University of South Carolina Innovation Center Park Project Number: H27-Z263 Project Manager: Emily Jones

Addendum Number Three (3)

DATE: April 20, 2016

FROM: Aimee B. Rish, Procurement Specialist

TO: All Bidders

The following items add to, modify, clarify, or otherwise alter the Drawings and/or specifications and will become a part of the Contract Documents. Where a portion of the Drawings and/or specifications is added to, modified, clarified, or otherwise altered, the portion not so affected shall remain. Bidder shall include all effects that these items may have on his proposal.

General/Clarification:

- Bidders are advised that the current site condition has changed since the pre-bid meeting on March 30. The current site condition is highly compacted native soil with 1.5" depth of pine bark mulch. The Contractor may re-use the pine bark mulch for planting beds. Compacted soils shall be tilled and mixed with topsoil to a depth of 18" prior to installation of all landscape material.
- 2. The Owner will provide the chain link construction site fencing with wind screening as described in the USC Supplementary General Conditions.
- 3. The following questions (in italics) were received from bidders:
 - A. On Sheet H2.01, Detail 7: The plans call for a Hanover prest paver 4"x8". The smallest paver is this design is 5 7/8"x17 5/8". Can you please clarify?
 Refer to the following resource for the Prest Brick Pavers size as specified: http://www.hanoverpavers.com/images/PDFs/6601-pb_spec.pdf
 - B. The specs for thermal full color, no brown tones. It's impossible to do full color with no brown. That leaves the owner with blue or lilac. Can you please clarify?
 Referring to Natural Stone pavers, we will accept full color, just not majority brown.
 - C. The plans call for Mexican beach pebbles and river rock in the same area. Please clarify, do you want one or both?River Rock shall be used. Contractor to provide a sample for Architect/Owner approval.
 - D. Is polished steel to be understood as stainless steel? Yes, Polished Stainless Steel is the specified finish.

Project Manual:

1. Delete Section 05 73 00 Decorative Metal Handrails from the Project Manual and replace with the attached Section 05 72 00 Ornamental and Monumental Handrails, dated April 19, 2016

Drawings:

- 1. <u>Revision:</u> Reference the following drawing sheets. Replace them with the revised Sheets dated April 20, 2016. These sheets are attached to the end of the Addendum.
 - a. H1.00 Cover Sheet
 - b. D1.01 Demolition Plan
 - c. H1.01 Hardscape Plan
 - d. H2.01 Hardscape Details
 - e. H3.01 Layout Plan
 - f. H3.02 Grading Plan
 - g. L1.01 Landscape Plan
 - h. L2.01 Landscape Details
 - i. IR1.01 Extent of Irrigation
- <u>Clarification</u>: Refer to Sheet H2.01, Detail 8, Granite Medallion. The granite shall be 2" thick and installed on a mortar bed atop a 4" concrete slab. The granite medallion shall be priced as Alternate #3 as an 'Add Alternate.'

END OF ADDENDUM Number Three (3)

Total pages:	Addendum text	2 pages (8-1/2 x 11)			
	Section 057200	6 pages (8-1/2 x 11)			
	Drawings	9 sheets (30 x 42)			

SECTION 05720 - ORNAMENTAL& MONUMENTAL HANDRAILS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Custom fabricated stainless steel handrails

B. References:

- AMP 500-06 NAAMM/NOMMA Metal Finishes Manual co-published by the National Association of Architectural Metal Manufactures, 8 South Michigan Avenue, Suite 1000, Chicago, IL 60603 <u>www.naamm.org</u> and the National Ornamental & Miscellaneous Metals Association, 1535 Pennsylvania Avenue, McDonough, GA 30253 <u>www.nomma.org</u>
- July 23 2004 Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines – United States Access Board – 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111
- ICC/ANSI A117.1-2003 International Code Council 500 New Jersey Avenue NW, 6th Floor, Washington, DC 20001-2070 www.iccsafe.org
- 2006 International Building Code International Code Council 500 New Jersey Avenue NW, 6th Floor, Washington, DC 20001-2070 <u>www.iccsafe.org</u>

1.2 DESIGN PERFORMANCE REQUIREMENTS

- A. General: Handrails shall be designed to withstand the structural loads listed below and the applicable building codes enforced by the Authority Having Jurisdiction.
 - 1. Concentrated Load: A 200 lbf load applied at any point along the handrail in any direction.
 - 2. Uniform Load: A 50 lbf-ft applied along the handrail in any direction.
 - 3. Loads: Concentrated and uniform loads need not be assumed to act concurrently.
- B. Engineer Certification: The fabricator's shop drawings shall be reviewed and certified by a registered structural engineer licensed in the state in which the project is located and who is experienced in the design of this work.
- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

D. Thermal Movements: Exterior handrails shall be designed to allow for thermal movements resulting from changes 120 degree F (49 C) in ambient and 180 degree F (82 C) surface temperatures. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttimes-sky heat loss.

1.3 SUBMITTALS

- A. Shop Drawings:
 - 1. Shall be specifically prepared for this project.

2. Shall include; plan views, elevations, connections, material, details for fabrication, details of attachment to non handrail elements, and installation notations.

3. Drawings shall be reviewed and certified by a registered structural engineer licensed in the state in which the project is located and also provide copies of the structural calculations.

B. Sample for Verification:

1. Provide one fully assembled sample of the handrail for approval by the architect of record made from full size material, including post, brackets, bases, caps, support bars or channels. Show method of connection, fasteners, welds and finish, sample need not be full height.

C. Handrail Installation Location:

1. Provide installation paperwork for fabricated handrail sections which correspond with markings on packaging showing the location and matching sections of handrail that attach together for installers.

1.4 QUALITY ASSURANCE

- A. All fabricators may be acceptable provided they have a minimum of 5 years documented experience specializing in the fabrication of ornamental and monumental handrails and are approved and accepted by the architect of record.
- B. Installers shall be fabricator trained or an installer deemed acceptable by the fabricator to perform the installation.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver and store handrails to site in fabricators original packaging, with labels clearly identifying fabricators name, project number and installation paperwork reference number for proper identification for installation.

B. Store handrails indoors in a secure, clean and dry area until ready for installation.

C. Protect handrails and finish from damage during handling and installation.

1.6 COORDINATION & SEQUENCING

A. Installer and or contractor to take field measurements and forward documentation to fabricator to prepare required shop drawings for submittals.

B. Installer and or contractor, whomever field measured for the handrails, shall verify shop drawings prepared by fabricator for accuracy to field measurements taken and approve shop drawings for fabrication to commence.

C. Fabricator to provide templates and documentation required for proper installation for the affected trades.

D. Contractor to coordinate work with other operations and installation of adjacent materials to avoid damage to handrails.

PART 2 – PRODUCT(S)

2.1 FABRICATOR

- A. All Fabricators may be acceptable provided they have a minimum of 5 years documented experience specializing in the fabrication of ornamental and monumental handrails and are approved and accepted by the architect of record.
- B. Substitutions: Are not permitted without certified documentation showing proof of a minimum of 5 years experience specializing in the fabrication of ornamental and monumental handrails and the certified documentation is reviewed, verified and approved by the architect of record that the substitution is qualified to perform the work.

2.2 MATERIALS

- A. Stainless Steel:
 - 1. Tubing: ASTM A554, Type 304 or 316
 - 2. Bars, Shapes and Moldings: ASTM A276, Type 304 or 316

2.3 FASTENERS

A. General: Provide the following:

Stainless Steel Components: Type 304 or 316 stainless steel fasteners.
 Fasteners for Anchoring Handrails to Other Construction: Select fasteners of type, grade and class required to produce connections suitable for anchoring handrails to other types of construction indicated and capable of withstanding design loads.

B. Provide fasteners for interconnecting handrail components and for attaching handrails to other work. Concealed fasteners shall be used unless exposed fasteners are unavoidable or are a standard fastening method for handrail connection.

2.2 FABRICATION

- A. Fit and assemble handrails in shop to largest practical size for delivery to site to minimize field splicing and assembly. Disassemble handrails and clearly mark sections for reassembly and coordinated installation.
- B. Mechanical Connections: Flush countersink screws or bolts consistent with design, unless otherwise indicated on shop drawings. Fabricate to produce flush, smooth, rigid, hairline joints.
- C. Cut, drill and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 0.01 inch unless otherwise indicated.
- D. Brackets, Flanges, Fittings and Anchors: Fabricator to provide post, wall brackets, flanges and miscellaneous fittings to connect handrails to other construction.
- E. Provide post or brackets to connect handrails to concrete or masonry. Post or brackets need withstanding loads imposed by handrails.
- F. Cut, reinforce, drill and tap components as indicated on shop drawings to receive finish hardware, screws and similar items.
- G. Form simple and compound curves by bending members in jigs to produce uniform curvature for each repetitive configuration; maintain cross section of member throughout bend controlling buckling, twisting, cracking, or deformation to exposed surfaces.
- H. Fabricate connections that are exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate. Close all exposed ends of handrails.

2.4 SHOP FINISHING

A. Reference NAAMM/NOMMA "AMP 500-06 Metal Finishes Manual" for designating finishes.

B. Mechanical finishes on exposed surfaces shall be protected for shipment and handling with a temporary protective covering or wrap.

C. Appearance of Finished Handrails: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved sample. Noticeable variations in same piece are acceptable if they are within the range of approved sample and are assembled or installed to minimize contrast.

A. Stainless Steel

- 1. Grind and remove tool and die marks or stretch marks or blend in to finish
- 2. Linearly Textured number 4 finish with 01X butchers wax for top coating

PART 3 EXECUTION

- 3.1 EXAMINATION
 - A. Prior to commencement of installation; installer and or contractor shall examine all surfaces and substrates the handrails will be secured and mounted to.
 - B. All unsatisfactory surfaces, substrates and structures shall be reported to the Architect of record before proceeding.
 - C. Unsatisfactory surfaces, substrates and structures not found prior to start of installation, but discovered during installation, shall be reported to the Architect of record before proceeding.

3.2 INSTALLATION

- A. Install in accordance with fabricators shop drawings.
- B. Fit exposed connections together to form tight, hairline joints.
- C. Set handrails in place free of racking and accurately install in proper location and alignment.
- D. Do not cut, grind or weld handrail surfaces that have been finished in the shop and that are intended for mechanical field connection as noted on shop drawings.
- E. Set post plumb within a tolerance of 3/32 of an inch in 42 inches.
- F. Handrails variations from parallel with the nosing line of steps or slope of ramps shall not exceed 1/4 inch in 12 feet.
- G. Coat concealed surfaces of metals in contact with grout, concrete, masonry, wood, or dissimilar metals, with a corrosion protective coating.
- H. Handrails to be adjusted before anchoring to ensure matching alignment with abutting joints.

I. Where fasteners are used to secure handrails in place, anchorage devices and or fasteners are to be used where necessary for securing handrails and transferring loads to in-place construction.

3.3 POST AND BRACKET ANCHORAGE

A. Anchoring Post:

1. Core & Grout: Core drill holes not less than 5 inches deep and ³/₄ inch larger than the outside diameter of the post when installing in masonry. Clean core drilled hole of loose material, set handrail post in place, fill hole with non-shrink, nonmetallic grout, mixed and set per grout manufactures written instructions.

2. Flange & Base: Anchor handrail flanges or bases in place with fasteners noted in shop drawings and approved by the engineer for installation.

- B. Anchoring Wall Brackets:
 - 1. For wood or metal stud partitions, set lag bolts or hangers in to wood backing to be supplied and installed by carpenters during framing of partitions.
 - 2. For solid masonry, use drilled in shields with hanger or lag bolts.

3.6 CLEANING

- A. Powder coated handrails: Clean surfaces with soap and water after installation is completed.
- B. Bronze & stainless steel handrails: Clean handrails per fabricators recommendations and in a manner that leaves an undamaged and uniform finish matching approved sample.

3.7 PROTECTION

- A. Protect finishes of handrails from damage during construction with temporary protective coverings approved by the fabricator.
- B. At time of Substantial Completion installer to remove protective coverings upon written request from the contractor and touch-up, repair or replace damaged products were deem necessary.

INNOVATION CENTER PARK

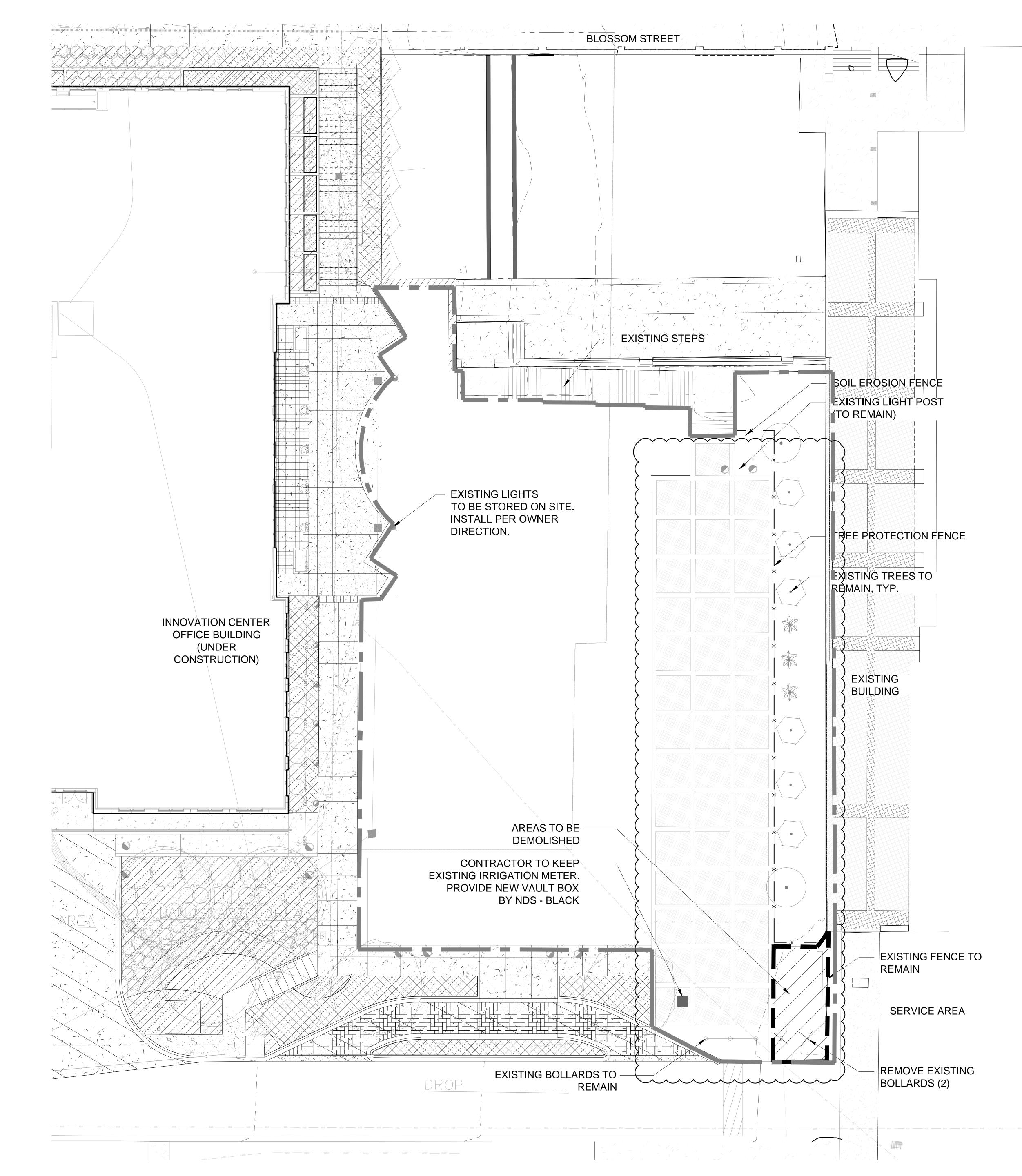
COLUMBIA, SOUTH CAROLINA

	DRAWINGS ISSUED			DRAW		GENERAL NOTES:		
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								OF ANY DISCREPENCIES. 2. THE CONTRACTOR BARES ALL RESPONSIBILITY F PIPES. STRUCTURES, WALKS AND CURBS IN THE FII TO BEFORE MENTIONED INFASTRUCTURE THAT AR IMMEDIATELY AT NO EXPENSE TO THE OWNER. SITI FOR ANY UTILITIES NOT SHOWN ON PLANS.
		(1						3. ALL PROPOSED AND FINISHED GRADES ARE BAS OWNERS SURVEY AND/OR CIVIL ENGINEER ANY DR MEASUREMENTS ARE TO BE REPORTED TO THE LA
	DOC SE	ADDENDUM #1			DOC. SE			4. PRIOR TO COMMENCEMENT OF HARDSCAPE CON TO BE SURVEYED, LAID OUT AND STAKED FOR REV ARCHITECT, CONTRACTOR SHALL ASSUME RESPON ADJUSTMENTS OR RECONSTRUCTION RESULTING IN ACTIVITES.
	BD				BID			5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SPECIFICATIONS. ANY QUANITIES PROVIDED BY SIT NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPE
H1.00 - COVER SHEET								6. 6. EASEMENTS, BUILDING SETBACKS, CURB AND GU BEEN SUPPLIED TO SITE SOLUTIONS BY THE PROJE DRAWINGS FOR ADDITIONAL SITE INFORMATION.
C1.00 - EXISTING CONDITIONS PLAN C2.00 - SITE PLAN								7.CONTRACTOR TO VERIFY THAT A MIN. DEPTH OF FOR ALL PROPOSED PLANTING AREAS ON GRADE U
C3.00 - GRADING PLAN C4.00 - STORM DRAINAGE PLAN							+	8. ALL LANDSCAPE AREAS EITHER ON-STRUCTURE PLANTERS TO BE LIGHT WEIGHT SOIL MIX.
C5.00 - EROSION AND SEDIMENT		\vdash					+	9. CONTRACTOR TO PROVIDE AS BUILT CONDUIT LA
CONTROL PLAN								APPROVAL. COORDINATE W/ OWNER WHERE TO THE
	+							10. ALL <u>PLANTED POTS</u> TO BE HAND WATERED AND 11. SITE FURNITURE (BENCH, UMBRELLAS, ETC, JANI
								12. ALL SURFACES TO BE POWER-WASH CLEANED A
D1.01 - DEMOLITION PLAN								
H1.01 - HARDSCAPE PLAN H2.01 - HARDSCAPE DETAILS								
H2.01 - HARDSCAPE DETAILS								
H3.01 - LAYOUT PLAN								
L1.01 - LANDSCAPE PLAN	R							
L2.01 - LANDSCAPE DETAILS								
IR1.01 - EXTENT OF IRRIGATION								
	\uparrow							LAYOUT NOTES:
E0.01 - ELECTRICAL SYMBOLS	۲							1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR
& LEGENDS								NOTICES, AND PAYING FEES. THE CONTRACTOR SH STATE BUILDING CODES AND ORDINANCES RELATI
E0.02 - ELECTRICAL SITE PLANS	•							2. IN EVENT OF ANY DISCREPENSIES FOUND IN THE
								ENCOUNTER DURING CONSTRUCTION, THE CONTR. LANDSCAPE ARCHITECT BEFORE PROCEEDING WIT
								3. WHERE PLAN DETAILS DIFFER FROM CITY STAND
							+	APPROVED IN WRITING BY LANDSCAPE ARCHITECT
								4, DO NOT SCALE DRAWINGS, IF DIMENSIONS ARE I RESPONSIBLE FOR OBTAINING CLARIFICATION FRO WITH THE WORK.
							+	5. NO SUBSTITUTIONS OF ANY MATERIALS OR PROD WRITTEN CONSENT OF THE LANDSCAPE ARCHITEC
								6.CONTRACTOR TO LAY OUT ALL PROPOSED WALK
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	SHOP DRAWINGS & MISC. SUBMITTALS
MENSIONS. NOTIFY LANDSCAPE ARCHITECT	CONTRACTOR SHALL PREPARE AND PROVIDE SHOP DRAWINGS FOR THE REVIEW BY THE ARCHITECT AND LANDSCAPE ARCHITECT FOR THE FOLLOWING ITEMS:
FOR VERIFYING ALL UNDERGROUND UTILITIES, HELD PRIOR TO CONSTRUCTION. ANY DAMAGE RE TO REMAIN SHALL BE REPAIRED TE SOLUTION ASSUMES NO RESPONSIBILITY	1. BRICK RETAINING WALL 2. CONCRETE RETAINING WALL 3. LANDSCAPE MATERIAL PHOTOS 4. ADA RAMP 5. STEPPING STONE 6. PAVERS
SED ON INFORMATION PROVIDED BY THE NSCREPENCIES IN ACTUAL FIELD ANDSCAPE ARCHITECT IMMEDIATELY.	7. LIGHTING CUT SHEETS 8. LIGHT POSTS 9. HANDRAILS 10. CAST STONE CAPS
INSTRUCTION, ALL FOOTINGS AND WALLS ARE VIEW BY OWNER, ARCHITECT AND LANDSCAPE INSIBILITY FOR ANY DEMOLITION. FROM UNAUTHORIZED CONSTRUCTION	11. STEPS AND RAILING
. QUANITIES PER DRAWINGS AND ITE SOLUTIONS ARE FOR CONVENIENCE ONLY. ENCIES.	
SUTTER AND UNDERGROUND UTILITIES HAVE JECT CIVIL ENGINEER. REFER TO CIVIL	SAMPLES
36" OF SPECIFIED TOP SOIL MIX IS PROVIDED UNLESS OTHERWISE NOTED IN DRAWINGS.	CONTRACTOR SHALL PROVIDE SAMPLES FOR THE REVIEW BY THE OWNER, ARCHITECTS AND LANDSCAPE ARCHITECT FOR THE FOLLOWING ITEMS:
E OR WITHIN FIBERGLASS AND CONCRETE	1. CONCRETE 2. SIDEWALK
AYOUT TO PROPOSED SITE LIGHTING PRIOR TO IE IN TO ELECTRIC SERVICE.	3. PAVERS 4. RIVER ROCK 5. BRICK VENEER 6. DAST EXAMPLE
D MAINTAINED.	6. CAST STONE CAP
ND SITE LIGHTING TO BE AN ALTERNATE	
	MOCK UPS
	CONTRACTOR SHALL PREPARE 4" X 4" min, MOCK UPS FOR THE REVIEW BY THE OWNER, ARCHITECTS AND LANDSCAPE ARCHITECT FOR THE FOLLOWING ITEMS: 1. CONCRETE
	2. STEP STONES 3. PAVERS
R OBTAINING NECESSARY PERMITS, GIVING HALL COMPLY WITH ALL CITY, COUNTY AND ING TO THIS CONSTRUCTION PROJECT.	4. BRICK VENEER
E DRAWINGS, OR IF PROBLEMS ARE RACTOR SHALL BE REQUIRED TO NOTIFY THE ITH THE WORK.	
DARDS. THE LATTER SHALL BE SUBSTITUTED IN .T.	
IN QUESTION. THE CONTRACTOR SHALL BE OM THE ARCHITECT BEFORE PROCEEDING	
DDUCTS SHALL BE ALLOWED WITHOUT THE	
ст.	



DATE: 02.02.2016 NOT ISSUED FOR CONSTRUCTION.



DEMOLITION NOTES:	
1. SITE SOLUTIONS AND ANY OF THEIR CONSULTANTS SHALL NOT BE HELD RESPONSIBLE FOR THE ACCURACY AND/OR COMP	LETENESS OF
THAT INFORMATION SHOWN HEREON OR ANY ERRORS OR OMISSIONS RESULTING FROM SUCH.	

2. THE CONTRACTOR SHALL CONFORM TO LOCAL CODES, OBTAIN ALL PERMITS, AND GIVE ALL NOTICES REQUIRED FOR EXECUTION OF THE WORK.

3. ALL MATERIALS BEING REMOVED AND NOT RELOCATED UNDER THE NEW CONSTRUCTION INCLUDING TREES AND SHRUBS , UTILITY STRUCTURES, ETC., SHALL BE FIRST OFFERED TO THE OWNERS REPRESENTATIVE AND IF NOT ACCEPTED SHALL THEN BE PROPERLY DISPOSED OF BY THE CONTRACTOR.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CHARTED AND UNCHARTED UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTORS EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.

5. THE CONTRACTOR SHALL VERIFY THE LIMITS OF DEMOLITION WITH THE OWNERS REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.

6. IN AREAS WHERE EXISTING PAVEMENT, WALKS, OR CURBS ARE TO BE REMOVED, SAW CUT TO PROVIDE A CLEAN EDGE, COORDINATE EXTENT OF PAVEMENT DEMOLITION WITH THE UNIT OF NEW IMPROVEMENTS ON THE SITE LAYOUT.

7. CONTRACTOR SHALL COORDINATE PHASING OF THE DEMOLITION WITH THE OWNERS REPRESENTATIVE AND LOCAL GOVERNING AGENCY PRIOR TO BEGINNING WORK. DISRUPTION OF EXISTING UTILITY SERVICES AND TRAFFIC PATTERNS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE AND INITIATED ONLY AFTER APPROVAL BY THE LOCAL GOVERNING AGENCY AND THE UTILITY COMPANIES.

8. CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE SUITABLE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

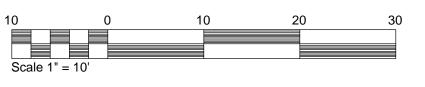
9. SURVEY PROVIDED BY STEVENS WILKERSON APRIL 2014

10 CONTRACTOR TO CLEAN ALL AREA OF DEBRIS EACH DAY.

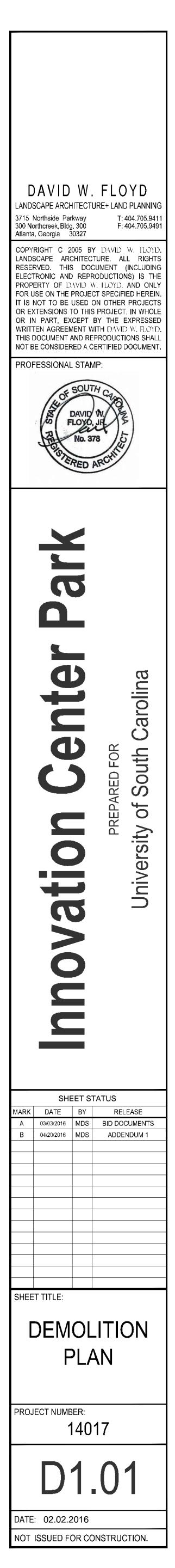
11. SILT FENCE AND TREE PROTECTION FENCE TO BE INSTALLED PRIOR TO COMENCEMENT OF DEMOLITION OF SITE PER CITY STANDARDS.

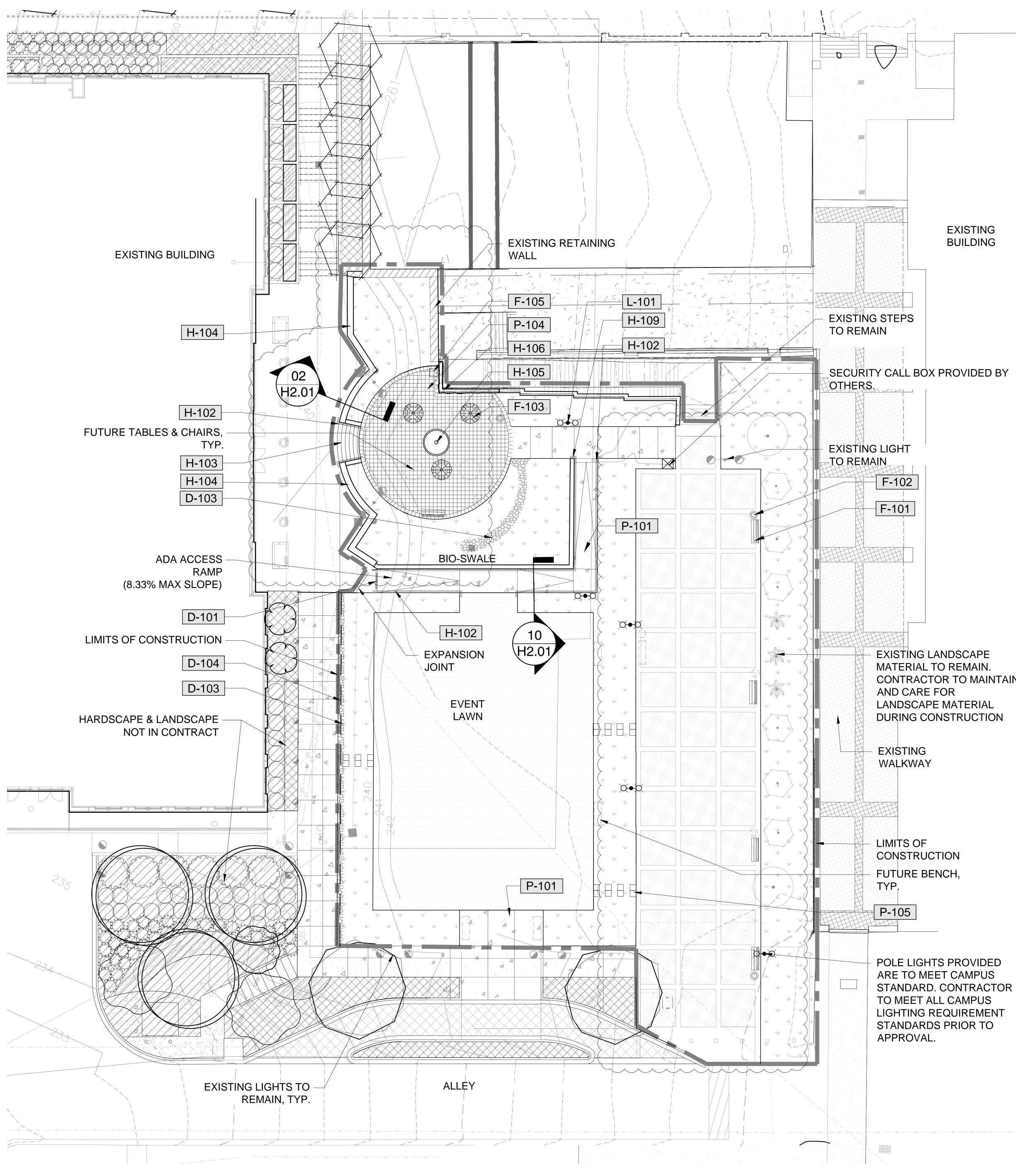
12. CURRENT SITE CONDITION IS COMPACTED NATIVE SOIL WITH 1.5" DEPTH OF PINE BARK MULCH. CONTRACTOR MAY REUSE THE PINE BARK MULCH FOR PLANTING BEDS. IF THE MULCH IS TO REUSED, THE CONTRACTOR WILL BE RESPONSIBLE TO STORE THE MULCH AT THE DIRECTION OF THE OWNER AND LANDSCAPE ARCHITECT. COMPACTED SOIL TO BE TILLED AND MIXED WITH TOPSOIL TO A DEPTH OF 18" PRIOR TO THE INSTALLATION OF ALL LANDSCAPE MATERIAL.

DEMOLITION DATA: HARDSCAPE: AREA DEMOLISHED (APPROX.): 412 S.F



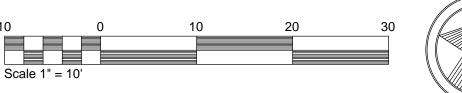




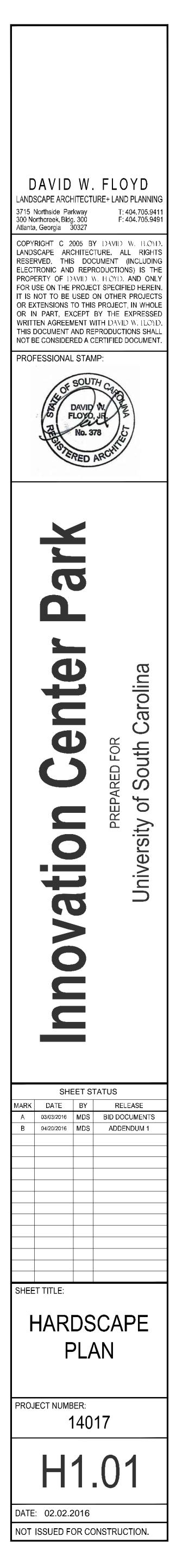


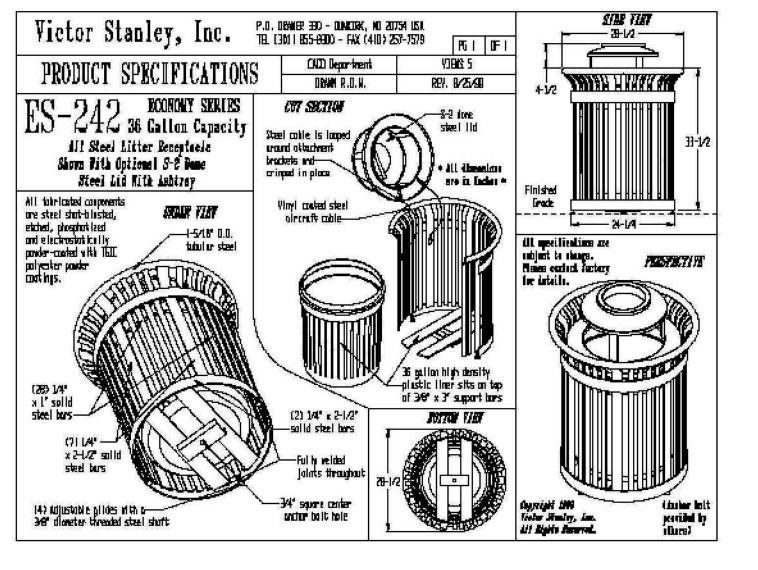
REFERENCE NOTES SCHEDULE

<u>SYMBOL</u>	DRAINAGE DESCRIPTION	DETAIL
D-101	TRENCH DRAIN - REFER TO CIVIL	
D-102	AREA DRAIN - REFER TO CIVIL	
D-103	MEXICAN BEACH PEBBLE RIVER ROCK - 1.5" - 3" 3" DEPTH	DIA.
D-104	PERFORATED DRAIN PIPE, REFER TO CIVIL.	
<u>SYMBOL</u>	SITE FURNISHINGS DESCRIPTION	DETAIL
F-101	BENCHES - PRICE AS ALTERNATE #2	3/H2.02
F-102	TRASH CANS - PRICE AS ALTERNATE #2	1/H2.02
F-103	TABLES WITH UMBRELLA AND CHAIRS - PRICE A ALTERNATE #2	S 5/H2.02
F-105	BIG BELLY TRASH COMPACTOR - BY OWNER	2/H2.02
<u>SYMBOL</u>	HARDSCAPE DETAILS DESCRIPTION	DETAIL
H-102	HANDRAIL	5/H2.01
H-103	CONCRETE STEPS	3/H2.01
H-104	BRICK SEAT WALL - BRICK TO MATCH ARCHITECTURE	2/H2.01
H-105	MEDALLION WITH UNIVERSITY LOGO PRICE AS ALTERNATE #2	8/H2.02
H-106	EXISTING RETAINING WALL W/ PAINTED FINISH	1/H2.01
H-109	C.I.P. WALL	10/H2.01
<u>SYMBOL</u>	SITE LIGHTING DESCRIPTION	DETAIL
L-101	POLE LIGHT - PRICE AS ALTERNATE #1	6/H2.02
<u>SYMBOL</u>	PAVING DESCRIPTION	DETAIL
P-101	CONCRETE WALK	6/H2.01
P-104	SAND SET PAVERS	7/H2.01
P-105	STEPPING STONES	9/H2.01
SITE IMPE	E AREA: ERVIOUS AREA (%): EXISTING HARDSCAPE: ADDITIONAL HARDSCAPE:	18,274 S.F. 6,735 S.F. (36%) 4,516 S.F. 2,219 S.F. 11,539 S.F (63%)
	D-101 D-102 D-103 D-104 D-104 SYMBOL F-101 F-102 F-103 F-103 F-105 H-102 H-103 H-104 H-104 H-105 H-105 F-105 SYMBOL H-109 H-104 H-109 SYMBOL F-101 F-104 F-104 F-104 F-104	SYMBOL DESCRIPTION DE101 TRENCH DRAIN - REFER TO CIVIL DE102 AREA DRAIN - REFER TO CIVIL DE103 MEXICAN BEACH PEBBLE RIVER ROCK - 1.5" - 3" 3" DEPTH DE104 PERFORATED DRAIN PIPE, REFER TO CIVIL. SYMBOL SITE FURNISHINGS DESCRIPTION F105 BENCHES - PRICE AS ALTERNATE #2 F103 TRASH CANS - PRICE AS ALTERNATE #2 F103 TABLES WITH UMBRELLA AND CHAIRS - PRICE A ALTERNATE #2 F103 TABLES WITH UMBRELLA AND CHAIRS - PRICE A ALTERNATE #2 F105 BIG BELLY TRASH COMPACTOR - BY OWNER HARDSCAPE DETAILS DESCRIPTION HARDSCAPE DETAILS YMBOL DESCRIPTION H102 HANDRAIL H103 CONCRETE STEPS H104 BRICK SEAT WALL - BRICK TO MATCH ARCHITECTURE H105 MEDALLION WITH UNIVERSITY LOGO PRICE AS ALTERNATE #2 H106 EXISTING RETAINING WALL W/ PAINTED FINISH H107 CLIP. WALL SYMBOL DESCRIPTION L109 POLE LIGHTING DESCRIPTION L109 CONCRETE WALK P101 CONCRETE WALK P103 SAND SET PAVERS





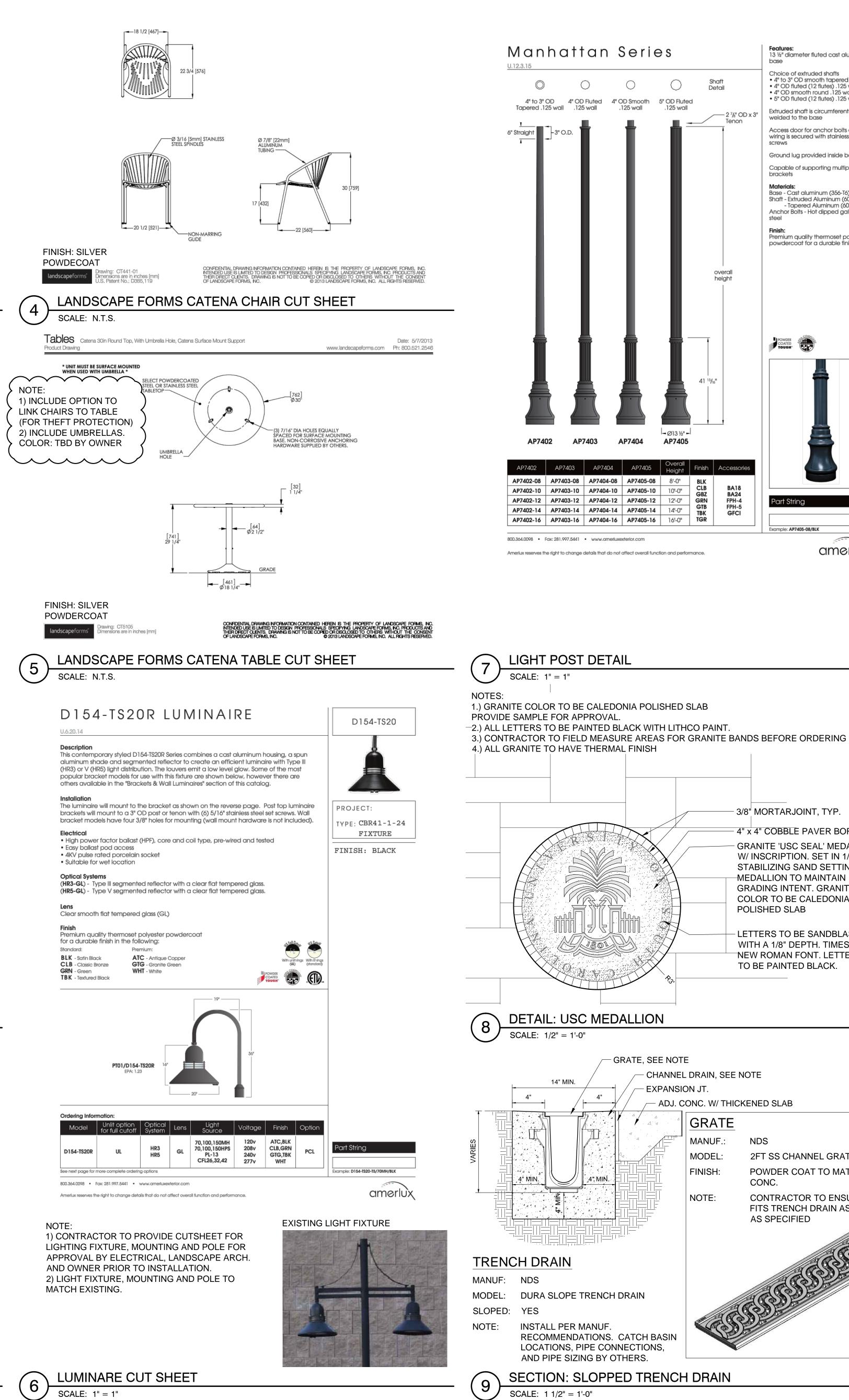


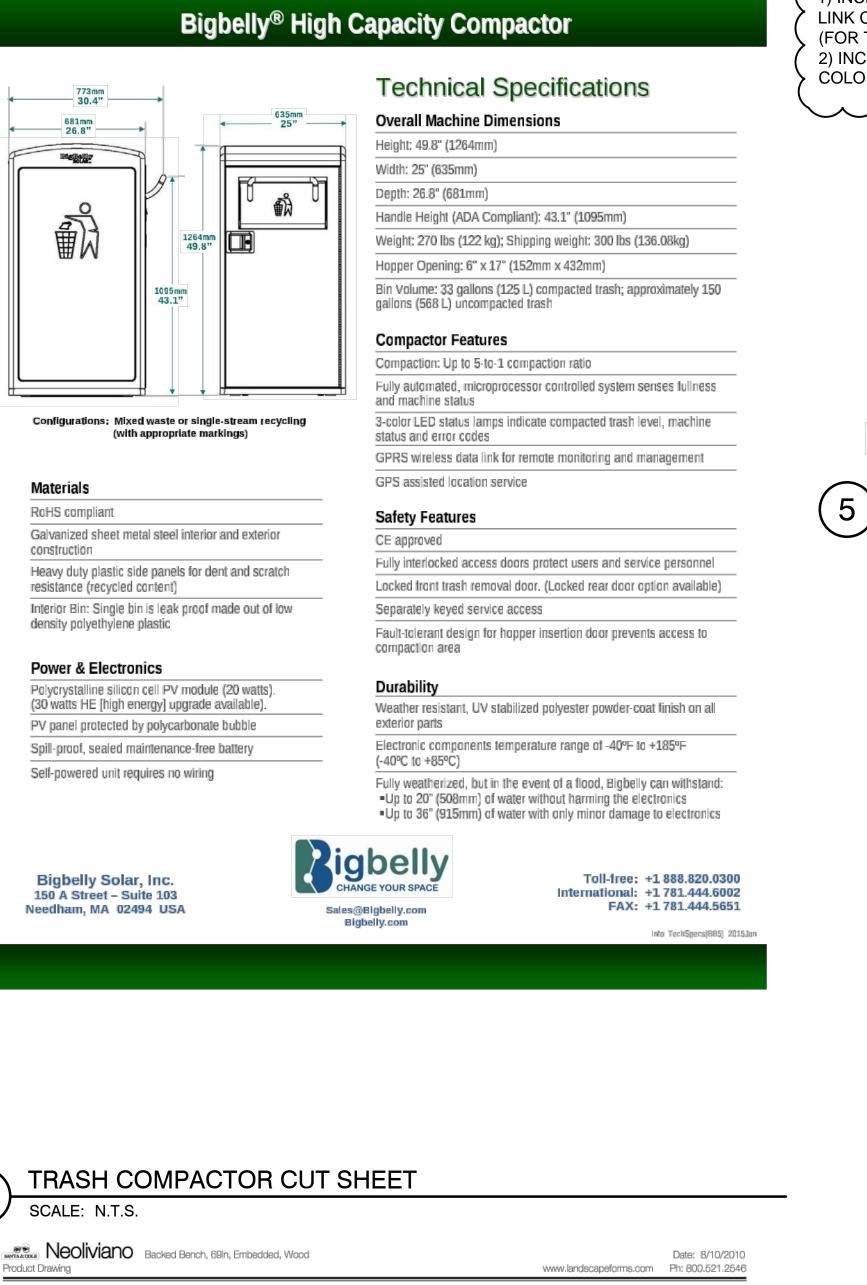


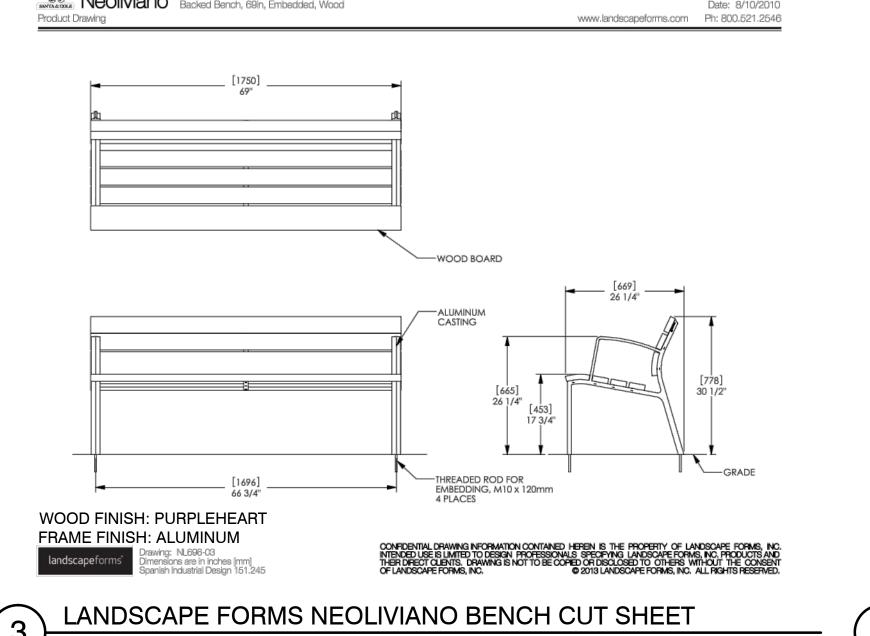
TRASH RECEPTACLE CUT SHEET

SCALE: N.T.S.

FINISH: SILVER POWDER COAT



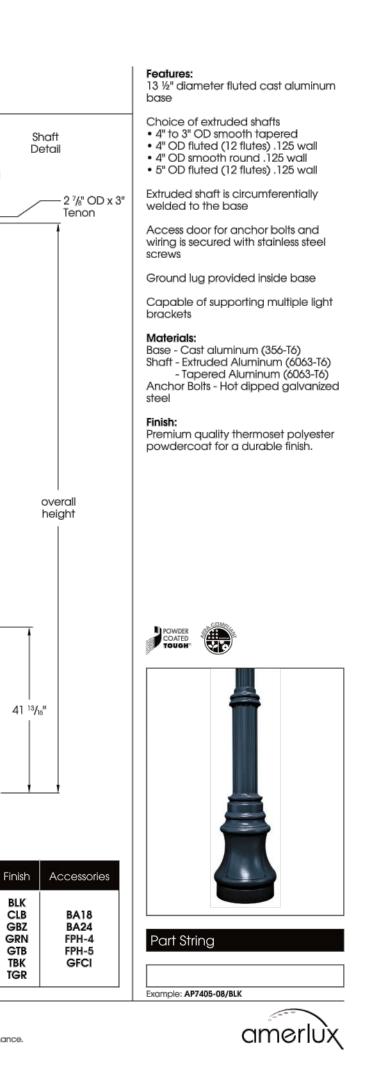




Model
D154-TS20R
See next page for
800.364.0098 •
Amerlux reserves



3 SCALE: N.T.S.



l-ø13½"⊢

AP7405

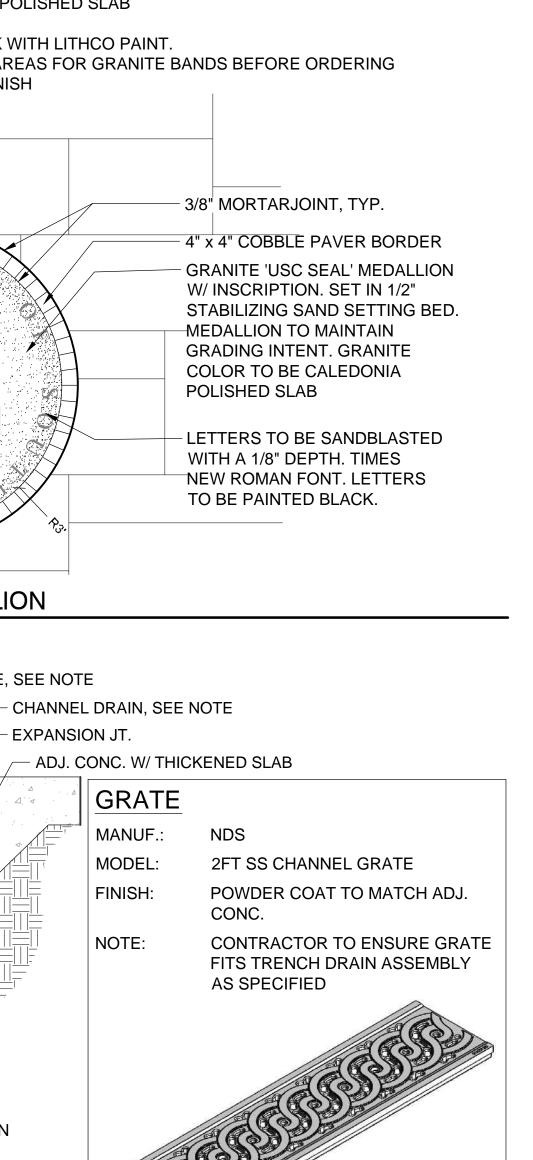
10'-0"

12'-0"

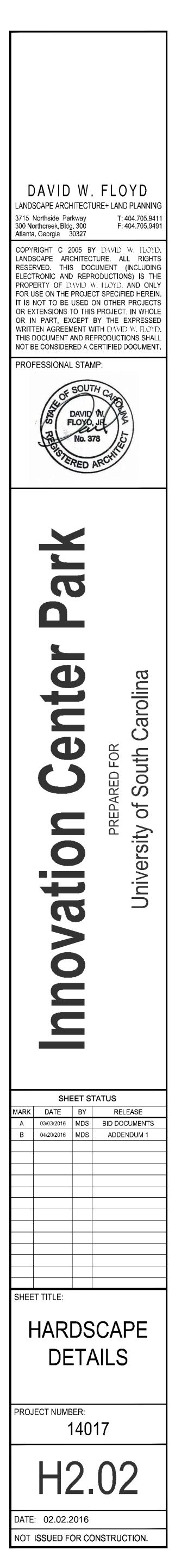
14"-0" TBK

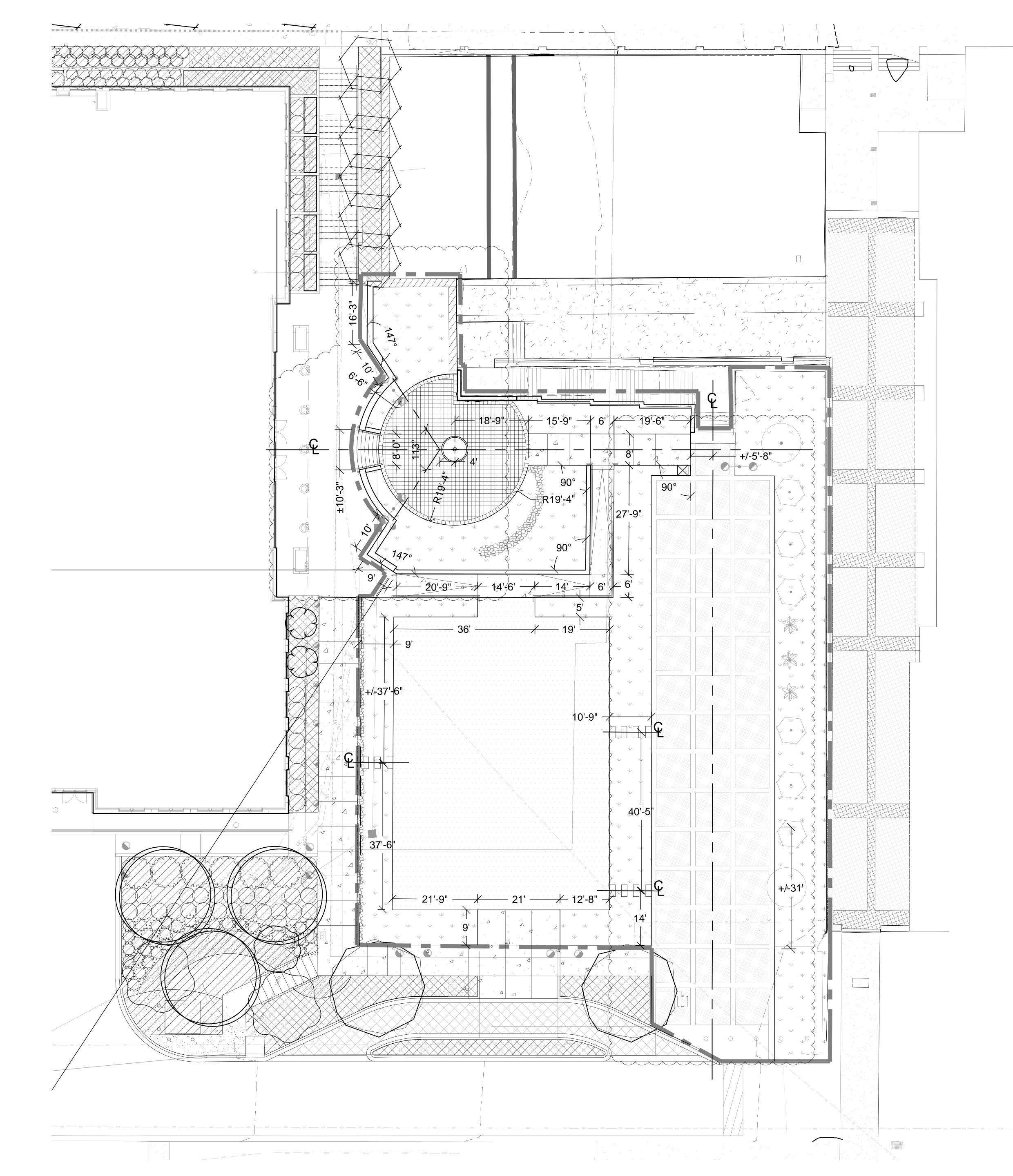
16'-0" TGR

GRN



SCALE: 1 1/2" = 1'-0"





LAYOUT NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS, GIVING NOTICES, AND PAYING FEES. THE CONTRACTOR SHALL COMPLY WITH ALL CITY, COUNTY AND STATE BUILDING CODES AND ORDINANCES RELATING TO THIS CONSTRUCTION PROJECT.

2. IN EVENT OF ANY DISCREPENSIES FOUND IN THE DRAWINGS, OR IF PROBLEMS ARE ENCOUNTER DURING CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

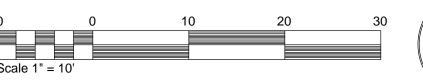
3. WHERE PLAN DETAILS DIFFER FROM CITY STANDARDS, THE LATTER SHALL BE SUBSTITUTED IN APPROVED IN WRITING BY LANDSCAPE ARCHITECT.

4. DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

5. NO SUBSTITUTIONS OF ANY MATERIALS OR PRODUCTS SHALL BE ALLOWED WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.

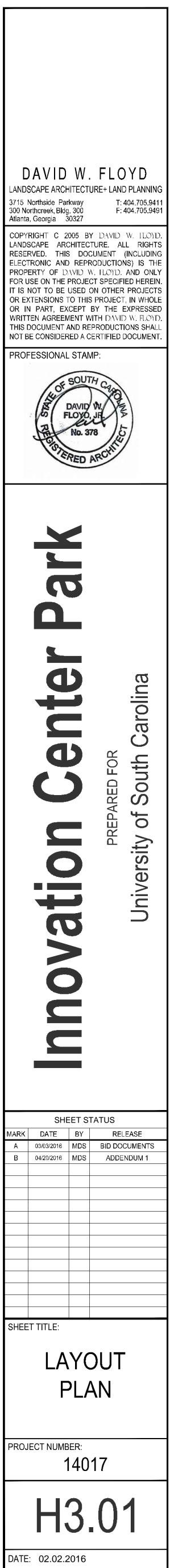
6.CONTRACTOR TO LAY OUT ALL PROPOSED <u>WALK, WALLS, FENCING, RAILING, HANDRAILS,</u> LIGHTING, SITE FURNISHINGS, PAVERS, STEPS, LANDSCAPE, TRELLIS, AND IRRIGATION AND RECEIVE OWNER AND LANDSCAPE ARCHITECTS APPROVAL PRIOR TO CONSTRUCTION.

7. ALL SURFACES TO BE POWER-WASH CLEANED AT SUBSTANTIAL AND FINAL COMPLETION

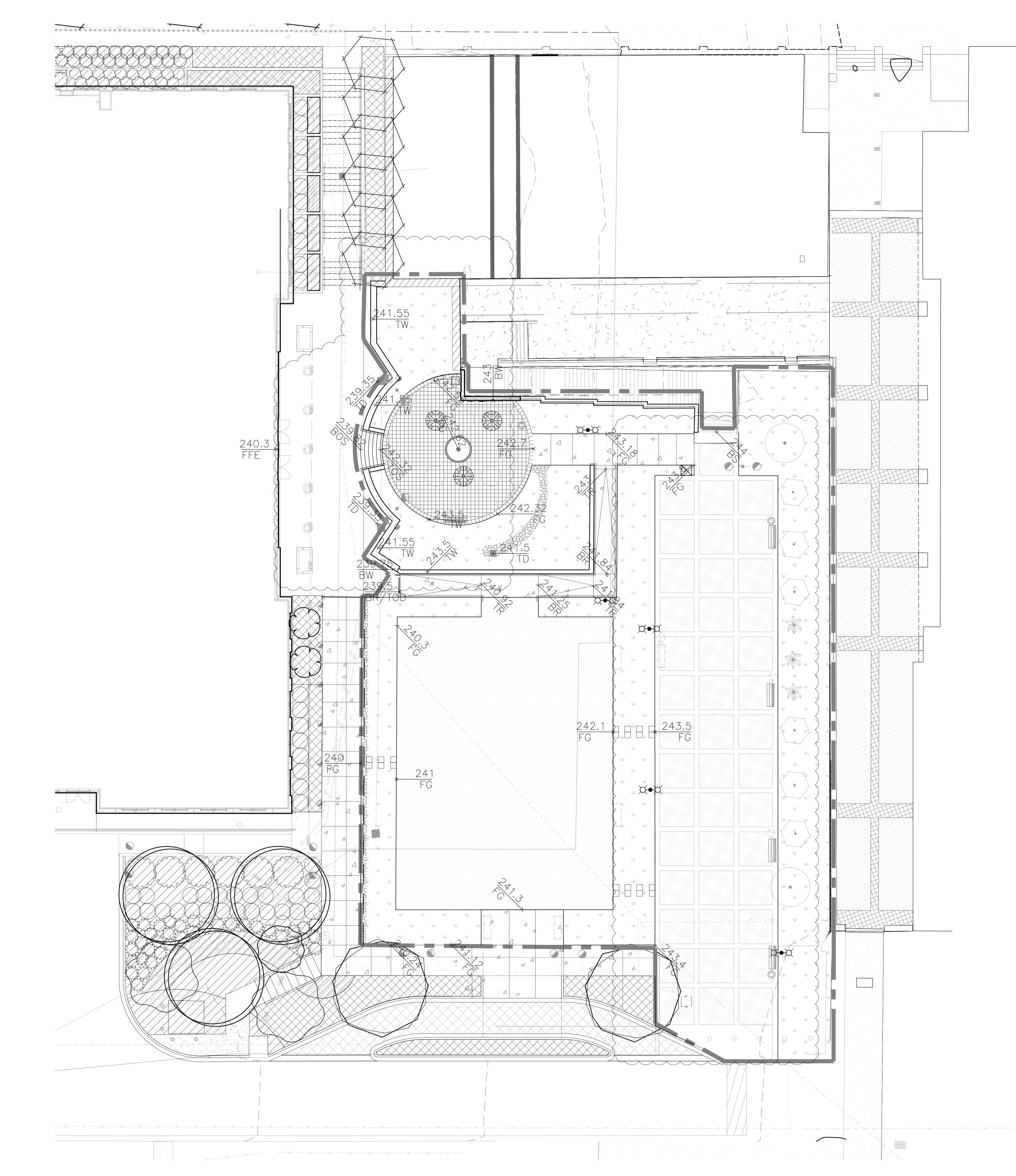








NOT ISSUED FOR CONSTRUCTION.



GRADING NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL SITE CONDITIONS PRIOR TO STARTING WORK.

2. COORDINATE ACCESS TO SITE WITH OWNER. CONTRACTOR TO KEEP SITE CLEAN OF TRASH AND DEBRIS RELATED TO CONSTRUCTION. CONTRACTOR TO FENCE OFF ANY HARMFUL AREAS AND KEEP EXISTING WALKS FREE OF OBSTRUCTIONS.

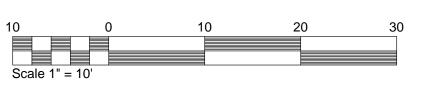
3. PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICCLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED DIRT AND MUD.

4. REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY OWNER, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.

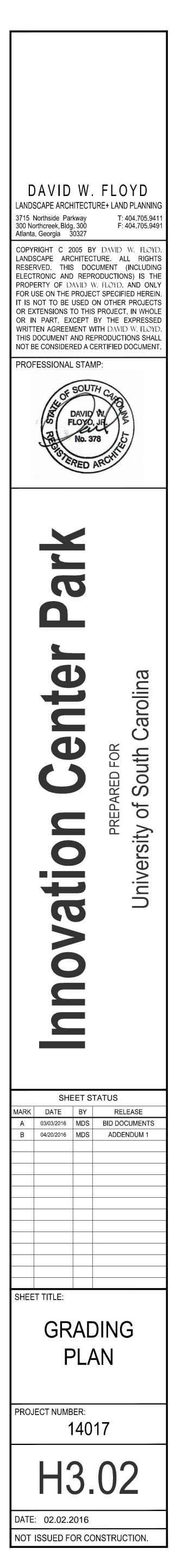
5. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THAT THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS.

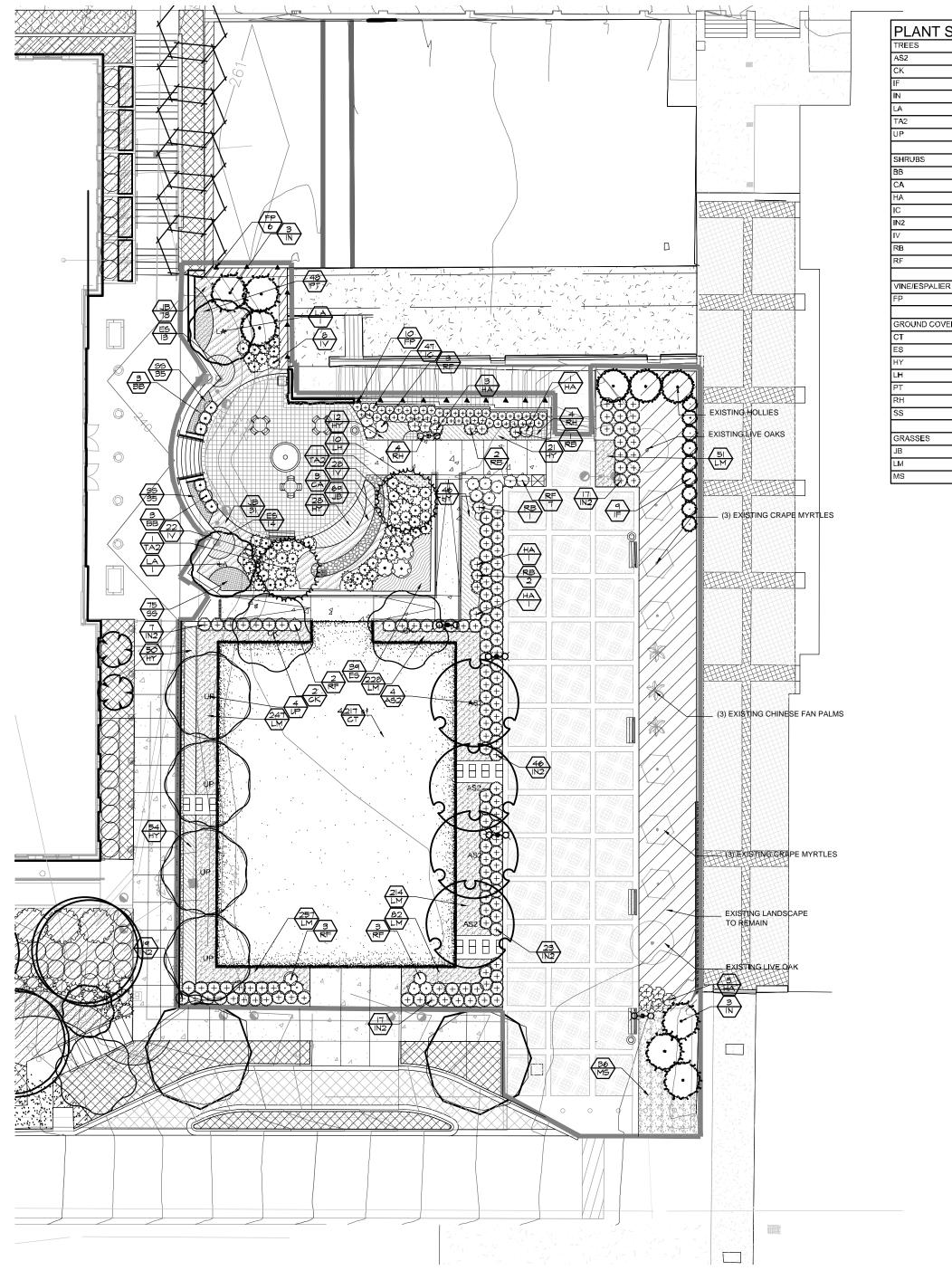
6. UTILITIES DAMAGED BY CONTRACTOR DURING THE CONSTRUCTION MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE. UNAUTHORIZED EXCAVATION CONSISTS OF REMOVAL OF MATERIALS BEYOND INDICATED SUBGRADE ELEVATIONS OR DIMENSIONS WITHOUT SPECIFIC DIRECTION OF THE OWNER'S REPRESENTATIVE. UNAUTHORIZED EXCAVATION, AS WELL AS REMEDIAL WORK DIRECTED BY THE OWNER'S REPRESENTATIVE, SHALL BE AT THE CONTRACTOR'S EXPENSE.

7. ALL RAMPS ARE TO MAINTAIN A SLOPE NOT TO EXCEED 8.33%.





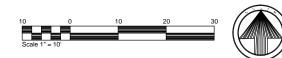


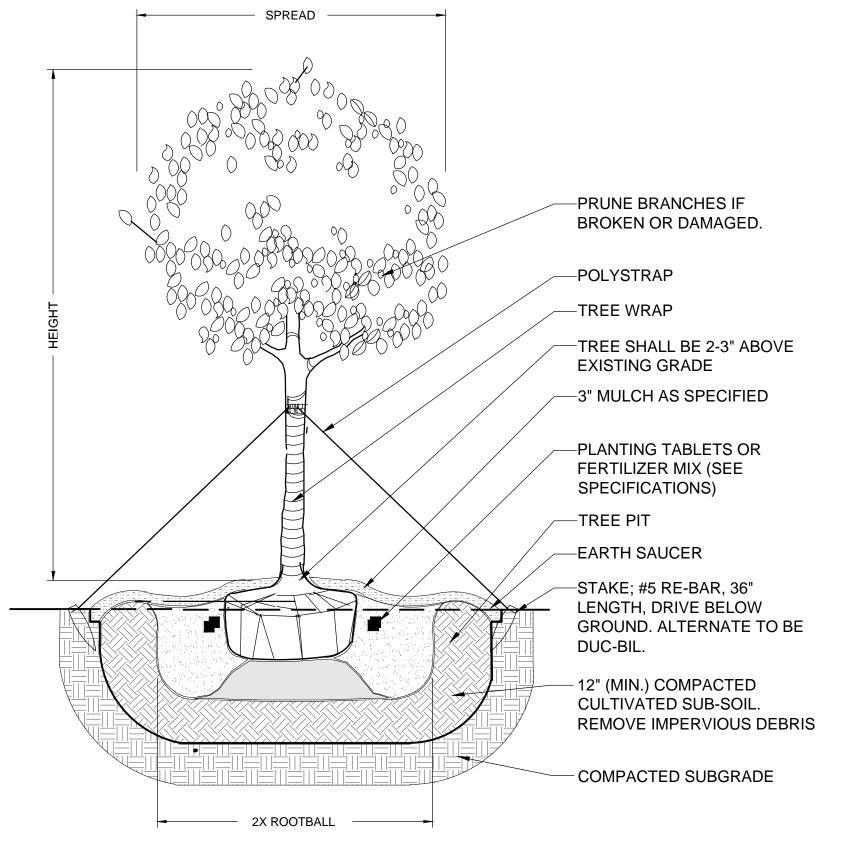


TREES	QTY	JLE OVERALL Ibotanical name / common name	MIN. SIZE	ROOT	MIN HGT	SPACING	NATIVE	REMARKS
ASZ	4	Acer barbatum / Southern Sugar Maple	6" cal.	B&B	16` hgt.	as shown	Yes	Full Canopy, Standard
CK	2	Cladrastis kentukea / American Yellowwood	3" cal.	B&B	14` hgt.	as shown	Yes	Full Canopy, Standard.
IF	9	llex x attenuata `Fosteri` / Fosteri's Holly	-	B&B	6`hgt	as shown	1.00	Full to Base
IN IN	6	Ilex x `Nellie R Stevens` / Nellie Stevens Holly		B&B	14` hgt.	as shown		Full to Base
LA	2	Liriodendron tulipifera `Arnold` / Arnold Tulip Poplar	3" cal.	B&B	15' hgt.	as shown		
TA2	2	Taxodium ascendens / Pond Cypress	4" cal.	B&B	14` hgt	as shown	Yes	Full Canopy, Standard
UP	4	Ulmus americana 'Princelon' / American Elm	6" cal.	В&В	18` hgt.	as shown		Full Canopy, Standard.
		•						•
SHRUBS	QTY	BOTANICAL NAME / COMMON NAME	MIN. SIZE	SPACING	MIN HGT.	MIN. SP.	ROOT	REMARKS
BB	6	Buxus microphylla / Littleleaf Boxwood	3 gal	2` o.c.	3` hgt.			Full to base. Formal Hedge
CA	3	Callicarpa americana / American Beautyberry	3 gal	4` o.c.	3` ht.	4`sp.		Full to Base
HA	11	Hydrangea arborescens `Annabelle` / Annabelle Smooth Hydrangea	3 gal	3`o.c.	2` hgt.			
IC	47	llex cornuta `Carissa` / Carissa Holly	3 gal	3`o.c.	2` hgt.			
IN2	129	Ilex vomitoria `Nana` / Dwarf Yaupon	3 gal	3` o.c.	3` hl.	3`sp.		Full to Base
IV	58	Itea virginica 'Little Henry' / Little Henry Sweetspire	3 gal	3` o.c.	2` hgt.			Full to Base
RB	6	Rosmarinus officinalis 'Blue Spires' / Rosemary	3 gal	2` o.c.	2` hgt.	3` sp.		
RF	18	Rhododendron flammeum / Oconee Azalea	3 gal	3` o.c.	3` ht.	3` sp.		Full, Coral Red blooms
VINE/EŠPALIER	QTY	BOTANICAL NAME / COMMON NAME	MIN, SIZE	SPACING	MIN HGT	MIN, SP.	ROOT	REMARKS
FP	16	Ficus pumila / Creeping Fig	1 gal					3 Runners 18" each
							I	
GROUND COVERS	QTY	BOTANICAL NAME / COMMON NAME	ŲNIT	MIN. SIZE	SPACING			REMARKS
СТ	4.217 sf	Zoysia japonica / Zoysia	SF					Medium Texture
EŞ	66	Echinacea x "Sunrise" / Sunrise Conellower	1 gal.	18" o.c.				Full Coverage, Disease Free
HY	211	Hemerocallis x 'Yellow' / Daylily	1 gal	1`	18" o.c.			Full Coverage, Disease Free
LH	10	Lavandula heterophylla / Lavender	1 gal.	18" o.c.				Full Coverage, Disease Free
PT	48	Pachysandra terminalis / Japanese Spurge	4"pot	12" O.C.				Full Coverage, Disease Free
RH	8	Rosmarinus officinalis 'Huntington Carpet' / Huntington Carpet Rosemary	1 gal	1 gal.	24" o.c.			
SS	145	Seasonal Color Seasonal Color / Seasonal Color	4"pot					Full Coverage, Disease Free
GRASSES	ΩΤΥ	BOTANICAL NAME / COMMON NAME		MIN. SIZE	SPACING	1	1	REMARKS
JB	173	Juncus effusus `Blue Arrows` / Juncus	1 gal.					Full Coverage, Disease Free
LM	1.079	Liriope muscari 'Big Blue' / Big Blue Lily Turf	1 gal	6" min.	12" o.c.			Full Coverage, Disease Free
MS	36	Miscanthus sinensis `Adagio` / Adagio Eulalia Grass	1 gal.	18" min.				Full Coverage, Disease Free



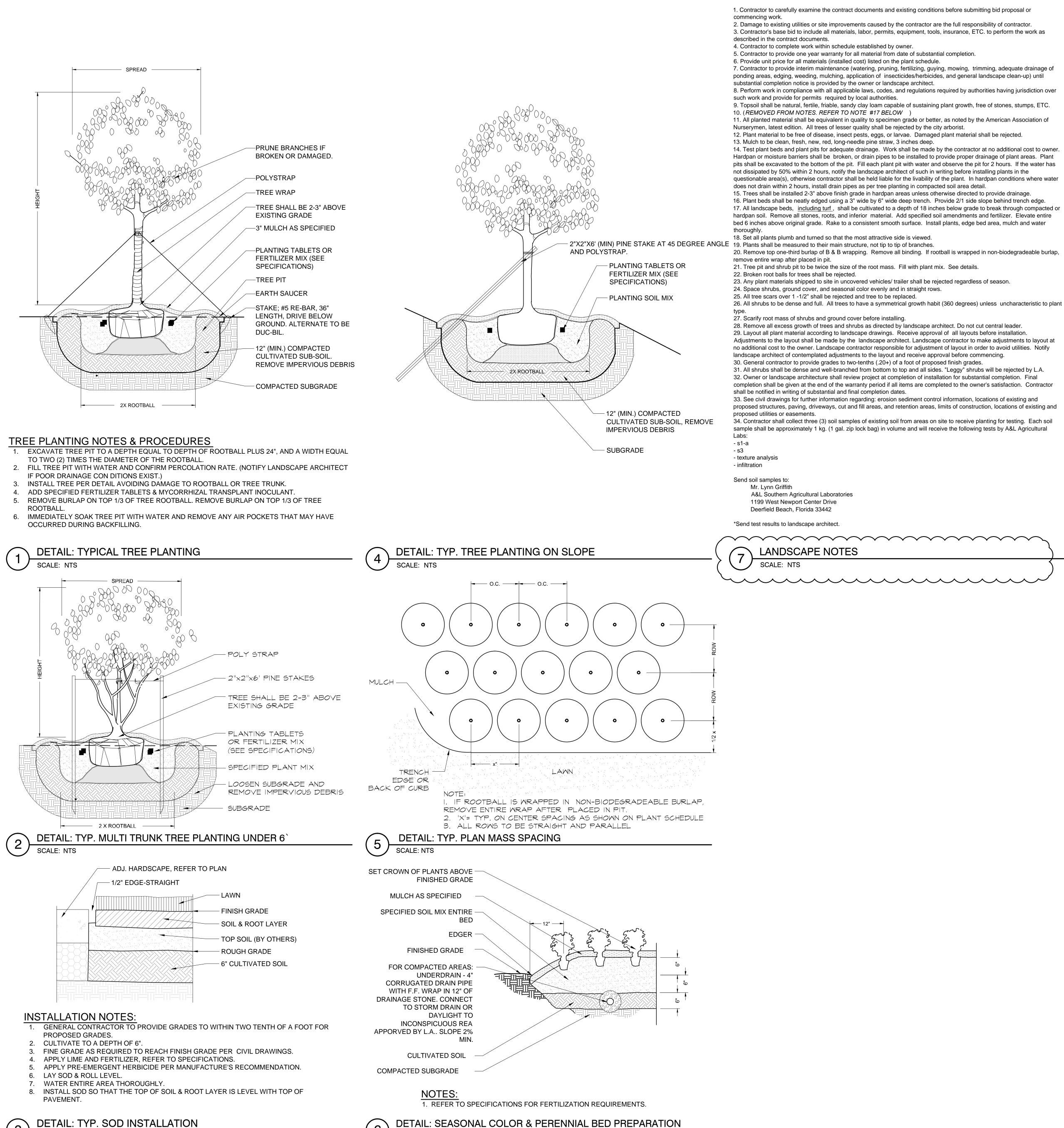
(SCAPE }
ROJECT NUMB	ER:
} 1	4017 5
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DATE: 02.02.2	2016
NOT ISSUED FO	OR CONSTRUCTION.





- TO TWO (2) TIMES THE DIAMETER OF THE ROOTBALL

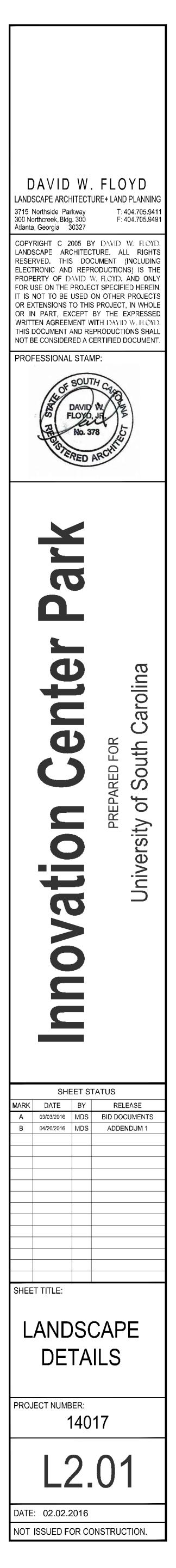
- ROOTBALL.

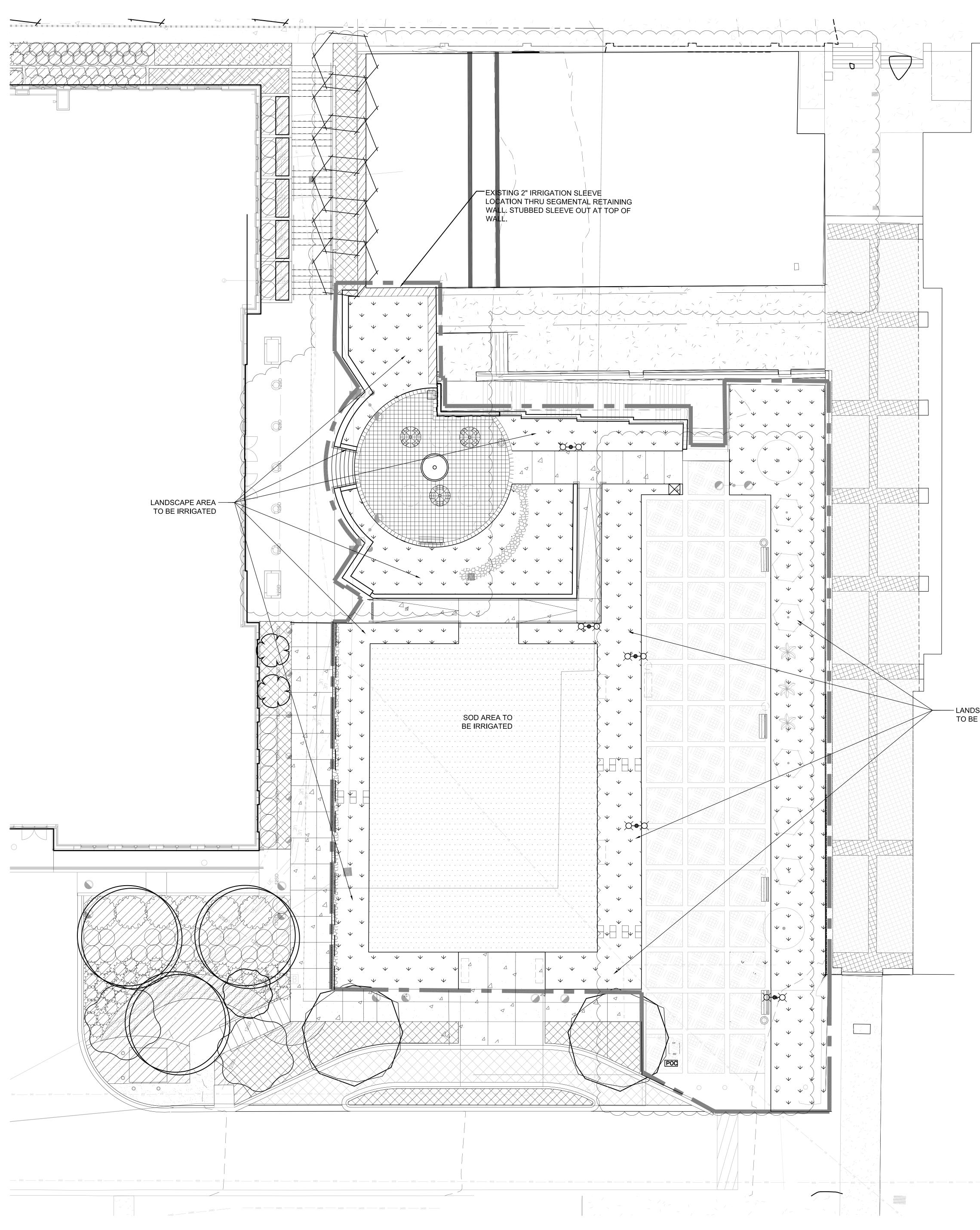




DETAIL: TYP. SOD INSTALLATION SCALE: NTS

6 SCALE: NTS





IRRIGATION LEGEND:

POINT OF CONNECTION TO THE IRRIGATION SYSTEM WATER SUPPLY PER LOCAL CODES. PROVIDE IRRIGATION WATER METER AND BACKFLOW PREVENTER PER PLANS.

NOTE: CONTRACTOR TO PROVIDE LATERAL LINE SIZING ON SUBMITTALS FOR REVIEW.

IRRIGATION NOTES:

1) SITE TO BE IRRIGATED BY AN AUTOMATED IRRIGATION SYSTEM DESIGNED AND INSTALLED BY A LICENSED IRRIGATOR IN ACCORDANCE TO STATE LAW.

2) CONTRACTOR SHALL SUPPLY AND INSTALL ALL VALVES, HEADS, PIPE, CONTROLLING, WIRING, BACKFLOW PREVENTOR, AND CONTROLLER FOR A TWO WIRE IRRIGATION SYSTEM.

3) COORDINATE LOCATION OF POINT CONNECTION **FOC** , BACKFLOW PREVENTOR AND CONTROLLER $A^{\mathbb{R}}$, WITH OWNER PRIOR TO INSTALLATION.

4) LOCATION OF ALL LINES ARE DIAGRAMMATIC.

5) DRIP IRRIGATION TUBING TO BE SECURED TO THE GROUND USING $\frac{1}{2}$ " STAKES.

6) CONTRACTOR TO PROVIDE A POP-UP VISUAL INDICATOR HEAD AT THE END OF EACH DRIP IRRIGATION ZONE.

7) ALL IRRIGATION CONNECTIONS INSIDE OF THE BUILDING TO BE DETAILED BY PLUMBING ENGINEER.

- LANDSCAPE AREA TO BE IRRIGATED



