CUMBRES CAR INSPECTOR’S HOUSE
STABILIZATION
PRESERVATION
RESTORATION
RECONSTRUCTION, PART 2: 2013–2021

Plus:
Clearing the ROW, Session A, 2021
OK, Just How High is Cumbres Pass?
2022 Work Session Schedule!
Osier Dining Hall Update
Visit the Friends’ 35,000-image Photo Collection
Enhancing Membership and Our Year Ahead

Another year is upon us and as always it provides a plethora of opportunities for the Friends. Despite COVID, members volunteered at work sessions throughout the summer of 2021, and assisted with the Railroad’s successful 50th Anniversary event. Many of the projects from last year will continue into the 2022 season (see page 4.) The crew at the Colorado Springs Facility will begin a new long-term restoration of Express Baggage Car 163, which will be moving to the Springs during the early part of the year. It will be exciting to see this unfold on the heels of their completion of the Tourist Sleeper 470.

In addition to the Colorado Springs project, there will be many projects continuing in Antonito, Chama, Cumbres and Sublette. At the CRF in Antonito, restoration will continue on Tank Cars 11050 and 11056. Bunk Car 04407 is being converted for use as volunteer sleeping quarters, and the rebuild of Flat Car 9569 as an Idler Flat Car will continue as well. In Chama, work will continue on construction of the Friends off-site storage building, reconfiguring P-Box 207 to Rider Box Car 3414, the reconstruction of High Side Gondola 1000 as well as car painting and lettering. If you enjoy landscaping, we’ll need people in both Antonito and Chama.

At Sublette, the Log Bunk House and Section House restoration projects will be going on during four work sessions. Or if you would prefer to work along the Railroad’s right-of-way, there are a couple of sessions scheduled which are devoted to wood preservative treatment, vegetation clearing and maintenance of signage.

At Cumbres, restoration of the Car Inspector’s House at Cumbres will continue (see page 6) and kitchen staff will be needed at both Chama and Antonito throughout the summer season (see page 4.)

We’ll have some special trains coming up during 2022 as well. The Friends Member Train is always a popular and fun evening. Circle Friday, June 17th, on your calendar for a ride from Chama to Cumbres, with dinner at Cumbres and return. Our annual Moonlight Train will take place on Friday, July 8th, with a roundtrip from Chama to Osier, including a fantastic prime rib dinner.

As we look towards fall, the Friends will be offering a Locomotive 315 photo charter on September 24th from Antonito to Cumbres with a motorcoach return. This will be an enjoyable outing during fall colors. When we establish the fares, we’ll put this information out to our members. We anticipate having only fifty seats available for this charter so you want to sign up early.

As you can see, there is some great stuff coming up during the course of 2022. We hope you will consider signing up for a work session or joining us for one of the special trains. If you didn’t come out during the Railroad’s anniversary year in 2021 it’s not too late! There are some outstanding events in the year ahead.

A priority initiative the Friends will

Wildfire Masonry of Rio Rancho, New Mexico was contracted by the Friends of the C&Ts to complete the construction of the new chimney for the Car Inspector’s House atop Cumbres Pass. The chimney and the new authentic roof were the capstones of the thirty-plus-year stabilization, preservation, restoration and, finally, the total re-creation of the 110-year-old structure. Photo by Vance Behr
be tackling in 2022 is membership enhancement. We’ve lost a few members as our demographics continue to age but have also added new members every year; over the years our membership rolls have remained relatively constant. We want to address this in order to gain members of all ages.

There are retiring baby boomers who are looking for volunteer opportunities, a group with skills and resources vital to the support of the organization. There are families with teenagers as well as younger single individuals seeking an experience in beautiful places like the San Juan Mountains of southern Colorado and northern New Mexico. There are also those of all ages who love steam railroads looking to volunteer in a historic setting such as the Cumbres & Toltec.

This membership enhancement effort will be a multi-faceted approach. We have hired a marketing firm to expand our overall exposure to the railfan community as well as the general public. We will enhance our social media footprint and increase a variety of postings about the organization, what we have accomplished and what lies ahead, along with promoting upcoming special trains and events.

We plan on increasing Friends media presence, both print and digital, in a number of railfan magazines to reach audiences with interest in joining. We anticipate obtaining a mailing list from Classic Trains, a demographic that is an excellent match for our organization. We have used this list in the past and it worked very well for recruitment. We are also planning on attending model railroad and train shows around the country, always excellent venues for attracting new members. If you are aware of upcoming shows in your area, please contact them see if they would be interested in the Friend’s participation. If so, put them in contact with us and we’ll do the rest. You could even participate as a Friends ambassador!

This all points back to the fact that we have a tremendous number of opportunities heading into the new year.

Work Session A begins on May 16th and Opening Day for the Cumbres & Toltec is Saturday, June 11th, two weeks later than the normal Memorial Day weekend opening on account of the restoration and reopening of the Osier Dining Hall. Please look ahead and include a work session and a ride on the C&TS in your summer plans.

As always, I appreciate your ongoing support of our mission, the preservation of a historic steam railroad. 2021 was yet another example of your generosity and passion you have for our mission.

Let’s keep that generosity and passion rolling as we look toward a prosperous 2022! Happy New Year!

Tim Tennant
**The 2022 Summer Work Session Schedule is here! Come join us!**

<table>
<thead>
<tr>
<th>Project Num</th>
<th>Project Description</th>
<th>Session A</th>
<th>Session B</th>
<th>Session C</th>
<th>Session D</th>
<th>Session E</th>
<th>Session F</th>
<th>Session G</th>
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<tbody>
<tr>
<td>Registration Deadline</td>
<td></td>
<td>5/2</td>
<td>5/9</td>
<td>5/10</td>
<td>6/6</td>
<td>7/4</td>
<td>7/11</td>
<td>9/12</td>
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To view the entire schedule and projects, click on the volunteer link below.

**NOTE:** Projects and their assigned sessions are subject to change throughout the summer. Always check the FIDO link below for the latest information.

There are two **Special Sessions**, SS-1 (4/22–4/24) and SS-2 (9/23–9/25) scheduled with additional Special Sessions often opening throughout the year. There are two **full-year volunteer opportunities**, H (1/01–12/31), “Volunteering Outside Scheduled or Special Work Sessions” as well as COS (1/01–12/31), volunteering at the Colorado Springs Restoration Facility. Additional information on the Special Sessions will be available at the website shown below.

Please visit the Friends website at [https://friendsofcumbrestoltec.org/work-session-volunteer-registration/](https://friendsofcumbrestoltec.org/work-session-volunteer-registration/) to view the schedule and project opportunities and download the [2022 Registration Forms](https://friendsofcumbrestoltec.org/work-session-volunteer-registration/) along with the [required R-8 Friends Safety Manual](https://friendsofcumbrestoltec.org/work-session-volunteer-registration/). Additional information about lodging and optional 2022 T-shirt, name badge and safety equipment orders can be found there as well. Forms must be printed, completed and then faxed, mailed or e-mailed by the **required registration date for each session as shown above** to:

**Friends of the Cumbres & Toltec, Inc., 4421 McLeod Rd., Albuquerque, NM 87109**

**Phone:** 505-880-1311 • **Fax:** 505-856-7543 • **Email:** info@cumbrestoltec.org

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**FOOD and FUN in the KITCHEN CAR!**

Is your significant other a train nut and a Friends volunteer? Why not join him (or her) for a work session or two? You don’t have to use a wrench or swing a hammer to join in Friends work sessions; you can come work in the **Kitchen Car and Food Service** in either Chama or Antonito! You’ll go home a lot cleaner than your significant other, have fun doing it and meet others who live with the railfan bug. The camaraderie is great! Friends become friends while doing the work. And we are telling you this because...

**We need volunteers for Chama and Antonito.**

We hope you will consider joining **Project 0230, Food Preparation, Chama** or **Project 0231, Food Preparation, Antonito.**

In Chama, the daily food preparation ritual begins at 7 AM when the refreshment table is set up with coffee and tea, pastries and snacks. Lunches for off-site volunteers are prepared and distributed. Mid-morning, food prep areas are cleaned and lunches are bagged for the on-site volunteers and filled from the menu of the day. At noon in Chama, a locomotive bell is rung; in Antonito a whistle sounds announcing lunchtime and lunch is handed out by the kitchen staff. After lunch, food prep needed for the next day is completed. Throughout the day, volunteers replenish snacks. Providing liquid hydration at all times at this altitude is extremely important to everyone. At the end of the day, all items are stored, and coffee and tea pots are cleaned and readied for the next day. Counters are wiped down and garbage is collected. The day is generally done between 4–4:30 PM and the Team Leader stays to close up. Food service in Antonito is slightly different but the job and duties are the same. We’d love to have your participation at either location! Thanks!
At 8:45 the morning of September 23rd, the Railroad received a call from the staff of Toltec Catering that the Osier Dining Hall was on fire. The fire had started downstairs in the bakery and spread into the pantry. Fortunately, a ruptured pipe doused the fire before it could spread further, although the building suffered severe damage. ServePro of Durango started work on recovery of the building the following day. With the dry weather through November and December, we were able to work until December 22. We will not be able to do further work on the building until after the spring thaw.

The recovery efforts have been extensive. All the dry wall was removed, along with all the building insulation. All the walls were scrubbed and the roof beams and wooden roof structure were hand washed. The bathroom plumbing was replaced. The walls and ceiling were sealed. As of December 22, the insulation throughout the building and all the drywall in the dining hall had been replaced. This spring the drywall on the lower floor will be replaced, along with the damaged drain piping and the drop ceiling. The main power wiring will need to be replaced due to heat damage.

Opening Day has been delayed to allow work to be completed on the upper floor. We are anticipating having the main dining hall and the bathrooms available for Opening Day on June 11th, two weeks later than the usual Memorial Day opening. The kitchen should be available for use later in the season. The estimated costs of recovery of the dining hall are about $1,000,000.

The Candelaria Fund, administered by Richard and Caroline Tower in San Francisco, has provided a grant to replace the building windows and repaint the exterior of the dining hall. The fund has provided support in the past for both the Railroad and the Friends. Caroline Tower is also a member of the Friends Board of Directors. The Friends have agreed to replace the photographs and maps used to tell the historical story of the Railroad.

The Railroad is issuing a Request for Proposals to provide food service in Osier next season.

— Scott Gibbs, President, C&TS
By 2008, the Car Inspector’s House atop Cumbres Pass, had been saved from becoming a pile of rotting wood and had been rebuilt to a structure that closely resembled its original 1911 design and appearance. It wasn’t easy. It took nearly twenty years and thousands of volunteer-hours of work to stabilize the building, repair and replace portions of the siding and roof, build and install windows and doors, and replace the practically non-existent foundation with a new wooden base, one that would help keep the building from sinking further into the soft meadow at the Cumbres summit.

Most of the Friends’ work on the building ended in 2008. The structure was largely stabilized and once again appeared accurate to the Railroad’s timeframe. There was still more to do but time, volunteers and funding needed to be spread across the entire 64-mile Railroad, and there were other important projects to consider. But while the restoration process may have stopped, the environment at Cumbres Pass remained unchanged: heavy snow, cold temperatures, high winds and a freeze-thaw cycle continued to ravage the structure, just as it had over the last one hundred years or so.

By 2013, five years after the last efforts, its historic appearance was still adequate but its structural integrity was again in question and deterioration was continuing, unabated.

Roger Breeding, a long-time Friends member and a participant in many of the early Car Inspector’s House work sessions, says,

The Friends’ work on the Car Inspector’s House in the 1990s was certainly worthwhile, but much of our work, in retrospect, seems to be much more in the stabilization category than preservation and restoration. While our efforts most likely prevented the building from collapsing, we lacked an overall assessment of the

NOTE: Whenever possible, the dates shown in the photos are taken from the metadata embedded in each photographic file. However, some photos lacked original metadata so dates may be approximations based on similar photos taken around the same time.
severely deteriorated condition of the building. And we did not have a long-term plan for a restoration that would survive the harsh weather at Cumbres Pass for many decades.

In 2013, this began to change. During that summer, Bob Conry, a Friends member and a professional building contractor out of San Diego, California, with input from both the Railroad, Friends members and directors, began the necessary “overall assessment” and “long-term plan” to continue stabilization, moving toward a full restoration of the structure. During that summer’s Work Sessions C and D, Bob’s team, including Pete Dahlberg, Dave Ferro and others, began further stabilization of the structure. The southeast wall of the house, the Chama side, had substantial bulges that indicated some—perhaps severe—structural deficiency in the framing.

When they removed the wall that had replaced the non-original garage door, they found that a switch tie had been used over the garage door as a header with two regular ties for support. Bob and his team removed the ties and framed a new wall and window with 2x4s that had been stacked inside the building. In his Team Leader report, Bob noted that “a lot more work needs to be done,” a rather prescient statement when we look back from 2022. As always, that work was constrained by time, budget, materials and volunteers.

During the 2014 season most of the Chama-end wall sheathing and all the siding was torn off, down to the studs. Bad studs and plates were replaced, and the wall was resheathed and reside with a new exterior, lacking the attendant battens. With the bulges gone and the wall re-sheathed, the house was returned to some degree of stability, although the second floor was still canted slightly toward Antonito.

The Antonito-side wall was partially refurbished as well during three work sessions in 2016. Like the front wall, wood was removed down to the studs for repairs. However, the end of the sessions came too soon and there wasn’t time to replace or repair the sheathing or install new siding. The building was forced to over-winter with tarps covering the first-floor section of the wall.

The location of the old garage door was rebuilt with stronger materials.

The crew begins installing the inside sheathing around the door before adding the board and batten exterior.

New framing and sheathing replaced the old on the Chama side of the building.

Little or no work was performed there during the 2015 season as the Cumbres Pass efforts moved toward restoration of the Cumbres Section House across the tracks.

In 2016, Friends returned to the Car Inspector’s House, focusing on the front of the building, the most visible side, facing the tracks. First, the old “front porch” was torn down. With the porch gone, restoration work could begin on the portions of the front wall that had not been upgraded when the Chama-side/garage door wall was rebuilt in 2013. Like the Chama side, studs and sills were repaired and new siding and sheathing were installed.

During Sessions C and D of 2017, the Antonito-side wall that had been tarped over for the winter was completed, first by tearing out the rest of the old wall and replacing it with new...
sheathing and finished board and battens. With the side wall completed, work moved to the back side adjacent to the annex portion of the building.

The interior of the house was in as poor a condition as the exterior. The stairway to the second floor and the second floor itself had suffered years of neglect.

The original chimney was in particularly bad condition. Sometime in the past the chimney had been filled with scrap brick and capped, making it useless.

Working their way down the chimney, John Pierce, George Trever and Vance Behr broke bricks from the ancient mortar. It wasn’t difficult; the bond of the old mortar was so weakened that a simple tap or kick, sometimes just a gloved hand was enough to break each brick loose. With the chimney gone, a temporary metal cap was placed to seal the hole in the roof.

The bricks, however, were not discarded. Should the chimney to be rebuilt in the future, some of the bricks could be reused to support the “originality” of the structure. George Trever was able to salvage and set aside over 600 full bricks by cleaning off the old mortar and setting them aside for the future. No small task!

The entire chimney disassembly and clean-up took about five days.

During the 2018 season, with the chimney out of the way, the original chimney foundation was demolished and a new 24-inch deep footing was poured for later reconstruction of a code-compliant, single-flue chimney.

This required digging out the original foundation and pouring a new one in
its place between the floor joists, still in place.

**During the late summer of 2018,** John Pierce, Vance Behr, Bob Conry and John Engs began to explore not just the restoration of the Car Inspector’s House but the complete reconstruction of the building from the ground up, starting with an all-new foundation.

John Engs explained why that was the best decision:

- There are several details that led to the decision to reconstruct the building. After a number of years of work done on the house, there never seemed to be a point where we could say it was finished. Year after year there were reoccurring structural problems. Massive bracing in the upper floor and attic was used in an attempt to keep it from falling over... Bob and his crews spent several years rebuilding. Still, the four walls were not stabilizing the structure, primarily because it was sitting on ties in the dirt. Thus, you might as well have thrown out the level as the building was in constant motion. All issues pointed to full structural stabilization.

John Pierce took on the challenge of doing a full set of drawings as it was originally constructed. However, the design needed to be consistent with today’s building codes and have an exterior with the appearance as it was originally built.

It was obvious that the Friends could keep shoring up the structure, but not only would that not fully stabilize the building, over time it also would take volunteers and resources away from other equally important projects. Instead of yet another wooden sill foundation, an entirely new, modern and permanent concrete foundation with adequate drainage was needed.

As Bob Conry considered the current structure, he felt it had originally been built fast and cheap with a lot of shortcuts. Bob says, The 2nd floor joists of the original building were only 2x6s on 24-inch centers... and mostly rotten. The center structural wall was laid out all over the place with 2x4s laid flat across the two door openings. The wall took a seven-inch drop at the north (Antonito) end of...
the building. The roof was constructed with 20-foot long 2x6s on four-foot centers. It would have taken more man hours to try and save the building in the condition it was in to meet today's code requirements for a safe structure.”

One could jack up the building and pour a completely new foundation underneath. But when so much of the internal structure was in poor condition, it was clear that the only approach was to disassemble it in a logical and safe manner. To keep the building as original as possible, the recently-rebuilt porch, along with the first-floor walls, would be salvaged and—like the chimney bricks—set aside for reinstallation over a new foundation to create a structure that could stand for another hundred years or more. There was also talk of restoring the interior to the point that the second floor could be occupied by individuals who would act as docents at the pass.

But there were some stipulations that came with the idea of a total reconstruction. If it was ever to be occupied, even part-time, it would need to conform to 21st Century building codes and standards that in places require materials that didn’t exist in 1911. Even without occupation, the house needed to survive the strong winds and heavy snow loads of Cumbres.

At the same time, it had to remain historically-accurate in appearance from the roof and the walls down to the porch and the color of the paint, not only to be correct to the era but also accurate enough to satisfy the Colorado State Historical Preservation Officer (SHPO). Full dimensional lumber would be used, similar to that in the original building, but it would need to be placed with modern, code-specified center spacing. The agency takes a hard look at any modifications of a historic structure. Because of the reconstruction of a historic structure, SHPO would need to review and approve the plan. Like restoring the Lobato Trestle after the disastrous 2010 fire, the Car Inspector’s House would have all the appearance of being a historic artifact when actually, under the skin, it would be a building that was stronger and safer and would have a far longer life-span than the original.

The full-reconstruction idea was introduced and accepted by the Friends’ Directors and the Railroad. The move from a rehabilitation and restoration plan to a reconstruction plan had begun.

A large steel storage container was delivered to the work site, not exactly historic in appearance but necessary for the storage of tools and materials. Bob Conry continued, 

“Having John Pierce on this job was a privilege. His knowledge of building codes and drawing plans allowed us to build the structure both sound and period-correct.”

Vance Behr adds,

“We had to develop a reconstruction design per modern day building codes with of-the-period full dimensional lumber. That involved digging deep into the International Building Code…then applying engineering similitude to extend the tables in the IBC to that full dimensional lumber. There was also considerable time spent determining the snow load that the current Colorado building codes would require and exactly what Class A fire-rated roof would be needed, then finding a roofing material supplier that could meet the nearly over-constrained problems of the Class A fire rating and a twenty-year warranty. But because of its historic nature, the roof would need to maintain a similar-to-identical look of the original construction to satisfy SHPO requirements and still be affordable for the Friends!”

In time, SHPO would review and approve the plans.

In Session C of 2019, Work dismantling the building moved quickly. During Sessions C and D the metal roof was removed, and rafters and decking were felled in two rafter segments and disassembled on the ground.

What was left of the second-floor joists and flooring was demolished, along with all first floor framing within the exterior walls as well as the interior walls and floor. All the nails, thousands of them, were removed.

During the next two 2019 Sessions, E and F, the front porch was removed as a unit and set beside the storage container for later reinstallation. 

To maintain a degree of historic accuracy as well as speed up the reconstruction process, all four first-floor
walls were moved without disassembly and stacked at the storage container along with the porch. The wooden foundation that had served as well as it could since 1995 was removed.

A lot of the 2019 work was completed after Session F during a Special Session scheduled to work well into the fall. Bob had already built forms for a new off-site equipment storage shed in Chama. That project was delayed and the Car Inspector’s House had higher priority for an early as possible start to beat the winter. The forms were redirected for use at the Car Inspector’s House site.

Trenches for the new foundation were dug, and forms for the footings, stem walls and the rest of the foundation were set and poured. The pouring included a new larger footing for the chimney, replacing the one built in 2019.

When cured, the forms were stripped, rigid foam insulation was installed and the trenches were backfilled to prevent freeze-thaw damage. By now it was late October and winter was just around the corner. The work was completed with no time to spare.

2020 arrived along with the COVID-19 pandemic. Cumbres was about the only place one could work outside and reconstruction continued with little pandemic delay. In order to complete as much of the reconstruction as possible, an all-summer-long Special Session was designated for “Project 1005.” Work moved quickly throughout the summer and into the fall.

In early June…

VANCE BEHR and JOHN PIERCE built the chimney’s masonry pedestal foundation atop the newly-poured footing and just below the level of the first floor.

VANCE BEHR explains:

Since this is out of view of anyone other than very concerted Friends or Railroad personnel in the future, we elected to use concrete blocks instead of brick, reinforced both horizontally and vertically, with filled cells and a reinforced poured concrete “cap.”

For drainage around the structure, Bob Conry and Ron Horejsi installed a French drain consisting of a perforated pipe embedded in gravel to collect runoff and carry it through a drain line to a dry cistern away from the building pad. This would help protect the foundation from absorbing run-off that damaged the original structure.

The stem walls were topped out for compatible mudsill framing, with the mudsills installed thereafter. Bolts placed in the foundation during the pour provided the attachment points for the bottom sill. This was just the

...
right task for some of the younger volunteers like Clayton Buttram.

**Late June** saw the beginning of construction of the first story with the installation of floor joists and decking.

In only two sessions, Sessions C and D, June 15th–June 26th, 2020, most of the first floor was completed. The Special Sessions SS-8 and SS-12 would continue from there, back-to-back, through the end of October.

**June 18, 2020**

The first floor is in place, ready for the return of the saved walls. Note the location of the chimney pad.

With the foundation and first floor complete, each section of the wall was moved from the storage shed to their positions on the decking where they were raised into position and braced, and OSB sheer panels were installed on the corners; not original, but a code requirement for strength.

**June 22, 2020**

With the foundation and first floor complete, each section of the wall was moved from the storage shed to their positions on the decking where they were raised into position and braced, and OSB sheer panels were installed on the corners; not original, but a code requirement for strength.

**July** saw the first floor exterior walls and framing completed so work began on the center load-bearing walls, followed by the second-floor joists, bridging and decking.

If they were building a modern house, the roof would probably be constructed with prefabricated roof trusses, custom-made for the width and pitch of the roof. But this is no modern house. Therefore the roof was built in a traditional manner, probably similar to how the 1911 structure was

**July 10, 2020**

Like an Amish barnraising, the walls were lifted into place and their corners reinforced with OSB panels.

**July 21, 2020**

The interior load-bearing walls serve two purposes; dividing the first floor layout and providing support for the second floor joists.
In August, the framing, sheathing, and siding was completed on the two gable ends.

With the rafters in place, work could begin on sheathing the roof. Inside, work began with the construction of non-load-bearing walls between the roof rafters and the floor. The Friends crew was now closing in on two years into the project but there was still a lot of work to be done.

With the roof sheathing complete, in early September, Vance Behr and John Pierce applied what was to be a temporary roof with materials rated for a 180-day lifespan. As it was, the “temporary” roof would last until the final roofing material was specified, approved and professionally installed a full year later.

During the winter of 2020-2021, there was no on-site work on the Car Inspector’s House but that didn’t mean the work stopped completely. Vance Behr and John Engs researched a number of roofing manufacturers to find the best-suited final roofing product and a qualified contractor. They submitted bid requests to contractors with all the required specifications. The roof not only had to appear period-accurate, but the Fire Code also required a suitable fire rating. In the end, a roofing material was selected that passed SHPO’s historical requirements as well as having a good fire rating. In May, a contractor was selected for a late-fall installation of the final roof with an August 1st through October 31st window for completion, hopefully before the snow arrived.
After deciding that a two-flue chimney was sufficient, Wildfire Masonry of Rio Rancho, New Mexico, was selected to build the two-story chimney per specifications and at a reasonable price.

The chimney construction began in June of 2021, Sessions C and D. Like the chimney pedestal in the foundation, standard blocks were used instead of traditional brick, saving both time and money. Plus, like some of the other “modern” materials used, this won’t be seen from the outside and won’t detract from the historic appearance of the house.

The crew worked their way up through the first floor, the second floor and up to just below the roof line with modern brick material. From the roof line on up, Wildfire used the same ladder and platform system used for dismantling the original chimney back in 2017. The crew completed the chimney with the salvaged brick and capped it with concrete.

Wildfire completed the entire chimney construction in three-and-one-half days.

Back inside, the staircase was framed in with the correct tread and riser sizing. The result was a stairway that closely resembled the original but fully code-compliant.

The blocks that made up the chimney were sheathed with a cement “backer board.” Eventually a plaster coat will be applied to replicate the covering of original interior.

The project was getting close to completion for the season but modern IBC code requires ventilation into the void of the crawl space, something that had not been included in construction of the new structure. Adding the multiple vents required multiple holes for each vent.

The drilling task was taken on by nineteen year old Remington Temple-
ton. He and his family travel from Texas every summer and Remington has been an enthusiastic volunteer for the last five or six years, starting when he was around thirteen years old.

At the Car Inspector’s House, Remington drilled through a combined five inches of full dimensional lumber, one inch of skirt board and a doubled joist, twenty-eight times for each of the eight vents. The trick was the blind drilling into the doubled joist where frequently an unseen nail would be encountered, ruining a drill bit. This totaled 224 holes and took quite a bit of energy, persistence and more than just a few drill bits. When he was done, metal-screened, louvered vents were then placed at the skirt board level on each of the four vents on each end of the house. The vents are clearly visible in the photo of the completed structure to the right.

Like Dax Pierce, Clayton Buttram and other younger volunteers, Remington has been a major asset to the Friends. We look forward to others like him returning year after year.

Another piece of “non-traditional,” but code-required, ventilation hardware were the two louvered triangular roof-peak vents crafted by John Pierce. They not only allow for like him returning year after year.

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Another piece of “non-traditional,” but code-required, ventilation hardware were the two louvered triangular roof-peak vents crafted by John Pierce. They not only allow for ventilation of the upper story, they can be closed off in the winter to prevent snow from entering the interior during the winter months.

The front porch that was moved aside and stored with the salvaged walls was moved back into place, sitting on new porch piers and framed into the main wall on the front of the building.

With he new roof in place, the Car Inspector’s House was now “dried in.” It’s far from a complete and habitable structure but with the planning and execution of a long-term plan by Bob Conry, Vance Behr, John Pierce, John Engs and so many other volunteers over the years, a stable, safe and historic-appearing “replica” of the original 1911 structure now stands at the summit for Cumbres Pass. Better yet, it will continue to stand for a long time to come.

Some have questioned if all the work done between 1988 and 2013 was for naught. Roger Breeding, the long-time Friends member who participated in many of the early Car Inspector’s House work sessions, begs to differ. He says,

The effort put into the Car Inspector’s House between the early 1990s and the mid-2010s wasn’t wasted, but it sometimes seems like that at first glance. The Friends weren’t really capable of safely demolishing the Car Inspector’s House and building a replica in its place in the 1990s. And maybe back then, with thirty fewer winters of battering, it wasn’t so obvious that replacement was the only long-term option... The Car Inspector’s House was preserved until the resources were available to replicate it. What was acceptable for the Friends to do thirty years ago would not be acceptable now. It makes everything a lot harder, but the end result is better. — Roger Breeding

The second floor is not planned to be accent paint remain to be completed. The 2022 plan for the Car Inspector’s House calls for the installation of a 1x6 tongue-and-groove pine wood floor on the first floor and the installation of bead-board on the walls and ceiling. There are also plans to complete the interior stairway, rebuild the roof over the rear walkway connecting the rear outbuildings, construction of period windows with exterior protection, and doors fitted with period hardware. Additionally, some exterior details including battens, skirt boards, porch siding and brown accent paint remain to be completed. The second floor is not planned to be finished at this point, but it figures into not only the Car Inspector’s House but also the entire Cumbres Section Townsite. This includes reconstruction of the Log Bunkhouse that once stood west of the Section House, that will include a electrical system with a generator and battery which will allow for an electrical...
and plumbing utilities to be installed in the Inspector’s House, including a water filtration system in the structure’s new crawl space. It is hoped that the Bunkhouse design will be finalized by 2023. This will allow for completion of a small living space on the second floor of the Car Inspector’s House, complete with utilities, for occupation by a summer docent at Cumbres.

Future plans also provide an excellent opportunity for the Cumbres Section Townsite to be built out as a historic interpretive center. A master plan is in the works by the Cumbres Group. This will include the

This (plan) will allow for completion of a small living space on the second floor of the Car Inspector’s House, complete with utilities, for occupation by a summer Cumbres docent.

— John Engs

possible reconstruction of the Cumbres Station that was torn down after the discontinuation of passenger service over the line in 1951, as well as reconstruction of other out-buildings including the general store, gas station, the small rooming house and cabins, all structures that were active at Cumbres during the heyday of the Railroad.

A joint project with the Boy Scouts includes plans to construct trails and walking paths around the townscape along with interpretive signage explaining the history of the area. None of this will happen overnight. Because the C&TS is a designated National Landmark, both States’ Historic Preservation Officer as well as the Railroad Commission must give approval of the master plan prior to any construction. John Engs estimates these plans will come to fruition over the next five to ten years but adds, “As this develops, I believe you will see much more Railroad activity at Cumbres.”

If you would like to be involved in Project 1005, the restoration of the Cumbres Car Inspector’s House, or any other of the Friends projects this summer, the 2022 schedule offers multiple Work Sessions For more information, view the schedule on page 4 and check out the FIDO and volunteer information link at: https://friendsofcumbrestoltec.org/work-session-volunteer-registration/
SAFETY FIRST!
When you are exploring Cumbres Pass, always think SAFETY.
• Watch and listen for trains.
• Don’t step on the rails (they’re slippery!)
• Don’t climb on any cars or engines.
• Don’t stand in front of a locomotive for a selfie where you can’t be seen.
• Stay out of all buildings.

Photo by Thomas H. Gildersleeve, October 17, 1992    FCTS THG01-120
The elevation marked on the Section House sign on top of Cumbres Pass is listed as 10,015 feet. Across Highway 17, the Colorado Department of Transportation has a sign listing Cumbres Pass as 10,022 feet. Why the difference? Are they measuring different points on Cumbres Pass? No, they are both measuring the top of the rail at the apex over the pass. Did the Colorado Department of Transportation (CDOT) mark their sign wrong? No, actually both elevations are correct.

Wait. What? A seven-foot difference? How can that be? The reason has to do with the shape of the Earth. We all assume that the Earth is a sphere. It is not. As the Earth spins on its axis, the centrifugal force causes the equator to bulge out, giving the Earth the shape of an ellipse as seen from the side. The three-dimensional shape of the Earth is called an oblate ellipsoid rather than a sphere. Furthermore, the density of the rocks that make up the Earth vary all over the planet, causing the Earth to be sort of lumpy. If the Earth was covered by water, it would bulge out in certain places and indent inwards at other places. It turns out that over Cumbres Pass, the Earth has an indentation.

As time progresses, scientists gain a better understanding of exactly how the Earth is shaped. The 10,015-foot elevation marked on the Cumbres Pass station is based on our understanding of the shape of the Earth in 1929 and is known as the NGVD29 datum: that is, the observed heights of mean sea level at 26 tide gauges and the set of resulting elevations of surveyed bench marks. Based on that datum, sea level is 10,015 feet below Cumbres Pass. Then in 1988, our understanding of the Earth evolved so that we had a better knowledge of where sea level was located. It uses a datum called NAVD88 which now placed sea level at 10,022 feet below Cumbres Pass. So CDOT uses the newer NAVD88 elevation on their sign while the railroad sign sticks to the historically-authentic NGVD29 datum. Thus, the two different elevations.

In surveying the Earth to determine its exact shape, scientists run surveys all over the planet. In Colorado and New Mexico, there are a couple of dozen such survey lines. One of those surveys runs along the length of the Cumbres & Toltec Scenic Railroad from Antonito to Chama. At many of the mile markers along the Railroad, a brass benchmark disk can be found at the base of the tall white mile marker signs. These disks are maintained by scientists who use them to help determine the shape of the Earth. Thus, along with its history, the C&TS plays an important geophysical role, one that you might have never considered.

Since 1988, scientists have continued studying the shape of the Earth and in 2022 they will designate a new datum, NAPGD2022. The exact height of Cumbres Pass above sea level will likely change again, and a few years later, CDOT will probably post a new elevation on their highway sign, while the railroad sign at Cumbres will undoubtably remain at its historical level, 10,015 feet above sea level.

Jeff Simley is a member of the Friends of the Cumbres & Toltec Scenic Railroad and is a retired cartographer from the U.S. Geological Survey.

Photos by the author unless otherwise noted
Clearing the Right of Way

Maintenance along the Line with the Friends’ Work Session A, 2021
by Paul Davenport, with photos by Jim Davenport

The late spring weather during Work Session A last May was dicey at best and the work was taxing, but having a steam-powered work train at our disposal was really cool!

The job was Project 1370, a Friends Special Project conducted at the Railroad’s request to remove storm damage resulting from a heavy wet snowstorm the previous September, one that brought down trees, limbs and debris throughout wooded areas between First Crossing and Dalton. The storm not only blocked the Railroad, but falling trees also caused damage in Chama and forced the evacuation of the Rio Chama RV Park. Right after the storm, C&TS employees cleared the tracks so trains could operate the rest of the 2020 season. But the cleared debris still needed to be removed from beside the ROW before the 2021 season began.

Don Atkinson of the Projects Committee called me in early December of 2020 to ask whether the Project 0710 Tree and Brush Crew could be the core of a larger Project 1370 Crew that would work with other Friends volunteers and C&TS employees. As things shook out, we had six Friends volunteers, including three from the Project 0710 Crew, and about as many Railroad employees, including several from the Antonito-based track crew, as well as train crew members and Fire Patrol speeder operators.

The original plan was to use Diesel Switcher 15 to pull the work train. However, the diesel was in need of maintenance and the Railroad didn’t have a steam locomotive ready at that point prior to the season. They asked the Durango Railroad Historical Society if they would be willing to provide Locomotive 315 and crew members. They agreed and sent about a half-dozen volunteers to help operate the train and maintain the locomotive for training purposes. Final arrangements for the session were made as the Friends volunteers arrived in Chama over the weekend prior to the Monday start of the work session.

As work got underway, 315 (which at the time was historically renumbered as 425) pulled the train from Chama to each day’s starting point along the ROW and then moved the train in reverse for a series of short distances as cutting and loading progressed during the day. That continued until our day’s work was done and we returned to Chama, either because it was quitting time or because Mother Nature made the decision for us in the form of rain, snow, sleet or hail. Two days were shortened by bad weather that made working conditions unsafe, and work on Tuesday was canceled outright for the same reason, based on a 6:30 am telephone call from the Railroad that morning.

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Ron Hassell, a wildland firefighter and a retired forester with the U.S. Forest Service, has worked on the Friends Tree and Brush Crew since 2016. He is the assistant team leader and its safety instructor.

Locomotive 425 and stake-lined flat cars were spotted in Chama for each day’s work.
The best kind of “commute” is behind a steam locomotive on a fine spring day!

consultation between myself and Brad Lounsbury, the C&TS and Friends safety officer.

Behind 315, the train included three flat cars, including 6205; its lower bed made for somewhat easier lifting of the heavier pieces. Caboose 0306 carried volunteers during our daily “commute” from Chama and provided shelter from the foul weather when work was cut short. Thanks to Project Committee Chairman John Engs’ foresight, we also had Concession Box Car 3244 to carry equipment and provide additional protected space when the weather turned bad.

The project worked multiple areas, starting on the ridge between Lobato and Dalton and moving down the line to the aspen grove between “Lake Lobato” and Lobato Trestle. The rest of the week took us through the Narrows and along much of the straightaway between First Crossing and the Narrows. We hoped to do more work near First Crossing but didn't get that far due to time lost to bad weather.

To do the work, we split into two groups. One group had sawyers plus a couple of people who positioned the cuttings next to the tracks for pickup. Meanwhile, the second group stayed with the work train and loaded logs and other cuttings onto the train once the sawyers cleared an area. For the loading, we generally had four people lifting material with two or three other people on the flat cars for stacking.

One change we made from how the project originally was envisioned is that we abandoned the idea of handling the cuttings only once for the sake of efficiency. For safety reasons, we instead had the separate cutting and loading groups so that the loaders on the ground didn't crowd the sawyers using chain saws to fell damaged trees and cut up broken limbs and other material on the ground. The loading operation required coordination between the loaders and the stackers, who worked in increasingly tight spaces on the flat cars as cuttings gradually filled each car. Each flat car had heavy wooden stakes inserted into side pockets to help keep the cuttings in place as loading progressed and then while traveling at track speed when the train returned to Chama. There, we unloaded the chain saws at the wood...
shop so the sawyers could clean and sharpen the saws for the next day’s work.

Meanwhile, the 315 pulled the flat cars to the stock pen area where the vertical stakes were removed and the Friends’ backhoe, operated by Friends member Bob Conry and Leon Beier, also a Friends member and a C&TS brakeman, was used to pull or push the stacks of cuttings off each flat and onto the ground for later disposal. 315 then returned to the roundhouse where the DRHS volunteers did overnight maintenance.

The work train and two accompanying track car speeders (used by the track crew members and the Fire Patrol) were the only traffic on the Railroad as this was before the Railroad’s operating season, which would begin a week or two later. That meant there was no need to interrupt cutting and loading to accommodate other train movements, which would have required the work train and the speeders to temporarily clear the main either by returning to Chama or going into the Lobato siding.

There was no Friends kitchen crew making lunches in Chama during Work Session A, so the Fire Patrol speeder was used to deliver box lunches, catered by The Hotel & Shops. The lunches were driven to a speeder rendezvous point on Highway 17 by Friends volunteer Bob Reib, who also organized supplies for the project.

Between the involvement of the Friends, the C&TS and the DRHS’ 315 team, this lash-up had quite a few moving parts. John Engs and C&TS honchos did most of the project’s planning in the months leading up to the work session. Because most participants live far from Chama and couldn’t scout the work area, we also obtained some timely help from drone video provided by Roger Hogan. Leon Beier helped with equipment prep.

With a lot of hard work by the people on the ground (and on the train), we delivered full or nearly full loads of storm debris and other material to Chama for the four days that the crew worked. The cleanup made the ROW safer and helped the Cumbres & Toltec’s 2021 operating season get off to a good start.
Discover the Friends of the Cumbres & Toltec Historic Photo Collections!

The Friends of the C&TS Railroad has a collection over 35,000 images of historic narrow gauge railroad photos taken in northern New Mexico and southern Colorado. Digital copies of the photos are stored in collections at https://ngtrainpics.photoshelter.com.

Accessing, Viewing and Purchasing Images:

These photos may be viewed for free or may also be purchased for a nominal fee of $5 each or less. When you decide to make a purchase, PhotoShelter, which hosts the collection, will send you an e-mail with a link for downloading and paying for the photos. Information on using the images for publication can be found in the User Agreement.

The collections are divided into groups of images called galleries, each featuring one photographer.

In the Collections Summary at https://ngtrainpics.photoshelter.com, clicking the collector’s name will jump to that collector’s images and clicking on the number of galleries will jump to an index of the galleries of that collection.

Richard Dorman (1922-2010) was a dedicated railfan, model railroader and author. His photographic collection ranges from the 1880’s-1990’s. This collection consists of 24,797 images in 254 galleries.

Ernie Robart (1947-2018) was an avid railfan and photographer. He was instrumental in saving the part of the D&RGW railroad that was to become the C&TS Railroad. In the spring of 2019, the Friends received Ernie’s photo collection with approximately 50,000 photos of which 20,000 may be narrow gauge. We have started putting the narrow-gauge photos on the web and as of December 2021 we have 5,099 images in seven galleries with a separate gallery for each year. Cataloguing Ernie Robart’s photographs is ongoing.

Andy Payne (1925-2012) was an engineer working out of Durango on the D&RGW. His images are from 1954-1978. This collection consists of 2,270 images in nine galleries.

Thomas Gildersleeve (b. 1937) has photographs taken in 1960-2003 of the D&RGW, C&TS and D&SNG railroads. This collection consists of 845 images in seven galleries.

George Berkstresser (1928-2014) lived in Monte Vista, Colorado. His 1,073 photographs were mostly from around Alamosa taken from the mid 1950s to the late 1970s. This collection consists of 1,073 images in five galleries.

John Russell (b. 1941) has been studying trains since age 12. These images were taken of D&RGW in Alamosa, Colorado, in 1958, 1964, & 1994. This collection consists of 83 images in one gallery.

Russell Sperry (b. 1941) has images of the D&RGW narrow gauge operations in the 1960s including the last freights over Cumbres Pass in August 1968. 213 of his photos are the early days of the C&TS from 1970-1975. This collection consists of 404 images in five galleries.

Ed Lowrance (d. 2017) lived in Pagosa Springs, Colorado, and was an active member of the Friends. He donated 88 photos of the 1969 National Park Service excursion train on the D&RGW from Durango to Antonito. This collection consists of 88 images in one gallery.

Gene R. Spence (1947-2011) was an Albuquerque model railroader with photos of western narrow-gauge lines. This collection consists of 341 images in five galleries.

John B. West lives in California near San Francisco. He has been photographing trains for over fifty years and previously worked in the railway industry. This collection consists of 338 images in two galleries taken in the 1st half of the 20th century of narrow-gauge railroads in northern New Mexico and southern Colorado.
For more information or troubleshooting, contact dormancollection@cumbrestoltec.org

From the editor: If it feels as if you just received the Fall issue of the Dispatch and now you are receiving the Winter issue...in mid-February?...you’re right. Between COVID and the Victorian Iron Horse Roundup, a large wrench (Ian Kelly would call it a “spanner,”) was thrown into the Dispatch schedule. The result is that the recent issues have only partially matched the current season. I really pushed to get this issue out a little closer to “winter” and I’ll try to nudge it further and get the “spring” issue out sometime before summer. It may take much of 2022 to get back in step. So bear with me as I try to get the Dispatch back on a schedule that vaguely resembles the calendar. Thanks for your patience.

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| Liabilities & Net Assets      |         |          |
| Current Liabilities           | $24,266  | $40,840  |
| Deferred Revenue              | $230     | $105     |
| TOTAL CURRENT LIABILITIES     | $24,496  | $41,945  |

| Net Assets                    |          |          |
| Net Assets without donor restrictions: |          |          |
| Reserved For Future Operations | $250,000 | $250,000 |
| Total designated              | $250,000 | $250,000 |
| Undesignated                  | $1,238,089 | $1,287,415 |
| Total net assets without donor restrictions | $1,508,089 | $1,517,415 |
| Temporarily Restricted         | $427,072  | $516,320  |
| TOTAL NET ASSETS               | $1,935,161 | $2,033,735 |
| TOTAL LIABILITIES AND NET ASSETS | $1,959,657 | $2,074,780 |

Support and Revenue
- Grants and Contributions $344,699
- Member Dues $171,412
- Work Sessions and Merchandise $42,884
- Investment and Interest Income $5,159
- Other Income $491
- Charters net of expenses -
- Reimbursed by Commission -
- Total Support and Revenue $564,645

Expenses
- Program Services $434,537
- Supporting Services $104,155
- Management and General $124,527
- Total Expenses $663,219

Change in Net Assets $-98,574

The full audit will soon be available on the Friends of the Cumbres & Toltec Scenic Railroad, Inc. website at http://www.friendsofcumbrestoltec.org
It was a sad day during the Session C of 2019 Car Inspector’s House demolition project when an unidentified Friends volunteer didn’t move quite quickly enough to get out of the way from the falling debris as the west roof wall peak was pulled down from the building. He will be missed. See page 6.

Photo by Sharon McGee