# JOHN KNOX VILLAGE

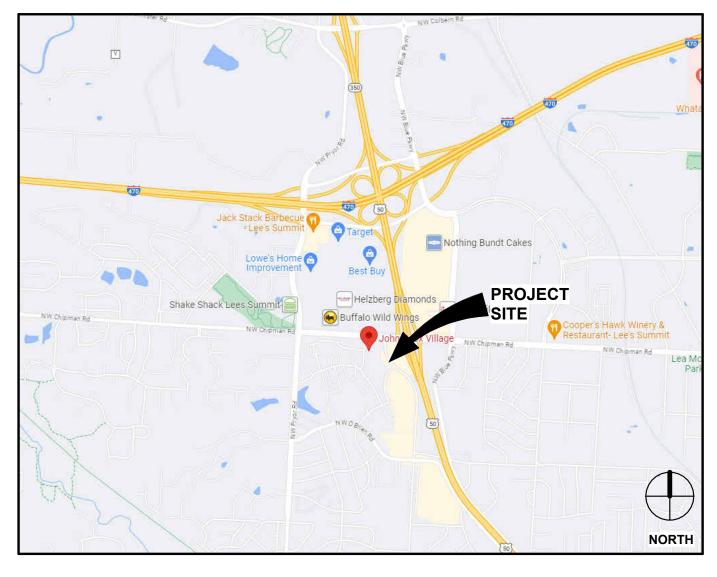
COURTYARDS-BUILDING E

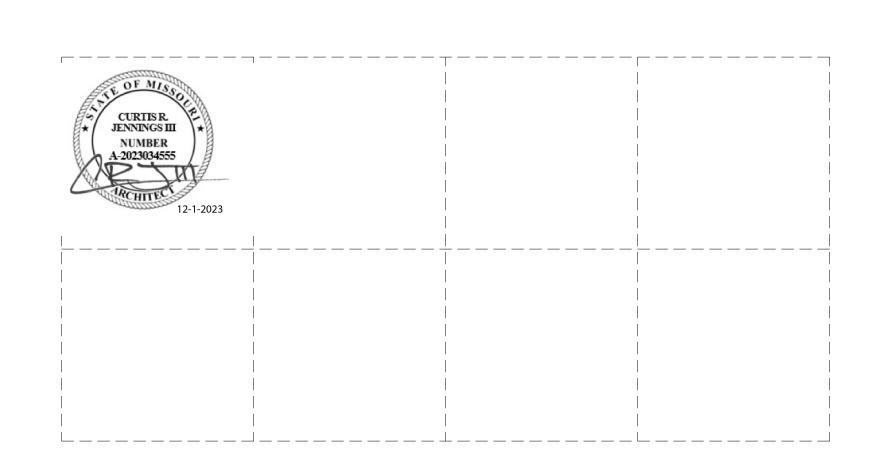
New Atrium & Independent Living
LEE'S SUMMIT, MO

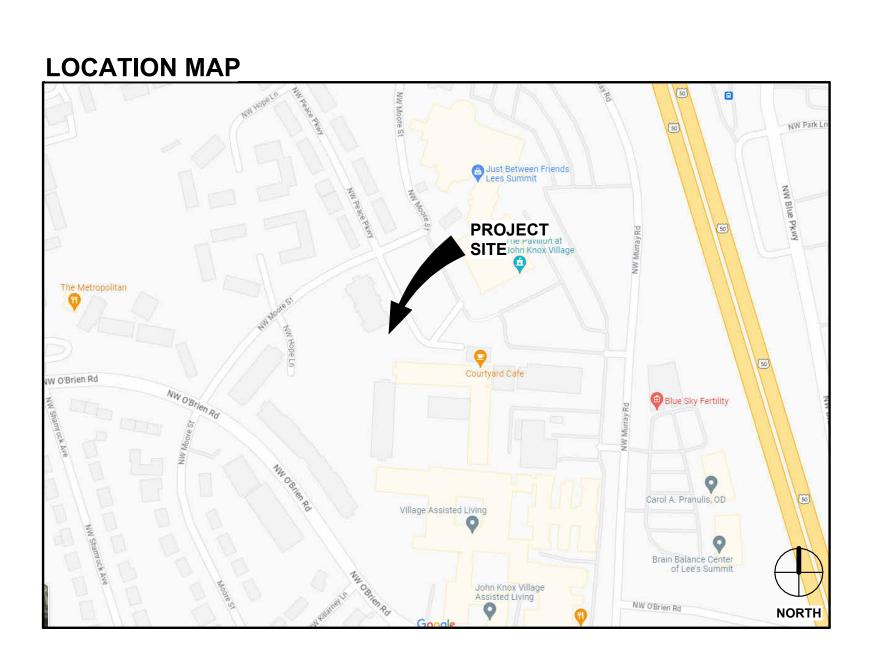
## FINAL DEVELOPMENT PLAN SUBMISSION

DATE: DECEMBER 1, 2023 COMM. NO. 23104.00

#### **VICINITY MAP**







## Secs.com

## ROANOKE OFFICE (CORPORATE) 305 SOUTH JEFFERSON STREET

ROANOKE, VA 24011-2003 800.873.2788

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#### **CHARLOTTE OFFICE**

Architecture

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#### LOUISVILLE OFFICE

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Phone: 972.403.3700 Fax: 972.403.3727
www.greystonecommunities.com

#### BHC RHODES

CIVIL ENGINEERING 7101 College Blcd., Suite 400 Overland Park, KS 66210 Phone: 913.663.1900 www.ibhc.com

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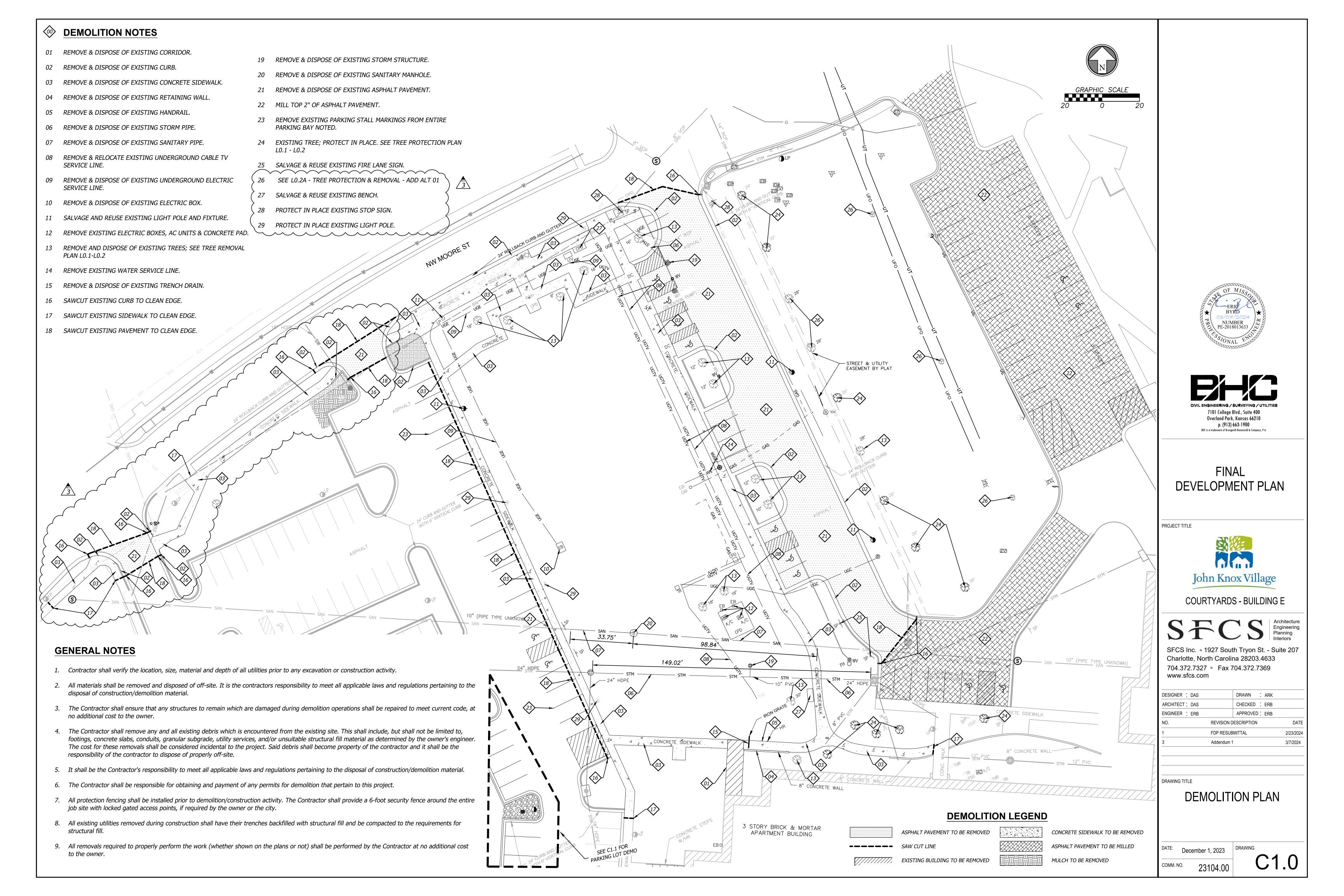
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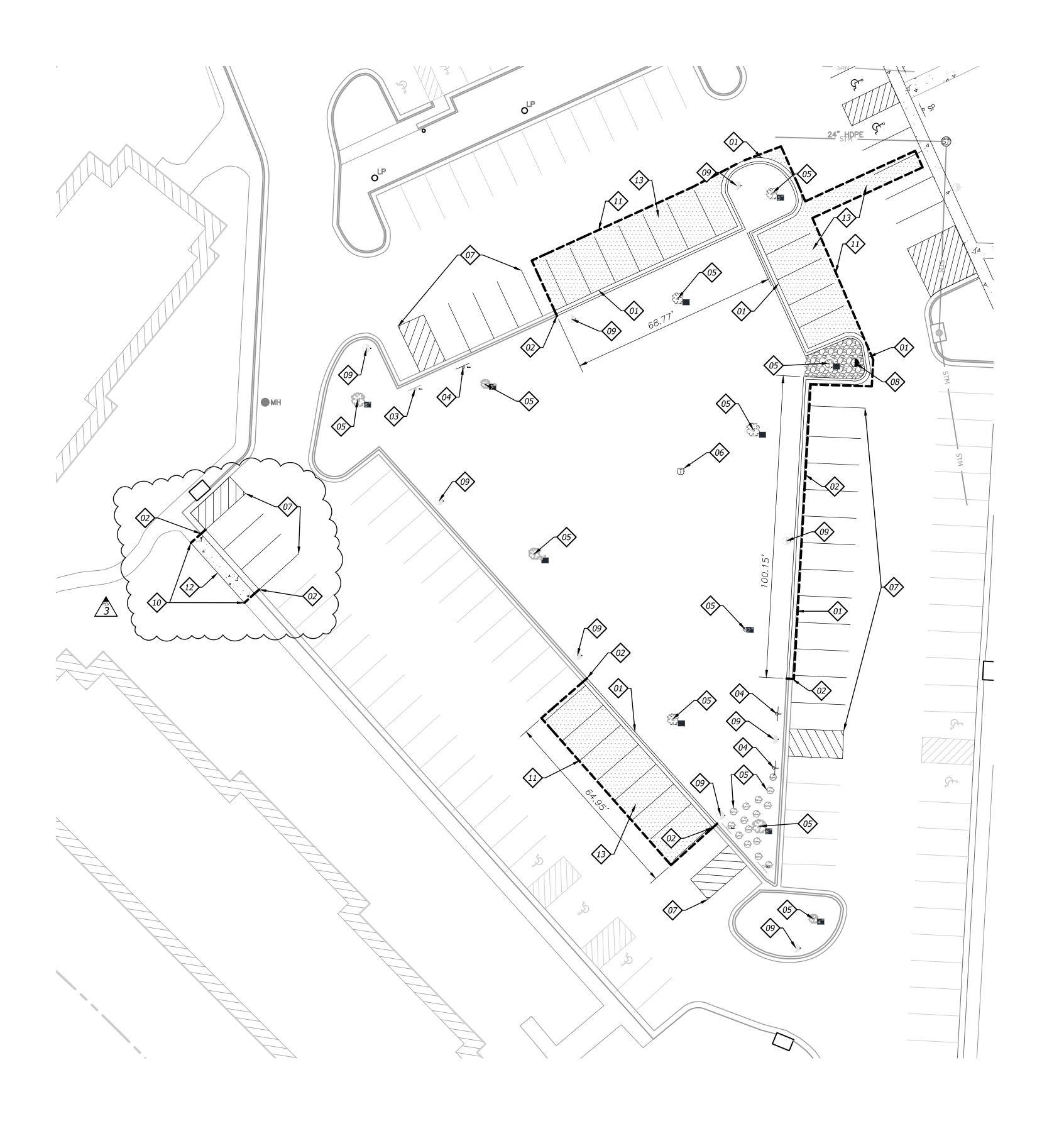
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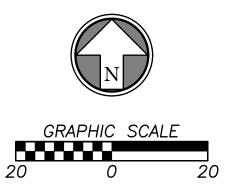


#### **GENERAL NOTES**

- 1. Contractor shall verify the location, size, material and depth of all utilities prior to any excavation or construction activity.
- 2. All materials shall be removed and disposed of off-site. It is the contractors responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
- 3. The Contractor shall ensure that any structures to remain which are damaged during demolition operations shall be repaired to meet current code, at no additional cost to the owner.
- 4. The Contractor shall remove any and all existing debris which is encountered from the existing site. This shall include, but shall not be limited to, footings, concrete slabs, conduits, granular subgrade, utility services, and/or unsuitable structural fill material as determined by the owner's engineer. The cost for these removals shall be considered incidental to the project. Said debris shall become property of the contractor and it shall be the responsibility of the contractor to dispose of properly off-site.
- 5. It shall be the Contractor's responsibility to meet all applicable laws and regulations pertaining to the disposal of construction/demolition material.
- 6. The Contractor shall be responsible for obtaining and payment of any permits for demolition that pertain to
- 7. All protection fencing shall be installed prior to demolition/construction activity. The Contractor shall provide a 6-foot security fence around the entire job site with locked gated access points, if required by the owner or the city.
- 8. All existing utilities removed during construction shall have their trenches backfilled with structural fill and be compacted to the requirements for structural fill.
- 9. All removals required to properly perform the work (whether shown on the plans or not) shall be performed by the Contractor at no additional cost to the owner.

#### **DEMOLITION NOTES**

- 01 REMOVE & DISPOSE OF EXISTING CURB.
- 02 SAWCUT EXISTING CURB TO CLEAN EDGE.
- 03 PROTECT IN PLACE EXISTING SIGN.
- 04 SALVAGE & REUSE EXISTING SIGN.
- 05 SEE L0.2B TREE PROTECTION & REMOVAL ADD ALT 02.
- 06 SALVAGE AND REUSE EXISTING TELEPHONE BOX. NEW LOCATION TO BE COORDINATED WITH OWNER.
- REMOVE EXISTING PARKING STALL MARKINGS.
- 08 SALVAGE AND REUSE EXISTING LIGHT POLE AND FIXTURE.
- 09 EXISTING LIGHT POLE AND FIXTURE; PROTECT IN PLACE.
- 10 SAWCUT EXISTING SIDEWALK TO CLEAN EDGE.
- 11 SAWCUT EXISTING PAVEMENT TO CLEAN EDGE.
- 12 REMOVE & DISPOSE OF EXISTING CONCRETE SIDEWALK.
- 13 REMOVE & DISPOSE OF EXISTING ASPHALT PAVEMENT.



#### **DEMOLITION LEGEND**

EXISTING BUILDING GRAVEL PATCH TO BE DISPOSED OF ASPHALT PAVEMENT TO BE REMOVED CONCRETE SIDEWALK TO BE REMOVED

BID ALTERNATE 2





#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



COURTYARDS - BUILDING E



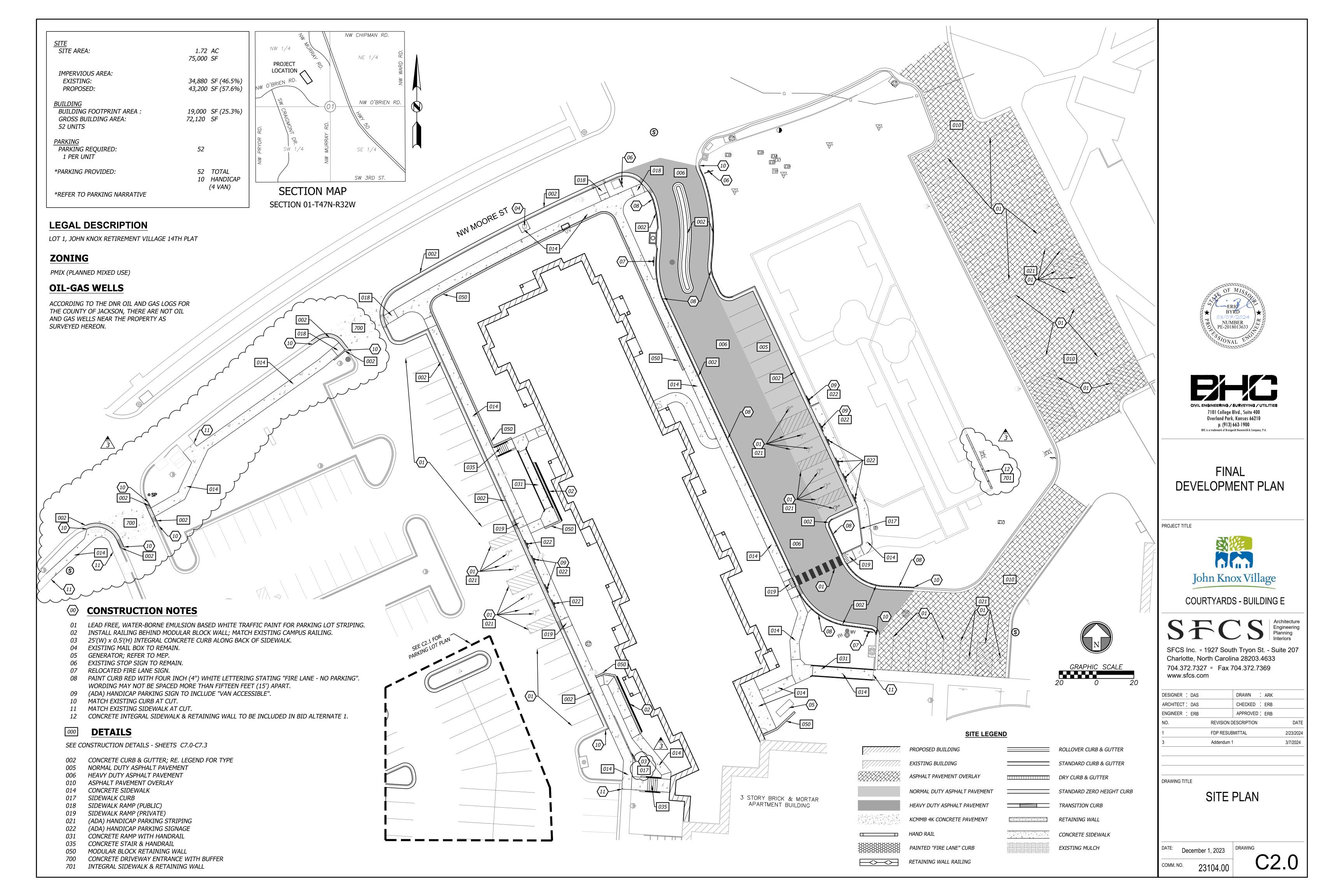
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ENGINEER : ERB		APPROVED: ERB	
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3	Addendum 1		3/7/2024

**DEMOLITION PLAN** 

PARKING LOT

December 1, 2023

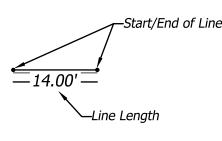


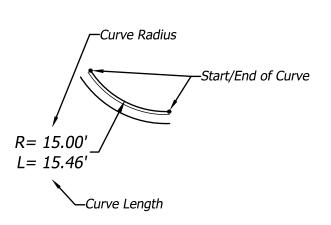
## $\int R = 6.28'$ R = 4.00L= 11.00′ ∇R= 7.00 R= 3.00 002 005 9' (TYP.) 19.00' 22.00' 15.50' L= 4.77' \_ R= 3.00 005 L= 4.71' R= 3.00 A L= 15.71' R= 10.00 L= 23.56' R= 15.00

#### **DIMENSION NOTES**

- 1. ALL DIMENSIONS ARE TO/ALONG BACK OF CURB UNLESS OTHERWISE NOTED
- 2. ALL DIMENSIONS ARE TO BOTTOM OF WALL UNLESS OTHERWISE NOTED

#### **DIMENSION LEGEND**





#### **CONSTRUCTION NOTES**

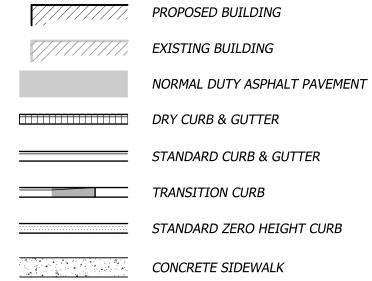
- LEAD FREE, WATER-BORNE EMULSION BASED WHITE TRAFFIC PAINT FOR PARKING LOT STRIPING
- RELOCATED MOBILITY PARKING SIGN
- MATCH EXISTING CURB AT CUT
- MATCH EXISTING SIDEWALK AT CUT
- ALL CURVED PARKING SPOTS TO BE A MINIMUM WIDTH OF 9' AND MINIMUM LENGTH OF 19'

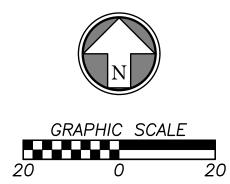
#### **DETAILS**

SEE CONSTRUCTION DETAILS - SHEETS C7.0-C7.3

- CONCRETE CURB & GUTTER; RE. LEGEND FOR TYPE NORMAL DUTY ASPHALT PAVEMENT
- (ADA) HANDICAP PARKING STRIPING (ADA) HANDICAP PARKING SIGNAGE

#### SITE LEGEND









#### FINAL DEVELOPMENT PLAN

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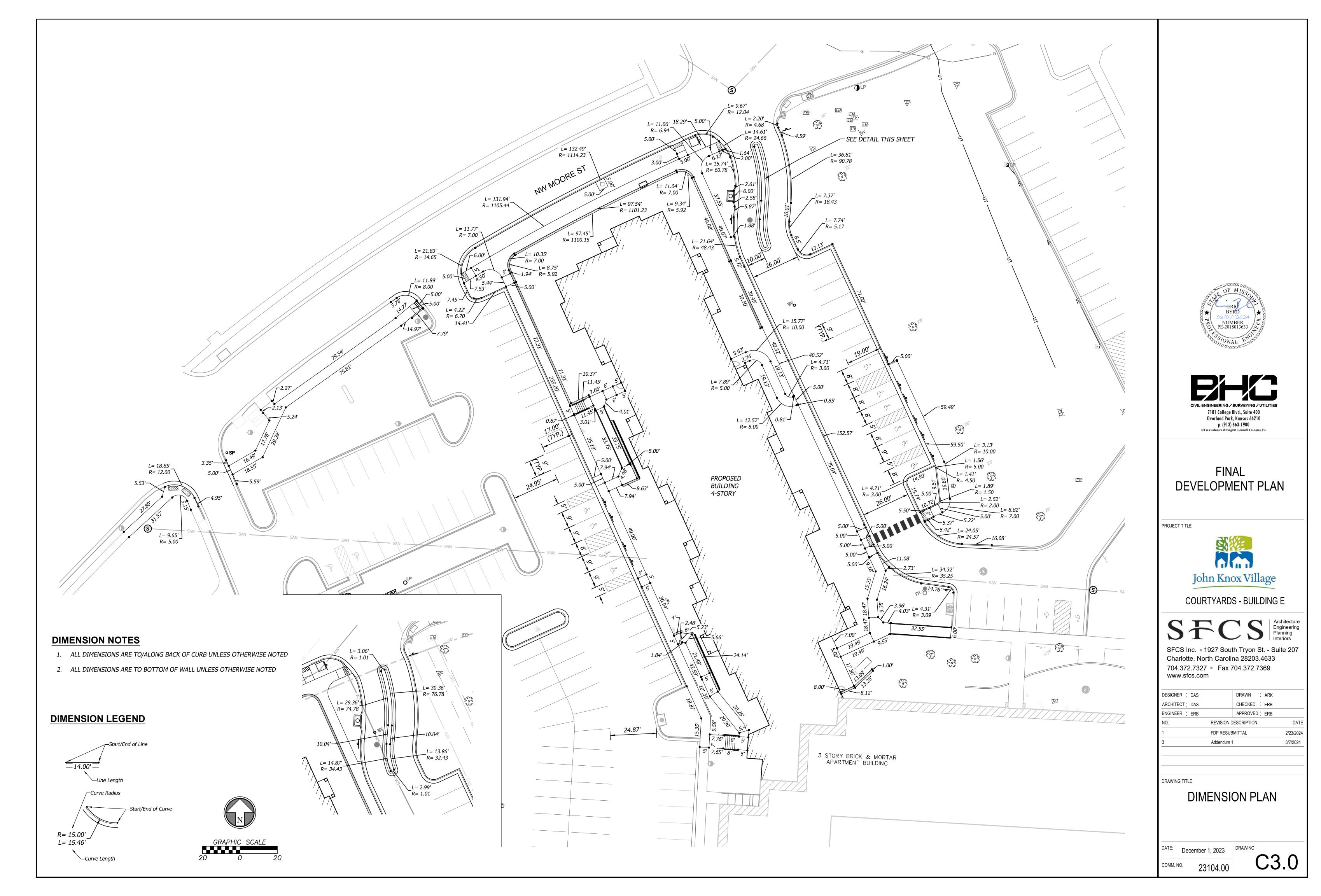
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3	Addendum 1	1	3/7/2024

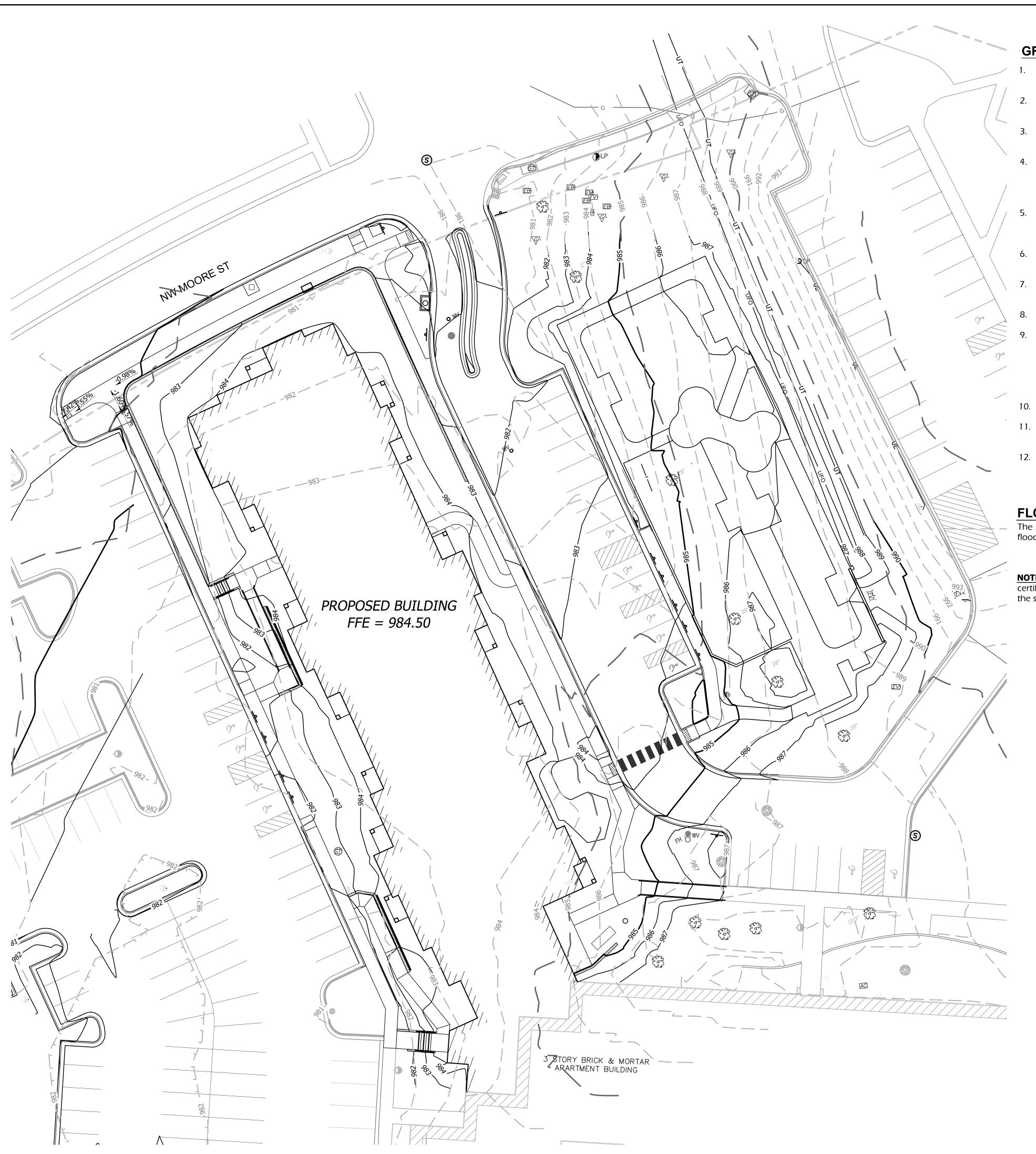
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PARKING LOT SITE PLAN

December 1, 2023 23104.00

BID ALTERNATE 2





#### **GRADING NOTES**

- 1. Contractor shall obtain a copy of the <u>Geotechnical Services Report</u> for the project and be familiar with the existing conditions and recommendations contained in the report if such a report has been prepared.
- Contractor is responsible for any over excavation of existing unsuitable soils will be required under building and pavement areas. Contractor shall perform over excavation of unsuitable soils as a part of this work.
- 3. Contractor shall obtain soils suitable as structural fill from off-site sources. All borrow materials must be tested and approved by the Geotechnical Engineer prior to importing the soils to the project site.
- 4. Contractor shall operate under the terms and permits included in the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project and permitted through the State of Kansas. Contractor shall employ a qualified person to conduct regular inspections of the site erosion control measures and document such inspections in the SWPPP document maintained by the Contractor.
- 5. All topsoil, vegetation, root structures, and deleterious materials shall be stripped from the ground surface prior to the placement of embankments. Contractor shall obtain the on-site geotechnical representative's acceptance of the existing ground surface materials and the proposed fill material prior to the placement of fill.
- 6. All proposed contour lines and spot elevations shown are finish ground elevations. Contractor shall account for pavement depths, building pads, topsoil, etc when grading the site.
- 7. All disturbed areas that are not to be paved (green spaces) shall be finish graded with a minimum of six inches of topsoil.
- 8. All excavation and embankments shall comply with the recommendations provided by the geotechnical engineer.
- 9. Prior to placing any concrete or asphalt pavement the contractor shall perform a proof roll of the pavement sub-grade with a fully loaded tandem axle dump truck. The proof roll shall be conducted in the presence of the on-site geotechnical representative. Areas that display rutting or pumping that are unsatisfactory to the geotechnical representative shall be re-worked and a follow-up proof roll shall be conducted prior to acceptance of the sub-grade for paving. The contractor may, at its own expense, stabilize the sub-grade using Class C fly ash or quicklime, as approved by the geotechnical engineer.
- 10. Finished grades shall not be steeper than 3:1.
- 11. All grading work shall be considered unclassified. No additional payments shall be made for rock excavation. Contractor shall satisfy himself as to any rock excavation required to accomplish the improvements shown hereon.
- 12. A 2.0% maximum cross slope shall be maintained on all pedestrian sidewalks and paths.

#### **FLOOD STATEMENT**

The subject property lies within Flood Zone " X " (unshaded) (Areas determined to be outside the 0.2% annual chance floodplain.), as shown on the Jackson County, Missouri and Incorporated Areas Flood Insurance Rate Map (F.I.R.M.).

Map Number: 29095C0416G and 29095C0417G

Panel No.: 416 and 417 of 625

Map Revised Date: January 20, 2017

**NOTE:** This statement is provided for informational purposes only and shall in no way constitute a basis for a flood certificate. No field work was performed to establish the boundaries of this zone. The information was derived by scaling the subject property on the above referenced map.

#### **GRADING LEGEND**

STANDARD CURB & GUTTER

ROLLOVER CURB & GUTTER

DRY CURB & GUTTER

ZERO HEIGHT CURB

TRANSITION CURB

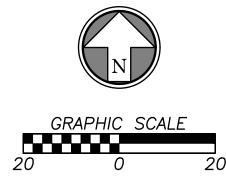
RETAINING WALL

980 FINISH GRADE MAJOR CONTOURS

982 FINISH GRADE MAJOR CONTOURS

980 EXISTING GRADE MAJOR CONTOURS

981 EXISTING GRADE MINOR CONTOURS







#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



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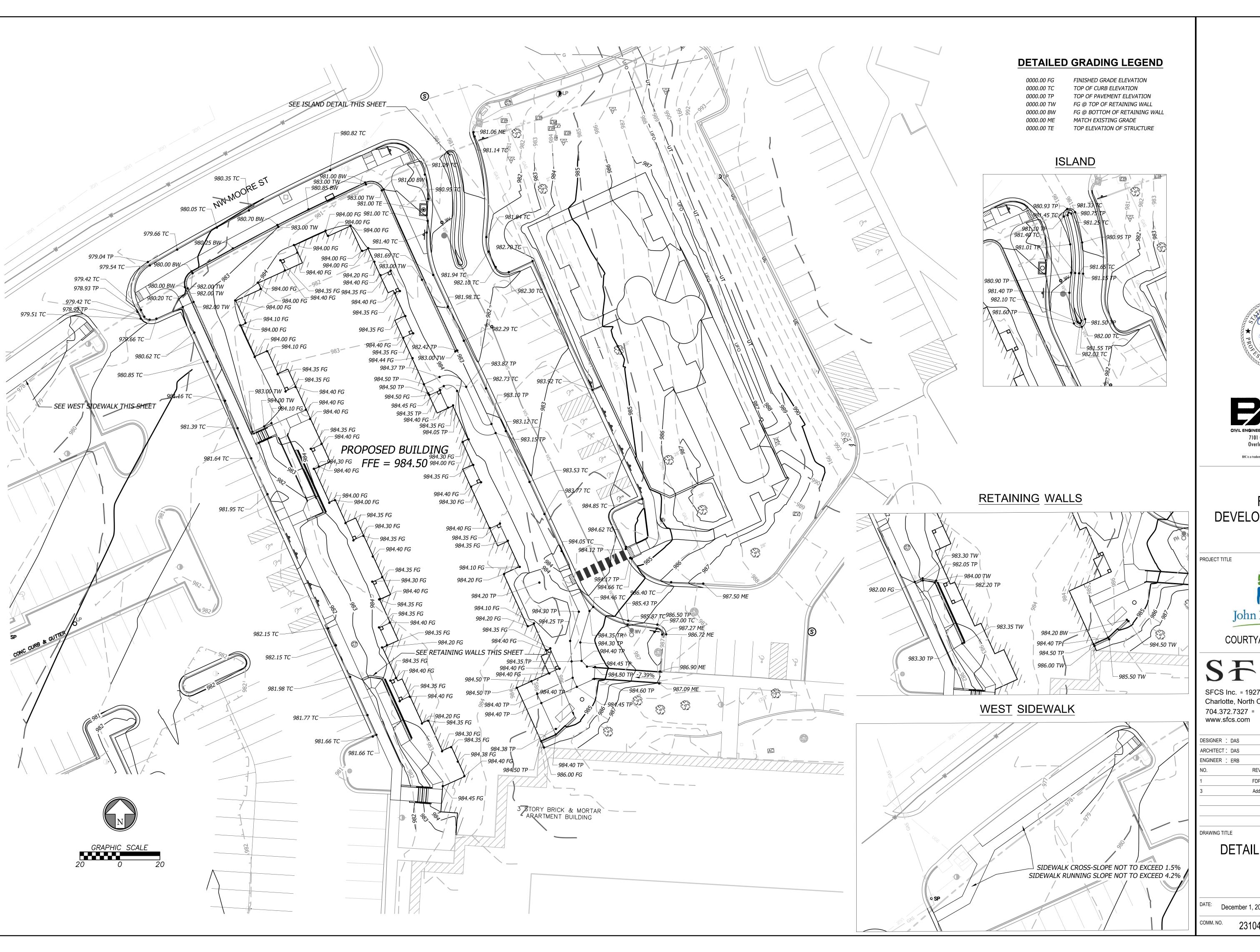
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**GRADING PLAN** 

DATE: December 1, 2023

C4.0









COURTYARDS - BUILDING E

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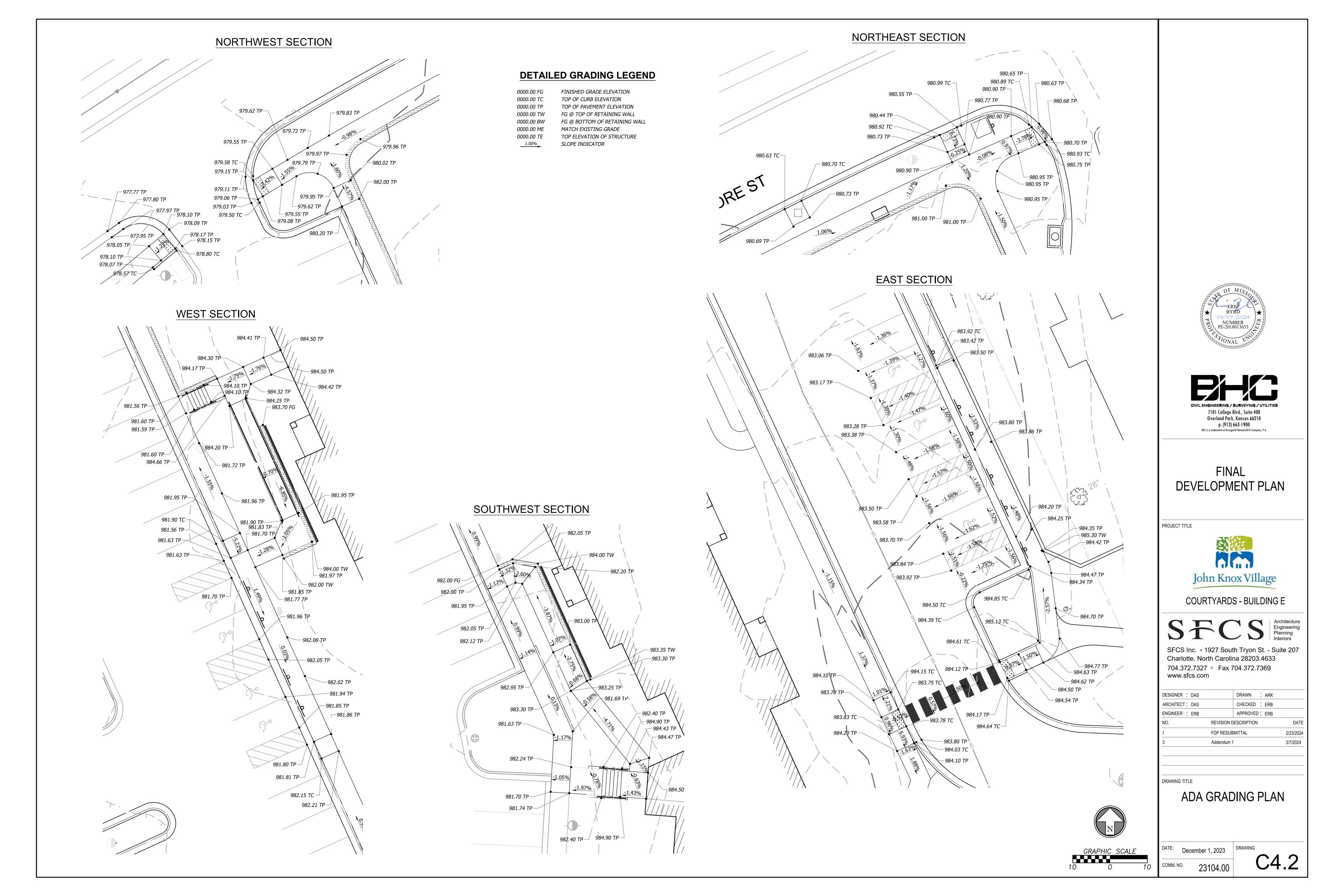
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3	Addendum 1	1	3/7/2024

DETAILED GRADING PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

DRAWING









PROJECT TITLE



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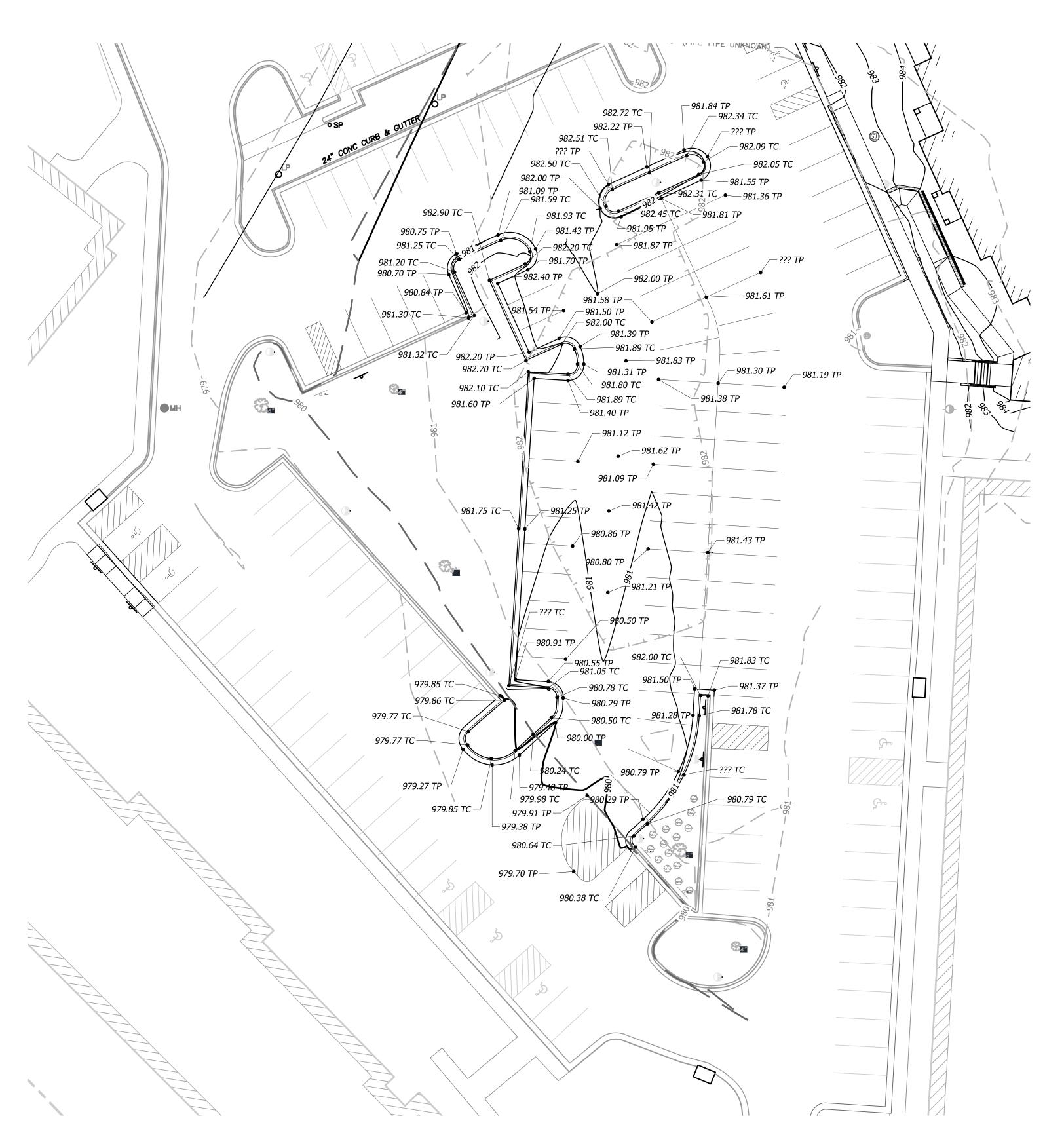
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3	Addendum 1	3/7/2024

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BID ALTERNATE 1

DOG PARK DETAILED **GRADING PLAN** 

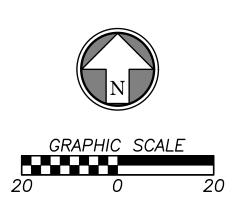
#### SOUTHWEST PARKING LOT





0000.00 FG 0000.00 TC 0000.00 TP 0000.00 TW 0000.00 BW 0000.00 ME 0000.00 TE

FINISHED GRADE ELEVATION
TOP OF CURB ELEVATION
TOP OF PAVEMENT ELEVATION
FG @ TOP OF RETAINING WALL
FG @ BOTTOM OF RETAINING WALL
MATCH EXISTING GRADE
TOP ELEVATION OF STRUCTURE
SLOPE INDICATOR



BID ALTERNATE 2





#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



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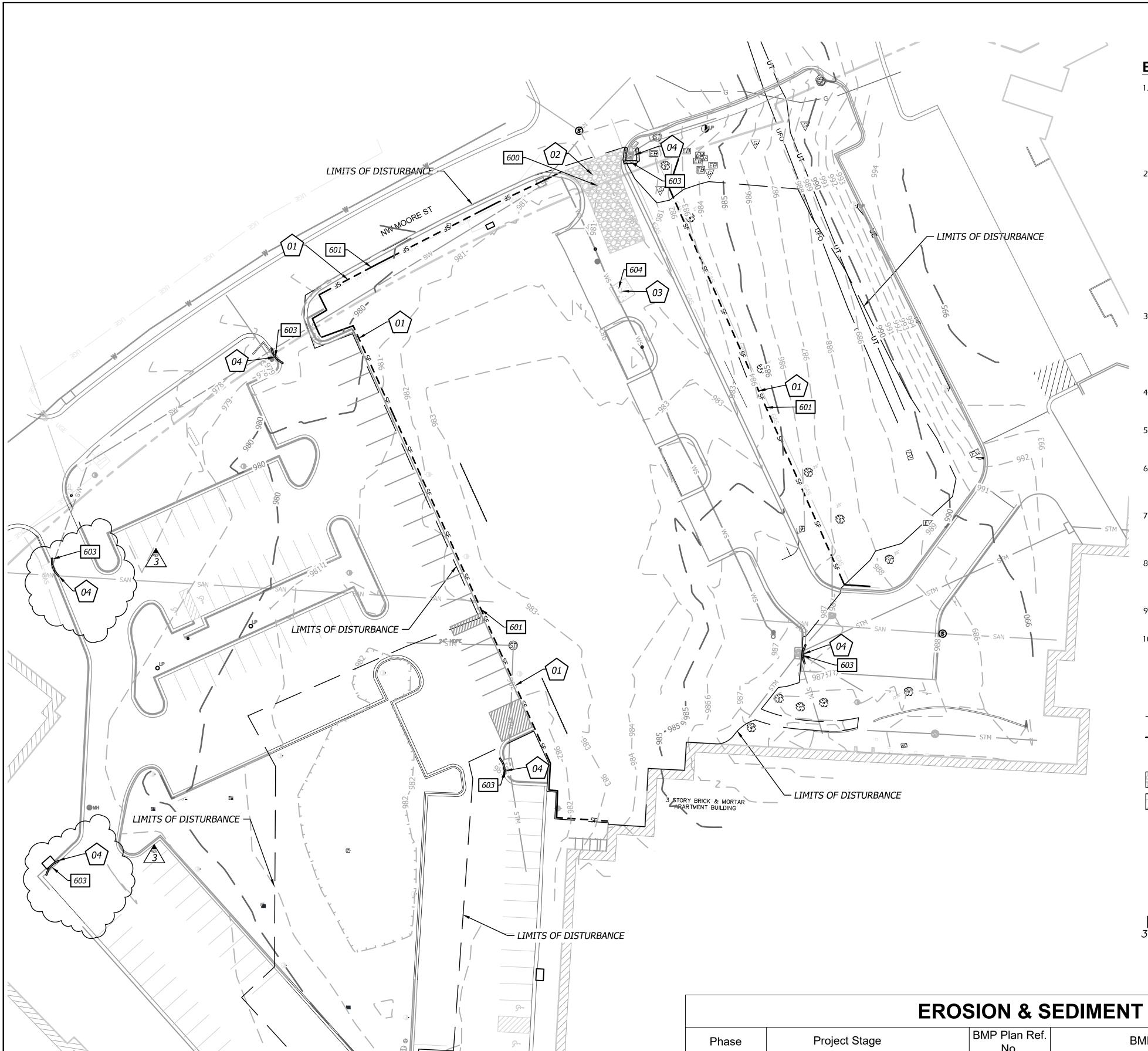
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PARKING LOT DETAILED GRADING PLAN

DATE: December 1, 2023

COMM. NO. 23104.00

C4.4



#### **EROSION AND SEDIMENT CONTROL GENERAL NOTES**

- 1. Prior to Land Disturbance activities, the contractor shall:
- Delineate the outer limits of any natural stream corridor designated with construction fencing.
- Install perimeter controls and request the inspection of the pre-construction erosion and sediment control measures designated on the approved erosion and sediment control plan. Land disturbance work shall not proceed until there is
- Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, and placement of physical barriers or other means acceptable to the City inspector and in conformance with the erosion and sediment control plan.
- 2. The contractor shall comply with all requirements of the Storm Water Pollution Prevention Plan, including but not limited to: • The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
  - The contractor shall perform inspections of erosion and sediment control measures at the following minimum intervals: o During active construction phases - at least once per week
    - o During periods of inactivity at least once per 14 days
    - o After each rainfall event of ½ inch or more within 24 hours of the rain event
  - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The inspection log shall be available for review by the regulatory authority.
  - The contractor shall have the erosion and sediment control plan routinely updated to show all changes and amendments to the plan. A copy of the erosion and sediment control plan shall be kept on site and made available for review by the regulatory authority.
- 3. Unless otherwise noted in the plans, all seeding must conform to Division II-Construction and Materials Specification-Section 2150 published by the Kansas City Metropolitan Chapter of the American Public Works Association dated May 21, 2008. Permanent seeding shall be installed after completion of final grading except when seeding will occur outside of the acceptable seeding season as specified in Section 2150. When temporary seeding is installed, permanent seeding shall be installed at the next seeding season. Temporary seeding shall not be used as a stabilization measure for a period exceeding 12 months. The Permit will not be closed until permanent seeding has been established to a minimum of 70% density over the entire disturbed area.
- 4. The contractor shall maintain installed erosion and sediment control devices in a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel.
- 5. The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMPs in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.
- 6. Concrete wash or rinse water from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc. may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place.
- 7. Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials stored outside must be in closed and sealed water-proof containers and located outside of drainage ways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.
- 8. Silt fences and erosion control BMPs which are shown along the back of curb must be installed within two weeks of curb backfill and prior to placement of base asphalt. Exact locations of these erosion control methods may be field adjusted to minimize conflicts with utility construction; however, anticipated disturbance by utility construction shall not delay
- 9. Interior Silt Fence as necessary during construction. Portions may be limited as vegetation is established and hardscape is installed. Entire length may be installed at the contractor's option to aid in stabilizing slopes.
- 10. Private Erosion & Sediment Control inspections are required in accordance with NPDES schedule and requirements. After inspections, provide the City of Lee's Summit with reports and documentation.

#### **EROSION CONTROL LEGEND**

SILT/SEDIMENT FENCE

DISTURBED AREA (1.73 AC)

INLET PROTECTION FILTER BAGS CONSTRUCTION ENTRANCE

CONCRETE CLEANOUT





SEE EROSION CONTROL DETAIL SHEET FOR THE FOLLOWING

TEMPORARY CONSTRUCTION ENTRANCE FILTER FABRIC SILT FENCE STORM INLET PROTECTION

CONCRETE WASH-OUT

	EROSION & SEDIMENT CONTROL STAGING CHART					
Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:	
Phase I (PRE–CON)	A — Place BMP's Prior to Land Disturbance	01)	Perimeter Silt Fence	С	Place as shown on plan	
		02)	Construction Entrance & Staging Area	С	Place as shown on plan	
		03)	Concrete Wash—Out	С	Place as shown on plan	
		04)	Existing Inlet Protection	С	Place as shown on plan	
Phase II (MID-CON)	B — After Utility Storm Sewer Construction		Storm Inlet Protection	С	Place as shown on plan	
Phase III (POST-CON)	C — Final Grading, Paving & Landscaping	06)	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.	





#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



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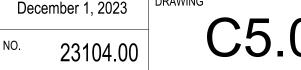
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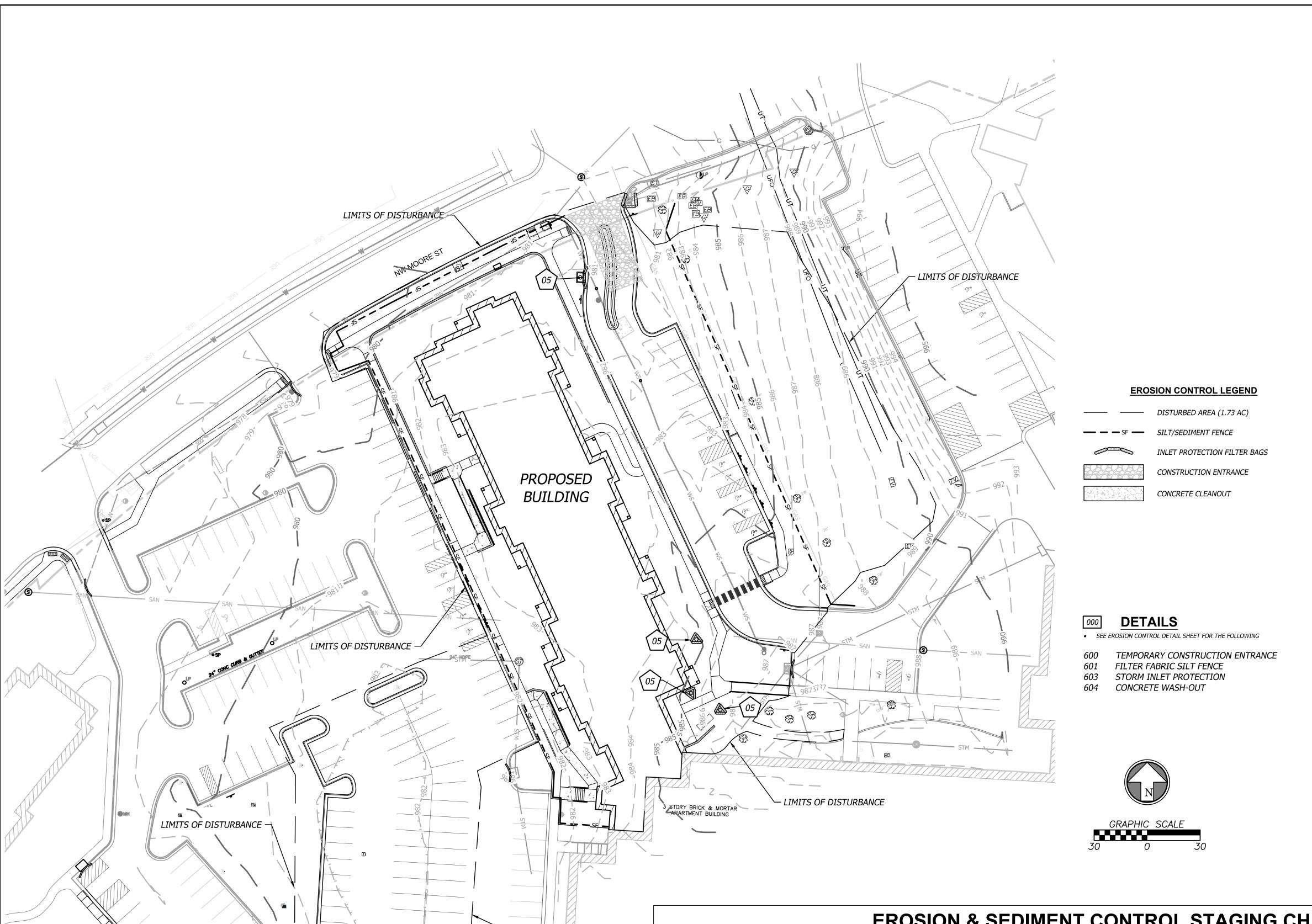
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DRAWING TITLE

PRE-CONSTRUCTION **EROSION CONTROL PLAN** 

December 1, 2023





LIMITS OF DISTURBANCE

EROSION & SEDIMENT CONTROL STAGING CHART					
Phase	Project Stage	BMP Plan Ref. No.	BMP Description	Remove After Stage:	Notes:
Phase I (PRE-CON)	A — Place BMP's Prior to Land Disturbance	01)	Perimeter Silt Fence	С	Place as shown on plan
		02)	Construction Entrance & Staging Area	С	Place as shown on plan
		03)	Concrete Wash—Out	С	Place as shown on plan
		04)	Existing Inlet Protection	С	Place as shown on plan
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Phase III (POST—CON)	C — Final Grading, Paving & Landscaping	06)	Final Seeding, Sod, and Landscaping	N/A	Silt fencing & inlet protect may be removed once seed & sodded areas are established on 80% of site.





#### FINAL DEVELOPMENT PLAN

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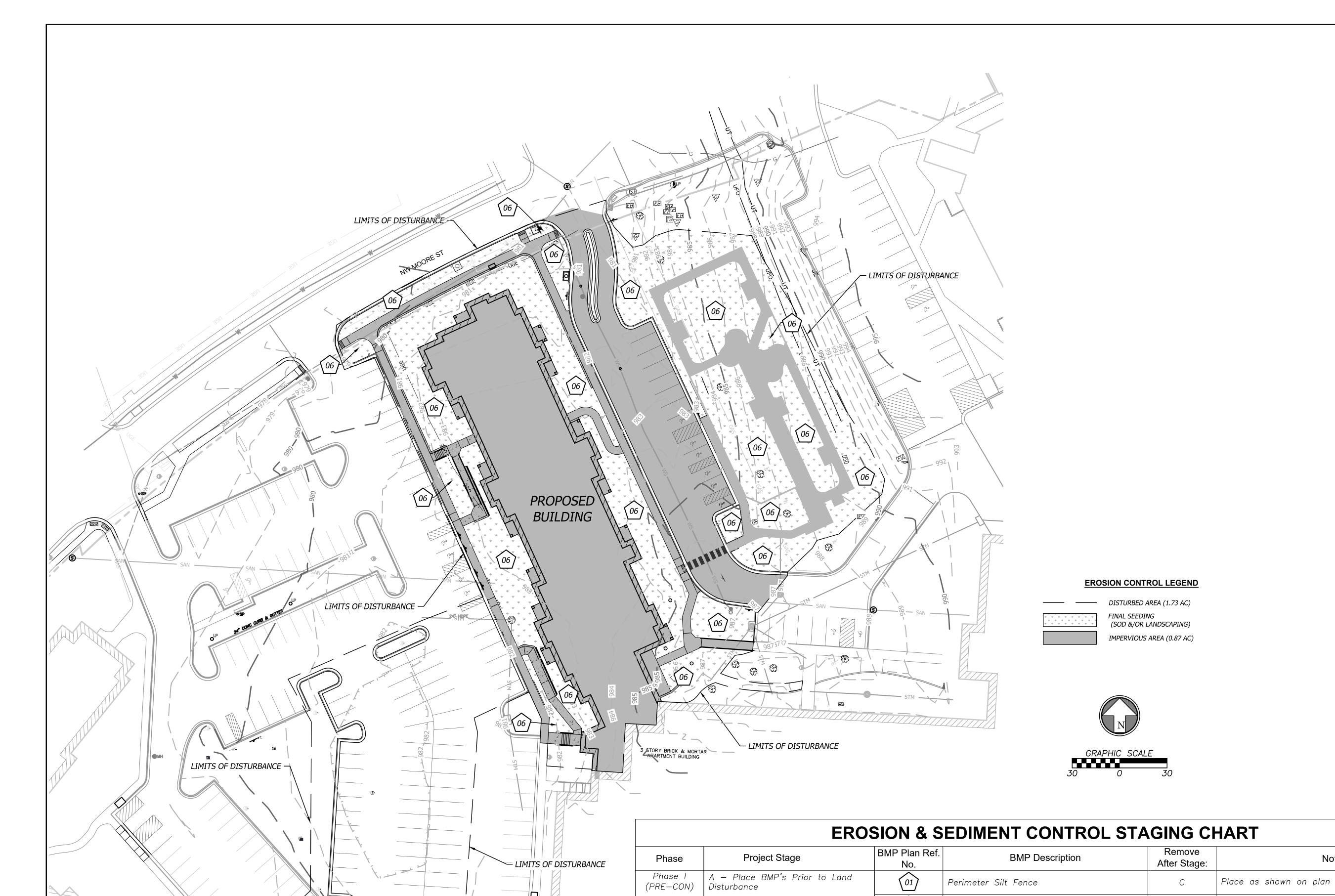
MID-CONSTRUCTION EROSION CONTROL PLAN

December 1, 2023

COMM. NO. 23104.00

DRAWING

C5.1







PROJECT TITLE



COURTYARDS - BUILDING E



SFCS Inc. • 1927 South Tryon St. - Suite 207 Charlotte, North Carolina 28203.4633 704.372.7327 Fax 704.372.7369 www.sfcs.com

DESIGNER : DAS	DRAWN : ARK	
ARCHITECT: DAS	CHECKED : ERB	
ENGINEER : ERB	APPROVED: ERB	
NO.	REVISION DESCRIPTION	DATE
1	FDP RESUBMITTAL	2/23/2024

OST-CONSTRUCTION EROSION CONTROL PLAN

December 1, 2023 23104.00

Place as shown on plan	DESIGNER : D
Place as shown on plan	ARCHITECT: [
Place as shown on plan	ENGINEER : E
	NO.
Place as shown on plan	1
Place as shown on plan	
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Place as shown on plan	
, rado do enemir em pian	
Silt fencing & inlet protect may be removed once seed &	DRAWING TITLE
sodded areas are established on 80% of site.	

Notes:

Construction Entrance & Staging Area

Final Seeding, Sod, and Landscaping

Concrete Wash—Out

B — After Utility Storm Sewer Construction

Phase III C — Final Grading, Paving & (POST—CON) Landscaping

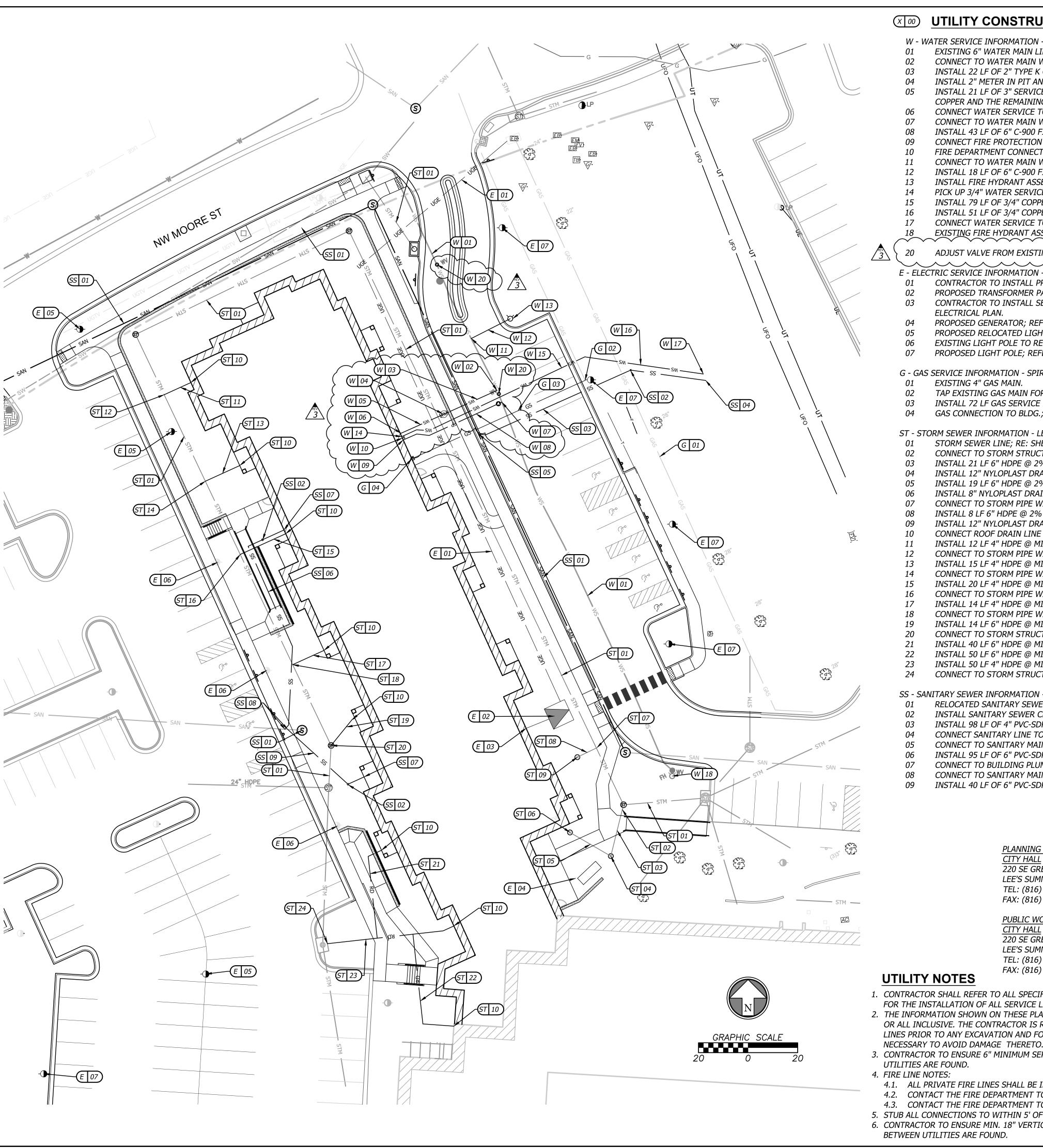
Phase II

(MID-CON)

Existing Inlet Protection

Storm Inlet Protection

06)



#### (X 00) UTILITY CONSTRUCTION NOTES

- W WATER SERVICE INFORMATION LEE'S SUMMIT WATER UTILITIES
- EXISTING 6" WATER MAIN LINE.
- CONNECT TO WATER MAIN WITH 2" CORPORATION STOP; REFER TO CONNECTION DETAIL.
- INSTALL 22 LF OF 2" TYPE K COPPER SERVICE LINE WITH MINIMUM DEPTH OF COVER OF 42".
- INSTALL 2" METER IN PIT AND 2"X3" REDUCER AFTER METER.
- INSTALL 21 LF OF 3" SERVICE LINE WITH MINIMUM DEPTH OF COVER OF 42". THE FIRST 10' OF PIPE BEYOND THE METER SHALL BE COPPER AND THE REMAINING PIPE CAN BE C-900.
- CONNECT WATER SERVICE TO BUILDING; SEE PLUMBING PLANS.
- CONNECT TO WATER MAIN WITH 6"X6" TEE AND 6" GATE VALVE. INSTALL 43 LF OF 6" C-900 FIRE PROTECTION LINE WITH MINIMUM DEPTH OF COVER OF 42".
- CONNECT FIRE PROTECTION LINE TO BUILDING PLUMBING; SEE MEP PLANS.
- FIRE DEPARTMENT CONNECTION.
  - CONNECT TO WATER MAIN WITH 6"X6" TEE AND 6" GATE VALVE.
- INSTALL 18 LF OF 6" C-900 FIRE PROTECTION LINE WITH MINIMUM DEPTH OF COVER OF 42"
- INSTALL FIRE HYDRANT ASSEMBLY.
- PICK UP 3/4" WATER SERVICE STUB FROM BUILDING; SEE PLUMBING PLANS (BID ALTERNATE 1)
  - INSTALL 79 LF OF 3/4" COPPER WATER SERVICE WITH MINIMUM DEPTH OF COVER OF 42" (BID ALTERNATE 1)
  - INSTALL 51 LF OF 3/4" COPPER WATER SERVICE WITH MINIMUM DEPTH OF COVER OF 42" (BID ALTERNATE 1) CONNECT WATER SERVICE TO DOG WATER FOUNTAIN; SEE INSTALLATION GUIDE (BID ALTERNATE 1)
- EXISTING FIRE HYDRANT ASSEMBLY.
- ADJUST VALVE FROM EXISTING TO PROPOSED ELEVATION PER GRADING PLAN
- E ELECTRIC SERVICE INFORMATION EVERGY
- CONTRACTOR TO INSTALL PRIMARY UNDERGROUND ELECTRIC SERVICE FROM EXISTING ELECTRIC STRUCTURE TO TRANSFORMER PAD.
- PROPOSED TRANSFORMER PAD.
- CONTRACTOR TO INSTALL SECONDARY UNDERGROUND ELECTRIC SERVICE LINE FROM PROPOSED TRANSFORMER TO BUILDING; REF. ELECTRICAL PLAN.
- PROPOSED GENERATOR; REFER TO MEP
- PROPOSED RELOCATED LIGHT POLE; REFER TO MEP
- EXISTING LIGHT POLE TO REMAIN; REFER TO MEP PROPOSED LIGHT POLE; REFER TO MEP
- G GAS SERVICE INFORMATION SPIRE
- EXISTING 4" GAS MAIN. TAP EXISTING GAS MAIN FOR SERVICE LINE; COORDINATE W/ SPIRE.
- INSTALL 72 LF GAS SERVICE LINE.
- GAS CONNECTION TO BLDG.; RE: PLUMBING PLAN.

#### ST - STORM SEWER INFORMATION - LEE'S SUMMIT PUBLIC WORKS

- STORM SEWER LINE; RE: SHEET C6.2
- CONNECT TO STORM STRUCTURE; FL = 981.00
- INSTALL 21 LF 6" HDPE @ 2% SLOPE
- INSTALL 12" NYLOPLAST DRAIN BASIN WITH DOME GRATE; RIM = 984.00; FL = 981.42 INSTALL 19 LF 6" HDPE @ 2% SLOPE
- INSTALL 8" NYLOPLAST DRAIN BASIN WITH DOME GRATE; RIM = 984.20; FL = 981.80
- CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 980.00
- INSTALL 8 LF 6" HDPE @ 2% SLOPE
- INSTALL 12" NYLOPLAST DRAIN BASIN WITH DOME GRATE; RIM = 983.50; FL = 980.16
- CONNECT ROOF DRAIN LINE TO BUILDING PLUMBING; REFER TO MEP
- INSTALL 12 LF 4" HDPE @ MIN. 2% SLOPE
- CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 977.47 INSTALL 15 LF 4" HDPE @ MIN. 2% SLOPE
- CONNECT TO STORM PIPE WITH INSERT A TEE: FL = 977.18
- INSTALL 20 LF 4" HDPE @ MIN. 2% SLOPE
- CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 976.94 INSTALL 14 LF 4" HDPE @ MIN. 2% SLOPE
- CONNECT TO STORM PIPE WITH INSERT A TEE; FL = 976.57 INSTALL 14 LF 6" HDPE @ MIN. 2% SLOPE
- CONNECT TO STORM STRUCTURE; FL = 977.63
- INSTALL 40 LF 6" HDPE @ MIN. 2% SLOPE
- INSTALL 50 LF 6" HDPE @ MIN. 2% SLOPE INSTALL 50 LF 4" HDPE @ MIN. 2% SLOPE
- CONNECT TO STORM STRUCTURE; FL = 977.50

#### SS - SANITARY SEWER INFORMATION - LEE'S SUMMIT PUBLIC WORKS

- RELOCATED SANITARY SEWER MAIN; RE: SHEET C6.1
- INSTALL SANITARY SEWER CLEANOUT
- INSTALL 98 LF OF 4" PVC-SDR26 SANITARY SERVICE LINE @ 2% MIN. SLOPE (BID ALTERNATE 1)
- CONNECT SANITARY LINE TO DOG WATER FOUNTAIN; REFER TO INSTALLATION GUIDE (BID ALTERNATE 1)
- CONNECT TO SANITARY MAIN WITH 8"X4" WYE; FL = 971.52 (BID ALTERNATE 1) INSTALL 95 LF OF 6" PVC-SDR26 SANITARY SERVICE LINE @ 1% MIN. SLOPE
- CONNECT TO BUILDING PLUMBING; REFER TO MEP
- CONNECT TO SANITARY MAIN WITH 8"X6" WYE; FL = 970.00
- INSTALL 40 LF OF 6" PVC-SDR26 SANITARY SERVICE LINE @ 1% MIN. SLOPE

FAX: (816) 969-1809

#### **UTILITY CONTACTS** CITY OF LEE'S SUMMIT, MO

CODES ADMINISTRATION PLANNING AND DEVELOPMENT CITY HALL CITY HALL 220 SE GREEN STREET 220 SE GREEN STREET

LEE'S SUMMIT, MO 64063 LEE'S SUMMIT, MO 64063 TEL: (816) 969-1200 TEL: (816) 969-1600 FAX: (816) 969-1201 FAX: (816) 969-1619

WATER UTILITIES **PUBLIC WORKS** CITY HALL CITY HALL 1200 SE HAMBLEN RD 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 LEE'S SUMMIT, MO 64063 TEL: (816) 969-1900 TEL: (816) 969-1800

**EVERGY** TEL: (888) 471-5275 GAS COMPANY SPIRE

TEL: (816) 969-1600 FAX: (816) 969-1619 TEL: (816) 756-5252

ELECTRIC COMPANY

PUBLIC WORKS CITY HALL 220 SE GREEN STREET LEE'S SUMMIT, MO 64063

PLANNING AND DEVELOPMENT

220 SE GREEN STREET

LEE'S SUMMIT, MO 64063

CITY HALL

TEL: (816) 969-1800 FAX: (816) 969-1809

- 1. CONTRACTOR SHALL REFER TO ALL SPECIFICATIONS, GUIDELINES, AND INSTALLATION DRAWINGS FROM THE CITY OF LEE'S SUMMIT, EVERGY, AND SPIRE FOR THE INSTALLATION OF ALL SERVICE LINES.
- 2. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE

FAX: (816) 969-1935

- 3. CONTRACTOR TO ENSURE 6" MINIMUM SEPARATION BETWEEN UTILITIES AT CROSSINGS. CONTRACTOR TO CALL CIVIL IF ANY CONFLICTS BETWEEN UTILITIES ARE FOUND.
- 4. FIRE LINE NOTES:
  - 4.1. ALL PRIVATE FIRE LINES SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 24, AND OTHER APPLICABLE CODES AND STANDARDS.
  - 4.2. CONTACT THE FIRE DEPARTMENT TO SCHEDULE INSPECTIONS PRIOR TO PRIVATE FIRE LINES BEING BACKFILLED.
- 4.3. CONTACT THE FIRE DEPARTMENT TO WITNESS SCHEDULED HYDROSTATIC TESTS AND FLUSHES OF PRIVATE FIRE LINES.
- 5. STUB ALL CONNECTIONS TO WITHIN 5' OF THE BUILDING TO PROVIDE CONNECTION INTO THE BUILDING BY MECHANICAL/PLUMBING CONTRACTOR. 6. CONTRACTOR TO ENSURE MIN. 18" VERTICAL SEPARATION BETWEEN UTILITIES AT CROSSING. CONTRACTOR TO CALL ENGINEER IF ANY CONFLICTS
- BETWEEN UTILITIES ARE FOUND.





#### **FINAL** DEVELOPMENT PLAN

PROJECT TITLE



COURTYARDS - BUILDING E

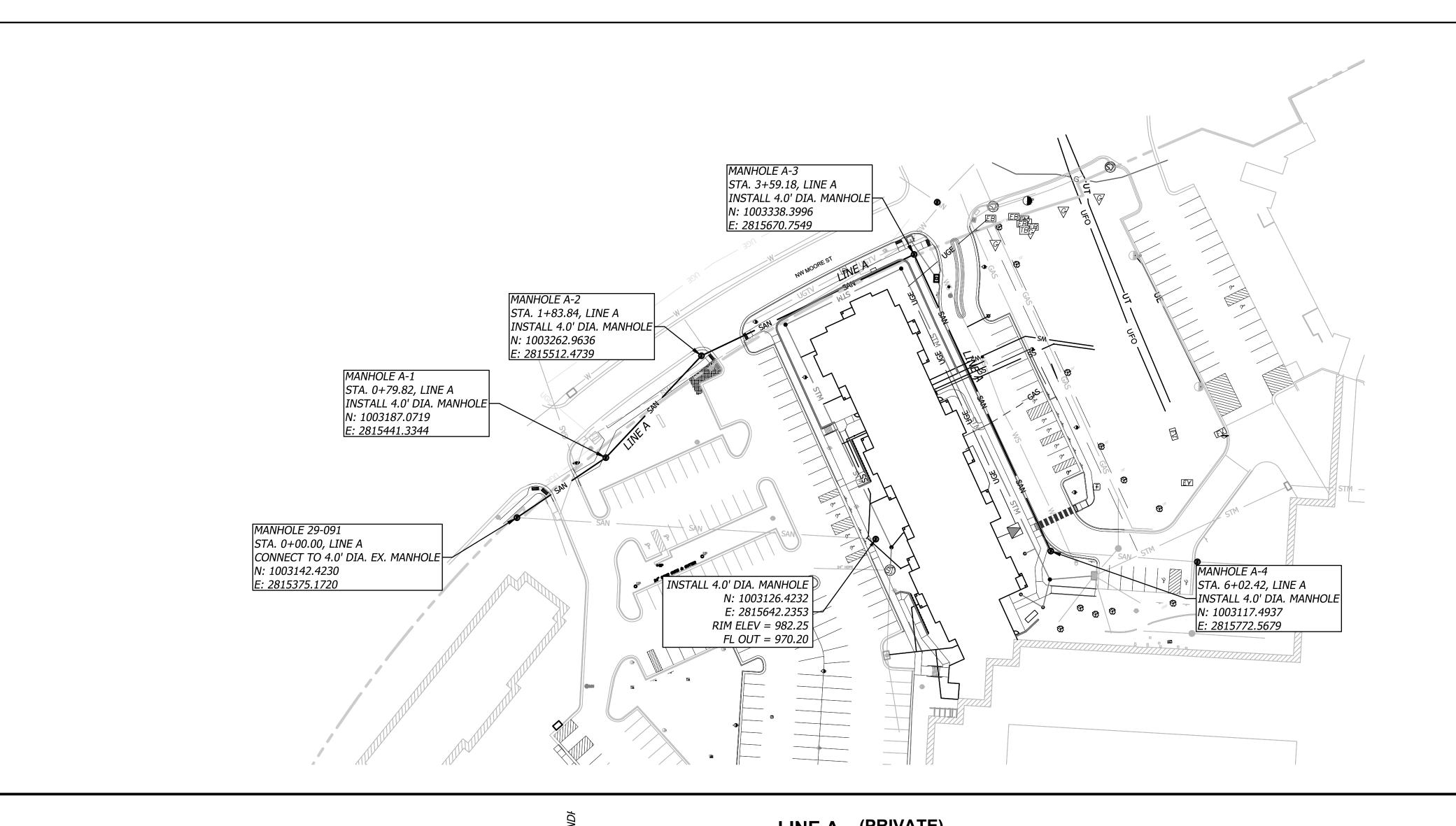
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APPROVED: ERB	
REVISION DESCRIPTION	DATE
FDP RESUBMITTAL	2/23/2024
Addendum 1	3/7/2024
	REVISION DESCRIPTION FDP RESUBMITTAL

DRAWING TITLE

UTILITY PLAN

December 1, 2023



EXISTING

GRADE

INSTALL

104.02 L.F.

8" PVC

@ 1.25%

1+00

2+00

INSTALL

79.82 L.F.

8" PVC (SDR-26) @ 3.45%

0+00

EXISTING

INSTALL 175.34 L.F.

8" PVC (SDR-26) @ 1,25%

*3+00* 

\_\_1010

\_\_1000

\_\_\_990

\_\_\_980

970

960

950

940

930

*-1+50* 

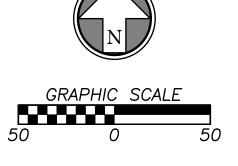
-1+00

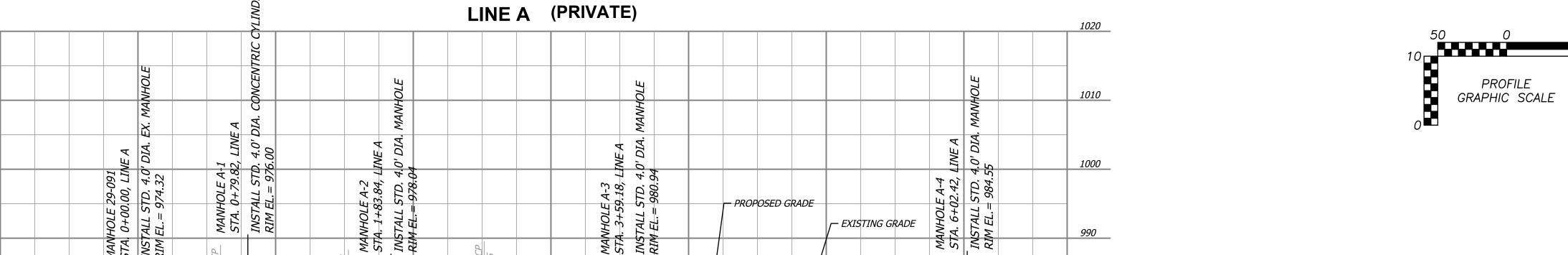
#### **SANITARY NOTE**

ALL NORTHINGS, EASTINGS, AND ALIGNMENT STATIONING FOR SANITARY STRUCTURES ARE TO CENTER OF STRUCTURE UNLESS STATED OTHERWISE.









INSTALL 243.24 L.F. 8" PVC (SDR-26)

*5+00* 

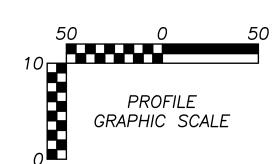
4+00

EXISTIN

6+00

8" PVC

*6+75* 



#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



COURTYARDS - BUILDING E

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DESIGNER : DAS		DRAWN : ARK	
ARCHITECT: DAS		CHECKED : ERB	
ENGINEER : ERB		APPROVED: ERB	
NO.	REVISION D	DESCRIPTION	
1	FDP RESUE	BMITTAL	2/2

DRAWING TITLE

SANITARY PLAN & PROFILE

Runoff Calculations	100-YR														Pipe Properties											
			Cumul.				Runoff				Up	Up	Up									Drop				
Inlet	Area	"C"	Area	Cumul.			То	Cumul.	Pipe	Pipe	Piped	Piped /	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	ln			Inlet	HGL
#	(acres)	Value	(acres)	CxA	Tc	Intensity	Inlet	Runoff	Cap.	Vel.	Inlets	Inlets (a	acres)	CxA	Inlet	Inlet	Туре	Value	Size	Length	%	Inlet	FL Up	FL Down	Тор	Elev.
LINE 100																									DS TAILWATER @ STR #EX CB 1410	FREE
101	0.08	0.90	3.57	2.40	11.4	8.20	0.74	24.58	22.65	6.71			0.00	0.00	101	EX CB 1410	HDPE	0.012	24	17.08	0.74	0.00	976.31	976.18	983.15	978.58
102	0.24	0.90	3.49	2.33	11.0	8.32	2.25	24.19	22.65	6.71			0.00	0.00	102	101	HDPE	0.012	24	183.59	0.74	0.00	977.66	976.31	982.29	980.75
103	N/A	N/A	3.25	2.11	10.7	8.39	N/A	22.12	22.65	6.71			0.00	0.00	103	102	HDPE	0.012	24	95.70	0.74	0.00	978.37	977.66	983.19	981.84
104	0.10	0.30	3.25	2.11	10.1	8.57	0.32	22.59	22.65	6.71			0.00	0.00	104	103	HDPE	0.012	24	256.59	0.74	0.00	980.27	978.37	984.55	984.34
EX CB 1188	3.15	0.66	3.15	2.08	10.0	8.59	22.32	22.32	23.70	7.02		(	0.00	0.00	EX CB 1188	104	HDPE	0.012	24	33.17	0.81	N/A	980.54	980.27	987.08	985.09
LINE 200																									DS TAILWATER @ STR #EX JB	FREE
201	0.75	0.60	0.75	0.45	5.0	10.32	5.81	5.81	9.72	7.92			0.00	0.00	201	EX JB	HDPE	0.012	15	35.09	1.93	N/A	977.50	976.82	981.00	978.72







PROJECT TITLE



COURTYARDS - BUILDING E

Architectur Engineerin Planning Interiors

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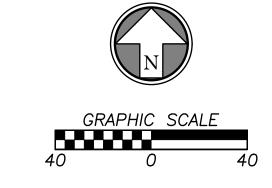
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IN DESCRIPTION	
IN DESCRIPTION	DATE
SUBMITTAL	2/23/2024
	SUBMITTAL

DRAWING TITLE

DRAINAGE MAP & CALCULATIONS

December 1, 2023

COMM. NO. 23104.00



**DRAINAGE LEGEND** 

PROPOSED FINISH GRADE MAJOR CONTOUR

PROPOSED FINISH GRADE MINOR CONTOUR

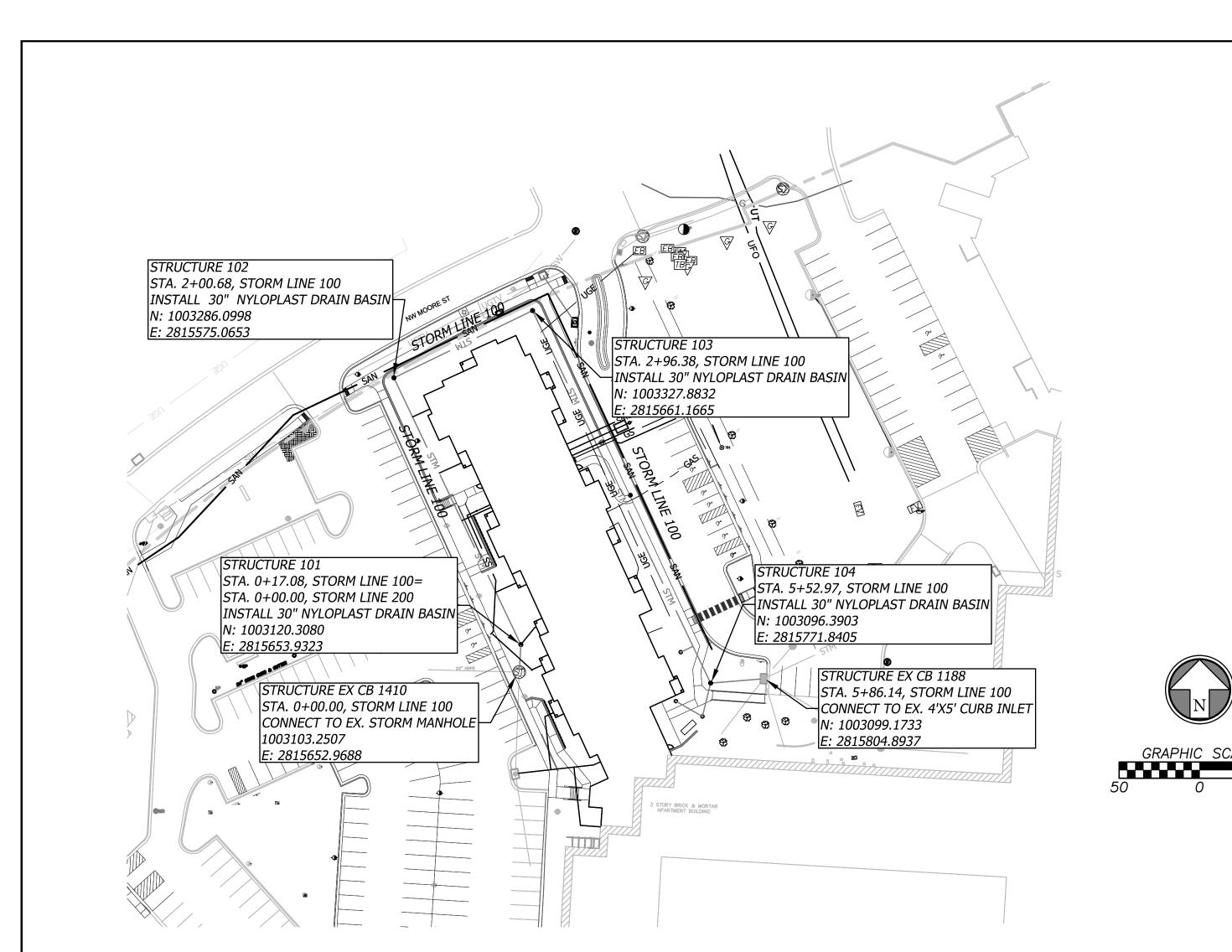
PROPOSED STORM SEWER LINE

DRAINAGE AREA BOUNDARY

AREA/DIRECTION OF DRAINAGE BOUNDARY

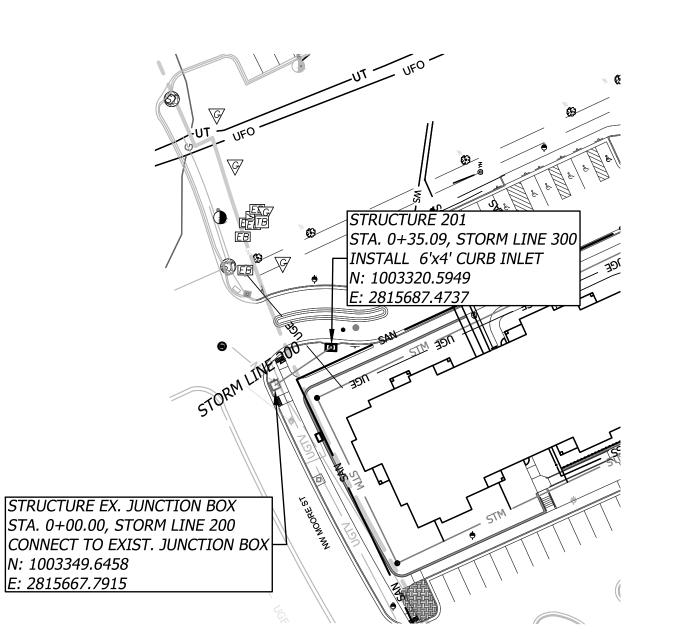
EXISTING GRADE MAJOR CONTOUR

EXISTING GRADE MINOR CONTOUR



#### STORM NOTE

ALL NORTHINGS, EASTINGS, AND ALIGNMENT STATIONING FOR STORM STRUCTURES ARE TO CENTER OF STRUCTURE UNLESS STATED OTHERWISE.

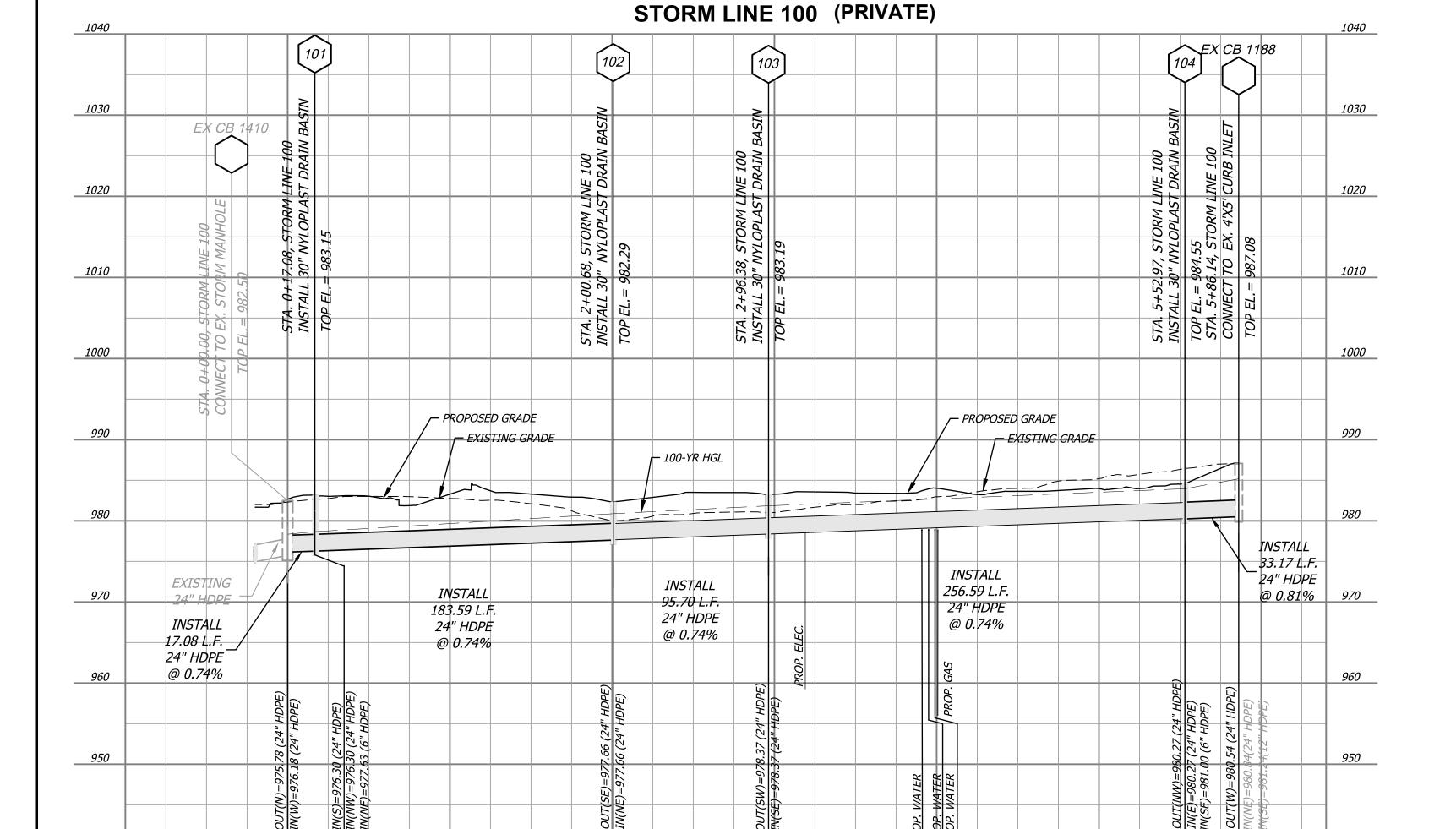






50 0 50 10 STORM LINE 200 (PRIN

PROFILE GRAPHIC SCALE



*3+00* 

-1+00

0+00

1+00

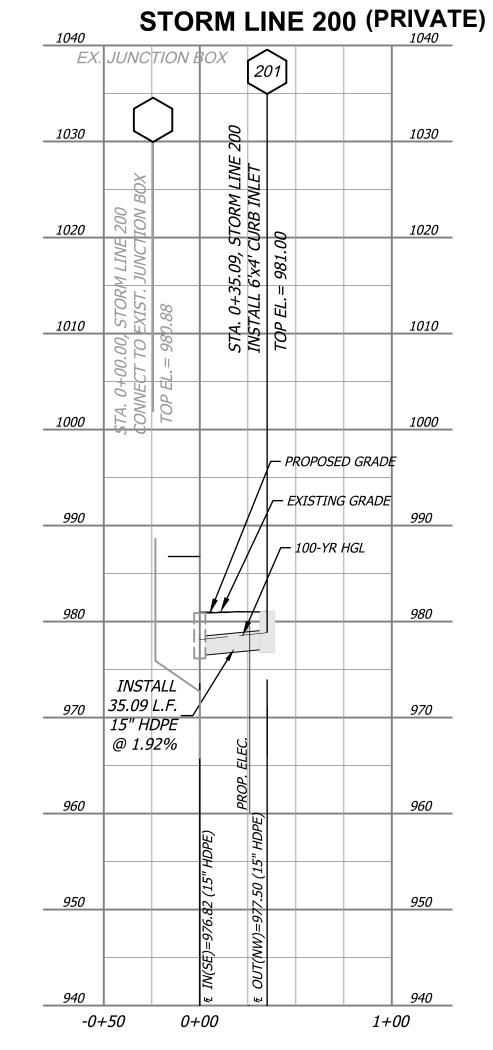
2+00

4+00

*5+00* 

*6+00* 

6+40





PROJECT TITLE



COURTYARDS - BUILDING E

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ENGINEER : ERB	APPROVED: ERB	
NO.	REVISION DESCRIPTION	DAT
1	FDP RESUBMITTAL	2/23/202

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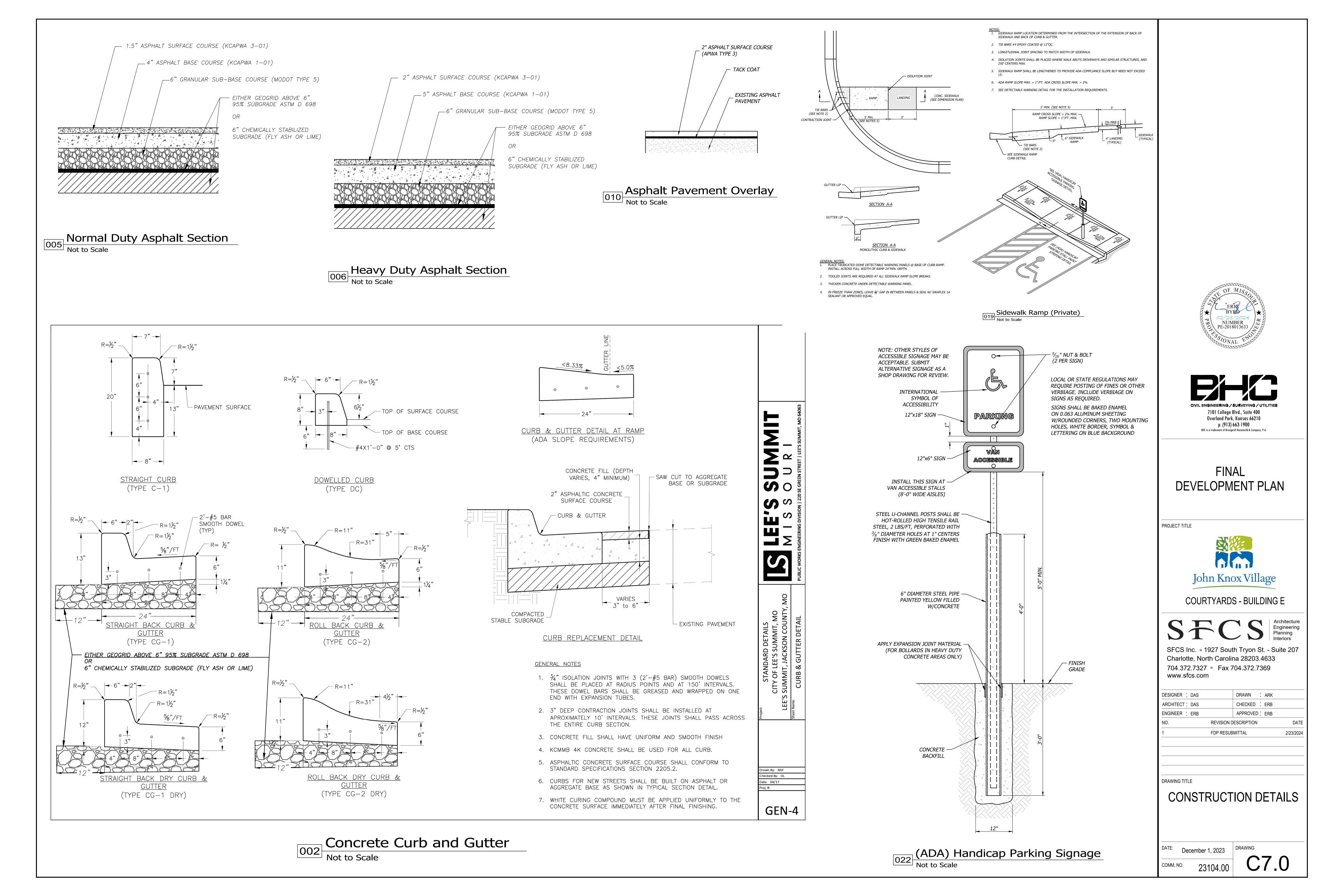
DESIGNER : DAS

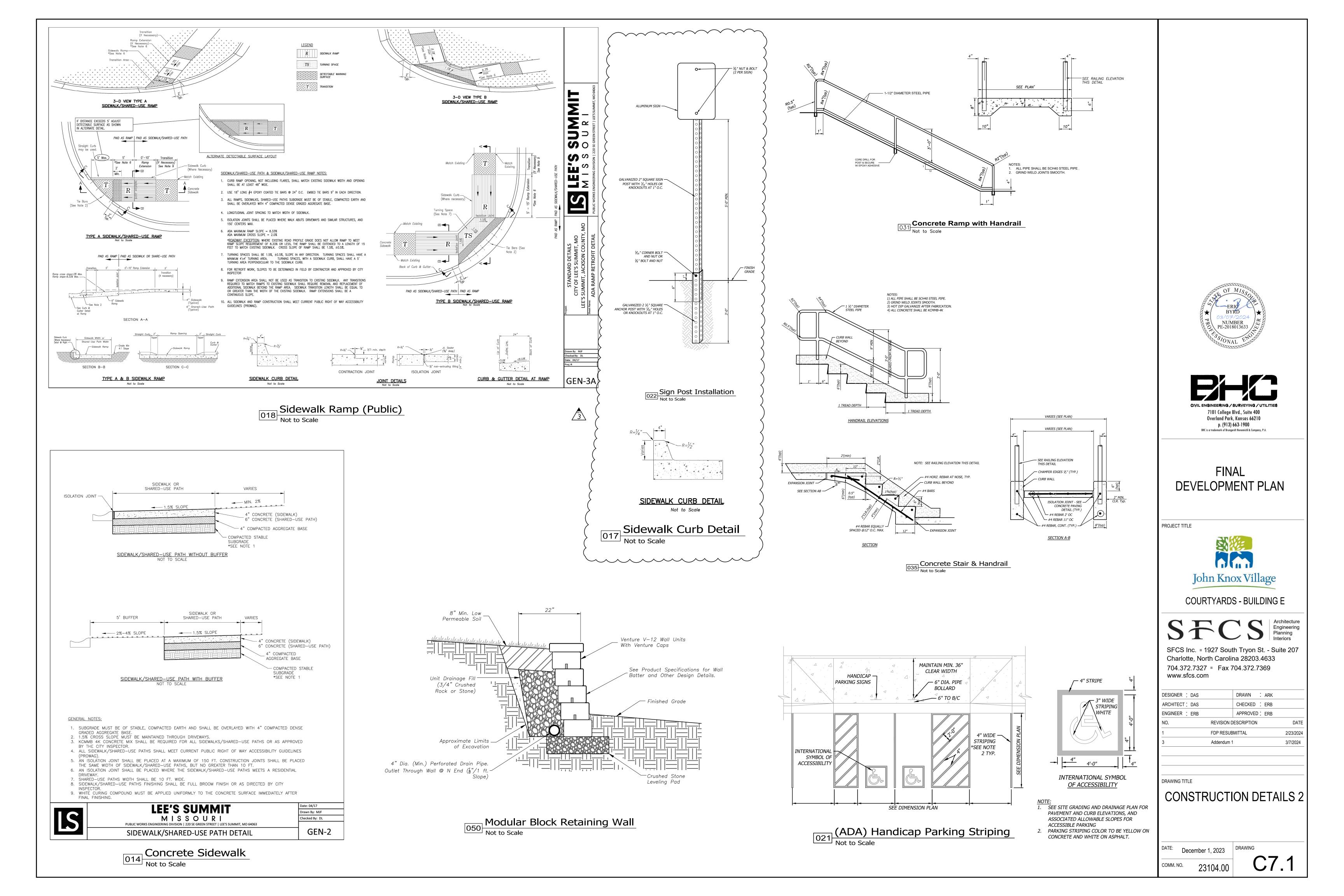
STORM PLAN & PROFILE

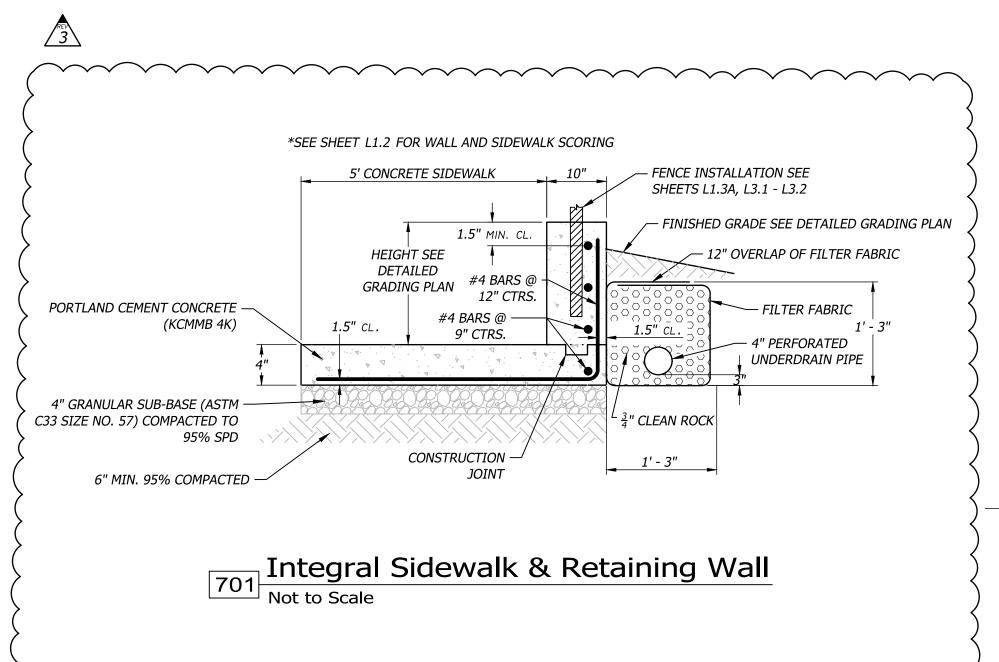
December 1, 2023

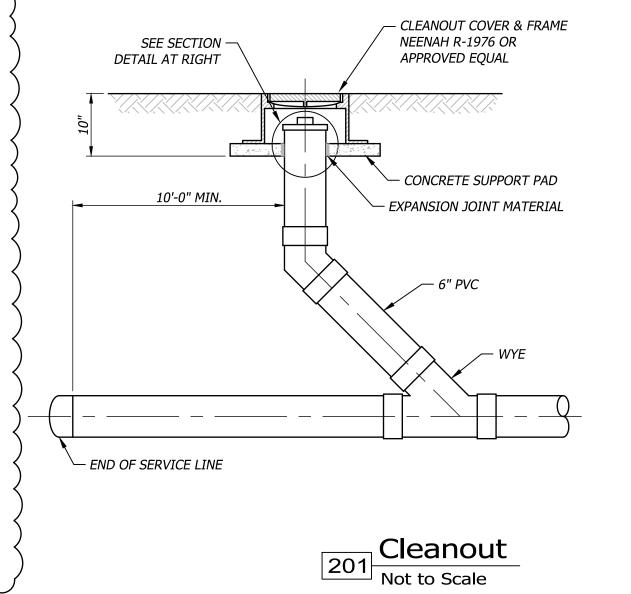
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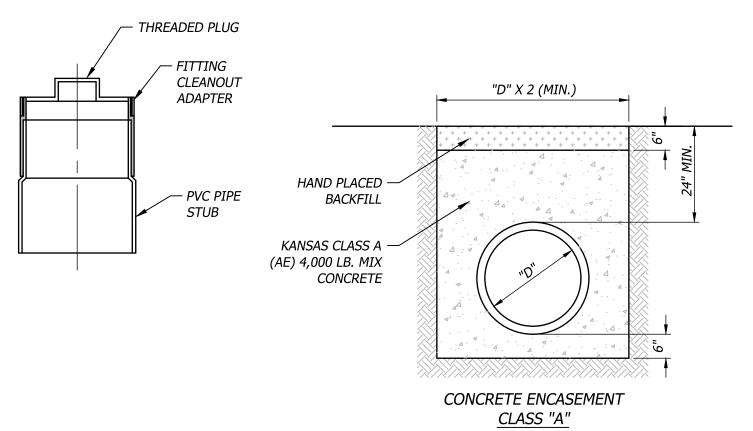
C6.2

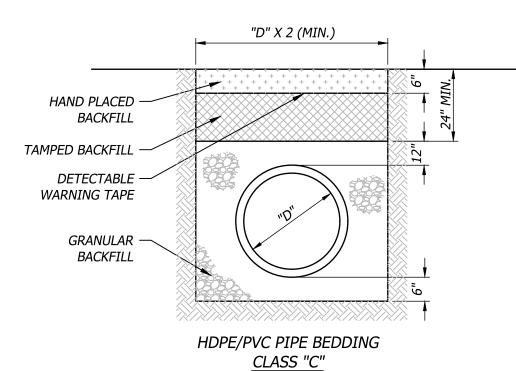


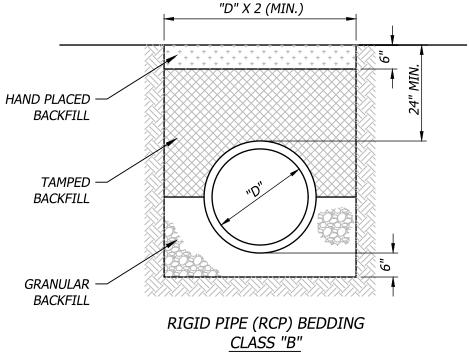












#### NOTES:

- 1. GRANULAR FILL SHALL BE 1/2" CLEAN ROCK OR SAND/GRAVEL BEDDING MEETING KDOT TYPE UD-1, PLACED IN 6" LIFTS AND COMPACTED BY SLICING WITH A SHOVEL.
- 2. TAMPED FILL SHALL BE FINELY DIVIDED, JOB EXCAVATED MATERIAL FREE OF DEBRIS, ORGANIC MATERIAL, AND STONES, COMPACTED TO TYPE AA MR-5 COMPACTION.
- 3. HAND PLACED FILL SHALL BE FINELY DIVIDED MATERIAL, FREE OF DEBRIS AND STONES, COMPACTED TO TYPE AA MR-5 COMPACTION. ALL PIPE SHALL BE INSPECTED PRIOR TO
- 4. ALL PIPE COVERED PRIOR TO INSPECTION SHALL BE UNCOVERED AT THE CONTRACTORS EXPENSE.









PROJECT TITLE



COURTYARDS - BUILDING E



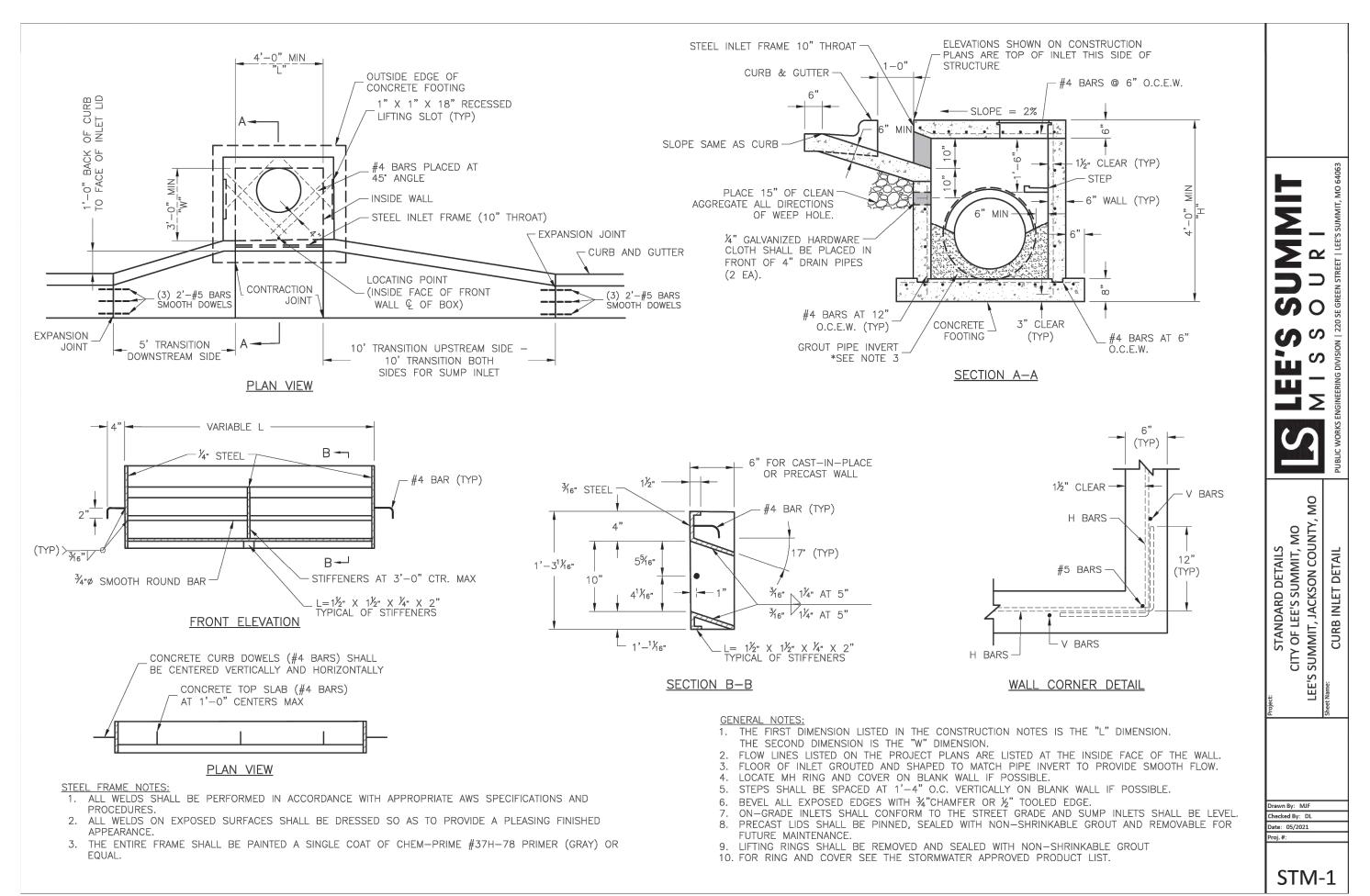
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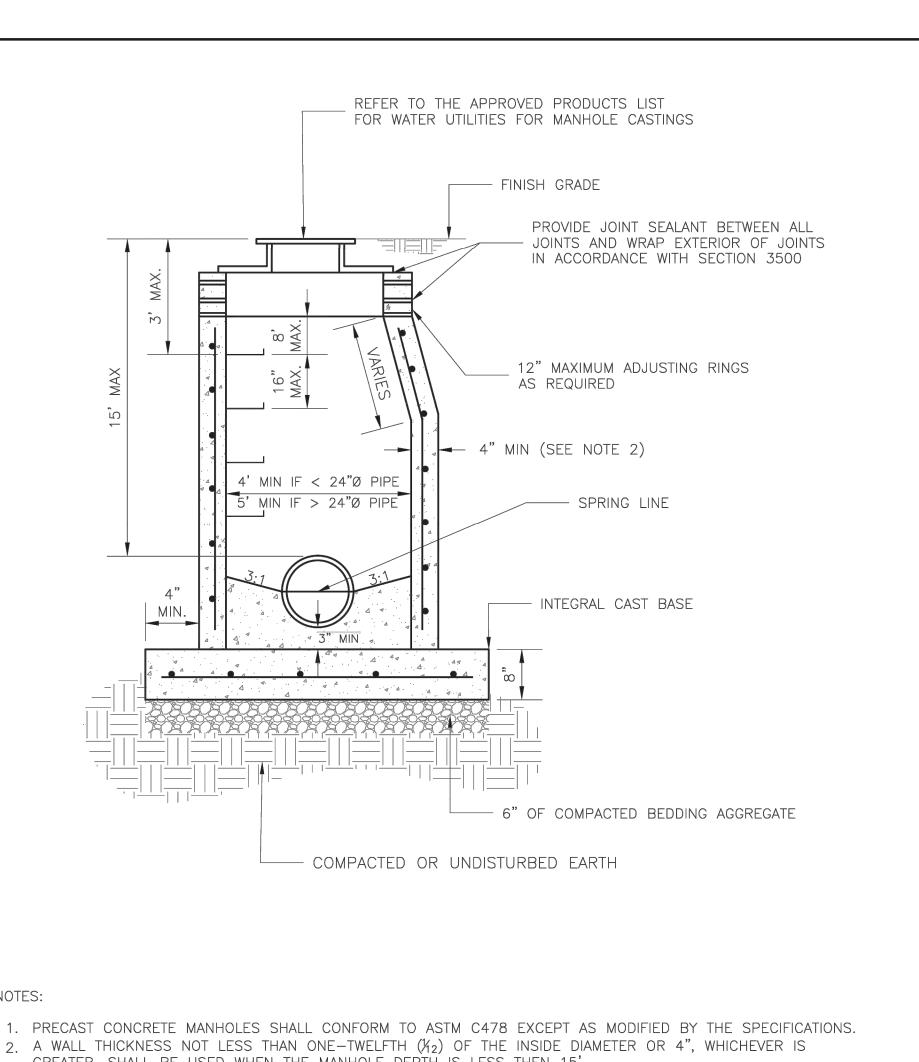
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NO.		REVISION D	ESCRIPTION		DATE
1		FDP RESUE	BMITTAL		2/23/2024
3		Addendum 1			3/7/2024

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CONSTRUCTION DETAILS 3

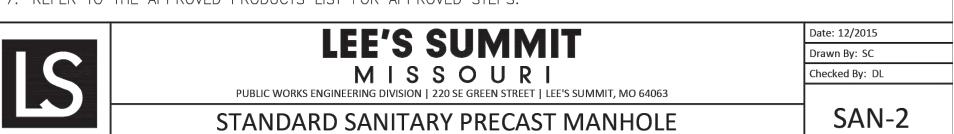
December 1, 2023





#### NOTES:

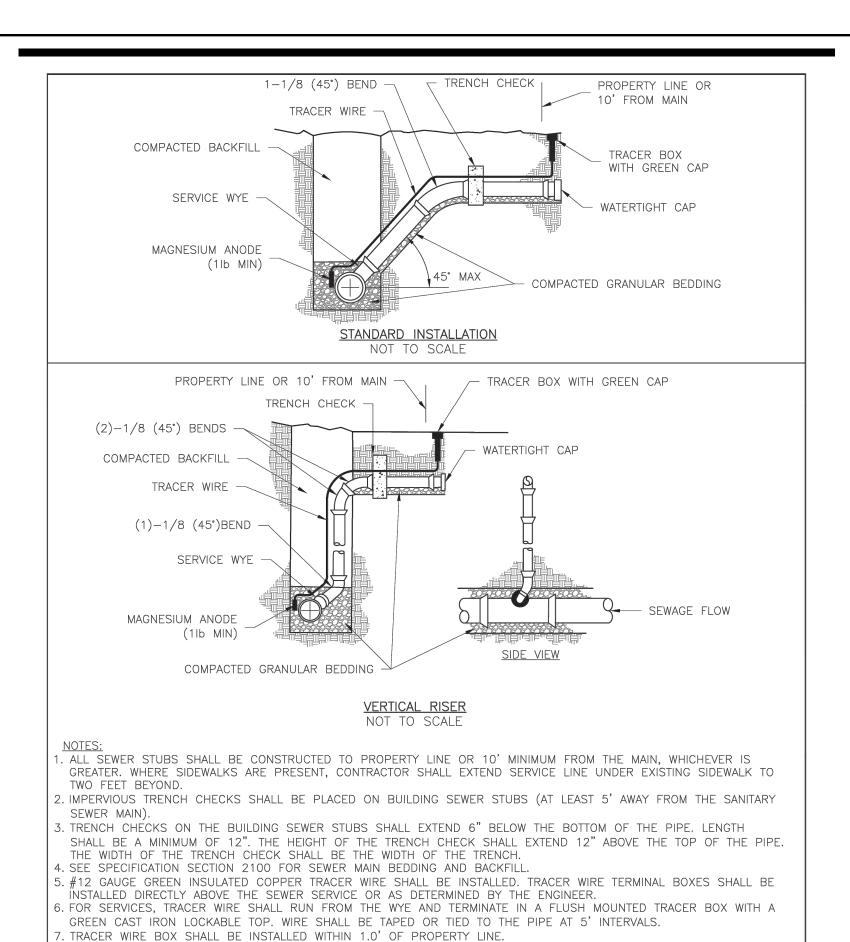
- 1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
- GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'. 3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF
- A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING. 4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
- 6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS. 7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

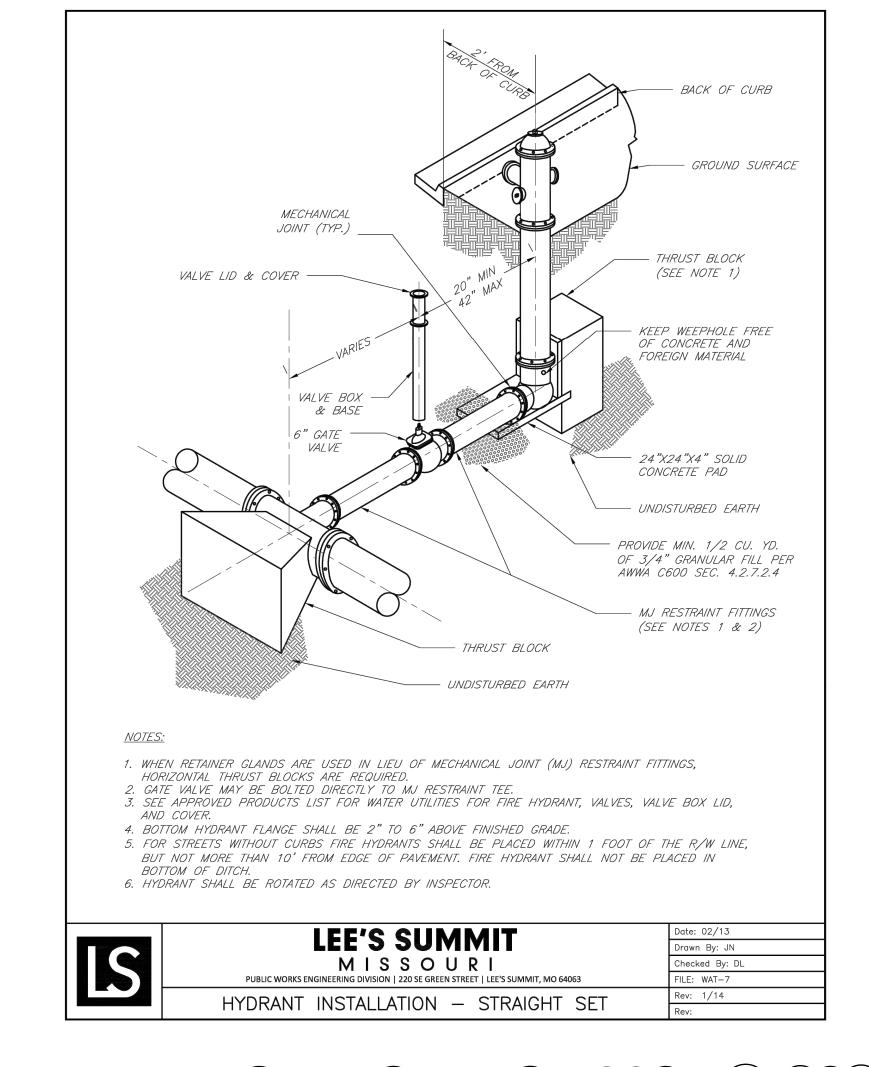


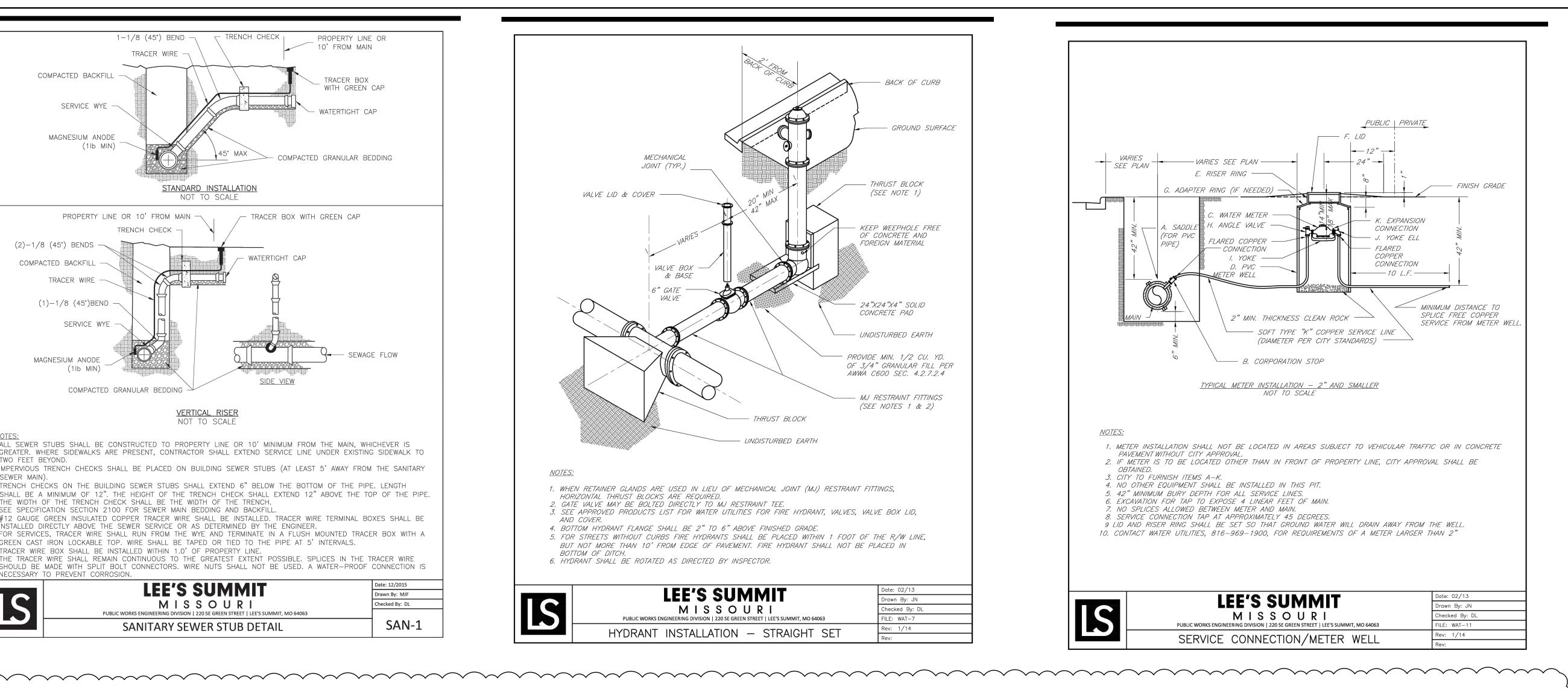
Sanitary Manhole

Not to Scale

₁Curb Inlet → Not to Scale











PROJECT TITLE



COURTYARDS - BUILDING E



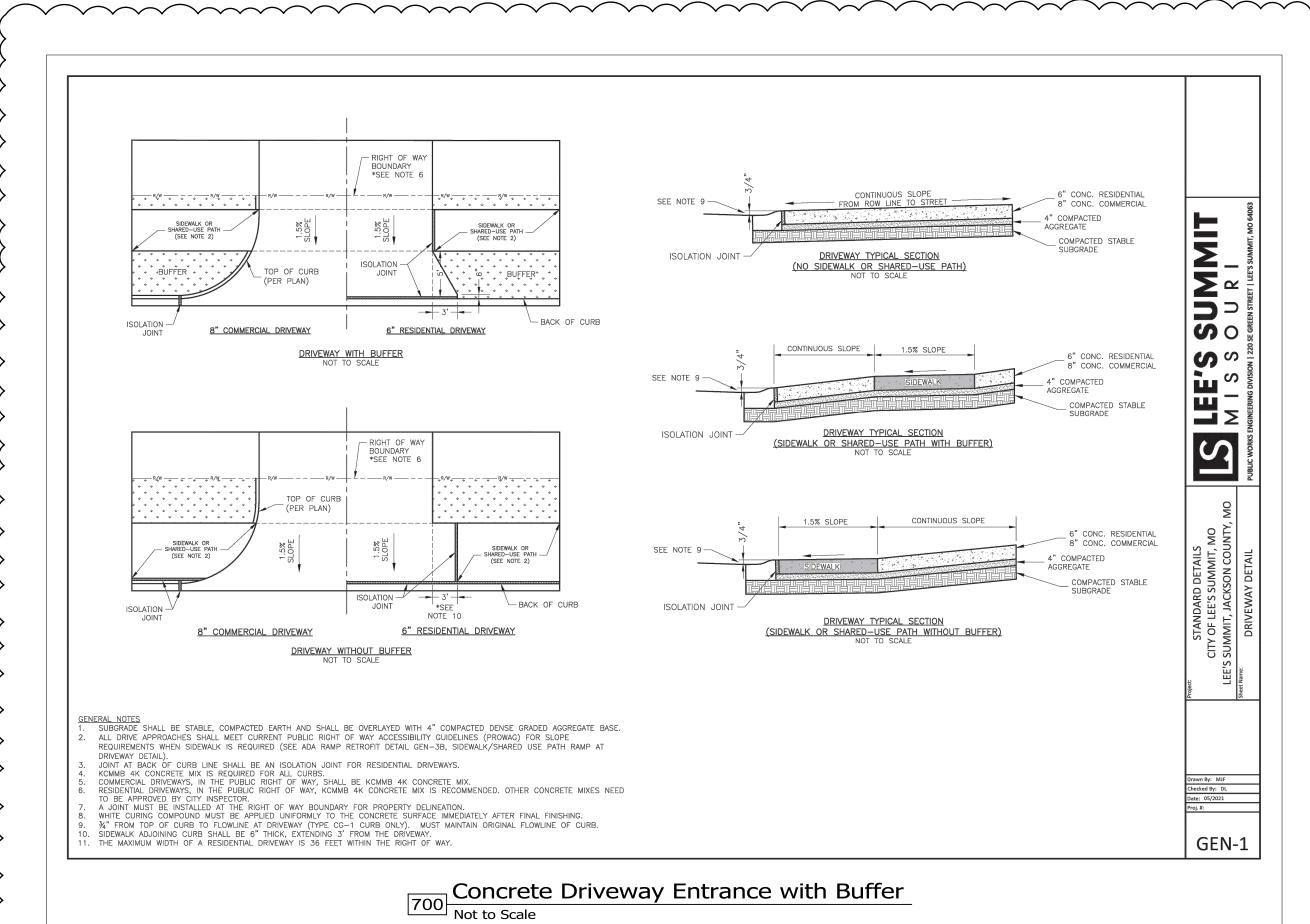
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3	Addendum 1	3/7/2024

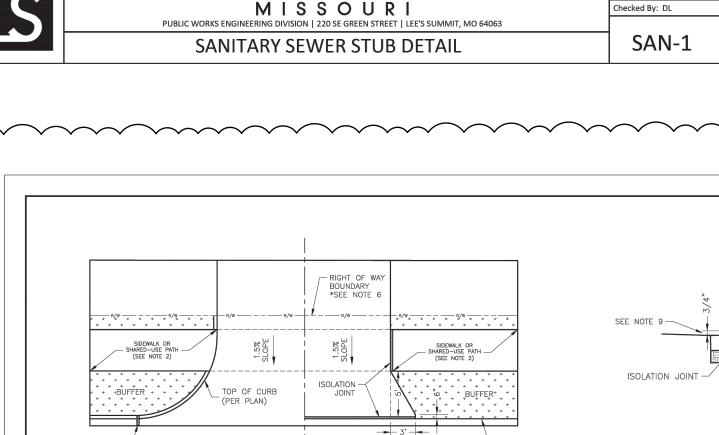
DRAWING TITLE

CONSTRUCTION DETAILS 4

December 1, 2023



Drawn By: MJF

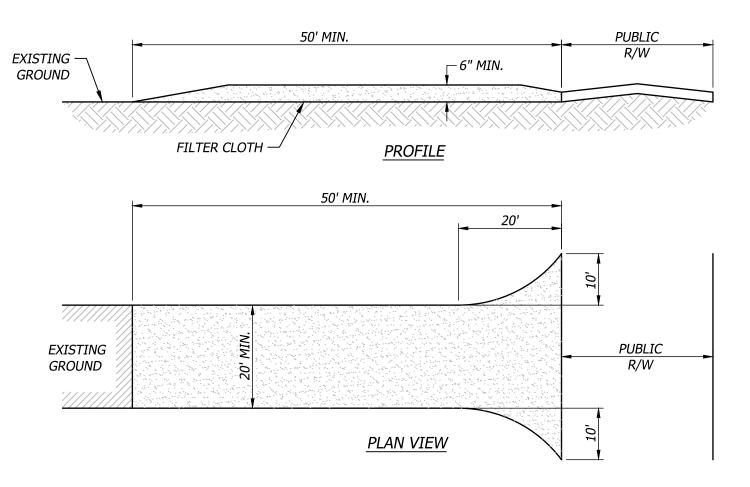


. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE

**LEE'S SUMMIT** 

NECESSARY TO PREVENT CORROSION.

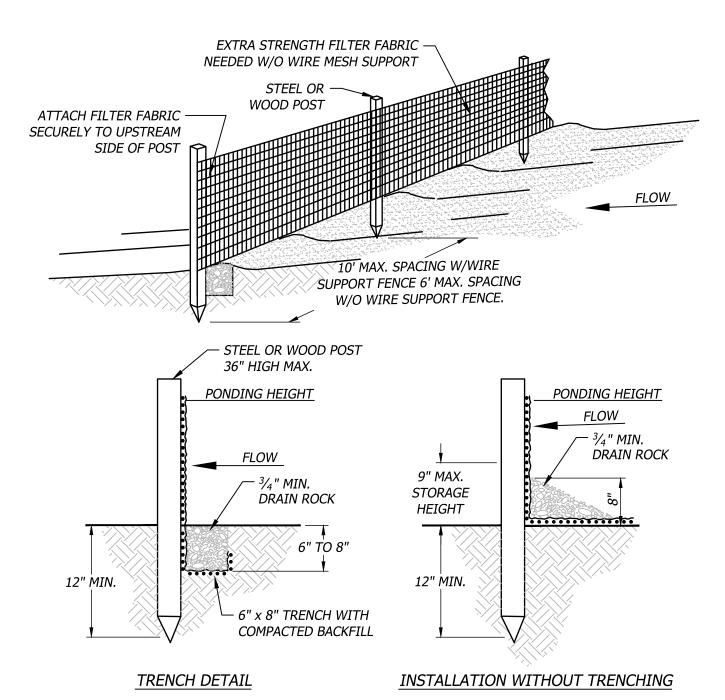
SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS



#### CONSTRUCTION SPECIFICATIONS:

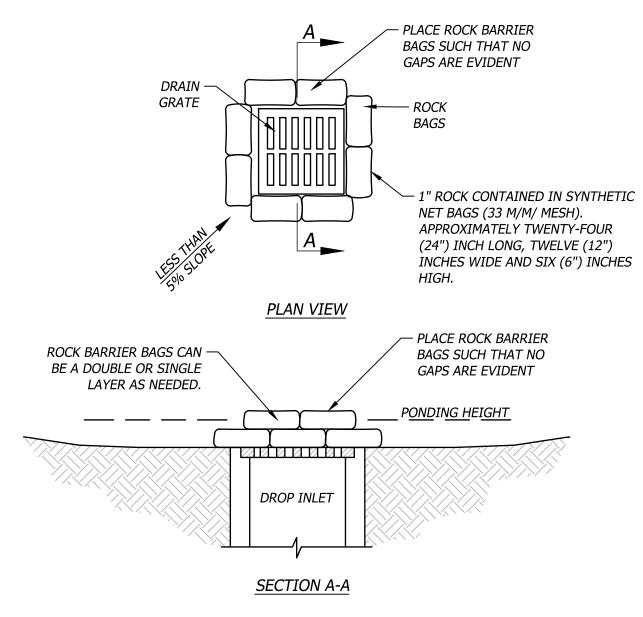
- 1. STONE SIZE USE (2) INCH STONE, OR RECLAIMED OR RECYCLED EQUIVALENT.
- 2. LENGTH AS REQUIRED, BUT NOT LESS THAN (50) FEET.
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES. 4. WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR
- EGRESS OCCURS. 5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 6. SURFACE WATER ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 3:1 SLOPES WILL BE PERMITTED.
- 7. MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9. PERIODIC INSPECTION AS NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.





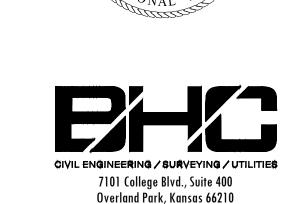
- . MUST BE INSTALLED PROPERLY TO AVOID NOTICE OF VIOLATION.
- SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE POUNDING EFFICIENCY. 3. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
- 4. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

### Filter Fabric Silt Fence



- 1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%.)
- 2. A "REASONABLE" DESIGN SIZE PARTICLE TO CAPTURE MUST BE SELECTED.
- SIZE DISTRIBUTION OF UPSTREAM SOIL PARTICLES MUST BE EVALUATED.
- INFLOW AND OUTFLOW FROM THE SYSTEM FOR A SPECIFIC FREQUENCY STORM MUST BE KNOWN. POND VOLUME IS DIRECTLY PROPORTIONAL TO THE DISCHARGE RATE OF WATER FROM THE SYSTEM.
- 6. POND VOLUME IS INVERSELY PROPORTIONAL TO THE MASS OF THE DESIGN SIZE SUSPENDED PARTICLE.
- 7. A SYSTEM MUST PROVIDE SUFFICIENT FLOW TO ALLOW FOR DEPOSITION OF DESIGN SIZE PARTICLES.
- 8. THE PONDING HEIGHT MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.





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#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



COURTYARDS - BUILDING E



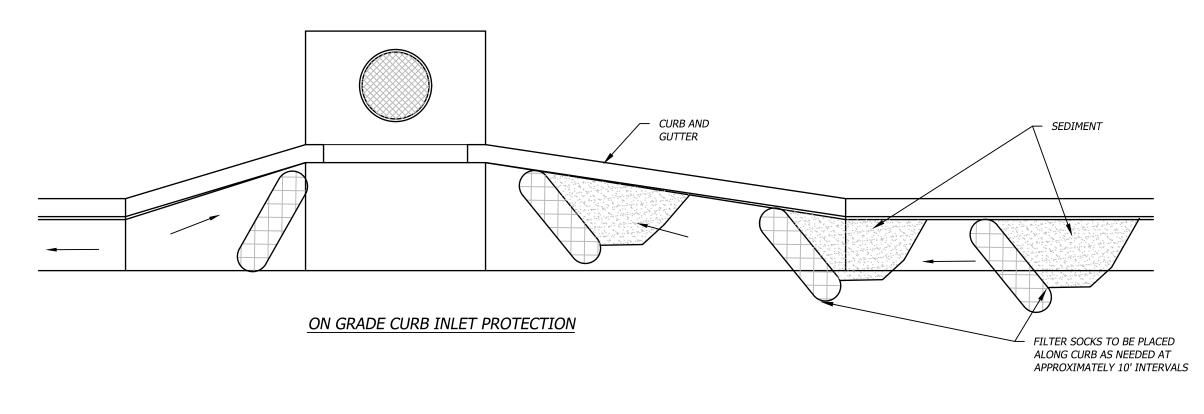
SFCS Inc. • 1927 South Tryon St. - Suite 207 Charlotte, North Carolina 28203.4633 704.372.7327 Fax 704.372.7369 www.sfcs.com

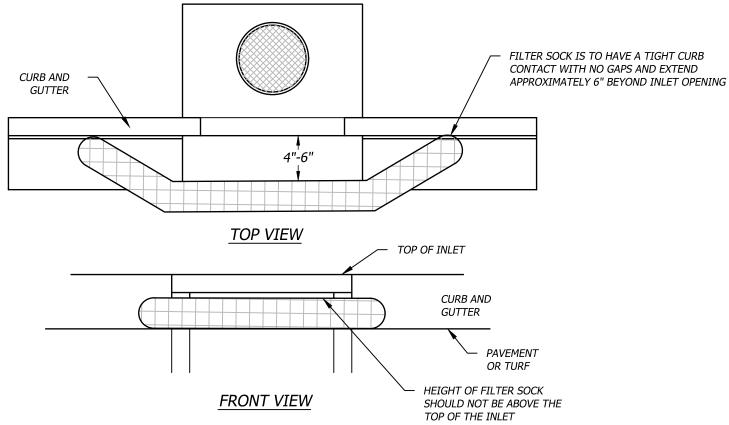
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ARCHITECT: DAS		CHECKED : ERB	
ENGINEER : ERB		APPROVED: ERB	
NO.	REVISION [	DESCRIPTION	DATE
1	FDP RESUE	BMITTAL	2/23/2024

DRAWING TITLE

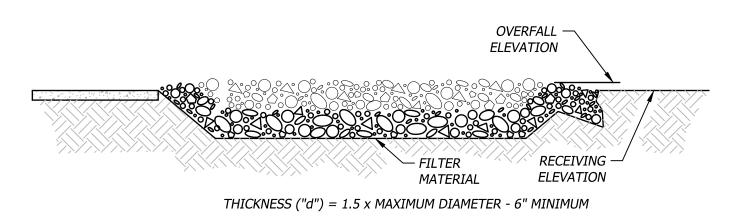
**EROSION CONTROL DETAILS** 

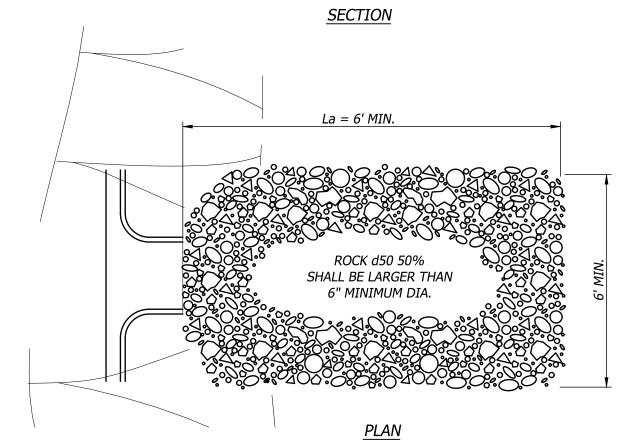
December 1, 2023





SUMP INLET SEDIMENT FILTER





- 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY. APRON SHALL BE AT A ZERO GRADE AND ALIGNED STRAIGHT.
- . FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK MINIMUM GRADED GRAVEL LAYER.
- 4. SIDE SLOPES SHALL BE 4:1 UNLESS NOTED OTHERWISE. 5. ROCK SHALL CONFORM TO MODOT SECTION 1114.2(b) STONE FOR AGGREGATE DITCH LINING.

Concrete Washout

#### TREE PROTECTION & REMOVAL NOTES

#### **GUIDELINES:**

- 1. Tree Caliper (TrCa) shall be documented at the outset of construction activities. TrCa measurement shall follow standards found in "Timber Cruising Handbook," chapter 10 produced by the U.S. Forest Service.
- 2. Tree Protection Zone (TPZ) is to be calculated and clearly marked around each Existing Trees to Remain (ExTR) prior to construction. The TPZ is 1.5 feet away in radial distance from the tree trunk for every inch in Tree Caliper. (example: 28" TrCa x 1.5 = 42' TPZ)
- 3. Within the TPZ, critical areas such as flood plains and steep slopes should be left in their pre-construction condition.
- 4. Tree protection & preservation provides proactive management of ExTR throughout construction and other activities that may adversely affect ExTR and to manage and minimize damage from construction practices. Tree maintenance shall be performed only be an ISA Certified arborist who is familiar with the practices and hazards of aboriculture and equipment used in such operations.
- 5. Out the outset of construction, all trees indicated for removal shall have their trunks marked with bright orange paint on all visible sides.

#### TREE PROTECTION MEASURES:

- 1. Temporary Fencing: Install temporary fencing around tree protection zones (TPZ) to protect Existing Trees to Remain (ExTR) from construction damage. Maintain temporary fence and remove when construction is complete. Fencing should be the last item removed after completion of project. This fencing will be erected at the TPZ for each ExTR. Fencing shall comply with 02/L0.3. Fencing will be rigidly supported and maintained during all construction periods at the detailed minimum height above grade.
- 2. Laminated signs stating "No Entry, Tree Protection Area" in both English and Spanish are to be posted at thirty foot (30') intervals or on all four (4) cardinal sides--whichever is greater.
- 3. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials.
- 4. Protect root systems from ponding, eroding, or excessive wetting caused by watering
- 6. Do not store construction materials, debris, or excavated material inside tree protection zones.
- 7. Do not permit vehicles or foot traffic within TPZs; prevent soil compaction over root systems.
- 8. Maintain TPZs free of weeds and trash.

#### TREE PRUNING:

- 1. Trees to remain that are affected by temporary and permanent construction shall be pruned according to current ANSI A300 pruning standards.
- 2. Trees to remain shall be pruned by an ISA Certified arborist to remove dead limbs, to achieve a more uniform appearance, and to keep them in a healthy state throughout construction proceedings.

#### **EXCAVATION:**

- 1. Do not excavate within tree protection zones, unless otherwise indicated and approved. Before excavation, pad preparation, or grading for foundations, footings, walls, or trenching, relevant trees shall be root pruned 1 foot outside the tree protection zone as described below
- 2. Where excavation for new construction is required within tree protection zones and approved hand prune or utilize root pruning techniques described below prior to excavation.
- 3. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with organic material and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.
- 4. Where utility trenches are required near tree protection zones, tunnel under or around roots by drilling, auger boring, pipe jacking, or digging by hand around individual roots to mitigate damage to the root system and tree. A Supersonic Air tool (air spade) can also be used safely to open trenches without severing roots. See 03/L0.3.
- 5. Root Pruning: where required and approved, shall be done mechanically with a root pruning machine, vibratory plow, or with a narrow trencher with sharp blades. Once a trench is opened up, all exposed roots will be hand pruned to provide clean-cut ends. Do not cut main lateral roots or buttress roots; cut only smaller roots that interfere with installation of utilities. Cut roots with sharp pruning instruments; do not break or pull with backhoe or similar equipment. DAMAGE MITIGATION AND REPLACEMENT:
- 1. Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to arborist's written instructions.
- 2. Remove and replace trees indicated to remain that die or are damaged during construction operations that the arborist determines are incapable of restoring to normal growth pattern.
- 3. Provide new trees of caliper size and species selected by owner when damaged trees are required to be replaced. Plant and maintain new trees as specified.
- 4. Aerate surface soil, compacted during construction, 10 feet beyond the drip line and no closer than 36 inches to the tree trunk using vertical mulching techniques or radial aeration techniques as instructed by Landscape Architect.

#### **DISPOSAL OF WASTE MATERIALS:**

1. Remove excess excavated material and displaced tree's from owner's property and dispose according to City guidelines.

#### TREE REPLACEMENT:

1. In the event that a tree or trees designated for preservation are severely damaged, destroyed or removed, they shall be replaced upon notice by the Landscape Architect at the rates agreed upon.

#### **EXTERIOR IRRIGATION SYSTEM SPECIFICATION**

- A. System Design and Performance Requirements
  - 1. Provide an automatic, electrically-and centrally-controlled irrigation system for all new planting areas, unless otherwise directed by Owner's Representative.
  - 2. The irrigation system should be designed to provide complete coverage and prevent overspray on paving and adjacent structures.
  - Irrigation Contractor must provide an irrigation design for the irrigation lines, sprinkler heads, and drip emitters. The irrigation designer must determine and document the existing water pressure and flow available at each hookup location.
  - Drip systems are encouraged in planting beds.
  - Pop-up type sprinkler heads are required.
  - Base sprinkler selection and spacing on a wind velocity of 10 mph.
  - Provide a soil moisture sensor for all systems.
  - 8. Before starting construction, submit a design drawing to Landscape Architect for review and approval.
- B. Submittals: Submit the following design and construction documents to Landscape Architect. **Design Documents** 
  - a. Provide record drawings showing the location and type of all lines, heads, and valves. Use the site landscape drawing background as a base drawing to complete the record drawings. In addition, provide a reduced plan set to be left at the irrigation controller.
  - b. Before starting construction, Irrigation Contractor must submit a list of irrigation systems designed by their irrigation designer over the last five years.
  - Construction Documents
    - a. Before starting construction, submit:
      - A list of materials
      - Manufacturer specifications and installation procedures
    - Flow and test reports
    - b. Provide the following operation and maintenance documentation:
    - A watering log (left at the irrigation controller)
    - A list of the closed suppliers for all heads, valves, and the irrigation system
    - Two copies of an operational manual (submit upon project completion)

#### C. Product Standards

1. Provide Owner's Representative with a product guarantee for the valves, heads, and drip lines used on the project.

#### D. Materials

- All exterior irrigation pipe and fittings must be Class 200-DR 21 polyvinyl chloride (PVC) water pipe, extruded from virgin parent material, that conform to ASTM 2241 standards.
- 2. All sprinkler heads must be:

  - Industrial-grade
  - Full or adjustable, part-circle rotary pop-up, with a single or double nozzle • Driven by a hydraulic turbine-type motor or oscillating impact-type drive
  - Hydraulic valve-in-head model, normally closed
- Automatic remote control valves must be electric solenoid-type, with globe screwed patterns, using 24 VAC, 60 Hz power with a running current of 2 W. The valve solenoids must be completely epoxy-encapsulated for positive waterproofing and must include a stainless steel shunt band. The valves must open and close slowly (in not less than 5 seconds) by means of a potential fluid resistor to avoid damage or surge pressures. All wiring in PVC conduits.
- The automatic controller must be capable of 14-day programmability, with infinite timing from 0 to 60 seconds on each station, and no time lag between stations. The controller must be UL-listed, with a plug-in transformer using 115 VAC to 24 V circuit breaker protection. The cabinet must be lockable and waterproof.

#### E. Special Requirements

- 1. Booster pumps may be required when the existing water pressure and flow will not operate the irrigation system properly.
- 2. All irrigation systems must have a water meter from the Lee's Summit, Missouri, installed on the water service line inside the building. The purchase of the meter must be part of the Irrigation Contractor's bid.
- 3. Provide an air connection (for blowing out the system) and a backflow preventer on all irrigation systems.

#### F. Preparation

1. If existing water to a building will be shut down to provide water for the irrigation system, the Irrigation Contractor, in conjunction with the Owner's Representative, must prepare a shutdown procedure document before starting construction that outlines scheduling and notification requirements.

#### **Installation Guidelines**

- 1. Where possible, provide a uniform pipe bedding of suitable on-site material. If suitable material is not available, backfill the trench with sand. Using a material similar to the bedding, backfill the entire trench width evenly in 6" lifts to 6" above the top of the pipe. Compact the lifts to at least a 95% Standard Proctor density, meeting ASTM D1556 standards at optimum moisture (or as recommended by the soils engineer). Backfill the remaining trench in lifts not to exceed 12" up to the sub-grade height for the surface condition encountered. Compact the lifts to a 95% Standard Proctor density, meeting ASTM D1556 standards at optimum moisture (or as recommended by the soils engineer). Backfilling and compacting above the subgrade must be determined by the soils engineer or by the recommended paving design for the project.
- 2. Bury pressure irrigation lines at a minimum depth of 18". Bury non-pressure lines at a minimum depth of 12".

#### H. Quality Control

- 1. Work on exterior irrigation systems must conform to the following quality control standards.
  - a. Testing Laboratory: Owner's Representative and/or General Contractor will retain the services of a qualified, independent testing laboratory to perform soil compaction tests, as directed, during construction.

- b. Testing Methodology and Extent: Conduct a coverage test when the sprinkler system is completed.
- Cleaning and Adjusting
  - With the participation of Owner's Representative personnel, the system must be operated before acceptance by Owner's Representative.
- Startup and Training
  - Irrigation Contractor must operate the irrigation system with Owner's Representative maintenance staff present to observe its operation.

LANDSCAPE LINETYPES & SYMBOLS LEGEND

STREETSCAPE PLANTING SETBACK

CONCRETE CONTROL JOINT

CONCRETE EXPANSION JOINT

PROPOSED MAJOR CONTOUR

PROPOSED MINOR CONTOUR

EXISTING MAJOR CONTOUR

**EXISTING MINOR CONTOUR** 

LANDSCAPE SET ABBREVIATIONS

**PVC** 

LIMIT OF DISTURBANCE

—— ₱—— TREE PROTECTION FENCING

MATCHLINE: SEE VIEW/SHEET — MATCHLINE

Limits of Disturbance

**Tree Protection Zone** 

Clear (Face to Face)

Tree Caliper / Stem Diameter

Existing Tree(s) to Remain

Standard Proctor Density

Point of Beginning

On Center

Typical

Similar

Quantity

**Approximate** 

Equal

With

L.O.D.

P.O.B.

ExTR

O.C.

Clr.

TYP.

EQ.

QTY.

----- VIEW ENLARGEMENT

Irrigation Contractor must adjust the system over a preventative maintenance period of 90 days and guarantee the system for one year upon acceptance of the system by Owner's Representative.





#### **FINAL DEVELOPMENT PLAN**

John Knox Village

**COURTYARDS - BUILDING E** 

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Charlotte, North Carolina 28203.4633

704.372.7327 Fax 704.372.7369

www.sfcs.com DESIGNER : ERDM DRAWN : ERDM

ARCHITECT: DAS		CHECKED : ADM	
ENGINEER : ERB		APPROVED: CDW	
NO.	REVISION D	ESCRIPTION	DAT
1	FDP RESUB	BMITTAL	2/16/202

RAWING TITLE

**EXISTING PLANT TO** 

BE REMOVED WITH

**APPROXIMATE** 

**EXISTING PLANT** 

**APPROXIMATE** 

CALIPER SIZE

**Volts Alternating Current** 

Watts

Inches

Diameter

Degrees

Centerline

Feet

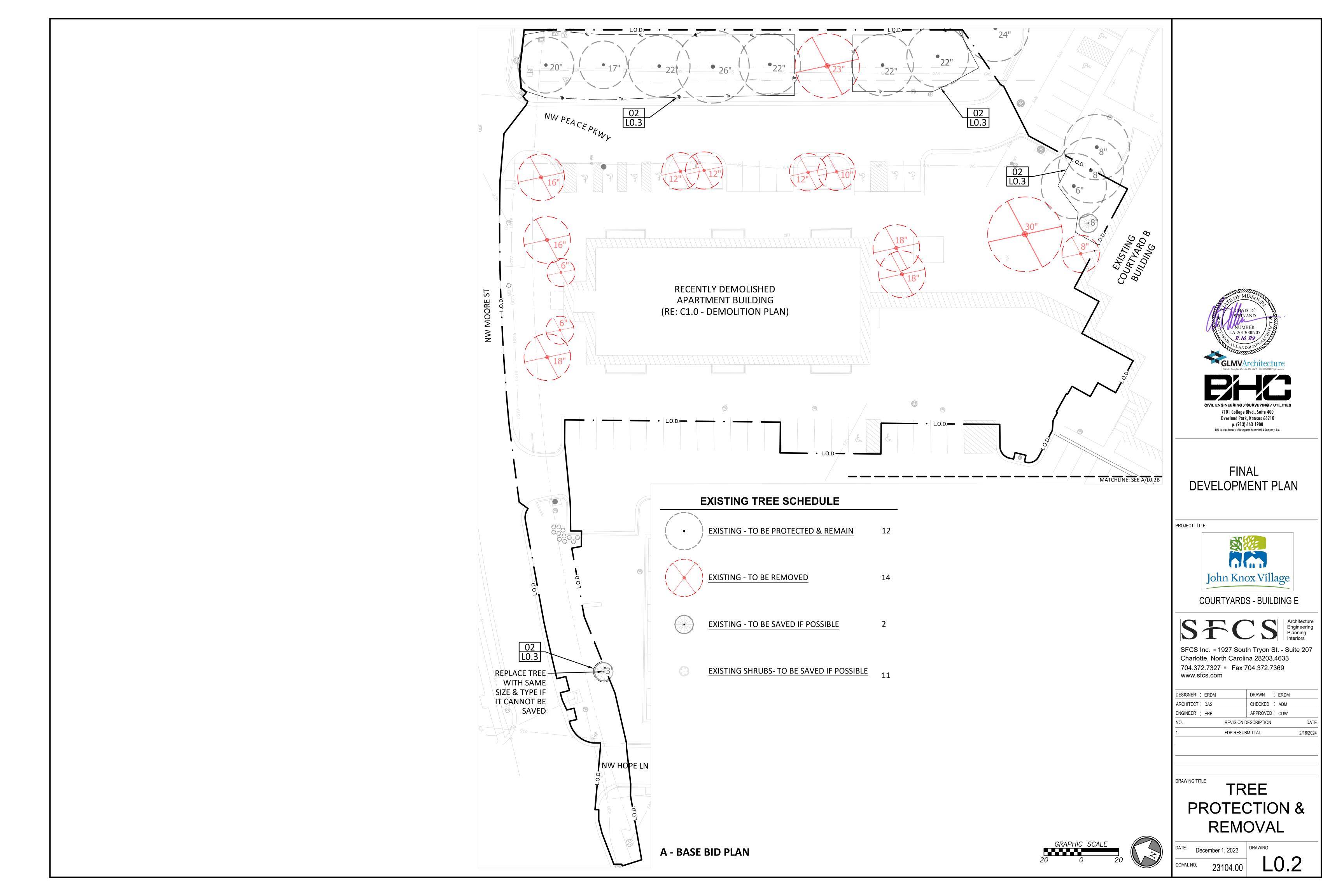
Polyvinyl Chloride

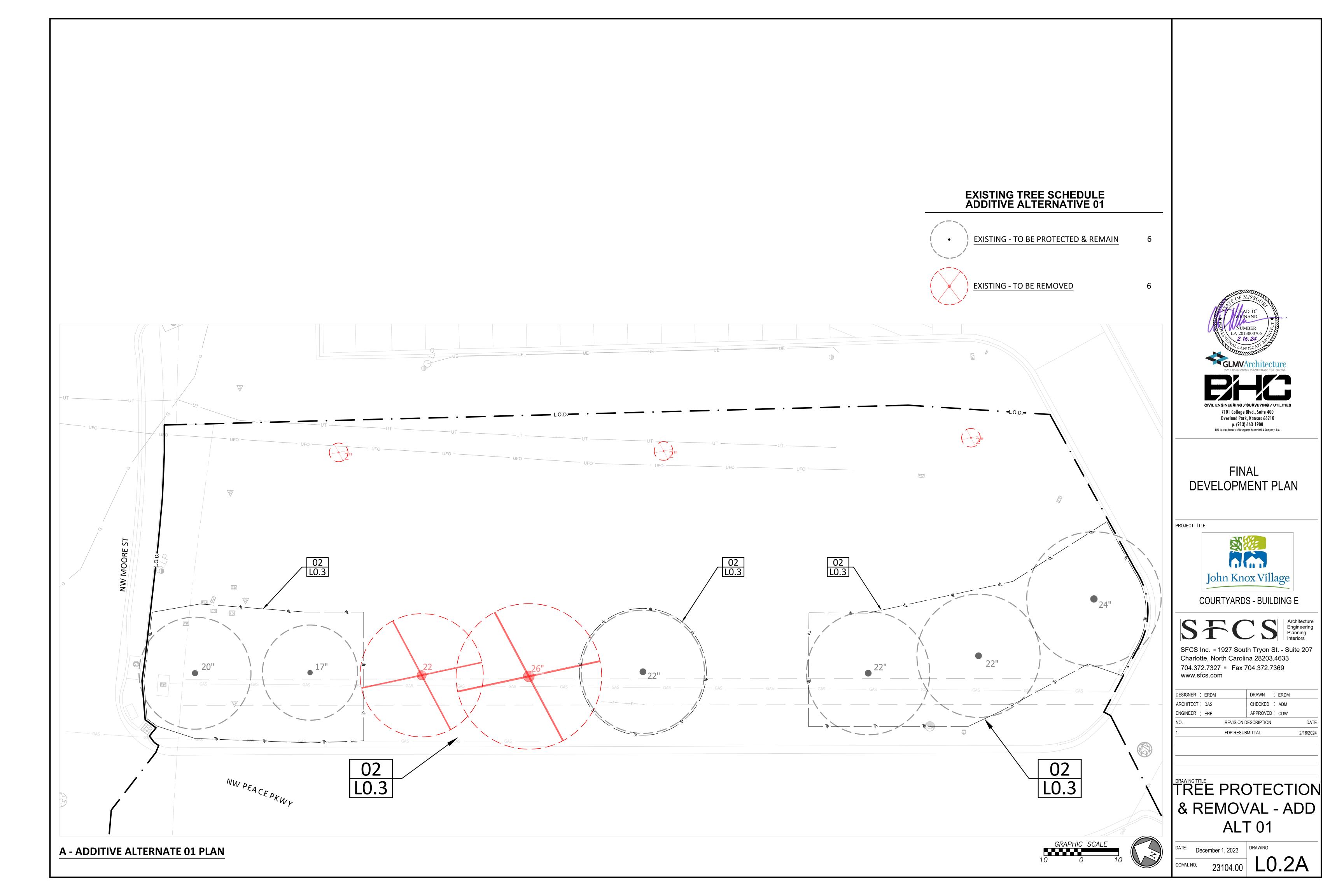
Hertz (standard unit of frequency)

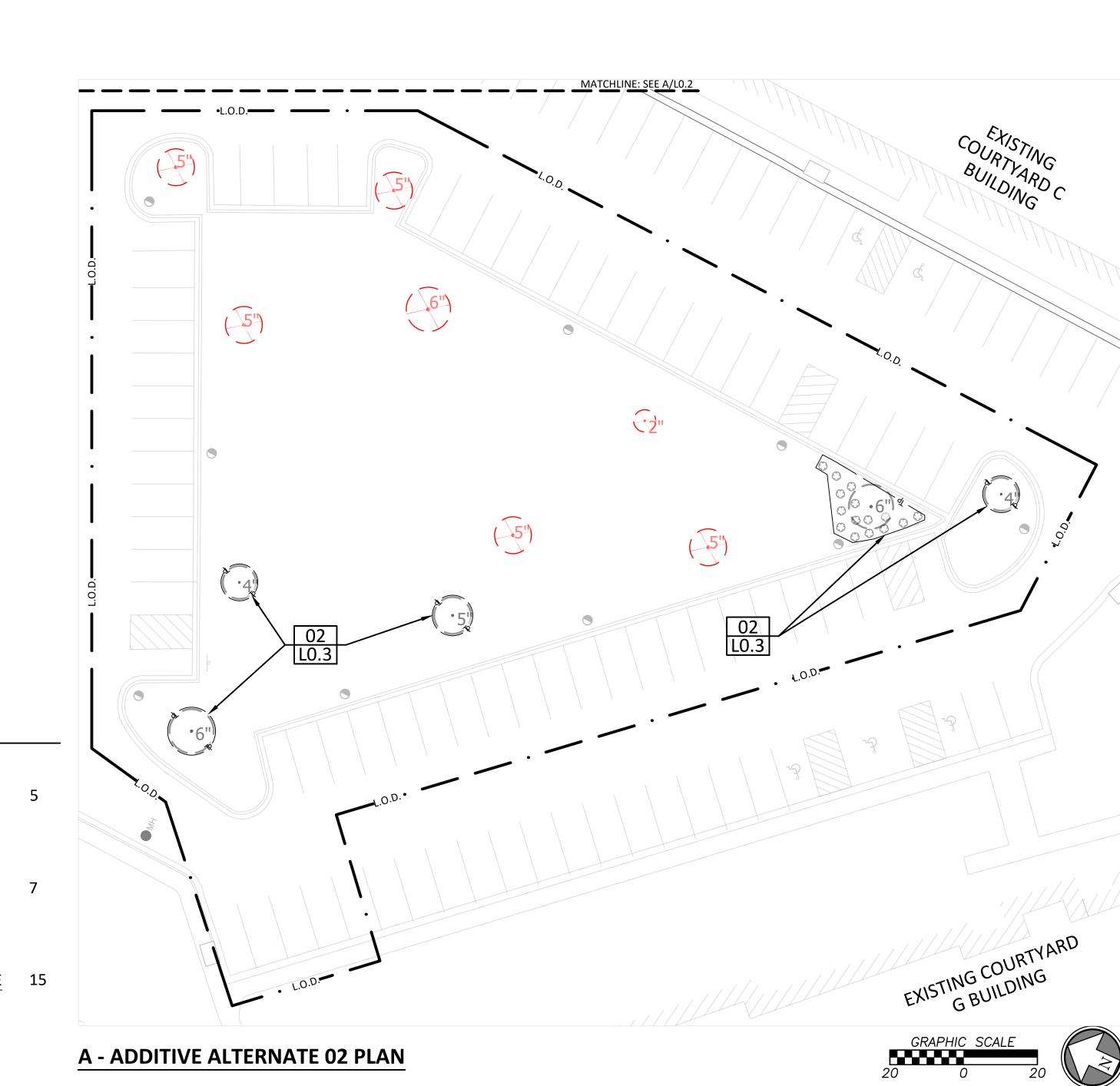
TO REMAIN WITH

CALIPER SIZE

LANDSCAPE PLAN **NOTES** 









PROJECT TITL



COURTYARDS - BUILDING E

STCS
Architectur
Engineerin
Planning
Interiors

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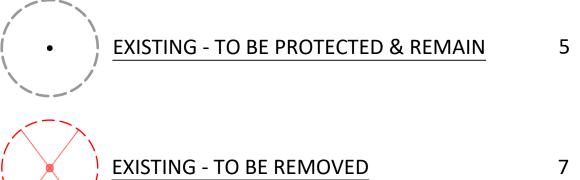
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ARCHITECT: DAS		CHECKED	: ADM	
ENGINEER : ERB		APPROVED	): CDW	
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				_

TREE PROTECTION
& REMOVAL - ADD
ALT 02

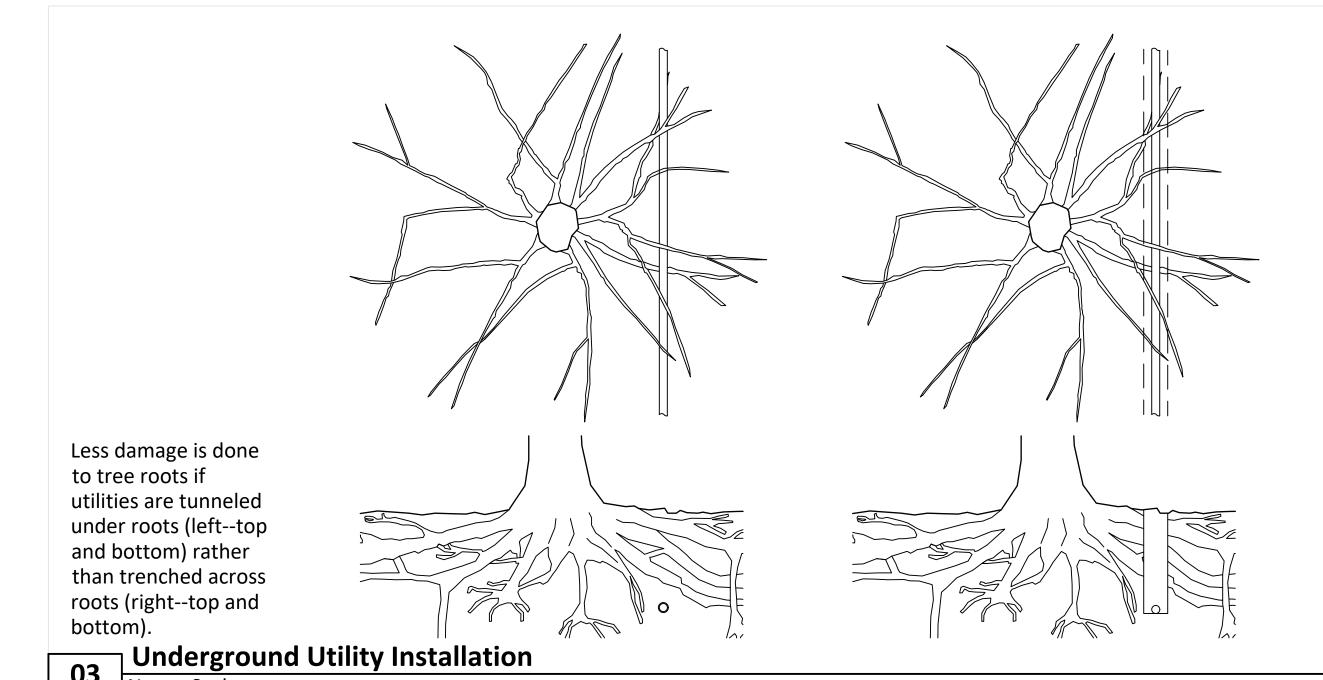
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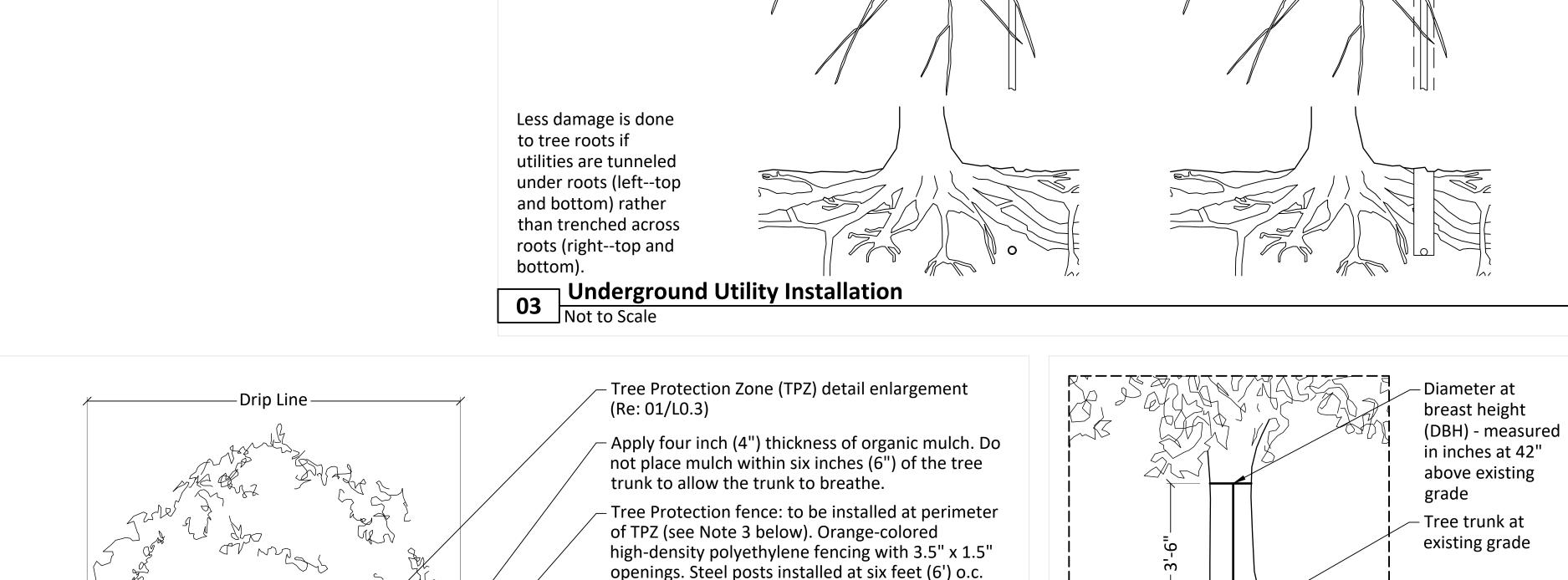
LO.2B

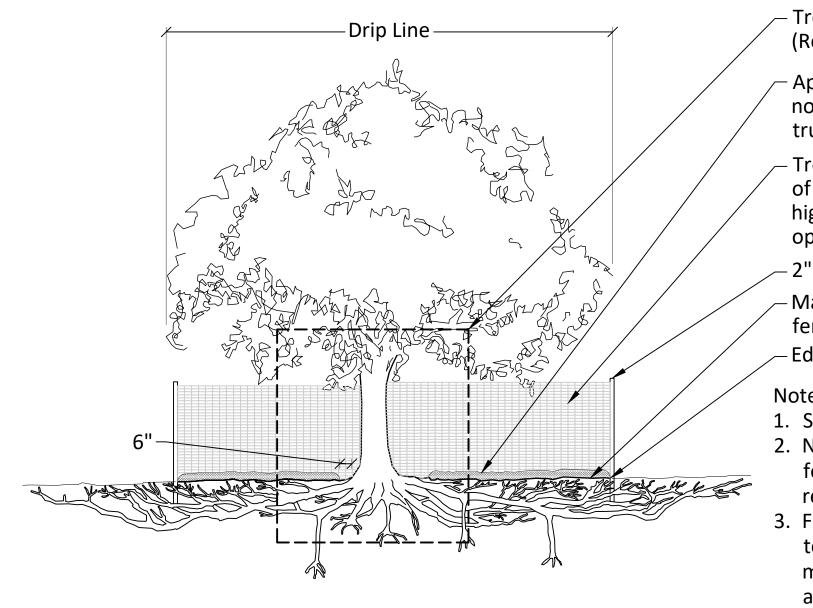
## EXISTING TREE SCHEDULE ADDITIVE ALTERNATIVE 02



EXISTING SHRUBS- TO BE SAVED IF POSSIBLE 15





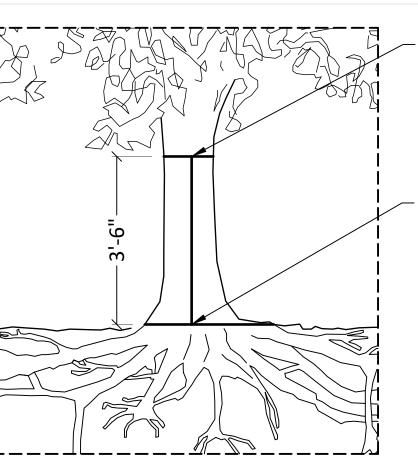


**¬ Tree Protection Barrier** 

high-density polyethylene fencing with 3.5" x 1.5" openings. Steel posts installed at six feet (6') o.c.

- 2"Ø steel posts or approved equal
- Maintain existing grade within the tree protection fence unless otherwise indicated on the plans.
- Edge of Tree Protection Zone

- 1. See L0.1 for additional information.
- 2. No equipment shall operate inside the protective fencing including during fence installation and removal.
- 3. Fencing to be joined together at the edge of CRZs to form larger areas where groupings of plant material exists (Re: L0.2, L0.2A, & L0.2B for approximate layout)



TPZ Formula: DBH x 1.5 = X feet  $\emptyset$ 

Example: DBH = 20" 20 x 1.5 = 30' Ø TPZ

**¬ Tree Protection Zone** 

Not to Scale



#### FINAL DEVELOPMENT PLAN

PROJECT TITLE

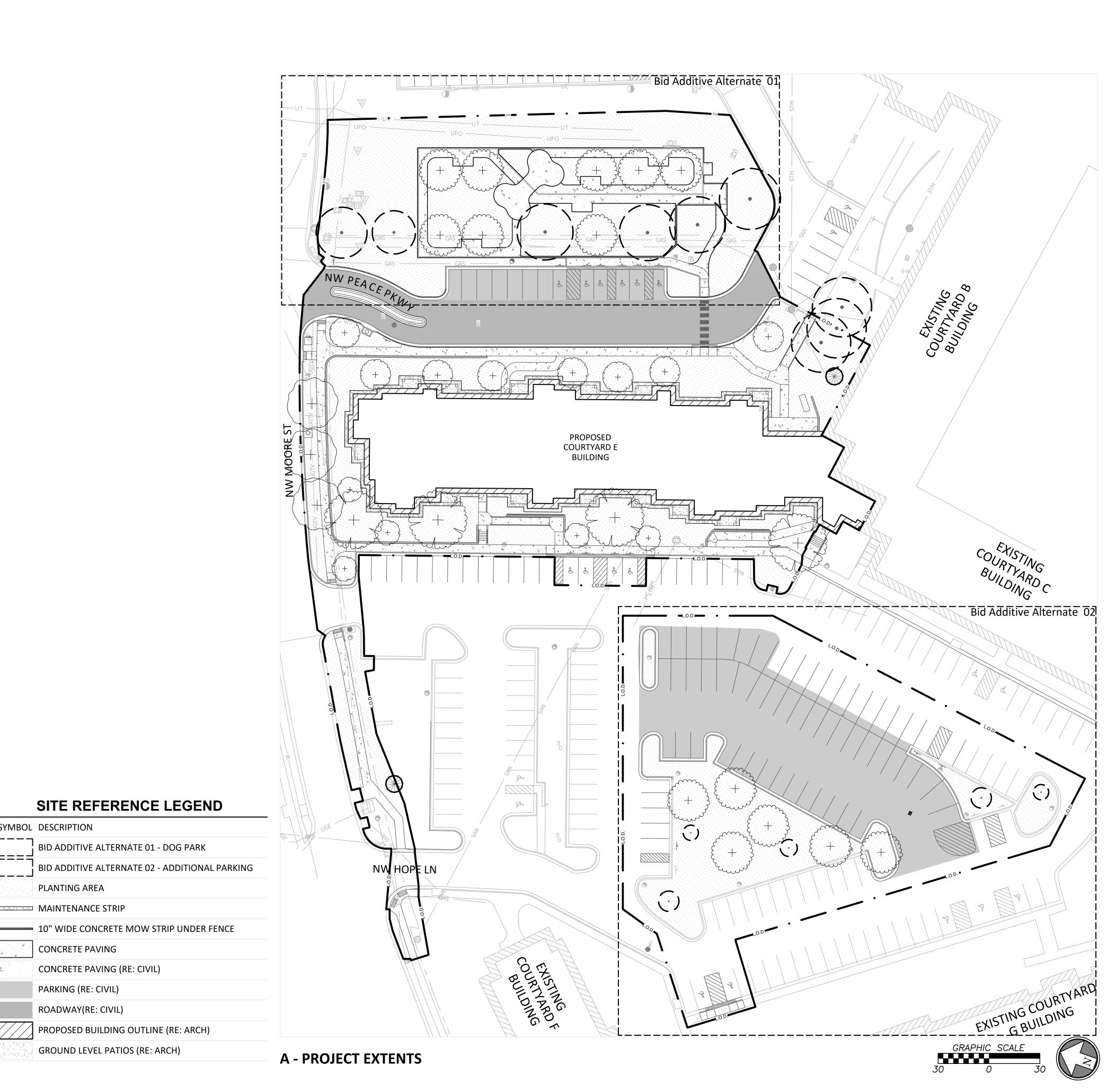


COURTYARDS - BUILDING E

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1	FDP RESUB	MITTAL		2/16/2024
NO.	REVISION D	ESCRIPTION		DATE
ENGINEER : ERB		APPROVED:	CDW	
ARCHITECT: DAS		CHECKED :	ADM	
DESIGNER : ERDM		DRAWN :	ERDM	

DRAWING TITLE TREE PROTECTION **DETAILS** 



SYMBOL DESCRIPTION

PLANTING AREA

CONCRETE PAVING

PARKING (RE: CIVIL)

ROADWAY(RE: CIVIL)

CONCRETE PAVING (RE: CIVIL)

GROUND LEVEL PATIOS (RE: ARCH)

MAINTENANCE STRIP



#### FINAL DEVELOPMENT PLAN



COURTYARDS - BUILDING E



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ı	ARCHITECT: DAS		CHECKED	•	ADM	
ı	ENGINEER : ERB		APPROVED	):	CDW	
ı	NO. R	EVISION D	ESCRIPTION			DATE
ı	1 FI	DP RESUE	BMITTAL			2/16/2024

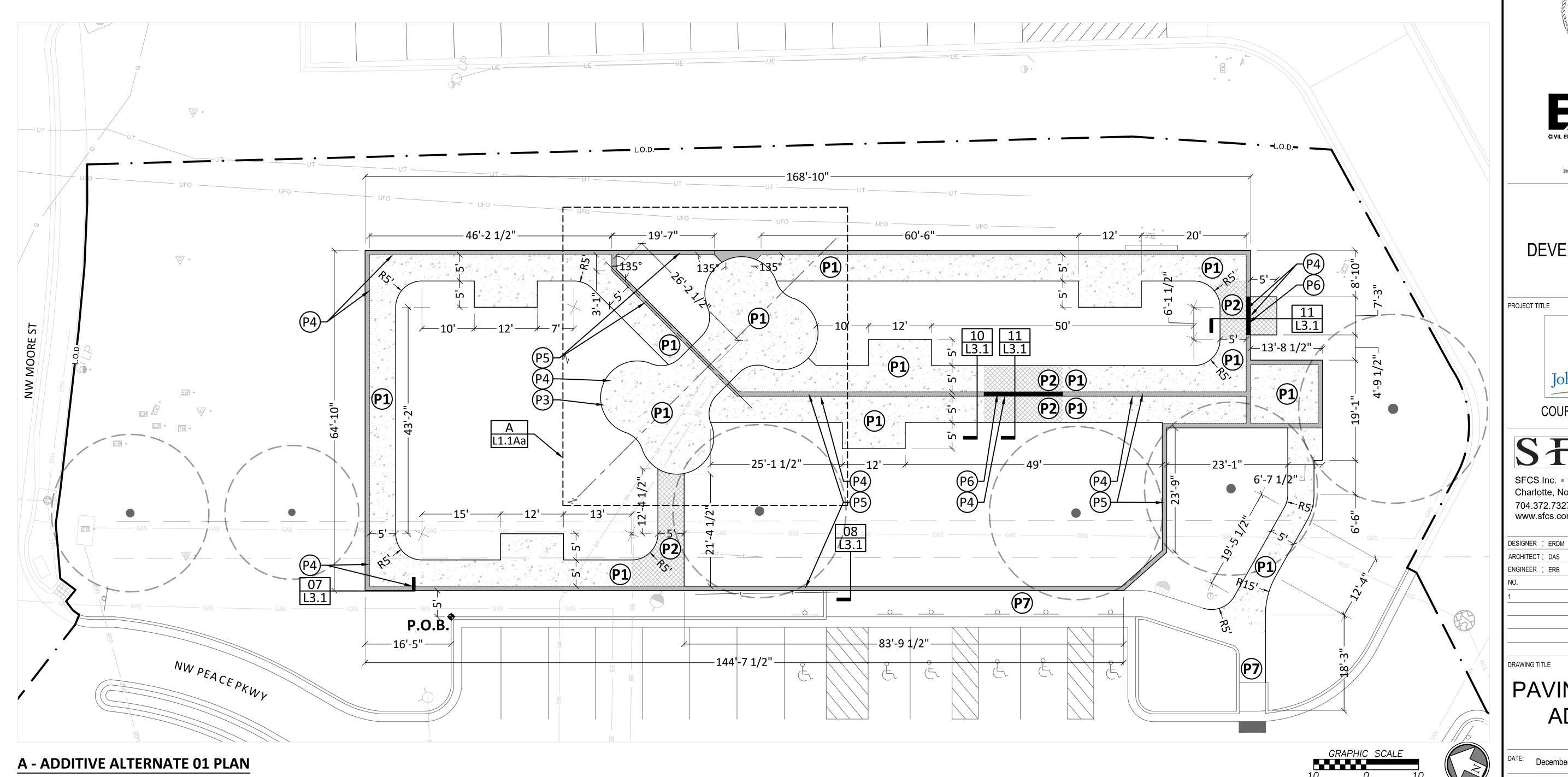
### SITE REFERENCE PLAN

23104.00

### PAVING SCHEDULE -BID ADDITIVE ALTERNATE 01

	<del></del> ,	,			,
Px	Туре	Color / Product	Finish / Size	Joints / Additional Notes	Approx. Qty.
P1	LIGHT-DUTY CONCRETE	KCMMB 4K; STANDARD GRAY	MEDIUM BROOM FINISH	TOOLED CONTROL JOINTS SPACED AS SHOWN RE: 04/L3.1	3241 SF
P2	HEAVY DUTY CONCRETE	KCMMB 4K; STANDARD GRAY	MEDIUM BROOM FINISH	TOOLED CONTROL JOINTS SPACED AS SHOWN RE: 04/L3.1	323 SF
Р3	DONOR PAVERS			RE: OWNER'S REPRESENTATIVE	
P4	ISOLATION JOINT	CLOSED-CELL POLYETHYLENE FLAT BACKER ROD		WHERE INDICATED ON PLAN AND PER DETAILS; ADD AT ALL VERTICAL SURFACES RE: 05 & 06/L3.1	
P5	10" CONCRETE MOW STRIP UNDER FENCE	KCMMB 4K; STANDARD GRAY	MEDIUM BROOM FINISH	ISOLATION JOINTS WHERE INDICATED PER DETAIL 10/L3.1	537 SF
P6	HEAVY DUTY 10" CONCRETE MOW STRIP	KCMMB 4K; STANDARD GRAY	MEDIUM BROOM FINISH	ISOLATION JOINTS WHERE INDICATED PER DETAIL 11/L3.1	537 SF
<b>P7</b>	CONCRETE SIDEWALK	RE: CIVIL	MEDIUM BROOM FINISH	TOOLED CONTROL JOINTS SPACED AS SHOWN RE: 04/L3.1	RE: CIVIL

- 1. Clay soils should be pre-wet before compaction and laying cementitious mixture.
- 2. Concrete pours should end at joint locations. All construction joint locations to become expansion joints.
- Place expansion joints whever the sidewalk abuts another rigid structure.
   Concrete mix shall use type and kind for current weather conditions and shall be protected while curing as required. (RE: Civil)







#### FINAL DEVELOPMENT PLAN

PROJECT TITLE



COURTYARDS - BUILDING E



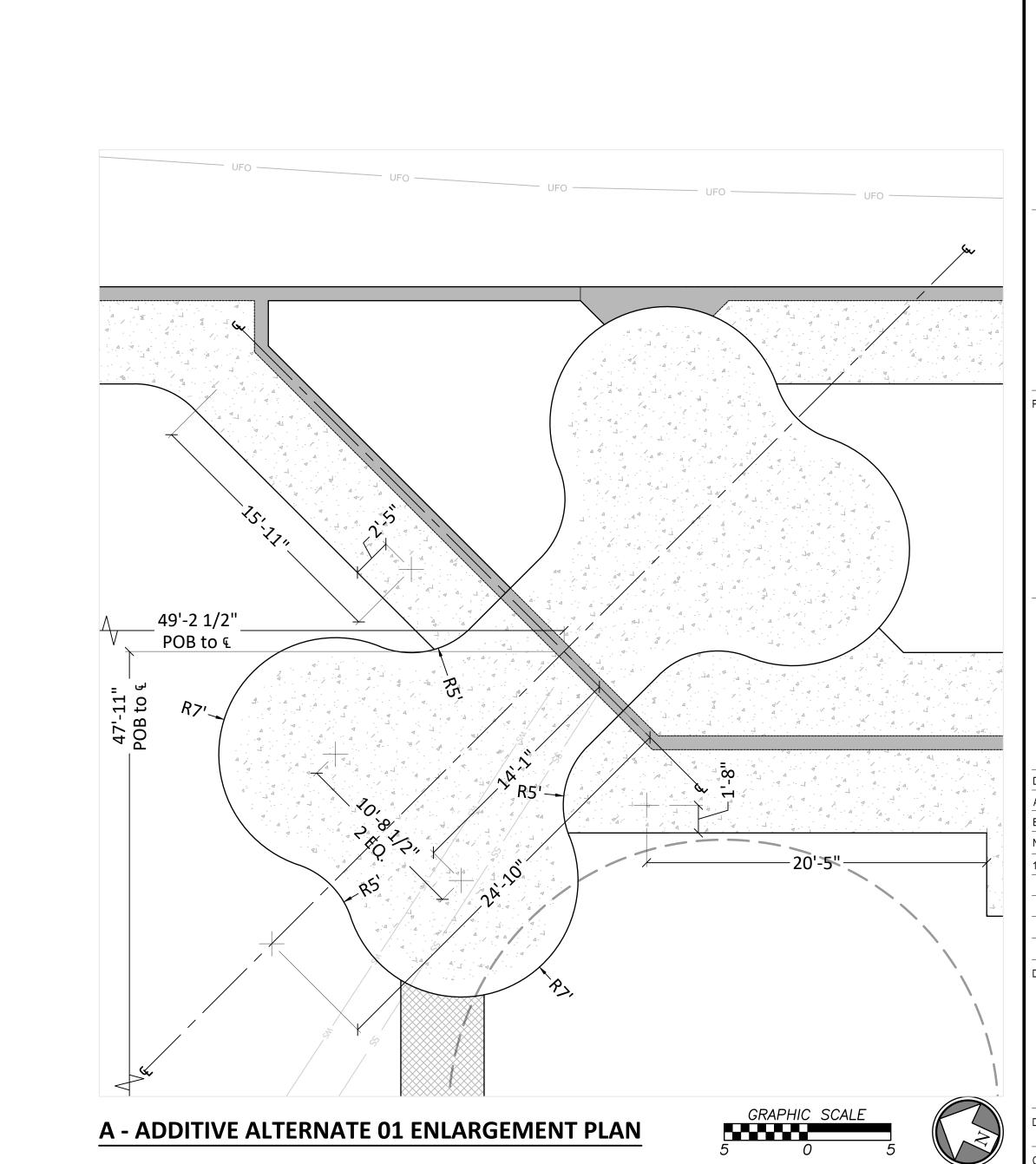
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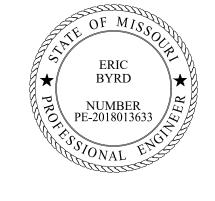
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ENGINEER : ERB		APPROVED	):	CDW		
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1	FDP RESUBMITTAL				2/16/2	2024

DRAWING TITLE

PAVING LAYOUT -ADD ALT 01

December 1, 2023







PROJECT TI



COURTYARDS - BUILDING E



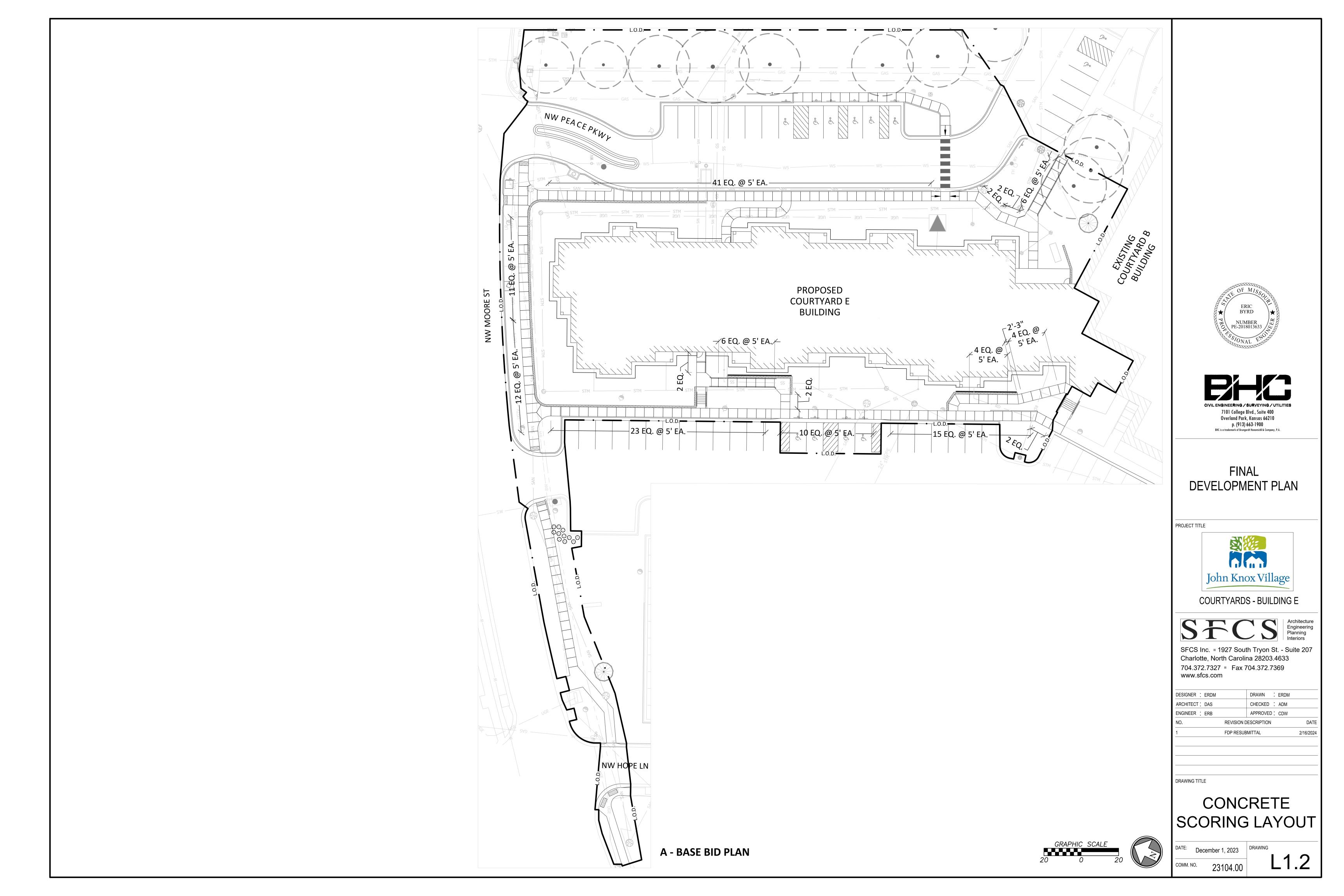
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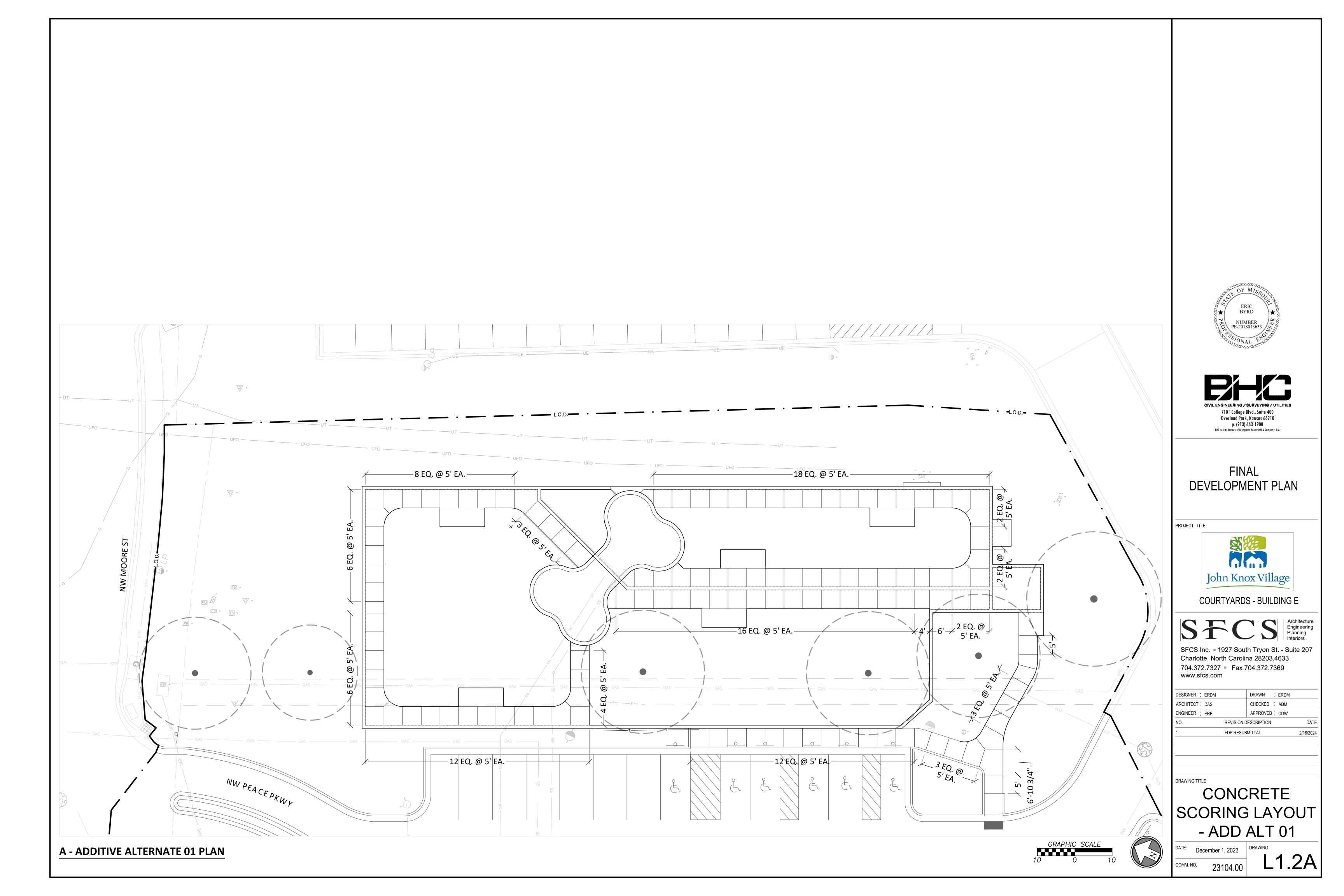
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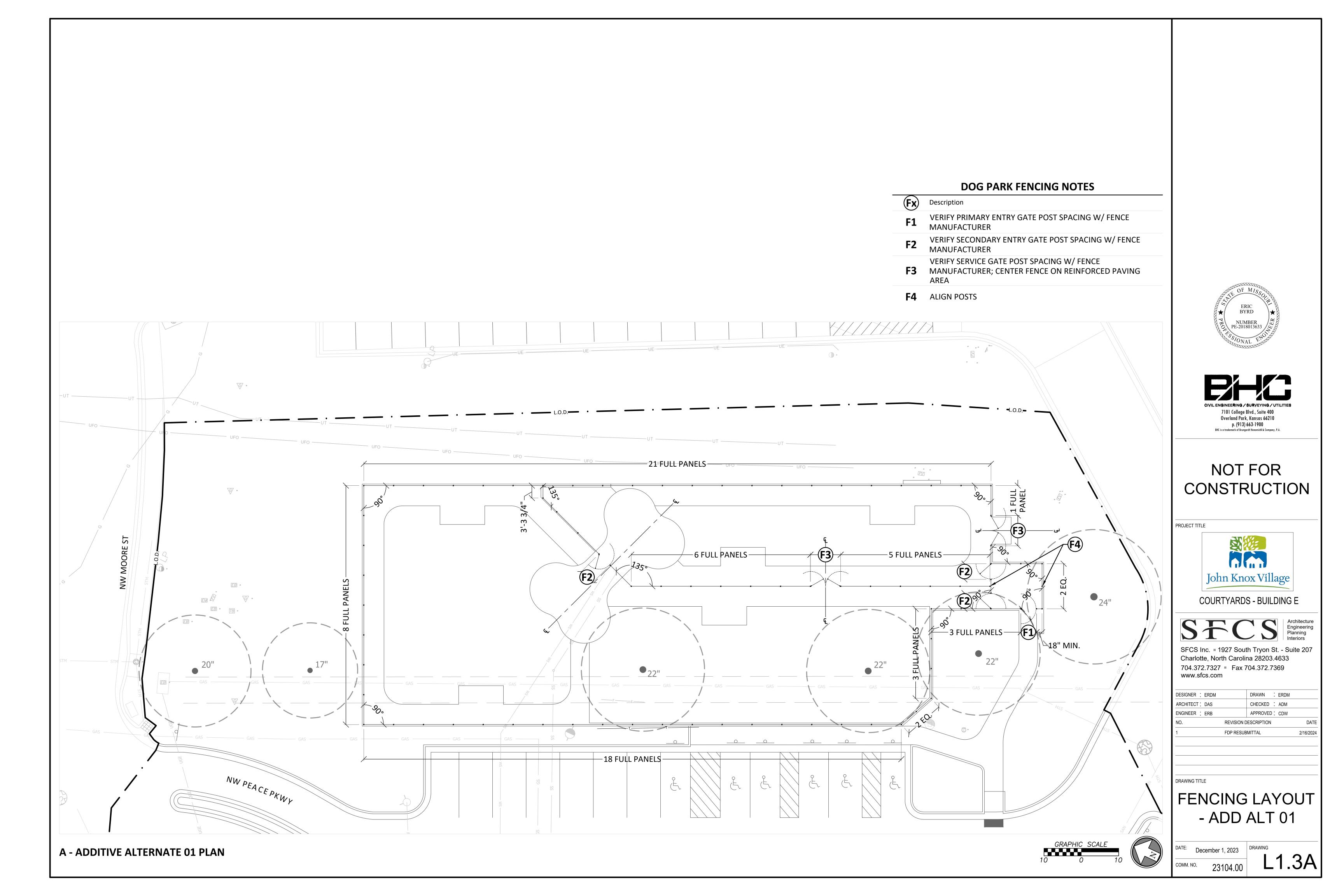
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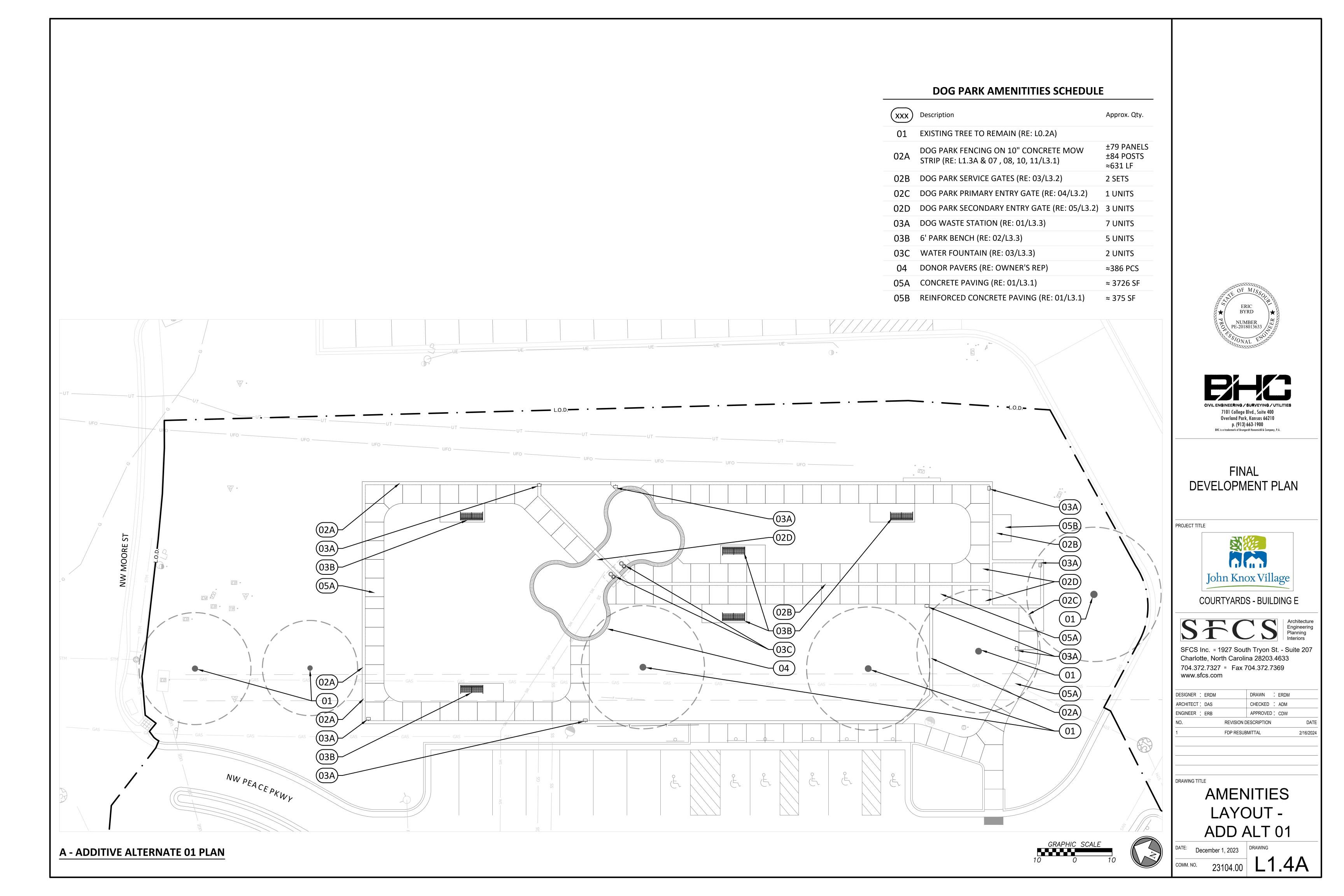
December 1, 202

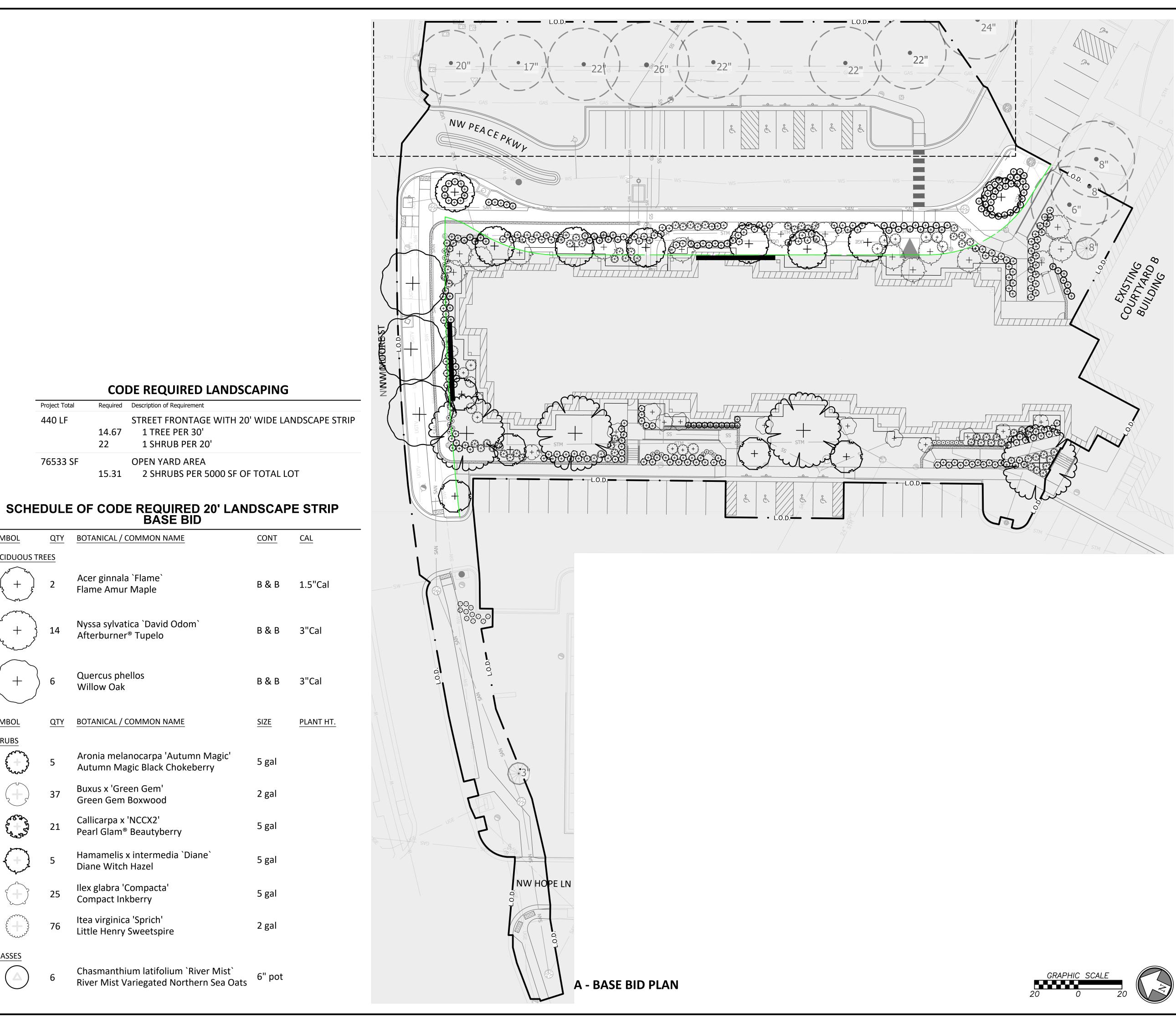
DRAWING L1.1Aa











CODE REQUIRED LANDSCAPING

15.31 2 SHRUBS PER 5000 SF OF TOTAL LOT

CONT

B & B

B & B

B & B

SIZE

5 gal

2 gal

5 gal

5 gal

5 gal

2 gal

<u>CAL</u>

1.5"Cal

3"Cal

3"Cal

PLANT HT.

Required Description of Requirement

BOTANICAL / COMMON NAME

Nyssa sylvatica `David Odom`

BOTANICAL / COMMON NAME

Buxus x 'Green Gem'

Callicarpa x 'NCCX2'

Diane Witch Hazel

Compact Inkberry

Ilex glabra 'Compacta'

Itea virginica 'Sprich'

Little Henry Sweetspire

Pearl Glam® Beautyberry

Hamamelis x intermedia `Diane`

Chasmanthium latifolium 'River Mist'

River Mist Variegated Northern Sea Oats

Green Gem Boxwood

Aronia melanocarpa 'Autumn Magic'

Autumn Magic Black Chokeberry

Acer ginnala `Flame`

Afterburner® Tupelo

Quercus phellos

Willow Oak

Flame Amur Maple

1 TREE PER 30'

OPEN YARD AREA

1 SHRUB PER 20'

Project Total

76533 SF

SYMBOL

SYMBOL

<u>SHRUBS</u>

<u>GRASSES</u>

**DECIDUOUS TREES** 

440 LF



#### FINAL DEVELOPMENT PLAN



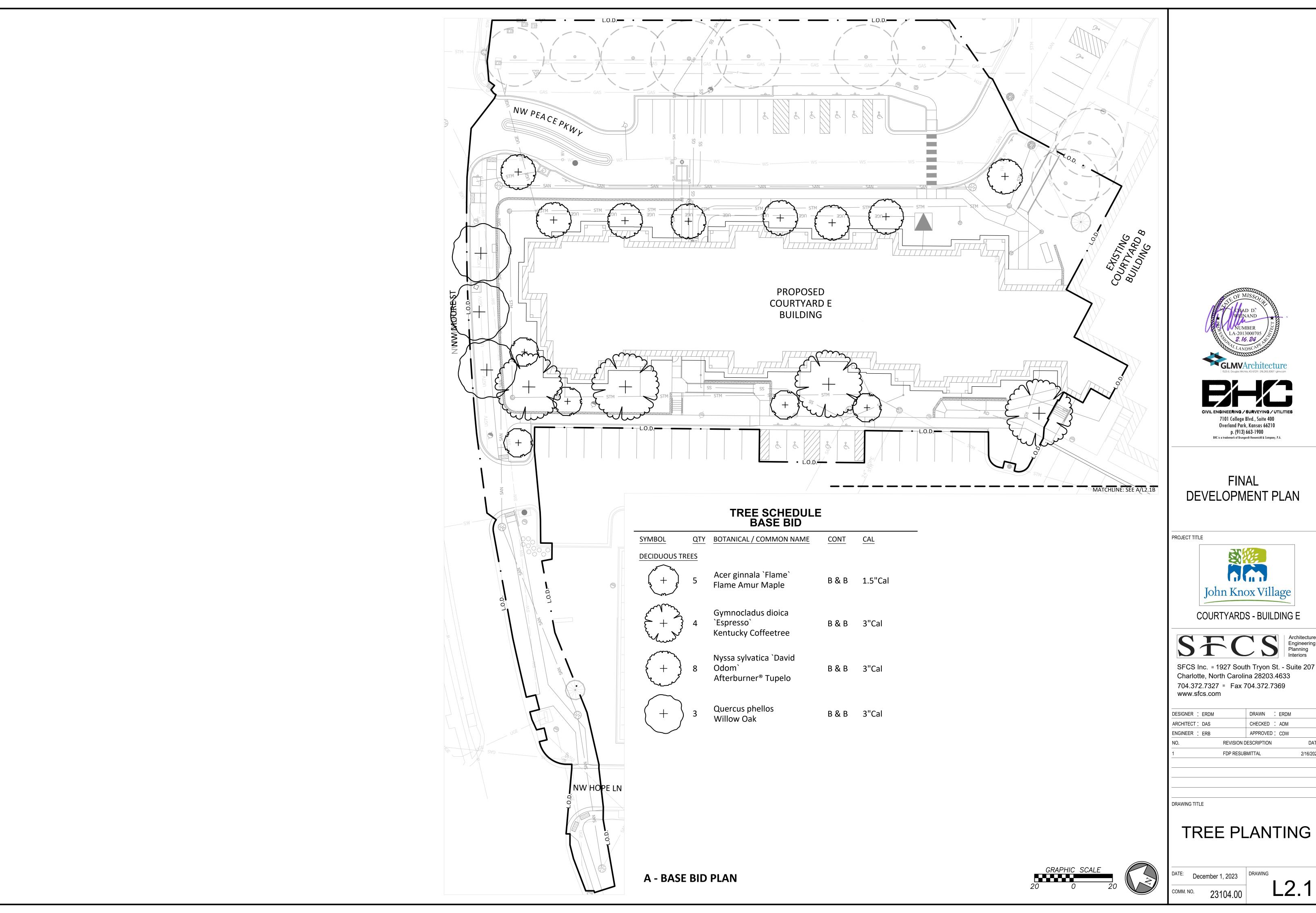
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DRAWING TITLE

CODE REQUIRED LANDSCAPING



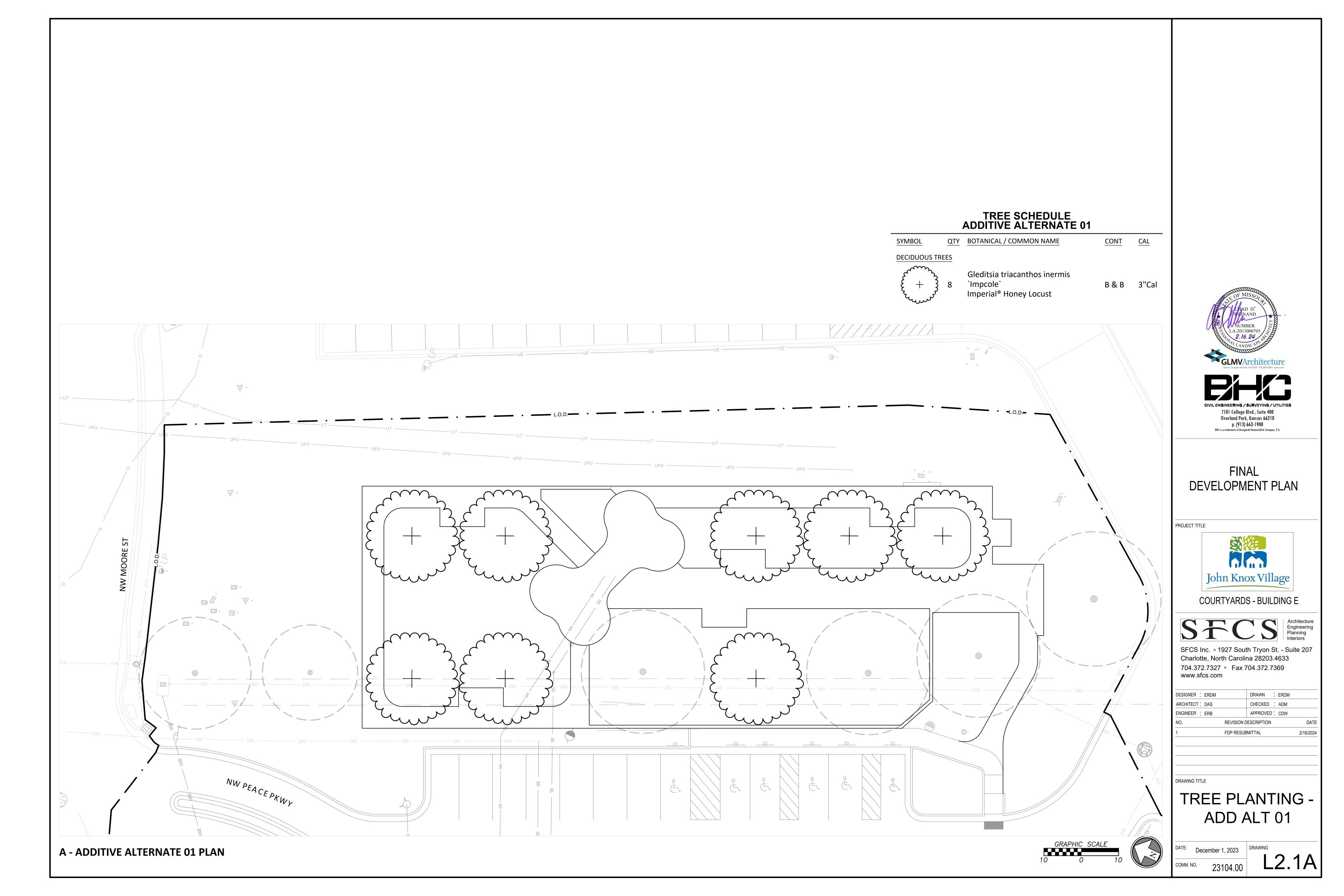


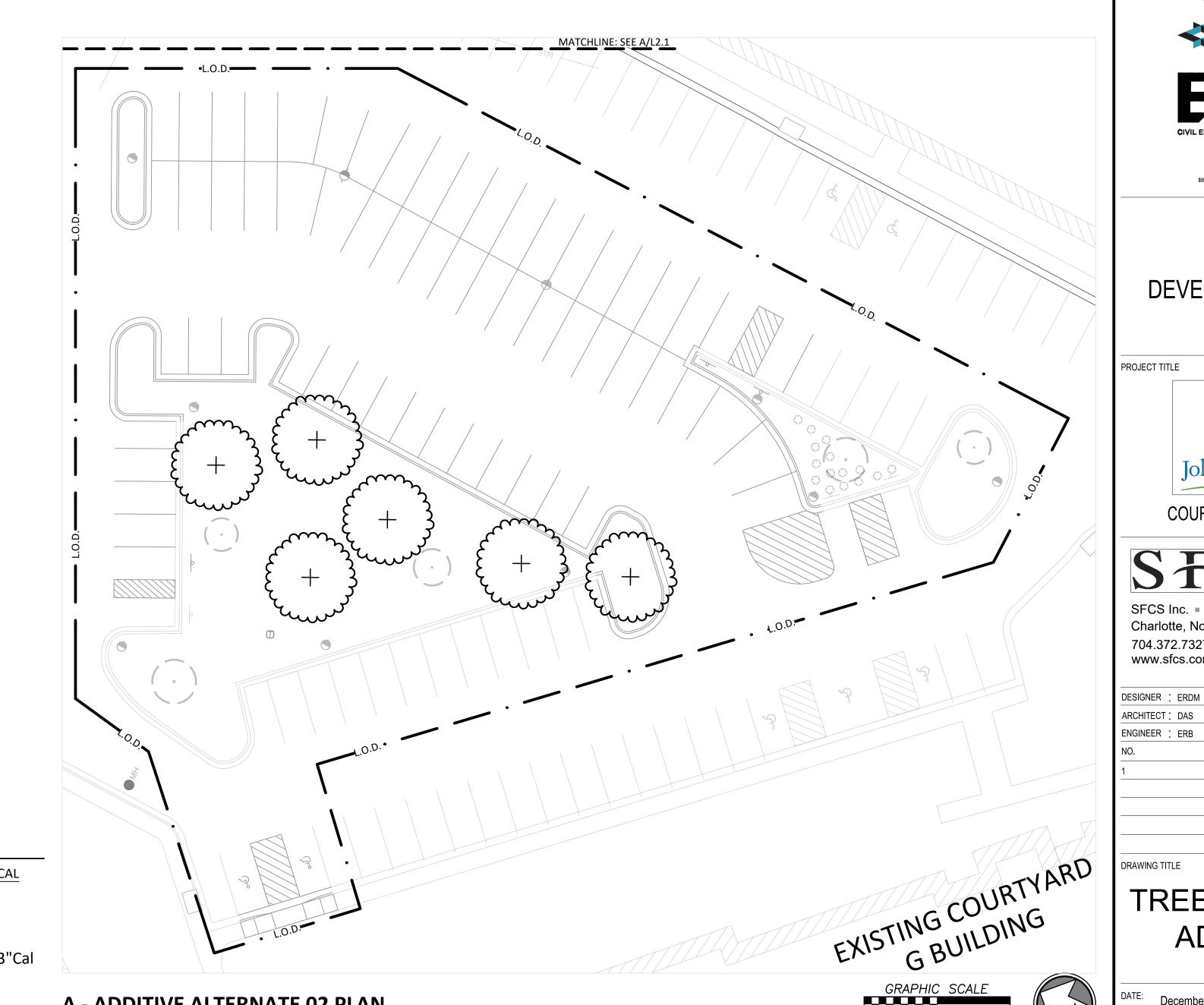


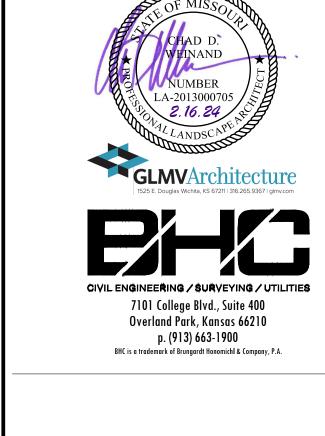


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1	FDP RESUB	BMITTAL	2/16/2024
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## FINAL DEVELOPMENT PLAN



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TREE PLANTING -ADD ALT 02

December 1, 2023 23104.00

L2.1B

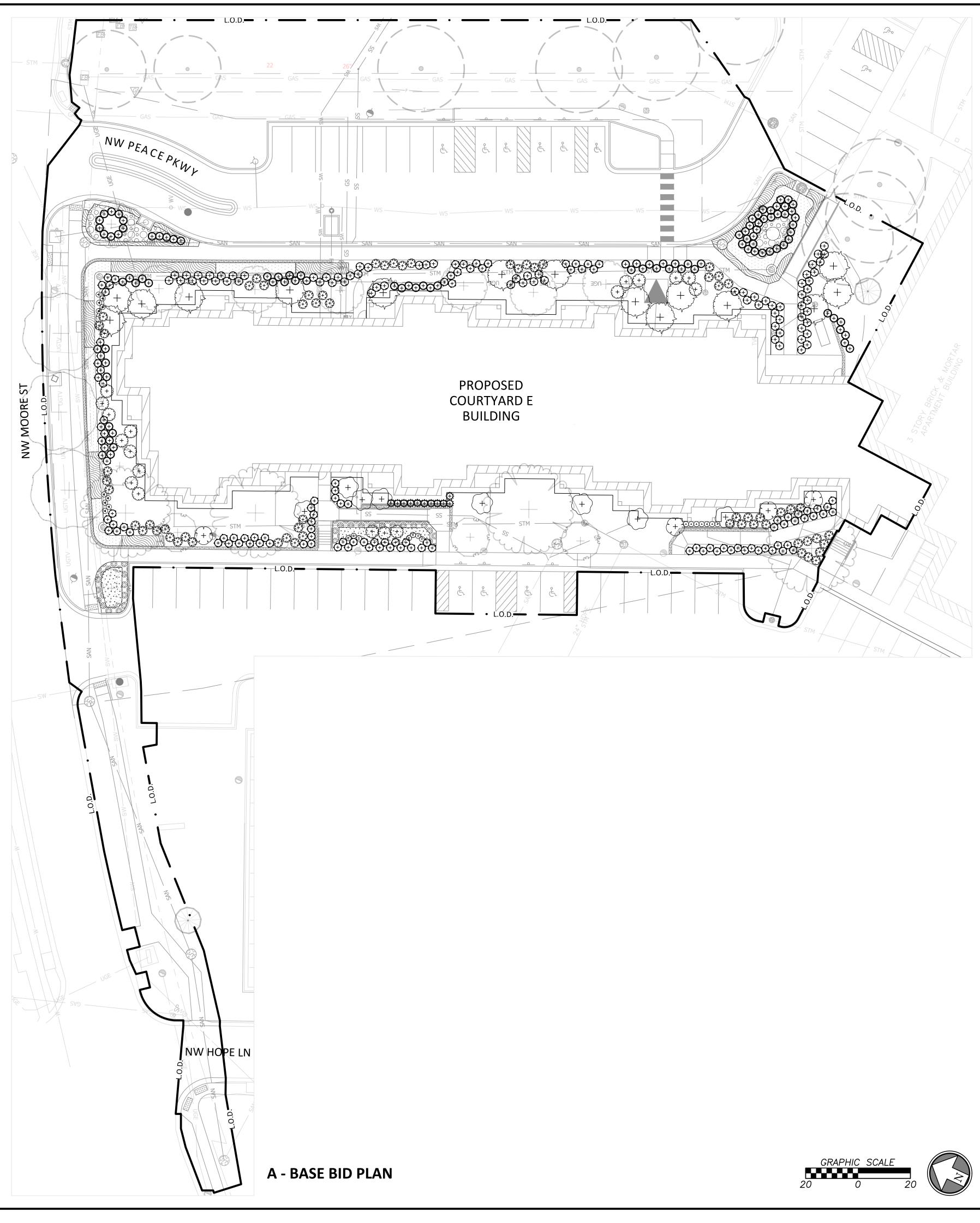
# TREE SCHEDULE ADDITIVE ALTERNATE 02

QTY BOTANICAL / COMMON NAME CONT **SYMBOL** DECIDUOUS TREES Gleditsia triacanthos inermis `Impcole` Imperial® Honey Locust B & B 3"Cal

A - ADDITIVE ALTERNATE 02 PLAN

### SHRUB & PERENNIAL SCHEDULE BASE BID

		BASE BID			
SYMBOL	QTY	BOTANICAL / COMMON NAME	SIZE		REMARKS
SHRUBS + }	18	Aronia melanocarpa 'Autumn Magic' Autumn Magic Black Chokeberry	5 gal		
(+)	72	Buxus x 'Green Gem' Green Gem Boxwood	2 gal		
£ + 23	63	Callicarpa x 'NCCX2' Pearl Glam® Beautyberry	5 gal		
+	8	Calycanthus floridus 'Burgundy Spice' Burgundy Spice Sweetshrub	5 gal		
(+)	4	Calycanthus floridus 'Michael Lindsey' Michael Lindsey Sweetshrub	5 gal		
£ + }	15	Hamamelis x intermedia `Diane` Diane Witch Hazel	5 gal		
+	115	Ilex glabra 'Compacta' Compact Inkberry	5 gal		llex glabra Gem Box® is acceptable substitute
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	11	llex verticillata 'Little Goblin Red' Little Goblin Red Female Winterberry	5 gal		Plant dwarf male pollinator within 20' of females; Ilex verticillata Red Sprite is acceptable substitute
£+3	96	Itea virginica 'Sprich' Little Henry Sweetspire	2 gal		Itea virginica Fizzy Mizzy® is acceptable substitute
<u>GRASSES</u>	10	Chasmanthium latifolium `River Mist` River Mist Variegated Northern Sea Oats	6" pot		
	12	Muhlenbergia capillaris Pink Muhly Grass	1 gal		
	7	Schizachyrium scoparium 'Standing Ovation' Standing Ovation Little Bluestem	1 gal		Availabe at Loma Vista Nursery
SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
SHRUB AF	108	Iberis sempervirens 'Alexander's White' White Evergreen Candytuft	1 gal	18" o.c.	
	359	Liriope spicata `Silver Dragon` Silver Dragon Creeping Lilyturf	1 gal	18" o.c.	
	844	Pulmonaria x `Dark Vader` Dark Vader Lungwort	1 gal	12" o.c.	
	274 sf	SHADE PERENNIAL BLEND			
	63	Astilbe x arendsii 'Rheinland'	1 gal	50% @ 18	" O.C.
	63	Rhienland Astilbe Hosta x 'June'	1 gal	50% @ 18	" o.c.
	257 sf	June Hosta SUN PERENNIAL BLEND			
	59	Asclepias tuberosa	1 gal	50% @ 18	" o.c.
	59	Butterfly Milkweed Echinacea purpurea	1 gal	50% @ 18	" o.c.
[ * · * · · · · · · · · · · · · · · · ·		Coneflower			





## FINAL DEVELOPMENT PLAN

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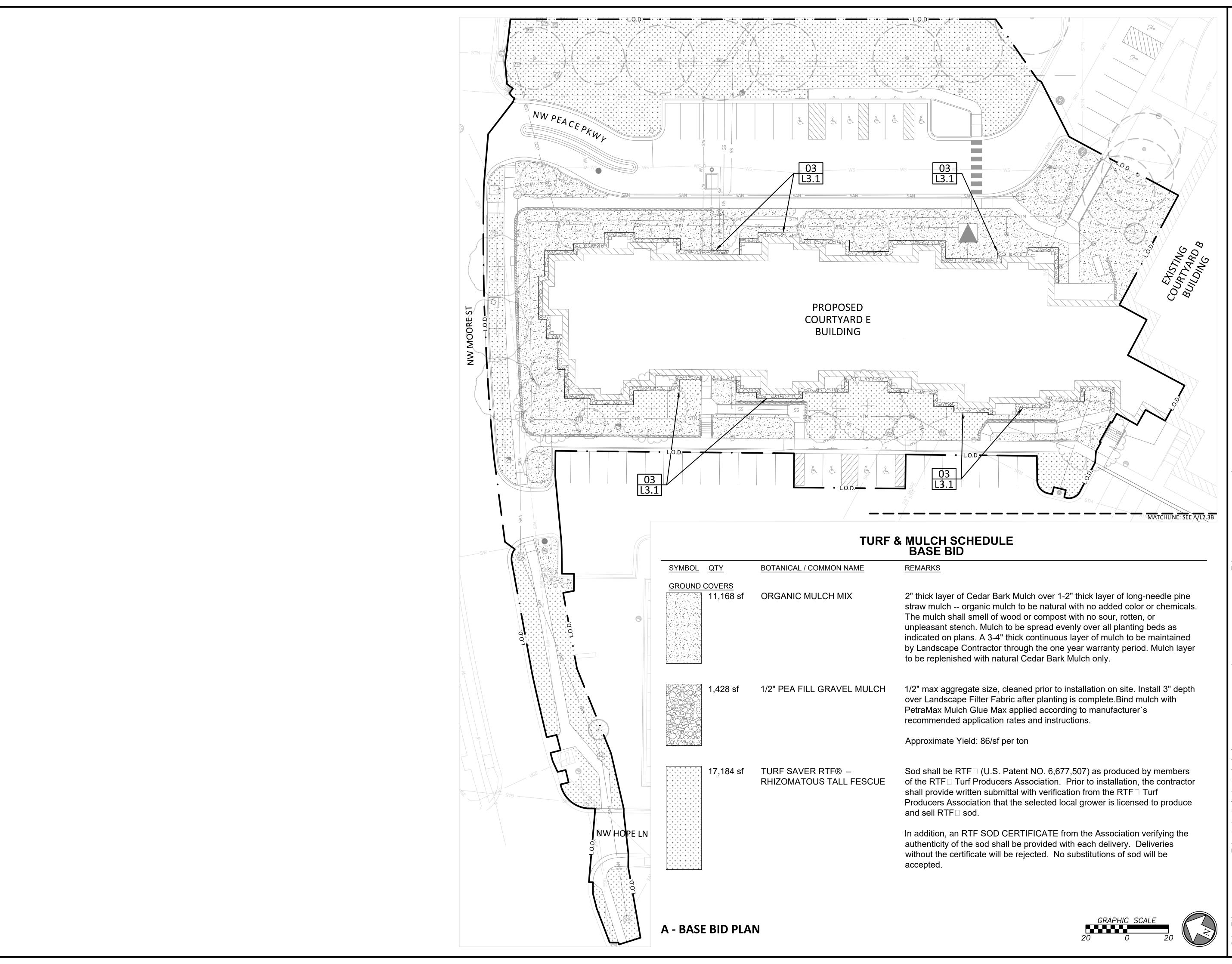
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SHRUB &
PERENNIAL
PLANTING

December 1, 2023

COMM. NO. 23104.00

L2.2





## FINAL DEVELOPMENT PLAN

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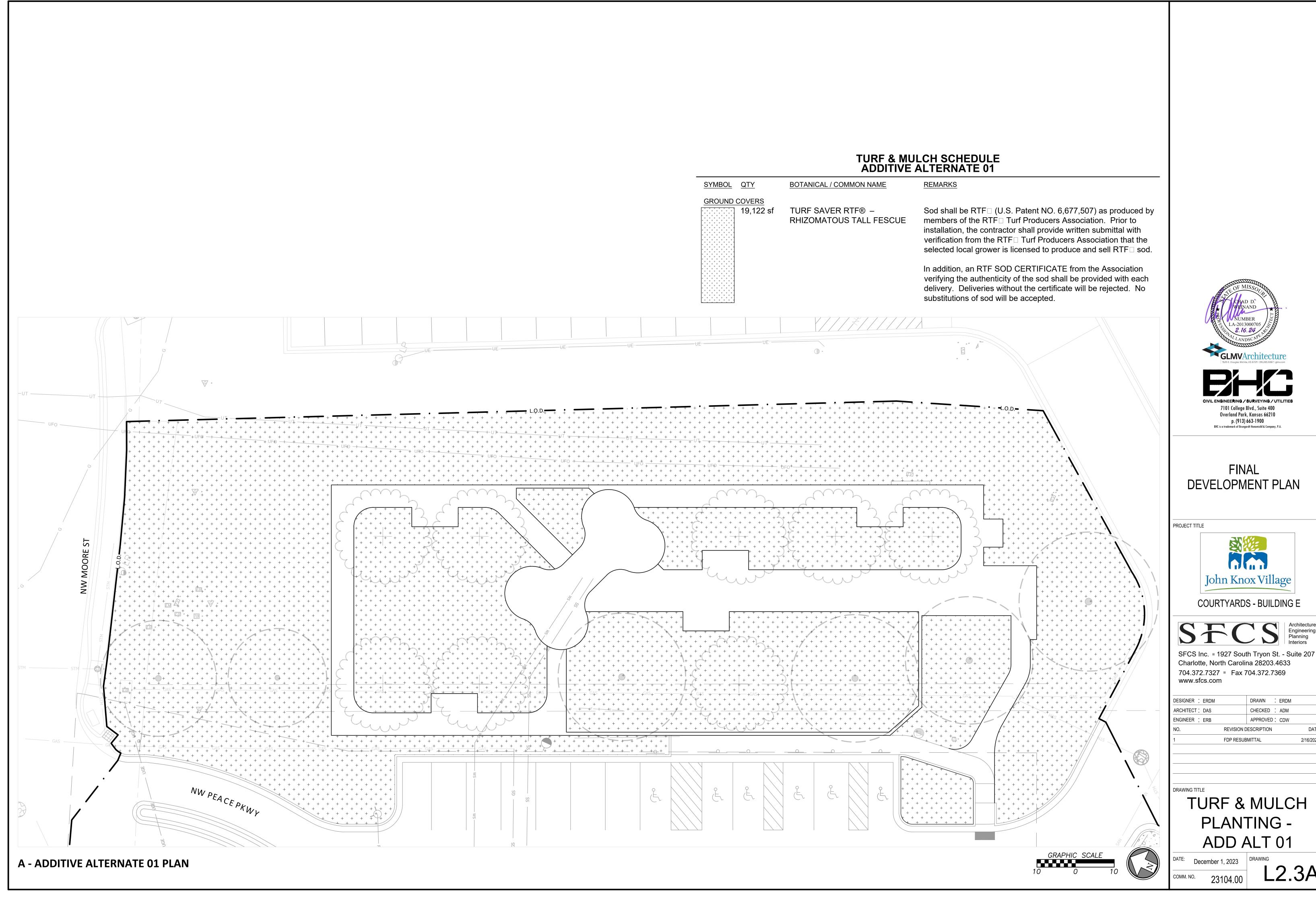
DRAWING TITLE

# TURF & MULCH PLANTING

December 1, 2023

COMM. NO. 23104.00

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# TURF & MULCH SCHEDULE ADDITIVE ALTERNATE 02

SYMBOL QTY BOTANICAL / COMMON NAME **REMARKS GROUND COVERS** 845 sf ORGANIC MULCH MIX 2" thick layer of Cedar Bark Mulch over 1-2" thick layer of long-needle pine straw mulch -organic mulch to be natural with no added color or chemicals. The mulch shall smell of wood or compost with no sour, rotten, or unpleasant stench. Mulch to be spread evenly over all planting beds as indicated on plans. A 3-4" thick continuous layer of mulch to be maintained by Landscape Contractor through the one year warranty period. Mulch layer to be replenished with natural Cedar Bark Mulch only. Sod shall be RTF□ (U.S. Patent NO. 6,677,507) as produced by members of the RTF□ Turf Producers Association. Prior to installation, the contractor shall provide written submittal with TURF SAVER RTF® -7,163 sf RHIZOMATOUS TALL FESCUE verification from the RTF□ Turf Producers Association that the selected local grower is licensed to produce and sell RTF□ sod.

substitutions of sod will be accepted.

sod shall be provided with each delivery. Deliveries without the certificate will be rejected. No

EXISTING COURTYARD TI ING GRAPHIC In addition, an RTF SOD CERTIFICATE from the Association verifying the authenticity of the



## FINAL DEVELOPMENT PLAN



COURTYARDS - BUILDING E



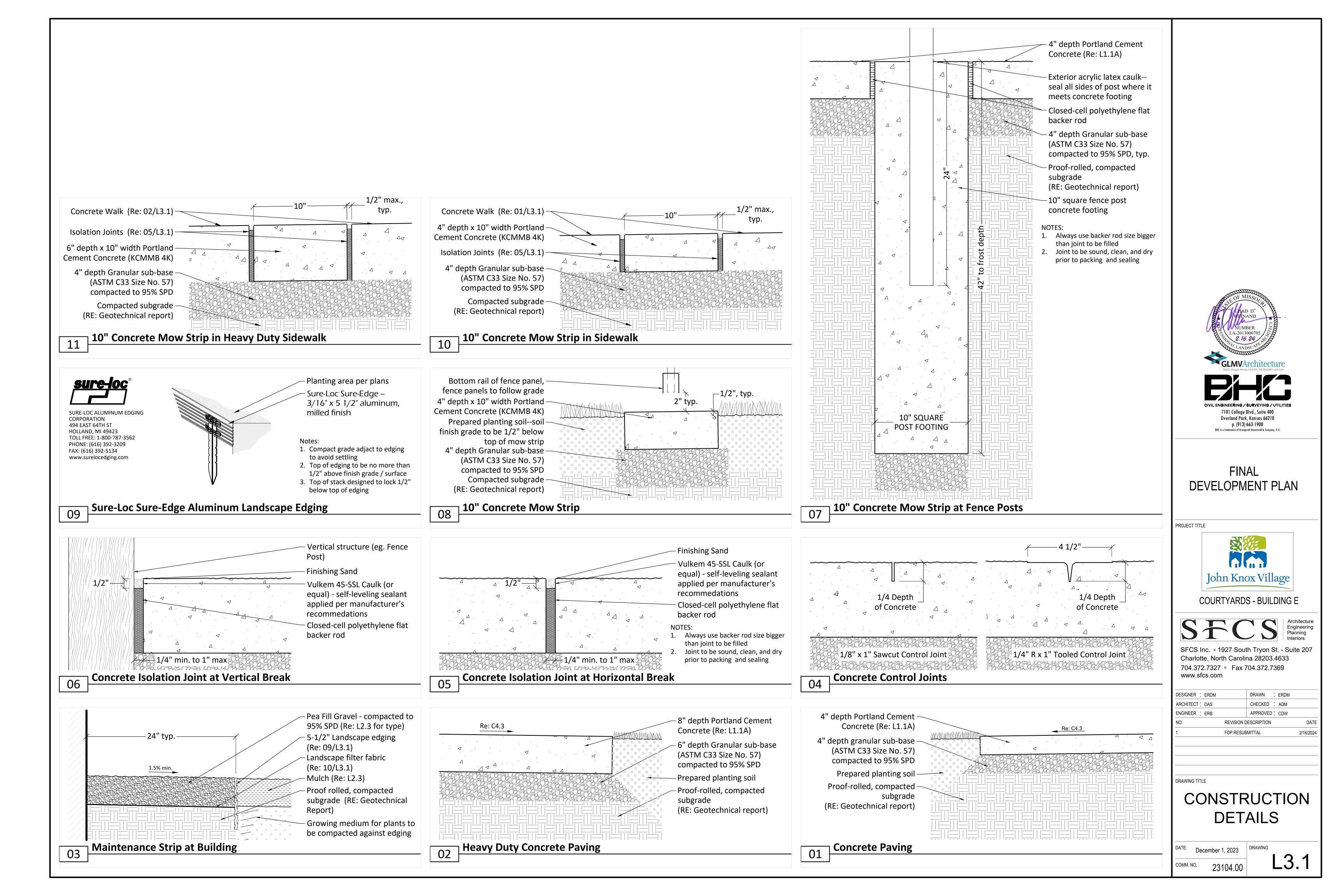
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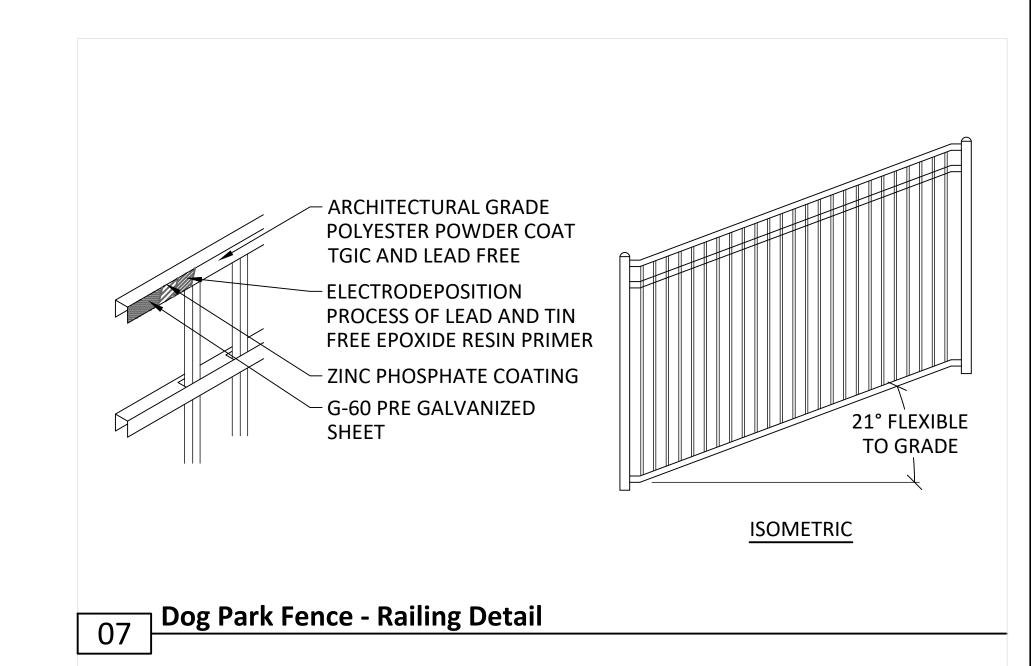
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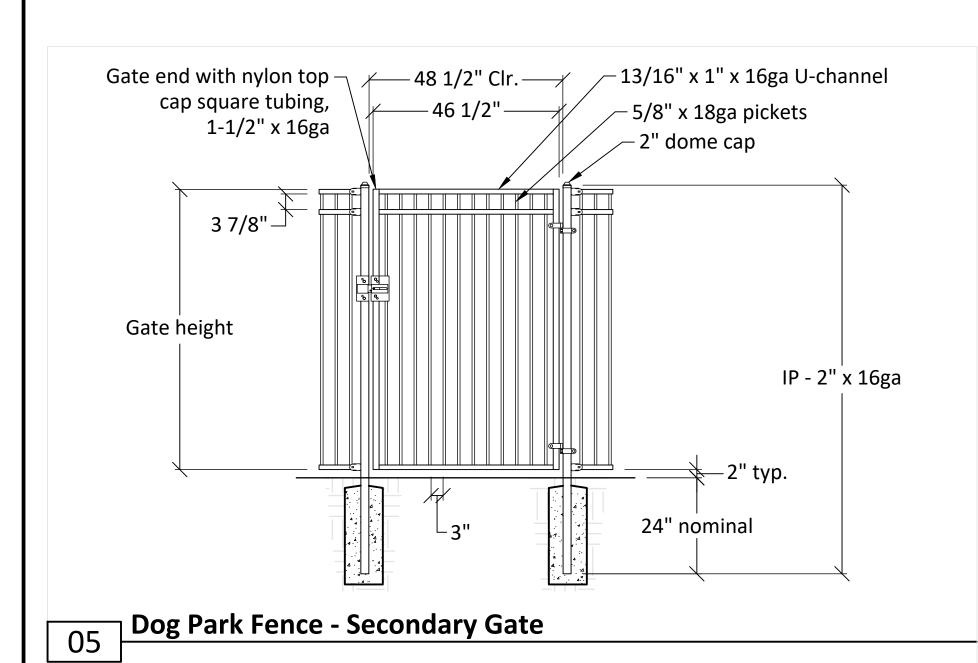
TURF & MULCH PLANTING -ADD ALT 02

23104.00

**A - ADDITIVE ALTERNATE 02 PLAN** 





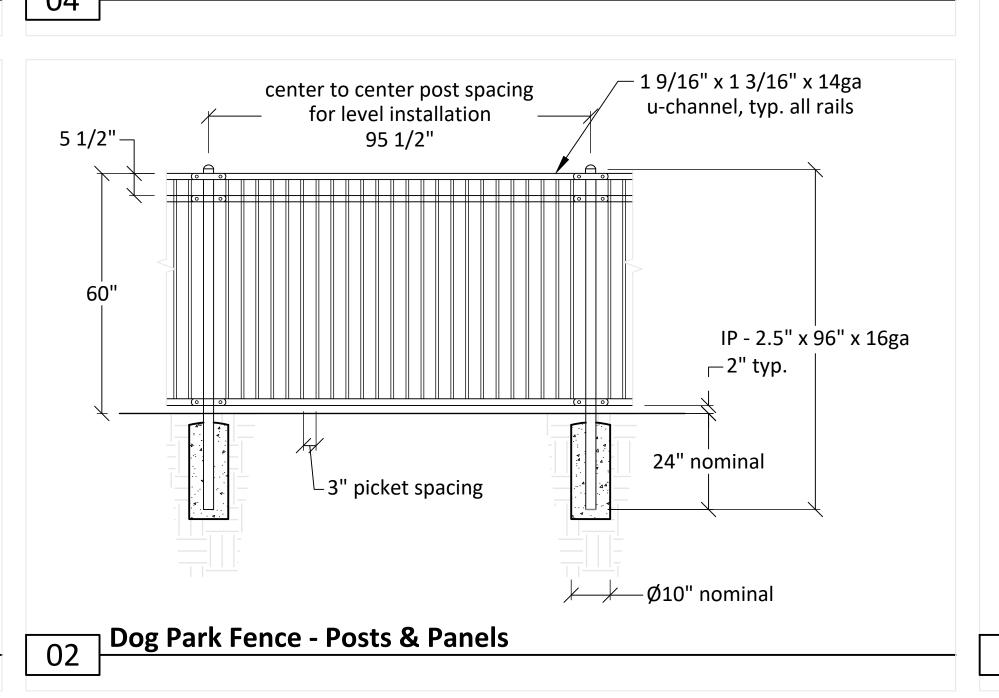


square tubing, 1 1/2" x 16ga -5/8" x 18ga pickets 2" dome cap Gate height IP 2" x 16GA ⊢2" typ. 24" nominal 10" nominal Dog Park Fence - Primary Gate

-13/16" x 1" x 16ga u-channel

Gate end with nylon top cap -

–95 1/4" Clr.— 46 1/2"——46 1/2"— 3 15/16"-Gate height Post size varies with height 3" picket spacing 36" nominal Dog Park Fence - Service Gate



DL-LATCH-DVR: Pro Series Gate Latch - DL-HINGE-DVR: Gate Hinge Kit Dog Park Fence - Entry Gate Self-Close Hinge & Latch

GYMS FOR DOGS™
Natural Dog Park Products

GYMS FOR DOGS® 3815 RIVER CROSSING PKWY SUITE 100 INDIANAPOLIS, IN 46240 PHONE: (800) 931-1562 EMAIL: sales@GymsForDogs.com www.GymsForDogs.com

DESIRED MOUNT: **DESIRED HEIGHT:** ☑IN-GROUND □SURFACE □72"

DESIRED PICKET SPACING: DESIRED FENCE: ☑3" (SHOWN) □ ALUMINUM □3.9" ☑ STEEL

## Doggie DVR Fence Series

Item	Approx. Dimensions	Item Number
Panels – 90.5" wide	Fence Panel – 5' Tall	DL-FN5FP-DVR
Gates – 4' Wide	Entrance Gate – 5' Tall	DL-FN5EG-DVR
Gates – 4' Wide	(2) 4' Wide panels for a total opening of 8'	DL-FN5SG-DVR
Post – 2.5" x 2.5"	In-Ground Post (IG)	DL-FNIG5-DVR
Post – 2.5" x 2.5"	Post Top Cap – 1 per post	DL-FNPOST-DVR
Mounting Brackets	In-Line Brackets (2) Kit per post	DL-LBRACKT-DVR
Mounting Brackets	End, Corner, T Brackets (2) Kit per post	DL-TBRACKT-DVR
Gate Hinges and Latch	Hinge Kit – 2 Hinges per Kit	DL-HINGE-DVR
Gate Hinges and Latch	Latch for Entrance Gate	DL-LATCH-DVR
Gate Hinges and Latch	Drop Rod Kit for Service Gate	DL-DROPPN-DVR
Gate Hinges and Latch	Fork Latch for Service Gate	DL-FORKLTH-DVR

**Dog Park Fence - Fence Selection** 



## FINAL DEVELOPMENT PLAN

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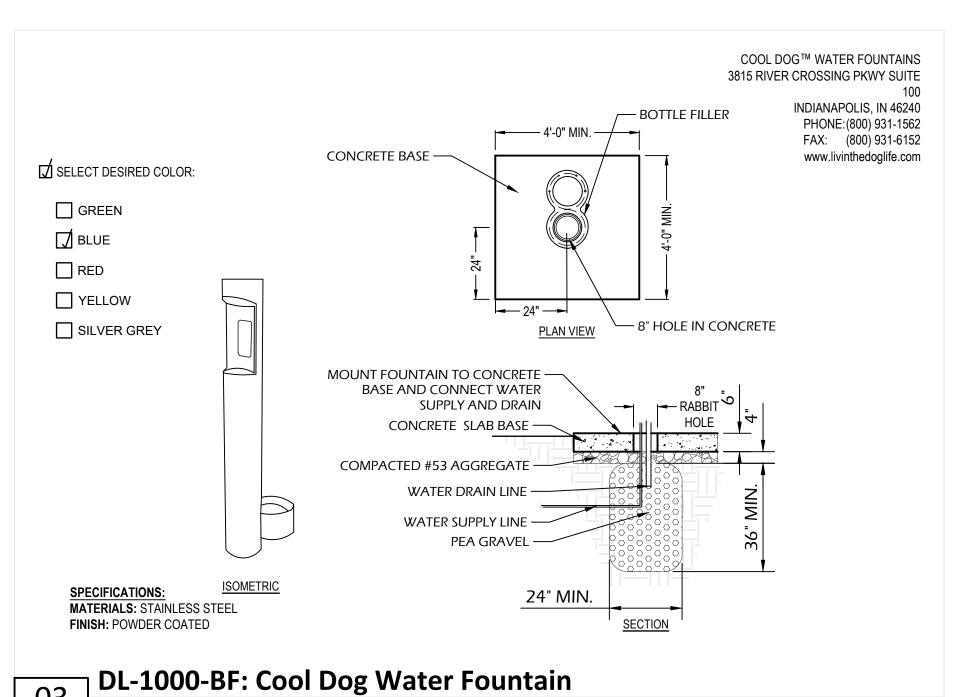
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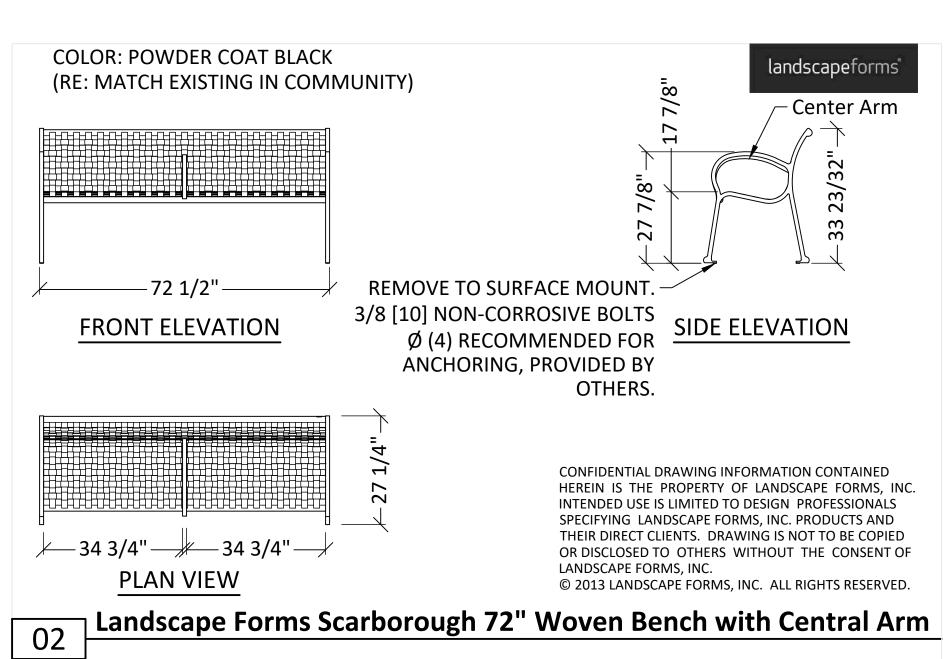
RAWING TITLE

CONSTRUCTION **DETAILS** 

December 1, 2023 23104.00

L3.2





**ZEROWASTEUSA.COM The Gladiator Dog Waste Station** 



## FINAL DEVELOPMENT PLAN

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# AMENITIES DETAILS

DATE: December 1, 2023

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### Step 2 - Remove defects.

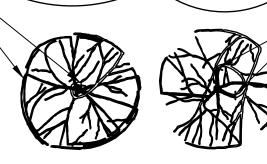
New root ball surface -

Root collar

Cut here Five structural (large) roots shown in black. Remove structural root (white) wrapping root collar.

Cut here -Six structural roots shown in black. Remove roots (white) growing over root collar by cutting them just before they make an abrupt turn.

Cut here – Root ball periphery -Cut structural root just before it makes abrupt turn. Pruning cut should be made tangent (parallel) to the



before they make abrupt turn by cutting tangent (parallel) to the trunk (two cuts shown).

Cut structural roots just

Root collar

-Cut here

- Cut here

an abrupt turn.

- Cut here

New root ball surface

Four structural roots shown

in black. Remove root (white)

growing over structural roots.

Seven structural roots shown

in black. Remove structural

roots (white) growing around

or over root collar by cutting

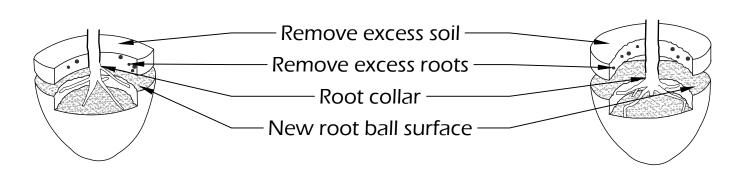
them just before they make

1- All plants shown are rejectable unless they undergo recommended correction.

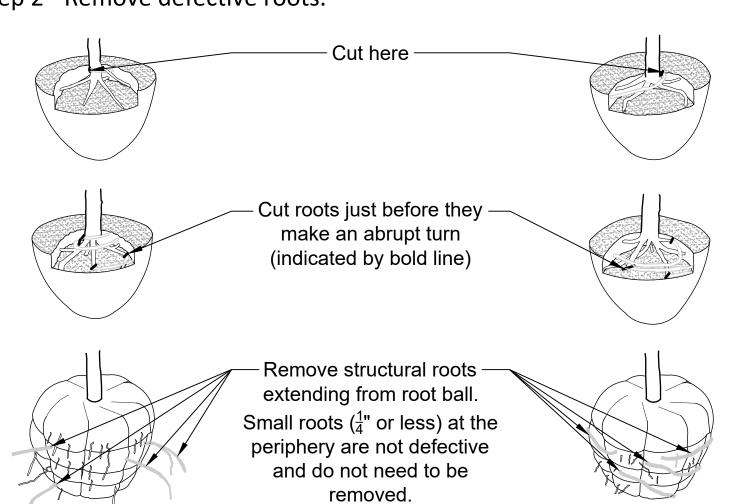
- 2- First Step 1, then Step 2. Roots and soil may be removed during the correction process;
- substrate/soil shall be replaced after correction has been completed.
- 3- Plants shall meet root observations detail following correction.
- 4- Small roots (1/4" or less) on the periphery of the root ball are common with container plant production. These small roots are not defined as "defects" and can be addressed at the time of installation.

### **Root Correction - Container Plants**

Step 1 - When tree is planted too deeply in root ball, remove excess soil & roots to meet root inspection detail 212.

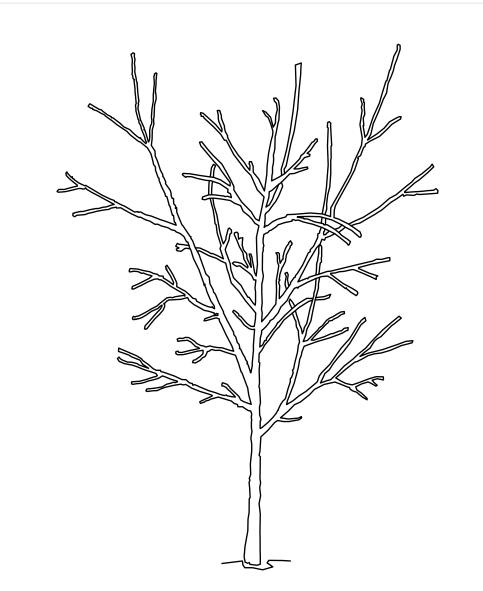


### Step 2 - Remove defective roots.



**DETAIL NOTES:** 

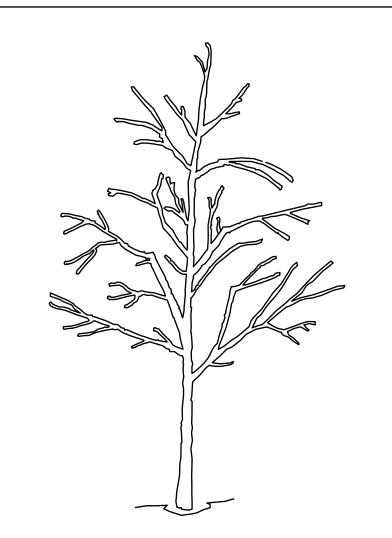
- 1. Protect and maintain structural (large) roots while removing defective roots. Examples of defective
- 1.1. Roots wrapping around root collar
- 1.2. Roots growing over structural roots
- 1.3. Roots growing around or over root collar
- 2. All trees shown are rejectable unless they undergo recommended correction. 3. First step 1, then step 2. Adjust hole depth to allow for the removal of excess soil and roots over
- 4. Roots and soil may be removed during the correction process; substrate/ soil shall be replaced after the correction has been completed.
- 5. Trees shall pass root observations detail following correction.



1. Before planting, tree has three codominant stems. The two that compete with the one in the center should be pruned to supress their growth.



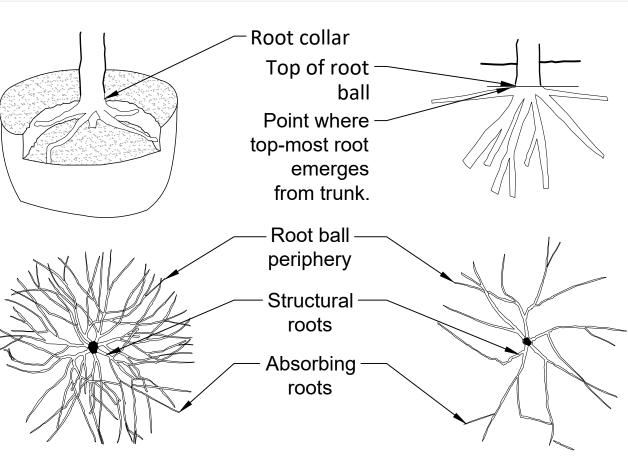
2. Two competing stems were reduced substantially, in this case remvoing about 70% of their foilage using reduction cuts.



3. After pruning, plant has only one dominant stem.

- 1. All trees shown are rejectable unless they undergo recommended treatment.
- 2. Tree shall meet crown observation detail following correction.

**Crown Correction Example** 



### REJECTABLE

- 1. Structural roots circle interior of root ball.
- 2. No structural roots are horizontal and reach the root ball periphery near the top of the root ball.
- 3. Only absorbing roots reach the periphery near the top of the root ball. Structural roots mostly wrap or are deflected on the root ball interior. 4. Structural roots descend into root ball interior.
- 5. Structural roots circle and do not radiate from the trunk.
- 6. Structural roots primarily grow to one side.

the observations have been completed.

(<) 0.66

7. Structural roots missing from one side, and/or grow tangent to trunk.

A. Observations of roots shall occur prior to acceptance. Roots and soil may be

removed during the observation process; substrate/soil shall be replaced after

**Root Inspection - Balled & Burlapped Plants** 

Example

0.50"

0.90"

1.00"

Aspect ratio of B:A less than 0.66

as measured 1" above the top of

Example

1.80"

2.0"

1.50"

2.50"

2.0"

2.50"

the branch union.

Aspect Ratio

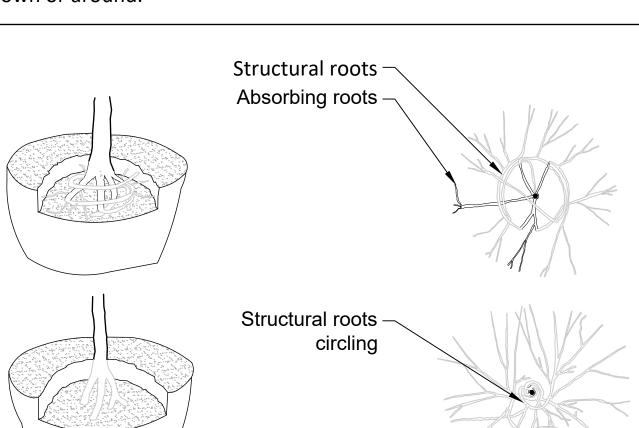
0.33

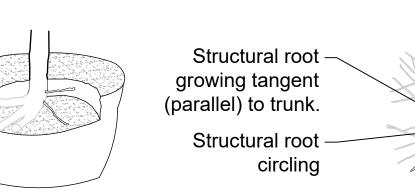
0.36

0.50

### **ACCEPTABLE**

- 1. The point where top-most root(s) emerges from the trunk (root collar) should be within the top 2" of substrate. At least two (2) structural roots must be located within the top one to three inches (1-3") of soil.
- 2. The root collar and the root ball interior should be free of defects
- including circling, kinked, ascending, and stem girdling roots. 3. Structural roots shall reach the periphery near the top of the root ball.
- 4. Roots radiate from trunk and reach side of root ball without defecting down or around.





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## **FINAL** DEVELOPMENT PLAN

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PLANT SELECTION **DETAILS** 

December 1, 2023

23104.00

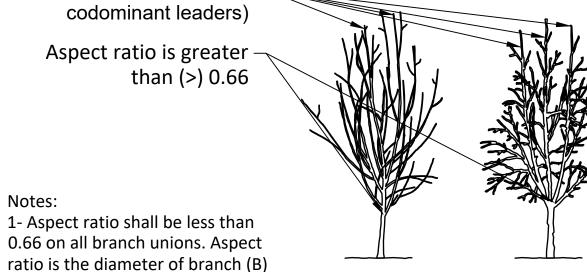


Multiple leaders (Several codominant leaders) Aspect ratio is greater than (>) 0.66

One central leader (no-

Aspect ratio is less than

codominant leaders)



2.50" 2.0" 2.50"

2.0" 0.80 4.0" 0.75 3.0" Aspect ratio of B:A greater than 0.66 as measured 1" above the

Aspect Ratio

0.72

1.0

top of the branch union.

2- Any plant not meeting this detail may be rejected.

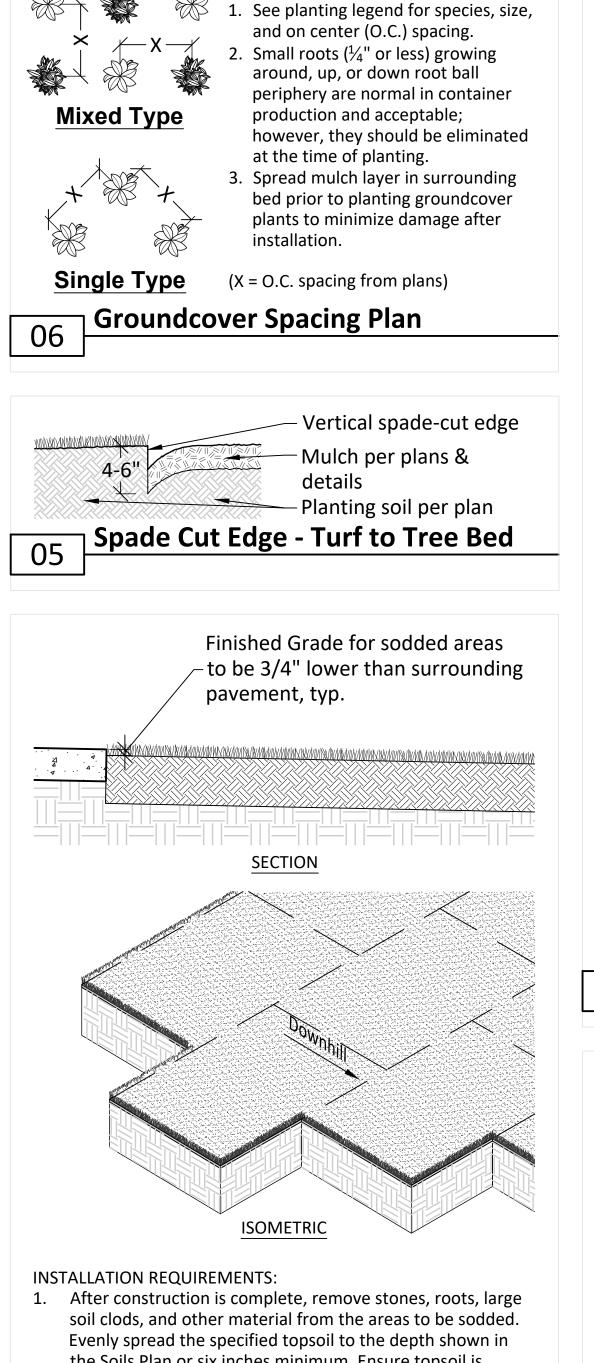
divided by the diameter of the trunk

(A) as measured 1" above the top of

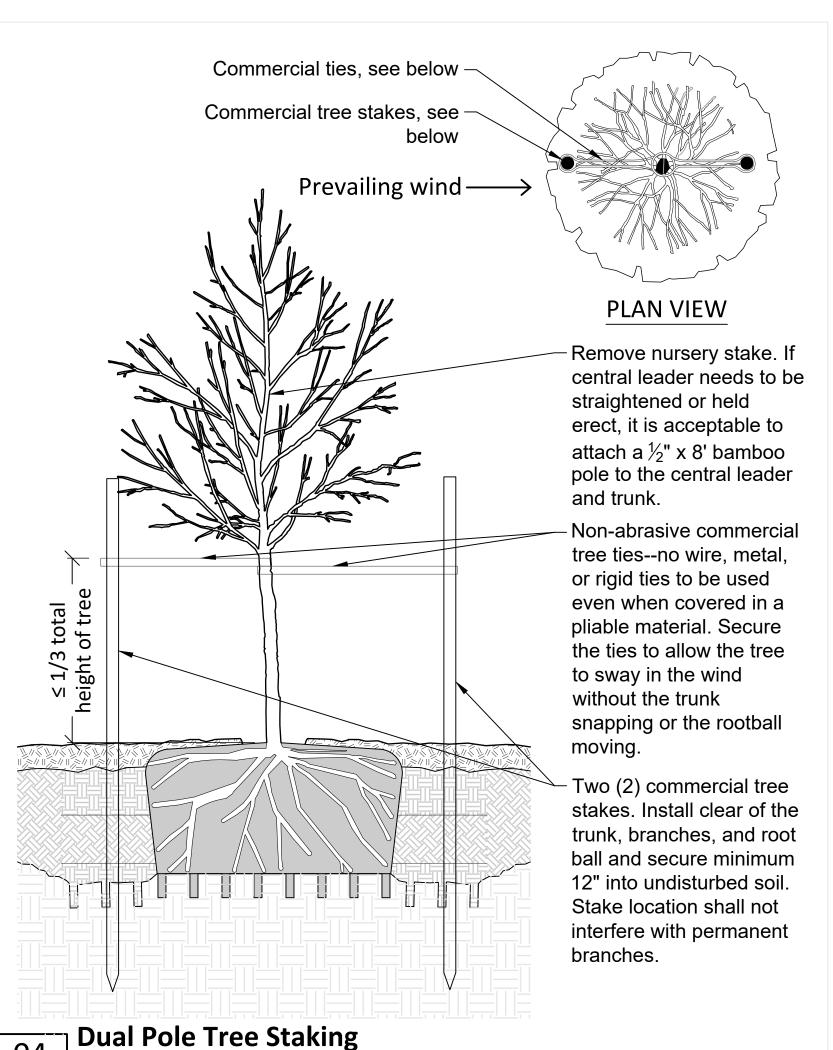
the branch union.

**Crown Inspections - High Branched** 

Root Correction - Balled & Burlapped Plants



- the Soils Plan or six inches minimum. Ensure topsoil is sloping at a minimum of two percent (one foot of drop for every fifty feet of run).
- 2. Evenly apply 10-10-10 fertilizer using 10 pounds per 1,000 square feet and rake into the loosened topsoil. 3. Prior to laying sod, lightly moisten the soil.
- 4. Start laying sod along a long edge. Butt all edges without overlapping; don't leave gaps at seams. Lay all sod in a brick-like pattern. Unroll each piece of sod in the same direction.
- Seam all the edges by firmly rolling them together.
- 5. Avoid walking or kneeling on the sod as you lay it to minimize air pockets and indentations beneath sod.
- 6. Lay sod horizontally across slopes as shown.
- 7. If necessary to prevent erosion, place brightly painted / clearly marked fabric staples where necessary to prevent erosion / movement of the sod.
- 8. Minimize use of cut / partial pieces.
- 9. Water newly laid sod within 30 minutes. Ensure good root contact by rolling the lawn.
- 10. Water sod thoroughly for the first two weeks. Do not allow sod to dry out at any point during this critical period. Do not overwater. As roots are established, water less frequently for longer periods to encourage deep, healthy root growth.
- 11. Once the sod is at least three inches tall, gently pull up on several areas to confirm sod roots are firmly attached to the soil. Once confirmed, mow lawn down to no shorter than two thirds of its height and never below two inches. Mow in different directional pattern each time to ensure even growth over the first growing season.
- 12. Four to six weeks after good root growth has been confirmed, fertilize the lawn with 10-10-10 fertilizer at the rate of 10 pounds per 1,000 square feet.



**Balled & Burlapped Tree Planting in Native Soil** 

- Balled & burlapped tree (RE: plans and specifications)

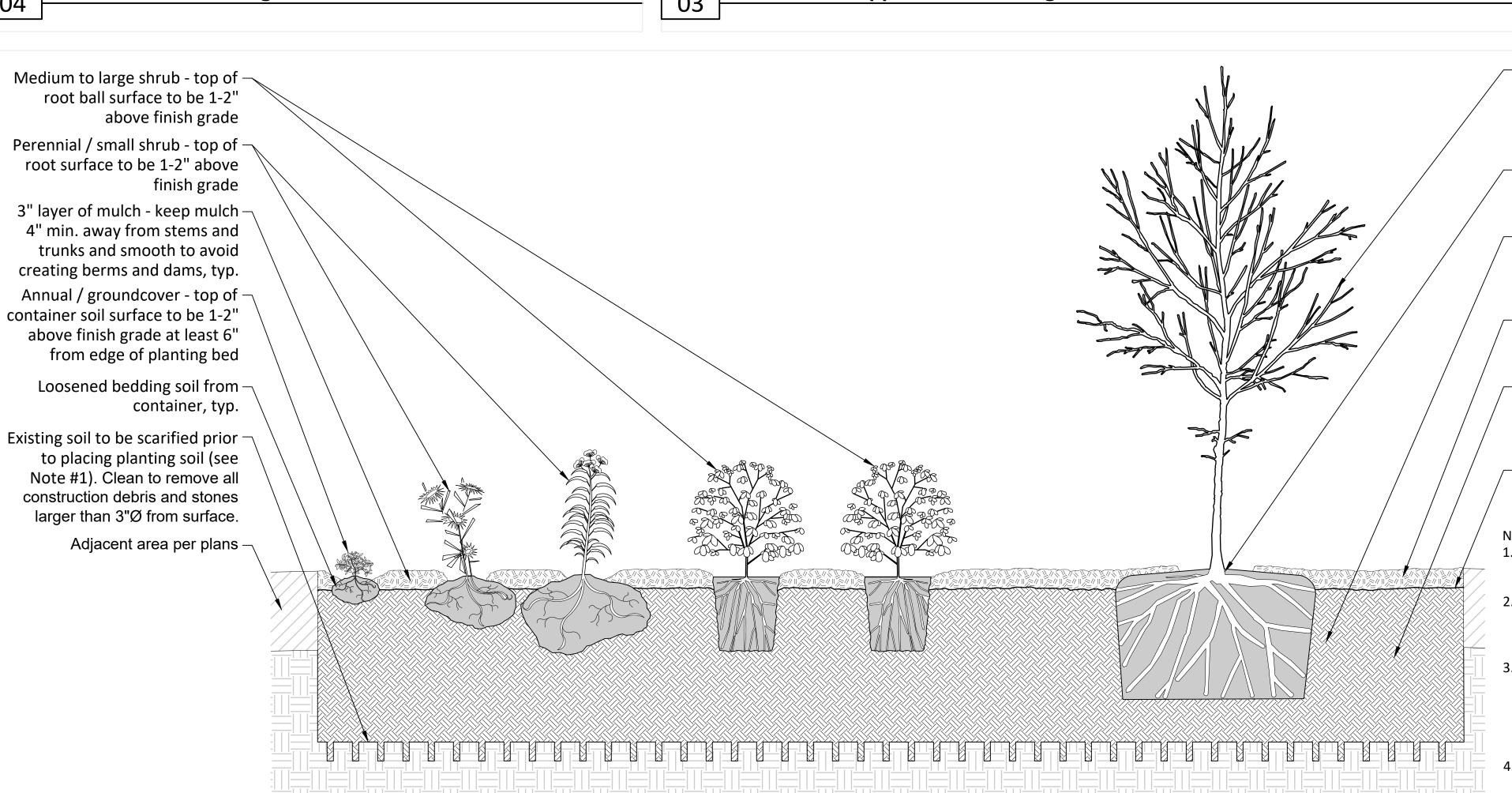
- Root ball remove wire basket, fasteners, rope/twine, and burlap/wrapping completely. Position rootball centered in the hole so that top surface is 1-2" above finish grade and bottom of root ball rests on undisturbed or recompacted soil.
- 3" layer of mulch with no more than 1" of mulch on top of root ball, spread evenly and keep 4" away from trunk, mulch to extend to edge of excavated hole (RE: plans/specifications for type)
- Prior to mulching, firmly tamp soil around the root ball in 6" lifts to brace tree. Do not over-compact. As the hole is being backfilled, pour water around the root ball to settle the soil.

 Dig the hole two to three times (2-3x) as wide and to the same depth as the rootball. Scarify the soil at the bottom of the hole to aid in root penetration (RE: Note

 Loosened native soil. Dig and turn or rototill the soil to reduce compaction. Area to be five times (5x) the rootball width and to the same depth as rootball. Clean to remove all construction debris and stones larger than 3"Ø from surface.

- Spade-cut edge (Re: Detail 05) - Sod in adjacent areas (Re: Detail 02)

- 1. Scarify existing soil to a minimum depth of 3" parallel with final surface drainage.
- 2. Trees shall be of quality prescribed in crown observations and root observations details. Remove all tags and labels and stabilize trees per specifications.
- 3. Prior to planting, gently massage root ball at the bottom until they loosen from their coils then continue massaging all around the plant until they are loose being careful to not pull or break roots.
- 4. Water all trees to saturation within one hour of planting Afterwards, water trees to soil saturation every 7-10 days for the first year by watering slowly at the dripline.



— Tree type, size, and quality per Planting Plan. Remove all burlap, cages, and ropes around root ball before planting.

- Root flare - min. one to two inches (1-2") above adjacent finish grade.

 Lightly tamp soil around rootball to brace plant from settlement and skewing. Do not over-compact.

- 3" layer of mulch - no more than 1" of mulch on top of root ball, typ.

 Prepared planting soil to depth per Soils Plan - replaced soil to be moistened and compacted to 80% SPD prior to planting

- Finished grade - three inches (3") below top of surrounding pavement, typ.

- 1. Scarify existing soil to a minimum depth of 3" parallel with final surface drainage.
- 2. Trees and large shrubs shall be of quality prescribed in crown observations and root observations
- 3. Prior to planting, gently massage root ball at the bottom until they loosen from their coils then continue massaging all around the plant until they are loose being careful to not pull or break roots.
- 4. Water all plants thoroughly within one hour of planting. Afterwards, thoroughly water plants daily for 2 weeks then every 2-3 days for 12



## **FINAL** DEVELOPMENT PLAN

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ARCHITECT: DAS	CHECKED : ADM		
ENGINEER : ERB	APPROVED: CDW		
NO. REVISION D	DATE		
FDP RESUB	FDP RESUBMITTAL		

DRAWN : ERDM

DRAWING TITLE

DESIGNER : ERDM

**PLANTING DETAILS** 

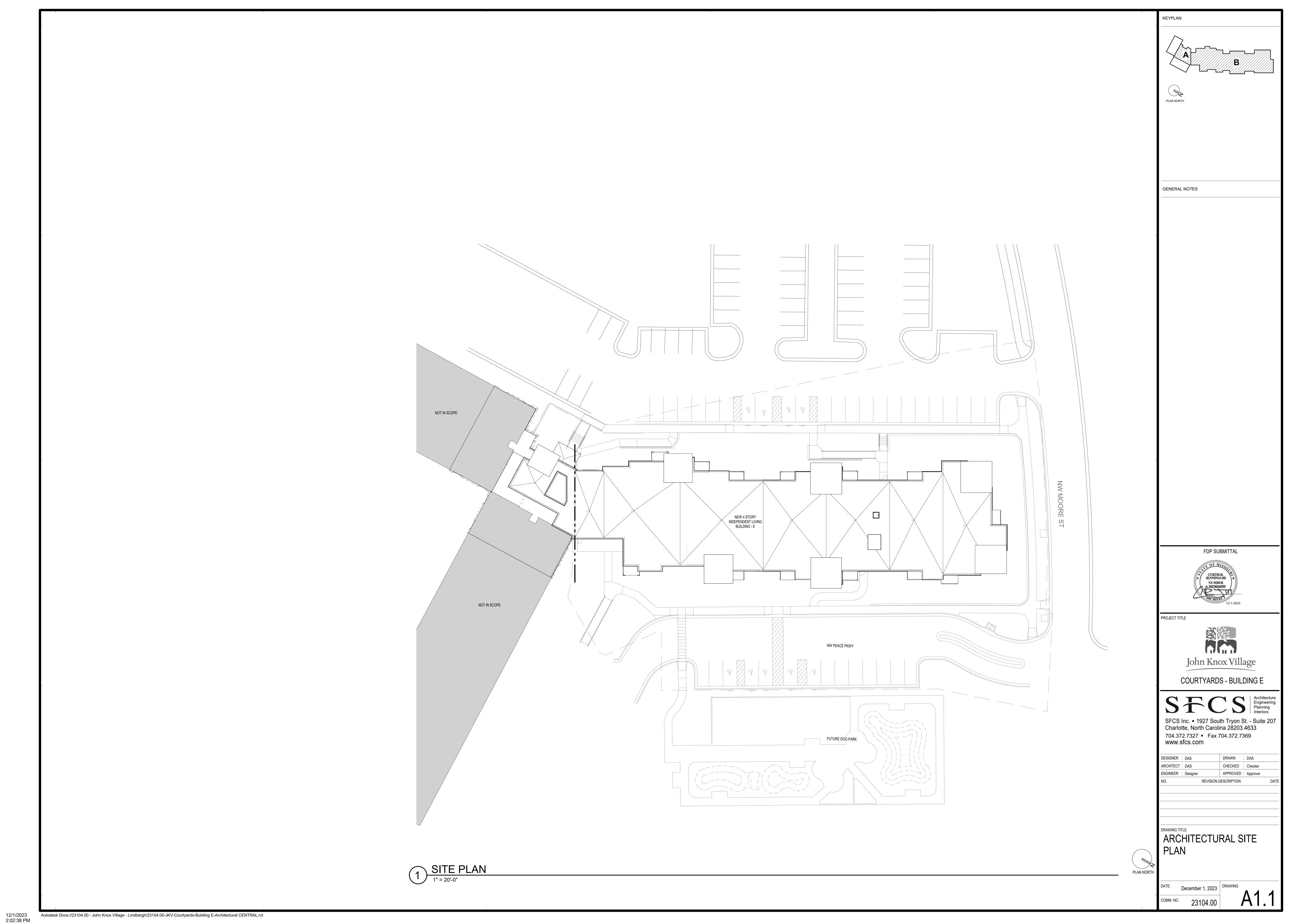
December 1, 2023

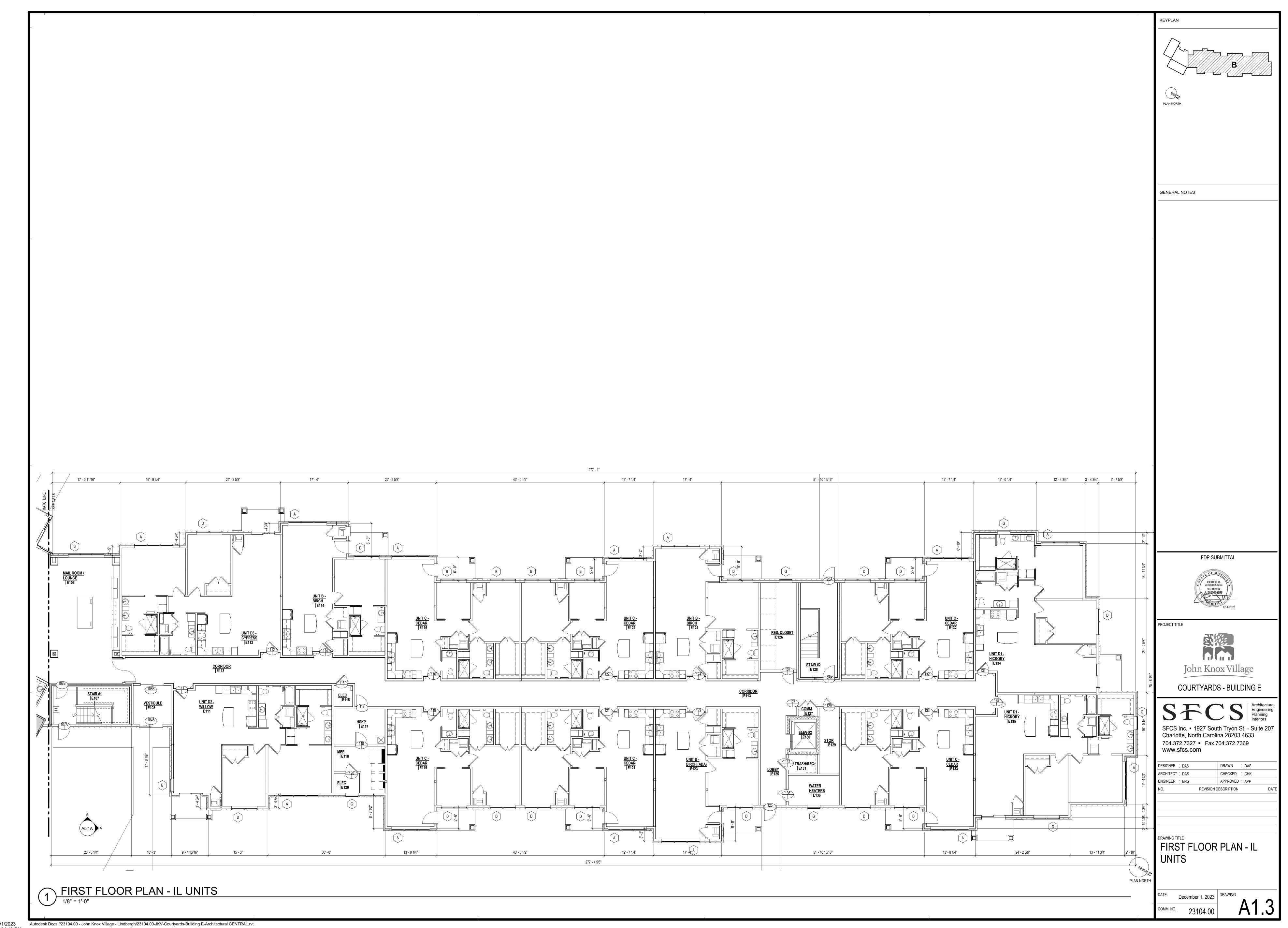
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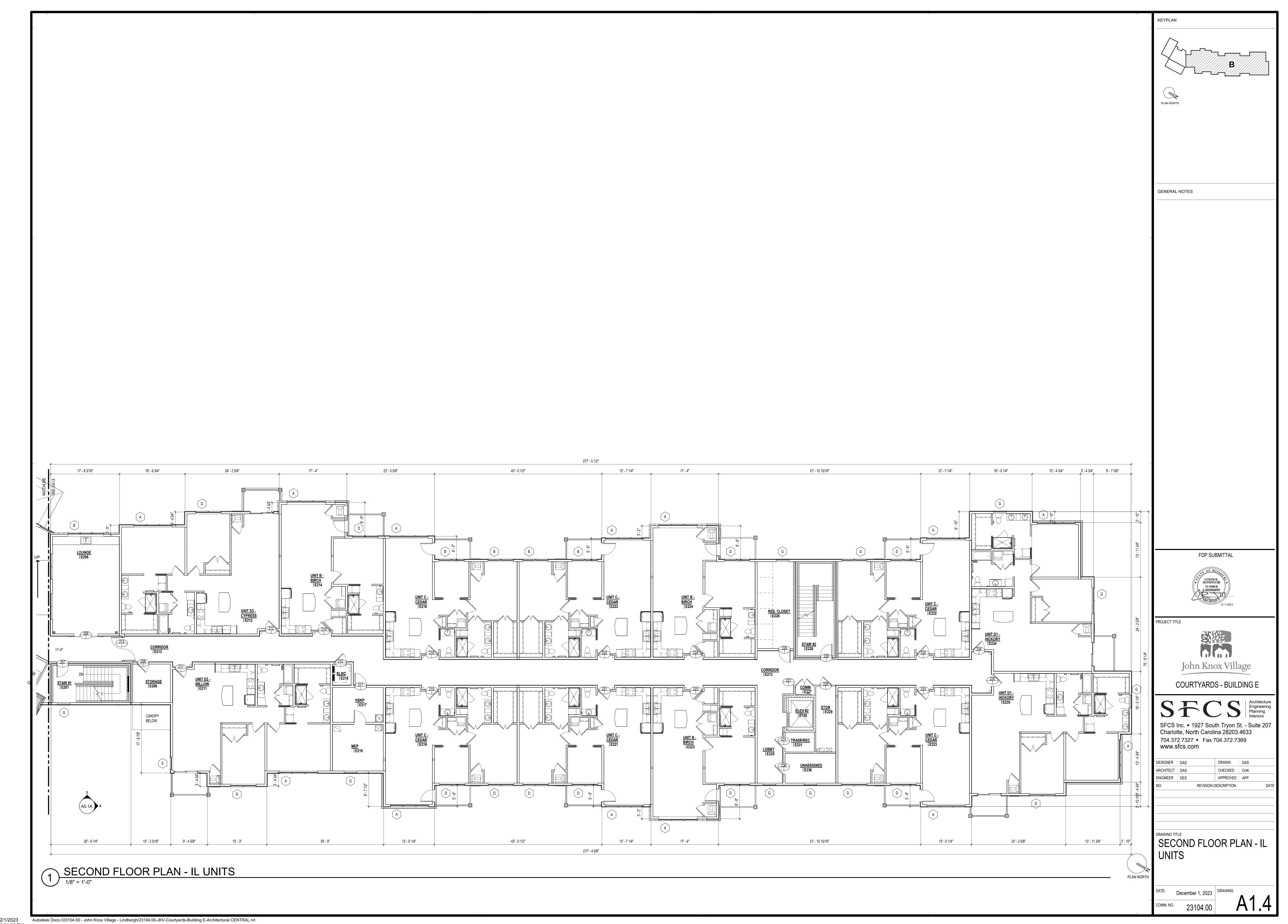
**Planter Bed Installation & Planting** 

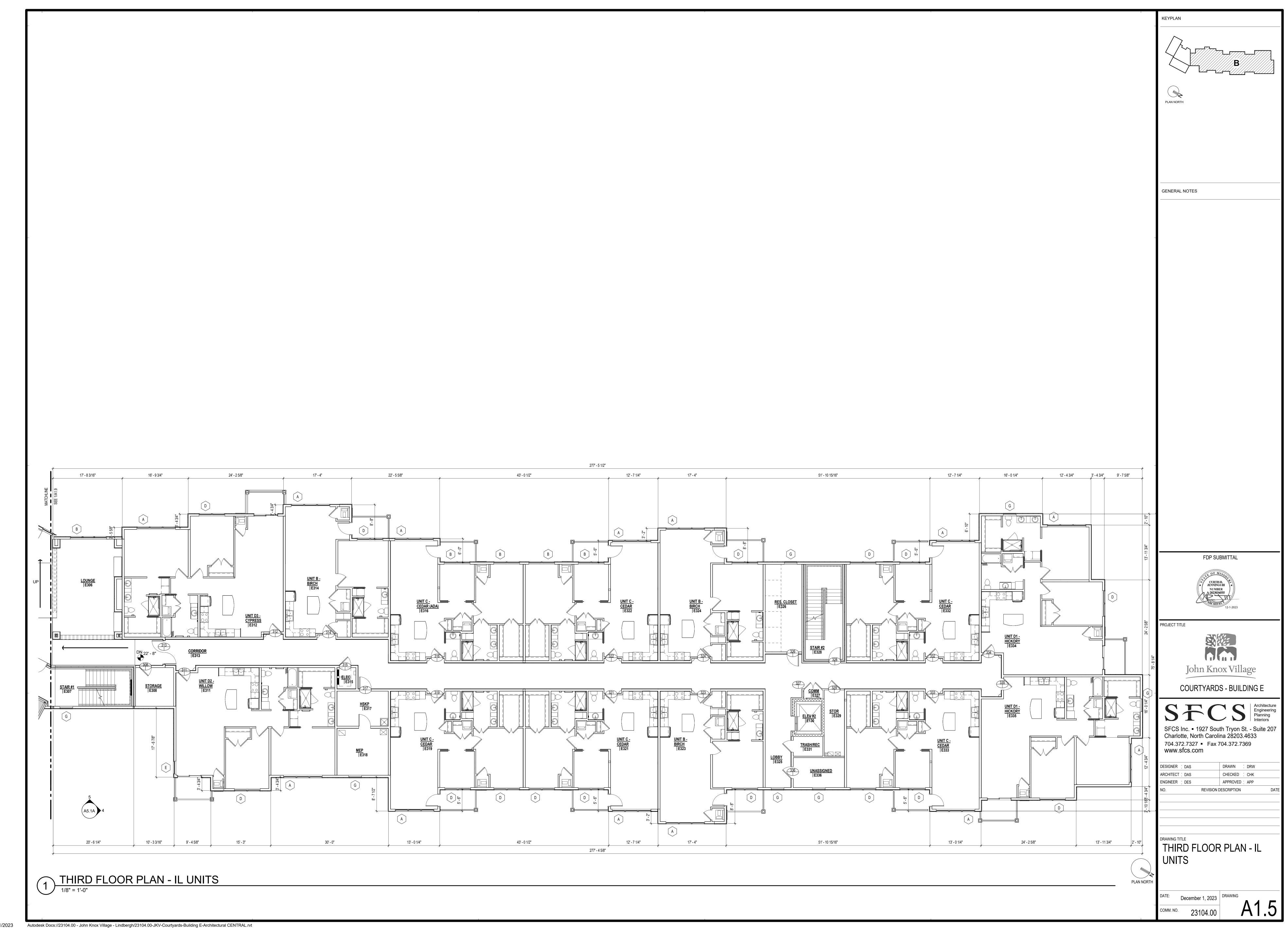
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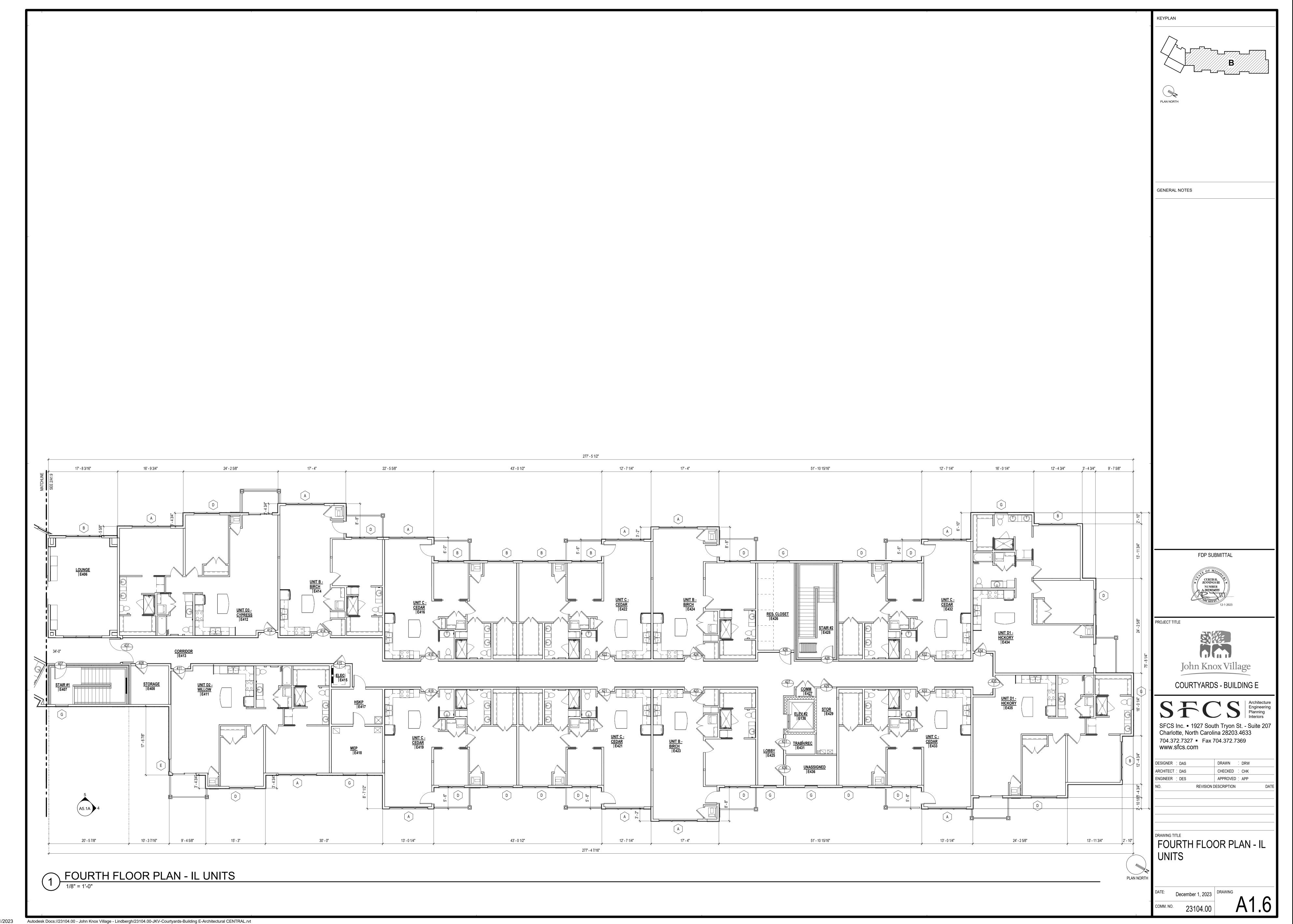
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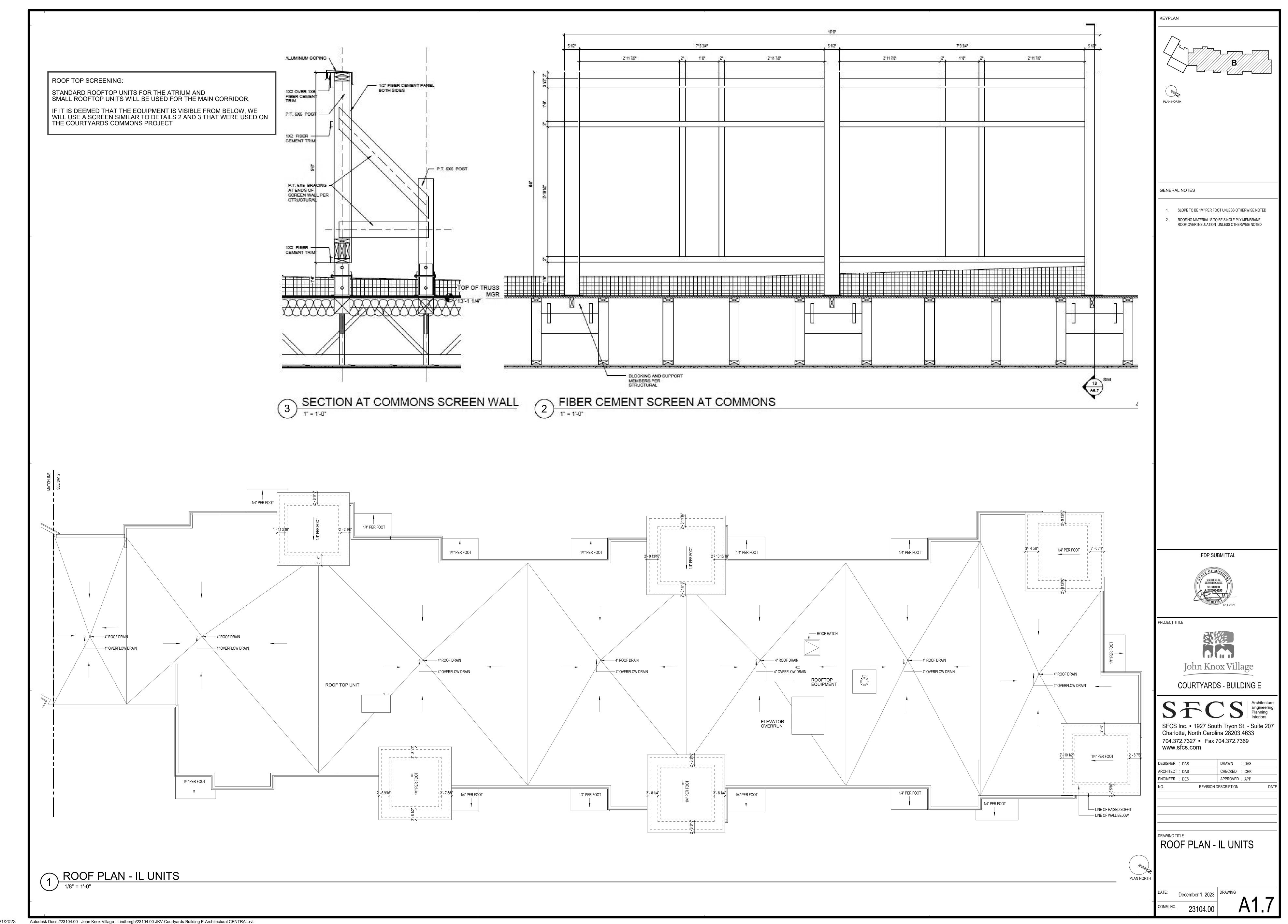










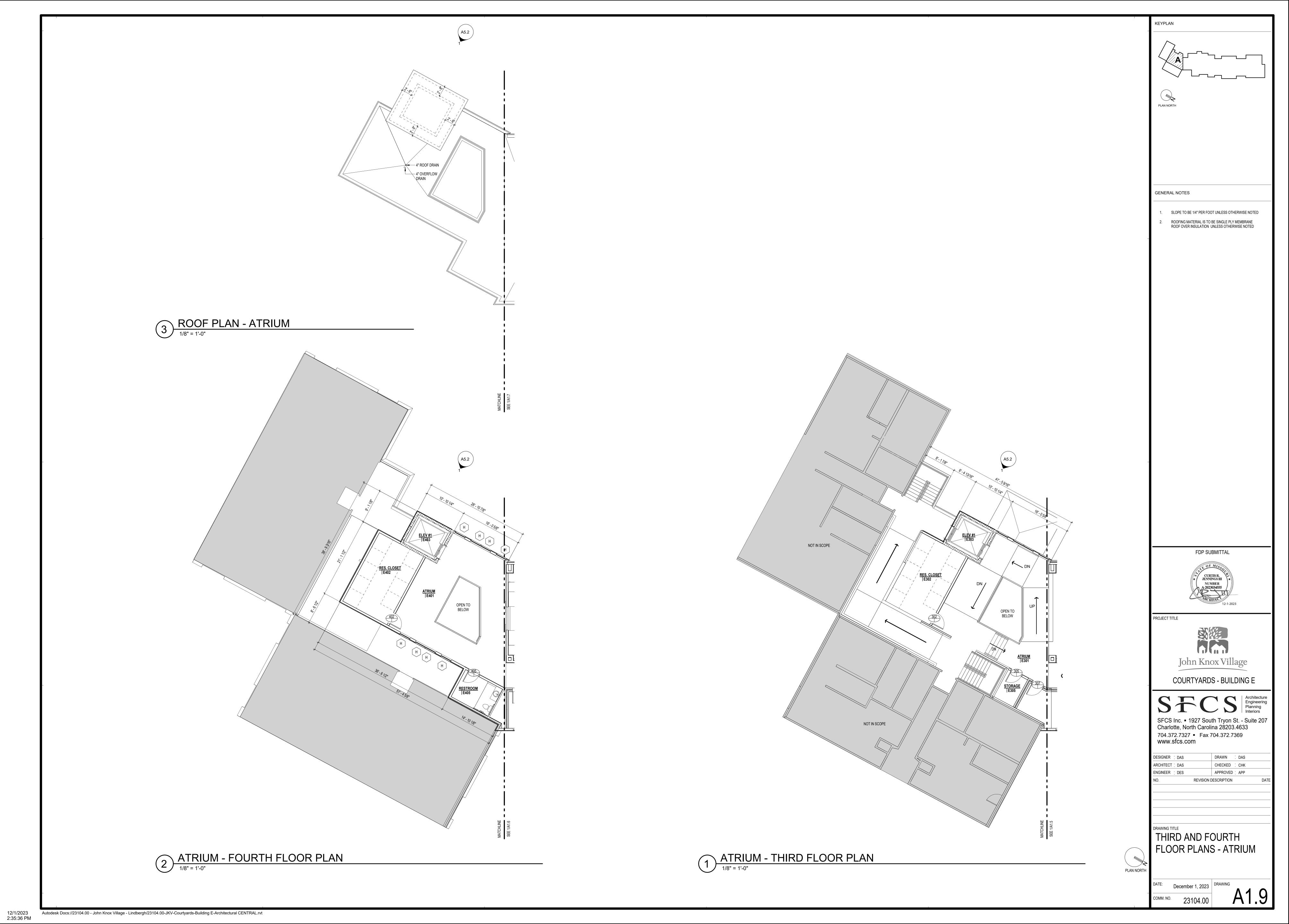


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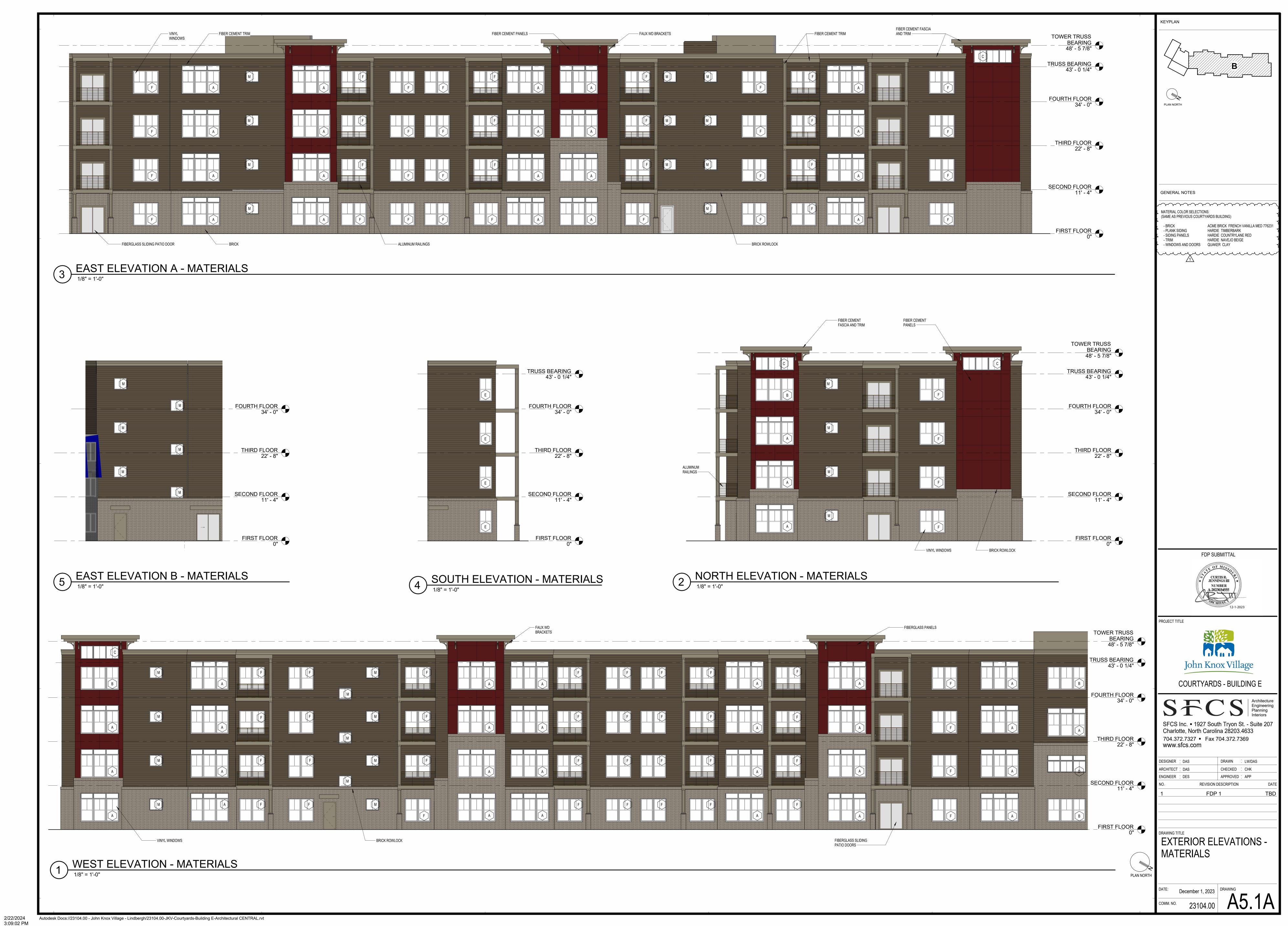
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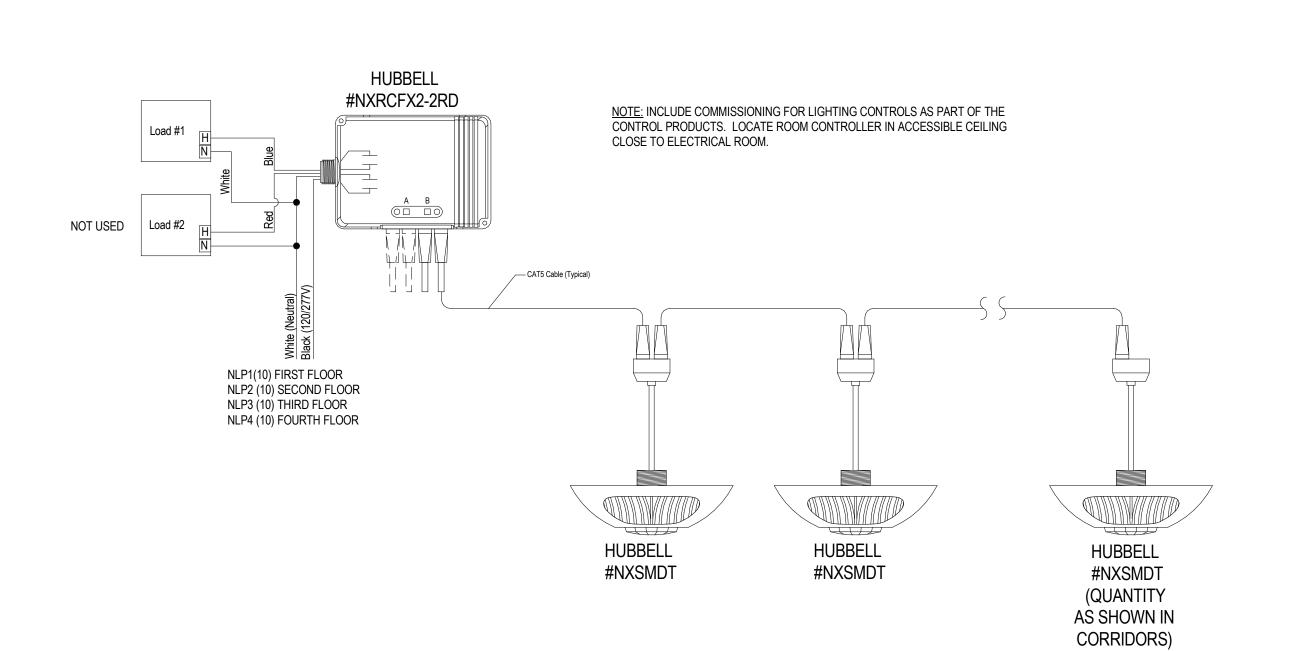
CHECKED : Checker APPROVED : Approver





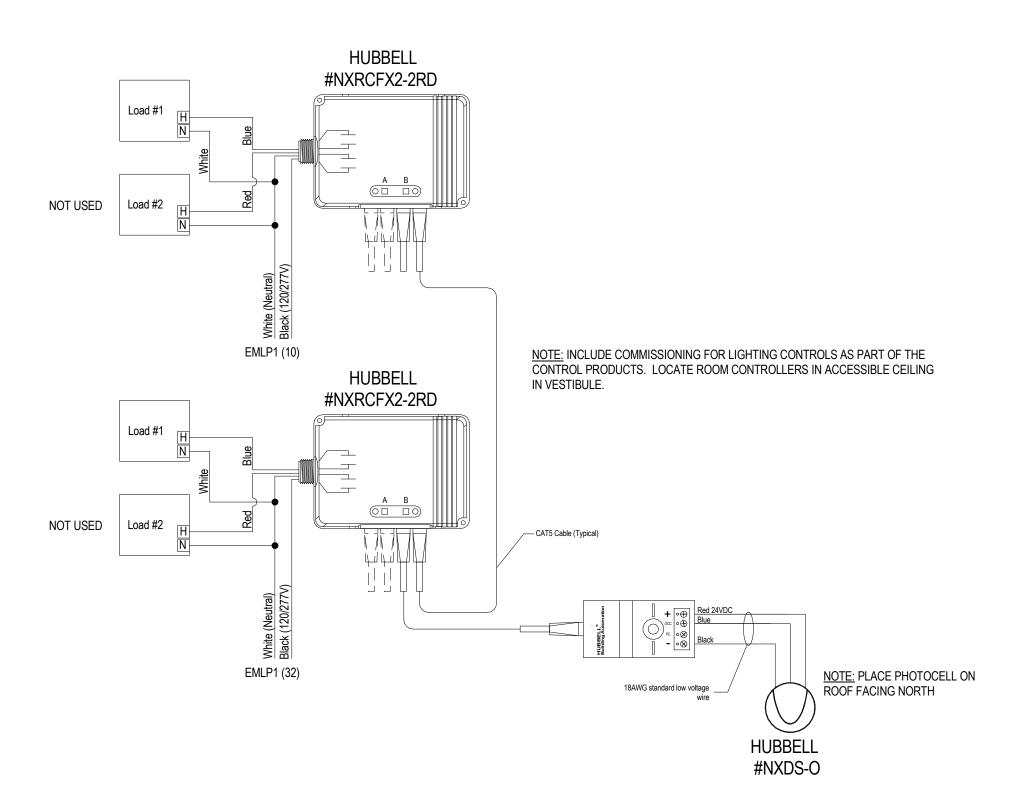
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## CORRIDOR LIGHTING CONTROL DIAGRAM

(TYPICAL FOR EACH FLOOR)



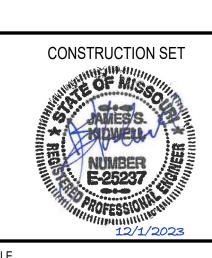
## EMERGENCY EXTERIOR LIGHTING CONTROL DIAGRAM

(CONTROLLING ALL "TYPE 7" FIXTURES AT ENTRY AND EXIT DOORS)

.UMINAIRE		DESCRIPTION	T			LAMP	S		_	TOTAL CONNECTED WATTS	MOUNTING	FINISH	REMARKS
TYPE	LUMINAIRE DESCRIPTION	MANUFACTURER	LUM CATALOG NUMBER	QTY	ТҮРЕ	NOM. WATTS	INITIAL LUMENS	TEMP. COLOR (KELVINS)	VOLTS				
1	2X2 DIRECT/INDIRECT RECESSED. FIELD ADJUSTABLE LUMEN AND CCT SELECTORS. 0-10V DIMMABLE.	ORACLE LIGHTING	22 OEVHP LED 3000 DIM10 MVOLT 35K 85	1	LED	21	3178	3500	MVOLT	21	RECESSED		
2	6" LED DOWNLIGHT, CLEAR SPECULAR, 0-10V DIMMING	PRESCOLITE	HOUSING #LTR-6RD-H- ML- 25L DM1 NXE TRIM# LTR-6RD-T ML 30K9 WD S WT	1	LED	28	2500	3000	MVOLT	28	RECESSED	CLEAR SPECULAR WITH WHITE FLANGE	
3	4'-0"L LED STRIPLIGHT W/ FROSTED LENS	COLUMBIA	MPS 4 30 ML F W U	1	LED	40	4800	3000	MVOLT	40	SURFACE OR CHAIN	FROSTED LENS	
4	SURFACE MOUNT LED WALL BRACKET (STAIR) WITH INTEGRAL OCCUPANCY SENSOR OPTION	LITHONIA	WL4 30L EZ1 LP30 XADNS7 DIM10	1	LED	28	3952	3000	120/277	28	SURFACE	SURFACE WALL AT 7'-6' TO CL OF JBOX	LIGHT OUTPUT DIMS TO 10% IN UNOCCUPIED MODE. FIXTURES SHA CAPABLE OF COMMUNICATION WITH NEIGHBORING FIXTURES TO A FOR ILLUMINATION OF ALL FIXTURES IN STAIRWELL UPON DETECT MOVEMENT.
5	2'-0 LONG LED WALL MOUNT VAPORPROOF LED ELEVATOR PIT LIGHT ACRYLIC DIFFUSER	LITHONIA	DMW2 L24 4000LM MD AFL MVOLT GZ1 30K 80CRI	1	LED	40	5000	3000	120/277	40	SURFACE WALL	GASKETED VAPORPROOF	MOUNT FIXTURE AT APPROXIMATELY 5'-0" AG
6	7" ROUND LED SLIM SURFACE MOUNT DOWNLIGHT	ELITE LIGHTING	RL791-900L-DIMTR-120-30K-90-WH	1	LED	14	900	3000	120	14	SURFACE	WHITE	
7	EXTERIOR WALL PACK FOR EGRESS LIGHTING, DUAL POWER FEEDS	CURRENT	QSP2-160L-75-4K7-3-UNV-BLT-2PF	2	LED	72	9996	4000	120/277	72	SURFACE WALL AT 10'-0"AFG	BLACK	DUAL DRIVER. DUAL FEED PER CODE
8	LED AREA FIXTURE WITH A 16' STEEL POLE	LLITHONIA	RSX2-P4-40K-R4-MVOLT-SPA-PE-DBLXD, SSS-16'-4G-DM19AS-STLHHC-FBCSTL2PC-DBLX D	1	LED	187	25329	4000	120/277	187	POLE MOUNT	BLACK	
9	POLE MOUNTED DECORATIVE PENDANT STYLE LED LUMINAURE WITH DECORATIVE ARM AND POLE BASE	VISIONAIRE LIGHTING (TO MATCH EXISTING) - NO EQUALS	ODN-2-L-T4-80LC-3-4K-UNV-UAM-(COLOR TO MATCH)-C6/H1 (FIXTURE), RNTA-5R-188-16-CB-343-T238R-BK (POLE), DCB-14-5RS-BK (POLE BASE), VA103-L-S1-3-BK (MOUNTING ARM)	1	LED	54	6653	4000	120/208	54	POLE MOUNT	TO MATCH EXISTING	MATCH EXISTING LIGHT POLES ON SITE
10	(2) LED AREA FIXTURE WITH A 16' STEEL POLE MOUNTED AT 90 DEGREES FROM EACH OTHER	LLITHONIA	(2)RSX2-P4-40K-R4-MVOLT-SPA-PE-DBLXD, (1)SSS-16'-4G-DM29AS-STLHHC-FBCSTL2PC-DB LXD		LED	187	25329	4000	120/277	374	POLE MOUNT	BLACK	
X1	EDGE LIT LED EXIT SIGN. 2-CIRCUIT	LITHONIA	EDG-1 (OR 2)-RMR-X2		LED	2.5	N/A	N/A	120/277	2.5	UNIVERSAL, CEILING/WALL		REFER TO LIGHTING FLOOR PLANS FOR # OF FACES AND DIRECTIC CHEVRONS. PROVIDE TWO CIRCUITS, ONE TO NORMAL LTG BRANC CIRCUIT IN AREA THE OTHER TO THE EMERGENCY BRANCH CIRCU INDICATED.
X2	WHITE THERMOPLASTIC LED EXIT SIGN. 2-CIRCUIT	LITHONIA	LQM S W 3 R 120/277 X2		LED	2.5	N/A	N/A	120/277	2.5	UNIVERSAL, CEILING/WALL	RED LETTERS	REFER TO LIGHTING FLOOR PLANS FOR # OF FACES AND DIRECTIC CHEVRONS. PROVIDE TWO CIRCUITS, ONE TO NORMAL LTG BRANC CIRCUIT IN AREA, THE OTHER TO THE EMERGENCY BRANCH CIRCUINDICATED.
Х3	WET LOCATION LISTED LED EXIT SIGN. 2-CIRCUIT	LITHONIA	WLTE W 1 R		LED	5	N/A	N/A	120/277	5	UNIVERSAL, CEILING/WALL	RED LETTERS	REFER TO LIGHTING FLOOR PLANS FOR # OF FACES AND DIRECTIC CHEVRONS. PROVIDE EMERGENCY BRANCH CIRCUIT INDICATED.
L DECORATIV OORDINATE T L EMERGENC FERIOR / EXT	TO ALL LUMINAIRE SCHEDULES:  /E LIGHT FIXTURE FINISHES SHALL BE DETERMINED BY AND COOR HE FINISHED CEILING HEIGHTS WITH THE ARCHITECT/INTERIOR DE CY LIGHT FIXTURES AND EXIT SIGNS SHALL MEET N.F.P.A. LIFE SAE ERIOR FIXTURES FINISHES' SUBJECT TO APPROVAL / CHANGE BY A SARY MOUNTING TRIMS WITH ARCHITECTURAL REFLECTED CEILIN	ESIGNER DRAWINGS FOR APPROF FTY REQUIREMENTS. ARCHITECT. VERIFY PRIOR TO RE	PRIATE STEM LENGTHS OF PENDANT MOUNTED F	AL.									I

			E											
	_			LAMI	PS .			TOTAL						
LUMINAIRI TYPE	LUMINAIRE DESCRIPTION	MANUFACTURER	LUM CATALOG NUMBER	QTY	ТҮРЕ	NOM. WATTS	INITIAL LUMENS	TEMP. COLOR (KELVINS)	VOLTS	CONNECTEI	MOUNTING	FINISH	REMARKS	
D1	30" DIA. IL CORRIDOR PENDANT.	LITETOPS	SS5-JKVC-DF10	3	GU24 LED	12	-	3000	120	36	PENDANT	STANDARD POWDER COAT BRONZE	ORDER WITH OPAL MATTE ACRYLIC DIFFUSER/ OFF WHITE LINEN/ CHOCOLATE TRIM. PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT	
D2	1ST FLOOR VESTIBULES FLUSH MOUNT	ULTRALIGHT	CUSTOM CABLE HUNG DRUM PENDANT DF4	4	GU24 LED	12	-	3000	120	48	FLUSH MOUNT	STANDARD POWDER COAT FINISH W/ OPAL ACRYLIC DIFFUSER		
D3	IL CORRIDOR DWELLING UNIT ENTRY WALL SCONCE	HUBBARDTON FORGE	BANDED SCONCE #205812-1074	1	A19 - LED	10	-	3000	120	10	SURFACE WALL	OIL RUBBED BRONZE	PROVIDE A ALLOWANCE OF \$300 PER WALL SCONCE	
D4	36" DIA. CHANDELIER AT TOP OF ATRIUM.	METROPOLITAN LIGHTNIG FIXTURE CO.	N6967-1-267B	5	E26 - MED LED	12	-	3000	120	60	PENDANT	CIMARRON BRONZE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT	
D5	30" DIA LOUNGE PENDANTS. MOUNTED AT VARIOUS HEIGHTS INDICATED ON FLOOR PLANS.	METROPOLITAN LIGHTNIG FIXTURE CO.	N6965-1-267B	4	E26 - MED LED	12	-	3000	120	48	PENDANT	CIMARRON BRONZE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT	
D6	24" DIA. 2ND & 4TH FLOOR LOUNGE PENDANT.	ULTRALIGHT	TAMBOUR 13223-24	3	LED	12	-	3000	120	30	PENDANT	CAST BRONZE W/ OPA SHADE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT	
D7	ATRIUM DECORATIVE WALL SCONCE	RENAISSANCE LIGHTING	RL-4-0708-ADA	1	LED	15	-	3000	120	15	SURFACE WALL	MEDIUM BRONZE PC V FROSTED WHITE ACRYLIC SHADE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT	
D8	30" WIDE WALL FIXTURE DESIGNED AS A PICTURE LIGHT	HINKLEY	ARTI LARGE ADJUSTABLE ACCENT LIGHT ITEM # 47095HB	2	EE6/T14/LE D	4.5	350	2700	120V	10	WALL PPICTURE LIGH	F HERITAGE BRASS	PICTURE LIGHT. VERIFY MOUNTING HEIGHT WITH INTERIORS PRIOR TO INSTALLATION.	

	RESIDENT DWELLING UNIT LUMINAIRE SCHEDULE												
				LAM	PS			TOTAL					
UMINAIRE TYPE	LUMINAIRE DESCRIPTION	MANUFACTURER	LUM CATALOG NUMBER	QTY TYPE NOM. INITIAL COLOR (KELVINS)		VOLTS	CONNECTED WATTS	MOUNTING	FINISH	REMARKS			
U1	6" LED WAFER DOWNLIGHT, DIMMABLE	COOPER LIGHTNIG	SLD606-9-30-WH	1	LED	13	800	3000	120	13	RECESSED CEILING	WHITE	
U2	BAHTROOM VANITY LIGHT WITH ETCHED GLASS SHADES	PROGRESS LIGHTNIG	P300160-009	3	LED - E26	7	-	3000	120	21	SURFACE WALL AT 7'-0" TO CL OF JBOX	BRUSHED NICKEL	PROVIDE DIMMABLE LED LAMPING EQUIVALENT TO 100W INCANDESCENT WITH FIXTURE. LOCATE ABOVE VANITY MIRROR.
U3	BEDROOM / DEN 54" 5 BLADE CEILING FAN W/ LIGHT KIT	HARBOR BREEZE	SAILOR BAY 52" BRUSHED NICKEL LED INDOOR DOWNROD	3	LED A15	7	-	3000	120	21	SURFACE	BRUSHED NICKEL	
U4	MINI-PENDANT ABOVE KITCHEN ISLAND	PROGRESS LIGHTNIG	P500125-009	1	LED-E26	16	-	3000	120	16	PENDANT, 5'-6" TO BOTTOM OF SHADE	BRUSHED NICKEL	PENDANT MOUNT OVER COUNTER - COORDINATE OAH WITH ARCHITECTURAL AND INTERIOR ELEVATIONS. PROVIDE DIMMABLE LED LAMPING EQUIVALENT TO 100W INCANDESCENT WITH FIXTURE. REFR TO ELEVATIONS FOR MTG. HT.
U5	4' LED STRIP WITH LENS	HE WILLIAMS	75S-4-L30-830-DIM-UNV	1	LED	19.6	2830	3000	120/277	19.6	SURFACE	WHITE	MOUNT FIXTURE ON CEILING DIRECTLY ABOVE DOOR IN SMALL CLOSETS, OTHER LOCATIONS AS SHOWN ON PLANS.
U6	FLUSH MOUNT IN DWELLING UNIT CORRIDOR	PROGRESS LIGHTNIG	P3852-09	2	LED-E26	16	-	3000	120	32	FLUSH MOUNT	BRUSHED NICKEL	PROVIDE WITH DIMMABLE LED LAMP
U7	4" LED RECESSED DOWNLIGHT-SHOWERLIGHT WITH FLUSH NON-CONDUCTIVE LENS	HE WILLIAMS	4DR-TL-L10-8-35-DIM1-UNV-S-W-OF-WH-AD-N-F1	1	LED	9	1000	3500	120	9	RECESSED	WHITE	STANDARD WITH AD DIFFUSE ACRYLIC LENS AND IP/WET STANDARD OPTION
U8	EXTERIOR LANTERN ON DWEELING UNIT PATIO/ BALCONY	PROGRESS LIGHTNIG	P6052-20	1	LED	10	-	3000	120	10	SURFACE WALL AT 7'-10" TO CTR OF JBOX ABOVE PATIO DOOR	BLACK	PROVIDE DIMMABLE LED LAMPING EQUIVALENT TO 100W INCANDESCENT WITH FIXTURE. INSTALL AT 6'-8" TO BOTTOM OF FIXTURE.
U9	2' LED STRIP WITH LENS	HE WILLIAMS	75S-2-L20-830-DIM-UNV	1	LED	14.5	1976	3000	120/277	14.5	SURFACE	WHITE	MOUNT FIXTURE ON WALL DIRECTLY ABOVE DOOR IN SMALL CLOSETS, OTHER LOCATIONS AS SHOWN ON PLANS.
U10	FLUSH MOUNT ABOVE DINING TABLE.	PROGRESS LIGHTNIG	P3852-09	2	LED-E26	16	-	3000	120	32	FLUSH MOUNT	BRUSHED NICKEL	PROVIDE WITH DIMMABLE LED LAMP
U11A	18" LED UNDERCABINET FIXTURE	ELITE LIGHTING	EU-LED-18-450L-DIMTR-120-30K-WH	1	LED	7	600	3000	120	7	UNDERCABINET	WHITE	DETERMINE WHICH LENGTH TO USE WITH THE WIDTH OF THE UPPER CABINET
U11B	12" LED UNDERCABINET FIXTURE	ELITE LIGHTING	EU-LED-12-450L-DIMTR-120-30K-WH	1	LED	4.6	450	3000	120	5	UNDERCABINET	WHITE	DETERMINE WHICH LENGTH TO USE WITH THE WIDTH OF THE UPPER CABINET



PROJECT TITLE

GENERAL NOTES

John Knox Village

SFCS Inc. • 305 South Jefferson Street Roanoke, Virginia 24011.2003

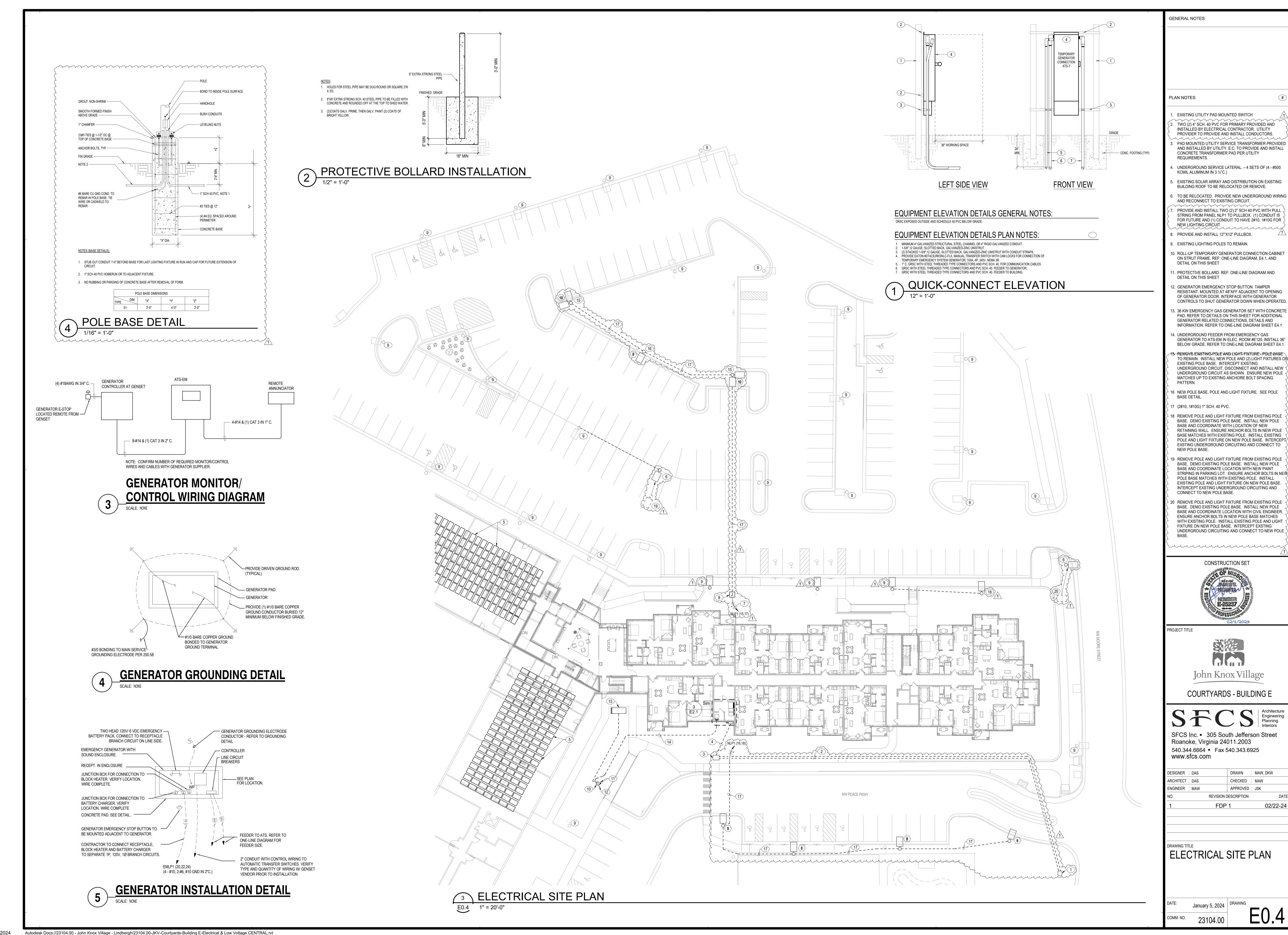
COURTYARDS - BUILDING E

540.344.6664 Fax 540.343.6925 www.sfcs.com ARCHITECT : DAS CHECKED : MAW APPROVED : JSK

REVISION DESCRIPTION FDP 1

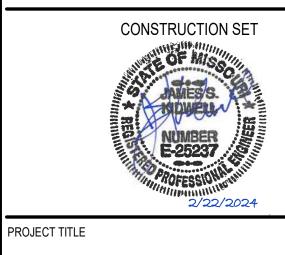
LUMINAIRE SCHEDULES & LIGHTING CONTROLS DETAILS

Autodesk Docs://23104.00 - John Knox Village - Lindbergh/23104.00-JKV-Courtyards-Building E-Electrical & Low Voltage CENTRAL.rvt



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GENERAL NOTES



**COURTYARDS - BUILDING E** 

SFCS Inc. • 305 South Jefferson Street Roanoke, Virginia 24011.2003 540.344.6664 Fax 540.343.6925

ARCHITECT : DAS APPROVED : JSK REVISION DESCRIPTION

www.sfcs.com

FDP 1

PHOTOMETRICS SITE PLAN

**Branch Panel: NLP4** Location: ELEC E415 Volts: 120/208 Wye **A.I.C. Rating:** 10,000 AIC Supply From: NLDPA Mains Type: MLO Phases: 3 Mounting: SURFACE Mains Rating: 100 A Wires: 4 MCB Rating: Enclosure: NEMA 1 Trip Poles A B C Poles Trip Circuit Description 
 Trip
 Poles
 A
 B
 C
 Poles
 Trip
 Circuit Description
 CKT

 20 A
 1
 1260 VA
 900 VA
 1
 20 A
 RCPT'S - CORRIDOR #E413
 2

 20 A
 1
 1260 VA
 1080 VA
 1
 20 A
 RCPT'S - RM. #E417, E418, E426, E429, E431,....
 4

 5
 20 A
 1
 900 VA
 180 VA
 1
 20 A
 SPARE
 6

 20 A
 1
 900 VA
 180 VA
 1
 20 A
 GFI RCPT'S - RESTROOM #E405
 8

 20 A
 2
 1500 VA
 770 VA
 1
 20 A
 LTG. - 4TH FLOOR CORRIDOR & ATRIUM
 10

 -- -- 1500 VA
 588 VA
 1
 20 A
 LTG. - RM. #E417, E418, E426, E429, E431, E436
 12

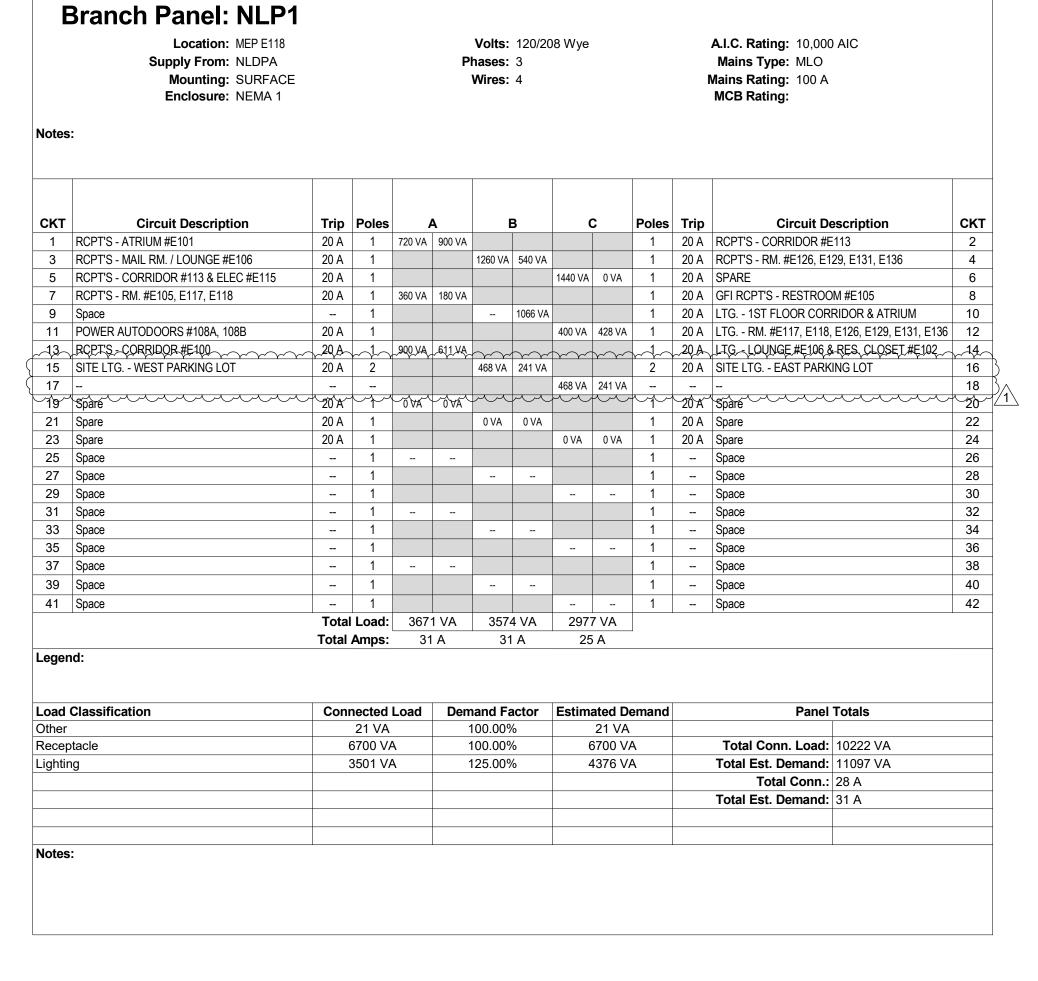
 20 A
 2
 1500 VA
 593 VA
 1
 20 A
 LTG. - LOUNGE #E406 & RES. CLOSET #E402
 14

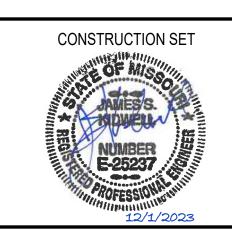
 -- -- 3360 VA
 3360 VA
 20
 22

 -- -- 3360 VA
 22
 24
 Circuit Description 1 RCPT'S - ATRIUM #E401 3 RCPT'S - LOUNGE #E406 5 RCPT'S - CORRIDOR #E413 & ELEC #E415 7 GFI / WP RCPT - ROOFTOP 9 EWH-1 (STAIRWELL #1, 4TH FLOOR) 13 EWH-1 (STAIRWELL #2 , 4TH FLOOR) 17 ELEVATOR #2 (15 HP) **Total Load:** 8693 VA 9470 VA 6528 VA **Total Amps:** 75 A 82 A 54 A Panel Totals **Load Classification** 6000 VA 100.00% 6000 VA Total Conn. Load: 24691 VA Motor 10080 VA 100.00% 10080 VA Total Est. Demand: 25173 VA 21 VA 100.00% 21 VA 6660 VA Total Conn.: 69 A 6660 VA 100.00% Receptacle Total Est. Demand: 70 A 1930 VA 125.00% 2412 VA

Location: ELEC E215 Supply From: Mounting: SURFACE Enclosure: NEMA 1						Volts: hases: Wires:	-	08 Wye	ye A.I.C. Rating: 10,000 AIC  Mains Type: MCB  Mains Rating: 225 A  MCB Rating:							
Notes:	:															
СКТ	Circuit Description	Trip	Poles		4		В			Poles	Trip	Circuit D	escription	СК		
	RCPT'S - ATRIUM #E201	20 A	1		900 VA					1		RCPT'S - CORRIDOR #E	•	2		
	RCPT'S - LOUNGE #E206	20 A	1			1080 VA	1080 VA			1	20 A	RCPT'S - RM. #E217, E2		4		
	RCPT'S - CORRIDOR #E213 & ELEC #E215	20 A	1					1080 VA	0 VA	1	20 A	SPARE	, -,,,	6		
	GFI RCPT'S - LOUNGE #E206	20 A	1	360 VA	850 VA					1	20 A	CLOTHES WASHER - H	SKP #E205	8		
	UC MICROWAVE - LOUNGE #E206	20 A	1			1200 VA	927 VA			1		LTG 2ND FLOOR COR		1		
	UC REFRIGERATOR - LOUNGE #E206	20 A	1					600 VA	588 VA	1	20 A			1:		
	RCPT'S - CORRIDOR #E200	20 A	1	900 VA	624 VA					1	20 A	LTG LOUNGE #E206 &		14		
15	GFI RCPT'S - LOUNGE #E206	20 A	1			360 VA	2500 VA			2	20 A	CLOTHES DRYER - HSk		1		
17		1 2071	,						2500 VA					18		
19														20		
21														22		
23														24		
25														26		
27														2		
29														30		
31														32		
33														34		
35														36		
37					3004 VA					3	100 A	PANEL NLP3		38		
39							3629 VA							40		
41									1488 VA					42		
		Total	Load:	7718	8 VA	1077	'5 VA	6256	6 VA					_		
			Amps:		6 A		2 A		2 A	_						
Legen	d:		•													
Load Classification			nected	l oad	Dem	nand Fa	actor	Fstim	ated D	emand		Panol	Totals			
		55111	0 VA	_544	2611	0.00%		_501110	0 VA	Jiiuiu		i dilei				
	Receptacle		20610 VA						15305 VA							
Other	tacle	2	0610 V	Ά		74.26%	)	1	5305 V	Ά		Total Conn. Load:	24749 VA			
Other Recep						74.26% 125.00%						Total Conn. Load: Total Est. Demand:				
Other			:0610 V 4139 V			74.26% 125.00%			5305 V 5174 V			Total Conn. Load: Total Est. Demand: Total Conn.:	20479 VA			

E	Branch Panel: NLP3													
	Location: ELEC E315 Supply From: NLP2 Mounting: SURFACE Enclosure: NEMA 1				P	Volts: hases: Wires:	3	)8 Wye				A.I.C. Rating: 10,000 Mains Type: MCB Mains Rating: 225 A MCB Rating:	) AIC	
Notes	:													
СКТ	Circuit Description	Trip	Poles		A	E	3		·····	Poles	Trip	Circuit De	escription	СК
	RCPT'S - ATRIUM #E301	20 A	1		900 VA					1		RCPT'S - CORRIDOR #E	•	2
3	RCPT'S - LOUNGE #E306	20 A	1			1800 VA	1080 VA			1	20 A	RCPT'S - RM. #E317, E3	18, E326, E329, E331,	4
5	RCPT'S - CORRIDOR #E313 & ELEC #E315	20 A	1					900 VA	0 VA	1		SPARE		6
7					0 VA					1		SPARE		8
9							749 VA			1		LTG 3RD FLOOR COR		10
11									588 VA	1		LTG RM. #E317, E318,		-
13					664 VA					1	20 A	LTG LOUNGE #E306 8	RES. CLOSET #E302	14
15														16
17														18
19														20
21														22 24
25														26
27														28
29														30
31														32
33														34
35														36
37														38
39														40
41														42
			Load:		4 VA	3629			3 VA					
		Total	Amps:	27	7 A	32	! A	12	Α					
_egen	d:													
Load (	Classification	Coni	nected	Load	Dem	and Fa	ctor	Estima	ated De	emand		Panel	Totals	
Other Receptacle			0 VA			0.00%			0 VA					
			6120 V <i>A</i>			100.00%			6120 V			Total Conn. Load:		
_ightin	g	:	2001 VA	١	1	125.00%	6	2	2501 V	4		Total Est. Demand:		
					120.00			2001		· • • • • • • • • • • • • • • • • • • •		Total Conn.:	23 A	





PROJECT TITLE

GENERAL NOTES



COURTYARDS - BUILDING E

SFCS Inc. • 305 South Jefferson Street Roanoke, Virginia 24011.2003

540.344.6664 ■ Fax 5	
DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO. REVISION [	DESCRIPTION

DRAWING TITLE
PANELBOARD SCHEDULES

Autodesk Docs://23104.00 - John Knox Village - Lindbergh/23104.00-JKV-Courtyards-Building E-Electrical & Low Voltage CENTRAL.rvt 10:03:33 AM