



**BID # CON 19-03**

**ADDENDUM NUMBER 03**

**REQUEST FOR BIDS FOR:**

**NHTI Institute Drive Roadway Work & Campus Sidewalk Improvements  
on the NHTI Concord's Community College campus, a Component  
of the Community College System of New Hampshire  
26 College Drive, Concord, NH  
March 11, 2019**

**TO: ALL CONTRACT BIDDERS OF RECORD**

This Addendum forms a part of the Contract Documents and modifies the Request for Bids dated February 25, 2019 with amendments and additions noted below.

This Addendum consists of a total of Two (2) pages of clarifications and questions and Thirteen (13) Pages of Street Excavation Permit Regulations from the City of Concord, NH, and One (1) revised drawing "C-5 Construction Details". Bids due date is: Tuesday, March 19th, 2019 at 3:00pm.

**CLARIFICATIONS TO THE REQUEST FOR PROPOSAL:**

- 1) Contractor is required to get a street excavation permit from the city of Concord, per City of Concord requirements. See attached "Street Excavation Permit Regulations, General Permit Conditions and Construction Requirements, City of Concord, New Hampshire."
- 2) See attached revised Drawing "Sheet C-5 Construction Details" for detail of White Hall stairs and hand railings. Revision Dated 3/8/2019.

**Bidder's Questions**

**QUESTION: 1.** Can you confirm your design intent is to have a solid floor in the bottom of the drywell structure, we typically see them with an open bottom on stone pad?

**ANSWER:** The leaching catch basin can be open bottom.

**Acknowledge receipt of this Addendum with the Proposal Form.  
Failure to do so may disqualify the Bidder.**

NOTE: IN THE EVENT THAT YOUR BID HAS BEEN SENT TO THIS OFFICE PRIOR TO RECEIVING THIS ADDENDUM, RETURN THE ADDENDUM WITHIN THE SPECIFIED TIME WITH ANY CHANGES YOU MAY WISH TO MAKE AND MARK ON THE REMITTANCE ENVELOPE BID INVITATION NUMBER AND OPENING DATE. RETURNED ADDENDA WILL SUPERSEDE PREVIOUSLY SUBMITTED BID.



Acknowledge receipt of this Addendum #3 with the Proposal Form.

Bidder \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_  
(This Document Must Be Signed)

Name \_\_\_\_\_  
(Please Print or Type Name)

A handwritten signature in black ink that reads "Matthew Moore".

Matthew Moore, P.E.  
Director of Capitol Planning & Development  
Community College System of New Hampshire  
26 College Drive, Concord, N.H. 0330

**2009**  
**STREET EXCAVATION PERMIT**  
**REGULATIONS**

**GENERAL PERMIT CONDITIONS AND**  
**CONSTRUCTION REQUIREMENTS**



**CITY OF CONCORD**  
**NEW HAMPSHIRE**

## **Permit Requirements**

1. Per the Code of Ordinances, a person shall not disturb, excavate, or open the ground or pavement in any street, highway, sidewalk, or greenbelt within the city's public right-of-way, or on city property, without first obtaining a written permit of authorization from the City Engineer. Street Excavation Permits shall be issued by the Community Development Department's Engineering Services Division on an application form provided by the department.
2. The applicant for a permit, the applicant's agent, or the contractor performing the work within the city's public right-of-way, or on city property, shall, before the issuance of a permit submit the following to the City Engineer:
  - a. A permit bond or an irrevocable letter of credit written on a New Hampshire bank or other acceptable financial guarantee or cash deposit for a period of twenty-four (24) months after work has been completed and accepted by the City Engineer. The financial guarantee shall be a minimum amount of Five Thousand Dollars (\$5,000) (except that the City Engineer may require a multiple of that amount depending upon the volume of the work being performed by the Permittee) guaranteeing the condition of the excavation and the fulfillment of the provisions, instructions, and regulations prescribed herein. The financial guarantee must clearly identify the location of the excavation and the expiration date of guarantee.
  - b. A certificate of insurance, naming the City as additional insured, providing the following coverage:
    - i. Comprehensive General Liability Insurance with limits not less than \$1,000,000 per occurrence for bodily injury, \$1,000,000 per occurrence for property damage, \$2,000,000 general aggregate, \$50,000 fire damage (any one fire) and \$5,000 for medical expenses (any one person). This insurance should include coverage for collapse and underground (CU) hazard, explosions and blasting damage (X), and contractual liability.
    - ii. Automobile liability insurance with not less than \$1,000,000 per occurrence for bodily injury, and \$1,000,000 per occurrence for property damage.
    - iii. Workmen's Compensation Insurance including Employer's Liability Insurance with limits of \$100,000 for each accident, \$500,000 disease-policy limit and \$100,000 disease-each employee.

The applicant agrees to indemnify and save harmless the city from all claims for damage or injury whatsoever, that may arise from the encumbrance, obstruction, occupation, or use of the street, highway, sidewalk, or greenbelt within the city's public right-of-way, as well as claims for loss or interruption of business where the encumbrance or construction impedes the flow of traffic to any person or property arising out of the activities of the permit. The city in no case assumes any responsibility or liability by reason of granting this permit.

- c. An affirmation that the applicant is not delinquent in fees, fines, or payments due to the city on prior work.
  - d. Evidence that the applicant is competent and equipped to do the proposed work.
  - e. A plan for the subject property and adjacent properties showing existing surface and subsurface conditions including the placement of existing utilities, structures, street layouts, trees, or other vital structures within the public right-of-way or on private properties that may be affected by the work or as designated by the City Engineer.
3. The permit application must be submitted four (4) days prior to the proposed excavation. Once issued and approved, the permit term is for thirty (30) days. Following approval by the City Engineer, the permit must be renewed after the expiration date. An additional administrative and inspection fee will be assessed for each permit renewal of thirty (30) days. The thirty (30) day expiration period may be waived if the excavation is under contract with the City and / or part of a Capital Improvement Program (CIP) project. Permits are valid only when authorized by the City Engineer and have been assigned a permit number.
4. Work authorized by the excavation permit shall be performed as designated in all streets, highways, sidewalks, or greenbelts within the city's public right-of-way, or on city property, Monday through Friday, from April 15th through November 15th. All excavation permits shall expire on November 15th unless the applicant obtains written consent from the City Engineer to do work during another time. Such permission shall be granted only in the case of an emergency, in the event the work authorized by permit is to be performed in high traffic and congested areas, or if in the best interest of the City.
5. Nothing in this article shall be construed to prevent excavations from occurring as may be necessary for the preservation of life or property in an emergency condition. In the event of emergencies, the dispatcher on duty at the Police and Fire Department shall be notified immediately of any emergency excavation within the public right-of-way or on City property. Additionally, the Engineering Services Division and any utilities affected by the emergency shall be notified immediately by telephone. The applicant shall obtain a regular street excavation permit at the office of the Engineering Services Division no later than the first day after such emergency excavation.

### **Permit Fees**

1. All applications for a permit to excavate in, or open a public right-of-way or public property, shall include for each permit applied for, the fee listed on Schedule I of Article 1-5 of the City of Concord Code of Ordinances.
2. The fee for an excavation permit, payable in advance is as follows:
- a. An administrative and inspection charge of \$220.00 per permit for all excavations within the public right-of-way or on City property.



- b. A street damage charge of \$5.00 per square foot of excavation occurring within the paved portions of the public right-of-way or on City property.
- c. An infrastructure damage charge of \$2.50 per square foot of excavation occurring within the greenbelt or sidewalk portions of the public right-of-way or on City property.

All fees shall be based upon information provided by the applicant at the time of the application subject to verification of actual excavation impacts by the City's inspection representatives. Street excavation permit fees may be annually adjusted by City Council resolution on July 1<sup>st</sup> (start of fiscal year) and listed on Schedule I of Article 1-5 of the Code or Ordinances.

- 3. The fees for the administrative and inspection charge of the permit may be increased if the work results in additional administrative and inspection time required to complete the work, or if other permit violations as outlined in Article 5-1-4.3 occur, or if work is done on a protected street as outlined in Article 5-1-4.4 of the Ordinance. The base administrative and inspection charge includes 2 hours of on-site inspection. Additional charges will be billed and due upon presentation.
- 4. The fees for the street and infrastructure damage charge of the permit may be increased if the actual work limits completed exceed the street damage charge limits stated on the application, if the work is commenced prior to the issuance of a permit, if other permit violations as outlined in Article 5-1-4.3 occur, or if work is done on a protected street as outlined in Article 5-1-4.4 of this Ordinance. Additional charges will be billed and due upon presentation.
- 5. Generally, the excavation permit shall cover contiguous construction and work performed as one continuous operation, except as otherwise determined by the City Engineer. Where a continuous and single operation involves separate excavations by a single contractor, no more than two (2) such excavations shall be covered by one (1) single permit, provided such single permit shall be allowed only where the distance between the excavations is not greater than twenty (20) feet at their opposite extremities.
- 6. Where the City, as part of its annual Capital Improvement Program (CIP), has developed a work plan for the rehabilitation or reconstruction of public streets and properties, notification shall be provided to all private and public utilities at an annual Utility Coordination Meeting sponsored by the City. The purpose of this meeting is to encourage the annual coordination of excavation and major project planning between the City and excavation contractors in an effort to minimize damage to, and avoid undue disruption and interference within the public right-of-way. In that coordination, exceptions to the payment of the street and infrastructure damage portion of the permit fees include:
  - a. Excavations within the city's public right-of-way or on City property, scheduled for pavement improvements as part of the CIP within one (1) year of the date of excavation.

- b. Underground utility projects initiated by the City, utility relocations necessitated by CIP projects, or by street discontinuances.

In both cases, the applicant will be responsible for payment of the administrative and inspection charge portion of the permit.

7. When street or sidewalk excavation results in the complete replacement of the pavement systems by the applicant over the limits of the work, or is undertaken so as to replace or improve existing street pavement or sidewalk systems, the street damage charge portion of the permit fees will be waived and the applicant shall pay only the administrative and inspection charges related to the permit.

### **Penalties**

Persons who operate without a permit or violate the provisions of any permit required by the Ordinance shall be subject to the penalty outlined in Schedule II of Article 1-5, Fines and Penalties, of the Code of Ordinances.

1. If the City Engineer determines that an excavation activity is not being carried out in accordance with the requirements of the Ordinance, a written notice will be issued to the persons in violation. The written notice will generally contain information pertinent to the applicant's name, excavation location, the nature of the violation, and summary of penalties or fines to be assessed. Penalties and fines may be issued for the following specific violations:
  - a. Excavation without a valid street excavation permit.
  - b. Excavation without proof of the permit being available for review at the work site.
  - c. Excavation without proper notice to DIGSAFE.
  - d. Excavation without proper notice to the City of Concord's Engineering Services Division.
  - e. Excavations that violate the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (MUTCD), latest edition, and the City of Concord traffic codes.
  - f. Excavations that do not meet requirements for restoration concerning backfill, replacement of pavement base, and finished pavement.
  - g. Excavations that exceed the scope of the permit, including, but not limited to, obstructing the path of automobile, bicycle or pedestrian travel in excess of the permitted area.
2. Emergency excavations which are considered hazardous or that constitute a public emergency or the imminent threat to the public safety, health, and welfare shall be exempt from these conditions. Contractors with non-compliant excavations shall have twenty-four

(24) hours to remedy violations or will be issued a stop work order and assessed administrative penalties.

3. Persons receiving a notice of violations will be issued a stop work order and required to cease all construction activities immediately. The stop work order will be in effect until the city's inspector confirms that construction activities are in compliance and the violation has been satisfactorily addressed. Failure to address a notice of violation in a timely manner can result in additional penalties in accordance with the enforcement measures authorized by the Ordinance.

Any Permittee who violates the Ordinance shall be assessed penalties as outlined below:

- a. A fine not to exceed \$100.00 for the first violation.
  - b. A fine not to exceed \$500.00 for a second violation within one (1) year from the date of the first violation.
  - c. A fine not to exceed \$1,000.00 for a third and each additional violation within one (1) year from the date of the first violation.
4. Penalties and costs assessed under this regulation shall continue to accrue against a responsible party until the violation is corrected or otherwise remedied in the judgment of the City Engineer, or when the responsible party pays the assessed penalties and fines.

#### **Protection of Streets**

1. In an effort to protect the City's investment in its infrastructure, excavations in newly constructed, reconstructed, rehabilitated, or overlaid pavements within the public right-of-way or on City property, are prohibited for five (5) years after the effective date of notice of completion or acceptance of the new, reconstructed, rehabilitated, or overlaid improvements except as follows:
  - a. Excavations to remedy a public emergency or a situation that creates an imminent threat to the public safety, health, or welfare.
  - b. Repair or modification to prevent interruption of essential utility services where no reasonable alternatives are available to avoid excavation in new pavements.
  - c. Relocation work that is mandated by State or Federal legislation.
  - d. Utility services for new buildings or parcels without existing utility services where no other reasonable means of providing service exists, as determined by the City Engineer.
  - e. Excavations within protected streets where the City has scheduled the reconstruction within one year due to the failure of the original pavement.



- f. Other situations deemed by the City Manager to be in the best interest of the general public.
2. In all of the above, although a permit will not be denied, the applicant will be responsible for paying a pavement life reduction factor. The pavement life reduction factor will be assessed to the street damage charge as follows:
  - a. Street pavement less than 2 years old – 3 times street damage charge.
  - b. Street pavement from 2 years - 5 years old – 2 times street damage charge.

### **General Permit Conditions and Construction Requirements**

#### **1. GENERAL APPLICATION REQUIREMENTS**

The permit application must be submitted four (4) days prior to the proposed excavation. Once issued and approved, the permit term is for thirty (30) days only and must be renewed prior to the expiration date, following approval by the City Engineer. An additional administrative and inspection fee will be assessed for each permit renewal of thirty (30) days. The thirty (30) day expiration period may be waived if the excavation is under contract with the City of Concord and part of the Capital Improvement Program (CIP). Permits are valid only when authorized by the City Engineer and have been assigned a permit number.

A street excavation permit gives the applicant the right to excavate in the public right-of-way with proper traffic controls as specified in the Manual on Uniform Traffic Control Devices (MUTCD) as long as a minimum of one lane of traffic (12 feet wide) is provided in the street at all times. No more than 200 feet measured longitudinally shall be open in any street at one time, except by special permission of the City Engineer. No opening or excavation in any street shall extend beyond the centerline of the street before being backfilled and the surface of the street made passable to traffic.

Any street excavation permit restricting complete traffic movement, and closures of roadways, will only be issued with an approved traffic control plan. If a complete street closure is necessary, a minimum of seven (7) days advance notice is required, with confirmation of the proposed closure three (3) working days in advance of the actual street closure.

Construction on major arterial highways and collector streets shall commence at a time designated by the City Engineer. The local media (newspaper and the radio stations) shall be notified by the Applicant three (3) days prior to work to advise motorists of the construction. This notification shall be at the applicant's expense. The City Engineer will review and approve any detours required. The applicant shall also notify the Police Department, Fire Department, and other City Departments involved with the review of any detours. If an emergency necessitates the complete closing of a street, see the "Emergency Provisions" section of these General Permit Conditions and Construction Requirements.

The applicant shall notify the Engineering Services Division twenty-four (24) hours before the construction begins. A twenty-four (24) hour notice prior to backfill inspection is requested with

a minimum period of four (4) hours being required. The Engineering Services Division shall be notified twenty-four (24) hours in advance of the placement of all permanent pavement patches. The location of all utility facilities shall be determined prior to excavation work to avoid damage to those facilities and permit their relocation if necessary. The applicant shall, as specified by New Hampshire RSA 374:51 and 374:55, call DIG SAFE (1-888-344-7233) at least 72 hours prior to any excavation. In addition to notifying the Engineering Services Division, the applicant shall also notify the Concord Police Department, Fire Department, and Concord Area Transit (contact names and phone numbers are listed in the appendix).

Every applicant will be required to place around openings, excavations, encumbrances, or obstructions such barriers, barricades, lights, warning flags, danger signs, and traffic control personnel as may be required by the Engineering Services Division to protect the safety of the general public. Adequate artificial lighting devices are required to call attention to and indicate the actual location of obstructions and hazards. Adherence to Part VI of the MUTCD for traffic control and work area safety will be required.

In general, where compliance to these regulations and their intent is in question, the applicant at his expense shall provide any and all proof of compliance to the City Engineer. Acceptable proof shall be by, but not limited to, approved independent laboratory tests, approved independent field tests, shop drawings, and certificates of compliance from manufacturers. Specific tests as required by regulations and specifications shall be performed.

After an excavation has commenced, the work shall proceed in a continuous manner with diligence and expedition and shall be completed and the street restored, as nearly as possible to its original condition, so as not to obstruct the public access or travel thereon more than is reasonably necessary. The Applicant shall notify the City Engineer in writing should more time be needed than the completion date indicated on the permit. This notification shall include an explanation as to why the additional time is needed. In any event, the Applicant shall place temporary hot bituminous pavement immediately upon backfilling, which shall be maintained on a daily basis.

As a condition of this permit, the applicant agrees that following the excavation and proper backfill, all pavement areas will be permanently restored under the pavement scheduling and construction guidelines set forth within this regulation. No permanent street restoration will be allowed between November 15th and April 15th, unless specifically authorized by the City Engineer.

The City Engineer, as a condition of the permit, reserves the right to order the applicant to restore the street or highway or order the same to be restored by others if in the opinion of the City Engineer the applicant is non-responsive or in default of performance of the permit. The applicant shall reimburse the City for any and all liability and expense suffered by reasons of such work especially in the case where an independent contractor, after notice, has been ordered to make final restorations. The Applicant shall reimburse the City for any liability and expense suffered by reasons of such work.

The applicant hereby agrees that any financial obligations that it may incur to the City are due upon presentation. According to Article 2-4 of the City of Concord Code of Ordinances, an amount of one and one-half (1½) percent per month (18% per year) will be added to the unpaid



balance due the City. Further, the Applicant agrees that this permit is in the nature of or intent of a special assessment and as such is entitled to become a tax lien per New Hampshire RSA 80:19.

The Permit shall be kept with the foreman at the place where the work is being performed and shall be produced for examination upon request of any member of the Community Development Department, General Services Department, and the Police and Fire Departments of the City of Concord. All materials and construction shall conform to the latest editions of the "City of Concord Construction Standards," available for sale at the Engineering Services Division office, and the "NHDOT Standard Specifications for Road and Bridge Construction." All permit holders are responsible for subcontractors to adhere to these regulations, no exceptions.

## 2. CONSTRUCTION REQUIREMENTS

Cuts shall be parallel or perpendicular to the line of the trench. In the case of transverse or diagonal trenching, the pavement shall be saw cut with a two (2) foot minimum overlap on undisturbed material that will permit only one wheel of a vehicle at a time to strike the patch area. An acceptable alternative to saw cutting is cold planing.

Backfill shall be compacted in maximum one (1) foot lifts to obtain a minimum of 95% of the optimum density as measured by the modified proctor test. Backfill shall be of approved granular material free from large stones and organic material. Select materials immediately under pavement (gravels and processed gravels) shall be replaced in kind or to a minimum depth of twelve (12) inches of gravel and six (6) inches crushed gravel meeting City and NHDOT Standard Specifications for Road and Bridge Construction. Select material shall be compacted to a minimum of 95% of the optimum density as measured by the modified proctor test. The City Engineer may require compaction and material testing of excavation backfill. An independent company approved by the City Engineer, at the expense of the Applicant, shall perform all materials testing. Reclaimed bituminous pavement can substitute select gravel and crushed gravel materials provided that the reclaimed materials meet all specifications for select reclaimed materials.

Within the sawed limits of the final patch, the existing pavement and any temporary material shall be removed and replaced to an equal depth with a minimum of four (4) inches of hot bituminous pavement (two and one-half (2½) inches of base and one and one-half (1½) inches of wearing course). The bituminous pavement mixture used shall comply with the NHDOT Standard Specifications for Road and Bridge Construction. Testing and certification of compliance with these standards may be required. Bituminous pavement shall be laid and compacted in a maximum of two (2) inch thick layers. After compaction the new patch shall match exactly the line and grade of the adjacent roadway. The face of all joints and exposed pavement to be overlaid shall be coated with an approved asphalt emulsion (tack coat).

***For backfilling and paving inspection call 225-8520 or contact the Engineering Services Division's resident inspector on the project.***

All disturbed traffic striping, traffic signage, and traffic signal equipment (detector loops, conduit, etc.) shall be replaced with like or better materials.

All excavations performed in a City street that has been newly constructed, reconstructed, rehabilitated, or overlaid with pavement within the past five (5) years shall be reconstructed in accordance with these regulations and the following additional conditions:

1. If the trench is excavated in such a manner so that more than half the entire width of the street's pavement is disturbed, the final pavement patch will be a one and one-half (1½) inch overlay from curb to curb the entire width and will extend twenty (20) feet beyond the trench limits longitudinally in each direction. The existing pavement shall be cold planed on each side of the trench prior to the pavement overlay to provide clean pavement joints, and correct surface grade, profile, and cross-section.
2. If the trench is excavated in such a manner so that less than half the entire width of the street's pavement is disturbed and within the travelway, the final pavement patch will be a one and one-half (1½) inch overlay of half of the entire width of the street and will extend twenty (20) feet beyond the trench limits longitudinally in each direction. The existing pavement shall be cold planed on each side of the trench prior to the pavement overlay to provide clean pavement joints, and correct surface grade, profile, and cross-section.
3. If the trench is excavated in such a manner so that only the paved shoulder or parking bay is disturbed and is not within the travelway, the final pavement patch will be a one and one-half (1½) inch overlay limited to the area disturbed so as to minimize the effects of the work on the new pavement. The existing pavement shall be cold planed on each side of the trench prior to the pavement overlay to provide clean pavement joints, and correct surface grade, profile, and cross-section.

A listing of protected streets affected by this provision is on file at the office of the Engineering Services Division. The listing is periodically updated to reflect ongoing projects and may not be all-inclusive.

In cases where multiple excavations are made in a street that would result in the edge of patches being closer than twenty (20) feet, the Engineering Services Division will require one continuous pavement patch. In the case of long longitudinal trenches in the roadway area, full width restoration may be required. Restoration will be in kind with a one and one-half (1½) inch wearing course overlay.

On surface treated gravel highways, feathering the edges of patches shall be allowed. Within areas of concrete, reinforced concrete, or stone base overlaid with asphalt, the City Engineer will require the replacement of the concrete, reinforced concrete, or stone base with Class "A" Portland cement concrete, reinforced concrete, or stone base as specified in the NHDOT Standard Specifications for Highway and Bridge Construction, latest issue, to the depth equal to that removed, and then overlaid with hot bituminous pavement as specified above. Concrete sections disturbed or excavated shall be replaced in full, from expansion joint to expansion joint, and doweled together with steel reinforcement bars.

In all other areas, the excavation shall be restored to the condition that existed before the excavations or as directed by the City Engineer. Any existing grassland shall be restored with four (4) inches of screened loam that shall be fine graded, fertilized, seeded, rolled, and mulched.



Salt tolerant seed mixtures shall be used immediately adjacent to the roadway; slope seed shall be used on all slopes; park seed mixtures shall be used in all other areas; or a specific seed mixture may be specified by the City Engineer.

If the subsurface materials or pavement over or within the trench influence area becomes depressed or broken at any time, the area shall be immediately repaired. Repairs to the installation or backfill shall be made and the pavement restored in the manner and within the time period specified by the City Engineer.

After the contractor has restored the excavation and placed a temporary hot bituminous pavement patch, a minimum thirty (30) day settlement period will be directed by the City Engineer before permanently restoring the excavation work area.

No trenches or excavations will be permitted to be left open overnight unless specifically authorized by the City Engineer. Open excavations shall be protected by concrete jersey barriers, steel plates, or other methods approved by the City Engineer. Construction materials and equipment shall not be left in the public right-of-way overnight unless approved by the City Engineer. If approved, proper warning devices and protection shall be provided as required.

As the work progresses, all streets shall be thoroughly cleaned of all rubbish, excess earth, rock, and other debris resulting from such work. Upon request, the street shall be immediately cleaned to the satisfaction of the City Engineer. Dust control shall be provided as necessary to prevent a nuisance to abutters and surrounding areas. Dust control shall be by wetting, use of calcium chloride, or other approved methods.

The following permanent patching schedule will be observed:

<u>Work done between:</u>	<u>To be permanently patched by:</u>
April 1 <sup>st</sup> - May 31 <sup>st</sup>	July 1 <sup>st</sup>
June 1 <sup>st</sup> - June 30 <sup>th</sup>	August 1 <sup>st</sup>
July 1 <sup>st</sup> - July 31 <sup>st</sup>	September 1 <sup>st</sup>
August 1 <sup>st</sup> - August 31 <sup>st</sup>	October 31 <sup>st</sup>
September 1 <sup>st</sup> - October 31 <sup>st</sup>	November 15 <sup>th</sup>
November 1 <sup>st</sup> - March 31 <sup>st</sup>	May 1 <sup>st</sup>

### 3. TRAFFIC CONTROL

The applicant is required to take all appropriate measures to assure that during performance of the excavation work, so far as practicable, normal traffic conditions including vehicular, bicycle and pedestrian traffic shall be maintained at all times so as to cause as little inconvenience as possible to the occupants of the adjoining property and to the general public.

The City Engineer and/or the Concord Police Chief may require, while street excavation opening work is in progress, that the applicant engage a police detail to maintain traffic control and public safety at a project site, if in their opinion the work within the street or highway constitutes a compromise to public safety, or a potential for significant traffic delays or congestion on certain streets.

Minimally, the applicant will be required, while street excavation opening work is in progress, to utilize a certified flagger detail to maintain traffic control and public safety at the project site.

#### 4. EMERGENCY PROVISIONS

The dispatcher on duty at the Police and Fire Department shall be notified immediately of any emergency excavation within the public right-of-way or on City property.

If such an emergency exists, the Engineering Services Division and the General Services Department, as well as any utility affected by the emergency shall be notified immediately by telephone. At the earliest opportunity and no later than the first business day after said emergency, the applicant shall obtain a regular permit at the office of the Engineering Services Division. If an emergency occurs during normal work hours, generally 7:30 AM – 4:30 PM, Monday through Friday, contact shall be made directly to the Engineering Service Division, as well as the other listed agencies. If an emergency occurs outside of normal business hours, the Concord Police Department, Fire Department, and the General Services Emergency Call Center after-hours number shall be contacted.

The City Engineer reserves the right to waive any of the provisions of this regulation in the case of an emergency, and to impose such conditions as he/she may require as part of an emergency permit. Partial or full street closures under the emergency provision will require proper traffic controls as per regular street excavation procedures.

#### 5. WINTER CONSTRUCTION PROCEDURES FOR PAVEMENT RESTORATION

These procedures are effective from November 15<sup>th</sup> through April 15<sup>th</sup> (Weather pending) and are intended to supplement the permitting conditions and construction requirements specified herein. The procedures outlined in the Street Excavation Permit requirements shall be followed except for the placement of hot bituminous pavement.

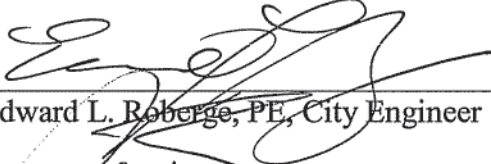
1. If hot bituminous pavement is available, three (3) inches of temporary hot bituminous pavement (1/2" aggregate) shall be used.
2. When hot bituminous pavement is not available, cold patch may be allowed with the approval of the City Engineer.
3. The Applicant may be required to use a temporary concrete patch. If a concrete patch is used, the following procedures will be followed:
  - a. Three (3) inch pavement of Class "AA" (4000 p.s.i.) concrete with three-quarter (¾) inch stone shall be placed. Use of "high early" strength or 6000 p.s.i. Portland concrete mix is also acceptable.
  - b. The concrete shall be placed over a prepared crushed gravel base.


- c. The concrete shall be placed flush to the existing line and grade of the adjacent asphalt pavement.
  - d. The surface of the pavement will have a rough broom type finish placed perpendicular to the flow of traffic.
  - e. The concrete pavement shall be protected from freezing for a minimum of two (2) days by covering it with polyethylene insulated blanket or hay and polyethylene plastic. The length of protection and curing may be increased or decreased by the City Engineer depending on the daily temperature.
4. The following spring, when hot bituminous pavement becomes available, the temporary "cold patch," temporary bituminous pavement, or temporary concrete pavement shall be removed and replaced with a permanent pavement patch as required by the City Engineer.


The applicant is responsible for maintaining all temporary patches until permanent restorations are accepted.

**Signatures**

These regulations shall take effect upon their approval.

APPROVED:  DATE: 4/13/2010  
Edward L. Roberge, PE, City Engineer

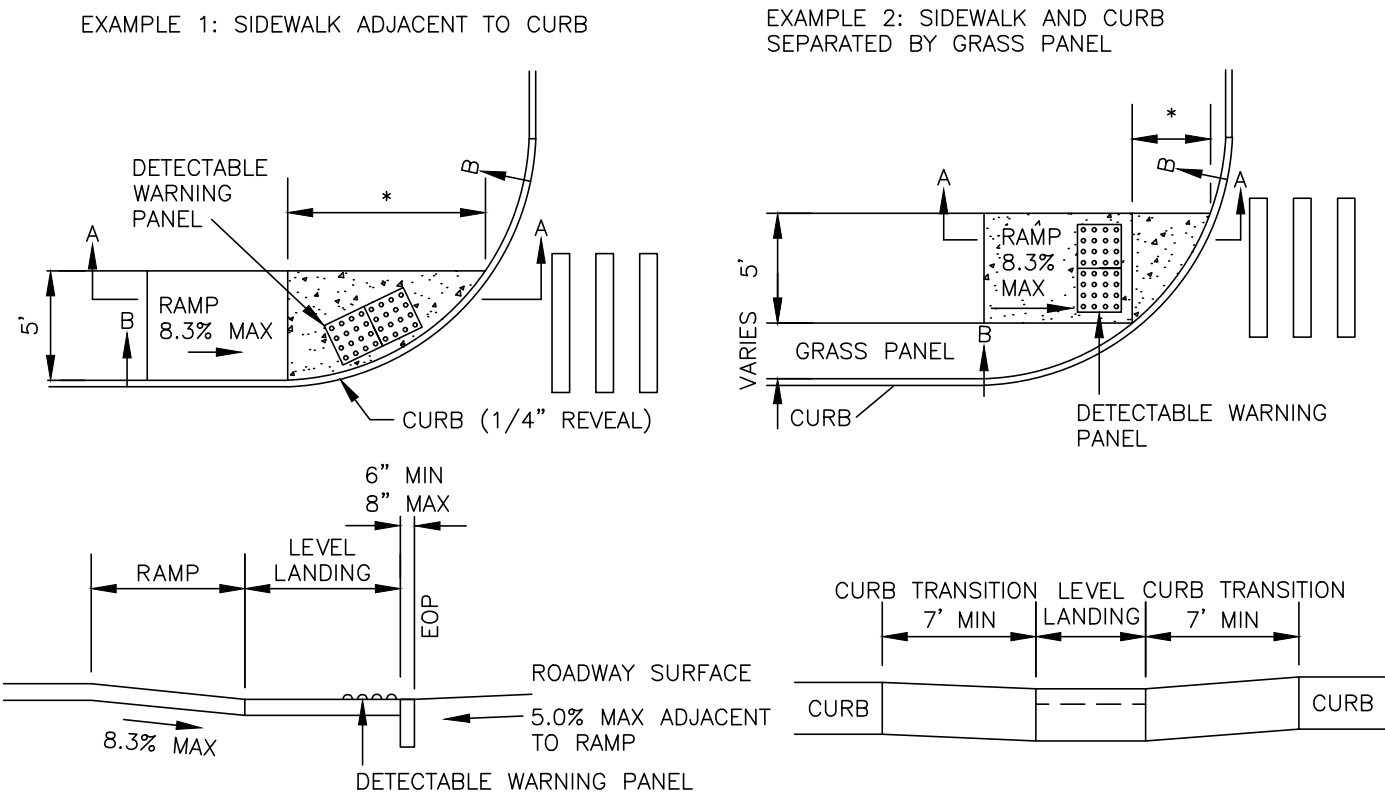
APPROVED:  DATE: 4.14.2010  
Carlos Baía, Deputy City Manager

APPROVED:  DATE: 4.15.2010  
Thomas J. Aspell, Jr., City Manager

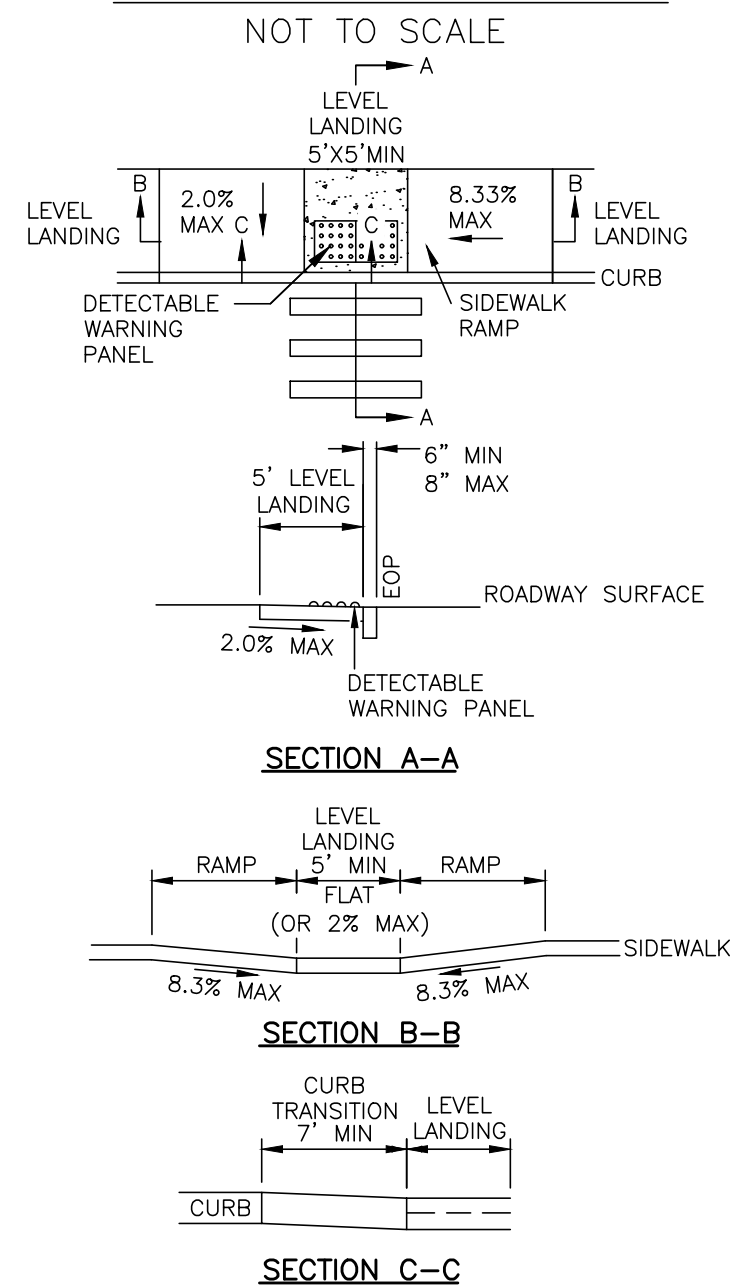


SIDEWALK RAMP GENERAL NOTES:

- THE DIMENSIONS AND GRADES SHOWN ON THIS STANDARD WILL BE ADHERED TO IN THE DESIGN AND THE CONSTRUCTION OF SIDEWALK RAMP. WHERE SIDEWALKS RUN ADJACENT TO ROADWAYS ON STEEP (5% OR GREATER) GRADES, RAMP GRADES WILL BE AS FLAT AS POSSIBLE. (ON LOW SIDE OF DRIVES AND INTERSECTING SIDE STREETS, RAMPS SHALL SLOPE TOWARDS DRIVE OR SIDE STREET AT 2%)
- NOMINAL RAMP DIMENSIONS AND GRADES:  
RAMP WIDTH - 5' MINIMUM  
RAMP SLOPE - 8.3% MAXIMUM  
FLARE SLOPE - 10% MAXIMUM  
RAMP CROSS SLOPE - 2% MAXIMUM
- CURB RAMPS SHALL BE CONSTRUCTED OF 6" PORTLAND CEMENT CONCRETE (CLASS AA, 4000 PSI) WITH 6"x8" W2.9XW2.9 WOVEN WIRE FABRIC REINFORCING PLACED 2 1/2" FROM THE TOP OF THE SLAB WITH 6" CRUSHED GRAVEL SUBBASE
- ALL SIDEWALKS AND LANDINGS SHALL HAVE A CROSS SLOPE OF 2% DRAINING TOWARD THE STREET, DRIVE, OR PARKING AREA
- A LEVEL LANDING (NO GREATER THAN 2% SLOPE IN ANY DIRECTION) SHALL BE PROVIDED AT THE TOP OF SIDEWALK RAMPS TO ALLOW FOR STOPPING AND MANEUVERING OF WHEELCHAIRS
- LEVEL LANDINGS (NO GREATER THAN 2% SLOPE IN ANY DIRECTION) AT THE BOTTOM OF PERPENDICULAR RAMPS SHALL BE WHOLLY CONTAINED WITHIN MARKED CROSSWALKS
- DUMMY JOINTS SHALL BE PROVIDED AT TRANSITIONS (GRADE CHANGES) AT TOPS AND BOTTOMS OF RAMPS AND FLARES
- VERTICAL DROP-OFF EDGES TO RAMPS WILL NOT BE BUILT UNLESS THE RAMP ABUTS AN AREA WHICH WILL NOT BE USED BY PEDESTRIANS
- A 1/4" CURB REVEAL WILL BE PROVIDED WHERE THE RAMP ADJOINS THE ROADWAY
- AT MARKED CROSSWALKS, THE FULL WIDTH OF THE RAMP OR LANDING SHALL BE CONTAINED WITHIN THE PAVEMENT MARKINGS
- RAMP FLARES SHOULD BE LOCATED OUTSIDE THE DIRECT LINE OF TRAVEL MOST LIKELY TO BE FOLLOWED BY THE VISUALLY IMPAIRED
- SIGNS, POLES, PLANTERS, MAILBOXES, ETC., SHALL NOT BE LOCATED WHERE THEY WILL INTERFERE WITH THE USE OF SIDEWALK RAMPS.
- SIDEWALK RAMPS SHALL NOT BE LOCATED WHERE USERS MUST CROSS DROP INLET GRATES, MANHOLE COVERS, OR OTHER ACCESS UIDS. IF THIS CANNOT BE AVOIDED THEN GRATE DESIGN AND PLACEMENT SHALL CONFORM TO ADA REQUIREMENTS.
- CURB DRAINAGE SHOULD BE CONSTRUCTED SO AS TO PRECLUDE THE FLOW OF WATER PAST THE SIDEWALK RAMP.
- WHEREVER FEASIBLE, TWO SIDEWALK RAMPS ARE RECOMMENDED IN PREFERENCE TO A SINGLE RAMP.
- SIDEWALKS THAT ARE LESS THAN 5' WIDE REQUIRE 5' WIDE BY 5' LONG PASSING AREAS (NO GREATER THAN 2% CROSS SLOPE) AT INTERVALS NOT TO EXCEED 200'
- E.O.P. = EDGE OF PAVEMENT.
- THE PUBLIC SIDEWALK CURB RAMP STANDARDS DEPICTED HERE MAY NOT BE APPROPRIATE FOR ALL LOCATIONS. FIELD CONDITIONS AT INDIVIDUAL LOCATIONS MAY REQUIRE SPECIFIC DESIGNS. DESIGNS MUST BE CONSISTENT WITH THE PROVISIONS OF THIS SHEET TO THE MAXIMUM EXTENT FEASIBLE ON ALTERATION PROJECTS AND WHEN STRUCTURALLY PRACTICABLE ON NEW CONSTRUCTION PROJECTS AS REQUIRED BY THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.



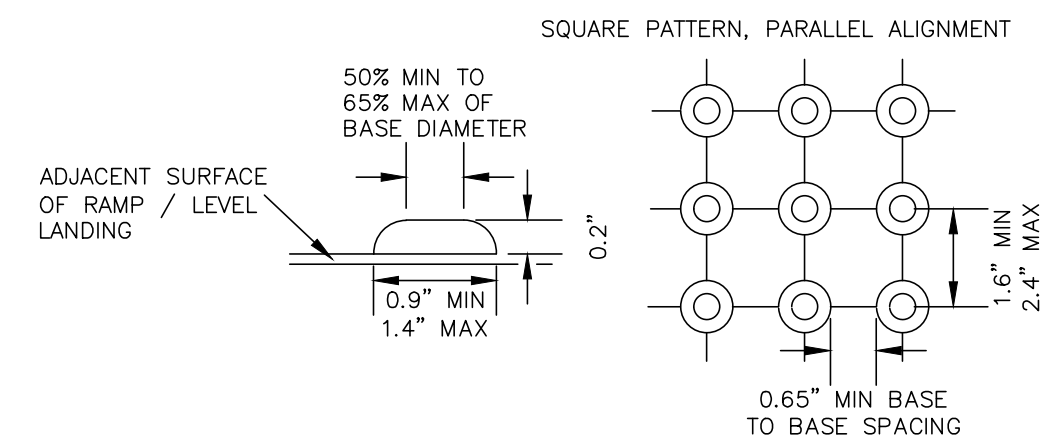
SIDEWALK RAMP TYPE 1



SIDEWALK RAMP TYPE 6, EXAMPLES 5 & TYPE 6 SECTIONS

NOT TO SCALE

DETECTABLE WARNING PLACEMENT



NOTES:

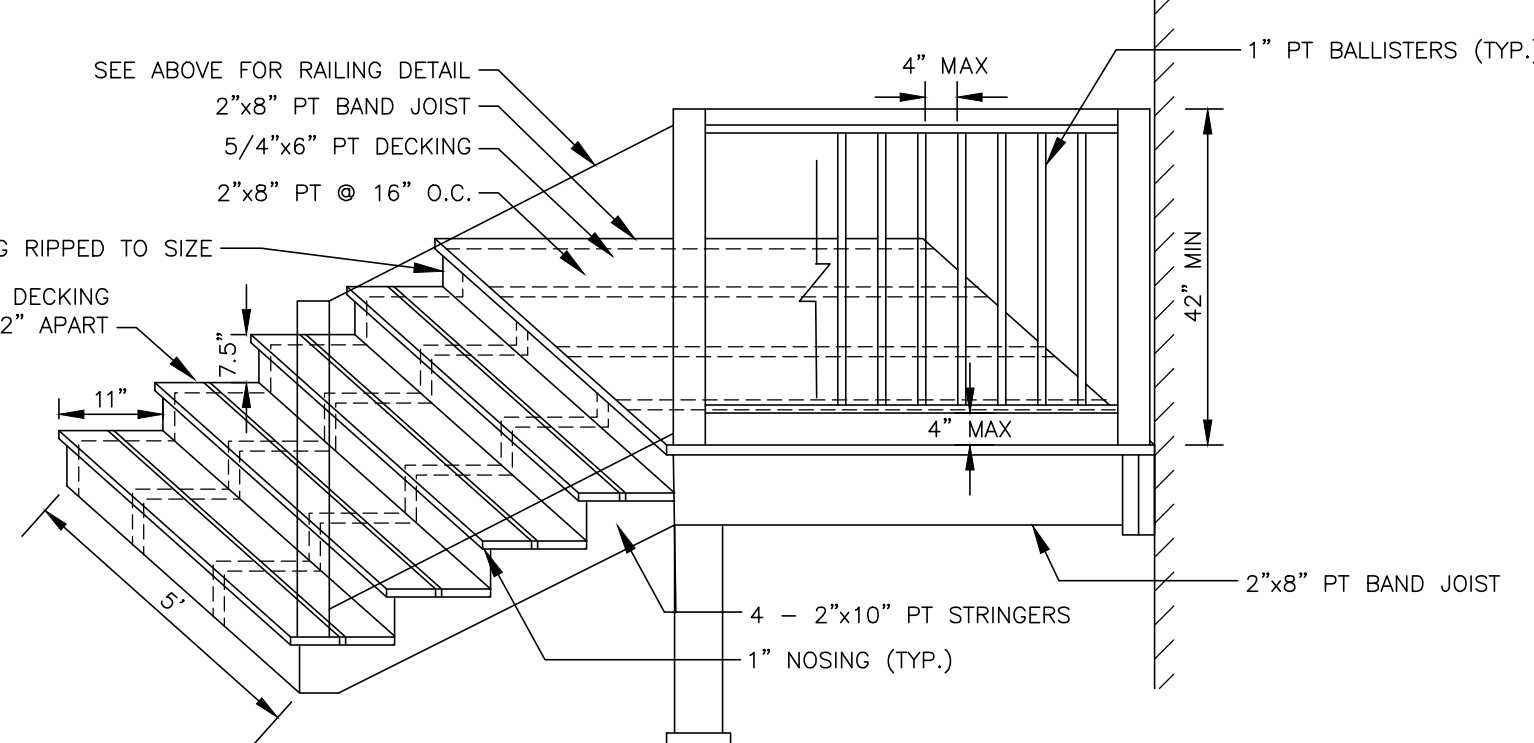
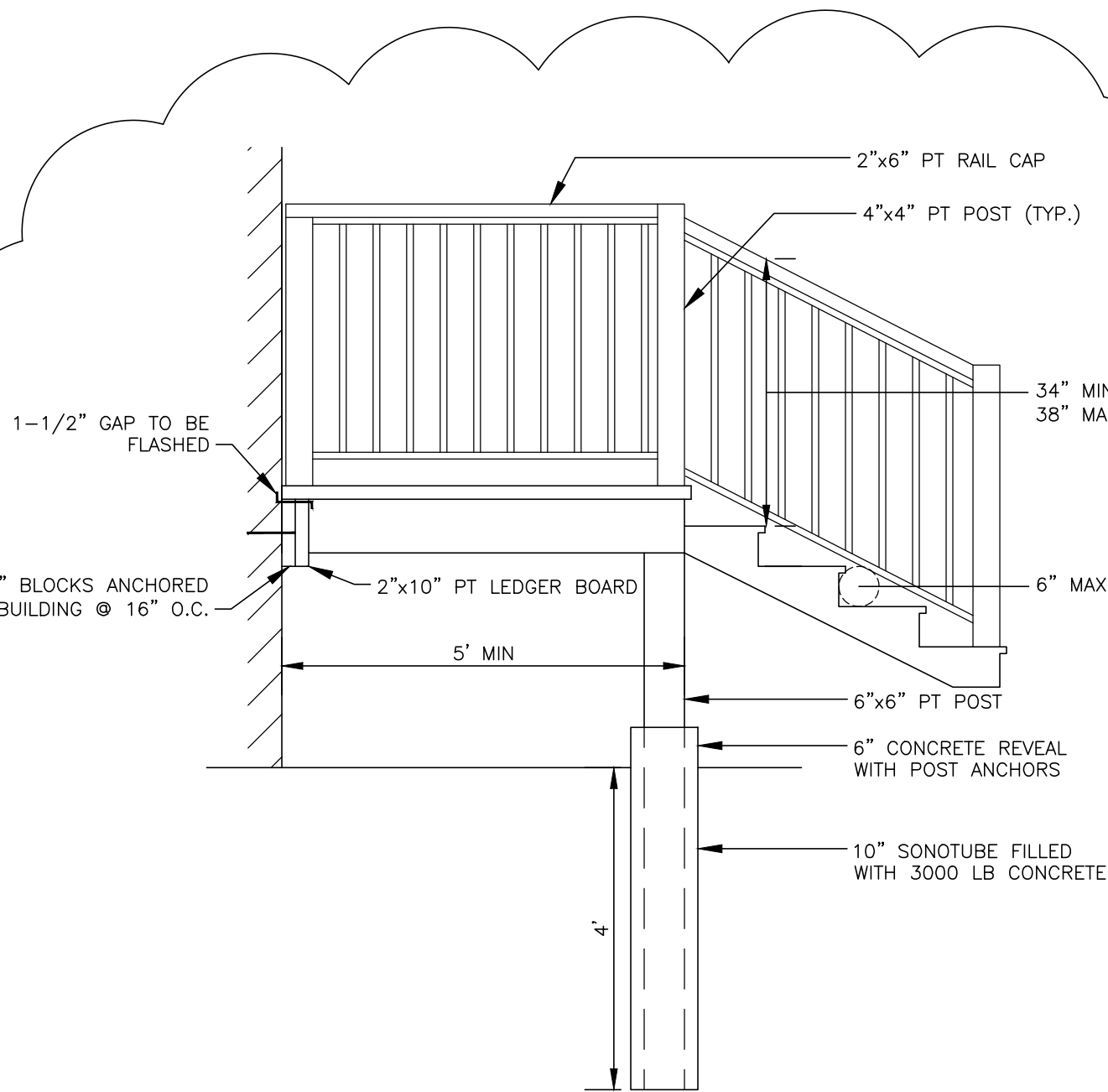
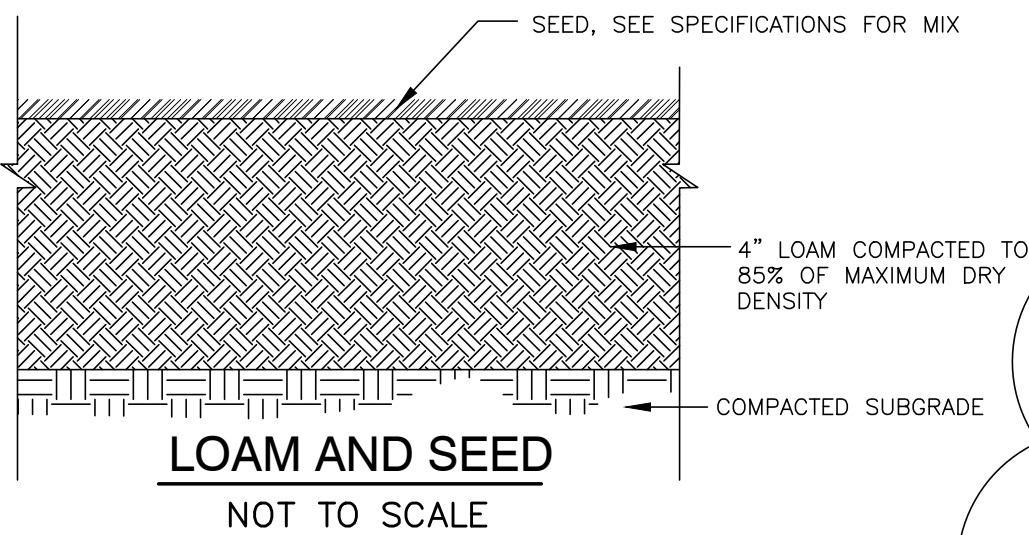
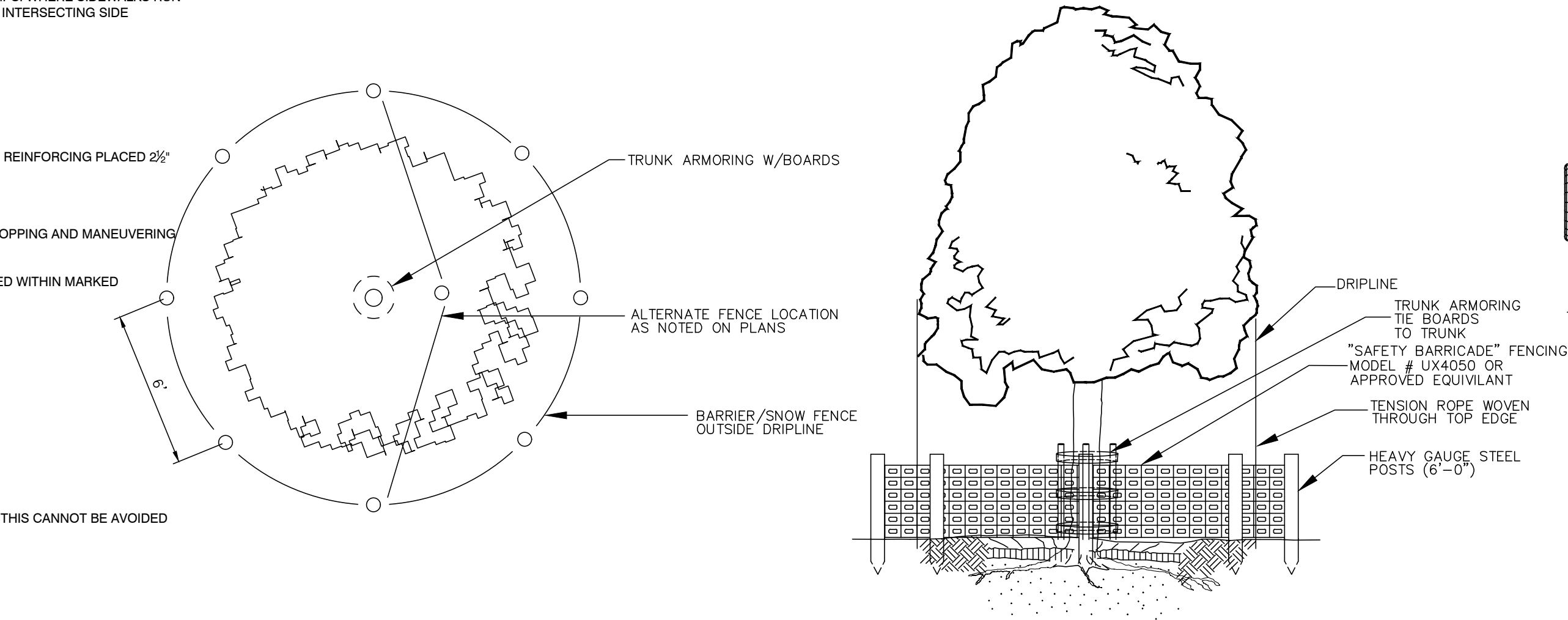
- DETECTABLE WARNING SURFACES SHALL BE CAST IRON WITHIN THE CITY R.O.W.
- CONCRETE ADJACENT TO ALL DETECTABLE WARNINGS SHALL HAVE A BROOM FINISH.
- THE COLOR OF THE DETECTABLE WARNING SHALL PROVIDE A VISUAL CONTRAST TO THE SURROUNDING SURFACE AND SHALL BE AS SPECIFIED ON THE PLANS.
- WHERE A RAMP OR LEVEL LANDING MEETS A CURB RADIUS, ALIGN THE EDGE OF THE DETECTABLE WARNING AREA PARALLEL TO THE CURB TO THE MAXIMUM EXTENT FEASIBLE.

DETECTABLE WARNING DETAILS

NOT TO SCALE

TREE PROTECTION

NOT TO SCALE

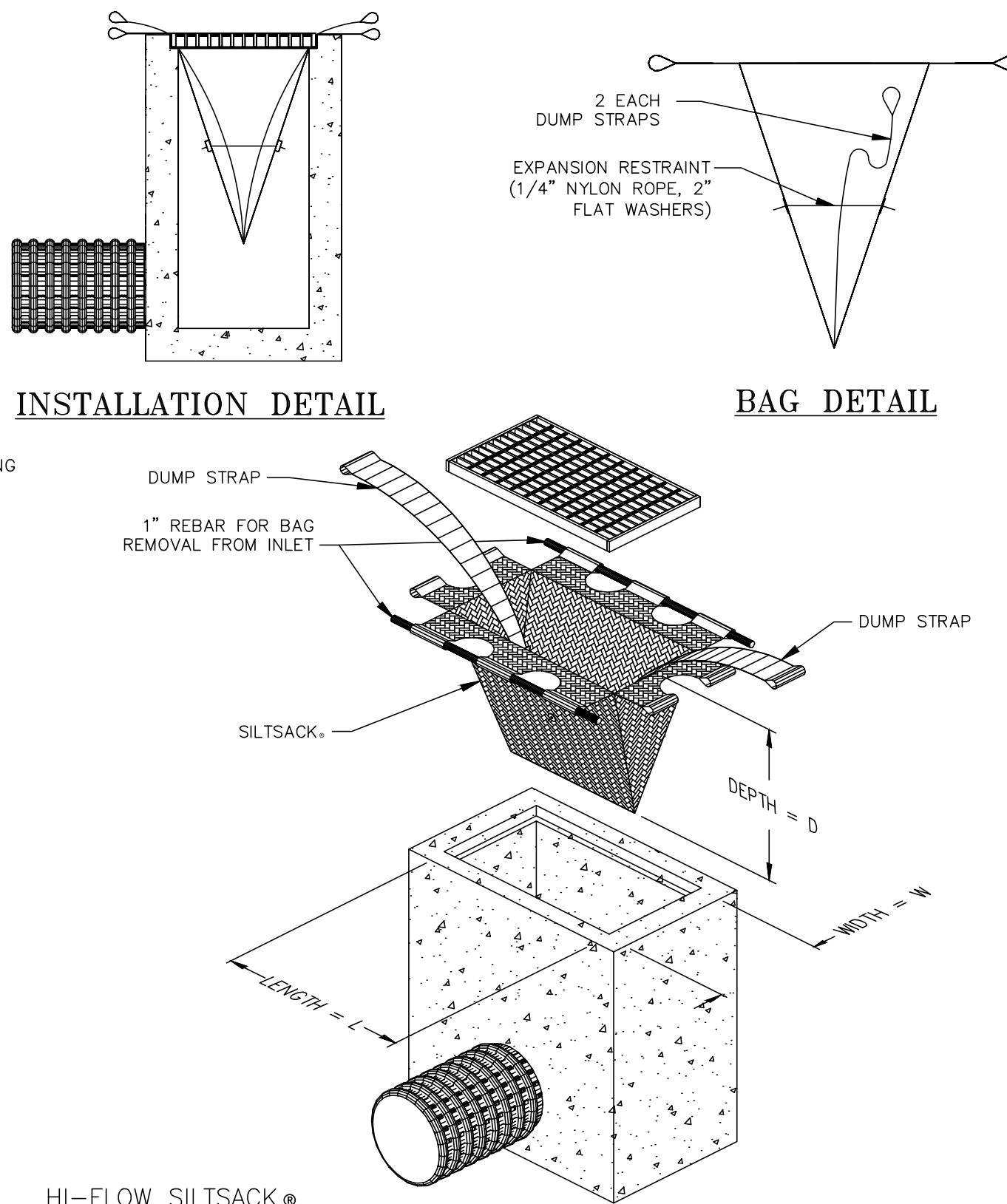


NOTE:

INSTALL RAILING ON BOTH SIDES OF STAIRS.

STAIRS

NOT TO SCALE



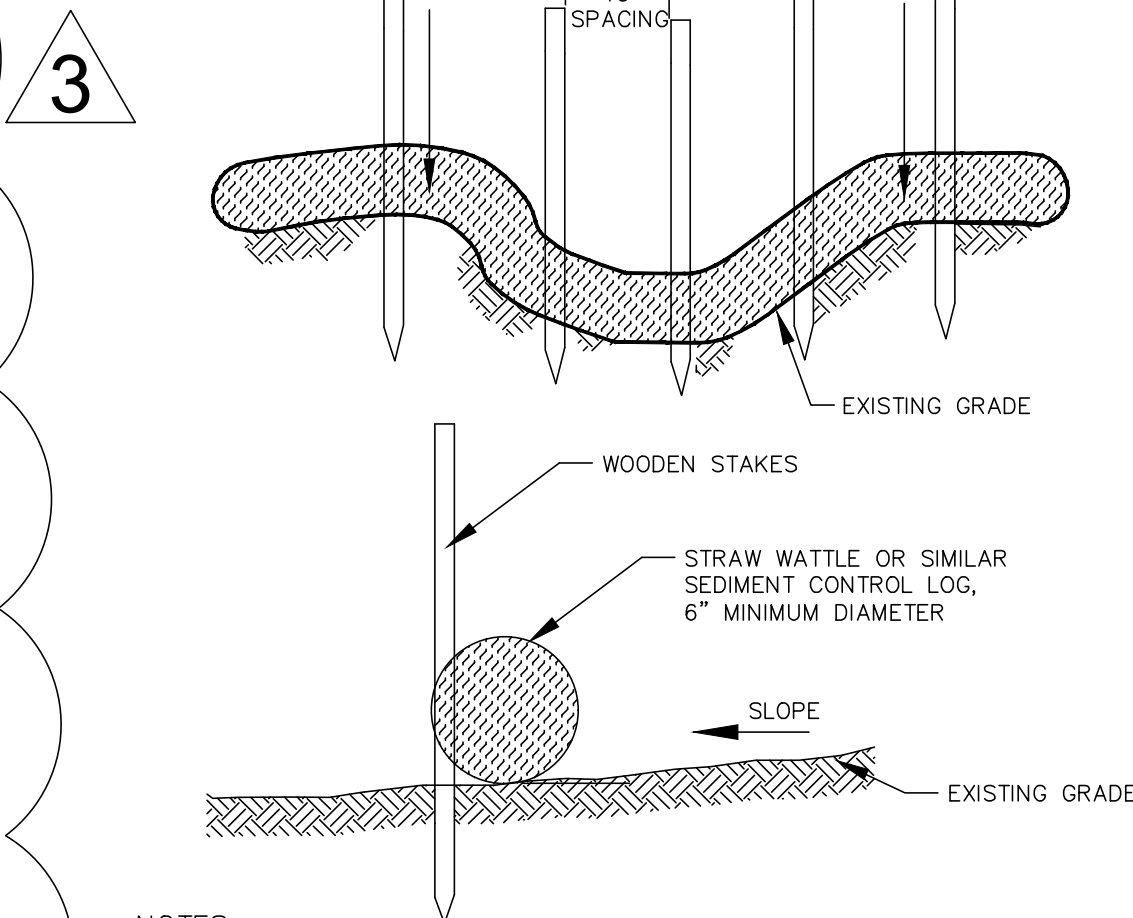
HI-FLOW SILTSACK® SPECIFICATIONS\*

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

\*NOTE: HIGH-FLOW SILTSACK TO BE INSTALLED ONLY AFTER PAVEMENT IS INSTALLED. PRIOR TO PAVING, COVER INLET WITH AN IMPERMEABLE WATER TIGHT BARRIER TO KEEP STORMWATER AND SEDIMENT FROM ENTERING BASIN.

HI-FLOW SILTSACK DETAIL

NOT TO SCALE



NOTES:

- TEMPORARY STRAW WATTLES SHOULD BE LOCATED AS SHOWN ON EROSION CONTROL PLANS AND ACROSS ANY DRAINAGE SWALE DOWNSTREAM FROM THE CONSTRUCTION AREA.
- STAKE SHOULD BE INTERTWINED WITH THE OUTER MESH ONLY (ON THE DOWNSTREAM SIDE ONLY) AND PLACED A MINIMUM OF 610 MM (24") INTO GROUND.
- PROVIDE PERIODIC REMOVAL OF ACCUMULATED DEBRIS AND SEDIMENTS DURING CONSTRUCTION AND PRIOR TO DISMANTLING.

TEMPORARY STRAW WATTLE

NOT TO SCALE

**Nobis**

Engineering a Sustainable Future

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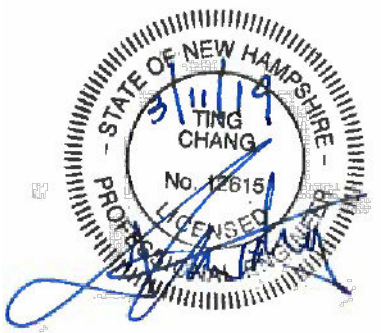
18 Chenell Drive

Concord, NH 03301

T(603) 224-4182

www.nobiseng.com

Client - Focused, Employee - Owned



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FOR  
CONSTRUCTION

NHTI - CONCORD'S  
COMMUNITY  
COLLEGE DRAINAGE  
IMPROVEMENTS

INSTITUTE DRIVE  
CONCORD, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION
3	03/08/19	ADD STAIR DETAIL

REVISIONS

SCALE:  
AS NOTED

DATE: NOVEMBER 2018

NOBIS PROJECT NO. 94300.00

DRAWN BY: SMC

CHECKED BY: TC

CAD DRAWING FILE:  
94300.00-C-700-DETAILS.dwg

SHEET TITLE

CONSTRUCTION  
DETAILS

SHEET  
C-5