130 MAVERICK CIRCLE, CLINTON, TIN 37716

# **ABBREVIATIONS**

- MANUFACTURING - ALTERNATE - MANUFACTURER - ALUMINUM MUNIMUM - ARCHITECTURAL - MISCELLANEOUS - ACOUSTICAL TILE CEILING ASPHALT NOT IN CONTRACT - BOTTOM FACE - NOT TO SCALE - BASEMENT - NUMBER - BENCH MARI - ON CENTER - OUTSIDE DIAMETER - BLOCK - PLATE - BEARING - PLASTIC - CATCH BASIN PLAS. LAM - PLASTIC LAMINATE - CONTROL JOIN - CHALK BOARD - PAINTED - CEILING - ROOF DRATE CLOS.. CL CLOSET - CLEAR - REINFORCIN - COLUMN REQ'D. - REQUIRED - COMPOSITION - RISER - CONCRETE - ROOM CONST. - CONSTRUCTION ROUGH OPENIN CONCRETE MASONRY UNIT - RUBBER TILE - SCHEDULE - CERAMIC TILE SOLID CORE WOOD - DIAMETER SECTION - SHEET - DRAWING - SIMILAR - DRINK FOUNTAIN -SPECIFICATIONS - DOWNSPOUT - SQUARE FEET - STANDARD - EACH FACE STEEL - ELECTRIC - STORAGE ELECTRIC WATER COOLER STORM DRAIN - ELVATION - SUSPENDED - EXISTING - SQUARE - EXTERIOR - TACK BOARD - EXPANSION JOINT T'HOLD THRESHOLI

-TOTLET

THREAD (S

- TOP FACE

TYPICAL

- VERIFY IN FIELD

VENT STACK

- URINAL

- VOLUME

- VINYL TILE

VERTICAL

- WAINSCOT

WINDOW

- WOOD

- ANGLE

- CHANNE

- ROUND

- WATER CLOSET

- WATER HEATER

- WATERPROOFING - WIDE FLANGE

- WELDED WIRE FABRIC

- WELDED WIRE MESH

- FIRE EXTINGUISHER

- GALVANIZED IRON

- HOLLOW CORE WOOD

- FLOOR DRAIN

- FOOTING

- GAUGE

**GYPSUM** 

HOSE BIB

HARDWARE

- JANTTOR

LAVATORY

- MANHOLE

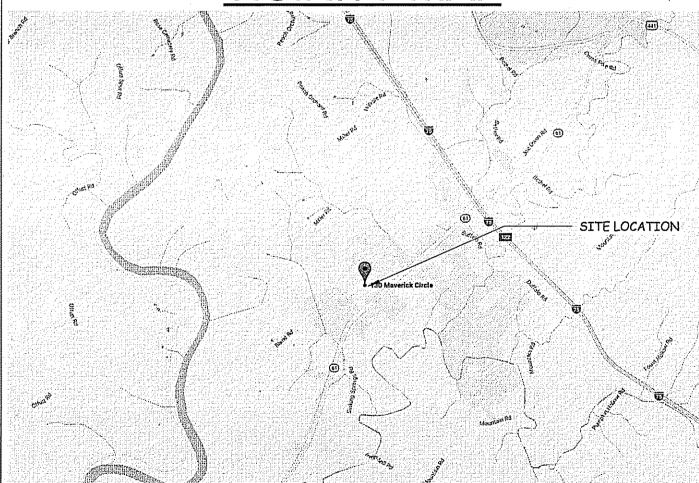
- MAXIMUM

- MECHANICA

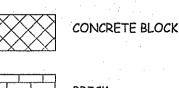
- HOLLOW METAL

- INSIDE DIAMETER

# VICINITY MAP

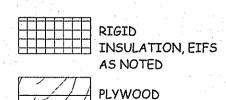


# MATERIALS LEGEND

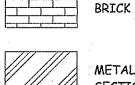


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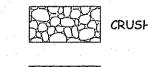
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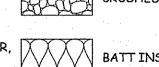


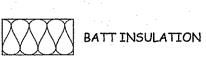
FINISH WOOD













# PROJECT INFORMATION:

TYPE OF CONSTRUCTION:

IBC: EDUCATIONAL

HEIGHT OF BUILDING:

ACTUAL:

BUILDING AREA

OCCUPANT LOAD:

OCCUPANCY:

IBC: VB, NOT SPRINKLERED

ALLOWABLE PER FLOOR:

ACTUAL BUILDING AREA

TOTAL BUILDING AREA:

IBC: 1 OCCUPANT / 35 S.F.

ACTUAL BUILDING AREA (COVERED

1,079 S.F. / 35 S.F. = 31 OCCUPANTS

(CONDITIONED):

ALLOWABLE PER BLDG ORDINANCE: 1 STORIES

18' - 9" / 1 STORIES

9,500 S.F.

1,079 S.F.

374 S.F.

1,453 S.F.

TN DEPT. OF EDUCATION

WILL NEED ASSISTANCE

TCA 49-1-302(1) et. seq.

NOT CAPABLE

PROJECT DESCRIPTION: A NEW NET ZERO ENERGY BUILDING FOR ANDERSON COUNTY HIGH SCHOOL

JURISDICTION: CITY OF CLINTON 100 N. BOWLING STREET CLINTON, TN 37716 865-259-1108

PROJECT CONTACT PERSON: CHUCK GRANT

MICHAEL BRADY INC 865-584-0999

APPLICABLE CODES: INTERNATIONAL BUILDING CODE: INTERNATIONAL MECHANICAL CODE: INTERNATIONAL PLUMBING CODE: NATIONAL ELECTRICAL CODE: INTERNATIONAL FIRE CODE: INTERNATIONAL FUEL GAS CODE:

2012 2012 INTERNATIONAL ENERGY 2012 CONSERVATION CODE: HANDICAP CODE:

2010 ADA 2012

DAY CARE OCCUPANCY INFORMATION:

NFPA 101 LIFE SAFETY CODE

NUMBER OF CLIENTS FOR WHICH THE DAY CARE WILL BE LICENSED FOR: THE STATE LICENSING AGENCY: -LICENSING NUMBER: THE NUMBER OF CLIENTS AGE 2 1/2 YEARS OR LESS:

THE NUMBER OF CLIENTS OLDER THAN 2 1/2 YEARS.

WILL THERE BE CLIENTS OR STAFF WITH MOBILITY IMPAIRMENTS?

THE NUMBER OF ADULT CLIENTS (IN ADULT DAYCARES): WHETHER THE CLIENTS ARE / ARE NOT CAPABLE OF RESPONDING TO AN EMERGENCY WITHOUT PHYSICAL ASSISTANCE FROM THE STAFF:

# 

# michael brady inc.

architecture . engineering . interiors

# PROJECT DIRECTORY:

MECHANICAL ENGINEER JOHN C. BUCHANAN 299 N. WEISGARBER RD. KNOXVILLE, TN 37919

STRUCTURAL ENGINEER: 299 N. WEISGARBER RD. KNOXVILLE, TN 37919

ARCHIE BRUMMETT 125 W. BROAD STREET CLINTON, TN 37716 WWW.CLINTONFIREDEPARTMENT.NE

100 N. BOWLING ST., CLINTON, TN 37716

299 N. WEISGARBER RD.

COVER SHEET

CIVIL AND SITE ENGINEERING CIVIL LEGENDS AND NOTES

EROSION PREVENTION AND SEDIMENT CONTROL PLAN SITE LAYOUT, GRADING, AND UTILITY PLAN

FIRE HYDRANT EXHIBIT CIVIL DETAILS

BUILDING SECTION

ARCHITECTURAL

CIVIL DETAILS

A0.4 LIFE SAFETY PLAN FLOOR PLANS, ARCHITECTURAL & STRUCTURAL NOTES STRUCTURAL NOTES

DOOR SCHEDULE, DOOR / FRAME ELEVATIONS AND DETAILS ROOF PLAN, REFLECTED CEILING PLAN NOTES AND DETAILS EXTERIOR ELEVATIONS & NOTES

MECHANICAL

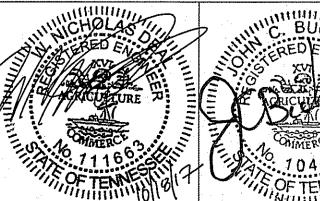
C8.1

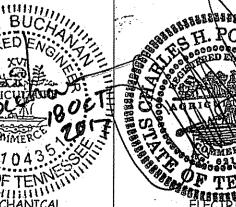
MECHANICAL LEGENDS, SPECIFICATIONS, AND NOTES FLOOR PLAN - HVAC PLUMBING LEGEND AND NOTES

FLOOR PLAN, DETAILS, SCHEDULES - PLUMBING

ELECTRICAL ENGINEERING ELECTRICAL LEGEND AND GENERAL NOTES FLOOR PLAN - ELECTRICAL

RISER DIAGRAM, PANELBOARD SCHEDULE, AND LIGHTING FIXTURE SCHEDULE SITE PLAN - ELECTRICAL







NO  $\alpha$ 2

THIS DRAWING HAS BEEN ISSUED: FOR PERMITTING ONLY SCHEMATIC DESIGN

DESIGN DEVELOPMENT

CONSTRUCTION DOCUMENT Drawing Title: COVER SHEET

07/28/2017

Designed By: Drawn By: Reviewed By: C.M.G.

Comm. No. 170042.01

Revisions:

REV #1 010/18/2017

Sheet

COL.

#### **GENERAL NOTES**

- COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR, 29 CFR 1926 OSHA.
- THE APPROPRIATE TRAFFIC CONTROL SIGNS AS DEFINED BY THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, F.H.W.A., 2003", SHALL BE INSTALLED AT THE INCEPTION OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED AND/OR OPERATED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE REMOVED IMMEDIATELY AFTER NEED. NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THEIR
- RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC. VERIFY THE LOCATIONS OF ALL PROPOSED ITEMS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY A/E IMMEDIATELY OF ANY DISCREPANCIES BEFORE STARTING WORK. COMMENCEMENT OF CONSTRUCTION AFTER SUCH DISCOVERY
- ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.

#### DEMOLITION NOTES

- DO ALL DEMOLITION WORK REQUIRED TO REMOVE EXISTING MASONRY WALLS, PAVING, FOUNDATIONS, CONCRETE SLABS, EXISTING UNDERGROUND PIPING, CONDUIT, BUILDING FINISHES, DOORS, WINDOWS AS SHOWN ON THE DRAWINGS AND ANY OTHER NECESSARY ITEMS TO INSTALL THE PROPOSED WORK.
- CONTRACTORS SUBMITTING PROPOSALS SHALL DETERMINE THE QUANTITIES OF DEMOLITION WORK REQUIRED BY
- FIELD INVESTIGATION OF THE BUILDING AND SITE. SUBMIT A DEMOLITION SCHEDULE TO THE PROJECT MANAGER PRIOR TO EXECUTION OF THE WORK. INDICATE
- PROPOSED METHODS AND SEQUENCE OF OPERATIONS. INCLUDE PROPOSAL FOR CONTROL OF DUST AND NOISE,
- AND COORDINATION FOR SHUT-OFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES.
- MAINTAIN TEMPORARY BARRICADES FOR PROTECTION OF JOB PERSONNEL AND THE PUBLIC. REMOVE BARRICADES WHEN NO LONGER REQUIRED.
- CONDUCT OPERATIONS IN SUCH A MANNER AS TO MINIMIZE INTERFERENCE WITH USE OF PUBLIC WAYS AND ADJACENT USED FACILITIES. DO NOT CLOSE, BLOCK OR OTHERWISE OBSTRUCT USE OF PUBLIC WAYS OR FACILITIES WITHOUT WRITTEN CONSENT OF AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATIVE ROUTES TO CLOSED OR
- OBSTRUCTED FACILITIES AS REQUIRED BY LOCAL REGULATIONS. EXISTING UTILITIES INDICATED TO REMAIN SHALL BE KEPT IN SERVICE AND PROTECTED FROM DAMAGE DURING
- DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES USED OR OCCUPIED FACILITIES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION IF INTERRUPTION IS ALLOWED, PROVIDE ALTERNATIVE TEMPORARY SERVICES
- ACCEPTABLE TO GOVERNING AUTHORITIES. LOCATE, IDENTIFY, SHUT OFF, CAP AND DISCONNECT UTILITIES AT PROPERTY LINE OR VALVE AS REQUIRED. PROVIDE BY-PASS CONNECTIONS AS REQUIRED TO MAINTAIN SERVICES TO ADJACENT PROPERTIES AND FACILITIES. PROVIDE A MINIMUM OF 72 HOURS ADVANCE NOTICE TO PROPERTY OWNERS IF SHUT-DOWN OF SERVICES IS REQUIRED DURING
- THE CHANGE-OVER. COORDINATE WITH ALL UTILITY COMPANIES 48 HOURS PRIOR TO ANY DEMOLITION WORK.
- REMOVE DEBRIS, RUBBISH, AND OTHER SUBSTANCES FROM SITE. LEGALLY TRANSPORT AND DISPOSE OF SUCH
- BURYING OR BURNING OF MATERIALS ON THE PROJECT SITE IS FORBIDDEN.
- 12. AVAILABILITY FOR DEMOLITION MUST BE CONFIRMED BY OWNER JUST PRIOR TO DEMOLITION.
- 13. THE USE OF EXPLOSIVES IS STRICTLY PROHIBITED.
- I. HISTORIC ARTIFACTS, INCLUDING CORNERSTONES, THEIR CONTENTS, COMMEMORATIVE PLAQUES AND TABLETS, ANTIQUES, AND OTHER ITEMS OF SIGNIFICANCE SHALL REMAIN THE PROPERTY OF THE OWNER. NOTIFY OWNERS REPRESENTATIVE IF SUCH ARTICLES ARE ENCOUNTERED. OBTAIN APPROVAL REGARDING METHOD OF REMOVAL. SALVAGE SUCH ARTICLES AND TURN OVER TO OWNER.
- IF HAZARDOUS MATERIALS ARE ENCOUNTERED, COMPLY WITH APPLICABLE REGULATIONS IN HANDLING, REMOVING, AND PROTECTING AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION.
- REGRADE ALL AREAS WHERE DEMOLITION HAS OCCURRED. PROVIDE SMOOTH TRANSITION BETWEEN EXISTING AND NEW GRADING, THERE SHALL NOT BE ANY VOIDS, PITS, OR MOUNDING OF EARTHWORK.

#### SITE NOTES

- WHERE PROPOSED PAVEMENT ABUTS EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE CUT IN A NEAT STRAIGHT LINE THROUGH PAVEMENT AND BASE. PROVIDE A SMOOTH TRANSITION.
- INSTALL EXPANSION JOINT MATERIAL BETWEEN NEW AND EXISTING CONCRETE AND/OR ASPHALT. MAINTAIN AND PROTECT EXISTING PAVEMENT OR GRAVEL SURFACES WHICH ARE TO REMAIN. CONTRACTOR SHALL
- REPLACE DAMAGED AREAS, MATCHING DEPTH, MATERIAL AND GRADE OF EXISTING SURFACES. DIMENSIONS SHOWN ARE TO FACE OF CURB, CENTER OF COLUMN, EDGE OF BUILDING EXTERIOR OR CENTER OF
- SIDEWALK AND PAVING JOINTS ARE SHOWN FOR REFERENCE ONLY. REVIEW JOINT LAYOUT WITH ALL SPECIFICATIONS AND DETAILS BEFORE POURING CONCRETE.

#### SURVEY NOTES

- BOUNDARY AND TOPOGRAPHIC INFORMATION WAS PREPARED BY MICHAEL BRADY INC, 299 N. WEISGARBER ROAD, KNOXVILLE TN 37919. SURVEY PERFORMED 05/30/2017.
- COORDINATES ARE IN FEET AND REFERENCE TO TENNESSEE STATE PLANE SYSTEM OF 1983.
- BEARINGS SHOWN ARE BASED ON MAGNETIC NORTH.
- THE VERTICAL DATUM IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. EXISTING UTILITIES SHOWN ON DRAWINGS ARE APPROXIMATE IN DEPTH AND LOCATION. REPAIR EXISTING UTILITIES DAMAGED DURING

#### GRADING NOTES

FIELD VERIFY CRITICAL GRADES AT CONNECTION POINTS SUCH AS ENTRANCES PRIOR TO CONSTRUCTION AND NOTIFY PROJECT MANAGER OR ENGINEER OF ANY DISCREPANCIES.

CONSTRUCTION AT NO COST TO THE OWNER.

- THE MINIMUM SLOPE FOR PARKING, SIDEWALKS, AND LANDSCAPED AREAS IS 1%. FIELD VERIFY MINIMUM SLOPE IS ACHIEVED.
- MAXIMUM SLOPE IN HANDICAP PARKING AREAS IS 2%. MAXIMUM LONGITUDINAL SIDEWALK SLOPE IS 5%. SLOPE SIDEWALKS AWAY FROM BUILDING AT 1½% CROSS SLOPE UNLESS OTHERWISE NOTED. SIDEWALK CROSS SLOPE CANNOT EXCEED 2% IN ANY CASE.
- UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN REPRESENT FINISHED GRADES. ADJUST FOR PAVEMENT THICKNESS, TOPSOIL, ETC.
- ADJUST DRAINAGE STRUCTURE TOPS AS NECESSARY TO MATCH FINAL GRADES. NO SLOPE SHALL BE STEEPER THAN 2(H):1(V)
- ALL EARTHWORK SHALL MEET THE FOLLOWING REQUIREMENTS AT A MINIMUM:
- FOLLOW RECOMMENDATIONS OF THE PROJECT SUBSURFACE INVESTIGATION REPORT. REPORT ANY CONTRADICTIONS TO THE PROJECT MANAGER. SOIL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED. OBTAIN CERTIFICATION FROM A TESTING LAB, SIGNED AND SEALED BY AN ENGINEER, STATING THAT ALL
- EARTHWORK IS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SUBSURFACE INVESTIGATION REPORT AND SOILS ARE CAPABLE OF SUPPORTING THE STRUCTURE AND IMPROVEMENTS. SUBMIT SOIL SAMPLES FOR TESTING AS REQUIRED BY THE PROJECT GEOTECHNICAL ENGINEER. SOIL FOR COMPACTED BACKFILL AND ENGINEERED FILL SHALL CONSIST OF CLEAN GRANULAR SOILS, CLAY SOILS, OR SHALE SOILS HAVING A PLASTICITY INDEX OF LESS THAN 35 AND A MINIMUM DENSITY OF 90 POUNDS
- PER CUBIC FOOT WHEN COMPACTED TO ONE HUNDRED PERCENT (100%) OF ITS MAXIMUM DRY DENSITY PER STANDARD PROCTOR TEST. (ASTM D698) MATERIAL SHALL BE FREE OF VEGETATION, ROOTS, ROCKS LARGER THAN 2" IN ANY DIMENSION, DEBRIS AND OTHER DELETERIOUS MATERIALS. RESIDUAL SOIL EXCAVATED AT THE SITE MAY BE USED FOR BACKFILL IF IT MEETS THE SPECIFICATION REQUIREMENTS. THE MOISTURE CONTENT OF THE FILL SOILS SHOULD BE MAINTAINED WITHIN +3 AND -3 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT DETERMINED FROM THE STANDARD PROCTOR COMPACTION TEST. ALL FILL IN AREAS TO BE OCCUPIED BY THE BUILDING(S) AND PAVING, INCLUDING AN AREA 10 FEET OUTSIDE THE PERIMETERS THEREOF, SHALL BE CONTROLLED (ENGINEERED) FILL AND THE COMPACTION SHALL BE
- TESTED BY A LICENSED AND QUALIFIED GEOTECHNICAL ENGINEER. CONTROLLED FILL IN AREAS OF BUILDINGS SHALL BE COMPACTED IN MAXIMUM 4" LIFTS TO AT LEAST 98% OF MAXIMUM DRY DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM SPECIFICATION D-698 (STANDARD PROCTOR). FILL IN AREAS OF ASPHALT PAVING SHALL BE COMPACTED IN MAXIMUM 6" LIFTS TO AT LEAST 98% OF MAXIMUM DRY DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM SPECIFICATION D-698. THE UPPER 12 INCHES OF FILL BENEATH PAVEMENTS AND UPPER 24 INCHES BENEATH FOOTINGS AND GRADE SLABS SHALL BE COMPACTED TO 100%. PROVIDE 95% COMPACTION IN ALL OTHER AREAS.
- AFTER STRIPPING TOPSOIL, ALL FILL AREAS SHALL BE PROOFROLLED AND MONITORED BY THE PROJECT
- GEOTECHNICAL ENGINEER. FILL OUTSIDE OF BUILDING AND PAVEMENT SHALL BE PLACED IN 8" LIFTS IN THE PRESENCE OF A REPRESENTATIVE OF THE SOIL TESTING LAB, COMPACTED TO SPECIFIED REQUIREMENTS, AND TESTED EVERY 900 SF FOR EACH LAYER OF FILL. REMEDY ANY INADEQUATELY PLACED FILL TO MEET PROJECT SPECIFICATIONS.
- ALL LANDSCAPED AND GRASS AREAS SHALL HAVE A MINIMUM OF 5" OF CLEAN TOPSOIL. ALL OFFSITE BORROW AND SPOIL SITES, IF REQUIRED, SHALL BE PROPERLY PERMITTED.

#### DRAINAGE NOTES

- FIELD VERIFY CRITICAL GRADES AT CONNECTION POINTS PRIOR TO CONSTRUCTION OR FABRICATION OF PRECAST STRUCTURES.
- UNLESS OTHERWISE NOTED, HDPE SHALL BE HANCOR, LANE HDPE, OR ADS N-12 SMOOTH INTERIOR WALL HDPE PIPE PROVIDE #57 STONE BEDDING AND BACKFILL TO PAVEMENT SUBGRADE OR 12" ABOVE PIPE IN GRASS AREAS. ALL PIPE AND FITTINGS SHALL MEET THE REQUIREMENTS OF AASHTO M252, TYPE S (4"-10") OR AASHTO M294, TYPE S (12"-48"). GASKET SHALL MEET THE REQUIREMENTS OF ASTM F477. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D232 JOINTS SHALL BE SILT TIGHT AND NON-RATED WATERTIGHT GASKETS SHALL BE COVERED WITH A REMOVABLE WRAP BY THE MANUFACTURER TO ENSURE THAT THE GASKET IS FREE FROM DEBRIS.
- UNLESS OTHERWISE NOTED, RCP SHALL BE CLASS III CONFORMING TO ASTM C-76 (LATEST REVISION): "STANDARD SPECIFICATION FOR REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE".
- ROOF LEADERS SHALL BE ASTM D3034 SDR 35 PVC WITH GASKET JOINTS. UNLESS OTHERWISE NOTED ON THE PLANS 4" SHALL BE LAID AT A 2% MINIMUM SLOPE AND 6" SHALL BE LAID AT 1% MINIMUM SLOPE. COORDINATE WITH GOVERNING AGENCY FOR ALL REQUIRED MATERIAL APPROVALS, INSPECTIONS AND TESTING.

#### EROSION CONTROL NOTES

- UNLESS SHOWN OTHERWISE, ALL DISTURBED AREAS NOT ULTIMATELY RECEIVING A HARD SURFACE SHALL HAVE A MINIMUM DEPTH OF 5" OF TOPSOIL AND BE STABILIZED WITH GRASS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS AND COMPLYING WITH ALL APPLICABLE
- LOCAL, STATE AND FEDERAL REGULATIONS RELATED TO SITE GRADING, EROSION AND SEDIMENTATION CONTROL, AND STORMWATER RUNOFF NO LAND DISTURBANCE IS PERMISSIBLE UNTIL THE CONTRACTOR HAS SUBMITTED A SIGNED NOTICE OF INTENT AND
- (TDEC). COORDINATE WITH OWNER TO ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED PRIOR TO LAND A NOTICE WILL BE POSTED BY NEAR THE CONSTRUCTION ENTRANCE BEFORE WORK BEGINS CONTAINING:

RECEIVED A NOTICE OF COVERAGE FROM THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

- A. A COPY OF THE NOC WITH THE TRACKING NUMBER ASSIGNED BY TDEC. B. THE NAME, COMPANY NAME, TELEPHONE NUMBER, EMAIL AND ADDRESS OF THE PROJECT SITE OPERATOR INCLUDING A LOCAL CONTACT PERSON.
- C. A PROJECT DESCRIPTION

WELL AS THE CGP AND THE SWPPP.

- D. THE LOCATION OF THE SWPPP ON SITE. IN PREPARATION FOR AND PRIOR TO INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES, THE CONTRACTOR SHALL:
- A. EXAMINE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AT THE SITE.
- B. NOTIFY ENGINEER OF DEFICIENCIES OR CHANGES IN THE SWPPP OR DRAWINGS REQUIRED BY CURRENT SITE CONDITIONS. REVISIONS OF THE DOCUMENTS WILL BE MADE AS DETERMINED BY THE ENGINEER.
- FURNISH, ERECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES IN CONFORMITY WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK, FOURTH EDITION, AS PREPARED BY TDEC. SEE PLAN AND DETAILS FOR SPECIFIC EROSION AND SEDIMENTATION CONTROL MEASURES.
- EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THIS PLAN ARE A MINIMUM REQUIREMENT. MAINTAIN, MODIFY AND ADD EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE.
- ENVIRONMENTAL PERMIT REQUIREMENTS: SHOW COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES CURRENTLY ADOPTED BY TDEC (CGP) AND THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP). PROVIDE ENGINEER AND TDEC WITH COPIES OF ALL REQUIRED PAPERWORK. PERFORM AND PROVIDE ALL MAINTENANCE, INSPECTIONS, RECORD KEEPING,
- INSPECTIONS WILL BE PERFORMED BY PERSONNEL CERTIFIED IN THE TDEC LEVEL 1 EROSION CONTROL COURSE. PROOF OF INSPECTOR'S CERTIFICATION SHALL BE KEPT ON FILE AT THE JOBSITE ALONG WITH ALL INSPECTION REPORTS AND OTHER REQUIRED PAPERWORK IDENTIFIED IN THE PROJECT SWPPP AND THE CGP. MAINTENANCE REPAIR NEEDS IDENTIFIED BY INSPECTIONS SHALL BE ADDRESSED WITHIN 7 DAYS OR BEFORE THE NEXT RAIN EVENT. DOCUMENT WHEN MAINTENANCE ITEMS ARE COMPLETED ON THE INSPECTION REPORT.
- MAINTAIN A RAIN GAUGE AND RAINFALL RECORDS ON SITE AS REQUIRED BY TDEC. EROSION AND SEDIMENTATION CONTROL IMPLEMENTATION: STAKE THE DISTURBED AREA LIMITS AND UNDISTURBED AREAS IN THE FIELD BEFORE BEGINNING WORK
- INSTALL CONSTRUCTION EXIT TEMPORARY EROSION AND SEDIMENTATION CONTROL: PROVIDE MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF AND AIRBORNE DUST TO UNDISTURBED AREAS AND TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AS
- BEGIN SITE GRADING VERIFY THAT FLOWS OF WATER REDIRECTED FROM CONSTRUCTION AREAS OR GENERATED BY
- CONSTRUCTION ACTIVITY DO NOT ENTER OR CROSS TREE- OR PLANT- PROTECTION ZONES. INSPECT, REPAIR, AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES DURING
- CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CLEAN, REPAIR, AND RESTORE ADJOINING PROPERTIES AND ROADS AFFECTED BY EROSION AND SEDIMENTATION FROM THE PROJECT SITE DURING THE COURSE OF THE PROJECT. OBTAIN PERMISSION AND
- APPROPRIATE PERMITS TO ACCESS AREAS OUTSIDE THIS SITE. AFTER FINAL STABILIZATION OF THE SITE, REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND
- STABILIZE AREAS DISTURBED DURING REMOVAL. STORMWATER CONTROL: COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE BARRIERS IN AND AROUND EXCAVATIONS AND SUBGRADE CONSTRUCTION TO PREVENT FLOODING BY RUNOFF OF STORMWATER FROM HEAVY RAINS.
- PROJECT MANAGER OR ENGINEER MAY DIRECT CONTRACTOR TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND MAY DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION
- PROVIDE PERMANENT EROSION CONTROL MEASURES AT EARLIEST PRACTICAL TIME TO MINIMIZE REQUIREMENT FOR TEMPORARY EROSION CONTROLS. PERMANENTLY SEED AND MULCH CUT SLOPES AS
- MAINTAIN TEMPORARY EROSION CONTROL SYSTEMS INSTALLED BY CONTRACTOR AS DIRECTED BY PROJECT MANAGER OR ENGINEER TO CONTROL SILTATION AT ALL TIMES THROUGHOUT WORK. PROVIDE MAINTENANCE OR ADDITIONAL WORK DIRECTED BY ENGINEER WITHIN 48 HOURS OF NOTIFICATION BY ENGINEER.
- EROSION CONTROL SHALL BE MAINTAINED UNTIL PAVING IS COMPLETED AND LAWNS HAVE BEEN ESTABLISHED. PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM EROSION AND SEDIMENT DAMAGE THROUGHOUT THE LIFE OF THE PROJECT UNTIL A NOTICE OF TERMINATION IS FILED WITH TDEC. CONTRACTOR COORDINATE WITH THE ENGINEER AND OWNER FOR APPROVAL TO FILE A NOTICE OF TERMINATION AT THE APPROPRIATE TIME.
- STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT SOIL STABILIZATION AT THE CONSTRUCTION SITE (OR PHASE OF THE PROJECT) MUST BE COMPLETED NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE, NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES OR CRUSHER RUNS WILL NOT BE CONSIDERED A NON-ERODING
- SURFACE. ALL WATER DISCHARGED FROM EXCAVATIONS AND TEMPORARY SEDIMENT PONDS SHALL BE FILTERED USING SEDIMENT CONTROLS ACCEPTABLE TO TDEC AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION. UNLESS OTHERWISE NOTED, RIP-RAP SHALL BE T.D.O.T. MACHINED CLASS A-1 WITH A MEDIAN RIP-RAP SIZE D50 OF 6",
- 9" THICK AND SHALL BE UNDERLAIN WITH A NON-WOVEN GEOTEXTILE FABRIC. CONCRETE WASHOUT AREA SHALL BE IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL
- PERMITTING AUTHORITY HAVING JURISDICTION. AT THE END OF THE PROJECT, DURING FINAL SITE STABILIZATION, DEWATER TEMPORARY SEDIMENT PONDS AND TRAPS IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING JURISDICTION. REMOVE ALL TEMPORARY EROSION CONTROLS AT THE END OF THE PROJECT AND COORDINATE WITH OWNER TO FILE NOTICE OF TERMINATION, AT THE APPROPRIATE TIME, WITH AUTHORITY HAVING JURISDICTION.
- CONTRACTOR COORDINATE WITH ENGINEER AT BEGINNING OF LAND DISTURBANCE TO DETERMINE WHETHER OR NOT AN INITIAL SITE ASSESSMENT INSPECTION BY THE ENGINEER IS REQUIRED. IF REQUIRED, THE SITE ASSESSMENT INSPECTION BY THE ENGINEER MUST BE PERFORMED WITHIN 1 MONTH OF STARTING CONSTRUCTION. ALLOW ENGINEER A MINIMUM OF 1 WEEK NOTICE IN SCHEDULING SITE ASSESSMENT INSPECTIONS.

#### UTILITY NOTES

- COORDINATE WITH EXISTING UTILITIES AND STORM SEWER INSTALLATION TO AVOID CONFLICTS. UTILITY INSTALLATION AND MATERIAL SHALL MEET THE REQUIREMENTS OF POWELL CLINCH & CUB AND ALL APPLICABLE CODES. COORDINATE WITH POWELL CLINCH & CUB PRIOR TO CONSTRUCTION TO DETERMINE MATERIAL, INSTALLATION TESTING AND INSPECTION REQUIREMENTS. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- PAVEMENT REPAIR AND TRAFFIC CONTROL SHALL MEET THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION.
- COORDINATE LOCATION OF GAS LINE TO AVOID CONFLICTS WITH OTHER UTILITIES. CONNECTION TO EXISTING GAS SERVICE SHALL MEET THE REQUIREMENTS OF **POWELL CLINCH.** CONTACT **POWELL CLINCH** AND COORDINATE INSTALLATION.
- GAS METER AND SUPPLY LINE SHALL BE SIZED AND INSTALLED BY **POWELL CLINCH** FOR THE LOADS SHOWN ON THE PLUMBING DRAWINGS. PROVIDE 4" SLEEVE UNDER PAVED AREAS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY AND ALL PERMITS AND LICENSES REQUIRED TO WORK IN THE PUBLIC R.O.W. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP FEES AND COORDINATION WITH **CUB** TO ESTABLISH WATER AND SEWER SERVICE.
- PROVIDE 10' MIN. HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES. WHERE CROSSINGS OCCUR, PROVIDE 18" MIN SEPARATION BETWEEN WATER AND SEWER LINES. PROVIDE 6" MIN. CLEARANCE BETWEEN STORM SEWERS AND OTHER UTILITIES. UNLESS OTHERWISE NOTED PROVIDE 3' MINIMUM COVER FOR ALL UTILITIES. PROVIDE #57 STONE BEDDING AND BACKFILL TO SUBGRADE FOR ALL UTILITIES LOCATED IN PAVED AREAS. ADJUST ALL EXISTING UTILITY STRUCTURES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, TO
- MATCH FINAL GRADES. ADJUSTMENTS SHALL MEET THE REQUIREMENTS OF **POWELL CLINCH & CUB**. COORDINATE WITH POWELL CLINCH & CUB TO REMOVE OR ABANDON EXISTING UTILITIES, WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT, THAT ARE LOCATED WITHIN THE PROJECT LIMITS AND NO LONGER IN USE.
- UNLESS OTHERWISE NOTED, ALL SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC MEETING THE REQUIREMENTS OF ASTM D 3034. USE SDR 35 UNLESS OTHERWISE SPECIFIED. FITTINGS SHALL MEET THE REQUIREMENTS OF ASTM D 3311 AND ASTM D 2665. PIPE SHALL HAVE AN INTEGRAL BELL END WITH GASKET SEAL WHICH HAS BEEN REINFORCED WITH A STEEL RING, BAND, OR OTHER RIGID MATERIAL THAT PERMANENTLY LOCKS THE GASKET IN PLACE. THE JOINT SHALL MEET THE REQUIREMENTS OF ASTM D 3212. GASKETS SHALL BE OF A LOCK-IN TYPE GASKET, REIBER TYPE OR APPROVED SUBSTITUTE, MEETING THE REQUIREMENTS OF ASTM F-477. UNLESS OTHERWISE NOTED, MINIMUM SLOPE SHALL BE 2.0% FOR 4" LINE AND 1.0% FOR 6" LINES.
- UNLESS OTHERWISE NOTED, ALL WATER LINES SHALL BE AWWA C900 PVC (CLASS 200) WITH BELL END FOR PUSH-ON TYPE JOINTS. JOINTS SHALL CONSIST OF COMPACT PATTERN DUCTILE IRON FITTINGS MEETING THE REQUIREMENTS OF AWWA C 153 WITH RUBBER GASKETS MEETING THE REQUIREMENTS OF AWWA C 111. INSTALLATION SHALL COMPLY WITH UL 1285.
- ALL FIRE WATER LINES SHALL BE CLASS 350 DUCTILE IRON WITH PUSH-ON TYPE JOINTS. PIPE SHALL COMPLY WITH AWWA C151 AND CEMENT - MORTAR LINING SHALL COMPLY WITH AWWA C104. INSTALLATION SHALL COMPLY FIRE LINE SIZE SHALL BE VERIFIED BY SPRINKLER CONTRACTOR. CERTIFIED CALCULATIONS SHALL BE SUBMITTED TO THE OWNER. SEE THE FIRE PROTECTION PLAN FOR FURTHER REQUIREMENTS. ALL FIRE PROTECTION PIPING

STARTING FROM THE POINT OF SERVICE MUST BE INSTALLED BY A TENNESSEE REGISTERED SPRINKLER

CONTRACTOR. ALL WATER LINE MATERIALS SHALL BE LEAD FREE.

)	AT AND
AASHTO ADA	AND AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS AMERICANS WITH DISABILITIES ACT
APP'D APPROX. OR ~	APPROVED
ASCE ASPH.	AMERICAN SOCIETY OF CIVIL ENGINEERS ASPHALT
ASTM AWWA	AMERICAN SOCIETY FOR TESTING AND MATERIALS AMERICAN WATER WORKS ASSOCIATION
B/C BLDG.	BACK OF CURB BUILDING
BLVD. BM	BOULEVARD BENCHMARK
/W	BOTTOM OF WALL  CURVE DELTA ANGLE
B SFS	CATCH BASIN CUBIC FEET PER SECOND
CGP Cl	CONSTRUCTION GENERAL PERMIT CURB INLET CENTERLINE
: :MP :MU	CORRUGATED METAL PIPE CONCRETE MASONRY UNIT
ONC.	CLEANOUT CONCRETE
CONT. CUB	CONTINUOUS CLINTON UTILITIES BOARD
ОСВ	DEGREES DOUBLE CATCH BASIN
DIA. OR Ø DIP DWG.	DIAMETER DUCTILE IRON PIPE DRAWING
w.G.	DRAWING EAST
A. .F.	EACH EACH FACE
IP L. OR ELEV. OP	EXISTING IRON PIPE ELEVATION EDGE OF PAVEMENT
PA TC.	ENVIRONMENTAL PROTECTION AGENCY ET CETERA
.W. X. OR EXIST.	EACH WAY EXISTING
:/C :FE	FACE OF CURB FINISHED FLOOR ELEVATION
IN. P	FINISHED FIRE PROTECTION
T. GC	FEET GENERAL CONTRACTOR
al apm	GRATE INLET GALLONS PER MINUTE
SV I	GAS VALVE HORIZONTAL
1 IDPE IP	HIGH DENSITY POLYETHYLENE HIGH POINT
IP HDPE IWY.	HIGH PERFORMANCE HIGH DENSITY POLYETHYLENE HIGHWAY
) N.	INSIDE DIAMETER OR INLINE DRAIN INCH(ES)
NV. PF	INVERT IRON PIN FOUND
В	JUNCTION BOX
BS.	LENGTH POUNDS
F	LINEAR FEET
MAX. MH MIN. MUTCD	MAXIMUM MANHOLE MINIMUM MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
J /A	NORTH NOT APPLICABLE
JFPA JIC	NATIONAL FIRE PROTECTION AGENCY NOT IN CONTRACT
IIP IO. OR # IOI	NEW IRON PIN NUMBER NOTICE OF INTENT
IDI IPDES I.T.E.	NOTICE OF INTENT NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM NOT TO SCALE
).C. OSHA	ON CENTER
IV	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION  POST INDICATOR VALVE
OB OE	POINT OF BEGINNING (ALIGNMENT) POINT OF ENDING (ALIGNMENT)
P SI VC	POWER/UTILITY POLE POUNDS PER SQUARE INCH POLYVINYL CHLORIDE
VMT	PAVEMENT
1 110 JLP	1 YEAR STORM PEAK FLOW 10 YEAR STORM PEAK FLOW QUALIFYING LOCAL PROGRAM
	RADIUS
CP D	REINFORCED CONCRETE PIPE ROAD
IEF. IEQ'D IEV.	REFERENCE REQUIRED REVISION
.O.W.	RIGHT-OF-WAY
SAN. SCH.	SOUTH SANITARY SCHEDULE
CH. D DR	SCHEDULE STORM DRAIN STANDARD DIMENSION RATIO
F PAP	SQUARE FEET SPECIAL POLLUTION ABATEMENT PERMIT
Q. Τ. ΤΔ	SQUARE STREET STATION
TA. S SFM	STATION SANITARY SEWER SANITARY SEWER FORCE MAIN
WPPP	STORM WATER POLLUTION PREVENTION PLAN
BM DEC .D.O.T.	TEMPORARY BENCH MARK TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION TENNESSEE DEPARTMENT OF TRANSPORTATION
.D.O.T. HK. C	TENNESSEE DEPARTMENT OF TRANSPORTATION THICK TOP OF CASTING
/C P	TOP OF CURB ELEVATION TOP OF PAVEMENT ELEVATION
·W YP.	TOP OF WALL TYPICAL
,	VERTICAL
      <b> </b>	WEST WITH WATER SURFACE
/S /V /.W.F.	WATER SURFACE WATER VALVE WELDED WIRE FABRIC
V.W.M.	WELDED WIRE FABRIC WELDED WIRE MESH

YARD DRAIN

EXISTING	LEGEND	PROPOSED
— — — — P/E —	- EASEMENT —	— — — — C/E —
R/W		R/W
PL	- PROPERTY LINE -	——— PL ———
2010	MAJOR CONTOUR -	2010
2011	MINOR CONTOUR —	2011)
ss <sub>x</sub>	SANITARY SEWER -	ss
G <sub>X</sub>		G
W <sub>X</sub>		W
OU <sub>x</sub>	OVERHEAD UTILITIES -	OU
	ELECTRIC (UNDERGROUND) -	—— UE ——
UI <sub>X</sub>	TELEPHONE/COMM. —	T
SD X	ROOF DRAINS -	RD —
	FIRE SUPPRESSION LINE -	—— F ———
	FORCE MAIN -	SSFM-
	SILT FENCE -	SF
	REINFORCED SILT FENCE -	SSF
	CONSTRUCTION LIMITS -	<u> </u>
	SETBACK —	
	•	//////////
	DRAINAGE SWALE —	-<·-
	CHECK DAM	<b></b>
	DIVERSION DITCH	——
	TUBES AND WATTLES	-) -) -)
	CURBLINE =	
	BUILDING	
X	FENCE -	
<u>,                                     </u>	VEGETATION	X
	SEWER MANHOLE	
GT)	GREASE TRAP	
_		
(ST)	STORM MANHOLE	
JB	JUNCTION BOX	∪B ○
СВ	CATCH BASIN	<u> </u>
СВ	CURB INLET	<del>(1)</del>
	THROATED INLET	
©	CLEAN OUT	<b>©</b>
	HEADWALL	
XXX.XX ×	SPOT GRADE	xxx.xx 🎤
	OUTFALL	OUT
	RIPRAP OUTLET PROTECTION	
	TEMP. CONSTRUCTION EXIT	
	INLET PROTECTION	[1111]
	THRUST BLOCK	<b>5111</b>
W	WATER VALVE	$\bowtie$
M	WATER METER	$\bigcirc$
PIV	POST INDICATOR VALVE	<b>∞</b> <b>¥</b>
(P)	FIRE HYDRANT	•
±	FIRE DEPARTMENT CONNECTION	DN
IV	IRRIGATION VALVE	
O .G.		<b>L</b> 4
	GAS VALVE	
GM	GAS METER	G
Ø	UTILITY POLE	Ø
EV	ELECTRICAL VAULT	
EM	ELECTRIC METER	
E	ELECTRICAL BOX	
> GW	GUY WIRE	
<b>\$</b>	LIGHT STANDARD	<b>⊕</b> Љ
	TELEPHONE PEDESTAL	_
©	BOLLARD	•
	SLOPE DRAIN	) <del></del>
	SLOPE MATTING	
	TEMPORARY STABILIZATION	TS
	PERMANENT STABILIZATION	PS
	CONCRETE WASHOUT	CW
	FILTER RING	
•	BENCHMARK	
$\triangle$	CONTROL POINT	
	MAILBOX	
	IVIAILBOX	

XISTING	LEGEND	PROPOSED
— — P/E —	- EASEMENT	
– R/W ––––		R/W
— PL ———	PROPERTY LINE ——	—— PL ——
2010	MAJOR CONTOUR —	2010
- 2011 — — — —		2011)
ss <sub>x</sub>	SANITARY SEWER -	ss
— G x		G
— w <sub>x</sub> ———		w
	OVERHEAD UTILITIES -	ou
	ELECTRIC (UNDERGROUND)	
	TELEPHONE/COMM. —	тт
SD X		SD
x	ROOF DRAINS —	RD
	FIRE SUPPRESSION LINE —	F
	FORCE MAIN —	SSFM—
	SILT FENCE —	SF
	REINFORCED SILT FENCE —	SSF
	CONSTRUCTION LIMITS —— SETBACK ——	•
	EXISTING TO BE REMOVED ://	
	DRAINAGE SWALE —	· / / / / / / / / / /
	CHECK DAM	
	DIVERSION DITCH	—— TD ———
	TUBES AND WATTLES	-)))
	CURBLINE	
	CURBLINE	
	BUILDING	
X	FENCE —	X
	VEGETATION	
S	SEWER MANHOLE	
(GT)	GREASE TRAP	(a) (b)
ST	STORM MANHOLE	
JB	JUNCTION BOX	JB
СВ	CATCH BASIN	•
<del>_</del>		<del> </del>
СВ	CURB INLET	
	THROATED INLET	0
©	CLEAN OUT	<b>©</b>
\\ //	HEADWALL	
\		VAA 12.
XXX.XX $\times$	SPOT GRADE	XXX.XX
	OUTFALL	OUT
	RIPRAP OUTLET PROTECTION	
	TEMP. CONSTRUCTION EXIT	ROY
		<u>   </u>
	INLET PROTECTION	[1111]
	THRUST BLOCK	<b>5111</b>
₩ ⊠	WATER VALVE	$\bowtie$
W	WATER METER	
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PIV	POST INDICATOR VALVE	M
	FIRE HYDRANT	•
	FIRE DEPARTMENT CONNECTION	_
IV	IBBIGATION WALVE	
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GM	GAS METER	G
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EV	ELECTRICAL VAULT	_ <del>_</del>
EM	ELECTRIC METER	
E	ELECTRICAL BOX	
> GW	GUY WIRE	
ά	LIGHT STANDARD	<b>▲</b> □
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T	TELEPHONE PEDESTAL	
•	BOLLARD	•
	SLOPE DRAIN	<b>)—</b>
	SLOPE MATTING	
	TEMPORARY STABILIZATION	TS
	PERMANENT STABILIZATION	PS
	CONCRETE WASHOUT	CW
	FILTER RING	
		000
•	BENCHMARK	
$\triangle$	CONTROL POINT	
	MAILBOX	

PROPOSED	AREAS & C	ALCUL	ATIONS
- — C/E —	DISTURBED AREA		
R/W ———	TOTAL SITE A 29.00	REA Acres	DISTUF 0.32
PL ———	1,263,000.00  PARKING CALCULA	sqft	14,011.00
) <u> </u>	PROVIDED		
	REGULAR ACCESSIBLE	15 1	
	TOTAL	16	
V———	PROPERTY	INFORM	/IATION
	OWNER		
	NAME: ADDRESS:	101 SOUT	ON COUNTY SO TH MAIN STREE
	PHONE:	CLINTON, (865) 463-	TN 37716 -2800
	PROPERTY DATA	. <del>-</del>	-Dietra -
	ADDRESS:		ERICK CIRCLE TN 37716
— <u> </u>	MAP:	043	
— [	PARCEL ID: ZONING:	118.02 A-2 (RUR <i>i</i>	AL RESIDENTI <i>A</i>
<u> </u>	VERTICAL DATUM:	NAVD 88	
- • • —	L		
.▶			
<u>→</u>			
- <b>)</b>			

LAR PERTY INFORMATION ANDERSON COUNTY SCHOOL BOARD 101 SOUTH MAIN STREET CLINTON, TN 37716 (865) 463-2800 130 MAVERICK CIRCLE CLINTON, TN 37716 118.02 A-2 (RURAL RESIDENTIAL) DATUM: NAVD 88

AL SITE AREA DISTURBED AREA Acres 0.32 00.00 saft 14,011.00 saft **CALCULATION** 

DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE HESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE

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■ CONSTRUCTION DOCUMENTS

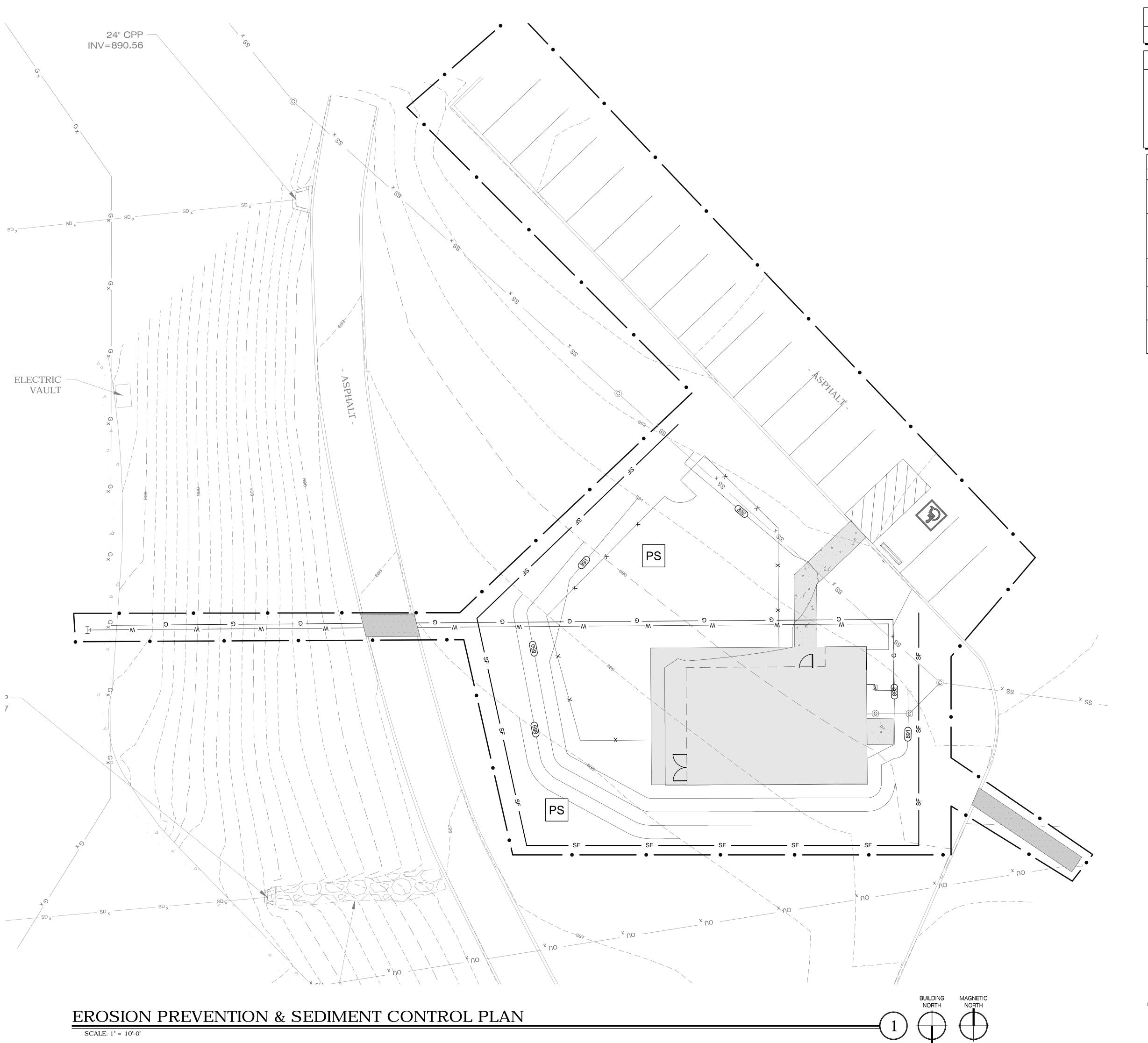
**Drawing Title:** CIVIL LEGENDS & NOTES

☐ DESIGN DEVELOPMENT

Designed By: Drawn By: Reviewed By: D.J.M

Comm. No. 170042.0 Revisions:

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### GENERAL SHEET NOTES:

1. SEE SHEET CO.1 FOR CIVIL NOTES AND LEGENDS

EROSION CONTROL LEGEND

 CONSTRUCTION LIMITS SILT FENCE; SEE DETAIL 1/C8.0

PERMANENT STABILIZATION; SEE SEED MIXTURE TABLES BELOW

PERMANENT SEED MIXTURES (TDOT) GRASS SEEDS PERCENT KENTUCKY 31 FESCUE FEBRUARY 1 TO JULY 1

FEBRUARY 1 TO

DECEMBER 1

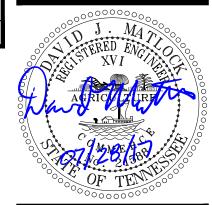
KOREAN LESPEDEZA **ENGLISH RYE** KENTUCKY 31 FESCUE **ENGLISH RYE** 20% JUNE 1 TO AUGUST 15 KOREAN LESPEDEZA **GERMAN MILLET** BERMUDAGRASS (HULLED) APRIL 15 TO AUGUST 1 ANNUAL LESPEDEZA KENTUCKY 31 FESCUE AUGUST 1 TO **ENGLISH RYE** DECEMBER 1 WHITE CLOVER KENTUCKY 31 FESCUE 70%

CROWN VETCH

**ENGLISH RYE** 

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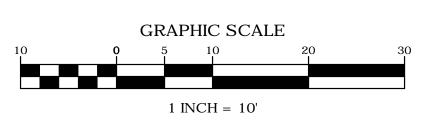
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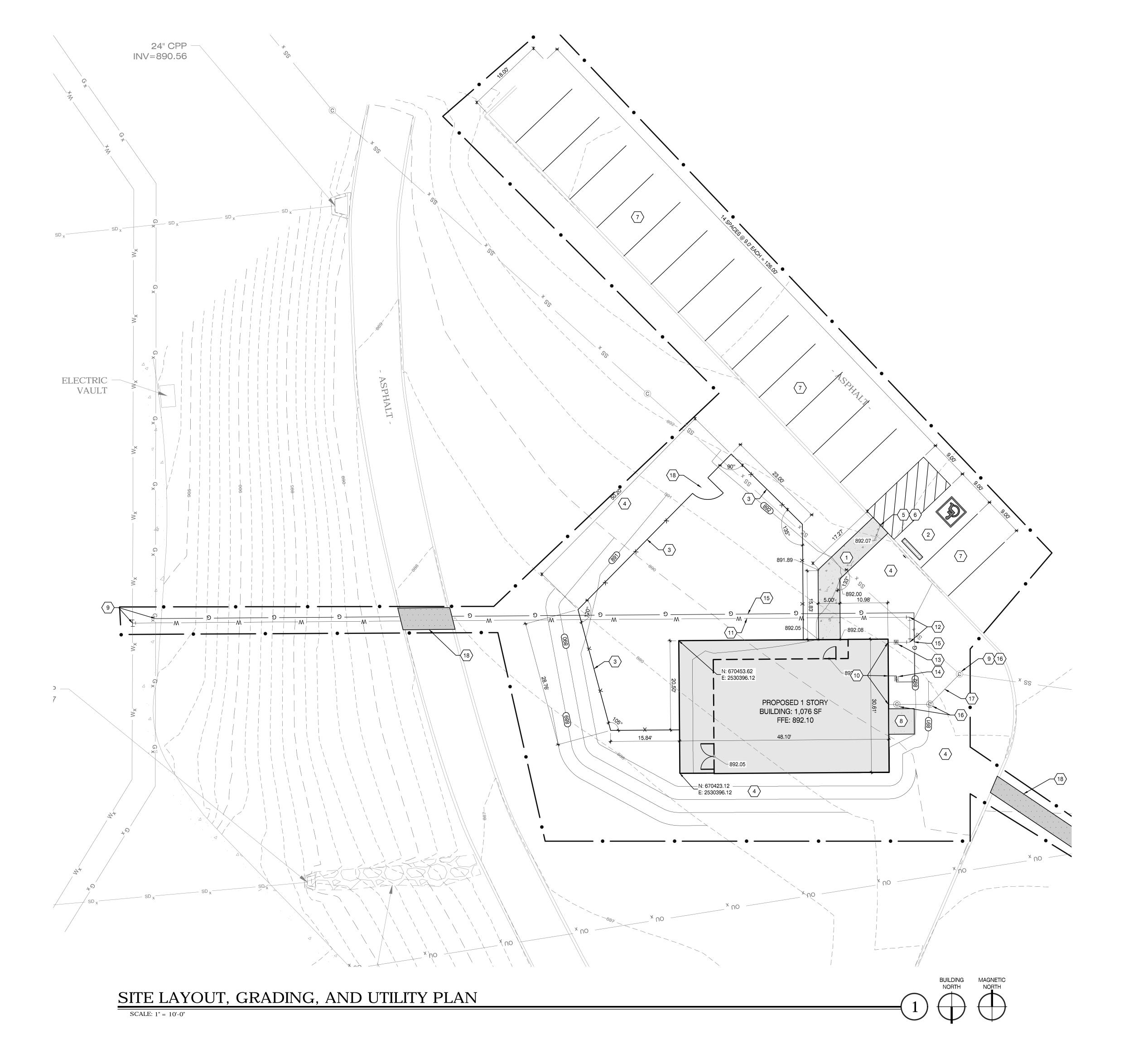
☐ DESIGN DEVELOPMENT Drawing Title:
PHASE 2 EROSION PREVENTION &
SEDIMENT CONTROL PLAN

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Revisions:



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#### GENERAL SHEET NOTES:

- . SEE SHEET CO.1 FOR CIVIL NOTES AND LEGENDS
- FOR TYPICAL PARKING SPACE LAYOUT, SEE 3/C8.0
   COORDINATE ALL UTILITY CROSSINGS; SEE DETAIL 4/C8.1
   FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. DETERMINE LOCATED, SIZE, MATERIAL & IN
- 4. FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. DETERMINE LOCATED, SIZE, MATERIAL & INVERTS. REPORT ANY DISCREPANCIES TO OWNER & ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION & INSTALLATION.

# $\langle x \rangle$ SITE KEYED NOTES

1 CONCRETE SIDEWALK; SEE DETAIL 2/C8.0

- $\left\langle 2\right\rangle$  ADA COMPLIANT PARKING SPACE; SEE DETAIL 4/C8.0
- 3 4ft KNUCKLED END CHAINLINK FENCE
- 5 PROVIDE SMOOTH TRANSITION TO EXISTING SURFACE
- REMOVE EXISTING CURB AS REQUIRED FOR PROPOSED SIDEWALK
- 7 RE-STRIPE EXISTING LOT PER DETAIL 3/C8.0
- 8 CONCRETE PAD; SEE MECHANICAL AND ELECTRICAL SHEETS FOR DETAILS
- $9 > {\it FIELD}$  LOCATE AND CONNECT TO EXISTING PER LOCAL UTILITY REQUIREMENTS.
- $\langle 10 \rangle$  FOR CONTINUATION SEE PLUMBING PLAN
- 11 2" POTABLE WATER (PVC CLASS 200); SEE DETAIL 1/C8.1
- $\langle 12 \rangle$  90° BEND WITH THRUST BLOCK; SEE DETAIL 1/C8.1
- 13 WATER METER, SIZE TO BE DETERMINED BY LOCAL UTILITY; SEE DETAIL 6/C8.1
- $\langle 14 
  angle$  GAS METER; SEE SHEET C0.1 FOR SPECIFICATIONS
- $\langle 15 \rangle$  GAS SERVICE LINE; SEE SHEET C0.1 FOR SPECIFICATIONS
- (16) SANITARY SEWER CLEANOUT; SEE DETAIL 5/C8.1
- $17 \ ^{4"}$  ASTM D3034 SDR35 PVC BUILDING SANITARY SEWER SERVICE LINE @ 2.0% MIN. SLOPE; SEE DETAIL 3/C8.1
- ASPHALT REPAIR; SEE DETAIL 7/C8.1
- 19 5' ACCESS GATE

#### UTILITY CONTACTS

WATER
CLINTON UTILITIES BOARD
1001 CHARLES G. SEIVERS BLVD
CLINTON, TN 37717
(865) 457-9232

SEWER
CLINTON UTILITIES BOARD

BLVD 1001 CHARLES G. SEIVERS BLVD
CLINTON, TN 37717
(865) 457-9232

GAS
POWELL-CLINCH UTILITY DISTRICT
135 HULSEY LANE
ROCKY TOP, TN 37769
(865) 426-0087

(865) 457-9232

ELECTRIC
CLINTON UTILITIES BOARD
1001 CHARLES G. SEIVERS BLVD
CLINTON, TN 37717
(865) 457-9232

 $\overline{\square}$ 

584 0999 584 5213 5radvinc . com

NOXVILLE, TENNE 7919 HONE: 865 584 AX: 865 584 ww . michaelbrady

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FOR PROBLEMS WHICH ARISE
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AND THE DESIGN INTENT THEY
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Drawing Title:
SITE LAYOUT, GRADING, AND UTILITY
PLAN

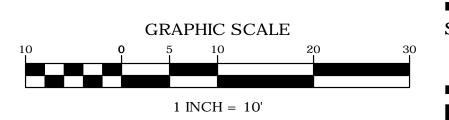
ate: 07/28/2017

Designed By: C Drawn By: C Reviewed By: C

Comm. No. 170042.0

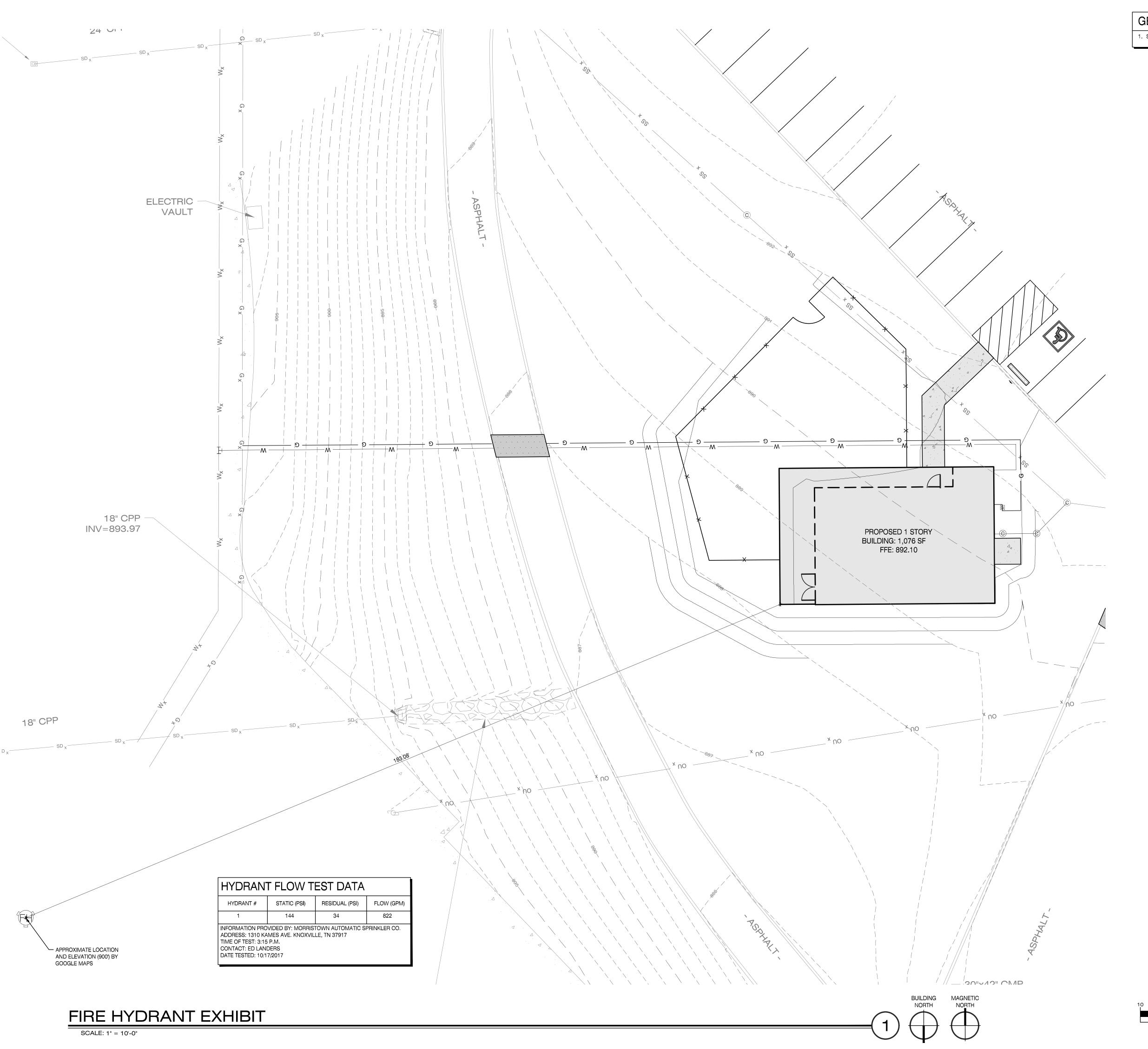
Revisions:

Sheet: She No. C



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THE DESIGN PROFESSIONAL'S
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INCONSISTENCIES, AMBIGUITIES



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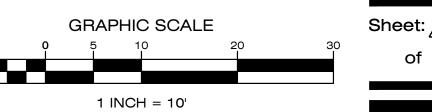
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SCHEMATIC DESIGN ☐ DESIGN DEVELOPMENT
☐ CONSTRUCTION DOCUMENTS

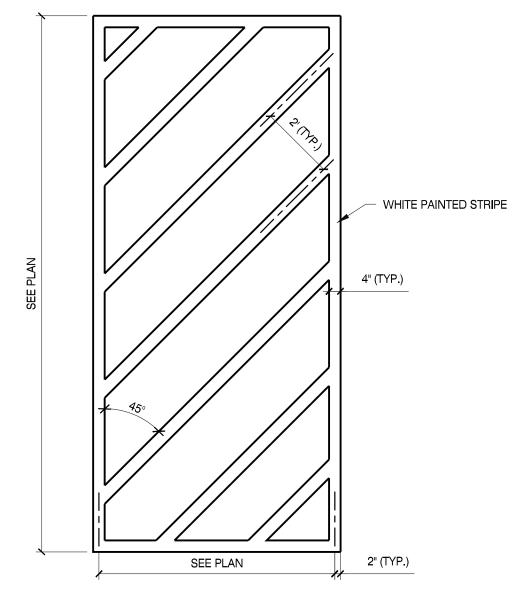
Drawing Title: FIRE HYDRANT EXHIBIT

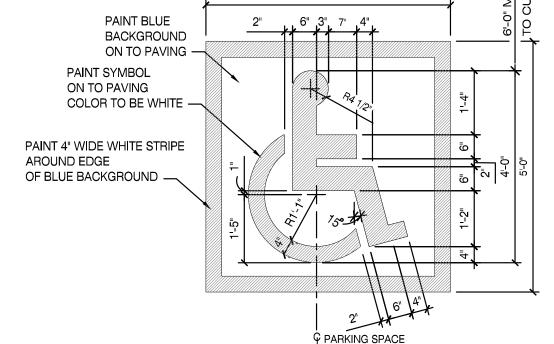
Know what's below.
Call before you dig.
In Tennessee call 811 or 1-800-351-1111

Designed By: J.M.P.
Drawn By: G.A.O.
Reviewed By: D.J.M. Comm. No. 170042.0

Revisions:







PAINTED HANDICAP SYMBOL

'NO PARKING' AREA

RESERVED PARKING -HANDICAPPED PARKING SIGN PER MUTCD STANDARD R7-8. VAN ACCESSIBLE SIGN PER MUTCD STANDARD R7-8D. MOUNT BELOW HANDICAPPED PARKING SIGN WHEN REQUIRED (SEE NOTE 3). GALVANIZED STEEL U-SHAPE POST MIN WEIGHT 2.5 LBS/FT

HANDICAP PARKING SIGN PER MUTCD STANDARD R7-8 AND R7-8D (TYP.)

WHEEL STOP

PARKING SPACE

NOTES:

1. THE ACCESS AISLE MAY BE SHARED BY TWO HANDICAPPED SPACES.

HANDICAP PARKING SPACE

FACE OF CURB OR INTEGRAL

CURB AND SIDEWALK - SEE PLANS

WHITE PAINTED STRIPE

PAINTED ACCESS AISLE

SYMBOL SHALL APPEAR PAINTED AT EACH HANDICAP PARKING.
 PAINTED LINES ARE 4" WIDE (TYP.)

(SEE NOTE 1)

SCALE: N.T.S.

- NOTES:

  1. CONTRACTOR TO PROVIDE NEW SIGN AT ALL HANDICAP PARKING STALLS. CONTRACTOR TO VERIFY NAME AND NUMBER OF CONTACT PERSON OR COMPANY PRIOR TO FABRICATION OF SIGNAGE. ONE OF EVERY 6 HANDICAPPED SPACES AND NO LESS THAN ONE SHALL BE VAN ACCESSIBLE.
- MOUNTING HEIGHT FOR SIGN MAY BE REDUCED TO 5'-0" ABOVE GROUND LEVEL IF IT IS LOCATED IN A NON-PEDESTRIAN AREA, SUCH AS ON A BUILDING OR IN A LANDSCAPED AREA.

STANDARD HANDICAP SIGN SCALE: N.T.S.

Designed By: J.M.P. Drawn By: Comm. No. 170042.01 Revisions:

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☐ SCHEMATIC DESIGN

Drawing Title: CIVIL DETAILS

☐ DESIGN DEVELOPMENT

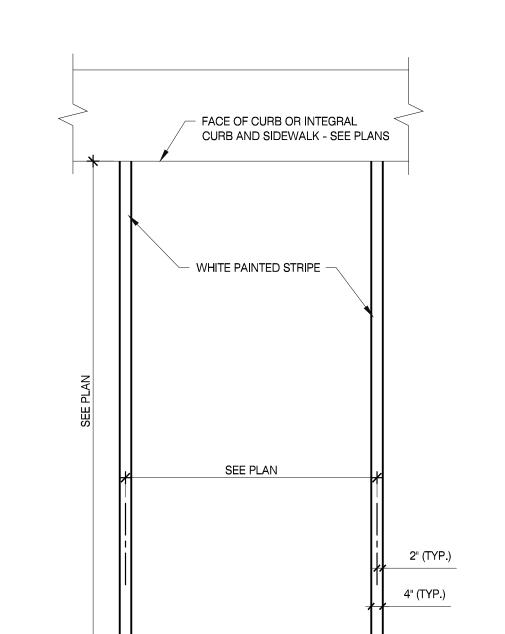
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■ CONSTRUCTION DOCUMENTS

DENIES ANY AND ALL
RESPONSIBILITY AND LIABILITY
FOR PROBLEMS WHICH ARISE
FROM FAILURE TO FOLLOW
THESE PLANS, SPECIFICATIONS
AND THE DESIGN INTENT THEY

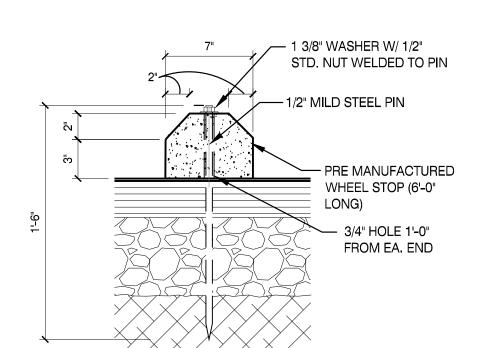
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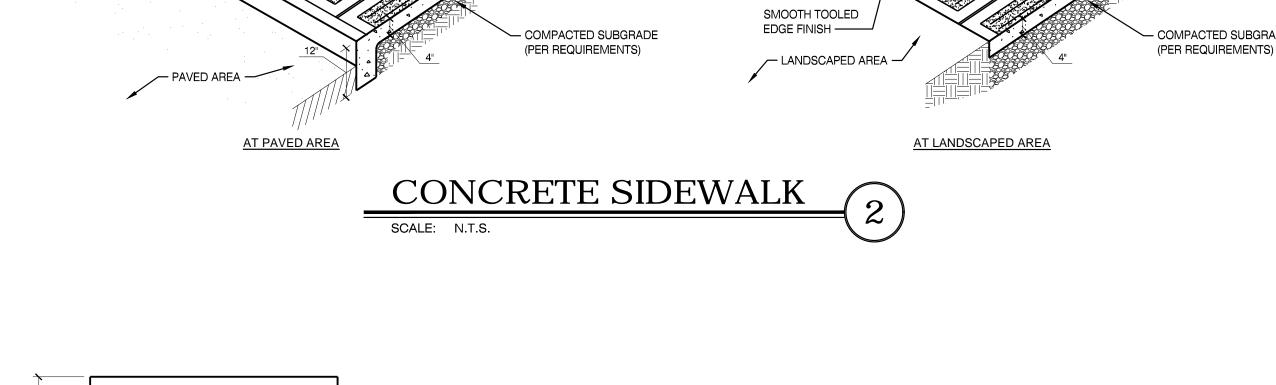
PARKING SPACE

SCALE: N.T.S.



WHEEL STOP

SCALE: N.T.S.



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ate:	07/28/2017
esigned B	y: J.M.P.
rawn By:	G.A.O.
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Reviewed By:

Comm. No. 170042.0 Revisions:

BEARING AREA OF THRUST BLOCKS IN SQ. FT. VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS) BEND ANGLE PLUĞĞED RUN BEND ANGLE 22 1/2° A<sub>1</sub> | A<sub>2</sub> | 45° | 22 1/2° | 11 1/4° | 0.4 8 3.8 5.3 | 7.6 | 5.4 | 2.9 | 1.5 | 1.0 | 6.0 2.3

8.4 | 11.8 | 8.4 | 4.6 | 2.4 | 1.2 |

12.0 | 17.0 | 12.0 | 6.6 | 3.4 | 1.7 |

15.0 | 21.3 | 30.0 | 21.3 | 11.6 | 6.0 | 3.0 | 19.0 27.0 38.0 27.0 14.6 7.6 3.8

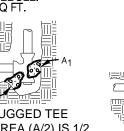
 20
 23.5
 33.3
 47.0
 33.3
 18.1
 9.4
 4.7

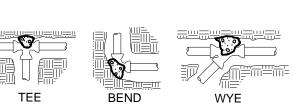
 24
 34.0
 48.0
 68.0
 48.0
 26.2
 13.6
 6.8

16.3 | 23.0 | 16.3 | 8.9 | 4.6 | 2.3 | 16

P'b = ACTUAL TEST PRESSURE, PSIG S'b = ACTUAL SOIL BEARING PRESSURE, PSF.

THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE. TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE. ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.

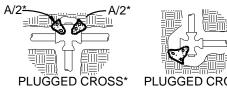


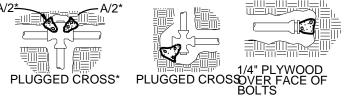


#8 36"

FITTING SIZE ROD SIZE EMBEDMENT

12" AND LESS | #6 | 30"





14.8

0.2

0.9

1.3

# THRUST BLOCK

SCALE: N.T.S.

VARIES - SEE TABLE 12" MIN. PROVIDE SMOOTH SAWCUT JOINT IN EXISTING PAVEMENT (TYP.) IF PLANS DO NOT INDICATE OTHERWISE FINAL BACKFILL (NOTE 5) PROVIDE 36" MIN. COVER. - APPROVED WARNING TAPE 24" ABOVE PIPE (PVC ONLY) 6" MIN (NOTE 4) - PRIVATE SITE WATER OR SANITARY SEWER LINE - INITIAL BACKFILL PLACED IN LIFTS CONTRACTOR FIELD VERIFY NOT TO EXCEED 8" THICK (NOTE 4). STABLE SUBGRADE SUITABLE FOR FOUNDATION (NOTE 3) — NO. 12 COATED COPPER -6" MINIMUM BEDDING (NOTE 4) TRACING WIRE (PVC ONLY) -

1. ALL PRIVATE SITE UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE, LOCAL UTILITY REQUIREMENTS, AND THE LOCAL AGENCY HAVING

JURISDICTION OVER BUILDING CONSTRUCTION. 2. THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY. 3. WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF THE PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL

4. BEDDING AND INITIAL BACKFILL TO 6" ABOVE THE CROWN OF THE PIPE SHALL BE #57 CRUSHED STONE. ELIMINATE VOIDS BY KNIFING UNDER AND AROUND PIPE WITH SHOVEL OR OTHER MEANS AT THE DISCRETION OF THE CONTRACTOR. 5. FINAL BACKFILL FOR ALL PIPES LOCATED IN PAVED AREAS SHALL BE COMPACTED #57 CRUSHED STONE MEETING THE REQUIREMENTS OF THE STATE'S DEPARTMENT OF

TRANSPORTATION. 6. FOR GRASS OR LANDSCAPED AREAS, PROVIDE #57 CRUSHED STONE INITIAL BACKFILL TO 6" ABOVE CROWN OF PIPE AND COVER GRAVEL WITH A NONWOVEN GEOTEXTILE TO PREVENT MIGRATION OF FINES. FINAL BACKFILL TO SURFACE SHALL BE SOIL FREE OF FOREIGN DEBRIS. SOIL BACKFILL SHALL BE PLACED IN 8" LOOSE LIFTS AND BE COMPACTED TO 90% STANDARD DENSITY PER AASHTO T-99 OR PER PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. TOP 6" SHALL BE TOPSOIL FROM SITE

STRIPPING OPERATIONS LOOSELY PLACED. 7. IF PLANS AND SPECIFICATIONS DO NOT INDICATE OTHERWISE, PAVEMENT REPAIR SHALL MATCH EXISTING SECTION AS A MINIMUM REQUIREMENT.

# WATER AND SEWER TRENCH

SCALE: N.T.S.

SCALE: N.T.S.



MIN. WIDTH

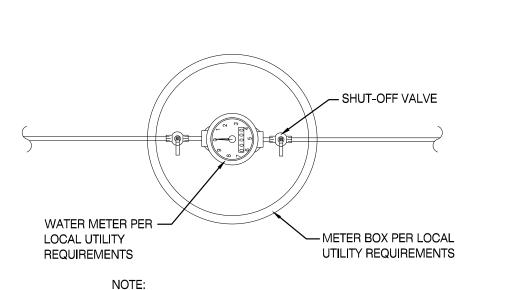
(IN.)

23

MINIMUM TRENCH WIDTHS

PIPE DIA. (IN.)

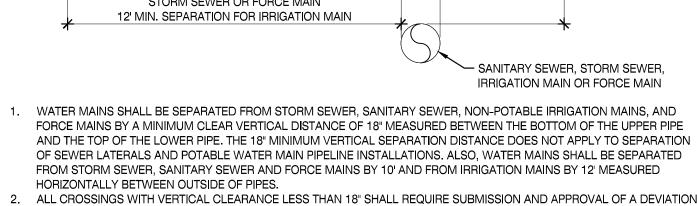
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VALVE AND METER BOXES SHALL BE CAST

IRON WHEN LOCATED IN TRAFFIC AREA.

WATER METER



2. ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18" SHALL REQUIRE SUBMISSION AND APPROVAL OF A DEVIATION. IF A DEVIATION IS SUBMITTED, THE FOLLOWING MINIMUM STIPULATIONS APPLY: THE CROSSING SHALL BE MADE USING THICKNESS CLASS 200 AWWA C-900 DR14, PVC (CLASS 235 AWWA C-905, DR 18, PVC FOR PIPES GREATER THAN 12" IN DIAMETER) OR DUCTILE IRON, PRESSURE CLASS 250 PIPE FOR A HORIZONTAL DISTANCE OF 10' ON EACH SIDE OF THE CROSSING. WATER MAIN CONCRETE ENCASEMENT SHALL ONLY BE MADE AFTER WRITTEN APPROVAL OF THE WATER

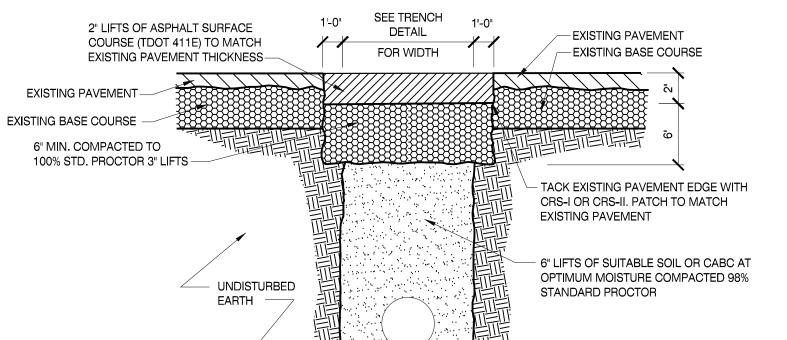
DIRECTOR OR HIS DESIGNEE. 3. 18" CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE. 4. WATER MAINS, SANITARY SEWER, STORM SEWER, AND NON-POTABLE IRRIGATION MAINS SHALL BE IN SEPARATE

5. WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 3' FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.

6. 10" STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN GRAVITY SANITARY SEWER LINES AND STORMWATER LINES.

# PIPE SEPARATION

SCALE: N.T.S.

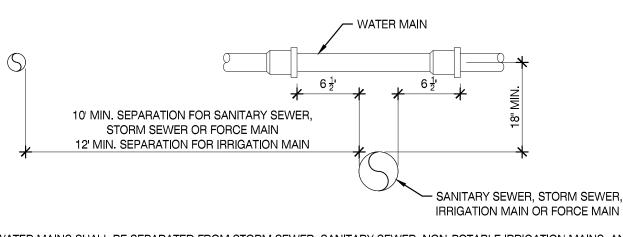


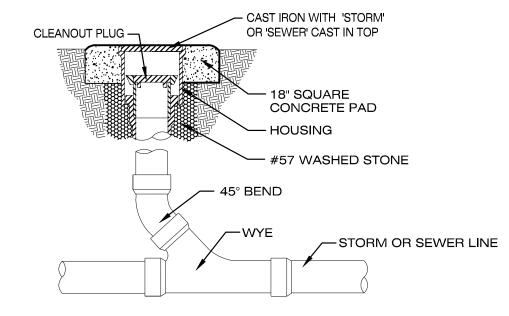
COAT IS APPLIED.

SCALE: N.T.S.

3. CONTRACTOR RESPONSIBLE FOR REPLACEMENT OF ANY PAVEMENT MARKINGS DISTURBED OR COVERED BY OVERLAY.

**ASPHALT REPAIR** 





LIMIT OF EXCAVATION AS

REQUIRED FOR TAPPING

NEW TAPPING SLEEVE

EXISTING PIPE

<u>PLAN VIEW</u>

MACHINE

-LIMIT OF EXCAVATION

SECTIONAL VIEW

TAPPING SLEEVE

SCALE: N.T.S.

CONCRETE

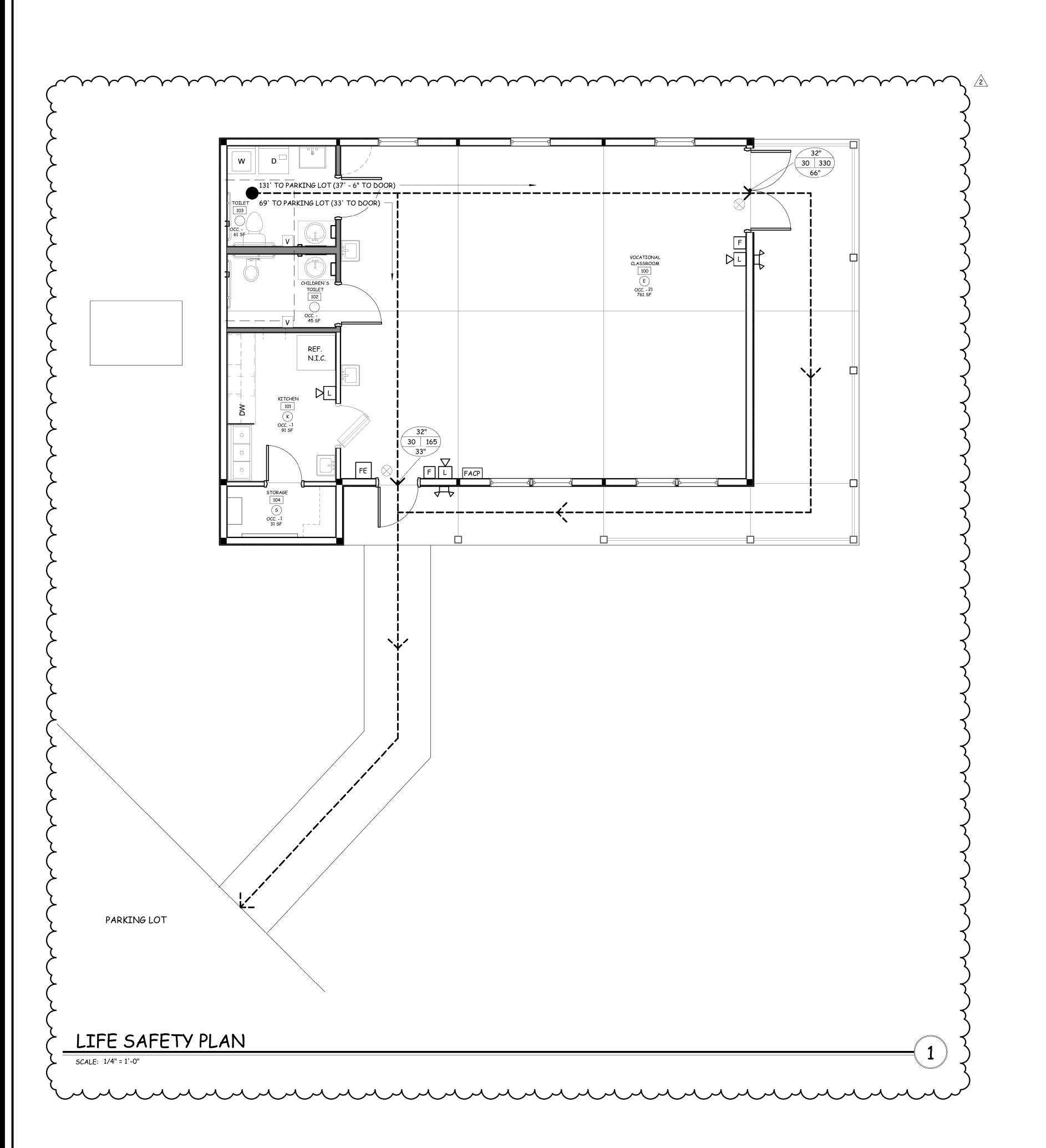
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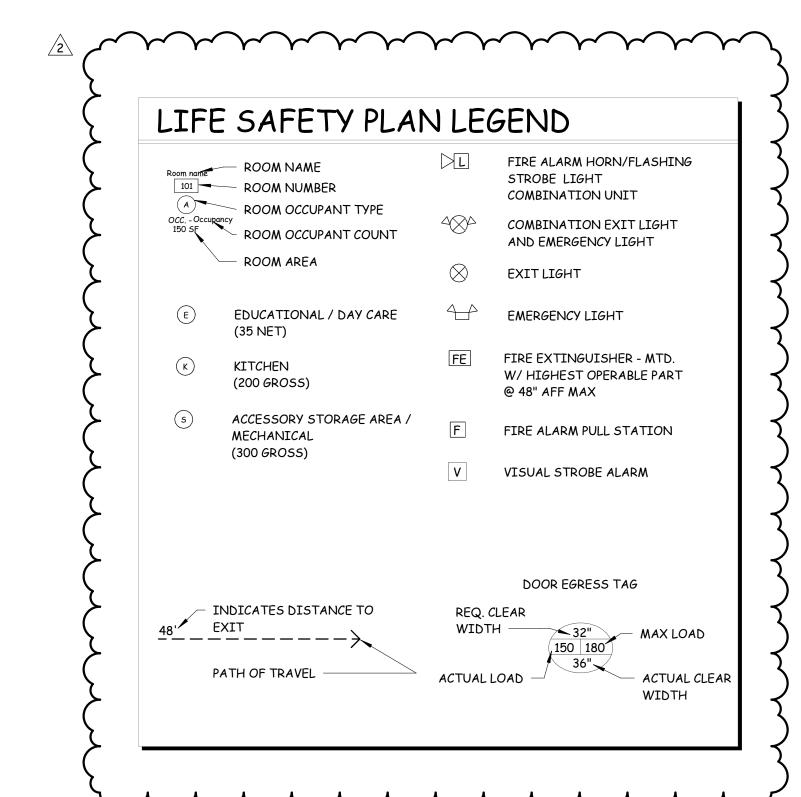
CONCRETE

# STORM/SEWER CLEANOUT

SCALE: N.T.S.

1. EDGE TO BE SAWED TO A NEAT SQUARED EDGE. BROOMED CLEAN OF DUST BEFORE TACK 2. EDGES TO BE TACKED WITH CRS-I OR CRS-II.



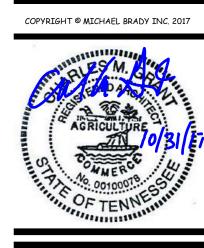


# WALL LEGEND

INSULATION

EXTERIOR WALL - LAP WOOD SIDING OVER INFILTRATION BARRIER OVER 5/8" PLYWOOD SHEATHING OVER 2X6 WOOD FRAMING @ 16" O.C. W/ SPRAY-APPLIED R-19 INSULATION WALL PARTITION - 2X4 STUDS @ 16" O.C. W/ 5/8" GYP. BD. ON EACH SIDE WALL PARTITION - <u>SOUND BARRIER</u> - 2X4 OR 2X6 WD. STUDS @ 16" O.C. W/ 5/8" GYP. BD. ON EACH SIDE W/ SOUND BATT

THE DESIGN PROFESSIONAL DENIES ANY AND ALL
RESPONSIBILITY AND LIABILITY
FOR PROBLEMS WHICH ARISE
FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS
AND THE DESIGN INTENT THEY
CONVEY, OR PROBLEMS WHICH
ARISE FROM OTHERS' FAILURE
TO OBTAIN AND/OR FOLLOW THE DESIGN PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.



HOOL DING

ANDERSON CO. I ZERO ENER

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☐ FOR PERMITTING ONLY SCHEMATIC DESIGN DESIGN DEVELOPMENT CONSTRUCTION DOCUMENTS

Date: 07/28/2017

Designed By: Designer
Drawn By: Author

Drawing Title: LIFE SAFETY PLAN

Comm. No. 170042.01

REV #2 10/31/2017

Reviewed By: Checker

Revisions: REV #1 010/3/2017

Sheet:

Sheet A0.4

EACH FLOOR AND BETWEEN THE TOP STORY AND THE ROOF / ATTIC.

DIRECTED BY FIRE DEPARTMENT CODE OFFICIALS.

6. FILL ALL C.M.U. CELLS BELOW GRADE WITH CONCRETE.

BUILDING CODE & INSPECTOR

INTERNATIONAL BUILDING CODE

WORK DESCRIBED HEREIN.

OR SPECIFIED SHALL BE FURNISHED

CLARIFICATIONS FOR THE USE BY ALL.

UNDER THIS CONTRACT.

THE WORK.

PERFORMANCE OF THE WORK.

2. MOUNT FIRE EXTINGUISHERS LISTED IN SPECIFICATIONS AT LOCATIONS SHOWN AND/OR

GLAZING SUBCONTRACTOR TO VERIFY & PLACE TEMPERED GLASS AS REQ'D BY THE LOCAL

4. ALL WOOD BLOCKING, NAILERS, ETC. MUST BE FIRE RETARDANT TREATED. THE CONTRACTOR

IS TO CUT OFF ALL VERTICAL AND HORIZONTAL CONCEALED DRAFT OPENINGS BETWEEN

7. PROVIDE SOUND BATT INSULATION IN ALL EXTERIOR WALLS, FROM TOP OF SLAB TO TOP OF

10. CONTRACTOR IS TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO START

OF CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR POSSIBLE

MATERIALS, EQUIPMENT AND APPURTENANCES, AND LABOR NECESSARY TO AFFECT ALL

INSTALLATIONS INDICATED ON THE DRAWINGS. THE WORK SHALL ALSO INCLUDE ALL

MATERIALS, DETAIL AND LABOR NECESSARY FOR THE SUCCESSFUL INSTALLATION OF THE

13. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE

ALL. WORK SHOWN OR REFERRED TO ON ANY DRAWING SHALL BE PROVIDED AS THOUGH

14. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING HIS BEST SKILL AND

SET OF CONSTRUCTION DOCUMENTS ANNOTATED WITH THE LATEST REVISIONS AND

15. CONDUCT OPERATIONS IN SUCH A MANNER AS TO MINIMIZE INTERFERENCE WITH USE OF

PUBLIC WAYS AND ADJACENT USED FACILITIES. DO NOT CLOSE, BLOCK OR OTHERWISE

16. THE CONTRACTOR SHALL LIMIT THE INGRESS AND EGRESS OF WORKERS AND EQUIPMENT TO

THE CONSTRUCTION SITE TO AUTHORIZED PERSONS ONLY. DAMAGE TO ANY EXISTING

INTERIOR OR EXTERIOR CONSTRUCTION SHALL BE REPAIRED TO "LIKE NEW" CONDITION

17. THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES ADEQUATE SAFETY BARRICADES FOR PROTECTION OF JOB PERSONNEL AND THE PUBLIC, AND CLEAR ACCESS IN AND OUT OF THE WORK SITE SO AS TO FACILITATE DAILY TRAFFIC MOVEMENT, DELIVERIES, AND SAFETY.

18. THE CONTRACTOR SHALL PERFORM HIGH QUALITY PROFESSIONAL WORK, JOIN MATERIALS

OR OVERLAPS. INSTALL EXPOSED MATERIALS APPROPRIATELY LEVEL, PLUMB AND AT THE ACCURATE RIGHT ANGLES, OR FLUSH WITH ADJOINING MATERIALS. WORK OF EACH TRADE

19. THE ARCHITECT HAS MADE EVERY EFFORT TO SET FORTH IN THE CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK, THE CONTRACTOR IS NEVERTHELESS CAUTIONED THAT MINOR

OMISSIONS AND DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS SHALL NOT

21. BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK THE CONTRACTOR SHALL VERIFY

DIFFERENCES BETWEEN DIMENSIONS INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR INSTRUCTIONS AND CONSIDERATIONS BEFORE PROCEEDING WITH

WITH MANUFACTURER'S RECOMMENDED SPECIFICATIONS, UNLESS OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE. ALL WORK PERFORMED AND

MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE, AS A MINIMUM STANDARD, WITH

CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES,

INSPECTORS AT ALL TIMES. IF SUCH OFFICIAL OR INSPECTOR DEEMS SPECIAL INSPECTION

22. INSTALL ALL MANUFACTURED ITEMS, MATERIALS, AND EQUIPMENT IN STRICT ACCORDANCE

ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS. ANY

ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION.

REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE

NECESSARY, PROVIDE ALL ASSISTANCE AND FACILITIES THAT WILL EXPEDITE HIS

24. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL CONTRACT

25. REMOVE DEBRIS, RUBBISH, AND OTHER SUBSTANCES FROM SITE. LEGALLY TRANSPORT AND

DISPOSE OF SUCH MATERIALS OFF-SITE. BURYING OR BURNING OF "TO BE REMOVED"

26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS OWN TELEPHONE (W/FAX)

AND TOILET FOR ALL SCOPE OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR

PROVIDING ALL TAPS, EXTENSIONS, VALVES, OR OTHER DEVICES NECESSARY TO RUN POWER

AT COMPLETION OF THE PROJECT. ELECTRICITY & WATER TO BE FURNISHED BY OWNER

27. DO NOT INTERRUPT EXISTING UTILITIES IN OCCUPIED FACILITIES UNLESS AUTHORIZED IN

TOOLS AND EQUIPMENT. SUCH MODIFICATIONS TO EXISTING UTILITIES MUST BE REMOVED

WRITING BY AUTHORITIES HAVING JURISDICTION. IF INTERRUPTION IS ALLOWED, PROVIDE

ALTERNATE TEMPORARY SERVICES ACCEPTABLE TO GOVERNING AUTHORITIES. CONTRACTOR

SHALL COORDINATE WITH ALL UTILITY COMPANIES 48 HOURS PRIOR TO ANY DEMOLITION

PROTECTION AGAINST WEATHER TO MAINTAIN ALL WORK, MATERIALS, APPARATUS, AND

FIXTURES FROM INJURY OR DAMAGES. AT THE END OF THE DAY'S WORK, ALL NEW WORK

LIKELY TO BE DAMAGED SHALL BE COVERED OR OTHERWISE PROTECTED AS REQUIRED.

28. EXCEPT WHERE OTHERWISE SPECIFIED, THE CONTRACTOR SHALL AT ALL TIMES PROVIDE

23. COOPERATE WITH THE APPLICABLE CITY OR OTHER GOVERNMENT OFFICIALS AND

DOCUMENTS AND FIELD CONDITIONS, AND CONFIRM THAT THE WORK MAY BE

ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION.

EXCUSE HIM FROM PROVIDING A COMPLETED FACILITY AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. IN THE EVENT OF DISCREPANCIES, CONTRACTOR SHALL PRICE THE MORE EXPENSIVE AND EXTENSIVE WORK, UNLESS DIRECTED OTHERWISE. 20. EXISTING UTILITIES INDICATED TO REMAIN SHALL BE KEPT IN SERVICE AND PROTECTED

TO UNIFORM ACCURATE FITS SO THEY MEET WITH NEAT, STRAIGHT LINES, FREE OF SMEARS

OBSTRUCT USE OF PUBLIC WAYS OR FACILITIES WITHOUT WRITTEN CONSENT OF AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES TO CLOSED OR

OBSTRUCTED FACILITIES AS REQUIRED BY LOCAL REGULATIONS.

SHALL MEET ALL NATIONAL STANDARDS PUBLISHED BY THAT TRADE.

REMOVE BARRICADES WHEN NO LONGER REQUIRED.

FROM DAMAGE DURING DEMOLITION OPERATIONS

MATERIALS ON THE PROJECT SITE IS FORBIDDEN.

GENERAL FINISH NOTES

1. ALL DOOR FRAMES AND DOORS PAINT TO BE SEMI GLOSS FINISH.

5. APPROPRIATELY IDENTIFY "MEN" AND "WOMEN" W/ ADA COMPLIANT SIGNAGE

2. PROVIDE APPROPRIATE SEALANT FOR ALL FLOOR APPLICATIONS.

6. ALL FINISHES AND COLORS SHALL BE SELECTED BY OWNER

3. BASE IN TOILET ROOMS MUST BE COVED.

4. RUBBER BASE TO BE PROVIDED IN ALL ROOMS.

REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. THE DRAWINGS, GENERAL NOTES AND SPECIFICATIONS

ARE COMPLIMENTARY, AND WHAT IS CALLED FOR BY ANY WILL BINDING AS IF CALLED FOR BY

SHOWN ON ALL RELATED DRAWINGS. IF THERE IS ANY CONFLICT OR DISCREPANCY WITHIN

OR BETWEEN ANY OF THE CONTRACT DOCUMENTS INVOLVING THE QUALITY OR QUANTITY

ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS

TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE

WORK UNDER THE CONTRACT. THE CONTRACTOR SHALL PROVIDE AT THE PROJECT SITE A FULL

OF WORK REQUIRED, THE WORK OF HIGHEST QUALITY AND/OR GREATEST QUANTITY SHOWN

3. GLAZING IN DOORS AND ADJACENT PANELS MUST BE TEMPERED. RESPONSIBILITY OF

5. PROVIDE WATER RESISTANT & MOLD RESISTANT GYP. BD. AT ALL WET LOCATIONS

8. ALL DETAILS OF CONSTRUCTION SHALL CONFORM WITH THE 2012 EDITION OF THE

9. FURNISH AND INSTALL ALL REQUIRED BACKING FOR ALL FIXTURES AND EQUIPMENT

11. GENERAL CONTRACTOR IS TO FIELD VERIFY LOCATIONS AND RUNS OF ALL NEW AND EXISTING STORM SEWER PIPING, SEWER & WATER LINES AND ROOF TIE-INS. 12. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING

FLOOR PLANS, ARCHITECTURAL & STRUCTURAL NOTES

07/28/2017

Designed By: Drawn By:

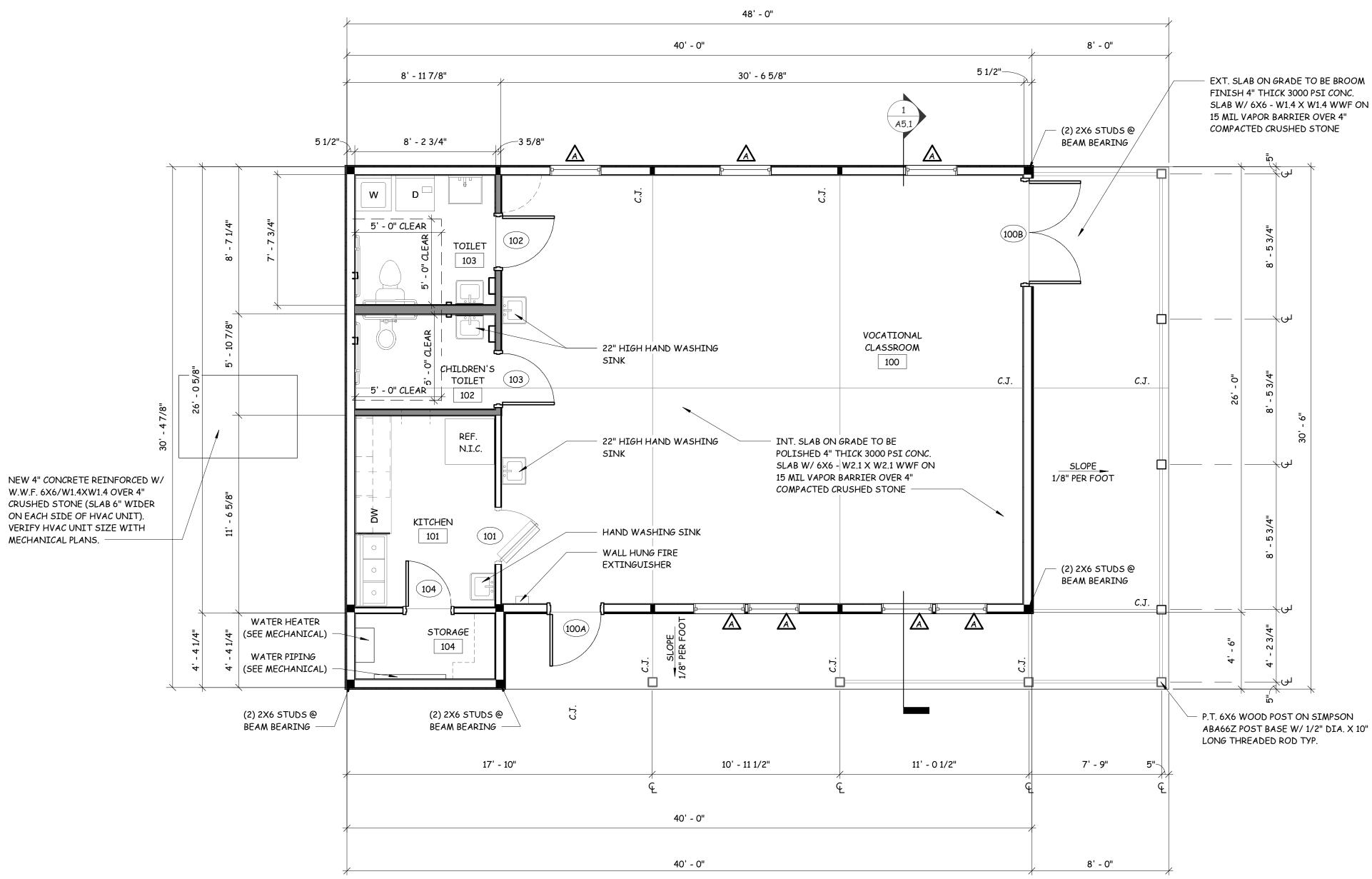
Reviewed By:

Comm. No. 170042.01

Revisions:

REV #1 010/3/2017

Sheet:



SLAB CONTRACTION JOINTS (CJ) TO BE PLACED AS SHOWN, BUT NOT MORE THAN 15' - 0" O.C.

# FLOOR PLAN

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

# GENERAL PLUMBING NOTES

- 1. ALL PLUMBING MATERIAL AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
- 2. SEE PLUMBING DRAWINGS FOR LOCATIONS AND SIZE OF ACCESS 3. ALL FIXTURES AND ACCESSORIES SHALL COMPLY WITH THE CURRENT A.D.A. STATE OR LOCAL REGULATIONS FOR MOUNTING HEIGHTS AND
- CLEARANCES. 4. ALL HOT WATER AND DRAIN PIPES SHALL BE INSULATED PER A.D.A. REQUIREMENTS. MINIMUM HOT WATER SUPPLY INSULATION SHALL BE PREMOLDED FIBERGLASS PIPE INSULATION WITH WHITE ALL
- SERVICEJACKET. INSULATION THICKNESS SHALL BE MIN. 1". 5. ALL GRAB BARS IN NEW CONSTRUCTION SHALL BE INSTALLED WITH CONCEALED ANCHOR PLATES.
- 6. LAVATORY FAUCET CONTROLS SHALL BE LEVER TYPE AND THE FORCE TO ACTIVATE SHALL NOT EXCEED 5 POUNDS.
- 7. PROVIDE BLOCKING IN WALLS AS REQ'D FOR ALL FIXTURES AND EQUIPMENT.
- 8. ALL DIMENSIONS ARE TO FACE OF STUD OR FACE OF FURRING UNLESS OTHERWISE NOTED. "CLR" DENOTES FINISH TO FINISH.
- 9. GYP. BD. IN ALL WET AREAS TO BE WATER-RESIST GYP. BD. 10. CONCRETE BACKER BOARD SHALL BE PROVIDED BEHIND TILE AT WALLS. 11. ADJUST SUPPLY LINE WALL PENETRATION HEIGHTS AS NEEDED TO AVOID CONFLICTS BETWEEN FLUSH VALVES AND GRAB BAR MOUNTING
- HEIGHTS. GRAB BAR HEIGHTS ARE TO TAKE PRIORITY. 12. GRAB BARS MUST SUPPORT 250LB LOAD. CONTRACTOR TO PROVIDE BLOCKING AS REQUIRED.

# WALL LEGEND

- EXTERIOR WALL LAP WOOD SIDING OVER INFILTRATION BARRIER OVER 5/8" PLYWOOD SHEATHING OVER 2X6 WOOD FRAMING @ 16" O.C. W/ SPRAY-APPLIED R-19 INSULATION
- WALL PARTITION 2X4 STUDS @ 16" O.C. W/ 5/8" GYP. BD. ON
  - WALL PARTITION <u>SOUND BARRIER</u> 2X4 OR 2X6 WD. STUDS @ 16" O.C. W/ 5/8" GYP. BD. ON EACH SIDE W/ SOUND BATT

# GRAB BAR REQUIREMENTS

- ALL GRAB BARS SHALL BE 1-1/4" TO 1-1/2" IN WIDTH OR OUTSIDE
- DIAMETER. [NCAC 11.5.1] THE CLEAR HAND SPACE MUST BE 1-1/2" BETWEEN THE INNER FACE OF
- GRAB BARS MUST BE ABLE TO SUPPORT A 250 POUND LOAD APPLIED IN
- ANY DIRECTION ALONG ITS LENGTH. [NCAC 11.5.3] NOR MORE THEN 36" ABOVE FINISHED FLOOR. [NCAC 11.4.3(4)

## RESTROOM ACCESSORIES

- 1. 42" STAINLESS STEEL GRAB BAR, (SURFACE MOUNTED). 11/4" 11/2"Ø
- 2. 36" STAINLESS STEEL GRAB BAR, (SURFACE MOUNTED). 1 1/4" 1 1/2"Ø
- FROM WALL
- LOCATED WITHIN 12" OF THE FRONT EDGE OF THE TOILET SEAT. (1 PER
- OF MIRROR AT 40" A.F.F., TOP OF TOP OF MIRROR TO BE AT 76" A.F.F.
- 7. SOAP DISPENSOR 8. COAT HOOK

- - PAPER TOWEL DISP.\*
  - TOILET PAPER DISP.\* 19" TO CENTERLINE A.F.F. GRAB BARS 36" A.F.F.
- THE GRAB BAR AND THE FINISHED FACE OF THE WALL OR PARTITION. TOILET SEAT COAT HOOK
- GRAB BAR MUST BE MOUNTED ON EACH SIDEWALL NOT LESS THEN 33"
- WALL MOUNTED MIRROR 40" TO BOTTOM OF REFLECTIVE SURFACE. 40" A.F.F.
- ACCESSIBLE URINAL 17" TO RIM A.F.F.

- MOUNTED 1 1/2" FROM WALL.
- MOUNTED 1 1/2" FROM WALL. 3. 18" STAINLESS STEEL SURFACE MOUNTED VERTICAL GRAB BAR 39"-41"
- 4. TOILET TISSUE DISPENSER(WALL MOUNTED). DISPENSER SHALL BE
- 5. 24" x 36" MIRROR W/1/4" FLOAT PLATE SET IN SILICONE. MOUNT BOTTOM
- 6. PAPER TOWEL DISPENSER MOUNTING HEIGHT TO OPERABLE PARTS WITHIN 40" A.F.F.

# MOUNTING HEIGHTS

- 34" A.F.F. RIM OF LAVATORY
- 17" TO 19" A.F.F. 40" A.F.F.
- \*DENOTES BOTTOM OF HIGHEST OPERABLE PART.

# STRUCTURAL

W. NICHOLAS DEAL MICHAEL BRADY INC. 299 N. WEISGARBER RD. KNOXVILLE, TN 37919 865-584-0999

- 1. The contractor is responsible for bracing the structure prior to the completion of all roof, floor, and wall diaphragms.
- 2. The General Contractor shall verify all dimensions and conditions. The Architect shall be notified of any discrepancies.
- 3. Coordinate truss/joist layout with other trades.
- 4. The contractor is responsible for the means and methods of construction in regards to job site
- 5. Where live loads for which each floor or portion there of a commercial or industrial building is or has been designed to exceed 50 psf, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs.
- 6. Submit written request to the Architect for approval of any proposed change to the requirements of the contract documents. Splicing, cutting, notching or other alterations to structural members are not permitted without written authorization of the structural engineer. Any unauthorized deviation from the contract documents, and correction thereof, is the responsibility of the contractor.

#### Submittals

- 1. This review is only for general conformance with the design concept, the construction documents and specifications. Corrections or comments made on this review do not relieve the contractor from compliance with the plans and specifications. Comments on this review do not authorize an increase in the construction budget.
- 2. Approval of shop drawings does not indicate acceptance of deviations from contract documents, unless accepted by the engineer in writing prior to submission of shop drawings. Conflicts resulting from such deviations, conflicts between this work and the work of other trades due to such deviation, and dimensional conflicts as a result of such deviations shall be deemed the contractor's responsibility.
- 3. Any changes to the details shown in these contract documents shall be submitted in writing by RFI and approved by the architect and engineer prior to submitting shop drawings. All such changes shall be "bubbled" on the shop drawings and referenced to the proper RFI.
- 4. Submittals shall conform to the requirements of the contract drawings. Non-conforming or nonreviewed submittals will be returned without review.
  - A. Shop drawings shall be checked and marked 'Reviewed no exceptions taken' by the general contractor prior to submittal to the Architect.
  - B. Shop drawings shall not contain reproductions of the contract drawings.
  - C. Submit for Engineer's review the shop drawings for the following items:
  - <u>Description</u>
  - -Concrete mix designs -Reinforcing steel
  - -Wood trusses

- a. Approved construction joint locations may require additional reinforcing.
- b. Calculations shall be signed and sealed by the specialty engineer.

	ADS TABLE:	<u>DESIGN LOA</u>
	ODES: 2012 IBC	BUILDING C
	DADS:	GRAVITY LC
20 PSI	LOAD	ROOF DEAD
20 PSF	- · ·	ROOF LIVE L
100 PSF	LOADS:	FLOOR LIVE
		SNOW LOAD
10 PSF	IOW LOAD, Pg	
10 PSI	SNOW LOAD, Pf	
1.0 1.10	DSURE FACTOR, Ce	
1.10		IMPORTANO THERMAL FA
1,0		
URE 2,000 PSF	<u>RMATION:</u> E SOIL BEARING PRÉ	SOIL INFOR
ASSUMED	OUT DEAKTING PRE	ALLO W ADLE
(NOCOMED	GN LOADS:	WIND DESI
90 MPH (3 SECOND GUST	VIND SPEED	
1.15	CE FACTOR	IMPORTANC
(		WIND EXPO
= '	PRESSURE COEFFICI	
NG PRESSURE 25 PSI	ONENTS AND CLAD	WALL COMP
	ESIGN LOADS:	
11		RISK CATEG
1.25 1		IMPORTANO SITE CLASS
36,7%	,	Ss CLASS
11.9%		51
0.369		Sds
0.184		Sd1
(	ESIGN CATEGORY	SEISMIC DE
EQUIVALEN <sup>3</sup>	METHOD	ANALYSIS M
LATERAL FORCE	ALL CVCTCA	
LIGHT FRAME WOOD WANELS	ALL SYSTEM	REAKTING M
SHEAR WOOD PANELS	<i>C</i> d = 4	R = 6.5
	Ca = 4 Cs = 0.071	$\Omega = 0.5$ $\Omega = 2.5$

#### Foundation and Concrete Notes:

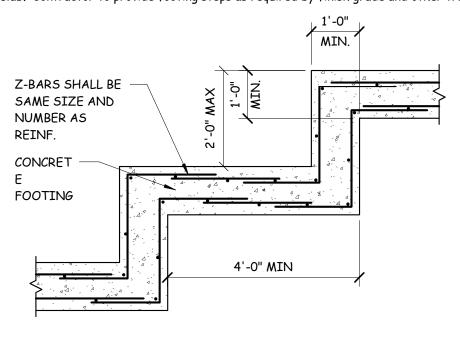
1. Concrete 28 Day Strength shall be as follows: 3,000 psi (2,500 psi used in design) a. Footings:

b. Interior Slabs on Grade: Slab Thickness <6" 3,000 psi (non air entrained) Slab Thickness ≥6" 4,000 psi (non air entrained) c. Formed Walls, Beams,

Structural Slabs, & Stairs: 4,000 psi d. Grade Beams: 4,000 psi e. Concrete Toppings + 2nd Floor Slab: 3,500 psi 4,000 psi f. Elevated Slabs g. CMU Core Fill: 3,000 psi h. Conc. exposed to Weather: 4,000 psi (w/ air entrainment 4%-6%)

2. All footings shall bear on firm undisturbed residual soil and/or engineered earth fill compacted to 100% of its maximum dry density as per ASTM D 698-70 (Standard Proctor), unless noted otherwise. THE SOIL BEARING CAPACITY IS TO BE VERIFIED BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

3. Provide minimum 1'-6" from finish grade to the bottom of any exterior footing or turn down building slab. Contractor to provide footing steps as required by finish grade and other trades.



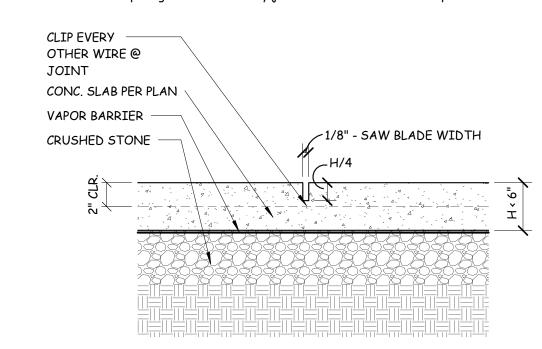
- 4. Backfill retaining walls with clean crushed stone (NO. 57 or 67 size) 2'-6" wide (min.) from the top of the footing to within 12" of finish grade.
- 5. Provide 6" diameter perforated pipe footing drains at all retaining walls. Footing drains are to be totally independent and not connect with any other type water drainage systems except at the footing drain terminations and then only with the structural engineer or Architect's permission.
- 6. All reinforcing steel shall conform to ASTM A615. Contractor to have copies of the ACI documents at the job site during construction.
- 7. Fly ash, meeting ASTM C-648 Class C or Class F may be used to replace up to 25% of Portland Cement. Contractor and supplier shall coordinate to ensure that required set times for concrete are not adversely affected by use of fly ash. Contractor and all concrete subcontractors shall have experience with handling, placing and finishing concrete with fly ash.
- 7a. Ground granulated blast-furnace slag: ASTM C989, grade 100 or 120 may be used at a maximum percentage rate of 40% of portland cement by weight.
- 8. See architectural, electrical, mechanical, fire protection and plumbing drawings for drips, chamfers, reglets, slots, sleeves, sleeves, rustications, inserts and anchors not noted on structural drawings. Unless shown on structural drawings no openings larger than 12"x12" shall be placed on slabs or walls. For openings not shown on structural drawings, approvals must be obtained from the engineer/architect prior to fabrication of steel and placement of concrete.
- 9. Provide shop drawings of reinforcing steel prior to fabrication.
- 10. All welded reinforcing steel shall conform to ASTM A-706, Grade 60, and be used only with prior permission from the structural engineer.
- 11. Provide top steel reinforcing, same size and spacing as bottom steel, at any location where the soil changes from residual to engineered fill. Top steel shall extend 8' minimum each side of the soil transition area. Use #3 stirrups at 18" o.c.
- 12. Provide top steel reinforcing, same size and spacing as bottom steel, at any corner in load bearing walls. Top steel shall extend 8' minimum each way from the corner of the wall. Use #3 stirrups at 18" o.c.
- 13. Provide 2'-6" x 2'-6" corner bars at corners of all continuously reinforced elements such as walls, footings, bond beams, etc. Corner bars shall be the same size, spacing, location, and quantity as the continuous reinforcing.
- 14. All reinforcing steel lap splices shall be Class "B" with 24" minimum, unless otherwise noted.
- 15. Provide (2) #4 bars  $\times$  4'-0" long in slabs on grade at all inside corners.

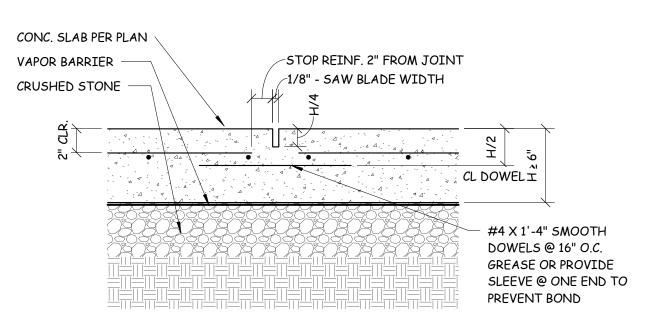
16. The following minimum concrete cover shall be provided for reinforcing bars:	
a. Cast against and permanently exposed earth:	3"
b. Formed and Exposed to Earth or Weather	
1) #6 thru #18 bars:	2"
2) #5 bars, W31 wire, & smaller:	1 1/2"
c. Formed and not exposed to weather or in contact with the ground	
1) Slabs, walls, and joist (#11 bars and smaller):	3/4"
2) Beams, girders, and columns	
(Principle reinf., ties, stirrups, spirals):	1 1/2"

- 17. Unless noted otherwise, slabs on grade shall be 4" thick with 6x6-W1.4xW1.4 WWF on 15 mil polyethylene vapor barrier on 4" thick crushed stone base.
- 18. Contractor shall treat soil under slabs, footings, and crawl spaces with EPA approved chemical vermin control or as required per building code.

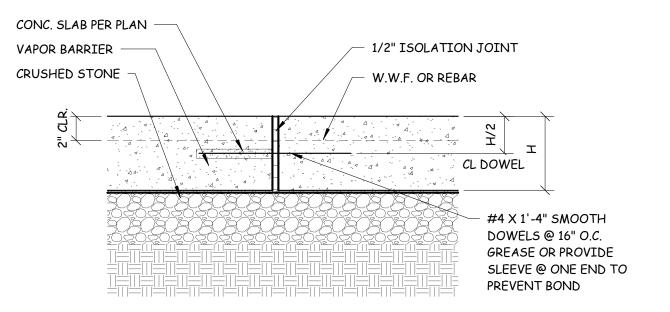
#### Foundation and Concrete Notes (Cont.):

19. Contraction joints shown may be saw cuts 1/8" wide  $\times 1/4$  slab thickness as shown below or other submitted and approved method unless noted otherwise. Joints shall be placed @ 15'-0" o.c. maximum spacing. Areas created by joints shall have a maximum aspect ratio of 1.5:1.





20. Construction joints shall be detailed as shown below or other submitted and approved method unless noted otherwise.



- 21. Refer to Mechanical and Electrical drawings for concrete pads and foundations not shown on the structural drawings.
- 22. Grout used in grout beds under column base plates shall be cement based, non-shrink grout. The grout shall exhibit no shrinkage in accordance with ASTM C827, "test method for early volume change of cementitious mixtures" and shall have a minimum 28-day compressive strength of 5000 psi when tested in accordance with ASTM C-109, "test method for compressive strength of hydraulic cement mortars".
- 23. Contractor to include with the contract price an allowance for 2 yds. of reinforced concrete including materials and labor.
- 24. Concrete Mix Design Submittals
- a) Each mix design shall be labeled to indicate the area in which the concrete is to be placed (e.g. foundations, slab-on-grade, columns, etc.). Failure to do so will cause delay and/or rejection of submittals.
- b) Proposed mix design shall be in accordance with Method 1 or Method 2 of ACI 301.
- supporting data in tabular form for each separate proposed mix.
- c) Submit concrete mix design for each proposed class of concrete.

#### Wood Framing Notes:

- 1. All wood in contact with concrete or masonry shall be pressure treated. Pressure treated wood shall not be in direct contact with steel and should be separated by 15 mil poly. All fasteners in contact with pressure treated wood should be stainless steel or have approved coating by
- 2. All framing lumber shall be #2 SYP except studs and plates may be stud grade S.P.F. unless
- 4. Roof sheathing on a flat roof to be 3/4" CDX plywood, u.n.o.
- 5. Roof sheathing on a sloped roof to be 5/8" CDX plywood with plyclips between rafters, u.n.o.
- 6. The floor and roof trusses shall be designed by an engineer registered in the state of Tennessee and the design drawings shall bear the said engineer's seal per current state law. Submit design drawings including design loads, member stresses, uplift and bearing loads at supports, required
- 7. Design of wood trusses, including bridging and all necessary framing for roof mounted equipment, shall be provided by the truss manufacturer, and shall conform to the following minimum

	Sloped R
Live Load:	20 psf
Dead Load:	
Top Chord:	10 psf
Bottom Chord:	10 psf
Total:	40 psf

- 8. Trusses supported by masonry bearing walls shall be fastened to the structure by connections capable of withstanding out of plane wall loads of 280 plf (200 plf -asd)
- 9. Limit floor truss live load deflection to 1" or length (in.)/480 whichever is less.
- 11. Each roof truss shall be anchored to bearing supports as required by the truss manufacturer. At a minmum, use a Simpson H2.5 hurricane tie or approved equal. Joist hangers for attaching trusses to truss girder shall be sized and provided by the truss manufacturer.
- 12. Attach wood top plate to metal track with (1)  $\#10 \times 11/4$ " course thread hex washer head screw. Fasten from below through steel track into wood at 8" o.c. staggered.
- 13. Where "Piggy Back" trusses are used, provide 2x4's at 24" O.C. (or as otherwise required by the truss manufacturer), nailed to the top chord of the structural truss below before installing the "Piggy Back" truss.
- 14. Provide 2x4 blocking at all hips.
- 15. Provide all temporary and permanent truss bracing per truss manufacturer's requirements, but

#### Nailing Schedule:

1. This nailing schedule is typical unless otherwise noted or detailed. All nails shall be common wire nails (no clipped head nails).

<u>Connection</u>	<u>Nailing</u>
Joist to sill or girder, toe nail ea. Side	3-8d
Bridging to joist, toe nail each end	2-8d
Sole plate to joist or blocking, face nail	16d @ 16"
Top plate to stud, end nail	2-16d
Double studs, face nail	16d @ 24" o.c.
Doubled top plates, face nail	2-16d
Continuous header, to pieces	16d @ 16" o.c.
Ceiling joists to plate, toe nail	3-8d
Continuous joists to plate, toe nail	3-8d
Ceiling joists, laps over partitions, face nail	3-16d
Rafter to plate, toe nail	3-8d
Built-up corner studs	16d @ 24" o.c.
Ceiling joists to parallel rafters, face nail	3-16d
Plywood sheathing	See Plans

TYP. NAIL SHANK DIAMETER AND LENGTHS						
ТУРЕ	DESCRIPTION	6d	8d	10d	16d	
COMMON NAILS	LENGTH	2"	2 1/2"	3"	3 1/2"	
	DIAMETER	0.113"	0.131"	0.148"	0.162"	
	HEAD DIAMETER	0.266"	0.281"	0.312"	0.344"	

- manufacturer.
- noted otherwise. Blocking may be S.P.F.
- 3. Provide 3/4" CDX T & G plywood subfloor glued and nailed on all of the joists, u.n.o.

- permanent bridging or bracing, and layout plan.

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10. Limit roof truss live load deflection to 1" or length (in.)/240 whichever is less.

TYP. NAIL SHANK DIAMETER AND LENGTHS						
ТУРЕ	DESCRIPTION	6d	8d	10d	16d	
COMMON NAILS	LENGTH	2"	2 1/2"	3"	3 1/2"	
	DIAMETER	0.113"	0.131"	0.148"	0.162"	
	HEAD DIAMETER	0.266"	0.281"	0.312"	0.344"	

FOR PERMITTING ONLY

SCHEMATIC DESIGN

DESIGN DEVELOPMENT

Date:	07/	28/2017
Designed I Drawn By: Reviewed	•	W.N.D. C.M.B. W.N.D.

Comm. No.	170042.01
Revisions:	

REV #1 010/18/2017

Sheet:

ET 1: DO	OOR 100A (ENTRANCE SINC	GLE)		
3	EA. BUTTS	BB1191 - 4.5 X 4.5 NRP	US26D	HAG
1	EXIT DEVICE	99NL	US26D	VON
1	CYLINDER	CORBIN / RUSSWIN AS REQ.	US26D	CR
1	DOOR CLOSER			
1	KICK PLATE	193S - 8" X 2" LWD		HAG
1	THRESHOLD	896V	MULL ALUM	NGP
1	DOOR SWEEP	98V	US28	NGP
1		127NA - HEAD & JAMBS		NGP
ET 2: DO	OOR 105B (ENTRANCE PAIF	R)		
6	EA. BUTTS	BB1191 - 4.5 X 4.5 NRP	US26D	HAG
1	MULLION	KR4954	SP29	VON
1	EXIT DEVICE	99L - NL X 996L	US26D	VON
1	EXIT DEVICE	99L - DT X 996L	US26D	VON
2		CORBIN / RUSSWIN AS REQ.	US26D	CR
2	DOOR CLOSERS			CR
2	KICK PLATES	193S - 8" X 1" LWD	US32D	HAG
1	THRESHOLD	896V	MULL ALUM.	NGP
2		98V	US28	NGP
1		127NA - HEAD & JAMBS		NGP
SET 3: DO	OOR 101 (KITCHEN)			
4	EA. BUTTS	BB1279 - 4.5 X 4.5	US26D	HAG
1	LEVER CLASSROOM	CL3355 NZD	US26D	CR
2	KICK PLATES	193S - 8" X 2" LWD	US32D	HAG
1	DUTCH DOOR BOLT	054	US26D	IVE
3	SILENCERS	SR64		IVE
	•	N'S TOILET & REGULAR TOILET)		
EACH TO		DD1070 45 V 45	LICOGO	1140
3	EA. BUTTS	BB1279 - 4.5 X 4.5	US26D	HAG
1	LEVER PRIVACY	CL3320 NZD	US26D	CR
2	KICK PLATES	193S - 8" X 2" LWD	US32D	HAG
3	SILENCERS	SR64		IVE
ET 5: DO	OOR 104 (STORAGE)			
3	EA. BUTTS	BB 1279 - 4.5 X 4.5	US26D	HAG
1	LEVER STOREROOM	CL 3357 NZD	US26D	CR
1	DOOR CLOSER	DC6210 X M54	ALUM. PT.	CR
ı	DOON OLOOLI	DOUD! O'N INIO!	,	

193S - 8" X 2" LWD

2' - 8"

1 3/4"

US32D

5/8" GYP. BD. ON 2X6

WOOD STUDS @ 16"

2X6 WOOD HEADER

SHIM AS REQ'D CAULK

BOTH SIDES, TYP.

H.M. FRAME

FRAME (BEYOND)

DOOR PER

**SCHEDULE** 

+1 15/16"

1 15/16"

VARIES

HEAD DETAIL

SCALE: 11/2" = 1'-0"

WALL LINE

(BEYOND)

THRESHOLD

REINFORCED CONCRETE

SLAB PER PLAN

ENTIRE FRAME PERIMETER

HAG

IVE

PAINT

KICK PLATE

SILENCERS

SHEATHING

LAP WOOD SIDING

STARTER STRIP

# DOOR HARDWARE NOTES

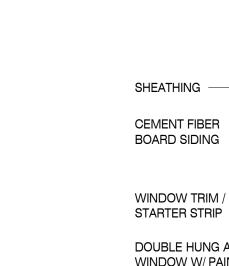
- . MANUFACTURES LISTED IN THE HARDWARE SPECIFICATION ARE AS FOLLOWS
- 2. ALL LOCKSETS SHALL BE MASTER KEYED INTO EXISTING CORBIN / RUSSWIN KEY SYSTEM. SUPPLY 3 KEYS PER LOCKSET AND 6 MASTER KEYS. PROVIDE A CONSTRUCTION MASTER KEY SYSTEM FOR USE DURING BUILDING CONSTRUCTION. AT COMPLETION OF THE PROJECT, REMOVE THE CONSTRUCTION MASTER KEY SYSTEM AND DELIVER PERMANENT KEYS TO OWNER.

PAINT

7/A2.1 7/A2.1 8/A2.1

- 3. FINISH OF HINGES, LOCKSETS, AND EXIT DEVICES SHALL BE SATIN CHROME (US26D) FINISH. DOOR CLOSERS SHALL HAVE A SPRAYED ALUMINUM FINISH. THRESHOLD SHALL HAVE A MILL FINISH. DOOR SWEEPS AND WEATHERSTRIP SHALL HAVE A CLEAR
- 4. ADJUST DOOR CLOSERS TO COMPLY WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.

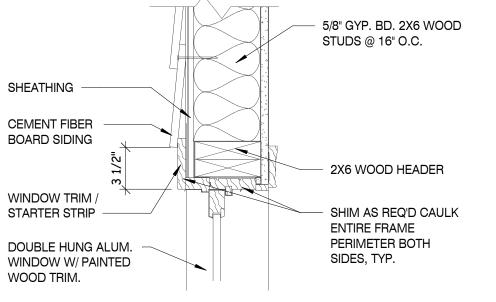
# 5/8" GYP. BOARD ON 2X6 WOOD - HM FRAME STUD @ 16" O.C. SHIM AS REQ'D CAULK ENTIRE FRAME PERIMETER BOTH SIDES, TYP. LAP WOOD SIDING



WINDOW W/ PAINTED WOOD TRIM.

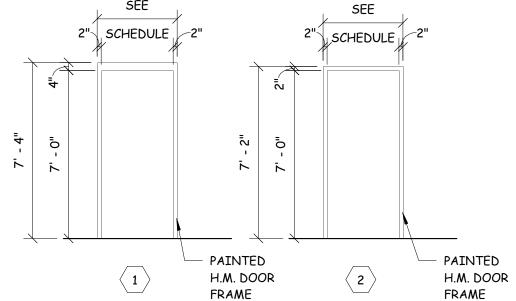
JAMB DETAIL

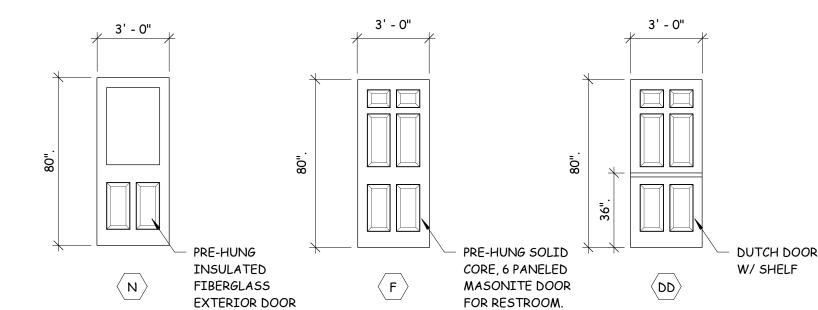
SCALE: 11/2" = 1'-0"



WINDOW HEAD DETAIL







# DOOR FRAME LEGEND

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

#### **GENERAL DOOR NOTES**

- 1. RATED DOORS MUST HAVE RATED FRAMES, HARDWARE, CLOSERS AND OTHER RATED ACCESSORIES. 2. CLOSERS AND POSITIVE LATCHING ARE REQUIRED ON FIRE RATED DOORS AND DOORS
- IN SMOKE TIGHT PARTITIONS. 3. EXTERIOR HOLLOW METAL DOORS ARE TO BE INSULATED.
- 4. EXTERIOR HOLLOW METAL DOORS AND FRAMES ARE TO BE FACTORY PRIMED AND FIELD PAINTED.
- 5. EVERY DOOR LATCH TO CLOSETS, STORAGE AREAS, KITCHENS AND OTHER SIMILAR SPACES OR AREAS SHALL BE SUCH THAT CLIENTS CAN OPEN THE DOOR FROM INSIDE THE SPACE OR AREA.
- 6. EVERY BATHROOM DOOR LOCK SHALL BE DESIGNED TO ALLOW OPENING OF THE LOCKED DOOR FROM THE OUTSIDE BY OPENING DEVICE THAT SHALL BE READILY ACCESSIBLE TO THE STAFF. . PROVIDE WIRE GLASS WHERE REQUIRED.

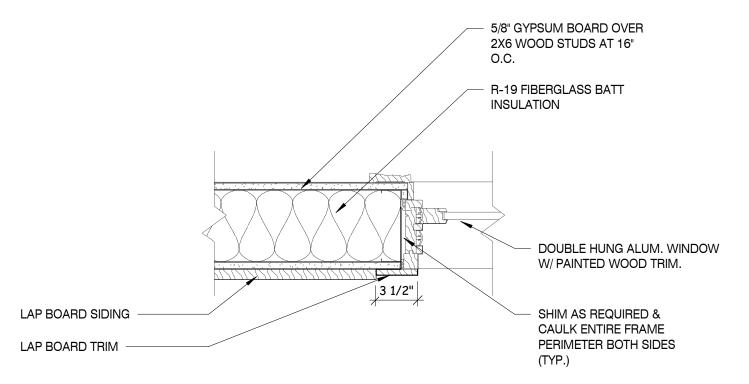
#### GENERAL WINDOW NOTES

- ALL GRADES SHOWN HERE ARE FOR REFERENCE ONLY. CONTRACTOR TO FIELD VERIFY ALL GRADES PRIOR TO BIDDING AND BE RESPONSIBLE FOR ANY ADDITIONAL WORK THAT THE VARYING GRADES MAY REQUIRE TO COMPLETE THE
- SCOPE OF WORK. 2. CONTRACTOR TO FIELD VERIFY EXACT NUMBER OF WINDOWS EXISTING PRIOR TO BIDDING AND IS RESPONSIBLE FOR REPLACING ALL WINDOWS IN ALL BUILDINGS UNLESS SPECIFICALLY NOTED OTHERWISE.
- 3. ALL NEW WINDOWS IN EXISTING BATHROOMS ARE TO HAVE FROSTED
- TRANSLUCENT GLASS.
- 4. VERIFY EXACT SIZE OF EXISTING OPENINGS IN FIELD, PROVIDE SHIMS AND OR
- BLOCKING AS REQ'D TO ALLOW FOR NEW WINDOW INSTALLATION. 5. ALL WINDOWS IN DOORS AND NEXT TO DOORS TO HAVE TEMPERED GLASS.

#### DOOR FRAME WALL LINE (BEYOND) (BEYOND) DOOR PER THRESHOLD SCHEDULE SLOPE @ 1/4" PER 1'-0" REINFORCED CONCRETE SLAB PER PLAN 1/2" EXPANSION

# THRESHOLD DETAIL

SCALE: 11/2" = 1'-0"



# WINDOW JAMB DETAIL

# DOOR ELEVATION LEGEND

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

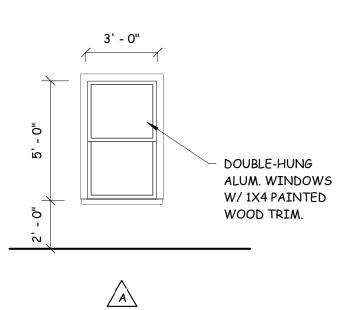
DOORS ARE PRE HUNG UNITS

2X FRAME OPENING

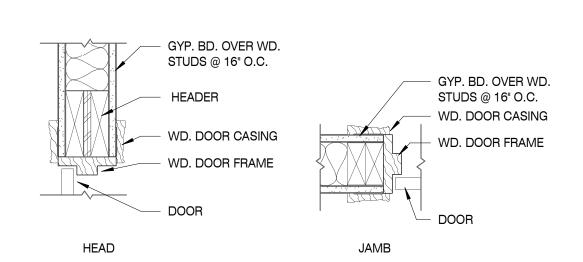
REQUIRED.

· ROUGH OPENING IS TO FACE OF

PROVIDE WIRE GLASS WHERE



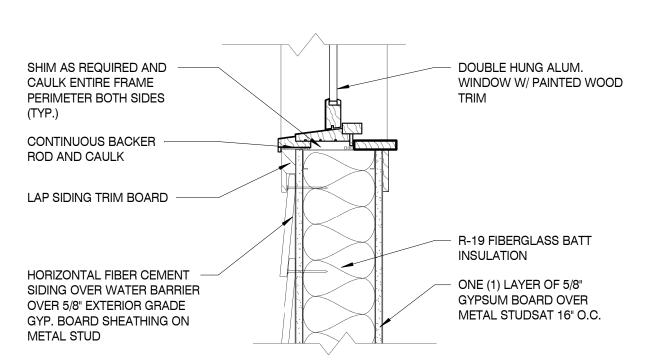
# WINDOW ELEVATION SCALE: 1/4" = 1'-0"



# HEAD/JAMB DETAIL

SCALE: 11/2" = 1'-0"

SCALE: 11/2" = 1'-0"



WINDOW SILL DETAIL

THE DESIGN PROFESSIONA DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW
THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/ OR FOLLOW THE DESIGN PROFESSIONAL'S **GUIDANCE WITH RESPECT TO** ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE

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THIS DRAWING HAS BEEN ISSUED:

FOR REVIEW ONLY FOR PERMITTING ONLY SCHEMATIC DESIGN DESIGN DEVELOPMENT CONSTRUCTION DOCUMENTS

Drawing Title: DOOR SCHEDULE, DOOR / FRAME ELEVATIONS AND DETAILS

Date: 07/28/2017 Designed By: Designer Drawn By: Reviewed By: Checker

Comm. No. 170042.01

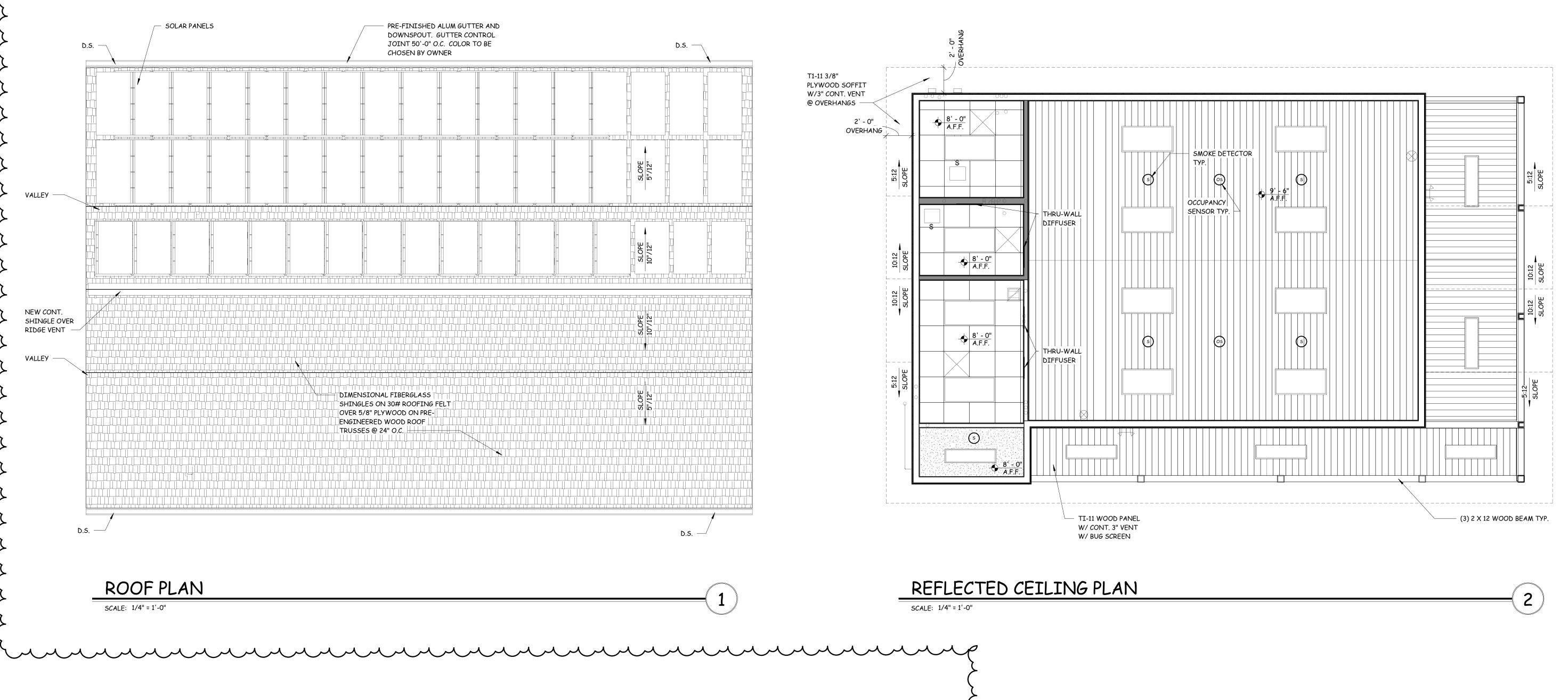
Revisions: REV #1 010/18/2017

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THRESHOLD DETAIL SCALE: 1 1/2" = 1'-0"

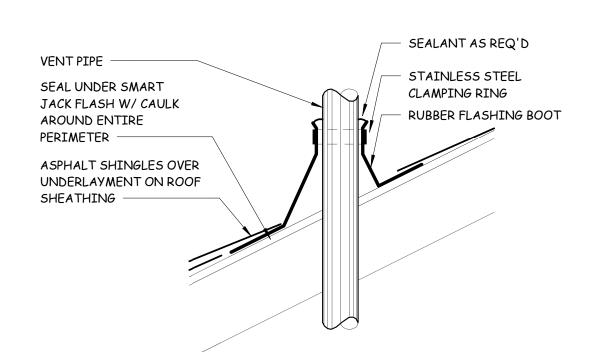
SCALE: 11/2" = 1'-0"

SCALE: 11/2" = 1'-0"



NEW CONT. SHINGLE OVER RIDGE VENT HOLD PLYWOOD BACK FROM RIDGE 1 1/2" - 30 LB. FELT. CUT BACK EACH SIDE. FROM RIDGE ASPHALT 5/8" PLYWOOD ROOF SHINGLES SHEATHING.

RIDGE VENT DETAIL SCALE: 11/2" = 1'-0"



VENT PENETRATION DETAIL SCALE: 11/2" = 1'-0"

REFLECTED CEILING LEGEND 2X4 FLUORESCENT FIXTURE W/ PRISMATIC DIFFUSER COMBINATION EMERGENCY LIGHT AND EXIT LIGHT EXIT LIGHT EMERGENCY LIGHT HVAC SUPPLY DIFFUSER HVAC RETURN GRILL TI-11 WOOD PANEL 24"X24" ACOUSTICAL CEILING TILE 5/8" GYP. BD. CEILING CEILING HEIGHT UNLESS OTHERWISE NOTED

WALL LEGEND

EXTERIOR WALL - LAP WOOD SIDING OVER INFILTRATION BARRIER OVER 5/8" PLYWOOD SHEATHING OVER 2X6 WOOD FRAMING @ 16" O.C. W/ SPRAY-APPLIED R-19 INSULATION WALL PARTITION - 2X4 STUDS @ 16" O.C. W/ 5/8" GYP. BD. ON

EACH SIDE WALL PARTITION - <u>SOUND BARRIER</u> - 2X4 OR 2X6 WD. STUDS @ 16" O.C. W/ 5/8" GYP. BD. ON EACH SIDE W/ SOUND BATT

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CONSTRUCTION DOCUMENTS Drawing Title: ROOF PLAN, REFLECTED CEILING PLAN NOTES AND

DETAILS

Date: 07/28/2017

Designed By: DPF/CMG Drawn By: Reviewed By: C.M.G.

Comm. No. 170042.01

REV #1 010/18/2017

# SOUTH ELEVATION

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

NEW CONT. SHINGLE DIMENSIONAL FIBERGLASS SOLAR PANELS OVER RIDGE VENT SHINGLES TOP OF RIDGE 18' - 9" PRE-FINISHED MTL **GUTTER & DOWNSPOUT** TO SPILL ONTO SPLASHBLOCK. TYP BEARING 9' - 6 1/2" P.T. 6X6 POST, TYP. PAINT OR A STAIN AT OWNER'S DISCRETION -2X2 WOOD GUARDRAIL W/ 1"x1" MTL. PICKETS @ 4" O.C. MAX. LEVEL 1 D.S. @ COLUMN BROOM FINISHED - DOUBLE-HUNG LAP WOOD SIDING D.S. — CONCRETE PORCH. ALUM. WINDOWS W/ 1X4 (PAINTED/STAINED) PAINTED TRIM. SLOPE AWAY FROM BLDG AT 1/8" PER FOOT

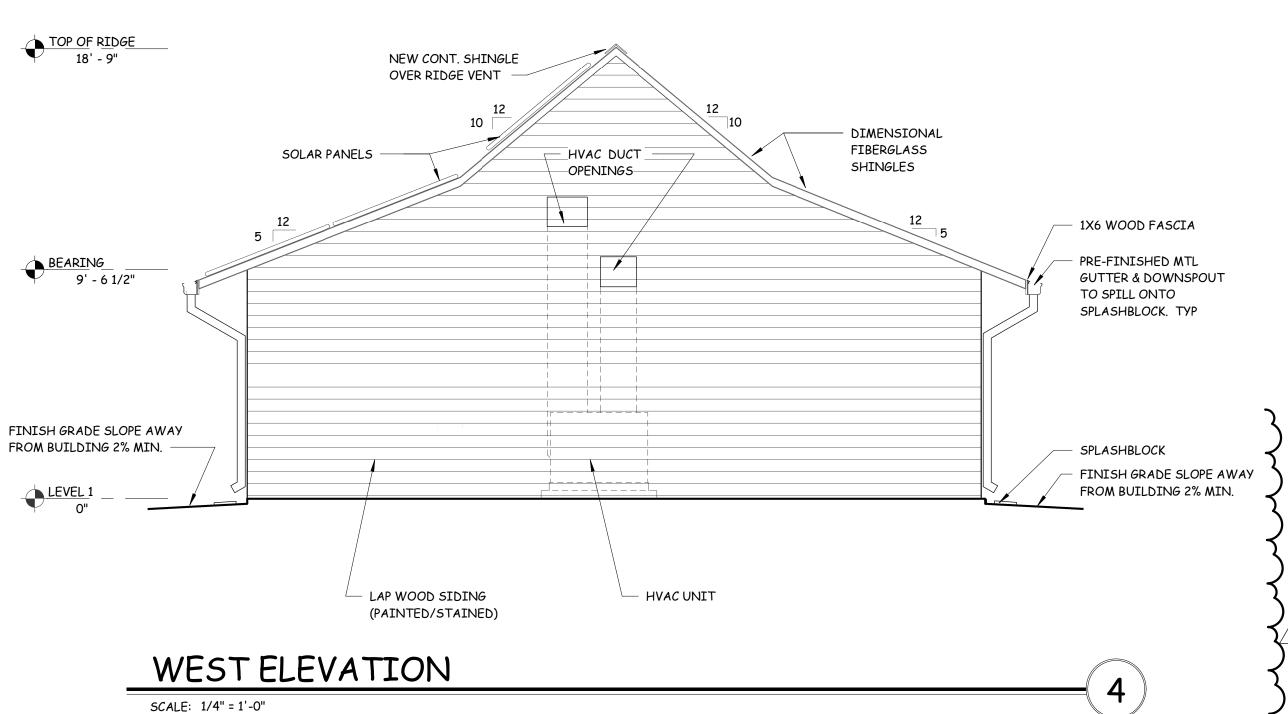
# NORTH ELEVATION

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

TOP OF RIDGE 18' - 9" NEW CONT. SHINGLE OVER RIDGE VENT DIMENSIONAL FIBERGLASS SHINGLES SOLAR PANELS 1X6 WOOD FASCIA BEARING 9' - 6 1/2" PRE-FINISHED MTL **GUTTER & DOWNSPOUT** TO SPILL ONTO SPLASHBLOCK. TYP P.T. 6X6 POST, TYP. PAINT OR P.T. 6X6 POST, TYP. PAINT STAIN AT OWNER'S OR STAIN AT OWNER'S DISCRETION -DISCRETION FINISH GRADE SLOPE AWAY SPLASHBLOCK FROM BUILDING 2% MIN. FINISH GRADE SLOPE AWAY FROM BUILDING 2% MIN. 2X2 WOOD GUARDRAIL PAINTED FIBERGLASS EXTERIOR LAP WOOD SIDING W/ 1"X1" MTL. PICKETS DOOR. PAINT/STAIN TRIM (PAINTED/STAINED) @ 4" O.C. MAX. AROUND DOOR

# EAST ELEVATION

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



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SCHOOL NET

ANDERSON CO. HIGH SCHOOL ZERO ENERGY BUILDIN

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☐ SCHEMATIC DESIGN
☐ DESIGN DEVELOPMENT

CONSTRUCTION DOCUMENTS

Drawing Title: EXTERIOR ELEVATIONS & NOTES

Date: 07/28/2017

Designed By: C.M.B.
Drawn By: C.M.B.
Reviewed By: C.M.G.

Comm. No. 170042.01

Revisions:

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Sheet: Sheet No.

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Drawing Title:

Drawing Title: BUILDING SECTION

Date: 07/28/2017

Designed By: Drawn By: Reviewed By:

299 N. WEISGARBER RD. KNOXVILLE, TN 37919

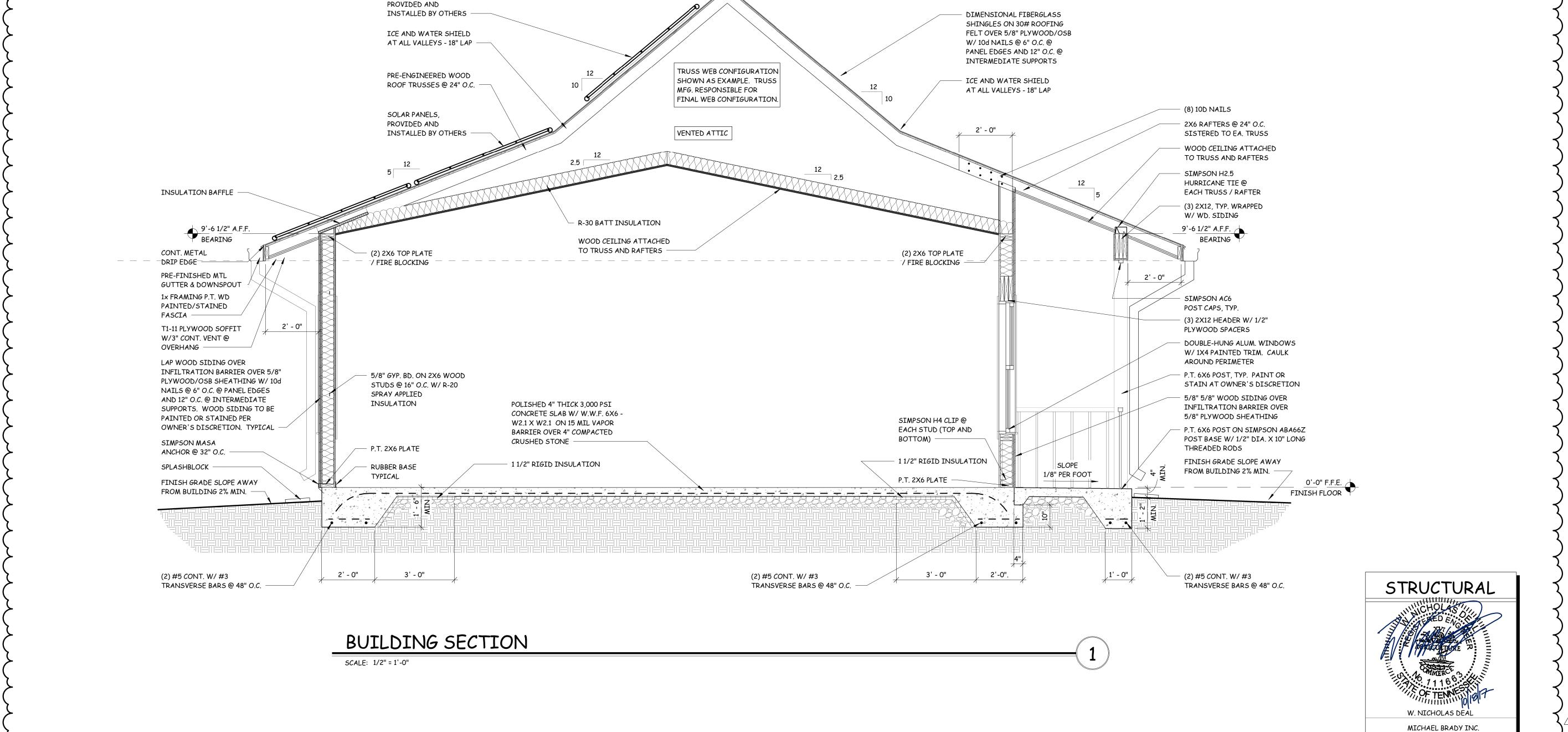
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NEW CONT. SHINGLE OVER RIDGE VENT

SOLAR PANELS,

#### **HVAC SPECIFICATIONS**

#### . GENERAL

SCOPE: FURNISH ALL LABOR, MATERIALS, EQUIPMENT, CONTROL SYSTEMS, DEVICES, ACCESS PANELS, PERMITS, AND SERVICES NECESSARY TO INSTALL THE COMPLETE AND OPERABLE AIR CONDITIONING, HEATING, AND VENTILATING SYSTEM INDICATED ON THE DRAWINGS. AS SPECIFIED HEREIN, AND IN ACCORDANCE WITH ALL CITY, STATE, AND NATIONAL CODES, F THERE IS A CONFLICT BETWEEN CODES AND OR THE CONTRACT DOCUMENTS, THE CONTRACTOR IS TO FOLLOW THE MORE STRINGENT OF THE REQUIREMENTS. ALL MATERIALS SHALL BE NEW AND ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, PRODUCT APPROVAL, RULES AND ORDINANCES. ANY DAMAGED EQUIPMENT SHALL BE REPLACED OR RESTORED TO ORIGINAL CONDITION. ALL MECHANICAL EQUIPMENT SHALL BE ARI & U.L. LISTED WHERE APPLICABLE AND RATED FOR THE REQUIRED SERVICE, PRESSURES, TEMPERATURES AND SHALL BE PROVIDED WITH ALL NECESSARY TRANSFORMERS, SEALS, VALVES, CONNECTIONS, ETC. TO FUNCTION PROPERLY.

. ELECTRICAL WORK: ALL CONDUIT, ROUGH IN ELECTRICAL BOXES AND WIRING, EXCLUDING LOW VOLTAGE CONTROL WIRING, SHALL BE INCLUDED UNDER THE ELECTRICAL SECTION OF THE CONTRACT DOCUMENTS, COORDINATE REQUIREMENTS AND ROUGH IN LOCATIONS FOR ALL EQUIPMENT. CONTROL WIRING SHALL BE PROVIDED AND INSTALLED UNDER THE MECHANICAL SECTION OF THE CONTRACT DOCUMENTS.

. SUBMITTAL DATA: PRIOR TO ORDERING EQUIPMENT THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A MINIMUM OF THREE (3) COPIES OF THE EQUIPMENT BROCHURES. TECHNICAL DATA AND/OR SHOP DRAWINGS. AS AN ALTERNATIVE. AN ELECTRONIC SUBMITTAL IS ACCEPTABLE. CONTRACTOR IS INSTRUCTED CONSOLIDATE INFORMATION WHEN SUBMITTING ELECTRONICALLY AND AVOID MULTIPLE COMMUNICATIONS.

. NOISE AND VIBRATION: EQUIPMENT SHALL OPERATE QUIETLY. THE OPERATION OF THE EQUIPMENT SHALL CAUSE NO PERCEPTIVE VIBRATION OR OBJECTIONABLE NOISE IN ANY PORTION OF THE BUILDING OR STRUCTURE.

MAINTENANCE MANUALS AND INSTRUCTIONS: FURNISH (3) THREE SETS OF OPERATING INSTRUCTIONS COVERING HEATING, VENTILATING, AND AIR CONDITIONING SYSTEM AND EQUIPMENT, WARRANTIES, CONTROL SEQUENCE AND DIAGRAMS, BOUND AND COVERED AND DELIVERED TO THE ARCHITECT. INCLUDE A COMPLETE DESCRIPTION OF THE OPERATION OF THE CONTROL SYSTEM. THE CONTRACTOR SHALL INSTRUCT THE OWNER'S REPRESENTATIVE IN THE PROPEF OPERATION OF ALL EQUIPMENT.

#### WARRANTIES:

- 1. FURNISH A FIVE (5) YEAR WARRANTY ON ALL COMPRESSORS AND REFRIGERATION CIRCUIT AND A ONE (1) YEAR WARRANTY ON ALL CONTROLS AND OTHER EQUIPMENT.
- 2. THE MC WILL WARRANTY ALL MECHANICAL SYSTEMS, DUCTWORK, THERMOSTATS, AND ALL OTHER EQUIPMENT. PARTS, AND LABOR SHOWN ON THE MECHANICAL DRAWINGS AND IN THE SPECIFICATIONS FOR A PERIOD OF ONE (1) YEAR AFTER ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. SEE HVAC GENERAL NOTE 17.
- 3. ANY REPAIRS REQUIRING SYSTEM SHUT DOWN WILL BE DONE DURING NON-OPERATIONAL PERIODS. 4. THE MC SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO BIDDING AND PURCHASING ANY EQUIPMENT
- 5. AN INDEPENDENT CONTRACTOR SHALL TEST AND BALANCE ALL MECHANICAL EQUIPMENT AIR DEVICES, EXTRACTORS, DAMPERS, AHU'S AND FANS, ETC. TO PROVIDE THE DESIGN QUANTITIES (+/- 5%) AS SHOWN ON THE PLANS OR SCHEDULES. PROVIDE T & B REPORT IN ACCORDANCE WITH THE AIR BALANCE COUNCIL (ABC) STANDARDS, SIGNED AND SEALED BY A REGISTERED ENGINEER, PROVIDE FINAL BALANCING FOR ALL SYSTEMS TO SATISFACTION OF OWNER AND ENGINEER. T & B CONTRACTOR SHALL VISIT THE JOB SITE DURING CONSTRUCTION TO ENSURE THAT ALL DUCTS, DAMPERS, AND OTHER AIR CONTROL DEVICES ARE INSTALLED FOR PROPER AND QUIET AIR DELIVERY.
- 6. EQUIPMENT ANCHORAGE: PROVIDE ALL MATERIALS AND LABOR REQUIRED FOR EQUIPMENT ANCHORAGE TO BUILDING STRUCTURE.

#### PERMITS, ORDINANCES, AND INSPECTIONS:

- . OBTAIN AND PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED. DELIVER TO THE ARCHITECT, ALL CERTIFICATES AND INSPECTION REPORTS.
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CITY, COUNTY, STATE, OR NATIONAL ORDINANCES AND CODES. EFFORT HAS BEEN MADE TO MEET OR EXCEED REQUIREMENTS. THE CONTRACTOR SHALL MAKE ANY MINOR ADJUSTMENTS TO MEET THESE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER.

#### **PRODUCTS**

#### SHEET METAL WORK:

- 1. PROVIDE GALVANIZED STEEL SHEET METAL WORK IN THE VENTILATION SYSTEMS IN ACCORDANCE WITH ASHRAE AND
- 2. PROVIDE FLEXIBLE WOVEN DUCT CONNECTIONS IN DUCTS AS INDICATED. SECURE CONNECTIONS WITH GALVANIZED CHANNELS. PROVIDE A BRAIDED COPPER BRIDGE STRAP ACROSS FLEXIBLE CONNECTIONS.
- 3. DIMENSIONS INDICATED ON THE DRAWINGS ARE INSIDE AREAS. IF DUCTS ARE LINED INCREASE SHEET METAL DIMENSIONS TO ACCOMMODATE INSULATION THICKNESS.

#### DAMPERS:

- . PROVIDE APPROVED MANUAL BALANCE DAMPERS WHERE SHOWN ON THE PLANS FOR THE PROPER REGULATION OF THE AIR HANDLING SYSTEM AND SO LOCATE AS TO BE ACCESSIBLE.
- 2. INSTALL NFPA APPROVED, FUSIBLE LINK OPERATED TYPE "B" FIRE DAMPERS OF SUITABLE RATING IN ALL DUCTWORK PENETRATIONS OF RATED WALLS AND FLOORS IN LOCATIONS REQUIRED BY LOCAL AND STATE ORDINANCES. PROVIDE ACCESS IN BOTH CEILING CONSTRUCTION AND DUCTWORK FOR MAINTENANCE OF FIRE DAMPERS.

- . FURNISH AND INSTALL WHERE INDICATED RETURN AND SUPPLY GRILLES, COMPLETE WITH BAKED ENAMEL FINISH AND OPPOSED BLADE DAMPERS.
- 2. ALL DUCTWORK AND DIFFUSERS SHALL BE RATED FOR THE USE, PRESSURE AND TEMPERATURE SPECIFIED AND AS REQUIRED BY THE CEILING OR WALL SYSTEM RATING. IF THE CEILING ASSEMBLY IS RATED PROVIDE RADIATION DAMPERS AT THE PENETRATION WHEN THE AREA OF ALL PENETRATIONS, INCLUDING DUCT AND DIFFUSERS, IN THE MEMBRANE EXCEED AN AGGREGATE AREA OF 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF CEILING AREA.
- 3. DUCT INSULATION: INSULATE ALL SUPPLY, RETURN AND OUTDOOR AIR DUCTWORK WITH A MINIMUM OF 2" THICK 3/4# DENSITY DUCTWRAP INSULATION. ALL INSULATION WILL HAVE FIRE/SMOKE RATING LESS THAN 25/50. ALL EXTERIOR DUCTWORK SHALL BE WEATHER-PROOFED WITH A COVERING OF "ALUMIGUARD" WRAP.
- D. EXHAUST FANS: FANS SHALL BE AS INDICATED ON DRAWINGS.

 CONTROLS SHALL BE ELECTRIC/ELECTRONIC TYPE, PROVIDE ALL WIRING, ACTUATORS, AND CONTROL DEVICES. 2. FURNISH ALL THERMOSTATS AND SENSORS WITH INSULATED SUB-BASE.

#### **HVAC GENERAL NOTES**

- THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE THE APPROXIMATE ROUTING OF PIPING AND DUCTWORK. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS AND DELAYS MINOR OFFSETS AND ADJUSTMENTS SHALL BE PROVIDED WHERE REQUIRED AT NO ADDITIONAL COST TO THE
- . COORDINATE CEILING DIFFUSERS AND REGISTER LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING. COORDINATE SIDE WALL GRILLES AND REGISTERS WITH STRUCTURAL AND ARCHITECTURAL ELEMENTS.
- B. DUCT DIMENSIONS INDICATED ON THE DRAWINGS ARE NET AIR SIDE DIMENSIONS
- . DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. SEAL ALL DUCTS. JOINTS, AND SEAMS IN DUCTWORK TO INSURE AGAINST LEAKAGE, MITERED ELBOWS SHALL BE PROVIDED WITH SINGLE THICKNESS TURNING VANES. SUPPLY, RETURN, AND OUTSIDE AIR DUCTWORK SHALL BE GALVANIZED STEEL WITH INSULATION AS NOTED. EXHAUST DUCTWORK SHALL BE GALVANIZED STEEL.
- INSULATE SUPPLY. RETURN. AND OUTSIDE AIR DUCTWORK WITH A MINIMUM OF 2" THICK 3/4 PCF BLANKET INSULATION WITH FOIL VAPOR BARRIER. SEAL ALL JOINTS AND SEAMS IN THE VAPOR BARRIER.
- THE CONTRACTOR MAY INSTALL DIFFUSERS WITH A MAXIMUM OF A 5 FOOT RUN OF INSULATED FLEXIBLE DUCTWORK EQUAL TO FLEXMASTER TYPE 8. ALL FLEXIBLE DUCTWORK SHALL BE INSTALLED AND ENDS TERMINATED IN COMPLIANCE WITH THE METHODS SHOWN IN THE ADC INSTALLATION MANUAL AND USE METAL STRAPS NOT LESS THAN 1-1/2" WIDE AT A MAXIMUM OF 5 FEET ON CENTER. DUCTS SHALL NOT DEFLECT MORE THAN 1/2" IN 5 FEET NOR HAVE ANY KINKS OR RESTRICTIONS TO FLOW. ELBOWS SHALL HAVE A MINIMUM RADIUS OF ONE DUCT DIAMETER WITH INTERIOR LINER FULLY EXTENDED.
- RECTANGULAR SUPPLY AND RETURN BRANCH TAKE-OFFS SHALL BE 45° THROAT TAKE-OFFS WITH BALANCING DAMPERS IN THE BRANCH DOWN STREAM OF THE TAKE-OFF. ROUND SUPPLY AND RETURN TAKE-OFFS SHALL BE "BELLMOUTH" OR SPIN-IN FITTINGS WITH DAMPERS IN THE BRANCH DOWNSTREAM. PROVIDE BACKDRAFT DAMPERS ON ALL EXHAUST FANS AND/OR INLINE FANS.
- . ALL LOUVERS, ALL GRILLES, EXPOSED PIPING, EXPOSED EQUIPMENT, AND EXPOSED DUCTWORK SHALL BE PAINTED TO MATCH ADJACENT SURFACE COLOR AND TEXTURE OR AS DIRECTED BY THE ARCHITECT, VERIFY COLOR AND TEXTURE WITH THE ARCHITECT PRIOR TO PAINTING. PAINT ALL EXPOSED MECHANICAL EQUIPMENT. WITH BENJAMIN MOORE EPOXY ENAMEL 182 OR AS DIRECTED BY THE ARCHITECT.
- THERMOSTATS AND SENSORS SHALL BE LOCATED 48" AFF UNLESS OTHERWISE NOTED. ALL CONDUIT, ROUGH IN ELECTRICAL BOXES AND WIRING. EXCLUDING LOW VOLTAGE CONTROL WIRING, SHALL BE INCLUDED UNDER THE ELECTRICAL SECTION OF THE CONTRACT DOCUMENTS. COORDINATE REQUIREMENTS AND ROUGH IN LOCATIONS FOR ALL CONTROL DEVICES, ELECTRICAL CONNECTIONS TO EQUIPMENT, AND SWITCH LOCATION. CONTROL WIRING SHALL BE PROVIDED AND INSTALLED UNDER THE MECHANICAL SECTION OF THE CONTRACT DOCUMENTS.
- 0. PROVIDE A 12/12 (MINIMUM) ACCESS DOOR FOR ACCESS TO ALL DAMPERS, CONTROL DAMPERS, EXTRACTORS, PLENUMS, OR ANY OTHER DEVICE MOUNTED IN THE DUCT SYSTEM.
- 1. INSTALL ALL EQUIPMENT ACCORDING TO THE MANUFACTURERS' INSTRUCTIONS.
- 12. REFRIGERANT PIPING SHALL BE PRECHARGED TUBING PACKAGES OR TYPE ACR COPPER TUBING IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS.
- PLUMBING VENTS, ETC.

13. PROVIDE A MINIMUM OF 10' CLEARANCE BETWEEN FRESH AIR INTAKES AND EXHAUST OUTLETS, RELIEF OUTLETS,

- 4. PROVIDE CONDENSATE DRAINS WITH A VENTED P-TRAP FOR ALL COOLING COILS. P-TRAPS TO BE PVC ON INTERIOR INSTALLED EQUIPMENT AND TYPE M COPPER ON EXTERIOR INSTALLED EQUIPMENT.
- 15. THE OUTSIDE AIR QUANTITIES ARE CALCULATED ACCORDING TO TABLE 6-1 "MINIMUM VENTILATION RATES IN BREATHING ZONE" OF ASHRAE STANDARD 62.1. CHAPTER 6 "DESIGN FOR VARYING OPERATING CONDITIONS" HAS BEEN UTILIZED AS ALLOWED TO REDUCE AIRFLOW RATES FOR INTERMITTENT USE.
- 16. AFTER THE CONSTRUCTION OF THE BUILDING HAS REACHED A POINT WHERE THE PERMANENT HEATING AND COOLING SYSTEMS ARE OPERABLE, THE CONTRACTOR MAY, AT HIS OPTION, USE THE PERMANENT HEATING AND COOLING EQUIPMENT FOR TEMPORARY ENVIRONMENTAL CONTROL. THE CONTRACTOR MUST SUBMIT A REQUEST FOR USE TO THE ARCHITECT OUTLINING THE INTENDED USE. THE HEATING SYSTEM SHALL NOT BE USED FOR TEMPORARY HEAT UNTIL THE BUILDING IS BROOM CLEAN AND SHALL NOT BE USED WITHOUT ALL FILTERS IN PLACE. FILTERS MUST BE CHECKED WEEKLY AND REPLACED AS REQUIRED TO PROTECT THE EQUIPMENT AND DUCT SYSTEMS. UPON THE COMPLETION OF THE WORK, AND PRIOR TO SUBSTANTIAL COMPLETION. ALL DUCTWORK AND EQUIPMENT SHALL BE INTERNALLY CLEANED AND ALL FILTERS SHALL BE REPLACED WITH NEW FILTERS.
- 17. ALL WARRANTIES SHALL BEGIN UPON FINAL ACCEPTANCE BY THE OWNER, NOT BENEFICIAL USE BY THE CONTRACTOR.
- 18. ALL OF THE COSTS ASSOCIATED WITH PROVIDING TEMPORARY HEATING AND COOLING SHALL BE BORNE SOLELY BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED POWER CONSUMPTION, ADDITIONAL ACCESS DOORS FOR CLEANING. FILTERS, DUCT AND EQUIPMENT CLEANING, ENGINEER'S TIME, TEST AND BALANCE AGENT TIME TO SUPPORT THE ENGINEER'S INSPECTION, ETC.
- 19. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL EQUIPMENT WITH THE ELECTRICAL SERVICE AND THE EC. THE SCOPE OF THIS COORDINATION INCLUDES BUT IS NOT LIMITED TO, REQUIRED VOLTAGE, PHASE, AMP CAPACITY, WIRE SIZE, CONDUIT SIZE AND LOCATION, DISCONNECT SIZE AND LOCATION, FUSE SIZE, ETC. IN THE EVENT OF A CONFLICT, THE MC IS TO NOTIFY THE ENGINEER PRIOR TO MECHANICAL AND ELECTRICAL EQUIPMENT BEING ORDERED.
- 20. ALL CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, AND WALL OPENINGS REQUIRED FOR THE INSTALLATION OF MECHANICAL WORK SHALL BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE OWNER. COORDINATE WITH OTHER TRADES.
- 21. PROVIDE VIBRATION ISOLATORS ON ALL MECHANICAL EQUIPMENT. IF NOT SPECIFICALLY CALLED OUT, PROVIDE AS RECOMMENDED BY MANUFACTURER FOR QUIET OPERATION.
- 22. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING, ORDERING, FABRICATION OR INSTALLATION OF MATERIALS OR EQUIPMENT.
- 23. <u>DUCT SEALING</u>: PRESSURE SENSITIVE TAPE USED AS THE PRIMARY SEALANT IS TO BE CERTIFIED AND SHALL COMPLY WITH UL-181A OR UL-181B. PROVIDE LONGITUDINAL SEAMS ON RIGID DUCT AND TRANSVERSE SEAMS ON ALL DUCTS. MECHANICAL FASTENERS AND SEALANTS SHALL BE USED TO CONNECT DUCTS AND AIR DISTRIBUTION DEVICES.
- 4. <u>SUBMITTALS AND ACCEPTANCE</u>: THE CONTRACTOR SHALL SUBMIT A MINIMUM OF THREE (3) SETS OF HVAC SHOP DRAWINGS TO THE PROJECT MANAGER WHO SHALL THEN RELAY THEM TO THE DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE PURCHASE OF EQUIPMENT. AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL SUBMIT OPERATION AND MAINTENANCE MANUALS FOR ALL MECHANICAL EQUIPMENT INCLUDED IN THE PROJECT. THE MANUALS SHALL BE COMPILED INTO A THREE RING BINDER AND TURNED OVER TO BUILDING OWNER.

#### HVAC SYMBOLS AND ABBREVIATIONS ROUND DUCTWORK. DIAMETER INDICATED AIR CONDITIONER (ING) AIR COOLED CONDENSING UNIT ABOVE FINISHED FLOOR AIR HANDLING UNI RECTANGULAR SUPPLY AND RETURN BALANCING VALVE DUCTWORK. SIZE INDICATED IN INCHES, FIRST BUTTERFLY VALVE NUMBER IS SIDE SHOWN BRAKE HORSEPOWER

20x12

20X12

T) EQUIP-#

S EQUIP-#

\$ EQUIP-#

**FLEXIBLE DUCT** 

RETURN AIR DUCT UP

RETURN AIR DUCT DOWN

SUPPLY OR OUTSIDE AIR DUCT UP

SUPPLY OR OUTSIDE AIR DUCT DOWN

EXISTING DUCTWORK TO REMAIN

90 DEGREE DUCTWORK ELBOW.

RADIUS DUCTWORK ELBOW -

ROUND OR RECTANGULAR

(DIFFUSER CONNECTION)

**DUCTWORK SIZE TRANSITION** 

MOTOR OPERATED DAMPER

MECHANICAL CONTRACTOR

OR APPROVED SUBSTITUTE

DIFFUSER/GRILLE LABEL

**VOLUME CONTROL DAMPER** 

CONICAL TAP

THERMOSTAT

FIRE DAMPER

SECURITY BAR

SENSOR

EXISTING DUCTWORK TO BE REMOVED

FLARED SPIN-IN WITH DAMPER AND FLEX DUCT

ROUND AND RECTANGULAR DUCT BRANCH

TAKE-OFF FROM RECTANGULAR MAIN WITH

DUCTWORK SQUARE TO ROUND TRANSITION

SMOKE DETECTOR - FURNISHED AND WIRED BY

ELECTRICAL CONTRACTOR AND INSTALLED BY

CEILING DAMPER IN ACCORDANCE WITH FIRE

RATING. DAMPER SHALL BE RUSKIN CFD TYPE

POINT OF CONNECTION TO EXISTING

BOTTOM OF DUCT BRITISH THERMAL UNIT BTUH BTU/HOUR BALL VALVE COMPUTER AIDED DRAFTING CLOSED CIRCUIT COOLER CEILING DIFFUSER CUBIC FEET PER MINUTE CHILLER COEFFICIENT OF PERFORMANCE CONTROL PANEL CEILING RETURN OR CONDENSATE RETURN CIRCUIT SETTER **COOLING TOWER** CONDENSING UNI CHILLED WATER RETURN CHILLED WATER SUPPLY DRY BULB (TEMPERATURE) DOOR GRILLE **DUCTLESS MINI-SPLIT SYSTEM** EXHAUST AIR ENTERING AIR TEMPERATURE ELECTRICAL CONTRACTOR **ENERGY EFFICIENCY RATING ELEVATION ENERGY RECOVERY VENTILATOR EVAPORATION OR EVAPORATIVE** ENTERING WATER TEMPERATURE FAN COIL

FLOOR DRAIN FIRE PROTECTION FIRE PROTECTION CONTRACTOR FEET PER MINUTE FLOOR SINK FREEZE GENERAL CONTRACTOR GATE VALVE HUB DRAIN HIGH EFFICIENCY PARTICULATE ARRESTANCE HEAT PUMP OR HORSEPOWER HEATING, VENTILATING, AND AC HEATING WATER RETURN HEATING WATER SUPPLY 1,000 BTU/HOUR KILOWATT LEAVING AIR TEMPERATURE LEADERSHIP IN ENERGY EFFICIENT DESIGN LEAVING WATER TEMPERATURE MOTOR

MIXED AIR TEMPERATURE MAKE UP AIR UNIT MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPERES MAXIMUM OVER CURRENT PROTECTION (AMPERES) MOTOR OPERATED DAMPER MANUAL VOLUME DAMPER OUTSIDE AIR PRESSURIZATION AIR PLUMBING CONTRACTOR OR PERSONAL COMPUTER PRIMARY LOOP

PACKAGED TERMINAL AC PRESSURE TRANSMITTER PACKAGED UNIT PROCESS WATER RETURN PROCESS WATER SUPPLY RETURN OR RELIEF AIR PROVIDE AND INSTALL A U.L. LISTED FIRE RATED RETURN OR RELIEF FAN REHEAT OR RELATIVE HUMIDITY REVOLUTIONS PER MINUTE

ROOFTOP UNIT SUPPLY AIR SEASONAL ENERGY EFFICIENCY RATTING SUPPLY FAN SECONDARY LOOP STAINLESS STEEL

SIDE WALL SUPPLY (GRILLE) SIDE WALL RETURN (GRILLE) TRIPLE DUTY VALVE TRANSFER GRILLE TOP OF DUCT TEMPERATURE TRANSMITTER ULTRAVIOLET LIGHT

VARIABLE FREQUENCY DRIVE VARIABLE (VOLUME) VARIABLE TEMPERATURE) WET BULB (TEMPERATURE) WSHP WATER SOURCE HEAT PUMP CONDENSER WATER SUPPLY XWR CONDENSER WATER RETURN

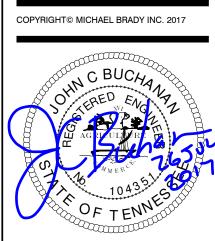
# AIR DISTRIBUTION EQUIPMENT SCHEDULE

			OTTRIBOTION EQU				
DESIGN	IATION	SERVICE	DESCRIPTION	MATERIAL/FINISH	MANUFACTURER MODEL NUMBER	SIZIN CFM	G NECK
$\boxtimes$	CD1	SQUARE, 3- CONE, CEILING SUPPLY DIFFUSER	24"x24" FACE T-BAR LAY-IN ADJUSTABLE PATTERN W/ O.B.D.	ALUMINUM WHITE ENAMEL	PRICE ASCDA	0-110 111-240 241-420	6"Ø 8"Ø 10"Ø
	CD2	SQUARE, 3- CONE, CEILING SUPPLY DIFFUSER	SURFACE MOUNTED, ADJUSTABLE PATTERN WITH O.B.D.	ALUMINUM WHITE ENAMEL	PRICE ASCDA	421-615 616-840	12"Ø 14"Ø
	SWS1	SIDEWALL SUPPLY GRILLE	DOUBLE DEFLECTION	ALUMINUM WHITE ENAMEL	PRICE 620D		
	CR1		1/2"x1/2"x1/2" CORE, PANEL MTD, T- BAR LAY-IN, BORDER TYPE 3, WITH ALUMINUM O.B.D.	ALUMINUM CORE ALUMINUM FRAME WHITE ENAMEL	PRICE 80DAL-F	0-415 416-815 816-1300 1301-1680	10x10 14x14 18x18
	CR2		1/2"x1/2"x1/2" CORE, PANEL MTD, SURFACE MOUNT, BORDER TPE 1, WITH ALUMINUM O.B.D.	ALUMINUM CORE ALUMNIUM FRAME WHITE ENAMEL		1001-1000	22,22
	SWR-1	SIDEWALL RETURN GRILLE	O DEG. FIXED HORZONTAL FACE BARS	ALUMINUM WHITE ENAMEL	PRICE 510ZD		

#### NOTES AND ACCESSORIES:

- SIZING COLUMN GOVERNS DEVICE NECK SIZE ONLY. RUN-OUT DUCT SIZES MAY VARY. (SEE FLOOR PLAN DRAWINGS)
- PROVIDE DUCT TRANSITIONS INCLUDING SQUARE TO ROUND AS REQUIRED. ALTERNATE MANUFACTURERS: KRUEGER, METALAIRE, PRICE
- MECHANICAL CONTRACTOR SHALL PROVIDE DIFFUSERS WITH APPROPRIATE AIR PATTERN AS SHOWN ON PLANS. PRIOR TO ORDERING DEVICES MECHANICAL CONTRACTOR SHALL PROVIDE TO ARCHITECT A COLOR/FINISH SELECTION CHART FOR EACH DEVICE SCHEDULED. SELECTIONS MAY CHANGE ON A SPACE BY SPACE BASIS PER ARCHITECT'S OPTION. IF COLOR/FINISH IS NOT COORDINATED WITH ARCHITECT PRIOR TO ORDERING MECHANICAL CONTRACTOR SHAL BE RESPONSIBLE FOR PREPARING AND PAINTING TO MATCH INTERIOR.
- ORDER DIFFUSERS WITH VOLUME DAMPER. FOR SIDEWALL DIFFUSERS ADJUST VERTICAL BLADES FOR A 45 DEGREE HORIZONTAL SPREAD.
- FOR SIDEWALL DIFFUSER, GRILLES, AND REGISTERS SIZES ARE SHOWN ON FLOOR PLAN DRAWINGS.
- VERIFY EXACT FRAME TYPE WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

THE DESIGN PROFESSIONAL DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY. OF PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/ OR FOLLOW THE DESIGN PROFESSIONAL'S ERRORS. OMISSIONS. INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.



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THIS DRAWING HAS BEEN ISSUED: FOR REVIEW ONLY FOR PERMITTING ONLY SCHEMATIC DESIGN

DESIGN DEVELOPMENT

CONSTRUCTION DOCUMENTS Drawing Title: MECHANICAL LEGENDS, SPECIFICATIONS, AND NOTES

Date: 07/26/2017 Designed By: JDG

JDG

Reviewed By: Comm. No. 170042.01

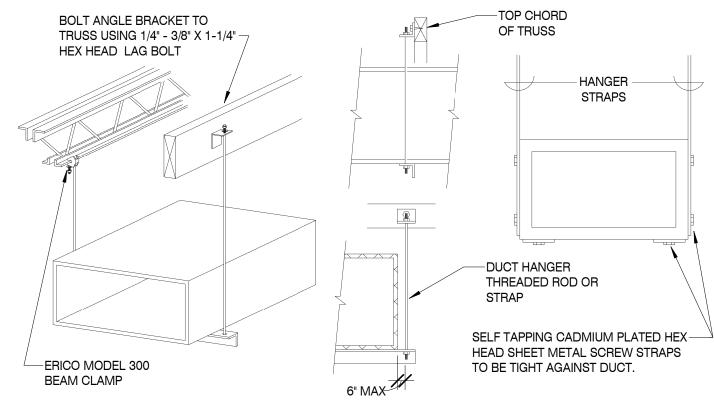
Drawn By:

Revisions:

# TYPICAL CEILING DIFFUSER DETAIL

	HANGER SIZES FOR ROUND DUCT											
MAX SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING									
30"	1"x 18-GAGE STRAP	NONE REQUIRED	10'-0"									
36"	1/4" ROUND ROD	1-1/2"x1/2"x1/8"	8'-0"									
48"	1/4" ROUND ROD	1-1/2"x1/2"x1/8"	8'-0"									
60"	5/16" ROUND ROD	2"x2"x1/8"	8'-0"									

NOTE:
ALL SUPPLY AIR DUCTS SHALL BE WRAPPED EXTERNALLY AS PER SPECIFICATIONS. NO POP RIVETS ALLOWED

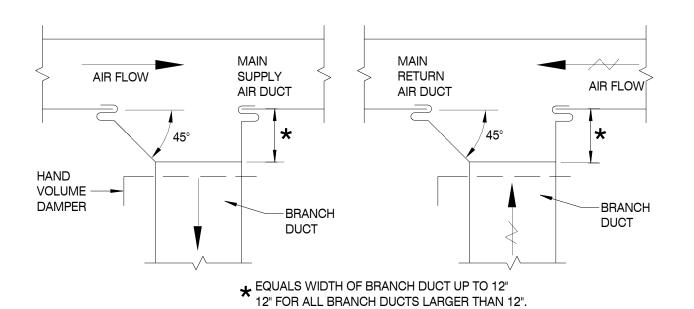


# RECTANGULAR DUCT HANGER DETAIL SCALE: N.T.S.

- VANES SHALL BE SECURELY FASTENED TO RUNNERS. - ALL VANES SHALL BE SECURE AND STABLE IN INSTALLED OPERATING POSITION - CARE MUST BE EXERCISED WHEN INSTALLING VANES IN DUCTWORK TO BE LINED AND IN FIBROUS GLASS METAL SCREWS -12" O.C. - MAXIMUM UNSUPPORTED VANE LENGTH SHALL BE 36" INSTALL VANES IN SECTIONS OR USE TIE RODS TO LIMIT THE UNBACKED VANE LENGTH.

IF W2 DOES NOT EQUAL W1 SPECIAL PROVISIONS MUST BE MADE IN VANE SHAPE OR ANGLE OF ENTRY AND EXIT.

# TURNING VANES DETAIL SCALE: N.T.S.

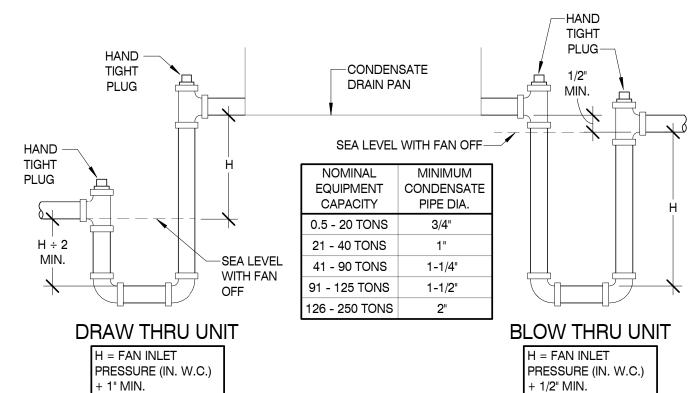


BRANCH DUCT DETAIL

SCALE: N.T.S.

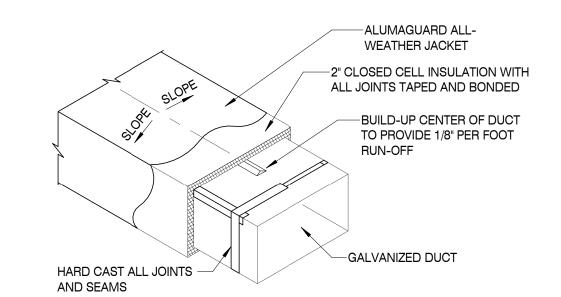
SCALE: N.T.S.

2" x 3/4" 20ga. SUPPORT CHANNELS. ATTACH TO CEILING SUPPORT GRID. CAULK ALL AROUND DUCT PENETRATION OF WALL VENT WALL CAP EXHAUST FAN CAULK ALL AROUND SEE PLANS FOR DUCT SIZE CEILING EXHAUST FAN DETAIL SCALE: N.T.S.

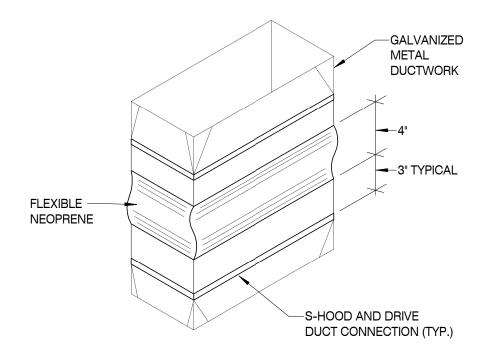


# CONDENSATE TRAP DETAIL

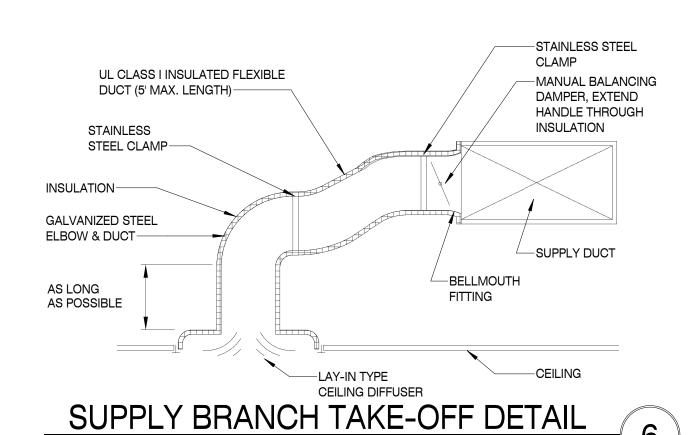
SCALE: 1/8" = 1'-0"



# DUCT EXPOSED TO WEATHER DETAIL



# FLEXIBLE CONNECTOR DETAIL SCALE: N.T.S.



√WALL CAP ~24 GAUGE, 4" STEEL DRYER VENT DUCT THRU WALL APPROX. 18" AFF. TERMINATE WITH MODEL DWV4 STEEL WALL CAP AS MANUFACTURED BY IN-O-VATE TECHNOLOGIES INC. CHILDREN'S TOILET CD1-INSTALL UNIT ON 4" CONCRETE— VOCATIONAL PAD, 4" LARGER ALL SIDES THAN CLASSROOM UNIT SUPPORTED 103 1300 SUPPLY AND RETURN DUCTWORK RISES-EXPOSED AT EXTERIOR THEN PENETRATES WALL ABOVE CEILING LEVEL. SEE DUCT EXPOSED TO WEATHER DETAIL. KITCHEN 101 STORAGE 104 **✓** SWS1 3" SOLID WALL PVC INTAKE AND EXHAUST -FLUE FROM WATER HEATER. TERMINATE EACH WITH CAP AS PROVIDED BY WATER

# FIRST FLOOR PLAN - HVAC

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

					F	PACKA	AGED	HEAT	PU	MP S	SCH	IEDI	JLE							
DRAWING SYMBOL	TOTAL CFM	CFM OA	S.P. EXT. TO UNIT	TEMPS (°F) @ UNIT ENT AIR ( DB / WB )	95°F AMBIENT COIL LVG AIR (DB/WB)	COOLIN TOTAL	G (MBH) SENS	HEATING (MBH) @ 17°	EER	HSPF	AUX. HEAT (KW)	MCA	ELECTRI MOCP	CAL VOLTAGE	FAN SUP	HP RET	SMC DETEC		WEIGHT (LBS.)	MANUFACTURER & MODEL NUMBER
PAU 1	1600	370	0.5	80 / 67	60 / 58	46.0	34.5	24.8	11.3	7.7	13.7	65	70	208/3Ø	1.0	N/A	NO	NO	600	DAIKIN DCH048

#### ACCESS AND FEATURES: (BY EQUIPMENT SUPPLIER)

HEATER MANUFACTURER

5 YEAR COMPRESSOR WARRANTY & STANDARD THROW-AWAY FILTERS FURNISHED W/ UNIT. FEATURES SHALL INCLUDE HIGH AND LOW PRESSURE CUTOUTS, ANTI-CYCLE TIMER, SUCTION LINE ACCUMULATOR,

DEMAND INITIATION AND POSITIVE TERMINATION DEFROST CONTROL.

EQUIPMENT SHALL BE DAIKIN OR EQUAL, APPROVED SUBSTITUTE. EQUIPMENT TO BE ARI CERTIFIED AND ETL LISTED

AUTOMATIC CHANGEOVER THERMOSTAT WITH EMERGENCY HEAT SUBBASE AND LOCKING PLASTIC THERMOSTAT COVER.

PROVIDE 0-100% COMPARATIVE ENTHALPY CONTROLLED ECONOMIZER WITH POWERED EXHAUST.

				EX	HAUST F	AN SCHE	DULE				
DRAWING SYMBOL	USE	AMCA CFM	S.P. IN WATER	RPM	TIP SPEED	HP	TYPE	VOLTAGE	SONES	WEIGHT LBS.	MANUFACTURER & MODEL NO.
EF 1	RESTROOM EXHAUST	70	0.25	788	1574	1/10	CEILING	120/1Ø	1.1	15	LOREN COOK GC-146
EF 2	RESTROOM EXHAUST	70	0.25	788	1574	1/10	CEILING	120/1Ø	1.1	15	LOREN COOK GC-146

ACCESSORIES AND FEATURES: CEILING FANS; ALUMINUM INLET GRILLE; LINED HOUSING; CENTRIFUGAL FAN; BACKDRAFT DAMPER; UNIT MOUNTED SOLID STATE SPEED

CONTROLLER FOR BALANCING AND WALL SWITCH FOR ON/OFF CONTROL.

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ANDERS( ZEF

THIS DRAWING HAS BEEN ISSUED:

FOR REVIEW ONLY FOR PERMITTING ONLY SCHEMATIC DESIGN DESIGN DEVELOPMENT

Drawing Title: FLOOR PLAN - HVAC

CONSTRUCTION DOCUMENTS

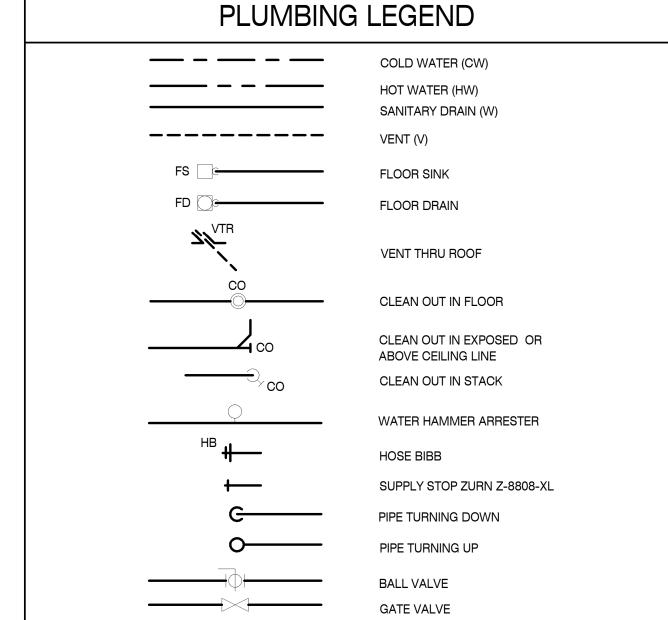
07/26/2017 Designed By: Drawn By: JDG Reviewed By: Comm. No. 170042.01

Revisions:

#### PLUMBING FIXTURE SCHEDULE

\*\*TRIM PRODUCTS ( STOPS, PTRAPS, SUPPLIES ETC.) SHALL BE FROM SAME MANUFACTURER. ANY CONFLICTS WITH THE SCHEDULE AND THE CONSTRUCTION DOCUMENTS SHALL BE DIRECTED TO THE ENGINEER OF RECORD A MIN THREE (3) DAYS BEFORE BID DATE. CONTRACTOR SHALL PROVIDE A MIN OF THREE (3) COPIES OF SHOP DRAWINGS FOR APPROVAL. SEE SPECIFICATIONS

	PRODUCTS AND ALTERNATE	MANUFACTURERS LISTED SHALL ALSO BE CONSIDERED: SLOAN, JOSAM, LEONARD, GUARDIAN, DURA-TRENCI					and Y
EM	DESCRIPTION	SPECIFICATION	CW (inch)	HW (inch)	W (inch)	V (inch)	REMARKS
wco	CLEANOUT	ZURN LC, MODEL #CO2413-PVC-ST 3' X 4" WALL CLEANOUT BODY AND PLUG					
	WALL PLATE	ZURN LC, MODEL #CO2530-SS7 7" ROUND STAINLESS STEEL AQCCESS COVER W/ SECURING SCREW.					
FD-1	FLOOR DRAIN	ZURN, ZN415-S-P-Y SERVICE DRAIN WITH 6" SQUARE STRAINER & SEDIMENT BUCKET	1/2"		3"	1-1/2"	
	TRAP GUARD	PROSET, TG-33-ZURN 3" ZURN COMPATIBLE TRAP GUARD INSERT					
	TRAP	ZURN, Z-1000-P DEEP SEAL TRAP					
FS-1	FLOOR SINK	ZURN LC, MODEL # FD-2370-PV3-H-Y PVC BODY FLOOR SINK DEEP DRAIN WITH DOME STRAINER, DEEP	1/2"		3"	2"	
	TRAP PRIMER	SIOUX CHIEF, MODEL # 695-01 PRIME PERFECT TRAP PRIMER					
	TRAP	ZURN LC, MODEL #Z-1000-P, DEEP SEAL TRAP					
HB-1	HOSE BIBB	ZURN, MODEL #Z-1321-CXL EXPOSED, ECOLOTROLTM, LEAD-FREE, NON-FREEZE AUTOMATIC DRAINING WALL HYDRANT FOR FLUSH INSTALLATION. HYDRANT FEATURES INTEGRAL BACKFLOW PREVENTER WITH ANTI-SIPHON TECHNOLOGY, COPPER CASING, BRONZE AND STAINLESS STEEL INTERIOR COMPONENTS, NON- TURNING OPERATING ROD WITH FREE-FLOATING COMPRESSION CLOSURE VALVE, COMBINATION 3/4" FEMALE SOLDER AND 3/4" MALE PIPE THREAD INLET CONNECTION, AND 3/4" MALE HOSE CONNECTION. HYDRANT FURNISHED WITH TYPE 304 STAINLESS STEEL FACEPLATE AND INCLUDES OPERATING KEY.	3/4"				
IM-1	ICE MAKER	WATER TITE, MODEL#W9700 10/CARTON, WHITE BOX 82088	1/2"				
	VALVE	CHROME QUARTER TURN ADAPTER BALL VALVE, 1/2" SWEAT CONNECTION					
L-1	LAVATORY - HC	ZURN, MODEL # Z5114.519.3.07.B6.6 20" X 17" – 4"CC COUNTERTOP LAVATORY, SOLID BRASS SINGLE CONTROL FAUCET, OFFEST GRID DRAIN, 1-1/4 CAST BRASS P-TRAP WITH CLEANOUT, ½"NOM X 3/8"OD STOPS, 20" BRAIDED STAINLESS STEEL SUPPLY LINES, ESCUTCHEONS AND TRAP WRAP.	1/2"	1/2"	1-1/4"	1-1/4"	
L-2	LAVATORY - HC	ZURN, MODEL # Z5114.519.3.07.B6.6 20" X 17" – 4"CC COUNTERTOP LAVATORY, SOLID BRASS SINGLE CONTROL FAUCET, OFFEST GRID DRAIN, 1-1/4 CAST BRASS P-TRAP WITH CLEANOUT, ½"NOM X 3/8"OD STOPS, 20" BRAIDED STAINLESS STEEL SUPPLY LINES, ESCUTCHEONS AND TRAP WRAP.	1/2"	1/2"	1-1/4"	1-1/4"	
L-3	LAVATORY - HC	ZURN, MODEL # Z5344.519.3.07.B6.6 20" X 18" – 4"CC WALL HUNG LAVATORY, SOLID BRASS SINGLE CONTROL FAUCET, OFFEST GRID DRAIN, 1-1/4 CAST BRASS P-TRAP WITH CLEANOUT, ½"NOM X 3/8"OD STOPS, 20" BRAIDED STAINLESS STEEL SUPPLY LINES, ESCUTCHEONS AND TRAP WRAP.	1/2"	1/2"	1-1/4"	1-1/4"	
	CARRIER	ZURN, MODEL # ZR-1231 FLOOR MOUNTED SUPPORT					
LT-1	LAUNDRY TUB	ZURN, MODEL # MS2620-F SINGLE BASIN MOLDED STONE LAUNDRY TUB WITH ENAMELED ANGLE LEGS.	1/2"	1/2"	1-1/2"	1-1/2"	
	FAUCET	ZURN, MODEL # Z812-XL-N1  4"CC SOLID BRASS FAUCET WITH 2-1/2" HANDLES AND 6" CAST BRASS SPOUT WITH VACUUM BREAKER.					
	TRAP AND SUPPLY	ZURN, MODEL # Z9904.000.0.19.B5.0 1-1/2" CAST BRASS P-TRAP WITH CLEANOUT, ½"NOM X 3/8"OD STOPS WITH 20" BRAIDED STAINLESS STEEL SUPPLY LINES AND ESCUTCHEONS.					
KS-1	3 BOWL SINK	ADVANCE TABCO FC-3-1515 16 GAUGE SS COMMERCIAL 50 " SINK	1/2"	1/2"	1-1/2"	1-1/2"	
	FAUCET	T AND S BRASS B-0231 WALL MOUNTED FAUCET, 8" ADJUSTABLE CENTERS 12" SWING NOZZLE AND ETERNA CARTRIDGE, COLORED LEVERED HANDLES					
MV-1	MIXING VALVE	SYMMONS, MODEL # 7-*00 "TEMPTROL" THERMOSTATIC MIXING VALVE ALL BRONZE AND STAINLESS STEEL CONSTRUCTION. PROVIDE WITH SWIVEL STOPS, REMOVABLE CARTRIDGE WITH STRAINER, BIMETALDIAL THERMOMETER.					
RPBP-1	BACKFLOW PREVENTER	WILKINS, MODEL # 975XL2TCUSAG REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER "Y" PATTERN BODY. PROVIDED WITH "Y" STAINER ON INLET SIDE OF DEVICE AND PROVIDED WITH AIRGAP AND TEST COCKS FACING UP FOR TESTER. INSTALLED HEIGHT MIN 4'-0" A.F.F. MAX 7'-0" A.F.F.					
	PRESS. RED. VALVE	WILKINS, MODEL # 500 SERIES BRONZE BODY CONSTRUCTION SERVICEABLE INLINE, CAN BE INSTALLED IN ANY POSITION. INSTALL ON INLET SIDE OF RPZ BACKFLOW DEVICE.					
	PRESSURE GUAGE	WILKINS, MODEL # 2004-25-300, 0-300 POUND GUAGE TO BE INSTALLED ON INLET AND OUTLET SIDE OF PRV.					
SD-1	SINK DISPOSAL	IN SINK ERATOR, MODEL SS-300 FULLY INSULATED 6 YEAR WARRANTY 3 HP FOOD GRINDER. MANUAL RESET PROTECTION, CONTINUOUS FEED SINGLE DIRECTION, WITH STAINLESS STEEL GRINDING ELEMENTS. PROVIDE NECESSARY UNDERSINK DRAIN CONNECTIONS AND ON/OFF SWITCH ON WALL NEAR SINK.			1-1/2"		
	VOLTAGE	208/3 6 AMPS					
ST-1	HAMMER ARRESTOR	ZURN, MODEL #Z-1700-200 PLUMBING DRAINAGE INSTITUTE RATING "B" (12-32 FU)					
WC-1	WATER CLOSET	ZURN, MODEL # Z5551.000.11.03.77  1.6 GPF ADA HEIGHT HIGH PERFORMANCE 3" FLUSHING SYSTEM GRAVITY TWO PIECE TOILET, ELONGATED BOWL, OPEN FRONT TOILET SEAT, LESS COVER WITH SELF SUSTAINING STAINLESS STEEL CHECK HING, CLOSET BOLT/WAX RING KIT, ANGLE CLOSET SUPPLY WITH ½"NOM X 3/8"OD STOP, 12" BRAIDED STAINLESS STEEL SUPPLY LINE AND ESCUTCHEON.	1/2"		3"	2"	
	CLOSET FLANGE	ZURN MODEL # CF2982 CAST IRON TORQUE SET CLOSET FLANGE WITH INTEGRAL TEST CAP					
WC-2	WATER CLOSET	ZURN, MODEL #Z5590 CHILDRENS TOILET  1.6 GPF, TWO PIECE TOILET, ELONGATED BOWL, OPEN FRONT TOILET SEAT, LESS COVER WITH SELF SUSTAINING STAINLESS STEEL CHECK HING, CLOSET BOLT/WAX RING KIT, ANGLE CLOSET SUPPLY WITH ½"NOM X 3/8"OD STOP, 12" BRAIDED STAINLESS STEEL SUPPLY LINE AND ESCUTCHEON.	1/2"		3"	2"	
		ZURN MODEL # CF2982					



# PLUMBING SPECIFICATIONS

- A. SCOPE: FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF ALL PLUMBING WORK REQUIRED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
- B. WORK REQUIRED: IN GENERAL, THE WORK CONSISTS OF, BUT IS NOT LIMITED TO THE FOLLOWING:
- 1. DOMESTIC WATER SYSTEM CONNECTING TO EXISTING UTILITY
- 2. SANITARY SEWER SYSTEM CONNECTING TO EXISTING UTILITY
- 3. HOT WATER PIPING SYSTEM
- 4. PLUMBING FIXTURES 5. CONNECTION TO KITCHEN EQUIPMENT
- C. PERMITS, ORDINANCES, AND INSPECTIONS:
- 1. OBTAIN AND PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED. DELIVER TO ARCHITECT,
- 2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CITY, COUNTY, STATE, OR NATIONAL ORDINANCES AND CODES. EFFORT HAS BEEN MADE TO MEET OR EXCEED
- REQUIREMENTS. THE CONTRACTOR SHALL MAKE ANY MINOR ADJUSTMENTS TO MEET THESE REQUIREMENTS AT NO ADDITIONAL COST TO OWNER.
- D.INSTRUCTIONS AND INSTRUCTION BOOKLETS: THE CONTRACTOR SHALL INSTRUCT THE OWNER REPRESENTATIVE IN THE PROPER OPERATION OF ALL EQUIPMENT AND SYSTEMS. FURNISH LITERATURE PROVIDED BY THE MANUFACTURER. PRINTED INSTRUCTIONS AND MAINTENANCE DATA SHALL BE BOUND WITH COVER IN DUPLICATE AND DELIVERED TO THE ARCHITECT.
- E. SUBMITTAL DATA: SUBMIT FOR APPROVAL. FIVE (5) COPIES, OF THE EQUIPMENT BROCHURES. TECHNICAL DATA AND/OR SHOP DRAWINGS.
- A.ALL MATERIALS SHALL BE NEW. FIRST CLASS, AND COMPLY WITH LATEST ASTM SPECIFICATIONS AND STANDARDS RELATING TO SUCH MATERIALS.
- 1. FURNISH AND INSTALL DIELECTRIC OR ISOLATION FITTINGS AT ALL POINTS WHERE COPPER PIPE CONNECTS TO WROUGHT IRON OR STEEL PIPE.
- 2. EXPOSED PIPE IN TOILET ROOMS: CHROME PLATED BRASS, AMERICAN BRASS COMPANY, OR EQUIVALENT. FURNISH AND INSTALL CHROME WALL PLATES.
- 3. PIPING UNDER FLOOR SLAB SHALL BE TYPE K SOFT TEMPER COPPER TUBING ASTM B-88 NO JOINTS SHALL BE PERMITTED UNDER FLOOR SLAB.
- 4. PIPING ABOVE FLOOR SLAB SHALL BE TYPE L HARD DRAWN COPPER TUBING ASTM B-88
- USE WROUGHT COPPER SWEAT FITTINGS. C. SANITARY WASTE, AND VENT PIPING: PIPING SHALL BE SOLID WALL SCHEDULE 40 PVC MEETING
- ASTM D 2665 STANDARDS
- D. PIPE HANGERS: ADJUSTABLE WROUGHT CLEVIS TYPE HANGER AND RODS; GRINNELL COMPANY OR EQUIVALENT.
- E. CLEANOUTS: 1. FLOOR CLEANOUTS FOR SOIL AND WASTE LINES SHALL HAVE BODIES OF STANDARD PIPE SIZES AS MANUFACTURED BY ZURN OR EQUIVALENT.
- 2. WALL CLEANOUTS FOR SOIL AND WASTE LINES SHALL HAVE BODIES OF STANDARD PIPE SIZES AS MANUFACTURED BY ZURN OR EQUIVALENT.
- F. VALVES:
- 1. BUTTERFLY VALVES 2 1/2" AND LARGER. 2. BALL VALVES 2" AND SMALLER.
- 3. UNIONS SHALL HAVE BRASS TO METAL GROUND JOINT SEAL.
- G. ESCUTCHEON PLATES: PROVIDE CHROME PLATED ESCUTCHEON PLATES WHERE EXPOSED PIPE PASSES THROUGH WALLS, FLOORS, OR CEILING IN FINISHED AREAS. SEAL ALL PIPE PENETRATIONS WITH FIRE STOP AS REQUIRED, DRYWALL MUD OR GROUT TO MATCH ADJACENT
- H. PIPE INSULATION:
- 1. ALL HOT WATER PIPE ABOVE GRADE SHALL BE INSULATED WITH 1" FIBERGLASS, LOW PRESSURE INSULATION WITH WHITE UNIVERSAL JACKET. APPLY IN ACCORDANCE WITH
- MANUFACTURER'S INSTRUCTIONS 2. ALL COLD WATER PIPE ABOVE GRADE SHALL BE INSULATED WITH 1/2" FIBERGLASS AS
- I. WALL HYDRANT: "FROST PROOF" TYPE WITH VACUUM BREAKER ON ALL HOSE BIBS
- 1. FURNISH AND INSTALL ALL PLUMBING FIXTURES INDICATED ON DRAWINGS. FIXTURES SHALL BE AMERICAN STANDARD, KOHLER, ELJER, OR AS SPECIFIED IN THE PLUMBING FIXTURE SCHEDULE.
- 2. TRAPS: FOR LAVATORIES AND SINKS: BRASS, CHROME PLATED.
- 3. PROVIDE DEEP SEAL TRAPS AND TRAP PRIMERS FOR ALL FLOOR DRAINS AND HUB
- K. HOT WATER HEATERS:
- 1. 99,000 BTUH INPUT AND LESS: CONTRACTOR SHALL MAKE PROVISIONS TO KEEP 18" CLEAR AROUND HEATER.
- 2. 100,000 BTUH TO 199,000 BTUH INPUT: CONTRACTOR SHALL MAKE PROVISIONS TO KEEP 18" CLEAR AROUND HEATER, AND SUBMIT A "APPLICATION FOR PERMISSION TO INSTALL" TO THE BOILER UNIT OF THE TENNESSEE DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT'S WORKPLACE REGULATIONS AND
- COMPLIANCE DIVISION (REGISTRATION AND INSPECTION). 3. 200,000 BTUH TO 399,000 BTUH INPUT:
- CONTRACTOR SHALL MAKE PROVISIONS TO KEEP 18" CLEAR AROUND HEATER, THE HEATER MUST BE ASME CODE COMPLIANT, AND MUST BE FILED FOR REGISTRATION AND INSPECTION.
- 4. 400,000 BTUH AND MORE: CONTRACTOR SHALL MAKE PROVISIONS TO KEEP 36" CLEAR AROUND HEATER, THE HEATER MUST BE ASME CODE COMPLIANT, AND MUST BE FILED FOR REGISTRATION AND INSPECTION.

#### **GENERAL PLUMBING NOTES**

- . ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
- 2. THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH
- ALL EXISTING CONDITIONS.
- 8. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR. IN A FIRST-CLASS AND WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE. 4. ALL EXCAVATION AND BACKFILL, AS REQUIRED, FOR THIS PHASE OF CONSTRUCTION SHALL BE
- A PART OF THIS CONTRACT. 5. PROOF OF INSURANCE SHALL BE PROVIDED BY THE CONTRACTOR FOR PROTECTION AGAINST
- PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WORK.
- 6. VERIFY LOCATION, SIZE, INVERTS AND ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
- . WATER PIPING SHALL BE TYPE "L" COPPER FOR 2 1/2" ABOVE GRADE. ALL UNDERGROUND

WATER PIPING SHALL BE TYPE "K" COPPER WITH NO JOINTS UNDER SLAB.

- B. SOIL, WASTE, VENT AND RAINWATER PIPING SHALL BE CAST IRON NO HUB ABOVE GRADE MEETING ASTM A 888 or CISPI 301 STANDARDS. BELOW GROUND PIPING SHALL BE SOLID WALL SCHEDULE 40 PVC MEETING ASTM D 2665 STANDARDS.
- AIR CONDITIONING CONDENSATE DRAIN PIPING SHALL BE COPPER DWV PIPE AND FITTINGS. INSULATE ALL CONDENSATE PIPING ABOVE GRADE.
- 10. INSULATE ALL HOT WATER SUPPLY, HOT WATER RETURN, RAINWATER AND CONDENSATE LINES ABOVE GRADE AS FOLLOWS: HOT WATER SUPPLY AND RETURN, 1" THICK FIBERGLASS. RAINWATER LEADERS 1 1/2" THICK FIBERGLASS BLANKET ON DRAIN BODY AND 1" HORIZONTAL RWL. CONCEALED CONDENSATE PIPING 1/2" ARMAFLEX PERFORM.
- 11. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND MARKED ACCESS
- 12. FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AND P.D.I. APPROVED SHOCK ARRESTERS ON MAIN LINES OR RISERS.
- 13. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL PIPING AND EQUIPMENT CONNECTIONS.
- 14. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD (HAIR FELT LINING) SUPER STRUT MODEL C/15/16. FILL VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE-RATED FOAM SIMILAR TO CHASE TECHNOLOGY CORP. - CIC PR-855. 15. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS
- FOR A PERIOD OF ONE (1) YEAR FROM DATE OF C.O. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED. 16. PROVIDE 1/4" TRAP PRIMER LINE FOR ALL FLOOR DRAINS FROM THE NEAREST PLUMBING
- FIXTURE. PROVIDE MINIMUM 3' RADIUS. 1/4" PER FOOT SLOPE AROUND ALL FLOOR DRAINS. 17. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND ALL WATER HAMMER ARRESTORS. ACCESS PANELS IN RATED WALLS MUST MAINTAIN THE RATING. ALL ACCESS
- PANELS MUST MATCH THE FINISH OF THE WALL IN WHICH IT IS INSTALLED. 18. PROVIDE CHROME-PLATED COMBINATION COVER PLATE AND CLEANOUT PLUG FOR ALL WALL
- CLEANOUTS JOSAM 58890 SERIES OR EQUAL. 19. PROVIDE EACH FIXTURE GROUP WITH ISOLATION VALVES, BOTH HOT (110) AND COLD WATER.
- 20. NO COMBUSTIBLE MATERIALS CAN BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
- 21. PROVIDE BACKFLOW PREVENTER WILKINS MOD. # 575 OR EQUAL. 22. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE THE APPROXIMATE ROUTING OF PIPING AND LOCATION OF FIXTURES. THE CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND MAKE MINOR OFFSETS AND ADJUSTMENTS AS REQUIRED AT NO
- ADDITIONAL COST TO THE OWNER. 23. COORDINATE FIXTURES LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- 24. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR CONNECTIONS TO ALL UTILITY LINES AND PAY ALL FEES AND COSTS FOR CONNECTIONS TO THOSE SERVICES.
- 25. ALL PIPING SHALL BE RUN IN CONCEALED LOCATIONS EXCEPT WHERE NOTED. 26. PLUMBING FIXTURES SHALL BE FIRST QUALITY VITREOUS CHINA, STAINLESS STEEL OR PLASTIC AS NOTED ON FIXTURE SCHEDULE. ALL FIXTURES SHALL BE RIGIDLY CONNECTED TO THE
- 27. REFER TO ARCHITECTURAL DRAWINGS FOR FINISHED GRADES. 28. CONTRACTOR SHALL PROVIDE PRESSURE REDUCING VALVE AND REDUCED PRESSURE BACKFLOW PREVENTION VALVE INSIDE BUILDING WHERE SERVICE ENTERS OR AS SHOWN ON

BUILDING AND SHALL BE CLEANED AND FUNCTIONAL PRIOR TO ACCEPTANCE.

- THE SITE PLAN. 29. EXPOSED PIPING BELOW FIXTURES SHALL BE CHROME PLATED. PIPING AT FIXTURES IN HANDICAPPED ACCESSIBLE AREAS SHALL BE INSULATED TO PROTECT AGAINST BURNS.
- 30. ALL BURIED PIPING SHALL BE BEDDED AND COVERED IN SAND, GRAVEL, OR CRUSHED STONE. 31. AFTER COMPLETION OF PIPING TEST POTABLE WATER PIPING TO 125 LBS. PER SQ. INCH AND HOLD FOR 24 HOURS.
- 32. TEST DRAIN WASTE AND VENT PIPING BY FILLING TO LEVEL OF HIGHEST THE VENT. 33. AFTER INSTALLATION AND TESTING OF POTABLE WATER PIPING, STERILIZE ALL LINES IN ACCORD WITH CODES AND HEALTH DEPARTMENT REGULATIONS AND FLUSH AND FILL WITH
- 34. PITCH POTABLE WATER LINES TOWARD DRAINS, INSTALL DRAIN WASTE AND VENT PIPING WITH
- MINIMUM SLOPES OF 1/4" PER FOOT FOR LINES UP TO 2 1/2" AND 1/8" PER FOOT FOR LINES 3" 35. PROVIDE A TWO PIPE DIAMETER AIR GAP BETWEEN ALL INDIRECT WASTE AND THE RECEIVER.
- 36. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND RATINGS OF FIRE WALLS AND FLOOR CEILING ASSEMBLIES.
- 37. INSTALL FIRE STOP MATERIAL IN ACCORD WITH U.L. LISTING AT ALL PENETRATIONS. 38. PIPE WATER HEATER RELIEF VALVE TO EXTERIOR PER CODE OR TO FLOOR DRAIN.
- 39. PROVIDE MAXITROL SERIES GF OR EQUAL FUEL GAS STRAINER PER NFPA 86 UPSTREAM OF SAFETY SHUTOFF VALVES. (PHONE NUMBER - (248) 356-1400)
- 40. INSTALL WATER HEATERS IN ACCORD WITH MANUFACTURERS INSTRUCTION AND ALL STATE AND LOCAL CODE REQUIREMENTS. WATER STORAGE SHALL HAVE A TEMPERATURE OF 140
- 41. ALL LAVATORIES AND HAND SINKS SHALL HAVE AN APPROVED ASSE 1070 DEVICE(S)
- PROVIDING A MAXIMUM OF 110° F FOR HOT WATER. PROVIDE SHOP DRAWINGS FOR APPROVAL. 42. ALL FOOD RELATED EQUIPMENT WITH DRAIN LINES, E.G., FOOD PREPARATION SINKS,
- WAREWASH SINKS, ETC. WASTE THROUGH A TWO PIPE DIAMETER AIR GAP OR APPROVED AIR BREAK. WATER HEATER/BOILER POP-OFF LINES; ICE MACHINE AND ICE BIN MELTWATER DRAIN LINES, WATER FILTER/TREATMENT EQUIPMENT DRAIN LINES, AND SIMILAR DRAINS FROM EQUIPMENT USING DOMESTIC WATER (INCLUDING DIPPER WELLS) MUST HAVE A TWO PIPE DIAMETER AIR GAP AT THE SEWER. EQUIPMENT SUCH AS DIPPER WELLS. STEAMERS. WOK TABLE FLUSH SYSTEMS, AND SIMILAR DEVICES WITH THE POTENTIAL FOR SUBMERGED INLETS,

ETC. MUST HAVE AN APPROVED TWO PIPE DIAMETER AIR GAP OR DUAL CHECK VALVE MEETING

- ASSE STANDARD 1012, 1024, OR EQUIVALENT INSTALLED ON THE POTABLE WATER SUPPLY. 43. ALL SANITARY AND GREASE WASTE PIPING IN AND/OR BELOW KITCHEN AREAS SHALL BE CAST IRON MEETING ASTM A 888 or CISPI 301 STANDARDS.
- 44. PROVIDE "TRUEBRO" MODEL NO. 102 P-TRAP AND ANGLE VALVE INSULATION ASSEMBLIES. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 45. THE "REDUCTION IN LEAD IN DRINKING WATER ACT" REQUIRES MATERIALS AND FIXTURES USED FOR THE DELIVERY OF POTABLE WATER TO CONTAIN LESS THAN 0.2% LEAD FOR SOLDER AND FLUX, AND NOT MORE THAN A WEIGHTED AVERAGE OF 0.25% LEAD FOR PIPES, FITTINGS, AND FIXTURES. EXCLUDED FROM THIS ACT ARE TOILETS, BIDETS, URINALS, FLUSH VALVES, TUB FILLERS, AND SHOWER VALVES.
- 46. IT IS THE INTENT OF THIS PROJECT TO CONFORM WITH THE REQUIREMENTS OF THE 2014 LEAD FREE ACT. EVERY EFFORT HAS BEEN MADE TO CALL FOR FIXTURES THAT COMPLY WITH THE ACT. EVEN SO, IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INSTALL PRODUCTS THAT COMPLY WITH THE 2014 LEAD FREE SAFE WATER DRINKING ACT.

THE DESIGN PROFESSIONAL DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY. OF PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/ OR FOLLOW THE DESIGN PROFESSIONAL'S ERRORS. OMISSIONS. INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

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S T D

THIS DRAWING HAS BEEN ISSUED: FOR REVIEW ONLY

FOR PERMITTING ONLY SCHEMATIC DESIGN DESIGN DEVELOPMENT CONSTRUCTION DOCUMENTS

Drawing Title: PLUMBING LEGEND AND NOTES

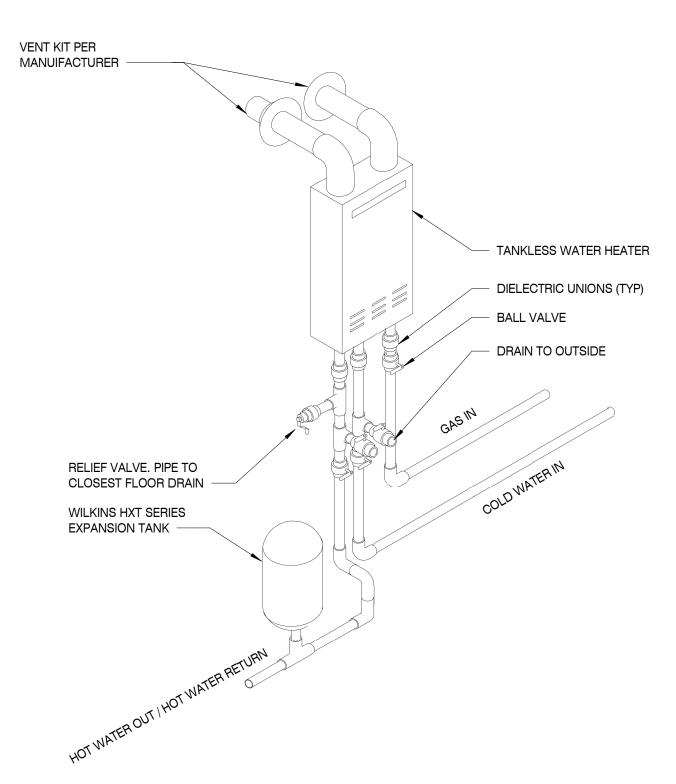
> 07/26/2017 Designed By:

Reviewed By:

Comm. No. 170042.01 Revisions:

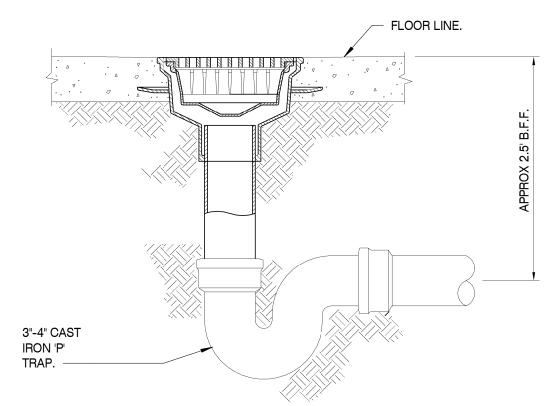
Drawn By:

STACK CLEANOUT DETAIL SCALE: 1/8" = 1'-0"



CONTRACTOR SHALL VERIFY THE PIPING ARRANGEMENT FOR THE WATER HEATERS WITH THE RESPECTIVE PLAN. THIS DETAIL SHOWS THE MIN. REQUIRED EQUIPMENT FOR THE INSTALLATION. INSTALLATION WILL VARY WITH EACH INSTALLATION. SEE LOCAL CODE CLEARANCES AND REQUIREMENTS.

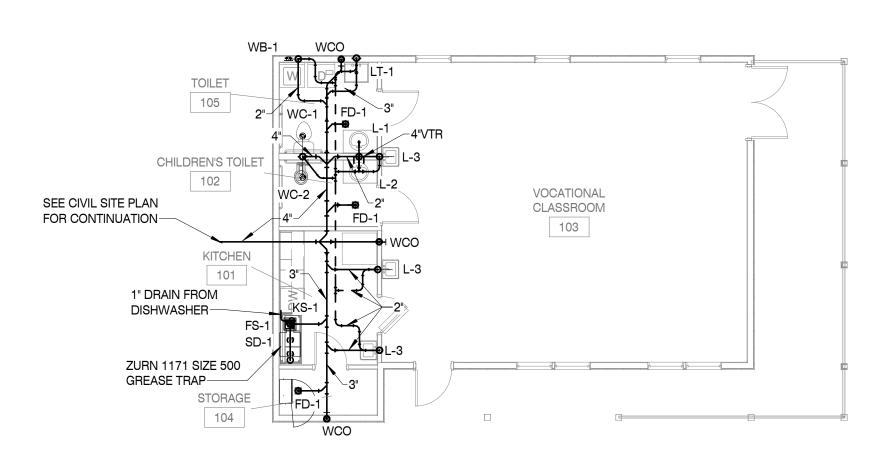
TANKLESS WATER HEATER DETAIL SCALE: N.T.S.



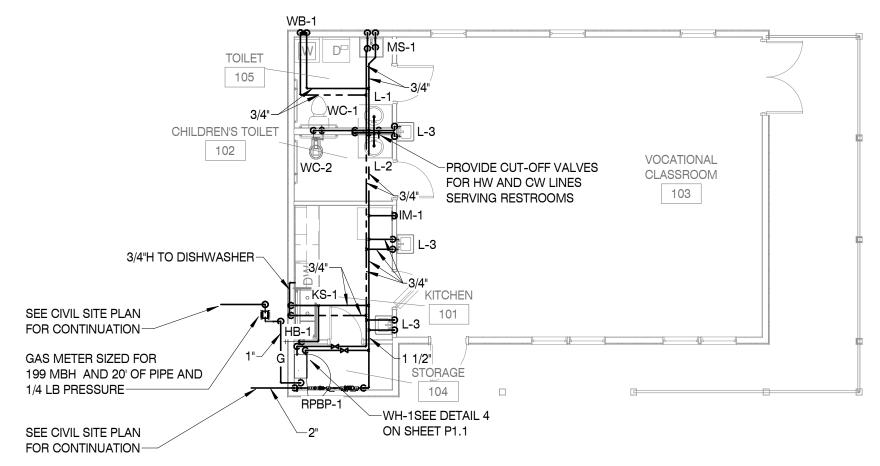
JUMPER-CUT-OFF VALVE-REGULATOR-TURN THROUGH WALL--GROUNDING WIRE CLAMP AND GROUNDING WIRE IN PLUG COCK-ACCORDANCE WITH THE STANDARD GAS CODE. -- 10'-0" GROUNDING ROD SEE PLANS FOR SIZING.— GAS METER DETAIL

SCALE: N.T.S.

**GROUND BONDING** 







FIRST FLOOR PLAN - WATER & GAS

WATER HEATER SCHEDULE (GAS) **GAS INPUT** WATER TEMP. MANUFACTURER & DRAWING STORAGE **VENT SIZE** DIMENSIONS GPH @ 100° RISE SYMBOL CAPACITY MODEL# (EACH) (°F) 199,000 140 AO SMITH 17W"x11"H ATI-540

ACCESSORIES AND FEATURES:

• ALTERNATE MANUFACTURER'S: PVI, AO SMITH, LOCHINVAR, STATE IND.

PROVIDE AUTOMATIC SPARK IGNITION, AUTO RESET

• UNIT SHALL BE ASME LISTED

 UNIT SHALL BE CSA LISTED • 5-YEAR HEAT EXCHANGER WARRANTY, 5-YEAR PARTS

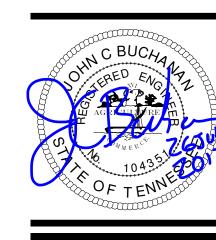
PROVIDE MANUFACTURER'S VENT KIT

• PROVIDE ASSE 1016/1017 DEVICE SET AT MAX 110° F

NON-SIMULTANEOUS OPERATION

THE DESIGN PROFESSIONAL DENIES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/ OR FOLLOW THE DESIGN PROFESSIONAL'S ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

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THIS DRAWING HAS BEEN ISSUED:

ANDERS(ZEF

FOR REVIEW ONLY FOR PERMITTING ONLY SCHEMATIC DESIGN DESIGN DEVELOPMENT

Drawing Title: FLOOR PLAN, DETAILS, SCHEDULES - PLUMBING

CONSTRUCTION DOCUMENTS

07/26/2017

Designed By: Drawn By: Reviewed By:

Comm. No. 170042.01 Revisions:

SLOPE FLOOR 1/8" PER FOOT MINIMUM WHERE INDICATED ON CONCRETE PLACEMENT PLAN (SEE CONCRETE WORK SECTION OF SPECS.). FLOOR SINK SCALE: N.T.S.

JUNCTION BOX, SIZE AND USE AS REQUIRED; COVERPLATE SHALL OVERLAP THE BOX EDGE BY 1/2" WHERE RECESSED

IN WALL WITH CONCEALED WIRING. Ф

SPECIAL VOLTAGE OUTLET

(WH)

DUPLEX RECEPTACLE - 125V, 20A MOUNT 3" ABOVE BACKSPLASH AT WORK COUNTERS AND LAVATORIES AND +18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED, IG INDICATES ISOLATED GROUND TYPE WITH ORANGE COLOR, HUBBELL OR LEVITON COMMERCIAL SPECIFICATION GRADE, TAMPER PROOF.

DUPLEX RECEPTACLE - AF INDICATES CIRCUIT FED VIA ARC FAULT CIRCUIT BREAKER, MOUNT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. PROVIDE HUBBELL OR LEVITON COMMERCIAL SPECIFICATION GRADE. TAMPER PROOF. DUPLEX RECEPTACLE - 125V, 20A MOUNT 3" ABOVE BACKSPLASH AT WORK COUNTERS AND LAVATORIES AND +18"

ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. GFI INDICATES GROUND FAULT CIRCUIT INTERRUPTER TYPE, WP INDICATES WEATHERPROOF COVER. WPC INDICATES "CLOSED WHILE IN USE" TYPE WEATHERPROOF COVER. HUBBELL OR LEVITON COMMERCIAL SPECIFICATION GRADE, TAMPER PROOF.

QUADRUPLEX CONVENIENCE OUTLET - 125V, 20A MOUNT +18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. HUBBELL OR LEVITON COMMERCIAL SPECIFICATION GRADE, TAMPER PROOF.

MISCELLANEOUS MECHANICAL EQUIPMENT, WH=WATER HEATER, UH=UNIT HEATER

EXIT SIGN, "X" INDICATES FIXTURE TYPE, "C" INDICATES CEILING MOUNTED, "W" INDICATED WALL MOUNTED, "S" INDICATES SINGLE FACE, "D" INDICATES DOUBLE FACE, PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS. UNIT EQUIPED WITH BATTERY BACK-UP.

EMERGENCY LIGHTING UNIT, BATTERY BACK-UP POWERED. WIRE UNIT TO UNSWITCHED HOT ON CIRCUITS

FLUORESCENT LIGHTING FIXTURE. "A" IS THE FIXTURE TYPE IN THE FIXTURE SCHEDULE "a" INDICATES WHICH SWITCH CONTROLS THE FIXTURE: AND "3" INDICATES WHICH PANELBOARD CIRCUIT THE FIXTURE IS FED FROM. "NL" INDICATES NIGHT LIGHT FIXTURE. CONNECT FIXTURE TO AN UNSWITCHED HOT SO THAT LIGHT STAYS ON AT ALL TIMES.

FLUORESCENT LIGHTING FIXTURE WITH BUILT IN EMERGENCY BATTERY PACK TO PROVIDE LIGHTING WHEN NORMAL POWER IS NOT AVAILABLE. PROVIDE UNSWITCHED "HOT" CONDUCTOR (FROM SAME CIRCUIT FIXTURE IS USING) TO BATTERY PACK, IN ORDER TO ALLOW NORMAL SWITCHING OF LIGHT FIXTURE WITHOUT DISCHARGING BATTERY PACK. ANY FIXTURE SYMBOL THAT HAS SHADING INDICATES THAT FIXTURE HAS AN EMERGENCY BATTERY BACK-UP.

\_\_\_\_ CONDUIT UNDERGROUND, 1"C MINIMUM, UNLESS NOTED OTHERWISE.

→ HOMERUN - LP1 INDICATES PANELBOARD 1,3,5 INDICATE CIRCUIT NUMBERS. SEE PANELBOARD DESIGNATION SCHEDULE

LP1-1,3,5 FOR ADDITIONAL INFORMATION.

MARKS INDICATE NO. OF #12 CONDUCTORS IN 3/4" CONDUIT + =PHASE + =NEUTRAL + =GROUND NO MARKS INDICATE 2 #12, #12 GROUND. WHEN TWO OR MORE CIRCUITS SHARE A COMMON NEUTRAL THE HOT CONDUCTORS MUST BE CONNECTED TO DIFFERENT PHASES IN THE PANELBOARD.

CATV OUTLET MOUNT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. EXTEND 1" EMPTY CONDUIT FROM OUTLET BOX ABOVE CEILING AND TERMINATE WITH BUSHING. PROVIDE NYLON PULL CORD IN EACH CONDUIT. PROVIDE 4" SQUARE BOX WITH SINGLE GANG DEVICE RING.

TELEPHONE/DATA OUTLET MOUNT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. EXTEND 1" EMPTY CONDUIT FROM OUTLET BOX ABOVE CEILING AND TERMINATE WITH BUSHING. PROVIDE NYLON PULL CORD IN EACH CONDUIT. PROVIDE 4" SQUARE BOX WITH SINGLE GANG DEVICE RING.

LOCAL WALL SWITCH, SINGLE POLE MOUNT +48" ABOVE FINISHED FLOOR, "D" INDICATES DIMMER SWITCH. SPECIFICATION GRADE HUBBELL OR LEVITON.

LOCAL WALL SWITCH, 3 WAY, MOUNT +48" ABOVE FINISHED FLOOR

LOCAL WALL SWITCH, SINGLE POLE, KEY OPERATED, MOUNT +48" ABOVE FINISHED FLOOR

LOCAL WALL MOUNTED LINE VOLTAGE OCCUPANCY SWITCH, MOUNT +48" ABOVE FINISHED FLOOR. SENSOR SWITCH MODEL NUMBER WSD OR EQUAL.

FUSED DISCONNECT SWITCH. "60" INDICATES SWITCH SIZE, "30" INDICATES FUSE SIZE. HEAVY DUTY "HP"  $-\frac{30}{60}$ RATED, PROVIDE NEMA 3R ENCLOURES OUTDOORS, FUSE PER NAMEPLATE OF EQUIPMENT

└── 30 NON-FUSED DISCONNECT SWITCH. "30" INDICATES SWITCH SIZE. HEAVY DUTY "HP" RATED, PROVIDE NEMA 3R **ENCLOSURE OUTDOORS.** 

FIRE ALARM PULL STATION MOUNT 48" AFF.

WALL MOUNTED FIRE ALARM COMBINATION AUDIO/VISUAL HORN STROBE DEVICE. MOUNT 80" A.F.F. 75cd INDICATES 75 CANDELAS

CEILING MOUNTED FIRE ALARM COMBINATION SMOKE/CARBON MONOXIDE DETECTOR.

WALL MOUNTED FIRE ALARM VISUAL ONLY STROBE DEVICE. MOUNT 80" A.F.F.

FIRE ALARM CONTROL PANEL, MOUNT TOP 6'-0" A.F.F. PROVIDE TWO DEDICATED PHONE LINES FOR FIRE ALARM CONTROL PANEL.

#### **ELECTRICAL ABBREVIATIONS**

Α	AMPERES	FWE	FURNISHED WITH EQUIPMENT	N.C.	NORMALLY CLOSED
AC	ALTERNATING CURRENT	G	GROUNDING CONDUCTOR	N.I.C.	NOT IN CONTRACT
AF	ARC FAULT	GFI	GROUND FAULT INTERRUPTER	N.O.	NORMALLY OPEN
A.F.F.	ABOVE FINISHED FLOOR	HP	HORSEPOWER	NEC	NATIONAL ELECTRIC CODE
AWG	AMERICAN WIRE GAUGE	JB	JUNCTION BOX	NEMA	NATIONAL ELECTRICAL
CKT	CIRCUIT	KCM	THOUSANDS OF CIRCULAR MILS	PH	MANUFACTURERS ASSOCIATION PHASE
DC	DIRECT CURRENT	KV	KILOVOLTS	TYP.	TYPICAL
DISC	DISCONNECT	KVA	KILOVOLT-AMPERES	V .	VOLT
DWG.	DRAWING	KW	KILOWATTS	W	WATT
ELEC.	ELECTRICAL/ELECTRIC	LTG	LIGHTING	WP	WEATHERPROOF
EWC	ELECTRIC WATER COOLER	N	NEUTRAL CONDUCTOR	WPC	"CLOSED WHILE IN USE" TYPE WEATHERPROOF COVER

#### FIRE ALARM SYSTEM NOTES

- 1. A) FURNISH AND INSTALL A COMPLETE ADDRESSABLE FIRE DETECTION AND EVACUATION SYSTEM. THE ENTIRE INSTALLATION SHALL CONFORM TO THE APPLICABLE SECTIONS OF NFPA-72. NATIONAL FIRE ALARM CODE. NFPA-101 LIFE SAFETY CODE, N.E.C. ARTICLE 760, THE AMERICANS WITH DISABILITIES ACT, AND LOCAL AUTHORITIES HAVING JURISDICTION. SUBSTITUTES FOR APPROVAL MUST MEET THE COMPLETE FUNCTIONALITY REQUIREMENTS AS SET FORTH IN THESE SPECIFICATIONS.
- B) DUE TO THE NATURE OF FIRE MARSHALL ACTIONS, INCLUDE AN ALLOWANCE OF AN ADDITIONAL 10% OF THE ORIGINAL JOB A/V DEVICE QUANTITIES TO BE INSTALLED AT THE DISCRETION OF THE LOCAL FIRE MARSHALL.
- THE FIRE ALARM EQUIPMENT SUPPLIER SHALL BE AN ALARM SYSTEMS CONTRACTOR LICENSED BY THE STATE OF TENNESSEE AND SHALL INCLUDE A COPY OF THE LICENSE IN THE EQUIPMENT SUBMISSIONS. THE CONTRACTOR SHALL HAVE NICET CERTIFIED EMPLOYEES FOR THE SALE, SUPERVISION AND FINAL TESTING OF THE EQUIPMENT AND SHALL INCLUDE A COPY OF THE CERTIFICATE OF AT LEAST ONE EMPLOYEE IN THE EQUIPMENT SUBMISSIONS.
- THE FIRE ALARM CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE NEED FOR ADDITIONAL CABINETS, BATTERIES, POWER SUPPLIES, PROGRAMMING, AND ANY ADDITIONAL HARDWARE OR SOFTWARE FOR A COMPLETE INSTALLATION AND EXPANSION. INCLUDE ALL COST IN ORIGINAL BID.

4. SUBMISSIONS:

A) COMPLETE DESCRIPTIVE DATA INCLUDING U.L. LISTING FOR ALL COMPONENTS.

B) COMPLETE CAD DRAWINGS OF THE PROPOSED SYSTEM SHOWING CONDUIT LAYOUT, WIRE COUNT AND DEVICE LOCATIONS.

5. ALL FIRE ALARM SYSTEM WIRING SHALL REMAIN SEPARATE FROM OTHER BUILDING SYSTEMS WIRING AND SHALL BE IN CONDUIT. ALL JUNCTION BOXES SHALL BE SPRAYED RED AND LABELED "FIRE ALARM". WIRING COLOR SHALL BE MAINTAINED THROUGHOUT THE INSTALLATION.

TESTING:

A) THE COMPLETED SYSTEM SHALL BE FULLY TESTED BY THE FIRE ALARM CONTRACTOR AND THE MANUFACTURER'S NICET CERTIFIED TECHNICAL REPRESENTATIVE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. UPON COMPLETION OF A SUCCESSFUL TEST, THE FIRE ALARM CONTRACTOR SHALL VERIFY IN WRITING TO THE OWNER, ARCHITECT, AND GENERAL CONTRACTOR.

B) THE FOLLOWING TEST SHALL BE PREFORMED BY THE FIRE ALARM MANUFACTURER'S AUTHORIZED REPRESENTATIVE. EACH AND EVERY DEVICE SHALL BE TESTED FOR IT'S INTENDED FUNCTION. VERIFY THAT EACH DEVICE IS LOCATED IN ITS APPROPRIATE LOCATION. WRITTEN VERIFICATION OF THIS TEST SHALL BE PROVIDED TO THE OWNER, ARCHITECT, AND

GENERAL CONTRACTOR. THIS TEST SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 72.

C) ALL REQUIRED DOCUMENTATION REGARDING THE DESIGN OF FIRE DETECTION, ALARM, AND COMMUNICATIONS SYSTEMS AND THE PROCEDURES FOR MAINTENANCE, INSPECTION, AND TESTING OF FIRE DETECTION, ALARM, AND COMMUNICATIONS SYSTEMS SHALL BE MAINTAINED AT AN APPROVED SECURED LOCATION FOR THE LIFE OF THE SYSTEM.. WARRANTY: WARRAN

THE EQUIPMENT AND WIRING SHALL BE WARRANTED TO BE FREE FROM ELECTRICAL AND MECHANICAL DEFECTS FOR A PERIOD OF ONE (1) YEAR COMMENCING WITH START-UP AND OWNERS BENEFICIAL USE OF THE COMPLETED SYSTEM. WARRANTY SHALL INCLUDE ALL LABOR/TRAVEL TIME AND PARTS.

8. MONITORING:

INCLUDE IN THE BID THE COST OF ONE YEAR OF MONITORING OF THE FIRE ALARM SYSTEM BY A U.L. APPROVED MONITORING

CERTIFICATION:

PROVIDE U.L. THIRD PARTY CERTIFICATION OF ENTIRE INSTALLED SYSTEM, IF REQUIRED BY LOCAL AHJ.

#### PANELBOARD DESIGNATION

PANELBOARD DESIGNATION	CODE	DANIELBOAR
HIGH VOLTAGE 277/480V HIGH VOLTAGE 277/480V EMERGENCY	HP EHP	PANELBOAR— D NUMBER
HIGH VOLTAGE 277/480V EMERGENCY HIGH VOLTAGE 277/480V POWER CONDITIONED LINE VOLTAGE 120/208V LINEVOLTAGE 120/208V EMERGENCY LINE VOLTAGE 120/208V POWER CONDITIONED UNINTERRUPTIBLE POWER SOURCE	CHP LP ELP CLP UPS	PANELBOARD————————————————————————————————————

#### GENERAL ELECTRICAL NOTES

- ELECTRICAL DRAWINGS ARE PARTIALLY DIAGRAMMATIC. IN THE EVENT THAT THERE IS A DISCREPANCY OR THERE ARE ITEMS THAT ARE UNCLEAR, IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT THE ENGINEER FOR CLARIFICATION. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND HVAC DRAWINGS FOR GUIDANCE ON DIMENSIONS, CEILING HEIGHTS, DOOR SWINGS, ROOM FINISHES, STRUCTURAL AND ARCHITECTURAL DETAILS, LOCATIONS OF DUCTS, PIPES AND STRUCTURAL STEEL INSTALL THE ELECTRICAL SYSTEMS WITHOUT INTERFERING WITH DUCTS, PIPES, STRUCTURAL STEEL OR OTHER SYSTEMS. LOCATE LIGHTING SYMMETRICALLY IN PROPER RELATION TO FINISHED AREAS EXCEPT WHERE DIMENSIONED ON THE DRAWINGS OR LOCATED ON REFLECTED CEILING PLANS.
- 2. SCOPE: FURNISH ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL ALL ELECTRICAL WORK INDICATED ON DRAWINGS, AS SPECIFIED HEREIN, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), AND ALL STATE, AND CITY CODES.
- PROVIDE ADDITIONAL SUPPORTS FOR SWITCHES, PANELBOARDS, RACEWAYS TRANSFORMERS, CABLE TRAYS AND OTHER ELECTRICAL EQUIPMENT WHERE THE BUILDING STRUCTURE IS NOT SUITABLE FOR DIRECT MOUNTING. ALL OTHER SUPPORTS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
- A NUMERAL BESIDE A BRANCH CIRCUIT OUTLET ON WIRING PLANS INDICATES PANELBOARD BRANCH CIRCUIT CONNECTION. A LOWER CASE LETTER BESIDE AN OUTLET INDICATES THE SWITCH LEG CONNECTION WHERE OUTLETS ARE LOCALLY SWITCHED.
- SYMBOLS IN THE LEGENDS ARE APPLICABLE GENERALLY. FOR EXACT REQUIREMENTS REFER TO THE SCHEDULES, LAYOUTS, DETAILS AND SPECIFICATIONS SINCE THE APPEARANCE OF A PARTICULAR SYMBOL IN THE LEGEND DOES NOT NECESSARILY IMPLY THAT THE ITEM IS INCLUDED IN THE CONTRACT.
- MOUNT GROUPED DEVICES IN A SINGLE CONTINUOUS GANG BOX. USE PARTITIONS WHERE VOLTAGE BETWEEN EXPOSED LIVE PARTS OF ADJACENT SWITCHES MAY EXCEED 300 VOLTS.
- VERIFY CEILING SUSPENSION SYSTEMS IN THE VARIOUS AREAS AND PROVIDE THE PROPER MOUNTING ACCESSORIES, TRIMS, ETC. TO SUIT THE PARTICULAR AREA.
- 8. PROVIDE SEAL FITTINGS IN CONDUITS THAT ENTER CONDITIONED AREA FROM NON-CONDITIONED AREAS.
- MECHANICAL PLANS FOR LOCATIONS, TYPE AND QUANTITY OF CONTROL DEVICES. 10. ALL CONDUCTORS ARE COPPER. THHN/THWN 600 VOLT INSULATION. USE SOLID CONDUCTORS FOR WIRE

ANY CONDUIT AND BOXES FOR HVAC CONTROL WIRING IS INCLUDED IN THIS SCOPE OF WORK. SEE

- SIZES #10 AWG AND SMALLER. USE STRANDED FOR WIRE NO. 8 AWG AND LARGER. MINIMUM WIRE SIZE IS #12 AWG. CONDUIT IS EMT (1/2" MINIMUM) WITH COMPRESSION FITTINGS UNLESS OTHERWISE NOTED. NO "NM" & "MC" CABLE ALLOWED.
- MAINTENANCE MANUALS AND INSTRUCTIONS: FURNISH THREE (3) SETS OF OPERATING INSTRUCTIONS FOR ANY ELECTRICAL EQUIPMENT INSTALLED.
- 12. ALL ELECTRICAL EQUIPMENT AND INSTALLATION WORK SHALL HAVE A ONE YEAR (1) WARRANTY. FURNISH WARRANTY SO THE DEFECTIVE MATERIALS AND/OR WORKMANSHIP SHALL BE REPAIRED/REPLACED IMMEDIATELY UPON NOTIFICATION AT NO COST TO THE OWNER FOR THE PERIOD OF THE WARRANTY.
- ANY CONDUIT AND/OR CABLE TRAY PENETRATIONS THROUGH ANY FIRE WALL OR FLOOR SHALL BE FIRESTOPPED EQUAL TO OR GREATER THAN THE RATING OF THE FIRE WALL OR FLOOR THAT THEY PASS THROUGH. USE ONLY UL APPROVED METHODS AND ASSEMBLIES. RECEPTACLES LOCATED ON OPPOSITE SIDES OF A FIRE BARRIER SHALL BE SEPERATED BY A MINIMUM HORIZONTAL DISTANCE OF 2'0".
- PERMITS: OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, FEES INSPECTIONS, AND POWER COMPANY AID TO COMPLETE WORK SHOWN. INCLUDE ALL POWER COMPANY COSTS IN BID.
- CONDUCTOR COLOR CODING: PROVIDE COLOR CODING FOR ALL BRANCH CIRCUIT CONDUCTORS

THROUGHOUT THE PROJECT AS FOLLOWS: 120/208 VOLT BLACK RED

BLUE WHITE NEUTRAL GREEN GROUND

CUTTING AND PATCHING: PROVIDE ALL CUTTING REQUIRED TO DO THE WORK. DO NOT CUT ANY STRUCTURAL ELEMENT WITHOUT APPROVAL. PATCHING SHALL BE OF QUALITY EQUAL TO AND MATCHING APPEARANCE OF EXISTING CONSTRUCTION. DO NOT CUT ANY STRUCTURAL ELEMENT WITHOUT APPROVAL.

17. GROUNDING: AS REQUIRED BY THE NATIONAL ELECTRICAL CODE SECTION 250.

- WIRING DEVICES AND PLATES: SWITCHES SHALL BE HUBBELL OR LEVITON 20A 125VOLT AC COMMERCIAL SPECIFICATION GRADE. COLOR GRAY UNLESS NOTED OTHERWISE. USE STEEL COVER PLATES IN UNFINISHED AREAS AND MATCHING NYLON COVER PLATES IN FINISHED AREAS. ORANGE COLORED RECEPTACLES SHALL BE USED FOR THE ISOLATED GROUND "IG" RECEPTACLES.
- SAFETY SWITCHES: USE HEAVY DUTY TYPE FUSIBLE OR NON-FUSIBLE AS REQUIRED. NEMA TYPE 1 INDOORS AND NEMA TYPE 3R FOR OUTDOORS. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL WHERE SHOWN
- FUSES: USE DUAL ELEMENT, CURRENT LIMITING, TIME DELAY TYPE OR AS SPECIFIED BY EQUIPMENT
- PANELBOARDS: USE PANELBOARDS WITH BOLT ON TYPE BREAKERS ONLY. PANELBOARDS SHALL HAVE SEPARATE NEUTRAL AND GROUND BUSSES. PANELBOARDS SHALL BE 20" WIDE EQUIVALENT TO SQUARE D "NQOD" OR I LINE UNLESS OTHERWISE SPECIFIED. PROVIDE TYPED DIRECTORY CARDS FOR EACH PANELBOARD INSTALLED.
- COORDINATION: COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES AND LOCAL UTILITY COMPANY. COORDINATE METERING REQUIREMENTS WITH LOCAL ELECTRICAL UTILITY COMPANY.
- 23. EQUIPMENT: CONNECT ALL ELECTRICALLY OPERATED EQUIPMENT INCLUDING HVAC. USE NEMA 3R DEVICES OUTDOORS. VERIFY LOADS AND LOCATIONS OF EQUIPMENT BEFORE CONNECTION. SIZE BREAKERS, DISCONNECTS, AND FUSES ACCORDING TO THE EQUIPMENT NAMEPLATE. SIZE WIRE ACCORDING TO THE NEC. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REVEIWING THE EQUIPMENT SUPPLIED BY THE MECHANICAL CONTRACTOR AND OTHER TRADES AND SHALL BE RESPONSIBLE FOR MODIFYING THE CONNECTIONS WIRE, DISCONNECTS, BREAKERS, ETC. SHOWN ON THE DRAWINGS IN ORDER TO MAKE A COMPLETE INSTALLATION AND TO SATISFY THE MANUFACTURER'S REQUIREMENTS. THE ELECTRICAL CONTRACTOR SHALL SUPPLY ALL LABOR AND MATERIALS TO COMPLETE THE INSTALLATION.
- RECORD DRAWINGS: MAINTAIN A RECORD SET OF ALL CHANGES DURING CONSTRUCTION. RECORD CHANGES ON A CLEAN SET OF CONTRACT CONSTRUCTION DOCUMENTS WHICH SHALL BE TURNED OVER TO THE OWNER UPON COMPLETION OF THE PROJECT.
- 25. IDENTIFICATION: IDENTIFY ALL MAJOR PIECES OF ELECTRICAL EQUIPMENT INSTALLED ON THE PROJECT. EXAMPLES INCLUDE PANELBOARDS, MOTOR STARTERS, DISCONNECTS, AND CONTROL PANELS. IDENTIFY WITH PERMANENT PLASTIC NAMEPLATES.
- SUBMITTALS: UNLESS INSTRUCTED OTHERWISE THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SUBMITTING FOUR (4) SETS OF SHOP DRAWINGS ON MAJOR PIECES OF ELECTRICAL EQUIPMENT. SUCH EQUIPMENT INCLUDES PANELBOARDS, LIGHTING, SWITCHGEAR, SECONDARY SYSTEMS, MOTOR CONTROLS, ETC. APPROVAL FROM THE ENGINEER OF EQUIPMENT MUST BE OBTAINED BEFORE PURCAHSE AND INSTALLATION OF ELECTRICAL EQUIPMENT.
- TEMPORARY POWER AND LIGHTING: ARRANGE FOR TEMPORARY ELECTRIC SERVICE AS REQUIRED FOR THE ENTIRE PROJECT DURING CONSTRUCTION. PROVIDE A MINIMUM OF ONE DUPLEX GFCI OUTLET FOR EACH 500 SQUARE FEET OF FLOOR AREA. ARRANGE FOR PERMANENT ELECTRICAL SERVICE AND FOR ORDERLY TRANSFER BETWEEN TEMPORARY AND PERMANENT ELECTRICAL SERVICES. PROVIDE GFCI PROTECTION AND LAMP GUARDS AS REQUIRED BY THE NEC.

#### MINIMUM TEMPORARY LIGHTING LEVELS:

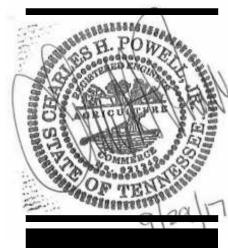
ONE LAMP HOLDER FOR EACH 150 SQUARE FEET OF FLOOR SPACE. MINIMUM ONE PER ROOM.

ONE LAMP HOLDER AT EACH STAIR LANDING AND FLOOR.

ONE LAMP HOLDER AT 20" CENTERS IN INTERIOR CORRIDORS. MINIMUM ONE PER CORRIDOR.

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Drawing Title: ELECTRICAL LEGEND AND GENERAL NOTES

☐ DESIGN DEVELOPMENT

CONSTRUCTION DOCUMENTS

07/28/2017 Designed By: Drawn By: Reviewed By: Comm. No. 170042.01

> Revisions: Rev. 1 09/29/2017

# FLOOR PLAN - POWER, COMMUNICATIONS, AND FIRE ALARM

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

CHIDDENS
TOLE

TOL

FLOOR PLAN - LIGHTING

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

# GENERAL SHEET NOTES

- 1. SEE SHEET E0.1 FOR ELECTRICAL LEGEND AND GENERAL NOTES.
- 2. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF ALL HVAC EQUIPMENT AND CONTROLS.
- 3. FUSE PER MANUFACTURER'S NAMEPLATE DATA.
- 4. ALL 15A AND 20A, 120V BRANCH CIRCUITS (OTHER THAN GFCI TYPE) SHALL BE PROTECTED BY A LISTED AFCI DEVICE COMBINATION TYPE PER NEC 210.12.
- 5. ALL 15A AND 20A, 120V RECEPTACLES SHALL BE LISTED AS TAMPER RESISTANT PER NEC 406.11.
- 6. PROVIDE NEMA 14-30R PER LOCAL INSPECTOR REQUIREMENTS. COORDINATE DRYER MANUFACTURER CORD PENDANT WITH REQUIRED OUTLET CONFIGURATION.
- ALL RECEPTACLES LOCATED IN THE KITCHEN AREA TO BE GFCI TYPE.
- 8. REFER TO ARCHITECTURAL RELECTED CEILING PLAN FOR EXACT LOCATIONS OF FIXTURES (TYPICAL).
- 9. REFER TO DETAIL 3 THIS SHEET FOR MORE INFORMATION.

# ○ KEYED SHEET NOTES

- 1. DISCONNECT, METER, AND METER BASE. SEE POWER RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- 2. SEE RISER DIAGRAM FOR PRIMARY CONDUIT AND CONDUCTORS.
- (2) 2" EMPTY CONDUITS WITH PULL STRING FROM CABINET TO EXISTING HIGH
   SCHOOL TELEPHONE AND CATV SERVICE POINT.

  4. REFER TO FIRE ALARM SYSTEM NOTE 6C ON SHEET E0.1 FOR MORE INFORMATION.

4. REFER TO FIRE ALARM SYSTEM NOTE 6C ON SHEET E0.1 FOR MORE INFORMATIO

M M

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H SCHOOL BUILDING

ZERO ENERGY BUIL

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☐ SCHEMATIC DESIGN

Design Development

CONSTRUCTION DOCUMENTS

Drawing Title: FLOOR PLAN -ELECTRICAL

Date: 07/28/2017

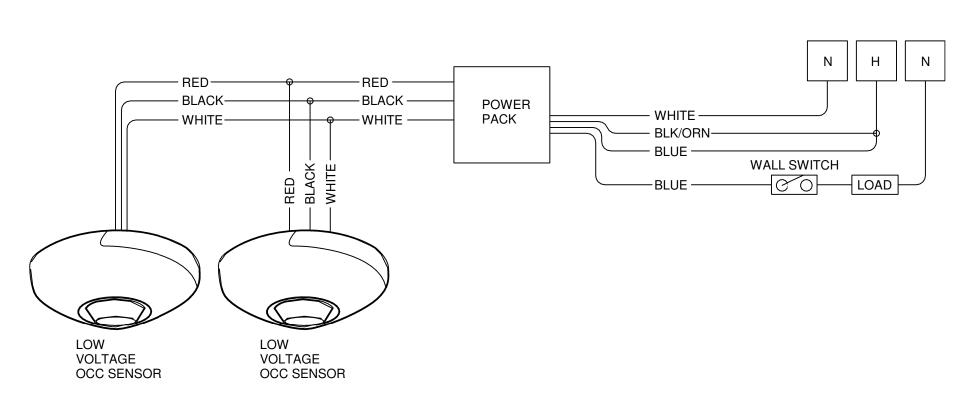
Designed By: CHP
Drawn By: JWD
Reviewed By: CHP

Comm. No. 170042.01

Revisions:

Rev. 1 09/29/2017

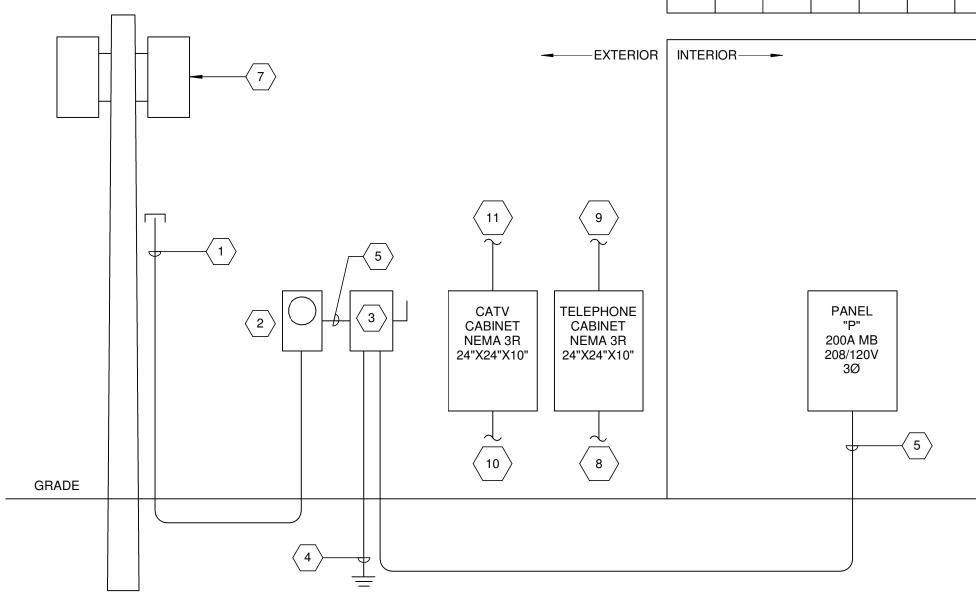
Sheet: Sheet No.



# OCCUPANCY SENSOR DETAIL

SCALE: N.T.S.

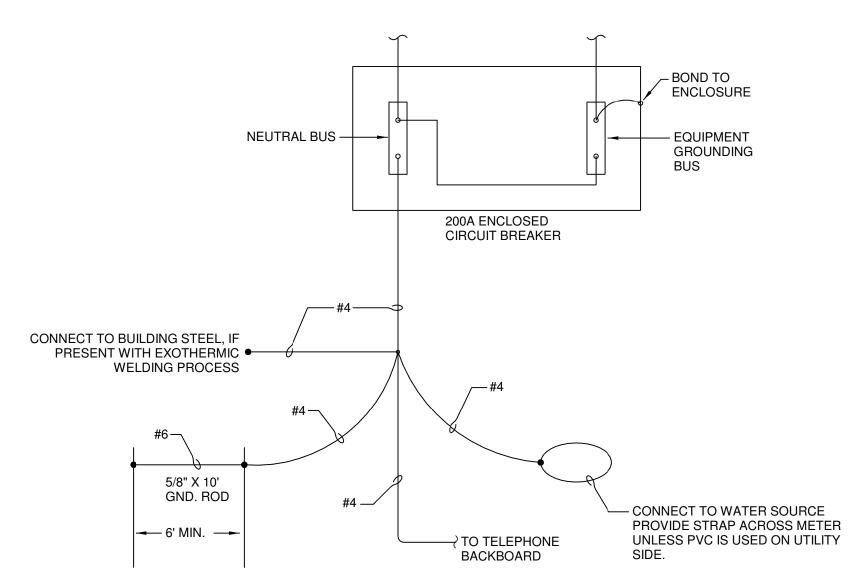
2



- PULL NEW 4 #3/0 CONDUCTORS IN NEW 2 1/2" CONDUIT FROM EXISTING 5 POWER POLE TRANSFORMER.
- METER AND METER BASE, COORDINATE METERING REQUIREMENTS WITH LOCAL UTILITY COMPANY.
- 200A, 22,000 AIC CIRCUIT BREAKER IN NEMA 3R ENCLOSURE SERVICE ENTRANCE DISCONNECT.
- SERVICE ENTRANCE GROUNDING. SEE DETAIL 2/E4.1 FOR ADDITIONAL INFORMATION.
- 2 1/2" CONDUIT WITH 4#3/0 AND #6
- 40 SOLAREX "MILLENIA" 50W PHOTO-VOLTAGE CELLS. CONTACT (301)-698-4200 TO COORDINATE INSTALLATION.
- ${\sf EXISTING\ LOCAL\ UTILITY\ COMPANY\ TRANSFORMER.}$
- EXTEND 1-2" CONDUIT TO SERVICE POINT AS DIRECTED BY LOCAL TELEPHONE COMPANY. 1-2" SPARE CONDUIT.
- PROVIDE 1 3/4" CONDUIT TO NEW BUILDING FROM TELEPHONE CABINET. TERMINATE CONDUIT AT TELEPHONE BOX WITHIN NEW BUILDING. SEE SHEET E1.1 FOR TELEPHONE BOX LOCATION. COORDINATE WITH OWNER FOR EXACT LOCATION OF TELEPHONE BOX WITHIN NEW BUILDING.
- EXTEND 1-2" CONDUIT TO SERVICE POINT AS DIRECTED BY LOCAL CATV COMPANY. 1-2" SPARE CONDUIT.
- PROVIDE 1 3/4" CONDUIT TO NEW BUILDING FROM CATV CABINET. TERMINATE CONDUIT AT CATV BOX WITHIN NEW BUILDING. SEE SHEET E1.1 FOR CATV BOX LOCATION. COORDINATE WITH OWNER FOR EXACT LOCATION OF CATV BOX WITHIN NEW BUILDING.

# POWER RISER DIAGRAM

SCALE: N.T.S.



#### **GROUNDING NOTES:**

- GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE LATEST EDITION OF THE NEC.
- ENCLOSE GROUNDING WIRE IN CONDUIT WHERE EXPOSED TO PHYSICAL DAMAGE.
- SPLICES IN THE GROUNDING ELECTRODE ARE PERMITTED ONLY BY MEANS OF IRREVERSIBLE COMPRESSION TYPE CONNECTORS LISTED FOR THE PURPOSE, OR THE EXOTHERMIC WELDING PROCESS. CONNECTION TO GROUND RODS, BLDG STEEL OR FOOTING STEEL (REBAR) SHALL BE BY EXOTHERMIC WELDING PROCESS.
- 4. GROUND BUS RESISTANCE TO EARTH TO BE 10 OHM OR LESS. ADD GROUND RODS AS REQUIRED.
- 5. BOND TO SPRINKLER SYSTEM PIPING, IF PRESENT.

# GROUNDING - SERVICE ENTRANCE

SCALE: N.T.S.

2

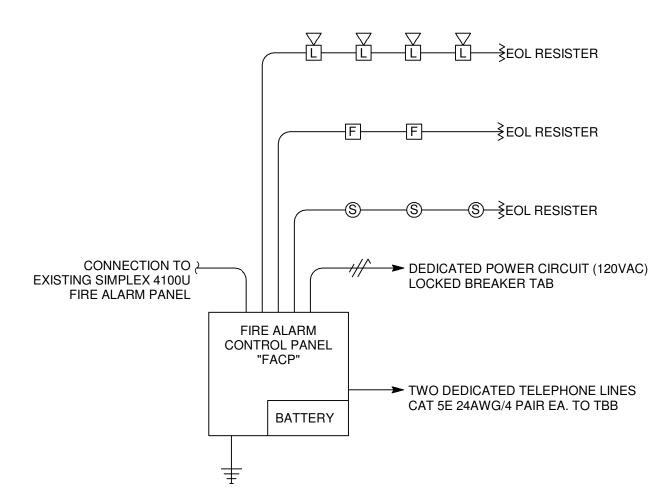
					LI	GHT	ING FIXT	URE SCHEDUL	E
TYPE	LAMP TYPE	LAMP NO.	WATTS	VOLTAGE	MOUNTING	HEIGHT	MANUFACTURER	MODEL	COMMENTS
Α	FLUORESENT	2	32	120	SURFACE	VARIES	LITHONIA	CB-2-32-120-CW	SURFACE WRAPAROUND WITH COLD WEATHER BALLAST
A1	FLUORESENT	2	32	120	SURFACE	VARIES	LITHONIA	CB-2-32-120-CW-EL	SAME AS FIXTURE TYPE "A" WITH EMERGENCY BATTERY BACK-UP
В	FLUORESENT	3	32	120	SURFACE	VARIES	LITHONIA	2M-3-32-A12-120-GEB	SURFACE 2X4
B1	FLUORESENT	3	32	120	SURFACE	VARIES	LITHONIA	2M-3-32-A12-120-GEB-EL14	SAME AS FIXTURE TYPE "B" WITH EMERGENCY BATTERY BACK-UP
E	LED	1	6	120	WALL MOUNT	7'-0"	LITHONIA	LQM-S-W-1-G-120/277-ELN	EXIT SIGN W/BATTERY BACK-UP
E2	LED	1	6	120	WALL MOUNT	7'-0"	LITHONIA	AFN-BN-PREM-EXT	EXTERIOR EMERGENCY EGRESS FIXTURE

1. FURNISH AND INSTALL LAMPS FOR ALL FIXTURES.

2. VERIFY ALL CEILING TYPES BEFORE STARTING ANY WORK. SEE ARCHITECTS REFLECTED CEILING PLAN FOR CEILING TYPES.

3. PROVIDE ALL NECESSARY MOUNTING HARDWARE AND ACCESSORIES FOR A COMPLETE INSTALLATION OF ALL LIGHTING FIXTURES. 4. PROVIDE ALL NECESSARY EQUIPMENT FOR LOW VOLTAGE LIGHTING AND CONTROLS, SUCH ITEMS WOULD INCLUDE TRANSFORMERS, POWER PACKS, AND CABLING.

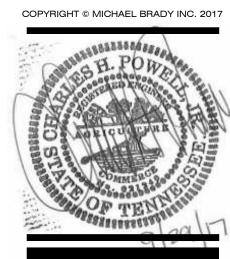
	Location: KITCHEN 101 Supply From: Service Entrance Mounting: Surface Enclosure: Type 1				l	Volts: Phases: Wires:		3 3P				A.I.C. Rating: 22,000 Mains Type: M.B. Mains Rating: 200 A MCB Rating: 200 A	
СКТ	Circuit Description	Trip	Poles		A	ı	В		С	Poles	Trip	Circuit De	escription
1 TVSS		30 A	2	0 VA	808 VA					1	20 A	L - LIGHTING (INTERIOF	
3						0 VA	320 VA			1	20 A	L - LIGHTING (EXTERIO	R)
5 R - RECEP	PTACLE (RM. 101)	20 A	1					1500	540 VA	1	20 A	R - RECEPTACLE (RM.	103)
	PTACLE (RM. 101)	20 A	1	1500	1200					1		R - RECEPTACLE (RM. 1	
	PTACLE (RM. 101 AND 104)	20 A	1			360 VA	1000			1		R - RECEPTACLE (RM. 1	<u> </u>
	PTACLE (RM. 103 AND EXTERIOR)	20 A	1					720 VA	720 VA			R - RECEPTACLE (RM.	
	TACKEKRM. 125, WASHER)	20 A	1	1500	360 VA					1		R - RECEPTACLE (RM.	
		20 A	1			1000	2880	7000	2222	2		E - EQUIPMENT (RM. 10	DS, DRYER)
	phen man	70 A	3	7000	1000			7806	2880				IFAT WALL IN DAA 404)
19				7806	1200	7000	0.1/4			1		E - EQUIPMENT (WAT. H	HEAT. "WH-1", RM. 104)
21 23 E - EQUIP	MENT (RM. 101, GARB. DISPOSAL)	20 A	3			7806	0 VA	720 VA	0 VA	3	50 A	SPARE	
25 E - EQUIFI	MENT (NIM. 101, GANB. DISPOSAL)	20 A		720 VA	0 VA			720 VA	UVA				
27				720 VA	UVA	720 VA	0 VA			3	20 A	SPARE	
29 SPARE		30 A	3			720 171	0 171	0 VA	0 VA				
31				0 VA	0 VA				0 171				
33						0 VA	0 VA			1	20 A	SPARE	
35 SPARE		20 A	1					0 VA	0 VA	1	20 A	SPARE	
37 SPARE		20 A	1	0 VA	0 VA					1	20 A	SPARE	
39 SPARE		20 A	1			0 VA	0 VA			1	20 A	SPARE	
41 SPARE		20 A	1					0 VA	0 VA	1	20 A	SPARE	
		Tot	al Load:	1509	94 VA	1408	36 VA	1488	36 VA				
		Tota	al Amps:	12	27 A	11	7 A	12	5 A				
Load Classificatio	n	Con	nected I	Load	Der	nand Fa	ctor	Estin	nated De	mand		Panel	Totals
H - HVAC			23418 V			100.00%			23418 V				
L - LIGHTING			1128 VA			125.00%			1410 VA			Total Conn. Load:	
R - RECEPTACLE			9400 VA			100.00%			9400 VA			Total Est. Demand:	
E - EQUIPMENT			10120 V	4		75.00%			7590 VA	<u> </u>		Total Conn. Current:	
											To	tal Est. Demand Current:	116 A
		\(											
NOTES:		~~~	$\sim$	$\overline{}$	<del>~</del>	~ \	$ \swarrow $						



SEE PLANS FOR DEVICE TYPES, LOCATIONS, AND QUANTITIES.

# FIRE ALARM - RISER

DENIES ANY AND ALL
RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THES PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/ OR FOLLOW THE DESIGN PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.



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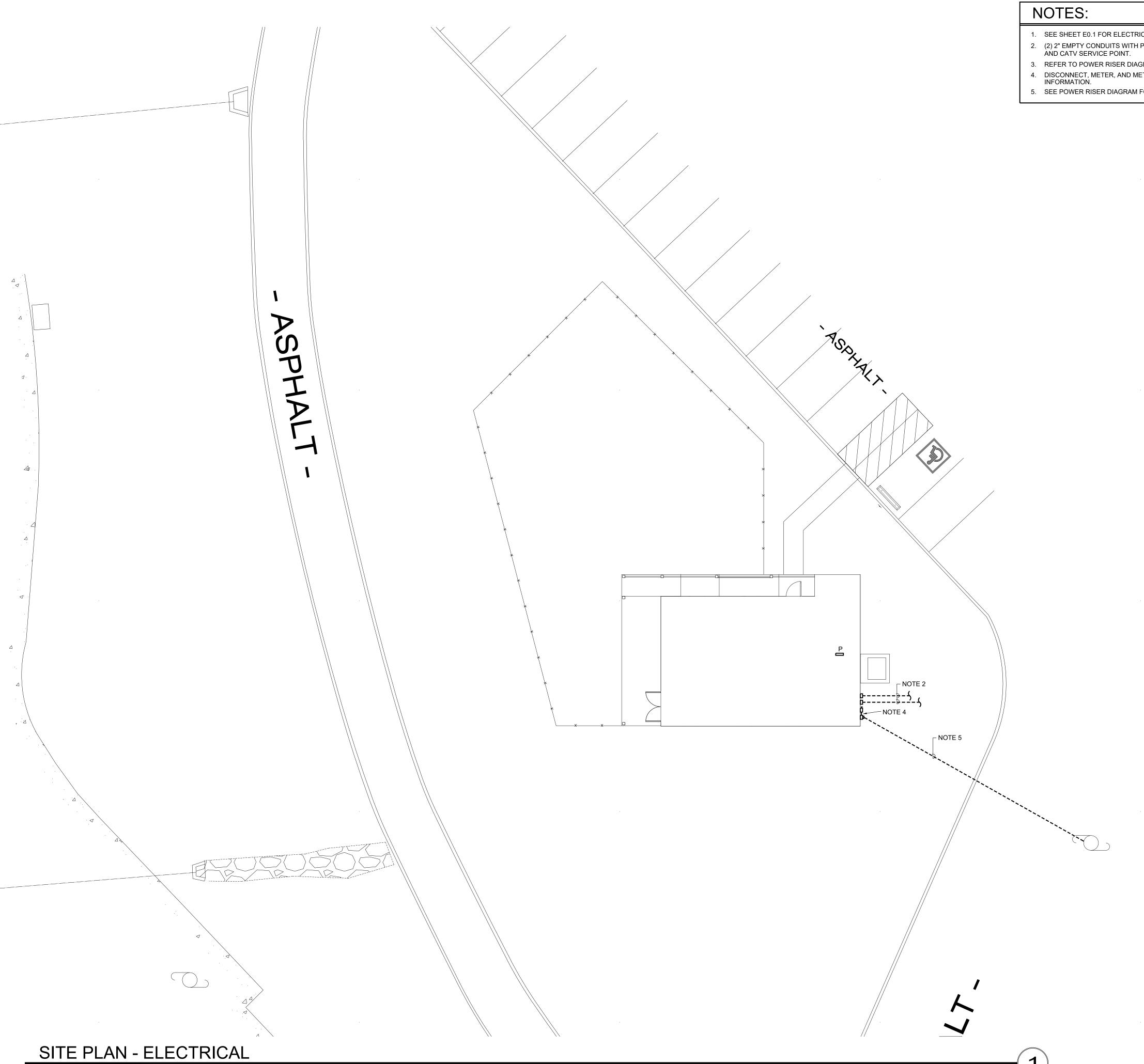
CONSTRUCTION DOCUMENTS Drawing Title: RISER DIAGRAM, PANELBOARD SCHEDULE, AND LIGHTING FIXTURE

SCHEDULE

07/28/2017 Designed By: Drawn By: Reviewed By:

Comm. No. 170042.01

Revisions: Rev. 1 09/29/2017



SCALE: 1" = 10'-0"

- 1. SEE SHEET E0.1 FOR ELECTRICAL LEGEND AND GENERAL NOTES.
- (2) 2" EMPTY CONDUITS WITH PULL STRING FROM CABINET TO EXISTING HIGH SCHOOL TELEPHONE AND CATV SERVICE POINT.
- 3. REFER TO POWER RISER DIAGRAM ON SHEET E4.1 FOR MORE INFORMATION.
- 4. DISCONNECT, METER, AND METER BASE. REFER TO POWER RISER DIAGRAM FOR ADDITIONAL

5. SEE POWER RISER DIAGRAM FOR SECONDARY CONDUIT AND CONDUCTORS.

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Drawing Title: SITE PLAN - ELECTRICAL

Date:	07/28/2017
Designed By: Drawn By: Reviewed By:	C.H.P. J.W.D C.H.P.
Comm. No.	170042.01

Revisions:

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