



August 31, 2023

## ADDENDUM NO. 01



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UMMC #209-576  
MS CENTER FOR MEDICALLY FRAGILE CHILDREN  
P.O. Box 1122  
Jackson, MS 39215

### NOTICE TO ALL DOCUMENT HOLDERS:

The following modifications and clarifications to the drawings and specifications are to be included as part of the Contract Documents. All items/questions up to and from the pre-bid conference not addressed in this Addendum will be addressed in future addenda.

### GENERAL ITEMS

ELEY|BARKLEY|DALE  
Planning • Architecture • Interiors  
265 N. Lamar Blvd.  
Suite D  
Oxford MS, 38655  
p 662.234.2149 • f 662.846.0948  
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Cleveland, MS 38732  
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One Jackson Place, Suite 250  
188 East Capitol Street  
Jackson, MS 39201-2100  
p 601.352.5411 • f 601.352.5362  
161 Lameuse Street  
Suite 201  
Biloxi MS, 39530  
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#### ITEM NO. 01 PRE-BID CONFERENCE

**CLARIFICATION:** A Pre-bid conference will be held at UMMC - Facilities Services located at Building AB, 2500 N. State St. Jackson, MS 39216 at 9:30am CST on Wednesday, September 13<sup>th</sup>, 2023.

#### ITEM NO. 02 DEWATERING

**CLARIFICATION:** Refer to Specification Section 312000 – Part 3 – Subsection 3.2 Temporary Drainage

#### ITEM NO. 03 MASONRY SCOPE

**CLARIFICATION:** The extent of masonry construction is limited to the Monument Sign only. See Sheet A-001 for details.

#### ITEM NO. 04 ALTERNATE 1 – UTILITY CONNECTIONS

**CLARIFICATION:** The required utility connections for on-site water storage are shown on sheet C-6.1. Scope of work related to direct connections to storage tank, booster pump station to be included as part of Alternate 1.

**ITEM NO. 05 VINYL WINDOW SIZE**

**CLARIFICATION:** Typical Vinyl Wood Composite Clad Window Unit to be 3'w x 6'h.

**SPECIFICATIONS**

**ITEM NO. 06 SPEC SECTION 085219 – VINYL-WOOD COMPOSITE-CLAD WINDOWS**

**ADD:** Section in its entirety.

**DRAWINGS**

**ITEM NO. 07 SHEET C-4.0**

**REPLACE C-4.0** Sheet. Moved Foundation Drain Plan to Sheet C-4.2.

**ITEM NO. 08 SHEET C-4.2 CRAWLSPACE & FOUNDATION DRAINAGE PLAN**

**ADD** Sheet C-4.2 in its entirety.

**ITEM NO. 09 SHEET C-7.0 PAVING PLAN**

**REPLACE** Sheet C-7.0. Added Note 4.

**ITEM NO. 10 SHEET C-7.1 PAVING PLAN – CONC. JOINT LAYOUT**

**ADD** Sheet C-7.1 in its entirety.

**ITEM NO. 11 SHEET A-200 BUILDING ELEVATIONS**

**OMIT** All references to “Brick Pilasters”.

**ITEM NO. 12 SHEET A-200 BUILDING ELEVATIONS**

**OMIT** Specific references to “Storefront Windows” at bedroom wings.  
**REPLACE** with “Vinyl Wood Composite Clad Window”. Typical Window Unit to be 3'w x 6'h.

**ITEM NO. 13 SHEET P-004 OVERALL MEDICAL GAS PLAN**

**ADD** Sheet P-004 in its entirety.

**NO MORE ITEMS**

Encl: C-4.0, C-4.2, C-7.0, C-7.1, P-004 (24x36), Section 085219 (7 pages 8.5x11)  
Cc: All Document Holders

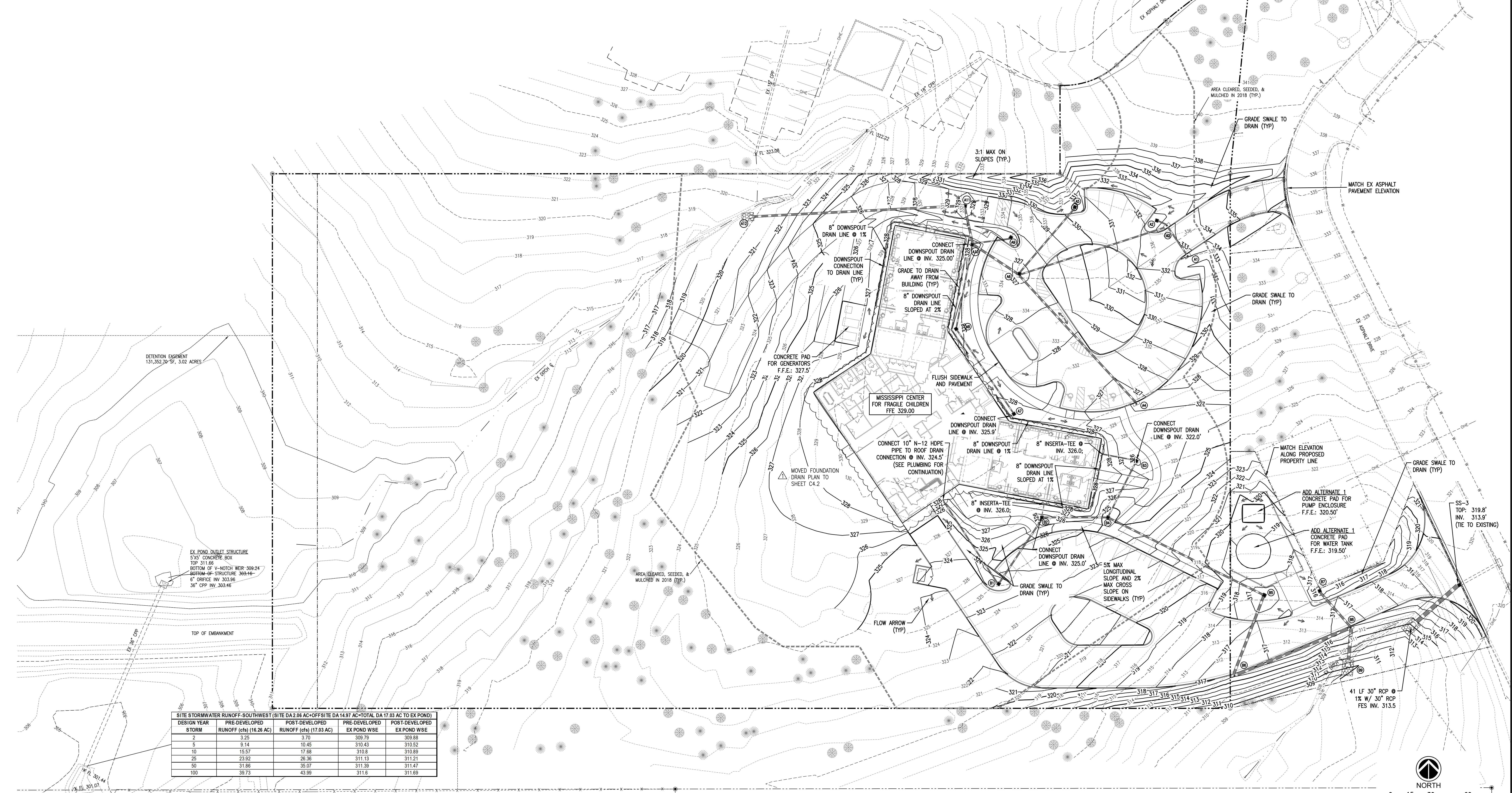


**GRADING AND DRAINAGE NOTES:**

- EARTHWORK OPERATIONS SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION, REPORT NO. 180424 PREPARED BY BURNS COOLEY DENNIS, INC. DATED OCTOBER 1, 2018.
- ALL AREAS SHALL BE COMPACTED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY BURNS COOLEY DENNIS, INC (98% STANDARD PROCTOR (ASTM D-698) AND ±3% OPTIMUM MOISTURE CONTENT). ALL EFFORTS AND COSTS ASSOCIATED WITH PROCESSING AND/OR DRYING OUT OVER SATURATED SUITABLE MATERIAL IN ORDER TO ACHIEVE OPTIMUM MOISTURE AND COMPACTION SHALL BE INCLUDED IN THE UNIT PRICE FOR UNCLASSIFIED EXCAVATION, OR OTHER ITEMS. THIS SHALL BE NO ADDITIONAL COST TO THE OWNER.
- SUBGRADES SHALL BE PROOF-ROLLED WITH A LOADED DUMP TRUCK TO DETECT ZONES OF UNSUITABLE AND/OR EXCESSIVELY WET SOILS. IF PUMPING BEGINS, COMPACTION SHALL BE STOPPED IMMEDIATELY AND RESUMED ONLY WHEN THE MATERIAL IS SUFFICIENTLY DRY THAT PUMPING DOES NOT OCCUR.
- GRADING SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING PERIMETER.
- SEE SHEET C1.0 FOR ADDITIONAL GRADING AND DRAINAGE NOTES.
- SEE SHEET C4.1 FOR FINISHED GRADE SPOT ELEVATIONS.
- SEE SHEET C4.2 FOR CRAWLSPACE AND FOUNDATION DRAINAGE.
- ALL 8" DOWNSPOUT TRUNK LINES SHALL BE 8" DUAL WALL HDPE WITH WATERTIGHT JOINTS.

FROM	TO	PIPE SIZE (IN.)	SLOPE (%)	LENGTH (FT.)	DESIGN Q (25YR) (CFS)	PIPE CAPACITY (CFS)	PIPE AREA (AC)
A1	A3	12" HP STORM	1.00	25	0.17	3.68	0.02
A2	A3	10" N-12 HDPE	4.14	7	0.08	4.46	0.01
A3	A6	12" HP STORM	4.17	114	0.46	7.27	0.06
A4	A6	15" HP STORM	0.50	130	2.25	4.57	0.27
A5	A8	12" HP STORM	2.44	63	2.55	5.57	0.60
A6	A10	18" HP STORM	3.65	40	7.59	20.07	1.21
A7	A8	10" N-12 HDPE	2.00	75	0.17	3.10	0.02
A8	A10	10" N-12 HDPE	3.71	62	0.42	4.22	0.05
A9	A10	10" N-12 HDPE	3.57	28	0.17	4.14	0.02
A10	A11	18" HP STORM	2.00	28	8.26	14.86	1.26
A11	A12	18" HP STORM	1.36	165	8.51	12.24	1.32
B1	B2	12" HP STORM	2.02	60	4.58	5.06	0.55
B2	B4	12" HP STORM	2.00	50	4.75	5.04	0.59
B3	B4	10" N-12 HDPE	11.13	47	0.26	7.31	0.06
B4	B5	15" HP STORM	1.99	132	5.16	8.12	0.68
B5	B6	28"x18" RCAP	0.98	65	7.45	22.45	1.04
B6	B8	24" RCP	2.00	95	12.12	31.99	1.80
B7	B8	309.60" 12" HP STORM	5.15	34	5.25	8.08	0.63
B8	B9	24" RCP	2.00	30	18.03	31.99	2.31

STRUC. NO.	TYPE	TOP/GRATE ELEV.	INVERT ELEV.	AREA (AC)	DESIGN Q (25-YR) (CFS)
A1	SS-2	333.14	328.46	0.02	0.17
A2	18" PVC DRAIN INLET W/ STANDARD TOP	332.25	328.50	0.01	0.08
A3	SS-2	333.21	328.21	0.03	0.21
A4	SS-2	327.69	324.11	0.27	2.25
A5	18" PVC DRAIN INLET W/ STANDARD TOP	329.65	325.00	0.60	2.55
A6	SS-3	326.50	323.46	0.28	2.33
A7	18" PVC DRAIN INLET W/ STANDARD TOP	327.25	325.80	0.02	0.17
A8	18" PVC DRAIN INLET W/ STANDARD TOP	327.50	324.30	0.03	0.25
A9	18" PVC DRAIN INLET W/ STANDARD TOP	327.25	325.00	0.02	0.17
A10	24" PVC DRAIN INLET W/ STANDARD TOP	327.50	322.00	0.01	0.08
A11	SS-3	328.80	321.44	0.03	0.25
A12	18" FLARED END SECTION	-	319.20	-	-
B1	18" PVC DRAIN INLET W/ STANDARD TOP	323.25	316.98	0.06	0.50
B2	18" PVC DRAIN INLET W/ STANDARD TOP	325.75	315.77	0.04	0.17
B3	18" PVC DRAIN INLET W/ STANDARD TOP	325.90	320.00	0.06	0.26
B4	18" PVC DRAIN INLET W/ STANDARD TOP	324.25	314.77	0.03	0.15
B5	4"x4" CONCRETE DRAIN INLET	315.05	312.14	0.36	2.30
B6	4"x4" CONCRETE DRAIN INLET	316.50	311.50	0.56	4.66
B7	4"x4" CONCRETE DRAIN INLET	315.35	311.35	0.63	5.25
B8	SS-2	317.11	309.60	0.08	0.67
B9	24" RCP FLARED END SECTION	-	309.00	-	-



DESIGN YEAR	PRE-DEVELOPED RUNOFF (cfs) (16.26 AC)	POST-DEVELOPED RUNOFF (cfs) (17.03 AC)	PRE-DEVELOPED EX-POND WSE	POST-DEVELOPED EX-POND WSE
2	9.14	10.45	310.43	310.52
5	15.57	17.68	310.8	310.89
10	23.92	26.36	311.13	311.21
25	31.88	35.07	311.39	311.47
50	38.73	43.99	311.6	311.68

DESIGN YEAR	PRE-DEVELOPED RUNOFF (cfs) (5.2 AC)	POST-DEVELOPED RUNOFF (cfs) (4.39 AC)
2	9.88	11.30
5	15.79	16.63
10	19.74	20.08
25	24.20	23.91
50	28.26	27.36
100	31.88	30.41

**Pickering**  
 Pickering Firm, Inc.  
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 PFI Project No. 25550.00

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 188 E. Capital Street  
 Jackson, MS 39201-2100

THE UNIVERSITY OF MISSISSIPPI  
**MEDICAL CENTER**

**Mississippi Center for  
 Fragile Children**  
 Jackson, MS

Construction Documents

Project No: 209-571  
 Date: 7/13/23  
 Drawn By: SB  
 Checked: PRI  
 Revisions: ADDENDUM 1 8/31/23  
 Revisions:  
 Revisions:  
 Revisions:

Grading & Drainage Plan

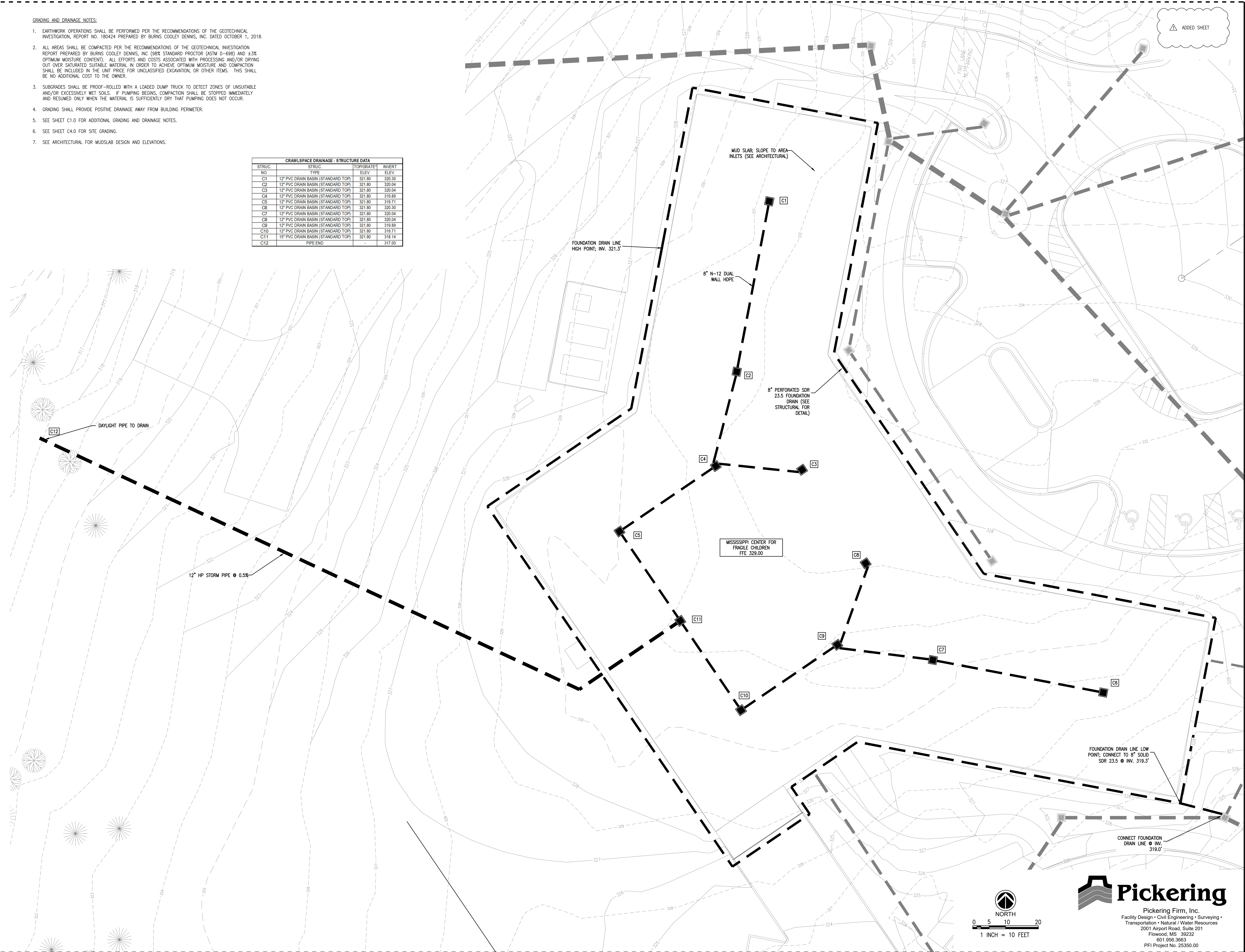
**C-4.0**



**GRADING AND DRAINAGE NOTES:**

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4. GRADING SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING PERIMETER.
5. SEE SHEET C1.0 FOR ADDITIONAL GRADING AND DRAINAGE NOTES.
6. SEE SHEET C4.0 FOR SITE GRADING.
7. SEE ARCHITECTURAL FOR MUDSLAB DESIGN AND ELEVATIONS.

CRAWLSPACE DRAINAGE - STRUCTURE DATA			
STRUC. NO.	STRUC. TYPE	TOPOGRADE ELEV.	INVERT ELEV.
C1	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	320.30
C2	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	320.04
C3	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	320.04
C4	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	319.89
C5	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	319.71
C6	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	320.30
C7	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	320.04
C8	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	320.04
C9	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	319.89
C10	12" PVC DRAIN BASIN (STANDARD TOP)	321.80	319.71
C11	15" PVC DRAIN BASIN (STANDARD TOP)	321.80	318.14
C12	PIPE END	-	317.00



△ ADDED SHEET

**E B D**

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 188 E. Capitol Street  
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Construction Documents

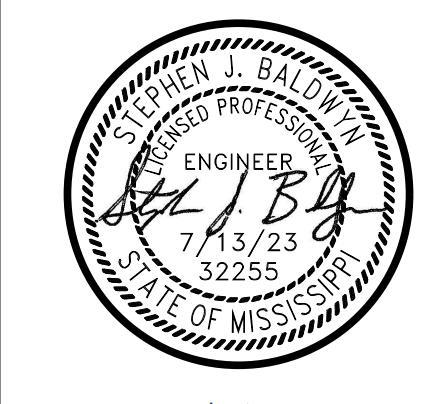
Project No: 209-571  
 Date: 7/13/23  
 Drawn By: SB  
 Checked: PR  
 Revisions: ADDENDUM 1 8/31/23  
 Revisions:  
 Revisions:  
 Revisions:

Crawlspace and  
 Foundation Drainage Plan

**Pickering**  
 Pickering Firm, Inc.  
 Facility Design • Civil Engineering • Surveying •  
 Transportation • Natural / Water Resources  
 2001 Airport Road, Suite 201  
 Flowood, MS 39232  
 601.956.3663  
 PFI Project No. 26350.00

**C-4.2**





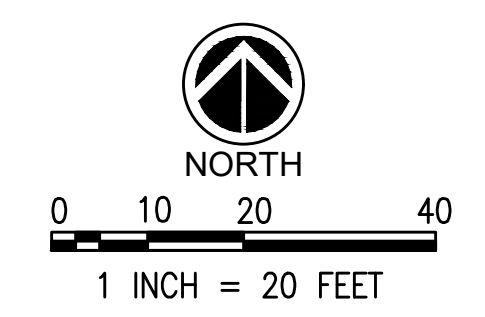
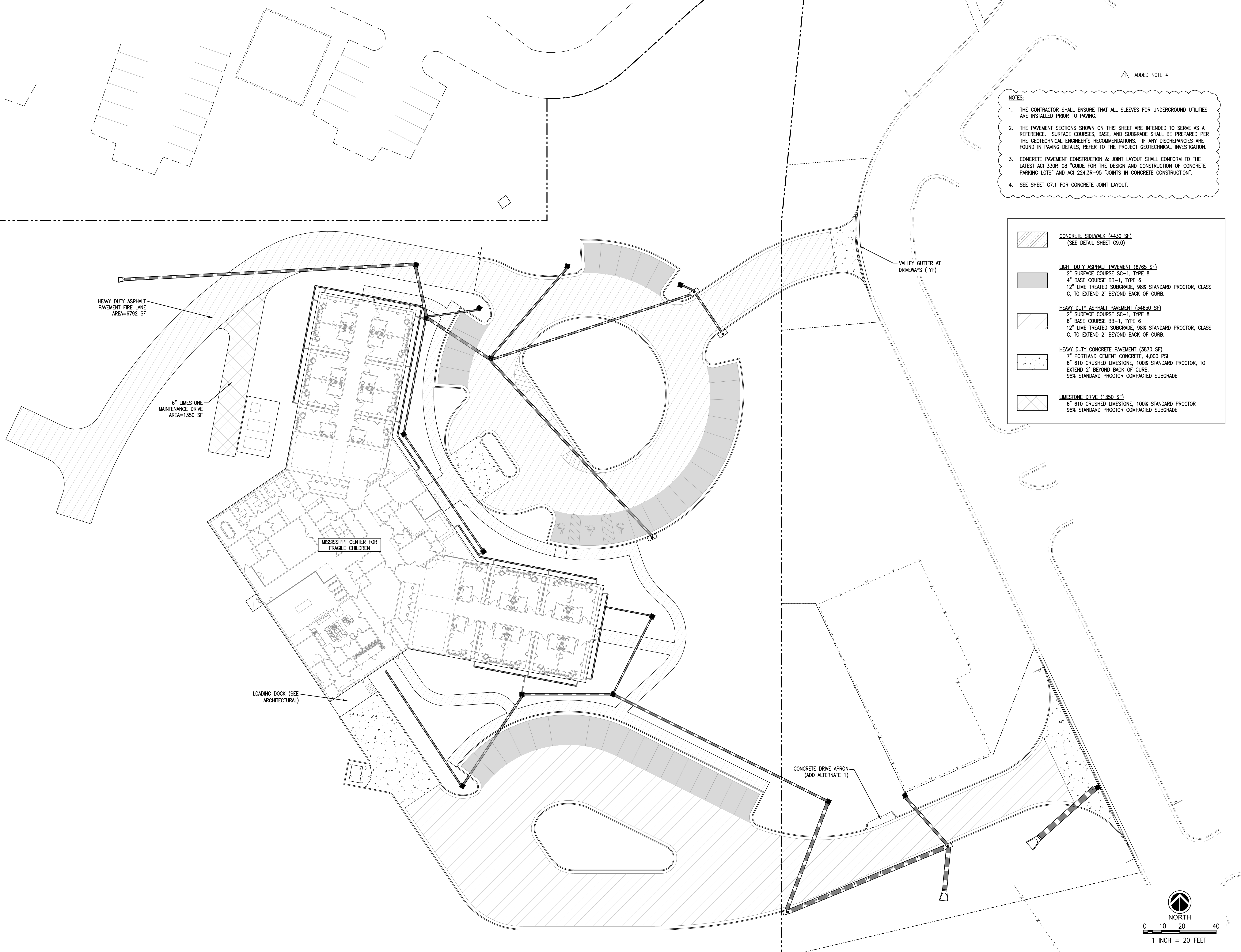
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 Fragile Children  
 Jackson, MS



△ ADDED NOTE 4

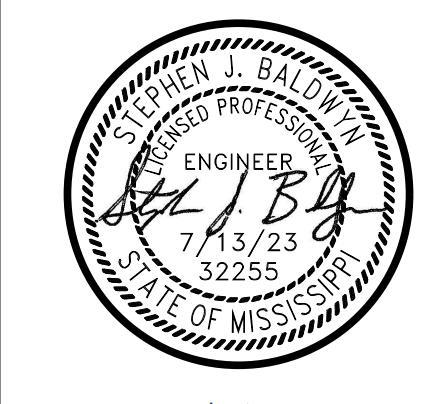
- NOTES:**
1. THE CONTRACTOR SHALL ENSURE THAT ALL SLEEVES FOR UNDERGROUND UTILITIES ARE INSTALLED PRIOR TO PAVING.
  2. THE PAVEMENT SECTIONS SHOWN ON THIS SHEET ARE INTENDED TO SERVE AS A REFERENCE. SURFACE COURSES, BASE, AND SUBGRADE SHALL BE PREPARED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF ANY DISCREPANCIES ARE FOUND IN PAVING DETAILS, REFER TO THE PROJECT GEOTECHNICAL INVESTIGATION.
  3. CONCRETE PAVEMENT CONSTRUCTION & JOINT LAYOUT SHALL CONFORM TO THE LATEST ACI 330R-08 "GUIDE FOR THE DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS" AND ACI 224.3R-95 "JOINTS IN CONCRETE CONSTRUCTION".
  4. SEE SHEET C7.1 FOR CONCRETE JOINT LAYOUT.

	<b>CONCRETE SIDEWALK (4430 SF)</b> (SEE DETAIL SHEET C9.0)
	<b>LIGHT DUTY ASPHALT PAVEMENT (6765 SF)</b> 2" SURFACE COURSE SC-1, TYPE 8 4" BASE COURSE BB-1, TYPE 6 12" LIME TREATED SUBGRADE, 98% STANDARD PROCTOR, CLASS C, TO EXTEND 2' BEYOND BACK OF CURB.
	<b>HEAVY DUTY ASPHALT PAVEMENT (34650 SF)</b> 2" SURFACE COURSE SC-1, TYPE 8 6" BASE COURSE BB-1, TYPE 6 12" LIME TREATED SUBGRADE, 98% STANDARD PROCTOR, CLASS C, TO EXTEND 2' BEYOND BACK OF CURB.
	<b>HEAVY DUTY CONCRETE PAVEMENT (3870 SF)</b> 7" PORTLAND CEMENT CONCRETE, 4,000 PSI 6" 610 CRUSHED LIMESTONE, 100% STANDARD PROCTOR, TO EXTEND 2' BEYOND BACK OF CURB. 98% STANDARD PROCTOR COMPACTED SUBGRADE
	<b>LIMESTONE DRIVE (1350 SF)</b> 6" 610 CRUSHED LIMESTONE, 100% STANDARD PROCTOR 98% STANDARD PROCTOR COMPACTED SUBGRADE

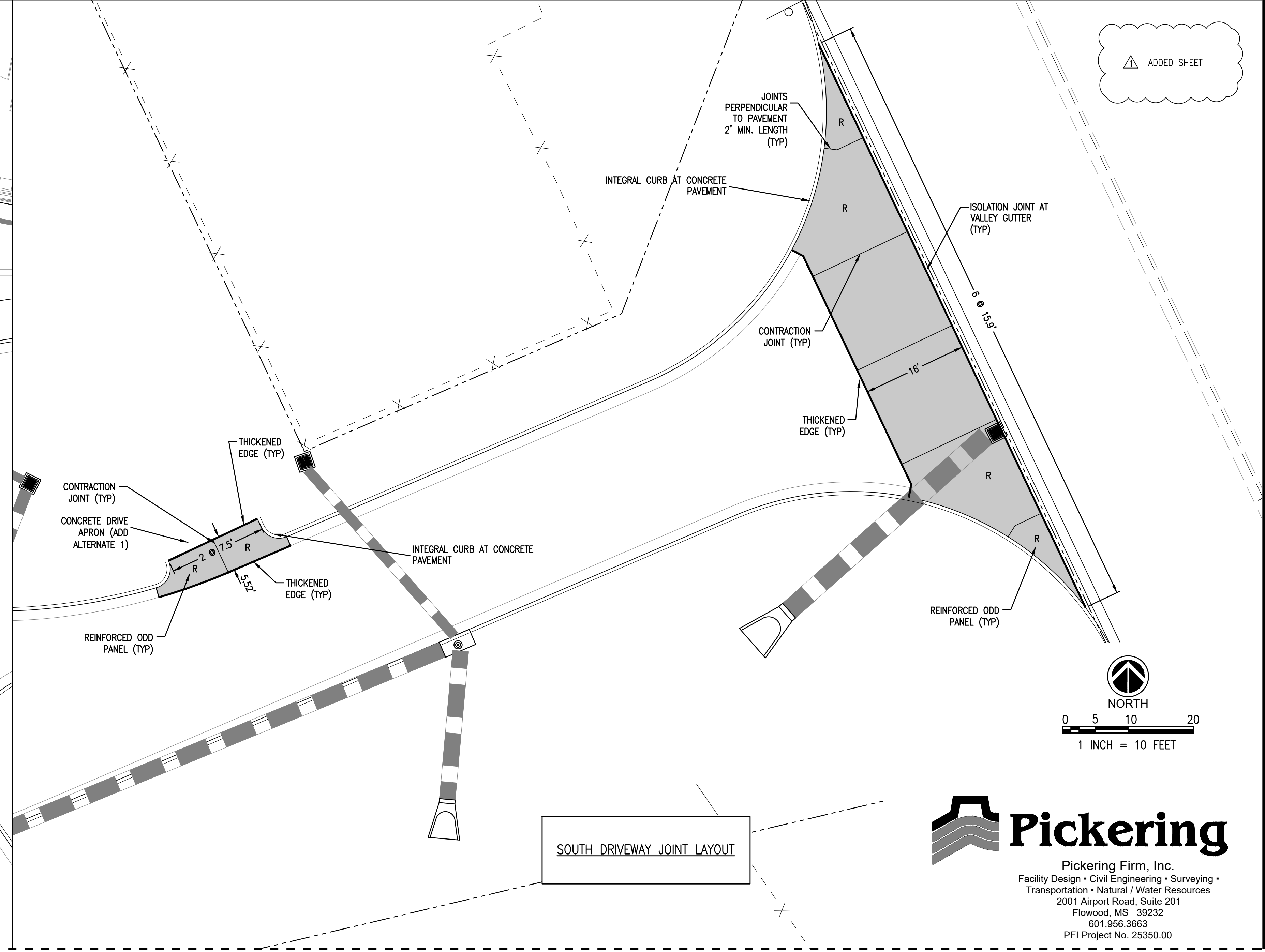
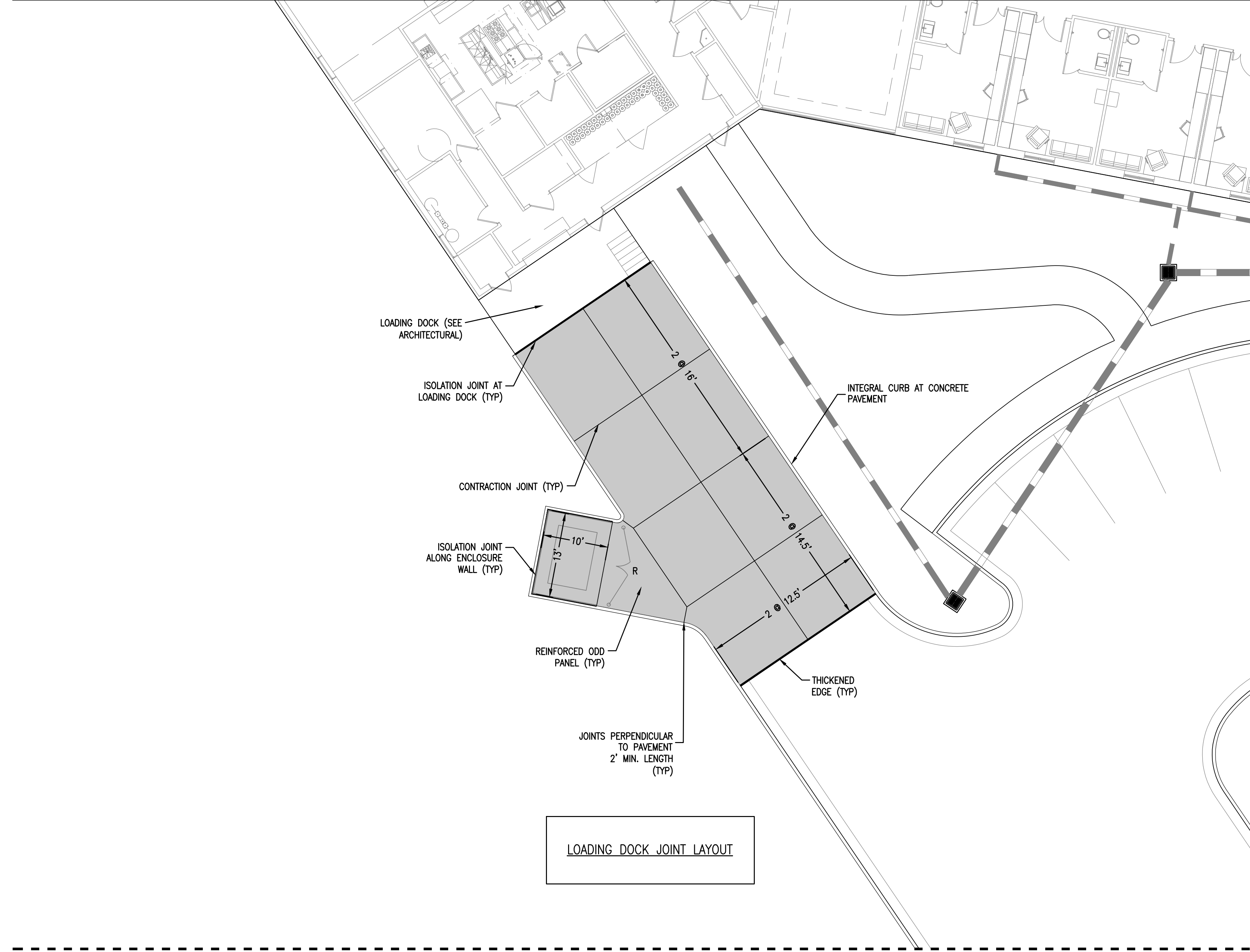
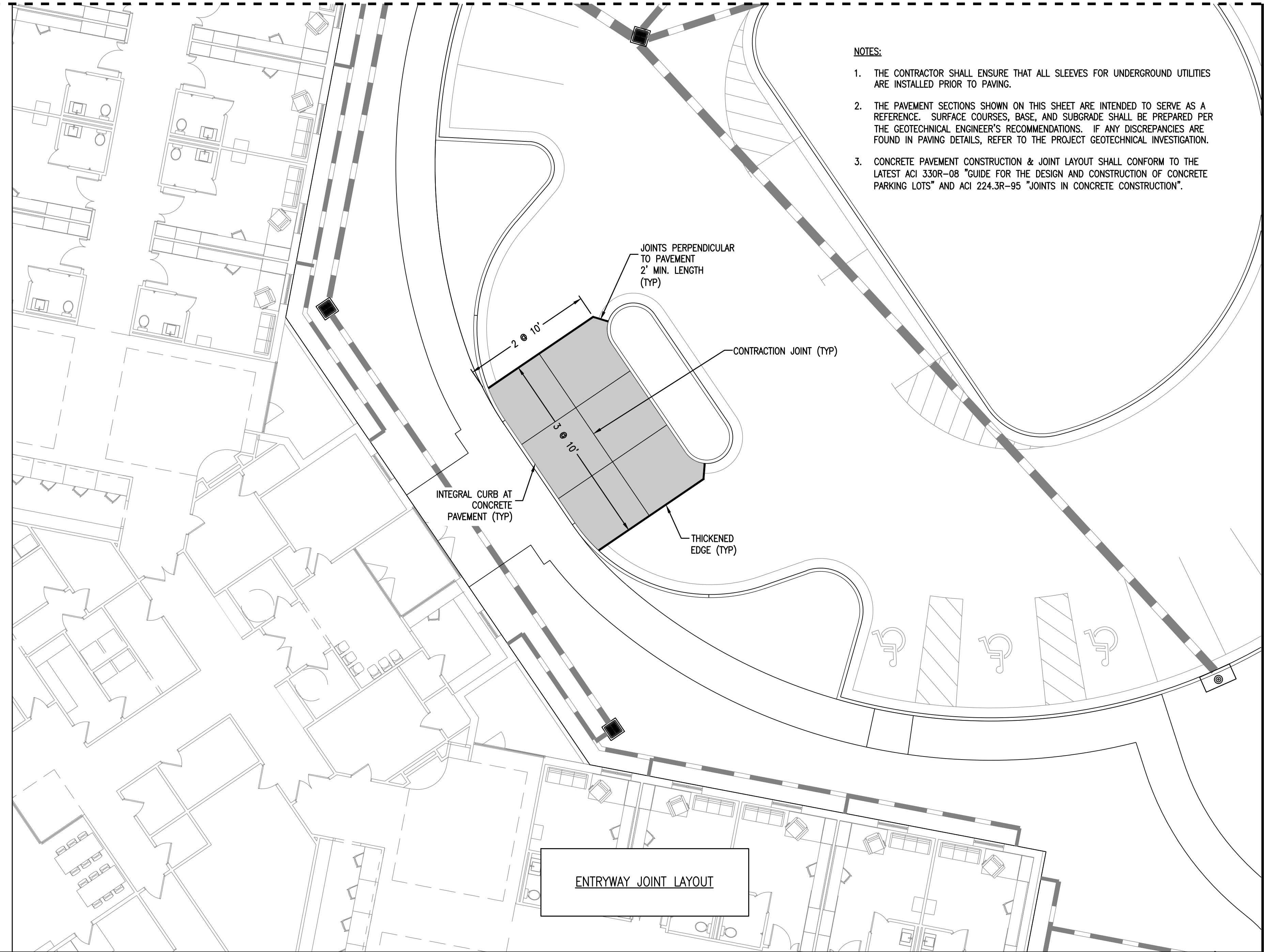
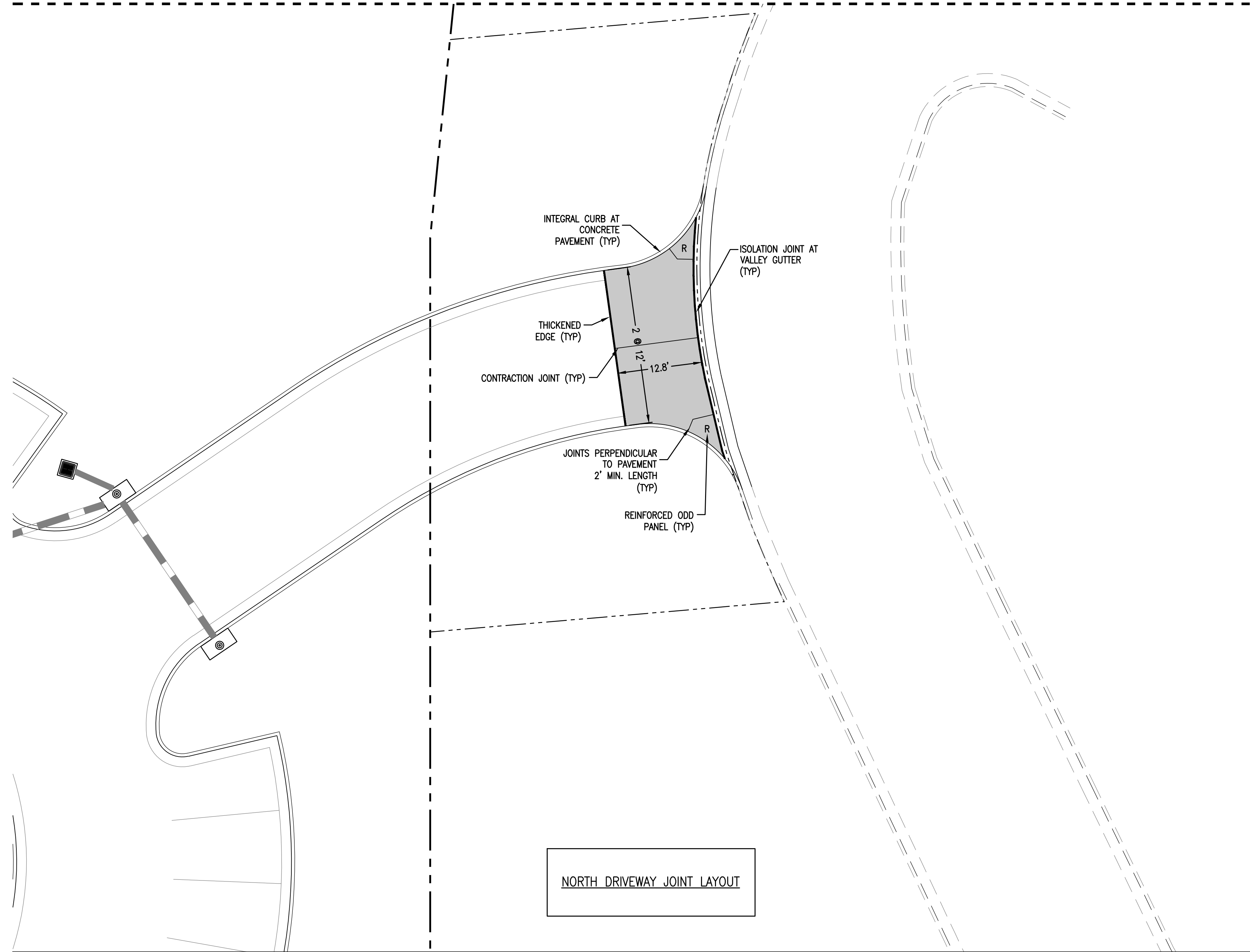


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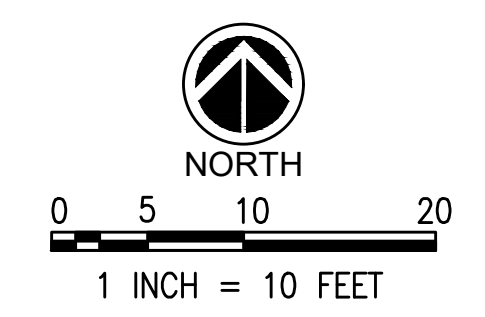




- NOTES:**
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▲ ADDED SHEET



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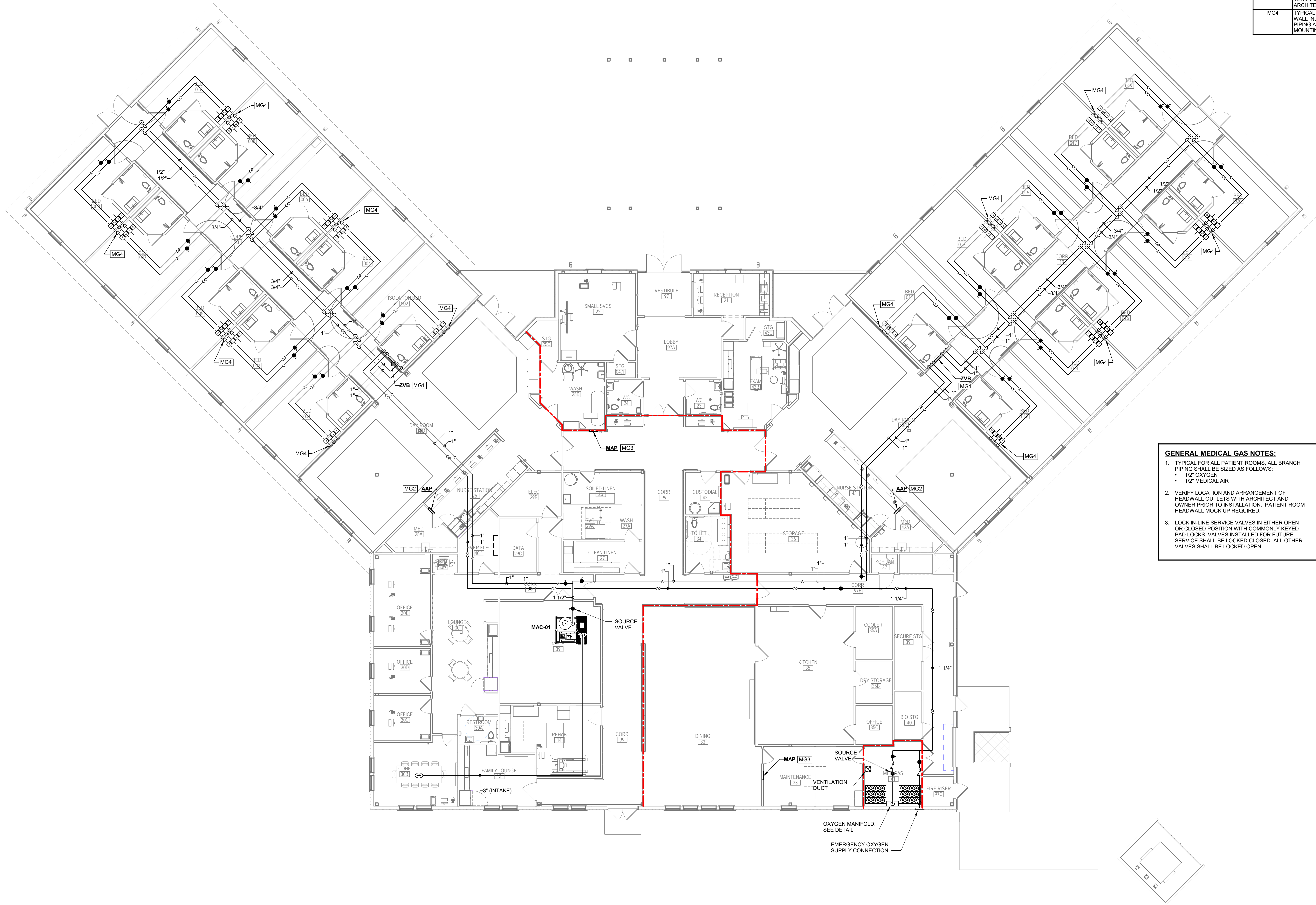
Construction Documents

Project No:	209-571
Date:	7/13/23
Drawn By:	SB
Checked:	PR
Revisions:	ADDENDUM 1 8/31/23
Revisions:	
Revisions:	
Revisions:	

Paving Plan - Concrete Joint Layout  
**C-7.1**



SPECIFIC MED GAS NOTES	
MG1	MEDICAL GAS ZONE VALVE BOX MOUNTED WITH CENTER AT 54" A.F.F. VERIFY ELEVATION DOES NOT CONFLICT WITH HANDRAILS.
MG2	MEDICAL GAS AREA ALARM PANEL MOUNTED WITH CENTER AT 54" A.F.F. COORDINATE MOUNTING HEIGHT TO BE VISIBLE FROM NURSES STATION. VERIFY MOUNTING HEIGHT AND LOCATION WITH ARCHITECT.
MG3	MEDICAL GAS MASTER ALARM PANEL MOUNTED WITH CENTER AT 54" A.F.F. COORDINATE MOUNTING HEIGHT TO BE VISIBLE FROM NURSES STATION. VERIFY MOUNTING HEIGHT AND LOCATION WITH ARCHITECT.
MG4	TYPICAL MEDICAL GAS PIPING DOWN IN WALL TO WALL INLETS/OUTLETS. SEE PLAN FOR SIZE OF PIPING AND QUANTITY OF OUTLETS. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.



- GENERAL MEDICAL GAS NOTES:**
1. TYPICAL FOR ALL PATIENT ROOMS, ALL BRANCH PIPING SHALL BE SIZED AS FOLLOWS:
    - 1/2" OXYGEN
    - 1/2" MEDICAL AIR
  2. VERIFY LOCATION AND ARRANGEMENT OF HEADWALL OUTLETS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION. PATIENT ROOM HEADWALL MOCK UP REQUIRED.
  3. LOCK IN-LINE SERVICE VALVES IN EITHER OPEN OR CLOSED POSITION WITH COMMONLY KEYPAD LOCKS. VALVES INSTALLED FOR FUTURE SERVICE SHALL BE LOCKED CLOSED. ALL OTHER VALVES SHALL BE LOCKED OPEN.

**Overall Medical Gas Plan**  
 1 P-004 1/8" = 1'-0"



PRODUCT MASTERSPEC LICENSED BY DELTEK, INC. TO ANDERSEN WINDOWS; ANDERSEN  
CORPORATION

SECTION 085219 - VINYL-WOOD COMPOSITE-CLAD WINDOWS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vinyl-wood composite-clad framed windows.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site .

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Review, discuss, and coordinate the interrelationship of vinyl-wood composite-clad windows with other exterior wall components. Include provisions for anchoring, flashing, weeping, sealing perimeters, and protecting finishes.
3. Review and discuss the sequence of work required to construct a watertight and weathertight exterior building envelope.
4. Inspect and discuss the condition of substrate and other preparatory work performed by other trades.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, glazing and fabrication methods, dimensions of individual components and profiles, hardware, and finishes for vinyl-wood composite-clad windows.

B. Shop Drawings: For vinyl-wood composite-clad windows.

1. Include plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and installation details, including anchor, flashing, and sealant installation.

C. Samples: For each exposed product and for each color specified, 2 by 4 inches in size.

D. Samples for Initial Selection: For units with factory-applied finishes.

1. Include Samples of hardware and accessories involving color selection.

E. Samples for Verification: For vinyl-wood composite-clad windows and components required, prepared on Samples of size indicated below:

1. Exposed Finishes: 2 by 4 inches .



PRODUCT MASTERSPEC LICENSED BY DELTEK, INC. TO ANDERSEN WINDOWS; ANDERSEN  
CORPORATION

- F. Product Schedule: For vinyl-wood composite-clad windows. Use same designations indicated on Drawings.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer and Installer.
- B. Product Test Reports: For each type of vinyl-wood composite-clad window, for tests performed by a qualified testing agency.
- C. Field quality-control reports.
- D. Sample Warranties: For manufacturer's warranties.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A manufacturer capable of fabricating vinyl-wood composite-clad windows that meet or exceed performance requirements indicated and of documenting this performance by test reports and calculations.
- B. Installer Qualifications: An installer using workers competent in techniques required by manufacturer for product types and applications indicated with experience on five or more projects of similar size, type, and complexity as this Project.
- C. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
1. Build mockup of typical wall area as indicated on Drawings.
  2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace vinyl-wood composite-clad windows that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
    - a. Defects in manufacturing, materials, and workmanship in glass and non-glass parts.
  2. Warranty Period:
    - a. Window: 10 years from date of purchase and transferrable to Owner on date of Substantial Completion.
    - b. Glazing Units: 10 years from date of purchase and transferrable to Owner on date of Substantial Completion.



PRODUCT MASTERSPEC LICENSED BY DELTEK, INC. TO ANDERSEN WINDOWS; ANDERSEN  
CORPORATION

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain vinyl-wood composite-clad windows from single source from single manufacturer.

2.2 WINDOW PERFORMANCE REQUIREMENTS

- A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.

1. Window Certification: WDMA certified with label attached to each window.

- B. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:

1. Minimum Performance Class: LC.
2. Minimum Performance Grade: 50 .
3. Air Infiltration: Max 0.17 CFM/Sw. Ft. @ 1.57 PSF (25 mph) in accordance with ASTM E283.

- C. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.20 Btu/sq. ft. x h x deg F 0.27 Btu/sq. ft. x h x deg F .

- D. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum whole-window SHGC of 0.29 .

- E. Sound Transmission Class (STC): Rated for not less than 34 STC when tested for laboratory sound transmission loss in accordance with ASTM E 90 and determined by ASTM E413.

- F. Outside-Inside Transmission Class (OITC): Rated for not less than 31 OITC when tested for laboratory sound transmission loss in accordance with ASTM E90 and determined by ASTM E1332.

- G. Windborne-Debris-Impact Resistance: Capable of resisting impact from windborne debris based on testing glazed windows identical to those specified, in accordance with ASTM E1886 and testing information in ASTM E1996 and requirements of authorities having jurisdiction.

2.3 VINYL-WOOD COMPOSITE-CLAD WINDOWS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Andersen Windows, Inc.; A-Series or comparable product by one of the following:

1. Marvin Windows and Doors.
2. Pella Corporation.
3. Andersen Windows & Doors .
4. Jeld-Wen
5. Arcat

- B. Operating Types: Provide the following operating types in locations indicated on Drawings:



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1. Fixed.
- C. Frames and Sashes: Pultruded vinyl-wood composite-clad complying with AAMA/WDMA/CSA 101/I.S.2/A440 and with exposed exterior vinyl-wood composite-clad surfaces finished with manufacturer's standard enamel coating complying with AAMA 614 .
  1. Exterior Color: Dove Gray White.
  2. Interior Finish: Matching exterior finish, in color selected by Architect from manufacturer's full range .
- D. Insulating-Glass Units: ASTM E2190.
  1. Glass: ASTM C1036, Type 1, Class 1, q3.
    - a. Tint: Gray.
    - b. Kind: Fully tempered Low-E .
  2. Lites: See Drawings.
  3. Filling: Fill space between glass lites with argon gas blend .
  4. Low-E Coating: Sputtered on second surface.
- E. Glazing System: Manufacturer's standard factory-glazing system that produces weathertight seal Low-E Coating, Min. R-Value 3.7, VT 0.51 .
- F. Hardware, General: Provide manufacturer's standard hardware fabricated from stainless steel and die-cast coated carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with adjacent materials; designed to smoothly operate, tightly close, and securely lock vinyl-wood composite-clad windows, and sized to accommodate sash weight and dimensions.
  1. Exposed Hardware Color and Finish: As selected by Architect from manufacturer's full range .
- G. Weather Stripping: Provide full-perimeter weather stripping for each operable sash unless otherwise indicated.
- H. Fasteners: Noncorrosive and compatible with window members, trim, hardware, anchors, and other components.

## 2.4 ACCESSORIES

- A. Dividers (False Muntins): Provide divider grilles in designs indicated for each sash lite.
  1. Quantity and Type: Two grilles permanently attached to outside of the interior and exterior lites with spacers permanently located between insulating-glass lites .
  2. Material: Manufacturer's standard .
  3. Pattern: As indicated on Drawings .
  4. Bar Profile: Contoured.
  5. Bar Width: Not less than 3/4 inch wide.
  6. Color: As selected by Architect from manufacturer's full range .
- B. Jamb Extensions: Paint-grade wood to match frame 5-1/4 inches .
- C. Exterior Trim and Accessories:



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1. Brick Mould: 2 inches.
2. Flat Casing: 4-1/2 inches.
3. Cornice: 3-5/8 inches.
4. Material: wood-polymer composite liner trim.
5. Finish and Color: Painted, Dove Gray White Match doors.

## 2.5 FABRICATION

- A. Fabricate vinyl-wood composite-clad windows in sizes indicated. Include a complete system for installing and anchoring windows.
- B. Glaze vinyl-wood composite-clad windows in the factory.
- C. Weather strip each operable sash to provide weathertight installation.
- D. Mullions: Provide mullions and cover plates, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections. Provide mullions and cover plates capable of withstanding design wind loads of window units.
- E. Window Assemblies: Provide fixed units in configuration indicated. Provide window frames, sashes, hardware, and other trim and components necessary for a complete, secure, and weathertight installation, including the following:
  1. Angled mullion posts with interior and exterior trim.
  2. Angled interior and exterior extension and trim.
  3. Clear pine head and seat boards.
  4. Top and bottom plywood platforms.
  5. Exterior head and sill casings and trim.
  6. Support brackets.
- F. Complete fabrication, assembly, finishing, hardware application, and other work in the factory. Allow for scribing, trimming, and fitting at Project site.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Verify rough opening dimensions, levelness of sill plate, and operational clearances.
- C. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure weathertight window installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.



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3.2 INSTALLATION

- A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.
- B. Install windows level, plumb, square, true to line, without distortion, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.

3.3 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
  - 1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.
- B. Testing Services: Testing and inspecting of installed windows will take place as follows:
  - 1. Testing Methodology: Testing of windows for air infiltration and water resistance to be performed in accordance with AAMA 502.
  - 2. Air-Infiltration Testing:
    - a. Test Pressure: That required to determine compliance with AAMA/WDMA/CSA 101/I.S.2/A440 performance class indicated.
    - b. Allowable Air-Leakage Rate: 1.5 times the applicable AAMA/WDMA/CSA 101/I.S.2/A440 rate for product type and performance class rounded down to one decimal place.
  - 3. Water-Resistance Testing:
    - a. Test Pressure: Two-thirds times test pressure required to determine compliance with AAMA/WDMA/CSA 101/I.S.2/A440 performance grade indicated.
    - b. Allowable Water Infiltration: No water penetration.
  - 4. Testing Extent: Three mockup windows of each type as selected by Architect and a qualified independent testing and inspecting agency. Windows to be tested after perimeter sealants have cured.
  - 5. Test Reports: Prepared in accordance with AAMA 502.
- C. Windows will be considered defective if they do not pass tests and inspections.
- D. Prepare test and inspection reports.

3.4 ADJUSTING, CLEANING, AND PROTECTION

- A. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.
- B. Clean exposed surfaces immediately after installing windows. Remove excess sealants, glazing materials, dirt, and other substances.
  - 1. Keep protective films and coverings in place until final cleaning.



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- C. Remove and replace sashes if glass has been broken, chipped, cracked, abraded, or damaged during construction period.
- D. Protect window surfaces from contact with contaminating substances resulting from construction operations. If contaminating substances do contact window surfaces, remove contaminants immediately in accordance with manufacturer's written instructions.

END OF SECTION 085219