



ADDENDUM NO. 1

RE: University North Carolina Charlotte – Student Counseling Center  
SCO No. 14-11381-02A  
EYP No. 1015008.01

Date: May 18, 2016

From: EYP

To: Prospective Bidder

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NOTICE TO BIDDERS:

This Addendum issued prior to receipt of bids shall and does hereby become a part of the Contract Documents for the above Project. This Addendum must be acknowledged on the Form of Proposal.

All Prime Contractors shall be responsible for ensuring that their Subcontractors are properly apprised of the contents of this Addendum.

All information contained in this Addendum shall supersede and shall take precedence over any conflicting information in the original Drawings and Specifications.

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CLARIFICATION

None

CHANGES TO PROJECT MANUAL – VOLUME 1

None

CHANGES TO PROJECT MANUAL – VOLUME 2

None

CHANGES TO DRAWINGS

Item I-1      Add Civil Drawings – C100, C200, C300, C-301, C-400, C-410, C-500, C-600, C-601, C-602, C-610, C-611, C-612, C-700, and C-710, included with this addendum.

ATTACHMENTS – DRAWINGS: C100, C200, C300, C-301, C-400, C-410, C-500, C-600, C-601, C-602, C-610, C-611, C-612, C-700, and C-710

END OF ADDENDUM 1

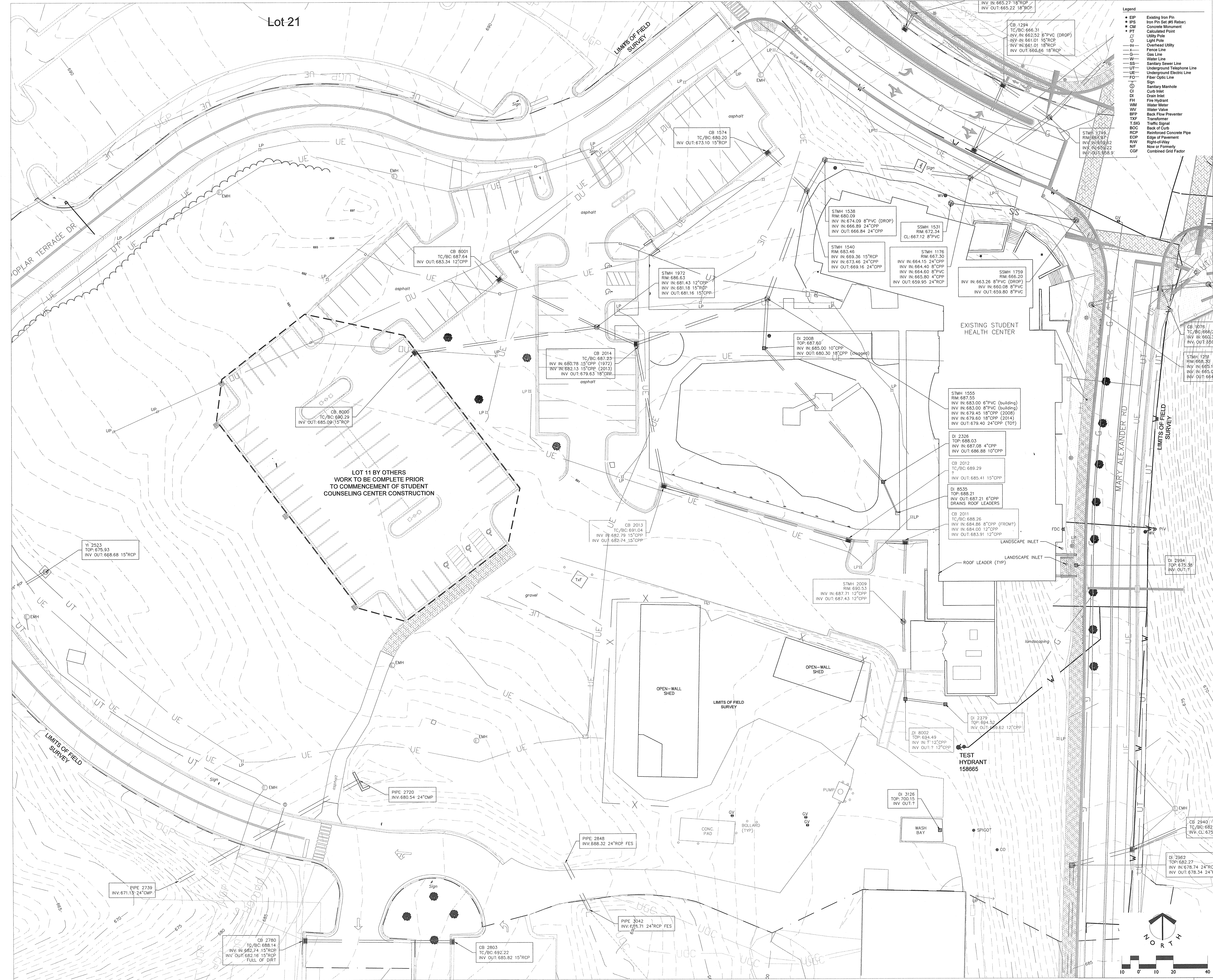


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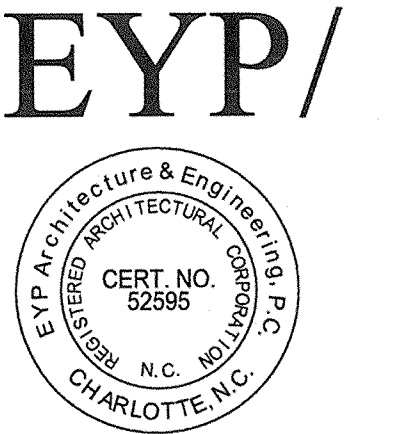


Lot 21



- Legend**
- EIP Existing Iron Pin
  - IPS Iron Pin (at 95 Barbs)
  - CM Concrete Monument
  - PT Calculated Point
  - Utility Pole
  - Light Pole
  - Overhead Utility
  - Fence Line
  - Gas Line
  - Water Line
  - Sanitary Sewer Line
  - Underground Telephone Line
  - Underground Electric Line
  - Fiber Optic Line
  - Sign
  - Sanitary Manhole
  - Catch Inlet
  - Drain Inlet
  - Fire Hydrant
  - Water Meter
  - Back Flow Preventer
  - Transformer
  - Traffic Signal
  - Back of Curb
  - RCP Reinforced Concrete Pipe
  - Edge of Pavement
  - Right-of-Way
  - Near or Formerly
  - CGF Combined Grid Factor

EYP Architecture & Engineering  
 2108 South Boulevard, Suite 205  
 Charlotte, NC 28203  
 Telephone 704 692 0074  
 eyp.com



**CONSULTANTS:**  
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 NC LICENSE NUMBER: C-6559  
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 704-333-9325

LOT 11 BY OTHERS  
 WORK TO BE COMPLETE PRIOR  
 TO COMMENCEMENT OF STUDENT  
 COUNSELING CENTER CONSTRUCTION

EXISTING STUDENT  
 HEALTH CENTER

OPEN-WALL  
 SHED

OPEN-WALL  
 SHED

TEST  
 HYDRANT  
 158665

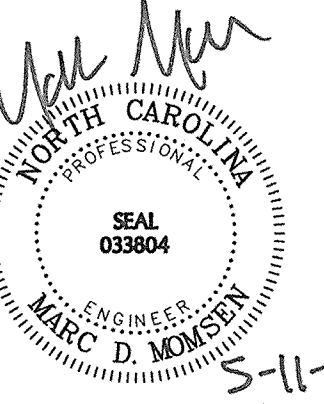
KEY PLAN: NORTH

#	Revision	Date
	ISSUED FOR BIDDING	5-16-2016

**UNC CHARLOTTE**  
**Student Counseling Center**  
 Poplar Terrace Dr.  
 SCO# 14-11381-02A

**Construction Documents**

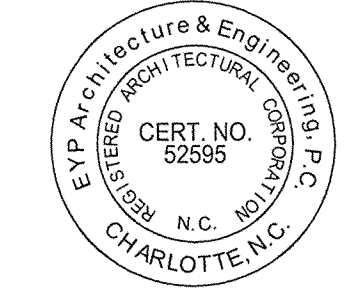
DATE: 16 MAY 2016  
 SCALE: 1015008.01  
 CLIENT PROJECT NO.:  
 DESIGN BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM



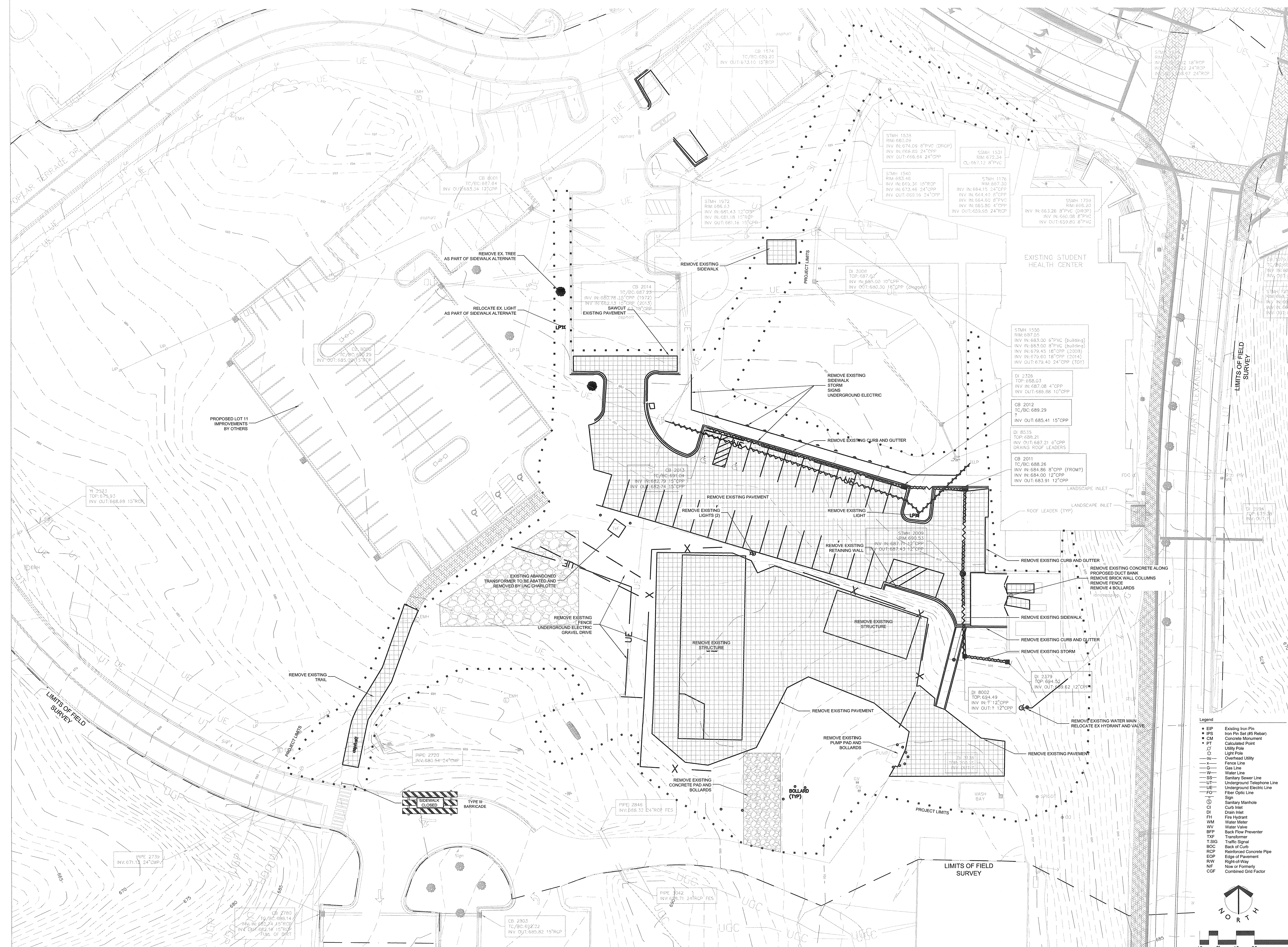
EXISTING CONDITIONS  
 1.0" = 20'

EXISTING CONDITIONS  
**C-100**





CONSULTANTS:  
 LANDDESIGN  
 NC LICENSE NUMBER: C-0688  
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 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-0325



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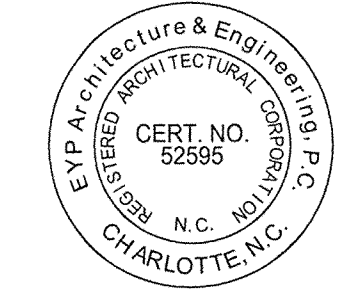
**Construction Documents**

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DRAWN BY:	MDM
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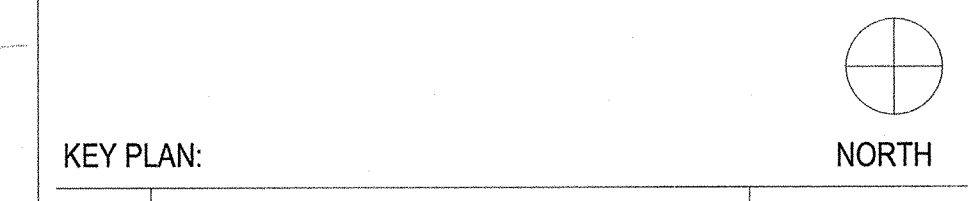
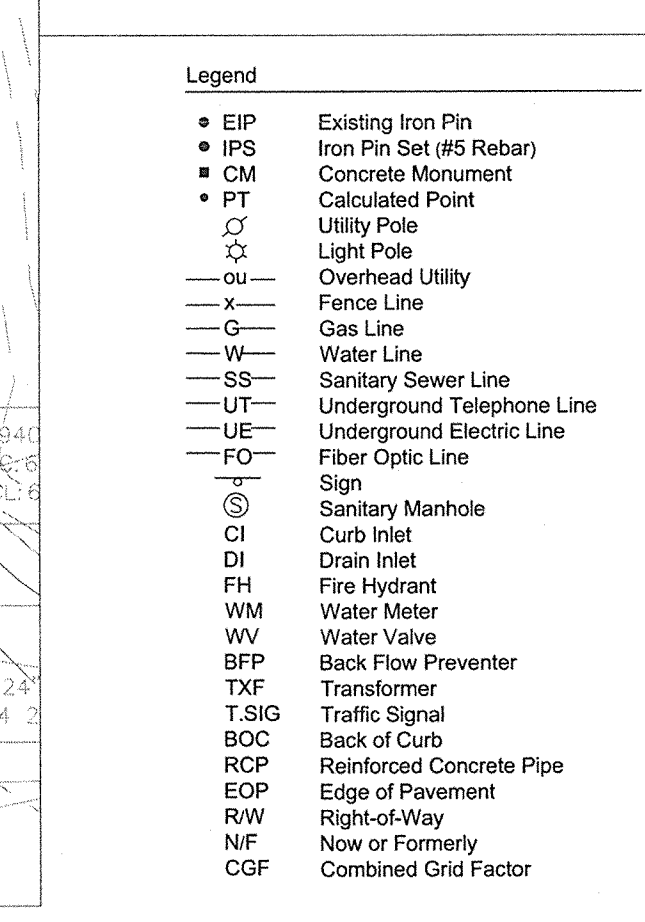
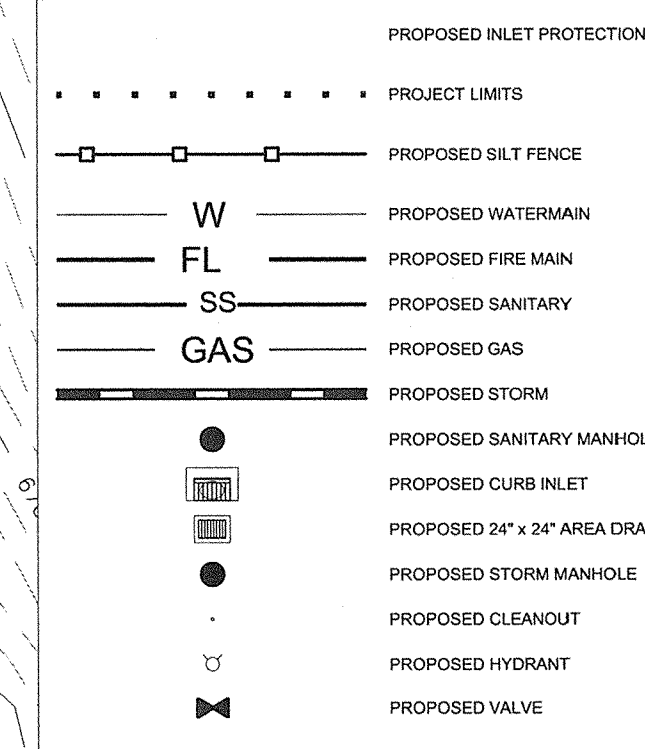
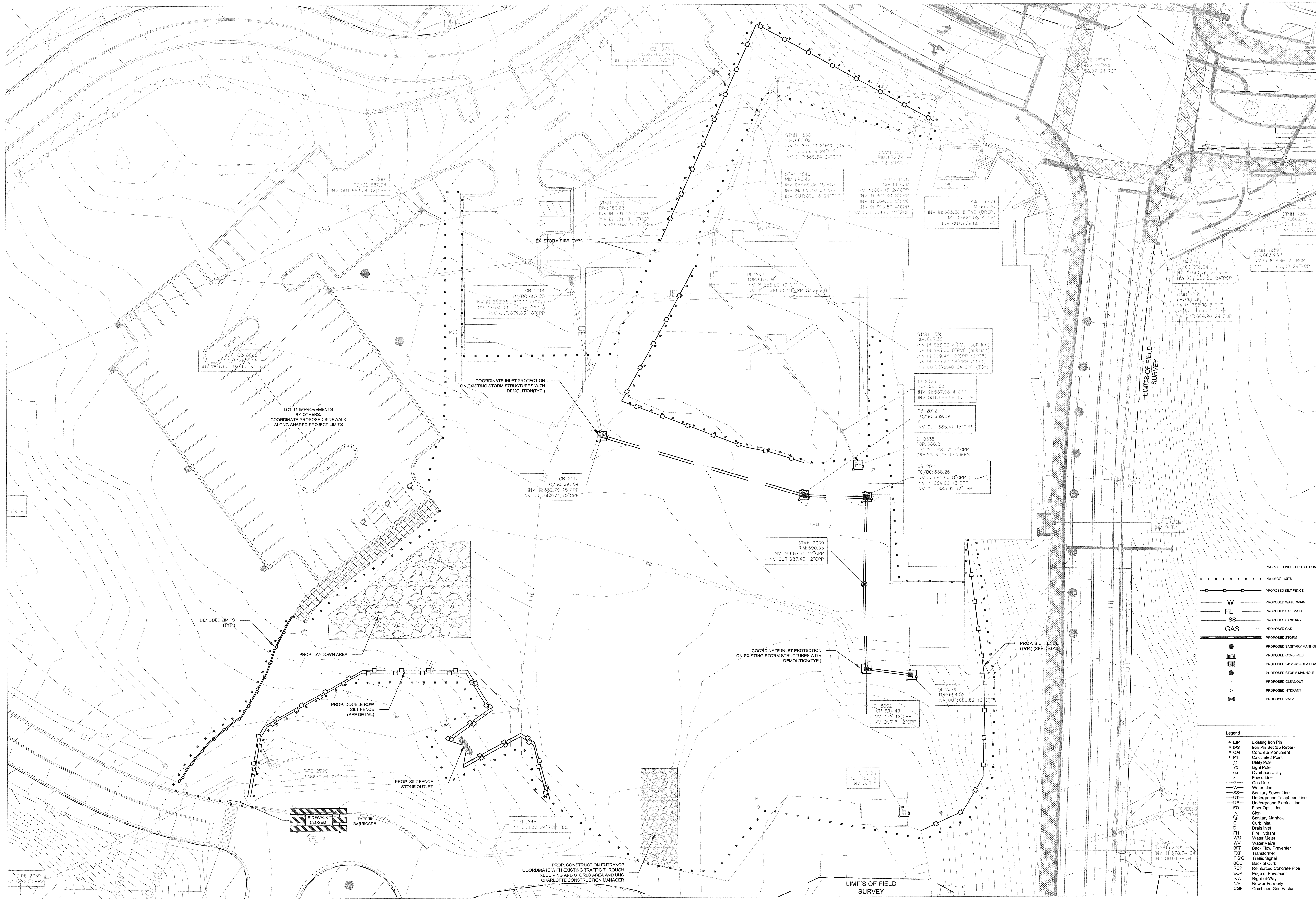


DEMOLITION PLAN 1  
 1.0" = 20'





CONSULTANTS:  
 LANDDESIGN  
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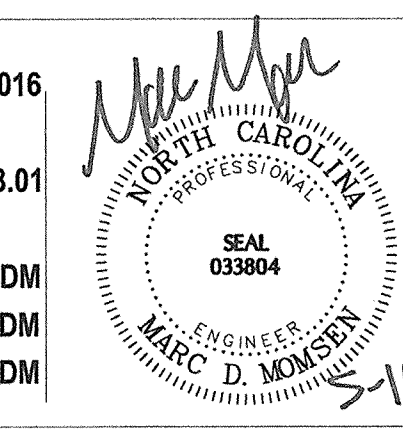


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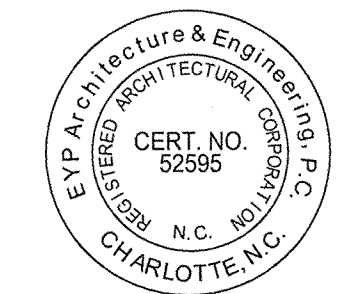
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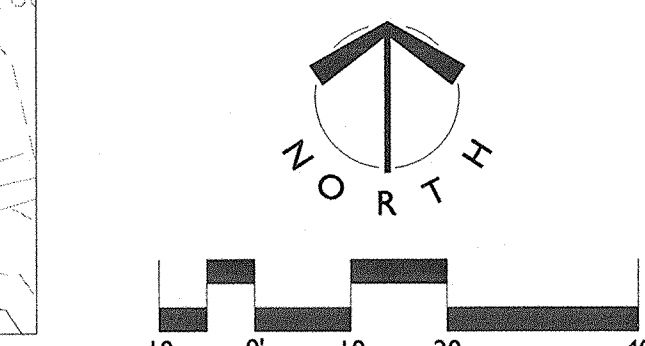
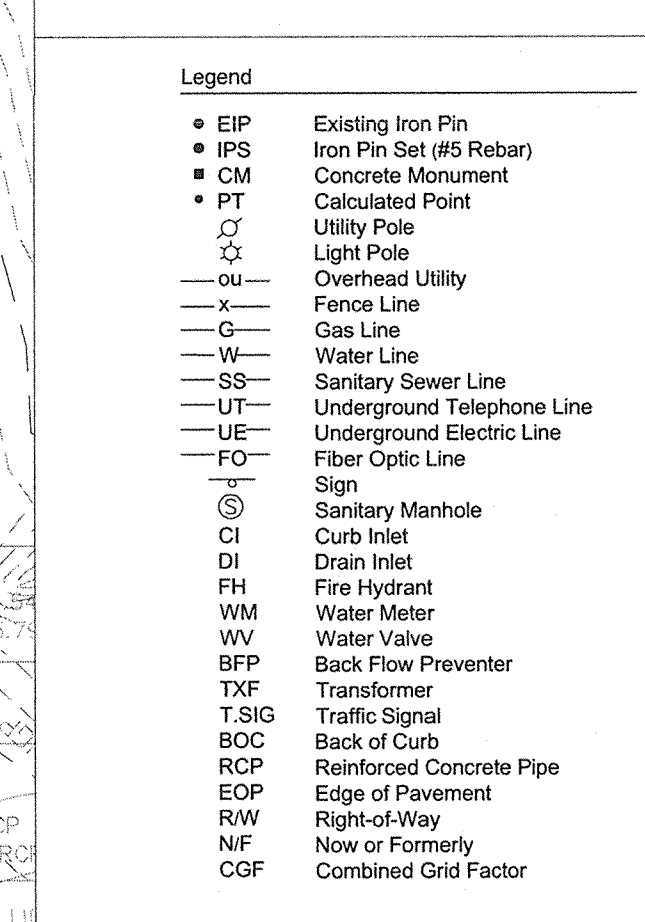
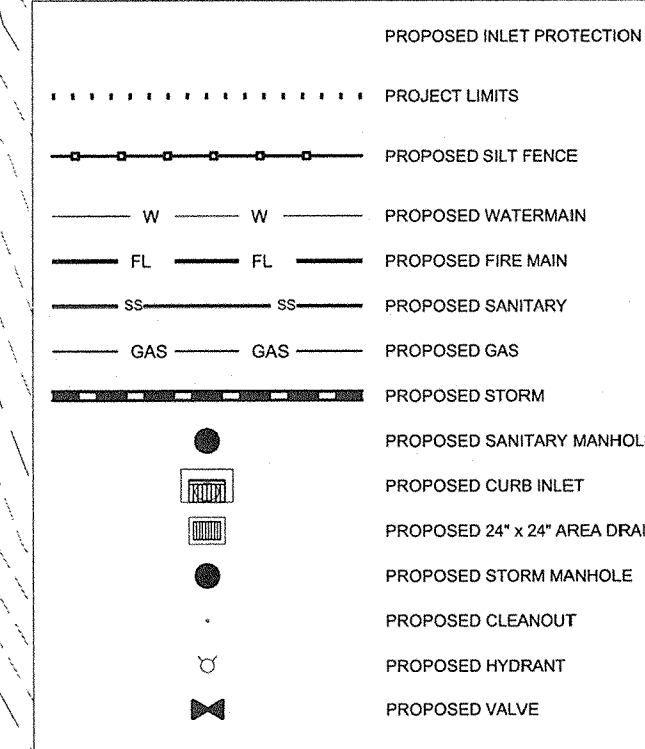
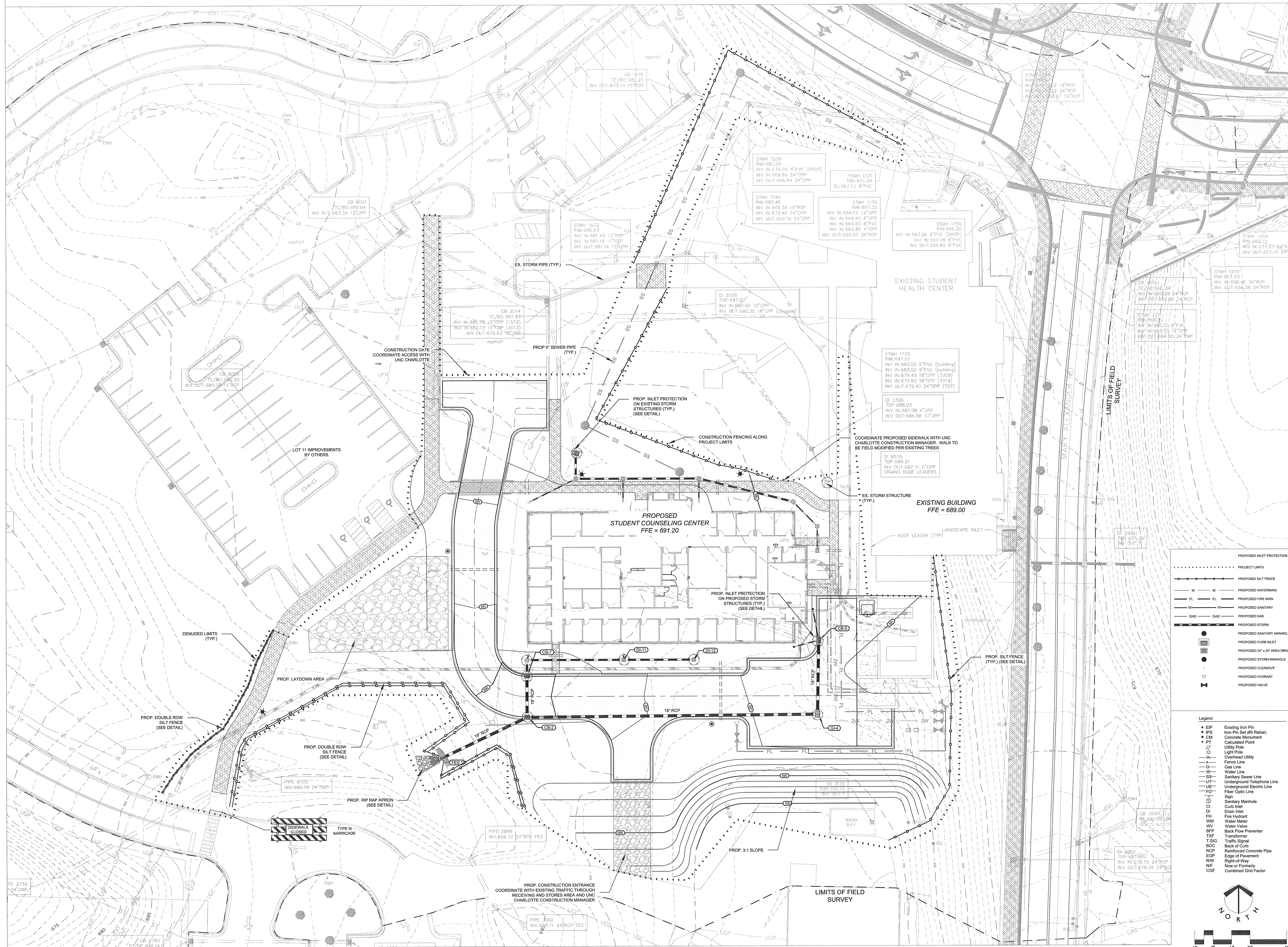






CONSULTANTS:

LAND DESIGN  
 NC LICENSE NUMBER: C-6803  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
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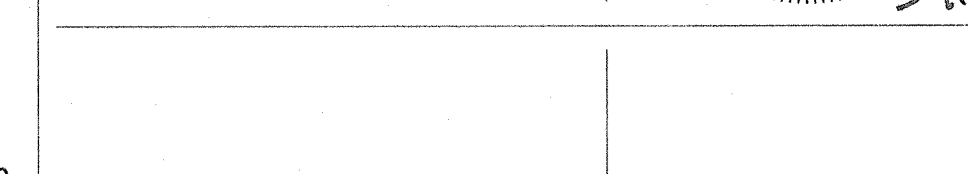


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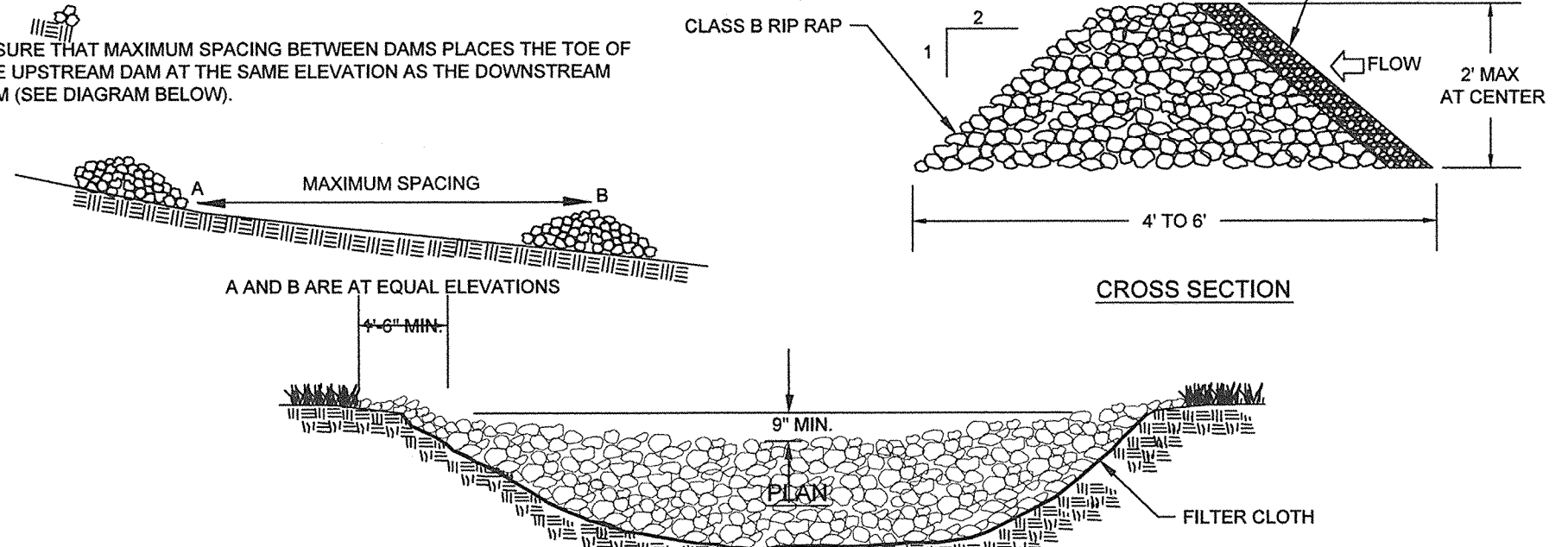
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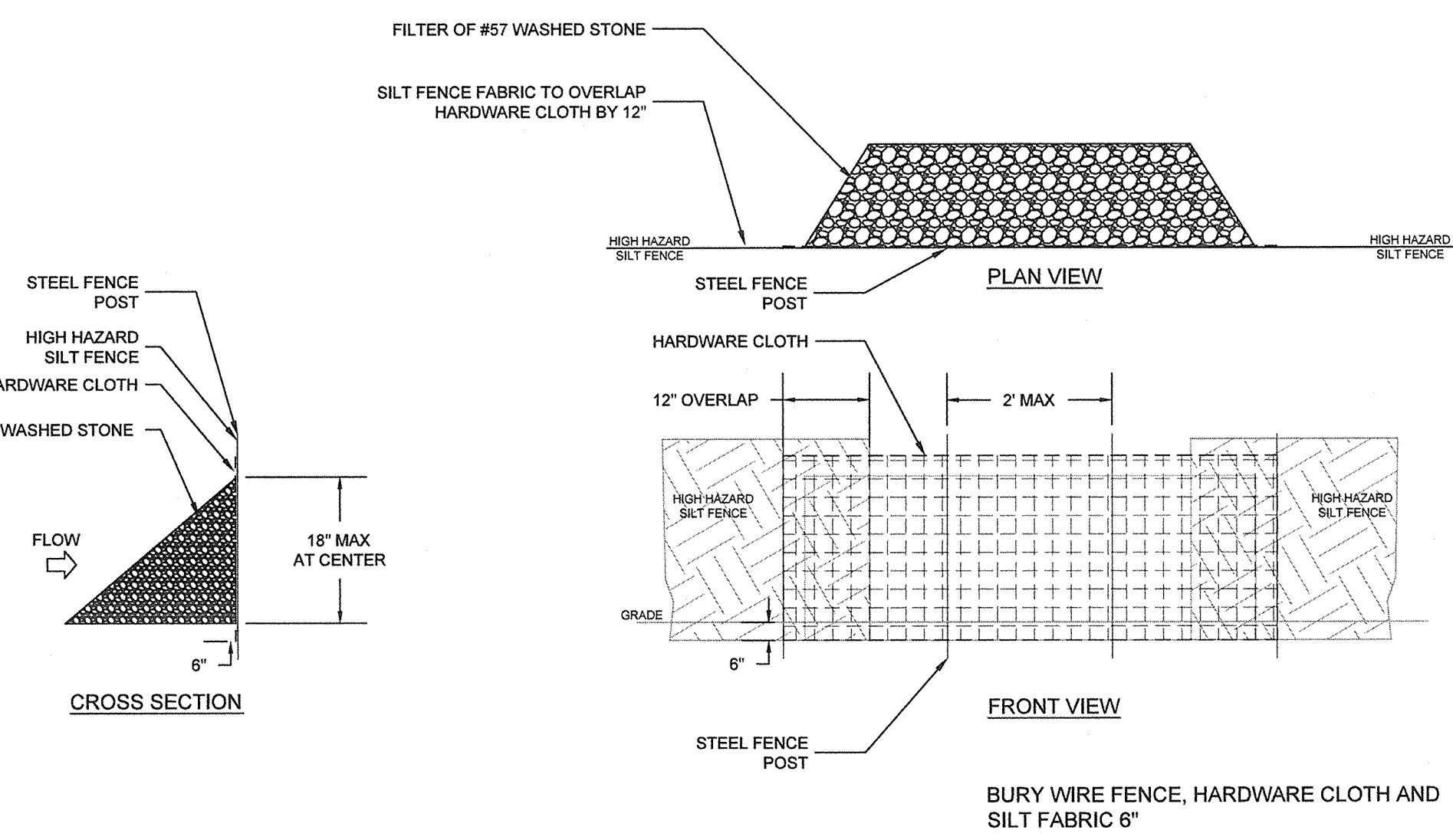


**GENERAL NOTES:**

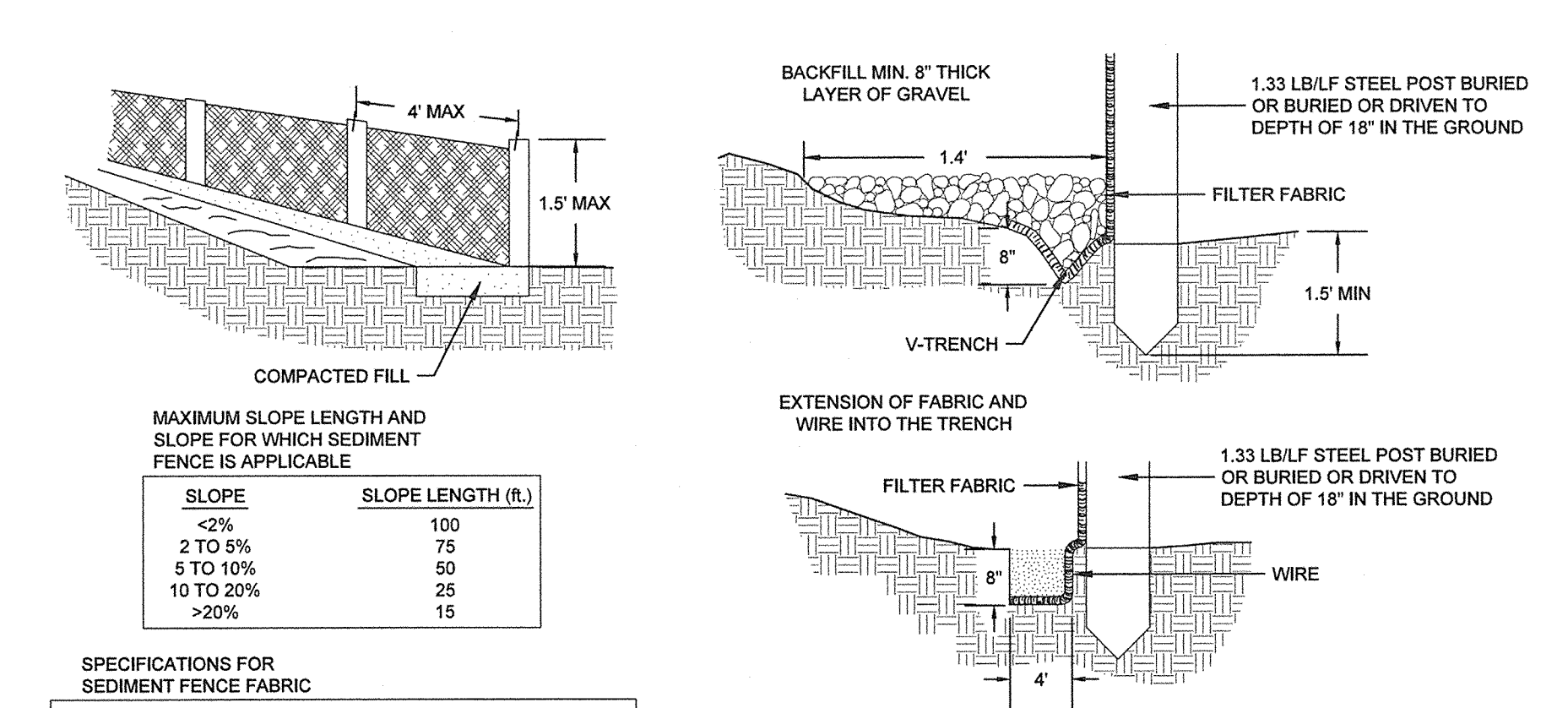
1. RIPRAP SIZE TO BE DESIGNED BY ENGINEER.
2. CHECK DAMS MAY BE USED IN SLOPING DITCHES OR CHANNELS TO SLOW VELOCITY OR TO CREATE SEDIMENT TRAPS.



**1 TEMPORARY ROCK CHECK DAM**  
C-310 CMLDS #30.01 NOT TO SCALE



**2 SILT FENCE STONE OUTLET**  
C-310 NOT TO SCALE



**3 SILT FENCE**  
C-310 NOT TO SCALE

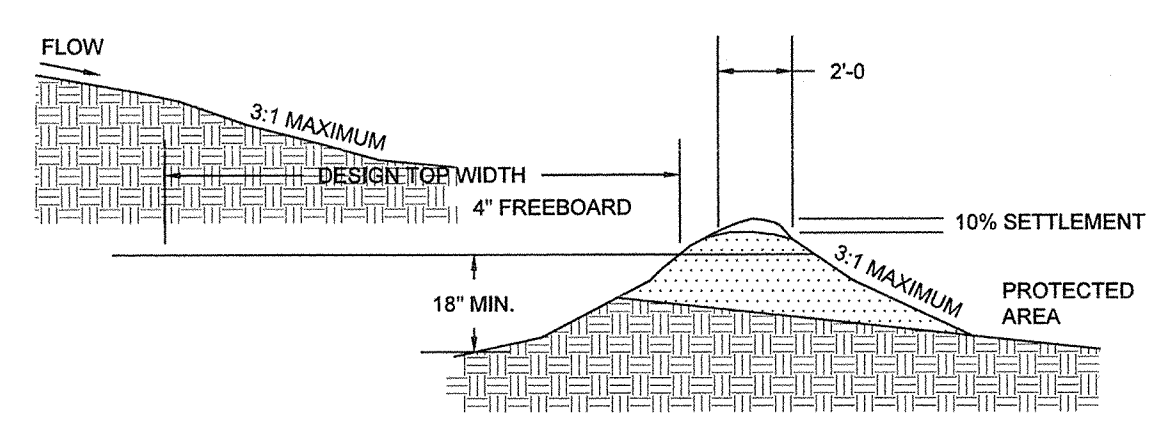
MAXIMUM SLOPE LENGTH AND SLOPE FOR WHICH SEDIMENT FENCE IS APPLICABLE

SLOPE	SLOPE LENGTH (ft.)
2 TO 5%	100
5 TO 10%	75
10 TO 20%	50
>20%	25

SPECIFICATIONS FOR SEDIMENT FENCE FABRIC

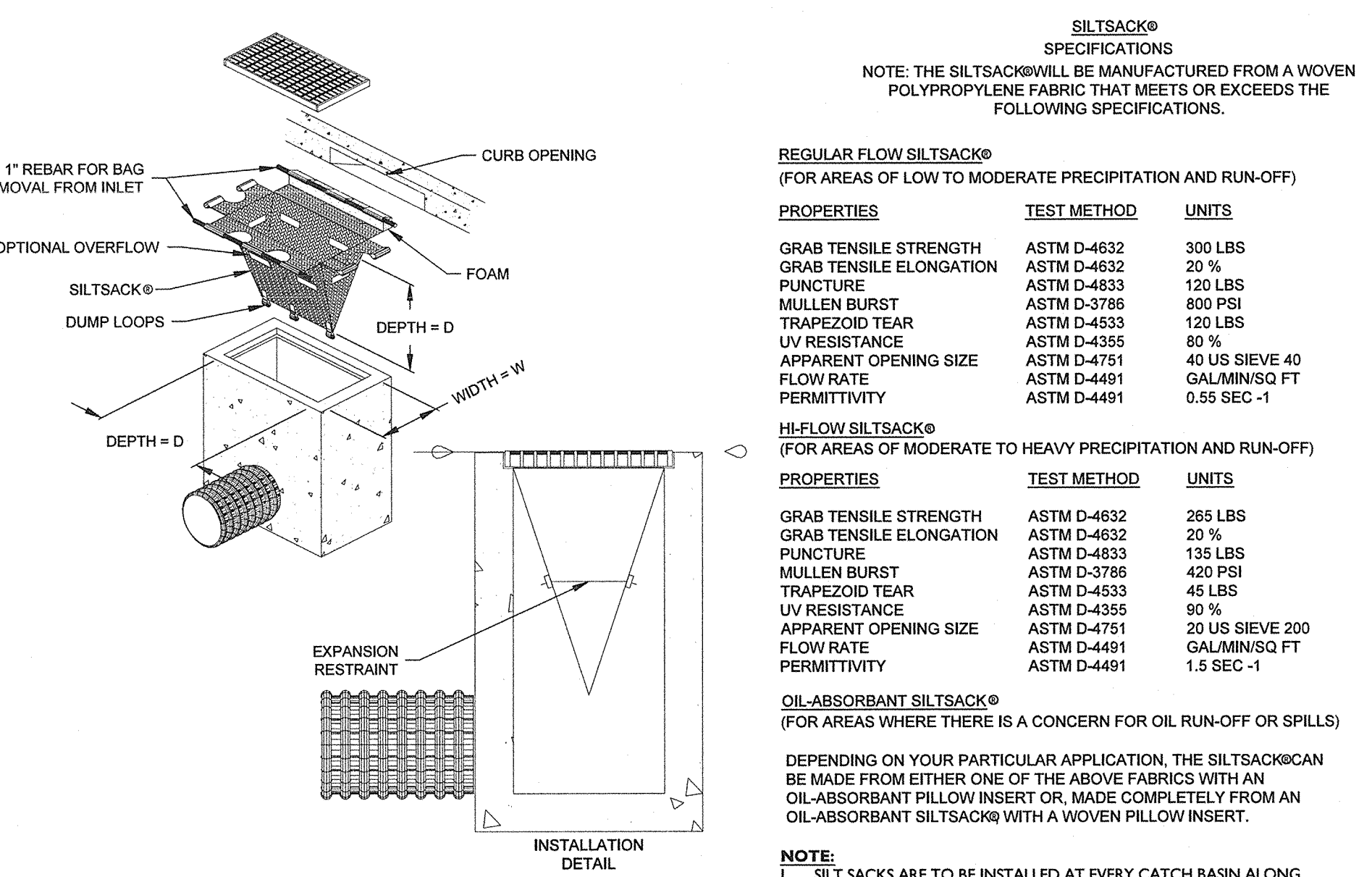
PHYSICAL PROPERTY	REQUIREMENTS
FILTERING EFFICIENCY	85% (MIN.)
TENSILE STRENGTH AT 20% (MAX.) ELONGATION	STANDARD STRENGTH- 30 LB./LIN. INCH (MIN.) EXTRA STRENGTH- 90 LB./LIN. IN. (MIN.)
SLURRY FLOW RATE	0.3 GAL/SQ. FT./MIN. (MIN.)

- GENERAL NOTES:**
1. DRAINAGE AREA SHALL BE LESS THAN 1/4 ACRE PER 100 FEET OF FENCE.
  2. DEPTH OF WATER BEHIND FENCE SHALL NOT EXCEED 1.5 FEET.
  3. FOR REINFORCEMENT OF FABRIC, USE 1/4 GAUGE MESH WITH 6\"/>



- NOTES:**
1. BUILD RIDGE HIGHER THAN DESIGN AND COMPACT WITH WHEELS OF CONSTRUCTION EQUIPMENT. COMPACTED RIDGE MUST AT OR ABOVE DESIGN GRADE AT ALL POINTS. CHANNEL MUST BE CONSTRUCTED ON DESIGN GRADE. LEAVE SUFFICIENT AREA ALONG DIVERSION TO PERMIT CLEANOUT AND REGRADING.
  2. TOP WIDTH WILL BE COORDINATED IN THE FIELD BASED ON SITE CONDITIONS.

**4 TEMPORARY DIVERSION DITCH**  
C-310 NOT TO SCALE



**5 SILTSACK DETAIL**  
C-310 NOT TO SCALE

**SILTSACK SPECIFICATIONS**  
NOTE: THE SILTSACKS WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

**REGULAR FLOW SILTSACKS**  
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-3786	120 LBS
MULLEN BURST	ASTM D-3786	400 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE #4
FLOW RATE	ASTM D-4491	GAL/MIN/SQ. FT.
PERMITTIVITY	ASTM D-4491	5.55 SEC.-1

**HFLOW SILTSACKS**  
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	285 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4633	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE #20
FLOW RATE	ASTM D-4491	GAL/MIN/SQ. FT.
PERMITTIVITY	ASTM D-4491	1.55 SEC.-1

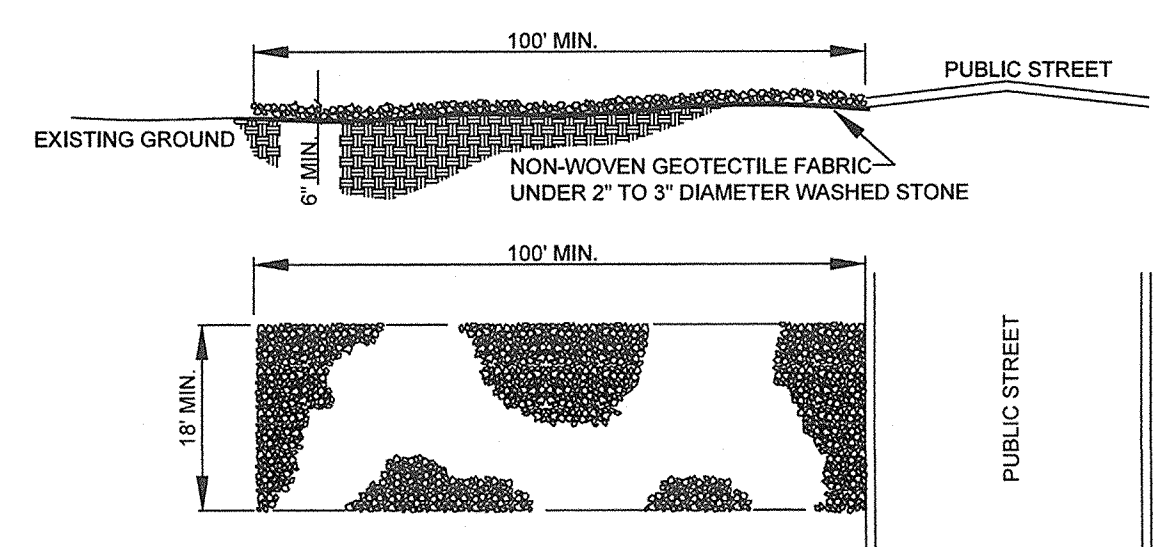
**OIL-ABSORBANT SILTSACKS**  
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL-ABSORBANT FILLW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACKS WITH A WOVEN FILLW INSERT.

**NOTE:**

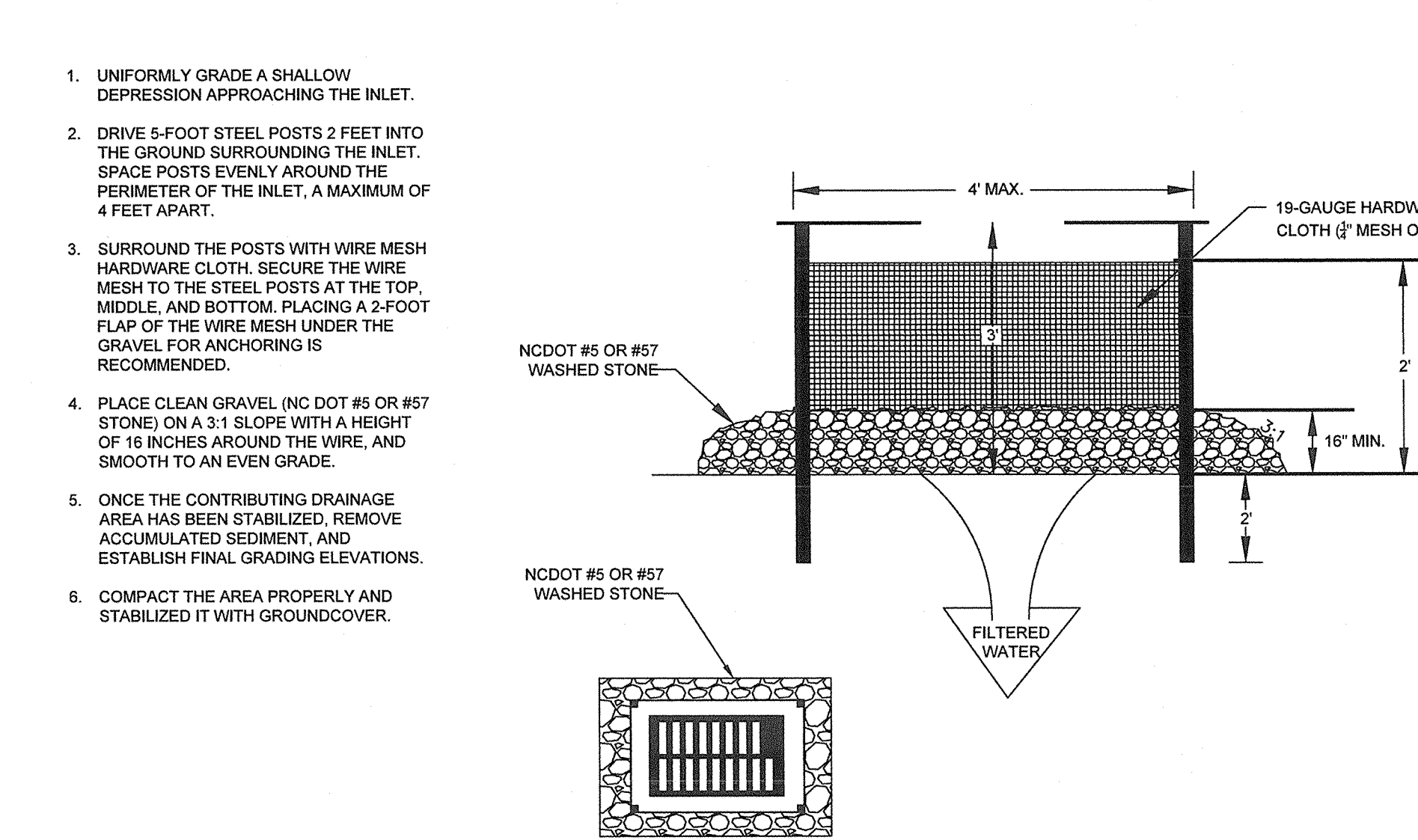
1. SILTSACKS ARE TO BE INSTALLED AT EVERY CATCH BASIN ALONG THE PROJECT ROUTE. CLEANED OUT AFTER EVERY RAINFALL AND MAINTAINED BY THE CONTRACTOR DURING THE PROJECT.

**6 HIGH HAZARD SILT FENCE**  
C-310 NOT TO SCALE



- NOTES:**
1. A STABILIZED ENTRANCE PAD OF 2\"/>

**7 STABILIZED CONSTRUCTION ENTRANCE**  
C-310 NOT TO SCALE



**8 HARDWARE CLOTH AND GRAVEL INLET PROTECTION**  
C-310 NOT TO SCALE

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 4-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE AND BOTTOM. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NO DOT #5 OR #57 STONE) ON A 3:1 SLOPE WITH A HEIGHT OF 18 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

**SEEDING PREPARATION NOTES:**

1. REFER TO SPECIFICATION 22 02 26 FOR PERMANENT SEEDING

**TEMPORARY SEEDING SPECIFICATIONS:**

DATE	TYPE
JAN. 1 - MAY 1	FIRE GRASS
FEB. 15 - MAR. 21	ANNUAL LESPEDEZA OR COZE
MAY 1 - AUG. 15	ORFAN MILLET
AUG. 15 - DEC. 30	RYE GRASS

MULCH SHALL BE SPREAD UNIFORMLY AT THE RATE OF 4000 LB/ACRE STRAW. MATERIALS FOR SEEDING MUST BE:

1. MATING: PLAN OPEN WEAVE JUTE ROLLS, 18 INCHES WIDE. JUTE YARN SHALL BE LOOSELY TWISTED CONSTRUCTION NOT VARYING MORE THAN 1/4\"/>

**GRADED SLOPES AND FILLS:** THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED SHOULD BE RECONSTRUCTED WITHIN WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

**GROUND COVER:** WHENEVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE ACRE, IF MORE THAN ONE CONTIGUOUS ACRE IS UNCOVERED A GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE PLANTED OR OTHERWISE PROVIDED WITHIN WORKING DAYS ON THAT PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN, PROVIDED THAT THIS SHALL NOT APPLY TO CLEARED LAND FORMING THE BASIS OF A RESUBDIVISION.

**EROSION CONTROL NOTES:**

1. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION SHOWN ON THIS PLAN IS SUBJECT TO A PERM.
2. GRADING 1 ACRE OR MORE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION AND SUBJECT TO A FINE.
3. ALL SLOPES MUST BE SEEDED AND MULCHED WITHIN 14 DAYS.
4. SLOPES SHALL BE GRADED NO STEEPER THAN CAPABLE OF HANDLING ERODSIVE VELOCITIES. FILL SLOPES GREATER THAN 10\"/>

**EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.**

10. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES AS INDICATED PRIOR TO GRADING OPERATIONS. NO DEVICE MAY BE REMOVED WITHOUT APPROVAL OF EROSION CONTROL COORDINATOR.
11. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY WITH EXISTING CONTOURS.
12. ALL DISTANCES ARE HORIZONTAL GROUND.
13. TOTAL SEEDINGS ARE 50 LBS/AC.
14. ANCHOR SILT FENCE WITH STONE ON TREE PROTECTION ZONES. **DO NOT BURIE**.
15. INLET PROTECTION SHALL BE INSTALLED PRIOR TO ANY GRADING OPERATIONS.
16. INLET PROTECTION IS REQUIRED FOR ALL PHASES OF THE PROJECT AND UNTIL THE DISTURBED AREA IS FULLY STABILIZED.
17. SEDIMENT TRAPS AND BANK SLOPES SHALL BE STABILIZED AND SEEDED IMMEDIATELY AFTER CONSTRUCTION.
18. CONTRACTOR TO REPLACE ALL STAKES AND STOCKPILE AREAS TO PRE CONSTRUCTION CONDITIONS. PROVIDE PHOTO DOCUMENTATION OF PRE-CONSTRUCTION CONDITIONS AT THESE AREAS.
19. ALL GRADE DELINEATED WETLANDS AND STREAMS SHALL REMAIN UNDISTURBED DURING CONSTRUCTION.
20. MAINTENANCE OF ALL EROSION CONTROL DEVICES SHALL BE UNDER THE PURVIEW OF THE CONSTRUCTION MANAGER.
  - A. COORDINATE REVISIONS TO THE EROSION CONTROL PLAN WITH NCEINR AS CONSTRUCTION PROGRESSES. EROSION CONTROL PHASES AS SHOWN ON THE PLANS MAY VARY FROM ACTUAL CONSTRUCTION PHASING.
21. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL ON LARGE DENuded AREAS. ALL SLOPES MUST BE SEEDED WITHIN 14 DAYS. REFER TO EROSION CONTROL ORDINANCE FOR ADDITIONAL REQUIREMENTS.
22. NO DEVICE SHALL BE REMOVED UNTIL SITE IS STABILIZED.
23. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL AND THE U.S. DEPT. OF AGRICULTURE.
24. CONTRACTOR TO COORDINATE CONSTRUCTION FENCING LOCATION WITH UNC CHARLOTTE PRIOR TO CONSTRUCTION.

**9 EROSION CONTROL NOTES**  
C-310 NOT TO SCALE

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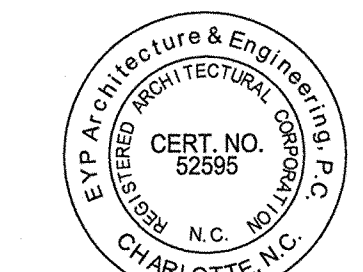
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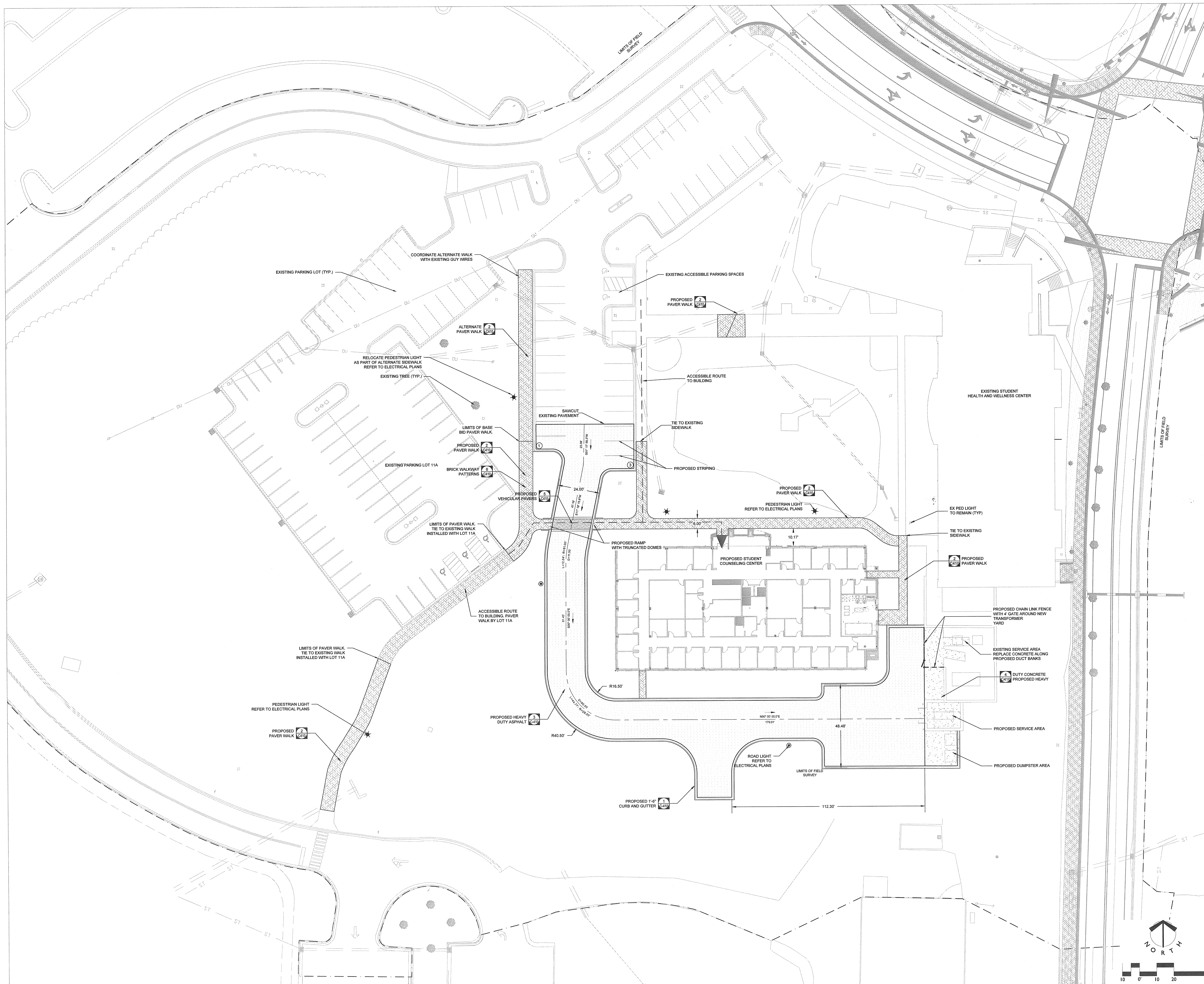
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EROSION CONTROL DETAILS 1





CONSULTANTS:  
 LAND DESIGN  
 NC LICENSE NUMBER: C-0658  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 225 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-0325



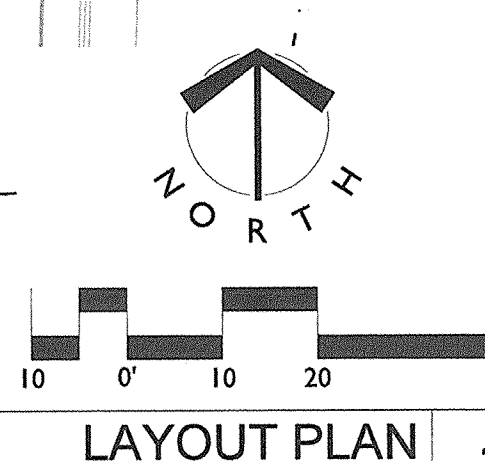
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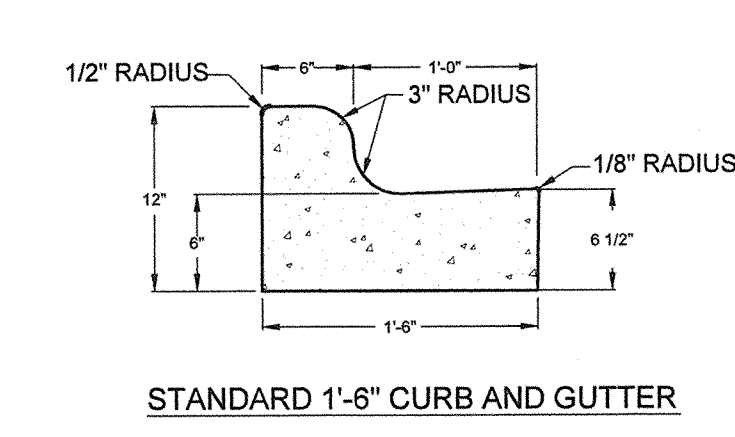
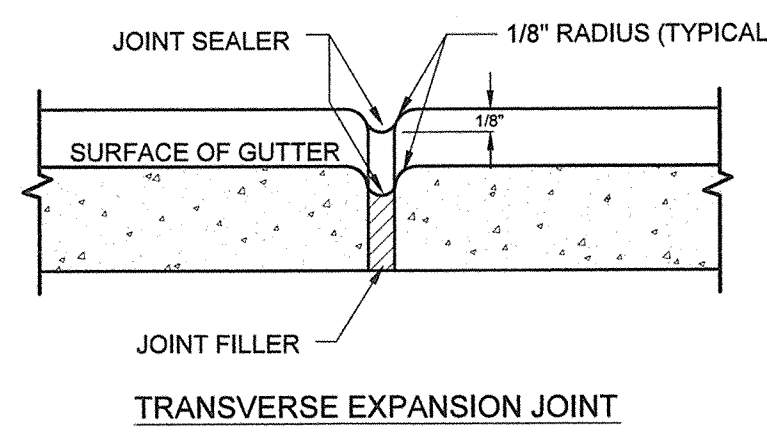
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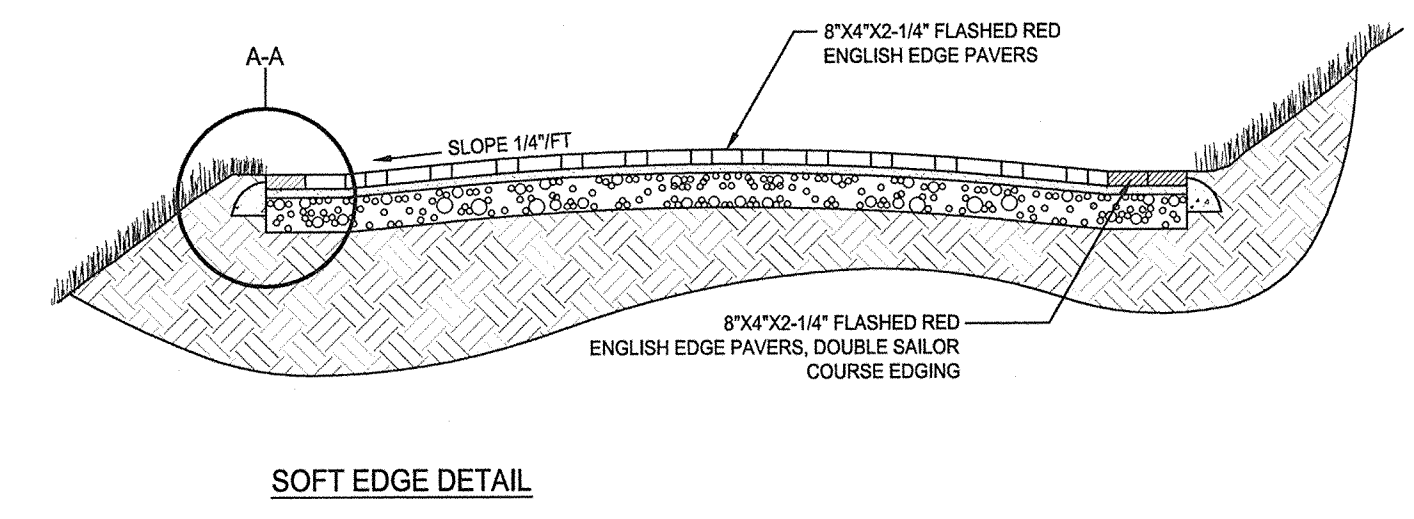
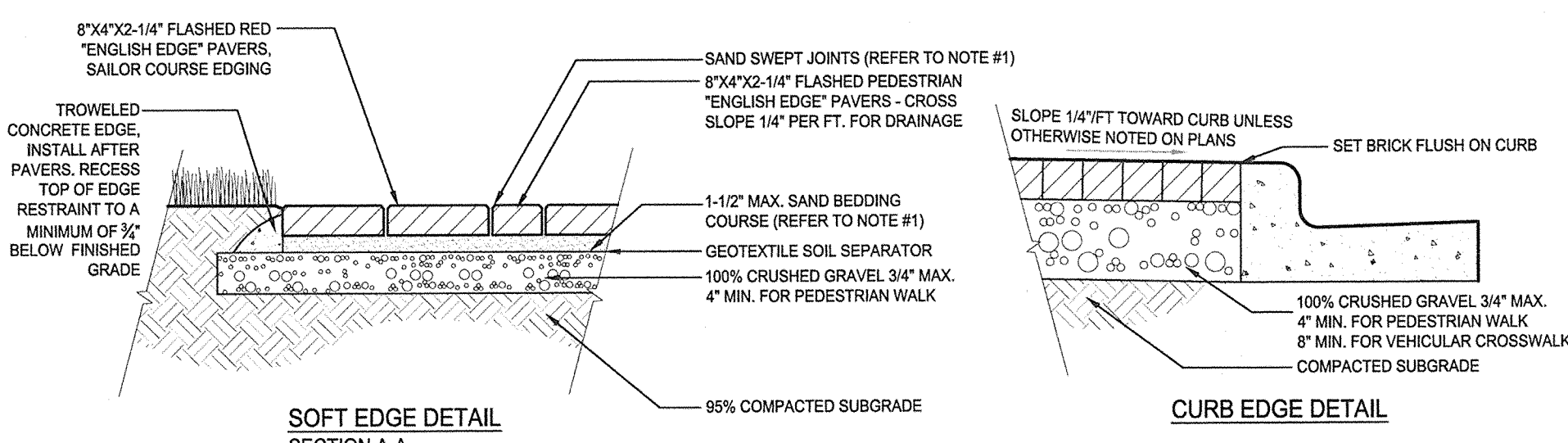






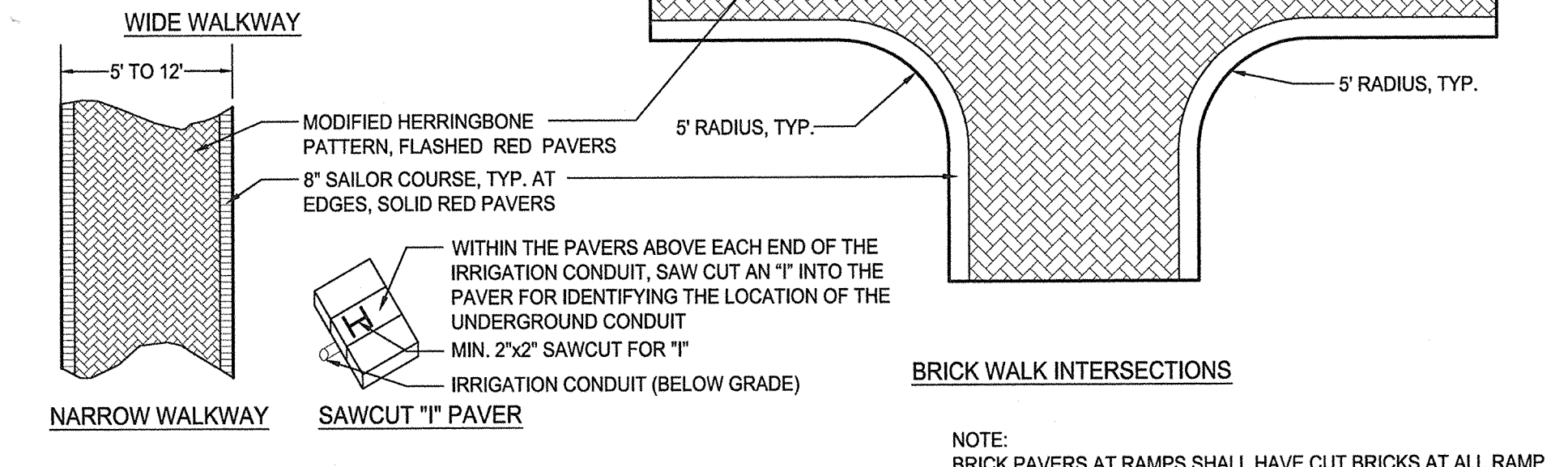
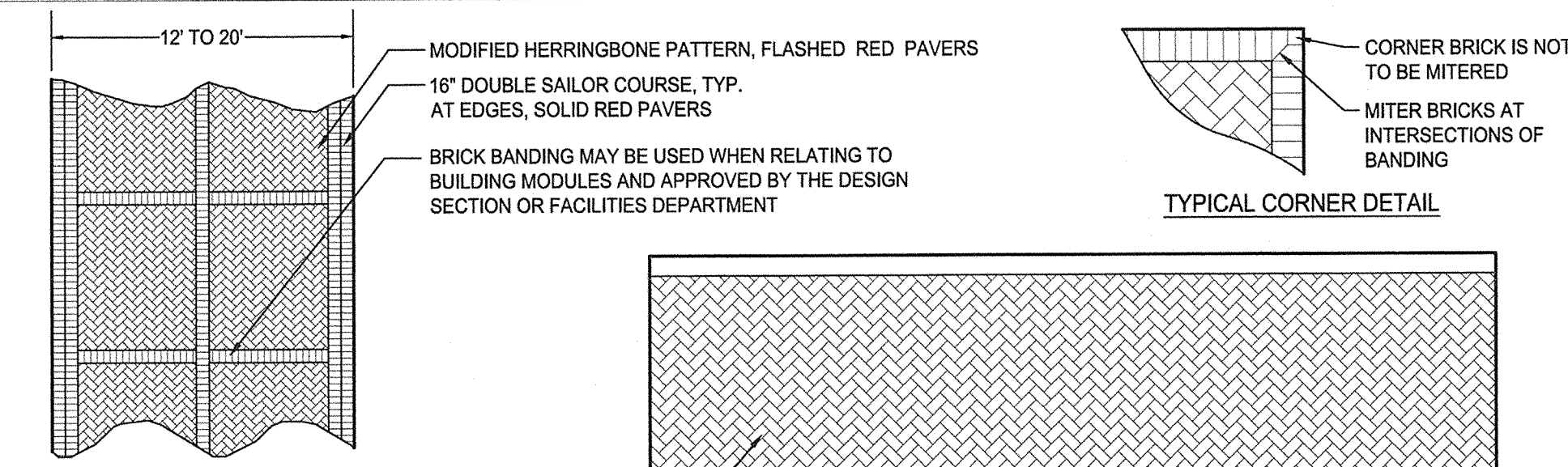
- NOTES:**
- CONTRACTION JOINTS SHALL BE SPACED AT 10-FOOT INTERVALS. FOR VALLEY GUTTER, A 10-FOOT SPACING MAY BE USED WHEN A MACHINE IS USED. JOINT SPACING MAY BE ALTERED BY THE ENGINEER TO PREVENT UNCONTROLLED CRACKING.
  - CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/2" SHALL BE OBTAINED.
  - ALL EXPANSION JOINTS SHALL BE SPACED AT 90-FOOT INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS. JOINTS SHALL MATCH LOCATIONS WITH JOINTS IN ABUTTING SIDEWALK.
  - CONCRETE COMPRESSIVE STRENGTH SHALL BE 3500 P.S.I. IN 28 DAYS.
  - CURB SHALL BE DEPRESSED AT INTERSECTIONS TO PROVIDE FOR FUTURE ACCESSIBLE RAMPS.
  - TOP 6" OF SUBGRADE BENEATH THE CURB AND GUTTER SHALL BE COMPACTED TO 100% STANDARD PROCTOR DENSITY.
  - WITHIN THE CURB LINE ABOVE EACH END OF THE IRRIGATION CONDUIT, SAW CUT AN "I" INTO THE PAVER FOR IDENTIFYING THE LOCATION OF THE UNDERGROUND CONDUIT. MINIMUM SIZE OF SAWCUT "I" SHALL BE 2"x2".

**1 1'-6" CURB AND GUTTER**  
SECTION  
NOT TO SCALE

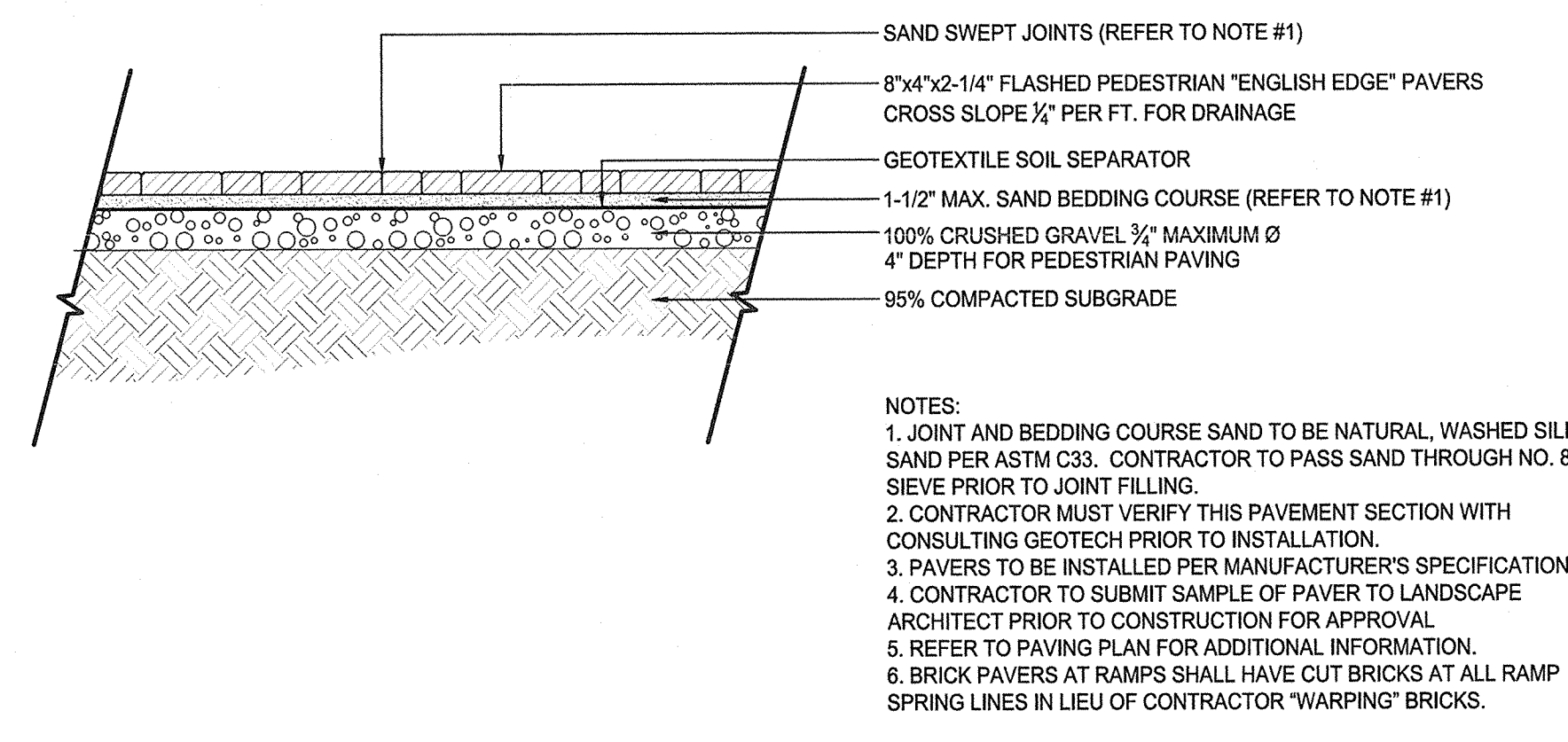


- NOTES:**
- JOINT AND BEDDING COURSE SAND TO BE NATURAL, WASHED SILICA SAND PER ASTM C33. CONTRACTOR TO PASS SAND THROUGH NO. 8 SIEVE PRIOR TO JOINT FILLING.
  - CONTRACTOR MUST VERIFY THIS PAVEMENT SECTION WITH CONSULTING GEOTECH PRIOR TO INSTALLATION.
  - PAVERS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
  - CONTRACTOR TO SUBMIT SAMPLE OF PAVER TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION FOR APPROVAL.
  - REFER TO PAVING PLAN FOR ADDITIONAL INFORMATION.
  - BRICK PAVERS AT RAMPS SHALL HAVE CUT BRICKS AT ALL RAMP SPRING LINES IN LIEU OF CONTRACTOR "WARPING" BRICKS.

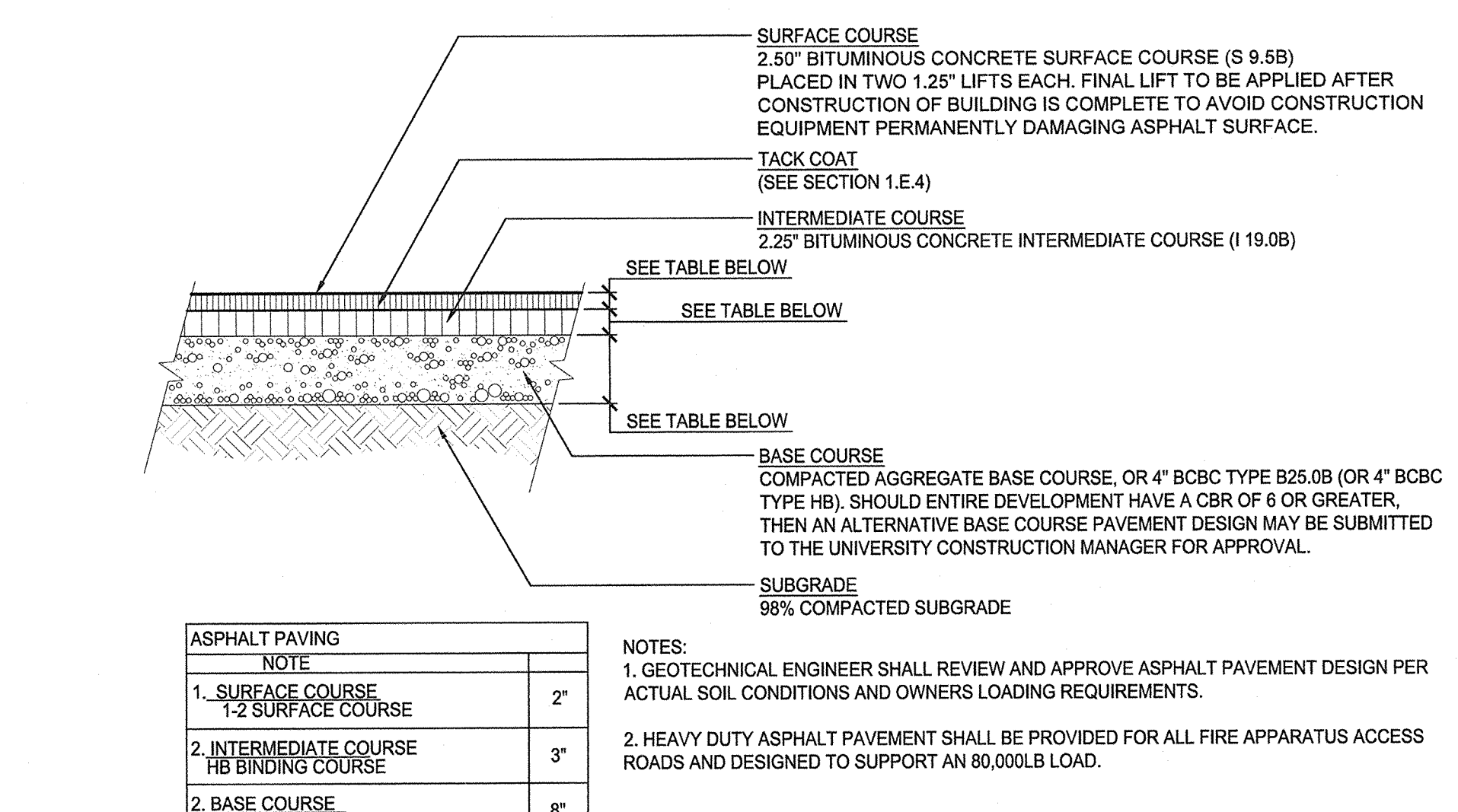
**2A BRICK PAVER**  
SECTION  
NOT TO SCALE



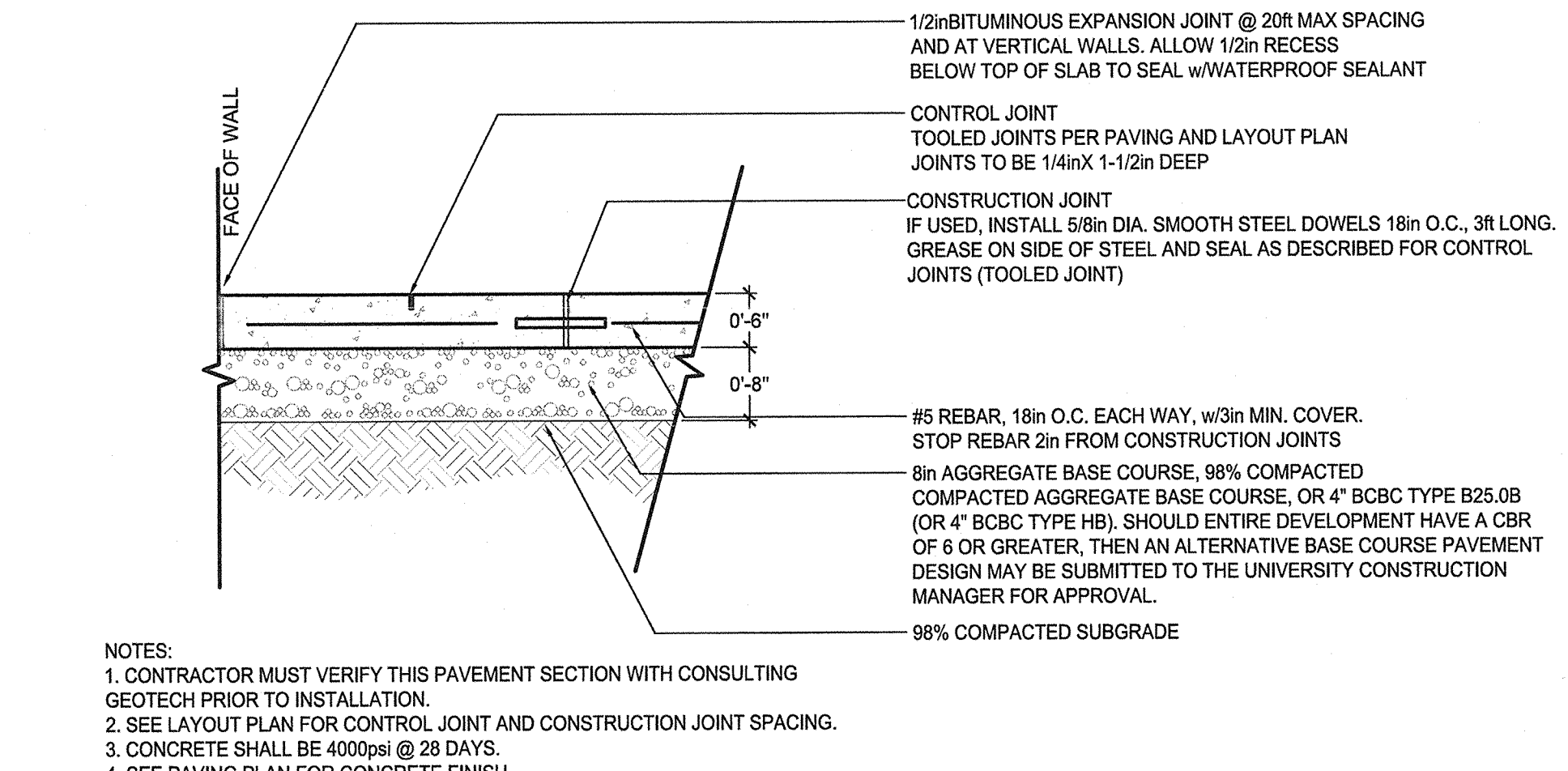
**2B BRICK WALKWAY PATTERNS**  
PLAN  
NOT TO SCALE



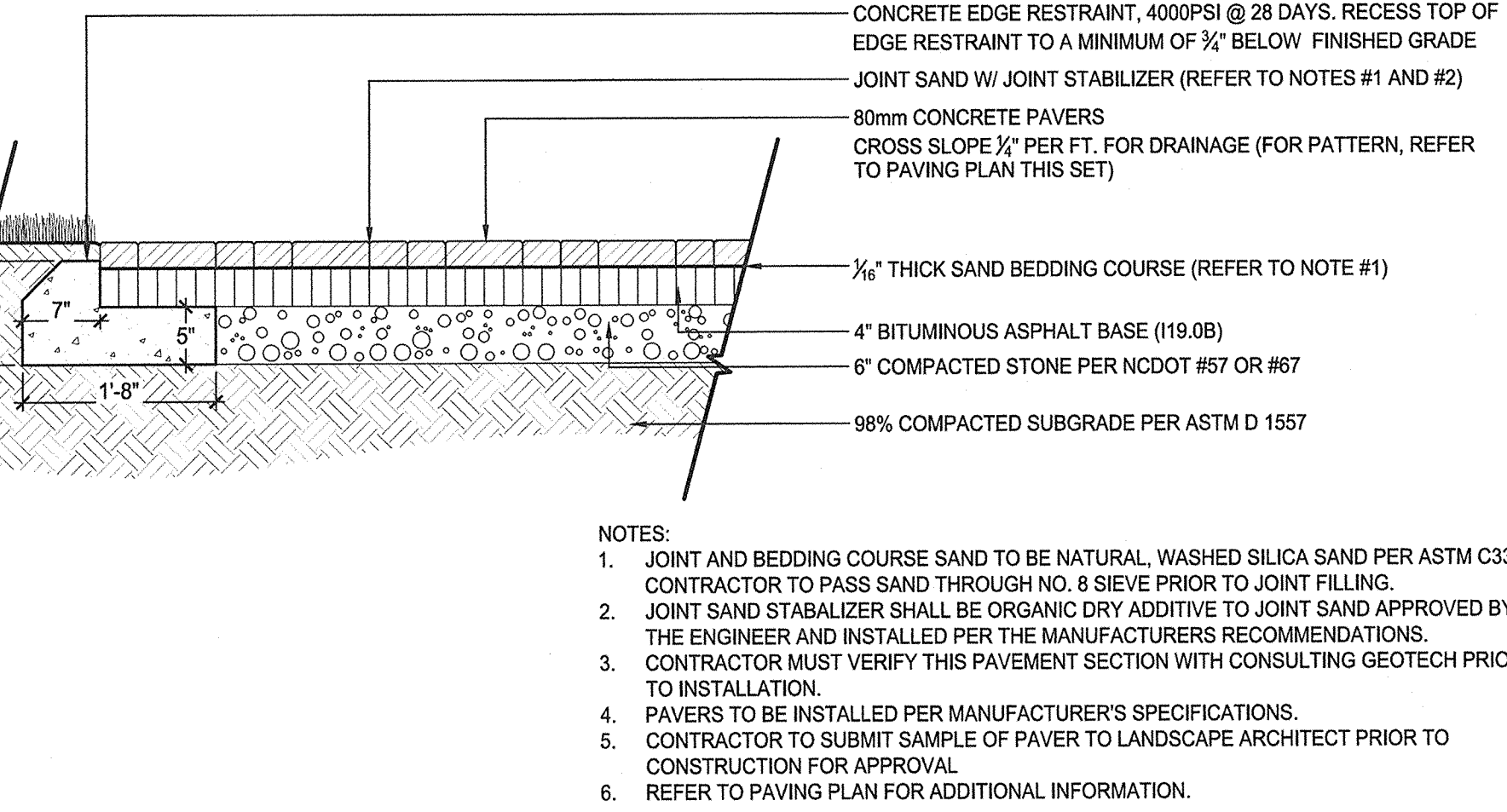
**2C BRICK PAVER (PEDESTRIAN LOAD)**  
SECTION  
NOT TO SCALE



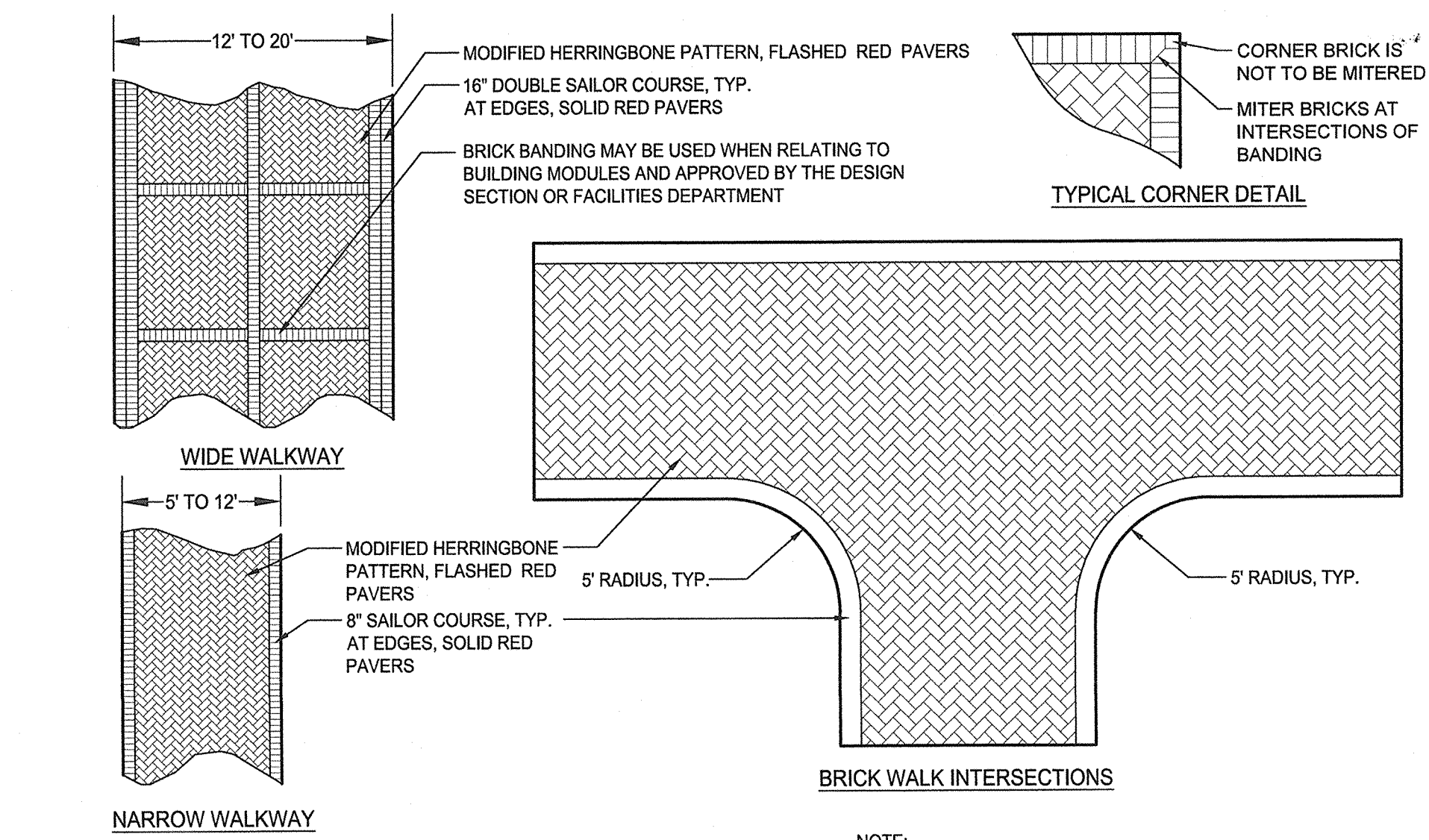
**3 HEAVY DUTY ASPHALT PAVEMENT**  
SECTION  
SCALE: 3/4" = 1' - 0"



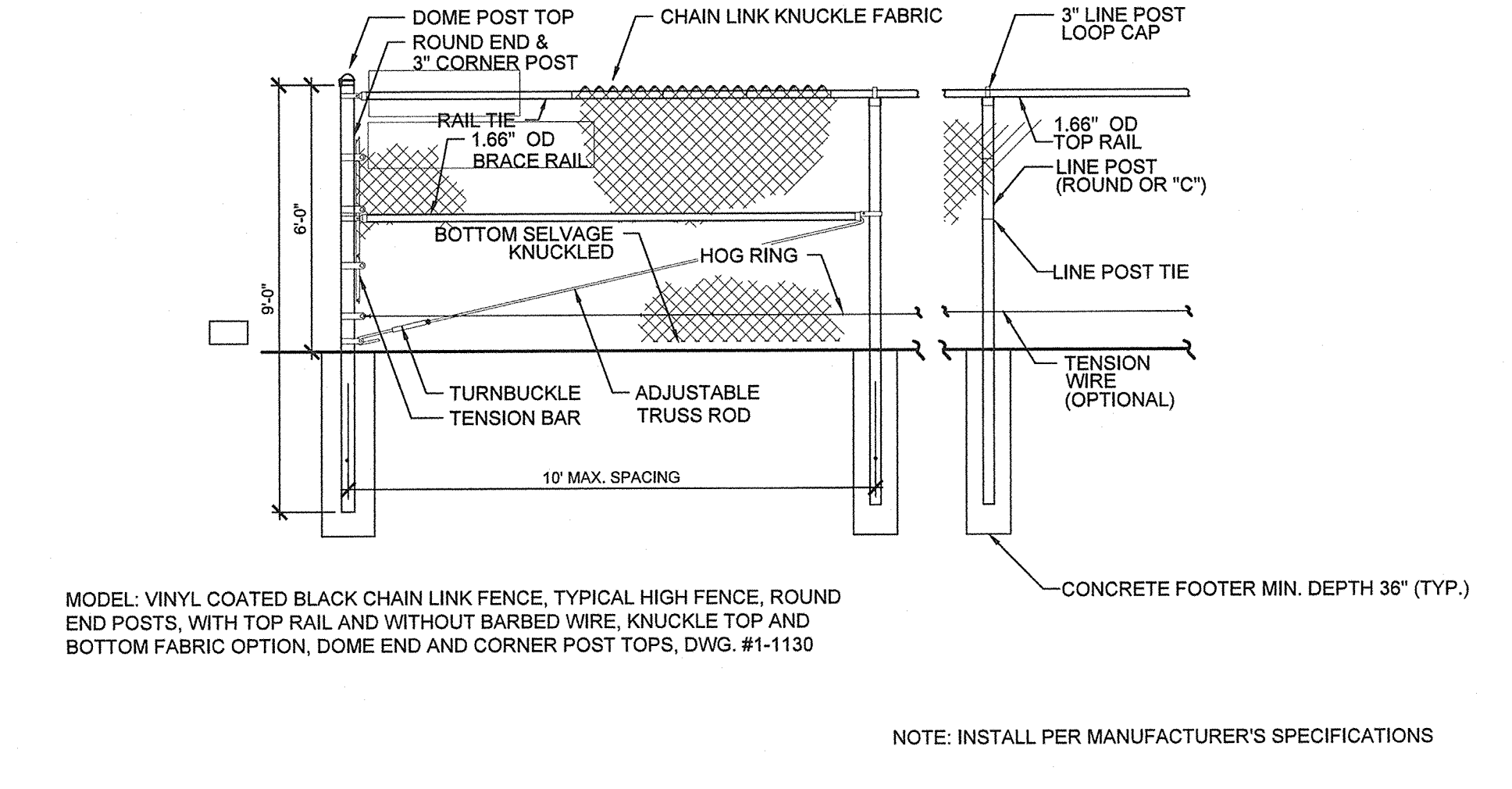
**4 HEAVY DUTY CONCRETE**  
SECTION  
NOT TO SCALE



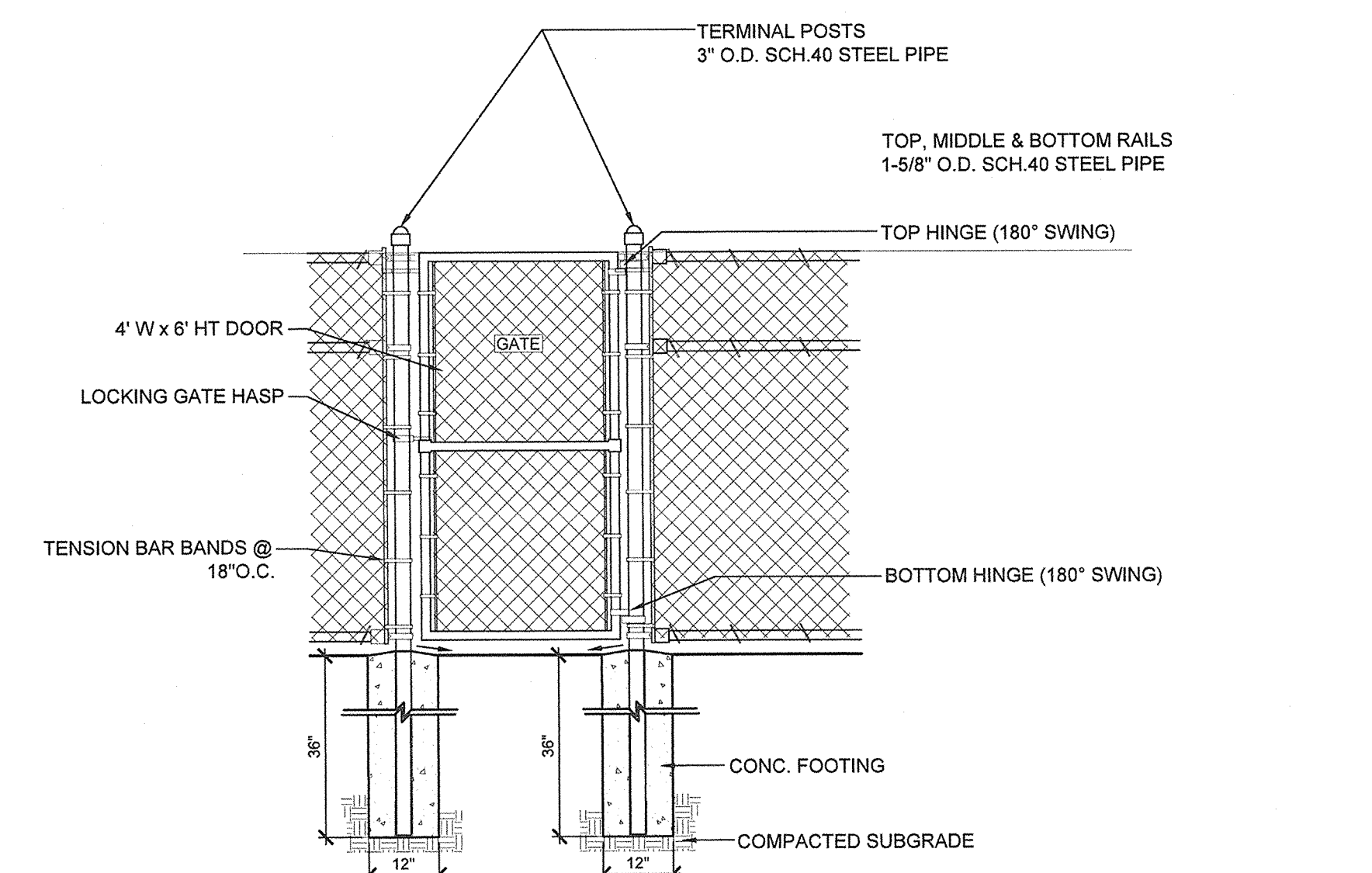
**5 CONCRETE PAVER (VEHICULAR LOAD)**  
SECTION  
NOT TO SCALE



**6 BRICK WALKWAY PATTERNS**  
PLAN  
NOT TO SCALE



**7 VINYL CHAIN LINK FENCE**  
ELEVATION  
1/2" = 1'-0"



**8 VINYL CHAIN LINK GATE (BLACK)**  
ELEVATION  
1/2" = 1'-0"

**CONSULTANTS:**  
LANDSCAPE ARCHITECT  
NC LICENSE NUMBER: C-9558  
CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
233 NORTH GRAHAM ST.  
CHARLOTTE, NC 28202  
704-333-0325

KEY PLAN: NORTH

ISSUED FOR BIDDING 5-16-2016

#	Revision	Date

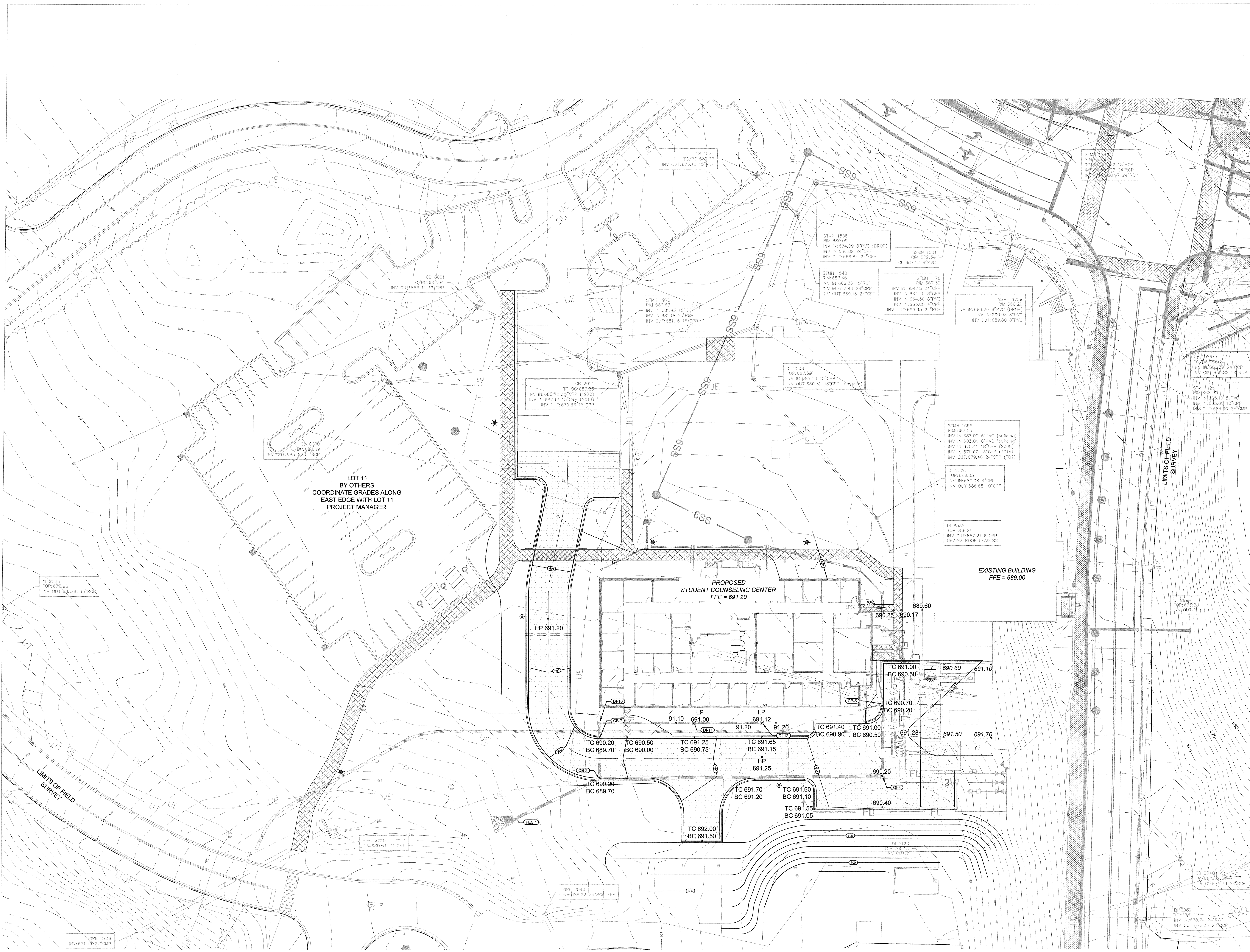
**UNC CHARLOTTE**  
**Student Counseling Center**  
Poplar Terrace Dr.  
SCO# 14-11381-02A

**Construction Documents**

DATE: 16 MAY 2016  
SCALE:  
EYP PROJECT NO.: 1015008.01  
CLIENT PROJECT NO.:  
DESIGNED BY: MDM  
DRAWN BY: MDM  
CHECKED BY: MDM



CONSULTANTS:  
 LANDDESIGN  
 NC LICENSE NUMBER: C-0558  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-0325



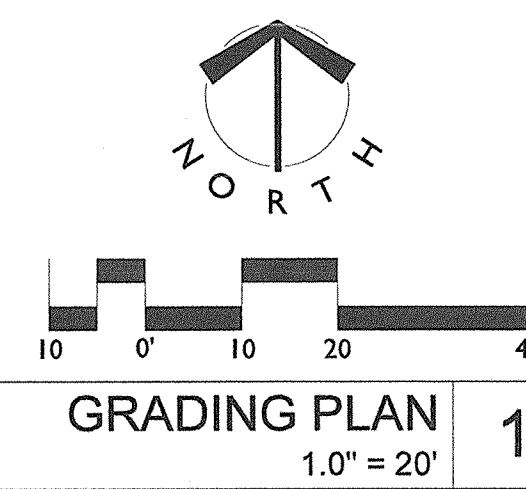
KEY PLAN: NORTH

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	ISSUED FOR BIDDING	5-16-2016

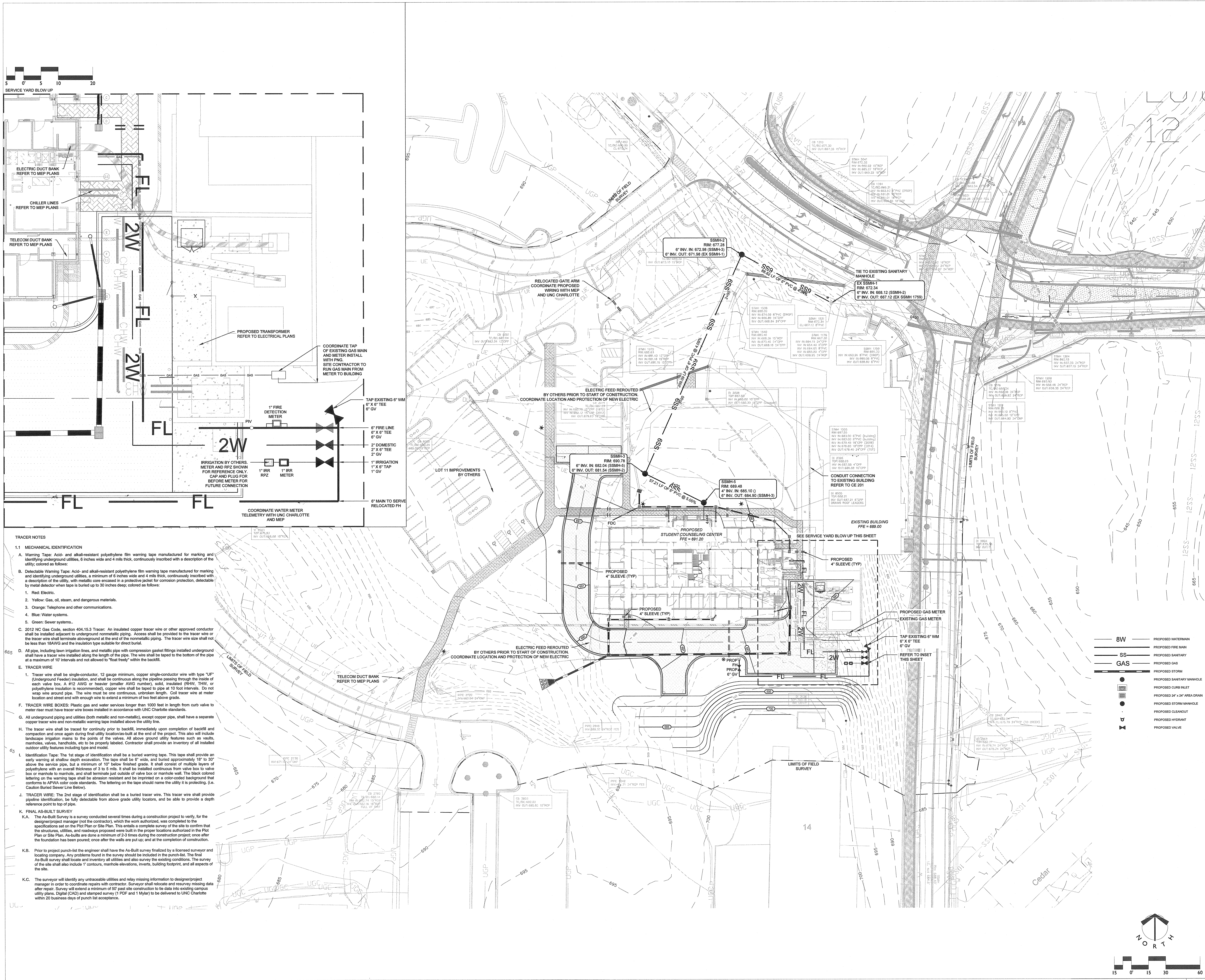
**UNC CHARLOTTE**  
**Student Counseling Center**  
 Poplar Terrace Dr.  
 SCO# 14-11381-02A

**Construction Documents**

DATE: 16 MAY 1016  
 SCALE: 1015008.01  
 EYP PROJECT NO.: 1015008.01  
 CLIENT PROJECT NO.:  
 DESIGNED BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM







- TRACER NOTES**
- 1.1 MECHANICAL IDENTIFICATION**
- A. Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, colored as follows:
- B. Detectable Warning Tape: Acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep, colored as follows:
1. Red: Electric.
  2. Yellow: Gas, oil, steam, and dangerous materials.
  3. Orange: Telephone and other communications.
  4. Blue: Water systems.
  5. Green: Sewer systems.
- C. 2012 NC Gas Code, section 404.15.3 Tracer: An insulated copper tracer wire or other approved conductor shall be installed adjacent to underground nonmetallic piping. Access shall be provided to the tracer wire or the tracer wire shall terminate aboveground at the end of the nonmetallic piping. The tracer wire size shall not be less than 18AWG and the insulation type suitable for direct burial.
- D. All pipe, including lawn irrigation lines, and metallic pipe with compression gasket fittings installed underground shall have a tracer wire installed along the length of the pipe. The wire shall be taped to the bottom of the pipe at a maximum of 10' intervals and not allowed to "float freely" within the backfill.
- E. TRACER WIRE**
1. Tracer wire shall be single-conductor, 12 gauge minimum, copper single-conductor wire with type "UF" (Underground Feeder) insulation, and shall be continuous along the pipeline passing through the inside of each valve box, a #12 AWG or heavier (smaller AWG number), solid, insulated (RHW, THW, or polyethylene insulation is recommended), copper wire shall be taped to pipe at 10 foot intervals. Do not wrap wire around pipe. The wire must be one continuous, unbroken length. Coil tracer wire at meter location and street end with enough wire to extend a minimum of two feet above grade.
  2. TRACER WIRE BOXES: Plastic gas and water services longer than 1000 feet in length from curb valve to meter riser must have tracer wire boxes installed in accordance with UNC Charlotte standards.
  3. All underground piping and utilities (both metallic and non-metallic), except copper pipe, shall have a separate copper tracer wire and non-metallic warning tape installed above the utility lines.
  4. The tracer wire shall be traced for continuity prior to backfill, immediately upon completion of backfill and compaction and once again during final utility locations-built at the end of the project. This also will include landscape irrigation mains to the points of the valves. All above ground utility features such as valves, manholes, valves, handholes, etc to be properly labeled. Contractor shall provide an inventory of all installed exterior utility features including type and model.
  5. Identification Tapes: The 1st stage of identification shall be a buried warning tape. This tape shall provide an early warning at shallow depth excavation. The tape shall be 6" wide, and buried approximately 18" to 30" above the service pipe, but a minimum of 10" below finished grade. It shall consist of multiple layers of polyethylene with an overall thickness of 3 to 5 mils. It shall be installed continuous from valve box to valve box or manhole to manhole, and shall terminate just outside of valve box or manhole wall. The black colored lettering on the warning tape shall be abrasion resistant and be imprinted on a color-coded background that conforms to APWA color code standards. The lettering on the tape should name the utility it is protecting. (i.e. Caution Buried Sewer Line Below).
  6. TRACER WIRE: The 2nd stage of identification shall be a buried tracer wire. This tracer wire shall provide pipeline identification, be fully detectable from above grade utility locators, and be able to provide a depth reference point to top of pipe.
- K. FINAL AS-BUILT SURVEY**
- K.A. The As-Built Survey is a survey conducted several times during a construction project to verify, for the designer/project manager (not the contractor), which work authorized, was completed to the specifications set on the Plot Plan or Site Plan. This entails a complete survey of the site to confirm that the structures, utilities, and roadways proposed were built in the proper locations authorized in the Plot Plan or Site Plan. As-builts are done a minimum of 2-3 times during the construction project; once after the foundation has been poured, once after the walls are put up, and at the completion of construction.
- K.B. Prior to project punch-list the engineer shall have the As-Built survey finalized by a licensed surveyor and locating company. Any problems found in the survey should be included in the punch-list. The final As-Built survey shall locate and inventory all utilities and also survey the existing conditions. The survey of the site shall include 1" contours, manhole elevations, inverts, building footprints, and all aspects of the site.
- K.C. The surveyor will identify any untraceable utilities and relay missing information to designer/project manager in order to coordinate repairs with contractor. Surveyor shall relocate and resurvey missing data after repair. Survey will extend a minimum of 50' past site construction to tie data into existing campus utility plans. Digital (CAD) and stamped survey (1 PDF and 1 Mylar) to be delivered to UNC Charlotte within 20 business days of punch list acceptance.

**CONSULTANTS:**

**LAND DESIGN**  
 NO LICENSE NUMBER: C-0558  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-0325

**KEY PLAN:**

NORTH

#	Revision	Date
	ISSUED FOR BIDDING	5-16-2016

**UNC CHARLOTTE**  
**Student Counseling Center**  
 Poplar Terrace Dr.  
 SCO# 14-11381-02A

**Construction Documents**

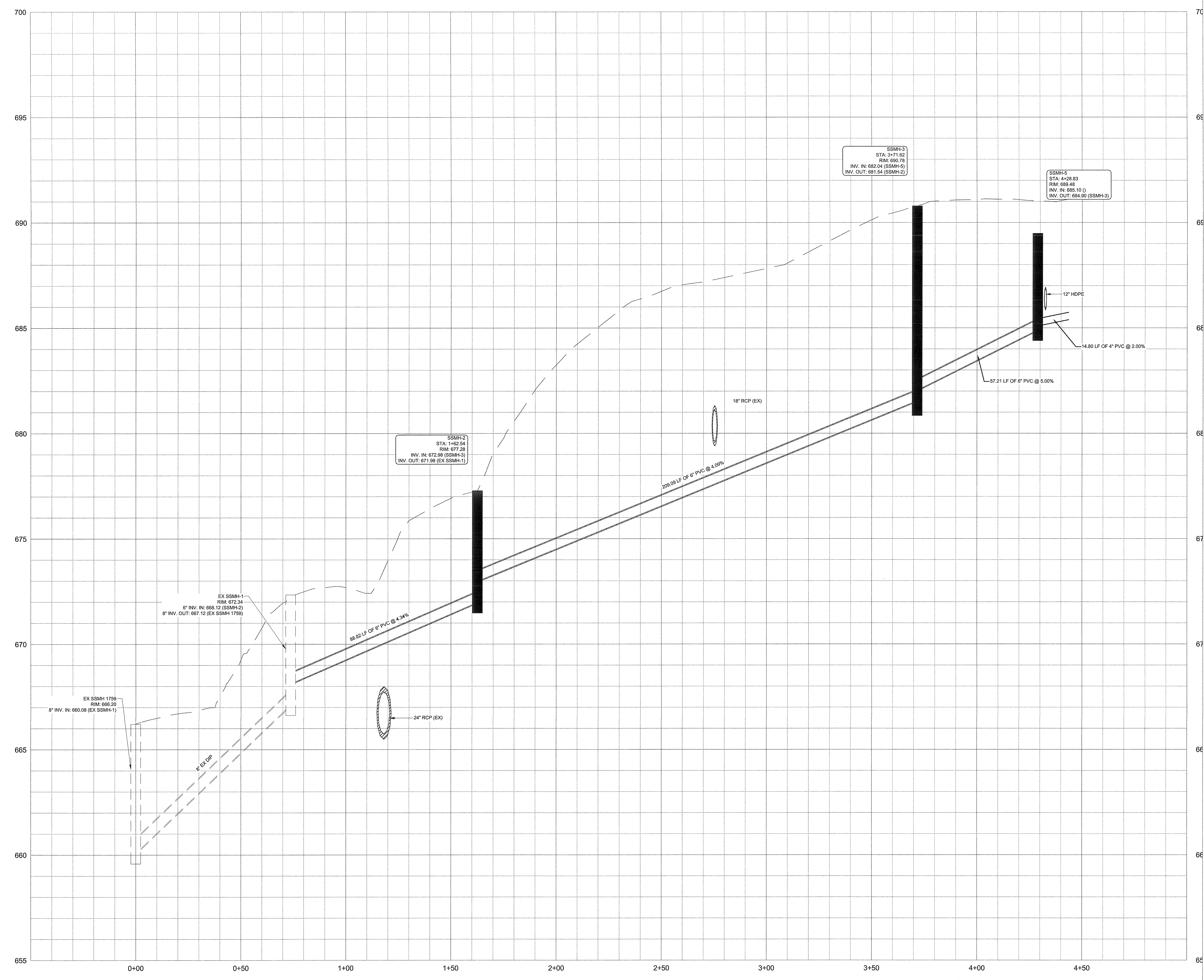
DATE: 16 MAY 2016  
 SCALE:  
 EYP PROJECT NO.: 1015008.01  
 CLIENT PROJECT NO.:  
 DESIGNED BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM

SEAL  
 038004  
 MARCH 11 2016  
 MDM



CONSULTANTS:  
 LANDESIGN  
 NC LICENSE NUMBER: C-0658  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-0325

Profile View of SEWER



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- J. TRACER WIRE:** The 2nd stage of identification shall be a buried tracer wire. This tracer wire shall provide positive identification, be fully detectable from above grade utility locators, and be able to provide a depth reference point to top of pipe.
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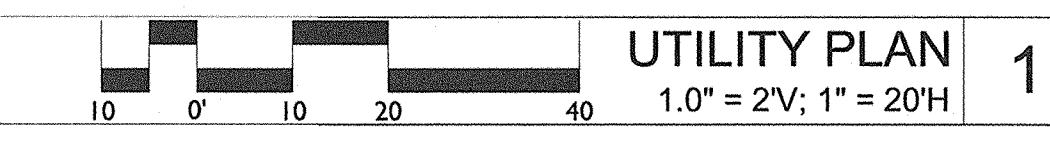
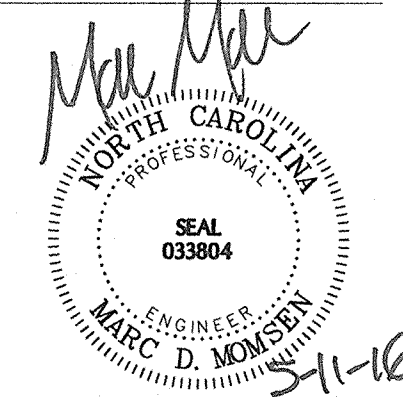
KEY PLAN: NORTH

ISSUED FOR BIDDING		5-16-2016
#	Revision	Date

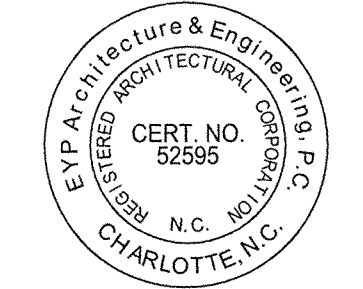
**UNC CHARLOTTE**  
**Student Counseling Center**  
 Poplar Terrace Dr.  
 SC0# 14-11381-02A

**Construction Documents**

DATE: 16 MAY 2016  
 SCALE: EYP PROJECT NO.: 1015008.01  
 CLIENT PROJECT NO.:  
 DESIGNED BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM







CONSULTANTS:  
 LANDDESIGN  
 NC LICENSE NUMBER: C-0688  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 233 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-533-0325

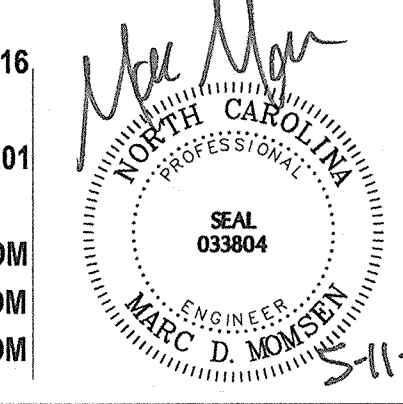
KEY PLAN:  
 NORTH

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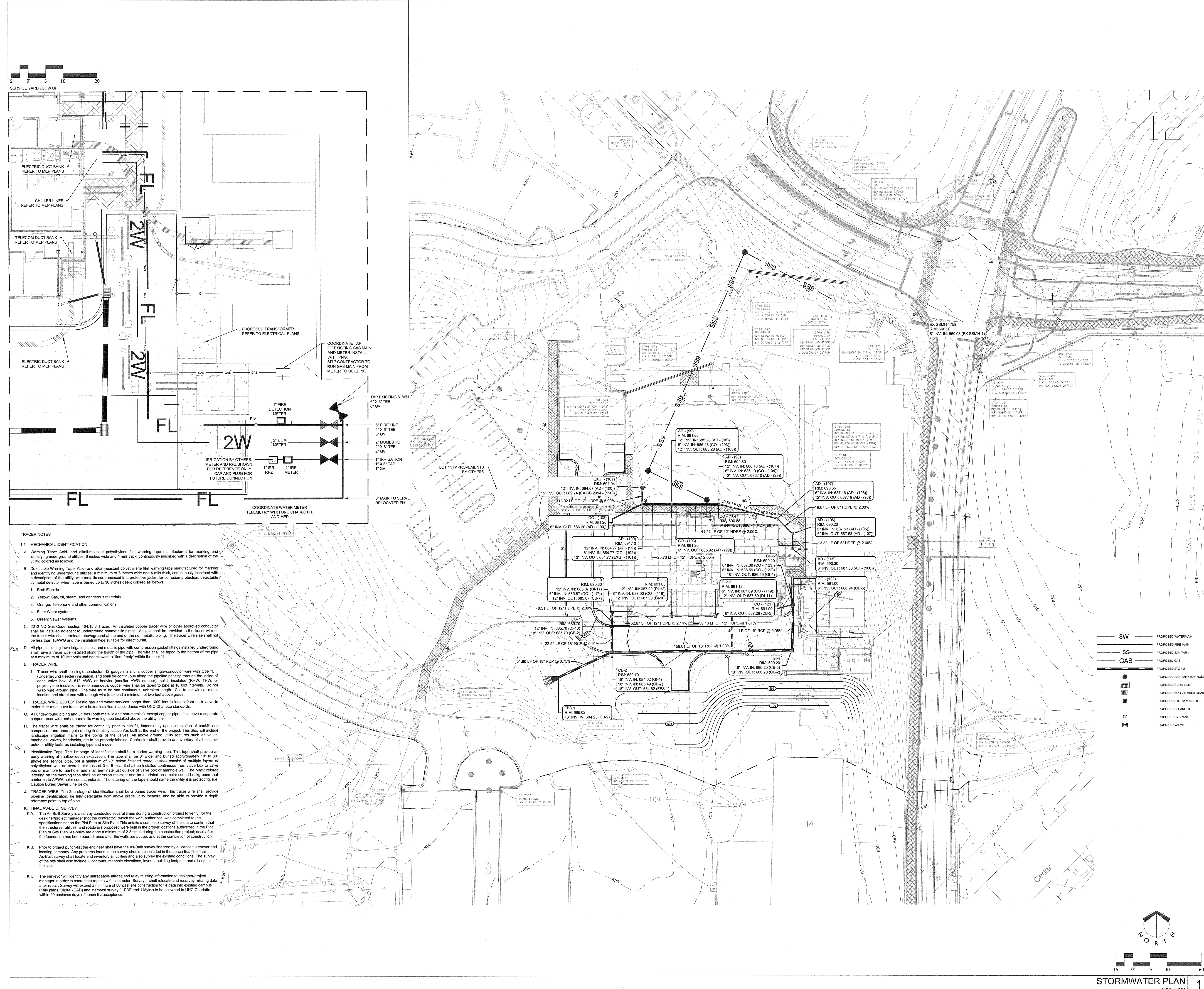
UNC CHARLOTTE  
**Student Counseling Center**  
 Poplar Terrace Dr.  
 SCO# 14-11381-02A

**Construction Documents**

DATE: 16 MAY 2016  
 SCALE: EYP PROJECT NO.: 1015008.01  
 CLIENT PROJECT NO.:  
 DESIGNED BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM



STORMWATER PLAN  
 1.0" = 30'  
**C-602**



**TRACER NOTES**

1. MECHANICAL IDENTIFICATION

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C. 2012 NC Gas Code, section 404.15.3 Tracer: An insulated copper tracer wire or other approved conductor shall be installed adjacent to underground nonmetallic piping. Access shall be provided to the tracer wire or the tracer wire shall terminate underground at the end of the nonmetallic piping. The tracer wire size shall not be less than 18AWG and the insulation type suitable for direct burial.

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E. TRACER WIRE

- Tracer wire shall be single-conductor, 12 gauge minimum, copper single-conductor wire with type "UF" (Underground Feeder) insulation, and shall be continuous along the pipeline passing through the inside of each valve box. A #12 AWG or heavier (smaller AWG number), solid, insulated (RHW, THW, or polyethylene insulation is recommended), copper wire shall be taped to pipe at 10 foot intervals. Do not wrap wire around pipe. The wire must be one continuous, unbroken length. Coil tracer wire at master location and street end with enough wire to extend a minimum of two feet above grade.
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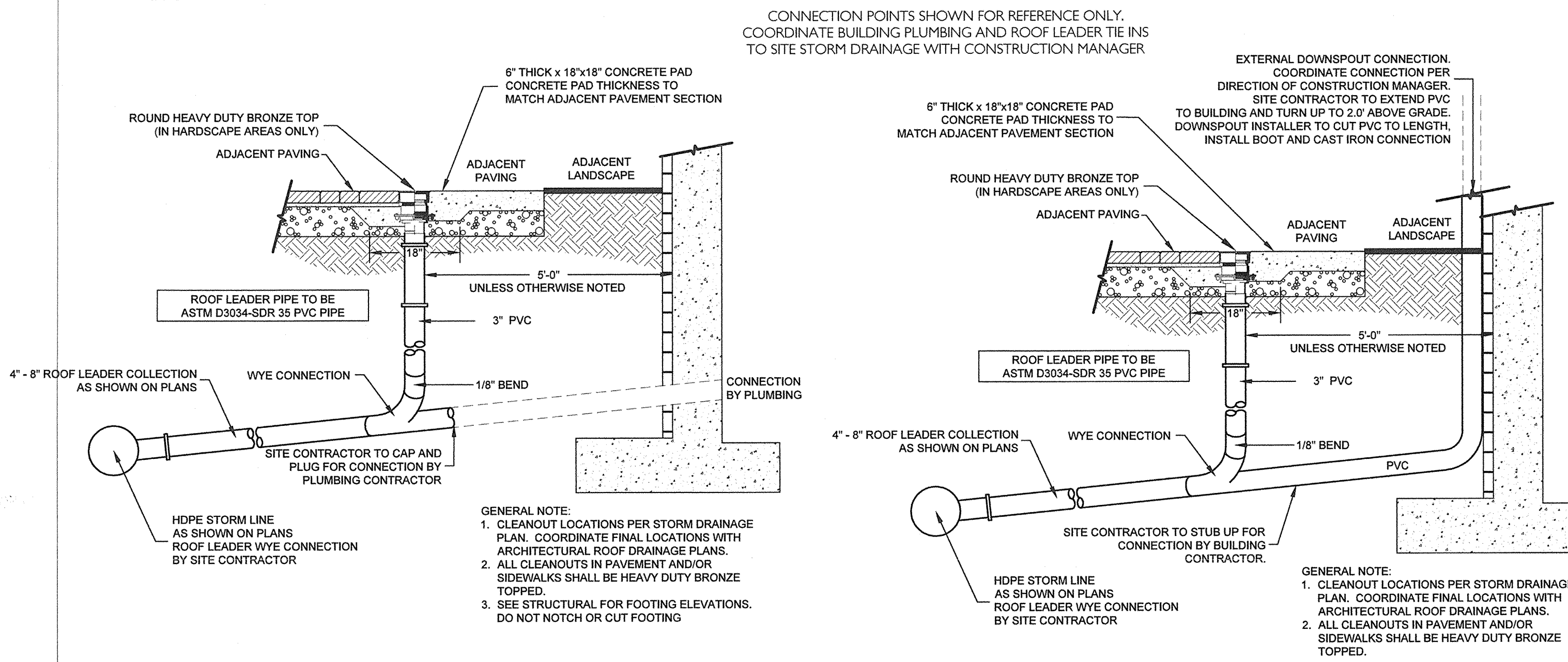
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K.B. Prior to project punch-list the engineer shall have the As-Built survey finalized by a licensed surveyor and locating company. Any problems found in the survey should be included in the punch-list. The final As-Built survey shall locate and inventory all utilities and also survey the existing conditions. The survey of the site shall include 1' contours, manhole elevations, inverts, building footprint, and all aspects of the site.

K.C. The surveyor will identify any untraceable utilities and relay missing information to designer/project manager in order to coordinate repairs with contractor. Surveyor shall relocate and resurvey missing data after repair. Survey will extend a minimum of 60' past site contribution to the data into existing campus utility plans. Digital (CAD) and stamped survey (1 PDF and 1 Mylar) to be delivered to UNC Charlotte within 20 business days of punch list acceptance.





ROOF LEADER CONNECTION TO INTERNAL PIPE

ROOF LEADER CONNECTION TO EXTERNAL PIPE

TRENCH DETAIL FOR STORM PIPES

STONE VENEER HEADWALL

NTS.

NOTES:

1. A MINIMUM OF 2" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTED FILL MATERIAL. BACKFILL OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE PLACED IN LAYERS NOT TO EXCEED 8" UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPS ONLY. EACH AND EVERY LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY COMPACTED INTO PLACE.
2. ALL BACKFILL MATERIAL SHALL HAVE IN PLACE COMPACTED DENSITY OF 95% OF STANDARD PROCTOR. THE FINAL 2' BELOW FINISHED GRADE SHALL BE 100%.
3. ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS.
4. BACKFILL MATERIAL BENEATH ROADWAY SHALL BE SELECT BACKFILL MATERIAL.

NOTES:

1. ALL MORTAR JOINTS ARE TO BE 3/4" DEEP.
2. STONEWORK SHALL BE TIED TO CONCRETE BY MASONRY LADDERS.
3. ALL EXPOSED JOINTS SHALL BE 3" DEEP.
4. ALL CONCRETE TO BE 3000 PSI COMPRESSIVE STRENGTH.
5. PLACE BELL END OF PIPE UPSTREAM, RECESS 2" FROM EDGE OF STONE. SPOOT END SHALL BE RECESSED 2" FROM EDGE OF STONE.
6. STONE SHALL BE VIRGINIA FIELDSTONE, DRY-STACK APPEARANCE.

ROOF LEADER CONNECTION TO INTERNAL PIPE

ROOF LEADER CONNECTION TO EXTERNAL PIPE

TRENCH DETAIL FOR STORM PIPES

STONE VENEER HEADWALL

ENGLISH STANDARD DRAWING FOR PRECAST CONCRETE ENDWALL FOR 12" THRU 54" PIPE

ENDWALL DIMENSIONS

PIPE DIA.	BAR SIZE	MIN. (FT.)	MAX. (FT.)	MIN. (FT.)	MAX. (FT.)	MIN. (FT.)	MAX. (FT.)
1.0	#6 @ 4"	1.25/2.00	2.00/3.75	1.25/1.75	3.00/3.75	5.00/6.00	
1.25	#6 @ 4"	1.25/2.00	3.00/3.75	1.25/2.00	3.50/3.75	6.50/6.75	
1.50	#6 @ 4"	1.25/2.00	3.00/4.25	1.50/2.00	3.50/3.75	6.50/6.75	
2.0	#6 @ 4"	1.50/2.00	4.00/4.75	1.75/2.00	4.00/4.25	7.00/9.25	
2.5	#6 @ 4"	2.00/3.00	4.00/6.00	2.00/3.00	4.50/6.00	10.00/11.50	
3.0	#6 @ 4"	3.00/3.50	5.00/6.00	2.75/3.50	5.25/5.75	11.50/11.75	
3.5	#6 @ 4"	3.25/4.50	6.00/6.75	3.25/3.50	6.00/6.75	12.00/13.25	
4.0	#6 @ 4"	3.50/4.50	6.50/7.00	3.25/3.50	6.50/6.75	13.00/13.25	
4.5	#6 @ 4"	4.00/5.00	6.50/8.50	3.25/4.00	7.00/9.25	13.50/16.75	
5.0	#6 @ 4"	4.50/5.00	7.00/8.50	3.25/4.00	7.25/9.25	13.75/16.75	
5.5	#6 @ 4"	4.50/5.00	7.50/9.50	3.25/4.00	7.25/9.25	14.00/16.75	
6.0	#6 @ 4"	4.50/5.00	7.50/9.50	3.25/4.00	7.75/9.25	14.75/16.75	

ENGLISH STANDARD DRAWING FOR CONCRETE CATCH BASIN FOR 12" THRU 54" PIPE

GENERAL NOTES:  
 USE CLASS "B" CONCRETE THROUGHOUT.  
 PROVIDE ALL CORNER RADIUS WITH 3/4" R WITH KEEPS 1/4" ON CENTER. USE STEPS WHICH COMPLY WITH STD. SHAWTS 840.02.  
 15" CENTER AS DIRECTED BY THE ENGINEER.  
 USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.  
 IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.  
 USE TYPE "E", "F", AND "G" GRATES UNLESS OTHERWISE INDICATED.  
 FOR 4" OF 1/2" REBAR ON EACH SIDE OF WALLS AND BOTTOM SLAB. USE 3/4" X 3/4" X 24" IN REBAR USE 3/4" WALLS AND BOTTOM SLAB. ADJUST MORTAR ACCORDINGLY.  
 CONTRACT WITH PIPE CROWN MATCHING.  
 COVER ALL EXPOSED CORNERS 1".  
 DRAWING NOT TO SCALE.

ENGLISH STANDARD DRAWING FOR CONCRETE CATCH BASIN FOR 12" THRU 54" PIPE

GENERAL NOTES:  
 USE CLASS "B" CONCRETE THROUGHOUT.  
 PROVIDE ALL CORNER RADIUS WITH 3/4" R WITH KEEPS 1/4" ON CENTER. USE STEPS WHICH COMPLY WITH STD. SHAWTS 840.02.  
 15" CENTER AS DIRECTED BY THE ENGINEER.  
 USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.  
 IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.  
 USE TYPE "E", "F", AND "G" GRATES UNLESS OTHERWISE INDICATED.  
 FOR 4" OF 1/2" REBAR ON EACH SIDE OF WALLS AND BOTTOM SLAB. USE 3/4" X 3/4" X 24" IN REBAR USE 3/4" WALLS AND BOTTOM SLAB. ADJUST MORTAR ACCORDINGLY.  
 CONTRACT WITH PIPE CROWN MATCHING.  
 COVER ALL EXPOSED CORNERS 1".  
 DRAWING NOT TO SCALE.

PIPE DIA.	MIN. (FT.)	MAX. (FT.)	MIN. (FT.)	MAX. (FT.)	MIN. (FT.)	MAX. (FT.)	MIN. (FT.)	MAX. (FT.)
12"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
15"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
18"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
21"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
24"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
27"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
30"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
33"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
36"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
39"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
42"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
45"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
48"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
51"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00
54"	1.25	2.00	1.25	1.75	3.00	3.75	5.00	6.00

ENGLISH STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

GENERAL NOTES:  
 USE TYPE "E", "F", AND "G" GRATE UNLESS OTHERWISE NOTED.  
 ALIGN FRAME WITH INSIDE EDGE OF WALL TO ALLOW FOR VERTICAL ADJUSTMENT.

ENGLISH STANDARD DRAWING FOR FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

GENERAL NOTES:  
 USE TYPE "E", "F", AND "G" GRATE UNLESS OTHERWISE NOTED.  
 ALIGN FRAME WITH INSIDE EDGE OF WALL TO ALLOW FOR VERTICAL ADJUSTMENT.

ENGLISH STANDARD DRAWING FOR CONCRETE DROP INLET FOR 12" THRU 30" PIPE

GENERAL NOTES:  
 USE CLASS "B" CONCRETE THROUGHOUT.  
 PROVIDE ALL CORNER RADIUS WITH 3/4" R WITH KEEPS 1/4" ON CENTER. USE STEPS WHICH COMPLY WITH STD. SHAWTS 840.02.  
 15" CENTER AS DIRECTED BY THE ENGINEER.  
 USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.  
 IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.  
 USE TYPE "E", "F", AND "G" GRATES UNLESS OTHERWISE INDICATED.  
 FOR 4" OF 1/2" REBAR ON EACH SIDE OF WALLS AND BOTTOM SLAB. USE 3/4" X 3/4" X 24" IN REBAR USE 3/4" WALLS AND BOTTOM SLAB. ADJUST MORTAR ACCORDINGLY.  
 CONTRACT WITH PIPE CROWN MATCHING.  
 COVER ALL EXPOSED CORNERS 1".  
 DRAWING NOT TO SCALE.

ENGLISH STANDARD DRAWING FOR DROP INLET FRAME AND GRATES FOR USE WITH STD. DWG. S 840.14 AND 840.15

GENERAL NOTES:  
 USE TYPE "E", "F", AND "G" GRATE UNLESS OTHERWISE NOTED.  
 ALIGN FRAME WITH INSIDE EDGE OF WALL TO ALLOW FOR VERTICAL ADJUSTMENT.

ENGLISH STANDARD DRAWING FOR FRAME AND MASONRY SLOT SAG GRATES

GENERAL NOTES:  
 USE TYPE "E", "F", AND "G" GRATE UNLESS OTHERWISE NOTED.  
 ALIGN FRAME WITH INSIDE EDGE OF WALL TO ALLOW FOR VERTICAL ADJUSTMENT.

ENGLISH STANDARD DRAWING FOR ANCHORAGE FOR FRAMES AND HOODS FOR BRICK/CONCRETE/PRECAST CONCRETE

GENERAL NOTES:  
 CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.

CONSULTANTS:  
 LANDSCAPE ARCHITECT  
 NO LICENSE NUMBER: C-6553  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-6225

KEY PLAN:  
 NORTH

ISSUED FOR BIDDING 5-16-2016

#	Revision	Date

UNC CHARLOTTE  
 Student Counseling Center  
 Poplar Terrace Dr.  
 SCO# 14-11381-02A

Construction Documents

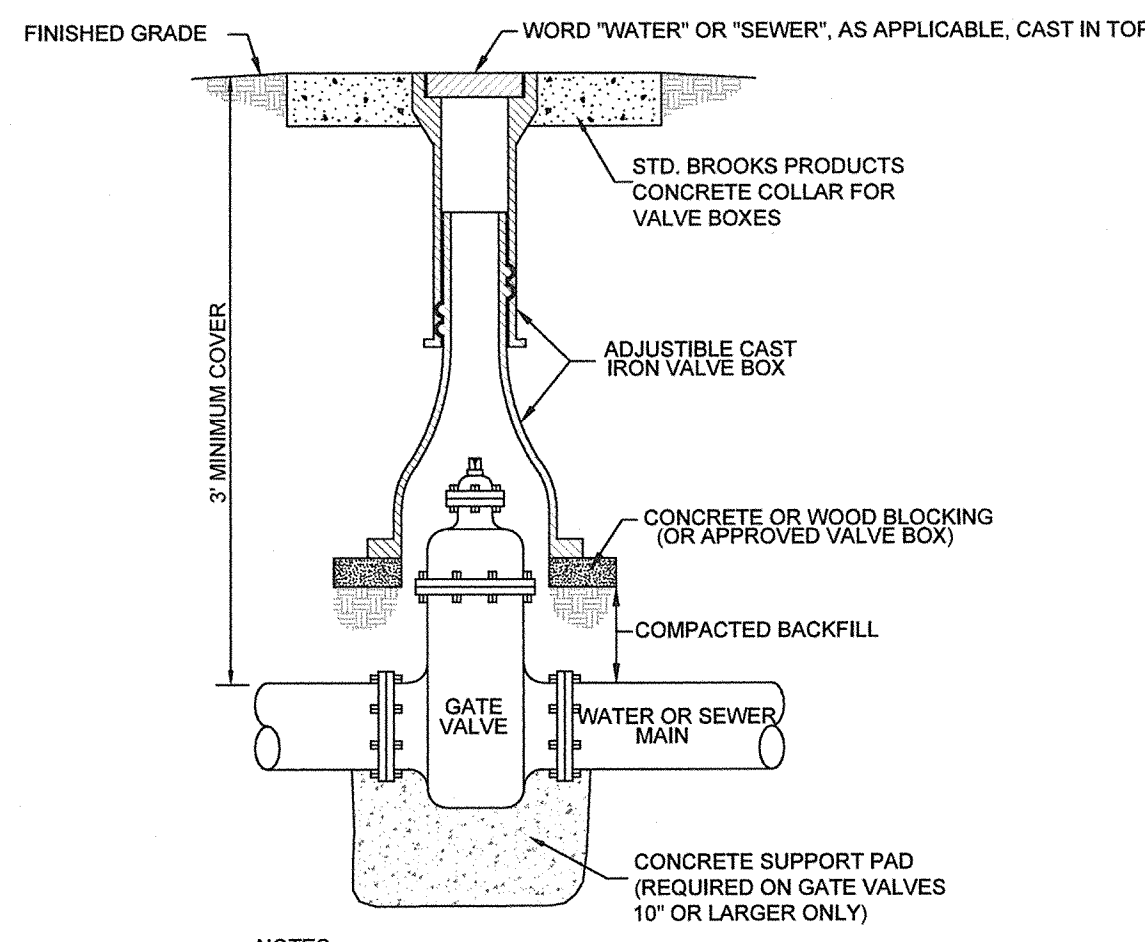
DATE: 16 MAY 2016  
 SCALE: 1015008.01  
 EYP PROJECT NO.:  
 CLIENT PROJECT NO.:  
 DESIGNED BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM

STATE OF NORTH CAROLINA  
 PROFESSIONAL ENGINEER  
 CHARLOTTE, N.C.





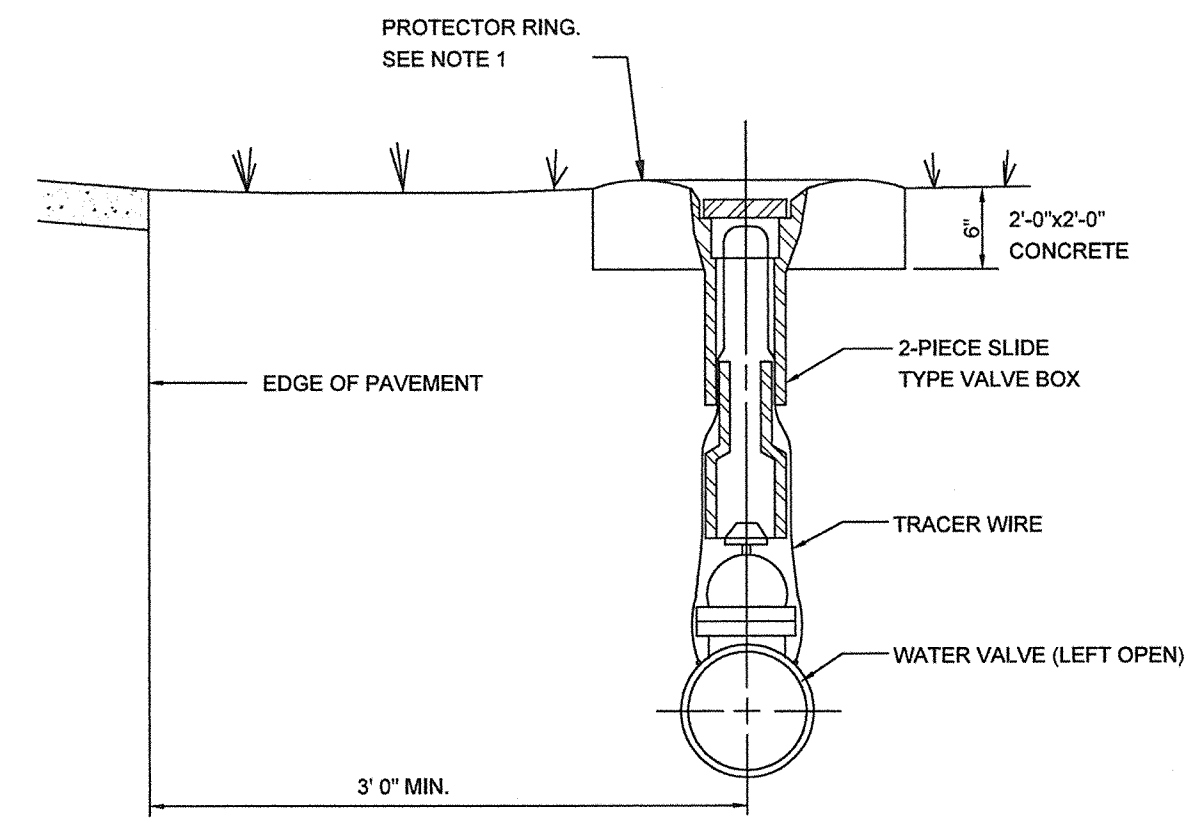




NOTES:  
 1. GATE VALVE SHALL BE AMVA APPROVED.  
 2. GATE VALVE SHALL BE LEFT HAND OPEN.

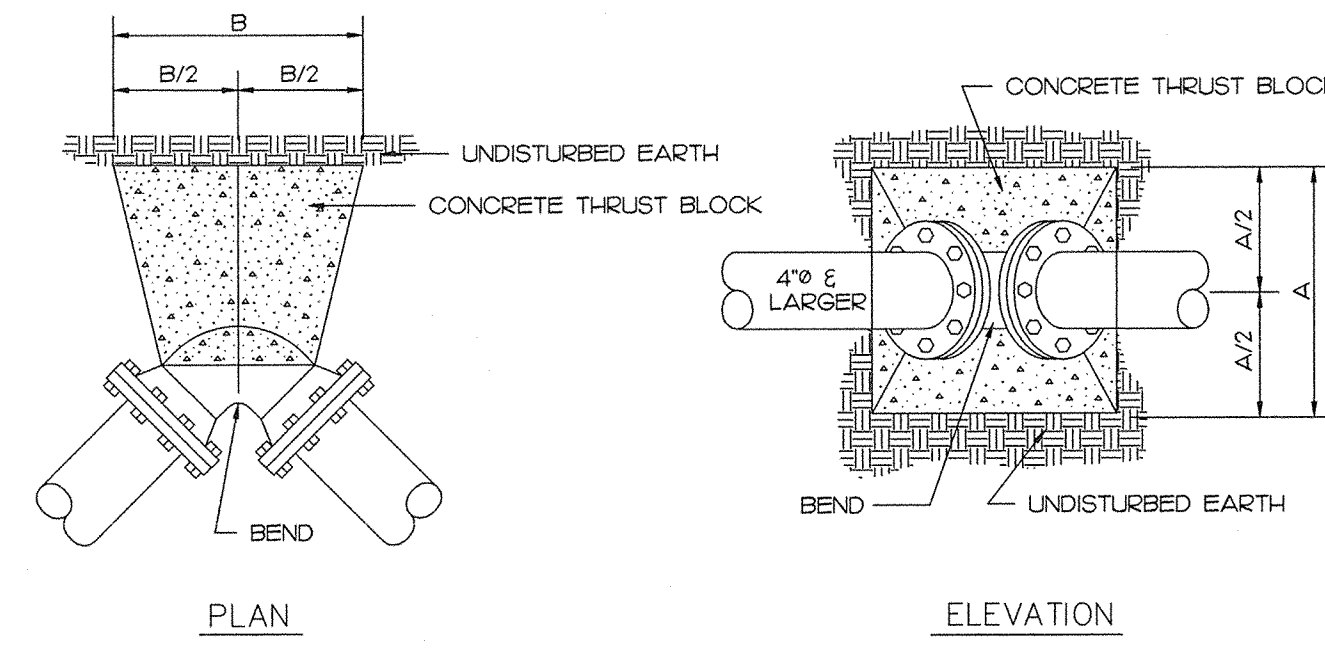
**TYP. VERTICAL G.V. INSTALLATION**

N.T.S.



NOTE:  
 1. USE PROTECTION RING IN SHOULDER OF ROAD.

**VALVE BOX PROTECTION**



PLAN

ELEVATION

**TYPICAL THRUST BLOCK FOR BENDS**

N.T.S.

AREAS REQUIRED FOR CONCRETE BLOCKING FOR TEES AND BENDS ETC.  
 BASED ON TEST PRESSURE OF 200 P.S.I.

ALL AREAS GIVEN ARE IN SQUARE FEET (AGAINST UNDISTURBED EARTH)  
 AREAS FOR TEES ARE INDICATED FOR APPROPRIATE BRANCH SIZE

SIZE AND DESIGN OF BEND	SPRINKLER PLUMBING	EMERGENCY CALL 800/158-1587	800/158-1587	800/158-1587	800/158-1587	THE PIPES REQUIRED
4-6"						
11-1/4"	1,108	1	1	1	1	
22-1/2"	2,207	1	2	2	2	
45"	4,328	2	3	3	3	
90°/TEE	7,866	2	4	4	5	
PLUG	5,665	2	3	4	4	2-5/8"Ø
8"						
11-1/4"	1,870	1	1	1	2	
22-1/2"	3,822	1	2	3	3	
45"	7,604	2	4	5	5	
90°/TEE	14,215	4	8	9	9	
PLUG	10,053	3	5	6	6	2-5/8"Ø
12"						
11-1/4"	4,433	2	3	3	3	
22-1/2"	8,826	3	5	6	6	
45"	17,312	5	9	11	11	
90°/TEE	31,583	8	18	19	19	
PLUG	22,619	6	12	14	14	4-3/4"Ø
16"						
11-1/4"	7,881	2	4	5	5	
22-1/2"	15,691	4	8	10	10	
45"	30,779	8	16	19	19	
90°/TEE	56,861	15	29	35	35	
PLUG	40,213	10	21	25	25	6-3/4"Ø

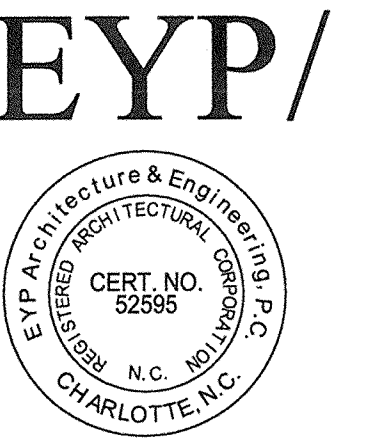
REACTION BEARING AREAS ARE IN SQUARE FEET MEASURED IN A VERTICAL PLANE IN THE TRENCH SIDE AT AN ANGLE OF 90° TO THE THRUST VECTOR.  
 USE 6" - 90° BEND VALVE FOR HYDRANTS FOR ADDITIONAL SAFETY FACTOR.  
 (2 - 5/8" Ø ROD IS ADEQUATE FOR 6" F.H. LEG)

SIZE	1/4" BEND	22 1/2" BEND	45° BEND	90° BEND	TEE	PLUG
4"	A 6"	B 6"	9"	12"	6"	6"
6"	A 9"	B 9"	15"	18"	9"	9"
8"	A 12"	B 12"	24"	30"	12"	12"
10"	A 15"	B 15"	30"	36"	15"	15"
12"	A 18"	B 18"	36"	42"	18"	18"
14"	A 21"	B 21"	42"	48"	21"	21"
16"	A 24"	B 24"	48"	54"	24"	24"
18"	A 27"	B 27"	54"	60"	27"	27"
20"	A 30"	B 30"	60"	66"	30"	30"
24"	A 36"	B 36"	72"	84"	36"	36"

NOTES:  
 1. CARE SHALL BE TAKEN WHEN POURING THRUST BLOCKS TO KEEP THE FITTING BOLTS FREE FROM CONCRETE.  
 2. THRUST BLOCK DESIGN BASED ON SOIL COMPRESSIVE STRENGTH OF 2000 P.S.F.  
 3. DIMENSIONS MAY BE FIELD ADJUSTED BY THE ENGINEER TO SUIT VARYING SOIL CONDITIONS.

**THRUST BLOCKS - DIMENSIONS "A" & "B"**

EYP Architecture & Engineering  
 2108 South Boulevard, Suite 205  
 Charlotte, NC 28203  
 Telephone 704 602 0074



CONSULTANTS:  
 LANDDESIGN  
 NC LICENSE NUMBER: C-6588  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-4325

KEY PLAN: NORTH

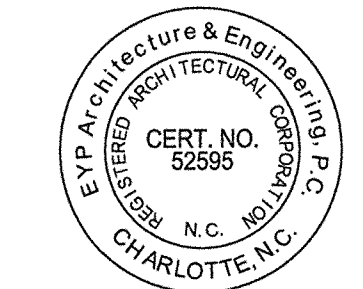
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**UNC CHARLOTTE**  
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 SCO# 14-11381-02A

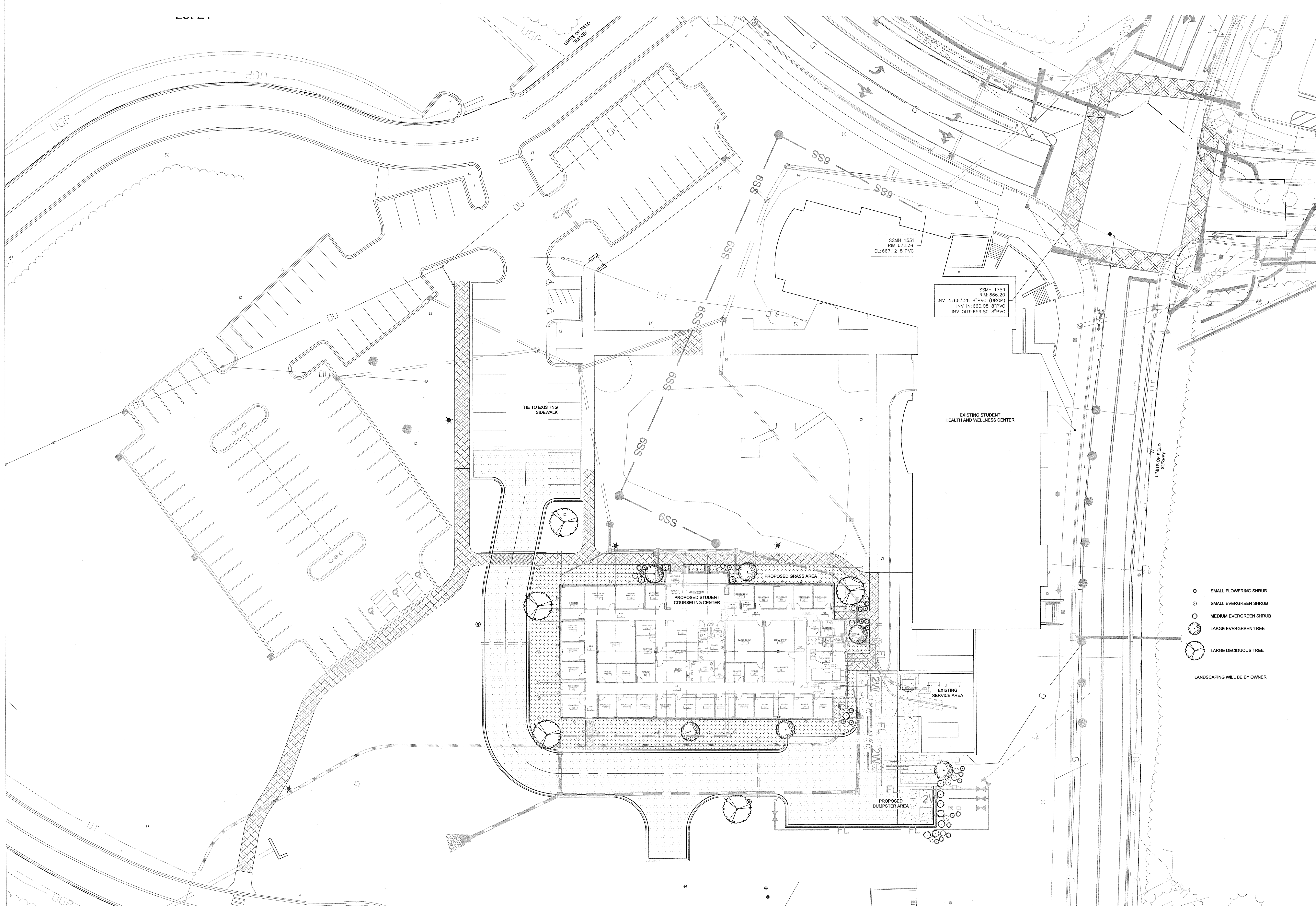
**Construction Documents**

DATE: 16 MAY 2016  
 SCALE:  
 EYP PROJECT NO.: 1015008.01  
 CLIENT PROJECT NO.:  
 DESIGNED BY: MDM  
 DRAWN BY: MDM  
 CHECKED BY: MDM





CONSULTANTS:  
 LANDSCAPE ARCHITECT  
 NC LICENSE NUMBER: C-0553  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 223 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-9325



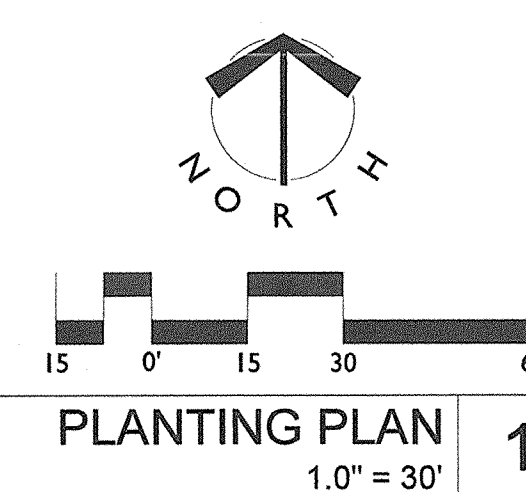
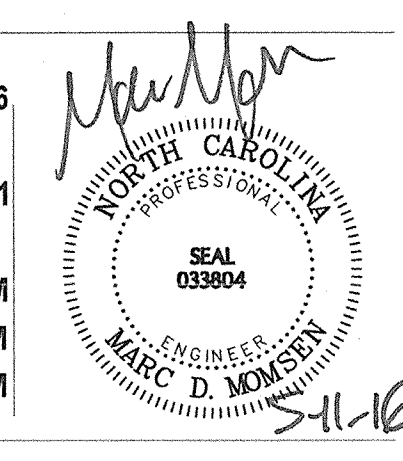
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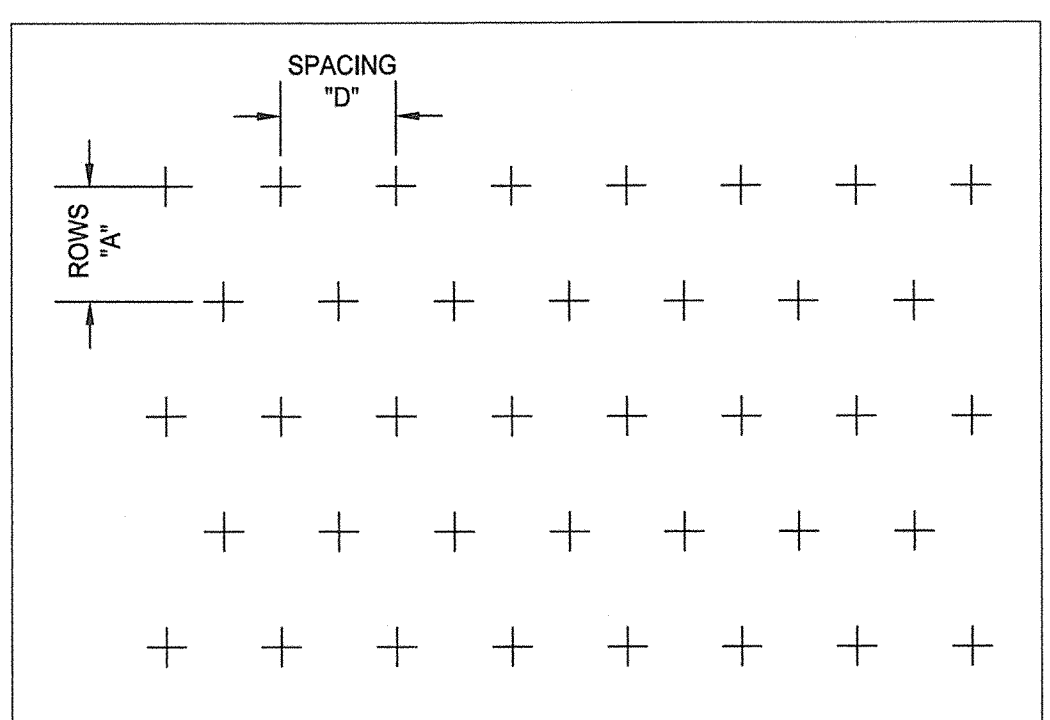
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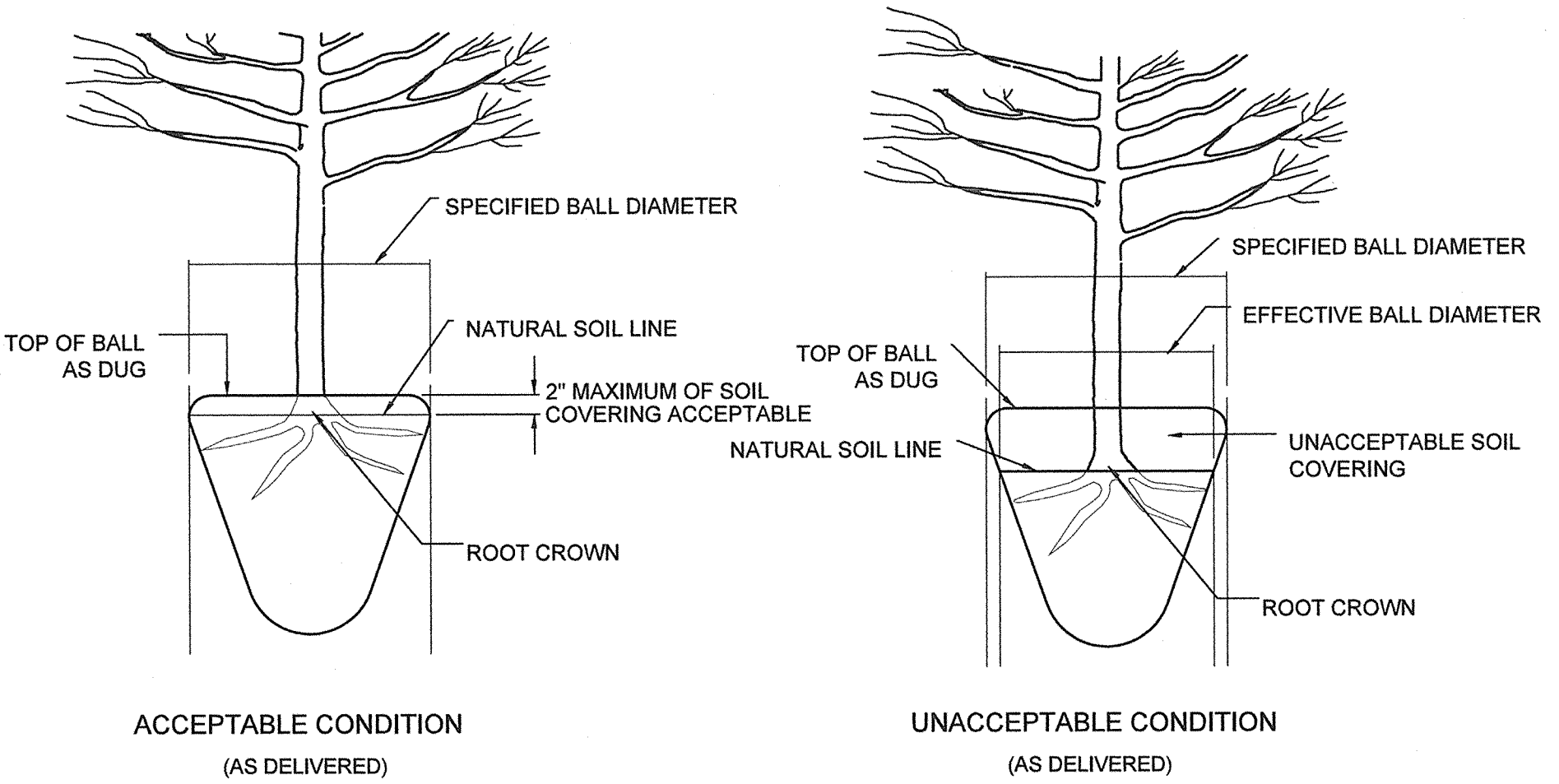


CONSULTANTS:  
 LANDSCAPE ARCHITECTURE  
 NC LICENSE NUMBER: C-0658  
 CIVIL ENGINEER AND LANDSCAPE ARCHITECT  
 222 NORTH GRAHAM ST.  
 CHARLOTTE, NC 28202  
 704-333-0325



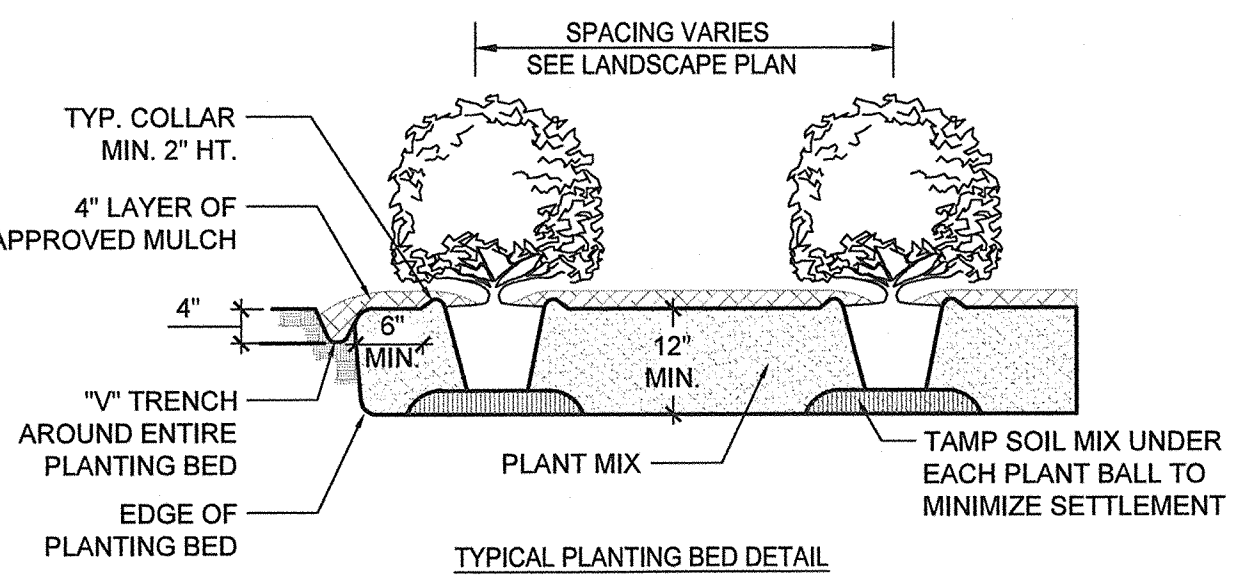
**PLANT SPACING CHART**

SPACING "D"	ROW "A"	PLANTS / S.F.
6" O.C.	5.20' O.C.	4.61
8" O.C.	6.83' O.C.	2.60
10" O.C.	8.66' O.C.	1.66
12" O.C.	10.40' O.C.	1.15
15" O.C.	13.00' O.C.	0.73
18" O.C.	15.60' O.C.	0.51
24" O.C.	20.80' O.C.	0.29



**NOTE:**  
 A ROOT COLLAR EXCAVATION FOR ALL TREES SPECIFIED WILL BE DONE BY THE CITY ARBORIST TO ENSURE THAT TREES WERE NOT PLANTED GROWN TOO DEEPLY AT SOURCE (NURSERY). LANDSCAPE CONTRACTOR SHALL HAVE SUPPLIER MARK GROUND LEVEL LINE ABOVE ROOT BALL. IF CITY ARBORIST DETERMINES THAT THERE IS EXCESSIVE SOIL OVER THE ROOT CROWN, THESE TREES WILL BE REJECTED.

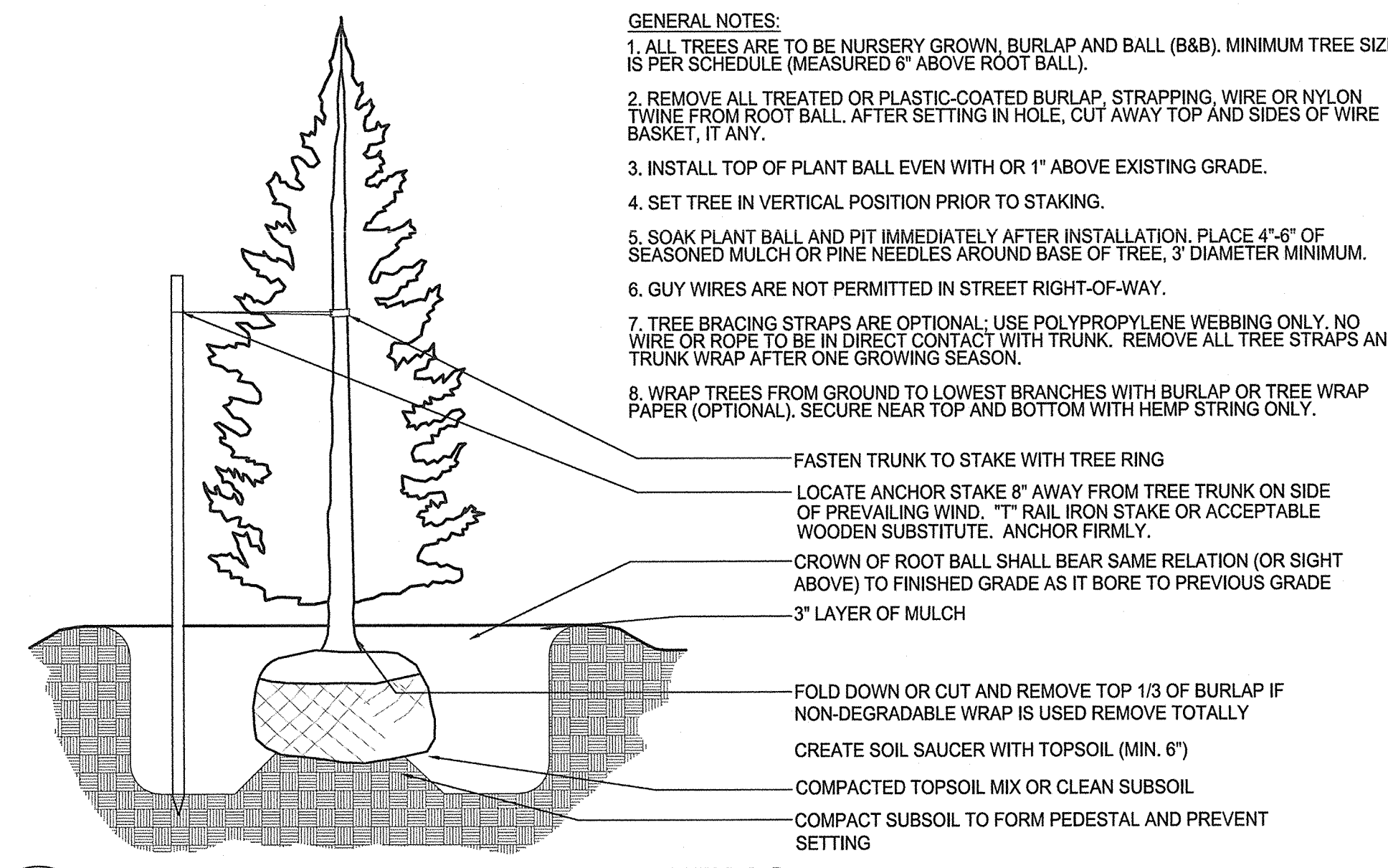
- NOTES:**
1. SCARIFY ROOT MASS OF CONTAINERIZED PLANT MATERIAL.
  2. INSTALL CONTAINERIZED PLANTS AT FINISHED GRADE.
  3. TAMP PLANTING MIX FIRMLY AS PIT IS FILLED AROUND EACH PLANT BALL.
  4. OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.
  5. SOAK EACH PLANT BALL AND PIT IMMEDIATELY AFTER INSTALLATION.



**1 TRIANGULAR SPACING FOR SHRUBS & GROUND COVERS**  
 C710 PLAN NOT TO SCALE

**2 ROOT CROWN DEPTHS**  
 C710 TREE ROOT CALL CONDITION ON TREES FROM SUPPLIERS NOT TO SCALE

**3 SHRUB PLANTING BED**  
 C710 SECTION NOT TO SCALE



**4 EVERGREEN TREE PLANTING**  
 C710 SECTION NOT TO SCALE

KEY PLAN: NORTH

ISSUED FOR BIDDING	5-16-2016
# Revision	Date

**UNC CHARLOTTE**  
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