

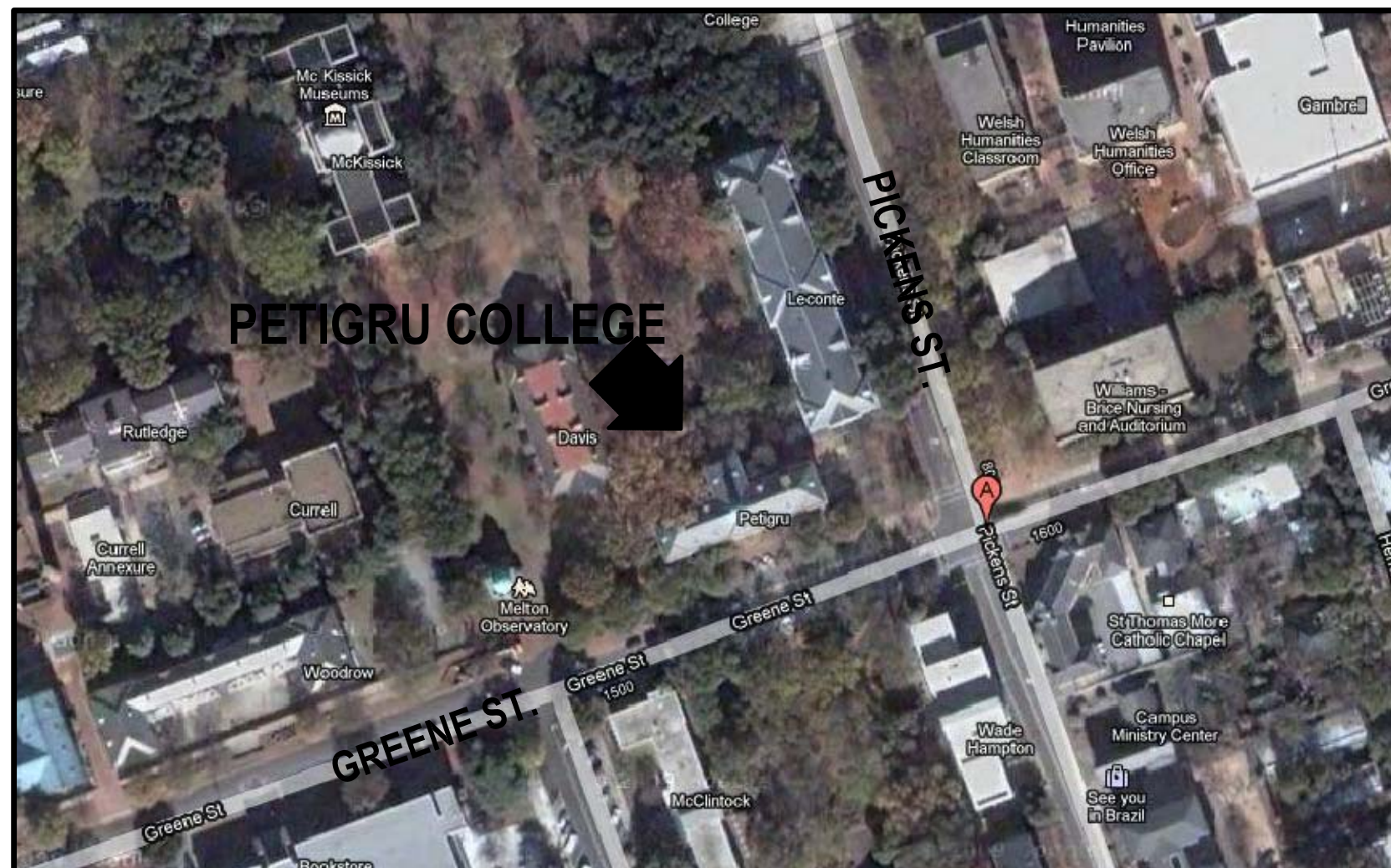
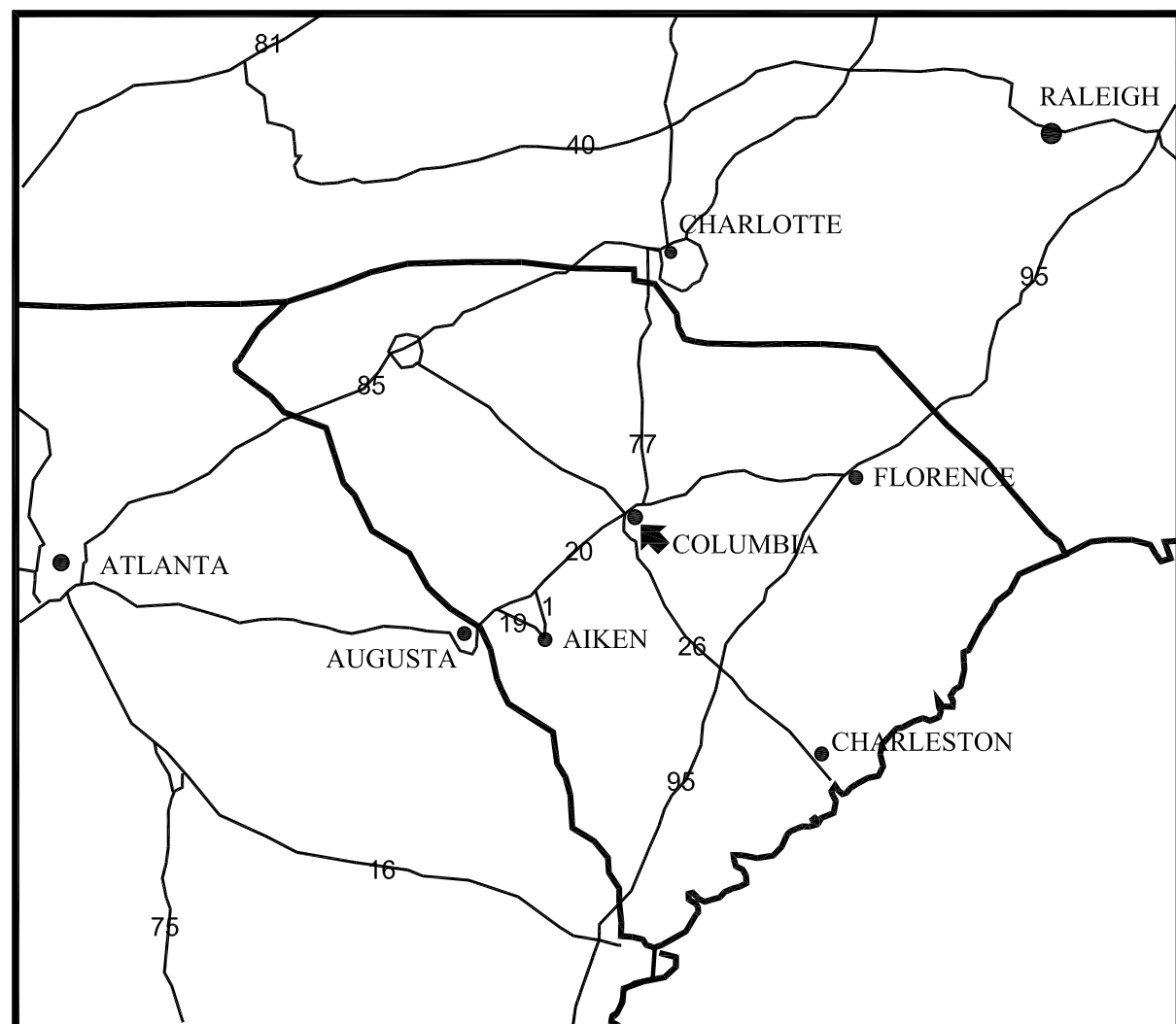


# GIBBES GREEN HISTORIC FACILITIES RENOVATION - PETIGRU COLLEGE SITEWORK

OSE Project # H27-9835-PD-C  
A/E Project #13031.01  
JANUARY 15, 2014  
CONSTRUCTION DOCUMENTS

Prepared by:  
  
ASSOCIATES, INC.  
Architects/Engineers/Planners  
1201 Main Street  
Columbia, South Carolina 29201-3299  
tel. 803-256-0000 fax 803-255-7243

LOCATOR MAPS



DRAWING INDEX

CIVIL

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- C2. SITE AND WATER PLAN
- C3. PHASE 1 AREAS AND PEDESTRIAN PATHWAYS PLAN
- C4. PHASE 2 AREAS AND PEDESTRIAN PATHWAYS PLAN
- C5. GRADING, STORM AND SWPPP
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- C7. DETAIL SHEET

ELECTRICAL

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LANDSCAPE

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NOTE:  
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**The Palmetto Utility Protection Service, Inc.**  
1219 Knox Abbott Drive, Suite 100 Cayce, South Carolina 29635 Voice (803) 999-1111 Fax (803) 999-0730

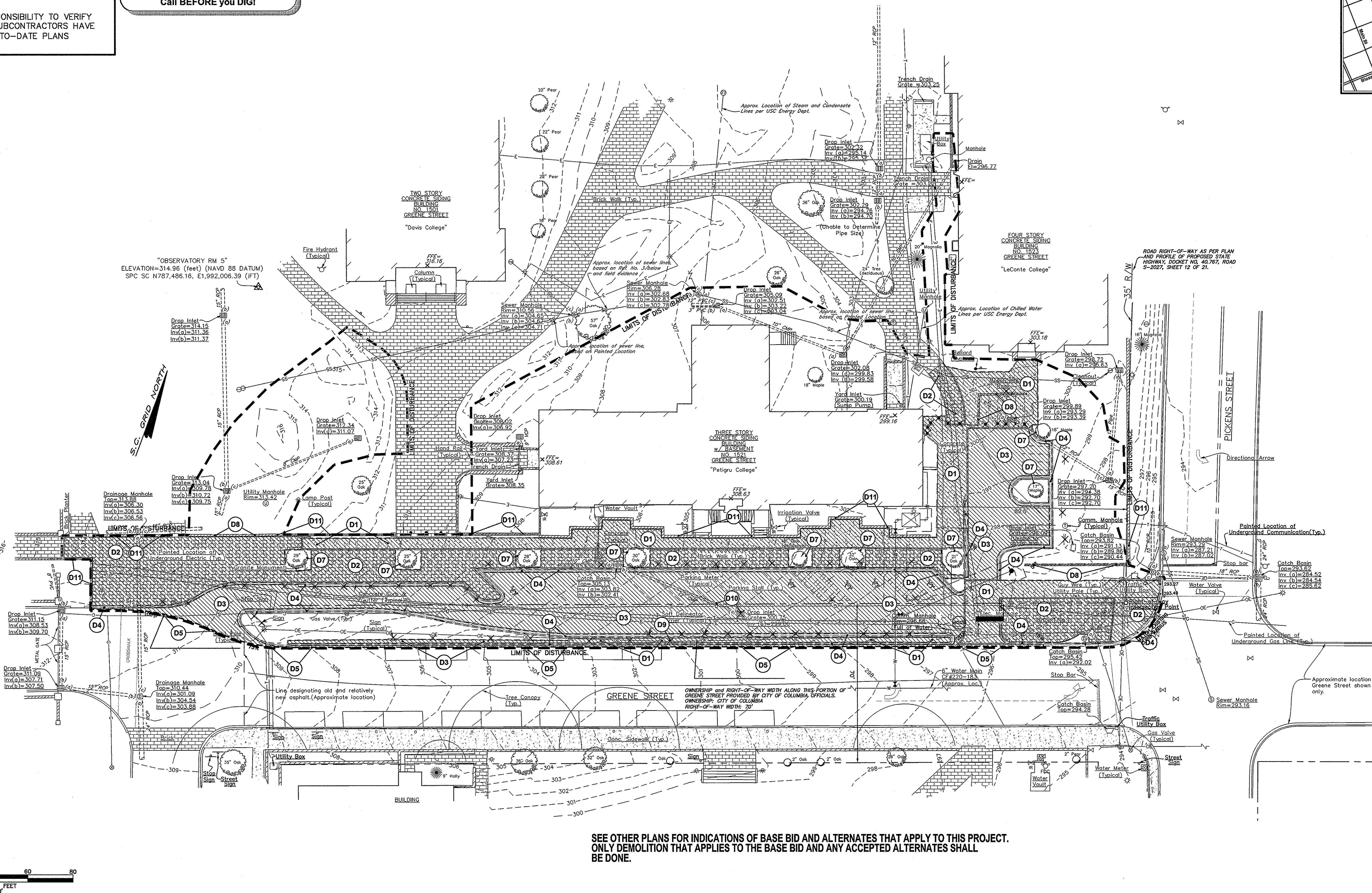


**3 DAYS BEFORE DIGGING IN  
SOUTH CAROLINA**

**CALL 811**

UNDERGROUND LOCATORS,  
CONTRACTOR SHALL CONTACT  
THE UNDERGROUND LOCATOR  
EVERY 10 DAYS FOR AN UPDATE  
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**Call BEFORE you DIG!**



- (D1) EXISTING CONCRETE TO BE DEMOLISHED AND DISPOSED OF PROPERLY. COORDINATE EXACT LOCATION WITH LANDSCAPE PLANS.
- (D2) EXISTING BRICK WALK TO BE DEMOLISHED AND DISPOSED OF PROPERLY.
- (D3) EXISTING ASPHALT AND BASE TO BE DEMOLISHED AND DISPOSED OF PROPERLY.
- (D4) SHADED PORTION OF EXISTING CONCRETE CURB TO BE DEMOLISHED AND DISPOSED OF PROPERLY.
- (D5) DASHED LINE INDICATES A SAW-CUT LINE. CONTRACTOR TO INSTALL FULL DEPTH BINDER COURSE (4" MINIMUM) AND 2" SURFACE COURSE IN VOID BETWEEN SAWCUT LINE AND NEW 24" CURB AND GUTTER.
- (D6) INTENTIONALLY OMITTED.
- (D7) SEE ARCHITECTURAL/LANDSCAPE PLANS FOR TREE PROTECTION.
- (D8) SHADED PORTION OF EXISTING WALL TO BE DEMOLISHED AND DISPOSED OF PROPERLY. COORDINATE EXACT LOCATION WITH LANDSCAPE PLANS.
- (D9) INTENTIONALLY OMITTED.
- (D10) EXISTING DROP INLET AND SHADED PORTION OF EXISTING PIPE TO BE REMOVED. SEE SHEET C3 FOR FUTURE CONNECTION.
- (D11) EXISTING WALL TO REMAIN.

TOTAL DISTURBED AREA = 1.2 ACRES

- ✕ SIGN TO BE REMOVED.
- ✕ SOFT DELINEATOR BARRIER TO BE REMOVED.
- ✕ PARKING METER TO BE REMOVED.
- ✕ LIGHT POLE TO BE REMOVED.
- ✕ BOLLARD TO BE REMOVED.

1. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL, MEETING SCDOT AND CITY OF COLUMBIA STANDARDS.
2. CONTRACTOR SHALL FIELD VERIFY ALL ITEMS TO BE DEMOLISHED AND REMOVED FROM THE SITE. THE VERIFICATION PROCESS SHALL INCLUDE VISITING AND WALKING THE SITE. ALL ITEMS REQUIRING DEMOLITION/REMOVAL, HEREIN SHOWN ON THIS PLAN OR NOT, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. EXISTING TREES SHALL BE PROTECTED BY THE CONTRACTOR.
4. THERE SHALL BE NO BURNING ON SITE UNLESS AUTHORIZED BY APPROPRIATE AUTHORITY.
5. UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THIS PLAN.
6. EROSION AND SEDIMENT CONTROL DEVICES MUST BE IN PLACE PRIOR TO DEMOLITION.
7. IF ANY HAZARDOUS MATERIAL IS ENCOUNTERED DURING DEMOLITION THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE AGENCIES FOR REMEDIATION.
8. DEMOLITION SHALL MEET ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS.
9. ALL DEMOLITION DEBRIS SHALL BE PROPERLY STORED OR REMOVED FROM THE SITE AND DISPOSED OF OR AS DIRECTED BY THE OWNER, COORDINATE WITH OWNER FOR ANY SALVAGE ITEMS.

- 1) COORDINATE WITH LANDSCAPE ARCHITECT CLOSELY FOR ALL TREE AND ROOT ZONE PROTECTION MEASURES. SEE LANDSCAPE PLANS FOR MORE INFORMATION.
- 2) SEE LANDSCAPING PLANS FOR NOTES PERTAINING TO THE REUSE OF EXISTING BRICK PAVERS.
- 3) SEE LANDSCAPING PLANS FOR NOTES PERTAINING TO REMOVAL OF EXISTING CONCRETE UNDER EXISTING PAVES.
- 4) CONTRACTOR SHALL USE CAUTION WITH DEMOLITION OVER AND AROUND EXISTING UTILITIES. EXISTING MANHOLES AND VALVES SHALL BE PROTECTED AND RAISED OR REINFORCED TO MEET ALL CITY AND OWNER'S REQUIREMENTS AND TO PREVENT STORM RUNOFF FROM ENTERING AS REQUIRED.

THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN INCLUDES THE LIMITS OF DISTURBANCE FROM THE CURRENTLY PERMITTED PROJECT. THE TOTAL DISTURBANCE IS 1.2 ACRES.

1. TOPOGRAPHIC MAP PREPARED FOR UNIVERSITY OF SOUTH CAROLINA PETIGRU COLLEGE, BY COX AND DINKINS, INC. DATED JULY 29, 2010 LAST REVISED JANUARY 26, 2012.

1. THE LOCATION OF OTHER UNDERGROUND UTILITIES AND THEIR SERVICES ARE UNKNOWN.
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3. REFERENCE MARK USED IS SCGS MONUMENT DESIGNATED "OBSERVATORY RM 5", ELEVATION=314.96 (feet) (NAVD 88 DATUM), SPC SC N787,486.16, E1,992,006.39 (IFT), AS TAKEN FROM NGS DATA SHEET: <http://www.ngs.noaa.gov/>.
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5. RICHLAND COUNTY TAX MAP NUMBER: 11304-05-01.




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1201 Main Street, Suite 2100  
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**consultants**

**GRIMBALL  
& ASSOCIATES  
COTTERILL**  
LANDSCAPE ARCHITECTS & LAND PLANNERS



**COX AND DINKIN**  
ENGINEERS - SURVEYOR

0100

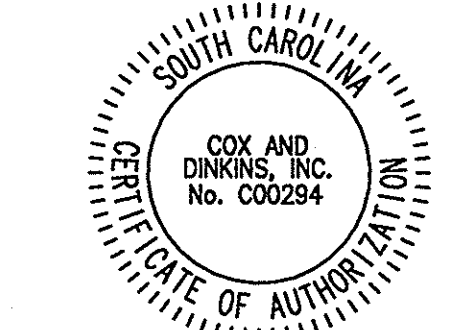
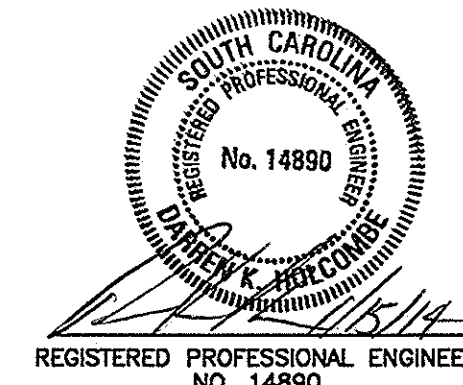


UNIVERSITY OF  
SOUTH CAROLINA

USC CAMPUS PLANNING AND  
CONSTRUCTION  
743 GREENE STREET  
COLUMBIA, SOUTH CAROLINA 29208

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key plan

PETIGRU COLLEGE



sheet title  
**EXISTING CONDITIONS / DEMOLITION  
PLAN**

sheet number

# C1

drawn by  
checked by



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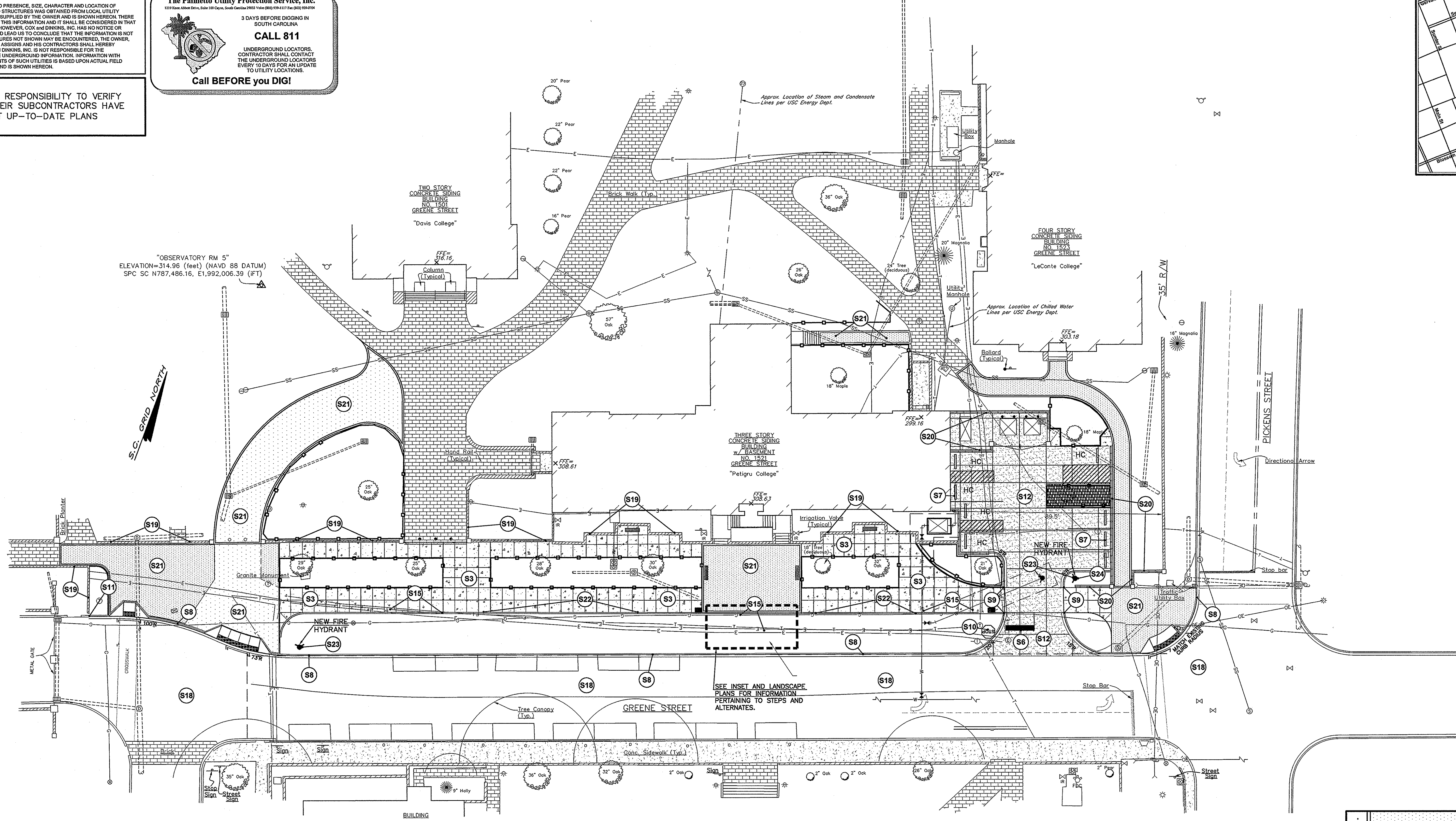
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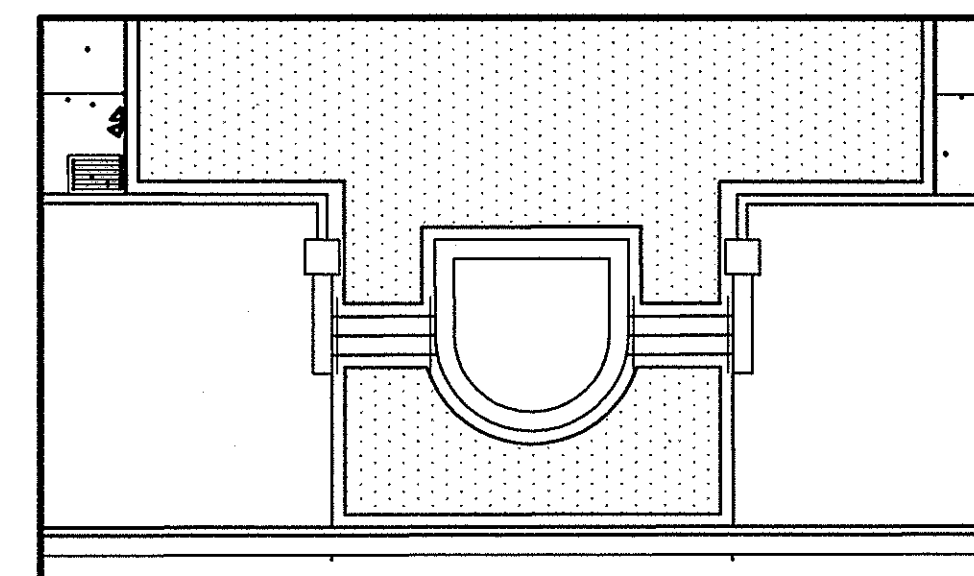
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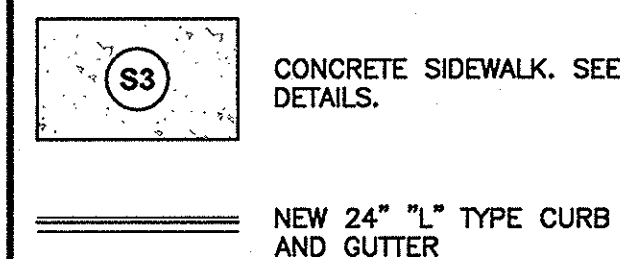


INSET "A"  
1"=10'

CODED SITE NOTES	
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- |   |   |
|---|---|
| <p>(S1) INTENTIONALLY OMITTED.</p> <p>(S2) INTENTIONALLY OMITTED.</p> <p>(S3) HATCHED AREA INDICATED CONCRETE SIDEWALK. SEE DETAILS FOR SECTION.</p> <p>(S4) INTENTIONALLY OMITTED.</p> <p>(S5) INTENTIONALLY OMITTED.</p> <p>(S6) 18" WIDE THERMOPLASTIC WHITE STOP BAR MEETING SCODOT STANDARDS.</p> <p>(S7) CONCRETE WHEELSTOP. (TYPICAL) (SEE DETAIL). ADD EXTRA DISTANCE FROM EDGE AT EAST SIDE OF SERVICE AREA.</p> <p>(S8) NEW 24" 3500 PSI CONCRETE "L" TYPE CURB AND GUTTER. CONTRACTOR SHALL INSTALL CONTRACTION JOINTS AT 12.0' O.C.. INSTALL EXPANSION JOINTS AT 60' O.C. (TYPICAL) (SEE DETAIL)</p> <p>(S9) FEATHER CURB. (SEE DETAIL)</p> <p>(S10) SCODOT STANDARD STOP SIGN. (SEE DETAIL)</p> <p>(S11) REMOVE EXISTING RAMP AND MATCH NEW CURB TO EXISTING CURB AT THIS LOCATION.</p> <p>(S12) CONCRETE PARKING AREA. SEE LANDSCAPE PLANS FOR SCORING AND EXPANSION JOINTS AND SECTION DETAILS.</p> <p>(S13) INTENTIONALLY OMITTED.</p> <p>(S14) INTENTIONALLY OMITTED.</p> <p>(S15) SEE "NOTES TO CONTRACTOR" - NOTE 5.</p> | <p>(S16) INTENTIONALLY OMITTED.</p> <p>(S17) INTENTIONALLY OMITTED.</p> <p>(S18) EXISTING ASPHALT TO REMAIN AS-IS.</p> <p>(S19) EXISTING WALL TO REMAIN.</p> <p>(S20) NEW WALL. SEE LANDSCAPE PLANS.</p> <p>(S21) NEW PAVEMENT WALK. SEE LANDSCAPE PLANS.</p> <p>(S22) INTEGRAL CURB IN THIS AREA. SEE LANDSCAPE PLANS.</p> <p>(S23) MOVE EXISTING FIRE HYDRANT TO THIS LOCATION. COORDINATE WITH LIGHTING LOCATIONS.</p> <p>(S24) CONTRACTOR SHALL ADJUST LOCATION OF NEW WATER LINE SO THAT THIS NEW FIRE HYDRANT CAN BE PLACED AS SHOWN.</p> |
|---|---|

## PAVING LEGEND



## NOTES TO CONTRACTOR:

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR CONTROL OF ALL VEHICULAR AND PEDESTRIAN TRAFFIC. ACCESS TO ALL USE FACILITIES MUST BE MAINTAINED OR COORDINATED WITH USC PROJECT MANAGER.
2. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY ADJACENT ASSESSMENT SCOT STANDARDS PRIOR TO PLACEMENT OF TYPE C (SCOOT 403) SURFACE COURSE.
3. MARKED ASPHALT CROSSWALKS SHALL BE INSTALLED AS SHOWN AND SHALL MATCH THE PATTERN AND COLOR OF NEARBY SIMILAR CROSSWALKS.
4. CONTRACTOR SHALL RASE/LOWER UTILITY BOXES AS NEEDED IN PAVEMENT AND LANDSCAPE AREAS TO MATCH EXISTING GRADE AND SURROUNDING UTILITIES.
5. CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO INSTALLATION OF ANY STRUCTURES, PIPES OR OTHER IMPROVEMENTS. IT IS EXPECTED THAT THE EXISTING UTILITIES WILL BE SHOWN ON THE PLANS AND FIELD SURVEY. IF THE CONTRACTOR DISCOVERS ANY UTILITIES WITHOUT SIGNIFICANT CONFLICT, HOWEVER THE CONTRACTOR SHALL VERIFY THIS AS SUCH AS POSSIBLE BY EXCAVATING TO THE DEPTH OF THE UTILITY.
6. CONTRACTOR SHALL INSTALL USC/SCOOT STANDARD HANDICAP PARKING SLAT SIGNAGE INSURING THAT AT LEAST ONE FULL-SIZE SPACE GETS A "VAN ACCESSIBLE" SIGN.
7. CONTRACTOR SHALL COORDINATE WITH SCEAGS, USC PROJECT MANAGER AND LANDSCAPE ARCHITECT FOR UTILITIES AND LOCATIONS.

## NOTES REGARDING PARKING LOT SIGNAGE:

- 1) THE CONTRACTOR SHALL FURNISH AND INSTALL "HANDICAPPED PARKING" SIGNS WITH IDENTIFYING HANDICAPPED SYMBOL AT ALL HANDICAPPED PARKING SPACES. SIGNS SHALL BE 12"x18", 0.050 ALUMINUM WITH BAKED ENAMEL FINISH. SIGNS SHALL HAVE WHITE LETTERING ON BLUE BACKGROUND, WITH INSTALLATION AS SHOWN ON THE DETAIL SHEET. SIGNS SHALL CONFORM TO FEDERAL HIGHWAY ADMINISTRATION AND/OR SCOD SPECIFICATIONS. INCLUDE "VAN ACCESSIBLE" SIGNAGE WHERE APPLICABLE. ALL SIGNAGE SHALL BE ADA AND MUTCD COMPLIANT.

## NOTES REGARDING PARKING LOT STRIPING:

- 1) ALL PARKING LOT STRIPING SHOWN SHALL BE PERFORMED BY THE CONTRACTOR USING WHITE TRAFFIC MARKING PAINT UNLESS NOTED OTHERWISE BELOW. PAINT SHALL BE SHERWIN-WILLIAMS "PRO-MARK" TRAFFIC MARKING PAINT OR GLIDDEN TRAFFIC PAINT AND SHALL BE APPLIED IN TWO COATS AND IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 2) ITEMS REQUIRING WHITE PAINT INCLUDE ALL HANDICAP PARKING STALLS.
- 3) ITEMS REQUIRING YELLOW PAINT INCLUDE STEEL PIPE BASE OF HANDICAP PARKING SIGNS.
- 4) ITEMS REQUIRING BLUE PAINT INCLUDE HANDICAP PARKING STALLS AND SYMBOLS; ALL STRIPED ISLANDS ADJACENT TO HANDICAP PARKING SPACES; AND ALL PEDESTRIAN CROSSING AREAS ON THE SITE.
- 5) ALL STRUCTURES SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS IF APPLICABLE.
- 6) ALL STRIPING SHALL BE ADA AND MUTCD COMPLIANT.

REFERENCES:

1. TOPOGRAPHIC MAP PREPARED FOR UNIVERSITY OF SOUTH CAROLINA PETIGRU COLLEGE, BY COX AND DINKINS, INC. DATED JULY 29, 2010 LAST REVISED JANUARY 26, 2012.  
2. USC MASTER UTILITY DRAWING DATED JANUARY 5, 1998, PROVIDED BY ARCHITECT.

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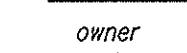
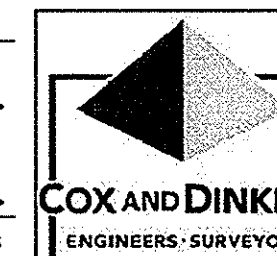


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**consultant**

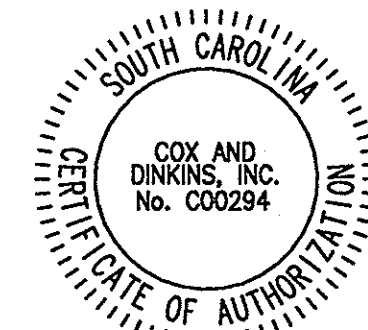
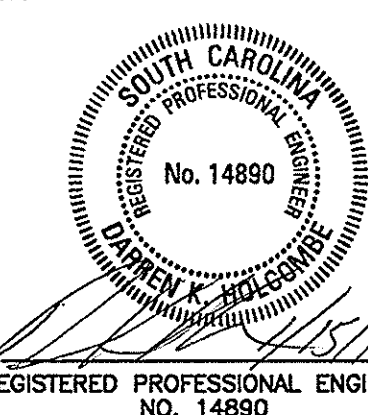
**GRIMBALL  
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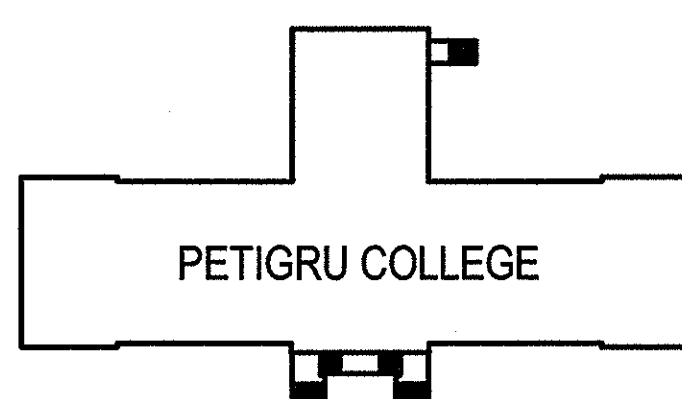


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**SITE AND WATER PLAN**

sheet number

C2

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checked by








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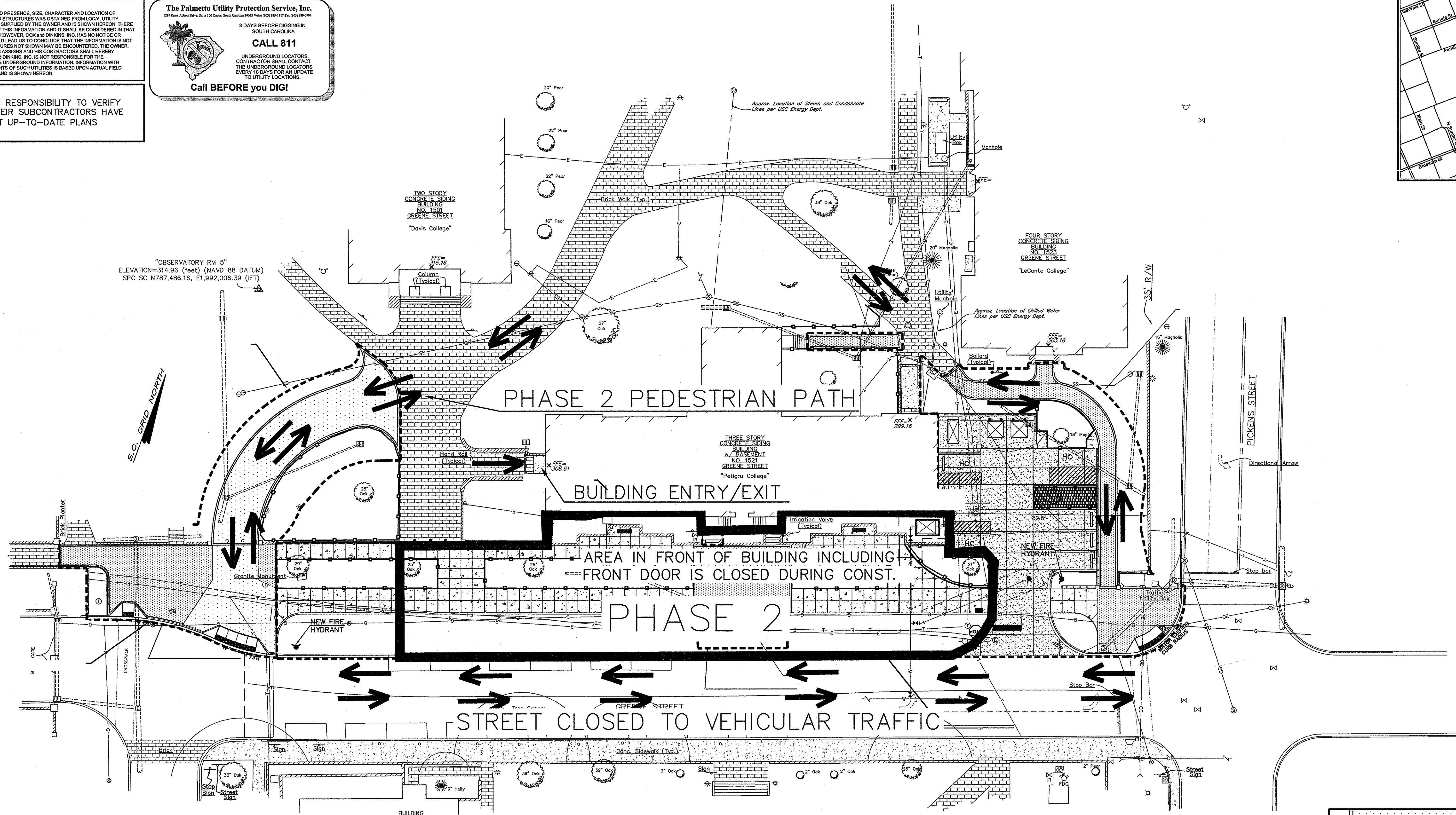


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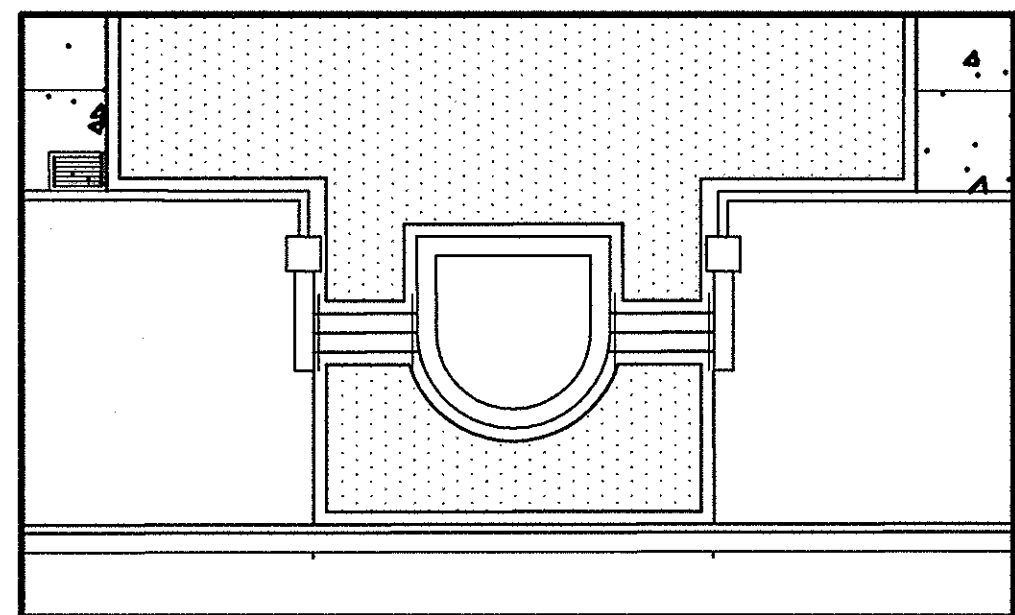
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INSET "A"  
1"=10'

0 20 40 60 80

GRAPHIC SCALE IN FEET  
SCALE: 1"=20'

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**consultant**

**GRIMBALL  
& ASSOCIATE  
COTTERILL**



**COX AND DINKLEY**  
ENGINEERS • SURVEYORS

0000



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REGISTERED PROFESSIONAL ENGINEER  
NO. 14890

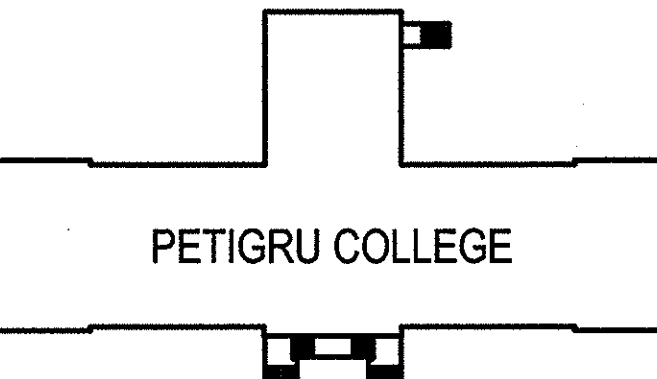


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key plan



sheet title  
**PHASE 2 AREA AND PEDESTRIAN  
PATHWAYS PLAN**

sheet number

**C4**

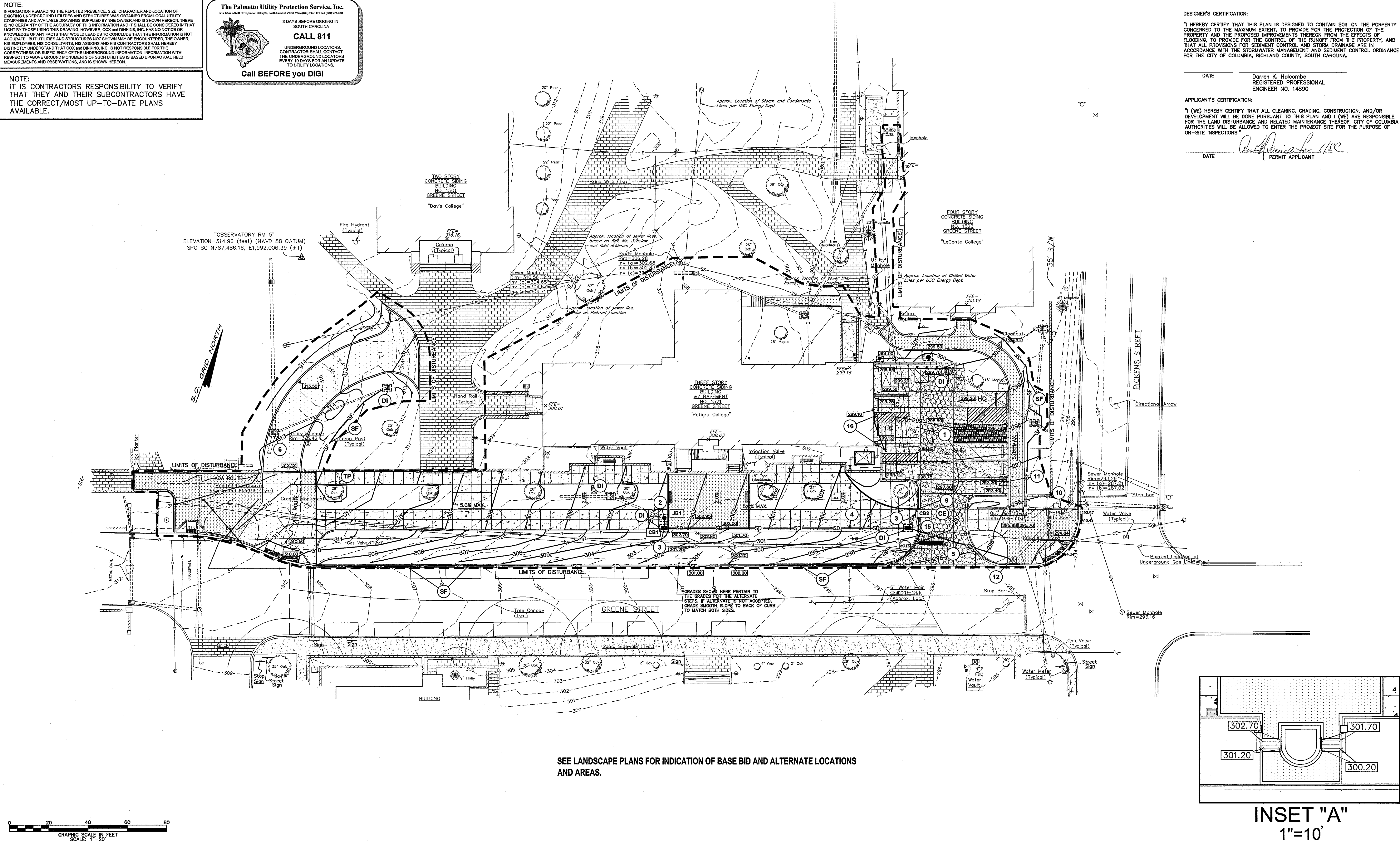
drawn by  
checked by



NOTE:  
INFORMATION REGARDING THE REPUTED PRESENCE, SIZE, CHARACTER AND LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES WAS OBTAINED FROM LOCAL UTILITY COMPANIES AND AVAILABLE DRAWINGS SUPPLIED BY THE OWNER AND IS SHOWN HEREON. THERE IS NO CERTAINTY OF THE ACCURACY OF THIS INFORMATION AND IT SHALL BE CONSIDERED IN THAT LIGHT BY THOSE USING THIS DRAWING. HOWEVER, COX AND DINKINS, INC. HAS NO NOTICE OR KNOWLEDGE OF ANY FACTS THAT WOULD LEAD US TO CONCLUDE THAT THE INFORMATION IS NOT ACCURATE. BUT UTILITIES AND STRUCTURES NOT SHOWN MAY BE ENCOUNTERED. THE OWNER, HIS EMPLOYEES, HIS CONSULTANTS, HIS ASSIGNS AND HIS CONTRACTORS SHALL HEREBY DISTINCTLY UNDERSTAND THAT COX AND DINKINS, INC. IS NOT RESPONSIBLE FOR THE CORRECTNESS OR SUFFICIENCY OF THE UNDERGROUND INFORMATION. INFORMATION WITH RESPECT TO ABOVE GROUND MONUMENTS OF SUCH UTILITIES IS BASED UPON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS, AND IS SHOWN HEREON.

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SEE LANDSCAPE PLANS FOR INDICATION OF BASE BID AND ALTERNATE LOCATIONS AND AREAS.

DESIGNER'S CERTIFICATION:  
I HEREBY CERTIFY THAT THIS PLAN IS DESIGNED TO CONTAIN SOIL ON THE PROPERTY CONCERNED TO THE MAXIMUM EXTENT, TO PROVIDE FOR THE PROTECTION OF THE PROPERTY AND THE PROPOSED IMPROVEMENTS THEREON FROM THE EFFECTS OF FLOODING, TO PROVIDE FOR THE CONTROL OF THE RUNOFF FROM THE PROPERTY, AND THAT ALL PROVISIONS FOR SEDIMENT CONTROL AND STORM DRAINAGE ARE IN ACCORDANCE WITH THE STORMWATER MANAGEMENT AND SEDIMENT CONTROL ORDINANCE FOR THE CITY OF COLUMBIA, RICHLAND COUNTY, SOUTH CAROLINA.

APPLICANT'S CERTIFICATION:  
I (WE) HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND I (WE) ARE RESPONSIBLE FOR THE LAND DISTURBANCE AND RELATED MAINTENANCE THEREOF. CITY OF COLUMBIA AUTHORITIES WILL BE ALLOWED TO ENTER THE PROJECT SITE FOR THE PURPOSE OF ON-SITE INSPECTIONS.

DATE: 1/15/2014  
Darren K. Holcombe  
REGISTERED PROFESSIONAL ENGINEER NO. 14890

DATE: 1/15/2014  
PERMIT APPLICANT

OWNER:  
UNIVERSITY OF SOUTH CAROLINA

USC CAMPUS PLANNING AND CONSTRUCTION  
743 GREENE STREET  
COLUMBIA, SOUTH CAROLINA 29208

project name:  
GIBBES GREEN HISTORIC FACILITIES RENOVATION - PETIGRU COLLEGE SITEWORK  
OSE # H27-9835-PD-C

A/E project number:  
13031.01

seal/signature:  
REGISTERED PROFESSIONAL ENGINEER NO. 14890

CERTIFICATE OF AUTHORIZATION SEAL

based for CONSTRUCTION DOCUMENTS (NOT FOR CONSTRUCTION)

date JANUARY 15, 2014

number item date

key plan

INSET "A"  
1"=10'

INSET "A" shows a detail of a storm drain inlet with elevations: 302.70, 301.70, 301.20, and 300.20.

- CODING NOTES**
1. FLOW ARROW INDICATES DIRECTION OF STORM FLOW.
  2. NEW JUNCTION BOX CONSTRUCTED OVER EXISTING LINE. TIE TO NEW CATCH BASIN AS SHOWN WITH 15" HDPE PIPE AT 1% MINIMUM SLOPE AND MINIMUM 1.5' COVER.
  3. NEW 24" x 36" CATCH BASIN WITH PEDESTRIAN RATED GRATE.
  4. 15" DOUBLE WALL HDPE PIPE AT SLOPE TO MATCH FINISH GRADE. MINIMUM 1.5' COVER.
  5. 15" HDPE PIPE - 1% MIN. SLOPE. TIE TO BOX IN STREET AS SHOWN. REPAIR BOX AS NECESSARY. MINIMUM 1.5' COVER.
  6. RAISE OR LOWER GRATE AS NECESSARY.
  7. INTENTIONALLY OMITTED.
  8. INTENTIONALLY OMITTED.
  9. CONSTRUCTION ENTRANCE/EXIT. IN THE AREA WHERE ASPHALT IS REMOVED. THIS IS TO PREVENT SEDIMENT FROM BEING TRACKED ONTO GREENE STREET. SEE DETAIL.
  10. SEE LANDSCAPE PLAN OR COORDINATE WITH US PROJECT MANAGER FOR POSSIBLE INSTALLATION OF RAILING IN THIS AREA TO MEET ADA STANDARDS.
  11. RAISE GRATE AS SHOWN NECESSARY TO MATCH FINISHED GRADE.
  12. EXISTING CATCH BASIN AND TOP TO REMAIN. TIE NEW PIPE INTO EXISTING BOX AND REPAIR AS NECESSARY.
  13. INTENTIONALLY OMITTED.
  14. INTENTIONALLY OMITTED.
  15. IF BASE BID IS ACCEPTED WITHOUT ALTERNATE 1, THEN THE GRATE ON THIS DRAINAGE STRUCTURE SHALL BE SET AT EXISTING GRADE.
  16. INSTALL 4" MINIMUM WIDTH PEDESTRIAN RATED TRENCH DRAIN ACROSS THE ENTIRE FRONT OF THIS DOOR. ESTIMATED LENGTH 6' TO 8'. TIE 4" MINIMUM SCH 40 PVC PIPE INTO PIPE SERVING ROOF DRAIN SYSTEM IN THE VICINITY SHOWN.

**SWPPP LEGEND**

- DI DROP INLET SEDIMENT FILTER. TYPICAL. SEE DETAIL.
- SF PERIMETER SILT FENCE. TYPICAL. SEE DETAIL.
- CE CONSTRUCTION ENTRANCE/EXIT.
- LIMIT OF DISTURBANCE LINE

**GRADING LEGEND**

- PROPOSED SPOT SHOT ELEVATION
- PROPOSED INDEX CONTOUR
- PROPOSED INTERMEDIATE CONTOUR
- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- FLOW ARROW INDICATING DIRECTION OF FLOW

**UTILITY NOTE FOR CONTRACTOR:**  
CONTRACTOR SHALL ADJUST TOP ELEVATION OF MANHOLES, VALVES AND OTHER UTILITY APPURTENANCES AS NECESSARY TO MATCH NEW FINISH GRADE AND PREVENT RUNOFF FROM ENTERING AS REQUIRED BY UTILITY OWNER.

TOTAL DISTURBED AREA = 1.2 ACRES

**STORM DRAINAGE NARRATIVE:**  
THIS PROJECT WILL RESULT IN NO ADDITIONAL IMPERVIOUS AREA AND THUS WILL NOT HAVE AN INCREASE IN POST DEVELOPMENT PEAK RATE.

**SEDIMENT & EROSION CONTROL NOTES:**

1. LAND DISTURBING ACTIVITIES AND DEMOLITION SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN ISSUED BY GOVERNING AUTHORITIES.
2. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
3. THE EROSION CONTROL MEASURES INCLUDED IN THE STORM WATER POLLUTION PREVENTION PLAN (EROSION CONTROL PLAN AND EROSION CONTROL DETAILS) SHALL BE INSTALLED PRIOR TO INITIAL LAND DISTURBANCE ACTIVITIES OR AS SOON AS PRACTICAL. SEDIMENT SHALL BE PREVENTED FROM DISCHARGING FROM THE PROJECT SITE BY INSTALLING AND MAINTAINING CONTROL PRACTICES AS SHOWN ON THIS PLAN. STRUCTURAL PRACTICES SHALL BE USED TO CONTROL EROSION FROM ALL SITES REMAINING FOR MORE THAN 14 DAYS.
4. THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL OR MAINTENANCE OF ALL WASTES AND LAUNDED BUILDING MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS.
5. PUBLIC OR PRIVATE ROADWAYS SHALL BE CLEARED OF ACCUMULATED SEDIMENT. BULK CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FILLING THE AREA WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE POINT OF ORIGIN OR OTHER SUITABLE LOCATION. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE TRACKING OF MUD ONTO PAVED ROADWAYS FROM CONSTRUCTION AREAS. CONTRACTOR MUST REMOVE MUD/SOIL FROM THE PAVEMENT DAILY, AS MAY BE REQUIRED.
6. ALL ON-SITE STORM DRAIN INLETS SHALL BE PROTECTED AGAINST SEDIMENTATION AS SHOWN ON THESE PLANS. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW:
  - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICAL.
  - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
7. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EMPLOYED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.
8. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES, IF REQUIRED, WITH THE OWNER. MAINTENANCE SHALL BE IN ACCORDANCE WITH DCD'S MANUAL, "SOUTH CAROLINA STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR LAND DISTURBANCE ACTIVITIES".
9. ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH "SOUTH CAROLINA STORMWATER MANAGEMENT AND SEDIMENT CONTROL HANDBOOK FOR LAND DISTURBANCE ACTIVITIES".
10. EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.
12. THIS EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.
13. ALL DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED AS NECESSARY AT NO ADDITIONAL EXPENSE TO THE OWNER.
14. DURING UTILITY INSTALLATION, PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION. ALL DISTURBED AREAS SHALL BE CLEARED, GRADED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY CONSTRUCTION.
15. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AT HIS EXPENSE TO REDUCE EROSION AND PREVENT SEDIMENT FROM LEAVING THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL CLEANUP AND REPAIR ON-SITE AND DOWNSTREAM DUE TO EROSION AND SITUATION.
16. TEMPORARY DIVERSION BERM AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR INVERT SEDIMENT LOADED WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
17. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORMWATER DISCHARGES.
18. PROMOTE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY DEMOLITION. ALL DISTURBED AREAS SHALL BE CLEARED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY DEMOLITION, FILL, CONDUIT, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATER OF THE STATE.
19. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OPPOSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

**CONSTRUCTION SEQUENCE: (60 day schedule)**

1. RECEIVE PERMIT COVERAGE FROM CITY OF COLUMBIA.
2. HOLD A PRE-CONSTRUCTION MEETING THAT INCLUDES THE PRESENCE OF CITY OF COLUMBIA STORMWATER STAFF.
3. NOTIFY THE CITY OF COLUMBIA OFFICE 48 HOURS PRIOR TO BEGINNING LAND-DISTURBING ACTIVITIES.
4. CLEARING AND GRUBBING ONLY AS NECESSARY FOR INSTALLATION OF PERIMETER CONTROLS.
5. INSTALLATION OF PERIMETER CONTROLS (E.G., SILT FENCE).
6. CLEARING AND GRUBBING OF SITE OR DEMOLITION (SEDIMENT AND EROSION CONTROL MEASURES FOR THESE AREAS MUST ALREADY BE INSTALLED).
7. ROUGH GRADING.
8. INSTALLATION OF STORM DRAIN SYSTEM AND PLACEMENT OF INLET PROTECTION AS EACH INLET IS INSTALLED.
9. FINE GRADING, PAVING, ETC.
10. PERMANENT/FINAL STABILIZATION.
11. REMOVAL OF TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES AFTER ENTIRE AREA DRAINING TO THE STRUCTURE IS FINALLY STABILIZED (sednac RECOMMENDS THAT THE PROJECT OWNER/ OPERATOR HAVE THE SWPPP PREPARED OR REGISTRATION EQUIVALENT APPROVE THE REMOVAL OF TEMPORARY STRUCTURES).

NOTE: CONSTRUCTION SEQUENCE ABOVE IS NOT A CONTRACTUAL SEQUENCE.

**REFERENCES:**

1. TOPOGRAPHIC MAP PREPARED FOR UNIVERSITY OF SOUTH CAROLINA PETIGRU COLLEGE, BY COX AND DINKINS, INC. DATED JULY 23, 2010 LAST REVISED JANUARY 26, 2012.
2. USC MASTER UTILITY DRAWING DATED JANUARY 5, 1998, PROVIDED BY ARCHITECT.

**NOTES:**

1. THE LOCATION OF OTHER UNDERGROUND UTILITIES AND THEIR SERVICES ARE UNKNOWN.
2. CONTOUR INTERVAL ELEVATIONS ARE ONE (1) FOOT.
3. REFERENCE MARK USED IS SCOS MONUMENT DESIGNATED "OBSERVATORY RM 5", ELEVATION=314.98 (feet) (NAVD 88 DATUM), SPC SC N787,486.16, E1,992,006.39 (FT), AS TAKEN FROM NGS DATA SHEET. <http://www.ngs.noaa.gov/>
4. TREE SPECIES SHOWN HAVE BEEN IDENTIFIED TO THE BEST OF THE SURVEYORS KNOWLEDGE. IF EXACT SPECIES OF TREE IS DESIRED, A PROFESSIONAL ARBORIST SHOULD BE CONSULTED.
5. RICHLAND COUNTY TAX MAP NUMBER: 11304-05-01.

**STORM DRAINAGE NOTES:**

1. ALL MATERIAL AND INSTALLATION IS TO MEET REQUIREMENTS OF CITY OF COLUMBIA AND SCDEHC.
2. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AS-BUILT INFORMATION TO ENGINEER ON STORM DRAINAGE LOCATIONS. THIS AS-BUILT INFORMATION MUST BE CERTIFIED BY A REGISTERED LAND SURVEYOR.
3. CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBIA ENGINEER'S OFFICE 48 HOURS PRIOR TO STARTING WORK.
4. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING NECESSARY PERMITS FROM ENGINEER PRIOR TO START OF CONSTRUCTION.

**G M K ASSOCIATES, INC.**

Architects/Engineers/Planners  
1201 Main Street, Suite 2100  
Columbia, S.C. 29201  
tel. 803-256-0000  
fax 803-255-7243

GRIMBALL & ASSOCIATES COTTERILL  
LANDSCAPE ARCHITECT & LAND PLANNERS

COX AND DINKINS  
ENGINEERS-SURVEYORS

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based for CONSTRUCTION DOCUMENTS (NOT FOR CONSTRUCTION)

date JANUARY 15, 2014

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key plan

INSET "A"  
1"=10'

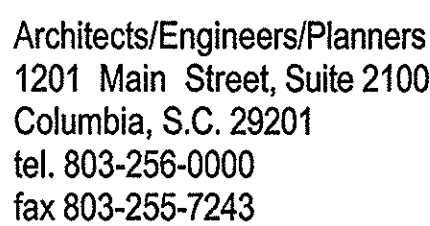
PETIGRU COLLEGE

sheet title  
GRADING, STORM, AND SWPPP

sheet number  
C5

drawn by  
checked by





**consultants**

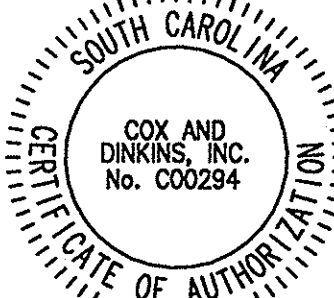


USC CAMPUS PLANNING AND  
CONSTRUCTION  
743 GREENE STREET  
COLUMBIA, SOUTH CAROLINA 29208

sent's/signature



REGISTERED PROFESSIONAL ENGINEER  
NO. 14890



CERTIFICATE OF AUTHORIZATION SEAL

**date**  
JANUARY 15, 2014

key plan



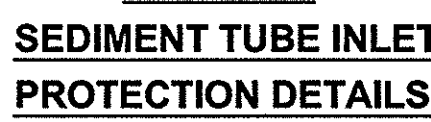
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**DETAIL SHEET**

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TEMPORARY AND PERMANENT GRASS PLANTINGS BY SEASON WITH THE  
REQUIRED AMOUNTS OF FERTILIZER AND LIMESTONE PER 1,000 SQUARE FEET.

1 LB. BROWN TOP MILLET  
2 LBS. HULLED BERMUDA  
25 LBS. 10-10-10 FERTILIZER  
75 LBS. LIMESTONE

OR  
DEEP SANDY SOILS  
2 LBS. BROWN TOP MILLE  
\*3 LBS. BAHIA GRASS  
25 LBS. 10-10-10 FERTILIZ  
75 LBS. LIMESTONE

1 LB. UNHULLED BERMUDA  
25 LBS. BAHIA GRASS  
52 LBS. 10-10-10 FERTILIZER  
75 LBS. LIMESTONE

\*BAHIA GRASS IS A GOOD EROSION CONTROL GRASS. HOWEVER IT PRODUCE MANY SEED HEADS WHICH SCATTER TO OTHER AREAS. BAHIA GRASS IS HARD TO MOW. HOWEVER IT DOES NOT REQUIRE THE CARE THAT OTHER GRASSES REQUIRE. AROUND OFFICE BUILDINGS AND WITHIN SUBDIVISIONS USE 4 TO 6 OZS. CENTPEDE GRASS IN LIEU OF BAHIA GRASS OR IN COMBINATION WITH BERMUDA GRASS.

**\*\*FOR SOILS WITH CLAY SUBSOIL. DO NOT PLANT IN SANDY SOILS.**

ALL VEGETATED SWALES AND DITCHES WITH SIDE SLOPES (CUT OR FILL) STEEPER THAN 2:1 ADD 4 TO 6 OUNCES/1,000 SQUARE FEET OF WEEPING LOVE GRASS SEED TO ANY OF THE ABOVE MIXTURES. SWALE AND DITCH BOTTOMS SHOULD BE DOUBLE SEEDDED. ALSO ALL SIDE SLOPES STEEPER THAN 2:1 SHALL BE HYDROSEEDED. GROWTH OF RYE GRASS IN EARLY SPRING MUST BE SUPPRESSED TO PREVENT RYE FROM CHOKING OUT PERMANENT GRASS SUCH AS BERMUDA, BAHIA OR FESCUE.



NOT TO SCALE

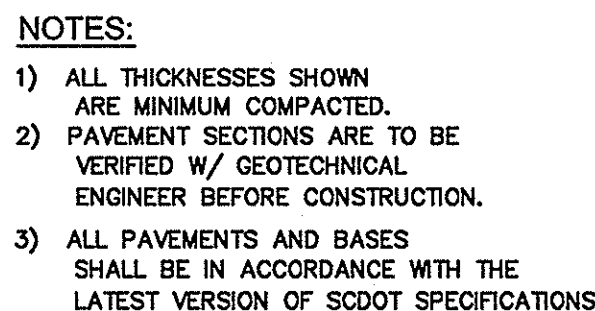
## TYPICAL



## CONCRETE PAVEMENT



## HEAVY DUTY RIGID CONCRETE PAVEMENT



South Carolina Department of Health and Environmental Control	
SILT FENCE	
STANDARD DRAWING NO.	SC-03 Page 1 of 2
AUGUST, 2005	



South Carolina Department of Health and Environmental Control	
STABILIZED CONSTRUCTION ENTRANCE	
STANDARD DRAWING NO. SC-06	Page 1 of 2
AUGUST, 2008	



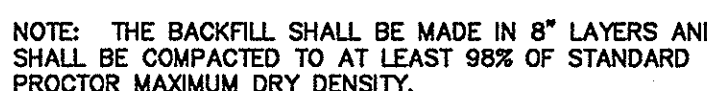
NOTE:  
MIN. DEPTH OF BEDDING TO  
BE ONE FOURTH PIPE DIAMETER  
BUT IN NO CASE LESS THAN 4"

NOTE:  
LOCAL SANDY BEDDING  
MATERIAL TO BE USED  
WHERE UNSUITABLE OR  
UNUSABLE DITCH BOTTOMS  
ARE ENCOUNTERED.



## PRECAST CONCRETE WHEEL STOP

NTS



## PAVEMENT REPAIR DETAIL

sheet number


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**consultants**

**GRIMBALL  
& ASSOCIATES  
COTTERILL**  
LANDSCAPE ARCHITECTS & LAND PLANNERS

 **COX AND DINKINS**  
ENGINEERS · SURVEYORS

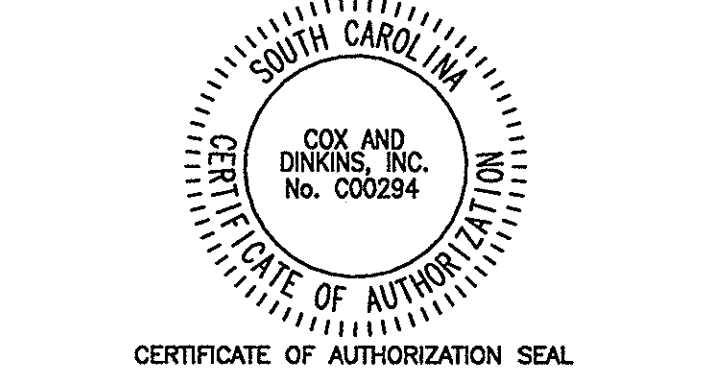
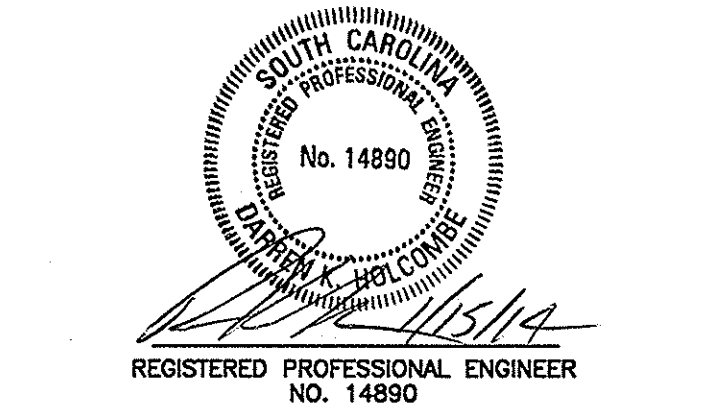


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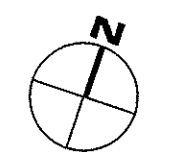
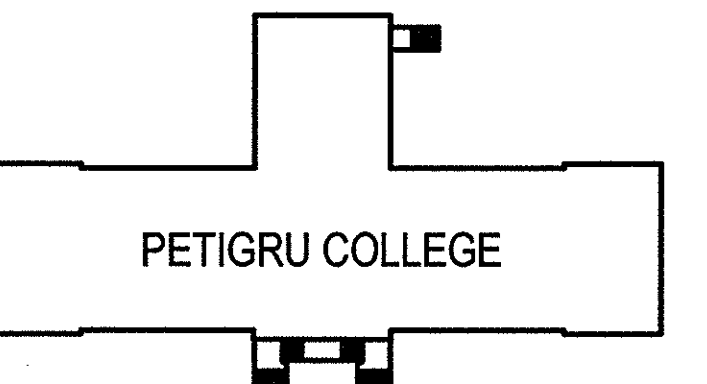
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issued for  
CONSTRUCTION DOCUMENTS  
(NOT FOR CONSTRUCTION)  
date  
JANUARY 15, 2014

[illegible]

*key plan*

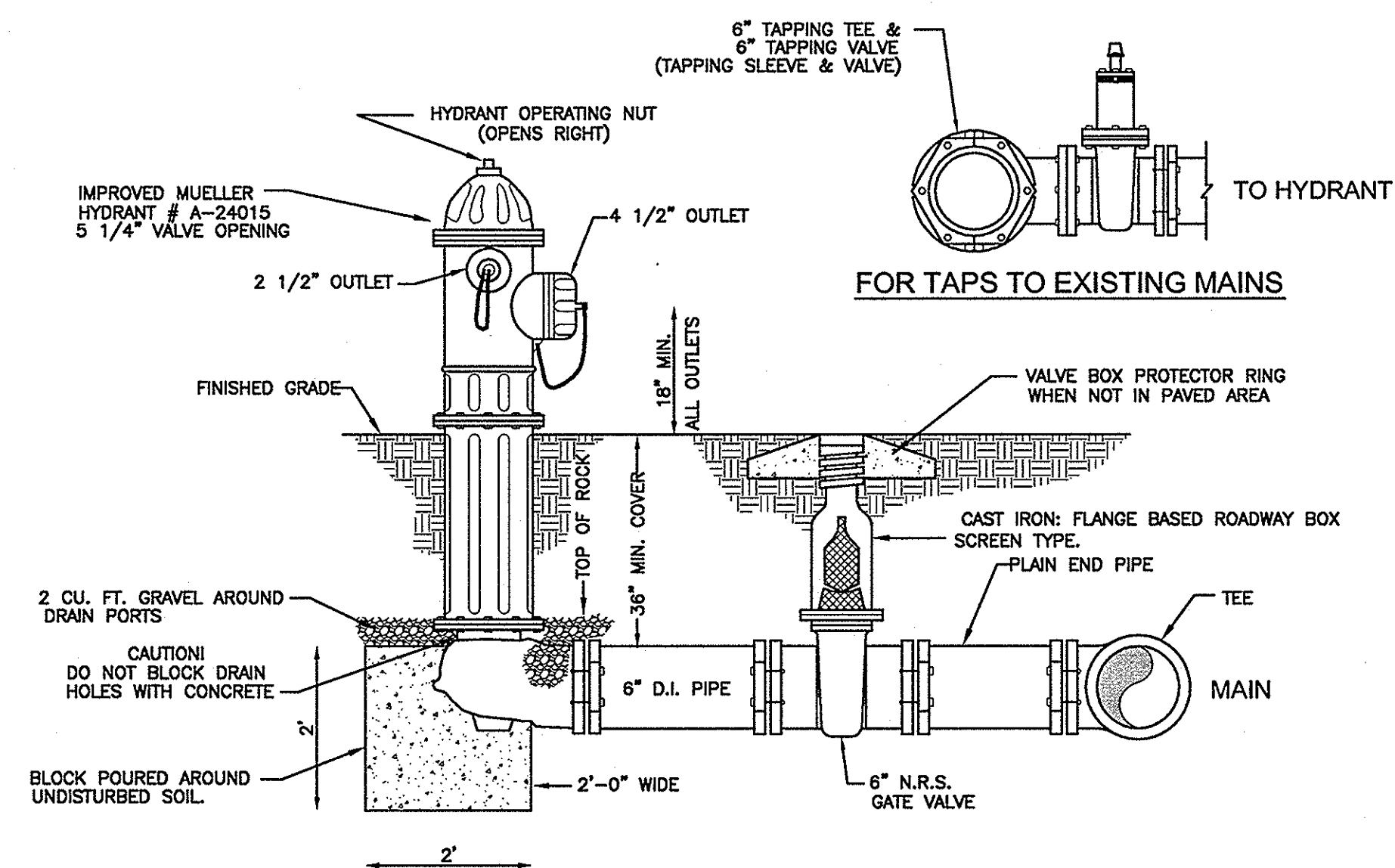


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checked by



## FIRE HYDRANT DETAIL

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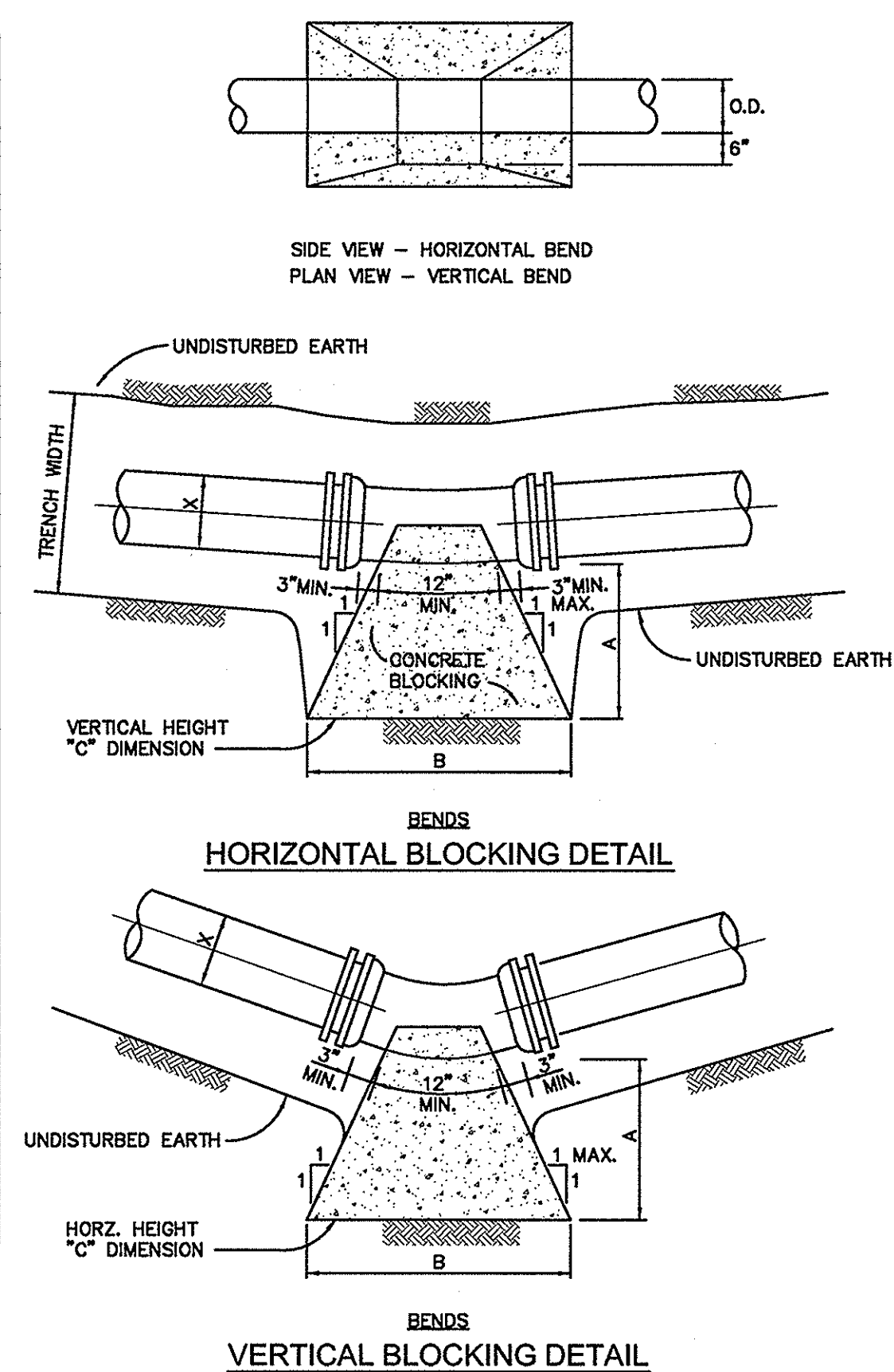
- NOTES:
1. ALL POINTS TO BE MECHANICAL.
  2. HYDRANTS SHALL NOT BE LESS THAN 3' NOR MORE THAN 6" FROM THE CURB OR THE EDGE OF THE SURFACE STREET OR ACCESS ROAD.
  3. EXCEPT THAT ALONG RURAL ROADS THROUGH UNDEVELOPED AREAS THE MAXIMUM DISTANCE MAY BE INCREASED TO 10'.
  4. HYDRANTS MUST BE LOCATED SO AS TO BE UNOBTSTRUCTED FOR 15' EITHER SIDE OF THE VALVE MEASURED FROM THE CURB OR THE EDGE OF A HARD SURFACE STREET OR ACCESS ROAD. THIS AREA MUST BE FREE OF GROWTH.
  5. IF OTHER OBSTRUCTIONS WHICH WOULD HINDER ACCESS TO THE HYDRANT.
  6. MINIMUM DISTANCE BETWEEN VALVE AND HYDRANT SHALL BE 3'.
  7. BENDS MAY BE USED IN HYDRANT LEAD TO FACILITATE HYDRANT LOCATION.
  8. GATE VALVES TO OPEN TO THE LEFT.

CONCRETE BLOCKING DIMENSIONS						
PIPE SIZE	X	A	B	C	MIN. Z (SQ. FT.)	Q <sub>1</sub>
<b>TESTS</b>						
6"	2'-0"	2'-0"	1'-4"	2'-7"	2.7	0.13
8"	2'-0"	2'-0"	1'-10"	4-8	4.6	0.20
10"	2'-0"	3'-6"	2'-0"	7.0	3.9	0.39
12"	2'-6"	4'-6"	2'-3"	10.1	6.0	0.53
16"	3'-0"	6'-0"	2'-0"	17.0	10.2	0.73
18"	3'-0"	7'-0"	3'-0"	21.0	13.3	0.88
24"	4'-0"	10'-0"	3'-9"	37.5	31.7	1.87
30"	5'-0"	12'-0"	4'-10"	58.0	59.6	3.95
<b>90° BENDS</b>						
6"	2'-0"	2'-9"	1'-3"	3.4	0.16	
8"	2'-0"	3'-3"	2'-0"	6.5	0.28	
10"	2'-6"	4'-0"	2'-6"	10.0	0.53	
12"	2'-6"	4'-6"	2'-6"	13.0	0.73	
16"	3'-0"	6'-0"	4'-0"	24.0	1.50	
18"	3'-0"	7'-4"	4'-0"	29.3	1.85	
24"	4'-0"	12'-0"	4'-0"	53.0	4.94	
30"	5'-0"	14'-0"	5'-10"	87.1	9.87	
<b>45° BENDS</b>						
6"	2'-0"	2'-0"	1'-0"	2.0	0.11	
8"	2'-0"	2'-0"	1'-0"	3.7	0.17	
10"	2'-6"	3'-0"	1'-6"	5.2	0.29	
12"	2'-6"	4'-6"	1'-6"	7.5	0.40	
16"	3'-0"	6'-0"	2'-2"	13.0	0.80	
18"	3'-0"	6'-0"	2'-2"	15.0	1.10	
24"	3'-0"	6'-0"	4'-3"	28.7	1.75	
30"	3'-0"	6'-0"	4'-9"	43.9	3.32	
<b>22-1/2° BENDS</b>						
6"	2'-0"	1'-0"	0'-0"	1.0	0.08	
8"	2'-0"	1'-9"	0'-0"	1.7	0.11	
10"	2'-6"	2'-6"	1'-3"	2.8	0.19	
12"	2'-6"	2'-6"	1'-6"	3.7	0.24	
16"	3'-0"	3'-0"	2'-6"	6.5	0.48	
18"	3'-0"	3'-0"	2'-6"	8.3	0.68	
24"	3'-0"	4'-6"	3'-5"	15.4	1.04	
30"	3'-6"	5'-0"	4'-6"	22.5	1.83	
<b>15-1/4° BENDS</b>						
6"	2'-0"	1'-0"	0'-8"	0.5	0.06	
8"	2'-0"	1'-3"	0'-9"	0.9	0.08	
10"	2'-6"	1'-6"	1'-0"	1.5	0.14	
12"	2'-6"	1'-6"	1'-0"	2.0	0.17	
16"	3'-0"	2'-2"	1'-4"	3.3	0.30	
18"	3'-0"	2'-2"	1'-6"	4.1	0.38	
24"	3'-0"	3'-3"	2'-3"	7.3	0.85	
30"	3'-0"	3'-3"	2'-3"	11.2	1.22	

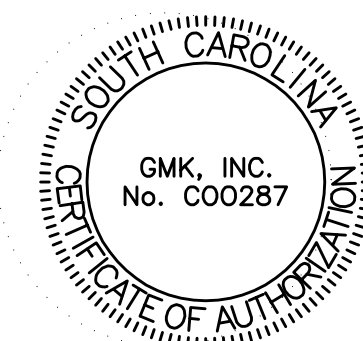
\*1 - ESTIMATED C.Y. CONCRETE FOR TEES AND BENDS.  
\*2 - MINIMUM BEARING AREA (MBA) IS BASED ON  
SOIL BEARING CAPACITY OF 2000 PSF.

### THRUST BLOCK DETAILS

NTS



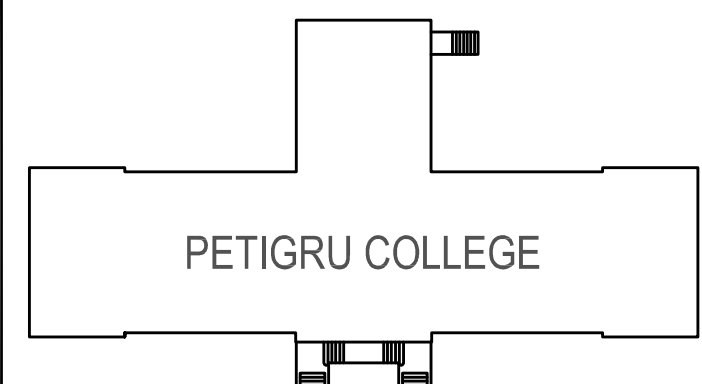




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date  
JANUARY 15, 2014

[illegible]

*key plan*

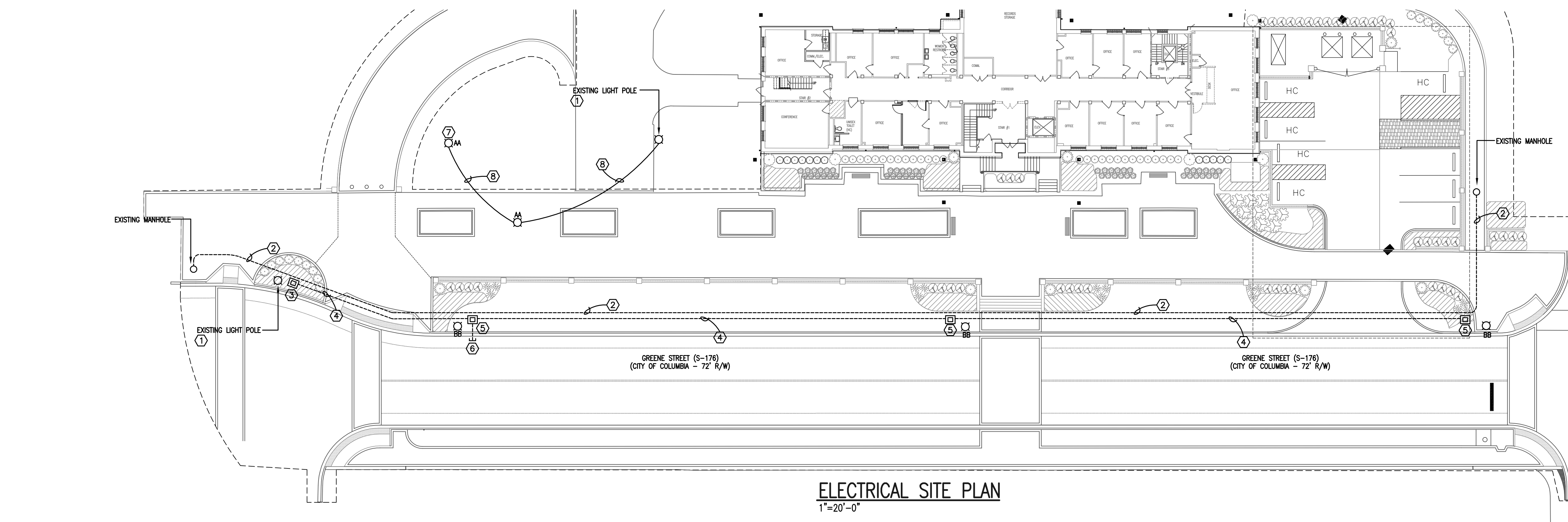


sheet title  
**ELECTRICAL SITE PLAN**

sheet number

## E1.0

drawn by TLK  
checked by JBF

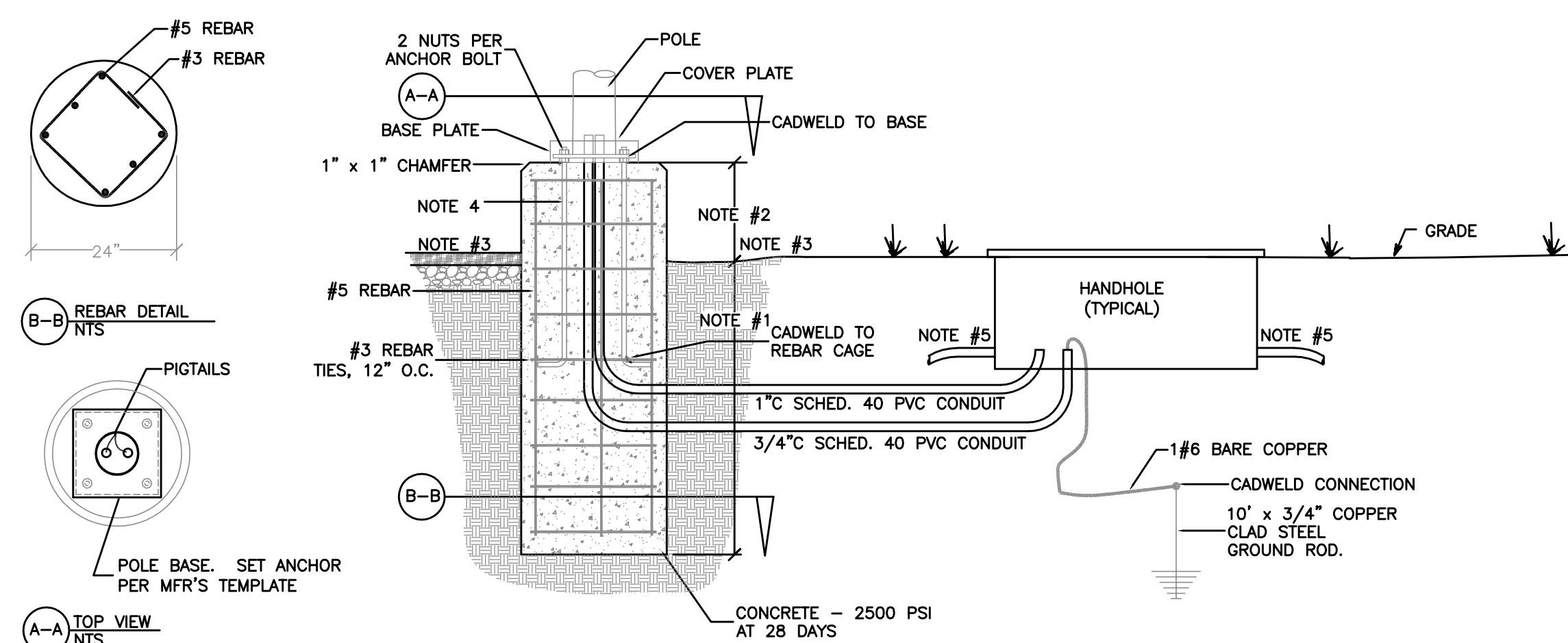


## ELECTRICAL SITE PLAN

$$1'' = 20' - 0'$$

NOTES KEYED TO SITE PLAN

1. NOTES: SEE TO SITE PLAN
2. PROVIDE 2" MIN. THICK CONCRETE SLAB ON GRADE WITH REINFORCING CONSTRUCTION. REPLACE DAMAGED UNIT AS REQUIRED.
3. PROVIDE 2-4" EMPTY GALVANIZED RIDGE SLAT CONDUITS WITH THREE-ENDED CONNECTIONS LOCATED A MINIMUM 36" BELOW GRADE. ALL CONDUITS SHALL HAVE 5-10" RADII MINIMUM BEND. PROVIDE 1/2" MIN. THICK RIGID INSULATION COVER ON EACH CONDUIT IN AREAS WITHIN 24" OF EXISTING CONDUITS TO PREVENT PRESSURE TRANSFER. PROVIDE A VERY DRY EXACT LOCATION OF CONDUITS WITH USPC PROJECT MANAGER.
4. HANDHOLE AND NEW METERING POINT: CONTACT AND COORDINATE EXIST LOCATION WITH S&B&G FOR FURTHER INSTRUCTIONS FOR METER POINT ENCLOSURE INSTALLATION AND CONNECTIONS TO SERVICE.
5. LIGHTING CONDUIT FOR TYPE "B8" LIGHT FIXTURE POLES TO BE LOCATED AT EXISTING S&B&G METERING POINT. PROVIDE 1" MIN. 2" SCHEDULE 40 PVC CONDUIT, EXTEND TO JUNCTION BOXES AND LIGHT FIXTURES SHOWN.
6. NEW HANDHOLES FOR LIGHTING CONDUIT. SEE DETAILS 1 & 4 THE MINIMUM DIMENSIONS OF THE EXISTING HANDHOLE AT EXISTING LIGHT POLE. OBTAIN DETAILS FROM S&B&G FOR EXACT TYPE AND SPECIFICATIONS.
7. PROVIDE ONE (1) CONDUIT STUB OUT OF NEW HANDHOLE FOR FUTURE EXTENSION ACROSS GRADE STREET TO FUTURE FIXTURES/POLES. CAP AND MARK END OF CONDUIT.
8. REMOVE EXISTING FITTURE AND POLE BASE AND DISCONNECT AND SECURE EXISTING CONDUIT. INSTALL NEW POLE BASE "AN" AND CONNECT FUTURE LIGHT GROUPS PROVIDED FOR NEW HANDHOLE LOCATIONS.
9. FUTURE SLATS SHALL BE COPPER TYPE XXHW, 286, 1810 GND, 1" C



NOTE #1 BASE OF FOUNDATION SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GRADE.

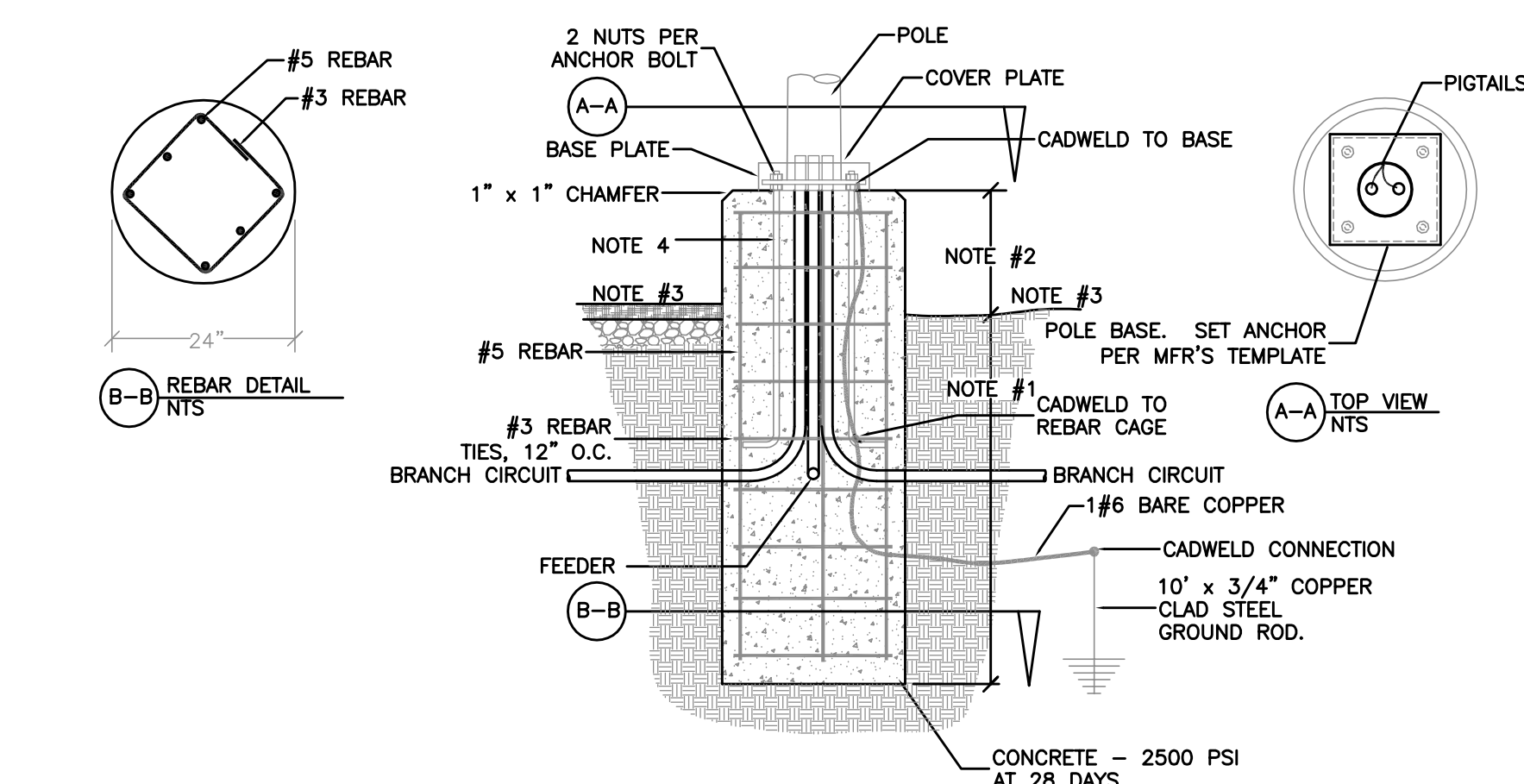
NOTE #2 TOP OF FOUNDATION ABOVE FINISHED GRADE SHALL BE 36" IN PARKING AREAS, 6" WHERE GRASS SOD AS NOT BEEN LAID, 3" ABOVE EXISTING CUT GRASS LINE AND 1' ABOVE FINISHED SIDEWALK AND PAVERS.

NOTE #3 EXAMINE EXISTING POLE INSTALLATIONS AND OBTAIN APPROVAL OF OWNER FOR ANY CHANGES BETWEEN THE EDGE OF THE POLE AND EXISTING SIDEWALKS AND CURBS.

NOTE #4 COORDINATE POLE ANCHOR LENGTHS AND POLE SPATIAL ARRANGEMENTS WITH THE MANUFACTURER.

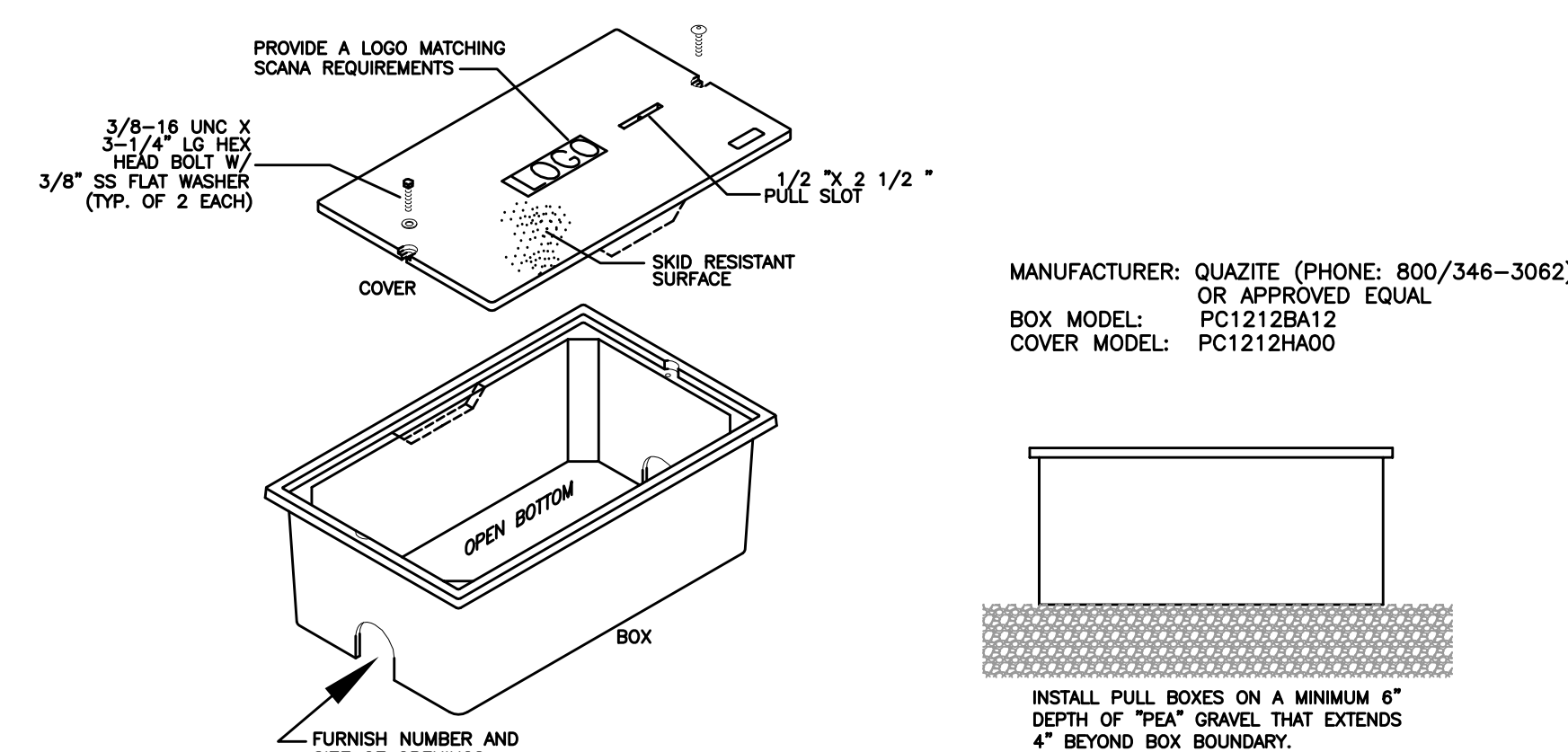
NOTE #5 2" SCHEDULE 40 PVC CONDUIT FOR FEEDERS BETWEEN HANDHOLES AND METER CENTERS

1 LIGHT FIXTURE "BB"  
POLE FOUNDATION DETAIL

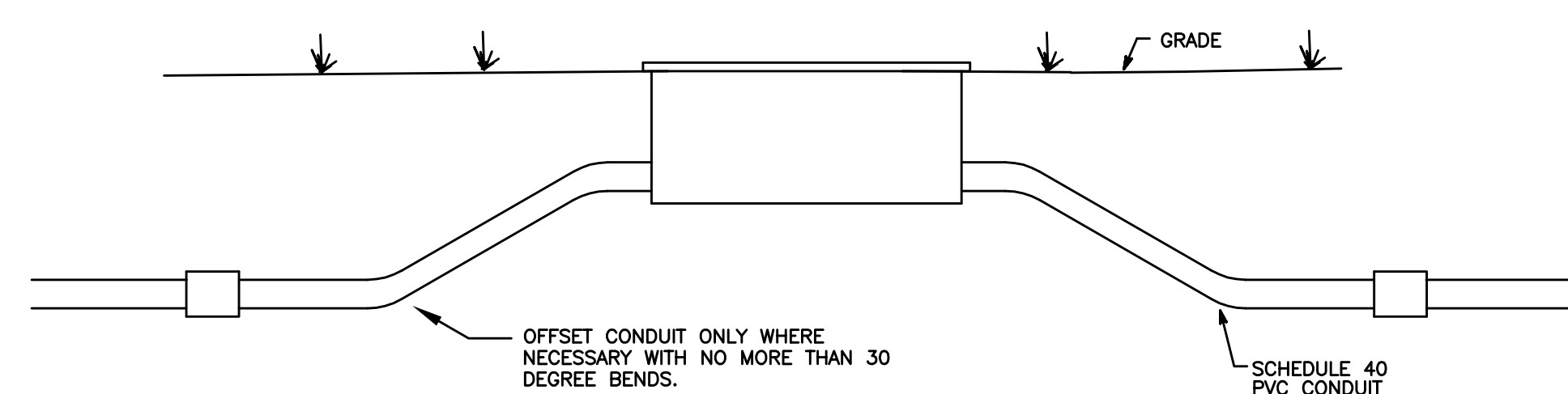


NOTE #1 BASE OF FOUNDATION SHALL BE A MINIMUM OF 4'-0" BELOW FINISHED GRADE.  
NOTE #2 TOP OF FOUNDATION ABOVE FINISHED GRADE SHALL BE 36" IN PARKING AREAS, 6" WHERE GRASS SOD AS NOT BEEN LAID, 3" ABOVE EXISTING CUT GRASS LINE AND 1" ABOVE FINISHED SIDEWALK AND PAVERS.  
NOTE #3 EXAMINE EXISTING POLE INSTALLATIONS AND OBTAIN APPROVAL OF OWNER FOR DISTANCES BETWEEN THE EDGE OF THE POLE AND EXISTING SIDEWALK AND CURBS.  
NOTE #4 COORDINATE POLE ANCHOR LENGTHS AND POLE SPATIAL ARRANGEMENTS WITH THE MANUFACTURER.

3 LIGHT FIXTURE "AA"  
POLE FOUNDATION DETAIL

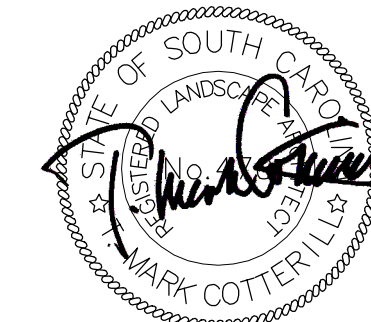


## 2 TYPICAL HANDHOLE DETAIL

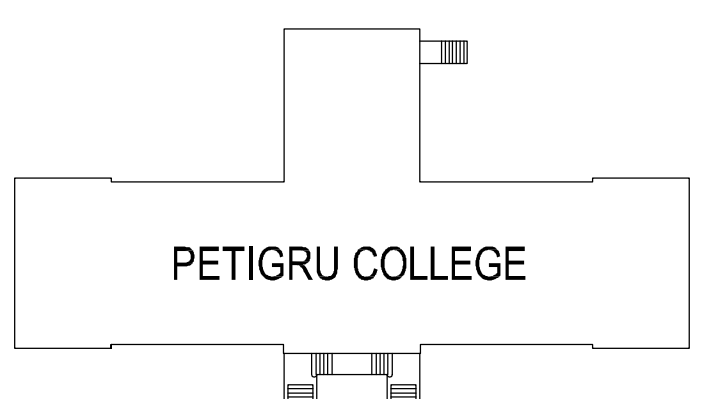


#### 4 HANDHOLE CONDUIT ENTRY DETAIL





number	item	date



LANDSCAPE PLAN NOTES 1.15.14

PROJECT AREA  
1.06 ACRE @ 30 UNITS/AC

REQUIRED DENSITY FACTOR: 31.8

PROTECTED TREES REMOVED (UNITS)  
NONE

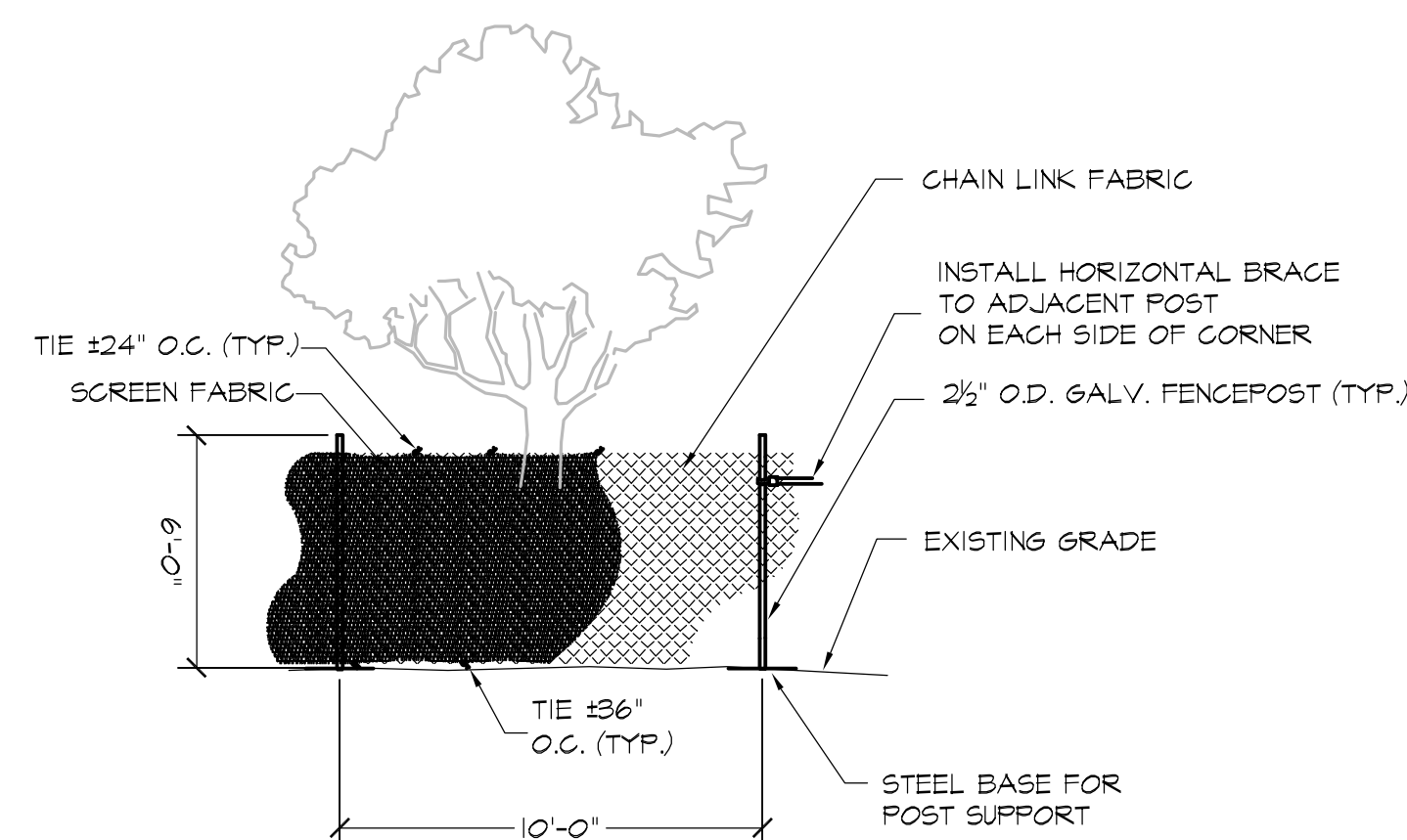
0.0

TOTAL REQUIRED TREE UNITS  
31.8

PROPOSED TREES	DBH	SPECIES	DFU	UNITS	4.5
QUANTITY					
1	3"	LIVE OAK	1.5	1.5	
2	3"	JAP. MAPLE	1.5	3.0	

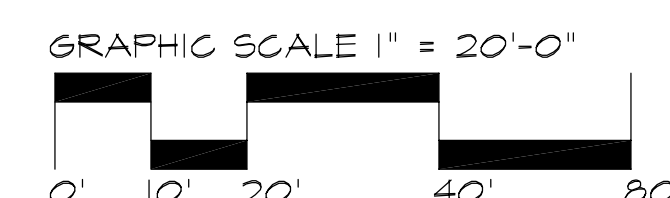
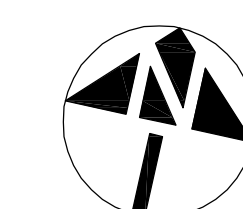
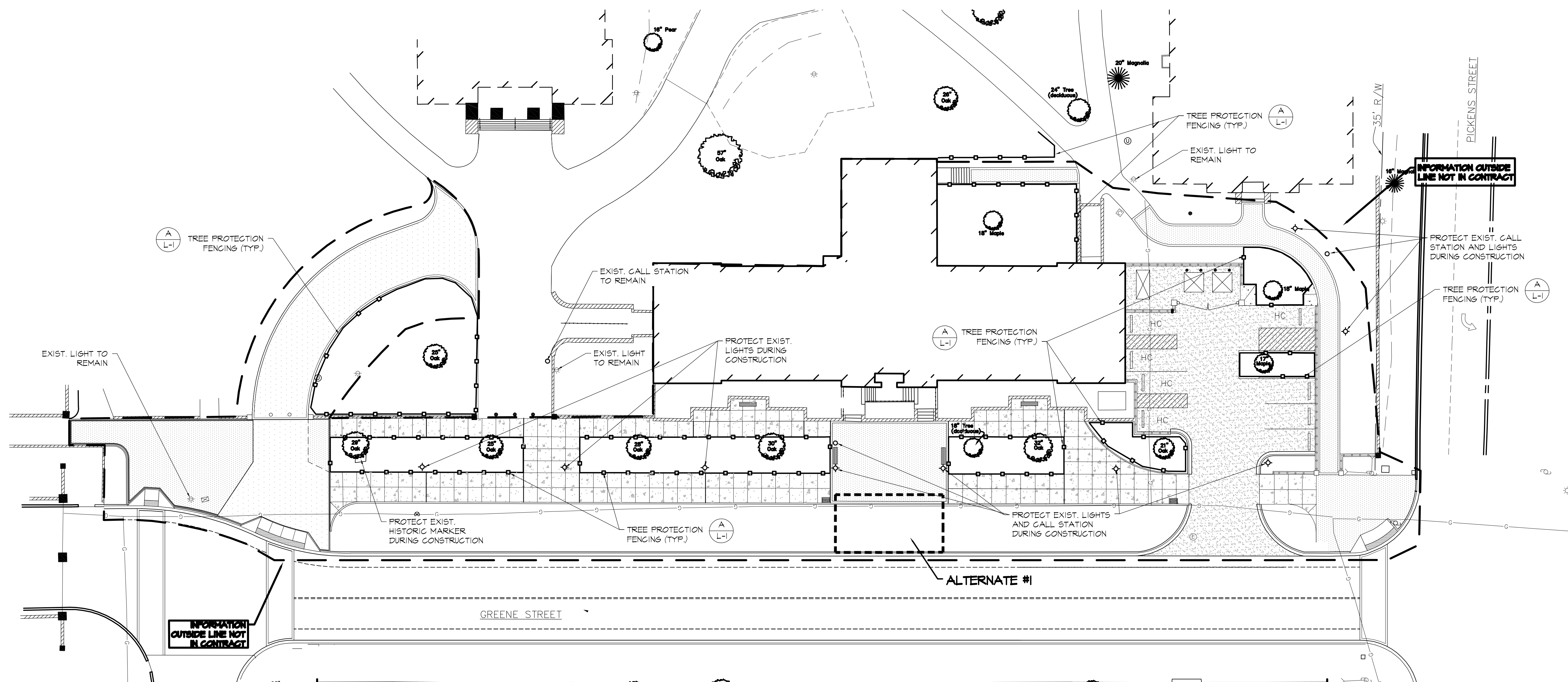
TREES REMAINED (UNITS)	DBH	SPECIES	CONDITION	UNITS	200.0
	17"	MAPLE	GOOD	8	
	18"	MAPLE	GOOD	8.4	
	18"	MAPLE	GOOD	8.4	
	18"	DECIDUOUS	GOOD	8.4	
	21"	OAK	GOOD	9.6	
	25"	OAK	GOOD	20.4	
	25"	OAK	GOOD	20.4	
	28"	OAK	GOOD	25.8	
	29"	OAK	GOOD	27.6	
	30"	OAK	GOOD	29.4	
	32"	OAK	GOOD	33.6	

SUMMARY	
TOTAL REQUIRED TREE UNITS	31.8
TOTAL TREES PROVIDED (UNITS)	4.5
TOTAL TREES TO REMAIN (UNITS)	200.0
SITE SURPLUS (UNITS)	172.7



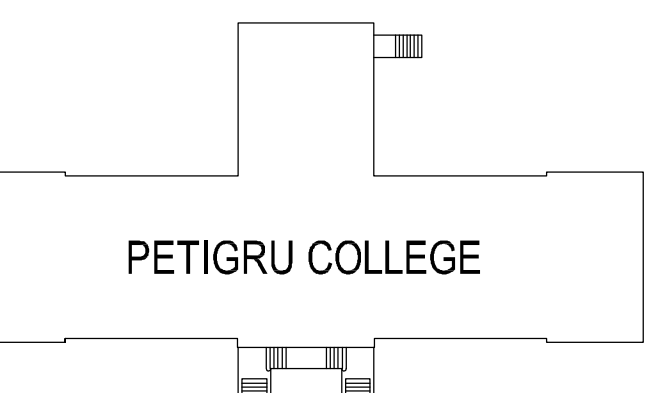
- NOTES:
- SEE LANDSCAPE PLANS FOR LOCATION OF TREE PROTECTION FENCING.
  - SEE USC SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION PROJECTS FOR ADDITIONAL INFORMATION.
  - PROVIDE PROTECTION FENCE FOR ALL TREES TO REMAIN.
  - PROTECTION FENCING TO BE PLACED OUTSIDE OF DRIPLINE OF TREE CANOPY UNLESS OTHERWISE INDICATED ON LANDSCAPE PLAN OR APPROVED BY USC PROJECT MANAGER.
  - A 4" LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER TREE PROTECTION AREA.
  - PROTECTION FENCING SHALL BE IN PLACE AND HARDWOOD MULCH PLACED PRIOR TO BEGINNING CONSTRUCTION.
  - REQUESTS FOR PAYMENT SHALL NOT BE APPROVED UNTIL PROTECTION FENCING AND MULCH IS IN PLACE.
  - LOCATION OF THE PROTECTION FENCING SHALL BE MARKED BY USC ARBORIST AND APPROVED BY USC PROJECT MANAGER BEFORE INSTALLATION. WHERE CONSTRUCTION IS LIKELY TO OCCUR WITHIN 5' OF PROPOSED LOCATION OF PROTECTION FENCING, CONTRACTOR SHALL HAVE LIMITS OF CONSTRUCTION MARKED BY SURVEY BEFORE PROTECTION FENCING IS INSTALLED.
  - SCREEN FABRIC SHALL BE DARK GREEN 85% OPAQUE POLYETHYLENE KNOT MESH, UV STABILIZED WITH BURST STRENGTH OF AT LEAST 210 P.S.I.

A  
L-1  
TREE PROTECTION FENCING  
NOT TO SCALE





number	item	date



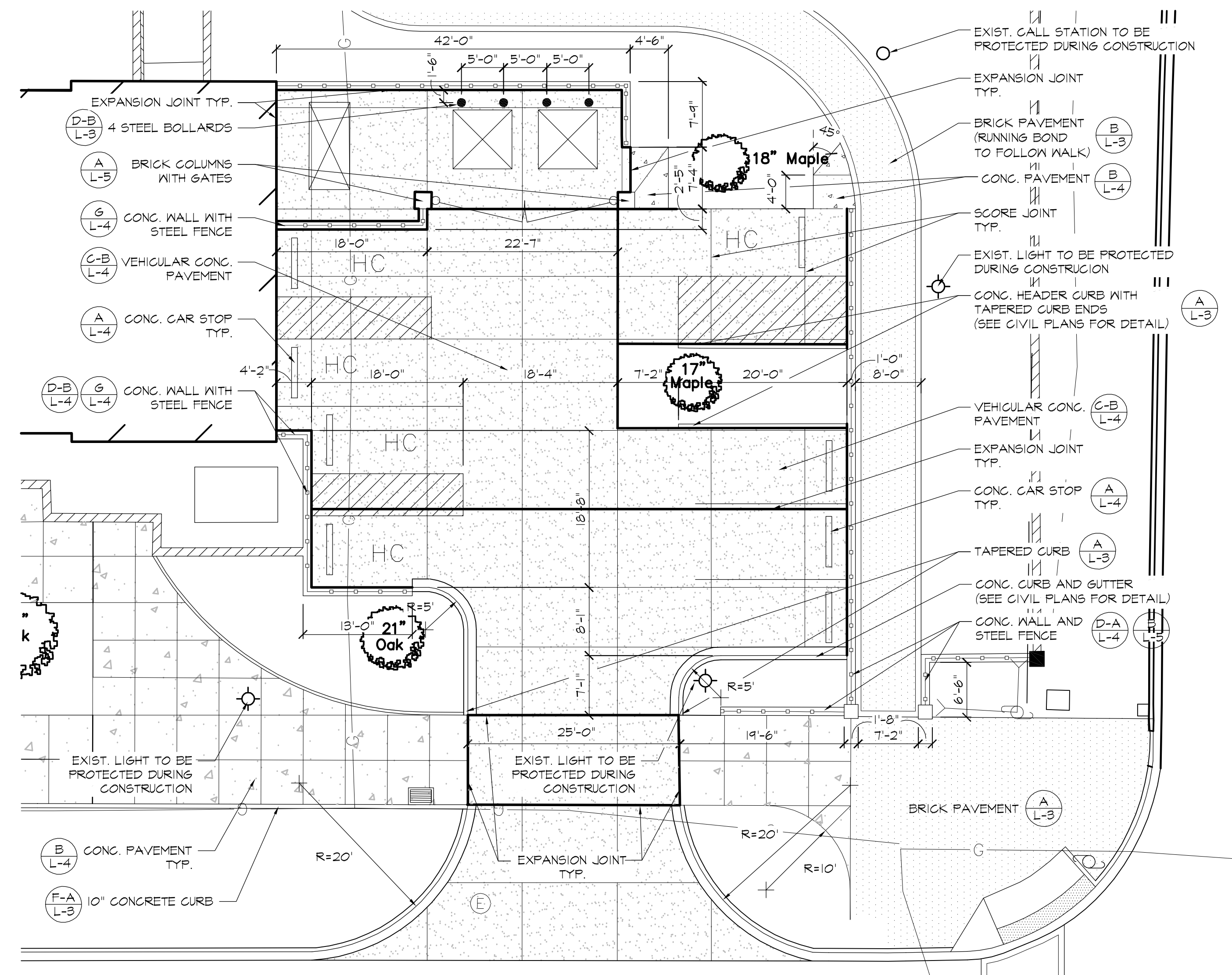
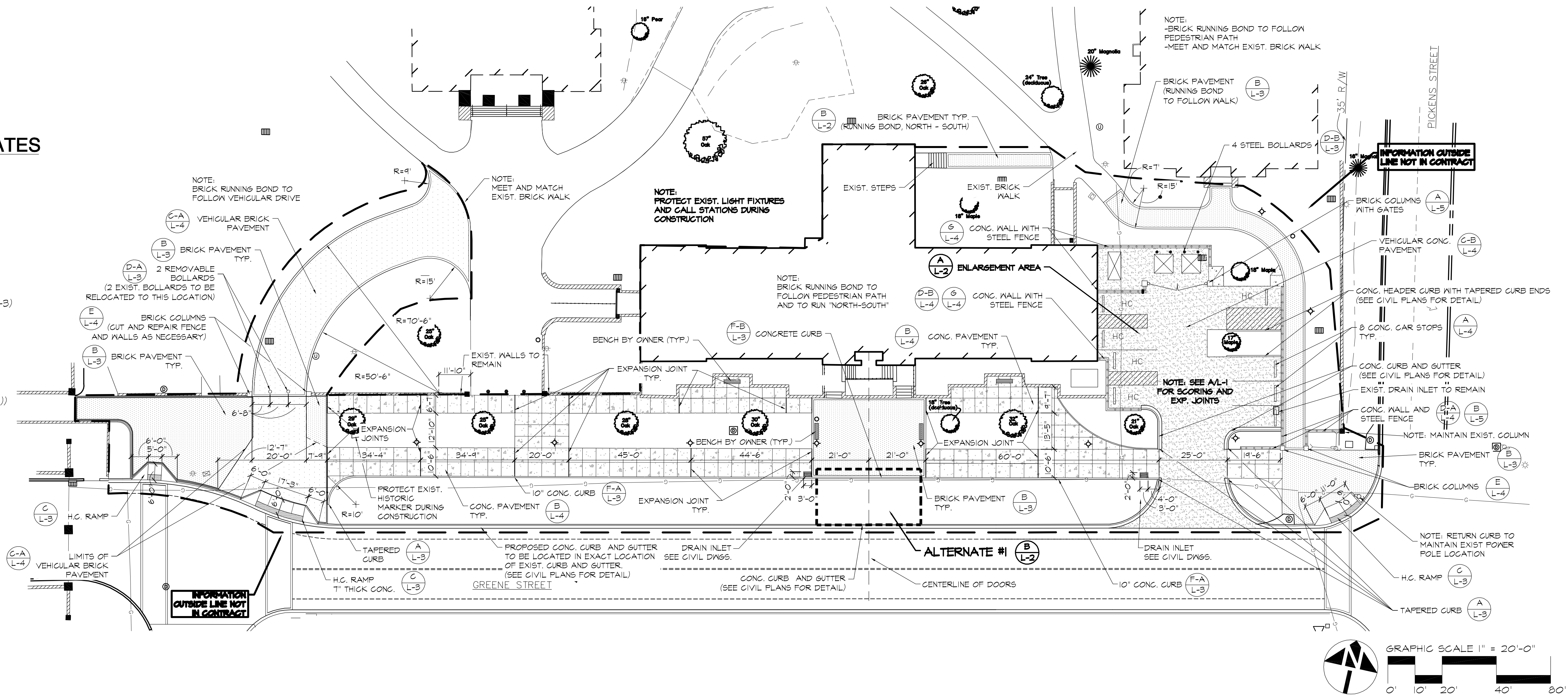
**DETAIL KEY: BASE BID AND ALTERNATES**

**BASE BID:**

- 10" CONCRETE CURB (F-A/L-3)
- 10" CONCRETE CURB (F-B/L-3)
- BRICK PAVEMENT WITH BANDING (RUNNING BOND) (B/L-3)
- CONCRETE PAVEMENT (B/L-4)
- SCORING AND EXPANSION JOINTS
- VEHICULAR CONCRETE (C-B/L-4)
- VEHICULAR BRICK PAVEMENT (C-A/L-4)
- TAPERED CURB (A/L-3)
- CONCRETE CURB AND GUTTER (SEE CIVIL DRAWINGS)
- HEADER CURB (SEE CIVIL DRAWINGS) WITH TAPERED CURB (A/L-3)
- CONCRETE CAR STOPS (A/L-4)
- DETECTABLE WARNING SURFACE (C/L-3)
- RELOCATED REMOVABLE BOLLARDS (2) (D-A/L-3)
- STEEL BOLLARDS (4) (D-B/L-5)
- BRICK COLUMNS (E/L-4) WITH PRECAST CAP (F/L-4)
- BRICK COLUMNS WITH PRECAST CAP AND STEEL GATES (A/L-5)
- CONCRETE WALL AND STEEL FENCING (D-B/L-4), (G/L-4)
- TREE PROTECTION FENCING (SEE TREE PROTECTION PLAN (A/L-1))
- EROSION CONTROL (SEE CIVIL DRAWINGS)
- STORM DRAINAGE (SEE CIVIL DRAWINGS)
- FIRE HYDRANT RELOCATION (SEE CIVIL DRAWINGS)
- DRAIN INLETS (SEE CIVIL DRAWINGS)

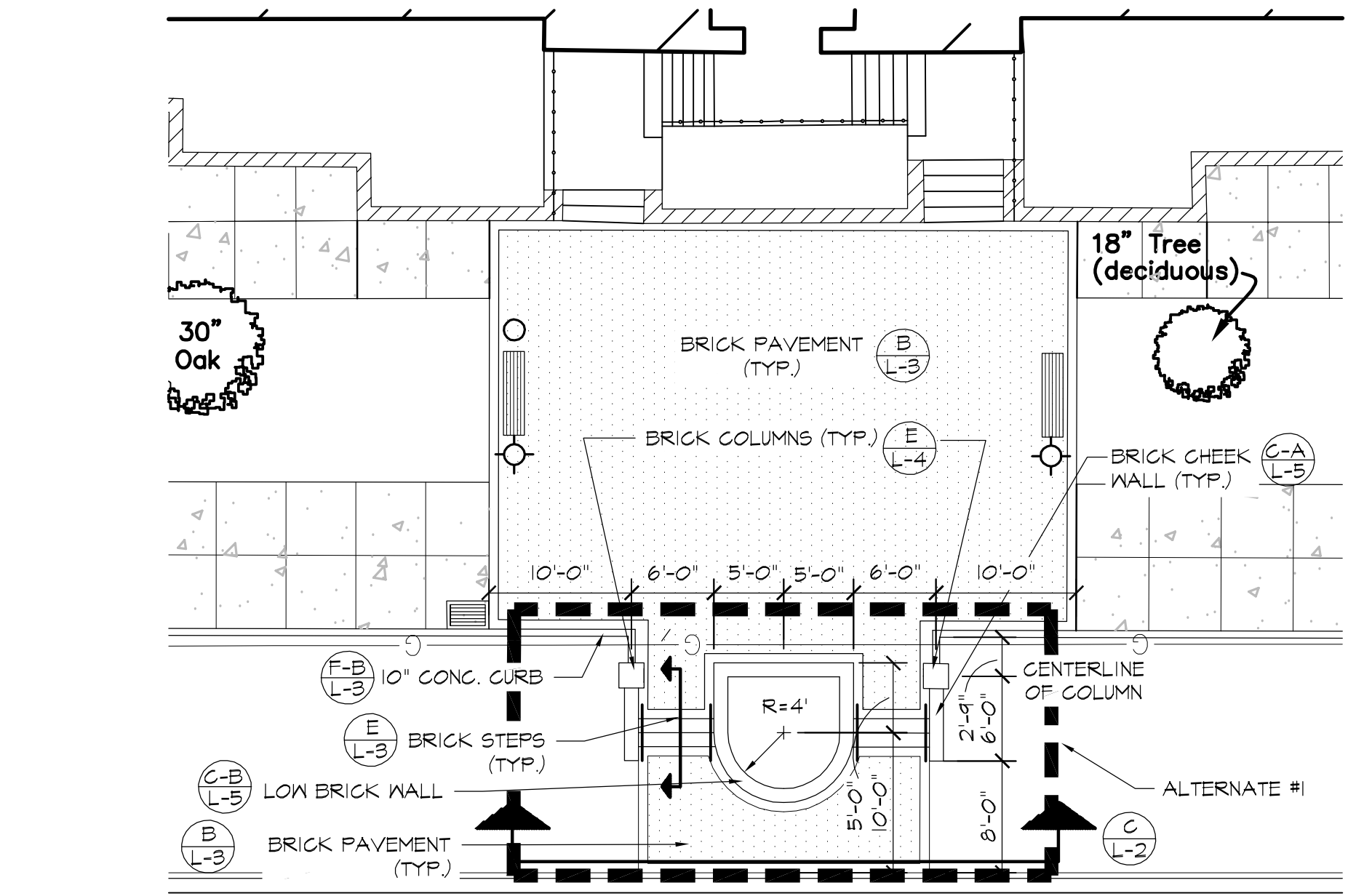
**ALTERNATE #1:**

- BRICK COLUMNS (E/L-4) WITH PRECAST CAP (F/L-4), (C/L-2)
- LOW BRICK WALL (C/L-2), (C-A/L-5), (C-B/L-5)
- BRICK STEPS AND HANDRAILS (E/L-3) (C/L-2)
- LOW BRICK CHEEK WALL (C/L-2), (G/L-3)
- 10" CONCRETE CURB (F-A/L-3), (F-B/L-3)



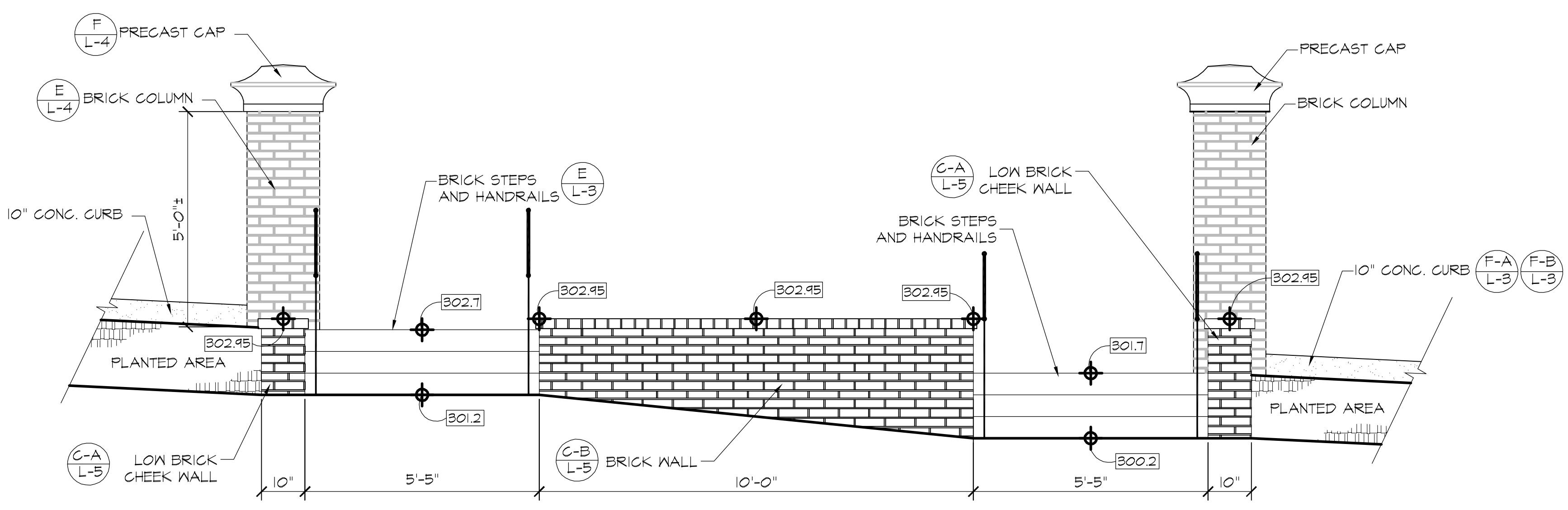
**A**  
**L-2** **SERVICE COURT ENLARGEMENT**  
PLAN

SCALE 1"=10'-0"



**B**  
**L-2** **ALTERNATE #1 ENTRANCE**  
PLAN

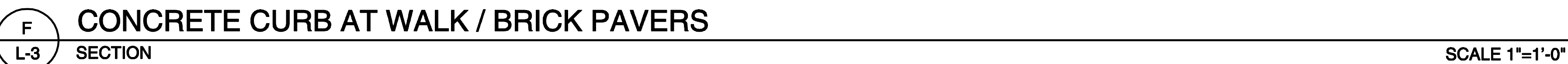
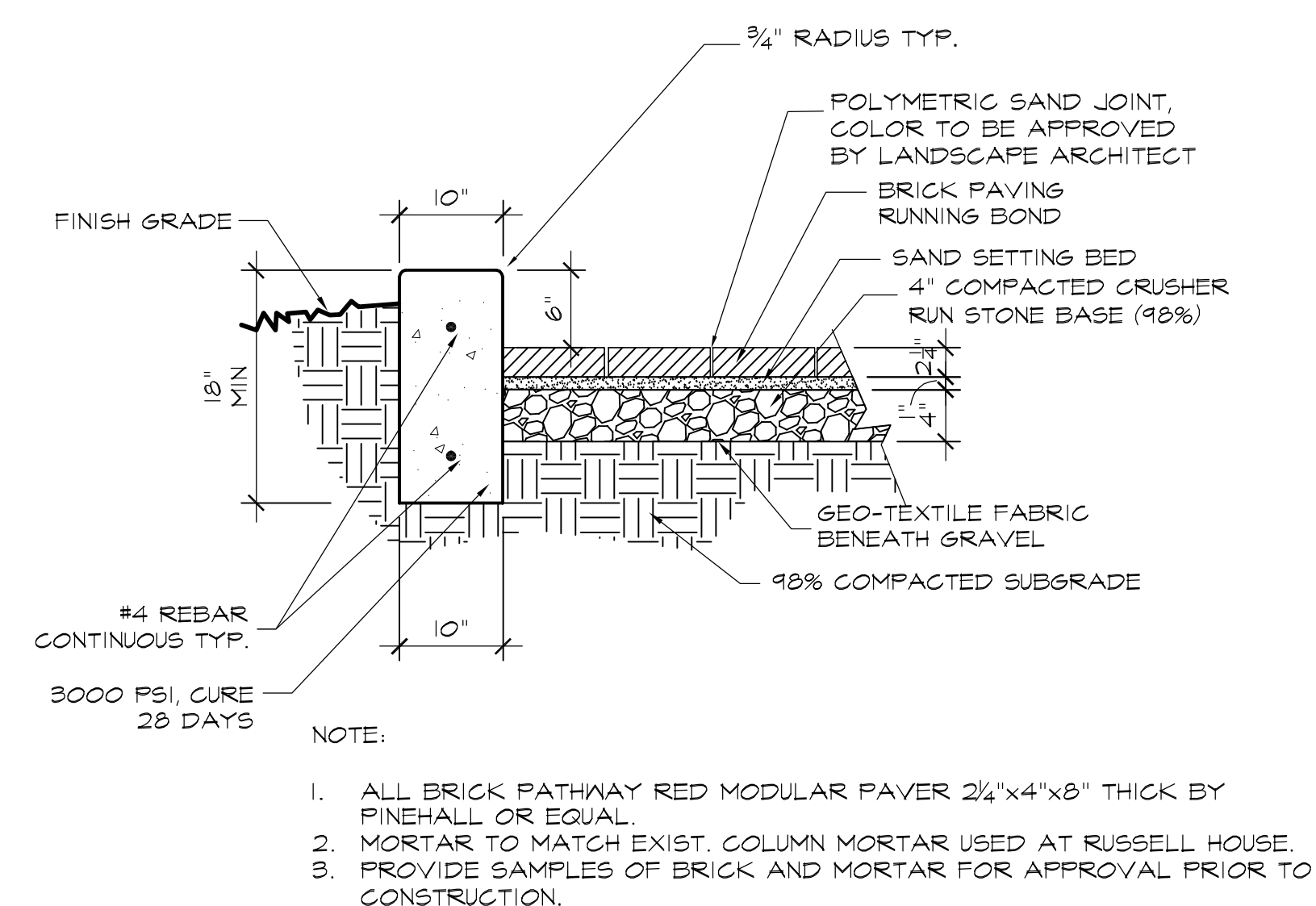
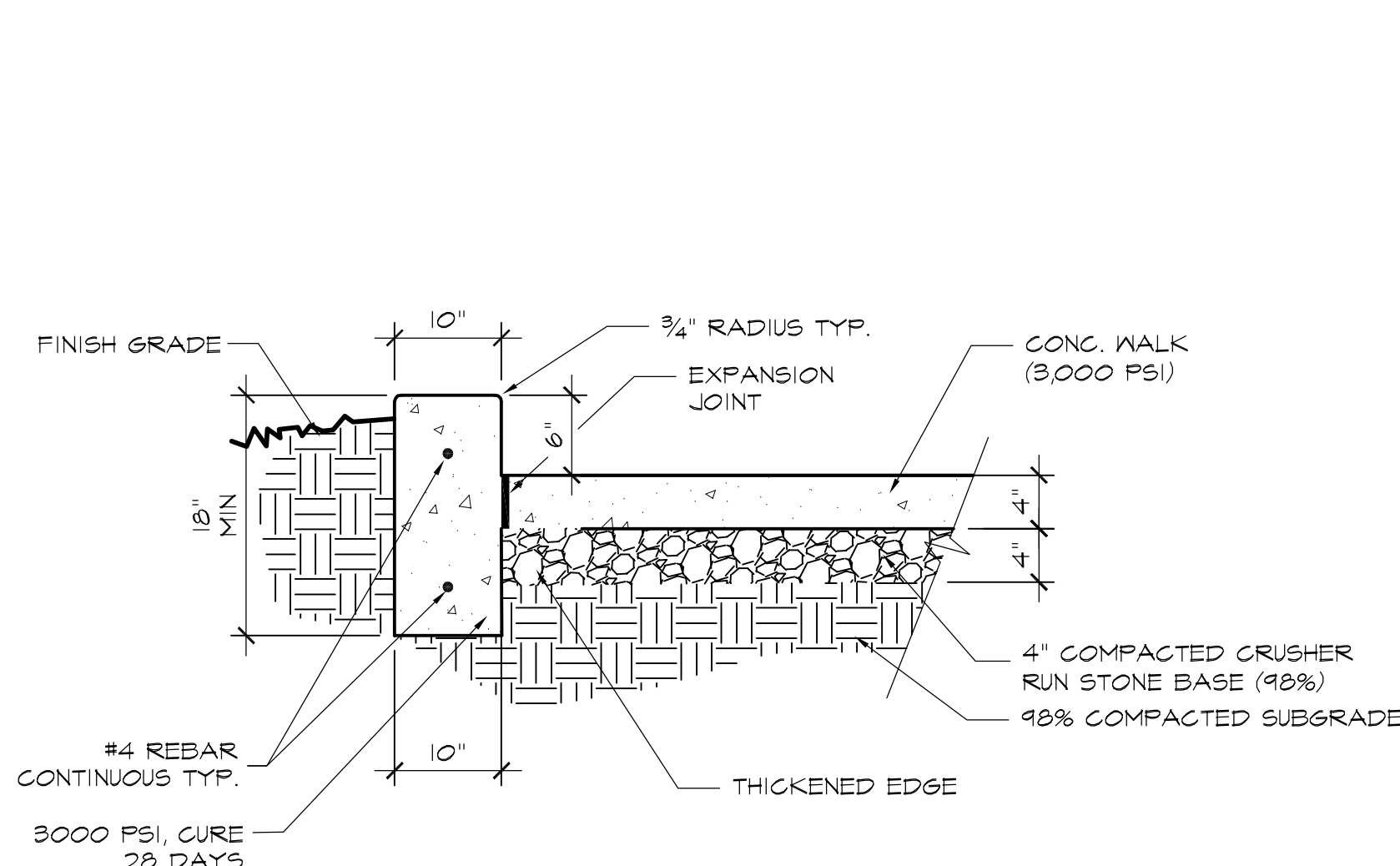
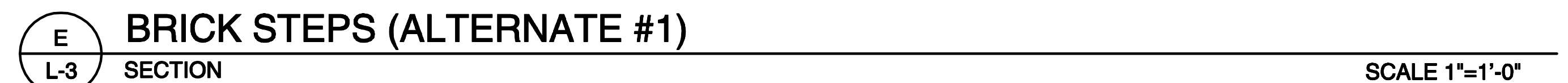
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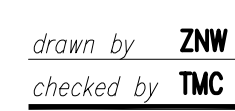
**C**  
**L-2** **ALTERNATE #1 ENTRANCE**  
ELEVATION

SCALE 1/4"=1'-0"









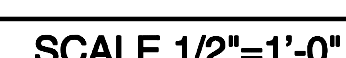




L-5 SECTION



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SECTION / PLAN



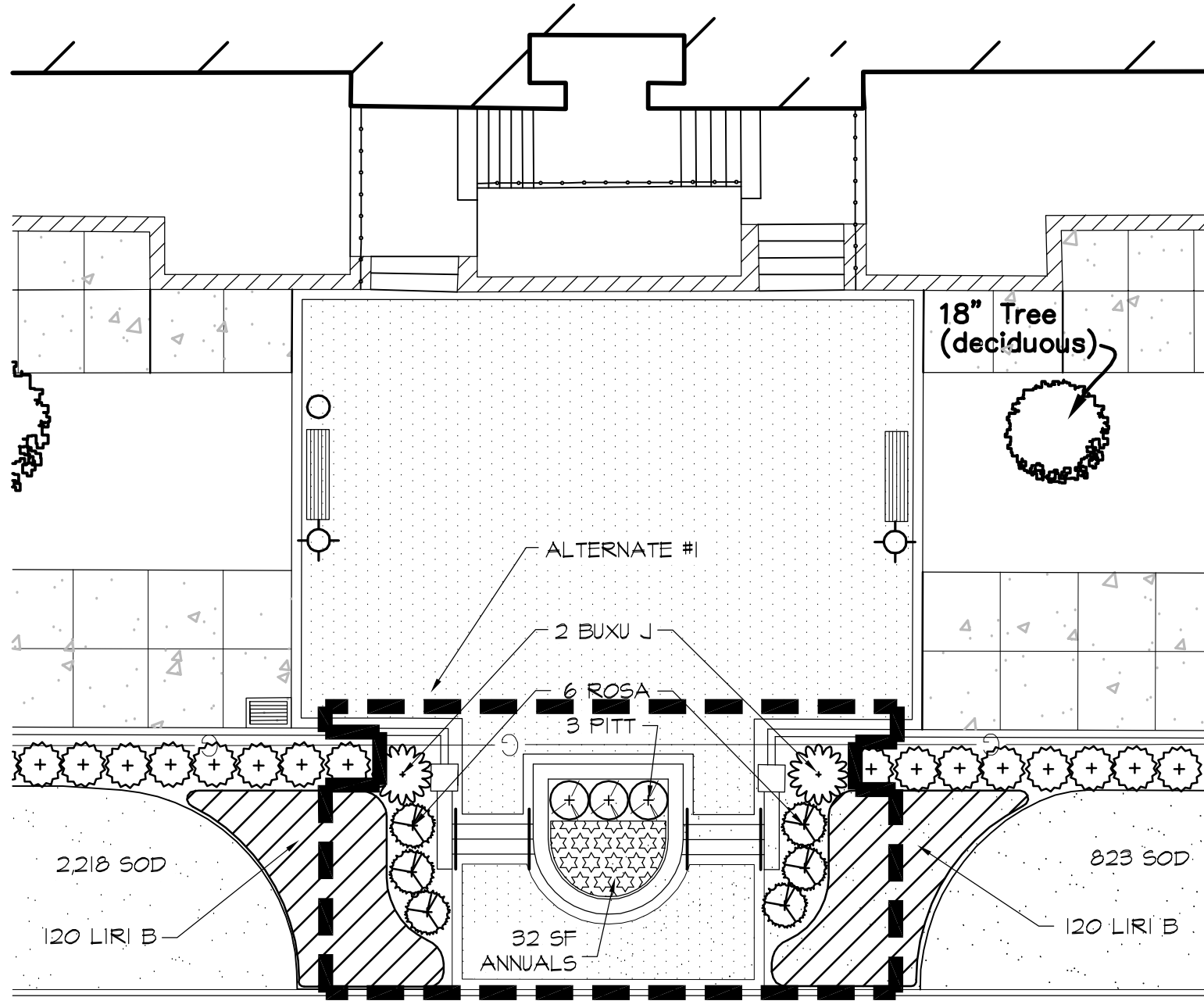
PLANT LIST - BASE BID

ABBR.	BOTANICAL NAME	COMMON NAME	MINIMUM				COMMENTS	QTY.
			CANOPY SPREAD	HEIGHT	BALL DIA.	NO. CANES		
ACER J	ACER PALMATUM 'BLOODGOOD'	JAPANESE MAPLE	3'	5'	8"	32'	1	SPECIMEN
QUER V	QUERCUS VIRGINIANA	LIVE OAK	3'	6'	14'-16"	32'	1	
ABEL S	ABELIA X GRANDIFLORA 'SHERWOOD'	'SHERWOOD' ABELIA	15'	12'	3 GAL.	3-5	PLANT 3' O.C.	11
BUXU J	BUXUS MICROPHYLLA JAPONICUM	JAPANESE BOXWOOD	30"	30"	7 GAL.	3-5	PLANT AS SHOWN	6
DRYO	DRYOPTERIS ERYTHROSORA	AUTUMN FERN	12"	15"	1 GAL.	3-5	PLANT 2' O.C.	48
HYDR	HYDRANGEA MACROPHYLLA	HYDRANGEA	24"	24"	3 GAL.	3-5	PLANT AS SHOWN	5
ILEX C	ILEX CORNUTA 'CARISSA'	CARISSA HOLLY	15'-18"	12'	3 GAL.	3-5	PLANT 3' O.C.	42
OSMA	OSMANTHUS FRAGRANS	FRAGRANT TEA OLIVE	24"	30"	7 GAL.	3-5	PLANT 4' O.C.	8
PANI	PANICUM VIRGATUM	SWITCHGRASS	18"	18"	3 GAL.	3-5	PLANT 3' O.C.	4
PITT	PITTOSPORUM TOBIRA 'WHEELER'S DWARF'	DWARF PITTOSPORUM	15"	15"	3 GAL.	3-5	PLANT 3' O.C.	40
PODO	PODOCARPUS MACROPHYLLUS MAKI 'PRINGLES'	PODOCARPUS	12"	15"	3 GAL.	3-5	PLANT 3' O.C.	15
VIBU O	VIBURNUM OBAYATUM MRS. SCHILLER'S DELIGHT	MRS. SCHILLER'S DELIGHT VIBURNUM	15"	15"	3 GAL.	3-5	PLANT 30' O.C.	28
ANNUALS	ANNUAL FLOWERS	(VARIETY TO BE SELECTED)						73 SF
LIRI B	LIRIOPE MUSCARI 'BIG BLUE'	'BIG BLUE' LIRIOPE			PINT		PLANT 12" O.C.	1,048
SOD	CYNODON DACTYLON	BERMUDA GRASS - TIFFINAY 418					WELL ROOTED	5,762 SF

PLANT LIST - ALTERNATE #1

ABBR.	BOTANICAL NAME	COMMON NAME	MINIMUM				COMMENTS	QTY.
			CANOPY SPREAD	HEIGHT	BALL DIA.	NO. CANES		
BUXU J	BUXUS MICROPHYLLA JAPONICUM	JAPANESE BOXWOOD	30"	30"	7 GAL.	3-5	PLANT AS SHOWN	2
PITT	PITTOSPORUM TOBIRA 'WHEELER'S DWARF'	DWARF PITTOSPORUM	15"	15"	3 GAL.	3-5	PLANT 3' O.C.	3
ROSM	ROSMARINUS OFFICINALIS	ROSEMARY	15"	15"	3 GAL.	3-5	PLANT 3' O.C.	6
ANNUALS	ANNUAL FLOWERS	(VARIETY TO BE SELECTED)						32 SF
LIRI B	LIRIOPE MUSCARI 'BIG BLUE'	'BIG BLUE' LIRIOPE			PINT		PLANT 12" O.C.	240

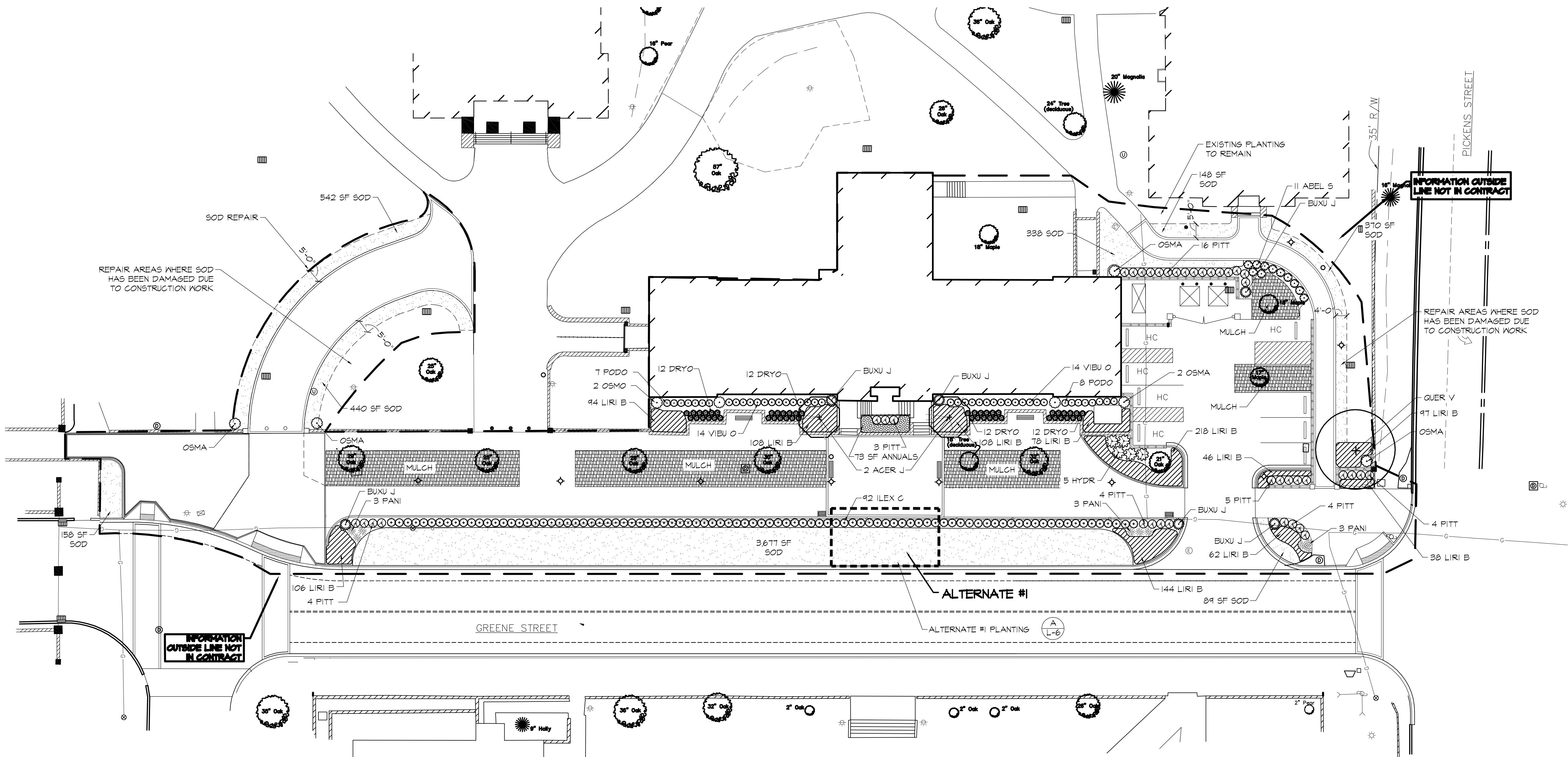
NOTE: DELETE 11 CARISSA HOLLY, DELETE 636 SF SOD FROM BASE BID PLANT LIST.



ALTERNATE #1 NOTE

- DELETE 11 CARISSA HOLLY
- DELETE 636 SF SOD
- ADD:
  - 2 JAPANESE BOXWOOD
  - 3 DWARF PITTOSPORUM
  - 6 ROSEMARY
  - 240 BIG BLUE LIRIOPE
  - 32 SF OF ANNUALS

**A**  
**L-6** PLAN SCALE 1"=10'-0"



consultants

seals/signature

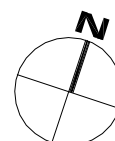
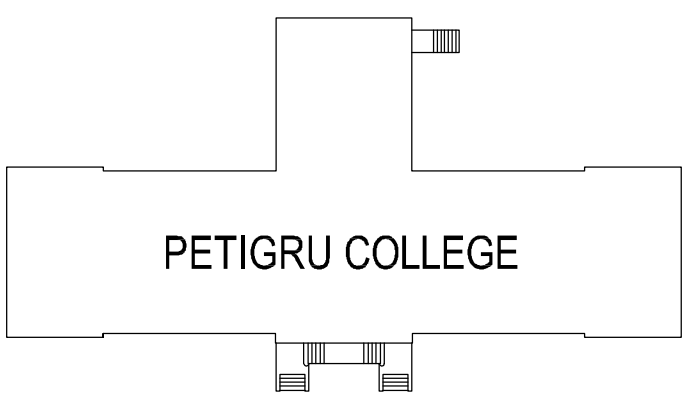


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**CONSTRUCTION DOCUMENTS**

date  
**JANUARY 15, 2014**

number	item	date

key plan



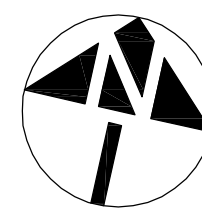
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**PLANTING**

sheet number

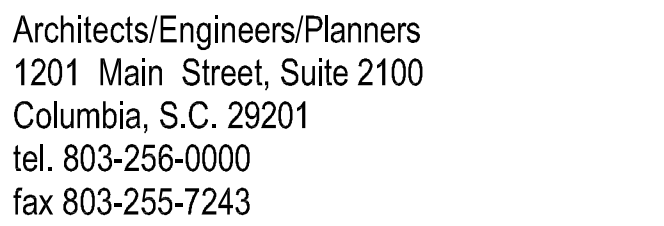
**L-6**

drawn by **ZNW**  
checked by **TMC**



GRAPHIC SCALE 1" = 20'-0"  
0' 10' 20' 40' 60'





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*consultants*



USC CAMPUS PLANNING AND  
CONSTRUCTION  
743 GREENE STREET  
COLUMBIA, SOUTH CAROLINA 29208

project name  
GIBBES GREEN HISTORIC FACILITY  
RENOVATION - PETIGRU COLLEGE  
SITework  
OSE # H27-9835-PD-C

A/E project number  
13031.01

seals/signatures



issued for

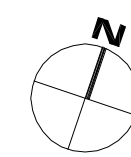
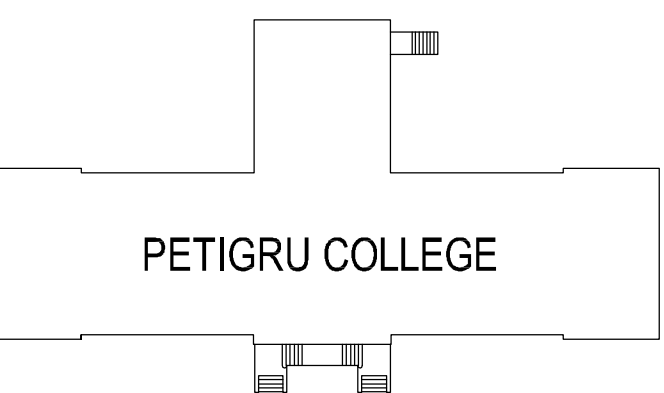
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JANUARY 15, 2014

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key plan.



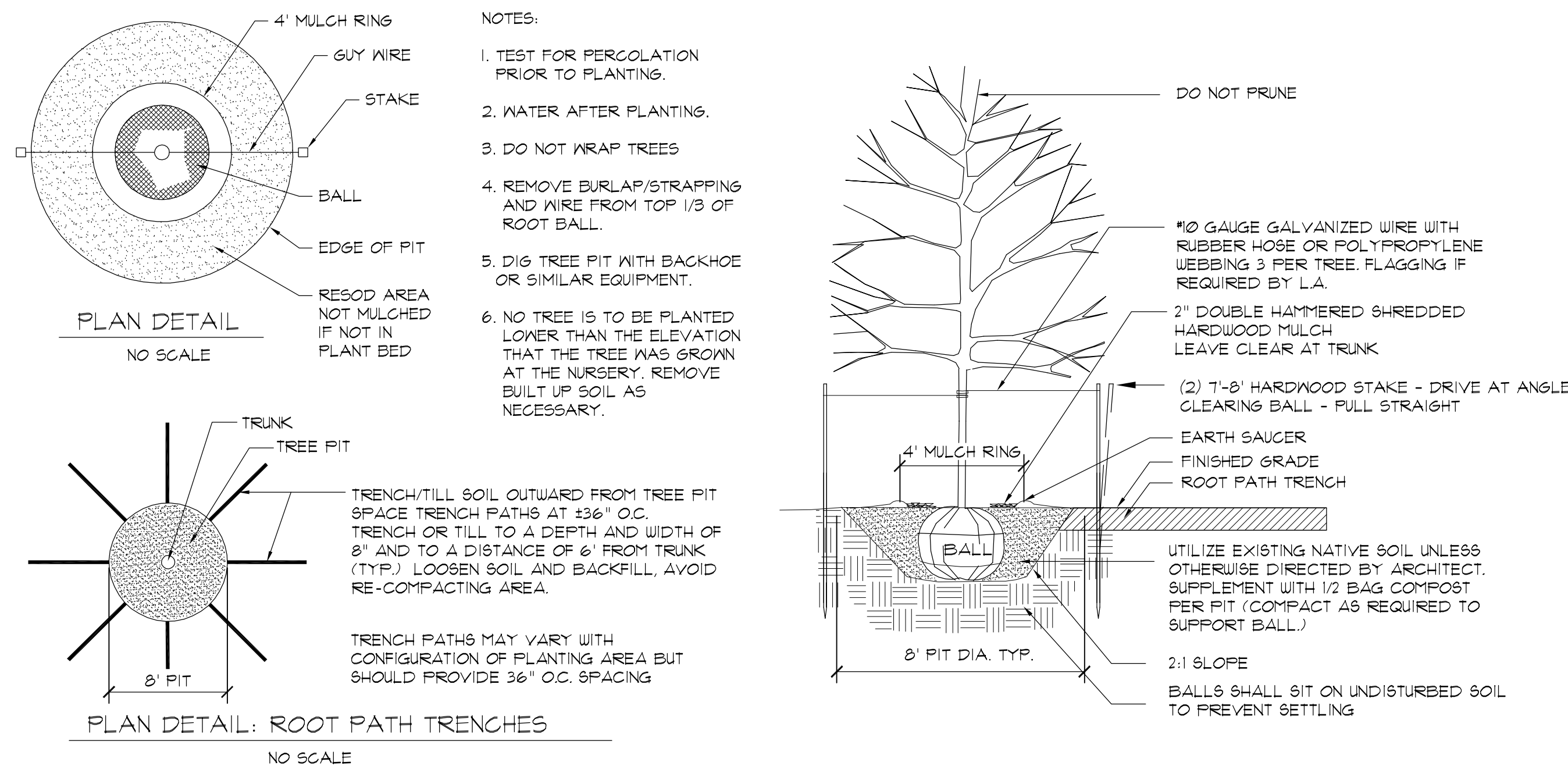
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## PLANTING.DETAILS

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# L-7

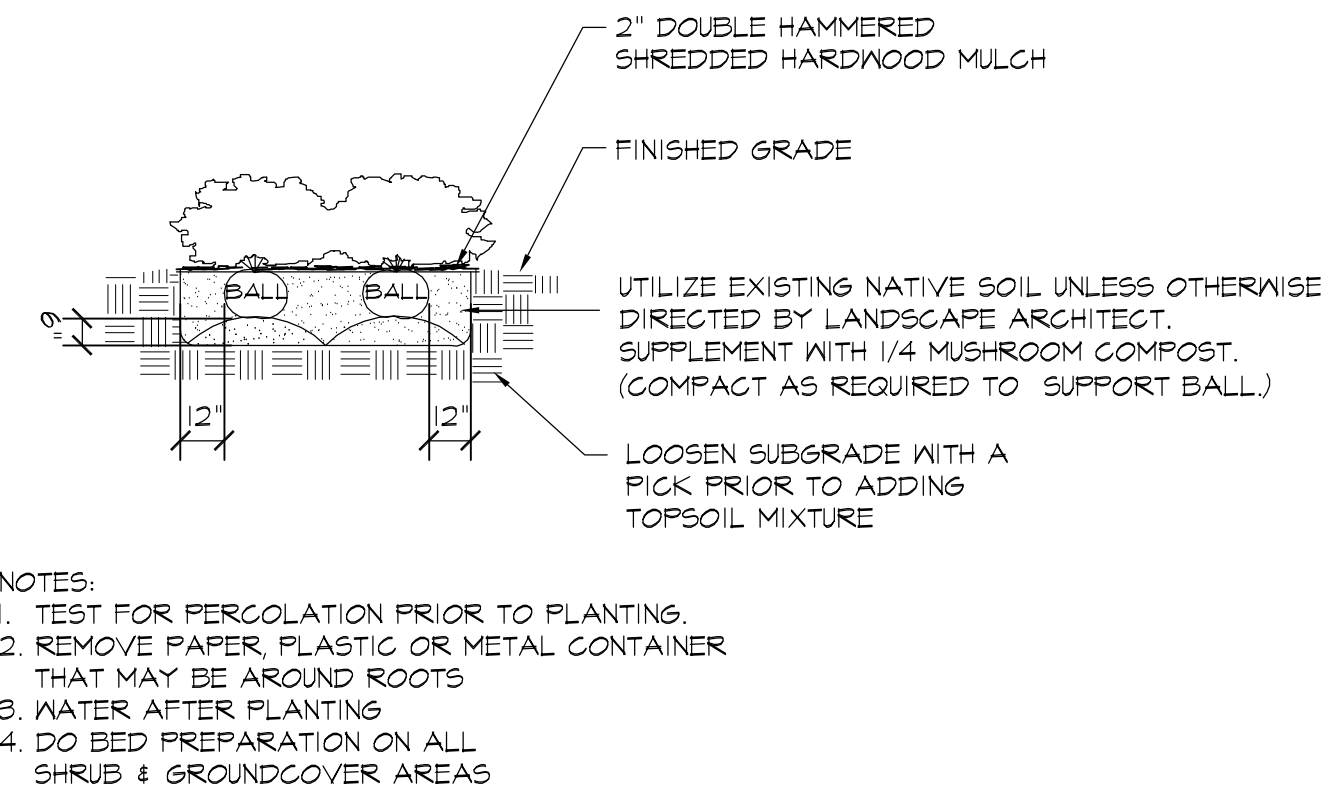
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checked by **TMC**



## TREE PLANTING AND STAKING

## SECTION

**NOT TO SCALE**



## GENERAL NOTES

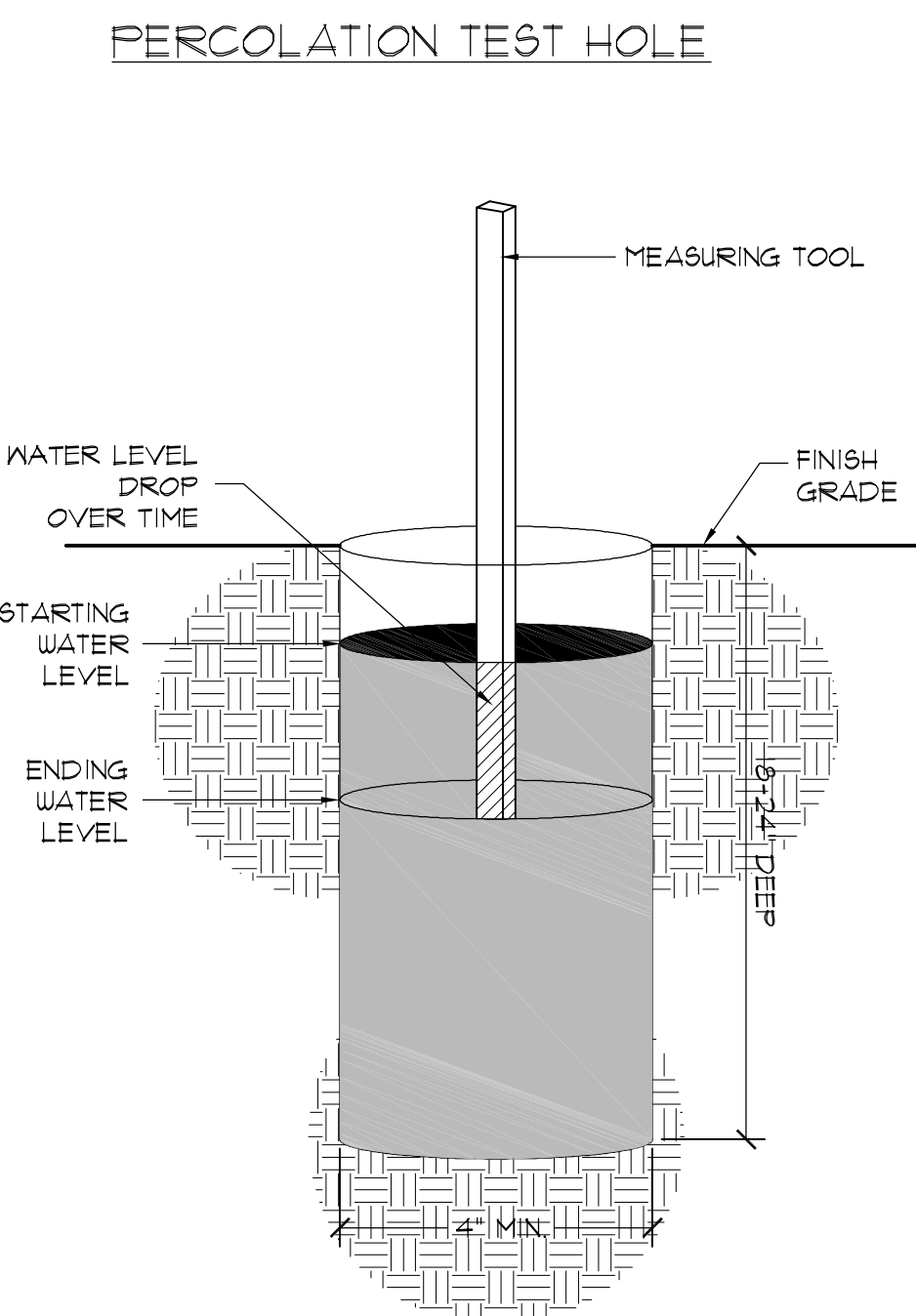
1. EXISTING ECOTONE AND AESTHETICS WILL OFTEN CAUSE ADJUSTMENT OF THESE PLANS TO FIT THE SITE. STAKE-OUT BY THE CONTRACTOR AND ADJUSTMENT BY THE LANDSCAPE ARCHITECT IS ABSOLUTELY NECESSARY.
2. LOCATIONS OF THOSE UTILITIES SHOWN ARE APPROXIMATE AND FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT LOCATION OF ALL UTILITIES WHETHER SHOWN OR NOT SHOWN ON THESE PLANS, AND SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE RESULTING FROM ANY BURIAL OF ANY UTILITY. UTILITY PROTECTION SERVICE AT 1-888-721-1671 AT LEAST 12 HOURS PRIOR TO COMMENCING CONSTRUCTION.
3. CONTRACTOR SHALL INFORM LANDSCAPE ARCHITECT IF PROPOSED DESIGN IS IN CONFLICT WITH EXISTING OR PROPOSED UTILITIES. CONTRACTOR SHALL COORDINATE WITH LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION TO ADJUST PROPOSED DESIGN OR UTILITIES AS NECESSARY TO RESOLVE CONFLICTS.
4. BASE PLAN DATA DERIVED FROM SITE SURVEY PROVIDED BY COX AND DINKINS DATED MARCH 21, 2012.

## PLANTING NOTES

1. PLANTS LABELED NIC ARE NOT IN CONTRACT AND ARE NOT A PART OF THIS STATEMENT OF WORK.
2. REQUIREMENTS FOR THE MEASUREMENTS, BRANCHING, GRADING, QUALITY, BALLING AND BURLAPPING OF PLANTS IN THE PLANT LIST GENERALLY FOLLOWS OR EXCEEDS A CODE OF STANDARDS CURRENTLY RECOMMENDED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. IN THE AMERICAN STANDARD FOR NURSERY STOCKS. SEE THE PLANT LIST FOR MORE RESTRICTIVE REQUIREMENTS.
3. ALL PLANTS SHALL HAVE A KELL FORMED HEAD WITH MINIMUM GALLIFER. THE TOP OF THE KELL BRANCHES SHOWN IN THE PLANT LIST SHALL BE UNLAMEDED AND SHAVE SHALL BE WITHOUT ANY OTHER DEFECTS.
4. MEASUREMENT OF CONIFER HEIGHT SHALL INCLUDE NOT MORE THAN FIFTY (50) PER CENT OF THIS YEARS' VERTICAL GROWTH (TOP GANDEL).
5. THE LANDSCAPE CONTRACTOR IS HEREBY NOTIFIED OF THE EXISTENCE OF UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE PROJECT AREA. THE CONTRACTOR SHOULD VERIFY THE EXACT LOCATION OF ALL UTILITY LINES PRIOR TO CONVEYMENT OF DIGGING OPERATIONS.
6. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR STAKING AND LAYOUT OF ALL PLANTS FOR THIS PROJECT. THE LANDSCAPE ARCHITECT OR OWNER SHALL BE ADVISED WHEN STAKES ARE READY FOR INSPECTION ON VARIOUS PLANTING AREAS. ALL LAYOUT WORK SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO OPENING ANY PLANTING PITS.
7. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO VERIFY THAT EACH EXCAVATED TREE OR SHRUB PIT WILL PERCOLATE (DRAIN) PRIOR TO ADDING TOPSOIL, AND INSTALLING TREES OR SHRUBS. THE CONTRACTOR SHALL CONDUCT A PERCOLATION TEST AFTER EACH PIT IS DETAILED. IF THE OWNER OR LANDSCAPE ARCHITECT SHALL VERIFY ANY INADEQUACY AND EFFECT OF PERCOLATION TESTING. IF THE SOIL AT GIVEN AREA DOES NOT DRAIN PROPERLY, A PVC DRAIN OR GRAVEL SUMP SHALL BE INSTALLED OR THE PLANTINGS RELOCATED.
8. SHOULD THE LANDSCAPE CONTRACTOR ENCOUNTER UNSATISFACTORY SURFACE OR SUBSURFACE DRAINAGE CONDITIONS, SOIL DEPTH, LATENT SOLLS, HARD PANG, STEAM OR OTHER UTILITY LINES OR OTHER CONDITIONS THAT WILL JEOPARDIZE THE HEALTH AND VIGOR OF THE PLANTS, HE MUST ADVISE THE LANDSCAPE ARCHITECT IN WRITING OF THE CONDITIONS PRIOR TO INSTALLING PLANTINGS. OTHERWISE, THE LANDSCAPE CONTRACTOR WARRANTS THAT THE PLANTING WILL BE SUITABLE FOR PROPER GROWTH AND DEVELOPMENT OF THE PLANTS TO BE INSTALLED.
9. PLANTING PITS FOR TREE AND SHRUBS SHALL BE PREPARED AS PER DETAILS.
10. DOUBLE HAMMERED SHREPPED HARDWOOD MULCH SHALL BE APPLIED TO ALL SHRUB BEDS BY THE CONTRACTOR. BEDS SHALL BE TREATED WITH PRIMEREMER HEMIGRIDE BY THE CONTRACTOR BEFORE MULCH IS APPLIED. SHREPPED HARDWOOD MULCH SHALL BE TWO INCHES DEEP. A SAMPLE OF SHREPPED HARDWOOD MULCH SHALL BE PRESENTED TO THE LANDSCAPE ARCHITECT FOR APPROVAL.
11. ALL TREES ARE TO BE STAKED IMMEDIATELY AFTER PLANTING AS DETAILED. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF STAKING HOSES, ETC. AT THE END OF THE ONE YEAR GUARANTEE PERIOD.
12. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING UP ALL SITE AND THE COMPLETION OF THE PROJECT AND SHALL MAINTAIN THE SITE IN A REASONABLE NEAT AND CLEAN STATE THROUGHOUT THE INSTALLATION PROCESS. STREETS AND PAVED AREAS SHALL BE CLEANED REGULARLY TO REMOVE CONSTRUCTION MATERIALS AND OTHER DEBRIS RESULTING FROM WORK OF THE PROJECT.
13. PLANTS SHALL BE GUARANTEED FOR THE DURATION OF ONE (1) FULL YEAR AFTER THE FINAL ACCEPTANCE OF THE PLANTING BY THE OWNER AND SHALL BE REPLACED IF THE PLANTS ARE NOT IN A HEALTHY AND VIGOROUS STATE. HOWEVER, ANY PLANT NOT IN A HEALTHY AND VIGOROUS STATE AT THE END OF THE GUARANTEE PERIOD SHALL BE REPLACED AT NO COST TO THE OWNER. PLANTS SEVERELY DAMAGED BY VANDALS ARE NOT SUBJECT TO REPLACEMENT BY THE CONTRACTOR DURING THE ONE YEAR GUARANTEE PERIOD.
14. REPLACEMENTS OF DEAD OR UNSATISFACTORY MATERIAL SHALL BE MADE AS SPECIFIED IN THE PLANT LIST. THE OWNER OR LANDSCAPE ARCHITECT SHALL BE NOTIFIED TO HAVE THE PLANTS REPLACED. REPLACEMENTS HAVE BEEN MADE. REPLACEMENTS ARE TO BE ALIVE AND IN A HEALTHY CONDITION WHEN THE REPLACEMENTS ARE COMPLETE AND SHALL BE SUBJECT TO A ONE (1) YEAR GUARANTEE FROM THE DATE OF SATISFACTORY REPLACEMENT.
15. SHOULD THE CONTRACTOR NOT MAKE REPLACEMENTS IN A SATISFACTORY AND TIMELY FASHION IN ACCORD WITH THE PLANTING NOTES, THE OWNER AFTER PROPER NOTICE TO THE CONTRACTOR MAY UTILIZE THE FUNDS OF THE RETENTION TO HAVE THE REPLACEMENTS MADE IN ACCORD WITH THE REQUIREMENTS BY ANOTHER CONTRACTOR.

## TYPICAL GROUNDCOVER PLANTING

NOT TO SCALE



## PERCOLATION TEST HOLE

## INSTRUCTIONS FOR PERFORMING A PERCOLATION TEST

1. WITH A SHOVEL OR POSTHOLE DIGGER DIG HOLE 18" TO 24" DEEP. HOLE DIAMETER SHOULD BE A MINIMUM OF 4 INCHES. THE DIAMETER OF THE HOLE SHOULD BE UNIFORM FROM TOP TO BOTTOM WITH THE BOTTOM BEING FLAT.
2. FILL HOLE WITH WATER TO THE TOP AND LET STAND FOR AT LEAST AN HOUR TO PRE-WET THE SOIL.
3. REFILL HOLE TO WITHIN A COUPLE INCHES OF THE TOP. DON'T OVERFLOW THE HOLE.
4. TO AID IN MEASUREMENT, PLACE A STICK ACROSS THE TOP OF THE HOLE AND USE A RULER OR MEASURING TAPE TO MARK PERIODIC DROPS IN WATER LEVEL.
5. ALLOW THE HOLE TO DRAIN FOR AT LEAST ONE HOUR. A LONGER PERIOD OF TIME (2 TO 3 HOURS) WILL GIVE A MORE ACCURATE READING OF AVERAGE PERCOLATION RATES.
6. DETERMINE AVERAGE DROP IN WATER LEVEL PER HOUR AND REFER TO THE TABLE BELOW TO INTERPRET RESULTS.

HOW TO INTERPRET RESULTS	
IF WATER LEVEL IN HOLE DROPS...	SITE IS...
LESS THAN ONE-HALF INCH PER HOUR	POORLY DRAINED AND SUITED TO MET -SITE SPECIES
ONE HALF-INCH TO ONE INCH PER HOUR	MODERATELY WELL DRAINED AND ACCEPTABLE FOR MANY SPECIES INCLUDING MET SITE SPECIES
MORE THAN ONE INCH PER HOUR	WELL DRAINED AND SUITABLE FOR ALL SPECIES INCLUDING SENSITIVE SPECIES

## PERCOLATION TEST

## ISOMETRIC

**NOT TO SCALE**



IRRIGATION LEGEND

- 1" IRRIGATION METER
- RAINBIRD ESP-LXM CONTROLLER WITH RAIN SENSOR
- 1" DOUBLE CHECK VALVE BACKFLOW PREVENTER
- RAINBIRD P6A-100 SERIES ELECTRIC VALVE
- XCZ-100-B-COM
- RAINBIRD 1800 SERIES POP-UP ROTOR HEAD
- 8Q 12Q 15 SST
- 8H 12H 15 EST
- 15Q

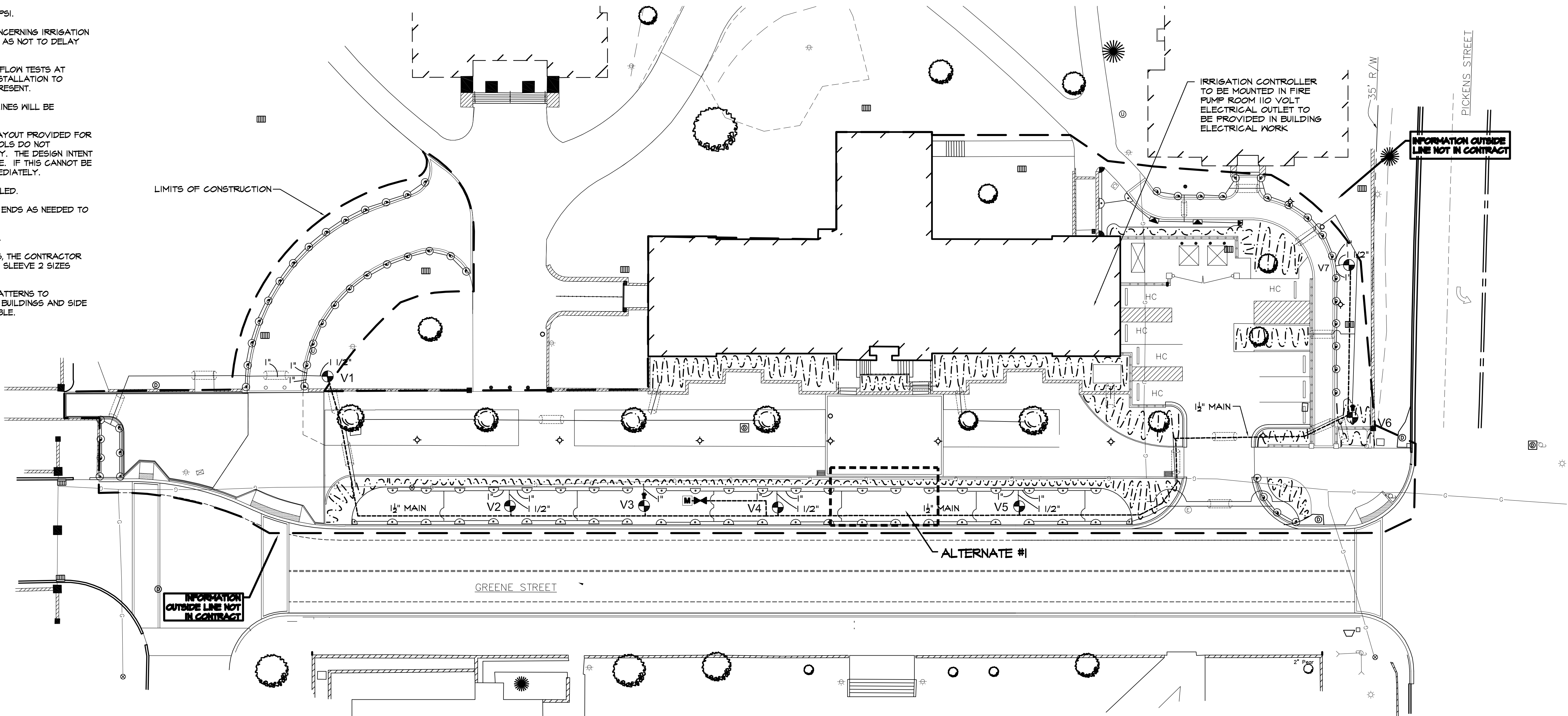
- 1 1/2" MAINLINE
- CLASS 160 OR 200 PVC PIPING SIZE AS NOTED
- RAINBIRD DRIP TUBING WITH RAIN-BUG EMITTERS
- 4" SCH. 40 PVC SLEEVINGS

VALVE SCHEDULE

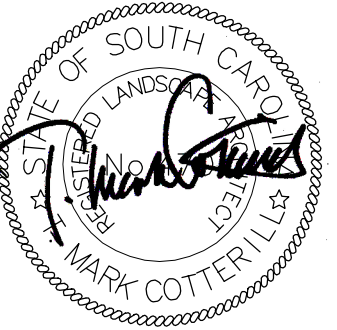
VALVE	SIZE	TYPE	GPM
V1	1"	1804	23.28
V2	1"	1804	21.45
V3	1"	DRIP	10±
V4	1"	1804	20.8
V5	1"	1804	19.12
V6	1"	DRIP	10±
V7	1"	1804	20.12

IRRIGATION NOTES

- ALL IRRIGATION TO BE AS SPECIFIED OR APPROVED EQUAL.
- SYSTEM DESIGNED TO RUN AT 25 GPM WITH 65 PSI.
- CONTRACTOR TO COORDINATE WITH OWNER CONCERNING IRRIGATION METER PRIOR TO COMMENCEMENT OF WORK SO AS NOT TO DELAY COMPLETION OF IRRIGATION.
- CONTRACTOR SHALL PERFORM PRESSURE AND FLOW TESTS AT PROPOSED POINT OF CONNECTION PRIOR TO INSTALLATION TO VERIFY THAT ADEQUATE DESIGN CRITERIA IS PRESENT.
- ADJUSTMENT OF SPRINKLER HEADS AND DRIP LINES WILL BE NECESSARY IN THE FIELD.
- DRIP TUBE SYMBOLS AND IRRIGATION PIPING LAYOUT PROVIDED FOR GENERAL LOCATIONS IN THE FIELD ONLY. SYMBOLS DO NOT NECESSARILY PORTRAY AN ACCURATE QUANTITY. THE DESIGN INTENT IS TO PROVIDE 100% HEAD TO HEAD COVERAGE. IF THIS CANNOT BE ACHIEVED, NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY.
- UTILIZE EMITTER DISTRIBUTION TUBING AS DETAILED.
- INSTALL AUTO FLUSH VALVES ON DRIP TUBE AT ENDS AS NEEDED TO DRAIN DRIP TUBE AFTER EACH USE.
- ALL DRIP TUBE TO BE INSTALLED UNDER MULCH.
- WHERE IRRIGATION PIPING CROSSES SIDEWALKS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING A SLEEVE 2 SIZES LARGER THAN THE CROSSING PIPE.
- IRRIGATION CONTRACTOR TO ADJUST SPRAY PATTERNS TO SURROUNDING PLANT BEDS. OVERSPRAY ONTO BUILDINGS AND SIDE WALKS SHALL BE AVOIDED AS MUCH AS POSSIBLE.



A L-8 ALTERNATE #1 IRRIGATION AT ENTRANCE PLAN SCALE 1"=10'-0"

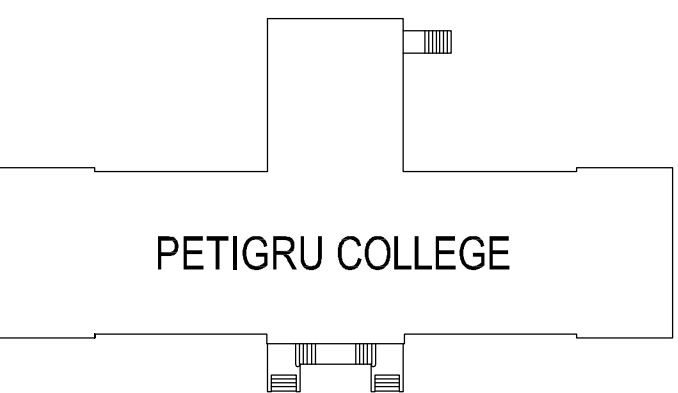


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date JANUARY 15, 2014

number	item	date

key plan



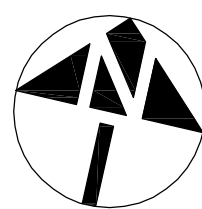
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IRRIGATION

sheet number

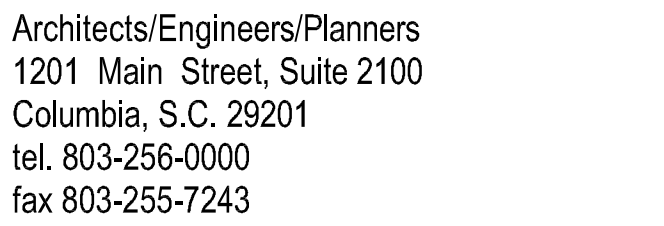
L-8

drawn by ZNW  
checked by TMC



GRAPHIC SCALE 1" = 20'-0"  
0' 10' 20' 40' 60'





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consultants



USC CAMPUS PLANNING AND  
CONSTRUCTION  
743 GREENE STREET  
COLUMBIA, SOUTH CAROLINA 29208

project name  
GIBBES GREEN HISTORIC FACILITY  
RENOVATION - PETIGRU COLLEGE  
SITWORK  
OSE # H27-9835-PD-C

A/E project number  
13031.01

seals/signature



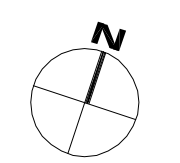
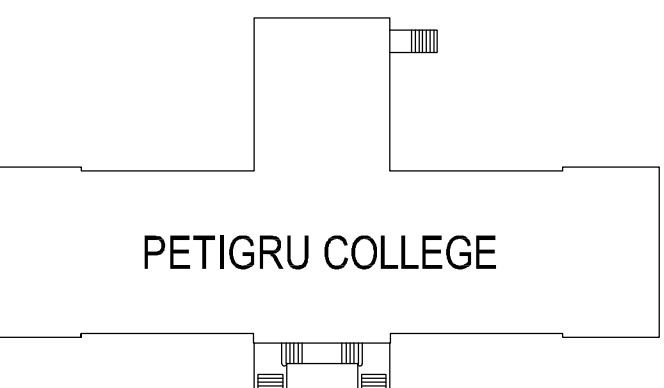
1. ALL PLASTIC PIPE FITTINGS TO BE SCHEDULE 40 PVC OR PVC.
2. ALL MAIN LINES TO BE SCHEDULE 40 PVC OR SCHEDULE 200 PVC.
3. ALL LATERAL LINES TO BE SCHEDULE 200 PVC OR SCHEDULE 160 PVC.
4. COORDINATE WITH GENERAL CONTRACTOR FOR INSTALLATION OF SCHEDULE 40 PVC PIPE UNDER PAVED SURFACES AS NOTED ON THE DRAWINGS TO BE UTILIZED FOR IRRIGATION SLEEVINGS. THE LOCATION OF SLEEVINGS IS MARKED ON THE IRRIGATION PLAN. DEVIATIONS MAY OCCUR DURING CONSTRUCTION.
5. TRENCHES FOR PVC PIPE MAINLINES SHALL BE EXCAVATED TO SUFFICIENT DEPTH OF 18" MINIMUM AND AN SUFFICIENT WIDTH TO PERMIT PROPER HANDLING AND INSTALLATION OF PIPE AND FITTINGS. TRENCHES FOR PVC PIPE LATERAL SPRINKLER LINES SHALL BE EXCAVATED TO SUFFICIENT DEPTH OF 12" MINIMUM AND AN SUFFICIENT WIDTH TO PERMIT PROPER HANDLING AND INSTALLATION OF PIPE AND FITTINGS.
6. ALL CONTROL VALVES SHALL BE INSTALLED IN A VALVE BOX IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
7. ALL WIRING TO BE USED FOR CONNECTING THE AUTOMATIC REMOTE CONTROL VALVE TO THE AUTOMATIC CONTROLLERS SHALL BE TYPE "UF1" 14-1 STRANDED OR SOLID COPPER, SINGLE CONDUCTION WIRE WITH PVC INSULATION AND BEAR UL APPROVAL FOR DIRECT UNDERGROUND BURIAL. FEEDER CABLE, WIRE CONNECTIONS TO REMOTE CONTROL, ELECTRICAL VALVES AND SPRINKS OF WIRE IN THE FIELD SHALL BE PEN-TITE WIRE CONNECTORS OR APPROVED EQUAL AND SEALING CEMENT.
8. THE IRRIGATION CONTRACTOR SHALL CONNECT ALL VALVE WIRING TO A SPECIFIED CONTROLLER LOCATED AS NOTED ON THIS PLAN.
9. ALL CONTROL VALVE CABLES SHALL BE INSTALLED BY DIRECT BURIAL AT A MINIMUM DEPTH OF 12". WHERE PRACTICAL, THE WIRE SHALL BE INSTALLED IN THE SAME TRENCH AS THE MAINLINE PIPE.
10. AFTER COMPLETION OF THE PIPING INSTALLATION, THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" DRAWING SHOWING ALL SPRINKLER HEADS, VALVES, DRAINS AND PIPE LINES TO SCALE WITH DIMENSIONS WHERE REQUIRED. INSTRUCTION SHEETS AND PARTS LISTS COVERING ALL OPERATING EQUIPMENT WILL BE BOUND INTO A FOLDER AND FURNISHED TO THE OWNER IN DUPLICATE.
11. FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK PERFORMED UNDER THIS CONTRACT, THE CONTRACTOR SHALL PROMPTLY FURNISH WITHOUT COST TO THE OWNER, ANY AND ALL PARTS AND LABOR WHICH PROVE DEFECTIVE IN MATERIAL OR WORKMANSHIP.
12. DURING THE LAST MONTH OF THE GUARANTEE PERIOD, THE LANDSCAPE ARCHITECT AND CONTRACTOR SHALL INSPECT THE INSTALLATION TO DETERMINE THE CONDITION OF THE COMPLETE SYSTEM. A LIST OF DEFECTIVE MATERIALS OR INSTALLATIONS TO BE REPLACED SHALL BE MADE BY THE CONTRACTOR WITHIN THIRTY DAYS OF RECEIVING WRITTEN NOTIFICATION. REPLACED MATERIALS AND INSTALLATION SHALL BE IN ACCORD WITH THESE SPECIFICATIONS, DRAWINGS AND OR SCHEDULES.

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date  
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key plan



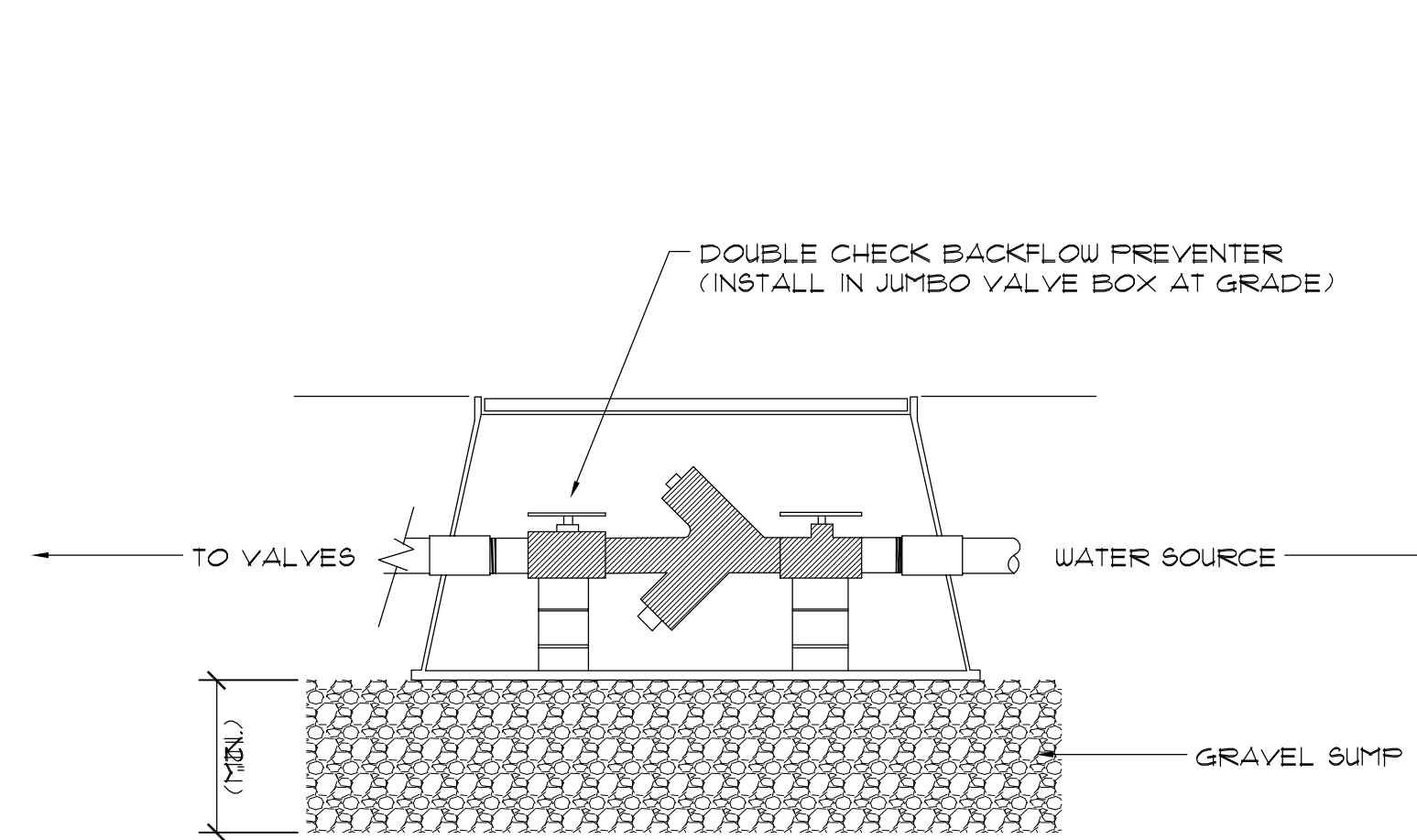
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## IRRIGATION.DETAILS

sheet number

# L-9

drawn by **ZNW**  
checked by **TMC**



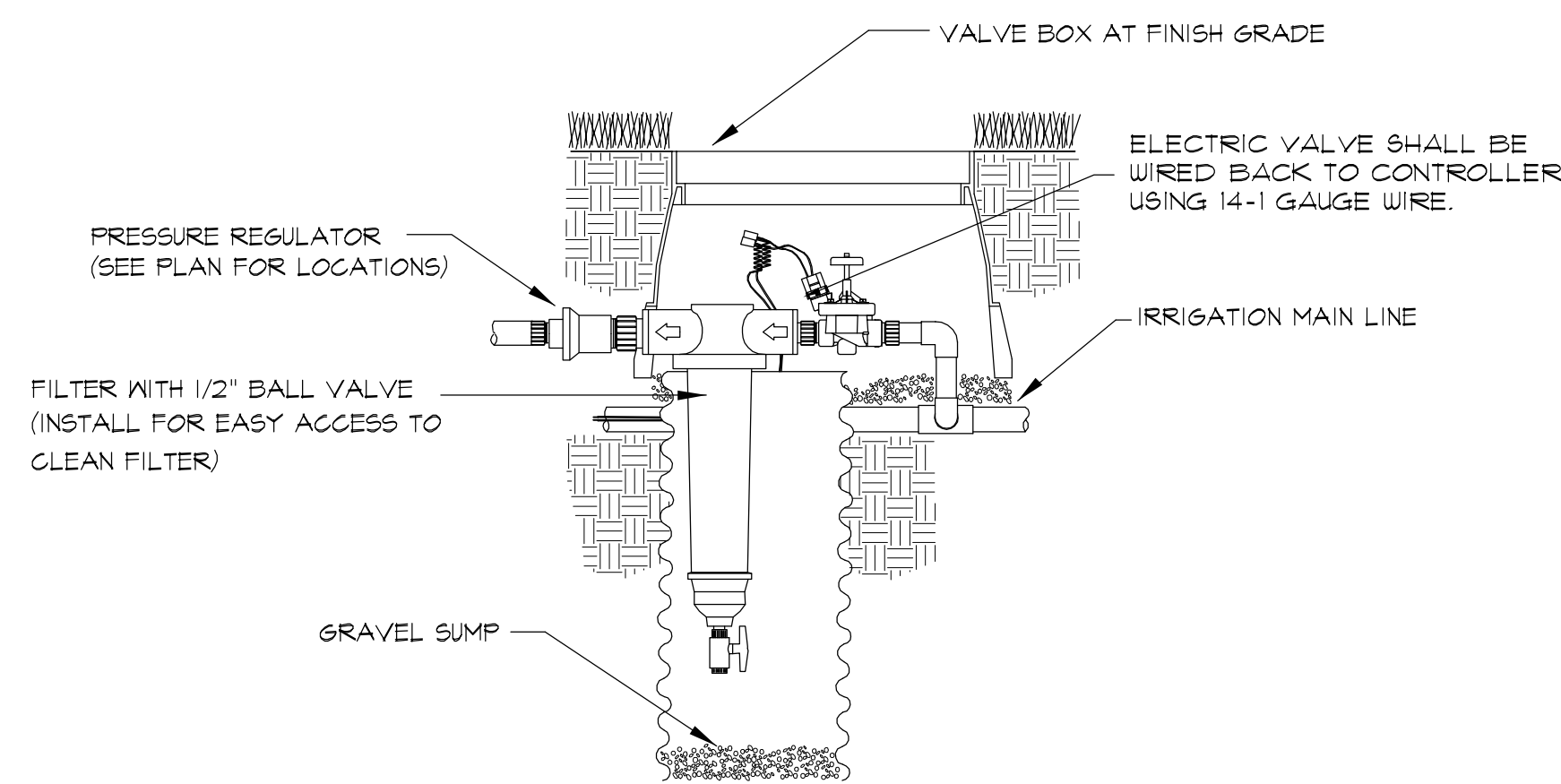
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L-9

# BACKFLOW PREVENTER

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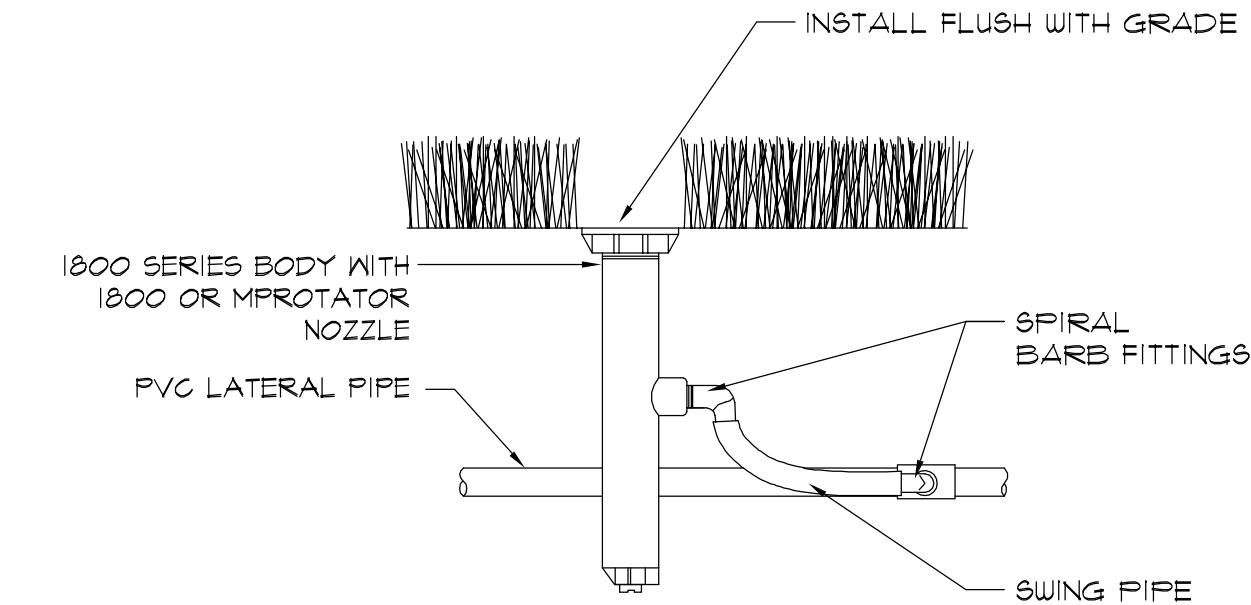
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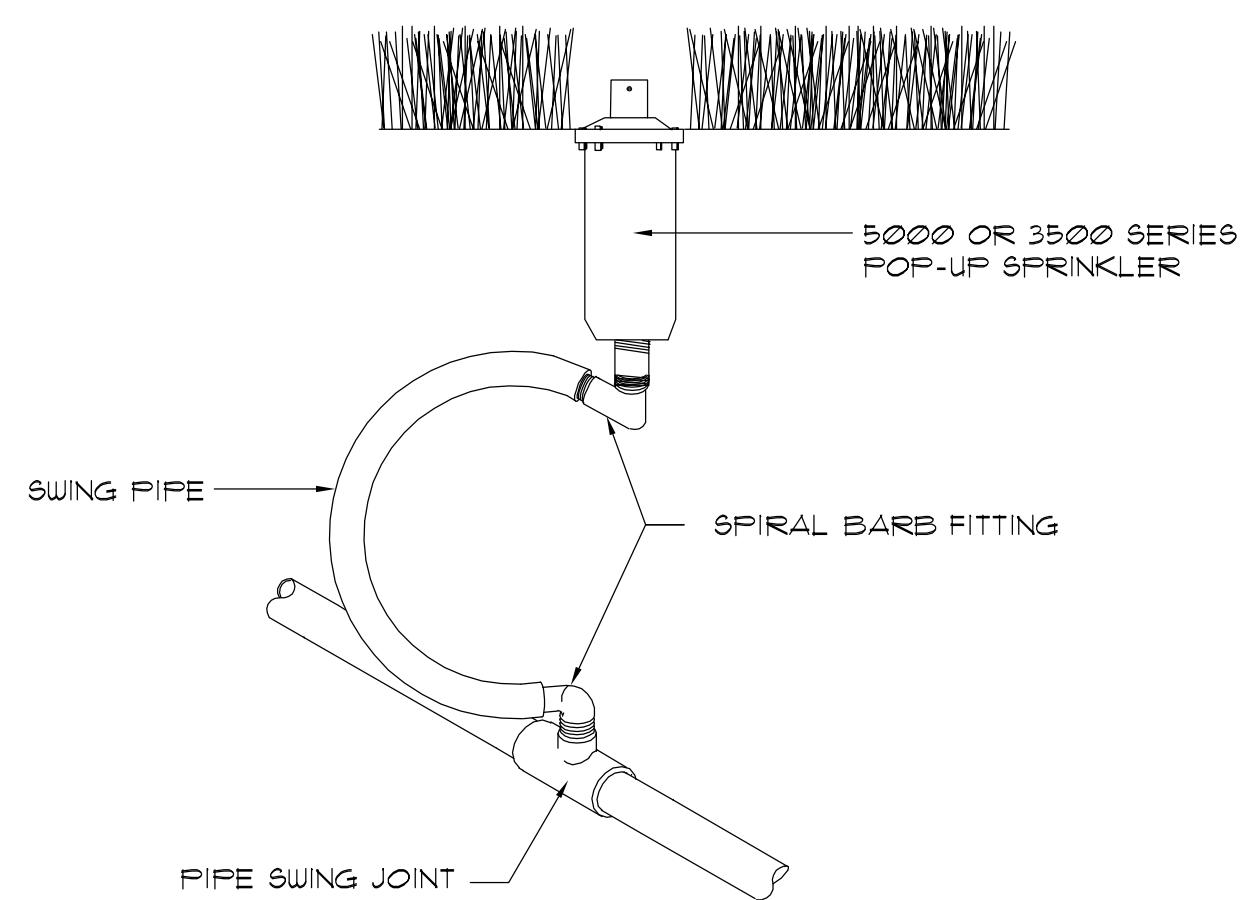
**ELECTRIC VALVE-DRIP ZONE**

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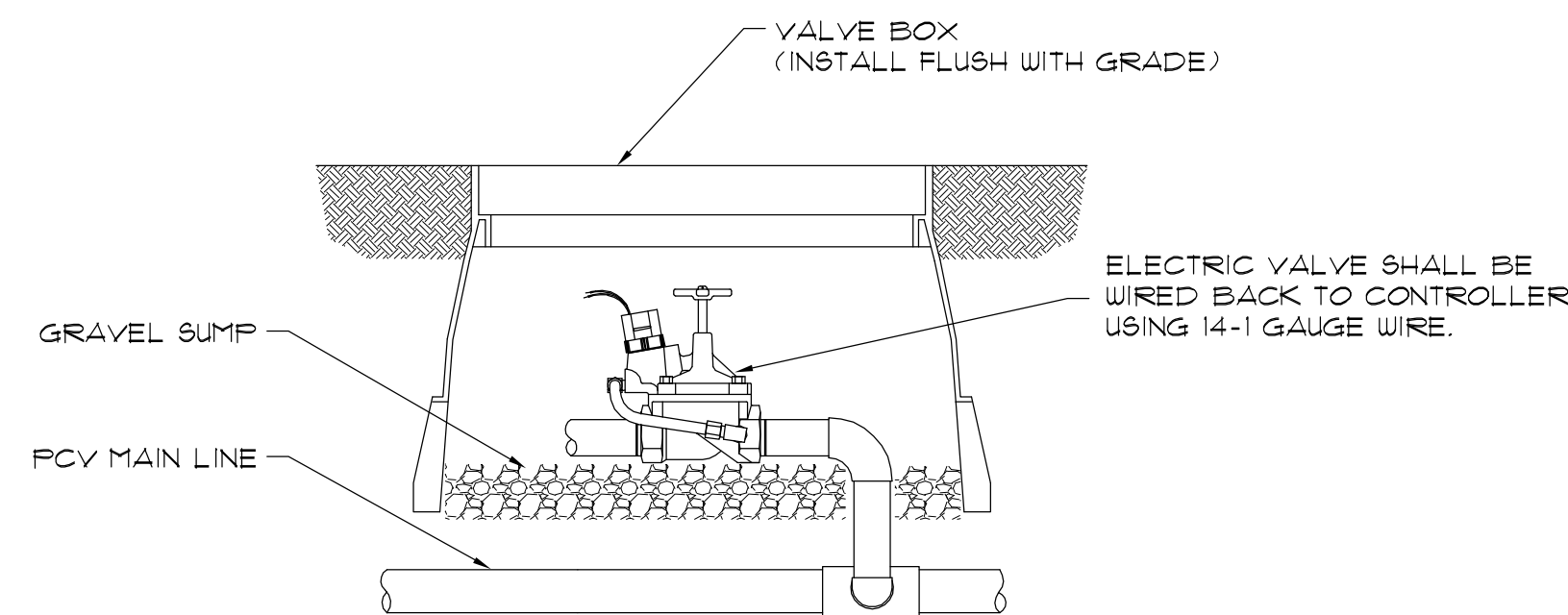


**POP-UP SPRAY SPRINKLER**

**SECTION** **NOT TO SCALE**



**POP-UP ROTOR SPRINKLER**

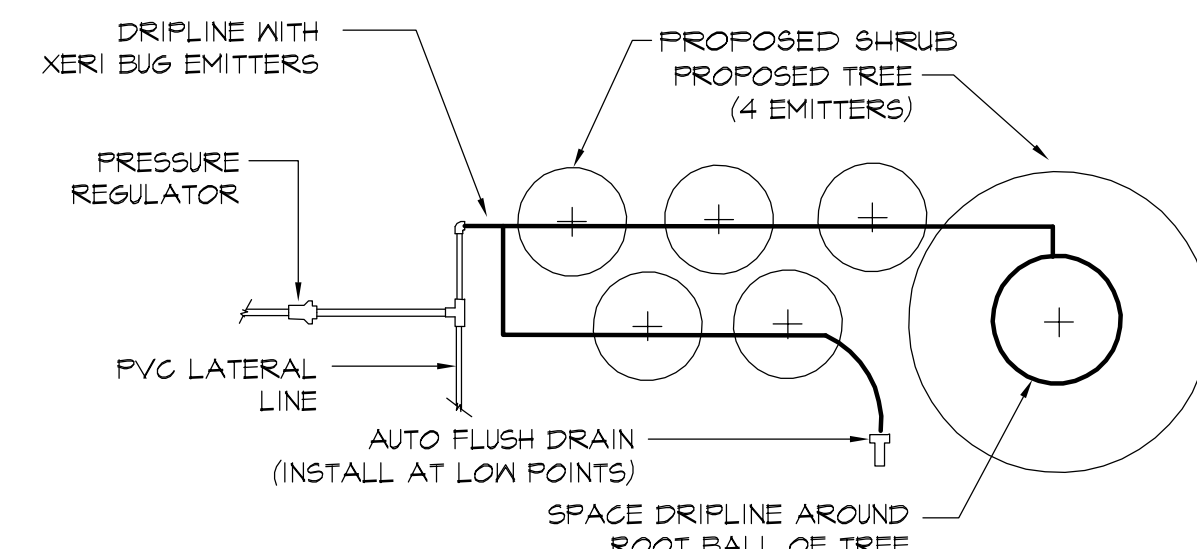


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# ELECTRIC VALVE

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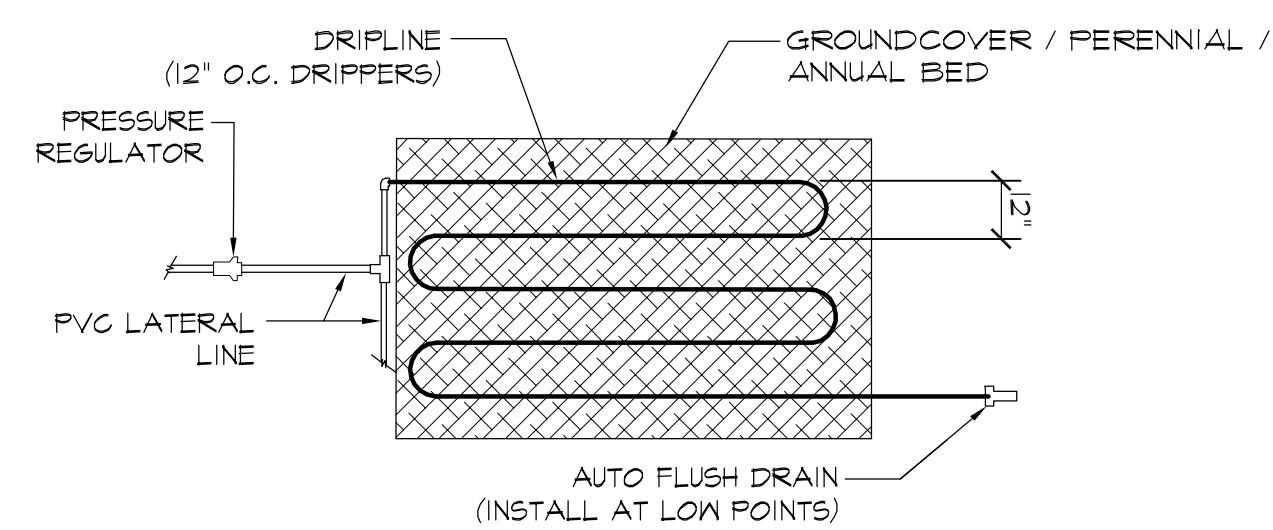


**F**  
**L-9**

**DRIPLINE IN SHRUBS**

**PLAN**

**NOT TO SCALE**



**DRIPLINE IN GROUNDCOVER**

**PLAN** **NOT TO SCALE**

