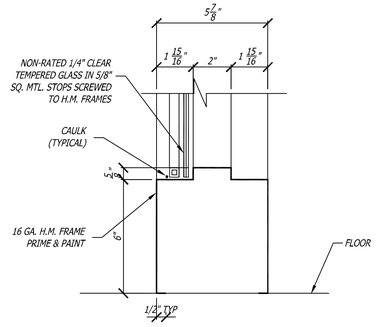
09A601



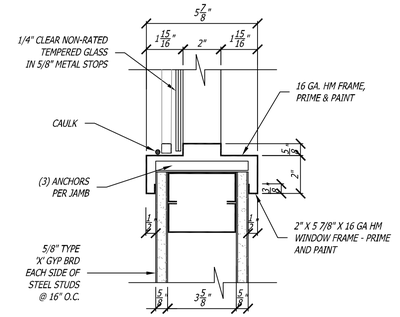
1 WOOD DOOR WITH HM HEAD
09A602 3" = 1'-0" JAMB SIMILAR



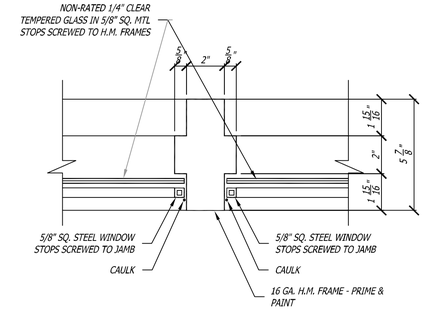
2 WOOD DOOR & HM WINDOW JAMB
09A602 3" = 1'-0"



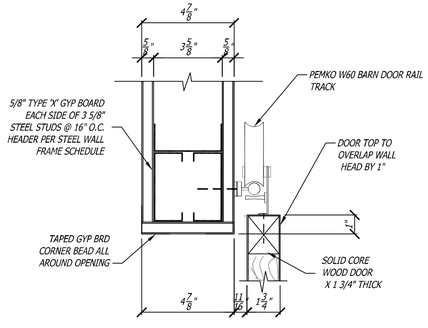
3 HM WINDOW SILL
09A602 3" = 1'-0"



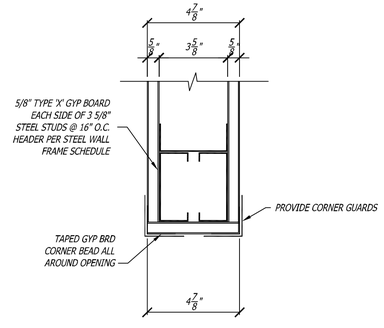
4 2" HM WINDOW JAMB/HEAD
09A602 3" = 1'-0"



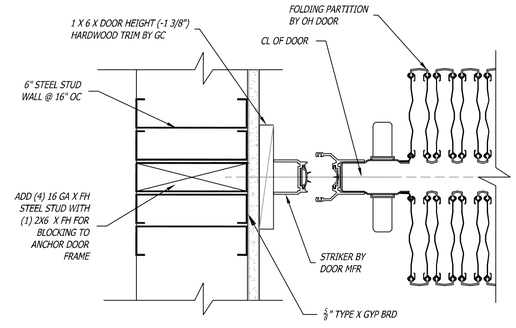
5 HM WINDOW MULLION
09A602 3" = 1'-0"



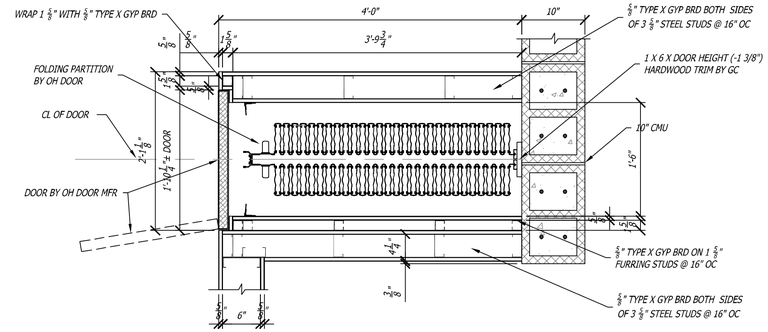
6 BARN DOOR HEAD
09A602 3" = 1'-0"



7 BARN DOOR JAMB
09A602 3" = 1'-0"



8 ACCORDION DOOR - FIXED JAMB END
09A602 3" = 1'-0"



9 ACCORDION DOOR - FIXED JAMB END - CNCLOSURE
09A602 1" = 1'-0"

VERIFY THIS DETAIL WITH DOOR SUPPLIER MODIFY AS REQUIRED - NOTIFY ARCHITECT

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

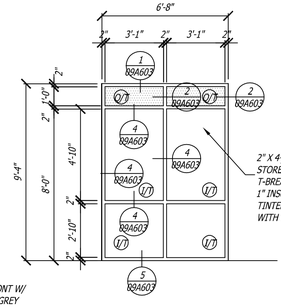
Revisions

Date 03/01/24

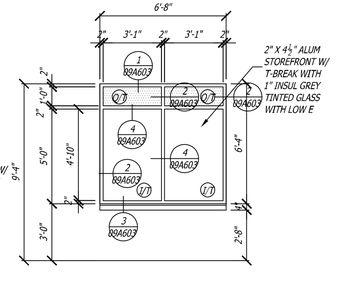
09A602

WINDOW SCHEDULE

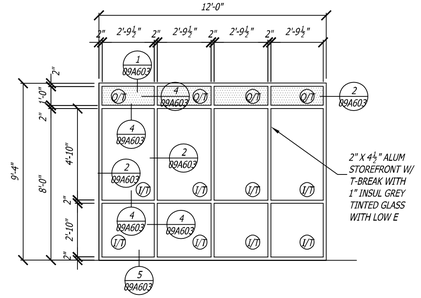
WINDOW TYPE	DIMENSIONS WIDTH	HEIGHT	THICK'	DETAILS HEAD	JAMB	SILL	GLAZING	REMARKS (I) INSULATED GLASS WITH LOW E (S) CLEAR SAFETY GLASS (Q) INSULATED GLASS WITH LOW E (T) TEMPERED GLASS
(A)	6'-8"	9'-4"	2" x 4 1/2"	1/09A603	2/09A603	5/09A603	1" INSUL W/ GUARDIAN SUNGARD #SNX-62/27 - GREY EXT TINT- CLEAR INT WITH LOW E	ALUMINUM STOREFRONT SYSTEM WITH THERMAL BREAK - FACTORY COLOR BLACK KYNAR 500 FINISH
(B)	6'-8"	6'-4"	2" x 4 1/2"	1/09A603	2/09A603	3/09A603	1" INSUL W/ GUARDIAN SUNGARD #SNX-62/27 - GREY EXT TINT- CLEAR INT WITH LOW E	ALUMINUM STOREFRONT SYSTEM WITH THERMAL BREAK - FACTORY COLOR BLACK KYNAR 500 FINISH
(C)	12'-0"	9'-4"	2" x 4 1/2"	1/09A603	2/09A603	5/09A603	1" INSUL W/ GUARDIAN SUNGARD #SNX-62/27 - GREY EXT TINT- CLEAR INT WITH LOW E	ALUMINUM STOREFRONT SYSTEM WITH THERMAL BREAK - FACTORY COLOR BLACK KYNAR 500 FINISH
(D)	4'-2"	6'-6"	2" X 4 1/2"	8/09A603	6/09A603	7/09A603	1/4" CLEAR SAFETY GLASS	CR LAURENCE CO (CRL) "DIANE PASS-THRU" - BLACK ANODIZED FINISH



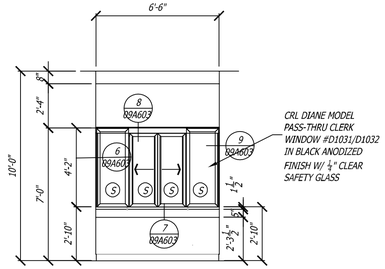
WINDOW TYPE A



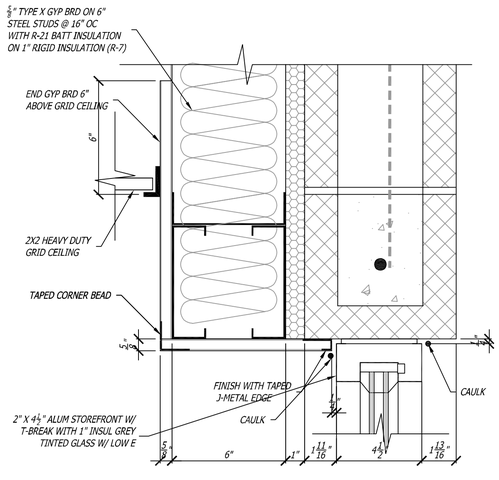
WINDOW TYPE B



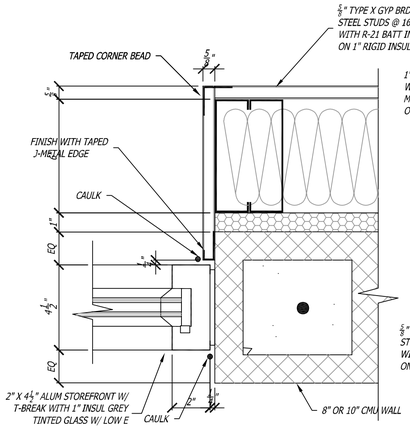
WINDOW TYPE C



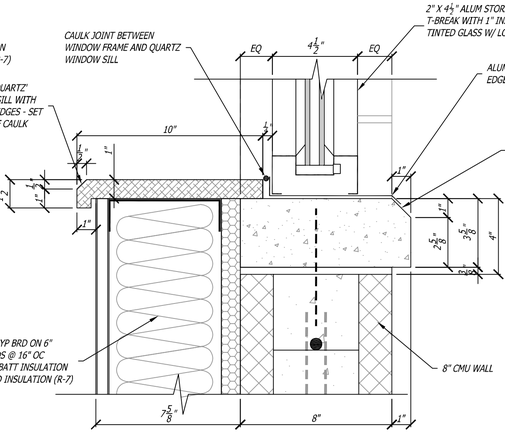
WINDOW TYPE D



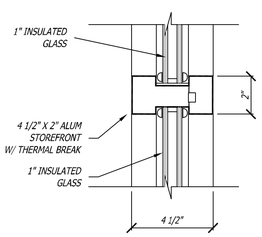
1 EXTERIOR STOREFRONT HEAD
09A603 3" = 1'-0"



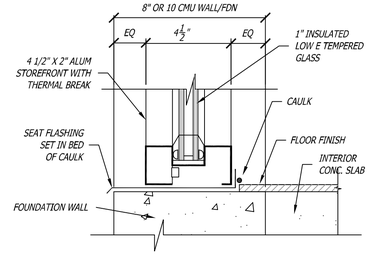
3 EXTERIOR STOREFRONT JAMB
09A603 3" = 1'-0"



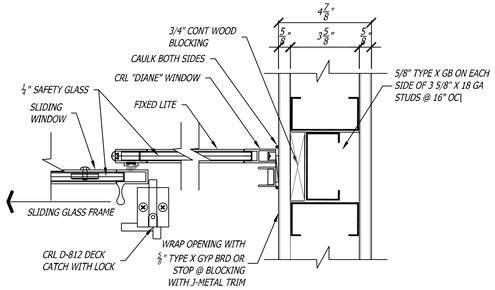
3 EXTERIOR STOREFRONT WINDOW SILL
09A603 3" = 1'-0"



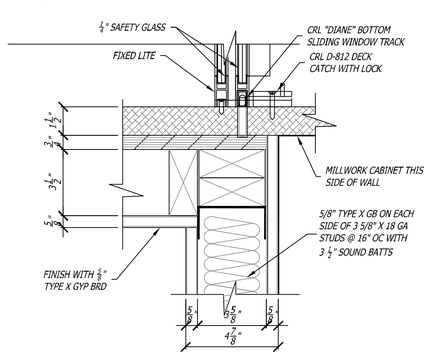
4 EXTERIOR STOREFRONT MULLION
09A603 3" = 1'-0"



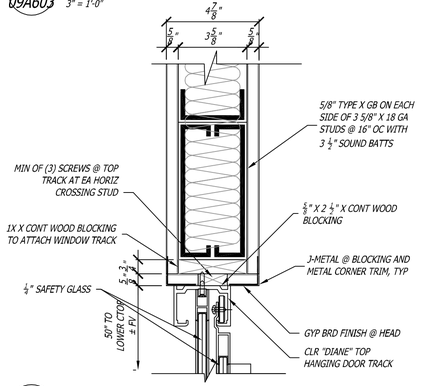
5 TYPICAL STOREFRONT SILL
09A603 3" = 1'-0"



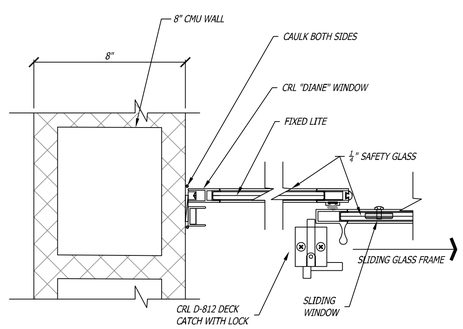
6 CRL "DIANE" WINDOW TRACK JAMB
09A603 3" = 1'-0"



7 CRL "DIANE" WINDOW TRACK SILL
09A603 3" = 1'-0"



8 CRL "DIANE" WINDOW TRACK SOFFIT
09A603 3" = 1'-0"



9 CRL "DIANE" WINDOW TRACK JAMB @ CMU
09A603 3" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

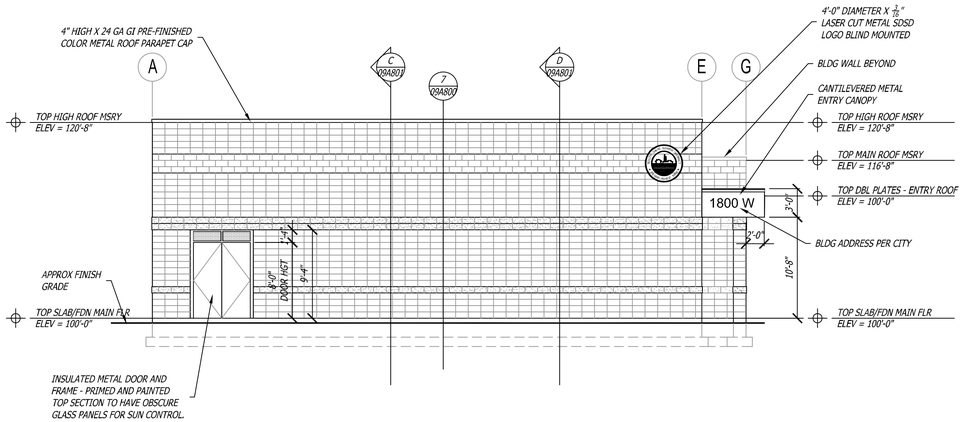
Project 24-001

Revisions

Date 03/01/24

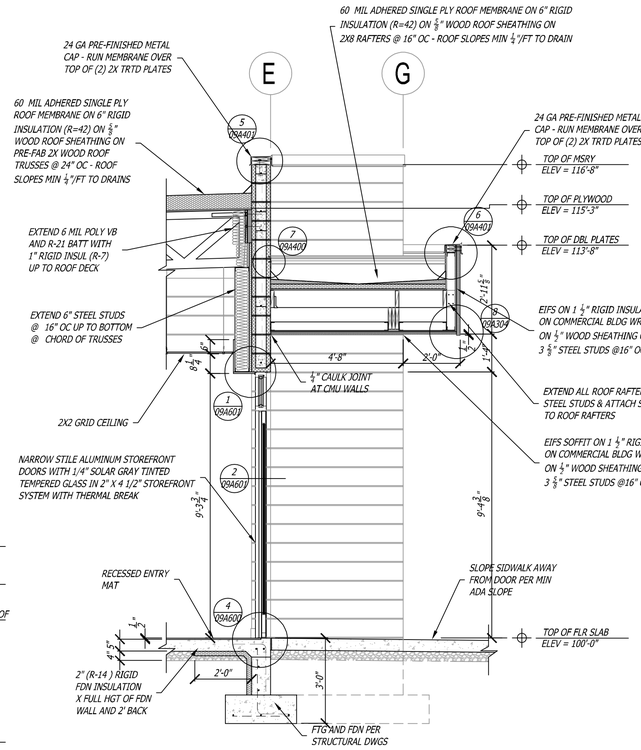
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A603



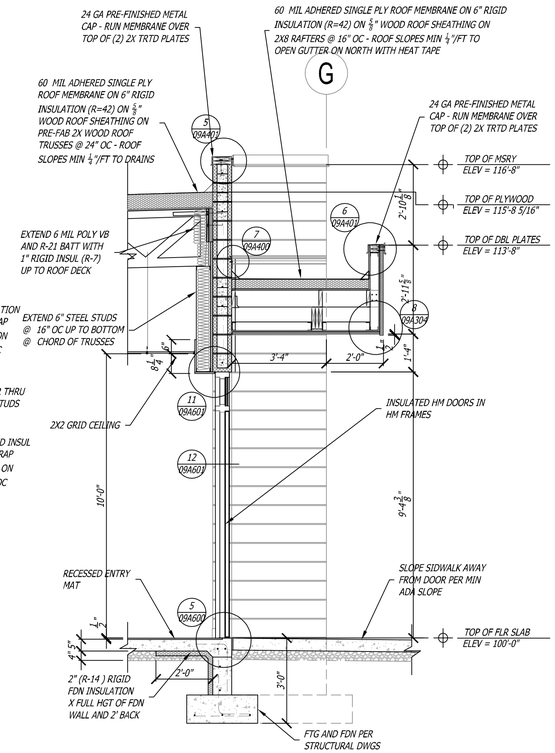
SOUTH BLDG ELEVATION

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



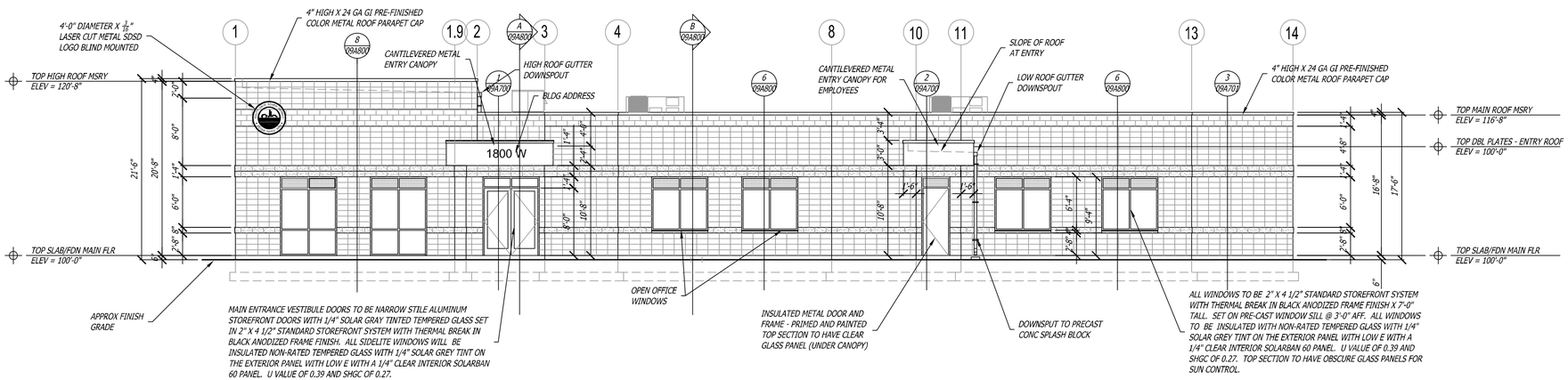
1 09A700 **WALL SECTION THRU MAIN ENTRY**

3/8" = 1'-0"



2 09A700 **WALL SECTION THRU EMPLOYEE ENTRY**

3/8" = 1'-0"



EAST BLDG ELEVATION

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

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

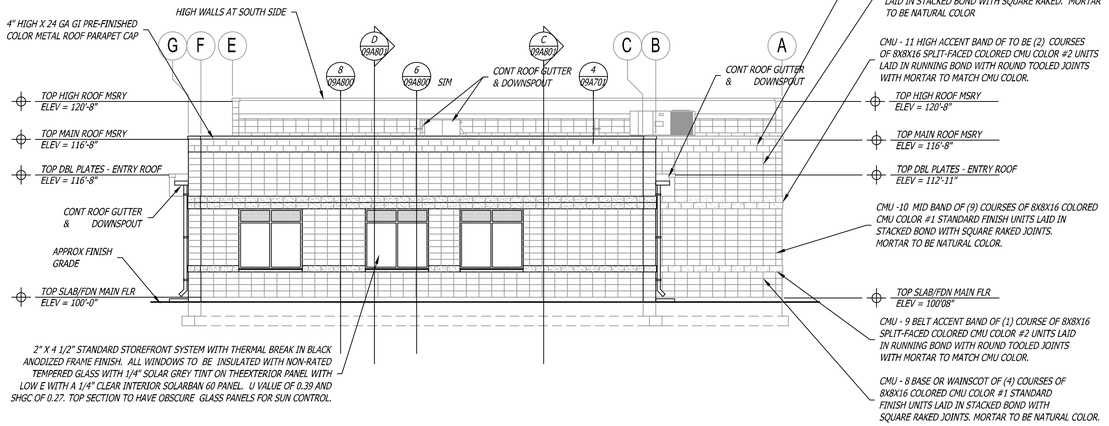
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

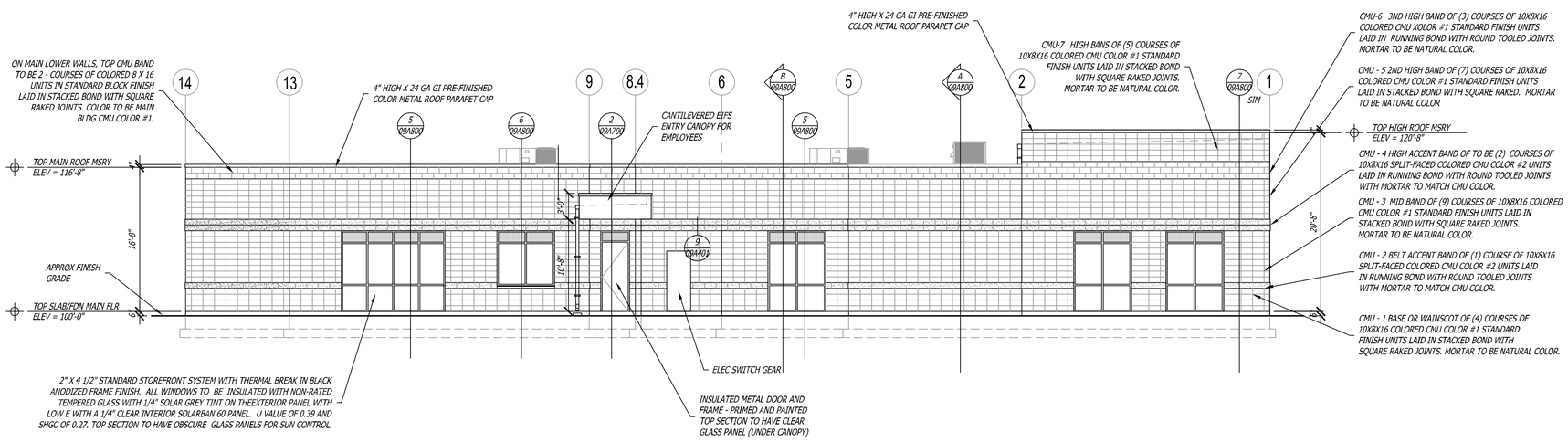
Date 03/01/24

09A700



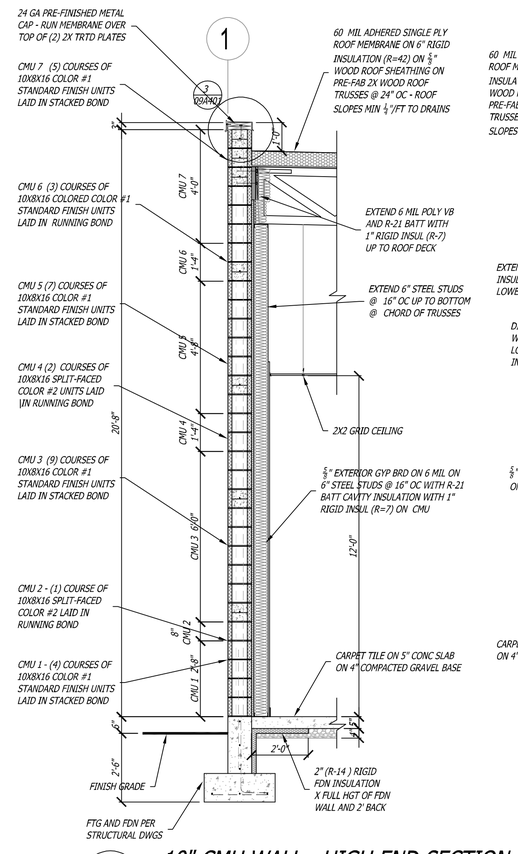
NORTH BLDG ELEVATION

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



WEST BLDG ELEVATION

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



3 09A701 **10" CMU WALL - HIGH END SECTION**

3/8" = 1'-0"

4 09A701 **10" CMU WALL - LOW END SECTION**

3/8" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

STATE OF UTAH JAMES B GLASCOCK 10088 REGISTERED ARCHITECT — 03/01/24

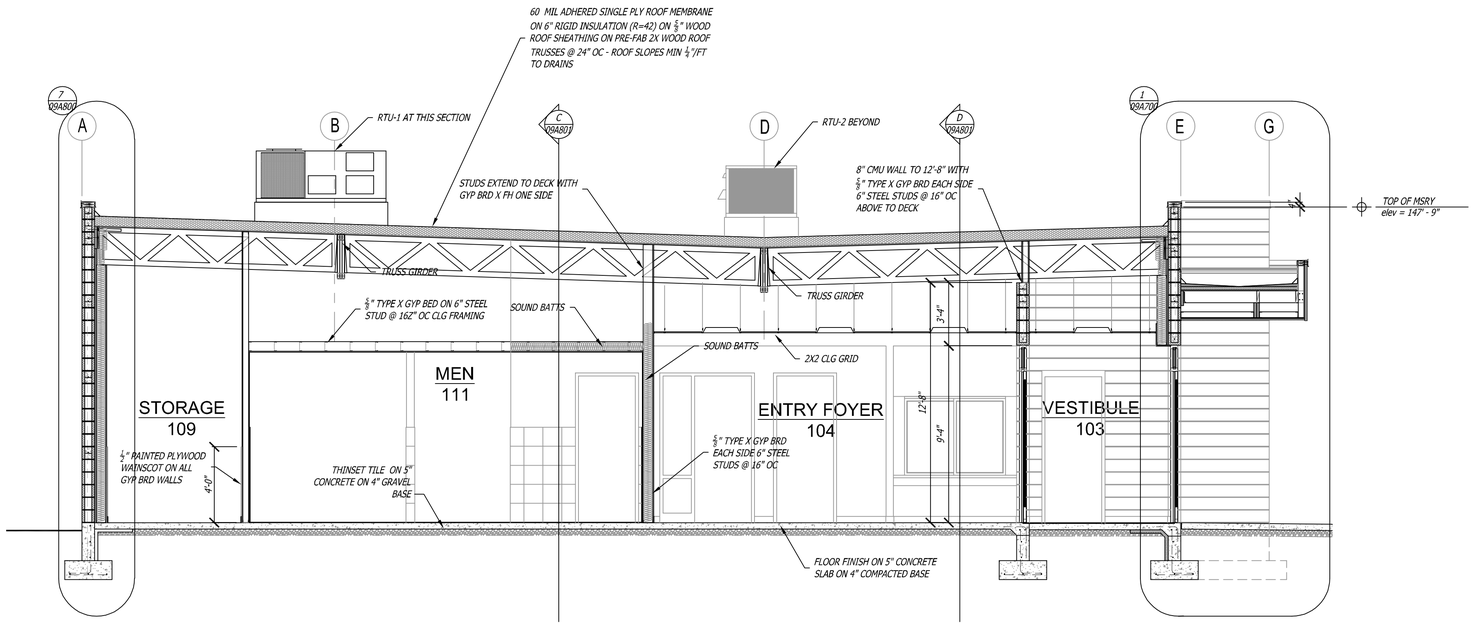
Project 24-001

Revisions

Date 03/01/24

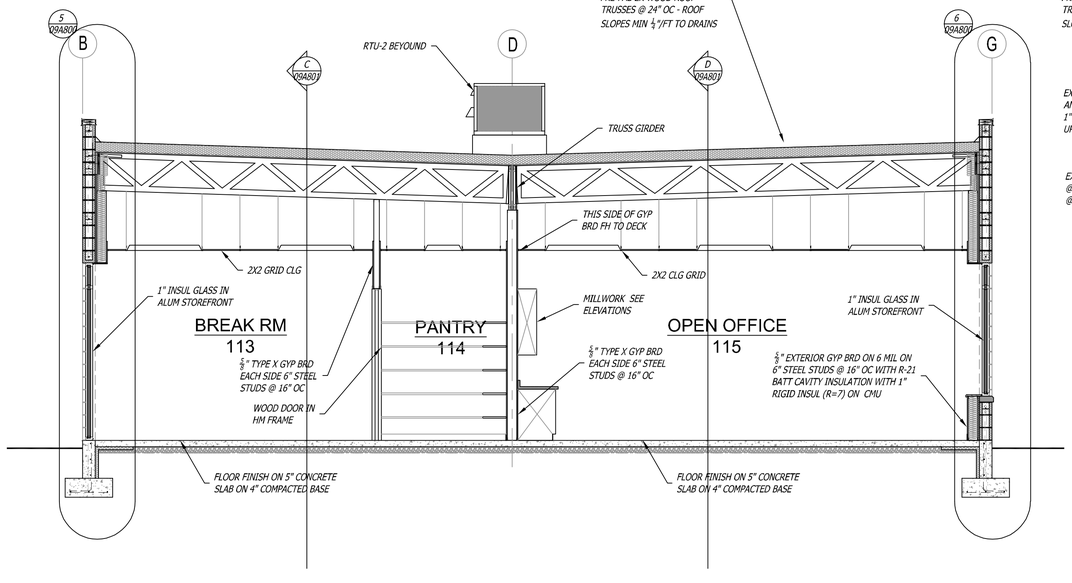
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A701



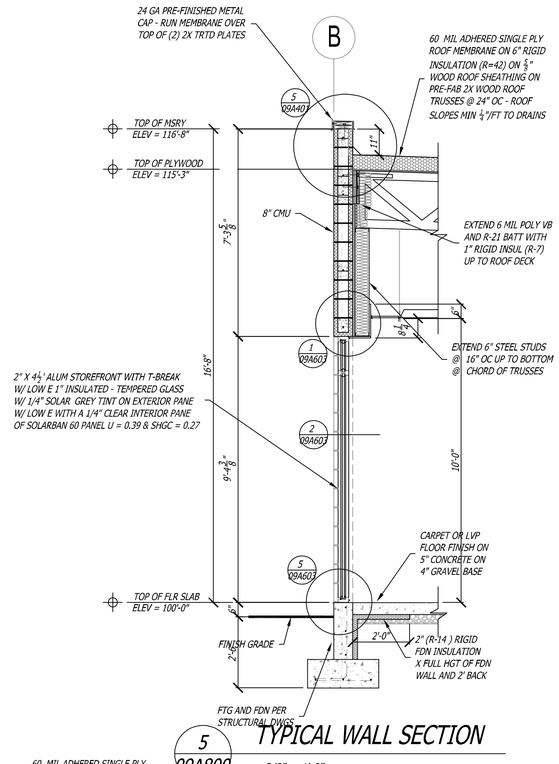
A 09A800 EAST - WEST BUILDING SECTION

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



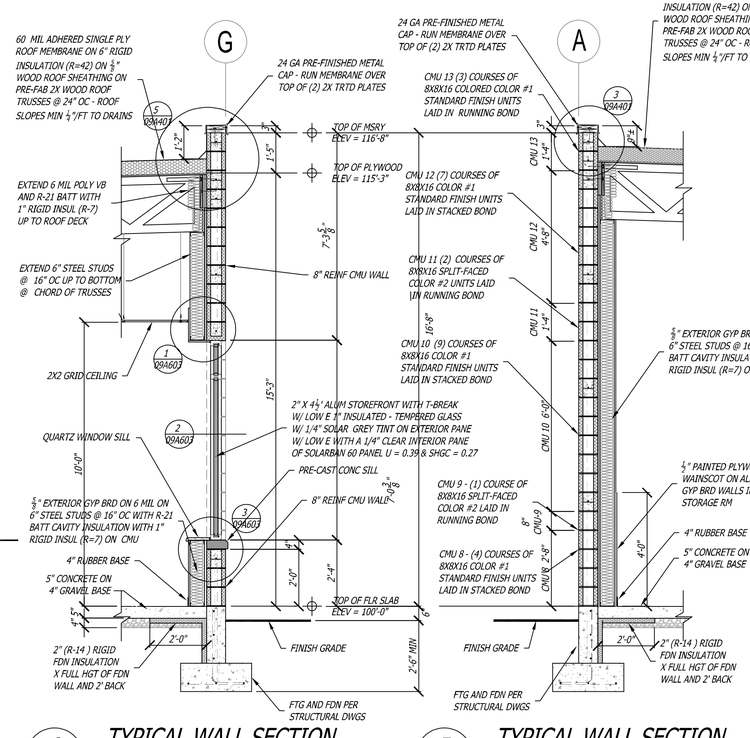
B 09A800 EAST - WEST BUILDING SECTION

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



5 09A800 TYPICAL WALL SECTION

3/8" = 1'-0"



6 09A800 TYPICAL WALL SECTION

3/8" = 1'-0"

7 09A800 TYPICAL WALL SECTION

3/8" = 1'-0"

8 09A800 TYPICAL WALL SECTION

3/8" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: qlascock@mtcon.net

STATE OF UTAH JAMES B GLASCOCK 176858 REGISTERED ARCHITECT

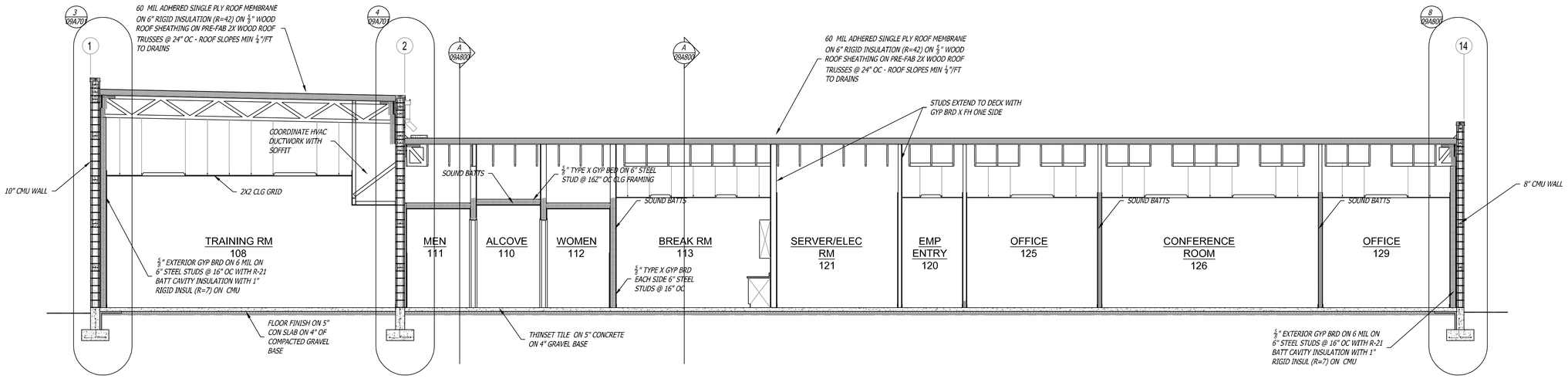
Project 24-001

Revisions

Date 03/01/24

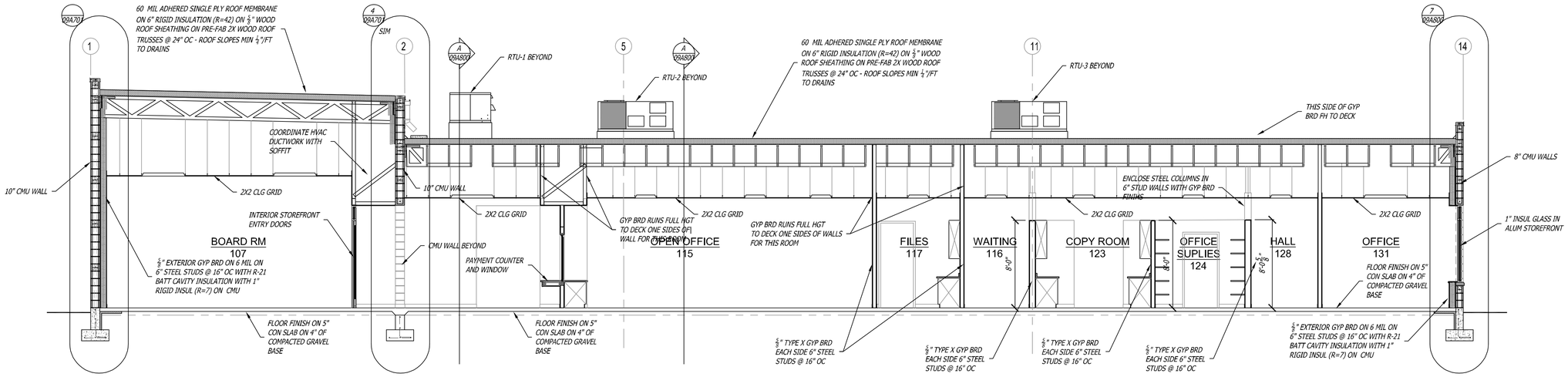
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A800



C 09A801 **NORTH - SOUTH BUILDING SECTION**

SCALE: 3/16" = 1'-0"



D 09A801 **NORTH - SOUTH BUILDING SECTION**

SCALE: 3/16" = 1'-0"

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

Revisions

Date 03/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09A801

GENERAL

1. Changes to these contract drawings may be made only by an authorized representative of the engineer or architect. The architect or engineer shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative.
2. Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
3. The contractor shall be responsible for means, methods, techniques, sequences, and procedures in order to comply with the contract drawings and specifications. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls, Columns, or Pilasters shall not be considered self-supporting and shall be braced until the floor/roof system is completed.
4. The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
5. The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions, or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
6. The contractor shall verify all site conditions and dimensions. If actual conditions differ from those shown in the contract drawings, the contractor shall immediately notify the architect/engineer before proceeding with the fabrication or construction of any affected elements.
7. The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
8. Typical details and sections shall apply where specific details are not shown.
9. Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultants' drawings. Most dimensions and most non-structural elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. See the Architectural Drawings for dimensions, doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfers, kerfs, etc.
10. Shop drawings made from reproductions of the drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.
11. Review of shop drawing submittals by the engineer is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents.
12. All work shall be done in accordance with OSHA requirements. Potential conflicts between these documents and OSHA requirements shall be brought to the attention of the structural engineer before proceeding with the work.
13. Site observations by the engineer and or architect shall not be construed as approval of construction, the procedures, nor special inspection.
14. The terms "Engineer" and "Engineer of Record" (EOR) are meant to refer to an authorized representative of M J Structural Engineers.

BASIS FOR DESIGN

1.	Governing Building Code	International Building Code 2021
2	Risk Category	II
4.	Roof Live Load*	20 psf
	*(Not concurrent with Roof Snow Load)	
5.	Roof Snow Load	
	5.1 Ground Snow Load	P/g = 32 psf
	5.2 Flat Roof Snow Load	P/f = 25 psf
	5.3 Snow Exposure Factor	C/e = 1.0
	5.4 Thermal Factor	C/t = 1.0
	5.5 Snow Load Importance Factor	I/Snow = 1.0
6.	Wind Load	
	6.1 Basic Wind Speed (3 Second Gust)	115 mph
	6.2 Wind Exposure	C
	6.3 Internal Pressure Coefficient	± 0.18
	6.4 Nominal Design Wind Speed	89.1 mph
	6.5 Risk Category II	
	6.6 Component and Cladding Wing Pressure See Chapter C6 "Wind Load" Section 6-10 "Load On Main Wind-Force Resisting System" Page 297 Of ASCE/SEI 7-05	
7.	Seismic Design Criteria	
	7.1 Mapped Spectral Response Accelerations	
	7.1.1 Short Period Acceleration	S/S = 1.359
	7.1.2 1-Second Acceleration	S/1 = 0.496
	7.2 Site Class (Soil Profile)	D
	7.3 Spectral Response Coefficients	
	7.3.1 Short Period Acceleration	S/DS = 1.087
	7.3.2 1-Second Acceleration	S/D1 =0.597
	7.4 Seismic Importance Factor	I/Seismic = 1.0
	7.5 Seismic Design Category	D
	7.6 Effective Structural Seismic Weight	W
	7.7 Basic Seismic Force Resisting System	Intermediate Reinforced Masonry Shearwalls
	7.7.1 Response Modification Coefficient	R = 3.5
	7.7.2 System Over-Strength Factor	Ω/0 = 2.5
	7.7.3 Deflection Amplification Factor	C/D = 2.5
	7.7.4 Design Base Shear	V = C/S*W = 0.278(0.195 ASD)
	7.8 Analysis Procedure	Equivalent Lateral Force
8.	Serviceability Criteria	
	8.1 Deflection Limits	Live/Snow, Total
	Floor	L/360, L/240
	Roof	L/360, L/240
	Perimeter	L/600(3/8" max) -

FOUNDATION

1.	Soils Report by:	Ninyo & Moore Geotechnical & Environmental Sciences Consultants
	Dated:	July 7, 2023 (Project No. 800272001)
2.	Soil Bearing Pressure:	1200 psf, on Compacted Fill.
3.	Frost Protection:	30 inches minimum
4.	Lateral Soil Pressure Fluid Equivalent Density:	
	4.3. Passive	300 pcf
5.	Coefficient of Friction	0.31

DEFERRED SUBITTALS

1. Items requiring deferred submittals that are listed below are to be designed and fabricated by the manufacturer according to specifications given in structural and architectural drawings.
   1.1. Prefabricated Wood Roof Trusses (By Truss Manufacturer)
2. These deferred submittals shall first be submitted to the project architect and/or engineer for review and coordination. Upon completion of the architect/engineer review, a submittal to the city shall be made (for city review and approval). The city submittal shall include a letter stating that the architect/engineer review has been performed and that the plans and calculations for the deferred submittal items are found to be acceptable (e.g., with regard to geometry, load conditions, etc.) with no exceptions.
3. The final submittal shall be signed and sealed by a Professional Engineer licensed in the state in which construction will occur and shall be available at the jobsite throughout construction.

STRUCTURAL OBSERVATIONS

1 Structural Observations, as required by IBC Section 1704.5 shall be conducted by the Engineer of Record or an approved substitute licensed in the state in which the project is being constructed at the stages of construction listed below. Structural Observation is to verify general conformance to the structural drawings and does not constitute special inspection as required by the IBC and is not an approval of completed construction. A field report will be submitted to the architect following each visit. The contractor is responsible to provide sufficient notice and access for the structural observer to perform these observations.
   1.1. Prior to first concrete placement, after reinforcing steel has been installed.
   1.2. During initial masonry installation.
   1.3. During initial steel erection.
   1.4. During steel deck installation.
   1.7. During construction of the {Seismic Load Resisting System} {Main Wind Force Resisting System}
   SEE ENGINEER NOTES BELOW
   1.8. As required to address structural issues, with a maximum as defined in the contract.

   **ENGINEER NOTES FOR STRUCTURAL OBSERVATIONS:
   1.1. STRUCTURAL OBSERVATIONS FOR SEISMIC RESISTANCE SHALL BE PROVIDED FOR STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E, OR F WHERE ONE OF THE FOLLOWING EXISTS:
      1.1.1. WHEN REQUIRED BY THE BUILDING OFFICIAL
   1.2. STRUCTURAL OBSERVATIONS FOR WIND RESISTANCE SHALL BE PROVIDED WHERE VASD DETERMINED BY IBC SECTION 1609.3.1 EXCEEDS 110 MPH AND ONE OF THE FOLLOWING EXISTS:
      1.2.1. WHEN REQUIRED BY THE BUILDING OFFICIAL.**

EARTHWORK

1 Clearing: Remove all existing structures and associated foundations, slabs, fencing, asphalt, concrete, and incidental structures as necessary for project completion. The entire building area, including 3 feet beyond the building perimeter, shall be scraped to the depth necessary (4" minimum) to remove all vegetation, topsoil, loose/disturbed surficial soils, debris, and any other deleterious materials. Following stripping, all undocumented fill soils and any remaining loose natural soils shall be excavated to expose competent natural soils.

2 Proof roll undisturbed soil below all footings prior andl the entire building pad area to check for the presence of unsuitable fills, soft spots, or other undesirable materials or conditions. Remove sub-grade materials that are unsuitable and replace with compacted structural fill or 2,000 psi lean concret, before placing concrete.

3 Compacted structural fill: All fill material shall be a well-graded granular material with a maximum size less than 3" and with not more than 10% passing a #200 sieve. It shall be compacted to at least 95% of the maximum laboratory density as determined by ASTM D 1557 for fill beneath footings and 90% for fill beneath floor slabs. All fill shall be tested. Compacted structural fill shall be placed in lifts not exceeding 8" in uncompacted thickness.

4 Floor slabs thicknesses shall be as indicated in the plans and underlain by a granular layer at least 4" thick. The granular fill shall be free-draining fill such as "pea" gravel or three-quarters- to one-inch minus clean gap-graded gravel with not more than 5% passing a #200 sieve and shall be compacted to at least 90% of the maximum laboratory density as determined by ASTM D 1557.

5 Consult the project specifications and soils report for further earthwork requirements. The soils engineer shall review all excavations and fill placement prior to placing concrete.

CONCRETE

1 Materials unless noted otherwise:
   1.1. Normal Weight Aggregates ASTM C 33
   1.2. Light Weight Aggregates ASTM C 330
      • Light Weight Concrete shall not exceed 110 pcf (± 3 pcf)
   1.3. Fly Ash, Class F Pozzolan ASTM C618
   1.4. Reinforcing Steel
      • General ASTM 615 Grade 60 (60 ksi)
      • Frame Members, Shearwall Boundaries ASTM A706 (60 ksi)
      ASTM A615 is permitted if mill certifications are submitted showing that actual yield strength does not exceed the specified strength by more than 18000 psi and the ratio of tensile to yield strength is greater than 1.25.
   1.5. Deformed Bar Anchors (DBA) ASTM A496
   1.6. Headed Stud Anchors (HSA) ASTM A108
   1.7. Anchor Bolts: See steel and/or wood section(s) of general notes.
   1.8. Admixtures: Air-entraining admixtures shall comply with ASTM C 260 (when used). Calcium chloride shall not be added to the concrete mix. Except unreinforced concrete slabs on grade may have calcium chloride not exceeding one percent.
   1.9. Cement complying with ASTM C-150 shall be used for all concrete. See table of concrete properties for cement type.
   1.10. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.

2

CONCRETE USE	EXPOSURE CLASSIFICATIONS				CEMENT TYPE	(MIN) f'c (psi)	(MAX) w/ cm RATIO	(MAX) FLAYASH PERCENT	(MAX) AIR CONTENT PERCENT	(MAX) AGG SIZE	(MAX) SLUMP
Footings	F1	S0	P0	C1	I/II	3000	0.50	20	6	1"	6.00"
Interior Slabs on Grade	F0	S0	P0	C0	I/II	3500	0.50	20	2	3/4"	6.00"
Interior Walls	F0	S0	P0	C0	I/II	3000	0.50	20	2	3/4"	6.00"
Exterior Walls below Grade	F2	S0	P0	C1	I/II	4000	0.45	20	6	3/4"	6.00"
Columns	F1	S0	P0	C1	I/II	4000	0.45	20	5	3/4"	6.00"
Interior Piers	F0	S0	P0	C0	I/II	3000	0.50	20	2	3/4"	6.00"
Exterior Piers	F2	S0	P0	C1	I/II	3000	0.45	20	6	3/4"	6.00"
Exterior Slab on Grade	F2	S0	P0	C1	I/II	4000	0.45	20	6	3/4"	6.00"

4 The contractor shall be responsible for the design, detailing, care, placement and removal of all formwork and shores.
   4.1. Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own weight and any construction load to which they may be subjected. In no case, however, shall forms and shoring be removed in less than 24 hours after concrete placement.
   4.2. Suspended slabs shall be re-supported after form removal until concrete reaches its 28-day specified compressive strength.

5 Reinforcement shall have the following concrete cover: Clear Cover:
   5.1. Cast-in-place Concrete
      • Cast against and permanently exposed to earth 3"
      • Formed concrete exposed to earth or weather:
         #6 thru #18 bars 2"
         #5 and smaller bars 1 1/2"
      • Concrete not exposed to weather or in contact with ground:
         Slabs, Walls, Joists; #11 Bars and Smaller 3/4"
         Beams, Columns: Primary Reinforcement, Ties,Stirrups, Spirals 1 1/2"

6 Construction Joints and Control Joints:
   6.1. All horizontal and vertical construction joints, including between top of footing and foundation walls, shall be intentionally roughened to a full amplitude of approximately 1/4".
   6.2. Install construction or control joints in slabs on grade at a spacing not to exceed 30 times the slab thickness in any direction, unless noted otherwise. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be completed within 12 hours of concrete placement. Control joints may be installed by either:
      • Saw cut with depth of 1/4 the thickness of the slab
      • Tooled joints with depth of 1/4 the thickness of the slab
   6.3. Construction joints shall not exceed a distance of 125'-0" on center in any direction.

7 Construction
   7.1. Use chairs or other support devices recommended by the CRSI to support bar and tie reinforcement bars and WWF prior to placing concrete. WWF shall be continuously supported at 36" on center maximum. Reinforcing steel for slabs on grade shall be adequately supported on precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
   7.2. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
   7.3. All embeds and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
   7.4. No pipes, ducts, sleeves, etc. shall be placed in structural concrete unless specifically detailed or approved by the structural engineer. Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings unless detailed. Piping shall be routed around these elements and footings stepped to avoid piping.
   7.5. Reinforcing bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for DBAs or HSAs.
   7.6. Top of concrete columns shall be flush (±1/4") with bottom of supported cast-in-place members.

8 Detailing
   8.1. Lap splice lengths shall be detailed to comply with the "Reinforcing Bar Lap Splice Schedule" contained within the contract drawings.
      • Do not splice stirrups and ties. Do not splice vertical bars in retaining walls unless specifically shown.
      • At shearwall boundary elements and at moment frame beams to columns, lap lengths shall be increased by 25%.
      • Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler and shall meet all ACI requirements. Use "Cadweld", "Lenton" Standard Couplers, "Bar-Lock" or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
   8.2. At joints provide reinforcing dowels to match the member reinforcing, unless noted otherwise.
   8.3. At all discontinuous control or construction slab on grade joints, provide (2) #4 x 48".
   8.4. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing.
   8.5. All vertical reinforcing shall be doweled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90° standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#8 bars and smaller) with hooks need not extend more than 20" into footings.
   8.6. In concrete shearwalls, the horizontal wall reinforcing shall terminate at ends of walls and openings into the far end of the jamb column with a 90° standard hook plus a 6 bar diameter extension. Horizontal wall reinforcing shall be continuous through construction and control joints.
   8.7. See details for reinforcing around miscellaneous openings (8" to 36" wide). For openings wider than 36", contact the engineer. All recesses that interrupt reinforcing shall be reinforced the same as an opening.

STRUCTURAL STEEL

1 Codes and Standards: Fabrication and installation shall comply with the latest edition of the following:
   1.1. American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," with "Commentary".
   1.2. AISC "Code of Standard Practice" excluding sections 3.4, 4.4 and 4.4.1.
   1.3. AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
   1.4. AISC "Seismic Provisions for Structural Steel Buildings."
   1.5. American Welding Society (AWS), Structural Welding Codes D1.1, D1.3, D1.4, and D1.8, except as modified by the "Steel Construction Manual".

2. Material:
   2.1. Wide Flange Sections ASTM A992 (50 ksi)
   2.2. Plate
      • Typical ASTM A36
      • Braced/Moment Frames ASTM A572 Grade 50
   2.3. Notch-toughness requirements apply for Group 3, 4, and 5 shapes with flange thickness greater than 11/2" and plate 2" and thicker which are a part of the Seismic Load Resisting System (SLRS). Minimum Charpy V-Notch requirements are 20 ft-lbs at 70°F.
   2.4. Pipe ASTM A53 Grade B Type E/S
   2.5. Hollow Structural Shapes
      • Rectangular ASTM A500 Grade B (46 ksi)
      • Round ASTM A500 Grade B (42 ksi)
   2.6. Base Plates
      • Less than 4 inches thick ASTM A36
      • Over 4 inches to 6 inches thick ASTM A572 Grade 42
   2.7. Other Structural Shapes (M, C, etc) ASTM A36
   2.8. Bolted Connections ASTM A325
   2.9. Anchor Bolts
      • All Columns unless noted otherwise: ASTM F1554 Grade 36 with ASTM A563 heavy hex nuts with Grade A hardened washers.
      • Braced Frame/Moment Frame Columns unless noted otherwise: ASTM F1554 Grade 55 (equiv to A572 Grade 55) ASTM F1554 Grade 105 (equiv to A193 Grade B7) with ASTM A563 heavy hex nuts with ASTM F436 minimum 5/16" thick washers.
   2.10. Weld Filler Metal
      • Shielded Metal Arc Welding AWS A5.1, low-hydrogen only
      Low-hydrogen restrictions do not apply when welding sheet steels in accordance with AWS D1.3, including attaching these steels to structural members.
      • Gas-Metal & Metal-Cored Arc Welding AWS A5.18
      • Flux-Cored Arc Welding AWS A5.20
         ◇ E7XT-4 or E7XT-11 electrodes are not permitted.

STRUCTURAL STEEL

   • Intermixing of welds made from self-shielded welding electrodes with gas-shielded electrodes is not allowed in seismic critical welds, unless tested in accordance with AWS D1.8, annex B. The Field Erection Contractor is responsible for verifying intermixing of self-shielded and gas-shielded welding will not occur, or alternatively, the welding procedure is qualified by testing.
   • Use E70 class electrodes only, unless noted otherwise. E60 class electrodes may be used for welding steel floor and roof decks. All electrodes to be low hydrogen.
   2.11. Non-Shrink Grout ASTM C1107 Grade B
      • Non-shrink grout shall be prepackaged, non-metallic and non-gaseous.
      • Furnish certified independent test data to Structural Engineer.
      • Fluid Consistency (flow cone) = 20 to 30 seconds
      • Compressive Strength in 28 days = 7,500 psi

3. Structural Detailing
   3.1. Provide full depth web stiffener plates at each side of all beams at all bearing points. Stiffener plates shall be the thickness called out below unless noted otherwise. Stiffeners shall be welded on both sides of the plate-to-flange and plate-to-web interfaces. Do not weld into the web-to-flange fillet region of the member.

FLANGE WIDTH	STIFFENER THICKNESS	WELD SIZE
Less than 8 1/4"	1/4"	3/16"
8 1/4" to 12 1/4"	3/8"	1/4"
12 1/4" to 16 1/2"	1/2"	5/16"
16 1/2" to 20 3/4"	5/8"	3/8"

   3.2. Bolting and Fasteners
      • Ordinary steel-to-steel connections, simple span framing, and beam/girder-to-bearing plates are the standard connection used throughout the design drawings, unless noted otherwise:
         ◇ Use A325N bolts or tension-controlled bolts.
         ◇ Tighten these fasteners to a "snug tight" condition.
         ◇ Where a steel-to-steel connection is not shown, provide a standard AISC framed connection of one half the total uniform load capacity of the beam for the span and steel specified.
      • Pretensioned connections are shown on the structural design drawings. They join steel-to-steel connections, unless noted otherwise:
         ◇ Use A325N or A325X bolts or tension-controlled bolts.
         ◇ Pretension these fasteners as required by AISC "Specification for Structural Joints Using ASTM A325 or a A490 bolts."
      • Slip Critical connections (SC) are shown on the structural design drawings. They join steel-to-steel connections in Seismic Load-Resisting Systems (SLRS).
      • Fasteners and washers shall not be reused. Scrap dirty, rusted, or water-contaminated bolt assemblies.
   3.3. Welding
      • All intersecting steel shapes which are not bolted shall be connected by a fillet weld all around, unless noted otherwise. Where fillet weld sizes are not shown, they shalll be 1/16" less than the thinnest of the connected parts for thicknesses 1/4" and larger. Fillet welds on plates less than 1/4" shall be of the same size as the thinnest of the connected part.
      • Field weld symbols indicate welds that may be performed in the field. The general contractor shall coordinate shop and field welds between the fabricator and erector.
   3.4. Reduced Beam Sections
      • Fabrication of the reduced flange sections of beams used in SLRS is restricted to mechanically guided thermal cutting processes. Freehand cutting is not permitted.
      • Flange cuts shall meet the requirements of AISC 358.
      • Repair of gouges, notches, mill imperfections, shall conform to the requirements of the AISC and AWS provisions.
   3.5. Weld Access Holes and Temporary Attachments
      • Fabricate beam copes and weld access holes using the geometry described in AISC 360 Section J1.6.
      • Runoff tabs are to be removed unless noted otherwise.
   3.6. Backup Bars: Remove backup bars from all beam bottom flange connections in demand critical welds, unless noted otherwise. Backgouge the root and weld to sound metal. Reweld the gouged area and add a 5/16" reinforcing fillet weld.
   3.7. Protected Zones: No connections, other than those on the design drawings, shall be made within the protected zone of the SLRS as identified in AISC 341.
      • Locate headed studs, welds, miscellaneous metal, etc outside of the protected zone.
      • Paint the protected zones with bright paint before and after fire coating operations to identify them.

4. Welding of Reinforcing Steel or Bolts
   4.1. Reinforcing Bars: Do not weld rebar except as specifically detailed in the drawings. In such cases, use only AWS standards.
   Do not substitute reinforcing bars for deformed bar anchors, structural bolts, or headed stud anchors.
   4.2. Do not weld anchor bolts, including "tack" welds.
   4.3. Headed Stud Anchor welding and Deformed Bar Anchor welding shall conform to the manufacturer's specifications.

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: gjascock@ntcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 3/01/24

09S101

POST-INSTALLED ANCHORS

1. Follow all ICC Evaluation Report and manufacturers' requirements and recommendations for post-installed anchor installation. Where conflicts may exist, the most stringent requirement applies.
2. All holes in hollow, brick, or stone masonry shall be drilled in the "rotary-only" mode with the hammer function off.
3. Follow manufacturer and ICC evaluation report requirements for installation temperature of adhesive anchors. Adhesive anchors shall not be installed or cured outside of approved temperature ranges.
   - 3.1. Adhesive anchors in concrete shall be
     - HIT RE-500 SD by Hilti (ESR-2322) - normal weight concrete only
     - SET-XP by Simpson (ESR-2508)
     - PE1000+ by Powers Fasteners (ESR-2583) - 1/2" to 7/8" diameter only
   - 3.2. Adhesive anchors in grouted masonry shall be
     - HIT HY-150 MAX by Hilti (ESR-1967)
     - SET by Simpson (ESR-1772)
   - 3.3. Adhesive anchors in brick or stone masonry shall be
     - HIT HY-20 by Hilti (ESR-4815)
     - SET by Simpson (ESR-1772)
     - CIA-GEL 7000 Epoxy by USP (ESR-1702)
4. Mechanical (Expansion) anchors
   - 4.1. Mechanical anchors in concrete shall be
     - Kwik Bolt TZ by Hilti (ESR-1917)
     - Strong-Bolt by Simpson (ESR 1771)
     - Trubolt+ by ITW Redhead (ESR-2427)
   - 4.2. Mechanical anchors in grouted masonry shall be
     - Kwik Bolt 3 by Hilti (ESR-1385)
5. The Contractor may submit, for review and approval, the manufacturer's ICC evaluation report of alternate anchor systems. The alternate method shall provide minimum capacities equal to or greater than those in the above noted anchors. The alternate method shall be approved by the engineer of record prior to the substitution.
6. Special Inspection and Testing
   - 6.1. Special inspection shall be performed according to the requirements of the ICC evaluation report, per section 1704.13 of the IBC.
   - 6.2. Testing shall be done according to the more stringent requirements of the ICC evaluation report and the values listed below.
     - Adhesive Anchors in Concrete or Solid Grouted Masonry: 50% of anchors in non-redundant elements (e.g. column, brace connections, boundary steel, hold-downs) and 10% of anchors in redundant elements shall be tension tested at the following load(s):

     6.2.2. Adhesive Anchors in Solid Brick Masonry: Tension test 5% of all anchors to 3000 lbs. Hold load for five minutes. Torque test 25% of all anchors with a calibrated wrench to 60 foot-pounds.

     6.2.3. Mechanical anchors shall be tension tested to twice the allowable tension load listed in the ICC evaluation report.

WOOD

1. Materials
   - 1.1. Dimension Lumber and Timbers (Sawn Lumber)
     - All dimensioned lumber shall comply with USDOC PS20.
     - Visually graded dimension lumber shall be Douglas Fir-Larch #2 or better.
     - Visually graded timbers (5" x 5" and larger) shall be Douglas Fir-Larch #1 or better.
     - Machine stress rated (MSR) lumber shall be 1600f-1.6E or better.
     - End jointed lumber may be used interchangeably with solid sawn members of the same species and grade with written approval from the Engineer.
   - 1.2. Wood Structural Panel Sheathing
     - Wood sheathing shall be APA rated sheathing Exposure 1 unless noted otherwise and shall conform to the requirements for its type in USDOC PS1 or USDOC PS2. The panels must be identified by the trademarks of the approving testing and inspection agency.
     - Wood sheathing minimum thicknesses, span ratings, and nailing requirements shall be as indicated in the Roof and Floor Sheathing Schedule, unless noted otherw
       - ◇ Wood sheathing shall have the following minimum thicknesses and span ratings, unless noted otherwise:

Roof	15/32"(32/16), 19/32"(40/20)
Floor	23/32"(48/24)
Wall	15/32"(32/16), 7/16"(24/16)

     - Nails or other approved fasteners used to connect sheathing to the structure shall be driven such that their head or crown is flush with the surface of the sheathing. Do not overdrive fasteners.
   - 1.7. Bolts
     - Anchor Bolts: ASTM F1554 Grade 36 (or A307 Grade A/C or A36)
       - ◇ All anchor bolts connecting the sill plate to the concrete foundation shall have a PL1/4"x3"x3" washer between the sill plate and the nut and have a minimum 7" embedment into concrete.
     - Connection Bolts: ASTM A307 Grade A/C/ or A36
       - ◇ All bolted connections shall have a standard cut or larger washer on both sides of the connection (between the head and the wood member and between the nut and the wood member).
     - Bolt holes shall be a minimum of 1/32" to a maximum of 1/16" larger than the bolt diameter. Holes shall be accurately aligned in main members and side plates or side members. Bolts shall not be forcibly driven.
2. Connection Hardware
   - 2.1. All connection hardware shown shall be supplied by Simpson Strong-Tie Incorporated or USP structural connectors.
   - 2.2. Install all hardware per the manufacturer's guidelines.
   - 2.3. Connection hardware of equal design properties by other manufacturers may be substituted with written approval from the Engineer.
3. All fasteners in contact with pressure-treated or fire-treated wood shall be hot-dipped zinc-coated galvanized or stainless steel.
4. All wood in contact with concrete, masonry or soil shall be pressure treated or redwood.
5. General framing and carpentry shall be connected as per "THE MINIMUM NAILING SCHEDULE" unless noted otherwise.

PREFABRICATED WOOD TRUSSES

1. Prefabricated metal plate wood trusses shall be designed, signed, and sealed by a Professional Engineer registered in the same state as the project location. They shall be designed to support the concentrated and uniform loads shown on the plans, unbalanced and sliding snow loads, and the following uniform loads:

Dead Load (Top Chord):	10 psf
Dead Load (Bottom Chord):	10 psf
Live or Snow Load (Top Chord):	30 psf
Live Load (Bottom Chord):	10 psf -- Does not occur concurrently with top chord live load.
Max Total Load:	50 psf

   Loads listed above do not include drifting, unbalanced, or sliding snow. Designs shall include an additional 9 psf Dead Load at all overbuild framing locations. A dead load no greater than 8 psf shall be assumed for the design of trusses and attachments for wind uplift.

   Coordinate the truss design with mechanical equipment, fire sprinkling systems and hanging walls supported by the trusses. Provide additional trusses as necessary.

2. The deflection of all prefabricated wood trusses shall be limited to the following values:
   - 2.1. Live Load Span/360
   - 2.2. Total Load Span/240
3. No stress increase is allowed for snow loads.
4. All truss-to-truss connections shall be designed and provided by the truss manufacturer.
5. Design, handling, erection, stability, and permanent bracing of metal plate connected wood trusses shall be in accordance with ANSI/TPI-1, National Design Standard for Metal Plated Connected Wood Truss Construction and the Truss Plate Institute publications entitled "Commentary and Recommendations for Bracing Wood Trusses" and "Commentary and Recommendations for Handling and Erecting Wood Trusses."
6. Steel Connector Plates: All steel gusset plates shall be galvanized and shall have a current ICC-ES approval. Values established by the approved ICC-ES report must be indicated
   - 6.1. The minimum size for any connector shall be 8 in^2.
   - 6.2. All steel gusset plates shall be located on the joint as the stresses require and shall provide a minimum bite of 2.5" on all tension members.
   - 6.3. Plates shall be pressed or rolled into member to obtain full penetration without crushing the outer surfaces of wood.
   - 6.4. Al steel plate dimensions shall be increased by 10% above that required by analysis. Duration of load stress increases for steel connector plate design are not allowed.
7. No wane, knots, skips, or other defects shall occur in the plated contact area or scarfed area of web members. Plates shall be centered with one required each side of wood truss.
8. The truss shall be handled and stored in a manner to prevent moisture from being absorbed by the wood.
9. Shop Drawings: Complete calculations and shop drawings indicating all member forces, stresses, duration factors, lumber grades, dimensions, truss-to-truss connections, metal plate sizes and locations, and applied loads shall be submitted and reviewed by the engineer before fabrication. Each connector shall be dimensioned on the shop drawings as to its exact size and location at the joi

MASONRY

1. Materials, unless noted otherwise:
   - 1.1. Concrete Masonry Units (CMU): Lightweight Grade N, Type 1 (minimum unit strength of 1900 psi) f'm = 1500 psi
   - 1.2. Hollow Clay Units: Hollow Brick, Grade I (minimum unit strength of 3,000 psi) f'm = 1800 psi
   - 1.3. Solid Clay Units: Grade SW (minimum unit strength of 3000 psi) f'm = 1800 psi
   - 1.4. Mortar: Type "S" 1800 psi compressive strength.
   - 1.5. Grout shall attain a minimum compressive strength of 2000 psi at 28 days.
   - 1.6. Reinforcing Steel ASTM 615 Grade 60 (Fy = 60 ksi)
   - 1.7. Wire Joint Reinforcing ASTM A 951
   - 1.8. Deformed Bar Anchors (DBA) ASTM A496
   - 1.9. Headed Stud Anchors (HSA) ASTM A108
   - 1.10. Anchor Bolts ASTM A307 with ASTM A563 heavy hex nuts with ASTM F436 hardened washers unless noted otherwise.
2. Detailing Requirements:
   - 2.1. Standards: Reinforcing detailing shall comply with American Concrete Institute (ACI) Stadard 315, "Details and Detailing of Concrete Reinforcement."
   - 2.2. Reinforcement shall have the following cover:
     - Joint reinforcement shall have not less than 5/8" mortar coverage from the exposed face.
     - Other reinforcement shall have a minimum coverage of one bar diameter over all the bars, but not less than 3/4". When masonry is exposed to soil, minimum coverage shall be 1 1/2".
   - 2.3. Lap all masonry reinforcing according to the "Masonry Reinforcing Bar Lap Splice Schedule" contained in the contract documents.

     Lap all masonry reinforcing per bar size as follows:

     Required lap lengths for single bars centered in each cell:

#3 = 18"	#6 = 43"	#9 = 82"
#4 = 22"	#7 = 60"	
#5 = 26"	#8 = 72"	

     Required lap lengths for 2 bars per cell with 2 1/2: cover:

#3 = 18"	#6 = 54"	#9 = 82"
#4 = 22"	#7 = 63"	
#5 = 32"	#8 = 72"	

   - 2.4. Joint reinforcement shall lap a minimum of 6".
   - 2.5. All vertical reinforcing shall be doweled to the structure below (foundation wall, footing, etc) with the same size dowel, spacing (and in the same core) as the vertical wall reinforcing above.
   - 2.6. Corner Bars: Horizontal reinforcement shall be continuous at all corners and at intersecting walls. Provide corner bars with the required lap splice length.
   - 2.7. Wall openings 24" wide and wider: For unscheduled openings, provide reinforcing on all sides as shown in the details. Also, for all openings, provide horizontal bar at bottom of opening as shown in the details. Vertical bars shall extend from floor level below to the floor, or roof level above. Horizontal bars for all openings shall extend a minimum of 48 bar diameters beyond the corners of the opening. Where a 48 bar diameter extension is not possible, extend bars as far beyond the opening as possible and terminate the bar(s) with a 90 degree standard ACI hook.
   - 2.8. Horizontal reinforcing shall terminate with a standard hook at edge of openings and ends of walls without corner bars as shown in the details.
   - 2.9. Horizontal wall reinforcing shall terminate with a standard 180 degree hook at each side of control joints except at floor and roof levels, lintels, beams, and at top of parapets as shown in the details.
   - 2.10. All masonry column ties shall terminate with 135 degree hooks plus a 6 bar diameter extension (4" minimum).
3. Construction Requirements:
   - 3.1. All units shall be laid with full mortar beds on the face shells. All head joints shall be filled solidly with mortar for a distance in from the face of the units not less than the thickness of the longitudinal-face shells. Cells which are to be grouted shall have full head joints.
   - 3.2. Masonry walls, beams, and columns shall be constructed with running bond, unless noted otherwise.
   - 3.3. All cells containing reinforcement, embeds, anchor bolts, etc. shall be filled solid with grout. Grout shall be placed by mechanical vibration during placing and re-vibrated after excess moisture has been absorbed but before workability is lost. Puddling or rodding of grout is not allowed.
   - 3.4. Where walls are not grouted solid, each grout pour shall terminate flush with the top of the uppermost unit except at cells with vertical reinforcing where the grout shall be 1 1/2" below top of unit to provide construction key.
   - 3.5. Grout pours shall be limited to 4'-0" unless high lift grouting procedures are followed.
   - 3.6. All masonry below grade shall be solid grouted.
   - 3.7. Solid grouting of walls is unacceptable except where specifically noted.
   - 3.8. Vertical cells to be filled with grout shall have vertical alignment sufficient to maintain a clear, unobstructed vertical cell measuring not less than 2" by 3".
   - 3.9. Vertical steel reinforcement shall be placed and secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 112 bar diameters, or at grout lift heights, or at bar splice locations, whichever is less. Vertical reinforcing shall be located at the center of the wall, unless noted otherwise.
   - 3.10. Reinforcing bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for DBA's or HSA's.
   - 3.11. Control Joints: Spacing shall not exceed 40'-0". See architectural drawings for locations.
   - 3.12. Grout all beam and joist pockets solid after installation of beams and joists.
   - 3.13. Embed channels and plates shall be placed so as to create a flush surface with the face of the wall.
   - 3.14. Anchor bolts and headed stud anchors shall be set in grouted cells.

LEGEND OF MARKS AND ABBREVIATIONS

ALT	Alternate
ARCH	Architect
BLDG	Building
BLK	Blocking
BN	Boundary Nail
BOTT	Bottom
BRG	Bearing
BTWN	Between
BYND	Beyond
CANT	Cantilever
CGS	Center of Gravity of Strand
C J	Control Joint
CJP	Complete Joint Penetration
CL	Center Line
CLR	Clear
CMU	Concrete Masonry Unit
COL	Column
CONC	Concrete
CONT	Continuous
CS	Coil Strap
DB	Deck Bearing
DBA	Deformed Bar Anchor
DBL	Double
DIM	Dimension
DWG	Drawing
(E)	Existing
EA	Each
ELEC	Electrical
EMBED	Embedment
EN	Edge Nail
EQ	Equal
EQUIP	Equipment
EXT	Exterior
FD	Floor Drain
FND	Foundation
FLR	Floor
FTG	Footing
FRT	Fire Retardant Treatment
ga	Gage
GALV	Galvanized
GLB	Glued Laminated Beam
GSN	General Structural Notes
HD	Hold-down
HDR	Header
HORIZ	Horizontal
HSA	Headed Stud Anchor
HSS	Hollow Structural Section
ICBO	International Conference of Building Officials
IBC	International Building Code
INT	Interior
JST	Joist
JSTs	Joists
K	Kip(S) = 1000 Pounds
klf	Kips Per Lineal Foot
ksf	Kips Per Square Foot
LB	Pounds (#)
LSL	Laminated Strand Lumber
LVL	Laminated Veneer Lumber
MAS	Masonry
(MAX)	Maximum
MECH	Mechanical
MEZZ	Mezzanine
MFR	Manufacturer
(MIN)	Minimum
MISC	Miscellaneous
MTL	Metal
(N)	New
oc	On Center
OPNG	Opening
OPP	Opposite
OSB	Orientated Strand Board
PCF	Pounds per Cubic Foot
PERP	Perpendicular
PL	Plate
plf	Pounds per Lineal Foot
PRE-FAB	Prefabricated
psf	Pounds per Square Foot
psi	Pounds per Square Inch
PT	Post Tension
PT/DF	Pressure Treated Douglas Fir
RD	Roof Drain
REINF	Reinforce/Reinforcement/Reinforcing
REQD	Required/Requirements/Requiring
RTU	Roof Top Unit
SCHED	Schedule
SCW	Seismic Critical Weld
SIM	Similar
STD	Standard
STIFF	Stiffener
STL	Steel
STRUCT	Structural
T&G	Tongue and Groove
TEMP	Temperature
TYP	Typical
U.N.O.	Unless Noted Otherwise
VERT	Vertical
w/	with
WWR	Welded Wire Reinforcement
WP	Working Point

STRUCTURAL SHEET INDEX

Sheet Number	Sheet Name
09S101	GENERAL NOTES
09S102	GENERAL NOTES CONT.
09S202	FOOTING AND FOUNDATION PLAN
09S203	ROOF FRAMING PLAN
09S901	FOOTING AND FOUNDATION DETAILS
09S902	FOOTING AND FOUNDATION DETAILS
09S903	MASONY DETAILS
09S904	ROOF FRAMING DETAILS
09S905	STEEL SCHEDULES

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL STRUCTURAL ENGINEER
TIMOTHY D. MERRILL
03/01/2024
184004
STATE OF UTAH

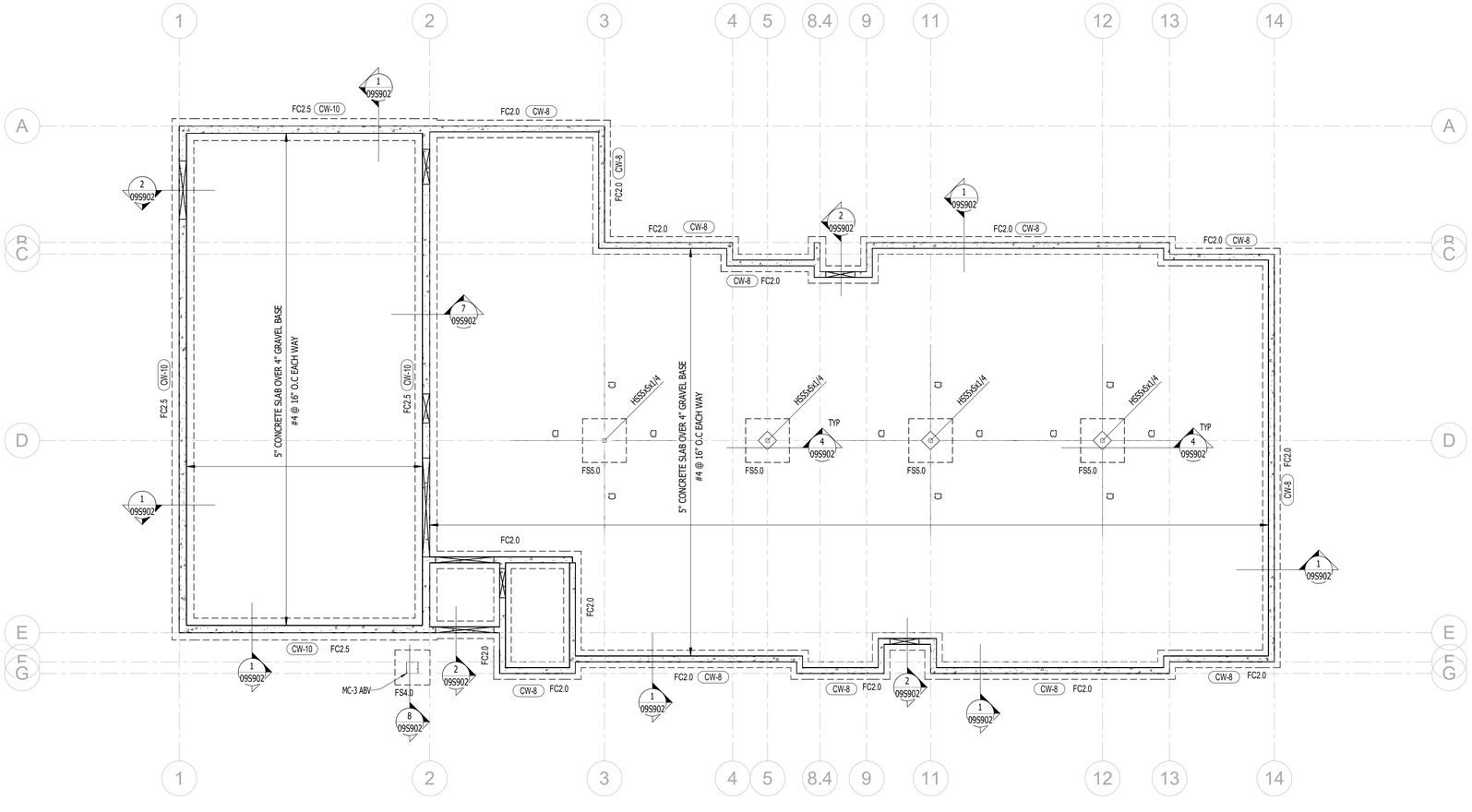
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 3/01/24

09S102



1 FOOTING AND FOUNDATION PLAN

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

FOOTING AND FOUNDATION PLAN NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
2. COORDINATE LOCATION OF DEPRESSED SLABS, SLOPED SLABS, AND FLOOR DRAINS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
3. SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
4. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS TO ALL STEEL COLUMN COORDINATE DIMENSIONS SHOWN WITH ARCHITECTURAL DRAWINGS.
5. SEE FOOTING AND FOUNDATION DETAILS FOR BURIED PIPES RUNNING PARALLEL AND PERPENDICULAR TO FOOTINGS.
6. SEE GENERAL STRUCTURAL NOTES AND FOOTING AND FOUNDATION DETAILS FOR TYPICAL CONSTRUCTION AND CONTROL JOINTS IN FLOOR SLAB.
7. SEE GENERAL STRUCTURAL NOTES AND FOOTING AND FOUNDATION DETAILS FOR LOCATIONS WHERE CONTROL JOINTS ARE DISCONTINUOUS.
8. SEE FOOTING AND FOUNDATION DETAILS FOR REINFORCING AROUND MISCELLANEOUS OPENINGS IN CONCRETE WALLS.
9. SEE FOOTING AND FOUNDATION DETAILS FOR TERMINATION OF HORIZONTAL WALL REINFORCING AT CORNERS.
10. CENTER ALL SPOT FOOTINGS UNDER COLUMNS AS SHOWN ON PLAN, TYPICAL UNLESS NOTED OTHERWISE.
11. SEE GENERAL STRUCTURAL NOTES AND FOOTING AND FOUNDATION DETAILS FOR FILL BENEATH FOOTINGS.
12. PROVIDE MINIMUM 30" FROST COVERAGE. SEE ARCH CONTROL PLAN FOR TO FOUNDATION ELEVATIONS
13. SEE ARCH PLAN FOR HEIGHT OF CONCRETE WALL

MARKS AND SYMBOL LEGEND

x / Sxxx	SECTION MARK / SHEET NUMBER
FTG ELEV.	FTG DESIGNATION / TOP OF FOOTING ELEVATIONS
	CONC WALL, SEE SCHED
CW-x	CONC WALL, SEE SCHED
FS-x	SPOT FTG, SEE SCHED
FC-x	CONT. FTG, SEE SCHED
CJ	CONTROL JOINT, SEE FTG AND FND DETAILS ON (S500)

CONCRETE WALL

MARK	THICKNESS	REINFORCING			WALL TYPE	COMMENTS
		VERTICAL	HORIZONTAL	TOP AND BOTTOM		
CW-8	8"	(1) #5 AT14 "oc	(1) #4 AT10 "oc	(2) #4	A	__
CW-10	10"	(2) #5 AT14 "oc	(1) #4 AT10 "oc	(2) #4	C	__

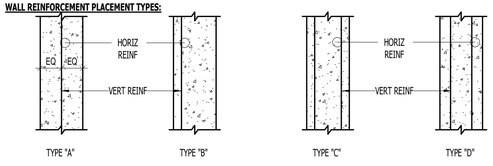
CONCRETE WALL NOTES:

1. SEE GENERAL STRUCTURAL NOTES FOR COVER AND OTHER REQUIREMENTS NOT NOTED IN SCHEDULE.
2. CONCRETE WALLS NOT DESIGNATED ON THE PLANS SHALL BE REINFORCED AS FOLLOWS:

THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6"	#4 BARS AT 18"oc	#4 BARS AT 16"oc
8"	#4 BARS AT 18"oc	#4 BARS AT 12"oc
10"	#4 BARS AT 16"oc	#5 BARS AT 15"oc
12"	#4 BARS AT 18"oc EA FACE	#4 BARS AT 16"oc EA FACE

3. PLACE STEEL IN THE CENTER OF THE WALL (EXCEPT TYPE 'B' AND RETAINING WALLS). WALLS THICKER THAN 10" SHALL HAVE TWO CURTAINS OF REINFORCEMENT (PLACED NEAR EA FACE OF THE WALL), UNLESS NOTED OTHERWISE ON THE STRUCTURAL
4. PROVIDE ADDITIONAL REBAR AS REQUIRED, SEE SHEET S400.

WALL REINFORCEMENT PLACEMENT TYPES:



CONCRETE FOOTING SCHEDULE

MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				NO	SIZE	LENGTH	SPACING	NO	SIZE	LENGTH	SPACING	
FC2.0	2'-0"	CONT	12"	—				3	#4	CON	EQ	
FC2.5	2'-6"	CONT	12"	—	#5	2'-0"	14"	3	#5	CON	EQ	
FS4.0	4'-0"	4'-0"	12"	4	#5	3'-6"	EQ"	4	#5	3'-6"	EQ	
FS5.0	5'-0"	5'-0"	12"	5	#5	4'-6"	EQ"	5	#5	4'-6"	EQ	

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MERRILL
03/01/2024
184004
STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

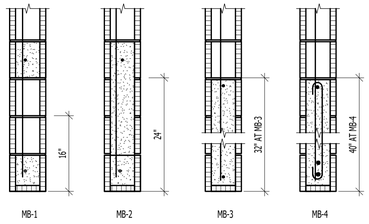
Revisions

Date 3/01/24

09S202

MASONRY LINTEL SCHEDULE

MARK	LINTEL DEPTH	LINTEL SPAN (MAX)	REINFORCING		COMMENTS
			HORIZONTAL	STIRRUPS	
MB-1	16"	3' - 4"	(1)#4 BOTTOM	NONE	__
MB-2	24"	5' - 0"	(1)#4 BOTTOM	NONE	__
MB-3	32"	8' - 0"	(1)#6 BOTTOM	NONE	__
MB-4	40"		(2)#6 TOP & BOTTOM	#4 AT 8"oc	(1)#7 TOP BAR



MASONRY LINTEL NOTES:

1. LINTEL WIDTH AND MATERIAL TYPES SHALL BE THE SAME AS THE WALL IN WHICH THE LINTEL IS CONSTRUCTED.
2. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR COLUMN AT EA END.
3. MASONRY LINTELS MB-1 THRU MB-4 SHALL BE USED OVER OPENINGS IN MASONRY WALLS WHEN A SPECIFIC MASONRY LINTEL IS NOT OTHERWISE SPECIFIED. WHEN A LINTEL IS SPECIFIED ON THE PLANS, THE MAXIMUM SPAN AS NOTED IN THIS SCHEDULE SHALL NOT APPLY. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SPECIFIED ON THE PLANS WHICH HAVE A SPAN GREATER THAN 10'-0".
4. MASONRY LINTELS MB-1 THRU MB-4 SHALL NOT BE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS UNLESS NOTED OTHERWISE ON THE PLANS. JOISTS SHALL NOT BEAR ON ANY LINTEL LESS THAN 16" DEEP. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SHOWN ON THE PLANS WHICH ARE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS.
5. EXTEND ALL HORIZONTAL REINFORCING BEYOND THE EDGE OF ALL OPENINGS. IF HORIZONTAL REINFORCING CANNOT EXTEND LAP SPLICE LENGTH BEYOND EDGE OF OPENING, PROVIDE 90° STANDARD HOOK.
6. SPLICE TOP BARS AT MID-SPAN OF LINTEL ONLY AND BOTTOM BARS OVER SUPPORTS ONLY.
7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THRU MASONRY LINTELS, WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCING.
8. DOWEL VERTICAL REINFORCING OF WALL ABOVE LINTEL INTO THE FULL DEPTH OF LINTEL.
9. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

MASONRY WALL SCHEDULE

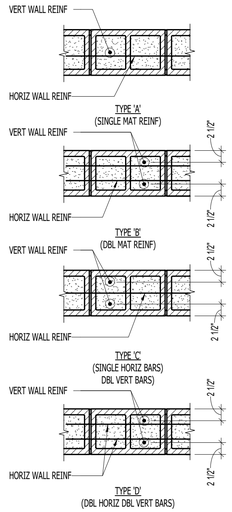
MARK	THICKNESS	MATERIALS	SOLID GROUT	REINFORCING			
				VERTICAL	HORIZONTAL	TYPE	JOINT
MW-8	8"	CMU	NO	(1) #5 AT 32"oc	(1) #5 AT 48"oc	A	NO
MW-10	10"	CMU	NO	(2) #5 AT 32"oc	(1) #5 AT 48"oc	A	NO

MASONRY WALL NOTES:

1. COORDINATE WITH ARCHITECTURAL DRAWINGS, MASONRY WALL FINISHES, TYPES OF MATERIAL, COURSING, ETC.
2. DO NOT SOLID GROUT WALLS UNLESS NOTED OTHERWISE.
3. ALL MASONRY BELOW GRADE SHALL BE GROUTED SOLID.
4. VERTICAL REINFORCING SHALL BE CENTERED IN THE WALL UNLESS NOTED OTHERWISE.
5. (1) VERTICAL BARS MINIMUM AT ALL CORNERS AND END OF WALLS.
6. HORIZONTAL WALL REINFORCING SHALL BE PLACED BETWEEN VERTICAL MASONRY COLUMN REINFORCING BARS.
7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THRU MASONRY LINTELS, WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCING.
8. MASONRY WALLS NOT DESIGNATED ON THE PLANS SHALL BE REINFORCED AS FOLLOWS:

THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6"	#5 BARS AT 32"oc	#4 BARS AT 48"oc
8"	#5 BARS AT 32"oc	#5 BARS AT 48"oc
10"	#6 BARS AT 32"oc	#6 BARS AT 48"oc
12"	#6 BARS AT 32"oc	(2) #5 BARS AT 48"oc

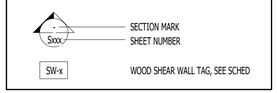
9. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
10. MASONRY SHALL BE SPECIAL INSPECTED SEE GENERAL STRUCTURAL NOTES.
11. HORIZONTAL WALL REINFORCEMENT SPACING SHALL NOT EXCEED 48"oc OR THE WALL LENGTH.

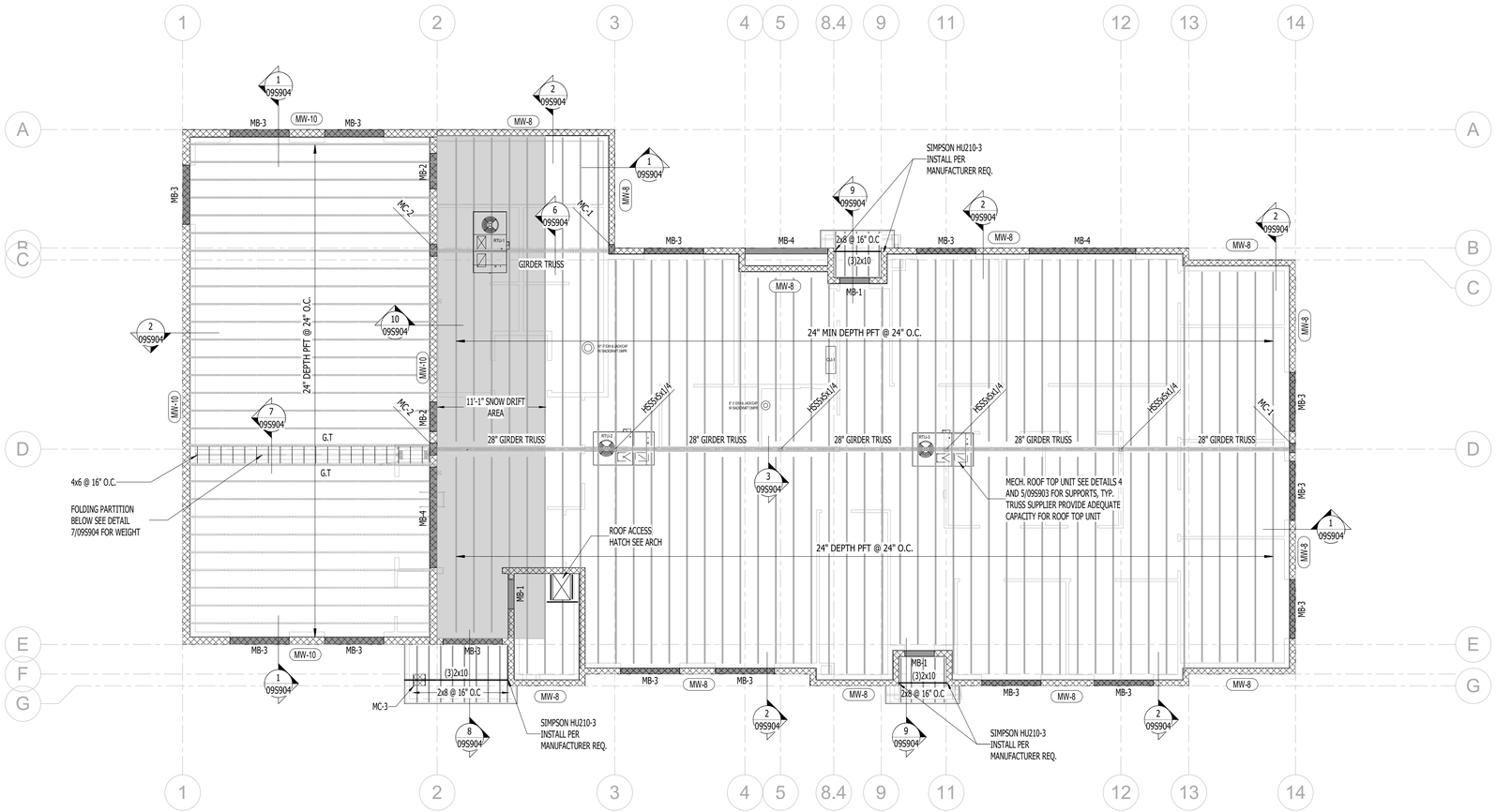


ROOF FRAMING PLAN NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR ALL DRAWINGS
2. VERIFY ROOF SLOPES, DRAINS, AND DECK BEARING ELEVATIONS WITH ARCHITECTURAL DRAWINGS. SEE ROOF FRAMING DETAILS.
3. REFER TO ARCHITECTURAL DRAWINGS FOR ALL CEILING ELEVATIONS AND SOFFIT ELEVATIONS AND DETAILS.
4. WEIGHTS AND LOCATIONS OF MECHANICAL EQUIPMENT SHALL BE SUBMITTED TO ARCHITECT IN WRITING FOR REVIEW PRIOR TO PLACEMENT OF ROOF FRAMING.
5. REFER TO GENERAL STRUCTURAL NOTES ON SHEET (09S101) FOR DESIGN LOADS OF ROOF TRUSSES.
6. CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY BRACE, WALLS, BEAMS, TRUSSES, ETC. AS REQUIRED DURING CONSTRUCTION.
7. TRUSS MANUFACTURER SHALL INCLUDE CAPACITY FOR AN ADDITIONAL (2) 1000 LBS POINT LOADS THAT MAY OCCUR AT ANY POINT INCLUDING 2'-0" TO 5'-0" APART FROM EACH OTHER.

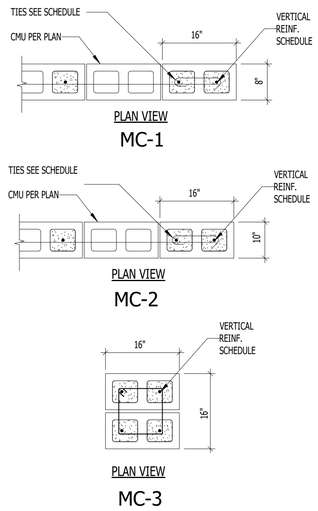
MARKS AND SYMBOL LEGEND



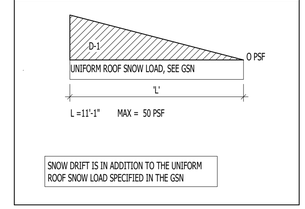


MASONRY COLUMN SCHEDULE

MARK	SIZE	VERTICAL REINFORCE	TIES	GROUT SOLID
MC-1	16" x 8"	(2)#6	#3 @ 6" O.C.	YES
MC-2	16" x 10"	(2)#6	#3 @ 8" O.C.	YES
MC-3	16" x 16"	(4)#5	#3 @ 8" O.C.	YES



SNOW DRIFT LOADING DIAGRAM



1 ROOF FRAMING PLAN

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

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MERRILL
03/01/2024
184004
STATE OF UTAH

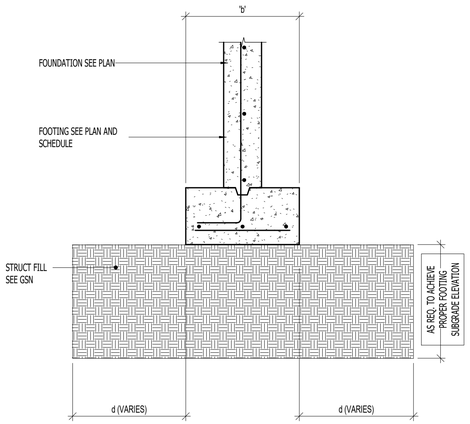
Project 24-001

Revisions

Date 3/01/24

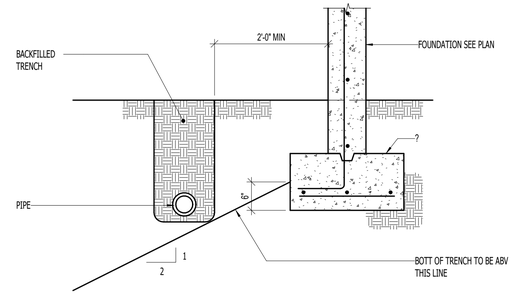
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09S203



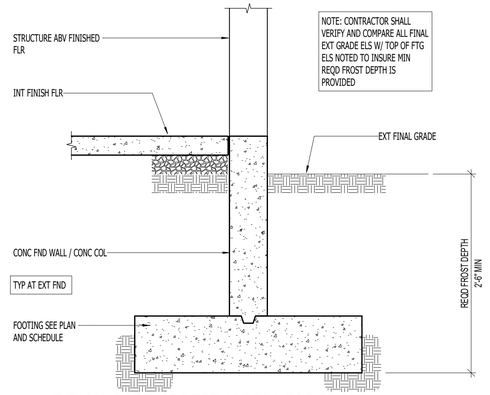
1 09S901 TYPICAL COMPACTED STRUCTURAL FILL (IF REQUIRED)

NO SCALE:



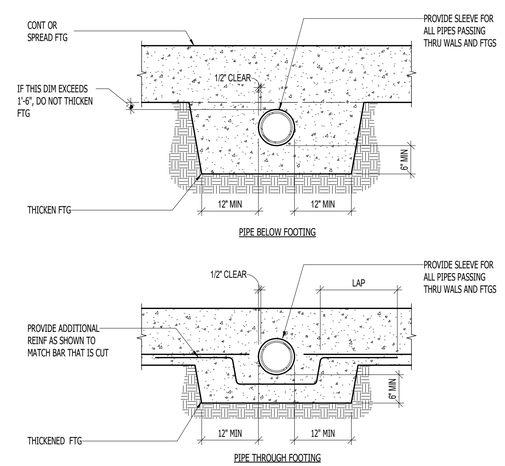
2 09S901 TYPICAL PIPE PARALLEL TO FOOTING

NO SCALE:



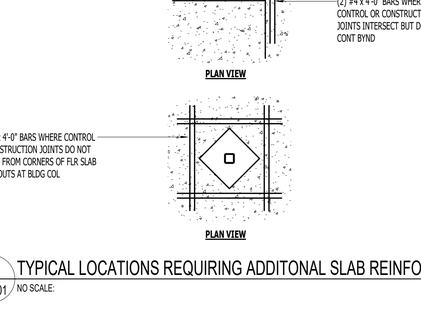
3 09S901 TYPICAL FOOTING DEPTH DETAIL FOR FROST PROTECTION

NO SCALE:



4 09S901 TYPICAL PIPE PERPENDICULAR TO CONTINUOUS FOOTING

NO SCALE:

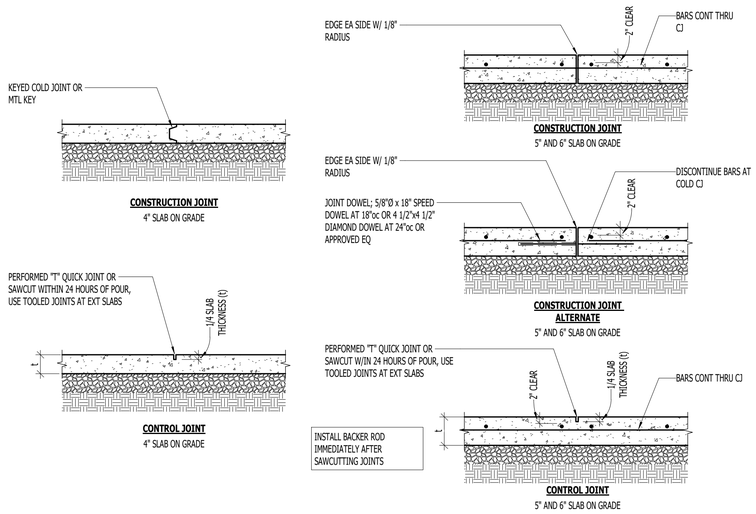


7 09S901 TYPICAL CORNER WALL REINFORCING

NO SCALE:

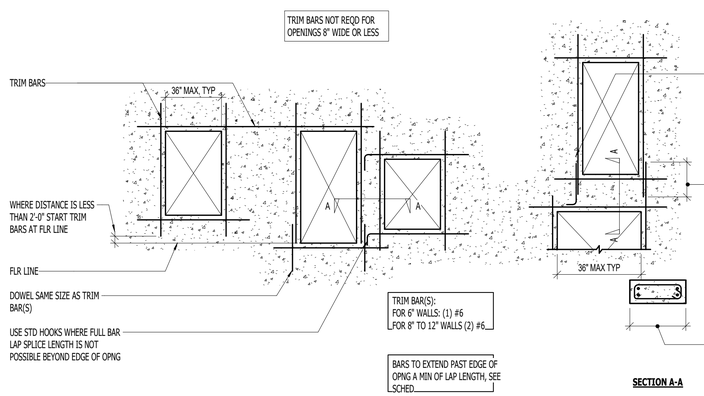
11 09S901 TYPICAL LOCATIONS REQUIRING ADDITONAL SLAB REINFORCING STEEL

NO SCALE:



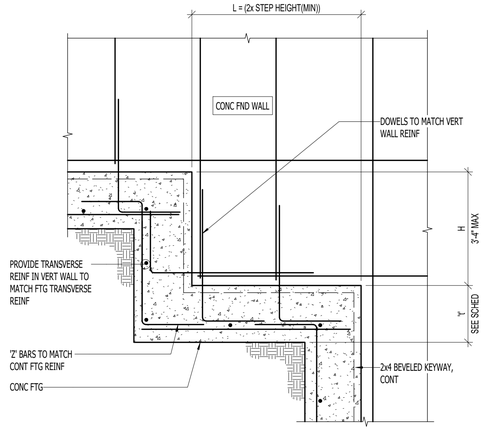
9 09S901 TYPICAL SLAB ON GRADE JOINT

NO SCALE:



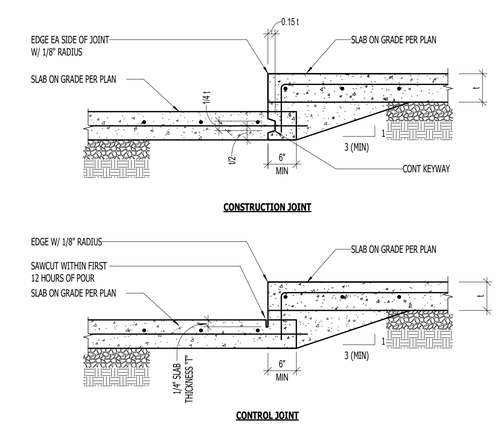
12 09S901 TYPICAL TRIM BARS AROUND MISCELLANEOUS CONCRETE WALL OPENINGS UNLESS NOTED OTHERWISE

NO SCALE:



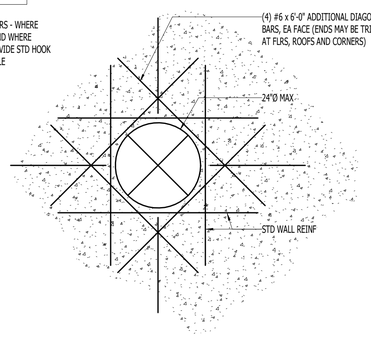
5 09S901 TYPICAL FOOTING STEP AT CONCRETE FOUNDATION WALL

NO SCALE:



10 09S901 TYPICAL SLAB DEPRESSION DETAIL

NO SCALE:



James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MORRILL
03/01/2024
184004
STATE OF UTAH

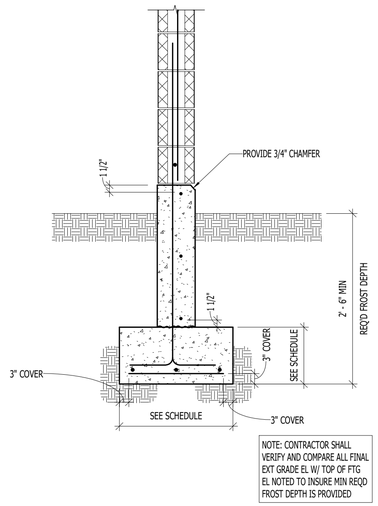
Project 24-001

Revisions

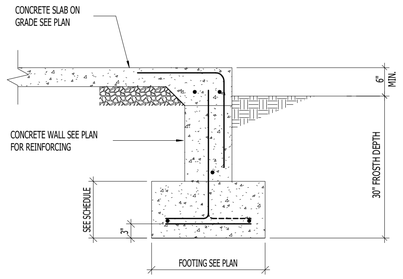
Date 3/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

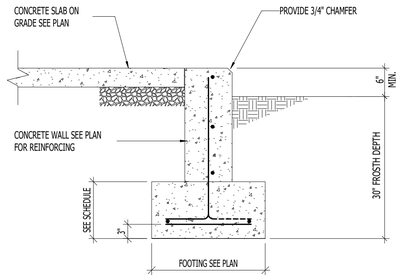
09S901



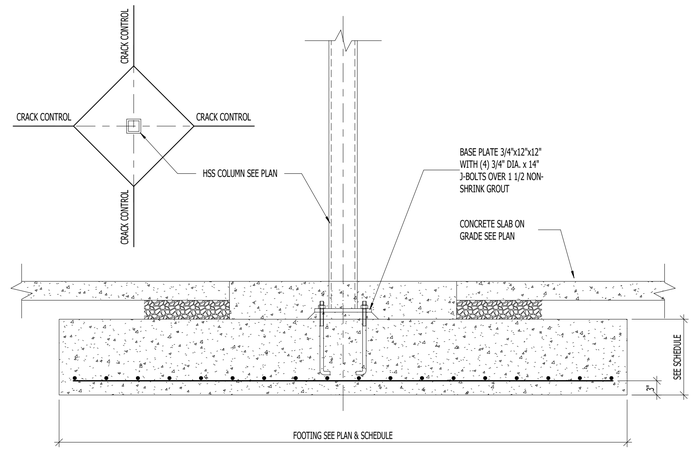
1 / 09S902 CMU WALL ON 8" FOUND WALL
NO SCALE:



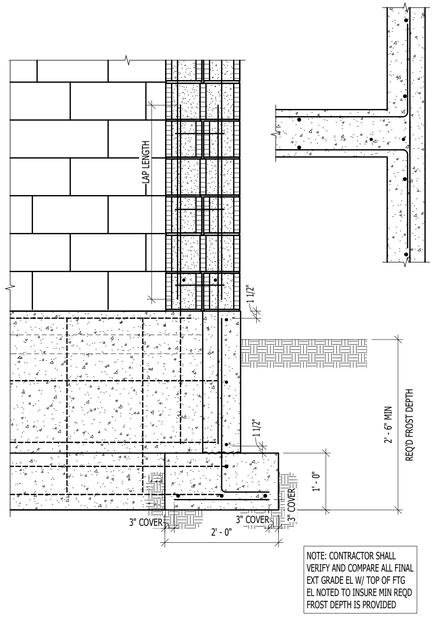
2 / 09S902 FOUNDATION WALL AT DOOR
NO SCALE:



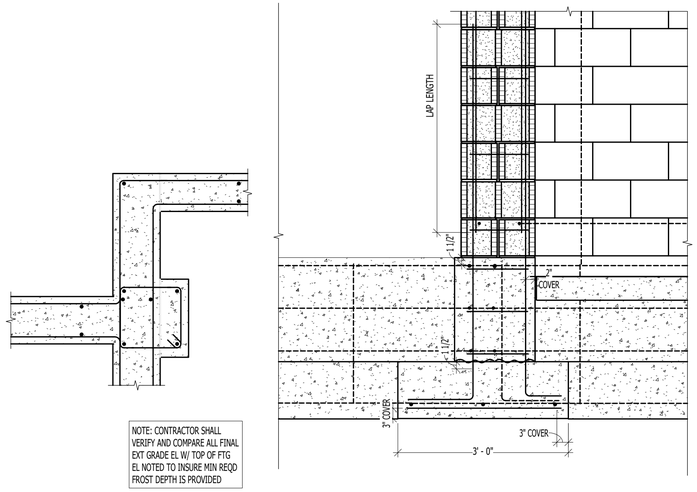
3 / 09S902 FOUNDATION WALL
NO SCALE:



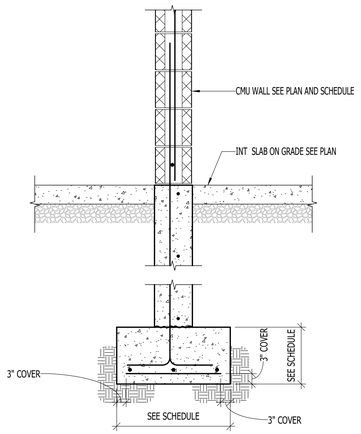
4 / 09S902 FOOTING AT INTERIOR COLUMN
NO SCALE:



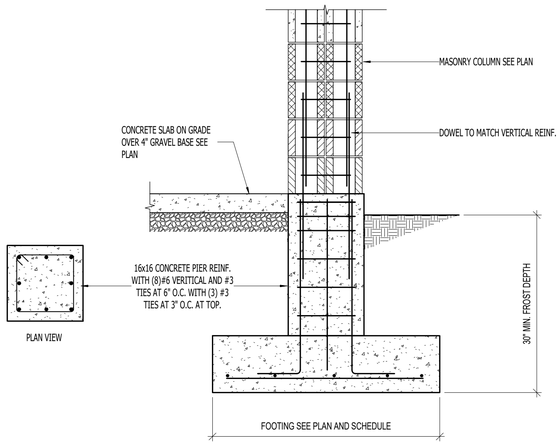
5 / 09S902 TYPICAL CMU WALL INTERSECTION FOOTING DETAIL
NO SCALE:



6 / 09S902 EXTERIOR MASONRY COLUMN
NO SCALE:



7 / 09S902 INTERIOR CMU WALL DETAIL
NO SCALE:



8 / 09S902 MASONRY / CONCRETE PIER DETAIL
NO SCALE:

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MERRILL
03/01/2024
184004
STATE OF UTAH

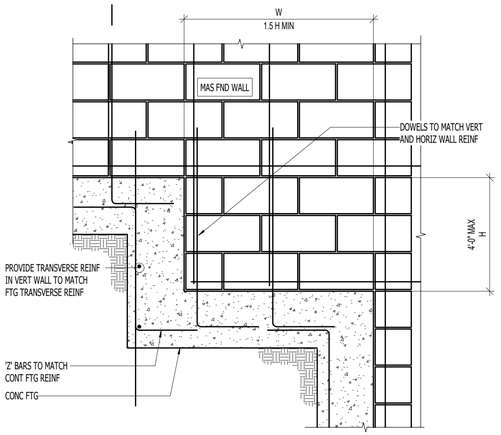
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

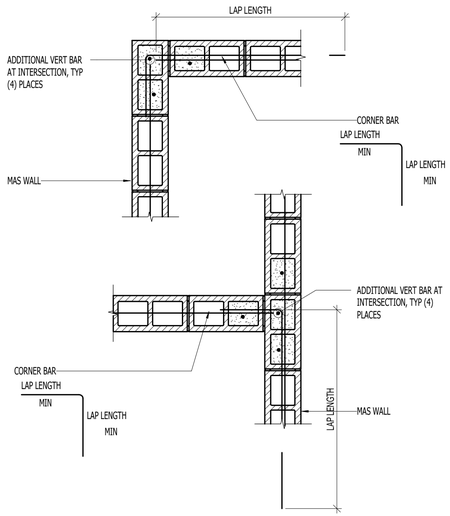
Date 3/01/24

09S902



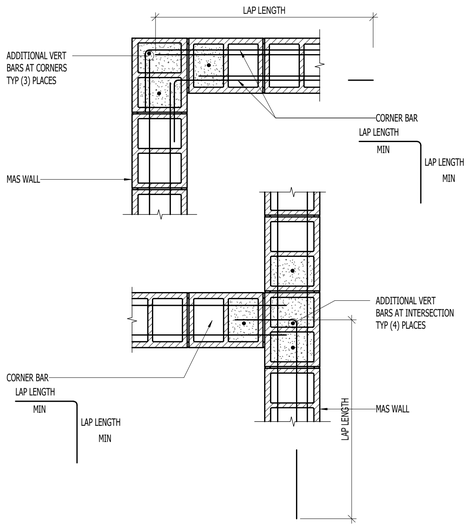
1 09S903 TYPICAL FOOTING STEP AT MASONRY FOUNDATION WALL

NO SCALE:



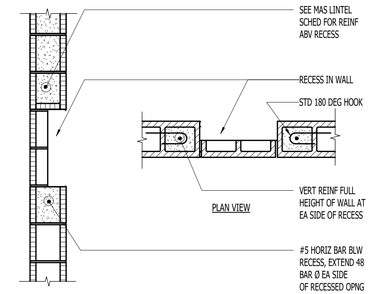
2 09S903 TYPICAL CORNER WALL REINFORCING FOR SINGLE REINFORCED MASONRY WALLS (PLAN VIEW)

NO SCALE:



3 09S903 TYPICAL CORNER WALL REINFORCING FOR DOUBLE REINFORCED MASONRY WALLS (PLAN VIEW)

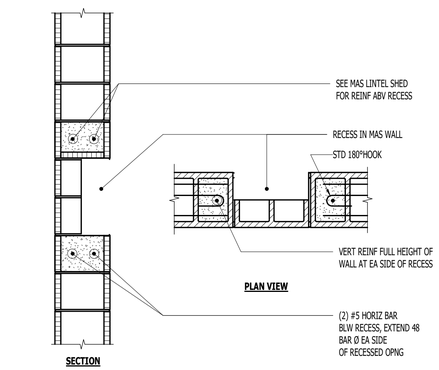
NO SCALE:



SECTION

4 09S903 TYPICAL MASONRY WALL RECESS DETAILS FOR SINGLE REINFORCED MASONRY WALLS (PLAN VIEW)

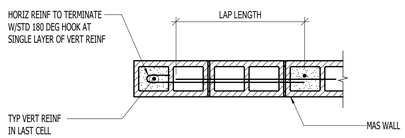
NO SCALE:



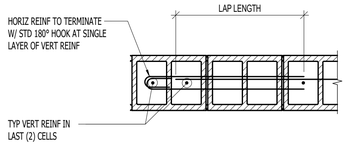
SECTION

9 09S903 TYPICAL MASONRY WALL RECESS DETAILS FOR DOUBLE REINFORCED MASONRY WALLS (PLAN VIEW)

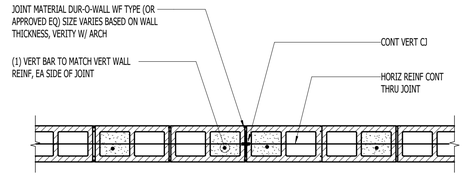
NO SCALE:



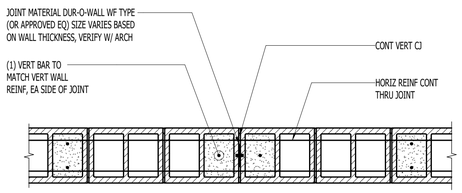
SINGLE LAYER VERTICAL REINFORCING



SINGLE LAYER VERTICAL REINFORCING



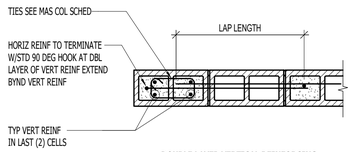
CONDITION AT HORIZONTAL BOND BEAM AND JOINT REINFORCING



CONDITION AT HORIZONTAL BOND BEAM AND JOINT REINFORCING

8 09S903 TYPICAL CONTROL JOINT FOR DOUBLE REINFORCED MASONRY WALLS (PLAN VIEW)

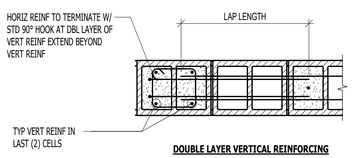
NO SCALE:



DOUBLE LAYER VERTICAL REINFORCING

5 09S903 TYPICAL TERMINATION OF HORIZONTAL REINFORCING FOR DOUBLE REINFORCED MASONRY WALLS (PLAN VIEW)

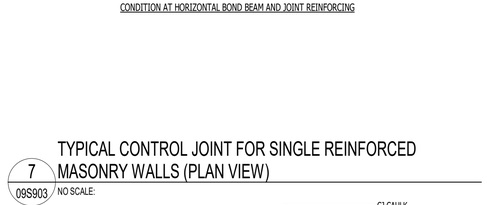
NO SCALE:



DOUBLE LAYER VERTICAL REINFORCING

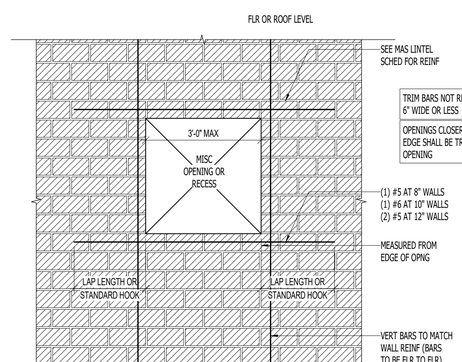
6 09S903 TYPICAL TERMINATION OF HORIZONTAL REINFORCING FOR DOUBLE REINFORCED MASONRY WALLS (PLAN VIEW)

NO SCALE:



7 09S903 TYPICAL CONTROL JOINT FOR SINGLE REINFORCED MASONRY WALLS (PLAN VIEW)

NO SCALE:



10 09S903 TYPICAL REINFORCING DETAIL FOR MISCELLANEOUS MASONRY WALL OPENINGS AND RECESSES

NO SCALE:

11 09S903 TYPICAL STEEL COLUMN IN MASONRY WALL AT SINGLE REINFORCING - (PLAN VIEW)

NO SCALE:

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MERRILL
03/01/2024
184004
STATE OF UTAH

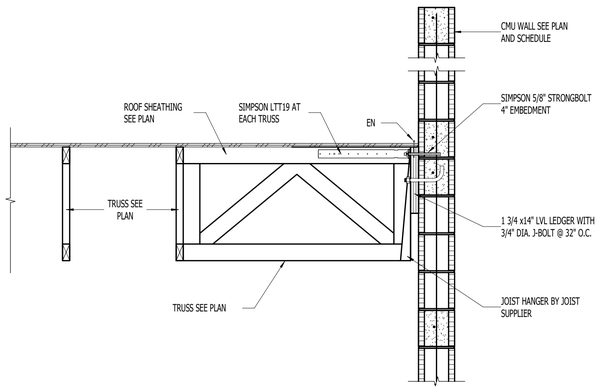
Project 24-001

Revisions

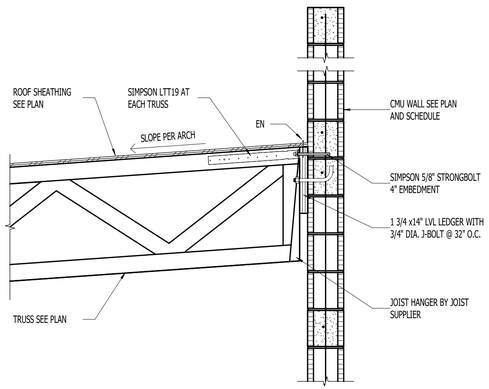
Date 3/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

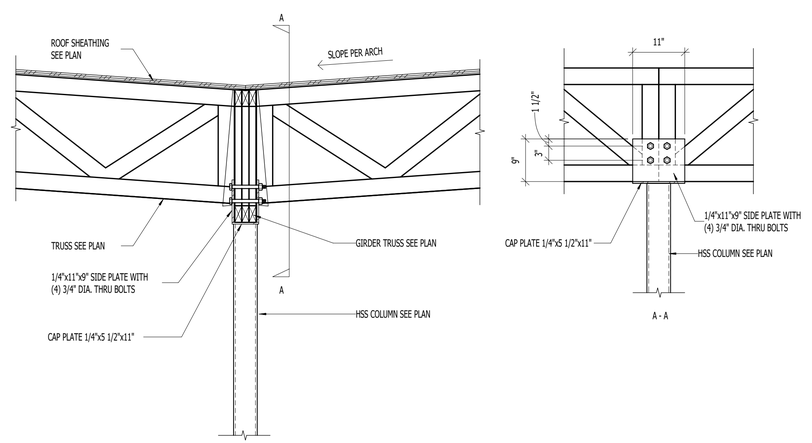
09S903



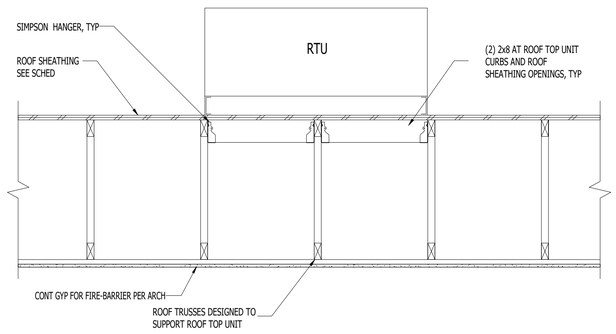
1 TRUSS AT MASONRY WALL DETAIL
09S904 NO SCALE:



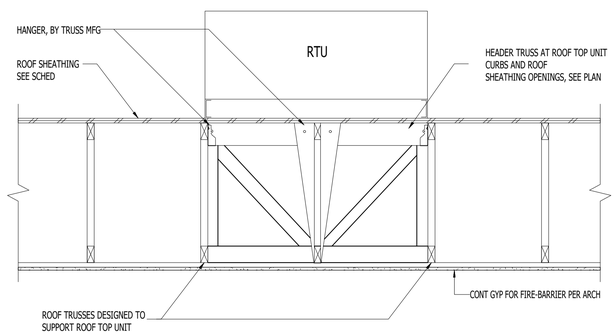
2 TRUSS AT MASONRY WALL DETAIL
09S904 NO SCALE:



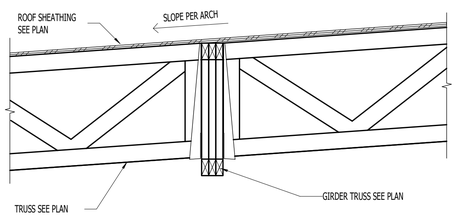
3 GIRDER TRUSS BEARING DETAIL
09S904 NO SCALE:



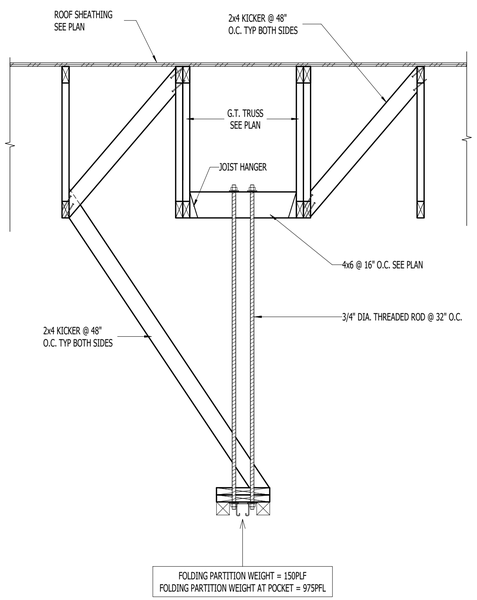
4 TYP RTU SUPPORT DETAIL
09S904 NO SCALE:



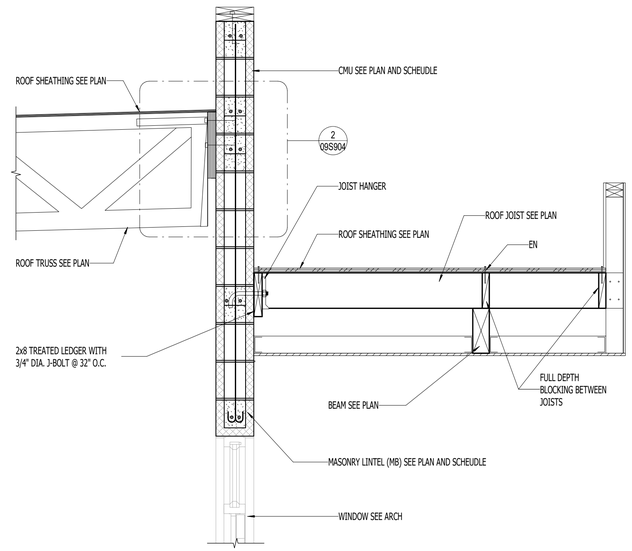
5 TYP RTU SUPPORT DETAIL
09S904 NO SCALE:



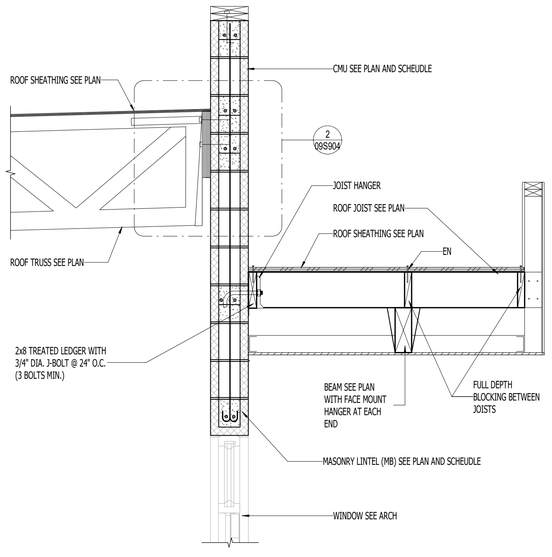
6 GIRDER TRUSS BEARING DETAIL
09S904 NO SCALE:



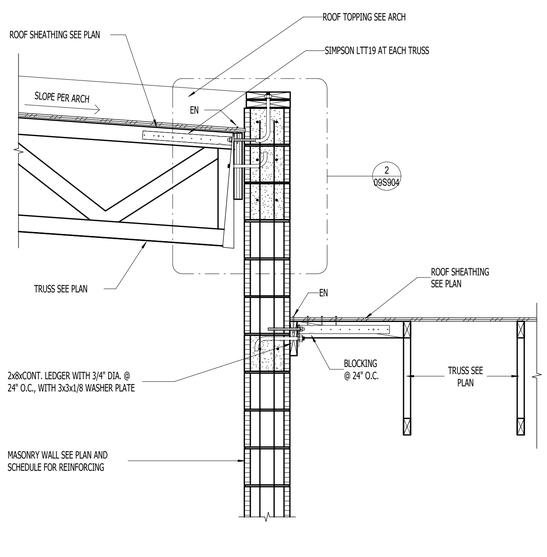
7 ACCORDION DOOR SUPPORT DETAIL
09S904 NO SCALE:



8 ENTRY ROOF DETAIL
09S904 NO SCALE:



9 ENTRY ROOF DETAIL
09S904 NO SCALE:



10 TRUSS AT MASONRY WALL DETAIL
09S904 NO SCALE:

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MERRILL
03/01/2024
184004
STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 3/01/24

09S904

STEEL COLUMN SCHEDULE

MARK	SIZE	STEEL BASE PLATE	STEEL CAP PLATE THICKNESS	COMMENTS
SC-1	HSS5x5x1/4"	3/4" (SBP - 1)	3/4"	SEE 4/09S902

STEEL COLUMN NOTES:

1. UNLESS NOTED OTHERWISE, ALL COLUMNS SHALL BE INSTALLED WITH 3/4"Ø HEADED (OR DOUBLE NUT) ANCHOR BOLTS. PROJECT ANCHOR BOLTS 3" MINIMUM ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 9" MINIMUM. ALL BOLTS SHALL BE INSTALLED WITH HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE BOLT DIAMETER PLUS 5/16" SHALL HAVE A PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
2. ANCHOR BOLTS SHALL NOT BE WELDED (INCLUDING TACK WELDS).
3. IF DESIRED SPLICE LOCATIONS DIFFER FROM THOSE LEVELS SHOWN ON PLAN, NOTIFY STRUCTURAL ENGINEER PRIOR TO FABRICATION. WRITTEN APPROVAL REQUIRED.
4. ALL CAP PLATE BOLTS SHALL BE 3/4"Ø A325N BOLTS, TYPICAL UNLESS NOTED OTHERWISE.
5. SEE (4/09S902) FOR COLUMNS WRAPPED IN CONCRETE.
6. SEE GENERAL STRUCTURAL NOTES FOR OTHER REQUIREMENTS.
7. ERECTION AIDS TO BE REMOVED AFTER COLUMN SPLICING.

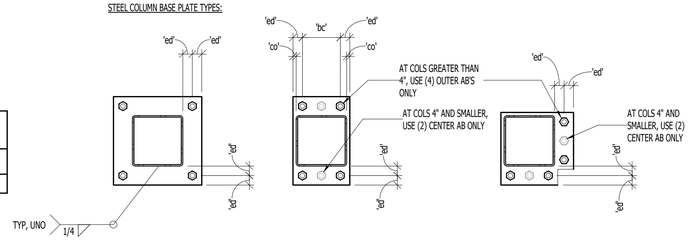
BASE PL LEGEND:

'co' = 1/2" MINIMUM
'ed' = 1 1/2" MINIMUM
'bc' = 3" MINIMUM

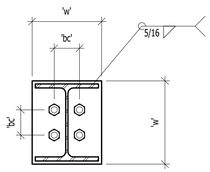
CAP PL LEGEND:

'co' = 1/2" MINIMUM
'ed' = 1 1/2" MINIMUM
'bc' = BEAM OR GIRDER GAGE
'w' = BEAM OR GIRDER GAGE + 3"
OR
BEAM OR GIRDER FLANGE WIDTH + 1"
OR
COLUMN WIDTH + 1"
WHICHEVER IS GREATER

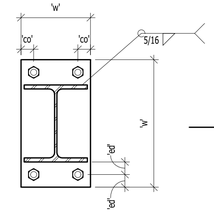
STEEL COLUMN BASE PLATE TYPES:



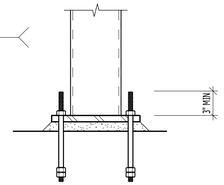
BASE PL SBP-1



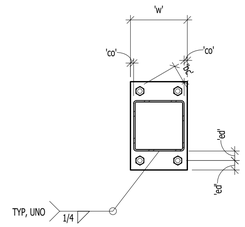
BASE PL SBP-2



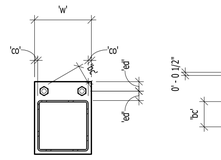
BASE PL SBP-1



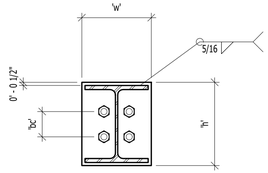
BASE PL SBP-4



BASE PL SBP-5



BASE PL ELEVATION



CAP PL SCP-1

CAP PL SCP-2

CAP PL SCP-3

2 STEEL COLUMN SCHEDULE
09S905 NO SCALE:

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL STRUCTURAL ENGINEER
THOMAS D. MERRILL
03/01/2024
184004
STATE OF UTAH

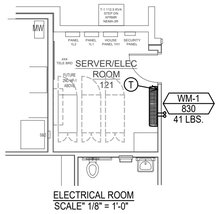
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

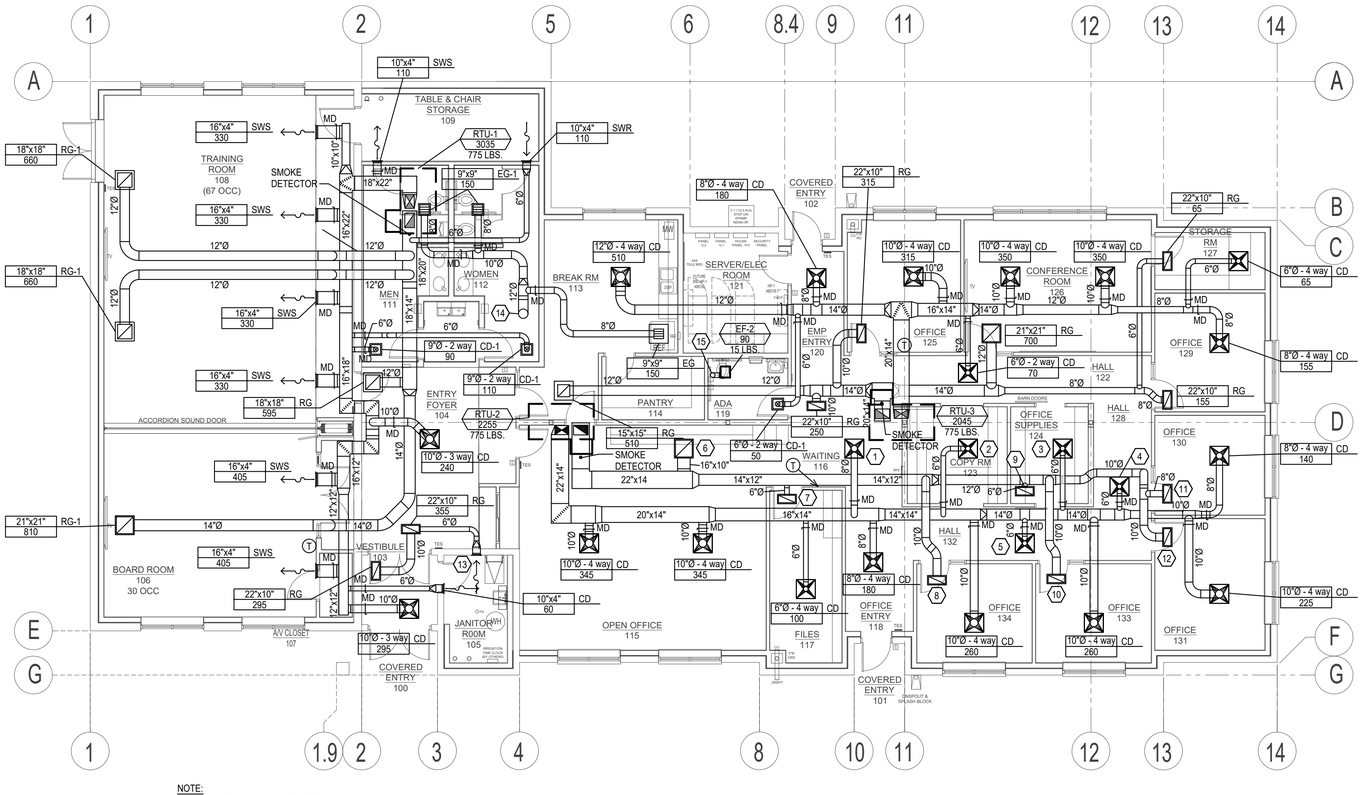
Revisions

Date 3/01/24

09S905



ELECTRICAL ROOM
SCALE" 1/8" = 1'-0"



NOTE:
THE HVAC CONTRACTOR TO COORDINATE ALL OPENING THRU THE CMU WALL. THE SIZE AND ELEVATIONS LISTED ON THIS DRAWING ARE ONLY ESTIMATES AND SHOW NOTHING ABOUT THE WAY THE MASON CONTRACTOR WILL INSTALL THE WALL.

KEYED NOTES

1. 8"Ø - 4 way CD 125
2. 6"Ø - 4 way CD 75
3. 6"Ø - 4 way CD 60
4. 6"Ø - 2 way CD 60
5. 8"Ø - 2 way CD 60
6. 6"Ø - 2 way CD 80
7. 21"x21" RG 1210
8. 22"x10" RG 100
9. 22"x10" RG 260
10. 22"x10" RG 60.
11. 22"x10" RG 260
12. 22"x10" RG 140
13. 22"x10" RG 225
14. 10"x4" SWR 60

12"Ø EXHAUST DUCT UP TO EF-1 WITH BACKDRAFT DAMPER AT THE ROOF LINE.

6"Ø EXHAUST DUCT UP TO ROOF JACK WITH BACKDRAFT DAMPER

FLOOR PLAN - MECHANICAL

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

REGISTERED PROFESSIONAL ENGINEER 155864 2202 CHALE R WILDE JR STATE OF UTAH
03-01-2024

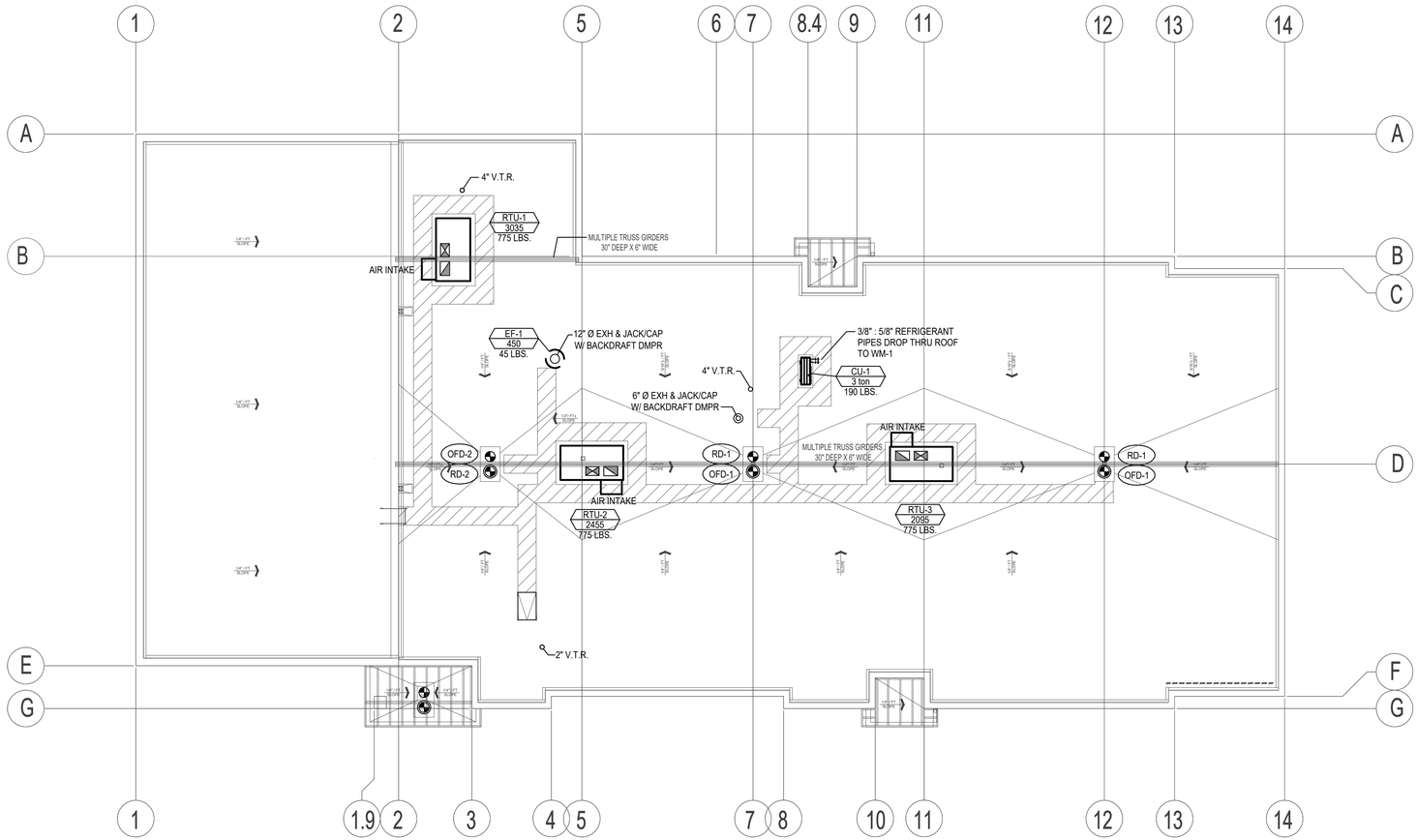
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09M101



ROOF PLAN - MECHANICAL

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

REGISTERED PROFESSIONAL ENGINEER 165864 DALE R. WILDE, JR. 03-04-2024 STATE OF UTAH

Project 24-001

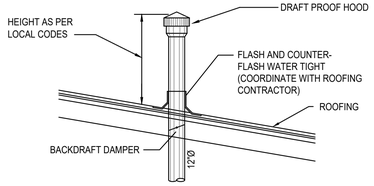
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

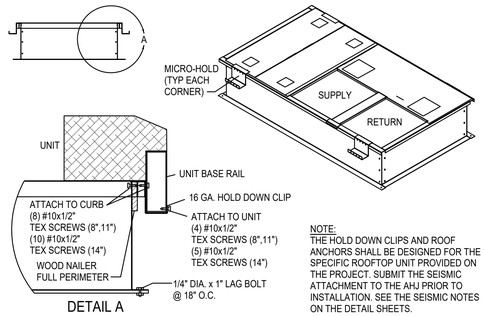
Date 03/01/24

09M1102

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM



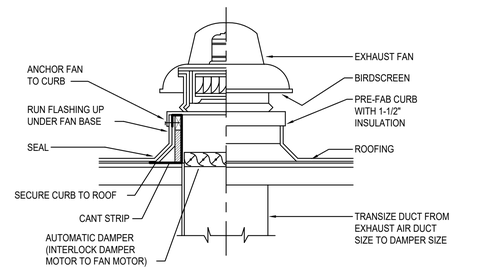
DETAIL ROOF JACK AND CAP — 4
SCALE: NONE — 09M201



DETAIL A

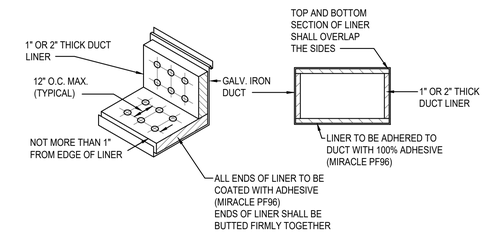
NOTE:
THE HOLD DOWN CLIPS AND ROOF ANCHORS SHALL BE DESIGNED FOR THE SPECIFIC ROOFTOP UNIT PROVIDED ON THE PROJECT. SUBMIT THE SEISMIC ATTACHMENT TO THE AHJ PRIOR TO INSTALLATION. SEE THE SEISMIC NOTES ON THE DETAIL SHEETS.

DETAIL ROOFTOP UNIT HOLD DOWN — 1
SCALE: NONE — 09M201



NOTE:
CONTRACTOR TO COORDINATE FLASHING TYPE AND CANT STRIP WITH ROOFING CONTRACTOR

DETAIL ROOF MOUNTED EXHAUST FAN — 2
SCALE: NONE — 09M201



NOTE:
METAL FASTENERS:
OMARK INSUL-PINS,
DURA DYNE FASTENERS
OF GRIP NAILS.

NOTE:
GRIP NAILS SHALL BE INSTALLED BY "GRIP NAIL AIR HAMMER" OR BY AUTOMATIC FASTENER EQUIPMENT

DETAIL DUCT LINER — 3
SCALE: NONE — 09M201

HIGH-WALL EVAPORATOR, SPLIT SYSTEM

MODEL		
SYMBOL		AC-1 / CU-1
MANUFACTURER		SAMSUNG
MODEL NUMBER	INDOOR UNIT	AR36BSHUMGMNCV
	OUTDOOR UNIT	AR36BSHUMGMXCV
PERFORMANCE		
NOMINAL CAPACITY	COOLING / HEATING BTUH	36,000 / 40,000
CAPACITY RANGE	COOLING BTUH	9,500 - 39,000
	HEATING BTUH	9,500 - 47,000
SEER2		19
EER2		10
HSPF2		9
POWER		
VOLTAGE	V / Ph / Hz	208-230/1/60
WORKING VOLTAGE RANGE	VAC	176 - 254
OPERATING CURRENT (MIN. / STD. / MAX.)	COOLING AMPS	5.0 / 16.8 / 19.1
	HEATING AMPS	3.0 / 20.0 / 24.0
MAX. BREAKER	AMPS	35
MIN. CIRCUIT AMPACITY	AMPS	21.4
DIMENSIONS		
W x H x D	INDOOR UNIT	50-3/8" x 9-15/16" x 13-9/16"
	OUTDOOR UNIT	37" x 47-5/8" x 13"
WEIGHT	INDOOR UNIT	40.8 LBS
	OUTDOOR UNIT	189.6 LBS
SOUND PRESSURE LEVEL		
INDOOR UNIT dB(A)	SILENT/L/M/H	38 / 46 / 48 / 51
OUTDOOR UNIT dB(A)	COOLING/HEATING (HIGH)	52 / 54
OPERATING TEMPERATURE		
OUTDOOR	COOLING	23 Deg. F. ~ 115 Deg. F.
		0~115 Deg. F. W/ BAFFLE
	HEATING	-4 Deg. F. ~ 75 Deg. F.
INDOOR	COOLING	61 Deg. F. ~ 90 Deg. F.
	HEATING	t<_86 Deg. F.
PIPE CONNECTIONS		
INDOOR & OUTDOOR	HIGH SIDE (FLARE)	3/8"
	LOW SIDE (FLARE)	5/8"
MAXIMUM (ft.)		24.6
MAXIMUN VERTICAL SEPARATION (ft.)		98.4
CONDENSATE CONNECTION		1-1/4" OD x 1" ID
REFRIGERANT		
TYPE		R410A
CONTROL METHOD		ELECTRONIC EXPANSION VALVE
FACTORY CHARGE	LBS.	6.39
CHARGED FOR		24.6 FEET
ADDITIONAL REFRIGERANT		0.11 OZ. / FT. OVER 24.6 FT.
COMPRESSOR		
MANUFACTURER		SAMSUNG
TYPE		INVERTER DRIVEN, TWIN BLDC ROTARY
RLA	AMPS	14.7
EVAPORATOR FAN		
TYPE		BLDC (1) w/ CROSS-FLOW FAN (2)
AIR VOLUME	CFM (L / M / H)	699 / 752 / 830
CONSUMPTION	WATTS	27 x 1
OUTPUT	(W) / FLA (A)	58 W / 0.51 A
CONDENSER FAN		
MOTOR		BLDC MOTOR w/ AXIAL FAN (2)
FLA / WATTS / CFM (max.)		1.25 A / 125 W / 3,532 CFM
SAFETY		
CERTIFICATIONS		ETL (UL 60335-2-40)
DEVICES	PCB FUSES, INDOOR UNIT TERMINAL BLOCK THERMAL FUSE, CURRENT TRANSFORMER, OVER-VOLTAGE PROTECTION, CRANKCASE HEATING, TEMPERATURE LIMIT PROTECTION LOGIC, COMPRESSOR OVERLOAD SENSING.	

MECHANICAL GENERAL NOTES

CODES RULES AND REGULATIONS:

ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL AND STATE CODES.

WHENEVER INDICATED MATERIAL WORKMANSHIP, ARRANGEMENT OR CONSTRUCTION IS OF HIGHER QUALITY OR CAPACITY THAN THAT REQUIRED BY THE ABOVE CODES, THE DRAWING AND OR SPECIFICATION SHALL GOVERN.

SHOULD THERE BE ANY DIRECT CONFLICT BETWEEN THE STATE OR LOCAL CODES, LAWS OR REGULATION AND THE DRAWING AND OR SPECIFICATIONS THE CODES, LAWS OR REGULATIONS SHALL GOVERN.

STANDARDS:

INTERNATIONAL BUILDING CODE 2021 EDITION
INTERNATIONAL PLUMBING CODE 2021 EDITION
INTERNATIONAL MECHANICAL CODE 2021 EDITION
INTERNATIONAL FUEL GAS CODE 2021 EDITION
SMACNA DUCT CONSTRUCTION STANDARD, METAL AND FIBERGLASS
SMACNA FIRE DAMPER GUIDE FOR AIR HANDLING SYSTEMS
SMACNA MANUAL FOR BALANCING AND ADJUSTING OF AIR DISTRIBUTION SYSTEMS.
SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL EQUIPMENT
NFPA 101 LIFE SAFETY CODES.
NFPA 90A INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS.
NFPA 90B INSTALLATION OF WARM AIR HEATING SYSTEMS.
NFPA 91 INSTALLATION OF BLOWER AND EXHAUST SYSTEMS
THE STATE OF UTAH " BOILER AND PRESSURE VESSEL REGULATIONS"

EXAMINATION OF SITE:

THE CONTRACTOR SHALL CAREFULLY EXAMINE THE DRAWINGS AND THE SITE AND FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS BEFORE SUBMITTING ANY PROPOSAL. NO ADDITION COST WILL BE ALLOWED FOR FAILURE TO VISIT THE SITE.

WORKING DRAWINGS AND MEASUREMENTS:

THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET AND BEND THAT MAY BE NEEDED TO INSTALL THE WORK. THE CONTRACTOR SHALL COORDINATE THE DRAWINGS OF ALL OTHER TRADES INCLUDING BUT NOT LIMITED TO THE CIVIL, ARCHITECTURAL, ELECTRICAL, AND STRUCTURAL. THESE DRAWINGS SHALL NOT BE SCALED FOR ROUGH IN OR AS SHOP DRAWINGS.

EQUIPMENT SUBMITTALS:

PROVIDE ALL AT ONE TIME IN A THREE RING BINDER SIX COPIES OF EQUIPMENT PROPOSED TO BE USED ON THIS PROJECT.

REGARDLESS OF ANY INFORMATION OUTLINED IN THE SUBMITTALS OR SHOP DRAWINGS, THE REQUIREMENTS OF THE DRAWINGS MUST FOLLOWED AND AR NOT WAIVED OR SUPERSEDED IN ANY WAY BY THE SUBMITTALS OR SHOP DRAWING REVIEW.

CAULKING AND SEALING:

ALL SPACES BETWEEN DUCTS AND SLEEVES THROUGH FIRE WALLS, FIRE PARTITIONS, FLOORS, AND CEILINGS SHALL CAULKED WITH ONE INCH FILL OF 3M "FIRE BARRIER". CAULKING MUST BE ON BOTH SIDES OF FIRE RATED WALLS.

SUPERVISION AND WORKMANSHIP:

PROVIDE THE SERVICES OF AN EXPERIENCED FORMAN WHO SHALL BE IN CHARGE OF ALL INSTALLATION.

ALL WORKMANSHIP SHALL BE OF FIRST QUALITY. NONE BUT COMPETENT MECHANICS SHALL BE EMPLOYED IN THE WORK. SHODDY WORKMANSHIP WILL BE CAUSE FOR REJECTION AND REPLACEMENT OF WORK WITHOUT ADDITIONAL COST.

COOPERATION WITH OTHER TRADES:

REFER TO ALL THE DRAWINGS COVERING WORK OF ALL TRADES, WHICH IS CARRIED ON IN CONJUNCTION WITH THE WORK SUCH THAT ALL WORK CAN PROCEED WITHOUT INTERFERENCE RESULTING FROM LACK OF COORDINATION.

MANUFACTURERS INSTRUCTIONS:

THE CONTRACTOR SHALL FOLLOW THE MANUFACTURERS INSTALLATION INSTRUCTION EXPLICITLY IN THE INSTALLATION OF ALL ITEMS OF EQUIPMENT.

COMPLETION REQUIREMENTS:

ALL SYSTEMS SHALL BE TESTED BY THE CONTRACTOR TO DEMONSTRATE THE ALL EQUIPMENT FURNISHED AND INSTALLED OR CONNECTED FUNCTION IN THE MANNER REQUIRED.

ADJUSTMENTS, OPERATION, ETC. ADJUST ALL REGULATORS. OPEN AND CLOSE ALL VALVES SEVERAL TIMES TO INSURE SEAL.

CLEANING:

REMOVE DEBRIS AND TRASH FROM DUCTWORK AND VACUUM IF REQUIRED. PAINT INSIDE OF ALL DUCTS VISIBLE THROUGH GRILLES AND REGISTERS WITH FLAT BLACK ENAMEL. REMOVE SHIPPING LABELS AND OTHER TAGS AND WIPE ALL EQUIPMENT CLEAN.

TESTING AND BALANCING:

AT THE COMPLETION OF THE JOB THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT TESTING AND BALANCING CONTRACTOR. PROVIDE ALL TOOLS , EQUIPMENT AND INSTRUMENTS REQUIRED FOR THE TEST AND BALANCING PROCEDURES. TEST AND BALANCE THE AIR SYSTEMS.

SUBMIT 4 COPIES OF COMPLETE TEST AND BALANCING REPORTS COMPLETE WITH HALF SCALE DRAWINGS INDICATING THE AIR OPENING NUMBERS AND FLOW STATION NUMBERS THAT CORRESPOND TO THE NUMBERING SYSTEMS IN THE REPORTS

IDENTIFY AND LIST SIZE TYPE AND MANUFACTURER OF ALL EQUIPMENT. MAKE ALL ADJUSTMENTS TO DAMPERS, DRIVES AND BALANCE VALVES TO OBTAIN THE DESIGN FLOW QUANTITIES . FLOW QUANTITIES SHALL BE WITHIN PLUS OR MINUS 5% OF DESIGN.

MECHANICAL GENERAL NOTES

GUARANTEE:

BY THE ACCEPTANCE OF AN CONTRACT AWARD FOR THE WORK HERE IN DESCRIBED OR SHOWN ON THE DRAWINGS, THE CONTRACTOR ASSUMES THE FULL RESPONSIBILITY IMPOSED BY THE GUARANTEE AS SET FORTH HEREIN, AND SHALL PROTECT HIMSELF THROUGH PROPER GUARANTEES FROM EQUIPMENT VENDORS AND FROM SUBCONTRACTORS AS THEIR INTERESTS MAY APPEAR.

1. THAT THE ENTIRE MECHANICAL SYSTEMS SHALL BE QUIET IN OPERATION.
2. THAT THE CIRCULATION OF WATER SHALL BE COMPLETE AND EVEN INCLUDING THE DOMESTIC HOT WATER SYSTEM.
3. THAT HE WILL MAKE PROMPTLY UPON NOTICE, FREE OF CHARGE, ANY REPAIRS NECESSARY DUE TO DEFECTIVE MATERIALS OR MATERIALS OR WORKMANSHIP THAT MAY OCCUR DURING A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. FIVE YEARS FOR AIR CONDITIONING COMPRESSORS.

MECHANICAL INSULATION SCHEDULE

NOTES:

ALL INSULATION SHALL HAVE SURFACE BURNING CHARACTERISTICS, AS TESTED BY ASTM E84, UL723 OR NFPA 255 NOT EXCEEDING : FLAME SPREAD 25 AND SMOKE DEVELOPED 50.

COMPOSITE SHALL INCLUDE INSULATION JACKETING AND ADHESIVES USE TO SECURE JACKETING OR FACING. ALL ACCESSORY ITEMS SUCH AS PVC JACKETING AND FITTINGS, ADHESIVES, MASTIC, CEMENT, TAPE AND CLOTH SHALL HAVE SAME COMPONENT RATING AS ABOVE.

THERMAL DUCT WRAP:

FIBERGLASS BLANKET INSULATION: THERMAL CONDUCTIVITY OF 0.28 BTU-INPER SQ FT PER HOUR AT 75 DEG F MEAN TEMPERATURE. MINIMUM DENSITY OF ONE POUND PER CUBIC FOOT. JACKETED WITH ALUMINUM FOIL REINFORCED WITH FIBERGLASS SCRIM LAMINATED KRAFT FACING.

THERMAL DUCT WRAP INSTALLATION:

WRAP ALL SUPPLY, RETURN, AND OUTSIDE AIR WITH 1-1/2" DUCT WRAP IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS. DUCT THAT ARE INTERNALLY LINED NEED NOT BE WRAPPED.

DUCTWORK IN UNCONDITIONED SPACES

ALL DUCTWORK RUNNING THROUGH UNCONDITIONED SPACES MUST HAVE A MINIMUM R-12 INSULATION.

SEISMIC BRACING SUBMITTAL REQUIREMENTS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL REQUIRED SEISMIC BRACING BY THE 2021 INTERNATIONAL BUILDING CODE. SECTION 1613 EARTHQUAKE LOADS, PARAGRAPH 1613.1 SCOPE. RESTRAINT MUST BE PROVIDED FOR THE FOLLOWING CONDITIONS, UNLESS OTHERWISE EXCLUDED BY CHAPTER 13 OF ASCE 7-10: (1) Ip>1.0, (2) MEP COMPONENTS > 400 POUNDS AND SUPPORTED BY A FLOOR OR ROOF: (3) MEP COMPONENTS > 20 POUNDS AND SUPPORTED BY A CEILING OR WALL: OR (4) MEP DISTRIBUTION SYSTEM WEIGHING > 5 PLF.

THE CONTRACTOR SHALL PROVIDE A COMPLETE SUBMITTAL FOR ALL MEP EQUIPMENT TO INCLUDE LOCATION OF EACH SEISMIC BRACE, TYPE AND DESIGN OF THE BRACING, AND A DETAIL OF THE SEISMIC BRACING. THE SUBMITTAL SHALL BE ON 36"x24" SHEETS AND A SCALE OF 1/4" = 1'-0", ALONG WITH A COMPLETE SET OF CALCULATIONS.

THE SUBMITTAL SHALL CLEARLY INDICATE WHICH ITEMS ARE REQUIRED TO BE BRACED AND THE MINIMUM BRACING REQUIREMENTS (E.G. PER IBC 103.1 AND CHAPTER 13 OF ASCE 7-10). IN ADDITION THE SUBMITTAL SHALL BE PROVIDED BY A LICENCED PROFESSIONAL ENGINEER LICENCED IN UTAH.

UNDER NO CONDITIONS SHALL ANY MECHANICAL OR ELECTRICAL COMPONENTS BE INSTALLED UNTIL SUCH TIME AS THE WEST BOUNTIFUL CITY BUILDING DEPARTMENT HAS REVIEWED AND APPROVED THE SUBMITTAL.

GENERAL NOTES

COORDINATE ALL SUSPENDED EQUIPMENT WITH ARCHITECTURAL REFLECTED CEILING PLAN.

IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE HIS WORK WITH ALL OTHER TRADES.

COORDINATE ALL ROOF MOUNTED MECHANICAL EQUIPMENT WITH STRUCTURAL PLANS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL STRUCTURE REQUIRED TO SUPPORT THE EQUIPMENT IF EQUIPMENT WEIGHT AND DIMENSIONS EXCEED WHAT HAS BEEN SCHEDULED AND SHOWN ON THE DRAWINGS.

COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURAL DRAWINGS.

ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. INCREASE SIZES AS REQUIRED FOR DUCT LINER.

ALL EQUIPMENT DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE.

ALL QUESTION MUST BE SUBMITTED TO THE ARCHITECT IN THE FORM OF AN RFI. ANY RFI SENT DIRECTLY TO ENGINEER WILL BE RETURNED UNREAD.

ANY RFI's THAT HAVE BEEN CORRECTED OR APPROVED BY THE ENGINEER WILL BE JUST FOR CLARIFICATION, AND DOES NOT CONSTITUTE A CHANGE ORDER.

CHANGE ORDERS MUST BE SUBMITTED TO THE ARCHITECT, THE CHANGE ORDER SHALL BE COMPLETE BY LISTING THE FINAL PRICING WITH PROPER BREAKDOWN AND DOCUMENTATION. POSSIBLE TIME EXTENSION OR DELAY AND THE ASSOCIATED COST FOR THE TIME EXTENSION OR DELAY. MATERIAL AND LABOR COST.

RFI's WITH BE RETURNED TO ARCHITECT FROM ENGINEER WITHIN 5 WORKING DAYS.

CHANGE ORDERS WILL BE RETURNED TO ARCHITECT FROM ENGINEER WITHIN 15 DAYS.

DO NOT PROCEED WITH RFI UNTIL CHANGE ORDER HAS BEEN APPROVED BY ARCHITECT, OWNER AND ENGINEER. IF CONTRACTOR DOES SO IT WILL BE AT THERE OWN RISK.

IF TIME EXTENSIONS AND/OR DELAYS ARE INCURRED DUE TO FAILURE TO ISSUE AN RFI, CHANGE REQUEST, CHANGE ORDER, OR IMPROPER AND/OR INCOMPLETE DOCUMENTATION THE COST ASSOCIATED WITH THE DELAY WILL BE BORNE BY THE CONTRACTOR.

MECHANICAL CALLOUT

EF-6 / 600 — SYMBOL / CAPACITY — EQUIPMENT

RT	ROOFTOP AIR CONDITIONING UNIT
EF	EXHAUST FAN
9x9-4 CD / 175 — SIZE / TYPE / PATTERN / CFM	DIFFUSER OR GRILLE
CD	CEILING DIFFUSER (LAY-IN CEILING)
CD-1	CEILING DIFFUSER (GYPSUM CEILING)
RG	RETURN AIR GRILLE (LAY-IN CEILING)
SWS	SIDEWALL SUPPLY AIR GRILLE
SWR	SIDEWALL RETURN AIR GRILLE
EG	EXHAUST AIR GRILLE (LAY-IN CEILING)
EG-1	EXHAUST AIR GRILLE (GYPSUM CEILING)

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SUPPLY AIR (S.A.)
	RETURN AIR (R.A.)
	TURNING VANES
MD	MANUAL DAMPER
FD	FIRE DAMPER
SD	SMOKE DAMPER
	EXISTING DUCTWORK

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

COPYRIGHT
DATE MARCH. 01, 2024

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

REGISTERED PROFESSIONAL ENGINEER — JAMES B. GLASCOCK — 155864-2202 — WILDE, JR — 03-01-2024 — STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09M201

DIFFUSER AND GRILLE SCHEDULE

NOTES:

1. DIFFUSER SIZING IS BASED ON AIR BEING INTRODUCED AT 25 DEGREES F. TEMPERATURE DEFERENTIAL, AND AIR BEING DIFFUSED AT THE FIVE-FOOT LEVEL TO A VELOCITY NOT GREATER THE 50 FPM. DIFFUSER SELECTED SO AS NOT TO EXCEED THE NC-30 CURVE.
2. REGISTER AND GRILLES SIZING IS SELECTED SO AS NOT TO EXCEED THE NC-30 CURVE.
3. MANUFACTURER SHALL GUARANTEE TO MEET THE ABOVE PERFORMANCE FACTORS AND REPLACE ALL DIFFUSERS WHERE REQUIRED

SYMBOL	DESCRIPTION

CD

CEILING SUPPLY DIFFUSER
SQUARE PLAQUE TYPE SUPPLY DIFFUSER
4 FULLY ADJUSTABLE CONES MINIMUM
FRAME FOR MOUNTING IN 24" x 24" T-BAR CEILING
WHITE POWDER COAT FINISH
ALL ALUMINUM CONSTRUCTION
SIZE AND DIFFUSION PATTERN ON THE DRAWINGS

CARNES	SHPA
KRUEGER	PLQ
METAL-AIRE	5750
PRICE	ASPD
TITUS	DAT
TUTTLE AND BAILEY	T1100

CD-1

CEILING SUPPLY DIFFUSER
SQUARE PLAQUE TYPE SUPPLY DIFFUSER
4 FULLY ADJUSTABLE CONES MINIMUM
FRAME FOR MOUNTING IN GYPSUM BOARD CEILING
WHITE POWDER COAT FINISH
ALL ALUMINUM CONSTRUCTION
SIZE AND DIFFUSION PATTERN ON THE DRAWINGS

CARNES	SHPA
KRUEGER	PLQ
METAL-AIRE	5750
PRICE	ASPD
TITUS	DAT
TUTTLE AND BAILEY	T1100

EG

CEILING EXHAUST GRILLE
SQUARE PLAQUE TYPE SUPPLY DIFFUSER
FRAME FOR MOUNTING IN 24" x 24" T-BAR CEILING
WHITE POWDER COAT FINISH
ALL ALUMINUM CONSTRUCTION
GRILLE SIZE ON THE DRAWINGS

CARNES	SHPA
KRUEGER	PLQ
METAL-AIRE	5750
PRICE	ASPD
TITUS	DAT
TUTTLE AND BAILEY	T1100

EG-1

CEILING EXHAUST GRILLE
SQUARE PLAQUE TYPE SUPPLY DIFFUSER
FRAME FOR MOUNTING IN GYPSUM BOARD CEILING
WHITE POWDER COAT FINISH
ALL ALUMINUM CONSTRUCTION
GRILLE SIZE ON THE DRAWINGS

CARNES	SHPA
KRUEGER	PLQ
METAL-AIRE	5750
PRICE	ASPD
TITUS	DAT
TUTTLE AND BAILEY	T1100

EG-2

SIDEWALL EXHAUST AIR GRILLE
HORIZONTAL BARS
ALL BARS ON 1/2" CENTERS
BLADES AT 40 DEG. FIXED DEFLECTION
1-1/4" FLANGED FRAME
OFF WHITE ENAMEL FINISH
ALL ALUMINUM CONSTRUCTION
SIZE AND PERFORMANCE SHOWN ON THE DRAWINGS

CARNES	
KRUEGER	S585
METAL-AIRE	RH
PRICE	635
TITUS	355FL
TUTTLE AND BAILEY	A70D5

DIFFUSER AND GRILLE SCHEDULE

NOTES:

1. DIFFUSER SIZING IS BASED ON AIR BEING INTRODUCED AT 25 DEGREES F. TEMPERATURE DEFERENTIAL, AND AIR BEING DIFFUSED AT THE FIVE-FOOT LEVEL TO A VELOCITY NOT GREATER THE 50 FPM. DIFFUSER SELECTED SO AS NOT TO EXCEED THE NC-30 CURVE.
2. REGISTER AND GRILLES SIZING IS SELECTED SO AS NOT TO EXCEED THE NC-30 CURVE.
3. MANUFACTURER SHALL GUARANTEE TO MEET THE ABOVE PERFORMANCE FACTORS AND REPLACE ALL DIFFUSERS WHERE REQUIRED

SYMBOL	DESCRIPTION

RG

CEILING RETURN GRILLE
SQUARE PLAQUE TYPE RETURN GRILLE
24" x 24" OR 24" x 12" FACE
FRAME FOR MOUNTING IN 24" x 24" T-BAR CEILING
WHITE POWDER COAT FINISH
ALL ALUMINUM CONSTRUCTION
SIZE AND DIFFUSION PATTERN ON THE DRAWINGS

CARNES	SHPA
KRUEGER	PLQ
METAL-AIRE	5750
PRICE	ASPD
TITUS	DAT
TUTTLE AND BAILEY	T1100

SWS

SIDEWALL SUPPLY AIR GRILLE
DOUBLE DEFLECTION TYPE
VERTICAL BARS
HORIZONTAL REAR BARS
ALL BARS ON 3/4" CENTERS
1-1/4" FLANGED FRAME
OFF WHITE ENAMEL FINISH
ALL ALUMINUM CONSTRUCTION
SIZE AND PERFORMANCE SHOWN ON THE DRAWINGS

CARNES	
KRUEGER	5880
METAL-AIRE	V4004
PRICE	620
TITUS	300FS
TUTTLE AND BAILEY	A64

SWR

SIDEWALL RETURN AIR GRILLE
HORIZONTAL BARS
ALL BARS ON 1/2" CENTERS
BLADES AT 40 DEG. FIXED DEFLECTION
1-1/4" FLANGED FRAME
OFF WHITE ENAMEL FINISH
ALL ALUMINUM CONSTRUCTION
SIZE AND PERFORMANCE SHOWN ON THE DRAWINGS

CARNES	
KRUEGER	S585
METAL-AIRE	RH
PRICE	635
TITUS	355FL
TUTTLE AND BAILEY	A70D5

GAS FIRED ROOFTOP A/C UNIT SCHEDULE

THE HEATING AND COOLING SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH ASHRAE183

SYMBOL	RTU-1	RTU-2	RTU-3
MANUFACTURER	YORK	YORK	YORK
MODEL NUMBER	ZE072H10D4C5MAA2A1	ZE060H10D4C5MAA2A4	ZE060H10D4C5MAA2A4
TONNAGE	6	5	5
COOLING PERFORMANCE			
TOTAL GROSS CAPACITY	608 MBH	53.1 MBH	52.7 MBH
SENSIBLE GROSS CAPACITY	60.0 MBH	49.0 MBH	50.1 MBH
TOTAL NET CAPACITY	53.5 MBH	48.7 MBH	48.8 MBH
SENSIBLE NET CAPACITY	52.7 MBH	44.6 MBH	46.2 MBH
SEASONAL EFFICIENCY (at ARI)		14.00 SEER	14.00 SEER
SEASONAL EFFICIENCY (at ARI)		13.40 SEER2	13.40 SEER2
EFFICIENCY (at ARI)	11.00 EER	11.80 EER	11.80 EER
EFFICIENCY (at ARI)		11.40 EER2	11.40 EER2
INTEGRATED EFF. (at ARI)	15.00 IEER		
AMBIENT DB TEMP.	95 Deg. F.	95 Deg. F.	95 Deg. F.
ENTERING DB TEMP.	79.5 deg. F.	78.4 deg. F.	79.0 deg. F.
ENTERING WB TEMP.	59.2 Deg. F.	59.4 Deg. F.	58.5 Deg. F.
EVAP. COIL LEAVING DB TEMP.	57.7 Deg. F.	54.7 Deg. F.	53.2 Deg. F.
EVAP. COIL LEAVING WB TEMP.	51.4 Deg. F.	50.3 Deg. F.	48.6 Deg. F.
UNIT LEAVING DB TEMP.	60.3 Deg. F.	56.8 Deg. F.	55.3 Deg. F.
UNIT LEAVING WB TEMP.	52.4 Deg. F.	50.1 Deg. F.	49.4 Deg. F.
LEAVING AIR TEMP DEW POINT	47.00 Deg. F.	47.20 Deg. F.	45.10 Deg. F.
POWER INPUT (w/o BLOWER)	4.87 Kw	3.94 Kw	3.92 Kw
SOUND POWER	83 dB(a)	82 dB(a)	82 dB(a)
REFRIGERANT			
REFRIGERANT TYPE	R-410A	R-410A	R-410A
SYSTEM 1	6 lbs. 6 oz.	5 lbs. 12 oz.	5 lbs. 12 oz.
HEATING PERFORMANCE			
ENTERING DB TEMP.	60.6 Deg. F.	64.0 Deg. F.	62.1 Deg. F.
HEATING OUTPUT CAPACITY (MAX.)	65.6 MBH	65.6 MBH	65.6 MBH
SUPPLY AIR	3035 CFM	2255 CFM	2045 CFM
HEATING INPUT CAPACITY (MAX.)	82.0 MBH	82.0 MBH	82.0 MBH
LEAVING DB TEMP.	84.5 Deg. F.	95.8 Deg. F.	95.8 Deg. F.
AIR TEMP. RISE	23.9 Deg. F.	31.8 Deg. F.	33.7 Deg. F.
SSE	80.0%	80.0%	80.0%
STAGES	1	1	1
SUPPLY AIR BLOWER PERFORMANCE			
SUPPLY AIR	3035 CFM	2255 CFM	2045 CFM
EXT. STATIC PRESSURE	0.65 IWG	0.65 IWG	0.65 IWG
ADDL. UNIY LOSSES ((Options/Accessories)	0.3 IWG	0.2 IWG	0.17 IWG
BLOWER SPEED	1484 RPM	1325 RPM	1273 RPM
MAX BHP OF MOTOR (including service factor)	3.45 HP	2.30 HP	2.30 HP
DUCT LOCATION	BOTTOM	BOTTOM	BOTTOM
MOTOR RATING	3.00 HP	2.00 HP	2.00 HP
ACTUAL REQUIRED BHP	2.50 HP	1.37 HP	1.22 HP
POWER INPUT	2.16 Kw	1.28 Kw	1.14 HP
ELEVATION	4500 ft.	450 ft.	4500 ft.
DRIVE TYPE	BELT	BELT	BELT
ELECTRICAL DATA			
POWER SUPPLY	460-3-60	460-3-60	460-3-60
UNIT MIN. CIRCUIT AMPACITY	18.3 amps	14.4 amps	14.4 amps
UNIT MAX. OVER-CURRENT PROTECTION	25 amps	20 amps	20 amps
SMOKE DETECTOR	YES	YES	YES
DIMENSIONS AND WEIGHT			
HEIGHT	33"	33"	33"
LENGTH	83"	83"	83"
WIDTH	45"	45"	45"
WEIGHT WITH FACTORY INSTALLED OPTIONS	775 lbs.	752 LBS.	752 LBS
CLEARANCES			
RIGHT	24"	24"	24"
FRONT	32"	32"	32"
BACK	12"	12"	12"
LEFT	24"	24"	24"
TOP	72"	72"	72"
BOTTOM	0"	0"	0"

NOTES

1	95 Deg. F. AMBIENT AIR TEMPERATURE
2	ENTERING AIR TEMP. 80 Deg. F. DB - 67 Deg. F. WB
3	SET THERMOSTATS w/5 Deg. DEADBAND
4	THERMOSTAT LOCKING COVERS
5	CO2 SENSOR
6	FAN AND FILTER SWITCH
7	HONEYWELL T7300T SEVEN DAY PROGRAMMABLE THERMOSTAT
8	LOW AND HIGH PRESSURE SWITCHES
9	PHASE MONITOR
10	AUTOMATIC SHUT DOWN
11	100% OUTSIDE AIR ENTHALPY CONTROLLED ECONOMIZER
12	100% MODULATING POWER RELIEF FAN
13	LOW AMBIENT CONTROL TO 0 Deg. F.
14	NON RECYCLE TIMER
15	ALL ROOFTOP UNIT ARE TO BE PROVIDE WITH A DISCONNECT
16	ALL ROOFTOP HEATING AND COOLING UNITS TO BE SUPPLIED WITH AN UN-CIRCUITED CONVENIENCE OUTLET.
17	SMOKE DETECTOR IN RETURN AIR DUCT ON ALL ROOFTOP UNITS OVER 2000 CFM
18	INTERMITTENT IGNITION
19	LOW LEAK DAMPERS
20	14" TALL ROOF CURB
21	2" PLEATED FILTERS
22	OUTSIDE AIR INTAKE RAIN HOOD

ROOF MOUNTED EXHAUST FAN

SYMBOL	EF-1
MANUFACTURER	COOK
MODEL NUMBER	ACE-B 1002C2B
FAN DATA	
MIN. AIR FLOW (CFM)	450
STATIC PRESSURE	0.25
BHP	0.04
FAN RPM	1175
TIP SPEED	3079
SONES	6
ELECTRICAL	
V/P/H	120/1/60
HP	1/6
DIMENSIONS	
HEIGHT	20-3/16"
DIAMETER	23-9/16"
WEIGHT	45 LBS.
ROOF OPENING	13-1/2" x 13-1/2"

NOTES

1. BACKDRAPT DAMPER AT ROOF LINE
2. 14" TALL ROOF CURB - RCA-16
3. TO OPERATE BY TIME CLOCK

CEILING MOUNTED EXHAUST FAN

SYMBOL	EF-2
MANUFACTURER	COOK
MODEL NUMBER	GC-140
PERFORMANCE:	
TYPE	CEILING MOUNTED
MIN. AIR FLOW (CFM)	90
STATIC PRESSURE	0.125
SONES	2.4
FAN RPM	1500
ELECTRICAL	
V/P/H	120/60/1
WATTS	70 WATTS
DIMENSIONS	
HEIGHT	8-3/8"
LENGTH	14"
WIDTH	12-3/45"
WEIGHT	15 LBS.

NOTES:

1. BACKDRAPT DAMPER LOCATED WHERE DUCT EXITS THE BUILDING
2. CONTROLLED BY A TIME CLOCK

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

REGISTERED PROFESSIONAL ENGINEER
DALE R. WILDE JR
03-01-2024
STATE OF UTAH

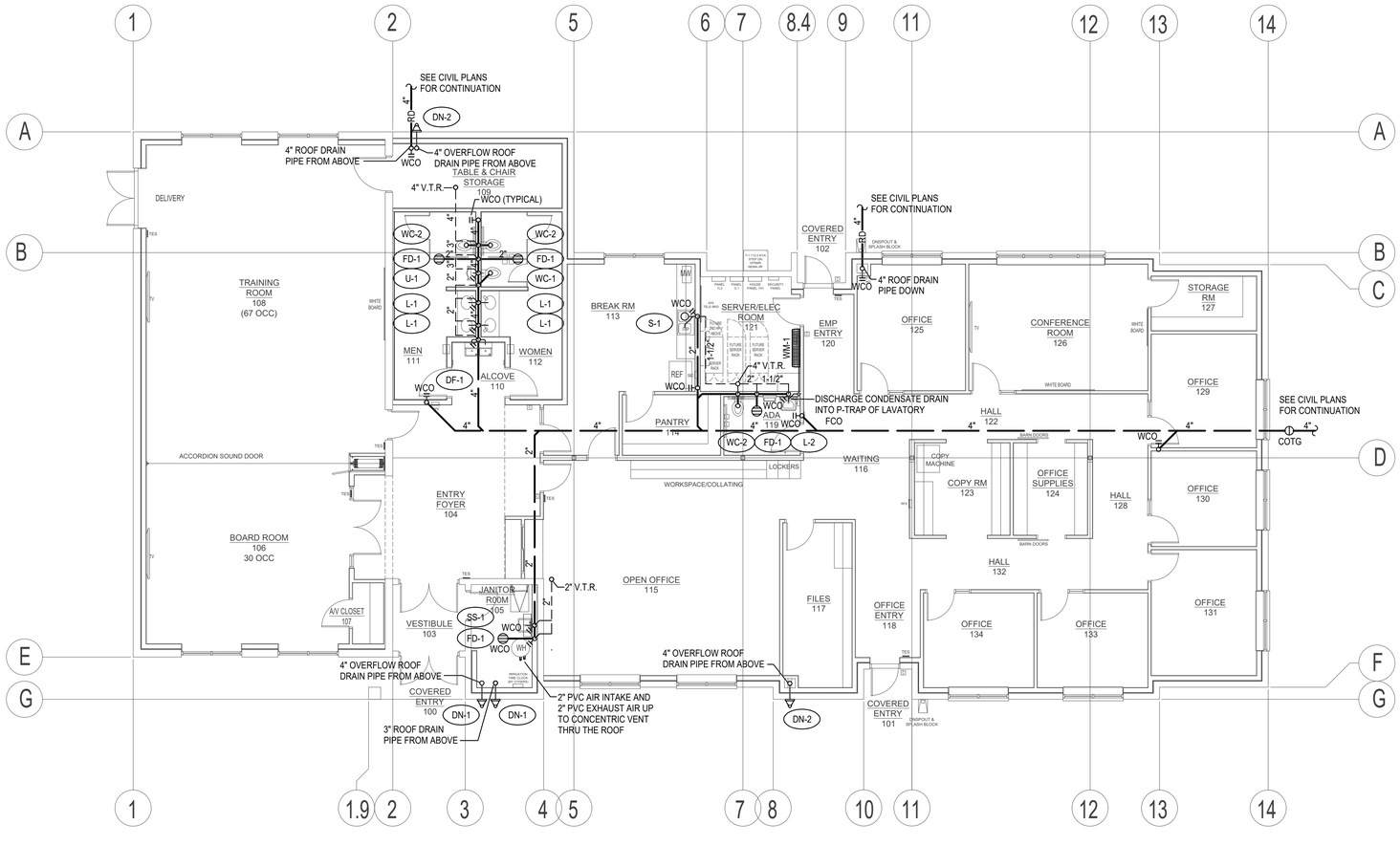
Project 24-001

Revisions

Date 03/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09M3301



FLOOR PLAN - WASTE AND VENT PIPING

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

0 2' 4' 10' 20'
1' 3' 5' 15'

NORTH

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

REGISTERED PROFESSIONAL ENGINEER 155864-2202 DALE R. WILDE, JR. 03-01-2024 STATE OF UTAH

Project 24-001

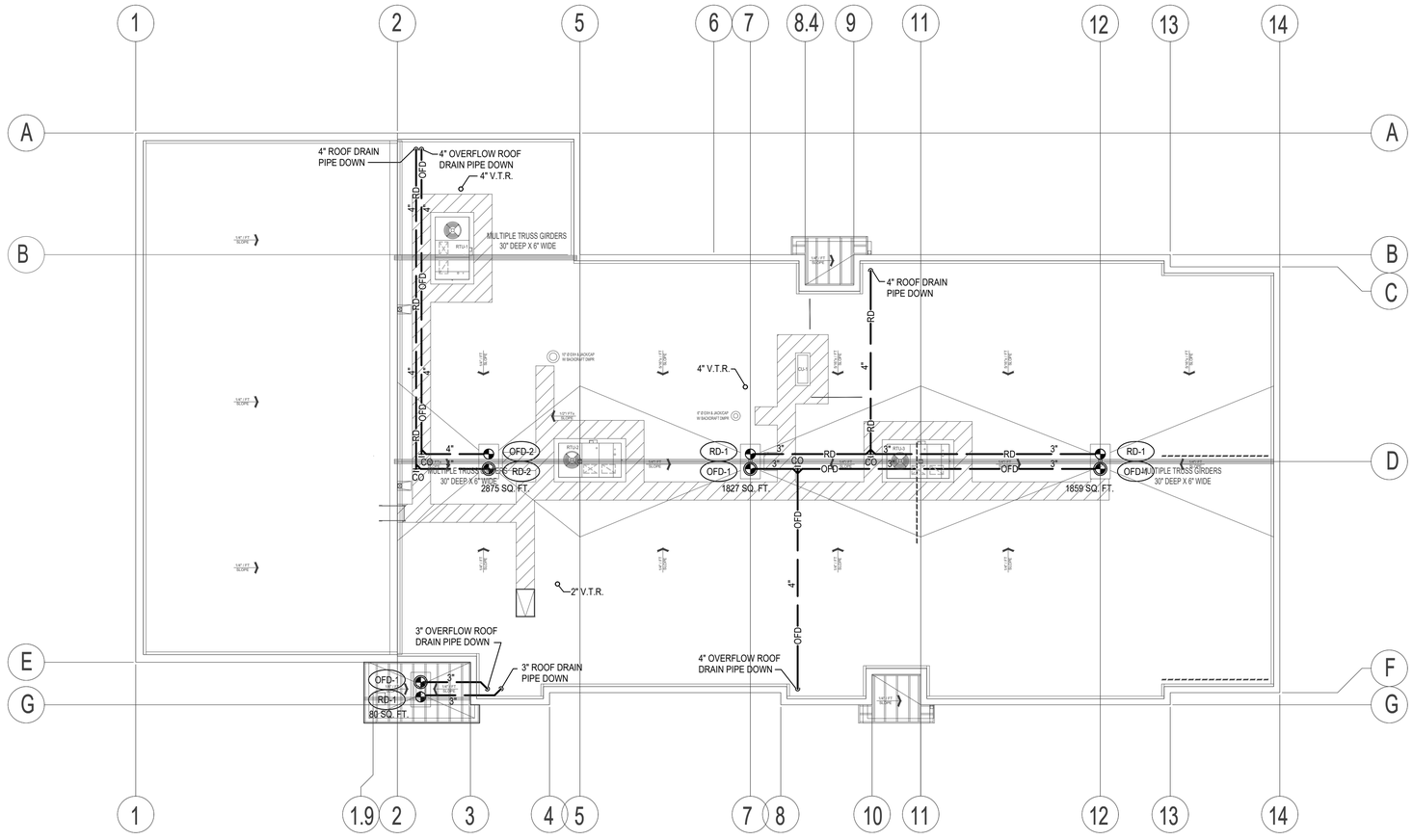
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09P101

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM



ROOF PLAN - WASTE AND VENT PIPING

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

0 1' 2' 3' 4' 5' 10' 15' 20'

NORTH

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

REGISTERED PROFESSIONAL ENGINEER
DALE R. WILDE
No. 155864
03-01-2024
STATE OF UTAH

Project 24-001

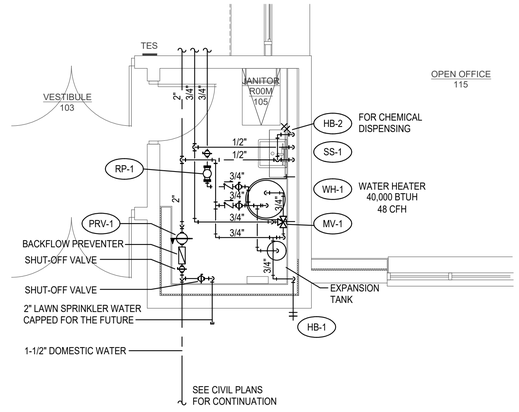
NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

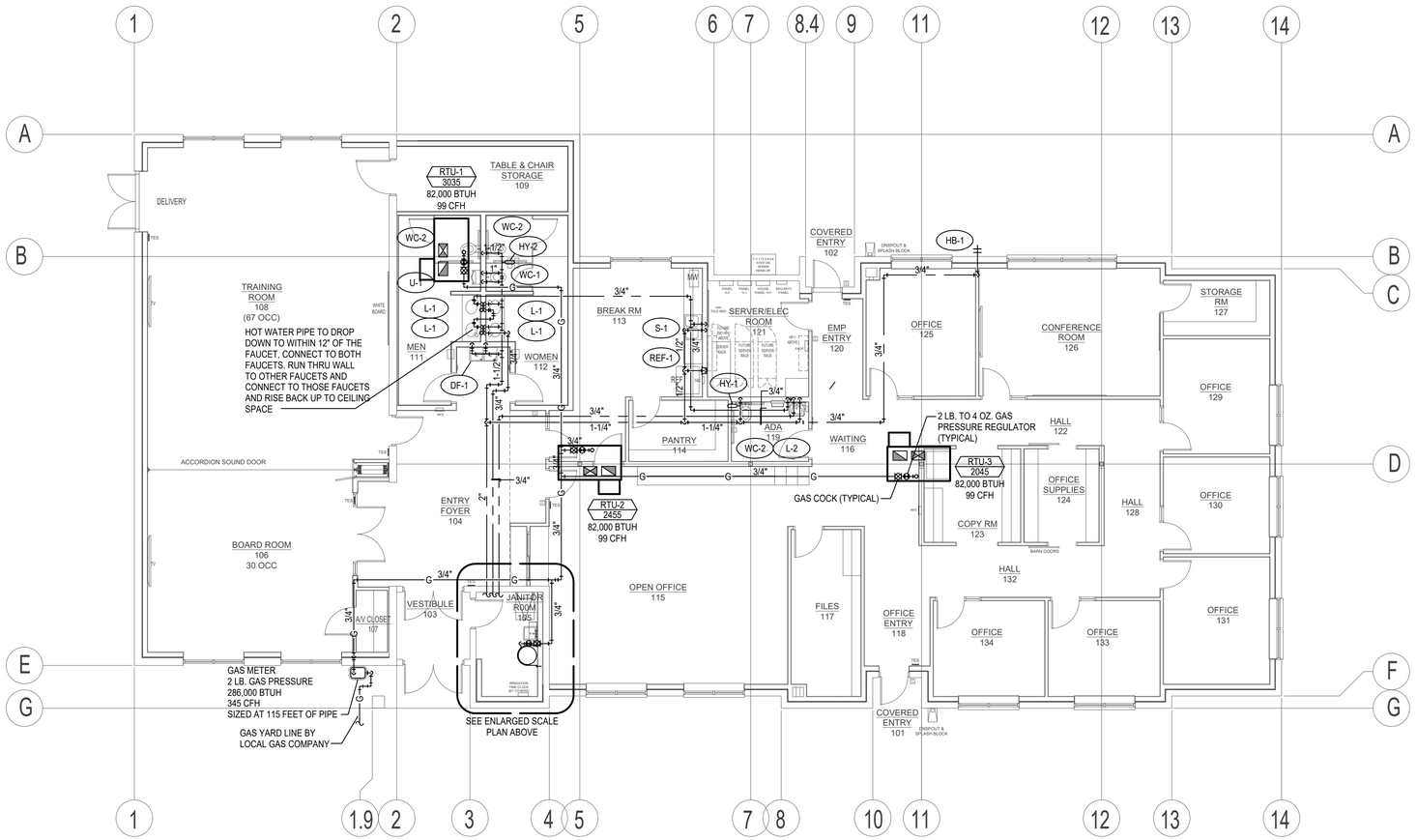
Revisions

Date 03/01/24

09P102

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM





FLOOR PLAN - WATER AND GAS PIPING

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

0 1' 2' 3' 4' 5' 10' 15' 20'

NORTH

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09P103

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

PLUMBING LEGEND

SYMBOL	DESCRIPTION	ABBREVIATION
	SOIL OR WASTE (ABOVE FLOOR)	S OR W
	SOIL OR WASTE (BELOW GRADE OR FLOOR)	S OR W
WCO	WALL CLEAN OUT	WCO
FCO	FLOOR CLEAN OUT	FCO
CO	CLEAN OUT	CO
COTG	CLEAN OUT TO GRADE	COTG
	VENT	V
	VENT THRU ROOF	VTR
RD	ROOF DRAIN (ABOVE FLOOR)	RD
RD	ROOF DRAIN (BELOW GRADE OR FLOOR)	RD
OFD	OVERFLOW ROOF DRAIN (ABOVE FLOOR)	OFD
OFD	OVERFLOW ROOF DRAIN (BELOW GRADE)	OFD
	COLD WATER	CW
	HOT WATER	HW
	RECIRCULATING HOT WATER	RHW
G	NATURAL GAS	G
	BACKFLOW PREVENTER	BFP
	BALL VALVE	
	CHECK VALVE	
D	DRAIN	D
	GAS COCK	
	GAS PRESSURE REDUCING VALVE	
	PRESSURE GAUGE	
	PRESSURE REDUCING VALVE	PRV
	PUMP	P
	RELIEF VALVE	
	STRAINER	
	THERMOMETER	
	THREE WAY MIXING VALVE	
	UNION	
	VALVE IN RISER	

DRAINAGE FIXTURE UNITS

2021 INTERNATIONAL PLUMBING CODE

QTY	FIXTURE TYPE	NOTES	FIXTURE UNITS PER EACH FIXTURE	FIXTURE UNITS PER TOTAL FIXTURE COUNT	MINIMUM SIZE OF TRAP (INCHES)
2	DRINKING FOUNTAIN		0.5	1	1-1/4"
4	FLOOR DRAIN		2.0	8	2"
1	KITCHEN SINK, DOMESTIC w/ DISPOSAL		2.0	2	1-1/2"
5	LAVATORY		1.0	5	1-1/4"
1	SERVICE SINK		2.0	2	1-1/2"
1	URINAL, 1 GALLON OER FLUSH OR LESS		2.0	2	NOTE a
4	WATER CLOSET, PUBLIC (1.6 GPF)	b	4.0	16	NOTE a
TOTAL FIXTURE UNITS				36	
PIPE SIZE				4"	

NOTES

a TRAP SIZE SHALL BE CONSISTENT WITH THE FIXTURE OUTLET SIZE.

b FOR THE PURPOSE OF COMPUTING LOADS ON BUILDING DRAINS AND SEWERS, WATER CLOSETS OR URINALS SHALL NOT BE RATED AT A LOWER DRAINAGE FIXTURE UNIT UNLESS THE LOWER VALUES ARE CONFIRMED BY TESTING.

BUILDING DRAINS AND SEWERS

DIAMETER OF PIPE (INCHES)	MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN. A			
	SLOPE PER FOOT			
	1/16 INCH	1/8 INCH	1/4 INCH	1/2 INCH
1-1/4"			1	1
1-1/2"			3	3
2"			21	26
2-1/2"			24	31
3"		36	42	50
4"		108	216	250
5"		390	480	575
6"		700	840	1,000

THE MINIMUM SIZE OF ANY BUILDING DRAIN SERVING A WATER CLOSET SHALL BE 3 INCHES.

WATER FIXTURE UNITS

2021 INTERNATIONAL PLUMBING CODE

QTY.	FIXTURE	OCCUPANCY	TYPE OF SUPPLY CONTROL	LOAD VALUES, IN WATER SUPPLY FIXTURE UNITS (WSFU) COLD	COLD	HOT	HOT	TOTAL	
				FIXTURE UNITS PER FIXTURE	TOTAL FIXTURE UNITS FOR BUILDING	FIXTURE UNITS PER FIXTURE	TOTAL FIXTURE UNITS FOR BUILDING	FIXTURE UNITS PER FIXTURE	TOTAL FIXTURE UNITS FOR BUILDING
2	DRINKING FOUNTAIN	OFFICE	3/8" VALVE	0.25	0.5	N/A	N/A	0.25	0.5
1	KITCHEN SINK	PRIVATE	FAUCET	1.0	1	1.0	1	1.4	1.4
5	LAVATORY	PRIVATE	FAUCET	0.5	2.5	0.5	2.5	0.7	3.5
1	SERVICE SINK	OFFICE	FAUCET	2.3	2.25	2.3	2.25	3.0	3
1	URINAL	PUBLIC	3/4' FLUSH VALVE	5.0	5	N/A	N/A	5.0	5
4	WATER CLOSET	PUBLIC	FLUSH VALVE	10.0	40	N/A	N/A	10.0	40
TOTAL FIXTURE UNITS					51.25		5.75		53.4
GALLONS PER MINUTE							51.6		
PIPE SIZE							2		

NOTES

FOR FIXTURES NOT LISTED, LOADS SHOULD BE ASSUMED BY COMPARING THE FIXTURE TO ONE LISTED USING WATER IN SIMILAR QUANTITIES AND AT SIMILAR RATES/ THE ASSIGNED LOADS FOR FIXTURES WITH BOTH HOT AND COLD WATERE SUPPLIES ARE GIVEN FOR SEPARATE HOT AND COLD WATER LOADS AND FOR TOTAL LOAD, THE SEPARATE HOT AND COLD WATER LOADS BEING THREE-FOURTHS OF THE TOTAL LOAD FOR THE FIXTURE IN EACH CASE.

NATURAL GAS REQUIREMENTS

QTY.		FIXTURE	BTUH	CFH
1	RTU-1	ROOFTOP UNIT	82,000	99.0
1	RTU-2	ROOFTOP UNIT	82,000	99.0
1	RTU-3	ROOFTOP UNIT	82,000	99.0
1	WH-1	WATER HEATER	40,000	48.0
TOTALS			286,000	345
BUILDING GAS PRESSURE				2 LB.
DEVELOPED PIPE LENGTH				115'-0"
SIZE OF BUILDING GAS MAIN				3/4"

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: gjascock@ntcon.net

REGISTERED PROFESSIONAL ENGINEER 165864 DALE R. WILDE 03-01-2024 STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09P201

PLUMBING GENERAL NOTES

CODES RULES AND REGULATIONS:

ALL WORK SHALL CONFORM TO ALL APPLICABLE LOCAL AND STATE CODES.

WHENEVER INDICATED MATERIAL WORKMANSHIP, ARRANGEMENT OR CONSTRUCTION IS OF HIGHER QUALITY OR CAPACITY THAN THAT REQUIRED BY THE ABOVE CODES, THE DRAWING AND OR SPECIFICATION SHALL GOVERN.

SHOULD THERE BE ANY DIRECT CONFLICT BETWEEN THE STATE OR LOCAL CODES, LAWS OR REGULATION AND THE DRAWING AND OR SPECIFICATIONS THE CODES, LAWS OR REGULATIONS SHALL GOVERN.

STANDARDS:

INTERNATIONAL BUILDING CODE 2021 EDITION
INTERNATIONAL PLUMBING CODE 2021 EDITION
INTERNATIONAL MECHANICAL CODE 2021 EDITION
INTERNATIONAL FUEL GAS CODE 2021 EDITION
THE STATE OF UTAH " BOILER AND PRESSURE VESSEL REGULATIONS"

EXAMINATION OF SITE:

THE CONTRACTOR SHALL CAREFULLY EXAMINE THE DRAWINGS AND THE SITE AND FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS BEFORE SUBMITTING ANY PROPOSAL. NO ADDITION COST WILL BE ALLOWED FOR FAILURE TO VISIT THE SITE.

WORKING DRAWINGS AND MEASUREMENTS:

THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET AND BEND THAT MAY BE NEEDED TO INSTALL THE WORK. THE CONTRACTOR SHALL COORDINATE THE DRAWINGS OF ALL OTHER TRADES INCLUDING BUT NOT LIMITED TO THE CIVIL, ARCHITECTURAL, ELECTRICAL, AND STRUCTURAL. THESE DRAWINGS SHALL NOT BE SCALED FOR ROUGH IN OR AS SHOP DRAWINGS.

EQUIPMENT SUBMITTALS:

PROVIDE ALL AT ONE TIME IN A THREE RING BINDER SIX COPIES OF EQUIPMENT PROPOSED TO BE USED ON THIS PROJECT.

REGARDLESS OF ANY INFORMATION OUTLINED IN THE SUBMITTALS OR SHOP DRAWINGS, THE REQUIREMENTS OF THE DRAWINGS MUST FOLLOWED AND AR NOT WAIVED OR SUPERSEDED IN ANY WAY BY THE SUBMITTALS OR SHOP DRAWING REVIEW.

CAULKING AND SEALING:

ALL SPACES BETWEEN PIPES AND SLEEVES THROUGH FIRE WALLS, FIRE PARTITIONS, FLOORS, AND CEILINGS SHALL CAULKED WITH ONE INCH FILL OF 3M "FIRE BARRIER". CAULKING MUST BE ON BOTH SIDES OF FIRE RATED WALLS.

SUPERVISION AND WORKMANSHIP:

PROVIDE THE SERVICES OF AN EXPERIENCED FORMAN WHO SHALL BE IN CHARGE OF ALL INSTALLATION.

ALL WORKMANSHIP SHALL BE OF FIRST QUALITY. NONE BUT COMPETENT MECHANICS SHALL BE EMPLOYED IN THE WORK. SHODDY WORKMANSHIP WILL BE CAUSE FOR REJECTION AND REPLACEMENT OF WORK WITHOUT ADDITIONAL COST.

COOPERATION WITH OTHER TRADES:

REFER TO ALL THE DRAWINGS COVERING WORK OF ALL TRADES, WHICH IS CARRIED ON IN CONJUNCTION WITH THE WORK SUCH THAT ALL WORK CAN PROCEED WITHOUT INTERFERENCE RESULTING FROM LACK OF COORDINATION.

MANUFACTURERS INSTRUCTIONS:

THE CONTRACTOR SHALL FOLLOW THE MANUFACTURERS INSTALLATION INSTRUCTION EXPLICITLY IN THE INSTALLATION OF ALL ITEMS OF EQUIPMENT.

COMPLETION REQUIREMENTS:

ALL SYSTEMS SHALL BE TESTED BY THE CONTRACTOR TO DEMONSTRATE THE ALL EQUIPMENT FURNISHED AND INSTALLED OR CONNECTED FUNCTION IN THE MANNER REQUIRED.

ADJUSTMENTS, OPERATION, ETC. ADJUST ALL REGULATORS, FAUCETS, ETC. OPEN AND CLOSE ALL VALVES SEVERAL TIMES TO INSURE SEAL.

CLEANING:

THIS CONTRACTOR SHALL CLEAN ALL EXPOSED PIPING, INSULATED MEMBERS, FIXTURES AND EQUIPMENT INSTALLED AND LEAVE READY FOR PAINTING. REFINISH AND DAMAGED FINISH AND LEAVE IN PROPER WORKING ORDER.

GUARANTEE:

BY THE ACCEPTANCE OF AN CONTRACT AWARD FOR THE WORK HEREIN DESCRIBED OR SHOWN ON THE DRAWINGS, THE CONTRACTOR ASSUMES THE FULL RESPONSIBILITY IMPOSED BY THE GUARANTEE AS SET FORTH HEREIN, AND SHALL PROTECT HIMSELF THROUGH PROPER GUARANTEES FROM EQUIPMENT VENDORS AND FROM SUBCONTRACTORS AS THEIR INTERESTS MAY APPEAR.

1. THAT THE ENTIRE PLUMBING SYSTEMS SHALL BE QUIET IN OPERATION.
2. THAT THE CIRCULATION OF WATER SHALL BE COMPLETE AND EVEN INCLUDING THE DOMESTIC HOT WATER SYSTEM.
3. THAT HE WILL MAKE PROMPTLY UPON NOTICE, FREE OF CHARGE, ANY REPAIRS NECESSARY DUE TO DEFECTIVE MATERIALS OR MATERIALS OR WORKMANSHIP THAT MAY OCCUR DURING A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

THE EXISTING UTILITY CONNECTIONS HAVE BEEN DETERMINED BASED ON THE INFORMATION AVAILABLE. NO DESTRUCTIVE DEMOLITION HAS BEEN PERFORMED TO CONFIRM THE EXISTENCE AND OR LOCATION OF THE EXISTING CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS PRIOR TO START OF WORK. ANY DEVIATION FROM THE CONDITIONS SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR EVALUATION AND DIRECTION. THE COST OF REMEDIAL WORK DUE TO FAILURE OF THE CONTRACTOR TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF WORK WILL BE BOURNE BY THE CONTRACTOR.

PLUMBING PIPING SCHEDULE

NOTES:

GRADE ALL DOMESTIC WATER PIPING TO DRAIN. PROVIDE DRAIN AT ALL LOW POINTS WITH HOSE CONNECTION AND CAP. GRADE ALL WASTE AND VENT PIPING TO CONFORM TO THE INTERNATIONAL PLUMBING CODE.

ALL PIPING SHALL BE SUPPORTED WITH CLEVIS HANGERS ON THE FOLLOWING SPACING:

STEEL PIPE 1" AND SMALLER	5 FEET
STEEL PIPE 1-1/4" AND LARGER	10 FEET
COPPER TUBING 1-1/4" AND SMALLER	5 FEET
COPPER TUBING 1-1/2" AND LARGER	10 FEET
PLASTIC PIPE	3 FEET

CAST IRON SOIL PIPE - SUPPORT AT EACH JOINT AND AT INTERVALS NOT TO EXCEED 5 FEET.

HANGER ROD SIZING AS FOLLOWS:

PIPE SIZE	ROD SIZE
1/2" TO 2"	3/8"
2-1/2" TO 3"	1/2"
4" AND LARGER	5/8"

PROVIDE INSULATION PROTECTION SHIELDS AT ALL HANGERS.
PROVIDE ISOLATION VALVES AND UNIONS AT ALL EQUIPMENT.
PROVIDE DIELECTRIC UNIONS BETWEEN DISSIMILAR PIPE MATERIALS.

BACK FILL AND COMPACT ALL TRENCHING TO PREVENT SETTLEMENT AND TO PROPERLY SUPPORT BELOW GRADE PIPING.

PLASTIC PIPING IN AIR PLENUMS IS PROHIBITED. ALL MATERIAL LOCATED IN AIR PLENUMS MUST HAVE SURFACE BURNING CHARACTERISTICS NOT EXCEEDING FLAME SPREAD 25 AND SMOKE GENERATED 50.

SYMBOL	DESCRIPTION
HW CW HWR	DOMESTIC HOT WATER PIPING DOMESTIC COLD WATER PIPING DOMESTIC HOT WATER RECIRCULATING PIPING COPPER TUBE BELOW GRADE: TYPE K HARD DRAWN COPPER CONFORMING TO ANSI H23.1 COPPER TUBE ABOVE GRADE: TYPE L HARD DRAWN COPPER CONFORMING TO ANSI H23.1 COPPER TUBE FITTINGS: 2-1/2" AND SMALLER: WROUGHT COPPER, SOLDER JOINT PRESSURE FITTINGS CONFORMING TO ASME B16.22 SOLDER WITH NON LEAD SOLDER IN ACCORDANCE WITH THE REQUIREMENTS OF THE COPPER DEVELOPMENT ASSOCIATION'S "THE COPPER TUBE HANDBOOK" INCLUDING REAMING AND DE-BURRING. 3" AND LARGER: WROUGHT COPPER AND BRONZE GROOVED END FITTINGS CONFORMING TO ASTM B75 TUBE AND ASTM B584 BRONZE CASTINGS. COUPLING FOR GROOVED END COPPER TUBE AND GROOVED END COPPER FITTINGS CONSISTING OF ASTM A 536 DUCTILE IRON OR ASTM A 47 MALLEABLE IRON HOUSING HAVING COPPER COLORED ENAMEL FINISH WITH SYNTHETIC RUBBER GASKET HAVING CENTRAL CAVITY PRESSURE RESPONSIVE DESIGN AND SUITABLE FOR SERVICE.
HW CW HWR	DOMESTIC HOT WATER PEX PIPING DOMESTIC COLD WATER PEX PIPING DOMESTIC HOT WATER RECIRCULATING PEX PIPING PEX TUBE AND FITTINGS PEX DISTRIBUTION SYSTEM: ASTM F 1807, METAL-INSERT TYPE WITH COPPER OR STAINLESS-STEEL CRIMP RINGS AND MATCHING PEX TUBE DIMENSIONS. MANIFOLD: MULTIPLE-OUTLET, PLASTIC OR CORROSION-RESISTANT METAL ASSEMBLY, COMPLYING WITH ASTM F 877; WITH PLASTIC OR CORROSION-RESISTANT-METAL VALVE FOR EACH OUTLET
W GW V	WASTE PIPING GREASE WASTE PIPING VENT PIPING PLASTIC PIPE: POLY (VINYL CHLORIDE) (PVC) ASTM D 2665 SOLID CORE SCHEDULE 40 PLAIN ENDS. ACRYLONITRILE BUTADIENE STYRENE (ABS) ASTM D 2661 SOLID CORE SCHEDULE 40 PLAIN ENDS CAST IRON: SERVICE WEIGHT CAST IRON COATED HUB LESS SOIL PIPE CONFORMING TO THE REQUIREMENTS OF CISPI STANDARD 301, ASTM A888 OR ASTM A74. PIPE FITTINGS: PVC: DWV PIPE FITTINGS CONFORMING TO ASTM D 2665 MADE TO ASTM D3311 SOCKET-TYPE DRAIN WASTE AND VENT PIPE PATTERNS. SOLVENT CEMENTS: ASTM D 2564 AND ASTM F 656 PRIMER PVC TO ABS TRANSITION ASTM D 3138 COLOR OTHER THAN ORANGE ABS: DWV PIPE FITTINGS CONFORMING TO ASTM D 2661 SOLID CORE MADE TO ASTM D 3311 SOCKED-TYPE DRAIN WASTE AND VENT PIPE PATTERNS SOLVENT CEMENT: ASTM D 2235 CAST IRON: HUBLESS CAST IRON CONFORMING TO CISPI 310 HAVING ASTM C 564 NEOPRENE SEALING SLEEVE WITH 300 SERIES STAINLESS STEEL CORRUGATED SHIELD AND CLAMP ASSEMBLY.

PLUMBING PIPING SCHEDULE

SYMBOL	DESCRIPTION
G	NATURAL GAS PIPING STEEL PIPE: 4" AND SMALLER, SCHEDULE 40 OR SCHEDULE 80 BLACK CONFORMING TO ASTM-A53 GRADE A. SIZE 5" AND LARGER, SCHEDULE 40 OR SCHEDULE 80 BLACK CONFORMING TO ASTM-A53 GRADE F. STEEL PIPE FITTINGS: 2' AND SMALLER, MALLEABLE THREADED FITTINGS, ANSI B16.3, CLASS 150 STANDARD PATTERN FOR THREADED FITTINGS. THREADS SHALL CONFORM TO ANSI B1.20.1. 2-1/2" AND LARGER, SCHEDULE 40 WROUGHT STEEL WELDING FITTINGS CONFORMING TO ANSI B16.28.
D	CONDENSATE DRAIN DOMESTIC TYPE L HARD DRAWN COPPER CONFORMING TO ANSI H23.1 COPPER TUBE FITTINGS: 2-1/2" AND SMALLER: WROUGHT COPPER, SOLDER JOINT PRESSURE FITTINGS CONFORMING TO ASME B16.22 SOLDER WITH NON LEAD SOLDER IN ACCORDANCE WITH THE REQUIREMENTS OF THE COPPER DEVELOPMENT ASSOCIATION'S "THE COPPER TUBE HANDBOOK" INCLUDING REAMING AND DE-BURRING.
RD OFD	ROOF DRAIN PIPING OVERFLOW ROOF DRAIN PIPING PLASTIC PIPE: POLY (VINYL CHLORIDE) (PVC) ASTM D 2665 SOLID CORE SCHEDULE 40 PLAIN ENDS. ACRYLONITRILE BUTADIENE STYRENE (ABS) ASTM D 2661 SOLID CORE SCHEDULE 40 PLAIN ENDS CAST IRON: SERVICE WEIGHT CAST IRON COATED HUB LESS SOIL PIPE CONFORMING TO THE REQUIREMENTS OF CISPI STANDARD 301, ASTM A888 OR ASTM A74. PIPE FITTINGS: PVC: DWV PIPE FITTINGS CONFORMING TO ASTM D 2665 MADE TO ASTM D3311 SOCKET-TYPE DRAIN WASTE AND VENT PIPE PATTERNS. SOLVENT CEMENTS: ASTM D 2564 AND ASTM F 656 PRIMER PVC TO ABS TRANSITION ASTM D 3138 COLOR OTHER THAN ORANGE ABS: DWV PIPE FITTINGS CONFORMING TO ASTM D 2661 SOLID CORE MADE TO ASTM D 3311 SOCKED-TYPE DRAIN WASTE AND VENT PIPE PATTERNS SOLVENT CEMENT: ASTM D 2235 CAST IRON: HUBLESS CAST IRON CONFORMING TO CISPI 310 HAVING ASTM C 564 NEOPRENE SEALING SLEEVE WITH 300 SERIES STAINLESS STEEL CORRUGATED SHIELD AND CLAMP ASSEMBLY.

LABELING OF WATER DISTRIBUTION PIPES

1. DOMESTIC HOT WATER DHW
2. DOMESTIC HOT WATER RECIRCULATING DHWR
3. DOMESTIC COLD WATER CW

EACH LABEL SHALL INDICATE PIPE CONTENT AND THE DIRECTION OF FLOW IN THE PIPE. THE LABEL SHALL BE AT INTERVALS BETWEEN LABELS SHALL NOT BE MORE THAT 25 FEET. THERE SHALL NOT BE LESS THAN ONE IDENTIFICATION LABEL ON EACH PIPE IN EACH ROOM , SPACE, OR STORY AND IN ACCORDANCE WITH 2018IPC 606.7.

NON-POTABEL WATER SHALL BE LABELED IN ACCORDANCE WITH WITH 2018 IPC 608.9. IDENTIFICATION OF NON-POTABLE WATER SYSTEMS AND ALL SUBSECTIONS, OF SECTION 6086.809.

DISINFECTION OF POTABLE WATER SYSTEM

IPC 602.03.4
DISINFECTION OF SYSTEM. AFTER CONSTRUCTION, THE INDIVIDUAL WATER SUPPLY SYSTEM SHALL BE PURGED OF DELETERIOUS MATTER AND DISINFECTED IN ACCORDANCE WITH SECTION 610.

IPC 610
1. THE PIPE SYSTEM SHALL BE FLUSHED CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT THE POINT OF OUTLET.
2. THE SYSTEM OF PART THEREOF SHALL BE FILLED WITH A WATER/ CHLORINE SOLUTION CONTAINING NOT LESS THAT 50 PARTS PER MILLION (50 mg/L) OF CHLORINE, AND THE SYSTEM OF PART THEREOF SHALL BE VALVED OFF AND ALLOWED TO STAND FOR 24 HOURS; OR THE SYSTEM OR PART THEREOF SHALL BE FILLED WITH A WATER/CHLORINE SOLUTION CONTAINING NOT LESS THAN 200 PARTS PER MILLION (200 mg/L) OF CHLORINE AND ALLOWED TO STAND FOR 3 HOURS.
3. FOLLOWING THE REQUIRED STANDING TIME, THE SYSTEM SHALL BE FLUSHED WITH CLEAN POTABLE WATER UNTIL THE CHLORINE IS PURGED FROM THE SYSTEM.
4. THE PROCEDURE SHALL BE REPEATED WHERE SHOWN BY A BACTERIOLOGICAL EXAMINATION THAT CONTAMINATION REMAINS PRESENT IN THE SYSTEM.

PLUMBING INSULATION SCHEDULE

NOTES:

ALL INSULATION SHALL HAVE SURFACE BURNING CHARACTERISTICS, AS TESTED BY ASTM E84, UL723 OR NFPA 255 NOT EXCEEDING : FLAME SPREAD 25 AND SMOKE DEVELOPED 50.

COMPOSITE SHALL INCLUDE INSULATION JACKETING AND ADHESIVES USED TO SECURE JACKETING OR FACING. ALL ACCESSORY ITEMS SUCH AS PVC JACKETING AND FITTINGS, ADHESIVES, MASTIC, CEMENT, TAPE AND CLOTH SHALL HAVE SAME COMPONENT RATING AS ABOVE.

PIPE INSULATION:

FIBERGLASS SECTIONAL PIPE INSULATION: THERMAL CONDUCTIVITY OF 0.23 BUT-IN PER SQ FT PER HOUR AT 75 DEG F MEAN TEMPERATURE. MINIMUM DENSITY OF 2 LBS PER CUBIC FOOT. JACKETED WITH WHITE VAPOR BARRIER LAMINATED OF ALUMINUM FOIL AND WHITE KRAFT REINFORCED WITH GLASS FIBER STRANDS. JACKET SHALL HAVE FACTOR APPLIED SELF-SEALING LAP.

PLASTIC INSULATION FITTING COVERS:

FACTORY FABRICATED FINNTING COVERS MANUFACTURED FROM 30-MIL THICK, HIGH-IMPACT ULTRAVIOLET RESISTANT PVC.

PIPE INSULATION INSTALLATION:

INSTALLATION SHALL BE CONTINUOUS THROUGH WALLS, FLOORS, PARTITIONS, SLEEVES AND PIPE HANGERS.

APPLY INSULATION TO PIPE AND SEAL WITH SELF-SEALING LAP. USE SELF-SEALING BUTT STRIPS TO SEAL BUTT JOINTS. INSULATION NOT REQUIRED OVER UNION, AND VALVE BODIES ON DOMESTIC HOT WATER.

INSTALL PLASTIC FITTING COVERS IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

INSULATION INSTALLED OUTSIDE SHOULD BE COVERED WITH ALUMINUM JACKET.

PIPE INSULATION THICKNESS:

INSULATION THICKNESS	RUN OUTS TO 2"	1" AND LESS	1-1/4" TO 2"	2-/2" TO 4"	5" TO 6"
DOMESTIC HOT WATER	1/2"	1"	1"	1-1/2"	1-1/2"
DOMESTIC HOT WATER RECIRCULATING	1/2"	1"	1"	1-1/2"	1-1/2"
DOMESTIC COLD WATER	1/2"	1/2"	1/2"	1/2"	1/2"
ROOF DRAINS	1/2"	1/2"	1/2"	1/2"	1/2"

GENERAL NOTES

COORDINATE ALL SUSPENDED EQUIPMENT WITH ARCHITECTURAL REFLECTED CEILING PLAN.

IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO COORDINATE HIS WORK WITH ALL OTHER TRADES.

COORDINATE ALL ROOF PENETRATIONS WITH STRUCTURAL DRAWINGS.

ALL FIXTURES ARE DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE.

ALL QUESTION MUST BE SUBMITTED TO THE ARCHITECT IN THE FORM OF AN RFI. ANY RFI SENT DIRECTLY TO ENGINEER WILL BE RETURNED UNREAD.

ANY RFI's THAT HAVE BEEN CORRECTED OR APPROVED BY THE ENGINEER WILL BE JUST FOR CLARIFICATION, AND DOES NOT CONSTITUTE A CHANGE ORDER.

CHANGE ORDERS MUST BE SUBMITTED TO THE ARCHITECT, THE CHANGE ORDER SHALL BE COMPLETE BY LISTING THE FINAL PRICING WITH PROPER BREAKDOWN AND DOCUMENTATION. POSSIBLE TIME EXTENSION OR DELAY AND THE ASSOCIATED COST FOR THE TIME EXTENSION OR DELAY. MATERIAL AND LABOR COST.

RFI's WITH BE RETURNED TO ARCHITECT FROM ENGINEER WITHIN 5 WORKING DAYS.

CHANGE ORDERS WILL BE RETURNED TO ARCHITECT FROM ENGINEER WITHIN 15 DAYS.

DO NOT PROCEED WITH RFI UNTIL CHANGE ORDER HAS BEEN APPROVED BY ARCHITECT, OWNER AND ENGINEER. IF CONTRACTOR DOES SO IT WILL BE AT THERE OWN RISK.

IF TIME EXTENSIONS AND/OR DELAYS ARE INCURRED DUE TO FAILURE TO ISSUE AN RFI, CHANGE REQUEST, CHANGE ORDER, OR IMPROPER AND/OR INCOMPLETE DOCUMENTATION THE COST ASSOCIATED WITH THE DELAY WILL BE BORNE BY THE CONTRACTOR.

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

COPYRIGHT

DATE MARCH. 01, 2024

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

REGISTERED PROFESSIONAL ENGINEER
No. 165864-2202
CHAD R. WILDE, JR.
03-01-2024
STATE OF UTAH

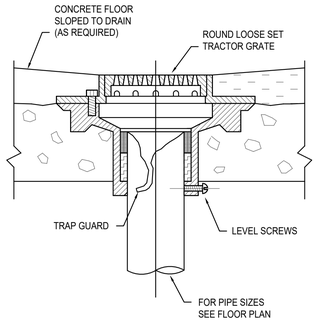
Project 24-001

Revisions

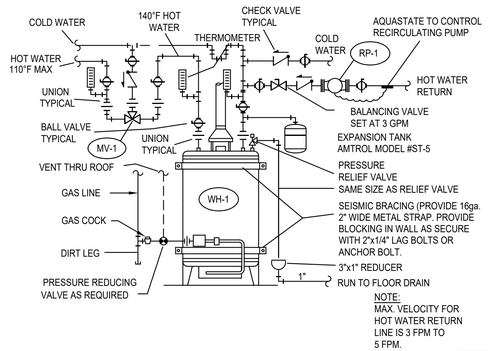
Date 03/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

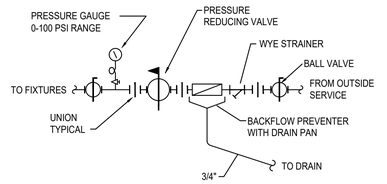
09P202



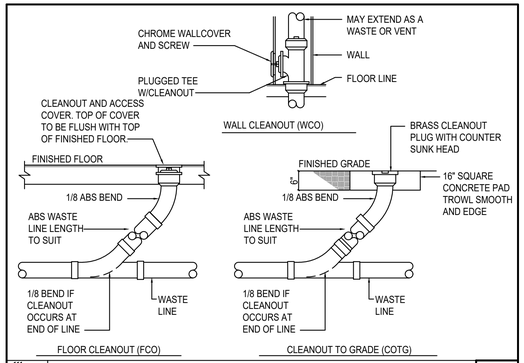
DETAIL FLOOR DRAIN with TRAP GUARD | 1
SCALE: NONE | 09P203



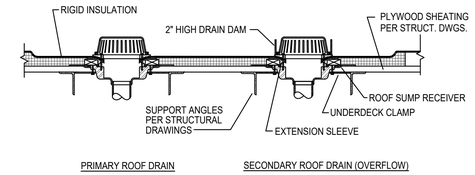
DETAIL H20 HEATER W/RECIRC.PUMP | 2
SCALE: NONE | 09P203



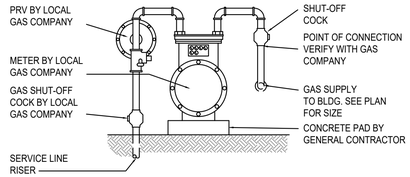
DETAIL PRV STATION - 2" and SMALLER | 3
SCALE: NONE | 09P203



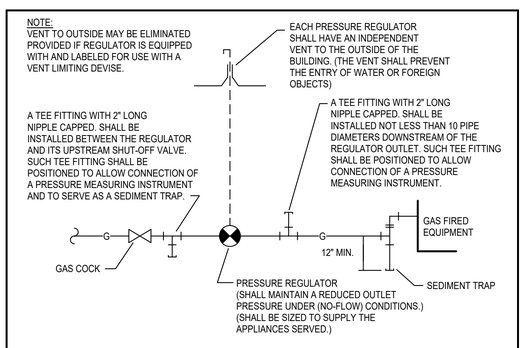
DETAIL CLEANOUTS | 4
SCALE: NONE | 09P203



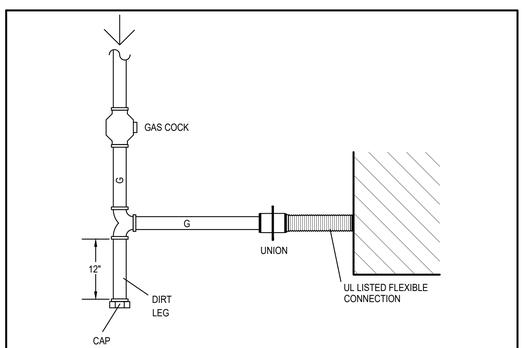
DETAIL ROOF DRAIN SECTION | 5
SCALE: NONE | 09P203



DETAIL GAS METER | 6
SCALE: NONE | 09P203



DETAIL GAS PRESSURE REGULATOR | 7
SCALE: NONE | 09P203



DETAIL GAS CONNECTION | 8
SCALE: NONE | 09P203

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

REGISTERED PROFESSIONAL ENGINEER 255864 2020 DALE R. WILDE 03-01-2024 STATE OF UTAH

Project 24-001

Revisions

Date 03/01/24

09P203

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

COPYRIGHT
DATE MARCH. 01, 2024

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MANUFACTURER	MODEL NUMBER	WASTE	VENT	HOT WATER	COLD WATER
DF-1	HI-LOW DRINKING FOUNTAIN (ELEC. COOLER) WITH BOTTLE FILLER	ELKAY	LZSTL8WSLK	1-1/2"	1-1/2"		1/2"
	STOPS	NIBCO	7105 ANGLE STOP				
		NIBCO	7100 STRAIGHT STOP				
	SUPPLY	BRASSCRAFT	CROME PLATED				
		WATTS B&T	CROME PLATED				
	COLOR	BY ARCHITECT:					
	WALL SUPPORT	JOSAM	17560				
		J.R.SMITH	834				
		MIFAB	MC-33				
		WADE	W440-AM11				
		ZURN	(2) Z1223				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. TWO STATION BARRIER-FREE WALL MOUNTED WATER COOLER WITH BOTTLE FILLER.					
		3. PUSH BUTTON AND SENSOR ACTIVATED.					
		4. CAPACITY OF 9.7 GPH OF 50 DEGREES F. WITH 70 DEGREES F. ROOM AIR.					
		5. WALL CARRIER					
		6. CHROIME PLATED "P" TRAP.					
		7. 115v/60h/1p - (4.0 FLA) 370 WATTS - 1/5 H.P. COMP.					
		8. MOUNT BUBBLERS AT 32-7/8" A.F.F. AND 38-3/8" A.F.F.					
DN-1	DOWNSPOUT NOZZEL	J.R. SMITH	1775	3"			
		JOSAM	25024				
		MIFAB	R1693				
		WADE	3941				
		WATTS DRAINAGE	RD-950				
		ZURN	Z199-DC				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. CORROSION RESISTANT STAINLESS STEEL BODY AND FLANGE WITH HINGED COVER.					
DN-2	DOWNSPOUT NOZZEL	J.R. SMITH	1775	4"			
		JOSAM	25024				
		MIFAB	R1964				
		WADE	3941				
		WATTS DRAINAGE	RD-950				
		ZURN	Z199-DC				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. POLISHED BRONZE BODY AND FLANGE WITH HINGED COVER.					
FD-1	FLOOR DRAIN	JOSAM	30000-Z-S	2"	2"		
		J.R. SMITH	2005-A				
		MIFAB	F1100-C-1				
		WADE	W-1102-STD5-1				
		WATTS DRAINAGE	FD-100-A5				
		ZURN	Z-415				
	PRO-VENT SYSTEM TRAP GUARD	J.R. SMITH	2692				
		MIFAB	TG22IP 2"				
		SOIUX CHIEF	TG22SC				
		WADE	TG22P				
		WATTS DRAINAGE	TG22P-W				
		ZURN	TG22P-Z				
NOTES:		1. CHOOSE ON MANUFACTURER FOR EACH CATEGORY.					
		2. 2" CAST IRON "P" TRAP.					
		3. 5" DIAMETER NICKEL BRONZE STRAINER.					
		4. THE TRAP GUARD IS TO MEET ASSE 1072.					
HB-1	HOSE BIBB (EXTERIOR)	WOODFORD	65				3/4"
		J.R. SMITH	5609QT				
		JOSAM	71050				
		MIFAB	HY1000				
		WADE	W-8600				
		WATTS DRAINAGE	HY-420				
		ZURN	Z1321-C				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. NON-FREEZE.					
		3. INTEGRAL VACUUM BREAKER.					
		4. CHROME FINISH.					
		5. 12' MINIMUM LENGTH, 18" IF POSSIBLE.					
HB-2	HOSE BIBB (INTERNAL) FOR CHEMICAL DISPENSING	WOODFORD	24				3/4"
		CHICAGO FAUCET	387				
		MIFAB	HY9000				
		J.R. SMITH	560				
		T&S	B-0737				
		ZURN	Z1341				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. FOR NON-FREEZING AREA.					
		3. HIGH HARZARD CHEMICAL BACKFLOW PREVENTER.					
		4. ALL BRASS- POLISHED CHROME PLATED.					
		5. LOOSE TEE KEY OPERATION HANDLE					
		6. TAMPER PROOF LOCK SHIELD.					
HY-1	WATER HAMMER ARRESTER	J.R. SMITH	HYDROTROL 5005				3/4"
		JOSAM	ABSORBOTRON 75001				
		MIFAB	MWH-A				
		WADE	W-5				
		WATTS DRAINAGE	SS SERIES				
		ZURN	SHOCKTROL 100				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. RATED AT 11 FIXTURE UNITS.					
HY-2	WATER HAMMER ARRESTER	J.R. SMITH	HYDROTROL 5020				1"
		JOSAM	ABSORBOTRON 75003				
		MIFAB	MWH-C				
		WADE	W-20				
		WATTS DRAINAGE	SS SERIES				
		ZURN	SHOCKTROL 300				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. RATED AT 60 FIXTURE UNITS.					

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MANUFACTURER	MODEL NUMBER	WASTE	VENT	HOT WATER	COLD WATER
HY-1	WATER HAMMER ARRESTER	J.R. SMITH	HYDROTROL 5005				3/4"
		JOSAM	ABSORBOTRON 75001				
		MIFAB	MWH-A				
		WADE	W-5				
		WATTS DRAINAGE	SS SERIES				
		ZURN	SHOCKTROL 100				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. RATED AT 11 FIXTURE UNITS.					
HY-2	WATER HAMMER ARRESTER	J.R. SMITH	HYDROTROL 5020				1"
		JOSAM	ABSORBOTRON 75003				
		MIFAB	MWH-C				
		WADE	W-20				
		WATTS DRAINAGE	SS SERIES				
		ZURN	SHOCKTROL 300				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. RATED AT 60 FIXTURE UNITS.					
L-1	LAVATORY (UNDER COUNTER MOUNTED) A.D.A.	AMERICAN STANDARD	0476028.020	1-1/2"	1-1/2"	1/2"	1/2"
		KOHLER	K-2210-N				
	FAUCET	AMERICAN STANDARD	7385050.002				
	MIXING VALVE	ACORN CONTROLS	ST70-12				
	STOPS	BRIGGS/SAYCO	S1503				
		NIBCO	7105 ANGLE				
		NIBCO	7100 STRAIGHT				
	SUPPLY	BRASSCRAFT	CHROME PLATED				
		WATTS B&T	CHROME PLATED				
	PROTECTIVE PIPE COVERS	TRUEBRO	102-EZ 105-EZ				
		PLUMBEREX	2003				
NOTES:		1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.					
		2. VITREOUS CHINA / UNDERCOUNTER MOUNT.					
		3. DECK MOUNTED FAUCET.					
		4. FAUCET WITH FLOW RESTRICTOR AND AERATOR.					
		5. PROVIDE A ASSE 1070 MIXING VALVE UNDER SINK WITH ACCESS DOOR.					
		6. INTEGRAL PERFORATED GRID DRAIN					
		7. 17 GAUGE CHROME PLATED TUBE "P" TRAP.					
		8. CHROME PLATED SUPPLY PIPES AND STOPS.					
MV-1	MIXING VALVE	ACORN	MV17			110 DEG. F. 3/4" 140 DEF. F. 3/4"	3/4"
		BRADLEY	S59-2025				
		LAWLER	66-25				
		LEONARD	LV-20-LF				
		SYMMONS	7-200				
NOTES:		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. THERMOSTATIC MIXING VALVE. ASSE 1017 CERTIFIED					
		3. COMBINATION STRAINER, CHECK AND STOPS.					
		4. SET TO MIX 140 DEG. F. WATER TO 110 DEG. F.					
		5. SET AT 17 GPM AT 20 P.S.I. DIFFERENTIAL.					
OFD-1	OVERFLOW ROOF DRAIN	JOSAM	21500-AE	3"			
		J.R. SMITH	1080-C				
		WADE	W3003-D-53				
		WATTS DRAINAGE	RD-300-D-R				
		ZURN	Z-100 w/2" TALL DAM				
NOTES		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. DUCO CAST IRON BODY WITH COMBINED FLASHING COLLAR AND GRAVEL STOP.					
		3. UNDERDECK CLAMP.					
		4. LOW PROFILE FORTIFIED DOME.					
OFD-2	OVERFLOW ROOF DRAIN	JOSAM	21500-AE	4"			
		J.R. SMITH	1080-C				
		WADE	W3004-D-53				
		WATTS DRAINAGE	RD-300-D-R				
		ZURN	Z-100 w/2" TALL DAM				
NOTES		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. DUCO CAST IRON BODY WITH COMBINED FLASHING COLLAR AND GRAVEL STOP.					
		3. UNDERDECK CLAMP.					
		4. LOW PROFILE FORTIFIED DOME.					
PRV-1	WATER PRESSURE REDUCING VALVE	WATTS	LF223				2"
	BALL VALVE	NIBCO	S-590				
	BACKFLOW PREVENTER	WATTS	LF909				
	PRESSURE GAUGE	TRERICE	500X				
NOTES		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. ALL BRONZE PRESSURE REDUCER WITH INTEGRAL STRAINER.					
		3. 0 TO 200 P.S.I. PRESSURE GAUGE.					
		4. SET REDUCING VALVE TO 50 P.S.I.					
		5. SEE DETAIL ON DRAWINGS.					
RD-1	ROOF DRAIN	JOSAM	21500-AE	3"			
		J.R. SMITH	1010-C				
		WADE	W-3003-53				
		WATTS DRAINAGE	RD-300-D				
		ZURN	Z-100				
NOTES		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. DUCO CAST IRON BODY WITH COMBINED FLASHING COLLAR AND GRAVEL STOP.					
		3. UNDERDECK CLAMP.					
		4. LOW PROFILE FORTIFIED DOME.					
RD-2	ROOF DRAIN	JOSAM	21500-AE	4"			
		J.R. SMITH	1010-C				
		WADE	W-3004-53				
		WATTS DRAINAGE	RD-300-D				
		ZURN	Z-100				
NOTES		1. CHOOSE ONE MANUFACTURE FOR EACH CATEGORY.					
		2. DUCO CAST IRON BODY WITH COMBINED FLASHING COLLAR AND GRAVEL STOP.					
		3. UNDERDECK CLAMP.					
		4. LOW PROFILE FORTIFIED DOME.					

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MANUFACTURER	MODEL NUMBER	WASTE	VENT	HOT WATER	COLD WATER
REF-1	REFRIGERATOR CONNECTION	GUY GRAY	MIB1AB				1/2"
NOTES:		1. ICE MAKER BOX					
		2. POWERED COATED					
RP-1	RECIRCULATING PUMP	GRUNDFOS	UP15-18SF			3/4"	
NOTES		1. FLANGE SIZE 3/4"					
		2. 1 SPEED					
		3. 120 volt / 60 hertz / 1 phase - 1/25 H.P. - 85 WATTS.					
		4. PROVIDE BALANCING VALVE WITH DISCHARGE SET AT 3 GPM.					
		SEQUENCE OF CONTROL: THE RECIRCULATING PUMP SHALL BE PROVIDED WITH AN AUQUASTAT AND A 7 DAY TIME CLOCK. WHEN THE BUILDING IS UNOCCUPIED THE PUMP SHALL BE OFF BASED ON TIME AND DAY. WHEN THE BUILDING IS OCCUPIED THE AUQUASTAT SHALL START THE PUMP WHEN THE WATER TEMPREATURE IN THE LINE IS BELOW 100 DEG F. THE PUMP SHALL SHUT OFF WHEN THE TEMPERATURE IN THE LINE RISES ABOVE 120 DEG F.					
SS-1	SERVICE SINK (FLOOR TYPE)	ACORN	TRH-242410	3"	1-1/2"	1/2"	1/2"
		FIAT PRODUCTS	MSBID 2424				
		FLORESTONE	MSR-2424				
	FAUCET	AMERICAN STANDARD	8354.112.002				
		CHICAGO FAUCET	897-RCF				
		FIAT PRODUCTS	830-AA				
		KOHLER	K-8907				
		T&S BRASS	B-0665-BSTR				
	RIM GUARD	FIAT PRODUCTS	E77AA24				
	MOP HANGER	FIAT PRODUCTS	889-CC				
		T&S BRASS	B-0653				
NOTES		1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.					
		2. 24" x 24" BY 10" TALL.					
		3. FAUCET WITH FLOW RESTRICTOR AND AERATOR MOUTED AT 42" A.F.F..					
		4. INTEGRAL PERFORATED GRID DRAIN.					
		5. 30" HOSE WITH HOSE HOOK.					
		6. CAST IRON P-TRAP.					
S-1	SINK COUNTERTOP DOUBLE COMPARTMENT	ELKAY	PSR3321	1-1/2"	1-1/2"	1/2"	1/2"
		JUST	CDL-2133-B-GR				
		Am Std Prevoir	20DB.8332284S.075				
		KOHLER	K-3145-4				
	FAUCET GOOSENECK	ELKAY	LKD2443C				
		JUST	J-1174-KS				
		CHICAGO FAUCET	786-E3KX				
		KOHLER	K-10445-CP				
		T&S BRASS	B-2866-05				
	DISPOSAL	IN-SINK-AERATOR	EVOLUTION COMPACT				
	STAINLESS STEEL CUP STRAINER	ELKAY	LK-35				
		JUST	J-35				
		KOHLER	K-8813				
	STOPS	NIBCO	7105 ANGLE				
		NIBCO	7100 STRAIGHT				
		WATTS B&T					
	SUPPLY	BRASSCRAFT	CHROME PLATED				
		WATTS B&T	CHROME PLATED				
NOTES:		1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.					
		2. 18 GAUGE TYPE 302 STAINLESS STEEL, SOUND DEADENED.					
		3. 33" x 19" BY 7-1/2" DEEP, DOUBLE COMPARTMENT.					
		4. SELF-RIMMING.					
		5. THREE / FOUR FAUCET HOLES.					
		6. FAUCET WITH GOOSENECK, SWING SPOUT, AERATOR AND LEVEL HANDLE.					
		7. CHROME PLATED SUPPLY PIPES AND STOPS.					
		8. 17 GAUGE CHROME PLATED TUBE "P" TRAP.					
		9. DISPOSAL - 120v/1ph/60hz - 3/4 HP MOTOR.					
U-1	URINAL WALL HUNG	AMERICAN STANDARD	6590001EC.020	2"	1-1/2"		3/4"
	FLUSH VALVE	AMERICAN STANDARD	6145101.002				
		DELANY	451-0.5				
		SLOAN	186-0.5				
		ZURN	Z6003AV-WSI				
	WALL SUPPORT	JOSAM	17810				
		J.R. SMITH	637				
		MIFAB	MC-32				
		WADE	W-400-AM11				
		WATTS	CA-321				
		ZURN	Z1222				
NOTES:		1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.					
		2. VITREOUS CHINA.					
		3. SIPHON JET FLUSH - 1.0 GALLONS PER FLUSH.					
		4. 3/4" TOP SPUD.					
		5. MOUNT RIM AT 24" A.F.F. FOR STANDARD INSTALLATION.					
		6. MOUNT RIM AT 17" A.F.F. FOR A.D.A.					

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@ntcon.net

DALE R. WILDE 5864 REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH
03-01-2024

Project 24-001

Revisions

Date 03/01/24

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09P301

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MANUFACTURER	MODEL NUMBER	WASTE	VENT	HOT WATER	COLD WATER
WC-1	WATER CLOSET FLOOR MOUNTED FLUSH VAVLE	AMERICAN STANDARD	2234001.02	4"	2"		1"
		KOHLER	K-4304-SS-0				
		TOTO	CT705EN				
	FLUSH VALVE EXPOSED	AMERICAN STANDARD	6147121.002				
		DELANY	402-1-T42				
		SLOAN	ROYAL 111				
		ZURN	Z6000-WSI				
	SEAT	AMERICAN STANDARD	5901100.02				
		BEMIS	1955-C				
		BENEKE	523				
		CHURCH	295C				
		COMFORT SEATS	C106C				
NOTES:	1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.						
	2. SIPHON JET FLUSH, 1.28 GALLONS PER FLUSH.						
	3. VITREOUS CHINA.						
	4. ELONGATED BOWL - WITH 1-1/2" TOP SPUD.						
	5. OPEN FRONT SEAT, STAINLESS STEEL HINGE POST AND CHECK.						
WC-2	WATER CLOSET FLOOR MOUNTED FLUSH VAVLE A.D.A.	AMERICAN STANDARD	3043001.02	4"	2"		1"
		KOHLER	K-96057-0				
		TOTO	CT705ELN				
	FLUSH VALVE EXPOSED	AMERICAN STANDARD	6147121.002				
		DELANY	402-1-T42				
		SLOAN	ROYAL 111				
		ZURN	Z6000-WSI				
	SEAT	AMERICAN STANDARD	59011000.02				
		BEMIS	1955-C				
		BENEKE	523				
		CHURCH	295C				
		COMFORT SEATS	C106C				
NOTES:	1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.						
	2. SIPHON JET FLUSH, 1.28 GALLONS PER FLUSH.						
	3. VITREOUS CHINA.						
	4. ELONGATED BOWL - WITH 1-1/2" TOP SPUD.						
	5. OPEN FRONT SEAT, STAINLESS STEEL HINGE POST AND CHECK.						
WH-1	40 GALLON GAS FIRED WATER HEATER	BRADFORD WHITE	RG2PDV40T6N			3/4"	3/4"
	EXPANSION TANK	AMTROL	ST-12				
		ELBI	XT-15				
		WATTS REGULATOR	DET-12				
	PRESSURE RELIEF VALVE	WATTS REGULATOR	40L				
NOTES:	1. CHOOSE ONE MANUFACTURER FOR EACH CATEGORY.						
	2. RECOVERY RATE OF 43 G.P.H. AT A 100 DEGREE F. TEMPERATURE RISE.						
	3. 40 GALLON GLASS LINED STORAGE TANK.						
	4. ENAMELED STEEL JACKET WITH HIGH DENSITY FIBERGLASS INSULATION.						
	5. 150 P.S.I. WORKING PRESSURE.						
	6. 40,000 BTUH - NATURAL GAS - 2" PVC AIR INTAKE AND 2" PVC EXHAUST AIR.						
	7. DEDICATED 120 VOLT ELECTRICAL CIRCUIT FOR THE SPARK IGNITION.						
	8. ASME AND U.L. LISTED.						
	9. SET WATER TEMPERATURE AT 140 DEGREE F.						
	10. 5 YEAR WARRANTY.						
	11. WATER HEATER TO BE 80% EFFICIENCY MIN.						
	12. SEE DETAIL ON DRAWING.						

DALE R. WILDE CO.
CONSULTING ENGINEERS
428 WINCHESTER SUITE 240
SALT LAKE CITY, UTAH 84107
PHONE 801-433-1125 - EMAIL WILDE@DRWCO.COM

James B. Glascock, Architect P.C.
Architecture ▪ Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

REGISTERED PROFESSIONAL ENGINEER 165864 DALE R. WILDE 03-01-2024 STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/01/24

09P302

SYMBOL LEGEND

NOTES:
1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISHED FLOOR.
3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
4. SUBSCRIPT INDICATES FIXTURES TO BE CONTROLLED.
5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED), USE 'HD' 480 V.
6. HEIGHT MEASURED TO TOP OF THE BOX FROM FINISHED FLOOR.
7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
8. DOUBLE ARROWS INDICATES A DOUBLE FACE UNIT.
9. DEVICES NOTED WITH AN 'A' INDICATE TO COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
10. SUBSCRIPT INDICATES NEMA CONFIGURATION.
11. SOLID BOX AROUND DEVICE INDICATES INSTALLED IN FLOOR. DASHED BOX AROUND DEVICE INDICATES INSTALLED IN CEILING.
12. COORDINATE WITH DOOR HARDWARE SUPPLIER.
13. FOR WATER COOLER LOCATION, SEE DIAGRAM R002. FOR ALL OTHER LOCATIONS, MOUNT AT +16" TO BOTTOM OF BOX FROM FINISHED FLOOR, OR AS NOTED.
14. ARROWS SHOWN ON DEVICE INDICATE SENSOR AIMING DIRECTION.
15. CAMERA NUMBERS ARE SHOWN INSIDE THE CAMERA SYMBOL. CAMERA TYPES ARE INDICATED IN TAG.
16. MOUNT ON TRACK OF OVERHEAD DOOR, 6" FROM TOP OF DOOR, UNLESS OVERHEAD DOOR IS A ROLL UP DOOR, THEN MOUNT PER MANUFACTURER'S INSTRUCTIONS.
17. INSTALL DEVICES PER MANUFACTURE'S INSTALLATION INSTRUCTIONS.
18. DASHED LINE INDICATES EQUIPMENT CLEARANCES. ARROW INDICATES FRONT OF RACK.
19. SPEAKER TO BE MOUNTED IN HORIZONTAL POSITION.
20. MOUNTING HEIGHT IS TO BOTTOM OF DISPLAY.

*TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED ON THIS SET OF DRAWINGS.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

GENERAL

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	ONE CIRCUIT, HOME RUN TO PANEL		
	2 CIRCUIT, HOME RUN TO PANEL		
	3 CIRCUIT, HOME RUN TO PANEL		
	CONDUIT RUN CONCEALED IN WALL OR CEILING		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		
	CONDUIT UP		
	CONDUIT DOWN		
	CONDUIT STUB LOCATION	CAP CONDUIT	
	CONDUIT / CIRCUIT CONTINUATION		

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	EQUIPMENT PANEL, SEE DRAWINGS	+72"	6.
	CABLE TRAY	AS NOTED	
	GROUND BUS BAR	+18"	6.
X	LIGHT FIXTURE (LETTER DESIGNATES TYPE)		
X/X	EQUIPMENT NUMBER		
X	ARCHITECTURAL ROOM NUMBER		
X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE		
X	DEVICE / EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE / LEGEND		

MULTIPLE SYSTEM SYMBOLS

	DESCRIPTION	MOUNTING HEIGHT	NOTES
R	RECEPTACLE SWITCH PACK	ABOVE CEILING	
	DUPLEX RECEPTACLE (UPPER OUTLET SWITCH CONTROLLED)	+18" OR AS NOTED	2. 9.
	SIMPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.
A	DUPLEX RECEPTACLE		9.
G	5mA GFCI CIRCUIT BREAKER PROTECTED RECEPTACLE		13.
WP	WEATHERPROOF RECEPTACLE	+24" OR AS NOTED	2. 9.
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	DUPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.
	FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9. 11.
	GROUND FAULT INTERRUPTER FOURPLEX RECEPT	+18" OR AS NOTED	2. 9.

	DESCRIPTION	MOUNTING HEIGHT	NOTES
J F	JUNCTION BOX ('F' IN FLOOR)	AS NOTED	
	MOTOR OUTLET	TO SUIT EQUIP.	
	PUSHBUTTON	+46"	2.
	NON-FUSED DISCONNECT SWITCH	+60"	5. 6.
F	FUSED DISCONNECT SWITCH	+60"	5. 6.
B	BREAKER DISCONNECT SWITCH	+60"	5. 6.
S	SINGLE POLE SWITCH	+46"	2. 4.
S^T	MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT	+46"	2.
	MAGNETIC STARTER	+60"	6. 7.
	MAGNETIC STARTER / DISCONNECT COMBINATION	+60"	6. 7.
VFD	VARIABLE FREQUENCY DRIVE	+66"	6.

LIGHTING

	DESCRIPTION	MOUNTING HEIGHT	NOTES
	CEILING LIGHT FIXTURE	CEILING	1.
	WALL LIGHT FIXTURE	AS NOTED	1.
	RECESSED DOWNLIGHT FIXTURE	CEILING	1.
	RECESSED WALL-WASH DOWNLIGHT FIXTURE	CEILING	1.
	LIGHT FIXTURE	AS NOTED	1.
	EGRESS LIGHT FIXTURE	AS NOTED	1.
	AREA LIGHT POLE AND FIXTURE	CONCRETE BASE	1. SEE DIAGRAM
	BOLLARD	CONCRETE BASE	1.
	STEP LIGHT FIXTURE	AS NOTED	1.
	IN-GRADE LIGHT FIXTURE	CONCRETE BASE	1.
	FLOOD OR TRACK FIXTURE	AS NOTED	1.
	CEILING / WALL MOUNTED EXIT LIGHT	CEILING/ AS NOTED	1. 3. 8.
	EMERGENCY LIGHT FIXTURE	AS NOTED	1.
	COMBO EXIT / EMERGENCY LIGHT FIXTURE	AS NOTED	1.
TC	TIME CLOCK	+60"	2.

	DESCRIPTION	MOUNTING HEIGHT	NOTES
PP	POWER PACK	ABOVE CEILING	SEE DIAGRAM, SPEC.
RC X	DIGITAL ROOM CONTROLLER (SUBSCRIPT INDICATES NUMBER OF RELAYS)	ABOVE CEILING	SEE DIAGRAM, SPEC.
EP	EMERGENCY LIGHTING CONTROL UNIT	ABOVE CEILING	SEE DIAGRAM, SPEC.
S^3	THREE-WAY SWITCH	+46"	2. 4.
S^4	FOUR-WAY SWITCH	+46"	2. 4.
S^K	KEY OPERATED SWITCH	+46"	2. 4.
S^P	SWITCH WITH PILOT LIGHT	+46"	2. 4.
S^D	VARIABLE INTENSITY SWITCH	+46"	2. 4.
S^{TM}	TIMER SWITCH	+46"	2. 4.
S	MOMENTARY CONTACT SWITCH	+46"	2. 4.
X	LOW VOLTAGE WALLSTATION (SUBSCRIPT INDICATES CONFIGURATION & CONTROL SEQUENCE)	+46"	2. SEE DIAGRAM, SPEC.
	DUAL TECH. CEILING MOUNTED OCCUPANCY SENSOR (PROVIDE WITH ALL PP AND ROOM CONTROLLERS)	CEILING	SEE DIAGRAM, SPEC.
	DUAL TECH. WALL MOUNTED OCCUPANCY SENSOR (SUBSCRIPT D = DIMMING AND DAYLIGHT CONTROL)	+46"	2. 4. SEE DIAGRAM, SPEC.
P	PHOTO-ELECTRIC CONTROL (LOCATE ON ROOF, FACE NORTH)	AS NOTED	MOUNT AS PER MFR.
	DIGITAL DAYLIGHT SENSOR	CEILING	SEE DIAGRAM, SPEC.

POWER

IG	ISOLATED GROUND RECEPTACLE	+18" OR AS NOTED	2. 9.
T	TAMPER-PROOF RECEPTACLE	+18" OR AS NOTED	2. 9.
U	DUPLEX RECEPTACLE WITH USB OUTLET	+18" OR AS NOTED	2. 9.
G	CONTROLLED DUPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	FOURPLEX RECEPTACLE EMERGENCY POWER (RED)	+18" OR AS NOTED	2. 9. 11.
G	CONTROLLED FOURPLEX RECEPTACLE	+18" OR AS NOTED	2. 9.
	TVSS PROTECTED RECEPTACLE	+18" OR AS NOTED	2. 9.
	SPECIAL PURPOSE OUTLET	+18" OR AS NOTED	2. 10. W/ CAP.
	CORD DROP		SEE DIAGRAM
	CORD REEL		SEE DIAGRAM
	TOMBSTONE RECEPTACLE		
	POWER POLE		
EV	SINGLE / DUAL PORT ELECTRICAL VEHICLE CHARGER		

J	PLUGMOLD	+46" OR AS NOTED	2. SEE SPEC.
DP	FLAT PANEL DISPLAY WALL BOX TVSS RECEPT., DATA AND OTHER DEVICES, REFER TO DIAGRAMS	AS NOTED	SEE DIAGRAM, SPEC. 26 2726
CP	CEILING PROJECTION SYSTEM CEILING BOX	ABOVE CEILING	SEE DIAGRAM, SPEC.
C	CLOCK OUTLET	+90"	2.
	DOORBELL CHIME	+90"	2.
FB	FLOOR BOX - SEE SCHEDULE	FLOOR	SEE DIAGRAM, SPEC.
PT	POKE THRU - SEE SCHEDULE	FLOOR	SEE DIAGRAM, SPEC.
	PANEL BOARD	+72"	6.
	MAIN DISTRIBUTION PANEL		
	TELEPHONE DEMARCATION BOARD		
CLG	EQUIPMENT CEILING RACK	CEILING	
	EQUIPMENT 4-POST RACK / CABINET	AS NOTED	18. SEE SPEC.
	EQUIPMENT 2-POST RACK	AS NOTED	18. SEE SPEC.
M	UTILITY METER / CT CABINET	+72"	6.

TELECOMMUNICATIONS

W	WALL PHONE	+60" OR AS NOTED	2.
	DATA OUTLET, ONE CABLE	+18" OR AS NOTED	2. 9. 11.
	DATA OUTLET, TWO CABLES	+18" OR AS NOTED	2. 9. 11.
	DATA OUTLET, THREE CABLES	+18" OR AS NOTED	2. 9. 11.
X	DATA OUTLET, "X" INDICATES QUANTITY	+18" OR AS NOTED	2. 9. 11.
	TELEVISION OUTLET	+18" OR AS NOTED	9. 11.

WAP	WIRELESS ACCESS POINT, TWO CABLES SOLID = WALL, DASHED = CEILING	WALL / CEILING	11.
SPL	SPLITTER	ABOVE CEILING	
VIA	VIA	ABOVE CEILING	
BDA	FIBER BDA	ABOVE CEILING	
ANT XX	ANTENNA (PS = PUBLIC SAFETY COM = CELLULAR/COMMERCIAL)	CEILING	

FIRE ALARM

	BELL	+94"	2.
C	CHIME / STROBE	+94" / CEILING	2.
F	FIRE ALARM MANUAL STATION	+46"	2.
H	FIRE ALARM SIGNAL HORN / STROBE	+94" / CEILING	2.
H CLG	CONCEALED FIRE ALARM HORN / STROBE	CEILING	
H	CONCEALED FIRE ALARM HORN / STROBE WALL	+94"	2.
E	FIRE ALARM SPEAKER / STROBE	+94" / CEILING	2.
E CLG	CONCEALED FIRE ALARM SPEAKER / STROBE	CEILING	
E	CONCEALED FIRE ALARM SPEAKER / STROBE WALL	+94"	2.
S	FIRE ALARM STROBE	+94" / CEILING	2.
S CLG	CONCEALED FIRE ALARM STROBE	CEILING	
S	CONCEALED FIRE ALARM STROBE WALL	+94"	2.
K	FIRE ALARM SPEAKER ONLY	+94" / CEILING	2.
B	FIRE ALARM STROBE WITH BLUE COLORED LENS (CO VISUAL ALARM)	+94" / CEILING	2.
ANN	FIRE ALARM ANNUNCIATOR PANEL	+58"	2. SEE DIAGRAM
V	ASPIRATING SMOKE DETECTION SYSTEM	CEILING	MOUNT AS PER MFR.
B	BEAM DETECTOR		MOUNT AS PER MFR.

S	SMOKE DETECTOR	CEILING	
SC	SMOKE/CARBON MONOXIDE DETECTOR	CEILING	
C	CARBON MONOXIDE DETECTOR	CEILING	
H	HEAT DETECTOR	CEILING	
D	DUCT SMOKE DETECTOR		MTD. IN DUCT
D	FIRE/SMOKE DAMPER		
	DOOR HOLDER	AS NOTED	
FS	FLOW SWITCH		
TS	TAMPER SWITCH		
WF	WATER FLOOD INDICATOR		
	O.S. & Y. VALVE		SEE DIAGRAM
R	FIRE ALARM RELAY OR SECURITY RELAY		
CM	FIRE ALARM CONTROL MODULE		
MM	FIRE ALARM MONITOR MODULE		
TWZ	TWO-WAY COMMUNICATION SYSTEM CONTROL PANEL	+46"	2.
TW	TWO-WAY COMMUNICATION SYSTEM CALL STATION	+46"	2.

COLOR LEGEND

	LIGHTING FIXTURES		POWER DEVICES		AUDIOVISUAL
	LIGHTING DEVICES		TELECOMMUNICATIONS		SECURITY
	POWER EQUIPMENT		FIRE ALARM		NURSECALL
	CABLE TRAY		CONDUIT		

FLOOR BOX SCHEDULE

TYPE	DESCRIPTION	MFR.	CATALOG NUMBER
FB01	5 GANG MULTI PURPOSE FLOOR BOX WITH POWER, DATA AND AV DEVICES. REFER TO FLOOR PLANS FOR POWER, DATA AND AV NEEDS	WIREMOLD	EFB45S-EFB10-MB
FB02	2 COMPARTMENT FURNITURE FEED FLOOR BOX ASSEMBLY. REFER TO FLOOR PLANS FOR #OF HOME RUNS AND # OF DATA CABLES. COORDIANTE WITH FURNITURE SHOP DRAWINGS FOR LOCATION OF FURNITURE WHIP PRIOR TO ROUGH-IN.	WIREMOLD	EFBFF-OG

SHEET INDEX

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

1	
2	
3	
4	
5	
6	

Date 03/05/2024

09E001

EQUIPMENT SCHEDULE

CONNECTION TYPE NOTES:

1. NON-FUSED DISCONNECT SWITCH
2. FUSED DISCONNECT SWITCH
3. BREAKER IN ENCLOSURE
4. MANUAL STARTER WITH THERMAL OVERLOAD
5. MAGNETIC STARTER
6. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION
7. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION
8. MAGNETIC STARTER/BREAKER COMBINATION
9. VARIABLE FREQUENCY DRIVE
10. REDUCED VOLTAGE STARTER
11. DIRECT CONNECTION
12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC.
13. TWO-SPEED STARTER. COORDINATE WITH MOTOR TYPE
14. SOLID STATE SOFT-STARTER

RESPONSIBILITY LEGEND:

A. FURNISHED, INSTALLED AND CONNECTED UNDER DIVISION 26(16)
B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION. REQUIRED CONNECTION UNDER DIVISION 26(16)
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 26(16)
D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION

CB = CIRCUIT BREAKER

NOTE 1: PER 250.122(A), EQUIPMENT GROUND IS NOT REQUIRED TO BE LARGER THAN THE PHASE CONDUCTOR
NOTE 2: OVERCURRENT PROTECTION DEVICE (OCPD) SHOWN IS LOCATED AT POWER PANEL. ALL FUSING TO BE SIZED IN ACCORDANCE WITH FUSE MFR RECOMMENDATION FOR MOTOR NAME PLATE RATING.
NOTE 3: ALL EQUIPMENT TO BE RATED FOR THE ENVIRONMENT FOR WHICH IT IS INSTALLED.

UNIT	#	DESCRIPTION	ELECTRICAL EQUIPMENT INFORMATION							WIRE				OCPD			
			LOAD														
			HP	FLA	MCA	VA	VOLTAGE	PHASE	FULL LOAD AMPS	CONDUIT SIZE	SETS	QTY	SIZE	EQ. GROUND	TYPE	AMPS	STARTER/ DISC/ VFD OTHER (SEE NOTES)	REMARKS
CU	1	CONDENSING UNIT	0.00	0 A	24.9 A	0 VA	208 V	1	19.9 A	3/4"	1	2	10	10	CB	30 A	2 A	
EF	1	EXHAUST FAN	0.00	0 A	0 A	528 VA	120 V	1	4.4 A	3/4"	1	2	12	12	CB	15 A	4 A	CONTROLLED BY TIME CLOCK
EF	2	EXHAUST FAN	0.00	0 A	0 A	75 VA	120 V	1	0.6 A	3/4"	1	2	12	12	CB	15 A	4 A	CONTROLLED BY TIME CLOCK
RP	1	RE-CIRC PUMP	0.00	0 A	0 A	500 VA	120 V	1	4.2 A	3/4"	1	2	12	12	CB	15 A	4 A	
RTU	1	REMOTE TERMINAL UNIT	0.00	0 A	18.3 A	0 VA	480 V	3	14.6 A	3/4"	1	3	12	12	CB	25 A	1 B	
RTU	2	REMOTE TERMINAL UNIT	0.00	0 A	14.4 A	0 VA	480 V	3	11.5 A	3/4"	1	3	12	12	CB	20 A	1 B	
RTU	3	REMOTE TERMINAL UNIT	0.00	0 A	14.4 A	0 VA	480 V	3	11.5 A	3/4"	1	3	12	12	CB	20 A	1 B	
WH	1	WATER HEATER	0.00	0 A	0 A	500 VA	120 V	1	4.2 A	3/4"	1	2	12	12	CB	15 A	4 A	CONTROL POWER

LIGHT FIXTURE SCHEDULE

LIGHT FIXTURE ABBREVIATION SCHEDULE — PROJECT MANAGER: GOPI PULIVARTHI

A.F.F.	ABOVE FINISH FLOOR	SCBA	STANDARD PAINTED COLOR AS SELECTED BY THE ARCHITECT
WALL@CLG	WALL MOUNT AT CORNER OF WALL AND CEILING	CFBA	CUSTOM FINISH AS SELECTED BY THE ARCHITECT
CCBA	CUSTOM PAINTED COLOR AS SELECTED BY THE ARCHITECT	SFBA	STANDARD FINISH AS SELECTED BY THE ARCHITECT

LIGHT FIXTURE GENERAL NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF LIGHT FIXTURES AND, CONFIRM CEILING TYPES WITH LIGHT FIXTURE TRIMS. BRING ALL DISCREPANCIES OF LOCATIONS AND QUANTITIES TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO BIDDING.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS AND LOCATIONS OF LIGHT FIXTURES. BRING ALL DISCREPENCIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
3. REFER TO THE SPECIFICATIONS FOR OTHER LIGHT FIXTURE, FUSING, LED DRIVERS, AND LAMP REQUIREMENTS AND ACCEPTABLE MANUFACTURERS.
4. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL LIGHT FIXTURES AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND ELECTRICAL ENGINEER PRIOR TO RELEASE.
5. REFER TO LIGHTING PLANS FOR ALL LINEAR FIXTURE LENGTHS. THE CATALOG NUMBER IS BASED ON THE FIXTURE SPECIFIED AND MAY NOT REFLECT THE QUANTITY OR OVERALL LENGTH OF LINEAR FIXTURES REQUIRED. CONTRACTOR TO NOTE THAT VARIOUS FIXTURE LENGTHS MAY BE REQUIRED TO ACHIEVE THE OVERALL RUN LENGTH.
6. REFER TO LIGHTING PLANS FOR ALL UNDERCABINET FIXTURE LENGTHS. THE CATALOG NUMBER IS BASED ON THE FIXTURE SPECIFIED AND MAY NOT REFLECT THE QUANTITY OR OVERALL LENGTH OF THE UNDERCABINET FIXTURES REQUIRED. CONTRACTOR TO NOTE THAT VARIOUS FIXTURE LENGTHS MAY BE REQUIRED TO ACHIEVE THE OVERALL RUN LENGTH OR TO FIT WITHIN THE MILLWORK. COORDINATE FIXTURE LAYOUT WITH MILLWORK SHOP DRAWINGS PRIOR TO LIGHTING SUBMITTALS.
7. WHEN A CONTRADICTION EXISTS BETWEEN A SPECIFIC MODEL NUMBER AND THE DESCRIPTION, NOTIFY THE ELECTRICAL ENGINEER AND/OR LIGHTING DESIGNER.
8. PRIOR APPROVALS ARE REQUIRED BEFORE BIDDING THE PROJECT AND SHALL BE SUBMITTED TO THE ELECTRICAL ENGINEER'S OFFICE AT LEAST (8) EIGHT WORKING DAYS BEFORE THE BID. PRIOR APPROVALS RECEIVED AFTER THIS TIME PERIOD SHALL BE REJECTED.
9. REFER TO SPECIFICATIONS 20 0500, 26 5100 & 26 5600 (16001, 16510 & 16551).
10. VALUE ENGINEERING CONDUCTED WITHOUT THE DESIGN TEAM IE; ARCHITECT, ENGINEER & LIGHTING CONSULTANT/DESIGNER WILL NOT BE ALLOWED, REVIEWED OR APPROVED.

TYPE	DESCRIPTION	MFR.	CATALOG #	VOLTS	TOTAL WATTS	LAMP TYPE	DELIVERED LUMENS	COLOR TEMP	CRI
A4	RECESSED 2X4 LED FIXTURE	COLUMBIA	CCL24-LSCS-LOW-4000K	277 V	32 VA	LED	4,424	4000 K	80
A4E	RECESSED 2X4 LED FIXTURE WITH EMERGENCY BATTERY PACK	COLUMBIA	CCL24-LSCS-LOW-4000K-ELL14	277 V	32 VA	LED	4,424	4000 K	80
D1	4" RECESSED LED DOWNLIGHT	LITHONIA	LDN4-40-10-LO4-AR-LSS-TRW-MVOLT-GZ10	277 V	11 VA	LED	1,000	4000 K	80
D1E	4" RECESSED LED DOWNLIGHT WITH EMEREGNCY BATTERY PACK	LITHONIA	LDN4-40-10-LO4-AR-LSS-TRW-MVOLT-GZ10-ELR	277 V	11 VA	LED	1,000	4000 K	80
OC1	4' SURFACE MOUNTED LED FIXTURE; FULLY ENCLOSED; GASKETED WITH WATER TIGHT HUB	H.E.WILLIAMS	96-4-L62-840-WET/1-UNV	277 V	48 VA	LED	6,434	4000 K	80
OF1	LED FLOOD LIGHT WITH NARROW SPREAD	KIM LIGHTING	KFL2-24L-70-4K7-N-Y-277-BL	277 V	70 VA	LED	7,000	4000 K	70
OP1	25' LED OUTDOOR POLE WITH ROUND POLE; TYPE 1V DISTRIBUTON FIXTURE	MC.GRAW EDISON	GLEON-SA2D-740-U-T4W-PR7-SPB2	277 V	129 VA	LED	15,764	4000 K	70
OS	WALL MOUNT LED FIXTURE	LUMINARIE LED	BLD48-MIN1-2DRV-5W-40K-MVOLT-DP-SFBA	277 V	20 VA	LED	2,049	4000 K	70
OW1	ARCHITECTURAL BUILDING MOUNT LED FIXTURE WITH T4 DISTRIBUTION AND PHOTOCELL	MC.GRAW EDISON	GLEON-SA2D-740-U-T4W-PR7	277 V	129 VA	LED	15,764	4000 K	70
OW2	SAME AS OW1 WITH DIFFERENT LUMENS	MC.GRAW EDISON	GLEON-SA3D-740-U-T4W-PR7	277 V	191 VA	LED	23,522	4000 K	70
OW3	LED WALL PACK; PROVIDE REMOTE EMERGENCY BATTERY PACK	MC.GRAW EDISON	ASWPLED1S	277 V	15 VA	LED	2,223	4000 K	70
S4	4' LINEAR LED STRIP LIGHT FIXTURE	DAY-BRITE	FSS-4-40L-840-UNV-DIM	277 V	30 VA	LED	4,000	4000 K	80
S4E	4' LINEAR LED STRIP LIGHT FIXTURE WITH EMERGENCY BATTERY PACK	DAY-BRITE	FSS-4-40L-840-UNV-DIM-EMLED	277 V	30 VA	LED	4,000	4000 K	80
V1	2' LINEAR LED VANITY FIXTURE	LIGHTWAY	24LED-O2C-4-SFBA-WSA	277 V	18 VA	LED	2,420	4000 K	80
X1	SINGLE SIDE ALUMINUM EXIT SIGN WITH BATTERY PACK	EMERGENSEE	SEEXDC-1-X-XX-XX-EM	277 V	5 VA	LED			-
X2	DOUBLE SIDE ALUMINUM EXIT SIGN WITH BATTERY PACK	EMERGENSEE	SEEXDC-2-X-XX-XX-EM	277 V	5 VA	LED			-

CONTROL LEGEND

PC	EXTERIOR PHOTOCELL
OC	OCCUPANCY/VACANCY SENSOR
DS	INTERIOR DAYLIGHT SENSOR
MS	EXTERIOR MOTION SENSOR
TC	ANALOG ASTRONOMICAL TIMECLOCK
TOD	TIME OF DAY - SOFTWARE BASED
LWS	LOCAL WALLSTATION

DIMMING LEGEND

N	NONE
0-10	0-10 VOLT DIMMING
DMX	DIGITAL MULTIPLEX (DMX) DIMMING
3WD	3-WIRE DIMMING
ELV	ELECTRONIC LOW VOLTAGE
MLV	MAGNETIC LOW VOLTAGE
DA	DALI DIMMING

PROGRAMMING

A	NIGHT LIGHT; ALWAYS ON.
B	MASTER CLOCK SCHEDULE (PROVIDED BY OWNER); PROVIDE 0-10V DIMMING.
C	EGRESS LIGHTING; MASTER CLOCK SCHEDULE (PROVIDED BY OWNER); 0-10V DIMMING.
D	MASTER CLOCK SCHEDULE (PROVIDED BY OWNER).
E	LOCAL WALLSTATION TO ACT AS OVERRIDE FOR AFTER HOURS CONTROL.

GENERAL NOTES

1.	PROGRAM SYSTEM TO MEET THE REQUIREMENTS OF IECC 2015 OR CURRENT ENERGY CODE.
2.	CONFIRM SWITCHING AND PROGRAMMING SCHEME WITH OWNER PRIOR TO PROGRAMMING.
3.	PROGRAM SYSTEM TO INCORPORATE AUTO DAYLIGHT SAVINGS ADJUSTMENTS, ASTRONOMICAL CLOCK WITH OFFSETS, HOLIDAY DATES, AND NETWORK OVERRIDE.
4.	REFER TO WALLSTATION DIAGRAMS FOR FACTORY ENGRAVED LABELING FOR ALL INDIVIDUAL PUSH-BUTTONS. DEVICE AND COVERPLATE COLORS SELECTED BY ARCHITECT.
5.	SUBMIT ALL WALLSTATION LAYOUTS, ENGRAVING AND CONTROL SEQUENCES DURING THE SHOP DRAWINGS REVIEW PROCESS.
6.	PROVIDE RELAY BARRIER FOR VOLTAGE AND POWER SOURCE SEPARATION (EMERGENCY AND NORMAL CIRCUITS, VOLTAGE DIFFERENCES).
7.	PROGRAM NORMAL AND EMERGENCY RELAYS IN RELATED CORRIDORS TO OPERATE TOGETHER.
8.	ALL RELAYS REQUIRING DIMMING AND/OR DAYLIGHT HARVESTING SHALL UTILIZE 0-10V DIMMING. PROVIDE 0-10V DIMMING WIRING AND CONTROLS AS REQUIRED.
9.	PROVIDE A MINIMUM OF (5) SPARE RELAYS.
10.	SYSTEM MUST INTERFACE WITH NEW OR EXISTING ENERGY MANAGEMENT SYSTEM/BMS. PROVIDE SYSTEM CONSISTING OF MONITOR(S), COMMUNICATIONS EQUIPMENT, A CONTROLLER(S), TIMER(S), OR OTHER DEVICE(S) THAT MONITOR AND/OR CONTROL AN ELECTRICAL LOAD OR POWER PRODUCTION OR STORAGE SOURCE. COORDINATE EXACT TIE-IN POINTS AND COMMUNICATION PROTOCOL/MODULES REQUIRED. PROGRAM ACCORDINGLY AND PER OWNERS REQUIREMENTS.

RELAY PANEL SCHEDULE 'RP1'

CABINET SIZE (# OF... 16 **SPARE...** 7

MOUNTING: SURFACE **VOLTAGE:** 277 **CONTROL CIRCUIT:** H1-21 **AIC RATING:** 14,000

RELAY	POWER	EMERGENCY	CONTROL	DIMMING	PROGRAMMING
RP1-1	H1-3	No	TC	NONE	D
RP1-2	H1-3	No	TC	NONE	D
RP1-3	H1-3	No	TC	NONE	D
RP1-4	H1-5	No	TC	0-10	B
RP1-5	H1-1	No	TC	NONE	D
RP1-6	H1-6	No	TC	NONE	D
RP1-7	H1-5	No	TC	NONE	D
RP1-8	H1-6	No	PC	NONE	D
RP1-9	H1-22	No	TC, MS, PC	0-10	B

GENERAL NOTES

1. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
3. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC) OF ALL EQUIPMENT FURNISHED UNDER ALL DIVISIONS, INCLUDING ALL EXISTING EQUIPMENT TO BE RE-USED. REVIEW ALL SHOP DRAWINGS AND EXISTING EQUIPMENT BEFORE BEGINNING ROUGH-IN.
4. SEE SECTION 265100 (16510) OF THE SPECIFICATION FOR REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
5. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
6. SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.
7. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
8. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
9. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
10. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
11. CONTRACTOR SHALL VERIFY FURNITURE LAYOUT PRIOR TO ANY FLOORBOX OR POKE-THRU INSTALLATION. COORDINATE EXACT LOCATION OF FLOOR BOX OR POKE-THRU WITH OWNER AND FURNITURE PROVIDER PRIOR TO ROUGH-IN.
12. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 115' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH CONDUCTORS PER TABLE BELOW.

20 AMP MINIMUM BRANCH CIRCUIT CONDUCTOR SIZING		
MAXIMUM LENGTH	BRANCH CIRCUIT VOLTAGE	
CONDUCTOR LENGTH (FT)	120 VOLT	277 VOLT
<70	MIN. #12 AWG	MIN. #12 AWG
70 - 115	MIN. #10 AWG	MIN. #12 AWG
115 - 170	MIN. #8 AWG	MIN. #10 AWG
170 - 270	MIN. #6 AWG	MIN. #8 AWG
271 - 380	NOTE B	MIN. #8 AWG
>380	NOTE B	NOTE B

A. THESE ARE BASED ON MAXIMUM LENGTH OF CIRCUIT.

B. PERFORM VOLTAGE DROP CALCULATIONS AND PROVIDE CONDUCTOR SIZE TO KEEP BRANCH CIRCUIT VOLTAGE DROP LESS THAN 3% WITH A 15 AMP LOAD.

C. CONTRACTOR SHALL ENSURE THAT THE INSTALLATION OF EACH BRANCH CIRCUIT STAYS WITHIN 3% VOLTAGE DROP FOR A 15 AMP LOAD. IF NECESSARY,CONTRACTOR SHALL INCREASE WIRE AND CONDUIT SIZE TO MEET THE STANDARD AT NO ADDITIONAL COST TO OWNER.

ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
#	NUMBER	MH	MANHOLE
AC	ALTERNATING CURRENT	MIC	MICROPHONE
A.F.F.	ABOVE FINISH FLOOR	MIN	MINIMUM
AIC	AMPS INTERRUPTING CAPACITY	MTG	MOUNTING
AM	AMPS METER	MTR	MOTOR
AMP	AMPERE	N/A	NOT APPLICABLE
ANN	ANNUNCIATOR	NC	NORMALLY CLOSED
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE
AUX	AUXILIARY	NEMA	NATIONAL ELECT. MANUFAC. ASSOC.
AWG	AMERICAN WIRE GAUGE	NFPA	NATIONAL FIRE PROTECTION ASSOC.
BC	BARE COPPER	N.I.C.	NOT IN CONTRACT
BFG	BELOW FINISH GRADE	NO	NORMALLY OPENED
C	CONDUIT	NTS	NOT TO SCALE
CAB	CABINET	OS & Y	OUTSIDE SCREW & YOKE
CATB	COMMUNITY ANTENNA TELEVISION	PB	PUSHBUTTON
CATV	CABLE TELEVISION	PF	POWER FACTOR
CKT	CIRCUIT	PFR	PHASE FAILURE RELAY
CLG	CEILING	PNL	PANEL
CNTR	CONTRACTOR	PT	POTENTIAL TRANSFORMER
C.O.	CONDUIT ONLY	PVC	POLYVINYL CHLORIDE CONDUIT
CRT	COMPUTER TERMINAL	(R)	RELOCATE
CT	CURRENT TRANSFORMER	RECEP	RECEPTACLE
CU	COPPER	REQ	REQUIREMENT
C/W	COMPLETE WITH	RLA	RATED LOAD AMPS
DB	DECIBEL	RMP	ROCKY MOUNTAIN POWER
DC	DIRECT CURRENT	RMS	ROOT MEAN SQUARE
DWG	DRAWING	SE	SERVICE ENTRANCE
(E)	EXISTING	SPEC	SPECIFICATIONS
EC	EMPTY CONDUIT	SPKR	SPEAKER
EG	EMERGENCY GENERATOR	SS	SELECTOR SWITCH
EMT	ELECTRICAL METALLIC TUBING	SW	SWITCH
EX	EXPLOSION PROOF	SWBD	SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	SWGR	SWITCHGEAR
FC	FOOT CANDLE	TTB	TELEPHONE TERMINAL BOARD
FT	FOOT	TTC	TELEPHONE TERMINAL CABINET
GFI	GROUND FAULT INTERRUPTER	TV	TELEVISION
GND	GROUND	TYP	TYPICAL
GRC	GALVANIZED RIGID CONDUIT	UG	UNDERGROUND
HP	HORSE POWER	UPS	UNINTERRUPTED POWER SUPPLY
HZ	HERTZ	V	VOLT (KV-KILOVOLT)
IFC	INTERNATIONAL FIRE CODE	VA/R	VOLT-AMPS/REACTIVE
IG	ISOLATED GROUND	VM	VOLT METER
IMC	INTERMEDIATE METALLIC CONDUIT	W	WATTS
IN	INCH	W/	WITH
J-BOX	JUNCTION BOX	WH	WATTHOUR METER
KV	KILOVOLT	W/O	WITHOUT
KVA	KILOVOLT AMPERES	WP	WEATHERPROOF
KVAR	KILOVARS	XFMR	TRANSFORMER
KW	KILOWATT	XFMR SW	TRANSFER SWITCH
LRA	LOCKED ROTOR AMPS	XP	EXPLOSION PROOF
LTG	LIGHTING	1P	SINGLE-PHASE
MNF	MANUFACTURER	2P	TWO-POLE
MAX	MAXIMUM	3P	THREE-POLE
MB	MAIN BUS	4P	FOUR-POLE
MCC	MOTOR CONTROL CENTER	∅	PHASE
MCM	1000 CIRCULAR MILLS		

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/05/2024

09E002

ELECTRICAL SPECIFICATIONS

ELECTRICAL GENERAL PROVISIONS

- **DESCRIPTION OF WORK**: EXTENT OF ELECTRICAL WORK IS INDICATED ON DRAWINGS. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SUPERVISION AND SERVICE NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM. WORK INCLUDES, BUT IS NOT NECESSARILY LIMITED TO THE FOLLOWING ITEMS:
  - ELECTRICAL CONNECTIONS FOR EQUIPMENT
  - GROUNDING
  - CONDUIT RACEWAY
  - CONDUCTORS AND CABLES
  - ELECTRICAL BOXES AND FITTINGS
  - SUPPORTING DEVICES
  - ELECTRICAL SEISMIC CONTROL
  - WIRING DEVICES
  - FLOOR BOXES
  - PANELBOARDS AND SWITCHBOARDS
  - OVERCURRENT PROTECTIVE DEVICES
  - TRANSFORMERS
  - MOTOR STARTERS
  - MOTOR AND CIRCUIT DISCONNECTS
  - SURGE PROTECTIVE DEVICES (SPDS)
  - LIGHT FIXTURES
  - ELECTRICAL IDENTIFICATION
  - SECURITY SYSTEMS
  - TELECOMMUNICATIONS
  - FIRE ALARM AND DETECTION SYSTEMS
- VISIT THE SITE DURING THE BIDDING PERIOD TO DETERMINE EXISTING CONDITIONS AFFECTING ELECTRICAL AND OTHER WORK. ALL COSTS ARISING FROM SITE CONDITIONS AND/OR PREPARATION SHALL BE INCLUDED IN THE BASE BID. NO ADDITIONAL CHARGES WILL BE ALLOWED DUE TO INADEQUATE SITE INSPECTION.
- **QUALITY ASSURANCE:** PERFORM WORK IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC). COMPLY WITH REQUIREMENTS OF STATE AND LOCAL ORDINANCES. OBTAIN ALL PERMITS, INSPECTIONS, ETC. FROM AUTHORITY HAVING JURISDICTION (AHJ). EMPLOY ONLY QUALIFIED CRAFTSMEN WITH AT LEAST THREE YEARS OF EXPERIENCE. WORKMANSHIP SHALL BE NEAT, HAVE A GOOD MECHANICAL APPEARANCE AND CONFORM TO BEST ELECTRICAL STATE CONTRACTING LICENSE. PROVIDE EQUIPMENT AND MATERIAL THAT ARE UNDERWRITERS LABORATORIES INC. (UL) LISTED AND LABELED.
- **SUBMITTALS**: AFTER THE CONTRACT IS AWARDED BUT PRIOR TO MANUFACTURE OR INSTALLATION OF ANY EQUIPMENT, PREPARE COMPLETE SHOP DRAWINGS.
  - PROVIDE SUBMITTALS IN PORTABLE DOCUMENT FORMAT (PDF).
  - DOCUMENTS MUST BE ELECTRONICALLY BOOKMARKED AND KEYWORD SEARCHABLE USING ADOBE ACROBAT (HTTP://WWW.ADOBE.COM/ACROBAT) OR BLUEBEAM REVU (HTTP://WWW.BLUEBEAM.COM) FOR EACH RELEVANT SECTION. (I.E. INCLUDE ELECTRONIC BOOKMARKS SEPARATING "LIGHT FIXTURES" FROM "PANELBOARDS".)
  - ELECTRONICALLY HIGHLIGHT ALL OPTIONS FOR LIGHT FIXTURES, ELECTRICAL EQUIPMENT, ETC. MANUAL HIGHLIGHTING AND SCANNING OF THE DOCUMENTS IS NOT ACCEPTABLE AND WILL NOT BE REVIEWED.
  - PROVIDE ONLY COMPLETED CUTSHEETS FOR ALL FIXTURE AND EQUIPMENT TYPES. BLANK CUTSHEETS SUBMITTED WITH A SCHEDULE ARE NOT ACCEPTABLE AND WILL NOT BE REVIEWED.
  - A MAXIMUM OF ONE SUBMITTAL PER SPECIFICATION SECTION IS ALLOWED. IT IS NOT ACCEPTABLE TO PROVIDE A PRODUCT BY PRODUCT SUBMITTAL. SINGLE PRODUCT BY PRODUCT SUBMITTALS WILL NOT BE REVIEWED.
    - WIRING DEVICES
    - FLOORBOXES
    - PANELBOARDS AND SWITCHBOARDS
    - OVERCURRENT PROTECTIVE DEVICES
    - TRANSFORMERS
    - MOTOR STARTERS
    - MOTOR AND CIRCUIT DISCONNECTS
    - SURGE PROTECTIVE DEVICES (SPDS)
    - LIGHT FIXTURES
    - ELECTRICAL IDENTIFICATION
    - SECURITY SYSTEMS
    - TELECOMMUNICATIONS
    - FIRE ALARM AND DETECTION SYSTEMS
- **RECORD DRAWINGS:** MAINTAIN ON A DAILY BASIS, A COMPLETE SET OF RECORD DRAWINGS, REFLECTING AN ACCURATE DIMENSIONAL RECORD OF ALL BURIED OR CONCEALED WORK. MARK RECORD DRAWINGS TO SHOW THE PRECISE LOCATION OF CONCEALED WORK AND EQUIPMENT, INCLUDING CONCEALED OR EMBEDDED CONDUIT AND JUNCTION BOXES AND ALL CHANGES AND DEVIATIONS IN THE WORK FROM THAT SHOWN ON THE CONTRACT DOCUMENTS.
- **OPERATION AND MAINTENANCE MANUALS:** PROVIDE OPERATING INSTRUCTION AND MAINTENANCE DATA BOOKS FOR ALL EQUIPMENT AND MATERIALS FURNISHED UNDER THIS DIVISION.
- **GUARANTEE:** ENSURE THAT ELECTRICAL SYSTEMS INSTALLED UNDER THIS CONTRACT IS IN PROPER WIRING ORDER AND IN COMPLIANCE WITH DRAWINGS, SPECIFICATIONS, AND/OR AUTHORIZED CHANGES. WITHOUT ADDITIONAL CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, EXCEPT FROM ORDINARY WEAR AND TEAR, WITHIN ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
- **FIRE PROTECTION SEALS:** SEAL ALL PENETRATIONS FOR WORK OF THIS SECTION THROUGH FIRE RATED FLOORS, WALLS, AND CEILINGS TO PREVENT THE SPREAD OF SMOKE, FIRE, TOXIC GAS, OR WATER THROUGH THE PENETRATION EITHER BEFORE, DURING AND AFTER FIRE.
- **POWER OUTAGES:** ALL POWER OUTAGES REQUIRED FOR EXECUTION OF THIS WORK SHALL OCCUR DURING THE NON-STANDARD WORKING HOURS AND AT THE CONVENIENCE OF THE OWNER. INCLUDE ALL COSTS FOR OVERTIME WORK IN BID.

ELECTRICAL CONNECTION FOR EQUIPMENT

- VERIFY EXACT LOAD AND LOCATION OF ALL EQUIPMENT BEFORE ROUGH-IN FOR EACH ELECTRICAL CONNECTION. PROVIDE COMPLETE ASSEMBLY OF MATERIAL, INCLUDING BUT NOT NECESSARILY LIMITED TO, RACEWAYS, CONDUCTORS, CORDS, CORD CAPS, PLUGS, WIRING DEVICES, PRESSURE CONNECTORS, TERMINALS (LUGS), ELECTRICAL INSULATING TAPE, HEAT-SHRINKABLE INSULATING TUBING, CABLE TIES, SOLDERLESS WIRE NUTS, AND OTHER ITEMS AND ACCESSORIES AS NEEDED TO COMPLETE SPLICES, TERMINATIONS, AND CONNECTIONS AS REQUIRED. FOR PERMANENTLY INSTALLED FIXED EQUIPMENT, PROVIDE FLEXIBLE SEAL-TITE CONNECTION. FOR MOVABLE AND/OR PORTABLE EQUIPMENT, PROVIDE WIRING DEVICE, CORD CAP, AND MULTI-CONDUCTOR CORD.

GROUNDING

- PROVIDE GROUNDING AND BONDING OF ALL ELECTRICAL AND COMMUNICATION APPARATUS, MACHINERY, APPLIANCES, BUILDING COMPONENTS, AND ITEMS REQUIRED BY THE NEC TO PROVIDE A PERMANENT, CONTINUOUS LOW IMPEDANCE, GROUNDING SYSTEM. PROVIDE AN NEC BONDING/GROUNDING CONDUCTOR IN ALL RACEWAYS USED FOR POWER DISTRIBUTION.

CONDUIT RACEWAYS

- PROVIDE METAL CONDUIT, TUBING, AND FITTINGS OF TYPES, GRADES, SIZES, AND WEIGHTS (WALL THICKNESS) AS REQUIRED; WITH MINIMUM TRADE SIZE OF 3/4". INSTALL ELECTRICAL RACEWAY SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND APPLICABLE REQUIREMENTS OF NEC AND NECA "STANDARD OF INSTALLATION" IN ACCORDANCE WITH THE FOLLOWING.
  - FEEDERS: INSTALL FEEDERS RATED 100 AMPS AND GREATER, IN ELECTRICAL METALIC CONDUIT (EMT); WHERE BURIED BELOW GRADE, INSTALL IN CONCRETE ENCASED NON-METALLIC CONDUIT OR DUCT (SCHEDULE 40 PVC).
  - BRANCH CIRCUITS, AND INDIVIDUAL EQUIPMENT CIRCUITS RATED LESS THAN 100 AMPS: INSTALL IN ELECTRICAL METALLIC TUBING (EMT). WHERE LOCATED IN POURED WALLS, BELOW CONCRETE SLAB-ON-GRADE, OR IN EARTH FILL, INSTALL IN NON-METALLIC PLASTIC DUCT (SCHEDULE 40 PVC). ENCASE NON-METALLICPLASTIC DUCT1-1/4" AND LARGER IN CONCRETE.
  - PROVIDE RIGID METAL CONDUIT (RMC) FOR ALL BENDS IN BURIED CONDUIT GREATER THAN 30 DEGREES. PROVIDE PROTECTIVE COATING FOR RIGID METAL CONDUIT BENDS. INSTALL FLEXIBLE CONDUIT FOR CONNECTIONS OF MOTORS, TRANSFORMERS, AND OTHER ELECTRICAL EQUIPMENT WHERE SUBJECT TO MOVEMENT AND VIBRATIONS. PROVIDE OZ, EXPANSION FITTINGS ON ALL CONDUITS CROSSING BUILDING EXPANSION JOINTS, BOTH IN SLAB AND SUSPENDED.
  - PROVIDE SURFACE RACEWAYS OF SIZES AND CHANNELS INDICATED. PROVIDE FITTINGS THAT MATCH AND MATE WITH RACEWAY.

CONDUCTORS AND CABLES

- PROVIDE FACTORY-FABRICATED CONDUCTORS FOR SIZED, RATINGS, MATERIAL, AND TYPES INDICATED FOR EACH SERVICE. PROVIDE COPPER CONDUCTORS, WITH THHN/THWN INSULATION. SIZE ALL CONDUCTORS IN ACCORDANCE WITH NEC; MINIMUM SIZE TO BE #12 AWG. PROVIDE STRANDED CONDUCTORS FOR #8 AWG AND LARGER.

ELECTRICAL BOXES AND FITTINGS

- PROVIDE ONE PIECE GALVANIZED FLAT ROLLED SHEET STEEL INTERIOR OUTLET WIRING BOXES, CORROSION-RESISTANT CAST-METAL WEATHERPROOF OUTLET WIRING BOXES, CODE-GAGE SHEET STEEL JUNCTIONS AND PULL BOXES, CAST-IRON WATERPROOF ADJUSTABLE FLOOR BOXES, GALVANIZED CAST-METAL CONDUIT BODIES, CORROSION-RESISTANT PUNCHED-STEEL BOX KNOCKOUT CLOSURES, CONDUIT LOCKOUTS AND MALLEABLE STEEL CONDUIT BUSHINGS AND OFFSET CONNECTORS, AND ALL ACCESSORIES AS REQUIRED TO SUIT EACH RESPECTIVE LOCATION AND INSTALLATION. FASTEN BOXES RIGIDLY TO SUBSTRATES OR STRUCTURAL SURFACES TO WHICH ATTACHED, OR SOLIDLY EMBED ELECTRICAL BOXES IN CONCRETE OR MASONRY. USE BAR HANGERS FOR STUD CONSTRUCTION.

SUPPORTING DEVICES

- PROVIDE SUPPORTS, ANCHORS, SLEEVES AND SEALS AS REQUIRED FOR A COMPLETE RACEWAY SUPPORT SYSTEM, INCLUDING BUT NOT LIMITED TO: CLEVIS HANGERS, RISER CLAMPS, C-CLAMPS, BEAM CLAMPS, ONE AND TWO HOLE CONDUIT STRAPS, OFFSET CONDUIT CLAMPS, EXPANSION ANCHORS, TOGGLE BOLTS, THREADED RODS, U-CHANNEL STRUT SYSTEM, AND ALL ASSOCIATED ACCESSORIES. INSTALL IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND WITH RECOGNIZED INDUSTRY PRACTICES TO INSURE SUPPORTING DEVICES COMPLY WITH REQUIREMENTS. PROVIDE RIGID ATTACHMENT OF ALL FLOOR MOUNTED EQUIPMENT TO THE FLOOR SLAB OR STRUCTURAL SYSTEM.

ELECTRICAL SEISMIC CONTROL

- PROVIDE SEISMIC CONTROL EQUIPMENT INCLUDING BUT NOT LIMITED TO: VIBRATION ISOLATORS, FLEXIBLE CONNECTIONS, RIGID STEEL FRAMES, ANCHORS, INSERTS AND ATTACHMENTS, SEISMIC SNUBBER AND BRACING TO MEET THE SEISMIC REQUIREMENTS FOR THE PROJECT SITE.

WIRING DEVICES

- PROVIDE GRADE FACTORY-FABRICATED WIRING DEVICES, IN TYPES, AND ELECTRICAL RATINGS FOR APPLICATIONS INDICATED AND COMPLYING WITH NEMA STDS PUB NO. WD-1. PROVIDE HEAVY DUTY SPECIFICATION GRADE, 20- AMPERES RATED, GROUNDING TYPE CONVENIENCE OUTLETS,. PROVIDE 20-AMPERES RATED TOGGLE SWITCHES. CONSTRUCT WIRING DEVICE OF HEAVY DUTY HIGH IMPACT NYLON AND PROVIDE COVER PLATES TO MATCH. PROVIDE DEVICES IN COLORS SELECTED BY ARCHITECT.

FLOOR BOXES

- PROVIDE LEVELING AND FULLY ADJUSTABLE FLOOR SERVICE RECEPTACLE OUTLETS AND FITTINGS OF TIME AND RATINGS AS INDICATED ON THE DRAWINGS. ALL BOXES SHALL COMPLY WITH UL STANDARD UL514A.

PANELBOARD AND SWITCHBOARDS

- PROVIDE GALVANIZED SHEET STEEL CABINET TYPE ENCLOSURES, IN SIZES AND NEMA TYPES AS INDICATED, CODE-GAGE MINIMUM 16-GAUGE THICKNESS. PROVIDE DEAD FRONT SAFETY TYPE PANELBOARDS WITH DOOR-IN-DOOR HINGED FRONTS. EQUIP WITH COPPER BUS BARS, FULL-SIZED NEUTRAL AND GROUND BUS. PROVIDE ENCLOSURES FABRICATED BY SAME MANUFACTURER AS OVERCURRENT DEVICES. BOLT ENGRAVED PLASTIC LAMINATE LABELSINDICATING PANEL NAME AND VOLTAGE ON THE INTERIOR AND EXTERIOR OF PANELBOARD OR SWITCHBOARD.

OVERCURRENT PROTECTIVE DEVICES

- PROVIDE OVERCURRENT PROTECTIVE DEVICES OF THE SAME MANUFACTURER AS THE SWITCHBOARD AND/OR PANELBOARD MANUFACTURER. PROVIDE FACTORY-ASSEMBLED DEVICES OF AMPERAGE, VOLTAGE, AND RMS INTERRUPTING RATING SHOWN. PROVIDE DEVICES AS FOLLOWS:
  - MOLDED CASE THERMAL TRIP CIRCUIT BREAKERS:
    - PROVIDE FACTORY-ASSEMBLED BOLT-ON MOLDED CASE CIRCUIT BREAKERS WITH PERMANENT THERMAL TRIP AND ADJUSTABLE INSTANTANEOUS MAGNETIC TRIP IN EACH POLE. SERIES RATING IS NOT ACCEPTABLE. CONSTRUCT BREAKERS FOR MOUNTING AND OPERATING IN ANY PHYSICAL POSITION AND IN AN AMBIENT TEMPERATURE OF 40 DEGREES C.
    - CIRCUIT BREAKERS 15 AMPS THROUGH 599 AMPS SHALL BE MOLDED CASE SOLID-STATE CIRCUIT BREAKERS.
  - MOLDED CASE SOLID-STATE CIRCUIT BREAKERS
    - PROVIDE FACTORY ASSEMBLED BOLT-ON MOLDED CASE CIRCUIT BREAKERS UL LISTED FOR APPLICATION AT 100% OF THEIR CONTINUOUS AMPERE RATING.
    - CIRCUIT BREAKERS 600 AMPS THROUGH 1200 AMPS SHALL BE MOLDED CASE SOLID-STATE CIRCUIT BREAKERS.
    - SOLID-STATE TRIP MECHANISMS SHALL HAVE THE FOLLOWING FUNCTIONS: ADJUSTABLE LONG TIME AMPERE RATING; ADJUSTABLE LONG TIME DELAY; SHORT TIME PICK UP- ADJUSTABLE SHORT TIME DELAY; ADJUSTABLE INSTANTANEOUS PICK UP.
  - INSULATED CASE CIRCUIT BREAKERS
    - PROVIDE FACTORY ASSEMBLED BOLT-ON INSULATED CASE CIRCUIT BREAKERS WITH SOLID-STATE TRIP MECHANISMS AND MANUAL SPRING CHARGING MECHANISM. BREAKERS SHALL BE UL LISTED FOR APPLICATION AT 100% OF THEIR CONTINUOUS AMPERE RATING.
    - CIRCUIT BREAKERS 1201 AMPERES AND LARGER SHALL BE INSULATED CASE CIRCUIT BREAKERS.
- ON SERVICE DISCONNECT BREAKERS WHERE PHASE TO GROUND VOLTAGE EXCEEDS 150-VOLTS, THE SOLID STATE TRIP MECHANISM SHALL INCLUDE ADJUSTABLE GROUND FAULT PICK UP AND ADJUSTABLE GROUND FAULT TIME DELAY WITH GROUND FAULT TEST BUTTON;
- FOR ALL CIRCUIT BREAKERS 1200 AMPERES OR HIGHER, PROVIDE AN ENERGY-REDUCING MAINTENANCE SWITCH WITH LOCAL, LIT STATUS INDICATOR TO ALLOW FOR A REDUCTION FO THE INSTANTANEOUS PICKUP AND INSTANTANEOUS DELAY SETTINGS. DEVICE SHALL MOUNT IN FACE OF DEAD-FRONT.

TRANSFORMERS

- PROVIDE FACTORY-ASSEMBLED, GENERAL-PURPOSE, AIR-COOLED DRY-TYPE DISTRIBUTION TRANSFORMERS AS REQUIRED. PROVIDE WITH COPPER WINDINGS WHERE PRIMARY WINDINGS HAS A MINIMUM OF 4 FULL CAPACITY TAPS AT 2.5 PERCENT, TWO ABOVE AND TWO BELOW FULL RATED VOLTAGE FOR DE-ENERGIZING TAP-CHARGING OPERATION. INSULATE WITH CLASS 150 INSULATION AND RATE FOR CONTINUOUS OPERATION AT RATED KVA. LIMIT TRANSFORMER TEMPERATURE RISE TO 115 DEGREES C. SOUND LEVEL NOT TO EXCEED 45DB. PROVIDE 4" HIGH CONCRETE PAD AND BOLT EQUIPMENT TO PAD.

MOTOR STARTERS

- PROVIDE FACTORY ASSEMBLED, AC-NON-REVERSING MAGNETIC STARTERS RATED AT 600V WITH THERMAL OVERLOAD PROTECTION IN ALL PHASES. MOUNT HAND-OFF-AUTO SWITCH, RED PILOT LIGHT, AND RESET BUTTON IN FACE OF ENCLOSURE. PROVIDE NEMA ENCLOSURE RATINGS BASED ON LOCATION OF INSTALLATION.

MOTOR AND CIRCUIT DISCONNECTS

- PROVIDE HEAVY-DUTY TYPE SAFETY SWITCHES; FUSIBLE OR NON-FUSIBLE AS INDICATED. PROVIDE SWITCHES RATED AT 600 VOLTS, 60 HZ; INCORPORATING QUICK-MAKE, QUICK-BREAK TYPE MECHANISMS. EQUIP WITH OPERATING HANDLE THAT IS CAPABLE OF BEING PADLOCKED IN THE OFF POSITION. PROVIDE NEMA ENCLOSURE RATINGS BASED ON LOCATION OF INSTALLATION.

SURGE PROTECTIVE DEVICES

- PROVIDE HIGH ENERGY SURGE PROTECTIVE DEVICES, WITH HIGH FREQUENCY LINE NOISE FILTERING, SUITABLE FOR APPLICATION IN CATEGORY A, B, AND C ENVIRONMENTS. UNIT SHALL BE A COMPLETE PACKAGED UNIT COMPLYING WITH APPLICABLE REQUIREMENTS OF ANSIIEEE C62 AND UL 1449. PROVIDE SURGE PROTECTIVE DEVICES AT EACH SWITCHBOARD AND/OR PANELBOARD LOCATED IN THE LIFE SAFETY EMERGENCY DISTRIBUTION SYSTEM.

LIGHTING FIXTURES

- PROVIDE LIGHTING FIXTURES COMPLETE WITH ALL COMPONENTS FOR EACH SIZE, TYPE, AND RATING INDICATED. THIS INCLUDES, BUT NOT LIMITED TO HOUSING, DRIVER, REFLECTORS, AND WIRING. SIZE FUSES PER BALLAST MANUFACTURER'S RECOMMENDATION. PROVIDE ALL NECESSARY SUPPORTS, BRACKETS, AND MISCELLANEOUS EQUIPMENT FOR MOUNTING OF FIXTURES. SUPPORT ALL GRID MOUNTED FIXTURES FROM THE BUILDING STRUCTURE WITH #12 GA. STEEL WIRE ATTACHED TO EACH CORNER; INDEPENDENT OF THE CEILING SYSTEM. PROVIDE BACKING SUPPORTS. PROVIDE GYPSUM BOARD PROTECTION AS REQUIRED TO MAINTAIN FIRE RATING OF EACH CEILING IN WHICH FIXTURES ARE INSTALLED. PROVIDE ALL EXTERIOR FIXTURES WITH DAMP OR WET LOCATION LABEL AS REQUIRED BY APPLICATION. PROVIDE CLASS 2 WIRING FOR ALL FIXTURES INDICATED TO HAVE 0-10V DIMMING.

ELECTRICAL IDENTIFICATION

- PROVIDE ELECTRICAL IDENTIFICATION PRODUCTS FOR BURIED ELECTRICAL LINES, ARC-FLASH HAZARD LABELS (ANSI Z535.4), SOURCE OF SUPPLY LABELS, AVAILABLE FAULT CURRENT LABELS AND EMERGENCY OPERATING SIGNS TO EQUIPMENT INSTALLED AS PART OF THIS PROJECT.
- PROVIDE NYLON TYPE COVERPLATES THAT MATCH DEVICES. PROVIDE METAL COVERS FOR ALL DEVICES IN UNFINISHED SPACES
- PROVIDE LABELS ON COVERPLATES INDICATING SOURCE OF POWER (I.E. PANEL - CIRCUIT #).

SECURITY SYSTEMS

- PROVIDE A COMPLETE RACEWAY SYSTEM INCLUDING BUT NOT LIMITED TO: RACEWAY, OUTLETS, COVERPLATES, BACKBOARDS, GROUNDING, AND MISCELLANEOUS ITEMS AS REQUIRED.
- PROVIDE (1) 3/4" EMT CONDUIT FROM EACH SECURITY DEVICE TO CABLE TRAY OR TERMINAL CABINET (WHICHEVER IS CLOSER). COMPLY WITH NEC AND RECOGNIZED INDUSTRY PRACTICES. PROVIDE NYLON PULL CORD IN ALL INSTALLED RACEWAY.
- PROVIDE (1) #6 BARE COPPER GROUND FROM EACH SECURITY SYSTEM TERMINAL BOARD TO THE SERVICE ENTRANCE GROUND. COIL SIX FEET OF CONDUCTOR AT EACH TERMINAL BOARD.

TELECOMMUNICATIONS

- PROVIDE A COMPLETE RACEWAY SYSTEM INCLUDING BUT NOT LIMITED TO: RACEWAY, OUTLETS, COVERPLATES, BACKBOARDS, GROUNDING, AND MISCELLANEOUS ITEMS AS REQUIRED.
- PROVIDE (1) 3/4" EMT CONDUIT FROM EACH TELEPHONE AND DATA DEVICE TO CABLE TRAY OR TELECOM RACK (WHICHEVER IS CLOSER). COMPLY WITH NEC, BICSI AND RECOGNIZED INDUSTRY PRACTICES. PROVIDE NYLON PULL CORD IN ALL INSTALLED RACEWAY.
- PROVIDE (1) #6 BARE COPPER GROUND FROM EACH TELEPHONE/DATA SYSTEM TERMINAL BOARD TO THE SERVICE ENTRANCE GROUND. COIL SIX FEET OF CONDUCTOR AT EACH TERMINAL BOARD.

FIRE ALARM AND DETECTIONS SYSTEMS

- PROVIDE AN ADDRESSABLE, ELECTRICALLY SUPERVISED FIRE ALARM SYSTEM WITH ALL APPLICABLE PROVISIONS OF THE CURRENT NFPA 72, NATIONAL FIRE ALARM CODE, IFC INTERNATIONAL FIRE CODE AND SHALL MEET ALL REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION. PROVIDE A MINIMUM OF #14 AWG COPPER WIRING IN 3/4" CONDUIT. FIRE ALARM MC IS NOT ALLOWED.

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ENGINEER
No. 12419507
JOSEPH CHANEY GLASCOCK
STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions
1 2 3

Date 03/05/2024

09E003

ELECTRICAL SPECIFICATIONS

SCOPE OF WORK:

- THE FOLLOWING ARE PROJECT SPECIFICATIONS THAT ALL CABLING SYSTEMS MUST ADHERE TO. THESE SPECIFICATIONS APPLY TO ALL INSTALLERS (HEREINAFTER REFERRED TO AS "THE CONTRACTOR") FOR ALL SITES, THAT REQUIRE, STANDARDS-COMPLIANT STRUCTURED CABLING SYSTEMS AND SHALL BE USED FOR ALL THE INSTALLATION, TESTING, AND ACCEPTANCE OF THE INFORMATION TRANSPORT SYSTEMS AS DESCRIBED IN THE ATTACHED SPECIFICATIONS. PRICES QUOTED OF THE INSTALLATION FACILITIES SHALL BE ALL-INCLUSIVE AND REPRESENT A COMPLETE INSTALLATION AT SUCH SITES AS PRESCRIBED IN THIS SPECIFICATION AND CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL PARTS, LABOR, TESTING, ACCEPTANCE AND ALL OTHER ASSOCIATED PROCESSES AND PHYSICAL APPARATUS NECESSARY TO TURN-OVER A COMPLETED SYSTEM FULLY WARRANTED AND OPERATIONAL FOR ACCEPTANCE BY THE CUSTOMER. FINAL ACCEPTANCE OF THE INSTALLATION SHALL BE IN WRITING BY THE ARCHITECT AND ENGINEER.

- IN ALL INSTANCES WHERE STANDARDS ARE CITED, IT IS ASSUMED INSTALLER WILL HAVE FAMILIARITY WITH AND IMPLICITLY FOLLOW THE RECOMMENDATIONS OF THE MOST CURRENT VERSION OF THE STANDARD REFERENCED AT THE TIME OF INSTALLATION. COMPLIANCE WITH MOST CURRENT STANDARDS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

- THE EXTENT OF TELEPHONE/DATA SYSTEM WORK IS INDICATED BY DRAWINGS AND IS HEREBY DEFINED TO INCLUDE, BUT NOT BE LIMITED TO RACKS, CABINETS, PATCH PANELS, CABLES, RACEWAY, OUTLET BOXES, DEVICE PLATES, BACKBOARD, AND GROUNDING. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL SPECIFIED AND UNSPECIFIED NECESSARY AND MISCELLANEOUS ITEMS REQUIRED FOR DELIVERY OF A COMPLETE AND FUNCTIONAL DATA CABLING AND DEVICE SYSTEM.

- CONTRACTOR SHALL PROVIDE COMPLETE CABLE AND OUTLET SYSTEM AS INDICATED ON THE DRAWINGS AND DESCRIBED HEREIN. WORK SHALL INCLUDE ALL ASSOCIATED INFRASTRUCTURE TRANSMISSION COMPONENTS AND SUPPORT APPLIANCES INCLUDING, BUT NOT BE LIMITED TO CABLE, JACKS, TERMINAL BLOCKS, LABELING, PATCH CORDS, ANALOG VOICE CABLING, AND ALL TERMINATIONS AS SPECIFIED HEREIN.

- CONTRACTOR SHALL PROVIDE SYSTEM TESTING AS DESCRIBED HEREIN USING UP-TO-DATE AND INDUSTRY ACCEPTED LEVEL IIIE TEST EQUIPMENT APPROPRIATE TO THE TYPES OF LINKS BEING TESTED AND IN ACCORDANCE WITH THE LATEST EDITION OF IEC 61935-1. ALL TESTERS USED SHALL BE FACTORY CALIBRATED WITHIN ONE YEAR OF USE WITH REFERENCES SET DAILY PRIOR TO TESTING.

- ALL ACTIVE EQUIPMENT (ELECTRONICS) WILL BE OWNER FURNISHED AND OWNER INSTALLED.

- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL PARTS, LABOR, TESTING, DOCUMENTATION AND ALL OTHER ASSOCIATED PROCESSES AND PHYSICAL APPARATUS NECESSARY TO TURN-OVER THE COMPLETED SYSTEM FULLY WARRANTED AND OPERATIONAL FOR ACCEPTANCE BY OWNER AND ENGINEER.

- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED FOR THE COMPLETE INSTALLATION OF WORK CALLED FOR IN THE CONSTRUCTION DOCUMENTS.

- CONTRACTOR SHALL PROVIDE CONDUIT FROM TELECOMMUNICATIONS OUTLET/CONNECTOR TO ACCESSIBLE CEILING SPACE, THEN UTILIZE NON-CONTINUOUS CABLE SUPPORT DEVICES TO EF/ER/TR/TE.

CONTRACTOR QUALIFICATIONS

- THE CONTRACTOR SHALL BE FULLY CONVERSANT AND CAPABLE IN THE CABLING OF LOW VOLTAGE APPLICATIONS SUCH AS, BUT NOT LIMITED TO VOICE AND DATA NETWORK SYSTEMS. THE CONTRACTOR SHALL AT A MINIMUM POSSESS THE FOLLOWING QUALIFICATIONS:
  - MUST HAVE AT A MINIMUM (1) RCDD CERTIFIED INDIVIDUAL EMPLOYED FULL TIME AT THE TIME OF BIDDING AND THROUGHOUT ENTIRE PROJECT. PROVIDE PROOF OF RCDD CERTIFICATION IMMEDIATELY UPON JOB AWARD.
  - BICSI CERTIFIED INSTALLERS OR EQUIVALENT.
  - POSSESS THOSE LICENSES/PERMITS REQUIRED TO PERFORM TELECOMMUNICATIONS INSTALLATIONS IN THE SPECIFIED JURISDICTION.
  - HAVE A MINIMUM OF 5 YEARS IN THE COMMUNICATIONS STRUCTURED CABLING BUSINESS AND BE ABLE TO PROVIDE THREE OWNER REFERENCES FOR THE TYPE OF INSTALLATION DESCRIBED IN THIS SPECIFICATION FOR PROJECTS WITHIN THE LAST 18 MONTHS.
  - PERSONNEL TRAINED IN THE INSTALLATION OF PATHWAYS AND SUPPORT FOR HOUSING HORIZONTAL AND BACKBONE CABLING.
  - PERSONNEL KNOWLEDGEABLE IN LOCAL, STATE, PROVINCE AND NATIONAL CODES, AND REGULATIONS. ALL WORK SHALL COMPLY WITH THE LATEST REVISION OF THE CODES OR REGULATIONS. WHEN CONFLICT EXISTS BETWEEN LOCAL OR NATIONAL CODES OR REGULATIONS, THE MOST STRINGENT CODES OR REGULATIONS SHALL BE FOLLOWED.
  - BE FACTORY CERTIFIED BY THE MANUFACTURER USED IN INSTALLATION OF ALL TRANSMISSION COMPONENTS OF ALL COPPER AND FIBER LINKS AND ABLE TO PROVIDE THE MANUFACTURER WARRANTY.

APPLICABLE CODES AND STANDARDS

- CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PORTIONS OF THE NEC CODE AS TO TYPE OF PRODUCTS USED AND INSTALLATION OF COMPONENTS. ALL MATERIALS USED SHALL BE PRODUCTS AND MATERIALS THAT HAVE BEEN UL-LISTED AND LABELED. ALL INSTALLED PRODUCTS SHALL COMPLY WITH APPLICABLE NEMA STANDARDS FOR LOW LOSS EXTENDED FREQUENCY CABLE.

- IN ADDITION INSTALLATION SHALL ADHERE TO THE FOLLOWING STANDARDS:
  - ANSI/TIA-568-C.0 - GENERIC TELECOMMUNICATIONS CABLING FOR CUSTOMER PREMISES, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA-568-C.1 - COMMERCIAL BUILDING TELECOMMUNICATIONS CABLING STANDARDS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA-568-C.2 - BALANCE TWISTED PAIR COMMUNICATIONS AND COMPONENTS STANDARDS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA -942 -TELECOMMUNICATIONS INFRASTRUCTURE FOR DATA CENTERS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - TIA-569-B - COMMERCIAL BUILDING STANDARD FOR TELECOM PATHWAYS AND SPACES, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA-606-A - ADMINISTRATION STANDARD FOR THE TELECOMMUNICATIONS INFRASTRUCTURE OF COMMERCIAL BUILDINGS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI-J-STD-607-A - COMMERCIAL BUILDING GROUNDING/BONDING REQUIREMENTS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA 1152 - TESTING OF COPPER LINKS
  - BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL, 12TH EDITION OR MOST RECENT EDITION AT THE TIME OF INSTALLATION.
  - TIA 758-A - CUSTOMER OWNED OUTSIDE PLANT TELECOMMUNICATIONS INFRASTRUCTURE STANDARD (2004), INCLUDING ALL APPLICABLE ADDENDA AND THE MOST RECENT REVISION AT THE TIME OF INSTALLATION.
  - BICSI INFORMATION TRANSPORT SYSTEMS INSTALLATION MANUAL - 5TH EDITION OR MOST RECENT EDITION AT THE TIME OF INSTALLATION.
  - ANSI/NFPA-70 - 2008 NATIONAL ELECTRICAL CODE, REVISION, OR MOST RECENT REVISION AT THE TIME OF INSTALLATION.
  - ANSI/IEEE C-2 - 2007 NATIONAL ELECTRICAL SAFETY CODE OR MOST RECENT REVISION AT THE TIME OF INSTALLATION.

- NOTE: ANYWHERE CABLING STANDARDS CONFLICT WITH ELECTRICAL OR SAFETY CODES, CONTRACTOR SHALL DEFER TO NEC AND ANY APPLICABLE LOCAL CODES OR ORDINANCES, OR DEFAULT TO THE MOST STRINGENT REQUIREMENTS LISTED BY EITHER. KNOWLEDGE AND EXECUTION OF APPLICABLE CODES IS THE SOLE RESPONSIBILITY OF THE INSTALLER. ANY CODE VIOLATIONS SHALL BE REMEDIED AT THE CONTRACTOR'S EXPENSE.

ACCEPTABLE MANUFACTURERS:

- GENERAL:
  - UNAPPROVED PRODUCT SUBSTITUTIONS ARE NOT ALLOWED. ALL UNAPPROVED SUBSTITUTIONS INSTALLED SHALL BE REMOVED BY CONTRACTOR WHO SHALL ASSUME ALL COSTS FOR REMOVAL AND REPLACEMENT WITH APPROVED PRODUCTS. SUCH COSTS SHALL INCLUDE, BUT NOT BE LIMITED TO LABOR, MATERIALS, AS WELL AS ANY PENALTIES OR FEES FOR LATE COMPLETION.

- APPROVED MANUFACTURERS:
  - COPPER CABLING / CONNECTIVITY APPROVED MANUFACTURERS:
    - PANDUIT
    - GENERAL CABLE
    - BELDEN

SUBMITTALS:

- CONTRACTOR SHALL FOLLOW THE SUBMITTAL REQUIREMENTS AS OUTLINED IN THE ELECTRICAL SPECIFICATIONS AND PROVIDE THE FOLLOWING;
  - PROVIDE SUBMITTAL FOR NON-CONTINUOUS CABLE SUPPORT DEVICES.
  - PROVIDE COLOR SAMPLES OF ALL AVAILABLE STANDARD COLOR FACEPLATES TO ARCHITECT.
  - PROVIDE PROPOSED LABELING SCHEME FOR APPROVAL BY OWNER/ENGINEER.
  - PROVIDE CATALOG CUTSHEETS OF ALL TEST EQUIPMENT THAT WILL BE USED.
  - PROVIDE RESULTS OF ALL COPPER CABLE TESTS.

GENERAL PRODUCT REQUIREMENTS:

- ALL PRODUCTS SHALL BE IN NEW CONDITION AND UL LISTED.

- PROVIDE COMPLETE RACEWAY, OUTLET BOXES AND MISCELLANEOUS ITEMS. ALL CONDUIT UTILIZED SHALL BE EMT GRADE.

- COMMUNICATION GROUNDING AND BONDING SHALL BE CONSTRUCTED AND INSTALLED TO MEET OR EXCEED THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), IEC 1000-5-2 AND ANSI/J-STD--607-A THROUGHOUT THE ENTIRE GROUNDING SYSTEM.

- ALL TERMINATION HARDWARE SHALL BE RATED TO MEET CATEGORY 6 SPECIFICATIONS.

ENTRANCE FACILITY (EF) / EQUIPMENT ROOM (ER) / TELECOMMUNICATIONS ROOM (TR)

- GENERAL:
  - CONTRACTOR SHALL UTILIZE THE CURRENT INFRASTRUCTURE LOCATED IN THE BASEMENT OF THE LIBRARY.

CABLING DISTRIBUTION SYSTEMS AND MISCELLANEOUS EQUIPMENT

- GENERAL
  - PROVIDE PLENUM RATED CABLE, CABLING MUST BE APPROPRIATE FOR THE ENVIRONMENT THAT IT IS INSTALLED IN.

- HORIZONTAL CABLING DISTRIBUTION SYSTEM - BALANCED TWISTED PAIR
  - GENERAL:
    - PROVIDE AND INSTALL APPROPRIATE NUMBER OF CATEGORY 6 HORIZONTAL CABLES, PATCH CABLES, WORK AREA CABLES, FOR ALL TERMINATED DATA DROPS, BETWEEN SWITCHES, ETC. SO THAT BUILDING-WIDE NETWORKING WILL BE OPERATIONAL ONCE ALL INSTALLATION IS COMPLETE.

- HORIZONTAL CABLING
  - PROVIDE CAT 6 UTP, 4-PAIR 100Ω BALANCED TWISTED PAIR CABLE TO ALL LOCATIONS SHOWN ON PLANS.
  - PROVIDE A MINIMUM OF (2) CABLES, UNLESS OTHERWISE NOTED, TO EACH LOCATION SHOWN ON PLANS.
  - HORIZONTAL CABLE SHALL BE BLUE.
  - PATCH AND WORK AREA CABLES:
    - PROVIDE AND INSTALL (1) 3 FOOT LONG CAT 6 PATCH CABLE FOR EACH WORKSTATION AND (1) 5 FOOT CAT 6 PATCH CABLE FOR EACH PATCH PANEL PORT IN THE TR/TC. PROVIDE HALF OF THE TR/TC PATCH CABLES IN 3 FOOT LENGTHS AND THE REMAINING HALF IN 5 FOOT LENGTHS.
    - COPPER PATCH CORD AND WORK AREA OUTLET CABLING MUST BE PROVIDED BY THE SAME MANUFACTURER AND MEET THE SAME PERFORMANCE STANDARDS AS THE HORIZONTAL CABLING.
    - PATCH CORD AND WORK AREA CABLES SHALL BE BLUE.
  - TELECOMMUNICATIONS OUTLETS/CONNECTORS (SEE PLANS FOR LOCATIONS):
    - SLOPED FACEPLATES:
      - PROVIDE MODULAR TYPE INFORMATION OUTLETS WITH SLOPED TELEPHONE JACK OR DATA OUTLET. PROVIDE SINGLE GANG FACEPLATE KITS TO ALLOW UP TO SIX DATA OR VOICE JACKS AS SHOWN ON PLANS. PROVIDE FACEPLATE KITS FOR WALL OUTLETS IN COLORS AND MATERIALS THAT MATCH POWER WIRING DEVICE PLATES. PROVIDE FACEPLATE KITS THAT ALLOW LABELING SCHEMES DESCRIBED HEREIN. FACEPLATES SHALL ACCEPT STP, UTP, FIBER OPTIC OR AUDIO/VIDEO MODULES AS AN OPTION.
      - BLANK OFF ALL UNUSED PORTS.
      - COLOR: STANDARD COLOR AS SELECTED BY OWNER/ARCHITECT.
    - 8P8C ANGLED CONNECTOR:
      - PROVIDE CATEGORY 6/CLASS E EIGHT-POSITION EIGHT-CONTACT (8P8C) JACK, THE TERMINATION CAP SHALL BE COLOR CODED FOR T568A AND T568B WIRING SCHEMES.
      - BE A CATEGORY 6/CLASS E EIGHT-POSITION JACK MODULE THAT TERMINATES ON UNSHIELDED TWISTED 4 PAIR, 22 - 26 AWG, 100 OHM CABLE UTILIZING A 110 PUNCH DOWN SOLUTION. MAINTAIN CABLE PAIR GEOMETRY AND MINIMIZE UNTWIST WHILE MINIMIZING STRESS ON CRITICAL CIRCUIT-BOARD COMPONENTS.
      - COLOR: STANDARD COLOR AS SELECTED BY OWNER/ARCHITECT.

GENERAL INSTALLATION REQUIREMENTS:

- PRIOR TO PATHWAY ROUGH-IN, LOW VOLTAGE CONTRACTOR SHALL MEET WITH ELECTRICAL CONTRACTOR TO REVIEW PATHWAY INSTALLATION REQUIREMENTS.

- PATHWAY REQUIREMENTS:
  - GENERAL:
    - ALL PATHWAYS SHALL BE DESIGNED, CONSTRUCTED, GROUNDED AND INSTALLED IN ACCORDANCE WITH ALL RECOMMENDATIONS DELINEATED WITHIN TIA 569-B AND STANDARD TIA 942.
    - PRIOR TO PLACING ANY CABLE PATHWAYS OR CABLE, THE CONTRACTOR SHALL SURVEY THE SITE TO DETERMINE JOB CONDITIONS WILL NOT IMPOSE ANY OBSTRUCTIONS THAT WOULD INTERFERE WITH THE SAFE AND SATISFACTORY PLACEMENT OF THE CABLES. ARRANGEMENTS TO REMOVE ANY MAJOR OBSTRUCTIONS NOT IDENTIFIED ON PLANS NEED TO BE DETERMINED AT THAT TIME WITH THE ENGINEER.
    - PAINT ALL ELECTRICAL BOXES AND THEIR COVERS FOR THE TELEPHONE AND DATA SYSTEM BLACK.
  - CONDUITS:
    - PROVIDE A QUANTITY OF ONE 1" CONDUIT FROM EACH TELECOMMUNICATIONS BOX TO ACCESSIBLE CEILING SPACE, THEN UTILIZE NON-CONTINUOUS CABLE SUPPORT DEVICES TO CABLE TRAY OR EF/ER/TR/TE (WHICHEVER IS CLOSER).
    - ACHIEVE THE BEST DIRECT ROUTE PARALLEL WITH BUILDING LINES WITH NO SINGLE BEND GREATER THAN 90 DEGREES OR AN AGGREGATE OF BENDS IN EXCESS OF 180 DEGREES BETWEEN PULL POINTS OR PULL BOXES.
    - CONDUIT RUNS SHALL NOT HAVE CONTINUOUS SECTIONS LONGER THAN 100 FEET WITHOUT A PULL BOX AND MAY ONLY BE FILLED TO 35% CAPACITY.
    - REAM ALL CONDUIT ENDS AND FIT WITH AN INSULATED THROAT NYLON BUSHING WITH NON-INDENTER TYPE MALLEABLE STEEL FITTINGS TO ELIMINATE SHARP EDGES.
    - A 200LB PULL CORD (NYLON, 1/8" MINIMUM) SHALL BE INSTALLED IN ANY EMPTY CONDUIT.
    - WHEN THE NUMBER OF CONDUITS REQUIRES MORE THAN ONE ROW, RESTRICT THE NUMBER OF ROWS TO TWO WHEREVER PRACTICABLE.
  - OPEN TOP CABLE SUPPORT REQUIREMENTS:
    - PROVIDE WIDE SURFACE AREA OPEN-TOP CABLE SUPPORTS SPACED 5 FEET APART AT THE MAXIMUM TO ADEQUATELY SUPPORT AND DISTRIBUTE CABLE'S WEIGHT. FOLLOW MANUFACTURER SPECIFICATIONS FOR CABLE LOADING. PROVIDE SUPPORTS THAT HAVE A GALVANIZED FINISH WITH WIDE BASE SPECIFICALLY FOR TELECOMMUNICATIONS CABLING.
    - APPROVED EQUIPMENT: ERICO CADDY-CAT HP
  - PULL BOX REQUIREMENTS:
    - NEC SIZED PULL BOXES ARE NOT ACCEPTABLE. FOLLOW BICSI AND EIA/TIA 569-B GUIDELINES FOR PULL BOX SIZING.
    - PROVIDE PULL BOXES IN SECTIONS OF CONDUIT THAT ARE 100 FEET OR LONGER, CONTAIN MORE THAN TWO 90 DEGREE BENDS, OR CONTAIN A REVERSE BEND.
    - PULL BOXES SHALL HAVE A LENGTH 12 TIMES THE DIAMETER OF THE LARGEST CONDUIT.
    - ALL PULL BOXES MUST BE ACCESSIBLE.

- CABLING SYSTEM:
  - FOLLOW T568B SCHEME FOR COPPER CABLING TERMINATIONS.
  - PROVIDE A MINIMUM OF ONE BALANCED TWISTED PAIR CABLE TO EACH VOICE OUTLET AND ONE BALANCED TWISTED PAIR CABLE TO EACH DATA OUTLET SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
  - PROVIDE A MINIMUM 6" SERVICE LOOP IN EACH COMMUNICATIONS SYSTEM JUNCTION BOX FOR BALANCED TWISTED PAIR. CABLES SHALL BE COILED IN THE IN-WALL BOXES IF ADEQUATE SPACE IS PRESENT TO HOUSE THE CABLE COIL WITHOUT EXCEEDING MANUFACTURERS BEND RADIUS.
  - PROVIDE A MINIMUM 10' SERVICE LOOP IN THE EXISTING TR.
  - PROVIDE A 5' SERVICE LOOP IN THE CEILING BEFORE THE CONDUIT TRAVELS DOWN THE WALL AND TERMINATES INTO THE COMMUNICATIONS JUNCTION BOX.
  - PROVIDE MODULAR JACKS FOR EACH INSTALLED CABLE AT OUTLETS SHOWN ON DRAWINGS. BLANK OFF ALL UNUSED PORTS ON FACEPLATE.
  - PROVIDE VELCRO TYPE TIES FOR ALL CABLES AND INSTALL IN A NEAT AND WORKMANLIKE MANNER. WHERE APPLICABLE, USE PLENUM RATED VELCRO. WHERE CABLE IS INSTALLED IN CABLE TRAY, BUNDLE A MAXIMUM OF 25 CABLES IN EACH VELCRO TIE.
  - ALL HORIZONTAL CABLES, REGARDLESS OF MEDIA TYPE, SHALL NOT EXCEED 90 M (295 FT) FROM THE TELECOMMUNICATIONS OUTLETS IN THE WORK AREA TO THE HORIZONTAL CROSS CONNECT.
  - THE COMBINED LENGTH OF ALL PATCH CORDS IN THE EF/ER/TR AND THE WORK AREA SHALL NOT EXCEED 10M (33 FT)
  - NO SPLICES ARE ALLOWED.
  - IN A FALSE CEILING ENVIRONMENT, A MINIMUM OF 3 INCHES SHALL BE OBSERVED BETWEEN CABLE SUPPORTS AND FALSE CEILING. AT NO POINT SHALL CABLE(S) REST ON ACOUSTIC CEILING GRIDS OR PANELS.
  - CABLES SHALL NOT BE ATTACHED TO CEILING GRID SEISMIC SUPPORT WIRES OR LIGHTING FIXTURE SEISMIC SUPPORT WIRES. WHERE SUPPORT FOR HORIZONTAL CABLE IS REQUIRED, THE CONTRACTOR SHALL INSTALL APPROPRIATE CARRIERS TO SUPPORT THE CABLING.
  - ANY CABLE DAMAGED OR EXCEEDING RECOMMENDED INSTALLATION PARAMETERS DURING INSTALLATION SHALL BE REPLACED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE AT NO COST TO THE OWNER.
  - PAIR UNTWIST AT THE TERMINATION SHALL NOT EXCEED 0.125". THE CABLE JACKET SHALL BE MAINTAINED AS CLOSE AS POSSIBLE TO THE TERMINATION POINT.
  - CABLES SHALL BE NEATLY BUNDLED AND DRESSED TO THEIR RESPECTIVE PANELS OR BLOCKS. EACH PANEL OR BLOCK SHALL BE FED BY AN INDIVIDUAL BUNDLE SEPARATED AND DRESSED BACK TO THE POINT OF CABLE ENTRANCE INTO THE RACK OR FRAME.
  - CABLE SHALL NOT BE DRAPED ON, TIED OR OTHERWISE SECURED TO ELECTRICAL CONDUIT, PLUMBING, VENTILATION DUCTWORK OR ANY OTHER EQUIPMENT. CABLE SHALL BE SECURED TO BUILDING SUPPORTS OR HANGERS OR TO ADDITIONAL BLOCKS OR ANCHORS SPECIFICALLY INSTALLED FOR THIS PURPOSE.

- ELECTROMAGNETIC COMPATIBILITY:
  - GENERAL:
    - WHERE TELECOMMUNICATION CABLE IS INSTALLED IN GROUNDED, METALLIC CONDUIT NEAR POWER CABLES, THE POWER CABLES SHALL BE KEPT PHYSICALLY SEPARATED FROM TELECOMMUNICATIONS CABLES:
      - CIRCUITS UNDER 5KVA: 2" MINIMUM SEPARATION.
    - MISCELLANEOUS EQUIPMENT:
      - ARRANGE ALL TERMINAL BLOCKS IN A MANNER THAT ALLOWS NATURAL WIRING PROGRESSION AND MINIMIZES CROSSING OF WIRES.
      - PROVIDE PATCH CORDS AND CROSS CONNECT CABLES AS NECESSARY FOR A COMPLETE OPERATIONAL TELEPHONE AND DATA NETWORK SYSTEM. CONSULT WITH OWNER TO DETERMINE ANY SPECIAL NEEDS SUCH AS DEDICATED PHONE LINES.

GENERAL LABELING REQUIREMENTS:

- THE CONTRACTOR SHALL DEVELOP AND SUBMIT FOR APPROVAL A LABELING SYSTEM FOR THE CABLE INSTALLATION. THE OWNER WILL NEGOTIATE AN APPROPRIATE LABELING SCHEME WITH THE SUCCESSFUL CONTRACTOR. AT A MINIMUM, THE LABELING SYSTEM SHALL CLEARLY IDENTIFY ALL COMPONENTS OF THE SYSTEM: RACKS, CABLES, PANELS AND OUTLETS. THE LABELING SYSTEM SHALL DESIGNATE THE CABLES ORIGIN AND DESTINATION AND A UNIQUE IDENTIFIER FOR THE CABLE WITHIN THE SYSTEM. RACKS AND PATCH PANELS SHALL BE LABELED TO IDENTIFY THE LOCATION WITHIN THE CABLE SYSTEM INFRASTRUCTURE. ALL LABELING INFORMATION SHALL BE RECORDED ON THE AS-BUILT DRAWINGS AND ALL TEST DOCUMENTS SHALL REFLECT THE APPROPRIATE LABELING SCHEME.

- ALL TELECOMMUNICATIONS SPACES, PATHWAYS, CABLES, CONNECTING HARDWARE, EQUIPMENT, RACKS, PATCH PANELS, OUTLET/CONNECTORS, AND GROUNDING SYSTEM SHALL BE LABELED IN ACCORDANCE WITH TIA/EIA 606-A.

- ALL LABELS SHALL MEET UL 969 REQUIREMENTS FOR LEGIBILITY, DEFACEMENT AND ADHESION REQUIREMENTS. HANDWRITTEN, INK, OR LASER PRINTING LABELS ARE NOT ALLOWED. PROVIDE LABELS USING THERMAL TRANSFER PRINT. HEAT SHRINKING OR WRAPAROUND LABELS ARE REQUIRED, FLAG STYLE LABELS ARE NOT ALLOWED.

- PROVIDE LAMINATED PLANS (MINIMUM SIZE 11X17) OF ALL TELECOMMUNICATIONS AS-BUILT PLANS (INCLUDING RISER DIAGRAMS) IN THE TR.

TELECOMMUNICATION PATHWAY LABELING REQUIREMENTS:

- IDENTIFY EACH DEDICATED PATHWAY (INCLUDING INNER DUCTS) FOR THE VOICE AND DATA SYSTEM.

- LABEL PATHWAYS AT REGULAR INTERVALS AND WHEREVER THEY ARE ACCESSIBLE.

TELECOMMUNICATION CABLE LABELING REQUIREMENTS:

- IDENTIFY CABLES AT EACH END WITH A PERMANENT LABEL OR PHYSICAL/ELECTRONIC TAG.
  - THE SAME ALPHANUMERIC IDENTIFIERS SHOULD BE USED AT BOTH ENDS OF THE CABLE.
  - IDENTIFY CABLES AT REGULAR INTERVALS THROUGHOUT AND WHEREVER THEY ARE ACCESSIBLE.
  - CABLES SHALL BE IDENTIFIED IN ACCORDANCE WITH ANSI/TIA/EIA-606-A. THE CABLE LABEL SHALL BE APPLIED TO THE CABLE BEHIND THE FACEPLATE THAT CAN BE ACCESSED BY REMOVING THE COVER PLATE AND TO THE CABLE BEHIND THE PATCH PANEL ON A SECTION OF CABLE THAT CAN BE VIEWED WITHOUT REMOVING THE BUNDLE SUPPORT TIES. CABLES LABELED WITHIN THE BUNDLE WHERE THE LABEL IS OBSCURED FROM VIEW SHALL NOT BE ACCEPTABLE.

CONNECTING HARDWARE LABELING REQUIREMENTS:

- IDENTIFY CONNECTING HARDWARE ITEMS (TERMINATION BLOCKS, CROSS-CONNECTS, RACKS, CABINETS, PATCH PANELS, TELECOMMUNICATIONS OUTLET/CONNECTORS, PORTS) USING ALPHANUMERIC IDENTIFICATION SUCH AS THE FOLLOWING THREE-LEVEL SCHEME:
  - FIRST LEVEL–TERMINATION FIELD OR PATCH PANEL. COLOR-CODING OR OTHER LABELING SHOULD BE USED TO UNIQUELY IDENTIFY EACH TERMINATION FIELD (E.G., VOICE AND DATA) ON A COMMON MECHANICAL ASSEMBLY.
  - SECOND LEVEL–TERMINAL BLOCK WITHIN A GIVEN FIELD OR PATCH PANEL, THAT COULD BE A ROW OF INSULATION DISPLACEMENT CONNECTORS (IDCS), OPTICAL FIBER CONNECTORS, OR MODULAR JACKS.
  - THIRD LEVEL–DEFINES THE INDIVIDUAL POSITION WITHIN A GIVEN TERMINAL BLOCK OR PATCH PANEL.

TESTING:

- GENERAL
  - PROVIDE TESTING WITHIN 10 DAYS OF COMPLETION FOR ALL COPPER AND FIBER OPTIC CABLE ACCORDING TO TIA/EIA STANDARDS AND ANY OTHER REQUIREMENTS OF THE MANUFACTURER WHO WILL PROVIDE WARRANTY.
  - SUBMIT COPY OF CURRENT CALIBRATION OF ALL TESTING EQUIPMENT. SUBMIT ALL TEST REPORTS ELECTRONICALLY TO ARCHITECT/ENGINEER AND INCLUDE IN O&M MANUALS TO INCLUDE TEST REPORTS. METER SHALL BE HAVE BEEN CALIBRATED WITHIN THE PAST 12 MONTHS.
  - CORRECT ANY MALFUNCTIONS. CONTRACTOR SHALL RE-TERMINATE/REPLACE ANY CABLE, CONNECTION, OR EQUIPMENT FOUND TO BE DEFECTIVE OR NON-COMPLIANT WITH THESE SPECIFICATIONS AND REFERENCED STANDARDS.
  - INVITE OWNER IT REPRESENTATIVE AND ENGINEER TO WITNESS AND/OR REVIEW FIELD TESTING. NOTIFY FIVE BUSINESS DAYS PRIOR TO COMMENCING TESTING.

- COPPER CABLE
  - UTILIZE LEVEL IIIE TESTER TO TEST ALL EQUIPMENT AND EACH OUTLET, HORIZONTAL CABLE, TERMINATION BLOCK, PATCH CORDS, ETC. TO VERIFY COMPLIANCE WITH REQUIREMENTS. TESTING SHALL CONSIST OF INDUSTRY ACCEPTED VERIFICATION TESTS FOR THE CATEGORY OF CABLE INSTALLED AND SHALL MEET LATEST REQUIREMENTS OF EIA/TIA CABLING STANDARDS.
  - UTP CABLE AND LINKS: ALL UTP CABLING CHANNEL MUST BE TESTED AT SWEPT FREQUENCIES UP TO 250MHZ FOR INTERNAL CHANNEL PERFORMANCE PARAMETERS AS DEFINED IN IEEE 802.3AN AND ANSI/TIA/EIA-568C. CERTIFICATIONS SHALL INCLUDE THE FOLLOWING PARAMETERS FOR EACH PAIR OF EACH CABLE INSTALLED:
    - WIRE MAP (PIN TO PIN CONNECTIVITY)
    - LENGTH
    - INSERTION LOSS
    - NEAR END CROSSTALK (NEXT)
    - ATTENUATION TO CROSSTALK RATIO FAR END (ACRF)
    - RETURN LOSS
    - PROPAGATION DELAY
    - DELAY SKEW
    - DC LOOP RESISTANCE
    - DC RESISTANCE UNBALANCE
    - POWER SUM NEAR-END CROSSTALK (PS-NEXT)
    - ATTENUATION TO CROSSTALK RATIO NEAR-END (ACR-N)
    - POWER SUM ATTENUATION TO CROSSTALK RATIO NEAR-END (PS-ACR-N)
    - ATTENUATION TO CROSSTALK RATIO FAR-END (ACR-F)
    - POWER SUM ATTENUATION TO CROSSTALK RATIO FAR-END (PS-ACR-F)
    - TRANSVERSE CONVERSION LOSS (TCL)
    - EQUAL LEVEL TRANSVERSE CONVERSION TRANSFER LOSS (ELTCTL)
  - ALL CHANNELS THAT FAIL TESTING PARAMETERS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNTIL ALL CHANNELS PASS THE PERFORMANCE PARAMETERS.
  - OWNER RESERVES THE RIGHT TO HIRE AN INDEPENDENT TESTING COMPANY TO SPOT CHECK THE TEST RESULTS. IF THE RESULTS VARY MORE THAN 10% FROM THE RESULTS PROVIDED BY THE CONTRACTOR, THE CONTRACTOR WILL BE REQUIRED TO PROVE HIS RESULTS ARE CORRECT OR RETEST THE ENTIRE SYSTEM.

WARRANTY:

- REGISTER INSTALLATION WITH CABLE/CONNECTIVITY MANUFACTURER.

- PROVIDE AND SUBMIT ALL TEST RESULTS TO OWNER, ENGINEER, AND MANUFACTURER AND MEET ALL OTHER MANUFACTURER REQUIREMENTS IN ORDER TO PROVIDE MINIMUM 20 YEAR EXTENDED PRODUCT LINK WARRANTY FOR COMPLETE CABLING/CONNECTIVITY INSTALLATION, INCLUDING ALL COPPER UTILIZED ON THE ENTIRE CHANNEL. THE CHANNEL WARRANTY SHALL BE PROVIDED BY THE CONNECTIVITY MANUFACTURER. INCLUDE REPLACEMENT MATERIAL AND INSTALLATION FOR ANY DEFECTIVE PRODUCT.

OPERATING AND MAINTENANCE MANUALS:

- OPERATING AND MAINTENANCE MANUALS SHALL BE SUBMITTED PRIOR TO TESTING OF THE SYSTEM. PROVIDE AN ADOBE PDF OF THE ENTIRE O&M MANUAL, TO BE REVIEWED BY ENGINEER AND DELIVERED TO THE OWNER. MANUALS SHALL INCLUDE ALL SERVICE, INSTALLATION, PROGRAMMING, AND WARRANTY, INCLUDING TEST RESULTS FOR EACH CABLE.

RECORD DRAWINGS:

- PROVIDE A COMPLETE SET OF "AS BUILT" DRAWINGS IN PAPER AND ELECTRONIC (DWG AND PDF) FORMATS SHOWING CABINETS, RACKS, PATCH PANELS, WIRING, SPECIFIC INTERCONNECTIONS BETWEEN ALL EQUIPMENT AND INTERNAL WIRING OF EQUIPMENT WITHIN 30 WORKING DAYS OF COMPLETION. DRAWINGS ARE TO INCLUDE ALL LABELING INFORMATION USED IN DENOTING EQUIPMENT USED IN THE INSTALLATION. LABELING, ICONS, AND DRAWING CONVENTIONS USED SHALL BE CONSISTENT THROUGHOUT ALL DOCUMENTATION PROVIDED.

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ENGINEER
No. 12419550
GOPICHAND POLIVARTHI
STATE OF UTAH

Project
24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Date
03/05/2024

Revisions
1 2 3 4 5 6 7 8 9 10 11 12 13 14

09E004

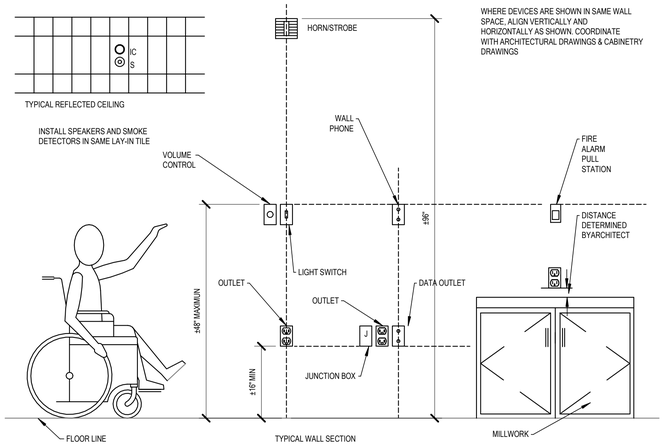


DIAGRAM R001 DEVICE MOUNTING HEIGHTS
NTS

NOTE:
TYPICAL OF 2'X2', 2'X4', 1'X4', AND 4'X4' FIXTURES

1. #12 GA. WIRE HANGER AT EACH CORNER OF FIXTURE (TYP.) INDEPENDENT OF CEILING SUPPORT SYSTEM AND IDENTIFIED AS PER SPECIFICATIONS.
2. FIXTURE CLAMP. PROVIDE ONE PER SIDE PER FIXTURE.

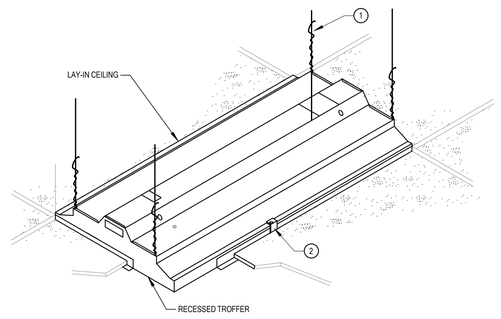


DIAGRAM A001 TYP. RECESSED FIXTURE MOUNTING
NTS

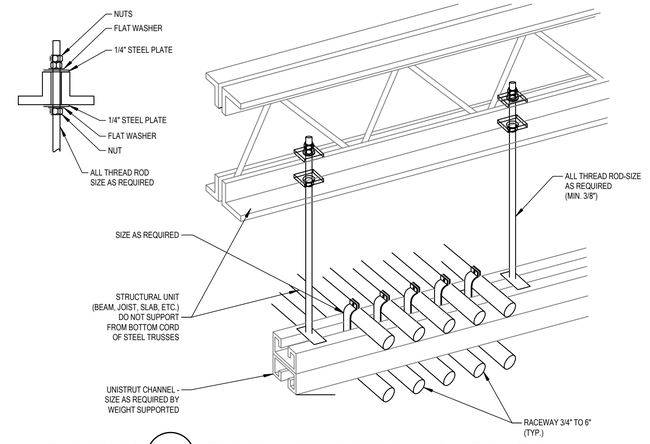
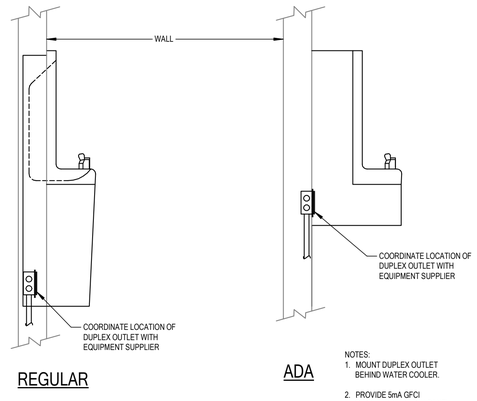


DIAGRAM H001 TYPICAL TRAPEZE CONDUIT RACK
NTS



REGULAR

ADA

NOTES:
1. MOUNT DUPLEX OUTLET BEHIND WATER COOLER.
2. PROVIDE 5mA GFCI CIRCUIT BREAKER IN PANEL.

DIAGRAM R002 ELECTRIC WATER COOLER (EWC)
NTS

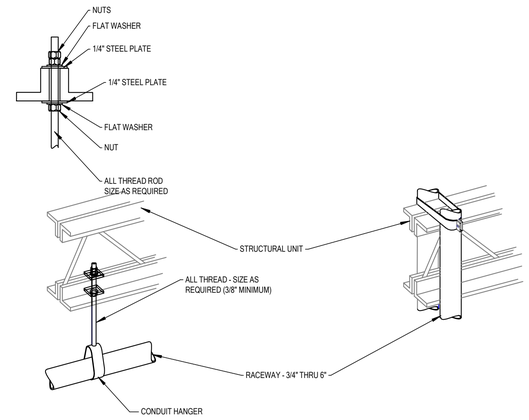
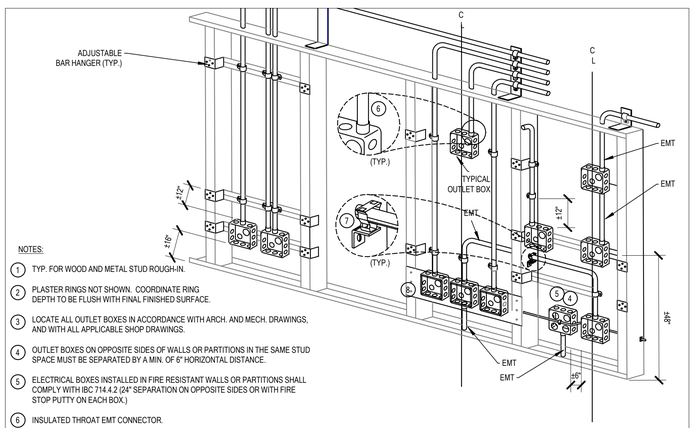


DIAGRAM H003 TYPICAL RACEWAY SUPPORT METHODS
NTS



NOTES:

1. TYP. FOR WOOD AND METAL STUD ROUGH-IN.
2. PLASTER RINGS NOT SHOWN. COORDINATE RING DEPTH TO BE FLUSH WITH FINAL FINISHED SURFACE.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCH. AND MECH. DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
5. ELECTRICAL BOXES INSTALLED IN FIRE RESISTANT WALLS OR PARTITIONS SHALL COMPLY WITH IBC 714.4.2 (24" SEPARATION ON OPPOSITE SIDES OR WITH FIRE STOP PUTTY ON EACH BOX.)
6. INSULATED THROAT EMT CONNECTOR.
7. CADDY FASTENER, THROUGH STUD CABLE/CONDUIT SUPPORT .
8. CADDY BOX MOUNTING BRACKET .

DIAGRAM H004 TYPICAL ROUGH IN REQUIREMENTS
NTS

NOTES

1. PROVIDE PULL CORD IN ALL EMPTY RACEWAYS.
2. BOND ALL RACEWAYS (SIZED PER NEC REQUIREMENTS) TO ELECTRICAL SERVICE GROUND

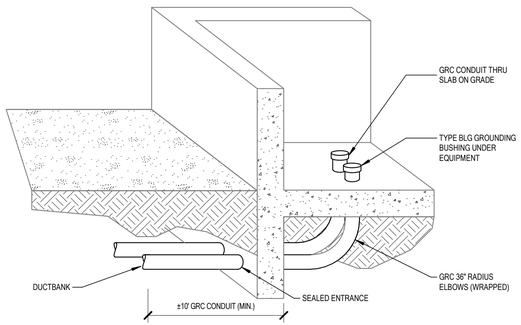


DIAGRAM F002 BUILDING ENTRANCE CONDUITS
NTS

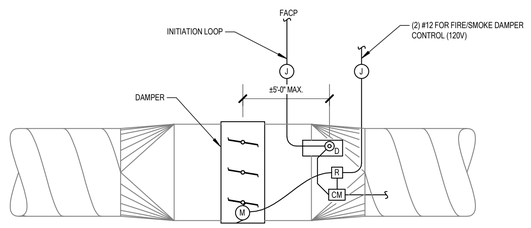
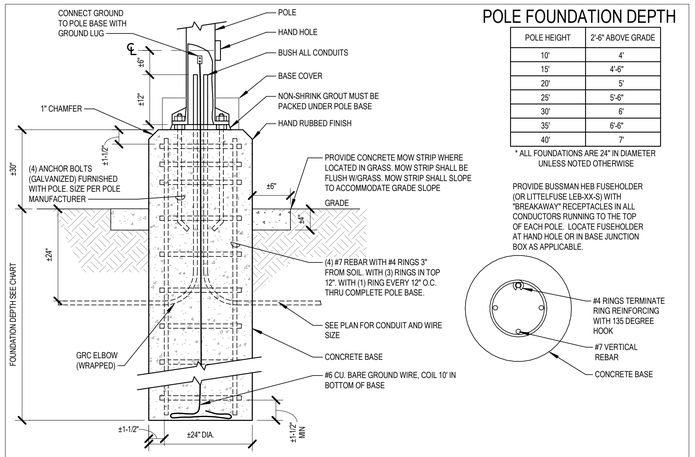


DIAGRAM D012 FIRE/SMOKE/DAMPERS CONNECTION
NTS



POLE FOUNDATION DEPTH

POLE HEIGHT	2'-6" ABOVE GRADE
10'	4'
15'	4'-6"
20'	5'
25'	5'-6"
30'	6'
35'	6'-6"
40'	7'

* ALL FOUNDATIONS ARE 24" IN DIAMETER UNLESS NOTED OTHERWISE

PROVIDE BUSSMAN HEB FUSEHOLDER (OR LITTELFUSE LEB-XX-S) WITH "BREAKAWAY" RECEPTACLES IN ALL CONDUCTORS RUNNING TO THE TOP OF EACH POLE. LOCATE FUSEHOLDER AT HAND HOLE OR IN BASE JUNCTION BOX AS APPLICABLE.

DIAGRAM C002 LIGHTING POLE FOUNDATION
NTS

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

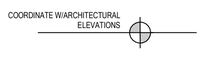
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/05/2024

09E005



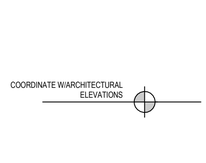


DIAGRAM D007 EXTERIOR FIRE ALARM HORN/STROBE & SPEAKER

NTS

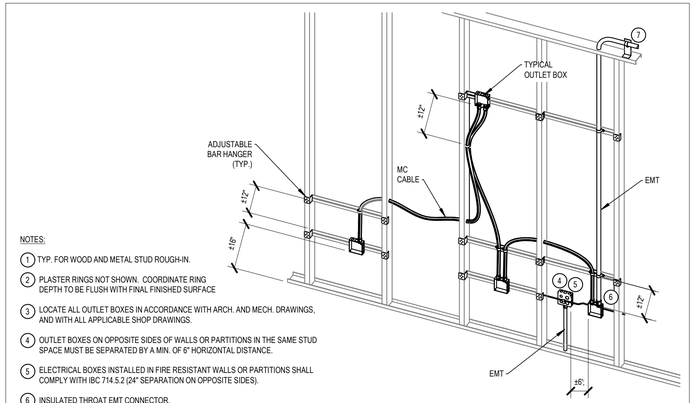


DIAGRAM H014 TYPICAL ROUGH IN REQUIREMENTS FOR MC CABLE

NTS

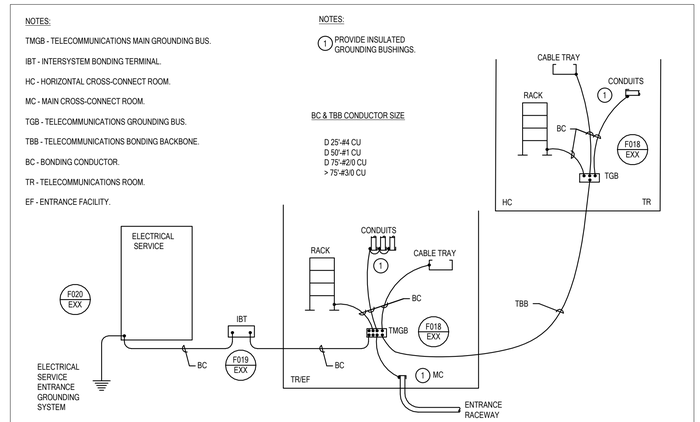


DIAGRAM F022 TYPICAL SMALL TELECOMMUNICATIONS SYSTEM GROUNDING/BONDING

NTS

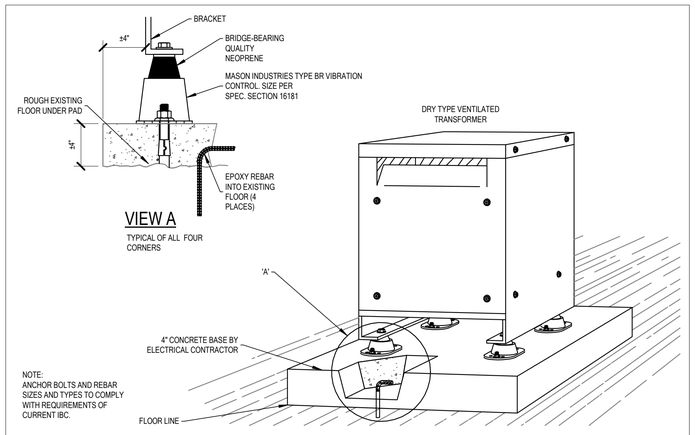


DIAGRAM Q009 DRY TYPE TRANSFORMER MOUNTING

NTS

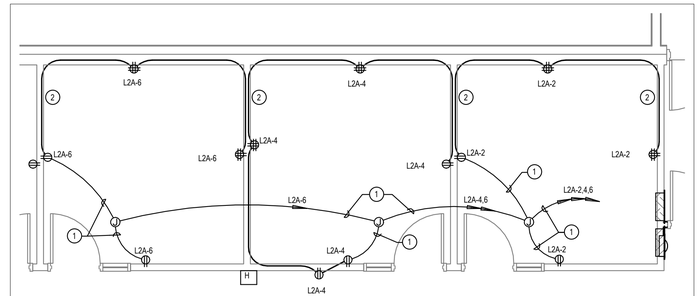


DIAGRAM H013 TYPICAL ROUGH IN REQUIREMENTS FOR MC CABLE

NTS

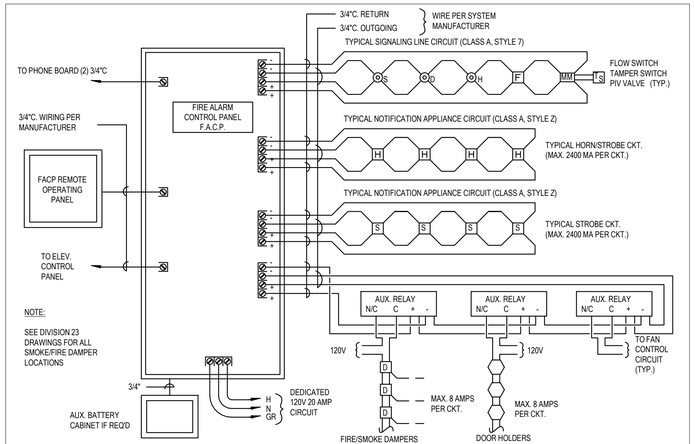


DIAGRAM D002 TYPICAL FIRE ALARM RISER

NTS

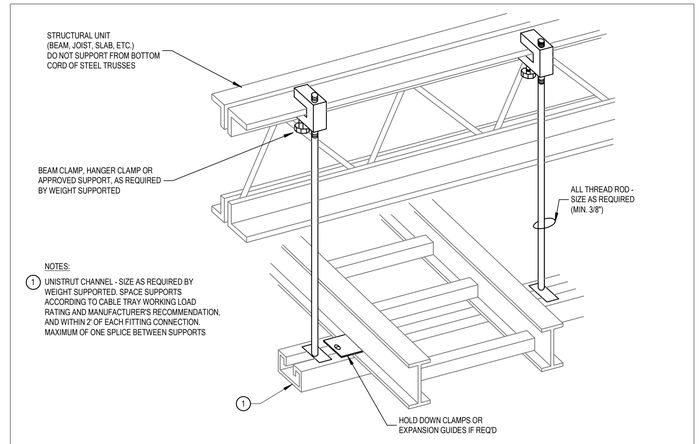


DIAGRAM I001 TYPICAL CABLE TRAY

NTS

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date	
03/05/2024	

09E006

SECURITY SYMBOL LEGEND

NOTES:

1. HEIGHT MEASURED TO CENTER OF THE BOX FROM THE FINISHED FLOOR.
2. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
3. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480V.
4. HEIGHT MEASURED TO TOP OF THE BOX FROM FINISHED FLOOR.
5. DOUBLE ARROWS INDICATES A DOUBLE FACE UNIT.
6. DEVICES NOTED WITH AN 'A' INDICATE TO COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
7. SOLID BOX AROUND DEVICE INDICATES INSTALLED IN FLOOR. DASHED BOX AROUND DEVICE INDICATES INSTALLED IN CEILING.
8. COORDINATE WITH DOOR HARDWARE SUPPLIER.
9. ARROWS SHOWN ON DEVICE INDICATE SENSOR AIMING DIRECTION.
10. CAMERA TYPES ARE INDICATED INSIDE THE CAMERA SYMBOL.
11. MOUNT ON TRACK OF OVERHEAD DOOR, 6" FROM TOP OF THE DOOR, UNLESS OVERHEAD DOOR IS A ROLL-UP DOOR, THEN MOUNT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
12. INSTALL DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SPECIFICATIONS.
13. DASHED LINE INDICATES EQUIPMENT CLEARANCES. ARROW INDICATES FRONT OF RACK.

*TYPICAL SYMBOL LEGEND. SOME SYMBOLS MAY NOT BE USED ON THIS SET OF DRAWINGS.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	CONDUIT RUN CONCEALED IN WALL OR CEILING		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		
	CONDUIT UP		
	CONDUIT DOWN		
	EQUIPMENT PANEL, SEE DRAWINGS		1.
	CONDUIT STUB LOCATION	CAP CONDUIT	
	CONDUIT/CIRCUIT CONTINUATION		
	CABLE TRAY (BASKET/LADDER) [WIDTH X HEIGHT]	AS NOTED @ #'-#"	8.
EQ 34'	EQUIPMENT NUMBER		
842	ARCHITECTURAL ROOM NUMBER		
# /##	DIAGRAM CALLOUT TAG.		
	DEVICE/EQUIPMENT (TEXT DESIGNATES TYPE) SEE SCHEDULE AND LEGEND		

SECURITY

###	IP SURVEILLANCE CAMERA - SEE CAMERA SURVEILLANCE TYPE SCHEDULE	AS NOTED	9. 10. 12.
NVR	NETWORK VIDEO RECORDER / SERVER		12.
DC 1	ACCESS CONTROL DOOR / WINDOW SWITCH / CONTACT	DOOR JAMB	12.
DC 2	SPECIALIZED SWITCH / CONTACT (GARAGE DOOR, ROOF ACCESS DOOR / HATCH!)		12.
XX X	DR=DOOR RELEASE, LD=LOCKDOWN, PE=PUSH TO EXIT, DB=DURESS / PANIC: T=TRANSMITTER, R=RECEIVER, H=HARDWIRED		12.
MD MD	INTRUSION MOTION DETECTOR SOLID - WALL MOUNTED, DASHED = CEILING		12.
GB GB	GLASS BREAK DETECTOR: SOLID = WALL MOUNTED, DASHED = CEILING		12.
AS AS	INTRUSION DETECTION ALARM SIREN AND/OR STROBE		12.
PI	INTRUSION DETECTION POP-IT MODULE		12.
KP	INTRUSION DETECTION KEYPAD (ARM/DISARM)		12.
INT	IP TWO-WAY AUDIO & VIDEO INTERCOM (ANSWERING BASE STATION & DOOR STATION)		12.
ML	ELECTROMAGNETIC LOCK (MAG LOCK)		8. 12.
SC SC	SMOKE & C/O DETECTOR COMBO: SOLID = WALL MOUNTED, DASHED = CEILING		12.
SH SH	SMOKE & HEAT DETECTOR COMBO: SOLID = WALL MOUNTED, DASHED = CEILING		12.
DH	MAGNETIC DOOR HOLD OPENER	AS NOTED	8. 12.
ES	ELECTRIFIED DOOR STRIKE	DOOR JAMB	8. 12.
DP	INTRUSION DETECTION DOOR / WINDOW CONTACT	DOOR JAMB	12.
EL	ELECTRIFIED DOOR LOCK	DOOR JAMB	8. 12.
RX	ACCESS CONTROL REQUEST TO EXIT MOTION		8. 12.
EC	ELECTRIFIED EXIT RIM DEVICE (CRASH BAR)		8. 12.
CR	ACCESS CONTROL CREDENTIAL CARD READER	+46"	1. 12.
BR	ACCESS CONTROL BIOMETRIC READER	+46"	1. 12.
KS	KEY OVERRIDE SWITCH	+46"	1. 12.
ICR	INTEGRATED LOCKSET WITH CREDENTIAL CARD READER		8. 12.
KCR	ACCESS CONTROL CREDENTIAL CARD READER WITH KEYPAD	+46"	1. 12.
WS	SECURITY WORKSTATION		12.
'ACS'	ACCESS CONTROL PANEL		12.
'IDS'	INTRUSION DETECTION PANEL		12.
'SEC'	ELECTRIFIED DOOR HARDWARE POWER SUPPLY		12.

ACCESS CONTROL TYPE SCHEDULE

LEGEND:

CR = ACCESS CONTROL CREDENTIAL CARD READER
KCR = ACCESS CONTROL CREDENTIAL CARD READER WITH KEYPAD
DC = ACCESS CONTROL DOOR / WINDOW CONTACT
PE = PUSH TO EXIT BUTTON
BR = ACCESS CONTROL BIOMETRIC READER...
ICR = INTEGRATED LOCKSET WITH CREDENTIAL CARD READER
DP = INTRUSION DETECTION DOOR / WINDOW CONTACT
RX = ACCESS CONTROL REQUEST TO EXIT MOTION

TYPE	DOOR DESCRIPTION	CREDENTIAL				DOOR CONTACT		EXIT DEVICES		NOTES
		CR	BR	KCR	ICR	DC	DP	PE	RX	
A	SINGLE DOOR	1	0	0	0	1	0	0	0	REFER TO THE "SECURITY GENERAL NOTES" #2

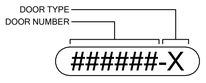
CAMERA SURVEILLANCE TYPE SCHEDULE

TYPE	DESCRIPTION	MANFR.	CAT NO.	NOTES
M01N	(QUAD) MULTIDIRECTIONAL DOME CAMERA, CORNER MOUNT	AXIS	P3265-LVE	REFER TO THE "SECURITY GENERAL NOTES" #1.
M01W	(QUAD) MULTIDIRECTIONAL DOME CAMERA, WALL MOUNT	AXIS	P3265-LVE	REFER TO THE "SECURITY GENERAL NOTES" #1.

SECURITY GENERAL NOTES

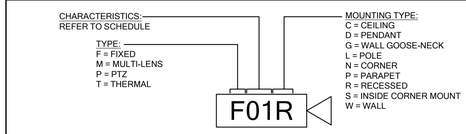
1. PRIOR TO STARTING ANY WORK THE DIV.28 VIDEO SURVEILLANCE CONTRACTOR SHALL COORDINATE A MEETING WITH THE OWNER AND THE DIV.26 ELECTRICAL CONTRACTOR TO REVIEW THE SURVEILLANCE CAMERA LOCATIONS AND ROUGH-IN. THE VIDEO SURVEILLANCE CONTRACTOR SHALL PROVIDE ALL OF THE CORRECT HARDWARE AND MOUNTING EQUIPMENT FOR THE IP SURVEILLANCE CAMERAS AND VIDEO EQUIPMENT. PRIOR TO STARTING ANY WORK CONTRACTOR SHALL COORDINATE A MEETING WITH THE OWNER TO REVIEW AND VERIFY:
   A. EACH SURVEILLANCE CAMERA LOCATION, HEIGHT, ORIENTATION, AND VIEW.
   B. VERIFY WHICH EF/ER/TR ROOM AND COMMUNICATION EQUIPMENT RACK THE VIDEO SURVEILLANCE EQUIPMENT WILL INSTALL INTO.
2. PRIOR TO STARTING ANY WORK THE DIV.28 ACCESS CONTROL CONTRACTOR SHALL COORDINATE A MEETING WITH THE OWNER, THE DIV.8 DOOR HARDWARE CONTRACTOR, AND THE DIV.26 ELECTRICAL CONTRACTOR TO REVIEW THE DOOR HARDWARE SPECIFICATIONS AND DOOR ROUGH-IN REQUIREMENTS.
   A. VERIFY WHAT ELECTRIFIED DOOR HARDWARE IS GOING TO GET INSTALLED ONTO EACH DOOR.
   B. DISCUSS THE FAIL-SAFE OR FAIL-SECURE OPERATION FOR THE ELECTRIFIED DOOR HARDWARE.
   C. POWER REQUIREMENTS FOR ALL OF THE ELECTRIFIED HARDWARE.
   D. DISCUSS HOW EACH DOOR WILL NEED TO BE PROGRAMMED TO OPERATE DURING BUSINESS HOURS, AFTER HOURS, SCHEDULED TIMES, SCHOOL LOCKDOWNS, EMERGENCY SITUATIONS, AND DURING FIRE ALARMS.
   E. DISCUSS THE REQUIREMENTS ON HOW THE ACCESS CONTROL SYSTEM WILL NEED TO TIE INTO THE FIRE ALARM SYSTEM, AND HOW THEY SHOULD OPERATE.
   F. VERIFY WHICH AREA IN THE EF/ER/TR ROOM IS TO BE UTILIZED TO INSTALL THE ACCESS CONTROL HEAD-END PANEL(S) AND THE ELECTRIFIED DOOR HARDWARE POWER SUPPLIES.
   G. CONFIRM WHICH ELECTRICAL CURCUIT THE ACCESS CONTROL HEAD-END PANELS AND ELECTRIFIED DOOR HARDWARE POWER SUPPLIES SHOULD BE CURCUITED TO (EMERGENCY POWER OR A STANDARD CURCUIT).
3. PROVIDE ALL SPECIFIED AND NON-SPECIFIED COMPONENTS IN ORDER TO PROVIDE A COMPLETE AND WORKING ACCESS CONTROL AND CAMERA SURVEILLANCE SYSTEM.
4. SECURITY INTEGRATOR SHALL CAREFULLY REVIEW THE REFLECTED CEILING PLANS AND ARCHITECTURAL ELEVATIONS FOR COMPONENT INSTALLATION.
5. SECURITY INTEGRATOR SHALL CAREFULLY REVIEW DOOR HARDWARE SUBMITTAL AND SUMMARIZE DISCREPANCIES TO TEAM.
6. EQUIPMENT COUNTS ARE PROVIDED FOR INFORMATION ONLY AT A CONVENIENCE TO THE CONTRACTOR. IT STILL REMAINS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY DRAWING QUANTITIES. IF A DISCREPANCY ARISES BETWEEN THE SCHEDULE COUNTS AND THE DRAWING COUNTS, THE HIGHEST QUANTITY SHALL BE INCLUDED IN THE BID.
7. ACCESS CONTROL SYSTEM SHALL INCLUDE ANY RELAYS, EXTERNAL POWER SUPPLIES, AUXILIARY DEVICES OR I NPUT/OUTPUT MODULES REQUIRED TO SUPPORT DOOR TYPE INDICATED FOR COMPLETE AND FUNCTIONING CARD READER AND DOOR CONTROL.
8. ALL FINAL CAMERA VIEWS SHALL BE APPROVED BY THE OWNER PRIOR TO PROJECT COMPLETION.
9. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
10. COORDINATE WTIH THE OWNER AND REFERENCE SPECIFICATIONS AND CODE REQUIREMENTS FOR THE SETUP AND PROGRAMMING OF THE INTEGRATION BETWEEN THE VIDEO SURVEILLANCE SYSTEM, ACCESS CONTROL SYSTEM, INTERCOM SYSTEM, AND FIRE ALARM SYSTEM.
11. PROVIDE INTERACTIVE MAP ON VMS WITH CAMERA AND ACCESS CONTROL DEVICES.
12. COORDINATE WITH ELECTRICAL CONTRACTOR AND OWNERS AND REVIEW WHAT ELECTRICAL CIRCUITS THE ACTIVE ACCESS CONTROL & VIDEO SURVEILLANCE EQUIPMENT WILL NEED TO BE CONNECTED TO. (I.E. EMERGENCY BACK-UP POWER CIRCUIT, OR STANDARD POWER CIRCUIT).
13. INSTALL AND PROGRAM THE ACCESS CONTROL AND THE IP VIDEO SURVEILLANCE SYSTEMS TO THE MANUFACTURER'S INSTRUCTIONS, SPECIFICATIONS, INDUSTRIES STANDARDS, AND TO THE OWNER'S REQUIREMENTS.
14. CONTRACTOR(S) SHALL PROMPTLY NOTIFY ENGINEER PRIOR TO INSTALLATION OF WORK IF ANY OF THE SECURITY DEVICE LOCATIONS THAT ARE SHOWN IN THE SECURITY DRAWINGS ARE OBSTRUCTED.

ACCESS CONTROL TAG LEGEND



SEE THE "ACCESS CONTROL TYPE SCHEDULE" FOR DOOR TYPES

CAMERA SURVEILLANCE TAG LEGEND



SEE THE "CAMERA SURVEILLANCE SCHEDULE" FOR CAMERA TYPES

LOW VOLTAGE SCOPE OF WORK

NOTES:...

1. RESPONSIBILITY MATRIX DELINEATES THE SCOPE OF WORK BETWEEN THE OWNER AND THE CONTRACTORS. CONTRACTORS ARE RESPONSIBLE TO COORDINATE BETWEEN EACH OTHER FOR THE FULL SCOPE OF WORK THEY ARE RESPONSIBLE FOR.
2. ADDITIONAL NOTES MAY BE PRESENT WITHIN THE CONTRACT DOCUMENTS INDICATING SPECIFIC EQUIPMENT PROVIDED BY OTHERS OR REQUIRE INSTALLATION BY SPECIFIC DIVISIONS.
3. INSTALLER PROVIDING THE SYSTEM CABLING SHALL PROVIDE THE CABLING, TERMINATION AND CERTIFICATION FOR A COMPLETE SYSTEM INSTALLATION. UNLESS OTHERWISE SPECIFICALLY NOTED WITHIN THE CONTRACT DOCUMENTS.
4. INSTALLER TO VERIFY WITH CONTRACT DOCUMENTS FOR THE CONNECTION TYPE (MALE OR FEMALE) REQUIRED FOR EACH SYSTEM.
5. REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

LEGEND

AC	ACCESS CONTROL CONTRACTOR
AV	AUDIOVISUAL CONTRACTOR
DC	DOOR HARDWARE CONTRACTOR
EC	ELECTRICAL CONTRACTOR
FR	FURNITURE CONTRACTOR
GC	GENERAL CONTRACTOR
IC	INTRUSION DETECTION CONTRACTOR
LVC	TELEPHONE/DATA CABLING CONTRACTOR
NIC	NOT IN CONTRACT
OWNER	OWNER
SC	VIDEO SURVEILLANCE CONTRACTOR SEE SPECIFICATIONS
SPEC	

DESCRIPTION	FURNISHED BY	INSTALLED BY
GENERAL		
EQUIPMENT POWER (120V, 208V, 240V, 277V, 480V)	EC	EC
ROUGH OR FINISHED TRIM, CASEWORK, MILLWORK, EQUIPMENT RACK PEDESTALS, STRUCTURAL WORK FOR SPECIAL CONSTRUCTION	GC	GC
STRUCTURAL BACKING AND SUPPORT FOR WALL MOUNTED EQUIPMENT	GC	GC
SUPPORT CABLES, PRE-CONSTRUCTION KITS, TILE BRIDGES AND/OR BACK BOXES FOR CEILING MOUNTED DEVICES.	EC	EC
ACCESS CONTROL SYSTEM		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, ETC.	EC	EC
CATEGORY CABLE / FIBER OPTIC CABLE	LVC	LVC
ACCESS CONTROL SERVER	AC	AC
DOOR CONTROLLERS	AC	AC
LOCK & ACCESS CONTROL POWER SUPPLIES	AC	AC
ELECTRIFIED LOCKING DOOR HARDWARE	DC	DC
ACCESS CONTROL SOFTWARE	AC	AC
NON-CATEGORY CABLE	AC	AC
DOOR CONTROLLER POWER SUPPLIES	AC	AC
NETWORK SWITCHES WITHIN THE ER(MDF)/TR(IDF) FOR ACCESS CONTROL AND/OR INTRUSION SYSTEMS	OWNER	OWNER
AUDIOVISUAL		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, FLAT PANEL DISPLAY BACK BOXES, ETC.	EC	EC
SPECIALTY BACK BOXES, TILE BRIDGES, SUPPORT CABLES, PRECONSTRUCTION KITS, ETC. FOR AUDIOVISUAL COMPONENTS (TOUCH PANELS, LOUDSPEAKERS, KEYPADS, ETC.)	AV	AV
CATEGORY CABLE / FIBER OPTIC CABLE FROM DEVICE LOCATION TO TR(MDF)/ER(IDF) TERMINATED IN PATCH PANEL	LVC	LVC
CATEGORY CABLING FROM DEVICE TO DEVICE, NOT TERMINTATED IN PATCH PANELS WITHIN THE ER(MDF/TR(IDF)	AV	AV
COAXIAL CABLE	LVC	LVC
LIGHTING CONTROL SYSTEM INTERFACE DEVICE(S) AND CABLING TO AV CONTROL SYSTEM. TERMINATION INTO AV SYSTEM CONTROLLER BY AV INSTALLER	EC	EC
MOTORIZED SHADE CONTROL SYSTEM INTERFACE DEVICE(S) AND CABLING TO AV CONTROL SYSTEM. TERMINATION INTO AV SYSTEM	AV	AV
TERMINATE CABLE (PATCH PANEL AND DATA PORT), INCLUDING TESTING	LVC	LVC
CUSTOM AUDIOVISUAL CONNECTOR INSERT PLATE FOR FLOOR BOXES AND/OR WALL PLATES	AV	AV
EQUIPMENT RACKS NOT WITHIN THE ER(MDF)/TR(IDF) FOR SYSTEM COMPONENTS	AV	AV
FURNITURE BOX TABLE CUTTING	GC	GC
FURNITURE BOXES WITH AUDIOVISUAL CONNECTIONS AND/OR CABLES	AV	AV
PROJECTOR SCREEN MANUAL AND/OR MOTORIZED HOUSING	AV	AV
PROJECTOR SCREEN MANUAL AND/OR MOTORIZED ROLLER	AV	AV
PROJECTOR SCREEN, FIXED FRAME (SIMILAR TO WHITEBOARD)	GC	GC
FLAT PANEL MONITOR MOUNTS	AV	AV
FLAT PANEL MONITORS	AV	AV
INSTRUCTOR'S LECTERNS/CONSOLES WITH INTEGRATED AUDIOVISUAL SYSTEMS COMPONENTS	AV	AV
INTERACTIVE FLAT PANEL MONITORS AND MOUNTS	OWNER	OWNER
NETWORK SWITCHES WITHIN THE ER(MDF)/TR(IDF) FOR AUDIOVISUAL NETWORK, AUDIO, CONTROL AND VIDEO	OWNER	OWNER
VIDEO PROJECTOR	AV	AV
VIDEO PROJECTOR MOUNTS	AV	AV
IP CAMERA & VIDEO SURVEILLANCE SYSTEM		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, ETC.	EC	SC
CATEGORY CABLE / FIBER OPTIC CABLE	LVC	LVC
POE DATA SWITCHES	OWNER	OWNER
EQUIPMENT RACKS WITHIN THE ER(MDF)/TR(IDF) FOR SYSTEM COMPONENTS	OWNER	OWNER
(NVR) NETWORK VIDEO RECORDER & STORAGE, (VMS) VIDEO MANAGEMENT SOFTWARE, ANALYTIC SOFTWARE LICENSES, & IP SURVEILLANCE CAMERA LICENSES	SC	SC
CAMERA ETHERNET EXTENDERS AND POE INJECTORS	SC	SC
TERMINATING & TESTING CATEGORY CABLES (PATCH PANEL & DATA PORT)	LVC	LVC
NETWORK CABLING SURGE SUPRESSION	SC	SC
IP SURVEILLANCE CAMERAS, MICRO SDXC MEMORY CARDS & SURVEILLANCE CAMERA MOUNTS	SC	SC
NETWORK SWITCHES WITHIN THE ER(MDF)/TR(IDF) FOR VIDEO SURVEILLANCE	OWNER	OWNER
TELEPHONE / DATA		
ROUGH-IN - CONDUIT W/PULL STRING, JUNCTION BOXES, FLOOR BOXES, FLAT PANEL DISPLAY BACK BOXES, ETC.	EC	EC
CATEGORY CABLE / FIBER OPTIC CABLE	LVC	LVC
PATCH CABLES FOR DEVICES WITHIN THE TR/ER FOR CONNECTION BETWEEN PATCH PANELS AND NETWORK SWITCHES	LVC	LVC
TERMINATE CABLE (PATCH PANEL AND DATA PORT), INCLUDING TESTING	OWNER	OWNER
CUSTOM TELECOMMUNICATIONS CONNECTOR INSERT PLATE FOR FLOOR BOXES AND/OR WALL PLATES	EC	EC
DATA SWITCHES, SERVERS, FIREWALL, ETC	OWNER	OWNER
EQUIPMENT RACKS WITHIN THE ER(MDF)/TR(IDF) FOR SYSTEM COMPONENTS	LVC	LVC
RACK MOUNT UPS, POWER DISTRIBUTION UNIT (PDU)	LVC	LVC
WIRELESS ACCESS POINTS	OWNER	OWNER

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ARCHITECT
No. 12419
JAMES BRENT GLASCOCK
STATE OF UTAH

Project
24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

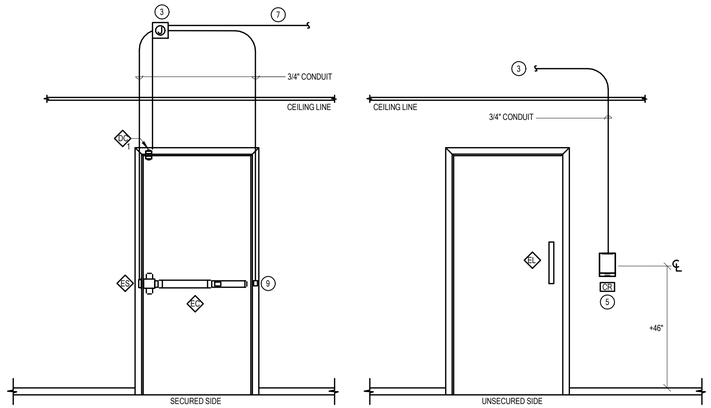
Date
03/05/2024

09E007

DIAGRAM KEYNOTES:

1. MOUNT ACCESS CONTROL DOOR CONTACT & INTRUSION DETECTION DOOR CONTACT 3-6" AWAY FROM LATCHING SIDE OF DOOR.
2. REFER TO DIV.8 SPECIFICATIONS FOR ADA EQUIPMENT TYPES, AND POWER SHEET PLANS FOR DEVICE LOCATIONS. PROVIDE 3/4" CONDUIT FROM ADA TO 4SQ J-BOX WITH COVER LOCATED IN ACCESSIBLE CEILING SPACE ON SECURE SIDE OF DOOR.
3. PROVIDE MANUFACTURER SUGGESTED J-BOX WITH 3/4" CONDUIT FROM ELECTRIFIED DOOR HARDWARE EQUIPMENT AND ANY OTHER INSTALLED END DEVICES TO 4SQ J-BOX W/ COVER LOCATED IN ACCESSIBLE CEILING SPACE ON SECURE SIDE OF DOOR.
4. PROVIDE HORIZONTAL SINGLE GANG J-BOX WITH 3/4" CONDUIT FOR REQUEST TO EXIT MOTION.
5. PROVIDE 4SQ J-BOX WITH VERTICAL SINGLE GANG MUD RING AND 3/4" CONDUIT FOR STANDARD SIZE CREDENTIAL CARD READER.
6. ROUTE DEVICE CABLING THROUGH DOOR FRAME OR MULLIONS. MOUNT DEVICES DIRECTLY TO THE DOOR FRAME OR MULLION WITHOUT J-BOX.
7. PROVIDE SPECIFIED J-HOOKS OR CONDUIT.
8. PROVIDE EXTERIOR CABLING QUICK-DISCONNECT AT THE TOP OF DOOR FRAME FOR ELECTRIC STRIKE(S) ON REMOVABLE MULLIONS.
9. ELECTRIC POWER TRANSFER HING / ELECTRIC HINGE / ELECTRIC POWER TRANSFER LOOP (SEE DIV.8 SPEC).

NOTE: DEVICES SHOWN ON THESE DIAGRAMS ARE NOT TO SCALE AND ANY/ALL MAY OR MAY NOT BE REQUIRED. DIAGRAM REPRESENTS TYPICAL ROUGH-IN AND DEVICE LOCATIONS. CONTRACTOR MUST REFER TO DIV. 8 SPECIFICATIONS FOR ELECTRIFIED DOOR EQUIPMENT TYPES AND THE SECURITY DRAWINGS FOR ACCESS CONTROL DEVICE LOCATIONS.



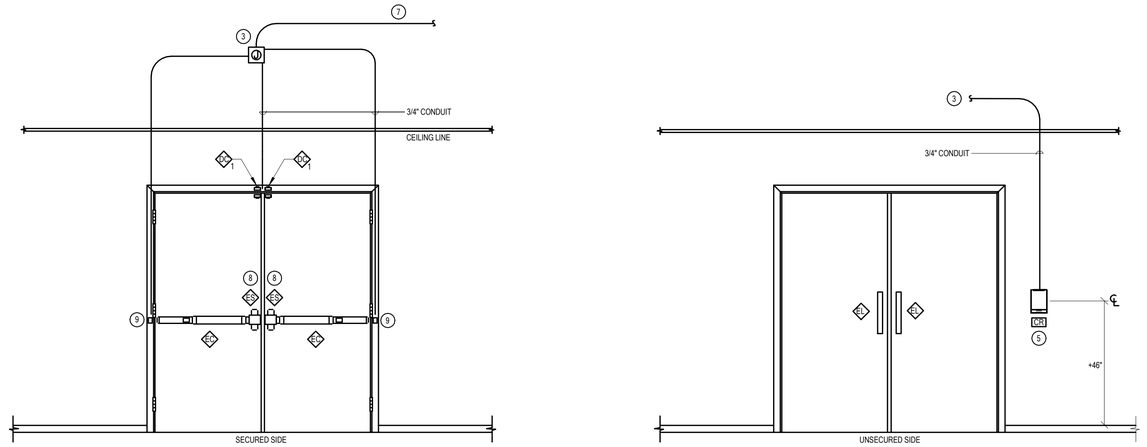


DIAGRAM EY101 TYPICAL ACCESS CONTROL & ELECTRIFIED DOOR HARDWARE DIAGRAMS
NTS

DIAGRAM NOTES:

1. CAMERAS SHOWN DIAGRAMMATICALLY ONLY.
2. REFER TO THE SECURITY PLANS FOR SURVEILLANCE CAMERA LOCATIONS.

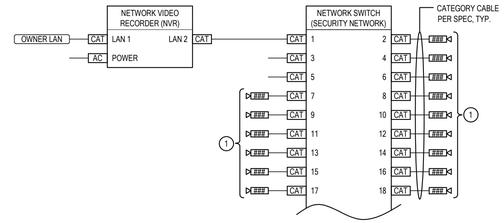


DIAGRAM EY001 TYPICAL VIDEO SURVEILLANCE SYSTEM - ONE LINE DIAGRAM
NTS

DIAGRAM NOTE:

1. DEVICES SHOWN DIAGRAMMATICALLY ONLY.
2. FROM THE ACCESS CONTROL HEAD-END PANEL(S) PROVIDE THESE CONDUITS:
   - 2" CONDUIT(S) UP TO ACCESSIBLE CEILING SPACE FOR THE ACCESS CONTROL CABLING.
   - 3/4" CONDUIT WITH SPECIFIED ELECTRICAL CABLE OVER TO DESIGNATED ELECTRICAL PANEL FOR POWER CIRCUIT.
   - 3/4" CONDUIT WITH SPECIFIED CATEGORY CABLE TO CABLE TRAY AND INTO ASSIGNED TELECOMMUNICATIONS EQUIPMENT RACK.
   - CONDUITS FILL RATIOS ARE NOT TO EXCEED 40%.

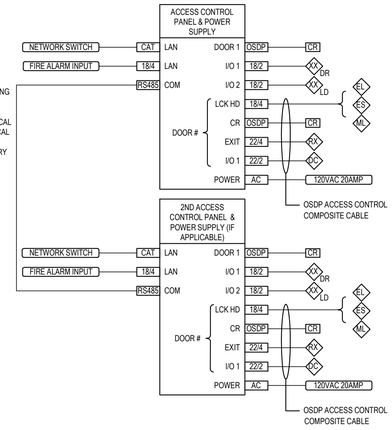


DIAGRAM EY002 TYPICAL ACCESS CONTROL - ONE LINE DIAGRAM
NTS

DIAGRAM NOTE:

1. PROVIDE A 3/4" CONDUIT FROM MANUFACTURER'S SUGGESTED J-BOX TO ACCESSIBLE CEILING SPACE. PROVIDE SPECIFIED CABLE RACEWAY TO ROUTE CABLING TO DESIGNATED EQUIPMENT RACK WITH CABLE SERVICE LOOPS ON EACH END.

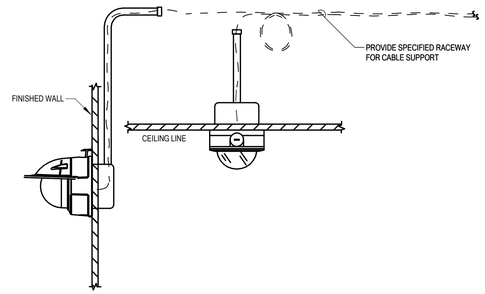


DIAGRAM EY401 TYPICAL SURVEILLANCE CAMERAS MOUNTING
NTS

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date
03/05/2024

09E008

PROJECT SPECIFICATIONS

DESCRIPTION OF WORK:

- PROVIDE THE SPECIFIED SYSTEM(S) IN A COMPLETE AND OPERATING CONDITION WITH ALL NECESSARY MATERIALS AND LABOR TO FULFILL THE REQUIREMENTS AND THE INTENT OF THE DESIGN DOCUMENTS. EXCEPT AS OTHERWISE INDICATED, PROVIDE MANUFACTURER'S STANDARD SYSTEM COMPONENTS. THE CONTRACTOR SHALL FURNISH ALL CABLES, MATERIALS, AND EQUIPMENT, WHETHER SPECIFICALLY MENTIONED HEREIN OR NOT, TO ENSURE A COMPLETE AND FUNCTIONAL SYSTEM.
  - INTEGRATE THE VIDEO SURVEILLANCE SYSTEM WITH THE ACCESS CONTROL SYSTEM TO ALLOW THEM TO ALL WORK AS A UNIFIED SYSTEM.
  - ANY REQUIREMENTS NOT UNDERSTOOD, OR PROPOSED DEVIANCES FROM THESE INSTALLATION GUIDELINES SHOULD BE DIRECTED TO AND APPROVED BY THE ARCHITECT, ENGINEER, AND THE OWNER.
  - CHANGES, ADJUSTMENTS, OR DEVIATIONS FROM THIS STANDARD BY THE CONTRACTOR THAT ARE NOT APPROVED IN WRITING BY THE ARCHITECT, ENGINEER, AND THE OWNER ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND MAY BE ORDERED CORRECTED AT ANY TIME BEFORE OR AFTER COMPLETION OF THE JOB.
  - THE FOLLOWING EQUIPMENT MAYBE REQUIRED, BUT NOT SPECIFICALLY MENTIONED. MOUNTING HARDWARE, LICENSES, NETWORK VIDEO RECORDER, POWER SUPPLIES, JACKS, INPUT PLATES, PATCH PANELS, POE SWITCHES, ROUTERS, NETWORK SWITCHES, EQUIPMENT RACKS, PATCH PANELS, CONNECTORS, MOBILE CLIENTS, SYSTEM INTEGRATION, PROTECTIVE ENCLOSURES, AND ALL WIRING THAT IS NORMALLY AND REASONABLY REQUIRED.
  - PRICES QUOTED OF THE INSTALLATION FACILITIES SHALL BE ALL-INCLUSIVE AND REPRESENT A COMPLETE INSTALLATION AT SUCH SITES AS PRESCRIBED IN THIS SPECIFICATION AND CONTRACT DOCUMENTS
- BIDDERS WISHING TO PROVIDE EQUIPMENT OTHER THAN THE EQUIPMENT SPECIFIED SHALL SUBMIT PROPOSED SUBSTITUTE EQUIPMENT TO THE CONSULTANT EIGHT (8) WORKING DAYS PRIOR TO BIDDING. SUBMITTALS FOR PRIOR APPROVAL SHALL INCLUDE DESCRIPTION OF EQUIPMENT, DESIGN INTENT, COMPLETE RISER DIAGRAMS FOR PROPOSED EQUIPMENT, EQUIPMENT SPECIFICATIONS, CUT SHEETS OF PROPOSED EQUIPMENT, REASON FOR ALTERNATE EQUIPMENT. CONSULTANT MAY REQUEST PHYSICAL EQUIPMENT TO TEST AND DEMO. ACCEPTANCE OF PROPOSED EQUIPMENT BY THE CONSULTANT SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY TO PROVIDE SYSTEMS EQUAL TO THOSE SPECIFIED IN THIS SECTION. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR PROVIDING A COMPLETE WORKING SYSTEM THAT FUNCTION, CONTROL AND OPERATE IN THE SAME MANNER AS THE SPECIFIED EQUIPMENT. THE CONSULTANT HAS FINAL SAY IF PROPOSED EQUIPMENT IS EQUAL TO THE SPECIFIED EQUIPMENT. EQUIPMENT THAT THE CONSULTANT IS NOT FAMILIAR WITH WILL REQUIRE THE CONTRACTOR TO PROVIDE MANUFACTURER TRAINING AT MANUFACTURER'S FACILITY AND HAVE A MANUFACTURER REPRESENTATIVE PRESENT AT TIME OF COMMISSIONING.
  - EQUIPMENT SUBMITTED IN BID PROPOSAL THAT HAS NOT BEEN APPROVED BY THE CONSULTANT IN WRITING WILL NOT BE ACCEPTED AND SHALL BE REPLACED BY APPROVED EQUIPMENT AT CONTRACTOR'S EXPENSE. EQUIPMENT NOT LISTED WITHIN THE CONTRACT DOCUMENTS, THAT ARE REQUIRED FOR A COMPLETE AND WORKING SYSTEM, SHALL BE OF PROFESSIONAL GRADE AND USED IN THE SAME MANNER AS NEEDED FOR A COMPLETE AND WORKING SYSTEM.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES FOR EQUIPMENT LOCATIONS, MOUNTING REQUIREMENTS, SUPPORTS AND PLENUM SPACE REQUIREMENTS.
- ALL CONTROL PROCESSORS AND CONTROLLERS ARE TO BE ON AN UNSWITCHED POWER CONNECTION.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES FOR EQUIPMENT LOCATIONS, MOUNTING REQUIREMENTS, SUPPORTS, AND PLENUM SPACE REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE SYSTEM TESTING AS DESCRIBED HEREIN USING UP-TO-DATE AND INDUSTRY ACCEPTED LEVEL IIIE TEST EQUIPMENT APPROPRIATE TO THE TYPES OF LINKS BEING TESTED AND IN ACCORDANCE WITH THE LATEST EDITION OF IEC 61935-1. ALL TESTERS USED SHALL BE FACTORY CALIBRATED WITHIN ONE YEAR OF USE WITH REFERENCES SET DAILY PRIOR TO TESTING.

ACRONYM DEFINITIONS:

• VMS: VIDEO MANAGEMENT SOFTWARE	NVR: NETWORK VIDEO RECORDER	IP: INTERNET PROTOCOL
• IR: INFRARED	WDR: WIDE DYNAMIC RANGE	IP RATING: WEATHER/ENVIRONMENT RATING
• IK RATING: VANDAL RESISTANT RATING	AD: ACTIVE DIRECTORY	UPS: UNINTERRUPTIBLE POWER SUPPLY
• POE: POWER OVER ETHERNET		

QUALITY ASSURANCE:

- MANUFACTURERS: FIRMS REGULARLY ENGAGED IN THE MANUFACTURE OF SECURITY SYSTEM EQUIPMENT AND COMPONENTS OF THE TYPES DESCRIBED HEREIN AND WHOSE PRODUCTS HAVE BEEN IN SATISFACTORY USE IN SIMILAR APPLICATIONS FOR NOT LESS THAN FIVE (5) YEARS.
- THE CONTRACTOR SHALL HAVE WORKED SATISFACTORILY FOR A MINIMUM OF FIVE (5) YEARS OF COMPLETING SYSTEMS EQUAL TO THIS SCOPE, QUALITY, TYPE, AND COMPLEXITY.
  - KEY PERSONNEL ASSIGNED TO THE PROJECT SHALL EACH HAVE A MINIMUM OF TEN (10) YEARS OF EXPERIENCE IN COMPLETING SYSTEMS EQUAL TO THIS SCOPE, QUALITY, TYPE, AND COMPLEXITY.
  - THE CONTRACTOR SHALL BE A FACTORY AUTHORIZED INSTALLER OF ALL EQUIPMENT SPECIFIED FOR THE GEOGRAPHICAL AREA OF THE PROJECT.
  - THE CONTRACTOR SHALL MAINTAIN COMPLETE INSTALLATION AND SERVICE FACILITIES FOR THE DURATION OF THE PROJECT CONTRACT.
  - THE CONTRACTOR SHALL HAVE CURRENT MANUFACTURER CERTIFICATIONS FOR ALL SYSTEMS AND EQUIPMENT LISTED WITHIN THE DOCUMENTS. FOR THE SCOPE OF WORK THEY ARE EXECUTING. CERTIFICATIONS MUST BE FROM THE LOCAL OFFICE PROVIDING THE INSTALLATION.
- ALL WORK SHALL BE DONE BY EXPERT TECHNICIANS QUALIFIED IN THE FIELD WITH KNOWLEDGE OF SPECIFIED SYSTEMS. WORKMANSHIP SHALL COMPLY WITH INDUSTRY BEST PRACTICES CONCERNING GROUNDING, SHIELDING, CABLE DRESSING, CABLE TERMINATION AND EQUIPMENT MOUNTING.
- ALL TECHNICIANS ARE REQUIRED TO HAVE PROPER STATE LICENSING TO PERFORM WORK WITHIN THIS SPECIFICATION.
- AV CONTRACTOR MUST FOLLOW THE STANDARDS DESCRIBED WITHIN:
  - BICSI/AVIXA AV DESIGN REFERENCE MANUAL.
  - ANSI/AVIXA 2M-2010 STANDARD GUIDE FOR AUDIOVISUAL SYSTEMS DESIGN AND COORDINATION PROCESSES.
  - ANSI/AVIXA 10:2013 AUDIOVISUAL SYSTEMS PERFORMANCE VERIFICATION GUIDE.
  - ALL WORK SHALL BE DONE BY EXPERT TECHNICIANS QUALIFIED IN THE FIELD WITH KNOWLEDGE OF SPECIFIED SYSTEMS. WORKMANSHIP SHALL COMPLY WITH INDUSTRY BEST PRACTICES CONCERNING GROUNDING, SHIELDING, CABLE DRESSING, CABLE TERMINATION AND EQUIPMENT MOUNTING.

SUBMITTALS:

- PROVIDE THE FOLLOWING ITEMS IN THE SHOP DRAWINGS SUBMITTAL:
  - PROJECT MANAGER TO PROVIDE WRITTEN PROOF, SIGNED AND DATED, THAT SHOP DRAWINGS AND/OR BROCHURE HAS BEEN CHECKED FOR ACCURACY PRIOR TO SUBMITTAL. SHOP DRAWINGS TO COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE CONTRACT DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
  - PROVIDE A COMPLETE BILL OF MATERIALS FOR ALL COMPONENTS, ACCESSORIES AND HARDWARE TO BE PROVIDED IN ORDER TO ASSEMBLE A COMPLETE AND WORKING SYSTEM AS DESCRIBED WITHIN THE CONTRACT DOCUMENTS.
  - SUBMIT MANUFACTURER'S DATA AND INSTALLATION DETAILS FOR ALL DEVICES, PLATES, CABLES AND SIMILAR EQUIPMENT. PRODUCT DATA SHOWING MULTIPLE OPTIONS, PRODUCTS AND/OR MODELS SHALL BE CLEARLY MARKED IDENTIFYING THE SPECIFIC OPTIONS, PRODUCTS AND/OR MODELS BEING PROVIDED.
  - SUBMIT DEVICE WIRING LAYOUTS FOR AUDIO, VIDEO, CONTROL, AND POWER.
  - SUBMIT EQUIPMENT RACK ELEVATION DIAGRAMS.
  - SUBMIT MATRIX ROUTING AND PRESET CONFIGURATION TABLES, AND DIGITAL SIGNAL PROCESSING CONFIGURATION DETAILS.
  - SUBMIT WIRELESS MICROPHONE TRANSMISSION FREQUENCIES.
  - SUBMIT ALL MANUFACTURER TRAINING, 3RD PARTY AND/OR ORGANIZATION CERTIFICATES FOR EACH EQUIPMENT AND/OR SYSTEMS REQUIRED FOR THE IMPLEMENTATION OF THIS SPECIFICATION.
  - ALL TOUCH PANEL LAYOUTS, PAGE LOGIC FUNCTIONS AND CONTROL SYSTEM FUNCTIONALITY, SHALL BE SUBMITTED AND APPROVED BY THE OWNER AND AV CONSULTANT PRIOR TO INSTALLATION AND PROGRAMMING OF THE CONTROL SYSTEMS. CONTRACTOR SHALL SUBMIT THE FOLLOWING INFORMATION AT THE FOLLOWING STAGES DURING THE CONSTRUCTION OF THE GUI.
  - PROVIDE SUBMITTAL FOR NON-CONTINUOUS CABLE SUPPORT DEVICES.
  - PROVIDE COLOR SAMPLES OF ALL AVAILABLE STANDARD COLOR FACEPLATES TO ARCHITECT.
  - PROVIDE PROPOSED LABELING SCHEME FOR APPROVAL BY OWNER/ENGINEER.
  - PROVIDE CATALOG CUTSHEETS OF ALL TEST EQUIPMENT THAT WILL BE USED.
  - PROVIDE RESULTS OF ALL COPPER CABLE TESTS.

AV WARRANTY:

- SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTIVE MATERIALS, INFERIOR WORKMANSHIP OR IMPROPER INSTALLATION ADJUSTMENT. GUARANTEE SHALL COVER ALL PARTS AND LABOR. CONTRACTOR SHALL SUPPLY (1) YEAR WARRANTY ON ALL SYSTEM PROGRAMMING FROM THE DATE OF SUBSTANTIAL COMPLETION. DURING THIS TIME PERIOD, UPON OWNER REQUEST, THE CONTRACTOR SHALL PROVIDE PROGRAMMING CHANGES UP TO FOUR (4) TIMES FREE OF CHARGE. DURING THIS TIME THE PROGRAMS SHALL BE PASSWORD PROTECTED. AT ANY TIME DURING THE (1) YEAR, THE OWNER CAN TERMINATE THE WARRANTY AND REQUEST THE PROGRAMMING OF EACH SYSTEM. AT THIS TIME THE PROGRAMS (UNCOMPILED SOURCE CODE) ARE TO BE TURNED OVER TO THE OWNER AND ALL PASSWORDS ARE TO BE REMOVED. THE OWNER SHALL OWN ALL RIGHTS TO THE PROGRAMMING AFTER THIS TIME, TO BE USED IN THIS FACILITY. PROVIDE THE OWNER WRITTEN PROOF THAT ALL OWNERSHIP HAS BEEN RELINQUISHED.
- IF SYSTEM FAILURE CAUSES AUDIOVISUAL SYSTEM TO BE INOPERATIVE OR UNUSABLE FOR ITS INTENDED PURPOSE, CONTRACTOR, WHEN NOTIFIED OF THE PROBLEM, SHALL REPAIR SYSTEM SO IT WILL BE OPERATIONAL AND USABLE WITHIN THREE (3) BUSINESS DAYS. IF DEFECTIVE COMPONENTS CANNOT BE REPAIRED IN TIME, PROVIDE TEMPORARY EQUIPMENT AS REQUIRED.
- CONTRACTOR SHALL HONOR EQUIPMENT WARRANTIES FOR TERMS ESTABLISHED BY MANUFACTURER IF GREATER THAN WARRANTY TIME FRAME MENTIONED ABOVE.

ACCESS CONTROL, INTRUSION DETECTION, AND VIDEO SURVEILLANCE WARRANTY:

- THE MINIMUM WARRANTY PERIOD SHALL BE THREE (3) YEARS, THE WARRANTY PERIOD WILL BEGIN WHEN THE SYSTEM COMPLETION DOCUMENTS ARE SUBMITTED TO THE OWNERS AND THE SYSTEM HAS SUCCESSFULLY PASSED ALL TESTS AND INSPECTIONS. INCLUDED IN THE COMPLETION DOCUMENTS WILL BE A WARRANTY AND SERVICE CONTACT FORM, THIS FORM WILL BE FILLED OUT BY THE BURGLAR ALARM CONTRACTOR, ALL NECESSARY CONTACT INFORMATION SHALL BE INCLUDED TO GUARANTEE A RESPONSE TO THE SYSTEM SITE WITHIN 24 HOURS OF THE REQUEST FOR SYSTEM SERVICE. ONLY QUALIFIED TECHNICIANS CAPABLE OF MAKING NEEDED REPAIRS AND/OR SYSTEM PROGRAMMING ARE ACCEPTED TO RESPOND FOR SERVICE.

STRUCTURED CABLING WARRANTY:

- REGISTER INSTALLATION WITH CABLE/CONNECTIVITY MANUFACTURER.
- PROVIDE AND SUBMIT ALL TEST RESULTS TO OWNER, ENGINEER, AND MANUFACTURER AND MEET ALL OTHER MANUFACTURER REQUIREMENTS IN ORDER TO PROVIDE MINIMUM 20 YEAR EXTENDED PRODUCT LINK WARRANTY FOR COMPLETE CABLING/CONNECTIVITY INSTALLATION, INCLUDING ALL COPPER UTILIZED ON THE ENTIRE CHANNEL. THE CHANNEL WARRANTY SHALL BE PROVIDED BY THE CONNECTIVITY MANUFACTURER. INCLUDE REPLACEMENT MATERIAL AND INSTALLATION FOR ANY DEFECTIVE PRODUCT.

APPLICABLE CODES AND STANDARDS

- CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PORTIONS OF THE NEC CODE AS TO TYPE OF PRODUCTS USED AND INSTALLATION OF COMPONENTS. ALL MATERIALS USED SHALL BE PRODUCTS AND MATERIALS THAT HAVE BEEN UL-LISTED AND LABELED. ALL INSTALLED PRODUCTS SHALL COMPLY WITH APPLICABLE NEMA STANDARDS FOR LOW LOSS EXTENDED FREQUENCY CABLE.
- IN ADDITION INSTALLATION SHALL ADHERE TO THE FOLLOWING STANDARDS:
  - ANSI/TIA-568-C.0 - GENERIC TELECOMMUNICATIONS CABLING FOR CUSTOMER PREMISES, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA-568-C.1 - COMMERCIAL BUILDING TELECOMMUNICATIONS CABLING STANDARDS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA-568-C.2 - BALANCE TWISTED PAIR COMMUNICATIONS AND COMPONENTS STANDARDS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA -942 -TELECOMMUNICATIONS INFRASTRUCTURE FOR DATA CENTERS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - TIA-569-B - COMMERCIAL BUILDING STANDARD FOR TELECOM PATHWAYS AND SPACES, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA-606-A - ADMINISTRATION STANDARD FOR THE TELECOMMUNICATIONS INFRASTRUCTURE OF COMMERCIAL BUILDINGS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI-J-STD-607-A - COMMERCIAL BUILDING GROUNDING/BONDING REQUIREMENTS, OR MOST RECENT EDITION AT THE TIME OF INSTALLATION
  - ANSI/TIA 1152 - TESTING OF COPPER LINKS
  - BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL, 12TH EDITION OR MOST RECENT EDITION AT THE TIME OF INSTALLATION.
  - TIA 758-A - CUSTOMER OWNED OUTSIDE PLANT TELECOMMUNICATIONS INFRASTRUCTURE STANDARD (2004), INCLUDING ALL APPLICABLE ADDENDA AND THE MOST RECENT REVISION AT THE TIME OF INSTALLATION.
  - BICSI INFORMATION TRANSPORT SYSTEMS INSTALLATION MANUAL - 5TH EDITION OR MOST RECENT EDITION AT THE TIME OF INSTALLATION.
  - ANSI/NFPA-70 - 2008 NATIONAL ELECTRICAL CODE, REVISION, OR MOST RECENT REVISION AT THE TIME OF INSTALLATION.
  - ANSI/IEEE C-2 - 2007 NATIONAL ELECTRICAL SAFETY CODE OR MOST RECENT REVISION AT THE TIME OF INSTALLATION.
- NOTE: ANYWHERE CABLING STANDARDS CONFLICT WITH ELECTRICAL OR SAFETY CODES, CONTRACTOR SHALL DEFER TO NEC AND ANY APPLICABLE LOCAL CODES OR ORDINANCES, OR DEFAULT TO THE MOST STRINGENT REQUIREMENTS LISTED BY EITHER. KNOWLEDGE AND EXECUTION OF APPLICABLE CODES IS THE SOLE RESPONSIBILITY OF THE INSTALLER. ANY CODE VIOLATIONS SHALL BE REMEDIED AT THE CONTRACTOR'S EXPENSE.

ACCEPTABLE MANUFACTURERS:

- GENERAL:
  - UNAPPROVED PRODUCT SUBSTITUTIONS ARE NOT ALLOWED. ALL UNAPPROVED SUBSTITUTIONS INSTALLED SHALL BE REMOVED BY CONTRACTOR WHO SHALL ASSUME ALL COSTS FOR REMOVAL AND REPLACEMENT WITH APPROVED PRODUCTS. SUCH COSTS SHALL INCLUDE, BUT NOT BE LIMITED TO LABOR, MATERIALS, AS WELL AS ANY PENALTIES OR FEES FOR LATE COMPLETION.
- APPROVED MANUFACTURERS:

ACCESS CONTROL SYSTEM:	VIDEO SURVEILLANCE SYSTEM:	AUDIOVISUAL SYSTEMS:	STRUCTURED CABLING:
OPEN	OPEN	AS INDICATED IN SCHEDULE	

ACCESS CONTROL, AND VIDEO SURVEILLANCE GENERAL PRODUCT REQUIREMENTS:

- ALL PRODUCTS SHALL BE IN NEW CONDITION AND UL LISTED.
- PROVIDE COMPLETE RACEWAY, OUTLET BOXES AND MISCELLANEOUS ITEMS. ALL CONDUIT UTILIZED SHALL BE EMT GRADE.
- COMMUNICATION GROUNDING AND BONDING SHALL BE CONSTRUCTED AND INSTALLED TO MEET OR EXCEED THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), IEC 1000-5-2 AND ANSI/J-STD--607-A THROUGHOUT THE ENTIRE GROUNDING SYSTEM.
- ALL TERMINATION HARDWARE SHALL BE RATED TO MEET CATEGORY 6 SPECIFICATIONS.
- EQUIPMENT LISTS ARE PROVIDED TO SET EQUIPMENT EXPECTATIONS AND MAY NOT BE COMPLETE. COORDINATE WITH DEVICES SHOWN ON DRAWINGS, SYSTEM RISERS AND EQUIPMENT LIST FOR SYSTEM INTENT. PROVIDE A COMPLETE AND FUNCTIONAL SYSTEM AS DESCRIBED WITHIN THE CONSTRUCTION DOCUMENTS.
- NETWORK VIDEO RECORDER (NVR):
  - SETUP MOTION MASKING ON ANY OUTSIDE TREES OR NON-CRITICAL AREAS. (VERIFY WITH OWNER OR CONSULTANT)
  - SET-UP ANY USER REQUIRED PRIVACY MASKING FOR PERSONAL AREAS INFORMATION SENSITIVE AREAS.
  - CONTRACTOR TO SET-UP VMS MAPPING FEATURE TO SHOW LOCATIONS OF CAMERAS.
  - CONTRACTOR SHALL SET UP DESIRED VIEWS AND LAYOUTS OF PER OWNERS' SPECIFICATIONS.
  - CAMERAS TO BE SET AT 15 FPS WHEN MOTION IS DETECTED AND RECORD 1 FPS CONTINUOUSLY.
  - ADJUST MOTION RECORDING AND COMPRESSION TO OPTIMIZE STORAGE.
  - CONTRACTOR TO ENSURE ALL SOFTWARE IS ON THE LATEST FIRMWARE AND VERSION OF VIDEO MANAGEMENT SOFTWARE.
  - INSTALL AND PROGRAM ANY SPECIFIED ANALYTICS AND OPTIMIZE FOR CAMERAS ENVIRONMENT.
  - NAME ALL CAMERAS AND VIEWS PER OWNER'S REQUIREMENTS.
  - NETWORK VIDEO RECORDER TO BE RACK MOUNT AND INSTALLED IN THE EQUIPMENT RACK LOCATED IN THE MECHANICAL ROOM.
  - THE RECORDING SERVER SHALL HAVE THE ABILITY TO ACCEPT THE FULL FRAME RATE SUPPLIED BY THE CAMERAS, WHILE RECORDING A LOWER FRAME RATE, YET STILL MAKE THE HIGHER FRAME RATE AVAILABLE TO THE CLIENTS FOR LIVE VIEWING.
  - THE COMPUTER AND NETWORKING EQUIPMENT MUST BE PROTECTED FROM POWER SPIKES AND BRIEF POWER FAILURES BY AN UNINTERRUPTED POWER SUPPLY (UPS). THE UPS SHALL PROVIDE APPROXIMATELY 15 MINUTES OF RUNTIME AT HALF LOAD AND SHOULD BE RACK MOUNTABLE.
  - CONTRACTOR IS TO PROGRAM THE SYSTEM AND TRAIN THE AUTHORIZED PERSONNEL HOW TO PERFORM ALL NECESSARY FUNCTIONS OF THE VIDEO SURVEILLANCE SYSTEM.

CONTROL AND AUXILIARY EQUIPMENT:

- INSTALL SECURITY SYSTEM AS INDICATED, IN ACCORDANCE WITH EQUIPMENT MANUFACTURERS WRITTEN INSTRUCTIONS, AND WITH RECOGNIZED INDUSTRY PRACTICES, TO ENSURE THAT SYSTEM EQUIPMENT COMPLIES WITH REQUIREMENTS. COMPLY WITH THE REQUIREMENTS OF NEC, AND APPLICABLE PORTIONS OF NECA'S "STANDARDS OF INSTALLATION" PRACTICES.
- COORDINATE ALL EQUIPMENT LOCATIONS AND MOUNTING DETAILS WITH OTHER TRADES AND SUPPLIERS.
- SYSTEM ENCLOSURES SHALL BE SURFACE MOUNTED 72" AFF TO THE TOP OFF ENCLOSURE AND INSTALLED ONLY AFTER ALL WALLBOARD AND PAINTING WORK IS COMPLETE. ALL WIRING SHALL ENTER SYSTEM ENCLOSURES THROUGH MINIMUM 1 ¼" NIPPLE LOCATED ON THE TOP FAR RIGHT-HAND SIDE OF THE ENCLOSURE. PLASTIC BUSHINGS ARE REQUIRED ON ALL NIPPLES.
- PROVIDE A MINIMUM OF ONE DUPLEX RECEPTACLE ON DEDICATED EMERGENCY POWERED CIRCUIT ADJACENT TO EACH TERMINAL BACKBOARD OR CABINET.
- MOUNTING: COORDINATE & VERIFY EACH DEVICE MOUNTING WITH THE OWNER(S). MOUNT SECURITY DEVICES A MINIMUM OF 3 FEET FROM HEAT OR AIR MOVEMENT SOURCES.
- GROUNDING: PROVIDE GROUNDING CONNECTIONS SUFFICIENTLY TIGHT TO ASSURE PERMANENT AND EFFECTIVE GROUND.
- TESTING: UPON COMPLETION OF INSTALLATION OF SYSTEM AND AFTER ENERGIZED, DEMONSTRATE SYSTEM COMPLIANCE WITH INTENT.

GENERAL INSTALLATION REQUIREMENTS:

- PRIOR TO PATHWAY ROUGH-IN, LOW VOLTAGE CONTRACTOR SHALL MEET WITH ELECTRICAL CONTRACTOR TO REVIEW PATHWAY INSTALLATION REQUIREMENTS.
- PATHWAY REQUIREMENTS:
  - GENERAL:
    - ALL PATHWAYS SHALL BE DESIGNED, CONSTRUCTED, GROUNDED AND INSTALLED IN ACCORDANCE WITH ALL RECOMMENDATIONS DELINEATED WITHIN TIA 569-B AND STANDARD TIA 942.
    - PRIOR TO PLACING ANY CABLE PATHWAYS OR CABLE, THE CONTRACTOR SHALL SURVEY THE SITE TO DETERMINE JOB CONDITIONS WILL NOT IMPOSE ANY OBSTRUCTIONS THAT WOULD INTERFERE WITH THE SAFE AND SATISFACTORY PLACEMENT OF THE CABLES. ARRANGEMENTS TO REMOVE ANY MAJOR OBSTRUCTIONS NOT IDENTIFIED ON PLANS NEED TO BE DETERMINED AT THAT TIME WITH THE ENGINEER.
    - PAINT ALL ELECTRICAL BOXES AND THEIR COVERS FOR THE TELEPHONE AND DATA SYSTEM BLACK.
  - CONDUIT REQUIREMENTS (WHEN IDENTIFIED)
    - WITH NO SINGLE BEND GREATER THAN 90 DEGREES OR AN AGGREGATE OF BENDS IN EXCESS OF 180 DEGREES BETWEEN PULL POINTS OR PULL BOXES.
    - PROVIDE LARGE RADIUS ELBOWS ON ALL BENDS. CONDUIT RUNS SHALL NOT HAVE CONTINUOUS SECTIONS LONGER THAN 100 FEET WITHOUT A PULL BOX. REFER TO ROUGH-IN SCHEDULE FOR CONDUIT FILL CAPACITY.
    - AFTER INSTALLATION, CONDUITS SHALL BE CLEAN, DRY, UNOBSTRUCTED, CAPPED FOR PROTECTION, LABELED FOR IDENTIFICATION, REAMED AND FITTED WITH BUSHINGS.
    - 200LB PULL CORD (NYLON, 1/8" MINIMUM) SHALL BE INSTALLED IN ANY AND ALL EMPTY CONDUIT.
  - OPEN TOP CABLE SUPPORT REQUIREMENTS:
    - NON-CONTINUOUS CABLE SUPPORTS SHALL PROVIDE A BEARING SURFACE OF SUFFICIENT WIDTH TO COMPLY WITH REQUIRED BEND RADII OF HIGH-PERFORMANCE CABLES AND SHALL HAVE FLARED EDGES TO PREVENT DAMAGE WHILE INSTALLING CABLES.
  - PULL BOX REQUIREMENTS:
    - NEC SIZED PULL BOXES ARE NOT ACCEPTABLE. FOLLOW BICSI AND EIA/TIA 569-B GUIDELINES FOR PULL BOX SIZING.
    - PROVIDE PULL BOXES IN SECTIONS OF CONDUIT THAT ARE 100 FEET OR LONGER, CONTAIN MORE THAN TWO 90 DEGREE BENDS, OR CONTAIN A REVERSE BEND.
    - PULL BOXES SHALL HAVE A LENGTH 12 TIMES THE DIAMETER OF THE LARGEST CONDUIT.
    - ALL PULL BOXES MUST BE ACCESSIBLE.
- CABLING SYSTEM:
  - ACHIEVE THE BEST DIRECT ROUTE PARALLEL WITH BUILDING LINES.
  - SHALL NOT BE ROUTED OVER OR ADJACENT TO HEAT SOURCES SUCH AS BOILERS, HOT WATER LINES, OR STEAM LINES. NEITHER SHALL THEY BE ROUTED NEAR LARGE MOTORS, GENERATORS, PHOTOCOPY EQUIPMENT, OR ELECTRICAL POWER CABLING AND TRANSFORMERS.
  - REFER TO CABLE SEPERATION SCHEDULE FOR DISTANCE GUIDELINES.
  - FOLLOW T568B SCHEME FOR COPPER CABLING TERMINATIONS.
  - PROVIDE A MINIMUM OF ONE BALANCED TWISTED PAIR CABLE TO EACH DATA OUTLET SHOWN ON THE DRAWINGS UNLESS NOTED OTHERWISE ON THE DRAWINGS.
  - PROVIDE A MINIMUM 6" SERVICE LOOP IN EACH SYSTEM JUNCTION BOX. CABLES SHALL BE COILED IN THE IN-WALL BOXES IF ADEQUATE SPACE IS PRESENT TO HOUSE THE CABLE COIL WITHOUT EXCEEDING MANUFACTURERS BEND RADIUS.
  - PROVIDE A MINIMUM 10' SERVICE LOOP IN THE EQUIPMENT RACK ROOM.
  - PROVIDE MODULAR JACKS FOR EACH INSTALLED CABLE AT OUTLETS SHOWN ON DRAWINGS. BLANK OFF ALL UNUSED PORTS ON FACEPLATE.
  - PROVIDE VELCRO TYPE TIES FOR ALL CABLES AND INSTALL IN A NEAT AND WORKMANLIKE MANNER. WHERE APPLICABLE, USE PLENUM RATED VELCRO.
  - ALL HORIZONTAL CABLES, REGARDLESS OF MEDIA TYPE, SHALL NOT EXCEED 90 M (295 FT) FROM THE TELECOMMUNICATIONS OUTLETS TO THE HORIZONTAL CROSS CONNECT.
  - THE COMBINED LENGTH OF ALL PATCH CORDS IN A RUN SHALL NOT EXCEED 10M (33 FT)
  - NO SPLICES ARE ALLOWED.
  - PAIR UNTWIST AT THE TERMINATION SHALL NOT EXCEED 0.125". THE CABLE JACKET SHALL BE MAINTAINED AS CLOSE AS POSSIBLE TO THE TERMINATION POINT.
  - CABLES SHALL BE NEATLY BUNDLED AND DRESSED TO THEIR RESPECTIVE PANELS OR BLOCKS. EACH PANEL OR BLOCK SHALL BE FED BY AN INDIVIDUAL BUNDLE SEPARATED AND DRESSED BACK TO THE POINT OF CABLE ENTRANCE INTO THE RACK OR FRAME.
  - CABLE SHALL NOT BE DRAPED ON, TIED OR OTHERWISE SECURED TO ELECTRICAL CONDUIT, PLUMBING, VENTILATION DUCTWORK OR ANY OTHER EQUIPMENT. CABLE SHALL BE SECURED TO BUILDING SUPPORTS OR HANGERS OR TO ADDITIONAL BLOCKS OR ANCHORS SPECIFICALLY INSTALLED FOR THIS PURPOSE.
  - GROUP MULTIPLE CABLING TOGETHER WITH EXPANDABLE NYLON LOOM, SIMILAR TO TECHFLEX - FLEXO, WHEN CABLING EXISTS A CAVITY AND CONNECTS TO A DEVICE. CABLING WITHIN A LECTERN, PODIUM OR MILLWORK SHALL ALSO BE LOOMED WITH EXPANDABLE NYLON SLEEVE.
- ELECTROMAGNETIC COMPATIBILITY:
  - GENERAL:
    - WHERE TELECOMMUNICATION CABLE IS INSTALLED IN GROUNDED, METALLIC CONDUIT NEAR POWER CABLES, THE POWER CABLES SHALL BE KEPT PHYSICALLY SEPARATED FROM TELECOMMUNICATIONS CABLES:
      - CIRCUITS UNDER 5KVA: 2" MINIMUM SEPARATION.
    - MISCELLANEOUS EQUIPMENT:
      - ARRANGE ALL TERMINAL BLOCKS IN A MANNER THAT ALLOWS NATURAL WIRING PROGRESSION AND MINIMIZES CROSSING OF WIRES.
      - PROVIDE PATCH CORDS AND CROSS CONNECT CABLES AS NECESSARY FOR A COMPLETE OPERATIONAL TELEPHONE AND DATA NETWORK SYSTEM. CONSULT WITH OWNER TO DETERMINE ANY SPECIAL NEEDS SUCH AS DEDICATED PHONE LINES.
  - GROUNDING SYSTEM: ALL GROUNDING AND BONDING SHALL BE DONE ACCORDING TO ANSI J-STD-607-A, TIA 942, AND NEC. ALL CABINETS/RACKS SHALL UTILIZE PAINT PIERCING GROUNDING WASHERS, TO BE USED WHERE RACK SECTIONS BOLT TOGETHER, ON BOTH SIDES, UNDER THE HEAD OF THE BOLT AND BETWEEN THE NUT AND RACK. ALL RACKS SHALL FURTHER UTILIZE A FULL-LENGTH RACK GROUND STRIP ATTACHED TO THE REAR OF THE SIDE RAIL WITH THE THREAD-FORMING SCREWS PROVIDED TO ENSURE METAL-TO-METAL CONTACT. SIMILAR TO PANDUIT RGS. ALL ACTIVE EQUIPMENT SHALL BE BONDED TO GROUND. IF THE EQUIPMENT MANUFACTURER PROVIDES A LOCATION FOR MOUNTING A GROUNDING CONNECTION, THAT CONNECTION SHALL BE UTILIZED. ALL ACTIVE EQUIPMENT SHALL BE BONDED USING THE APPROPRIATE JUMPER FOR THE EQUIPMENT BEING INSTALLED USING THE THREAD-FORMING SCREWS. SIMILAR TO PANDUIT RG. RACKS SHALL HAVE INDIVIDUAL, APPROPRIATELY SIZED CONDUCTORS BONDED TO THE GROUNDING BACKBONE. DO NOT BOND RACKS OR CABINETS SERIALLY - DAISY-CHAINED RACK GROUNDS WILL NOT BE ACCEPTED. REFER TO ELECTRICAL DIAGRAMS FOR ADDITIONAL GROUND CONNECTION REQUIREMENTS.
- LABELING: THE CONTRACTOR SHALL DEVELOP AND SUBMIT FOR APPROVAL A LABELING SYSTEM FOR THE CABLE INSTALLATION. COORDINATE WITH THE OWNER AND NEGOTIATE AN APPROPRIATE LABELING SCHEME WITH THE CONTRACTOR. AT A MINIMUM, THE LABELING SYSTEM SHALL CLEARLY IDENTIFY ALL COMPONENTS OF THE SYSTEM: RACKS, CABLES, PANELS, AND WALL PLATES. THE LABELING SYSTEM SHALL DESIGNATE THE CABLES' ORIGIN AND DESTINATION AND A UNIQUE IDENTIFIER FOR THE CABLE WITHIN THE SYSTEM. ALL LABELING INFORMATION SHALL BE RECORDED ON THE AS-BUILT DRAWINGS AND ALL TEST DOCUMENTS SHALL REFLECT THE APPROPRIATE LABELING SCHEME.
  - ALL LABELS SHALL MEET UL 969 REQUIREMENTS FOR LEGIBILITY, DEFACEMENT, AND ADHESION REQUIREMENTS. HANDWRITTEN LABELS ARE NOT ALLOWED. ALL LABELS SHALL MAINTAIN CONSISTENT TYPEFACE, SIZE, AND COLOR.
- PROVIDE LAMINATED PLANS (MINIMUM SIZE 11X17) OF ALL AV AS-BUILT PLANS (INCLUDING RISER DIAGRAMS) IN EACH AND EVERY AV RACK.

INSTALLATION OF IP VIDEO / CAMERA SURVEILLANCE SYSTEMS:

- INSTALL ALL IP CAMERAS AT LOCATIONS SHOWN ON DRAWINGS AND AFTER CONDUCTING A WALK-THROUGH WITH THE OWNER TO VERIFY EXACT LOCATIONS. INSTALL NVR AND ALL POWER EQUIPMENT TO PROVIDE A FULLY FUNCTIONAL SYSTEM.
- CONTRACTOR SHALL CONFIGURE CAMERA FRAME RATES, RESOLUTIONS, AND IP ADDRESSING OF CAMERAS.
- CONTRACTOR SHALL VERIFY ALL MOUNTING HEIGHTS/LOCATIONS TO ENSURE IDEAL VIEWS FOR EACH CAMERA. TYPICAL MOUNTING HEIGHT TO BE 9-12' UNLESS NOTED IN PLANS.

INSTALLATION OF AV SYSTEMS:

- PROVIDE AV SYSTEMS AND ANCILLARY EQUIPMENT AS INDICATED ON DRAWINGS AND IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S WRITTEN INSTRUCTIONS, THE NEC, AND WITH INDUSTRY BEST PRACTICES. COORDINATE ALL WORK PERFORMED BY OTHER CONTRACTORS PERTAINING TO THE AV SYSTEM, INCLUDING RACEWAYS, ELECTRICAL BOXES AND FITTINGS.
- GENERAL PATHWAY REQUIREMENTS: ALL PATHWAYS SHALL BE DESIGNED, CONSTRUCTED, GROUNDED AND INSTALLED IN ACCORDANCE WITH ALL RECOMMENDATIONS DELINEATED WITHIN TIA 569-B AND STANDARD TIA 942. PRIOR TO PLACING ANY CABLE PATHWAYS OR CABLE, THE CONTRACTOR SHALL SURVEY THE SITE TO DETERMINE JOB CONDITIONS WILL NOT IMPOSE ANY OBSTRUCTIONS THAT WOULD INTERFERE WITH THE SAFE AND SATISFACTORY PLACEMENT OF THE CABLES. ARRANGEMENTS TO REMOVE ANY MAJOR OBSTRUCTIONS NOT IDENTIFIED ON PLANS NEED TO BE DETERMINED AT THAT TIME WITH THE ENGINEER.
- FIRMLY SECURE ALL EQUIPMENT IN PLACE THAT IS NOT INTENDED FOR PORTABILITY. MOUNT PROJECTORS PERMANENTLY AND PROVIDE MECHANICAL INDEX ENSURING PRECISE ALIGNMENT OF THE PROJECTED IMAGE. PROVIDE ADEQUATE STRUCTURAL SUPPORT FOR AV SYSTEM COMPONENTS. PROVIDE FASTENINGS AND SUPPORTS WITH A SAFETY LOAD FACTOR OF AT LEAST FIVE.

ACCESS CONTROL AND VIDEO SURVEILLANCE SYSTEM CONFIGURATION & PROGRAMMING:

- CONFIGURE THE SYSTEM FOR FULL OPERATION. INCLUDE THE OWNER IN THE PROCESS AS MUCH AS FEASIBLE TO UNDERSTAND THEIR INTENDED OPERATION AND ENSURE FULL TRANSFER OF OPERATIONS TO THEM.
- PROVIDE A FULLY COMMISSIONED SYSTEM TO ENSURE THE ENTIRE SYSTEM IS OPERATING AS INTENDED AND IN ACCORDANCE WITH OWNER POLICY.
- THE CONTRACTOR SHALL INCLUDE THE NECESSARY PROGRAMMING TO TIE INTO ANY ACCESS CONTROL SYSTEMS, BASED UPON THE REQUIREMENTS AND DIRECTION OF THE OWNER.

TELECOMMUNICATION CABLE LABELING REQUIREMENTS:

- IDENTIFY CABLES AT EACH END WITH A PERMANENT LABEL OR PHYSICAL/ELECTRONIC TAG.
  - THE SAME ALPHANUMERIC IDENTIFIERS SHOULD BE USED AT BOTH ENDS OF THE CABLE.
  - IDENTIFY CABLES AT REGULAR INTERVALS THROUGHOUT AND WHEREVER THEY ARE ACCESSIBLE.
  - CABLES SHALL BE IDENTIFIED IN ACCORDANCE WITH ANSI/TIA/EIA-606-A. THE CABLE LABEL SHALL BE APPLIED TO THE CABLE BEHIND THE FACEPLATE THAT CAN BE ACCESSED BY REMOVING THE COVER PLATE AND TO THE CABLE BEHIND THE PATCH PANEL ON A SECTION OF CABLE THAT CAN BE VIEWED WITHOUT REMOVING THE BUNDLE SUPPORT TIES. CABLES LABELED WITHIN THE BUNDLE WHERE THE LABEL IS OBSCURED FROM VIEW SHALL NOT BE ACCEPTABLE.

CONNECTING HARDWARE LABELING REQUIREMENTS:

- IDENTIFY CONNECTING HARDWARE ITEMS (TERMINATION BLOCKS, CROSS-CONNECTS, RACKS, CABINETS, PATCH PANELS, TELECOMMUNICATIONS OUTLET/CONNECTORS, PORTS) USING ALPHANUMERIC IDENTIFICATION SUCH AS THE FOLLOWING THREE-LEVEL SCHEME:
  - FIRST LEVEL–TERMINATION FIELD OR PATCH PANEL. COLOR-CODING OR OTHER LABELING SHOULD BE USED TO UNIQUELY IDENTIFY EACH TERMINATION FIELD (E.G., VOICE AND DATA) ON A COMMON MECHANICAL ASSEMBLY.
  - SECOND LEVEL–TERMINAL BLOCK WITHIN A GIVEN FIELD OR PATCH PANEL, THAT COULD BE A ROW OF INSULATION DISPLACEMENT CONNECTORS (IDCS), OPTICAL FIBER CONNECTORS, OR MODULAR JACKS.
  - THIRD LEVEL–DEFINES THE INDIVIDUAL POSITION WITHIN A GIVEN TERMINAL BLOCK OR PATCH PANEL.

CYBER SECURITY USERNAMES & PASSWORDS:

- CONTRACTOR SHALL CHANGE ALL DEFAULT USERNAMES AND PASSWORDS FOR ALL NETWORK DEVICES PROVIDED. A STRONG PASSWORD **SHOULD -**
  - BE AT LEAST 8 CHARACTERS IN LENGTH
  - CONTAIN BOTH UPPER AND LOWERCASE ALPHABETIC CHARACTERS (E.G., A-Z, A-Z)
  - HAVE AT LEAST ONE NUMERICAL CHARACTER (E.G., 0-9)
  - HAVE AT LEAST ONE SPECIAL CHARACTER (E.G., ~!@#$%^&*()_-+=)
- NO WRITTEN USERNAME OR PASSWORDS SHALL BE LOCATED IN ANY AREA OF INSTALLATION.
- NETWORK DEVICES TO BE SET UP ON A SEPARATE NETWORK OTHER THAN THE OWNER'S LAN ENSURING NO INTERNAL OR EXTERNAL USERS CAN ACCESS THE SYSTEM WITHOUT AUTHORIZATION.
- FOLLOW MANUFACTURERS HARDENING GUIDE AND USE BEST INDUSTRY PRACTICES TO SECURE NETWORK AND DEVICES PROVIDED BY CONTRACTOR AND ASSOCIATED WITH SYSTEM.
- NO EQUIPMENT IN THIS SPECIFICATION SHALL CONTAIN HUAWEI / HISILICON CHIPS OR ANY OTHER EQUIPMENT DEEMED A CYBER SECURITY RISK ON THE OWNERS' NETWORK.

STRUCTURED CABLING TESTING:

- GENERAL
  - PROVIDE TESTING WITHIN 10 DAYS OF COMPLETION FOR ALL COPPER AND FIBER OPTIC CABLE ACCORDING TO TIA/EIA STANDARDS AND ANY OTHER REQUIREMENTS OF THE MANUFACTURER WHO WILL PROVIDE WARRANTY.
  - SUBMIT COPY OF CURRENT CALIBRATION OF ALL TESTING EQUIPMENT. SUBMIT ALL TEST REPORTS ELECTRONICALLY TO ARCHITECT/ENGINEER AND INCLUDE IN O&M MANUALS TO INCLUDE TEST REPORTS. METER SHALL BE HAVE BEEN CALIBRATED WITHIN THE PAST 12 MONTHS.
  - CORRECT ANY MALFUNCTIONS. CONTRACTOR SHALL RE-TERMINATE/REPLACE ANY CABLE, CONNECTION, OR EQUIPMENT FOUND TO BE DEFECTIVE OR NON-COMPLIANT WITH THESE SPECIFICATIONS AND REFERENCED STANDARDS.
  - INVITE OWNER IT REPRESENTATIVE AND ENGINEER TO WITNESS AND/OR REVIEW FIELD TESTING. NOTIFY FIVE BUSINESS DAYS PRIOR TO COMMENCING TESTING.
- COPPER CABLE
  - UTILIZE LEVEL IIIE TESTER TO TEST ALL EQUIPMENT AND EACH OUTLET, HORIZONTAL CABLE, TERMINATION BLOCK, PATCH CORDS, ETC. TO VERIFY COMPLIANCE WITH REQUIREMENTS. TESTING SHALL CONSIST OF INDUSTRY ACCEPTED VERIFICATION TESTS FOR THE CATEGORY OF CABLE INSTALLED AND SHALL MEET LATEST REQUIREMENTS OF EIA/TIA CABLING STANDARDS.
  - UTP CABLE AND LINKS: ALL UTP CABLING CHANNEL MUST BE TESTED AT SWEPT FREQUENCIES UP TO 250MHZ FOR INTERNAL CHANNEL PERFORMANCE PARAMETERS AS DEFINED IN IEEE 802.3AN AND ANSI/TIA/EIA-568C. CERTIFICATIONS SHALL INCLUDE THE FOLLOWING PARAMETERS FOR EACH PAIR OF EACH CABLE INSTALLED:

WIRE MAP (PIN TO PIN CONNECTIVITY)	LENGTH
INSERTION LOSS	NEAR END CROSSTALK (NEXT)
ATTENUATION TO CROSSTALK RATIO FAR END (ACRF)	RETURN LOSS
PROPAGATION DELAY	DELAY SKEW
DC LOOP RESISTANCE	DC RESISTANCE UNBALANCE
POWER SUM NEAR-END CROSSTALK (PS-NEXT)	ATTENUATION TO CROSSTALK RATIO NEAR-END (ACR-N)
POWER SUM ATTENUATION TO CROSSTALK RATIO NEAR-END (PS-ACR-N)	ATTENUATION TO CROSSTALK RATIO FAR-END (ACR-F)
POWER SUM ATTENUATION TO CROSSTALK RATIO FAR-END (PS-ACR-F)	TRANSVERSE CONVERSION LOSS (TCL)
EQUAL LEVEL TRANSVERSE CONVERSION TRANSFER LOSS (ELTCTL)	

  - ALL CHANNELS THAT FAIL TESTING PARAMETERS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNTIL ALL CHANNELS PASS THE PERFORMANCE PARAMETERS.
  - OWNER RESERVES THE RIGHT TO HIRE AN INDEPENDENT TESTING COMPANY TO SPOT CHECK THE TEST RESULTS. IF THE RESULTS VARY MORE THAN 10% FROM THE RESULTS PROVIDED BY THE CONTRACTOR, THE CONTRACTOR WILL BE REQUIRED TO PROVE HIS RESULTS ARE CORRECT OR RETEST THE ENTIRE SYSTEM.

OPERATING AND MAINTENANCE MANUALS:

- OPERATING AND MAINTENANCE MANUALS SHALL BE SUBMITTED PRIOR TO TESTING OF SYSTEM. PROVIDE A DIGITAL COPY IN PDF FORMAT WITH BOOK MARKS FOR EACH SECTION AND PIECES OF EQUIPMENT. MANUALS SHALL INCLUDE ALL MODEL NUMBERS, SERVICE, INSTALLATION, AND PROGRAMMING INFORMATION. INCLUDE ALL THE FOLLOWING INFORMATION:
  - WARRANTY
  - NETWORK SETTINGS
  - RISER DIAGRAMS FROM SHOP DRAWINGS
  - TRAINING VIDEOS
  - USB FLASH DRIVE WITH PROGRAMING SOURCE CODE AND SOFTWARE EDITING PROGRAMS

TRAINING:

- PROVIDE TWO (2) SESSIONS OF TWO (2) HOURS EACH OF TRAINING ON THE OPERATION OF EACH SYSTEM, AT JOB SITE, AT NO COST TO OWNER. SYSTEMS SHALL BE COMPLETE AND HAVE BEEN FINALIZED BY THE AV CONSULTANT PRIOR TO TRAINING. TRAINING SHALL BE RECORDED USING A VIDEO RECORDING DEVICE THAT SUPPORT A MINIMUM RESOLUTION OF 1080P/60 WITH AN INTEGRATED MICROPHONE CONNECTION FOR AN EXTERNAL MICROPHONE AND A CAMERA TRI-POD MOUNT. PRESENTER SHALL BE WEARING A LAPEL MICROPHONE THAT CONNECTS TO THE RECORDING DEVICE AND A TRI-POD SHALL BE USED FOR STABILIZING THE RECORDING DEVICE. RECORDINGS THAT ARE SHAKY, POOR AUDIO AND/OR VIDEO QUALITY, INCOMPLETE, OR OTHER ISSUES WILL NOT BE ACCEPTED AND THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A NEW RECORDING AND TRAINING WITHIN FIVE (5) BUSINESS DAYS OF NOTIFICATION. PROVIDE A DIGITAL COPY TO THE OWNER AND AV CONSULTANT. IF DIGITAL COPY IS SENT IN A LINK, THE LINK CANNOT HAVE AN EXPIRATION DATE AND WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN. LINKS SHALL BE INCLUDED IN THE OPERATING AND MAINTENANCE MANUALS IN THE FIRST SECTION.

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ENGINEER No. 12419550 GOPICHAND POLIVARTHI STATE OF UTAH

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Project 24-001

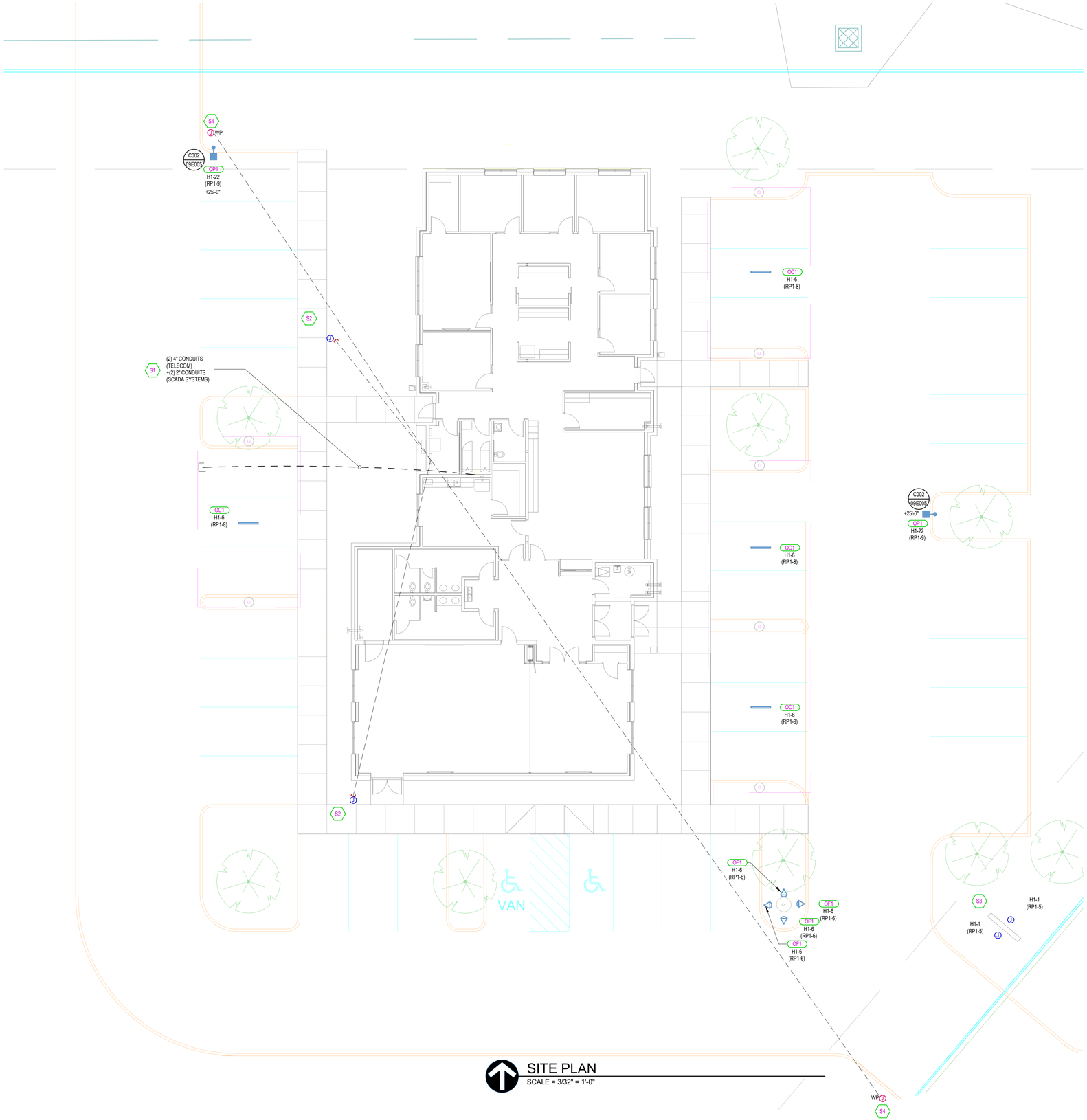
Revisions 1 2 3 4 5 6 7 8 9 10 11 12 13 14

Date 03/05/2024

09E009

SHEET KEYNOTES

S1	CONDUITS TO BE STUBBED 5' OUTSIDE THE BUILDING AND TO BE CONNECTED TO CONDUITS FROM MAIN PLANT SYSTEM BY OTHERS. COORDINATE ON SITE WITH SITE CONTRACTOR.
S2	PROVIDE (1) 2" CONDUIT WITH PULL STRING FROM PANEL L1 IN ELECTRICAL ROOM TO THIS APPROXIMATE LOCATION FOR FUTURE DUAL EV CHARGING STATION. CAP PVC CONDUIT 6" BELOW LANDSCAPE SURFACE AND CENTER BETWEEN TWO PARKING SPACES.
S3	POWER FOR SIGNAGE LIGHTING ON BOTH SIDES OF SIGNAGE. COORDINATE WITH PYLONG SIGN INSTALLER.
S4	PROVIDE 1.5" CONDUIT WITH PULL STRING FROM PANEL L1 TO SLIDING GATE MOTOR. WIRING AND FINAL TERMINATIONS WILL BE BY SITE SUB-CONTRACTOR. SITE SUB-CONTRACTOR TO COORDIANTE WITH BUILDING ELECTRICAL CONTRACTOR.



SITE PLAN
SCALE = 3/32" = 1'-0"

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ENGINEER
No. 12419501
JAMES B. GLASCOCK
REGISTERED
STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date
03/05/2024

09E101

WALLSTATION 'E2' CONFIGURATION

ENGRAVING	PROGRAMMING
ALL ON	BUTTON TO TURN ON ALL LIGHTING TO 100%
RAISE	BUTTON TO RAISE LIGHTING LEVEL
LOWER	BUTTON TO LOWER LIGHTING LEVEL
ALL OFF	BUTTON TO TURN OFF ALL LIGHTING
CONTROL SEQUENCE	
UPON ENTERING THE SPACE, OCCUPANCY SENSOR SHALL TURN ALL LIGHTING ON TO 50%. OCCUPANT THEN CAN SET LIGHT LEVELS. OCCUPANCY SENSOR TO TURN OFF LIGHTS AFTER 20 MINUTES OF VACANCY.	

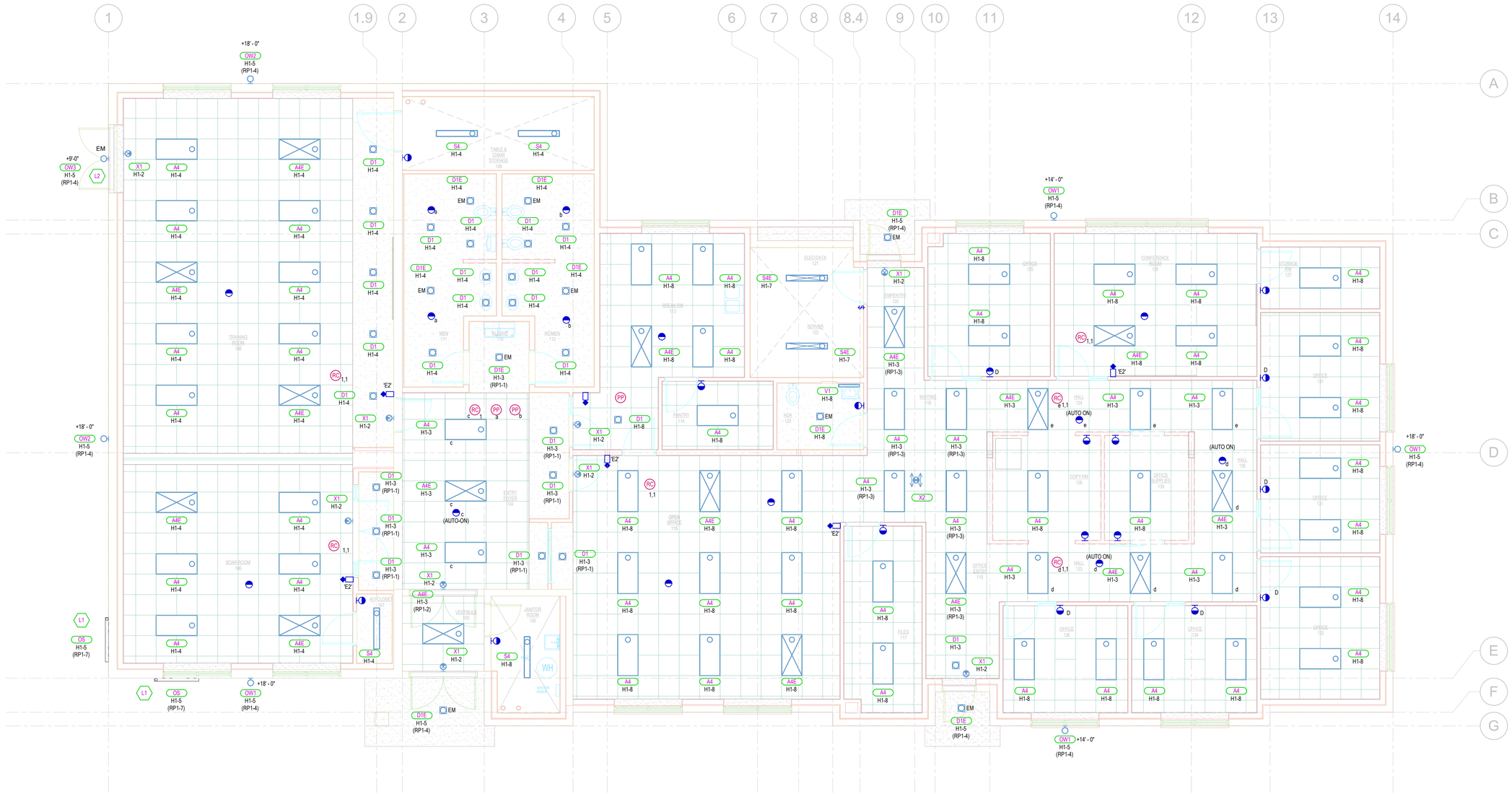
LIGHTING GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL FIXTURE LOCATIONS WITHIN A CEILING OR CEILING GRID. FOR AREAS WITHOUT CEILINGS, FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND STRUCTURAL ELEMENTS. COORDINATE WITH PAINTING CONTRACTOR FOR PAINTING OF EXPOSED RACEWAY.
2. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR PLACEMENT OF FIXTURES WITHIN MECHANICAL ROOMS.
3. ALL ROOM CONTROLLERS AND/OR POWER PACKS SHALL BE INSTALLED IN THE CEILING SPACE DIRECTLY ABOVE THE ENTRY DOOR TO THE SPACE IT IS CONTROLLING.
4. PROVIDE 0-10V DIMMING CONDUCTORS FOR ALL AREAS AND/OR ROOMS WHERE 0-10V DIMMING IS INDICATED BY THE RELAY PANEL SCHEDULE AND/OR WALL STATION CONTROL SEQUENCE.
5. SUBSCRIPT ADJACENT TO LIGHT FIXTURE INDICATES CONTROLS, PROVIDE LIGHTING CONTROLS WITH THE REQUIRED NUMBER OF RELAY/DIMMERS. PROVIDE ADDITIONAL RELAY/DIMMERS FOR DAYLIGHT ZONES AS REQUIRED.

SHEET KEYNOTES

L1 FIXTURE TO BE MOUNTED ON TOP OF SIGNAGE. REFER TO ARCHITECTURAL ELEVATION FOR EXACT LOCATION OF SIGNAGE.

L2 PROVIDE REMOTE BATTERY PACK AND LOCATE THE BATTERY PACK INSIDE THE BUILDING.



LIGHTING CEILING PLAN
SCALE = 3/16" = 1'-0"

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/05/2024

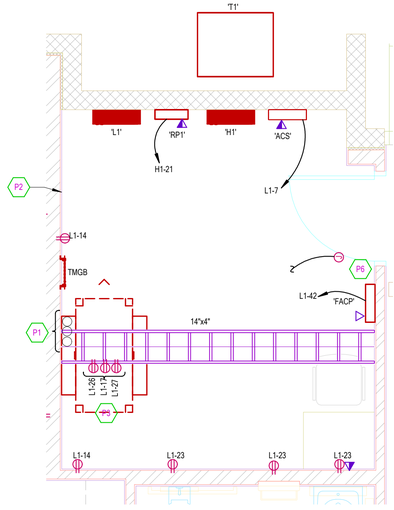
09E201

POWER GENERAL SHEET NOTES

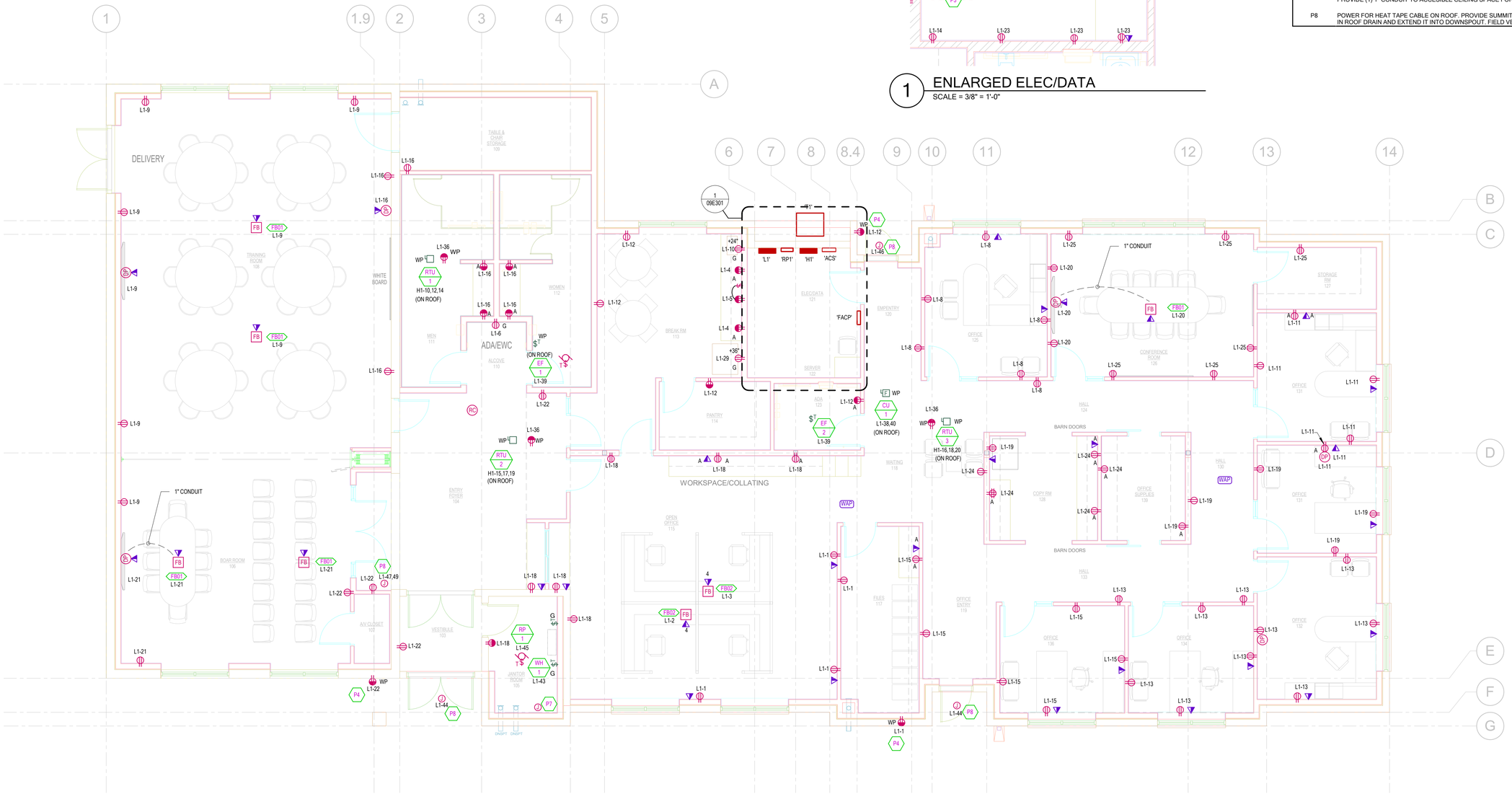
1. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL UNITS WITH MECHANICAL CONTRACTOR.
2. CIRCUITS TO ALL MECHANICAL EQUIPMENT SHALL BE DEDICATED UNLESS NOTED OTHERWISE.
3. FOR VAV POWER, PROVIDE A DEDICATED 120V/20A CIRCUIT FROM A PANEL LOCATED IN THE ELECTRICAL ROOM OF THE ASSOCIATED QUADRANT. COORDINATE EXACT LOCATION OF ALL VAV BOXES WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
4. PROVIDE 120V CIRCUIT FROM THE NEAREST PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5 FEET OF EACH FIRE/SMOKE DAMPER. REFER TO DIAGRAM D012 ON SHEET 09E005.

SHEET KEYNOTES

P1	(2) 4" CONDUITS FOR TELECOM AND (2) 2" CONDUITS FOR SCADA SYSTEM FROM SITE TO BE STUBBED AT THIS LOCATION.TELECOM AND SCADA FEEDS ARE RUN FROM MAIN SEWER PLANT BY OTHERS. COORDIANTE WITH ON SITE CONTRACTOR.
P2	INSTALL 3/4" FIRE RATED PLYWOOD FROM 8" A.F.F.
P3	MOUNT RECEPTACLES ON SIDE OF CABLE TRAY.
P4	PROVIDE GFCI RECEPTACLE WITH LOCKABLE IN USE COVER (TAY MAC MX 3200 OR SIMILAR).
P6	INDOOR UNIT SPLIT AC SYSTEM POWERED FROM OUTDOOR CONDESING UNIT. PROVIDE 3/4" CONDUIT FROM OUTDOOR TO INDOOR UNIT FOR ANY CABLING.
P7	PROVIDE (1) 1" CONDUIT TO ACCESIBLE CEILING SPACE FOR FUTURE POWER FOR IRRIGATION CONTROLLER. PROVIDE (1) 1" CONDUIT TO ACCESIBLE CEILING SPACE FOR DATA CABLE.
P8	POWER FOR HEAT TAPE CABLE ON ROOF. PROVIDE SUMMIT SYSTEMS SELF REGUALTING CABLE WITH 12W/FT IN ROOF DRAIN AND EXTEND IT INTO DOWNSPOUT. FIELD VERIFY EXACT LEGNTH OF THE HEAT TAPE CABLE.



1 ENLARGED ELEC/DATA
SCALE = 3/8" = 1'-0"



POWER PLAN
SCALE = 3/16" = 1'-0"

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date	
03/05/2024	

09E301

PANELBOARD SCHEDULE

PANEL: L1 **TYPE:** Type 1 **VOLTS:** 120/208 Y **PHASE:** 3 **WIRES:** 4

MOUNTING: SURFACE **LOCATION:** ELEC/DATA 121 **MAINS:** MCB

BUSSING: ALUMINUM **FED FROM:** T1 X SUBFEED LUGS

AMP: 400 A X DOOR-IN-DOOR

___ ISO GROUND

___ 200% NEUTRAL

___ SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
RECEPTACLE FILES 117	20 A	1	12	1	1080			180			2	12	1	20 A	RECEPT OPEN OFFICE 115
RECEPT OPEN OFFICE 115	20 A	1	12	3		180			720		4	12	1	20 A	RECEPT BREAK RM 113
RECEPT BREAK RM 113	20 A	1	12	5			360			1000	6	12	1	20 A	EWC *
SEC	20 A	1	12	7	500			1080			8	12	1	20 A	RECEPTACLE Room 125, 120, 124
RECEPTACLE TRAINING ROO...	20 A	1	12	9		1260			1500		10	12	1	20 A	MICROWAVE *
RECEPTACLE Room 131, 131	20 A	1	12	11			1400			1440	12	12	1	20 A	Room 113, 114
RECEPTACLE Room 132, 134,...	20 A	1	12	13	1800			1860			14	12	1	20 A	RECEPTACLE ELEC/DATA 121
RECEPTACLE OFFICE 136	20 A	1	12	15		1080			1980		16	12	1	20 A	RECEPTACLE TABLE & CHAIR...
RECEPTACLE SERVER 122	20 A	1	12	17			1500			1440	18	12	1	20 A	RECEPTACLE OPEN OFFICE 115
RECEPTACLE Room 128, 139,...	20 A	1	12	19	2400			540			20	12	1	20 A	CONFERENCE ROOM 126
RECEPTACLE BOAR ROOM 106	20 A	1	12	21		540			1080		22	12	1	20 A	Room 104, 106, 103
RECEPTACLE SERVER 122	20 A	1	12	23			540			1080	24	12	1	20 A	Room 118, 128, 139
RECEPTACLE Room 126, 127	20 A	1	12	25	1080			1500			26	12	1	20 A	RECEPTACLE SERVER 122
RECEPTACLE SERVER 122	20 A	1	12	27		1500			0		28	--	2	40 A	FUTURE EV CHARGING
REFRIGERATOR *	20 A	1	12	29			1500			0	30	--	--	--	--
FUTURE EV CHARGING	40 A	2	--	31	0			0			32	--	2	40 A	FUTURE EV CHARGING
--	--	--	--	33		0			0		34	--	--	--	--
FUTURE EV CHARGING	40 A	2	--	35			0			540	36	12	1	20 A	RECEPT MEN 111
--	--	--	--	37	0			2072			38	10	2	30 A	CU-1
EF-1	20 A	1	12	39		603			2072		40	--	--	--	--
SPARE	20 A	1	--	41			0			500	42	12	1	20 A	FACP
WH-1	20 A	1	12	43	500			600			44	12	1	20 A	HEAT TAPE **
RP-1	20 A	1	12	45		500			300		46	12	1	20 A	HEAT TAPE **
HEAT TAPE **	20 A	2	12	47			150			0	48	--	1	20 A	SPARE
--	--	--	--	49	150			0			50	--	1	20 A	SPARE
SPARE	20 A	1	--	51		0			0		52	--	1	20 A	SPARE
SPARE	20 A	1	--	53			0			0	54	--	1	20 A	SPARE
SPARE	20 A	1	--	55	0			0			56	--	1	20 A	SPARE
SPARE	20 A	1	--	57		0			0		58	--	1	20 A	SPARE
SPARE	20 A	1	--	59			0			0	60	--	1	20 A	SPARE
					15342	13315	11450	**TOTAL (VA)**							**CONNECTED LOAD TOTAL**
					130 A	113 A	95 A	**AMPS/PHASE**							37606 VA

AIC RATING 55,000 **AMPS RMS SYSM.**

NOTES:

* PROVIDE 5mA GFCI CIRCUIT BREAKER
** PROVIDE 30mA GFCI BREAKER

PANELBOARD SCHEDULE

PANEL: H1 **TYPE:** Type 1 **VOLTS:** 480/277 Y **PHASE:** 3 **WIRES:** 4

MOUNTING: SURFACE **LOCATION:** ELEC/DATA 121 **MAINS:** MCB

BUSSING: ALUMINUM **FED FROM:** X SUBFEED LUGS

AMP: 400 A X DOOR-IN-DOOR

___ ISO GROUND

___ 200% NEUTRAL

X SPD

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	A	B	C	A	B	C	CIR. NO.	WIRE SIZE	POLE	AMPS	ITEM
LIGHTING	20 A	1	12	1	60			45			2	12	1	20 A	LIGHTING TRAINING ROOM 108
LIGHTING ALCOVE 110	20 A	1	12	3		639			803		4	12	1	20 A	Room 108, 109, 104, 107
LIGHTING	20 A	1	12	5			1115			1027	6	12	1	20 A	LIGHTING
LIGHTING Room 122, 121	20 A	1	12	7	60			1189			8	12	1	20 A	LIGHTING
TRANSFORMER `1`	175 A	3	4/0 AL	9		15342			4057		10	10	3	30 A	RTU-1
--	--	--	--	11			13315			4057	12	--	--	--	--
--	--	--	--	13	11450			4057			14	--	--	--	--
RTU-2	20 A	3	12	15		3193			3193		16	12	3	20 A	RTU-3
--	--	--	--	17			3193			3193	18	--	--	--	--
--	--	--	--	19	3193			3193			20	--	--	--	--
RP1	20 A	1		21		500			258		22	12	1	20 A	LIGHTING
SPARE	20 A	1	--	23			0			0	24	--	1	20 A	SPARE
SPARE	20 A	1	--	25	0			0			26	--	1	20 A	SPARE
SPARE	20 A	1	--	27		0			0		28	--	1	20 A	SPARE
SPARE	20 A	1	--	29			0			0	30	--	1	20 A	SPARE
SPARE	20 A	1	--	31	0			0			32	--	1	20 A	SPARE
SPARE	20 A	1	--	33		0			0		34	--	1	20 A	SPARE
SPARE	20 A	1	--	35			0			0	36	--	1	20 A	SPARE
SPARE	20 A	1	--	37	0			0			38	--	1	20 A	SPARE
SPARE	20 A	1	--	39		0			0		40	--	1	20 A	SPARE
SPARE	20 A	1	--	41			0			0	42	--	1	20 A	SPARE
					23246	27984	25892	**TOTAL (VA)**							**CONNECTED LOAD TOTAL**
					84 A	102 A	95 A	**AMPS/PHASE**							74121 VA

AIC RATING 35,000 **AMPS RMS SYSM.**

NOTES:

* PROVIDE 5mA GFCI CIRCUIT BREAKER
** PROVIDE ARC-FAULT CIRCUIT BREAKER

ALUMINUM CONDUCTOR & O.C. PROT. FOR TRANSFORMER PRIMARY

ALUMINUM XHHW-2 CONDUCTOR & O.C. PROT. FOR TRANSFORMER SECONDARY △ 480-208/120 Y

TRANS KVA	O.C. PROT.	TYPE COND.*	GEC (1)	MIN. Z%	O.C. PROT.	TYPE COND.*	COND. AMPS	SETS	CONDUCTOR (3) QUAN.	CONDUCTOR (3) SIZE	CONDUIT SIZE	BONDING JUMPER (2)
15	30	30	8 CU	3	60	T44-1	70	1	4	4 CU	1-1/2"	8 CU
30	50	36	8 CU	3	100	T41X-1	120	1	4	1/0	2"	8 CU
45	70	34	4 CU	3	175	T44X-1	180	1	4	4/0	2-1/2"	4 CU
75	125	32X	2 CU	3	225	T435-1	250	1	4	350	3"	1/0 AL
112.5	175	34X	2 CU	4	400	T425-2	410	2	4	250	3"	1/0 AL
150	300	350	2/0 CU	4	600	T450-2	620	2	4	500	4"	4/0 AL
225	400	375	2/0 CU	4	800	T440-3	810	3	4	400	4"	4/0 AL
300	600	350-2	3/0 CU	5	1200	T450-4	1240	4	4	500	4"	250 AL
500	800	340-3	3/0 CU	5	1600	T440-6	1620	6	4	400	4"	300 AL
750	1200	350-4	3/0 CU	5	3000	T450-10	3100	10	4	500	4"	750 AL

* SEE SCHEDULE FOR CONDUIT AND WIRE SIZE

ALUMINUM CONDUCTOR & CONDUIT SCHEDULE

TYPE	AMP.	COND. SIZE	CONDUCTOR QUAN.	CONDUCTOR SIZE	INSULATION	EQ. GND COND.(AL)
31X	120	2"	3	1/0	XHHW-2	4
41X	120	2"	4	1/0	XHHW-2	4
51X	96	2"	5*	1/0	XHHW-2	4
32X	135	2"	3	2/0	XHHW-2	4
42X	135	2"	4	2/0	XHHW-2	4
52X	108	2"	5*	2/0	XHHW-2	4
33X	155	2"	3	3/0	XHHW-2	4
43X	155	2"	4	3/0	XHHW-2	4
53X	124	3"	5*	3/0	XHHW-2	4
34X	180	2"	3	4/0	XHHW-2	4
44X	180	3"	4	4/0	XHHW-2	4
54X	144	3"	5*	4/0	XHHW-2	2
325	205	2"	3	250	XHHW-2	2
425	205	3"	4	250	XHHW-2	2
525	164	3"	5*	250	XHHW-2	2
330	230	3"	3	300	XHHW-2	2
430	230	3"	4	300	XHHW-2	2
530	184	3"	5*	300	XHHW-2	2
335	250	3"	3	350	XHHW-2	2
435	250	3"	4	350	XHHW-2	2
535	200	3"	5*	350	XHHW-2	2
340	270	3"	3	400	XHHW-2	2
440	270	3"	4	400	XHHW-2	2
540	216	3"	5*	400	XHHW-2	2
350	310	4"	3	500	XHHW-2	1
450	310	4"	4	500	XHHW-2	1
550	248	4"	5*	500	XHHW-2	1
375	385	4"	3	750	XHHW-2	1
475	385	4"	4	750	XHHW-2	1
575	308	4"	5*	750	XHHW-2	1

NOTES:
IN PARALLEL RUNS SIZE GND. COND. IN ACCORDANCE WITH NEC PARA. 250-122.

GND. CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS

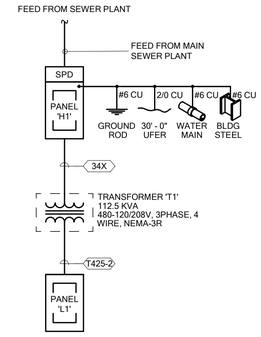
* 200% NEUTRAL, DERATED TO 80% BASED ON NEC 310.15.B(5)(C)

** COPPER CONDUCTOR (XHHW)

PROVIDE COMPACT STRANDED ALUMINUM ASSOCIATION 8000 SERIES ALLOY CONDUCTORS.

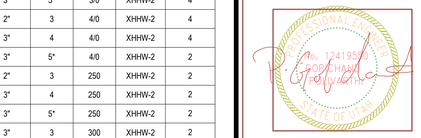
PROVIDE TERMINATION FOR ALUMINUM ALLOY CONDUCTORS OF HYDRAULIC COMPRESSION TYPE ONLY, LISTED UNDER UL 486-B, MARKED "AL7CU" FOR 75 DEGREE RATED CIRCUITS.

PROVIDE ALL ELECTRICAL EQUIPMENT WITH PROPER SIZING TO ACCOMMODATE ALUMINUM CONDUCTORS. COORDINATE WITH EQUIPMENT SUPPLIER.



2 ONE-LINE DIAGRAM 1

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: gjascock@mtcon.net



Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/05/2024

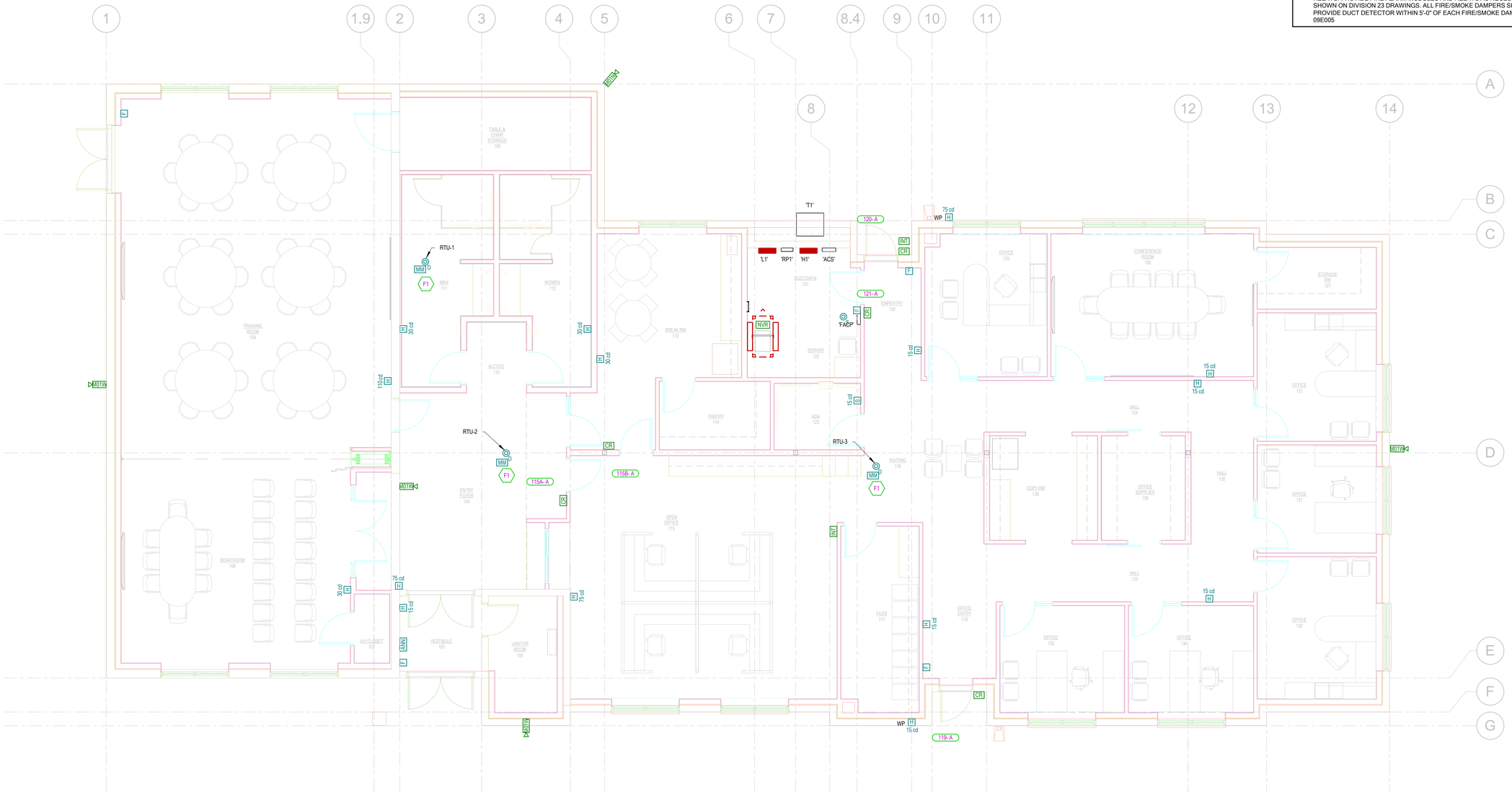
09E320

SHEET KEYNOTES

F1	FIRE ALARM SYSTEM DUCT DETECTOR. COORDIANTE WITH DIVISION 23 FOR EXACT MOUNTING LOCATION IN RETURN DUCT AND QUANTITY OF DUCT DETECTORS.

FIRE ALARM GENERAL NOTES

1. PROVIDE #14 AWG MINIMUM WIRING FOR ALL SIGNAL AND INITIATION DEVICES.
2. ALL EXPOSED CONDUIT SHALL BE ROUTED PERPENDICULAR AND PARALLEL TO BUILDING LINES. ALL EXPOSED CONDUIT ROUTING SHALL BE COORDINATED WITH OWNER'S REP PRIOR TO INSTALLATION. NO ADDITIONAL COST TO THE OWNER WILL BE ALLOWED FOR RELOCATING CONDUIT DUE TO LACK OF COORDINATION WITH THE OWNER'S REP.
3. ALL BACK BOXES SHALL BE FLUSH MOUNTED UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN POURED CONCRETE, PRE-CAST CONCRETE, MASONRY AND GYP WALLS.
4. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND QUANTITY OF ALL DUCT TYPE SMOKE DETECTORS WITH MECHANICAL CONTRACTOR. HARD WIRE TO RELAY STARTER.
5. DEVICES INDICATED ON FIRE ALARM ONE-LINE ARE FOR REFERENCE ONLY. REFER TO PLAN DRAWINGS AND SPECIFICATIONS FOR QUANTITIES. REFER TO ARCHITECTURAL DOOR SCHEDULE FOR MAGNETIC DOOR HOLDER AND BLOW OPEN DOOR REQUIREMENTS.
6. ALL VISUAL DEVICES SHALL BE SYNCHRONIZED WITHIN THE BUILDING REGARDLESS OF PROJECT SCOPE BOUNDARIES.
7. PROVIDE FIRE ALARM RELAY MODULES FOR ALL DOORS WITH ACCESS CONTROL DEVICES.
8. PROVIDE (2) DUCT TYPE SMOKE DETECTOR FOR EACH FAN COIL UNIT, AHU, SUPPLY FAN AND HEAT PUMP OF 2000 CFM OR GREATER.
9. FIRE ALARM DEVICES SHOWN ARE FOR REFERENCE ONLY AND BASED UPON A PERFORMANCE SPECIFICATION. ALL NEW EQUIPMENT/DEVICE QUANTITIES, LOCATION, AND ALL NATIONAL & LOCAL CODE COMPLIANCE TO BE PROVIDED AND STAMPED BY A LICENSED FIRE ALARM ENGINEER AND INCLUDED IN THE FIRE ALARM CONTRACTORS BID. IN NO WAY ARE THE DEVICES SHOWN ON THESE DRAWINGS TO BE IMPLEMENTED AS FINAL DESIGN DOCUMENTS.
10. PROVIDE 120V CIRCUIT FROM THE NEAREST EQUIPMENT BRANCH PANELBOARD FOR FIRE/SMOKE DAMPER RELAYS. PROVIDE FIRE ALARM MODULES AND RELAYS AS NECESSARY FOR ALL FIRE/SMOKE DAMPERS SHOWN ON DIVISION 23 DRAWINGS. ALL FIRE/SMOKE DAMPERS SHALL HAVE A MANUAL OVERRIDE SWITCH. PROVIDE DUCT DETECTOR WITHIN 5'-0" OF EACH FIRE/SMOKE DAMPER. REFER TO DIAGRAM D012 ON SHEET 09E005



FIRE ALARM & SECURITY PLAN
SCALE = 3/16" = 1'-0"

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ENGINEER
No. 12419501
JAMES BRANCH GLASCOCK
STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date	
03/05/2024	

09E401

CABLING GROUPS AND CONDUIT SEPARATION SCHEDULE

AUDIO AND VIDEO WIRING TYPES:

AUDIO AND VIDEO SYSTEM WIRING IS DIVIDED INTO WIRING GROUPS ACCORDING TO THEIR NOMINAL LEVELS:

GROUP	WIRING TYPE
GROUP 1	FIBER OPTIC CABLE
GROUP 2	O mV TO 100 mV SIGNALS, EXAMPLE: MICROPHONE LEVEL SIGNAL
GROUP 3	100 mV TO 10 V SIGNALS, EXAMPLE: LINE-LEVEL SIGNAL
GROUP 4	10 V TO 70 V SIGNALS, EXAMPLE: SPEAKER LEVEL SIGNAL
GROUP 5	CONTROL, DIGITAL CIRCUITS, DATA AND VIDEO

NOTE: GROUPS LISTED ABOVE SHALL NEVER BE COMBINED WITHIN THE SAME CONDUIT

AUDIO AND VIDEO CONDUIT SEPARATION

MINIMUM CONDUIT SEPARATION BETWEEN CONDUITS CARRYING WIRING OF DIFFERENT AUDIO AND VIDEO GROUPS IS AS FOLLOWS:

GROUP	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
GROUP 1	ADJACENT	ADJACENT	ADJACENT	ADJACENT	ADJACENT
GROUP 2	ADJACENT	ADJACENT	6"	12"	12"
GROUP 3	ADJACENT	6"	ADJACENT	12"	6"
GROUP 4	ADJACENT	12"	12"	ADJACENT	6"
GROUP 5	ADJACENT	12"	6"	6"	ADJACENT

NOTE: NINETY DEGREE CROSSING IN CLOSE PROXIMITY IS PERMITTED.

ELECTRICAL CONDUIT SEPARATION

MINIMUM CONDUIT SEPARATION BETWEEN CONDUITS CARRYING AUDIO AND VIDEO WIRING AND OTHER ELECTRICAL SERVICE CONDUIT IS AS FOLLOWS:

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5
277/480V AC CIRCUIT	ADJACENT	24"	24"	24"	24"
120/208V AC CIRCUIT	ADJACENT	24"	12"	12"	24"

NOTE: CONDUITS SHALL NOT RUN MORE THAN 20 FEET IN PARALLEL WITHIN THE GIVEN DISTANCES ABOVE.

AUDIOVISUAL CABLE AND CONDUIT SCHEDULE

NOTES:

1. APPROVED EQUALS FROM OTHER MANUFACTURERS ARE BELDEN, GEPCO/GENERAL, ICE, KRAMER, EXTRON, CRESTRON, LIBERTY CABLE, AND WINDY CITY WIRE.
2. PROVIDE PLENUM RATED CABLES IN ANY "AIR HANDLING" SPACES E.G. ABOVE CEILINGS, RAISED FLOORS, CHASES, ETC.
3. CABLE QUANTITY INDICATED ON DRAWINGS SHOWS ON FINAL RUN. IF NOT NOTED PROVIDE CABLING FOR SINGLE DEVICE.
4. CONDUIT REQUIREMENTS SHOWN ARE MINIMUM CONDUIT SIZE REQUIRED FOR A SINGLE CABLE, UNLESS OTHERWISE NOTED ON DRAWINGS. NUMBER OF CABLES LISTED IS THE MAXIMUM AMOUNT ALLOWED FOR CONDUIT SIZE INDICATED.
5. WHEN COMBINING CABLE TYPES OF THE SAME GROUP, THE TYPE WITH THE LARGEST CONDUIT REQUIREMENT DICTATES CONDUIT SIZE.
6. PROVIDE ON ALL HDMI CABLES LONGER THAN 35' OR WITH MORE THAN (3) CONNECTION POINTS (1) ACTIVE HDMI EXTENSION DEVICE.
7. ALL CATEGORY CABLE SHALL BE TESTED AND CERTIFIED TO ANSI/TIA/EIA-568C AND IEEE 802.3an STANDARDS USING A LEVEL IIIe TESTER.
8. REFER TO SPECIFICATIONS FOR STP CABLE REQUIREMENTS. ALL UNSHIELDED (UTP) CATEGORY CABLES WITHIN THE PROJECT SHALL BE SUPPLIED FROM A SINGLE MANUFACTURER AND MATCH MAKE/MODEL.
9. HDMI CABLES ARE INTENDED TO PASS 4K 60 4:4:4 FROM SOURCE TO DESTINATION. CONTRACTOR TO VERIFY THE LENGTH OF ALL CABLES USED MEET THIS REQUIREMENT.

* INDICATES DEFAULT CABLE IF MANUFACTURER DOES NOT RECOMMEND A SPECIFIC CABLE.
** INDICATES DEFAULT CABLE IF HORIZONTAL CABLING IS EXCLUDED FROM THE PROJECT AND NOT OWNER PROVIDED.

CABLE TYPE	DESCRIPTION	CONDUIT REQUIREMENTS	MANUFACTURER	MODEL NUMBER	CABLE GROUP
(#)AT	ANTENNA, COAXIAL RG8X	1" CONDUIT = (7) CABLES 1 1/2" CONDUIT = (12) CABLES	WEST PENN	807 *	5
(#)CT	CONTROL, 2/22 SHIELDED, 2/18 UNSHIELDED	1" CONDUIT = (7) CABLES 1 1/4" CONDUIT = (12) CABLES	WEST PENN	77350 * D25350 (P) *	5
(#)HD	HDMI < 20', ULTRA FLEXIBLE	1 1/4" CONDUIT = (1) CABLES 2" CONDUIT = (3) CABLES	EXTRON CRESTRON	HDMI ULTRA/## CBL-HD-##	5
(#)HD	HDMI > 20'	1 1/4" CONDUIT = (1) CABLES 2" CONDUIT = (3) CABLES	EXTRON KRAMER	HDMI PRO P/XX CP-HM/HM/ETH (P)	5
(#)LA (#)MA	LINE LEVEL, 22 AWG MICROPHONE, 22 AWG	1" CONDUIT = (23) CABLES 1 1/2" CONDUIT = (77) CABLES	WEST PENN	291 D25454 (P)	3 2
(#)MFB	MULTIMODE FIBER OPTIC	1" CONDUIT MINIMUM	PER SPEC	27 1500	1
(#)RG6	RG-6 COAXIAL CABLE	1" CONDUIT = (8) CABLES 1 1/2" CONDUIT = (18) CABLES	WEST PENN	841 25841 (P)	5
(#)RG11	RG-11 COAXIAL CABLE	1" CONDUIT = (3) CABLES 1 1/4" CONDUIT = (6) CABLES	WEST PENN	821 D25821 (P)	5
(#)S12	SPEAKER, 12 AWG	1" CONDUIT = (3) CABLES 1 1/2" CONDUIT = (7) CABLES 2" CONDUIT = (11) CABLES	WEST PENN	227 25227B (P)	4
(#)S16	SPEAKER, 16 AWG	1" CONDUIT = (10) CABLES 1 1/4" CONDUIT = (17) CABLES	WEST PENN	225 25225B (P)	4
(#)SFB	SINGLE MODE FIBER OPTIC	1" CONDUIT MINIMUM	PER SPEC	27 1500	1
(#)STP	SHIELDED TWISTED PAIR, CAT 6A	1" CONDUIT = (4) CABLES 1 1/4" CONDUIT = (8) CABLES	PER MFG WEST PENN	4246AF * 254246AF (P) *	5
(#)UTP	UN-SHIELDED TWISTED PAIR CAT 6	1" CONDUIT = (9) CABLES 1 1/4" CONDUIT = (15) CABLES	PER SPEC WEST PENN	4246 ** 254246 (P) ** SPEC 27 1500	5
(#)VG	HIGH RESOLUTION VIDEO	1" CONDUIT = (1) CABLES 1 1/4" CONDUIT = (4) CABLES	WEST PENN	5CRGB 255CRGB (P)	5
(#)SDI	SERIAL DIGITAL INTERFACE (RG-6 COAX)	1" CONDUIT = (8) CABLES 1 1/2" CONDUIT = (18) CABLES	WEST PENN	841 25841 (P)	5
(#)USB	USB EXTENSION CABLE	1" CONDUIT = (3) CABLES 1 1/4" CONDUIT = (10) CABLES	CABLES TO GO	52108	5
(#)X#	MANUFACTURER PROPRIETARY CABLE	AS NOTED	SPEC. 27 4100	SPEC. 27 4100	NA

AUDIOVISUAL SYMBOL LEGEND

NOTES:

1. HEIGHT MEASURED TO BOTTOM OF THE DEVICE FROM FINISHED FLOOR.
2. HEIGHT MEASURED TO CENTER LINE OF THE DEVICE FROM THE FINISHED FLOOR.
3. REFER TO DIAGRAMS AND ELEVATIONS FOR CUSTOM ROUGH-IN REQUIREMENTS.
4. STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS.
5. ROUGH-IN TO BE HORIZONTAL.
6. ROUGH-IN TO BE INSTALLED ABOVE ACCESSIBLE CEILING.
7. ROUGH-IN TO BE INSTALLED ABOVE CEILING.
8. DEVICE IS TYPICALLY LOCATED IN MILLWORK, FURNITURE, BEHIND A MONITOR OR ABOVE A PROJECTOR.
9. ABOVE TABLE/COUNTER MOUNTED DEVICE.
10. REFER TO MANUFACTURER'S RECOMMENDED CABLE REQUIREMENTS FOR EXACT CABLE REQUIRED.
11. FOLLOW BICSI STANDARDS FOR CABLE ROUTING AND DISTANCES.
12. JUNCTION BOX INDICATED IS FOR MOST INSTALLATIONS. DEVICE WILL BE NOTED WHEN JUNCTION BOX SIZE REQUIREMENTS ARE DIFFERENT FROM INDICATED.
13. MOUNTING HEIGHT SHOWN IS FROM THE BOTTOM OF THE MONITOR TO THE FINISHED FLOOR.

GENERAL SCHEDULE NOTES:

A. TYPICAL SYMBOL SCHEDULE. SOME SYMBOLS MAY NOT BE USED IN THIS SET OF DRAWINGS.
B. DEVICES WITH "A" ADJACENT TO IT INDICATE DEVICE TO BE COORDINATED WITH MILLWORK PRIOR TO ROUGH-IN.
C. ROUGH-IN JUNCTION BOX, CONDUIT, AND MOUNTING HEIGHT ARE DEFAULT REQUIREMENTS. REFER TO PLANS FOR SPECIFIC NOTES AND REQUIREMENTS FOR A SPECIFIC INSTANCE.
D. CONDUIT STUBBED INTO ACCESSIBLE CEILING UNLESS OTHERWISE NOTED.
E. CABLE FROM DEVICE TO BE HOMERUN TO DESTINATION WITHOUT SPLICES.

SYMBOL	DESCRIPTION	J-BOX	CONDUIT	MOUNTING HEIGHT	CABLE TYPE	NOTES
M#	MICROPHONE INPUT, WALL PLATE (M1/M2 = D1, M3/M4 = D2)	D1,D2	(1) 3/4"	RECEPTACLE HEIGHT	(#) MA	
AX	AUXILIARY INPUT, 3.5MM/RCA CONNECTION, WALL PLATE	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) LA	2,4.
T TS	AUDIO OUTPUT, WALL PLATE, T = XLR MALE CONNECTION, TS = 1/4 TS CONNECTION	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) LA	2,4.
MA	MICROPHONE INPUT WITH AUXILIARY INPUT, WALL PLATE	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) MA (1) LA	2,4.
MC	MICROPHONE INPUT, CEILING	D1	(1) 3/4"	CEILING	(1) MA	2,4.
MB	TABLE TOP BOUNDARY MICROPHONE		(1) 1/2"	ON TABLE/ MILLWORK	(1) MA	2,3,9.
MW	WALL MOUNTED, PUSH TO TALK MICROPHONE	D1	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
MDT	DUAL MICROPHONE INPUT, WALL PLATE, UTP TRANSMITTER EXTENDER	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) UTP	2,4.
MAT	MICROPHONE AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER EXTENDER	D1	(1) 3/4"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
MXT	MICROPHONE AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
MT	DUAL MICROPHONE INPUT/OUTPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D1	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
M2D	DUAL MICROPHONE INPUT/OUTPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
M4D	FOUR MICROPHONE INPUT WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	RECEPTACLE HEIGHT	(1) UTP	2,4,11.
AXT	BLUETOOTH AND AUXILIARY INPUT, WALL PLATE, UTP TRANSMITTER AUDIO ENCODER	D2	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,11.
CI	CREWCOM HEADSET INPUT, WALL PLATE	D1	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
CIS	CREWCOM WALL STATION, WALL PLATE	D3	(1) 3/4"	SWITCH HEIGHT	(1) MA	2,4.
BT	BLUETOOTH, WALL PLATE, AUDIO EXTENDER	D1	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,11.
VG	VGA INPUT, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) VG	2,4.
HD	HDMI INPUT, WALL PLATE	D1	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) HD (1) LA	2,4.
HV	HDMI AND VGA INPUT, WALL PLATE	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) HD (1) VG	2,4.
EN#	AVoIP ENCODER, WALL PLATE (# IDENTIFIES UNIQUE PLATES)	SCH	(1) 1"		(1) UTP	2,4,11.
DC#	AVoIP DECODER, WALL PLATE (# IDENTIFIES UNIQUE PLATES)	SCH	(1) 1"		(1) UTP	2,4,11.
TxH	HDBaseT, HDMI INPUT TRANSMITTER, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
TxD	HDBaseT, HDMI AND VGA TRANSMITTER, WALL PLATE	D2	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
TxM	HDBaseT, HDMI, DISPLAY PORT AND/OR VGA TRANSMITTER BOX, SURFACE MOUNTED			IN MILLWORK/ UNDER TABLE	(1) STP	2,4,11.
TxT	HDBaseT CATEGORY INPUT, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
RxH	HDBaseT, HDMI RECEIVER, WALL PLATE	D1	(1) 1"	AS NOTED	(1) STP	2,4,11.
US	USB INPUT, WALL PLATE, UTP EXTENSION	D1	(1) 1"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
Rx	HDBaseT RECEIVER DEVICE, SURFACE MOUNTED		(1) 1"	IN MILLWORK/ UNDER TABLE	(1) STP	2,4,8,11.
CHV	HDMI AND VGA TRANSMITTER, WALL PLATE (CLASSROOM SYSTEM)	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
CHD	DUAL HDMI TRANSMITTER, WALL PLATE (CLASSROOM SYSTEM)	D2	(1) 1 1/4"	RECEPTACLE HEIGHT	(1) STP	2,4,11.
HDU	HDMI AND USB TRANSMITTER, WALL PLATE	D1	(1) 1"	RECEPTACLE HEIGHT	(2) STP	2,4,11.
CAL	2-WAY INTERCOMMUNICATION PUSHBUTTON STATION	D1	(1) 3/4"	SWITCH HEIGHT	AS NOTED	2,7,10.
CSA	CLASSROOM SOUND AMPLIFICATION SYSTEM		(1) 1 1/4" (1) 1"	IN MILLWORK/ AS NOTED		2,3.
IR	INFRARED SENSOR, WALL/CEILING	D1	(1) 3/4"	CEILING	(1) UTP OR (1) CT	2,6,11.

SYMBOL	DESCRIPTION	J-BOX	CONDUIT	MOUNTING HEIGHT	CABLE TYPE	NOTES
ALS	ASSISTIVE LISTENING SYSTEM ANTENNA/EMITTER, WALL/CEILING	A1	(1) 1"	AS NOTED	AS NOTED	2,6.
AT	AV ANTENNA, WALL/CEILING	D1	(1) 1"	AS NOTED	(1) AT	2,6.
V	VOLUME CONTROL	D1	(1) 1"	SWITCH HEIGHT	(1) S16	2,4.
SV	VOLUME CONTROL WITH SOURCE SELECTOR	D2	(1) 1"	SWITCH HEIGHT	(1) S16 (1) UTP	2,4,9,11.
TPT	TOUCH PANEL, TABLE TOP		(1) 1"	AS NOTED	(1) UTP	
TP#	TOUCH PANEL, WALL MOUNTED, REFER TO SPECIFICATIONS FOR TOUCH PANEL TYPE AND ORIENTATION	SCH	(1) 1"	SWITCH HEIGHT	(1) UTP	2,4,5,11.
KP#	KEYPAD, WALL MOUNTED, REFER TO SPECIFICATIONS FOR KEYPAD TYPE	SCH	(1) 1"	SWITCH HEIGHT	(1) CT or (1) UTP	2,4,10.
RS#	ROOM SCHEDULING TOUCHPANEL	SCH	(1) 1"	SWITCH HEIGHT	(1) STP	
TB#	TABLE/FURNITURE BOX, NUMBER REFERS TO TYPE REFER TO SPECIFICATIONS/DIAGRAMS FOR REQUIREMENTS			IN MILLWORK	SEE DIAGRAMS.	
	LOUDSPEAKER, WALL MOUNTED	C#	(1) 3/4"	AS NOTED	(1) S16	2,4.
	LOUDSPEAKER, ARRAY, CABINET, CLUSTER	A0	(1) 3/4"	AS NOTED	(1) S12	2,4.
	LOUDSPEAKER, CEILING RECESSED OR PENDANT	C#	(1) 3/4"	CEILING	(1) S16	2,7.
SB#	SOUND BAR, REFER TO SPECIFICATIONS FOR TYPE	D1	(1) 1"	UNDER DISPLAY OR AS NOTED		1,5.
X##	DISPLAY, REFER TO SPECIFICATIONS FOR DISPLAY TYPE AND SIZE	PER SCH	(1) 1 1/4" (1) 1"	AS NOTED	AS NOTED	4,13.
SC#	PROJECTION SCREEN REFER TO SPECIFICATIONS FOR SCREEN TYPE AND SIZE	(2) A0	(1) 3/4"	CEILING OR WALL	(1) UTP	2,7.
P#	PROJECTOR	D2	(1) 1 1/4"	CEILING OR AS NOTED	AS NOTED	2,6.
	AV CAMERA	C#	(1) 1"	AS NOTED	AS NOTED	1.
	EQUIPMENT CABINET/RACK	C#	SCH	AS NOTED		
CLG	EQUIPMENT CEILING RACK	C#	SCH	AS NOTED		
	EQUIPMENT 2-POST CABINET/RACK	C#	SCH	AS NOTED		
GP#	PASS THROUGH PLATE, # = NUMBER OF GANGS	D#	(1) 1-1/2"	AS NOTED		2.
J	JUNCTION BOX, ABOVE ACCESSIBLE CEILING	A0	AS NOTED	AS NOTED		
C##	CUSTOM JUNCTION BOX, REFER TO SCHEDULE AND DIAGRAM FOR EQUIPMENT, JUNCTION BOX AND CONDUIT	SCH	SCH	AS NOTED	AS NOTED	
FB	FLOOR BOX - REFER TO ELECTRICAL DOCUMENTS FOR MAKE/MODEL - REFER TO DIAGRAMS FOR AV DEVICE LAYOUT		AS NOTED		AS NOTED	
PT	POKE THRU - REFER TO ELECTRICAL DOCUMENTS FOR MAKE/MODEL - REFER TO DIAGRAMS FOR AV DEVICE LAYOUT		(1) 1 1/2"		AS NOTED	
	CONDUIT RUN CONCEALED IN WALL OR CEILING		AS NOTED			
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		AS NOTED			
	CONDUIT UP		AS NOTED			
	CONDUIT DOWN		AS NOTED			
	CONDUIT STUB LOCATION		AS NOTED			
	CONDUIT/CIRCUIT CONTINUATION		AS NOTED			
####	DEVICE/EQUIPMENT TYPE CALLOUT					
## / ##	ELEVATION VIEW TAG (# = VIEW NUMBER, ## = SHEET NUMBER)					
# / ##	DIAGRAM CALLOUT TAG					

ABBREVIATIONS INDEX

ABBREV.	DESCRIPTION	ABBREV.	DESCRIPTION
#	NUMBER	MEP	MECHANICAL, ELECTRICAL AND PLUMBING
AFF	ABOVE FINISH FLOOR	MFG	MANUFACTURER
ARCH	ARCHITECTURE	MAX	MAXIMUM
AUX	AUXILIARY	MIC	MICROPHONE
AWG	AMERICAN WIRE GAUGE	MIN	MINIMUM
BC	BARE COPPER	MTG	MOUNTING
C	CONDUIT	N/A	NOT APPLICABLE
CATV	CABLE TELEVISION	NIC	NOT IN CONTRACT
CLG	CEILING	NTS	NOT TO SCALE
CNTR	CONTRACTOR	PLEN	PLENUM
CU	COPPER	(R)	RELOCATE
C/W	COMPLETE WITH	RECPT	RECEPTACLE
DWG	DRAWING	SPEC	SPECIFICATIONS
(E)	EXISTING	SPKR	SPEAKER
FT	FOOT	TV	TELEVISION
GND	GROUND	TYP	TYPICAL
IG	ISOLATED GROUND	UG	UNDERGROUND
IN	INCH	UPS	UNINTERRUPTED POWER SUPPLY
J-BOX	JUNCTION BOX	W	WATTS
LTG	LIGHTING	W/O	WITHOUT

AUDIOVISUAL SHEET INDEX

AUDIOVISUAL GENERAL NOTES

1. THIS SHEET SET SHOWS WORK AND MATERIALS BY DIVISION 26 AND DIVISION 27. SEE SPECIFICATIONS AND DRAWING NOTES FOR RESPONSIBILITY FOR EACH ITEM.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE REQUIRED PROVISIONS WITH THE PROJECT AV SYSTEMS INTEGRATOR PRIOR TO INSTALLATION OF AV SYSTEM ROUGH-IN. WHERE CONDUIT AND JUNCTION BOX PROVISIONS ARE SIGNIFICANTLY DIFFERENT FROM THOSE SHOWN ON THE DRAWINGS, NOTIFY THE AV CONSULTANT IN WRITING OF THE REQUIREMENTS. WHERE MINOR MODIFICATIONS TO PROVISIONS ARE REQUIRED, THEY SHALL BE MADE AT NO ADDITIONAL COST AS A MATTER OF JOB COORDINATION.
3. BIDDERS SHALL THOROUGHLY ACQUAINT AND EXAMINE THE EXISTING PROJECT CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. INCLUDING THE COMPLETE SET OF PLANS AND SPECIFICATIONS COVERING THE ENTIRE PROJECT. BIDDERS SHALL BECOME FULLY CONVERSANT WITH THE TYPE OF GENERAL CONSTRUCTION AS WELL AS ALL PERTINENT FACTS AFFECTING THE COST OF CARRYING OUT THE WORK THEY WILL CONTRACT TO PERFORM AND BRING ANY DISCREPANCIES OR OMISSIONS FOUND IN THE DRAWINGS TO THE AV CONSULTANT'S ATTENTION BEFORE SUBMITTING BID.
4. AV SYSTEMS INTEGRATOR SHALL PROVIDE A FULLY FUNCTIONING SYSTEM IN EVERY RESPECT. ANY DISCREPANCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
5. THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT, AND ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS. BUT NECESSARY TO FULLY COMPLETE THE WORK, SHALL BE FURNISHED BY THE PROJECT AV SYSTEMS INTEGRATOR.
6. NO CHANGES TO THE DESIGN SHALL BE MADE WITHOUT THE PROJECT AV CONSULTANT'S WRITTEN CONSENT.
7. WHERE APPLICABLE, AV SYSTEMS INTEGRATOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES.
8. REFER TO DRAWINGS FOR EXACT NUMBER OF COMPONENTS USED IF NOT SPECIFIED IN EQUIPMENT LIST.
9. COORDINATE EXACT SPEAKER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT AV CONSULTANT PRIOR TO BIDDING.
10. CONFIRM AVAILABLE MOUNTING DEPTHS OF ALL SPEAKERS AND COMPARE WITH DEPTHS SHOWN ON SHOP DRAWINGS. BRING ALL POTENTIAL CONFLICT AREAS TO THE ATTENTION OF THE ARCHITECT AND AV CONSULTANT PRIOR TO RELEASE.
11. INSTALL/SUSPEND ALL AUDIOVISUAL SYSTEMS EQUIPMENT IN COMPLIANCE WITH SEISMIC CODES, MANUFACTURER'S WRITTEN INSTRUCTIONS, AND INDUSTRY BEST PRACTICES. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.
12. ALL TWISTED-PAIR (U/UTP, F/UTP, U/FTP, S/FTP) CATEGORY TYPE CABLING SHALL BE TERMINATED BY CERTIFIED DATA TECHNICIANS. TEST PER SPECIFICATIONS REQUIREMENTS AND PROVIDE DATA TO AV CONSULTANT.
13. ALL HDBaseT SIGNAL CABLING, TERMINATIONS, AND TERMINATION HARDWARE SHALL COMPLY WITH TIA/EIA WIRING CONFIGURATION T568 B. ALL HDBaseT SIGNAL CABLING SHALL BE SHIELDED/FOIL (SF/UTP) CATEGORY TYPE CABLE.
14. CONDUCT A RADIO FREQUENCY AUDIT OF THE SITE PRIOR TO SELECTING RF OPERATIONAL FREQUENCIES. AV SYSTEMS INTEGRATOR TO ENSURE INTERFERENCE FREE OPERATION OF ALL RF DEVICES. AV SYSTEMS INTEGRATOR SHALL COORDINATE AUDIT RESULTS WITH MANUFACTURER PRIOR TO PURCHASING RF EQUIPMENT.
15. PROVIDE RACK MOUNT KITS FOR ALL RACK MOUNTED EQUIPMENT. PROVIDE CUSTOM RACK MOUNT KITS WHEN NOT AVAILABLE FROM THE EQUIPMENT MANUFACTURER.
16. PROVIDE SURGE PROTECTION DEVICE (SPD) IN ALL AV EQUIPMENT RACKS.
17. ALL AV EQUIPMENT RACKS SHALL BE GROUNDED AND BONDED TO MEET OR EXCEED THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE (NED), IEC 1000-5-2 ANSI/J-STD-607-A.
18. ALL AV EQUIPMENT SHALL BE GROUNDED PER MANUFACTURER'S SPECIFICATIONS.
19. PROVIDE MANUFACTURER RECOMMENDED POWER SUPPLIES OR TRANSFORMERS FOR ALL SPECIFIED EQUIPMENT.
20. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR LACK OF COORDINATION WITH AV CONSULTANT AS ADDRESSED IN THE DOCUMENTS
21. UNLESS SPECIFICALLY SPECIFIED OR NOTED PROVIDE COMMERCIAL QUALITY EQUIPMENT, MATERIALS AND COMPONENTS DESIGNED FOR CONTINUOUS USE. CONSUMER QUALITY COMPONENTS ARE NOT ACCEPTABLE.

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: gjascock@mtcon.net

Project 24-001

Revisions

Date 03/05/2024

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

09T001

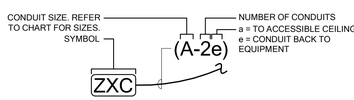
AV CUSTOM BACK BOX SCHEDULE

TYPE	MANUFACTURER	MODEL	BOX DIMENSIONS (Cx) IN INCHES			CONDUIT'S	MOUNTING TYPE	MOUNTING HEIGHT	NOTES
			HEIGHT	WIDTH	DEPTH				
C01	HUBBELL	HBL263	4 3/8"	7 7/8"	3 11/16"	(2) 1" (1) 2"	RECESSED	HORIZONTAL	2" CONDUIT RESERVED FOR CAT CABLING, (1) 1" FOR SPARE
C02	HUBBELL	HBL260	4 11/16"	4 13/16"	3 3/8"	(1) 1 1/2"	RECESSED	HORIZONTAL	2-GANG

FLAT PANEL WALL BOX SCHEDULE

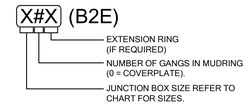
TYPE	DESCRIPTION	DATA	COAX	DUPLEX	AV	MFR.	MODEL
DP01	WALL MOUNTED FLAT PANEL WITH (2) DATA DROPS, (1) COAX, (1) SURGE PROTECTED DUPLEX, (1) AV PASS THROUGH	(2) DATA DROPS	(1) COAX	(1) SURGE PROTECTED DUPLEX	(1) AV PASS THROUGH	CHIEF, LEGRAND, FSR	PAC 525, EFB4, PWB4

CONDUIT SCHEDULE LEGEND:



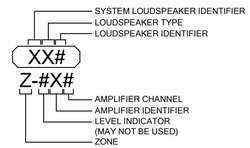
CONDUIT SIZE CHART
A = 3/4" CONDUIT
B = 1" CONDUIT
C = 1-1/4" CONDUIT
D = 1-1/2" CONDUIT
E = 2" CONDUIT
F = 4" CONDUIT

ROUGH-IN JUNCTION BOX LEGEND:



JUNCTION BOX SIZE
A = 4" SQ. 2-1/8" DEEP JUNCTION BOX
B = 4-11/16" SQ. JUNCTION BOX
C = CUSTOM JUNCTION BOX. SEE SCHEDULE FOR SIZE
D = HUBBELL - HBL260/HBL985

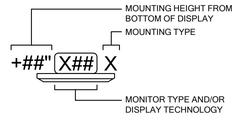
LOUDSPEAKER LEGEND:



LOUDSPEAKER TYPES
A = ARRAY, CABINET, CLUSTER
C = CEILING RECESSED
P = PENDANT MOUNTED
R = WALL RECESSED
S = CEILING SURFACE MOUNTED
W = WALL SURFACE MOUNTED

SYSTEM LOUDSPEAKER IDENTIFIER
BLANK = SYSTEM SPECIFIC
I = INTERCOM SYSTEM
SM = SOUND MASKING SYSTEM

FLAT PANEL MONITOR LEGEND:

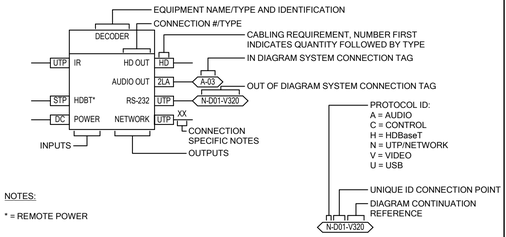


MOUNT TYPES
CLG = CEILING (POLE) MOUNT
F = FLAT MOUNT
T = TILT MOUNT
R = RECESSED MOUNT
S = ARTICULATING MOUNT
H = ADJUSTABLE HEIGHT MOUNT*

MONITOR TYPES
D = TYPICAL COMMERCIAL GRADE
S = INTERACTIVE COMMERCIAL GRADE
V = VIDEO WALL (SLIM BEZEL)
L = DIRECT VIEW LED PRODUCT

* HEIGHT INDICATED IS THE MAX HEIGHT, MOUNT SHALL ADJUST DOWN

SIGNAL FLOW LEGEND:



NOTES:

* = REMOTE POWER

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Creek, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

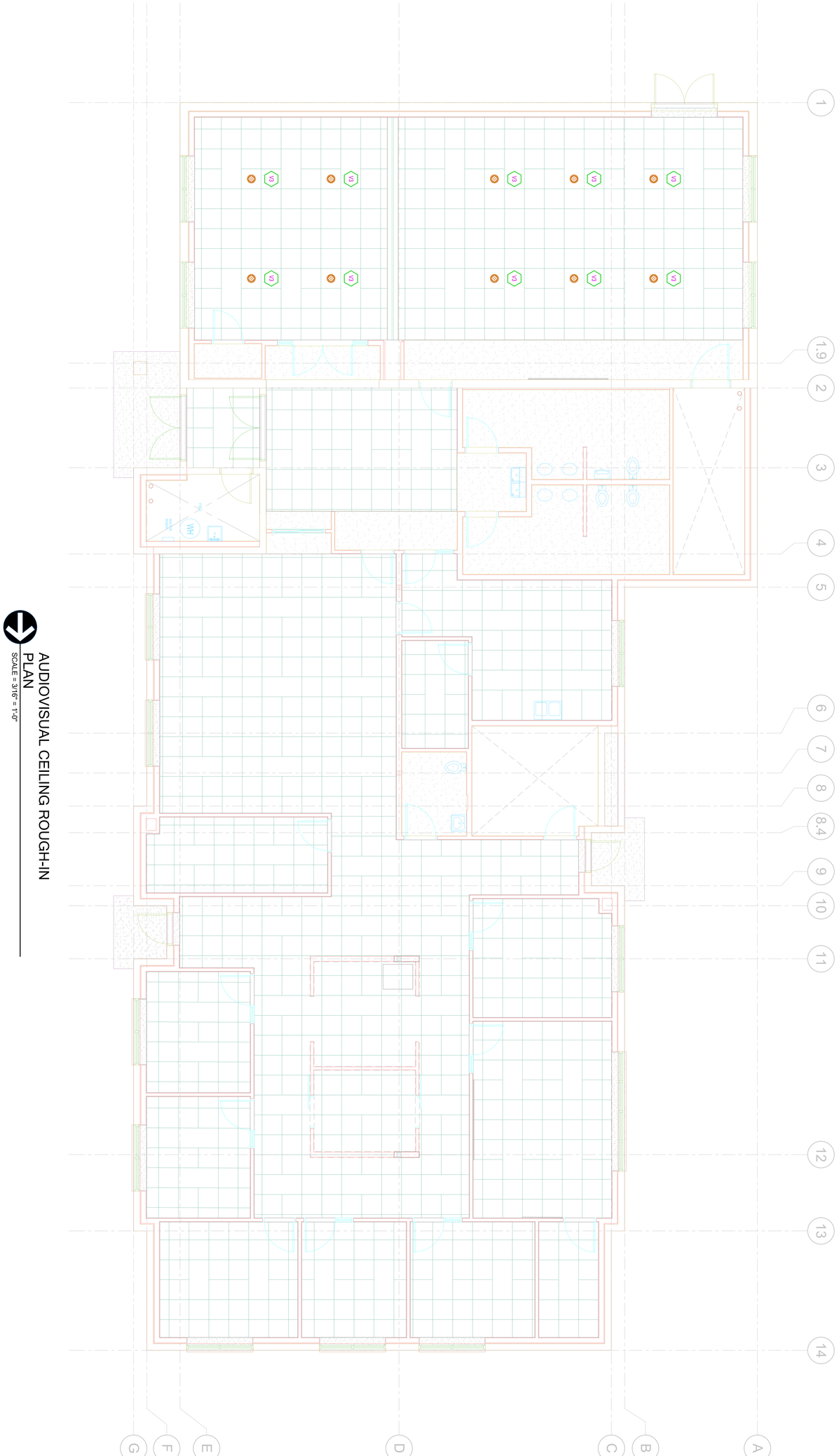
Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/05/2024

09T002



AUDIOVISUAL CEILING ROUGH-IN PLAN

SCALE = 3/16" = 1'-0"

SHEET KEYNOTES

V3 LOUDSPEAKER QUANTITIES AND LOCATIONS SHOWN FOR REFERENCE ONLY.

Date 03/05/2024

Revisions

Project 24-001

09T201

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

SHEET KEYNOTES

V1	J BOX FOR FUTURE TV. (1) 1" CONDUIT TO ACCESSIBLE CEILING ABOVE INCLUDE PAINT-MATCING PLATE.
V2	PROVIDE BACK BOX AND 1" CONDUIT TO ACCESSIBLE CEILING.
V5	FOR FUTURE TV - MOUNT SINGLE GANG BOX WITH 1" CONDUIT TO ACCESSIBLE CEILING AND INCLUDE PAINT-MATCHING PLATE.

AUDIOVISUAL ROUGH-IN PLAN

SCALE = 3/16" = 1'-0"

James B. Glascock, Architect P.C.
Architecture - Planning
18901 East Lark Drive
Queen Cree, Arizona 85142
801 - 860 - 8905 e-mail: glascock@mtcon.net

PROFESSIONAL ENGINEER
No. 12419501
PUSHCHANG PRAVIANCHAROEN
STATE OF UTAH

Project 24-001

NORTH PLANT ADMINISTRATION OFFICE BUILDING
SOUTH DAVIS SEWER DISTRICT
1800 WEST 1200 NORTH
WEST BOUNTIFUL, UTAH

Revisions

Date 03/05/2024

09T301