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NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET

OWNER:
NC DEPARTMENT OF TRANSPORTATION
ROADSIDE ENVIRONMENTAL UNIT
1557 MAIL SERVICE CENTER
RALEIGH, NC 27699

ARCHITECT:
CLARK PATTERSON LEE
6302 FAIRVIEW RD., SUITE 102
CHARLOTTE, NORTH CAROLINA, 28210
TEL: (800) 274-9000
FAX: (704) 331-0402
www.clarkpatterson.com

M/E/P ENGINEERS:
CLARK PATTERSON LEE
912 SOUTH MAIN STREET, SUITE 1
GREENVILLE, SC 29601
(864)220-9300

LIST OF DRAWINGS

GENERAL
G001 COVER
G002 APPENDIX B

Structural
S200 FOUNDATION PLAN
S201 ROOF FRAMING PLAN
S400 SECTIONS AND DETAILS
S800 STRUCTURAL NOTES
S801 TYPICAL DETAILS

ARCHITECTURAL
A000 ARCHITECTURAL SITE PLAN
A001 LIFE SAFETY PLAN
A100 ENLARGED DEMOLITION PLAN
A200 BUILDING OVERALL FLOOR PLANS
A201 ENLARGED NEW WORK PLAN
A210 VENDING BUILDING PLANS AND ELEVATIONS
A300 EXTERIOR DEMOLITION ELEVATIONS AND DETAILS
A310 BUILDING ELEVATIONS
A320 BUILDING SECTIONS
A600 REFLECTED CEILING PLANS
A700 TYP. FIXTURE AND ACCESS. HEIGHTS AND LEGENDS
A701 INTERIOR ELEVATIONS
A702 INTERIOR ELEVATIONS AND DETAILS
A800 ENLARGED PLAN DETAILS
A801 ENLARGED SECTION DETAILS
A802 ENLARGED ROOF DETAILS
A810 MILLWORK DETAILS
A900 DOOR SCHEDULE, DOOR FRAMES, AND WINDOW TYPES

INTERIORS
I200 GROUND FLOOR FINISH PLAN
I300 GROUND FLOOR PATTERNING PLAN
I900 FINISH SPECIFICATIONS

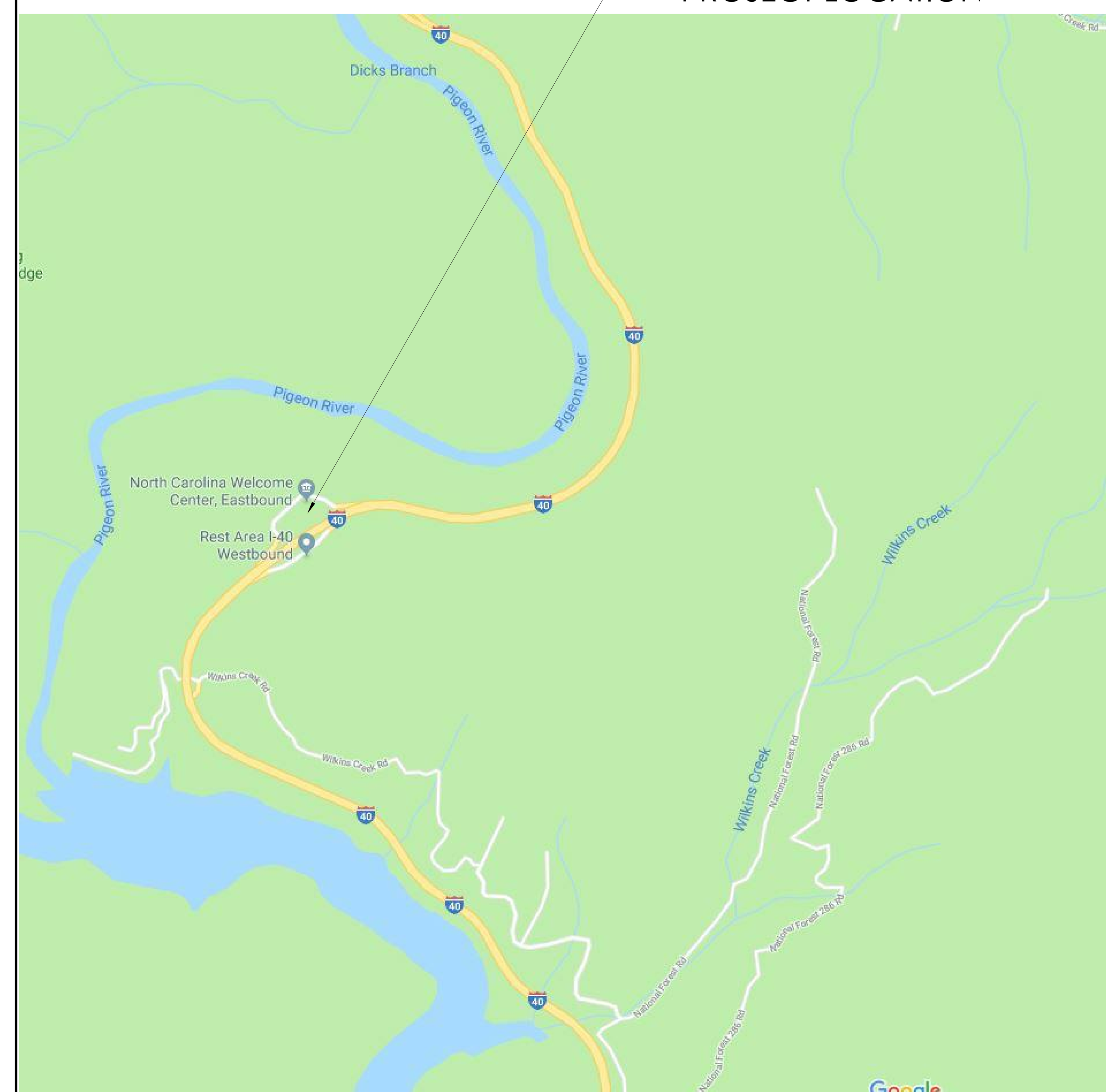
HVAC
H000 HVAC SYMBOLS LEGEND, NOTES & SYSTEM DIAGRAMS
H001 ENERGY CODE COMPLIANCE
H100 HVAC DEMOLITION PLAN
H200 HVAC DUCTWORK NEW WORK PLAN
H300 HVAC PIPING NEW WORK PLAN
H800 HVAC SCHEDULES AND DETAILS

PLUMBING
P000 PLUMBING LEGEND, NOTES, & SYSTEM DIAGRAMS
P100 PLUMBING SANITARY DEMOLITION PLAN
P101 PLUMBING DOMESTIC WATER DEMOLITION PLAN
P200 PLUMBING SANITARY NEW WORK PLAN
P300 PLUMBING DOMESTIC WATER NEW WORK PLAN

ELECTRICAL
E000 ELECTRICAL LEGEND, NOTES, AND ONE-LINE DIAGRAM
E100 ELECTRICAL DEMOLITION PLANS
E200 ELECTRICAL POWER PLANS
E300 ELECTRICAL LIGHTING PLANS
E900 ELECTRICAL SCHEDULES

LOCATION MAP

PROJECT LOCATION



LIST OF ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ACOUS	ACOUSTICAL
ADJ	ADJACENT
ACT	ACOUSTICAL CEILING TILE
AWP	ACOUSTICAL WALL PANEL
A/C	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
AB	ANCHOR BOLT
ANOD	ANODIZED
APPROX	APPROXIMATE
ARCH	ARCHITECT, ARCHITECTURAL
AD	AREA DRAIN
@	AT
AUTO	AUTOMATIC
BM	BEAM
BP	BEARING PLATE
BM	BENCH MARK
BITUM	BITUMINOUS
BLKG	BLOCKING
BLK	BLOCK
BD	BOARD
BOT	BOTTOM
BRK	BRICK
BLDG	BUILDING
BN	BULLNOSE
CAB	CABINET
CI	CAST IRON
CPT	CARPET(ED)
CB	CATCH BASIN
CLG	CEILING
CLG HT	CEILING HEIGHT
CL	CENTER LINE
CER	CERAMIC
CT	CERAMIC TILE
CB	CHALK BOARD
CIRC	CIRCUMFERENCE
CO	CLEAN OUT
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CJT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CJ	CONTROL JOINT
DP	DAMP PROOFING
DEMO	DEMOLISH
DEPT	DEPARTMENT
DET,DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DSP	DISPOSAL
DO	DITTO, REPEAT, SAME
DR	DOOR
DBL	DOUBLE
DN	DOWN
DS	DOWNSPOUT
DT	DRAIN TILE
DWR	DRAWER
DWG	DRAWING
DF	DRINKING FOUNTAIN
EA	EACH
EF	EACH FACE
EW	EACH WAY
E	EAST
ELEC	ELECTRICAL
ELEV	ELEVATION
EL	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENTR	ENTRANCE
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE(D)
EXHST	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EJ	EXPANSION JOINT
F	FABRIC
FAB	FABRICATE
FT	FEET
FIG	FIGURE
FIN	FINISH
FF	FINISH FLOOR
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HOSE
FL, FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
FND	FOUNDATION
FS	FULL SIZE
FUT	FUTURE
GALV	GALVANIZED
G	GAS
GA	GAUGE
GEN	GENERAL
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GB	GRAB BAR
GR	GRADE, GRADING
GSF	GROSS SQUARE FOOT
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
GYP BD	GYPSUM BD
HDWR	HARDWARE
HDWD	HARDWOOD
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HT, HGT	HEIGHT
HEX	HEXAGONAL
HWY	HIGHWAY
HM	HOLLOW METAL
HORZ	HORIZONTAL
HB	HOSE BIBB
HW	HOT WATER
HR	HOUR
IN	INCH
INCL	INCLUDING
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
INTERM	INTERMEDIATE
INV	INVERT
JAN	JANITOR
JS	JANITOR SINK
JT	JOINT
KIT	KITCHEN
LBL	LABEL
LAB	LABORATORY
LAM	LAMINATE(D)
LAV	LAVATORY
LYR	LAYER
LDR	LEADER
LH	LEFT HAND
LIB	LIBRARY
LT	LIGHT
LW	LIGHT WEIGHT
MACH	MACHINE
MH	MAN HOLE
MHC	MAN HOLE COVER
MFR	MANUFACTURE
MFRR	MANUFACTURER
MAS	MASONRY
MO	MASONRY OPENING
MAT	MATERIALS
MAX	MAXIMUM
MECH	MECHANICAL
MET	METAL
M	METER
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
MR	MOISTURE RESISTANT
MTD	MOUNTED
MTL	METAL
NAT	NATURAL
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO, #	NUMBER
OC	ON CENTER
OPNG	OPENING
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PTD	PAINTED
PR	PAIR
PTR	PAPER TOWEL RECEPTOR
PKG	PARKING
PART BD	PARTICLE BOARD
PART	PARTITION
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PL	PLATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PRE FAB	PREFABRICATED
PRT	PRESSURE TREATED
PT	PAINT
PVC	POLYVINYL CHLORIDE
PC CONC	PRECAST CONCRETE
PVMT	PAVEMENT
QTY	QUANTITY
QT	QUARRY TILE
QTB	QUARRY TILE BASE
RAD	RADIUS
RECP	RECEPTACLE
REF	REFERENCE
REFR	REFRIGERATOR
RE:	REFER TO
REINF	REINFORCED(ING)
REQ'D	REQUIRED
RVT	RESILIENT VINYL TILE
REV	REVISED
RH	RIGHT HAND
R	RISER
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
SAN	SANITARY
SCHED	SCHEDULE
SEC	SECOND
SECT	SECTION
SIM	SIMILAR
STC	SOUND TRANSMISSION COEFFICIENT
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE, STRUCTURAL
SGFT	STRUCTURAL GLAZED FACING TILE
ST, STL	STRUCTURAL STEEL
SUSP	SUSPENDED
SAT	SUSPENDED ACOUSTICAL TILE
TEL	TELEPHONE
TEMP	TEMPERATURE
THK	THICKNESS
TPD	TOILET PAPER DISPENSER
TOS	TOP OF SLAB/STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
U	URINAL
VEN	VENEER
VIF	VERIFY IN FIELD
VEST	VESTIBULE
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VF	VINYL FABRIC
VQT	VINYL QUARTZ TILE
VWC	VINYL WALL COVERING
VT	VINYL TILE
VOL	VOLUME
WC	WATER CLOSET
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
WIND	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD
W	WEST
YD	YARD

MATERIAL SYMBOLS

EARTH	BRICK	RIGID INSULATION	1 HR RATING
GYPSUM BOARD	STEEL	BATT OR LOOSE INSULATION	2 HR RATING
GRAVEL TYPE 1 (ENGINEERED FILL)	GROUT	CAVITY DRAINAGE MAT	SMOKE RATING
PRECAST CONCRETE	ROUGH WOOD BLOCKING	ALUMINUM	EXISTING BUILDING MATERIALS
CRUSHED STONE	ROUGH WOOD BLOCKING, NON-CONTINUOUS	STANDING SEAM ROOF	
CONCRETE MASONRY UNIT (CMU)	WOOD, FINISHED WOODWORK	CONCRETE	
METAL STUD PARTITION	PLYWOOD (LARGE SCALE)	TERRAZZO	

GRAPHIC SYMBOLS

A — COLUMN CENTERLINE A	1i — PARTITION TYPE 1t (1hr RATED) SEE PARTITION LEGEND	PROPERTY LINE	300 / 30" 12" 30" — CASEWORK TAG
3 SIM A201 — DETAIL #3 on SHEET A201	1 — REVISION NO. 1	X — FENCE	A — ACCESSORY TAG
1 SIM A101 — BUILDING SECTION (NO.) or WALL SECTION (LETTER) on SHEET A101	+ 100.75 — EXISTING SPOT ELEVATION	EXISTING TREE TO REMAIN	W1 — WINDOW TAG (TYPE LETTER)
ROOM NUMBER 1000	+ 100.75 — FINISHED SPOT ELEVATION	EXISTING TREE TO BE REMOVED	1 — EQUIPMENT SYMBOL (NUMBER)
3 A701 2 — INTERIOR ELEVATIONS # 2 and #3 on SHEET A501	100 — EXISTING CONTOURS	BENCHMARKS: FLOOR ELEV., or OTHER VERTICAL ELEV.	1000-1 — DOOR TAG
3 A301 — EXTERIOR ELEVATIONS #3 on SHEET A301	100 — FINISHED CONTOURS	A — KEYNOTE SYMBOL: DEMOLITION and NEW CONSTRUCTION	1 A101 VIEW NAME 1/8" = 1'-0" — PLAN VIEW TITLE WITH NORTH ARROW

SET NO.

Clark Patterson Lee
ARCHITECTURE | ENGINEERING | PLANNING
6302 FAIRVIEW RD., SUITE 102
CHARLOTTE, NORTH CAROLINA, 28210
TEL: (800) 274-9000
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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS DBA CLARK PATTERSON LEE CHARLOTTE, NC 51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT KNAPP
REGISTERED ARCHITECT
7444
NORTH CAROLINA
CHARLOTTE, N.C.
8/29/18

DocuSigned by:
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: COVER

PROJECT NUMBER: 14391.00

G001
DRAWING NUMBER

8/27/2018 5:22:59 PM
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APPENDIX B

GENERAL INFORMATION

Name of Project: NCDOT HAYWOOD REST AREA RENOVATION
Address: I-40, WAYNESVILLE, NC 28786
Proposed Use: B - Business - Rest Area
Owner or Authorized Agent: TAD DAVIS - NCDOT Phone #: 919.707.2930
Owned By: ☐ City/County ☐ Private ☒ State
Code Enforcement Jurisdiction: State of North Carolina ☐ City ☒ County

LEAD DESIGN PROFESSIONAL: Timothy S. Knapp, AIA, Clark Patterson Lee

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #
Architectural	Clark Patterson Lee	Timothy S. Knapp	7444	800-274-9000 x 3116
Civil	N/A			
Electrical	Clark Patterson Lee	Shannon Epps	029811	704-531-3000
Fire Alarm	Clark Patterson Lee	Shannon Epps	029811	704-531-3000
Plumbing	Clark Patterson Lee	Greg Kyzer	27581	704-531-3000
Mechanical	Clark Patterson Lee	Greg Kyzer	27581	704-531-3000
Sprinkler/Standpipe	Clark Patterson Lee	Greg Kyzer	27581	704-531-3000
Structural	N/A			
Retaining Walls > 5'-0" High	N/A			
Other	Clark Patterson Lee	Rachel Guillot	13101	800-274-9000 x 2219

2012 EDITION OF NC CODE FOR: ☐ New Construction ☐ Addition ☒ Upfit

EXISTING: ☐ Reconstruction ☐ Alteration ☐ Repair ☒ Renovation

CONSTRUCTED: (Date) 1971 **ORIGINAL USE(S):** (Ch. 3) B-Business

RENOVATED: (Date) 1994, 2018 **CURRENT USE(S):** (Ch. 3) B-Business

PROPOSED USE(S): (Ch. 3) B-Business

NOTE: in 2000 the building type was type III

BUILDING DATA

Construction Type: ☐ I-A ☐ I-B ☐ II-A ☐ II-B ☐ III-A ☐ III-B ☐ IV ☐ V-A ☒ V-B
Mixed Construction ☒ No ☐ Yes Types
Sprinklers: ☒ No ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D ☐ NFPA 14
Standpipes: ☒ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☒ No ☐ Yes
Building Height: 17 Feet 1 Number of Stories ☐ Unlimited Per
Mezzanine: ☒ No ☐ Yes
High Rise: ☒ No ☐ Yes Central Refer. Sheet # (if provided)
Gross Building Area:

FLOOR	EXISTING (SQ. FT.)	RENOVATED (SQ. FT.)	NEW (SQ. FT.)	SUB-TOTAL
First Floor:	5,900 (UNDER ROOF)	2,284	-	5,900 (UNDER ROOF)
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
TOTAL	5,900 (UNDER ROOF)	2,284	-	5,900 (UNDER ROOF)

ALLOWABLE AREA

Primary Occupancy: ☐ Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☒ Business ☐ Educational ☐ Factory-Industrial ☐ F-1 ☐ F-2
☐ High-Hazard ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5
☐ Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Use Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Mercantile ☐ Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
☐ Storage ☐ S-1 ☐ S-2 ☐ High-Piled
☐ Utility and Miscellaneous ☐ Parking Garage ☐ Open
☐ Enclosed ☐ Repair

Secondary Occupancy: N/A
Special Occupancy: ☐ 508.2 ☐ 508.3 ☐ 508.4 ☐ 508.5 ☐ 508.6 ☐ 508.7 ☐ 508.8
Mixed Occupancy: ☒ No ☐ Yes Separation: ____ Hr. Exception:

☐ Non-Separated Mixed Occupancy (302.3.2)
The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

☐ Separated Mixed Occupancy (302.3.3) - See Below for Area Calcs.
For each story, the area of occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

Actual Area of Occupancy A / Allowable Area of Occupancy A + Actual Area of Occupancy B / Allowable Area of Occupancy B ≤ 1

____ + ____ + ____ = ____ ≤ 100

Accessory Occupancies: ☐ Assembly ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ Business ☐ Educational ☐ Factory-Industrial ☐ F-1 ☐ F-2
☐ High-Hazard ☐ H-1 ☐ H-2 ☐ H-3 ☐ H-4 ☐ H-5
☐ Institutional ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
I-3 Use Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ Mercantile ☐ Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
☐ Storage ☐ S-1 ☐ S-2 ☐ High-Piled
☐ Utility and Miscellaneous ☐ Parking Garage ☐ Open
☐ Enclosed ☐ Repair

Accessory Occupancies:
- ☐ Furnace room where any piece of equipment is over 400,000 BTU per hour input
- ☐ Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower
- ☐ Refrigerant machine room
- ☐ Hydrogen cutoff rooms, not classified as Group H
- ☐ Incinerator rooms
- ☐ Paint shops, not classified as Group H, located in occupancies other than Group F
- ☐ Laboratories and vocational shops, not classified as Group H. Located in a Group E or I-s occupancy
- ☐ Laundry rooms over 100 square feet
- ☐ Group I-3 cells equipped with padded surfaces
- ☐ Group I-2 waste and linen collection rooms
- ☐ Waste and linen collection rooms over 100 square feet
- ☐ Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies
- ☐ Rooms containing fire pumps
- ☐ Group I-2 storage rooms over 100 square feet
- ☐ Group I-2 commercial kitchens
- ☐ Group I-2 laundries equal to or less than 100 square feet
- ☐ Group I-2 rooms or spaces that contain fuel-fired heating equipment

Special Uses: ☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421 ☐ 422 ☐ 423 ☐ 424 ☐ 425 ☐ 426 ☐ 427

Special Provisions: ☐ 509.2 ☐ 509.3 ☐ 509.4 ☐ 509.5 ☐ 509.6 ☐ 509.7 ☐ 509.8 ☐ 509.9

APPENDIX B CONTINUED

STORY NO.	DESCRIPTION AND USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 503 AREA [5]	(C) AREA FOR OPEN SPACE INCREASE [1]	(D) AREA FOR SPRINKLER INCREASE [2]	(E) ALLOWABLE AREA OR UNLIMITED [3]	(F) MAXIMUM BUILDING AREA [4]
First Floor	B	N/A	N/A	N/A	N/A	N/A	N/A

1 Open space area increases from Section 506.2 are computed as thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ____ (F)
b. Total Building Perimeter = ____ (P)
c. Ratio (F/P) = ____ (F/P)
d. W = Minimum Width of Public Way = ____ (W)
e. Percent of Frontage Increase I = 100 [f/p - 0.25] x W/30 = ____ (%)

2 The Sprinkler Increase per Section 506.3 is as follows:
a. Multi-Story Building I = 200 Percent
b. Single Story Building I = 300 Percent

3 Unlimited area applicable under conditions of Sections Group B, F, M, S, A-4 (507.1, 507.2, 507.3, 507.5); Group A motion picture (507.8); Malls (402.6); and H-2 Aircraft Paint Hangers (507.6).

4 Maximum Building Area = Total number of stories in the building x E but not greater than 3 x E.

5 The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

NOTE: THIS BUILDING HAS NO SQUARE FOOTAGE INCRESE

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE VB		TYPE VB	
BUILDING HT. IN FEET	FEET Existing	FEET = H + 20' = N/A		
BUILDING HT. IN STORIES	STORIES 2	STORIES + 1 = N/A	STORIES 1	

FIRE PROTECTION REQUIREMENTS
Life Safety Plan Sheet #, if Provided A001

BUILDING ELEMENT	SEPARATION DISTANCE	REQUIRED	PROVIDED W/___ SECTION #	DETAIL# SHEET#	DESIGN #	PENETRATION	JOINT
STRUCTURAL FRAME	NA	0 HR	0	NA	NA	NA	NA
BEARING WALLS	NA	0 HR	0	NA	NA	NA	NA
INTERIOR NON-BEARING WALLS & PARTITIONS	NA	0 HR 0 HR	0 0	NA	NA	NA	NA
EXTERIOR NON-BEARING WALLS	NA	0 HR	0	NA	NA	NA	NA
FLOOR CONSTRUCTION	NA	0 HR	0 HR	NA	NA	NA	NA
ROOF CONSTRUCTION	NA	0 HR	0 HR	NA	NA	NA	NA
SHAFTS EXIT	NA	NA	NA	NA	NA	NA	NA
SHAFTS OTHER	NA	NA	NA	NA	NA	NA	NA
CORRIDOR	NA	0	0	NA	NA	NA	NA
OCCUPANCY SEPARATION	NA	NA	NA	NA	NA	NA	NA
PARTY/FIRE WALL SEPARATION	NA	NA	NA	NA	NA	NA	NA
SMOKE BARRIER	NA	NA	NA	NA	NA	NA	NA
TENANT SEPARATION	NA	NA	NA	NA	NA	NA	NA

PER TABLE 1018.1 CORRIDOR FIRE-RESISTANCE RATINGS EXCEPTION (f) ALLOWS FOR NON RATED CORRIDOR FOR SINGLE TENANT. THE BUILDING IS A SINGLE TENANT BUILDING

BUILDING CODE SUMMARY

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	☐ No	☒ Yes
Exit Signs:	☐ No	☒ Yes
Fire Alarm:	☒ No	☐ Yes
Smoke Detection Systems:	☐ No	☒ Yes
Panic Hardware:	☐ No	☒ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet # A001

- ☒ Fire and/or smoke rated wall locations (Chapter 7)
- ☐ Assumed and real property line locations
- ☐ Exterior wall opening area with respect to distance to assumed property line (705.8)
- ☒ Existing structures within 30' of the proposed building
- ☒ Occupancy types for each area as it relates to occupant load calculation (Table 1004.1.1)
- ☒ Occupant loads for each area
- ☒ Exit access travel distances (1016)
- ☒ Common path of travel distances (1014.3 & 1028.8)
- ☒ Dead end lengths (1018.1.10)
- ☒ Clear exit widths for each exit door
- ☒ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.1)
- ☒ Actual occupant load for each exit door
- ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- ☒ Location of doors with panic hardware (1008.1.10)
- ☐ Location of doors with delayed egress locks and the amount of delay (1008.1.9.7)
- ☒ Location of doors with electromagnetic egress locks (1008.1.9.8)
- ☐ Location of doors equipped with hold-open devices
- ☐ Location of emergency escape windows (1029)
- ☐ The Square footage of each fire area (902)
- ☐ The square footage of each smoke compartment (407.4)
- ☐ Note any code exceptions or table notes that may have been utilized regarding the items above

EXIT REQUIREMENTS
NUMBER AND ARRANGEMENT OF EXITS

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS [2] REQ'D	SHOWN ON PLANS	TRAVEL DISTANCE: ALLOWABLE TRAVEL DISTANCE (TABLE 1016.1)	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	ARRANGEMENT MEANS OF EGRESS (SECTION 1015.2) [1,3]: REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS
RESTROOMS	1	2	200'	50'-8"	36'-6"	40'-0"
WELCOME CENTER	1	5	100'	74'-1"	58'-10"	45'-4"

Corridor dead ends (Section 1018.4, Exception 2)
Single Exits (Table 1015.1)
Common Path of Travel (Section 1014.3)

BUILDING CODE SUMMARY CONTINUED

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA [1] Sq. Ft.	(b) AREA [1] PER OCCUPANT (Table 1004.1.2)	(c) EGRESS WIDTH PER OCCUPANT (Table 1005.1) STAIR	LEVEL	EXIT WIDTH (in.) [2,3,4,5,6] REQUIRED WIDTH (Section 1005.1) (a / b) x c STAIR	LEVEL	ACTUAL WIDTH SHOWN ON PLANS STAIR	LEVEL
BUSINESS	5,900 (UNDER ROOF)	100 SF	.3	.2	---	11.8"	---	252"

See Table 1004.1.2 to determine whether net or gross area is applicable. See definition "Area, Gross", and "Area, Net" (Section 1002)
Footnote Deleted.
Minimum stairway width (Section 1009.1); Min. corridor width (Section 1016.2);
Min. door width (Section 1008.1.1)
Minimum width of exit passageway (Section 1020.2)
The loss of one means of egress shall not reduce the available capacity to less than 50 percent of the total required (Section 1005.1)
Assembly Occupancies (Section 1024)

ACCESSIBLE DWELLING UNITS (SECTION 1107) N/A

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

PLUMBING FIXTURE REQUIREMENTS

USE GROUP OR SPACE DESCRIPTION		WATERCLOSETS MALE	FEMALE	URINALS	LAVATORIES MALE	FEMALE	SHOWERS/ TUBS	DRINKING FOUNTAINS REGULAR	ACCESSIBLE
REST AREA	PROV.	6	14	6	8	8	---	SHARED W/ COMMON AREA	
	REQ'D	1		--	1		---		
WELCOME CENTER	PROV.	1		--	1		---	SHARED W/ COMMON AREA	
	REQ'D	1		--	1		---		

APPLICABLE CODES
Edition Year of Code: See List Below

☐ New Construction ☒ Renovation (Existing Building) ☐ Upfit ☐ Alteration

TRADE	CODE	EDITION
General Construction	NCSBC: Building Code	2012
Administration and Enforcement	NCSBC: Administration Code	2012
Plumbing	NCSBC: Plumbing Code	2012
Mechanical	NCSBC: Mechanical Code	2012
Electrical	National Electrical Code - NFPA 70	2008
Fire Prevention	NCSBC: Fire Prevention Code	2012
Gas	NCSBC: Fuel Gas Code	2012
Energy-Commercial	NCSBC: Energy Conservation Code	2012
Accessibility	NCSBC: Building Code: Chapter 11 & ANSI 117.1	2003
Rehabilitation	NCSBC: Rehabilitation Code	2012
Life Safety	NFPA 101 - Life Safety Code	2000 & 2012
Special Occupancy	Class	
	Code	
Special Fire Codes	NFPA 99	
	NFPA 72	
Zoning		NA

MECHANICAL SUMMARY

MECHANICAL SYSTEMS. SERVICE SYSTEMS AND EQUIPMENT N/A Existing

THERMAL ZONE
Winter Dry Bulb: 10 F
Summer Dry Bulb: 92 F
Summer Wet Bulb: 78 F

INTERIOR DESIGN CONDIDTIONS:
Offices, Conference Rooms, Admin Support
Exam/Treatment Rooms
Telecommunications Rooms
Clean and Soiled Utility Rooms
Lab Spaces
Mechanical Rooms

Building Heating Load:
Building Cooling Load:

MECHANICAL SPACING CONDITIONING SYSTEM
Unitary
Description of Unit: REFER TO MECHANICAL SHEETS
Heating Efficiency: REFER TO MECHANICAL SHEETS
Cooling Efficiency: REFER TO MECHANICAL SHEETS
Site Category of Unit: REFER TO MECHANICAL SHEETS

Boiler
Size Category. If Oversized, State Reason: N/A

Chiller
Size Category. If Oversized, State Reason: N/A

LIST EQUIPMENT EFFICIENCIES: REFER TO MECHANICAL SHEETS

ENERGY SUMMARY

NOT APPLICABLE

ENERGY REQUIREMENTS N/A Existing

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Climate Zone: ☐ 3 ☐ 4 ☐ 5
Method of Compliance:
☐ Prescriptive (Energy Code)
☐ Performance (Energy Code)
☐ Prescriptive (ASHRAE 90.1)
☐ Performance (ASHRAE 90.1)

THERMAL ENVELOPE
Roof/ceiling Assembly (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Skylights in each assembly:
U-Value of skylights:
Total square footage of skylights in each assembly:

Exterior Walls (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Openings (windows or doors with glazing)
U-Value of assembly:
Solar Heat Gain Coefficient:
Projection Factor:
Door R-Values

Walls below grade (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:

Floors over unconditioned space (each assembly)
Description of assembly:
U-Value of total assembly:
R-Value of insulation:

Floors slab on grade
Description of assembly:
U-Value of total assembly:
R-Value of insulation:
Horizontal/vertical requirement:
Slab heated:

BUILDING CODE SUMMARY CONTINUED

ELECTRICAL SUMMARY - SEE SHEET Exxx
ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance: ☒ Prescriptive ☐ Performance ☐ Energy Cost Budget ☐ N/A

Lighting Schedule

Lamp Type Required in Fixture:	Refer to Luminaire Schedule
Number of Lamps in Fixture:	Refer to Luminaire Schedule
Ballast Types Used in this Fixture:	Refer to Luminaire Schedule
Number of Ballasts in Fixture:	Refer to Luminaire Schedule
Total Wattage per Fixture:	Refer to Luminaire Schedule
Total Interior Wattage Specified vs Allowed:	Refer to Luminaire Schedule
Total Exterior Wattage Specified vs Allowed:	Refer to Luminaire Schedule

Equipment Schedules with Motors (not used for mechanical systems)
Motor Horsepower
Number of Phases
Minimum Efficiency
Motor Type
Number of Poles

STRUCTURAL DESIGN
DESIGN LOADS
Importance Factors: Wind (Iw) 1.0; Snow (Is) 1.0; Seismic (Ie) 1.0
Live Loads: Roof 20 psf; Mezzanine N/A psf; Floor 100 psf
Ground Snow Load: 15 psf
Wind Load: Basic Wind Speed 90 mph (ASCE 7); Exposure Category C

SEISMIC DESIGN CATEGORY ☐ A ☐ B ☒ C ☐ D

Provide the following Seismic Design Parameters:
Occupancy Category (Table 1604.5) ☐ I ☒ II ☐ III ☐ IV
Spectral Response Acceleration Ss 0.449 %g S1 0.111 %g
Site Classification (ASCE 7) D - Presumptive
Basic Structural System (check one)
☒ Bearing Wall ☐ Dual w/ Special Moment Frame
☐ Building Frame ☐ Dual w/ Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure ☐ Simplified ☒ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components Anchored? ☒ Yes ☐ No

LATERAL DESIGN CONTROL: ☐ Earthquake ☒ Wind
SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) ____ psf
Presumptive Bearing Capacity 1500 psf
Pile Size, Type, and Capacity

SPECIAL INSPECTIONS REQUIRED ☒ Yes ☐ No

ACCESSIBLE PARKING N/A

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	PROVIDED	# OF ACCESSIBLE SPACES PROVIDED REGULAR W/ 5' ACCESS AISLE	VAN SPACES W/ 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
TOTAL PARKING	-	-		-	-
-					
TOTAL					

SPECIAL APPROVALS
Special Approval: (Local Jurisdiction, Dept. of Insurance, SBCCI, ICC, etc., Describe Below)

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA · CLARK PATTERSON ENGINEERS/ARCHITECTS DBA CLARK PATTERSON LEE CHARLOTTE, NC 51301 · REGISTERED ARCHITECTS

TIMOTHY SCOTT KNAPP · REGISTERED ARCHITECT · 7444 · NORTH CAROLINA · CHARLOTTE, N.C. 8/28/18

DocuSigned by: 0A2A541F800F4EB... 8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE 12" = 1'-0"

SHEET TITLE: APPENDIX B

PROJECT NUMBER 14391.00

G002
DRAWING NUMBER

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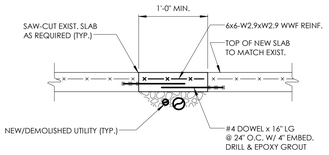
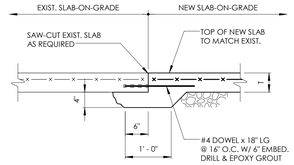


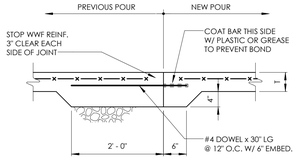
DETAIL NOTES:

1. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR UTILITY LOCATIONS.

1 S801 NEW/DEMOLISHED UTILITIES AT EXISTING SLAB-ON-GRADE DETAIL
NO SCALE



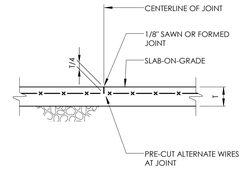
2 S801 NEW TO EXISTING SLAB-ON-GRADE CONNECTION DETAIL
NO SCALE



DETAIL NOTES:

1. FILL JOINT WITH SEALANT.
2. COAT VERTICAL SURFACE WITH OIL OR CURING COMPOUND BEFORE PLACING NEW POUR.

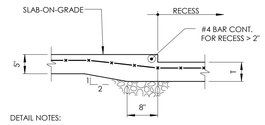
3 S801 SLAB-ON-GRADE CONSTRUCTION JOINT DETAIL
NO SCALE



DETAIL NOTES:

1. REFER TO SPECIFICATIONS FOR PROPER JOINT CONSTRUCTION AND TIMING OF PLACEMENT.

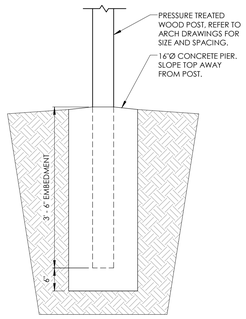
4 S801 SLAB-ON-GRADE CONTROL JOINT DETAIL
NO SCALE



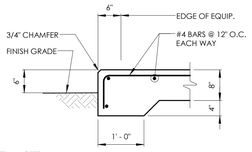
DETAIL NOTES:

1. REFER TO ARCHITECTURAL PLANS FOR SIZE, DEPTH AND LOCATION OF SLAB RECESS.

5 S801 SLAB-ON-GRADE RECESS DETAIL
NO SCALE



6 S801 TYPICAL FENCE POST FOUNDATION
NO SCALE



DETAIL NOTES:

1. COORDINATE EQUIPMENT PAD SIZE AND LOCATION WITH MECHANICAL, ELECTRICAL AND EQUIPMENT MANUFACTURER'S DRAWINGS.
2. VERIFY PAD THICKNESS WITH EQUIPMENT MANUFACTURER FOR ANCHORAGE REQUIREMENTS.

7 S801 EXTERIOR EQUIPMENT PAD DETAIL
NO SCALE

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON
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LEBA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

NORTH CAROLINA PROFESSIONAL SEAL 331320 ENGINEER
JOSEPH P. HAMMER
8/28/2018

DocuSigned by:
Joseph P. Hammer
8/28/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/18	BSC	JPR

SCALE 3/4" = 1'-0"

SHEET TITLE
TYPICAL DETAILS

PROJECT NUMBER
14391.00

S801
DRAWING NUMBER

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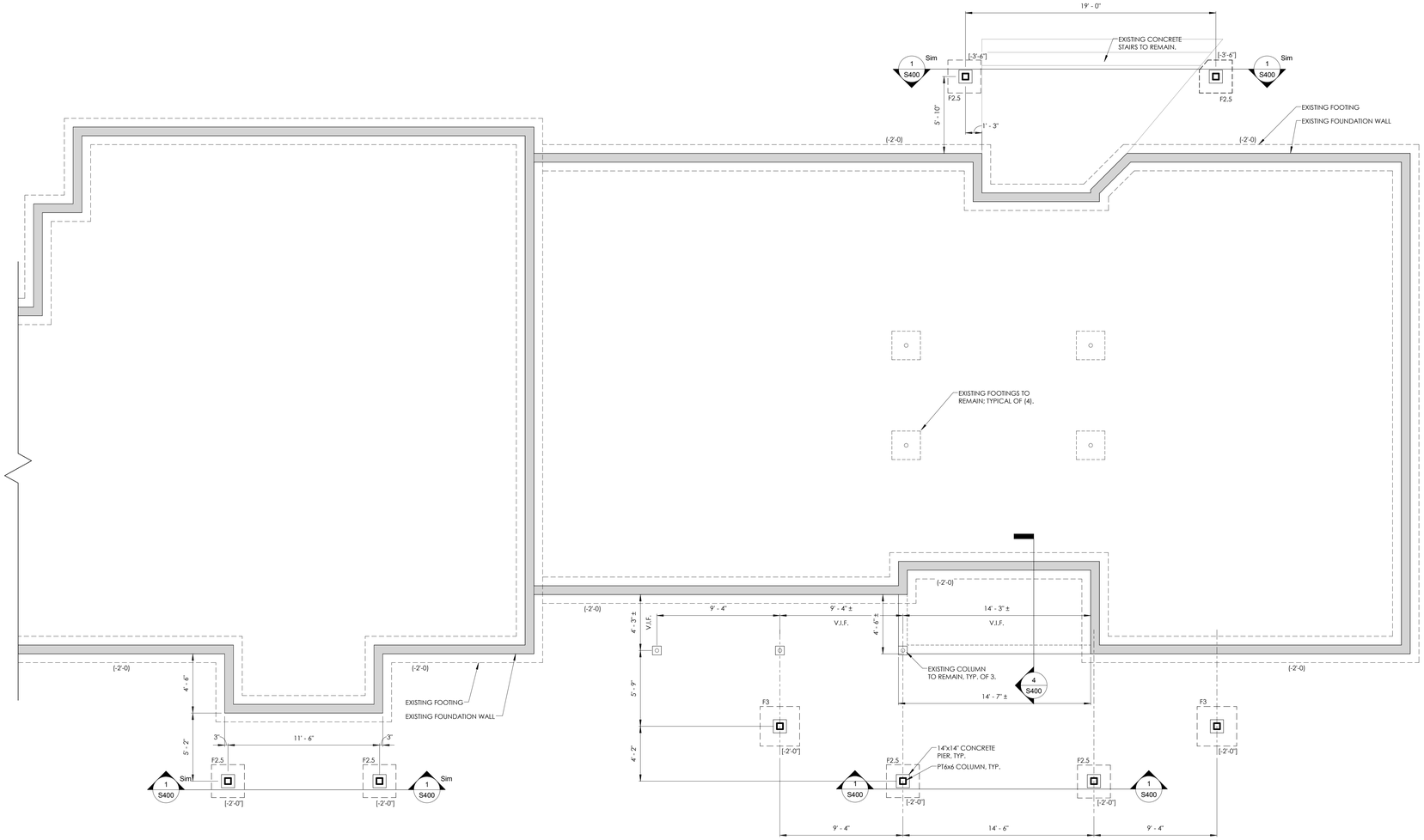

1 S200 FOUNDATION PLAN
1/4" = 1'-0"

FOUNDATION NOTES

1. DATUM 0'-0" = CIVIL ELEVATION 2420.0' = EXISTING GROUND FLOOR ELEVATION

2. FOUNDATIONS HAVE BEEN DESIGNED FOR AN ASSUMED SOIL BEARING CAPACITY OF 1500 PSF.

3. EXTERIOR FOOTINGS SHALL BEAR AT A MINIMUM OF 1'-6" BELOW FINISHED GRADE UNLESS NOTED OTHERWISE.

4. [XX'-XX"] DENOTES TOP OF PROPOSED FOOTING AS REFERENCED FROM FINISHED FLOOR ELEVATION.

5. (-XX'-XX") DENOTES TOP OF EXISTING FOOTING AS REFERENCED FROM FINISHED FLOOR ELEVATION. WHERE NEW FOOTING ABUTS, EXISTING, MATCH BEARING ELEVATION OF EXISTING.

6. SLAB-ON-GRADE SHALL BE 5" THICK, NORMAL WEIGHT CONCRETE WITH 6x6-W2.1xW2.1W.W.F. REINFORCING, UNLESS NOTED OTHERWISE, OVER 6" COMPACTED CRUSHED STONE.

7. PROVIDE CONTROL JOINTS IN SLAB-ON-GRADE. SPACING OF JOINTS SHALL NOT EXCEEDED 15'-0". JOINTS SHALL TYPICALLY ISOLATE COLUMNS AND RUN BETWEEN COLUMNS, SEE PLAN.

8. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISHES, FLOOR DRAINS, SLOPES, SLAB DEPRESSIONS, AND WATERPROOFING.

9. THE FOLLOWING DENOTES SYMBOL REPRESENTATION:
F-x.x = SPREAD FOOTING MARKS
C.J. = SLAB CONTROL JOINTS

ISOLATED COLUMN FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F2.5	2'-6" x 2'-6" x 1'-0"	3 - #5 EA. WAY, BOTTOM.
F3.0	3'-0" x 3'-0" x 1'-0"	3 - #5 EA. WAY, BOTTOM.

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CHARLOTTE, NC
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REGISTERED ARCHITECTS

NORTH CAROLINA PROFESSIONAL SEAL 51320 ENGINEER
Docusigned by: Jared L. Pfannenstiel
8/28/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/18	BSC	JPR

SCALE: As indicated

SHEET TITLE: FOUNDATION PLAN

PROJECT NUMBER: 14391.00

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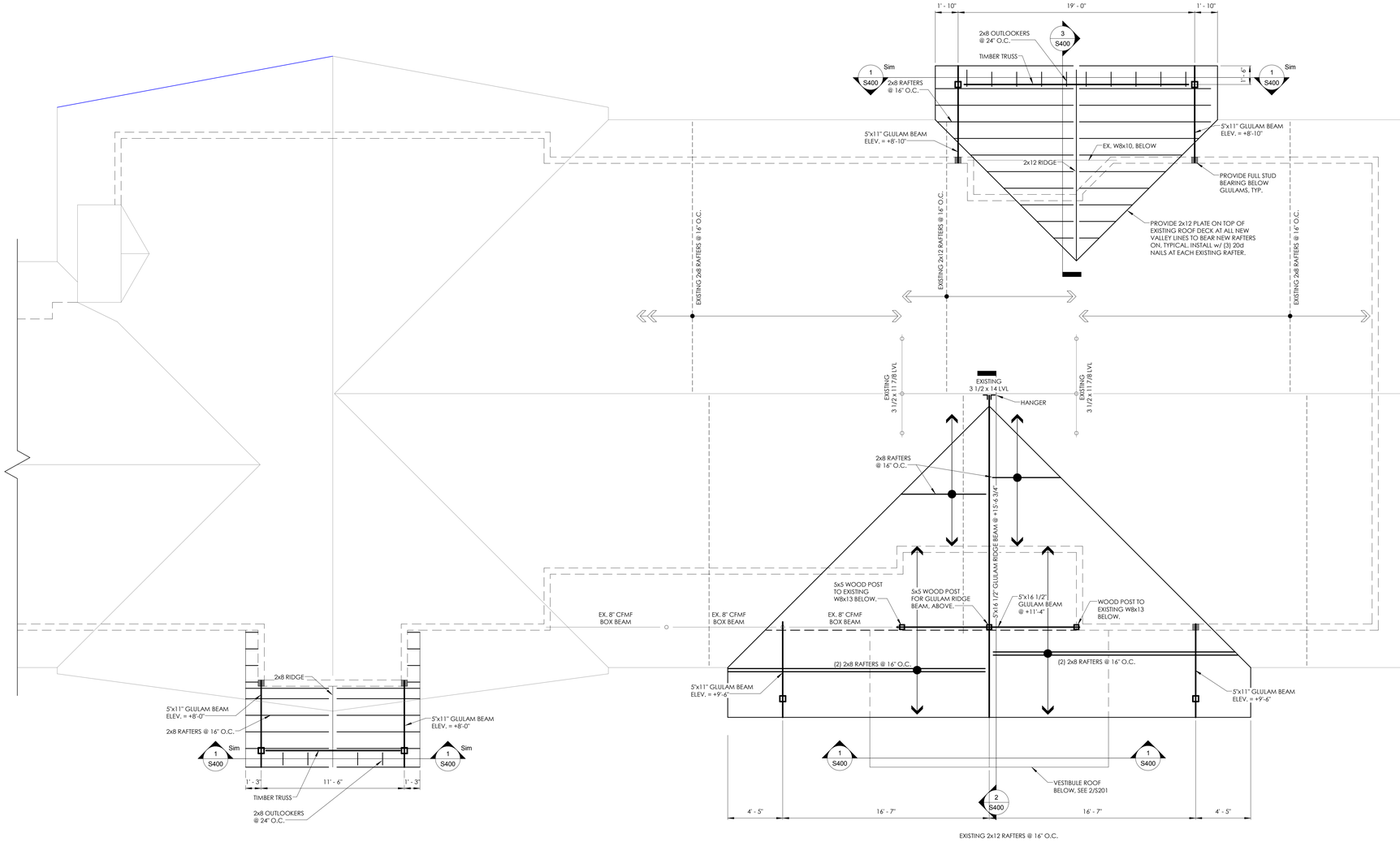
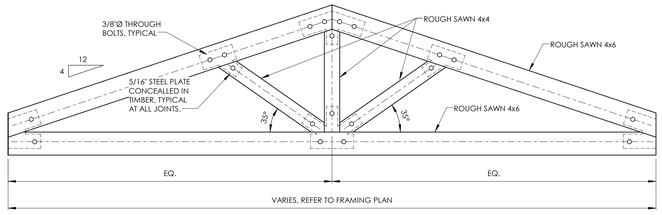


1 S201 ROOF FRAMING PLAN

1/4" = 1'-0"

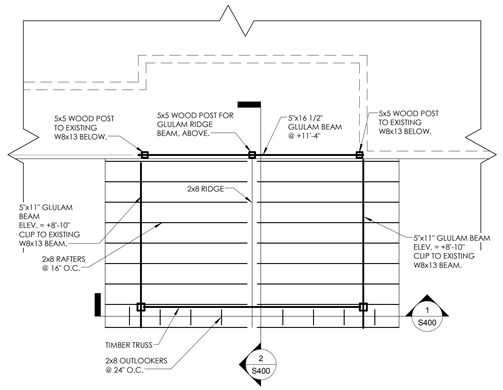
ROOF FRAMING NOTES

1. TOP OF WALL IS 9'-0" ABOVE FINISHED FLOOR.
2. ROOF SHEATHING SHALL BE 5/8" TONGUE AND GROOVE PLYWOOD.



3 S201 TIMBER TRUSS ELEVATION

3/4" = 1'-0"



2 S201 VESTIBULE ROOF FRAMING PLAN

1/4" = 1'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS D/B/A CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

NORTH CAROLINA — PROFESSIONAL ENGINEER — JOSEPH P. MANNING — 031320 — 8/28/2018

Docusigned by: Joseph P. Manning — 8/28/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET

I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/18	BSC	JPR

SCALE: As indicated

SHEET TITLE: ROOF FRAMING PLAN

PROJECT NUMBER: 14391.00

S201

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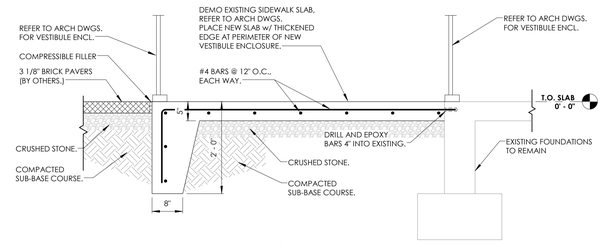
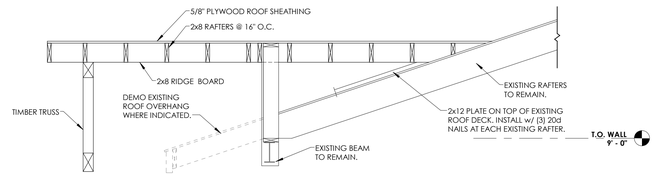
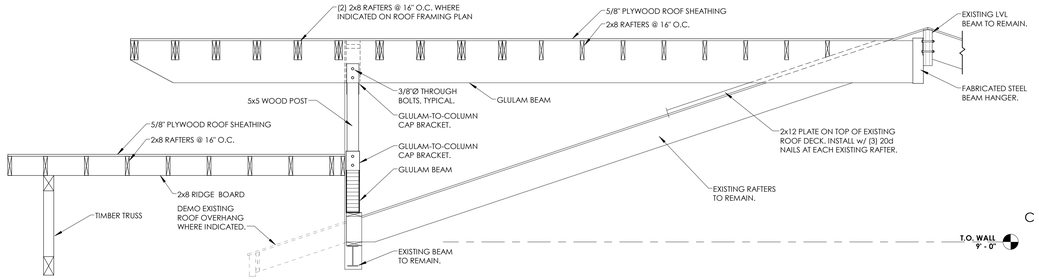


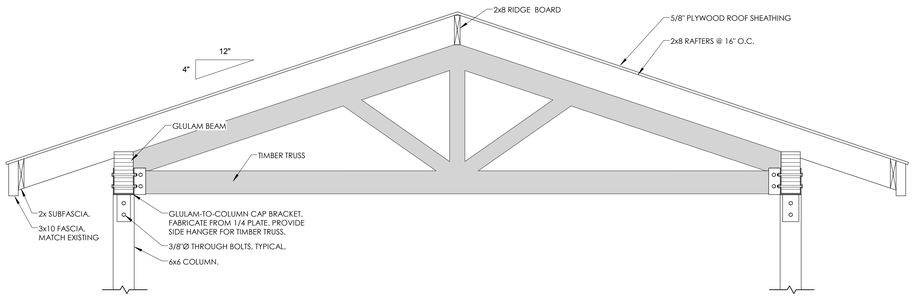
4 SECTION
S400 3/4" = 1'-0"

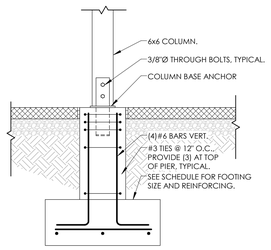


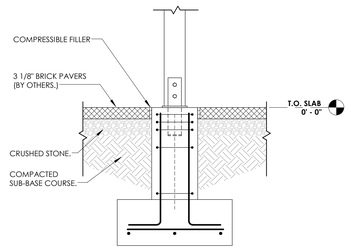
3 SECTION
S400 1/2" = 1'-0"



2 SECTION
S400 1/2" = 1'-0"







1 SECTION
S400 3/4" = 1'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERING/ARCHITECTS
LEA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

NORTH CAROLINA PROFESSIONAL SEAL 31320 ENGINEER
Lee Patterson
8/28/2018

DocuSigned by:
Lee Patterson
8/28/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/18	BSC	JPR

SCALE As indicated

SHEET TITLE
SECTIONS AND DETAILS

PROJECT NUMBER
14391.00

S400
DRAWING NUMBER

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GENERAL NOTES

1. THE STRUCTURE SHOWN ON THESE DRAWING IS SOUND ONLY IN ITS COMPLETED FORM. THE CONTRACTOR SHALL TEMPORARILY BRACE THE STRUCTURE AND ITS COMPONENTS TO RESIST ALL LATERAL FORCES DURING CONSTRUCTION.

2. REFER TO THE "SPECIAL INSPECTIONS" SECTION OF THE SPECIFICATIONS FOR PROJECT REQUIREMENTS AND PERTINENT INFORMATION.

3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS SHOWN ON THE DRAWINGS AND IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO ORDERING OR FABRICATING MATERIALS OR OTHERWISE PROCEEDING WITH THE WORK.

4. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES REQUIRED TO EXECUTE AND COMPLETE ALL ITEMS OF WORK AS SHOWN OR INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN, INCLUDING INCIDENTAL ITEMS TO EFFECT A FINISHED AND COMPLETE JOB, EVEN THOUGH SUCH ITEMS ARE NOT SHOWN OR PARTICULARLY MENTIONED.

5. ALL STRUCTURAL WORK, INCLUDING MATERIAL STRESSES AND METHODS OF CONSTRUCTION, SHALL BE IN COMPLIANCE WITH THE 2012 NORTH CAROLINA STATE BUILDING CODE, THE UNIFORM BUILDING CODE, OSHA AND GOVERNING AGENCIES HAVING JURISDICTION.

6. CONTRACTOR SHALL MAINTAIN SAFE PUBLIC ACCESS TO AND FROM ALL BUILDING EXITS AT ALL TIMES AND SHALL NOT BLOCK SHIPPING OR RECEIVING.

7. CONTRACTOR SHALL USE CONSTRUCTION METHODS THAT ARE IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

8. DIMENSIONS ARE NOT TO BE DERIVED BY SCALING THESE DRAWINGS. IF THERE ARE ANY QUESTIONS REGARDING DIMENSIONS, CONTACT THE ARCHITECT/ENGINEER FOR INFORMATION PRIOR TO SUBMITTING SHOP DRAWINGS.

9. THE CONTRACTOR SHALL COORDINATE ALL STRUCTURAL WORK WITH THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS, AND WITH THE WORK OF ALL OTHER TRADES.

10. REFER TO MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MECHANICAL OPENINGS.

11. ALL FLOOR, WALL AND CEILING PENETRATIONS THROUGH FIRE WALLS SHALL BE SEALED AGAINST SMOKE AND FIRE TRANSMISSION.

12. MATERIAL AND EQUIPMENT STORAGE SHALL BE ON SITE AND AS DIRECTED BY OWNER.

13. MAINTAIN PREMISES AND PUBLIC PROPERTIES FREE FROM ACCUMULATIONS OF WASTE MATERIALS, DEBRIS AND RUBBISH CAUSED BY OPERATIONS.

14. AFTER COMPLETION OF WORK, CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS, RUBBISH, TOOLS, AND SURPLUS MATERIALS AND CLEAN SIGHT EXPOSED SURFACES. CONSTRUCTION SITE SHALL BE ORGANIZED AND CLEANED UP BY CONTRACTOR ON A DAILY BASIS.

15. THE CONTRACTOR SHALL RESTORE TO ITS ORIGINAL CONDITION ALL SITE APPURTENANCES DAMAGED UNDER THIS CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

16. ALL MATERIAL SCHEDULED FOR DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS NOTED OTHERWISE AND SHALL BE DISPOSED OF LEGALLY.

17. ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AN SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE, UNLESS SPECIFICALLY SHOWN OTHERWISE.

19. INFORMATION IN THESE STRUCTURAL NOTES IS A SELECTED SUMMARY OF REQUIREMENTS. REFER TO SPECIFICATIONS FOR AMPLIFICATIONS OF REQUIREMENTS.

EXISTING CONSTRUCTION NOTES

1. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING FACILITY, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING STRUCTURAL AND OTHER CONDITIONS.

2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW WORK TO THE EXISTING WORK.

3. INFORMATION USED IN PREPARING THESE DRAWINGS WAS TAKEN FROM DRAWINGS PREPARED BY W. ALAN TURNER - ARCHITECT, DATED 1994.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SHORING NECESSARY TO SAFEGUARD THE EXISTING STRUCTURE.

5. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR SHORING, BRACING AND PROTECTION OF THE EXISTING CONSTRUCTION. THE PLAN SHALL INCLUDE CONSTRUCTION SEQUENCE, BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA, AND BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW PRIOR TO THE BEGINNING OF WORK.

EXCAVATION & BACKFILL NOTES

1. EXCAVATIONS TO BE SHEETED AND BRACED, OR LAID BACK TO PREVENT SLOUGHING IN OF THE EXCAVATED AREAS PER OSHA REGULATIONS.

2. PLACE ALL FOOTINGS ON FIRM, DRY, LEVEL, ACCEPTABLE BEARING SOIL.

3. REMOVE AND DISPOSE OF LEGALLY FROM SITE:
-UNACCEPTABLE BEARING SOIL
-EXCESS EXCAVATED MATERIAL
-ASPHALT MATERIAL (SEE SITE PLANS)

4. UNDER SLABS ON GRADE -COMPACTED 6 INCH LIFT OF ASTM #57 STONE.

5. BACKFILL - "SELECT GRANULAR FILL" CONSISTING OF SAND, FINE GRAVEL, COARSE SILT, OR SIMILAR NON-COHESIVE HARD DURABLE MATERIALS AND SOIL BINDERS WITHOUT EXCESSIVE CLAY, ORGANIC MATTER, OR FROZEN OR DELETERIOUS MATERIAL. GRADATION: 4 INCHES MAXIMUM SIZE, 0-70% PASSING THE #40 SIEVE AND 0-15% PASSING THE #200 SIEVE.

6. FILL COMPACTION: 90% DRY DENSITY STANDARD PROCTOR

CONCRETE NOTES: GENERAL

1. ALL CONCRETE WORK, CONSTRUCTION AND REINFORCING DETAILS SHALL CONFORM TO THE 2012 NORTH CAROLINA STATE BUILDING CODE AND "THE SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS" (ACI-318).

2. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, U.N.O. SEE SPECIFICATIONS FOR MIX DESIGN REQUIREMENTS.

LOCATION	W/C RATIO	SLUMP (±1")	% AIR (±1%)	MAXIMUM AGGREGATE	MIN. STRENGTH @ 28 DAYS
FOOTINGS	.50	3.5"	N/A	1 1/2"	3000 PSI
FOUNDATIONS	.45	3.5"	4	1 1/2"	4000 PSI
SLAB ON GRADE	.45	3.5"	4	3/4"	3000 PSI

3. CONTRACTOR SHALL SUBMIT MIX DESIGNS PROPORTIONED BY A LICENSED TESTING LABORATORY.

4. PROVIDE MINIMUM OF FOUR (4) CYLINDERS PER EACH FIFTY (50) YARDS OR FRACTION THEREOF POURED IN ONE DAY. BREAK ONE AT 7 DAYS AND TWO AT 28 DAYS.

5. ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" (ACI-315).

6. REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

7. LAP SPLICES AND EMBEDMENT LENGTHS SHALL CONFORM TO ACI 318 - CHAPTER 12.

8. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING WHERE WALLS OR BEAMS MEET AT CORNERS OR INTERSECT. THIS ALSO INCLUDES INTERSECTIONS OF CONCRETE WITH MASONRY WORK.

9. PROVIDE SHOP DRAWINGS FOR REINFORCING INCLUDING ALL NECESSARY ACCESSORIES TO HOLD REINFORCING SECURELY IN PLACE.

10. CLEAR COVER CONCRETE PROTECTION FOR REINFORCING STEEL SHALL BE:

3" - CONCRETE CAST AGAINST EARTH.
2" - FORMED SURFACES IN CONTACT WITH SOIL OR EXPOSED TO WEATHER.
1" - FORMED SURFACES NOT IN CONTACT WITH SOIL OR EXPOSED TO WEATHER.

FOUNDATIONS

1. ALL FOUNDATIONS ARE TO BEAR ON APPROVED BEARING MATERIAL.

2. ALL FOUNDATION EXCAVATIONS ARE SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE BEFORE ANY CONCRETE IS PLACED.

3. ALL FORMS AND REINFORCING STEEL IN PLACE SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE ANY CONCRETE IS PLACED.

4. NO FOUNDATION SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

5. IN GENERAL, EXTERIOR CONSTRUCTION SHALL BE CARRIED DOWN A MINIMUM OF 1'-6" BELOW FINISHED EXTERIOR GRADE.

6. CENTERLINE OF FOOTINGS, WALLS, GRADE BEAMS, COLUMNS, AND BEAMS SHALL COINCIDE, UNLESS OTHERWISE NOTED.

7. REFER TO ARCHITECTURAL DRAWINGS FOR FOUNDATION DRAINAGE.

8. ALL EXTERIOR CONCRETE USED ABOVE GRADE SHALL HAVE AN AIR ENTRAINING AGENT.

9. RUB ALL SIGHT EXPOSED CONCRETE AFTER FORMS HAVE BEEN REMOVED.

10. ALL EXPOSED CONCRETE PIER CORNERS SHALL BE CHAMFERED 3/4".

11. ALL GROUT FOR BASE PLATES SHALL BE NON-SHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.

12. ANCHOR BOLTS - ASTM F1554, Fy=36 KSI, 1" DIAMETER U.N.O.

13. ISOLATION JOINT - ASPHALT IMPREGNATED FILLER STRIP CONFORMING TO ASTM D-944.

14. CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON THE JOB BEFORE COMMENCING WORK. REFER TO ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS AND DETAILS NOT SHOWN. REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF ANY OPENING, SLEEVES, INSERTS, SLAB DEPRESSIONS, ETC.

15. EPOXY ANCHORS SHALL BE HIT HY-200 INJECTION ADHESIVE ANCHORS AS MANUFACTURED BY HILTI, INC., TULSA OK (800-879-8000).

SLABS ON GRADE

1. UNDER SLABS ON GRADE: COMPACTED 6 INCH LIFT OF ASTM #57 STONE.

2. SLAB ON GRADE REINFORCEMENT SHALL BE 6x6-W2.1x2.1WWF, UNLESS NOTED OTHERWISE.

3. WET CURE FOR 7 DAYS BEFORE APPLYING ANY WHEELED TRAFFIC OR MASONRY PARTITIONS.

4. CONTRACTION JOINTS: JOINTS SHALL BE SPACED NO FARTHER THAN 15'-0" O.C. JOINTS SHALL TYPICALLY RUN BETWEEN COLUMNS AND TERMINATE AT A COLUMN ISOLATION POUR. THE LENGTH OF ANY INDIVIDUAL JOINTED AREA SHALL NOT EXCEED 1.5 TIMES ITS WIDTH.

5. CONSTRUCTION/COLD JOINTS: TERMINATE DAY'S CONCRETE WORK AT A CONTROL JOINT LOCATION. PROVIDE A KEYWAY OR DOWELS FOR CONTINUATION OF WORK WITH NEXT POUR.

6. CONCRETE SURFACE SHALL BE HARD STEEL TROWEL FINISH.

7. FOR FLOOR FINISH, FLOOR DRAINS, SLAB DEPRESSIONS, AND WATERPROOFING DETAILS SEE ARCHITECTURAL DRAWINGS.

GENERAL FRAMING

1. DETAILS OF WOOD FRAMING SUCH AS NAILING, BLOCKING, BRIDGING, FIRESTOPPING, ETC. SHALL CONFORM TO 2012 NORTH CAROLINA STATE BUILDING CODE.

2. DO NOT NOTCH, BORE, OR CUT MEMBERS FOR PIPES, DUCTS, CONDUITS, OR ANY OTHER REASON EXCEPT AS SHOWN ON THE DRAWINGS OR AS SPECIFICALLY APPROVED IN ADVANCE BY THE ENGINEER.

3. MAKE ALL BEARINGS FULL UNLESS OTHERWISE INDICATED ON THE DRAWINGS. FINISH ALL BEARING SURFACES ON WHICH STRUCTURAL MEMBERS ARE TO REST SO AS TO GIVE SURE AND EVEN SUPPORT. WHERE FRAMING MEMBERS SLOPE, CUT OR NOTCH THE ENDS AS REQUIRED TO GIVE UNIFORM BEARING SURFACE.

4. ON ALL FRAMING MEMBERS TO RECEIVE A FINISHED WALL OR CEILING, ALIGN THE FINISHED SUBSURFACE TO VARY NOT MORE THAN 1/8" FROM THE PLANE OF SURFACE OF ADJACENT FRAMING AND FURRING MEMBERS.

5. PLACE ALL PLYWOOD SHEATHING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND CONTINUOUSLY OVER AT LEAST THREE SUPPORTS. CENTER JOINTS ACCURATELY OVER SUPPORTS, STAGGER THE END JOINTS OF PLYWOOD PANELS TO ACHIEVE CONTINUITY OVER TRUSSES.

6. NAILING

A. USE ONLY COMMON WIRE NAILS OR SPIKES OF THE DIMENSIONS SHOWN ON THE NAILING SCHEDULE, EXCEPT WHERE OTHERWISE CALLED FOR ON THE DRAWINGS.

B. FOR CONDITIONS NOT COVERED IN THE NAILING SCHEDULE, PROVIDE PENETRATION INTO THE PIECE OF RECEIVING THE POINT OF NOT LESS THAN 1/2 THE LENGTH OF THE NAIL OR SPIKE PROVIDED, HOWEVER, THAT 16D NAILS MAY BE USED TO CONNECT TWO PIECES OF TWO INCH NOMINAL THICKNESS.

C. DO ALL NAILING WITHOUT SPLITTING WOOD. PRE-BORE AS REQUIRED. REPLACE ALL SPLIT MEMBERS.

7. BOLTING - DRILL HOLES 1/16 INCH LARGER IN DIAMETER THAN THE BOLTS BEING USED. DRILL STRAIGHT AND TRUE FROM ONE SIDE ONLY. BOLT THREADS SHALL NOT BEAR ON WOOD. USE WASHERS UNDER HEAD AND NUT WHERE BOTH BEAR ON WOOD; USE WASHERS UNDER ALL NUTS.

8. SCREWS - FOR LAG SCREWS AND WOOD SCREWS, PRE-BORE HOLES SAME DIAMETER AS ROOT OF THREAD; ENLARGE HOLES TO SHANK DIAMETER FOR LENGTH OF SHANK. SCREW, DO NOT DRIVE, ALL LAG SCREWS AND WOOD SCREWS.

9. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED SHALL BE IN ACCORDANCE WITH ASTM A153.

FRAMING MATERIALS

1. FRAMING LUMBER (NOMINAL 2" THICK) SHALL BE KILN DRIED No. 2 HEM-FIR, No. 1/No. 2 SPRUCE-PINE-FIR, OR No. 2 DOUGLAS FIR, SURFACED FOUR SIDES, CONFORMING TO THE FOLLOWING REQUIREMENTS.

A. MOISTURE CONTENT NOT TO EXCEED 19%.

B. MINIMUM ALLOWABLE BENDING STRESS (Fb) TO BE NOT LESS THAN 875 PSI.

C. MINIMUM ALLOWABLE COMPRESSIVE STRESS (Fc) TO BE NOT LESS THAN 1150 PSI.

D. MINIMUM ALLOWABLE HORIZONTAL SHEAR STRESS (Fv) TO BE NOT LESS THAN 135 PSI.

E. MODULUS OF ELASTICITY: E = 1,400,000 PSI.
Emin = 510,000 PSI.

F. EACH PIECE OF LUMBER CLEARLY MARKED WITH GRADE MARK OF APPLICABLE GRADING ASSOCIATION.

G. EACH PIECE OF LUMBER MUST BE SOUND, THOROUGHLY SEASONED, WELL MANUFACTURED AND FREE OF EXCESSIVE WARP THAT CANNOT BE CORRECTED BY PROPER NAILING. SPLIT LUMBER SHALL BE REJECTED.

2. PLYWOOD SHEATHING SHALL CONFORM TO U.S. VOLUNTARY PRODUCT STANDARD PS1-95 AND/OR PS2-92.

A. ROOF SHEATHING: 5/8" APA RATED EXPOSURE 1, SPAN RATING 40/20.

B. WALL SHEATHING: 1/2" APA RATED EXPOSURE 1, SPAN RATING 32/16.

3. WOOD THAT IS EMBEDDED IN EARTH OR CONCRETE, OR PLACED 0N CONCRETE IN DIRECT CONTACT WITH THE EARTH, OR DIRECTLY EXPOSED TO WEATHER SHALL BE PRESERVATIVE-TREATED INCLUDING BUT NOT LIMITED TO POSTS, BEAMS, COLUMNS, JOISTS, SLEEPERS, SILLS, AND SOLE PLATES.

4. NAILS - COMMON NAILS, EXCEPT WHERE NOTED, MEETING FEDERAL SPECIFICATION FF-N-1-1. USE GALVANIZED NAILS AT ALL EXPOSED LOCATIONS.

5. JOIST HANGERS AND FRAMING ANCHORS - MINIMUM 14 GA. MATERIAL, EXCEPT WHERE NOTED OR RECOMMENDED BY ACCEPTABLE MANUFACTURERS.

6. MISCELLANEOUS FASTENERS:

A. LAG SCREWS - HEX HEAD, CONFORMING TO FEDERAL SPECIFICATIONS FF-B-561. 3/8" DIAMETER EXCEPT AS NOTED. LENGTH OF EMBEDMENT 75% OF MEMBER THICKNESS, MAXIMUM 6".

B. MACHINE BOLTS AND THREADED RODS - ASTM A307, 5/8" DIAMETER EXCEPT WHERE NOTED.

C. STEEL HARDWARE - ASTM A36.

7. PROVIDE BOLTING ASSEMBLY INCLUDING PLATE WASHERS, LOCK WASHERS, NUTS BOLTS, ETC.

FASTENING SCHEDULE

	CONNECTION	ALLOWABLE FASTENERS	LOCATION / METHOD
1	STUD TO TOP/SOLE PLATE	(3) 16d COMMON (4) 3" x 0.131" NAIL	END NAIL
2	DOUBLE STUDS	16d COMMON @ 16" O.C. 3" x 0.131" NAIL @ 8" O.C.	FACE NAIL
3	DOUBLE TOP PLATES	16d COMMON @ 16" O.C. 3" x 0.131" NAIL @ 12" O.C.	TYPICAL FACE NAIL
	DOUBLE TOP PLATES	(8) 16d COMMON (12) 3" x 0.131" NAIL	AT LAP SPLICES
4	BLOCKING BETWEEN JOISTS, TRUSSES, OR RAFTERS TO TOP PLATE	(3) 8d COMMON (3) 3" x 0.131" NAIL	TOENAIL
5	TOP PLATES, LAPS, AND INTERSECTIONS	(2) 16d COMMON (3) 3" x 0.131" NAIL	FACE NAIL
6	CEILING JOISTS TO PLATE	(3) 8d COMMON (5) 3" x 0.131" NAIL	TOE NAIL
7	CONTINUOUS HEADER TO STUD	(4) 8d COMMON (4) 3" x 0.131" NAIL	TOE NAIL
8	CEILING JOISTS TO PARALLEL RAFTERS	(3) 16d COMMON, MIN. (4) 3" x 0.131" NAIL	FACE NAIL
9	RAFTER / TRUSS TO TOP PLATE	(3) 16d COMMON (4) 3" x 0.131" NAIL	TOENAIL UPLIFT TIES ALSO REQUIRED
10	BUILT UP CORNER STUDS	16d COMMON @ 24" O.C. 3" x 0.131" NAIL @ 16" O.C.	
11	BUILT UP GIRDER AND BEAMS	20d COMMON @ 24" O.C. 3" x 0.131" NAIL @ 16" O.C.	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
12	COLLAR TIE TO RAFTER	(3) 10d COMMON (4) 3" x 0.131" NAIL	FACE NAIL
13	JACK RAFTER TO HIP	(3) 10d COMMON (4) 3" x 0.131" NAIL	TOENAIL
		(2) 16d COMMON (3) 3" x 0.131" NAIL	FACE NAIL
14	ROOF RAFTER TO 2x RIDGE	(2) 16d COMMON (3) 3" x 0.131" NAIL	TOENAIL
		(2) 16d COMMON (3) 3" x 0.131" NAIL	FACE NAIL
15	PANEL EDGE BLOCKING	(3) 8d COMMON (3) 3" x 0.131" NAIL	TOE NAIL
16	STRUCTURAL WOOD PANEL FLOOR AND ROOF SHEATHING	8d NAILS 2 3/8" x 0.113" NAIL	PATTERN: 6" O.C. PANEL PERIMETER, 12" O.C. AT INTERMEDIATE SUPPORTS
17	STRUCTURAL WOOD PANEL WALL SHEATHING	8d NAILS 2 3/8" x 0.113" NAIL	PATTERN: 6" O.C. PANEL PERIMETER, 12" O.C. AT INTERMEDIATE SUPPORTS
18	STRUCTURAL WOOD PANEL SHEARWALL PANEL SHEATHING	8d NAILS ONLY	PATTERN: 4" O.C. PANEL PERIMETER, 12" O.C. AT INTERMEDIATE SUPPORTS

DESIGN CRITERIA

1. BUILDING OCCUPANCY CATEGORY II

2. DESIGN LOADS AND INFORMATION:

A. FLOOR LIVE LOADS......

1. GROUND FLOOR: 100 PSF.

B. ROOF LIVE LOAD...... 20 PSF

C. SNOW LOAD......

1. GROUND SNOW LOAD [Pg] = 15 PSF (ELEV. = 2420.0')
2. FLAT ROOF SNOW LOAD [Pf] = 12.6 PSF
3. SNOW EXPOSURE FACTOR [Ce] = 1.0
4. SNOW IMPORTANCE FACTOR [Is] = 1.0
5. THERMAL FACTOR [Ct] = 1.0

D. WIND DESIGN CRITERIA......

1. BASIC WIND SPEED (3-SECOND GUST) = 90 MPH
2. WIND IMPORTANCE FACTOR [Iw] = 1.0
3. WIND EXPOSURE: C
4. INTERNAL PRESSURE COEFFICIENT [GCpi] = ±0.18
5. COMPONENTS AND CLADDING (SEE DIAGRAM)
6. NET UPLIFT = 20 PSF

E. SEISMIC DESIGN CRITERIA......

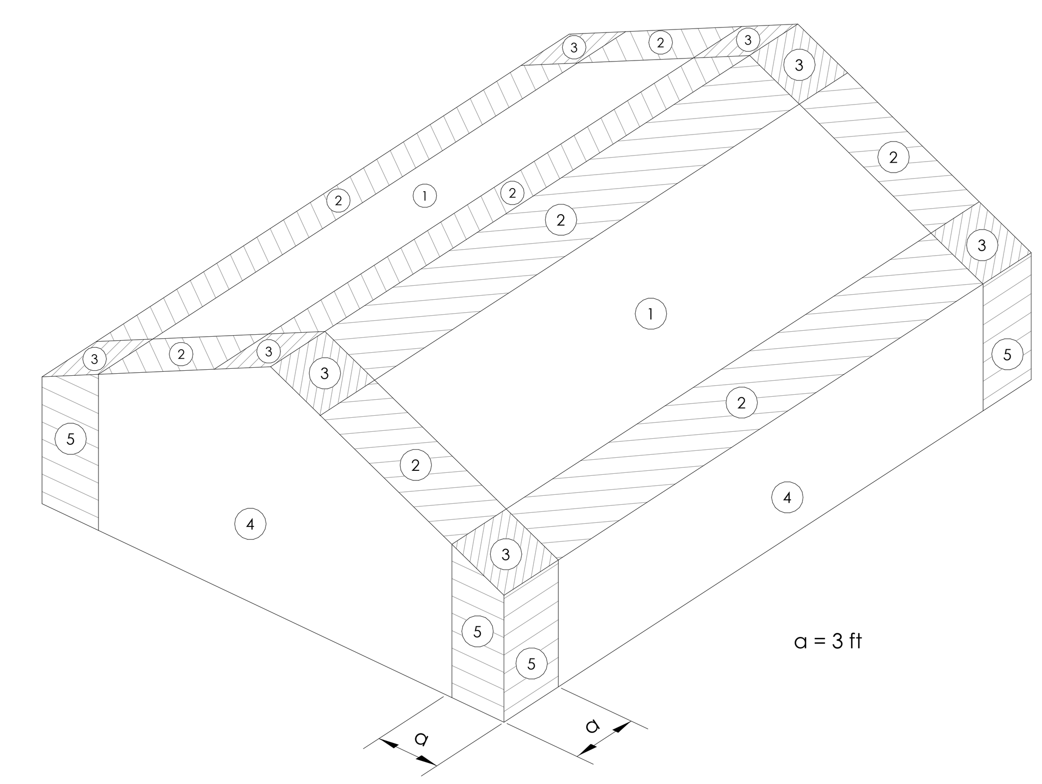
1. SEISMIC IMPORTANCE FACTOR [Ie] = 1.0
2. MAPPED SPECTRAL RESPONSE ACCELERATIONS:
Ss = 0.449g
S1 = 0.111g
3. SITE CLASS D
4. SPECTRAL RESPONSE COEFFICIENTS:
SDs = 0.431g
SD1 = 0.174g
5. SEISMIC DESIGN CATEGORY: C
6. BASIC SEISMIC FORCE RESISTING SYSTEM: A-13
(BEARING WALL SYSTEM: LIGHT FRAMED WALLS w/ WOOD STRUCTURAL PANEL SHEAR WALLS)
7. DESIGN BASE SHEAR = 2 KIPS
8. SEISMIC RESPONSE COEFFICIENT (Cs) = 0.066
9. RESPONSE MODIFICATION FACTOR (R) = 6.5
10. ANALYSIS PROCEDURE: EQUIV. LATERAL FORCE METHOD
11. ALLOWABLE STRESS DESIGN METHOD (ASD) UTILIZED IN THE STRUCTURAL DESIGN OF THIS PROJECT.

F. FOUNDATION DESIGN CRITERIA......

1. ALLOWABLE BEARING PRESSURE = 1500 PSF.
2. MINIMUM CONSTRUCTION DEPTH = 18" BELOW FINISHED GRADE.
3. MODULUS OF SUBGRADE = 110 PCI

G. FLOOD LOAD......
THIS STRUCTURE IS NOT LOCATED IN A FLOOD HAZARD AREA.

H. SPECIAL LOADS...... N/A



COMPONENTS AND CLADDING PRESSURES

	COMPONENT TRIBUTARY AREA				
ZONE	10 SQ. FT.	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.	500 SQ. FT.
1	16.1 psf	15.7 psf	15.1 psf	14.6 psf	14.6 psf
2	28.1 psf	25.9 psf	22.9 psf	20.6 psf	20.6 psf
3	41.5 psf	38.8 psf	35.2 psf	32.5 psf	32.5 psf
4	19.2 psf	18.3 psf	17.3 psf	16.5 psf	14.6 psf
5	23.6 psf	22.1 psf	20.0 psf	18.3 psf	14.6 psf

COMPONENTS AND CLADDING DIAGRAM

1. PRESSURES ARE ASSUMED TO ACT IN EITHER DIRECTION.

Clark Patterson Lee
ARCHITECTURE | ENGINEERING | PLANNING
6302 Fairview Rd., Suite 102
Charlotte, North Carolina, 28210
Tel: (800) 274-9000
Fax: (704) 331-0402
www.clarkpatterson.com

Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA CLARK PATTERSON ENGINEERS/ARCHITECTS DBA CLARK PATTERSON LEE CHARLOTTE, NC 51301 REGISTERED ARCHITECTS

NORTH CAROLINA PROFESSIONAL SEAL 031320 ENGINEER JOSEPH P. RASCH 8/28/2018

DocuSigned by:

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/18	BSC	JPR

SCALE As indicated

SHEET TITLE
STRUCTURAL NOTES

PROJECT NUMBER
14391.00

S800
DRAWING NUMBER

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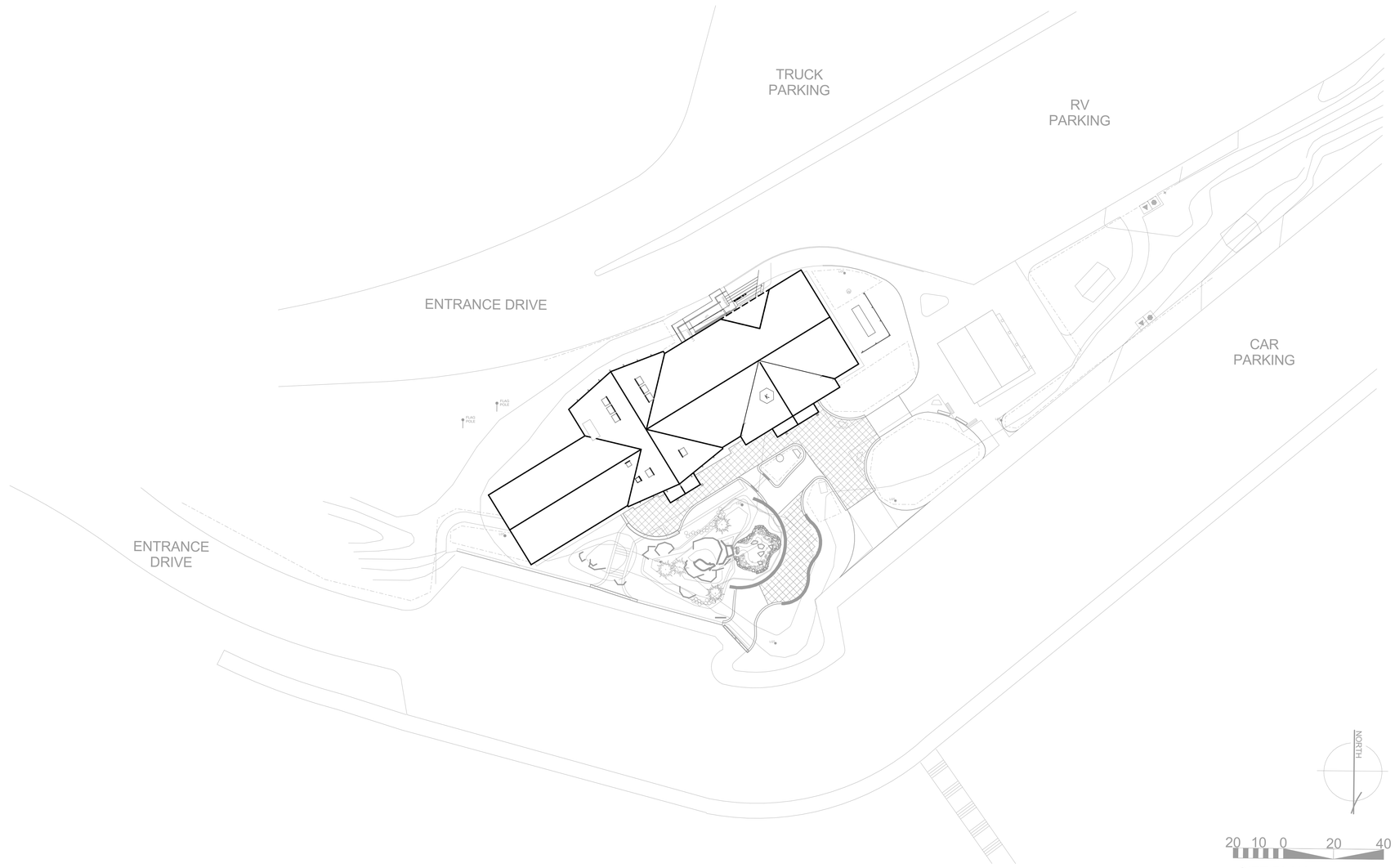
GENERAL SITE NOTES

1. SITEWORK SHOWN FOR REFERENCE ONLY. RE: LANDSCAPE DWGS
2. CONTRACTOR TO COORDINATE BUILDING RENOVATION CONTRACT WITH LANDSCAPE WORK.



1 A000 **ARCHITECTURAL SITE PLAN**
1" = 20'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
D/B/A CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT WHITE
REGISTERED LANDSCAPE ARCHITECT
1744
NORTH CAROLINA
CHARLOTTE, N. C.
DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG
SCALE	As indicated	

SHEET TITLE
ARCHITECTURAL SITE PLAN

PROJECT NUMBER
14391.00

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DRAWING NUMBER

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1994 CODE SUMMARY (PER 1994 DWG APPENDIX B)

OCCUPANCY: BUSINESS

CONSTRUCTION TYPE:
WELCOME CENTER: TYPE IV (1JP)
REST AREA: TYPE V (P)

SPRINKLERED: NO

BUILDING HEIGHT: 17 FEET, 1 STORY

	SF UNDER ROOF	SF HEATED
BUILDING AREA:	5,950	4,900

ALLOWABLE BUILDING AREA: WELCOME: 9,005 REST AREA: 21,000SF

AREA INCREASE: NO

FIRE RESISTANCE RATINGS

	REQ. HOURLY RATING
EXTERIOR BEARING WALLS:	
NORTH	1HR
EAST	1HR
WEST	-
SOUTH	1HR
EXTERIOR NON-BEARING WALLS:	
NORTH	-
EAST	1HR
WEST	-
SOUTH	-
INTERIOR WALLS:	
BEARING	1HR
NON-BEARING	1HR
TENANT SEPARATION	2HR
CEILING/ FLOOR ASSEMBLY	-
BEAMS	1HR
COLUMNS	1HR
CEILING/ROOF	1HR
VERTICAL SHAFTS	-
MIXED OCCUPANCY SEPARATION	-

CURRENT/ PROPOSED CODE SUMMARY UNDER NCSBC 2012

OCCUPANCY: BUSINESS

CONSTRUCTION TYPE:
WELCOME CENTER: TYPE VB
REST AREA: TYPE VB

SPRINKLERED: NO

BUILDING HEIGHT: 17 FEET, 1 STORY

	SF UNDER ROOF	SF HEATED
BUILDING AREA:	5,950	4,900

ALLOWABLE BUILDING AREA: 9,000 SQFT

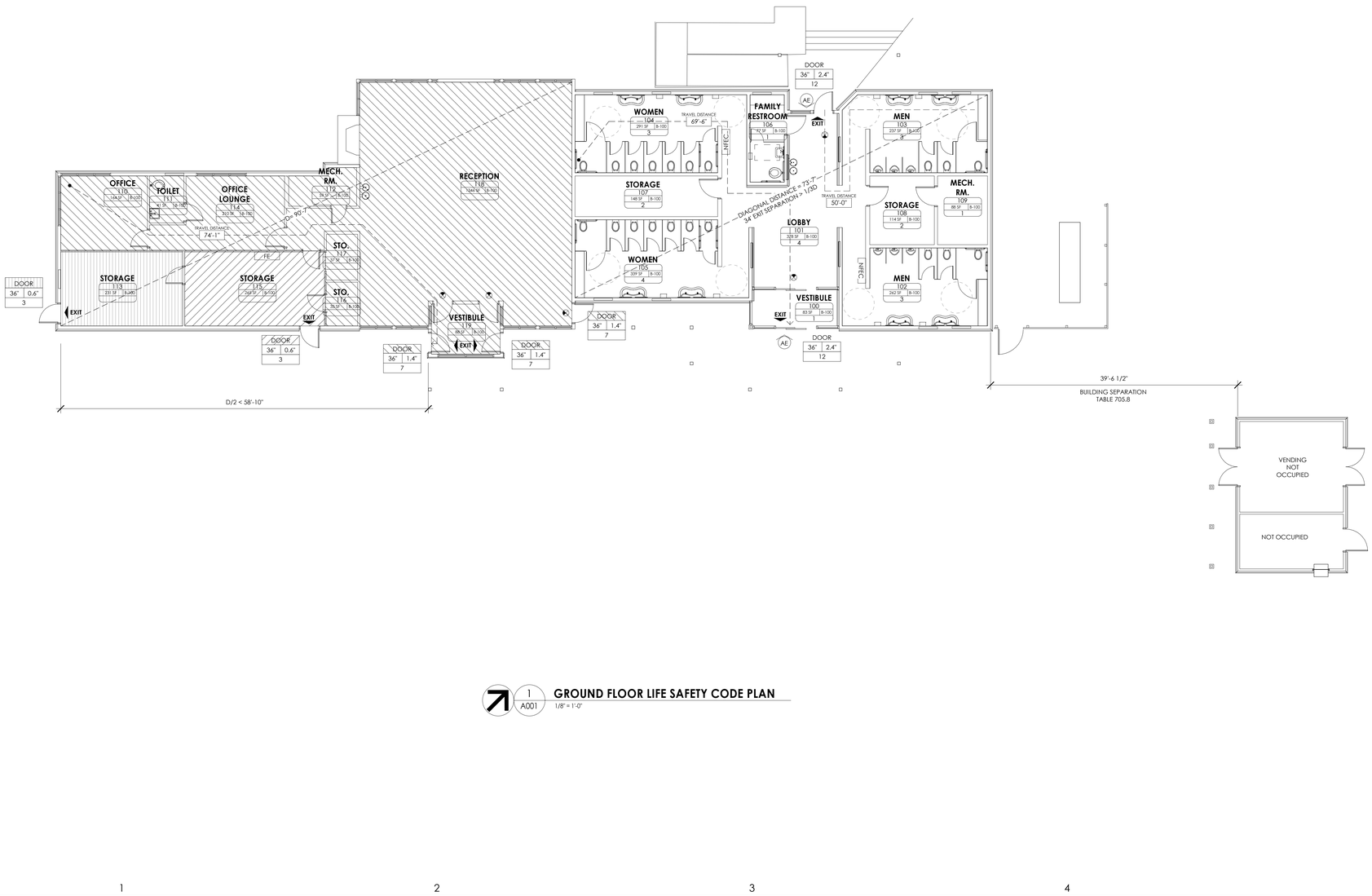
AREA INCREASE: NO

FIRE RESISTANCE RATINGS

	REQ. HOURLY RATING	PROVIDED
EXTERIOR BEARING WALLS:		
NORTH	0	0
EAST	0	0
WEST	0	0
SOUTH	0	0
EXTERIOR NON-BEARING WALLS:		
NORTH	0	0
EAST	0	0
WEST	0	0
SOUTH	0	0
INTERIOR WALLS:		
BEARING	0	0
NON-BEARING	0	0
TENANT SEPARATION	0	N/A
CEILING/ FLOOR ASSEMBLY	0	0
BEAMS	0	0
COLUMNS	0	0
CEILING/ROOF	0	0
VERTICAL SHAFTS	N/A	N/A
MIXED OCCUPANCY SEPARATION	N/A	N/A

SYMBOL LEGEND

AE	ACCESSIBLE BUILDING ENTRANCE
EXIT	EXIT
3.0	EXIT UNITS
EAD	EXIT ACCESS DOOR
ED	EXIT DISCHARGE
HE	HORIZONTAL EXIT
	EXIT SIGN
ROOM NAME 101 2000 SF 15 100	ROOM NAME ROOM NUMBER ROOM AREA OCCUPANT LOAD FACTOR OCCUPANT LOAD
STAIR A 60" 44" 100	PROVIDED WIDTH REQUIRED WIDTH ANTICIPATED LOAD
DOOR 36" 20" 100	CLEAR WIDTH REQUIRED WIDTH ANTICIPATED LOAD
AoR	AREA OF REFUGE
RW	RESCUE WINDOW
TRAVEL DISTANCE 20'-0"	TRAVEL DISTANCE TO EXIT
COMMON DISTANCE 20'-0"	COMMON PATH OF EGRESS DISTANCE
MAXIMUM TRAVEL DISTANCE 12	MAXIMUM TRAVEL DISTANCE TO EXIT
	MAXIMUM COMMON PATH OF EGRESS
	NON-RATED SMOKE TIGHT BARRIER
	1 HOUR FIRE RATED & SMOKE BARRIER
	1 HOUR RATED FIRE PARTITION
	1 HOUR RATED FIRE BARRIER
	2 HOUR RATED FIRE BARRIER
	2 HOUR RATED BUILDING SEPARATION
	SUITES
	STOREFRONT IN SMOKE PARTITION
	EXIT ACCESS CORRIDOR
NFEC	NEW SEMI-RECESSED FIRE EXTINGUISHER CABINET
NFHC	NEW FIRE HOSE CABINET
FE	FIRE EXTINGUISHER (NO CABINET)
FEB	FIRE EXTINGUISHER BRACKET



1 A001 **GROUND FLOOR LIFE SAFETY CODE PLAN**
1/8" = 1'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
D/B/A CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT HAYES
7444
NORTH CAROLINA
REGISTERED LANDSCAPE ARCHITECT
CHARLOTTE, N. C.
8/30/2018
DocuSigned by:
Signature

8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA
RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: LIFE SAFETY PLAN

PROJECT NUMBER: 14391.00

A001
DRAWING NUMBER

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DEMOLITION GENERAL NOTES

1. IT IS THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH ALL DETAILS INVOLVED IN THE DEMOLITION CONTRACT. SPECIFIC INSTRUCTION ON EACH ITEM WILL NOT BE GIVEN.
2. GC IS RESPONSIBLE FOR KEEPING BUILDING WEATHERTIGHT DURING DEMOLITION WORK.
3. GC IS TO PROVIDE DUST CONTROL BARRIERS AT ALL AREAS OF CONSTRUCTION.
4. GC WILL SALVAGE ANY ITEMS PER OWNERS LIST (TBD).
5. PC = PLUMBING CONTRACTOR, EC = ELECTRICAL CONTRACTOR, MC = MECHANICAL CONTRACTOR
6. PATCH WALLS, FLOORS AND CEILINGS AT ALL WALL REMOVALS, TO MATCH SCHEDULED FINISHES.
7. WORK AREAS SHALL BE MAINTAINED AND LEFT BROOM CLEANED AT END OF EACH DAY.
8. DISPLAYS TO BE RELOCATED PER NEW WORK PLANS.
9. EXISTING BUILDING AND STRUCTURE TO REMAIN EXCEPT AS NOTED.

DEMOLITION KEYNOTES

X#

CEILINGS

C1 PATCH/REPAIR AND PAINT EXISTING CEILING.

C2 REMOVE AND DISPOSE OF EXISTING CEILING-MOUNTED LIGHTING FIXTURES.

DOORS AND WINDOWS

D1 REMOVE AND DISPOSE OF EXISTING WINDOW SYSTEM. TO BE REPLACED WITH NEW WINDOW SYSTEM OF SAME SIZE. REFER TO NEW WORK PLANS.

D2 REMOVE AND DISPOSE OF EXISTING DOOR IN ITS ENTIRETY. EXISTING FRAME TO REMAIN. NEW DOOR TO BE INSTALLED IN EXISTING FRAME.

D3 REMOVE AND DISPOSE OF EXISTING DOOR AND FRAME IN ITS ENTIRETY. NEW SLIDING DOOR TO BE INSTALLED IN THIS LOCATION.

D4 REMOVE AND DISPOSE OF EXISTING WINDOWS SYSTEMS AND CONNECTED WALL.

FLOORS

F1 REMOVE AND DISPOSE OF EXISTING FLOORING AND BASE IN ITS ENTIRETY. PREPARE SLAB TO RECEIVE NEW FLOORING. PATCH AND REPAIR AS NECESSARY.

F2 REMOVE EXISTING SLAB TO EXTENT SHOWN IN HATCH. PREP AREA TO RECIEVE NEW SLAB. REFER TO STRUCTURAL DWGS.

MECHANICAL, ELECTRICAL, PLUMBING

E1 REMOVE AND DISPOSE OF EXISTING EQUIPMENT. PATCH WALLS AS NEEDED.

P1 REMOVE AND DISPOSE OF EXISTING FIXTURE. TO BE REPLACED WITH NEW FIXTURE IN SAME OR SIMILAR LOCATION. PATCH WALLS AND FLOOR AS NECESSARY.

MISCELLANEOUS

M1 REMOVE AND DISPOSE OF EXISTING MILLWORK AND PATCH WALLS AS NECESSARY.

M2 REMOVE AND DISPOSE OF EXISTING TOILET ACCESSORIES AND MIRRORS. PATCH WALLS AS NECESSARY.

M3 REMOVE EXISTING DISPLAY BOARDS. REPLACE WITH NEW IN SAME LOCATION. SEE DETAIL IN NEW WORK PLANS.

M4 REMOVE REINSTALL EXISTING ALUMINUM SIGNAGE

M5 REMOVE EXISTING ROOF COVERING TO SHEATHING. INSTALL NEW ROOFING UNDERLAYMENT AND NEW SHINGLES. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS.

WALL

W1 REMOVE EXISTING TONGUE AND GROOVE OR WALL TILE FINISH AND PREP. TO RECEIVE NEW DRYWALL FINISH. SALVAGE 100SQFT OF TONGUE AND GROOVE FOR REUSE PER NEW WORK PLANS.

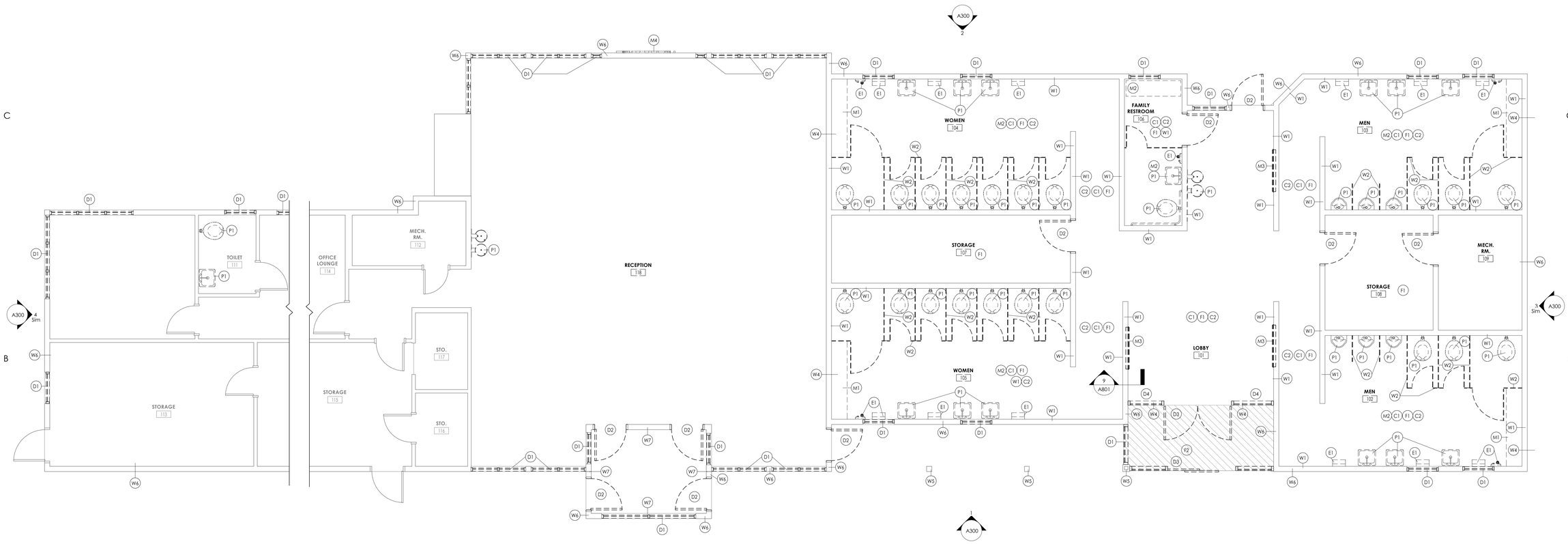
W2 REMOVE AND DISPOSE OF EXISTING TOILET PARTITIONS. PATCH WALLS AND FLOORS AS NECESSARY.

W4 DEMO PORTION OF EXISTING WALL TO INSTALL STEEL ANGLE FRAME. REFER TO 1/A810.

W5 REMOVE EXISTING WOOD CLADDING AT ALL EXTERIOR COLUMNS. PREP TO RECEIVE NEW CLADDING.

W6 REMOVE EXISTING SIDING AND AIR BARRIER - REPLACE ANY ROTTED SUBSTRATE TO SUITABLE CONDITION. REPAIR DAMAGED OR COMPACTED INSULATION. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL NEW AIR BARRIER AND SIDING. FINISH PER SCHEDULE.

W7 REMOVE AND DISPOSE OF EXISTING EXTERIOR WALL CLADDING AND PREP. TO RECEIVE NEW FIBER CEMENT PANEL. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS.



1 A100 **GROUND FLOOR DEMOLITION PLAN**

1/4" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS LLBA CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT HAYES — 7444 — REGISTERED — NORTH CAROLINA — CHARLOTTE, N. C. — 8/30/2018
DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA
RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: ENLARGED DEMOLITION PLAN

PROJECT NUMBER: 14391.00

A100
DRAWING NUMBER

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FLOOR PLAN KEYNOTES

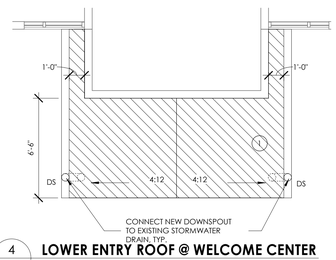
#	
1	PAINT EXISTING CEILING. REFER TO I-SERIES DRAWINGS.
2	REPLACE EXISTING DRINKING FOUNTAIN WITH NEW. REFER TO PLUMBING DRAWINGS.

ROOF PLAN KEYNOTES

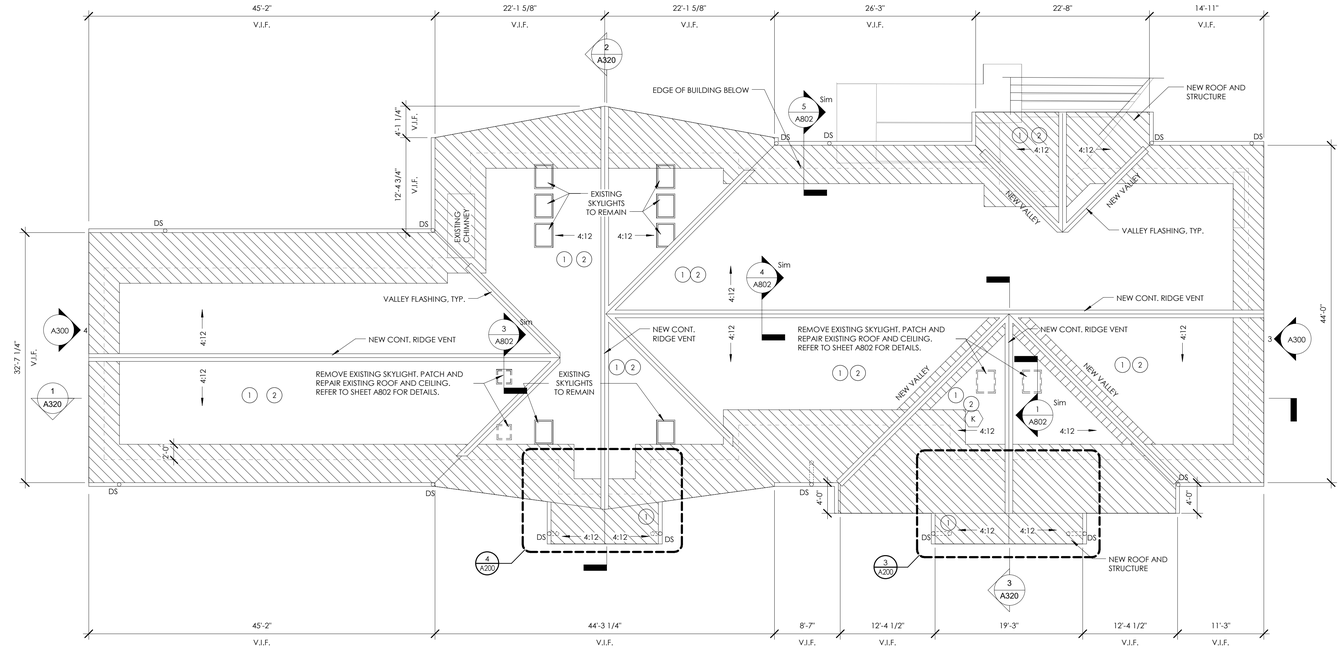
1	NEW ROOF STRUCTURE, SHEATHING, UNDERLAYMENT, AND SHINGLES.
2	DEMO EXISTING ROOF COVERING TO SHEATHING AND INSTALL NEW UNDERLAYMENT AND SHINGLES

FLOOR AND ROOF PLAN GENERAL NOTES

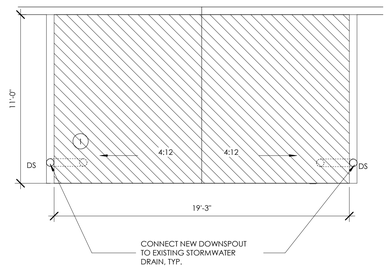
1. ALL DRAWINGS ARE GRAPHIC REPRESENTATIONS OF APPROXIMATE LOCATIONS OF NEW MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. ALL WALL DIMENSIONS INDICATED ON FLOOR PLANS ARE TO FACE OF STUD FRAMING OR MASONRY UNLESS OTHERWISE NOTED.
3. SEE SHEET A402 FOR INTERIOR PARTITION TYPES.
4. SEE A900s FOR INTERIOR AND EXTERIOR DOORS, WINDOWS, CURTAIN WALLS, AND STOREFRONTS
5. PROVIDE AN EDGE/TRANSITION STRIP CENTERED UNDER ALL DOORS WHERE ADJACENT FLOOR FINISHES ARE OF DIFFERENT MATERIALS.
6. PROVIDE ACCESS PANELS, MINIMUM 24" x 24", OR OF SIZES REQUIRED, WHERE PLUMBING AND HEATING VALVES, WATER SWITCHES, VENTILATION SPLITTER DAMPERS, ETC., ARE SHOWN ON PLUMBING, HEATING AND VENTILATION DRAWINGS.
7. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOMED CLEAN AT END OF EACH DAY.
8. ALL DOORS AND WINDOW SYSTEMS TO HAVE SEALANT AROUND THE ENTIRE PERIMETER (BOTH SIDES) OF FRAMES.
9. CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR SEQUENCING OF WORK.
10. REFER TO A700 FOR TYPICAL FIXTURE MOUNTING HEIGHTS AND ACCESSORIES LEGEND.
11. REFER TO THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF ALL ROOF PENETRATIONS. PROVIDE FRAMING AS REQUIRED.
12. CONTRACTOR SHALL PAINT ALL ROOF FASTENERS EXPOSED TO VIEW AT UNDERSIDE OF DECK TO MATCH.
13. ALL WOOD BLOCKING USED SHALL BE PRESSURE TREATED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ROOF DRAINS AND CUTTING THE HOLES IN THE DECK FOR ANY DRAINS AND PROVIDING ANGLE STRUCTURAL SUPPORTS.
15. THE ROOF ELEVATIONS SHOWN ON THE PLAN ARE SHOWN TO ESTABLISH RELATIVE HEIGHTS OF THE INDIVIDUAL ROOFS.
16. NO WEEP HOLES SHALL BE COVERED OR PLUGGED AS A RESULT OF THE ROOFING WORK, UNLESS OTHERWISE DIRECTED.
17. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN WATER TIGHTNESS AND PROVIDE PROTECTION AT ANY/ALL OPENINGS IN THE ROOF LEFT AT THE END OF EACH DAY.
18. PROVIDE CRICKETS FOR WATER DIVERSION AT ALL CURBS, RAILS, ETC. WHICH RUN PERPENDICULAR TO THE SLOPE OF THE INSULATION/SLOPED STRUCTURE.
19. ALL ROOF TOP UNITS SHALL BE MOUNTED ON 16" MIN. INSULATED METAL CURBS. PROVIDE TAPERED INSULATION CRICKETS AS REQUIRED TO SHED WATER. WOOD BLOCKING SHALL BE PROVIDED SO CURBS ARE 8" ABOVE FINISHED ROOF SURFACE.
20. THE MINIMUM INSULATION THICKNESS SHALL BE 1.5" THE AVERAGE INSULATION THICKNESS SHALL BE NO LESS THAN 4". SLOPE OF TAPERED INSULATION TO BE A MINIMUM OF 1/4" PER FOOT AT ALL FLAT ROOFS.
21. MINIMUM DOWNSPOUT SIZE TO BE 3" X 4". CONTRACTOR TO VERIFY WITH STATE AND LOCAL CODES.



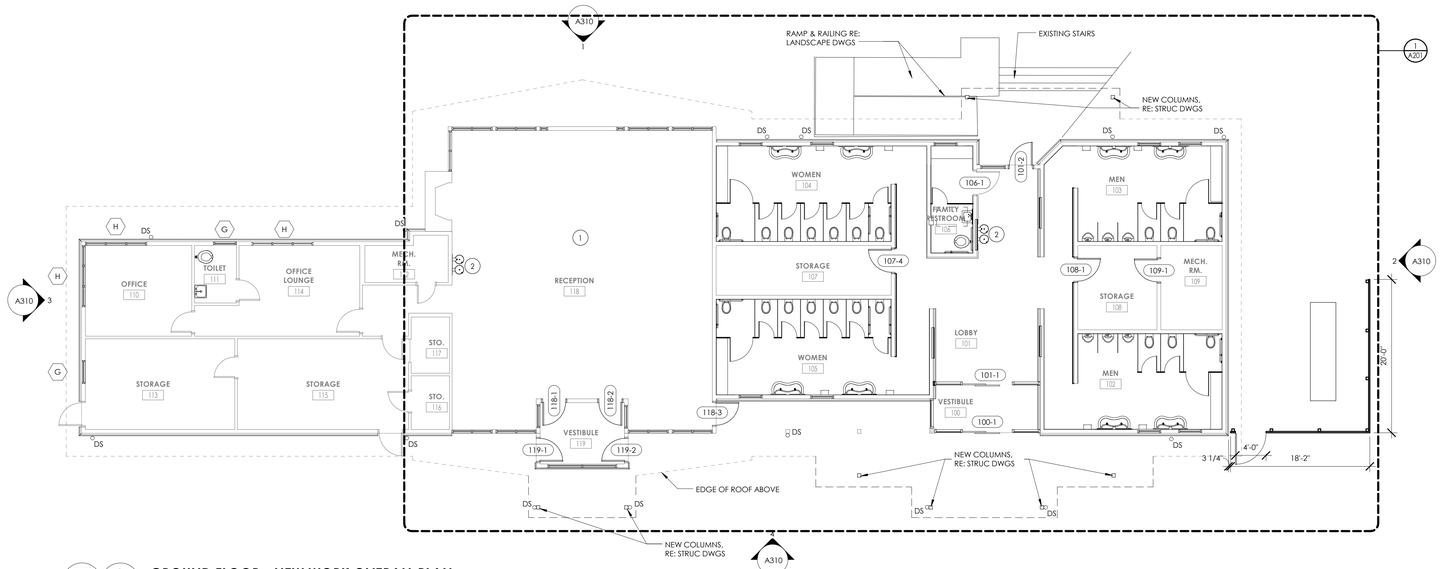
4 A200 **LOWER ENTRY ROOF @ WELCOME CENTER**
1/4" = 1'-0"



2 A200 **ROOF PLAN**
1/8" = 1'-0"



3 A200 **LOWER ENTRY ROOF @ RESTROOMS**
1/4" = 1'-0"



1 A200 **GROUND FLOOR - NEW WORK OVERALL PLAN**
1/8" = 1'-0"

PLAN LEGEND

- 1000-1 — DOOR TAG, SEE SCHEDULE
- W1 — WINDOW TAG, SEE SCHEDULE
- A — COLUMN LINE IDENTIFICATION
- **Room name** 101 — ROOM TAG
- CPT / WOOD — DENOTES CHANGE IN FLOOR MATERIAL
- WH — WATER HEATER/ AIR HANDLER, SEE MECHANICAL DRWINGS
- 1 / A3.1 — SECTION MARK
- 2 / A701 — INTERIOR ELEVATION MARK
- 3 / A301 — EXTERIOR ELEVATION MARK
- 1 / A4.1 — DETAIL FOR REFERENCE MARK
- BLOCKING IN WALLS FOR FUTURE GRAB BAR INSTALLATION
- DENOTES FINISH FLOOR GRADE ELEVATION
- 1i — WALL TYPE SEE A/400
- NFEC — NEW FIRE EXTINGUISHER CABINET
- NFEM — NEW FIRE EXTINGUISHER WALL MOUNTED

ROOF PLAN LEGEND

- WATER AND ICE PROTECTION MEMBRANE FULL PERIMETER OF ROOF TO 2'-0" INSIDE BUILDING ENVELOPE

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www.clarkpatterson.com

NO.	DATE	BY	CHKD	DESCRIPTION
				Revision Schedule

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS — LENA CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT KNAPP — SEAL 24414 — NORTH CAROLINA — CHARLOTTE, N.C. — 8/28/18

DocuSigned by: — 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: BUILDING OVERALL FLOOR PLANS

PROJECT NUMBER: 14391.00

A200 — DRAWING NUMBER

8/28/2018 2:21:15 P.M.
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FLOOR AND ROOF PLAN GENERAL NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATIONS OF APPROXIMATE LOCATIONS OF NEW MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. ALL WALL DIMENSIONS INDICATED ON FLOOR PLANS ARE TO FACE OF STUD FRAMING OR MASONRY UNLESS OTHERWISE NOTED.
3. SEE SHEET A400 FOR INTERIOR PARTITION TYPES
4. SEE A900s FOR INTERIOR AND EXTERIOR DOORS, WINDOWS, CURTAIN WALLS, AND STOREFRONTS
5. PROVIDE AN EDGE/TRANSITION STRIP CENTERED UNDER ALL DOORS WHERE ADJACENT FLOOR FINISHES ARE OF DIFFERENT MATERIALS.
6. PROVIDE ACCESS PANELS, MINIMUM 24" x 24", OR OF SIZES REQUIRED, WHERE PLUMBING AND HEATING VALVES, WATER SWITCHES, VENTILATION SPLITTER DAMPERS, ETC., ARE SHOWN ON PLUMBING, HEATING AND VENTILATION DRAWINGS.
7. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOMED CLEAN AT END OF EACH DAY.
8. ALL DOORS AND WINDOW SYSTEMS TO HAVE SEALANT AROUND THE ENTIRE PERIMETER (BOTH SIDES) OF FRAMES.
9. CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR SEQUENCING OF WORK.
10. REFER TO A700 FOR TYPICAL FIXTURE MOUNTING HEIGHTS AND ACCESSORIES LEGEND.
11. REFER TO THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND PLUMBING DRAWINGS FOR LOCATIONS OF ALL ROOF PENETRATIONS, PROVIDE FRAMING AS REQUIRED.
12. CONTRACTOR SHALL PAINT ALL ROOF FASTENERS EXPOSED TO VIEW AT UNDERSIDE OF DECK TO MATCH.
13. ALL WOOD BLOCKING USED SHALL BE PRESSURE TREATED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ROOF DRAINS AND CUTTING THE HOLES IN THE DECK FOR ANY DRAINS AND PROVIDING ANGLE STRUCTURAL SUPPORTS.
15. THE ROOF ELEVATIONS SHOWN ON THE PLAN ARE SHOWN TO ESTABLISH RELATIVE HEIGHTS OF THE INDIVIDUAL ROOFS.
16. NO WEEP HOLES SHALL BE COVERED OR PLUGGED AS A RESULT OF THE ROOFING WORK, UNLESS OTHERWISE DIRECTED.
17. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN WATER TIGHTNESS AND PROVIDE PROTECTION AT ANY/ALL OPENINGS IN THE ROOF LEFT AT THE END OF EACH DAY.
18. PROVIDE CRICKETS FOR WATER DIVERSION AT ALL CURBS, RAILS, ETC. WHICH RUN PERPENDICULAR TO THE SLOP OF THE INSULATION/SLOPED STRUCTURE.
19. ALL ROOF TOP UNITS SHALL BE MOUNTED ON 16" MIN. INSULATED METAL CURBS. PROVIDE TAPERED INSULATION CRICKETS AS REQUIRED TO SHED WATER. WOOD BLOCKING SHALL BE PROVIDED SO CURBS ARE 8" ABOVE FINISHED ROOF SURFACE.
20. THE MINIMUM INSULATION THICKNESS SHALL BE 1.5" THE AVERAGE INSULATION THICKNESS SHALL BE NO LESS THAN 4". SLOPE OF TAPERED INSULATION TO BE A MINIMUM OF 1/4" PER FOOT AT ALL FLAT ROOFS.
21. MINIMUM DOWNSPOUT SIZE TO BE 3" X 4". CONTRACTOR TO VERIFY WITH STATE AND LOCAL CODES.

PLAN LEGEND

- 1000-1 — DOOR TAG, SEE SCHEDULE
- W1 — WINDOW TAG, SEE SCHEDULE
- 1 / A — COLUMN LINE IDENTIFICATION
- Room name 101 — ROOM TAG
- CPT / WOOD — DENOTES CHANGE IN FLOOR MATERIAL
- WH1 — WATER HEATER/ AIR HANDLER, SEE MECHANICAL DRWINGS
- 1 / A3.1 — SECTION MARK
- 2 / A701 — INTERIOR ELEVATION MARK
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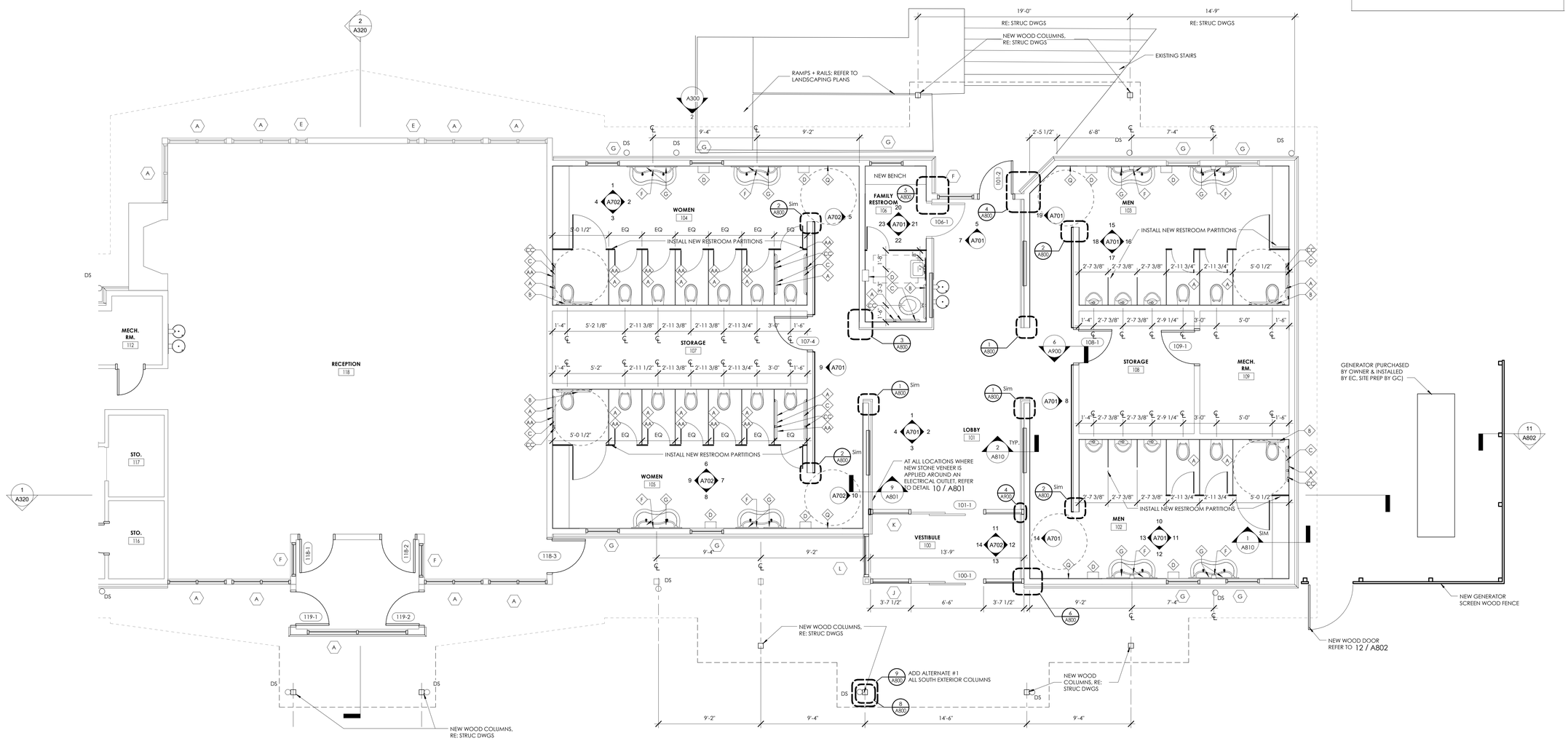
- 1 / A4.1 — DETAIL FOR REFERENCE MARK
- BLOCKING IN WALLS FOR FUTURE GRAB BAR INSTALLATION
- DENOTES FINISH FLOOR GRADE ELEVATION
- 1i — WALL TYPE SEE A/400
- NFEC — NEW FIRE EXTINGUISHER CABINET
- NFEM — NEW FIRE EXTINGUISHER WALL MOUNTED



1 / A201 **GROUND FLOOR - ENLARGED NEW WORK PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS D/B/A CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

JIMOTHY SCOTT HAYES — 17444 — NORTH CAROLINA — REGISTERED LANDSCAPE ARCHITECT — CHARLOTTE, NC — DocuSigned by: — 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: ENLARGED NEW WORK PLAN

PROJECT NUMBER: 14391.00

A201
DRAWING NUMBER

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ROOF PLAN LEGEND

WATER AND ICE PROTECTION M6xBRANE FULL PERIMETER OF ROOF TO 2'-0" INSIDE BUILDING ENVELOPE

ROOF PLAN KEYNOTES

1 NEW ROOF STRUCTURE, SHEATHING, UNDERLAYMENT, AND SHINGLES.

2 DEMO EXISTING ROOF COVERING TO SHEATHING AND INSTALL NEW UNDERLAYMENT AND SHINGLES

ELEVATION KEYNOTES

A STACKED STONE VENEER. BASIS OF DESIGN: REAL STONE SYSTEMS - SIERRA ACCENTSTONE PANEL

B STONE VENEER SILL WITH DRIP EDGE. BASIS OF DESIGN: REAL STONE SYSTEMS - GREYSTONE GOLD SILL

C FIBERCEMENT SIDING PANEL. BASIS OF DESIGN: HARDIEPANEL VERTICAL SIDING - SELECT CEDARMILL BOARD AND BATTEN. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE

D 4" FIBERCEMENT SIDING TRIM BOARD. SOURCE FROM SAME MANUFACTURER AS SIDING. COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE. INSTALL FLASHING AT TRIM/ OPENINGS AS PER MANUFACTURER'S SPECIFICATIONS.

E CONTINUOUS RIDGE VENT. SOURCE FROM SAME MANUFACTURER AS ROOFING SHINGLES

F ASPHALT SHINGLES. BASIS OF DESIGN: CERTAINTEED XT 25 - COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE. ADD. ALTERNATE: CERTAINTEED LANDMARK PRO - COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.

G NEW ALUMINUM CONTINUOUS GUTTER AND DOWNSPOUT

H EXISTING DOOR & FRAME TO REMAIN

J REPLACE EXISTING WOOD LOUVER WITH NEW. COLOR TO BE SELECTED BY ARCHITECT. FLASHING AS REQ'D.

M FIBER CEMENT BOARD AS COLUMN WRAP TO MATCH VERTICAL SIDING.

N FIBER CEMENT BOARD FASCIA

DEMOLITION KEYNOTES

CEILINGS

C1 PATCH/REPAIR AND PAINT EXISTING CEILING.

C2 REMOVE AND DISPOSE OF EXISTING CEILING-MOUNTED LIGHTING FIXTURES.

DOORS AND WINDOWS

D1 REMOVE AND DISPOSE OF EXISTING WINDOW SYSTEM. TO BE REPLACED WITH NEW WINDOW SYSTEM OF SAME SIZE. REFER TO NEW WORK PLANS.

D2 REMOVE AND DISPOSE OF EXISTING DOOR IN ITS ENTIRETY. EXISTING FRAME TO REMAIN. NEW DOOR TO BE INSTALLED IN EXISTING FRAME.

D3 REMOVE AND DISPOSE OF EXISTING DOOR AND FRAME IN ITS ENTIRETY. NEW SLIDING DOOR TO BE INSTALLED IN THIS LOCATION.

D4 REMOVE AND DISPOSE OF EXISTING WINDOWS SYSTEMS AND CONNECTED WALL.

FLOORS

F1 REMOVE AND DISPOSE OF EXISTING FLOORING AND BASE IN ITS ENTIRETY. PREPARE SLAB TO RECEIVE NEW FLOORING. PATCH AND REPAIR AS NECESSARY.

F2 REMOVE EXISTING SLAB TO EXTENT SHOWN IN HATCH. PREP AREA TO RECIEVE NEW SLAB. REFER TO STRUCTURAL DWGS.

MECHANICAL, ELECTRICAL, PLUMBING

E1 REMOVE AND DISPOSE OF EXISTING EQUIPMENT. PATCH WALLS AS NEEDED.

P1 REMOVE AND DISPOSE OF EXISTING FIXTURE. TO BE REPLACED WITH NEW FIXTURE IN SAME OR SIMILAR LOCATION. PATCH WALLS AND FLOOR AS NECESSARY.

MISCELLANEOUS

M1 REMOVE AND DISPOSE OF EXISTING MILLWORK AND PATCH WALLS AS NECESSARY.

M2 REMOVE AND DISPOSE OF EXISTING TOILET ACCESSORIES AND MIRRORS. PATCH WALLS AS NECESSARY.

M3 REMOVE EXISTING DISPLAY BOARDS. REPLACE WITH NEW IN SAME LOCATION. SEE DETAIL IN NEW WORK PLANS.

M4 REMOVE REINSTALL EXISTING ALUMINUM SIGNAGE

M5 REMOVE EXISTING ROOF COVERING TO SHEATHING. INSTALL NEW ROOFING UNDERLAYMENT AND NEW SHINGLES. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS.

WALL

W1 REMOVE EXISTING TONGUE AND GROOVE OR WALL TILE FINISH AND PREP. TO RECEIVE NEW DRYWALL FINISH. SALVAGE 100SQFT OF TONGUE AND GROOVE FOR REUSE PER NEW WORK PLANS.

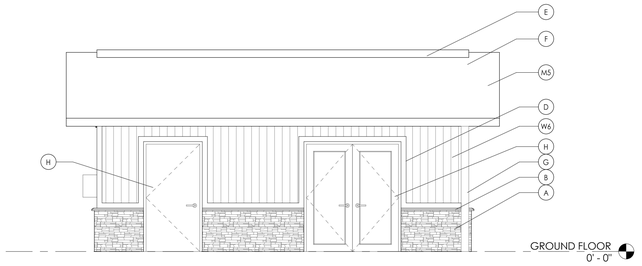
W2 REMOVE AND DISPOSE OF EXISTING TOILET PARTITIONS. PATCH WALLS AND FLOORS AS NECESSARY.

W4 DEMO PORTION OF EXISTING WALL TO INSTALL STEEL ANGLE FRAME. REFER TO 1/A810.

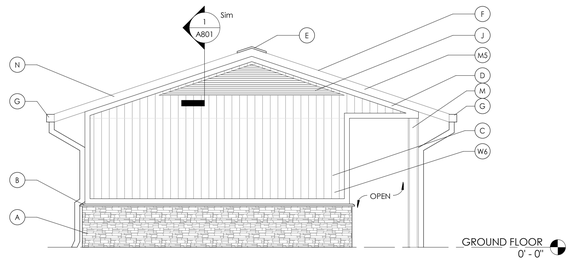
W5 REMOVE EXISTING WOOD CLADDING AT ALL EXTERIOR COLUMNS. PREP TO RECEIVE NEW CLADDING.

W6 REMOVE EXISTING SIDING AND AIR BARRIER - REPLACE ANY ROTTED SUBSTRATE TO SUITABLE CONDITION. REPAIR DAMAGED OR COMPACTED INSULATION. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL NEW AIR BARRIER AND SIDING. FINISH PER SCHEDULE.

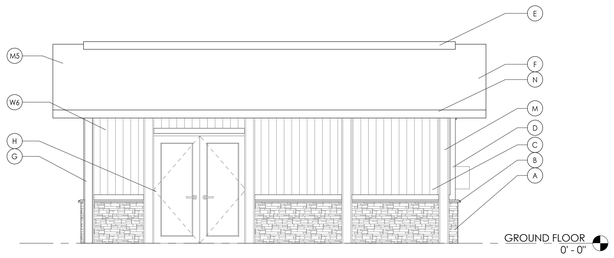
W7 REMOVE AND DISPOSE OF EXISTING EXTERIOR WALL CLADDING AND PREP. TO RECEIVE NEW FIBER CEMENT PANEL. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS.



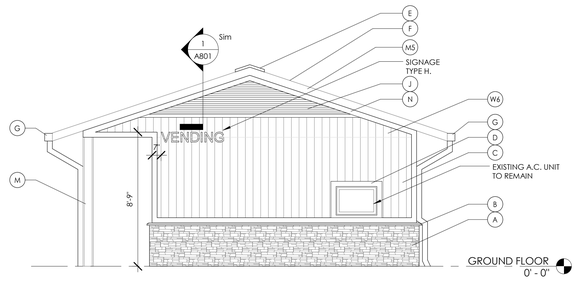
7 A210 **VENDING EAST ELEVATION**
1/4" = 1'-0"



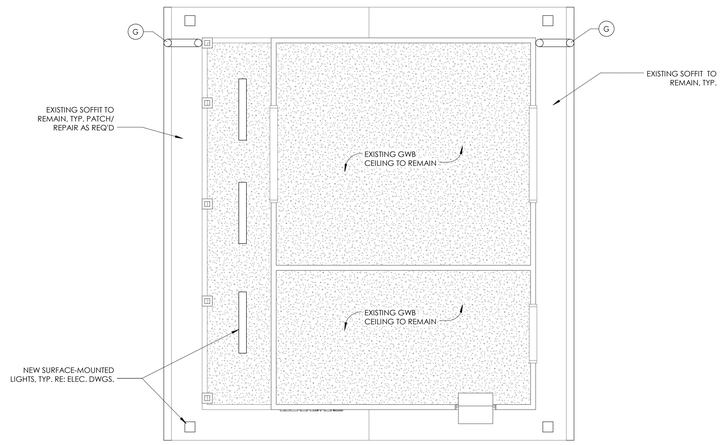
6 A210 **VENDING NORTH ELEVATION**
1/4" = 1'-0"



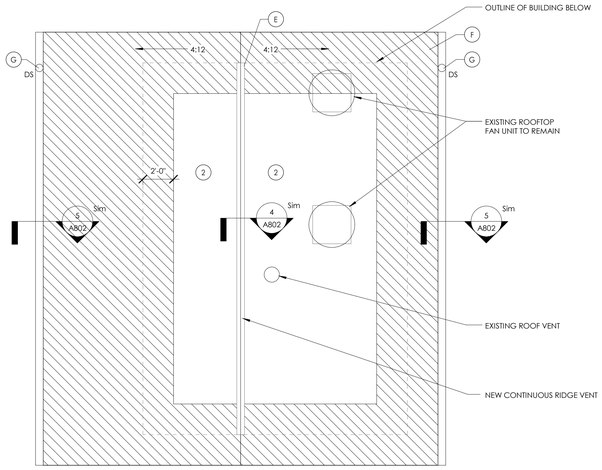
5 A210 **VENDING WEST ELEVATION**
1/4" = 1'-0"



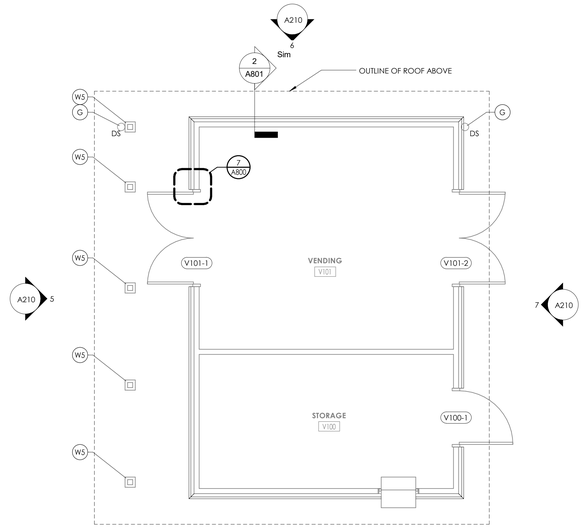
4 A210 **VENDING SOUTH ELEVATION**
1/4" = 1'-0"



3 A210 **VENDING BUILDING - REFLECTED CEILING PLAN**
1/4" = 1'-0"



2 A210 **VENDING ROOF PLAN**
1/4" = 1'-0"



1 A210 **GROUND FLOOR - VENDING BUILDING**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
LUBA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

KENT SCOTT KNIGHT
SEAL
049444
NORTH CAROLINA
REGISTERED
LANDSCAPE ARCHITECT
CHARLOTTE, N. C.
DocuSigned by:
8/30/2018

8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: VENDING BUILDING PLANS AND ELEVATIONS

PROJECT NUMBER: 14391.00

A210
DRAWING NUMBER

8/28/2018 1:45:59 PM

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DEMOLITION KEYNOTES

CEILINGS
- C1 PATCH/REPAIR AND PAINT EXISTING CEILING.
- C2 REMOVE AND DISPOSE OF EXISTING CEILING-MOUNTED LIGHTING FIXTURES.

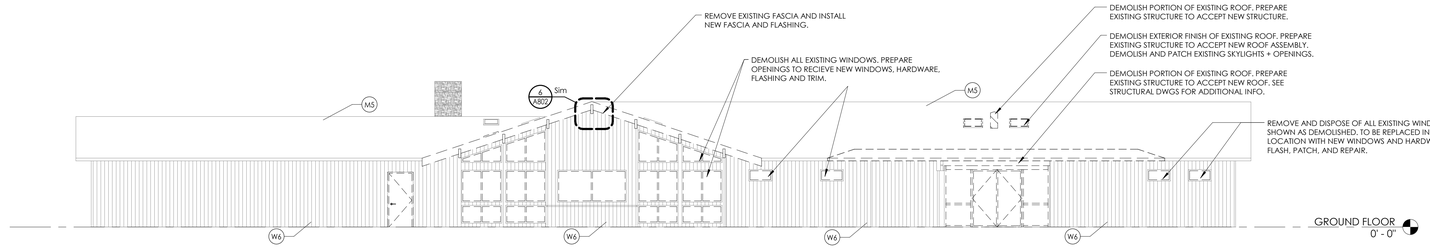
DOORS AND WINDOWS
- D1 REMOVE AND DISPOSE OF EXISTING WINDOW SYSTEM. TO BE REPLACED WITH NEW WINDOW SYSTEM OF SAME SIZE. REFER TO NEW WORK PLANS.
- D2 REMOVE AND DISPOSE OF EXISTING DOOR IN ITS ENTIRETY. EXISTING FRAME TO REMAIN. NEW DOOR TO BE INSTALLED IN EXISTING FRAME.
- D3 REMOVE AND DISPOSE OF EXISTING DOOR AND FRAME IN ITS ENTIRETY. NEW SLIDING DOOR TO BE INSTALLED IN THIS LOCATION.
- D4 REMOVE AND DISPOSE OF EXISTING WINDOWS SYSTEMS AND CONNECTED WALL.

FLOORS
- F1 REMOVE AND DISPOSE OF EXISTING FLOORING AND BASE IN ITS ENTIRETY. PREPARE SLAB TO RECEIVE NEW FLOORING. PATCH AND REPAIR AS NECESSARY.
- F2 REMOVE EXISTING SLAB TO EXTENT SHOWN IN HATCH. PREP AREA TO RECIEVE NEW SLAB. REFER TO STRUCTURAL DWGS.

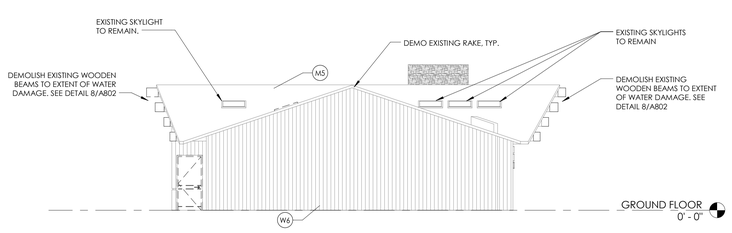
MECHANICAL, ELECTRICAL, PLUMBING
- E1 REMOVE AND DISPOSE OF EXISTING EQUIPMENT. PATCH WALLS AS NEEDED.
- P1 REMOVE AND DISPOSE OF EXISTING FIXTURE. TO BE REPLACED WITH NEW FIXTURE IN SAME OR SIMILAR LOCATION. PATCH WALLS AND FLOOR AS NECESSARY.

MISCELLANEOUS
- M1 REMOVE AND DISPOSE OF EXISTING MILLWORK AND PATCH WALLS AS NECESSARY.
- M2 REMOVE AND DISPOSE OF EXISTING TOILET ACCESSORIES AND MIRRORS. PATCH WALLS AS NECESSARY.
- M3 REMOVE EXISTING DISPLAY BOARDS. REPLACE WITH NEW IN SAME LOCATION. SEE DETAIL IN NEW WORK PLANS.
- M4 REMOVE REINSTALL EXISTING ALUMINUM SIGNAGE
- M5 REMOVE EXISTING ROOF COVERING TO SHEATHING. INSTALL NEW ROOFING UNDERLAYMENT AND NEW SHINGLES. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS.

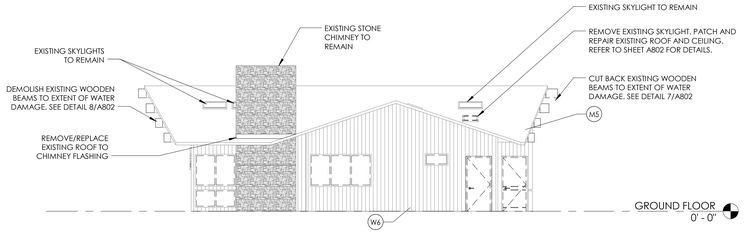
WALL
- W1 REMOVE EXISTING TONGUE AND GROOVE OR WALL TILE FINISH AND PREP. TO RECEIVE NEW DRYWALL FINISH. SALVAGE 105QFT OF TONGUE AND GROOVE FOR REUSE PER NEW WORK PLANS.
- W2 REMOVE AND DISPOSE OF EXISTING TOILET PARTITIONS. PATCH WALLS AND FLOORS AS NECESSARY.
- W4 DEMO PORTION OF EXISTING WALL TO INSTALL STEEL ANGLE FRAME. REFER TO 1/A810.
- W5 REMOVE EXISTING WOOD CLADDING AT ALL EXTERIOR COLUMNS. PREP TO RECEIVE NEW CLADDING.
- W6 REMOVE EXISTING SIDING AND AIR BARRIER - REPLACE ANY ROTTED SUBSTRATE TO SUITABLE CONDITION. REPAIR DAMAGED OR COMPACTED INSULATION. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS. INSTALL NEW AIR BARRIER AND SIDING, FINISH PER SCHEDULE.
- W7 REMOVE AND DISPOSE OF EXISTING EXTERIOR WALL CLADDING AND PREP. TO RECEIVE NEW FIBER CEMENT PANEL. INSTALL NEW FLASHING AND TRIM @ OPENINGS PER MANUFACTURER'S RECOMMENDATIONS.



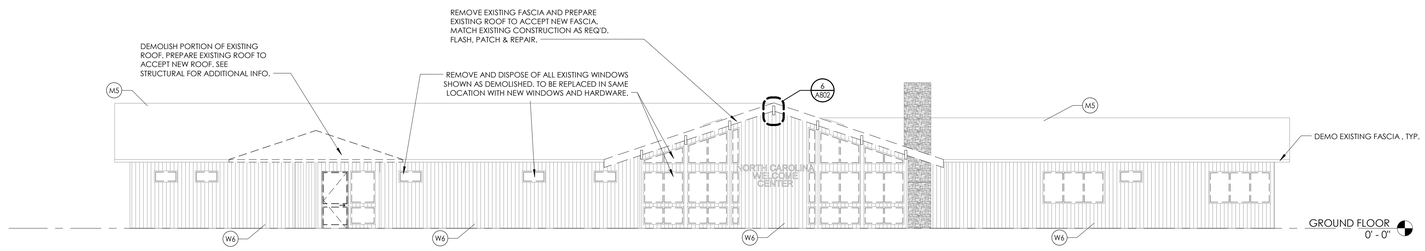
1 A300 **DEMOLITION SOUTH ELEVATION**
1/8" = 1'-0"



3 A300 **DEMOLITION EAST ELEVATION**
1/8" = 1'-0"



4 A300 **DEMOLITION WEST ELEVATION**
1/8" = 1'-0"



2 A300 **DEMOLITION NORTH ELEVATION**
1/8" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA REGISTERED ARCHITECTS — CLARK PATTERSON ENGINEERS/ARCHITECTS D/B/A CLARK PATTERSON LEE CHARLOTTE, NC 51301

TIMOTHY SCOTT KNUPP — REGISTERED ARCHITECT — 7414 — NORTH CAROLINA — CHARLOTTE, N.M.C. — 8/28/18

DocuSigned by: [signature] 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE 1/8" = 1'-0"

SHEET TITLE
EXTERIOR DEMOLITION ELEVATIONS AND DETAILS

PROJECT NUMBER 14391.00

A300 DRAWING NUMBER

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GENERAL ELEVATION NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATIONS OF APPROXIMATE LOCATIONS OF EXISTING AND NEW MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. MASONRY OPENING ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDITIONS.
3. REFER TO A900'S DRAWINGS FOR DOOR, FRAME, AND WINDOW TYPES.
4. PROVIDE ALL LOUVER OPENINGS AS REQUIRED. COORDINTE WITH MECHANICAL CONTRACTOR FOR FINAL SIZE AND LOCATION.
5. ARCHITECTURAL ELEVATION 0'-0" EQUALS CIVIL DATUM OF 2420.0'
6. CONTROL JOINT = C.J
7. SOFT JOINT = S.J
8. EXPANSION JOINT = E.J
9. BUILDING EXPANSION JOINT = BE.J

ELEVATION KEYNOTES

A STACKED STONE VENEER, BASIS OF DESIGN: REAL STONE SYSTEMS - SIERRA ACCENTSTONE PANEL

B STONE VENEER SILL WITH DRIP EDGE. BASIS OF DESIGN: REAL STONE SYSTEMS - GREYSTONE GOLD SILL

C FIBERCEMENT SIDING PANEL. BASIS OF DESIGN: HARDIEPANEL VERTICAL SIDING - SELECT CEDARMILL BOARD AND BATTEN, COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE

D 4" FIBERCEMENT SIDING TRIM BOARD. SOURCE FROM SAME MANUFACTURER AS SIDING, COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE. INSTALL FLASHING AT TRIM/ OPENINGS AS PER MANUFACTURER'S SPECIFICATIONS.

E CONTINUOUS RIDGE VENT. SOURCE FROM SAME MANUFACTURER AS ROOFING SHINGLES

F ASPHALT SHINGLES. BASIS OF DESIGN: CERTAINTEED XT 25 - COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE. ADD. ALTERNATE: CERTAINTEED LANDMARK PRO - COLOR TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE.

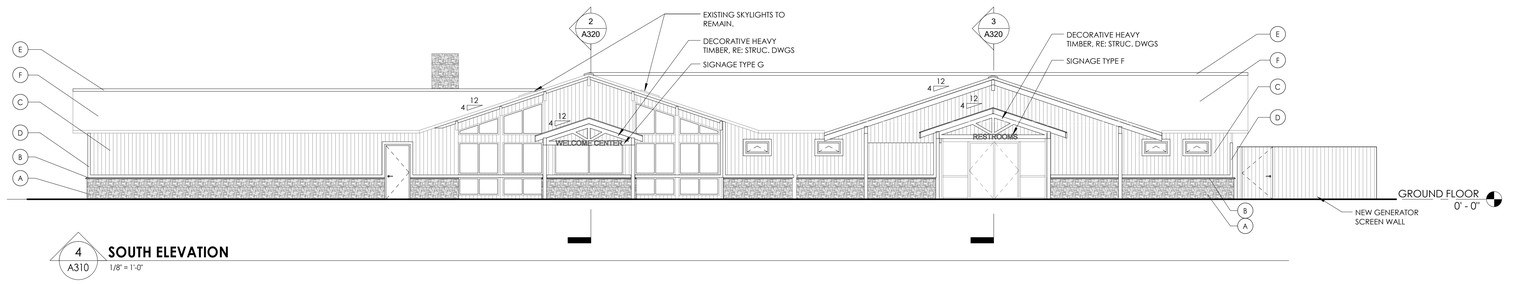
G NEW ALUMINUM CONTINUOUS GUTTER AND DOWNSPOUT

H EXISTING DOOR & FRAME TO REMAIN

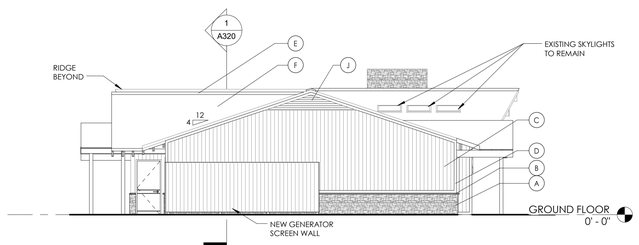
J REPLACE EXISTING WOOD LOUVER WITH NEW. COLOR TO BE SELECTED BY ARCHITECT. FLASHING AS REQ'D.

M FIBER CEMENT BOARD AS COLUMN WRAP TO MATCH VERTICAL SIDING.

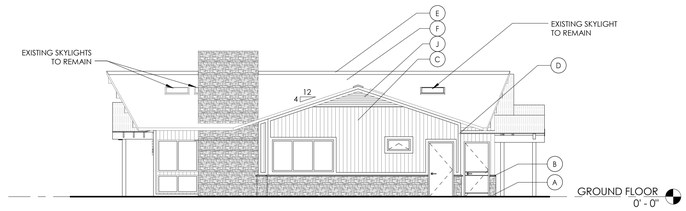
N FIBER CEMENT BOARD FASCIA



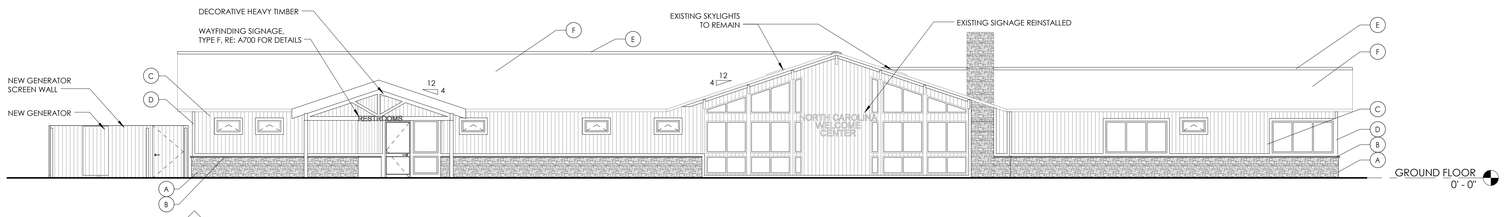
4 A310 **SOUTH ELEVATION**
1/8" = 1'-0"



2 A310 **EAST ELEVATION**
1/8" = 1'-0"



3 A310 **WEST ELEVATION**
1/8" = 1'-0"



1 A310 **NORTH ELEVATION**
1/8" = 1'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS/PLANNERS — DBA CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT KNUPP — REGISTERED LANDSCAPE ARCHITECT — 2414 — NORTH CAROLINA — CHARLOTTE, N.C.
DocuSigned by: 8/28/2018

8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: BUILDING ELEVATIONS

PROJECT NUMBER: 14391.00

A310
DRAWING NUMBER

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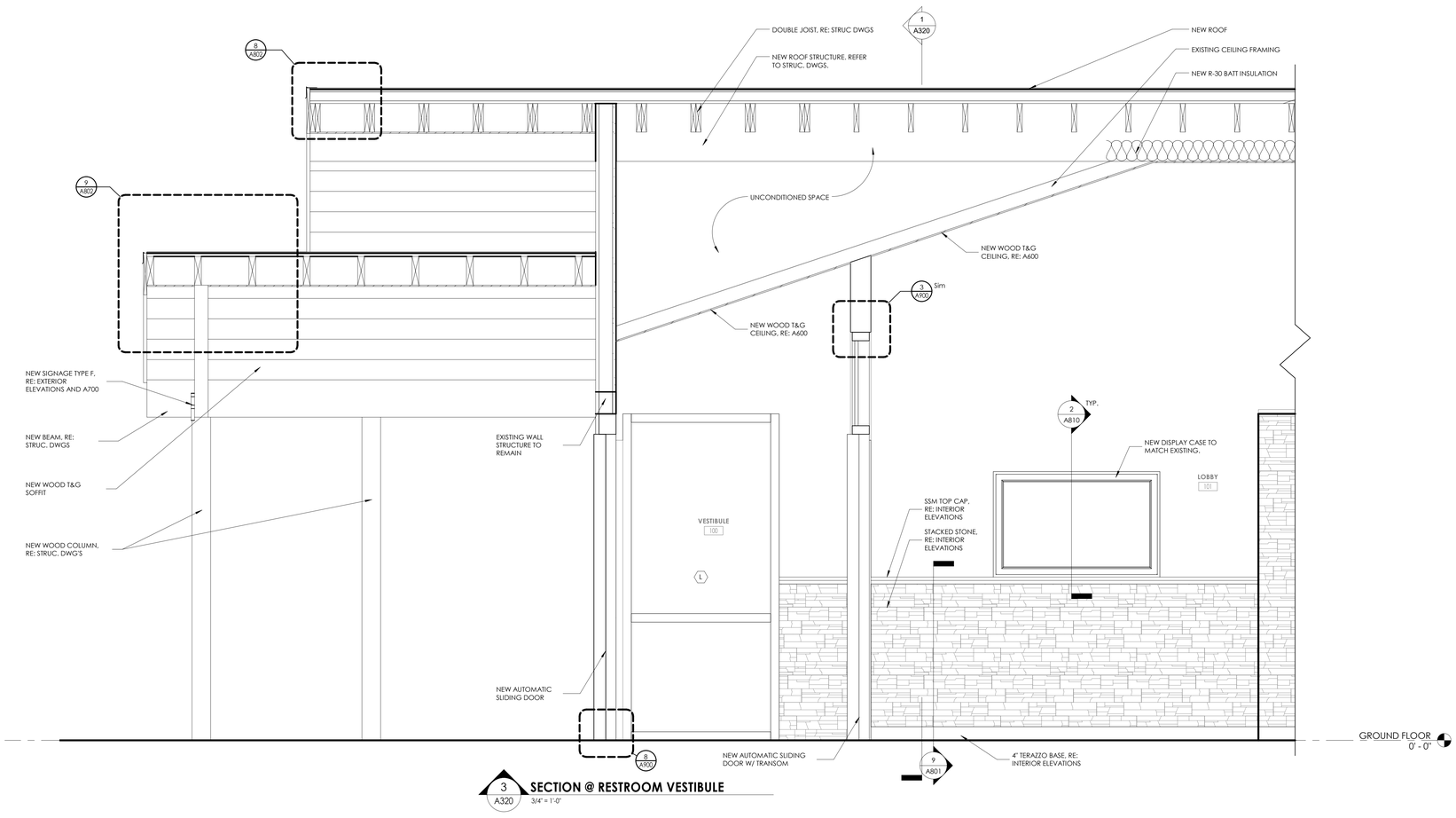
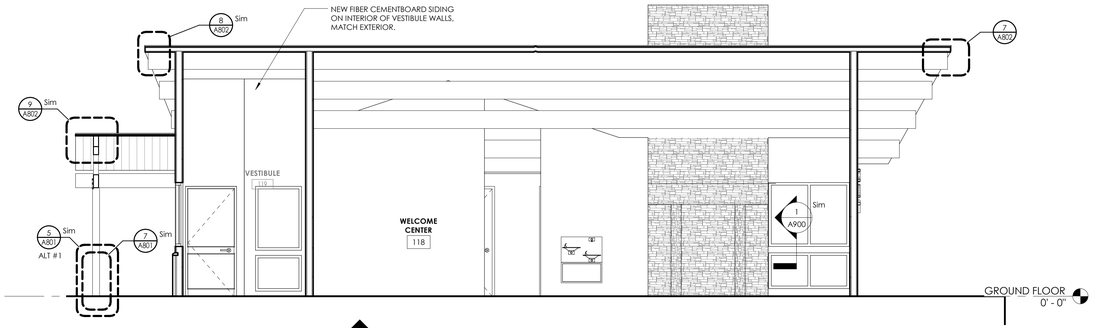
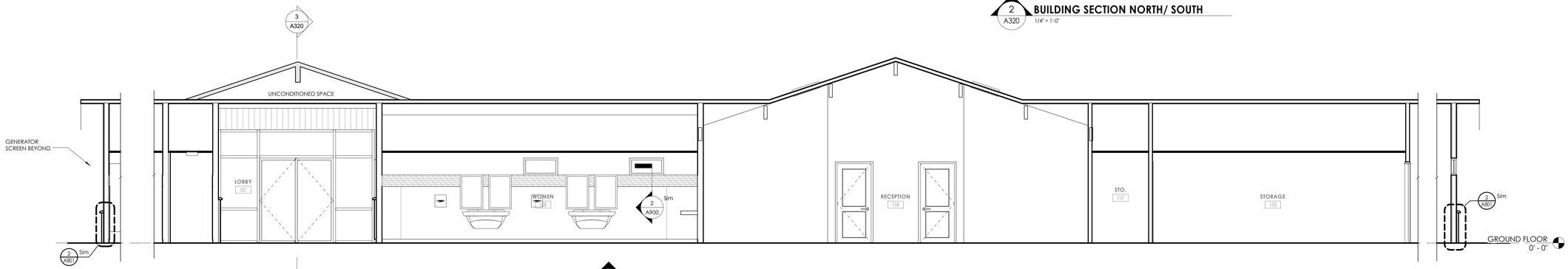


3 A320 **SECTION @ RESTROOM VESTIBULE**
3/4" = 1'-0"



2 A320 **BUILDING SECTION NORTH/ SOUTH**
1/4" = 1'-0"



1 A320 **BUILDING SECTION EAST/ WEST**
1/4" = 1'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON
ENGINEERS/ARCHITECTS
DBA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT KNAPP
REGISTERED ARCHITECT
7444
NORTH CAROLINA
CHARLOTTE, N.C.
8/28/18

DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE As indicated

SHEET TITLE
BUILDING SECTIONS

PROJECT NUMBER
14391.00

A320
DRAWING NUMBER

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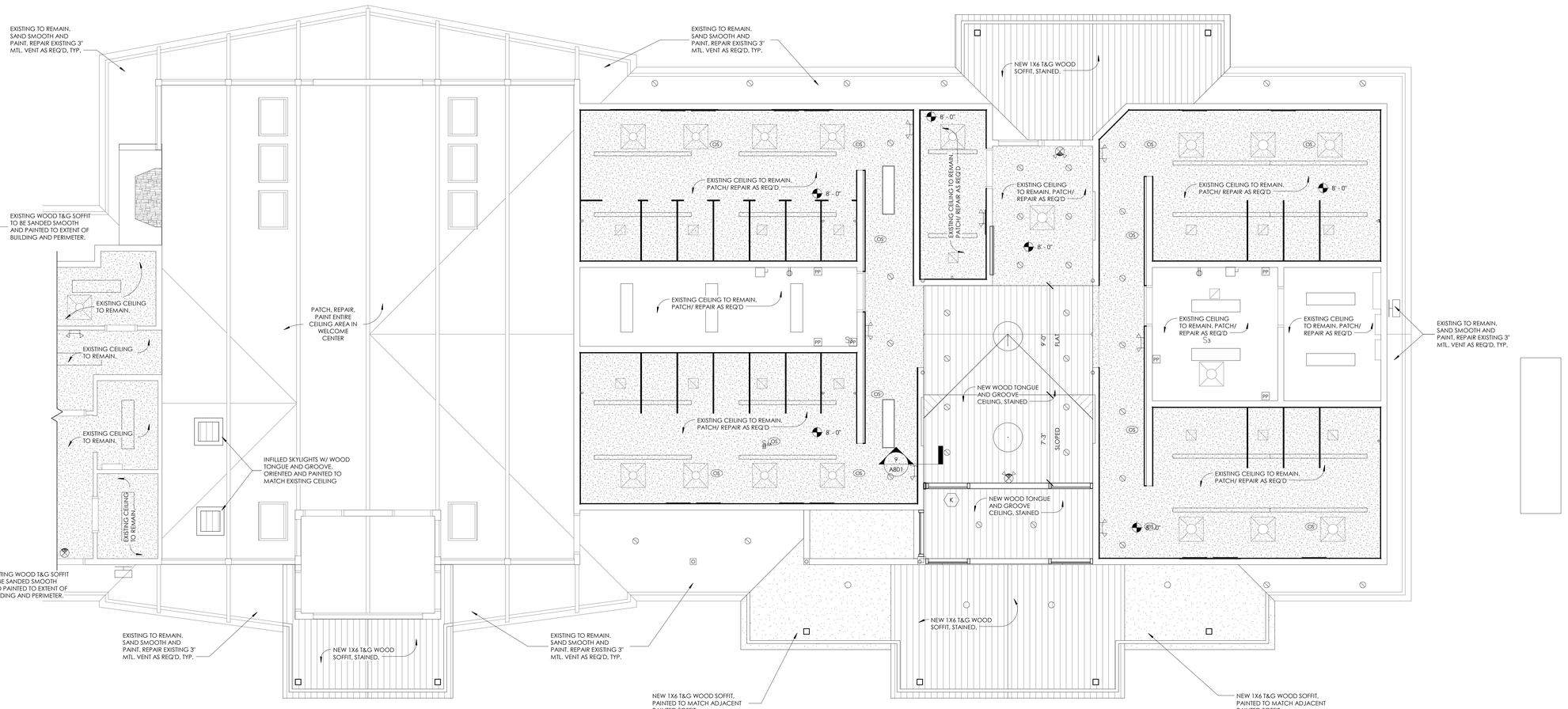
CEILING SYMBOL LEGEND

- 2'X2' LIGHT
- 2'x4' LIGHTS
- 1'X4' LINEAR LIGHT FIXTURE
- PENDANT LIGHT FIXTURES
- WALL SCONCE
- SUPPLY AIR DIFFUSERS
- RETURN AIR DIFFUSERS
- EXHUAST DIFFUSERS
- GYPSUM WALL BOARD CEILING
- EXISTING T&G SOFFIT SANDED SMOOTH AND PAINTED
- STAINED WOOD T&G CEILING
- ACT-1 / 9'-0" — CEILING TYPE AND CEILING HEIGHT ABOVE FINISHED FLOOR

GENERAL CEILING NOTES

1. ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF NEW MATERIALS FOR CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO A200 SERIES FOR FLOOR PLAN.
3. FOR ANY DISCREPENCY BETWEEN THE REFLECTED CEILING PLAN AND THE FLOOR PLAN: THE FLOOR PLAN SHALL TAKE PRECEDENCE. ANY DISCREPENCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIRE STOP MECHANICAL, ELECTRICAL AND PLUMBING ITEMS, INCLUDING BUT NOT LIMITED TO DUCTWORK AND CONDUIT PENETRATIONS THROUGH FLOORS AND WALLS.
5. THE CONTRACTOR SHALL COORDINATE CEILING INSTALLATIONS WITH MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
6. REFER TO 'H' SERIES DRAWINGS FOR DIFFUSERS AND GRILLE LOCATIONS.
7. REFER TO 'E' SERIES DRAWINGS FOR LIGHTING TYPES AND CONTROLS.
8. REFER TO 'P' SERIES DRAWINGS FOR SPRINKLER HEAD LOCATIONS.
9. WORK AREAS SHALL BE MAINTAINED AND ALL WORK AREAS SHALL BE LEFT BROOMED CLEAN AT THE END OF EACH DAY.
10. CENTER CEILING GRID (EACH WAY) IN ROOMS SCHEDULED TO RECEIVE ACOUSTICAL CEILING SYSTEMS UNLESS OTHERWISE NOTED.
11. CONTRACTOR TO VERIFY WITH ARCHITECT THE INSTALLATION OF ANY CEILING TILES LESS THAN 4" IN WIDTH.
12. PROVIDE MOISTURE RESISTANT GYP. BD. AT ALL TOILET ROOM, JANITOR'S CLOSET AND OTHER WET LOCATION CEILING ASSEMBLIES.
13. ALL GYP. BD. CEILINGS AND SOFFITS SHALL BE PRIMED AND PAINTED SCHEDULED COLOR ON ALL FACES AND UNDERSIDE SURFACE.
14. CONTRACTOR TO VERIFY SOFFIT SIZE WITH MILLWORK SHOP DRAWINGS. PROVIDE 2" OVERHANG ON EXPOSED EDGES UNLESS NOTED OTHERWISE.ALL CEILINGS THIS LEVEL @ 10' - 0" A.F.F. UNLESS NOTED OTHERWISE.
15. ALL FIXTURES AND DEVICES TO BE CENTERED IN EACH TILE OF SUSPENDED ACT CEILING SYSTEM.



1 / A600 **GROUND FLOOR - REFLECTED CEILING PLAN**
1/4" = 1'-0"

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS — LEBA CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT MAY — 7444 — NORTH CAROLINA — REGISTERED LANDSCAPE ARCHITECT — CHARLOTTE, N.C.
DocuSigned by: 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION

SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: REFLECTED CEILING PLANS

PROJECT NUMBER: 14391.00

A600
DRAWING NUMBER

8/28/2018 1:49:09 PM
C:\Users\aaraiano\Documents\NC DOT - HAYWOOD I-40 REST AREA_Aaraiano.rvt

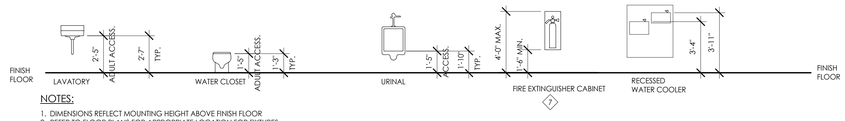
DocuSign Envelope ID: 4198E5FA-3BA1-453B-B5EF-F5165AADB159

SPECIAL NOTE: THIS SHEET IS INCLUDED FOR REFERENCE PURPOSES ONLY. SOME MOUNTING HEIGHTS SHOWN MAY NOT APPLY TO THE CURRENT DOCUMENTS

TOILET FIXTURES AND ACCESSORIES LEGENDS WITH MOUNTING HEIGHTS

FIXTURES LEGEND

SCALE 1/4"=1'-0"

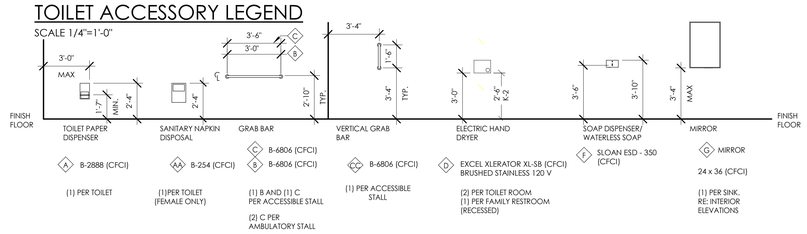


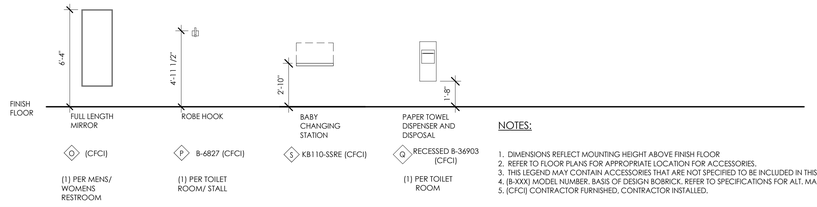
NOTES:

1. DIMENSIONS REFLECT MOUNTING HEIGHT ABOVE FINISH FLOOR
2. REFER TO FLOOR PLANS FOR APPROPRIATE LOCATION FOR FIXTURES.
3. THIS LEGEND MAY CONTAIN FIXTURES THAT ARE NOT SPECIFIED TO BE INCLUDED IN THIS PROJECT.

TOILET ACCESSORY LEGEND

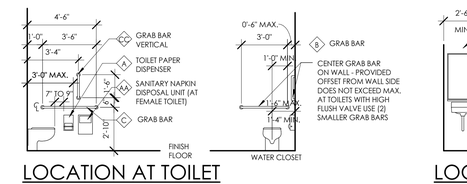
SCALE 1/4"=1'-0"





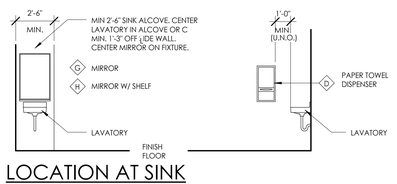
NOTES:

1. DIMENSIONS REFLECT MOUNTING HEIGHT ABOVE FINISH FLOOR
2. REFER TO FLOOR PLANS FOR APPROPRIATE LOCATION FOR ACCESSORIES.
3. THIS LEGEND MAY CONTAIN ACCESSORIES THAT ARE NOT SPECIFIED TO BE INCLUDED IN THIS PROJECT.
4. (B-XXX) MODEL NUMBER. BASIS OF DESIGN BOBRICK. REFER TO SPECIFICATIONS FOR ALT. MANUFACTURERS.
5. (CFCI) CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.



LOCATION AT TOILET

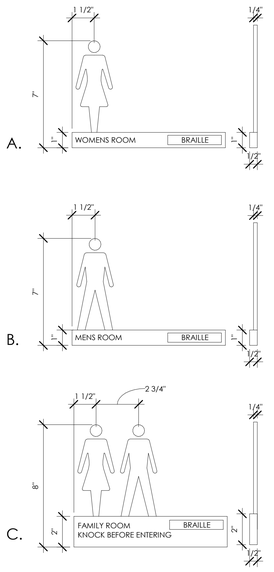
SCALE 1/4"=1'-0" (REF. BELOW FOR TYP. HEIGHTS)



LOCATION AT SINK

SCALE 1/4"=1'-0" (REF. ABOVE FOR TYP. HEIGHTS)

SIGNAGE LEGEND AND SCHEDULE



SIGNAGE NOTES:

1. (1) ONE OF EACH SIGN, (2) TWO OF SIGNAGE TYPE F.
2. ALL SIGNS TO BE CLEAR ANODIZED ALUMINUM WITH THE EXCEPTION OF SIGN TYPE "H" TO BE DARK BRONZE.
3. SIGNS TO BE MOUNTED ON STANDOFFS.
4. MATCH FONT TO EXISTING "NORTH CAROLINA WELCOME CENTER" SIGNAGE OR USE ARIAL FONT.
5. SIGNAGE SHALL COMPLY WITH ICC A117.1-2017
6. SEE INTERIOR AND EXTERIOR ELEVATIONS FOR SIGNAGE LOCATIONS.
7. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
8. SIGNAGE TYPE A, B, C SHALL BE 1/4" THICK MILLED BRUSHED ALUMINUM. LETTERING SHALL BE BLUE SILKSCREENED ARIAL BOLD FONT, 5/8" TEXT HEIGHT.
9. SIGNAGE TYPE D, E, F, G, H SHALL BE 1/2" THICK MILLED BRUSHED ALUMINUM. INDIVIDUAL LETTERS WITH CONCEALED MOUNTING.
10. SIGNAGE TYPE A, B, C SHALL HAVE RAISED METAL BEAD BRAILLE IN DESIGNATED LOCATION.

Clark Patterson Lee
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6302 Fairview Rd., Suite 102
Charlotte, North Carolina, 28210
Tel: (800) 274-9000
Fax: (704) 331-0402
www.clarkpatterson.com

NO.	DATE	BY:	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS LUBA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT WARD
REGISTERED LANDSCAPE ARCHITECT
1444
NORTH CAROLINA
CHARLOTTE, N. C.
DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG
SCALE	As indicated	

SHEET TITLE
TYP. FIXTURE AND ACCESS. HEIGHTS AND LEGENDS

PROJECT NUMBER
14391.00

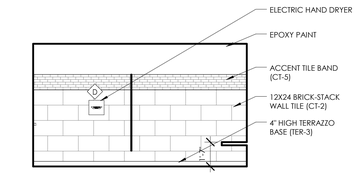
A700
DRAWING NUMBER

8/28/2018 1:49:09 PM
C:\Users\aarellano\Documents\NC DOT - HAYWOOD I-40 REST AREA_AAredrevit.rvt

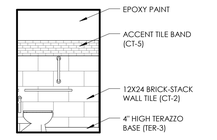
DocuSign Envelope ID: 4198E5FA-3BA1-453B-B5EF-F5165AADB159

GENERAL INTERIOR ELEVATIONS NOTES

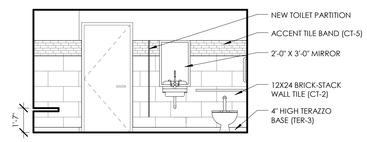
1. ALL DRAWINGS ARE GRAPHIC REPRESENTATIONS OF APPROXIMATE LOCATIONS OF EXISTING AND NEW MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO A700 FOR TOILET FIXTURE AND ACCESSORIES LEGEND AND MOUNTING HEIGHTS.
3. REFER TO A200 SERIES DRAWINGS FOR ADDITIONAL SPECIALTIES.
4. 1/8" EASED EDGES AT ALL COUNTERTOPS UNLESS OTHERWISE NOTED.
5. ALL FURNITURE AND EQUIPMENT SHOWN IS PROVIDED BY OWNER UNLESS NOTED OTHERWISE. ITEMS SHOWN ON THESE DOCUMENTS ARE FOR COORDINATION OF M.E.P INFRASTRUCTURE TO OPERATE ITEMS INCLUDED UNDER THE SCOPE.
6. PROVIDE SUPPORT BLOCKING AND STRAPPING FOR ALL MILLWORK, CASEWORK, AND WALL MOUNTED ACCESSORIES.
7. REFER TO SPECS FOR ALL TOILET ROOM ACCESSORIES PROVIDED BY OWNER.
8. PROVIDE MOISTURE RESISTANT GWB BEHIND ALL CERAMIC WALL TILE INSTALLATIONS.
9. ALL WALL CABINETS ARE 15" DEEP UNLESS NOTED OTHERWISE.
10. ALL BASE CABINETS ARE 24" DEEP UNLESS NOTED OTHERWISE.
11. PROVIDE FULL FINISHED END PANELS ON ALL EXPOSED MILLWORK.
12. PROVIDE FILLER PANEL WHERE MILLWORK MEETS WALL.
13. PROVIDE SUPPORT BRACKETS AT WORK SURFACES, 48" MAX BETWEEN BRACKETS UNLESS NOTED OTHERWISE.
14. SEE OWNER APPROVED ROOM FINISH SCHEDULE AND COLOR LEGEND FOR FINISHES.
15. REFER TO A600 SERIES DRAWINGS FOR CEILING HEIGHTS.
16. REFER TO I SERIES DRAWINGS AND A700 SERIES DRAWINGS FOR MILLWORK FINISHES.
17. FIELD VERIFY ALL DIMENSIONS PRIOR TO SHOP DRAWING SUBMITTAL.
18. PROVIDE VALANCE COVER AT ALL UNDER CABINET LIGHTING WHEREVER UNDER CABINET LIGHTING IS REQUIRED.
19. ALL OUTSIDE CORNERS OF COUNTERTOPS TO BE 3" RADIUS.
20. GROMMETS TO BE INSTALLED IN FIELD.



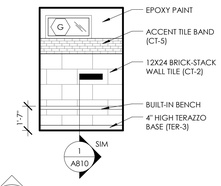
23 A701 **FAMILY 106 - D**
1/4" = 1'-0"



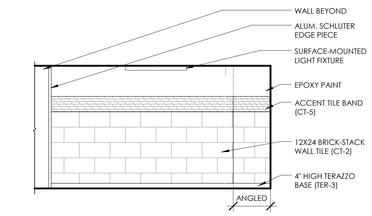
22 A701 **FAMILY 106 - C**
1/4" = 1'-0"



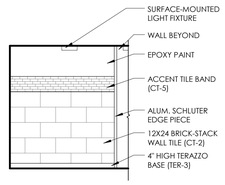
21 A701 **FAMILY 106 - B**
1/4" = 1'-0"



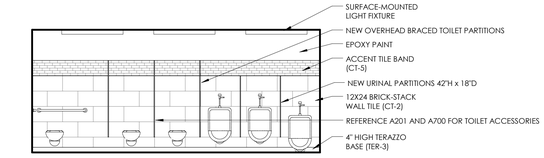
20 A701 **FAMILY 106 - A**
1/4" = 1'-0"



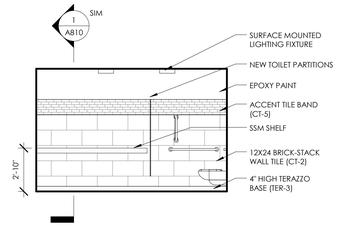
19 A701 **MEN 103 - E**
1/4" = 1'-0"



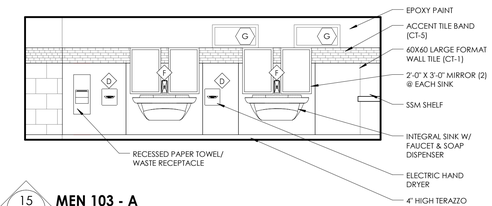
18 A701 **MEN 103 - D**
1/4" = 1'-0"



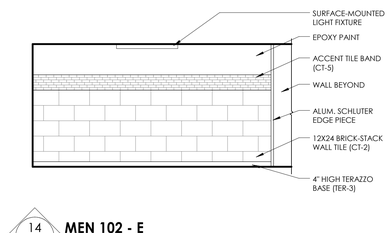
17 A701 **MEN 103 - C**
1/4" = 1'-0"



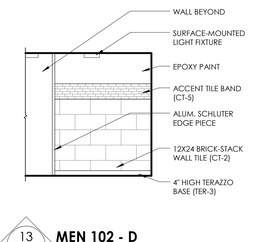
16 A701 **MEN 103 - B**
1/4" = 1'-0"



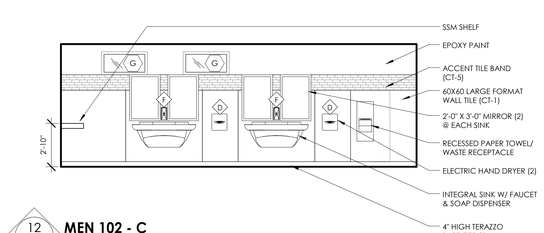
15 A701 **MEN 103 - A**
1/4" = 1'-0"



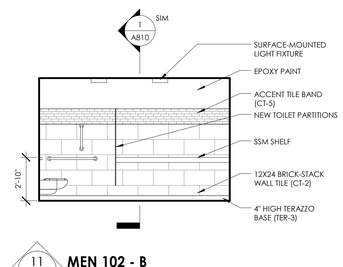
14 A701 **MEN 102 - E**
1/4" = 1'-0"



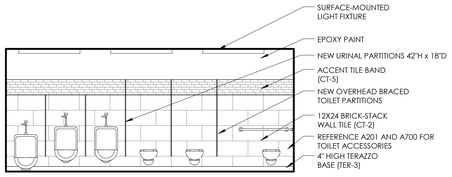
13 A701 **MEN 102 - D**
1/4" = 1'-0"



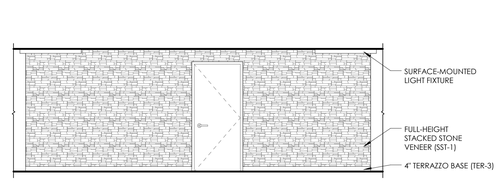
12 A701 **MEN 102 - C**
1/4" = 1'-0"



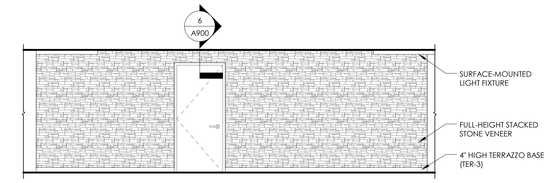
11 A701 **MEN 102 - B**
1/4" = 1'-0"



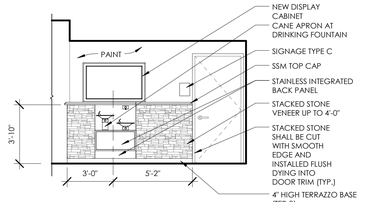
10 A701 **MEN 102 - A**
1/4" = 1'-0"



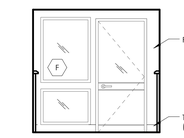
9 A701 **LOBBY 101 - J**
1/4" = 1'-0"



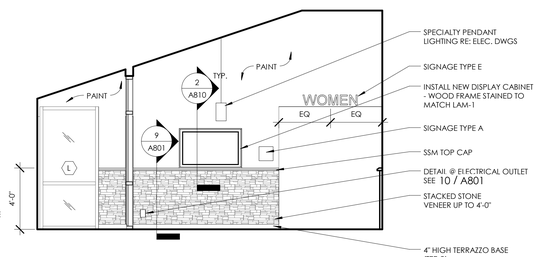
8 A701 **LOBBY 101 - H**
1/4" = 1'-0"



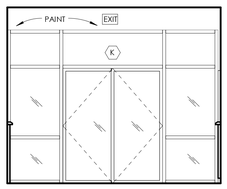
7 A701 **LOBBY 101 - G**
1/4" = 1'-0"



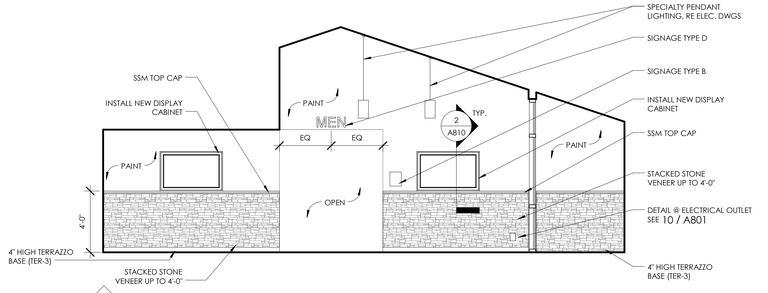
5 A701 **LOBBY 101 - E**
1/4" = 1'-0"



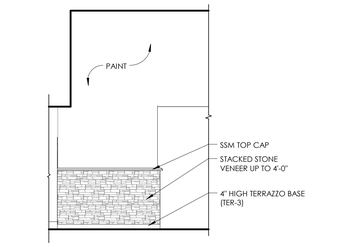
4 A701 **LOBBY 101 - D**
1/4" = 1'-0"



3 A701 **LOBBY 101 - C**
1/4" = 1'-0"



2 A701 **LOBBY 101 - B**
1/4" = 1'-0"



1 A701 **LOBBY 101 - A**
1/4" = 1'-0"

Clark Patterson Lee
ARCHITECTURE | ENGINEERING | PLANNING

6302 Fairview Rd., Suite 102
Charlotte, North Carolina, 28210
Tel: (800) 274-9000
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www.clarkpatterson.com

NO.	DATE	BY	CHKD	DESCRIPTION
				Revision Schedule

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
FIRM CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT KNAPP
REGISTERED LANDSCAPE ARCHITECT
2444
NORTH CAROLINA
CHARLOTTE, N.C.
8/30/2018

DocuSigned by:
Timothy Knapp
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: INTERIOR ELEVATIONS

PROJECT NUMBER: 14391.00

A701
DRAWING NUMBER

8/28/2018 1:49:16 PM

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DocuSign Envelope ID: 4198E5FA-3BA1-453B-B5EF-F5165AADB159

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2. REFER TO A700 FOR TOILET FIXTURE AND ACCESSORIES LEGEND AND MOUNTING HEIGHTS.
3. REFER TO A200 SERIES DRAWINGS FOR ADDITIONAL SPECIALTIES.
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7. REFER TO SPECS FOR ALL TOILET ROOM ACCESSORIES PROVIDED BY OWNER.
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12. PROVIDE FILLER PANEL WHERE MILLWORK MEETS WALL.
13. PROVIDE SUPPORT BRACKETS AT WORK SURFACES, 48" MAX BETWEEN BRACKETS UNLESS NOTED OTHERWISE.
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15. REFER TO A600 SERIES DRAWINGS FOR CEILING HEIGHTS.
16. REFER TO I SERIES DRAWINGS AND A700 SERIES DRAWINGS FOR MILLWORK FINISHES.
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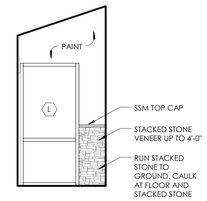
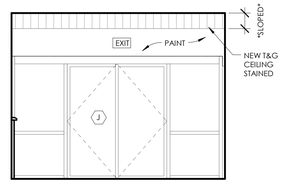
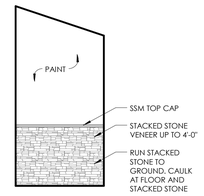
18. PROVIDE VALANCE COVER AT ALL UNDER CABINET LIGHTING WHEREVER UNDER CABINET LIGHTING IS REQUIRED.
19. ALL OUTSIDE CORNERS OF COUNTERTOPS TO BE 3" RADIUS.
20. GROMMETS TO BE INSTALLED IN FIELD.



14 A702 **VESTIBULE 100 - D**
1/4" = 1'-0"



13 A702 **VESTIBULE 100 - C**
1/4" = 1'-0"



12 A702 **VESTIBULE 100 - B**
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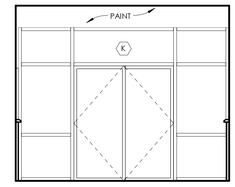
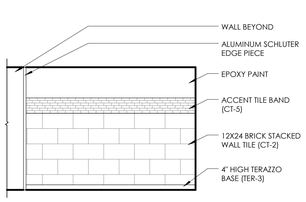
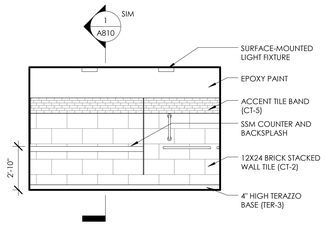


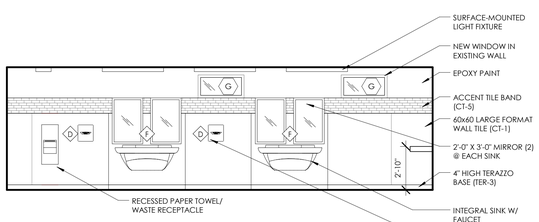
11 A702 **VESTIBULE 100 - A**
1/4" = 1'-0"



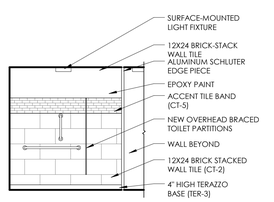
10 A702 **WOMEN 105 - E**
1/4" = 1'-0"



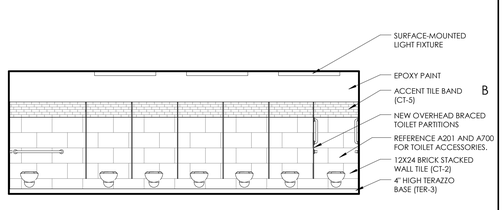
9 A702 **WOMEN 105 - D**
1/4" = 1'-0"



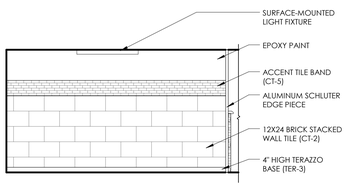
8 A702 **WOMEN 105 - C**
1/4" = 1'-0"



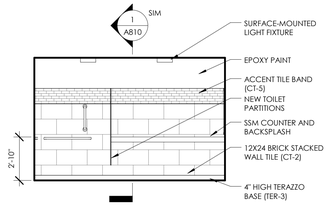
7 A702 **WOMEN 105 - B**
1/4" = 1'-0"



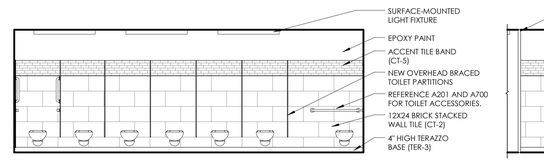
6 A702 **WOMEN 105 - A**
1/4" = 1'-0"



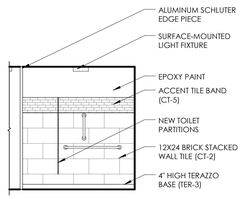
5 A702 **WOMEN 104 - E**
1/4" = 1'-0"



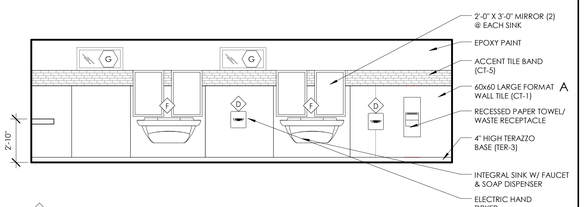
4 A702 **WOMEN 104 - D**
1/4" = 1'-0"



3 A702 **WOMEN 104 - C**
1/4" = 1'-0"



2 A702 **WOMEN 104 - B**
1/4" = 1'-0"



1 A702 **WOMEN 104 - A**
1/4" = 1'-0"

Clark Patterson Lee
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Revision Schedule	DESCRIPTION	CHKD	BY:	DATE	NO.

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
LEBA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT MAYS
SEAL
7744
NORTH CAROLINA
CHARLOTTE, N. C.
DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: INTERIOR ELEVATIONS AND DETAILS

PROJECT NUMBER: 14391.00

A702
DRAWING NUMBER

8/28/2018 1:49:21 PM
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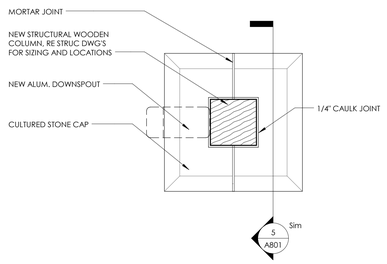
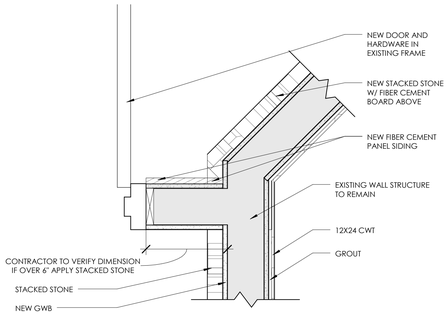
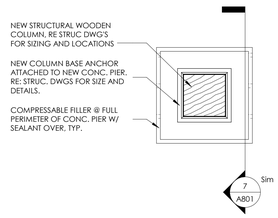


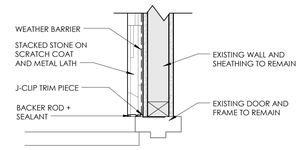
9 A800 **NEW WOOD COLUMN ADD. ALTERNATE**
1 1/2" = 1'-0"



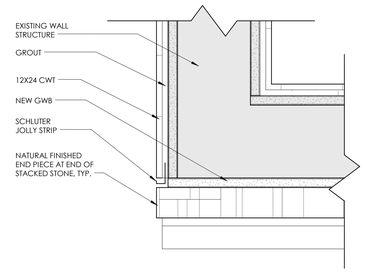
4 A800 **EXTERIOR SIDING INTERIOR CORNER**
1 1/2" = 1'-0"



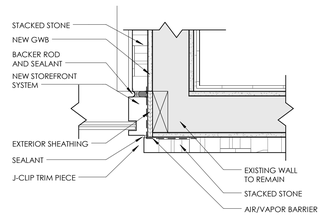
8 A800 **NEW WOOD COLUMN**
1 1/2" = 1'-0"



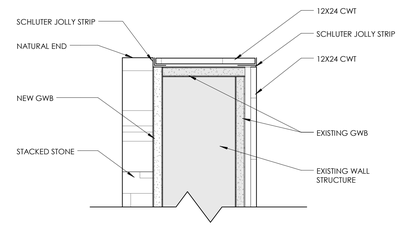
7 A800 **DOOR JAMB @ VENDING BUILDING**
1 1/2" = 1'-0"



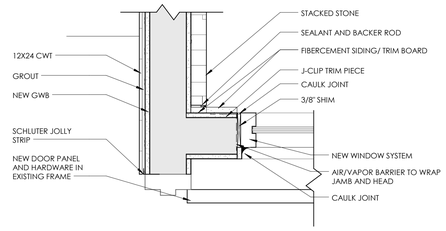
3 A800 **INTERIOR WALL TERMINATION C**
3" = 1'-0"



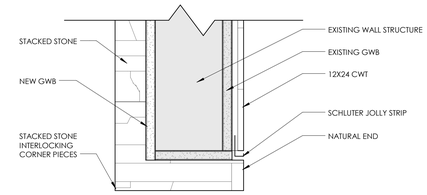
6 A800 **EXTERIOR TERMINATION AT STOREFRONT**
1 1/2" = 1'-0"



2 A800 **INTERIOR WALL TERMINATION B**
3" = 1'-0"



5 A800 **EXTERIOR SIDING @ INTERIOR CORNER 2**
1 1/2" = 1'-0"



1 A800 **INTERIOR WALL TERMINATION A**
3" = 1'-0"

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Revision Schedule

NO.	DESCRIPTION	DATE	BY:	CHKD

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
D/B/A CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT KNAPP
SEAL
24414
NORTH CAROLINA
REGISTERED
LANDSCAPE ARCHITECT
CHARLOTTE, N.C.
8/28/18
DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA
RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: ENLARGED PLAN DETAILS

PROJECT NUMBER: 14391.00

A800
DRAWING NUMBER

8/28/2018 1:49:23 PM
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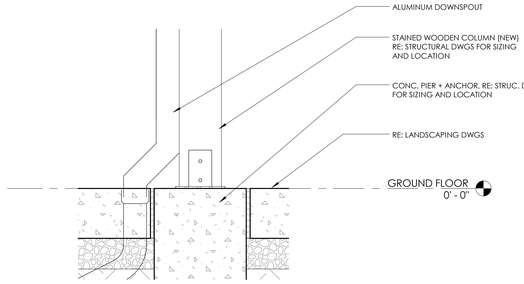
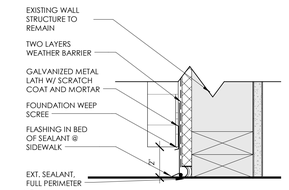
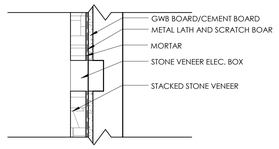


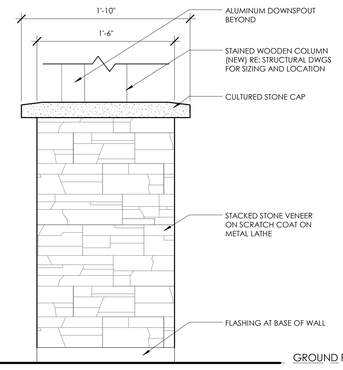
7 A801 **TYP. WOODEN COLUMN**
1 1/2" = 1'-0"



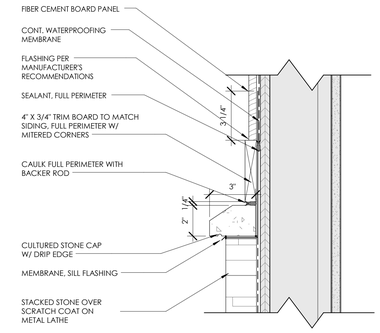
4 A801 **SECTION DETAIL - SEALANT @ STONE BASE**
3" = 1'-0"



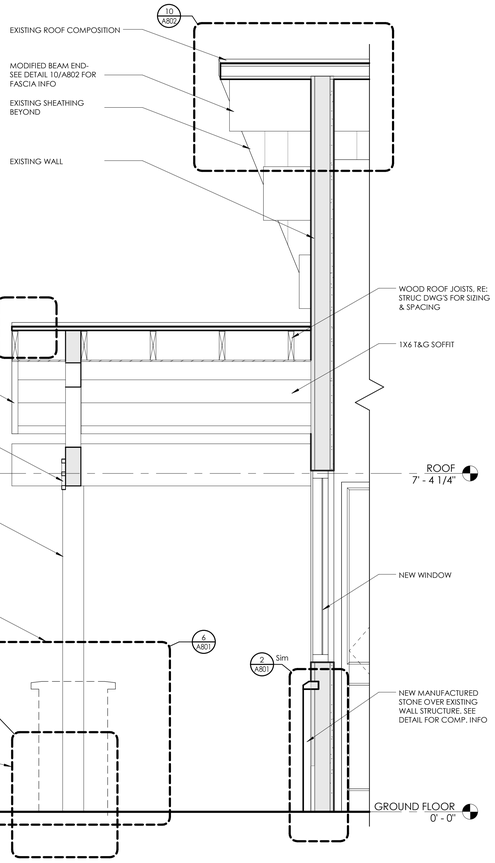
10 A801 **STONE VENEER @ ELEC. OUTLET**
1 1/2" = 1'-0"



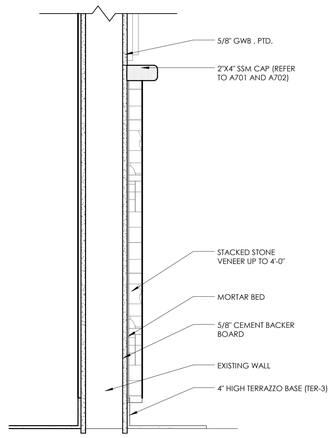
6 A801 **WOODEN COLUMN ADD. ALTERNATE**
1 1/2" = 1'-0"



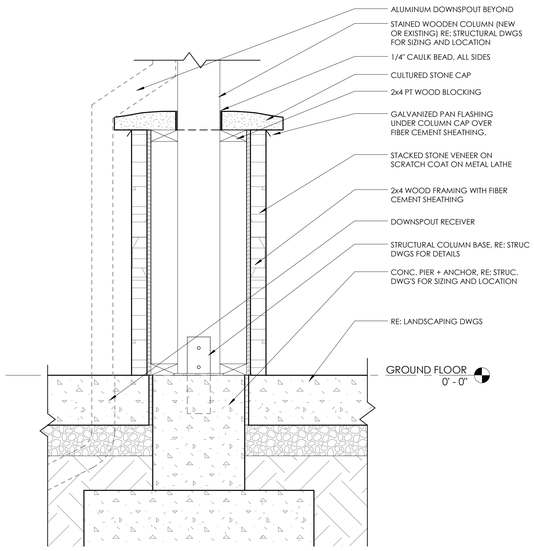
3 A801 **SECTION DETAIL - PRECAST STONE CAP @ WALL**
3" = 1'-0"



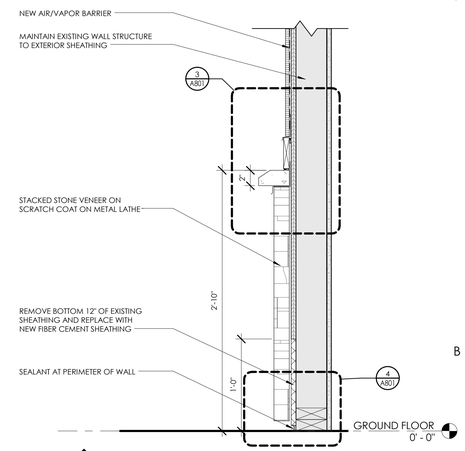
8 A801 **SECTION @ WELCOME CENTER VESTIBULE**
3/4" = 1'-0"



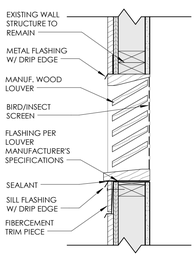
9 A801 **SECTION @ STACKED STONE AT INTERIOR**
1 1/2" = 1'-0"



5 A801 **WOODEN COLUMN ADD. ALTERNATE**
1 1/2" = 1'-0"



2 A801 **NEW EXTERIOR STONE @ SIDEWALK**
1 1/2" = 1'-0"



1 A801 **TYPICAL WOOD LOUVER DETAIL**
1 1/2" = 1'-0"

Clark Patterson Lee
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Charlotte, North Carolina, 28210
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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS LLENA CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT KNIGHT — SEAL 7444 — NORTH CAROLINA — REGISTERED LANDSCAPE ARCHITECT — CHARLOTTE, N.C.

DocuSigned by: 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: ENLARGED SECTION DETAILS

PROJECT NUMBER: 14391.00

A801
DRAWING NUMBER

8/28/2018 1:49:25 PM

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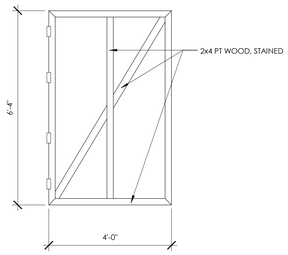
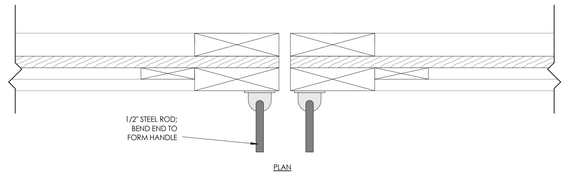
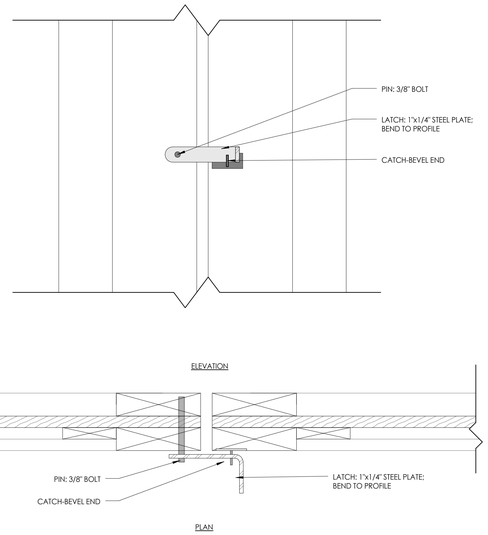


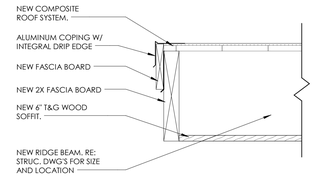
12 A802 **WOOD DOOR DETAIL**
1/2" = 1'-0"



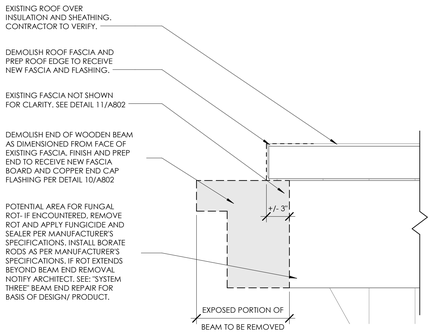
14 A802 **HANDLE DETAIL**
3" = 1'-0"



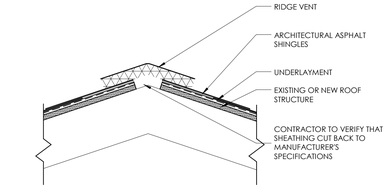
13 A802 **LATCH DETAIL**
3" = 1'-0"



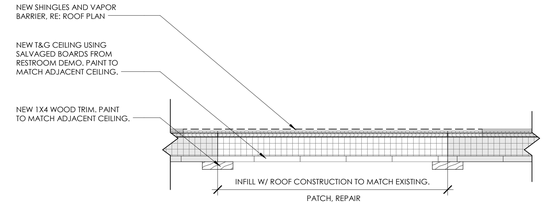
8 A802 **RESTROOM ENTRY @ MAIN ROOF EDGE FASCIA**
1 1/2" = 1'-0"



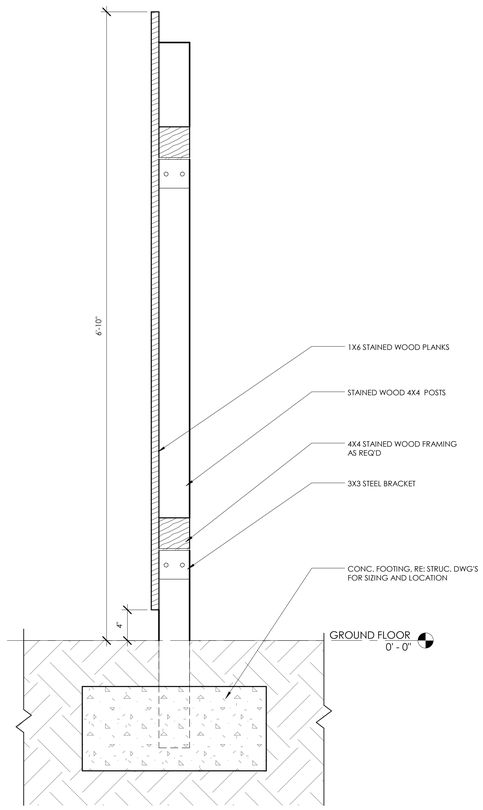
7 A802 **DEMOLITION SECTION DETAIL @ BEAMS**
1 1/2" = 1'-0"



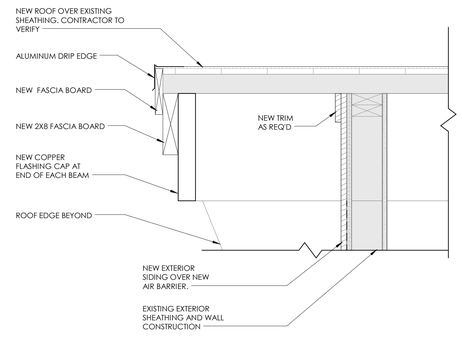
4 A802 **TYPICAL RIDGE VENT DETAIL**
1 1/2" = 1'-0"



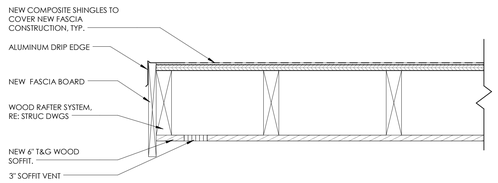
3 A802 **SECTION DETAIL @ WELCOME CENTER SKYLIGHTS**
1 1/2" = 1'-0"



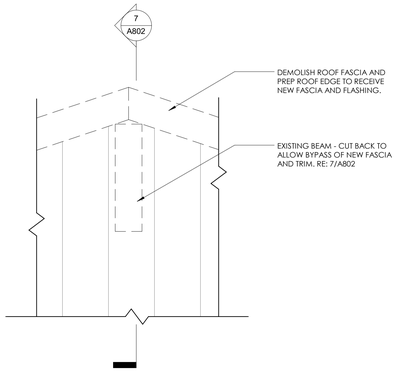
11 A802 **WALL SECTION AT GENERATOR SCREEN**
1 1/2" = 1'-0"



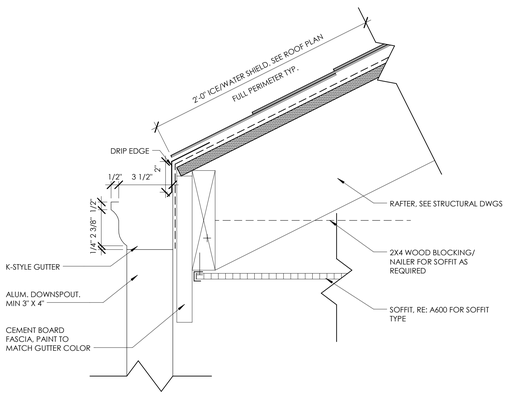
10 A802 **SECTION @ WELCOME CENTER ROOF EDGE**
1 1/2" = 1'-0"



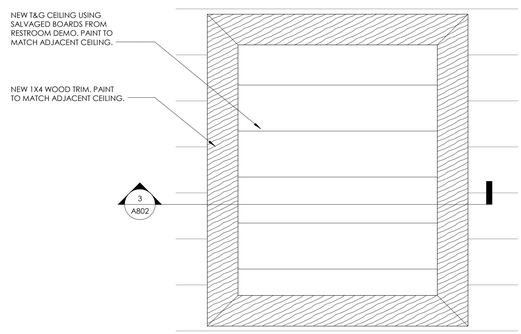
9 A802 **RESTROOM ENTRY @ VESTIBULE ROOF EDGE**
1 1/2" = 1'-0"



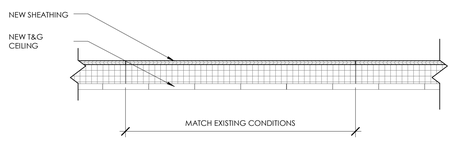
6 A802 **ENLARGED ROOF DEMOLITION ELEVATION**
1 1/2" = 1'-0"



5 A802 **TYPICAL GUTTER AND SOFFIT DETAIL**
3" = 1'-0"



2 A802 **ROOF DETAIL @ WELCOME CENTER SKYLIGHTS**
1 1/2" = 1'-0"



1 A802 **SECTION DETAIL @ RESTROOM SKYLIGHTS**
1 1/2" = 1'-0"

Clark Patterson Lee
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Revision Schedule				
NO.	DATE	BY	CHKD	DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON LEE ENGINEERS/ARCHITECTS — LICENSED — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT KNUPP — 7442 — NORTH CAROLINA — REGISTERED — CHARLOTTE, N.C. — DocuSigned by: — 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG

SCALE: As indicated

SHEET TITLE: ENLARGED ROOF DETAILS

PROJECT NUMBER: 14391.00

A802
DRAWING NUMBER

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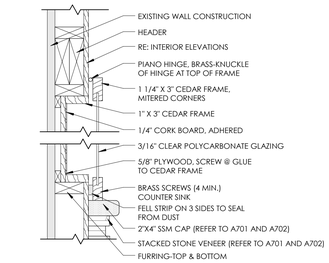
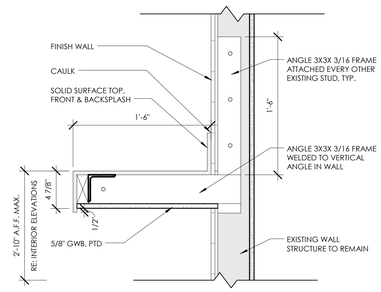


2 / A810 **SECTION DETAIL - DISPLAY CASE**
1 1/2" = 1'-0"



1 / A810 **SECTION DETAIL - CHANGING TABLE**
1 1/2" = 1'-0"

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NO.	DATE	BY	CHKD	DESCRIPTION
				Revision Schedule

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
DBA CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT HAYES
REGISTERED LANDSCAPE ARCHITECT
1744
NORTH CAROLINA
CHARLOTTE, N. C.
8/28/18
DocuSigned by:
8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG
SCALE	1 1/2" = 1'-0"	

SHEET TITLE
MILLWORK DETAILS

PROJECT NUMBER
14391.00

A810
DRAWING NUMBER

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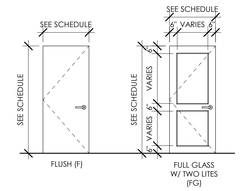
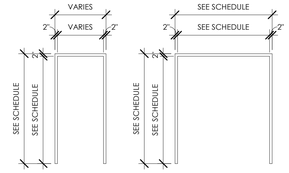
DOOR SCHEDULE

Door No.	DOORS SIZE WIDTH	HEIGHT	TH.	Type	MAT'L/FINISH	FRAMES TYPE	HEAD/JAMB DETAIL #'S	MAT'L/FINISH	GLASS TYPE	HARDWARE	REMARKS
100-1	6' - 6"	7' - 6"		FG	ALUM.	ALUM.	-	ALUM.	G2	8.0	SLIDING AUTOMATIC DOOR, VERIFY DOOR HEIGHT IN FIELD
101-1	6' - 6"	7' - 6"		FG	ALUM.	ALUM.	-	ALUM.	G2	9.0	SLIDING AUTOMATIC DOOR
101-2	3' - 0"	7' - 3" VIF	0' - 1 3/4"	FG	WOOD/STN.	EXST.	-	EXST./HM	G2	2.0	NEW DOOR PANEL AND HARDWARE. NEW HANDICAP DOOR OPENER
106-1	3' - 0"	7' - 0"	0' - 1 3/4"	F	WOOD/STN.	EXST.	-	EXST./HM		4.0	NEW DOOR PANEL AND HARDWARE
107-4	3' - 0"	7' - 0"	0' - 1 3/4"	F	WOOD/STN.	EXST.	-	EXST./HM		5.0	NEW DOOR PANEL AND HARDWARE
108-1	3' - 0"	7' - 0"	0' - 1 3/4"	F	WOOD/STN.	EXST.	-	EXST./HM		5.0	NEW DOOR PANEL AND HARDWARE
109-1	3' - 0"	7' - 0"	0' - 1 3/4"	F	WOOD/STN.	EXST.	-	EXST./HM		6.0	NEW DOOR PANEL AND HARDWARE
118-1	3' - 0"	7' - 0"	0' - 1 3/4"	FG	WOOD/STN.	EXST.	-	EXST./HM	G2	7.0	NEW DOOR PANEL AND HARDWARE
118-2	3' - 0"	7' - 0"	0' - 1 3/4"	FG	WOOD/STN.	EXST.	-	EXST./HM	G2	7.0	NEW DOOR PANEL AND HARDWARE
118-3	3' - 0"	7' - 0"	0' - 1 3/4"	FG	WOOD/STN.	EXST.	-	EXST./HM	G2	1.0	NEW DOOR PANEL AND HARDWARE
119-1	3' - 0"	7' - 0"	0' - 1 3/4"	FG	WOOD/STN.	EXST.	-	EXST./HM	G2	3.0	NEW DOOR PANEL AND HARDWARE
119-2	3' - 0"	7' - 0"	0' - 1 3/4"	FG	WOOD/STN.	EXST.	-	EXST./HM	G2	3.0	NEW DOOR PANEL AND HARDWARE
V101-1	6' - 0"	7' - 0"	0' - 1 3/4"	EXST.	EXST.	EXST.	-	EXST./ALUM.	EXST.	10.0	NEW HINGE HARDWARE- 90 DEGREE LIMITER
V101-2	6' - 0"	7' - 0"	0' - 1 3/4"	EXST.	EXST.	EXST.	-	EXST./ALUM.	EXST.	10.0	NEW HINGE HARDWARE- 90 DEGREE LIMITER



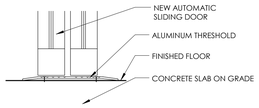
Architectural - Door Legend
1/4" = 1'-0"



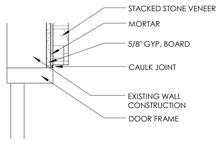
Architectural - Door Frame Legend
1/4" = 1'-0"

DOOR AND FRAME NOTES

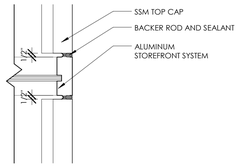
1. ALL FRAMES ARE TO RECEIVE FULL PERIMETER SEALANT. INTERIOR AND EXTERIOR.
2. ALL DOOR AND WINDOW DIMENSIONS ARE TO BE VERIFIED IN FIELD PRIOR TO FABRICATION.



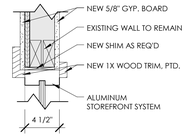
8 A900 **THRESHOLD @ VESTIBULE DOORS**
1 1/2" = 1'-0"



6 A900 **DOOR HEAD DETAIL @ STACKED STONE**
1 1/2" = 1'-0"

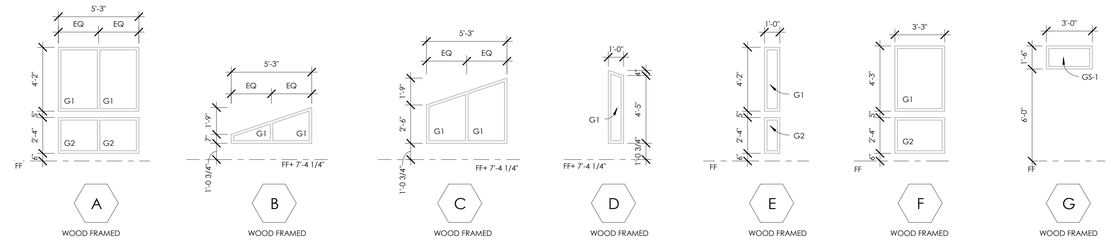


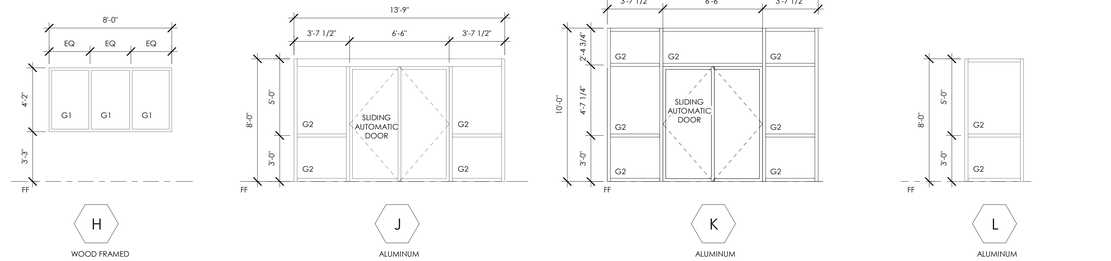
4 A900 **DETAIL @ STOREFRONT**
1 1/2" = 1'-0"



*NOTE: JAMB SIMILAR DETAIL

3 A900 **HEAD DETAIL @ RESTROOM LOBBY**
1 1/2" = 1'-0"





Architectural - Window Legend
1/4" = 1'-0"

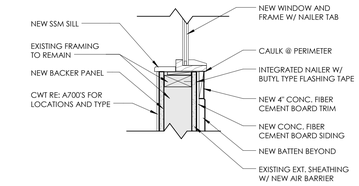
WINDOW NOTES

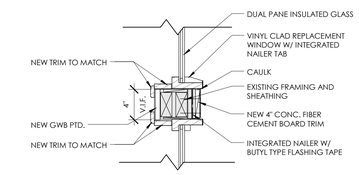
1. CONTRACTOR TO FIELD VERIFY ALL WINDOW AND WINDOW FRAME DIMENSIONS PRIOR TO CONSTRUCTION.
2. ALL WINDOWS TO RECEIVE NEW HEAD, JAMP AND SILL AIR/VAPOR BARRIER AND FULL-PERIMETER SEALANT. INTERIOR + EXTERIOR.
3. ALL WINDOWS FIXED.

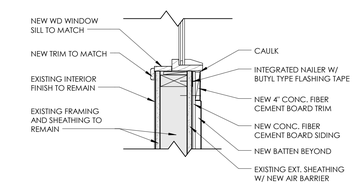
GLASS TYPES:

G1	1" INSULATED LOW E GLASS
G2	1" INSULATED TEMPERED LOW-E GLASS
GS-1	1" OBSCURED INSULATED TEMPERED LOW-E GLASS

2 A900 **TYPICAL WINDOW SILL SSM @ RESTROOMS**
1 1/2" = 1'-0"







1 A900 **TYP. WINDOW SILL & HEAD DETAIL @ WELCOME CENTER**
1 1/2" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS/PLA CLARK PATTERSON LEE CHARLOTTE, NC 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT WARD — REGISTERED LANDSCAPE ARCHITECT — 1744 — NORTH CAROLINA — CHARLOTTE, N. C. — DocuSigned by: — 8/30/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	ACA	RFG
SCALE	As indicated	

SHEET TITLE
DOOR SCHEDULE, DOOR FRAMES, AND WINDOW TYPES

PROJECT NUMBER
14391.00

A900
DRAWING NUMBER

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FINISHES LIST

FINISH CODE	MANUFACTURER	STYLE NAME	COLOR	DIMENSIONS	ADDITIONAL REQUIREMENTS	REMARKS	Category-HIDE ME
CERAMIC TILE							
CT-1	DALTILE	Panoramic	Belmont Terrace Matte	63" x 126" Slab - 1/4" thickness	Cut to size 60" x 60" - see Interior Elevations	Wall Tile - 1/8" thick grout lines	CERAMIC TILE
CT-2	DALTILE	Anchorage	White AC04 - Unpolished	12" x 24"	1/8" grout thickness	Wall Tile - Install in a brick stack pattern - See Interior Elevations	CERAMIC TILE
CT-3	NOT USED						CERAMIC TILE
CT-4	DALTILE	Anchorage	Light Grey AC06 - Unpolished	12" x 24"	1/8" grout thickness	Floor Tile - Install in a brick stack pattern - See Floor Patterning Plan	CERAMIC TILE
CT-5	GIO TILE	Glass Linear Blend Mosaics	Glass and Stone - Aqua		Use manufacturer's recommended grout thickness	Installed per manufacturer's installation instructions	CERAMIC TILE
DIVIDER STRIP							
DS-1	TERRAZZO AND MARBLE	N/A	Zinc	3/8" Thick x 1/4" Wide Heavy Top 2 piece - Size per specifications	"L" type strip is positioned adjacent to dissimilar flooring or at door thresholds	See Floor Patterning Plan for locations	DIVIDER STRIP
EPOXY PAINT							
EPT-1	PPG	N/A	PPG14-16 Winter Mood - LRV-84	N/A			EPOXY PAINT
EPT-2	PPG	N/A	PPG10-06 Thunderbolt - LRV-23	N/A			EPOXY PAINT
EPT-3	PPG	N/A	PPG14-27 True Khaki - LRV-42	N/A		To be used on all door and window frames	EPOXY PAINT
GROUT							
GR-1	CUSTOM BUILDING PRODUCTS	N/A	#11 Snow White - Unpolished	N/A	To be used with CT-1, CT-2 and CT-5		GROUT
GR-2	CUSTOM BUILDING PRODUCTS	N/A	#09 Natural Gray- Polished	N/A	To be used with CT-4		GROUT
PAINT							
PT-1	PPG	N/A	PPG14-16 Winter Mood - LRV-84	N/A	Eggshell Finish		PAINT
PT-2	PPG	N/A	PPG10-06 Thunderbolt - LRV-23	N/A	Eggshell Finish		PAINT
PT-3	PPG	N/A	To match Sherwin Williams SW7007 Ceiling Bright White	N/A	Eggshell Finish		PAINT
RESILIENT BASE							
RB-1	SCHLUTER	Schluter - DESIGNBASE-SL	Anondized aluminum	4" High	To be used in areas where tile is on the floor		RESILIENT BASE
SOLID SURFACE							
SSM-1	CORIAN	N/A	Clam Shell	N/A	To be supported by appropriate bracing - architect to verify		SOLID SURFACE
STACKED STONE							
SST-1	REALSTONE SYSTEMS	Accentstone	Terracotta		All veneer pieces in addition to associate manufacturer's interlocking pieces and corner pieces where necessary		STACKED STONE
SST-2	REALSTONE SYSTEMS	Accentstone	Terracotta		Matching/coordinating interlocking corner pieces		STACKED STONE
SST-3	REALSTONE SYSTEMS	Accentstone	Terracotta		Matching/coordinating natural end pieces		STACKED STONE
TERRAZZO							
TER-1	TERRAZZO AND MARBLE	Terroxy Resin Systems	TMHS-3003	3/8" Thick	Poured Flooring	At flooring by others, thresholds, or other dissimilar flooring materials, terrazzo must be installed first	TERRAZZO
TER-2	TERRAZZO AND MARBLE	Terroxy Resin Systems	TMHS-3005	3/8" Thick	Poured Flooring		TERRAZZO
TER-3	TERRAZZO AND MARBLE	Terroxy Resin Systems	TMHS-3003	3/8" Thick	4" High Base		TERRAZZO
TRIM							
TRM-1	SCHLUTER	Jolly	Stainless Steel		To be used at locations where indicated		TRIM
TRM-2	SCHLUTER	Deco	Stainless Steel		To be used at floor changes between terrazzo and tile.		TRIM
TRM-3	SCHLUTER	Rondec-DB	Stainless Steel		To be used at the top and bottom of CT-5 where specified and in location where CT-1 meets the top of the terrazzo base		TRIM

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NO.	DATE	BY:	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS d/b/a CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT MAYS — REGISTERED — 7444 — NORTH CAROLINA — CHARLOTTE, N.C. — 8/28/18

DocuSigned by: 8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	MBL	MBL

SCALE

SHEET TITLE
FINISH SPECIFICATIONS

PROJECT NUMBER
14391.00

1900
DRAWING NUMBER

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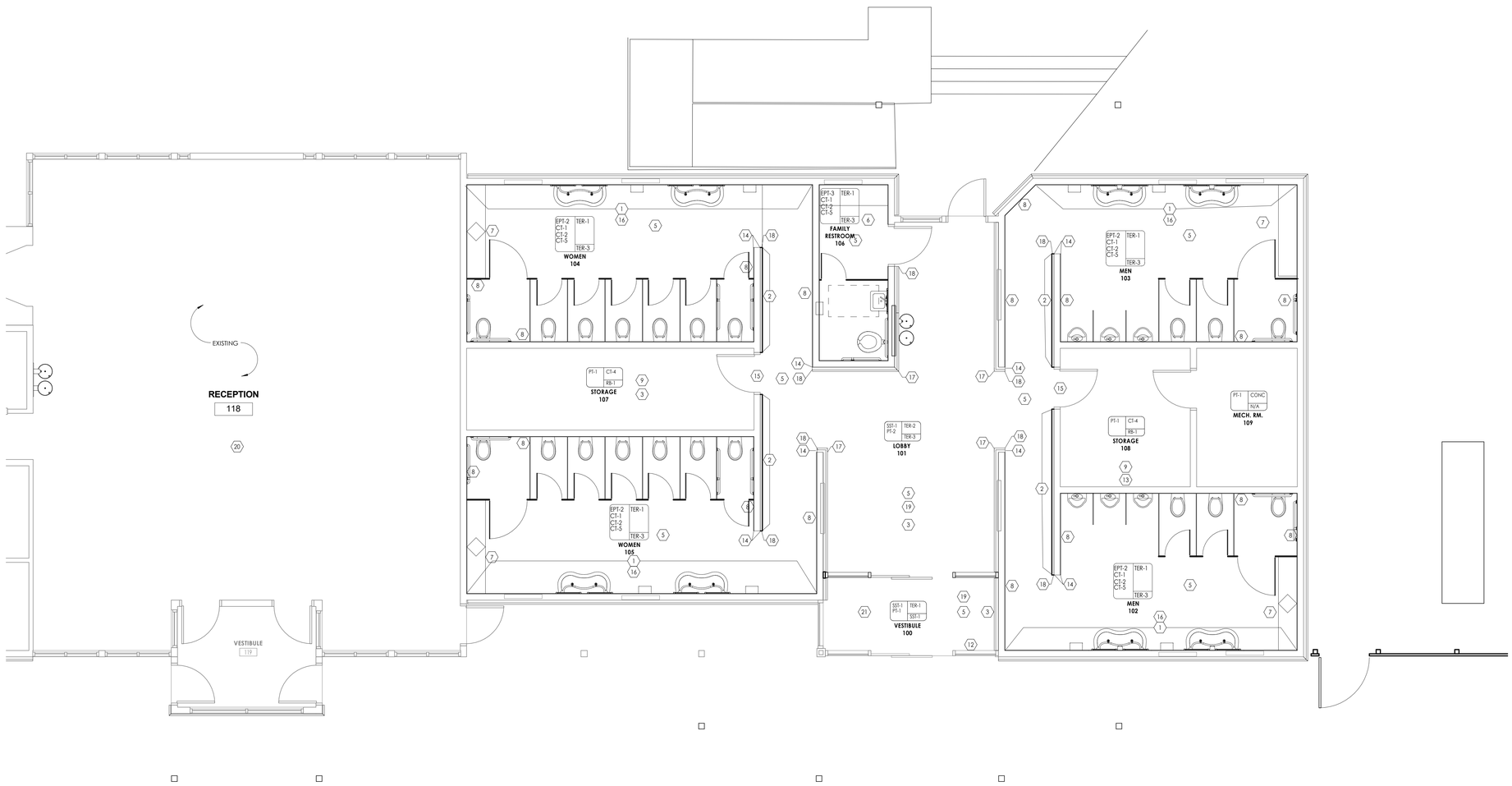

FINISH PLAN GENERAL NOTES:

1. ALL HOLLOW METAL DOOR FRAMES AND WINDOW FRAMES SHALL BE PAINTED EPT-3.
2. ALL DOORS SHALL BE OAK WITH FINISH STAIN TO MATCH WILSONART LAMINATE NEOWALNUT 7991-38.
3. ALL LOUVERS, VENTS, GRILLES AND OTHER MISCELLANEOUS MECHANICAL AND ELECTRICAL DEVICES ARE TO BE PAINTED TO MATCH THE SURFACE ON WHICH THEY APPEAR IN EPOXY FINISH, UNLESS OTHERWISE NOTED.
4. REFER TO A600 SERIES DRAWINGS FOR CEILING TYPES AND SOFFIT FINISHES.
5. REFER TO A700 SERIES INTERIOR ELEVATIONS FOR MILLWORK FINISHES.
6. ALL WINDOW SILLS SHALL BE SSM-1, UNLESS OTHERWISE NOTED.
7. UNDERSIDE OF SOFFITS TO MATCH FACE OF SOFFIT. SEE A600 SERIES FOR PAINT ACCENT SPECIFICATIONS. PAINT GWB CEILINGS PT-5, U.N.O.
8. TERRAZZO BASE TO BE 4" HIGH UNLESS OTHERWISE NOTED.
9. REFER TO I300 FOR FLOOR PATTERN PLANS & DETAILS.
10. ALL VERTICAL LAMINATE ON MILLWORK SHALL HAVE THE GRAIN TO RUN VERTICALLY.
11. ALL COUNTERTOPS SHALL BE SSM-1, U.N.O.
12. ALL INTERIOR STACKED STONE VENEER SHALL BE SEALED.
13. ALL GROUT SHALL BE SEALED A MINIMUM OF TWO TIMES PRIOR TO COMPLETION.
14. CT-1 LARGE SCALE SLABS SHALL BE INSTALLED SPECIFICALLY PER MANUFACTURER'S INSTALLATION DETAILS.
15. ALL EXPOSED CONCRETE FLOORS TO BE SEALED A MINIMUM OF TWO TIMES PRIOR TO COMPLETION.
16. CEDAR BEAMS SHALL BE STAINED AND SEALED IN A CLEAR COAT FINISH.
17. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS FOR FINISHES NOTED ON I900.

FINISH PLAN KEYNOTES:

1. CT-1 SHALL RUN FROM TOP OF TER-3 BASE TO UNDERSIDE OF CT-5 ON WET WALL AS INDICATED. SEE A700 SHEETS FOR DETAILS.
2. PROVIDE CULTURED STACKED STONE VENEER FULL HEIGHT OF WALL. SEE A700 SERIES FOR ELEVATION DETAILS.
3. PROVIDE TERRAZZO FLOORING WITH DIVIDER STRIPS INDICATING PATTERN AS SPECIFIED ON I300 SHEET. SEE FLOOR PATTERNING PLAN FOR DETAILS.
4. SEE INTERIOR ELEVATIONS ON A700 SHEETS FOR CULTURED STACKED STONE VENEER AND TILE PATTERN DETAILS AND SPECIFICATIONS.
5. ALL TERRAZZO FLOORING SHALL RECEIVE COVED TERRAZZO BASE PER MANUFACTURER'S INSTALLING RECOMMENDATIONS.
6. CT-2 TO BE USED ON ALL WALLS UNDER CT-5. SEE A700 SHEETS FOR DETAILS.
7. TERRAZZO FLOORING SHALL RUN UNDERNEATH MILLWORK AS SHOWN.
8. CT-2 SHALL BE USED ON ALL TOILET ROOM WALLS UNDER CT-5 EXCEPT WHERE INDICATED FOR CT-1.
9. 12X24 FLOOR TILE SHALL BE LAID IN BRICK STACK PATTERN.
10. NOT USED
11. NOT USED
12. BASE IN VESTIBULE SHALL BE 4" TERRAZZO.
13. BASE SHALL BE RB-1 SCHLUTER DESIGNBASE.
14. TRM-1 USED AT CORNERS WHERE INDICATED. REFER TO A800 FOR PLAN DETAILS.
15. TRM-2 USED TO TRANSITION BETWEEN FLOOR FINISHES.
16. TRM-3 TO BE USED WHERE INDICATED.
17. SST-2 INTERLOCKING CORNER PIECES TO BE USED WHERE INDICATED. REFER TO A800 FOR PLAN DETAILS.
18. SST-3 NATURAL END PIECES TO BE USED WHERE INDICATED. REFER TO A800 FOR PLAN DETAILS.
19. SST-1 IN LOBBY AND VESTIBULE SHALL RUN FROM TOP OF TERRAZZO BASE (TER-3) TO UNDERSIDE OF SSM-1 TOP CAP. SEE A700 SHEETS FOR DETAILS.
20. PREP. EXISTING TONGUE AND GROOVE CEILING TO RECEIVE NEW PAINT. PAINT COLOR TO BE DETERMINED BY ARCHITECT.
21. SST TO RUN TO FLOOR. CONTRACTOR TO CAULK STONE @ FLOOR.

FINISH SYMBOLS LEGEND AND ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	LVT	LUXURY VINYL TILE
ACT	ACOUSTICAL CEILING TILE	PF	PANEL FABRIC
AGL	ART GLASS	PT	PAINT
CC	CUBICAL CURTAIN	PTM	PAINT TO MATCH
CG	CORNER GUARD	QT	QUARTZ
CHR	CHAIR RAIL	RB	RESILIENT BASE
CP	CEILING CANOPY	RP	RESIN PANEL
CPT	CARPET	RS	RUBBER SHEET FLOORING
CR	CRASH RAIL	RST	RUBBER STAIR TREAD
CS	CULTURED STONE	RT	RUBBER TILE FLOORING
CT	CERAMIC TILE	SC	STAINED CONCRETE
DS	DIVIDER STRIP	SS	STAINLESS STEEL
EPT	EPOXY PAINT	SSM	SOLID SURFACE
ERF	EPOXY RESIN FLOORING	SST	SIMULATED STONE
ETR	EXISTING TO REMAIN	SV	SHEET VINYL
FT	FILM TINT	TS	TRANSITION STRIP
GR	GROUT	TER	TERRAZZO
GWB	GYPSUM WALL BOARD	VCT	VINYL COMPOSITION TILE
HR	HAND RAIL	VWC	VINYL WALL COVERING
HPL	HIGH PRESSURE LAMINATE	WG	WALL GUARD
		WOM	WALK-OFF MAT
		WP	WALL PROTECTION
		WR	WELDING ROD

WALL FINISH(ES) WF1 WF2 WF3 | FF1 FF2 BF1 FLOOR FINISH(ES) BASE FINISH

ROOM NAME
101

XXX EXTENT OF NOTED FINISH

1 / I200 **GROUND FLOOR FINISH PLAN**
1/4" = 1'-0"

Clark Patterson Lee
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6302 Fairview Rd., Suite 102
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NO.	DATE	BY	CHKD	DESCRIPTION
				Revision Schedule

STATE OF NORTH CAROLINA
CLARK PATTERSON ENGINEERS/ARCHITECTS
D/B/A CLARK PATTERSON LEE
CHARLOTTE, NC
51301
REGISTERED ARCHITECTS

TIMOTHY SCOTT MABE
REGISTERED LANDSCAPE ARCHITECT
1744
NORTH CAROLINA
CHARLOTTE, N. C.
8/28/18
DocuSigned by:
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA
RENOVATION
SCO ID# 18-19094-01 A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	CL	MBL
SCALE	As indicated	

SHEET TITLE
GROUND FLOOR FINISH PLAN

PROJECT NUMBER
14391.00

I200
DRAWING NUMBER

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FLOOR PATTERNING GENERAL NOTES:

1. ALL FLOOR FINISHES SHALL TRANSITION AT THE CENTERLINE OF THE DOOR, UNLESS OTHERWISE NOTED. INSTALL TRANSITION STRIPS PER DETAILS.
2. ALL AREAS WITH TERRAZZO SHALL HAVE ACCOMPANYING BASE AT 4" A.F.F. BASE SHALL BE THE SAME COLOR AS THE ADJACENT FLOORING MATERIAL, UNLESS OTHERWISE NOTED.
3. ALL GROUT TO BE SEALED A MINIMUM OF TWO TIMES PRIOR TO COMPLETION.
4. ALL TERRAZZO SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. DIVIDER STRIPS SHALL UNDERNEATH MILLWORK/FIXTURES AND RUN WALL-TO-WALL.
6. INTEGRATED "STATE OF NORTH CAROLINA" FLOORING INLAY SHALL BE INFILLED WITH TER-2. PATTERN SHALL BE LASER CUT PER MANUFACTURER'S RECOMMENDATIONS. PATTERN TO BE SCALED ACCORDING TO PLANS, AND CONFIGURED BASED ON OWNER'S PREFERRED TEMPLATE AND INSTALLER'S EXPERTISE.

TERRAZZO GENERAL NOTES:

1. ALL DIVIDER STRIPS SHALL BE 1/4" THICK. INSTALL STRIPS AND TERRAZZO FLOORING BASED ON MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. REFER TO MANUFACTURER FOR MAXIMUM DISTANCES BETWEEN DIVIDER STRIPS.

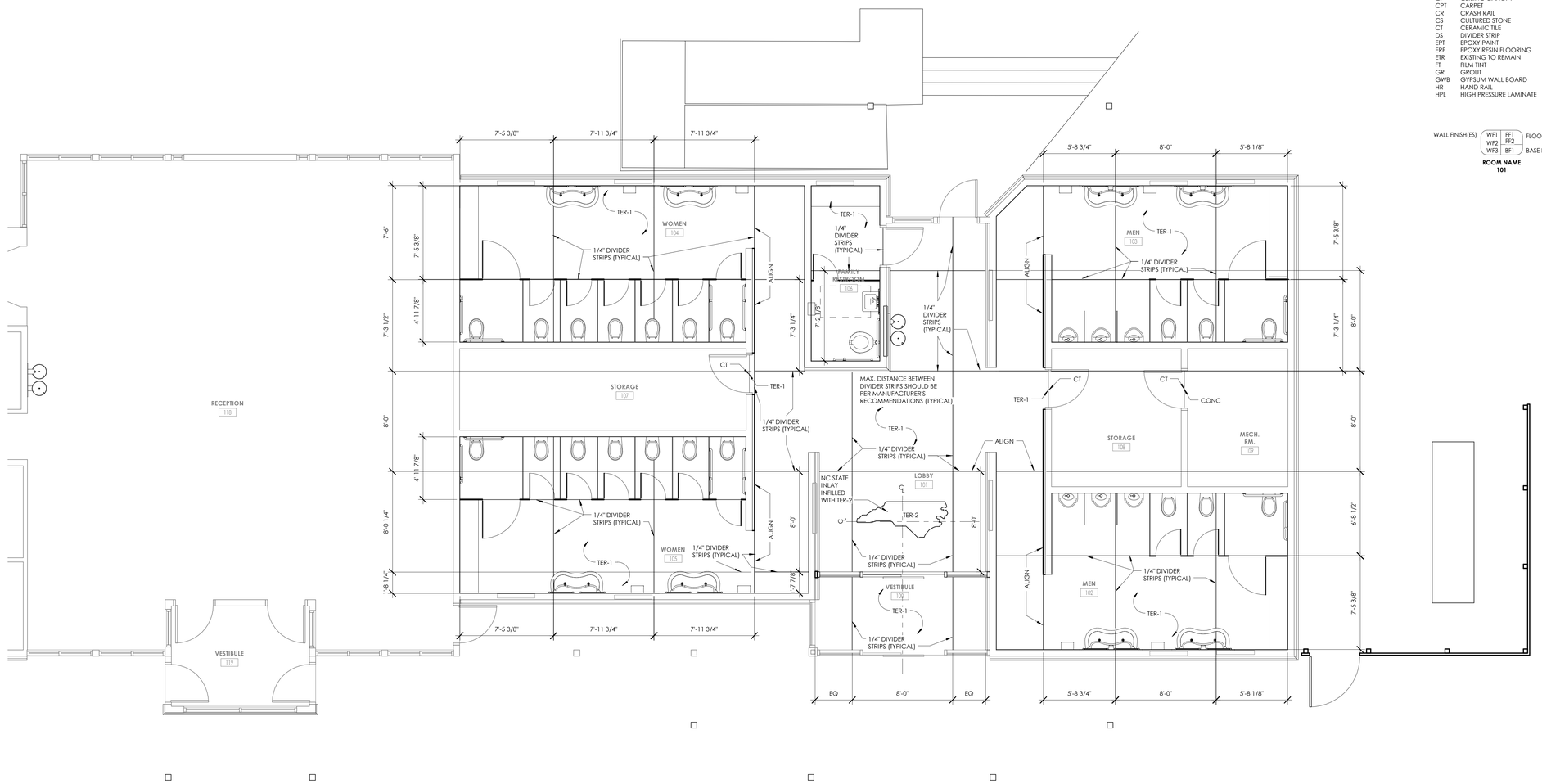
FINISH SYMBOLS LEGEND AND ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	LVT	LUXURY VINYL TILE
ACT	ACOUSTICAL CEILING TILE	PF	PANEL FABRIC
AGL	ART GLASS	PT	PAINT
CC	CUBICAL CURTAIN	PTM	PAINT TO MATCH
CG	CORNER GUARD	QT	QUARTZ
CHR	CHAIR RAIL	RB	RESILIENT BASE
CP	CEILING CANOPY	RP	RESIN PANEL
CPT	CARPET	RS	RUBBER SHEET FLOORING
CR	CRASH RAIL	RST	RUBBER STAIR TREAD
CS	CULTURED STONE	RT	RUBBER TILE FLOORING
CT	CERAMIC TILE	SC	STAINED CONCRETE
DS	DIVIDER STRIP	SS	STAINLESS STEEL
EPT	EPOXY PAINT	SSM	SOLID SURFACE
ERF	EPOXY RESIN FLOORING	SST	SIMULATED STONE
ETR	EXISTING TO REMAIN	SV	SHEET VINYL
FT	FILM TINT	TS	TRANSITION STRIP
GR	GROUT	TER	TERRAZZO
GWB	GYPSUM WALL BOARD	VCT	VINYL COMPOSITION TILE
HR	HAND RAIL	VWC	VINYL WALL COVERING
HPL	HIGH PRESSURE LAMINATE	WG	WALL GUARD
		WOM	WALK-OFF MAT
		WP	WALL PROTECTION
		WR	WELDING ROD

WALL FINISH(ES) WF1 | FF1 / WF2 | FF2 / WF3 | BF1 — FLOOR FINISH(ES) / BASE FINISH

ROOM NAME
101

XXX — EXTENT OF NOTED FINISH



1 / 1300 — **GROUND FLOOR PATTERNING PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

STATE OF NORTH CAROLINA — CLARK PATTERSON ENGINEERS/ARCHITECTS — LUBA CLARK PATTERSON LEE — CHARLOTTE, NC — 51301 — REGISTERED ARCHITECTS

TIMOTHY SCOTT KNIGHT — NORTH CAROLINA — 24418 — REGISTERED — CHARLOTTE, N.C.
DocuSigned by: [signature] 8/29/2018 | 2:24:44 PM EDT

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC28786

DATE	DRAWN	CHECKED
08/28/2018	CL	MBL

SCALE: As indicated

SHEET TITLE: GROUND FLOOR PATTERNING PLAN

PROJECT NUMBER: 14391.00

1300 — DRAWING NUMBER

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HVAC SYMBOLS LIST

AAD	AUTOMATIC AIR DAMPER
ACC	AIR-COOLED CONDENSING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BBD	BOILER BLOW DOWN
BD	BACKDRAFT DAMPER
CA	COMBUSTION AIR
CD	COOLING COIL CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
CW	DOMESTIC COLD WATER
D	DRAIN
(E)	EXISTING
EA	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ERHC	ELECTRIC REHEAT COIL
ETR	EXISTING TO REMAIN
EUH	ELECTRIC UNIT HEATER
F&T	FLOAT AND THERMOSTATIC TRAP
FCU	FAN-COIL UNIT
FPM	FEET PER MINUTE
FT	FIN-TUBE
GC	GENERAL CONTRACTOR
GR	GLYCOL RETURN
GS	GLYCOL SUPPLY
HC	HVAC CONTRACTOR
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
Hp	HEAT PUMP
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
LF	LINEAR FOOTAGE OF FIN-TUBE RADIATION
LPC	LOW PRESSURE CONDENSATE
LPG	LIQUEFIED PROPANE GAS
LPS	LOW PRESSURE STEAM
MBH	1,000 BTU/HR
MC	MECHANICAL CONTRACTOR
MPC	MEDIUM PRESSURE CONDENSATE
MPS	MEDIUM PRESSURE STEAM
MRD	MONOFLO FITTING DOWN – HHWR
MSD	MONOFLO FITTING DOWN – HHWS
MUW	MAKE-UP WATER
NC	NORMALLY CLOSED
NG	NATURAL GAS
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
PC	PLUMBING CONTRACTOR
PD	PUMP DISCHARGE
PHWR	PRIMARY HEATING HOT WATER RETURN
PHWS	PRIMARY HEATING HOT WATER SUPPLY
RA	RETURN AIR
RD	REFRIGERANT DISCHARGE
RHC	HOT WATER REHEAT COIL
RLL	REFRIGERANT LIQUID PIPE
RSL	REFRIGERANT SUCTION PIPE
RTU	ROOFTOP UNIT
RV	ROOF VENT
SA	SUPPLY AIR
SHWR	SECONDARY HEATING HOT WATER RETURN
SHWS	SECONDARY HEATING HOT WATER SUPPLY
SSI	SPLIT SYSTEM INDOOR SECTION (EVAPORATOR SECTION)
SSO	SPLIT SYSTEM OUTDOOR SECTION (CONDENSING UNIT)
TC	TEMPERATURE CONTROLS CONTRACTOR
UH	UNIT HEATER
UV	UNIT VENTILATOR
V	VENT
WAHP	WATER-TO-AIR HEAT PUMP
WWHP	WATER-TO-WATER HEAT PUMP

SYMBOL	DESCRIPTION
	CONNECTION - TOP
	CONNECTION - BOTTOM
	DIRECTION OF FLOW
	REDUCER
	CAP OR PLUG
	ELBOW DOWN
	ELBOW UP
	TEE OUTLET - UP
	TEE OUTLET - DOWN
	UNION
	GATE VALVE
	BALL VALVE
	BALANCING VALVE
	STRAINER
	STRAINER WITH BLOW-DOWN
	BUTTERFLY VALVE
	BUTTERFLY CONTROL VALVE, PNEUMATIC 2-WAY
	BUTTERFLY CONTROL VALVE, ELECTRIC ACTUATOR
	GLOBE VALVE
	CHECK VALVE
	TRIPLE DUTY VALVE
	GAS COCK, PLUG VALVE
U/C	UNDERCUT DOOR 1"
L	LOUVERED DOOR W/ SQ. FT. OF FREE AREA
M	AIR VENT - MANUAL
A	AIR VENT - AUTOMATIC
	FLANGE
	CONTROL/SOLENOIND VALVE, ELECTRIC 2-WAY
	CONTROL VALVE, ELECTRIC 3-WAY
	CONTROL VALVE, PNEUMATIC 2-WAY
	CONTROL VALVE, PNEUMATIC 3-WAY
	RELIEF / SAFETY VALVE
	PRESSURE REDUCING VALVE
V	VACUUM BREAKER
	FLEXIBLE PIPE CONNECTOR
	EXPANSION COMPENSATOR W/ GUIDES
	EXPANSION JOINT
	PIPE ANCHOR
	PIPE GUIDE
TT	THERMOSTATIC TRAP
FT	FLOAT & THERMOSTATIC TRAP
BT	BUCKET TRAP
TD	THERMODYNAMIC TRAP
	THERMOMETER
	WELL
	PRESSURE GAUGE
	STEAM PRESSURE GAUGE WITH 1/4" NEEDLE VALVE
	PRESSURE GAUGE WITH 1/4" NEEDLE VALVE
	PNEUMATIC (CONTROL) TUBING
	BUTTERFLY VALVE WITH PNEUMATIC AND MANUAL OPERATORS
XX	PIPING
XX	PIPING BELOW GRADE
	BASE MOUNTED PUMP
	IN-LINE PUMP
	AIR TERMINAL UNIT WITH REHEAT COIL AND SOUND ATTENUATOR
	AIR TERMINAL UNIT WITH SOUND ATTENUATOR
	AIR TERMINAL UNIT WITH REHEAT COIL
	AIR TERMINAL UNIT
W/W ENCL.	WALL TO WALL FIN TUBE ENCLOSURE

SYMBOL	DESCRIPTION
20/10	DUCT SECTION - SUPPLY
20/10	DUCT SECTION - RETURN
20/10	DUCT SECTION - EXHAUST
A"	DUCT SECTION - ROUND DUCT IN INCHES
AXB FO	DUCT SECTION - FLAT OVAL DUCT IN INCHES
	ACOUSTIC THERMAL LINING
	FLEXIBLE DUCTWORK
FC	FLEXIBLE CONNECTION
	FIRE DAMPER
	SMOKE DAMPER
	COMBINATION FIRE AND SMOKE DAMPER
VD	VOLUME DAMPER
	DAMPER CONTROL, PARALLEL BLADE
	DAMPER CONTROL, OPPOSED BLADE
AAD	AUTOMATIC AIR DAMPER
BDD	BACK DRAFT DAMPER
BG	BLAST GATE
20/10, 12X10, 10/20	AIR DUCT (FIRST FIGURE IS DUCT WIDTH/TOP, SECOND FIGURE IS DUCT DEPTH)
	MULTI-BLADE AIR EXTRACTOR
	TURNING VANES
	EXISTING WORK TO BE REMOVED (HATCHED)
P	POINT OF CONNECTION
R	POINT OF DISCONNECTION
	AIR FLOW SENSOR
	FILTER
	TRANSITION SQUARE TO ROUND
	HUMIDIFIER DISPERSION TUBE
RISE, R	RISE IN DUCT
DROP, D	DROP IN DUCT
	SQUARE CEILING DIFFUSER (4 WAY)
	ROUND CEILING DIFFUSER
	SQUARE OR RECTANGULAR CEILING GRILLE
	SUPPLY REGISTER, RETURN OR EXHAUST GRILLE
1-WAY, 2-WAY, 3-WAY	SUPPLY DIFFUSER, 1-WAY, 2-WAY, 3-WAY
8"Ø, D-3 300 CFM	CEILING DIFFUSER WITH NECK SIZE, TYPE, & CFM
10"x10", G-3 300 CFM	CEILING RETURN OR EXHAUST GRILLE WITH SIZE, TYPE, & CFM
10"x8", R-2 300 CFM	SUPPLY REGISTER WITH SIZE, TYPE, & CFM
10"x8", G-2 300 CFM	RETURN OR EXHAUST GRILLE WITH SIZE, TYPE, & CFM
	AIR FLOW
L1	ACOUSTIC/THERMAL DUCTWORK LINING - 1 INCH THICK
L2	ACOUSTIC/THERMAL DUCTWORK LINING - 2 INCH THICK
PL1	ACOUSTIC/THERMAL DUCTWORK PLENUM LINING - 1 INCH THICK
PL2	ACOUSTIC/THERMAL DUCTWORK PLENUM LINING - 2 INCH THICK

SYMBOL	DESCRIPTION
24X12, 12X10, VD	SUPPLY / RETURN / EXHAUST AIR TAKEOFFS (24X12, 1-1/2 TIMES BRANCH SIZE, 12X10, VD)
24X12, 8"Ø, VD	SUPPLY / RETURN / EXHAUST AIR TAKEOFFS (24X12, 1-1/2 TIMES BRANCH SIZE, 8"Ø, VD)
14"Ø, 10"Ø, VD	SUPPLY AIR TAKEOFFS (14"Ø, CONICAL TEE, 10"Ø, VD)
14"Ø, 10"Ø, VD	SUPPLY AIR TAKEOFFS (14"Ø, LATERAL, 10"Ø, VD)
24X12, 6X12, 12X10, 18X12, 20X12	SUPPLY AIR TAKEOFFS (24X12, 18X12, 12X10, 6X12, 20X12)
24X12, 12X10, VD	SUPPLY/RETURN EXHAUST AIR TAKEOFFS W/ REGISTER/GRILLE/ DIFFUSER (12X10, 24X12, VD)
VD, VD	SUPPLY/RETURN EXHAUST AIR END OF MAIN BRANCH TAKEOFFS (VD, VD)
VD, VD	SUPPLY/RETURN EXHAUST AIR END OF MAIN BRANCH TAKEOFFS (VD, VD)
	LONG RADIUS 90° ELBOW R/W=1.5 (W, R)
	LONG RADIUS 45° ELBOW R/W=1.5 (W, R)
	90° ELBOW WITH TURNING VANES
18X16, 18X8, 18X8	90 VERTICAL SPLIT OFF (PLAN VIEW) (18X8, 18X16, 18X8)
20X10, 20X10, 20X10	DUCT TURNING UP OR DOWN (20X10)
U, MAX, MIN	AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE MAX = MAXIMUM CFM MIN = MINIMUM CFM
U, GPM, MAX	AIR TERMINAL UNIT-DUCTWORK U - UNIT TYPE GPM = GALLONS PER MIN MAX = MAXIMUM GPM
U, MAX, MIN, FAN	FAN POWERED AIR TERMINAL UNIT U - UNIT TYPE MAX = PRIMARY MAX CFM MIN = PRIMARY MIN CFM FAN = FAN CFM
TYPE, COIL SIZE, CLNG GPM, HTNG GPM	TYPE = VALANCE TYPE COIL SIZE = COIL LENGTH CLNG GPM = COOLING GPM HTNG GPM = HEATING GPM
X, XX	X = DIFFUSER OR GRILL TYPE XX = AIR FLOW VALUE (CFM)

SYMBOL	DESCRIPTION
E/P	ELECTRIC/PNEUMATIC SWITCH OR RELAY
P/E	PNEUMATIC/ELECTRIC SWITCH OR RELAY
CT	CURRENT TRANSDUCER
O/C	OPEN/CLOSED
S/S	START/STOP
E/D	ENABLE/DISABLE
T	TEMPERATURE SENSOR (DUCT OR PIPE MOUNTED)
H	HUMIDITY SENSOR (DUCT MOUNTED)
F	FLOW TRANSMITTER
P	PRESSURE TRANSMITTER
ΔP	DIFFERENTIAL PRESSURE TRANSMITTER
I/P	ELECTRIC/PNEUMATIC TRANSDUCER
I/E	ELECTRIC/ELECTRONIC TRANSDUCER
	DUCT SMOKE DETECTOR
T	SPACE THERMOSTAT
T	SPACE TEMPERATURE SENSOR
CO2	SPACE CARBON DIOXIDE SENSOR
CH4	SPACE NATURAL GAS SENSOR
CO	SPACE CARBON MONOXIDE SENSOR
G	SPACE SENSOR WITH GUARD
H	SPACE HUMIDISTAT
FS	WATER FLOW SENSOR
P/A	PNEUMATIC ACTUATOR
E/A	ELECTRIC ACTUATOR
VSD, VFD	VARIABLE SPEED / FREQUENCY DRIVE
C/C	COOLING COIL
H/C	HEATING COIL
G/F	GAS FURNACE
H	HUMIDIFIER
A	ALARM
S	STATUS
FS	FLOW SWITCH
ΔP	DIFFERENTIAL STATIC PRESSURE SWITCH
R	RELAY
	PRESSURE GAUGE
FZ	FREEZE-STAT
DI	DIGITAL INPUT (TO BUILDING MANAGEMENT SYSTEM)
DO	DIGITAL OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)
AO	ANALOG OUTPUT (FROM BUILDING MANAGEMENT SYSTEM)
AI	ANALOG INPUT (TO BUILDING MANAGEMENT SYSTEM)
	ELECTRICAL INTERFACE
SF	SPEED FEED BACK
	TRAVERSE AVERAGING SENSOR
	PROBE SENSOR
	FREEZE STAT SENSOR

SYMBOLS GENERAL NOTES:

1) VALVE AND DAMPER ACTUATOR TYPES (ELECTRIC OR PNEUMATIC) WHICH ARE INDICATED IN HVAC TEMPERATURE CONTROL DRAWINGS SHALL SUPERSEDE TYPE INDICATED ON ALL OTHER HVAC DRAWINGS.

MECHANICAL DESIGN CRITERIA

CONDITION	CRITERIA	COMMENTS
SUMMER (COOLING): OUTSIDE AIR DESIGN	88.0°F DB/71.2°F WB	DERIVED FROM ASHRAE FUNDAMENTALS FOR ASHEVILLE, NC
WINTER (HEATING): OUTSIDE AIR DESIGN	15.4 °F DB	DERIVED FROM ASHRAE FUNDAMENTALS FOR ASHEVILLE, NC
INDOOR DESIGN: OCCUPIED AREAS	75 °F DB - SUMMER 70 °F DB - WINTER	RELATIVE HUMIDITY: NOT CONTROLLED

MECHANICAL GENERAL NOTES:

1. ALL DUCTWORK, PIPING, AND CONDUIT PENETRATIONS THROUGH RATED WALLS OR FLOORS SHALL BE PROVIDED WITH FIRE/SMOKE STOPPINGS PER SPECIFICATION. REFER TO CODE ANALYSIS DRAWING FOR ALL RATED WALL LOCATIONS. ALL FLOORS SHALL BE CONSIDERED RATED.
2. ALL NEW PENETRATIONS SHALL BE PROVIDED FOR INSTALLATION OF MECHANICAL SYSTEMS INCLUDING, BUT NOT LIMITED TO, EQUIPMENT, CURBING, DUCTWORK, PIPING, CONTROLS, ETC. UNLESS SHOWN ON THE ARCHITECTURAL DRAWINGS, IT IS THE RESPONSIBILITY OF THIS CONTRACT TO PATCH AND FINISH ALL DUCTWORK OR PIPE PENETRATIONS THROUGH FLOORS, ROOFS, INTERIOR WALLS, AND EXTERIOR WALLS. PATCHING AND FINISHING SHALL MATCH CONSTRUCTION INCLUDING FIRE RATINGS. PROVIDE LINTELS PER LINTEL SCHEDULE.
3. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
4. DIMENSIONS SHALL BE FIELD VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION. COORDINATE THE WORK WITH OTHER TRADES INVOLVED. FIELD MODIFICATIONS SUCH AS OFFSETS IN PIPING OR DUCTWORK (INCLUDING DIVIDED DUCTWORK) NEEDED DUE TO OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST.
5. ALL MECHANICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2012 NORTH CAROLINA BUILDING, MECHANICAL, PLUMBING, FUEL GAS, FIRE PROTECTION AND ENERGY CONSERVATION CODES.
6. DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARD.
7. SEE SPECIFICATIONS FOR GAUGES, THICKNESS, BRACING, REQUIREMENTS, ETC., OF DUCTWORK.
8. PROVIDE AIR TURNING VANES IN ALL 90 DEGREE RECTANGULAR DUCT ELBOWS.
9. RADIUSED ELBOWS SHALL BE USED IN ALL RETURN AND EXHAUST DUCTWORK WHERE SPACE PERMITS. MITERED ELBOWS WITH TURNING VANES ARE PERMITTED WHERE SHOWN ON PLAN IF ACCESS DOORS FOR CLEANING ARE PROVIDED AT TURNING VANES.
10. COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS INCLUDING LIGHT FIXTURES, SMOKE DETECTORS, SPRINKLER HEADS, ETC.
11. LOCATE THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS AND HUMIDITY SENSORS AT 48" (CENTERLINE) ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. COORDINATE LOCATIONS WITH OTHER EQUIPMENT, FURNITURE AND DOOR SWINGS.
12. ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
13. ALL DUCT SIZES SHOWN AS INSIDE CLEAR DIMENSIONS.
14. DAMPERS AND INSIDES OF DUCTS VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED FLAT BLACK.
15. REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
16. TRAPPED CONDENSATE DRAINS FROM ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED FOR PROPER DRAINAGE TO SUIT EQUIPMENT FURNISHED.
17. ACCESS PANELS IN DUCTWORK AND CEILINGS SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION, BALANCING OR MAINTENANCE OF ALL MECHANICAL EQUIPMENT. PROVIDE DUCT ACCESS DOORS ADJACENT TO ALL SQUARE ELBOWS WITH TURNING VANES FOR CLEANING.
18. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC., TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES, UPSTREAM OF SPLIT.
19. PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTWORK CONNECTING TO EACH PIECE OF EQUIPMENT INCLUDING FANS, AIR HANDLING UNITS, TERMINAL UNITS AND FAN COIL UNITS, ETC.
20. RUNOUT DUCTS TO DIFFUSERS & GRILLES SHALL MATCH THE SCHEDULED DEVICE NECK SIZE UNLESS NOTED OTHERWISE. PROVIDE TRANSITIONS AT DIFFUSER NECKS AS REQUIRED TO MATCH SIZES OF FLEXIBLE DUCTS TO BE CONNECTED.
21. MAINTAIN CLEARANCE OF A MINIMUM OF 6" BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC. AND ALL FIRE RATED AND FIRE/SMOKE RATED PARTITIONS, TO ALLOW FOR INSPECTIONS OF RATED WALLS.
22. UNLESS OTHERWISE NOTED, ALL DRAINS FOR EQUIPMENT AND VALVES SHALL BE INDEPENDENTLY PIPED FULL SIZE TO THE NEAREST PLUMBING DRAIN.
23. SLEEVE AND SEAL ALL PIPING PENETRATIONS THROUGH BUILDING PARTITIONS.
24. A MAXIMUM OF LENGTH 5'-0" FLEXIBLE DUCTWORK ALLOWED ON ANY RUNOUT TO ANY AIR DEVICE.
25. ALL AIR TERMINAL UNIT RUNOUT SIZES SHALL BE AS INDICATED. TERMINAL UNIT OUTLET LOW PRESSURE DUCT SHALL BE TERMINAL BOX OUTLET SIZE UNLESS OTHERWISE NOTED. FLEXIBLE DUCTWORK NOT PERMITTED IN RETURN OR EXHAUST DUCT.
26. ALL SUPPLY AND RETURN GRILLES SHALL BE A MINIMUM OF 36" AWAY FROM SMOKE DETECTOR LOCATIONS AS REQUIRED BY CODE.
27. PENETRATIONS OF RATED WALL ASSEMBLIES SHALL BE PROTECTED IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE. REFER TO ARCHITECTURAL SERIES DRAWINGS FOR WALL RATINGS.
28. ALL FLEXIBLE DUCT CONNECTIONS DOWNSTREAM OF VAV BOXES TO HAVE MANUFACTURED SPIN-IN FITTINGS WITH VOLUME DAMPER AND MANUAL LOCKING QUADRANT WITH INSULATION STAND-OFF BRACKET. SECURE FLEXIBLE DUCT TO FITTING WITH STAINLESS STEEL BAND AND WORM GEAR OPERATED CLAMP.
29. REFER TO ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
30. DUCTWORK AS SHOWN ON THE DRAWINGS IS DIAGRAMMATIC. COORDINATE EXACT LOCATION WITH THE BUILDING STRUCTURE.
31. PROVIDE ACCESS PANELS IN THE DUCTWORK FOR ALL FIRE DAMPERS OR OTHER DUCT MOUNTED EQUIPMENT.
32. CONTRACTOR SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF THE PROJECT.
33. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.
34. REPLACE FILTERS JUST PRIOR TO ACCEPTANCE BY THE OWNER.
35. TERMINATE DUCT 18" MINIMUM BEYOND CENTERLINE OF OUTLET TO LAST DIFFUSER.
36. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE DELIVERY CLEARANCE REQUIREMENTS OF LARGE EQUIPMENT WITH THE GENERAL CONTRACTOR TO PROVIDE SUFFICIENT ACCESS FROM THE DELIVERY POINT TO THE EQUIPMENT'S FINAL LOCATION.

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N.C. Engineering Firm License No.: C-2194

Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

NORTH CAROLINA PROFESSIONAL SEAL 27581 ENGINEER GREGORY A. KYZER 8-29-18
DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	AMT	GAK

SCALE NOT TO SCALE

SHEET TITLE
HVAC SYMBOLS LEGEND, NOTES & SYSTEM DIAGRAMS

PROJECT NUMBER 14391.00

H000
DRAWING NUMBER

8/28/2018 10:23:15 AM
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COMcheck Software Version 4.0.8.2
Mechanical Compliance Certificate

Section 1: Project Information

Energy Code: **2012 North Carolina Energy Conservation Code**
Project Title: NCDOT Haywood County I-40 Eastbound Rest Area
Project Type: Alteration

Construction Site: I-40, Waynesville, NC 28786
Owner/Agent:
Designer/Contractor:

Section 2: General Information

Building Location (for weather data): Waynesville, North Carolina
Climate Zone: 4a

Section 3: Mechanical Systems List

Quantity	System Type & Description
1	AHU-1 (Single Zone) : Heating: 1 each - Central Furnace, Propane, Capacity = 60 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 36 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 14.50 SEER, Required Efficiency: 13.00 SEER Fan System: AHU-1 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 1 Supply, Constant Volume, 1050 CFM, 0.5 motor nameplate hp
1	AHU-2 (Single Zone) : Heating: 1 each - Central Furnace, Propane, Capacity = 80 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 48 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 14.50 SEER, Required Efficiency: 13.00 SEER Fan System: AHU-2 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 2 Supply, Constant Volume, 1335 CFM, 1.0 motor nameplate hp
1	AHU-3 (Single Zone) : Heating: 1 each - Central Furnace, Propane, Capacity = 60 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 30 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 14.50 SEER, Required Efficiency: 13.00 SEER Fan System: AHU-3 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 3 Supply, Constant Volume, 860 CFM, 0.5 motor nameplate hp
1	AHU-4 (Single Zone) : Heating: 1 each - Central Furnace, Propane, Capacity = 80 kBtu/h No minimum efficiency requirement applies Cooling: 1 each - Split System, Capacity = 60 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: None Proposed Efficiency = 14.50 SEER, Required Efficiency: 13.00 SEER Fan System: AHU-4 -- Compliance (Motor nameplate HP method) : Passes Fans:

FAN 4 Supply, Constant Volume, 1750 CFM, 1.0 motor nameplate hp

Section 4: Requirements Checklist

Requirements Specific To: AHU-1 :

- ☒ 1. Equipment minimum efficiency: Split System: 13.00 SEER
- ☒ 2. Newly purchased equipment meets the efficiency requirements

Requirements Specific To: AHU-2 :

- ☒ 1. Equipment minimum efficiency: Split System: 13.00 SEER
- ☒ 2. Newly purchased equipment meets the efficiency requirements

Requirements Specific To: AHU-3 :

- ☒ 1. Equipment minimum efficiency: Split System: 13.00 SEER
- ☒ 2. Newly purchased equipment meets the efficiency requirements

Requirements Specific To: AHU-4 :

- ☒ 1. Equipment minimum efficiency: Split System: 13.00 SEER
- ☒ 2. Newly purchased equipment meets the efficiency requirements

Generic Requirements: Must be met by all systems to which the requirement is applicable:

- ☒ 1. Plant equipment and system capacity no greater than needed to meet loads
  Exception(s):
  - ☐ Standby equipment automatically off when primary system is operating
  - ☐ Multiple units controlled to sequence operation as a function of load
- ☒ 2. Minimum one temperature control device per system
- ☒ 3. Minimum one humidity control device per installed humidification/dehumidification system
- ☒ 4. Load calculations per ASHRAE/ACCA Standard 183.
- ☒ 5. Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
  Exception(s):
  - ☒ Continuously operating zones (AHU-2 & 3)
- ☒ 6. Outside-air source for ventilation; system capable of reducing OSA to required minimum
- ☒ 7. R-5 supply and return air duct insulation in unconditioned spaces
  R-8 supply and return air duct insulation outside the building
  R-8 insulation between ducts and the building exterior when ducts are part of a building assembly
  Exception(s):
  - ☐ Ducts located within equipment
  - ☐ Ducts with interior and exterior temperature difference not exceeding 15°F.
- ☒ 8. Mechanical fasteners and sealants used to connect ducts and air distribution equipment
- ☒ 9. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- N/A ☐ 10. Hot water pipe insulation: 1.5 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in.
  Chilled water/refrigerant/brine pipe insulation: 1.5 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in.
  Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.
  Exception(s):
  - ☐ Piping within HVAC equipment.
  - ☐ Fluid temperatures between 55 and 105°F.
  - ☐ Fluid not heated or cooled with renewable energy.
  - ☐ Piping within room fan-coil (with AHRI440 rating) and unit ventilators (with AHRI840 rating).
  - ☐ Runouts <4 ft in length.
- ☒ 11. Operation and maintenance manual provided to building owner
- ☒ 12. Thermostatic controls have 5°F deadband
  Exception(s):
  - ☐ Thermostats requiring manual changeover between heating and cooling
  - ☐ Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.
- ☒ 13. Balancing devices provided in accordance with IMC 603.17
- N/A ☐ 14. Ventilation systems in buildings over 10,000 ft2 of conditioned area have demand controls. DCV systems are capable of reducing outside supply air to at least 50% below design ventilation rates. In all buildings, spaces larger than 500 ft2 with a maximum occupant load of 40 or more people per 1,000 ft2 of floor area control ventilation supply air flow by monitoring indoor air quality conditions.

  Exception(s):
  - ☐ Systems with heat recovery.
  - ☐ Building spaces where the primary ventilation needs are for process loads, including laboratories and hospital.
  - ☐ Individual units with less than 65 kBtu/h of cooling capacity.
- ☐ 15. Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings
  Exception(s):
  - ☒ Gravity dampers acceptable in buildings <3 stories
- N/A ☐ 16. Automatic controls for freeze protection systems present
- N/A ☐ 17. Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted
  Exception(s):
  - ☐ Hazardous exhaust systems, commercial kitchen and clothes dryer exhaust systems that the International Mechanical Code prohibits the use of energy recovery systems.
  - ☐ Systems serving spaces that are heated and not cooled to less than 60°F.
  - ☐ Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
  - ☐ Heating systems in climates with less than 3600 HDD.
  - ☐ Cooling systems in climates with a 1 percent cooling design wet-bulb temperature less than 64°F.
  - ☐ Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
  - ☐ Laboratory fume hood exhaust systems that have either a variable air volume system capable of reducing exhaust and makeup air volume to 50 percent or less of design values or, a separate make up air supply meeting the following makeup air requirements: a) at least 75 percent of exhaust flow rate, b) heated to no more than 2°F below room setpoint temperature, c) cooled to no lower than 3°F above room setpoint temperature, d) no humidification added, e) no simultaneous heating and cooling.

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical alteration project has been designed to meet the 2012 North Carolina Energy Conservation Code, Chapter 8, requirements in COM*check* Version 4.0.8.2 and to comply with the mandatory requirements in the Requirements Checklist.

Andrew M. Tripp, P.E.	[signature]	6/6/2018
Name - Title	Signature	Date

Section 6: Post Construction Compliance Statement

- ☐ HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.
- ☐ HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
- ☐ Written HVAC balancing and operations report provided to the owner.

The above post construction requirements have been completed.

Principal Mechanical Designer-Name	Signature	Date

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 27581 GREGORY A. KYZER 8-29-18

DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	AMT	GAK

SCALE: NOT TO SCALE

SHEET TITLE: ENERGY CODE COMPLIANCE

PROJECT NUMBER: 14391.00

DRAWING NUMBER: H001

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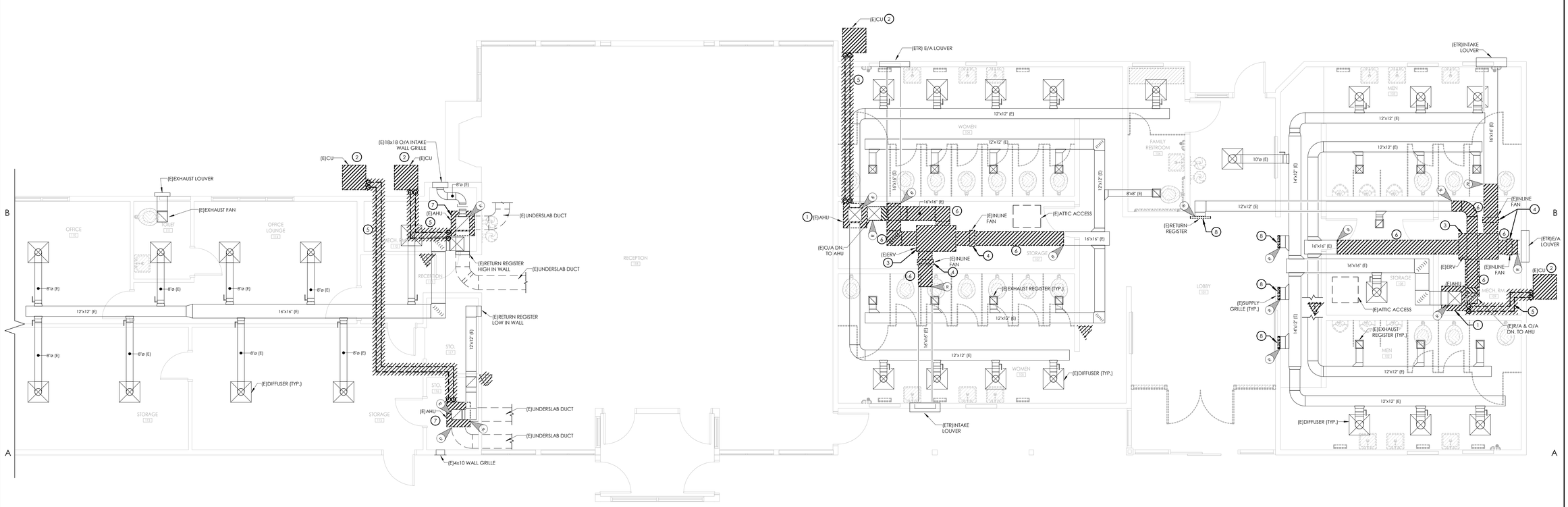
PLAN NOTES:

1. REMOVE EXISTING UPFLOW FLOOR-MOUNTED AIR HANDLING UNIT IN ITS ENTIRETY INCLUDING ALL ASSOCIATED COMPONENTS. REMOVE EXISTING COMBUSTION AIR, FLUE VENT, PROPANE PIPING, CONDENSATE DRAIN PIPING, SUPPLY AND RETURN DUCTWORK AND PLENUMS AND CONTROLS AS REQUIRED TO ALLOW FOR UNIT REMOVAL.
2. REMOVE EXISTING CONDENSING UNIT IN ITS ENTIRETY INCLUDING ALL ASSOCIATED COMPONENTS AND PIPING.
3. REMOVE EXISTING ENERGY RECOVERY UNIT LOCATED IN ATTIC IN ITS ENTIRETY INCLUDING ALL ASSOCIATED COMPONENTS.
4. REMOVE EXISTING INLINE FAN LOCATED IN ATTIC IN ITS ENTIRETY INCLUDING ALL ASSOCIATED COMPONENTS.
5. REMOVE EXISTING REFRIGERANT PIPING IN ITS ENTIRETY INCLUDING ALL ASSOCIATED COMPONENTS.
6. REMOVE EXISTING DUCTWORK INCLUDING ALL ASSOCIATED COMPONENTS TO POINT INDICATED.
7. REMOVE EXISTING DOWNFLOW FLOOR-MOUNTED AIR HANDLING UNIT IN ITS ENTIRETY INCLUDING ALL ASSOCIATED COMPONENTS. REMOVE EXISTING COMBUSTION AIR, FLUE VENT, PROPANE PIPING, CONDENSATE DRAIN PIPING, SUPPLY AND RETURN DUCTWORK AND PLENUMS AND CONTROLS AS REQUIRED TO ALLOW FOR UNIT REMOVAL.
8. REMOVE EXISTING WALL GRILLE AND ALL ASSOCIATED ACCESSORIES TO ALLOW FOR INSTALLATION OF NEW GRILLE.



1 / H100 **GROUND FLOOR DEMOLITION PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	DESCRIPTION

Revision Schedule

NORTH CAROLINA PROFESSIONAL SEAL 27581 ENGINEER GREGORY A. KITZER
DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	AMT	GAK

SCALE: As indicated

SHEET TITLE: HVAC DEMOLITION PLAN

PROJECT NUMBER: 14391.00

H100
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GENERAL NOTES:

1. REBALANCE AIR DISTRIBUTION SYSTEMS TO AIRFLOW RATES INDICATED IN BRACKETS.

NEW WORK KEY NOTES:

1. RECONNECT EXISTING SUPPLY AND RETURN DUCTWORK TO NEW UNIT. PROVIDE ALL NECESSARY DUCT MODIFICATIONS, TRANSITIONS AND FITTINGS TO FACILITATE INSTALLATION.
2. REPLACE EXISTING HOUSEKEEPING PAD WITH NEW REINFORCED CONCRETE PAD SIZED FOR NEW UNIT FOOTPRINT WHERE EXISTING PAD IS INSUFFICIENT TO RECEIVE NEW UNIT FOOTPRINT.
3. RECONNECT EXISTING COMBUSTION AIR, FLUE VENT AND CONDENSATE PIPING TO NEW UNIT. PROVIDE NEW P-TRAP. REFER TO DETAIL 2/H800.
4. NEW GRILLE TO REPLACE EXISTING GRILLE. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALL TO FACILITATE INSTALLATION AND CONNECTION TO EXISTING DUCT.
5. NEW ERV AND ASSOCIATED DUCTWORK SHALL BE INSTALLED IN EXISTING ATTIC SPACE. CONTRACTOR TO FIELD VERIFY SIZE OF EXISTING ATTIC ACCESS PANEL. PROVIDE DISASSEMBLY AND REASSEMBLY OF EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AS REQUIRED TO ALLOW FOR INSTALLATION IN ATTIC.
6. SUM OF UNDERFLOOR SUPPLY DUCTWORK AIRFLOWS ASSOCIATED WITH AHU-4 SHALL BE BALANCED TO 800 CFM.
7. SUM OF UNDERFLOOR SUPPLY DUCTWORK AIRFLOWS ASSOCIATED WITH AHU-1 SHALL BE BALANCED TO 1050 CFM.

1 H200 **HVAC DUCTWORK NEW WORK PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL 27581 GREGORY A. KING
DocuSigned by: 8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	AMT	GAK

SCALE: As indicated

SHEET TITLE: HVAC DUCTWORK NEW WORK PLAN

PROJECT NUMBER: 14391.00

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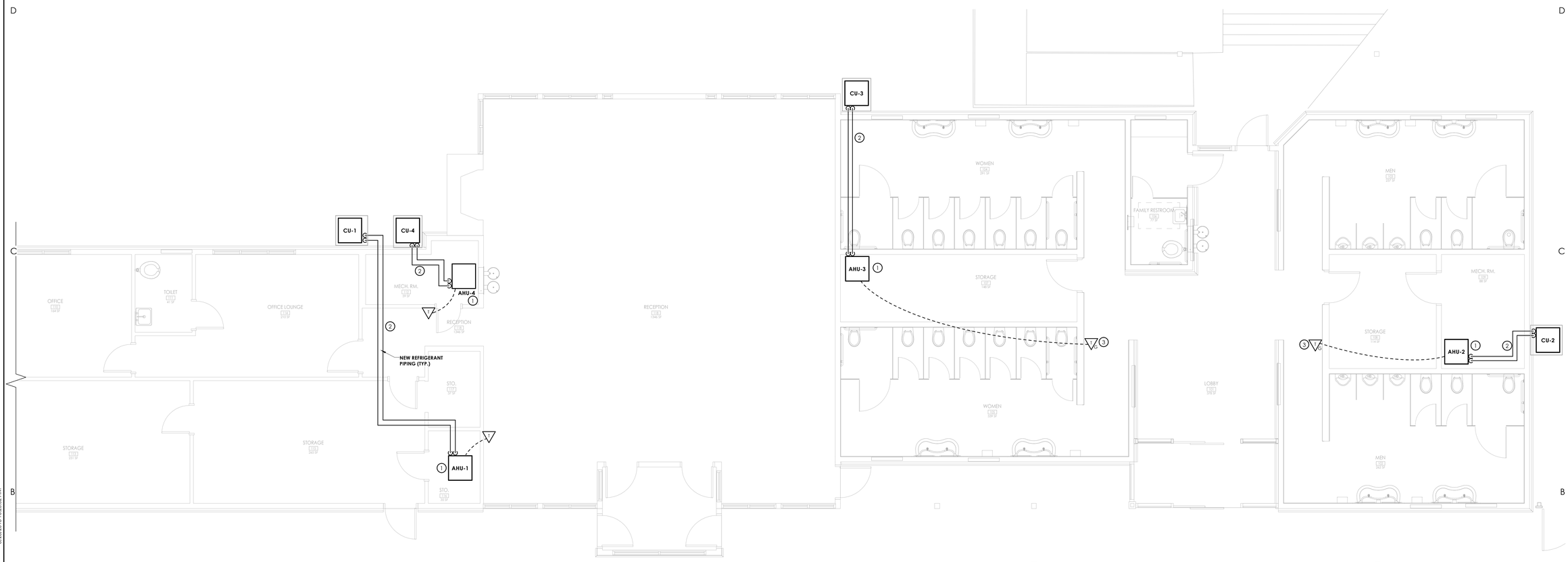
KEY NOTES:

1. RECONNECT EXISTING PROPANE PIPING TO NEW UNIT.
2. SIZE REFRIGERANT PIPING IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED REQUIREMENTS. COORDINATE PIPING ROUTING WITH ALL EXISTING SYSTEMS AND ARCHITECTURAL CEILINGS. PIPING SHALL BE ROUTED CONCEALED IN ALL FINISHED SPACES.
3. PROVIDE TAMPER-PROOF METAL LOCKABLE, HINGED THERMOSTAT GUARD, AS MANUFACTURED BY GRAINGER, MODEL 13J051, OR APPROVED EQUAL.



1 / H300 **HVAC PIPING NEW WORK PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	DESCRIPTION

Revision Schedule

NORTH CAROLINA PROFESSIONAL SEAL 27581 ENGINEER GREGORY A. KYZER
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8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	AMT	GAK

SCALE: As indicated

SHEET TITLE: HVAC PIPING NEW WORK PLAN

PROJECT NUMBER: 14391.00

H300
DRAWING NUMBER

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AIR HANDLING UNIT SCHEDULE

MARK	MANUFACTURER	MODEL (FURNACE/COIL)	CONFIGURATION	FAN MOTOR HP	EXTERNAL STATIC PRESSURE (IN. WC.)	AIRFLOW (CFM)	OUTSIDE AIRFLOW (CFM)	TOTAL COOLING CAPACITY (MBH)	HEATING CAPACITY INPUT (MBH)	FUEL TYPE	REFRIGERANT	VOLTAGE/PHASE	REMARKS
AHU-1	CARRIER	59TN6A060V17--14/CNPVP3617ALA	DOWNFLOW	1/2	0.50	1050	-	36	60	PROPANE	R-410A	115/1	1-3
AHU-2	CARRIER	59TN6A080V21--20/CNPVP4821ALA	UPFLOW	1	0.50	1335	1065	48	80	PROPANE	R-410A	115/1	1-3
AHU-3	CARRIER	59TN6A060V17--14/CNPVP3017ALA	UPFLOW	1/2	0.50	860	860	30	60	PROPANE	R-410A	115/1	1-3
AHU-4	CARRIER	59TN6A080V21--20/CNPVP6024ALA	DOWNFLOW	1	0.50	1750	270	60	80	PROPANE	R-410A	115/1	1-3

REMARKS

1. PROVIDE WITH DISCONNECT SWITCH.
2. PROVIDE WITH MANUFACTURER'S 7-DAY PROGRAMMABLE THERMOSTAT.
3. PROVIDE WITH MANUFACTURER'S FILTER CABINET.

INDOOR ENERGY RECOVERY UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	SUPPLY FAN					EXHAUST FAN					ENERGY RECOVERY WHEEL						ELECTRICAL			REMARKS
													SUMMER			WINTER						
			FLOW (CFM)	EXTERNAL S.P. (IN)	RPM	BHP	MOTOR HP	FLOW (CFM)	EXT S.P. (IN)	RPM	BHP	MOTOR HP	OUTSIDE AIR (DB/WB, F)	RELIEF AIR (DB/WB, F)	SUPPLY AIR (DB/WB, F)	OUTSIDE AIR (DB/WB, F)	RELIEF AIR (DB/WB, F)	SUPPLY AIR (DB/WB, F)	V/PH	MCA	MO CP	
ERV-1	LOREN COOK	ERV-1000	1065	0.50	1612	896 WATTS	1	840	0.50	1508	848 WATTS	1	88.0/71.2	75.0/62.2	79.7/65.9	15.4/12.9	68.0/52.4	49.1/40.6	240/1	12.30	15	1-3
ERV-2	LOREN COOK	ERV-1000	860	0.50	1365	729 WATTS	1	1075	0.35	1741	1044 WATTS	1	88.0/71.2	75.0/62.2	77.5/64.5	15.4/12.9	68.0/52.4	57.8/46.4	240/1	12.29	15	1-3

REMARKS

1. PROVIDE WITH FACTORY MOUNTED AND WIRED DISCONNECT SWITCH AND SINGLE POINT POWER CONNECTION.
2. PROVIDE WITH MANUFACTURER'S DIRECT DRIVE MOTORS WITH FAN SPEED CONTROLLERS FOR SUPPLY AND EXHAUST FANS.
3. PROVIDE WITH MANUFACTURER'S 24 VOLT CONTROL PANEL.

AIR-COOLED CONDENSING UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	TOTAL COOLING CAPACITY	SEER	REFRIGERANT	VOLTAGE/ PHASE	MCA (A)	MOP (A)	REMARKS
CU-1	CARRIER	24ACC636A003	36 MBH	14.5	R-410A	240/1	18.1	30	1-2
CU-2	CARRIER	24ACC648A003	48 MBH	14.5	R-410A	240/1	26.1	40	1-2
CU-3	CARRIER	24ACC630A003	30 MBH	14.5	R-410A	240/1	16.7	25	1-2
CU-4	CARRIER	24ACC660A003	60 MBH	14.5	R-410A	240/1	28	40	1-2

REMARKS

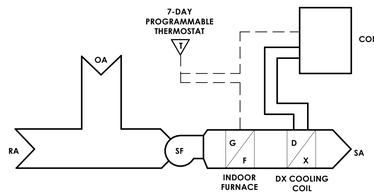
1. PROVIDE WITH DISCONNECT SWITCH AND CRANKCASE HEATER.
2. PROVIDE WITH REFRIGERANT LINE SET SIZED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

DIFFUSER/GRILLE SCHEDULE

MARK	APPLICATION	MATERIAL	FINISH	DESIGN EQUIPMENT	REMARKS
D-1	SIDEWALL SUPPLY GRILLE	ALUMINUM	WHITE	TITUS, 300FL	1-3
R-1	RETURN GRILLE	ALUMINUM	WHITE	TITUS, 350FL	1-3

REMARKS

1. PROVIDE HANGERS AND MOUNTING ACCESSORIES SUITABLE FOR CEILING/WALL TYPE. COORDINATE DIFFUSERS/GRILLES WITH ARCHITECTURAL CEILING AND LIGHTING PLANS.
2. SEE PLANS FOR NECK SIZE AND AIRFLOW RATE.
3. NEW GRILLE TO MATCH EXISTING GRILLE SIZE. CONTRACTOR REQUIRED TO FIELD VERIFY EXISTING GRILLE DIMENSIONS.

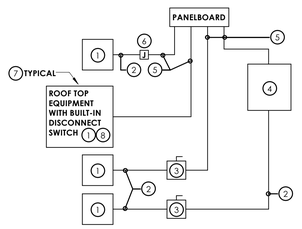


SEQUENCE OF OPERATION

OCCUPIED MODE:
COOLING: INDOOR UNIT FAN SHALL RUN CONTINUOUSLY. ON A RISE IN SPACE TEMPERATURE ABOVE 75°F (ADJ.), OUTDOOR CONDENSING UNIT SHALL BE ACTIVATED. ON A FALL IN SPACE TEMPERATURE BELOW SETPOINT, THE REVERSE SHALL OCCUR.
HEATING: INDOOR UNIT FAN SHALL RUN CONTINUOUSLY. ON A FALL IN SPACE TEMPERATURE BELOW 70°F (ADJ.), GAS HEAT SHALL BE ACTIVATED. ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT, THE REVERSE SHALL OCCUR.

UNOCCUPIED MODE:
INDOOR UNIT FAN SHALL REMAIN OFF AND SHALL BE ENABLED ON A CALL FOR COOLING OR HEATING. UNIT SHALL ACTIVATE CONDENSING UNIT IF THE SPACE TEMPERATURE RISES ABOVE SETBACK TEMPERATURE. UNIT SHALL ACTIVATE GAS HEAT IF THE SPACE TEMPERATURE DROPS BELOW SETBACK TEMPERATURE.

4 H800 AIR HANDLING UNIT CONTROL SCHEMATIC
N.T.S.

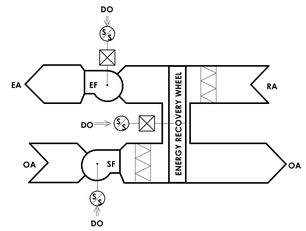


IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND THE OTHER TRADES.

KEY NOTES:

1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
2. CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR, OR OTHER TRADES.
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY THE NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
4. A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
5. BRANCH CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD AND MECHANICAL EQUIPMENT CONNECTION SCHEDULES FOR BREAKER AND WIRE SIZES.
6. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
8. IF THE ROOF TOP FAN IS NOT PROVIDED WITH BUILT-IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

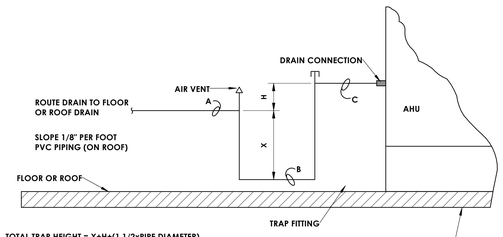
3 H800 MECHANICAL/ELECTRICAL EQUIPMENT CONNECTION COORDINATION DETAIL
N.T.S.



SEQUENCE OF OPERATION:

1. ERV SHALL BE FULLY CONTROLLED BY THE UNIT MANUFACTURER'S CONTROLLER.
2. ERV SHALL OPERATE CONTINUOUSLY. SUPPLY FAN, EXHAUST FAN, AND ENERGY WHEEL SHALL BE ENERGIZED WHEN THE UNIT IS ACTIVATED.

5 H800 ENERGY RECOVERY UNIT CONTROL SCHEMATIC
N.T.S.



TOTAL TRAP HEIGHT = X+H+(1 1/2xPIPE DIAMETER)
= B.O.P. AT B TO T.O.P. AT C.
X = B.O.P. AT A TO T.O.P. AT B
H = B.O.P. AT A TO T.O.P. AT C
POSITIVE STATIC PRESSURES:
X = AT LEAST 1" PLUS CASING STATIC PRESSURE
H = AT LEAST 1"

NEGATIVE STATIC PRESSURES:
X = 1/2H
H = AT LEAST 1" PLUS CASING STATIC PRESSURE

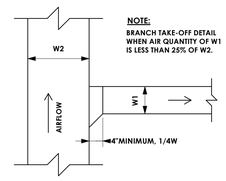
B.O.P.= BOTTOM OF PIPE
T.O.P.= TOP OF PIPE

HOUSEKEEPING PAD (INDOOR UNIT)
OR ROOF CURB (OUTDOOR UNIT)

NOTE:
CONDENSATE DRAIN PIPING TO BE TYPE DWV, DRAWN TEMPER COPPER TUBING, WROUGHT-COPPER FITTINGS, AND SOLDERED JOINTS.

DRAIN PIPING SHALL BE MINIMUM UNIT CONNECTION SIZE. UNITS 25 TONS AND LARGER SHALL HAVE DRAIN SIZE ONE PIPE SIZE LARGER THAN DRAIN CONNECTION.

2 H800 TYPICAL AHU CONDENSATE DRAIN DETAIL
N.T.S.



NOTE:
BRANCH TAKE-OFF DETAIL WHEN AIR QUANTITY OF W1 IS LESS THAN 25% OF W2.

1 H800 BRANCH TAKE-OFF DETAIL
N.T.S.

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NO.	DATE	BY	CHKD	DESCRIPTION

Revision Schedule

NORTH CAROLINA
REGISTERED
PROFESSIONAL
ENGINEER
SEAL
27581
GREGORY A. KNIGHT
DocuSigned by:
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA
RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	AMT	GAK

SCALE: As indicated

SHEET TITLE: HVAC SCHEDULES AND DETAILS

PROJECT NUMBER: 14391.00

H800
DRAWING NUMBER

8/28/2018 10:23:38 AM
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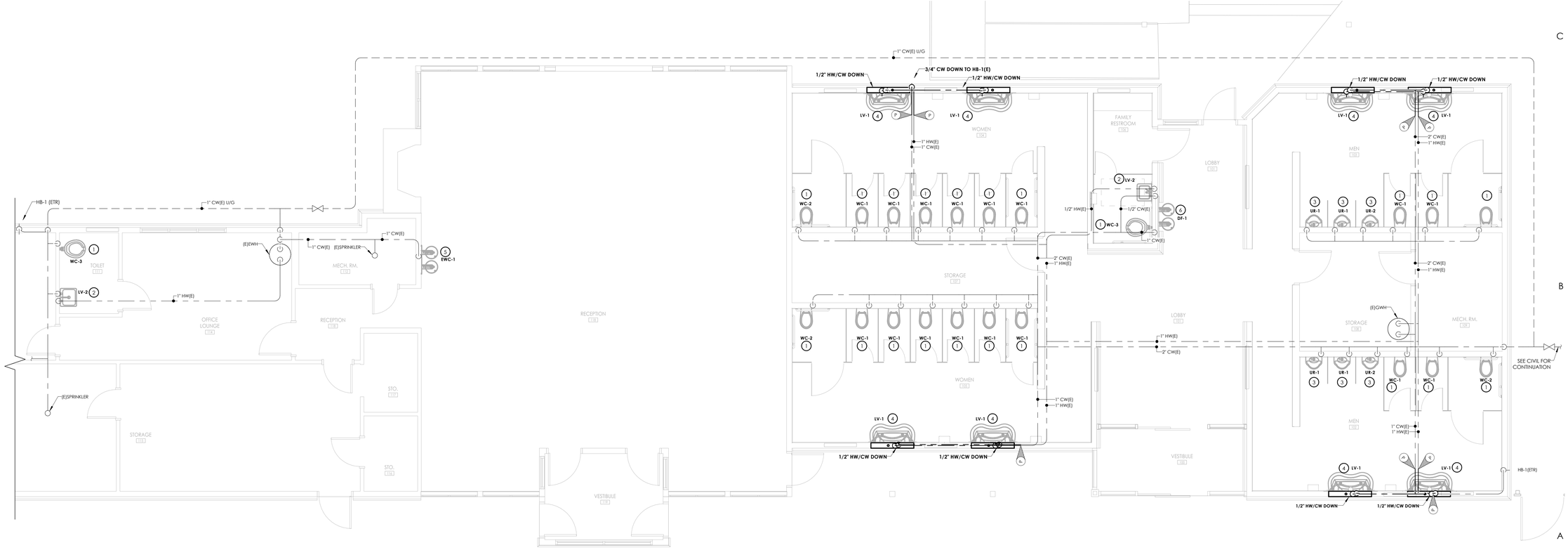
DOMESTIC WATER KEYED NOTES:

1. INSTALL NEW WATER CLOSET ON EXISTING ROUGH-IN.
2. INSTALL NEW LAVATORY ON EXISTING ROUGH-IN.
3. INSTALL NEW URINAL ON EXISTING ROUGH-IN.
4. INSTALL NEW DUAL LAVATORY SYSTEM WITH NEW CARRIER. COORDINATE WITH G.C. TO PATCH/REPAIR WALL AFTER MODIFICATION OF EXISTING ROUGH-IN.
5. INSTALL NEW WATER COOLER ON EXISTING ROUGH-IN.
6. INSTALL NEW BI-LEVEL DRINKING FOUNTAIN WITH CANE APRON ON EXISTING ROUGH-IN.



1 P300 **DOMESITC WATER NEW WORK PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	DESCRIPTION

Revision Schedule

NORTH CAROLINA PROFESSIONAL SEAL 27581 ENGINEER GREGORY A. KYZER
DocuSigned by: 8/29/2018
14391

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JCN	GAK

SCALE: As indicated

SHEET TITLE: PLUMBING DOMESTIC WATER NEW WORK PLAN

PROJECT NUMBER: 14391.00

P300
DRAWING NUMBER

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PLUMBING EQUIPMENT & FIXTURE SCHEDULE

MARK	FIXTURE	CW	HW	SAN	V	DESCRIPTION	MODEL NUMBER	REMARKS
WC-1	WATER CLOSET, STANDARD	1"	-	3"	2"	WALL MOUNTED WATER CLOSET, ELONGATED BOWL WITH BACK SPUD, CONCEALED SENSOR FLUSH VALVE, STANDARD HEIGHT, VITREOUS CHINA WHITE	AMERICAN STANDARD "AFWALL" ELONGATED BOWL MODEL # 2634.101 FLUSH VALVE: SLOAN 152-1.28 ES-S 2-10 3/4 LDIM CLOSET CARRIER: JOSAM 12674	1
WC-2	WATER CLOSET, ACCESSIBLE	1"	-	3"	2"	WALL MOUNTED WATER CLOSET, ELONGATED BOWL WITH BACK SPUD, CONCEALED SENSOR FLUSH VALVE, ADA HEIGHT, VITREOUS CHINA WHITE	AMERICAN STANDARD "AFWALL" ELONGATED BOWL MODEL # 2634.101 FLUSH VALVE: SLOAN 152-1.28 ES-S 2-10 3/4 LDIM CLOSET CARRIER: JOSAM 12674	1
WC-3	WATER CLOSET, ACCESSIBLE	1"	-	3"	2"	FLOOR MOUNTED WATER CLOSET, ELONGATED BOWL, CONCEALED MANUAL FLUSH VALVE, ADA HEIGHT, VITREOUS CHINA WHITE	AMERICAN STANDARD "MADERA" ELONGATED BOWL MODEL # 3249.001 FLUSH VALVE: SLOAN 152-1.28 10 3/4 LDIM W/B12A HANDLE	1
UR-1	URINAL, STANDARD	3/4"	-	2"	1 1/2"	WALL MOUNTED VITROUS CHINA, URINAL, BACK SPUD, STANDARD HEIGHT, WITH CARRIER AND CONCEALED FLUSH VALVE.	AMERICAN STANDARD 6515.001 SLOAN 195-0.5 ES-S 2-10 3/4 LDIM URINAL CARRIER: JOSAM 17560-UR	1
UR-2	URINAL, ACCESSIBLE	3/4"	-	2"	1 1/2"	WALL MOUNTED VITROUS CHINA, URINAL, BACK SPUD, ACCESSIBLE HEIGHT, WITH CARRIER AND CONCEALED SENSOR FLUSH VALVE.	AMERICAN STANDARD 6515.001 SLOAN 195-0.5 ES-S 2-10 3/4 LDIM URINAL CARRIER: JOSAM 17560-UR	1
LV-1	LAVATORY, ACCESSIBLE	1/2"	1/2"	1 1/2"	1 1/2"	WALL MOUNTED CONTINUOUS LAVATORY BOWL WITH FAUCET HOLES AT 15" O.C., ADA HEIGHT, SENSOR OPERATED FAUCET AND SOAP DISPENSER	SLOAN SLOANSTONE EWF SERIES ELS-72275 FAUCET: SLOAN OPTIMA SOLIS EAF-275 SOAP DISPENSER: SLOAN ESD-350 WALL CARRIER: JOSAM 17560-M1614	1, 2
LV-2	LAVATORY, ACCESSIBLE	1/2"	1/2"	1 1/2"	1 1/2"	WALL MOUNTED LAVATORY 18" x 20" NOMINAL WITH FAUCET HOLES AT 4" O.C., ADA HEIGHT, SINGLE LEVER MANUAL FAUCET AND GRID STRAINER	AMERICAN STANDARD LUCERNE 0355.012 FAUCET: T&S BRASS B-2711-F12 STRAINER: McGUIRE 149 STRAINER	1, 2
EWC-1	BI-LEVEL ELECTRIC WATER COOLER, ACCESSIBLE	1/2"	-	1 1/2"	1 1/2"	BI-LEVEL ELECTRIC WATER COOLER, NO LEAD, 8.0 GPH, REINFORCED WALL MOUNTED, 115V, 60 HZ, 4.0 FLA, 370W, AND CARRIER.	ELKAY MODEL: EZ(S)TL8 CARRIER: ZURN Z1225	1
DF-1	BI-LEVEL ACCESSIBLE DRINKING FOUNTAIN	1/2"	-	1 1/2"	1 1/2"	BI-LEVEL ADA, NON-FILTERED, DRINKING FOUNTAIN, NO LEAD, 8.0 GPH, REINFORCED WALL MOUNTED, WITH MOUNTING FRAME, AND CANE APRON.	ELKAY MODEL: EDFPBM117RAK MOUNTING FRAME: MPW 200	1

REMARKS

1. ALL ACCESSIBLE EQUIPMENT/FIXTURES TO BE INSTALLED PER ADA REQUIREMENTS.
2. SIZED PER PLAN.

GENERAL PLUMBING EQUIPMENT & FIXTURE COMMENT

A. PLUMBING CONTRACTOR SHALL PROVIDE ALL RISERS, CARRIERS, P-TRAPS, STOPS, STRAINERS, TAIL PIECES, DRAINS, ETC. REQUIRED TO HAVE A COMPLETE INSTALLATION.

PIPING LEGEND

XX	PIPING
XX	PIPING BELOW GRADE
X	VENT PIPING
ACW	AUTOMATIC CLOTHES WASHER
CA	COMPRESSOR AIR
CW	COLD WATER
CW (E)	COLD WATER EXISTING
HW	HOT WATER
HW (E)	HOT WATER EXISTING
HWR	HOT WATER RECIRCULATING
HWR (E)	HOT WATER RECIRCULATING EXISTING
NG	NATURAL GAS
SPD	SUMP PUMPED DRAINAGE
SAN	SANITARY
SAN U/G	SANITARY UNDERGROUND
SAN (E)	SANITARY EXISTING
SAN U/G (E)	SANITARY UNDERGROUND EXISTING
ST	STORM
ST (E)	STORM EXISTING
ST2	STORM SECONDARY
ST2 (E)	STORM SECONDARY EXISTING
TW	TEMPERED WATER
V	VENT
V (E)	EXISTING VENT
ETR	EXISTING TO REMAIN
	EXISTING TO BE REMOVED / DEMOLISHED

FIXTURES & FITTINGS LEGEND

	TEE OUTLET - UP
	TEE OUTLET - DOWN
	CONNECTION - BOTTOM
	CONNECTION - TOP
	ELBOW - TURNED UP
	ELBOW - TURNED DOWN
	PIPE CAP
	UNION
	FLANGE
	BALL VALVE
	BALL VALVE WITH MEMORY STOP
	BALANCING VALVE
	CHECK VALVE
	BUTTERFLY VALVE
	CONTROL VALVE, PNEUMATIC 2-WAY
	GATE VALVE
	GLOBE VALVE
	PLUG VALVE
P	PRESSURE RELIEF VALVE
TP	TEMPERATURE-PRESSURE RELIEF VALVE
	PRESSURE REDUCING VALVE
	COMBINATION VALVE (ISOLATION, CHECK, BALANCING)
M	MOTOR OPERATED VALVE
S	SOLENOID OPERATED VALVE
	GAS PRESSURE REGULATOR
	THERMOSTATIC MIXING VALVE
	HW RECIRC VALVES
CO	CLEAN OUT
FCO / GCO	FLOOR CLEAN OUT / GRADE CLEAN OUT
WCO	WALL CLEAN OUT
HB	HOSE BIBB
NFHB	NON FREEZE HOSE BIBB
NFWH	NON FREEZE WALL HYDRANT
YH	YARD HYDRANT
HD	HUB DRAIN
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
FS	FLOOR SINK
RD	ROOF DRAIN
DS	DOWN SPOUT
FM	FLOW SWITCH
	PRESSURE SWITCH
	AQUASTAT
	PRESSURE GAUGE
	THERMOMETER
	STRAINER
	STRAINER WITH BLOWOFF
V	VACUUM BREAKER
	INLINE PUMP
A	WATER HAMMER ARRESTER
RPZ	REDUCED PRESSURE ZONE BACK FLOW PREVENTER
DCVA	DOUBLE CHECK VALVE ASSEMBLY
	SHOWER HEAD
P	POINT OF CONNECTION
R	POINT OF REMOVAL

PLUMBING SHEET LIST

SHEET NUMBER	SHEET NAME
P000	PLUMBING LEGEND, NOTES, & SYSTEM DIAGRAMS
P100	PLUMBING SANITARY DEMOLITION PLAN
P101	PLUMBING DOMESTIC WATER DEMOLITION PLAN
P200	PLUMBING SANITARY NEW WORK PLAN
P300	PLUMBING DOMESTIC WATER NEW WORK PLAN

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JCN	GAK

SCALE: As indicated

SHEET TITLE: PLUMBING LEGEND, NOTES, & SYSTEM DIAGRAMS

PROJECT NUMBER: 14391.00

P000
DRAWING NUMBER

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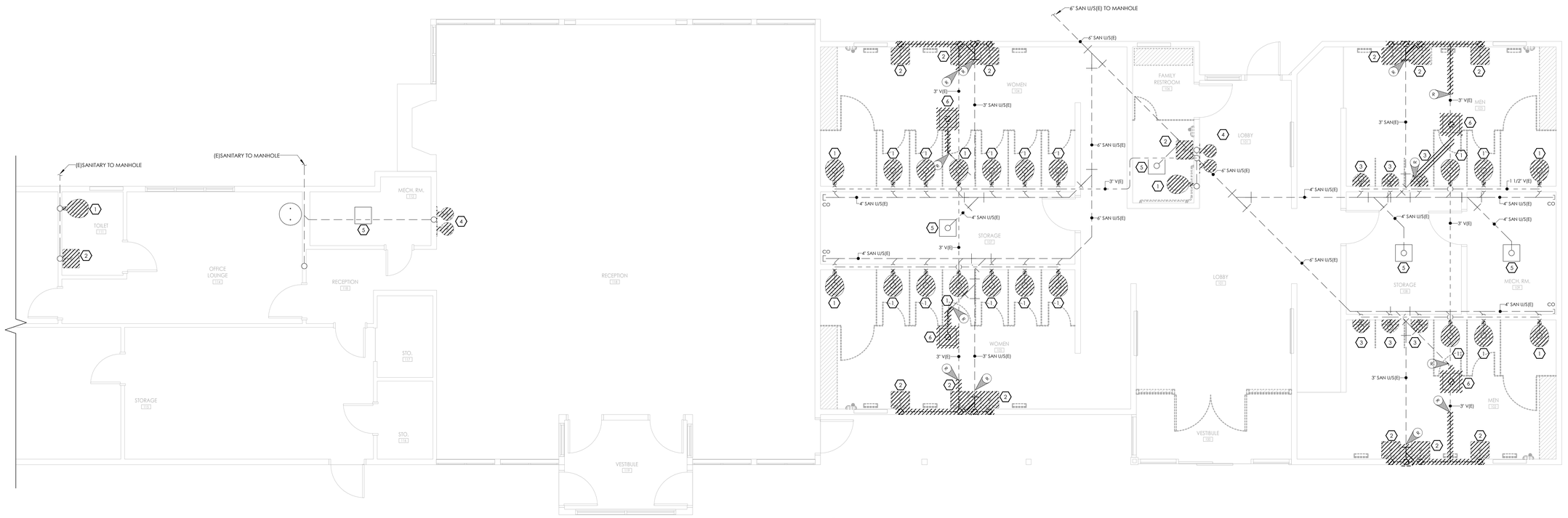
CONTRACTOR NOTES:

1. PRIOR TO BEGINNING WORK, VISIT THE SITE AND INSPECT THE EXISTING PIPING IN THE PIPE CHASE/ROOM.
2. ALL PLUMBING FIXTURES ARE TO BE REPLACED.
3. ALL WATER CLOSET CARRIERS ARE TO BE REPLACED.
4. ALL PIPING THAT IS DETERIORATING IS TO BE REPLACED.
5. COORDINATE WITH G.C. FOR THE CUTTING AND PATCHING OF CONCRETE.

DEMOLITION KEYED NOTES:

1. DISCONNECT AND REMOVE EXISTING WATER CLOSET, FLUSH VALVE AND FLOOR CARRIER. REMOVE SANITARY WASTE PIPING BETWEEN CARRIERS.
2. DISCONNECT AND REMOVE EXISTING LAVATORY. PROVIDE TEMPORARY CAPS ON PIPING.
3. DISCONNECT AND REMOVE EXISTING URINAL. PROVIDE TEMPORARY CAPS ON PIPING.
4. DISCONNECT AND REMOVE EXISTING WATER COOLER AND REMOTE CHILLER. DEMOLISH PIPING FROM/TO CHILLER BACK TO MAIN AND CAP.
5. FLOOR DRAIN IS TO REMAIN. REPLACE STRAINER W/NEW POLISHED BRONZE STRAINER.
6. FLOOR DRAIN IS TO BE RELOCATED UNDER NEW TOILET PARTITION WALL.



1 P100 **PLUMBING SANITARY DEMOLITION PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	DESCRIPTION

Revision Schedule

NORTH CAROLINA PROFESSIONAL SEAL 27581 ENGINEER GREGORY A. KIZER
DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JCN	GAK

SCALE: As indicated

SHEET TITLE: PLUMBING SANITARY DEMOLITION PLAN

PROJECT NUMBER: 14391.00

P100
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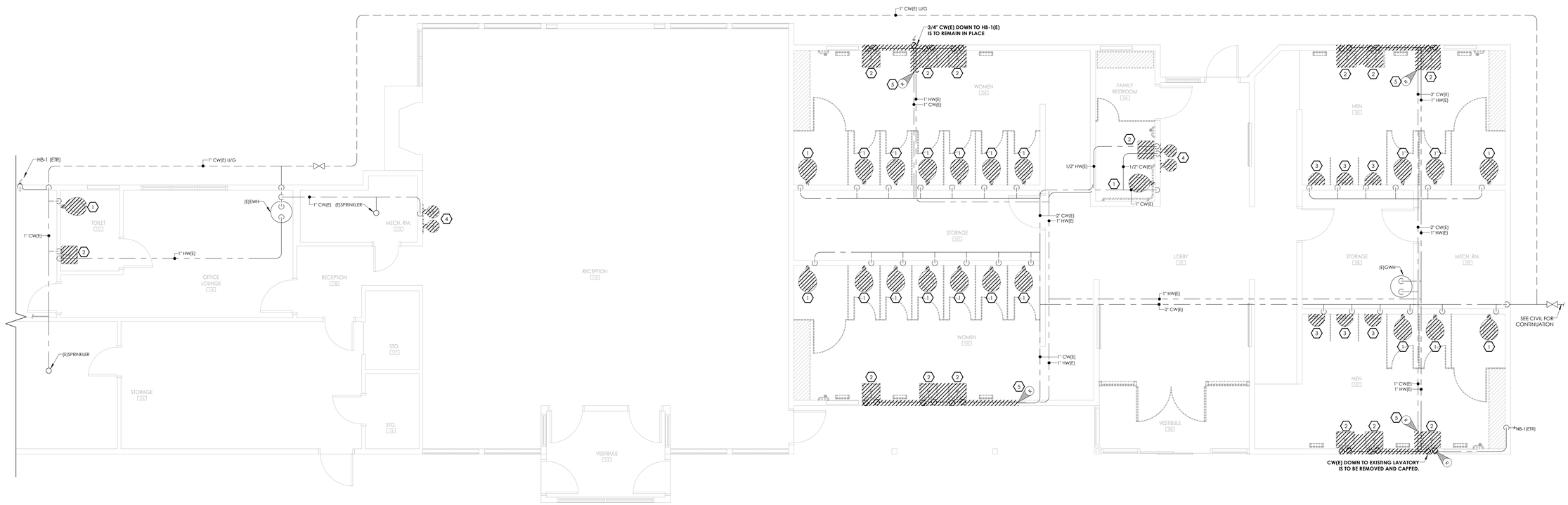
CONTRACTOR NOTES:

1. PRIOR TO BEGINNING WORK, VISIT THE SITE AND INSPECT THE EXISTING PIPING IN THE PIPE CHASE/ROOM. ANY PIPE THAT IS LEAKING IS TO BE REPLACED.
2. ALL PLUMBING FIXTURES ARE TO BE REPLACED.
3. ALL WATER CLOSET CARRIERS ARE TO BE REPLACED.

DEMOLITION KEYED NOTES:

1. DISCONNECT AND REMOVE EXISTING WATER CLOSET. PROVIDE TEMPORARY CAPS ON PIPING.
2. DISCONNECT AND REMOVE EXISTING LAVATORY. REMOVE EXISTING CARRIER.
3. DISCONNECT AND REMOVE EXISTING URINAL.
4. DISCONNECT AND REMOVE EXISTING WATER COOLER. PROVIDE TEMPORARY CAPS ON PIPING.
5. DEMOLISH PIPING BACK TO POINT INDICATED. PROVIDE TEMPORARY CAPS ON PIPING.



1 P101 **PLUMBING DOMESTIC WATER DEMOLITION PLAN**
1/4" = 1'-0"

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Revision Schedule

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 27581 GREGORY A. KIZER
DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JCN	GAK

SCALE: As indicated

SHEET TITLE: PLUMBING DOMESTIC WATER DEMOLITION PLAN

PROJECT NUMBER: 14391.00

P101
DRAWING NUMBER

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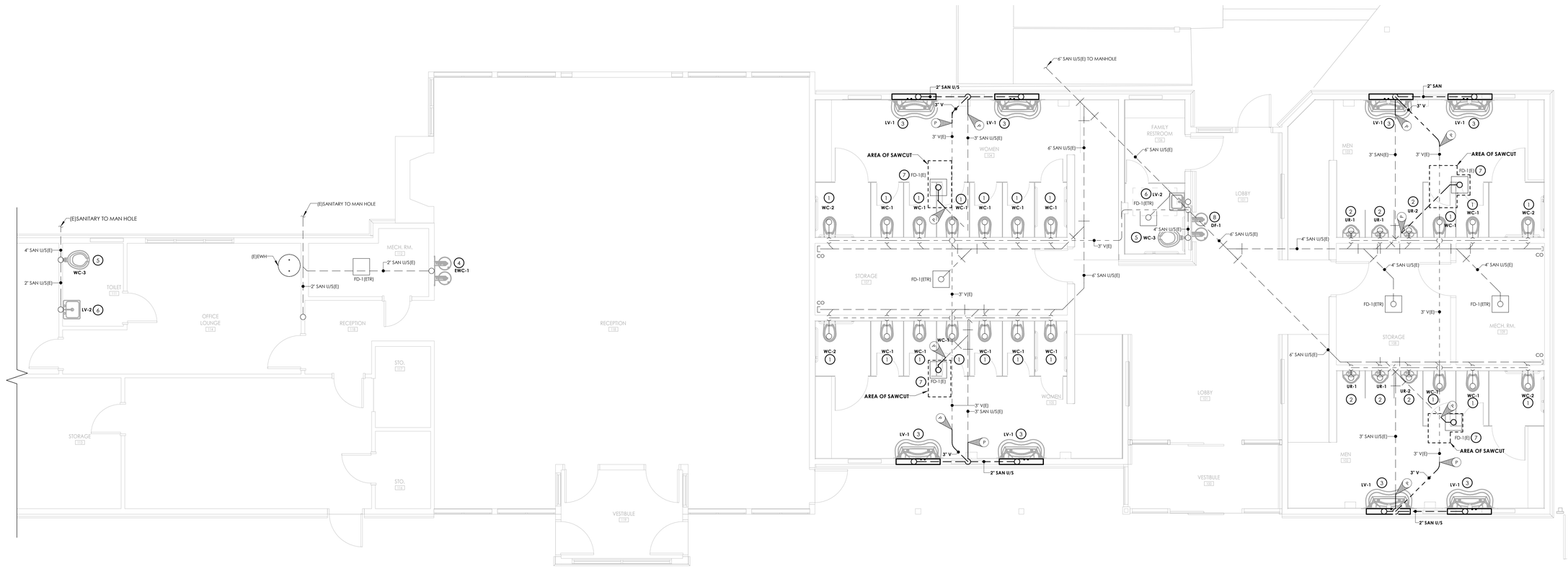
SANITARY NEW WORK NOTES:

1. INSTALL NEW WATER CLOSET, CHAIR CARRIER, INTERCONNECTING WASTE PIPING AND CONCEALED SENSOR FLUSH VALVE ON EXISTING ROUGH-IN LOCATION.
2. INSTALL NEW URINAL ON EXISTING ROUGH-IN.
3. INSTALL NEW DUAL STATION LAVATORY SYSTEM ON EXISTING ROUGH-IN. COORDINATE WITH G.C. FOR MODIFICATION OF ROUGH-IN AND CUTTING AND PATCHING OF WALL DURING INSTALLATION.
4. INSTALL NEW BI-LEVEL WATER COOLER ON EXISTING ROUGH-IN.
5. INSTALL NEW FLOOR MOUNTED WATER CLOSET ON EXISTING ROUGH-IN.
6. INSTALL NEW LAVATORY ON EXISTING ROUGH-IN. DASHED LINE MARKS AREA OF SLAB CUT SAW.
7. EXISTING FLOOR DRAIN RELOCATED. PROVIDE NEW POLISHED BRONZE STRAINER.
8. INSTALL BI-LEVEL DRINKING FOUNTAIN WITH CANE APRON ON EXISTING ROUGH-IN.



1 P200 **SANITARY NEW WORK PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	DESCRIPTION

Revision Schedule

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 27581 8-29-18 GREGORY A. KYZER
DocuSigned by: 14391
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JCN	GAK

SCALE: As indicated

SHEET TITLE: PLUMBING SANITARY NEW WORK PLAN

PROJECT NUMBER: 14391.00

P200
DRAWING NUMBER

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WIRING LEGEND:

- PLUG MOLD
- DUPLEX/QUADRUPLEX RECEPTACLE
- SPECIAL RECEPTACLE - NEMA IDENTIFICATION LISTED ON PLANS
  - * GFI GROUND FAULT CIRCUIT INTERRUPTER
  - WP WEATHER PROOF "WHILE IN USE"
  - WR WEATHER RESISTANT
  - USB (2)UNIVERSAL SERIAL BUS OUTLETS WITH DUPLEX RECEPTACLE
  - SS SURGE SUPPRESSION
  - TR TAMPER RESISTANT
  - C COUNTER HEIGHT OR 44" AFF
- HARDWIRE CONNECTION
- JUNCTION BOX
- DISCONNECT SWITCH
- EMERGENCY STOP BUTTON
- EF-1 MOTOR WITH DESIGNATOR
- WH WATER HEATER
- HVP1-6 BRANCH CIRCUIT HOME RUN WITH PANEL NAME AND CIRCUIT NUMBER
- BRANCH CIRCUIT WIRING, PROVIDE QUANTITIES OF CONDUCTORS REQUIRED FOR CIRCUITING AND SWITCHING AS REQUIRED
- CONDUIT BELOW SLAB OR GRADE
- GROUNDING ROD

PANEL LEGEND:

- ELECTRICAL PANEL
- ELECTRICAL SYSTEMS PANEL
  - XXX
  - FACP FIRE ALARM CONTROL PANEL
  - FAAP FIRE ALARM ANNUNCIATOR PANEL

COMMUNICATIONS LEGEND:

- * TELEPHONE OUTLET
- * COMBINATION TELEPHONE/DATA OUTLET
  - W WALL MOUNTED
  - C COUNTER
- TV COAX CABLE OUTLET
- CEILING MOUNTED SPEAKER
- CLOCK
- ICM INTERCOM MASTER STATION
- INT INTERCOM STATION
- PP PUSH PLATE FOR AUTOMATIC DOOR
- PUSHBUTTON
- HANDICAP DOOR PUSH PLATE

FIRE/LIFE SAFETY LEGEND:

- F FIRE ALARM MANUAL PULL STATION, ADDRESSABLE
- FIRE ALARM SPEAKER AND STROBE COMBINATION
- FIRE ALARM STROBE
- FIRE ALARM STROBE CEILING MOUNTED
- SMOKE DETECTOR, ADDRESSABLE
- HEAT DETECTOR, ADDRESSABLE

LIGHT FIXTURE LEGEND:

- XX LIGHTING FIXTURE AS SCHEDULED
- EXIT SIGN (WHERE USED, ARROW INDICATES CHEVRON DIRECTION)
- BATTERY POWERED EMERGENCY LIGHT
- OS OCCUPANCY SENSOR, CEILING MTD - WATTSTOPPER DT-300 OR EQUAL WITH ALL POWER PACKS, ACCESSORIES, AND WIRING TO CONTROL ALL LIGHTS IN THE SPACE
- OS DLM OCCUPANCY SENSOR CONNECTED TO DLM CONTROLLER
- PP POWERPACK
- S_x SWITCH
  - (NONE) SINGLE POLE TOGGLE SWITCH
  - 2 TWO POLE TOGGLE SWITCH
  - 3 THREE WAY TOGGLE SWITCH
  - 4 FOUR WAY TOGGLE SWITCH
  - K KEYED SWITCH
- S_x^2 LOWER CASE LETTER INDICATES SWITCH LEG
- S_O OCCUPANCY SENSOR WALL SWITCH - WATTSTOPPER DW-100 OR EQUAL
- DLM DIGITAL LIGHTING DIMMING CONTROLLER, REFER TO WIRING SCHEMATIC

NOTE:
SYMBOLS SHOWN ON THIS ELECTRICAL SYMBOLS LIST ARE FOR REFERENCE PURPOSES ONLY. ALL OF THESE SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) AND WITH THE NORTH CAROLINA STATE BUILDING CODE.

BUILDING:

2. ALL CONDUIT AND WIRING SHALL BE CONCEALED IN WALLS OR ABOVE CEILINGS UNLESS OTHERWISE NOTED OR APPROVED BY THE ARCHITECT/ ENGINEER. ALL DEVICE OUTLET BOXES SHALL BE RECESSED UNLESS NOTED OR APPROVED BY THE ARCHITECT/ENGINEER. WHERE APPROVED OR NOTED, SURFACE METAL RACEWAY AND DEVICE SHALL BE USED IN-LIEU OF CONDUIT AND CONCEALED BOXES AT NO EXTRA COST TO THE OWNER.
3. ALL CONDUIT ROUTES SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL FIELD VERIFY FINAL ROUTE.
4. CONDUIT RUNS SHOWN ARE SCHEMATIC AND DO NOT INDICATE THE NECESSARY FITTINGS AND JUNCTION BOXES THAT ARE INCLUDED IN THE SCOPE OF THE WORK.

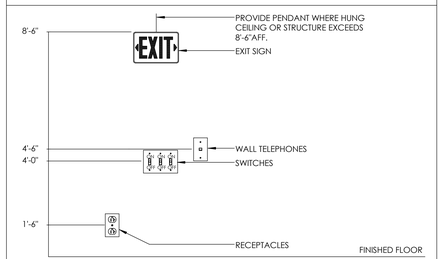
GROUNDING:

5. ALL METAL RACEWAYS, INCLUDING CONDUIT, WIRE TROUGHS, WIREMOLD, ETC., SHALL BE GROUNDED. ALL CONNECTIONS IN METAL RACEWAYS SHALL BE COMPLETED IN SUCH A MANNER AS TO MAINTAIN A CONTINUOUS PATH TO GROUND THROUGHOUT THE ENTIRE LENGTH OF THE RACEWAY.

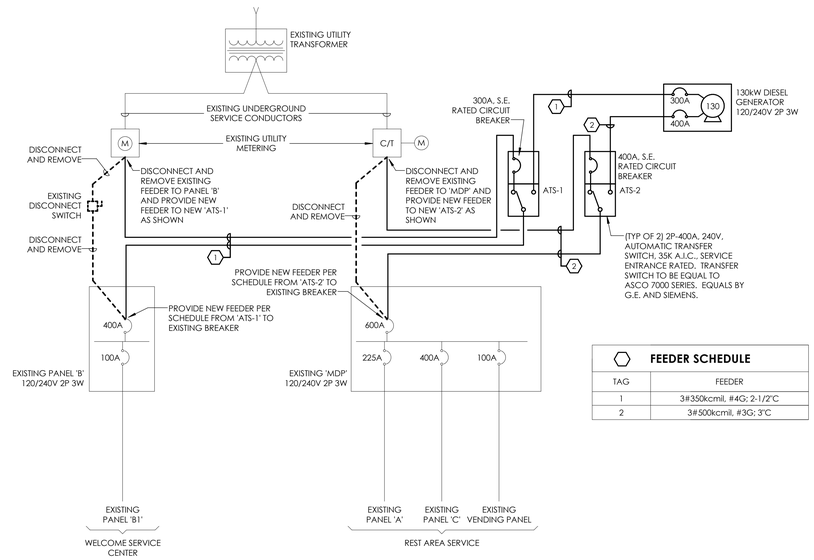
WIRING:

6. UNLESS NOTED OTHERWISE ON THE DRAWINGS, EACH BRANCH CIRCUIT SHALL BE 2#12, 1#12G; 3/4"CONDUIT. COMBINED NEUTRALS ARE NOT PERMITTED. PROVIDE #10 AWG FOR 120V BRANCH CIRCUITS LONGER THAN 100 FEET; PROVIDE #8 AWG FOR 120V BRANCH CIRCUITS LONGER THAN 150 FEET; INCREASE CONDUIT SIZE AS REQUIRED.

TYPICAL DEVICE MOUNTING HEIGHTS DETAIL

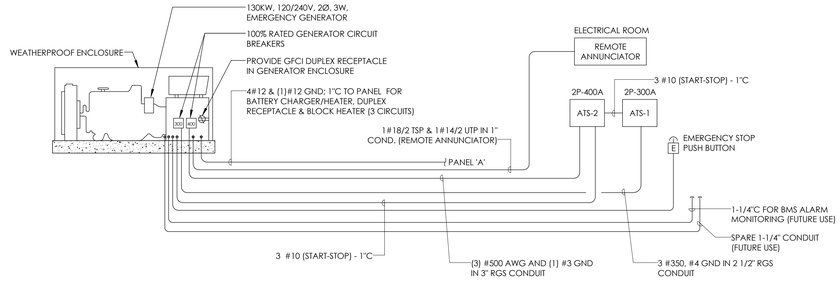


NOTES:
1. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS.
2. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
3. ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS OTHERWISE NOTED.

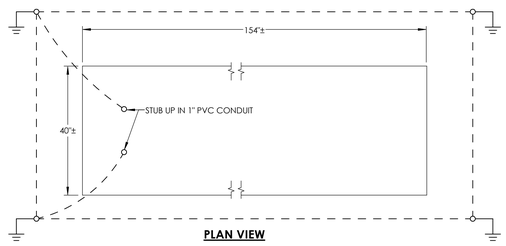


FEEDER SCHEDULE	
TAG	FEEDER
1	3#350kcmil, #4G; 2-1/2"C
2	3#500kcmil, #3G; 3"C

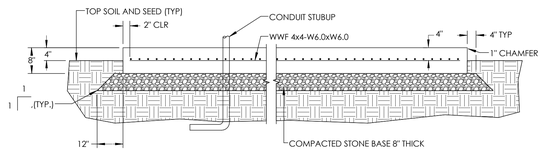
1 E000 **ONE-LINE DIAGRAM** NOT TO SCALE



2 E000 **GENERATOR WIRING SCHEMATIC** NOT TO SCALE



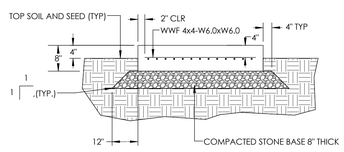
PLAN VIEW



LONGITUDINAL SECTION

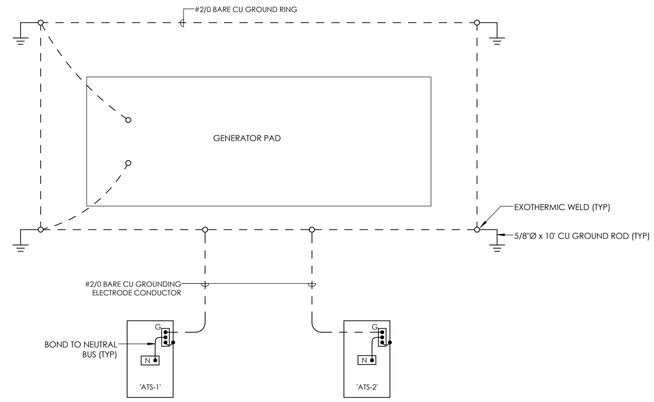
GENERATOR PAD NOTES:

1. GENERATOR TO BE SET SYMMETRICAL ON GENERATOR PAD.
2. CONCRETE STRENGTH: USE CLASS B CONCRETE. GENERATOR SHALL NOT BE INSTALLED UNTIL CONCRETE HAS CURED FOR A MINIMUM OF 3 DAYS.
3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, Fy=65,000 psi, AND SHALL BE HOT-DIPPED GALVANIZED OR EPOXY COATED AFTER FABRICATION TO PRODUCE A CLASS 2 COATING EQUAL TO THAT SPECIFIED IN ASTM A641, TABLE 1.
4. DRILL AND SET ANCHOR BOLTS IN FIELD AFTER INSTALLATION OF GENERATOR ON FOOTING AND AS PER MANUFACTURER'S SPECIFICATIONS.
5. LOCATION OF PAD SHALL BE APPROVED BY THE OWNER BEFORE CONSTRUCTION.
6. COMPACTED STONE SHALL BE AASHTO 57 COARSE AGGREGATE.
7. CONDUIT REQUIREMENTS SHALL BE PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE PLACED INTO POSITION BEFORE CASTING CONCRETE PAD.
8. ANCHOR BOLTS SHALL BE 1/2"DIA. HILTI HSE ADHESIVE ANCHOR RODS WITH 4-1/2" EMBEDMENT DEPTH OR APPROVED EQUAL.
9. REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
10. VERIFY DIMENSIONS WITH THOSE ON GENERATOR SHOP DRAWINGS AND ADJUST ACCORDINGLY.



TRANSVERSE SECTION

3 E000 **GENERATOR PAD DETAILS** NOT TO SCALE



4 E000 **SERVICE ENTRANCE GROUNDING DETAIL** NOT TO SCALE

ELECTRICAL SHEET LIST	
E000	ELECTRICAL LEGEND, NOTES, AND ONE-LINE DIAGRAM
E100	ELECTRICAL DEMOLITION PLANS
E200	ELECTRICAL POWER PLANS
E300	ELECTRICAL LIGHTING PLANS
E900	ELECTRICAL SCHEDULES

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NO.	DATE	BY:	CHKD	DESCRIPTION
				Revision Schedule

NORTH CAROLINA PROFESSIONAL SEAL 034057 ENGINEER THOMAS G. BUCKNER
DocuSigned by: Thomas G Buckner 8-28-18
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JMH	TGB
SCALE	As indicated	

SHEET TITLE: ELECTRICAL LEGEND, NOTES, AND ONE-LINE DIAGRAM

PROJECT NUMBER: 14391.00

E000 DRAWING NUMBER

8/28/2018 4:16:17 PM

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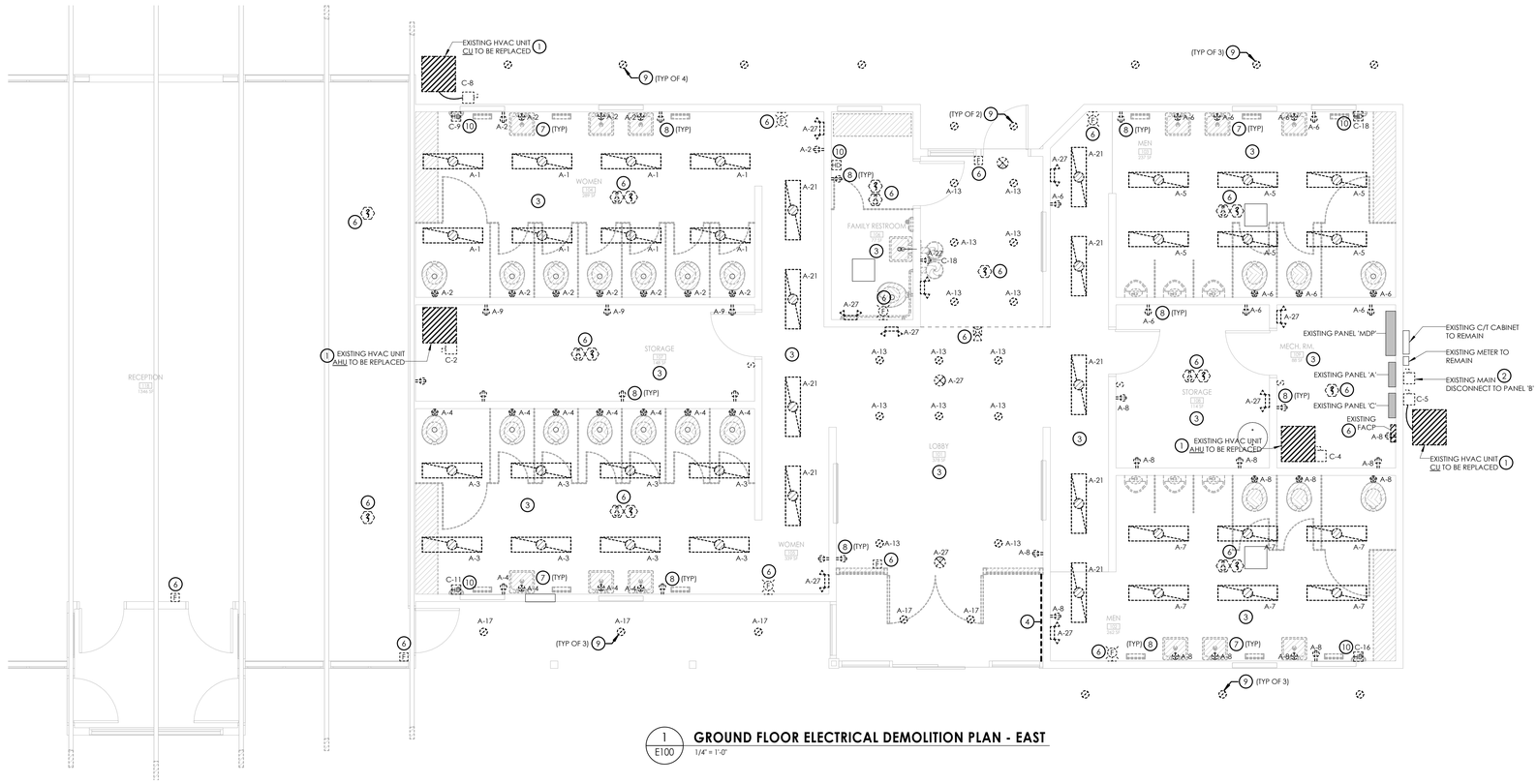


1 E100 **GROUND FLOOR ELECTRICAL DEMOLITION PLAN - EAST**
1/4" = 1'-0"

GENERAL DEMOLITION PLAN NOTES:

A. DRAWINGS INDICATE SPECIFIC ITEMS TO BE REMOVED AND/OR RELOCATED IN ORDER TO INDICATE GENERAL SCOPE. ADDITIONAL ITEMS NOT INDICATED, BUT NECESSARY FOR PROJECT RENOVATIONS, SHALL BE REMOVED, RELOCATED AND/OR REROUTED. THE E.C. SHALL ASSUME AN ALLOWANCE FOR ADDITIONAL BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING WITHIN WALLS OR OPENINGS BEING REMOVED OR RELOCATED THAT MAY NEED TO BE REMOVED OR RELOCATED TO ACCOMMODATE NEW CONSTRUCTION.

B. REMOVE ALL EXISTING ELECTRICAL DEVICES AND EQUIPMENT IN THE RENOVATED AREA UNLESS OTHERWISE NOTED. REROUTING OF EXISTING CONDUCTORS MAY BE REQUIRED AT NEW OPENINGS IN EXISTING CONSTRUCTION OR AROUND NEW WORK. FOR DEVICES SHOWN, PROVIDE WORK AS DENOTED BELOW:

DASHED LINE INDICATES ITEM TO BE REMOVED.

(ETR) EXISTING DEVICES, FIXTURES, EQUIPMENT, ETC. ARE EXISTING TO REMAIN, THEY AND THEIR ASSOCIATED CIRCUITING, CABLING, AND RACEWAYS SHALL REMAIN.

(RS) REMOVE AND SALVAGE EXISTING DEVICES, FIXTURES, EQUIPMENT, ETC. FOR REINSTALLATION IN RENOVATED AREA. ALL ASSOCIATED CIRCUITING, CABLING, AND RACEWAYS SHALL BE REMOVED BACK TO CONVENIENT LOCATION TO ACCOMMODATE DEMOLITION AND EXTENSION TO NEW LOCATIONS.

C. FOR ALL EXISTING DEVICES INDICATED TO REMAIN, FIELD VERIFY THE EXISTING CIRCUIT, AND PROVIDE NEW LABEL ON DEVICE PLATE WITH CORRECT PANEL/CIRCUIT PER SPECIFICATIONS.

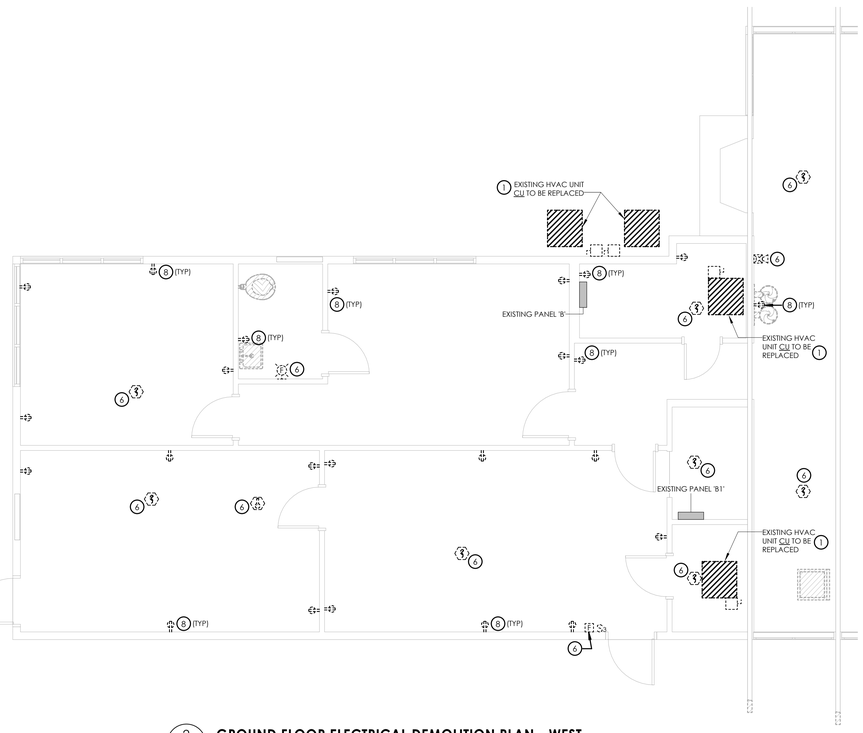
D. IT IS THE INTENT OF THIS PROJECT TO REUSE AS MUCH OF THE EXISTING FEEDER AND BRANCH CIRCUIT WIRING AS POSSIBLE. DURING DEMOLITION, TERMINATE EXISTING WIRING SYSTEMS IN A SAFE MANNER AND TAG WITH PANEL AND BRANCH CIRCUIT DESIGNATIONS. UPDATE PANEL SCHEDULES AS REQUIRED FOR RECORD DRAWINGS.

E. FOR DEVICES, FIXTURES, ETC. TO BE REMOVED, THEY AND THEIR RELATED WIRING/CONDUIT SHALL BE REMOVED BACK TO THE SOURCE PANELBOARD, UNLESS OTHERWISE NOTED. ON CIRCUITS WHERE OTHER DEVICES, FIXTURES, ETC. ARE FOUND THAT MUST REMAIN, MAINTAIN CIRCUIT CONTINUITY BY PROVIDING ADDITIONAL WIRING TO FEED THROUGH TO THESE REMAINING ITEMS. RE-CIRCUIT ANY REMAINING DEVICES AS REQUIRED TO AVAILABLE PANELBOARD SPACE. RELOCATE ANY CIRCUITS THAT REMAIN TO AVOID CONFLICT WITH NEW CONSTRUCTION AS REQUIRED. PROPERLY TERMINATE ALL WIRING.

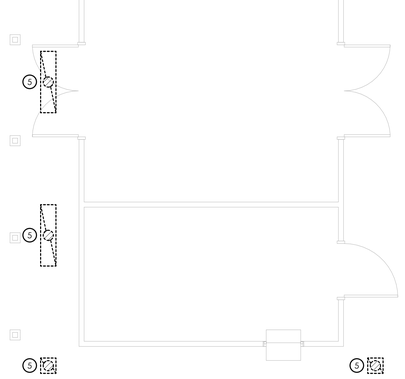
F. ALL EXISTING CCTV CAMERAS AND SPEAKERS TO REMAIN. RELOCATE AND REINSTALL AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION.

PLAN NOTES:

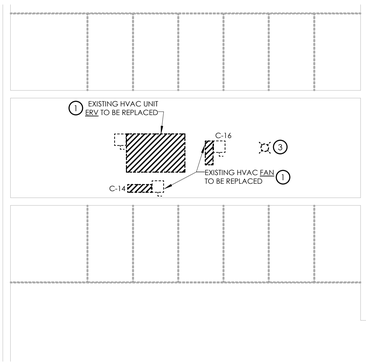
1. DISCONNECT EXISTING HVAC UNIT FOR REMOVAL BY MECHANICAL CONTRACTOR. REMOVE DISCONNECT SWITCH WITH WIRING BACK TO SOURCE PANEL. EXISTING CONDUITS MAY BE REUSED IF APPROPRIATELY SIZED.
2. REMOVE EXISTING DISCONNECT SERVING PANEL B.
3. DISCONNECT, REMOVE, AND LEGALLY DISPOSE OF EXISTING LUMINAIRES IN RESTROOM SIDE OF FACILITY, INCLUDING EXIT AND EMERGENCY LIGHTING FIXTURES.
4. RELOCATE CONDUIT FOR SLIDING DOOR IN VESTIBULE WALL. COORDINATE EXACT LOCATION WITH OWNER.
5. REPLACE EXISTING VENDING BUILDING LUMINAIRES INDICATED.
6. DISCONNECT AND REMOVE EXISTING FIRE ALARM CONTROL PANEL (FACP) AND ALL FIRE ALARM INITIATION AND ALARM APPLIANCES. REMOVE ALL CABLING AND RACEWAY BACK TO FACP.
7. DISCONNECT AND REMOVE WIRING DEVICES AND CONNECTIONS TO PLUMBING FIXTURES WHICH INTERFERE WITH NEW CONSTRUCTION. REMOVE OBSOLETE CONDUIT AND WIRING.
8. REPLACE EXISTING WIRING DEVICE ON EXISTING BRANCH CIRCUIT.
9. REPLACE EXISTING SOFFIT AND BUILDING MOUNTED LIGHTS.
10. DISCONNECT AND REMOVE EXISTING HAND DRYERS. MAINTAIN EXISTING CIRCUIT WIRING FOR RECONNECTION TO NEW HAND DRYER.

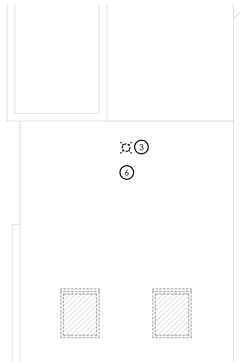


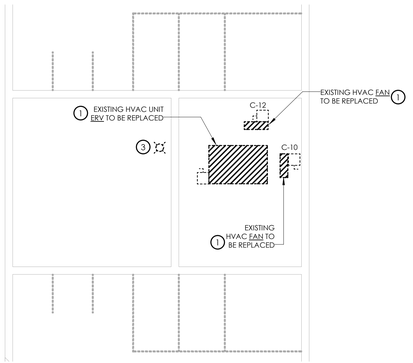
2 E100 **GROUND FLOOR ELECTRICAL DEMOLITION PLAN - WEST**
1/4" = 1'-0"



3 E100 **ELECTRICAL VENDING BUILDING DEMOLITION PLAN**
1/4" = 1'-0"







4 E100 **ELECTRICAL ATTIC DEMOLITION PLAN**
1/4" = 1'-0"

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

NORTH CAROLINA PROFESSIONAL SEAL 039454 ENGINEER THOMAS G. BUCHER
DocuSigned by: Thomas G Bucher 8-28-18
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JMH	TGB

SCALE: As indicated

SHEET TITLE: ELECTRICAL DEMOLITION PLANS

PROJECT NUMBER: 14391.00

E100
DRAWING NUMBER

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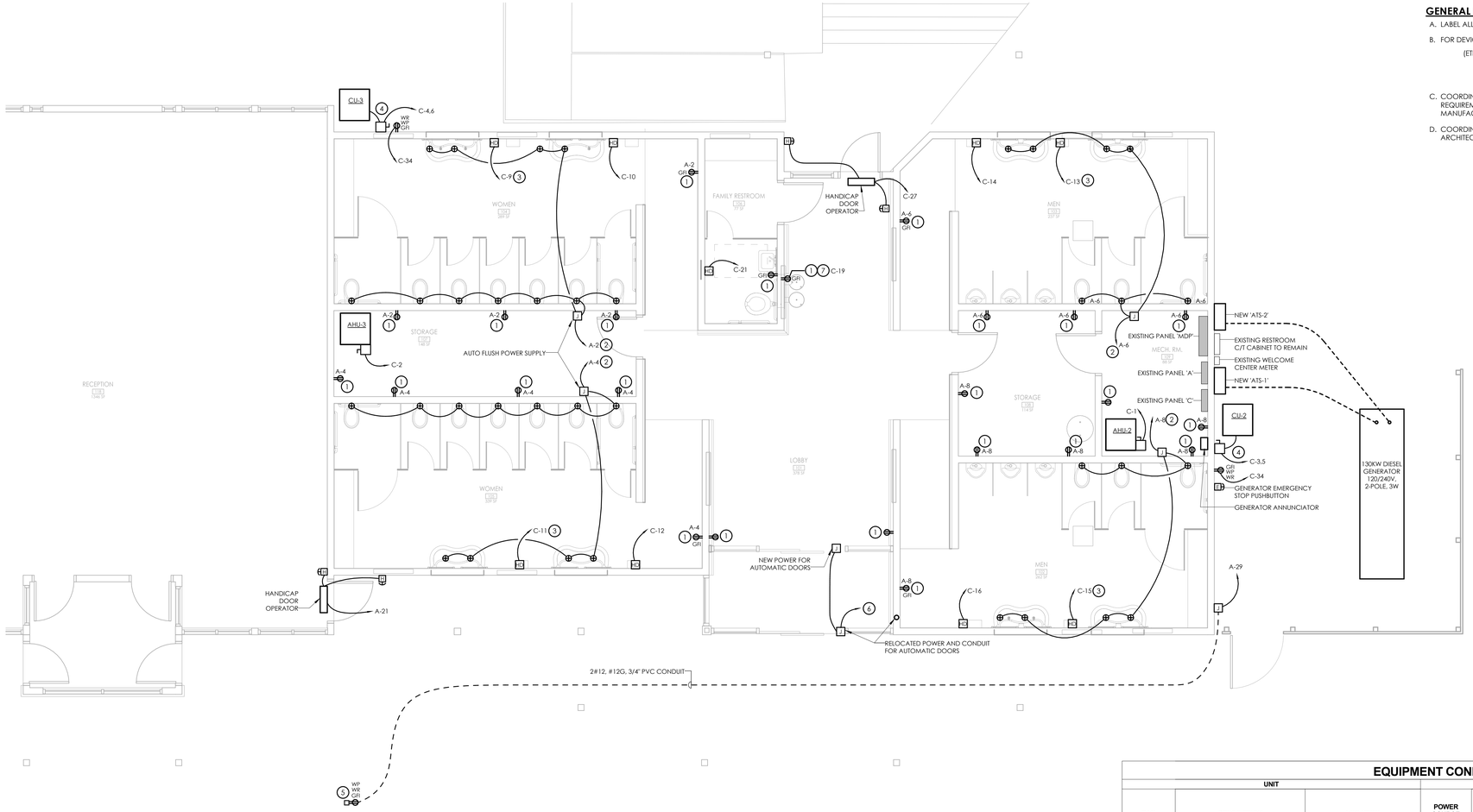
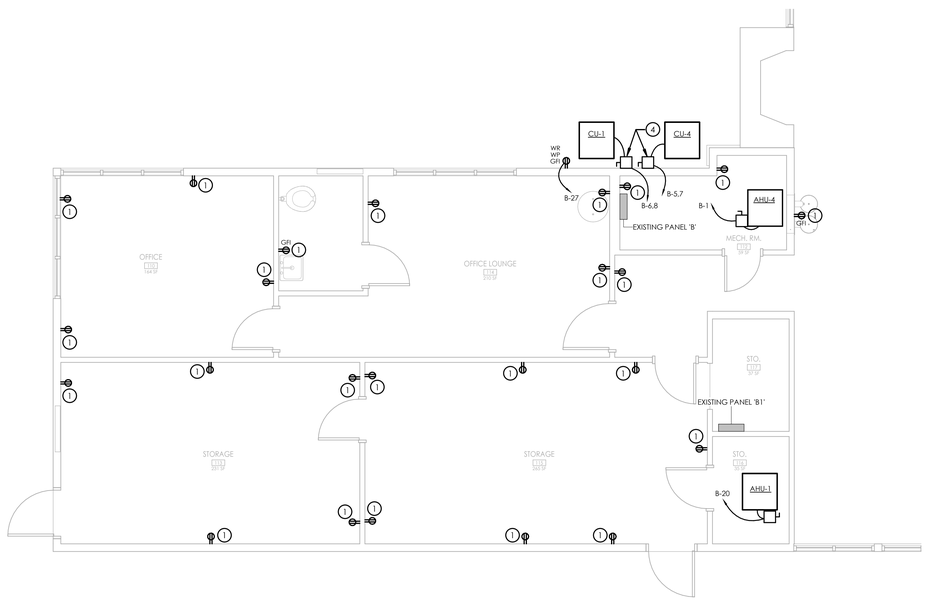
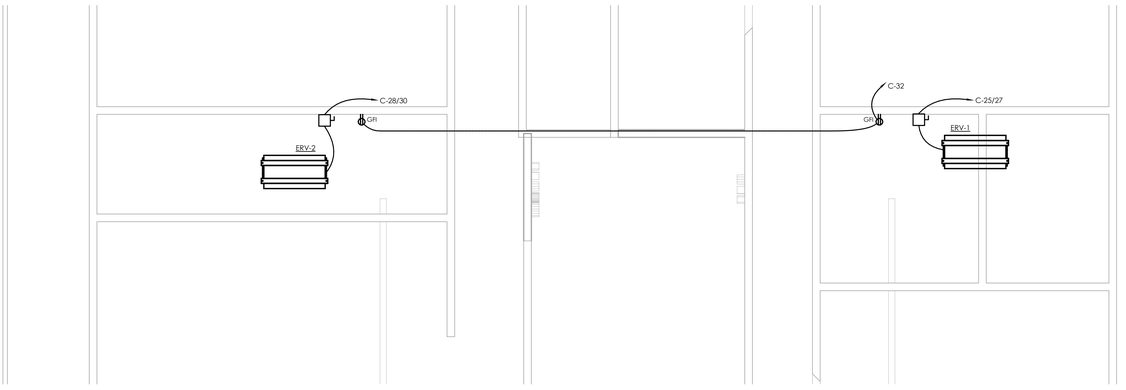


1 E200 **GROUND FLOOR ELECTRICAL PLAN - EAST**
1/4" = 1'-0"



2 E200 **GROUND FLOOR ELECTRICAL PLAN - WEST**
1/4" = 1'-0"



3 E200 **ELECTRICAL ATTIC PLAN**
1/4" = 1'-0"

GENERAL PLAN NOTES:

A. LABEL ALL WIRING DEVICES WITH PANEL/CIRCUIT SERVING DEVICE.

B. FOR DEVICES SHOWN, PROVIDE WORK AS DENOTED BELOW:

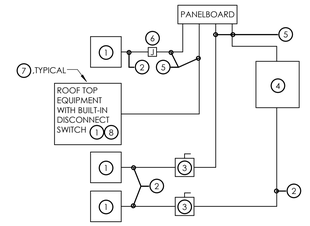
(ETR) EXISTING DEVICES, FIXTURES, EQUIPMENT, ETC., ARE EXISTING TO REMAIN. THEY AND THEIR ASSOCIATED CIRCUITING, CABLING, AND RACEWAYS SHALL REMAIN.

C. COORDINATE ALL ROUGH-IN LOCATIONS AND ELECTRICAL REQUIREMENTS WITH MECHANICAL EQUIPMENT SUPPLIER AND MANUFACTURER'S INSTRUCTIONS PRIOR TO ROUGH-IN.

D. COORDINATE EXACT LOCATIONS OF DEVICES WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.

PLAN NOTES:

1. REPLACE EXISTING DEVICE AND COVERPLATE WITH NEW.
2. CONNECT AUTOMATIC FLUSH VALVES AND LAVATORIES TO EXISTING CIRCUIT INDICATED.
3. CONNECT NEW HAND DRYER TO EXISTING CIRCUIT INDICATED.
4. MAINTAIN 3'-0" CLEARANCE IN FRONT OF DISCONNECTS AT HVAC EQUIPMENT. COORDINATE INSTALLATION WITH HVAC CONTRACTOR.
5. PROVIDE GFCI RECEPTACLE WITH "WP" IN-USE COVER FOR WATERFALL PUMP. EXACT LOCATION TO BE DETERMINED BY LANDSCAPE CONTRACTOR. MOUNT TO 4'x4" PT POST 12" ABOVE GRADE.
6. CONNECT TO EXISTING CIRCUIT FOR AUTOMATIC DOORS.
7. PROVIDE GFCI CIRCUIT BREAKER.



IN A SINGLE PRIME CONTRACT, IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND THE OTHER TRADES.

ELECTRICAL EQUIPMENT CONNECTION DETAIL KEY NOTES:

1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
2. CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR, OR OTHER TRADES.
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY THE NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
4. A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. LOCATE ADJACENT TO EQUIPMENT.
5. BRANCH CIRCUIT WIRING AND CONDUIT IN ELECTRICAL WORK. SEE PANELBOARD AND MECHANICAL EQUIPMENT CONNECTION SCHEDULES FOR BREAKER AND WIRE SIZES.
6. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS SUPPLIED, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. IN ALL CASES THE EQUIPMENT CONTRACTOR SHALL MAKE FINAL CONNECTIONS, START UP, AND TEST EQUIPMENT.
8. IF THE ROOF TOP FAN IS NOT PROVIDED WITH BUILT-IN SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

4 E200 **ELECTRICAL EQUIPMENT CONNECTION DETAIL**
NOT TO SCALE

EQUIPMENT CONNECTION SCHEDULE

UNIT			LOAD INFORMATION						SCOPE OF WORK REQUIRED
TAG	DESCRIPTION	LOCATION	POWER SOURCE	MCA	VOLTS	PHASE	WIRE	MINIMUM BRANCH CIRCUIT CONDUCTORS	CIRCUIT BREAKER	SCOPE OF WORK
AHU-1	AIR HANDLING UNIT	STORAGE 116	PANEL B	16.1	120	1	3	2#12, #12G, 1/2"C	1P-20A	1
AHU-2	AIR HANDLING UNIT	MECHANICAL ROOM 109	PANEL C	16.1	120	1	3	2#12, #12G, 1/2"C	1P-20A	1
AHU-3	AIR HANDLING UNIT	STORAGE 107	PANEL C	16.1	120	1	3	2#12, #12G, 1/2"C	1P-20A	1
AHU-4	AIR HANDLING UNIT	MECHANICAL ROOM 112	PANEL B	16.1	120	1	3	2#12, #12G, 1/2"C	1P-20A	1
CU-1	CONDENSING UNIT	ON GRADE	PANEL B	18.1	240	1	3	2#10, #10G, 1/2"C	2P-30A	1
CU-2	CONDENSING UNIT	ON GRADE	PANEL C	26.2	240	1	3	2#8, #10G, 3/4"C	2P-40A	1
CU-3	CONDENSING UNIT	ON GRADE	PANEL C	16.7	240	1	3	2#10, #10G, 1/2"C	2P-25A	1
CU-4	CONDENSING UNIT	ON GRADE	PANEL B	28	240	1	3	2#8, #10G, 3/4"C	2P-40A	1
ERV-1	ENERGY RECOVERY VENTILATOR	ATTIC	PANEL C	12.3	240	1	3	3#12, #12G, 1/2"C	2P-15A	1
ERV-2	ENERGY RECOVERY VENTILATOR	ATTIC	PANEL C	12.3	240	1	3	3#12, #12G, 1/2"C	2P-15A	1

SCOPE OF WORK NOTES
1 PROVIDE DISCONNECT SWITCH AT UNIT.

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NO.	DATE	BY	CHKD	Revision Schedule DESCRIPTION

NORTH CAROLINA PROFESSIONAL SEAL 039454 ENGINEER THOMAS G. BUCHER
DocuSigned by: Thomas G Bucher 8-28-18
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01 A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JMH	TGB

SCALE: As indicated
SHEET TITLE: ELECTRICAL POWER PLANS

PROJECT NUMBER: 14391.00
E200
DRAWING NUMBER

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GENERAL PLAN NOTES:

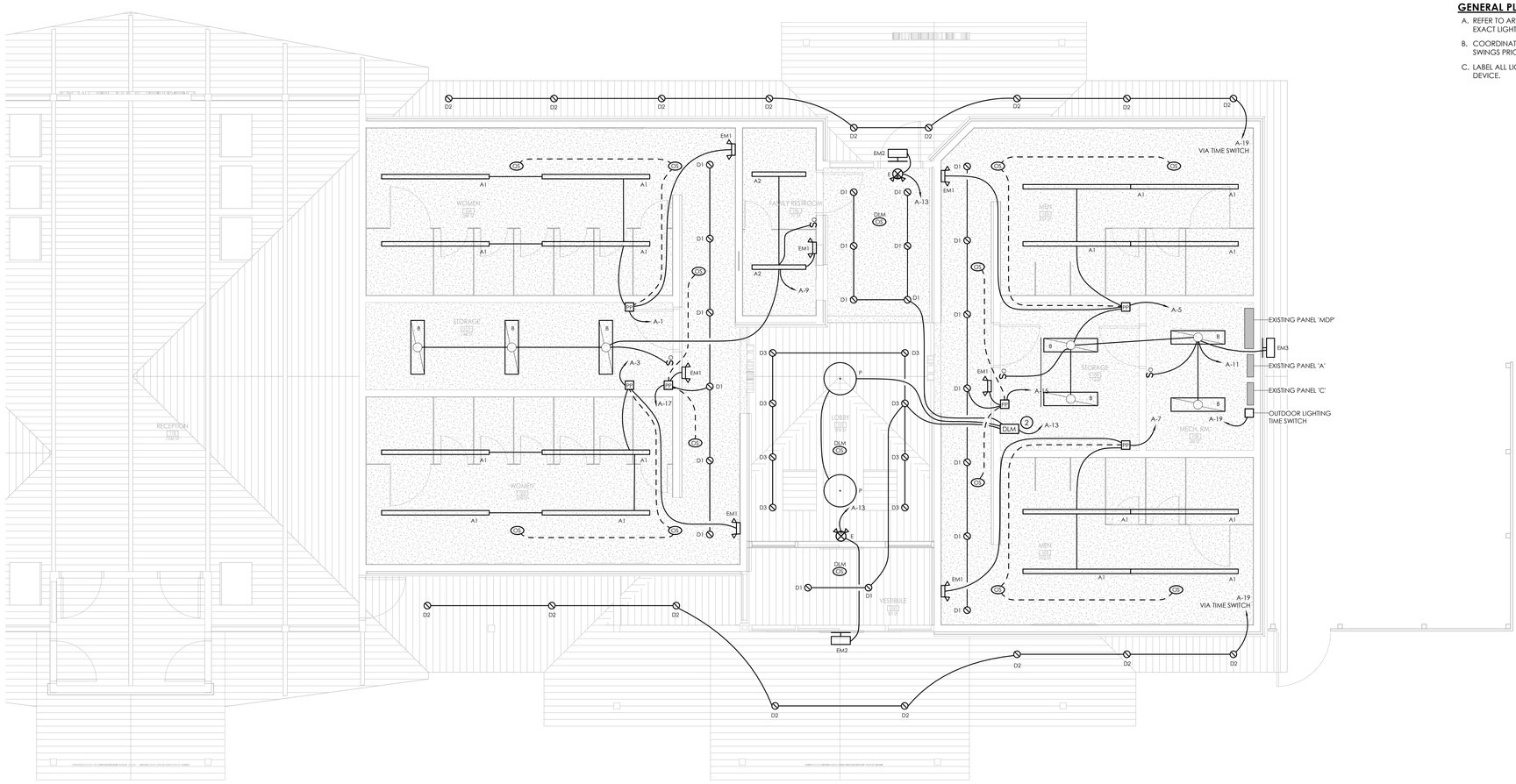
A. REFER TO ARCHITECTURAL REFLECTED PLAN(S) AND ELEVATIONS FOR EXACT LIGHTING FIXTURE LOCATIONS.

B. COORDINATE ALL LIGHT SWITCH/CONTROL LOCATIONS WITH DOOR SWINGS PRIOR TO ROUGH-IN.

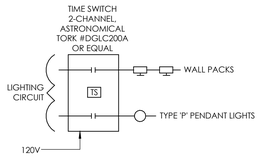
C. LABEL ALL LIGHTING CONTROLS WITH PANEL/CIRCUIT SERVING DEVICE.

PLAN NOTES:

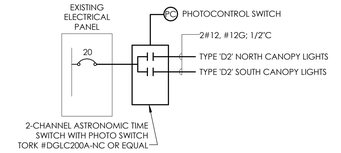
1. CONNECT NEW LUMINAIRE TO EXISTING CIRCUIT.
2. REFER TO DETAIL FOR DIMMING SWITCHES.



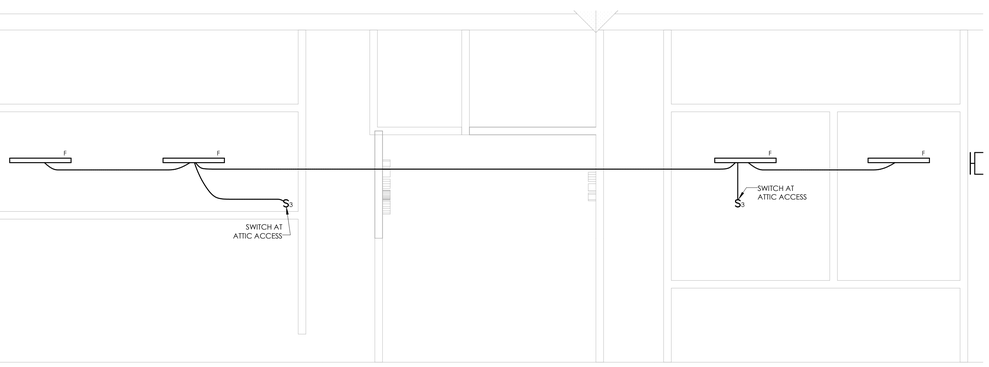
1 E300 **GROUND FLOOR ELECTRICAL LIGHTING PLAN - EAST**
1/4" = 1'-0"



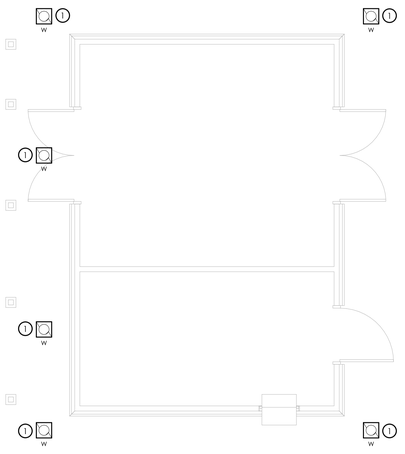
4 E300 **OUTDOOR LIGHTING CONTROL SCHEMATIC**
NOT TO SCALE



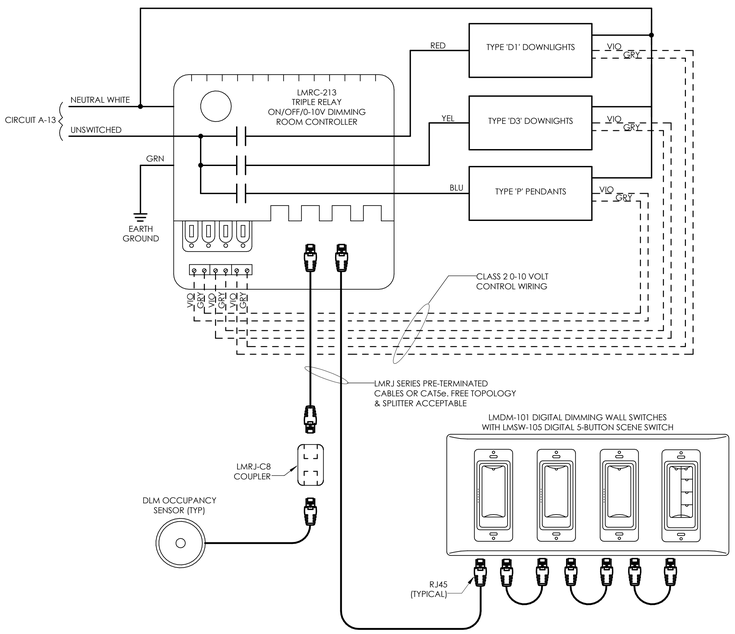
5 E300 **LIGHTING CONTROL SCHEMATIC**
NOT TO SCALE



2 E300 **ELECTRICAL ATTIC LIGHTING PLAN**
1/4" = 1'-0"



3 E300 **ELECTRICAL VENDING BUILDING LIGHTING PLAN**
1/4" = 1'-0"



6 E300 **DIMMING WIRING SCHEMATIC**
NOT TO SCALE *WATTSTOPPER OR APPROVED EQUAL

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N.C. Engineering Firm License No.: C-2194

Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

NORTH CAROLINA PROFESSIONAL SEAL 034257 ENGINEER THOMAS G. BUCHER
DocuSigned by: Thomas G. Bucher
8-28-18
8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JMH	TGB

SCALE: As indicated

SHEET TITLE: ELECTRICAL LIGHTING PLANS

PROJECT NUMBER: 14391.00

E300
DRAWING NUMBER

C:\Users\jharris\Documents\NCDOT-HAYWOOD I-40 REST AREA_MEP_16_justiceharris.rvt 8/28/2018 4:16:24 PM

DocuSign Envelope ID: 6798F42F-2314-4CEC-8C07-EF5BC2DD0200

PANEL A (EXISTING)

VOLTAGE: 240/120 1 PH 3W	AIC RATING: EXISTING	REMARKS:
FEEDER AMP: 225	MAINS: 200 MLO	MOUNTING: SURFACE	FED FROM 'MDP'
LUGS: -	FEED: TOP	ENCLOSURE: NEMA 1	

BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR
20/1	**R**	**LIGHTS WOMEN 104**	**1100**	**1**	A	2	1800	RECEPT WOMEN	E	20/1
20/1	**R**	**LIGHTS WOMEN 105**	**1100**	**3**	B	4	1800	RECEPT WOMEN	E	20/1
20/1	**R**	**LIGHTS MEN 103**	**1100**	**5**	A	6	1800	RECEPT MEN	E	20/1
20/1	**R**	**LIGHTS MEN 102**	**1100**	**7**	B	8	1800	RECEPT MEN	E	20/1
20/1	**R**	**STORAGE LIGHTS 107**	**800**	**9**	A	10	500	LIGHTING SYSTEM CONTROLS	E	20/1
20/1	**R**	**MECH. ROOM & STORAGE 108,109**	**1400**	**11**	B	12	1100	DECK LIGHTING	E	20/1
20/1	**R**	**LOBBY INCAND. LIGHTS 101**	**700**	**13**	A	14	850	AREA & SITE LIGHTING	E	30/2
20/1	E	LOBBY TRACK LIGHTS	900	15	B	16	850	↓	↓	↓
20/1	**R**	**HANDICAP DOOR OPERATOR**	**300**	**17**	A	18	850	AREA & SITE LIGHTING	E	30/2
20/1	**R**	**SOFFIT LIGHTS**	**1300**	**19**	B	20	850	↓	↓	↓
20/1	**R**	**HALL LIGHTS**	**700**	**21**	A	22	850	AREA & SITE LIGHTING	E	30/2
20/1	**R**	**ATTIC LIGHTS**	**500**	**23**	B	24	850	↓	↓	↓
20/1	**R**	**ATTIC LIGHTS**	**500**	**25**	A	26	850	AREA & SITE LIGHTING	E	30/2
20/1	E,LO	EMERGENCY & EXIT LIGHTS	600	27	B	28	850	↓	↓	↓
20/1	**N**	**WATERFALL PUMP**	**1160**	**29**	A	30	0	SPARE	E	20/2
20/1	**R**	**GENERATOR CHARGER**	**180**	**31**	B	32	0	SPARE	E	30/2
20/1	**N**	**GENERATOR HEATER**	**1300**	**33**	A	34	0	↓	↓	↓
20/1	**N**	**GENERATOR RECEPTACLE**	**180**	**35**	B	36	300	AUTOMATIC DOOR	E,G	20/1
	E	SPACE	0	37	A	38	0	SPACE		
	E	SPACE	0	39	B	40	0	SPACE		
	E	SPACE	0	41	A	42	0	SPACE		

Connected Load Per Phase — PH A: 15160 — PH B: 15660

	Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps
Connected VA	19700	0	1300	8720	0	0	1100	30820	128.4
Demand Factor	1.25	1.00	1.00	NEC	1.00	1.00	1.00		
Demand VA	24625	0	1300	8720	0	0	1100	35745	148.9

PANEL B (EXISTING)

VOLTAGE: 240/120 1 PH 3W	AIC RATING: EXISTING	REMARKS:
FEEDER AMP: 225	MAINS: 225 MCB	MOUNTING: SURFACE	
LUGS: -	FEED: BOTTOM	ENCLOSURE: NEMA 1	

BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR
20/1	**R**	**AHU-4**	**1548**	**1**	A	2	0	PANEL B1	E	100/2
20/1	E	SMOKE DETECTORS	200	3	B	4	0	↓	↓	↓
40/2	**R**	**CU-4**	**3360**	**5**	A	**6**	**2172**	**CU-1**	**R**	**30/2**
↓	↓	↓	**3360**	**7**	B	**8**	**2172**	↓	↓	↓
20/1	E	N. WALL LOBBY RECEPT	720	9	A	10	600	BATH EXHAUST FAN	E	20/1
20/1	E	WATER COOLER	500	11	B	12	1500	HOT WATER HEATER	E	30/2
20/1	E	SPARE	0	13	A	14	1500	↓	↓	↓
20/1	E	SPARE	0	15	B	16	2250	RANGE	E	50/2
20/1	E	SPARE	0	17	A	18	2250	↓	↓	↓
20/1	**R**	**EMERGENCY & EXIT**	**450**	**19**	B	**20**	**1548**	**AHU-1**	**R**	**20/1**
20/1	**R**	**HALL LIGHTS**	**1100**	**21**	A	22	0	SPARE		20/1
20/1	**R**	**OFFICE LIGHTS**	**1100**	**23**	B	24	0	SPARE		20/1
20/1	**R**	**STORE RM & ATTIC LIGHTS**	**810**	**25**	A	26	1100	OFFICE RECEPTACLES		20/1
20/1	**R**	**SOFFIT LIGHTS**	**500**	**27**	B	28	1600	KITCHEN/STOCK ROOM RECEPT		20/1
20/1	**R**	**OUTDOOR RECEPTACLE**	**0**	**29**	A	30	1500	REFRIGERATOR		20/1
20/1	E	KITCHEN GFI-LEFT	540	31	B	32	0	SPARE		20/1
20/1	E	KITCHEN GFI-RIGHT	540	33	A	34	0	SPARE		20/1
20/1	E	BACK WALL LOBBY RECEPT	360	35	B	36	0	SPARE		20/1
20/1	E	OUTSIDE GFI RECEPT	900	37	A	38	0	SPARE		20/1
20/1	E	SOUTH WALL LOBBY RECEPT	1100	39	B	40	0	SPARE		20/1
20/1	E	SPARE	0	41	A	42	0	SPARE		20/1

Connected Load Per Phase — PH A: 18100 — PH B: 17180

	Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps
Connected VA	3960	16652	4548	5420	0	4500	200	35280	147.0
Demand Factor	1.25	1.00	1.00	NEC	1.00	1.00	1.00		
Demand VA	4950	16652	4548	5420	0	4500	200	36270	151.1

PANEL C (EXISTING)

VOLTAGE: 240/120 1 PH 3W	AIC RATING: EXISTING	REMARKS:
FEEDER AMP: 400	MAINS: 400 MLO	MOUNTING: SURFACE	FED FROM MDP
LUGS: -	FEED: TOP	ENCLOSURE: NEMA 1	MENS | WOMENS

BKR	NOTE	LOAD DESCRIPTION	VA	CKT	PHASE	CKT	VA	LOAD DESCRIPTION	NOTE	BKR
20/1	**R**	**AHU-2**	**1548**	**1**	A	**2**	**1548**	**AHU-3**	**R**	**20/1**
40/2	**N**	**CU-2**	**3132**	**3**	B	**4**	**2004**	**CU-3**	**N**	**25/2**
↓	↓	↓	**3132**	**5**	A	**6**	**2004**	↓	↓	↓
20/1	E	EXISTING LOAD	1000	7	B	8	1000	EXISTING LOAD	E	20/1
20/1	**R**	**HAND DRYER WOMEN 104**	**1450**	**9**	A	**10**	**1450**	**HAND DRYER WOMEN 104**	**R**	**20/1**
20/1	**R**	**HAND DRYER WOMEN 105**	**1450**	**11**	B	**12**	**1450**	**HAND DRYER WOMEN 105**	**R**	**20/1**
20/1	**R**	**HAND DRYER MEN 103**	**1450**	**13**	A	**14**	**1450**	**HAND DRYER MENS 103**	**R**	**20/1**
20/1	**R**	**HAND DRYER MEN 102**	**1450**	**15**	B	**16**	**1450**	**HAND DRYER MENS 102**	**R**	**20/1**
20/1	E	EXISTING LOAD	1000	17	A	18	2500	WATER SYSTEM POWER	E	60/2
20/1	**N,G**	**RECEPT @ WATER COOLER**	**500**	**19**	B	20	2500	↓	↓	↓
20/1	**R**	**UNISEX HAND DRYER**	**1450**	**21**	A	22	0	WATER SYSTEM SPARE	E	20/1
20/1	E	EXISTING LOAD	1000	23	B	**24**	**1410**	**ERV-1**	**N**	**15/2**
20/1	E	EXISTING LOAD	1000	25	A	**26**	**1410**	↓	↓	↓
20/1	**R**	**HANDICAP DOOR OPERATOR**	**300**	**27**	B	**28**	**1410**	**ERV-2**	**N**	**15/2**
20/1	E	EXISTING LOAD	1000	29	A	**30**	**1410**	↓	↓	↓
20/1	E	EXISTING LOAD	1000	31	B	**32**	**360**	**ATTIC RECEPT**	**R**	**20/1**
20/1	E	EXISTING LOAD	1000	33	A	**34**	**360**	**OUTDOOR RECEPT**	**R**	**20/1**
20/1	E	EXISTING LOAD	1000	35	B	36	0	SPARE	E	20/1
20/1	E	SPARE	0	37	A	38	0	SPARE	E	20/1
30/2	E	EXISTING LOAD	1500	39	B	40	1500	HOT WATER HEATER	E	30/2
↓	↓	↓	1500	41	A	42	1500	↓	↓	↓

Connected Load Per Phase — PH A: 28162 — PH B: 25416

	Lighting	HVAC	Motors	Recept.	Refrig	Kitchen	Misc	Total VA	Amps
Connected VA	0	19008	21050	1220	0	0	12300	53578	223.2
Demand Factor	1.25	1.00	1.00	NEC	1.00	1.00	1.00		
Demand VA	0	19008	21050	1220	0	0	12300	53578	223.2

EXISTING PANEL GENERAL NOTES:

A. EXISTING CIRCUIT DATA SHOWN IS TAKEN FROM EXISTING FACILITY DOCUMENTATION AND/OR FIELD OBSERVATION. FIELD VERIFY ALL CIRCUITS.

B. VERIFY CIRCUITS ON EXISTING PANELS. ADJUST CIRCUITING AS REQUIRED TO MEET DESIGN INTENT OF DRAWINGS. TURN SPARE BREAKERS OFF.

C. CIRCUITS WITH DESCRIPTION "EXISTING LOAD (FIELD VERIFY)" FEED EXISTING LOADS OUTSIDE THE RENOVATED AREA THAT ARE REQUIRED TO REMAIN. FIELD DETERMINE LOAD AND PROVIDE APPROPRIATE DESCRIPTION IN PANEL DIRECTORY.

D. PROVIDE NEW TYPEWRITTEN PANEL DIRECTORY TO REFLECT NEW CONDITIONS UPON COMPLETION OF WORK DESCRIBED IN THESE DRAWINGS.

E. REUSE EXISTING CIRCUIT BREAKERS WHERE POSSIBLE. PROVIDE NEW BREAKERS AS REQUIRED-TYPE, VOLTAGE RATING,AND AIC RATING TO MATCH EXISTING.

F. PANEL SCHEDULES REFLECT STATUS AFTER PROPOSED WORK IS COMPLETE.

PANEL SCHEDULE NOTES:

E EXISTING CIRCUIT TO REMAIN

G GROUND FAULT CIRCUIT INTERRUPTER BREAKER (GFCI)

N PROVIDE NEW CIRCUIT BREAKER, TYPE, VOLTAGE RATING, AND AIC RATING TO MATCH EXISTING

R REVISED LOAD/DESCRIPTION FOR EXISTING CIRCUIT BREAKER

LO PROVIDE HANDLE-LOCK FOR BREAKER

LUMINAIRE SCHEDULE

MARK	DESCRIPTION	DESIGN BASE MANUFACTURER	DESIGN BASE MODEL #	ALTERNATE MANUFACTURER	VOLTS	LAMP OR DRIVER WATTS	LUMENS	TYPE	MOUNTING	REMARKS
A1	8'-0" SURFACE MOUNTED DIRECT LUMINAIRE, BOTTOM GLOW DIFFUSER, BOOSTED STANDARD OUTPUT	FINELITE	HP-4-SM-8'-HO-SO-3500K-BG-120V-C4-SC	LITHONIA METALUX	120	57	5764	3500K LED	SURFACE	-
A2	4'-0" SURFACE MOUNTED DIRECT LUMINAIRE, BOTTOM GLOW DIFFUSER, BOOSTED STANDARD OUTPUT	FINELITE	HP-4-SM-4'-HO-SO-3500K-BG-120V-C4-SC	LITHONIA METALUX	120	28	2882	3500K LED	SURFACE	-
B	4'-0" SURFACE MOUNTED LED WRAP FIXTURE, LOW-PROFILE, FROSTED PRISMATIC DIFFUSER	H.E. WILLIAMS	17-4-L55/835-AF-DRV-120	LITHONIA METALUX	120	53	5500	3500K LED	SURFACE	-
D1	4" RECESSED DOWNLIGHT, WHITE REFLECTOR, TRIM RING TO MATCH REFLECTOR, WIDE DISTRIBUTION, MATTE FINISH	GOTHAM	EVO-35/10-4WR-FL-WD-LD-120	INTENSE METALUX	120	12.8	1000	3500K LED	RECESSED	-
D2	6" LED LENSED (SEALED) DOWNLIGHT, ROUGH SERVICE	KENALL	HAD-FF-PAFW-ZZL-30K8-W-FW-G-RIG6-DV	INTENSE METALUX	120	22	2000	3500K LED	RECESSED	-
D3	4" RECESSED DOWNLIGHT, WHITE REFLECTOR, TRIM RING TO MATCH REFLECTOR, WIDE DISTRIBUTION, MATTE FINISH	GOTHAM	EVO-35/15-4WR-FL-WD-LD-120	INTENSE METALUX	120	17.3	1500	3500K LED	RECESSED	-
E	SINGLE-FACE EMERGENCY COMBINATION EXIT LIGHT, DIE CAST ALUMINUM HOUSING, RED LED LETTERS, UL924 LISTED, UNIVERSAL MOUNTING	EXITRONIX	400C-1-WW-XG-6	LITHONIA METALUX	120	3	-	RED LED LETTERS	CEILING OR WALL MOUNT AT 7'-6" (OR BOTTOM OF FIXTURE 6" ABOVE DOOR FRAME)	-
EM1	LED BATTERY POWERED FIXTURE WITH SELF DIAGNOSTICS, POLY GUARD	EXITRONIX	LED90-G2-XG-90	LITHONIA METALUX	120	5	-	4000K LED	SURFACE ON WALL	-
EM2	LED WALL PACK, BATTERY BACKUP, PHOTOCONTROL, LOW TEMPERATURE TO -13°F, NO PIR DETECTOR, UL924 LISTED	TRACE-LITE	SLW-15W-4K-BL-EM-NS	LITHONIA METALUX	120	32	1500	4000K LED	SURFACE ON WALL	-
EM3	LED WALL PACK, BATTERY BACKUP, PHOTOCONTROL, LOW TEMPERATURE TO -13°F, NO PIR DETECTOR, UL924 LISTED	EXITRONIX	SLW-15W-4K-BL-EM	LITHONIA METALUX	120	32	1500	4000K LED	SURFACE ON WALL	-
F	4'-0" LED STRIP, STEEL CHANNEL, ACRYLIC DIFFUSER	COLUMBIA	LCL-4-35-ML-E-U	LITHONIA H.E. WILLIAMS	120	52	5411	4000K LED	SURFACE ON HARD CEILINGS 10'-0" AFF AND LOWER, OR CHAIN-HUNG AT 9'-0" AFF	-
P	LED DECORATIVE PENDANT	HUBBARDTONFORGE	#138587-1003-08-ZM-LED	- -	120	27	1350	3500K LED	PENDANT	-
W	12" SQUARE LENSED FIXTURE, HIGH ABUSE, LOW-PROFILE	KENALL	MS11FL-PP-MB-20L35K-120	LITHONIA METALUX	120	24	2523	3000K LED	SURFACE	-

LUMINAIRE SCHEDULE GENERAL NOTES:

A. PROVIDE DRIVERS AS REQUIRED FOR FIXTURES IN AREAS WHERE 1% MINIMUM 0-10V DIMMING IS INDICATED.

B. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL LIGHTING FIXTURES.

C. SUBSTITUTIONS ARE ALLOWED WITH APPROVAL FOR ALL LIGHTING FIXTURES UNLESS NOTED OTHERWISE. SUBSTITUTE FIXTURES SHALL BE EQUAL IN TYPE, STYLE, MATERIALS, COLOR, FINISH, AND ELECTRICAL RATINGS. SUBSTITUTE LAMPS SHALL BE EQUAL IN TYPE, STYLE, WATTAGE, AND COLOR.

D. PROVIDE WITH PROPER MOUNTING HARDWARE FOR CEILING TYPE INDICATED ON PLANS.

E. ALL LED FIXTURES SHALL HAVE INTEGRAL SERVICEABLE SURGE PROTECTION DEVICE.

COMcheck Software Version 4.0.7.0

Interior Lighting Compliance Certificate

Section 1: Project Information

Energy Code: **2012 North Carolina Energy Conservation Code**
Project Title: I-40 EASTBOUND REST AREA RENOVATION
Project Type: Alteration

Construction Site: I-40 EASTBOUND, WAYNESVILLE, NC 28786
Owner/Agent: NCDOT HAYWOOD COUNTY
Designer/Contractor: THOMAS BUCHER, CPL, 6302 FAIRVIEW ROAD, SUITE 102, CHARLOTTE, NC 28210, 800-274-9000, tbucher@clarkpatterson.com

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Lobby (Common Space Types:Lobby)	450	0.6	270
Toilet Facilities (Common Space Types:Restroom)	1800	0.84	1512
Office (Common Space Types:Conference/Meeting/Multipurpose)	1200	1.29	1548
		Total Allowed Watts =	3330

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Lobby (Common Space Types:Lobby 450 sq.ft.)				
LED 1: D1: LED A Lamp 12W:	1	8	61	488
LED 2: D3: LED Panel 19W:	1	8	23	184
LED 3: P: LED Panel 44W:	1	2	48	96
Toilet Facilities (Common Space Types:Restroom 1800 sq.ft.)				
LED 4: A1: LED Panel 55W:	1	16	61	976
LED 5: B: LED Panel 54W:	1	7	26	182
LED 6: A2: LED Linear 33W:	1	2	52	104
Office (Common Space Types:Conference/Meeting/Multipurpose 1200 sq.ft.)				
LED 5: B: LED Panel 54W:	1	26	26	676
		Total Proposed Watts =		2706

Section 4: Requirements Checklist

Interior Lighting PASSES

Lighting Wattage:

❑ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
3330	2706	Passes

Controls, Switching, and Wiring:

❑ 2. Separate lighting controls present for: Display/Accent Lighting, Case Lighting, lighting for nonvisual applications (e.g., such as plant growth and food warming), lighting equipment that is for sale or for demonstrations in lighting education.

❑ 3. Hotel and motel guest rooms and guest suites have a master control device at the main room entry that controls all permanently installed luminaires and switched receptacles.

❑ 4. Supplemental task lighting has a control device integral to the luminaires or be controlled by a wall-mounted control device provided the control device is readily accessible and located so that the occupant can see the controlled lighting..

☒ 5. Independent controls for each space (switch/occupancy sensor).

Exceptions:

❑ Areas designated as security or emergency areas that must be continuously illuminated.

❑ Lighting in stairways or corridors that are elements of the means of egress.

❑ 6. Individual dwelling units separately metered.

❑ 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.

❑ 8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exceptions:

❑ Only one luminaire in space.

❑ An occupant-sensing device controls the area.

❑ The area is a corridor, storeroom, restroom, public lobby or sleeping unit.

❑ Areas that use less than 0.6 Watts/sq.ft.

☒ 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exceptions:

❑ Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.

☒ 10. Photocell/astronomical time switch on exterior lights.

Exceptions:

❑ Lighting intended for 24 hour use.

❑ 11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

❑ Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

❑ 12. Lighting controls are tested to ensure that control devices, components, equipment, and systems are calibrated, adjusted and operate in accordance with approved plans and specifications. Sequences of operation shall be functionally tested to ensure they operate in accordance with approved plans and specifications.

Section 5: Compliance Statement

Compliance Statement: The proposed lighting alteration project represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting alteration project has been designed to meet the 2012 North Carolina Energy Conservation Code, Chapter 8, requirements in COM*check* Version 4.0.7.0 and to comply with the mandatory requirements in the Requirements Checklist.

THOMAS G. BUCHER, P.E. — [signature] — 5-24-18
Name - Title — Signature — Date

COMcheck Software Version 4.0.7.0

Exterior Lighting Compliance Certificate

Section 1: Project Information

Energy Code: **2012 North Carolina Energy Conservation Code**
Project Title: I-40 EASTBOUND REST AREA RENOVATION
Project Type: Alteration
Exterior Lighting Zone: 4 (High activity metropolitan commercial district)

Construction Site: I-40 EASTBOUND, WAYNESVILLE, NC 28786
Owner/Agent: NCDOT HAYWOOD COUNTY
Designer/Contractor: THOMAS BUCHER, CPL, 6302 FAIRVIEW ROAD, SUITE 102, CHARLOTTE, NC 28210, 800-274-9000, tbucher@clarkpatterson.com

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Illuminated length of facade wall or surface	220 ft	5	No	1100	1425
		Total Tradable Watts* =		0	0
		Total Allowed Watts =		1100	
		Total Allowed Supplemental Watts** =		1300	

* Wattage tradeoffs are only allowed between tradable areas/surfaces.
** A supplemental allowance equal to 1300 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Section 3: Exterior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Illuminated length of facade wall or surface (220 ft): Non-tradable Wattage				
LED 10: D2: LED Linear 22W:	1	25	57	1425
		Total Tradable Proposed Watts =		0

Section 4: Requirements Checklist

Lighting Wattage:

❑ 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.

Compliance: Alteration details not specified

Controls, Switching, and Wiring:

❑ 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.

❑ 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.

❑ 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.

❑ 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

❑ 6. Lighting controls are tested to ensure that control devices, components, equipment, and systems are calibrated, adjusted and operate in accordance with approved plans and specifications. Sequences of operation shall be functionally tested to ensure they operate in accordance with approved plans and specifications.

Exterior Lighting Efficacy and Application:

❑ 7. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

Exceptions:

❑ Lighting that has been claimed as exempt and is identified as such in Section 3 table above.

❑ Lighting that is specifically designated as required by a health or life safety statue, ordinance, or regulation.

❑ Emergency lighting that is automatically off during normal building operation.

❑ Lighting that is controlled by motion sensor.

❑ 8. Exterior lighting fixtures are fully shielded fixtures unless a lighting plan is submitted showing that the use of alternative fixtures would provide greater energy efficiency.

Exceptions:

❑ Luminaires with an output of 150 Watts or less, or the equivalent light output.

❑ Luminaires intended to illuminate the facade of buildings or to illuminate other objects including but not limited to flagpoles, landscape and water features, statuary and works of art.

❑ Luminaires for historic lighting on the premises of an historic building as defined in the or within a designated historic district.

❑ Outdoor sports facility lighting of the participant sport area.

❑ Emergency exit discharge lighting.

❑ Sign illumination, festoon lighting, low voltage landscape lighting.

❑ Temporary lighting for emergency, repair, construction, special events or similar activities.

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Revision Schedule

NO.	DATE	BY	CHKD	DESCRIPTION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 034257 THOMAS G. BUCHER
8-28-18
DocuSigned by: Thomas G Bucher
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8/29/2018

NCDOT HAYWOOD COUNTY I-40 EASTBOUND REST AREA RENOVATION
SCO ID# 18-19094-01A BID SET
I-40, WAYNESVILLE, NC 28786

DATE	DRAWN	CHECKED
08/28/18	JMH	TGB

SCALE: As indicated

SHEET TITLE: ELECTRICAL SCHEDULES

PROJECT NUMBER: 14391.00

DRAWING NUMBER: E900

8/28/2018 4:16:25 PM

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