



Edgar Allan Poe Elementary Classical School  
10538 S Langley Ave  
Chicago, IL 60628

CONCEPT PHASE ANALYSIS REPORT  
October 26, 2018

FGM ARCHITECTS

OWNER  
City of Chicago School District #299  
South Clark St., Suite 14  
Chicago, IL 60603

PREPARED BY  
Jim Woods, AIA, REFP  
Vada Kornegay, AIA, LEED AP  
Mike Denz, AIA

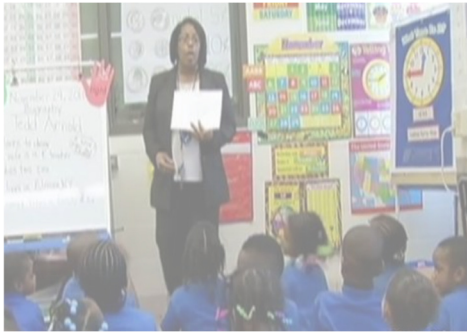
FGM Job No: 18-2589.01  
©2018 FGM Architects, Inc.  
Professional Design Firm #184-000350

ARCHITECT  
FGM Architects, Inc.  
200 West Jackson Blvd., Suite 1330  
Chicago, Illinois 60606

CIVIL  
TERRA Engineering  
225 W Ohio St,  
Chicago, Illinois 60654

STRUCTURAL  
Rubinos & Mesia Engineers Inc.  
200 S Michigan Ave., Suite 1500  
Chicago, Illinois 60604

MEP  
BdHMS  
303 W Erie St, Suite 510  
Chicago, IL 60654



1. GENERAL

A. Project Narrative.....

B. Project Schedule .....

C. Zoning.....

D. Code Analysis.....

E. Specifications.....

2. SITE

A. Civil Conditions and Recommendations.....

B. Utility Plan .....

C. Landscape Conditions and recommendations .....

D. Site Plan .....

3. ARCHITECTURE

A. Building Program.....

C. Annex Plans.....

4. ROOF

A. Roof report in progress

5. STRUCTURAL

A. Conditions and Recommendations.....

C. Facility Analysis Report, Photos and Descriptions.....

6. MECHANICAL, ELECTRICAL, PLUMBING

A. Conditions and Recommendations.....

C. Facility Analysis Report, Photos and Descriptions.....

## PROJECT INFORMATION

05285 - Poe Elementary Classical School Annex and Renovations [10538 S. Langley Ave., Chicago IL 60628]

A new approximate 20,000 sq. ft., three-story annex to an existing three-story school intended to increase capacity as well as expand the program to include 7th and 8th grade with athletic amenities. The proposed annex will include a new gymnasium/multi-purpose room including a stage, adjacent unisex toilet room, with an office and storage, a new student dining/multi-purpose room, hybrid kitchen and kitchen server, kitchen office with (1) staff toilet/locker rooms, dining storage, building storage, boys and girls student toilets, utility rooms, an elevator with building support spaces.

The project will also include site improvements for confirming existing parking lot regulatory requirements (based on FTE), location confirmation of loading area, confirm refuse w/enclosure, stormwater management infrastructure, landscaping, reconfigure turf field with expansion, and site development location of the existing playlot. Work within the existing school building will include full renovations of the music classroom, locker/break room into the break room with building engineer office, kitchen into a Faculty lounge, Storage into the piano lab/storage, library/computer rooms into the media room, art/science classroom into (1) typical classroom, gymnasium into (2) classrooms, (1) classroom into art/science classroom. Additionally, targeted exterior envelope and roof repairs will occur of the existing school building. The FTE is projected to increase to a total of TBD after the annex is completed. The existing student enrollment is 208 and is projected to increase for an ideal capacity of 270 students. The school has a current capacity of 240 students.

Building will be constructed of brick façade with concrete masonry unit backup wall. Gym will have a curtainwall clearstory and a two story curtainwall clade reveal. Limestone sills will be used at windows and composite metal panel for soffits and fascia.

Project design follows CPS Design Guidelines, CPS Updated Design Guidelines & Prototype Designs dated October 7, 2016 and newly released standard specifications.

PROJECT SCHEDULE

Pre-Planning, Planning, Design and Construction

1. FY19 SCHOOLS: FALL 2020 DELIVERY SCHEDULE
- a. PROCUREMENT ACTIVITIES:
- i. FY19 SCHOOLS TRANSFER MTG .....7/27/18 ANX: See Above Project Listing

ii. PROJECT AUTHORITY

1. BUDGET: CAPITAL .....7/25/18 BOE Capital Projects Approval

2. BUDGET: FORMULATION .....8/14/18 PBC Board Approval (8 CPS Projects per above List)

3. BUDGET: PARTIAL UNDERTAKING .....9/11/18 PBC Board Approval (8 CPS Projects per above List)

iii. PBC PRE-PLANNING / SITE DUE DILIGENCE

1. SPECIALTY CONSULTANTS .....9/6/18 – 11/26/18 Assess: Geotech, Environmental Engineering, Survey, Traffic, Cost

2. DA – DESIGN ARCHITECT .....9/6/18 – 10/12/18 PBC Pre-Qualified Architects: FGM, LEGAT, SMNGA

iv. PBC DESIGN

1. AOR LIQ INFO SESSION .....9/20/18 All AOR/EOR LIQ Participants

2. AOR PROCUREMENT .....10/16 – 11/12/18

3. PBC BOD APPROVAL .....11/13/18 AOR – ARCHITECT OF RECORD (Engagement w/CM)

4. AOR ENGAGEMENT/KICK-OFF .....11/14 – 11/20/18 NOA: DD, 60%, 90%/PERMIT, 100%/IFC, IFC

v. CM @ RISK – CONSTRUCTION MANAGER

1. PHASE - I RFP REQUEST .....Oct 2018

2. PHASE - I INFO SESSION .....TBD

3. PHASE - I RFP RESPONSES .....TBD

4. CM INTERVIEWS .....TBD

5. CM SELECTION .....Dec 2018 (CPS/PBC Approved) Engagement @ Start of DD Design w/AOR

6. PBC BOD APPROVAL/NTP .....12/11/18 TBD CM Approval / Refer to Preconstruction Activities below

7. CM PRELIM DELIVERABLES .....12/13 – 12/28 (Pay App Strategy, Cash Flow, Engagement Plans)

vi. GENERAL CONTRACTOR

1. GC PROCUREMENT .....May/June 2019 Per PBC Pre-Qualified GC Classification

2. BIDDING PHASE .....June/July 2019 Per IFB Design Documents

3. PBC BOD MEETING APPROVAL .....7/9/19 General Contractor Approval

4. NOA .....7/10/19 PBC Ltr of Engagement to CM

5. NTP .....July/Aug 2019 Refer to Preconstruction Activities below by CM

2. DESIGN ACTIVITIES
- a. DESIGN ARCHITECT PRE-PLANNING KICK-OFF.....09/06/18 Design Engagement of DA’s
- b. CONCEPT PRG. EVAL/CONFIRMATION .....9/7 - 10/05//18 Prelim Cost Estimate (if applicable) – Scope Verification
- i. ISSUE CONCEPT DESIGN/REVIEW .....10/5/18 (CPS, PBC, Peer Review)

ii. CNPT DESIGN APPROVAL .....TBD
- c. SCHEMATIC DESIGN .....Oct – Nov 2018
- i. ISSUE FOR SCHEMATIC DESIGN .....11/21/18 (CPS, PBC, Peer Review, Cost Estimate)

ii. SD MILESTONE REVIEW .....TBD (Milestone Meeting TBD)
- d. ARCHITECT OF RECORD KICK-OFF .....11/14 – 11/20/18 DD PHASE - Design Engagement
- e. DESIGN DEVELOPMENT .....Nov 2018 – Jan 2019
- i. ISSUE FOR TRADE BIDDING #1 ..... TBD Trade Package #1: Foundations & Long Lead Items

ii. TRADE PKG #1REVIEW .....TBD (Stakeholder Review, Comment Review Mtg TBD) If Req’d

iii. ISSUED FOR DESIGN DEVELOPMENT .....1/11/19 Trade Package #2: Excavation and Earthwork, Concrete, Utilities

iv. DD MILESTONE REVIEW .....TBD (Stakeholder Review, Milestone Meeting TBD)

v. UPDATED GMP ESTIMATE .....TBD Per DB, Including Trade Pkg #1 and #2 Costs Reconciliation
- f. CONSTRUCTION DOCUMENT PHASE .....Jan – April 2019
- i. ISSUE FOR TRADE BIDDING #3 ..... TBD Trade Package #3: Building Material Components

ii. TRADE PKG #3REVIEW .....TBD (Stakeholder Review, Comment Review Mtg TBD) If Req’d

iii. ISSUE FOR 60%CD – TRADE PKG #4 ..... 2/26/19 Trade Package #4: Interior/Exterior Components & Equipment

iv. 60%CD MILESTONE REVIEW .....TBD (Stakeholder Review, Milestone Meeting TBD)

v. ISSUE FOR 90%CD/PERMIT ..... 4/11/18 Trade Package #4: Interior/Exterior Components & Equipment

vi. 60%CD MILESTONE REVIEW .....TBD (Stakeholder Review, Milestone Meeting TBD)

vii. ISSUE FOR 100%CD – VERTICAL/BLDG ..... 5/13/18 Trade Package #5: Balance of Project Procurement (As Req’d)

viii. 100%CD MILESTONE REVIEW .....TBD (Stakeholder Review, Milestone Mtg TBD)



PROJECT SCHEDULE (CONT)

- ix. PRELIM FINAL GMP DRAFT .....TBD (Preliminary Final GMP Submittal & Review – TBD)

x. FINAL GMP APPROVAL ..... July/Aug 2019 (PBC Aug Board Meeting

xii. 60%CD MILESTONE REVIEW .....TBD (Stakeholder Review, Milestone Meeting TBD)

xiii. ISSUE FOR 100%CD – VERTICAL/BLDG ..... 5/13/18 Trade Package #5: Balance of Project Procurement (As Req'd)

xiv. 100%CD MILESTONE REVIEW .....TBD (Stakeholder Review, Milestone Mtg TBD)

xv. PRELIM FINAL GMP DRAFT .....TBD (Preliminary Final GMP Submittal & Review – TBD)

xvi. FINAL GMP APPROVAL ..... July/Aug 2019 (PBC Aug Board Meeting Reporting – GMP Full Undertaking)

xvii. ISSUED FOR CONSTRUCTION ..... July 2019 Includes ALL Permit & Milestone Comments w/Trade Pkg Coord.

3. PERMIT PROCESS: DDS – DIRECT DEVELOPER SERVICES (PBC Recommended Dates, Subject to Change)

a. PERMIT #1 - SHALLOW FOUNDATIONS .....Mar 01, 2019 TBD Site Preparation Scope: Per 100%DD Dwgs DOB Submittal

b. PERMIT #1A - DEEP FOUNDATIONS (Only) [Decatur ES ANX]

i. OUC INTAKE MEETING (AVIKAM) .....Dec 2018 (3 Days) Projected 90 Day Max, Goal for Reduction

ii. PREPARE CAISSONS ONLY PACKAGE .....Dec/Jan 2019 Includes Engineered Procedures for Sub-Contractor Acceptance

iii. OUC SUBMITTAL (REVIEW & COMMENT).. ....Jan 2019 Permit: Caissons only for OUC Process (2 Wks)

iv. OUC SEARCH .....Jan/Feb 2019 Typical 30 Calendar Days (Goal for 2-3Wks)

v. OUC SEARCH COMMENT RESPONSES .....Feb 2019 (1 Wk) If applicable, for found conflicts only

vi. READY FOR OUC APPROVAL .....Mar 2019 Prior to Site Prep Construction Phase #1

c. PERMIT #2 - FULL BLDG .....June/July 2019 Annex Building, Site Development and Modular Demo: 90%CD

4. PRE CONSTRUCTION ACTIVITIES:

a. NTP - NOTICE TO PROCEED .....Dec 2018 Procurement, Sub-Guard, Estimating,

i. INTERIOR RENOVATIONS .....Jun - Aug 2021 (2 Mo) Summer Critical Scope

Reporting – GMP Full Undertaking)

xi. ISSUED FOR CONSTRUCTION ..... July 2019 Includes ALL Permit & Milestone Comments w/Trade Pkg Coord.

Peer/Constructability

i. Review, 3/4D BIM Coordination, Lead Items (Elevator/Roofing)

b. PRINCIPAL LOGISTICS/PHAZING MTG #1 .....Feb 2019 Project Phasing

c. PRE-CONSTRUCTION PERIOD (Trade Bid Packages: Issuance to Award)

i. PRE-CONSTR CONF KICKOFF MTG... .....Feb 2019 CM Quality and Safety Plans

ii. PRELIMINARY SUBMITTALS REVIEW .....Mar 2019 Site Utilization, Waste Management, Baseline Schedule,

iii. ITL PLAN - TRADE PACKAGE #1 & #2 .....Mar 2019 For PBC Procurement of project ITL Services

d. EXCAVATIONS PRE-CONSTRUCTION MTG .....Mar 2019

e. SITE UTILITIES PRE-CONSTRUCTION MTG .....Apr 2019

f. P6 BASELINE SCHEDULE SUBMITTAL .....Apr 2019 After 60%CD submittal

5. CONSTRUCTION ACTIVITIES: PHASE #1 - Site Prep Abatement & Demolition, Foundations and Steel Erection Package

a. SITE PREP MOBILIZATION .....Mar 01, 2019 TBD Site Control, Fencing, CPS Temp Parking, Temp Utilities

b. SITE PREP CONSTRUCTION:

i. DEMO/EXC./GRUBBING .....Apr 2019

ii. EXC. FTGS/UNDERGROUND MEP..... .....May/June 2019

6. CONSTRUCTION ACTIVITIES: PHASE #2 – Vertical/Full Bldg Construction & Site Development

a. MOBILIZATION (CONTINUED PER SITE PREP)... ..May/June 2019 (For Vertical/Full Building Construction: Site Control, Fencing)

b. VERTICAL CONSTRUCTION .....July/Aug 2019 (13 Months)

c. SITE DEVELOPMENT .....Mar 2020 (Parking Lot, Green Space)

d. CPS FF&E MOVE-IN .....Aug 2020 6 Weeks Required, Typ.

e. SUBSTANTIAL COMPLETION .....Aug 2020 (Fall School Calendar)

f. FACILITY OPENING/START OF SCHOOL .....Sept 2020 Final Acceptance (6 mo after SC) Feb 2021

7. CONSTRUCTION ACTIVITIES: PHASE #3 – Existing School Renovations & Site Development

a. INTERIOR CONVERSION

b. MODULAR DEMOLITION/PARKING .....Mar – Jun 2021 (4 Mo) Foundations, Util, Modular Components (Salvage TBD)

Date: 2018.09.26  
By: JW / FGM

ZONING ANALYSIS

PROJECT NAME: Poe Elementary Classical School Annex and Renovations  
PROJECT ADDRESS: 10538 S. Langley Ave., Chicago, IL 60628  
WARD: 9, Alderman Anthony Beale

Zoning Information			Underlying Zoning	Proposed Project	Notes
Zoning District:			RS-3	No Change	
Residential Units:			N/A	N/A	
Off-Street Parking Spaces: (17-10-0101-B(1)a) 10-0207)			(1) Existing: 24 spaces including (2) accessible	30 FTE / 3 = 10 spaces req'd Proposed: 24 spaces including (2) accessible	Parking provided exceeds requirement but parking lot will need to be reconfigured to meet landscape ordinance and setbacks. Need Existing FTE from CPS Access to off-street parking is not restricted in RS-3 District per 17-20402-A; cannot encroach in front/side/rear yard setback
Maximum F.A.R.: (17-2-0304-A)			0.9	Existing F.A.R.: .64 Proposed: .80	<b>NEED UPDATED SURVEY!</b> Exist. Site Area: 64,342 SF / 1.48 Acres per boundary survey prepared by EDI dated 4/17/06 Proposed site area approx. 77,283 SF / 1.77 Acres. Ex Bldg. to remain: 41,030 SF Proposed Annex: 20,660 SF
Floor Area Ratio of Public & Civic Uses (17-13-1003-C)			The Zoning Administrator is authorized to approve and administrative adjustment to all any permitted Public and Civic use in an R district to exceed the applicable F.A.R. by up to 10% over the otherwise applicable maximum.		
Minimum Lot Area (MLA): (17-2-0301-A)			2,500 SF	Complies, No Change	
Automobile Parking: (17-10-0101-B(1)a) (17-10-0207) 10-0601) prohibited in front 20"			(1) parking/loading stds. apply when existing non-residential bldg/use is expanded or enlarged by 15% or more (25% for uses in excess of 50 years old). Applies to addition of floor area, seating capacity, employees or other measurement used for off-street parking & loading requirements. 1 per 3 empl = addtnl determined by DZ/LUP		Proposed parking exceeds minimum requirements, however, FTE is being increased - confirm this does not mandate more off-street parking. Parking must be set back min. 20' in front yard per 17-10-0601
Bicycle Parking: Table (17-10-0207)			min. 1 per 10 off-street parking spaces req'd; 2'Wx6'Lx7'H ea; may use up to (2) req'd. parking spaces per 17-100302-C	existing, complies	A minimum of 5 will be provided to meet code requirement regardless of final FTE
Loading Berths: (17-10-1101)			0-24,999 GSF = 0 25,000-199,999 GSF = (1) 10'x50' for buildings over 50,000 SF	(1) 10'x50' loading berth required	Existing/New exceeds 50,000 SF, locate loading berth where truck can maneuver
Uses: (17-2-0207)			Schools permitted by right (existing)	No Change	
Setbacks	Front: (17-2-0305)	S. Langley Ave.	set back distance equal to the avg front yd depth on nearest 2 lots on either side of the subject lot, excl lot w/least front yd depth by right: lesser of 20' or 16% of lot depth	2'-5"	Existing building is non-conforming, Annex does not conform, parking does not conform - vairance will be required.
	Side: (17-2-0309)	E. 105th Pl.	greater of: 12' or 50% of building height	165'-10"	Building conforms, parking is in setback so a variance will be required.
	Side: (17-2-0309)	E. 106th Pl.	greater of: 12' or 50% of building height	Annex is setback15'-3" but building height will be +/- 56'-6" so 28'-3" setback required.	Variance will be required due to height of Annex requiring a setback that needs to be adjusted by more than 50%
	Rear: (17-2-0306-C)	S. Cottage Grove Ave.	20' (per 17-2-0309-C for through-lot)	157'-9"	Conforms
	Height				
Other Setbacks, Admin. Adjustment (17-13-1003-I)			The Zoning Administrator is authorized to approve an administrative adjustment to permit a reduction of up to 50% in the depth of any setback required by the applicable zoning district regulations when such reduction would match the predominate yard depth of existing buildings on the block.		
Site Coverage (if applicable):				Existing: 64,342 SF / 22.4% Proposed 77,283 SF / 32.0%	
Height: (17-2-03011-A)			No maximum Requirement (principal non-residential bldg.)	Underside of roof structure: Existing Bldg Ht: 57'-7" / 56'-4" (To underside of roof structure) Proposed Bldg Ht: 56'-6" (To underside of structure) to be confirmed	
Open Space: (17-2-0307)			Greater of: 400 SF/DU or 6.5% of lot area	Existing: 77.6% open space Proposed: 68.0% open space	
Green Roof / Features:			Green roof required	White reflective roof proposed	To be confirmed
Total Project Costs:				TBD (EST \$15M)	
Construction Jobs Created:					
No. Permanent Jobs Created:					
Reason for PD: (mandatory, elective, why)			17-8-0506; site does not exceed 2 acres thus not requiring PD subject to Zoning Administrator review of exception 17-8-0515-C(1); when determined that modification of existing development will have no adverse effect to neighborhood, traffic, bulk, scale, other measurable impacts		
Questions / Zoining Issues:			Building is an Orange listed Landmark and in the Pullman Historic District so will require Landmarks review		Building is an Orange listed Landmark and in the Pullman Historic District so will require Landmarks review
Other Concerns, Info, Notes:			Adjacent lot is a public right of way		Adjacent lot must be vacated.

BUILDING CODE MATRIX - EDGAR ALLAN POE ELEMENTARY SCHOOL ANNEX						
Address: 10538 S LANGLEY AVE. CHICAGO, IL 60628						
BLD'G REQUIREMENTS		CHICAGO BLD'G CODE				
ITEM	ISSUE	CHAPTER	ORDINANCE REQUIREMENT	ACTUAL	DWG REMARKS	
2.01	OCCUP. CLASSIFICATION(S)	3(13-56-100)	CLASS C-3; TYPE 1A	CLASS C-3; TYPE 1A		
2.02	HEIGHT AND AREA LIMITATIONS	5(13-48)				
	HEIGHT	5(13-48-030)	4 STORIES, 55 FEET MAX.	3 STORIES - 55'-0"		
	AREA	5(13-48-080)(B)	1C: 16,000 SF	9,986 1ST FLR 9,986 2ND FLR 688 3RD FLR		
	EXCEPTIONS TO AREA LIMITATIONS	5(13-48-090)	FLOOR AREAS MAY BE INCREASED 100% IF BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM	SPRINKLER SYSTEM TO BE PROVIDED; TO INCREASE TO 32,000 SF/FLR		
2.03	TYPES OF CONST	6(13-60-020)	FIRE-RESISTIVE CONSTRUCTION	TYPE 1C		
2.04	MIXED OCCUP. SEPARATIONS	3(13-56-230)	N/A	N/A		
2.05	ADDITIONS	34(13-200-250)				
	FLOOR AREA INCREASE	34(13-200-250)(A)	IF INCREASED BY LESS THAN 25%, ONLY NEW CONSTRUCTION MAY COMFORM TO ALL EQUIREMENTS OF THE CBC. IF INCREASED BY MORE THAN 25%, ENTIRE BUILDING MUST CONFORM TO ALL REQUIREMENTS OF THE CBC UNLESS A FIREWALL IS PROVIDED BETWEEN THE EXISTING BUILDING AND THE ADDITION.	20,660 > 25%	4HR FIREWALL REQUIRED, AREA INCREASE EXCEEDS 25% OF EXISTING BUILDING AREA	
	FIRE WALL	34(13-200-250)(B)	4HR REQ'D	4 HR TO BE PROVIDED		
	EXISTING LOADS	34(13-200-250)(C)	NO ADDITION SHALL IMPOSE EXITING LOADS WHICH EXCEED THE CAPACITY OF THE EXISTING BUILDING EXITS WITHOUT PROVISION OF ADDITIONAL EXITS.	WILL COMPLY		
	STRUCTURAL LOADS	34(13-200-250)(D)	NO ADDITION SHALL IMPOSE STRUCTURAL LOADS, EITHER VERTICAL OR HORIZONTAL, WHICH WOULD CAUSE THE EXISTING BUILDING TO BE SUBJECTED TO STRESSES EXCEEDING THOSE PERMITTED BY THE NEW CONSTRUCTION.	WILL COMPLY		
2.06	OCCUPANT LOAD					
	CONCURRENT OCCUP.	3(13-84-020)	TOTAL CAPACITY DETERMINATION	<u>22 OCCUPANTS</u>	ANNEX ONLY; EXCLUDES OCCUPANT LOAD FROM EXISTING BUILDING	
	NON-CONCURRENT OCCUP.	3(13-56-310)	NON-CONCURRENT OCCUP. DETERMINATION	170 OCCUPANTS	ANNEX ONLY; EXCLUDES OCCUPANT LOAD FROM EXISTING BUILDING	
2.07	REQ'D HOURS OF FIRE-RESIST.					
	EXT: BEARING WALLS	6(13-60-100)	2 HR REQ'D	N/A		
	EXT: NON-BEARING WALLS					
	1. OUTSIDE EXPOSURE	6(13-60-100)	2 HR, REDUCED TO 1 HR PER EXCEPTION (D)(3) WHERE FACING A STREET, PUBLIC OPEN SPACE, YARD OR COURT NOT LESS THAN 30' IN WIDTH	1 HR TO BE PROVIDED AT ALL LOCATIONS		
	2. INSIDE EXPOSURE	6(13-60-100)(C)	1 HR REQ'D	N/A		
	3. INTERIOR BEARING WALLS	6(13-60-100)	2 HR REQ'D	4 HR TO BE PROVIDED		
	4. INTERIOR NON-BEARING WALLS	6(13-60-100)(G)	SEE SECTIONS 7(15-8-120) TO 7(15-8-250), INCLUSIVE.	WILL COMPLY		
	5. EXTERIOR COLUMNS	6(13-60-100)(NOTES O,P)	2 HR, REDUCED TO 0 HR IF EXCEPTION (O) OR (P) APPLY	N/A	(K) FIRE PROT SHALL NOT BE REQ'D FOR CONST LOCATED > 20 FEET ABOVE ANY FLOOR, MEZZ. OR BALCONY. 1-HOUR CONST ONLY SHALL BE REQ'D FOR CONST LOCATED 14 FEET OR MORE ABOVE ANY FLOOR, MEZZ. OR BALCONY. (O) FIRE PROT SHALL NOT BE REQ'D FOR EXT STRUCT MEMBERS OF BUSINESS, RESIDENTIAL AND ASSEMBLY (OTHER THAN EXHIBITION HALLS) OCCUPANCIES WHEN THE BLD'G IS EQUIPPED WITH A SUPERVISED STD AUTO SPRINKLER SYSTEM AS DEFINED IN CBC 15-16 AND < 55 FEET IN HEIGHT. FIRE PROT SHALL NOT BE REQ'D FOR EXT COLUMNS OR PORTIONS OF BEAMS OR GIRDERS WHICH ARE OUTSIDE OF THE BLD'G ENVELOPE, FACE A PUBLIC WAY > 30 FEET AND DO NOT SUPPORT EXT FLOORS OR WALKWAYS INTENDED FOR OCCUP. (P) FIRE PROT SHALL NOT BE REQ'D FOR ROOF CONST INCL COLUMNS, BEAMS, GIRDERS, AND RUSSES SUPPORTING THE ROOF ONLY OF AREAS CLASSIFIED PER CHAPTER 15-16 AS "LIGHT HAZARD OCCUP." IN BUSINESS, RESIDENTIAL AND ASSEMBLY (OTHER THAN EXHIBITION HALLS) OCCUPANCIES IN BLD'GS EQUIPPED WITH A SUPERVISED STD AUTO SPRINKLER SYSTEM DEFINED IN CBC 15-16	
	6. INTERIOR COLUMNS					
	A. SUPPORTING ROOFS ONLY	6(13-60-100)(NOTES K,P)	1 HR, REDUCED TO 0 HR IF EXCEPTION (K) OR (P) APPLY	0 HR; SPRINKLER SYSTEM TO BE PROVIDED		
	B. OTHER COLUMNS	6(13-60-100)	2 HR REQ'D	2 HR TO BE PROVIDED		
	7. BEAMS, GIRDERS, TRUSSES					
	A. SUPPORTING ROOFS ONLY	6(13-60-100)(NOTES K,O,P)	1 HR, REDUCED TO 0 HR PER EXCEPTIONS (K), (O) AND (P)	0 HR; SPRINKLER SYSTEM TO BE PROVIDED		
	B. OTHER BEAMS	6(13-60-100)(NOTE O)	1 HR REQ'D	1 HR TO BE PROVIDED		
	8. FLOOR CONSTRUCTION	6(13-60-100)(NOTE O)	1 HR REQ'D	2 HR TO BE PROVIDED		
	ROOF CONST	6(13-60-100)(NOTES K,O,P)	1 HR, REDUCED TO 0 HR PER NOTES (K), (O) AND (P)	0 HR; SPRINKLER SYSTEM TO BE PROVIDED		

UPDATED: 10.25.2018						
ITEM	ISSUE	CHAPTER	ORDINANCE REQUIREMENT	ACTUAL	DWG	REMARKS
2.08	SUPPORTING MEMBERS	6(13-60-120)	NO LESS THAN THE REQ'D FIRE-RESISTIVE RATING OF CONST SUPPORTED BY SUCH MEMBER	WILL COMPLY		4-HR VESTIBULE SHALL BE SELF-SUPPORTING
2.09	ELEVATOR FRAMING	6(13-60-130)	STRUCTURAL MEMBERS FOR ELEVATORS LOCATED WHOLLY WITHIN ELEVATOR SHAFT ENCLS OR PENTHOUSES, ARE NOT REQ'D TO BE FIRE PROTECTED	STRUCTURAL MEMBERS LOCATED WITHIN ELEVATOR SHAFT		
2.10	LINTELS	6(13-60-140)	LINTELS OVER MASONRY WALL OPEN'GS NOT EXCEEDING 5' IN WIDTH SHALL ARE NOT REQ'D TO BE FIRE PROTECTED.	WILL COMPLY		PER EXCEPTION "LINTELS, FIRE PROTECTION"; THE BOTTOM FLANGE OF THE LINTEL OVER THE EXT WALL WINDOW OPEN'G NEED NOT BE FIRE PROTECTED REGARDLESS OF THE EXT WALL OPEN'G SIZE.
2.11	SHELF ANGLES	6(13-60-150)	FIRE PROT NOT REQ'D	WILL COMPLY		MUST SUPPORT WALL FACING NO GREATER THAN 4.5" IN THICKNESS; AND BE PROPERLY SUPPORTED BY SPANDREL BEAMS OR LINTELS THAT ARE FIRE PROTECTED.
2.12	MEZZANINE FLOORS	6(13-60-160)	N/A	N/A	N/A	
2.13	BASEMENT CONST	6(13-60-170)	N/A	N/A	N/A	
2.14	DRIVEWAYS + LOADING SPACES	6(13-60-210)	N/A	N/A	N/A	
2.15	FIRE RESISTIVE REQUIREMENTS					
	FIRE WALLS - CONST	7(15-8-010)	NON-COMBUSTIBLE, 4-HR RATING PER SUB-PARAGRAPH (B), ALL SUPPORTING STRUCTURE SHALL NOT BE LESS THAN WALL SUPPORTED. SHALL EXTEND NOT LESS THAN 36" ABOVE ROOF	WILL COMPLY		
	PARAPETS	7(15-8-100)	PARAPETS WITH A FIRE-RESIST. RATING OF 3 OR 4 HOURS SHALL EXTEND NOT LESS THAN 3' ABOVE THE ROOF, PARAPETS ON FIRE WALLS SHALL EXTEND AT LEAST TO THE SAME HEIGHT AS ANY PART OF THE ROOF THROUGH WHICH THE FIRE WALL PASSES WITHIN 15' OF THE PARAPET.	4HR PARAPET TO BE PROVIDED		
	PROTECTION OF OPEN'GS	7(15-8-110)	NOT REQ'D WHERE OPEN'G IS LOCATED GREATER THAN 12' FROM THE ADJACENT BLD'G OR ADJACENT TO SMOKE PROOF TOWERS, HORIZ. EXITS, EXT. STAIRWAYS.	WILL COMPLY	N/A	NO OPEN'GS LESS THAN 12' FROM ADJACENT BLD'G AT DISTANCE MORE THAN 60-DEGREES FROM PLANE OF WALL
	ENCL PARTITIONS	7(15-8-130)(A)	ENCL PARTITIONS SUPPORTING LOADS SHALL COMPLY WITH PROVISIONS OF CHAPTER 13-60 FOR BEARING PARTITIONS.	WILL COMPLY		
		7(15-8-130)(B)	THE BOTTOMS OF ENCLS AND THE TOPS OF ENCLS NOT EXTENDING TO THE ROOF SHALL BE OF CONST PROVIDING FIRE RESIST. NOT LESS THAN THAT REQ'D FOR THE ENCL WALLS.	WILL COMPLY		
		7(15-8-130)(C)	STRUCTURAL MEMBERS SUPPORTING ENCL WALLS OR PARTITIONS SHALL BE OF CONST PROVIDING FIRE PROT NOT LESS THAN REQ'D FOR THE ENCL.	WILL COMPLY		
	STAIRWAY ENCLS	7(15-8-140)	2 HR IN BLD'GS EXCEEDING 3 STORIES IN HEIGHT, 1 HR FOR LESS THAN 3-STORIES	4 HR TO BE PROVIDED		B-LABEL OPENING PROTECTIVES AND 2 HR PROVIDED TO COMPLY WITH FIRE PROTECTION OF LOAD BEARING WALLS 6(13-60-100)
	ELEVATOR ENCLS	7(15-8-150)	2 HR REQ'D	4 HR TO BE PROVIDED		
	ENCLS OF SHAFTS	7(15-8-160)	OPEN'GS NOT EXCEEDING 9 SF DO NOT REQUIRE AN ENCL. 1-HR WHERE EXCEEDING 9SF	1 HR TO BE PROVIDED WHEN >9 SF		
	ENCLS OF WELLS AND CHUTES	7(15-8-170)	DOES NOT APPLY	DOES NOT APPLY	N/A	
	ENCLS OF HEATING PLANTS AND BOILER RMS	7(15-8-190/230)	2 HR REQ'D FOR RMS CONTAINING HEATING PLANTS IN BLDGS > 200 OCCUPANTS	2 HR TO BE PROVIDED		PROVIDE B-LABEL FIRE DAMPERS AT ALL 2-HR WALLS



POE  
ANNEX

6" = 1'-0"

**FGM**ARCHITECTS

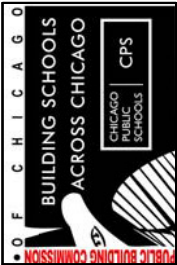
200 W JACKSON ST  
SUITE 1040  
CHICAGO, IL 60606  
(312) 948-8461  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

BUILDING CODE MATRIX - EDGAR ALLAN POE ELEMENTARY SCHOOL ANNEX					
Address: 10538 S LANGLEY AVE. CHICAGO, IL 60628					
BLD'G REQUIREMENTS		CHICAGO BLD'G CODE			
ITEM	ISSUE	CHAPTER	ORDINANCE REQUIREMENT	ACTUAL	DWG REMARKS
OTHER ENCLOSURES					
	1. PUBLIC CORRIDORS	7(15-8-240) 3(13-84-050)	1 HR REQ'D	1 HR TO BE PROVIDED	DOUBLE LAYER GYPSUM BOARD PROVIDED EACH SIDE OF PARTITIONS FOR ACOUSTICAL PURPOSES, NOT LIFE-SAFETY.
	2. AREA SEPARATIONS	7(15-8-240)	PER NOTE (4), REFER TO 3(13-84-050): SPECIAL ENCLS AND SEPARATIONS. SEE BELOW.	SEE BELOW	
	3. STORAGE RMS	7(15-8-240)	2 HR AT STORAGE RMS GREATER THAN 100 SF	2 HRS TO BE PROVIDED WHEN > 100 SF	PROVIDE B-LABEL FIRE DAMPERS AT ALL 2-HR WALLS
ASSEMBLY SPACES					
	1. SPECIAL ENCLS AND SEPARATIONS	3(13-84-050)	2 HR CONST FLOOR AND ENCLOSING PARTITIONS IN SPACES > 300 OCCUPANTS; 1 HR CONST IN SPACES < 300 OCCUPANTS.	WILL COMPLY	
	2. PUBLIC CORRIDORS	3(13-84-050)	1 HR REQ'D	1 HR TO BE PROVIDED	
	3.STAGE AREA AT GYMNATORIUM	3(13-84-070)	TYPE 2 STAGE PER DEFINITIONS	WILL COMPLY	
	STAGE TYPE 2 REQUIREMENTS	3(13-84-090)	NON-COMBUST. ENCL MIN. 1-HR RATING; TYPE 1-C STAGE FL ASSEMBLY; TYPE 1-C AUX RMS; EQUIP = TYPE 1 STAGE	WILL COMPLY	N/A
	ROOF COVERINGS	7(15-8-360)	CLASS A	CLASS A TO BE PROVIDED	
	INT WALLS AND CEILING FINISHES	7(15-8-380)	CLASS 1; FLAME SPREAD RATING 0-25; SMOKE DEVELOPED 200	CLASS 1; FLAME SPREAD RATING 0-25; SMOKE DEVELOPED 200 PROVIDED	
	FLOOR COVERINGS	7(15-8-440)	CLASS A	CLASS A TO BE PROVIDED	
	ROOF STRUCTURES	7(15-8-510)	ALL ROOF STRUCTURES ON BLD'GS EXCEEDING 55 FEET SHALL BE NONCOMBUSTIBLE MATERIALS + SUPPORTED BY NONCOMBUSTIBLE MATERIALS	N/A	
2.16	OPEN'G PROTECTIVE ASSEMBLIES - DOORS	7(15-12-070)	SEE REMARKS	TO COMPLY	CLASS B DOORS FOR OPEN'GS IN VERTICAL SHAFTS (1-1/2 HOURS PER 7(15-8-180); CLASS C DOORS FOR OPEN'GS BTWN RMS OR BTWN RMS AND CORRIDORS; CLASS D & E DOORS FOR OPEN'GS IN EXT WALLS WHERE REQ'D PER 10(13-160). OPEN'G PROTECTIVE ASSEMBLIES NOT REQ'D IN EXT WALLS WHERE FACING A LOT LINE/OPPOSITE SIDE OF A PROW > 12 FEET PER 7(15-8-110).
2.17	OPEN'G PROTECTIVE ASSEMBLIES - WINDOWS	7(15-12-160)	SEE REMARKS	NOT REQUIRED	OPEN'G PROTECTIVE ASSEMBLIES NOT REQ'D IN EXT WALLS OPPOSITE SIDE OF A PUBLIC WAY GREATER THAN 12 FEET AWAY PER 7(15-8-110).

2.18	FIRE PROTECTION EQUIPMENT				
	SPRINKLER SYSTEMS	9(15-16-010)	REQ'D FOR TYPE 1 SCHOOLS	AUTOMATIC AND SUPERVISED SPRINKLER SYSTEM PROVIDED	ANNEX ONLY
	STANDPIPE SYSTEMS	9(15-16-090)	STANDPIPE REQ'D ON EACH SIDE OF STAGE BLOCK AND WITHIN 50' OF ALL PROPERTY RMS, STORE RMS OR WORK RMS.	N/A	N/A
	FIRE ALARM SYSTEMS	9(15-16-110)	CLASS 1 SYSTEM REQ'D FOR ALL TYPE 1 SCHOOLS	CLASS 1 SYSTEM TO BE PROVIDED	CONNECT TO EXISTING SYSTEM, UPGRADE AS REQUIRED
	FIRE EXTINGUISHERS	9(15-16-640)	ONE 2A-RATED AND ONE C-RATED FIRE EXTINGUISHERS REQ'D ON EACH SIDE OF STAGE.	N/A	
		9(15-16-640)	NOT LESS THAN ONE 2A-RATED FIRE EXTINGUISHER REQ'D FOR ASSEMBLY RMS WITH 300 OR MORE OCCUPANTS.		FIRE EXTINGUISHERS INSTALLATION SHALL BE PROVIDED IN A MANNER THAT COMPLIES WITH NFPA 10

UPDATED: 10.25.2018						
ITEM	ISSUE	CHAPTER	ORDINANCE REQUIREMENT	ACTUAL	DWG	REMARKS
EXIT REQUIREMENTS						
3.01	TYPES OF EXITS FOR STORY ABOVE OR BELOW GRADE	10(13-160-040)	INTERIOR STAIRWAYS, SMOKEPROOF TOWERS, HORIZONTAL EXITS, ESCALATORS, EXTERIOR STAIRWAYS, RAMPS, SLIDE POLE, ELEVATORS	INTERIOR STAIRWAYS, HORIZONTAL EXITS & ELEVATOR		
3.02	MINIMUM NUMBER OF EXITS	10(13-160-050)	2 EXITS FROM EVERY BUILDING, FLOOR SPACE OR ROOM	CLASSROOMS AND STORAGES < 2 DOORS		
	1 EXIT PERMITTED	10(13-160-050) (A)	IN ALL OCCUPANCIES EXCEPT HAZARDOUS USE UNITS, FROM ANY ROOM OR SPACE DESIGNED OR USED FOR AN OCCUPANCY OF NOT MORE THAN FIFTY PERSONS AND: HAVING AN AREA NOT EXCEEDING 1,200 SQ.FT. OR USED FOR STORAGE NOT EXCEEDING 400 SQ.FT.	CLASSROOMS < 50 PERSONS AND < 1,200 SQ.FT. STORAGES < 400 SQ.FT.		
	1 EXIT PERMITTED	10(13-160-050) (B)	IN ALL OCCUPANCIES FROM ANY ROOM OR SPACE HAVING AN AREA NOT EXCEEDING 2000 SQ.FT. AND USED EXCLUSIVELY FOR STORAGE PURPOSES WITH ONLY INCIDENTAL HUMAN OCCUPANCY	MECHANICAL ROOM < 2000 SQ.FT. AND INCIDENTAL HUMAN OCCUPANCY		
3.03	TRAVEL DISTANCE TO EXITS	10(13-160-110)	PER SECTION 10(13-160-140) ASSEMBLY UNITS' TRAVEL DISTANCE SHALL NOT EXCEED 150'	-		
	DEAD END CORRIDOR	10(13-160-160)	SHALL NOT EXCEED 20'	N/A	N/A	
3.04	CAPACITY OF EXITS	10(13-160-210)	STAIRS = 100 PERSONS PER UNIT OF EXIT WIDTH DOORWAYS = 115 PERSONS PER UNIT OF EXIT WIDTH	WILL COMPLY		
3.05	MINIMUM WIDTH OF EXITS	10(13-160-220)	DOORS > OR = 36" WIDE STAIRS AND CORRIDORS > OR = 60" WIDE	DOORS > OR = 36" STAIRS > OR = 66" CORRIDORS > OR = 86"		
3.06	SWING OF EXIT DOORS	10(13-160-250)	ALL DOORS REQUIRED AS EXIT DOORS SHALL SWING IN THE DIRECTION OF EXIT TRAVEL	WILL COMPLY		
3.07	HARWARE	10(13-160-260)				
	DOORS IN CONNECTION WITH EXITS	10(13-160-260) (A)	ALL DOORS USED IN CONNECTION WITH EXITS SHALL BE SO ARRANGED AS TO BE READILY OPENED WITHOUT THE USE OF A KEY FROM THE SIDE FROM WHICH EGREES IS MADE	WILL COMPLY		
	ASSEMBLY UNITS	10(13-160-260) (B)	EXIT DOORS SERVING MORE THAN 200 PERSONS SHALL BE EQUIPPED WITH APPROVED LATCHES OR BOLTS WHICH RELEASE UNDER A PRESSURE OF 15 POUNDS	WILL COMPLY		
	PUBLIC BUILDINGS	10(13-160-260) (D)	DOORS IN PUBLIC BUILDINGS OPENING INTO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, STAIRS OR ENTRANCES TO VEHICULAR TRAFFIC AREAS, SHALL HAVE KNURLED HANDLES TO ALERT THE BLIND	WILL COMPLY		
3.08	LANDINGS	10(13-160-310)	MAXIMUM VERTICAL RISE = 9' LENGTH OF LANDING = WIDTH OF STAIRS BUT NEED NOT EXCEED 4'			
3.09	HANDRAILS	10(13-160-320)	ALL STAIRWAYS SHALL HAVE WALLS, RAILINGS OR GUARDS ON BOTH SIDES	WILL COMPLY		
	WALL MOUNTED HANDRAILS	10(13-160-320) (B)	HANDRAIL MOUNTED ON WALL SHALL HAVE ITS ENDS RETURNED AND JOINED TO THE WALL	WILL COMPLY		
3.10	CONSTRUCTION	10(13-160-330)	STAIRS SHALL BE CONSTRUCTED ENTIRELY OF NON-COMBUSTIBLE MATERIALS	WILL COMPLY		
	THREADS AND LANDINGS	10(13-160-330) (D)	FINISH SURFACE TO BE OF MATERIALS WHICH WILL NOT CAUSE DANGER OF SLIPPING	WILL COMPLY		
	CLOSETS AND STORAGE	10(13-160-330) (E)	NO CLOSET OR STORAGE SPACE SHALL BE LOCATED BENEATH STAIRS	WILL COMPLY		
3.11	STAIRWAY ENCLOSURES	7(15-8-140)	IN BUILDINGS NOT EXCEEDING THREE STORIES IN HEIGHT, INTERIOR STAIRWAYS SHALL BE ENCLOSED WITH 1 HR PARTITIONS	2HR PROVIDED		
3.12	HEAD ROOM	10(13-160-350)	NOT LESS THAN 7"	WILL COMPLY		



POE  
ANNEX

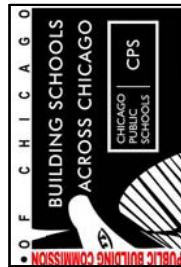
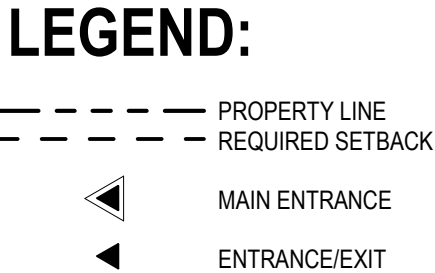
6" = 1'-0"

**FGM**ARCHITECTS

200 W JACKSON ST  
SUITE 1040  
CHICAGO, IL 60606  
(312) 948-8461  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect



POE  
ANNEX

INSTITUTIONAL PD:	PD WAIVER REQUESTED
GROSS SITE AREA:	77,283 (1.77 ACRES)
EX. OFF STREET PRKG.:	24/ CONFIRM W/ PBC
PROP. OFF STREET PRKG.:	24. APPRX. NCL. (2) AGCSSBL
BUILDING FLRS. / HT.:	EX. 4-STORY 56'-6" PROP. 3-STORY 56'-6" RF ST.
MIN. REQ'D SETBACKS:	FRONT 20'-0", SIDE 28'-3", REAR 20"
PROPOSED SETBACKS:	FR 25'-0", SIDE 15'-3"/165'-10", REAR 157'-9" (ANX)
FLOOR AREA RATIO:	RS-3; .64 EXIST/ .80 PROP.
ALLEY / UTIL. VACATION:	
EXISTS TOTAL BLDG. SF:	41,030 GSF (GRADE+1ST+2ND+3RD)
PROPOSED TOTAL SF:	61,690 (NEW ANNEX W/ EXS. BLDG)
EXIST'G SITE COVERAGE:	22.4%
PROPOSED SITE COVERAGE:	32%

PROJECT:	EDGAR ALLAN POE ES ANNEX AND RENOVATIONS
ADDRESS:	10538 S LANGLEY AVE. CHICAGO, IL 60628
WARD:	WARD 9
ALDERMAN:	ANTHONY BEALE
EXIST'G STUDENTS:	209/PER CPS PROGRAM SHEET
EXIST'G FTE STAFF:	20 FTE/ PER CPS
PROPOSED STUDENTS:	TBD/ PER CPS PROGRAM SHEET
PROPOSED FTE STAFF:	30 FTE/ PER CPS
ALTA SURVEY W/UTL.:	TBD
ENVIRONMENTAL PHASE I:	TBD/PBC TO CONFIRM
ENVIRONMENTAL PHASE II:	TBD/PBC TO CONFIRM
GEOTECHNICAL:	TBD/FORTHCOMING (PBC)

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

© 2018 FGM ARCHITECTS, INC.

# SITE PLAN

$$1'' = 40'-0''$$

SPECIFICATIONS

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

00 01 01	PROJECT MANUAL COVER PAGE.....	00_09/17/18
00 01 02	TABLE OF CONTENTS .....	00_09/17/18
00 01 11	SUPPLEMENTAL PROJECT INFORMATION .....	00_09/17/18
00 11 16	INVITATION TO BID .....	00_09/17/18
00 21 13	INSTRUCTIONS TO BIDDING CONTRACTORS.....	00_09/17/18
00 41 13	BID FORM .....	00_09/17/18
00 43 00	FORM 100 – GC MBE/WBE PARTICIPATION SUMMARY .....	00_09/17/18
00 43 01	FORM 101 – GC AFFIDAVIT .....	00_09/17/18
00 43 02	FORM 102 – GC JOINT VENTURES .....	00_09/17/18
00 43 05	FORM 105 – GC REQUEST FOR WAIVER .....	00_09/17/18
00 43 05	AWARD CRITERIA .....	00_09/17/18
00 43 06	NON-COLLUSION AFFIDAVIT .....	00_09/17/18
00 73 00	SUPPLEMENTAL CONDITIONS .....	00_09/17/18

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS – JOC PROJECTS

00 73 00.JOC	SUPPLEMENTAL CONDITIONS .....	PENDING
--------------	-------------------------------	---------

DIVISION 01 - GENERAL REQUIREMENTS

01 10 00	SUMMARY OF WORK.....	00_09/17/18
01 14 11	CONSTRUCTION OPERATIONS AND SITE UTILIZATION PLAN.....	00_09/17/18
01 20 00	PAYMENT AND CONTRACT MODIFICATION PROCEDURES.....	00_09/17/18
01 21 00	ALLOWANCES.....	00_09/17/18
01 22 00	UNIT PRICES .....	00_09/17/18
01 23 00	ALTERNATES .....	00_09/17/18
01 25 00	SUBSTITUTION PROCEDURES.....	00_09/17/18
01 25 00.01	SUBSTITUTION REQUEST FORM .....	00_09/17/18
01 30 00	ADMINISTRATIVE REQUIREMENTS .....	00_09/17/18
01 32 16	CONSTRUCTION PROGRESS SCHEDULE .....	00_09/17/18
01 33 29	LEED SUSTAINABLE DESIGN REPORTING .....	00_09/17/18
01 33 29.01	LEED PROJECT CHECKLIST .....	00_09/17/18
	<i>PREPARED BY AOR/EOR AS APPLICABLE.....</i>	NA
01 33 29.04	LEED MATERIAL CONTENT FORM.....	00_09/17/18
01 33 29.07	LEED PROHIBITED CONTENT INSTALLER CERTIFICATION.....	00_09/17/18
01 40 00	QUALITY REQUIREMENTS.....	00_09/17/18
01 42 16	DEFINITIONS .....	00_09/17/18
01 50 03	TEMPORARY FACILITIES AND CONTROLS – RENOVATION .....	00_09/17/18
01 50 05	TEMPORARY FACILITIES AND CONTROLS – NEW CONSTRUCTION....	00_09/17/18
01 56 11	GENERAL DUST, FUME AND ODOR CONTROLS .....	00_09/17/18
01 57 13	LEED TEMPORARY EROSION AND SEDIMENT CONTROL .....	00_09/17/18
01 57 21	LEED INDOOR AIR QUALITY CONTROLS.....	00_09/17/18
01 57 21	INTEGRATED PEST MANAGEMENT.....	00_09/17/18
01 60 00	PRODUCT REQUIREMENTS .....	00_09/17/18
01 61 16	LEED VOLATILE ORGANIC COMPOUND (VOC) RESTRICTIONS.....	00_09/17/18
01 62 10	PRE-CONSTRUCTION PROJECT MOCK-UP.....	00_09/17/18

01 70 00	EXECUTION REQUIREMENTS.....	00_09/17/18
01 73 29	CUTTING AND PATCHING.....	00_09/17/18
01 74 19	LEED CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL .....	00_09/17/18
01 77 00	CLOSEOUT PROCEDURES.....	00_09/17/18
01 77 00.01	CLOSEOUT MEETING CHECKLIST .....	00_09/17/18
01 78 00	CLOSEOUT SUBMITTALS .....	00_09/17/18
01 78 00.01	CLOSEOUT DOCUMENTS CHECKLIST.....	00_09/17/18
01 79 00	DEMONSTRATION AND TRAINING .....	00_09/17/18
01 91 XX	COMMISSIONING .....	PENDING

DIVISION 02 - EXISTING CONDITIONS

02 13 15	SMALL SCALE DISTURBANCE ASBESTOS CONTAINING MATERIALS	00_09/17/18
02 24 00	ENVIRONMENTAL ASSESSMENT.....	00_09/17/18
02 24 01	ENVIRONMENTAL SCOPE SHEETS .....	00_09/17/18
02 26 00	HAZARDOUS MATERIALS ASSESSMENT.....	00_09/17/18
02 41 16	BUILDING DEMOLITION.....	00_09/17/18
02 41 19	SELECTIVE DEMOLITION .....	00_09/17/18
02 64 00	ABOVEGROUND STORAGE TANK REMOVAL .....	00_09/17/18
02 65 00	UNDERGROUND STORAGE TANK REMOVAL.....	00_09/17/18
02 82 13	ASBESTOS ABATEMENT – PRIOR TO DEMOLITION.....	00_09/17/18
02 82 14	ASBESTOS ABATEMENT – INTERIORS .....	00_09/17/18
02 82 15	ASBESTOS ABATEMENT – EXTERIORS .....	00_09/17/18
02 83 19	LEAD-BASED PAINT ABATEMENT .....	00_09/17/18
02 83 20	SMALL SCALE DIST OF PAINT SURF ASSUMED CONTAIN LEAD ....	00_09/17/18
02 86 13	HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT .....	00_09/17/18
02 87 13	ANIMAL EXCREMENT AND CARCASS ABATEMENT .....	00_09/17/18

DIVISION 03 - CONCRETE

03 30 00	CAST-IN-PLACE CONCRETE .....	00_09/17/18
03 45 00	PRECAST ARCHITECTURAL CONCRETE .....	00_09/17/18
03 30 53	MISCELLANEOUS CAST-IN-PLACE CONCRETE .....	00_09/17/18
03 54 00	CAST UNDERLAYMENT.....	00_09/17/18

DIVISION 04 - MASONRY

04 01 00	MAINTENANCE OF MASONRY .....	00_09/17/18
04 20 00	UNIT MASONRY .....	00_09/17/18
04 43 01	STONE MASONRY .....	00_09/17/18
04 72 00	CAST STONE MASONRY.....	00_09/17/18

DIVISION 05 - METALS

05 12 00	STRUCTURAL STEEL FRAMING.....	00_09/17/18
----------	-------------------------------	-------------

05 21 00	STEEL JOIST FRAMING .....	00_09/17/18
05 31 00	STEEL DECKING .....	00_09/17/18
05 40 00	COLD-FORMED METAL FRAMING.....	00_09/17/18
05 50 00	METAL FABRICATIONS.....	00_09/17/18
05 51 00	METAL STAIRS .....	00_09/17/18
05 52 13	PIPE AND TUBE RAILINGS .....	00_09/17/18
05 53 05	GRATINGS AND FLOOR PLATES .....	00_09/17/18

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

06 10 00	ROUGH CARPENTRY.....	00_09/17/18
06 20 00	FINISH CARPENTRY .....	00_09/17/18
06 61 16	SOLID SURFACING FABRICATIONS .....	00_09/17/18

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

07 01 50.19	PREPARATION FOR RE-ROOFING.....	PENDING
07 01 50.61	ROOF DECK REPAIR .....	PENDING
07 01 50.65	ROOF PATCHING .....	PENDING
07 01 60	MAINTENANCE OF FLASHING AND SHEET METAL .....	PENDING
07 11 13	BITUMINOUS DAMPPROOFING .....	PENDING
07 13 00	SHEET WATERPROOFING.....	PENDING
07 18 00	TRAFFIC COATINGS .....	PENDING
07 21 00	THERMAL INSULATION .....	PENDING
07 21 29	SPRAYED INSULATION .....	PENDING
07 25 00	WEATHER BARRIERS.....	PENDING
07 42 13.23	METAL COMPOSITE MATERIAL WALL PANELS .....	PENDING
07 52 00	MODIFIED BITUMINOUS MEMBRANE ROOFING .....	PENDING
07 54 33	FLEXIBLE MEMBRANE ROOFING.....	PENDING
07 62 00	SHEET METAL FLASHING AND TRIM.....	PENDING
07 71 00	ROOF SPECIALTIES.....	PENDING
07 72 00	ROOF ACCESSORIES.....	PENDING
07 81 00	APPLIED FIREPROOFING .....	PENDING
07 81 23	INTUMESCENT MASTIC FIREPROOFING .....	PENDING
07 84 00	FIRESTOPPING .....	PENDING
07 92 00	JOINT SEALANTS .....	PENDING
07 95 13	EXPANSION JOINT COVER ASSEMBLIES .....	PENDING

DIVISION 08 - OPENINGS

08 11 13	HOLLOW METAL DOORS AND FRAMES.....	PENDING
08 14 16	FLUSH WOOD DOORS.....	PENDING
08 31 00	ACCESS DOORS AND PANELS .....	PENDING
08 33 13	COILING COUNTER DOORS .....	PENDING
08 33 26	OVERHEAD COILING GRILLES.....	PENDING
08 42 29	AUTOMATIC DOOR OPENERS .....	PENDING
08 43 13	ALUMINUM-FRAMED STOREFRONTS .....	PENDING
08 51 13	ALUMINUM WINDOWS.....	PENDING
08 56 56	WINDOW GUARDS - INTERIOR .....	PENDING

08 56 57	WINDOW GUARDS - EXTERIOR .....	PENDING
08 71 00	DOOR HARDWARE .....	PENDING
08 71 01	DOOR HARDWARE SCHEDULE .....	PENDING
08 80 00	GLAZING .....	PENDING
08 87 17	SAFETY AND SECURITY GLAZING FILMS.....	PENDING
08 83 00	MIRRORS .....	PENDING
08 91 00	LOUVERS.....	PENDING

DIVISION 09 - FINISHES

09 01 22	GYPSUM PLASTER PATCHING .....	PENDING
09 01 24	PLASTER RENOVATION.....	PENDING
09 01 33	TILING RENOVATION.....	PENDING
09 01 63	TERRAZZO FLOORING RENOVATION.....	PENDING
09 01 65	WOOD ATHLETIC FLOORING RENOVATION .....	PENDING
09 05 61	COMMON WORK RESULTS FOR FLOORING PREPARATION.....	PENDING
09 21 16	GYPSUM BOARD ASSEMBLIES.....	PENDING
09 22 16	NON-STRUCTURAL METAL FRAMING.....	PENDING
09 22 36	LATH.....	PENDING
09 30 00	TILING .....	PENDING
09 51 00	ACOUSTICAL CEILINGS .....	PENDING
09 64 29	WOOD STRIP AND PLANK FLOORING .....	PENDING
09 64 66	WOOD ATHLETIC FLOORING .....	PENDING
09 65 00	RESILIENT FLOORING.....	PENDING
09 65 66	RESILIENT ATHLETIC FLOORING .....	PENDING
09 68 13	TILE CARPETING .....	PENDING
09 84 30	FABRIC-WRAPPED SOUND-ABSORBING WALL UNITS.....	PENDING
09 91 03	SURFACE PREPARATION FOR RENOVATION PAINTING .....	PENDING
09 91 05	RENOVATION PAINTING .....	PENDING
09 91 13	EXTERIOR PAINTING.....	PENDING
09 91 23	INTERIOR PAINTING .....	PENDING
09 96 00	HIGH-PERFORMANCE COATINGS.....	PENDING

DIVISION 10 - SPECIALTIES

10 11 01	VISUAL DISPLAY BOARDS.....	00_09/17/18
10 11 03	CHALKBOARD TO MARKERBOARD CONVERSION .....	00_09/17/18
10 14 00	SIGNAGE.....	00_09/17/18
10 21 13.19	PLASTIC TOILET COMPARTMENTS.....	00_09/17/18
10 22 13	WIRE MESH PARTITIONS AND PANELS.....	00_09/17/18
10 22 39	FOLDING PANEL PARTITIONS .....	00_09/17/18
10 26 01	WALL AND CORNER GUARDS .....	00_09/17/18
10 28 00	TOILET, BATH, AND LAUNDRY ACCESSORIES.....	00_09/17/18
10 44 00	FIRE PROTECTION SPECIALTIES.....	00_09/17/18
10 44 03	INSTALLATION OF FIRE EXTINGUISHERS AND CABINETS.....	00_09/17/18
10 51 12.11	LOCKERS – ELEMENTARY SCHOOL .....	00_09/17/18
10 82 19	EXTERIOR SOUND SCREENS .....	00_09/17/18

DIVISION 11 - EQUIPMENT

11 40 00	FOODSERVICE EQUIPMENT .....	00_09/17/18
11 52 13	PROJECTION SCREENS.....	00_09/17/18
11 82 27	FACILITY WASTE COMPACTORS.....	00_09/17/18
11 61 33	RIGGING SYSTEMS AND CONTROLS.....	00_09/17/18
11 66 23.11	GYMNASIUM EQUIPMENT – ELEMENTARY SCHOOL.....	00_09/17/18
11 66 23.21	GYMNASIUM EQUIPMENT – HIGH SCHOOL .....	00_09/17/18
11 66 43	INTERIOR MULTI-SPORT SCOREBOARD .....	00_09/17/18
11 68 13	PLAYGROUND EQUIPMENT .....	00_09/17/18
11 82 27	FACILITY WASTE COMPACTORS.....	00_09/17/18

DIVISION 12 - FURNISHINGS

12 24 00	WINDOW SHADES.....	00_09/17/18
12 32 00	MANUFACTURED WOOD CASEWORK .....	00_09/17/18
12 36 00	COUNTERTOPS.....	00_09/17/18
12 48 13	ENTRANCE FLOOR MATS AND FRAMES .....	00_09/17/18
12 66 13	TELESCOPING BLEACHERS.....	00_09/17/18

DIVISION 13 - SPECIAL CONSTRUCTION

13 28 16	SPORT NETTING .....	00_09/17/18
13 48 20	ARCHITECTURAL ACOUSTIC ISOLATION .....	00_09/17/18

DIVISION 14 - CONVEYING EQUIPMENT

14 24 23	HYDRAULIC PASSENGER ELEVATORS .....	00_09/17/18
----------	-------------------------------------	-------------

DIVISION 21 - FIRE SUPPRESSION

21 05 00	COMMON WORK RESULTS FOR FIRE SUPPRESSION .....	00_xx/xx/xx
21 05 13	COMMON MOTOR REQUIREMENTS FOR FIRE SUPPRESSION EQUIP .....	00_xx/xx/xx
21 05 53	IDENTIFICATION FOR FIRE SUPPRESSION PIPING AND EQUIPMENT .....	00_xx/xx/xx
21 11 00	FACILITY FIRE-SUPPRESSION PIPING.....	00_xx/xx/xx
21 13 00	FIRE SUPPRESSION SPRINKLER SYSTEMS .....	00_xx/xx/xx
21 31 13	ELECTRIC-DRIVE CENTRIFUGAL FIRE PUMPS .....	00_xx/xx/xx

DIVISION 22 - PLUMBING

22 05 00	COMMON WORK RESULTS FOR PLUMBING .....	00_xx/xx/xx
22 05 13	COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT .....	00_xx/xx/xx
22 05 16	EXPANSION FITTINGS AND LOOPS FOR PLUMBING .....	00_xx/xx/xx
22 05 19	METERS & GAGES FOR PLUMBING PIPING .....	00_xx/xx/xx
22 05 23	GENERAL-DUTY VALVES FOR PLUMBING PIPING .....	00_xx/xx/xx
22 05 29	HANGERS & SUPPORTS FOR PLUMBING PIPING & EQUIPMENT .....	00_xx/xx/xx
22 05 48	VIBRATION CONTROLS FOR PLUMBING PIPING AND EQUIPMENT .....	00_xx/xx/xx

22 05 53	IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT .....	00_xx/xx/xx
22 07 00	PLUMBING INSULATION .....	00_xx/xx/xx
22 11 16	DOMESTIC WATER PIPING.....	00_xx/xx/xx
22 11 19	DOMESTIC WATER PIPING SPECIALTIES .....	00_xx/xx/xx
22 11 23	DOMESTIC WATER PUMPS .....	00_xx/xx/xx
22 11 23.13	DOMESTIC WATER PACKAGED BOOSTER PUMPS .....	00_xx/xx/xx
22 13 16	SANITARY WASTE, VENT AND STORM DRAINAGE PIPING.....	00_xx/xx/xx
22 13 19	SANITARY WASTE PIPING SPECIALTIES.....	00_xx/xx/xx
22 14 13	FACILITY STORM DRAINAGE PIPING .....	00_xx/xx/xx
22 14 23	DRAINAGE PIPING SPECIALTIES .....	00_xx/xx/xx
22 34 00	FUEL-FIRED DOMESTIC WATER HEATERS .....	00_xx/xx/xx
22 36 00	COMMERCIAL FUEL-FIRED WATER HEATERS .....	00_xx/xx/xx
22 40 00	PLUMBING FIXTURES .....	00_xx/xx/xx
22 47 00	DRINKING FOUNTAINS & WATER COOLERS .....	00_xx/xx/xx

DIVISION 23 - HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)

23 01 30.51	HVAC AIR-DISTRIBUTION SYSTEM CLEANING .....	00_09/17/18
23 05 13	COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT .....	00_09/17/18
23 05 16	EXPANSION FITTINGS AND LOOPS FOR HVAC PIPING .....	00_09/17/18
23 05 19	METERS AND GAGES FOR HVAC PIPING .....	00_09/17/18
23 05 23	GENERAL-DUTY VALVES FOR HVAC PIPING.....	00_09/17/18
23 05 48	VIBRATION CONTROLS FOR HVAC PIPING AND EQUIPMENT .....	00_09/17/18
23 05 53	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT .....	00_09/17/18
23 05 93	TESTING, ADJUSTING, AND BALANCING FOR HVAC.....	00_09/17/18
23 07 13	DUCT INSULATION .....	00_09/17/18
23 07 16	HVAC EQUIPMENT INSULATION.....	00_09/17/18
23 07 19	HVAC PIPING INSULATION .....	00_09/17/18
23 09 XX	BUILDING AUTOMATION SYSTEM (BAS) .....	PENDING
23 23 00	REFRIGERANT PIPING .....	00_09/17/18
23 31 00	HVAC DUCTS AND CASINGS.....	00_09/17/18
23 33 00	AIR DUCT ACCESSORIES .....	00_09/17/18
23 34 16	CENTRIFUGAL HVAC FANS.....	00_09/17/18
23 36 00	AIR TERMINAL UNITS.....	00_09/17/18
23 37 00	AIR OUTLETS AND INLETS .....	00_09/17/18
23 40 00	HVAC AIR CLEANING DEVICES.....	00_09/17/18
23 51 00	BREECHINGS, CHIMNEYS, AND STACKS .....	00_09/17/18
23 74 16.13	PACKAGED ROOFTOP UNIT (GREATER THAN 15 TONS) .....	00_09/17/18
23 82 23	UNIT VENTILATORS.....	00_09/17/18

DIVISION 26 - ELECTRICAL

26 05 05	SELECTIVE DEMOLITION FOR ELECTRICAL.....	PENDING
26 05 19	LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES.....	PENDING
26 05 26	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS.....	PENDING
26 05 29	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS .....	PENDING
26 05 33.13	CONDUIT FOR ELECTRICAL SYSTEMS .....	PENDING
26 05 33.16	BOXES FOR ELECTRICAL SYSTEMS .....	PENDING
26 05 33.23	SURFACE RACEWAYS FOR ELECTRICAL SYSTEMS.....	PENDING
26 05 48	NOISE AND VIBRATION CONTROL FOR ELECTRICAL SYSTEMS.....	PENDING



26 05 53	IDENTIFICATION FOR ELECTRICAL SYSTEMS .....	PENDING	
26 05 83	WIRING CONNECTIONS .....	PENDING	
26 08 13	TESTING OF ELECTRICAL SYSTEMS .....	PENDING	
26 09 23	LIGHTING CONTROL DEVICES.....	PENDING	
26 09 43	LIGHTING CONTROLS .....	PENDING	
26 21 00	LOW-VOLTAGE ELECTRICAL SERVICE ENTRANCE.....	PENDING	
26 22 00	LOW-VOLTAGE TRANSFORMERS .....	PENDING	
26 24 13	SWITCHBOARDS.....	PENDING	
26 24 16	PANELBOARDS .....	PENDING	
26 27 23	INDOOR SERVICE POLES .....	PENDING	
26 27 26	WIRING DEVICES .....	PENDING	
26 28 13	FUSES .....	PENDING	
26 28 16.13	ENCLOSED CIRCUIT BREAKERS .....	PENDING	
26 28 16.16	ENCLOSED SWITCHES .....	PENDING	
26 29 13	ENCLOSED CONTROLLERS .....	PENDING	
26 29 23	VARIABLE FREQUENCY MOTOR CONTROLLERS .....	PENDING	
26 32 13	ENGINE GENERATORS .....	PENDING	
26 36 00	TRANSFER SWITCHES.....	PENDING	
26 43 00	SURGE PROTECTIVE DEVICES .....	PENDING	
26 51 00	INTERIOR LIGHTING .....	PENDING	
26 51 00.01	INTERIOR LIGHTING FIXTURE SCHEDULE.....	PENDING	
	FOR REFERENCE – INCLUDE SCHEDULE ON DRAWINGS, EDIT PER PROJECT		
26 56 00	EXTERIOR LIGHTING.....	PENDING	
26 56 00.01	EXTERIOR LIGHTING FIXTURE SCHEDULE .....	PENDING	FOR REFERENCE –
	INCLUDE SCHEDULE ON DRAWINGS, EDIT PER PROJECT		

DIVISION 27 - COMMUNICATIONS

27 05 03	COMMUNICATIONS GENERAL REQUIREMENTS .....	00_09/17/18	
27 05 38	CABLE TRAYS FOR STRUCTURED CABLING SYSTEMS.....	00_09/17/18	
27 05 53	IDENTIFICATION FOR COMMUNICATION SYSTEMS .....	00_09/17/18	
27 05 53.01	IDENTIFICATION FOR COMMUNICATION SYSTEMS LABELING .....	00_09/17/18	
27 08 00	COMMISSIONING OF COMMUNICATIONS .....	00_09/17/18	
27 11 16	COMMUNICATIONS CABINETS, RACKS, AND ENCLOSURES .....	00_09/17/18	
27 13 13	COMMUNICATIONS COPPER BACKBONE CABLING .....	00_09/17/18	
27 13 23	COMMUNICATIONS OPTICAL FIBER BACKBONE CABLING .....	00_09/17/18	
27 15 00	DATA COMMUNICATIONS HORIZONTAL CABLING.....	00_09/17/18	
27 51 00	DISTRIBUTED AUDIO-VIDEO COMMUNICATIONS SYSTEMS .....	00_09/17/18	
27 51 16	PUBLIC ADDRESS SYSTEMS .....	00_09/17/18	
27 53 14	CLOCK SYSTEMS.....	00_09/17/18	
27 53 15	INTERCOM/MASTER CLOCK & PROGRAM EQUIPMENT INTERFACE ...	00_09/17/18	
27 60 13	WIRELESS ACCESS POINTS FOR DATA COMMUNICATIONS .....	00_09/17/18	

DIVISION 28 - ELECTRONIC SAFETY AND SECURITY

28 13 13	ACCESS CONTROL SYSTEM - DOOR ENTRY (SMALL INSTALLATION)	00_09/17/18	
28 13 15	ACCESS CONTROL SYSTEM - DOOR ENTRY (LARGE INSTALLATION)	00_09/17/18	
28 13 16	IP ACCESS CONTROL SYSTEM .....	00_09/17/18	
28 20 00	CCTV SYSTEM AND COMPONENTS .....	00_09/17/18	
28 23 07	DVS SYSTEM - EXISTING SCHOOL.....	00_09/17/18	

28 23 09	DVS SYSTEM - NEW SCHOOL.....	00_09/17/18
28 26 07	EMERGENCY CALL SYSTEM.....	00_09/17/18
28 26 09	RESCUE ASSISTANCE SYSTEM .....	00_09/17/18
28 31 00	FIRE DETECTION AND ALARM.....	00_09/17/18
28 31 11	BUILDING INTRUSION DETECTION .....	00_09/17/18

DIVISION 31 - EARTHWORK

31 13 00	TREE AND LANDSCAPE PROTECTION .....	00_09/17/18
31 22 00	GRADING .....	00_09/17/18
31 22 15	EARTHWORK FOR SYNTHETIC SURFACING SYSTEMS.....	00_09/17/18
31 23 16	EXCAVATION.....	00_09/17/18
31 23 17	EXCAVATING, BACKFILLING, AND COMPACTING FOR UTILITIES .....	00_09/17/18
31 23 18.13	SOIL, FILL, BACKFILL, CU STRUCT SOIL, AND CONST DEMO DEBRIS..	00_09/17/18
31 23 18.14	CCDD UNCONTAMINATED SOIL .....	00_09/17/18
31 23 18.14D	CCDD UNCONTAMINATED SOIL-DRAWING NOTES .....	00_09/17/18
	FOR REFERENCE – INCLUDE NOTE ON DRAWINGS, EDIT PER PROJECT	
31 23 18.15	HAZARDOUS WASTE SOIL REMOVAL AND DISPOSAL .....	00_09/17/18
31 23 23	FILL.....	00_09/17/18
31 23 23.15	CU STRUCTURAL SOIL .....	00_09/17/18
31 23 23.25	ACCEPTANCE OF BACKFILL, TOP SOIL, CU STRUCTURAL SOIL.....	00_09/17/18
31 63 29	DRILLED CONCRETE PIERS AND SHAFTS.....	00_09/17/18

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 12 16	ASPHALT PAVING .....	00_09/17/18
32 12 36	ASPHALT SEALCOAT .....	00_09/17/18
32 13 13	CONCRETE PAVING .....	00_09/17/18
32 14 13	PRECAST CONCRETE UNIT PAVING.....	00_09/17/18
32 14 43	PERMEABLE UNIT PAVING.....	00_09/17/18
32 17 23.13	PAINTED PAVEMENT MARKINGS .....	00_09/17/18
32 18 14	SYNTHETIC GRASS SURFACING - PLAYFIELDS .....	00_09/17/18
32 18 15	SYNTHETIC GRASS SURFACING SYSTEM - SPORTS FIELDS .....	00_09/17/18
32 18 16	PLAYGROUND PROTECTIVE SURFACING .....	00_09/17/18
32 18 23.33	SYNTHETIC RUNNING TRACK SURFACING .....	00_09/17/18
32 18 23.53	TENNIS COURT SURFACING.....	00_09/17/18
32 31 13	CHAIN LINK FENCES AND GATES .....	00_09/17/18
32 31 13.26	TENNIS COURT FENCES AND GATES .....	00_09/17/18
32 31 13.43	TRASH ENCLOSURE FENCES AND GATES.....	00_09/17/18
32 31 19	DECORATIVE METAL FENCES AND GATES .....	00_09/17/18
32 31 29	WOOD FENCES AND GATES.....	00_09/17/18
32 33 13	SITE BICYCLE RACKS .....	00_09/17/18
32 84 23	UNDERGROUND IRRIGATION SYSTEM .....	PENDING
32 92 23	SODDING .....	00_09/17/18
32 93 00	PLANTS .....	00_09/17/18
32 93 11	NATIVE PLANTINGS.....	00_09/17/18

DIVISION 33 - UTILITIES

33 10 13	WATER SERVICE .....	PENDING
----------	---------------------	---------

## CIVIL

### Poe ES Civil Utility and Stormwater Items

Site work for the project will consist of new artificial turf field, paved pedestrian open space, replacement of existing pavement, new driveway, site concrete walk, and greenspace.

With respect to existing utility services the following shall be noted:

- 1) Sanitary and Storm Services – The existing storm and sanitary pipes that service the existing elementary school exit the southern face of the building. The existing storm and sanitary services are within the footprint of the proposed addition and will require relocation. Location of sanitary and storm services will be coordinated with the plumbing engineer.
- 2) Water Service – The existing water service is fed from the 12" water main located in 106<sup>th</sup> Street. The proposed location of the new building will require relocation of the existing water service. The new water service will be fed from the 12" water main in 106<sup>th</sup> Street. Location of new water service will be coordinated with the plumbing engineer.
- 3) Telephone Service – The existing telephone service is fed overhead from a utility pole located in the southern parkway of 106<sup>th</sup> Street. The proposed location of the new building will require relocation of the existing telephone service. Location of new telephone service to be coordinated with electrical engineer and utility company in order to determine the extent of relocation. See special considerations below.
- 4) Electrical Service – The existing electrical service is fed overhead from utility pole located in the southern parkway of 105<sup>th</sup> Pl. Electrical engineer to determine if new electrical services are required for the new building.

With respect to existing utilities, located within City of Chicago right-of-way (ROW) to be vacated, the following shall be noted:

- 1) Water Main – The existing 12" water main runs north-to-south in the Champlain Ave ROW. The proposed location of the artificial turf field and will require the water main to be relocated. Conflicts with existing utilities along Cottage Grove Ave. may require an easement to be formed with CDWM within the newly vacated ROW.
- 2) Sewer Main – The existing 12" and 15" combined sewer mains run north-to-south in Champlain Ave ROW. The proposed location of the artificial turf field and will require the sewer mains to be relocated. Conflicts with existing utilities along Cottage Grove Ave. may require an easement to be formed with CDWM within the newly vacated ROW.
- 3) Unknown Utilities – Only water and sewer record information were provided at the time of this submittal. The OUC Information Retrieval process should be started immediately

to determine if any additional public utilities will need to be relocated from the proposed vacated right-of-way.

Special considerations for construction of the new annex:

- 1) The new site work is planned in an existing City of Chicago right of way known as S. Champlain Ave. The right of way must be vacated via the standard CDOT process. It is the TERRA's understanding that this process is currently underway.
- 2) The relocation of public utilities typically requires the utility provider to complete the scope of work. In the case of the water main relocate, the work to reroute that line will be completed by the utility provider (CDWM). They provide the cost of the work to the owner; however, a cost assumption should be provided in the estimate. In addition, scheduling of the work can be an issue as there is not control over when the work is performed and incorporating it into a project schedule can be a challenge.

In the case of the telephone service, if the overhead service cannot be transferred to the new annex, the telephone service provider will need to reroute the service. The relocated service may continue to be provided overhead, or at the telephone service provider's discretion, will need to be moved underground provided to the school via underground conduit.

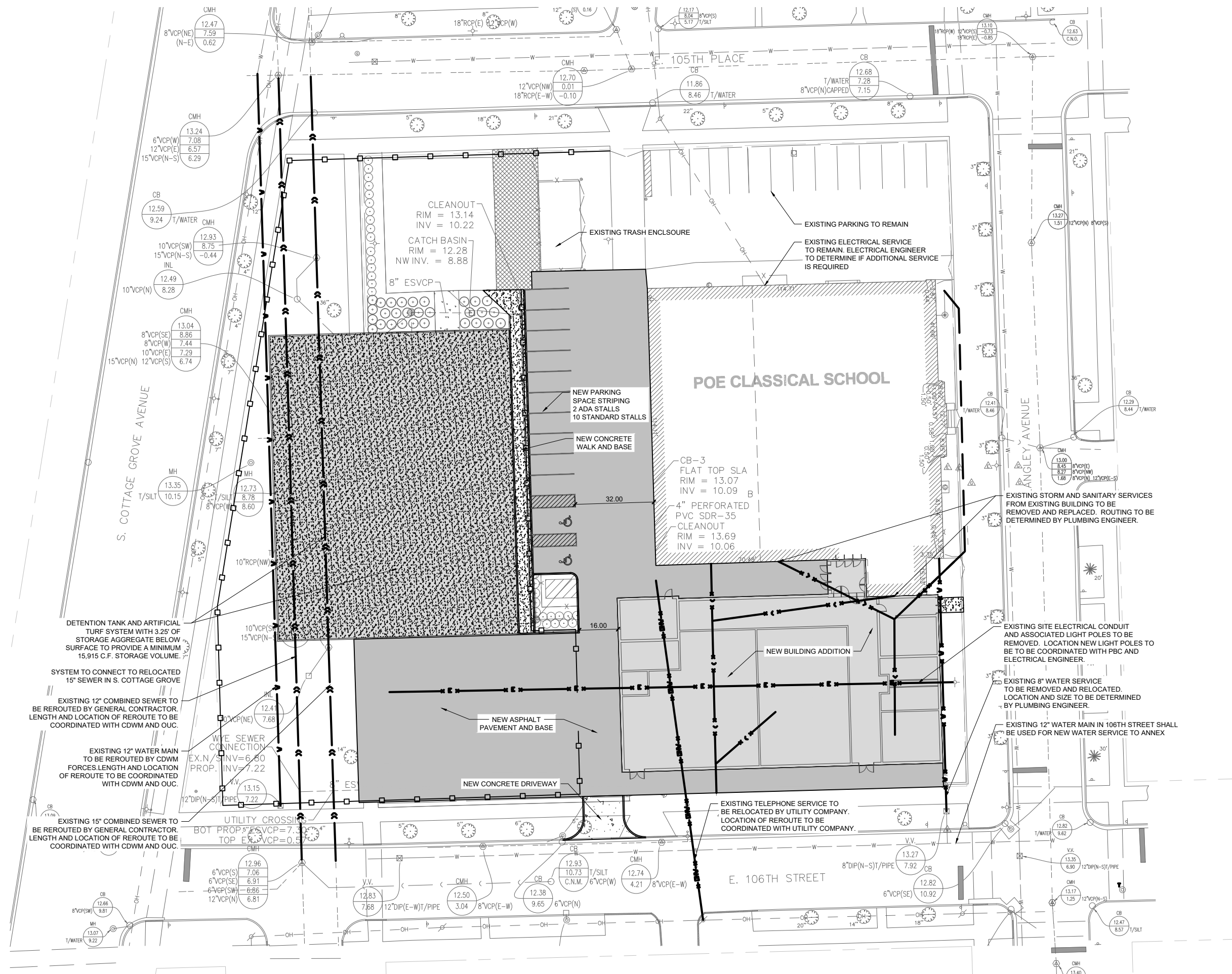
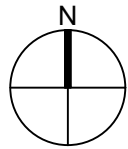
- 3) The new utility reroutes will require review by the OUC.

- 4) Reuse of the existing artificial turf field is not planned at this time. Due to reconfiguration of the site, the underdrain system will need to be reconfigured which will require removal and replacement of the underdrainage piping. The existing CA-7 base course may be reused if its cleaned and washed by the contractor prior to installing in the new artificial turf field.

**Stormwater**

The preliminary site layout provided by FGM Architects will fall under the City of Chicago Department of Water Management, Stormwater ordinance as a “regulated development”. It is anticipated the site will require approximately 14,261 cubic feet of storm water detention and 1,650 cubic feet of runoff volume control. It is anticipated that storage aggregate below the proposed artificial turf field will be utilized to handle the detention and volume control requirements from stormwater runoff. Stormwater runoff will be collected through new catch basins and conveyed into the storage aggregate through new stormwater pipe. The stormwater will discharge the site into the relocated, existing 15” sewer near Cottage Grove Ave.

\*Note: Please reference MEP narrative for additional information on proposed utility connections for the project.



# 1 Poe Annex Stormwater Management Concept Plan

SCALE: 1" = 40'

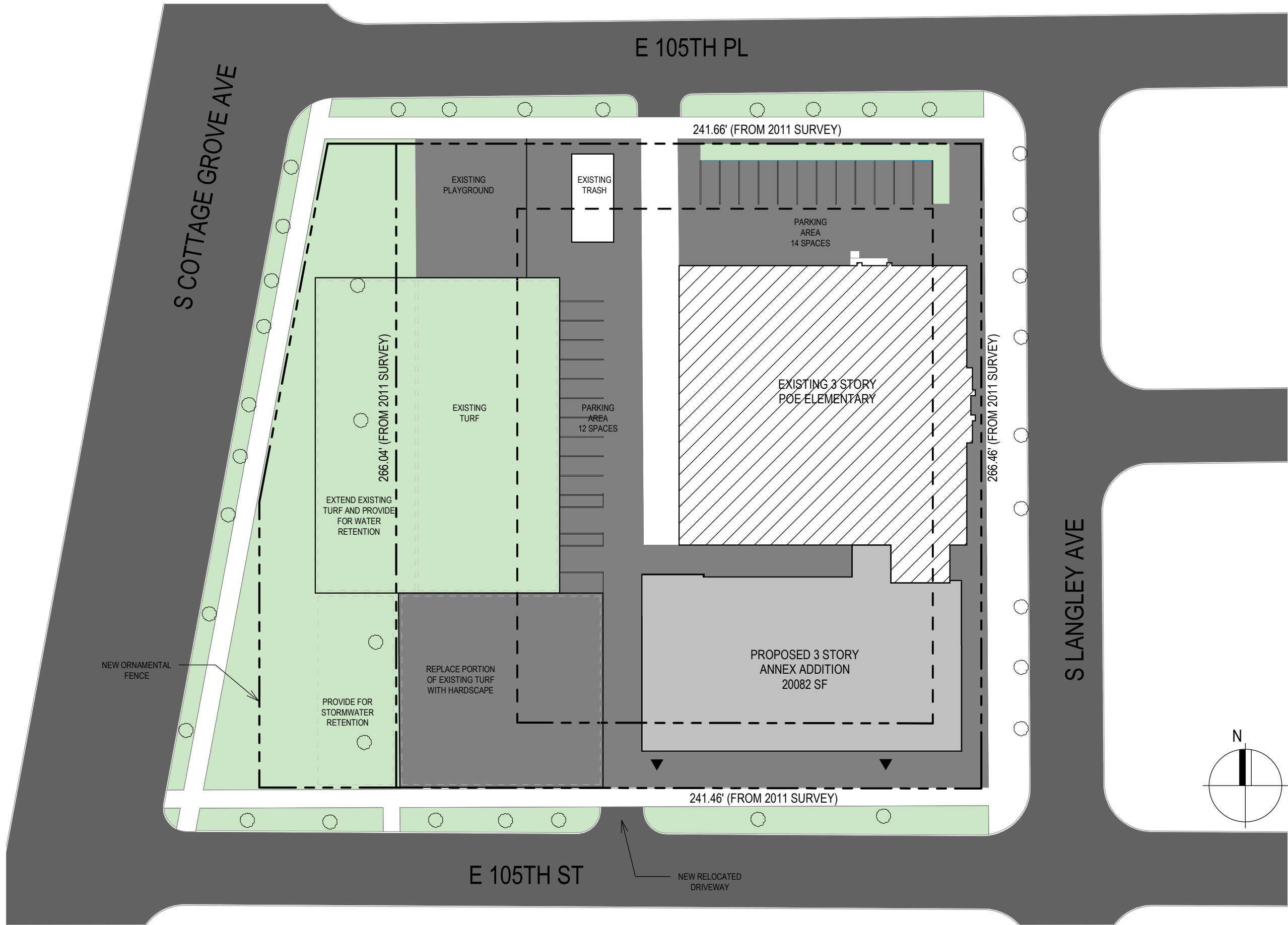


## LANDSCAPE

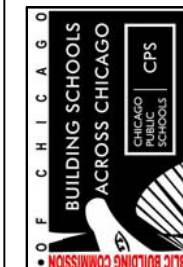
- Landscaping is an important element in the exterior design of any facility and can enhance the overall visual appeal and value of a property. Proposed plant materials will provide a quality, cost-effective and functional landscape that will enhance the new areas of construction, while complying with applicable City of Chicago landscape requirements.
- Hardy, low-maintenance, drought-tolerant plant materials will be proposed for the projects. Invasive plants that threaten local ecosystems will not be utilized. Thornless and non-toxic plant materials will be utilized and plant materials with fruit and nuts will be avoided. Final selections will take into account seasonal interest, disease-resistance, ability to thrive in a typical urban environment and will require minimal pruning.
- All existing trees will be preserved to the greatest extent possible. The landscape design will complement the existing landscape in the vicinity. New groupings of similar plants will be installed for greatest visual impact.
- Minimum sizes of proposed plant materials shall be as follows:
  - Deciduous Shade Tree: 2 ½" caliper
  - Deciduous Ornamental Tree: 6' height
  - Evergreen Tree: 6' height
  - Shrubs utilized for screening purposes: 30" height
  - Shrubs not utilized for screening purposes: #5 container
  - Perennials and Ornamental Grasses: 1 gal. container
- Requirements for the balling and burlapping, measurement, branching, quality and size of plants shall follow the latest edition of the American Standard for Nursery Stock by the American Association of Nurserymen, Inc.
- All non-paved site areas inside the project limits, or outside the project limits disturbed by construction operations, not containing plantings, will be seeded and/or sodded.
- New landscaping shall be guaranteed for a one-year period.
- Three inches (3") of shredded hardwood will be utilized on all planting beds and around all trees to conserve moisture, reduce soil temperature fluctuation, improve the soil through decomposition and minimize weed growth.
- Since an irrigation system is not part of this program, reducing the amount of outdoor water use through appropriate techniques is very important. Turf variety selection will require minimal additional irrigation and water-efficient plants utilizing natives that have demonstrated long-term landscape value through hardiness, availability and minimal maintenance requirements will further reduce the reliance on supplemental watering.
- The existing play area at the Poe Elementary School serves as a primary exterior activity center. The play area is currently proposed to remain, however, Bid Alternate is part of the program to replace the equipment and safety surfacing for this area. If the Alternate is accepted, CPS design standards will be utilized and will comply with CPSC guidelines, applicable ASTM standards and ADA guidelines for accessibility. For obvious reasons, equipment with lead-based paint, bare metal platforms, slides or steps and sharp points, corners and edges will be avoided. The equipment will provide multiple play options and challenges, sensory panels and interactive activities. Safety surfacing will be utilized beneath the equipment and will extend,

at a minimum, to the required perimeter safety zones. Consideration for protective shade opportunities will also be explored.

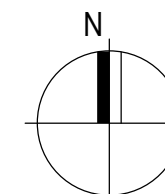
- Consideration will be given to the inclusion of site furniture, such as benches, waste receptacles and bike racks. Proposed furniture, if included, will be durable and well-constructed.
- A paved hard surface area will be provided that will potentially accommodate such activities as hopscotch, four square, jump rope and other outdoor games.



7181



POE  
ANNEX



1" = 40'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

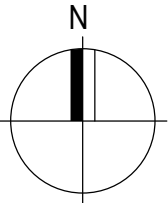
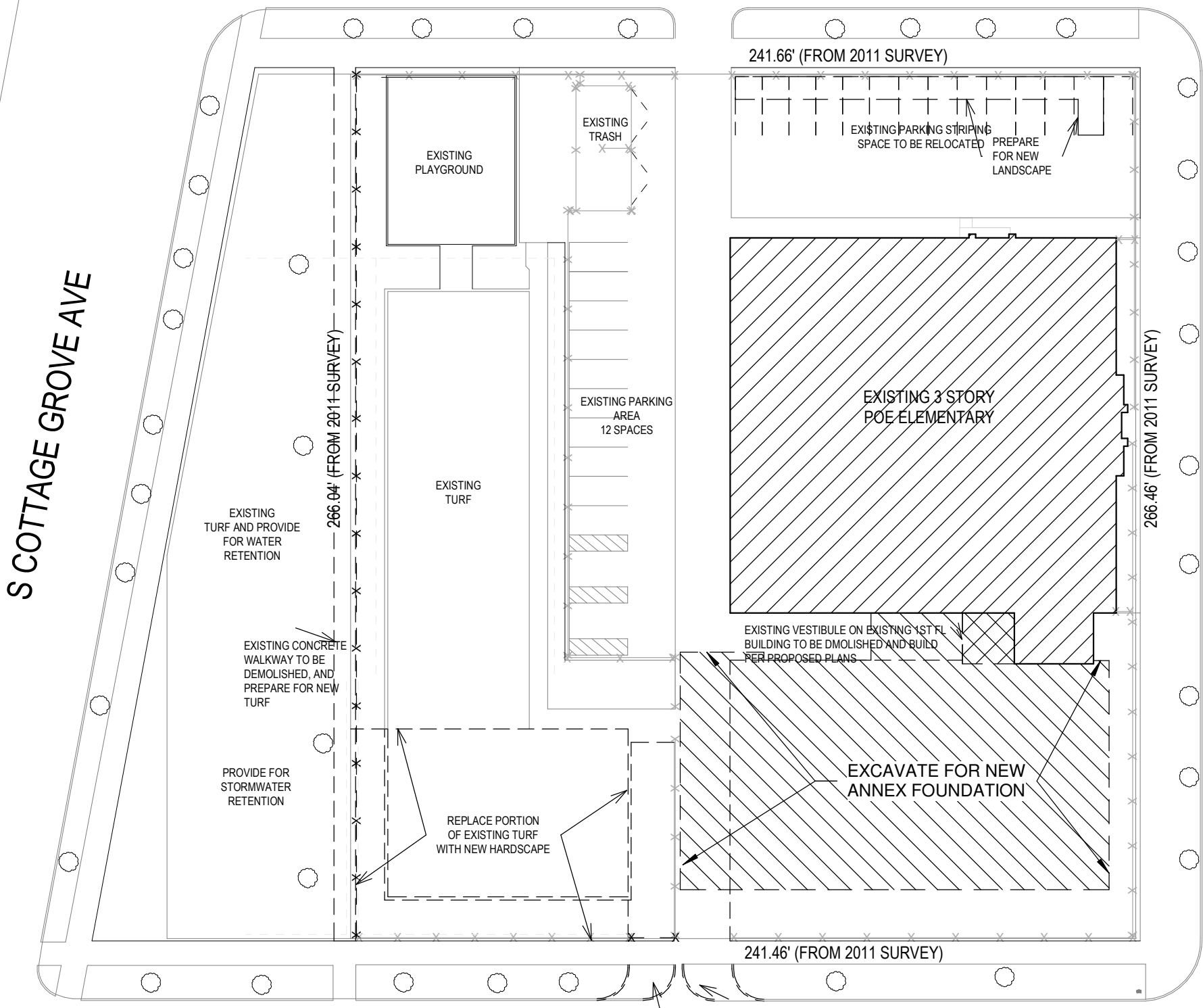
© 2018 FGM ARCHITECTS, INC.

SCOTTAGE GROVE AVE

E 105TH PL

S LANGLEY AVE

E 105TH ST



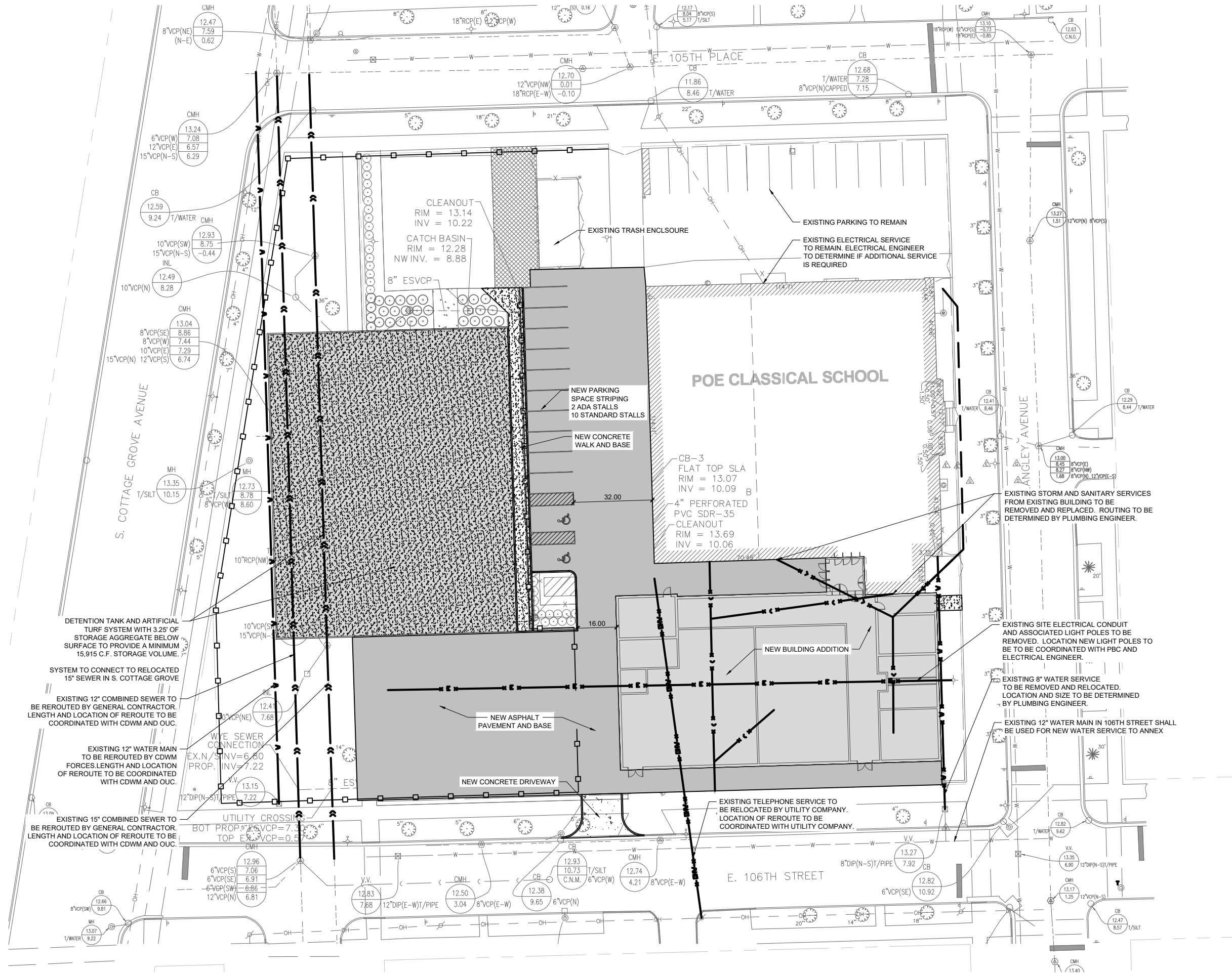
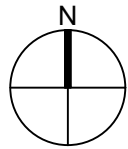
POE  
ANNEX

1" = 40'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect



# 1 Poe Annex Stormwater Management Concept Plan

SCALE: 1" = 40'





SCOTTAGE GROVE AVE

E 105TH PL

NEW ORNAMENTAL  
FENCE

EXTEND EXISTING  
TURF AND PROVIDE  
FOR WATER  
RETENTION

266.04' (FROM 2011 SURVEY)

EXISTING  
TURF

EXISTING  
PLAYGROUND

EXISTING  
TRASH

PARKING  
AREA  
12 SPACES

REPLACE PORTION  
OF EXISTING TURF  
WITH HARDSCAPE

PROVIDE FOR  
STORMWATER  
RETENTION

241.66' (FROM 2011 SURVEY)

PARKING  
AREA  
14 SPACES

EXISTING 3 STORY  
POE ELEMENTARY

266.46' (FROM 2011 SURVEY)

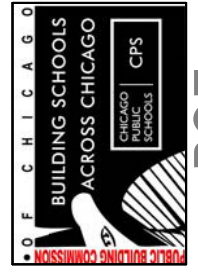
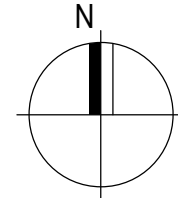
PROPOSED 3 STORY  
ANNEX ADDITION  
20082 SF

241.46' (FROM 2011 SURVEY)

NEW RELOCATED  
DRIVEWAY

E 105TH ST

S LANGLEY AVE



POE  
ANNEX

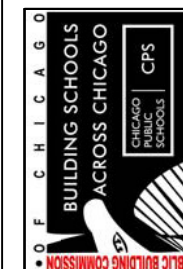
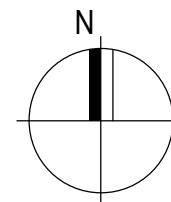
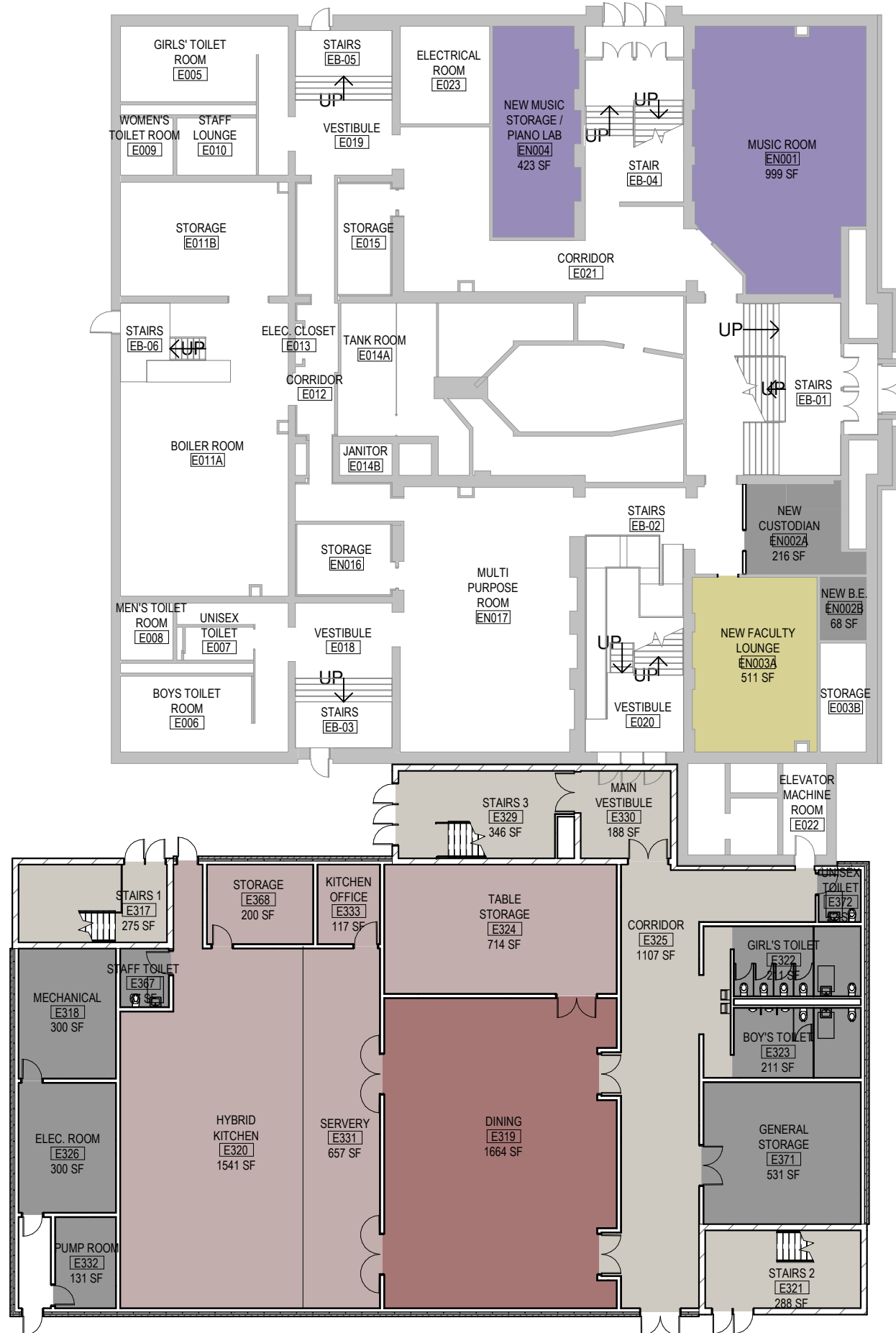
1" = 40'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

© 2018 FGM ARCHITECTS, INC.



POE  
ANNEX

## Department Legend

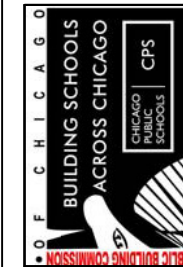
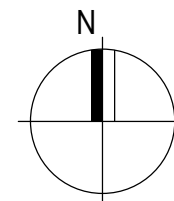
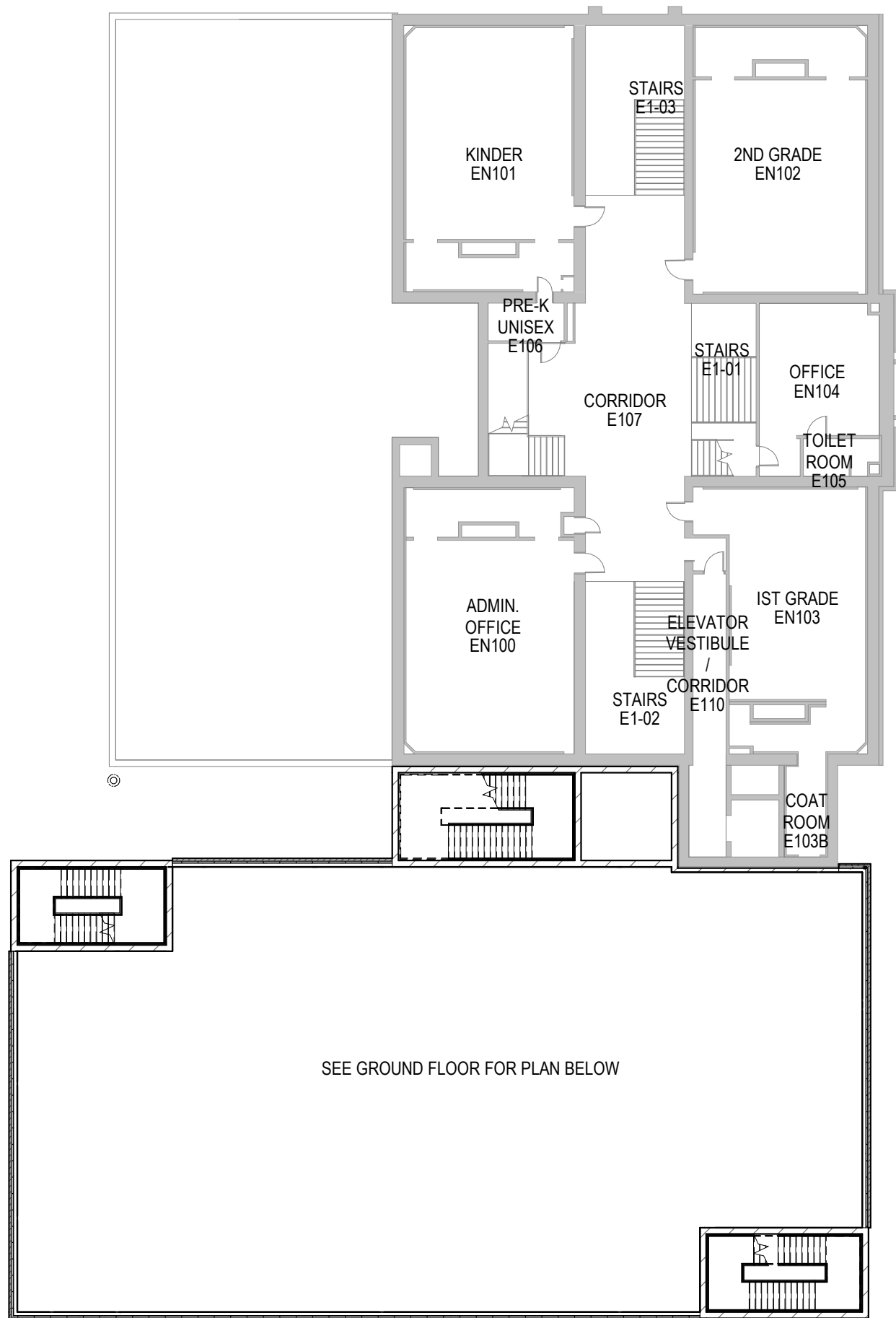
- BUILDING SUPPORT
- CIRCULATION
- DINING
- DINING SUPPORT
- MUSIC
- OFFICE
- Calculating...

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect



POE  
ANNEX

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

1

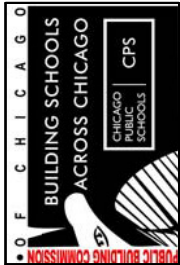
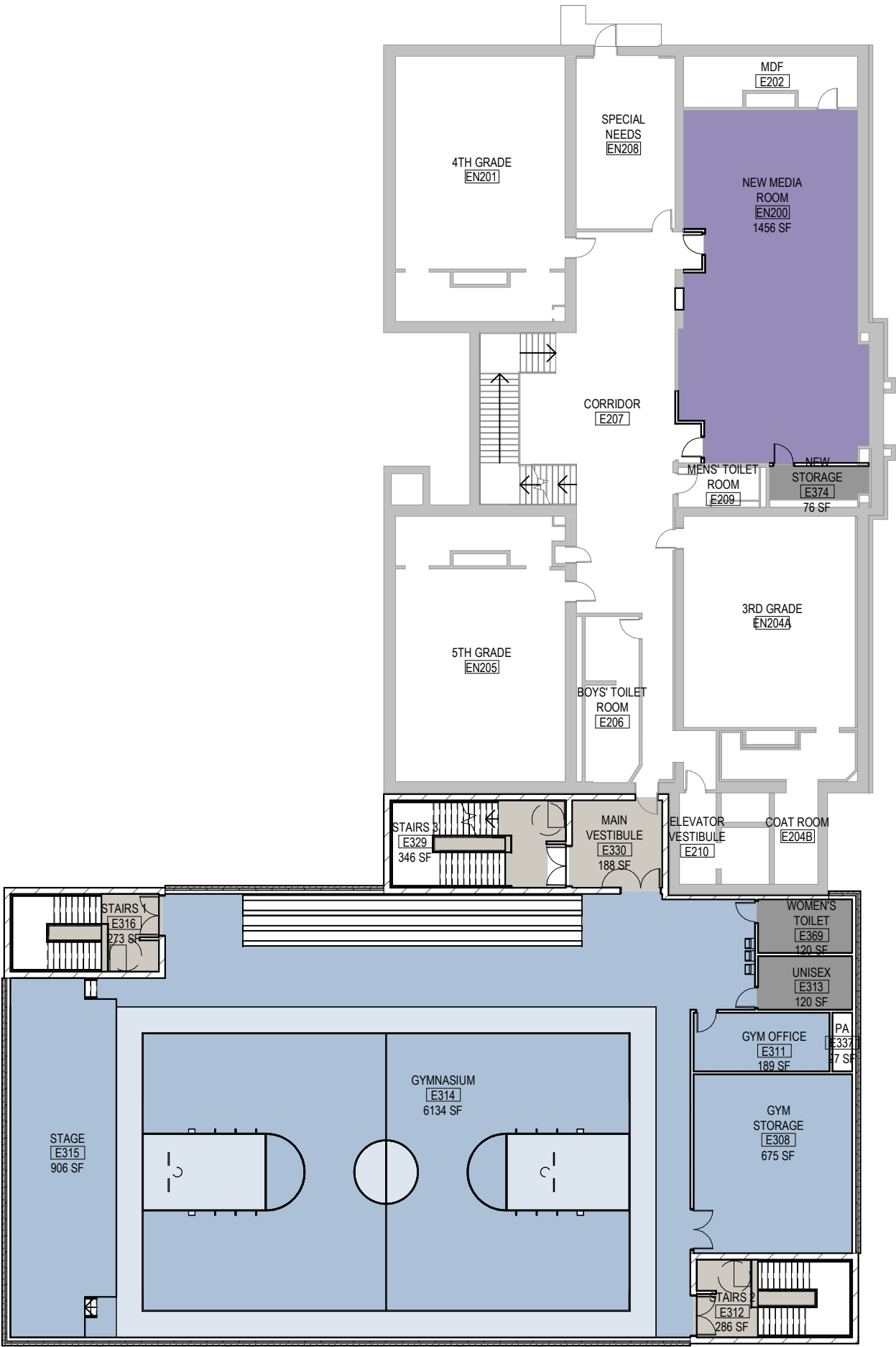
# FLOOR PLAN - FIRST FLOOR OVERALL PROPOSED OPTION 1

3/64" = 1'-0"



2ND FLOOR - OVERALL PROPOSED PLAN OPT 1

3/64" = 1'-0"



POE  
ANNEX

Department Legend

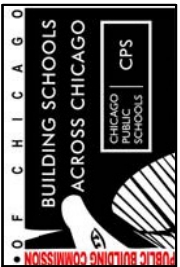
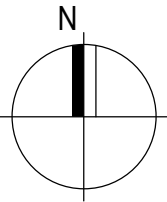
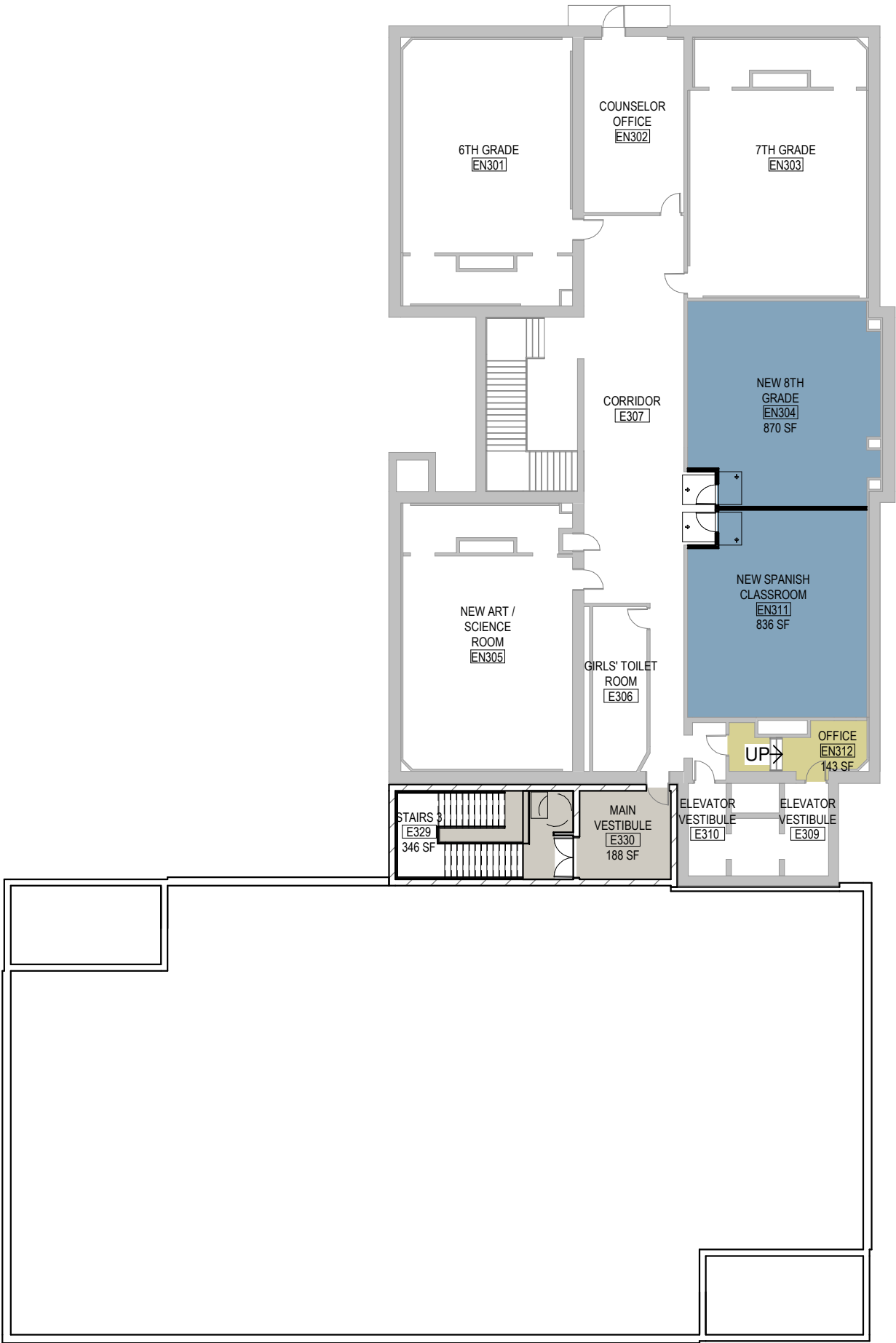
- BUILDING SUPPORT
- CIRCULATION
- GYMNASIUM
- MEDIA

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect



POE  
ANNEX

Department Legend

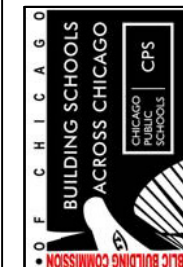
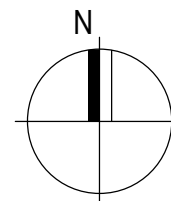
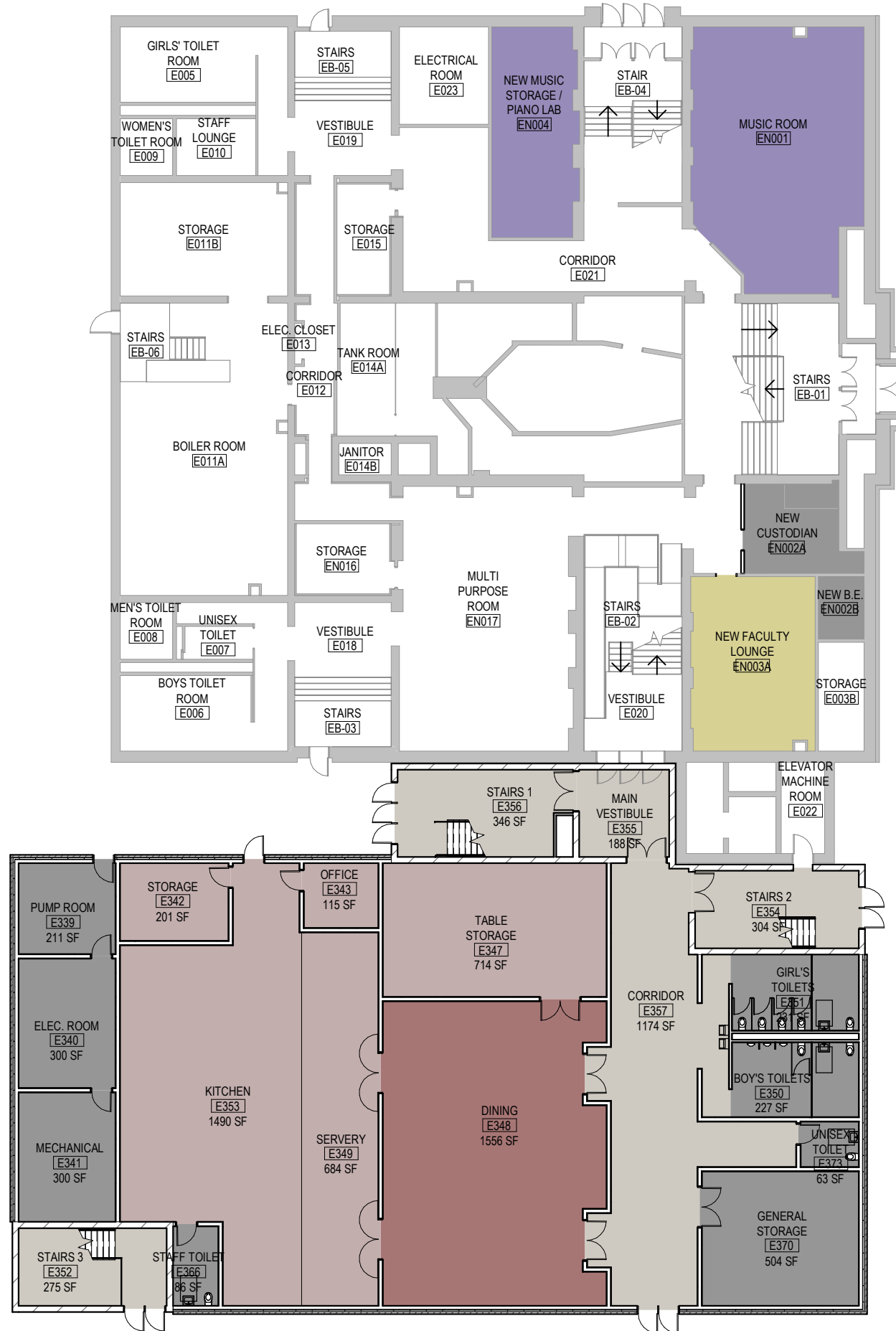
- CIRCULATION
- CLASSROOM
- OFFICE

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect



POE  
ANNEX

## Department Legend

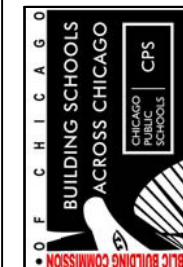
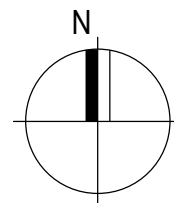
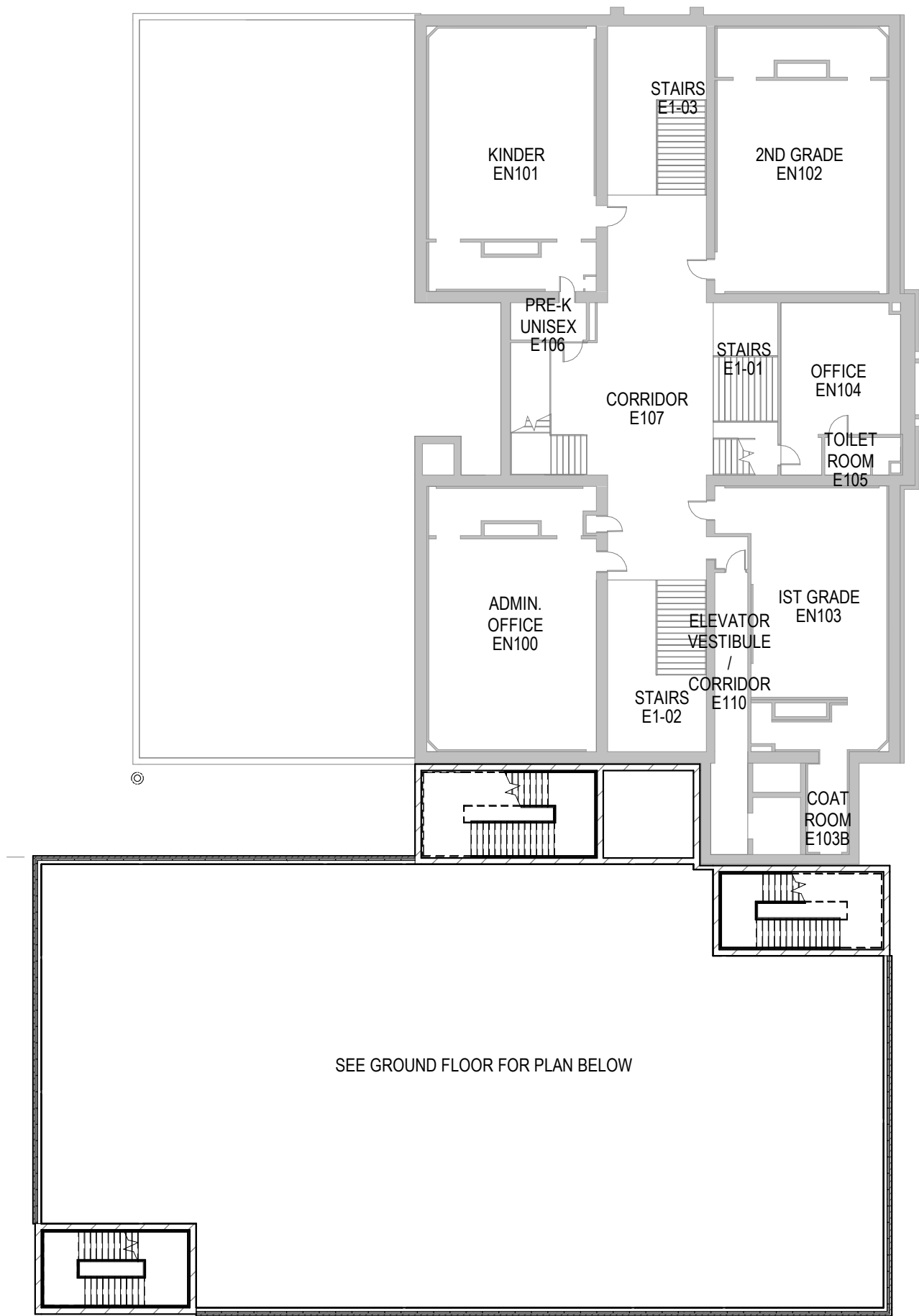
- BUILDING SUPPORT
- CIRCULATION
- DINING
- DINING SUPPORT
- MUSIC
- OFFICE
- Calculating...

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect



POE  
ANNEX

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

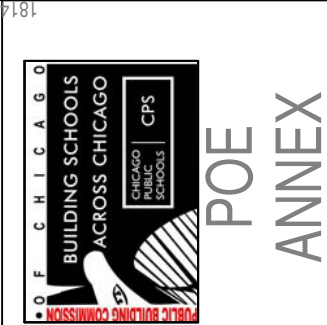
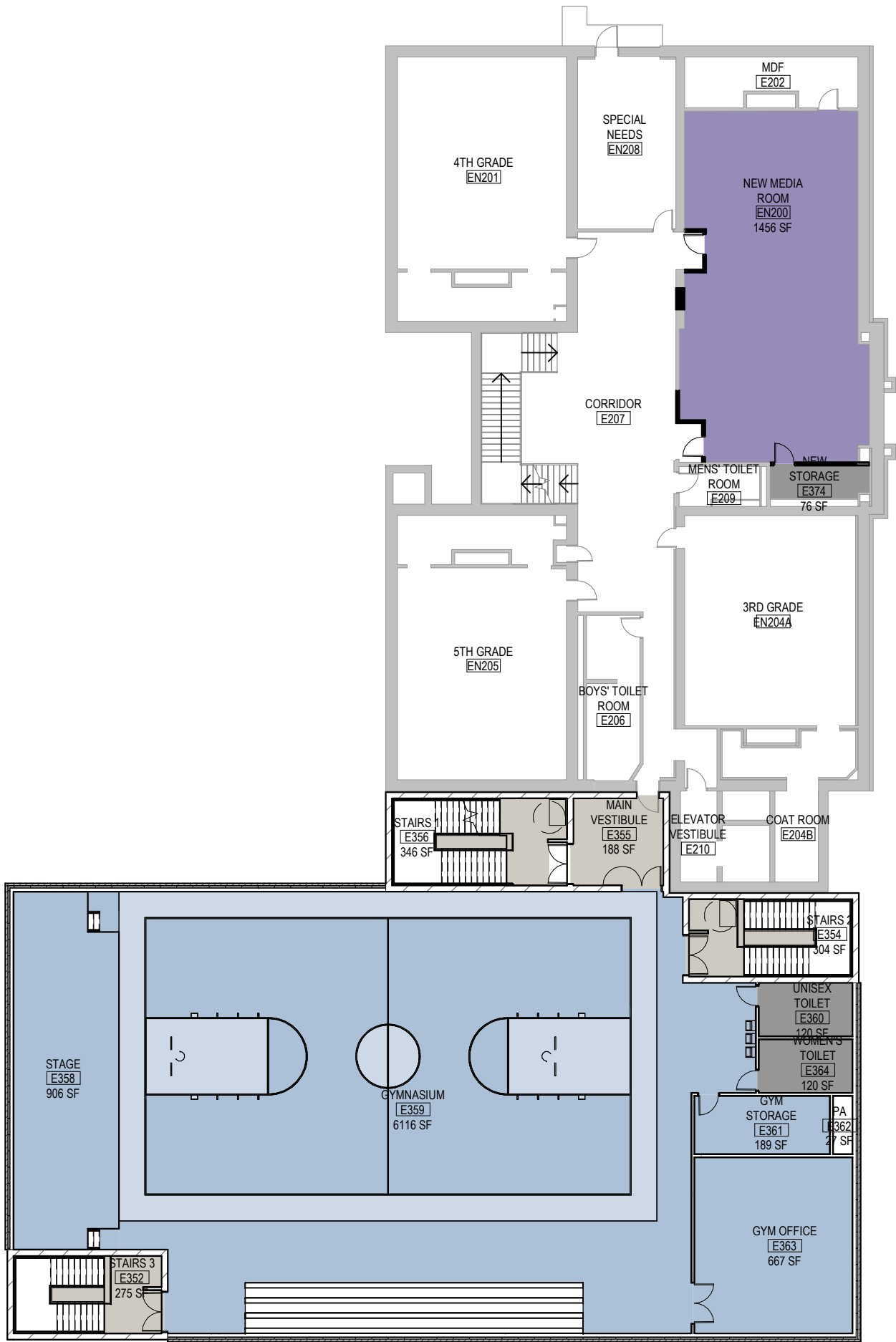
# 1 FLOOR PLAN - FIRST FLOOR OVERALL PROPOSED OPT 2

3/64" = 1'-0"



2ND FLOOR - OVERALL PROPOSED PLAN OPT 2

3/64" = 1'-0"



Department Legend

- BUILDING SUPPORT
- CIRCULATION
- GYMNASIUM
- MEDIA

3/64" = 1'-0"

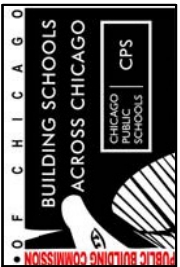
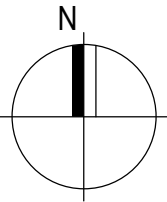
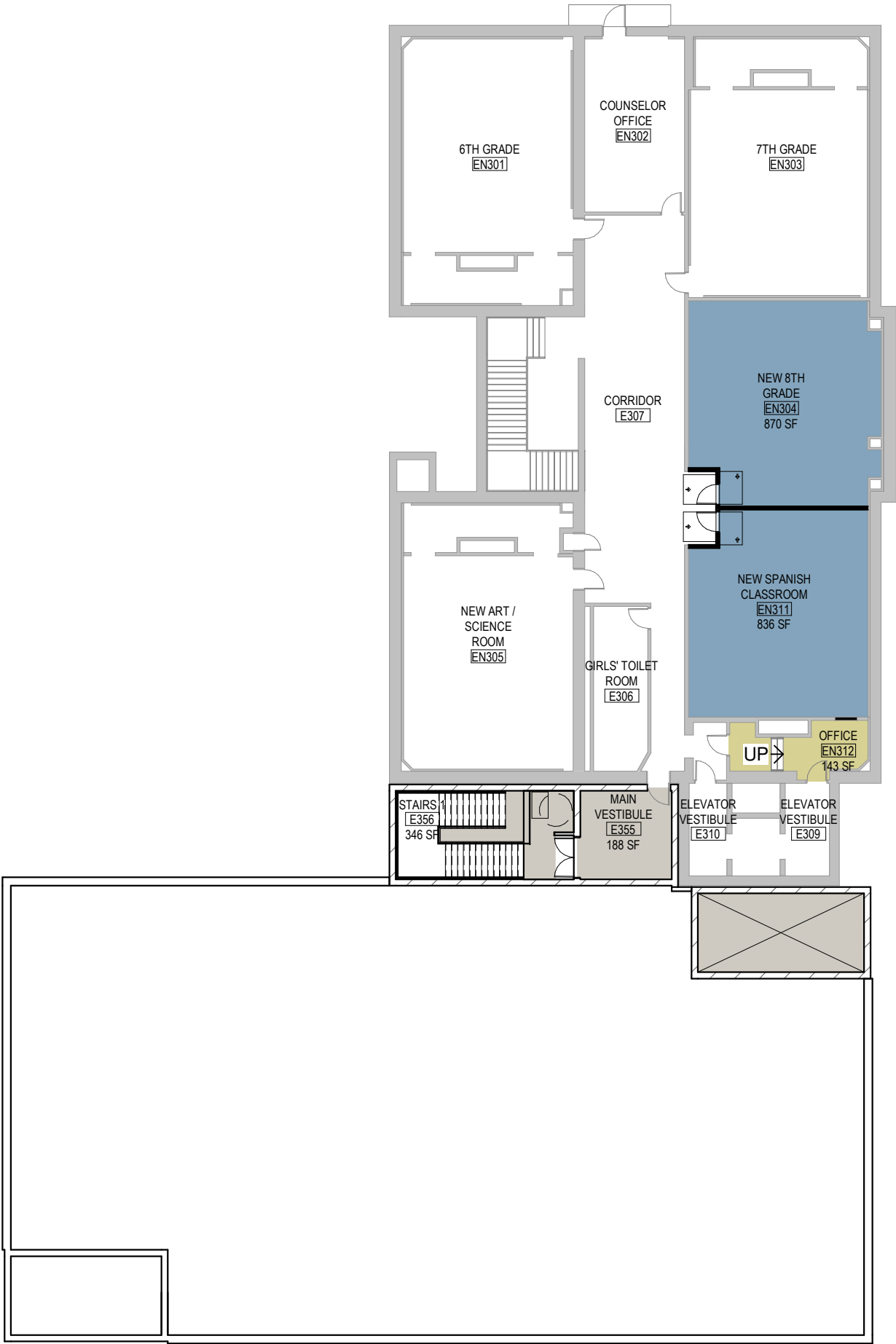
**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

3RD FLOOR - OVERALL PROPOSED PLAN OPT 2

3/64" = 1'-0"



POE  
ANNEX

Department Legend

- CIRCULATION
- CLASSROOM
- OFFICE

3/64" = 1'-0"

**FGM**ARCHITECTS

1211 22nd St #700  
Oak Brook, IL 60523  
(630) 574-8300  
<https://fgmarchitects.com/>

FGM ARCHITECTS  
Design Architect

# Structural Design Conceptual Narrative

## New Annex at Poe Elementary School



Rubinos &  
Mesia  
Engineers, Inc.

### 1. BUILDING SUMMARY

- A. New 2-Story annex at Poe Elementary School. The annex will be linked to the existing building on the South face.

### 2. FOUNDATIONS

- A. No geotechnical information is available at this time so the following information is based on foundation system of the existing building and previous experiences with annexes for Chicago Public Schools. Foundation assumptions will be confirmed upon receipt of the geotechnical report.
- 1) Typical shallow foundations to be utilized as the building foundation system. Geotechnical engineer to provide recommendations for footings near the existing building foundation walls. Potential use of grade beams and caissons depending on quality of soil found by the Geotechnical Engineer. City of Chicago Office of Underground Coordination (OUC) permit will be required to drill caissons deeper than 12 feet.
  - 2) 4,000 psi concrete will be used for frost walls, footings and grade beams if required.
  - 3) The net allowable bearing at this elevation will be provided by the Geotechnical Engineer. Additionally, the bottom of footing should be minimum 3'-6" from top of exterior grade.
- B. Special Foundation Requirements
- 1) Geotechnical testing and inspection will be required during the construction to verify the actual on-site soil conditions prior to concrete placement.
  - 2) Temporary ERS required protecting Langley Ave and E 105<sup>th</sup> Street due to open cut excavation for undercuts under footings may be required (Geotechnical Engineer to confirm extent of undercuts). For any ERS work OUC permit will be required by the EOR/contractor.

### 3. First Floor

- A. Slab on Grade
- 1) Typical slab on grade will be 5" thick reinforced with welded wire fabric
  - 2) 4,000 psi concrete will be used for the slab on grade.
  - 3) The slab on grade will be thickened at highly loaded areas, below CMU interior partitions and at locations with depressed slab locations.
  - 4) Membrane type vapor barriers will be provided below the slab as recommended by the soils consultant.
  - 5) Unsuitable fill can be assumed to extend under the proposed slab-on-grade to an average depth of 2 feet below existing grade; assume that first floor will be set, on average, 12" above average existing grade. The unsuitable material will be replaced with a compacted well-graded engineered fill. Geotechnical engineer to confirm. Final elevation of first floor to be determined by the Architect and Civil Engineer during the Schematic Design.

### 4. Elevated Floor Framing

- A. Typical Floor Structure
- 1) The typical floor structure is anticipated to be conventional composite steel framing consisting mainly of W-shaped steel beam/girders and 6 1/2" total thickness normal weight concrete on metal deck. The metal floor deck will be 2" deep, 18 gage galvanized composite metal deck.
  - 2) To ensure composite action of the steel beams and girders they will be connected to the deck via shear studs.
  - 3) The floor structure will be supported on W-shaped steel columns.
  - 4) All connections between the steel members are assumed to be welded or bolted.
  - 5) Floor deck above cafeteria may be thicker for acoustical purposes. Acoustical engineer to provide final design requirements.
  - 6) Shelf angle will be provided at 2<sup>nd</sup> floor level to support brick above if final height of building is greater than CPS standard for continuous wall.
- B. Roof Structure
- 1) Typical roof deck will be 1 ½" Metal Roof Deck.
  - 2) Composite Metal Deck with 2" Deck + 4 ½" Normal-Weight Concrete Fill will be provided under Roof Top Units.
  - 3) The typical roof structure will consist of W-shaped steel beams and girders under composite slab and steel joists under the roof metal deck.
  - 4) The roof structure will be supported on W-shaped columns.

- 5)

All connections between the steel members are assumed to be welded or bolted.
- C.

Lateral Framing – Steel Braced Frames
- 1)

Steel Braced Frames will be used for the lateral support of the structure. Locations of the Steel

Bracing will be coordinated during the Schematic Design phase.
- D.

Column
- 1)

The columns are anticipated to be structural W10 hot rolled structural steel shapes with steel base

Rubinos &  
Mesia  
Engineers, Inc.

plates.
5.

LINK TO EXISTING BUILDING
- A.

Expansion Joint
- 1)

New annex building and existing building will be separated by a new CMU wall supported at the new annex. There will be an expansion joint between the existing and new building ranging in size of 1 to 2 inches pending final design.
- B.

Existing Wall
- 1)

New openings will have to be made at the existing wall building. During SD phase Design Architecture team will confirm if existing lintels are available for use or if new steel masonry lintels will need to be provided for the new openings in the existing building.
6.

BUILDING/STRUCTURAL DESIGN CODES
- A.

Building Code: 2018 Chicago Building Code
- B.

Structural Design Codes:
- 1)

American Concrete Institute, Building Code Requirements for Structural Concrete (ACI 318-11)
- 2)

American Institute of Steel Construction 360-10
- 3)

Structural Welding Code (AWS D1.1)
- C.

Design Live Loads:
- 1)

Corridors

-

100 psf (1<sup>st</sup> Floor) 80 psf (Above 1<sup>st</sup> Floor)
- 2)

Public Stairways

-

100 psf
- 3)

Classrooms

-

40 psf
- 4)

Dining Room

-

100 psf
- 5)

Multi-purpose Room

-

100 psf
- 6)

Kitchen

-

100 psf
- 7)

Music Room

-

100 psf
- 8)

Light Storage Area

-

125 psf
- 9)

Science Lab

-

75 psf
- 10)

Mechanical room

-

150 psf or weight of equipment
- D.

Roof Snow Load:
- 1)

Flat roof

-

25 psf + Drift
- E.

Lateral Loads: Wind loads per CBC 2015
- 1)

Main Wind Force Resisting System

-

20 psf
- 2)

Components and Cladding:
- a.

Non-corner wall conditions

-

25 psf
- b.

Corner wall conditions

-

30 psf
- 3)

Roofing Materials (at edges)

-

-40 psf



- 4)

Projecting Elements

-

+/-40 psf
- F. Other Structural Design Criteria:

1)

Deflections (Floors) – span/360 for superimposed live loads or span/240 for total load.

2)

Deflections (Roof) – span/240 for superimposed live loads or span/180 for total load.

3)

Deflection of members supporting masonry – smaller of span/600 or 0.3"
- Rubinos &  
Mesia  
Engineers, Inc.

# MECHANICAL

## Existing Conditions

### Utilities

- The building is served by a 2.5" Gas service which is tied into a 6" gas pipe downstream of the meter. The indoor meter is located in the storage room adjacent to the boiler room in the northwest corner of the building. The gas serves the boilers and warming kitchen equipment. (See *Photo M1*)

### Main Systems

- Primary Heating System
  - The building has two Steam boilers which were installed as part of a 2008-2009 renovation. Each boiler is a Burnham Commercial brand model 4F forced draft steel firebox boiler. Each boiler has a capacity of 2082 MBH (2146 lbs/hr) at 80% efficiency, and produces up to 15 psi steam. (See *Photo M2*)
  - The boilers have a chemical treatment system with one pump rated 1/3 hp piped to the feed tank. (See *Photo M3*)
  - The boilers appear to be in good shape and, based on their age, have up to 20 years of useful life remaining with proper care and maintenance. On the day of the visit, the building engineer had used one of the boilers for the first time and did not report any problems.
- Primary Cooling System
  - The building uses window air-conditioning units to provide cooling to the spaces and does not have a central cooling system. When appropriate, the air-handler can provide cooling with its economizer mode.

### Distribution

- Air-Side Distribution
  - The building has one main air handling unit located in the basement. This air handler is a built-up multi-zone system which has a hot and cold deck, and supplies heating and ventilation to the whole building.
  - The air-handler's fan is a forward curved fan with a capacity of 28,375 CFM and has an 8.4 BHP motor. The fan motor was replaced as a part of the 2008-2009 renovation and was equipped with a Variable Frequency Drive at that time. This fan is estimated to have up to 15 years of useful life remaining. (See *photo M4 for fan and M5 for VFD*)
  - The air handling unit has a 3-row steam preheat coil rated at 1532 MBH, and a 3-row steam reheat coil rated at 919 MBH. (See *photo M6*)
  - The air handling unit has a return / exhaust fan located in the mechanical attic. The return fan has a VFD controller. This was a retrofit of the previously installed relief hood to provide ducted return air and powered exhaust. A new return duct was installed from the attic fan to the main AHU. This fan is estimated to have up to 15 years of useful life remaining.
  - Three exhaust fans located on the roof serve the toilet rooms. TE #1 is 1,350 CFM, TE #2 is 830 CFM and TE #3 is 760 CFM.
- Steam Distribution
  - Low Pressure Steam is piped to the AHU steam coils, 3 steam unit heaters and 2 steam radiators.
  - The boiler feed system was installed as part of the same renovation. It is located in the tank room across the hall from the boiler room and adjacent to the air handler. It has 4 boiler feed pumps at ¾ hp each, with 2 pumps dedicated to Boiler #1 and the other 2 dedicated to Boiler #2. The FEEDPAC brand boiler feed tank has a capacity of 325 gallons. (See *photo M7*)
  - Condensate is piped back to a 30" diameter condensate pit in the boiler room. Two condensate pumps supply the condensate back to the boiler feed system.

### Terminal Equipment

- Supply air to the classrooms is provided via sidewall diffusers. The typical classroom has a single 48" x 12" sidewall diffuser supplying approximately 1300 cfm. Return air is ducted from the closets within each classroom.
- Air is supplied directly to the corridors via sidewall or floor diffusers. (See *photo M8 for typical classroom diffuser, and M9 for corridor floor diffuser*)
- Each room has one or more window air conditioning units for cooling. (See *Photo M10*)
- Thirteen (13) electric unit heaters are located in the building corridors, vestibules, toilet rooms, the 2nd floor teacher's lounge and classroom 302.
- The steam radiators are located in classroom 302 and the teacher's lounge. These were cleaned as part of the 2008-2009 renovation.

### Controls

- The building has an Automated Logic DDC system for the building to control the AHU, boiler system, and zone equipment. (See *photo M11*).
- Thermostats in each zone feed back discharge air temperature and space temperature to the controls system.

#### Issues

- The central controls system does not read any of the values of the points for the boiler system. This has been true for some time, and a bypass switch has been installed on the control panel to allow the boilers to operate in manual mode. (See *photo M12*).
- The building engineer recently corrected an issue where the main supply fan was running backwards.
- Window air-conditioning units are inefficient and cause poor building envelope performance in the panels where they have been installed.

#### New Construction

##### Utilities

- A new gas service is expected to be required to provide natural gas for the building heating, hot water heater, and kitchen equipment, however the available gas capacity of existing service will be confirmed with the utility to determine if a new service is required for the new building. The expected gas load for the new building is approximately 700 CFH for water heating, 500 CFH for kitchen equipment and 2,800 CFH for heating for a total load of 4,000 CFH.

##### Main Systems

- Primary Heating System
  - The annex building will be served via a hot water heating system. The system will consist of two (2) high efficiency condensing hot water boilers. An estimate of the heating load at 45 BTU/h/SF gives a total heating load of 900 MBH. Each boiler will be sized at 600 MBH for approximately 66% of the heating load, per typical CPS design standards.
- Primary cooling system
  - An air-cooled chiller will provide chilled water for cooling the building. The chiller will be located on the roof of the new building and is estimated to be 70 tons.
- Air side systems
  - One variable air volume (VAV) air handling unit (AHU) will be located on the roof of the new annex and will serve the entire annex. The AHU will have a chilled-water cooling coil and a hot-water heating coil.
  - The unit will have a significant quantity of outdoor air as makeup for hooded cooking equipment in the kitchen.
  - The unit will be equipped with MERV 11 filters at a minimum.
- Additional systems
  - Each of the toilet rooms shall have a hot water unit heater and an exhaust fan.
  - Each entry vestibule shall be provided a hot water cabinet unit heater.

##### Distribution

- The AHU's supply and return fans will be equipped with variable frequency drives. Air will be distributed via medium pressure ductwork to VAV boxes with hot-water reheat coils.
- Hot water will be circulated to heating coils in the AHUs and VAV terminal boxes via circulation pumps with VFD in a 100% standby configuration.
- Chilled water will be circulated to the cooling coils in the AHUs via circulation pumps with VFD in a 100% standby configuration.

##### Terminal Equipment

- Each zone will be supplied fresh air, heating, and cooling through the airside distribution system of VAV boxes each with a motorized damper connected to low-pressure ductwork and diffusers.
- Return air will be transferred back to the rooftop AHU via plenum return, which will be blended with the code required outdoor air at each unit.

##### Building Automation System

- A new DDC building automation system will be installed in accordance with the CPS BAS standard. The existing building system will be interlinked with this new system to provide full control for the entire building.

##### Interface with Existing Building

- If the issues are corrected within the existing controls system, the new DDC controls should be tied in with the existing Automated Logic system.

- As long as the existing gas service capacity is sufficient (to be verified by utility), the annex gas service will tap into the existing service. However, it is assumed that a new service will be required and there will be no mechanical system interface with the existing building.

#### LEED Mechanical Issues

- All ventilation systems will be designed to meet ASHRAE 62.1 – 2010 as well as the Chicago Mechanical Code in order to comply with the LEED prerequisite Minimum Indoor Air Quality Performance.
- Installing high-efficiency condensing boilers and an efficient chiller will contribute positively towards the prerequisite Minimum Energy Performance, which requires a 5% energy reduction compared to an ASHRAE 90.1-2010 baseline building. It will also help for earning points under the credit Optimize Energy Performance, in which similar recent projects have earned 5-7 points.
- Selection of a chiller with an appropriate refrigerant may allow 1 point to be earned in the Credit Enhanced Refrigerant Management.



MECHANICAL

M1

**CONDITION:**  
Gas meter located in storage room. Area around meter should be kept free from obstructions to allow access.



M2

**CONDITION:**  
Identical steam boilers installed in 2008-2009 renovations.



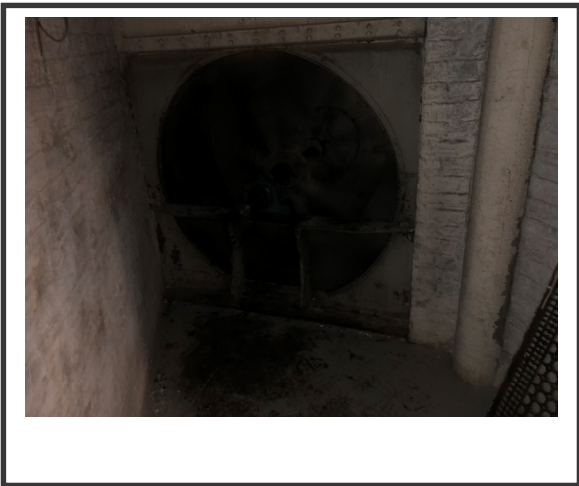
M3

**CONDITION:**  
Chemical treatment barrel for boilers, located adjacent to boiler feed tank.



M4

**CONDITION:**  
Supply fan within built-up multizone unit. Fan was replaced in 2008-2009 renovations and is in working condition.



M5

**CONDITION:**  
VFD Controller for Multizone supply fan.



M6

**CONDITION:**  
Steam lines serving preheat and reheat coils in multizone AHU.



**M7**

**CONDITION:**  
Boiler feed tank, pumps and control panel. Installed as part of 2008-2009 renovation.



**M10**

**CONDITION:**  
Typical Window air conditioning unit located in classroom.



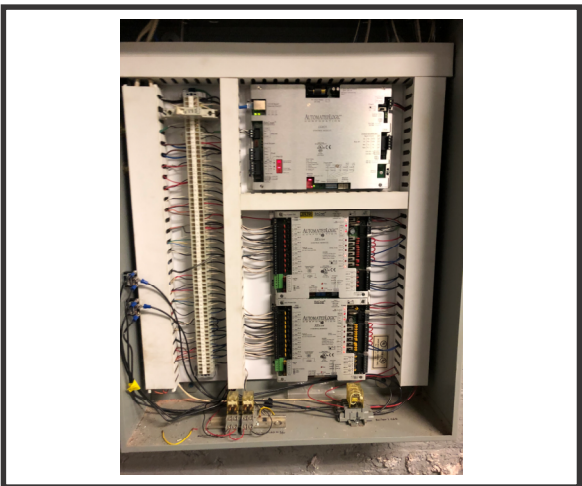
**M8**

**CONDITION:**  
Typical classroom sidewall diffuser. 48" x 12" and 1300 cfm.



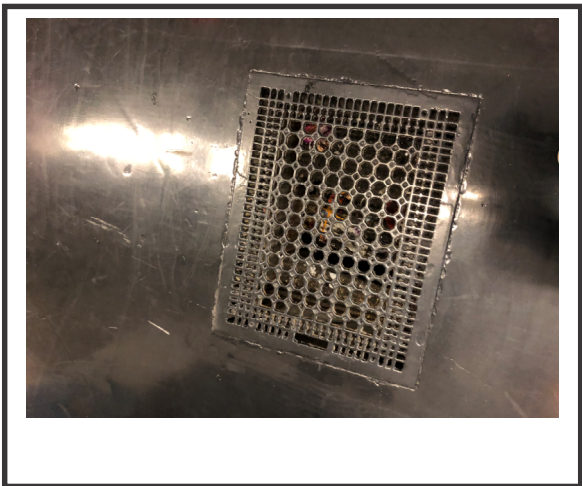
**M11**

**CONDITION:**  
Automated Logic Control Panel. The boiler values are not reading correctly on the BAS, with all points showing zero.



**M9**

**CONDITION:**  
Floor diffuser, 1 of 2 in the first-floor corridor.



**M12**

**CONDITION:**  
Control panel showing boiler bypass switches





# ELECTRICAL

## Existing Conditions

### Utilities

- Incoming Electrical Service
  - Power to the existing building is supplied from an overhead feed from a pole mounted ComEd transformer.
  - The main power distribution to the building is from a main switchboard rated at 1200A, 208/120V, 3-phase, 4-wire.
- Outdoor Equipment
  - There is outdoor equipment associated with the electrical system.
- Emergency Electrical Service
  - Emergency power is supplied to the building from a separate overhead feed from a pole mounted Com Ed transformer.
  - The emergency power distribution system includes an indoor meter, disconnect switch, and automatic transfer switch. All located in the main electrical.
  - Emergency power is distributed to the emergency lights and exit signs from 100A panelboard EM.

### Main Systems

- Fire Alarm System:
  - The fire alarm control panel (FACP) for the building is located in engineer's office. All fire alarm devices including horns, strobes, pull stations, alarm bells, and other system components are controlled from this panel. The fire alarm system is manufactured by Notifier.
  - Existing system also includes duct detection for air handling units and
  - There are two fire alarm annunciator panels (FAAP). One FAAP and city tie are located at the building main entrance. The other is located in the main office.
  - The fire alarm system is an addressable system and was upgraded as of 2010. The system is still in good condition and no modifications are required.
- HVAC and Plumbing Electrical Power:
  - There are two steam boilers fed from the main switchboard that provide steam heating for the building. The boilers are fed from the main switchboard from a 100A circuit breaker.
  - Branch circuit panel UHA feeds heaters throughout the building. The panel is 225A, 208/120V, 3-phase, 4-wire panel located in the existing electrical room.
  - Cooling in the classrooms and offices is provided from window mounted air conditioning units.
  - All other fan and motor loads in the building are fed from panel DP (400A, 208/120V, 3-phase, 4-wire).
- Telecommunications:
  - The MDF room for the building telecommunications system is located on the second floor of the building.
  - Distribution of low voltage power is via panel MDF which is located in the MDF room.
- Distribution:
  - Branch circuit distribution panelboards located in the electrical room, music room, and in the corridors on each floor feed general power and lighting throughout the building.
  - A dedicated 115A 120/208V, 3-phase, 4-wire panelboard located in the stage area feeds all power and lighting in the gym.

### Issues

- Some of the existing emergency battery unit lights The existing electrical service switchboard will not have enough capacity to serve the new annex building.

## New Construction

### Utilities

- Main Electrical Service:
  - Provide new 400 amp, 277/480V, 3-phase, 4-wire electrical service to serve the new annex building. Provide a new switchboard MSB-2 to be located in a new 2-hour fire rated dedicated electrical room within new annex building. This new electrical service shall be fed from a new ComEd utility service transformer located along the alley.
  - The new proposed main electrical room located within the new annex building shall be 2-hour rated room with minimum 2 exit doors with panic hardware at each end of the switchboard which open in the direction of egress from the room.

- Fire Pump Electrical Service:
  - Provide power to the new booster pump from new main switchboard.
- Life Safety System:
  - The new life safety system in the annex will be a class II system which consists of individual emergency battery units with internal 90-minute batteries and battery unit exit signs. All life safety lighting (emergency battery units and exit signs) shall be provided with integral Chicago approved 90-minute battery complete with internal test push-button and indicator lamp. All exit signs shall be LED type. Emergency Life Safety Lighting System shall be sized for 0.1 watt per square foot based on the programmed facility size and 1-foot candle lighting levels as required by the Chicago Building Code. Exit and emergency lights will be provided as required by City of Chicago Fire Prevention Bureau. Per energy code all exit signs shall have a minimum source efficacy of 35 lm/W. All exit signs shall be wall mounted where possible.
  - Wall pack emergency lighting fixtures will be provided throughout the rooms and spaces as per code in order to provide the required 1-foot candle lighting levels. Lighting fixtures with integral battery packs shall NOT be acceptable per CPS standards.
  - A master control switch shall be provided to shut off the emergency lights within the new annex building when the building is not occupied. The switch shall be disabled by the security camera system upon activation.
- Emergency Means of Egress Lighting:
  - The following areas shall have emergency illumination whether having natural illumination or not:
    - Egress corridors and stairways
    - Assembly areas
    - Locker rooms
    - Gymnasium
    - Student rest rooms
    - Main and other dedicated electrical rooms
    - Mechanical rooms
    - Administration and other building control areas
    - Kitchen/student dining
    - Interior instructional space without natural illumination
    - Rooms with areas exceeding 1000 sq. ft.
    - Exterior side of exterior exit doors
- Grounding and Bonding:
  - Grounding: System and equipment grounding will be provided. All switchboards, transformers, motor starters, panel boards, wiring systems, etc., will be effectively grounded via a code compliant Ground Bus System.
  - Telecommunications Ground Bus System: The building shall have a reference "telecommunication ground bus" (TGB) within each telecommunications and systems closets (MDF room and IDF rooms/closets). Each TGB shall be bonded to the Main Building Grounding point. The Standard for this system shall be: EIA/TIA Standard 607: Commercial Building Grounding (Earthing) And Bonding Requirements for Telecommunications.
  - All MDF and IDF rooms shall be provided with static dissipative tile which is to be bonded to the local MDF/IDF ground bus bar.
- Distribution:
  - Electrical distribution equipment shall be located in dedicated electrical rooms or mechanical rooms. Main electrical service (switchboards) distribution equipment shall be located in a separate electrical room with fire ratings as required by the Chicago Building Code. Branch circuit distribution panel boards shall be located in dedicated electrical closets. Mounting electrical distribution equipment and panels within classroom or corridor walls shall not be acceptable.
  - Electrical distribution panels shall be designed with a 15 percent spare amperage capacity and 30 percent spare space capacity. Panel boards shall be designed up to 70 percent of capacity and be provided with a minimum of 6 spare over-current protection devices. Provide 10 spare spaces in branch distribution panel boards and (4) 3 pole spaces on the main distribution boards.

- Dedicated distribution equipment shall be provided for all mechanical equipment. Electrical branch circuits to 5 horsepower, 3-phase, and larger motors for air-handling units, exhaust fans, pumps, chillers, and condensing units shall be provided with phase loss protection. Phase loss protection equipment shall be integral to starters or variable frequency drives serving the equipment.
- All mechanical and plumbing equipment shall be fed from 277/480V distribution panels, particularly all equipment loads rated 1/2 hp and larger and 2kW and greater.
- All general use power receptacle and equipment circuits shall be fed from normal 120/208V branch circuit receptacle panels. These panelboards shall be provided with 10% spares minimum.
- All receptacle devices located in kindergarten classrooms shall be "tamper resistant" type.
- All computer use power receptacle and equipment circuits shall be fed from "Isolated Ground" type 120/208V branch circuit panels. These panels shall be provided with a type 2 surge protection device, externally mounted adjacent to panel. These panelboards shall be provided with 10% spares minimum.
- All lighting circuits shall be fed from 120/208V branch circuit panelboard dedicated for lighting circuits only.
- Voltage drop for feeders between the service entrance equipment and the branch circuit distribution equipment shall conform to the requirements of the city of Chicago Electrical Code and LEED as follows: 2% at full connected load for feeders and 3% at full connected load for branch circuits. All branch circuits shall be loaded to a maximum of 60% as per CPS design guidelines.
- Branch circuits for the voice and data system receptacles shall contain an isolated ground wire. Neutral conductors for shared neutral multi-wire circuits shall be minimum No. 10 AWG.
- All branch circuit panel boards supplying voice and data systems circuits shall be supplied from a separate feeder over current protective device (OCPD) in the main switchboard, or from a separate distribution panel supplied by its own feeder in the main switchboard.
- Feeders supplying the branch circuit panel board for voice and data systems circuits shall contain three phase conductors, sized in accordance with Code requirements, a 200% neutral conductor(s), and an isolated ground conductor. The isolated ground conductor system shall be kept separate from the receptacle or branch circuits to the main switchboard ground bus or separately derived system. The isolated ground conductor and equipment ground system shall be connected only at the main switchboard or separately derived system, and shall have a surge suppression device.
- Transformers serving all normal receptacle distribution panelboards and lighting distribution panelboards shall be standard rated type.
- All dry type transformers shall be energy efficient type and compliant with DOE (Department of Energy 2016) regulations.
- All unisex toilet rooms shall be provided with hard-wired electronic, infrared flush valves for water closets and urinals only. All banked restrooms and unisex toilet rooms shall be provided with electric hand dryers and switched power GFI receptacles for future changing tables.
- Lighting Systems:
  - The building will consist of 120 volt LED, 3500 degrees kelvin, wall and ceiling mounted lighting fixtures throughout.
  - Controls shall abide to ASHRAE 90.1, 2013 and LEED requirements for achieving certification level. Ceiling mounted vacancy sensors shall be dual technology with 30 minute maximum delay. All rooms with vacancy sensors and associated manual wall switches shall be programmed to operate on a manual on/automatic off (vacancy) basis. Light fixtures shall be controlled on a per room basis where fixtures are located in accordance with individual control schemes outlined in the room level section. Circuit breakers will not be acceptable for turning lighting "on" and "off". All lighting fixtures located within 15 feet from exterior windows shall be provided with integral automatic daylight sensors.
  - The building automation system shall be solely responsible for holding schedules; the lighting control systems shall receive schedule-based on/off inputs from the BAS.
  - Utility space (boiler room, electrical room, janitor closets, storage rooms etc.) lighting shall be controlled via local manual wall mounted timer switch.
  - All assembly spaces, corridors and lobbies shall be controlled via Network Low Voltage Relay System with Integral Time Clock Function, programmed for shut-off of lights between 11 pm and 5 am.
  - All classrooms shall be locally controlled via four manual 0-10 volt digital dimmer switches for video presentation and daylighting scene control as per CPS design guidelines. All interior lights located within daylight harvesting zones to be provided with integral automatic daylight sensors. All lights within these rooms shall be automatically shut off via ceiling mounted vacancy sensors after 30 minute time delay.
  - The new proposed link connection between the new annex building and existing building to be provided with new LED lighting fixtures.
- Exterior Lighting:
  - Site Lighting:
    - Provide site lighting for the new proposed parking lot. Pole lights shall be energy efficient LED, 4000 degrees kelvin, full cutoff fixtures on 20 foot poles for parking areas. No light trespass will be allowed to adjacent properties. The new proposed pole lights to be fed from the existing main building.
  - Building Perimeter:



- Exterior building perimeter lighting shall be provided and mounted every 60 feet and at all exterior doors for safety and security. Perimeter lighting shall spotlight the building mounted school signage. Provide an exterior, weatherproof ground fault protected duplex receptacle outside each main exterior door. Provide weatherproof ground fault interrupter receptacles on all outdoor locations for rooftop maintenance, and same with lockable covers on all exterior wall mounted receptacles.
- All exterior lighting shall be controlled via building automation interface as per CPS design guidelines.
- Fire Alarm System
  - The existing fire alarm control panel for the existing main building is class 1, non-coded, zoned, supervised fully addressable type detection, with initiation and notification devices throughout and is manufactured by Notifier and is currently located in the existing building.
  - Provide new fire alarm system devices and associated NAC (power supply) panels for the new annex building and connect to the existing main fire alarm control panel located within the existing main building. Provide magnetic door-hold open devices and associated smoke detectors at each double-door access between the existing and new building.
  - All new fire alarm devices and equipment shall be the of the addressable type, incorporating activation devices such as pull stations, smoke detectors, flow switches, duct detectors, etc., and audio visual devices such as horns and strobes and shall match the existing building's fire alarm system equipment manufacturer in order to ensure full compatibility with the existing system. Photoelectric type smoke detectors at the following locations:
    - Electrical, MDF and IDF Rooms.
    - Storage Areas.
    - Duct smoke detectors on all supply and return fans including HVAC equipment serving the Kitchen Area.
  - A complete fire alarm and detection system shall be provided in accordance with the City of Chicago Building Code, National Fire Protection Association and the requirements of the Bureau of Fire Prevention and the Americans with Disabilities Act whichever is more stringent. All fire alarm and detection system wiring shall be installed in its own dedicated conduit system.

## Technology

- Design Criteria: The design of the Technology systems shall conform to the following codes:
  - Chicago Building Code
  - National Electric Code
- The design of the Technology systems shall conform to the following standards:
  - Standard for Safety of Information Technology Equipment
  - Standard for Safety of Telephone Equipment
  - BICSI Network Design Reference Manual
  - IEEE 802.1 - Telecommunications and information exchange between systems--IEEE standard for local and metropolitan area networks--Common specifications
  - IEEE 802. - Telecommunications and information exchange between systems--Local and metropolitan area networks—Specific requirements--Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications
  - IEEE 802.11 - Telecommunications and information exchange between systems—Local and metropolitan area networks—Specific requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications
  - IEEE 802.15- Telecommunications and Information Exchange between Systems - LAN/MAN Specific Requirements - Part 15: Wireless Medium Access Control (MAC) and Physical Layer (PHY) specifications for Wireless Personal Area Networks (WPAN)
  - IEEE 802.16 - Telecommunications and Information Exchange between Systems - LAN/MAN Specific Requirements - Part 16: Air Interface for Fixed Broadband Wireless Access Systems
  - CPS design guidelines and master specifications
- Structured Cabling System:
  - The new annex building cable infrastructure will be served via a copper and fiber backbone. The cable infrastructure shall provide transport to support voice/data, video and other systems residing on the CPS network. The fiber backbone shall consist of multimode fiber optic cables in protective innerducts, cabletray, conduit, sleeves and cores. Copper cabling shall consist of UTP type cable for backbone or horizontal distribution.
- Access Control System:
  - Contractor to upgrade existing Access Control System to accommodate new annex building. The system will control or limit access through card reader controlled doors based on the card user's access levels to an area, floor or the building.

- Intrusion Detection System:
  - Contractor to upgrade existing Intrusion Detection System to accommodate new annex building. The system will monitor after hour entry into any area of the building by microwave PIR motion detection.
- Two-way Intercom System:
  - The system will provide two-way communication between visitors, students or faculty. The system shall have the capability to release secured doors as defined by CPS.
- Video Surveillance System:
  - The system will be a digital IP base video monitoring system. The system will monitor internal and external movement to be captured, compressed and stored. The system will have the capability to review archived images (remotely or on-site) providing an instant video source of an incident or annunciated alarm through the CPS-OTS network via the WAN. The cable infrastructure will resemble the UTP structured cabling system.
- Master Antenna TV System:
  - The system will be a star topology two-way coaxial video cabling system capable of passing reverse channels. The cable infrastructure will be a combination of coaxial and UTP. Contractor to upgrade existing Master Antenna TV system to accommodate new annex building.
- Public Address System & (ALS):
  - Contractor to provide a new Public Address System to accommodate both the existing building and the new annex building. Provide new public address system speaker devices and associated conduit and wiring.

#### Interface with Existing Building

- The existing fire alarm system will interface with the new annex. The fire alarm control panel in the existing building will be used to feed the new annex. The new PA/Intercom system will also interface with the existing building. The master station for the PA/Intercom will be located in the existing building and be connected to devices in both the existing building and the new annex.

#### LEED Electrical Issues

- All new lighting systems will be designed to better ASHRAE 90.1-2010 lighting power density requirements by a minimum of 30%.
- Lighting controls will comply with the requirements of the Indoor Lighting credit.

ELECTRICAL

E1

CONDITION:

Existing PA System master station.

CORRECTIVE ACTION:

Replace with new PA/Intercom system.



E4

EQUIPMENT DESCRIPTION:

Existing main switchboard



E2

EQUIPMENT DESCRIPTION:

Existing fire alarm control panel.



E5

EQUIPMENT DESCRIPTION:

Incoming



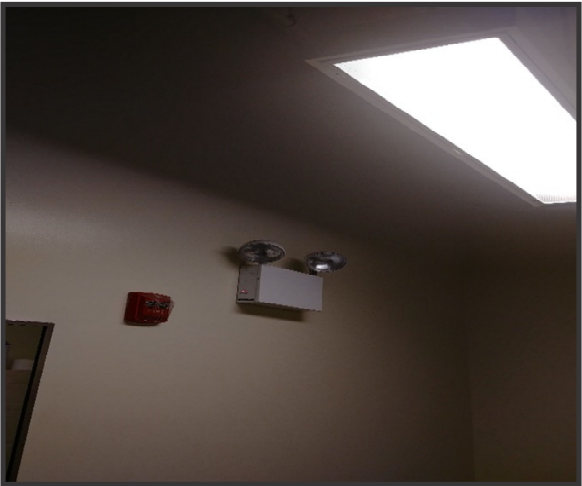
E3

CONDITION:

Existing EBU wall pack fixture

COORRECTIVE ACTION:

Test fixtures and confirm they all operate.



E6

EQUIPMENT DESCRIPTION:

Outdoor site lighting.





# PLUMBING

## Existing Condition

### Utilities

- Water
  - There is an existing 6-inch incoming combined domestic water service and fire service entering into the existing building from East 106th street.
  - Existing 6-inch incoming combined service splits into a 4-inch domestic service and 4-inch fire service with a double detector check valve.
  - Existing 4-inch domestic service connects to the 2 1/2-inch water meter assembly. (See Photo P1)
- Sewer
  - The building has at least two existing 6" sanitary sewer lines. One of sewer line exit towards South Langley Avenue and other two exist towards the south side of the building.
  - Two storm lines exit the building site, however, multiple storm lines coalesce into catch basins at the exterior of the building.

### Main Systems

- Building domestic water system is distributed by city pressure.
- Hot water is provided by a gas fired domestic hot water heater located in the boiler room. It is an 81-gallon storage type gas water heater, with maximum input of 154,000 BTUH. The Water heater appears to be in good condition. (Manufacturer/Model No – AO SMITH/ BTR-154 118). (See Photo P2)
- Gas water heater is provided without a master thermostatic mixing valve.

### Distribution

- Domestic water piping distribution runs in the open ceiling throughout the building. All domestic water piping was observed to be galvanized steel.
- All internal sewer lines are routed through the underground or basement to the exterior and are typically cast iron where observable.
- All vent pipes are routed through the ceiling and terminate above the roof. Vent pipe requires inspection by telescoping to verify existing condition.
- Upper roof is drained by scupper and downspouts. All are drained to a sewer underground. Upper roof appears to be in good condition.
- Lower roof is drained by roof drains. Drains appear to be in good condition. (See Photo P5)

### Terminal Equipment

- All observed plumbing fixtures were in fair to good condition and appeared to be functional when tested.
  - Existing water closets and urinals are manual flush-valve type. (See Photo P3&P9)
- All lavatories, mop sinks, classroom and kitchen sinks are manual type faucets. (See Photo P10 & P11)
  - Existing floor drains in boiler room and restrooms were in good condition.
  - Existing drinking fountains are bi-level and appear to be in good condition. (See Photo P4)

### Issues

- Building staff reported water leakage in ceiling in the lunch manager's office. (See Photo P7)
- Building staff reported problems with existing catch basin towards South Langley Avenue. (See Photo P8)
- Building staff reported leaks in storm drainage piping during rainfall events. (See Photo P6)
  - Further televising of the existing piping is required to determine cause of leaks.

## New Construction

### Utilities

- Proposing a new 8" ductile iron incoming combined water and fire service.
- Combined service to split into a new 4" domestic service to serve both the new annex and existing building, and a new 6" fire service with a double detector check valve assembly.
- New sanitary and storm line is recommended for the new school.

### Main Systems

- A new domestic water booster pump is recommended due to low and fluctuating city pressure in order to guarantee building domestic water pressure always meets code requirements. Booster pump system will be sized at approximately 120 GPM/10 HP.
- Two 90-gallon condensing gas water heaters will be provided with a master thermostatic mixing valve set to deliver water to all standard plumbing fixtures at 125°F.

### Distribution

- 3" Domestic cold water and 2" domestic hot water distribution will be routed in the ceiling to all the plumbing equipment and fixtures. All piping to be type L copper.
- Hot water to kitchen space will be distributed with set temperature of 140°F.
- Building will be provided with new sanitary waste and vent system. The building main sewer shall be approximately 6" diameter.
- Building will be provided with a new storm water system. The building storm sewer shall be approximately 8" diameter.

### Terminal Equipment

- The new annex building will be provided with new plumbing fixtures as follows
  - Student water closets and urinals will be manual flush-valve type.
  - Student lavatories will be either manual or sensor metering type faucets.
  - Staff water closets will be automatic flush-valve type.
  - Staff lavatories will be manual faucets.
- Mop sinks, classroom sinks and kitchen sinks will be provided with manual faucets.
- Floor drains will be all placed in all restrooms, janitor's closet, mechanical rooms, and other spaces required by code.
- Roof drains and overflow drains will be placed on the new annex building roof.

### Interfaces with Existing Building

- Existing building will be back-fed with new 4" domestic water line from new domestic water service. Domestic water will be extended to existing building boiler rooms through the ceiling within the existing building.
- Existing storm and sanitary lines exiting on the south side of the building need to be rerouted to new manholes in order to avoid conflict with the new annex building.

### LEED Plumbing Issues

- Plumbing fixture flow rates to be chosen to meet minimum reduction requirement of 35% for Indoor Water Use.



PLUMBING

P1

CONDITION:  
Existing water meter in the basement pump room.



P2

CONDITION:  
Existing gas fired water heater. It appears to be in good condition.



P3

CONDITION:  
Existing manual flush valve urinals. (Typical)



P4

CONDITION:  
Existing bi-level drinking fountain. It appears to be in good condition.



P5

CONDITION:  
Existing roof drains on the lower roof.



P6

CONDITION:  
Existing storm pipe leaks during rainfall events.





PLUMBING

**P7**  
**CONDITION:**  
Water leakage in ceiling in the lunch manager's office.



**P10**  
**CONDITION:**  
Existing lavatories with manual faucet.



**P8**  
**CONDITION:**  
Building staff reported problems with existing catch basin on South Langley Avenue.



**P11**  
**CONDITION:**  
Existing triple sink faucet near kitchen space.



**P9**  
**CONDITION:**  
Existing manual flush valve closet.



# FIRE PROTECTION

## Existing Conditions

### Utilities

- Water
  - There is an existing 6-inch domestic water service entering into the existing building from S Langley Avenue.
  - Existing 4-inch domestic service connects to DCDA assembly. (See Photo FP1)

### Main Systems

- Building fire protection system is distributed by fire pump. It is 250 GPM horizontal in-line fire pump. It appears to be in working condition, however, is past its service life. (See Photo P1)
- Building fire protection system does not have a jockey pump.
- Building is provided with a dry pipe valve and air compressor for dry pipe sprinkler system throughout the building. (See Photo FP2 & FP3)

### Distribution

- Fire protection dry pipe sprinkler system is routed through the open ceiling.

### Terminal Equipment

- All observed sprinkler heads appeared to be in good condition.
  - Upright sprinkler heads were provided throughout the building. (See Photo FP4)

## New Construction

### Utilities

- Proposing a new 8" ductile iron incoming combined water and fire service.
  - Combined service to split into a new 4" domestic service to serve both the new annex and existing building, and a new 6" fire service with a double detector check valve assembly.
  - The fire service main shall be 6" diameter with double detector check valve and bypass meter.

### Main Systems

- A new fire pump is recommended to ensure adequate flow and pressure to the building sprinkler system. Fire pump system will be sized at approximately 500 GPM/ 25 HP.

### Distribution

- 4" Fire protection wet pipe will be routed in the ceiling space to all the sprinklers. All piping will be Schedule 10 to schedule 40 steel pipe, grooved coupling or threaded, depending on the pipe diameter.

### Terminal Equipment

- The new annex will be provided with new automatic sprinkler system for complete building coverage. Spaces are primarily light hazard areas for offices, gymnasium, meeting rooms, corridors, and kitchen. Mechanical rooms, telecommunication rooms, and storage spaces, will be protected at ordinary hazard levels.
- Sprinklers shall be provided throughout the building with the exception of the main electrical room.
- The new annex building will be provided with new sprinklers as follows
  - Upright sprinkler heads will be provided in exposed areas.
  - Concealed sprinkler heads will be provided in finished ceiling.
  - Dry arm pendent sprinklers or dry valve system will be provided for all vestibules and areas exposed to freezing.
- Sprinkler zone control assemblies will be provided for each floor.



FIRE  
PROTECTION

FP1

**CONDITION:**  
Existing DCDA and fire pump.  
It appears to be in fair to good  
condition.



FP4

**CONDITION:**  
Existing upright  
sprinklers.



FP2

**CONDITION:**  
Existing air compressor for fire  
protection dry pipe system.



FP3

**CONDITION:**  
Existing dry pipe valve for fire  
protection dry pipe system.

