


Habitat Improvement
&
Angler Access to Upper Fountain Creek
Phase III
Memorial, Mansions, and the Fields Parks
Manitou Springs, CO



Project Final Report



Prepared by

 **FIN-UP** Habitat Consultants, Inc.

J. Peter Gallagher
220 Illinois Ave
Manitou Springs, CO 80829
(719) 685-9768 (Office)
(719) 332-2550 (Cell)

Fountain Creek within the City of Manitou Springs has been dramatically altered throughout much of its length through channelization, construction of concrete retaining walls, and urban encroachment within the active floodplain. In 2006, a group of concerned citizens, business owners, and watershed advocacy groups formed the Fountain Creek Restoration Committee (FCRC), to explore strategies to restore Fountain Creek and improve the fishery from “Arch to Arch” within the city limits of Manitou Springs. In the first year, the FCRC developed a master plan to provide a pathway to restoring the stream. Initial assessments of existing stream conditions were begun, and key segments of the stream were identified for restoration. Potential funding partners and stakeholders were identified, and fundraising began in 2007 for the first projects.

In the fall of 2008, the Phase I of the Fountain Creek restoration project was completed along a segment of Fountain Creek within Soda Springs Park in downtown Manitou Springs. This work was funded in part by a Fishing is Fun grant and is detailed in the document *Habitat Improvement & Angler Access to Upper Fountain Creek, Soda Springs Park, Manitou Springs, CO - Project Final Report* (Fin-Up, Inc., 2009). Phase II of the Fountain Creek restoration effort, The Schryver Park Reach and Pond Redevelopment project was completed in 2009. This work, funded in part by the Colorado Water Conservation Board Healthy Rivers Fund, included habitat enhancement along Fountain Creek and a complete restoration of the kid’s fishing pond in the park.

Detailed aquatic assessments of The Fields Park and Memorial/Mansions Park reaches were conducted in 2008 and 2009. The assessments revealed generally poor quality aquatic habitat conditions. Sedimentation from local erosion sources, as well as from sources upstream, were negatively impacting aquatic habitat within the reach. Stream bank stability was generally poor, primarily due to lack of vegetation on the steep banks resulting from heavy recreational use. Other limiting factors to the fishery included poor quality pool habitat, and limited in-channel object cover in the low gradient riffles. Additional infrastructure problems included exposed utility crossings and failed drop structures. An aquatic and riparian enhancement plan was developed for each park based on the findings of the assessment.



Colorado College Prof. Miro Kummel conducting Stream Habitat Survey at The Fields Park in 2008.

A project budget was developed for the FCRC, and active fund raising in the community began immediately. Significant funds were pledged by the local chapter of Trout Unlimited to provide important “non-Federal” matching money for grant applications. With the encouragement and support of the Colorado Division of Wildlife, the FCRC and the City of Manitou Springs applied for a second grant under the U.S. Fish & Wildlife Service Fishing is Fun Grant Program to complete Phase III. In August, 2009, the FCRC was notified that their request for \$107,545.00 through the Fishing is Fun Program was approved for use beginning in 2010. Further local funding of \$99,634.00 was secured by the end of 2009.

Memorial / Mansions Park Reach 7 Implementation:

In early 2010, the FCRC and the City of Manitou Springs selected FIN-UP Habitat Consultants, Inc. to oversee the implementation of the project. A Request for Bids (RFB) was prepared by the City of Manitou Springs in February, 2009, for a heavy equipment contractor to provide equipment to install the habitat features outlined the enhancement plan. Chaparral Construction, LLC, from La Veta, CO was selected to provide heavy equipment services. Cost of services was not the only factor in determining the selection of Chaparral for the contract. The company brought to the project an excellent record of previous stream work in the region, including similar habitat enhancement work on Fountain Creek in Colorado Springs, as well as the US Forest Service / Coalition for the Upper South Platte “Trees for Trout” projects on the South Platte River and Tarryall Creek.

The Rocky Mountain Field Institute (RMFI), a local environmental education and restoration non-profit organization active in Colorado and Utah, was selected to organize volunteers to complete the trail, rock wall, and stream bank stabilization work for the project. The Fountain Creek effort has proved to be a good fit for RMFI’s organization, and they have brought to the table a considerable knowledge in ecological restoration, as well as a unique ability to provide opportunity for community involvement and participation in the project. The Rocky Mountain Field Institute would organize and implement the stream bank stabilization portion of the project, including identifying and acquiring the specific species of plants to be used. RMFI would also organize public volunteer work days to construct the bank stabilization features, and the re-vegetation of the banks at the end of the project. This work would be done at cost, with the added benefit of significantly increasing the public participation in the project.



Working behind City Hall in Mansions Park.

Contracts were drawn up for approval by the Manitou Springs City Council, and construction was scheduled to begin during the last week of March 2010. Due to the scheduling of the project in the early spring, it was not possible to harvest boulders from the Manitou Reservoir site. Additionally, a quick cost analysis determined that it would be cheaper and more time-efficient to purchase boulders from a local source. We had previously negotiated a very favorable price for boulders with Tezak Heavy Equipment Aggregate Source of Canon City, CO for the Schryver Park project. Tezak agreed to hold their price for the Memorial / Mansions project, and also did the same for the Fields Park project in 2011. Boulders for Memorial / Mansions Park were acquired from the Table Mountain Quarry, south of Colorado Springs, and delivered to the work site in late March 2010.

A small excavator and a bob-cat skid-steer loader were mobilized by Chaparral Construction to the site on March 29, 2010. Work began in the stream behind City Hall (Reach 7B), and progressed downstream at a rapid rate. Boulder cross-vanes and micro-vortex in-channel object cover structures were installed, along with stream bank toe boulders along the exposed foundation walls of City Hall. Progressing downstream, work began in Memorial Park on April 1, 2010 in Reach 7A downstream to the project boundary at the stone bridge at Old Mans Trail. A small change to the original design and location of two of the cross vanes in Reach 7A was necessary to accommodate a City of Manitou Springs request to incorporate a new irrigation intake in the reach. The work to install the new irrigation intake was completed



Reach 7D adjacent to the Wichita Parking Lot.

by Chaparral Construction under a separate contract with the City of Manitou Springs, but was undertaken concurrent to the stream habitat construction so as to not require equipment to enter the river after the habitat work was complete. All in-channel habitat work in Memorial Park Reach 7A was completed by April 7, 2010. Equipment was then shuttled upstream to Reach 7D, adjacent to the Wichita Parking Lot and the Stage Coach Restaurant. This final short segment was completed in one and one-half days, and the heavy equipment was demobilized from the project work site on the afternoon of April 9, 2010.

Stream bank restoration and planting using volunteers organized by RMFI began almost immediately following the heavy construction phase. Stream banks were re-vegetated using native sand bar willow and sedge harvested from stream reaches within the City of

Colorado Springs that had been scheduled by Colorado Springs for future riparian vegetation removal. The table below shows the species of plants and native seed mix used to further enhance the stream bank restoration work.

Plant Species		
	Species	Common Name
	<i>Prunus virginiana</i>	Chokecherry
	<i>Rosa woodsii</i>	Wood's Rose

Native Seed Mix:		
% Mix	Species	Common Name
Grasses		
7%	<i>Bouteloua gracilis</i>	Blue Gramma var. Bad River
15%	<i>Pascopyrum smithii</i>	Western Wheatgrass
8%	<i>Sporobolus cryptandrus</i>	Sand Dropseed
10%	<i>Bouteloua curtipendula</i>	Side Oats Gramma
5%	<i>Koeleria macrantha</i>	Bottlebrush Squirreltail
	(sub) <i>Elymus elymoides</i>	
Forbes		
10%	<i>Ratibida columnifera</i>	Prairie Coneflower
5%	<i>Artemisia frigida</i>	Fringed Sage
5%	<i>Argemone polyanthemus</i>	Prickly Poppy
5%	<i>Penstemon virgatus</i>	Showy Milkweed
	(sub) <i>Asclepias speciosa</i>	
15%	<i>Penstemon secundiflorus</i>	One-Sided Penstemon
15%	<i>Coreopsis tinctoria</i>	Hairy Golden Aster
	(sub) <i>Hetertheca villosa</i>	

On the weekend of April 24-25, over forty volunteers completed the placement of nearly 60 tons of boulder rip-rap along the foundation wall underneath City Hall. In addition to this work, the volunteers also completed restoration of the stream bank access point for Reach 7B as well as the boulder and rip rap storage sites adjacent to city hall.

On May 8, 2010, volunteers from the Cheyenne Mountain Chapter of Trout Unlimited harvested sedges from a concrete lined drainage channel where Camp Creek flows through the Hidden Valley neighborhood on the west side of Colorado Springs. This vegetation, supplemented with purchased upland plant species and native seed, were transplanted along the stream banks in the Memorial Park Reach 7A, utilizing 25 community volunteers organized by the Rocky Mountain Field Institute.

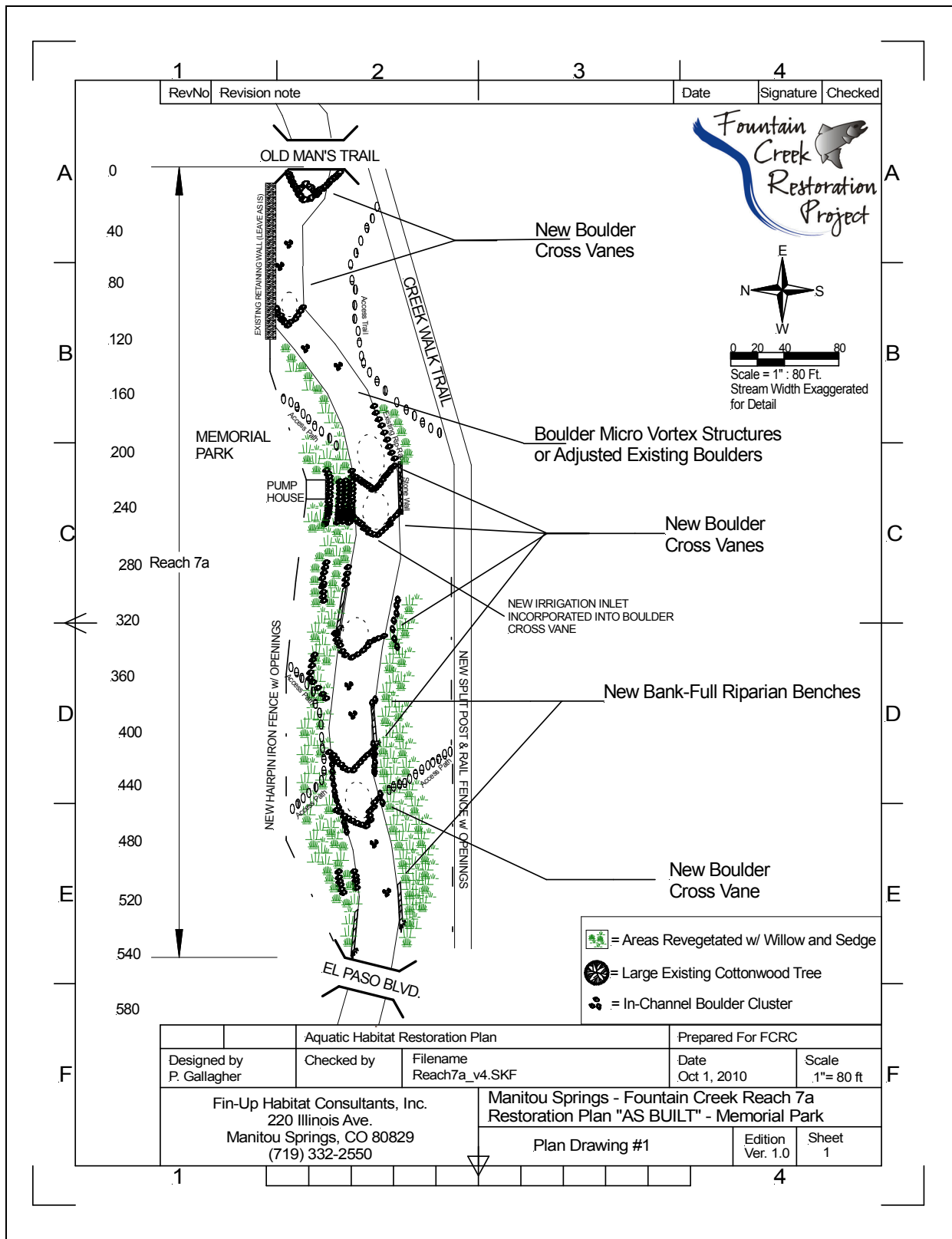
Following the volunteer workdays in April and May, the Pikes Peak Corps interns began their summer completing the work on Fountain Creek. Seven interns spent 10 days completing the restoration work in Memorial and Mansions Park in early June. Over 4,000 square feet along the banks of Fountain Creek was rehabilitated and stabilized using a variety of methods. Team members transplanted 332 sedges along the edge of the



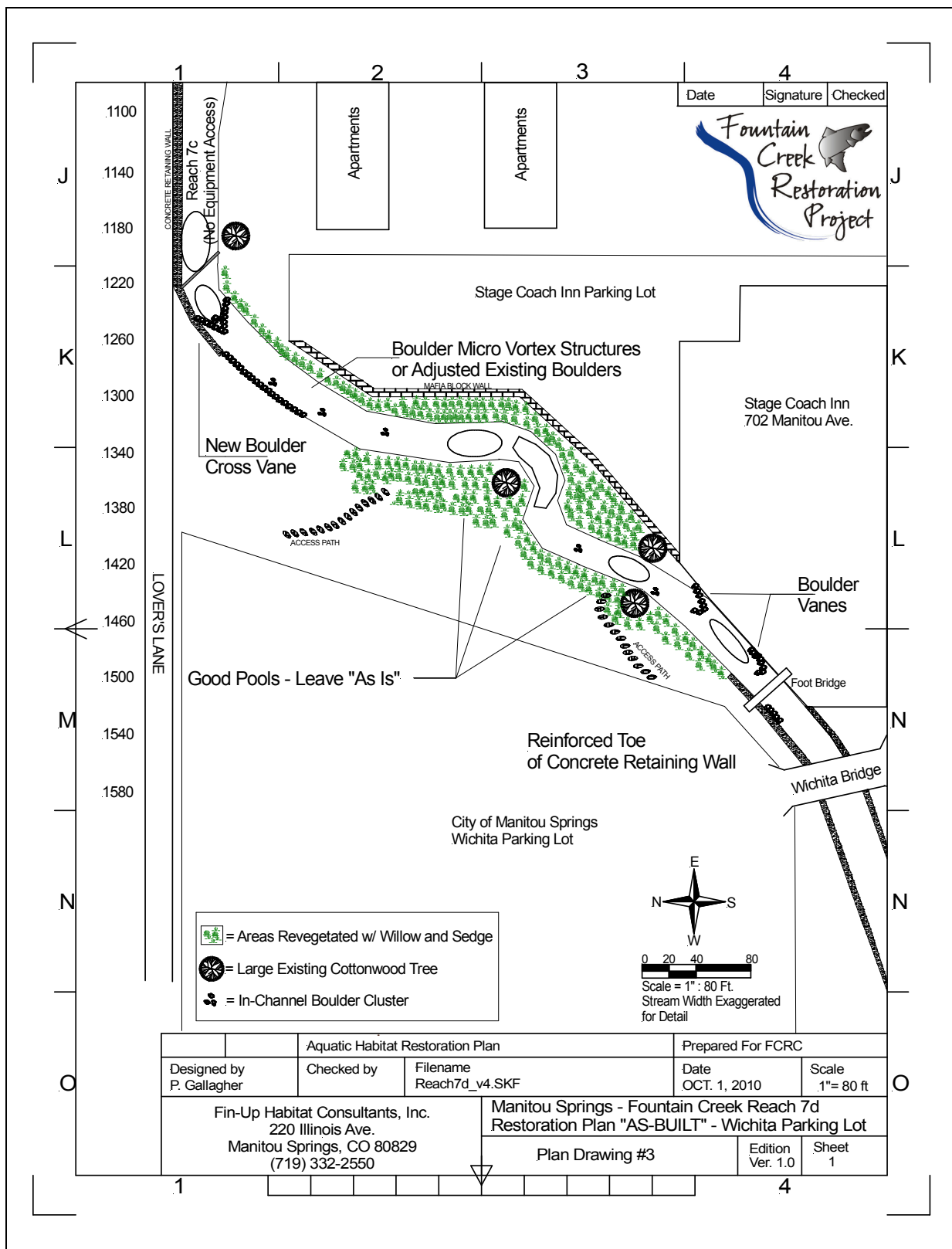
Vounteers working in Memorial Park in Early May, 2010.

creek, restored, seeded and placed erosion control matting on 1500 square feet of highly impacted stream access social trails. After placing the matting, the team transplanted 45 chokecherry stakes to act as a visual and physical barrier to protect the restoration areas. The team also built 200 square feet of rock and wood retaining walls along the creek to control the influx of sediment into the stream during storm events, and, in an effort to permit sustainable continued public access to the stream, three sets of stairs were built for a total of 25 steps.

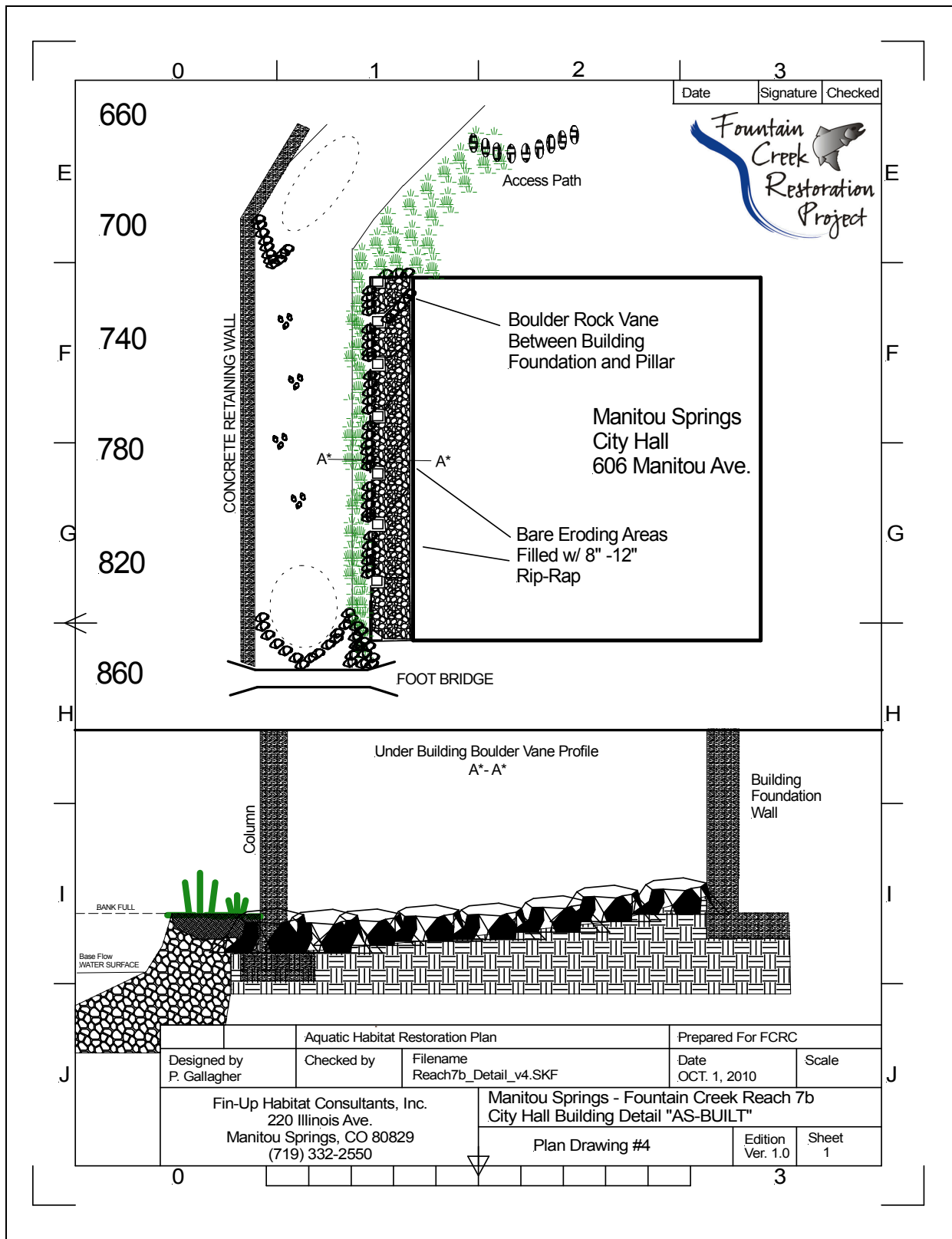
During this time, a temporary barrier fence was installed to protect the re-vegetation effort, and the permanent iron fence was installed in August, 2010. During the summer months, it became apparent that a fence would also be required along the south side of the stream. A split post and rail fence was installed by the Pikes Peak Corps, using materials donated by a local business. All of the temporary fencing was removed by early September, signaling the completion of the Memorial & Mansions Park Reach 7. As-Built drawings of the completed project are shown on the following pages.



Memorial Park Reach 7A As-Built Drawing.



Wichita Parking Lot Reach 7D As-Built Drawing.



City Hall Detail – Mansions Park Reach 7B As-Built Drawing.

The Fields Park Reach 2 Implementation:

In late 2010, planning began for implementation of the Fields Park reach in early 2011. Fin-Up Habitat Consultants, Inc. would direct the restoration effort in Fields Park, and the Rocky Mountain Field Institute (RMFI) would organize volunteers to complete the trail, rock wall, and stream bank stabilization work for the project. The US Army Corps of Engineers were contacted in early October to request an extension of the CWA Section 404 permit, which was due to expire at the end of October. A one-year extension of the permit was granted in early December, and a Request for Bids (RFB) was prepared by the City of Manitou Springs for a heavy equipment contractor to provide equipment to install the habitat features outlined the enhancement plan. Once again, Chaparral Construction, LLC, from La Veta, CO was the low bidder, and was selected to provide heavy equipment services.

Contracts were drawn up for approval by the Manitou Springs City Council, and construction was scheduled to begin following the Christmas holiday. Due to the scheduling of the project in the winter months, it was again not possible to harvest boulders from the Manitou Reservoir site. Boulders for Fields Park were acquired from the Table Mountain Quarry, south of Colorado Springs, and delivered to the work site in during the last week in December, 2010. Unfortunately, a prolonged period of inclement winter weather followed, delaying the commencement of heavy equipment work until the last week of January, 2011.

A small excavator and a bob-cat skid-steer loader were mobilized by Chaparral Construction to the site on January 24, 2011. Work began at the upstream boundary of the park and progressed downstream.

Boulder cross-vanes and micro-vortex in-channel object cover structures were installed, along with several segments of stream bank toe boulders to stabilize steep banks along the south side of the river. Additionally, some sloping of vertical banks was accomplished; although an adjacent natural gas line precluded sloping back some of the stream banks originally planned for. This gas line also required a minor change to the original design at the downstream boundary of the project reach. This 10" gas line crosses the creek near the downstream boundary and has become exposed in the bottom of the channel. We determined that the risk of working around this pipeline was too great, and choose to relocate the cross-vanes in this area upstream. At some point, it will be necessary for Colorado Springs Utilities, who owns and maintains this line, to come



Constructing boulder bank toe in Fields Park.

in and address this problem. We did not want to spend time and effort to create habitat in this area if it was likely that these features would be removed as a result of CSU maintenance work.

In-channel habitat work proceeded quickly in this reach, and was further aided by excellent weather and ease in maneuvering equipment in this less confined park. All of the heavy equipment work was complete by February 1, 2011, and the equipment was demobilized back to La Veta, CO, just before a major new winter storm moved into the area.



Beginning Stone Wall and Stair Construction in the Lower Part of Fields Park.

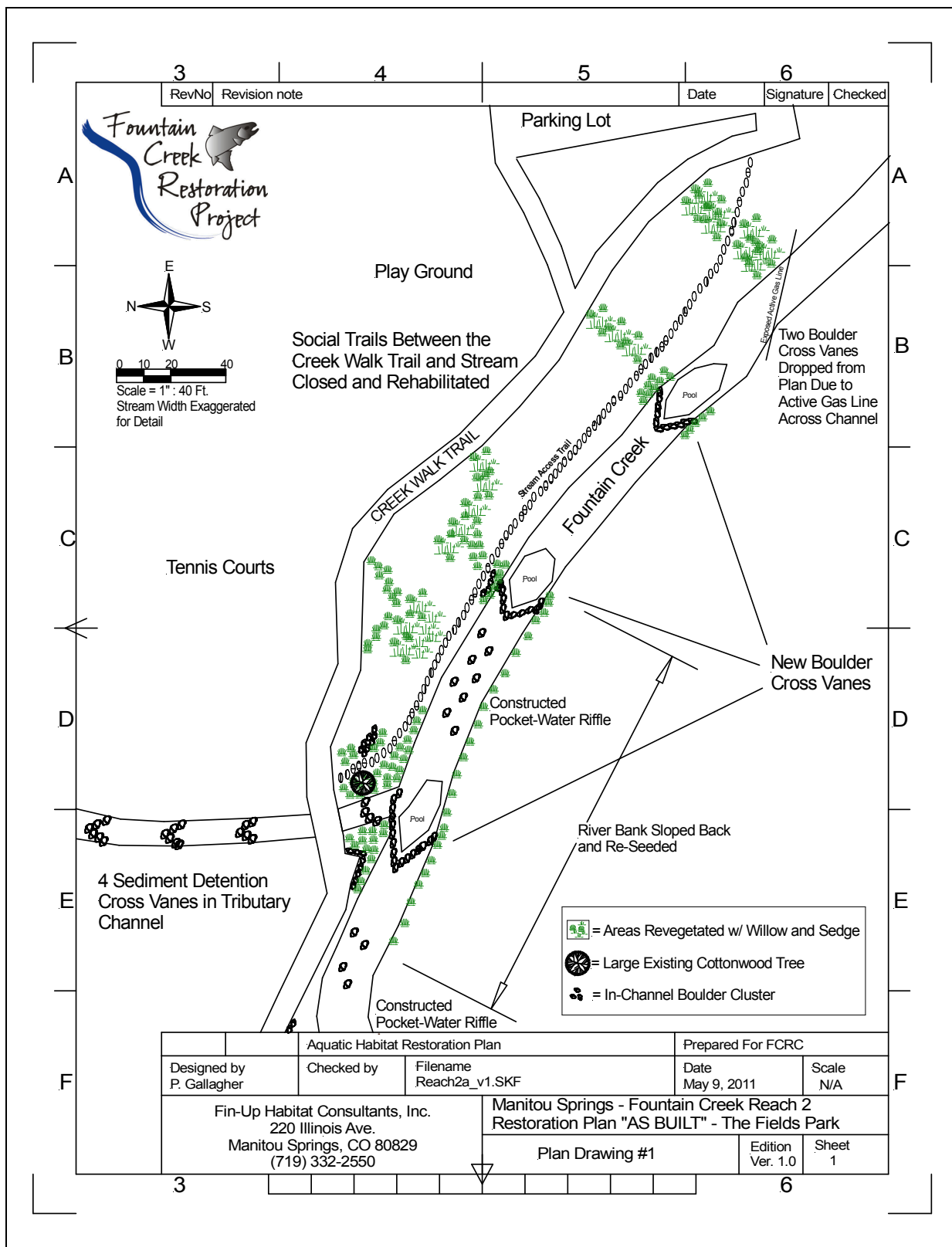
Stream bank restoration and planting using volunteers organized by RMFI began in early April of 2011. Stream banks were re-vegetated using native sand bar willow and sedge harvested from stream reaches within the City of Colorado Springs that had been scheduled by Colorado Springs for future riparian vegetation removal. The same plant species and seed mix were utilized in the Fields Park reach as in the previous project in Memorial and Mansions Park. RMFI's work in the Fields Park was a bit more extensive than in Memorial & Mansions Parks. In addition to the stream bank planting and stone retaining wall work, a creek trail was planned that required construction of stone stairways. Also, the Pikes Peak Corps were not available in 2011, and therefore a significant increase in volunteer work days would be necessary to complete the work.

Eleven workdays were completed in April and May of 2011, utilizing 223 volunteers from organizations as diverse as Trout Unlimited, the US Air Force and US Army, and numerous local school districts. A total of 1,112 volunteer man-hours were invested into the project, making this the largest volunteer effort of any of the Fountain Creek projects to date. Work accomplished by RMFI volunteers in Fields Park included closing and rehabilitating 15 social trails, constructing 171 ft of stone walls, construction of 50 ft of stone stairways leading to the creek, installation of approximately 600ft² of small boulder rip-rap, and over 12,500ft² of revegetation in the project area, utilizing native seed, riparian sedge and willow. Complete “As-Built” drawings of the Fields Park project are included in the following pages of this report.

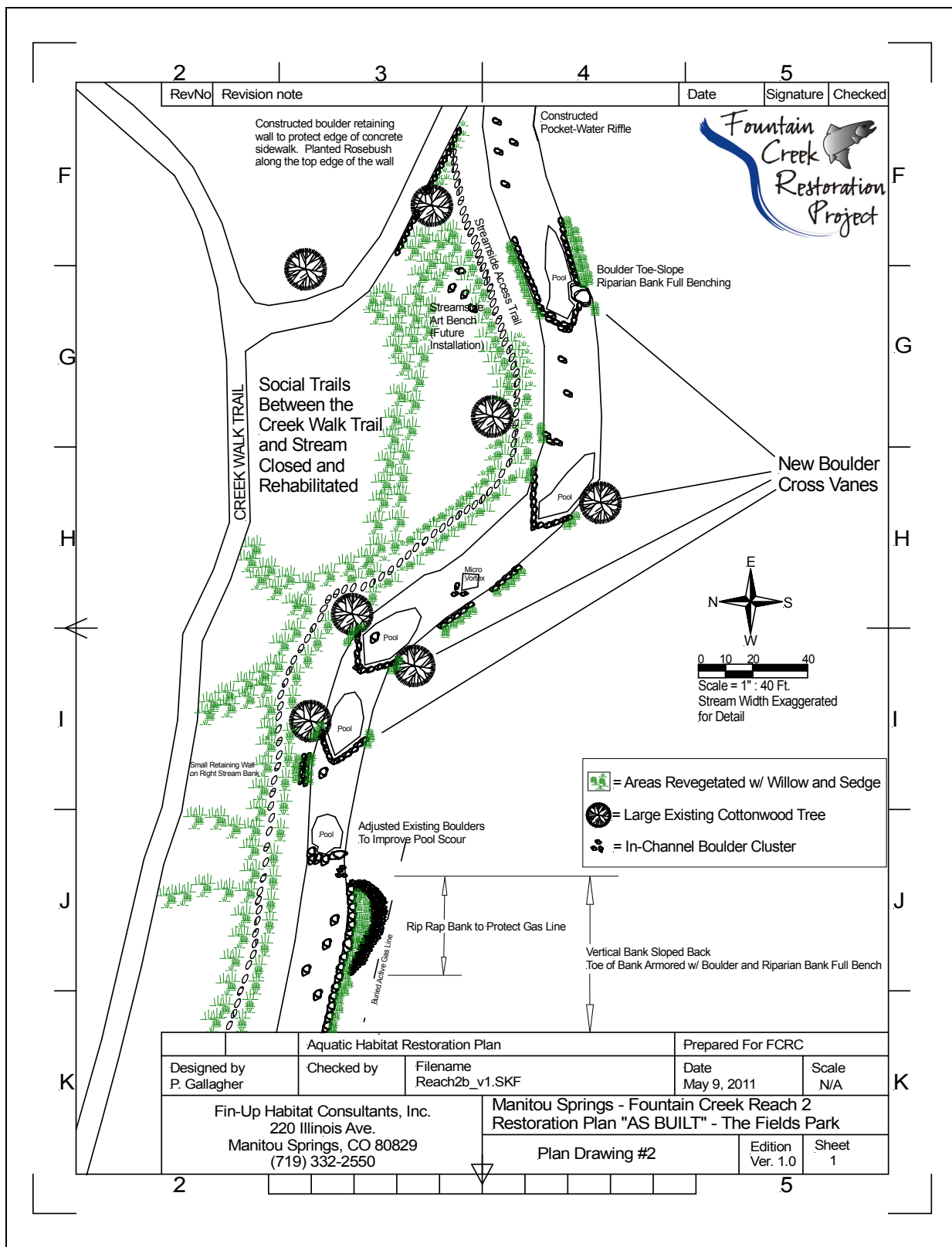


Boulder Cross Vanes and Creek Trail in the Middle Segment of The Fields Park.

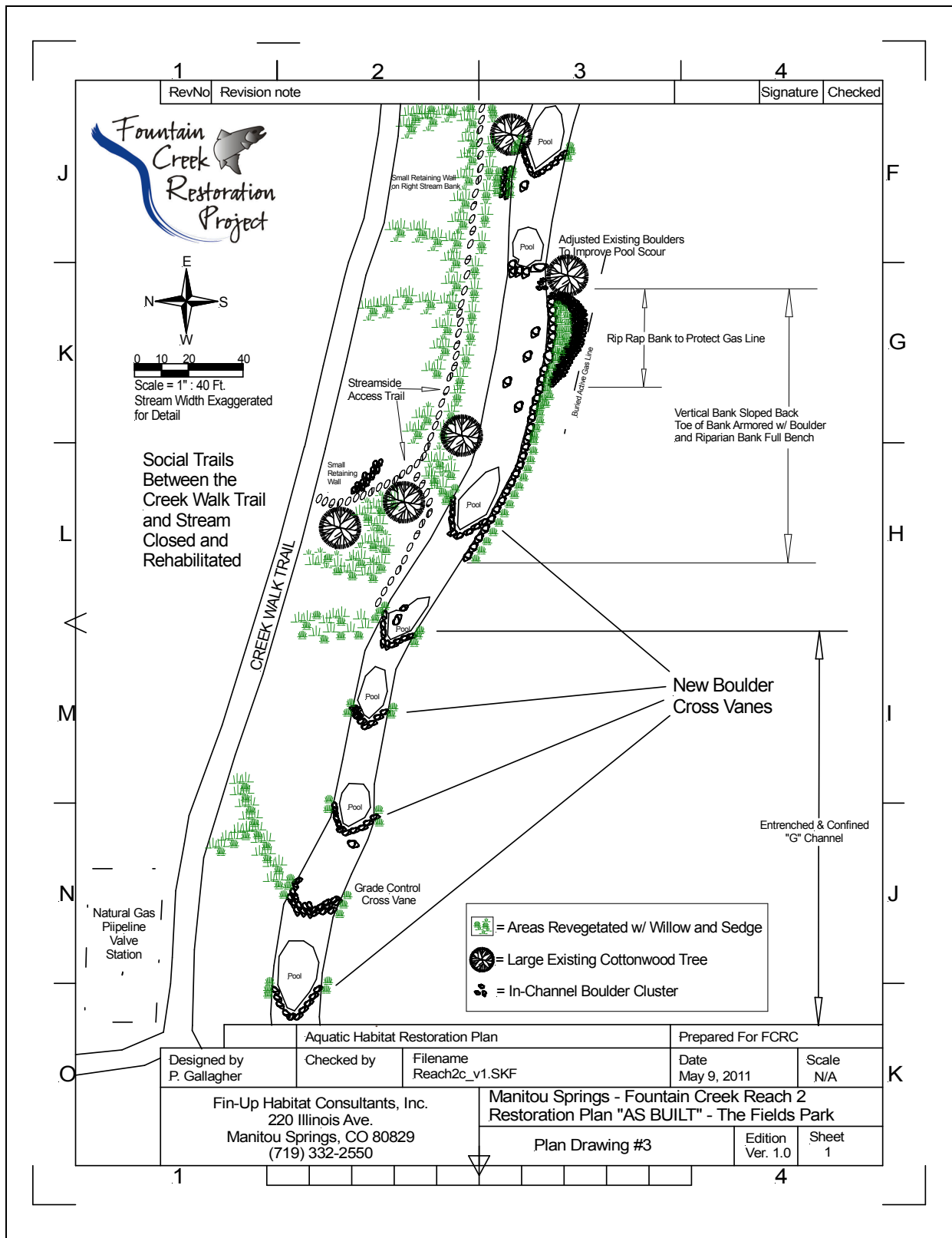




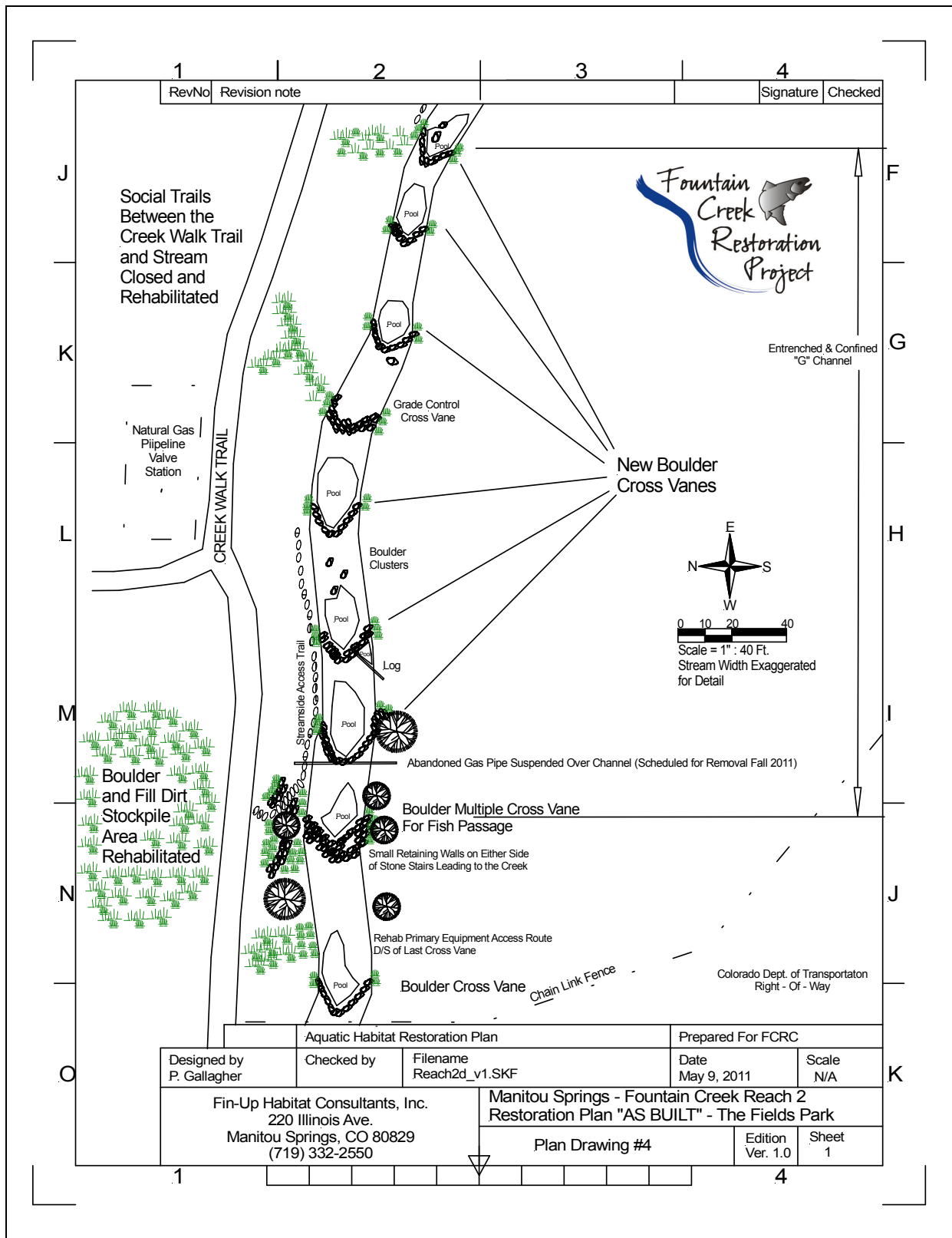
The Fields Park Reach 2 Lower Segment As-Built Drawing.



The Fields Park Reach 2 Lower Center Segment As-Built Drawing.



The Fields Park Reach 2 Upper Center Segment As-Built Drawing.



The Fields Park Reach 2 Upper Segment As-Built Drawing.

Project Goals/Objectives and Post Project Monitoring:

Although it was necessary to adopt some minor changes to the specific treatments outlined in the Habitat Enhancement Plans, we are confident that we have achieved the overall goals and objectives of the project. Actively eroding stream banks throughout the project reaches were treated and re-vegetated, flood plain function was improved and in-channel object cover and pool habitat for resident trout was dramatically increased. The goal of creating multiple fish viewing areas within the park met with nearly immediate success. Resident brown trout have been observed in significant numbers in the newly constructed pools and habitat features within the project reaches. Trout can be easily spotted from the stone bridges in Memorial Park and behind City Hall, as well as along the creek access trail in Fields Park. Informal sampling, using a rod and reel, appears to indicate that resident trout are utilizing the new habitat.

The project has brought a renewed interest within the community to preserve Fountain Creek as a valuable resource for our town and the region. Local community participation in the project was exemplary, and credit should be given to the Rocky Mountain Field Institute and Trout Unlimited for recruiting these crucial resources. With the successful completion of the Fields Park Project, the FCRC has completed projects on all of the publicly owned reaches within the City limits. The FCRC will continue to pursue further restoration opportunities by working with private land owners, as part of the master plan to restore the river from arch to arch.

Our responsibility to the project does not end when the last piece of equipment leaves the project site. Post-Project monitoring of the effectiveness of the treatments will be critical to evaluate the success of the project, as well as to help us ensure that we are using treatments in future projects that have a good chance of success. To this end, post-project photo-point monitoring stations have been established in the project reach to allow for easily repeatable monitoring over time of vegetation and stream bank treatments. In-channel habitat treatments have been monitored in the short term by measuring the residual pool depth of these features, to determine whether adequate scour has been accomplished to keep these habitats from accumulating sediment. Initial surveys indicate that residual pool depth has been significantly improved in the project reaches, and usable cover for trout has been improved as well. In cooperation with the Colorado Division of Wildlife, an electro-fishing station has been established in the Fields Park reach to monitor changes in biomass and density in the reach. A pre-project survey was completed in 2009, and the reach will be re-sampled in late 2011.

It is recommended that monitoring of in-channel habitat features be accomplished approximately one year following the installation of the project, after at least one significant bank-full event has occurred. Long term monitoring of the project may include re-surveying the project reach, using the same basin wide survey protocol used in the initial assessment, evaluating the changes to limiting factors identified in the initial assessment over a longer period of time. A full assessment should be considered four to five years following the project installation. The FCRC is working with several local colleges and universities to assure that this monitoring effort can be completed without significant impact to resources available for future restoration projects.

2009 MANITOU SPRINGS FISHING IS FUN GRANT - PROJECT BUDGET											LOCAL SHARE	
Work Item	Work Activity	QTY	UOM	UNIT COST	TOTAL COST	LOCAL SHARE	FEDERAL SHARE	Cash	In-Kind			
1	Assessment, Design Data Collection, Permitting	1	ls	\$9,180.00	\$9,180.00	\$9,180.00		\$7,900.00	\$1,280.00			
2	Project Layout/Oversight	1	ls	\$32,000.00	\$32,640.00	\$15,845.00	\$16,795.00	\$15,205.00	\$640.00			
3a	Equipment Contracts (Stream Work)	1	ls	\$55,750.00	\$55,750.00		\$55,750.00					
3b	Misc Extra Equipment	1	ls	\$6,607.76	\$6,607.76	\$6,607.76			\$6,607.76			
4	Stream Bank, Lake Shoreline and Project Revegetation	1	ls	\$38,000.00	\$38,000.00	\$3,000.00	\$35,000.00	\$3,000.00				
5	RMFI / TU Volunteer Labor \$21.36/h x 1578.5 hrs (277 People / 16 days)	277	vol	21.36/hr	\$32,819.64	\$32,819.64			\$32,819.64			
6	Boulders	455	ton	\$23.50/ton	\$10,693.24	\$10,693.24		\$10,693.24				
7	Trees/Logs	3	ea	\$150.00	\$450.00	\$450.00			\$450.00			
8	Deadman Anchoring	1	ls	\$48.88	\$48.88	\$48.88			\$48.88			
9	Geotextile fabric (roll)	30	ea	All Reveg Materials were purchased by RMFI out of their Contract Funds								
10	Shrubs (1 gal)	240	ea	All Reveg Materials were purchased by RMFI out of their Contract Funds								
11	Native Seed Mix	155	lbs	All Reveg Materials were purchased by RMFI out of their Contract Funds								
12	Compressor & Jackhammer	0	days	\$135.00	\$0.00							
13	City Project Management	80	hr	\$40.00	\$3,200.00	\$3,200.00			\$3,200.00			
14	Interpretive Signage	3	ea	\$1,000.00	\$3,000.00	\$3,000.00		\$3,000.00				
15	Etiquette Signage	3	ea	\$25.00	\$75.00	\$75.00			\$75.00			
16	Iron Fencing (450 ft)	450	lf	\$32.67	\$14,700.00	\$14,700.00		\$14,700.00				
17	Split Rail Fencing (200 ft)	1	ls	\$440.68	\$440.68	\$440.68			\$440.68			
18	Temporary Riparian Fencing (450 ft)	1	ls	\$146.23	\$146.23	\$146.23		\$146.23				
19	Post Project Workday Lunches and Refreshments - CMCTU Chuck Wagon	11	days	\$125.00	\$1,375.00	\$1,375.00			\$1,375.00			
	TOTALS				\$209,126.43	\$101,581.43	\$107,545.00	\$54,644.47	\$46,936.96			
						49%	51%	54%	46%			

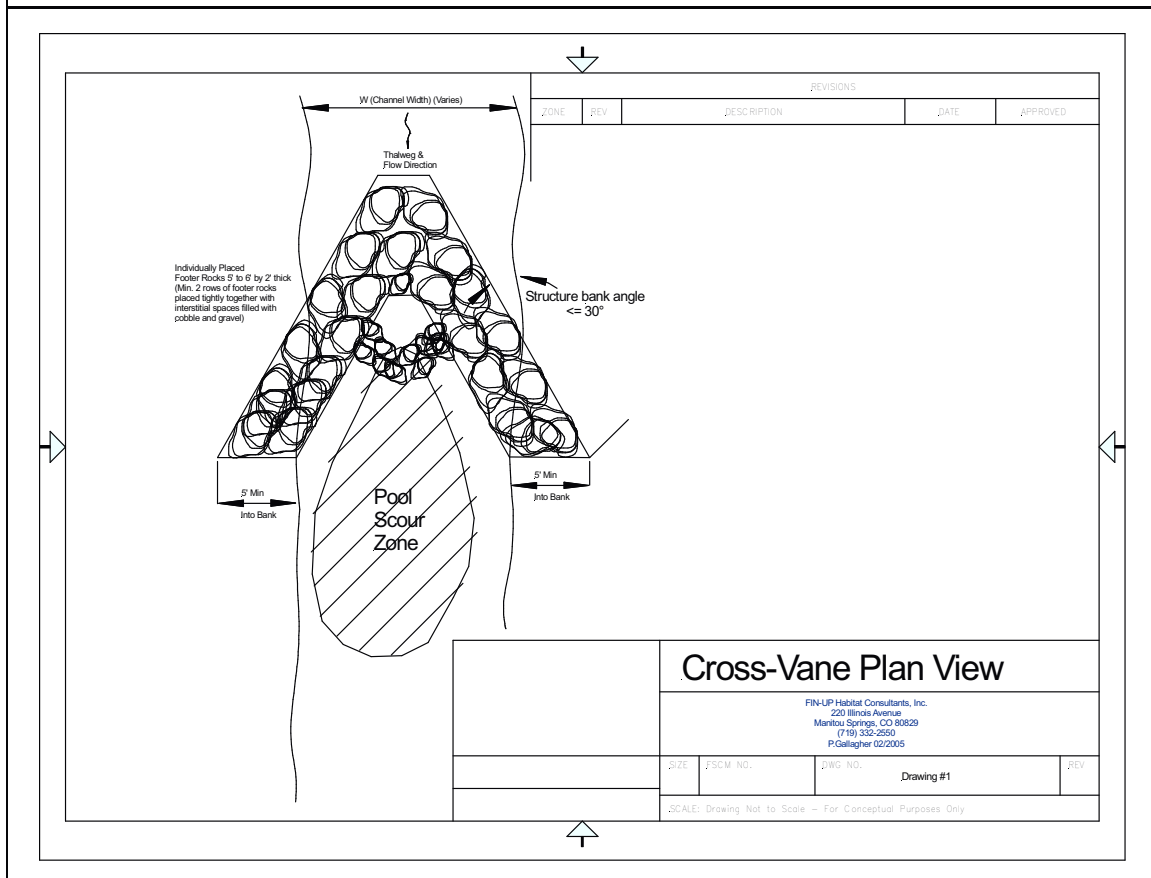
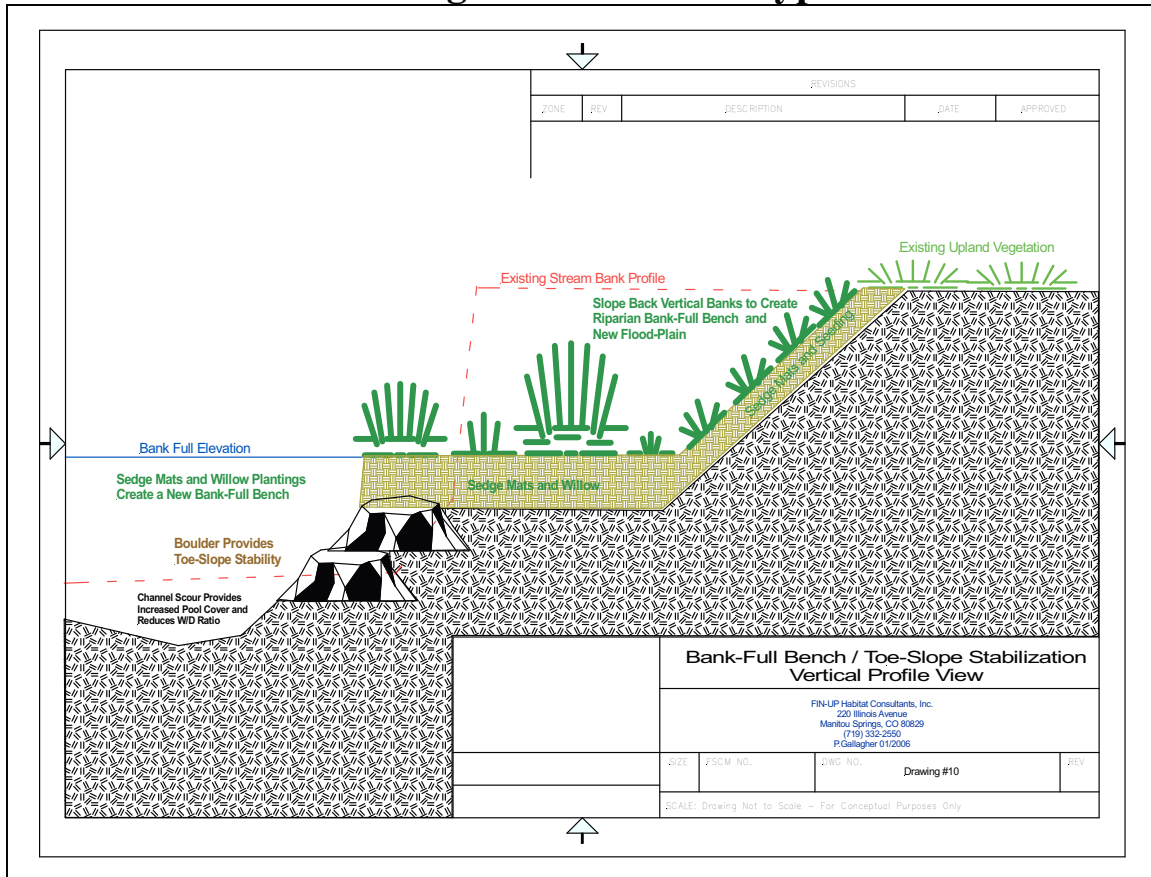
Project Budget:

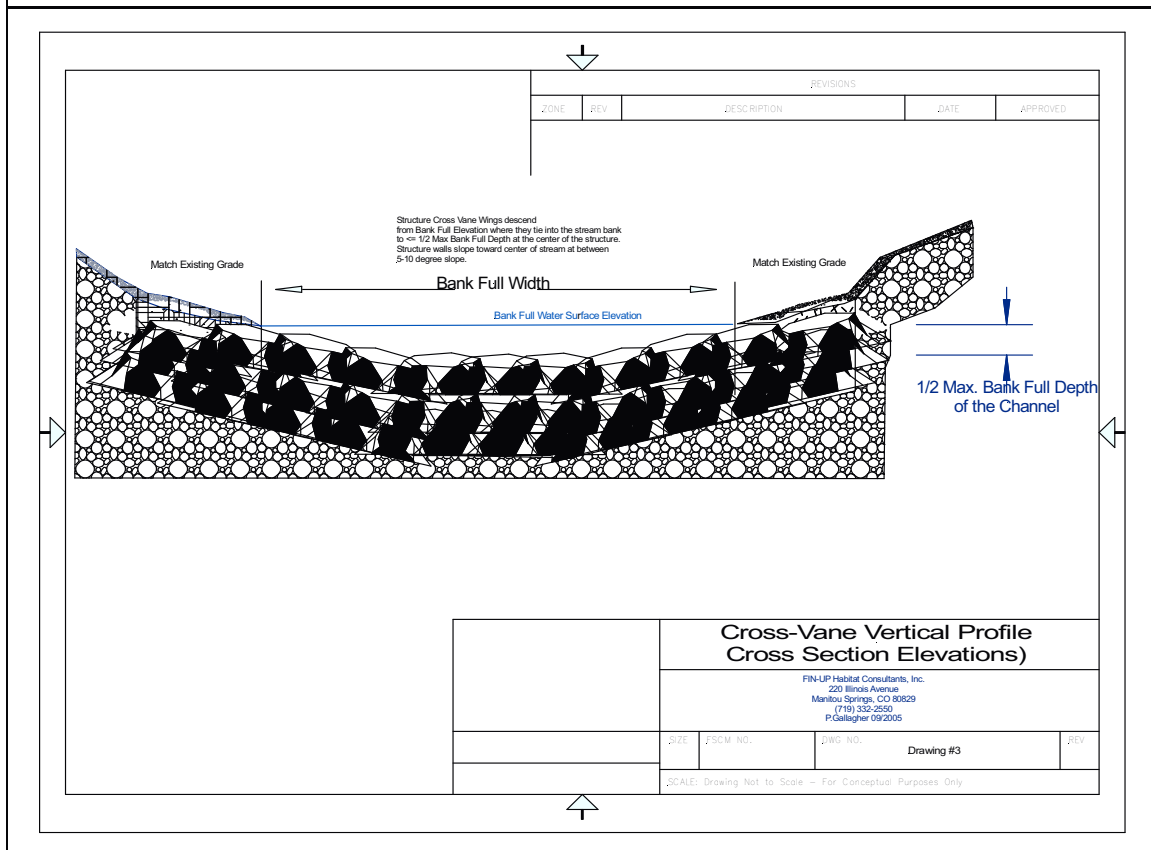
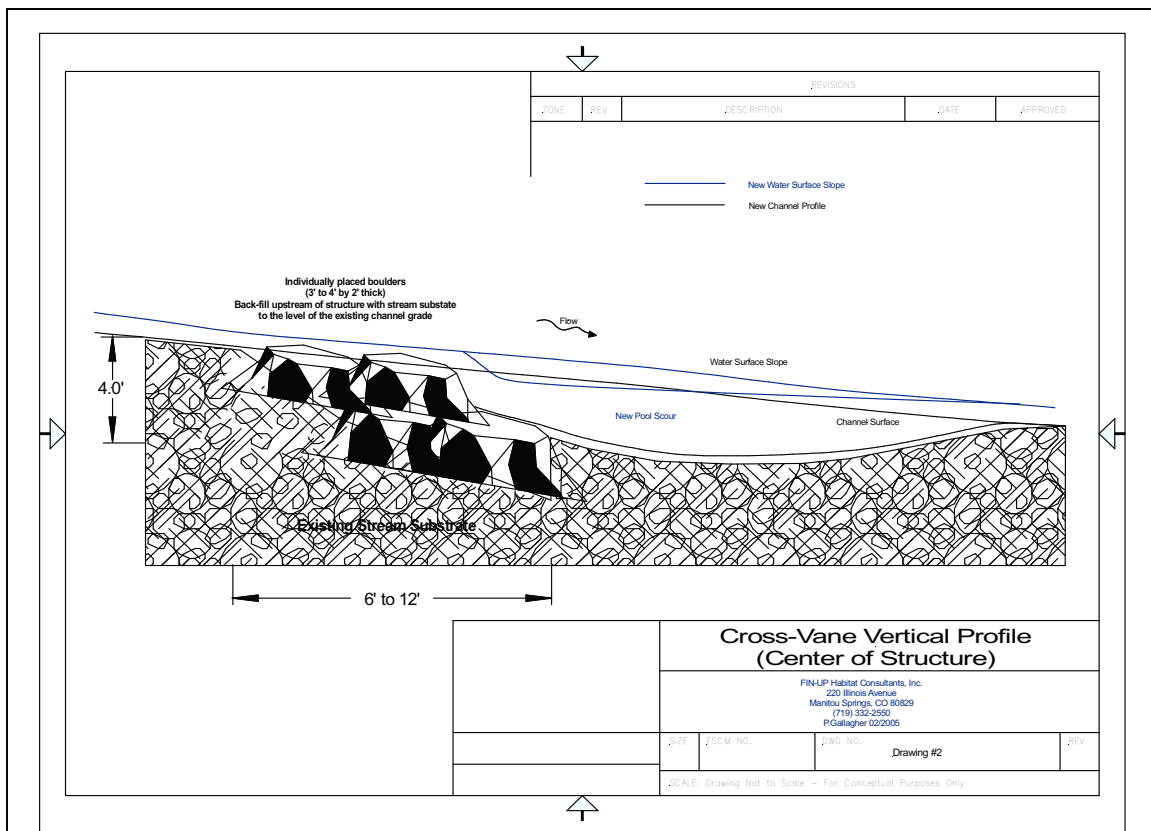
The table on the preceding page shows the final project budget for Phase III of the Fountain Creek Project. Total project budget, including in-kind donations of manpower and materials was \$209,126.43. This was \$1,947.43 more than the projected budget developed in 2009 and submitted with the Fishing-is-Fun grant application, or slightly less than 1% over the projected budget. The split between Federal and local share in the final project budget was 51% Federal and 49% local, compared to the initial planned split of 52% Federal and 48% local. Notes to specific work items are included in the table below.

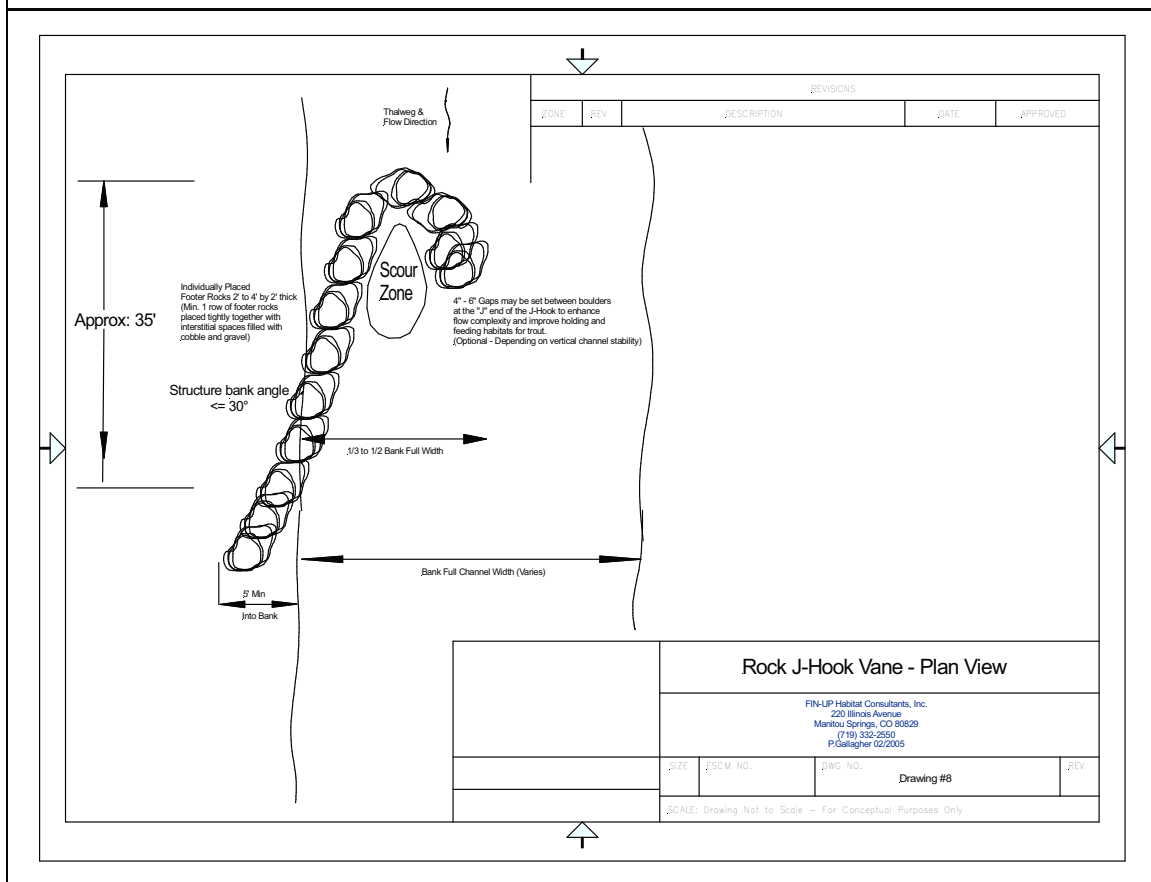
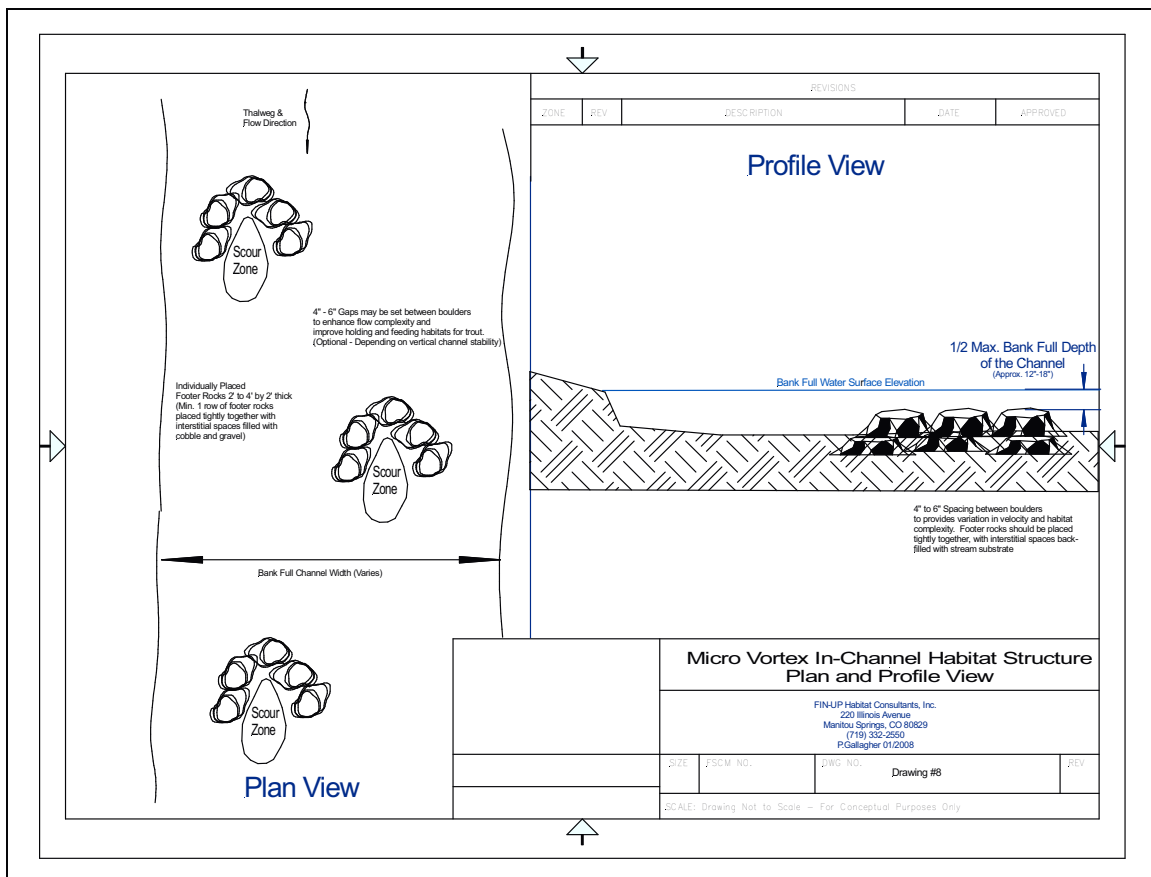
In-Kind donations of manpower and materials totaled \$46,936.96, and included City provided manpower & heavy equipment, donated time and fencing materials by the project consultant, and volunteer labor and services by Trout Unlimited and the Rocky Mountain Field Institute. A total of 277 volunteers working 1,578 ½ hours were required to complete the work. The value of these volunteers was determined using the 2010 Federal hourly rate of \$21.36. City services included contracting support, grant administration, and the use of city public works crews and equipment to deliver materials to the volunteer work crews, and for site clean-up and materials hauling at the conclusion work on each reach.

Work Item	Notes to Budget Line Items
1	Includes Stream Assessments, Design, CWA Section 404 Permitting, and Regional Floodplain Permitting (in-kind for work related to extension of the Fields Park Section 404 permit)
2	Fin-Up, Inc. Project Management (In-Kind related to installation of un-planned split rail fence in Memorial Park)
3a	Chaparral Construction LLC Contracts w/ the City of Manitou Springs
3b	City and Fin-Up provided heavy equipment and manpower for other equipment needs (In-Kind)
4	Rocky Mountain Field Institute Volunteer coordination and management. These costs include all Revegetation materials in Work Item 9, 10 & 11
5	Value of Volunteer labor provided by the Rocky Mountain Field Institute, Trout Unlimited, and the City of Manitou Springs. \$21.36/hour based on Federal Volunteer rate for 2010
6	Cost of boulders obtained from Table Mountain Quarry. Cost was \$23.50/ton delivered, plus tax and credit card fee for each transaction
7	Trees provided by the City of Manitou Springs
8	Deadman anchoring of trees in Memorial Park - Actual Cost (provided in-kind)
9-11	Materials furnished by RMFI under their contract with the City of Manitou Springs
12	Not required due to change in use of large wood in projects.
13	City Staff support time donated in-kind to the project
14	Interpretive Signage - currently under development for installation in Summer 2011
15	Etiquette Signage - provided by City of Manitou Springs. Includes fishing regulations, etc.
16	Glazer Iron Fence Contract for Memorial Park
17	Actual costs of materials for split rail fence along the Midland Trail on the south side of the creek in Memorial Park. Materials donated by Fin-Up, Inc.
18	Temporary riparian fencing required due to the lag time for fabrication of the iron fence in Memorial Park
19	Cheyenne Mountain Chapter of Trout Unlimited - Chuck Wagon and Food for 11 volunteer workdays during the project

Drawings of Treatment Types







Project Construction Photos

Heavy Equipment Construction

Fin-Up, Inc. / Chaparral LLC

Post Project Rehab/Reveg.

Rocky Mountain Field Institute

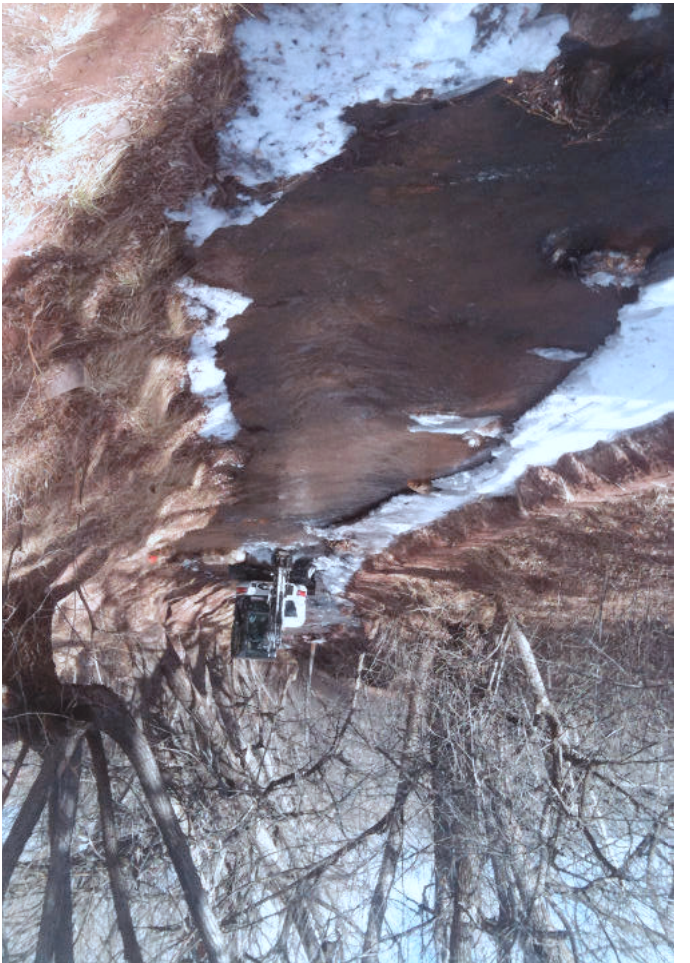
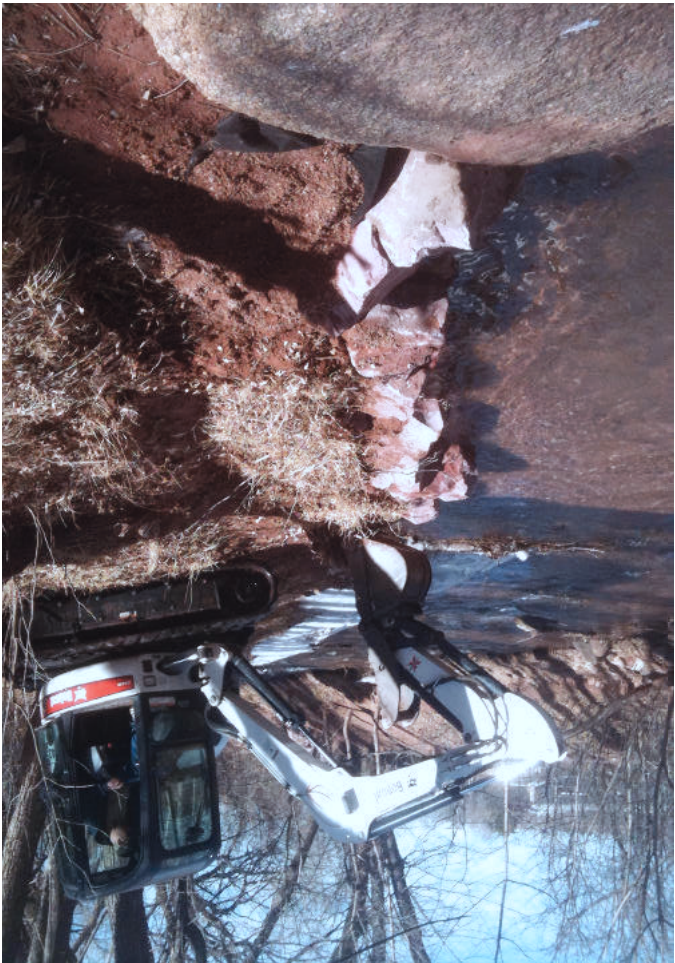
Pikes Peak Youth Corps.















Project Permits

USACE Nationwide Permit #27

PPRBA Floodplain Permit



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
SOUTHERN COLORADO REGULATORY OFFICE
200 SOUTH SANTA FE AVENUE, SUITE 301
PUEBLO, COLORADO 81003
719-543-8102
FAX 719-543-9475

August 10, 2009

REPLY TO
ATTENTION OF:

Regulatory Division
Southern Colorado Regulatory Office

SUBJECT: Action Number SPA-2009-00486-SCO, City of Manitou Springs, Fountain
Creek Restoration

Michael Leslie
City of Manitou Springs
606 Manitou Avenue
Manitou Springs, CO 80829

Dear Ms. Leslie:

The U.S. Army Corps of Engineers (Corps) is in receipt of your application dated August 4, 2009 concerning City of Manitou Springs, Fountain Creek Restoration, El Paso County, Colorado. The activity involves 1500 linear feet of creek restoration. We have assigned Action No. SPA-2009-00486-SCO to this activity. To avoid delay, please include this number in all future correspondence concerning this project.

We have reviewed this project in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Under Section 404, the Corps regulates the discharge of dredged and fill material into waters of the United States (U.S.), including wetlands. Our responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the U.S. Based on your description of the proposed work, and other information available to us, we have determined that this project will involve activities subject to Section 404. Therefore, this project will require a Department of the Army permit.

We have determined that this project is authorized by Nationwide Permit NWP 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities.. A summary of this permit and the regional conditions for Colorado are available on our website at www.spa.usace.army.mil/reg/. You are only authorized to conduct the work described in

your submittal. To use this permit, you must ensure that the work complies with the terms and conditions listed in the permit.

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 17 and 18. Based on the information provided, we have determined that this project will not affect any species listed as threatened or endangered by the U.S. Fish and Wildlife Service within the permit area. We have also determined that this project will not affect historic properties listed, or eligible for listing, in the National Register of Historic Places. However, please note that you are responsible for meeting the requirements of general condition 17 on endangered species and general condition 18 on historic properties.

Our verification for the construction of this activity under this nationwide permit is valid for two years from the date of this letter, unless prior to that date the nationwide permit is suspended, revoked, or modified such that the activity would no longer comply with the terms and conditions of the nationwide permit regionally or nationally. The Corps will issue a public notice announcing the changes when they occur. Furthermore, activities that have commenced, or are under contract to commence, in reliance on a nationwide permit will remain authorized provided the activity is completed within 12 months of the date of the nationwide permits expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 330.4(e) and 33 CFR 330.5(c) or (d). Continued confirmation that an activity complies with the terms and conditions, and any changes to the nationwide permit, is the responsibility of the permittee.

The Corps based this decision on an approved jurisdictional determination (JD) that there are waters of the United States on the project site. The basis for this approved jurisdictional determination (JD) is Relatively Permanent Waters that flow directly or indirectly into Traditional Navigable Waters. The JD form is available at http://www.spa.usace.army.mil/reg/Jurisdictional_Determinations/jurisdictional_determinations.asp. This approved JD is valid for a period of no more than five years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

You may accept or appeal this approved JD or provide new information in accordance with the Notification of Administration Appeal Options and Process and Request For Appeal (NAAOP-RFA). This form is available at http://www.spa.usace.army.mil/reg/Administrative%20Appeals/appeals_process.asp. If you elect to appeal this approved JD, you must complete Section II (Request For Appeal or Objections to an Initial Proffered Permit) of the form and return it to the Army Engineer Division, South Pacific, CESP-DPS-O, Attn: Tom Cavanaugh, Administrative Appeal Review Officer, 1455 Market Street, Room 1760, San Francisco, CA 94103-1399 within 60 days of the date of this notice. Failure to notify the Corps

within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

You must sign and submit to us the enclosed certification that the work, including any required mitigation, was completed in compliance with the nationwide permit. You should submit your certification within 30 days of the completion of work.

This permit is not an approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of Federal, state or local laws or regulations. You must possess the authority, including property rights, to undertake the proposed work.

If you have any questions concerning our regulatory program, please contact me at 719-543-8102 or by e-mail at Diana.L.Humphreys@usace.army.mil. At your convenience, please complete a Customer Service Survey on-line available at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

A handwritten signature in black ink, appearing to read "D. L. Humphreys", written in a cursive style.

Diana L. Humphreys
Project Manager

Copies furnished (w/encls):

Pete Gallagher
FIN-UP Habitat Consultants, Inc.
220 Illinois Avenue
Manitou Springs, Colorado 80829-1627

**Certification of Compliance
with Department of the Army Nationwide Permit**

Action Number: SPA-2009-00486-SCO

Name of Permittee: City of Manitou Springs

Nationwide Permit: NWP 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Diana Humphreys
Albuquerque District Corps of Engineers
Southern Colorado Regulatory Office
200 South Santa Fe Avenue, Suite 301
Pueblo, Colorado 81003-4270

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

Please enclose photographs showing the completed project (if available).

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

Date Work Started _____

Date Work Completed _____

Date

Signature of Permittee



ATTENTION OF:

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
SOUTHERN COLORADO REGULATORY OFFICE
200 SOUTH SANTA FE AVENUE, SUITE 301
PUEBLO, COLORADO 81003-4270

October 2, 2008

Regulatory Division

Peter Gallagher
FIN-UP Habitat Consultants
220 Illinois Avenue
Manitou Springs, CO 80829

Dear Mr. Gallagher:

This replies to your letter regarding the City of Manitou Springs's proposed stream habitat restoration of the Fields Park segment in Fountain Creek in Manitou Springs, El Paso County, Colorado. We have assigned Action No. SPA-2008-00384-SCO to this activity. The activity involves bank stabilization, cross vanes, j-hooks and vortex structures to improve the aquatic habitat of Fountain Creek as it flows through Manitou Springs.

The Corps of Engineers has published Nationwide Permits pursuant to Section 404 of the Clean Water Act (33 CFR 330). Nationwide Permit No. 27 authorizes discharges of dredged or fill materials into waters of the United States for Aquatic Habitat Restoration, Establishment, and Enhancement Activities. A summary of Nationwide Permit No. 27 and the regional conditions which apply to the nationwide permit use for the state in which the work will occur are enclosed for your information.

After reviewing the project in accordance with the Nationwide Permit pre-construction notification procedures (General Condition No. 27), we have determined that the proposed work will not result in more than minimal individual or cumulative adverse environmental effects. The public interest would best be served by allowing the work to proceed under the nationwide permit. You are therefore authorized to proceed under authority of the nationwide permit for Aquatic Habitat Restoration, Establishment, and Enhancement Activities. The permittee must insure compliance with all conditions of the permit, including submittal of the enclosed Compliance Certification required by General Condition No. 26.

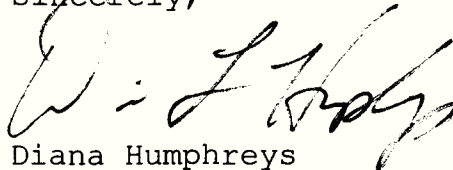
General Condition No. 17 requires that no activity is authorized under any Nationwide Permit which is likely to jeopardize the continued existence of a listed or proposed

threatened or endangered species, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify the critical habitat of such species. We have determined that your proposed work, as described, will have no affect on any listed or proposed endangered or threatened species or its critical habitat.

This verification will be valid for 2 years unless the nationwide permit is modified, reissued or revoked. The verification will remain valid if, during that time, the nationwide permit is reissued without modification or the activity complies with any subsequent modification of the nationwide permit authorization. If the nationwide permit authorization expires, is suspended, revoked, or modified such that the activity would no longer comply with the terms and conditions of the nationwide permit, the provisions of 33 CFR 330.6(b) will apply.

If you have any questions regarding these regulations, please feel free to contact me at 719-543-8102 or by e-mail at diana.l.humphreys@usace.army.mil. At your convenience, please complete and return the attached Customer Service Survey.

Sincerely,



Diana Humphreys
Project Manager

3 Enclosures

1. Nationwide Permit Summary
2. Regional Conditions
3. Compliance Certification form
4. Customer Service Survey



DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
200 SOUTH SANTA FE AVENUE, SUITE 301
PUEBLO, COLORADO 81003-4270
(719) 543-9459
FAX (719) 543-9475

January 3, 2011

REPLY TO
ATTENTION OF:

Regulatory Division
Southern Colorado Regulatory Office

SUBJECT: Department of the Army Permit – City of Manitou Springs Habitat Enhancement in
Fountain Creek, Action No. SPA-2008-00384-SCO

Pete Gallagher
FIN-UP Habitat Consultants, Incorporated
220 Illinois Avenue
Manitou Springs, Colorado 80829

Dear Mr. Gallagher:

I am writing this letter in response to your request for a time extension for the City of Manitou Springs Fountain Creek habitat enhancement project located in Section 4, T14S-R67W, El Paso County, Colorado.

Based on the information provided, we have determined that the proposed work is authorized by Nationwide Permit No. 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities. A summary of this permit and the regional conditions for Colorado are available on our website at www.spa.usace.army.mil/reg/. To use this permit, you are responsible for ensuring that the work complies with the terms and conditions listed in the permit. Upon completion of the activity authorized by this Nationwide Permit, please fill out the enclosed certification of compliance form and return it to our office within 30 days of project completion. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being, or has been, accomplished in accordance with the terms and conditions of the nationwide permit.

Our verification for the construction of this activity under this nationwide permit is valid until March 18, 2012, unless prior to that date the nationwide permit is suspended, revoked, or modified such that the activity would no longer comply with the terms and conditions of the nationwide permit regionally or nationally. Activities that have commenced, or are under contract to commence, in reliance on a nationwide permit will remain authorized provided the

activity is completed within 12 months of the date of the nationwide permits expiration, modification, or revocation.

Our review of this project also addressed its effects on threatened and endangered species and historic properties in accordance with general conditions 17 and 18. Based on the information provided, we have determined that this project will not affect any federally listed threatened or endangered species or any historic properties listed, or eligible for listing, in the National Register of Historic Places. However, please note that you are responsible for meeting the requirements of general condition 17 on endangered species and general condition 18 on historic properties.

This letter does not constitute approval of the project design features, nor does it imply that the construction is adequate for its intended purpose. This permit does not authorize any injury to property or invasion of rights or any infringement of Federal, state or local laws or regulations. You must possess the authority, including property rights, to undertake the proposed work.

If we may be of further assistance in this matter, please contact me at (719) 543-6914 or by e-mail at Joshua.G.Carpenter@usace.army.mil. At your convenience, please complete a brief Customer Service Survey available on-line at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

A handwritten signature in black ink, appearing to read "Joshua G. Carpenter", written in a cursive style.

Joshua G. Carpenter
Senior Project Manager

Enclosure

**PIKES PEAK REGIONAL BUILDING DEPARTMENT
FLOODPLAIN ADMINISTRATION**

2880 International Circle
Colorado Springs, CO 80910
(719) 327-2907


Permit Cover Letter

March 31, 2010

TO: City of Manitou Springs

email: mleslie@comsgov.com

Number of Total Pages: 3

FROM: Tim Condit, CFM / Pikes Peak Regional Building Floodplain 
PH: 719-327-2938
FAX: 719-327-2953

Re: FP Permit #10017 - Various

City of Manitou Springs:

Find attached Floodplain Development Permit #10017. Please carefully review the permit requirements and exclusions listed. Thanks, tc

THE FOLLOWING CONDITIONS APPLY TO THIS PERMIT:

The attached permit is extended for bank re-vegetation; trail construction along creek, in channel fish habitat using cross veins for self scour at the above address.

This permit has been extended for 12 months from the date of issue. In order to be considered for an extension for work in the floodplain beyond 03/31/2010, you will be required to contact our office prior to the expiration and provide a written timetable showing a plan for completion.

When the work is complete please call our office to schedule a floodplain inspection. (327-2907). A site inspection will be conducted to confirm conformance with the Floodplain Permit conditions, and that no construction debris has been left in the floodplain.

Cc: project file

Pikes Peak Regional Building Department

Permit # 10017

FLOOD PLAIN DEVELOPMENT PERMIT

Date 31-Mar-2010

Owner Information
Name: CITY OF MANITOU SPRINGS Phone: (719) 695-5481

Address: 606 MANITOU AVENUE
MANITOU SPRINGS, CO 80829

Project Location
Address: MEMORIAL, MANSIONS AND CITY PARKS

MANITOU SPRINGS, CO

Location/Directions:

Contractor/Engineer: Phone:

Project Description	
Single Family Residential:	[]
Multi-Family Residential:	[]
Manuf. (Mobile Home):	[]
Non-Residential:	[X]
New Construction:	[]
Watercourse Modification:	[]
Project Cost: \$0.00	
Creek: FOUNTAIN	
Addition/Remodel (<50%):	[]
Rehabilitation:	[X]
Subst. (>50 Appraisal) Imprv:	[]
Fill:	[]
Bridge/Culvert:	[]
Levee:	[]
Structure Market Value: \$0.00	

Description of work: Bank revegetation, new trails along creek, in channel fish habitat with cross veins that allow self

Flood Hazard Data
Location: Floodway
Base (1%) Flood Elevation:
Lowest Floor Elevation:
Floodproofing Level:
Source Document: 706F & 707F

Permit Action
Permit Granted (Y/N): Yes
Variance Granted (Y/N): No
Action Comments:

Compliance Section
Elevation Certificate: N Date:
LOMA: N Date: CLOMR: N Date: LOMR: N Date:
Site Inspection Required: Y Date:
Compliance Comments:

Regional Floodplain Engineer:

Date 31-Mar-2010

NOTE: This permit expires twelve (12) months from the date it is issued.



PIKES PEAK REGIONAL BUILDING DEPARTMENT

2880 International Circle
 Colorado Springs, Colorado 80910
 Website: <http://www.pprbd.org>

3/31/2010 3:38:48 PM
 (TIMC)
 Receipt #: 902660

Invoice

Customer: City of Manitou Springs

Transaction Summary				
Account	Description	Reference	Amount	
3306600	FLOODPLAIN PERMIT FEES		\$500.00	

Total Due: \$500.00

Payment Summary				
Account	Description	Reference	Amount	
5020000	COLLECTION, CHECK	753002	\$500.00	

Total Tendered: \$500.00

Comment: FLOOD PLAIN PERMIT #10017 FOR FIN-UP HABITAT CONSULTANTS