KINDERGARTEN MODULAR CLASSROOM ADDITION TO THE EARLY CHILDHOOD CENTER

115 PHILLIPS BROOKS ROAD NORTH ANDOVER, MASSACHUSETTS 01845 RFP DOCUMENTS

LOCATION PLAN



LIST OF DRAWINGS

DRAWING NO.	DESCRIPTION
GENERAL	
T1.00	TITLE SHEET
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CIVIL EX01	EXISTING CONDITIONS SURVEY PART 1
EX02	EXISTING CONDITIONS SURVEY PART 2
C1	BUILDING PAD PREP & SITE WORK PLAN
C2	PROPOSED GRADING PLAN
DEMOLITION D1.01	FIRST FLOOR DEMOLITION PLAN
ARCHITECTURAL	
A0.01	LEGEND, NOTES & ABBREVIATIONS
A1.01	FIRST FLOOR KEY PLAN
A1.11	FIRST FLOOR PLAN PART-A
A1.12A	FIRST FLOOR PLAN PART-B
A1.12B	FIRST FLOOR PLAN PART-B ALTERNATES
A1.20	ROOF PLAN
A1.31	ENLARGED PLANS AND DETAILS
A2.10	EXTERIOR ELEVATIONS
A4.10	BUILDING SECTIONS
A4.11 A4.12	WALL SECTIONS WALL SECTIONS
A5.10	INTERIOR ELEVATIONS AND CASEWORK DETAILS
A6.01	FIRST FLOOR RCP KEY PLAN
A6.11	FIRST FLOOR RCP REY PLAN FIRST FLOOR RCP PART-A
A6.12	FIRST FLOOR RCP PART-B
A7.01	ROOM FINISH & DOOR SCHEDULE
STRUCTURAL	
S-0	GENERAL NOTES, TYPICAL DETAILS & SCHEDULES

FOUNDATION PLAN

SECTIONS



6 THIRTEENTH STREET CHARLESTOWN NAVY YARD CHARLESTOWN, MA 02129 Drawing Name:

TITLE
SHEET

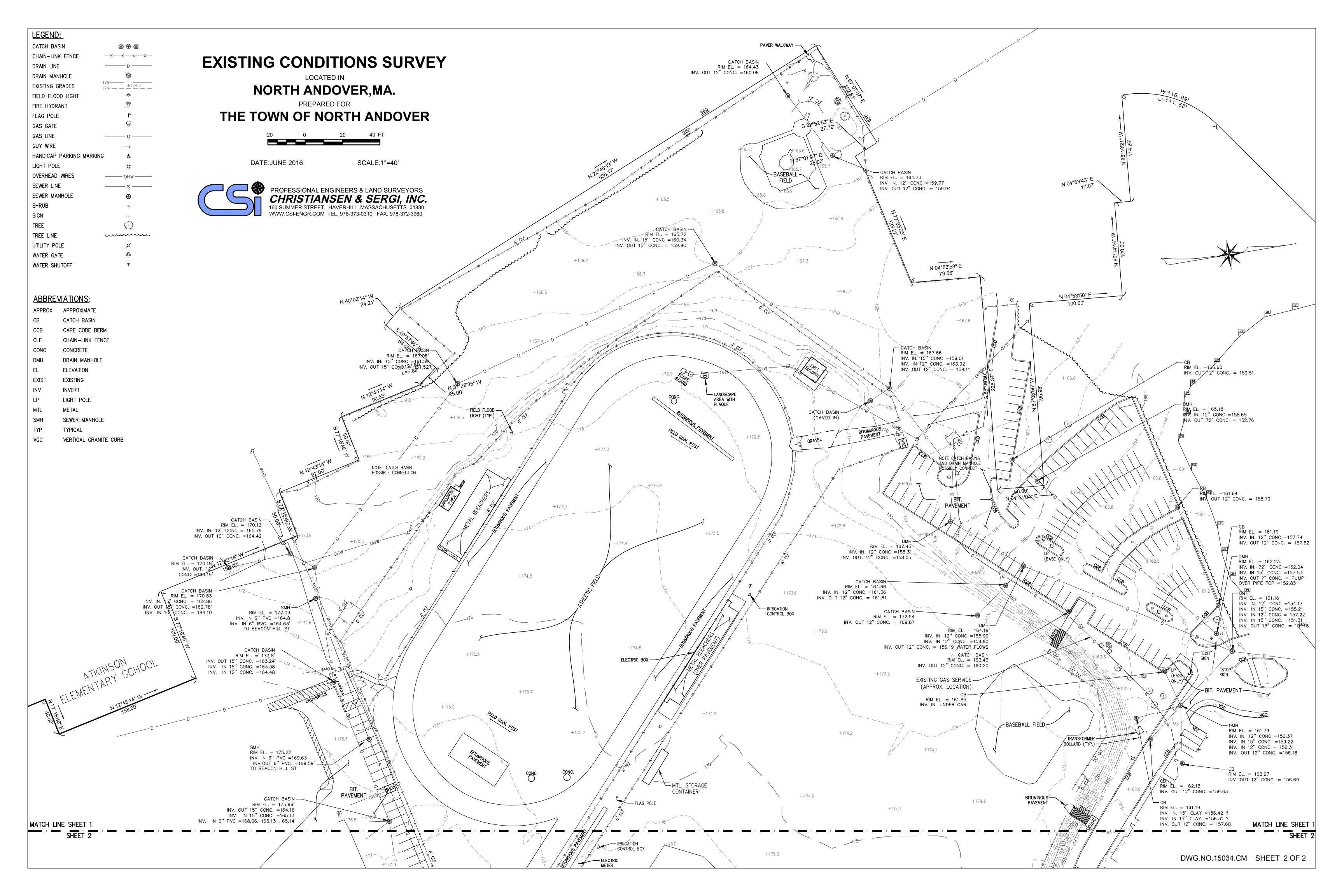
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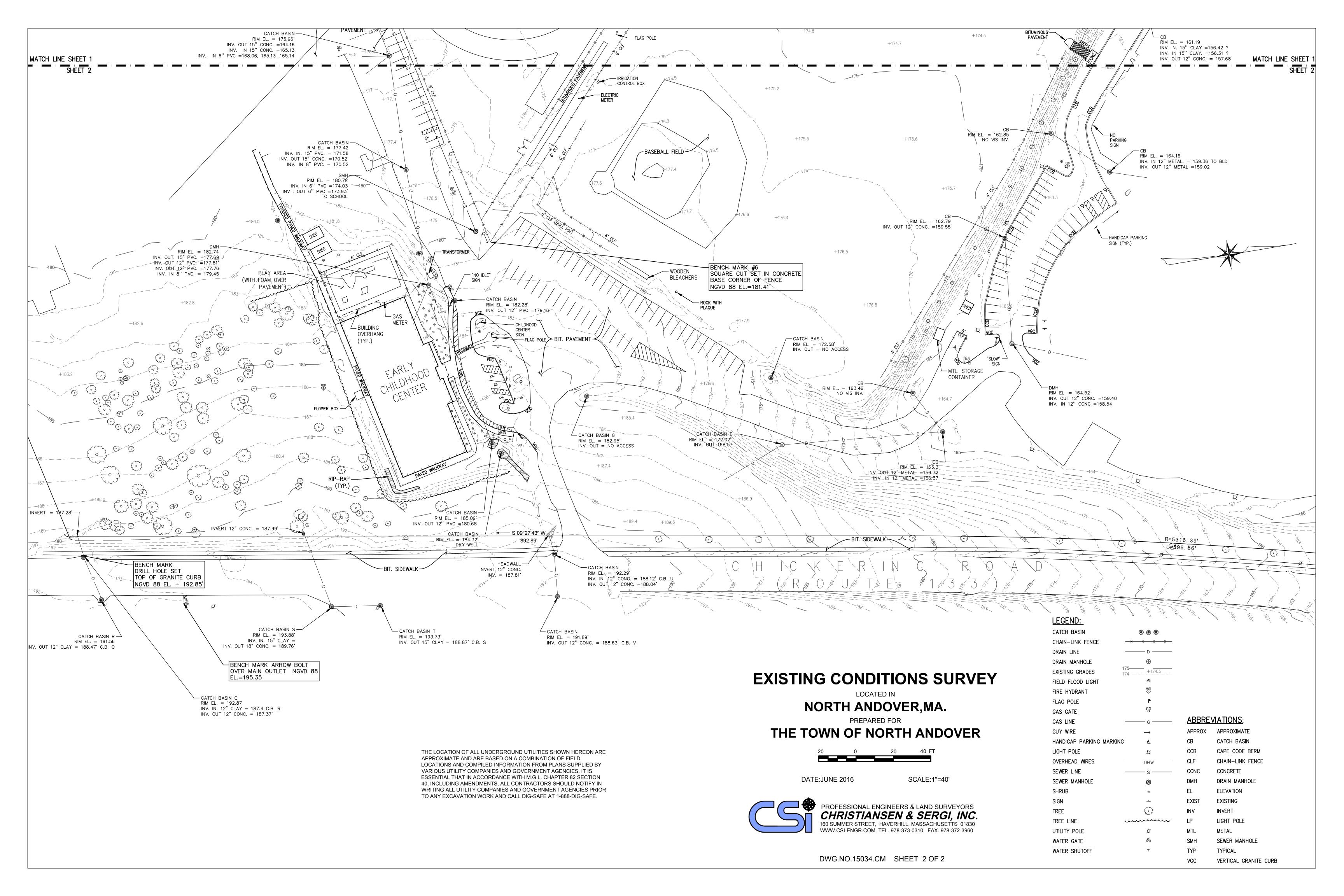
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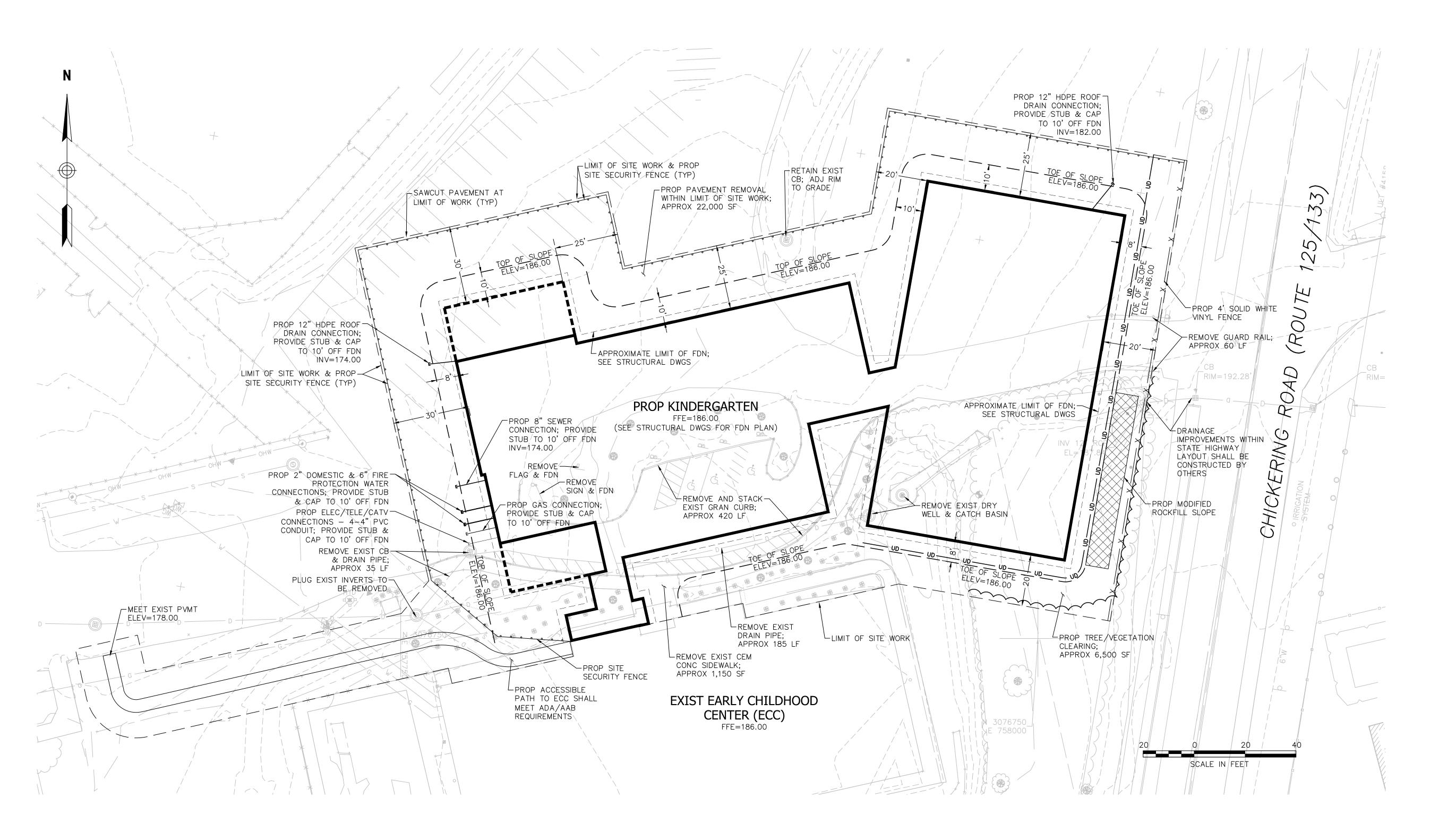
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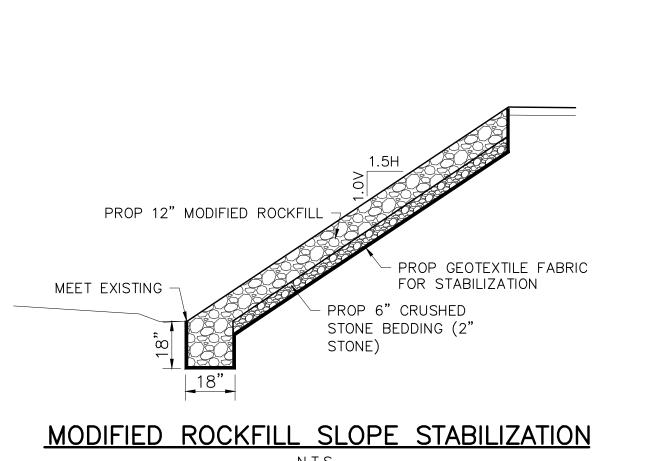
RFP DOCUMENTS

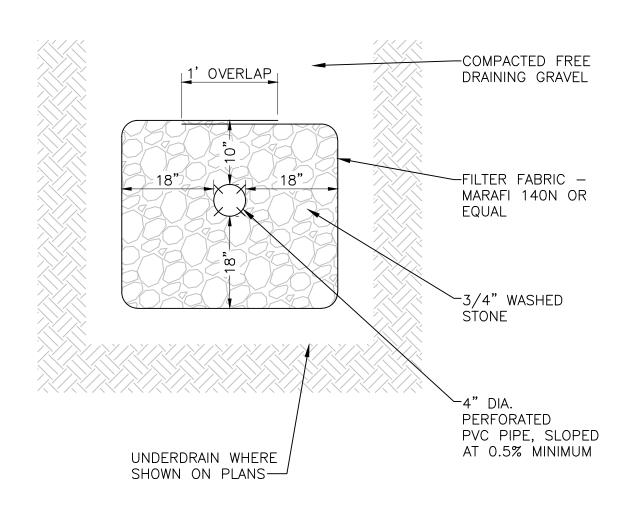
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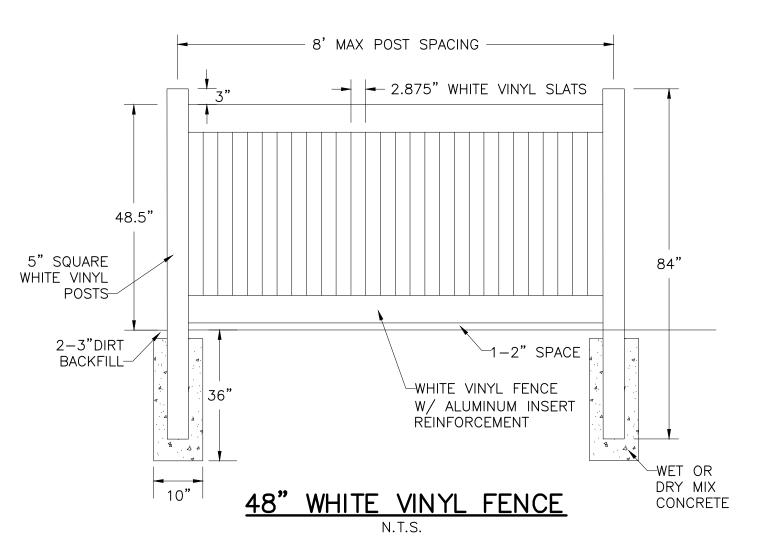












UNDERDRAIN DETAIL

GENERAL NOTES

- 1. PROP UTILITY CONNECTIONS TO BUILDING ARE SHOWN APPROXIMATE. CUT/CAP LOCATIONS, FINAL ELEVATIONS, SIZING, AND DETAILS SHALL BE COORDINATED BY THE CONTRACTOR AND PRE-FAB/MODULAR BUILDING ENGINEERS.
- 2. CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND THE LOCAL MUNICIPAL WATER & SEWER DEPT. AT LEAST 72 HOURS BEFORE EXCAVATING.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS. A 6-FOOT TEMPORARY CHAINLINK FENCE SHALL BE PROVIDED AROUND ALL CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL LEAVE NO UNSECURED OPEN EXCAVATIONS.
- 4. HANDICAP ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT/ARCHITECTURAL ACCESS BOARD (AAB), AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- 5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS. ALL EARTHWORK OPERATIONS (INCLUDING FOUNDATION CONSTRUCTION AND BACKFILL) SHALL MEET THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. PROJECT GEOTECHNICAL REPORT SHALL BE PROVIDED UNDER SEPARATE COVER.
- 6. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALK, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- 7. AREAS OUTSIDE THE LIMITS OF PROP WORK DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 8. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- 9. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- 10. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO THE OWNER.
- 11. CONTRACTOR SHALL PREPARE AND MAINTAIN A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE US EPA CONSTRUCTION GENERAL PERMIT AND NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
- 12. EXISTING CONDITIONS PLAN PREPARED BY CHRISTIANSEN & SERGI, INC., HAVERHILL, MA, BY AN ON THE GROUND FIELD SURVEY PERFORMED IN JUNE 2016 AND SEPTEMBER 2017.
- 13. CONTRACTOR TO FILE A NOTICE OF INTENT FOR COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT (CGP) AND PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PRIOR TO START OF CONSTRUCTION.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF SITE SECURITY FENCING AROUND THE ENTIRE PERIMETER OF THE WORK AREA. SITE SECURITY FENCING MAY NEED TO BE SHIFTED IN PHASES DURING CONSTRUCTION AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE WORK AREA IS COMPLETELY SECURE.

GRADING, DRAINAGE AND UTILITY NOTES

- 1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATION, SIZES, AND ELEVATION OF EXISTING UTILITIES.
- 2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROP WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. FAILURE TO PROVIDE OR PERFORM THE ABOVE PRIOR TO PERFORMING ANY WORK SHALL NOT BE GROUNDS FOR EXTRA PAYMENTS TO THE
- 3. AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS, AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES, AND JOINTS.
- 4. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
- 5. ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED.
- 6. INSTALL ALL UTILITIES (INCLUDING CONCRETE PADS) PER UTILITY COMPANY, DPW, AND STATE STANDARDS.
- 7. EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
- 8. ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE NOTED.
- 9. WATER LINE SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON.
- 10. INSULATE SANITARY PIPES WHERE INVERT DEPTH IS LESS THAN FIVE (5) FEET BELOW FINISHED GRADE.
- 11. CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION (AT NO ADDITIONAL COST TO THE OWNER) BY THE CONTRACTOR.
- 12. ALL WATER AND SEWER UTILITY WORK SHALL CONFORM TO LOCAL DPW, WATER DIVISION SPECIFICATIONS, DETAILS, RULES AND REGULATIONS AND HAVE FIVE (5) FEET OF MINIMUM COVER. GAS. ELECTRIC. AND TELEPHONE LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY THE APPROPRIATE UTILITY COMPANIES.
- 13. FIRE ALARM CONNECTION LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY THE FIRE DEPARTMENT OR STATE BUILDING INSPECTOR.
- 14. THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL BARRIERS AFTER REVEGETATION OF DISTURBED AREAS AND AFTER APPROVAL BY THE LOCAL APPROVING AUTHORITY.
- 15. EXCAVATION REQUIRED IN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE
- 16. STOCKPILED TOPSOIL SHALL BE PLACED NEATLY IN AN AREA APPROVED BY THE OWNER/REPRESENTATIVE.
- 17. THE CONTRACTOR SHALL SCHEDULE THEIR WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROP CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING.
- 18. UNLESS OTHERWISE INDICATED, ABANDONED EXISTING UTILITY LINES SHALL BE CAPPED AND ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROP IMPROVEMENTS, WHERE THEY SHALL THEN BE REMOVED. CAP REMAINING PORTIONS WHERE PARTIALLY



TEC, Inc.

65 Glenn Street Lawrence, MA 01843 169 Ocean Boulevard Unit 101, PO Box 249 Hampton, NH 03842 (978) 794-1792 (603) 601-8154 www.**T**he**E**ngineering**C**orp.com

DESIGNED BY	PFE
DRAWN BY	PFE
CHECKED BY	KRD
DATE	11/1/2017

1"=20'

SCALE

Town of North Andover 120 Main Street North Andover, MA 01845

KBA Architects, Inc. 6 Thirteenth Street Charlestown, MA 02129

REVISIONS

ISSUED FOR **RFP Documents**

PROJECT TITLE

Kindergarten Facility Site Design

PROJECT LOCATION

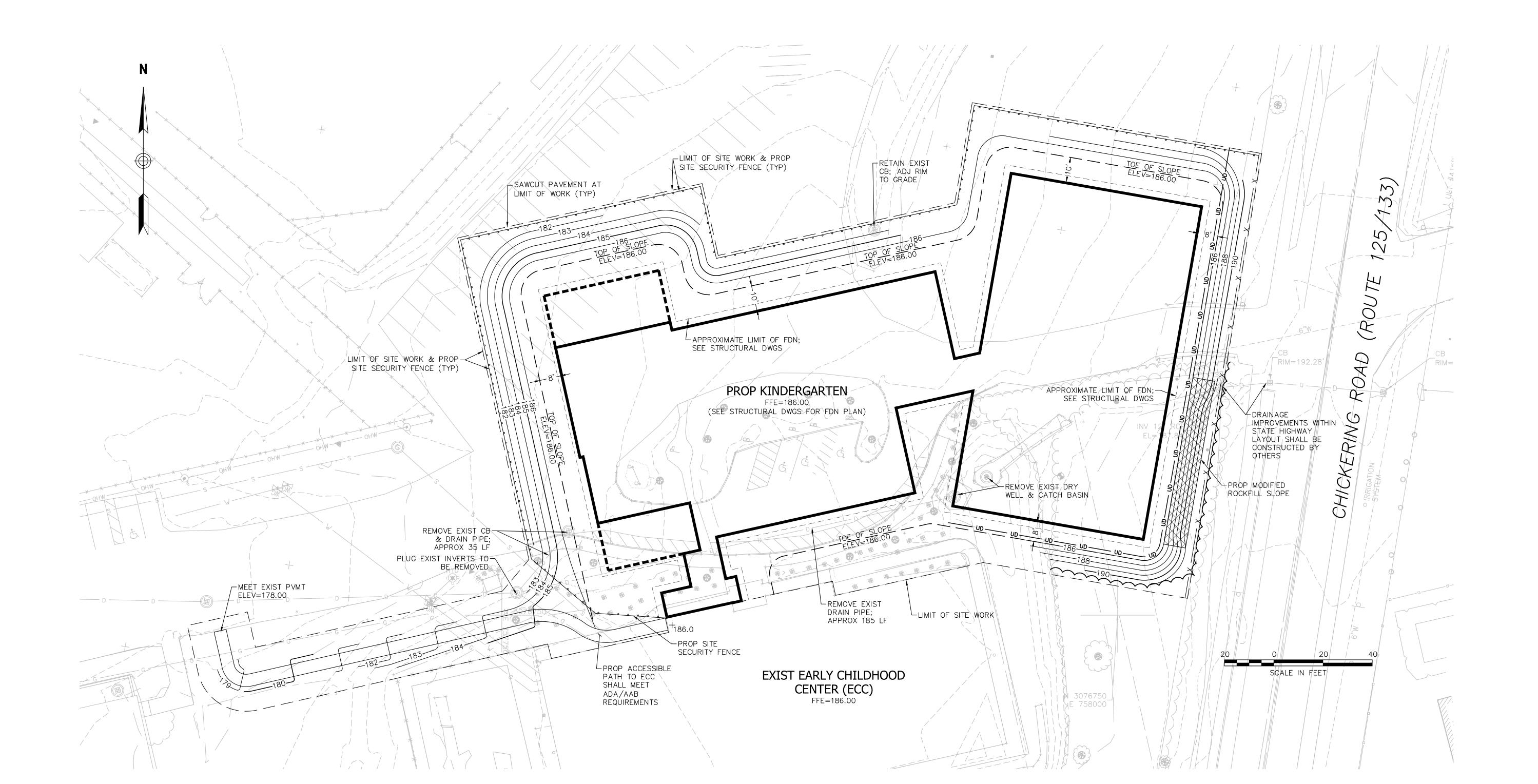
115 Phillips Brooks Rd N. Andover, MA 01845

DRAWING TITLE Building Pad Prep & Site Work Plan

> PROJECT NO. T0726 TEC CAD FILE T0726.01_Bldg Limits

DRAWING NO.

SHEET 1 OF 2





65 Glenn Street
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(978) 794-1792
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DESIGNED BY	PFE
DRAWN BY	PFE
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DATE	11/1/2017
SCALE	1"-20'

PREPARED F

Town of North Andover 120 Main Street North Andover, MA 01845

KBA Architects, Inc. 6 Thirteenth Street Charlestown, MA 02129

REVISIO

RFP Documents

PROJECT TITI

Kindergarten Facility Site Design

PROJECT LOCATION

115 Phillips Brooks Rd N. Andover, MA 01845

DRAWING TI

Proposed Grading Plan

PROJECT NO.

TEC CAD FILE
T0726.01_Bldg Limits

2

SHEET 2 OF 2

ABBREVIATIONS:

 ASBESTOS CONTAINING MATERIAL ACOUSTIC CEILING PANEL ACOUSTIC CEILING TILE ABOVE FINISH FLOOR ALUMINUM **BOOK CASE** BORROWED LIGHT **BOTTOM OF** BACKER ROD BOARD CEILING CEILING HEIGHT CORNER GUARD CONTROL JOINT CENTER LINE CLOS - CLOSET CONCRETE MASONRY UNITS CONC. CONCRETE - CONTINUOUS CARPET CLEAR WIRE GLASS - DETAIL DRINKING FOUNTAIN ETHYLENE PROPYLENE DIENE MONOMER **EQUAL** EWD EXISTING WOOD FIRE BLANKET FIRE EXTINGUISHER FIRE EXTINGUISHER CABINET - FLOOR FOC - FACE OF CONCRETE - GAUGE GYPSUM PARTITION TYPEBOARD HANDICAPPED HCAP HANDICAP - HARDWARE INSULATION - JOINT **JANITOR** - LAMINATE LAVATORY L.G.M.F. - LIGHT GAUGE METAL FRAMING _ LAMINATED SAFETY GLASS MATERIAL MARKER BOARD MIN MINIMUM NOT IN CONTRACT ON CENTER OPPOSITE HAND OPPOSITE PLASTIC LAMINATE PLYWOOD PT - PRESSURE TREATED - PAINTED QUARRY TILE RUBBER WALL BASE REFLECTED CEILING PLAN REQUIRED REDUCER STRIP SMART BOARD SEAMLESS RESIN - STORAGE - STEEL TACK BOARD TO BE REMOVED

TBD

TS

V.I.F.

TO BE DETERMINED

TRANSITION STRIP

VINYL COMPOSITION TILE

- THICK - TOP OF

UNIT VENTILATOR

VERIFY IN FIELD

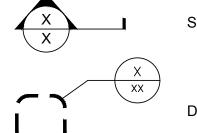
WC - WATER CLOSET

TYP. - TYPICAL

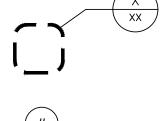
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ROOM NAME

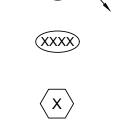
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SECTION DETAIL



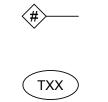
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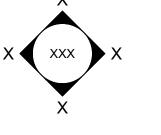
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NEW PARTITION TAG

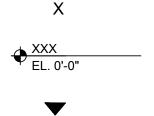
DOOR TAG



FIXTURE/ACCESSORY TAG



INTERIOR ELEVATIONS



DATUM ELEVATION MARKER



CAT 6 NETWORK DROPS, #DENOTES QUANTITY. PROVIDE OUTLET BOX , 3/4" CONDUIT & PULL STRING TO ABOVE CEILING. OWNER WILL INSTALL CABLE & OUTLETS



2 CAT NETWORK DROPS IN CEILING PROVIDE OUTLET (TYP.)

DUPLEX ELEC OUTLET NEAR CEILING ON CENTER OF BOARD

SINGLE CAT 6 NETWORK DROP. PROVIDE OUTLET (TYP.)

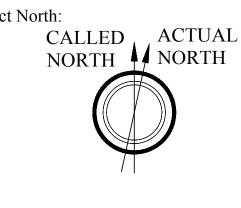
REAL REPORT AND ANDERSON, INC. 6 THIRTEENTH STREET CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)

Designed By: DAB Drawn By: ERL

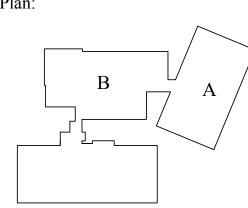
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REV DATE DESCRIPTION

Project North:



Key Plan:



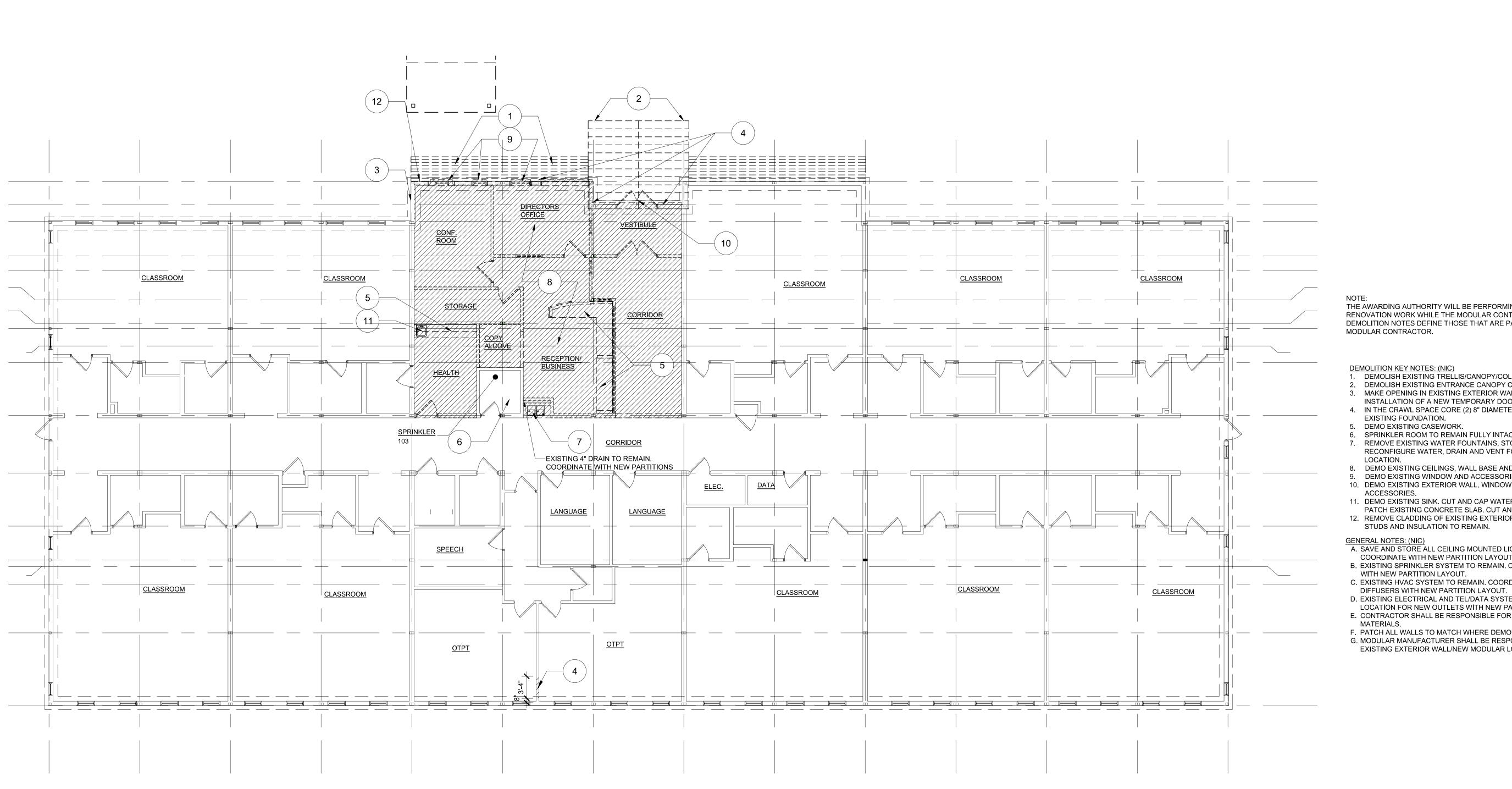
DERGARTEN MODULAR CLASSROOM DDITION TO THE NORTH ANDOVER EARLY CHILDHOOD CENTER RD. 0184 BROOK I

KIN A Stamp:

Drawing Name:

LEGENDS, NOTES & **ABBREVIATIONS**

Job No.: S123917 Drawing No. Date: 11/01/2017



THE AWARDING AUTHORITY WILL BE PERFORMING SOME LIMITED INTERIOR RENOVATION WORK WHILE THE MODULAR CONTRACTOR IS WORKING. THE SCOPE OF DEMOLITION NOTES DEFINE THOSE THAT ARE PART OF THE SCOPE FOR THE MODULAR CONTRACTOR.

- DEMOLITION KEY NOTES: (NIC)

 1. DEMOLISH EXISTING TRELLIS/CANOPY/COLUMNS

 2. DEMOLISH EXISTING ENTRANCE CANOPY COLUMNS

 3. MAKE OPENING IN EXISTING EXTERIOR WALL TO ALLOW INSTALLATION FOR
- INSTALLATION OF A NEW TEMPORARY DOOR
 4. IN THE CRAWL SPACE CORE (2) 8" DIAMETER AND (2) 4" HOLES IN THE EXISTING FOUNDATION.
 5. DEMO EXISTING CASEWORK.
- 6. SPRINKLER ROOM TO REMAIN FULLY INTACT.
- . REMOVE EXISTING WATER FOUNTAINS, STORE FOR FUTURE INSTALLATION. RECONFIGURE WATER, DRAIN AND VENT FOR NEW WATER FOUNTAIN
- 8. DEMO EXISTING CEILINGS, WALL BASE AND FLOORING.
- 9. DEMO EXISTING WINDOW AND ACCESSORIES, TYP. 10. DEMO EXISTING EXTERIOR WALL, WINDOW AND DOOR SYSTEMS AND
- 11. DEMO EXISTING SINK. CUT AND CAP WATER AND DRAIN BELOW SLAB AND PATCH EXISTING CONCRETE SLAB. CUT AND CAP VENT ABOVE CEILING.
- 12. REMOVE CLADDING OF EXISTING EXTERIOR WALL DOWN TO INSULATION. STUDS AND INSULATION TO REMAIN.

GENERAL NOTES: (NIC)

A. SAVE AND STORE ALL CEILING MOUNTED LIGHTING FOR FUTURE USE.

COORDINATE WITH NEW PARTITION LAYOUT.

- B. EXISTING SPRINKLER SYSTEM TO REMAIN. COORDINATE LOCATION OF HEADS WITH NEW PARTITION LAYOUT. C. EXISTING HVAC SYSTEM TO REMAIN. COORDINATE NEW DUCTWORK AND
- D. EXISTING ELECTRICAL AND TEL/DATA SYSTEMS TO REMAIN. COORDINATE LOCATION FOR NEW OUTLETS WITH NEW PARTITION LAYOUT.

 E. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDITIONS AND
- F. PATCH ALL WALLS TO MATCH WHERE DEMOLITION HAS OCCURRED.
 G. MODULAR MANUFACTURER SHALL BE RESPONSIBLE FOR DEMOLITION AT THE EXISTING EXTERIOR WALL/NEW MODULAR LOCATION.

Drawing Name:

FIRST FLOOR **DEMOLITION PLAN**

6 THIRTEENTH STREET CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)

Designed By: DPB

Drawn By: ERL

Checked By: MLW

Project North:

DATE DESCRIPTION

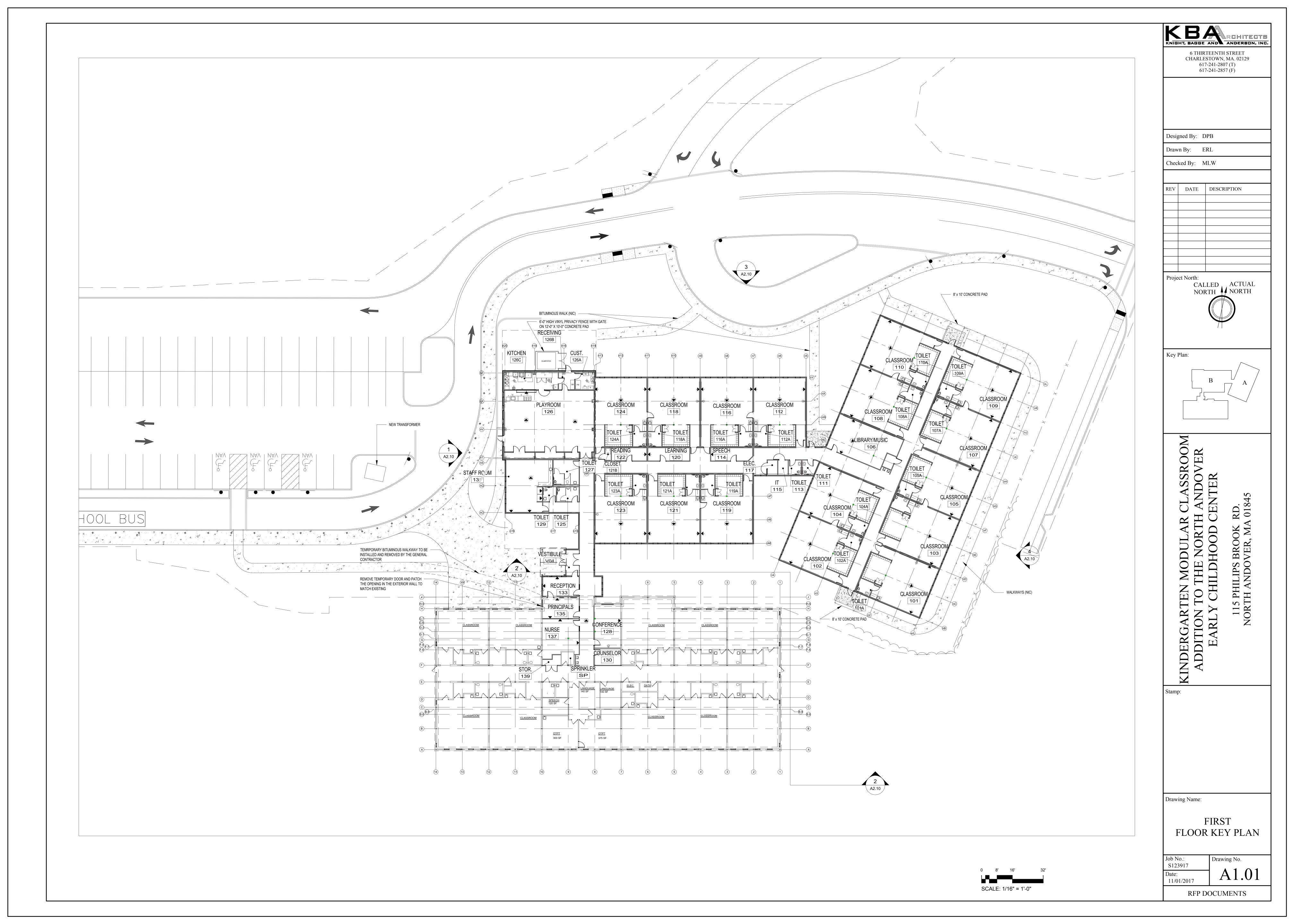
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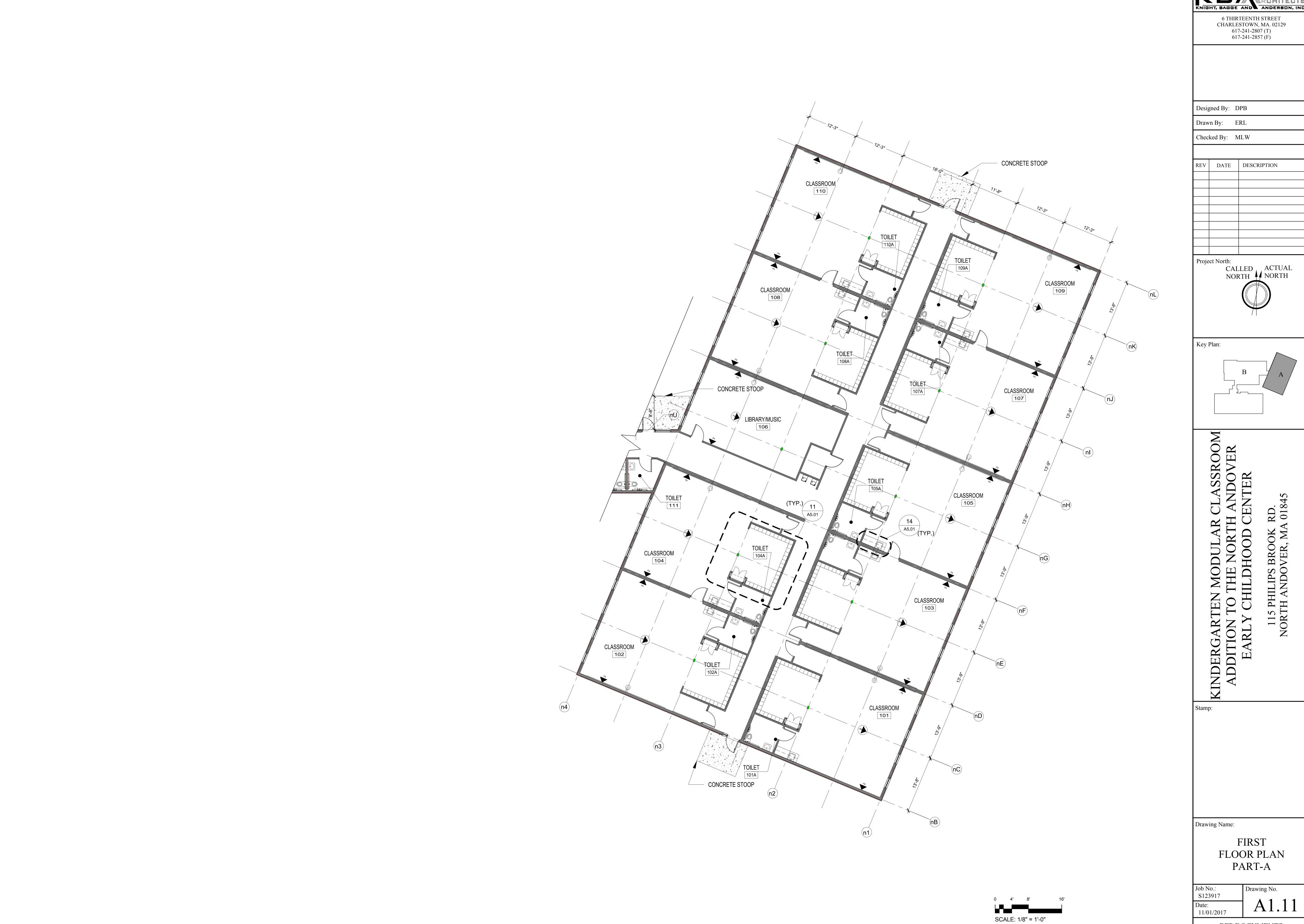
Drawing No. S123917 D1.01 Date: 11/01/2017

RFP DOCUMENTS

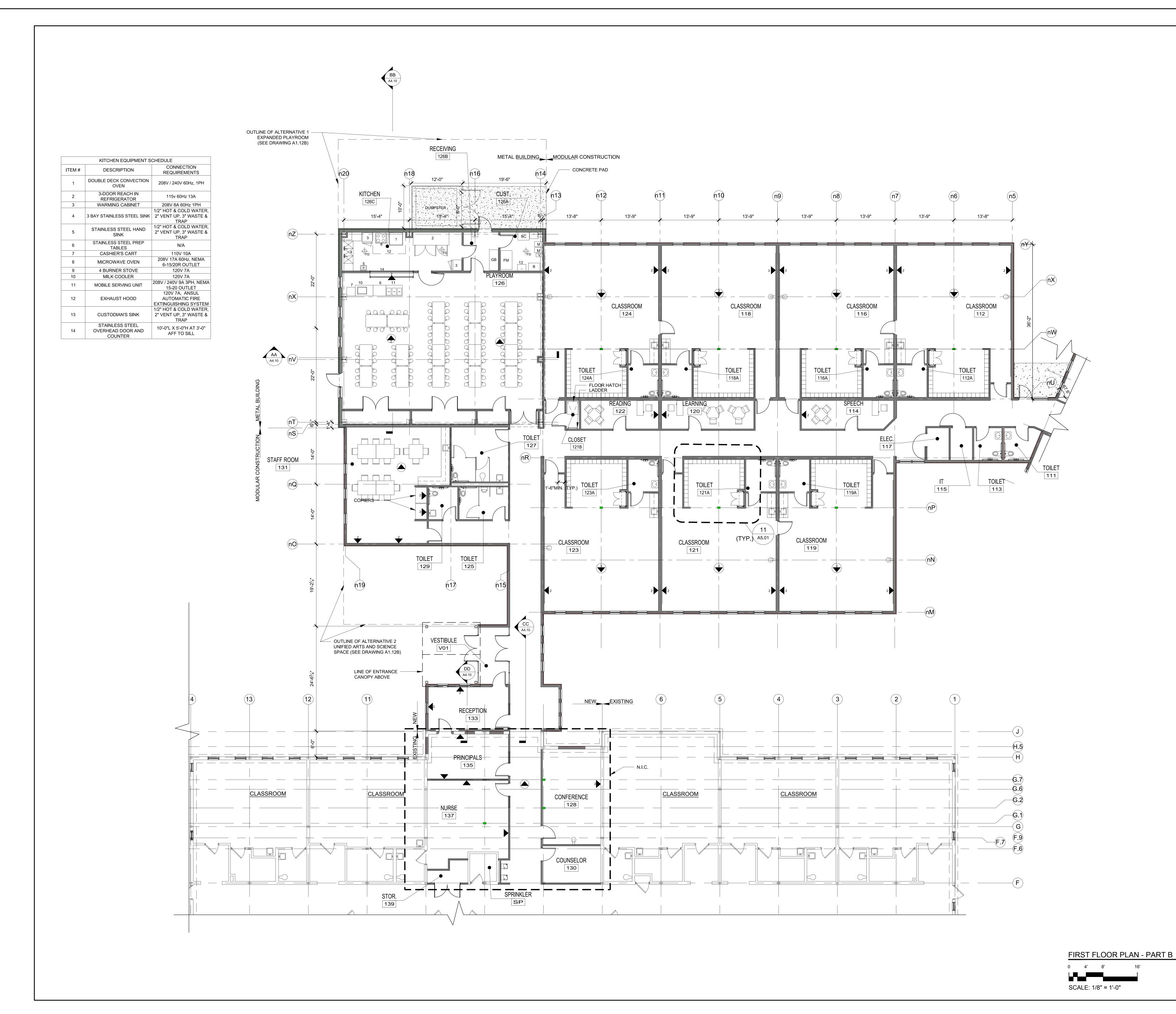
FIRST FLOOR DEMO PLAN 0 4' 8' 16'

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





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6 THIRTEENTH STREET CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)

Designed By: DPB

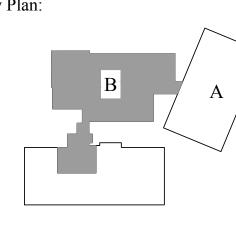
Drawn By: ERL

Checked By: MLW

DATE DESCRIPTION

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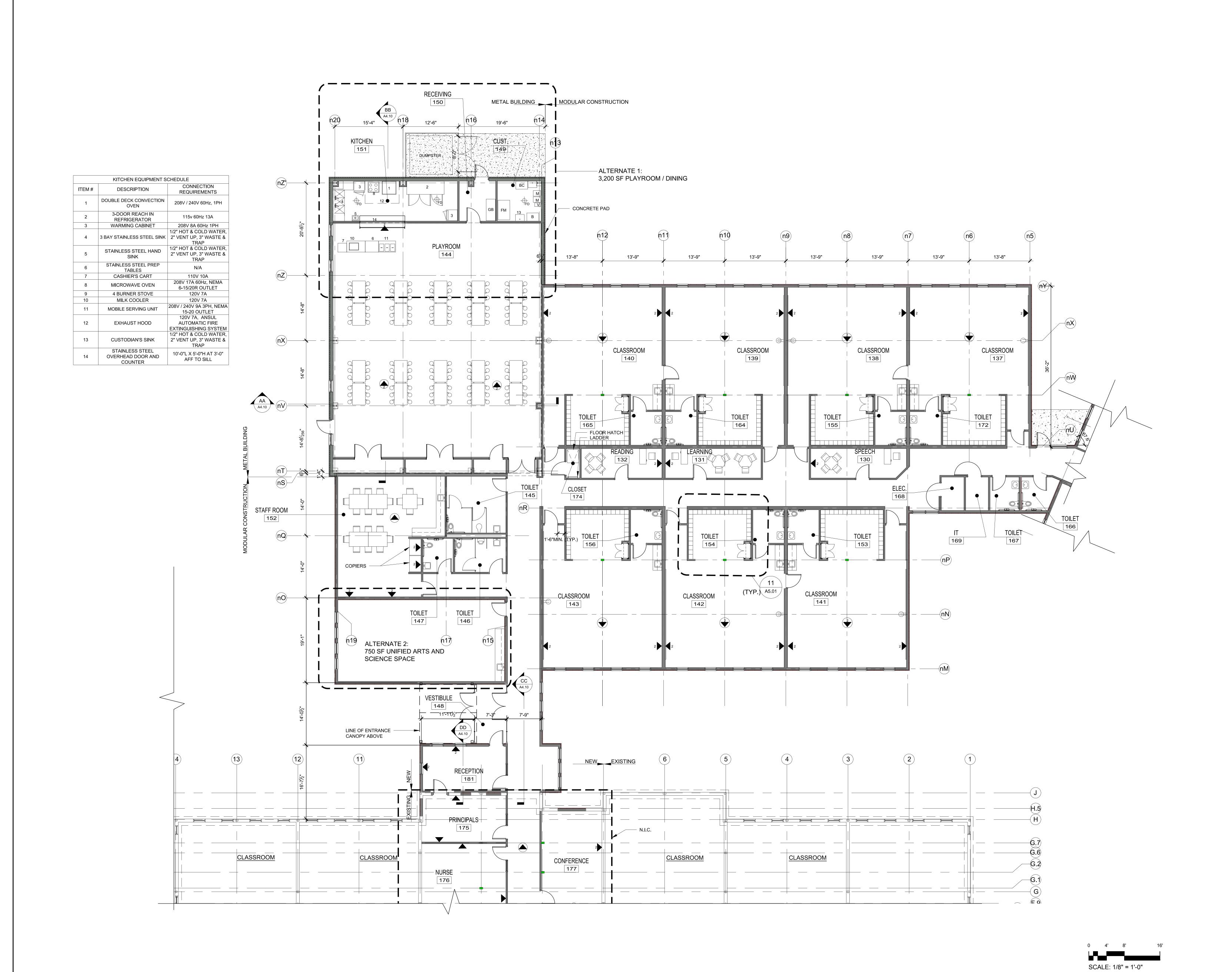
Key Plan:



Drawing Name:

FIRST FLOOR PLAN PART B

Drawing No. S123917 11/01/2017



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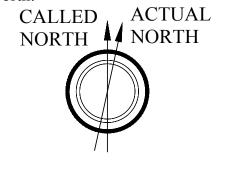
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Drawn By: ERL

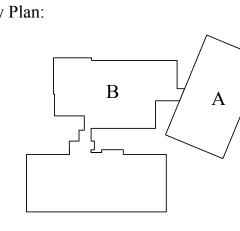
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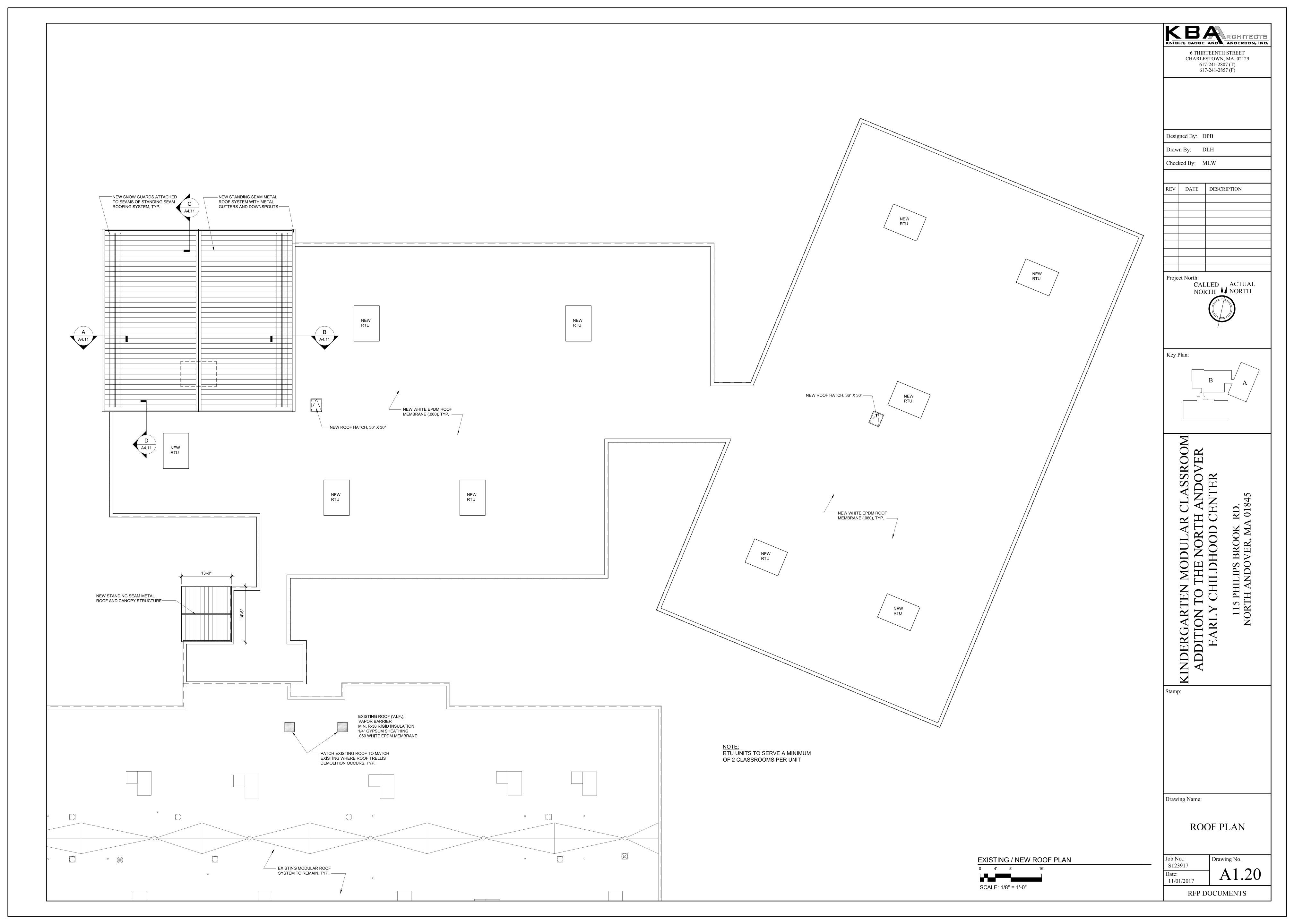
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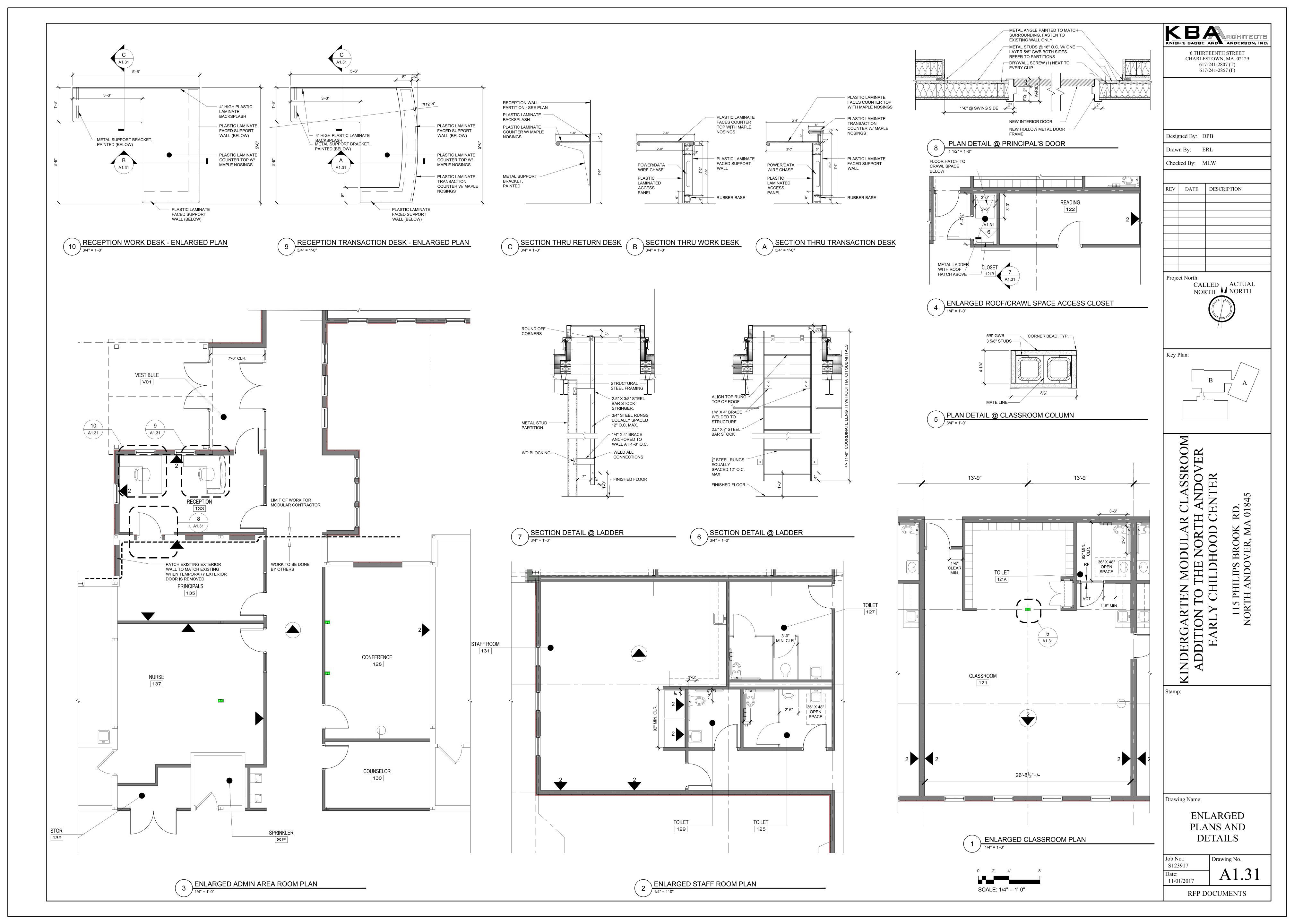


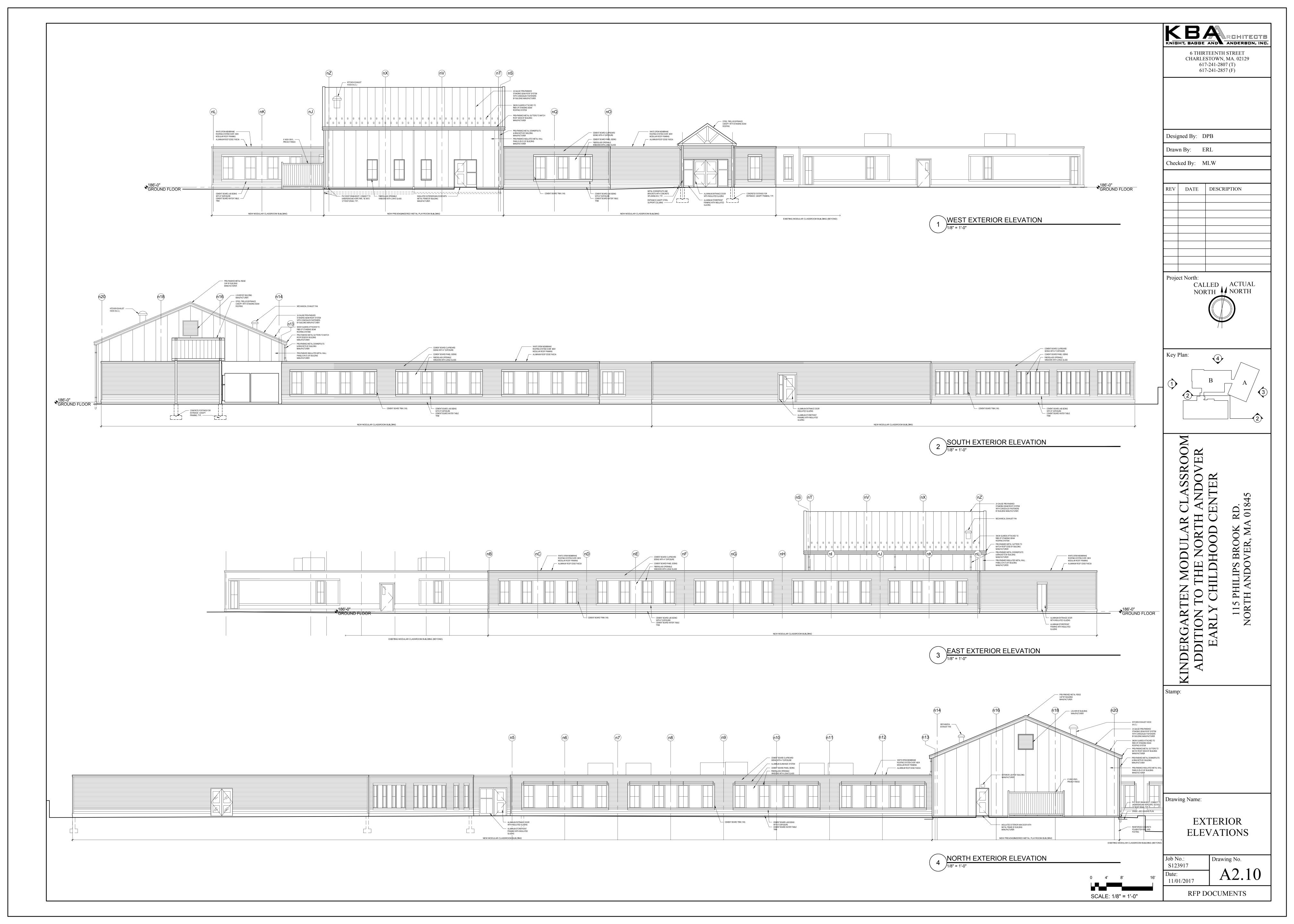
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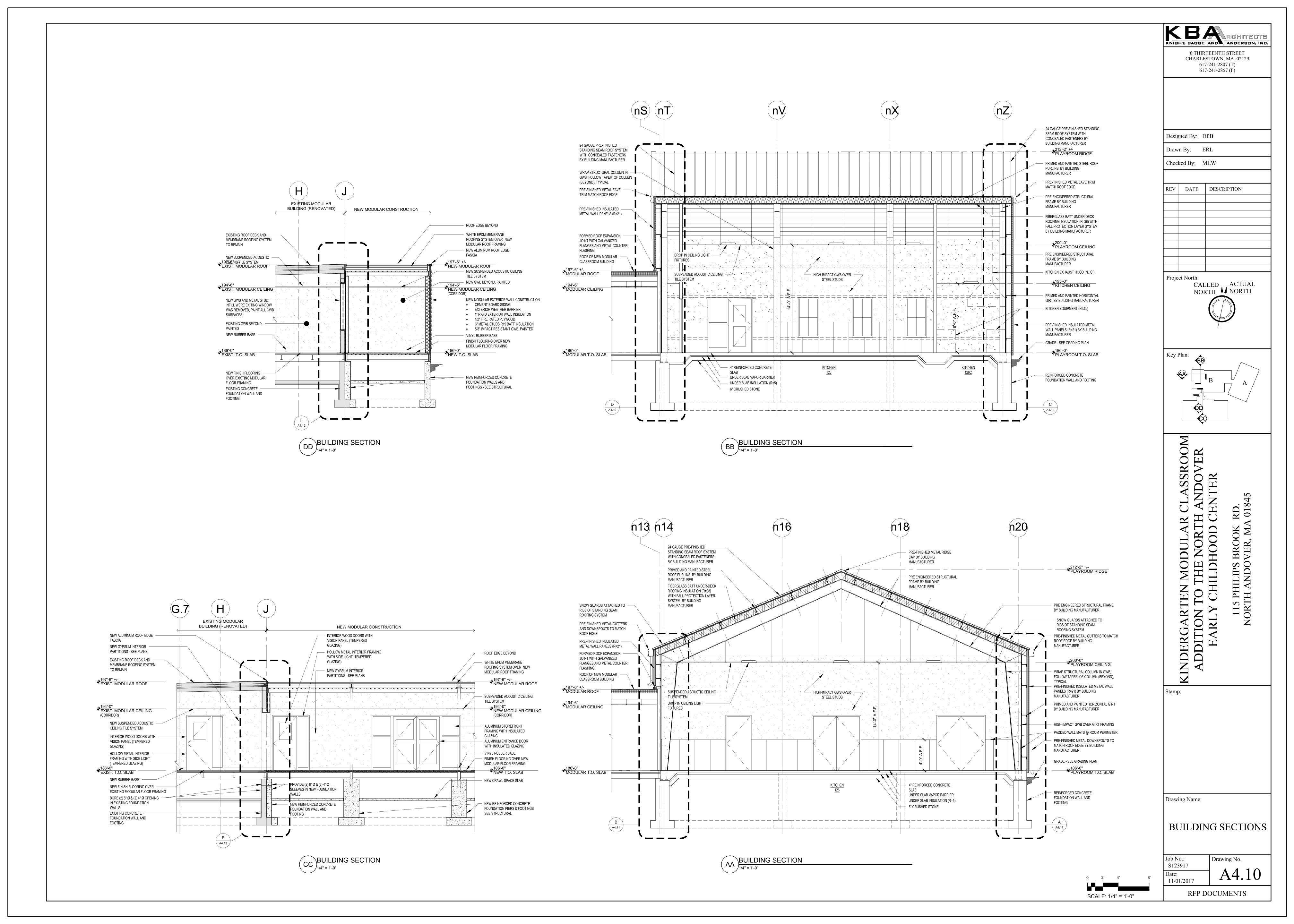
FIRST FLOOR PLAN PART-B **ALTERNATES**

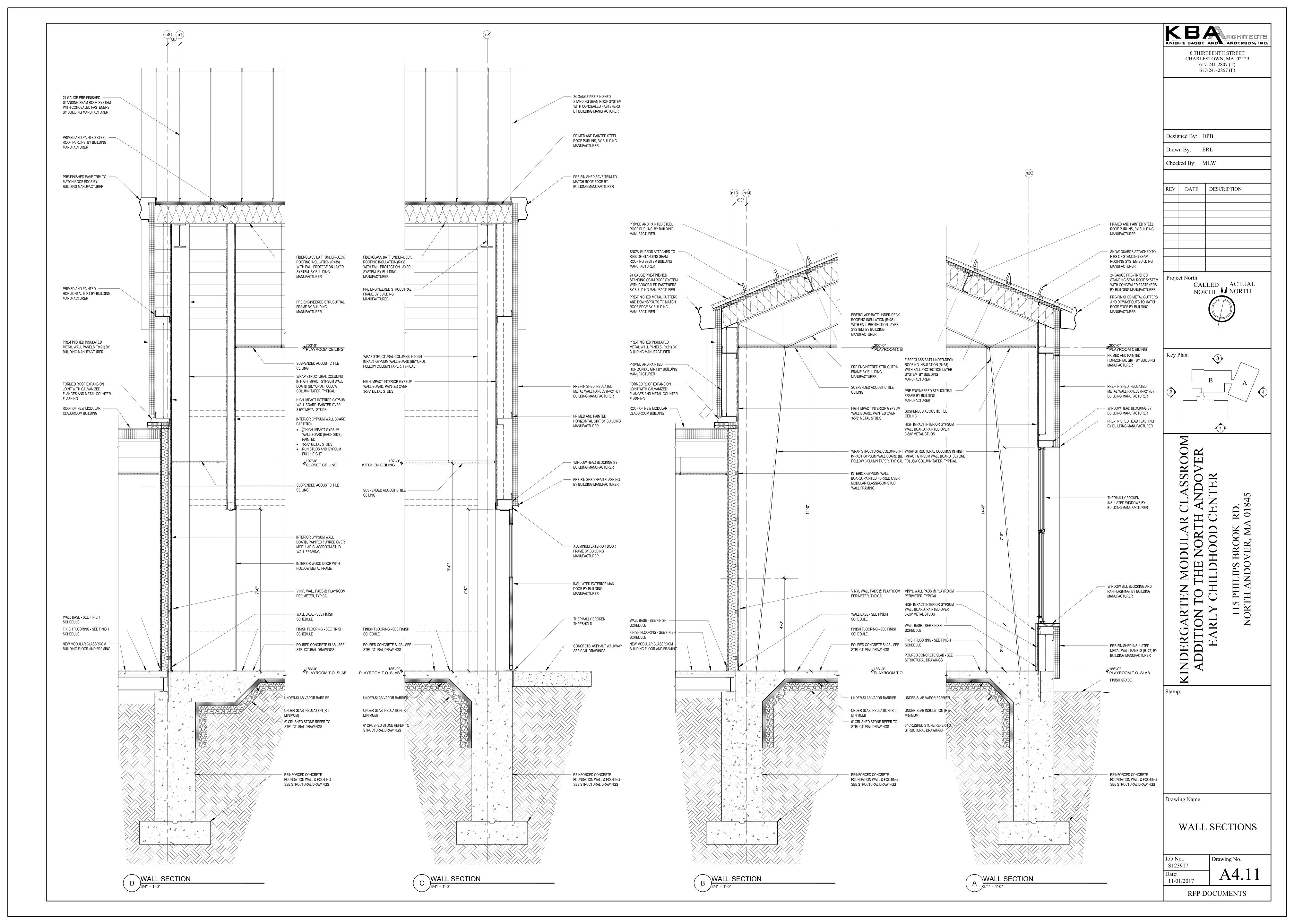
Drawing No. S123917 11/01/2017

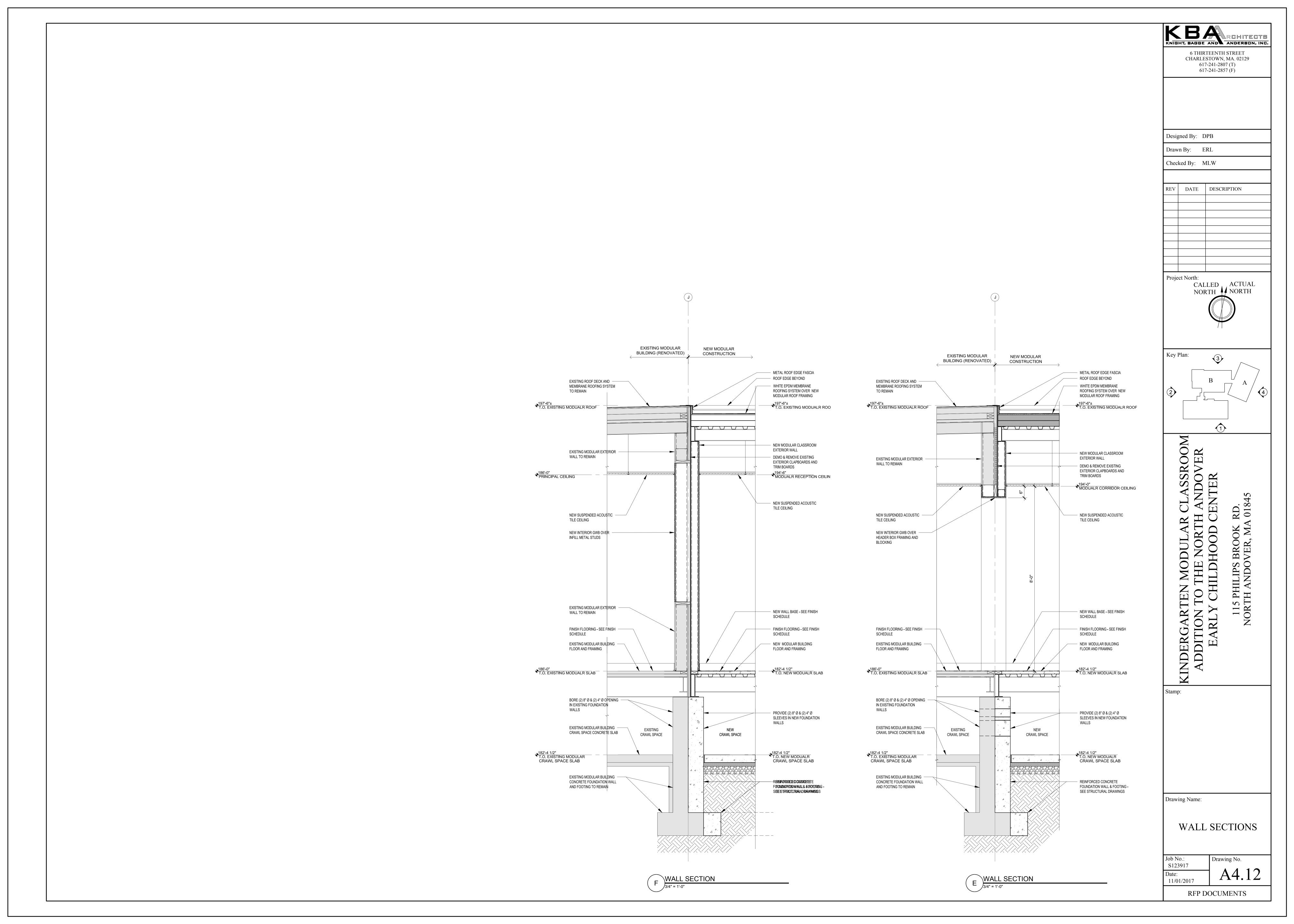


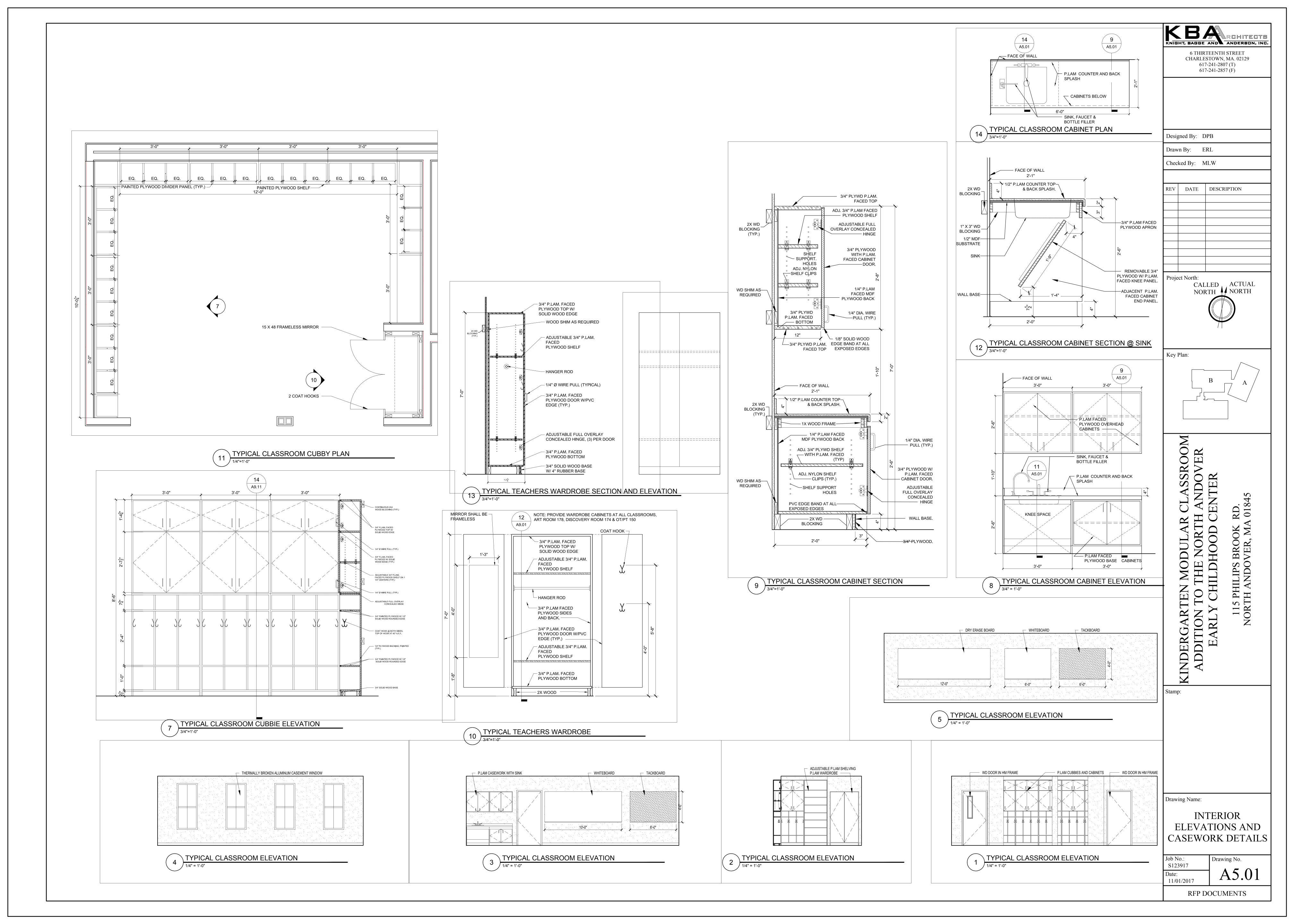


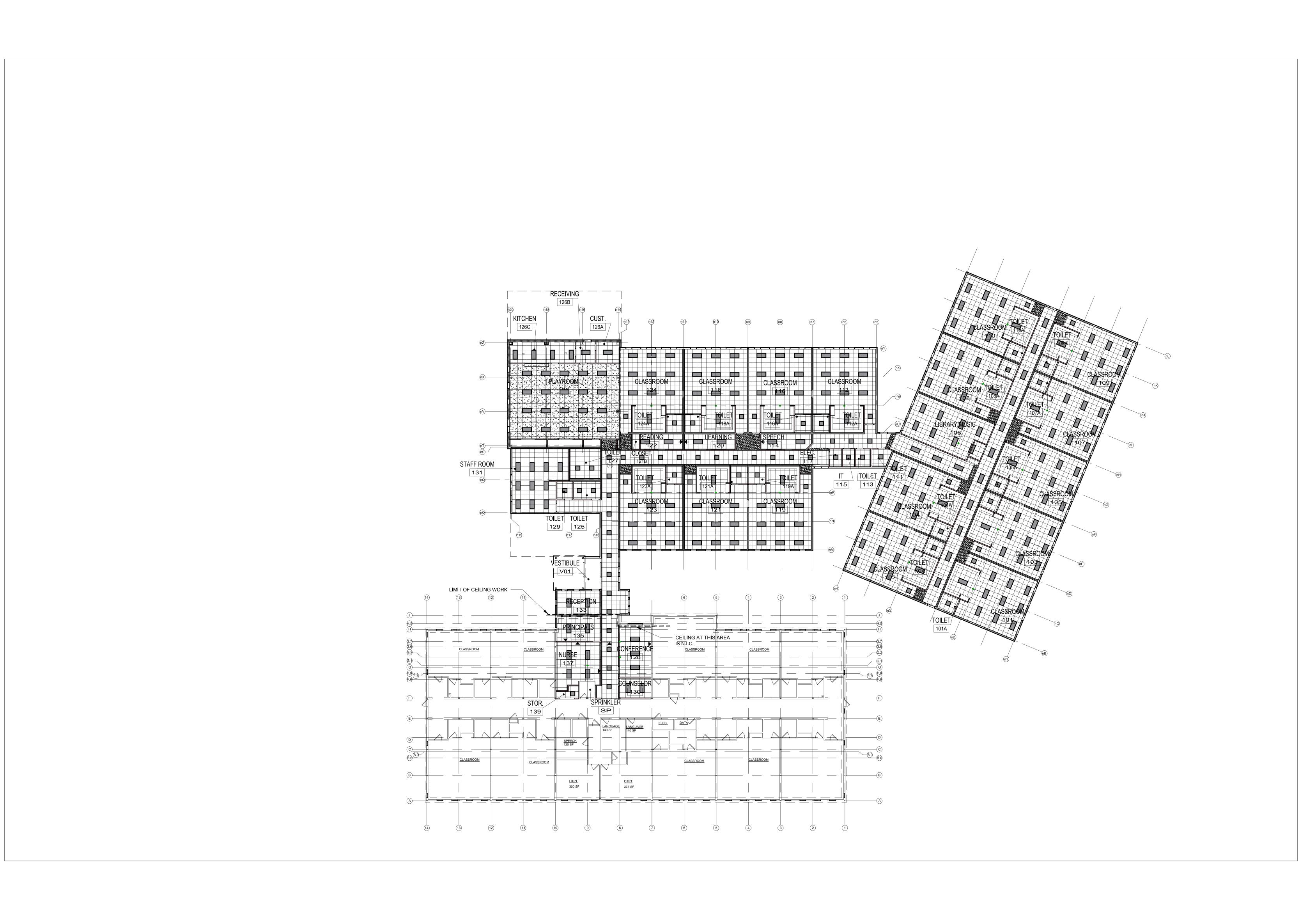












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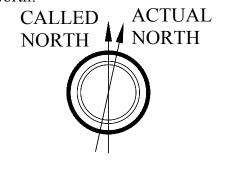
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Drawn By: ERL

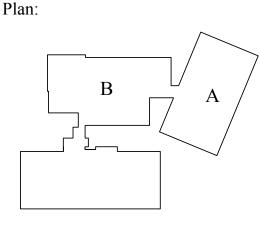
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REV DATE DESCRIPTION

Project North:



Key Plan:



Drawing Name:

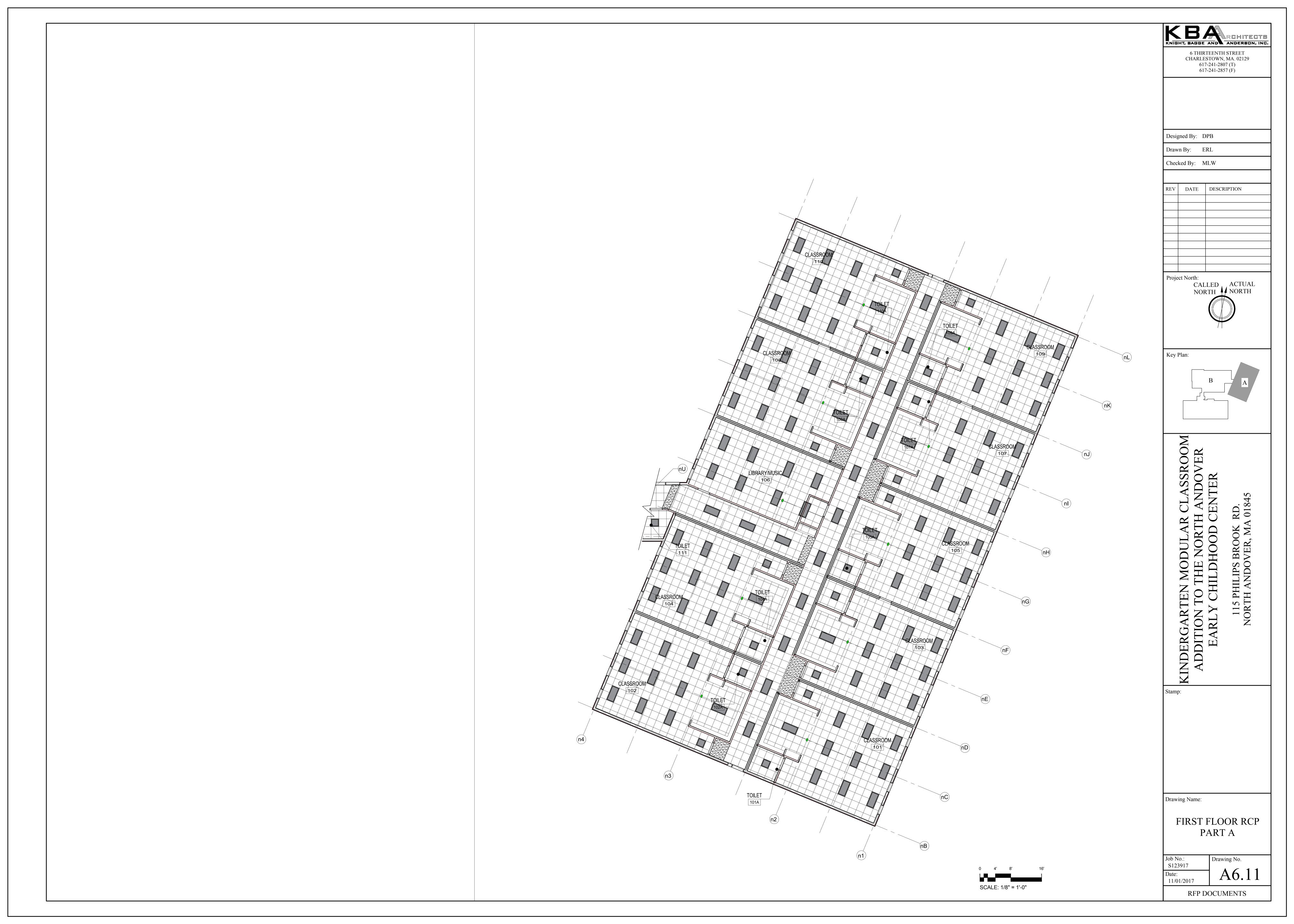
FIRST FLOOR RCP KEY PLAN

Job No.: S123917 Date: 11/01/2017 Drawing No.

A6.01

RFP DOCUMENTS

OVERALL FIRST FLOOR RCP PLAN 0 8' 16' 32' SCALE: 1/16" = 1'-0"





KNIGHT, BAGGE AND ANDERSON, INC.

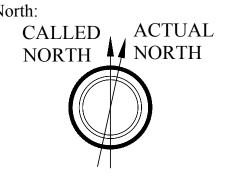
6 THIRTEENTH STREET CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)

Designed By: DPB

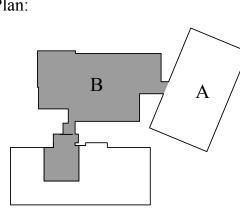
Drawn By: ERL Checked By: MLW

REV DATE DESCRIPTION

Project North:



Key Plan:



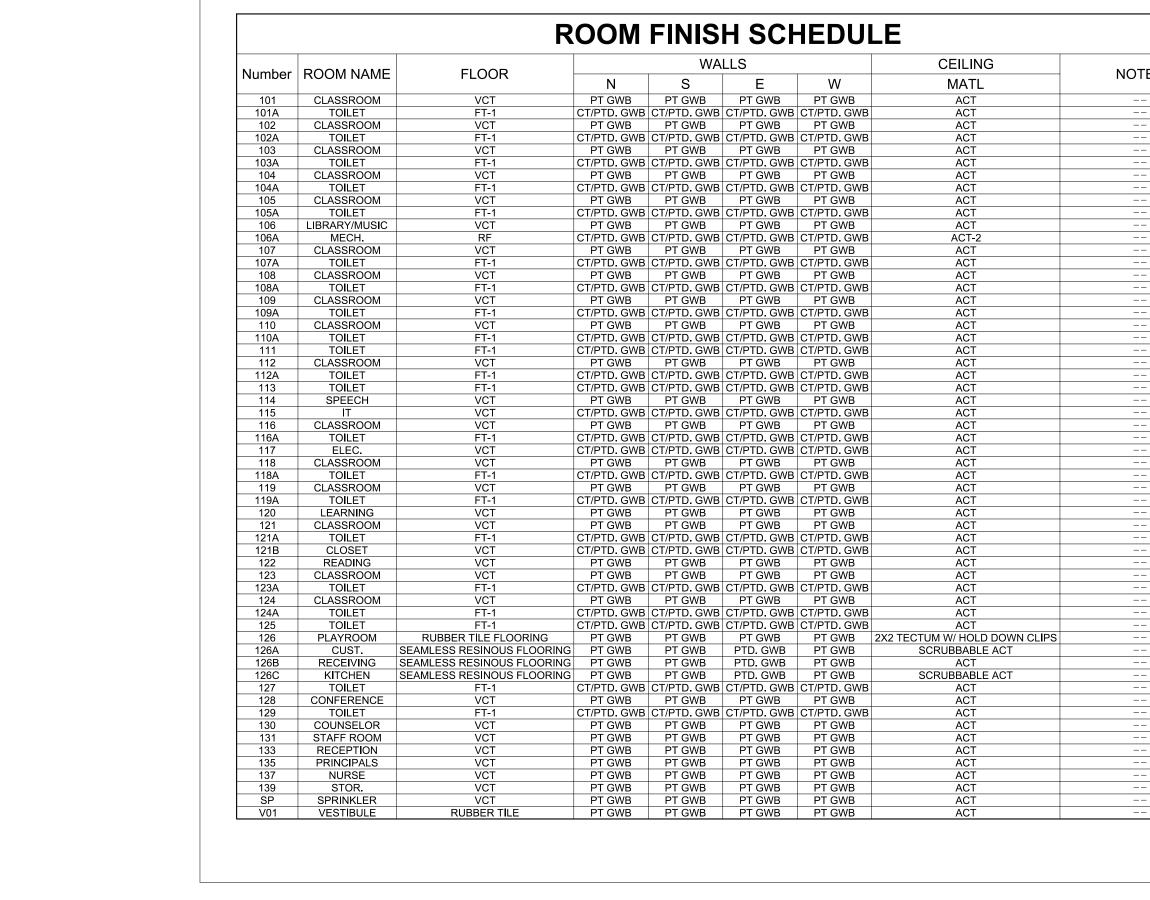
Drawing Name:

FIRST FLOOR RCP PART B

Drawing No. S123917 A6.12

11/01/2017 RFP DOCUMENTS

0 4' 8' 16' SCALE: 1/8" = 1'-0"



TYPICAL CORRIDOR TILE SCHEDULE

TOP 4 X 4 ACCENT BULLNOSE

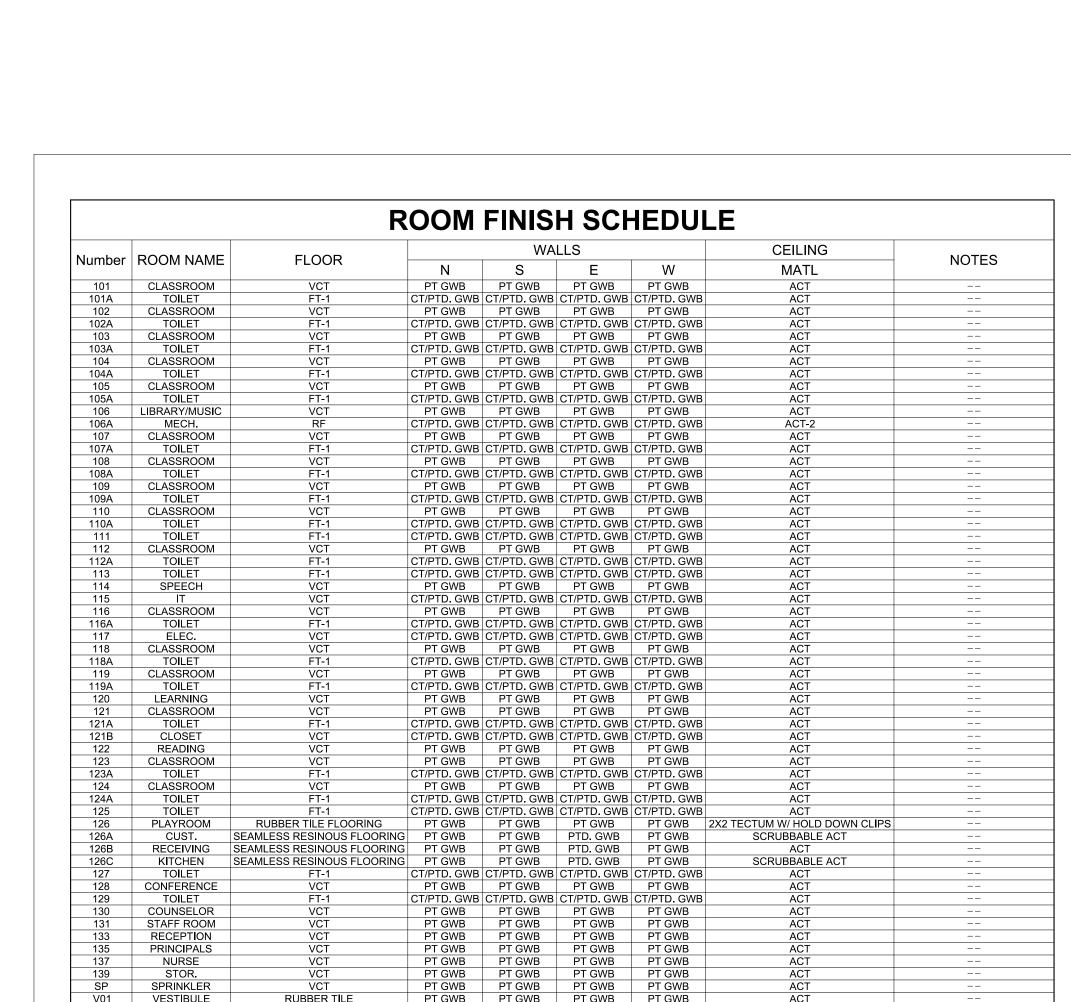
GROUT 2

VCT

BULLNOSE @ TOP COURSE

ACCENT SQUARES (TYP.)

4 x 4 CERAMIC TILE



KNIGHT, BAGGE AND ANDERSON, INC. 6 THIRTEENTH STREET

CHARLESTOWN, MA. 02129 617-241-2807 (T) 617-241-2857 (F)

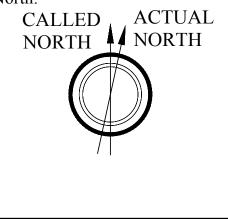
Designed By: DPB

Drawn By: ERL

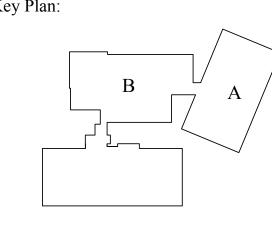
Checked By: MLW

DATE DESCRIPTION

Project North:



Key Plan:



ODULAR CLASSROOM E NORTH ANDOVER OHOOD CENTER RD. 018

BROOK I TEN MOI TO THE 115 PHII NORTH AN IDERGART
DDITTION T
EARLY

Stamp:

Drawing Name:

BULLNOSE @ TOP COURSE

ACCENT SQUARES (TYP.)

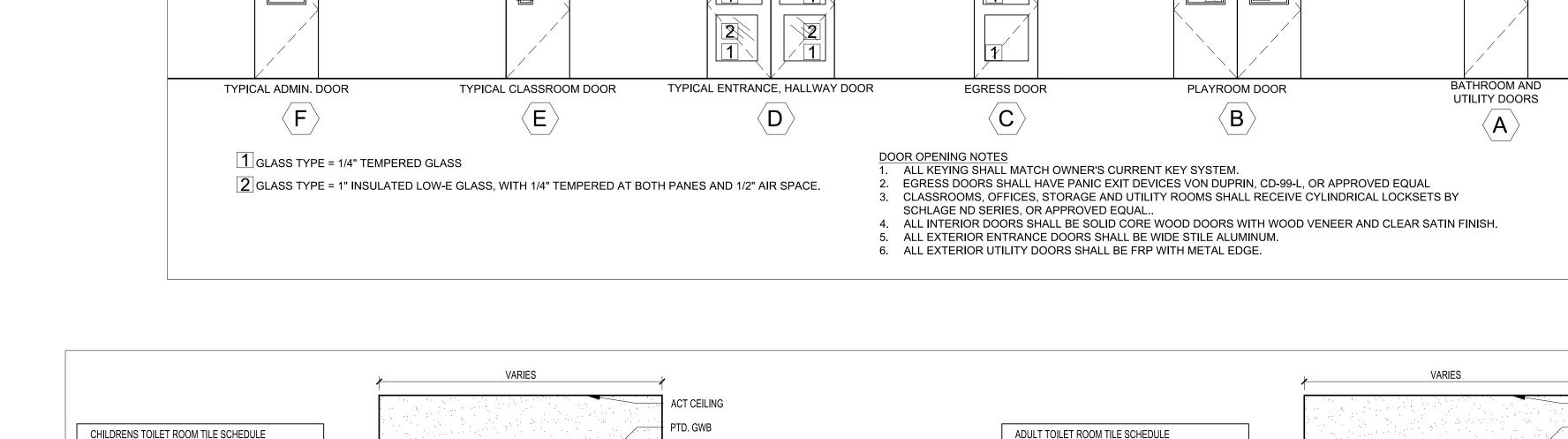
4 x 4 CERAMIC TILE

4" VINYL COVE BASE

ROOM FINISH AND DOOR SCHEDULES

Drawing No. S123917 11/01/2017

RFP DOCUMENTS



CT FIELD TILE

GROUT 1

ACCENT SQUARES

CERAMIC FLOOR TILE 1

BULLNOSE @ TOP COURSE

ACCENT SQUARES (TYP.)

4 x 4 CERAMIC TILE

CT FIELD TILE

GROUT 1

ACCENT SQUARES

CERAMIC FLOOR TILE 1

- 1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, LANDSCAPE, AND SHOP DRAWINGS AND SPECIFICATIONS.
- 2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- 3. SHOP DRAWINGS FOR REINFORCING STEEL (INCLUDING ALL ACCESSORIES), AND POUR SCHEDULES SHALL BE SUBMITTED TO THE ARCHITECT AND A STAMPED ACCEPTANCE RECEIVED BEFORE FABRICATION CAN PROCEED.
- 4. A COMPLETE CONCRETE SLAB-ON-GRADE PLACEMENT SCHEDULE SHALL BE SUBMITTED TO THE ARCHITECT AND A STAMPED REVIEWED RECEIVED BEFORE ANY CONCRETE PLACEMENT CAN BE MADE. 3. NO BACKFILL SHALL BE PLACED AGAINST FOUNDATION WALLS RETAINING EARTH UNLESS
- 5. UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWINGS ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
- 6. U.O.N. = UNLESS OTHERWISE NOTED.
- 7. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND/OR ELEVATIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- BE PLACED OVER THE PROPERLY PREPARED SUBGRADE. 8. IN CASE OF CONFLICT AMONG CONTRACT DOCUMENTS (i.e. CONTRACT DOCUMENTS AND
- 9. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SHORING AND BRACING FOR THE BUILDING DURING THE ENTIRE CONSTRUCTION.
- 10. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS (UNLESS NOTED OTHERWISE) OF THE FOLLOWING BUILDING CODES AND STANDARDS:

ORDER SHALL GOVERN: SPECIFICATIONS, NOTES, PLANS, SCHEDULES AND DETAILS.

- A. THE COMMONWEALTH OF MASSACHUSETTS STATE BUILDING CODE, 8TH EDITION
- B. "AISC" CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES

C. "ACI 318" - BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

DESIGN LOADS PER MASSACHUSETTS STATE BUILDING CODE: (8TH EDITION)

ROOFS:

GROUND SNOW LOAD, Pg = 50 PSF Ce = 1.0 Is = 1.1 Ct = 1.0 DESIGN (FLAT SNOW LOAD), Pf = 40 PSF + DRIFT LOADS PER CODE

ROOFING: SUSPENDED SERVICES:5 PSF CEILING: .. STRUCTURE:ACTUAL WEIGHT

FLOORS:

LIVE LOAD:

...50 PSF + 20 PSF PARTITIONS CLASSROOMS (U.O.N.): ...80 PSF CORRIDORS: LOBBIES AND FLEXIBLE OPEN PLAN AREAS:100 PSF MECHANICAL AREAS AND LIBRARIES: SUSPENDED SERVICES:5 PSF4 PSF

3. PAVING SLABS (SLABS-ON-GRADE)

TYPICAL AREAS: . MECHANICAL ROOMS:

LIVE LOADS:

STRUCTURE: ...

4. WIND LOAD: EXPOSURE CATEGORY = B INTERNAL PRESSURE COEFFICIENT, GCpi: ±0.18

....ACTUAL WEIGHT

..150 PSF

COMPONENTS AND CLADDING PRESSURES PER TABLES BELOW:

SEISMIC LOAD:

le = 1.25 Ss = 0.33 S1 = 0.075 SITE CLASS:D Sds = 0.338 Sd1 = 0.12 SEISMIC DESIGN CATEGORY = B BASIC SEISMIC-FORCE RESISTING SYSTEM: ... TO BE DETERMINED BY SUPER STRUCTURE

Cd = TBD R = TBD STRUCTURAL ANALYSIS PROCEDURE: ... EQUIVALENT LATERAL FORCE PROCEDURE

MANUFACTURER.

PER ASCE 7 CH. 12.8 SEISMIC BASE SHEAR, V = Cs * W Cs = TBD W = TBD

6. SOIL LOADS:

A. EQUIVALENT FLUID PRESSURES: ACTIVE:

AT-REST: 65 PCF PASSIVE: 413 PCF B. FRICTION COEFFICIENT: 0.50 C. ALLOWABLE SLOPE: 2H:1V

QUALITY ASSURANCE

- 1. THE OWNER SHALL EMPLOY AND PAY FOR THE SERVICES OF AN INDEPENDEN TESTING AGENCY TO PROVIDE QUALITY ASSURANCE TESTING AND INSPECTIONS FOR WORK SPECIFIED IN CHAPTER 17 OF THE COMMONWEALTH OF MASSACHUSETTS STATE BUILDING CODE, 8TH EDITION. THE TESTING AGENCY SHALL BE LICENSED IN THE COMMONWEALTH OF MASSACHUSETTS AND ALL TESTING AND INSPECTIONS SHALL BE PERFORMED UNDER THE SUPERVISION OF AN ENGINEER REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS.
- 2. FAILURE OF QUALITY ASSURANCE TESTING AND INSPECTIONS TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS NOTED, NOR SHALL IT OBLIGATE THE OWNER'S REPRESENTATIVE FOR FINAL ACCEPTANCE.
- 3. THE TESTING AGENCY AND ITS REPRESENTATIVES ARE NOT AUTHORIZED TO REVOKE, ALTER, RELAX, ENLARGE OR RELEASE ANY PORTION OF THE WORK, PERFORM ANY DUTIES OF THE CONTRACTOR OR BE A PARTY TO SCHEDULING OF WORK.
- 4. RECORDS OF INSPECTIONS SHALL BE KEPT AVAILABLE TO THE BUILDING OFFICIAL

DURING PROGRESS OF THE WORK AND FOR TWO YEARS AFTER COMPLETION OF THE

PROJECT. RECORDS SHALL BE PRESERVED BY THE INDEPENDENT TESTING AGENCY.

5. CONTRACTOR SHALL SUBMIT A SCHEDULE OF SHOP DRAWING SUBMITTAL DATES AT LEAST 30 DAYS PRIOR TO FIRST SUBMITTAL. FAILURE TO SUBMIT DRAWINGS ON DESIGNATED DATE MAY IMPACT REVIEW SCHEDULE

FOUNDATIONS AND SUBGRADE PREPARATION:

- 1. ALL FOUNDATIONS SHALL BEAR ON COMPETENT NATURAL SOIL OR COMPACTED STRUCTURAL FILL HAVING A MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 3000 PSF. ALL FILLING AND GROUND PREPARATION WORK SHALL BE DONE UNDER THE SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER WHO (UPON COMPLETION OF THE GROUND PREPARATION WORK) SHALL CERTIFY THAT THE SUBGRADE IS CAPABLE OF PROVIDING THE REQUIRED ALLOWABLE BEARING CAPACITY. SUBMIT REPORT FOR
- 2. THE ESTIMATED ELEVATION OF THE BOTTOM OF EACH FOOTING IS INDICATED THUS [0'-0"]. THE BOTTOM OF EACH EXTERIOR FOOTING SHALL BE A MINIMUM OF 4'-0" BELOW ADJACENT FINISHED GRADE.
- WALLS ARE SUFFICIENTLY BRACED TO PREVENT MOVEMENT OR STRUCTURAL DAMAGE AND THE SLAB-ON-GRADE IS IN PLACE.
- 4. FOR TYPICAL SLAB-ON-GRADE CONSTURUCTION AND UNLESS OTHERWISE RECOMMENDED BY A REGISTERED GEOTECHNICAL ENGINEER OR DIRECTED IN THE GEOTECHNICAL REPORT, PROVIDE A 15-MIL POLYETHYLENE VAPOR BARRIER (WITH JOINTS LAPPED A MINIMUM OF 12 INCHES) OVER A 9" LAYER OF COMPACTED CRUSHED STONE UNDERLAIN BY NON-WOVEN FILTER FABRIC (60Z/yd²). THIS BASE COURSE SHALL
- SPECIFICATIONS), THE MORE SPECIFIC AND LOCALIZED INFORMATION IN THE FOLLOWING ASCENDING 5. UNLESS OTHERWISE RECOMMENDED BY A REGISTERED GEOTECHNICAL ENGINEER OR DIRECTED IN THE GEOTECHNICAL REPORT, ALL STRUCTURAL FILL PLACED WITHIN THE FOOTPRINT OF THE PROPOSED ADDITION FOR SUPPORT OF FOOTINGS AND/OR THE SLAB-ON-GRADE SHALL BE PLACED IN LIFTS HAVING A MAXIMUM THICKNESS OF 6 INCHES AND BE COMPACTED TO A MINIMUM OF 95 PERCENT OF ITS MAXIMUM MODIFIED PROCTOR DRY DENSITY. STRUCTURAL FILL SHALL CONSIST OF SUITABLE EXCAVATED ON-SITE FILL OR THE NATURAL SAND DEPOSIT, OR AN OFF-SITE WELL GRADED, NATURAL SAND AND GRAVEL CONTAINING LESS THAN 8% PASSING THE No. 200 SIEVE.
 - 6. UNLESS OTHERWISE RECOMMENDED BY A REGISTERED GEOTECHNICAL ENGINEER OR DIRECTED IN THE GEOTECHNICAL REPORT, ALL EXISTING SITE IMPROVEMENTS, TOPSOIL AND FILL, AND EXISTING UNDERGROUND UTILITIES WITHIN THE FOOTPRINT OF THE PROPOSED ADDITION SHALL BE REMOVED.
 - 7. PROVIDE PERIMETER FOUNDATION DRAINS WHERE THE EXTERIOR FINISHED GRADE IS ABOVE THE GROUND LEVEL FINISHED FLOOR ELEVATION. SEE TYPICAL DETAILS.
 - 8. FOR CONSTRUCTION UNDER WINTER CONDITIONS, FOUNDATION AND FLOOR SLABS SHALL BE PROTECTED FROM FREEZING TEMPERATURES UNTIL THE BUILDING IS ENCLOSED AND HEATED.
 - CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. 10. NO CONCRETE SHALL BE PLACED IN WATER, ICE, FROST, OR ON FROZEN SUBGRADE MATERIAL. PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT FROST FROM PENETRATING ANY FOOTING OR SUBGRADE MATERIAL (BEFORE AND AFTER

CONCRETE PLACEMENT) UNTIL SUCH SUBGRADE MATERIAL IS FULLY PROTECTED BY

9. THE DESIGN AND EXECUTION OF ALL TEMPORARY EARTH RETENTION SYSTEMS DURING

11. FOUNDATIONS SHALL BE CENTERED ON GRID INTERSECTIONS, U.O.N.

THE PERMANENT STRUCTURAL SYSTEM.

- 12. UNLESS OTHERWISE NOTED, STRIP FOOTINGS BELOW FOUNDATION WALLS (BETWEEN COLUMN SPREAD FOOTINGS) SHALL BE AT LEAST 3'-0" WIDE x 1'-0" DEEP REINFORCED WITH (3)-#5's BOTTOM (CONT.). THE TOP ELEVATION OF THE STRIP FOOTING SHALL MATCH THE TOP ELEVATION OF THE ADJACENT COLUMN STRIP FOOTING, U.O.N.
- 13. ALL FOUNDATION RECOMMENDATIONS ARE BASED ON TYPICAL ASSUMPTIONS AND MUST BE CONFIRMED BY THE CONTRACTOR.
- 14. A LICENSED GEOTECHNICAL ENGINEER SHALL OBSERVE THE EXPOSED SUBGRADES PRIOR TO FILL AND CONCRETE PLACEMENT TO VERIFY THAT THE EXPOSED BEARING MATERIALS ARE SUITABLE FOR THE DESIGN SOIL BEARING PRESSURE INDICATED IN NOTE #1. ALL OTHER DESIGN ASSUMPTIONS LISTED ABOVE MUST BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION.

CONCRETE: (CAST-IN-PLACE)

- 1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. ALL CONCRETE SHALL BE NORMAL WEIGHT (150 PCF MAXIMUM), EXCEPT LIGHTWEIGHT (115 PCF MAXIMUM) CONCRETE SHALL BE USED ON ROOF DECKING SUPPORTING MECHANICAL UNITS.
- 2. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 (DEFORMED), AND SHALL BE FREE FROM LOOSE RUST AND SCALE.
- 3. LAP ALL CONTINUOUS BARS 48 BAR DIAMETERS (MINIMUM) OR PER THE DEVELOPMENT AND SPLICE TABLE (WHICHEVER IS GREATER).
- 4. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A185 (WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 70 KSI). LAP 2 SQUARES AT ALL JOINTS AND TIE @ 3'-0" ON CENTER.
- 5. CLEAR CONCRETE PROTECTION FOR REINFORCING: (UNLESS OTHERWISE NOTED) A. FOOTINGS (AND OTHER CONCRETE ELEMENTS CAST AGAINST EARTH): 3" B. FOUNDATION WALLS (AND OTHER CONCRETE ELEMENTS EXPOSED TO EARTH): 2" C. SLABS-ON-GRADE: $1\frac{1}{4}$ " FROM TOP (U.O.N.)

D. PIERS AND PILASTERS: 2" TO TIES

- 6. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD BECAUSE OF SLEEVES, DUCT OPENINGS OR RECESSES. BARS MAY BE MOVED ASIDE WITHOUT CHANGE IN LEVEL WITH THE APPROVAL OF THE
- 7. NO PIPES SHALL PASS THROUGH CONCRETE WITHOUT THE PERMISSION OF THE ARCHITECT. STEEL PIPE SLEEVES SHALL BE PROVIDED AND SPACED A MINIMUM OF THREE PIPE DIAMETERS APART. ALL OTHER SLEEVE LOCATIONS MUST BE SUBMITTED FOR REVIEW. IN NO CASE SHALL SLEEVES BE PLACED IN CONCRETE BEAMS WITHOUT WRITTEN ACCEPTANCE FROM THE STRUCTURAL ENGINEER.
- 8. ALL CONDUIT SHALL RUN ABOVE BOTTOM REINFORCING, BELOW TOP REINFORCING, AND INSIDE BEAM STIRRUPS AND WALL REINFORCING. LINES OF CONDUIT SHALL BE SPACED NOT CLOSER THAN THREE CONDUIT DIAMETERS ON CENTER. MAXIMUM SIZE OF CONDUIT IN SLAB SHALL BE EQUAL TO 1/3 OF
- 9. ALL KEYS SHALL BE 2" BY 4" WITH BEVELED SIDES (UNLESS OTHERWISE NOTED).
- 10. CONSTRUCTION JOINTS SHALL BE DETERMINED BY THE CONTRACTOR WITH LIMITS AS INDICATED ON THE DRAWINGS. ALL CONSTRUCTION JOINTS SHALL BE FORMED WITH A STANDARD KEY AND ALL REINFORCING EXTENDED 48 BAR DIAMETERS.
- 11. THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE COMPLETE LAYOUTS OF ALL CONTROL JOINTS, CONSTRUCTION JOINTS, AND ISOLATION JOINTS FOR SLABS-ON-GRADE. CONCRETE PLACEMENT SHALL NOT PROCEED UNTIL THESE DRAWINGS HAVE BEEN REVIEWED BY THE ARCHITECT. SEE PLAN FOR LOCATION RULES AND LIMITATIONS.
- 12. DETAILS NOT SHOWN ON THE DRAWINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL 315.
- 13. SUPPORT BARS FOR SLAB REINFORCING SHALL BE #5 OR GREATER, AND SHALL BE SPACED NOT MORE THAN 4'-0" O.C. SUPPORT BARS AND ENDS OF MAIN REINFORCING BARS SHALL NOT EXTEND MORE THAN 1'-6" PAST THE OUTERMOST CHAIR OR SUPPORT BAR.
- 14. ALL REINFORCING ACCESSORIES FOR EXPOSED SURFACES SHALL HAVE UPTURNED LEGS AND BE PLASTIC DIPPED AFTER FABRICATION. ACCESSORIES FOR REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE ACI, LATEST EDITION.
- 15. A PLASTIC "DOUGHNUT" TYPE OF SPACER SHALL BE PROVIDED FOR ALL VERTICAL COLUMN/PIER REINFORCING STEEL, IN ORDER TO MAINTAIN MINIMUM CLEARANCE.
- 16 PROVIDE ADDITIONAL REINFORCING AT ALL CONSTRUCTION JOINTS, AS REQUIRED, ACCORDING TO THE APPLICABLE CONSTRUCTION JOINT DETAILS SHOWN ON THESE DRAWINGS.
- 17 UNLESS OTHERWISE NOTED, PROVIDE #4@12" DOWELS AND (1) #4 CONT. IN ALL CONCRETE CURBS. FOR SIZE AND LOCATION OF CURBS, REFER TO ARCHITECTURAL DRAWINGS.
- 18 ALL DOWELS FOR COLUMN AND WALL REINFORCEMENT SHALL MATCH LAPPING BAR SIZE AND
- 19. ALUMINUM CONDUITS AND PIPES SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE UNLESS EFFECTIVELY COATED OR COVERED TO PREVENT ALUMINUM-CONCRETE REACTION OR ELECTROLYTIC ACTION BETWEEN ALUMINUM AND STEEL.

GENERAL NOTES

THE CONTRACT DOCUMENTS.

<u>ILL BE RETURNED UNREVIEWED.</u>

THOSE REQUESTED BT STP ON PREVIOUS SUBMITTALS.

ARE DEEMED OBVIOUS WITH NO AMBIGUITY.

REVIEWER REQUIRE FURTHER CLARIFICATION.

MUST BE REVISED AND REVIEWED PRIOR TO FABRICATION.

CLOUDED. ONLY CLOUDED ITEMS WILL BE RE-REVIEWED.

SUBMITTAL NOT ACCEPTED; REVISE, REVIEW AND RESUBMIT

REPRODUCED FOR USE AS SHOP DRAWINGS

REINFORCING RODS, AND ANY OTHER ITEMS WHICH ARE TYPICAL OF INDUSTRY STANDARD FOR SHOP DRAWING

3. NO PORTION OF THE WORK REQUIRING SUBMISSION OF A SHOP DRAWING SHALL BE STARTED UNTIL THE SUBMITTAL

INVOLVED. ALL SUCH PORTIONS OF THE WORK SHALL BE IN ACCORDANCE WITH FINAL REVIEWED SUBMITTALS AND

DOCUMENTS. UNLESS OTHERWISE NOTED IN THE CONTRACT SPECIFICATIONS, THE FOLLOWING SEQUENCE SHALL

BE FOLLOWED: MANUFACTURER/CONTRACTOR/ARCHITECT/ENGINEER/ARCHITECT/CONTRACTOR/MANUFACTURER.

DOCUMENTS IN AN ORDER WHICH IS SEQUENTIAL WITH THE PROGRESS OF THE WORK AND CONSISTANT WITH THE

LEAD TIMES RELATED TO THE PRODUCTS. THE SHOP DRAWING SUBMITTAL SCHEDULE SHALL INCLUDE ADEQUATE

TIME FOR A COMPLETE AND PROFESSIONAL REVIEW BY ALL PARTIES INVOLVED. IT SHALL BE NOTED THAT THE

SUBMITTING SHOP DRAWINGS, THE CONTRACTOR REPRESENTS THAT HE OR SHE HAS VERIFIED ALL MATERIALS,

SUBMITTALS WITH THE REQUIREMENTS OF THE WORK AND OF THE CONTRACT DRAWINGS. SOUZA, TRUE AND

6. ALL SHOP DRAWINGS THAT ARE RECEIVED WITHOUT FIRST BEING REVIEWED AND STAMPED BY THE CONTRACTOR

7. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ANY DEVIATION FROM THE REQUIREMENTS OF

THE CONTRACT DOCUMENTS AS A RESULT OF STP'S (SOUZA, TRUE AND PARTNERS, INC.) REVIEW OF THE SHOP

DRAWINGS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED STP, IN WRITING, OF SUCH DEVIATION AT THE

TIME OF SUBMISSION AND STP HAS GIVEN WRITTEN ACCEPTANCE TO THE SPECIFIC DEVIATION. THE CONTRACTOR

SHALL NOT BE RELIEVED FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE SHOP DRAWINGS BY STP'S

8. THE CONTRACTOR SHALL DRAW ATTENTION TO ALL DEVIATIONS FROM THE CONTRACT DRAWINGS AND INCLUDE

MATERIALS, SIZES, GENERAL ARRANGEMENT AND DETAILS SHOWN ON THIS DRAWING APPEAR TO BE IN

9. REFER TO SAMPLE SHOP DRAWING STAMP AND ACTION LEGEND (BELOW) FOR FURTHER CLARIFICATION:

SUBSTANTIAL COMPLIANCE WITH THE INTENT OF THE CONTRACT DRAWINGS.

REASONS FOR SUCH DEVIATIONS WITH THE SUBMITTED SHOP DRAWINGS. IN ADDITION, THE CONTRACTOR SHALL

ACTION LEGEND

CORRECTIONS NOTED WILL BRING THIS SUBMITTAL INTO SUBSTANTIAL COMPLIANCE WITH THE MATERIALS. SIZES.

MODIFICATIONS ARE NECESSARY, RESUBMITTAL IS NOT REQUIRED. REVIEW IS COMPLETE AND ALL CORRECTIONS

CORRECTIONS NOTED WILL BRING THIS SUBMITTAL INTO SUBSTANTIAL COMPLIANCE WITH THE MATERIALS, SIZES,

FABRICATION SHALL NOT TAKE PLACE PRIOR TO THIS DRAWING BEING REVISED, RESUBMITTED AND REVIEWED BY

SOUZA, TRUE AND PARTNERS, INC., AND ALL OTHER PARTIES INVOLVED. DETAILS OR ITEMS NOTED BY THE

10. RESUBMITTED SHOP DRAWINGS THAT WERE PREVIOUSLY ACCEPTED WILL BE NOT REVIEWED UNLESS REVISIONS

GENERAL ARRANGEMENTS AND DETAILS NOTED IN THE CONTRACT DOCUMENTS. PORTIONS OF THE DRAWING

GENERAL ARRANGEMENTS AND DETAILS NOTED IN THE CONTRACT DOCUMENTS. PROVIDED THAT NO OTHER

DIRECT SPECIFIC ATTENTION, IN WRITING OR ON RESUBMITTED SHOP DRAWINGS, TO REVISIONS OTHER THAN

FIELD MEASUREMENTS AND FIELD CONSTRUCTION CRITERIA RELATED THERETO, OR WILL DO SO. IN ADDITION, THIS

SHALL REPRESENT THAT HE OR SHE HAS CHECKED AND COORDINATED THE INFORMATION CONTAINED WITHIN SUCH

PARTNERS, INC. RESERVES THE RIGHT TO RETURN ANY SHOP DRAWINGS WHICH ARE JUDGED TO BE "RUBBER STAMP

HAS BEEN SATISFACTORILY REVIEWED BY SOUZA, TRUE AND PARTNERS, INC. (STP) AND ALL OTHER PARTIES

4. ALL SHOP DRAWINGS SHALL BE SUBMITTED ELECTRONICALLY, UNLESS OTHERWISE NOTED IN THE CONTRACT

5. THE CONTRACTOR SHALL REVIEW, APPROVE AND SUBMIT ALL SHOP DRAWINGS REQUIRED BY THE CONTRACT

REVIEW TIME WILL VARY DEPENDING ON THE SIZE AND CONTENT OF THE SUBMITTAL. BY APPROVING AND

SUBMITTALS. SUBMIT STAMPED STRUCTURAL CALCULATIONS WHERE NOTED ABOVE.

APPROVED" BY THE CONTRACTOR WITHOUT PROPER REVIEW AND EVALUATION.

(UNLESS OTHERWISE NOTED IN SPECIFICATIONS

SHOP DRAWINGS:

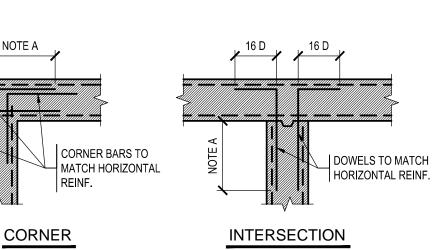
CONCRETE: (CAST-IN-PLACE) (CONTIN.)

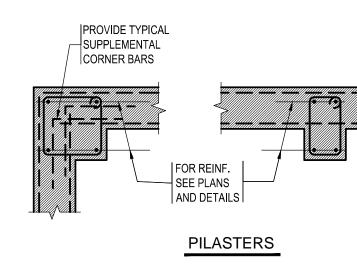
- 20. SAMPLES FOR STRENGTH TESTS OF EACH CLASS OF CONCRETE PLACED EACH DAY SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5000 SQUARE FEET OF SURFACE AREA FOR SLABS AND WALLS.
 - 21. UNLESS OTHERWISE NOTED AND WHERE REQUIRED, ALL PILASTERS AND PIERS SHALL BE 24"x24" AND REINFORCED WITH (8)-#8 VERTICAL AND 2 SETS OF #3 TIES @
 - 22. ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED (5% AIR).
 - 23. CONCRETE SHALL BE CAST MONOLITHICALLY, EXCEPT AS INDICATED ON THE

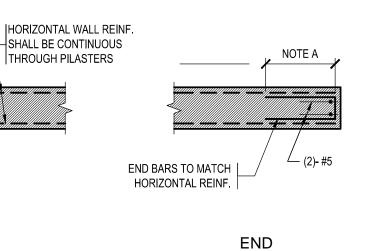
POST-INSTALLED ANCHORS:

- 1. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI, INC. CONTACT HILTI AT (800) 879-8000 FOR PRODUCT RELATED QUESTIONS.
- A. WHERE PLANS, SECTIONS, OR DETAILS REQUIRE ANCHORAGE TO CONCRETE OR SOLID GROUTED MASONRY WITH ADHESIVE ANCHORS, USE THE HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) WITH HAS-E THREADED RODS (SEE NOTE #2 BELOW) PER ICC ESR-3187, OR APPROVED EQUAL.
- WHERE PLANS, SECTION, OR DETAILS REQUIRE ANCHORAGE TO CONCRET OR SOLID GROUTED MASONRY WITH MECHANICAL OR EXPANSION ANCHORS, USE HILTI KWIK BOLT-TZ EXPANSION ANCHORS C. PER ICC ESR-1917.
- WHERE PLANS, SECTIONS, OR DETAILS REQUIRE NEW STEEL REINFORCING BARS TO BE ANCHORED TO CONCRETE OR SOLID GROUTED MASONRY, USE THE HILTI HIT-HY 200 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT (TE-CD OR TE-YD) WITH CONTINUOUSLY DEFORMED REBAR PER ICC ESR-3187.
- 2. UNLESS OTHERWISE NOTED, THREADED ROD ANCHORS SHALL CONFORM TO HAS-E STANDARD IS 898 CLASS 5.8.
- 3. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY HILTI OR SUCH OTHER METHOD AS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT, SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE.
- 4. INSTALL ANCHORS PER THE MANUFACTURER INSTRUCTIONS, AS INCLUDED IN THE ANCHOR PACKAGING.
- 5. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE HILTI PROFI
- 6. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
- 7. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.
- 8. EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. NO EXISTING BARS MAY BE CUT OR REMOVED TO INSTALL ANCHORS. CONTRACTOR MAY RELOCATE ANCHORS TO AVOID EXISTING REINFORCMEENT PROVIDED MAXIMUM SPACING AND EDGE CLEARANCE DISTANCES ARE MAINTAINED.

SHOP DRAWINGS ARE DRAWINGS, DIAGRAMS, SCHEDULES, MATERIAL LISTS AND OTHER DATA SPECIFICALLY PREPARED FOR THE WORK FOR THE GENERAL CONTRACTOR OR ANY SUBCONTRACTOR, MANUFACTURER, SUPPLIER OR DISTRIBUTOR TO ILLUSTRATE SOME PORTION OF THE WORK. CONTRACT DRAWINGS ARE NOT TO BE 2. WHEN APPLICABLE, SHOP DRAWINGS SHALL INCLUDE, BUT NOT BE LIMITED TO: ERECTION PLANS, NOTES AND BRACING DETAILS, ACCESSORIES, CONNECTION DETAILS, JOIST, BEAM AND COLUMN DETAILS, BENDING DETAILS FOR

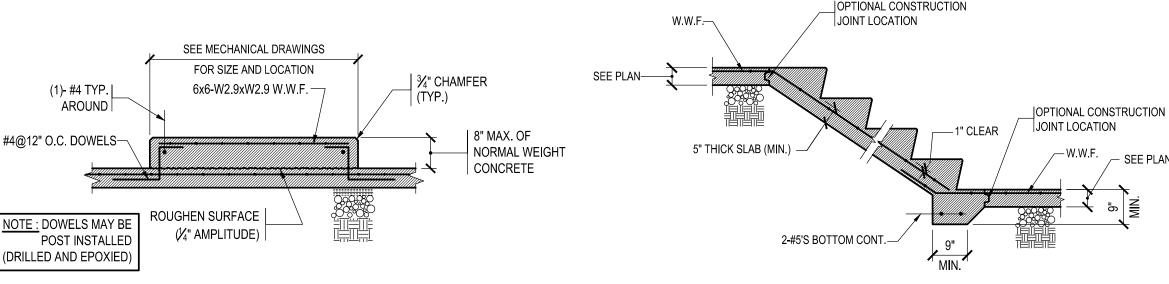






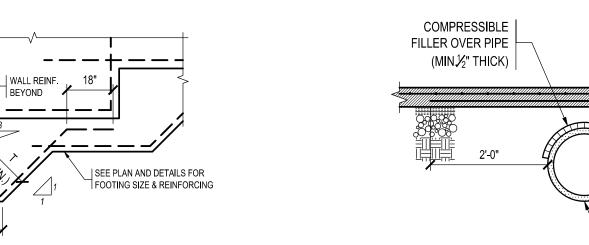
NOTE A: REFER TO TENSION LAP SPLICE LENGTH (OTHER BARS) IN "REBAR DEVELOPMENT AND LAP SPLICE LENGTHS TABLE".

TYPICAL SUPPLEMENTAL REINFORCING DETAILS FOR CONCRETE WALLS

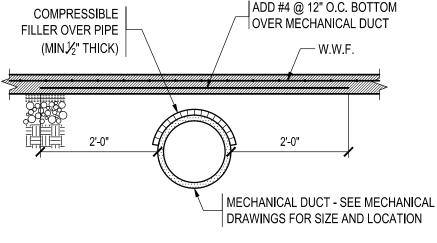


TYPICAL HOUSEKEEPING PAD DETAIL FOR SOIL-SUPPORTED SLABS-ON-GRADE

BEYOND



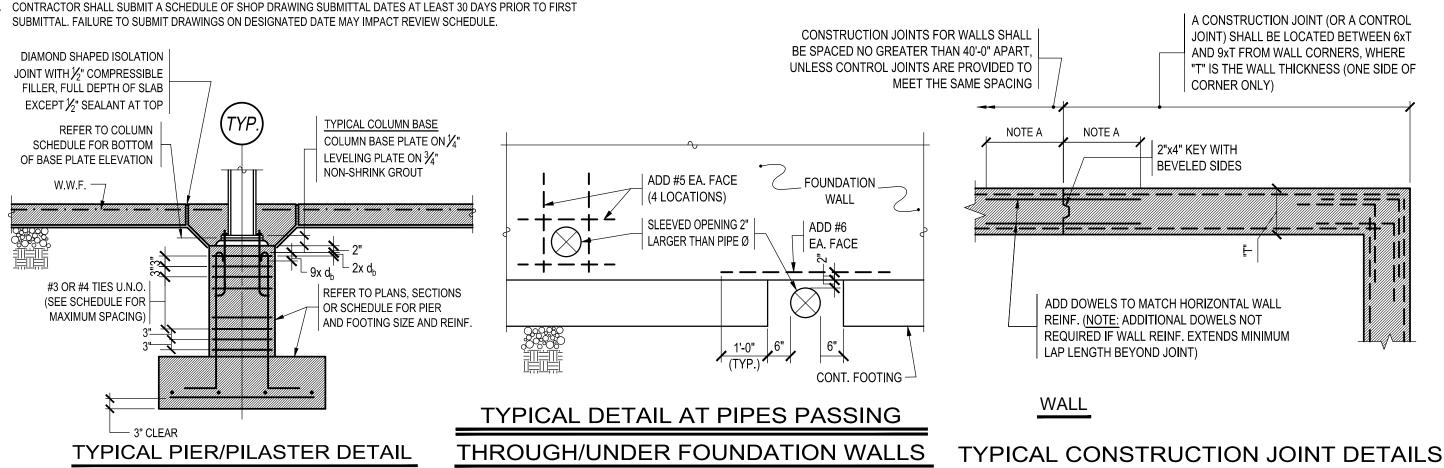
TYPICAL ELEVATION OF CONTINUOUS STEPPED WALL FOOTING U.N.O. ON PLAN



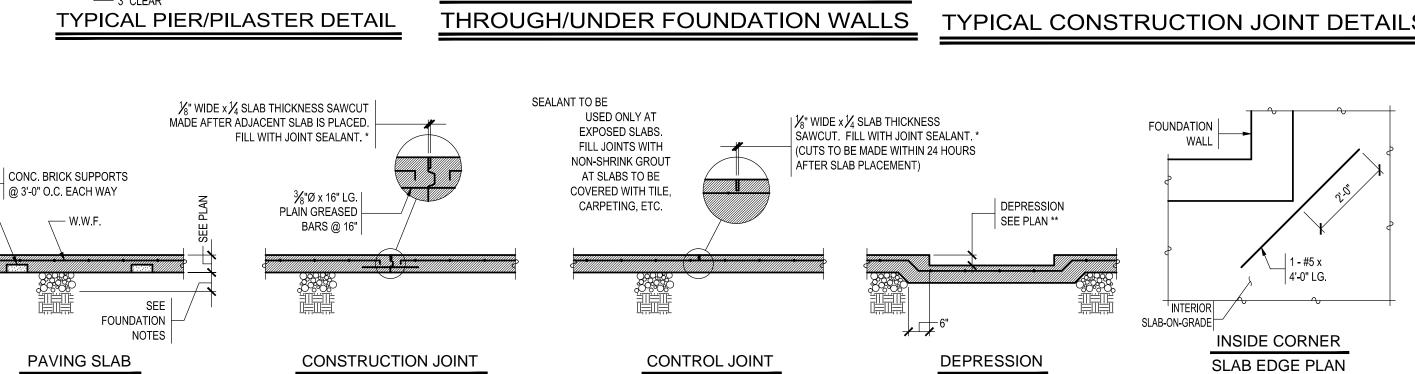
TYPICAL INTERIOR CAST-IN-PLACE

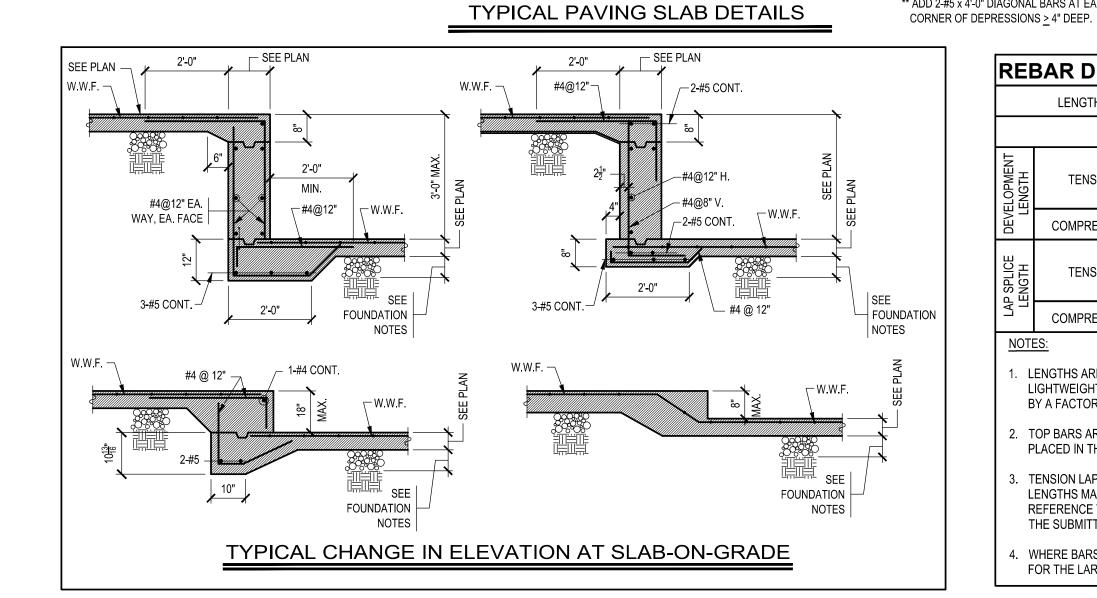
CONCRETE STAIR ON GRADE

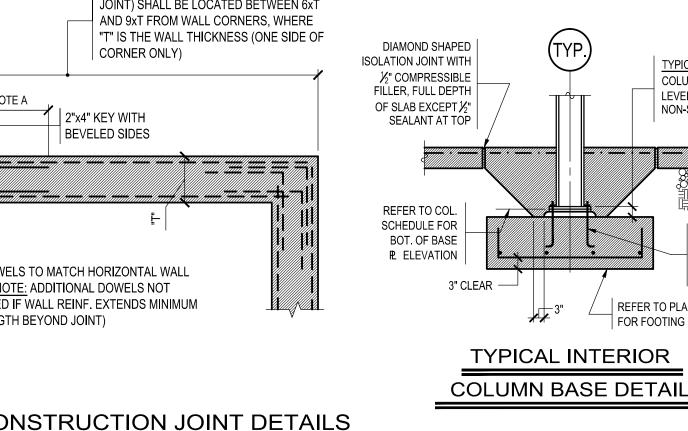
TYPICAL DETAIL OF SLAB-ON-GRADE **OVER MECHANICAL DUCT**

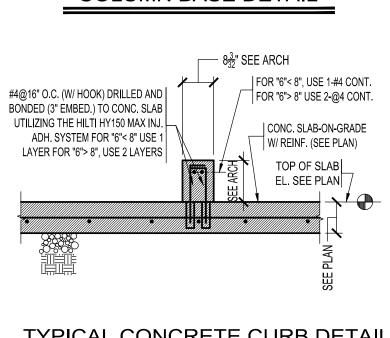


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TYPICAL COLUMN BASE

LEVELING PLATE ON 3/4"

SCHED, FOR

ANCHOR BOLT

REFER TO PLANS & SCHEDULE

FOR FOOTING SIZE & REINF.

SIZE & NUMBER

NON-SHRINK GROUT

COLUMN BASE PLATE ON 1/4"

TYPICAL CONCRETE CURB DETAIL ON SLAB-ON-GRADE (COORDINATE WITH MECHANICAL)

REBAR DEVELOPMENT AND LAP SPLICE LENGTHS LENGTHS (IN INCHES) BASED ON f'c=3000 PSI AND NORMAL WEIGHT CONCRETE | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #[.] TOP BARS | 22 | 29 | 36 | 43 | 63 | 72 | 81 | 91 | 1 TENSION OTHER BARS 17 | 22 | 28 | 33 | 48 | 55 | 62 | 70 | 3 COMPRESSION 9 | 11 | 14 | 17 | 20 | 22 | 25 | 28 | 3 OTHER BARS | 22 | 29 | 36 | 43 | 63 | 72 | 81 | 91 | 101 ALL BARS 12 | 15 | 19 | 23 | 27 | 30 | 34 | 39 | 4 COMPRESSION <u>NOTES:</u>

** ADD 2-#5 x 4'-0" DIAGONAL BARS AT EACH

- LENGTHS ARE BASED ON f. = 60 KSI. fc = 3000 PSI. AND NORMAL WEIGHT CONCRETE. WHERE LIGHTWEIGHT AGGREGATÉ CONCRETE IS SPECIFIED, MULTIPLY THE ABOVE TENSION VALUES BY A FACTOR OF 1.3.
- TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS PLACED IN THE MEMBER BELOW THE BAR.
- LENGTHS MAY BE SUBMITTED BY THE CONTRACTOR PROVIDED FULL CALCULATIONS AND REFERENCE TO THE APPLICABLE PORTIONS OF THE LATEST EDITION OF ACI 318 ACCOMPANY THE SUBMITTAL. WHERE BARS OF DIFFERENT SIZES ARE SPLICED, LAP SPLICE LENGTH SHALL BE AS REQUIRED

FOR THE LARGEST BAR.

TENSION LAP SPLICE LENGTHS ARE FOR "CLASS B" SPLICES PER ACI 318. LESSER SPLICE

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Checked By: DATE DESCRIPTION

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Key Plan:

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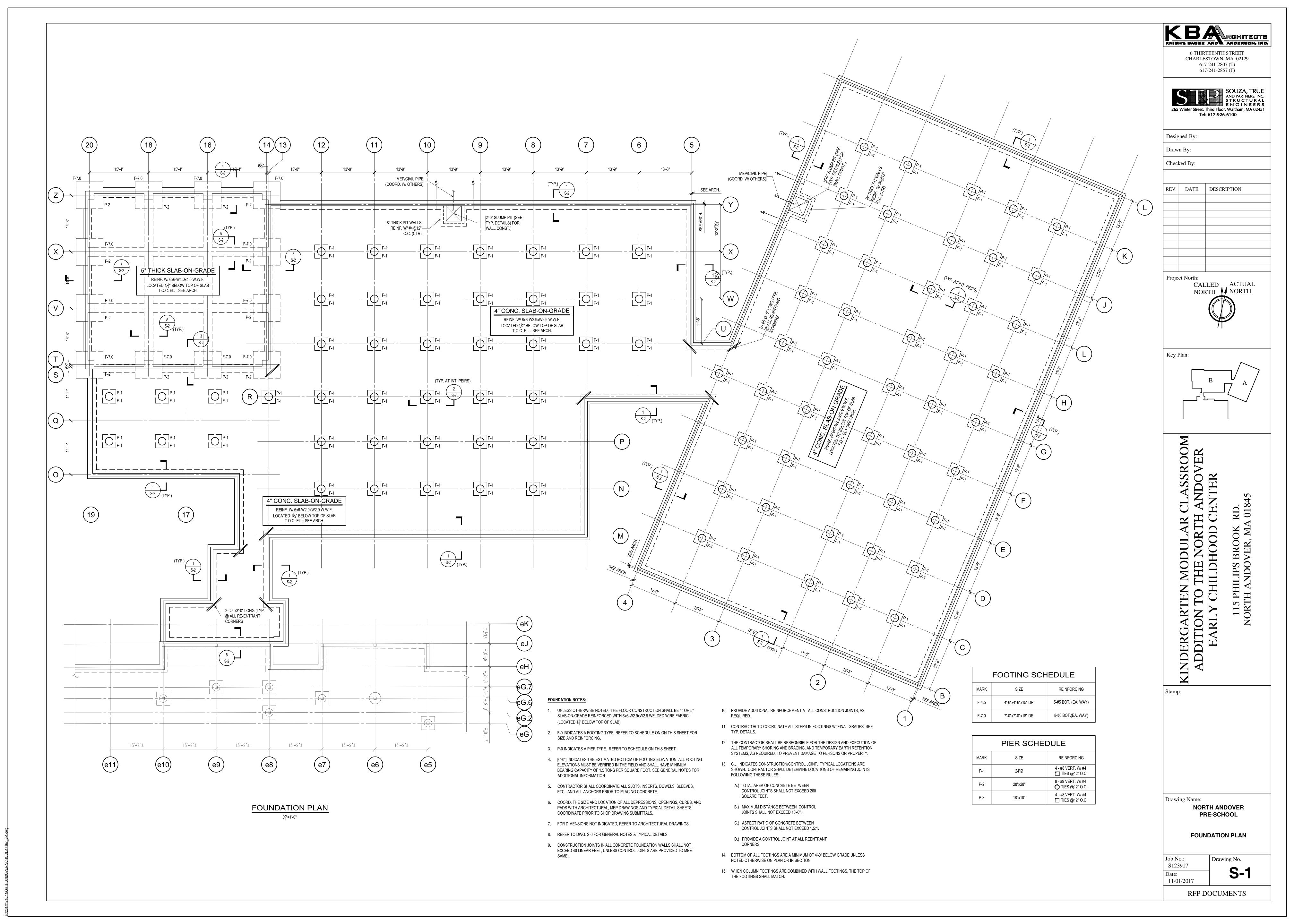
Drawing Name: NORTH ANDOVER PRE-SCHOOL

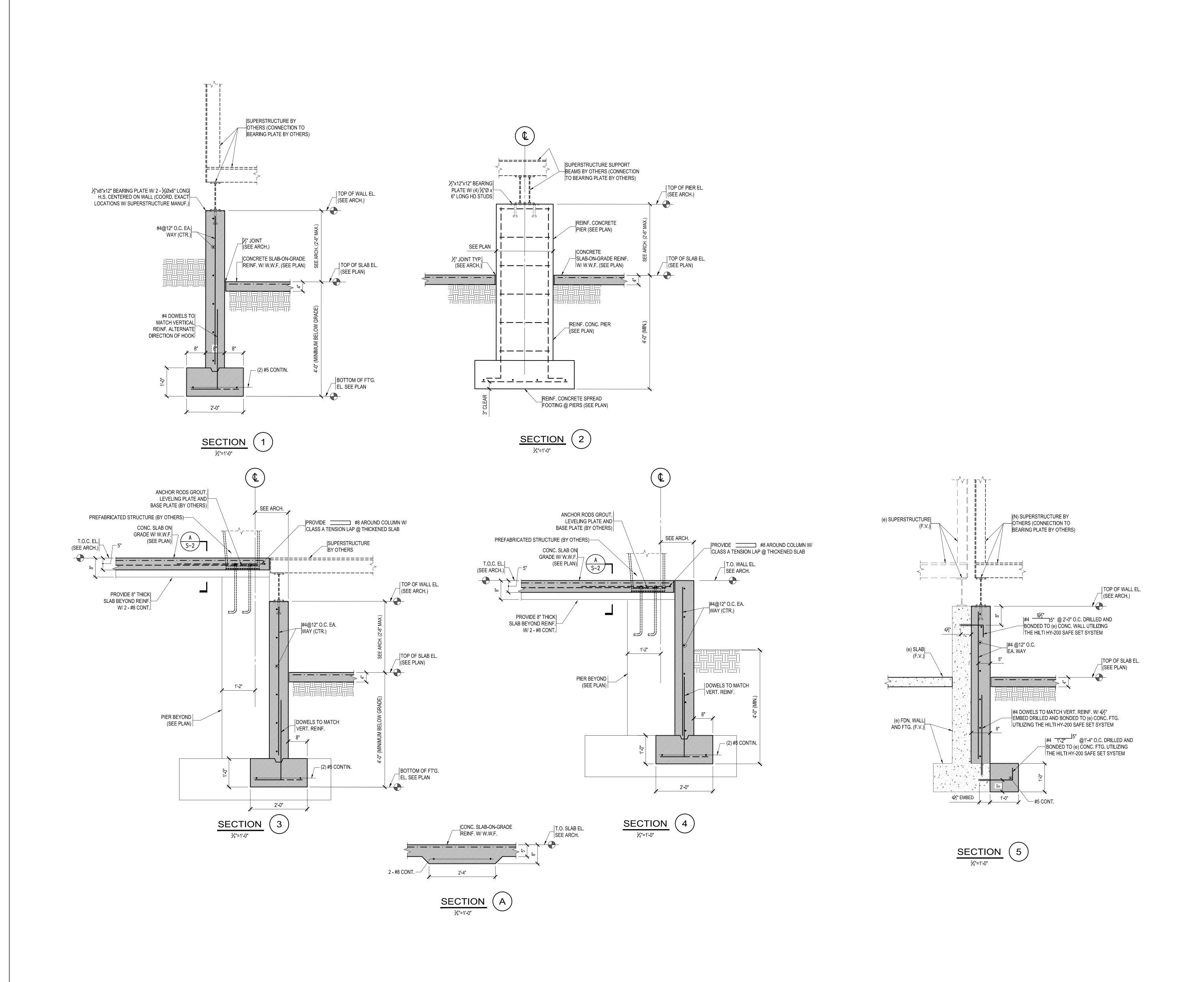
> **GENERAL NOTES.** TYPICAL DETAIL **AND SCHEDULES**

Drawing No. S123917 11/01/2017

RFP DOCUMENTS

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KBARCHITECTS
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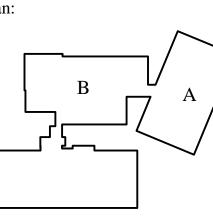
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11/01/2017

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