Section04 Fire**StationNo.1**

Background for Shawnee Fire Station No. 1

Shawnee Fire Station 1, located on the north side of West Ninth Street at North Beard Avenue, was a replacement for the old Central Fire Station that was damaged beyond repair by the tornado of October 1970. It was constructed as a semi-autonomous wing of the new Shawnee City Hall. In the image above, the entrance to City Hall, marked by the flagpole, is in the center of the block-long complex. The fire station has no separate “visitor’s entrance.” The official address for the fire station is 16 West Ninth Street, the same as City Hall. Fire stations related physically to City Halls are not common but there are other examples from around the US. For later reference, note the 2 placards mounted on the building just to the right of the apparatus bay doors and the old “fire” bell on the corner of Ninth and Beard.

At the time of Station 1's completion, the mission of most fire departments consisted of little more than being ready to fight fires. EMS, HazMat, Vehicle Extrication, Confined Space Rescue, Dive Rescue, Fire Inspection, Fire Prevention Education, and Plans Review were rarely a part of a fire department's charge. With a limited mission and a decline in the number of structure fires as a direct result of better building materials, building codes and required fire inspections for commercial and multi-family buildings, many stations were designed during this period stripped of any architectural character. They were constructed to be "out of sight and out of mind." Station No. 1, were it not for the measure of visibility afforded by being connected to City Hall, could be argued to fall into the "out of sight, out of mine" fire station description. It is very plain and simple.

Recognizing that Station 1 was designed in 1971 to a set of codes and public law different in numerous ways from what is in force today, attention must be drawn nonetheless to some of the ways the fire department side of the building fails to meet the current code, particularly with respect to The Americans with Disabilities Act (ADA), an Act which is enforced by the US Department of Justice. Modification to the station may, depending on the extent, require updating the entire fire station and perhaps the entire Shawnee City Hall to meet the current ADA code. Not only does the station not meet current codes, it also does not meet, in a number of ways, the operational "best practices" found in expertly designed contemporary fire stations. Again, the station is over 40 years old, deficiencies are to be expected in a structure of that age. Many fire departments consider a station 40 years old to be at the end of its life cycle. In addressing the life cycle of a fire station, architects who specialize in fire stations will often speak of expecting a fire station's life-cycle to be 40 to 100 years. Few reach the 100 year mark and those that do were most certainly strategically located, expertly designed and constructed of quality materials.

The structural column components of Fire Station No. 1 (and City Hall) are of cast-in-place, reenforced concrete. These columns are connected to roof structural members which are precast concrete "T's." They were engineered at the time to withstand any expected future tornadic forces. The same cannot necessarily be said of the columns designed resistance to seismic forces. Since the time of the construction of the building a lot of new knowledge has been gained both empirically and by research methods on how to improve reenforced concrete columns and connections.

There is a windowless basement under part of the building. It serves as the police departments headquarters. The basement can also serve as a tornado shelter should the need arise.

The building does not have an automatic fire sprinkler system. Such a system is now required by the IBC based on the building "occupancy" and will be required as a retrofit with any significant modification to the building. Any significant modifications will also required bringing the building's electrical service and wiring up to current electrical codes. An oil and water separator would likewise have to be installed between the apparatus floor drain and the sanitary line for the building. No water leaks were noted or reported.

Apparatus Quartered at Shawnee Fire Station No. 1

1 75' Truck

1 Light Rescue

1 Reserve Engine

1 Brush/Grassland Engine (US Forestry Service "Type 6" Engine)

1 Battalion Chief Response Vehicle

1 Chief of Department Response Vehicle (Weekdays)

Personnel Assigned to Shawnee Fire Station No. 1

4 Firefighters as Truck Company Complement (5 is ideal)

2 Firefighters as Light Rescue Company Complement (4 is ideal)

0 Firefighters as Reserve Engine Company (Not Staffed)

0 Firefighters as Brush/Grassland Company (Cross-Staffed)

1 Battalion Chief

1 Deputy Fire Chief (Weekdays)

1 Fire Chief (Weekdays)

1 Administrative Assistance (Weekdays)

Assessment Commentary

Assessment commentary on Station No. 1 and the other active stations will focus primarily on functional deficiencies. The assessment will break the discussion down into 9 areas. The areas include:

Fire Station 1 Reference Plans

Fire Station 1 Site

Fire Station 1 Exterior

Fire Station 1 Apparatus Floor

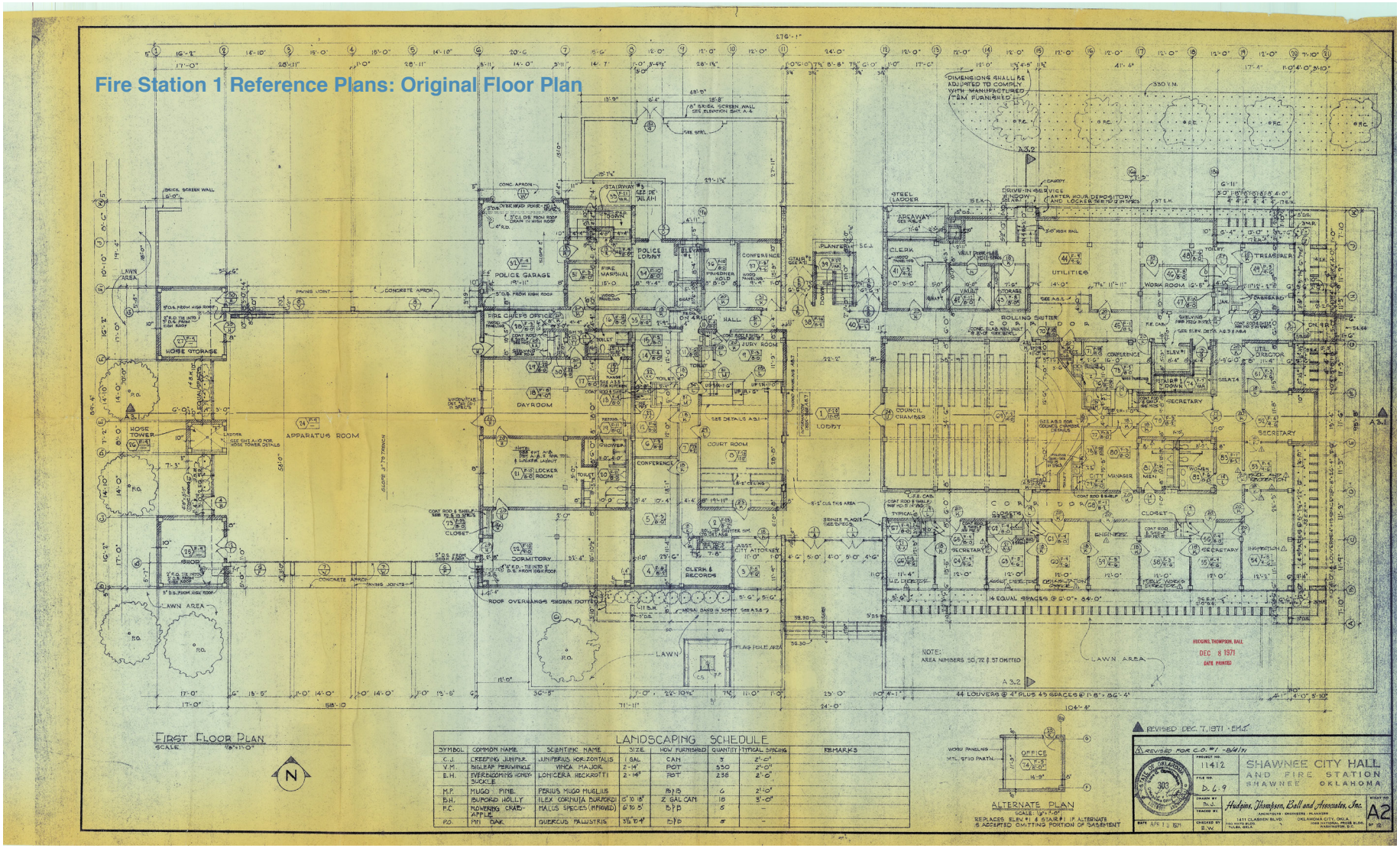
Fire Station 1 Apparatus Support Spaces

Fire Station 1 Crew Areas

Fire Station 1 Crew Support Spaces

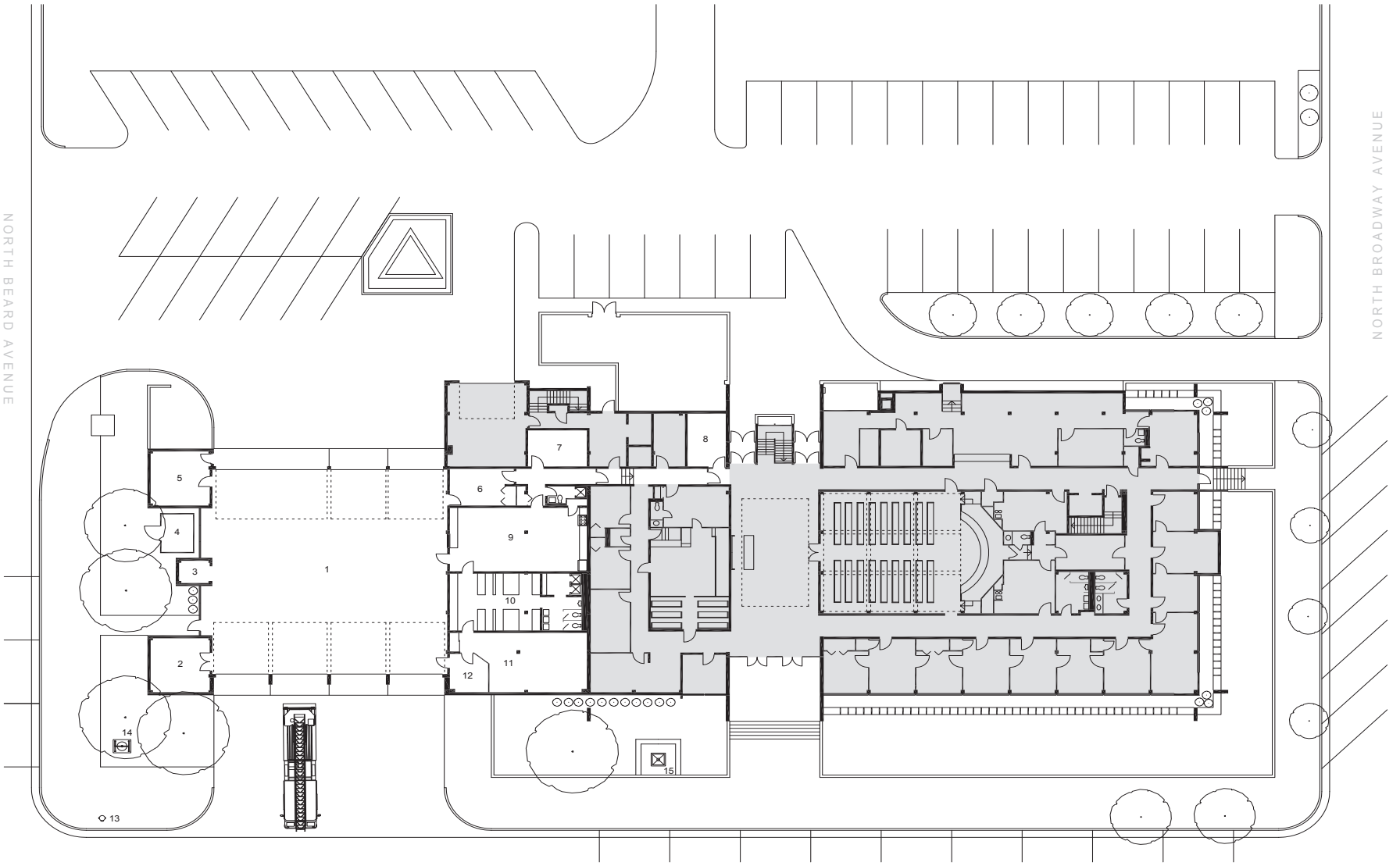
Fire Station 1 Office Spaces

Fire Station 1 Miscellaneous Comments



The original plan for City Hall and Station 1 was prepared by the architectural firm of Hudgins Thompson Ball and Associates out of Oklahoma City. The CAD plan on the following page was prepared by the consultant specifically for the assessment study. Studying the two plans carefully you can see that an office for the Battalion Chief has been carved out of the dorm space and few spaces have been reassigned from their original intent. What was originally a Conference room is now the office for the Fire Department's Administrative Assistant, the Fire Marshal's Office is now the Deputy Chief's office and finally, the Hose Storage room off the apparatus floor is now used as a fitness space for the station personnel. The "greyed out" areas are assigned to City Hall functions or Shawnee Police Department functions. The fire station utilizes about 40% of the ground floor space of the building.

CAD files for all the stations in this assessment study have been prepared and already conveyed as a separate file to Deputy Chief Tischer who has in turn conveyed copies of the drawing files to the Shawnee Engineering Department for permanent storage.



Fire Station 1 Reference Plans: New CAD Floor Plan

Station No. 1 Site

It could be successfully argued that Station 1 has no external site at all. One thing is certain, Station 1, the largest Shawnee station has the smallest site. Being in the center of town, a small site is to be expected. There are no detrimental consequences from the small site nor any real hindrances to the operation of the station save some possible parking inconveniences. The rear bay door on the NW corner is a double-wide to accommodate the turn of a long wheelbase ladder truck into the bay.

The front and rear aprons are short and will most likely not accommodate a 100' aerial apparatus. Even with the 75' aerial currently in use, the side walk is partially blocked when the apparatus is on the apron. Staging an apparatus on the rear apron may interfere with traffic in the parking lot.

With the current configuration of the fire station's floor plan, the space between the retaining wall at the edge of the Ninth Street sidewalk and the sleeping area of the station hardly matters to the activities inside the fire station. The same can almost be said of the "lawn" areas at the west end of the station. The larger trees on the City Hall/Fire Station site obscure the presence of the fire station. Pruning of lower branches is in order. No signage is utilized on site to bring attention to the fire station's existence. There is a historic bell located at the corner of Ninth and Beard. Other features of the site include a parking area at the rear of the station shared with the police department and City Hall staff, a radio communications antenna tower. A secure sally port for the Shawnee Police Department to securely bring in arrestees is at the rear of the station immediately adjacent to the apparatus floor.

Station No. 1 Exterior

When the station's apparatus doors are closed, there is no readily apparent "public" entrance for "customers" needing to interface with the fire department. "Service" might be as simple as needing directions to as serious as needing medical attention or reporting of a nearby fire or other emergency. Visitors will not normally conclude that the public entrance to the fire station is in the back corner of the City Hall Lobby. This can be especially true under duress or at night.

The concrete apron in front of Station 1 barely accommodates a 75' aerial. To accommodate a 100' aerial device with its longer wheelbase, it will be necessary to create "bump outs" in the curb line on W. 9th out to the edge of the travel lane. See the "illustrative" plan of Station No. 1 at the end of this section to envision the curb bumped out to create a longer apron.

The old fire bell on the corner at Ninth and Beard is a nice historical reference, but an artifact like this is usually used to call attention to the public's entry point. A station in Winston-Salem, NC, shown below, has essentially the same bell doing just that.

The wall-mounted orange placard to the right of the apparatus bay door proclaims Station No. 1 as a "Safe Place." "Safe Place" is a national program where people, especially children, in danger of domestic violence or under any other stressful situation can seek immediate, temporary security and shelter. "Safe Place" seekers, instead of gaining immediate entrance to a secure location at the point of the yellow sign, are directed by the blue sign below on how to get in touch with an "emergency call taker."

This means someone needing immediate shelter and protection cannot find an immediate entry door to a securable vestibule to gain such protection. If the apparatus bay doors are closed, there is no point at which to enter the fire station seeking help. If the City Hall lobby happens to be open, Safe Place seekers could go there to seek help. But if the City Hall Lobby is closed there is no "Safe Place."

While there are only a reported couple of people taking advantage of the Safe Place program at Station No. 1, is it possible that others simply turned away because a clear and quick entry point for safety was not immediately available?

During my time in Shawnee for the "on-site" investigation, I returned one evening about 8:30 to Station 1 for a informal follow-up visit. Knowing of the door into the station through the fitness room, I parked in the back lot. The fitness room door was locked. All the rear bay doors to the station were closed and secured as were the front bay doors. Despite trying, I could not raise anyone's attention to gain admittance. Circling the station, I did not even notice the "blue" sign's instructions on gaining admittance. To gain entrance, I had to call Deputy Chief Tischer at home and have him call the station.

Again the "Safe Place" concept does not function effectively as intended. There needs to be some means to communicate in the evening at the point of the signs directly with the fire station's "watch desk" or with an officer in charge of the station.

This Shawnee Fire Department bell on the corner was removed from an earlier station. The bell was the alarm system for the city. It was used to alert volunteer or on-call firefighters. While its current location is acceptable, in an ideal situation it would be outside the public entrance (along with a flag pole) to clearly call attention to everyone about where to approach the station for a visit or business. In the near future, it would be advisable to have the bell and frame soda blasted and repainted to enhance the details.

Moving around Station 1 clockwise to the west side reveals a pair of large floor to ceiling windows, barely visible in this view. These windows could, if not obscured by an outside storage shed and large, stationary equipment inside, showcase the fire apparatus positioned next to the windows.

This could be especially intriguing in a nighttime reveal. I am sure that was the original intent of the architects in their design layout. Facing west, these expansive windows had to be shaded by trees to soften the effect of the sun. Today, glass coatings can effectively block the sun's rays. The way the trees have been allowed to grow has further compromised the view into the apparatus floor.

Two solid forms, "slide" out of the apparatus floor volume at each corner in a drawer-like fashion just as the lower volume of the crew areas appear to have been pulled out from the volume of City Hall. The purpose of these lower height volume is not revealed to the passerby.

The placement of a large "off the shelf" storage shed on the outside of the window on the left side and the placement of PEE storage lockers on the inside has completely blocked the public relations opportunities the large windows afford the fire department.

The sidewalk in the foreground leads to the only fire exit door from the apparatus floor. While the sidewalk is already in place, a paved passage all the way to the sidewalk along Beard is not required. Having the sidewalk paved all the way to the public sidewalk at the street makes the fire exit door "read," in the absence of a true entrance door, as the fire station's "public" entrance. (Review the latest IBC for any updates on this.)

The large untreated windows on the west side allow sunlight into the building resulting in a great deal of heat gain. Much of the gain is "stored" in the concrete floor to be constantly reradiated into the apparatus bays. To remedy the heat gain, tinted film has been added to the window panes.

The window film compromises the daytime view of the apparatus as intended in the original building design. New e-glass technology would allow the original intent to be revived without the heat gain or at least without as much heat gain.

When asked what was in the storage unit, most respondents said “mostly junk.” Perhaps some housekeeping duties are in order to restore the original intent of the west side windows by removing the deteriorated storage shed.

A great deal of extra storage space could be realized at Station No. 1 by extending the pop-outs at the northwest and southwest corners of the building out to the edge of the sidewalk along North Beard. These rooms are currently used as a fitness area and vehicle maintenance. Any addition to the pop-outs could be configured to maintain or even expand current uses with storage space added for a result that satisfies all three needs.

The trees do add a welcome bit of shade to the windows on the west side. If any additions are ever made to the west side, great care should be taken to insure the roots of the trees are not damaged. Efforts should be undertaken to find a suitable non-climbing shade and sun tolerant ground cover for the bare ground under the shade trees. Consult a local plant nursery for suggestions.

Station 1 may be the only drive-thru station in the nation with a double-wide apparatus door in the rear. The double-wide door was deemed necessary to accommodate the sweep of a long wheel base apparatus, such as a 100’ aerial, turning into the station.

In the original plans for the building there was a double-wide door on the left side of the rear. At some point in the history of Station 1, the deep girder spanning the double-wide opening has been removed and replaced with a shallower girder supported by a new column. This was most likely done to increase the opening height. The new column does not match the existing “center” column with respect to width.

Note the unsightly “storage” of items at the rear of the station outside the fitness room’s north wall. The “L” shaped brick screen wall to the right of these items was a part of the original plan. On the original plan, the “storage yard” defined by the wall had no designated purpose given.

The blank wall on the left side in the image above encloses the Police Department’s sally port designed as a securable portal to move detainees from cruisers to cells.

Station No. 1 Apparatus Floor

The apparatus floor is the second most important space at a fire station for public relations purposes. The station entry receiving point for the first-time visitor is the most important. When visitors come calling, the primary thing they want to see is the mobile fire equipment staged on the apparatus floor. The apparatus floor therefore needs to be easily accessible, reasonably clean and free of all items that might detract from “customers” having a memorable experience spending time with firefighters and their equipment.

This image on the bottom left reveals a common truth about firefighters everywhere - they like to grill out. It is surprising how many fire stations get constructed without acknowledging that the grilling equipment has to go somewhere when it is not in use. Shawnee is no exception. One grill or three, it does not matter, they should not be stored on the apparatus floor where they become impediments to circulation going to the apparatus in answering an alarm.

This image above clearly shows Station 1’s cluttered apparatus floor. This is due to insufficient apparatus floor support rooms for storage and maintenance issues. Visible are foam concentrate containers, PPE storage lockers, SCBA fill station, SCBA cylinders storage rack, miscellaneous apparatus floor and station maintenance equipment and fitness training equipment stationed outside the fitness training equipment room. The apparatus floor is the dirtiest space in the station. With diesel particulate mater potentially present and outgassing of 71 known carcinogenic agent s that can get embedded in PPE fabric during a working fire, no cardio exercise routines should take place on or just off the apparatus floor. Fitness routines requires a clean air environment.

Passing though the physical training room is the only way to exit the backside of the apparatus floor. The soft drink machine has been relegated to the outside of the building. It should be removed from the premisses.

In the photo above, partially seeing the city beyond the windows, one can begin to understand the architect’s original intent to have the apparatus floor relate to the outside and have the apparatus on “display.” Note all the overhead lights on during daylight hours. A modern fire station’s design will address natural daylighting of the apparatus floor. Additionally, light fixtures will be LED in design and will be motion activated.

The door on the right far wall leads to the Battalion Chief's (BC) office/ sleeping quarters. (It also leads to the sleep area for firefighters.) Positioning the BC's response vehicle next to the office/sleep room where the BC's spend a good deal of their time doing required record keeping means that the BC's vehicle will most likely be the first piece of apparatus out of the station for an alarm and first on the fire ground. (This could be a positive attribute depending on SFD SOG's. In some departments, the BC follows apparatus so as to not get in the way of apparatus positioning, while in other departments the BC leads the response to do the initial size up and then to direct the positioning of apparatus.)

The downside of the current office quarters and vehicle positioning is the likelihood that the BC will leave the station without any visual confirmation that the rest of the crews are up and moving to their respective vehicles. This possibility did not surface during the on-site visit to Shawnee, but it has come up for discussion at other departments with similar circumstances.

Some departments want the positioning of the BC's vehicle just the opposite of Shawnee, that is the BC's vehicle is positioned on the far side of fire apparatus carrying suppression personnel. On an earlier project in my experience, in the proposed station remodel, the "flow" to the apparatus floor from the dorm and officer's sleeping quarters was rearranged to send the officers through the edge of the dorm in traveling to the apparatus floor. Doing so, the BC would be assured that the "troops" were up and out.

At 15' on center, the bay column spacing is 3' less than the recommended center to center spacing of 18' center to center.

The red "cage" lockers are fine for storage of PPE, but these are too close to the bay door opening allowing direct sunlight on the garment. Sunlight will prematurely weaken the fabric. All PPE for off-duty personnel should be stored in lockers in a room located off the apparatus floor in a space that does not receive direct sunlight. The lockers here should be mounted higher on the wall to facilitate wash-down of the floor without wetting PPE on the bottom. The conduit running under the locker is subject to being wetted.

With all mobile equipment assigned to Station 1 in place, the station does not function as a drive-through as was the original intention. Few stations designed as a drive-through functions as a drive-through. You will find the drive-through potential often blocked by reserve apparatus, equipment trailers, training props and other stored items. SFD's Station No. 1 is no exception.

All of SFD's stations were designed as drive-throughs but none of then functions completely as designed. The drive-through option for any future stations should be questioned. It might be worthwhile questioning the validity and current commitment in Shawnee's existing stations. Negating the drive-through options at all SFD stations presents great opportunities for the additional of much needed apparatus floor support spaces at the rear.

In the image above, "pump drip" water can be seen standing on the apparatus floor. Pumps can drip 10 to 12 drips/minute and still meet the NFPA 1901 Standard for Fire Apparatus. Wet or oily spots on the apparatus floor create slip/fall potential for personnel and visitors alike. The station should have been constructed with "under the apparatus" trench drains to capture water and oil drips.

The apparatus floor at Station 1 slopes from the front of the building to a trench drain at the rear along the inside edge of the bay doors. Trying to clear the apparatus floor of water by sloping the floor front to back created a 3"step down at the door leading from the dayroom, a depth not easily perceptible to the human eye under some light conditions. As a result people often stumble walking out of or into the dayroom.

A "fix" for the step down/step up problem has been attempted with a tile patch. The fix helped but a trip edge remained caused by the thickness of the tile and the tile setting bed. This lip could have been prevented by sawing a line in the concrete corresponding to the size of the tile ramp and removing enough concrete to allow the tile ramp to fit flush with the floor.

A "fix" for the fix has been attempted with the "Bauer" mat which is about ¼" thick. The Bauer Compressors Mat came with the Bauer SCBA refill station recently installed on the opposite side of the apparatus floor. The mat was intended to relieve leg stress while engaged in SCBA cylinder refills, often a prolonged operation.

The fix is possibly too steep to meet ADA standards which requires a maximum sloop of 1 inch in 12 inches. The ramp should be 2 to 3 feet long.

The door at the front end of the apparatus floor leading from the battalion chief's office and sleeping room also appears to have had the step down modified.

Station 1 Apparatus Floor Support Space(s)

On the southwest corner of the apparatus floor is a room original designed to be apparatus floor support space for fleet maintenance. It remains primarily a vehicle maintenance space. The unsightly barrel being used as a trash can and the items leaning against the wall behind the barrel add to the visual clutter of the apparatus floor.

The image above shows the tightness of the space between the fire engine and the items that have been positioned on the apparatus floor. These would normally be located in apparatus support rooms but space is unavailable. The yellow exhaust extraction hose uses an air bellows to clamp to the vehicle exhaust pipe. Air leaks (the small orange line) have been a problem with this system. Magnetic catches are now available.

Firefighters should not have to work around exhaust hose to remove their PPE gear from their storage lockers each time they come on duty or go off duty. If the exhaust hose happens not to be hooked up to the apparatus when the apparatus is started in the station, the PPE lockers get fumed!

Moving toward the back along the west side of the apparatus floor we find the SCBA cylinder fill station and more clutter in the form of apparatus floor cleaning supplies and equipment. Moving the folding table out of the way reveals a rack for spare SCBA cylinders. These cylinders should be in a "clean" room. Should any debris get in the threads or on a seal, a firefighter's SCBA could be compromised. The view out is marred by the SCBA station.

At the back NW corner of the apparatus floor is a room that was originally designated as hose service and storage. It has since be converted to a much needed physical fitness room. Some of the physical fitness training equipment has spilled out into the apparatus floor space. In the lower left hand corner of the image is a treadmill machine. During the site visit these items were observed being used all hours of the day. No endurance-building equipment should be used on the apparatus floor. The apparatus floor is the dirtiest space in the fire station. There is no need to risk breathing in airborne contaminates that might be floating around in the air. The power cord running to the treadmill is a trip hazard. Note the trench drain at the low point of the rearward sloping apparatus floor slab and the barely perceptible step up to the fitness room. Fitness rooms are best located in an observable space near the crew areas. When the bay doors are down, the only emergency exit from the apparatus floor is through the fitness equipment room. Hopefully no equipment will be in the way!

The Vehicle Maintenance space, shown to the immediate left, was originally intended for service and repair of apparatus. It has evolved to also be the service and repair room for both gasoline and electrically powered equipment carried on modern fire apparatus. By default, in the absence of any utility closets off the apparatus floor, the room has become the repository of some of the equipment necessary to clean and maintain the station.

The room is poorly lighted and poorly ventilated for its current purposes. It lack organization. It could use more cabinets and hand tool mounting brackets.

The room should have a large flammable-liquids storage cabinet present with MSDS sheets nearby.

There is space to expand the room to the west or to add a secondary storage space behind the existing room.

Contrast Station 1's Service and Repair space with the neat one above. (But even here, the Captain in the foreground is saying the space is too small.)

Station 1 has a "25' hose tower that was designed to allow the hanging of 50' sections of hose draped over spindles at the top of the tower. In the photo above can be seen one section of hose. The hose tower is getting little use of late because Shawnee has moved away from "cotton jacketed" attack hose. Cotton jacketed hose had to be dried before being placed back on the apparatus. Drying the hose prevented the growth of mold on the damp fabric. Fire departments switched to attack hose with a synthetic outer covering that in theory does not have to be cleaned and dried before being reloaded on the apparatus. However, many department using the non-cotton jacketed hose have found they get longer life out of the hose if they at least wash it before putting it back on the apparatus. Doing so, these departments have found that washing the hose removes fire ground debris that was often coarse enough to abrade holes in the hose. Some departments have gone back to washing and drying house before reloading on the apparatus as a way of keeping the hose beds of the apparatus free of debris and moisture, moisture that often makes its way to the apparatus floor.

Two recent LODD deaths at the same indent in Boston has been blamed on failure of light weight synthetic attack hose. Publicity about the incident has bought forth a rash of other fire department reporting similar failures of hose under fire attack conditions. Because of lesson learned in these incidents, I would not be surprised to see cotton jacketed attack hose make a comeback. If that be the case, then a functioning hose tower will be an essential part of a fire station's apparatus floor support.

Before Station 1's hose tower can be properly used as designed, the items

stored there will have to be relocated. This includes a rolled-hose rack, a shop vac, floor mops and other items.

Even if the SFD maintains it currently policy of not washing attack hose after use before reloading, the hose tower should be emptied of the items stored

there and the tower used as a focal point for any tours of the station by school children or any other customers. It can always be a place to hang old hose that has been taken out of service because it failed a pressure test or was damaged in a fire. Anyone looking up into a hose tower full of "drying" hose "understands" a fire station just like they "understand" that a fire station has a fire pole.

Fire Station No. 10 in Chicago and the new fire station in Streeter, Illinois (shown) both have "fire poles" even though the stations are 1 story. No child visiting the station has ever questioned the fact that there is no second floor on the station. The pole at Streeter was relocated from the old fire station before it was demolished.

The cleverly considered addition of some LED lighting, in the tower would enhance a fire station visitor's experience of looking up a hose tower firsthand - from the bottom, LED lighting could also enhance firefighter safety when working in, over or under the "drying" hose.

Fire station hose towers in the past, especially if placed at the front of the structure, were iconic "beacons" that helped a passerby readily identify the building as a fire station. While the hose tower has been shoved to the side at Station 1, it could with little embellishment become a meaningful beacon for the community.

While an embellished hose tower can enhance public perception of the fire station so too can bay doors. With glass in all but the bottom panel, a department can best convey to the public the building houses fire apparatus poised ready for the next alarm. Insulated glass and skirt panels should be used to minimize heat loss and heat gain. With overhead bay doors it is best to keep replacement coil springs handy.

Long term performance and building life-cycle cost considered, the best apparatus bay doors to use in a fire station are bi-folds that move to the side. Bi-folds open faster. The driver can always see that the door is fully open, something not always possible with overhead doors. Bi-fold doors open 3 times faster than overhead doors.

In the "under construction" photo above of Steinbach, Manitoba, the hose tower is on the front of the building. The hose tower not only can be used to dry hose, critical in Manitoba, but it can also be used as a training tower and a weather observation point. The apparatus bay doors have a solid lower panel. While all glass looks better, the bottom panel, if of glass requires a bit more cleaning as it picks up dirt from rain splatter.

Summarizing the Apparatus Floor and the Apparatus Floor Support Space:

Apparatus bays should be 18" wide. The wider spacing allows more room to service apparatus compartments by laying out neatly next to the apparatus all the equipment carried. This type of periodic "deep clean" insure that firefighters are familiar with which compartment a particular piece of equipment is housed. A wider spacing allows exhaust extraction equipment to hang between the apparatus without hindering traffic flow to the apparatus or to any banks of service cabinets that might be between or along the sides of the apparatus floor.

The lack of adequate apparatus floor support spaces presents a cluttered appearance to the public and hinders the day-to-day operation of the station. Typically found off of apparatus floors are small rooms for hose storage, SCBA service and repair, apparatus parts and repair, small engine parts and repair, PPE locker rooms for off duty personnel, a janitorial closet and a public, but not public toilet.

As for PPE storage, the best new stations will have a separate room for each platoon – one for red, one for green and one for blue in the case of SFD. The PPE storage is such that humidity level and the light exposure can be carefully controlled.

Station No. 1 Primary Crew Spaces

Above is a photograph of the dayroom looking east toward City Hall. Dayrooms are the principal crew space in a fire station. "Dayroom" is actually a misnomer as on average little weekday "daytime" hours are spent in the dayroom save time spent in Company level "classroom" sessions and the preparation and consumption of meals. (In the case of the SFD, the only station with a dedicated classroom is Station No. 3.)

In reality, the dayroom is more of a "Nightroom" in a modern firehouse. It is the "Family Room" of the firehouse. It is the primary social space. It is an essential space for the development of a true understanding of the fire fighting "brotherhood." Dayroom activities nurture the development of trust and Company cohesion, essential elements on the fire ground.

While viewing angles have improved considerable on flat screen televisions, viewing for all would be improved with an orientation that used the long axis of the room. It is imperative that each member be accommodated equally in the dayroom to the greatest extent possible with respect to seating, viewing, etc. The existing dayroom fails to meet this equal accommodation goal when measured against the size of the station crew. The column intrudes into the Dayroom space and hinders options for arranging furniture and other items. Columns also intrude into the dorm and the locker room.

The kitchen area is a too small for the number of firefighters on duty and will certainly be inadequate if additional firefighters are added to Station 1's roster. All kitchen appliances are for "residential" use. The cooking stove and refrigerator are undersized for the need. Commercial stoves and large "high-end" residential refrigerators are the standard. Many new stations have a separate refrigerator for each shift. (This avoids conflicts over which shift "owns" the items in the refrigerator.) The cooking hood should have a fire suppression system. There is inadequate cabinet and counter top space for the size of the duty crews assigned to Station 1.

A cramped kitchen does not encourage the preparation and serving of "team" meals. But every fire department will tell you that it is around the meal table that team building, so essential to a professional fire department, first begins. It is also around the meal table that fire department wisdom begins to be passed from one generation to the next in the form of discussion of past fires and "what if's" for current possibilities. Some departments will have street name/location drills and hydrant location drills as a part of the meal table banter even if this data is available via onboard computers.

The dayroom situated in the middle of the building and away from an outside wall makes it difficult for duty crews to hear any "walk-up" seeking assistance anytime the apparatus doors are closed and the City Hall lobby is shuttered.

The door to the left rear leads to the hallway serving the fire administration. The "administrative" hallway also serves as a secondary means of egress from the Dayroom/Kitchen in the event of a fire or other need to evacuate the fire station. The fire rating of this secondary escape corridor is unknown

In the photo above looking west toward the apparatus floor, the only existing place for indirect daylight to enter the dayroom is through a small double window, seen just to the right of the door to the apparatus bay. The window looks onto the apparatus floor. Shades are drawn in the window to cut down on the contrast of the dark dayroom and the brighter apparatus floor natural lighting. The shades facilitate the use of a computer and monitor at the "watch" station. There is essentially no way to introduce daylight into this interior room save the installation of skylights or solar tubes.

This window portal to the apparatus floor was do doubt originally conceived of as providing the “watch” function over the apparatus floor. It was, when paired with a desk in the dayroom next to the window, intended to take the place of the more traditional separate “watch room” found in generations of earlier fire stations. Today’s watch rooms also serve as report writing space.

On the wall to the right and above the current “watch” station desk are several generations of “station alarm” systems. As the alarm method was upgraded over the years, old alarm systems were not removed and by default became an “artifact” display.

The solid masonry interior walls have made modifications to electrical and communication circuits difficult. This has resulted in a number of places in the dayroom (and throughout the station) where exposed wire, wire conduit and even water pipe have been scabbed onto the wall surfaces. There is nothing wrong with exposed conduit in a combination “industrial-residential” building but only if the routing is carefully arranged and carefully installed. It can be an interesting part of the interior aesthetic expression but certainly requires care in future modifications to maintain the “industrial aesthetic’ consistent.

The dayroom appearance and comfort level suffers for lack of any built in storage cabinets for “stuff,” that is not necessary to be out all the time. Some of the things on “display” in the day room, such as the trophy on top of the ice maker could best be displayed as a public relations prop in an area designed/dedicated for the first-time visitor’s reception.

Ice machines were not a typical station item when Station 1 was constructed. Neither was the current level of PPE worn by firefighters in performing their task on the fire ground. The current standard in PPE thermal protection also means that heat is trapped inside the garment raising core body temperatures to dangerous levels in short order. Fire departments have learned that it is absolutely necessary to have adequate amounts of cold fluids on the fire ground to rehydrate fire fighters during rehab. Most fire departments today, at the beginning of each shift, will routinely empty and refill with fresh ice all apparatus mounted coolers. If anything, the ice machine shown here is probably too small for the job of keeping apparatus coolers stocked and supplying the daily needs for ice usage in the dayroom/kitchen routines.

Ice machines such as this should never be mounted in the apparatus floor area. Unfortunately they often are because there is a floor drain available. They should also never be located in the dayroom as is the case at Station 1. They are noisy machines when the compressor is running often making conversation all but impossible. Over time, prolonged exposure to the decibels generated has the potential to contribute to hearing loss.

Ice machines should be located in a pantry designed to serve the kitchen area of the station or some other location more remote from the spaces where on duty firefighters spend their time between alarms, training or on other work assignments. The same can be said for the small freezer located in the dayroom.

The overall cluttered appearance of the station has been brought about by years of adapting new equipment and conveniences to a station that is short on storage areas and auxiliary storage rooms.

Stackable chairs are best kept in a chair and folding table closet related to the dayroom, or a training/community use room. Station No. 1 has no such room. Ideally, bulletin type boards should be in circulation hallways to avoid the cluttered image that these impart to the dayroom/kitchen area. Many fire departments today are doing away with bulletin boards and replacing them with cloud computer files and calendars that each department member can access at any time. The open door leads into the locker area and dorm.

It is not unusual to see an electrical closet being used as a “mop” closet at a fire station but electrical closets should not be so utilized. State of the art fire stations have one or more dedicated janitorial closets for the crew areas and a separate “mop” closet for the apparatus floor. Such closets make a great place to post the OSHA required MSDS sheets for cleaning chemicals used by station personnel in their routine and non-routine daily cleaning. Using the electrical closet as a “mop” storage area, if allowed to get out of hand, could hinder quick access to any electrical shutoff devices such as the ones seen in this image. Electrical “closets” should be accessible from the exterior of the station.

It is rare for a fire department to have a good photo record of it past stations, apparatus, personnel and significant fires. SFD has such a collection. On the wall in the dayroom, where they are off-limits to all but invited or scheduled visitors, the collection fails to live up to its potential as a public relations tool. The best place for such a collection would be in a semi-public lobby or “museum” connected to a controlled entry vestibule.

The primary crew spaces for a career fire station includes the dayroom and the sleep space(s). Station 1's sleep space leaves a lot to be desired. The room hardly accommodates 6 beds. Some dorm floor space was lost with the insertion of an office/sleeping room for the BC's (which can be seen intruding into the crew dorm on the right in the image below). The BC's should have a dedicated office and bed space. There are times during the night when the BC will make a response with one of both of the other Shawnee stations and Station 1 will not be assigned to the alarm.

Note in the image below how the BC's office-bedroom restricts the isle width leading out of the dorm space. This is something you do not want to do in a space that needs to have unimpeded flow to the apparatus floor in responding to an alarm. Compounding the flow is the requirement to go through the Battalion Chief's office/bedroom in getting to the apparatus floor. Also note how the structural columns intrude into the dorm floor space. The intruding columns create compromised bed spaces. All bed spaces should be exactly the same. Chairs between the beds do not match. Beds could be over 3-drawer "linen" cabinets for storage of bed gear.

Most new fire station using an "open" dorm layout will nonetheless have partitions arranged such that bed cubicles are created for some measure of privacy. This is done for two reasons. One is to more readily accommodate female firefighters; two is to allow bedside lamps for reading without unduly disturbing those who are trying to sleep. (One major department has recently removed the privacy partitions in a new station in favor of the old style open sleeping arrangement. The intent is to restore some of the camaraderie lost in the department's new, bigger station. The department has many female firefighters and chief officers within its ranks, so gender issues were not an overriding issue in making the change to the open dorm.)

Station No. 1 Crew Support Spaces

Typical crew support spaces in a modern fire stations include a physical fitness area, personal locker area, domestic laundry area, toilet and shower area(s) and a study area. Shawnee Station 1 has all of these present except the study area. Several functions present were not originally designed into the station. They were "fitted" in by the firefighters assigned to the station.

The largest one of the support space fitted in is the physical fitness room which is an adaptation of what was originally the hose storage room. The image below was taken from the doorway to the apparatus floor.

As mentioned earlier, not all of the strength/endurance equipment in use at Station 1 will fit in the fitness room. Some of it sits out on the apparatus floor, the "dirtiest" room in the station.

A firefighter using the treadmill on the apparatus floor will be breathing deeply…breathing deeply in air that potentially is very dirty from diesel smoke particles, dust from road grime and a list of carcinogenic chemicals that find their way to the apparatus floor from fire fighting activities.

Station 1's improvised fitness space is also undersized if everyone on shift works out at the same time (as required by some departments). The space is too isolated from other crew activity areas. The best fitness rooms have at least one wall of glass so that anyone using the facility can be "noticed" by other firefighters moving about the station's crew areas. This is important because there have been a number of serious injuries working out alone and at least two fire fighter deaths in an isolated fitness room

where the fire fighter when down and no one noticed until it was too late. Cardio training and strength training are two “musts” for firefighters to engage in to be totally effective on the fire ground where stamina and strength are essential for job performance.

If adequate fitness facilities cannot be provided in the station, an alternate solution is to provide memberships for the firefighter in a gym located within the station’s response area. Raleigh, NC has done this and even has a marked parking area for fire apparatus in the fitness facility’s parking lot.

Station 1’s fitness room has a door to the back apron. As such it could make an ideal DeCon space in that contaminated firefighters could enter the space, remove contaminated equipment and clothing and clean up before entering the station proper. However, if the room were to serve as a DeCon space, where then would the fitness equipment floor space needs be met?

No “domestic” laundry was provided in the original station design. Towels, sheets, cleaning rags and the like had to be laundered by a vendor or taken home to laundry. The laundry area shown in the image above is the second attempt to address the station’s domestic laundry need. It is located opposite the two shower stalls. This location required the installation of a drain, power source and vent for the dryer. The recommendation now is for no domestic laundry to be taken home for cleaning.

The first attempt to add a domestic laundry was at the expense of one of the two crew showers located opposite of the current laundry location. Lost in the new location was a niche for a “changing” bench and place to hang items while using the shower. In the first attempt to have a domestic laundry, the left shower stall’s plumbing was modified for the hot and cold water hookups while the shower’s floor drain functioned as the washer drain. The modifications done to the shower stall have not be restored, leaving only one shower for the entire Station 1 crew.

No storage space of any kind was provided in the original design for toilet/shower room supplies. A makeshift “closet” has been added by the firefighters to hold cleaning supplies, toilet paper, paper towels, etc. The presence of the cleaning supplies for the shower and toilet areas raises once again the question about the location and completeness of SDS paperwork. Each product in use in the workplace must have a corresponding SDS sheet on file. Failure to have SDS sheets on file for each product can result in a substantial OSHA fine for each product not covered.

The shower stalls are in reasonably good condition considering their age. This is due primarily to the quality materials used in their installation and finish in the first place.

As mentioned, only one of the stalls is a functioning shower unit. At some point in the past, a stacked washer/dryer set was placed in the shower stall. A washing machine hose connection remains in place (perhaps to fill mop buckets?). The shower rod, in the absence of wall hooks, is used as a garment hanger. The chair is being used as a towel rack.

The marble panels in the shower stalls can be polished to bring them back to there original luster.

A single shower curtain has been hung in the opening to the shower /washer dryer area. The shower rods for a curtain at each shower stall have been retained and could be used once again if the defunct shower is repaired.

Considering the number of personnel assigned to Station 1 and the number that might be assigned in the future if additional apparatus are placed in service, the deactivated stall should be reactivated as soon as possible. This shower area will not accommodate female firefighters. With the “step-over” lip, the stalls do not meet current ADA standards. In any future renovation, at least one stall must be ADA compliant.

In the one active shower, a second, lower curtain rod has been added to insure the shower curtain hangs low enough so that water running down the inside face of the shower curtain flows into the shower’s floor drain and not out on the floor in front of the stall. On reactivation of the disconnected shower, a lower shower rod will need to be added or long custom made shower curtains for both stalls fitted to make use of the original rods.

There were no clothes hooks, towel racks or soap dishes in the original design of the shower stalls. The chair in the unused stall is one of the makeshift props being used as a place to sit items during use of the one active shower.

The best stations will have a “janitor’s” closet in the shower/toilet area to store cleaning supplies, brushes, plungers, bath soaps and miscellaneous paper products used in a toilet/shower area.

There are currently no female firefighters in the Shawnee Fire Department. A more perplexing problem to solve if the existing Station 1 is to remain on line is what to do about shower facilities for female firefighters when they do become members of the department. It is not a question of if but rather of when. (The Charlotte, NC FD has perhaps more female firefighters than any other American career department, including several who have risen to the rank of Battalion Chief. In Charlotte, females are afforded separate shower/toilet facilities but share common sleeping quarters where tall partitions give privacy.)

As separate shower/toilet facilities will have to be included in any extensive update of Station 1, one possible solution is to designate the fire chief's toilet/shower on the other side of the station as the female facility. A second possibility is to gut the existing shower/toilet area and construct two separated "bathrooms" that include a shower, sink and toilet behind lockable doors. The laundry could be located between the two bathrooms.

The fixtures, partitions, and wall/floor materials are the originals. This says a lot about using high-end, sturdy equipment for fire station installations. However, one shortcoming evident in this image was the non-provision of integrated trash receptacles. One possibility to consider would be retrofitting the urinals and toilets with automatic flush valves. The gives a consistent flush volume, insures that the devices are flushed and eliminates contact points for the spread of germs. Access to the toilet/shower/laundry areas is through the locker room which is located between the dayroom and the sleeping area.

The image above, taken from the locker room, shows that the door separating the two spaces has been removed. The reason for the door removal was not established during the site visit. Any update of the shower/toilet/laundry area should be preceded by a thorough design study of the possibilities.

The image above shows the door into the locker room from the dayroom. The door on the opposite side connects to the sleep area for the firefighters and to the office/sleep area for the Battalion Chief. The bank of small locker on the right are used by the firefighters to store personal items.

A corridor has been formed across the locker room linking the dayroom and the sleeping bay by the backside of two banks of lockers. The gap between the two banks is centered on the door opening to the toilet/shower/laundry areas.

Lockers, while old, are adequate in number. They are inadequate in other ways. They could be larger. Not many changes of clothing can be hung in the lockers. Fire fighters may have to change station duty clothing more than once in a day. Fifteen runs and a working fire or two in a day can take a toll on personal hygiene and a day uniform's condition.

The major problem with the lockers is that they do not offer "equal" treatment to each firefighter assigned to the station. One bank of lockers has a "dress" bench. The other bank does not have the bench. The bank of lockers without the bench is a second-class tier of lockers.

In the locker banks on the left side of the locker room there is no service bench. A resourceful locker owner has appropriated a stackable chair from the dayroom and brought it into his space to provide desired seating. Imagine this locker aisle space if each firefighter were to bring in a chair to use. Each firefighter should have exactly the same locker situation. The layout of any commonly assigned space should be exactly the same for all. This applied to personal lockers, food lockers, PPE lockers or even beds. If one fire fighter has a window over his/her left shoulder in the bunk room, then every fire fighter assigned to sleep there should likewise have a window over their left shoulder.

To the credit of all shifts at Station 1, it appears that the locker room is being well maintained.

The structural column layout in the locker area interferes with the functional use of the space. The locker with the open door is essentially unusable with the column occupying the “standing space.” The locker is, as a result, unassigned. With the column greatly compromising its use, no one would want to use it. Luckily there are currently more lockers available than personnel assigned to the station. If future staffing levels improve, this will not be a popular locker to be assigned.

The structural column also causes an offset of the lighting fixture from the centerline of the locker bay. The locker room could benefit from the installation of skylights or solar tubes.

Station No. 1 Office Spaces

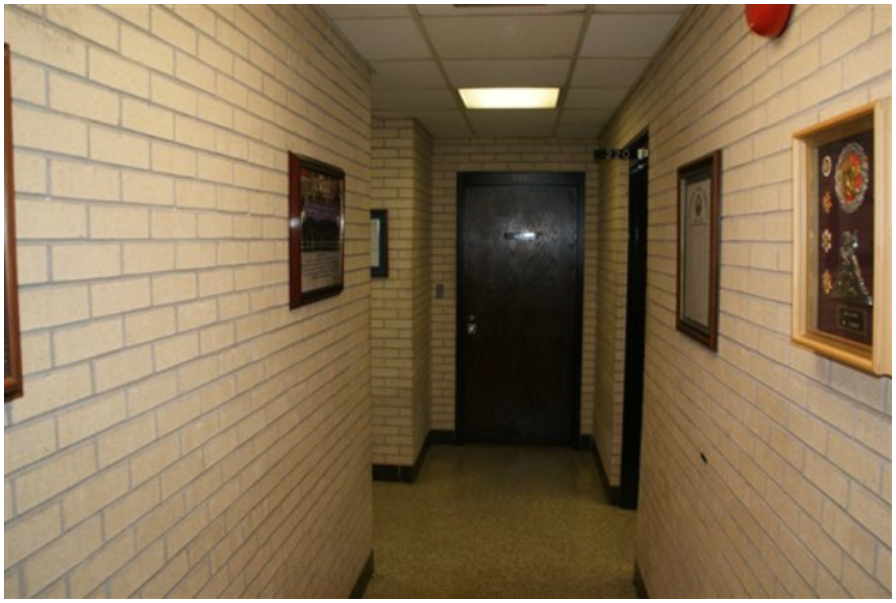
Station 1 has no direct, distinct entrance. Instead, visitors must find the "entrance" as a passageway off the lobby of City Hall. There is no "receiving/ wait lobby", save the lobby of City Hall. Anyone arriving at the fire station for a meeting with the fire chief, deputy chief or for any other reason has a poor "calling" experience. To pass through this second "control" door, visitors entering the fire department's "administrative corridor" must have first passed through the outer control door at the City Hall lobby. To get through the outer control door visitors must first get the administrative assistant's attention to have the outer control door's lock remotely released. If the administrative assistant is away from the office for any reason then visitors at the entry portal to the station must wait. Not good customer service.

The fire department's administrative assistant's office, once a conference room, is too remote from the chiefs' offices and hinders somewhat any desired quick face-to-face working relationship. The image shown above is looking back toward the City Hall Lobby. The door to the left is the fire department's administrative assistant's office. To the left side of the FD's Administrative Assistance office is a Police Department Prisoner Holding room. Prisoners brought into the police station via the sally port potentially mix with fire department staff and visitors in getting to this room.

Visitors who do gain entrance to the administrative hallway are almost immediately confronted with a short flight of stairs followed by the second "control" door. Having the stairs in the entry corridor will bar some visitors with disabilities from entering Station 1 through the "ceremonial" front door," the main entry portal for the fire administration. The entry corridor width does not meet current ADA design standards.

Station 1 does not have a "Watch Room" in the traditional use of the term. When speaking of a fire station, a Watch Room oversees the coming and going of station visitors. Station 1 does have a Watch Window and Watch Desk located on the apparatus side of the Dayroom. As a result of the obscured entrance and the lack of a watch station on an external wall, after City Hall hours the station is essentially unaccessible.

The open door in the distance is the doorway to the Fire Chief's office.



The inner hallway with the door to the Fire Chief's office closed.

The door on the right after passing the second control door was originally the Fire Marshal's office but is now the office of the Deputy Fire Chief. The same room serves as the "quartermaster" storage for the fire department. Stored there are firefighter uniforms and other personnel equipment and supplies for use by the department. The hallway to the left leads to the fire station's kitchen.

Memorabilia on the walls of the corridor is interesting and worthwhile to hang for visitors to enjoy, but you cannot stop to study the material without feeling you are blocking routine traffic flow in the corridor. Consequently, few visitors enjoy the display. The memorabilia would be great decoration for the walls of a receiving lobby.

Turning left at the end of the "entry" hall is a short hallway to the door leading to the fire station kitchen and dayroom. The door on the right is a small coat closet. The door on the left is a small toilet/bathroom designed as a private facility for the chief officer. It is now used as the toilet facility for the administration area of the fire station.

There are no windows in the Fire Chief's office. The dark paneling further adds to the gloominess of the space. Circulation could be improved a bit by moving the desk to the opposite wall. This would allow a more direct egress from behind the desk to the office door. It would also allow seating in front of the desk to be uninterrupted by the circulation flow. The door on the back wall leads to the apparatus floor.

The Deputy Fire Chief's office is also a windowless and gloomy workplace. The brick wall seen in the photograph is not part of an exterior wall. On the other side of the wall is the police department's sally port and other passage spaces used by the police department to securely bring detainees into the police station for integration, booking and/or holding.

The Deputy's Chief's office also serves as the "Quartermaster" for the SFD with most new equipment, station wear and PPE stored here before being issued to new employees or as replacements/upgrades to existing employees. While it is essential that all of the PPE, uniforms, portable two-way radios and small hand tools purchased for use by members of the department be maintained in a secured area until issued, it is not necessary for these items to be stored in the Deputy Chief's office or any other office for that matter. A secured, proper storage area for this gear should be a near-term goal for the department.

With the Deputy Chief's role including assisting the Fire Chief in administering the department by long-range planning plus seeing that policies are carried out, the Deputy Chief's office should have space for more wall mounted white boards to strategize and track the many facets of projects assigned. There should be adequate room for seating of subordinates during any meeting times.

In many departments, the deputy chief is responsible for keeping track of budget items, billing for any services such as EMS charges and any others that are not provided free of charge. Deputy chiefs are also typically charged with seeing that all emergency reporting required by state or federal tracking agencies are properly complied with. These reporting activities need to take place in a well lit, clutter free work environment.

Station 1 was built in 1971 to a set of codes and public law different in numerous ways from what is enforce today. None of the corridors shown in the administration area meet today's standards with respect to ADA requirements for width and accessibility. Today's standard requires a flanking wall offset of up to 24" from the door handle. This required offset allows space for someone with a mobility handicap to step or pull aside in swinging open the door.

In an ideal fire station and particularly one housing the fire department's administration, the public should enter into a well lighted entry lobby filled with the fire department's historical artifacts, citations, and photographs. The lobby should be observable by the administrative assistant and/or the fire station "watch" room. Such a lobby should be equipped with comfortable seating for those who must wait for the person on whom they are calling or in the case of a station tour for groups, their host. The entire administrative hallway lacks any direct natural light. It is a pretty dismal entry experience to the fire station and fire department administrative areas not to mention work experience.

At some point in the history of Station 1, an office and sleep space for the Battalion Chief was "carved" out of the space that made up the dorm room.

At the time Station 1 was constructed, SFD did not even have Battalion Chiefs. Battalion Chief's typical duties most certainly require an office in which to perform the multitude of paperwork necessary for accountability issues and the required documentation necessary to track alarm response and actions taken, etc. For an alarm response, fire fighters must snake their way to the apparatus floor through the BC's office and out the door shown.

Traveling to the apparatus floor in responding to an alarm from anywhere in a station is all about the flow. The flow should be as straight and as uninterrupted as possible.

Contrast the brightness of office space in City Hall to that found in the offices for the Fire Chief, Deputy Chief, Fire Department Administrative Assistant and Battalion Chief in the fire station side of Shawnee's principle municipal building.

Station No. 1 Miscellaneous

The radio rack for recharging portable radio batteries is now housed in what was originally intended to be a linens closet located on the west wall of the dorm. The closet is used to store other miscellaneous items. This adaptation further points to the almost total lack of storage and supply closets in the station.

Contrast this setting with the apparatus floor storage and radio battery recharge bank in the following column. Radio recharge stations located on the apparatus floor are ideal for grabbing "fresh" radios for a fire run.

The “Fire Chief’s” toilet shown on the right, in addition to serving the fire administration needs, does double duty as the “public but not public” facility for Station No. 1’s visitors. While it was never admitted to, I suspect this toilet area may see additional use in the evening by on-duty shifts when all administrative personnel have gone for the evening.

Toilet/shower areas, if provided for the chief of department, are usually placed directly off the fire chief’s office in the layout of the fire station/fire administration area.

As in the fire crew’s showers, the original shower curtain’s bar position does not allow a standard shower curtain to hang in a position to drain the backside of the curtain inside the lip of the shower.

Current ADA law requires at least one shower in a fire station to be barrier free. This means that the stall has to be much bigger to accommodate someone with a wheelchair disability. It also means the shower cannot have a step-over curb at floor level. The door handle and the under sink clearance do not meet current ADA requirements.

All of the ADA and gender issues shortcomings of Station 1 may come into question with any moderate to extensive remodeling of the station. (Moderate being defined as more that 50% of the square footage.

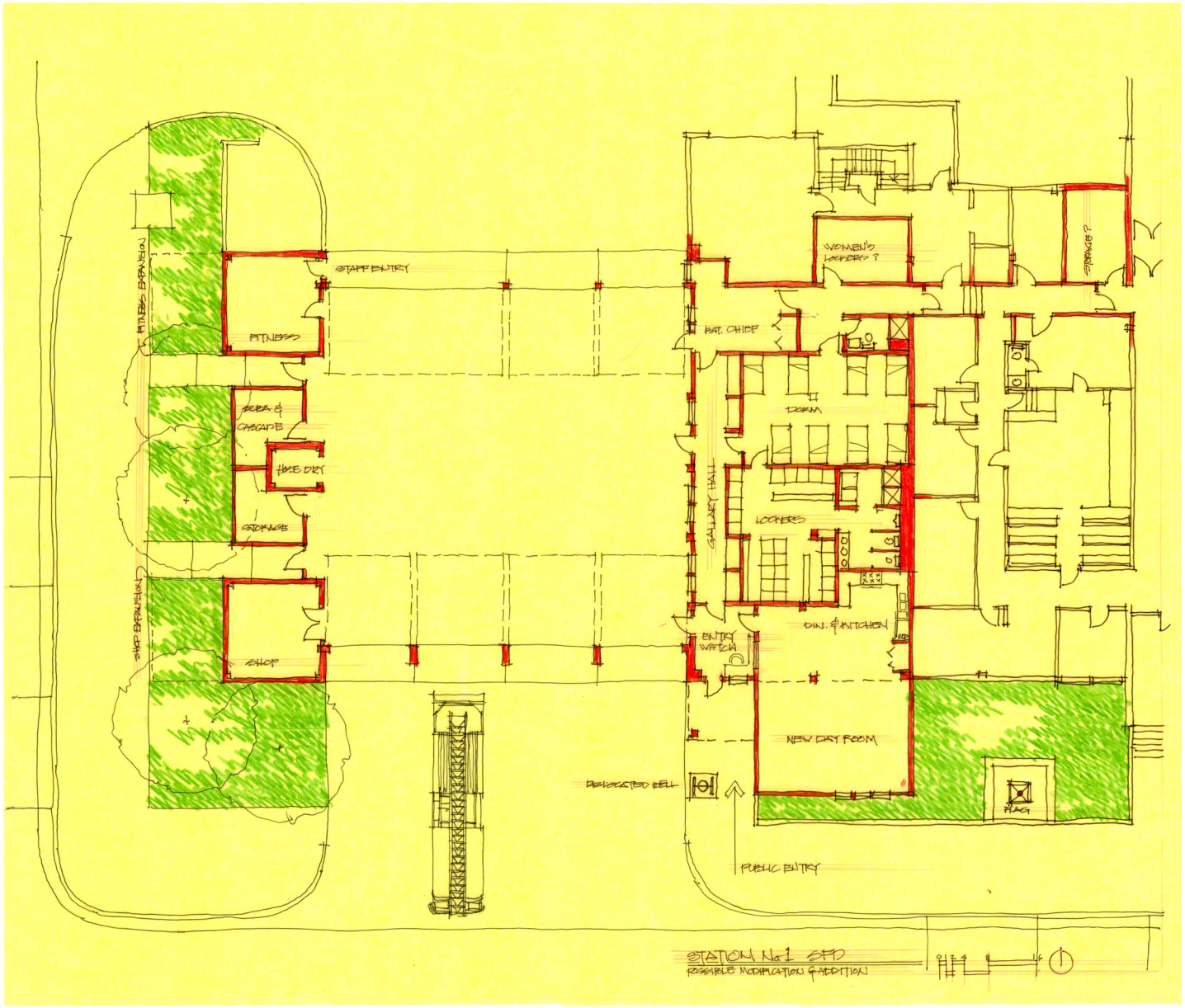
An Illustrative Plan of One Possible Future at Fire Station 1

The narrative for the possible changes are on the follow page.

The illustrative plan shown is only intended to show the Shawnee Fire Department and other City Officials what can be done to add to the usefulness and therefor possible life extension of Station 1.

If any project or projects go forward as a result of this study, the plan needs to be studied further by an architect licensed to practice in Oklahoma with input and further review from the officers and firefighters of the Shawnee Fire Department as well as appropriate elected and appointed city officials.

The consultant would be interested in being involved as a liaison between an architect selected for a Station 1 project and the Shawnee Fire Department as an advisor to the architect retained by the architect or retained by the City of Shawnee as the Owner's Representative (OR).



Site

Site changes at Station 1 are minor. The illustrative plans envisions a new side walk from 9th Street to a new “front” door for visitors and anyone needing help as a “walk up.” The old fire alarm bell has been relocated front the corner to the new entry sidewalk to help call attention to the new entry. A second emergency exit sidewalk has been added to the west side.

Station Exterior

The Illustrative plan envisions a new front entry vestibule/watch station to receive visitors and orient them to the station. The new entry would have a roof over the sidewalk at the entry. A bump out is added to the front facade to accommodate a new dayroom with windows to the street. On the west side is a bump out around the existing hose tower. A notch into the sally port has been inserted to bring daylight into what was the fire chief’s office.

Apparatus Floor

The apparatus floor remains essentially unchanged in layout with minor tweaks around the edges. The primary change is the addition of windows above the existing PPE racks to bring light to the hallway. The step downs ramps that meet ADA requirement would have to be inserted at the doors leading from the crew areas to the apparatus floor. Properly installed infrared heaters and LED light for the apparatus floor overhead are in order. A second emergency exit has been added to the west side.

Apparatus Floor Support

On the west side, apparatus floor support spaces have been added. These spaces wrap around the existing hose tower. One would be for the SCBA cascade systems and a SCBA repair bench and the other for miscellaneous storage. If the existing trees are removed, these two areas can be expanded to the edge of the sidewalk. As the dashed lines indicate, the fitness area and the shop could also be extended to the sidewalk line on the west side. If the proposed storage is extended to the sidewalk, it would make an ideal “off-duty” PPE storage room. If PPE could be moved to the west side, the proposed windows on the east side could be sized such that a great overview to the apparatus floor from the flanking hallway could be created.

Crew

The Illustrative Plan as shown envisions a wholesale change to the crew areas of Station 1. The old dorm area, BC office/sleep and the aforementioned extension added to the front become the new dayroom and kitchen. Most of the old dayroom in turn becomes the new dorm. The old Fire Chief’s office becomes the new BC office/sleeping room.

Crew Support

The old locker room space has been reconfigured into an area for male firefighters. The old Deputy Chief’s office has be converted to a locker area for female firefighters with the old Fire Chief’s toilet/shower seeing new duty as the female facility. The old Administrative Assistant’s office become Quartermaster storage. The existing crew toilet/shower room remains unchanged.

Office

This scheme envisions the Fire Chief, Deputy Chief and Administrative Assistant moving to a remodeled Old Station 4 which would become solely the fire administrative office space. The old Fire Chief’s office would become the new office/sleep space for the Battalion Chief. The hallway adjacent to the apparatus floor is extended across the old dayroom to connect to the new Battalion Chief’s office/sleep space.

Miscellaneous

Graphic enhancements should be made to reenforce the station’s presence on the street and to further call attention to the public entry point.

The entire station’s electrical systems should be brought up to current code.

The entire station should be brought into compliance with ADA law.

The entire station must have an automatic fire detection systems installed and sprinklers must be installed throughout the station.

Solar tubes should be added to the dorm, locker rooms, toilet/shower areas and to the back end of the new dayroom kitchen to increase the brightness of the spaces.