Agenda Item Executive Summary

Item Name	Police Building Study	Committee or Board	Committee

BUDGET IMPACT			
Amount:	Phase 1 $8,900 Phase 2 $25,600 - 29,000	*Budgeted*	Yes
List what fund	Municipal Building Fund		

EXECUTIVE SUMMARY

On August 18, 2015, the Village Board approved a contract with Williams Architects to conduct a Facility Space Needs Analysis & Facility Evaluation & Options Study for the police department.

Tonight, Mark Bushhouse, President of Williams Architects, will be presenting a review of the Police Facility Space Needs Analysis & Facility Evaluation & Options Study conducted by his firm.

ATTACHMENTS (PLEASE LIST)

Project memorandum, project contract, project meeting matrix, police space program, assessment of existing conditions report, site plan example

ACTION REQUESTED

X For Discussion Only

☐ Resolution

☐ Ordinance

☐ Motion

☐

Staff: Kent Williams, Chief of Police Date: 2/2/15

PROJECT MEMORANDUM

PROJECT: Bartlett Police Department Space Needs Analysis

PROJECT NO.: 2015-047

TO: Patrick Ullrich

REGARDING: Police Space needs Analysis and Facility Evaluation and Options Study

COPIES TO:

PREPARED BY: Mark Bushhouse

DATE PREPARED: 26 January 2016

NOTE: The following items shall be recorded as a part of the above project record and acted upon as noted unless Williams Architects is promptly directed to proceed otherwise.

BOARD UPDATE

STUDY GOALS:
Determine the police department's current and long term facility space needs, the condition of the existing police building and find the best option to expand and/or replace the facility.

A. PROCESS:

1. Phase 1 – Space Needs Analysis
   a. Tour new other local police facilities
      1. Project team toured Streamwood, Hanover Park and Skokie's police stations
      2. Reviewed the predicted growth of Bartlett and the police department over the next 25 years
   b. Conducted a space needs analysis
      1. Evaluated the current and future police functions and staffing
      2. Used detailed questionnaires for police staff to fill out
      3. Reviewed the results of the questionnaires and interviewed police staff
      4. Provided a detailed space program that included the existing spaces and their sizes as well as a range of size for each space based upon industry standards
      5. Space program reviewed with staff and refined to a target space program that was endorsed by the project team

2. Phase 2 – Facility Evaluations and Options Study
   a. Owner provided drawings and other information for the existing facility
   b. Architect and Civil, Mechanical, Electrical, Plumbing and Fire Suppression Engineers reviewed the data, toured the facility, spoke to village personal responsible for the upkeep of the building

c. Team of consultants provided reports on the condition of the site features, the building shell and interior components and the building's systems
d. Design Concepts
   1. Architect prepared multiple basic facility site planning layouts that would locate the police station on the current municipal site
   2. Village staff reviewed and selected the preferred option that met the police department's facility needs on the municipal site

B. FINDINGS

1. Phase 1 – Space Needs
   a. Bartlett's current population of approximately 41,700 is expected to grow into the upper 40 thousands over the next 2 to 3 decades
   b. The Villages of Hanover Park and Streamwood provided the best comparable communities and police stations. The Hanover Park Police station is 63,570 SF and the Streamwood Police station is 51,000 SF.
   c. The Bartlett Police Department is expected to grow from its current staff of 77 (57 sworn and 20 civilians) to a staff of 105 (76 sworn and 29 civilians) over the coming 2 to 3 decades
   d. The existing facility of 22,900 SF is inadequate to meet the current and future space needs of the department. The new facility should be approximately 53,500 SF

2. Phase 2 – Facility Evaluation and Options
   a. The exterior walls of the facility are in good condition, but the windows need repair and/or replacement and the roof will need to be replaced in the years ahead. The interior, though well maintained, has become dated and some of the finishes have become worn. The building's heating/cooling system is at the end of its useful life and the emergency generator is old and inadequate. The lighting system is inefficient and would need to be totally replaced to meet today's energy codes.
   b. The facility is not designed to allow a second floor to be added. Therefore, it would be more expensive to provide the added space with a second floor than by using an addition even though it requires removal of some portion of the existing building
   c. The selected option incorporates a basement and two level addition in the front parking lot, while allowing the existing building to remain in operation. Once the addition is complete, the police department would move into it and then a portion of the existing building would be removed, the remaining portion would be remodeled and a final garage addition would be added. See the attached site plan. This concept provides adequate visitor parking for the village hall and police and for police patrol vehicle parking. Additional adjacent or nearby property is recommended to provide adequate, off-street, parking for police staff

C. RECOMMENDATIONS

1. Board review and accept the space needs findings
2. Board review and accept the Facility Evaluation
3. Board review and discussion of the presented facility option and/or request other options, as would interest the Board, to also be also investigated
4. Board direct staff and consultants to refine the proposed concept, investigate any other options as determined by the Board, direct that these be brought back to the Board for its review along with initial expectations of the required budgets for each.

End of Project Memorandum

G:\2015\2015-047 Bartlett Police Department Space Needs Analysis\A.02. Feasibility Study\A.02.h Project Memorandum\2016 01 26 Project Memorandum.doc

WILLIAMS ARCHITECTS
Architecture | Planning | Aquatics | Interiors

26 June 2015

Patrick Ullrich
Deputy Chief, Operations
Bartlett Police Department
Village of Bartlett
228 S. Main Street
Bartlett, IL 60103

Re: Space Needs Analysis and Facility Evaluation and Options Study
Bartlett Police Station
Williams Architects Proposed Services

Dear Deputy Chief Patrick:

Williams Architects is excited and grateful to have been selected by the Village of Bartlett for this most important study! We have responded below with our recommended scope of services and their associated fees based upon the Village's Request for Qualifications and the clarifications you have provided. Please review so we can refine our scope and fees to best match the Village's goals.

PROJECT KICK-OFF / DATA COLLECTION / FACILITIES TOUR

- Review project history, Village goals and project schedule.
- Identify the Project Team and prepare a Project Directory.
- Receive and review all existing conditions drawings and maintenance, staffing, village growth, police call volume, etc. data provided by the Village with respect to the Project and meet with key staff to gather additional input.
- Define overall expectations and necessary tasks and responsibilities.
- Develop detailed work plan and project schedule.
- Evaluate Program and overall project parameters.
- Conduct tour of 2–3 recent and well-designed police stations with the group of involved police staff.

EXISTING CONDITIONS ANALYSIS

- Tour the existing facility with our civil, mechanical, electrical and plumbing engineers and provide a written report of our findings, including cost estimates, for renovations and/or any required repairs and site-related construction.
- Review facility for general conformance to building codes, ADA, Illinois lock-up standards and CALEA requirements.
- Determine any general civil, mechanical, electrical and plumbing deficiencies.
- Provide an overview of the current facility as it relates to current code requirements.
- Compare features of the existing facility to current trends in police facilities.

PROGRAMMING / NEEDS ASSESSMENT

- Review the Village provided current police staffing and the estimated changes in the next 10 to 20 years.
- Prepare space needs questionnaires for each police department function that incorporates the Village estimated current and future staffing levels.
- Provide them for distribution to the appropriate police staff and assist with explanations as may be needed to help staff understand how to provide the requested information.
- Review the completed questionnaires and interview each person or group that filled them out to discuss and understand the information requested and the expected space needs.
- Prepare a draft space program that lists each potentially needed space along with its recommended size range. This program to factor in the common spaces and indicate the potential total gross area of the building.
- This to reviewed with the police and village leadership staff to review and target the current and future space needs for the department.
- Process concludes with a final space program that shows the space by space and total building areas for the current, 10 year and 20 year estimated space needs that are to be reviewed and approved by staff.

CONCEPTUAL PLANNING

- Review results of the existing conditions study and space programming. Discuss the existing building and site's constraints and opportunities. Review potential phasing approaches and options for the police department to maintain their services throughout the construction phase(s). Brainstorm renovation, addition, partial demolition and other options that could provide the current and future needed spaces and functionality.
- Prepare multiple site and building layout concepts that seek to fulfill the department's needs.
- Meet with staff to review, discuss, debate and critic the concepts and find the better ideas to further develop and refine,
- Rework and refine the better concepts and meet with staff again to repeat the review process and select the best concepts for final refinement and budgeting.
- Refine the best concepts and prepare project budgets.
- Meet with staff to review and discuss construction phasing and approach to meeting the long term needs.
- Prepare the final draft site and building plan layouts along with project budget, schedule, construction phasing approach and likely long term future improvements.
- Review and determine any final refinements and documents needed for public/Board presentation.
- Present, review, discuss and debate the findings, options, budgets and recommendations with the Board and the public. Receive the Board's directions.
- Refine the documents based upon the Board's directions and prepare the executive summary and the final draft study notebook for review, comment, correction and approval by staff.
- Provide a draft, owner architect, basic services agreement for the project as directed by the Village.

DELIVERABLES

A. Notebook that contains the existing conditions reports, space programs, colored site and floor plan diagrams for the chosen options, project budgets, phasing recommendations and executive summary.

PLANNING SCHEDULE

A. Study expected to take approximately 3 months with timely Village decisions and requested data.
B. Detailed meeting matrix that will list each meeting, agenda and completion date to be developed after the kick-off meeting.

SERVICES THAT ARE NOT INCLUDED:

1. Measuring the building or site
2. Involvement of structural engineering consulting services.
3. Site surveying, soil borings, and materials testing.
4. Environmental review, investigation or testing.
5. Review and/or planning of other sites
6. Detailed cost estimating.
7. Invasive or detailed review of the existing conditions.
8. Detailed review (itemized) for compliance with the ADA or State of Illinois Handicapped Accessibility requirements and other code requirements.
9. Exterior elevation design or detailed floor plan development.

FEES AND COSTS

1. For the existing facility investigation by WA and the civil and MEP engineers, the services are to be provided on a lump sum basis of Eight Thousand Nine Hundred Dollars ($8,900).
2. For the remainder of the services listed above, including the space programing, concept development, site and floor plan diagrams, project budgeting, staff meetings, presentation and final report, the services to be provided on a lump sum basis of Twenty Five Thousand Six Hundred Dollars ($25,600).
3. Reimbursable expenses (times a 1.15 multiplier) for all directly related project expenses to a maximum of Three thousand Four Hundred Dollars ($3,400).

OPTIONAL ADDITIONAL SERVICES

1. To investigate additional sites (existing building review not expected or included), including civil engineering review, site planning, budgeting and drawings for inclusion amongst the options for consideration by staff and the Board, the services to be provided on a lump sum basis of Nine Thousand Nine Hundred Dollars ($9,900) for each additional site.
2. For any other owner requested additional services, that are approved in writing, shall be provided on an hourly basis from the rate table below:

2015/2016
WILLIAMS ARCHITECTS
RATE TABLE

Principal II	$ 208.00/Hour
Principal I	$ 191.00/Hour

Associate Principal	$ 177.00/Hour
Senior Associate/Senior Project Mgr.	$ 171.00/Hour
Associate / Project Manager	$ 156.00/Hour
Architect III	$ 138.00/Hour
Architect II	$ 127.00/Hour
Architect I	$ 114.00/Hour
Project Coordinator IV	$ 104.00/Hour
Project Coordinator III	$ 95.00/Hour
Project Coordinator II	$ 81.00/Hour
Project Coordinator I	$ 70.00/Hour
Project Technician II	$ 53.00/Hour
Project Technician I	$ 42.00/Hour
Aquatic Engineer II	$ 164.00/Hour
Aquatic Engineer I	$ 125.00/Hour
Director of Marketing	$ 153.00/Hour
Marketing Coordinator	$ 111.00/Hour
Accounting	$ 147.00/Hour
Secretarial	$ 104.00/Hour
Clerical	$ 74.00/Hour
Director of Interior Design	$ 140.00/Hour
Interior Designer V	$ 109.00/Hour
Interior Designer IV	$ 91.00/Hour
Interior Designer III	$ 72.00/Hour
Interior Designer II	$ 60.00/Hour
Interior Designer I	$ 43.00/Hour

Mark Bushhouse shall lead the planning effort and be supported by Scott Lange and other design professionals at Williams Architects, W-T Engineering and a civil engineer to be selected by WA and approved by the owner.

The owner shall be invoiced on a monthly basis for the work that is completed in the prior month. Payments to be made in compliance with the Illinois local government prompt payment act. Architects standard of care shall be in keeping with the AIA standard contract language.

Thank you again for this opportunity to assist the Village of Bartlett with this important planning study to determine the best approach to meet the Department's current and long term facility needs!

Cordially,

Mark S. Bushhouse, AIA
President

The Village of Bartlett hereby accepts the terms and conditions indicated above and authorizes Williams Architects to begin their services immediately:

Authorized Signature _____ Date 8-18-15

M:\Busdev\2015\Municipal\Police\2015-535 Bartlett Police Department\2015 06 26 Williams Architects Proposed Services.docx

WILLIAMS ARCHITECTS
Architecture | Planning | Aquatics | Interiors

VILLAGE OF BARTLETT POLICE FACILITY
SPACE NEEDS ANALYSIS &
FACILITY EVALUATION & OPTIONS STUDY SCHEDULE
30 AUGUST 2015
Project No. 2015-047

Date / Time / Place	Event	Attendees	Agenda	WAA Tasks	Tasks by Others
31 August 2015 10:00 am Bartlett Police Dept.	• Kick-Off Meeting	• BPD • WA	• Identify Project Team • Review History & Goals • Review Project Schedule • Request owner provided information & drawings • Schedule tours of 2-3 police facilities	• WA to prepare draft meeting matrix for review	• BPD to forward WA existing conditions drawings • BPD to forward to WA data regarding staffing, Village growth, police call volume
9-11 Sept 2015 TBD Locations TBD	• Tour 2-3 Police Facilities • Review Future Staffing	• BPD • WA	• Conduct tour of 2-3 recent, well-designed police stations • Review future police growth & changes	• WA to assist tour setup • Distribute Project Directory via email • Update & send meeting matrix	• BPD to invite group of involved police staff to attend tours • BPD to request tours of the other stations
Week of 14 Sept 2015 Time TBD Bartlett Police Dept.	• Existing Conditions Analysis	• BPD • WA • WT • CIVIL	• WA and their consultants tour existing facility / grounds • BPD distributes the space questionnaires to staff	• Coordinate event • WA Prepare Space Needs Questionnaires & send to staff for review	• BPD to provide access to all rooms, roof tops, and grounds for consultant inspection • BPD to invite maintenance personnel
Week of 05 Oct 2015 Time TBD Bartlett Police Dept.	• Review completed questionnaires with Police personnel	• BPD • WA	• Meet with each person/team that filled out a questionnaire	• Read the completed questionnaires	• BPD to distribute questionnaires to staff to fill out prior to this event • Questionnaires to be sent to WA
Week of 19 Oct 2015 Time TBD Bartlett Police Dept.	• Review Draft Space Program	• BPD • WA	• Review Draft Space Program with senior staff • Provide draft existing conditions analysis for staff to review	• Prepare Draft Space Program • Prepare draft existing conditions analysis	• Key staff to be available • Be in process on any needed environmental surveys
Week of 26 Oct 2015 Time TBD Bartlett Police Dept.	• Existing Conditions Report • Target Space Program	• BPD • WA • CIVIL • WT	• Review owner comments of the existing conditions report • Review target space program for final edits • Review site & building for design challenges & opportunities	• Provide target space program • Provide existing site & floor plans	• Provide WA with any existing conditions report review comments

WILLIAMS ARCHITECTS
Architecture | Planning | Aquatics | Interiors

VILLAGE OF BARTLETT POLICE FACILITY
SPACE NEEDS ANALYSIS &
FACILITY EVALUATION & OPTIONS STUDY SCHEDULE
30 AUGUST 2015
Project No. 2015-047

Date / Time / Place	Event	Attendees	Agenda	WAA Tasks	Tasks by Others
Week of 09 Nov 2015 Time TBD Bartlett Police Dept.	• Conceptual Planning Session – 1	• BPD • WA	• Review multiple site and building layout concepts • Discuss pros / cons • Determine better concepts & needed changes	• Make final edits to space program & existing conditions analysis & send to staff • Prepare multiple site and building layout concepts	• Staff to review & approve final space program & existing conditions analysis
Week of 23 Nov 2015 Time TBD Bartlett Police Dept.	• Conceptual Planning Session – 2	• BPA • WA	• Review refined concepts • Narrow options top one preferred concept for budgeting	• Revise concepts	• Be in process on facility improvement funding plan
Week of 07 Dec 2015 TBD Bartlett Police Dept.	• Conceptual Planning Session – 3	• BPD • WA	• Present final concept(s) with associated budget(s) • Discuss Board / Public Presentations	• Refine final concept(s) and prepare budget(s)	• Select final concept for budgeting
January 2016 Time TBD	• Village Board or Public Open House	• BPD • WA	• Meeting to receive feedback • Present findings of study thus far	• Prepare presentation	• BPD to schedule Meeting
January 2016 Time TBD	• Village Board or Public Open House	• BPD • WA	• Meeting to receive feedback • Present findings of study thus far	• Prepare presentation materials	• BPD to schedule Meeting
End of January 2016 No Meeting	• Submit Final Deliverables	• No Meeting	• Conclude Study • Submit Deliverables to BPD	• Provide Board Required Changes • Complete Deliverables	• BPD to contemplate next steps

BPD – Bartlett Police Department
WA – Williams Architects
WT – W-T Mechanical / Electrical Engineering, LLC

g:\2015\2015-047 bartlett police department space needs analysis\a.02. feasibility study\a.02.I project schedule\bartlett police study meeting matrix 1.doc

Williams Architects

Architects
Planners
500 Park Blvd., Suite 800, Itasca IL 60143
Williams@Williams-Architects.com 630.221.1212

POLICE SPACE PROGRAM - TARGET

Summary

Police Station Facility Study — **Project #** **2015-047**
Village of Bartlett
20-Nov-15 — Revised : 20-Nov-15

Zone	Description	Program Range Square Feet	Target SF	Existing SF
100	Administration / Records	3,620 - 4,870	3,890	2,466
	Common Area	1,270 - 1,890	1,440	954
		4,890 - 6,760	5,330	3,420
200	Investigations / Tactical	2,860 - 3,910	3,195	1,009
	Common Area	1,000 - 1,520	1,185	391
		3,860 - 5,430	4,380	1,400
300	Patrol	6,710 - 8,440	7,560	2,984
	Common Area	2,360 - 3,280	2,800	1,156
		9,070 - 11,720	10,360	4,140
400	Detention	2,430 - 2,910	2,585	2,067
	Common Area	950 - 1,250	1,005	803
		3,380 - 4,160	3,590	2,870
500	Evidence	2,520 - 3,230	2,670	1,215
	Common Area	710 - 1,020	800	475
		3,230 - 4,250	3,470	1,690
600	Gun Range	2,820 - 4,610	3,980	2,106
	Common Area	540 - 1,010	820	814
		3,360 - 5,620	4,800	2,920
700	Police Support	12,230 - 31,350	14,485	3,416
	Common Area	1,990 - 5,970	2,555	1,324
		14,220 - 37,320	17,040	4,740
800	Building Support	3,205 - 4,850	3,480	1,240
	Common Area	905 - 1,530	1,040	480
		4,110 - 6,380	4,520	1,720
0	0	0 - 0	0	0
		0 - 0	0	0
		0 - 0	0	0
0	0	0 - 0	0	0
		0 - 0	0	0
		0 - 0	0	0
Net Programmed Square Foot Area		**36,395 - 64,170**	**41,845**	**16,503**
% of Gross Area that is Common Space		21.09% - 21.40%	21.77%	27.93%
Common Area [1]		**9,725 - 17,470**	**11,645**	**6,397**
Gross Square Feet (Building only)		**46,120 - 81,640**	**53,490**	**22,900**

© Williams Architects

POLICE SPACE PROGRAM - TARGET

Administration / Records

Police Station Facility Study | **Project #** | **2015-047**
Village of Bartlett
20-Nov-15 | Revised : | 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
100	Admin Waiting (seating area for 2-4)	60 - 100	60	127
101	Police Chief (office) [2]	240 - 300	250	267
102	Administrative Secretary (workstation)	80 - 90	80	80
103	Accreditation Manager (office)	130 - 150	130	137
104	Deputy Chief - Operations (office)[2]	180 - 240	180	148
105	Deputy Chief - Support Services (office)[2]	180 - 240	180	148
106	Support Services Commander (office)[2]	160 - 180	160	49
107	Admin Conference Room (14 - 18 at table)	300 - 400	400	362
108	Admin Storage	60 - 120	120	20
109	Admin Active Files	120 - 160	140	70
110	Office Supplies Storage	20 - 40	20	0
111	Support Services Sergeants (2 offices)	260 - 320	260	75
112	Crime Prevention Officers (2 in shared office)	160 - 200	160	100
113	School Resource Officers (use others)	0 - 180	0	0
114	Crossing Guards Storage	20 - 40	20	0
115	Records Supervisor (office)	130 - 150	130	114
116	Records Clerks (10 in 6 workstations)	420 - 480	420	280
117	Data Entry Clerks (2 workstations)	140 - 160	140	86
118	Parking Enforcement Officer (workstation)	0 - 60	0	0
119	Public Reception Counter (area for 2 stations)	140 - 180	160	95
120	Active Records Files (10'x12' of rolling files)	160 - 260	180	100
121	Archived Records (see police support)	0 - 0	0	0
122	Copy/Mail/Fax/Work Counter	180 - 240	180	56
123	Employee Toilets (two single user)	110 - 120	110	86
124	Equipment Storage	60 - 80	80	42
125	DARE Storage	60 - 80	60	0
126	Counter / Coats	40 - 60	60	24
127	Future Office	140 - 160	140	0
128	Future Workstation	70 - 80	70	0
129		-		
130		-		
131		-		
132		-		
133		-		
134		-		
135		-		
136		-		
Net Programmed Square Foot Area		**3,620 - 4,870**	**3,890**	**2,466**
% of Gross Area that is Common Space		26.00% - 28.00%	27.00%	27.95%
Common Area [1]		1,270 - 1,890	1,440	954
Gross Square Feet (Building only)		**4,890 - 6,760**	**5,330**	**3,420**

POLICE SPACE PROGRAM - TARGET

Investigations / Tactical

Police Station Facility Study | **Project #** | **2015-047**
Village of Bartlett
20-Nov-15 | Revised : | 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
200	Investigations Waiting Area	0 - 60	0	0
201	Investigations Commander (office)[2]	160 - 180	160	128
202	Investigations Sgt. (office)	140 - 160	140	68
203	Detectives (6 workstations)	420 - 540	420	400
204	DEA Officer (workstation)	0 - 90	0	0
205	Investigations Secretary (workstation)	60 - 80	70	68
206	Investigations Aids (2 workstations)	120 - 160	160	0
207	Investigations Files / Work & Meeting Counter	200 - 240	240	84
208	Conference / Operations Prep (12-16 at table)	260 - 360	320	0
209	Social Services (office & meeting)	140 - 160	140	125
210	Task Force/State's Attorney (1-2 workstations)	70 - 180	70	0
211	Traffic Work Space (room w/ work table)	120 - 140	140	0
212	General Investigations Storage	80 - 120	120	0
213	Prisoner Affects & Temp. Evidence Storage	60 - 100	75	0
214	Tactical Meeting/Lockers (17 - 2'x2' lockers)	200 - 280	260	0
215	Suspect Interview (3-4 rooms)	210 - 320	210	70
216	Victim Interview (1 soft room)	140 - 160	160	0
217	Juvenile Holding (2 non-secure holding rms)	140 - 160	140	66
218	Work / Copy Room	80 - 120	90	0
219	Staff Single User Toilet Rooms (2 rooms)	110 - 120	110	0
220	Visitor Single User Toilet Rooms (2 rooms)	110 - 120	110	0
221	Counter / Coats	40 - 60	60	0
222		-		
223		-		
224		-		
225		-		
226		-		
227		-		
228		-		
229		-		
230		-		
231		-		
232		-		
233		-		
234		-		
235		-		
236		-		
Net Programmed Square Foot Area		**2,860 - 3,910**	**3,195**	**1,009**
% of Gross Area that is Common Space		26.00% - 28.00%	27.00%	27.95%
Common Area [1]		1,000 - 1,520	1,185	391
Gross Square Feet (Building only)		**3,860 - 5,430**	**4,380**	**1,400**

© Williams Architects

POLICE SPACE PROGRAM - TARGET

Patrol

Police Station Facility Study — **Project #** **2015-047**
Village of Bartlett
20-Nov-15 — Revised : 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
300	Patrol Watch Commanders (2 offices)[2]	320 - 360	320	157
301	Patrol Sergeants (9 in 2 person offices)	800 - 1,000	800	273
302	Canine Unit (1 workstation)	70 - 80	70	0
303	Directed Patrol Officers (5 workstations)	350 - 400	350	0
304	Traffic Officers (2 workstations)	140 - 160	140	123
305	Computer Crimes / Intel (2 workstations)	260 - 300	260	0
306	Work counter, table, shelving, lockers			
307	CSO's (use report writing stations)	0 - 0	0	0
308	Roll Call (seating for 20 at tables)	500 - 600	520	537
309	Report Writing (3 stations)/ Copy	90 - 120	100	100
310	Patrol Officers (3 workstations)	180 - 240	180	87
311	Patrol Files/Counter (60 File cabinet drawers)	200 - 240	240	0
312	Patrol Meeting Room (4 - 6 at table)	120 - 180	130	0
313	Patrol Equipment / Issue Counter	180 - 240	240	0
314	Patrol Duffle Bag Lockers (80 Lockers)	150 - 180	160	0
315	Personal Protective Equipment Storage	0 - 160	120	0
316	Mud Room	50 - 80	60	0
317	Male Lockers (70 @ 30"wx24"d)	1,200 - 1,400	1,300	449
318	Male or Female Lockers / Toilet, Lav, Shower	110 - 130	120	0
319	Male Toilet (3 tlt, 3 urn, 3 lav, 3 shwr)	350 - 410	400	184
320	Female Lockers (20 @ 30"wx24"d)	400 - 460	450	198
321	Female Toilet (2 tlt, 2 lav, 1 shwr)	170 - 210	200	181
322	Exercise Room	600 - 800	800	695
323	Defensive Tactics Training	400 - 600	600	0
324	Laundry	70 - 90	0	0
325		-		
326		-		
327		-		
328		-		
329		-		
330		-		
331		-		
332		-		
333		-		
334		-		
335		-		
336		-		
Net Programmed Square Foot Area		**6,710 - 8,440**	**7,560**	**2,984**
% of Gross Area that is Common Space		26.00% - 28.00%	27.00%	27.95%
Common Area [1]		2,360 - 3,280	2,800	1,156
Gross Square Feet (Building only)		**9,070 - 11,720**	**10,360**	**4,140**

POLICE SPACE PROGRAM - TARGET

Detention

Police Station Facility Study — **Project #** **2015-047**
Village of Bartlett
20-Nov-15 — Revised : 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
400	Sallyport (4 patrol cars or 1 ambulance)	800 - 1,000	900	529
401	Secure Vestibule	0 - 0	0	116
402	Booking Room (elevated workstation)	400 - 450	400	647
403	Livescan, breathalyzer, prisoner affects			
404	Booking Stations (4 secure stations)	170 - 200	180	0
405	Padded Cell	80 - 100	90	0
406	Male Holding Cells (4 cells & corridor)	385 - 440	400	363
407	Female Cells and Corridor (2 cells)	200 - 240	200	209
408	Juvenile / Interrogation / Multi-Use & Corridor	140 - 160	140	0
409	Janitor Closet / Storage	35 - 50	40	0
410	Prisoner HC Toilet & Shower	100 - 110	110	74
411	Bond Out Lobby	80 - 100	80	48
412	Food Station	40 - 60	45	0
413	Holding Cage	0 - 0	0	81
414		-		
415		-		
416		-		
417		-		
418		-		
419		-		
420		-		
421		-		
422		-		
423		-		
424		-		
425		-		
426		-		
427		-		
428		-		
429		-		
430		-		
431		-		
432		-		
433		-		
434		-		
435		-		
436		-		
Net Programmed Square Foot Area		**2,430 - 2,910**	**2,585**	**2,067**
% of Gross Area that is Common Space		28.00% - 30.00%	28.00%	27.95%
Common Area [1]		950 - 1,250	1,005	803
Gross Square Feet (Building only)		**3,380 - 4,160**	**3,590**	**2,870**

© Williams Architects

POLICE SPACE PROGRAM - TARGET

Evidence

Police Station Facility Study — **Project #** **2015-047**
Village of Bartlett
20-Nov-15 — Revised : 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
500	Evidence Processing, Lockers, Bag & Tag	280 - 340	320	76
501	Property Control/Court Liaison (office)	130 - 150	130	111
502	Evidence Technician (workstation)	70 - 80	70	0
503	Main Evidence Rolling Storage Shelving	900 - 1,200	900	213
504	Main Evidence Floor Storage Area	100 - 140	120	215
505	Drugs, Guns & Money Area	100 - 140	100	0
506	Evidence to be Purged Staging Area	60 - 80	60	0
507	Evidence Garage (2 bays)	580 - 700	640	600
508	Bicycle Storage (16-20 bikes on wall racks)	220 - 280	240	0
509	Property Return - Public Accessible Counter	80 - 120	90	0
510		-		
511		-		
512		-		
513		-		
514		-		
515		-		
516		-		
517		-		
518		-		
519		-		
520		-		
521		-		
522		-		
523		-		
524		-		
525		-		
526		-		
527		-		
528		-		
529		-		
530		-		
531		-		
532		-		
533		-		
534		-		
535		-		
536		-		
Net Programmed Square Foot Area		**2,520 - 3,230**	**2,670**	**1,215**
% of Gross Area that is Common Space		22.00% - 24.00%	23.00%	27.95%
Common Area [1]		710 - 1,020	800	475
Gross Square Feet (Building only)		**3,230 - 4,250**	**3,470**	**1,690**

POLICE SPACE PROGRAM - TARGET

Gun Range

Police Station Facility Study | **Project #** | **2015-047**
Village of Bartlett
20-Nov-15 | Revised : | 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
600	Range Armory & Targets	80 - 100	80	76
601	Gun Cleaning (2-3 stations)	80 - 120	90	95
602	Gun Repairs & Maintenance (small workshop)	100 - 120	100	0
603	Gun Range (20 - 30 ft wide x 75')	1,500 - 2,250	2,250	1,012
604	Firing Line / Observation Area (20-30' x 16-24')	320 - 720	480	216
605	Bullet Trap (20-30' wide x 16-24' deep)	320 - 720	540	135
606	RTU Supply & Exhaust/Filters in Room	160 - 200	180	503
607	Range Control Room	100 - 120	100	69
608	Range Storage (props, movable targets, walls)	100 - 160	100	0
609	Entry Vestibule / Ready Room	60 - 100	60	0
610		-		
611		-		
612		-		
613		-		
614		-		
615		-		
616		-		
617		-		
618		-		
619		-		
620		-		
621		-		
622		-		
623		-		
624		-		
625		-		
626		-		
627		-		
628		-		
629		-		
630		-		
631		-		
632		-		
633		-		
634		-		
635		-		
636		-		
Net Programmed Square Foot Area		**2,820 - 4,610**	**3,980**	**2,106**
% of Gross Area that is Common Space		16.00% - 18.00%	17.00%	27.95%
Common Area [1]		540 - 1,010	820	814
Gross Square Feet (Building only)		**3,360 - 5,620**	**4,800**	**2,920**

© Williams Architects

POLICE SPACE PROGRAM - TARGET

Police Support

Police Station Facility Study | **Project #** | **2015-047**
Village of Bartlett
20-Nov-15 | Revised : | 20-Nov-15

Room	Description	Program Range Square Feet			Program Target Square Feet	Existing Square Feet
700	Entry Vestibules	280	-	360	300	144
701	Main Lobby	900	-	1,300	1,000	386
702	Department History Info & Displays	60	-	120	70	0
703	Public Toilets (2 single user)	110	-	120	110	55
704	Public Interview Room A (2 - 4 at table)	80	-	100	80	75
705	Public Interview Room B (4 - 6 at table)	100	-	130	100	81
706	Public Interview Room C (6 - 8 at table)	130	-	180	140	0
707	Training / Task Force	1,100	-	1,300	1,100	620
708	44 @ tables & coats, counter					
709	Training Room Storage	120	-	130	120	0
710	Training/Community Rm's Toilets (2 multi-user)	280	-	320	280	0
711	Training/Community Rm's Refreshments Prep	60	-	80	60	0
712	Community Room / E.O.C.	600	-	1,500	1,500	0
713	Community Room Storage	60	-	150	150	0
714	Break/Lunch (10-12 at tables, vending, kitchnt)	400	-	600	475	235
715	First Aid / Rest / Nursing Mothers	80	-	120	90	69
716	Staff Central Toilets (2 multi-user)	240	-	280	240	252
717	Vehicle/Equip Garage (20 parking spaces)	6,200	-	22,500	6,200	
718	Bike Patrol, Speed Trailers, Barricades					
719	ATV, Boat, Special Vehicles, Scissor Lift					
720	Patrol Cars (22 now, 40 in the future)					
721	Command Vehicle Garage (large vehicle)	500	-	700	600	
722	Covered Patrol Parking (30 spaces outside)	0	-	0	0	0
723	K-9 Kennel	10	-	20	20	0
724	Animal Control Kennels	20	-	60	30	0
725	Computer Servers & Security Equipment	200	-	300	280	0
726	IT Parts & Work Area	140	-	180	140	0
727	Patio Area (outside location)	0	-	0	0	0
728	General Police Storage	320	-	400	1,000	783
729	Files Archive	240	-	400	400	617
730	Existing Small Storage Rooms	0	-	0	0	99
731			-			
732			-			
733			-			
734			-			
735			-			
736			-			
Net Programmed Square Foot Area		**12,230**	**-**	**31,350**	**14,485**	**3,416**
% of Gross Area that is Common Space		14.00%	-	16.00%	15.00%	27.95%
Common Area [1]		1,990	-	5,970	2,555	1,324
Gross Square Feet (Building only)		**14,220**	**-**	**37,320**	**17,040**	**4,740**

© Williams Architects

Police Station Facility Study | **Project #** | **2015-047**
Village of Bartlett
20-Nov-15 | Revised : | 20-Nov-15

Room	Description	Program Range Square Feet	Program Target Square Feet	Existing Square Feet
800	Maint & Outdoor Equip Storage	60 - 80	60	0
801	Janitor Closets	75 - 150	120	28
802	Mechanical	1,000 - 1,200	1,000	590
803	Sprinkler	80 - 100	80	0
804	Electrical	180 - 220	180	0
805	Phone	80 - 100	80	0
806	Shipping, Storage & Receiving	140 - 200	160	0
807	Receiving Dock	0 - 120	0	0
808	Building Supplies & Maintenance	180 - 240	180	0
809	Elevator	150 - 170	160	96
810	Elevator Equipment	60 - 70	60	43
811	Stairs (2 to 3 locations, 3 levels)	1,200 - 2,200	1,400	483
812	Generator (outside location)	0 - 0	0	0
813	Refuse (outside location)	0 - 0	0	0
814		-		
815		-		
816		-		
817		-		
818		-		
819		-		
820		-		
821		-		
822		-		
823		-		
824		-		
825		-		
826		-		
827		-		
828		-		
829		-		
830		-		
831		-		
832		-		
833		-		
834		-		
835		-		
836		-		
Net Programmed Square Foot Area		**3,205 - 4,850**	**3,480**	**1,240**
% of Gross Area that is Common Space		22.00% - 24.00%	23.00%	27.95%
Common Area [1]		905 - 1,530	1,040	480
Gross Square Feet (Building only)		**4,110 - 6,380**	**4,520**	**1,720**

© Williams Architects

20-Nov-15

[1] Hallways, walls, mechanical space and any non-programmed areas.

[2] These offices to include a closet

© Williams Architects

ASSESSMENT OF EXISTING CONDITIONS

VILLAGE OF BARTLETT
POLICE FACILITY

Village of Bartlett
228 S. Main Street
Bartlett, IL 60103

21 September 2015

WA Project No. 2015-047

WILLIAMS® ARCHITECTS
Architecture | Planning | Aquatics | Interiors
500 Park Boulevard, Suite 800
Itasca, IL 60143
P 630 221 1212
www.williams-architects.com

INTRODUCTION

The Village of Bartlett has authorized Williams Architects to conduct an existing condition's analysis of the Police Station located at 228 S. Main Street, Bartlett, Illinois.

The analysis consisted of a tour of the facility on 15 September 2015 with members from Williams Architects, the Bartlett Police Department, maintenance personnel of the Village of Bartlett, W-T Mechanical/Electrical Engineering, LLC. and Gewalt Hamilton Associates, Inc. (Civil Engineers). The tour did not include any portion of the Village Hall facility or the link connecting it to the Police Station.

The Police Department provided existing drawings of the original Village Hall and Police Station dated 04 April 1990 as prepared by OWP&P as well as construction documents for the Police Storage Garage dated 01 April 2006 as prepared by Lindstrom Associated Architects-Engineers and a partial Site Information Sheet dated 29 August 2004 as prepared by Nagle Hartray Danker Kagan McKay Penney Architects, Ltd. A recent (less than 6 months) topographic survey was not made available nor was a Phase 1 Environmental report. The extent, if any, of existing hazardous materials within the facility or on-site is therefore unknown at this time.

The intent of this analysis is to review the visible conditions of the facility (no core samples of any type were taken) to determine what general deficiencies may exist with respect to current accessibility guidelines, major mechanical, electrical, plumbing, fire protection systems, the general condition of the building exterior and interior (roof access did not occur), and the general condition of exterior pavements.

There is also commentary regarding how the existing Station compares to Illinois Lock-up Standards and current trends in Police facilities.

In the event modifications to the existing Station are considered, design would need to adhere to the current Bartlett Building Code which has adopted the following codes:

- The International Building Code, 2012 edition with local amendments.
- The Illinois Energy Conservation Code, latest edition with local amendments.
- The International Mechanical Code, 2012 edition with local amendments.
- The Illinois Plumbing Code, 2014 edition with local amendments.
- The National Electrical Code, 2011 edition with local amendments.
- The Illinois Accessibility Code, latest edition.
- The Illinois Property Maintenance Code, 2012 edition with local amendments.
- The International Fire Code, 2012 edition with local amendments.
- The International Fuel Gas Code, 2012 edition.

In addition, modifications to the existing facility would need to conform to the 2010 Americans with Disability Standards for Accessible Design and The Environmental Barriers Act (410 ILCS 25).

CONSTRUCTION HISTORY

The Bartlett Police Station, constructed in 1990, shares a municipal site with the Village Hall facility, constructed in 2005, of which it is connected via an enclosed link as well as hard communications underground pipeway. A 983 square foot Police Storage Garage constructed in 2006 and an existing pump house also share the site. Parking for all facilities is contained on-site.

CONSTRUCTION TYPE

The Police facility consists of a 12,826 SF grade level floor and an 8,726 SF lower level floor completely below grade. Per existing construction documents typical wall construction consists of 1'-2"inch wide masonry bearing cavity wall of 4-inch face brick, 2-inch rigid insulation, 8-inch concrete block back-up,1 5/8 inch metal stud and 5/8-inch gypsum board interior. Roof Construction consists of wood trusses 24-inches O.C. with wood sheathing. Attic insulation consists of 12-inche R-38 foil backed batt insulation. Lower Level floor is 5-inch concrete reinforced slab; grade level floor is constructed of 8-inch precast concrete planks with 2-inch concrete toppings. This is a sound and appropriate construction type for this use with adequate insulation levels.

It would appear that the construction type described above would fall under the Type IIIB construction as described under the 2012 International Building Code. Based on a Business Group B (Civic Administration) this construction type could contain a floor plate tabular area of 19,000 square feet and three stories before additional modifiers such as frontage increase and automatic sprinkler system increase are applied which have the potential to increase floor plate square footage allowance even more. Current Police grade level floor plan stands at 12,826 square feet.

EXTERIOR BUILDING CONDITION

The exterior envelope appears sound. Minor tuck-pointing should be scheduled. Per maintenance staff, asphalt shingled roofs are at or near the 15 year mark which is when this type of roofing is generally replaced. Asphalt shingles are available in 15-30 year warranties.

Wood trim is in need of repainting. Most exterior windows are believed to be Pella aluminum-clad wood windows with mini-blind within glazing. Staff has stated drafts can be felt within the building from the window units. It was also noted that ice damming at roof eaves is a typical occurrence in the winter months. Maintenance staff has advised that during heavy rain events the roof has leaked over the Records Department.

INTERIOR FINISHES

Interior finishes appear sound and in good condition. A combination of carpet tiles, painted gypsum board, ceramic tiles, acoustical ceiling tiles, painted concrete block walls, and limited exposed face brick/hardwood ceilings are evident throughout. An interior maintenance program appears to have been adhered to. Even though plastic laminate millwork was incorporated throughout it is in good condition. There is evidence of some water damage at select exterior windows. Staff has stated this is primarily from condensation dripping from supply diffusers at windows and annual ice dam issues along the east wall. It has also been commented by staff that the main lobby appears dark with the lighting currently in place.

Hollow metal door frames, lever handle hardware and solid core wood doors throughout generally appear in good condition.

ACCESSIBILITY

Due to the fact that this property is considered a Public Facility, the State of Illinois Accessibility Code would require bringing the entire facility up to all current accessibility requirements only in the event that

renovation/expansion costs exceed 50% of the replacement cost of the building. A calculation of this figure is as follows:

		21,552 square feet existing
	x	$201.25 (RS means 2013 Edition- Government Center Annex)
Chicago Metro Multiplier	=	$4,337,340. x $\frac{125}{100}$ = $5,421,675

$5,421,675. X 50% = $2,710,340.

Therefore if remodel/expansion construction dollars come in below $2,710,837 a much lesser degree of accessibility improvements would be required.

Generally speaking from an accessibility standpoint the facility is in good condition. A few issues that would need to be corrected should the remodel/expansion threshold be surpassed include:

- Single User Toilets don't meet clearance requirements.
- Showers are not accessible.
- Accessible detention cells for each sex are required.
- 5% of lockers are to be accessible.
- A number of door approaches don't comply with latch side clearance requirements.
- Millwork where sinks exist in common areas require lowered countertops and knee space below sinks.
- Landings at stairwells are currently too narrow.

POLICE OPERATIONS

A number of function / design item in the current Station should be addressed in any renovation scenario the Village may undertake. Items include:

- Evidence Storage is undersized to serve a community of Bartlett's current population. Ever-changing standards requiring length of time departments must retain evidence continue to require departments to expand their evidence holding area. There does not appear to be any Mechanical Ventilation in the current room
- Bonding Out of detains need to be redesigned. Per staff discussions police currently escort detainees out of detention, through administration and out through the main lobby. Appears the original design bonded detainees directly out of booking but led them directly into the secure police parking lot. Bond Out should occur within the detention zone and exit individuals out to an open public parking lot separating them from staff and the public who may be in the lobby.
- Cells are adequately sized with solid sliding doors. If a new design occurs the cell corridor should be widened to at least 5'-0" to help avoid close quarters conflicts with prisoner. One cell for each sex would need to be accessible.
- The current training room is too small to accommodate the department. Often the department uses the training room on the second floor of the Village Hall. In addition, the room's proximity to the main public lobby does not provide sufficient sound separation.
- Lockers in Locker Room are undersized for today's officers. Currently, they are 18-inches x 24-inches, new lockers should be at least 24-inches x 24-inches x 72-inches high with proper ventilation and electrical outlets for charging equipment.

- A dedicated area for duty bag lockers off of patrol parking would improve flow for officers. Lockers are spread out, some located in garage. The number of duty lockers has grown as the department has grown over the years.
- Moving Juvenile holding into the detention zone while providing sight and sound separation could help the efficiency of handling detainees by locating all within one larger detention zone.
- Most departments are overcrowded with individuals sharing offices designed originally for less people.
- There is no indoor parking for patrol cars. Housing of these vehicles along with their electronic equipment is becoming more and more important for departments to protect this expensive asset.

POLICE STORAGE GARAGE

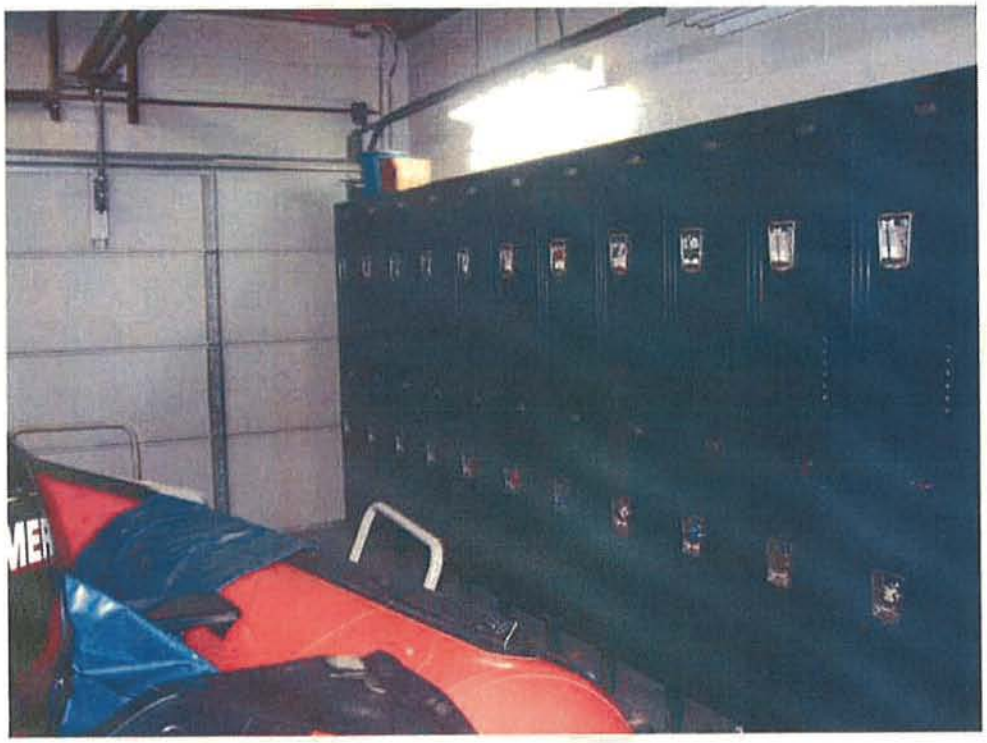
The Police Storage Garage is in good condition being recently constructed in 2006. It is currently filled with vehicles and various police equipment. A temporary holding cage for stray animals exists in this building as well.

MECHANICAL / ELECTRICAL / PLUMBING / FIRE-PROTECTION SYSTEMS

See attached report from W-T Mechanical / Electrical, LLC.

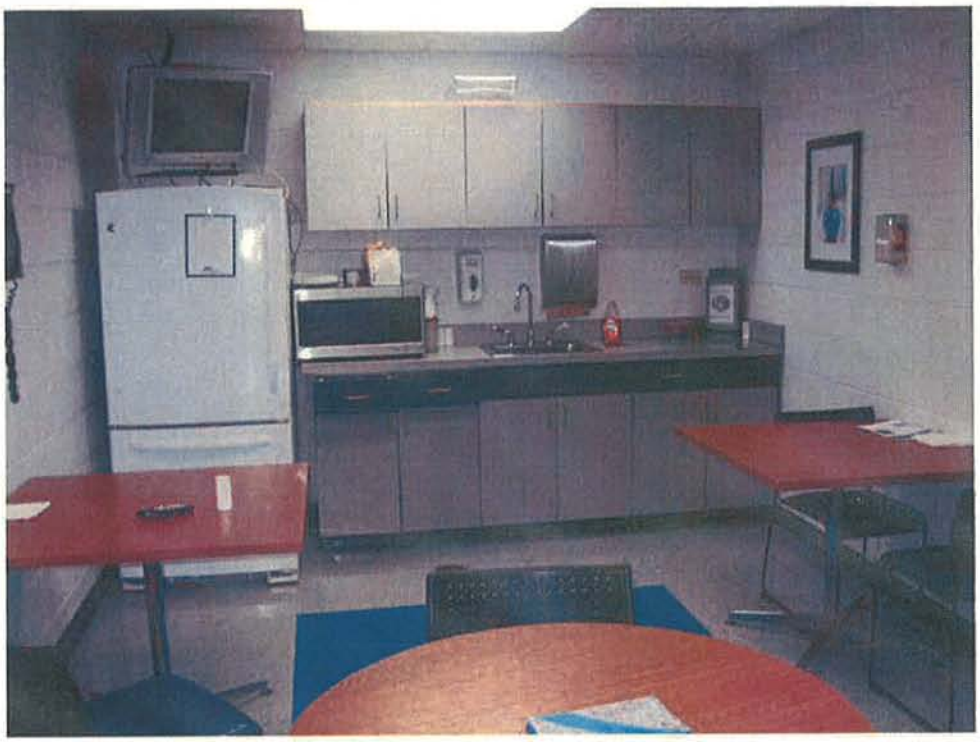
CIVIL REPORTS

See attached report from Gewalt Hamilton Associates, Inc.

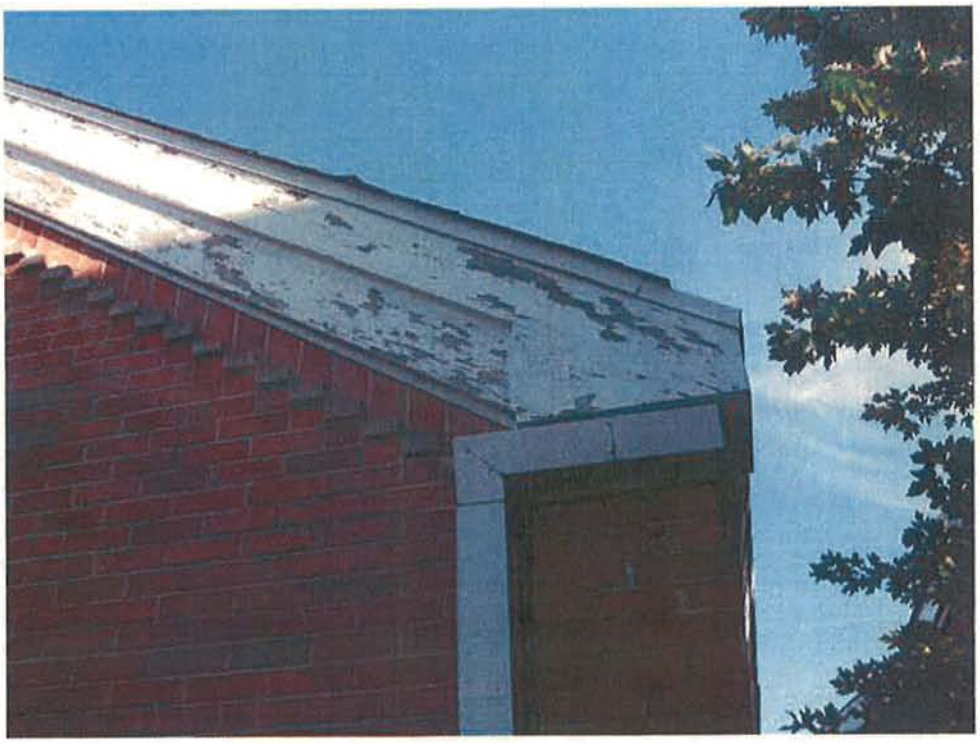


Duty-Bag lockers have over- flowed into the garage.

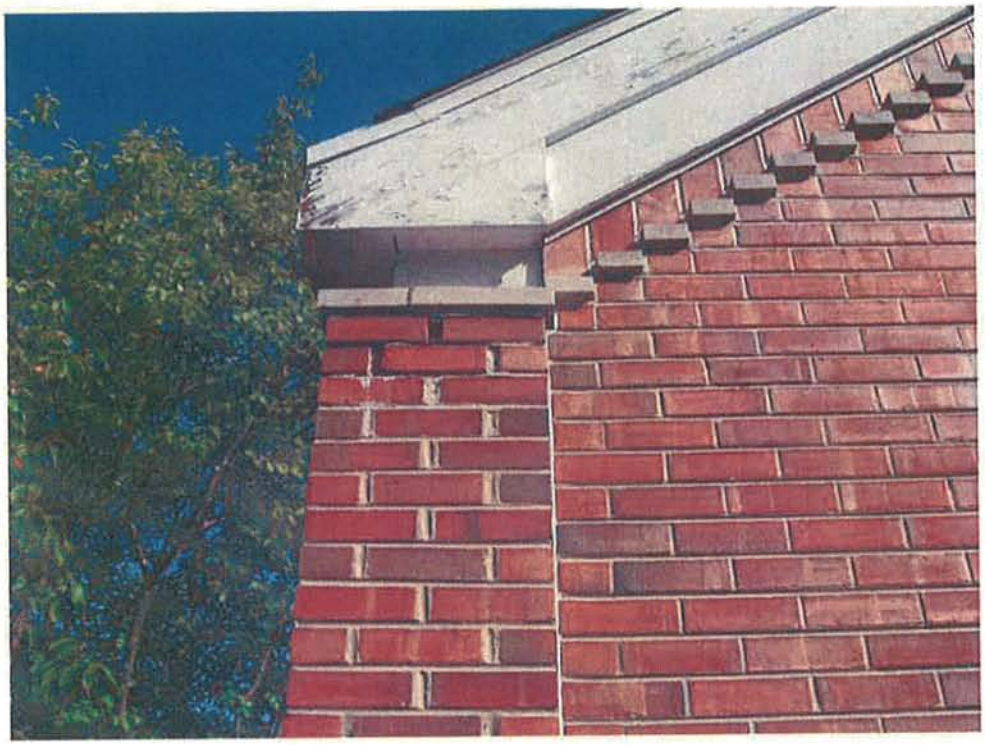
Showers with curbs are not accessible. One accessible shower stall for each sex is required.



Sinks in common areas require lower countertops and knee space below to adhere to today's accessibility standards.



Exterior wood trim should be refinished.



Minor tuck-pointing should be addressed.

September 28, 2015

Mechanical, Plumbing, & Electrical Existing Conditions Assessment

For

Bartlett Village Police Department
228 S. Main Street, IL 60103

<u>Index</u>

Mechanical
Plumbing
Electrical
Fire Protection

MECHANICAL

W-T ENGINEERING, INC.
CONSULTING ENGINEERS

System Description

The building is heated, ventilated and cooled by four (4) air handling units. AHU-1 and AHU-2 are located in the attic. These units serve the 1st floor east and west sides. AHU-3 and AHU-4 are located in the basement. AHU-3 serves the basement and AHU-4 serves the gun range. All units have hot water heating coils and AHU-1,2,3 have refrigerant cooling coils. AHU-4 is heating only.

Ventilation is ducted to each air handler from intake louvers. The AHU-1,2,3 systems have inline supply fans to inject outside air into the units to insure proper ventilation during low supply airflow conditions. AHU-4 does not have this fan as it is designed for 100% outside air.

The supply air from the AHUs is distributed to the building through variable air volume (VAV) boxes. These boxes control the amount of supply air to each zone. The boxes also have a hot water heating coil to provide heat to the zone. The VAV boxes have dampers that are controlled by wall mounted thermostats.

Hot water unit heaters provide heat in the garages. No exhaust fans in the garages.

Hot water cabinet heaters provide heat in the stairwells

Hot water is provided to the air handling units, VAV boxes, unit heaters and cabinet heaters by two (2) boilers located in the lower level mechanical room. The boilers are Burnham model 4FW-107-45-G-GP, input is 996 mbh. Two (2) floor mounted pumps, located near the boilers, distribute the hot water to all the heating coils.

Refrigerant is provided to the AHU cooling coils by air cooled condensing units located at grade outside.

All building controls are pneumatic. There is a Building Automation System (BAS) that is accessed by a local computer. The system shows input and output points for all air handling units, boilers, pumps and exhaust fans. It allows for remote adjustments to setpoints.

Toilet exhaust is provided by two (2) roof mounted exhaust fans, with branch ductwork to each toilet.

Security type supply and exhaust air devices are provided in the detention areas.

The remote garage is heated and cooled by an electric furnace and associated condensing unit located at grade. No exhaust fan in the garage.

No cooling system is provided to serve the Server equipment room.

AHU-1 in attic, typical for AHU-2

AHU-4 in basement

AHU-3 in basement

AHU-1 condensing unit (10 ton)

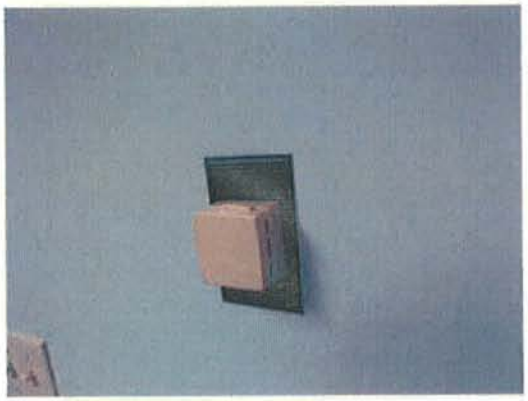
Condensing units for AHU-2 and AHU-3

HEPA filtered exhaust for firing range

Heating boiler, typical for 2

Hot water distribution pumps

Pneumatic controls panel



Typical pneumatic thermosat

Air compressor for pneumatic controls

Typical vav box with hot water coil

Rooftop unit in Tower serving entry corridor

Louvers for RTU inside Tower

Electric furnace for remote garage

Condensing unit for remote garage

Condition of Equipment

The air handling units and associated condensing unit and boiler are approximately 25 years old. The air handling units are in fair condition, however they are at the end of their expected useful lives of 25 years. The condensing units for AHU-2 and 3 are in poor condition and Maintenance staff reports having to spray water on the condensing units during hotter weather to be able to provide sufficient cooling to the building. The condensing unit for AHU-1 is in fair condition. The condensing units expected useful life is 25 years

The boilers are approximately 25 years old and in fair condition. The boilers expected useful life is 35 years.

One of the pumps is approximately 25 years old and in fair condition. Maintenance staff reports the one of the hot water pumps has recently been replaced. This pump appears to be in good condition. The expected useful life of the pumps is approximately 25 years.

Staff complain of spaces being too cold in both winter and summer. They report having to use electric space heaters all year. They feel that the thermostats are not operating properly.

Staff report condensation forming on the slot diffusers during the summer. This may be caused by excessive air infiltration at the windows.

Staff reports poor ventilation and odors in the evidence storage room. No exhaust fan is installed.

At the time of the survey the many of the zones in the lower level were cold

The electric furnace and associated condensing unit serving the remote garage are approximately 15 years old and in fair condition. The expected useful life on this equipment is approximately 15 to 18 years.

The ceiling supply and return grilles and diffusers are in fair condition.

The cabinet heaters in the stairwells are approximately 25 years old and in fair condition. The expected useful life on this equipment is approximately 18 to 20 years.

The controls system appears to be fully operational however it is an antiquated system. It is also reported to have temperature control issues that may be caused by the age of the system.

Code Violations

Current code requires the garage exhaust fans to run continuously unless they are controlled by a carbon monoxide detection system. This may have not been required when they were originally installed.

Recommendations

Much of the equipment in the building is at or past its expected useful life. It is recommended to replace the air handling units and associated condensing units. It is also recommended to replace the controls system with new DDC controls. This would require retrofitting the pneumatically controlled dampers and devices with new electric actuators. Also replace all thermostats with new DDC thermostats. Additional points should be added to allow better temperature control and diagnostics of the systems. It is recommended to have the firing range supply and exhaust systems re-commissioned to verify proper airflow and air quality in the range.

PLUMBING

W-T ENGINEERING, INC.
CONSULTING ENGINEERS

System Description

First floor

Chiefs Office Toilet 220
This room consists of (1) one wall hung flush valve water closet, (1) one countertop lavatory with single handle faucet, (1) one shower with shower wand, head, diverter vale, single handle faucet with integral drain and (1) one floor drain.

Secretary 218

This room consists of (1) one stainless steel sink with dual handle faucet

Waiting Room Toilet 215

This room consists of (1) one wall hung flush valve water closet, (1) one wall hung lavatory with single handle faucet and (1) one floor drain.

Hall 208

This room consists of (1) one single level electric water cooler

Investigations 230

This room consists of (1) one stainless steel sink with dual handle faucet

Juvenile Detention 233

This room consists of (1) combination security fixture

Janitor 326

This room consists of (1) one terrazzo mop basin with service sink faucet

Evidence Processing

This room consists of (1) one single bowl stainless steel sink with dual handle faucet and (2) two floor drains

Training Room 207

This room consists of (1) one single bowl stainless steel sink with dual handle faucet

Men's 205

This room consists of (1) one wall hung flush valve water closet, (1) one wall hung lavatory with single handle faucet and (1) one floor drain.

Women's 206

This room consists of (1) one wall hung flush valve water closet, (1) one wall hung lavatory with single handle faucet and (1) one floor drain.

Men's 248

This room consists of (1) one wall hung flush valve water closet, (1) one wall hung urinal with sensor operated flush valve, (2) countertop lavatories with sensor operated faucets and (1) one floor drain.

Corridor 247

This room consists of (1) one single bowl stainless steel sink with dual handle faucet

Women's 249

This room consists of (2) two wall hung flush valve water closet, ((2) countertop lavatories with sensor operated faucets and (1) one floor drain.

Corridor

This room consists of (1) one single level electric water cooler

Garage 235

This room consists of (2) two floor drains

Shower 269

This room consists of (1) one wall hung flush valve water closet, (1) one countertop lavatory with single handle faucet, (1) one shower with shower head, single handle metering faucet with terrazzo base integral drain and (1) one floor drain.

Male Detention Area

This area consist of (4) four combination security fixtures and (3) three floor drains

Female Detention Area

This area consist of (2) Two combination security fixtures and (1) one floor drains

Basement

Storage 329

This room Consists of (1) one duplex sump pump.

Men's Locker Room

This room consists of (1) one wall hung water closet with manual flush valve, (2) two urinals with manual flush valves, (2) two countertop lavatories with single handle faucets, (2) two showers with single handle faucets and terrazzo bases and (1) one floor drain.

Women's Locker Room

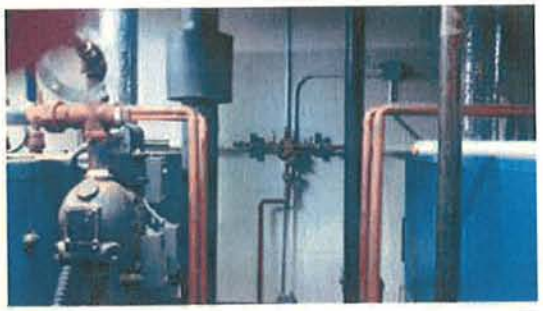
This room consists of (2) two wall hung water closet with manual flush valve, ((2) two countertop lavatories with single handle faucets, (1) one shower with single handle faucets and terrazzo bases and (1) one floor drain.

Canteen 303

This room consists of (1) one single bowl stainless steel sink with dual handle faucet

Mechanical Room

This room may consists of (1) one gas fired 75 gallon 76,000 BTU water heater, (1) one expansion tank, (1) one recirculation pump, (1) one reduced pressure backflow preventer for the boiler feed and (3) three floor drains.



General Storage 302

This room consists of (1) one 3" domestic water service, (1) one 3" meter, (1) one 3" reduced pressure backflow preventer, (1) one floor drain and (1) one duplex sewage ejector.

Firing Range

This room consists of (1) one floor drain

Building Exterior

The building exterior consists of (3) sill cocks

General Building Systems

The waste and vent system appears to consist of schedule 40 PVC above slab and the water piping system appears to be Copper.
The roof drains to a gutter and downspout system that connects to an underground system in some areas and splashes to grade in other areas.

Condition of Fixtures and Equipment

The plumbing fixtures are generally operational and in good condition.

Waste and vent piping is in good condition and appears to be in good working order.

The water piping system is in good condition and appears to be working properly.

The water heating system appears to be in good condition and working properly

Code Violations

None of the public lavatories have thermostatic mixing valves

None of the public lavatories have piping insulation

Most of the public lavatories do not have offset waste assemblies

None of the shower bases are ADA compliant

Most of the showers do not have ADA compliant trim

There is no triple oil basin for the garage areas

Recommendations

Correct code violations

Maintain fixtures, equipment and systems as required.

ELECTRICAL

W-T ENGINEERING, INC.
CONSULTING ENGINEERS

Existing System Description: Power

The electrical service to the building is an underground type rated at 800 amps, 120/208 volts, 3 phase, 4 wire. The exterior pad mounted utility transformer is located on the east side of the building and feeds a weatherproof wall mounted C/T cabinet and the main switchboard located in the mechanical room via underground conductors. It appears that the main switchboard is original to the building, installed in 1991 and has one (1) dedicated meter. The main switchboard feeds a total of nine (9) panel boards located throughout the building.

Utility Transformer

Main Switchboard

Service Meter:

This meter is located on the exterior wall near the utility transformer and measured via current transformers which is a common practice.

Panel Boards:

Panel A: 42 circuit, 225 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel B: 42 circuit, 225 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel C: 42 circuit, 225 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel S: 24 circuit, 100 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel EM: 45 circuit, 200 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel EA: 18 circuit, 100 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel EB: 30 circuit, 100 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel EP: 30 circuit, 125 amp, 120/208V, 3 phase, 4 wire main lug only.

Panel Unlabeled: 16 circuit, 100 amp, 120/208V, 1 phase, 3 wire with 100A/2P main circuit breaker.

Panel 'A'

Panel 'B'

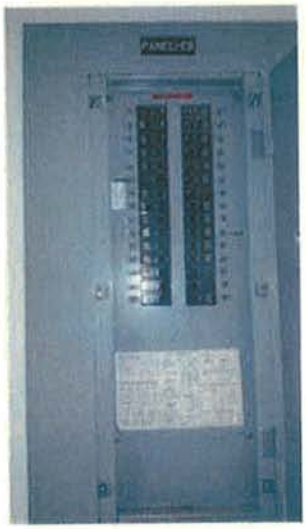
Panel 'C'

Panel 'S'

Panel 'EM'

Panel 'EA'

Panel 'EB'



Panel 'EP'

Panel 'Unlabeled'

Condition of System

The system appears to be working properly. The electrical service and main switchboard are in average condition and appears to have adequate power for the existing building. There appears to be a lack of sufficient space for additional switches and it is unclear if replacements parts are available. All panel boards are in good condition.

Code Violations

None noticed.

Recommendations

Replace and / or increase service size and main switchboard pending extent of building remodeling and or additions.

Existing System Description: Generator

The building is equipped with an exterior installed natural gas driven 60 KW, 75 KVA 120/208V 3 phase, 4 wire Onan generator with a 225 amp Onan automatic transfer switch.

Generator

Automatic Transfer Switch

Condition of System

The generator is older and in average condition. The generator is of insufficient size and does not provide the required emergency back-up power required within the building. The automatic transfer switch is in average to good condition.

Code Violations

No code violations can be found.

Recommendations

Perform a building emergency power requirement survey and report. Replace the existing generator and transfer switch system with new equipment sized for the load required by the survey and report.

Existing System Description: Fire Alarm System

The building is equipped with a Cerberus - Pyrotronics control panel. This is an old style zoned type fire alarm system with a Keltron wireless transmitter. Pull stations are located at some exterior egress doors and visual and audio/visual alarms are located within the facility.

Fire Alarm Control Panel Keltron Wireless Transmitter

Condition of System

The system appears to be original to the building and does not meet today's fire alarm standards.

Code Violations

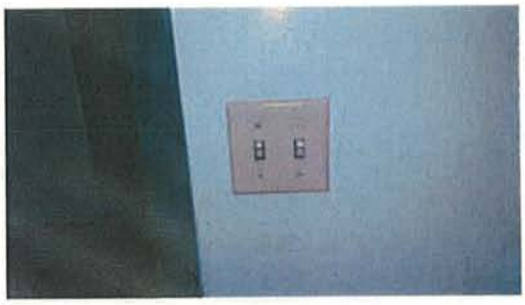
The building does not have a Fire Alarm Annunciator Panel located in the main vestibule, lacks coverage by visual and audio/visual alarms in many areas of the building and does not have the proper smoke detection present in Lock-up / Booking / Cell areas.

Recommendations

Correct code violations and install a new multiplex addressable Fire Alarm Control Panel and system.

Existing System Description: Interior Lighting Controls

Interior lighting controls consist of local area switches.



Condition of System

The switches are in good to average condition.

Code Violations

Per current 2012 IECC energy code, the lighting controls do not meet the requirement for reduced lighting capacities, building automatic shut off and daylight harvesting.

Switches for interview rooms are located within rooms.

The Lock-up and Cell area do not appear to have emergency battery lighting present and is required for officer safety.

Recommendations

Correct code violations.

Existing System Description: Interior Lighting

Interior lighting consists of T-12 lamped recessed linear fluorescent light fixtures, surface mounted T-12 lamped linear fluorescent light fixtures, recessed compact fluorescent downlights, surface mounted compact fluorescent light fixtures, and porcelain sockets with screw-in compact fluorescent lamps. Exit signs are present within the building.

Condition of System

Interior lighting appears to be in Fair condition. There is insufficient lighting present in the Main Lobby.

Code Violations

Linear lighting fixtures are still utilizing old style T-12 lamps which are not energy efficient and are also obsolete.

Recommendations

Replace the interior building light fixtures with a combination of new T-5 / T-8 lamped linear fluorescent fixtures and LED recessed cans and sconces to meet the current 2012 IECC energy code. Increase light levels as required.

<u>Existing System Description: Exterior Lighting</u>

Exterior lighting consists of metal halide 'shoebox' fixtures mounted on square steel poles, building mounted metal halide wall packs and some decorative wall lanterns.

Parking Lot Lighting

Building Mounted Lighting

Condition of System

Exterior lighting appears to be in Fair condition. One of the site poles is badly rusted.

Code Violations

Building mounted wall packs do not meet the "Dark Sky Friendly' requirements of today's lighting designs and some of the exterior man doors are lacking lighting above the door.

Recommendations

Replace the exterior building mounted light fixtures with dark sky friendly LED fixtures and provide additional fixtures as required.

Existing System Description: Receptacles

Generally, existing receptacles are rated for 20 amps with GFCI type rated at 15 amps. There are areas where surface mounted raceway and receptacles are in use. There are some receptacles connected to the emergency generator system.

Condition of System

Generally the existing receptacles are in good to very good condition.

Code Violations

The receptacles installed in the interview rooms do not appear to be tamper proof. There are no receptacles installed within the lockers for officer use. There are certain exterior areas that have mechanical equipment that do not have the required GFCI receptacle present.

Recommendations

Correct code violations.

Existing System Description: General

The vehicle entry/exit gate system at the Police vehicle parking area has been removed and is not operational.
The building is equipped with telephone and data outlets and wiring, television outlets and wiring, door access system and sound system in certain areas.

Fire Protection

W-T

W-T ENGINEERING, INC.
CONSULTING ENGINEERS

Fire Protection System Description

The fire protection system consists of one 4" water service. The fire protection system utilizes a 4" reduced pressure detector assembly (RPDA) for backflow prevention. The system has a wet pipe system for the first floor and basement and a dry type system for the attic area. The heads are semi recessed in areas with finished ceilings and upright heads in areas without ceilings. The fire department connection is a freestanding 5" Stortz connection. The main shut off valve is a freestanding post indicator valve

Condition of System

The system appears to be working properly and in good condition. The water service should be adequate to provide fire protection and/or domestic water for future remodeling or additions

Code Violations

No code violations were observed.

Recommendations

Maintain system as required.

END OF REPORT

GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS
625 Forest Edge Drive, Vernon Hills, IL 60061
TEL 847.478.9700 ■ FAX 847.478.9701
www.gha-engineers.com

To: Scott E. Lange, AIA, LEED AP
Williams Architects

From: Donald E. Dixon, P.E.

Date: September 22, 2015

Subject: Preliminary Site Evaluation - Site Due Diligence
Police Facility Expansion
Village of Bartlett, Illinois
GHA Project 5028.000

In accordance with our Professional Engineering Services Agreement, Gewalt Hamilton Associates (GHA) has performed civil engineering due diligence for the site located between South Main Street and South Oak Avenue, south of West Railroad Road Avenue in the Village of Bartlett, Illinois. GHA's scope includes utility atlas investigation, public infrastructure requirements analysis, previous Metropolitan Water Reclamation District permit review, preliminary impervious area calculations and stormwater analysis, determination of anticipated reviewing agencies, and pavement assessment. In performing the limited site investigation, GHA reviewed other documentation readily available from the internet as well as Client provided documents.

Site Description

The subject site is a 3.55 acre parcel located at 228 South Main Street, Bartlett, IL, 60103. It is bounded on the east and west by South Main Street and South Oak Street, respectively. Both of these roads are under the Village of Bartlett's jurisdiction. The parcel contains the Bartlett Police Station (228 South Main Street), Bartlett Village Hall (228 South Main Street), and Bartlett Fireman's Hall (218 South Main Street) as well as three parking lots with approximately 140 parking spots total to accommodate the facilities.

Utilities

Utility atlases for the site were acquired from the Village Engineer and a summary of our findings to date is outlined below. We have the utility atlases at the end of this memo for reference.

Water

An 8-inch ductile iron water main is indicated as being located on the west side of South Main Street and generally along the south property line of the site. A 6-inch ductile iron water main is indicated as being located generally on the west side of South Oak Street. Existing service to the site is from the 8-inch main to the south of the site.

Upon reviewing the atlas and considering anticipated future demand, re-development of the site will likely require a service connection to an 8-inch water main. This can be accomplished from either the line along the south side of the site or from the line in South Main Street.

Permitting through IEPA will be required if an extension of public water main is installed for the new service.

Sanitary Sewer

The sanitary sewer atlas shows an 8-foot deep 48-inch sanitary manhole (M.H. No. 1) currently serving the existing facility's 6-inch PVC sanitary service connection on the south end of the building. An 8-inch sanitary sewer with two structures within the parcel is located east of the facility within the Oak Avenue right-of-way. If proposed changes to the facility warrant connection to this sewer line, the existing 10-foot deep structure should be deep enough to provide service for a new building location at any point of the site. We would anticipate that a 6-inch service connection to the building would be adequate. This investigation did not analyze the capacity of the receiving system and we rely upon the Village Engineer to advise if an upgrade in the downstream piping is required.

Storm Sewer

The stormwater atlas shows that the site generally drains to the west side of the property where it discharges into an existing stormwater basin. The basin outfalls to a 12-inch storm line that runs south within the Oak Avenue right-of-way. The plans provided for review are those prepared by OWP&P prior to the relocation of the current Village Hall. We currently have a Freedom of Information Act (FOIA) request for the permit and plans associated with the Village Hall. When we have the updated Utility Plan we can provide further evaluation of the site storm sewer system; see the section below for more information.

Stormwater Management

The Village, split between DuPage County and Cook County, has adopted the DuPage County Stormwater Ordinance (DPCSO) and will need to be met to satisfy the requirements of the Village. Additionally, because the project is within Cook County and has detention facilities onsite previously permitted by the MWRD, the project will also need to satisfy the stormwater requirements of the MWRD Watershed Management Ordinance (WMO). A full review of the detention required by MWRD will not be completed until after our office receives and reviews past permit already requested.

Both the DPCSO and the WMO have requirements pertaining to rate control (detention) and runoff volume control (retention). The DPCSO rate control requirements that the Village will require only pertain to the site if there is an increase in the impervious area in excess to 25,000 sf compared to the conditions in 1992 when the original DPSCO was adopted. For the runoff volume control, the increase in impervious area is limited to 2,500 sf since April of 2013. The WMO is slightly different in that detention is required if there is an increase in impervious area, while runoff volume control is required for any impervious area within the project area, if there is an increase in impervious area or not.

After reviewing the current ordinance and currently obtained previous Sewerage Permits granted for the site, it cannot be determined if the current site has excess detention provided to accommodate any additional impervious area or meet runoff volume control requirements.

Pavement Assessment

GHA attended a site meeting to assess the existing condition of the site pavement. The Employee Parking Lot, Main Parking Lot, and Police Department Parking Lot were assessed and generally suffering from cracking due to age, not base failure. The sidewalks and curbs are in need of joint repair. If replaced, sidewalks need to be

updated to be ADA compliant with new detectable warning plates and verified acceptable slopes. See the attached memorandum which addresses the detailed findings of the site visit.

Permits

The following table outlines permits that may be required for the proposed project:

Permitting Agency	Permit Title	Notes
Metropolitan Water Reclamation District of Greater Chicago	WMO	Connection to sewerage system and Stormwater Management Criteria (Legacy Permit)
Illinois Environmental Protection Agency	NPDES	Required for site disturbance greater than 1 acre.
Illinois Environmental Protection Agency Division of Public Water Supplies	Sewer Construction	Required if proposed sewer connection has flow greater that 1,500 gal/day.
Illinois Environmental Protection Agency Division of Public Water Supplies	Water Construction	Required if a public water main is being relocated or added.
Illinois Historic Prevention Agency	Historic Structures and Artifacts Consultation	Consultation conducted as part of the NPDES permit process.
Illinois Dept. of Natural Resources	Endangered Species Consultation Agency Report	Consultation conducted as part of the NPDES permit process.
Village of Bartlett	Demolition Permit	
	Site Plan Review	
	Building Permit	
	Stormwater	DuPage County Stormwater Ordinance

Note: Additional permits may be required based on the specific proposed changes to the site.

Ecological Compliance

Based on the IDNR Ecological Compliance Tool (EcoCAT), the Illinois Natural Heritage Database has no record of threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Natural Preserves, or

registered Land and Water Reserves in vicinity of the project location. A copy of the EcoCAT review results is included at the end of this memo.

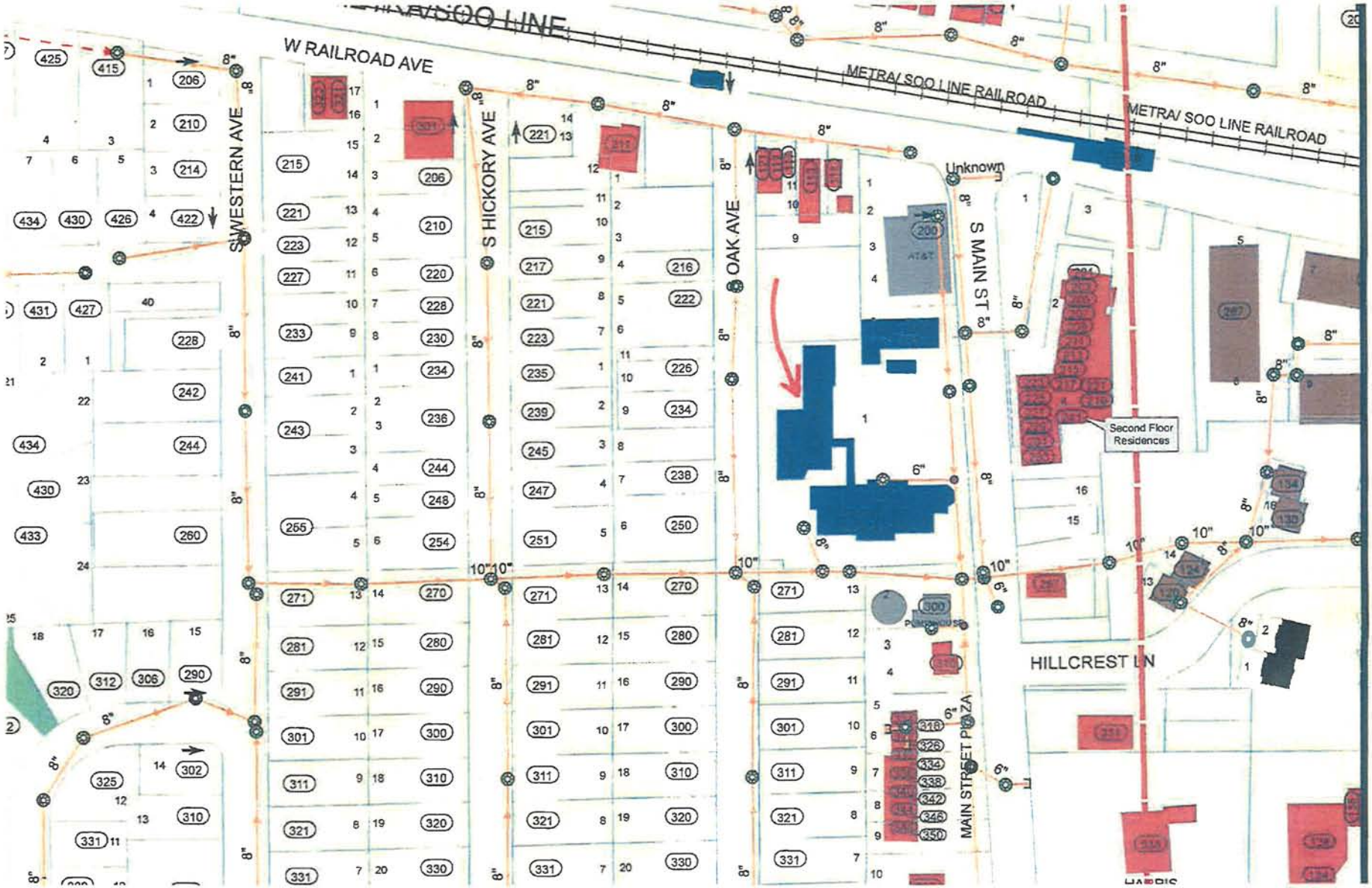
Summary

As an active fully developed site, all utilities required for facility support are already in place. Pavement remediation will likely involve removal and replacement of all paved areas within the project limits. Paved areas being returned to pavement may be able to utilize the existing stone base, dependent upon change in grades and installation of underground utilities. Sidewalk and pedestrian routes will need to be evaluated for conformance to ADA requirements after site topography is obtained. Parking requirements and accommodation will need to be evaluated as part of the site selection process. Determination of stormwater detention and volume control requirements is still underway. We will update this memorandum upon receipt of additional permit information we are currently awaiting from MWRD.

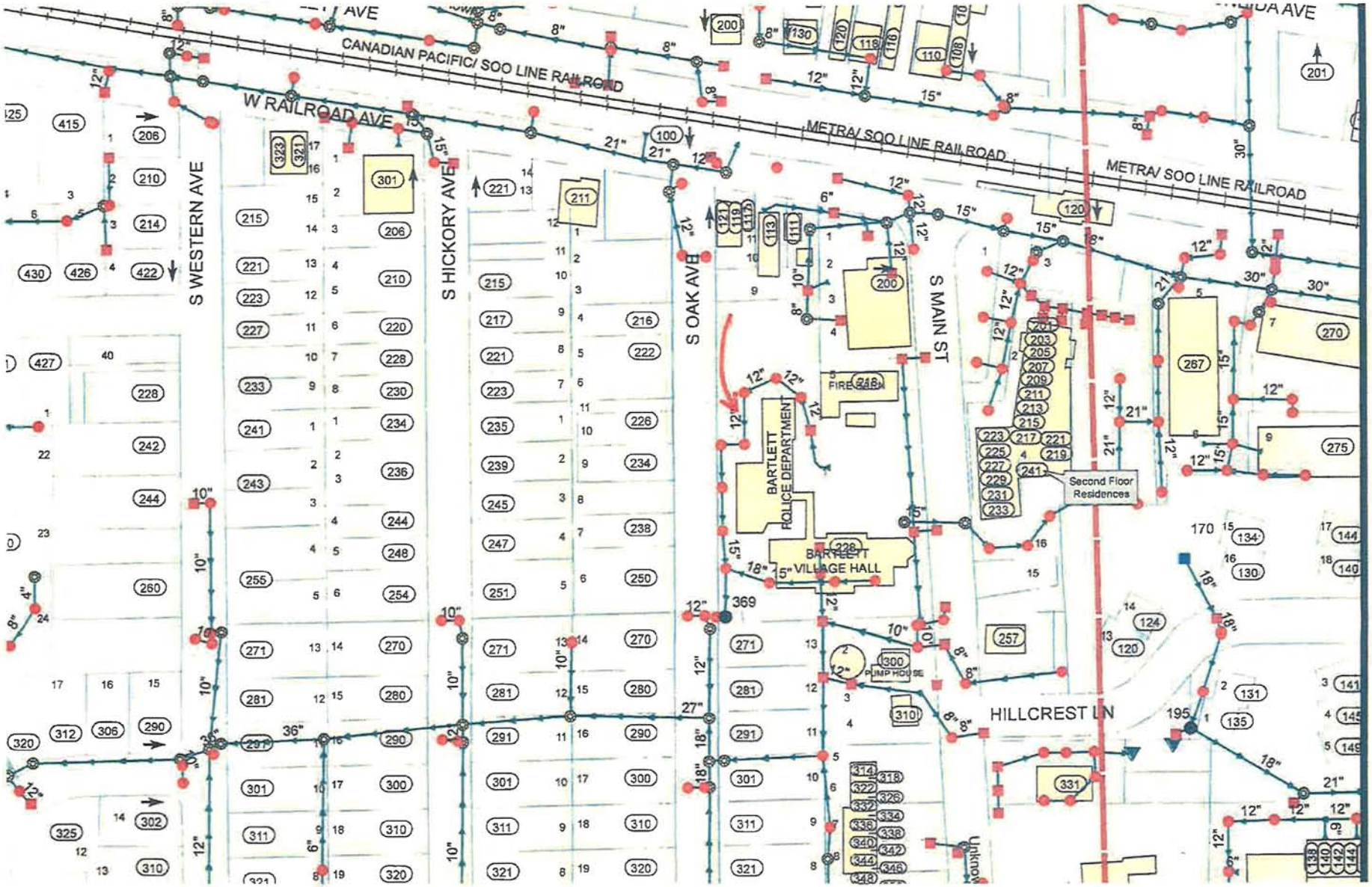
Reconstruction of the Police Facility on the existing should be feasible dependent upon the layout and orientation of the building. Additional stormwater detention to meet the current ordinance is anticipated but at this time we don't believe this will be to the extent that would render this site unfeasible.

END OF MEMORANDUM

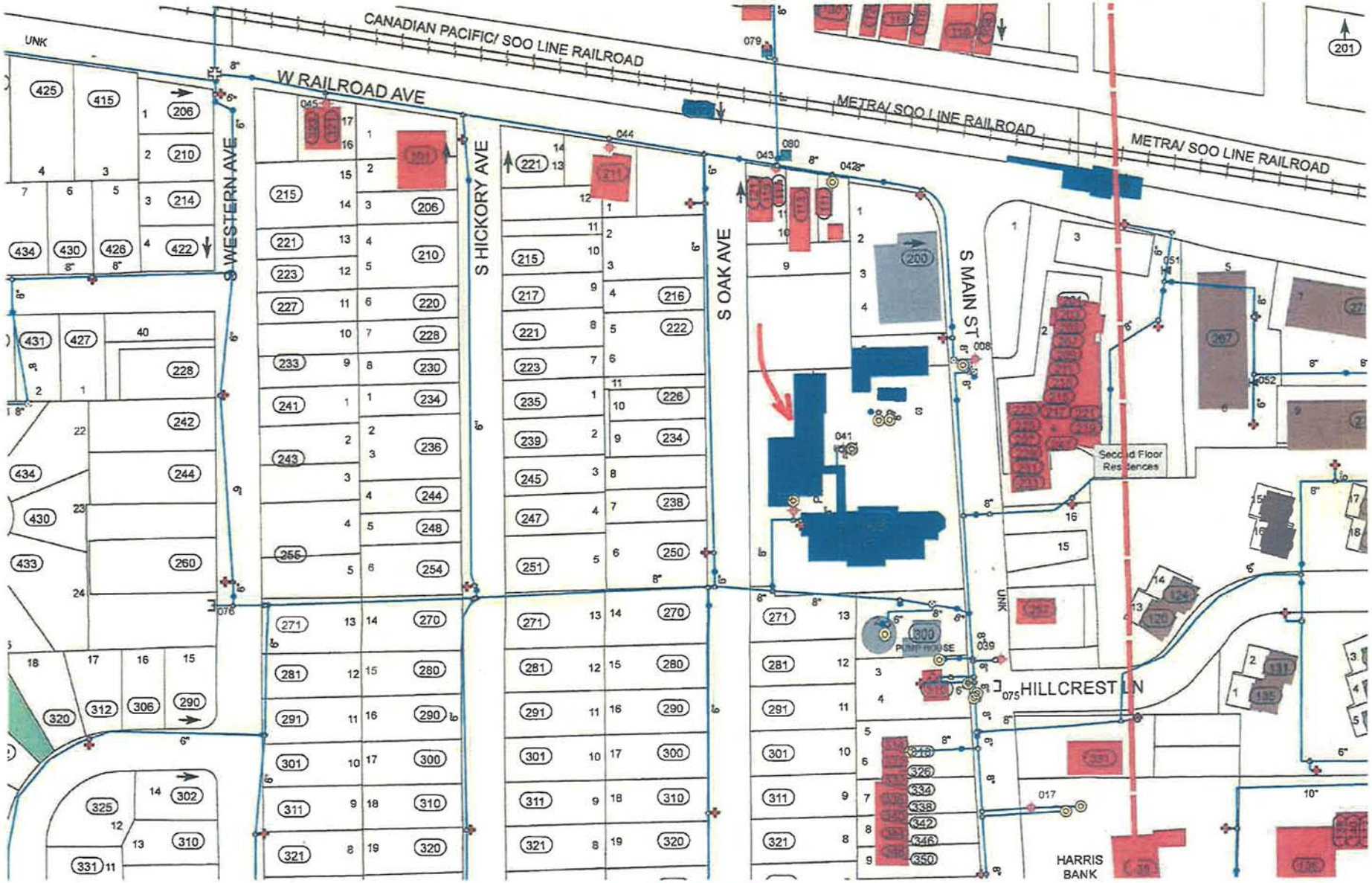
Enclosed: Utility Atlases
Detention Information
Pavement Assessment Memorandum
EcoCAT Review Results


W RAILROAD AVE
METRA/ SOO LINE RAILROAD
METRA/ SOO LINE RAILROAD
S WESTERN AVE
S HICKORY AVE
S OAK AVE
S MAIN ST
MAIN STREET PLAZA
HILLCREST LN
Unknown
Second Floor Residences
AT&T

Sanitary


CANADIAN PACIFIC/ SOO LINE RAILROAD
W RAILROAD AVE
METRA/ SOO LINE RAILROAD
METRA/ SOO LINE RAILROAD
S WESTERN AVE
S HICKORY AVE
S OAK AVE
S MAIN ST
HILLCREST LN
BARTLETT POLICE DEPARTMENT
FIRE
BARTLETT VILLAGE HALL
PUMP HOUSE
Second Floor Residences

STORM


CANADIAN PACIFIC/ SOO LINE RAILROAD
METRA/ SOO LINE RAILROAD
METRA/ SOO LINE RAILROAD
W RAILROAD AVE
S WESTERN AVE
S HICKORY AVE
S OAK AVE
S MAIN ST
HILLCREST LN
HARRIS BANK
PUMP HOUSE
Second Floor Residences
UNK

WATER

OFFICE COPY

MSDGC Permit No. 90 274
IEPA Log No. _____
Rempe-Sharpe Project No. BRT-01

SEWERAGE SYSTEM PERMIT

THE
METROPOLITAN SANITARY DISTRICT
OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS 60611 - 751-5600

INSTRUCTIONS FOR FILLING FORMS: Submit *typed forms of permit* and schedules in quadruplicate; complete all information or indicate non-applicability; do not leave any blank spaces; use "X" for checking applicable information. Submit four copies of location map, plans and all applicable schedules. Submit two copies of specifications, where applicable. *Address all correspondence to Local Sewer Systems Section;* for any inquiries or assistance, telephone 751-5789.

NAME AND LOCATION:
Name of project (as shown on plans): Bartlett Village Hall and Police Headquarters
Location of Project (street address or with respect to two major streets): Main and Oak Streets

Municipality (Township, if unincorporated) Bartlett
Section 34, Township 41 N, Range 9 E.
Is project in MSDGC combined sewer area Yes [X] No [X]

(OFFICE USE ONLY: X 1010150, Y 1010611, Code 1015,
Receiving STP and/or Lift Station HAN.)

DOCUMENTS BEING SUBMITTED: If project involves any of the items listed below, submit the corresponding schedule.

- X Basic Information (Required in all cases) ..... Schedule A
- X Sewer Connection(s) ..... Schedule B
- ___ Sewer Extension(s) ..... Schedule C
- X Detention Facilities ..... Schedule D
- ___ Lift Station and/or Force Main ..... Schedule E
- ___ Characteristics of Waste Discharges ..... Schedule F
- ___ Treatment or Pre-treatment Facilities ..... Schedule G
- ___ Certification Relative to Compliance with Art. 4-1, 6-2d, and 6-3b ..... Schedule H
- ___ Affidavit Relative to Compliance with Art. 4-1, 6-2d, and 6-3b ..... Schedule J
- X Affidavit of Disclosure of Property Interest ..... Schedule K
- ___ Notice of Requirements for Storm Water Detention ..... Schedule L
- ___ Affidavit Relative to Compliance with Art. 6-4 ..... Schedule M

OTHER DOCUMENTS: Indicate title, number of pages and originator:
Engineering Improvement Plans (8 sheets)
prepared by: Rempe-Sharpe and Assoc., Geneva, Illinois.

90 274

GENERAL CONDITIONS OF THE PERMIT

1. **Adequacy of Design.** The schedules, plans, specifications and all other data and documents submitted for this permit are made a part hereof. The responsibility for the adequacy of the design shall rest solely with the Design Engineer and the issuing of this permit shall not relieve him of that responsibility. The issuance of this permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-Permittee or Design Engineer of their respective responsibilities.

2. **Joint Construction and Operation Permits.** Unless otherwise stated by the Special Conditions, the issuance of this permit shall be a joint construction and operation permit provided all General, Standard and Special Conditions are complied with.

3. **Allowable Discharges.** Discharges into the sanitary sewer system constructed under this permit shall consist of sanitary sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this permit. Storm waters shall not be permitted to enter the sanitary sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the sanitary sewer system.

4. **Construction Inspection.** All sewer construction shall be inspected and approved by a Registered Professional Engineer acting on behalf of the Permittee or the owner of the project, or by a duly authorized and competent representative of the Professional Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation.

5. **Maintenance.** The sewer connections, lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the property served, the owner and/or the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property.

MSDGC STANDARD CONDITIONS

6. **Indemnification.** The Permittee shall be solely responsible for and shall defend, indemnify and save harmless the Metropolitan Sanitary District of Greater Chicago (hereinafter MSDGC) from and against any and all claims, costs, damages, or expenses the MSDGC may suffer, incur, sustain or become liable for on account of any injury to, or death of, any person or persons, or any damage to, or destruction of, any real or personal property that may be caused by the construction, use, state of repair, operation and maintenance of the proposed facilities, arising out of or in consequence of the issuance of this permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and save harmless the MSDGC from any claims or damages arising out of or in connection with the termination or revocation of this permit.

7. **Construction by MSDGC.** Permittee understands and acknowledges that the MSDGC has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this permit is issued, and that by the MSDGC constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits.

   Therefore, by accepting this permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the MSDGC of any and all claims whatsoever which Permittee may now have or hereafter acquire and which Permittee's successors and assigns hereafter can, shall, or may have against the MSDGC for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the MSDGC of sewer service facilities in the service area contemplated by this permit, the rendering of such services, which MSDGC facilities and services decrease the value of the facilities constructed by the Permittee under this permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under Illinois Revised Statutes, Chapter 42, Section 339; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease in value of Permittee's land.

8. **Third Parties.** This permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the MSDGC or of any other parties.(b) to construct outside of the territorial boundaries of the MSDGC,(c) to construct or encroach upon the territorial boundaries of any units of local government within the MSDGC,(d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.

9. **Costs.** It is expressly stipulated and clearly understood that the sewerage system or facilities for which the permit is issued shall be constructed, operated and maintained at no cost to the MSDGC.

LOCAL SEWER SYSTEMS
FIELD OFFICE
MWRD OF GREATER CHICAGO

OFFICE COPY

MSDGC Permit No. 90 274
IEPA Log No. _____

1990 MAY 22 AM 6:48

Schedules To Be Submitted With MSDGC And IEPA Joint Permit Application

SCHEDULE A - BASIC INFORMATION

1. PROJECT INFORMATION:
Name of project (as shown on plans) Village of Bartlett / Village Hall Expansion
Location of project (street address or with respect to two major streets) Oak Street and Main Street
Municipality (Township, if unincorporated) Bartlett, IL

2. APPROXIMATE TIME SCHEDULE:
Sewerage Facilities Construction Schedule: Start of Construction 5/90 ; Date of Completion 6/90 .
Occupancy Schedule: Date Occupancy Begins 8/90 , 100% Occupancy to be reached by 8/90 .

3. APPURTENANCES:
Project includes the following: (check applicable items by "X") Manholes [X]; Catch basins or inlets [X]; Catch basin restrictors [X]; Drop Manholes [X]; Stream Crossing [ ], Siphon [ ], Direct Connections to MSDGC Facilities [ ].

4. RECEIVING SANITARY SEWER SYSTEM:
System to which project will connect is existing [X]; proposed [ ], under construction [ ]. If proposed or under construction by applicant, indicate MSDGC Permit No. _____, IEPA Permit No _____]. Identify owners of all sewer systems from project to MSDGC interceptor VILLAGE OF BARTLETT.
If project discharges directly or indirectly to a local combined sewer, the receiving combined sewer does [ ], does not [ ] have an overflow. If overflow exists, discharge is made to _____ by means of _____.
(FOR OFFICE USE: Receiving MSDGC Treatment Plant and or Lift Station _____.
Point of Discharge of Sanitary Sewers; X [ ] , Y [ ] , Code [ ] ,
SB [ ])

5. EXISTING LIFT STATION:
Receiving system includes an existing local Lift Station Yes [ ], No [X]. Project is [ ], is not [X] in design service area of lift station. Location of existing lift station _____; Rated capacity of lift station _____ gpm; MSDGC or other permit number under which lift station was constructed _____.
Existing lift station does [ ], does not [ ] have stand-by power, does [ ], does not [ ] have an overflow, if there is an overflow, overflow discharges to storm sewer [ ], to waterway [ ], name of waterway _____.

6. FLOOD PLAIN:
Project area is partially (or totally) in flood plain Yes [ ], No [X], if yes, complete the following: Percent of area in flood plain _____ %. Flood crest elevation is _____, Name of USGS Quadrangle _____.
Volume of flood storage available prior to development (Volume between flood crest elevation and existing ground) _____ Cu. Yd. Volume of fill made in flood plain _____ Cu. Yd. Compensatory storage provided _____ Cu. Yd.
Identify any manholes in flood plain _____.

7. AREA AND DRAINAGE OF PROJECT:
Area of this project 2.54 acre(s). Total contiguous property owner has, including this project, 2.54 acre(s). Existing impervious area within project, if any (paved, roofed, etc.) 1.45 acre(s). New impervious area created within project (paved, roofed, etc.) 0.23 acre(s). Manner of drainage: Storm sewer provided [X]; Catch basins or inlets [ ]; Surface runoff [ ]; Other [ ], describe _____.

8. DETENTION:
Detention is provided under this permit: Yes [X], No [ ]. Detention required by MSDGC [ ], local government [X], other [ ], describe _____.
Method of detention Detention reservoir [ ]; Roof detention [ ] Detention on parking area or ground [X].
Restriction of storm outlet [X], pipe size of restriction 4 inch, other method _____.
Total area served by the detention facilities proposed 2.97 acre(s); (Submit calculations and contour/grading map of the service area). Actual detention volume provided 0.28 acre-feet, actual release rate 1.10 cfs (submit calculations). This project is part of the service area of an existing detention reservoir: Yes [ ], No [X]. Indicate MSDGC permit number covering the detention reservoir, No. _____, or submit drawings and calculations.

MSDGC USE ONLY Point of discharge of storm waters, X [ ] , Y [ ] , DB [ ]

OFFICE COPY

MSDGC Permit No. 90 274
IEPA Log No. _____

SCHEDULE B - SEWER CONNECTIONS

BUILDING INFORMATION: Building sewer connections are [ ] are not [ ] part of this permit, if part of this permit, complete the following:

1. **TYPE OF CONSTRUCTION:** Residential [ ], Commercial [ ], Light Industrial [ ], Manufacturing [ ], Recreational [ ], Existing Septic System to be abandoned [ ], Other Village Hall.

2. **RESIDENTIAL BUILDINGS:** Single Family [ ], Multiple Family [ ]. If single family: Total dwelling units _____; Estimated total population _____. If multiple family: Number of buildings _____; Number of dwelling units per building _____; Total number of sewer connections _____; Estimated total population _____.

3. **NON-RESIDENTIAL BUILDINGS:** Describe use of building Village Hall and Police Station. Product manufactured or process used NOT APPLICABLE - DOMESTIC USE ONLY. Number of buildings to be served under this permit 1. Number of sewer connections under this permit 1. Estimated number of employees 105. Estimated number of occupants (transients) 50. Estimated total flow 3375 gpd. Population equivalent (If based on BOD, use IPCB basis) 34.

4. **BUILDING USE:** Use of building will involve the following: Food preparation Yes [ ] No [X]; Food processing Yes [ ] No [X]; Auto Service Yes [ ] No [X]; Auto Wash Yes [ ] No [X]. If building involves any of these uses, indicate if sewer connections will receive domestic sewage only [X], will receive other wastes (commercial, not industrial) [ ]; if wastes other than domestic are discharged, indicate method of control being provided: Grease separator [ ], Triple Basin [ ], Mud Basin [ ], other [ ] specify _____. Indicate whether control is inside [ ], or outside building [ ]. Industrial waste is [ ], is not [ ] produced by the intended use of the building. (Unless permitted under the special conditions, discharge of industrial waste is prohibited). If industrial waste is produced, submit Schedule F, indicate method of disposal _____. This project includes a swimming pool: Yes [ ], No [X]; if yes, submit piping drawings.

5. Complete summary of Sanitary Sewers on Schedule C.

SCHEDULE C - SEWER EXTENSIONS

NATURE OF PROJECT: Project consists of single sewer extension to serve the building(s) indicated above (no further extensions anticipated) [X]; Consists of a sewer system (to serve a subdivision) [ ]; Consists of a trunk sewer only (outlet sewer with no proposed connections) to serve future development [ ]. Project is publicly financed Yes [X], No [ ].

AREA AND POPULATION: Submit a map of service area and complete the following:

1. Area serviceable by the sewers covered by this permit (including area to be served hereunder) _____ acres; population _____.

2. Potential service area of sewers covered by this permit, including planned or anticipated extensions _____ acres; population _____.

3. Design flow: average (if based on other than 100 gpcpd) _____ gpcpd. Maximum design flow as percent of average _____. (Use MSDGC Manual of Procedures, Article 3 - 7).

4. Basis of design for area zoned or planned for non-residential use Average design flow _____ gpd/acre. Maximum design flow as percent of average _____.

SUMMARY OF SANITARY SEWERS (INCLUDE ALL SEWERS IN COMBINED SEWER AREA): Include building service sewers (stubs or risers) if any.

Pipe size - inches	8"						
Total length - feet	142 ✓						
Min slope used - %	5.78% ✓						
Max slope used - %	5.78% ✓						
Pipe Material & Spec.	PVC ASTMD-3034	✓					
Joint Material & Spec.							
Total Manholes	2						
Total Cleanouts	0						

90 274

MSDGC Permit No. _____

IEPA Log No. _____

SCHEDULE D - DETENTION*

I. Project Information

Name of Project (as shown on plans) Bartlett Village Hall

Location _____

Design criteria: MSDGC [X]; Local Government [ ]; Other [ ] _____

II. Determination of Allowable Release Rate - Undeveloped Site:

1.	Area of site	2.54	acres
2.	Average ground slope	0.018	foot/foot
3.	Overland flow distance	370	feet
4.	Overland flow time of concentration	22	minutes
5.	Average slope of channelized flow (See Note a)		foot/foot
6.	Channelized flow distance (See Note a)		feet
7.	Channelized flow time of concentration		minutes
8.	Total time of concentration (Line 4 + Line 7)	22	minutes
9.	Rainfall intensity for three-year storm	2.89	inches/hr.
10.	Runoff coefficient (Use c=0.15 as maximum, see Article 6-4b(1) of the MSDGC Manual)	0.15	
11.	Allowable release rate, (line 1 x line 9 x line 10 Q=CiA)	1.10	cfs.

Note a: For flow in a well defined channel determine time of concentration from measured lengths, cross-sections and slopes and submit necessary calculations and drawings.

III. Determination of Reservoir Size - Developed Site:

12.	Impervious drainage area	1.45	acres
13.	Pervious drainage area	1.09	acres
14.	Composite runoff coefficient (c). (Submit calculations)	0.63	
15.	Required reservoir capacity (Submit calculations)	0.28	acre-feet

IV. Permissible Bypass Rate through Development Site from Upstream Area: N/A

16.	Total area upstream		acres
17.	Future/present impervious area (cross out inappropriate case)		acres
18.	Future/present pervious area (cross out inappropriate case)		acres
19.	Composite runoff coefficient (Must not be less than 0.35 per MSDGC Manual of Procedures Article 6-4b(2)		
20.	Design storm frequency for the upstream area (Design storm frequency shall be as determined by local ordinance, if no local requirement is established, use 5-yr. storm frequency.)		year
21.	Time of concentration for the upstream area at point of entry; upstream area to be considered as developed. (By same method as line 8)		minutes
22.	Design storm intensity for above duration		inches/hour
23.	Permissible bypass rate (line 16 x line 19 x line 22)		cfs.

*If more than one detention reservoir is provided, submit separate schedules and calculations as necessary.

Engineering Firm Rempe-Sharpe & Assoc., Geneva, IL

P.E. SEAL

Signature _____ Date 5-1-90

(Name and Title)

90-274

IEPA Log No.

ENGINEERING CERTIFICATIONS

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, Local, State and Federal Laws, and design criteria of the issuing authority, that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that, where the design involves one or more connections to an existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Engineering Firm: Rempe-Sharpe & Assoc., Inc. Telephone (708) 232-0827

Address: 324 W. State St., P. O. Box 32 City Geneva, IL Zip 60134

P.E. SEAL

Signature _____ Date 5-1-90

(Name and Title)
James J. Bibby

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Owner of Local Sewer System Village of Bartlett

Municipal Engineer: Pavia-Marting & Co. Inc Telephone (708)529-8000

Address: 130 Elm Street City Roselle, Illinois Zip 60172

DALE V. MARTING 62-23264 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS P.E. SEAL

Signature _____ Date 5-11-91

(Name and Title)
Dale V. Marting/Village Engineer

CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application, that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the permit requirements; that a set of "As-Constructed" drawings, certified to be correct, over the signatures of both the Contractor and the Undersigned Engineer will be furnished to the MSDGC within sixty (60) days after testing and approval by the District of the completed work.

Engineering Firm: Pavia-Marting & Co. Telephone (708) 529-8000

Address: 130 East Elm Street City Roselle, Illinois Zip 60172-2084

GEORGE H. WENTWORTH JR. 34807 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS P.E. SEAL

Signature _____ Date 5/17/91

(Name and Title)
Plan Review Engineer

OFFICE COPY

10. **Other Construction.** The MSDGC reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers and appurtenances thereto at the point of connection of any sewerage system to an MSDGC interceptor and/or in public right-of-ways of MSDGC easements, and to introduce additional sewage flow through this connection into the intercepting sewer of said MSDGC.

11. **Change of Use.** This permit shall be incorporated in the Building and Occupancy Permit for the building or buildings served under this permit. The owner or occupant of any building served under this permit shall not cause or permit, a change of use of the building to a use other than that indicated in this permit without first having obtained a written permission from the General Superintendent of the MSDGC.

12. **Interceptors Overloading.** The MSDGC hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed systems shall be constructed, operated and maintained at the sole risk of the Permittee.

13. **Non-Transferability.** This permit may not be assigned or transferred without the written consent of the General Superintendent of the MSDGC.

14. **Termination.** It is understood and agreed that in the event the Permittee shall default in or fail to perform and carry out any of the covenants, conditions and provisions of this permit and such default or violation shall continue for sixty (60) days after receipt or notice thereof in writing given by the General Superintendent of the MSDGC, then it shall be lawful for the MSDGC at or after the expiration of said sixty (60) days to declare said permit terminated. The Permittee agrees that immediately upon receipt of written notice of such termination it will stop all operations, discontinue any discharges and disconnect the sewerage system or facilities constructed under this permit. If the Permittee fails to do so, the MSDGC shall have the right to disconnect said system. The Permittee hereby agrees to pay for any costs incurred by the MSDGC for said disconnection. The various rights and remedies of the MSDGC contained in this permit shall be construed as cumulative, and no one of them shall be construed as exclusive of any one or more of the others or exclusive of any other rights or remedies allowed by applicable rules, regulations, ordinances and laws. An election by the MSDGC to enforce any one or more of its rights or remedies shall not be construed as a waiver of the rights of the MSDGC to pursue any other rights or remedies provided under the terms and provisions of this permit or under any applicable rules, regulations, ordinances or laws.

15. **Expiration.** This permit shall expire if construction has not started within one (1) year from the date of issue. Construction under an expired permit is deemed construction without a permit. All construction under this permit shall be completed within two (2) years after start of construction. If conditions so warrant, an extension may be granted. For publicly financed projects (e.g. special assessments) the one (1) year period indicated will be considered from the date of final court action.

16. **Revocation.** In issuing this permit, the MSDGC has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this permit, and all the rights of the Permittee hereunder shall immediately become null and void.

17. **Advance Notice.** Prior to commencement of construction under this permit, the Permittee shall give the MSDGC an advance notice of at least two working days. When advance notice is given, the Permittee shall provide the permit number, municipality and location.

18. **Compliance with Plans and Specifications.** All construction shall be in accordance with the plans and specifications submitted for this permit and made a part hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or permit requirements shall be permitted unless revised plans shall have been submitted to, and approved by, the MSDGC. The permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the job site at all times during construction until final inspection and approval by the MSDGC.

19. **Testing and Approval.** All construction under this permit shall be subject to inspection, testing and approval by the MSDGC. All testing shall be made, or caused to be made, by the Permittee at no cost to the MSDGC and in the presence of the MSDGC representative. Upon satisfactory completion of construction, the Permittee and the owner shall submit, or cause to be submitted, a completion certificate and request for approval on the form prescribed by the MSDGC. No sewer or other facilities shall be put in service until all the conditions of the permit have been satisfactorily met.

20. **"As-Constructed Drawings."** Within sixty (60) days after final inspection and approval by the MSDGC, the Permittee shall furnish, or cause to be furnished to the MSDGC, a set of "As-Constructed" drawings, or a statement that the project was constructed in accordance with the original plans and specifications.

21. **Compliance with Rules and Regulations.** The Permittee hereby expressly assumes all responsibilities for meeting the requirements of all applicable rules, regulations, ordinances and laws of Local, State and Federal authorities. Issuance of this permit shall not constitute a waiver of any applicable requirements.

SPECIAL CONDITIONS FOR PERMIT NO. 90-274

1. The stormwater detention facilities shown on the drawings are provided in accordance with local requirements. The detention is provided by ponding on the parking area with a 4 inch diameter restrictor.

2. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner, and said Affidavit is incorporated herein and made a part hereof.

OFFICE COPY

MSDGC Permit No. 90-274
IEPA Log No.

SPECIAL CONDITIONS: This permit is issued subject to the MSDGC's General Conditions, Standard Conditions and the following Special Conditions:

SEE ATTACHED SHEET

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this permit application, and agree to conform to the permit conditions and other applicable requirements of the MSDGC. It is understood that construction hereunder, after the permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the MSDGC. It is further understood that this application shall not constitute a permit until it is approved, signed and returned by the Chief Engineer of the MSDGC.

Title to permit premises is held in a land trust: Yes[ ], No [ ]. If yes, disclosure of beneficiaries is required.

If permit is granted: please return two copies of the permit to the Permittee [ ] /Please mail one copy to Permittee and one copy to the person designated below [ ]:

Name _____ Address _____

PERMITTEE	CO-PERMITTEE*
Municipality Village of Bartlett	Owner
Address 103 S. Main Street	Address
Bartlett Zip 60103	Zip
Signature Valerie L. Salmons	Signature
Name & Title Valerie Salmons Village Administrator	Name & Title
Date 5/15/90 Phone (708)837-0800	Date Phone

*(As required by MSDGC Ordinance; in other cases, as requested by Permittee)

REVIEW AND APPROVAL BY THE MSDGC

Reviewed by Raymond Szyrlo (Local Sewer Systems) Date 9.18.91

Approved for Issue:

THE METROPOLITAN SANITARY DISTRICT OF GREATER CHICAGO

Date of Issue: 9/18/91 By: [signature] for the (Chief Engineer)

Schedule K

OFFICE COPY

MSD Permit Application No. 90-274

AFFIDAVIT OF DISCLOSURE OF PROPERTY INTEREST

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

(Affidavit to be submitted with all permit applications in separate sewer areas.)

Name of Project: Village of Bartlett/Village Hall Expansion

Location of Project: Oak Street and Main Street, Bartlett, Illinois

A. Valerie L. Salmons, after first being duly
(Name of Affiant - Type or Print)
sworn under oath, states that he is (the owner and record title holder), (a principal beneficiary of land Trust No. _____, held by _____ as Trustee), (an Officer
(Name of Trust Holder)
Village Administrator of Bartlett, Illinois Corporation), (a
(official capacity) (Name of Corporation)
General Partner of _____ Partnership), which is the record title holder
(Name of Partnership)
the property which is the subject of a certain sewerage system permit application (covering the project indicated and designated by the number shown above) filed with the Metropolitan Sanitary District of Greater Chicago, which property is shown on the attached plat of survey which together with the legal description of the property are attached hereto as Exhibit "A" and specifically incorporated by reference herein.

B. Affiant further states that said property described in Exhibit "A" has a total area of 3.75 acres and constitutes the total contiguous ownership of the owner, and that the portion of the property currently proposed for development consists of 3.75 acres, and the property is intended for use as described hereinafter: Village Hall and Police Station

*C. Affiant further states that, because of its size and intended use, the property described in Exhibit "A" comes under the requirements of the MSDGC with respect to the establishment of on-site storm water detention, and that such detention facilities will be provided as part of the project in accordance with the design and calculations furnished to satisfy said requirements with respect to the property described in Exhibit "A", and further states that:

1. The owner of the property or any beneficiary of a land trust, if any, which is the record title holder of the property has no present interest, nor had any interest at any time during the previous two years, in any lands contiguous to said property. (If such interest is or was held, detention must be provided for the total.)

2. No owner of any lands contiguous to the property and no beneficiary of a land trust, if any, which is the record title holder of any land contiguous to the property has any interest in the property. (If such interest is held, detention must be provided for the total.)

3. Affiant understands and agrees that any permit issued by MSDGC in reliance upon this affidavit shall be deemed to contain a special condition that if, within two years after the issuance of the permit, the owner or any beneficiary of a land trust, if any, which is the record title holder of the property, acquires any interest in lands contiguous to the property, the owner shall provide for storm water detention for such lands in which an interest is acquired, regardless of the size of such lands.

*Delete paragraph C if exemption is claimed. Delete paragraph D if no exemption is claimed.

*D. Affiant further states that, because of its size and intended use, the property described in Exhibit "A" is exempt from the requirements of the MSDGC with respect to the establishment of on-site storm water detention, and further states that:

1. The owner of the property or any beneficiary of a land trust, if any, which is the record title holder of the property has no present interest, nor had any interest at any time during the previous two years, in any lands contiguous to said property, such that the aggregate total area of the property and the contiguous lands exceeds five (5) acres. (If such interest is or was held, detention must be provided for the total.)

LSS-75-04-17/Rev. 76-03-12
Schedule K

MSD Permit Application No. 90-274

2. No owner of any lands contiguous to the property and no beneficiary of a land trust, if any, which is the record title holder of any land contiguous to the property has any interest in the property, such that the aggregate total area of the property and the contiguous lands exceeds five (5) acres. (If such interest is held, detention must be provided for the total.)

3. Affiant understands and agrees that any permit issued by MSDGC in reliance upon this affidavit shall be deemed to contain a special condition that if, within two years after the issuance of the permit, the owner or any beneficiary of a land trust, if any, which is the record title holder of the property acquires any interest in lands contiguous to the property such that the aggregate area of the property and the contiguous lands exceeds five (5) acres, the owner shall provide for storm water detention for the entire aggregate area.

This affidavit is given to induce the Metropolitan Sanitary District of Greater Chicago to issue its sewerage system permit with respect to the aforedescribed property and to exempt said property from any present requirements to provide and maintain storm water detention facilities thereon.

E. Affiant further states, that for the purpose of this affidavit, the following terms have the meanings indicated:

Owner: means record title holder or a beneficiary of a land trust which is the record title holder, and includes singular and plural: if the owner is other than an individual, the term includes beneficiaries, agents, shareholders, officers and directors.

Ownership: means holding of record title or any beneficial interest.

Interest: means property interest or contractual interest, legal or equitable, directly or indirectly, in part or in full, and includes option to buy. In the case of shareholder interest, the shareholder shall be deemed to have interest if he owns or controls 5% or more of the shares.

Contiguous: means adjacent to and touching at one point or more: if the lands are separated by an easement or a dedicated right-of-way, it shall be considered contiguous.

F. Affiant understands and agrees that in the event that any of the aforementioned information is incorrect, erroneous, false or misleading, the District shall have the option to immediately terminate any permit issued based on the above information.

Dated this 12th day of June 19 91.

Valerie L. Salmons
(Affiant)

SUBSCRIBED and SWORN to before me this 12 day of June 19 91.

Linda L. Gallien
(Notary Public)

OFFICIAL SEAL
LINDA L. GALLIEN
NOTARY PUBLIC, STATE OF ILLINOIS
My Commission Expires May 19, 1995

LSS-75-04/Rev. 76-03-12
Schedule K

DETENTION REVIEW SHEET

A. PROJECT

Permit No. 90-274 Date Received 5/31/90

Name of Project BARTLETT VILLAGE HALL & POLICE HEAD Q.

Location MAIN & OAK

B. Basic Information

1. Total Project Area 3.75 Acres
2. Impervious Area: (a) Existing 1.45; (b) New 0.23
3. Runoff Coefficient _____
4. Project is: Residential ___; Non-Residential ✓
5. Project is in flood plain area ..... yes/no
6. Building Connections are proposed under this permit ..... yes/no
7. Detention is required for the project covered by this permit ..... yes/no
8. Detention is provided under this permit ..... yes/no
9. Detention criteria: MSD ___; Other ✓

C. Non-Applicability

Detention requirements are not applicable for the reason(s) indicated:

1. Project is in combined sewer area ..... ___
2. Total contiguous ownership is less than 5 acres ..... ✓
3. Remaining developable ownership as of 1/1/72 is less than 5 acres . ___
4. Project is single family, residential and area is less than 10 acres ..... ___
5. Project consists of an outlet sewer only and no connections are proposed ..... ___
6. Project consists of sewer rehabilitation work only ..... ___
7. Buildings existing and currently served by septic system ..... ___
8. No new impervious area proposed ..... ___
9. Other _____ ..... ___

D. Relation with Other Projects

1. Detention required for this project is provided by existing/proposed detention facilities ..... ___
   Facilities are covered by Permit No. _____

MSD Permit No. 90-274

D. Relation with Other Projects

2. Detention facilities provided under this permit are intended to serve other areas ..... _____
If so, contributing area is _____ acres.

3. Project covered by permit receives drainage from another area and the flow is bypassed ..... _____

4. This project is part of a previous development that exceeded five/ten acres and for which detention has been previously provided in full or in part ..... _____

5. This project is part of a total contiguous land holding that exceeds five/ten acres and for which no detention has been provided ..... _____

6. This project is part of an area previously encumbered for detention ..... _____

E. Design Summary

	MSD Requirements	Project Design
1. Drainage area for which detention is provided under this permit	xxxx	_____ acre
2. Detention requirements for area above	_____ ac. ft.	_____ ac. ft.
3. Detention requirements for this project	_____ ac. ft.	_____ ac. ft.
4. Release rate for drainage area (1) above	_____ cfs	_____ cfs
5. Bypass rate, if any	_____ cfs	_____ cfs
6. Total discharge	_____ cfs	_____ cfs

F. Method of Detention

1. Method of Storage: Roof___, Ground___, Parking Lot___, Pond___, Other___

2. Method of Control: Roof Restrictor _____, Weir_____.
Pipe Outlet ____, Size____, Length_____,

Restrictor/Orifice_____, Size_____, Edge Type_____

G. Other Comments

_____

_____

_____

_____

_____

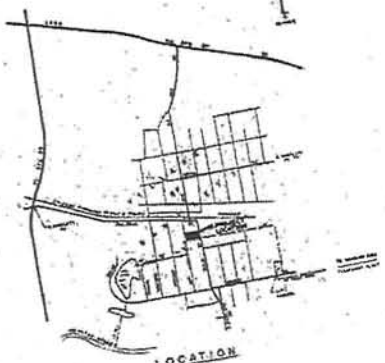
_____

_____

Reviewed: _____ Date_____ Checked_____ Date_____

LSS-72-09-01 Rev.2/27/81

ENGINEERING IMPROVEMENT PLANS
FOR
THE VILLAGE OF BARTLETT
VILLAGE HALL EXPANSION
COOK COUNTY, ILLINOIS



LOCATION MAP

LEGEND

INDEX TO SHEETS

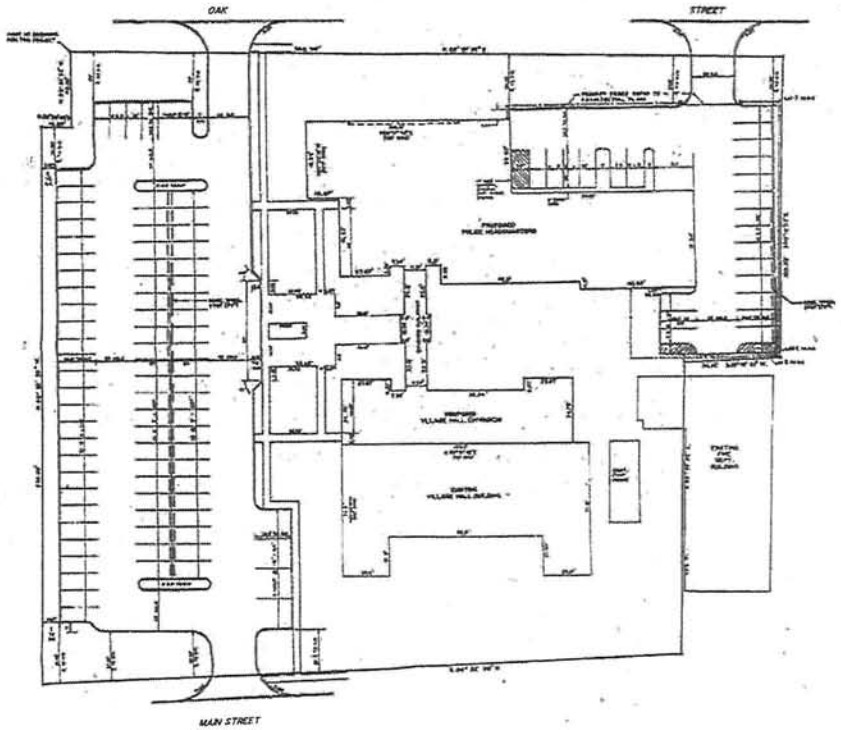
OFFICE COPY

90-274

TITLE SHEET

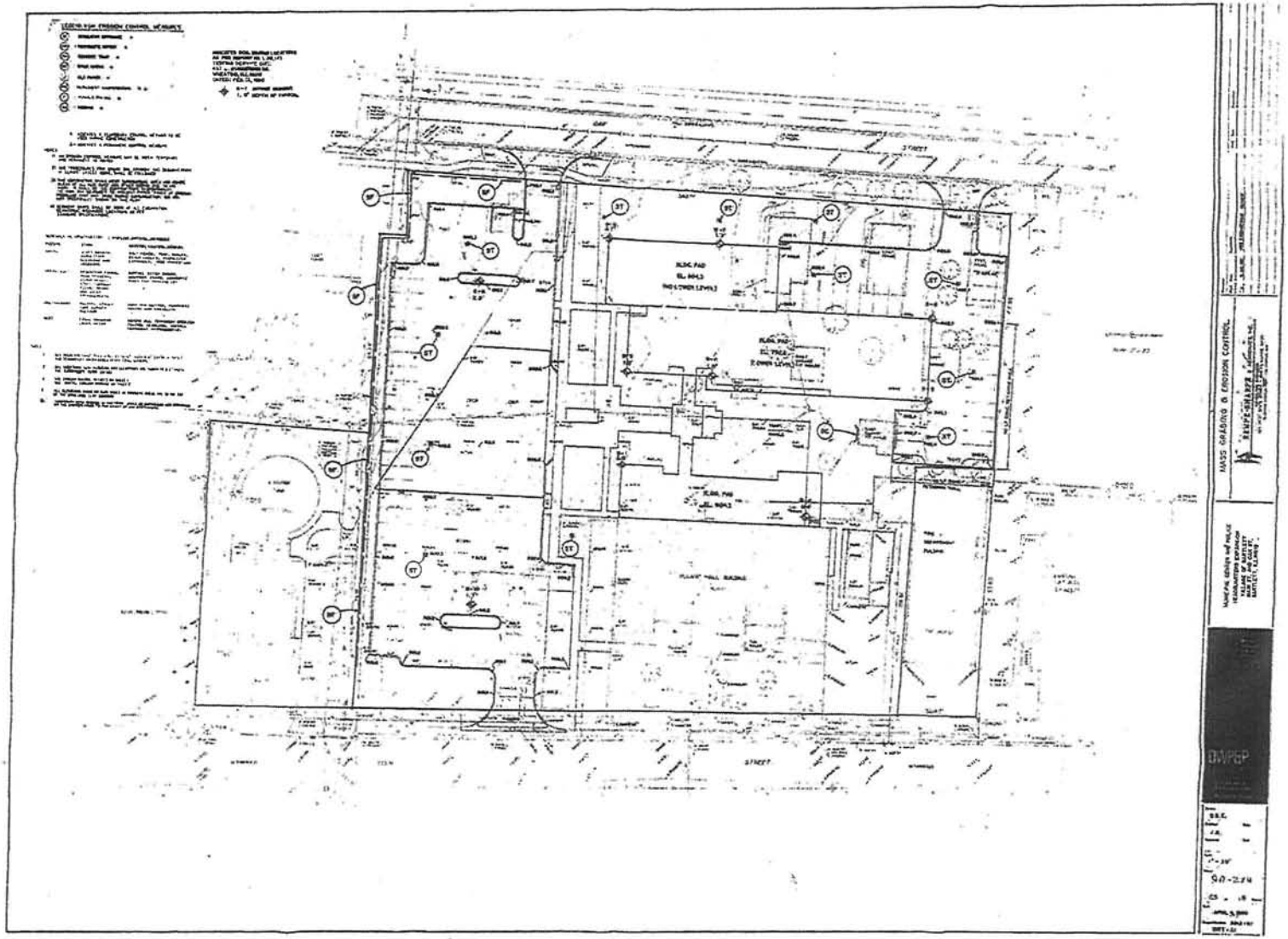
SPECIFICATIONS

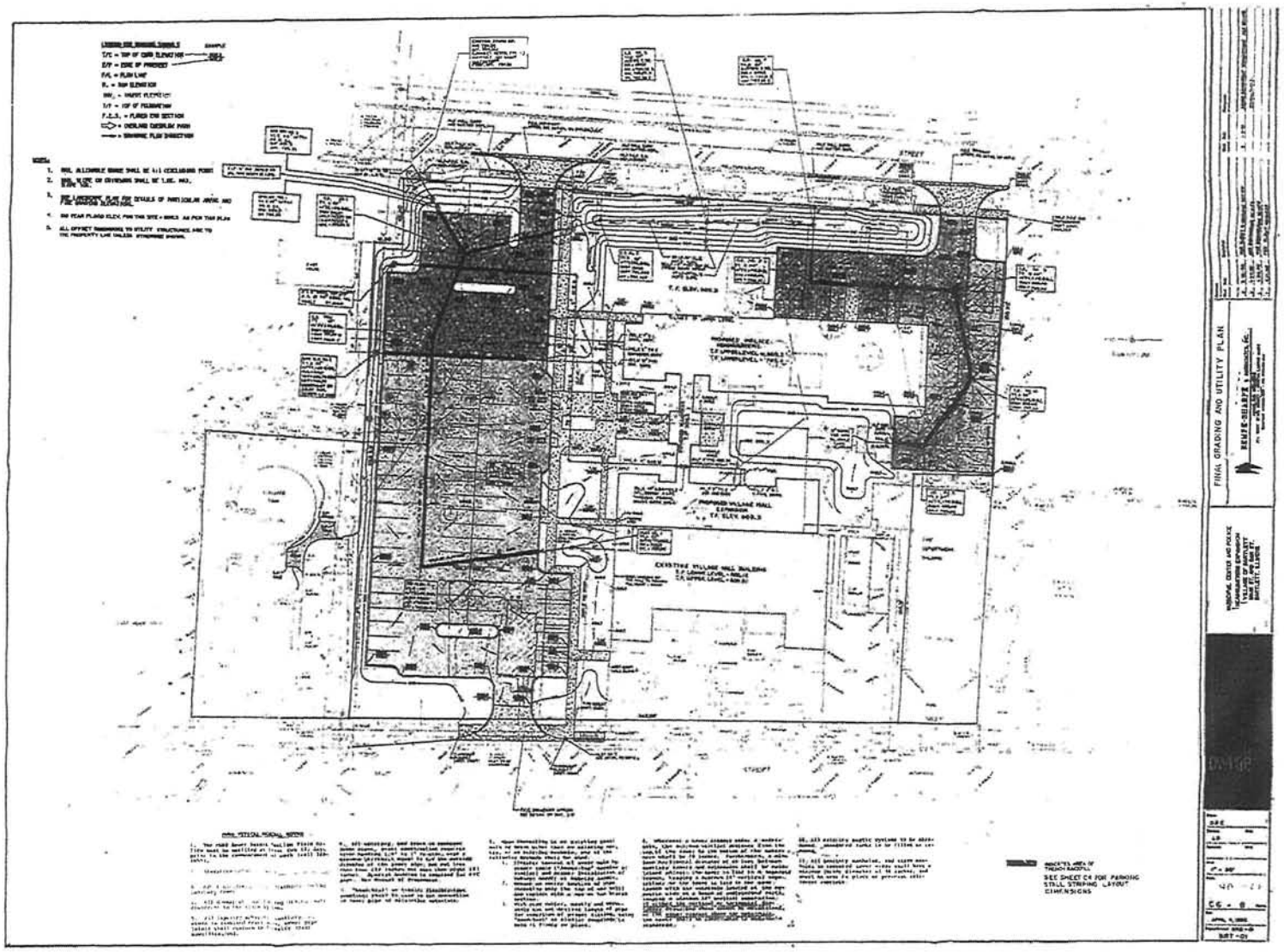
EXISTING VILLAGE HALL SHALL HAVE ACCESS AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT

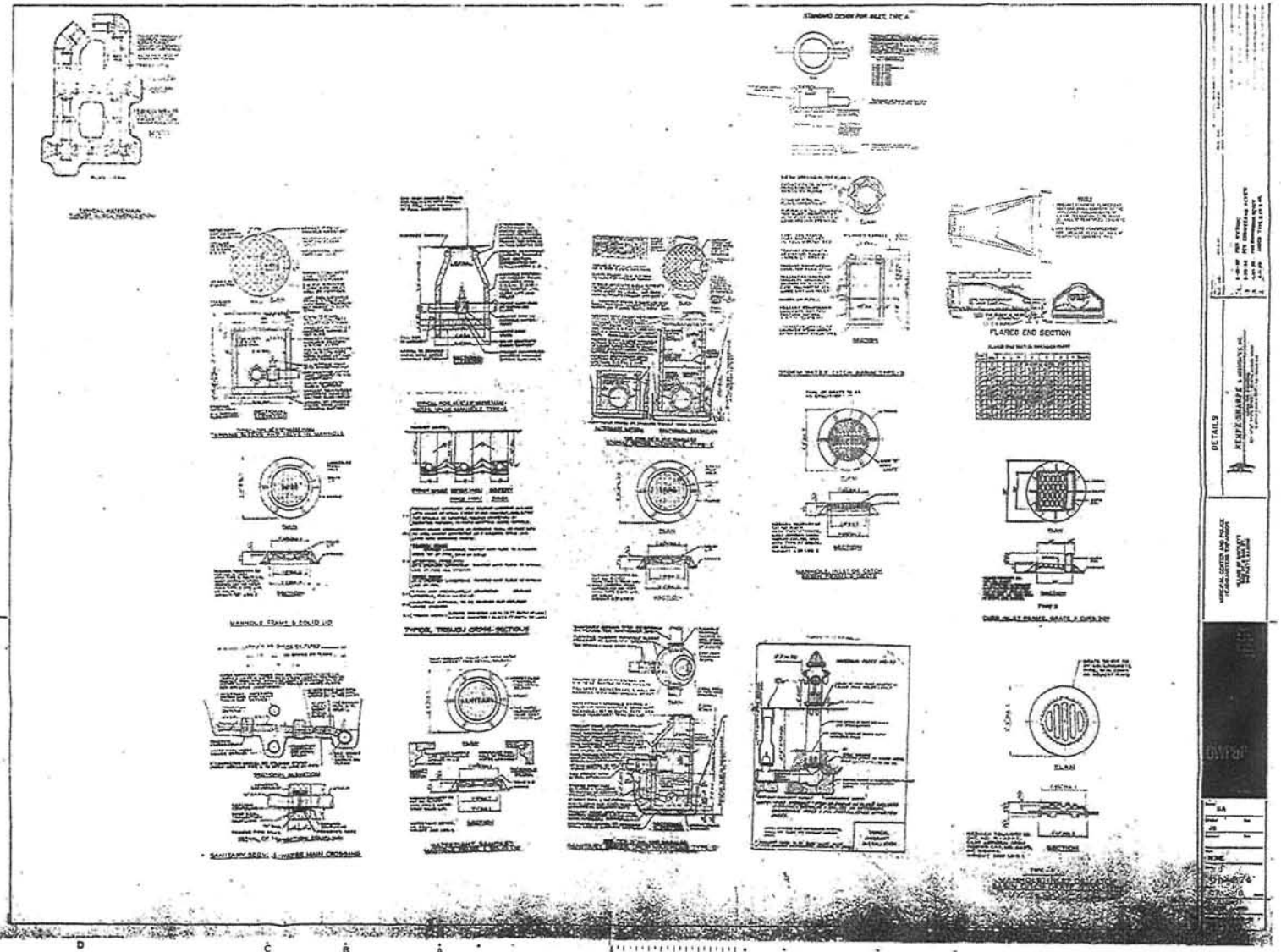


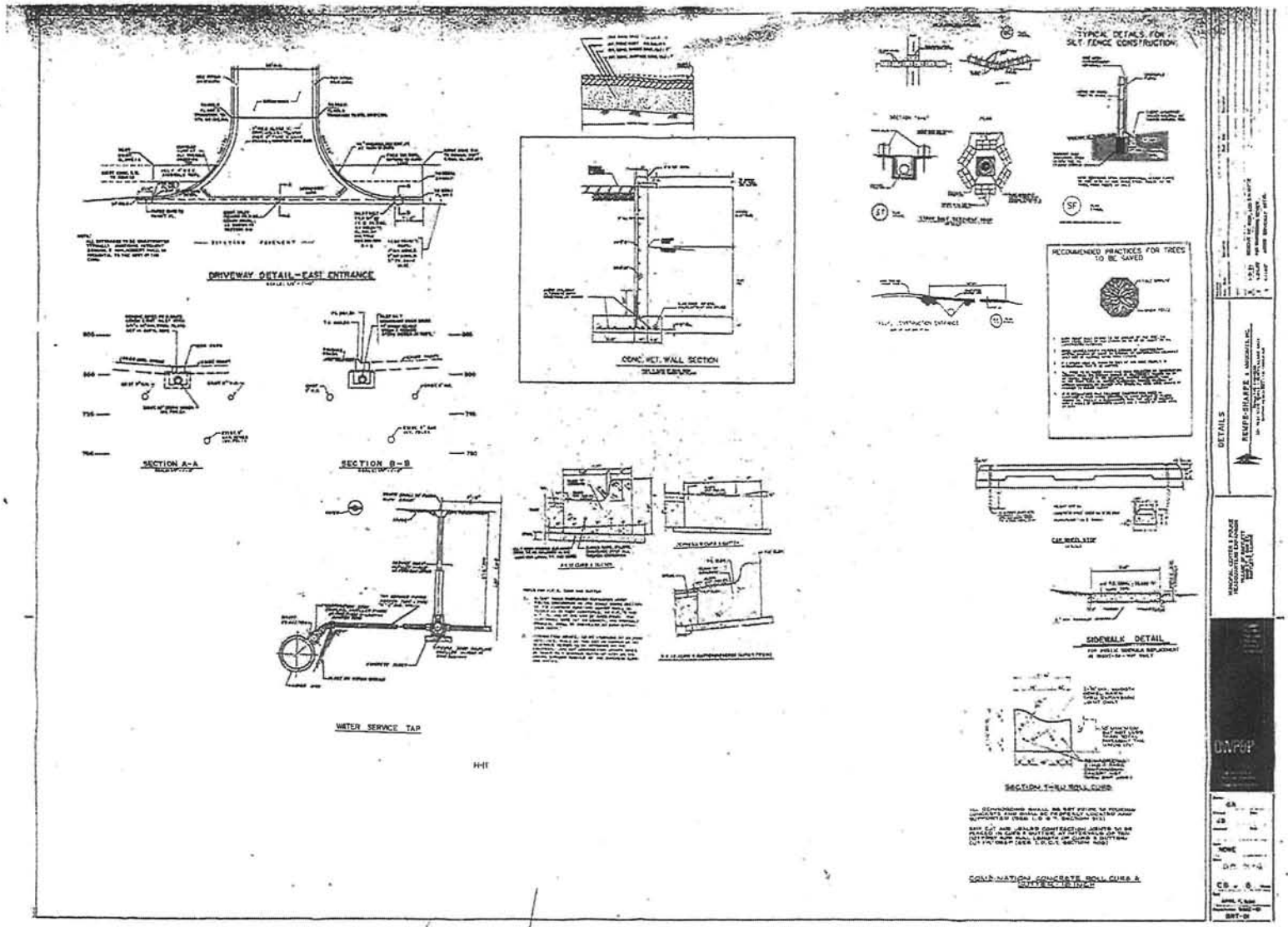
LEGEND

GEOMETRIC CONTROL


MASS GRADING & EROSION CONTROL
BAMPSP


FINAL GRADING AND UTILITY PLAN
REMPE-SHARPE & ASSOCIATES, INC.
PROPOSED VILLAGE HALL EXTENSION
EXISTING VILLAGE HALL BUILDING
SEE SHEET C4 FOR PARKING STALL STRIPING LAYOUT DIMENSIONS


FLARED END SECTION
DETAILS
NEWPORT-SHARPE & ASSOCIATES, INC.
NONE


DRIVEWAY DETAIL-EAST ENTRANCE
CONC. RET. WALL SECTION
"TYPICAL DETAILS FOR SILT FENCE CONSTRUCTION"
RECOMMENDED PRACTICES FOR TREES TO BE SAVED
SECTION A-A
SECTION B-B
WATER SERVICE TAP
SIDEWALK DETAIL
SECTION THRU ROLL CURB
COMBINATION CONCRETE ROLL CURB & GUTTER TRENCH
DETAILS
REMPS-STARPE & ASSOCIATES, INC.
DUNPOP

OFFICE COPY

TODD SURVEYING • AURORA

OFFICE COPY

EXHIBIT "A"

BARTLETT VILLAGE HALL
CONSOLIDATION
PLAT

STATE OF ILLINOIS)
SS
COUNTY OF KANE)

THIS IS TO CERTIFY THAT I, THOMAS J. TODD, ILLINOIS REGISTERED LAND SURVEYOR NO. 2447, KANE REGISTER, PROPRIETOR AND PLATTED THOMAS LANGE RESIDENCE HEREON, AS SHOWN ON THE PLAT HEREON DRAWN WHICH IS A CORRECT REPRESENTATION OF SAID SURVEY AND SUBDIVISION. ALL DISTANCES ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF. I FURTHER CERTIFY THAT THE ABOVE DESCRIBED TRACT IS IN THE VILLAGE OF BARTLETT, WHICH HAS ADOPTED AN OFFICIAL PLAN AND IS EXERCISING THE POWERS AUTHORIZED BY THE ILLINOIS MUNICIPAL CODE. I FURTHER CERTIFY THAT THE PARCEL INCLUDED IN THIS PLAT OF SUBDIVISION IS NOT LOCATED IN THE SPECIAL FLOOD HAZARD AREA IDENTIFIED FOR THE VILLAGE OF BARTLETT, COOK COUNTY, ILLINOIS BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON THE FLOOD INSURANCE RATE MAP, PANEL 170088-0002C DATED MARCH 11,1984.

DATED AT AURORA, ILLINOIS ON AUGUST 8, 1991.

THOMAS J. TODD, I.P.L.S. NO. 2447

STATE OF ILLINOIS)
SS
COUNTY OF COOK)

THE VILLAGE OF BARTLETT BOARD HEREBY CERTIFY THAT IT IS THE OWNER OF THE PROPERTY DESCRIBED IN THE LEGAL DESCRIPTION HEREON ATTACHED, AND AS SUCH OWNER, IT HAS CAUSED THIS SAID PROPERTY TO BE SURVEYED AND SUBDIVIDED AS HEREON SHOWN AS (T'D OWN FREE AND VOLUNTARY ACT.

GIVEN THIS _____ DAY OF _____ A.D. 1991.

BY: _____ BY: _____

STATE OF ILLINOIS)
SS
COUNTY OF COOK)

I, _____, A NOTARY PUBLIC IN AND FOR THE COUNTY AND STATE AFORESAID, HEREBY CERTIFY THAT _____ WHO ARE PERSONALLY KNOWN TO ME TO BE THE SAME PERSONS WHOSE NAMES ARE SUBSCRIBED TO THE FOREGOING OWNERS CERTIFICATE, APPEARED BEFORE ME THIS DAY IN PERSON AND ACKNOWLEDGE THE EXECUTION OF ANNEXED PLAT AND ACCOMPANYING INSTRUMENT AS THEIR FREE AND VOLUNTARY ACT.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____ A.D. 19__

NOTARY PUBLIC

STATE OF ILLINOIS)
SS
COUNTY OF COOK)

APPROVED THIS _____ DAY OF _____ A.D. 19__ BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF BARTLETT, COOK COUNTY, ILLINOIS AT A PUBLIC MEETING.

BY: _____ ATTEST: _____
VILLAGE PRESIDENT VILLAGE CLERK

STATE OF ILLINOIS)
SS
COUNTY OF COOK)

REVIEWED BY THE PLAN COMMISSION OF THE VILLAGE OF BARTLETT, THIS _____ DAY OF _____ A.D. 19__

_____
PLAN COMMISSION CHAIRMAN

STATE OF ILLINOIS)
SS
COUNTY OF COOK)

I, _____ VILLAGE COLLECTOR OF BARTLETT, ILLINOIS, DO HEREBY CERTIFY THAT THERE ARE NO CURRENT GENERAL TAXES, NO UNPAID FORFEITED TAXES, NO REDEMABLE TAX SALES AGAINST ANY OF THE LAND SUBDIVIDED IN THIS PLAT. I FURTHER CERTIFY THAT I HAVE RECEIVED ALL STATUTORY FEES IN CONNECTION WITH THIS PLAT.

GIVEN UNDER MY HAND AND SEAL THIS ____ DAY OF _____ A.D. 19__

BY: _____
VILLAGE COLLECTOR

STATE OF ILLINOIS)
SS
COUNTY OF COOK)

THIS INSTRUMENT NO. _____ WAS FILED FOR RECORD IN THE RECORDER'S OFFICE OF COOK COUNTY, ILLINOIS ON THE _____ DAY OF _____ A.D. 19__ AT _____ O'CLOCK _____ M. AND WAS RECORDED IN BOOK _____ OF PLATS AT PAGE _____.

_____
COUNTY RECORDER

TODD SURVEYING • AURORA

PAGE 2 OF 2

Revised 8-6-91

PLAT NO SHEET

SEWERAGE SYSTEM PERMIT

MWRDGC Permit No. 14-285

METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS, 60611 http://www.mwrd.org
312-751-5600

INSTRUCTIONS FOR COMPLETING PERMIT FORM: Submit four typed copies of permit application (eight pages) and any required schedules listed below; do not leave any blank spaces; use "X" for checking applicable information. Also submit four copies of location map and plans. Submit two copies of specifications, if specifications are not part of the plan sheets. Address all correspondence to the Local Sewer Systems Section; for any inquiries or assistance, telephone (312) 751-3260.

NAME AND LOCATION:

Name of project (as shown on plans): Bartlett Village Hall

Location of Project (street address or with respect to two major streets): 228 Main Street

Municipality (Township, if unincorporated) Bartlett

Section 25 34, Township 41 N, Range 9 E.

Is project in MWRDGC combined sewer area Yes ☐ No ☒

SERVICE BASIN HANOVER MWRD

DOCUMENTS BEING SUBMITTED

☒ Basic Information (Required in all cases) ..... Schedule A (Page 4 of 8)

☒ Sewer Summary (Required in all cases) ..... Schedule B (Page 5 of 8)

☒ Sewer Connections (Required in all cases) ..... Schedule C (Page 6 of 8)

☒ Detention Facilities ..... Schedule D (2 Pages)

☐ Lift Station and/or Force Main ..... Schedule E (1 Page)

GENERAL CONDITIONS OF THE PERMIT

1. **Adequacy of Design.** The schedules, plans, specifications and all other data and documents submitted for this permit are made a part hereof. The responsibility for the adequacy of the design shall rest solely with the Design Engineer and the issuing of this permit shall not relieve him of that responsibility. The issuance of this permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-permittee or Design Engineer of their respective responsibilities.
2. **Joint Construction and Operation Permits.** Unless otherwise stated by the Special Conditions, the issuance of this permit shall be a joint construction and operation permit provided all General, Standard and Special Conditions are complied with.
3. **Allowable Discharges.** Discharges into the sanitary sewer system constructed under this permit shall consist of sanitary sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this permit. Storm waters shall not be permitted to enter the sanitary sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the sanitary sewer system.
4. **Construction Inspection.** All sewer construction shall be inspected and approved by a Registered Professional Engineer acting on behalf of the Permittee or the owner of the project, or by a duly authorized and competent representative of the Professional Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation.
5. **Maintenance.** The sewer connections, lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the property served, the owner and/or the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property.

MWRDGC STANDARD CONDITIONS

6. **Indemnification.** The Permittee shall be solely responsible for and shall defend, indemnify and save harmless the Metropolitan Water Reclamation District of Greater Chicago (hereinafter MWRDGC) from and against any and all claims, costs, damages, or expenses the MWRDGC may suffer, incur, sustain or become liable for on account of any injury to, or death of, any person or persons, or any damage to, or destruction of, any real or personal property that may be caused by the construction, use, state of repair; operation and maintenance of the proposed facilities, arising out of or in consequence of the issuance of this permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and save harmless the MWRDGC from any claims or damages arising out of or in connection with the termination or revocation of this permit.
7. **Construction by MWRDGC.** Permittee understands and acknowledges that the MWRDGC has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this permit is issued, and that by the MWRDGC constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits.

   Therefore, by accepting this permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the MWRDGC of any and all claims whatsoever which Permittee may now have or hereafter acquire and which Permittee, its successors and assigns hereafter can, shall, or may have against the MWRDGC for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the MWRDGC of sewer service facilities in the service area contemplated by this permit, the rendering of such services, which MWRDGC facilities and services decrease the value of the facilities constructed by the Permittee under this permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under Illinois Revised Statutes, Chapter 42, Section 339; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease or loss of Permittee's land.
8. **Third Parties.** This permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the MWRDGC or of any other parties, (b) to construct outside of the territorial boundaries of the MWRDGC, (c) to construct or encroach upon the territorial boundaries of any units of local government within the MWRDGC, (d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.
9. **Costs.** It is expressly stipulated and clearly understood that the sewerage system or facilities for which the permit is issued shall be constructed, operated and maintained at no cost to the MWRDGC.

10. **Other Construction.** The MWRDGC reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers and appurtenances thereto at the point of connection of any sewerage system to an MWRDGC interceptor and/or in public right-of-ways of MWRDGC easements, and to introduce additional sewage flow through this connection into the intercepting sewer of said MWRDGC.
11. **Change of Use.** This permit shall be incorporated in the Building and Occupancy Permit for the building or buildings served under this permit. The owner or occupant of any building served under this permit shall not cause, or permit, a change of use of the building to a use other than that indicated in this permit without first having obtained a written permission from the General Superintendent of the MWRDGC.
12. **Interceptors Overloading.** The MWRDGC hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed system shall be constructed, operated and maintained at the sole risk of the Permittee.
13. **Non-Transferability.** This permit may not be assigned or transferred without the written consent of the General Superintendent of the MWRDGC.
14. **Termination.** It is understood and agreed that in the event the Permittee shall default in or fail to perform and observe any of the covenants, conditions and provisions of this permit and such default or violation shall

this permit shall be completed within two (2) years after start of construction. If conditions so warrant, an extension may be granted. For publicly financed projects (e.g. special assessments) the one(1) year period indicated will be considered from the date of final court action.

16. **Revocation.** In issuing this permit, the MWRDGC has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this permit, and all the rights of the Permittee hereunder shall immediately become null and void.
17. **Advance Notice.** Prior to commencement of construction under this permit, the Permittee shall give the MWRDGC an advance notice of at least two working days. When advance notice is given, the Permittee shall provide the permit number, municipality and location.
18. **Compliance with Plans and Specifications.** All construction shall be in accordance with the plans and specifications submitted for this permit and made a part hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or permit requirements shall be permitted unless revised plans shall have been submitted to, and approved by the MWRDGC. The permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the job site at all times during construction until final

SCHEDULE A
BASIC INFORMATION

MWRDGC Permit No. 04-285

1. **NAME OF PROJECT** _____
(as shown on the plans)

2. **APPURTENANCES** (check all applicable items)

☐ Siphon ☒ Drop Manholes
☐ Stream Crossing ☐ Direct Connections to MWRDGC

3. **RECEIVING SANITARY SEWER SYSTEM**

A. System that project will connect to is:
☒ Existing ☐ Proposed /Under Construction → MWRDGC Permit # _____

B. List owners of all sewers from project to MWRDGC interceptor Village of Bartlett

4. **EXISTING LIFT STATION**

☐ No ☒ Yes → Receiving system includes existing lift station

If yes, indicate location Intersection of Devon & Berteau, Bartlett, IL

5. **FLOOD PLAIN**
Is any part of the project area in a flood plain?
☒ No ☐ Yes → Percentage of area in flood plain _____ %

Flood crest elevation _____ ft.

Identify any manholes in flood plain: _____

6. **SIZE OF PROJECT**

A. What is the size of this project?	~~2.05~~ 3.14	acres
B. Total contiguous ownership, including project	~~3.16~~ 3.56	acres
C. Existing impervious area within project	1.27	acres
D. New impervious area created within project	~~0.27 (net)~~ 0.97	acres

7. **DETENTION**

A. Is detention provided under this permit?
☐ No ☒ Yes → Detention required by: ☒ MWRDGC ☒ Other

B. Is project in the service area of existing detention reservoir?
No ☒ Yes → MWRDGC Permit No. 03-386

SCHEDULE - C

MWRDGC Permit No. 04-285

SEWER CONNECTIONS

(FILL OUT ALL SECTIONS THAT APPLY)

1. **BUILDING CONNECTION DATA**

A. RESIDENTIAL BUILDINGS

☐ Single Family	Total dwelling units *			
	Number of sewer connections *		PE**	
☐ Multi Family	Total dwelling units *			
	Number of sewer connections *		PE**	

B. COMMERCIAL& RECREATIONAL BUILDINGS

☒ Number of sewer connections	1	PE**	10.5

C. INDUSTRIAL BUILDINGS

☐ Number of sewer connections		PE**	

* Each sanitary line exiting a building is a connection

** Population Equivalent

2. **BUILDING USE - (Check all that apply)**

A. COMMERCIAL & RECREATIONAL

- ☐ Food preparation or processing (install grease separator)
- ☐ Auto service (install triple basin)
- ☐ Auto wash (install mud basin)
- ☐ Swimming pool (provide pool plans)
- ☒ Other Village Hall

B. INDUSTRIAL BUILDINGS

- ☐ Sewer connections will receive domestic sewage only
- ☐ Industrial waste is produced

NOTE: If industrial waste is produced, submit Schedule F & Schedule G and plumbing plans along with flow diagram for pretreatment system.

SCHEDULE D – DETENTION

MWRDGC Permit No. 04-285

A. PROJECT INFORMATION

Name of Project Bartlett Village Hall (Revision to Asbury Place Permit No. 03-386)
(as shown on plans)

B. METHOD OF DETENTION

☒ Reservoir ☐ Rooftop ☐ Parking Lot ☐ Others_ ___

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE (Delineate total, developed, undeveloped and unrestricted areas on a grading plan)

1. Area of site	24.38+1.71=26.09 (new area)	acres
2. Average ground slope	0.01	feet/foot
3. Longest overland flow distance (show on a contour map for undeveloped site)	3180	feet
4. Overland flow time of concentration	96	minutes
5. Average slope of channelized flow (see note)		feet/foot
6. Channelized flow distance (see note)...		feet
7. Channelized flow time of concentration		minutes
8. Total time of concentration (line 4 + line 7)	96	minutes
9. Rainfall intensity for 3-year storm	1.212	inches/hr
10. Gross Allowable release rate (0.15* line 9* line 1 or Q = 0.15*I*A)	4.743	cfs
11. Unrestricted release rate (Qun).... Qun = Cun Iun Aun; Cun-developed site, Iun-100 year storm, Aun-unrestricted site	2.33+1.33=3.66	cfs
12. Net allowable release rate (line 10 - line 11)	1.083	cfs
13 Actual release rate at HWL..... (cannot be greater than line 12)	1.01 (HWL = 787.00) Inv. Restrictor 781.26	cfs
14 Restrictor type and size..... (Provide details & calculations)	Existing 4" Plate Restrictor To Remain	inches

386 / 04-303

See 03

NOTE: For flow time in a well defined channel, determine time of concentration from measured cross-sections and slopes. Submit necessary calculations.

Rev. 2/10/01

SCHEDULE D – DETENTION (continued) **MWRDGC Permit No.** 04-285

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE
(Submit calculations for Items 1 thru 6)

1. Impervious drainage area excluding wet pond area*.	14.87+1.54=16.41 (existing + proposed)	acres
2. Impervious wet pond area* existing	1.27 0.17 new	acres
3. Pervious drainage area* existing	7.24+.28=~~7.52~~ 7.41	acres
4. Composite runoff coefficient(c).....	0.77	
5. Required detention capacity at actual release rate 1.00 cfs	~~6.50~~ 7.68	acre-feet
6. Actual detention capacity provided at HWL.	15.48 @ HWL = 790.50 8.38 @ HWL = 787.00	acre-feet

* Unrestricted areas shall be excluded here. 1.00 Ac. existing

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Following steps are applicable to bypass flow over a weir or bypassing detention system. Design frequency shall be determined by local ordinance. If no local requirement is established, use 5-year storm frequency. (Delineate bypass areas on grading plans or USGS maps).

1. Total area upstream.....	3.75	acres
2. Impervious area.....	0	acres
3. Pervious area.....	3.75	acres
4. Composite runoff coefficient (minimum of 0.35)	0.45	
5. Design storm frequency for the upstream area	100	year
6. Time concentration for upstream area at point of entry, upstream area to be considered as developed.	22	minutes
7. Rainfall intensity for time of concentration	5.28	inches/hr.
8. Permissible bypass rate (line 1* line 4 * line 7)	8.91	cfs
9. Bypass system – Type & capacity... (Provide detail and calculations)	Weir 47.23	cfs

ok 03-386

Name Matthew T. Kuehl, P.E. Title Project Engineer

Signature [signature] Date 4/2

Engineering Firm Eriksson Engineering Associates, Ltd.

MATTHEW T. KUEHL 062-056262 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

SCHEDULE D – DETENTION

MWRDGC Permit No. 04-285

A. PROJECT INFORMATION

Name of Project Bartlett Village Hall (Revision to Village Hall Permit #90-274)
(as shown on plans)

B. METHOD OF DETENTION

☒ Reservoir ☐ Rooftop ☐ Parking Lot ☐ Others___ ___

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE (Delineate total, developed, undeveloped and unrestricted areas on a grading plan)

1. Area of site	1.09	acres
2. Average ground slope	0.01	feet/foot
3. Longest overland flow distance (show on a contour map for undeveloped site)	397	feet
4. Overland flow time of concentration	25.5	minutes
5. Average slope of channelized flow (see note)		feet/foot
6. Channelized flow distance (see note)...		feet
7. Channelized flow time of concentration		minutes
8. Total time of concentration (line 4 + line 7)	25.5	minutes
9. Rainfall intensity for 3-year storm	~~2.70~~ 2.68	inches/hr
10. Gross Allowable release rate (0.15* line 9* line 1 or Q = 0.15*I*A)	0.44	cfs
11. Unrestricted release rate (Qun).... Qun = Cun Iun Aun; Cun-developed site, Iun-100 year storm, Aun-unrestricted site		cfs
12. Net allowable release rate (line 10 – line 11)	0.44	cfs
13. Actual release rate at HWL..... (cannot be greater than line 12)	0.41 ~~0.57~~ (HWL = 802.43) Inv. Restrictor ~~795.26~~ 796.21	cfs
14. Restrictor type and size..... (Provide details & calculations)	* 2.50" Hole in Plate ~~Replace Existing~~	inches

NOTE: For flow time in a well defined channel, determine time of concentration from measured lengths, cross-sections and slopes. Submit necessary calculations.

* Village requirement

Rev. 2/10/01

SCHEDULE D - DETENTION (continued) **MWRDGC Permit No.** 04-[illegible]

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE
(Submit calculations for Items 1 thru 6)

1. Impervious drainage area excluding wet pond area*.	0.70	acres
2. Impervious wet pond area*		acres
3. Pervious drainage area*	0.39	acres
4. Composite runoff coefficient(c).....	0.74	
5. Required detention capacity at actual release rate Q = 0.41 CFS	~~0.15~~ 0.16	acre-feet
6. Actual detention capacity provided at HWL. (SC 2.43)	~~0.15~~ 0.16 0.152 (POND) + .008 (EXISTING STORM SEWERS)	acre-feet

* Unrestricted areas shall be excluded here.-

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Following steps are applicable to bypass flow over a weir or bypassing detention system. Design frequency shall be determined by local ordinance. If no local requirement is established, use 5-year storm frequency. (Delineate bypass areas on grading plans or USGS maps).

1. Total area upstream.....		acres
2. Impervious area.....	0	acres
3. Pervious area.....		acres
4. Composite runoff coefficient (minimum of 0.35)		
5. Design storm frequency for the upstream area		year
6. Time concentration for upstream area at point of entry; upstream area to be considered as developed.		minutes
7. Rainfall intensity for time of concentration		inches/hr.
8. Permissible bypass rate... (line 1* line 4 * line 7)		cfs
9. Bypass system – Type & capacity... (Provide detail and calculations)		cfs

Name Matthew T. Kuehl, P.E. Title Project Engineer

Signature [signature] Date 8/10

Engineering Firm Eriksson Engineering Associates, Ltd.

MATTHEW T. KUEHL 062-036182 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

P.E. SEAL

SCHEDULE D – DETENTION

MWRDGC Permit No. 04-285

A. PROJECT INFORMATION

Name of Project Bartlett Village Hall (Revision to Oak Grove Permit No. 78-343)
(as shown on plans)

B. METHOD OF DETENTION

☒ Reservoir ☐ Rooftop ☐ Parking Lot ☐ Others__ __

C. UNDEVELOPED SITE-DETERMINATION OF ALLOWABLE RELEASE (Delineate total, developed, undeveloped and unrestricted areas on a grading plan)

1. Area of site 61.682 (78-343) 21.875 (78-221) 0.380 (04-285)	83.557+.38=83.94 (new area)	acres
2. Average ground slope	~~0.02~~	feet/foot
3. Longest overland flow distance (show on a contour map for undeveloped site)	~~1100~~	feet
4. Overland flow time of concentration	~~25.015~~	minutes
5. Average slope of channelized flow (see note)		feet/foot
6. Channelized flow distance (see note)...		feet
7. Channelized flow time of concentration		minutes
8. Total time of concentration (line 4 + line 7)	~~15.015~~	minutes
9. Rainfall intensity for 3-year storm	~~2.00~~	inches/hr
10. Gross Allowable release rate (0.15* line 9* line 1 or Q = 0.15*I*A)	~~25.19~~ 16.79 [7.54 cfs as per 78-221; 9.25 cfs as per 78-343]	cfs
11. Unrestricted release rate (Qun).... Qun = Cun Iun Aun; Cun-developed site, Iun-100 year storm, Aun-unrestricted site	0	cfs
12. Net allowable release rate (line 10 – line 11)	~~25.19~~ 16.79	cfs
13. Actual release rate at HWL..... (cannot be greater than line 12)	15.1915 (HWL=788.30) Inv. 784.22	cfs
14. Restrictor type and size..... (Provide details & calculations)	Existing 18" Pipe Restrictor To Rmain	inches

NOTE: For flow time in a well defined channel, determine time of concentration from measured lengths, cross-sections and slopes. Submit necessary calculations.

Rev. 2/10/01

SCHEDULE D – DETENTION (continued) **MWRDGC Permit No.** 04-285

D. DEVELOPED SITE-DETERMINATION OF RESERVOIR SIZE
(Submit calculations for Items 1 thru 6)

1. Impervious drainage area excluding wet pond area*. 25.00 (78-343 = 18.3, 78-221 = 6.32, 04-285 = 0.38) acres
2. Impervious wet pond [illegible] 2.84 acres
3. Pervious drainage area* 54.596 acres
4. Composite runoff coefficient(c) 0.612
5. Required detention capacity at actual release rate 11.99 acre-feet
6. Actual detention capacity provided at HWE 19.94 - 6.5 (comp storage) = 13.43 HWE = 788.50 acre-feet

*Unrestricted areas shall be excluded here.

E. REQUIRED BYPASS RATE THROUGH DEVELOPMENT SITE FROM UPSTREAM AREA

NOTE: Following steps are applicable to bypass flow over a weir or bypassing detention system. Design frequency shall be determined by local ordinance. If no local requirement is established, use 5-year storm frequency. (Delineate bypass areas on grading plans or USGS maps).

1. Total area upstream 168 acres
2. Impervious area acres
3. Pervious area acres
4. Composite runoff coefficient (minimum of 0.35) 0.35
5. Design storm frequency for the upstream area 5 year
6. Time concentration for upstream area at point of entry, upstream area to be considered as developed. 65 minutes
7. Rainfall intensity for time of concentration 1.7 inches/hr.
8. Permissible bypass rate (line 1* line 4 * line 7) 100 cfs
9. Bypass system – Type & capacity (Provide detail and calculations) 109 cfs

all 78-743 calcs

Name Matthew T. Kuehl, P.E. Title Project Engineer

Signature [signature] Date 5/[illegible]

Engineering Firm Eriksson Engineering Associates, Ltd.

MATTHEW T. KUEHL
LICENSED PROFESSIONAL

ENGINEERING CERTIFICATIONS

MWRDGC Permit No. 04-285

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, Local, State and Federal laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that where the design involves one or more connections to a existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Engineering Firm: Eriksson Engineering Associates, Ltd. **Telephone:** (847) 223 - 4804

Address: 145 Commerce Drive **City:** Grayslake **Zip:** 60030

P.E. SEAL — MATTHEW T. KUEHL #062-056262 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

Signature: _____ Matthew Kuehl, Project Engineer **Date:** 5/28/04
(Name and Title)

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other, data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

I hereby certify that the project area is within the municipal corporate limits. ☒ YES ☐ NO

I hereby certify that the project area is within a Tax Increment Financing (TIF) District. ☒ YES ☐ NO

Owner of Local Sewer System: Village of Bartlett, Illinois

Municipal Engineer: Dale V. Marting, Sr. **Telephone:** 630-529-8000

Address: 910 W. Lake Street **City:** Roselle **Zip** 60172

P.E. SEAL

Signature: _____ **Date:** _____
(Name and Title) Dale V. Marting, (Sr.), P.E., Village Engineer

CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the permit requirements; that a set of RECORD drawings, signed and sealed by the undersigned Engineer will be furnished to the MWRDGC within sixty (60) days after testing and approval by the District of the completed work.

Engineering Firm: Eriksson Engineering Associates, Ltd. **Telephone:** 847-223-4804

Address: 145 Commerce Drive, Suite A **City:** Grayslake **Zip** 60030

P.E. SEAL

Signature: _____ Matthew Kuehl, Project Engineer **Date:** 5/28/04
(Name and Title)

SPECIAL CONDITIONS FOR MWRD PERMIT NO. 04-285

1. This permit is issued in reliance upon the Affidavit of Disclosure of Property Interest (Schedule K) submitted by the owner, and said Affidavit is incorporated herein and made a part hereof.

2. All abandoned sanitary sewers shall be plugged at both ends with a minimum of two (2) feet long non-shrink concrete/mortar plugs.

3. The stormwater detention facilities shown on the plans are made a part of this permit. Construction of these facilities shall proceed prior to or concurrently with other construction on the project and shall be completed before any occupancy occurs. The detention is provided by a detention pond and ponding in the existing storm sewers with a 2.5-inch diameter restrictor.

4. The proposed 2.5-inch diameter orifice shall have a sharp edge.

5. The proposed 2.5-inch diameter orifice plate restrictor may result in increased maintenance problems. The Permittee is hereby warned, and does hereby acknowledge, that all necessary maintenance will be undertaken so that the system will perform satisfactorily at all times.

6. The stormwater detention required for this permit is provided, in part, by the detention facilities under MWRD Permit Nos. 03-386 (High Water Elevation revised to 787.0) and 78-343, which are made a part of this permit. The existing restrictors for both permits shall remain in place.

7. **NOTE:** The detention calculations proposed under this permit supersede the calculations covered by MWRD Permit No. 04-303.

8. **NOTE:** The detention calculations proposed under this permit supersede the calculations covered by MWRD Permit No. 78-343.

SPECIAL CONDITIONS

MWRDGC Permit No. 04-285

This permit is issued subject to the MWRDGC's General Conditions, Standard Conditions and the following Special Conditions:

04 JUL 24 PM 2:51

☐ NONE ☒ SEE ATTACHED

CF GRT. ...

If permit is granted:

☐ Please return two (2) copies of the permit to the Permittee; or
☒ Please mail one (1) copy to Permittee and one (1) copy to the person designated below:

Name: Matt Kuehl - Eriksson Engineering Associates, Ltd.

Address: 145 Commerce Drive, Suite A, Grayslake, IL 60030

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this permit application, and agree to conform to the permit conditions and other applicable requirements of the MWRDGC. It is understood that construction hereunder, after the permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the MWRDGC. It is further understood that this application shall not constitute a permit until it is approved, signed and returned by the Chief Engineer of the MWRDGC.

PERMITTEE	CO-PERMITTEE
The project area is within municipal corporate limits. ☒ Yes ☐ No ☐ Not Applicable	(Co-Permittee is Property Owner) Title to permit is held in a land trust: ☐ Yes ☐ No If yes, Co-Permittee shall be beneficiary with Power of Direction
~~The project area is within a Tax Increment Financing (TIF) District. ☒ Yes ☐ No~~	
Municipality Village of Bartlett	Owner
Address 228 Main Street	Address
City Bartlett Zip	

GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS
625 Forest Edge Drive, Vernon Hills, IL 60061
TEL 847.478.9700 ▪ FAX 847.478.9701
www.gha-engineers.com

Memorandum

To: Don Dixon, P.E.

From: Dave Marquardt

Date: September 15, 2015

Re: Bartlett Police Department Improvements

As requested, I attended a site meeting at the Bartlett Police Department (BPD) on Tuesday, September 15th. The purpose of the site visit was to review the overall condition of the site to date, with the idea that future improvements may be made to the Police Department and associated site parking lots, sidewalk, curb, etc.

During the walk through, several areas were addressed by location, and they are as follows;

Main Parking Lot

1.) The overall condition of the hot-mix asphalt pavement appeared aged and suffering from longitudinal cracks, random cracking, alligator cracking, as well as oxidation of the pavement. Overall the pavement distresses appeared to be a result of age, not base failure.

2.) The existing drainage structures appeared to be in good condition. The adjusting rings of the structures have begun to deteriorate and should be replaced during any improvements.

3.) There was minor damage to the existing curb & gutter which was most likely caused by snow plowing. The existing sidewalk appears to be in good condition, but the expansion joint appears to have disintegrated leaving a void between the back of curb and sidewalk in several locations. (see photo #11)

4.) The existing landscaping appeared to be in good, healthy condition

5.) The site's ADA paths need improvement particularly in the sidewalk adjacent to the parking area and the sidewalk at the main entrance. The existing sidewalk appears to have heaved causing a potential trip hazard (see photo #5). The adjacent pavers have settled or heaved and pose a potential trip hazard as well. New detectable warnings should be installed at the entrance and site sidewalk, and the slope of the sidewalk should be confirmed and improved as required. (see photos #9 and #13)

Employee Parking Lot

1.) The overall condition of the hot-mix asphalt pavement appeared aged and suffering from longitudinal cracks, random cracking, alligator cracking, as well as oxidation of the pavement. Overall the pavement distresses appeared to be a result of age, not base failure.

2.) The existing drainage structures appeared to be in good condition. The adjusting rings of the structures have begun to deteriorate and should be replaced during any improvements.

3.) There was minor damage to the existing curb & gutter which was most likely caused by snow plowing (see photo #16). The existing sidewalk appears to be in good condition, but the expansion joint appears to have disintegrated leaving a void

between the back of curb and sidewalk in a few locations. (see photo #17) The concrete apron on the west side of the property is cracked.

4.) The existing landscaping appeared to be in good, healthy condition

5.) The parking lot's ADA paths need to be clearly defined, and improvements are required to make the current locations compliant (see photo #19). New detectable warnings should be installed where required.

Police Department Parking Lot

1.) The overall condition of the hot-mix asphalt pavement appeared aged and suffering from longitudinal cracks, random cracking, severe alligator cracking (see photo bold #9), raveling, as well as oxidation of the pavement. As with the other parking lots, the overall the pavement distresses appeared to be a result of age, not base failure.

2.) The existing drainage structures appeared to be in good condition. The adjusting rings of the structures have begun to deteriorate and should be replaced during any improvements.

3.) There is an existing concrete pad on the east side of the parking lot that appears to have heaved leaving a potential trip hazard. The concrete pad does not appear to serve a purpose especially in its current condition.

4.) The existing mechanical gate did not appear to be operational.

5.) The building's ADA entrance should be reviewed for compliance, determined if required, and updated if necessary (see photo bold #6). New detectable warnings should be installed where required.

6.) The existing parking lot should be analyzed to determine if a better parking and/or traffic pattern could be utilized.

Please let me know if you have any additional questions or comments.

GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS

① Northeast entrance looking west at parking lot pavement.

② Looking south at parking lot pavement.

③ Looking northwest at parking lot pavement

④ Pavement around drainage structure in center aisle.

⑤ Looking southwest at ADA entrance

⑥ Looking west at brick pavers at ADA entrance.

⑦ Looking south at brick pavers in island nose.

⑧ Looking south at parking lot pavement

⑨ Looking at main entrance to the Police Dept/Village hall

⑩ Looking northeast at the existing parking lot.

⑪ Looking east at the sidewalk along the back of curb

⑫ Looking north at the east drive aisle.

⑬ Looking north at the existing sidewalk and ADA crossing.

⑭ Looking northwest at existing curb in the main parking lot

⑮ Looking west from the entrance to the employee lot.

⑯ Looking at the pavement around a drainage structure in the employee lot.

⑰ Looking northwest at the curb/sidewalk in the employee lot.

⑱ Looking east at the pavement in the employee lot.

⑲Looking east at the sidewalk on the employee parking lot.

⑳ Looking northeast at the valve boxes in the employee lot.

❶ Looking north at the west entrance to the employee lot.

❷ Looking north at the detention basin.

❸ Looking north at the detention basin.

❹ Looking north at the west entrance to the police parking lot.

5 Looking south at the curb and fence line of police lot.

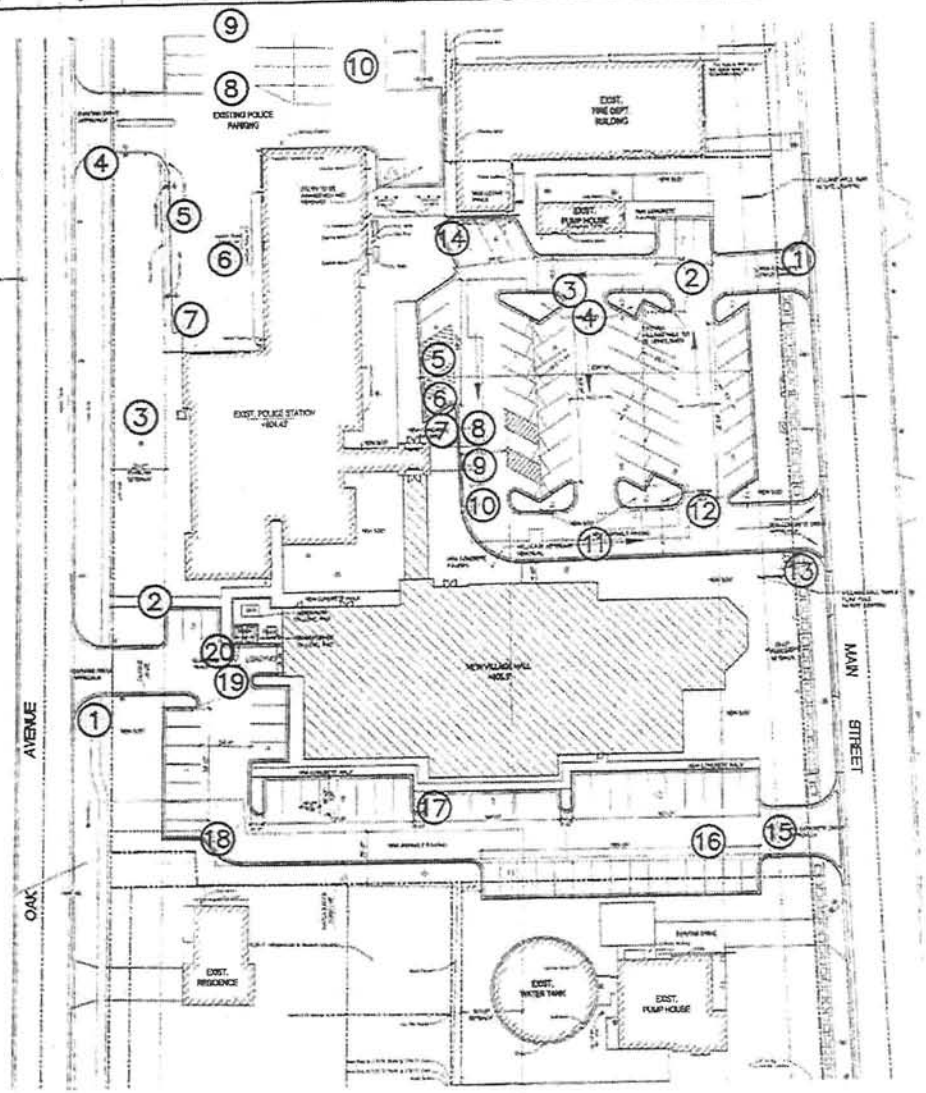
6 Looking east at entrance to Police Department

7 Looking south at the curb of police lot.

8 Looking north at the pavement of the police lot

9 Looking north at the pavement of the police lot

10 Looking north at the pavement of the police lot



TIE-INS FOR BUILDING STORM AND SANITARY SEWER TO BE EXTENDED TO MIDDLE OF MAIN STREET

POWER TIE-IN TO BE TAKEN FROM OVERHEAD LINES @ SOUTH PROPERTY LINE TO ELECTRICAL TRANSFORMER AS SHOWN. SEE SURVEY

GAS AND WATER TIE-INS TO BE TAKEN FROM OAK STREET PROPERTY LINE. SEE SURVEY DATED FEB 4, 2003.

PROJECT DATA

Building Floor Area:
First Floor Area 14,250 SF
Second Floor Area 12,775 SF
Total Building Area 29,585 SF
not included:
Basement 10,200 SF
Penthouse Area 1,200 SF

Building Footprint Area: 14,250 SF

Building Height:
Street elevation 0'-0" = +825.0'
Height of first floor 14'-4"
Height of second floor 14'-4"
Ave. height of roof above grade plane = 33'-10"
Height of mech. penthouse at roof 11'-0"
Total Building Height 57'-4"

Parking Calculation

Public Office Buildings to follow applicable requirement for flat rate (Business Office Building):
1 parking space for every 275 SF,
Include 55 spaces for existing Police Station
136 spaces required
191 total spaces required,
102 spaces provided

Floor Area Ratio: Maximum of 1.0
Actual: 0.275
Police Station: 13,500sf
New Village Hall: 24,085sf
Total building area: 42,585sf
Total site area: 154,310sf

Fire Lane:

The proposed parking lines are scrapped for fire department access. The building owner will designate specific "fire lane" and "no parking" areas at a later date.

NagleHartrayDanielKaganMcKayPenney

Bartlett Village Hall
225 Main Street
Bartlett, Illinois

Site Information

DD01

A1 Site Plan

EcoCAT
Ecological Compliance Assessment Tool

Applicant:	Gewalt Hamilton Associates, Inc.	*IDNR Project Number:*	1603574
Contact:	Caitlin Burke	*Date:*	09/24/2015
Address:	625 Forest Edge Drive Vernon Hills, IL 60061	*Alternate Number:*	5028.000

Project: Bartlett Police Facility
Address: 228 South Main Street, Bartlett

Description: Bartlett Police Facility expansion as part of municipal campus updates.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Cook

Township, Range, Section:
41N, 9E, 34

IL Department of Natural Resources Contact
Keith Shank
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Melissa Parrott
1021 North Grand East
Springfield, Illinois 62794 -9276

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

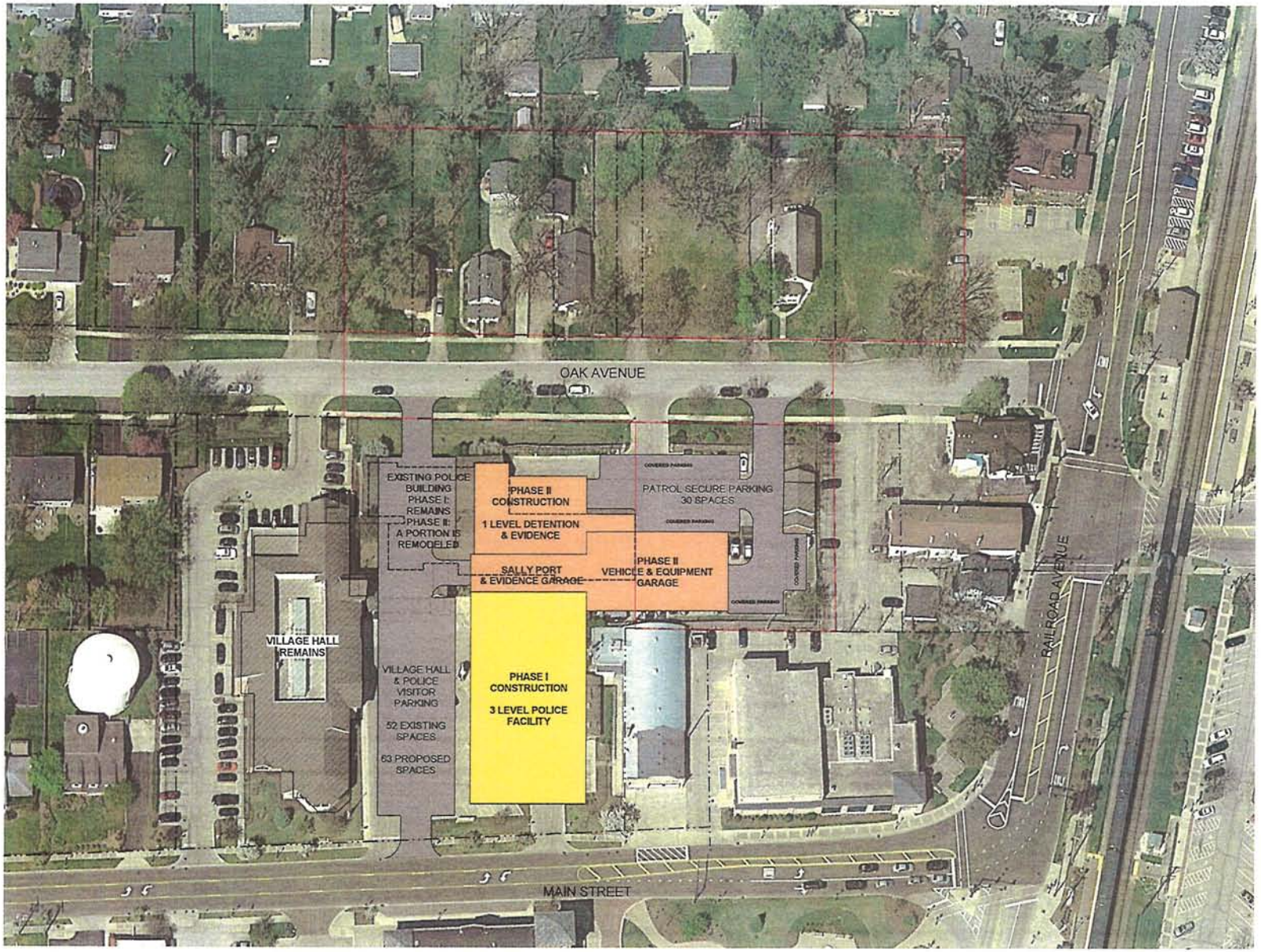
Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



SITE PLAN - PARTIAL EXISTING FACILITY REMODELING AND MAJOR ADDITION

NORTH

SCALE 1" = 30'-0"

0' 15' 30' 60'

Bartlett Police Department

Police Station Study

2015-047
01/20/16

WILLIAMS ARCHITECTS
Architecture | Planning | Aquatics | Interiors