- The intent of this specification is to give the tradesperson enough information to perform a complete job. In each Section the Contractor and/or Subcontractor are responsible for providing all labor, materials, and equipment to perform the full work in a complete and craftsman like manner.
- This contract is for a complete project. The Contractor and/or Subcontractors shall provide all materials, labor, tools, permits, equipment, staging, temporary and permanent utilities and insurance necessary to complete the construction as shown and as implied by these Contract Documents. All materials shall be new.

 Contract Documents include the agreement, drawings, specifications and all addenda incorporated prior to execution of the careement.
- ntract Documents include the agreement. Secution of the agreement.

 It is documents have been prepared in accordance with the International Building Code, 2009 as well as ine Uniform Building Code. All work shall be in accordance with governing codes and standards. Clean, e, working conditions shall be maintained at all times. Safety precautions shall include such measures to

sed exterior concrete to be air-entrained, 3000 psi.
If this driveways are to be 5 inches thick with 6 x 6 W1.4xW1.4 w.w.f. over 6 inch minimum ampacted and rolled.

om finish.

cifications. Pavement to consist concrete. Subbase to be 6 inch

- ceed as quickly as possible. Each trade shall layout and coordinate their work to expedite ocess. All materials shall be good quality. Defective work shall be removed and
- and Subcontractors must visit the site and become familiar with all existing on nitting any bid proposals.

 I verified by the Contractor and/or Subcontractor. Contractor and/or Subcontractor.

 drawings, specifications and code, the following shall be the overrule the specifications, and the specifications shall overrule
- All dimensions shall be field verified by the Contractor and/or Subcontractor.

 Should discrepancies be found between the drawings, specifications and code, the following shall be the order of clarification priority: The code shall overrule the specifications, and the specifications shall overrule the drawings, or whichever is most restrictive.

 At the end of each work day, clean the work area of rubbish and construction debris of any nature. Store materials so that they do not create natural pockets for papers or other combustible materials.

 A minimum of two (2) fire extinguishers shall be placed throughout the work area per floor. In general, the use of open flame devices is prohibited. In the event that operations are undertaken to which use of an open flame device is essential, the Subcontractor shall consult with the Owner, describing the circumstances necessitating the device. The Owner may require additional precautions as he/she deems necessary.

 Construction shouldn't begin prior to 7:00 am or extend beyond 5:00 pm, Monday thru Friday, unless the Owner and authority having jurisdiction has approved extended

(Refer to structural drawings drawings will overrule these

SECTION 3 - CONCRETE

iping.
nal design by landscape designer
id General Contractor.

king hours.

Provide a number of calendar days to complete the project. A flow chart for construction will be provided to the Owner and Architect upon award of the contract. Flow chart will be updated periodically as required by request of the Owner and Architect.

ng. The Contractor and/or Subcontractor shall test all equipment, doors, windows, hardware, appliances, assure proper installation and operation and shall verify the same to the Owner in writing prior to turn $\dot{\Omega}$

rade beams and pile caps are to sit on pilings ar ade). The Contractor shall verify soil bearing ca ade). The Contractor shall verify soil bearing ca awings for concrete grade beams and pile caps ecast units are to be design/build per structural rade beams and pile caps per structural drawing reinforced foundation walls shall support a max otch and block foundation walls as required for grabed anchor bolts, fasteners, plates, etc. into consider a state of the state.

and below frost level (48 inches, minimum, capacity with geotechnical engineer. Refer p system sizes and rebar requirements. all drawings and specifications. ings ands specifications.

- es, Warranties, O&M Manual.
 Subcontractors shall provide the Owner with all Guarantees, warranties, operation and tructions and other literature provided with all equipment used in the project.
 Ing the equipment warranty period, defective equipment shall be repaired or replaced by cost to the owner. 2. D. Rei 1.
- Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship to produce work of specified quality.
 Comply in full with manufacturers instructions including each step in sequence.
 Should manufacturers instructions conflict with Contract Documents or deviate from good construction practice, request clarification from Owner and Architect before proceeding.
 Comply with specified standards as minimum quality for the work, except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
 Perform work by persons qualified to produce workmanship of specified quality.
 Secure products in a place with positive anchorage devices designed and sized to withstand stresses and vibration without physical distortion or disfigurement.

- Subcontractors shall provide all samples to the Owner as required by the drawings and

(Refer to structural drawings and specifications drawings will overrule these specifications.)

Provide mortar for masonry systems as sched specified; M, masonry in contact with earth; O, Submittals: Provide product data and samples

SECTION 4 - MASONRY

- names of specific manufacturers specified herein are used as <u>a basis for the design</u> requality desired. Substitutions of products by other manufacturers may be made approved by the Owner. Electricity.
- portable generators or connect to temporary power service. Power consumption t disrupt Owners need for continuous service. power outlets for construction operations with branch wiring and distribution Provide flexible power cords as required.

 Pent convenience receptacles may be utilized during construction.

B. Unit Masonry:
 1. Exterior: Basis of Design, Ground face Type 2 - G
 2. Provide reinforced concrete masonry walls at exterdrawings.
 3. Provide normal weight concrete block on interior wreinforcing to be galvanized truss type. Special shads.
 4. Submittals: Provide product data and samples for an exterior wreinforcing to be galvanized truss type.

or walls, grade N, type 1. Lay running bond. Horizontal shapes: Boxed beams and other as required by best practice for all locations.

- Furnish temporary heat devices as required to maintain specified conditions for construction operations. Permanent building heating systems may be used during construction.

 Prior to operation of permanent facilities for temporary heating purposes, verify that installation is approved for operation, equipment is lubricated and filters are in place Provide and pay for operations, maintenance and regular replacement of filters and

ECTION 5 - METALS

- ม่n appropriate minimum temperature as recommended by manufacturer. Ventilation.
- enclosed areas as required in order to assist curing of materials, to disperse and to prevent accumulations of dust, fumes, vapors or gases.

 anitary Facilities.
 and maintain required facilities and enclosures
- ovide barriers as required to prevent unauthorized entry to construction areas, to allow . Owner's use of site and protect existing facilities and adjacent properties from damage om construction operations.

 on of installed work.

 ovide special protection where specified in individual specification sections and where ovide stype or in position to be vulnerable to construction process damage. ohibit traffic or storage on waterproofed or roofed surfaces. When traffic or activity is cessary, obtain recommendations for protection from waterproofing or roofing material

- manufacturer.

 Prohibit traffic in landscaped areas.

 Prohibit traffic in landscaped areas.

 tenance and removal of utilities, facilities and controls.

 Maintain temporary services for construction until permanent services are available.

 Remove temporary above grade utilities, equipment, facilities and materials prior to substantial completion inspection.

 Clean and repair damage caused by installation or use of temporary work.

 Restore permanent facilities used during construction to specified condition.

 Vances.

fer to allowance schedule at end of these specifications. nd Patching. t existing construction as required in order to accommodate new work. tch existing construction as required. Match new work, blend old and new pearance.

4. Submittals: Provide product data, color chart and s. C. Cold formed metal framing:

1. The professional engineer employed by the contract a. Maine registered professional engineer.

b. Be solely professionally responsible for work.

c. Calculate design, engineer, and document work.

d. Prepare, professionally seal, sign and submit care installation drawings, and other documents need e. Meet requirements of authorities having jurisdict.

Design and installation of load and non load bearin.

Quality, design adequacy, grades and strengths of applicable code and referenced standards including. Size components to withstand design loads. Design damage or failure.

5. Submittals: provide product data to describe materia.

- wide temporary supports, and protection from elements and ongoing construction vage existing construction as directed.
- bordinate the Work, including but not limited to, mechanical and electrical worklord boot booth work. Anticipate areas where the installation of mechanical and electrogested or difficult. The Contractor shall be responsible for coordinating traces and schedules. For any schedules work of all trades and with work being performed by the Owner d Contractors. and electrical work, and the chanical and electrical work vocanity trades, sequent

SECTION 2 - SITE WORK A. Soils Report

A. Wood framing general:
1. Refer to Sheet S-0.0 for additional information. S
2. All dimensional framing lumber shall be stress gramaximum moisture content. Lumber shall have a modulus of elasticity "E" of not less than 1,200,00
3. All wood in contact with concrete or masonry shales.
4. All exposed framing to remain unfinished to be provide blocking, bracing and stiff backs as requisiblocking and framing under all beams and posts of the stress.

(Refer to structural drawings for additional these specifications.)

SECTION 6 – WOOD AND PLASTICS

- uilding
- Perform soils tests to determine soil type and bearing characteristics.
 Consult Owner and Architect if soil bearing capacity is less than 3000 p.s.i.
 Private water supply and sanitary systems.
 Install systems in accordance with applicable, Local, State and Federal requirements.
 Install sanitary system in location shown on approved Utilities plan.
 Contractor to review lateral line placement, for positive drainage, and coordinate with site plan.
 Owner and Architect.
 Protect any trees designated to remain on site and remove all vegetation from areas within the k outline. Remove all debris and any excess cut & fill material from the site.
 Install hay bales and silt fences for erosion control, as necessary, during construction.
 No burning of cleared and grubbed material will be allowed. Dispose of material off site. Transplegally dispose of materials off site.

heathing: All wall sheathing is to be covered with air infil material. Install per manufacturers recommer ation barrier, Tyvek or equal, prior to installing final cladding lations. All joints are to be taped.

- ding:
 led Metal Panel Siding: C5660 Charcoal color
 a. Install all required trim and accessories to m
- a. Install all required trim and accessories to make a Gypsum Sheathing:
 1. Standard: ASTM C117
 2. Basis of Design: Dens-Glass Series Sheathing, G-P Gypsu Joint sealant by Tremco, Dymonic 100 with backer rod.

- Elevator Pits: Provide Paraseal LG bentonite sheet waterproofing membrane. Elevator Pits: Provide Paraseal LG bentonite sheet waterproofing membrane. Provide Tremco TREMproof 250GC self-leveling grade cold applied polyurethane waterproofing membrane between the retail and parking area floor system, minimum thickness to be 120 mils with a TREMDrain 1000PF drainage layer and bi-level drains as basis of design.

 Apply TREMproof 250 GC over the expansion joints overlapping onto the adjacent concrete as basis of

- oints within the garage to be Tremco Dymonic 100 as sealant as basis of design rated joints: Provide fire safing insulation or approved equal. icular Traffic Coating: Vulkem 350/345/346 system.
- verification:
 Refer to drawings for R value and location of insulation.
 Refer to drawings for R value and location of insulation.
 Install perimeter rigid insulation where indicated. Rigid insulation is to be extruded polystyn. Chemical "Styrofoam" or equal.
 Spray Foam Insulation: Basis of Design GacoProFill FR6500R or equal sprayed in place in approval by owner. (R-3.93/in. at >3.5")
 Fiberglass thermal insulation.

 Install unfaced fiberglass batts full width of stud/joist/rafter cavity.
 Install 4 mil polyethylene vapor barrier on conditioned space side of all fiberglass batts full width of stud/joist/rafter cavity.

 Acoustic insulation:

 Install conditions and peneral all baths come.
- Install acoustic insulation around all bathrooms.

 Refer to drawings for other locations to receive acoustic insulation
- If fire stopping around all wiring, conduit, piping, ductwork and ge walls and between floor levels.

 Ide accessories as required; Bio Fireshield products or equal. Ide submittals for product data.

 O Vapor Retarder:

 O Vapor Retarder:
- Section includes; vapor retarder, seam tape, mastic, pipe boots, detail strip or installation used by the seam tape, mastic, pipe boots, detail strip or installation used by the seam tape, mastic, pipe boots, detail strip or installation used by the seam tape, mastic, pipe boots, detail strip or installation used by the seam tape. The seam tape, mastic, pipe boots, detail strip or installation includes roof edge metal flashing, counter flashing at edge of roof, wall flashing at the seaf
- wall to roof.

 Submittals: provide submittals indicating product data, colors and samples.

 Installer to have a minimum of 3 years experience.

 Aluminum: ASTM B209, 5005 alloy, temper as required for intended application
- skylights, and other roof accessories. Install step flashing at all intersections of roofs and brick or masonry

Concrete Slabs:

 Concrete Slabs:
 Concrete Slabs:
 Concrete Slab – concrete slabs are to be structural slabs per structural engineer's drawings and specifications.
 Install 15 mil polyethylene vapor barrier under all slabs.
 Install 15 mil polyethylene vapor barrier under all slabs.
 Floor slabs to have a steel troweled finish.

 Reinforcing Steel:

 Reinforcing steel to meet ASTM A-615, latest revisions with supplemental requirements. #3 and #4 bars to be GR-40; #5 and larger bars to be GR-60
 Provide #3 Z-BAR spacers 24" O.C. each way for all concrete walls having reinforcing steel in both faces.

 Provide an Acid-Etched finish for Precast Finish Type I, color to be light gray.
 Provide an Exposed Aggregate surface retarder finish for Precast Finish Type 2, color to be medium gray.
 Refer to Owner to verify color.

 Submittals: Provide product data and samples.

Apply sealants to all joints, seams and intersections, both interior and exterior, and between dissim materials. Apply sealant around all penetrations of exterior walls, around all plumbing fixtures and

SECTION :

13 - SPECIAL CONSTRUCTION - NOT USED (Intentionally left blank)

12 - FURNISHINGS- NOT USED (Intentionally left blank)

- ounters and walls.

 Provide sealant accessories such as backer rods, primers, etc.

 Provide sealant accessories such as backer rods, primers, etc.

 Provide sealant accessories such as backer rods, primers, etc.

 Provide sealant accessories such as backer rods, primers, etc.

 Provide sealant sealant:

 Provide sealant sealant sealant:

 Provide sealant sealant sealant:

 Provide sealant sealant
- SECTION 1
 A Ecospac
 B. Provide 1
 protection p
 C. Provide 1
 handicap Ac
 D. Finishes:
 1
 2
 2
 3
 3
 4
 4
 5
 E. Provide s Signalization: KSS-140
 Walls: 4623-60 (Graphic Nebula)
 Ceilings: LF-88
 Handrails: 2" round
 Flooring: Rubber coin grip sheet floorine shop submittal.
- ю'n mal barrier over spray on foam insulation:
 Provide a 15 minute thermal barrier as required by the Maine State Fire Marshal's Office to be installed over the spray on foam insulation to separate the foam from the habitable and occupiable space. Title 25 section 2447-B allows for ½" gypsum wallboard or equivalent to be installed to obtain this thermal barrier.
 Installed 15 minute thermal barrier per manufactures requirements.
 Installer shall provide property owner a certification of correct installation of this product. A copy of the product data sheet and the certification shall be kept by the owner for verification of compliance.
 Alternate materials (Coordinate with the Maine State Fire Marshal's Office)

 a. Thermax Sheathing complying with ASTM C 1289 Type 1 Class 2 or equal.
 b. Thermax White Finish complying with ASTM C 1289 Type 1 Class 2 or equal. (Refer to Mocriteria.) SECTION 15 - MECHANICAL SYSTEMS

SECTION

16 - ELECTRICAL

chanical drawings for plumbing, fire

protection and Heating Ventilation & Air Conditioning specification

(Refer to El

ectrical drawings for electrical

Allowances:
Consult Owner to determine, based on overall budget, items if required.

A. Signage:

SECTION 8 - DOORS AND WINDOWS A. Doors:

- Exterior Doors: Pre-Hung in exterior frames; refer to plans for sizes and types. All exterior doors should be a minimum "U" value of .036 or better. Interior Doors: Pre-Hung metal frames as noted, Refer to plans for sizes and types. Hardware: Contractor to consult Owner about style and quality of hardware. Contraction and provide the owner with three sets of keys.
- bws: Refer to plans for sizes and types. All windows are to meet the Energy Star criteria. All window glass is to be insulated glass with low-e coating and argon gas with a U All glass is to be tempered.

≧

1. '¼" polished plate glass mirror for Toilet room. Field measure and install with both mechanical fasteners mastic. Use of mastic alone is not permitted. I changes of glass and door specifications must be updated with a revised energy calculation at the cost to the intractor. Contractor is to notify Architect of any changes that may have occurred in relation to the architectural awings.

led by craftsmen to resemble, as closely as possibign is provided, design selection shall be made by

- A. Gypsum Board: United States Gypsum (USG) or equal.

 1. ½" G.W.B. at all interior surfaces, use Type "X" fire rated gypsum at exterior walls. Use moisture resistant type wallboard in all bathrooms. Use cement backer board as substrate for tile in showers and bathtubs. Mud & tape all joints and finish smooth (no texture)

 B. Submittals: Provide product data and samples
 C. Paint Follow manufacturer's recommendations for preparation and applications of paints and stains. Colors are to be selected by Owner. Prior to sanding, insure all surfaces are properly prepared, caulked, sanded, nail heads set and puttied, and weather conditions favorable to painting.

 1. Exterior: Metal: 1 coat rust inhibitive primer; 2 coats eggshell alkyd enamel; ICI paint or equal Masonry: 1 coat acrylic bonding primer; 2 coats flat acrylic latex; ICI paint or equal EIFS (Exterior Insulation Finish System): Manufacturers' premixed polymer finish.
- Gypsum Wallboard: 1coat latex primer; 2 coats flat latex, ICI paint or equal Metal: Isolatek Type WB 5, clear intumescent coating for a minimum 2 hour fire rating rior metal surfaces.

 1. Flame Spread: 5
 2. Smoke Developed: 30
 3. AWCI 12-B
 4. ASTM E84, ASTM D4541, ASTM D2240, ASTM D2794, ASTM D4060
 5. ANSI/UL 263 (ASTM E119), UL Floor Beam Assembly N634, 6. Zero VOC's.

 7. Smooth architectural finish.

APPROVED

Iniformity of manufacturer: For each sign round and full size samples. Jubmittals: Provide product Data and full size samples. Jubmittals: Provide provide product Data and full size samples. Jubmittals: Provide product Data and Full size samples. Jubmitt rotection: Project finished surfaces from damage or staining. Provide protective covering for equipment installation until Date of Completion. Sillowing installation until Date of Sillowing installation. Sillowing installation until Date of Completion. Sillowing installation until Date of Completion until Date of Sillowing installation. Sillowing installation until Date of Completion until Date of Sillowing installation until Date of Sillowing ins

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- Toilet Accessories

 1. Provide surface toilet tissue dispenser, grab bars and towel dispenser as indicated on drawings. No names or labels are permitted on exposed surfaces. Fabricate with tight seams and joints and piano hinges.

 2. Submittals: Provide product data.

 3. Toilet tissue dispenser: Surface mounted single roll dispenser. Size to accommodate core tissue to 5" diameter. Spindle less chrome plated zinc alloy construction with tension spring delivery control.

 4. Paper towel dispenser: Surface mounted, stainless steel with hinged front equip with tumbler lockset. Provide pierced slots at sides as refill indicator. Not less than either 300 C-Fold or 400 multi-fold paper towels without need for special adaptors.

 5. Grab bars: Stainless steel type grab bars with wall thickness not less than 18 (.050") gage and as follows:

 a. Mounting: Exposed, manufacturer's standard nonslip texture.

 b. Clearance: 1 ½" clearance between wall surface and inside face of grab bar.

 c. Gripping surface: Manufacturer's nonslip texture.

 d. Medium duty size: Outside diameter of 1 ¼". 105 WILLOW BROOK AVENUE STRATHAM, NEW HAMPSHIRE 03885 Tel: (603) 770-2491 Fax: (603) 773-0238 ARCHITECTS

11 - EQUIPMENT le shop submittals for all equipment

1. "Dero" duplex rack galvanized surface mounted square tube construction. Each rack to accommodate thirty eight (38) bicycles. Refer to drawings for number of racks. Substituted manufacturer per Owner.

2. Installed per manufacturers requirements.

3. Finish: Galvanized per manufacturers requirements and as directed by owner.

Parking Systems:

1. Barrier Gate Operator: "DKS Doorking", or equal. 1601 operator for high use, ½ HP, G90 galvanized steel, painted white, fail-secure mechanical release method, wood arm, loop detectors as required, battery back-up in case of power outage and UL listed. Provide unit on a 4" slab island or as specified by Owner.

2. Ticket Dispenser: "TIBA" Parking Systems, Model MP-30 Ticket Dispenser, automatic ticket issue and proximity card use, coordinate with loop detectors, stainless steel housing, data line surge protector with heater, embedded industrial controller, RS-485 backed up by lithium ion battery, built-in clock, provide devise lock, TMS Software included and UL listed. Color: standard white AL 9010. Coordinate all requirements with owner.

Vehicle Pay Station: "TIBA" Parking Systems, Model VPS-30 Vehicle Pay Station, motorized bar code scanner, access via proximity card (coordinate with owner), receipt printer, bill acceptor, coordinate with loop detectors, stainless steel housing, data line surge protector with heater, embedded industrial controller, RS-485 backed up by lithium ion battery, built-in clock, full off line operation capability, TMS software included, and UL listed. Color: standard white AL 9010. Coordinate all requirements with owner. WITE OF MAIN

midtown Portland

Somerset Street

14 – CONVEYING SYSTEMS
Ice manufactured by Kone or similar.
It wo (2) machine room-less traction passenger elevator. Provide complete turnkey installation. Provide pads for each cab.
It pre-engineered packaged elevator unit as listed: Passenger elevator of 3500 lb. capacity, center opening, accessible, speed – 150 FPM, remote room and provide Onboard Diagnostics or Diagnostics Tools:

Portland, Street \leq

Specifications Building

MEP Engineer McCabe & Associates Structural Engineer Becker Engineering

McCabe & Associates

SCALE: February 8, 2015 SSUED / DRAWN BY

REVISED / REVISED I

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JOB NO: 5001

8414519 / ...

3/16/18 DATE

D.A.

P.F.

SHEET NUMBER

Permit Set