MARTIN LUTHER KING JR. PARK

100% CONSTRUCTION DOCUMENTS

MLK JR PARK | CARRBORO, NC

100% CONSTRUCTION DOCUMENTS

06 . 22 . 2017

STEWART

MARTIN LUTHER KING JR. PARK

100% CONSTRUCTION DOCUMENTS

Summary of process:

1994 - Town develops P&R Comp Plan identifying needs
1999 - Town purchases 10.16 acres of land for MLK Jr. Park
Spring 2000 - Planning for park begins (two public meetings held)
June 2004 - Master Plan unanimously adopted by BOA
September 2006 - MLK Park described in Parks Comp Plan
2014 - Master Plan updated to reflect current needs (4 public meetings held)
February 2016 - Modified Master Plan adopted by BOA and approved for design
June 2016 - BOA requests edits of master plan and approves for design and construction
Fall 2016 - Stewart engaged to complete construction drawings for park.
Spring - Summer 2017 - Stewart details park drawings, reviews permitting regulations, holds a public meeting and presents at three public hearings.
June 27, 2017 - Stewart presents plans for BOA approval on final design before receiving permits and completing construction documents.

FINAL APPROVED MASTER PLAN - 2016

Town of Carrboro
Recreation and Parks Department

Martin Luther King Jr. Park

Modified Option

30% PLAN PRESENTED AT FEBRUARY 6 RECREATION COMMISSION MEETING FOR FEEDBACK

1 RAINWATER HARVESTING

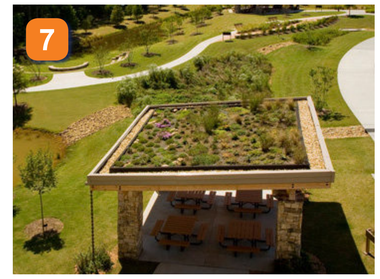
2 AMPHITHEATER SEATING

3 YOUTH CYCLING AREA

4 EXERCISE STATIONS

5 NATURAL PLAYGROUND

6 POLLINATOR GARDENS



7 GREEN ROOF

8 CONSTRUCTED WETLAND

MLK JR PARK | CARRBORO, NC

30% SD : ILLUSTRATIVE RENDERING

01 . 25 . 2017

STEWART

60% PLAN PRESENTED AT MARCH 21 BOA MEETING
FOR INPUT

MLK JR PARK | CARRBORO, NC

60% DD : ILLUSTRATIVE RENDERING

05 . 15 . 2017

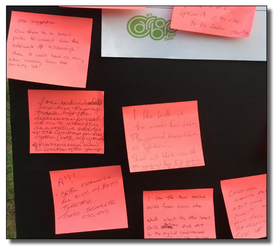
STEWART

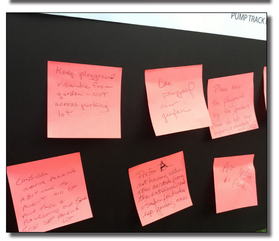
PUMP TRACK COMMUNITY INPUT MEETING - MAY 15

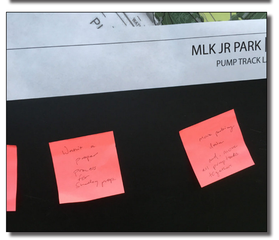
MLK JR PARK | CARRBORO, NC
PUMP TRACK LAYOUT : OPTION A

MLK JR PARK | CARRBORO, NC
PUMP TRACK LAYOUT : OPTION B

MLK JR PARK | CARRBORO, NC
PUMP TRACK LAYOUT : OPTION C







MLK JR PARK | CARRBORO, NC

90% CD : PUMP TRACK INPUT

05 . 23 . 2017

STEWART

90% CD'S - WITH PREFERRED PUMP TRACK LOCATIONS

RAINWATER HARVESTING

AMPHITHEATER SEATING

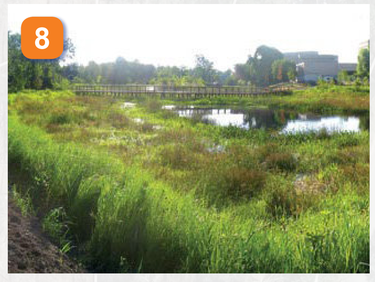
YOUTH CYCLING AREA

EXERCISE STATIONS

NATURAL PLAYGROUND

POLLINATOR GARDENS

GREEN ROOF



CONSTRUCTED WETLAND

MLK JR PARK | CARRBORO, NC

90% CD : ILLUSTRATIVE RENDERING

05 . 23 . 2017

STEWART

100% PLAN RENDERING - OPTION A

1 RAINWATER HARVESTING

2 AMPHITHEATER SEATING

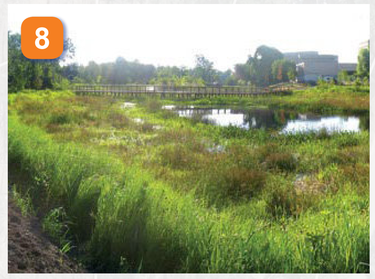
3 PUMP TRACK

4 EXERCISE STATIONS

5 NATURAL PLAYGROUND

6 POLLINATOR GARDENS

7 GREEN ROOF



8 CONSTRUCTED WETLAND

MLK JR PARK | CARRBORO, NC

100% CD : ILLUSTRATIVE RENDERING - OPTION A

06 . 22 . 2017

STEWART

100% PLAN RENDERING - OPTION B

1 RAINWATER HARVESTING

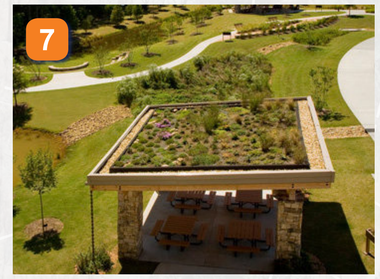
2 AMPHITHEATER SEATING

3 PUMP TRACK

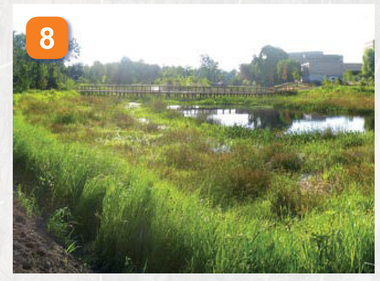
4 EXERCISE STATIONS

5 NATURAL PLAYGROUND

6 POLLINATOR GARDENS



7 GREEN ROOF



8 CONSTRUCTED WETLAND

MLK JR PARK | CARRBORO, NC

100% CD : ILLUSTRATIVE RENDERING - OPTION B

06 . 22 . 2017

STEWART

1

EMBANKMENT SLIDE

2

HOPPING LOGS

3

WATER PLAY

4

CLIMBING LOGS

5

BALANCING LOGS

6

SEESAW

7

WILLOW TUNNEL

8

BIRD'S NEST SWING

9

KOMPAN PARKOUR

10

KOMPAN CLIMBING NET

11

CLIMBING BOULDER

PLANTING APPROACH

MLK JR PARK | CARRBORO, NC

100% CD : PLAYGROUND RENDERING

06 . 22 . 2017

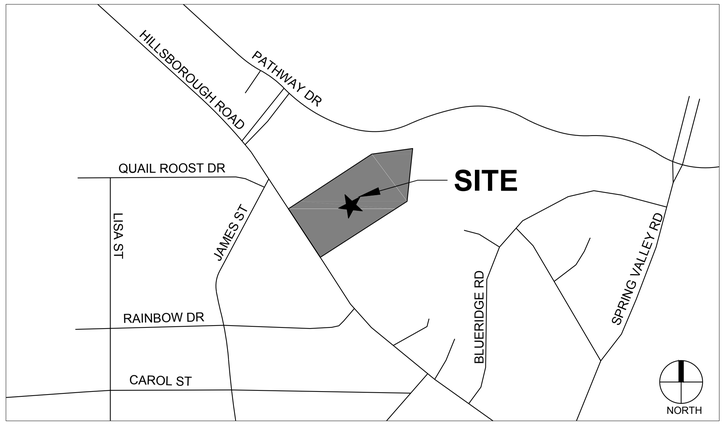
STEWART

MARTIN LUTHER KING, JR PARK

1120 HILLSBOROUGH RD
CARRBORO, NC 27516

TOWN OF CARRBORO
95% CDs

SUBMITTED ON JUNE 22, 2017



VICINITY MAP
SCALE: 1" = 500'

SUMMARY INFORMATION	
PROJECT NAME:	MARTIN LUTHER KING, JR PARK
SITE ADDRESS:	1120 HILLSBOROUGH ROAD
COUNTY:	ORANGE
PARCEL PIN #:	9779-31-1977
PARCEL OWNER:	TOWN OF CARRBORO
PARCEL AREA:	10.12 Ac
TOTAL DISTURBED/ PROJECT AREA:	6.03 Ac
CURRENT ZONING:	R-15
EXISTING LAND USE:	PARK
PROPOSED USE:	PARK
RIVER BASIN:	CAPE FEAR ; JORDAN LAKE (UNPROTECTED)
CONSTRUCTION TYPE:	PARK
MAX BUILDING HEIGHT:	35'-0"
PROPOSED BUILDING HEIGHT:	13'-0"
EXISTING IMPERVIOUS AREA:	10,197 S.F.
PROPOSED IMPERVIOUS AREA:	22,053 S.F.

OVERALL PARKING SUMMARY	
REQUIRED PARKING	30 BASED UPON PARK USAGE
PROVIDED PARKING	30 TOTAL
REGULAR 9'X18' SPACES	28
HANDICAP ACCESSIBLE SPACES	2
BIKE PARKING	6

VEHICLE SHADING REQUIREMENTS	
TOTAL VEHICLE ACCOMMODATION AREA (SF)	13,500
AREAS TO BE SHADED (SF)	4,725
AREA SHADED BY EXISTING TREES TO BE RETAINED AROUND VEHICLE ACCOMMODATION AREA (SF)	960
REMAINING AREA TO SHADE (SF)	3,765
TREES REQUIRED	5.33
TREES PROVIDED	6

UTILITIES IMPROVEMENTS QTY	
PRIVATE SEWER	
6" SEWER SERVICE	452 LF
PRIVATE WATER	
4" WATER MAIN	403 LF
8" FIRE LINE	179 LF

SHEET INDEX	
SHEET #	SHEET NAME
C0.00	COVER SHEET
C1.00	EXISTING CONDITIONS
C2.00	DEMOLITION PLAN
C3.00	SITE PLAN
C3.01	PLAYGROUND ENLARGEMENT
C4.00	EROSION CONTROL NOTES
C4.01	EROSION CONTROL PHASE 1
C4.02	EROSION CONTROL PHASE 2
C5.00	GRADING PLAN
C5.10	SCM PLAN
C5.11	SCM DETAILS
C6.00	UTILITY PLAN
C6.10	UTILITY PLAN AND PROFILE
C6.11	UTILITY PLAN AND PROFILE
C9.00	SITE DETAILS
C9.01	SITE DETAILS
C9.02	SITE DETAILS
C9.10	EROSION CONTROL DETAILS
C9.30	UTILITY DETAILS
L1.00	LANDSCAPE PLAN
L2.00	PLANTING DETAILS
A-101	FLOOR PLANS
A-102	PICNIC SHELTER FLOOR PLANS
A-201	ELEVATIONS
A-202	ELEVATIONS
A-203	ELEVATIONS
A-204	EXTERIOR PERSPECTIVES

APPLICANT/OWNER

TOWN OF CARRBORO
PARKS AND RECREATION
301 WEST MAIN STREET
CARRBORO, NC 27510
CONTACT: WENDELL RODGERS
919.918.7371 (T)
WRODGERS@TOWNOFCARRBORO.ORG

CIVIL ENGINEERING - LANDSCAPE ARCHITECTURE

STEWART
421 FAYETTEVILLE ST., SUITE 400
RALEIGH, NC 27601
T 919.380.8750
FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: C16146

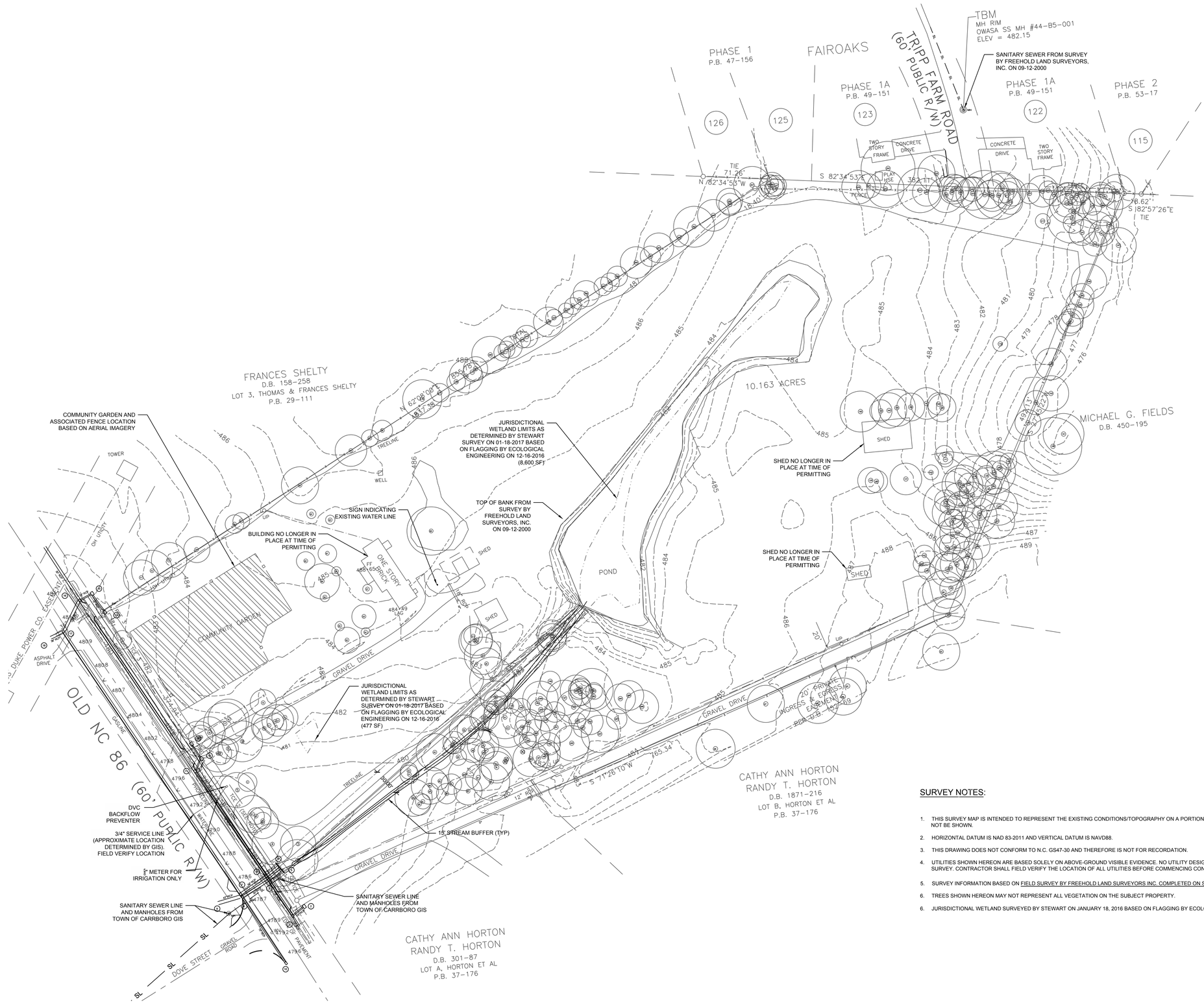
STEWART INC. - CIVIL ENGINEERING
CONTACT: JOSEPH PUCKETT, PE
CIVIL ENGINEER
919.866.4829 (T)
919.380.8752 (F)
JPUCKETT@STEWARTINC.COM

STEWART INC. - LANDSCAPE ARCHITECTURE
CONTACT: JENNIFER WAGNER, RLS
PROJECT MANAGER
919.866.4739 (T)
919.380.8752 (F)
JWAGNER@STEWARTINC.COM

Project number: C16146
Date: 02.27.2017
Drawn by: T. GULL
Designed by: T.GULL

Revisions:

No.	Date	Description



SURVEY LEGEND:

△	SURVEY CONTROL POINT
EIP	EXISTING IRON PIPE
ECM	EXISTING CONCRETE MONUMENT
▲	COMPUTED POINT
D	STORM DRAIN MANHOLE
	STORM DRAIN CURB INLET
S	SANITARY SEWER MANHOLE
	SANITARY SEWER CLEANOUT
	SANITARY FORCEMAIN VALVE
	HYDRANT
WV	WATER VALVE
WM	WATER METER
W	WATER MANHOLE
W	WATER VAULT
W	WELL
GV	GAS VALVE
GM	GAS METER
T	TELEPHONE MANHOLE
TPED	TELEPHONE PEDESTAL
TV	TV MANHOLE
CATV	TV PEDESTAL
FOWP	FIBER OPTIC WITNESS POST
FO	FIBER OPTIC BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
EB	ELECTRIC BOX
	UTILITY POLE
	GUY POLE
	GUY WIRE
	LIGHT POLE
MH	MANHOLE
TS	TRAFFIC SIGNAL BOX
	TRAFFIC SIGNAL POST
MW	MONITORING WELL
BOR	BORING LOCATION
	BOLLARD
	SIGN
FF=267.18'	FINISHED FLOOR ELEVATION
	DECIDUOUS TREE
	EVERGREEN TREE
	BUSH
X	WIRE FENCE
O	CHAIN LINK FENCE
T	UNDERGROUND TELEPHONE LINE
FO	UNDERGROUND FIBER OPTIC LINE
G	UNDERGROUND GAS LINE
E	UNDERGROUND ELECTRIC LINE
W	UNDERGROUND WATER LINE
SS	SANITARY SEWER LINE
	STORM DRAIN LINE
OHW	OVERHEAD WIRES
U	UNIDENTIFIED LINE
	UNKNOWN DESTINATION
	CONCRETE SURFACE
DIP	DUCTILE IRON PIPE
PVC	POLYVINYL CHLORIDE PIPE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
CB	CATCH BASIN

SURVEY NOTES:

1. THIS SURVEY MAP IS INTENDED TO REPRESENT THE EXISTING CONDITIONS/TOPOGRAPHY ON A PORTION OF THE PROPERTY AND ALL ENCUMBRANCES UPON THE PROPERTY MAY NOT BE SHOWN.
2. HORIZONTAL DATUM IS NAD 83-2011 AND VERTICAL DATUM IS NAVD88.
3. THIS DRAWING DOES NOT CONFORM TO N.C. GS47-30 AND THEREFORE IS NOT FOR RECORDATION.
4. UTILITIES SHOWN HEREON ARE BASED SOLELY ON ABOVE-GROUND VISIBLE EVIDENCE. NO UTILITY DESIGNATION/MARKING SERVICES WERE PERFORMED AS A PART OF THIS SURVEY. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE COMMENCING CONSTRUCTION.
5. SURVEY INFORMATION BASED ON FIELD SURVEY BY FREEHOLD LAND SURVEYORS INC. COMPLETED ON SEPT. 12, 2000.
6. TREES SHOWN HEREON MAY NOT REPRESENT ALL VEGETATION ON THE SUBJECT PROPERTY.
6. JURISDICTIONAL WETLAND SURVEYED BY STEWART ON JANUARY 18, 2016 BASED ON FLAGGING BY ECOLOGICAL ENGINEERING ON DECEMBER 16, 2016 .

STEWART
421 FAYETTEVILLE ST., SUITE 400
RALEIGH, NC 27601
T 919.380.8750
FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: C16146

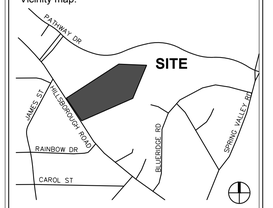
Client:

TOWN OF CARRBORO
301 W. MAIN STREET
CARRBORO, NC 27510
T: (919) 918-7364
F: (919) 918-4475

Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

Issued for:

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No.	Date	Description

0 25 50 100

NORTH

SCALE: 1"=50'

Title:

EXISTING CONDITIONS

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: NBC
Approved by: JLW

C1.00

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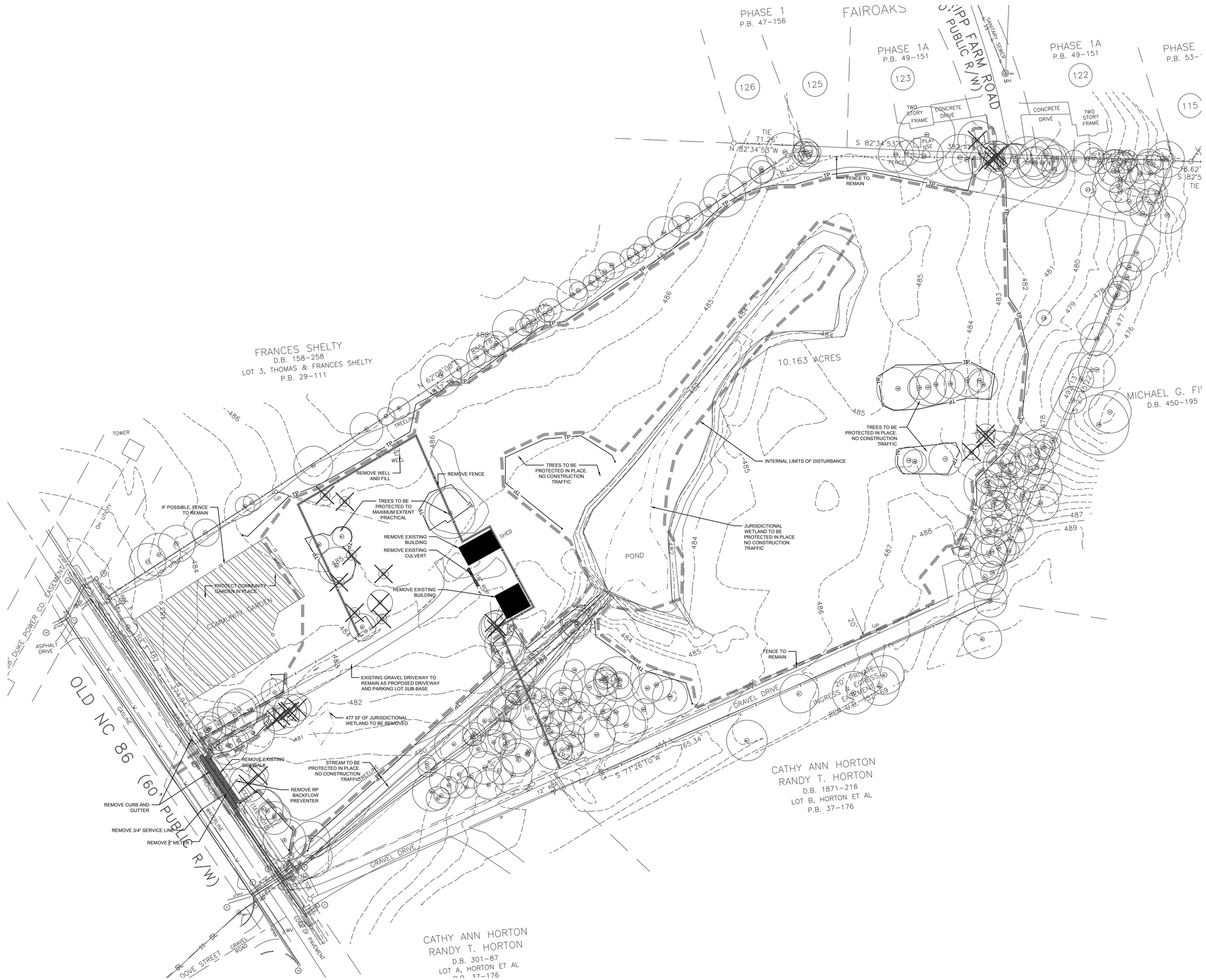

DEMOLITION LEGEND

- REMOVE BUILDING
- W — REMOVE WATER LINE
- SS — REMOVE SANITARY SEWER LINE
- REMOVE STORM DRAINAGE
- X — REMOVE FENCE
- TP — TREE PROTECTION FENCE
- LIMITS OF DISTURBANCE
- COORDINATE LIGHT POLE REMOVAL
- REMOVE TREE
- REMOVE TREELINE
- REMOVE CURB & GUTTER
- REMOVE SIGN
- REMOVE CONCRETE

DEMOLITION NOTES:

1. REFER TO SHEET C3.00 FOR GENERAL NOTES.
2. CLEANOUTS AND WATER VALVES LOCATED IN AREAS OF DEMOLITION OR SUBSEQUENT CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND RAISED TO BE FLUSH WITH NEW GRADE.
3. ANY UTILITY SERVICES SHOWN TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY PROVIDER. CONTRACTOR IS RESPONSIBLE FOR APPROPRIATE SEQUENCING OF UTILITY DEMOLITION WITH THE RESPECTIVE UTILITY AGENCIES.
4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL UTILITIES PRIOR TO BEGINNING DEMOLITION OPERATIONS. NOTIFY "NORTH CAROLINA ONE CALL" (TELEPHONE 1-800-632-4949) AT LEAST 48 HOURS PRIOR TO START OF DEMOLITION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NORTH CAROLINA ONE CALL."
5. CLEAN SOILS SHALL BE UTILIZED FOR BACKFILL. COMPACTION OF THESE SOILS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
6. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE REMOVED COMPLETELY, INCLUDING ALL SUBGRADE MATERIALS DIRECTLY ASSOCIATED WITH ITEMS TO BE REMOVED.
7. ALL ITEMS DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF LEGALLY OFF-SITE UNLESS OTHERWISE NOTED ON THIS PLAN.
8. REFER TO LANDSCAPE AND EROSION CONTROL DRAWINGS FOR TREE PROTECTION PLAN AND REQUIREMENTS.
9. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL JURISDICTIONAL CODES OR REQUIREMENTS.
10. TREE PROTECTION FENCING SHALL BE IN PLACE PRIOR TO BEGINNING DEMOLITION
11. EROSION CONTROL PERMIT SHALL BE OBTAINED AND ONSITE PRIOR TO BEGINNING DEMOLITION.
12. ITEMS DESIGNATED TO BE SALVAGED AND/OR RE-USED SHALL BE REMOVED BY THE CONTRACTOR AND PROVIDED TO THE OWNER. COORDINATE STORAGE LOCATION WITH OWNER'S REPRESENTATIVE.
13. WHERE UTILITIES ("TO BE REMOVED") IMPACT THE FOOTPRINT OF THE NEW BUILDING, THE CONTRACTOR SHALL EXECUTE AND REMOVE AN ADDITIONAL 2 FEET OF SOILS TO EITHER SIDE OF THE PIPE, AND 1 FOOT BELOW. CLEAN SUITABLE SOIL SHALL BE UTILIZED FOR BACKFILL AND COMPACTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
14. DEMOLITION AND SUBSEQUENT CONSTRUCTION OF STORM DRAINAGE PIPING SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES REMOVED DO NOT IMPACT DRAINAGE UPSTREAM OF THE SYSTEM. PROVISIONS SHALL BE MADE TO MAINTAIN STORM WATER DRAINAGE PATTERNS DURING CONSTRUCTION.
15. DEMOLITION AND SUBSEQUENT CONSTRUCTION OF UTILITIES (WATER, SEWER, ETC) SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES REMOVED DO NOT IMPACT OR MINIMIZE SERVICE INTERRUPTION TO EXISTING FACILITIES TO REMAIN. PROVISIONS SHALL BE MADE TO MAINTAIN SERVICE DURING CONSTRUCTION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGES TO THE EXISTING SIDEWALK AND CURB AND GUTTER AS A RESULT OF CONSTRUCTION ACTIVITY AND TRAFFIC. CONTRACTOR SHALL MAINTAIN A PRE-CONSTRUCTION VIDEO OR PHOTO DOCUMENTATION TO SHOW NO DAMAGES OCCURRED.
17. ALL MATERIALS, FURNISHINGS, UTILITIES, AND PAVEMENT THAT ARE NOT SCHEDULED TO BE DEMOLISHED AND ARE DAMAGED BY THE CONTRACTOR AS A RESULT OF THE DEMOLITION OR CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
18. WHERE UTILITIES ARE SHOWN TO BE "REMOVED", CONTRACTOR SHALL INCLUDE NECESSARY PLUG OR VALVES TO ENSURE UTILITY LINES TO REMAIN WILL CONTINUE TO BE IN SERVICE. COORDINATE NECESSARY SHUT DOWN AND REMOVAL WITH THE LOCAL JURISDICTION OR UTILITY OWNER.
19. CONTRACTOR SHALL PROVIDE PEDESTRIAN INGRESS / EGRESS TO ALL EXISTING PARKING LOTS AND PATHS OF PEDESTRIAN TRAVEL THROUGHOUT THE CONSTRUCTION PERIOD.

STEWART
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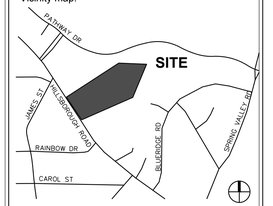

Seal:

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

Issued for:

95% CDs

No.	Date	Description

0 25 50 100 NORTH

SCALE: 1"=50'

Title:

DEMOLITION PLAN

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

C2.00

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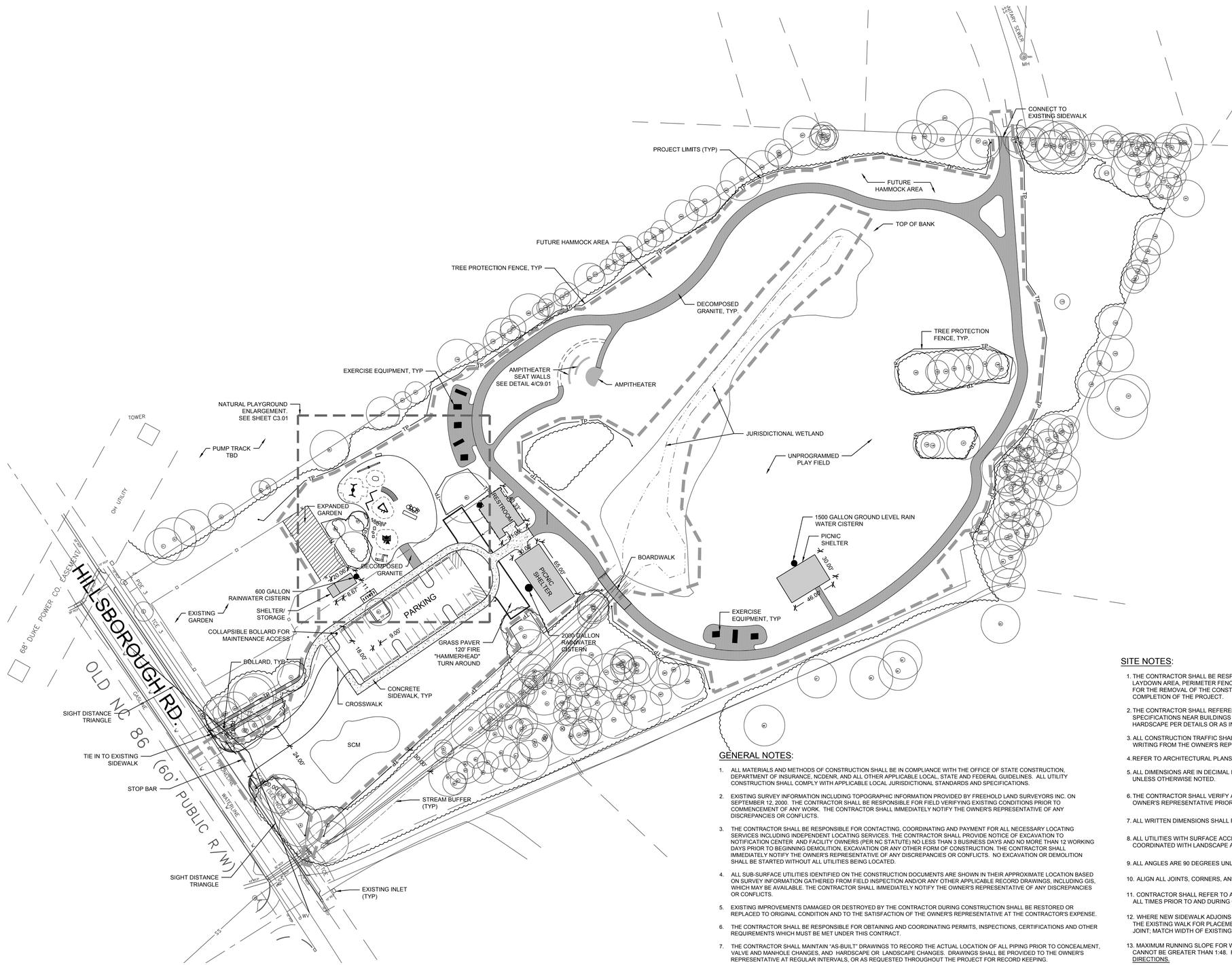

SITE LEGEND

- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED STOP BAR
- PROPOSED 6' WIDE STANDARD CROSSWALK
- PROPOSED SIGN
- H/C PROPOSED ADA PARKING SPACE
- PROPOSED KEYSTONE WALL
- PROPOSED WHEEL STOP
- PROPOSED DECOMPOSED GRANITE TRAIL
- PROPOSED COMPACTED DIRT TRACK
- PROPOSED TREELINE
- PROPOSED FENCE
- PROPOSED VEHICLE GATE (X' WIDE)
- PROPOSED LIGHT
- PROPOSED BIKE RACK
- PROPOSED BENCH
- PROPOSED BOLLARD
- LIMITS OF DISTURBANCE

GENERAL NOTES:

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE OFFICE OF STATE CONSTRUCTION, DEPARTMENT OF INSURANCE, NCDENR, AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES. ALL UTILITY CONSTRUCTION SHALL COMPLY WITH APPLICABLE LOCAL JURISDICTIONAL STANDARDS AND SPECIFICATIONS.
2. EXISTING SURVEY INFORMATION INCLUDING TOPOGRAPHIC INFORMATION PROVIDED BY FREEHOLD LAND SURVEYORS INC. ON SEPTEMBER 12, 2000. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING, COORDINATING AND PAYMENT FOR ALL NECESSARY LOCATING SERVICES INCLUDING INDEPENDENT LOCATING SERVICES. THE CONTRACTOR SHALL PROVIDE NOTICE OF EXCAVATION TO NOTIFICATION CENTER AND FACILITY OWNERS (PER NC STATUTE) NO LESS THAN 3 BUSINESS DAYS AND NO MORE THAN 12 WORKING DAYS PRIOR TO BEGINNING DEMOLITION, EXCAVATION OR ANY OTHER FORM OF CONSTRUCTION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS. NO EXCAVATION OR DEMOLITION SHALL BE STARTED WITHOUT ALL UTILITIES BEING LOCATED.
4. ALL SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS, INCLUDING GIS, WHICH MAY BE AVAILABLE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
5. EXISTING IMPROVEMENTS DAMAGED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED OR REPLACED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COORDINATING PERMITS, INSPECTIONS, CERTIFICATIONS AND OTHER REQUIREMENTS WHICH MUST BE MET UNDER THIS CONTRACT.
7. THE CONTRACTOR SHALL MAINTAIN "AS-BUILT" DRAWINGS TO RECORD THE ACTUAL LOCATION OF ALL PIPING PRIOR TO CONCEALMENT, VALVE AND MANHOLE CHANGES, AND HARDSCAPE OR LANDSCAPE CHANGES. DRAWINGS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE AT REGULAR INTERVALS, OR AS REQUESTED THROUGHOUT THE PROJECT FOR RECORD KEEPING.
8. IF DEPARTURES FROM THE PROJECT DRAWINGS OR SPECIFICATIONS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THERE OF SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE OWNER'S REPRESENTATIVE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION OF ANY EXISTING UTILITY LINES REQUIRED TO COMPLETE ANY PORTION OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE COORDINATION AND COSTS OF THE RELOCATION AND ASSOCIATED WORK.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH CAUSED BY THE CONTRACTOR. ALL DEBRIS SHALL BE REMOVED FROM THE PROJECT SITE ON A DAILY BASIS.
11. THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND/OR METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
12. ROADWAYS (TEMPORARY OR PERMANENT) MUST BE CAPABLE OF SUPPORTING FIRE FIGHTING APPARATUS (85,000 LBS) DURING ALL PHASES OF CONSTRUCTION ONCE VERTICAL CONSTRUCTION HAS BEGUN.

SITE NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE CONSTRUCTION LAYDOWN AREA, PERIMETER FENCE, AND ASSOCIATED GATES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REMOVAL OF THE CONSTRUCTION LAYDOWN AREA PERIMETER FENCE AND ASSOCIATED GATES AT THE COMPLETION OF THE PROJECT.
2. THE CONTRACTOR SHALL REFERENCE THE DESIGN PLANS FOR DIMENSIONS, JOINT LOCATIONS, AND INLAY SPECIFICATIONS NEAR BUILDINGS AND IN COURTYARDS. CONTRACTOR SHALL PROVIDE JOINTS IN WALKWAYS AND HARDSCAPE PER DETAILS OR AS INDICATED ON LANDSCAPE/HARDSCAPE PLAN SHEETS.
3. ALL CONSTRUCTION TRAFFIC SHALL ENTER SITE FROM HILLSBOROUGH ROAD UNLESS OTHERWISE APPROVED IN WRITING FROM THE OWNER'S REPRESENTATIVE FOR AN ALTERNATE POINT OF ACCESS.
4. REFER TO ARCHITECTURAL PLANS FOR BUILDING INFORMATION.
5. ALL DIMENSIONS ARE IN DECIMAL FEET TO OUTSIDE FACE OF BUILDINGS, TO CENTERLINES, AND/OR FACE OF CURB UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATES AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO ANY CONSTRUCTION.
7. ALL WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE FROM DRAWINGS.
8. ALL UTILITIES WITH SURFACE ACCESS SHALL BE LOCATED WITHIN THE PAVING PATTERN AND SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. REFER TO LAYOUT DRAWINGS.
9. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED.
10. ALIGN ALL JOINTS, CORNERS, AND EDGES AS SHOWN
11. CONTRACTOR SHALL REFER TO AND COORDINATE WITH ARCHITECTURAL, STRUCTURAL, AND MEP DRAWINGS AT ALL TIMES PRIOR TO AND DURING CONSTRUCTION.
12. WHERE NEW SIDEWALK ADJOINS EXISTING WALK, PROVIDE EXPANSION JOINT BY DRILLING INTO THE FACE OF THE EXISTING WALK FOR PLACEMENT OF DOWELS. TIE NEW SIDEWALKS INTO NEAREST EXISTING PAVEMENT JOINT; MATCH WIDTH OF EXISTING WALKWAY.
13. MAXIMUM RUNNING SLOPE FOR WALKING SURFACES CANNOT BE GREATER THAN 1:20 AND CROSS SLOPES CANNOT BE GREATER THAN 1:48. HANDICAP SPACES SURFACE SLOPES SHALL NOT EXCEED 1:48 IN ALL DIRECTIONS.
14. SIGHT TRIANGLES - NOTHING OVER 30" HIGH SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLES.
15. THE SITE SHALL BE FULLY STABILIZED (90% COVERAGE) PRIOR TO ISSUANCE OF A BUILDING CERTIFICATE OF OCCUPANCY OR PROJECT APPROVAL
16. HANDICAP RAMPS SHALL BE INSTALLED PER THE PLANS AND SPECIFICATIONS AND THE NC BUILDING CODE. A MAXIMUM SLOPE OF 1/12 FOR 6-FEETE AND A MAXIMUM CROSS SLOPE OF 1:48 SHALL BE PROVIDED. IF EXISTING CONDITIONS PRECLUDE THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION
17. THE TESTING AGENCY SHALL BE RESPONSIBLE FOR PROVIDING THE ASPHALT AND CONTRACTOR CERTIFICATION MEMO TO NCDOT FOR ALL ROADWAY IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY.

STEWART
421 FAYETTEVILLE ST., SUITE 400
RALEIGH, NC 27601
T 919.380.8750
FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: C16146

Client:

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301 W. MAIN STREET
CARRBORO, NC 27510
T: (919) 918-7364
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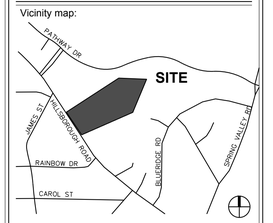
Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

NORTH CAROLINA LANDSCAPE ARCHITECT 1791 REGISTERED JENNIFER L. WAGNER

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

Issued for:

95% CDs

No.	Date	Description

0 25 50 100 NORTH

SCALE: 1"=50'

Title:

SITE PLAN

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

C3.00

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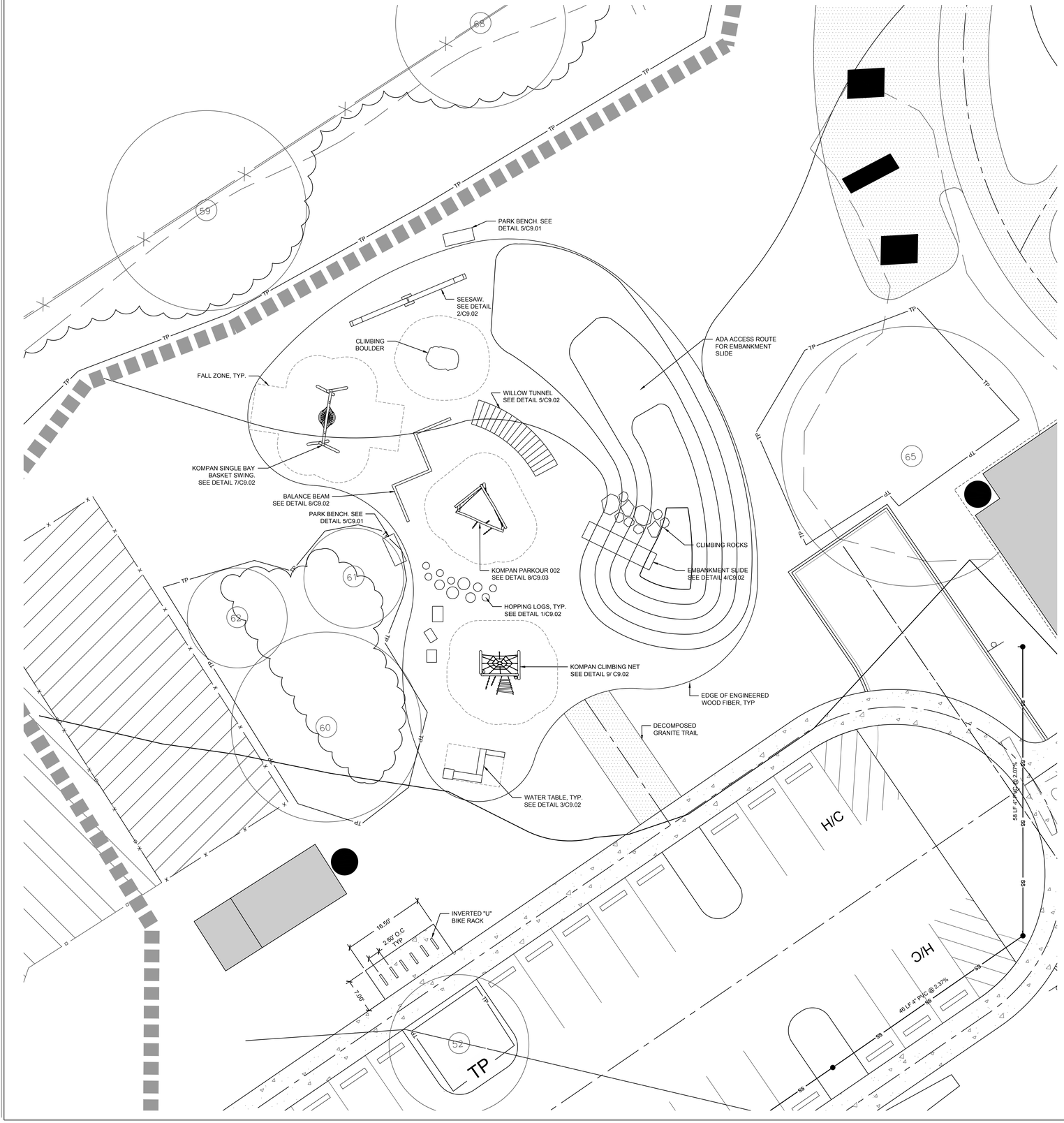

SITE LEGEND

- PROPOSED BUILDING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED STOP BAR
- PROPOSED 6' WIDE STANDARD CROSSWALK
- PROPOSED SIGN
- H/C — PROPOSED ADA PARKING SPACE
- PROPOSED KEYSTONE WALL
- PROPOSED WHEEL STOP
- PROPOSED DECOMPOSED GRANITE TRAIL
- PROPOSED COMPACTED DIRT TRACK
- PROPOSED TREELINE
- PROPOSED FENCE
- PROPOSED VEHICLE GATE (X' WIDE)
- PROPOSED LIGHT
- PROPOSED BIKE RACK
- PROPOSED BENCH
- PROPOSED BOLLARD
- LIMITS OF DISTURBANCE

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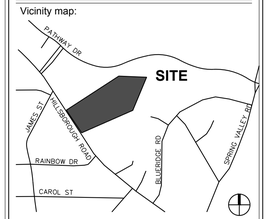

Seal:

PRELIMINARY - DO NOT USE FOR CONSTRUCTION

Issued for:

95% CDs

No.	Date	Description

0 5 10 20 NORTH

SCALE: 1"=10'

Title:

PLAYGROUND ENLARGEMENT

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

C3.01

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EROSION CONTROL NOTES:

1. REFER TO C3.00 FOR GENERAL NOTES.
2. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN BEST LOCATION BASED ON FIELD CONDITIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT THE TRACKING OF SEDIMENT OFF-SITE. THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL PERMANENT EROSION CONTROL METHODS AFTER CONSTRUCTION IS COMPLETE, IF ANY PERMANENT METHODS ARE REQUIRED.
5. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
6. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
7. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE LIMITS OF DISTURBANCE (L.O.D.) SHALL BE PERMITTED. THE L.O.D. SHALL BE MAINTAINED BY THE ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
8. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
9. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
10. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. COPIES OF THE WRITTEN INSPECTION REPORTS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE TWICE PER WEEK AND AFTER RAINS OF GREATER THAN 0.5". RAIN GAUGE REQUIRED ON SITE.
11. ANY AREAS OF EXPOSED SOILS THAT WILL NOT BE DISTURBED FOR FOURTEEN DAYS SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
12. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY EIGHT (48) HOURS FOLLOWING A STORM EVENT.
13. AT NO TIME SHALL SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
14. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
15. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE A MINIMUM THICKNESS OF 2 TO 3 INCHES.
16. INTERIM SLOPES MAY BE GRADED TO A MAXIMUM SLOPE OF 2:1 (HORIZONTAL: VERTICAL); CUT SLOPES SHALL BE LIMITED TO A MAXIMUM SLOPE OF 1.5:1.
17. THE SURFACE OF AREAS SLOPES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL THAT ARE TO RECEIVE INTERIM FILL SHALL BE PLOWED, FURROWED, TILLED OR BROKEN UP PRIOR TO PLACING FILL SO THAT FILL MATERIAL WILL BOND WITH EXISTING . " SURFACE. INTERIM FILL SHALL BE PLACED AS SPECIFIED FOR PERMANENT FILLS AND IN LIFTS NOT GREATER THAN 6".
18. PROVIDE DUST CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, WETTING DOWN TO CONTROL DUST ON SITE, IN ORDER TO PREVENT ANNOYANCE/AND OR DAMAGE TO ADJACENT SITES. CALCIUM CHLORIDE OR ANY OTHER CHEMICAL MATERIAL MAY NOT BE USED ON SUBGRADES OF AREAS TO BE SEEDED OR PLANTED.
19. SEDIMENT LADEN RUNOFF FROM EXCAVATIONS SHALL NOT BE PUMPED DIRECTLY TO STORM DRAINAGE.
20. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (NCDENR OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
21. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION EROSION AND SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
22. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM: THE PERSON RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES IS REQUIRED TO INSPECT THE PROJECT AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCAC 4B.0131 TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FORM HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML

TREE PROTECTION NOTES:

1. TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT. OR OBTAIN A GRADING PERMIT THEN TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE
2. TREE PROTECTION FENCING SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH, AS FOLLOWS: "NO TRESPASSING/TREE PROTECTION AREA/PROHIBIDO ENTRAR / ZONA PROTECTORA PARA LOS ÁRBOLES."
3. PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE ON THE TREE ROOTS OUTSIDE OF THE TREE SAVE AREA. THIS SHALL OCCUR AT THE SAME TIME THAT OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE.
4. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED TREE AREA.
5. TREE PROTECTION AREA: EQUALS ONE FOOT OF RADIUS FOR EVERY INCH OF DIAMETER OF EXISTING TREES, OR SIX FOOT RADIUS, WHICHEVER IS GREATER. NO DISTURBANCE ALLOWED WITHIN THIS AREA.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

1. OBTAIN GRADING PERMIT.
2. DETERMINE AND MARK LIMITS OF DISTURBANCE.
3. A PRECONSTRUCTION CONFERENCE MUST BE HELD 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE EROSION CONTROL INSPECTOR, ARCHITECT, ENGINEER, AND CONTRACTOR SHALL BE PRESENT TO SATISFY REQUIREMENTS.
4. INSTALL CONSTRUCTION ENTRANCE, TREE PROTECTION FENCING, SILT FENCE, PERIMETER EROSION CONTROL DEVICES AND ALL REQUIRED BASINS AND TRAPS.
5. SCHEDULE SITE INSPECTION.
6. UPON APPROVAL TO PROCEED BY THE EROSION CONTROL INSPECTOR, HARVEST ANY TIMBER.
7. CONSTRUCT REMAINING EROSION CONTROL MEASURES AS REQUIRED.
8. REMOVE AND/OR STORE TOPSOIL.
9. BEGIN GRADING OPERATIONS.
10. CLEAN SEDIMENT BASINS/TRAPS WHEN ONE-HALF FULL.
11. ALL STREETS SURROUNDING THE PROJECT SHALL BE KEPT CLEAN AT ALL TIMES.
12. PLACE TEMPORARY SEEDING ON ALL DISTURBED AREAS THAT WILL BE IDLE 14 DAYS OR LONGER.
13. PERMANENT SURFACE STABILIZATION SHALL BE INSTALLED FOR ALL AREAS WITHIN 14 DAYS AFTER FINAL GRADE HAS BEEN REACHED. AS NECESSARY, FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH AND MAINTAIN A VIGOROUS STAND OF GRASS.
14. AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT TRAPPING MEASURES AND DISPOSE BY MEANS DEEMED ACCEPTABLE BY THE ENGINEER. SCHEDULE SITE INSPECTION. UPON APPROVAL BY THE EROSION CONTROL INSPECTOR, REMOVE TEMPORARY EROSION CONTROL MEASURES, SMOOTH AREA AND APPLY APPROPRIATE STABILIZATION.
15. STORMWATER PERMIT INSPECTION REPORTS SHALL BE PERFORMED BY THE CONTRACTOR UNTIL NOTIFIED OTHERWISE BY THE EROSION CONTROL INSPECTOR.

NOTES:
1. INSPECTOR REFERS TO LOCAL JURISDICTIONAL (NCDENR OR LOCAL) LAND QUALITY INSPECTOR OR HIS REPRESENTATIVE. FIELD INSPECTIONS MAY REQUIRE ADDITIONAL SEDIMENTATION AND EROSION CONTROL MEASURES AS DEEMED NECESSARY BY THE INSPECTOR.
2. CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION EROSION AND SEDIMENT CONTROL PLANNING LAND DESIGN MANUAL.
3. NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM: THE PERSON RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES IS REQUIRED TO INSPECT THE PROJECT AFTER EACH PHASE OF THE PROJECT AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 15A NCAC 4B.0131 TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FORM HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION_NEW.HTML

TEMPORARY SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL THREE INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO SIX INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBSTRUCTIONS, LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE ADMIXTURE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED FOUR TO SIX INCHES DEEP.
6. SEED ON A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE MORE THAN 60% DAMAGED, RE-ESTABLISH FOLLOWING THE ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. CONSULT S&EC ENVIRONMENTAL ENGINEERS ON MAINTENANCE TREATMENT AND FERTILIZATION AFTER PERMANENT COVER IS ESTABLISHED.

SEEDBED PREPARATION:

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONED, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY ALL AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW).
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM, REASONABLY UNIFORM 4 TO 6 INCHES DEEP SEEDBED IS PREPARED.
6. SEED ON A FRESHLY PREPARED SEED BED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESENDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED , REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
9. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESENDING WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 50% DAMAGED , REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES AND LANDSCAPING PLANS.
10. SEE LANDSCAPING PLANS FOR PERMANENT SEEDING, MULCHING, AND FERTILIZING RATES. ALL AREAS NOT DESIGNATED TO RECEIVE PLANTS SHALL BE SEEDED PER THE LANDSCAPING PLANS.

ADMIXTURES

AGRICULTURAL LIMESTONE: 2 TONS/ACRE

FERTILIZER: 1,000 LBS/ACRE - 10-10-10

SUPERPHOSPHATE: 500 LBS/ACRE - 20% ANALYSIS

MULCH: 2 TONS/ACRE - SMALL GRAIN STRAW

ANCHOR: ASPHALT EMULSION AT 300 GALS/ACRE

SEEDING SCHEDULE

SHOULDERS, SIDE DITCHES, SLOPES (Max 3:1)

DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - MAR 1	TALL FESCUE & ABRUZZI RYE	300 LBS/ACRE 25 LBS/ACRE
MAR 1 - APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 - JUN 30	HULLED COMMON BERMUDAGRASS	25 LBS/ACRE
JUL 1 - AUG 15	TALL FESCUE AND ***BROWNTOP MILLET ***OR SORGHUM-SUDAN HYBRIDS	120 LBS/ACRE 35 LBS/ACRE 30 LBS/ACRE

SLOPES (3:1 to 2:1)

DATE	TYPE	PLANTING RATE
MAR 1 - JUN 1 (MAR 1 - APR 15)	***BROWNTOP MILLET ADD TALL FESCUE OR ADD HULLED COMMON BERMUDAGRASS	50 LBS/ACRE 120 LBS/ACRE (MAR 1 - JUN 30) 25 LBS/ACRE
JUN 1 - SEP 1	***TALL FESCUE AND ***BROWNTOP MILLET ***OR SORGHUM-SUDAN HYBRIDS	120 LBS/ACRE 35 LBS/ACRE 30 LBS/ACRE
SEP 1 - MAR 1	ANNUAL RYE AND TALL FESCUE ADD ABRUZZI RYE	70 LBS/ACRE 120 LBS/ACRE (NOV 1 - MAR 1) 25 LBS/ACRE

CONSULT CONSERVATION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

SEDIMENTATION BASIN SIZING

BASIN ID	BASIN GEOMOETRY									OUTLET		SKIMMER CHARACTERISITCS			SURFACE AREA (SF)		VOLUME (CF)		DEWATERING TIME
	BOTTOM		TOP		SURFACE		DAM	SIDE	STORAGE	STONE	SIDE								
	WIDTH	LENGTH	WIDTH	LENGTH	WIDTH	LENGTH	HEIGHT	SLOPES	DEPTH	WIDTH	SLOPES	SIZE	HEAD	ORIFICE	REQUIRED	PROVIDED	REQUIRED	PROVIDED	
Sed Basin 1	13.0 ft	38.0 ft	31.0 ft	56.0 ft	25.0 ft	50.0 ft	4.5 ft	2:1	3.0 ft	4.0 ft	2:1	3.0 in	0.3 ft	1.00 in	958	2,207.00	2,196.00	2,202.00	2 days
Sed Basin 2	13.0 ft	38.0 ft	31.0 ft	56.0 ft	25.0 ft	50.0 ft	4.5 ft	2:1	3.0 ft	4.0 ft	2:1	3.0 in	0.3 ft	0.75 in	864	1,250.00	1,980.00	2,616.00	4 days

DIVERSION DITCH SIZING

Channel	Bottom Width (Y)	Sideslope (M)	Top Width (W)	Lining	Channel Depth (FT)	Velocity
DD-01	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.65 FT	4.31 FT/S
DD-02	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.7 FT	4.42 FT/S
DD-03	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.65 FT	2.97 FT/S
DD-04	0.00 FT	2 :1	4 FT	STRAW SINGLE NET BLANKET	0.45 FT	3.29 FT/S

TOTAL AREA OF DISTURBANCE
6.03 AC

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PROJECT #: C16146

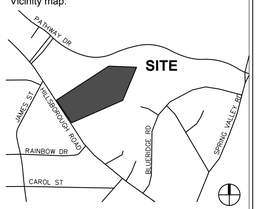
Client:

TOWN OF CARRBORO
301 W. MAIN STREET
CARRBORO, NC 27510
T: (919) 918-7364
F: (919) 918-4475

Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT

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No.	Date	Description

SCALE: N.T.S.

Title:

EROSION CONTROL NOTES

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: CJJ
Approved by: JWP

C4.00

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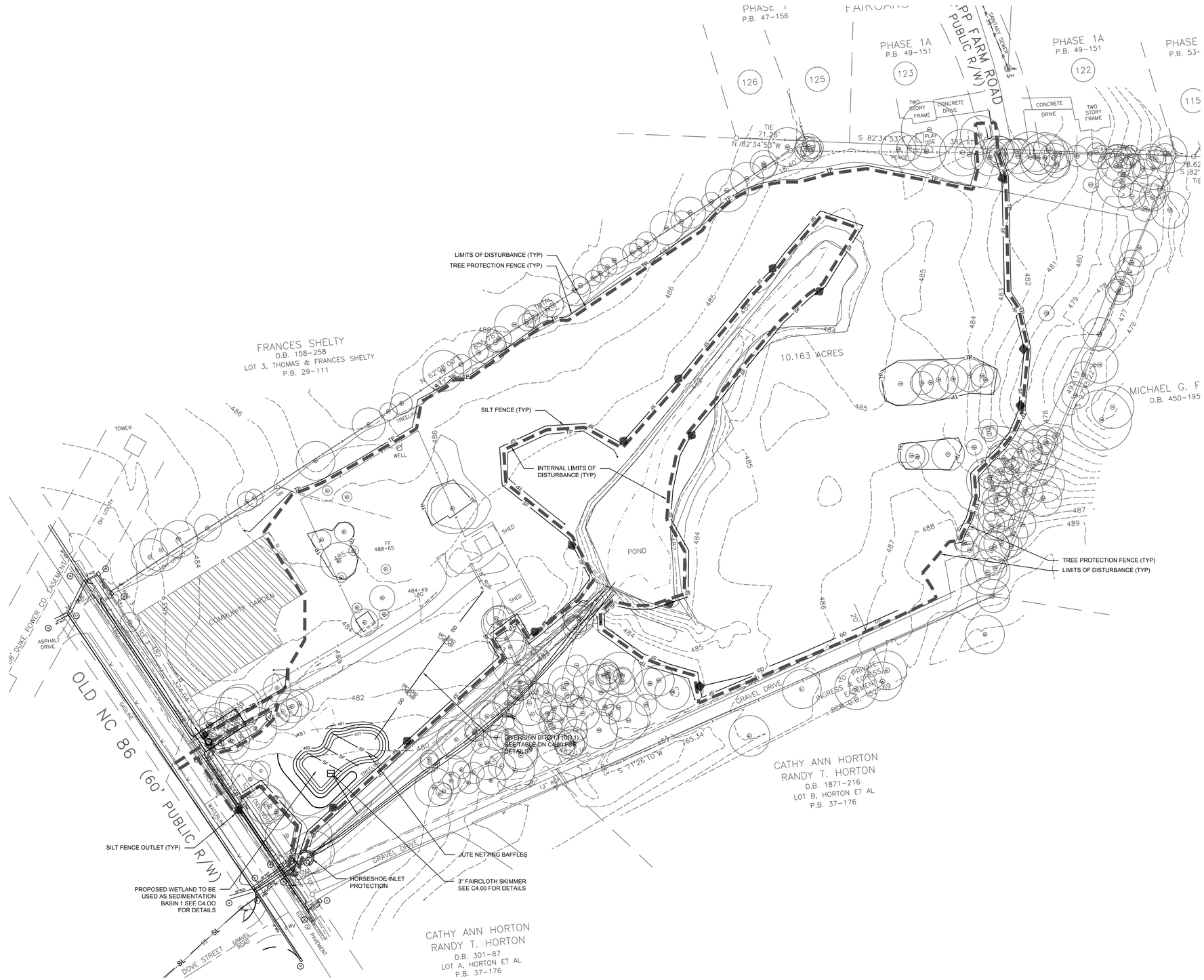

EROSION CONTROL LEGEND

- SF — SILT FENCE
- TP — TREE PROTECTION
- DD — DIVERSION DITCH
- LIMITS OF DISTURBANCE
- HORSE SHOE INLET PROTECTION
- SILT FENCE OUTLET
- CHECK DAM
- FLARED END SECTION (FES)
- SEDIMENT TRAP
- RIPRAP DISSIPATER
- CE — TEMPORARY CONSTRUCTION ENTRANCE
- 100 YR FLOOD ELEV.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA EROSION CONTROL SPECIFICATIONS

TOTAL AREA OF DISTURBANCE
6.03 AC

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Vicinity map:

Seal:

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No.	Date	Description

0 25 50 100 NORTH

SCALE: 1"=50'

Title:

EROSION CONTROL PHASE 1

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: NBC
Approved by: JWP

C4.01

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EROSION CONTROL LEGEND

- SF — SILT FENCE
- TP — TREE PROTECTION
- DD — DIVERSION DITCH
- LIMITS OF DISTURBANCE
- HORSE SHOE INLET PROTECTION
- SILT FENCE OUTLET
- CHECK DAM
- FLARED END SECTION (FES)
- SEDIMENT TRAP
- RIPRAP DISSIPATER
- CE — TEMPORARY CONSTRUCTION ENTRANCE
- 100 YR FLOOD ELEV.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA EROSION CONTROL SPECIFICATIONS

LIMITS OF DISTURBANCE (TYP)
TREE PROTECTION FENCE (TYP)
SILT FENCE (TYP)
COMMUNITY GARDEN EXPANSION
INTERNAL LIMITS OF DISTURBANCE (TYP)
PLAYGROUND
PUMP TRACK
DIVERSION DITCH 2 (DD 2) SEE TABLE ON C4.00 FOR DETAILS
3" FAIRCLOTH SKIMMER SEE C4.00 FOR DETAILS
SEDIMENTATION BASIN 2 SEE C4.OO FOR DETAILS
JUTE NETTING BAFFLES
12" SLOPE DRAIN
TEMPORARY 12" BERM
DIVERSION DITCH 3 (DD 3) SEE TABLE ON C4.00 FOR DETAILS
DIVERSION DITCH 4 (DD 4) SEE TABLE ON C4.00 FOR DETAILS
SILT FENCE OUTLET (TYP)
SILT FENCE (TYP)
TREE PROTECTION FENCE (TYP)
LIMITS OF DISTURBANCE (TYP)
JUTE NETTING BAFFLES
3" FAIRCLOTH SKIMMER SEE C4.00 FOR DETAILS
HORSESHOE/INLET PROTECTION
PROPOSED WETLAND TO BE USED AS SEDIMENTATION BASIN 1 SEE C4.OO FOR DETAILS
SILT FENCE OUTLET (TYP)
OLD NC 86 (60' PUBLIC R/W)
DUKE POWER CO. EASEMENT
TOWER
WELL
SANITARY SEWER
MH
FENCE
TIE
N82°57'26"E 18.62'
TOTAL AREA OF DISTURBANCE
6.03 AC

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Project:

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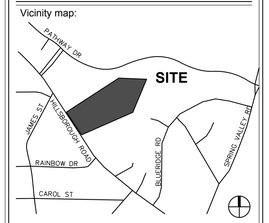

Seal:

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No.	Date	Description

0 25 50 100 NORTH

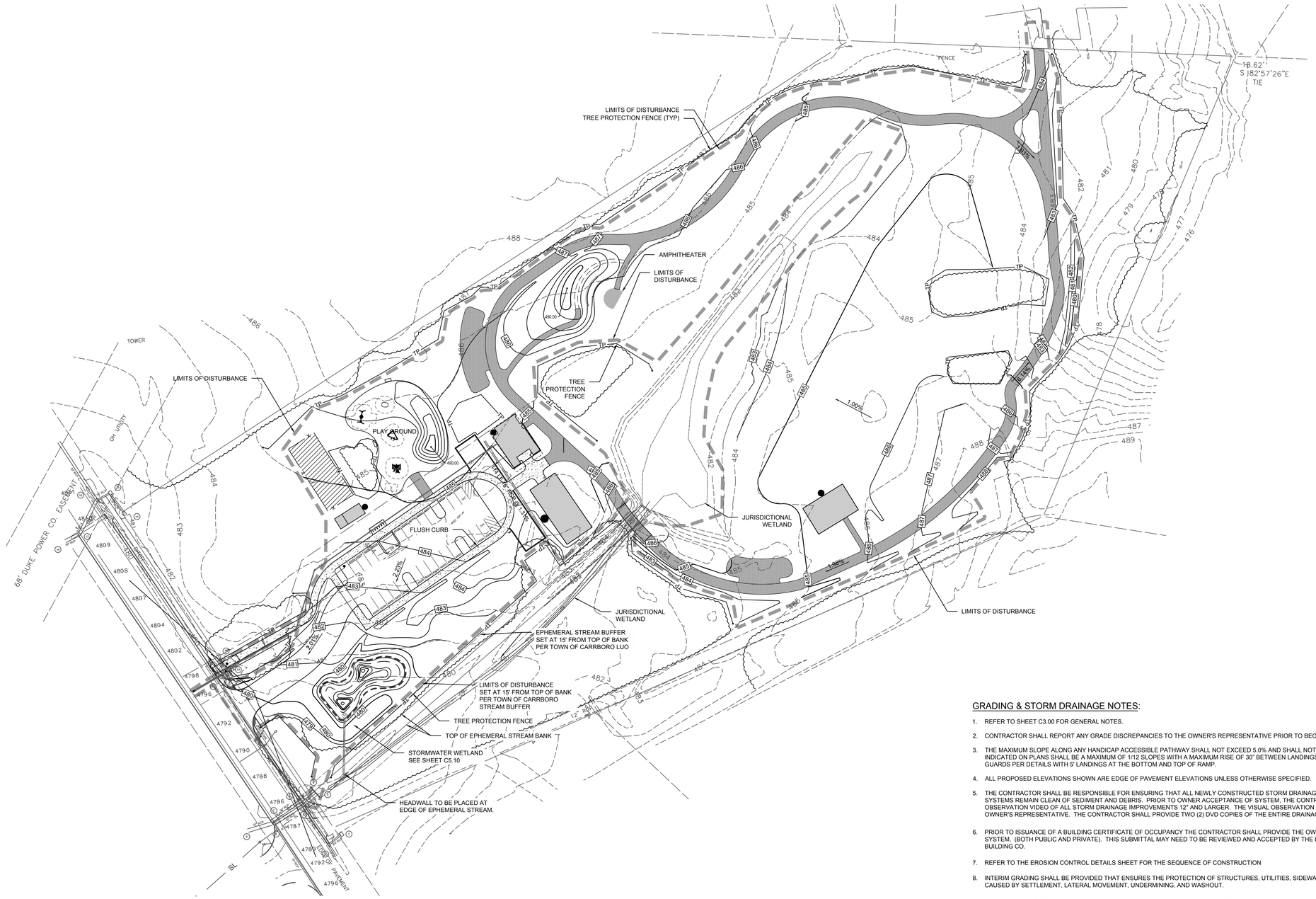
SCALE: 1"=50'

Title:

EROSION CONTROL PHASE 2

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: CJJ
Approved by: JWP

C4.02



GRADING LEGEND

- 200 — PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 200 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED STORM DRAINAGE
- PROPOSED AREA DRAIN
- 44.50 PROPOSED ELEVATION
- RIPRAP DISSIPATOR
- FLOW DIRECTION
- LIMITS OF DISTURBANCE

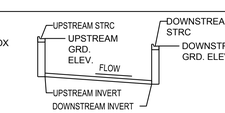
STRUCTURE TABLE			
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT
BMP RISER	RIM = 481.55 INV OUT = 477.49		Pipe 2, 12" RCP INV OUT =477.49
HW#1	RIM = 478.90 INV IN = 477.17	Pipe 2, 12" RCP INV IN =477.17	

PIPE TABLE							
START STRUCTURE	END STRUCTURE	START INVERT	END INVERT	SIZE	LENGTH	SLOPE	MATERIAL
		482.50	481.00	18"	114.49'	1.31%	~~RCP~~
BMP RISER	HW#1	477.49	477.17	12"	59.44'	0.53%	~~RCP~~ RCP

STORM DRAINAGE NETWORK

TYPE CODE:
AD = AREA DRAIN
FES = FLARED END SECTION
JB = JUNCTION BOX
RI = RISER

TYPE CODE:
L-AD = AREA DRAIN
L-JB = JUNCTION BOX



NOTES:
1. STRUCTURES WITHIN NCDOT RIGHT-OF-WAY SHALL BE TO NCDOT STANDARDS.
2. STRUCTURES NOT WITHIN RIGHT OF WAY SHALL EITHER ALL BE TO NCDOT STANDARDS OR SHALL ALL BE TO LOCAL JURISDICTIONAL STANDARDS.
3. ALL STORM PIPES TO BE CLASS III RCP UNLESS OTHERWISE NOTED.

GRADING & STORM DRAINAGE NOTES:

1. REFER TO SHEET C3.00 FOR GENERAL NOTES.
2. CONTRACTOR SHALL REPORT ANY GRADE DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
3. THE MAXIMUM SLOPE ALONG ANY HANDICAP ACCESSIBLE PATHWAY SHALL NOT EXCEED 5.0% AND SHALL NOT EXCEED A 2.0% CROSS SLOPE. HANDICAP RAMPS INDICATED ON PLANS SHALL BE A MAXIMUM OF 1/12 SLOPES WITH A MAXIMUM RISE OF 30" BETWEEN LANDINGS. NON-CURB CUT RAMPS SHALL HAVE HANDRAILS AND GUARDS PER DETAILS WITH 5' LANDINGS AT THE BOTTOM AND TOP OF RAMP.
4. ALL PROPOSED ELEVATIONS SHOWN ARE EDGE OF PAVEMENT ELEVATIONS UNLESS OTHERWISE SPECIFIED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL NEWLY CONSTRUCTED STORM DRAINAGE IMPROVEMENTS AND RECEIVING STORM DRAINAGE SYSTEMS REMAIN CLEAN OF SEDIMENT AND DEBRIS. PRIOR TO OWNER ACCEPTANCE OF SYSTEM, THE CONTRACTOR SHALL COORDINATE AND PROVIDE A VISUAL OBSERVATION VIDEO OF ALL STORM DRAINAGE IMPROVEMENTS 12" AND LARGER. THE VISUAL OBSERVATION SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE TWO (2) DVD COPIES OF THE ENTIRE DRAINAGE VISUAL OBSERVATION.
6. PRIOR TO ISSUANCE OF A BUILDING CERTIFICATE OF OCCUPANCY THE CONTRACTOR SHALL PROVIDE THE OWNER WITH THE VIDEO INSPECTION OF THE STORM SEWER SYSTEM. (BOTH PUBLIC AND PRIVATE). THIS SUBMITTAL MAY NEED TO BE REVIEWED AND ACCEPTED BY THE LOCAL JURISDICTION PRIOR TO THE ISSUANCE OF THE BUILDING CO.
7. REFER TO THE EROSION CONTROL DETAILS SHEET FOR THE SEQUENCE OF CONSTRUCTION
8. INTERIM GRADING SHALL BE PROVIDED THAT ENSURES THE PROTECTION OF STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, AND WASHOUT.
9. INTERIM GRADING SHALL BE PROVIDED TO DIRECT WATER AWAY FROM BUILDINGS AND PREVENT PONDING.
10. MAXIMUM SLOPE ACROSS ANY HANDICAPPED PARKING SPACE AND AISLE SHALL NOT EXCEED 2% IN ANY DIRECTION.
11. PROPOSED CONTOURS ARE APPROXIMATE. SPOT ELEVATIONS AND ROADWAY PROFILES SHALL BE USED IN CASE OF DISCREPANCY.
12. PLACE BACKFILL AND FILL MATERIALS IN LAYER NOT MORE THAN 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. PLACE BACKFILL AND FILL MATERIALS EVENLY ON ALL SIDES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH OF EACH STRUCTURE. COMPACT SOIL TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 FOR EACH LAYER OF BACKFILL OR FILL MATERIAL UP TO TWO FEET OF FINISHED GRADE. COMPACT SOIL TO NOT LESS THAN 98 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 FOR EACH LAYER OF BACKFILL OR FILL MATERIAL FOR THE FINAL TWO FEET.
13. SITE GRADING IMMEDIATELY ADJACENT TO FOUNDATION OF BUILDING SHALL SLOPE NOT LESS THAN 1/20 AWAY FOR MINIMUM DISTANCE OF 10 FEET. ALTERNATIVE METHOD SHALL BE PROVIDED TO DIVERT WATER AWAY FROM FOUNDATION VIA SWALES SLOPED AT A MINIMUM OF 2% OR IMPERVIOUS SURFACES SLOPED AWAY A MINIMUM OF 2% AWAY FROM BUILDING.
14. CONTRACTOR SHALL ADJUST RIM ELEVATIONS OF EXISTING MANHOLES, METERS, VALVES, ETC. AS REQUIRED TO MEET NEW FINISHED GRADES.
15. CONTRACTOR SHALL SLOPE GRADES TO ASSURE POSITIVE STORMWATER FLOW TO KEEP WATER FROM POOLING ALONG CURBS AND WALLS.
16. TOP OF WALL ELEVATIONS INDICATE THE ELEVATION AT THE TOP OF THE CAP, UNLESS OTHERWISE NOTED.
17. BOTTOM OF WALL ELEVATIONS INDICATE THE ELEVATION OF THE FINISHED GRADE.

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Client:

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F: (919) 918-4475

Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:

Seal:

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No.	Date	Description

0 25 50 100 NORTH

SCALE: 1"=50'

Title:

GRADING PLAN

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: NBC
Approved by: JWP

C5.00

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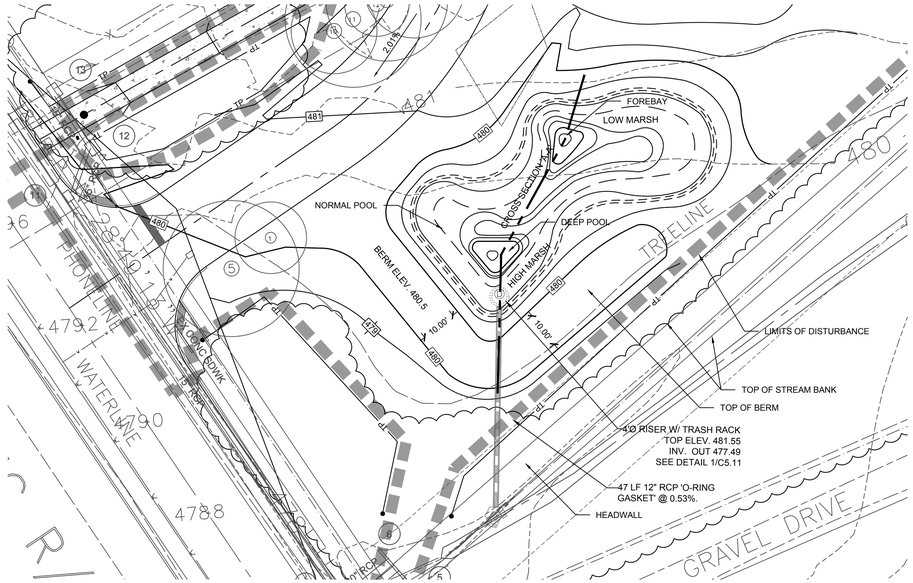


CONSTRUCTED WETLAND PLAN

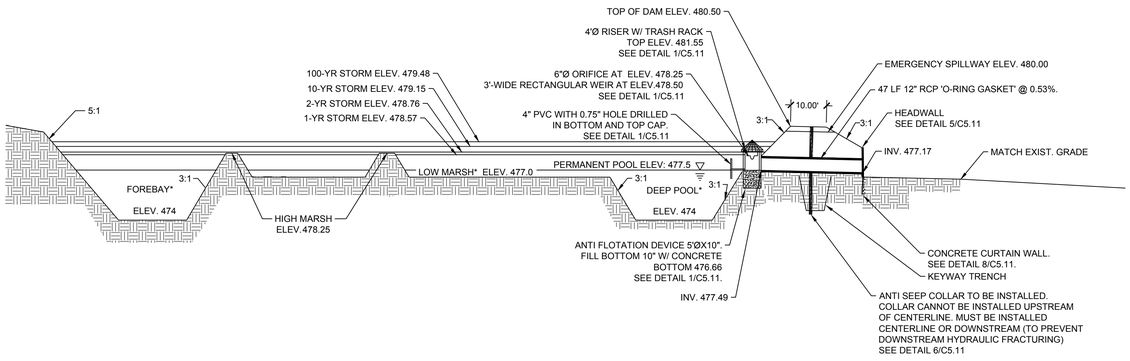
SCALE:1"=20'

0 10 20 40 NORTH

GRADING LEGEND

- 200 — PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 200 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED STORM DRAINAGE
- PROPOSED AREA DRAIN
- 44.50 PROPOSED ELEVATION
- RIPRAP DISSIPATOR
- FLOW DIRECTION
- LIMITS OF DISTURBANCE

*SHWT DETERMINED TO BE APPROXIMATELY 13" BELOW EXISTING GRADE.
SEE STORMWATER IMPACT ANALYSIS FOR DETAILS.



CONSTRUCTED WETLAND CROSS SECTION A -A'

SCALE:1"=20' (H) / 1"=4' (V)

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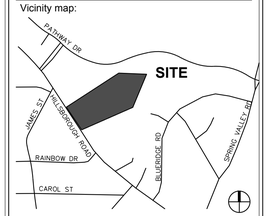

Seal:

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No.	Date	Description

0 25 50 100 NORTH

SCALE: 1"=50'

Title:

SCM PLAN

Project number: C16146 Sheet:
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Drawn by: NBC
Approved by: JWP

C5.10

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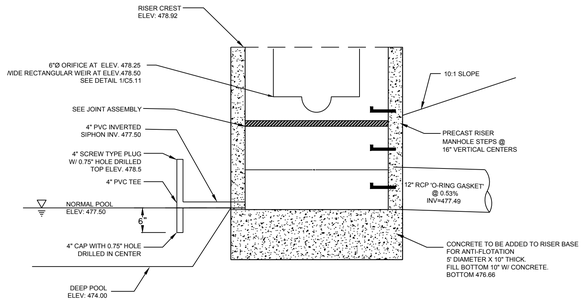
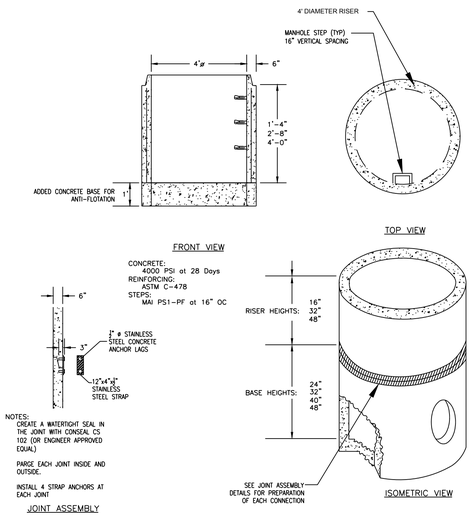
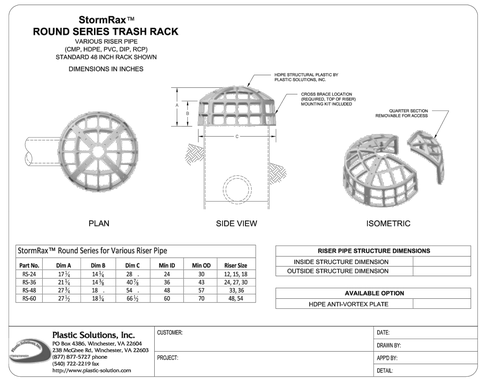


1 C5.11 RISER DETAIL I
SCALE: N.T.S.



2 C5.11 RISER DETAIL II
SCALE: N.T.S.



3 C5.11 TRASH RACK DETAIL
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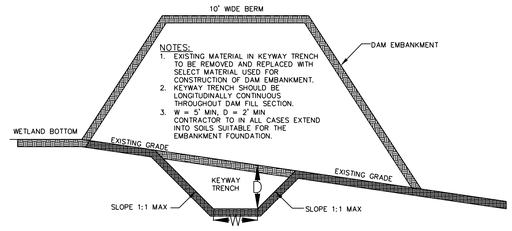
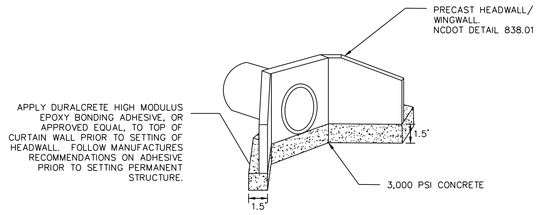
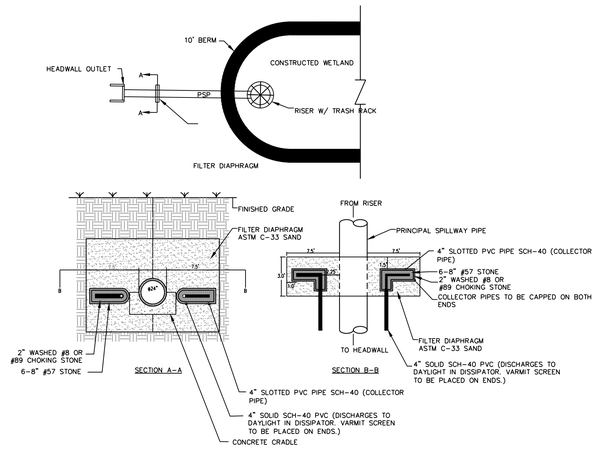


4 C5.11 KEYWAY TRENCH
SCALE: N.T.S.



5 C5.11 CONCRETE HEADWALL AND CURTAIN WALL DETAIL
SCALE: N.T.S.



6 C5.11 DIAPHRAGM DETAIL
SCALE: N.T.S.

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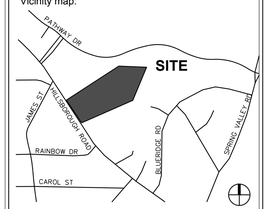

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0 25 50 100 NORTH

SCALE: 1"=50'

Title:

SCM DETAILS

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C5.11

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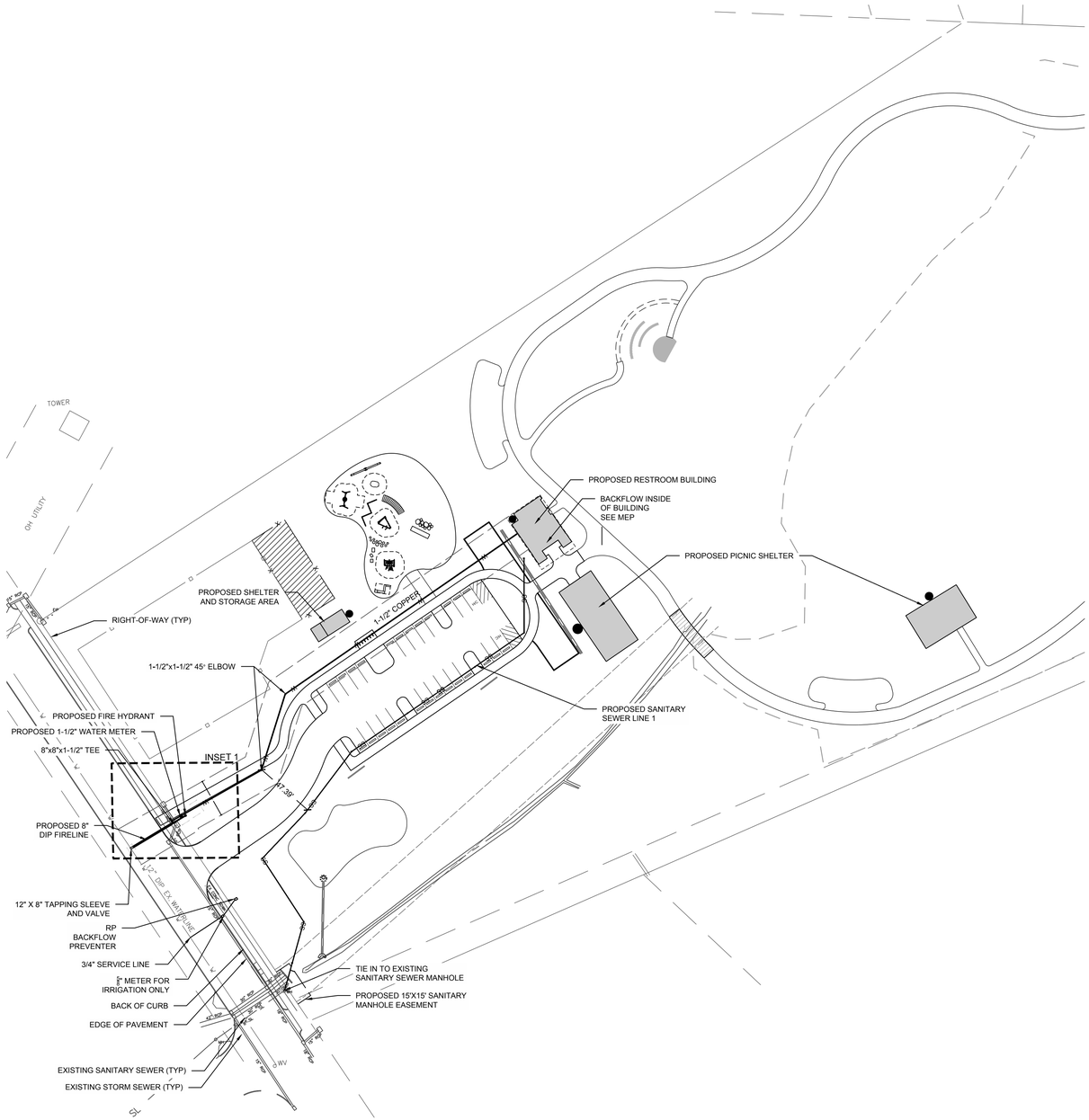
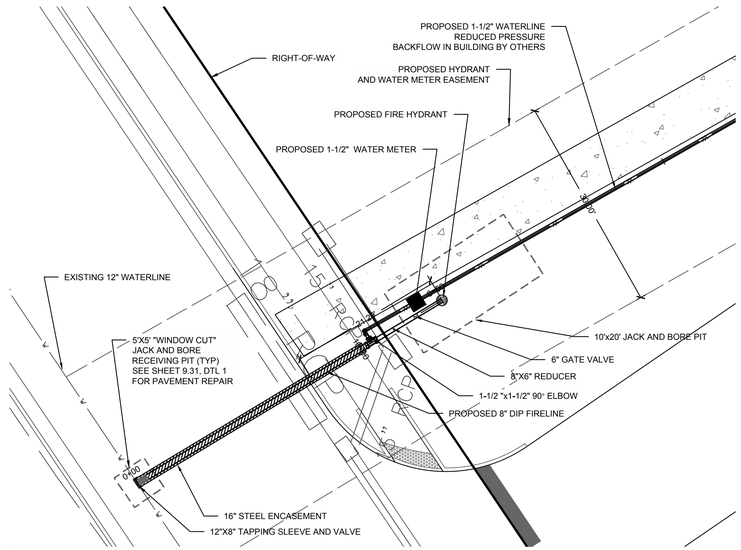


UTILITY LEGEND

- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FDC
- PROPOSED BACKFLOW METER
- PROPOSED POST INDICATOR VALVE (PIV)
- GREASE INTERCEPTOR
- 300' HYDRANT COVERAGE CIRCLE
- LIMITS OF DISTURBANCE



INSET 1- WATER METER ASSEMBLY

scale: 1" = 10'

0 5 10 20

SCALE: 1"=10'

NORTH

UTILITIES IMPROVEMENTS QTY	
PRIVATE SEWER	
4" SEWER SERVICE	476 LF
PRIVATE WATER	
1-1/2" WATER MAIN	362 LF

UTILITY NOTES:

1. REFER TO SHEET C3.00 FOR GENERAL NOTES.
2. UNLESS OTHERWISE NOTED, ALL MANHOLES SHALL BE PRE-CAST CONCRETE STRUCTURES.
3. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF UNDERGROUND UTILITIES (WATER, SEWER, STORM, ELECTRICAL, GAS, OR OTHER) FOR THIS PROJECT WITH THE BUILDING PLANS. THE UTILITY CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE INSTALLATION OF ALL UTILITY SERVICES TO WITHIN FIVE (5) FEET OF THE BUILDING CONNECTION POINT.
4. THE CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON SITE AND UTILITY PROVIDERS DURING CONSTRUCTION TO ENSURE SMOOTH TRANSITION BETWEEN DISCIPLINES.
5. THE CONTRACTOR SHALL COORDINATE ALL PEDESTRIAN AND VEHICULAR INTERRUPTIONS WITH OWNER'S REPRESENTATIVE AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
6. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INSIDE THE PUBLIC RIGHT OF WAY PRIOR TO RECEIPT AND COMPLIANCE WITH ALL APPLICABLE NCDOT PERMITS. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FLAGGERS AND TRAFFIC CONTROL DURING ALL WORK INSIDE THE PUBLIC RIGHTS OF WAY.
7. THE CONTRACTOR SHALL NOT RE-USE ANY FIRE HYDRANT REMOVED AS PART OF THIS PROJECT. ANY FIRE HYDRANT SHOWN TO BE REMOVED OR RELOCATED SHALL BE REPLACED WITH A NEW FIRE HYDRANT MEETING THE LOCAL JURISDICTIONAL REQUIREMENTS AND STANDARDS.
8. ALL EXISTING SUB-SURFACE UTILITIES IDENTIFIED ON THE CONSTRUCTION DOCUMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED ON SURVEY INFORMATION GATHERED FROM FIELD INSPECTION AND/OR ANY OTHER APPLICABLE RECORD DRAWINGS WHICH MAY BE AVAILABLE. DEPTHS OF EXISTING UTILITIES SHOWN IN PROFILE VIEWS ARE BASED ON STANDARD ASSUMPTIONS. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION, DEPTH, SIZE AND MATERIAL OF ANY AND ALL SUB-SURFACE CONDITIONS REFERENCED IN THESE PLANS PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS.
9. ELEVATIONS OF UTILITIES ARE GIVEN TO THE EXTENT OF INFORMATION AVAILABLE, WHERE ELEVATIONS ARE NOT GIVEN AT POINTS OF EXISTING UTILITY CROSSINGS, SUCH ELEVATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND REPORTED TO THE ENGINEER, WHEN UNKNOWN LINES ARE EXPOSED, THEIR LOCATIONS AND ELEVATIONS SHALL ALSO BE REPORTED TO THE ENGINEER.
10. UNDERGROUND UTILITIES SHOWN ON THIS PLAN SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OF PARKING AREA, DRIVES, CURB AND GUTTER OR CONCRETE WALKS / PADS. IF UTILITIES SHOWN ON THIS PLAN CANNOT BE INSTALLED PRIOR TO INSTALLATION OF IMPERVIOUS (ASPHALT / CONCRETE) CONDUIT SHALL BE INSTALLED FOR THE "FUTURE" UTILITY INSTALLATION.
11. AS-BUILT DOCUMENTATION REQUIREMENTS: PRIOR TO APPROVAL FROM LOCAL JURISDICTION OR ENGINEER THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS (IN BOTH PAPER AND ELECTRONIC FORMAT (CAD / PDF) PREPARED AND SEALED BY A PROFESSIONAL LAND SURVEYOR SHOWING ALL UTILITY INSTALLATION. HORIZONTAL AND VERTICAL INFORMATION SHALL BE PROVIDED FOR WATER, SEWER, STORM INCLUDING ALL STRUCTURES, VALVES, HYDRANTS, AND OTHER APPURTENANCES.

PROPOSED UTILITY SEPARATION:

1. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM EXISTING OR PROPOSED SEWERS, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT A 10-FOOT HORIZONTAL SEPARATION IN WHICH CASE;
   a. THE WATER MAIN IS LAID IN A SEPARATE TRENCH, WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER; OR
   b. THE WATER MAIN IS LAID IN THE SAME TRENCH AS THE SEWER WITH THE WATER MAIN LOCATED AT ONE SIDE OF A BENCH OF UNDISTURBED EARTH, AND WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP TO THE SEWER.
2. CROSSING A WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER, THE WATER MAIN SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, UNLESS LOCAL CONDITIONS OR BARRIERS PREVENT AN 18 INCH VERTICAL SEPARATION, IN WHICH CASE BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING.
3. CROSSING A WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER, BOTH THE WATER MAIN AND THE SEWER SHALL BE CONSTRUCTED OF FERROUS MATERIALS AND WITH JOINTS EQUIVALENT TO WATER MAIN STANDARDS FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE POINT OF CROSSING. A SECTION OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING.

SEPARATION OF SANITARY SEWERS AND STORM SEWERS:

1. A 24" VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN STORM SEWER AND SANITARY SEWER LINES OR BOTH THE SANITARY AND THE STORM LINES SHALL BE CONSTRUCTED OF FERROUS MATERIALS.

SEWER NOTES:

1. SANITARY SEWER CLEANOUTS LOCATED IN PAVEMENT AREAS SHALL BE HEAVY DUTY TRAFFIC BEARING CASTINGS.
2. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER MANHOLES ARE 4' DIA.
3. MANHOLES LOCATED IN PAVEMENT, CONCRETE OR OTHER TRAFFIC AREAS SHALL BE SET AT GRADE. MANHOLES LOCATED IN OTHER AREAS (I.E. GRASS OR WOODED AREAS) SHALL HAVE THEIR RIMS RAISED SIX INCHES ABOVE THE SURROUNDING GRADE. MANHOLES SUBJECT TO POSSIBLE WATER INFILTRATION SHALL HAVE WATERTIGHT, BOLTED LIDS.
4. MINIMUM REQUIRED SLOPES FOR SEWER SERVICES:
   4" SEWER SERVICE - 2.00% SLOPE
   6" SEWER SERVICE - 1.00% SLOPE
   8" SEWER SERVICE - 0.50% SLOPE
5. UNLESS OTHERWISE NOTED, LOCATE SANITARY SERVICE CLEANOUTS AT ALL HORIZONTAL OR VERTICAL CHANGES IN DIRECTION. MAXIMUM SPACING BETWEEN CLEANOUTS SHALL BE 75 FEET.
6. SEWER LINES LESS THAN 3 FEET OF COVER SHALL BE CLASS 50 DUCTILE IRON PIPE. SEWER LINES WITH GREATER THAN 3 FEET OF COVER SHALL BE AS NOTED BELOW:
   4" SEWER SERVICE - SCH 80
   6" SEWER SERVICE - SCH 80
   8" SEWER SERVICE - SDR-35
7. SEWER LINES UNDER CONSTRUCTION SHALL BE PROTECTED FROM DIRT, DEBRIS OR OTHER CONTAMINANTS ENTERING THE NEW SYSTEM. A MECHANICAL PLUG SHALL BE UTILIZED BOTH IMMEDIATELY UPSTREAM OF THE NEW CONSTRUCTION AND AT THE FIRST MANHOLE DOWNSTREAM IN THE EXISTING SYSTEM. EXISTING STRUCTURES, PIPING AND APPURTENANCES SHALL BE PROTECTED FROM ANY INFLOW OF WATER, DIRT OR DEBRIS DUE TO NEW CONSTRUCTION CONNECTING TO OR IN THE VICINITY OF THE EXISTING SYSTEM. CONTRACTOR TO REMOVE DEBRIS AND PLUG PRIOR TO OCCUPANCY.
8. ALL MANHOLES COVERS SHALL BE PAINTED TO LOCAL JURISDICTIONAL REQUIREMENTS.

WATER NOTES:

1. AS INDICATED, ALL WATERLINES SHALL BE DUCTILE IRON PIPE MEETING THE REQUIREMENTS OF ANSI-AWWA C151 PRESSURE CLASS 350 OR SOFT COPPER TYPE K PIPE PER ASTM B88. IF PVC WATERLINE IS INDICATED ON THE PLANS IT SHALL MEET THE REQUIREMENTS OF AWWA C-900; CLASS 200.
2. ALL WATERLINES SHALL HAVE A MINIMUM OF 3.5 FEET OF COVER.
3. TESTING NOTES:
   PRESSURE:
   LEAKAGE SHALL NOT EXCEED THE MAXIMUM ALLOWABLE LEAKAGE SPECIFIED IN AWWA C 600. MINIMUM TEST PRESSURE SHALL BE 150 PSI FOR DOMESTIC AND 200 PSI FOR FIRE PROTECTION.
   BACTERIOLOGICAL:
   TWO SAMPLES FOR BACTERIOLOGICAL SAMPLING SHALL BE COLLECTED AT LEAST 24 HOURS APART. IF CONTAMINATION IS INDICATED, THEN THE DISINFECTION PROCEDURE AND TESTING SHALL BE REPEATED UNTIL SATISFACTORY RESULTS ARE OBTAINED.
4. THE CHLORINE IN HEAVILY CHLORINATED WATER FLUSHED FROM MAINS NEEDS TO BE NEUTRALIZED BEFORE DISCHARGE. CONTRACTORS SHALL NEUTRALIZE HEAVILY CHLORINATED WATER FLUSHED FROM MAINS PRIOR TO DISCHARGE OR TRANSPORT ALL HEAVILY CHLORINATED WATER OFFSITE FOR PROPER DISPOSAL.
5. PAINT VALVE COVERS, FIRE HYDRANTS AND OTHER WATER APPARATUS TO MEET THE LOCAL JURISDICTIONAL REQUIREMENTS.

0 25 50 100

SCALE: 1"=50'

NORTH

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FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: C16146

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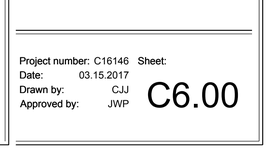
T: (919) 918-7364
F: (919) 918-4475

Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT

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No.	Date	Description
1	02.21.2017	60% DD

Title:

UTILITY PLAN

Project number: C16146 Sheet:
Date: 03.15.2017
Drawn by: CJJ
Approved by: JWP

C6.00

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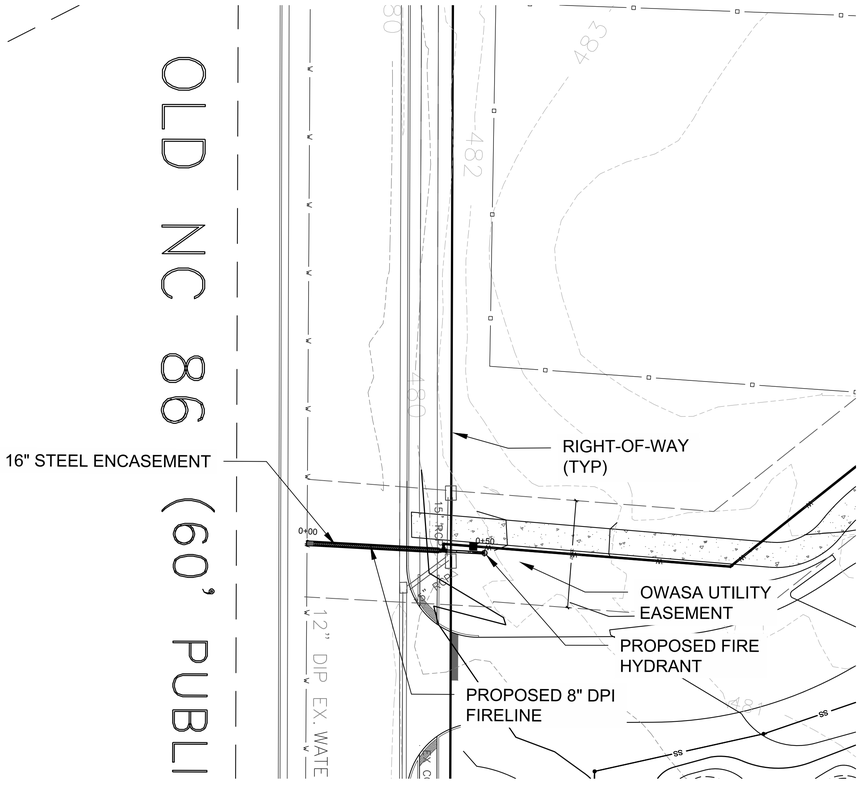
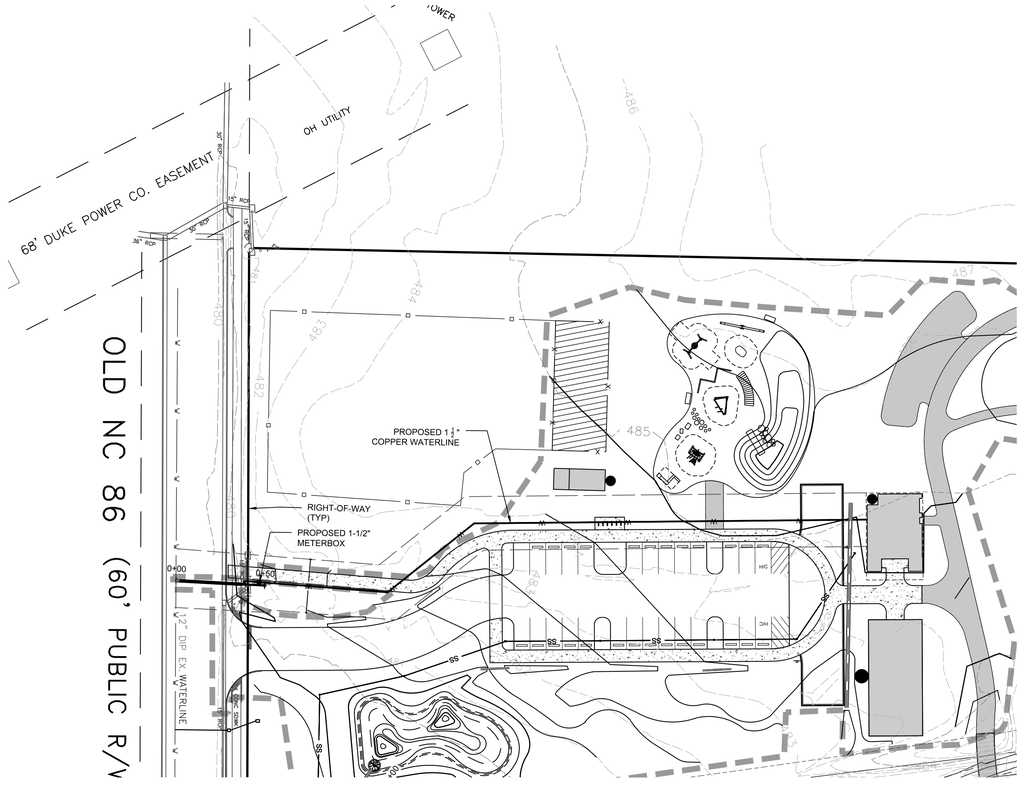


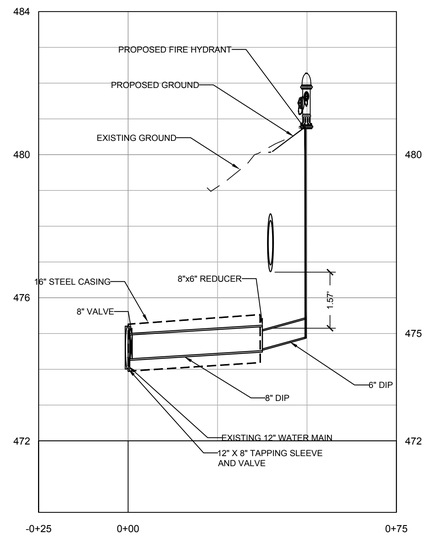
PLAN VIEW - PROPOSED 8" DIP FIRELINE STA 00+00 - 0+49.61
SCALE: 1"=20'

NORTH

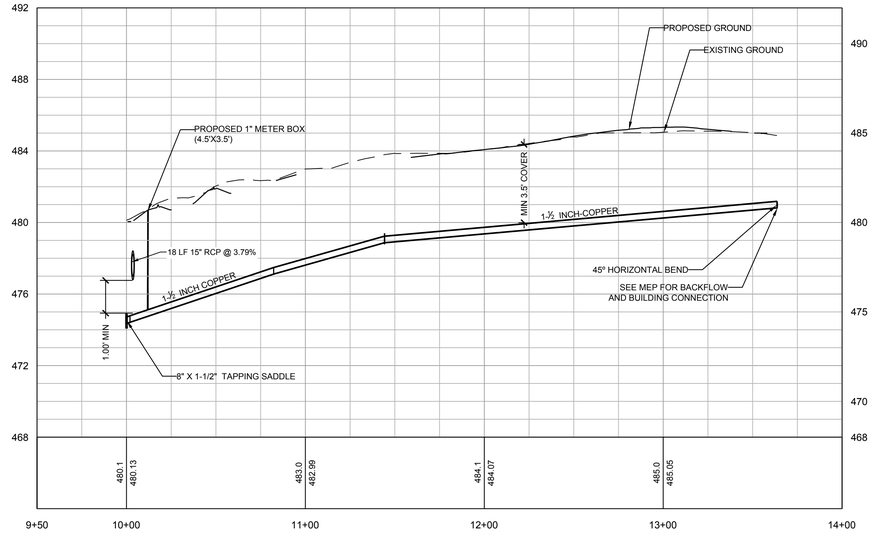


PLAN VIEW - PROPOSED 1-1/2" COPPER WATERLINE STA 0+00-3+60.04
SCALE: 1"=40'

NORTH



PROFILE VIEW - PROPOSED 8" DIP FIRELINE STA 0+00 - 0+49.61
SCALE: H: 1"=20', V: 1"=2'



PROFILE VIEW - PROPOSED 1 1/2" COPPER WATERLINE STA 10+00 - 13+36.36
SCALE: H: 1"=40', V: 1"=4'

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Project:

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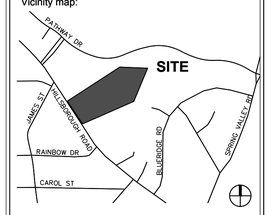

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0 20 40 80

NORTH

SCALE: 1"=40'

Title:

UTILITY PROFILES

Project number: C16146 Sheet:
Date: 03.15.2017
Drawn by: CJJ
Approved by: JWP

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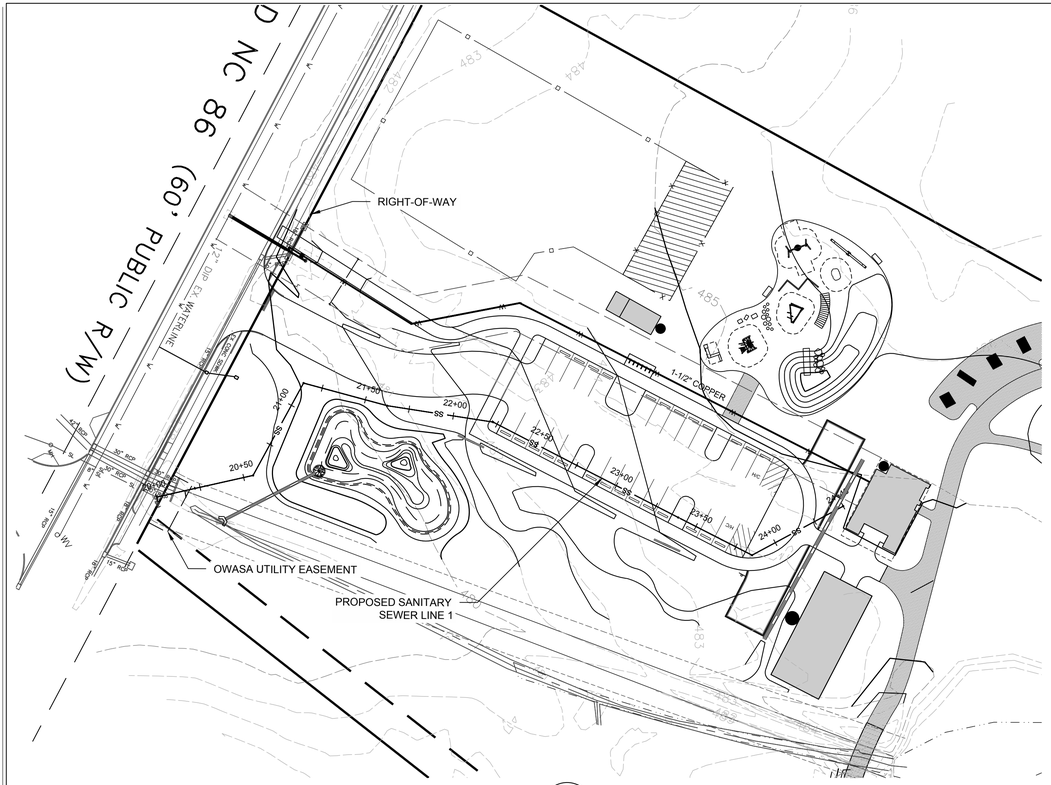
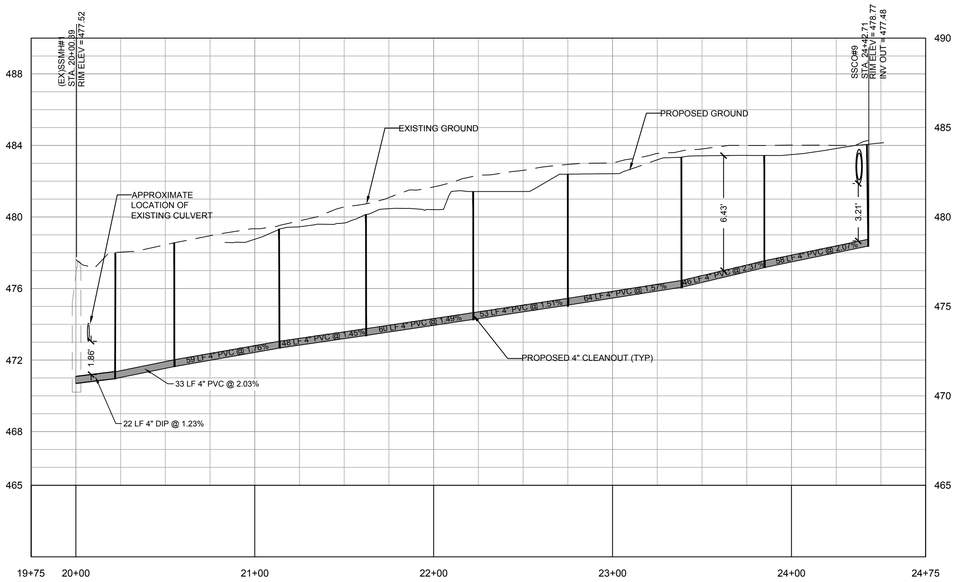


PLAN VIEW - PROPOSED SANITARY SEWER SERVICE 1 STA 20+00 - 24+51.97
SCALE: 1"=40'

NORTH



PROFILE VIEW - PROPOED SANITARY SEWER SERVICE STA 20+00 - 24+51.97
SCALE: H: 1"=40', V: 1"=4'

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Project:

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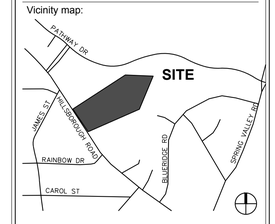

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1	02.21.2017	60% DD

0 20 40 80

NORTH

SCALE: 1"=40'

Title:

UTILITY PROFILES

Project number: C16146 Sheet:
Date: 03.15.2017
Drawn by: CJJ
Approved by: JWP

C6.11

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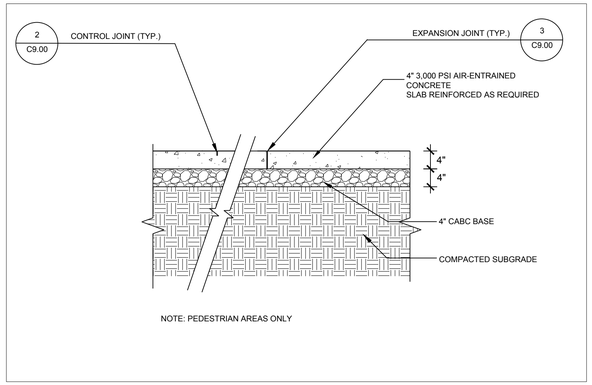
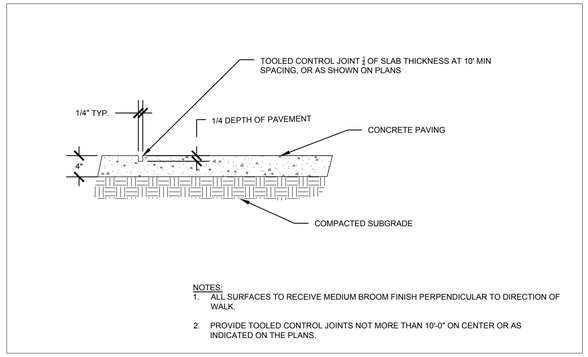
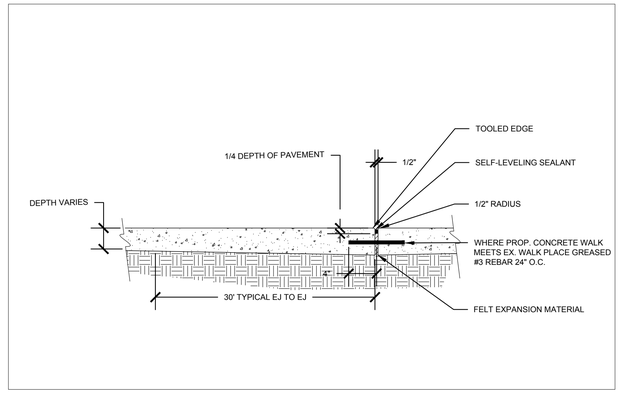


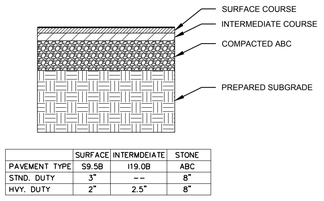
1 4" CONCRETE SIDEWALK
SECTION — ¾" = 1'-0"



2 CONTROL JOINT - SIDEWALK
SECTION — NTS

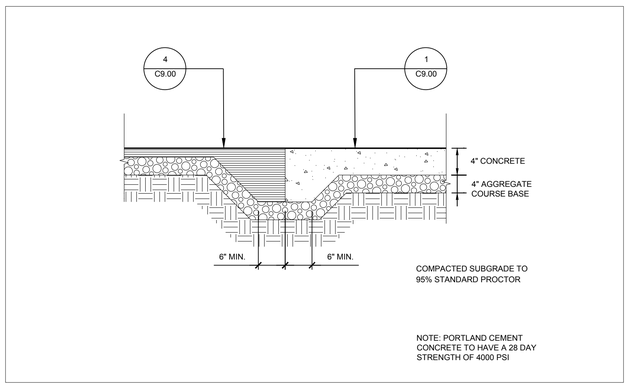


3 EXPANSION JOINT - SIDEWALK
SECTION — ¾" = 1'-0"

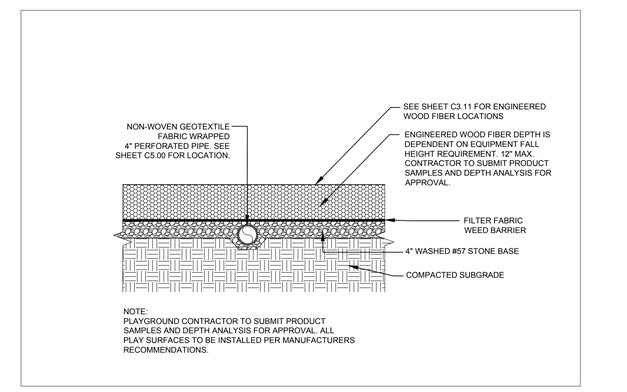


	SURFACE	INTERMDEIATE	STONE
PAVEMENT TYPE	S9.5B	I19.0B	ABC
STND. DUTY	3"	--	8"
HVY. DUTY	2"	2.5"	8"

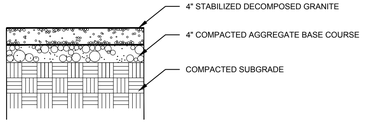
4 ASPHALT PAVING
SECTION — ¾" = 1'-0"



5 EDGING - SIDEWALK TO ASPHALT
SECTION — ¾" = 1'-0"

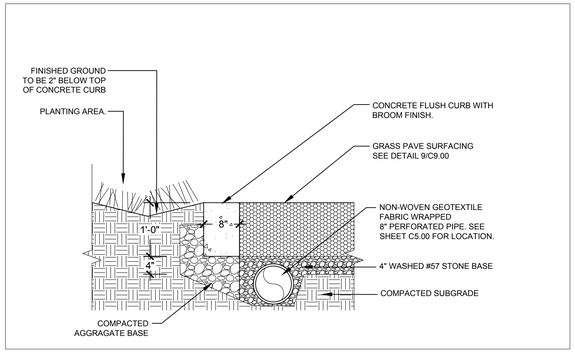


6 ENGINEERED WOOD FIBER SURFACING
SECTION — ¾" = 1'-0"

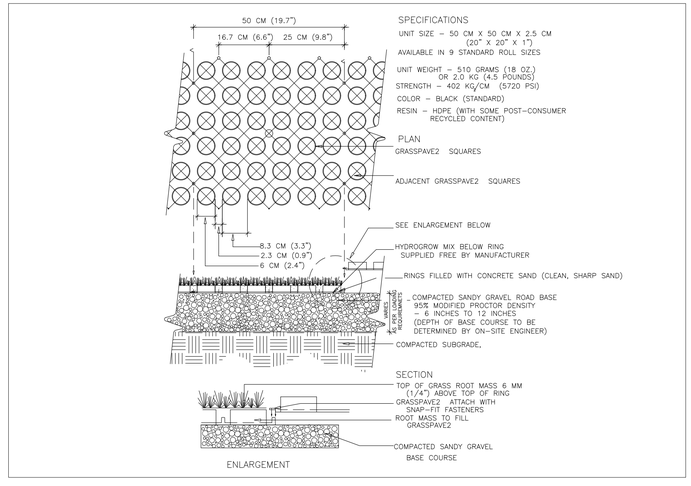


NOTE:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH STABILIZER MANUFACTURER'S SPECIFICATIONS.

7 DECOMPOSED GRANITE PATH WITH STABILIZER
SECTION — ¾" = 1'-0"



8 CIP FLUSH CURB
SECTION — ¾" = 1'-0"



9 GRASS PAVE
SECTION — NTS

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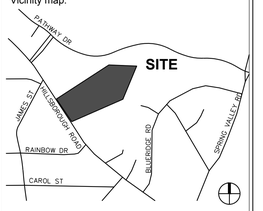
F: (919) 918-4475

Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

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SITE DETAILS

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

C9.00

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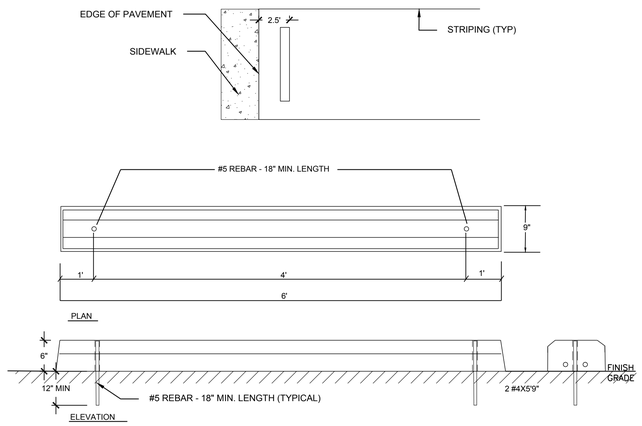
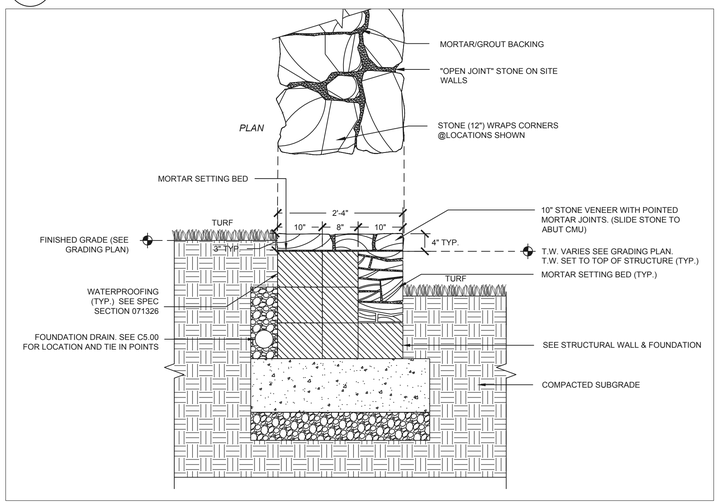


1 CONCRETE WHEEL STOP

NTS

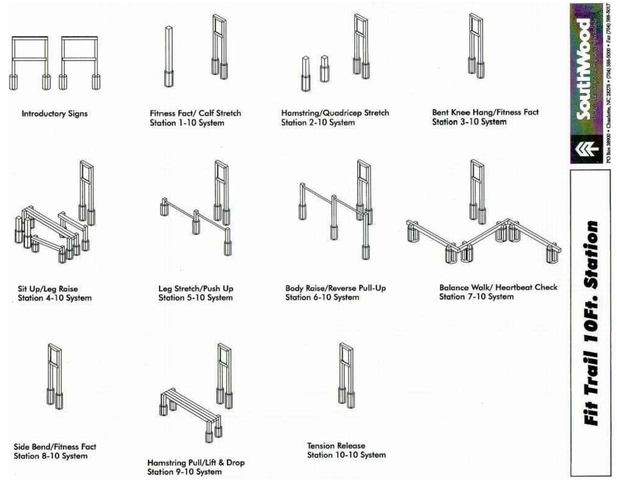
PLAN



4 SEAT WALL - AMPHITHEATRE

3/8" = 1'-0"

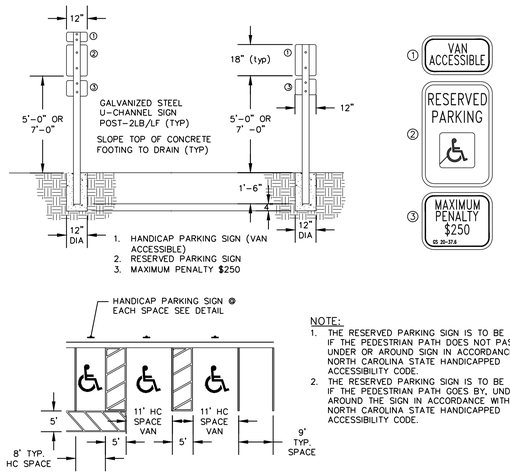
PLAN



7 EXERCISE EQUIPMENT

NTS

PLAN



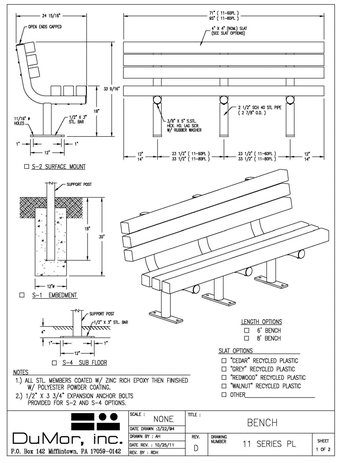
NOTE:

1. THE RESERVED PARKING SIGN IS TO BE 5'-0" IF THE PEDESTRIAN PATH DOES NOT PASS UNDER OR AROUND SIGN IN ACCORDANCE WITH NORTH CAROLINA STATE HANDICAPPED ACCESSIBILITY CODE.
2. THE RESERVED PARKING SIGN IS TO BE 7'-0" IF THE PEDESTRIAN PATH GOES BY, UNDER, OR AROUND THE SIGN IN ACCORDANCE WITH NORTH CAROLINA STATE HANDICAPPED ACCESSIBILITY CODE.

2 ADA SIGNAGE

NTS

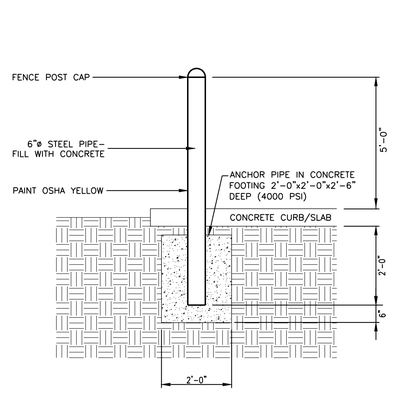
PLAN



5 PARK BENCH

NTS

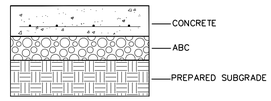
PLAN



3 BOLLARD

NTS

PLAN



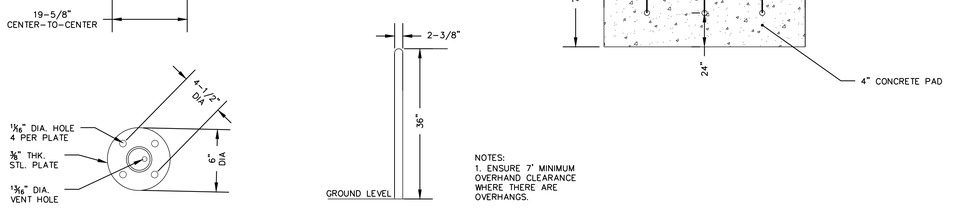
PAVEMENT SHALL BE CONSTRUCTED OF 4000 PSI CONCRETE. REINFORCEMENT BARS SHALL BE ONE (1) ROW AT 12" O.C. BOTH DIRECTIONS AS INDICATED BELOW. SURFACE FINISHES AND JOINT TO SCALE SHALL BE AS INDICATED ON PLANS AND DETAILS.

PAVEMENT TYPE	ABC	REINF.	CONCRETE
HEAVY DUTY (DUMPSTER PAD)	4"	1 ROW - #4 REBAR SPACED 12" O.C. BOTH WAYS	6"
SIDEWALK	-	----------	4"

6 HEAVY DUTY CONCRETE

NTS

PLAN



NOTES:
1. ENSURE 7' MINIMUM OVERHAND CLEARANCE WHERE THERE ARE OVERHANGS.

8 BIKE RACK

NTS

PLAN

STEWART

421 FAYETTEVILLE ST., SUITE 400
RALEIGH, NC 27601
T 919.380.8750

FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: C16146

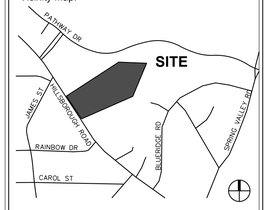
Client:

TOWN OF CARRBORO
301 W. MAIN STREET
CARRBORO, NC 27510
T: (919) 918-7364
F: (919) 918-4475

Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



Seal:

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No.	Date	Description

Title:

SITE DETAILS

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

C9.01

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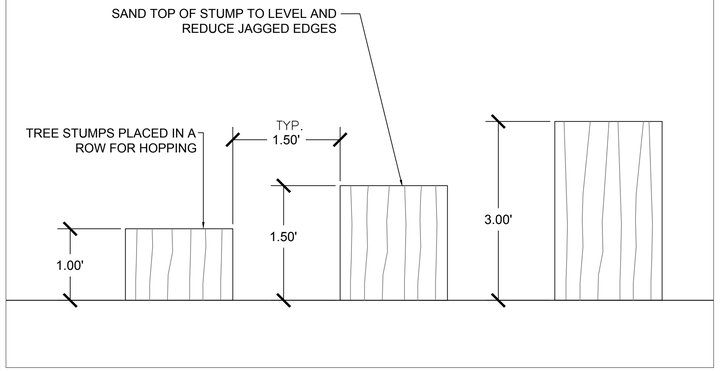
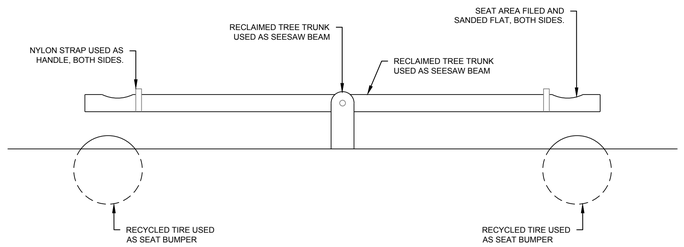


1 HOPPING LOGS
ELEVATION — NTS



2 SEESAW
ELEVATION — NTS

Natural Playgrounds Store

Natural Playgrounds Company
85 Warren Street, Concord, NH 03301
Toll Free 888-290-8405
Intl 603-228-0476
Fax 603-228-6018
ethan@naturalplaygrounds.com

Water Table, Multiple Use SALE

HPWP-WT SALE
Shipping Weight: 300 lbs
Shipping Dimensions: 48"L X 48"W X 30"H
Brand: Natural Playgrounds Company
Toxicity: child friendly wood preservative
Age Appropriateness: 3-10 years

If you don't have a pond or a stream on your playground, a water play table is a perfect option, especially this large one, which is a fabulous, one-of-a-kind water play element, perfect for a Natural Playground!

This table is big enough at 4'x4' that an entire class can gather around for group play, which encourages communication and socialization, or getting a lesson from you about water.

Water also offers many learning opportunities and benefits. It's one of nature's simplest, manipulatives which can be scooped, measured, poured, splashed, dripped, dipped, carried, weighed, and studied.

Obviously, kids can float almost anything in the water, including boats, leaves, sticks, pieces of wood and origami figures, so they'll learn about buoyancy. Anything that doesn't float will sink to the bottom, thus teaching children about density and weight.

Or, as you can see from the center photo below, one schools placed a duck in the water so kids could look under clear table to watch the way in which webbed feet are used for propelling birds and animals through water.

Also, because water always seeks the lowest level, it will flow off of things such as spoons, containers, and pitchers when they're tipped, cupped hands, pine cones, rocks, sticks, and so on, so children will also learn about gravity, and the properties of fluids: how they move and settle.

Playing with water also promotes hand/eye coordination and fine motor skills.

Further, as children splay and splash the water, droplets will appear on surfaces everywhere, and will act as tiny magnifying glasses, which can lead to other, completely different kinds of learning.

The clear bottom is a fabulous benefit, because it may magnify or otherwise distort anything on the ground, such as shoes and legs, or toys, or grass, or any number of other things, which can be fun, entertaining, and a great lesson about lenses.

This huge table designed for the outdoors, is made with indestructible, clear Lexan and kid-friendly treated lumber. Table holds approximately 80 gallons of water, and there is a large drain hole with an easy to remove plug for drainage. A hose can be attached to direct the drainage water where you want it (a garden, a stream).

Can be set on the ground or installed permanently (instructions included), and can be mounted at any height. Holds a maximum of 800 gallons, although obviously, you don't have to fill it up to use it!

3 WATER TABLE
PLAN — NTS

Natural Playgrounds Store

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Toll Free 888-290-8405
Intl 603-228-0476
Fax 603-228-6018
ethan@naturalplaygrounds.com

Embankment Slide w/ sit down bar

EMB-SL

Shipping Weight: 0 lbs
Shipping Dimensions: 72"L X 24"W X 18"H
Brand: Natural Playgrounds Company
Toxicity: non-toxic
Age Appropriateness: all ages

<h2>A manual quote is required for shipping slides from the manufacturer. Typically such a quote takes no more than 1 business day, but it may take slightly longer depending on how busy they are. Please bear with us while we calculate accurate shipping costs. As soon as we receive the shipping cost, we'll add it to your estimate and e-mail it to you. When you've authorized payment, we'll process the order.</h2>

Embankment Slides offer constant thrills of movement and speed, and are a must-have on all playgrounds for several reasons!

First, Embankment Slides are built into the ground so it's impossible to fall off a ladder (there is none!) or off the sides (the slide is level with the ground), which means Embankment Slides are 100% safe!

Further, slides encourage scientific curiosity; climbing the hill builds up a reservoir of potential energy resulting from gravity's pull, sliding down the hill turns that supply of energy into its kinetic form -- and demonstrates acceleration and velocity. Slides trigger both proprioceptive and kinesthetic responses; they help illustrate several branches of mathematics (geometry, calculus, and trigonometry); they help children stay active, get physically fit, and develop motor skills and coordination; and they are the most popular play element on a Natural Playground.

Our slides are made of heavyweight, commercial-grade, 3/8" +/- thick polyethylene that resists fading (so they last forever), they will not buckle in the heat or with use, seams will never separate to cause safety hazards, they're treated to resist static build-up so cochlear implants will not be affected, AND the built-in foot under the exit region not only provides the necessary anchoring, but also keeps the exit region at the ASTM/CPSC required height off the fall zone material!

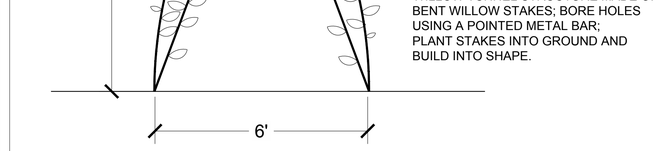
Also, exclusive to our long slides (more than 12' deck height) is a spring system that allows for expansion and contraction in the heat and cold. We recommend this as a precaution against buckling the slide.

Slides may be made of any length. Shown in the picture is a 35 foot embankment slide, but the low price shown is for our smallest slide that fits on a 3 foot high hill. (NOTE: If you are installing a slide exceeding an 8 foot deck height, we may recommend expansion springs be installed to take care of any expansion due to heat.)

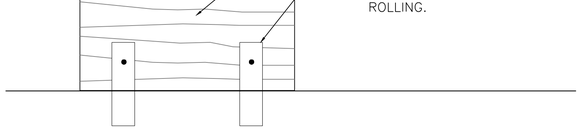
Slides are usually straight, but left or right curves or waves can be included in longer slides to add thrills or slow speed if desired. We suggest the neutral gray color to better fit with a natural playground theme. Dye lots may cause slight color variations on longer slides.

Installation instructions that meet all CPSC and ASTM safety guidelines, all slide hardware, CPSC® approved sit-down bar,

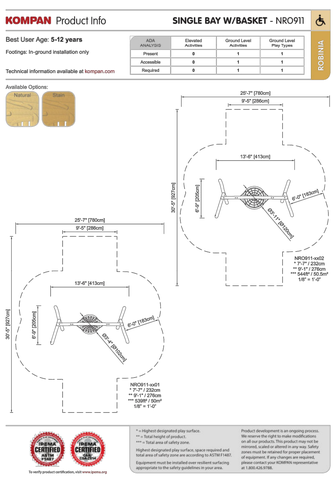
4 Embankment Slide
PLAN — NTS



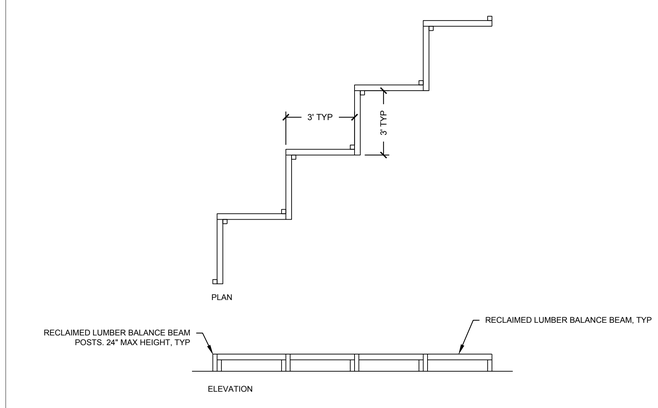
5 WILLOW TUNNEL
ELEVATION — NTS



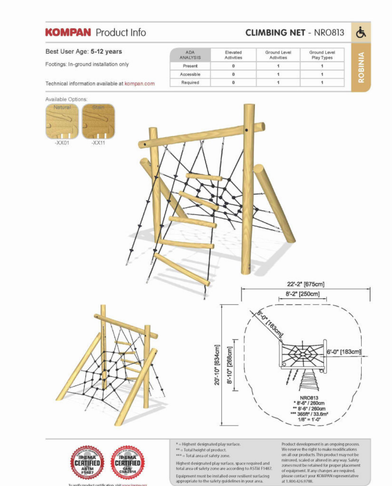
6 BALANCING & CLIMBING LOG
ELEVATION — NTS



7 KOMPAN SINGLE BAY BASKET SWING
PLAN — NTS



8 BALANCE BEAM
PLAN — NTS



9 KOMPAN CLIMBING NET
PLAN — NTS

STEWART
421 FAYETTEVILLE ST., SUITE 400
RALEIGH, NC 27601
T 919.380.8750
FIRM LICENSE #: C-1051
www.stewartinc.com
PROJECT #: C16146

Client:

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Project:

MARTIN LUTHER KING, JR. PARK

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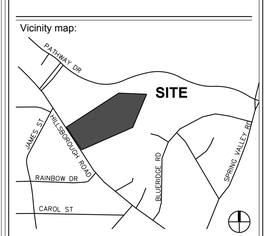

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No.	Date	Description

Title:

SITE DETAILS

Project number: C16146
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW
Sheet: C9.02

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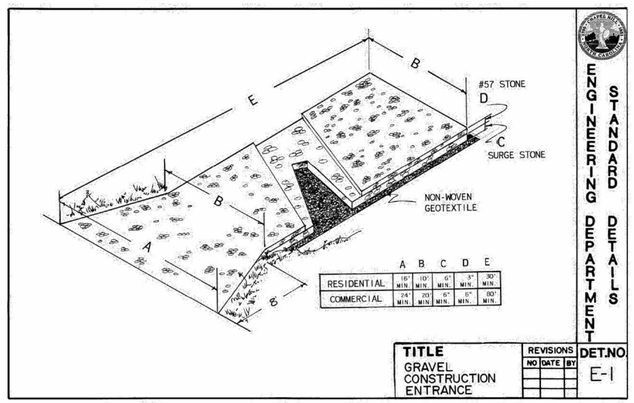
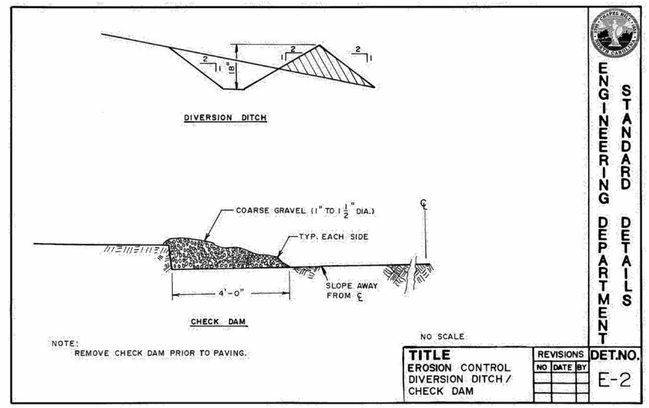
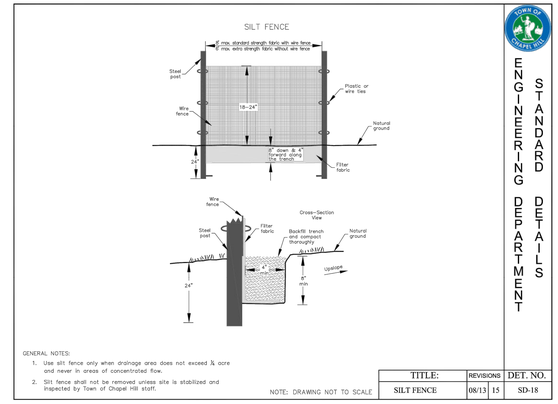


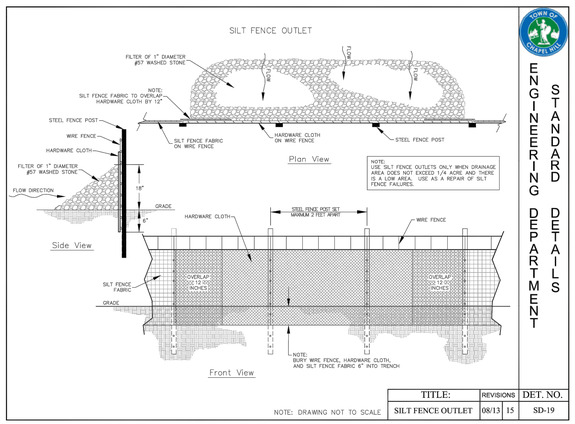
1 CONSTRUCTION ENTRANCE NTS
PLAN



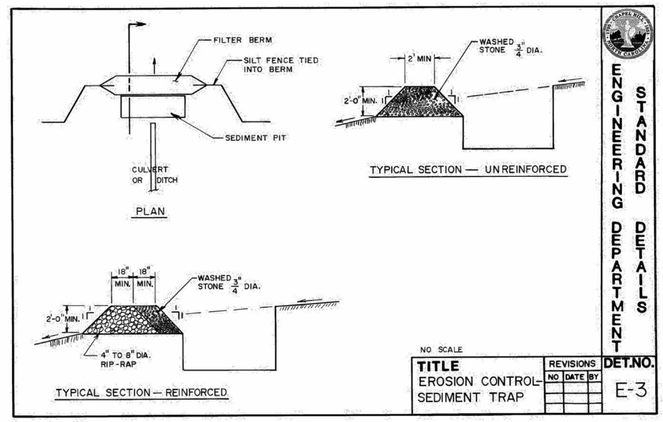
2 DIVERSION DITCH NTS
SECTION



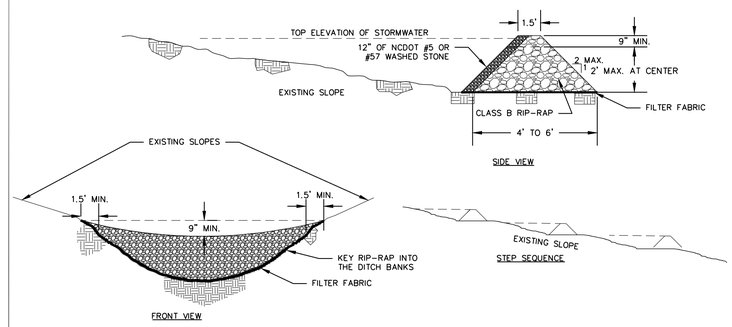
3 SILT FENCE NTS
SECTION



4 SILT FENCE OUTLET NTS
SECTION



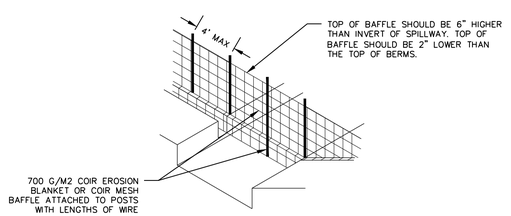
5 SEDIMENT TRAP ⅜" = 1'-0"
SECTION



NOTES:
1. HEIGHT & WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.
2. KEY RIP RAP INTO THE DAM FOR STABILIZATION.
3. EXTEND STONE AT LEAST 1.5' BEYOND DITCH BANK.
4. REMOVE CHECK DAMS ONCE A PERMANENT STRAND OF GRASS HAS BEEN ESTABLISHED.

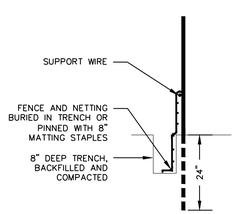
MAINTENANCE NOTES:
1. INSPECT DAMS AND CHANNELS WEEKLY AND AFTER SIGNIFICANT (0.5" OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. BE SURE TO CLEAN OUT AN DEBRIS AND SEDIMENT THAT COULD CLOG THE CHANNEL WHEN NEEDED.
2. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION, ALLOW THE CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM, AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. ADD STONES TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.
3. KEY RIP RAP INTO THE DAM FOR STABILIZATION.

6 CHECK DAM NTS
SECTION

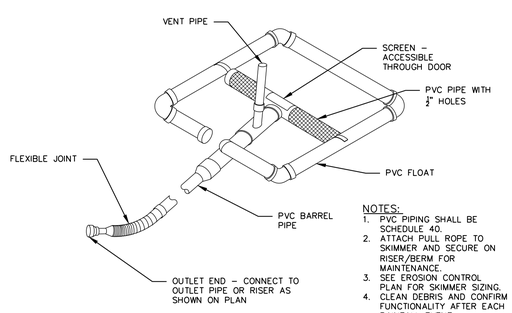


NOTES
1. DRIVE STEEL FENCE POST AT LEAST 24" INTO SOLID GROUND
2. WOOD POSTS ARE NOT ACCEPTABLE
3. USE STAPLES 1" APART TO ATTACH FABRIC

MAINTENANCE
1. INSPECT BAFFLES AT LEAST ONCE A WEEK OR AFTER ANY RAINFALL
2. REMOVE SEDIMENT WHEN IT REACHES HALF FULL. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGN STORAGE DEPTH.
3. TAKE ALL PRECAUTION TO MAINTAIN QUALITY OF BAFFLES. IF BAFFLES ARE DAMAGE, REMOVE AND REPLACE.



7 BAFFLE NTS
SECTION



NOTES:
1. PVC PIPING SHALL BE SCHEDULE 40.
2. ATTACH PULL ROPE TO SKIMMER AND SECURE ON RISER/BERM FOR MAINTENANCE.
3. SEE EROSION CONTROL PLAN FOR SKIMMER SIZING.
4. CLEAN DEBRIS AND CONFIRM FUNCTIONALITY AFTER EACH RAINFALL EVENT.

8 SKIMMER NTS
SECTION

STEWART
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FIRM LICENSE #: C-1051
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PROJECT #: C16146

Client:

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CARRBORO, NC 27510
T: (919) 918-7364
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Project:

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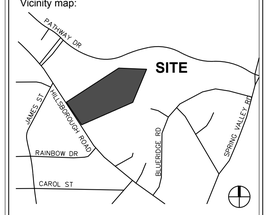
Vicinity map:



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No.	Date	Description

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EROSION CONTROL DETAILS

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: CJJ
Approved by: JWP
C9.10

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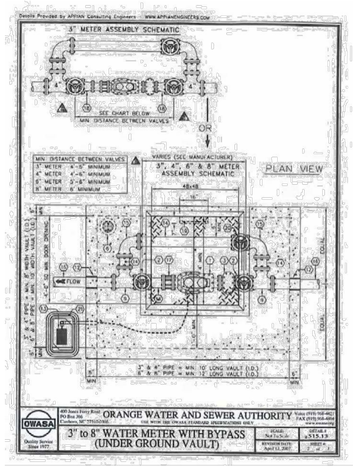
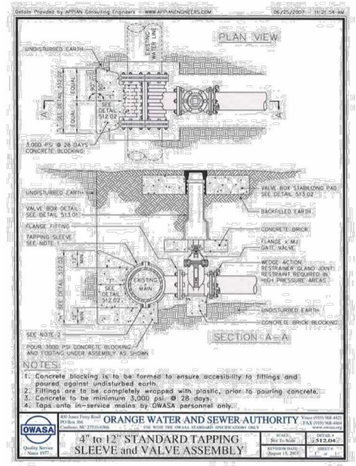
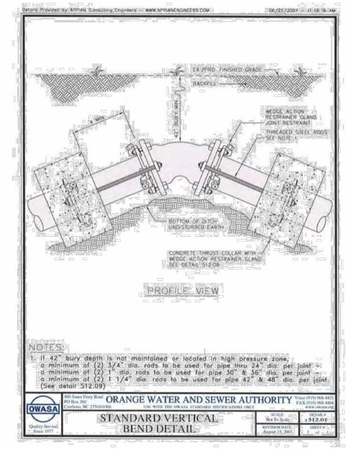


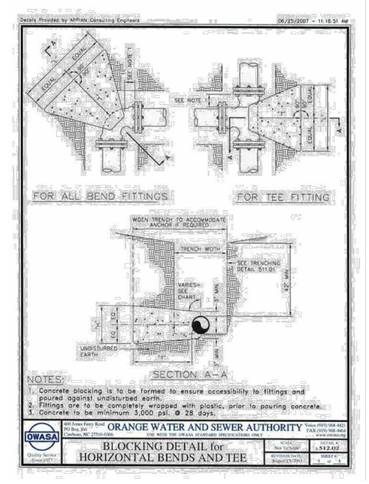
1 WATER METER NTS
PLAN



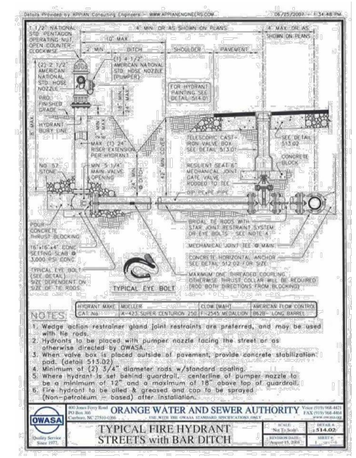
2 TAPPING SLEEVE AND VALVE NTS
PLAN



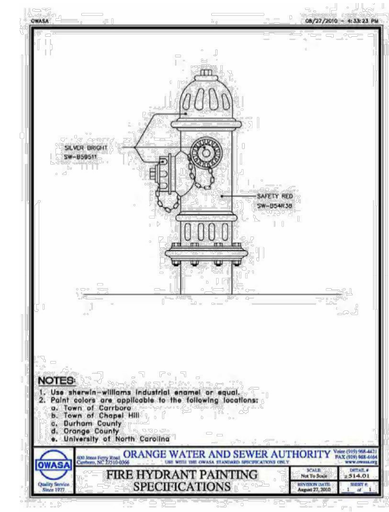
3 WATERLINE BEND NTS
PLAN



4 BLOCKING NTS
PLAN



5 FIRE HYDRANT NTS
SECTION



6 FIREHYDRANT PAINT NTS
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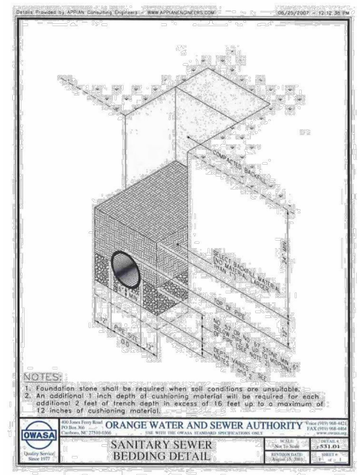

7 SANITARY SEWER BEDDING NTS
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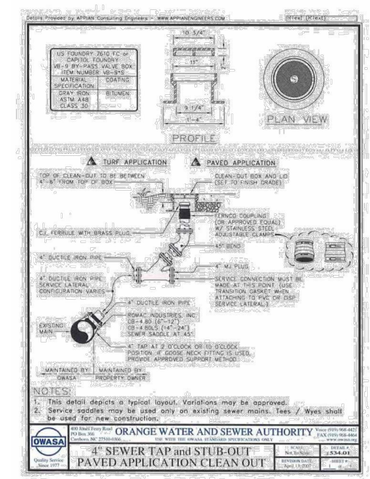
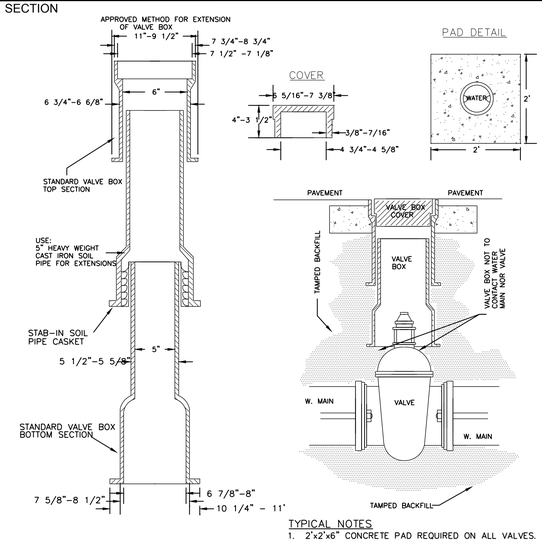


8 CLEANOUT NTS
SECTION



9 VALVE BOX INSTALLATION AND EXTENSION NTS
SECTION

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421 FAYETTEVILLE ST., SUITE 400
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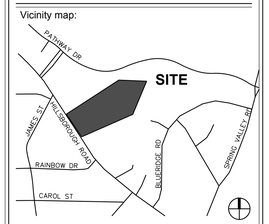

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No.	Date	Description

Title:

UTILITY DETAILS

Project number: C16146
Date: 06.22.2017
Drawn by: CJJ
Approved by: JWP

Sheet: C9.30

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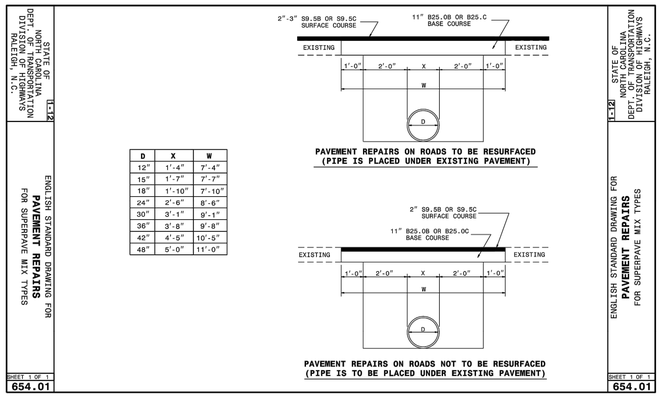
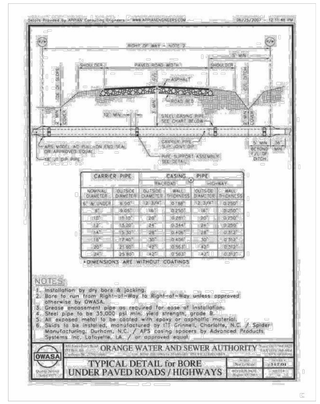


D	X	W
12"	1'-4"	3'-4"
15"	1'-7"	7'-7"
18"	1'-10"	7'-10"
24"	2'-6"	8'-6"
30"	3'-1"	9'-1"
36"	3'-8"	9'-8"
42"	4'-5"	10'-5"
48"	5'-0"	11'-0"

1 PAVEMENT REPAIR NTS
SECTION

Return to Table of Details



1 ENCASEMENT FOR JACK AND BORE NTS
SECTION

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PROJECT #: C16146

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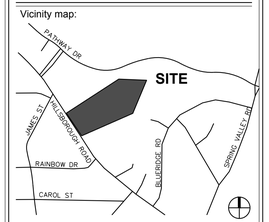
Project:

MARTIN LUTHER KING, JR. PARK

Vicinity map:



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NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT

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No.	Date	Description

Title:

UTILITY DETAILS

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: CJJ
Approved by: JWP
C9.31

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PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	REMARKS
	CACA	3	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	B & B	3"CAL		
	CISG	1	CARYA ILLINOINENSIS `STARKING SOUTHERN GIANT`	SOUTHERN GIANT PECAN	B & B	4"CAL		
	COFL	26	CORNUS FLORIDA	FLOWERING DOGWOOD	B & B	2"CAL	8'	
	LITU	7	LIRIODENDRON TULIPIFERA	TULIP TREE	B & B	3"CAL		
	OXAR	5	OXYDENDRUM ARBOREUM	SOURWOOD TREE	B & B	3"CAL		
	PIPA	31	PINUS PALUSTRIS	LONGLEAF PINE	B & B	3"CAL		
	QUCO	14	QUERCUS COCCINEA	SCARLET OAK	B & B	3.5"CAL		
	QULA	8	QUERCUS LAURIFOLIA	LAUREL-LEAVED OAK	B & B	3.5"CAL		
	QUPH	5	QUERCUS PHELLOS	WILLOW OAK	B & B	3.5"CAL		
	TIAM	4	TILIA AMERICANA	AMERICAN LINDEN	B & B	3"CAL		

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT.	HGT.		REMARKS
	AMAR	11	AMELANCHIER ARBOREUM	SERVICEBERRY	5 GAL			
	ASTR	6	ASIMINA TRILOBA	PAWPAW	5 GAL			
	COCG	5	COTINUS COGGYGRIA `GRACE`	GRACE SMOKE TREE	5 GAL			
	ILVE	11	ILEX VERTICILLATA	WINTERBERRY	3 GAL			

GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SF		REMARKS
	FESC	2,326 SF	FESCUE SEED	FESCUE GRASS	SEED	3LBS/1000SF		
	PESM	4,676 SF	PERENNIAL SEED MIX	PRAIRIE MOON NURSERY INSECTOPIA SEED MIX	SEED	25LBS/AC		SEE GENERAL LANDSCAPING NOTE 19
	POSM	22,101 SF	POLLINATOR SEED MIX	MELLOW MARSH FARM "POLLINATOR MIX"	SEED	14 LB / AC		SEE GENERAL LANDSCAPING NOTE 20
	WLSM	16,088 SF	WETLAND SEED MIX	MELLOW MARSH FARM WETLAND SEED MIX	SEED	25LBS/AC		SEE GENERAL LANDSCAPING NOTE 21

LANDSCAPING NOTES:

1. VERIFY ALL QUANTITIES AND REPORT ANY DISCREPANCIES OR INACCURACIES IN THE PLANS TO THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING.
2. LANDSCAPE WORK SHALL INCLUDE THE FURNISHING, INSTALLATION, AND WARRANTY OF ALL PLANTING MATERIALS WITHIN THE PROJECT AREA.
3. THE LANDSCAPE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL EXISTING AND NEW UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR PLANTING. DAMAGES TO UTILITIES CAUSED BY THE LANDSCAPE OPERATION SHALL BE CORRECTED BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE OWNER.
4. LANDSCAPING SHALL REMAIN CLEAR FROM ANY FIRE HYDRANTS ON THE SITE.
5. ALL TREES TO BE A MINIMUM OF 2" IN CALIPER AND MUST MEET THE AMERICAN STANDARD FOR NURSERY STOCK.
6. TREE PROTECTION NOTE: TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT AND SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH, AS FOLLOWS; "NO TRESPASSING/TREE PROTECTION AREA/PROHIBIDO ENTRAR / ZONA PROTECTORA PARA LOS ÁRBOLES."
7. PROTECTION OF EXISTING VEGETATION: AT THE START OF GRADING INVOLVING THE LOWERING OF EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THE CUT FARTHEST AWAY FROM THE TREE TRUNK AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IN THE VICINITY OF THE TREES IS COMPLETE. NO STORAGE OF MATERIALS, FILL, OR EQUIPMENT AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE PROTECTED AREA.
8. ROOT ZONE PROTECTION AREA: VARIES BASED ON LOCAL JURISDICTION HAVING AUTHORITY. CONTRACTOR SHALL COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS. NO DISTURBANCE ALLOWED WITHIN THIS AREA. AREA MUST BE PROTECTED WITH BOTH TREE PROTECTION FENCING AND WARNING SIGNS.
9. SEED BED PREPARATION: ALL AREAS TO BE SEEDED ARE TO BE RECEIVE A MINIMUM OF 2" OF APPROVED TOPSOIL. ALL DEBRIS, ROCKS, ETC. LARGER THAN .5" ARE TO BE REMOVED. ALL LARGE CONCENTRATIONS OF GRAVEL & DEBRIS REGARDLESS OF SIZE ARE TO BE REMOVED PRIOR TO SEEDING OR PLANTING.
10. ALL PLANT BED AREAS ARE TO RECEIVE A MINIMUM OF 6" OF APPROVED TOPSOIL.
11. SOIL SHOULD BE TESTED AND AMENDED WITH LIME AND FERTILIZER FOR HARDWOOD TREES ACCORDING TO NCDA PROCEDURES. SCARIFY PLANT PIT WALLS. CONSULT LANDSCAPE ARCHITECT FOR ALTERNATE COMPLIANCE.
12. SHREDDED HARDWOOD MULCH 3" DEEP EXCEPT AT CROWN OF PLANT UNLESS OTHERWISE NOTED. FLARE AT CROWN SHOULD BE REVEALED. BACKFILL CONSISTS OF THOROUGHLY BROKEN UP NATIVE SOIL. TOTAL VOLUME OF BACKFILL SHOULD BE AMENDED WITH UP TO ONE THIRD PINE BARK MULCH. PIECES SHOULD BE NO LARGER THAN WHAT PASSES THROUGH A ONE INCH SCREEN. IF ADDITIONAL SOIL IS REQUIRED FOR BACKFILL DUE TO DETRIMENTAL SUBSOIL DRAINAGE CONDITIONS, USE SOIL SIMILAR TO EXISTING NATIVE SOIL. ADDITIONAL SOIL TO BE APPROVED BY LANDSCAPE ARCHITECT. MAXIMUM SAUCER HEIGHT IS 6 INCHES.
13. TOP OF ROOTBALL TO BE RAISED 2-3 INCHES ABOVE EXISTING GRADE.
14. FOR B&B PLANTS, NATURAL FIBER BURLAP SHOULD BE TURNED DOWN BY 1/3 TOTAL HEIGHT OF ROOT BALL. PLASTIC FIBER BURLAP AND WIRE BASKETS SHOULD BE REMOVED TO 2/3'S OF TOTAL HEIGHT OF ROOT BALL.
15. CONTRACTOR IS RESPONSIBLE FOR KEEPING THE TREE UPRIGHT AND PLUMB THROUGHOUT THE WARRANTY PERIOD. IF STABILIZATION IS NECESSARY SEE STAKING IN TREE DETAIL. ORANGE FLAGGING TAPE SHOULD BE ATTACHED TO SUPPORT WIRE. STAKING SHOULD BE REMOVED BY CONTRACTOR AT END OF ONE YEAR WARRANTY PERIOD OR AS DIRECTED BY GROUNDS MANAGEMENT.
16. USE STANDARD "GATOR" BAGS FOR WATERING TREES IN AREAS NOT UNDER IRRIGATION. INCORPORATE TERRA-SORB (OR EQUAL) AS PER MANUFACTURERS RECOMMENDATIONS, FOR AREAS NOT UNDER IRRIGATION.
17. USE "BIO-BARRIER" OR EQUIVALENT ACCORDING TO MANUFACTURER'S RECOMMENDATION FOR TREES THAT WILL BE PLANTED WITHIN 10' OF PAVEMENT
18. LANDSCAPING/C.O. STANDARDS NOTE: ALL LANDSCAPING MUST BE IN PLACE PRIOR TO REQUEST FOR A CERTIFICATE OF COMPLIANCE.
19. PERENNIAL SEED MIX CONTAINS THE FOLLOWING SPECIES: ACHILLEA MILLEFOLIUM, AGASTACHE FOENICULUM, ALLIUM STELLATUM, APOCYNUM CANNABINUM, ASCLEPIAS INCARNATA, ASCLEPIAS SYRIACA, ASCLEPIAS TUBEROSA, ASCLEPIAS VERTICILLATA, ASTER ERICOIDES, ASTER LAEVIS, CHAMAECRISTA FASCICULATA, COREOPSIS LANCELEOLATA, COREOPSIS PALMATA, DALEA CANDIDA, DALEA PURPUREA, ERYNGIUM YUCCIFOLIUM, HELIANTHUS PAUCIFLORUS, HELIOPSIS HELIANTHOIDES, LIASTRIS LIGULISTYLIS, MONARDA FISTULOSA, MONARDA PUNCTATA, PARTHENIUM INTEGRIFOLIUM, POTENTILLA ARGUTA, PYCNANTHEMUM VIRGINIANUM, RATIBIDA PINNATA, RUDEBECKIA HIRTA, SCROPHULARIA MARILANDICA, SOLIDAGO GRAMINIFOLIA, SOLIDAGO SPECIOSA, TRADESCANTIA OHIENSIS, VERBENA STRICTA, VERONICASTRUM VIRGINICUM, ZIZIA APTERA, ZIZIA AUREA, CEANOTHUS AMERICANUS, BOUTELOUA CURTIPENDULA, ELYMUS CANADENSIS, KOELERIA MACRANTHA, SCHYZACHYRIUM SCOPARIUM, SPOROBOLUS HETEROLEPIS.
20. POLLINATOR SEED MIX CONTAINS THE FOLLOWING SPECIES: CHAMAECRISTA FASCICULATA, COREOPSIS LANCEOLATA, ACHILLEA MILLEFOLIUM, BIDENS ARISTOSA, GAILLARDIA PULCHELLA, ELYMUS CANADENSIS, ELYMUS VIRGINICUS, TRIPSACUM DACTYLOIDES, SORGHASTRUM NUTANS, RUDBECKIA HIRTA, SCHIZACHYRIUM SCOPARIUM, TRIDENS FLAVUS, ECHINACEA PURPUREA, SENNA HEBECARPA, HELIANTHUS ANGUSTIFOLIUS, HELIANTHUS MAXIMILIANII, MONARDA PUNCTATA, VERBENA HASTATA, ASCLEPIAS TUBEROSA, SYMPHYOTRICHUM PILOSUM.
21. WETLAND SEED MIX CONTAINS THE FOLLOWING SPECIES: ELYMUS RIPARIUS, PANICUM RIGIDULUM, PANICUM DICHOTOMIFLORUM, CAREX VULPINOIDEA, PANICUM VIRGATUM, DICHANTHELIUM CLANDESTINUM, BIDENS ARISTOSA, JUNCUS EFFUSUS, POLYGONUM PENSYLVANICUM, AND SPARGANIUM AMRICANUM.

VEHICLE SHADING REQUIREMENTS	
TOTAL VEHICLE ACCOMMODATION AREA (SF)	13,500
AREAS TO BE SHADED (SF)	4,725
AREA SHADED BY EXISTING TREES TO BE RETAINED AROUND VEHICLE ACCOMMODATION AREA (SF)	960
REMAINING AREA TO SHADE (SF)	3,765
TREES REQUIRED	5.33
TREES PROVIDED	6

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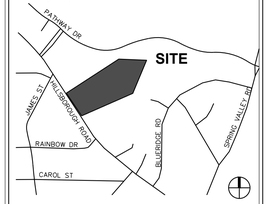

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 1791 JENNIFER L. WARNER

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No.	Date	Description

0 25 50 100 NORTH

SCALE: 1"=50'

Title:

LANDSCAPE PLAN

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

L1.00

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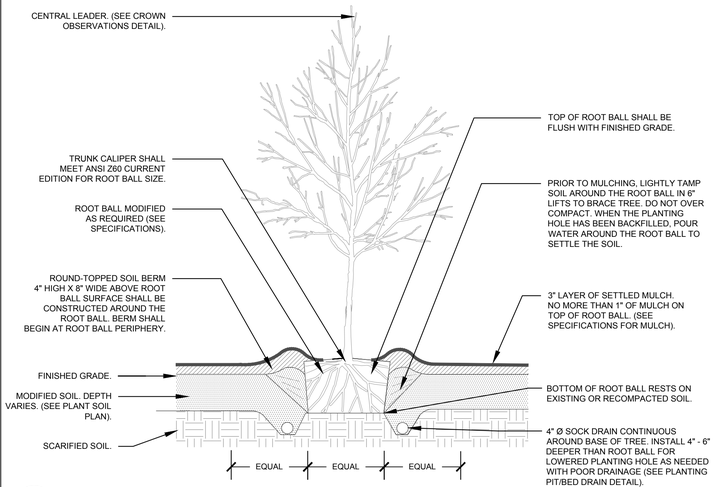

1 TREE (TYPICAL) NTS
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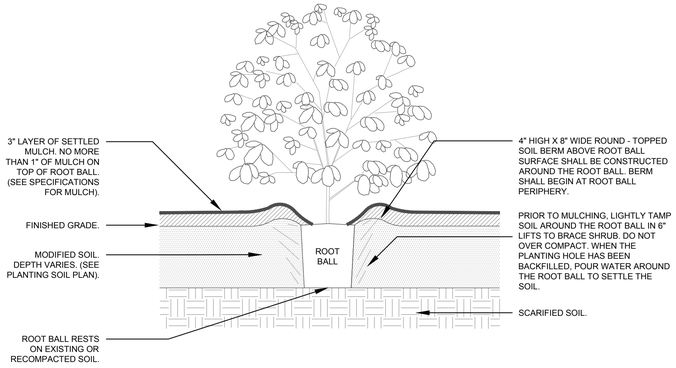

2 SHRUB (TYPICAL) NTS
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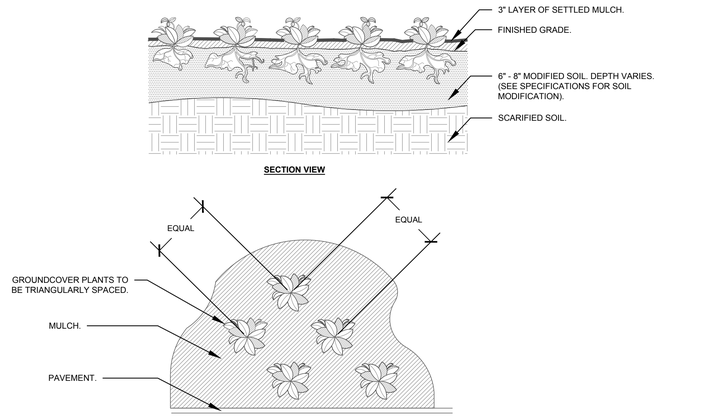
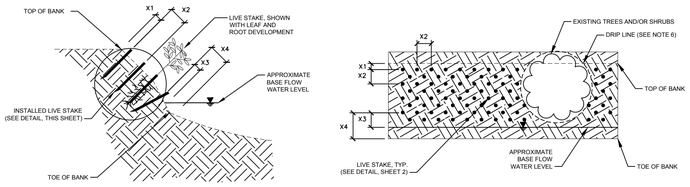
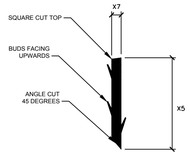
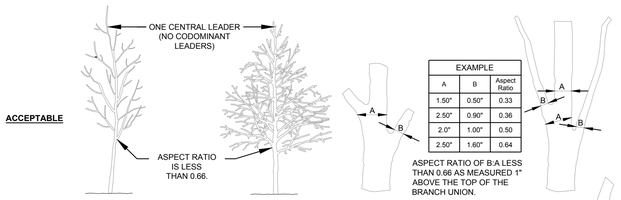


3 GROUNDCOVER PLANTING (TYPICAL) NTS
PLAN





4 WETLAND PLANTING (LIVE STAKING) NTS
SECTION

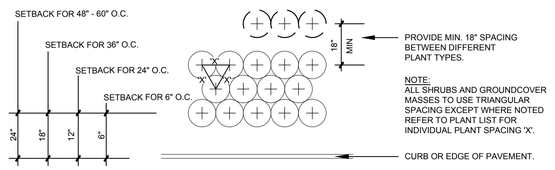


7 CROWN OBSERVATIONS - HIGH BRANCHED NTS
SECTION

NOTES:

1. SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE AND SPACING DIMENSION.
2. SMALL ROOTS (¼" OR LESS) THAT GROW AROUND, UP OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE, HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT THE TIME OF PLANTING (SEE ROOT BALL SHAVING DETAIL).
3. SETTLE SOIL AROUND ROOT BALL OF EACH GROUNCOVER PRIOR TO MULCHING.
4. WHEN GROUNDCOVER PLANTINGS ARE USED IN MASSES, ENTIRE BED SHALL BE EXCAVATED AND TILLED WITH SOIL AMENDMENTS PER SPECIFICATIONS.
5. CONTRACTORS SHALL ASSURE PERCOLATION OF A ALL PLANTING PITS PRIOR TO INSTALLATION.

5 PLACEHOLDER(POLLINATOR PLANTING) NTS
SECTION



8 SHRUB AND GROUNDCOVER SPACING NTS
PLAN

PLANTING NOTES:

1. DO NOT STAKE TREES EXCEPT WHERE SPECIFIED BY LANDSCAPE ARCHITECT. STAKING IS REQUIRED FOR TREES PLANTED ON SLOPES.
2. WHERE SEVERAL TREES WILL BE PLANTED CLOSE TOGETHER SUCH THAT THEY WILL LIKELY SHARE ROOT SPACE, TILL IN SOIL AMENDMENTS TO A DEPTH OF 4-6" OVER THE ENTIRE AREA.
3. FOR CONTAINER GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
4. FOR FIELD GROWN TREES, CUT BURLAP, ROPE AND WIRE BASKET AWAY FROM TOP AND SIDES OF ROOT BALL.
5. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
6. THE PLANTING PROCESS IS SIMILAR FOR DECIDUOUS AND EVERGREEN TREES.
7. DO NOT WRAP TRUNK; MARK NORTH SIDE OF TREE IN THE NURSERY AND LOCATE TO THE NORTH IN THE FIELD.
8. WIDTH OF PLANTING HOLE IS 3X ROOT BALL AT THE SURFACE, SLOPING TO 2X THE ROOT BALL DIAMETER AT THE DEPTH OF THE ROOT BALL.
9. BEFORE PLANTING, ADD 3-4" OF WELL COMPOSTED LEAVES, RECYCLED YARD WASTE OR OTHER COMPOST AND TILL INTO TOP 6" OF PREPARED SOIL. ADD COMPOST AT 20-35% BY VOLUME TO BACKFILL.
10. PERFORM PERCOLATION TEST FOR EACH TREE PIT TO CONFIRM THAT WATER DRAINS OUT OF THE SOIL. PROVIDE GRAVEL SUMP FILTER FABRIC & VENT PIPE IF DRAINAGE DOES NOT OCCUR WITHIN 24 HOURS. INCLUDE ALL SUMPS IN BASE BID. SHOULD SUMPS NOT BE NECESSARY AFTER PERCOLATION TEST, PROVIDE CHANGE ORDER DEDUCT TO OWNER.
11. IF PLANTING HOLES ARE DUG WITH A LARGE AUGER BREAKING DOWN THE SIDES WITH A SHOVEL CAN ELIMINATE GLAZING AND CREATE THE PREFERRED SLOPING SIDE.
12. TREES SHALL HAVE SINGLE LEADERS. TREES WITH 2 LEADERS WILL BE REJECTED.
13. DO NOT PLACE MULCH IN CONTACT WITH TRUNK.
14. PROVIDE GATOR BAGS FOR ALL TREES WHERE IRRIGATION IS NOT PROVIDED.

6 PLACEHOLDER NTS
SECTION

9 PLANTING NOTES

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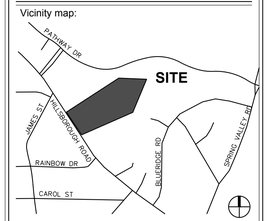

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PLANTING DETAILS

Project number: C16146 Sheet:
Date: 06.22.2017
Drawn by: TPG
Approved by: JLW

L2.00

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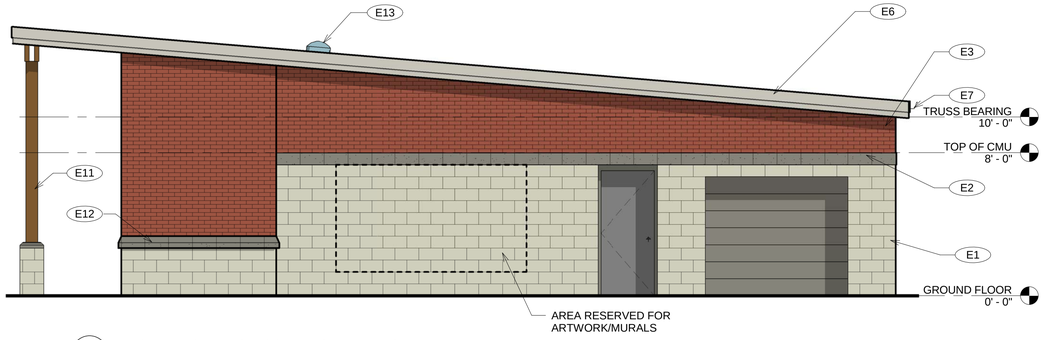
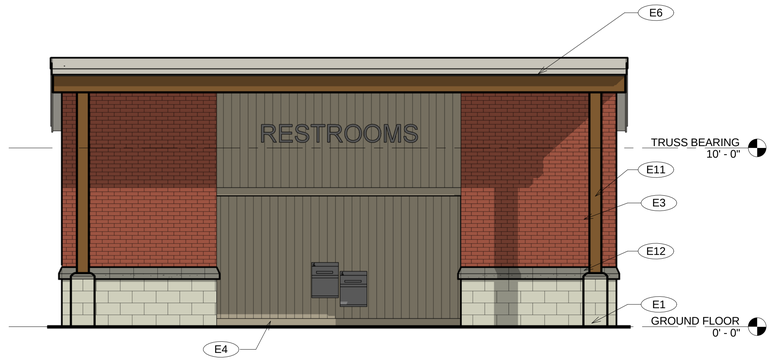
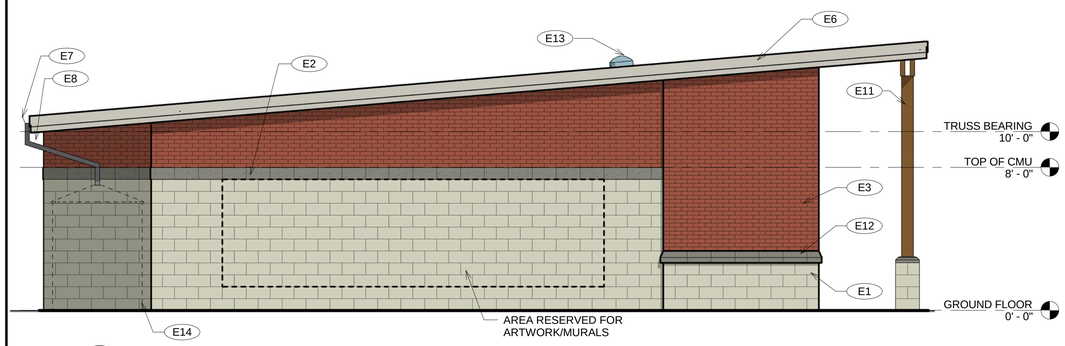


1 PRESENTATION - RESTROOM - EAST ELEVATION
1/4" = 1'-0"



2 PRESENTATION - RESTROOM - SOUTH ELEVATION
1/4" = 1'-0"

KEYNOTES - ELEVATION	
E1	CMU BLOCK
E2	SPLIT FACE CMU BLOCK
E3	BRICK VENEER
E4	RECLAIMED WOOD SIDING
E5	STANDING SEAM METAL ROOF
E6	CEMENT BOARD ROOF FASCIA
E7	PRE-FINISHED ALUMINUM GUTTER
E8	ALUMINUM DOWNSPOUT
E11	TREATED COLUMN; SEE STRUCTURAL DRAWINGS
E12	CMU SILL
E13	SKYLIGHT - SEE ROOF PLAN FOR LOCATION
E14	RAINWATER CISTERN, NOT SHOWN FOR CLARITY - REFERENCE CIVIL



3 PRESENTATION - RESTROOM - WEST ELEVATION
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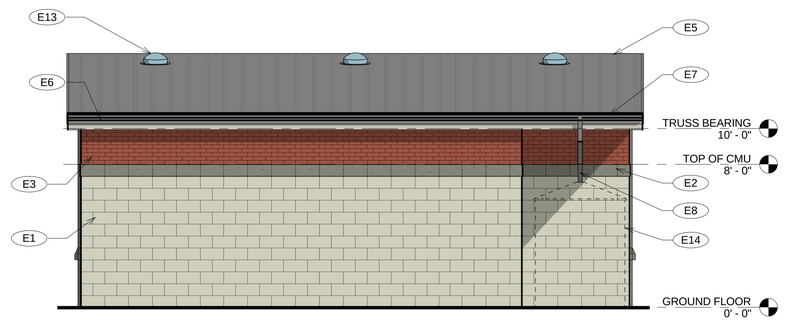

4 PRESENTATION - RESTROOM - NORTH ELEVATION
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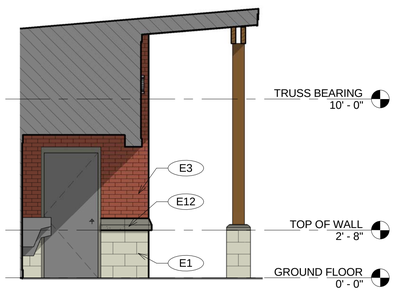
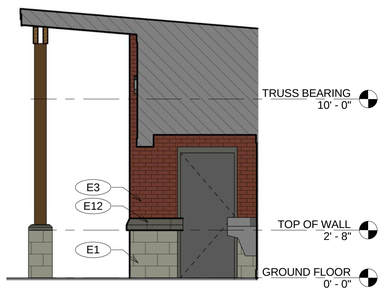


5 PRESENTATION - RESTROOM ENTRY - WEST ELEVATION
1/4" = 1'-0"



6 PRESENTATION - RESTROOM ENTRY - EAST ELEVATION
1/4" = 1'-0"

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NO.	REVISION	DATE

JOB NUMBER
16-051

DATE ISSUED
04-27-2017

PROJECT STATUS
DESIGN DEVELOPMENT

SHEET
ELEVATIONS

A-201A

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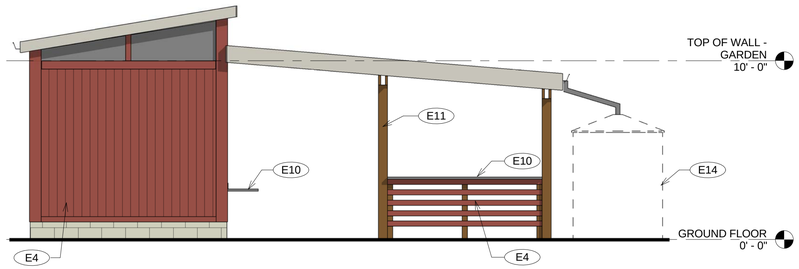
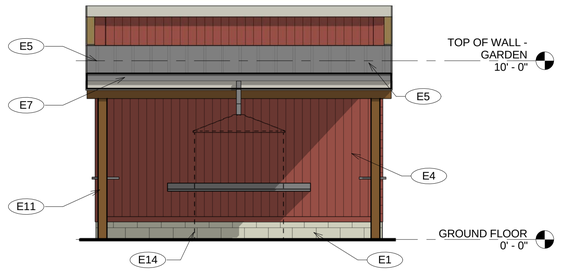


1 PRESENTATION - GARDEN SHELTER - SOUTH ELEVATION
1/4" = 1'-0"



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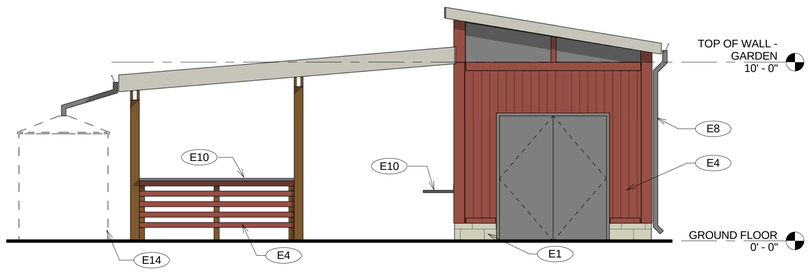
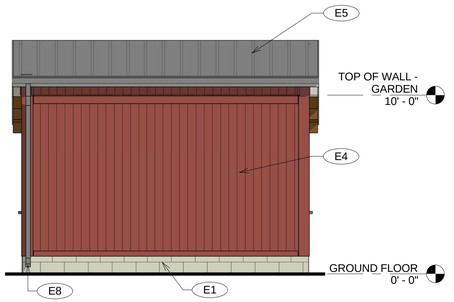
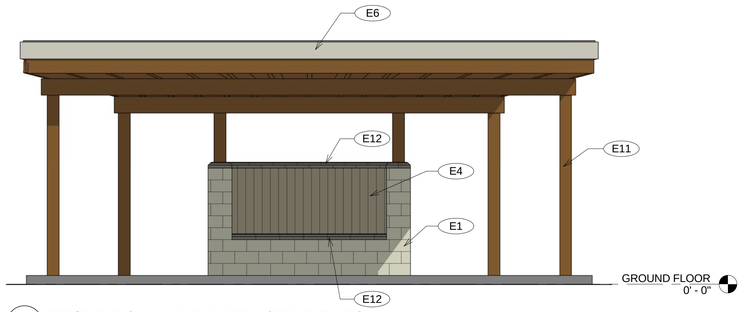
1/4" = 1'-0"



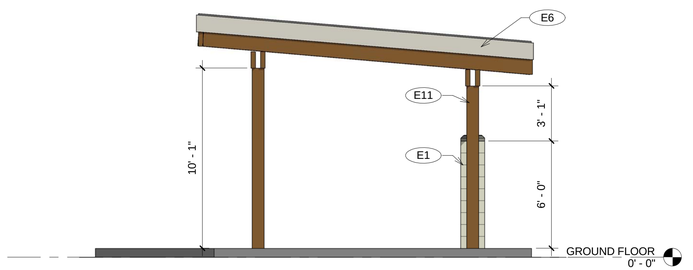
3 PRESENTATION - GARDEN SHELTER - NORTH ELEVATION
1/4" = 1'-0"



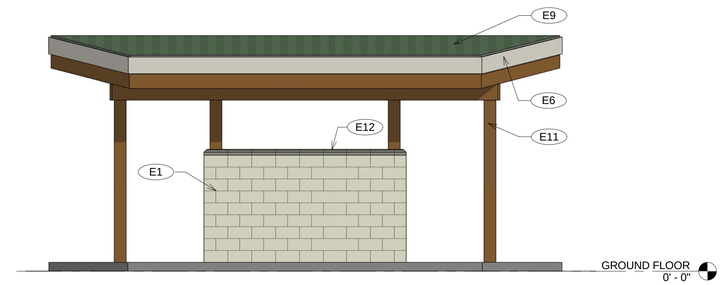
4 PRESENTATION - GARDEN SHELTER - WEST ELEVATION
1/4" = 1'-0"



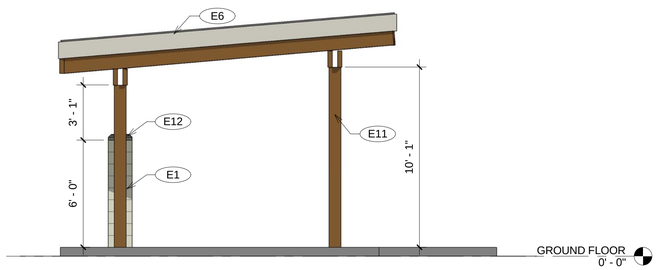
5 PRESENTATION - AMPHITHEATER NORTH ELEVATION
1/4" = 1'-0"



6 PRESENTATION - AMPHITHEATER WEST ELEVATION
1/4" = 1'-0"



7 PRESENTATION - AMPHITHEATER SOUTH ELEVATION
1/4" = 1'-0"



8 PRESENTATION - AMPHITHEATER EAST ELEVATION
1/4" = 1'-0"

KEYNOTES - ELEVATION	
E1	CMU BLOCK
E4	RECLAIMED WOOD SIDING
E5	STANDING SEAM METAL ROOF
E6	CEMENT BOARD ROOF FASCIA
E7	PRE-FINISHED ALUMINUM GUTTER
E8	ALUMINUM DOWNSPOUT
E9	GREEN ROOF (ALTERNATE #1)
E10	EXTERIOR GRADE COUNTERTOP
E11	TREATED COLUMN; SEE STRUCTURAL DRAWINGS
E12	CMU SILL
E14	RAINWATER CISTERN, NOT SHOWN FOR CLARITY - REFERENCE CIVIL

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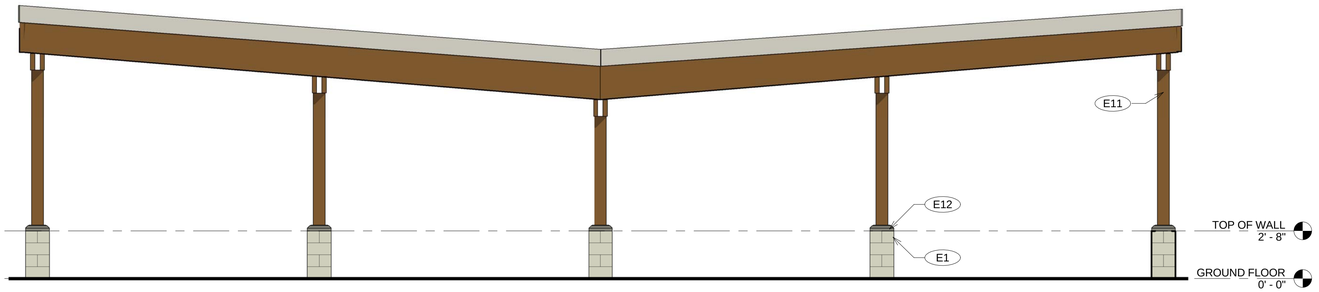
JOB NUMBER
16-051

DATE ISSUED
04-27-2017

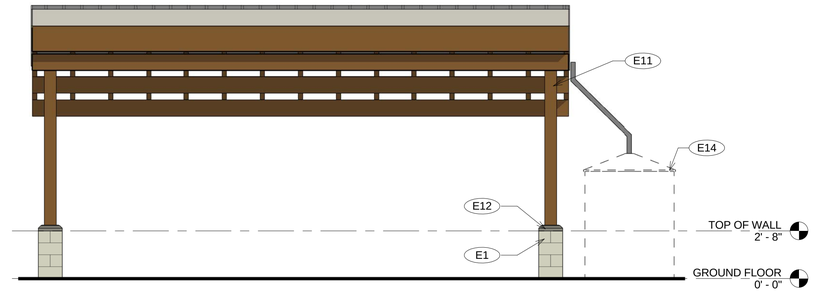
PROJECT STATUS
DESIGN DEVELOPMENT

SHEET
ELEVATIONS

A-202A



1 PRESENTATION - PICNIC SHELTER 1 - EAST ELEVATION
1/4" = 1'-0"



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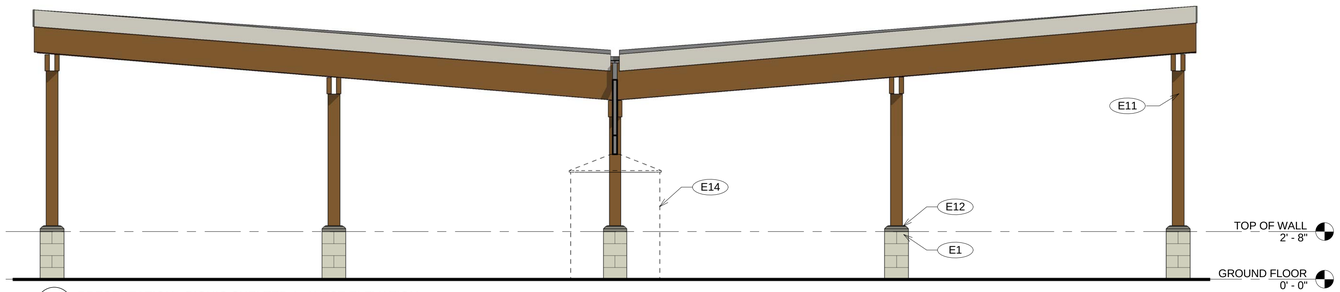
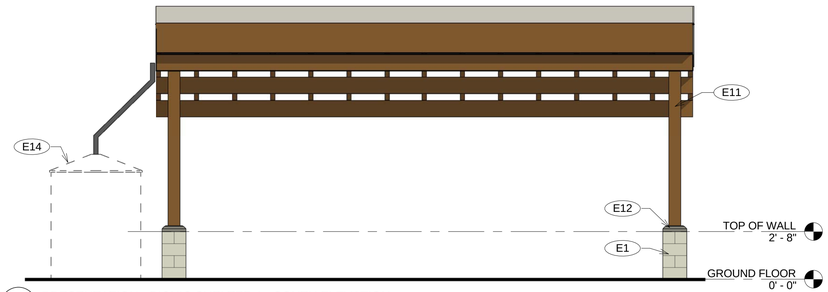
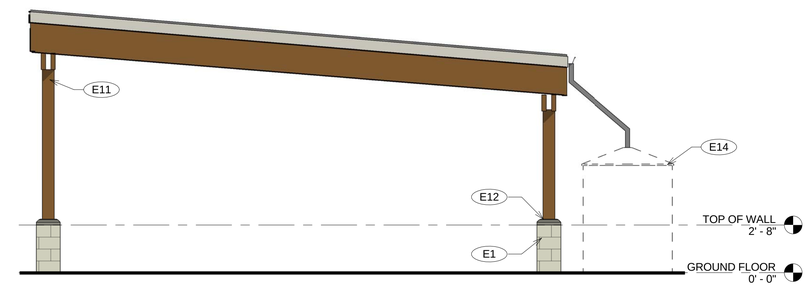
1/4" = 1'-0"



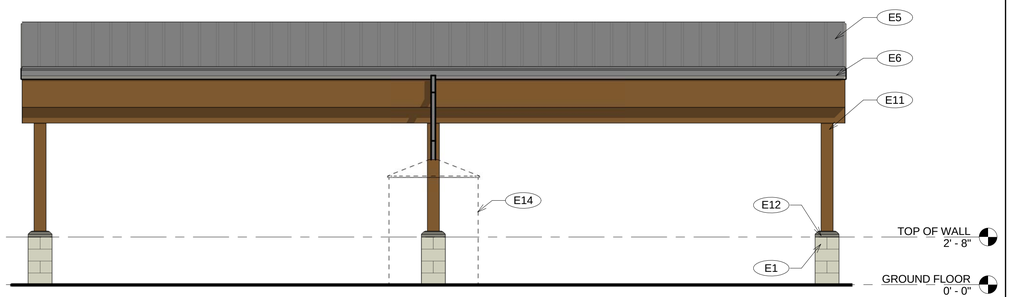
3 PRESENTATION - PICNIC SHELTER 1 - WEST ELEVATION
1/4" = 1'-0"



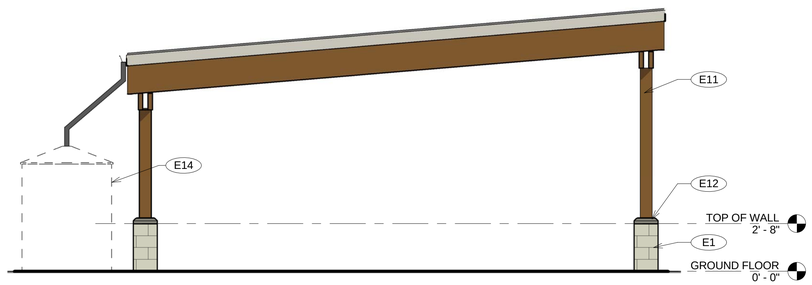
4 PRESENTATION - PICNIC SHELTER 1 - SOUTH ELEVATION
1/4" = 1'-0"



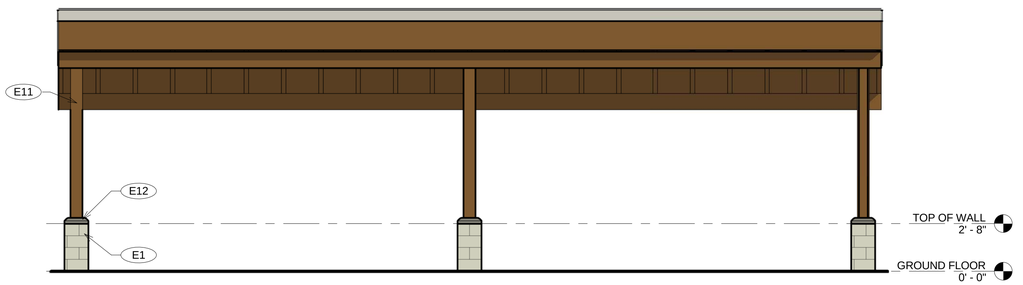
5 PRESENTATION - PICNIC SHELTER 2 - EAST ELEVATION
1/4" = 1'-0"



6 PRESENTATION - PICNIC SHELTER 2 - NORTH ELEVATION
1/4" = 1'-0"



7 PRESENTATION - PICNIC SHELTER 2 - WEST ELEVATION
1/4" = 1'-0"



8 PRESENTATION - PICNIC SHELTER 2 - SOUTH ELEVATION
1/4" = 1'-0"

KEYNOTES - ELEVATION	
E1	CMU BLOCK
E5	STANDING SEAM METAL ROOF
E6	CEMENT BOARD ROOF FASCIA
E11	TREATED COLUMN; SEE STRUCTURAL DRAWINGS
E12	CMU SILL
E14	RAINWATER CISTERN, NOT SHOWN FOR CLARITY - REFERENCE CIVIL

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JOB NUMBER
16-051

DATE ISSUED
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PROJECT STATUS
DESIGN DEVELOPMENT

SHEET
ELEVATIONS

A-203A

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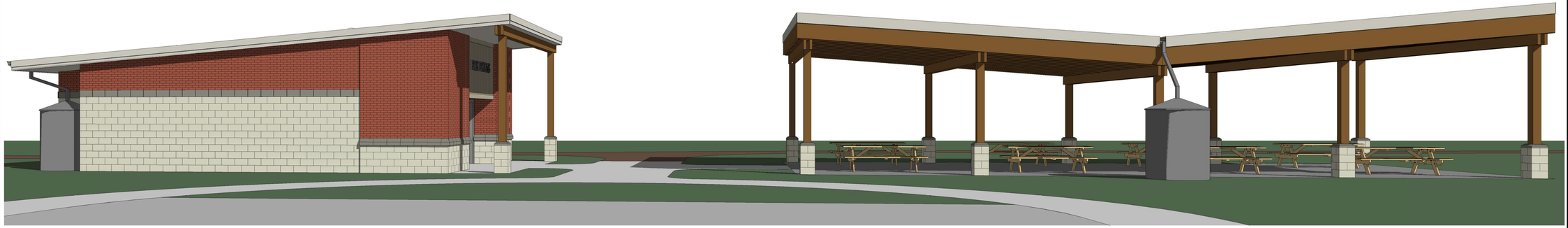
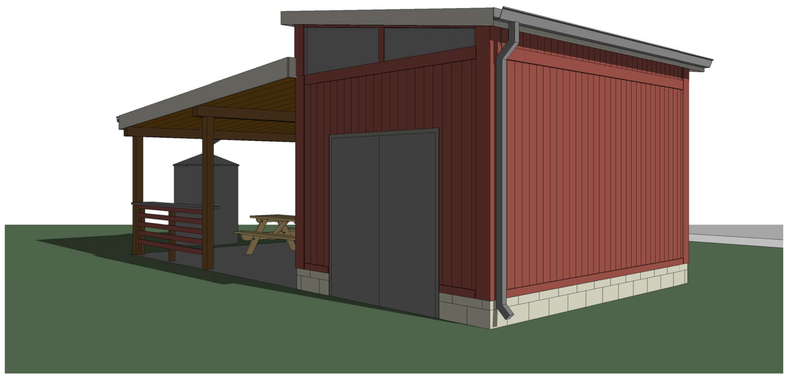


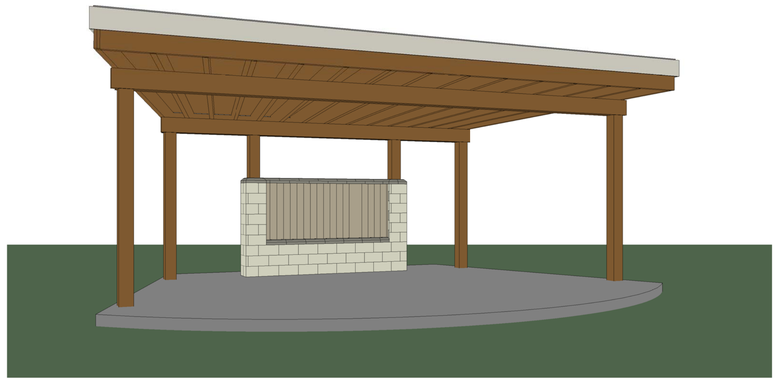
1 ARRIVAL PERSPECTIVE VIEW

2 PICNIC SHELTER 2 PERSPECTIVE VIEW

3 RESTROOM PERSPECTIVE VIEW



4 GARDEN SHELTER PERSPECTIVE VIEW



5 AMPITHEATER PERSPECTIVE VIEW

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DATE ISSUED
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PROJECT STATUS
DESIGN DEVELOPMENT

SHEET
EXTERIOR PERSPECTIVES

A-204A

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TOWN OF CARRBORO

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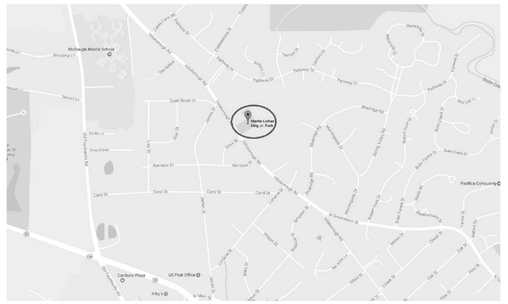
VICINITY MAP



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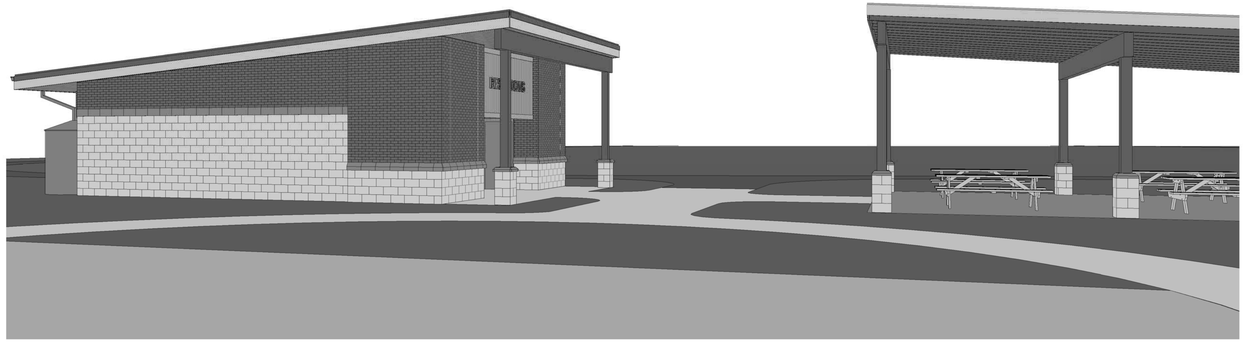
E201	SCHEDULES & ELECTRICAL DISTRIBUTION
E302	ELECTRICAL GENERAL DETAILS



SYMBOL LEGEND

- Room Name / 101 — ROOM / AREA
- 101 — DOOR ID.
- 1 / A101 — DETAIL
- N — NORTH ARROW
- 01 / A-000 — EXTERIOR ELEVATION CALLOUT
- 01 / 04 A-000 02 / 03 — INTERIOR ELEVATION CALLOUT
- 00 / A-000 — SECTION CALLOUT
- X | X' - X" — CEILING ELEVATION HT.
- A — WINDOW TYPE
- P01 — INTERIOR PARTITION TYPE
- 3 — FF&E TYPE
- PT-1 — GENERAL PAINT COLOR NOTE

DESIGN TEAM

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ABBREVIATIONS

A.F.F. ABOVE FINISHED FLOOR
A.C.T. ACOUSTICAL TILE
ADJ. ADJACENT
ALT. ALTERNATE
ALUM. ALUMINUM
APPROX. APPROXIMATE
A.R.A. AREA OF RESCUE ASSISTANCE

BSMT. BASEMENT
BOT. BOTTOM
BD. BOARD
BLDG. BUILDING

CPT. CARPET
CLG. CEILING
C.T. CERAMIC TILE
C.O. CLEAN OUT
CLR. CLEAR
COL. COLUMN
CONC. CONCRETE
CMU CONCRETE MASONRY UNIT
CONST. CONSTRUCTION
CONT. CONTINUOUS
C.J. CONTROL JOINT

DEPT. DEPARTMENT
DIA. DIAMETER
DIM. DIMENSION
DWG. DRAWING

EA. EACH
ELEC. ELECTRICAL
E.W.C. ELECTRIC WATER COOLER
ELEV. ELEVATION
EQ. EQUAL
EQUIP. EQUIPMENT
EXIST. EXISTING
E.J. EXPANSION JOINT
EXT. EXTERIOR

F.O.E.W. FACE OF EXISTING WALL
F.O.M. FACE OF MASONRY
F.O.S. FACE OF STUD
FIN. FINISH
F.F.E. FURNITURE, FIXTURES, EQUIPMENT
F.E. FIRE EXTINGUISHER
FE (SM) SURFACE MOUNTED
FE (SR) SEMI-RECESSED
FLR. FLOOR
F.D. FLOOR DRAIN
FLUOR. FLUORESCENT
FTG. FOOTING
F.P.H.B. FREEZE-PROOF HOSE BIBB
F.R.P. FIBERGLASS REINFORCED PANELS

GA GAUGE
GALV. GALVANIZED
G.C GENERAL CONTRACTOR
GWB GYPSUM WALL BOARD
G.D.S. GUTTER DOWNSPOUT

HDW. HARDWARE
H.D. HEAVY DUTY
HT. HEIGHT
H.M. HOLLOW METAL

I.D. INSIDE DIAMETER
INSUL. INSULATION
INT. INTERIOR

JT. JOINT

K KIPS

LAM. LAMINATE
LAV. LAVATORY

MFR. MANUFACTURER
M.O. MASONRY OPENING
MAT'L. MATERIAL
MAX. MAXIMUM
MECH. MECHANICAL
MIN. MINIMUM
MTL. METAL
MISC. MISCELLANEOUS

NOM. NOMINAL
N.I.C. NOT IN CONTRACT
N.T.S NOT TO SCALE

O.C. ON CENTER
OPP. OPPOSITE
O.D. OUTSIDE DIAMETER
O.H. OVERHEAD

PT PAINT
PART. PARTITION
P.L PLASTIC LAMINATE
PLY. PLYWOOD
PVC POLYVINYL CHLORIDE
P.S.I. POUNDS PER SQ. INCH
P.S.F. POUNDS PER SQ. FT.
PROP. PROPERTY

Q.T. QUARRY TILE

R. RADIUS
REF. REFERENCE
REINF. REINFORCING
REBAR REINFORCING BAR
REQ'D. REQUIRED
R/A RETURN AIR
REV. REVISION
R.D. ROOF DRAIN
R.D.L. ROOF DRAIN LEADER
RM. ROOM

S.S. STAINLESS STEEL
SHT. SHEET
SIM. SIMILAR
S.C. SOLID CORE
SPEC. SPECIFICATION
SQ.FT. SQUARE FEET
SQ.IN. SQUARE INCH
STD. STANDARD

STL STEEL
STRUC. STRUCTURAL

TELE. TELEPHONE
THRD. THRESHOLD
T.O.S. TOP OF STEEL
TYP. TYPICAL

U.N.O. UNLESS NOTED OTHERWISE

VERT. VERTICAL
V.C.T. VINYL COMPOSITION TILE
V.W.C. VINYL WALL COVERING

W.C. WATER CLOSET
W.W.F. WELDED WIRE FABRIC
W.G. WIRE GLASS
W/ WITH
WD WOOD

PROJECT NARRATIVE

THE MARTIN LUTHER KING JR. PARK IN CARRBORO WILL HAVE SEVERAL DIFFERENT STRUCTURES TO SERVE THE INTERESTS OF THE COMMUNITY. THESE STRUCTURES INCLUDE A RESTROOM BUILDING, TWO PICNIC SHELTERS, A GARDEN STORAGE AREA, AND AN AMPHITHEATER. RECLAIMED WOOD SIDING FROM THE EXISTING STORAGE STRUCTURES WILL BE INCORPORATED INTO THE NEW STRUCTURES. RAIN WATER WILL BE COLLECTED INTO CISTERNS TO BE USED THROUGHOUT THE SITE AND IN THE COMMUNITY GARDEN.

SCHEDULE OF ALTERNATES

NOTE : REFER TO PROJECT SPECIFICATIONS FOR ALL INFORMATION RELATED TO ALTERNATES INCLUDED IN THE PROJECT.

LEAD-BASED PAINT WARNING

LEAD-BASED PAINT MAY EXIST ON BUILDING STRUCTURE(S) OR OTHER ITEMS IN THE CONSTRUCTION AREA. THE CONTRACTOR IS HEREBY ADVISED OF THE NEED FOR COMPLIANCE WITH OSHA STANDARD 1926.62. SUBPART D. TITLED "LEAD", [29 CFR 1919] DURING WORK WITH ALL LEAD CONTAINING MATERIALS. ALL TESTING AND/OR OTHER COMPLIANCE ACTIVITIES ARE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR.

NOTE:

CONTRACTOR SHALL FIELD VERIFY ALL BUILDING CONDITIONS PRIOR TO BID.

PERMIT SET
04-27-2017

HH ARCHITECTURE
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MARTIN LUTHER KING JR. PARK
TOWN OF CARRBORO
1120 HILLSBOROUGH ROAD
CARRBORO, NC 27516

H.H. ARCHITECTURE, P.A. — REGISTERED ARCHITECTURAL CORPORATION — 51670
DOCUMENT FOR REVIEW - NOT FOR CONSTRUCTION

KRISTEN MARIE HESS — REGISTERED ARCHITECT — 9290 — RALEIGH, N
DOCUMENT FOR REVIEW - NOT FOR CONSTRUCTION

NO.	REVISION	DATE

JOB NUMBER **16-051**
DATE ISSUED **04-27-2017**
PROJECT STATUS **PERMIT SET**
SHEET **COVER SHEET**

G-001

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2012 APPENDIX B
BUILDING CODE SUMMARY
FOR ALL COMMERCIAL PROJECTS

NAME OF PROJECT: MARTIN LUTHER KING JR. PARK
ADDRESS: 1120 HILLSBOROUGH ROAD, CARRBORO, NORTH CAROLINA ZIP CODE: 27516
PROPOSED USE: PARK STRUCTURES PHONE: (919)918-7364
OWNER / AUTHORIZED AGENT: ANITA JONES-McNAIR CONTACT EMAIL: AMcNAIR@TOWNOFCARRBORO.ORG
OWNED BY: ☒ CITY/COUNTY ☐ PRIVATE ☐ STATE
CODE ENFORCEMENT JURISDICTION: ☒ CITY CARRBORO ☐ COUNTY _____ ☐ STATE

LEAD DESIGN PROFESSIONAL: KRISTEN M. HESS, AIA

	FIRM	NAME	LICENSE #	TELEPHONE #	EMAIL
ARCHITECTURAL	HH ARCHITECTURE	KRISTEN M. HESS, AIA	9290	(919) 828-2301	khess@hh-arch.com
CIVIL	STEWART ENGINEERING				
ELECTRICAL	STANFORD WHITE	MATT JOHNSON			
FIRE ALARM					
PLUMBING	STANFORD WHITE	KEVIN ALLEN			
MECHANICAL	STANFORD WHITE				
SPRINKLER-STANDPIPE					
STRUCTURAL	STEWART ENGINEERING	CHARLES LEWIS			
RETAINING WALLS >5' HIGH					
PRE-CAST					
TRUSS					
LANDSCAPE					
HAZMAT					

2012 EDITION OF NC CODE FOR: ☒ NEW CONSTRUCTION ☐ ADDITION ☐ UPFIT
EXISTING: ☐ RECONSTRUCTION ☐ ALTERATION ☐ REPAIR ☐ RENOVATION
CONSTRUCTED (date): 2017 ORIGINAL USE(S) (Ch. 3): _____ PROPOSED USE(S) (Ch. 3): x
RENOVATED (date): _____ CURRENT USE(S) (Ch. 3): _____

BASIC BUILDING DATA:
CONSTRUCTION TYPE: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A ☐ I-B ☐ II-B ☐ III-B ☒ V-B
SPRINKLERS: ☒ NO ☐ PARTIAL ☐ YES ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
STANDPIPES: ☒ NO ☐ YES CLASS ☐ I ☐ II ☐ III ☐ WET ☐ DRY
FIRE DISTRICT: ☐ NO ☒ YES (Primary) FLOOD HAZARD AREA: ☒ NO ☐ YES
BUILDING HEIGHT: FEET 15'-6" NUMBER OF STORIES 1
GROSS BUILDING AREA: 1,298 SF

FLOOR	EXISTING BUILDING (SF)	AREA OF RENOVATION (SF)	NEW (SF)	SUBTOTAL
5TH FLOOR				
4TH FLOOR				
3RD FLOOR				
2ND FLOOR				
1ST FLOOR	0 SF	0 SF	1,298 SF	1,298 SF
TOTAL				1,298 SF

ALLOWABLE AREA

PRIMARY OCCUPANCY: ASSEMBLY ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ BUSINESS ☐ EDUCATIONAL FACTORY ☐ F-1 MODERATE ☐ F-2 LOW
HAZARDOUS ☐ H-1 DETONATE ☐ H-2 DEFLAGRATE ☐ H-3 COMBUST ☐ H-4 HEALTH ☐ H-5 HPM
INSTITUTIONAL ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
1-3 USE CONDITION ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ MERCANTILE RESIDENTIAL ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
STORAGE: ☐ S-1 MODERATE ☐ S-2 LOW ☐ HIGH PILED
☒ UTILITY & MISC ☐ PARKING GARAGE ☐ OPEN ☐ CLOSED ☐ REPAIR GARAGE

ACCESSORY OCCUPANCY:ASSEMBLY ☐ A-1 ☐ A-2 ☐ A-3 ☐ A-4 ☐ A-5
☐ BUSINESS ☐ EDUCATIONAL FACTORY ☐ F-1 MODERATE ☐ F-2 LOW
HAZARDOUS ☐ H-1 DETONATE ☐ H-2 DEFLAGRATE ☐ H-3 COMBUST ☐ H-4 HEALTH ☐ H-5 HPM
INSTITUTIONAL ☐ I-1 ☐ I-2 ☐ I-3 ☐ I-4
1-3 USE CONDITION ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ MERCANTILE RESIDENTIAL ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
STORAGE: ☐ S-1 MODERATE ☐ S-2 LOW ☐ HIGH PILED
☐ UTILITY & MISC ☐ PARKING GARAGE ☐ OPEN ☐ CLOSED ☐ REPAIR GARAGE

INCIDENTAL USES (Table 508.2.5):
☐ 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-2 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 UNINTERUPTED 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
MIXED OCCUPANCY ☐ NO ☐ YES ☐ SEPARATION: _____ HR EXCEPTION: _____

☐ INCIDENTAL USE SEPARATION (508.2.5)
THIS SEPARATION IS NOT EXEMPT AS A NON-SEPARATED USE. (SEE EXCEPTIONS)
☐ NON-SEPARATED MIXED OCCUPANCY (508.3.)
THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATONS 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 (508.4) - SEE BELOW FOR AREA CALCULATIONS
FOR EACH STORY, THE AREA OF THE 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 NOT TO EXCEED

$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1.00$ AREA $\frac{xx}{xx} + \frac{xx}{xx} + \frac{xx}{xx} + \frac{xx}{xx} = .xx \leq 1.00$

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503[5] AREA	(C) AREA FOR FRONTAGE INCREASE[1]	(D) AREA FOR SPRINKLER INCREASE[2]	(E) ALLOWABLE AREA OR UNLIMITED[3]	(F) MAXIMUM BUILDING AREA[4]
1	U	1,298 SF	5,500 SF	0 SF	0 SF	0 SF	5,500 SF

1 Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = X' (F)
b. Total building perimeter = X (P)
c. Ratio (F/P) = XX% (F/P)
d. W = Minimum width of public way = X' (W)
e. Percent of frontage increase formula $I = 100[F/P - 0.25] \times W/30 =$ X (%)

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 Section 507.
4 Maximum Building Area = total number of stories in the building x E (506.4)
5 The maximum area of open parking garages must comply with Table 406.3.5. The maximum area of air traffic control towers must comply with Table 412.1.2.

ALLOWABLE HEIGHT

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE V-B		TYPE V-B	TABLE 601
BUILDING HEIGHT IN FEET	FEET 40'-0"	FEET = H + 20' = N/A	FEET 15'-6"	TABLE 503
BUILDING HEIGHT IN STORIES	STORIES 1	STORIES + 1 = N/A	STORIES 1	TABLE 503

FIRE PROTECTION REQUIREMENTS

LIFE SAFETY PLAN SHEET #, IF REQUIRED G-003

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (w/ * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GRIDERS, TRUSSES		X HR					
BEARING WALLS							
EXTERIOR		X HR					
NORTH	> XX'	X HR	-				
EAST	> XX'	X HR	-				
WEST	> XX'	X HR	-				
SOUTH	> XX'	X HR	-				
INTERIOR	-	X HR	-				
NONBEARING WALLS AND PARTITIONS							
EXTERIOR							
NORTH	> XX'	X HR	X HR				
EAST	> XX'	X HR	X HR				
WEST	> XX'	X HR	X HR				
SOUTH	> XX'	X HR	X HR				
INT. WALLS & PARTITIONS	> XX'	X HR	X HR				
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS		X HR	-				
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS		X HR	-				
SHAFT ENCLOSURES - EXIT		X HR	-				
SHAFT ENCLOSURES - OTHER		X HR	-				
CORRIDOR SEPARATION		X HR					
OCCUPANCY SEPARATION		X HR					
PARTY/FIRE WALL SEPARATION		N/A					
SMOKE BARRIER SEPARATION		N/A					
TENANT SEPARATION		N/A					
INCIDENTAL USE SEPARATION		N/A					

*INDICATES SECTION NUMBER PERMITTING REDUCTION

EMERGENCY LIGHTING: ☐ NO ☒ YES
EXIT SIGNS: ☐ NO ☒ YES
FIRE ALARM: ☒ NO ☐ YES
SMOKE DETECTION SYSTEM: ☐ NO ☒ YES ☐ PARTIAL _____
PANIC HARDWARE: ☒ NO ☐ YES
LIFE SAFETY SYSTEM REQUIREMENTS

LIFE SAFETY PLAN REQUIREMENTS

LIFE SAFETY PLAN SHEET #: G-003

☐ 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 LINES (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 DISTANCE (1016)
☒ COMMON PATH OF TRAVEL DISTANCE (1014.3 & 1028.8)
☒ DEAD END LENGTHS (1018.4)
☒ CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
☒ MAX. CALCULATED OCC. 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

ACCESSIBLE DWELLING UNITS (SECTION 1107) NOT APPLICABLE

TOTAL UNITS	ACCESSIBLE UNITS REQ'D.	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ACCESSIBLE PARKING (SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # OF ACCESSIBLE SPACES PROVIDED
	REQUIRED	PROVIDED	REGULAR w/ 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	

STRUCTURAL DESIGN

DESIGN LOADS:
IMPORTANCE FACTORS: WIND (I_w) X SNOW (I_s) X SEISMIC (I_e) X
LIVE LOADS: ROOF X PSF; EQUIP. PLATFORM X PSF; SLAB ON GRADE X PSF
GROUND SNOW LOAD: X PSF
WIND LOAD: BASIC WIND SPEED X MPH (ASCE-7); EXPOSURE CATEGORY X; WIND BASE SHEARS (FOR MWFRS) V_x X V_y X
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 S_s X %g S_1 X %g
SITE CLASSIFICATION (TABLE 1613.5.2) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
DATA SOURCE: ☐ FIELD TEST ☐ PRESUMPTIVE ☐ HISTORICAL DATA
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
SEISMIC BASE SHEAR: V_x X V_y = X
ANALYSIS PROCEDURE: ☐ SIMPLIFIED ☐ EQUIVALENT LATERAL FORCE ☐ DYNAMIC
ARCHITECTURAL, MECHANICAL, COMPONENTS ANCHORED? ☐ YES ☐ NO
LATERAL DESIGN CONTROL: ☐ EARTHQUAKE ☐ WIN
SOIL BEARING CAPACITIES: D
FIELD TEST (PROVIDE COPY OF TEST REPORT) N/A PSF
PRESUMPTIVE BEARING CAPACITY N/A PSF
PILE SIZE, TYPE, AND CAPACITY N/A
SPECIAL INSPECTIONS REQUIRED: ☐ YES ☐ NO

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

USE		WATERCLOSETS		URINALS	LAVATORIES		SHOWERS / TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE		MALE	FEMALE		REGULAR	ACCESSIBLE
SPACE	EXISTING								
	NEW	2	2		2	2		1	1
	REQUIRED								

*NOTE: FIXTURES WILL BE ADEQUATE TO SERVE UP TO 150 (1/75) MEN AND 80 (1/40) WOMEN IN THE PARK. THIS IS BASED ON A-5 REQUIREMENTS IN THE PLUMBING CODE TABLE 403.1

SPECIAL APPROVALS

SPECIAL APPROVAL: (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, OSC, DPI, DHHS, ICC, ETC., DESCRIBE BELOW)
BOARD OF ALDERMEN

ENERGY SUMMARY

CLIMATE ZONE: ☐ 3 ☒ 4 ☐ 5

METHOD OF COMPLIANCE:
☐ PRESCRIPTIVE (ENERGY CODE)
☐ PERFORMANCE (ENERGY CODE)
☐ PRESCRIPTIVE (ASHRAE 90.1)
☐ PERFORMANCE (ASHRAE 90.1)
☒ N/A: THE UNCONDITIONED BUILDING IS NOT REQUIRED TO MEET ENERGY CODE. INSULATION IS SHOWN FOR FREEZE PROTECTION AND COMFORT ONLY.

THERMAL ENVELOPE

ROOF/CEILING ASSEMBLY (EACH ASSEMBLY): METAL PANEL ROOF OVER 2" RIGID ON 5/8" EXTERIOR ROOF SHEATHING AND WOOD 2X JOISTS
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY: .08
R-VALUE OF INSULATION: 10
SKYLIGHTS IN EACH ASSEMBLY: > 1%
U VALUE OF SKYLIGHT: .28
TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY: 5
EXTERIOR WALLS (EACH ASSEMBLY): 4" MASONRY VENEER WITH AIR SPACE, 2" RIGID INSULATION AND 8" CMU
DESCRIPTION OF ASSEMBLY:
U-VALUE OF TOTAL ASSEMBLY: .07
R-VALUE OF INSULATION: 10
OPENINGS (WINDOWS OR DOORS WITH GLAZING)
U VALUE OF ASSEMBLY: .51
SOLAR HEAT GAIN COEFFICIENT: .66
PROJECTION FACTOR: N/A
DOOR R-VALUES: 15
WALLS BELOW GRADE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY: N/A
R-VALUE OF INSULATION: N/A
FLOORS OVER UNCONDITIONED SPACE (EACH ASSEMBLY)
DESCRIPTION OF ASSEMBLY: N/A
U-VALUE OF TOTAL ASSEMBLY: N/A
R-VALUE OF INSULATION: N/A
FLOOR SLAB ON GRADE
DESCRIPTION OF ASSEMBLY: 4" SLAB ON GRADE WITH VAPOR BARRIER
U-VALUE OF TOTAL ASSEMBLY:
R-VALUE OF INSULATION: N/A
HORIZONTAL/VERTICAL REQUIREMENT: N/A
SLAB HEATED: NO

MECHANICAL SUMMARY

SEE MECHANICAL

ELECTRICAL SUMMARY

SEE ELECTRICAL

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SHEET
CODE SUMMARY

G-002

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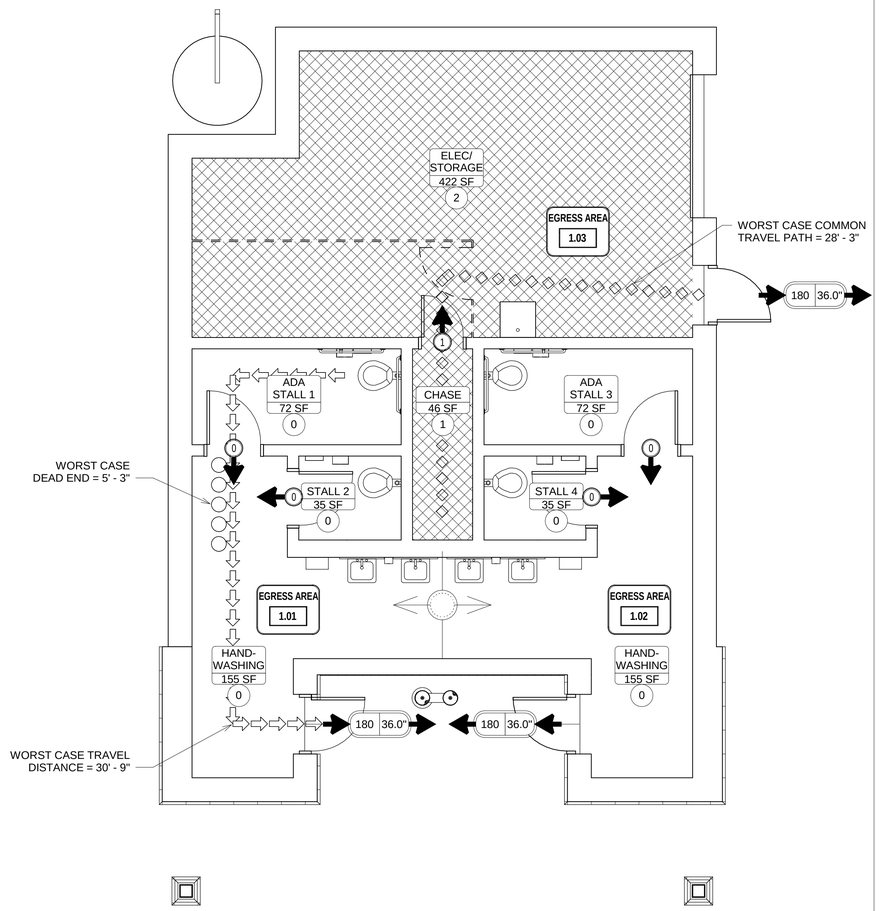
EGRESS	NAME	OCCUPIABLE	S.F.PER PERSON	OCCUPANT LOAD
1.01	ADA STALL 1	72 SF	0	0
1.01	STALL 2	35 SF	0	0
1.01	HAND- WASHING	155 SF	0	0
		262 SF		0
1.02	ADA STALL 3	72 SF	0	0
1.02	STALL 4	35 SF	0	0
1.02	HAND- WASHING	155 SF	0	0
		262 SF		0
1.03	ELEC/ STORAGE	422 SF	300	2
1.03	CHASE	46 SF	300	1
		468 SF		3
		992 SF		3



01 FIRST FLOOR LIFE SAFETY PLAN
1/4" = 1'-0"

LIFE SAFETY PLAN LEGEND

WORST-CASE TRAVEL DISTANCE = 30' - 9" (MAX. ALLOWABLE 200')

WORST-CASE TO COMMON PATH OF TRAVEL = 28' - 3" (MAX ALLOWABLE 75')

WORST-CASE DEAD END CORRIDOR = 5' - 3" (MAX ALLOWABLE 20')

NUMBER OF OCCUPANTS

DEDICATED EXIT

EGRESS AREA
1

EGRESS AREA TAG

EGRESS AREA BOUNDARY

DEFINES THE MIDLINE BETWEEN TWO POINTS OF EGRESS AS DEFINED BY A CIRCULATION BOUNDARY (WALL) OR AN EQUIDISTANT POINT FROM EGRESS AREA EXITS

DENOTES **S-1 OCCUPANCY**
STORAGE
(1 PERSON PER **300** SF GROSS)

DENOTES **UNOCCUPIABLE SPACE**
BATHROOM/CORRIDOR
(0 OCCUPANTS)

X X"

EGRESS CAPACITY — DOOR WIDTH

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SHEET
LIFE SAFETY PLAN

G-003

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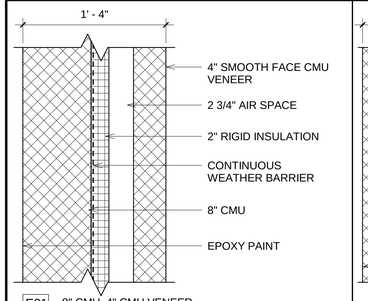
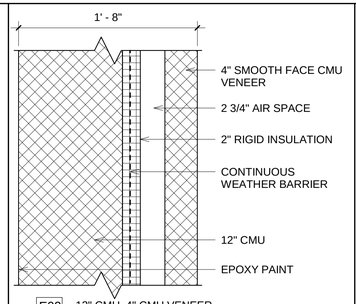
PARTITION NOTES:

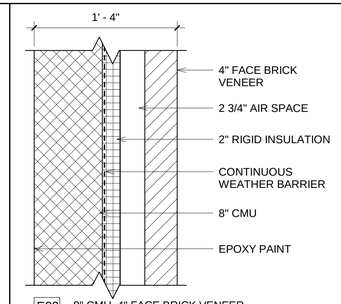
1. COORDINATE ADJACENT WALLS OF DIFFERENT TYPES SO THAT GYP. BD. WALL FACES ALIGN. RESILIENT CHANNELS TO BE ON THE SAME SIDE OF THE WALL, TYP.
2. SEAL PERIMETER OF ALL WALLS, TYP.
3. USE 5/8" CEMENTITIOUS TILE BACKING SHEETS IN LIEU OF 5/8" GWB BEHIND ALL WALL TILE; TYP.
4. SEE FINISH SCHEDULE AND FINISH PLANS FOR WALL TILE AND WALL FINISHES.
5. SEE ◇Pxx◇ SYMBOL ON PLANS FOR PARTITION TYPES.



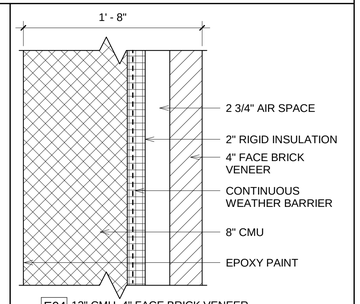
E01 8" CMU, 4" CMU VENEER



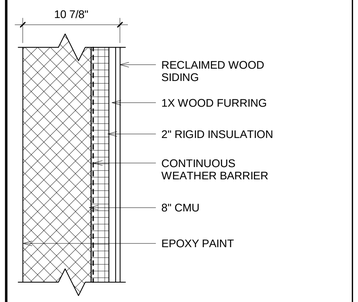
E02 12" CMU, 4" CMU VENEER



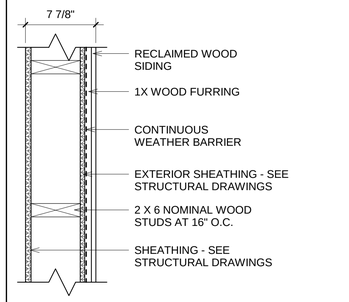
E03 8" CMU, 4" FACE BRICK VENEER



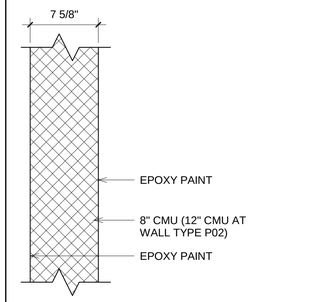
E04 12" CMU, 4" FACE BRICK VENEER



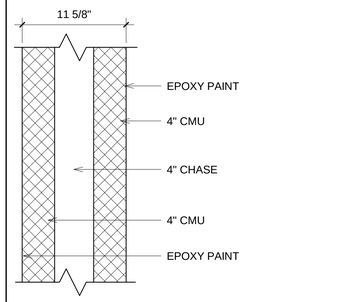
E05 8" CMU, RECLAIMED WOOD SIDING



E06 2X6 WOOD STUDS, RECLAIMED WOOD SIDING



P01 8" CMU
P02 12" CMU



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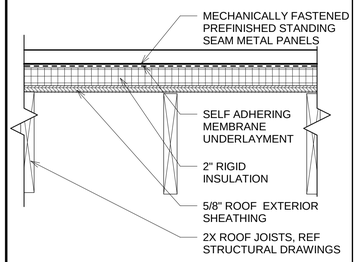
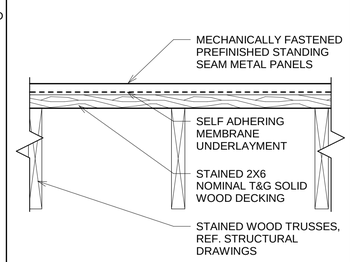
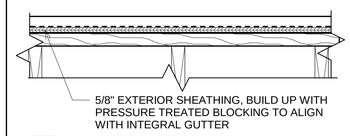


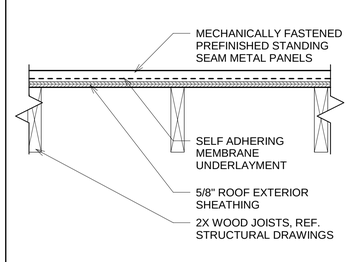
R01 STANDING SEAM METAL ROOF



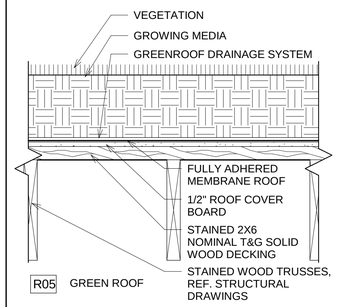
R02 STANDING SEAM METAL ROOF, STAINED, EXPOSED JOISTS AND DECKING



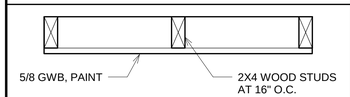
R03 STANDING SEAM METAL ROOF (ASSEMBLY SIMILAR TO R02)



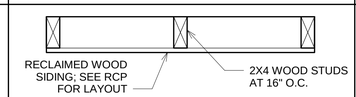
R04 STANDING SEAM METAL ROOF



R05 GREEN ROOF



C01 GWB



C02 RECLAIMED WOOD SIDING

DEMOLITION SCOPE OF WORK

1. CONTRACTOR TO CAREFULLY DEMOLISH BOTH STORAGE SHEDS. WOOD SIDING IS TO BE REUSED ON NEW STRUCTURES.
2. EXISTING ROOFING MATERIALS ARE TO BE DEMOLISHED AND PROPERTY DISPOSED OF.
3. PREP SITE TO RECEIVE NEW WORK AS SHOWN ON CIVIL AND ARCHITECTURAL DRAWINGS.

DEMOLITION GENERAL NOTES

1. PRIOR TO PREPARING A BID, THE CONTRACTOR MUST VISIT THE SITE AND HAVE A WORKING KNOWLEDGE OF THE EXISTING CONSTRUCTION AND CONDITIONS.
2. CONTRACTOR AND ALL SUB-CONTRACTORS MUST VISIT THE SITE AND FULLY EXAMINE EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES IN THE EXISTING CONDITION AND THE WORK MUST BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
3. GENERAL CONTRACTOR MUST PROTECT ALL EXISTING MATERIALS TO BE SALVAGED FOR REUSE. REPAIR OR REPLACEMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR TO COORDINATE DEMOLITION WITH ALL CONSTRUCTION WASTE MANAGEMENT SPECIFICATIONS.
5. CONTRACTOR TO COORDINATE AND VERIFY ALL EXISTING CONDITIONS WITH ABATEMENT PLAN PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK.

GENERAL ARCHITECTURAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND OTHER REQUIREMENTS NECESSARY FOR CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
2. SEE SITE, CIVIL, AND LANDSCAPE PLANS FOR CONTINUATION OF WORK OUTSIDE OF BUILDING.
3. SEE A-001 FOR WALL PARTITION LEGEND.
4. PROVIDE TEMPERED GLASS AT DOOR AND WINDOW LITES.
5. ALL DIMENSIONS ARE TO THE FACE OF CMU, FACE OF EXISTING WALL, OR FACE OF STUD.
6. ALL DOOR HINGE-SIDE JAMBS TO BE 6" FROM FACE OF THE PERPENDICULAR WALL TO THE INSIDE FACE OF THE METAL JAMB, TYP., U.N.O.
7. SEE A-401 FOR FF&E KEYS, TYP.
8. REFERENCED FIRST FLOOR ELEVATION = 0'-0".
9. FOR INTERIOR FINISHES, SEE FINISH PLAN SHEETS.
10. KEYNOTES ARE PROVIDED FOR REFERENCE ONLY. GENERAL CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS. KEYNOTES DO NOT EXCLUDE CONTRACTOR FROM REPAIRING AND PATCHING ALL FLOORS, WALLS AND CEILINGS AS NEEDED AS A RESULT OF DEMOLITION WORK. GENERAL CONTRACTOR TO PREPARE ALL FLOORS AND WALL SUBSTRATES AS REQUIRED TO APPLY NEW FINISH AS INDICATED IN THE FINISH PLANS AND SPECIFICATIONS.

REFLECTED CEILING PLAN GENERAL NOTES

1. GC IS REQUIRED TO PROVIDE COORDINATION DRAWINGS FOR ALL MEP SYSTEMS OVERHEAD AND IN CEILINGS.
2. SEE MEP SHEETS FOR ADDITIONAL CEILING NOTES.

FINISH PLAN GENERAL NOTES

1. ALL MATERIALS TO BE FIELD VERIFIED PRIOR TO ORDERING. DO NOT SCALE FROM DRAWINGS.
2. ALL MATERIALS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS WITH APPROVED ADHESIVES.
3. IF THERE ARE QUESTIONS ABOUT THE DESIGN INTENT OF ANY PATTERN OR MATERIAL TO BE INSTALLED, THE GC SHALL SUBMIT A REQUEST FOR INFORMATION TO THE DESIGNER FOR CLARIFICATION PRIOR TO ORDERING THE MATERIALS.
4. THE GC SHALL PROVIDE ALL FINISHING PIECES AND TRANSITIONS WHERE DIFFERENT FLOORING THICKNESSES MEET, U.N.O. THE GC SHALL SUBMIT A SAMPLE OF THE COLOR/FINISH TO THE DESIGNER FOR APPROVAL.
5. ALL WALLS TO BE FIELD PAINT, PT-1, U.N.O.
6. ALL INTERIOR DOOR FRAMES TO RECEIVE PAINT IN GLOSS FINISH, PT-2, U.N.O.

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DOCUMENT FOR REVIEW - NOT FOR CONSTRUCTION "RELEASED"

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JOB NUMBER **16-051**
DATE ISSUED **04-27-2017**
PROJECT STATUS **PERMIT SET**
SHEET **GENERAL ARCHITECTURAL NOTES**

A-001

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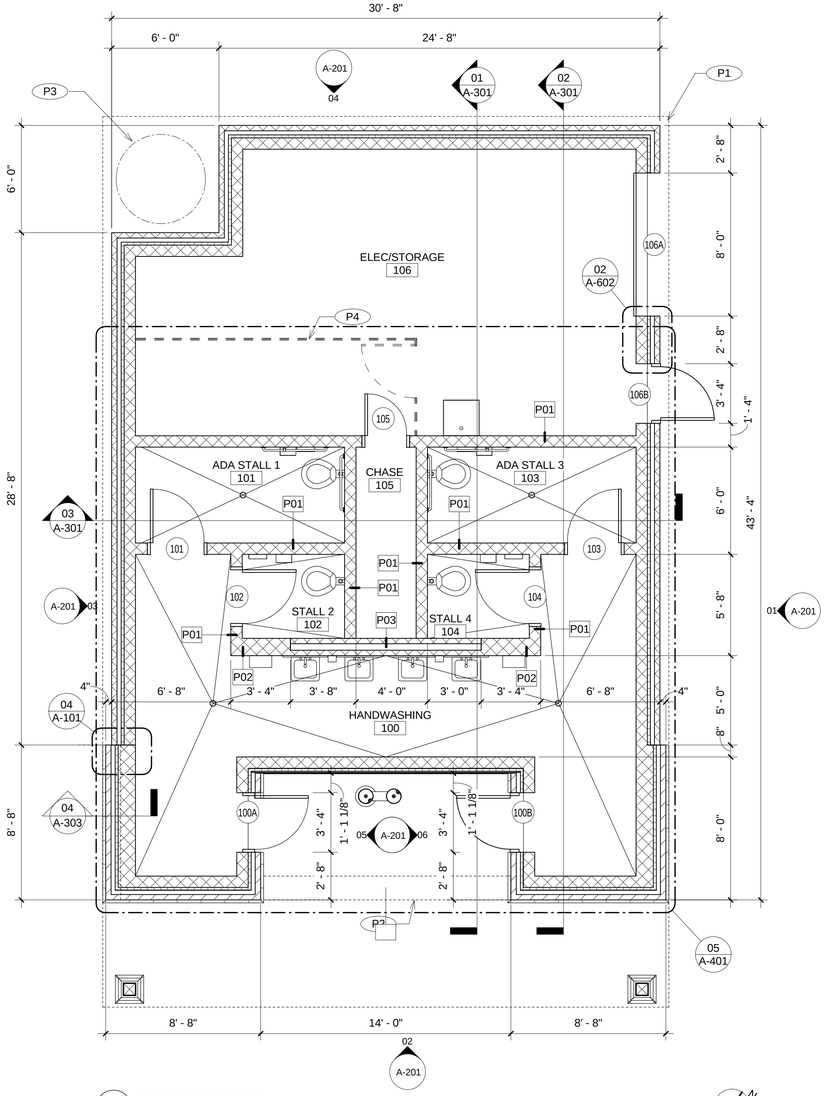
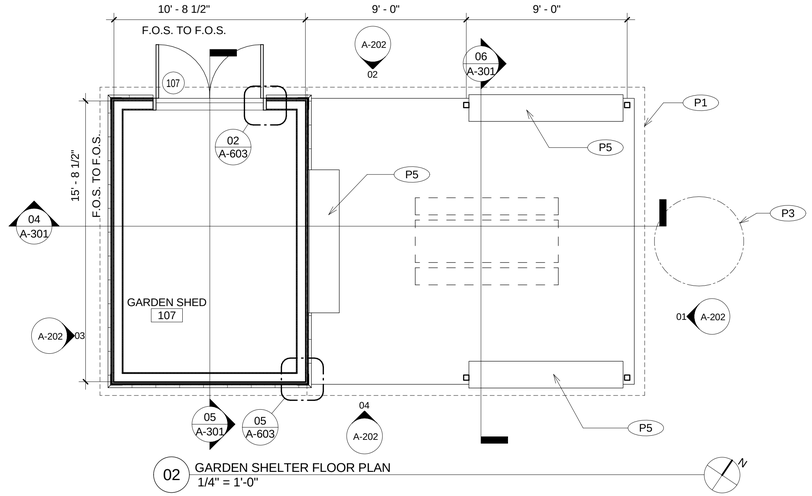
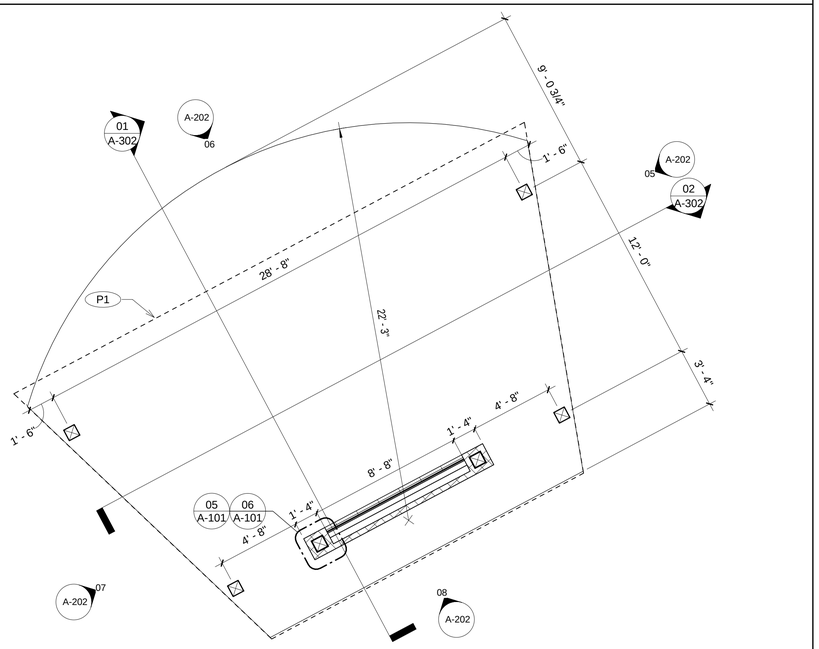


01 RESTROOM FLOOR PLAN
1/4" = 1'-0"



02 GARDEN SHELTER FLOOR PLAN
1/4" = 1'-0"



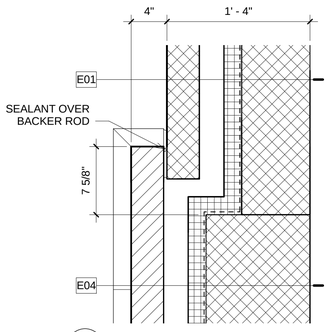
03 AMPHITHEATER FLOOR PLAN
1/4" = 1'-0"

PLAN LEGEND

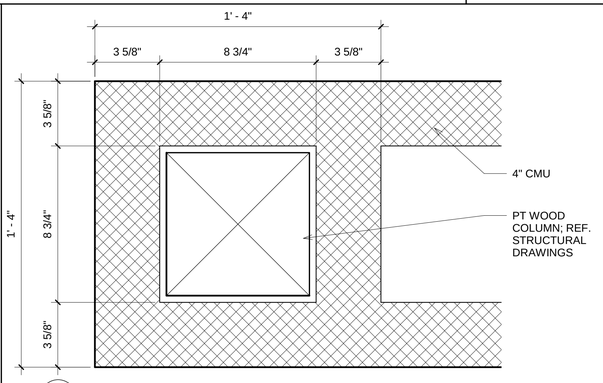
- FURNITURE - PROVIDED BY OWNER
- SLOPED CONCRETE SLAB TO FLOOR DRAIN - REF. STRUCTURAL AND PLUMBING DRAWINGS
- LINE OF ROOF OVERHANG ABOVE

PLAN KEYNOTES xx

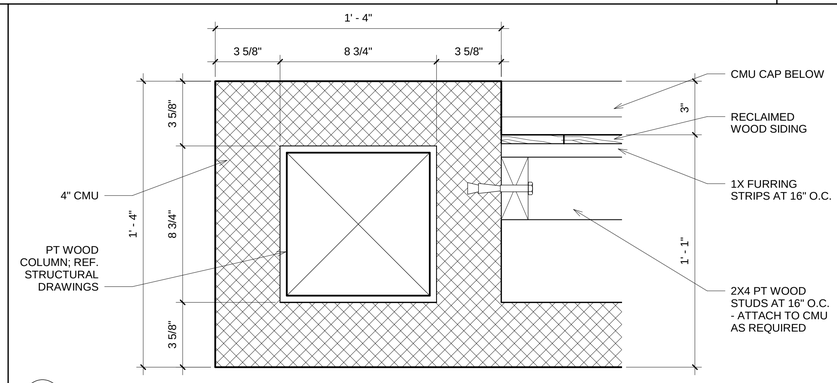
P1	LINE OF ROOF ABOVE
P2	LINE OF SOFFIT ABOVE
P3	RAINWATER CISTERN - REFERENCE CIVIL
P4	CHAIN LINK FENCE ENCLOSURE
P5	EXTERIOR GRADE WOOD COUNTER TOP - SEE SECTIONS FOR MOUNTING HEIGHTS



04 CMU PLAN DETAIL
1 1/2" = 1'-0"



05 AMPHITHEATER PLAN DETAIL - CMU BASE
3" = 1'-0"



06 AMPHITHEATER PLAN DETAIL - RECLAIMED WOOD & CMU
3" = 1'-0"

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NO.	REVISION	DATE

JOB NUMBER
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DATE ISSUED
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PROJECT STATUS
PERMIT SET

SHEET
FLOOR PLANS & PLAN DETAILS

A-101

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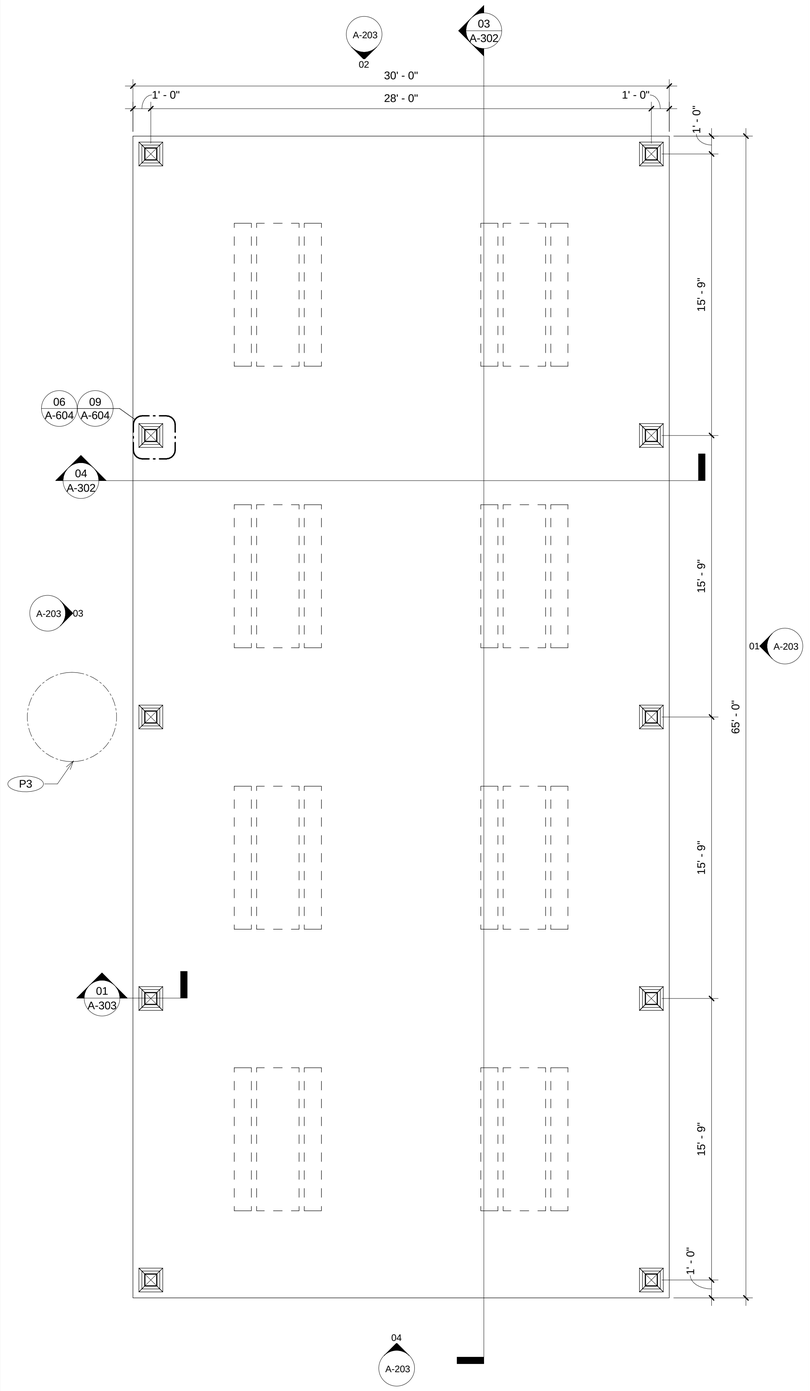
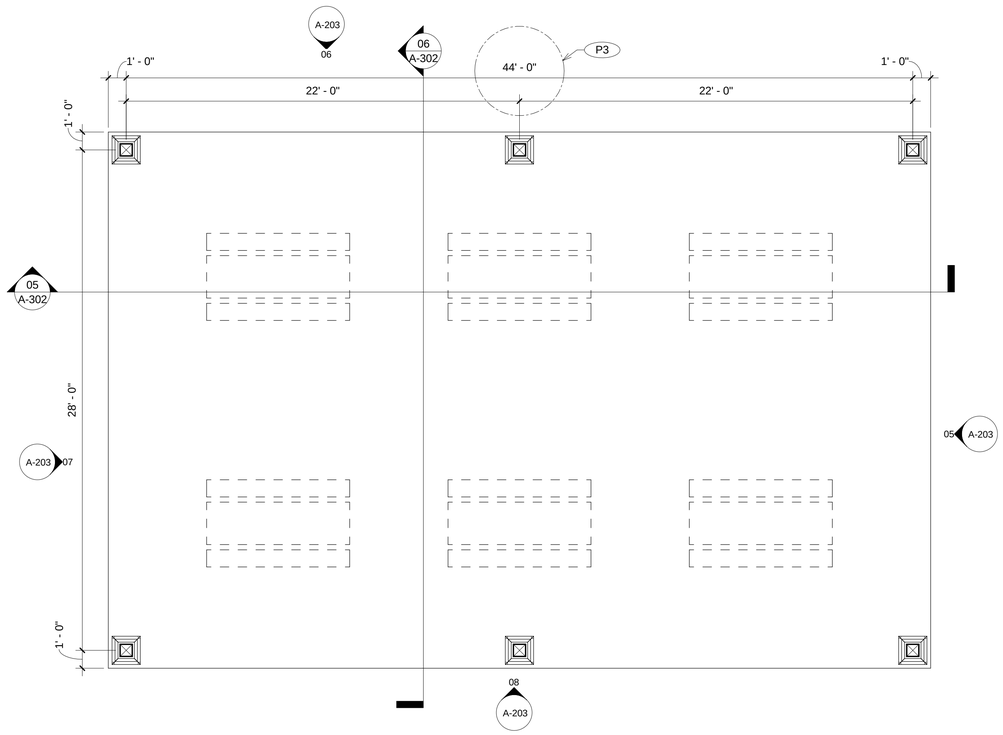


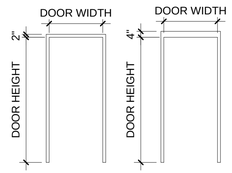
01 PICNIC SHELTER 1 FLOOR PLAN
1/4" = 1'-0"



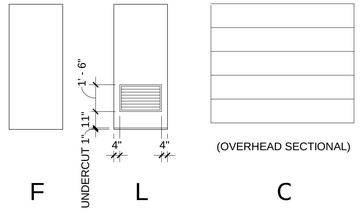
02 PICNIC SHELTER 2 FLOOR PLAN
1/4" = 1'-0"

DOOR SCHEDULE

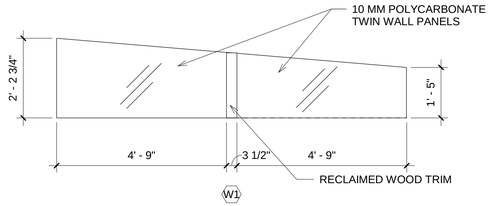
DOOR NO.	ROOM	DOOR ELEV.	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR MAT'L	DOOR FINISH	FRAME ELEV.	FRAME MAT'L	FRAME FINISH	THR'LD	HARDWARE	COMMENTS	DOOR NO.
100A	HANDWASHING	F	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				100A
100B	HANDWASHING	F	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				100B
101	ADA STALL 1	L	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				101
102	STALL 2	L	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				102
103	ADA STALL 3	L	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				103
104	STALL 4	L	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				104
105	ELEC/STORAGE	F	2' - 4"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				105
106A	ELEC/STORAGE	C	8' - 0"	6' - 8"	0' - 1 1/2"	STEEL	PREFINISH							106A
106B	ELEC/STORAGE	F	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	II	HM	PAINT				106B
107	GARDEN SHED	F	6' - 0"	7' - 0"	0' - 1 3/4"	HM	PAINT	I	HM	PAINT				107



FRAME ELEVATIONS



DOOR ELEVATIONS



1 ON GARDEN SHELTER - NORTH ELEVATION
1 REVERSE ON GARDEN SHELTER - SOUTH ELEVATION

DOOR & FRAME NOTES

1. SEE DETAILS FOR HEAD, JAMB, AND THRESHOLD DETAILS FOR DOORS.
2. ALL HOLLOW METAL FRAMES TO BE 2" WIDE FACE FRAME, U.N.O.
3. ALL DOUBLE DOORS PROVIDED WITH CENTER MULLION TO HAVE MULLION REMOVABLE W/ KEYED MECHANISM.
4. ALL FRAMES AT MASONRY WALLS 6" DEEP, TYP. U.N.O.
5. EXTERIOR DOORS ARE TO BE RECESSED 2" FROM FACE OF EXTERIOR MASONRY, TYP. U.N.O.
6. ALL GLASS IN DOORS AND SIDELITES TO BE TEMPERED, TYP.

(T) = TEMPERED GLASS

PLAN LEGEND

- FURNITURE - PROVIDED BY OWNER
- SLOPED CONCRETE SLAB TO FLOOR DRAIN - REF. STRUCTURAL AND PLUMBING DRAWINGS
- LINE OF ROOF OVERHANG ABOVE

PLAN KEYNOTES (XX)

P3 RAINWATER CISTERN - REFERENCE CIVIL

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PROJECT STATUS
PERMIT SET

SHEET
FLOOR PLANS & DOOR SCHEDULE

A-102

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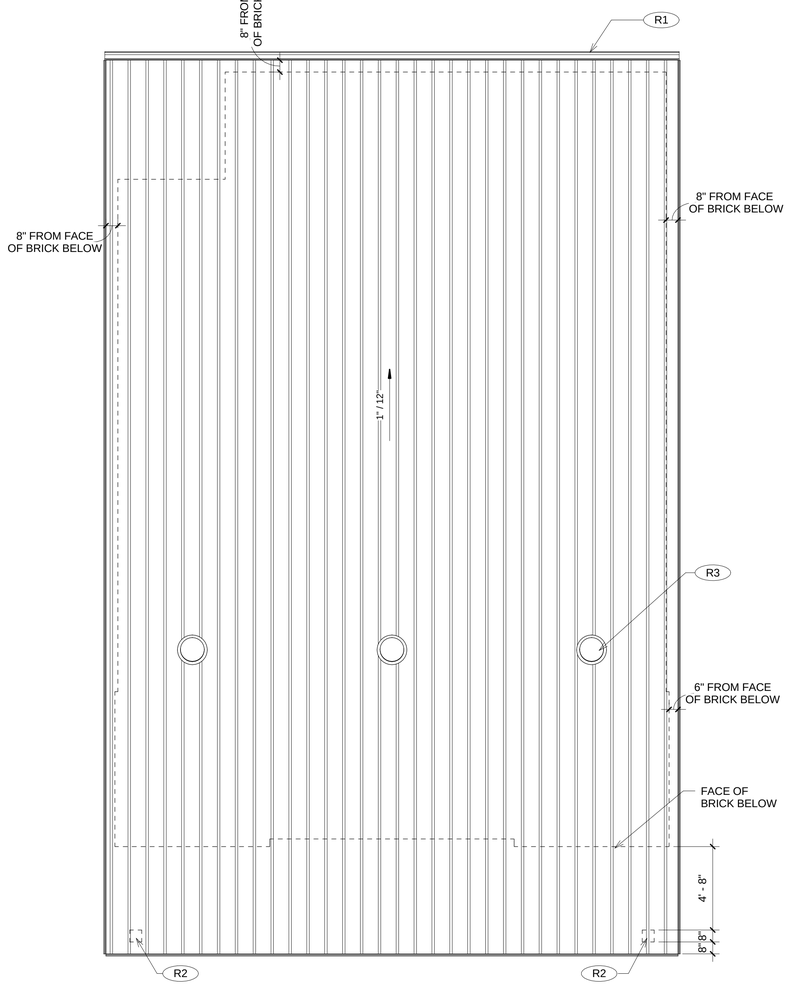
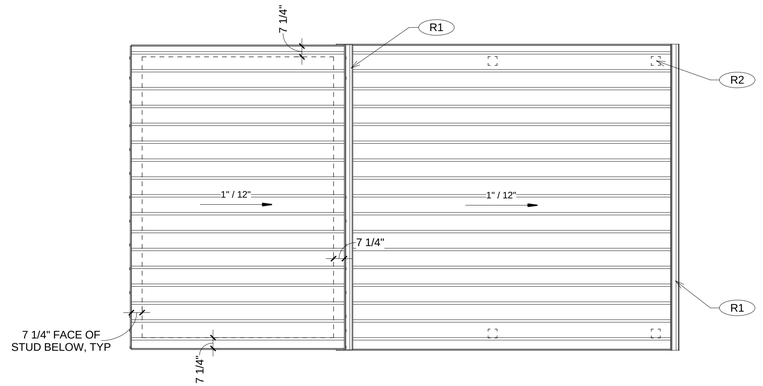
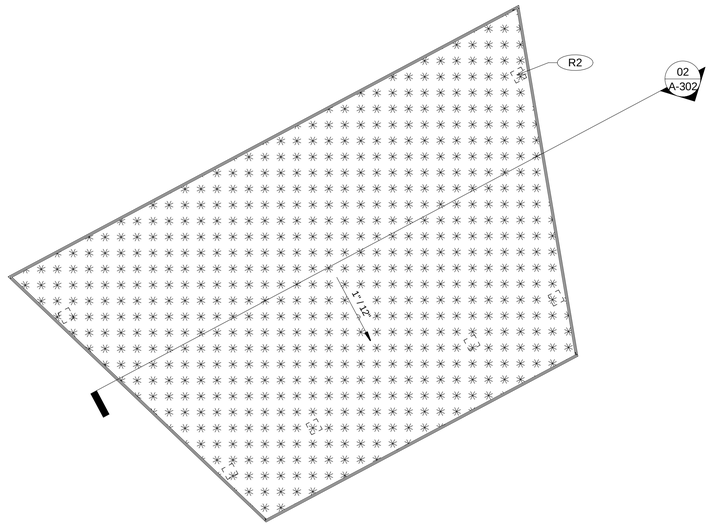


01 RESTROOM ROOF PLAN
1/4" = 1'-0"



02 GARDEN SHELTER ROOF PLAN
1/4" = 1'-0"



03 AMPHITHEATER ROOF PLAN
1/4" = 1'-0"

ROOF PLAN LEGEND

- STANDING SEAM METAL ROOF
- GREEN ROOF (ALTERNATE #1)
- SKYLIGHT TUBE
- STRUCTURE BELOW

ROOF PLAN KEYNOTES xx

R1	ALUMINUM GUTTER
R2	COLUMN BELOW, TYP.
R3	SKYLIGHT TUBE

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SHEET
ROOF PLANS

A-103

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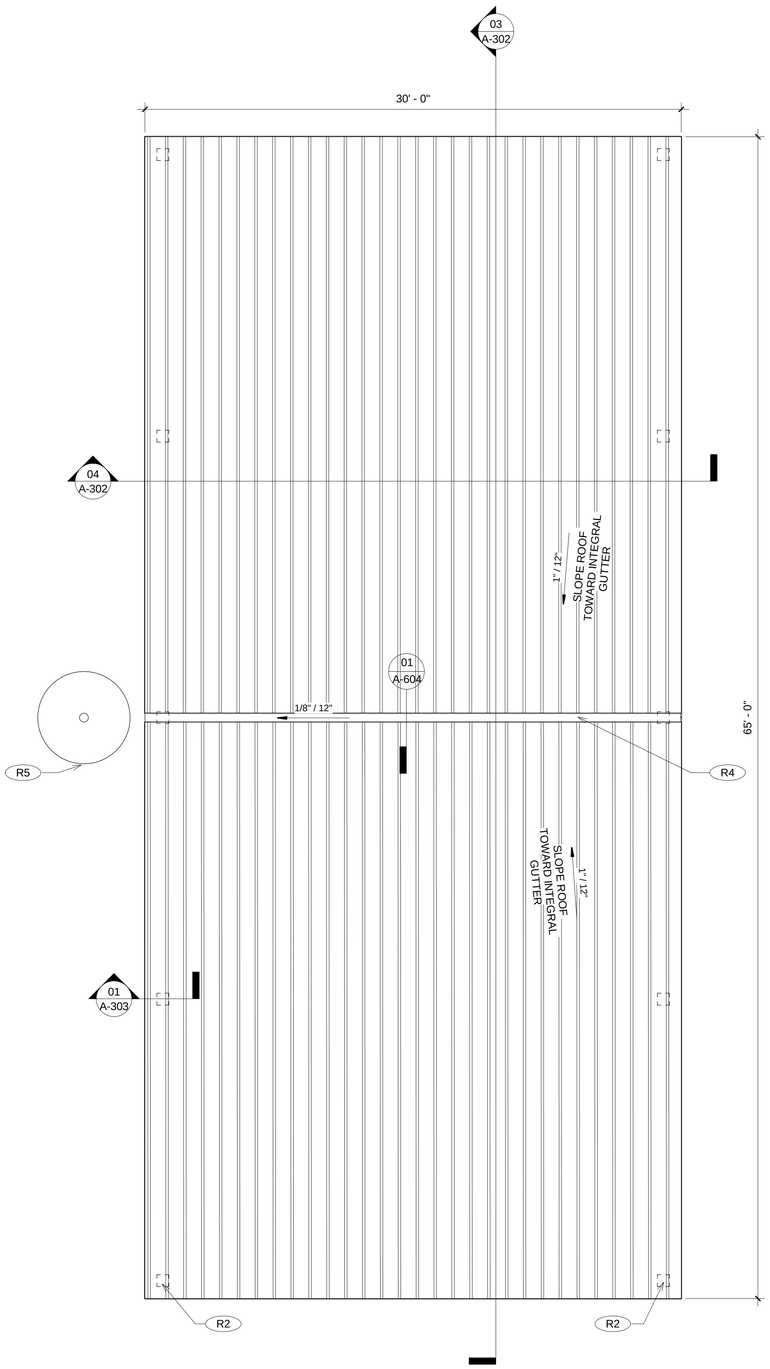
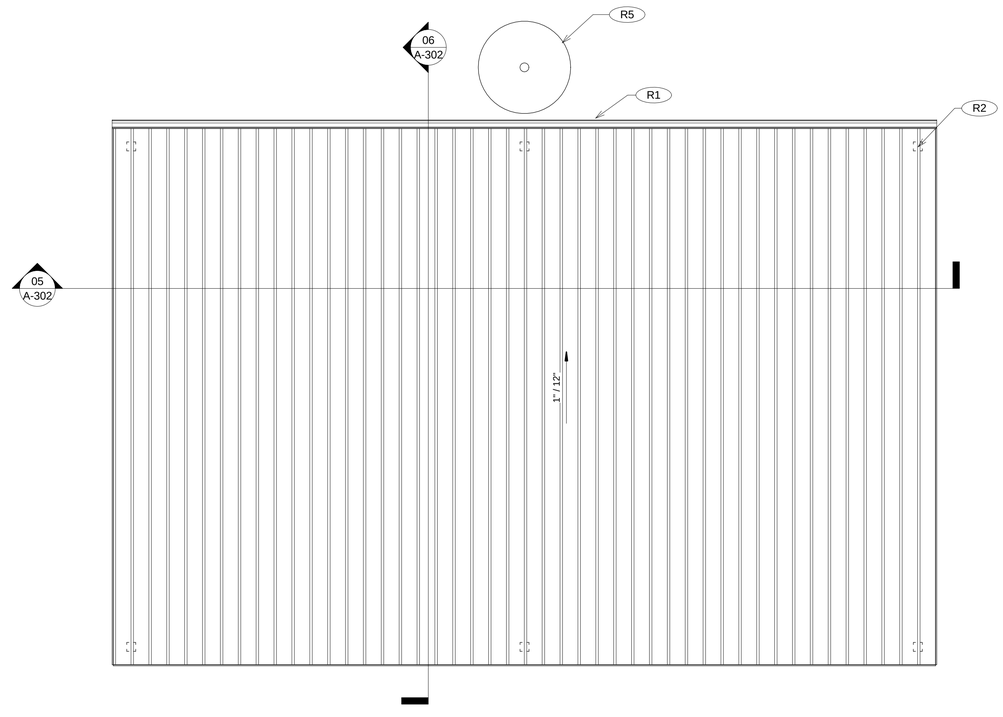


01 PICNIC SHELTER 1 ROOF PLAN
1/4" = 1'-0"



02 PICNIC SHELTER 2 ROOF PLAN
1/4" = 1'-0"

ROOF PLAN LEGEND

- STANDING SEAM METAL ROOF
- GREEN ROOF (ALTERNATE #1)
- SKYLIGHT TUBE
- STRUCTURE BELOW

ROOF PLAN KEYNOTES xx

R1	ALUMINUM GUTTER
R2	COLUMN BELOW, TYP.
R4	INTEGRAL ALUMINUM GUTTER
R5	RAINWATER CISTERN BELOW - REFERENCE CIVIL

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DOCUMENT FOR REVIEW - NOT FOR CONSTRUCTION

NO.	REVISION	DATE

JOB NUMBER
16-051

DATE ISSUED
04-27-2017

PROJECT STATUS
PERMIT SET

SHEET
ROOF PLANS

A-104

Plot Time: 6/30/2017 3:48:47 PM
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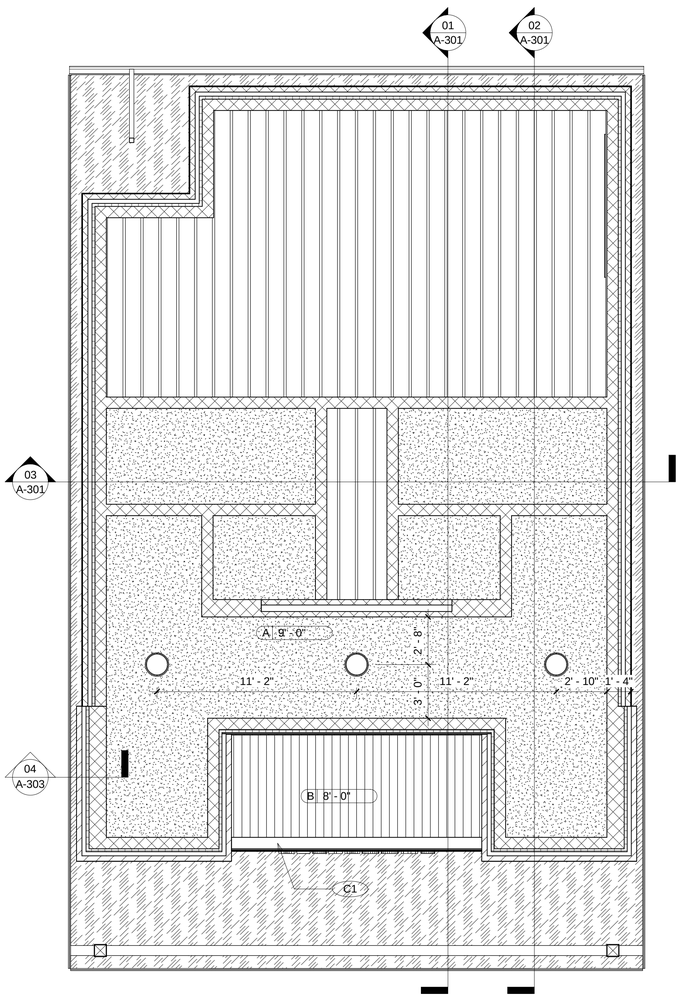
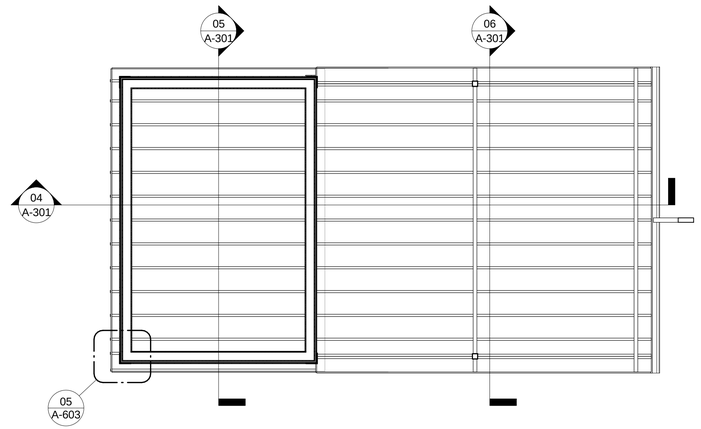
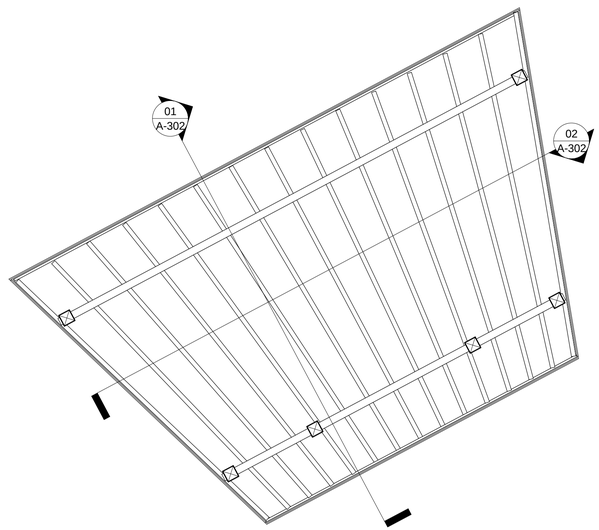


01 RESTROOM REFLECTED CEILING PLAN
1/4" = 1'-0"



02 GARDEN SHELTER REFLECTED CEILING PLAN
1/4" = 1'-0"



03 AMPHITHEATER REFLECTED CEILING PLAN
1/4" = 1'-0"

RCP LEGEND

A — GWB CEILING, PAINT

B — RECLAIMED SIDING

VENTED CEMENT BOARD SOFFIT

EXPOSED ROOF JOISTS; REFERENCE STRUCTURAL DRAWINGS

SURFACE-MOUNTED SUPPLY DIFFUSER; SEE MECHANICAL DRAWINGS

SURFACE-MOUNTED RETURN DIFFUSER; SEE MECHANICAL DRAWINGS

EXIT SIGNS; SEE ELECTRICAL DRAWINGS

SKYLIGHT TUBE

RECESSED LIGHT FIXTURE; SEE ELECTRICAL DRAWINGS

RCP GENERAL NOTES

1. GC IS REQUIRED TO PROVIDE COORDINATION DRAWINGS FOR ALL MEP SYSTEMS OVERHEAD AND IN CEILINGS.

2. SEE MEP SHEETS FOR ADDITIONAL CEILING NOTES.

RCP KEYNOTES (xx)

C1 RECLAIMED SIDING SOFFIT. SEE DETAIL 7/A-602

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NO.	REVISION	DATE

JOB NUMBER
16-051

DATE ISSUED
04-27-2017

PROJECT STATUS
PERMIT SET

SHEET
REFLECTED CEILING PLANS

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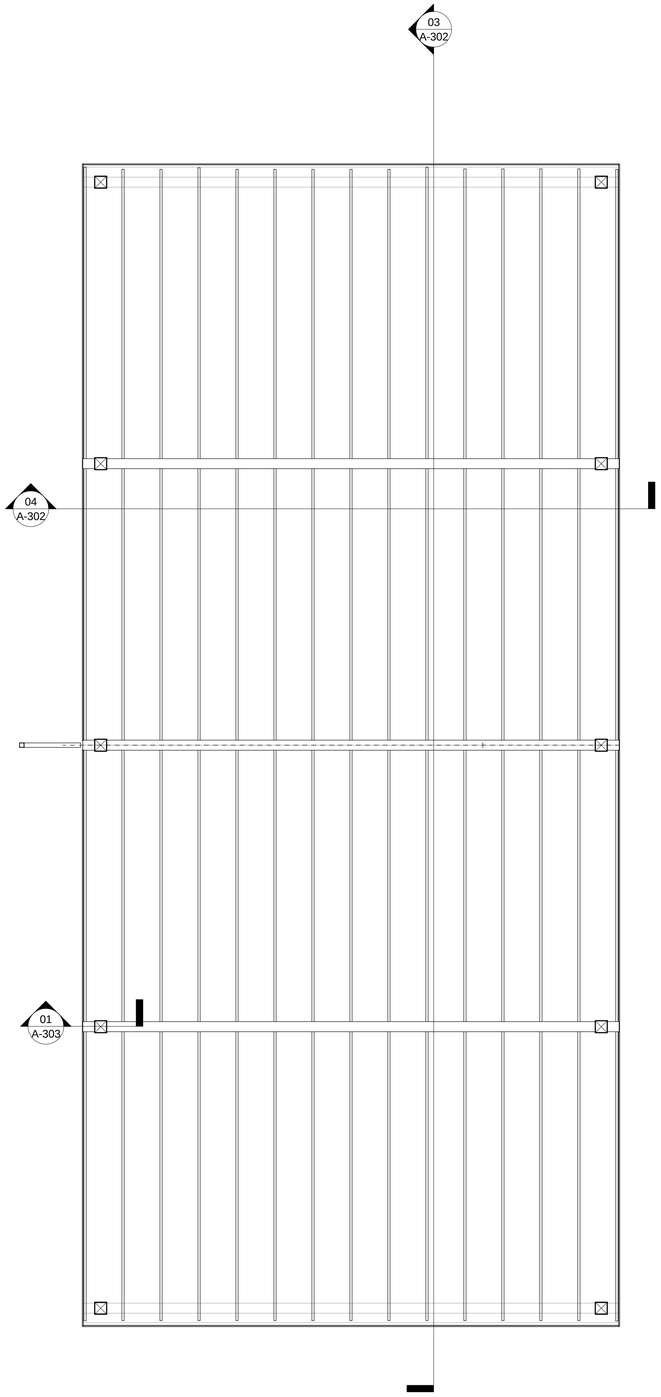
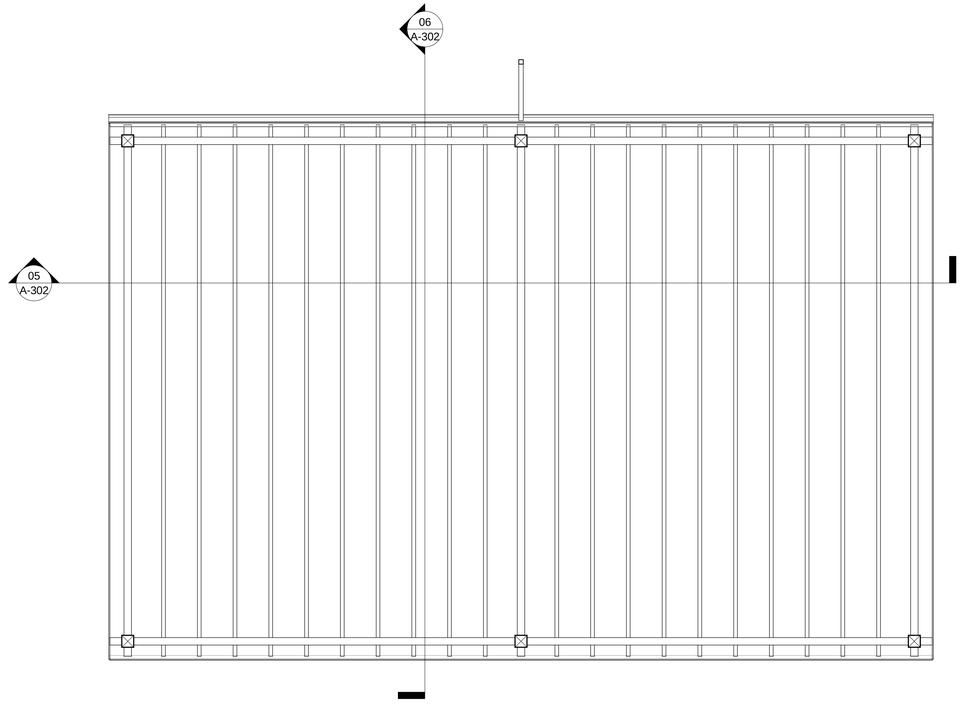
A-105



01 PICNIC SHELTER 1 REFLECTED CEILING PLAN
1/4" = 1'-0"

FINISH SCHEDULE					
ROOM #	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH
100	HANDWASHING	EPOXY	EPOXY	EPOXY PT CMU	PT
101	MEN'S	EPOXY	EPOXY	EPOXY PT CMU	PT
101	ADA STALL 1	EPOXY	EPOXY	EPOXY PT CMU	PT
102	STALL 2	EPOXY	EPOXY	EPOXY PT CMU	PT
103	ADA STALL 3	EPOXY	EPOXY	EPOXY PT CMU	PT
104	STALL 4	EPOXY	EPOXY	EPOXY PT CMU	PT
105	CHASE	SEALED CONCRETE	NONE	NONE	OPEN
106	ELEC/STORAGE	SEALED CONCRETE	RUBBER	EPOXY PT CMU	OPEN
107	GARDEN SHED	SEALED CONCRETE	NONE	NONE	OPEN



02 PICNIC SHELTER 2 REFLECTED CEILING PLAN
1/4" = 1'-0"

RCP LEGEND

A — GWB CEILING, PAINT

B — RECLAIMED SIDING

VENTED CEMENT BOARD SOFFIT

EXPOSED ROOF JOISTS; REFERENCE STRUCTURAL DRAWINGS

SURFACE-MOUNTED SUPPLY DIFFUSER; SEE MECHANICAL DRAWINGS

SURFACE-MOUNTED RETURN DIFFUSER; SEE MECHANICAL DRAWINGS

EXIT SIGNS; SEE ELECTRICAL DRAWINGS

SKYLIGHT TUBE

RECESSED LIGHT FIXTURE; SEE ELECTRICAL DRAWINGS

RCP GENERAL NOTES

1. GC IS REQUIRED TO PROVIDE COORDINATION DRAWINGS FOR ALL MEP SYSTEMS OVERHEAD AND IN CEILINGS.

2. SEE MEP SHEETS FOR ADDITIONAL CEILING NOTES.

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PROJECT STATUS
PERMIT SET

SHEET
REFLECTED CEILING PLANS & FINISH SCHEDULE

A-106

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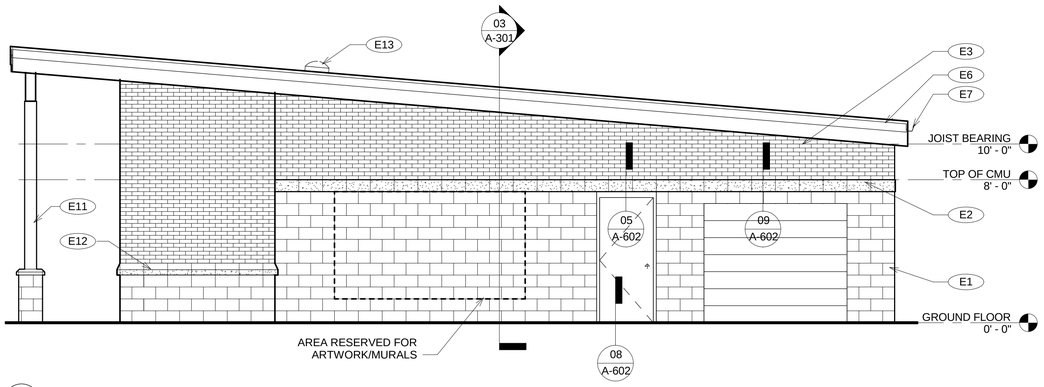
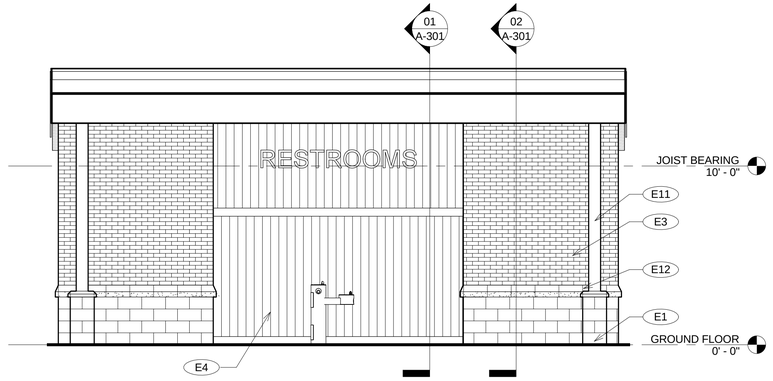


01 RESTROOM - EAST ELEVATION
1/4" = 1'-0"



02 RESTROOM - SOUTH ELEVATION
1/4" = 1'-0"

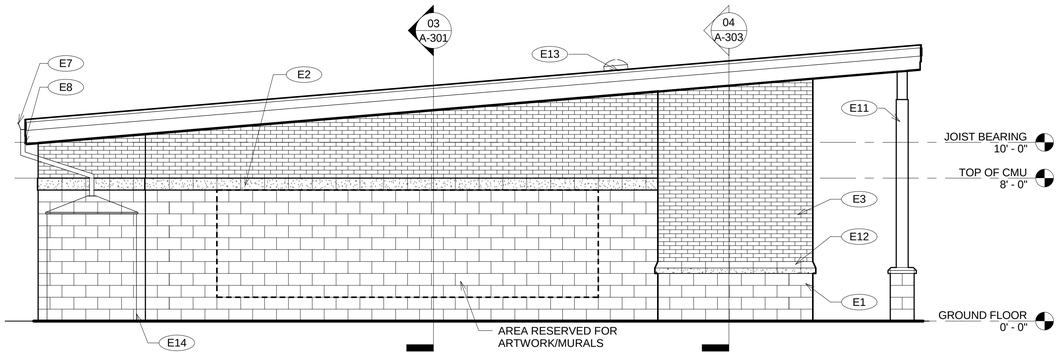
ELEVATION LEGEND

- BRICK VENEER
- RECLAIMED WOOD SIDING
- CMU BLOCK
- SPLIT FACE CMU BLOCK

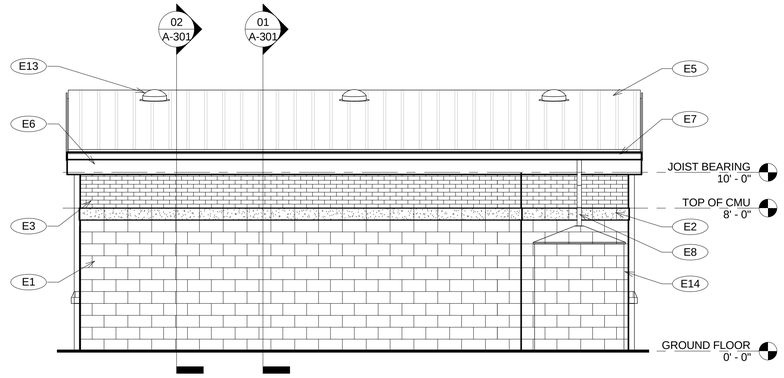
ELEVATION KEYNOTES

xx

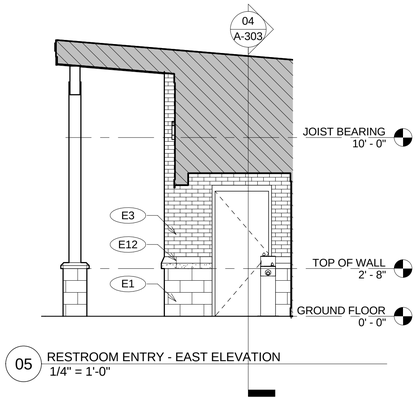
E1	CMU BLOCK
E2	SPLIT FACE CMU BLOCK
E3	BRICK VENEER
E4	RECLAIMED WOOD SIDING
E5	STANDING SEAM METAL ROOF
E6	CEMENT BOARD ROOF FASCIA
E7	PRE-FINISHED ALUMINUM GUTTER
E8	ALUMINUM DOWNSPOUT
E11	TREATED COLUMN; SEE STRUCTURAL DRAWINGS
E12	CMU SILL
E13	SKYLIGHT - SEE REFLECTED CEILING PLAN FOR LOCATION
E14	RAINWATER CISTERN, NOT SHOWN FOR CLARITY - REFERENCE CIVIL



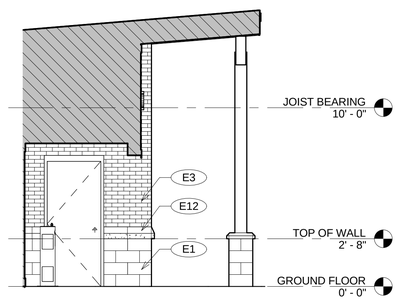
03 RESTROOM - WEST ELEVATION
1/4" = 1'-0"



04 RESTROOM - NORTH ELEVATION
1/4" = 1'-0"



05 RESTROOM ENTRY - EAST ELEVATION
1/4" = 1'-0"



06 RESTROOM ENTRY - WEST ELEVATION
1/4" = 1'-0"

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NO.	REVISION	DATE

JOB NUMBER
16-051

DATE ISSUED
04-27-2017

PROJECT STATUS
PERMIT SET

SHEET
ELEVATIONS

A-201

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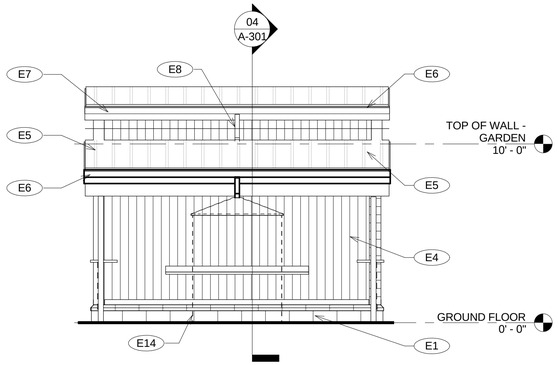
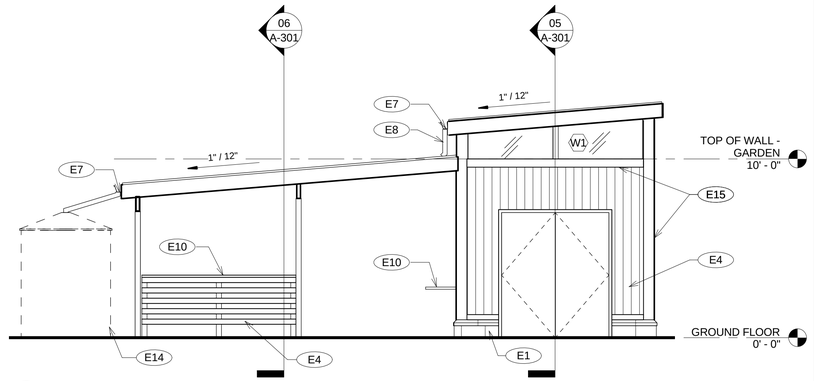


01 GARDEN SHELTER - EAST ELEVATION
1/4" = 1'-0"



02 GARDEN SHELTER - NORTH ELEVATION
1/4" = 1'-0"

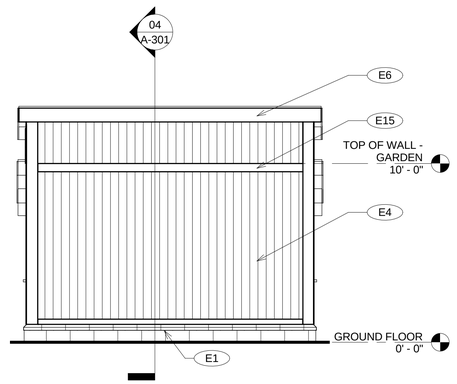
ELEVATION LEGEND

- BRICK VENEER
- RECLAIMED WOOD SIDING
- CMU BLOCK
- SPLIT FACE CMU BLOCK

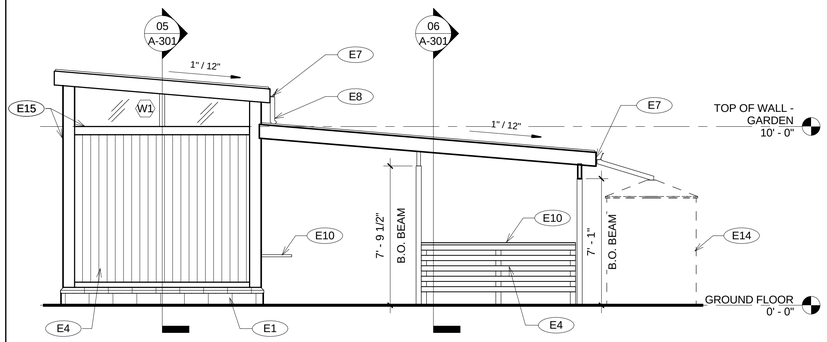
ELEVATION KEYNOTES

xx

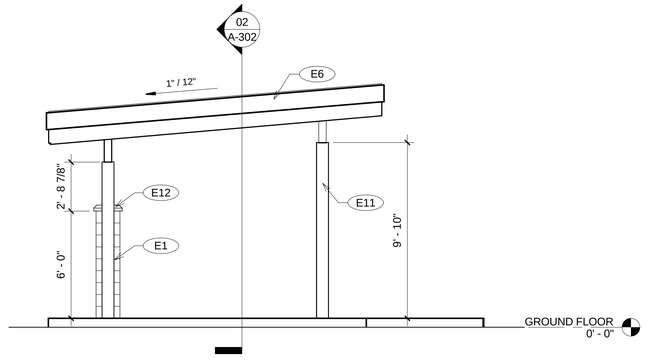
E1	CMU BLOCK
E4	RECLAIMED WOOD SIDING
E5	STANDING SEAM METAL ROOF
E6	CEMENT BOARD ROOF FASCIA
E7	PRE-FINISHED ALUMINUM GUTTER
E8	ALUMINUM DOWNSPOUT
E9	GREEN ROOF (ALTERNATE #1)
E10	EXTERIOR GRADE COUNTERTOP - SEE SECTIONS FOR MOUNTING HEIGHT
E11	TREATED COLUMN; SEE STRUCTURAL DRAWINGS
E12	CMU SILL
E14	RAINWATER CISTERN, NOT SHOWN FOR CLARITY - REFERENCE CIVIL
E15	RECLAIMED WOOD TRIM



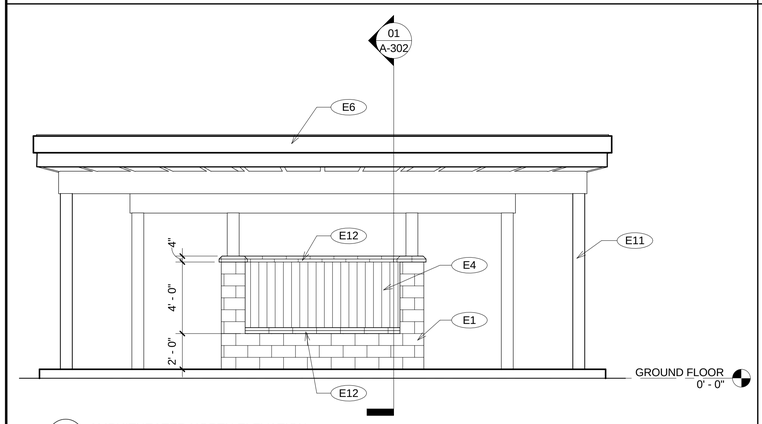
03 GARDEN SHELTER - WEST ELEVATION
1/4" = 1'-0"



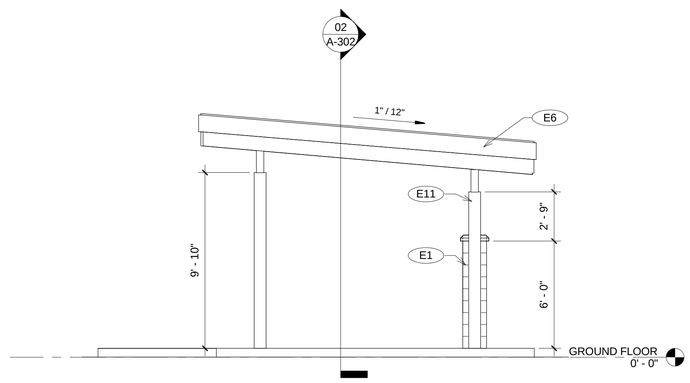
04 GARDEN SHELTER - SOUTH ELEVATION
1/4" = 1'-0"



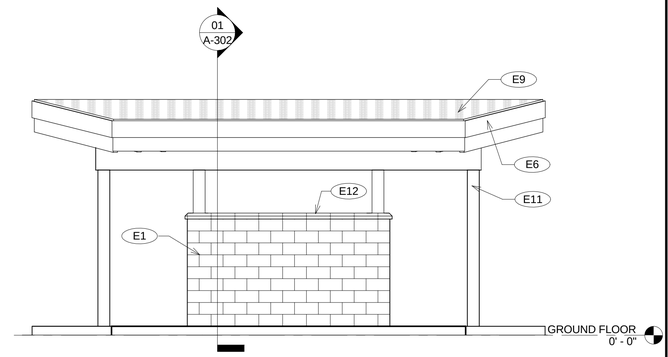
05 AMPHITHEATER EAST ELEVATION
1/4" = 1'-0"



06 AMPHITHEATER NORTH ELEVATION
1/4" = 1'-0"



07 AMPHITHEATER WEST ELEVATION
1/4" = 1'-0"



08 AMPHITHEATER SOUTH ELEVATION
1/4" = 1'-0"

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NO.	REVISION	DATE

JOB NUMBER
16-051

DATE ISSUED
04-27-2017

PROJECT STATUS
PERMIT SET

SHEET
ELEVATIONS

A-202

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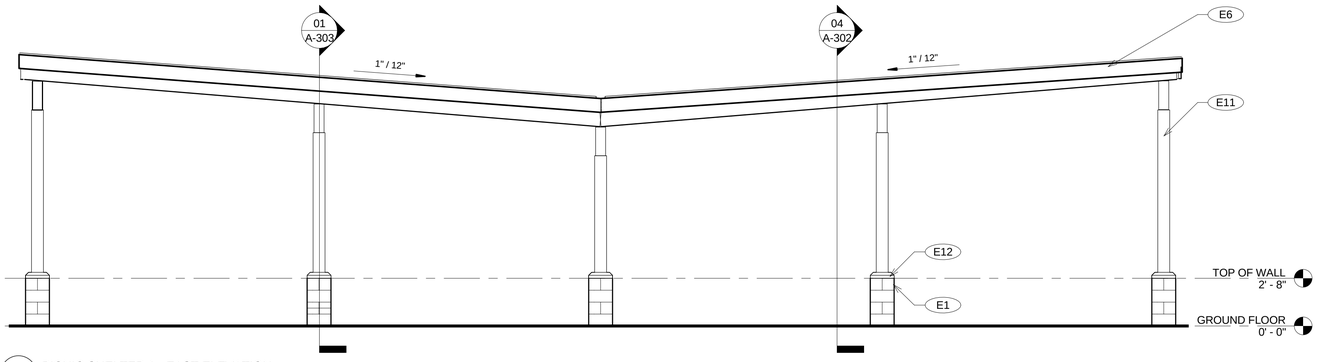
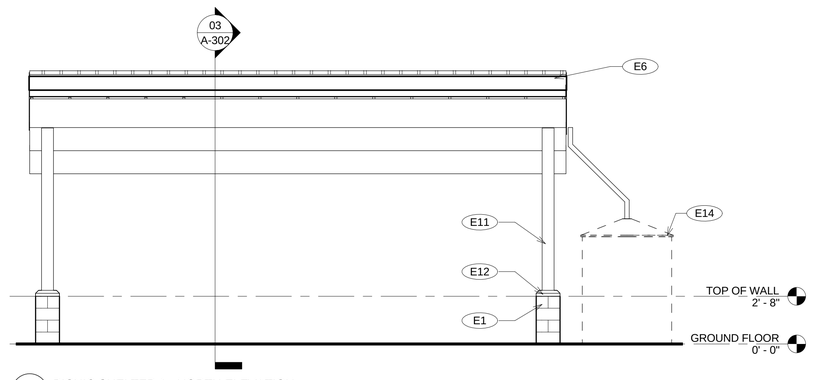


01 PICNIC SHELTER 1 - EAST ELEVATION
1/4" = 1'-0"



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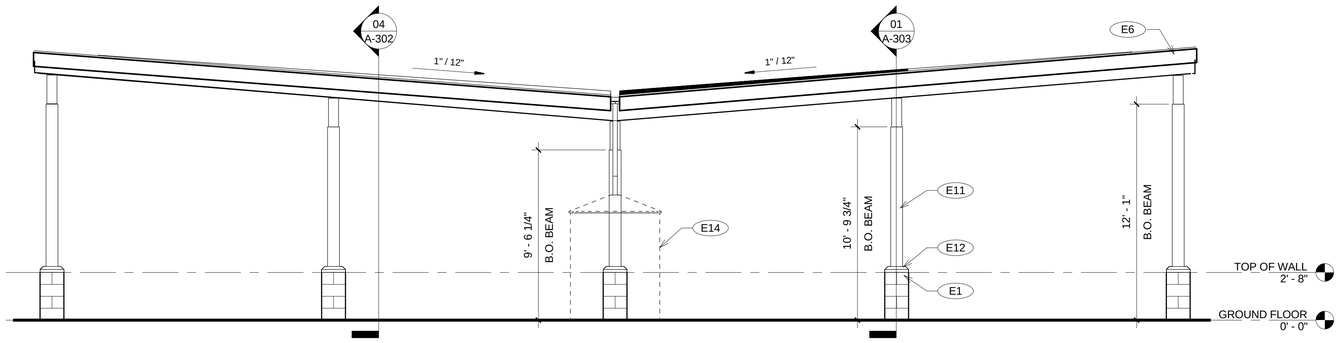
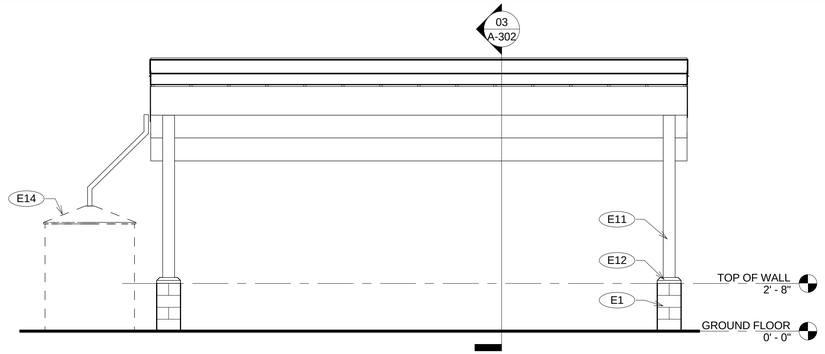
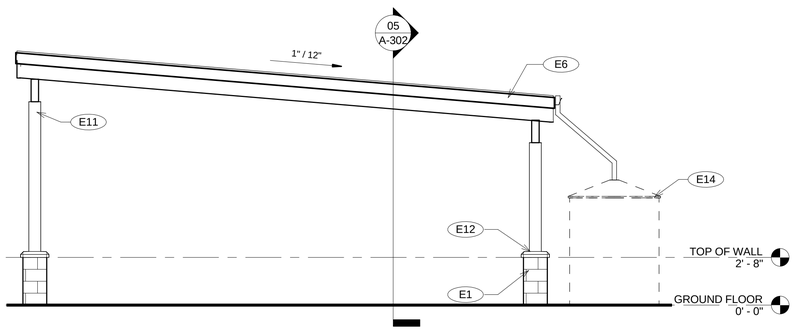
1/4" = 1'-0"



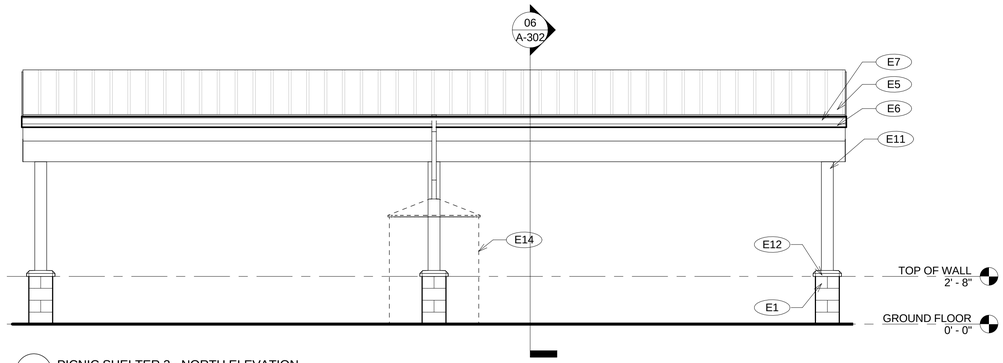
03 PICNIC SHELTER 1 - WEST ELEVATION
1/4" = 1'-0"



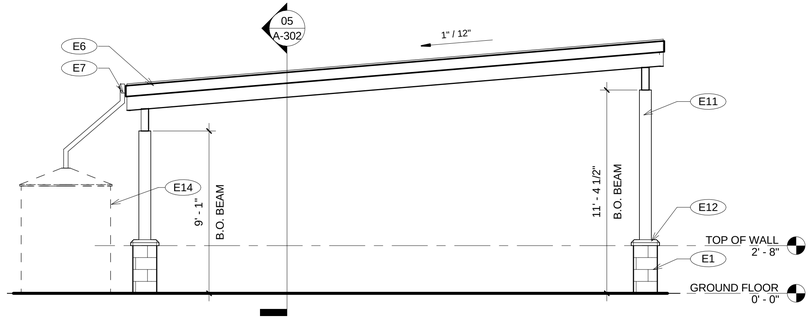
04 PICNIC SHELTER 1 - SOUTH ELEVATION
1/4" = 1'-0"



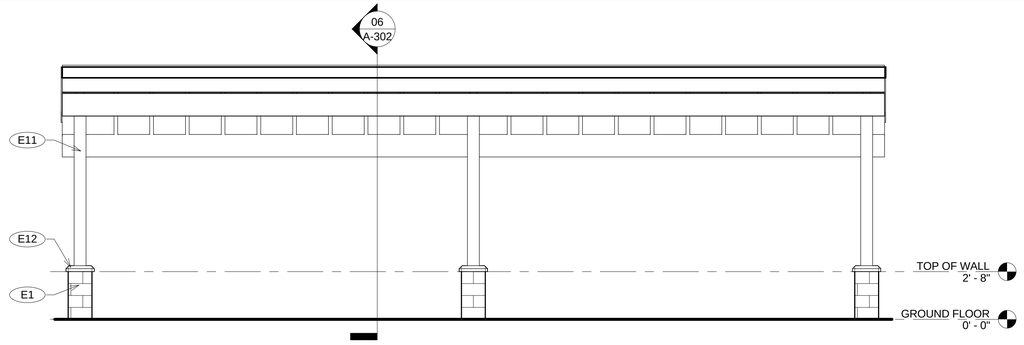
05 PICNIC SHELTER 2 - EAST ELEVATION
1/4" = 1'-0"



06 PICNIC SHELTER 2 - NORTH ELEVATION
1/4" = 1'-0"



07 PICNIC SHELTER 2 - WEST ELEVATION
1/4" = 1'-0"



08 PICNIC SHELTER 2 - SOUTH ELEVATION
1/4" = 1'-0"

ELEVATION LEGEND

- BRICK VENEER
- RECLAIMED WOOD SIDING
- CMU BLOCK
- SPLIT FACE CMU BLOCK

ELEVATION KEYNOTES

XX

E1	CMU BLOCK
E5	STANDING SEAM METAL ROOF
E6	CEMENT BOARD ROOF FASCIA
E7	PRE-FINISHED ALUMINUM GUTTER
E11	TREATED COLUMN; SEE STRUCTURAL DRAWINGS
E12	CMU SILL
E14	RAINWATER CISTERN, NOT SHOWN FOR CLARITY - REFERENCE CIVIL

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DATE ISSUED
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PROJECT STATUS
PERMIT SET

SHEET
ELEVATIONS

A-203

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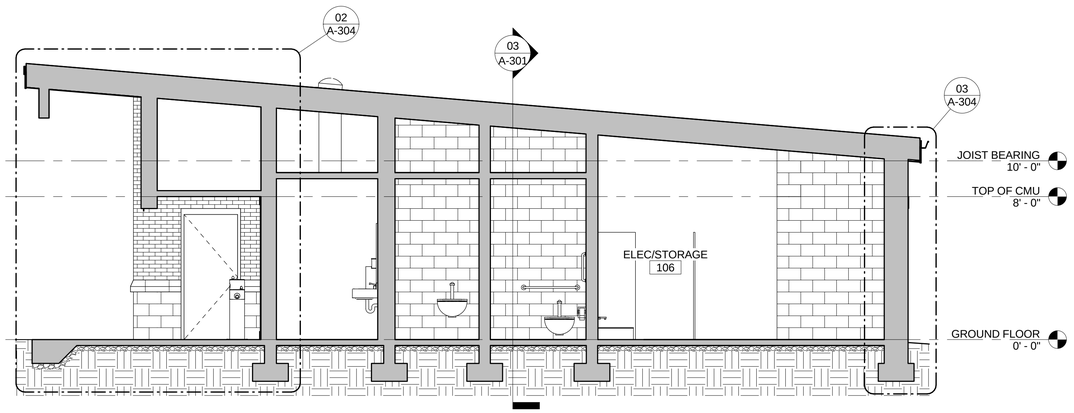
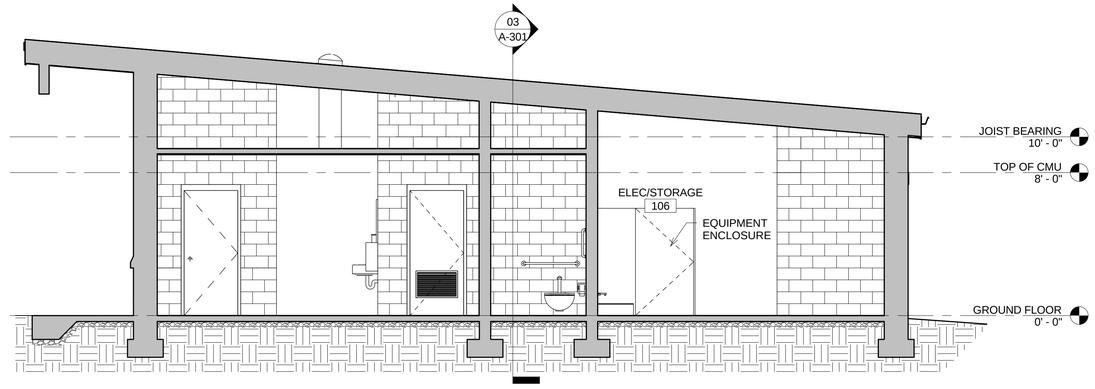
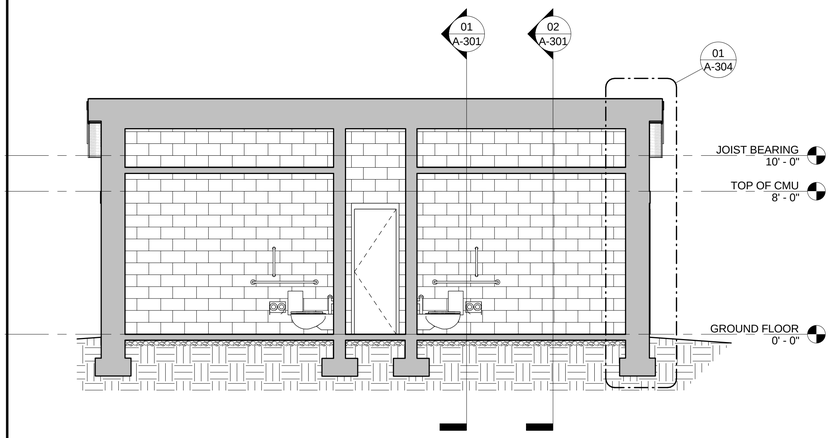


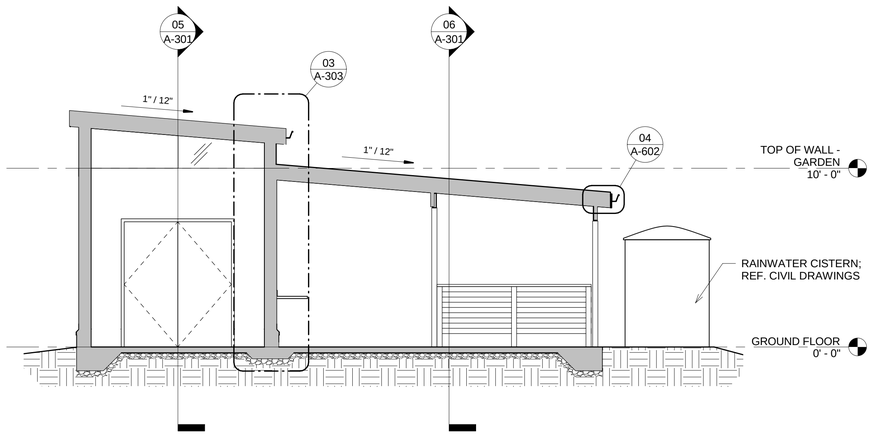
01 NORTH-SOUTH SECTION 1 AT RESTROOM BUILDING
1/4" = 1'-0"



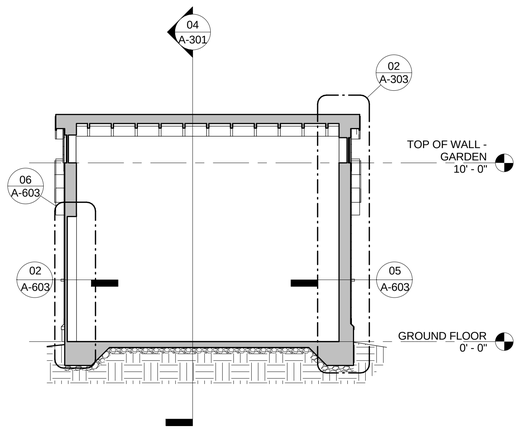
02 NORTH-SOUTH SECTION 2 AT RESTROOM BUILDING
1/4" = 1'-0"



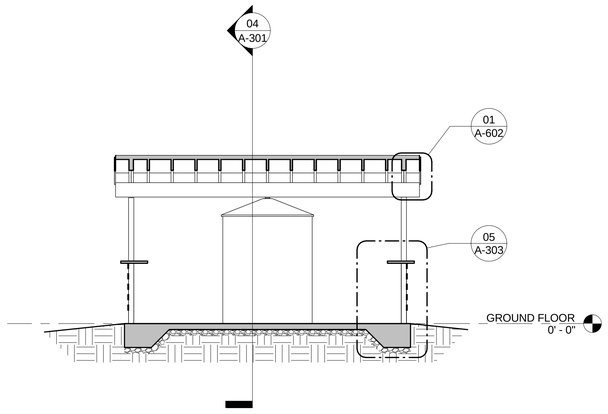
03 EAST-WEST SECTION AT RESTROOM BUILDING
1/4" = 1'-0"



04 EAST-WEST SECTION AT GARDEN STORAGE
1/4" = 1'-0"



05 NORTH-SOUTH SECTION 1 AT GARDEN STORAGE
1/4" = 1'-0"



06 NORTH-SOUTH SECTION 2 AT GARDEN STORAGE
1/4" = 1'-0"

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NO.	REVISION	DATE

JOB NUMBER
16-051

DATE ISSUED
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PROJECT STATUS
PERMIT SET

SHEET
BUILDING SECTIONS

A-301

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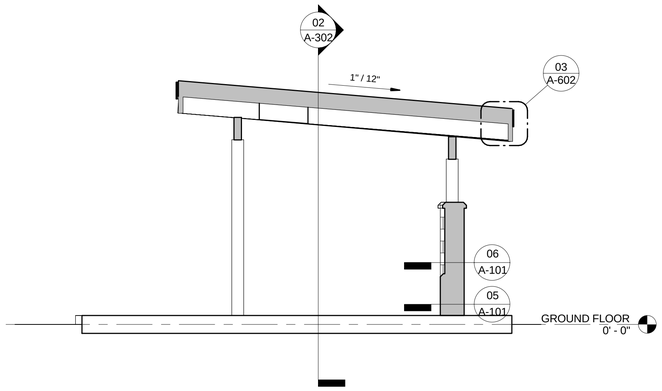
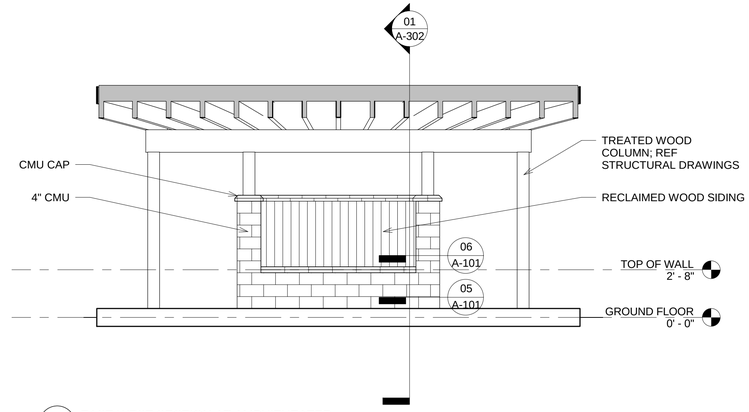
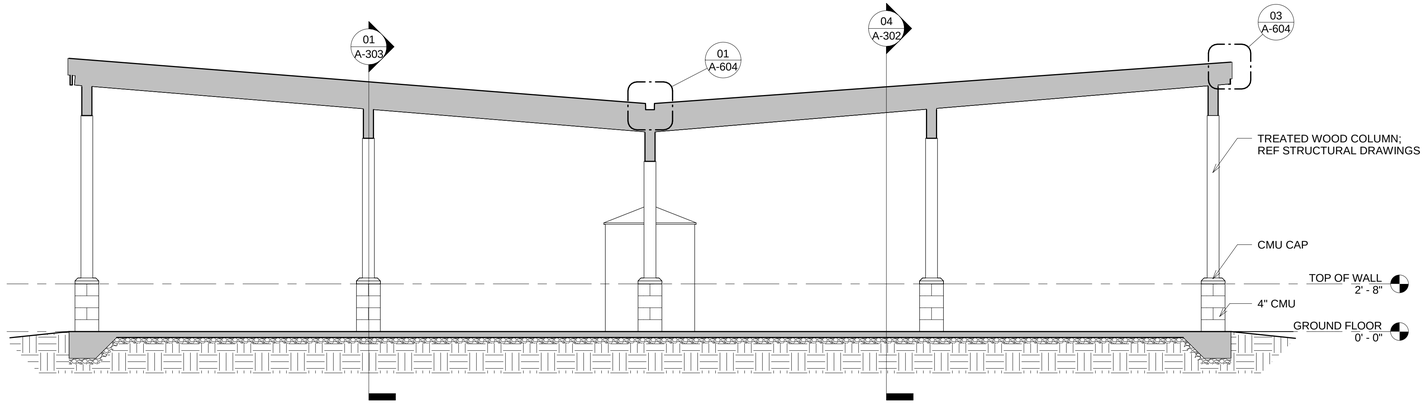


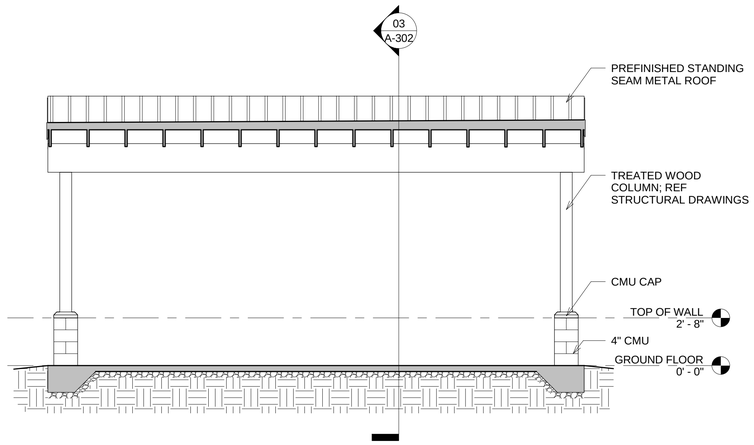
01 NORTH-SOUTH SECTION AT AMPHITHEATER
1/4" = 1'-0"



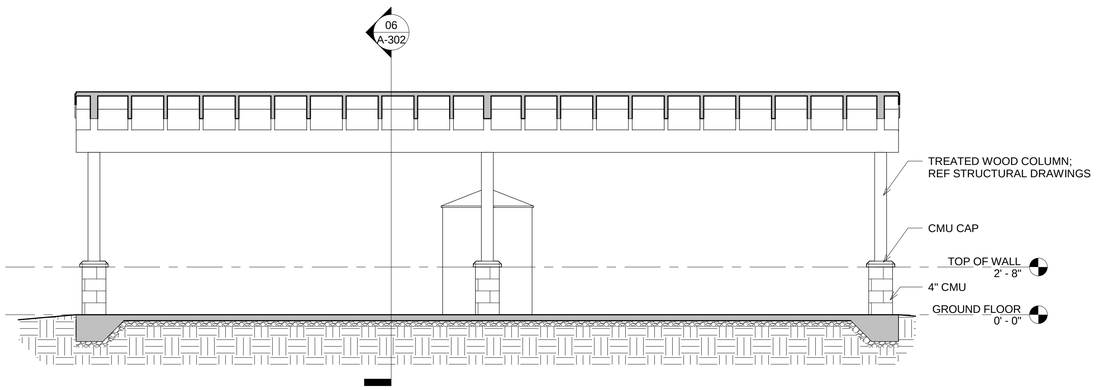
02 EAST-WEST SECTION AT AMPHITHEATER
1/4" = 1'-0"



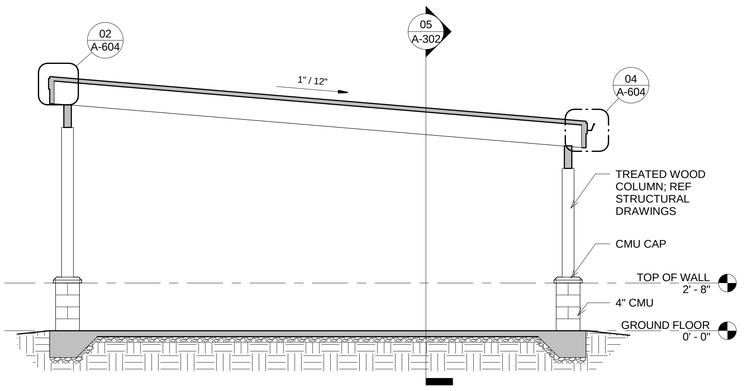
03 NORTH-SOUTH SECTION AT PICNIC SHELTER 1
1/4" = 1'-0"



04 EAST-WEST SECTION AT PICNIC SHELTER 1
1/4" = 1'-0"



05 EAST-WEST SECTION AT PICNIC SHELTER 2
1/4" = 1'-0"



06 NORTH-SOUTH SECTION AT PICNIC SHELTER 2
1/4" = 1'-0"

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DATE ISSUED
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PROJECT STATUS
PERMIT SET

SHEET

BUILDING SECTIONS

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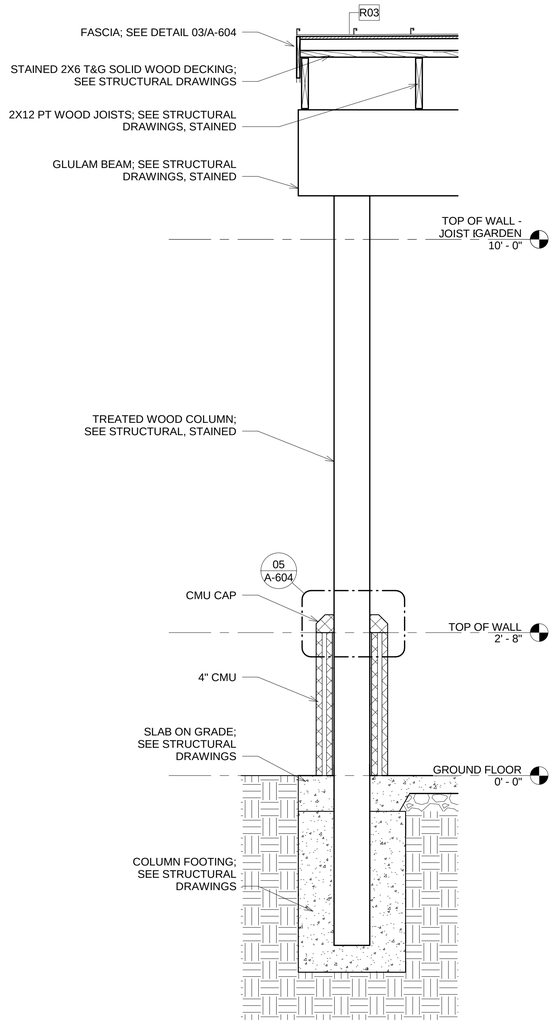
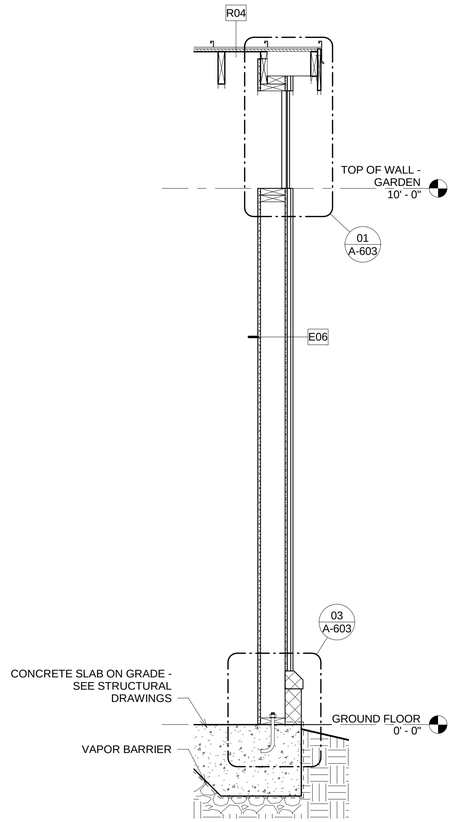
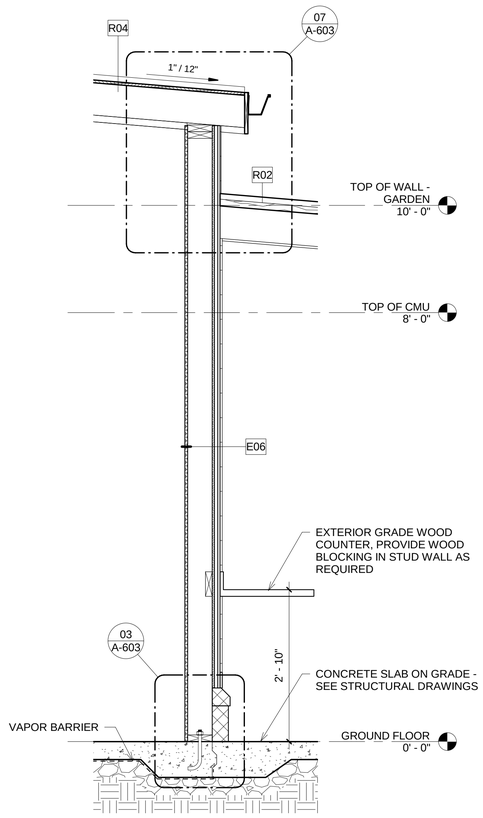


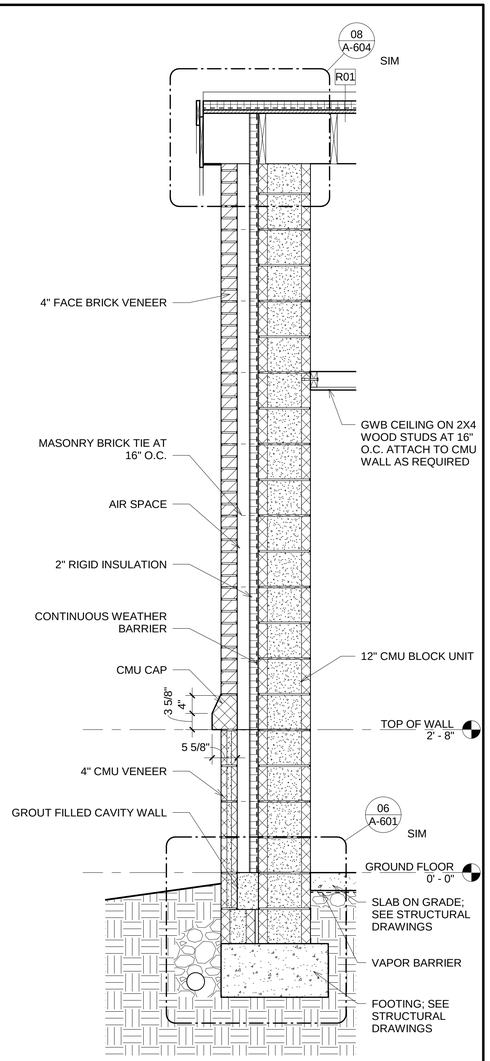
01 PICNIC SHELTER SECTION
3/4" = 1'-0"



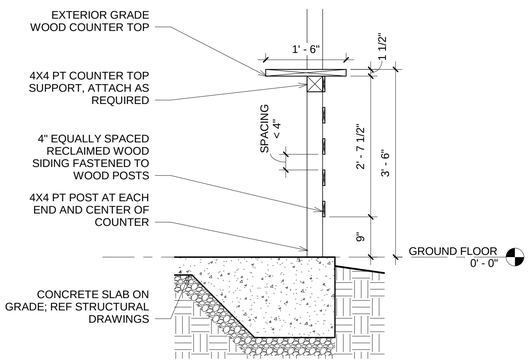
02 WALL SECTION 1 AT GARDEN STORAGE
3/4" = 1'-0"



03 WALL SECTION 2 AT GARDEN STORAGE
3/4" = 1'-0"



04 WALL SECTION AT TYPE E02 & E04
3/4" = 1'-0"



05 EXTERIOR COUNTER SECTION
3/4" = 1'-0"

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PROJECT STATUS
PERMIT SET

SHEET
WALL SECTIONS

A-303

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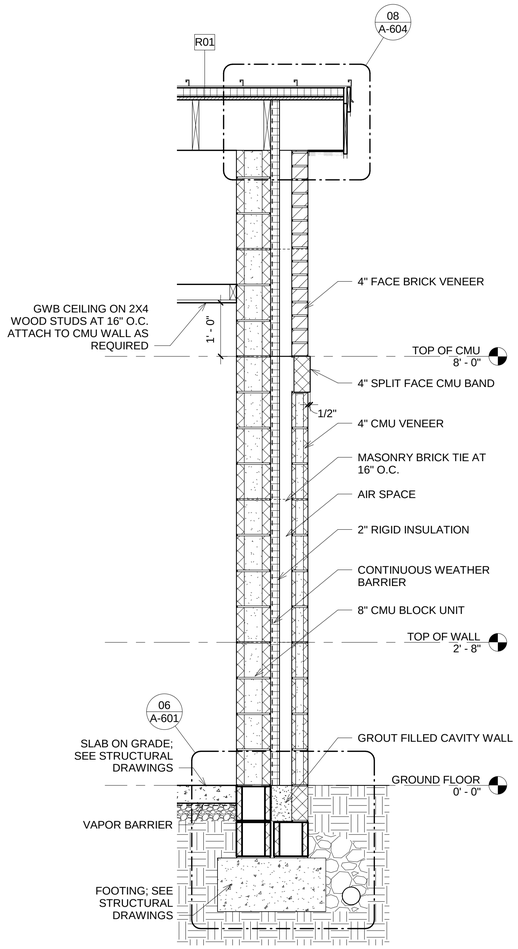
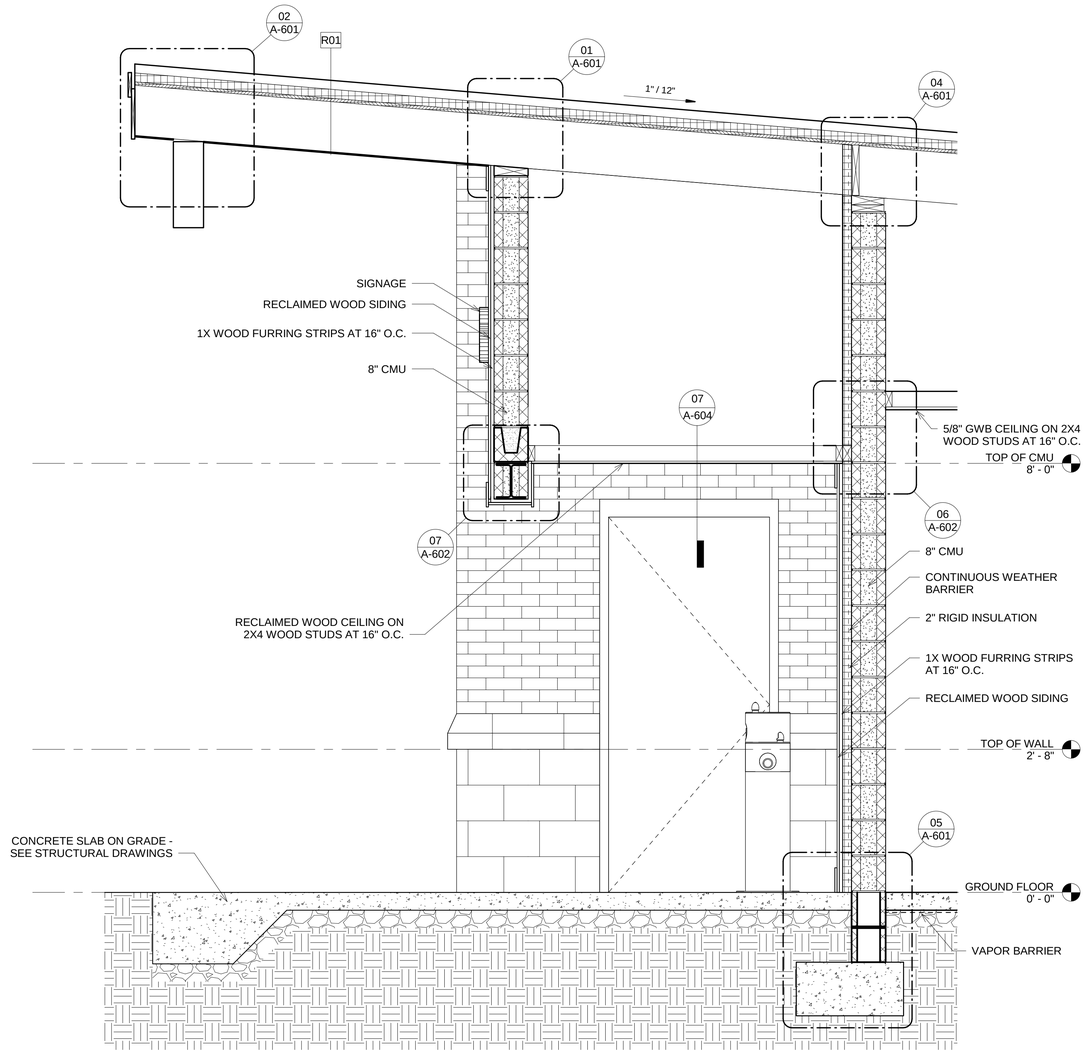
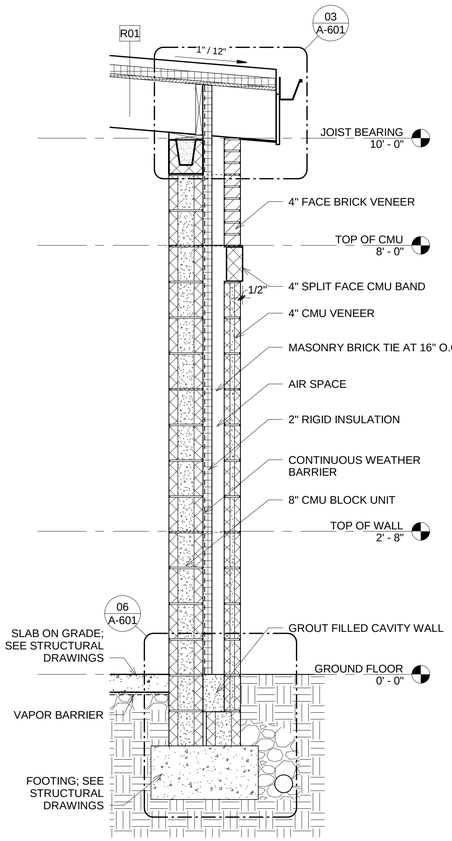


01 RESTROOM BUILDING WALL SECTION AT RAKE
3/4" = 1'-0"



02 RESTROOM BUILDING WALL SECTION AT OVERHANG
3/4" = 1'-0"



03 RESTROOM BUILDING NORTH WALL SECTION
3/4" = 1'-0"

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PERMIT SET

SHEET
WALL SECTIONS

A-304

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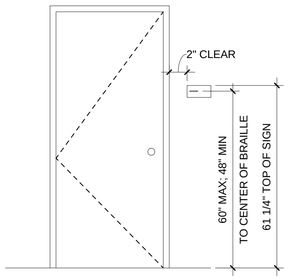
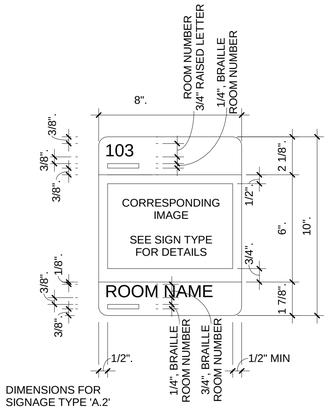
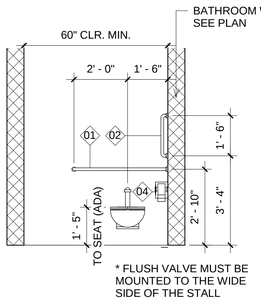


TYPICAL DOOR SIGNAGE PLACEMENT



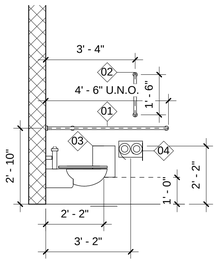
DIMENSIONS FOR
SIGNAGE TYPE 'A.2'

A.1
TYPICAL
BATHROOM SIGN

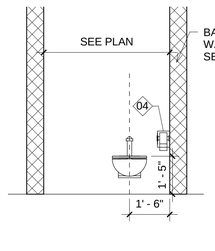


* FLUSH VALVE MUST BE
MOUNTED TO THE WIDE
SIDE OF THE STALL

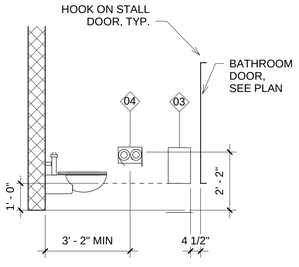
A ADA TOILET STALL, FRONT ELEVATION



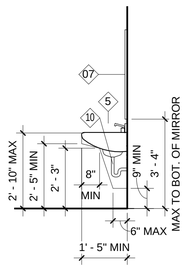
ADA TOILET STALL, SIDE ELEVATION



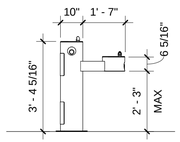
B NON-ADA TOILET STALL, FRONT ELEVATION



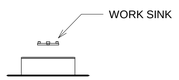
NON-ADA TOILET STALL, SIDE ELEVATION



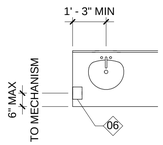
C ADA WALL-MOUNTED SINK



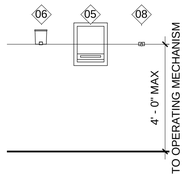
D ADA DRINKING FOUNTAIN ELEVATION



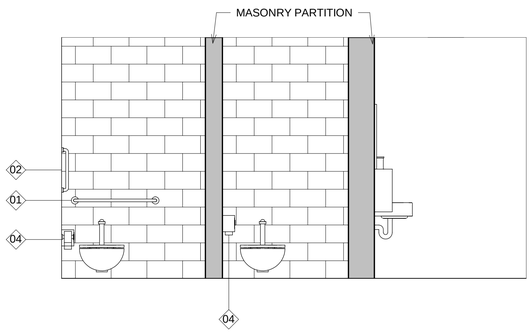
E WORK SINK ELEVATION



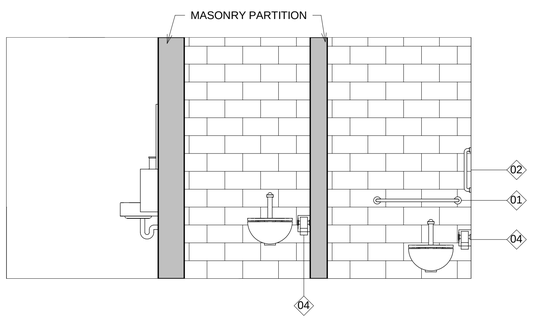
ADA COMPLIANT WALL-MOUNTED
SOAP DISPENSER AT COUNTER
MOUNTED SINK PLAN



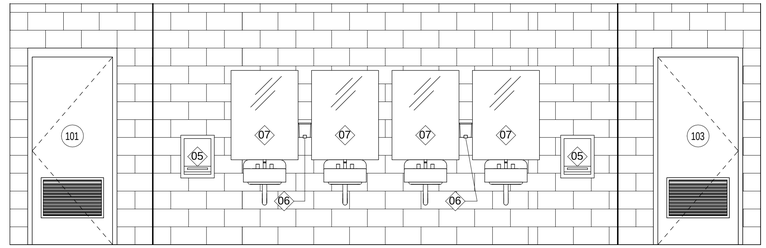
02 TOILET ACCESSORY MOUNTING HEIGHTS
3/8" = 1'-0"



03 STALLS 1 AND 2 - EAST ELEVATION
3/8" = 1'-0"



04 STALLS 3 AND 4 - WEST ELEVATION
3/8" = 1'-0"



01 HANDWASHING - NORTH ELEVATION
3/8" = 1'-0"

FF&E SCHEDULE		
MARK	DESCRIPTION	COMMENTS
01	GRAB BAR, 54" x 42"	
02	GRAB BAR, 18" VERTICAL	
03	FEMININE NAPKIN DISPOSAL	
04	SIDE BY SIDE TOILET PAPER DISPENSER	
05	PARTIALLY RECESSED HAND DRYER	
06	SOAP DISPENSER	
07	VANITY MIRROR	
08	ROBE HOOK	
10	WATER LINE PROTECTION WRAP	

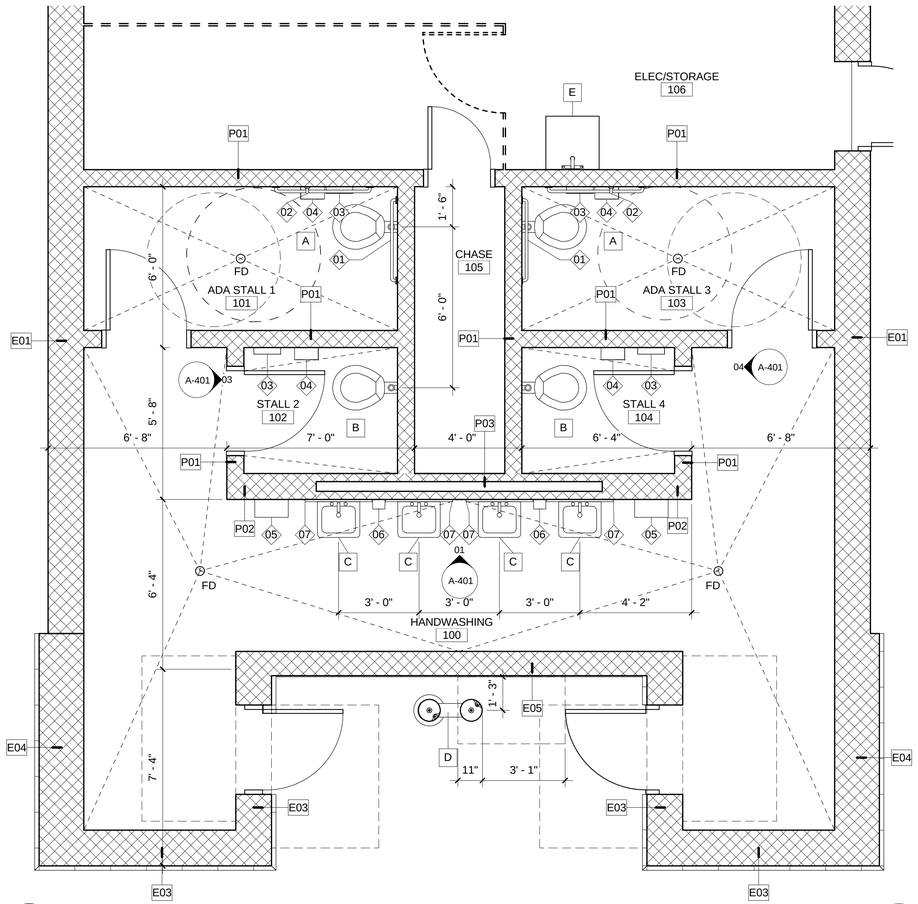
ENLARGED FLOOR PLAN LEGEND

NEW WALL CONSTRUCTION

A EQUIPMENT AND MOUNTING ELEVATION MARK, SEE SHEET A-401

X FF&E MARK, SEE SHEET A-401

NOTE: GC TO COORDINATE AND PROVIDE ALL BLOCKING NEEDS FOR EACH SPECIFIC FF&E ITEM PER MANUFACTURER'S RECOMMENDATIONS.



05 ENLARGED RESTROOM FLOOR PLAN
3/8" = 1'-0"

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NO.	REVISION	DATE

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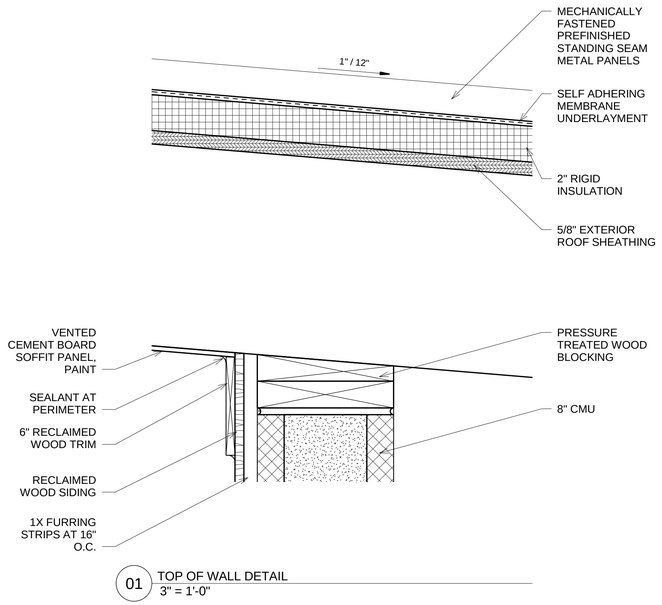
PROJECT STATUS
PERMIT SET

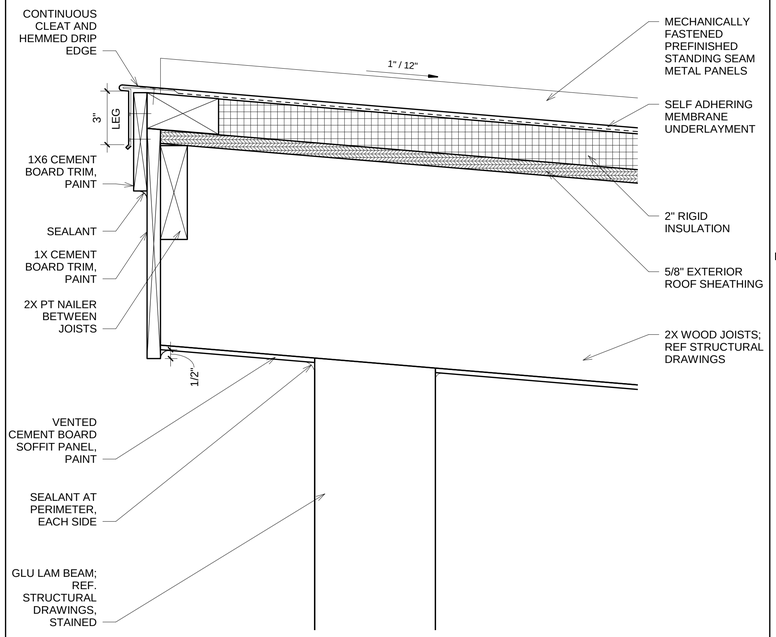
SHEET
ENLARGED PLAN, INTERIOR ELEVATIONS & FF&E SCHEDULE

A-401

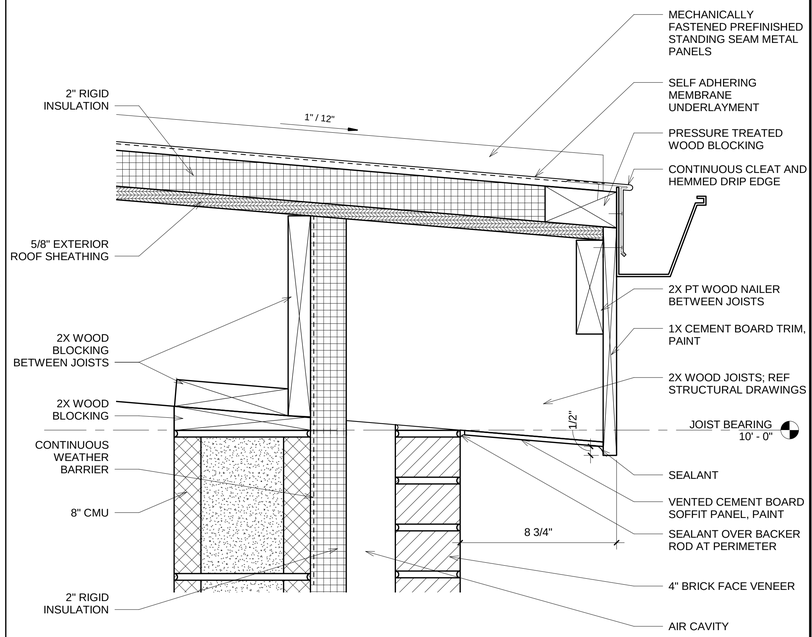
Plot Time: 6/20/2017 3:49:02 PM



01 TOP OF WALL DETAIL
3" = 1'-0"



02 ROOF EDGE DETAIL
3" = 1'-0"



03 GUTTER DETAIL
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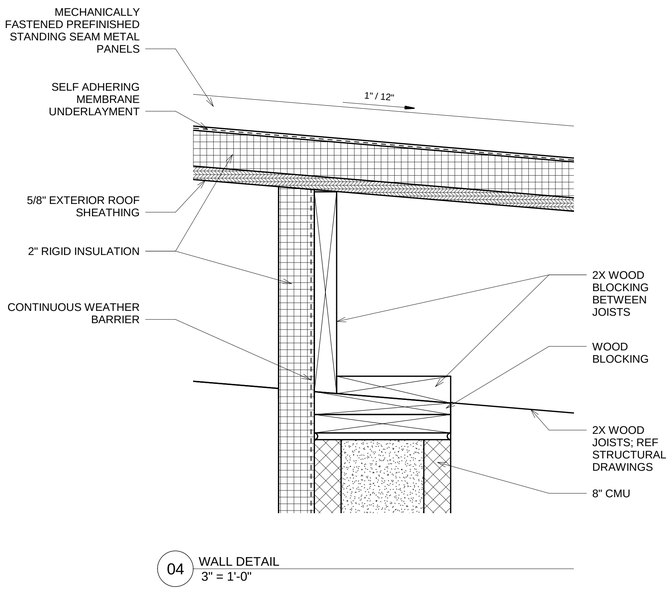
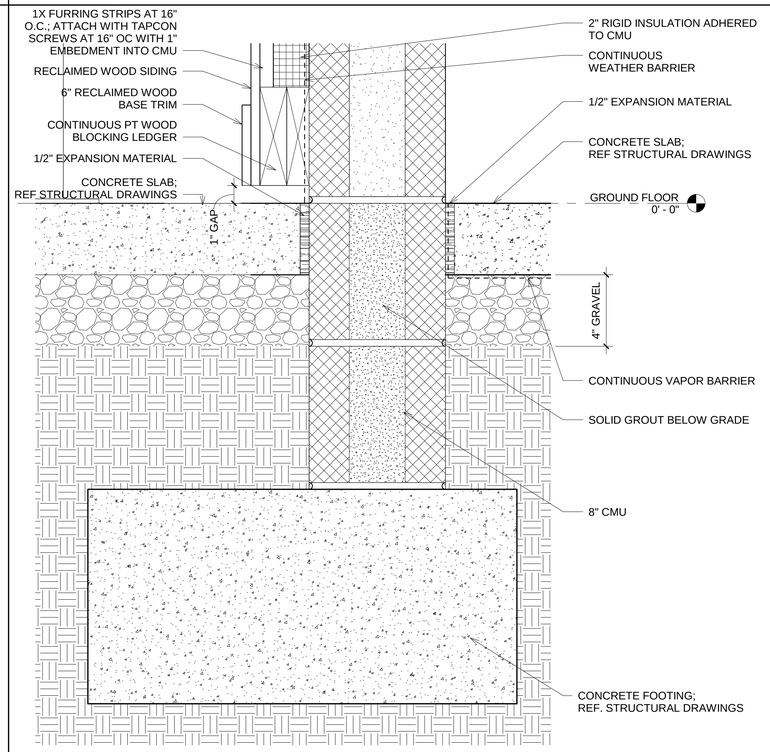
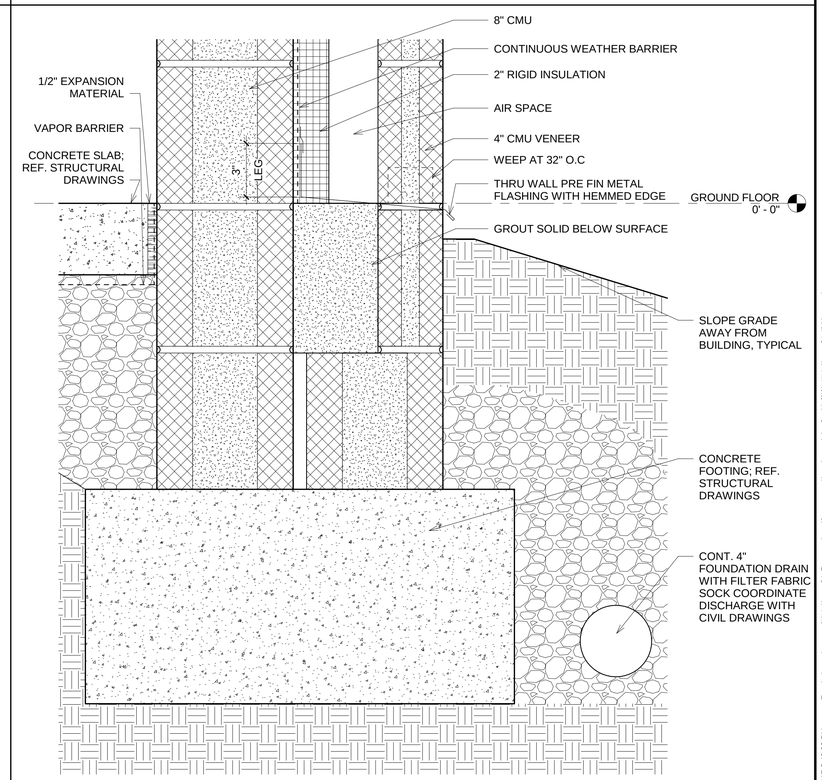


04 WALL DETAIL
3" = 1'-0"



05 FOOTING DETAIL
3" = 1'-0"



06 FOOTING DETAIL
3" = 1'-0"

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CARRBORO, NC 27516

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NO.	REVISION	DATE

JOB NUMBER
16-051

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04-27-2017

PROJECT STATUS
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SHEET
DETAILS

A-601

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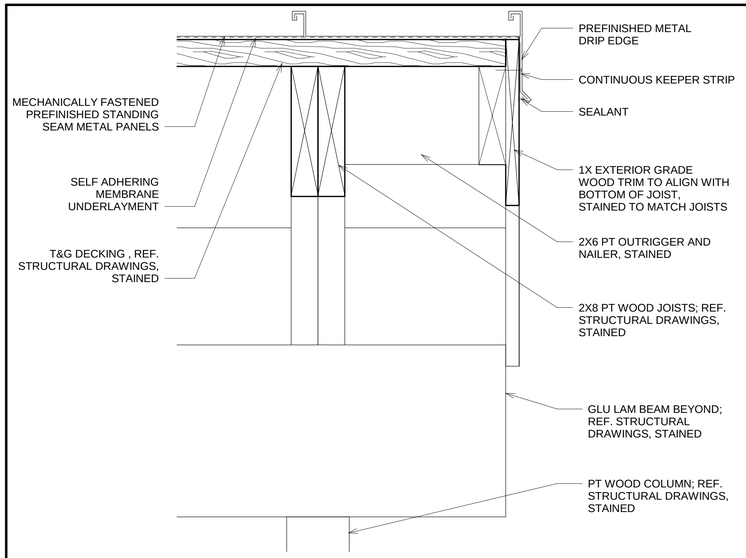
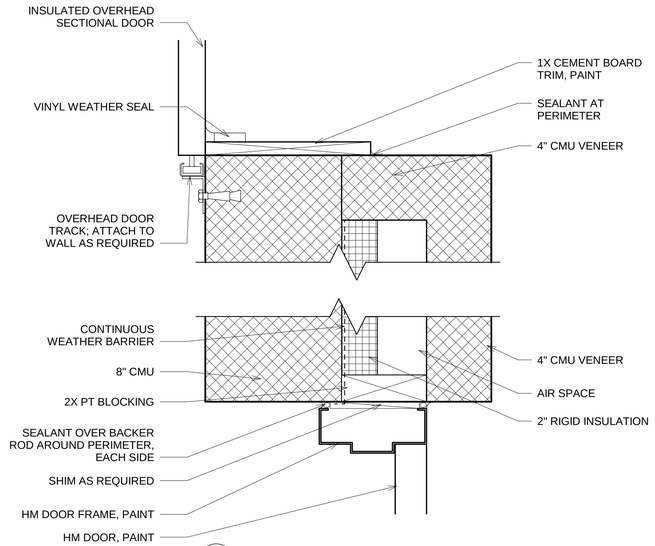


01 RAKE DETAIL AT GARDEN SHELTER
3" = 1'-0"



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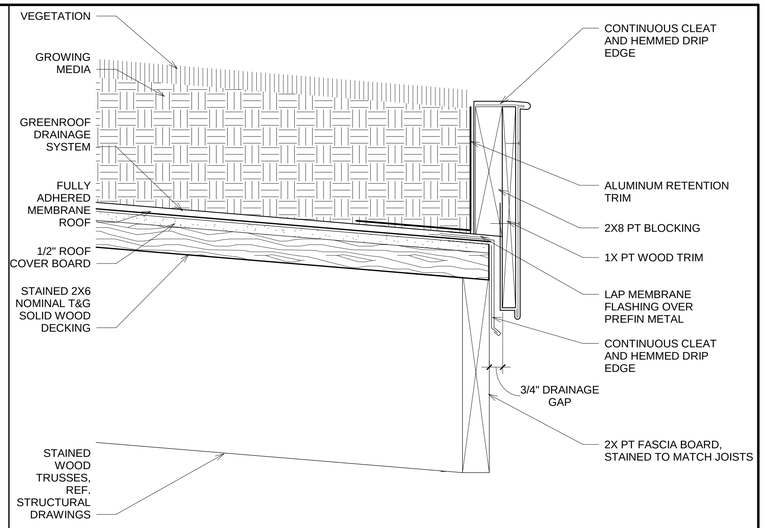

03 AMPHITEATHER GUTTER DETAIL
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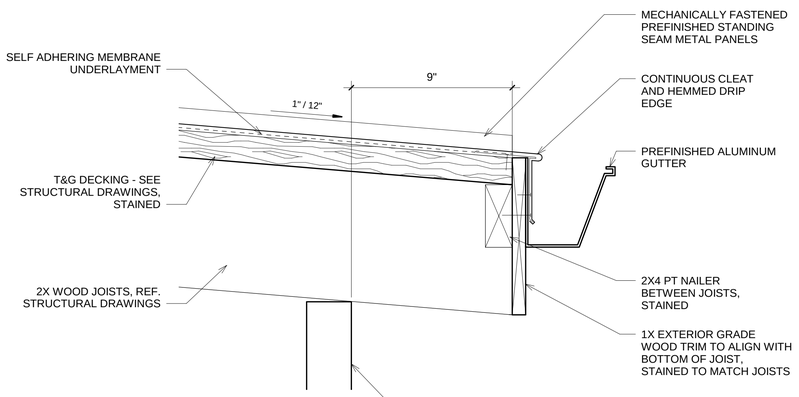
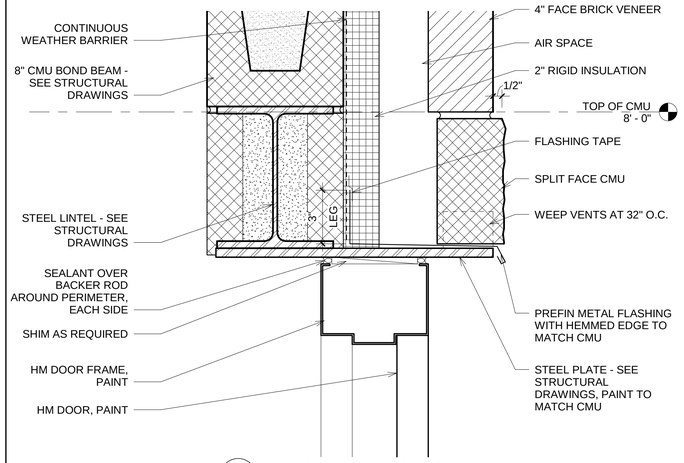


04 GARDEN SHELTER - GUTTER DETAIL
3" = 1'-0"



05 HM DOOR HEAD AT RESTROOM
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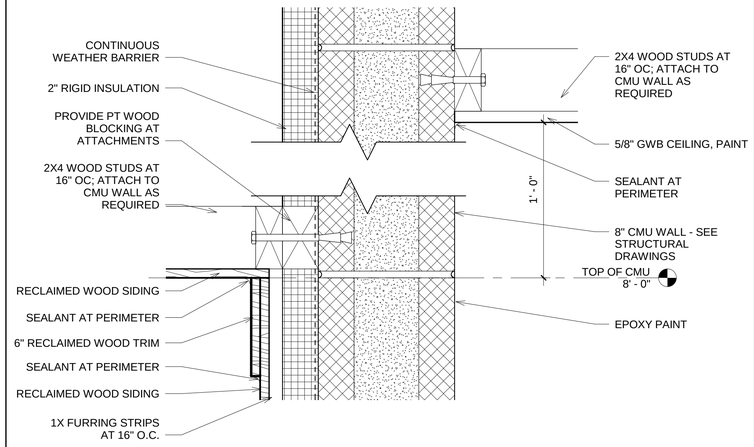

06 WALL/CEILING DETAIL
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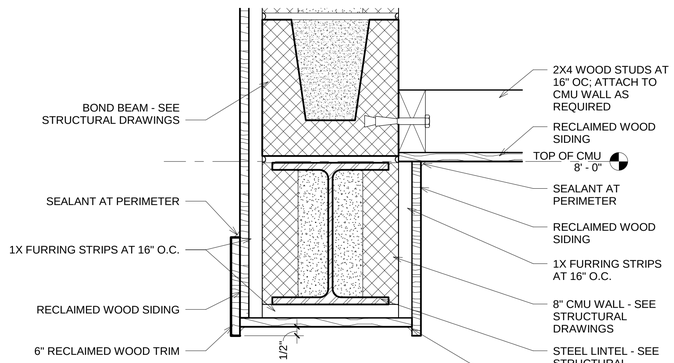

07 EXTERIOR SOFFIT DETAIL
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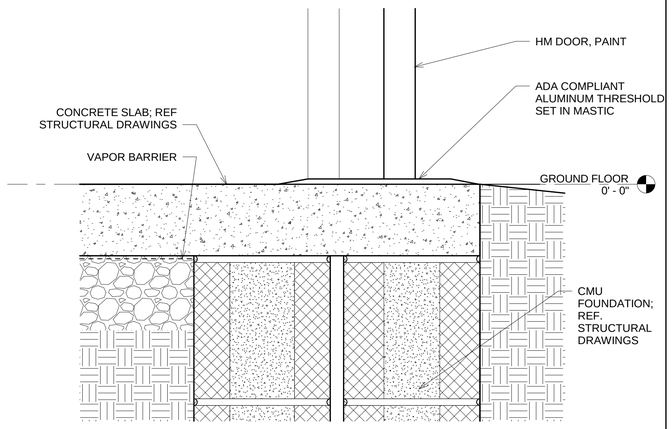

08 HM DOOR THRESHOLD
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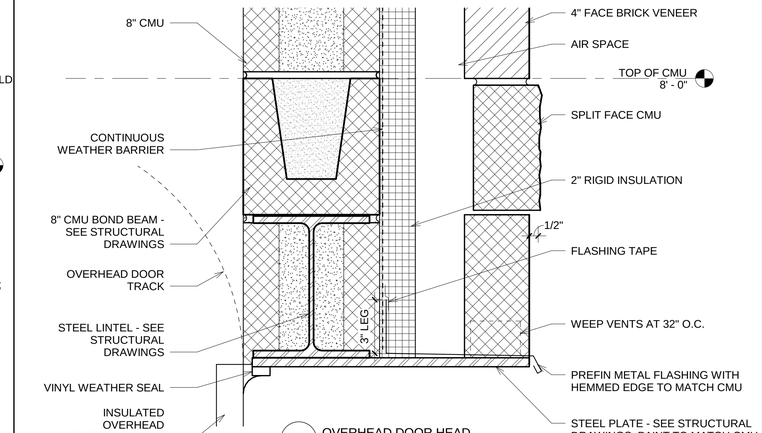

09 OVERHEAD DOOR HEAD
3" = 1'-0"

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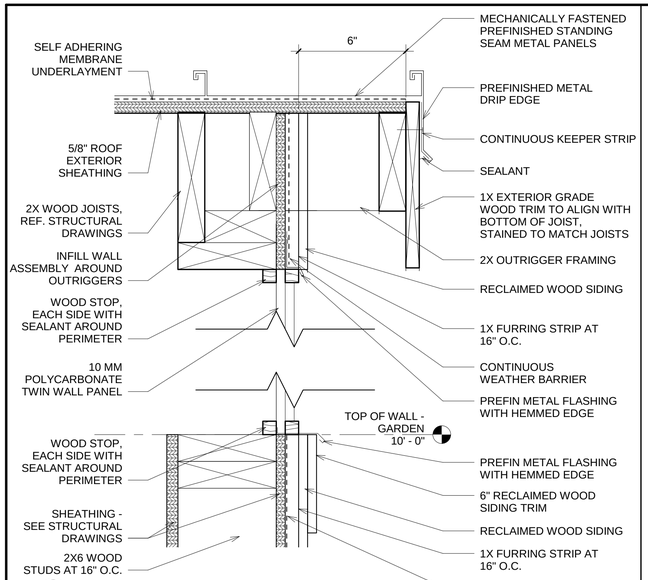
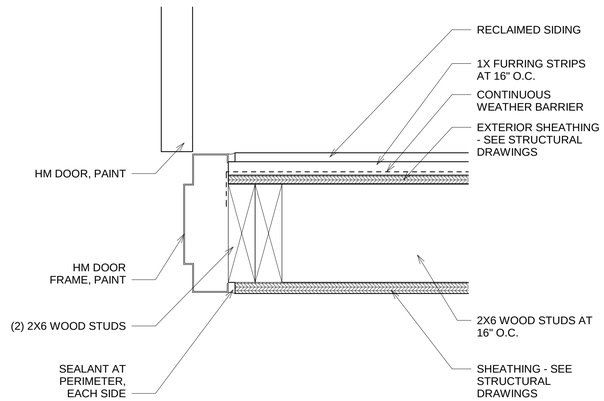


01 GARDEN STORAGE - WINDOW HEAD AND SILL
3" = 1'-0"



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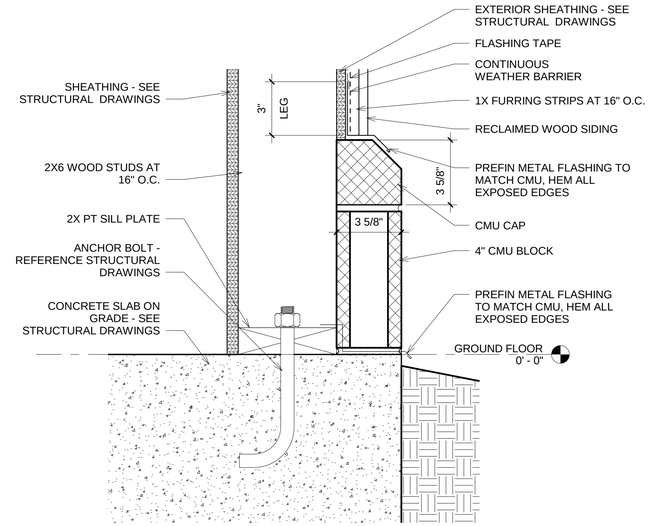

03 GARDEN STORAGE CMU BASE DETAIL
3" = 1'-0"

04 GARDEN SHELTER WINDOW JAMB DETAIL
3" = 1'-0"

05 GARDEN/ STORAGE - OUTSIDE CORNER
3" = 1'-0"

06 GARDEN STORAGE - DOOR HEAD AND SILL DETAIL
3" = 1'-0"

07 GARDEN/ STORAGE ROOF CONNECTION
3" = 1'-0"

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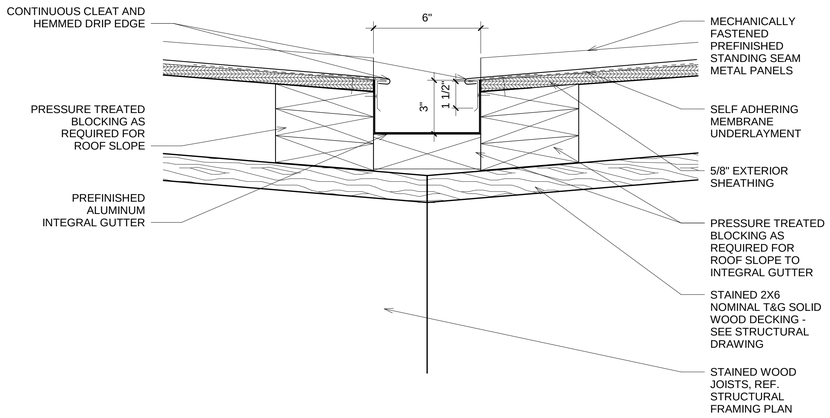

01 INTEGRAL GUTTER DETAIL
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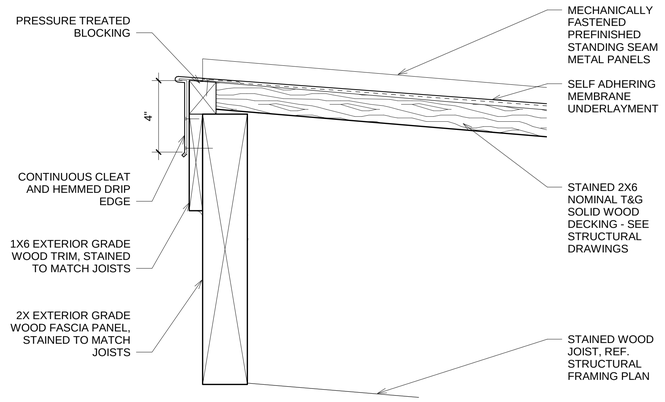

02 ROOF EDGE DETAIL AT ROOF TYPE R02
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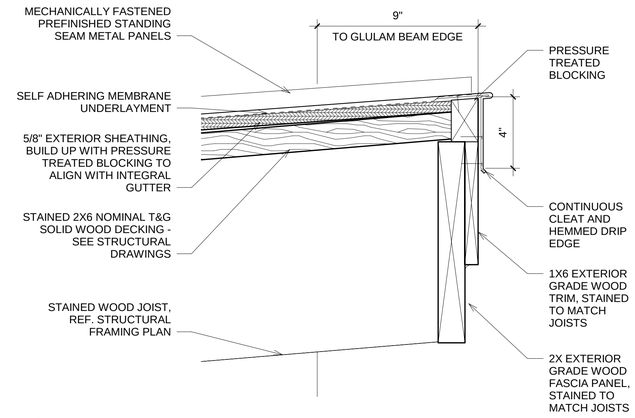

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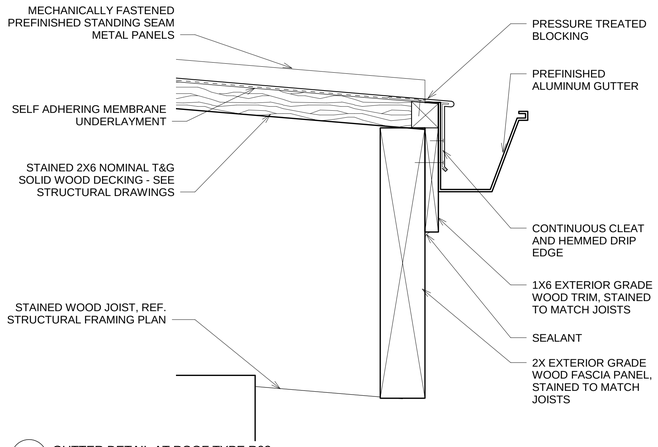

04 GUTTER DETAIL AT ROOF TYPE R02
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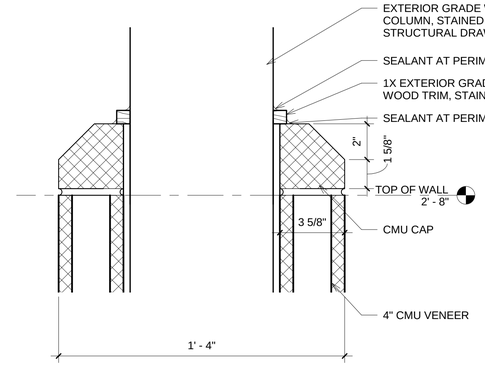

05 COLUMN CAP DETAIL
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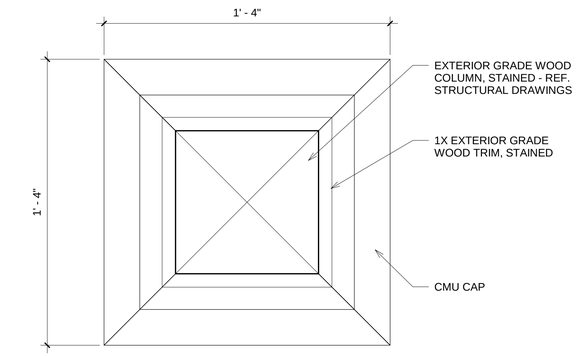

06 PLAN DETAIL - COLUMN
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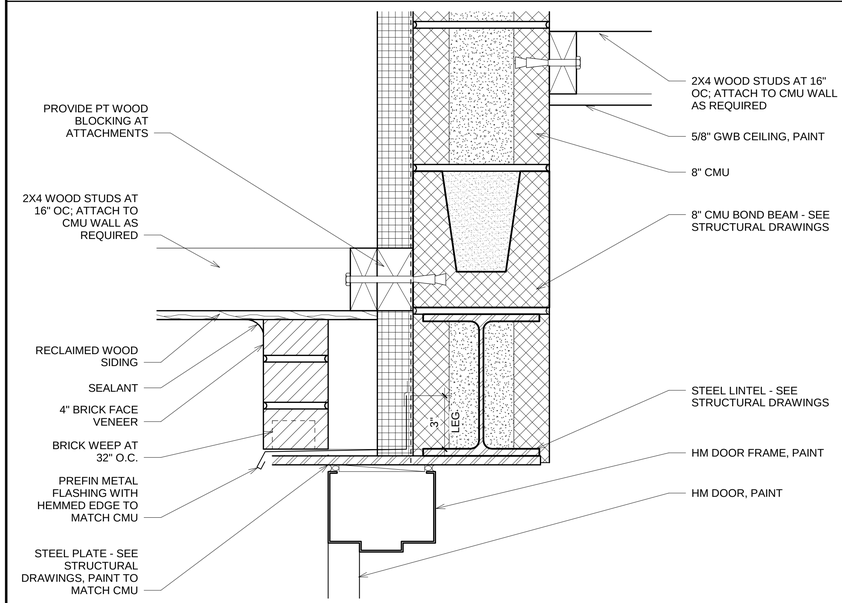
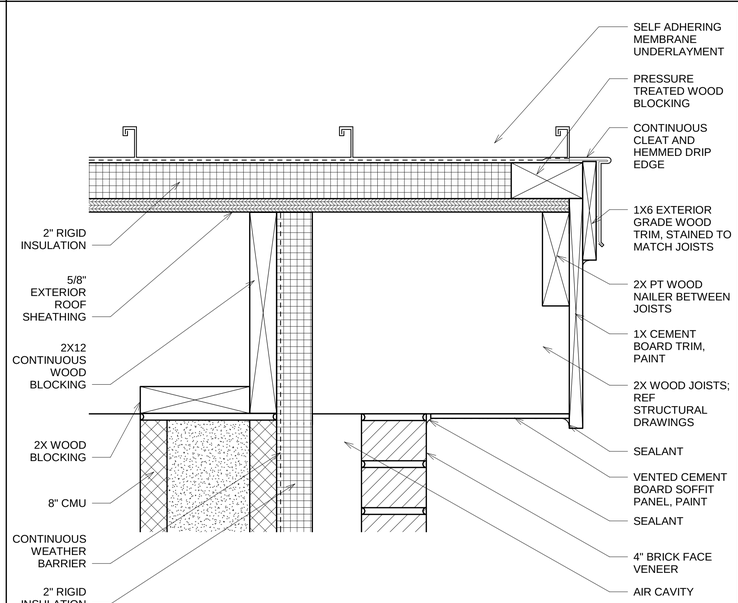
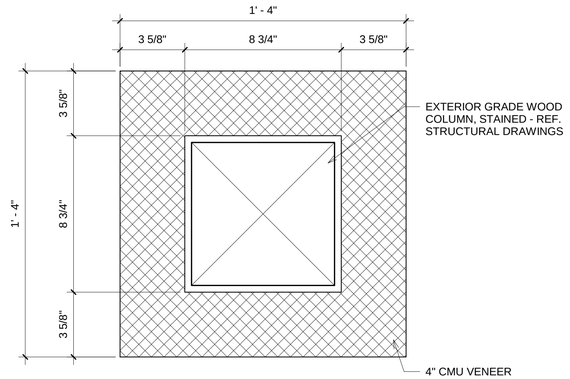


07 HM DOOR HEAD DETAIL
3" = 1'-0"



08 RESTROOM BUILDING RAKE DETAIL
3" = 1'-0"



09 PLAN DETAIL - COLUMN BASE
3" = 1'-0"

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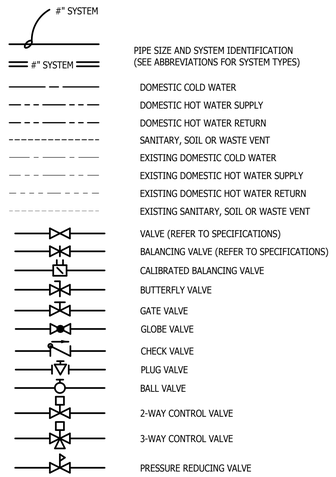
PLUMBING ABBREVIATIONS

Ø	ROUND; DIAMETER; PHASE	IN	INCH
#	POUNDS; NUMBER	INV	INVERT
A	COMPRESSED AIR	KW	KILOWATT
AAV	AIR ADMITTANCE VALVE	LP	LOW PRESSURE
ACFM	ACTUAL CUBIC FEET PER MINUTE	LPG	LIQUID PETROLEUM GAS
AFC	ABOVE FINISHED CEILING	MA	MEDICAL AIR
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AFG	ABOVE FINISHED GRADE	MBH	1000 BRITISH THERMAL UNITS PER HOUR
AFH	ANTI-FREEZE HYDRANT	MCA	MINIMUM CIRCUIT AMPS
ALT	ALTERNATE	MECH	MECHANICAL
ARCH	ARCHITECTURAL; ARCHITECT	MFG	MANUFACTURING
AUTO	AUTOMATIC	MFR	MANUFACTURER
AV	ACID VENT	MH	MANHOLE
AW	ACID WASTE	MIN	MINIMUM
BAS	BUILDING AUTOMATION SYSTEM	MOCP	MAXIMUM OVER CURRENT PROTECTION
BFF	BELOW FINISHED FLOOR	MP	MEDIUM PRESSURE
BP	BACKFLOW PREVENTER	MRT	MOTOR RATED TOGGLE SWITCH
BHP	BRAKE HORSEPOWER	MS	MOTOR STARTER
BOS	BOTTOM OF STEEL	MS/D	COMBINATION MOTOR STARTER & DISCONNECT
BOP	BOTTOM OF PIPE	MTD	MOUNTED
BTU	BRITISH THERMAL UNIT	N	NITROGEN
BTUH	BRITISH THERMAL UNIT PER HOUR	N.C.	NORMALLY CLOSED
C	CELSIUS	NO	NITROUS OXIDE
CD	CONDENSATE DRAIN	N.O.	NORMALLY OPEN
CFH	CUBIC FEET PER HOUR	NIC	NOT IN CONTRACT
CI	CAST IRON	NTS	NOT TO SCALE
CLG	CEILING	O	OXYGEN
CO	CLEAN OUT	OC	ON CENTER
CO2	CARBON DIOXIDE	OD	OUTSIDE DIAMETER, OVERFLOW (EMERGENCY)
CONC	CONCRETE		DRAIN
CPVC	CHLORINATED POLYVINYL CHLORIDE	ODL	OVERFLOW (EMERGENCY) DRAIN LEADER
CTR	CENTER	OSD	OPEN SIGHT DRAIN
CU	COPPER	P	PUMP
CUFT	CUBIC FOOT; CUBIC FEET	PD	PRESSURE DROP; PUMPED DISCHARGE
CUYD	CUBIC YARD	PRV	PRESSURE REDUCING VALVE; PRESSURE RELIEF
CW	COLD WATER		VALVE
DDC	DIRECT DIGITAL CONTROLS	PSI	POUNDS PER SQUARE INCH
DI	DUCTILE IRON	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
DIA	DIAMETER	PSIG	POUNDS PER SQUARE INCH GAUGE
DIW	DEIONIZED WATER	PVC	POLYVINYL CHLORIDE
DIV	DIVISION	QTY	QUANTITY
DN	DOWN	RD	ROUND; ROOF DRAIN
DWG	DRAWING	RDL	ROOF DRAIN LEADER
EA	EACH	RECIRC	RECIRCULATING
EFF	EFFICIENCY	REINF	REINFORCING
ELEV	ELEVATION	REV	REVISION
ELEC	ELECTRICAL	RL	ROOF LEADER
EQUIP	EQUIPMENT	RO	REVERSE OSMOSIS
EWC	ELECTRIC WATER COOLER	RPM	REVOLUTIONS PER MINUTE
EWH	ELECTRIC WATER HEATER	RPZ	REDUCED PRESSURE ZONE
EXIST	EXISTING	RM	ROOM
EXP	EXPANSION	SCFM	STANDARD CUBIC FEET PER MINUTE
F	FAHRENHEIT	SCH	SCHEDULE
FCO	FLOOR CLEANOUT	SD	STORM DRAIN
FD	FLOOR DRAIN	SECT	SECTION
FFE	FINISHED FLOOR ELEVATION	SPEC	SPECIFICATION
FL, FLR	FLOOR	SF	SQUARE FEET
FLA	FULL LOAD AMPS	SRV	SAFETY RELIEF VALVE
FLEX	FLEXIBLE	SS	SERVICE SINK; STAINLESS STEEL; SANITARY SEWER
FS	FLOOR SINK	ST	STORM
FT	FOOT; FEET	TD	TRENCH DRAIN
G	NATURAL GAS	TMV	THERMOSTATIC MIXING VALVE
GA	GAGE	TOP	TOP OF PIPE
GAL	GALLONS	TOS	TOP OF STEEL
GC	GENERAL CONTRACTOR	TWH	TANKLESS WATER HEATER
GCO	GRADE CLEANOUT	XT	THERMAL EXPANSION TANK
GPH	GALLONS PER HOUR	TYP	TYPICAL
GPM	GALLONS PER MINUTE	UL	UNDERWRITERS LABORATORIES
GWH	GAS WATER HEATER	V	VENT
HB	HOSE BIBB	VAC	VACUUM (SUCTION)
HD	HUB DRAIN; HEAT DETECTOR	VERT	VERTICAL
HORIZ	HORIZONTAL	VFD	VARIABLE FREQUENCY DRIVE
HP	HIGH PRESSURE OR HORSEPOWER	VTR	VENT THRU ROOF
HT	HEIGHT	W	WASTE
HTG	HEATING	W/	WITH
HW	HOT WATER	W/O	WITHOUT
HWR	HOT WATER RETURN	WC	WATER CLOSET/WATER COLUMN
HX	HEAT EXCHANGER	WCO	WALL CLEANOUT
ID	INDIRECT DRAIN OR INSIDE DIAMETER	WH	WATER HEATER

PLUMBING PIPING SYMBOLS



PLUMBING GENERAL NOTES:

1. COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF ANY PIPING, OR EQUIPMENT. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
2. REFER TO THE ARCHITECTURAL PLANS FOR DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
3. ALL PIPING LAYOUTS AND LOCATIONS SHOWN ARE DIAGRAMMATIC AND DO NOT INDICATE ALL FITTINGS REQUIRED TO COMPLETE WORK. COORDINATE THE PIPING LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION, INCLUDING CONDUITS AND CABLE TRAYS. PROVIDE ALL PIPING OFFSETS REQUIRED FOR THE COMPLETE INSTALLATION OF THE SYSTEM WHETHER OR NOT THE OFFSETS ARE INDICATED ON THE PLANS. INSTALL PIPING HIGH ENOUGH TO AVOID LIGHTS, CONDUIT AND MISCELLANEOUS PIPING, BUT LOW ENOUGH TO ALLOW FOR EASY ACCESS TO SYSTEM BALANCING DEVICES. DO NOT BLOCK ACCESS TO DEVICES.
4. LOCATE PIPING AND EQUIPMENT SUCH THAT ACCESS PANELS MAY BE FULLY OPENED (VIA TILE CEILING) FOR SERVICING VALVES. COORDINATE LOCATION WITH LIGHTING FIXTURES OR ANY OTHER EQUIPMENT.
5. COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF EQUIPMENT AND MATERIALS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
6. INSTALL ALL EQUIPMENT WITH THE MANUFACTURER'S RECOMMENDATION AND CODE REQUIRED CLEARANCES. INSURE ALL ITEMS FURNISHED WILL FIT IN THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO PURCHASE AND INSTALLATION.
7. COORDINATE EXACT SIZE AND LOCATION OF ALL PENETRATIONS THROUGH THE ROOF WITH ALL TRADES.
8. COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXPOSED ITEMS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND DETAILS. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: SENSORS, WALL DEVICES, CONTROL PANELS, AND ALARMS.
9. FURNISH 24"x24" ACCESS DOORS (UNLESS OTHERWISE INDICATED) AT ALL MAINTENANCE ITEMS THAT ARE CONCEALED; SUCH AS EQUIPMENT, VALVES, SENSORS, ETC. COORDINATE EXACT LOCATIONS WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
10. THE SIZE OF COLD AND HOT WATER PIPE RUNOUTS TO FIXTURES SHALL BE THE SAME AS THE POTABLE WATER CONNECTIONS LISTED IN THE PLUMBING FIXTURE SCHEDULE, UNLESS NOTED OTHERWISE.
11. THE SIZE OF SANITARY WASTE AND VENT PIPING TO FIXTURE SHALL BE THE SAME AS WASTE AND VENT CONNECTIONS LISTED IN THE PLUMBING FIXTURE SCHEDULE, UNLESS NOTED OTHERWISE.

WATER & SANITARY LOAD SUMMARY

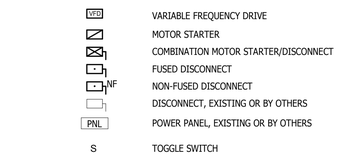
BUILDING AREA DESIGNATION	RESTROOM BLDG	.
SANITARY (FIXTURE UNITS)	22.5	.
WATER (FIXTURE UNITS)	51.25	.
WATER DEMAND (GPM)	49.4	.

MS55

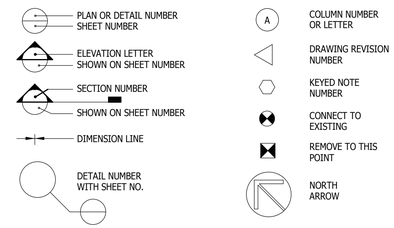
PLUMBING DRAWING LIST

NO.	TITLE
P001	STANDARDS, SYMBOLS & ABBREVIATIONS
P101	RESTROOM FLOOR PLANS
P102	SHELTER FLOOR PLANS
P300	DETAILS
P400	SCHEDULES

ELECTRICAL SYMBOLS



GENERAL SYMBOLS



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SEAL 16863 ENGINEER WILLIAM M. SMITH

JOB NUMBER 16-051
DATE ISSUED JUNE 20, 2017
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P001

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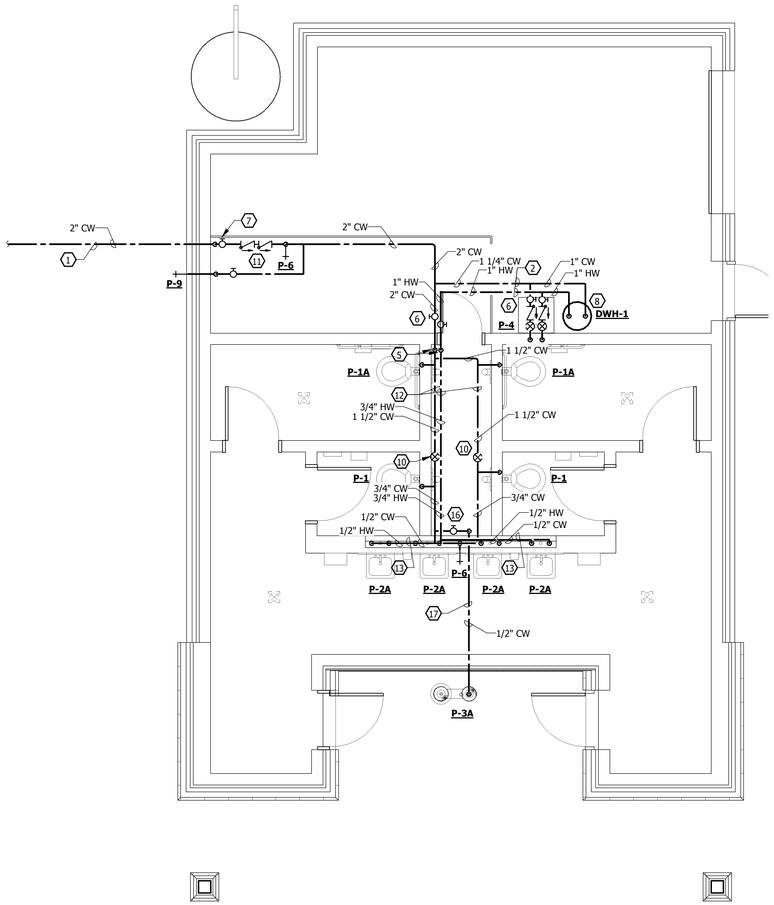
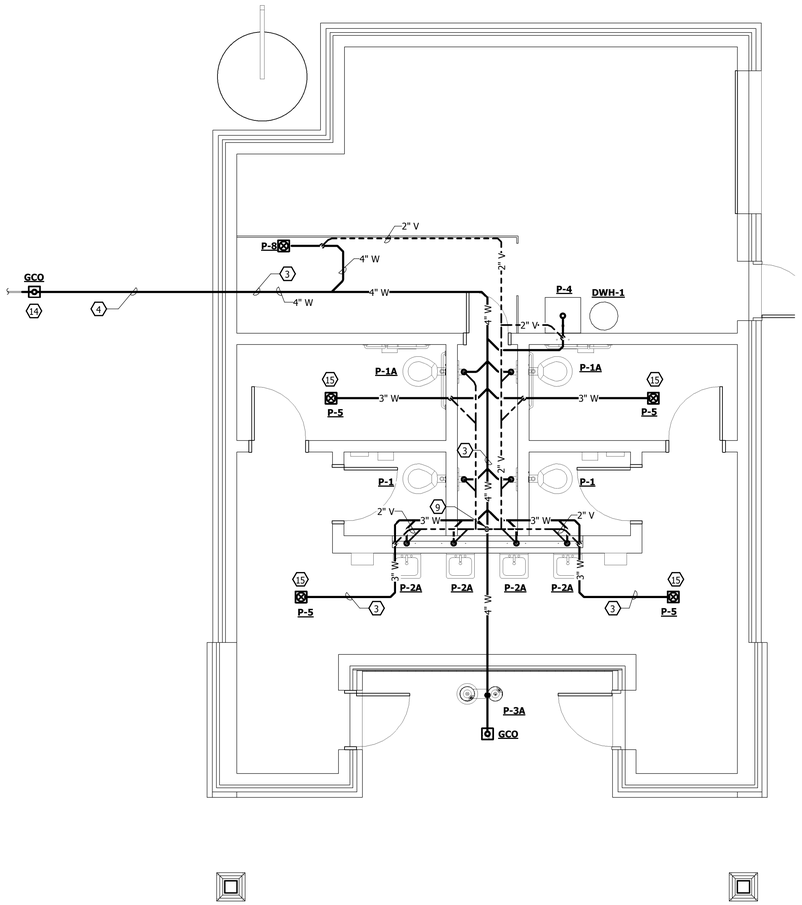
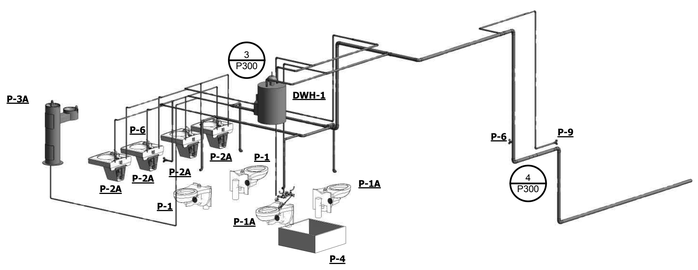


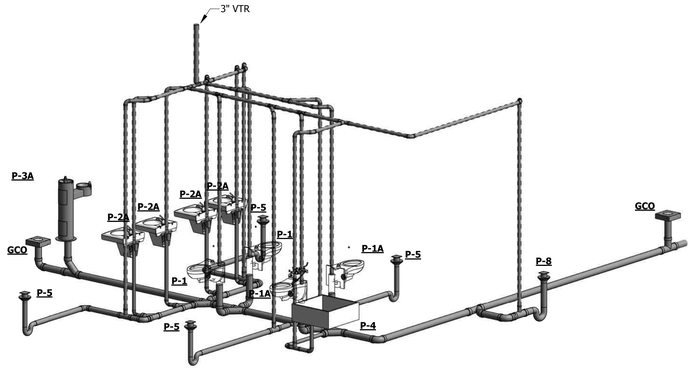
3 P101 **RESTROOM FLOOR PLAN - DOMESTIC WATER**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'



1 P101 **RESTROOM FLOOR PLAN - SANITARY & VENT**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'



4 P101 **DOMESTIC WATER RISER**
SCALE:
4' 0 4' 8'



2 P101 **WASTE AND VENT RISER**
SCALE:
4' 0 4' 8'

GENERAL NOTES

1. ALL WASTE PIPING IS BELOW FLOOR UNLESS NOTED OTHERWISE.
2. ALL VENT PIPING IS 2" UNLESS NOTED OTHERWISE.
3. FIXTURE REPRESENTATION ARE FOR REFERENCE ONLY. SEE PLUMBING FIXTURE SCHEDULE FOR EXACT FIXTURE.

KEY NOTES TO P101

#	
1	NEW DOMESTIC WATER SERVICE PIPING BELOW GRADE EXTENDED 10' BEYOND EXTERIOR WALL OF BUILDING. COORDINATE CONNECTION LOCATION WITH EXTERIOR DOMESTIC WATER SERVICE (REFER TO CIVIL DRAWINGS).
2	ABOVE CEILING. COORDINATE EXACT LOCATION/HEIGHT WITH OTHER TRADES (HVAC, ETC.)
3	PIPING BELOW FLOOR. COORDINATE EXACT LOCATION AND ELEVATION WITH OTHER TRADES AND UTILITIES.
4	SANITARY WASTE BUILDING DRAIN BELOW GRADE. EXTEND 10' BEYOND EXTERIOR WALL OF BUILDING. INSTALL CLEANOUT FLUSH WITH GRADE OR WALK. COORDINATE CONNECTION LOCATION AND ELEVATION WITH EXTERIOR BUILDING SEWER (REFER TO CIVIL DRAWINGS).
5	DROP PIPING TIGHT TO WALL.
6	LOCATE VALVES TO BE EASILY ACCESSIBLE FROM REMOVABLE CEILING TILE OR CEILING ACCESS DOOR..
7	INTERIOR WATER MAIN SHUTOFF VALVE.
8	WATER HEATER. SEE DETAIL.
9	3" VENT UP THROUGH ROOF.
10	BELLOWS TYPE WATER HAMMER ARRESTOR.
11	RPZ STYLE BACKFLOW PREVENTER. SEE DETAIL 4/P300.
12	DOMESTIC WATER PIPING LOW IN CHASE.
13	DOMESTIC WATER PIPING IN CHASE WALL.
14	SANITARY SEWER MAIN OUT BY UTILITY CONTRACTOR. CONNECTION TO BUILDING MAIN BY PLUMBING CONTRACTOR.
15	SEE ARCHITECTURAL PLANS FOR EXACT LOCATION OF FLOOR DRAIN.
16	LOCATE VALVES TO BE EASILY ACCESSIBLE IN CHASE. COORDINATE EXACT LOCATION AND ELEVATION WITH OTHER TRADES AND UTILITIES.
17	COLD WATER PIPING BELOW GRADE. COORDINATE EXACT LOCATION AND ELEVATION WITH OTHER TRADES AND UTILITIES.

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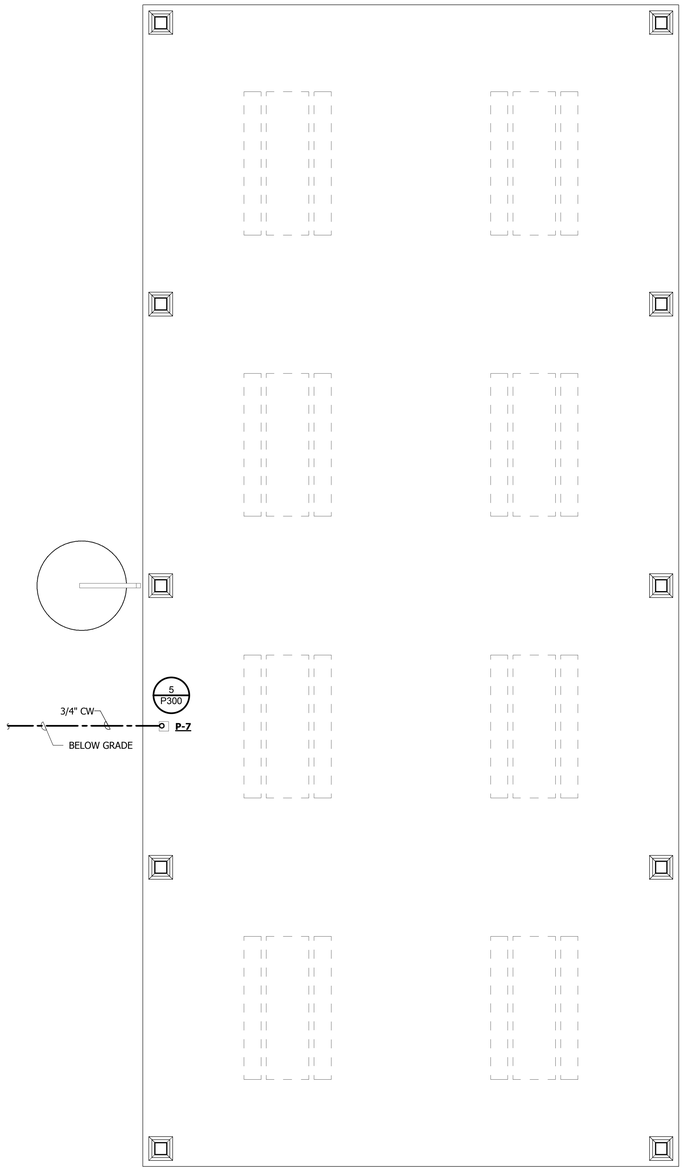
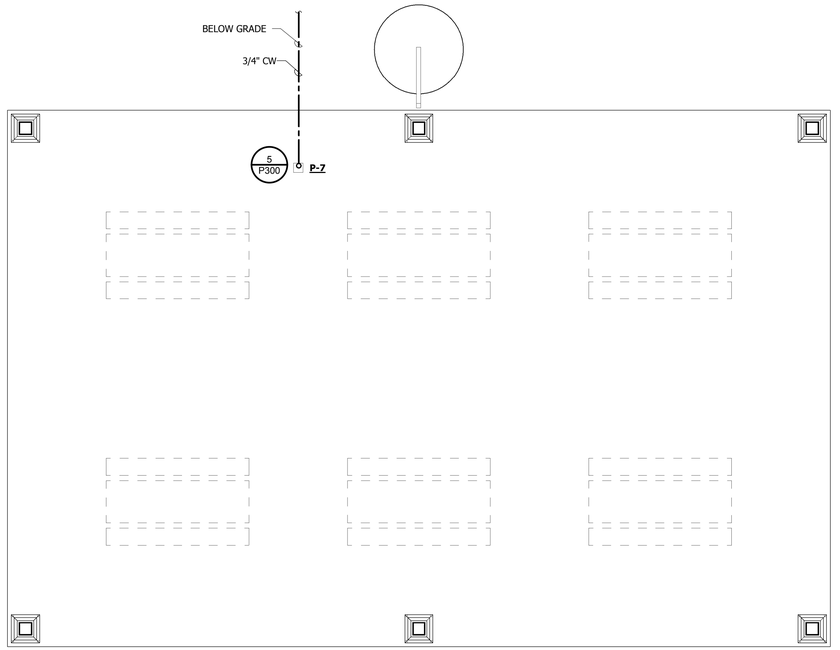
RESTROOM FLOOR PLANS
P101



1 P102 **SHELTER FLOOR PLAN**
SCALE: 1/4" = 1'-0"

4' 0 4' 8'



2 P102 **SHELTER FLOOR PLAN**
SCALE: 1/4" = 1'-0"

4' 0 4' 8'

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SHELTER FLOOR PLANS

P102

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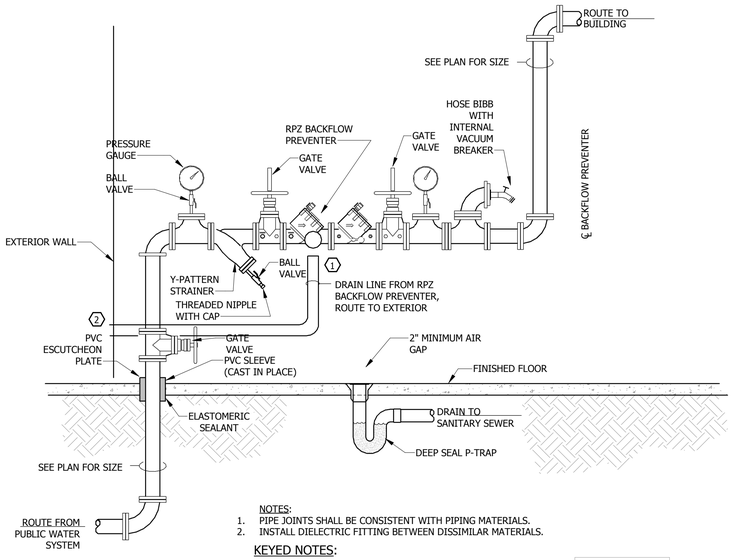


NOTES:
1. PIPE JOINTS SHALL BE CONSISTENT WITH PIPING MATERIALS.
2. INSTALL DIELECTRIC FITTING BETWEEN DISSIMILAR MATERIALS.

KEYED NOTES:

1. 8" SCHEDULE 40 PVC DWV DRAIN PIPE TURNED UP UNDER BACKFLOW PREVENTER DRAIN WITH 4" MINIMUM AIR GAP. COVER OPENING WITH SQUARE 2 MESH 0.063" PVC COATED STEEL WELDED WIRE MESH SECURED WITH STAINLESS STEEL BAND.
2. PROVIDE 304 STAINLESS STEEL VERMIN SCREEN AND FRAME.

SW DETAIL: PB08

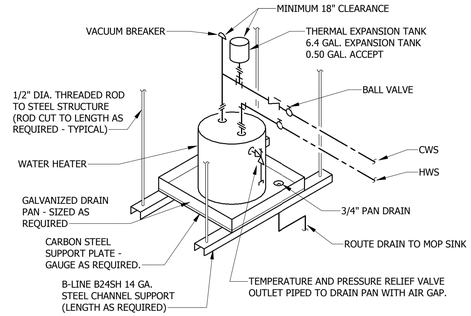
4 P300 WATER SERVICE ENTRANCE
SCALE: NTS

SW DETAIL: PB11

5 P300 YARD HYDRANT
SCALE: NTS

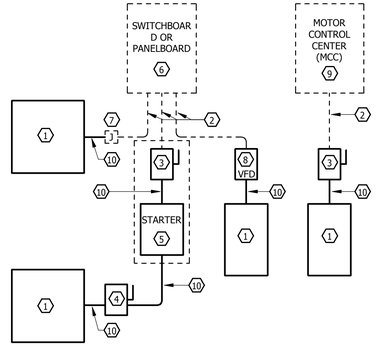
SW DETAIL: PB07

6 P300 YARD CLEANOUT
SCALE: NTS



SW DETAIL: PB01D

3 P300 SMALL WATER HEATER DETAIL
SCALE: NTS



KEYED NOTES:

1. EQUIPMENT FURNISHED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS.
2. CONDUIT & WIRING BY DIVISION 26 CONTRACTOR.
3. PROVIDE DISCONNECT AND FUSING.
4. PROVIDE ADDITIONAL DISCONNECT IF REQUIRED BY NEC.
5. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER.
6. POWER DISTRIBUTION EQUIPMENT BY DIVISION 26 CONTRACTOR.
7. JUNCTION BOX REQUIRED BY THE DIVISION 26 CONTRACTOR FOR EQUIPMENT IF NO STARTER IS REQUIRED. PROVIDE MOTOR-RATED DISCONNECT SWITCH WHERE REQUIRED BY CODE. THE DIVISION 26 CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE DISCONNECT. PROVIDE LOAD SIDE WIRING.
8. PROVIDE VARIABLE FREQUENCY DRIVE (VFD) WHERE NECESSARY.
9. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER OR VFD IN THE MCC SHALL BE PROVIDED BY THE DIVISION 26 CONTRACTOR.
10. PROVIDE RACEWAY & WIRING IN ACCORDANCE WITH REQUIREMENTS FOR RACEWAYS AND WIRING METHODS IN DIVISION 26 SPECIFICATIONS.

SW DETAIL: MR01

1 P300 ELECTRICAL CONNECTIONS TO EQUIPMENT
SCALE: NTS

TABLE A - WORKING CLEARANCES

VOLTAGE TO GROUND NOMINAL	CONDITION	MINIMUM CLEAR DISTANCE (FEET) 1	2	3
0-150		3	3	3
151-600		3	3 1/2	4

WHERE THE CONDITIONS ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1), WITH THE OPERATOR BETWEEN.

NOTES:

1. THESE FIGURES ILLUSTRATE THE WORKING CLEARANCE AND DEDICATED SPACE AROUND ELECTRICAL EQUIPMENT AS REQUIRED BY NEC SECTION 110-26.
2. DEDICATED SPACE RUNS TO A HEIGHT OF 6'-0" ABOVE EQUIPMENT. DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING OR UP TO STRUCTURAL CEILING. ANY FOREIGN SYSTEMS TO THE ELECTRICAL EQUIPMENT SHALL NOT RUN WITHIN THIS SPACE. (FIGURE 2)

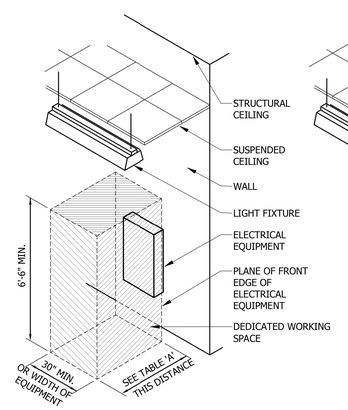


FIGURE 1

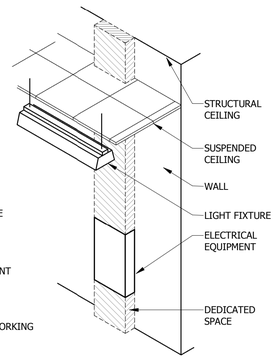


FIGURE 2

SW DETAIL: MR03

2 P300 CLEARANCES FOR ELECTRICAL EQUIPMENT
SCALE: NTS

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PLUMBING FIXTURE SCHEDULE

TAG	ADA	FIXTURE DESCRIPTION	BASIS OF DESIGN	POTABLE WATER CONNECTIONS		WASTE AND VENT CONNECTIONS		MOUNTING HEIGHTS	REMARKS
				COLD	HOT	WASTE	VENT		
P-1		WATER CLOSET	MURDOCK MODEL 1000 COMPACT REAR MOUNTED, OFF-FLOOR, 14 GAGE, TYPE 304 STAINLESS STEEL, SEAMLESS WELDED CONSTRUCTION, WALL FLANGE IS STRUCTURALLY REINFORCED, EXTERIOR HAS SATIN FINISH, INTERIOR HAS SANITARY HIGH POLISH FINISH, ENLONGATED BOWL, 1.6 GPF.	-	-	4"	2"		MINIMUM COLD WATER RUNOUT TO WATER CLOSET TO BE 1-1/4"
		FLUSH VALVE	MURDOCK MODEL 1150-9-ULF, CONCEALED TOILET FLUSH VALVE, VACUUM BREAKER, NON-HOLD OPEN PUSHBUTTON, CONSTRUCTION IS BRONZE WITH CHROME PLATED EXPOSED PARTS, 1.6 GPF.	1"	-	-	-	-	
		SEAT	PROVIDED WITH WATER CLOSET.	-	-	-	-		
P-1A	YES	WATER CLOSET	MURDOCK MODEL 1000 COMPACT REAR MOUNTED, OFF-FLOOR, 14 GAGE, TYPE 304 STAINLESS STEEL, SEAMLESS WELDED CONSTRUCTION, WALL FLANGE IS STRUCTURALLY REINFORCED, EXTERIOR HAS SATIN FINISH, INTERIOR HAS SANITARY HIGH POLISH FINISH, ENLONGATED BOWL, 1.6 GPF.	-	-	4"	2"		MINIMUM COLD WATER RUNOUT TO WATER CLOSET TO BE 1-1/4"
		FLUSH VALVE	MURDOCK MODEL 1150-9-ULF, CONCEALED TOILET FLUSH VALVE, VACUUM BREAKER, NON-HOLD OPEN PUSHBUTTON, CONSTRUCTION IS BRONZE WITH CHROME PLATED EXPOSED PARTS, 1.6 GPF.	1"	-	-	-	-	
		SEAT	PROVIDED WITH WATER CLOSET.	-	-	-	-		
P-2A	YES	LAVATORY	ACORN MODEL # 1951-9-H1-GT-TPT-TE, 18" x 18" FRONT MOUNT STAINLESS STEEL LAVATORY WITH RECTANGLE BOWL, 16 GAGE, TYPE 304 STAINLESS STEEL, SEAMLESS WELDED, EXTERIOR POLISHED TO SATIN FINISH, INTERIOR OF BOWL SATIN FINISH, LAVATORY DECK SHALL HAVE INTEGRAL AIR-CIRCULATING SELF DRAINING SOAP DISH, STAINLESS STEEL TRAP ENCLOSURE	-	-	2"	2"		
		FAUCET AND DRAIN	CHICAGO FAUCET 3500-E2805ABCP, SINGLE HANDLE FAUCET, CHROME PLATED METAL CONSTRUCTION, VANDAL RESISTANT, 4" SPOUT, CSA AND IAPMO LISTED ASME A112.18.1 CERTIFIED, 4" CENTERS, 0.5 GPM AERATOR.	1/2"	1/2"	-	-		
		THERMOSTATIC MIXING VALVE	CHICAGO FAUCET 122-ABNF, BRONZE BODY, STANDARD 1/2" NPT THREADED INLET AND OUTLET, UNION CONNECTIONS.	1/2"	1/2"	-	-		
		P-TRAP ASSEMBLY	PROVIDE WITH LAVATORY.	-	-	-	-	34" AFF	
		LAVATORY SUPPLIES (2 REQUIRED)	McGUIRE MANUFACTURING CO., INC. MODEL LFH2165-N5, LEAD-FREE, HEAVY PATTERN, CHROME PLATED BRASS ANGLE STOP WITH BRASS STEM, 1/2" IPS x 3/8" OD COMPRESSION, 5" CAST BRASS NIPPLE, WHEEL HANDLE, FLEXIBLE CHROME PLATED COPPER RISER, CHROME PLATED BRASS WALL FLANGE.	1/2"	1/2"	-	-		
		PIPING INSULATORS	McGUIRE MANUFACTURING CO., INC. MODEL PW2000 SEAMLESS INSULATOR, MOLDED CLOSED CELL VINYL, 3/16" THICK, WHITE COVERS FOR TRAP, TAILPIECE, WALL BEND AND TWO (2) SUPPLIES.	-	-	-	-		
P-3A	YES	WATER FOUNTIAN	MURDOCK GR SERIES MODEL GRM44-NP2-IGM, BARRIER FREE PEDESTAL MOUNTED, VANDAL RESISTANT, BI-LEVEL ROUND DRINKING FOUNTIAN, 18 GAGE, 304 STAINLESS BOWLS MOUNTED INTO 12 GAGE HEAVY DUTY STAINLESS STEEL PEDESTAL, BUBBLERS TO BE POLISHED STAINLESS STEEL, NON-POLLUTABLE FREEZE RESISTANT 2 VALVES, INGROUND 14" MOUNTING.	1/2"	-	2"	2"	AS RECOMMENDED BY MANUFACTURER FOR ADA COMPLIANCE	
P-4		MOP RECEPTOR	FIAT MODEL TSB-3001, 32" x 32" x 12" WITH 6" DROP FRONT, STAINLESS STEEL CAPS ON ALL CURBS, 3" INTEGRAL STAINLESS STEEL DRAIN BODY FOR CAULKED CONNNECTION, STAINLESS STEEL STRAINER, POLISHED TERRAZZO OF BLACK AND WHITE CHIPS CAST IN GRAY PORTLAND CEMENT.	-	-	3"	2"		
		FAUCET AND ACCESSORIES	FIAT MODEL 830AA FAUCET WITH VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD SPOUT; FIAT MODEL 832-AA HOSE AND STAINLESS STEEL BRACKET; FIAT MODEL 889-CC STAINLESS STEEL MOP HANGER; FIAT MSG3232 STAINLESS STEEL WALL GUARDS. INSTALL CHECK AND BALL VALVES IN WATER SUPPLY PIPES IN ACCESSIBLE LOCATIONS.	3/4"	3/4"	-	-	FAUCET 36" AFF	
P-5		FLOOR DRAIN	ZURN MODEL ZN415S, 6" x 6" FLOOR/SHOWER DRAIN, DURA-COATED CAST IRON BODY, MEMBRANE CLAMP WITH ADJUSTABLE COLLAR, "TYPE S" POLISHED NICKEL BRONZE, LIGHT-DUTY STRAINER.	-	-	3"	2"	-	
P-6		HOSE BIBB	WOODFORD MODEL 24, ANTI-SIPHON, VACUUM BREAKER PROTECTED, METAL WHEEL HANDLE, 3/4" MALE HOSE THREAD OUTLET.	3/4"	-	-	-	18" AFF	
P-7		NON-FREEZE YARD HYDRANT	MURDOCK MODEL M-V475 3/4" FREEZE HYDRANT, FLUSH MOUNTED BOX HYDRANT WITH HINGED LID AND VACCUM BREAKER, 3 FOOT BURY DEPTH.	3/4"	-	-	-	-	
P-8		FLOOR DRAIN	ZURN MODEL Z540, 12" DIAMETER FLOOR DRAIN, DURA-COATED CAST IRON BODY, MEMBRANE CLAMP, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP, MEDIUM DUTY STRAINER, CAST IRON SEDIMENT BUCKET.	-	-	4"	2"	-	
P-9		NON-FREEZE WALL HYDRANT	ZURN MODEL Z1300, "ANTI-SIPHON" AUTOMATIC DRAINING, NON-FREEZE WALL HYDRANT FOR FLUSH INSTALLATION; INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, NICKEL BRONZE BOX AND HINGED COVER WITH OPERATING KEY LOCK AND "WATER" CAST ON COVER.	3/4"	-	-	-	24" AFG	

DOMESTIC WATER HEATER SCHEDULE

DESIGNATION	DWH-1	.
SERVICE	DOMESTIC	.
TYPE	TANK	.
TEMPERATURE SETTING (F)	120	.
STORAGE CAPACITY (GAL)	19	
RECOVERY (GPH)	11	
ELEC. No. OF ELEMENTS	1	.
ELEC. CAPACITY PER ELEMENT (W)	2500	.
ELEC. VOLTAGE/PHASE	240/1	.

NOTES:
1. RECOVERY IS BASED ON 80° TEMPERATURE RISE.
2. PROVIDE EXTERNAL DISCONNECT SWITCH FOR SINGLE POINT OF CONNECTION.

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HVAC ABBREVIATIONS

Ø	ROUND; DIAMETER; PHASE
#	POUNDS; NUMBER
A	COMPRESSED AIR
ACFM	ACTUAL CUBIC FEET PER MINUTE
ACH	AIR CHANGES PER HOUR
AD	ACCESS DOOR
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ARCH	ARCHITECTURAL; ARCHITECT
AS	AIR SEPERATOR
AUTO	AUTOMATIC
AV	ACID VENT
AW	ACID WASTE
BAS	BUILDING AUTOMATION SYSTEM
BBD	BOILER BLOWDOWN
BFF	BELOW FINISHED FLOOR
BFW	BOILER FEED WATER
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BP	BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CELSIUS; COMMON PORT
CD	CONDENSATE DRAIN
CDWP	CONDENSER WATER PUMP
CDWR	CONDENSER WATER RETURN
CDWS	CONSENSER WATER SUPPLY
CF	CHEMICAL FEED
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CLG	CEILING
CO	CLEAN OUT; CARBON MONOXIDE
CO2	CARBON DIOXIDE
CONC	CONCRETE
COP	COEFFICIENT OF PERFORMANCE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CT	COOLING TOWER
CTR	CENTER
CU	COPPER; CONDENSING UNIT
CUFT	CUBIC FOOT; CUBIC FEET
CUH	CABINET UNIT HEATER
CUYD	CUBIC YARD
CW	COLD WATER
DB	DRY BULB
DD	DUCT MOUNTED SMOKE DETECTOR
DDC	DIRECT DIGITAL CONTROLS
DI	DUCTILE IRON
DIA	DIAMETER
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DTWR	DUAL TEMPERATURE WATER RETURN
DTWS	DUAL TEMPERATURE WATER SUPPLY
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
EL	ELEVATION
ELEC	ELECTRICAL
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ESS	EMERGENCY STOP SWITCH
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST; EXHAUST AIR; EXHAUST FAN
EXIST	EXISTING
EXP	EXPANSION
F	FAHRENHEIT
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FFE	FINISHED FLOOR ELEVATION
FL	FLOOR
FLEX	FLEXIBLE
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FSD	FIRE/SMOKE DAMPER
FT	FEET; FOOT
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
GC	GENERAL CONTRACTOR
GEX	GREASE EXHAUST AIR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HUB DRAIN; HEAT DETECTOR
HEX	HAZARDOUS EXHAUST
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HIGH PRESSURE
HPR	HIGH PRESSURE CONDENSATE RETURN
HPS	HIGH PRESSURE STEAM
HSTAT	HUMIDISTAT
HT	HEIGHT
HTG	HEATING
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HX	HEAT EXCHANGER
ID	INDIRECT DRAIN; INSIDE DIAMETER
IN	INCH
INV	INVERT
ISP	INTERNAL STATIC PRESSURE
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LB/HR	POUNDS PER HOUR
LP	LOW PRESSURE
LPG	LIQUID PETROLEUM GAS
LPR	LOW PRESSURE CONDENSATE RETURN
LPS	LOW PRESSURE CONDENSATE SUPPLY
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 BRITISH THEMAL UNITS PER HOUR
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MP	MEDIUM PRESSURE
MRT	MOTOR RATED TOGGLE SWITCH
MS	MOTOR STARTER
MS/D	COMBINATION MOTOR STARTER AND DISCONNECT
MTD	MOUNTED
MUA	MAKE UP AIR
MVD	MANUAL VOLUME DAMPER
N	NITROGEN
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NITROUS OXIDE; NUMBER
N.O.	NORMALLY OPEN
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
P	PUMP
PC	PLUMBING CONTRACTOR
PCHWP	PRIMARY CHILLED WATER PUMP
PD	PRESSURE DROP
PHWP	PRIMARY HOT WATER PUMP
PI	PRESSURE INDEPENDENT
PICV	PRESSURE INDEPENDENT CONTROL VALVE
PR	PUMPED CONDENSATE RETURN
PNL	PANEL
PPH	POUNDS PER HOUR
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCE ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	POINT
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
RA	RETURN AIR
RD	ROUND
RECIRC	RECIRCULATING
REINF	REINFORCING
REL	RELIEF; RELIEF AIR
REV	REVISION
RF	RETURN FAN
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
RS	REFRIGERANT SUCTION
SA	SUPPLY AIR
SCFM	STANDARD CUBIC FEET MER MINUTE
SCHWP	SECONDARY CHILLED WATER PUMP
SD	SMOKE DAMPER
SECT	SECTION
SF	SUPPLY FAN; SQUARE FEET
SHWP	SECONDARY HOT WATER PUMP
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SPL	STATIC PRESSURE LOSS
SF	SQUARE FEET
SS	STAINLESS STEEL; SANITARY SEWER
STM	STEAM
TA	TRANSFER AIR
TAB	TEST AND BALANCE
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
T'STAT	THERMOSTAT
TU	TERMINAL UNIT
TYP	TYPICAL
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES INC.
V	VENT
VA	VENTILATION AIR
VAC	VACUUM (SUCTION)
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
WB	WET BULB
WG	WATER GAUGE
W/O	WITHOUT
XT	EXPANSION TANK

GENERAL SYMBOLS

- PLAN OR DETAIL NUMBER / SHEET NUMBER
- ELEVATION LETTER / SHOWN ON SHEET NUMBER
- SECTION NUMBER / SHOWN ON SHEET NUMBER
- DIMENSION LINE
- DETAIL NUMBER / WITH SHEET NO.
- COLUMN NUMBER OR LETTER
- DRAWING REVISION NUMBER
- KEYED NOTE NUMBER
- CONNECT TO EXISTING
- REMOVE TO THIS POINT
- NORTH ARROW

ELECTRICAL SYMBOLS

- VFD — VARIABLE FREQUENCY DRIVE
- MOTOR STARTER
- COMBINATION MOTOR STARTER/DISCONNECT
- FUSED DISCONNECT
- NF — NON-FUSED DISCONNECT
- DISCONNECT, EXISTING OR BY OTHERS
- PNL — POWER PANEL, EXISTING OR BY OTHERS
- S — TOGGLE SWITCH

PIPING SYMBOLS

- #" SYSTEM — PIPE SIZE AND SYSTEM IDENTIFICATION (SEE ABBREVIATIONS FOR SYSTEM TYPES)
- #" SYSTEM
- VALVE (REFER TO SPECIFICATIONS)
- BALANCING VALVE (REFER TO SPECIFICATIONS)
- CALIBRATED BALANCING VALVE
- BUTTERFLY VALVE
- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- PLUG VALVE
- BALL VALVE
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- PRESSURE REDUCING VALVE
- PRESSURE RELIEF VALVE
- GAS COCK
- Y-TYPE STRAINER
- BASKET STRAINER
- PIPE TURNING UP
- PIPE TURNING DOWN
- PIPE CONNECTION AT BOTTOM OF MAIN
- PIPE CAP
- PIPE UNION
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- PIPE ALIGNMENT GUIDE
- PIPE ANCHOR
- FLEXIBLE PIPE CONNECTION
- PRESSURE GAUGE
- THERMOMETER
- STEAM TRAP
- DIRECTION OF FLOW IN PIPE
- SLOPE PIPE IN DIRECTION OF ARROW
- PUMP
- PETES PLUG (P & T PORT)
- BACKFLOW PREVENTER
- EXISTING PIPING
- PIPING TO BE DEMOLISHED
- NEW PIPING

DUCTWORK SYMBOLS

- SUPPLY, VENTILATION, OUTSIDE AIR DUCT SECTION
- RETURN AIR DUCT SECTION
- EXHAUST OR RELIEF AIR DUCT SECTION
- 24x24 — RECTANGULAR DUCT DIMENSIONS (IN PLAN WIDTH x HEIGHT INCHES)
- 24/12 — FLAT OVAL DUCT DIMENSIONS
- 24Ø — ROUND DUCT DIMENSIONS
- EXISTING DUCT
- DUCT TO BE DEMOLISHED
- NEW DUCT
- #/1'-0" — SLOPE DUCT IN DIRECTION OF ARROW
- BELL MOUTH TAP FOR MEDIUM PRESSURE
- CONICAL TAP WITH BALANCING DAMPER WITH LOCKING QUADRANT OPERATOR FOR LOW PRESSURE TAKEOFFS
- 45° TAP WITH BALANCING DAMPER WITH LOCKING QUADRANT OPERATOR
- SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE
- MITERED ELBOW
- RADIUS ELBOW
- FLEXIBLE DUCT
- VOLUME DAMPER WITH MANUAL OPERATOR AND LOCKING QUADRANT
- D — DUCT MOUNTED MOTORIZED DAMPER
- H — DUCT MOUNTED STEAM HUMIDIFIER
- DD — DUCT MOUNTED SMOKE DETECTOR
- FD / FD FD — FIRE DAMPER, DAMPER TO MATCH WALL RATING
- SD / SD SD — SMOKE DAMPER, DAMPER TO MATCH WALL RATING
- FSD / FSD FSD — COMBINATION FIRE/SMOKE DAMPER, DAMPER TO MATCH WALL RATING
- R — CEILING RADIATION DAMPER, DAMPER TO MATCH CEILING RATING
- A | 100 — AIR DISTRIBUTION SYMBOL, LETTER(S) DENOTES TYPE, NUMBER INDICATES CFM
- T — THERMOSTAT OR ROOM SENSOR
- H — HUMIDISTAT OR ROOM SENSOR

HVAC GENERAL NOTES :

1. COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF ANY PIPING, DUCTWORK OR EQUIPMENT. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
2. REFER TO THE ARCHITECTURAL PLANS FOR DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
3. ALL DUCT AND PIPING LAYOUTS AND LOCATIONS SHOWN ARE DIAGRAMMATIC AND DO NOT INDICATE ALL FITTINGS REQUIRED TO COMPLETE WORK. COORDINATE THE DUCT AND PIPING LAYOUT WITH ALL CONTRACTORS PRIOR TO INSTALLATION, INCLUDING CONDUITS AND CABLE TRAYS. PROVIDE ALL DUCT AND/OR PIPING OFFSETS REQUIRED FOR THE COMPLETE INSTALLATION OF THE SYSTEM WHETHER OR NOT THE OFFSETS ARE INDICATED ON THE PLANS. INSTALL DUCTWORK AND PIPING HIGH ENOUGH TO AVOID LIGHTS, CONDUIT AND MISCELLANEOUS PIPING, BUT LOW ENOUGH TO ALLOW FOR EASY ACCESS TO SYSTEM BALANCING DEVICES. DO NOT BLOCK ACCESS TO DEVICES.
4. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS AND ARCHITECTURAL DETAILS FOR EXACT LOCATION OF ALL CEILING AND SIDEWALL AIR DISTRIBUTION AND DEVICES.
5. LOCATE UNITS SUCH THAT ACCESS PANELS MAY BE FULLY OPENED (VIA TILE CEILING) FOR SERVICING UNIT. COORDINATE LOCATION WITH LIGHTING FIXTURES OR ANY OTHER EQUIPMENT.
6. ALL DUCT DIMENSIONS ARE INSIDE CLEAR. SEE DETAILS AND SPECIFICATIONS FOR INSULATION REQUIREMENTS.
7. COORDINATE WORK WITH OTHER TRADES PRIOR TO PURCHASE AND INSTALLATION OF EQUIPMENT AND MATERIALS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
8. PROVIDE BALANCING DAMPERS WHERE INDICATED ON THE PLANS AND WHERE REQUIRED FOR SYSTEM BALANCING.
9. INSTALL ALL EQUIPMENT WITH THE MANUFACTURER'S RECOMMENDATION AND CODE REQUIRED CLEARANCES. INSURE ALL ITEMS FURNISHED WILL FIT IN THE SPACE AVAILABLE. MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS AND FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS. NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO PURCHASE AND INSTALLATION.
10. COORDINATE EXACT SIZE AND LOCATION OF ALL PENETRATIONS THROUGH THE ROOF WITH ALL TRADES.
11. COORDINATE LOCATIONS AND ELEVATIONS OF ALL EXPOSED MECHANICAL ITEMS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND DETAILS. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: SENSORS, WALL DEVICES, SIDEWALL GRILLES, CONTROL PANELS, AND ALARMS.
12. HVAC SYSTEMS FOR THIS PROJECT MUST BE PROTECTED AGAINST EARTHQUAKE DAMAGE. REFER TO BUILDING CODE SUMMARY AND SPECIFICATION SECTION 019923 "GENERAL SEISMIC REQUIREMENTS" FOR SEISMIC RESTRAINT REQUIREMENTS.

HVAC DRAWING LIST

NO.	TITLE
H001	STANDARDS, SYMBOLS & ABBREVIATIONS
H101	FIRST FLOOR PLAN - DUCTWORK
H300	DETAILS

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

THERMAL ZONE: 2009 ASHRAE FUNDAMENTALS, RALEIGH, N.C., HEATING 99.6% / COOLING 1%

- winter dry bulb: 23°F
- summer dry bulb: 93°F
- summer wet bulb: 79°F

INTERIOR DESIGN CONDITIONS

- winter dry bulb: 70°F (EXCEPT AS NOTED)
- summer dry bulb: 75°F (EXCEPT AS NOTED)
- relative humidity: 60% MAXIMUM

BUILDING HEATING LOAD: 42.3MBH

BUILDING COOLING LOAD: N/A

MECHANICAL SPACING CONDITIONING SYSTEM

UNITARY
- description of unit:
- heating efficiency:
- cooling efficiency:
- size category of unit:

SEE PLANS AND SPECIFICATIONS

BOILER: N/A
Size category. If oversized, state reason.: _____

CHILLER: N/A
Size category. If oversized, state reason.: _____

LIST EQUIPMENT EFFICIENCIES: SEE PLANS AND SPECIFICATIONS

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SEAL 16863 ENGINEER WILLIAM M. SMITH

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JOB NUMBER 16-051
DATE ISSUED JUNE 20, 2017
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STANDARDS, SYMBOLS & ABBREVIATIONS

H001

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FAN SCHEDULE

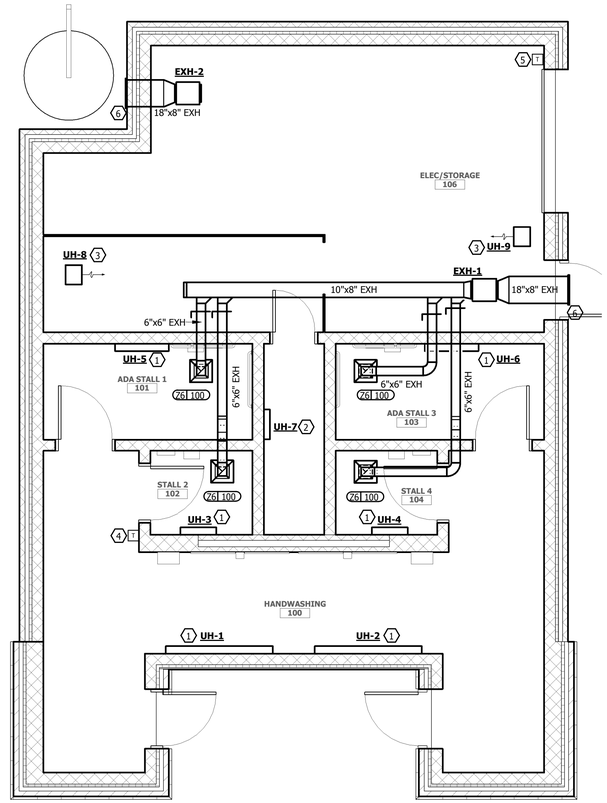
DESIGNATION	SERVICE	TYPE	AIRFLOW (CFM)	FAN ESP (IN)	DRIVE TYPE	FAN SPEED (RPM)	MOTOR SIZE (HP)	VOLTAGE/PHASE	MAX SOUND LEVEL (SONES)	DAMPER TYPE
EXH-1	TOILETS	INLINE	400	0.40	DIRECT	1500	1/6	120/1	5	BACKDRAFT
EXH-2	STORAGE	INLINE	400	0.25	DIRECT	1500	1/6	120/1	5	BACKDRAFT

NOTES:
1. PROVIDE WITH WALL CAP.
2. EXH-2: PROVIDE WITH GALVANIZED FRAME, WELDED WIRE INLET GUARD.

UNIT HEATER SCHEDULE

DESIGNATION	SERVICE	TYPE	TEMP RISE (F)	ELEC COIL		FAN		NOTES
				CAPACITY (kW)	VOLTAGE/PHASE	FAN AIRFLOW (CFM)	FAN MOTOR SIZE (HP)	
UH-1	HANDWASHING	ELECTRIC CONVECTOR	-	1.5	120/1	N/A	N/A	1, 3, 4
UH-2	HANDWASHING	ELECTRIC CONVECTOR	-	1.5	120/1	N/A	N/A	1, 3, 4
UH-3	STALL	ELECTRIC CONVECTOR	-	0.4	120/1	N/A	N/A	1, 3, 4
UH-4	STALL	ELECTRIC CONVECTOR	-	0.4	120/1	N/A	N/A	1, 3, 4
UH-5	ADA STALL	ELECTRIC CONVECTOR	-	0.75	120/1	N/A	N/A	1, 3, 4
UH-6	ADA STALL	ELECTRIC CONVECTOR	-	0.75	120/1	N/A	N/A	1, 3, 4
UH-7	UTILITY	PUMP HOUSE CONVECTOR	-	0.5	120/1	N/A	N/A	4, 5
UH-8	STORAGE	HORIZONTAL FAN FORCED UNIT HEATER	26	3.3	240/1	400		2, 3, 4
UH-9	STORAGE	HORIZONTAL FAN FORCED UNIT HEATER	26	3.3	240/1	400		2, 3, 4

NOTES:
1. UH1-7 BASIS OF DESIGN: BERKO UCJ.
2. UH8-9 BASIS OF DESIGN: MARKEL UH SERIES.
3. PROVIDE WITH INTEGRAL DISCONNECT.
4. PROVIDE WITH INTEGRAL THERMOSTAT.
5. BASIS OF DESIGN: MARKEL RPH SERIES.



1 H101 **FIRST FLOOR PLAN - DUCTWORK**
SCALE: 1/4" = 1'-0"

KEY NOTES TO H101

1 WALL MOUNT ELECTRIC CONVECTOR. MOUNT TOP OF UNIT AS HIGH AS POSSIBLE WHILE MAINTAINING MANUFACTURER RECOMMENDED CLEARANCE TO CEILING. (ADVISE ENGINEER IF GREATHER THAN 18")

2 PUMP HOUSE CONVECTION HEATER. SEE DETAIL. MOUNT APPROXIMATELY 48" AFF (FIELD VERIFY TO AVOID PLUMBING).

3 HORIZONTAL DISCHARGE UNIT HEATER. MOUNT TOP OF WALL BRACKET 9'-4" AFF. SEE DETAIL.

4 THERMOSTAT 72" AFF. TAMPER PROOF BLANK COVER. REFER TO CONTROLS DETAIL.

5 THERMOSTAT 72" AFF. WIRE CAGE COVER.

6 18" x 8" WALL CAP. STEEL CONSTRUCTION WITH BLACK ENAMEL FINISH. BUILT-IN BIRDSCREEN AND DAMPER. BASIS OF DESIGN: GREENHECK MODEL WC-8x8.

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FIRST FLOOR PLAN - DUCTWORK

H101

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TABLE A - WORKING CLEARANCES				
VOLTAGE TO GROUND NOMINAL	CONDITION	MINIMUM CLEAR DISTANCE (FEET) 1	2	3
0-150		3	3	3
151-600		3	3 1/2	4

WHERE THE CONDITIONS ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1), WITH THE OPERATOR BETWEEN.

NOTES:

1. THESE FIGURES ILLUSTRATE THE WORKING CLEARANCE AND DEDICATED SPACE AROUND ELECTRICAL EQUIPMENT AS REQUIRED BY NEC SECTION 110-26.
2. DEDICATED SPACE RUNS TO A HEIGHT OF 6'-0" ABOVE EQUIPMENT. DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING OR UP TO STRUCTURAL CEILING. ANY FOREIGN SYSTEMS TO THE ELECTRICAL EQUIPMENT SHALL NOT RUN WITHIN THIS SPACE. (FIGURE 2)

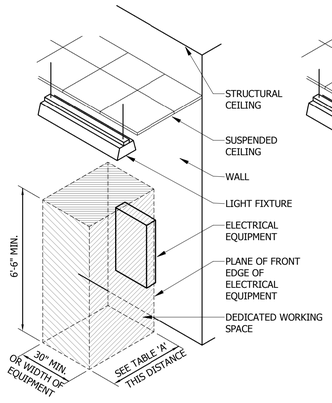


FIGURE 1

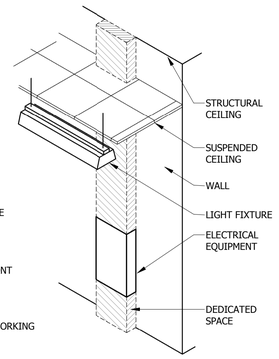
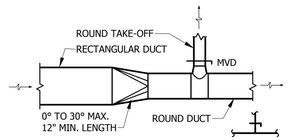


FIGURE 2

SW DETAIL: MR03

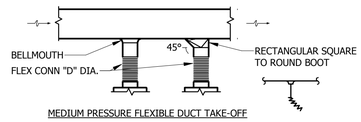
4 H300 CLEARANCES FOR ELECTRICAL EQUIPMENT

SCALE: NTS

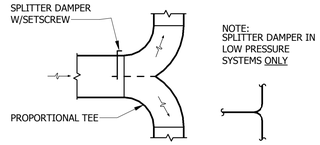


RECTANGULAR TO ROUND TRANSITION

NOTE:
WHERE SPACE CONFLICTS OCCUR, RECTANGULAR SQUARE TO ROUND BOOTS ARE ACCEPTABLE FOR MEDIUM AND LOW PRESSURE CLASS DUCT.

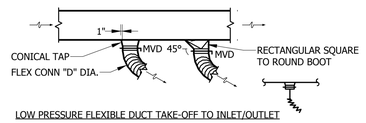


MEDIUM PRESSURE FLEXIBLE DUCT TAKE-OFF

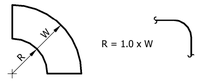


NOTE:
SPLITTER DAMPER IN LOW PRESSURE SYSTEMS ONLY

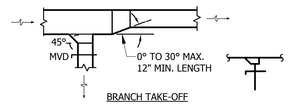
TEE



LOW PRESSURE FLEXIBLE DUCT TAKE-OFF TO INLET/OUTLET



FULL RADIUS ELBOW



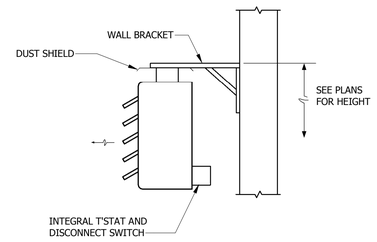
BRANCH TAKE-OFF

NOTE:
UNLESS NOTED OTHERWISE ALL MITERED 90 DEGREE ELBOWS SHALL HAVE TURNING VANES. 45 DEGREE ELBOWS SHALL NOT HAVE TURNING VANES.

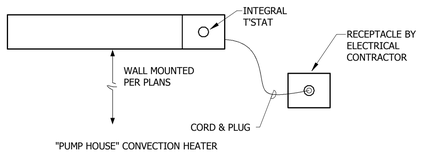
SW DETAIL: D01

1 H300 STANDARD DUCT CONSTRUCTION

SCALE: NTS



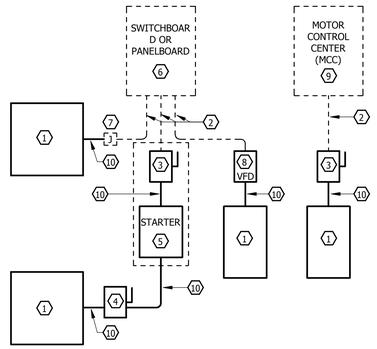
HORIZONTAL DISCHARGE UNIT HEATER



"PUMP HOUSE" CONVECTION HEATER

6 H300 Heater Details

SCALE: NTS



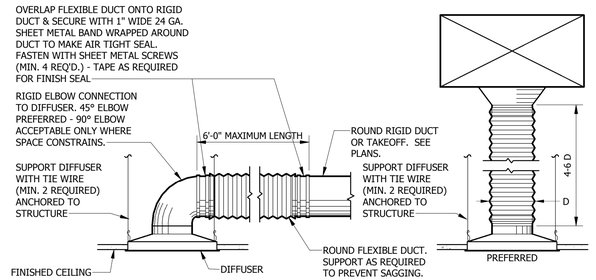
KEYED NOTES:

1. EQUIPMENT FURNISHED AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS.
2. CONDUIT & WIRING BY DIVISION 26 CONTRACTOR.
3. PROVIDE DISCONNECT AND FUSING.
4. PROVIDE ADDITIONAL DISCONNECT IF REQUIRED BY NEC.
5. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER.
6. POWER DISTRIBUTION EQUIPMENT BY DIVISION 26 CONTRACTOR.
7. JUNCTION BOX REQUIRED BY THE DIVISION 26 CONTRACTOR FOR EQUIPMENT IF NO STARTER IS REQUIRED. PROVIDE MOTOR-RATED DISCONNECT SWITCH WHERE REQUIRED BY CODE. THE DIVISION 26 CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE DISCONNECT. PROVIDE LOAD SIDE WIRING.
8. PROVIDE VARIABLE FREQUENCY DRIVE (VFD) WHERE NECESSARY.
9. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER OR VFD IN THE MCC SHALL BE PROVIDED BY THE DIVISION 26 CONTRACTOR.
10. PROVIDE RACEWAY & WIRING IN ACCORDANCE WITH REQUIREMENTS FOR RACEWAYS AND WIRING METHODS IN DIVISION 26 SPECIFICATIONS.

SW DETAIL: MR01

5 H300 ELECTRICAL CONNECTIONS TO EQUIPMENT

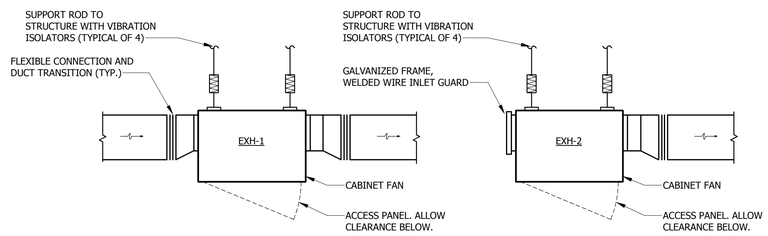
SCALE: NTS



SW DETAIL: D06

2 H300 CEILING DIFFUSER INSTALLATION

SCALE: NTS



NOTE:
1. REFER TO PLANS FOR EXACT DUCT ARRANGEMENT.

SW DETAIL: F06A

3 H300 IN-LINE CABINET FAN DETAIL

SCALE: NTS

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SEAL 16863 ENGINEER WILLIAM M. SMITH

JOB NUMBER 16-051

DATE ISSUED JUNE 20, 2017

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DETAILS

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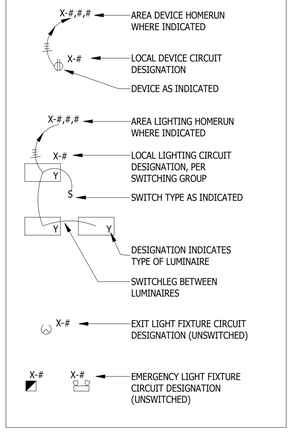
ELECTRICAL CIRCUITING KEY



ELECTRICAL SYMBOLS

- WALL MTD LIGHTING FIXTURE AND OUTLET
- PENDENT LIGHTING FIXTURE AND OUTLET
- DOWNLIGHT LIGHTING FIXTURE AND OUTLET
- WALL MTD LIGHTING FIXTURE AND OUTLET
- CEILING MTD LIGHTING FIXTURE AND OUTLET
- WALL MTD EXIT SIGN AND OUTLET, SINGLE FACE. ARROW INDICATES DIRECTION.
- CEILING MTD EXIT SIGN AND OUTLET, DUAL FACE. ARROWS INDICATE DIRECTION.
- EMERGENCY LIGHT BATTERY PACK - TWO HEAD UNIT.
- CEILING MOUNTED EMERGENCY BATTERY LIGHT
- EMERGENCY LIGHT REMOTE HEAD
- GROUND MOUNTED FLOODLIGHT AND OUTLET
- AREA LUMINAIR AND STANDARD
- S — FLUSH MTD TOGGLE SWITCH, SPST, 20A, 120/277V
- S_2 — FLUSH MTD TOGGLE SWITCH, DPST, 20A, 120/277V
- S_3 — FLUSH MTD 3-WAY TOGGLE SWITCH, 20A, 120/277V
- S_4 — FLUSH MTD 4-WAY TOGGLE SWITCH, 20A, 120/277V
- S_D — FLUSH MTD DIMMER SWITCH, 20A, 120/277V
- S_K — FLUSH MTD KEY SWITCH, 20A, 120/277V
- S_{OS} — FLUSH MOUNTED OCCUPANCY SENSOR SWITCH, 20A, 120/277V
- S_L — FLUSH MTD LIGHTED HANDLE TOGGLE SWITCH, SPST, 20A, 120V. LIGHT ON WITH OPEN SWITCH
- S_P — FLUSH MTD TOGGLE SWITCH WITH PILOT LIGHT. LIGHT ON WITH CLOSED SWITCH.
- S_T — TIMED SWITCH
- OS IR — CEILING MTD INFRA-RED OCCUPANCY SENSOR SWITCH, 20A, 120/277V
- OS U — CEILING MTD ULTRASONIC OCCUPANCY SENSOR SWITCH, 20A, 120/277V
- OS DT — CEILING MTD DUAL TECHNOLOGY (IR, U) OCCUPANCY SENSOR SWITCH, 20A, 120/277V
- PC — PHOTOCELL, 120/277V, 2000W, 1800VA, 600VA LED, UNO
- FLUSH MTD DUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W
- FLUSH MTD SINGLE RECEPTACLE AND OUTLET, 20A, 125V, 3W
- FLUSH MTD QUADRUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W
- FLUSH MTD DUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W, SPLIT WIRED WITH TOP OUTLET SWITCHED.
- FLUSH MTD DUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPASH OR COUNTERTOP IF NO BACKSPASH EXISTS.
- FLUSH MTD QUADRUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W, INSTALLED VERTICALLY 4" ABOVE BACKSPASH OR COUNTERTOP IF NO BACKSPASH EXISTS.
- FLOOR MTD OUTLET WITH DUPLEX RECEPTACLE AND FITTING, 20A, 125V, 3W
- X — WALL MOUNTED POWER DEVICE, REFER TO SCHEDULES FOR MARK
- FB X — FLOOR BOX WITH DEVICE(S). REFER TO SCHEDULES FOR MARK
- WALL MTD TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- FLOOR MTD TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- CEILING MTD DUPLEX RECEPTACLE AND OUTLET, 20A, 125V, 3W
- CEILING MTD TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- CEILING MTD DUPLEX RECEPTACLE & TELECOM OUTLET, REFER TO SCHEDULES FOR MARK
- SP — CEILING MTD PUBLIC ADDRESS SPEAKER
- V — FLUSH MTD VOLUME CONTROL FOR SPEAKER
- TV — WALL MTD TELEVISION ANTENNA/ELECTRICAL OUTLET
- TV — CEILING MTD TELEVISION ANTENNA/ELECTRICAL OUTLET
- WALL MTD CLOCK AND OUTLET
- 2 — CEILING MTD DOUBLE FACE CLOCK AND OUTLET
- WALL MTD ELAPSED TIME CLOCK AND OUTLETWITH SEPARATE START/STOP RESET CONTROL MOUNTED BELOW
- PANELBOARD, 250V LEVEL
- PANELBOARD, 600V LEVEL
- X-#,#,# — HOMERUN; ARROW HEADS INDICATE NUMBER OF CIRCUITS, LETTERS AND NUMBERS DESIGNATE PANEL AND CIRCUITS. SHORT TICK MARKS INDICATE NUMBER OF CURRENT CARRYING PHASE CONDUCTORS. LONG TICK MARK(S) INDICATE NEUTRAL(S). GROUNDING CONDUCTORS REQUIRED BY SPECIFICATIONS ARE NOT SHOWN. CONDUCTOR SIZES SPECIFIED ON THE PANEL SCHEDULES ARE MANDATORY FOR THE ENTIRE CIRCUIT EXCEPT WHERE SPECIFICATIONS REQUIRE A SIZE INCREASE FOR VOLTAGE DROP.
- X — SURFACE METAL RACEWAY WITH DEVICES, LETTER DESIGNATES TYPE
- PENDENT MTD, PLUG-IN BUS DUCT WITH PLUG-IN CIRCUIT BREAKER OR FUSIBLE SWITCH AND TAP BOX. DUCT AND SWITCH RATING AS NOTED.
- #A / #A — TOP # - DEVICE MAXIMUM RATING OR FRAME SIZE; BOTTOM # - FUSE SIZE OR DEVICE SETTING
- DISCONNECT SWITCH. TOP NUMBER IS DISCONNECT RATING; LOWER NUMBER IS FUSE SIZE. SINGLE NO REPRESENTS UNFUSED DISCONNECT.
- COMBINATION DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER. SEE SCHEDULE OR NOTE.
- M — FLUSH MTD MANUAL MOTOR STARTER SWITCH WITHOUT OVERLOAD HEATERS
- MAGNETIC MOTOR STARTER
- ## — 3 POLE CIRCUIT BREAKER IN ENCLOSURE. NO INDICATES CB RATING.
- VFD # — VARIABLE FREQUENCY DRIVE CONTROLLER, 40° AFF, PROVIDED BY HVAC OR PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR
- C — MAGNETIC CONTACTOR, SIZE PER SCHEDULE
- J — JUNCTION, PULL, TAP OR OUTLET BOX (CODE SIZE)
- TS — TIME SWITCH
- R — MAGNETIC RELAY, SIZE PER SCHEDULE
- FLUSH MOUNTED MUSHROOM HEAD PUSH BUTTON
- FLUSH MOUNTED PUSH BUTTON
- SUPPLEMENTAL GROUND BAR
- GROUND PER NEC
- # — FEEDER. SEE FEEDER SCHEDULE

ELECTRICAL ABBREVIATIONS

Ø	ROUND; DIAMETER; PHASE	LS	LIFE SAFETY
A	AMPERES OR AMP METER	LTG	LIGHTING
AC	ALTERNATING CURRENT	M	MOTOR; METERING
AF	AMP FRAME	MC	METAL CLAD
AFC	ABOVE FINISHED CEILING	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
AFG	ABOVE FINISHED GRADE	MCP	MOTOR CONTROL PROTECTOR
AIC	AMPERE INTERRUPTING CAPACITY	MCS	MOLDED CASE SWITCH
ALT	ALTERNATE	MH	MANHOLE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MIN	MINIMUM
ARCH	ARCHITECTURAL	MLO	MAIN LUG ONLY
AT	AMP TRIP	N, NEU	NEUTRAL
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
BFC	BELOW FINISHED CEILING		
BFG	BELOW FINISHED GRADE	NF	NON-FUSED
C	CELSIUS; COIL	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CB	CIRCUIT BREAKER	NIC	NOT IN CONTRACT
CCTV	CLOSED CIRCUIT TELEVISION SYSTEM	NL	NIGHT LIGHT
CD/Cd	CANDELA	NO	NORMALLY OPEN; NUMBER
CLG	CEILING	NOM	NOMINAL
COAX	COAXIAL CABLE	NTS	NOT TO SCALE
CONTR	CONTRACTOR	OC	ON CENTER
CT	CURRENT TRANSFORMER	OL	OVERLOAD
CTV	CABLE TELEVISION	P	POLE
CU	COPPER	PB	PULL BOX
DWG	DRAWING	PC	PHOTOCELL
EC	ELECTRICAL CONTRACTOR	PF	POWER FACTOR
ECB	ENCLOSED CIRCUIT BREAKER	PH	PHASE
EF	EXHAUST FAN	PNL	PANEL
EGC	EQUIPMENT GRAOUNDING CONDUCTOR	PT	POINT; POTENTIAL TRANSFORMER
ELEC	ELECTRICAL	PUN	PER UNIT NAMEPLATE
EM	EMERGENCY	PVC	POLYVINYL CHLORIDE (CONDUIT)
EMT	ELECTRICAL METALLIC TUBING	RD	ROUND
EPO	EMERGENCY POWER OFF	REV	REVISION
ETR	EXISTING TO REMAIN	RLA	RATED LOAD AMPS
EWC	ELECTRIC WATER COOLER	RMC	RIDGID METAL CONDUIT
FACP	FIRE ALARM CONTROL PANEL	SN	SOLID NEUTRAL
FATC	FIRE ALARM TERMINATION CABINET	SNAC	SIGNAL NOTIFICATION APPLIANCE CIRCUIT
FFE	FINISHED FLOOR ELEVATION	SP	SURGE PROTECTED
FL	FLOOR	SPD	SURGE PROTECTED DEVICE
FLA	FULL LOAD AMPS	SPDT	SINGLE POLE DOUBLE THROW
FLC	FLEXIBLE LIQUIDTIGHT CONDUIT	SPST	SINGLE POLE SINGLE THROW
FLEX	FLEXIBLE	SPEC	SPECIFICATION
FMC	FLEXIBLE METAL CONDUIT	SQ	SQUARE
FT	FEET; FOOT	SWGR	SWITCHGEAR
FU	FUSE	SWBD	SWITCHBOARD
GA	GAUGE; GAGE	TBB	TELEPHONE BACK BOARD
GB	GROUND BUS	TELECOM	TELECOMMUNICATIONS
GC	GENERAL CONTRACTOR	TEMP	TEMPERATURE
GEC	GROUNDING ELECTRODE CONDUCTOR	THD	TOTAL HARMONIC DISTORTION
GFI, GFCI	GROUND FAULT (CIRCUIT) INTERRUPTER	TYP	TYPICAL
GND	GROUND	TV	TELEVISION
HD	HEAVY DUTY	UL	UNDERWRITERS LABORATORIES INC.
HOA	HANDS-OFF-AUTOMATIC	UNO	UNLESS NOTED OTHERWISE
HP	HORSEPOWER	V	VOLTAGE; VOLT
HVAC	HEATING, VENTILATING & AIR CONDITIONING	VAC	VOLTS ALTERNATING CURRENT
HZ	HERTZ	VDC	VOLTS DIRECT CURRENT
IG	ISOLATED GROUND	VFD	VARIABLE FREQUENCY DRIVE
IMC	INTERMEDIATE METAL CONDUIT	VOL	VOLUME
JB	JUNCTION BOX	W/	WITH
KV	KILOVOLT	W	WIRE
KVA	KILOVOLT AMPERE	WP	WEATHERPROOF
KW	KILOWATT	WG	WIREGUARD
KWH	KILOWATT HOUR	XFMR	TRANSFORMER
LED	LIGHT EMMITING DIODE	XP	EXPLOSION PROOF
LRA	LOCKED ROTOR AMPS	Z	IMPEDANCE

ELECTRICAL GENERAL NOTES :

1. ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE UTILIZED FOR THIS PROJECT.
2. SYMBOLS NOT SHOWN ON THIS ELECTRICAL SYMBOL LEGEND ARE IDENTIFIED ON THE DRAWINGS WHERE THEY OCCUR.
3. UNLESS OTHERWISE INDICATED IN THE SPECIFICATIONS OR ON THE DRAWINGS, MOUNTING HEIGHT OF DEVICES IS TO BE THE CENTERLINE OF THE DEVICE.
4. UNLESS OTHERWISE INDICATED, SWITCHES AND SIMILAR DEVICES ARE TO BE LOCATED 48" AFF; RECEPTACLES ARE TO BE VERTICALLY MOUNTED AT 18" AFF WITH THE GROUNDING TERMINAL ON THE BOTTOM.
5. TELEPHONE & DATA OUTLETS ARE TO BE MOUNTED AT 18" AFF UNLESS OTHERWISEINDICATED. "W" INDICATES MOUNTING AT 48" AFF; "C" INDICATES MOUNTING ABOVECOUNTERTOP WITH ALIGNMENT AND HEIGHT AS INDICATED FOR RECEPTACLES SIMILARLY MOUNTED.
6. FIRE ALARM PULL STATIONS ARE TO BE VERTICALLY MOUNTED AT 48" AFF.
7. FIRE ALARM INDICATING APPLIANCES SHALL BE 15 Cd RATING, UNLESS NOTED OTHERWISE ON THE PLANS.
8. FIRE ALARM INDICATING APPLIANCES ARE TO BE MOUNTED WITH THE LOWER EDGE OF THE VISUAL ELEMENT AT 6'-8" AFF OR 6" BFC, WHICHEVER IS LOWER. WHERE DUCTWORK, CONDUIT, OR OTHER OBSTRUCTIONS BLOCK DIRECT VIEW OF APPLIANCE, MOUNT 6" BELOW SUCH OBSTRUCTIONS.
9. CEILING MOUNTED SMOKE DETECTORS ARE SHOWN IN APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH CEILING FEATURES. WALL MOUNTED SMOKE DETECTECTORS ARE TO BE MOUNTED 10" BELOW FINISHED CEILING TO THE CENTER OF DEVICE AND A MINIMUM OF 12" FROM ADJACENT WALLS OR OTHER OBSTRUCTIONS.
10. COORDINATE SMOKE DETECTOR AND HEAT DETECTOR LOCATIONS WITH HVAC SUPPLY AND RETURN GRILLES. MAINTAIN 3'-0" CLEARANCE BETWEEN EDGE OF SUPPLY GRILL AND EDGE OF SMOKE DETECTOR.
11. UPPER CASE LETTER (OR LETTER/NUMBER COMBINATION) ADJACENT TO FIXTURE OR SWITCH DESIGNATES TYPE. SEE FIXTURE SCHEDULE FOR DETAILS.
12. LOWER CASE LETTER ADJACENT TO FIXTURE OR SWITCH DESIGNATES CONTROL RELATIONSHIP.
13. NUMBER ADJACENT TO FIXTURE, SWITCH, OR RECEPTACLE DESIGNATES CIRCUIT CONNECTION.
14. SINGLE DIAGONAL LINE ACROSS A FIXTURE INDICATES FIXTURE IS UNSWITCHED FOR 24 HOUR OPERATION.

ELECTRICAL DRAWING LIST

NO.	TITLE
E001	STANDARDS, SYMBOLS & ABBREVIATIONS
E002	SITE PLAN - ELECTRICAL
E101	FIRST FLOOR PLAN - ELECTRICAL
E102	PICNIC SHELTER PLANS - ELECTRICAL
E201	SCHEDULES & ELECTRICAL DISTRIBUTION
E301	ELECTRICAL GENERAL DETAILS

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance

Energy Code: ☒ Prescriptive ☐ Performance
ASHRAE 90.1: ☐ Prescriptive ☐ Performance

Lighting schedule (each fixture type)

lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
→ See fixture Schedule on Drawing Sheet

total interior wattage specified vs. allowed: (whole building or space by space) 323W vs. 1014W

total exterior wattage specified vs. allowed: 1612W vs. 2821W

Additional Prescriptive Compliance

- ☐ 506.2.1 More Efficient Mechanical Equipment
- ☒ 506.2.2 Reduced Lighting Power Density
- ☐ 506.2.3 Energy Recovery Ventilation Systems
- ☐ 506.2.4 Higher Efficiency Service Water Heating
- ☐ 506.2.5 On-Site Supply of Renewable Energy
- ☐ 506.2.6 Automatic Daylighting Control Systems

LIGHTING FIXTURE SCHEDULE

TYPE MARK	DESCRIPTION	MANUFACTURER	SERIES/MODEL	LUMENS	MOUNTING	FINISH	VOLTAGE	WATTAGE	CONTROL	COMMENTS	ICON
A	4' SURFACE/PENDANT LED STRIP FIXTURE	COLUMBIA	LCS4-30LW-EU	2,795	SURFACE/PENDANT	WHITE	120V	19 VA	ON/OFF		
B	LED SQUARE SURFACE FIXTURE	LITHONIA	KACM-LED-40C-700-40K-R5-MVOLT	11,688	SURFACE	DARK BRONZE	120V	124 VA	ON/OFF	IP65 RATED	
C	6" RECESSED LED DOWNLIGHT	HUBBELL	LF6SL-6LFSL20L30KDL	2,000	RECESSED	WHITE	120V	16 VA	ON/OFF	IP65 RATED	
D	2' SURFACE/PENDANT LED FIXTURE	KENALL	MLHA12-24-F-MW-PP-1-25L40K-DCC-1-DV	2,673	SURFACE/PENDANT	MATTE WHITE	120V	25 VA	ON/OFF		
W	LED WALL-PACK FIXTURE	KENALL	FN9-2-7-DB-16L-40K7-DV	2,598	SURFACE	DARK BRONZE	120V	60 VA	ON/OFF	IP65 RATED	
Z	EMERGENCY WALL BATTERY PACK	LITHONIA	ELM2-LED	N/A	WALL	WHITE	120V	5 VA			

FIXTURE SCHEDULE NOTES:

1. THIS FIXTURE SCHEDULE USES MANUFACTURER'S NAMES AS A MEANS TO DESIGNATE A FIXTURE TYPE AND A LEVEL OF QUALITY. **THESE MANUFACTURER'S NAMES AND FIXTURE SERIES/MODELS ARE NOT INTENDED AS A BRAND NAME SPECIFICATION**.
2. PROVIDE LED DRIVERS SUITABLE FOR FULL RANGE DIMMING, INTERNAL SURGE PROTECTION, CURRENT TOTAL HARMONIC DISTORTION (THD) OF <20% AND A POWER FACTOR >0.90. IN ADDITION, DRIVERS SHALL BE RF SUPPRESSED FOR MINIMUM INJECTION OF OF FEEDBACK INTO SUPPLY LINES. MAXIMUM CURRENT THD AND MINIMUM POWER FACTOR SHALL BE SUBMITTED AS A PART OF THE FIXTURE SUBMITTAL DATA.
3. UNLESS OTHERWISE INDICATED PROVIDE SINGLE DRIVER PER FIXTURE.
4. PROVIDE MOUNTING FRAME AND RELATED ACCESSORIES FOR ALL FIXTURES AS REQUIRED TO MATCH CEILING CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MODIFICATION OF FIXTURE SCHEDULE MANUFACTURER'S PART NUMBERS FOR PURPOSES OF MATCHING CEILING CONSTRUCTION.
5. EQUIVALENT FIXTURES BY MANUFACTURERS OTHER THAN THOSE LISTED MAY BE SUBMITTED FOR CONSIDERATION.
6. PROVIDE DIMMING DRIVERS WHERE DIMMING CONTROLS ARE INDICATED ON THE PLANS.
7. FIXTURES SHALL HAVE A COLOR TEMPERATURE OF 4000°K UNLESS NOTED OTHERWISE
8. FOR LIGHT FIXTURES HAVING LINEAR VISUAL FEATUERS (IE: CENTER BASKET, LOURVERS, ETC), COORDINATE AND ALIGN COMPONENTS IN A SIMILAR DIRECTION CONSISTENTLY ACROSS THE BUILDING SPACES.

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STANDARDS, SYMBOLS & ABBREVIATIONS

E001

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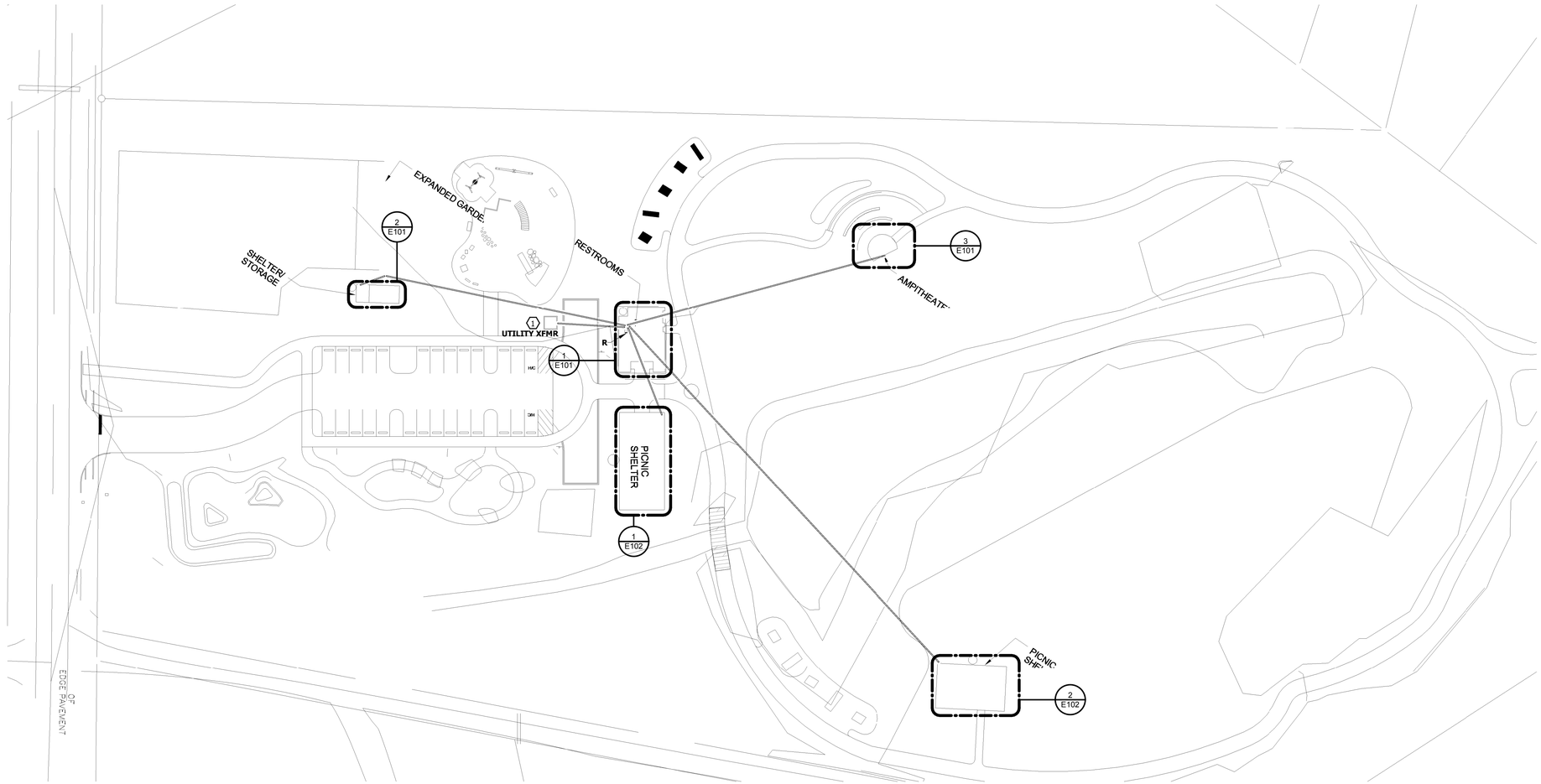
KEY NOTES TO E002

1 PROPOSED LOCATION OF UTILITY TRANSFORMER. COORDINATE EXACT LOCATION WITH UTILITY COMPANY.



2 E002 **SITE PLAN - ELECTRICAL**
SCALE: 1" = 40'-0"

40' 20' 0 40' 80'

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SITE PLAN - ELECTRICAL

E002

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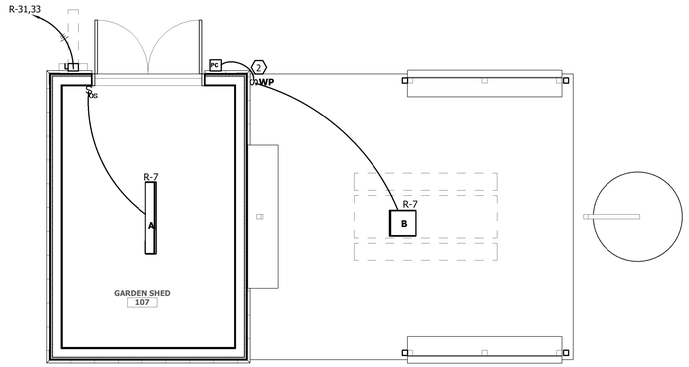
GENERAL NOTES

1. COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF ALL HVAC AND PLUMBING EQUIPMENT WITH RESPECTIVE CONTRACTORS. NOTIFY ENGINEER IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES.
2. COORDINATE EXACT LOCATION AND MOUNTING OF ALL CEILING MOUNTED DEVICES WITH REFLECTED CEILING PLAN PRIOR TO ROUGH IN.
3. ALL OCCUPANCY SENSORS WITHOUT INTEGRAL ON/OFF SWITCHES SHALL BE LOW VOLTAGE. PROVIDE POWER PACKS (NOT SHOWN) AS REQUIRED FOR SWITCHING INDICATED.

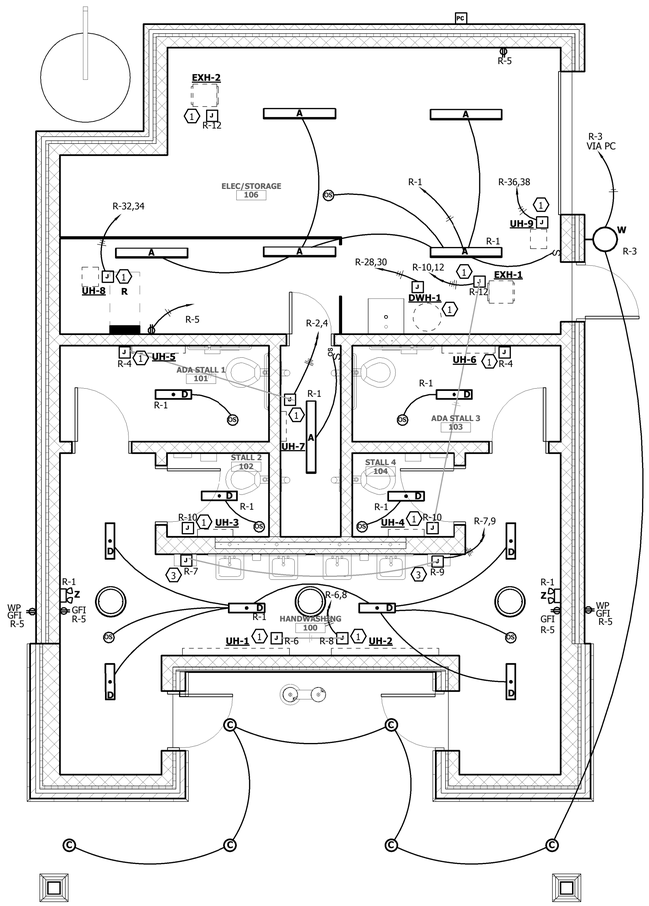
(#) KEY NOTES TO E101

1 MAKE CONNECTION TO DISCONNECTING MEANS PROVIDED BY TRADE PROVIDING ASSOCIATED EQUIPMENT.

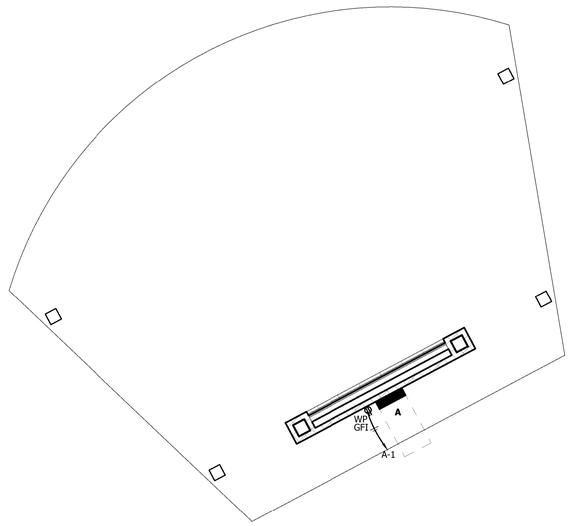
2 CONNECT PHOTCELL AND SWITCH IN SERIES SUCH THAT BOTH DEVICED NEED TO BE IN THE "ON" POSITION TO ENERGIZE THE LIGHT FIXTURE.



2 E101 **GARDEN CENTER PLAN - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'



1 E101 **RESTROOM FLOOR PLAN - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'



3 E101 **AMPHITHEATER PLAN - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'

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E101

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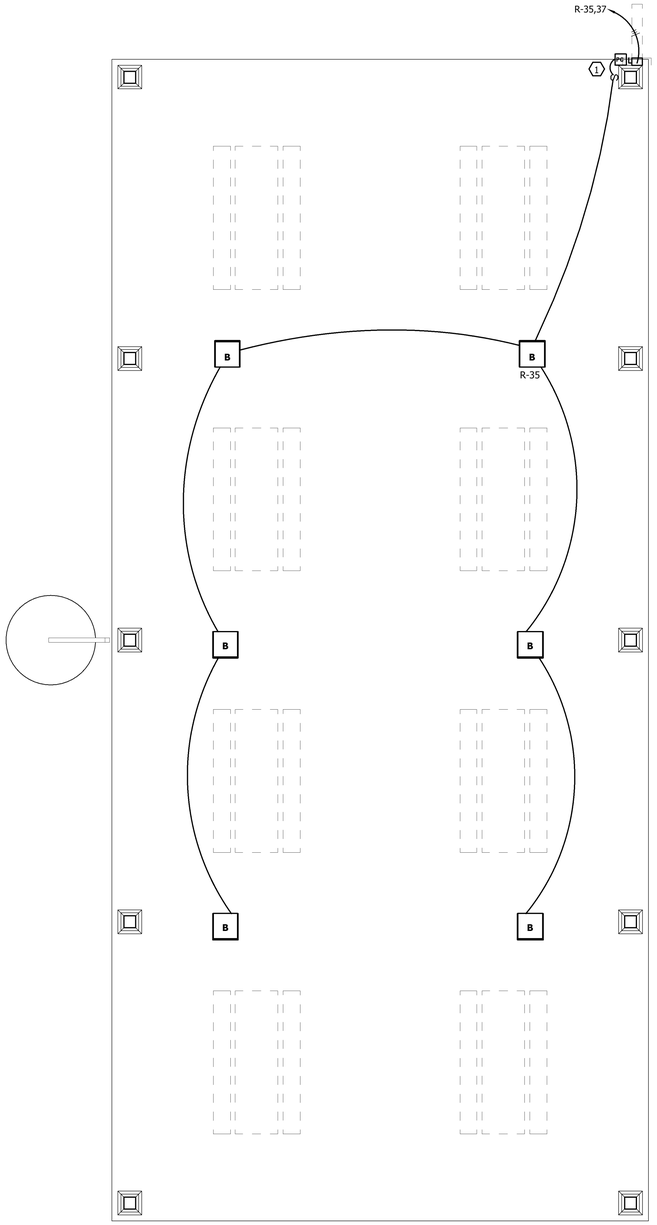
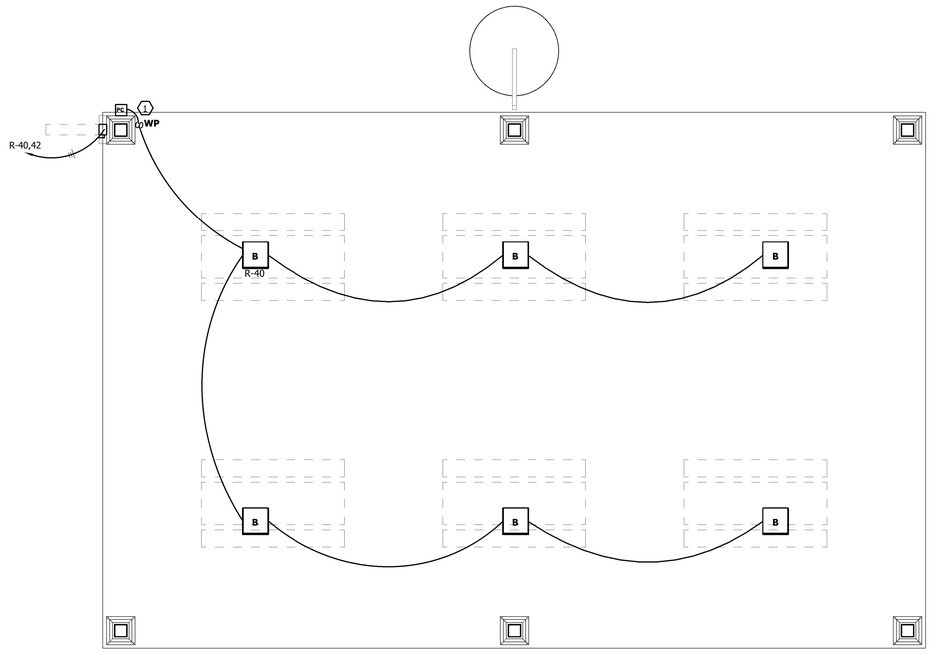


1 E102 **PICNIC SHELTER 1 PLAN - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'



2 E102 **PICNIC SHELTER 2 PLAN - ELECTRICAL**
SCALE: 1/4" = 1'-0"
4' 0 4' 8'

KEY NOTES TO E102

#	
1	CONNECT PHOTCELL AND SWITCH IN SERIES SUCH THAT BOTH DEVICED NEED TO BE IN THE "ON" POSITION TO ENERGIZE THE LIGHT FIXTURE.

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JOB NUMBER 16-051
DATE ISSUED JUNE 20, 2017
PROJECT STATUS CHECK SET
SHEET
PICNIC SHELTER PLANS - ELECTRICAL

E102

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SW Project No: 0622-01-00-17
Plot Time: 6/20/2017 2:19:02 PM

PANEL ID: R

VOLTAGE: 120/240V | LOCATION: ELEC/STORAGE 106 | MOUNTING: Surface
AMPS: 200 | SOURCE: UTILITY XFMR | TYPE: | BOLT ON

LOAD	NOTE	COND SIZE	GND SIZE	NEU SIZE	Ø	POLE	BKR SIZE	CKT NO.	A (VA)	B (VA)	CKT NO.	BKR SIZE	POLE	Ø	NEU SIZE	GND SIZE	COND SIZE	NOTE	LOAD
LIGHTING RESTROOMS		3/4	12	12	1	20	1	374	500		2	20	1	12	12	12	3/4		UH-7 (5kW)
LIGHTING RR EXTERIOR		3/4	12	12	1	20	3			396	1500	4	20	1	12	12	-	-	UH-5,6 (0.75kW EACH)
REC RESTROOMS		3/4	12	12	1	20	5	1080	1500			6	20	1	12	12	12	3/4	UH-1 (1.5kW)
HANDDRYER 1		3/4	12	12	1	20	7			1000	1500	8	20	1	12	12	-	-	UH-2 (1.5kW)
HANDDRYER 2		-	-	12	1	20	9	1000	800			10	20	1	12	12	12	3/4	UH-3,4 (0.4kW EACH)
SPARE		--	--	--	--	1	20	11		0	1056	12	20	1	12	12	-	-	EXH-1,2 (1/6HP EACH)
SPARE		--	--	--	--	1	20	13	0	0		14	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	15			0	0	16	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	17	0	0			18	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	19			0	0	20	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	21	0	0			22	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	23			0	0	24	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	25	0	0			26	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	27			0	1250	28	20	2	12	12	12	3/4	DWH-1 (2.5kW)
SPARE		--	--	--	--	1	20	29	0	1250			30							
GARDEN SHED		1	10	10	10	2	20	31			0	1650	32	20	2	12	12	12	3/4	UH-8 (3.3kW)
								33	0	1650			34							
PICNIC SHELTER 1		1	10	10	10	2	20	35			744	1650	36	20	2	12	12	12	3/4	UH-9 (3.3kW)
								37	0	1650			38							
A	1					2	60	39			180	744	40	20	2	10	10	10	1	PICNIC SHELTER 2
								41	0	0			42							

MAIN BKR: 200 | **PANEL AIC:** 23,000
BUS: N/A | **SERVICE EQPT:** Yes
LUGS: #3/0 | **SUBFEED:** No
APPROX. DIM. 20"W x 6"D x 30"H

TOTALS	PHASE A	PHASE B
TOTAL (kVA)	9.8	11.6
AMPS/PHASE	82 A	97 A

21391 W **PANEL TOTAL**

NOTES:
1. REFERENCE ELECTRICAL RISER DIAGRAM FOR FEEDER CONFIGURATION.

PANEL ID: A

VOLTAGE: 120/240V | LOCATION: AMPITHEATER | MOUNTING: Surface
AMPS: 60 | SOURCE: R | TYPE: | BOLT ON, NEMA 3R

LOAD	NOTE	COND SIZE	GND SIZE	NEU SIZE	Ø	POLE	BKR SIZE	CKT NO.	A (VA)	B (VA)	CKT NO.	BKR SIZE	POLE	Ø	NEU SIZE	GND SIZE	COND SIZE	NOTE	LOAD
REC		3/4	12	12	1	20	1	180	0		2	20	1	--	--	--	--		SPARE
SPARE		--	--	--	--	1	20	3			0	0	4	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	5	0	0			6	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	7			0	0	8	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	9	0	0			10	20	1	--	--	--	--	SPARE
SPARE		--	--	--	--	1	20	11			0	0	12	--	--	--	--	--	--	SPACE
SPARE		--	--	--	--	1	20	13	0	0			14	--	--	--	--	--	--	SPACE
SPACE	--	--	--	--	--	--	--	15			0	0	16	--	--	--	--	--	--	SPACE
SPACE	--	--	--	--	--	--	--	17	0	0			18	--	--	--	--	--	--	SPACE

MAIN BKR: 60 | **PANEL AIC:** 10,000
BUS: N/A | **SERVICE EQPT:** Yes
LUGS: #6 | **SUBFEED:** No
APPROX. DIM. 20"W x 6"D x 30"H

TOTALS	PHASE A	PHASE B
TOTAL (kVA)	0.2	0.0
AMPS/PHASE	2 A	0 A

180 W **PANEL TOTAL**

NOTES:
1. PROVIDE (3) 1" CONDUITS STUBBED OUT OF TOP AND BOTTOM OF PANEL 6" AND CAPPED WITH SCREW ON CAP FOR FUTURE WIRING.

KEY NOTES TO E201

1 GROUNDING ELECTRODES, REFER TO SERVICE GROUNDING DETAIL.

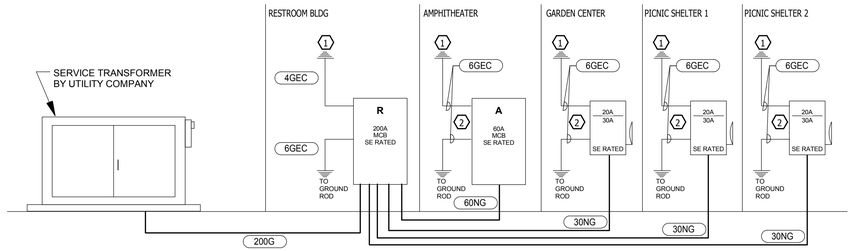
2 DO NOT BOND GROUND TO NEUTRAL.

FEEDER SCHEDULE

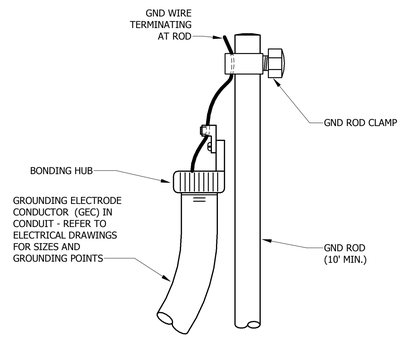
Mark	Ampacity	Description
30NG	35A	2-#10 PHASE, 1-#10 NEU, & 1-#10 GND IN 1" C.
60NG	65A	2-#6 PHASE, 1-#6 NEU, & 1-#10 GND IN 1" C.
200G	200A	2-#3/0 PHASE & 1-#3/0 NEU IN 2" C.
4GEC	N/A	GROUNDING ELECTRODE CONDUCTOR. 1-#4 IN 1/2" RMC. SEE NOTE 3.
6GEC	N/A	GROUNDING ELECTRODE CONDUCTOR. 1-#6 IN 1/2" RMC. SEE NOTE 3.

NOTES TO FEEDER SCHEDULE:

1. ALL AMPACITIES ARE BASED ON 75° C. RATING. CONTRACTOR IS RESPONSIBLE FOR THE MODIFICATION OF CONDUCTOR SIZES AS NECESSARY TO MEET THE REQUIREMENTS OF NEC 110-14(C) WHERE TERMINATIONS ARE NOT LISTED AND LABELED FOR USE AT 75° C. THIS REQUIREMENT APPLIES TO TERMINATIONS IN BOTH NEW EQUIPMENT AND IN EXISTING EQUIPMENT TO WHICH TERMINATIONS ARE MADE AS A PART OF THIS PROJECT.
2. DESIGNATION "C" IN THE ABOVE TABLE REFERS TO "CONDUIT". SEE SPECIFICATIONS FOR EXACT TYPE OF RACEWAY REQUIRED. TYPE OF RACEWAY, UNLESS INDICATED IN TABLE OR ELSEWHERE IN THE DRAWINGS, IS TO BE DETERMINED BY USE CONDITIONS.
3. PROVIDE A BONDING BUSHING AT THE EQUIPMENT END OF THIS CONDUIT RUN AND A BONDING HUB AT THE CONNECTION TO THE GROUNDING ELECTRODE.



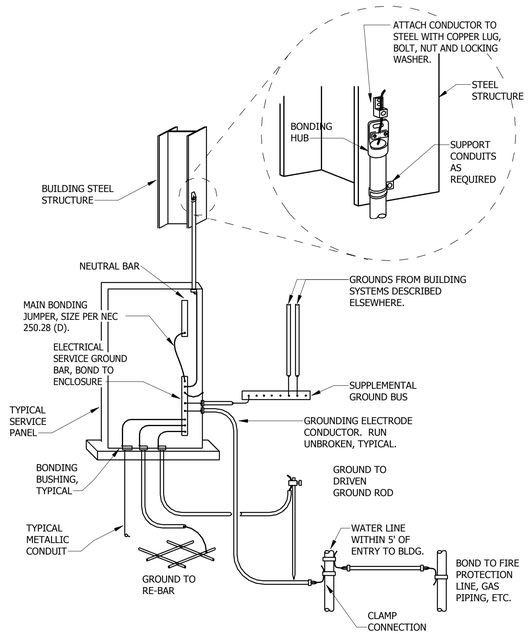
1 E201 **ELECTRICAL RISER DIAGARM**
SCALE: NTS



SW DETAIL: GN0004-R1

3 E201 **GROUND ROD CONNECTIONS**
SCALE: NTS

WARNING
1. FIELD VERIFY EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE DRIVING GROUND RODS.
2. DO NOT USE POWER ASSISTED TOOLS TO DRIVE GROUND RODS.



SW DETAIL: GN0010-R1

2 E201 **SERVICE GROUNDING AND BONDING**
SCALE: NTS

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SCHEDULES & ELECTRICAL DISTRIBUTION

E201

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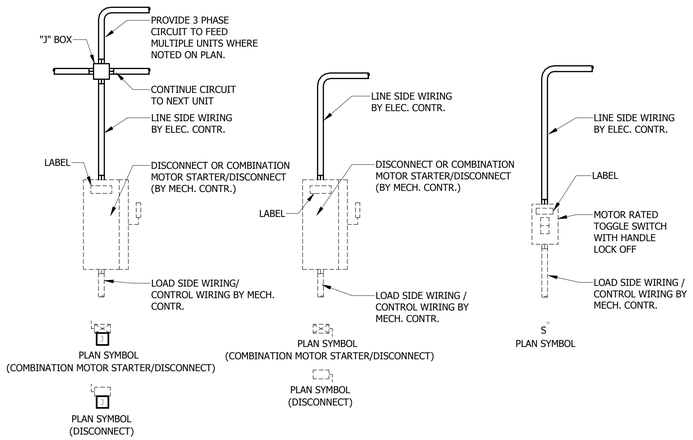


SW DETAIL: CN0001

6 E301 MECHANICAL UNIT WIRING DETAILS

SCALE: NTS

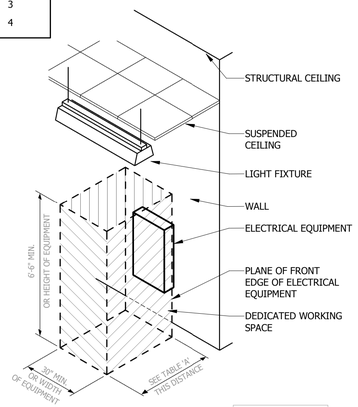
TABLE A - WORKING CLEARANCES			
NOMINAL VOLTAGE TO GROUND	MINIMUM CLEAR DISTANCE (FEET) CONDITION 1	2	CONDITION 3
0-150	3	3	3
151-600	3	3 1/2	4

WHERE THE CONDITIONS ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR UNGROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

GENERAL NOTES TO :

1. THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT AS REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.



SW DETAIL: GE0029

7 E301 WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT

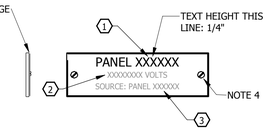
SCALE: NTS

NOTES KEYED TO :

1. INSERT PANEL DESIGNATION WHERE X'S ARE INDICATED.
2. INSERT VOLTAGE WHERE X'S ARE INDICATED. POSSIBLE CHOICES ARE:

   "208Y/120"
   "120/240, 1Ø"

3. INSERT SUPPLYING PANEL DESIGNATION HERE.



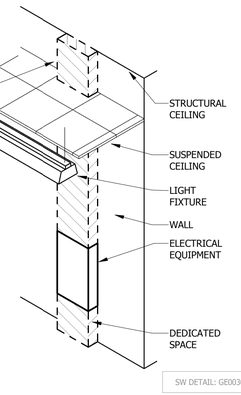
GENERAL NOTES TO :

1. INSTALL NEW LABELS ON ALL PROJECT PANELBOARDS.
2. CONSTRUCT LABELS FROM 2 COLOR PLASTIC LAMINATE. DIMENSIONS ARE 5" WIDE x 1 1/2" HIGH. TEXT HEIGHT IS 3/16", EXCEPT AS NOTED OTHERWISE.
3. LABEL COLORS ARE TO BE WHITE LETTERS WITH BLUE BACKGROUND FOR 120/240 V AND 208Y/120 V PANELBOARDS. LABEL COLORS ARE TO BE WHITE LETTERS WITH BLACK BACKGROUND FOR 480Y/277 V PANELS.
4. SECURE TO TOP CENTER OF PANELBOARD COVER USING #4-40 STAINLESS STEEL SCREWS WITH NUTS AND LOCKWASHERS. USE OF ADHESIVES TO SECURE LABEL TO PANELBOARD IS NOT ACCEPTABLE.

3 E301 PANELBOARD LABEL

SCALE: NTS

DEDICATED SPACE RUNS TO A HEIGHT OF 6'-0" ABOVE EQUIPMENT. DEDICATED SPACE CONTINUES THROUGH SUSPENDED CEILING OR UP TO STRUCTURAL CEILING. ANY FOREIGN SYSTEMS TO THE ELECTRICAL EQUIPMENT SHALL NOT RUN WITHIN THIS SPACE.



GENERAL NOTES TO :

1. THIS FIGURE ILLUSTRATES THE DEDICATED SPACE REQUIRED ABOVE AND BELOW THE ELECTRICAL EQUIPMENT FOR RACEWAYS, CABLES, ETC. AS REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.

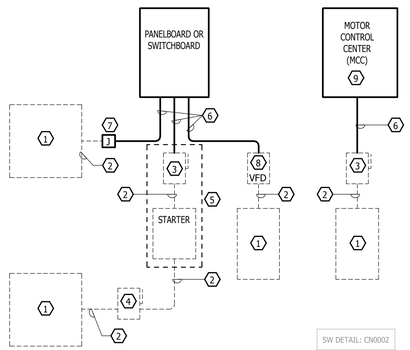
SW DETAIL: GE0030

4 E301 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT

SCALE: NTS

NOTES KEYED TO :

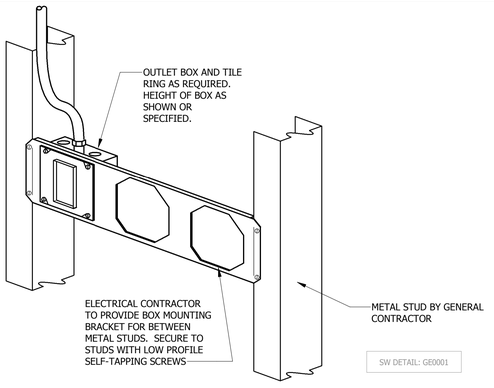
1. EQUIPMENT PROVIDED AND INSTALLED BY OTHER CONTRACTOR. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS, START UP AND TEST EQUIPMENT.
2. CONDUIT & WIRING BY OTHER CONTRACTOR PROVIDING EQUIPMENT.
3. DISCONNECT PROVIDED AND INSTALLED BY CONTRACTOR PROVIDING EQUIPMENT.
4. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR PROVIDING EQUIPMENT.
5. A COMBINATION STARTER MAY BE USED IN LIEU OF A SEPARATE DISCONNECT SWITCH AND STARTER. A COMBINATION STARTER SHALL BE PROVIDED AND INSTALLED BY THE OTHER CONTRACTOR PROVIDING THE EQUIPMENT.
6. FEEDER AND CONDUIT BY ELECTRICAL CONTRACTOR. SEE PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES TO OTHER EQUIPMENT. TERMINATE FEEDER AT LINE SIDE OF DISCONNECTING MEANS.
7. JUNCTION BOX MAY BE SHOWN ON ELECTRICAL PLANS FOR SOME EQUIPMENT IF NO STARTER IS REQUIRED. INSTALL JUNCTION BOX ADJACENT TO THE EQUIPMENT AND PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. MOTOR RATED DISCONNECT SHALL BE PROVIDED BY CONTRACTOR PROVIDING EQUIPMENT WHERE REQUIRED BY CODE.
8. VARIABLE FREQUENCY DRIVE (VFD) PROVIDED AND INSTALLED BY OTHER CONTRACTOR PROVIDING EQUIPMENT. VFD IS SUPPLIED WITH INTEGRAL DISCONNECTING MEANS.
9. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.



SW DETAIL: CN0002

5 E301 ELECTRICAL CONNECTIONS TO EQUIPMENT OF OTHER TRADES

SCALE: NTS



SW DETAIL: GE0001

1 E301 OUTLET BOX SUPPORT

SCALE: NTS

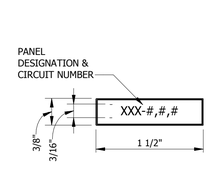


FIG. 1 - LABEL DIMENSIONS

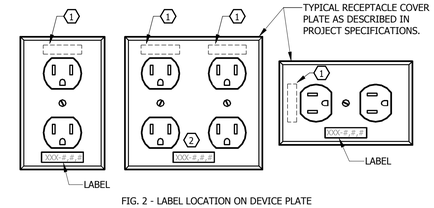


FIG. 2 - LABEL LOCATION ON DEVICE PLATE

GENERAL NOTES TO :

1. LABELS ARE TO BE MACHINE PRODUCED USING A THERMAL TRANSFER PROCESS WITH DIMENSIONS AS SHOWN ABOVE. LABELS ARE TO BE SUITABLE FOR EITHER INDOOR OR OUTDOOR USE.
2. LABEL COLOR TO BE CLEAR WITH BLACK LETTERING.
3. LABELS ARE TO BE ATTACHED AS INDICATED ABOVE TO ALL PROJECT RECEPTACLE COVER PLATES.

NOTES KEYED TO :

1. WRITE PANEL DESIGNATION NUMBER ON DEVICE YOKE WITH A FINE TIP, PERMANENT MARKER AS AN AID TO PROPER FACEPLATE LOCATION. ALL MARKING ON DEVICES MUST BE COVERED BY FACEPLATE.
2. FOR DUPLEX RECEPTACLES CENTER LABEL IF BOTH DEVICES ARE SUPPLIED BY THE SAME CIRCUIT. IF DEVICES ARE SUPPLIED BY DIFFERENT CIRCUITS PROVIDE A LABEL BELOW EACH RECEPTACLE.

2 E301 DEVICE LABELS

SCALE: NTS

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ELECTRICAL GENERAL DETAILS

E301

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Town of Carrboro MLK Jr. Park
Phase: 95% CD Submittal
22-Jun-17
Preliminary Opinion of Probable Construction Cost - with phasing

This is an estimate based upon the most current costs available. This estimate is provided for planning purposes only. A certified estimate should be obtained for use in bidding and construction.

Construction Item	Total
Construction Survey	$ 6,000.00
Construction Entrance	$ 2,700.00
Demolition - curb and gutter at driveway entrance	$ 598.50
221113 Water - budget	**$51,328.00**
1-1/2" copper water line	
1-1/2" Valve	
1-1/2" x 12" Tapping Sleeve	
2" x 6" Tee	
^" x 8" Reducer	
Water Appurtenances and Backflow	
Pavement Repair (remove and replace)	
1-1/2" Water Meter - impact fee	
1-1/2" Meter Installation	
Water Main Tap	
Quick Coupler valve to assist with irrigation	
Fire Hydrant	
221313 Sewer	**$56,580.00**
4" PVC Sewer Line	
4" DIP Sewer Line	
Tie to Ex. Manhole	
Cleanouts	
Curb remove and repair	
Sewer impact fee (1.5" meter)	
Road Pavement remove and repair	
311000 Site Clearing	**$12,750.00**
Clearing and Grubbing - add'l for pump track	
Topsoil Removal and Stockpiling	
312000 Earth Moving	**$20,420.00**
Rough Grading (cut/fill on site)	
Fine Grade	
import **(plan on balancing on site)**	
Respread Topsoil (4") (landscaped areas)	
312040 Erosion & Sediment Control	**$21,495.00**
Silt Fence	
Tree Protection Fence	
temporary rock dam	
Silt Fence Outlet	
Temporary Diversion Ditch	

STEWART

Town of Carrboro MLK Jr. Park
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Construction Item	Total
Temporary Seeding	
Seeding stabilization	
Temporary Sediment Basin	
321216 Asphalt Pavement and signage	**$26,198.66**
Parking Lot Surface Course -2" (9.5B) - 12,934 sf	
Roadway Base Course (6" ABC) -12,934 sf	
Parking Stall Striping	
Striping at Handicap Space	
Painted Markings (Stop Bars)	
Directional Arrows	
Handicap Signs	
Crosswalk Striping Allowance	
Misc. Regulatory & Informational Signage	
Decomposed Granite Path	**$43,200.00**
Decomposed Granite Path	
add'l path connection to pump tracks - approx. 500 lf	
Natural Stabilizer for all	
321313 Cast-In-Place Concrete	**$49,029.00**
Concrete Wheel Stops	
seat walls at amphitheater - cast in place with stone veneer	
Concrete Sidewalk (4" Thick)	
concrete pad for picnic shelters - 2190 sf (2)	
concrete pad for add alt shelter and amphitheater - 1580 sf	
329200 Lawns & Grasses	**$8,775.00**
Turfgrass Seeding (Bermuda)	
Pollination, Perennial and Wetland Garden seed mixes	
Switch Grass for stormwater Wetland	
329300 Plants	**$38,625.00**
Large Deciduous Canopy Trees - 4"caliper	
Evergreen Canopy Trees - 2.5", 8'	
Deciduous Canopy Trees - 2.5"	
Understory Trees - 2.5"	
Large Shrubs	
Perennial Plugs	
334100 Storm Drainage - Budget	**$49,731.60**
Wetland Riser	
Wetland topsoil	
RCP Drain Line - 18" Class III	

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Construction Item	Total
FES	
RipRap - Class A	
Rainwater Harvesting Cisterns	
Greenroof - add alt on amphitheater	
underdrains at playground (stone and pipe)	
Buildings	**$675,000.00**
Restroom & Storage	
Amphitheatre structure	
Large Picnic Shelter	
Small Picnic Shelter	
Garden storage & Shelter	
Playground	**$61,700.00**
Misc. Mulch and edging	
embankment slide	
slide misc rocks	
climbing structures	
water play	
log balance (wood onsite)	
climbing logs (wood onsite)	
see saw (wood onsite)	
birds nest swing (gametime)	
hopping logs	
climbing boulder (game time u-play sandstone med)	
willow tunnel	
playground installation and delivery allowance	
Pump Track	**$3,555.87**
Sand	
Clay	
underdrains (stone and pipe)	
Grading and shaping	
Misc. Site Amenities	**$74,855.00**
Exercise Station - phase one	
Exercise Station - phase two	
Exercise Station Sign - phase one	
Exercise Station Sign - phase two	
Bench	
Bollard (permanent/lit)	
Water Fountain (dual level)	

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Construction Item	Total
Trash Receptacle	
Grill	
inverted U Bike Rack	
Handrail at ramps, stairs, bridge, etc.	
Dog Waste Stations	
Educational Signage	
Little Free Library (donation)	
Picnic Table	
addl fence at garden (screening)	
fence around back of pump track (chain link)	
double vehicular gate at garden	
Grass Pavers with sub-base	
Subtotal	**$ 1,202,541.63**
5% Mobilization	**$ 60,127.08**
5% Contingency	**$ 60,127.08**
TOTAL OPINION OF COST (with contingency)	**$ 1,322,795.79**
TOTAL PROJECT FUNDING	**$ 1,200,000.00**
DIFFERENCE	**$ (122,795.79)**
PHASE ONE (pre-contingency and mobilization)	**$ 1,043,466.63**
PHASE TWO (pre-contingency and mobilization)	**$159,075.00**

PHASE TWO

100% PLAN RENDERING - PROPOSED PHASING

1 RAINWATER HARVESTING

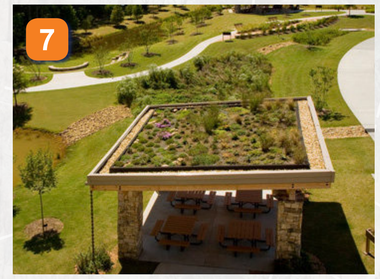
2 AMPHITHEATER SEATING

3 PUMP TRACK

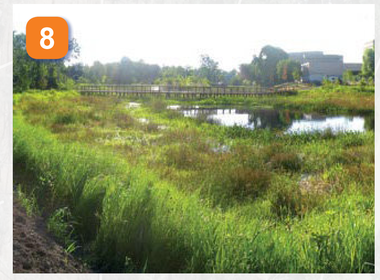
4 EXERCISE STATIONS

5 NATURAL PLAYGROUND

6 POLLINATOR GARDENS



7 GREEN ROOF



8 CONSTRUCTED WETLAND

MLK JR PARK | CARRBORO, NC

100% CD : ILLUSTRATIVE RENDERING - OPTION A

06 . 22 . 2017

STEWART