

# Friends of the Cumbres & Toltec Scenic Railroad

## Proposed Projects for 2001

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Exhibits

## 1. Introduction

The Friends of the C&TS RR plans to continue its historic preservation work in the summer of 2001 with two week-long work sessions in May, June and August. The Friends is recognized by the Cumbres & Toltec Scenic Railroad Commission as the official historic preservation and interpretation entity for the property. References to photographs in previous submittals are abbreviated; for example, Exhibit 1998-A refers to Exhibit A of the Friends' Proposed Projects for 1998.

## 2. Running Gear

Goal – Make the restored cars capable of being taken out on the line in charter freight trains.

Discussion – After the bodies of the six double-deck sheep cars that were purchased by the Friends in 1992 were restored, the Operator and the Friends wished to run them in a charter trains, but the condition of the running gear (wheels, axles, journals and brake system) made this impossible. In previous years the Operator had overhauled the running gear of cars for charter trips, but in 1997 the Operator told us that he could not spare the resources to do this. However, the Operator allowed the Friends to do the running gear work under the supervision of the Chief Mechanical Officer of the railroad. In 1999 the mechanical restoration of the six sheep cars was completed. This work included replacing axles with bad journals, repairing side bearings, replacing broken truck frames, replacing and repairing air brake cylinders and triple valves, replacing brake shoes, and re-packing journals. In 2000, brake and journal work was done on 6214, 04549, 04426, 157, 163, OJ, 06051, and 06092. One of the trucks on 3570 was removed and replaced with the correct truck.

Proposed Work for 2001 – In 2001 we plan to continue the mechanical work needed to make the cars with good bodies capable of being taken out on the road. All this work will be done under the supervision of the Chief Mechanical Officer of the railroad. Each car will be inspected by the CMO or his delegate upon completion and before being taken out of the yard. This work will not affect the appearance or historical integrity of the cars. There is a shortage of wheel sets, journal brasses and wedges, brake beams, brake cylinders and air reservoirs.

Approval – Mechanical restoration of the sheep cars was approved in 1997. The extension of this type of work to other cars was approved in 2000.

## 3. Short Refrigerator Car 55

Goal – Return the car to sound and useable, historically accurate condition.

Condition – As reported in the Proposed Projects for 1994, this car was obtained after sitting on the ground for many years, and came without trucks or any underframe hardware. The lower six to nine inches of all the siding was rotten. In addition, the roof walk was rotten and the ice hatches were only partially present. Accomplishments in the years 1994 through 1997 were summarized in the Proposed Projects for 1998. In 1998, one truss rod was repaired and the truss rods were adjusted to give the proper arch in the frame. Brake beam hangers and draft gear cheek plate bottom straps were fabricated and installed. Body side bearings were installed on one end of the car and measurements were made to allow machining of the bearings for the other end. In 1999 work began on installing the brake system, couplers, and draft gear. Specifically, the body side bearing pads were installed under the A end and some missing wood siding protecting the cork insulation was replaced. The A end coupler, complete with draft gear was installed. The relief valve for the auxiliary air brake reservoir was installed and part of the train line and branch pipe was put in place. Also, the brake beams were mounted on one truck. This car was painted in 1999 to preserve the new wood that had been installed and improve the appearance of the car. In 2000, the brake beams

were mounted on the second truck and both truck center pins were installed. The coupler and draft gear were installed on the B end of the car. The missing wood protecting the cork insulation between the frame sills was replaced.

Some exterior body work remains to be completed.

Proposed Work for 2001 – The Proposed Projects for 1994 contained a detailed proposal for restoration of the car which will not be repeated here. In 2001, work will continue on the brake system and the siding.

Approval – Approval for the use of steel weldments in place of iron castings was granted in 1995. General approval for restoration of the car was granted in prior years.

#### **4. Painting and Lettering**

Goal – Keep the cars painted in authentic colors and historically lettered.

Condition – Some of the cars have been painted recently by the Friends and are in good condition; others have not been painted in many years and some cars have no discernible number painted on the sides. Numerals used for displaying house numbers, which are made of a non-rusting metal, have been placed on the center sill of all the wooden frame cars to preserve the car number. These numbers are under the car up on the center sill and invisible unless one crawls under the car. The steel-frame cars have the number stenciled on the center sill. In 1998, four box cars, one gondola, one drop-bottom gondola, rotary snowplow OM, cook car 053, and the two display locomotives in Antonito were scraped and painted. Lettering was completed on two box cars, six sheep cars, one gondola, refrigerator car 157, the night watchman's house (ex-refrigerator car), rotary snowplow OM, and the two display locomotives in Antonito. In 1999, the Friends painted 2 flat cars, 2 cattle cars, 6 box cars, 1 refrigerator car, and 2 outfit box cars. Lettering was completed on 2 sheep cars (5600 and 5841), 2 cattle cars (5706 and 5691), cook car 053, reefer 55, 6 box cars (3331, 3073, 3014, 3592, 3231, and 4444), 1 drop-bottom gondola (756), 3 regular gondolas (1000, 1059, and 9249), and 2 flat cars (6200 and 6627). . In 1999, the Friends painted cars 3016, 3254, 3686, 04549, and 6214. Lettering was completed on 04549, 04426, 3686, 3016, 3254. Lettering was almost completed on 55, 6205, and 6214, but some stencils unique to these cars were needed and could not be fabricated in time.

Proposed Work for 2001 – The cars to be painted in 2001 have not been selected yet. The cars painted but not lettered in 2000 will be lettered in 2001. As before, for most types of cars, we plan to use the 1926, 1934, and 1939 lettering schemes. Some cars will be lettered in each scheme since, for most of the historical period of interest, cars with all three paint schemes would have been seen on the railroad. The 1934 scheme is similar to the 1926 scheme but has a slightly different herald. The "flying Rio Grande" scheme was adopted in 1939. For some of the oldest cars, such as box car 4444, an older scheme, D&RG, not D&RGW, is appropriate. In general, the cars are lettered according to the photograph of the car in the Narrow Gauge Pictorial series. Occasionally an older photograph from another source will be used as the basis for the lettering scheme used.

Approval – Painting and lettering is regular maintenance.

#### **5. Long Refrigerator Cars 157, 163, and 169**

Goal – Return the cars to sound and useable, historically accurate condition.

Condition – Prior to 1996, these cars had not received attention for many years. Exhibits 1996-D, 1996-E, and 1996-F illustrate some of the problems with these cars, especially the sagging and de-

cayed doors, deteriorating ice hatches, and rotten roof walks. In 1996, work was begun on car 157. The roof walks were replaced with new wood of similar dimension. The inner ice hatch doors were removed for rebuilding over the winter, and the outer ice hatch doors were temporarily secured over the ice hatches. Rotten fascia and siding on the left side of the car were replaced. The doors on the left side of the car were found to be too rotten to rebuild as shown in Exhibit 1997-A. New doors were built to the same design, complete with canvas seals. The left side door jam header was also found to be rotten and was replaced with new wood of identical dimension. All new wood was painted with primer. On the right side of the car, more serious problems were uncovered. In addition to a rotten door jam header, the car header was completely deteriorated over the doors and for some distance past them. A diagonal brace near the doors was rotten, and the outside main sill was badly deteriorated as shown in Exhibit 1997-B. In 1997 about 16 feet of header, 12 feet of sill, and the door jam header on the right side were replaced. Two uprights and three diagonal braces were replaced or repaired. Much of the siding on this side of the car was replaced, as was the fascia. New doors were built and installed on the right side, and new roof platforms were installed. In 1998 the restoration of 40-foot refrigerator car 157 was completed with the installation of new inner and outer roof ice hatch doors. The exterior was painted in 1997 and was lettered in 1998. In 1999 work started on the restoration of car 163. However, the team leader was unable to attend the work session at the last minute and little progress was made. In 2000, the old deteriorated ice hatches, both inner and outer, were removed along with the roof walk platforms around each hatch. New inner hatches were fabricated except for the canvas seals. The doors were removed and rebuilt. Rotten siding and fascia were removed and replaced.

Proposed Work for 2001 – This year the Friends proposes to continue the restoration of refrigerator car 163. The process will be similar to that used on car 157. The inner ice hatches will be completed, outer ice hatches built, and the hatches and surrounding roof walk platforms will be installed. Some siding and fascia work remains to be completed. It is hoped that the car will be ready for sanding and painting at the end of the 2001 work sessions.

Approval – Approval for the restoration of 157 was granted in 1996 and 1997. The restoration of car 163 was approved in 1999.

## **6. Inspection Car MW02**

Goal – Return the car to sound and useable, historically accurate condition.

Condition – The Friends began their restoration of this inspection vehicle in 1996. A builder's plate was found indicating that the car was built by Fairmont (Class A6Z36, Serial Number 146516). Fairmont was the largest supplier of "speeders" (small track maintenance motor cars) for many years. The car is powered by a Ford flathead V-8 engine, a type of engine built roughly from 1932 to 1950. Exhibits 1996-G and 1996-H illustrate the initial condition of MW02. The progress made in 1996 and 1997 is summarized in the Proposed Projects for 1998. In 1998 the body work was finished, the doors were rehung, and the body painted with primer. The seats that needed to be reupholstered were removed for this work. The old flooring was removed in preparation for the installation of new vinyl. In 1999 the rusted metal window trim was replaced with newly fabricated metal of the same dimensions and new vinyl flooring was installed. New wooden panel for the insides of the doors were made, installed and painted. The wooden panel on the ceiling was sanded and varnished. In 2000, the newly reupholstered seats and the wooden frames around the insides of the windows were installed. Finally, the exterior received another coat of primer and then a finish coat.

Proposed Work for 2001 – In 2001 we need to replicate the black stripes on the bumpers and install the window cranks if they can be found in the antique automobile market. The fixed windows need to be caulked. The stencils on the exterior were copied before the car was sanded, and will be re-applied. This should complete our restoration of MW02.

Approval – Approval for the basic engine and mechanical work was given in 1996. Approval for the restoration of the body was granted in 1997.

## **7. Caboose 05635**

Goal – Make this car resemble a historic caboose.

Discussion – Car 5635 was built by the D&RG RR in 1904 or 1905 as a stock car and was rebuilt in 1926. In 1976 the Operator converted the car to a caboose for charter use. In doing so, siding was placed only on the inside of the frame, giving the car a very peculiar appearance.

Condition – This car is in generally good condition.

Proposed Work for 2001 – The Friends proposes to place exterior siding on this car so that it will at least resemble a historic long caboose. This work was planned for 2000, but the need to fix up the passenger cars after years of neglect took precedence and this project was postponed.

Approval – The Friends consider that the extensive modifications made to this car in 1976 remove it from the historic car fleet. There are nine unmodified stock cars on the property. This work is proposed solely to improve the appearance of this car; it was approved in 2000.

## **8. Convert Box Car Coach 209 Back to its Original Form as Box Car 3605**

Goal – To restore this car to its original form.

Discussion – This car is one of 750 3000-series, 25-ton, wood frame box cars that were built in 1903 to supplement or replace the 4000-series, 20-ton, box cars from the 1880s (Historic Preservation Study, pp. 70-71). At its formation, the C&TS RR received 37 of the 3000-series box cars, but no coaches in which to haul tourists. Therefore, 19 of these box cars were converted into coaches and an additional 2 cars were made into snack-souvenir cars. Thus, at this time there are 16 unmodified box cars. (Box car 3686 was slightly modified to become souvenir car 401 about 30 years ago, but the modifications have been removed and the car has been renumbered as 3686.) The box cars are in demand for storage and for use in charter trains. Both the Friends and the Operator are reluctant to use the cars used for storage in charter trains. The use of the box car coaches has declined markedly since the new, steel-frame coaches came into use about 20 years ago. Now, only ten or so box car coaches are used during the peak season and many of the box car coaches, such as 209, are in dilapidated condition and have not been used in years. Therefore, instead of allowing it to rot away as an unused box car coach, the Friends propose to restore it to its box car configuration. In this form it will be useful in charter trains and will be another example of one of the most ubiquitous types of cars on the old narrow gauge railway.

Condition – The roof, frame, and floor of box car coach 209 appear to be in fairly good condition. The windows are in very poor condition, but these will be removed anyway. Some of the external siding is in poor shape, but most of this will have to be replaced.

Proposed Work for 2001 – In 2001 we propose to start rebuilding box car coach 209 back to its original form as box car 3605. Since the original siding was almost all cut or replaced when the windows were installed in the sides, an entrance ramp was installed in one side, and doors were cut in the ends, this will involve replacing most of the siding on the car. Any structural modifications made to accommodate the car's use as a coach will be repaired so the car has the same structure it had originally. New freight car doors will have to be fabricated since the original doors were removed

about 30 years ago and have severe rot by now. It is hoped that we can salvage all the needed hardware for these doors from the various scrap piles around the yard. If not, we will have to replicate the door hardware.

Approval – This is a new project.

## **9. Rebuild Drop-Bottom Gondola 727**

Goal – Restore drop-bottom gondola 727 to like-new condition.

Discussion – The Historical Preservation Study (p. 75) states that 200 National Dump cars were acquired in 1903. Until this time, the D&RG narrow gauge could only haul coal, ore, ballast and similar granular solids in gondolas, which had to be unloaded by shoveling the load out of the car. The 200 drop-bottom gondolas, numbered between 700 and 899, have six doors on each side of the central spine so that almost all of the floor of the car consists of doors. The doors are raised and lowered in groups of three by chains that wind around a rod on the side of the car. The doors are hinged along the central spine of the car, so that the load falls outside the rails. Indeed, most of the load falls outside the ends of the ties so these cars are of limited use for ballast placement. While gondolas with doors in the bottom were common after the Civil War, almost all of them had doors in the center of the car so that the load dropped between the rails. Gondolas with doors like those of the drop-bottom gondolas on the C&TS RR appear to be very unusual. All-steel hopper cars that closely resemble the hopper cars made today for coal traffic were demonstrated in the 1890s, so the purchase of these wooden cars in 1903 occurred just when almost all other railroads were moving away from wooden cars.

Condition – Drop-bottom gondola 727 is in very poor condition. Externally, it appears that no wood on the car is in good enough condition to be retained.

Proposed Work for 2001 – The Friends propose to start the restoration of car 727 in 2001. This will involve dismantling the car completely. It is likely that all the wood in the car's structure will have to be replaced with new wood. Wood of similar type and dimension will be used if available. The wood in the doors appears to be too rotten to be retained. It may be possible to retain some of the boards in the sides of the car.

Approval – This is a new project.

## **10. Motorcars (Speeders) 04 and 013**

Goal – Restore D&RGW narrow gauge motorcars 04 and 013 to operating condition. The restored motorcars will be used by the Friends of the C&TS RR for various maintenance of way activities, including tree cutting, milepost and whistleboard maintenance, etc.

Discussion – When the railroad from Antonito to Chama was built in 1880, section houses were placed about six miles apart. This allowed the section crews to reach their work every day by walking or using a human-powered track car. After the turn of the century internal combustion engines became reliable and relatively affordable. Railroads purchased small motorcars for their track crews and reduced the number of section houses. Between Antonito and Chama, section houses at Big Horn, Toltec, Los Pinos, and Cresco were removed. There are several hulks of motorcars in the Chama yard, but only two appear worth restoring. Both motorcars are ST-2 narrow-gauge cars, manufactured by Fairmont Railway Motors, Inc., of Fairmont Minnesota. Motorcar 04 is believed to have been manufactured in the early 1940s, while 013 appears to date from the mid- to late-1950s. Each car was designed to haul a crew of up to eight and their tools.

Condition – Motorcars 04 and 013 have been sitting on an old flat car body in the lower yard in Chama for decades. Both cars have been robbed of parts over the years (see Exhibit A). Motorcar 04 has no front axle and has minor chassis damage, but is otherwise reasonably intact (see Exhibits B and C). Motorcar 013 has no front axle or engine (see Exhibits D, E, and F). Several Fairmont RQ two-cycle water-cooled engines (the type originally installed in both motorcars) were discovered in a parts shed attached to the locomotive shop in Chama. Other used but serviceable parts required for the restorations were also found there. In addition, discarded narrow gauge motorcar parts (front axle components and wheels) have been located in the yard near the two motorcars. A thorough survey of the condition of each car was made in June 2000, and parts not available in Chama are being located. These include axle bearings, carburetor repair kits, engine gasket sets and ignition system components. In addition, complete service and operating manuals for the cars have been secured.

Proposed Work for 2001 – Both motorcars will be photographically documented and disassembled. All parts will be cleaned and inventoried. Chassis parts will be inspected for damage and repairs will be made. The drive train of each car includes an 8-13 horsepower two-cycle water-cooled Fairmont RQ engine, a 4"-wide flat belt, an idler pulley/clutch, a two speed geared transmission and a chain drive to the rear axle. All components of the drive train will be inspected and repaired as necessary. Missing or irreparable components will be replaced in-kind. Defective lubricant seals will be replaced, connecting rod bearings will be shimmed, and carburetors will be overhauled. Air cleaners will be added to the engines to reduce wear and spark arrestors will be added to engines to eliminate the fire danger. Fairmont factory equipment will be used if available. Axle bearings will be disassembled, cleaned, inspected, replaced as necessary, and shimmed to manufacturer's specifications. Axles will be reassembled and wheels will be gauged. Each chassis and axle set will be aligned and the drive train will be reinstalled.

The original handbrake system will be restored with new cast-iron brake liners. Each car's original electrical system included a Model "T"-type buzzer coil, blade-type ignition points, a 6-volt automotive-type generator and 6 volt storage battery. This system will be restored, as will the original operating controls of each car. Car bodies, windscreens and tops will be restored. While 013 is an all-metal car, 04 has 1/2" plywood body panels and floorboards. To the extent possible, the original plywood panels will be retained. Panels found to be beyond repair will be replaced with 1/2" marine plywood. Motorcar 04 was originally outfitted only with a narrow gauge windscreen. Later a standard gauge top was added by the D&RGW railroad. The ill-fitting standard gauge top will be retained for crew weather protection. All components of each car will be repainted and relettered in accordance with documented original colors and lettering.

All work will be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Each motorcar will be inspected by the Chief Mechanical Officer of the railroad or his designee upon restoration and before being taken out of the yard. Once the motorcars are operational, an operator training and certification program will be developed consistent with Federal Railroad Administration rules regarding roadway worker safety and the General Code of Operating Rules of the Association of American Railroads.

Approval – This is a new project.

## **11. Pile Driver OB**

Goal – To restore this historic piece of work equipment to functional condition.

Condition – The Friends' Proposed Projects for 1999 contained a detailed discussion of the history and condition of Pile Driver OB; this information will not be repeated here. In 1999 the pile driver itself

was jacked up off the flat car and the two pieces were transported separately to the Western Museum of Mining and Industry (WMMI) in Colorado Springs where covered work and storage space was available. Dismantling of the pile driver commenced and all the heavy timbers needed were ordered and delivered so that they would be dry when needed. By the summer of 2000 the wooden deck on the flat car has been replaced and most of the hoist machinery had been removed from the frame of the pile driver. At this time WMMI decided that its goals were no longer compatible with the restoration of OB at their site and asked the Friends to remove OB. Early in 2001 OB was moved to a trailer repair and welding shop at 7960 Black Forest Road, Colorado Springs, CO 80908. The owner of this shop has been one of the team members on this project and offered use of an unused portion of his property for the completion of the restoration of OB.

Proposed Work for 2001 – In 2001 the complete restoration of the pile driver will continue. All wood that is broken or rotten will be replaced with new wood of similar type and size. The frame is the basic structure of the pile driver itself, and the frame is cracked in at least two places. Thus, the pile driver will have to be completely disassembled to replace the large cracked side sills of the frame. Any good wood in the frame and tower will be reused. The broken teeth on the ring gear segments are unlikely to be able to be repaired by welding. Having new gear segment cast will be very expensive. We have not yet decided whether to have new segments cast or retain the old segments with their broken teeth. This project is expected to take several years.

Approval – This project was approved in 1999.

## 12. Flangers

Goal – To restore these historic pieces of work equipment to functional condition.

Discussion – The flangers used on the D&RG/D&RGW narrow gauge lines were of an indigenous design, having been designed by a D&RG foreman in Leadville and patented by the D&RG in 1885 (Narrow Gauge Pictorial, Vol. VII, J. B. Day, 1989, p. 19). The railroad evidently found the flangers very useful because they eventually built 11 of them (OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, and OT). Running one or two engines up the line with a plow on the lead engine and a flanger between the engine was evidently sufficient to keep the lines open much of the time. Most of the flangers were rebuilt twice. Flangers OC through OL were all rebuilt with wood frames in 1913. All eleven flangers were rebuilt with steel frames between 1929 and 1943. Flangers OF, OJ, OK, and OL came to the C&TS RR, but OF was sold to the Durango & Silverton in 1981. OF and OL were the only two flangers with hinged blades or double wings. These allowed them to clear the snow much further from the track than the other flangers.

Condition – The basic frames of the flangers are steel and need only paint. However, there is a wood frame above the steel frame and a wood deck on top of that. This wood is now rotten since it has been sitting out in the weather for over 50 years. Because some of the operating mechanisms and appliances are attached to the wooden frame and deck, the condition of the wood is a safety issue. During the winter of 1998-1999 the Operator has had some of the wood on OL replaced so it would be sound enough to be used. In 1999 the Friends started to rebuild Flanger OJ. The wooden frame and deck above the steel frame encloses a large amount of steel ballast. Most of this ballast consisted of about 100 steel plates measuring 2.5 x 10 x 17 inches; each plate weighs about 120 pounds. All the wood in OJ was found to be too rotten to retain. The side pieces and intermediate cross pieces were found to be fir and were replaced with fir. The ends of the wooden frame were found to be oak and were replaced with oak. The restoration of OJ was essentially complete at the end of the 2000 work sessions.

Proposed Work for 2001 – The overhaul of the air system of OL will be completed. OJ will be painted maintenance-of-way gray with black lettering, as it was before. We plan to start the resto-

ration of OK in 2001. The wooden frame that rests on top of the steel frame will be replaced. We expect to find little if any wood that can be retained in OK, so the rebuilding will be similar to that for OJ. The ballast of steel plates and scrap metal will be replaced inside the frame and then the deck replaced on the frame. Finally, the appliances and hardware on the frame will be reinstalled. Finally, OK will be painted red with white lettering, as it was before.

Approval – The restoration of the flangers was approved in 1999.

### **13. Flat Car 6708**

Goal – Rebuild this wood-frame flat car from the frame up, so that it will last for some decades.

Discussion – The nature and condition of the eighteen flat cars on the C&TS RR (not including the four company service cars in the 06000 series) were discussed in some detail in the Proposed Projects for 1998. This material will not be repeated here. Stock car 5533 was converted to idler flat 6708 in 1955. Rails were fastened under the side sills to compensate for the strength lost when the truss frame of the stock car was removed. Idler flats were used between gondolas carrying oil field pipe to Farmington because the pipe sections, at 50 feet, were longer than any narrow gauge gondolas available.

Condition – The wooden frame of 6708 had been exposed to rain and snow for more than 40 years, and additional deterioration took place while it was stock car 5533. Exhibit 1997-O illustrates the condition of 6708 in 1993 and Exhibit 1998-B shows the condition of the frame of 6708 in 1997 when it was moved to Antonito to undergo restoration. Some of the frame members were so badly decayed that the wood could be scooped out by hand. All the wood in the car was found to be so rotten it will have to be replaced. Ample evidence of 6708's stock car origin was found when the car was disassembled: e.g., black paint chips, holes where the door guides were attached, and holes where the side truss rods were attached. In the process of converting the stock car to a flat car, the ends of the needle beams were sawed off to allow 30-foot sections of rail to be clamped under the side sills. Thus, the entire side sill is supported by the body bolsters alone as the needle beams no longer reach to the side sills. In 1998 the car was completely disassembled and the new wood for the frame cut to size. The new wood is the same kind as in the disassembled frame: oak for the end sills and the outer sections of the center sills, and fir for the outer sills and intermediate sills and the center sections of the center sills. The splices of the center sills will be reinforced with 2-inch-thick pieces of oak as before. In 1999 the frame of the 6708 was partially reassembled. In 2000 it was discovered that the end sills had not been installed correctly and that some of the longitudinal sills had warped over the winter. The warped sills were replaced and new end sills were installed. The truss rods were installed and tightened to keep the car level over the winter. Part of the deck was installed to keep the sills from twisting.

Proposed Work for 2001 – In 2001 we hope to complete flat car 6708. The steel rails will be reinstalled under the outer sills and the brake rigging will be reattached. All steel parts (e.g., grab irons) will be replaced in their original positions. The major steel parts can all be reused, but the nuts and bolts were too rusty to be reused and will be replaced with new hardware of the same dimension. Finally, if time permits, the car will be painted.

Approval – This project was approved in 1997.

### **14. Cook Car 053**

Goal – Restore the interior of Cook Car 053.

Discussion – This car was built as a short (30-foot) Railway Post Office Car 53. As such it served for many years on the line between Alamosa and Santa Fe. When passenger and mail trains were discontinued on this line, about 1940, the car was converted into a cook car to feed crews assigned to snowplow trains. A zero was placed in front of the car number at that time to indicate it was in non-revenue service. There are two other former RPO cars on the C&TSRR: X-54 and X-65. These cars have more of their RPO interiors remaining than does 053. Eventually, we plan to return one of these cars to its former RPO configuration. Therefore, we plan to restore 053 to its condition as a cook car to illustrate this type of equipment. Whether the interior restoration can proceed before the structural repairs have been made remains to be determined.

Condition – The platforms of 053 were restored several years ago, and some broken siding was replaced at that time. In the course of that work, it was determined that some of the frame members on one side had deteriorated. Whether the frame members would have to be replaced or could be repaired and reinforced was not determined at that time. It partially depends on whether the restored car is to be capable of being taken out of the yard on special trains or will always remain in the yard as part of the museum collection. The interior of the car is much as it was left about 35 years ago when the D&RGW RR ceased running snowplow trains.

Proposed Work for 2001 – In 2001 the work will consist primarily of a survey to determine the nature and extent of work to be performed in subsequent years, although it is envisaged at a few minor repairs will be made in 2001. Paint and wall coverings will be sampled to determine the colors used over the years. The rear door has excessive paint buildup and will be stripped after sampling. Minor repairs will be made to doors, windows, and cabinets such as replacing missing door panels and replacing broken window glass. The stove pipe will be replaced. The bulk of the work in 2001 will be cleaning up years of accumulated dirt.

Approval – This is a new project.

## **15. Short Caboose 0579**

Goal – A complete restoration of the caboose, at the end of which it will be in condition to serve on the railroad and will be historically accurate insofar as possible.

Condition – The history of this caboose and its condition in 1996 was given in the Proposed Projects for 1998. In 1997 the car was moved from its location near the entrance to the Antonito yard to the end of the repair track where it is now resting on two bridge timbers. The floor was removed to allow a complete assessment of the condition of the frame.

In 1998 the center sills were reinforced on both sides with 0.375" steel plate. This was recommended by the Operator since the car will be run in trains with the steel frame passenger cars. Caboose 0503 recently received this treatment by the Operator to increase its structural strength. The intermediate and side sills are to receive this treatment at each end also, but only one end of the intermediate sills could be completed in 1998 although the pieces were cut for the side sills. As the tenons on the longitudinal sills have been sawn off, bolting the end sills to these steel plates seems to be the only way to regain the structural strength of the car. This steel reinforcement of the frame will be up underneath the car and invisible to the public eye. A wooden splice was fitted to replace a missing part of one intermediate sill.

In 1999 the installation of the steel frame splices was completed and the removed and damaged sections of the intermediate sills were replaced with new wooden timbers. Needle beams and queen posts were fabricated. The bolsters were repaired and reassembled. The exposed sills were painted.

In 2000, a welder was hired to complete the steel bracing of the frame. The end sills, truss rods, needle beams, queen posts, and coupler pockets were installed.

Proposed Work for 2001 – This year we propose to work on the trucks and replace the roof. New center bearing and side bearing plates are being cast since the original items had been removed many years ago. The trucks themselves will have to be built up from scratch since these cabooses had unique trucks and no 10-ton freight car trucks are available for modification to the proper form. Work will also start on the brake system. The car had no brake components when the restoration work started. Sister caboose 0578 at the Colorado railroad Museum will be used as a prototype for having parts fabricated. The new roof will be of the canvas and sealant type found on this type of equipment.

Approval – This project was approved in 1997.

## **16. Make Improvements to the Car Shop in Chama**

Goal – Make the old Car Shop into a Carpentry Shop for the Use of the Friends

Condition – The Car Shop is a wood-frame, metal clad building that was used for many decades by the D&RGW RR for light car repairs. The cars being worked on would be placed on the siding next to the loading dock on the southeast side of the building. The building is in good condition, but lacks adequate electrical service and lighting.

Discussion – The Operators of the railroad had been using this building for storage of old parts for many years. The Friends have been doing the bulk of their carpentry work in the open for over ten years. This work must be halted when it rains, and afternoon showers are frequent in the summer. Further, commercial duty saws, planers, joiners, and other equipment are difficult to move out in the open for use and then move back into box cars for storage. Plus, they may be damaged by the rain. The current Operator has agreed to clean out the material that was stored in this building and let the Friends use it as a carpentry shop.

Proposed Work for 2001 – The Friends proposes to have the electrical service upgraded to support the use of commercial woodworking equipment and install lighting to allow this equipment to be used safely. Woodworking equipment will then be installed, as will lumber racks along the walls. None of these improvements will compromise the nature of this building; the building will appear unchanged from the outside.

Approval – This is a new project.

## **17. Telegraph/Telephone Booths**

Goal – Restore the eight telegraph/telephone booths.

Discussion – As part of the construction of the railway, a telegraph line was built to allow the railroad dispatchers to control movement of trains over the line. In the 62 miles between Antonito and Chama there were manned stations only at Osier and Cumbres. In case of an accident or delay, it was desirable for the train crews to have some way of contacting the dispatcher without walking five miles or more to a station. Therefore, telegraph booths were placed at intermediate locations along the line. The most accessible booth is the one just west from the Coxo highway crossing below Windy Point. Other booths are located at Cresco Tank, Los Pinos, Mud Tunnel, Toltec Siding, and Big Horn Wye. The telegraph system was replaced with a telephone when it became practical to do so.

Condition – The Cresco telephone booth received some repairs about 25 years ago. The others have had no maintenance for 40 years or more. When the railroad was abandoned in 1969, many of

the telephone poles were cut down by people who wanted the glass insulators. Where the poles remain up, the wires were taken off the poles by people who removed the insulators. The wire is still there, on the ground, for most of the distance from Antonito to Chama.

Proposed Work for 2001 – The Friends will begin repairing and painting the telephone booths this year. The first step will be to measure, draw, and photograph all the booths. Then a restoration plan will be made for each booths and necessary repairs will be made. If the work is extensive, it may be necessary to put the booth on a flat car and take it to Chama where more carpentry tools are available than can be taken out along the line. After repairs and painting, the booth will be returned to it original location.

Approval – This is a new project.

## **18. Railings and Telltales at Rock Tunnel**

Goal – Restore this historic structure to it original appearance.

Discussion – Before the advent of air brakes, the brakemen walked the tops of the cars to set the brakes because the mechanical brakes of each car had to be set individually. To keep the brakemen from getting swept off the tops of the cars by bridges and tunnels, every place where the vertical clearance was impaired had a warning device on either side of it. This device consisted of a framework over the track that would be well above the brakeman's head and ropes hanging down that would contact the brakeman if he was standing upright. Upon being hit by these ropes, the brakeman knew he had only a few seconds to lie flat on the top of the car. These warning structures, and the ropes hanging from them, are know as telltales. On the C&TS RR, only Rock Tunnel and Mud Tunnel have low enough clearances to require telltales. For unknown reasons, there is no telltale at Mud Tunnel; perhaps it was removed sometime after air brakes became standard on the D&RGW narrow gauge system. The telltale structures at rock tunnel are made from steel pipe.

Condition – The telltales on both sides of Rock Tunnel are in very bad condition; the pipes are very rusty and only a few hanging ropes or strings remain. Also, the railings on the east side of the track just east of the east portal of the tunnel are in very bad shape. This work had been planned for 2000, but transportation to Rock Tunnel was difficult to arrange last year due to all the track work being undertaken.

Proposed Work for 2001 – We plan to dismantle the telltales, salvage what we can from the existing structures, install new pipe where required, replace the ropes, and then re-erect the telltales. The Friends will also repair the railings as needed. Whether this work gets done in 2001 depends on whether transportation to Rock Tunnel can be arranged.

Approval – This project was approved in 2000.

## **19. Chama Stock Pens**

Goal – Return the pens to sound and useable condition.

Condition – The Friends have worked on the stock pens for since 1993, but much remains to be done. Some parts of the loading ramps and gates at the north end of the pens were refurbished during 1993, 1994, and 1995, but most of the pens still have many rotten boards and posts. Exhibits 1994-A and 1994-B show the general condition of the pens before restoration commenced. Exhibits 1995-A and 1995-B show the work done on the north chute and walkway in 1994. Exhibit 1996-A illustrates the new floor and chute sides installed on the middle chute in 1995. In 1996 work contin-

ued on the north and middle chutes, which are combination sheep and cattle chutes. The north and middle chutes are essentially completely restored now, and the two holding pens leading to the north chutes have been restored as well. The two holding pens leading to the middle chute are useable, but not completely restored. Work began on the south chute in 1996; this chute is configured for cattle only. A short stock train was spotted at the pens in 1996 and the north and middle chutes, gates, and ramps lined up, both vertically and horizontally, so that sheep could have been loaded onto the cars from both levels at the two chutes had any been available. Due to the press of other projects in 1997, only the walkways along the south (cattle) chute were rebuilt last summer. In 1998 the sliding side fence on the north chute, which had been damaged, was repaired. An inside gate on the north chute was rebuilt and hung. A large gate was built. In 1999 the truck loading chute on the south side of the pens was rebuilt. In 2000 work continued on rebuilding gates and replacing rotten boards that form the sides of the pens and chutes.

Proposed Work for 2001 – The focus this year in will be on rebuilding gates to make more of them fully operable. Many of the gates have had to be secured in the open or closed position because they were too deteriorated to swing from one position to another. Posts that are rotten at ground level or below will be replaced with new posts, or sound used posts, of the same size. All useable boards will be renailed in place, and rotten boards will be replaced with new rough-sawn lumber of the original dimensions. This project will not be completed for some years as the pens are a large complex.

Approval – This project was approved in 1992.

## **20. Coal Tipple**

Goal – To restore the coal tipple to historic and operating condition. By painting and color-coding to match interpretative signs, we plan to create a display of how this important element of a railroad yard operated.

Condition – The design, use, and condition of the coal tipple was described in detail in the Proposed Projects for 1998 and will not be repeated here. The 5° lean of the coal tipple was found to be due to a crushed and tipped foundation sill. In 1998, the Operator had a contractor stabilize the building so that it would not lean further. Also in 1998 the Friends cleaned out the interior and installed four fluorescent shop lights so that there would be sufficient light inside to work. A concrete floor was found under many inches of dirt. The diesel hoist engine was found to have its piston stuck in the cylinder, possibly due to the collection of condensate in the air starting system over the years. Kerosene was poured into the cylinder to see if a year's soaking would free the piston. Since the hoist is now operated by an electric motor, repair of the diesel engine is not necessary to get the tipple in operation. The electric motor was cleaned and lubricated. Both sumps were pumped dry, revealing a lot of rust on the bunker doors and debris in the bottom of the sump. There is speculation that the sumps had drain lines which have become clogged though years of neglect. The hoist house windows and doors were repaired and the hoist house was painted.

In 1999 the Friends cleaned up the interior of the hoist house. The head of the diesel engine was removed and removed rust, corrosion, and carbon – allowing the engine to turn over freely. However, it would not run. (Fairbanks-Morse ceased supporting the Type Y engine in the 1950s.) When three-phase electric power was restored to the hoist house and some minor adjustments were made to the machinery, the hoist became operational again, powered by the electric motor. A demonstration was held in which coal was loaded into the south bin of the tipple using the south skip (bucket). Some coal from the south bin was then loaded into the tender of locomotive 463 to complete the demonstration.

In 2000, the sumps were dug out to allow the skip to seat at their proper positions below the coal bin doors. Drains in the bottoms of the sumps were not found. The drain line from the tipple to its outlet to the east was uncovered, but not entrance to it from the sumps could be located. Until the

tipple is paced in regular operation, it appears to be simpler to pump out the sumps whenever the tipple will be operated. The diesel engine was started using compressed air from a locomotive.

Proposed Work for 2001 – Cleanup and painting will continue this year. The hoist machinery will be cleaned and lubricated. The exterior features of the tipple will be repaired as necessary. These include the loading chutes and the mechanism that is used to raise and lower the chutes. An attempt will be made to free the north bunker door. Interpretative signs have been designed and will be installed. A high-rise cherry picker is needed to work on the head house at the top of this structure.

Approval – This project was approved in 1998.

## **21. Cumbres Section House – Interior Rehabilitation**

Goal – Return the building to sound condition, with the exterior as historically accurate as modern safety codes allow. The interior will be restored and upgraded to allow the building to be inhabited during the summer months.

Condition – The restoration of the roof of this building was described in the Proposed Projects for 1997 and 1998. In 1998 work started on restoration of the interior. All the drywall (gypsum board) covering the historic paneling and the damaged ceiling in one room was removed. Insulation was installed under the entire building. The attached coal bunker was converted into a utility room, which required substantial reconstruction of a damaged foundation. A substandard wall between constructed of 1x10 planks separated by furring strips was replaced with a wall framed with 2x4s. The foundation along the north side of the building had settled at sometime in the past and the floor in the center room on the north (track) side had been re-leveled by placing a new floor on top of the old one. This floor was 3 to 4 inches higher on the north wall than on the south wall, and required shortening the door to the outside. Since the Railroad Commission recently had the foundation repaired and the building re-leveled, the second layer of flooring in this room was removed. The damaged ceiling in one room was removed and a bathroom that meets handicapped standards was roughed in. Four of the historic windows were restored.

In 1999 the Friends constructed and installed new shutters on all windows. Eight windows received new sills sashes, or both. The ceiling and drywall were installed in room #7. A new hardwood floor was installed in room #3. The enlargement of doorways A, B, C, D, and E to 36 inches was started. And flooring was replaced at the base of the new wall between rooms #4 and #6. A new rear doorway and door were installed.

In 2000, the windows were finished and the interior and exterior doors were completed except for some hardware. Work on drywall and trim continued. The coal shed to the east of the Section House appeared to be in danger of collapse, so a new foundation was placed under it and the rotted ends of the studs that had been resting in the dirt were replaced. A new roof was put on this building as well.

Proposed Work for 2001 – This year work will continue on the interior restoration according to the plan submitted by the Commission in 1996. However, it appears that the handicapped ramp on the track side of the building would create safety as well as aesthetic problems if installed as shown in the drawings. Different ways to provide handicapped access will be explored with the Commission and the SHPOs. Also, the speeder shed on the other side of the tracks east of the Section House appears to be in danger of collapse. We plan to replace the foundation of this shed in 2001.

Approval – Funds to purchase the materials for this work have been provided by the Colorado Historical Society. The Commission submitted considerable material concerning this project to the CO and NM SHPOs in 1996 and the work was approved then.

## 22. Exterior Repair and Painting of Buildings in Chama

Goal – Make the appearance of these historic structures more acceptable.

Condition – The paint is beginning to fade on a number of buildings in the Chama Yard such as Log Bunk House, the old car bodies near it, the Scale House, and the Night Watchman's House. A few minor repairs will be needed before painting, e.g., broken siding, loose soffits, etc.

Proposed Work for 2001 – We plan to paint the buildings in the yellow and brown colors suggested for the Chama buildings in *Colors Along the Line*.

Approval – Painting is regular maintenance.

## 23. Osier Section House and Station

Goal – Return the buildings to sound condition, with the exteriors as historically accurate as modern safety codes allow. The interior will be restored and upgraded to allow the building to be inhabited during the summer months.

Condition – After the states took over the Antonito – Chama section of the D&RGW narrow gauge in 1968-1970, the section house at Osier was converted for use as a food service facility. Several modifications to the building were made at that time, the most noticeable of which from outside is the large extended porch on the front (east) of the building. Shortly after the section house was converted into a food service facility, the station was converted into a rest room facility. When the new dining facility was completed in 1989, all use of the section house and station ceased.

The section house had a new sawn cedar shingle roof installed during 1994 and 1995 on the original. In 1996 the Friends installed new doors and windows of the original size and type in their historical locations. In 1997 the Friends removed the extended front porch built around 1970 and built a replica of the original front porch in its place. Two sections of the foundation were repaired and a 6' x 8' slab was poured for the generator building. A replica of the original rear porch was built, and metal rodent barriers were installed as needed. Modification of the foundation boards, drip strips, and siding that were required for the porch removal and construction was completed. The building was given a coat of primer paint. In 1998 a roof leak was fixed, the floors were insulated, some of the walls were insulated, and the new kitchens and baths were roughed in. The oak flooring and ceiling in the B unit were installed, and a generator shed was built nearby.

The station had a new sawn cedar shingle roof installed in 1995. In 1997 new windows and doors acquired in 1996 were installed in the original locations and a non-original door opening was closed off. The wall board, walls, and other features added to the interior about 1970 to convert the building into a toilet facility were removed.

In 1999 the section house had soffits, ceiling, and shingles applied. The bathrooms were insulated and the drywall was installed. The roof was painted and some of the walls were painted with primer. The generator building was completed. A contractor jacked up the station and installed rough wiring before the first work session. The Friends installed two metal doors, resquared the windows, installed a center support beam, installed the floor joists, installed the subfloor and finish hardwood floor. The floor and all first floor walls were insulated, and the waferboard wall covering was installed on the first floor. And the station was painted.

In 2000, work concentrated on finishing the drywall, completing the woodwork, and installing trim. The exterior of the building was painted the reddish brown (Moor-O-Matic II Universal Color System HC-71) that appears to be the only color of paint ever applied at this site. In the station, the ceiling joist was repaired, the wainscoting installed, and most of the beadboard installed. Upstairs, the subfloor was repaired and the roof insulated.

Proposed Work for 2001 – In 2001 the Friends plan to finish the kitchens and baths. Also, we plan to build handicap ramps on the outside. We will also install the cabinets and paint the interior. Interior restoration of the station will continue.

Approval – Funds to purchase the materials for this work have been provided by the Colorado Historical Society. The Commission has submitted considerable material concerning this project to the CO and NM SHPOs in 1996 and earlier years and the project was approved then.

#### **24. Cut Trees along the Right of Way**

Goal – Remove trees that are growing along the right of way near the tracks. The trees present a safety hazard and block views to the south in this section.

Condition – In the 30 years since Colorado and New Mexico acquired the C&TS RR, trees and brush have grown up along the track within the railroad's right of way. Some of the trees are growing in the ballast and are destabilizing the roadbed. Others are growing very close to the track and their branches can strike unwary passengers who lean out of the windows (in spite of precautions not to do this). In addition, the trees on the downhill side of the tracks have grown so profusely that between Sublette and Rock Tunnel only occasional views of the Los Pinos valley and the mountains and plains beyond are now possible. In 1998 we began cutting trees that posed both a safety hazard and obstructed the views. Cutting was done in the narrows east of Chama, just east of Sublette, and between Sublette and Big Horn. In 1999 cutting continued in the narrows east of Chama, just east of Lobato trestle, both east and west of Cresco tank, and from just west of Sublette to east of Big Horn section house site. In 2000 our work was concentrated on the area east of Sublette and isolated clumps of brush and trees between Chama and Cumbres. Small aspens cut to the ground 2 or 3 years ago are sprouting rapidly and growing back faster than we can cut them. It may be necessary to apply a herbicide to the cut stumps to prevent this.

Proposed Work for 2001 – We plan to continue tree and brush cutting along the right of way.

Approval – This project was approved in 1998.

#### **25. Paint Mileposts**

Goal – Keep the mileposts and other signs painted in authentic colors and historically lettered.

Condition – Most of the mileposts and other signs have been painted recently by the Friends and are in good condition. In each of the last few years about 30 signs were painted, relettered, or touched up. These include mileposts, speed limit signs, whistle signs, flanger signs, yard limit signs, and state line signs. Two new mileposts were installed to replace rotten ones in 1999.

Proposed Work for 2001 – Paint those mileposts and other signs along the track which are most in need of paint. The signs will be painted in their traditional schemes, e.g., white with black numerals for the mileposts.

Approval – Painting and lettering is regular maintenance.

#### **26. Repairs to Passenger Cars**

Goal – Make minor repairs to the new passenger cars to enhance their appearance and function

Condition – By the end of the 1999 operating season it was apparent that the Operator had allowed the condition of the new passenger cars to deteriorate. In view of the difficulties faced by the new Operator in starting the 2000 season, the Friends decided to assist the railroad by scheduling a work session in May to make minor repairs to the coaches before the start of operations. This work included repairing torn upholstery, replacing broken windows, and fixing doors and windows so that they operate smoothly and easily.

Proposed Work for 2001 – The Friends have scheduled a work session in May to make minor repairs to the new passenger cars. If some of the cars are not needed early in the season, repairs to these cars may be made in the June work sessions in place of, or in addition to, the May work session. The work will be in the same nature as that performed last year.

Approval – The passenger cars are not historic; they have all been built on old standard gauge flat car frames in the last 25 years in the Antonito shop of the railroad.

## **27. Yard Clean up**

Goal – Clean up the Chama and Antonito yards and remove the accumulated junk.

Condition – The Chama and Antonito yards have not had a comprehensive clean-up for decades. Many people comment on the piles of old car or locomotive parts in the weeds and the old car bodies in the brush. Particularly noticeable are the parts of the through-truss turntable from Denver that was acquired a few years ago and the bridge crane that has been resting behind the Night Watchman's House for more than a decade. The new Operator has expressed an interest in cleaning up the site and appears willing to devote some resources to this end.

Proposed Work for 2001 – The Friends plan to work with the Operator to clean up the Chama and Antonito yards. A large portion of the work will consist of gathering like parts and deciding which ones might be useful in the future. The parts for which there appear to be no need will be placed together for a scrap metal dealer to haul away. The useful parts will be sorted by use, for example, air brake parts in one location and speeder parts in another. The turntable and bridge crane will require a crane and heavy equipment moving company to move off the premises or to a less visible location.

Approval – This is a new project. It does not appear that removing accumulated junk will change the basic historic nature of the site.

## **28. Chama Station Grounds Maintenance**

Goal – Improve the appearance of the area around the Chama station.

Condition – The flower beds around the Chama station do not receive as much maintenance from the operator as might be desired to make the station area attractive.

Proposed Work for 2001 – Remove dead plants and weeds. Fertilize the perennials and plant new annuals. Set up a watering system for the flower beds.

Approval – This is regular site maintenance.