



D'HUY Engineering, Inc.



**UPPER DUBLIN TOWNSHIP
STORM DAMAGE**

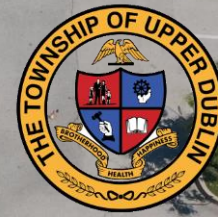
April 12, 2022



D'HUY Engineering, Inc.



Aerial view of Township Building and Public Works



D'HUY Engineering, Inc.

Aerial view of Mechanical Room



D'HUY Engineering, Inc.

Aerial of Public Works Damage

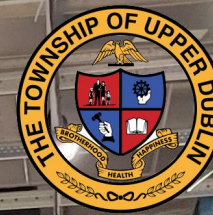




D'HUY Engineering, Inc.



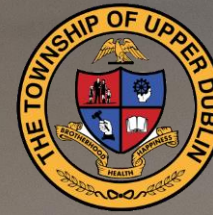
Interior Damage to Administration Area



D'HUY Engineering, Inc.

code enforcement

Interior Damage to Administration Area



D'HUY Engineering, Inc.

mold in 212

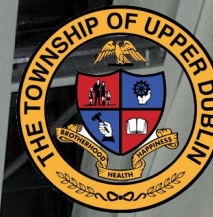
Interior Damage to Administration Area



D'HUY Engineering, Inc.



Interior Damage to Police Department



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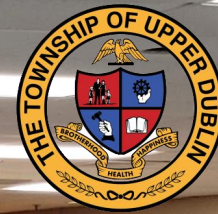
Interior Damage to Police Department



D'HUY Engineering, Inc.



Meeting Room Area



D'HUY Engineering, Inc.



Meeting Room Area



D'HUY Engineering, Inc.

Meeting Room Area



D'HUY Engineering, Inc.

RESTROOMS

Library Area

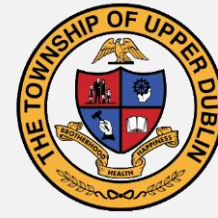


D'HUY Engineering, Inc.



Library Area

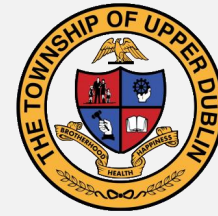
Summary Timeline



D'HUY Engineering, Inc.

- September 1, DEI was asked to assess the damage and structural integrity of the Township Building.
- September 14, DEI began preparing repair estimates for the Administration, Police building
- Between November 2021 and March 2022 DEI has been working with the insurance carrier and MKA to reconcile the estimates.
- On April 7, 2022 the Insurance Carrier forwarded a new estimate prepared by their experts which is currently under review by the UDT team.
- To date there is no reconciliation or Agreement on the cost of repairs to the Administration, Police, Library and Meeting Room building.
- “ Replace in like kind and quality” and “Code Improvements” and Scope and unit costs are still not resolved.

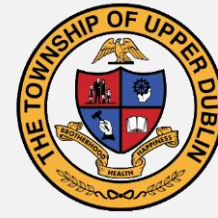
Public Works



D'HUY Engineering, Inc.

- September 29, DEI began working with UDT, the Insurance carrier and Walter Brucker Company to repair the Public Works building so it can remain operational.
- March 10, DEI forwarded a repair estimate totaling \$4.7million for the Public Works Building to the insurance carrier. No response to date.
- To date \$1.4 million has been approved by the Insurance Carrier and the work is progressing. The remaining costs of repair are being reviewed by the Insurance Carrier and their experts.
- Currently we are review the remediation method and costs for the unsuitable soils discovered in the area under the Vehicular Bay next to the Cell Tower.
- We are also reviewing the cost for implementing the bridge crane for the Vehicular Bay and a central roof top unit for the Office Area.

Township Building Estimate Structure



D'HUY Engineering, Inc.

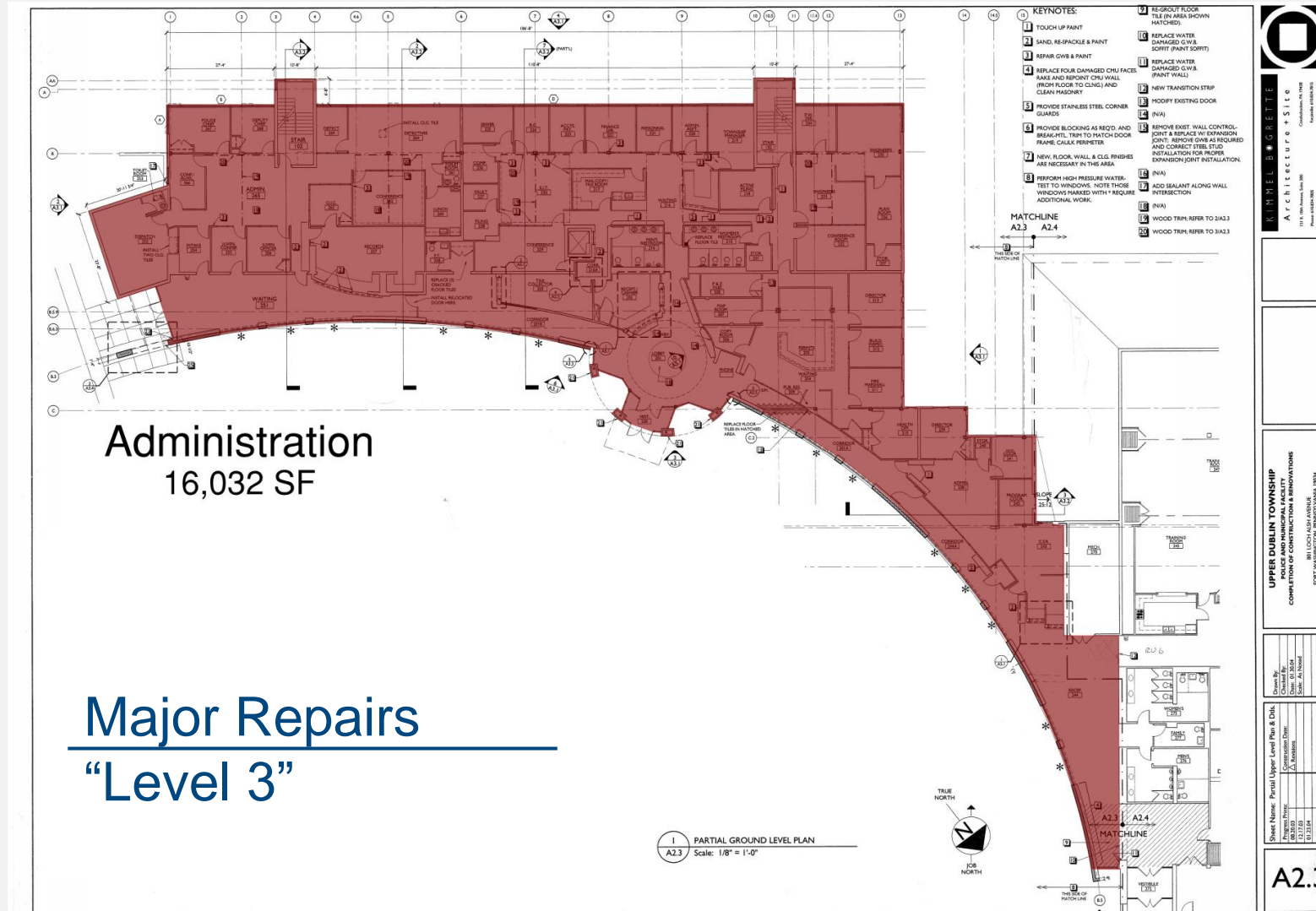
We formatted the estimate into the following Work Breakdown Structures:

- Administration Area
- Police Department
- Meeting Room
- Library
- Roofing
- Sitework
- Central Building Systems
- General Conditions
- Building Code
- Cost Summary

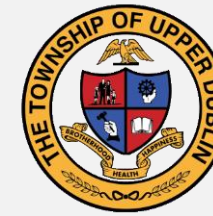
Administration Floor Plan



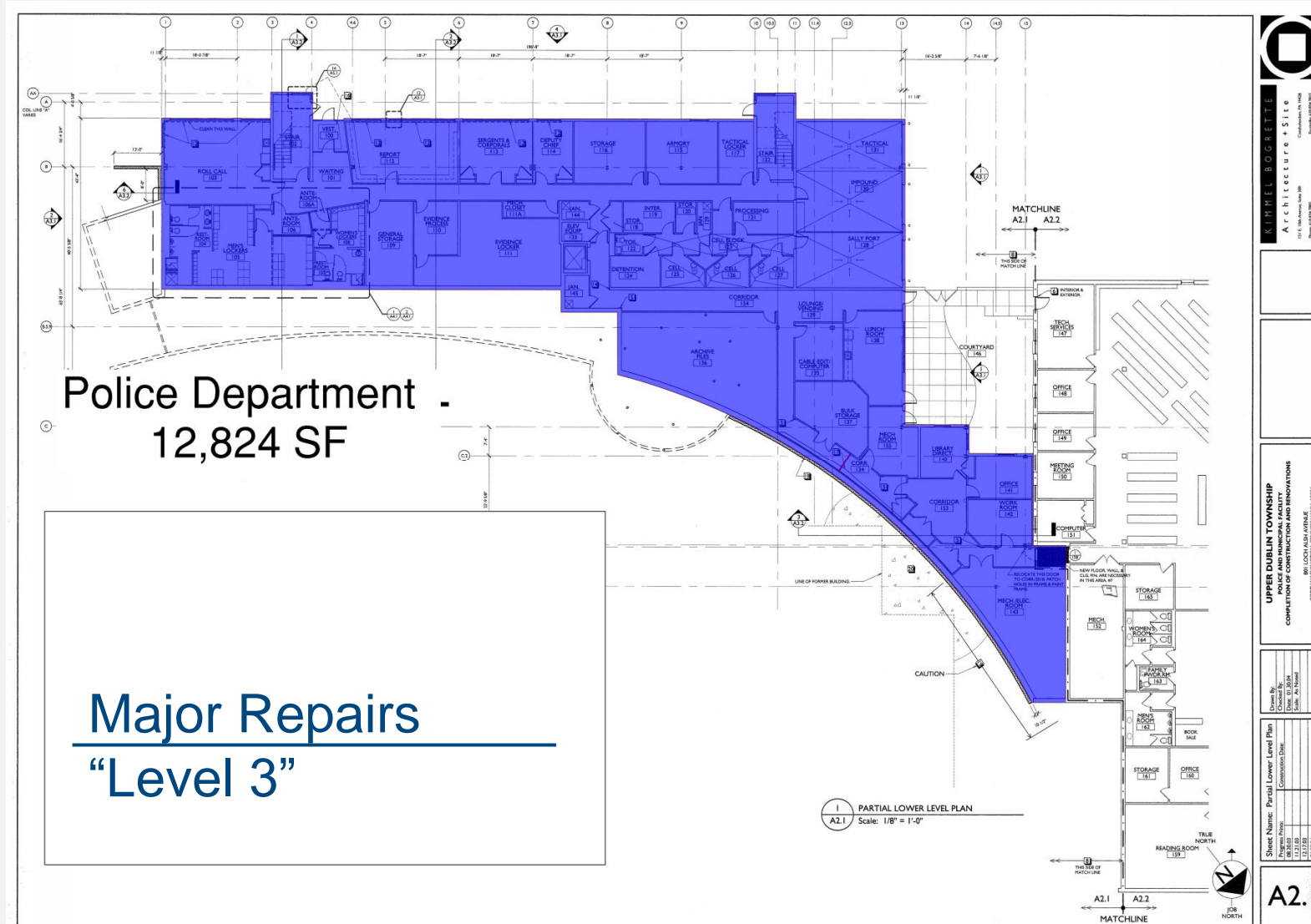
D'HUY Engineering, Inc.



Police Department Floor Plan



D'HUY Engineering, Inc.



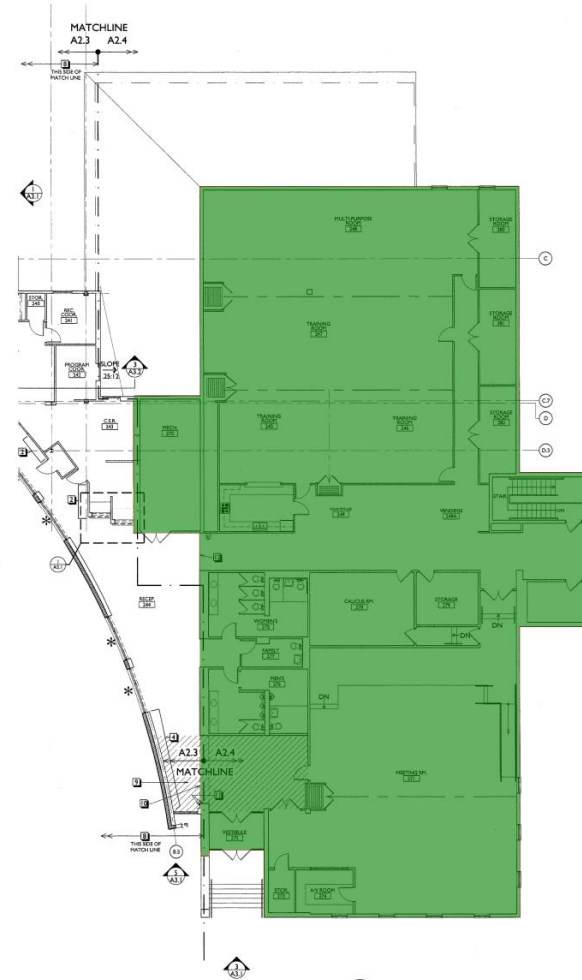
Meeting Room Floor Plan



D'HUY Engineering, Inc.

Meeting Room
11,219 SF

Limited Repairs



- KEYNOTES:**
- 1 TOUCH UP PAINT
 - 2 SAND, RESPAKLE & PAINT
 - 3 REPAIR GWS & PAINT
 - 4 REPLACE FOUR DAMAGED CHU FACES. RAISE AND REPOINT CHU WALL (FROM FLOOR TO CING) AND CLEAN MASONRY
 - 5 PROVIDE STAINLESS STEEL CORNER GUARDS
 - 6 PROVIDE BLOCKING AS REQ'D. AND BRACKETS, TRIM TO MATCH DOOR FRAME. CALK PERIMETER
 - 7 NEW FLOOR, WALL & CIG. FINISHES ARE NECESSARY IN THIS AREA
 - 8 PERFORM HIGH PRESSURE WATER-TEST TO WINDOWS. NOTE THOSE WINDOWS MARKED WITH * REQUIRE ADDITIONAL WORK
 - 9 RE-GROUT FLOOR
 - 10 RE-GROUT FLOOR
 - 11 REPLACE WATER DAMAGED G.W.B. (PAINT SORTT)
 - 12 REPLACE WATER DAMAGED G.W.B. (PAINT WALL)
 - 13 NEW TRANSITION STRIP
 - 14 MODIFY EXISTING DOOR
 - 15 (N/A)
 - 16 REMOVE EXIST. WALL CONTROL-JOINT & REPLACE W/ EXPANSION JOINT. REMOVE GWS AS REQUIRED AND CORRECT STEEL STUD INSTALLATION FOR PROPER EXPANSION JOINT INSTALLATION.
 - 17 (N/A)
 - 18 ADD SEALANT ALONG WALL INTERSECTION
 - 19 (N/A)
 - 20 WOOD TRIM REFER TO 31A2.3
 - 21 WOOD TRIM REFER TO 31A2.3
 - 22 ADD 3 WEEP HOLES IN BASE OF CHU PIER (TEMPORARILY REMOVE CHU AS REQ'D) NOTE: EACH PIER HAS 1 WEEP HOLE. ADD ONE NEW WEEP 1/4" FROM EXIST'G & ONE ON SHORT SIDE OF PIER.

- KEYNOTES: (cont'd)**
- 23 ADD 3 WEEP HOLES IN BASE OF CHU PIER (TEMPORARILY REMOVE CHU AS REQ'D) NOTE: EACH PIER HAS 1 WEEP HOLE. ADD ONE NEW WEEP 1/4" FROM EXIST'G & ONE ON SHORT SIDE OF PIER.
 - 24 CHU TO BE CUT (VERTICALLY) AT COURSE JOINT.
 - 25 SAND-BLAST EXISTING CHU TO MATCH EXISTING FINISH. WATER-SEAL CHU.
 - 26 REMOVE SLEFS SORTT FOR ACCESS TO STEEL BEAMS (REFER TO STRUCT'L DWGS FOR SCOPE OF WORK TO EXTEND STL BEAMS). REPLACE W/ NEW SLEFS TO MATCH FINISH. PROVIDE ADOL FRAMING TO EXTEND TO NEW WALL LOCATION.
 - 27 REMOVE CONCRETE SIDEWALK (FOR CONSTRUCTION OF NEW WALL). PROVIDE NEW CONCRETE SIDEWALK.

ARTICLE 16.01

CONSTRUCTION STANDARDS

UPPER DUBLIN TOWNSHIP

POLICE AND MUNICIPAL FACILITY

COMPLETION OF CONSTRUCTION AND RENOVATIONS

881 LOCH ALBA AVENUE
FORT WASHINGTON, PENNSYLVANIA 19134

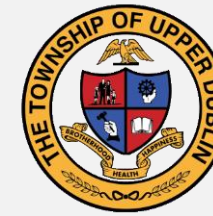
Sheet Name: Partial Upper Level Plan
 Project Name: Upper Dublin Township Police and Municipal Facility
 Drawing No: 22-00001
 Date: 03/24/24
 Scale: 1/8" = 1'-0"
 Job No: 22-00001

1 PARTIAL GROUND LEVEL PLAN
A2.4 Scale: 1/8" = 1'-0"

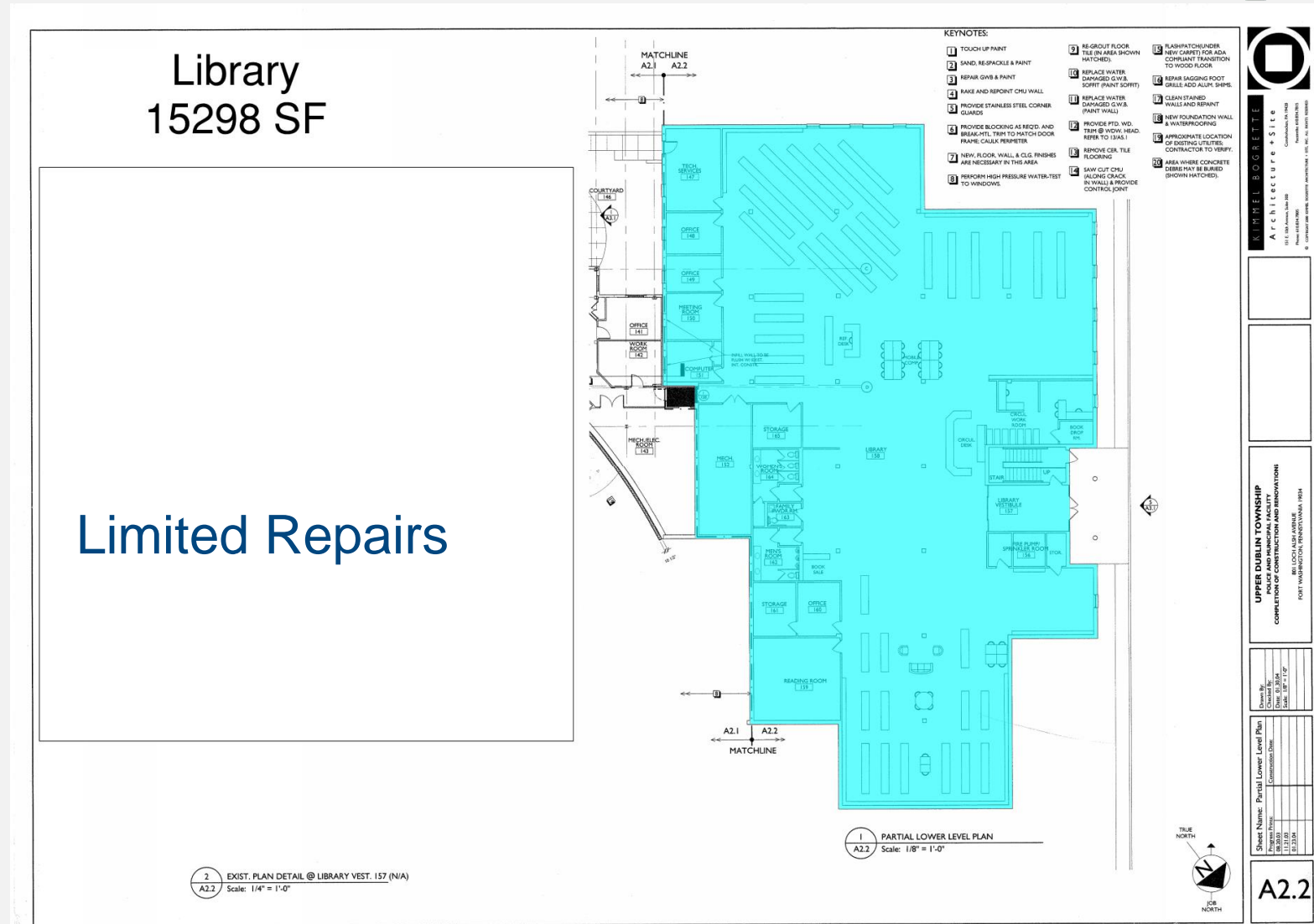


A2.4

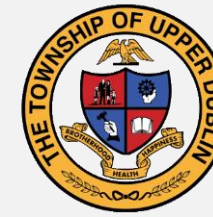
Library Floor Plan



D'HUY Engineering, Inc.



Area Breakdown of Repair



D'HUY Engineering, Inc.

Administration	16,032 SF
Police Department	12,824 SF
Meeting Room	11,219 SF
Library	15,298 SF
<hr/>	
Total	55,373 SF

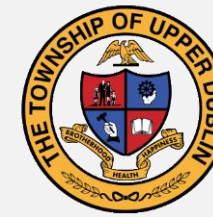
Area of Major Repair

Administration	16,032 SF
Police Department	12,824 SF
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Total	28,856 SF

Area of Limited Repair

Meeting Room	11,219 SF
Library	15,298 SF
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Total	26,517 SF

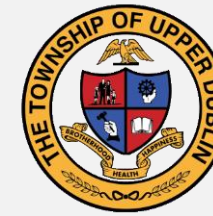
Administration Estimate Breakdown



D'HUY Engineering, Inc.

Item Description	DEI Repair Estimate 1-24-2022				MKA Repair Estimate w/Delta 01/26/22		Delta Total	%DIFF	Comment
	Quantity	Unit	Total Unit Price	Grand Total	Total SF Price	Total Cost			
I.ADMINISTRATION	16,032	GSF	\$ 246.70	\$ 3,955,038.20	\$ 190.37	\$ 3,100,989.98	\$ 854,048.22	100.0%	
02A-Existing Conditions-Administration	16,032	GSF	\$ 10.89	\$ 174,631.75	\$ 9.75	\$ 156,312.00	\$ 18,319.75	2.1%	Requires reconciliation
03A-Concrete-Administration	16,032	GSF	\$ 3.16	\$ 50,634.50	\$ 0.75	\$ 12,024.00	\$ 38,610.50	4.5%	DEI is sealing the floor for moisture, MKA is believe testing is required to verify. DEI to provide L&M Breakout for moisture Barrier. (03/22/22) DEI will share at next reconcilliation meeting
04A-Masonry-Administration	16,032	GSF	\$ 10.99	\$ 176,200.05	\$ 9.00	\$ 144,288.00	\$ 31,912.05	3.7%	Backwall of police back wall. MKA believes it is pre-existing condition. YAC agrees with number
05A-Metals-Administration	16,032	GSF	\$ 4.09	\$ 65,640.15	\$ 4.00	\$ 64,128.00	\$ 1,512.15	0.2%	
06A-Wood, Plastics, and Composites-Administration	16,032	GSF	\$ 5.80	\$ 92,968.00	\$ 1.70	\$ 27,254.40	\$ 65,713.60	7.7%	DEI will review pricing. DEI @\$800 LF, MKA at \$262 LF. DEI to provide breakout of line item #40 in estimate. (03/22/22) DEI will share at next reconciliation meeting.
07A-Thermal and Moisture Protection-Administration	16,032	GSF	\$ 9.17	\$ 146,977.00	\$ 0.59	\$ 9,458.88	\$ 56,356.12	6.6%	Requires reconciliation
					\$ 6.75	\$ 81,162.00		0.0%	Continous insulation on exterior wall is an issue. (03/22/22) DEI requested MKA breakdown and definition of yellow highlight breakout
08A-Openings-Administration	16,032	GSF	\$ 44.38	\$ 711,460.00	\$ 32.74	\$ 524,887.68	\$ 186,572.32	21.8%	Glazing cost diff. DEI \$85-90/SF, MKA \$55. DEI provided verification from RS Means. (03/22/22) DEI confirm costs with contractor who installed the glazing units.
09A-Finishes-Administration	16,032	GSF	\$ 37.04	\$ 593,811.75	\$ 32.25	\$ 517,032.00	\$ 76,779.75	9.0%	MKA will provide a snippet of scope.
10A-Specialties-Administration	16,032	GSF	\$ 6.72	\$ 107,805.00	\$ 5.11	\$ 111,923.52	\$ (4,118.52)	-0.5%	Storage system MKA to add unit. MKA Agees to DEI
11A-Equipment-Administration	16,032	GSF	\$ 1.03	\$ 16,525.00	\$ 0.04	\$ 641.28	\$ 15,883.72	1.9%	DEI will verify what is building and contents on Appliances. MKA has no A/V equipment. MKA to provide breakdown for review
12A-Furnishings-Administration	16,032	GSF	\$ 4.50	\$ 72,090.00	\$ 2.71	\$ 43,446.72	\$ 28,643.28	3.4%	MKA has a difference unit cost for window blinds. DEI to verify the Window Blind Material. (03/22/22) DEI agrees with MKA costs
21A-Fire Suppression-Administration	16,032	GSF	\$ 6.50	\$ 104,208.00	\$ 2.09	\$ 104,388.62	\$ (180.62)	0.0%	MKA will revise their scope. MKA has revised to meet DEI cost
22A-Plumbing-Administration	16,032	GSF	\$ 5.84	\$ 93,687.00	\$ 6.25	\$ 100,200.00	\$ (6,513.00)	-0.8%	DEI agrees

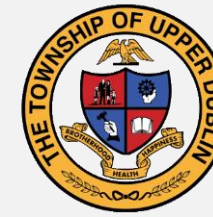
Administration Estimate Breakdown



D'HUY Engineering, Inc.

Item Description	DEI Repair Estimate 1-24-2022				MKA Repair Estimate w/Delta 01/26/22		Delta Total	%DIFF	Comment
	Quantity	Unit	Total Unit Price	Grand Total	Total SF Price	Total Cost			
									\$ 1,074,599.63
23A-Heating, Ventilating, and Air-Conditioning-Administration	16,032	GSF	\$ 54.33	\$ 871,048.00	\$ 41.55	\$ 666,129.60	\$ 60,630.40	7.1%	MKA is reviewing engineers report recently received
					\$ 12.00	\$ 144,288.00		0.0%	MKA to forward their cost breakdown. (03/22/22) DEI requested MKA breakdown and definition of yellow highlight breakout
26A-Electrical-Administration	16,032	GSF	\$ 28.00	\$ 448,896.00	\$ 15.69	\$ 251,542.08	\$ 197,353.92	23.1%	MKA and DEI will share takeoffs and pricing to verify scope and costs. MKA to forward their cost breakdown
27A-Communications-Administration	16,032	GSF	\$ 5.50	\$ 88,176.00	\$ 2.10	\$ 33,667.20	\$ 16,032.00	1.9%	MKA to forward their cost breakdown.
					\$ 3.20	\$ 38,476.80		0.0%	(03/22/22) DEI requested MKA breakdown and definition of yellow highlight breakout
28A-Electronic Safety and Security-Administration	16,032	GSF	\$ 8.75	\$ 140,280.00	\$ 2.10	\$ 33,667.20	\$ 70,540.80	8.3%	MKA and DEI will share takeoffs and pricing to verify scope and costs. MKA to forward their cost breakdown
					\$ 3.00	\$ 36,072.00		0.0%	(03/22/22) DEI requested MKA breakdown and definition of yellow highlight breakout

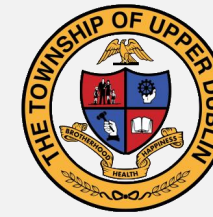
Building Code Compliance



D'HUY Engineering, Inc.

Item Description	DEI Repair Estimate 1-24-2022				MKA Repair Estimate w/Delta 01/26/22				%DIFF	Comment
	Quantity	Unit	Total Unit Price	Grand Total	Total SF Price	Total Cost	Delta Total			
				\$ 1,630,777.66	\$ 214,732.68	\$ 1,416,044.98	100.0%	\$ 1,074,599.63		
9.BUILDING CODE COMPLIANCE SCOPE										
01-General Requirements				\$ 1,246,380.00						
- Provide 4,000 SF Addition for Code Compliant Mechanical Equipment Space					\$ 1,200,000.00	\$ -	\$ 1,200,000.00	84.7%	Requires reconciliation	
- Nursing Mothers Room				\$ 40,580.00	\$ 58,015.50	\$ 7,704.04	0.5%	Requires reconciliation		
03-Concrete				\$ 46,394.72			0.0%			
- Accessible Entrance to Meeting Room					\$ 32,750.00	\$ 13,644.72	1.0%	Requires reconciliation		
05-Metals				\$ 73,910.00			0.0%			
- Ramps w/Rails					\$ 26,545.00	\$ 47,365.00	3.3%	DEI to provide railing takeoffs. (03/22/22) DEI transmitted and awaiting reply		
06-Wood, Plastics, and Composites				\$ 10,640.00			0.0%			
- Means of Egress for Training Room and Meeting Room					\$ 10,640.00	\$ -	0.0%			
09-Finishes				\$ -			0.0%			
- Reconfigure Corridor 216A to Allow Public Access Elevator					\$ -	\$ -	0.0%	DEI agreed to delete cost		
22-Plumbing				\$ 12,293.44			0.0%			
- Relocate Plumbing Fixtures and Rework Supply and DWV Piping for ADA Compliance					\$ -	\$ 12,293.44	0.9%	DEI to provide scope. (03/22/22) DEI transmitted and awaiting reply		
23-Heating, Ventilating, and Air-Conditioning				\$ 126,200.00			0.0%			
- Boiler w/Separated Combustion Chamber					\$ 72,850.00	\$ 53,350.00	3.8%	DEI to provide scope. (03/22/22) DEI transmitted and awaiting reply		
26-Electrical				\$ 83,059.50			0.0%			
- Premium Cost to Upgrade Lighting Controls					\$ -	\$ 83,059.50	5.9%			
27-Communications				\$ 25,400.00			0.0%			
- Area of Rescue Assistance Communication Systems					\$ 25,400.00	\$ -	0.0%			
32-Exterior Improvements				\$ 6,500.00			0.0%			
- Asphalt Paving					\$ 7,932.32	\$ (1,432.32)	-0.1%			

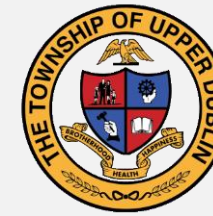
Summary Sheet



D'HUY Engineering, Inc.

TOTAL ESTIMATED DIRECT HARD COSTS									
	55,373	GSF	\$ 266.10	\$ 14,734,559.26		\$ 10,136,329.03	\$ 4,598,230.23	31.2%	
Contractor Overhead & Profit - 10%									
				\$ 1,473,455.93		\$ 1,013,632.90	\$ 459,823.02	31.2%	
Contractor Bond & Insurance - 2%									
				\$ 294,691.19		\$ 1,013,632.90	\$ (718,941.72)	-244.0%	
Subtotal									
				\$ 16,502,706.37		\$ 12,163,594.84	\$ 4,339,111.53	26.3%	
Professional Fees - Building Design - 8.5%									
				\$ 1,320,216.51		\$ 973,087.59	\$ 347,128.92	26.3%	8% Agreed Amount
Professional Fees - Site Design - Lump Sum									
				\$ 50,000.00		\$ 50,000.00	\$ -	0.0%	\$50,000
CM Services - 4%									
				\$ 660,108.25		\$ 486,543.79	\$ 173,564.46	26.3%	Agreed 4%
Approvals, Permits, & Inspections - 1.5%									
				\$ 247,540.60		\$ 182,453.92	\$ 65,086.67	26.3%	Agreed 1.5%
3rd Party Construction Testing & Testing/Adjusting/Balancing - 1%									
				\$ 165,027.06		\$ 121,635.95	\$ 43,391.12	26.3%	Agreed 1%
Inflation to Midpoint of Construction - 7.6%									
				\$ 1,266,761.91		\$ 912,269.61	\$ 354,492.29	28.0%	MKA to confirm ENR reference. 1.5years @ 5% per year
Current Market Conditions - 5%									
				\$ 833,395.99		\$ 608,179.74	\$ 225,216.25	27.0%	MKA to confirm ENR reference.
Contingency - 10%									
				\$ 1,666,791.98		\$ 1,216,359.48	\$ 450,432.50	27.0%	MKA and ICS to review and comment
Soft Cost Total									
				\$ 6,209,842.30		\$ 4,550,530.09	\$ 1,659,312.21		Requires reconciliation
Total Estimated Costs									
				\$ 22,712,548.67		\$ 16,714,124.93	\$ 5,998,423.74	26.4%	\$ 14,947,483.14
						\$ (492,467.61)			
MKA has agreed to scope must confirm item cost and takeoffs and also confirm that the scope of work is covered.									
Items that require reconciliation of of scope and costs									

Summary Recap as of 04/12/2022



D'HUY Engineering, Inc.

AREA	DEI	MKA	
		22-Mar	6-Apr
ADMINISTRATION	\$ 3,955,038	\$ 3,100,989	\$ 3,601,884
POLICE	\$ 2,368,768	\$ 1,716,171	\$ 2,340,743
LIBRARY	\$ 1,684,497	\$ 851,437	\$ 242,734
MEETING ROOM	\$ 1,392,864	\$ 626,249	\$ -
ROOFING	\$ 1,980,463	\$ 1,988,780	\$ 1,988,783
SITWORK	\$ 92,350	\$ 84,179	\$ 82,653
CENTRAL BLDG SYS	\$ 244,800	\$ 25,000	\$ 32,500
GENERAL CONDITIONS	\$ 1,525,000	\$ 1,528,787	\$ 1,528,787
BUILDING CODE	\$ 1,638,290	\$ 214,732	\$ -
TOTAL HARD COSTS	\$ 14,882,071	\$ 10,136,329	\$ 9,818,086
CONTRATOR P&O	\$ 1,785,048	\$ 2,027,265	\$ 1,178,170
SOFT COST	\$ 6,367,138	\$ 4,550,530	\$ 2,936,517
TOTAL COST	\$ 23,034,257	\$ 16,714,124	\$ 13,932,773