



**ADDENDUM #2
Public Works
Sugarloaf Retaining Walls at SH-119
BID # 7232-21**

May 21, 2021

The attached addendum supersedes the original Information and Specifications regarding BID # 7232-21 where it adds to, deletes from, clarifies or otherwise modifies. All other conditions and any previous addendums shall remain unchanged.

Please note: Due to COVID-19, BIDS will only be accepted electronically by emailing purchasing@bouldercounty.org.

Addendum Items included are:

- 1. RFI Responses (provided in this document below)**
- 2. Revised Electronic Bid Tab (Revisions highlighted in Yellow)**
- 3. Revised Bid Tab from original RFP. (Revisions highlighted in yellow)**
- 4. Revision of Section 240 – MBTA and Raptors**
- 5. Revision of Section 626 – Public Information Services**
- 6. Biological Resources Evaluation Memorandum**
- 7. Insurance Requirements for CDOT Special Use Permit, which will be required for the project, but obtained by Boulder County.**
- 8. PDF's received that are associated with Questions 1 & 11**

1. Question: Would like to request the approval of Stone Strong Systems – Section 504 – Modular Block Gravity Retaining Wall for this project. (I attached a PDF in the email NC)

ANSWER: Strong Systems would be acceptable as long as it meets the engineering design requirements of the wall systems in the space required; meets the durability requirements; and is approved aesthetically by Boulder County. The block provider is responsible for providing final signed and sealed calculations. Integrated colored concrete is preferred by Boulder County, and Strong Systems would need to provide a robust warranty on the stained coloring, due to the fact that these walls are south facing, and in a mountainous region.

2. Question: When is the anticipated start date?

ANSWER: We are expected to start at the end of June, 2021

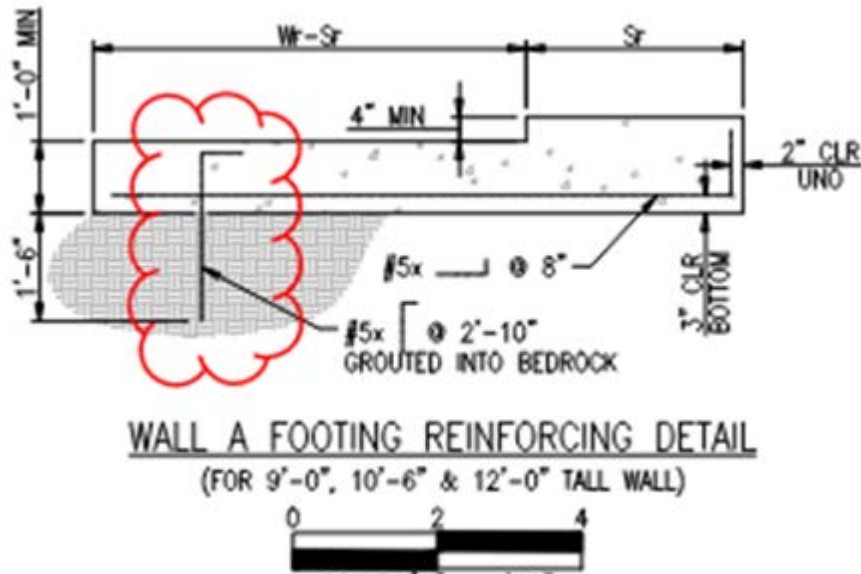
3. Question: Per the Revision of Section 504 Modular Block Gravity Retaining Wall- Section 8, subsection e, Geomembrane- Apparently geomembrane is required by the spec but there is no detail in the plans. Can someone provide a detail and quantity for the geomembrane?

ANSWER: Geomembrane is not required on this project.

4. Question: Per Sheet 107 of the plans, Note 2 says that the top two layers of block shall be mechanically anchored to each other to prevent block from dislodging or displacing. Can someone provide a detail for the type of anchoring expected?

ANSWER: Plan note indicates contractor to submit method of anchoring for detail. One acceptable method would be 2 #6 by 12 inch long dolls drilled and epoxied into the two layers of block. Other possible methods can be submitted for approval.

5. Question: Per detail on Sheet 107- What is the spacing requirement for the L bar grouted into the bedrock?



ANSWER: L bars shall be spaced at 12" for this detail.

6. Question: Do the surcharge loads from successive tiers need to be applied in the modular block retaining wall calculations, or is it assumed that the individual tiers are supported on bedrock?

ANSWER: Yes, surcharge loads need to be carried down to lower tiers. If actual field conditions reveal that the blocks are fully supported on bedrock, then the design could potentially be changed to reflect this changed condition. The block provider is responsible for providing final signed and sealed calculations.

7. Question: If engineering works, can the 9-3/8" setback for the Wall A 9-foot, 10.5 foot, and 12 foot sections be changed to a regular setback? Increasing the batter of the bottom block when the wall height changes from 7.5 feet to 9 feet will result in an offset of the blocks above the bottom units along the profile of the wall, which may present constructability and aesthetic issues.

ANSWER: Yes, the setback can be changed if the engineering works, and should be changed if there is a geometric conflict with the larger offset. The block provider is responsible for providing final signed and sealed calculations.

8. Question: Note 2 on Sheet 107 requires the top 2 layers of modular blocks to be mechanically connected. Does this note apply to just the top tier or all three tiers?

ANSWER: Only the top tier (Wall C) needs to have the top two layers of block anchored to each other.

9. Question: Can 24" modular block top units be used in lieu of 28" top units. Our force protection system utilizes these blocks in order to interlock them together per note 2 on Sheet 107.
<https://www.redirock.com/documents/Engineering/ConstructionDetails/SpecialtyDetails/J-Bolt-Connection.pdf>

ANSWER: Yes, 24" modular block units may substitute the 28" units shown on the drawings as long as the engineering works. The block provider is responsible for providing final signed and sealed calculations.

10. Question: Can the lbs/ft sliding resistance provided by the Wall A footing be provided?

ANSWER: Calculations indicate a need for 3000 lb/ft shear key force, which is provided by the #5 dowels.

11. Question: Redi-Rock has three textures to choose from to include Ledgestone, Cobblestone, and Limestone. Is there a preference in texture for bid purpose? See attached project photo examples. Attached PDF in Email NC.

ANSWER: If this wall type and manufacturer is chosen is proposed by the winning bidder, the Ledgestone style wall, with coloring similar to the first photographs would be preferred. The most natural looking stone and color, matching historical conditions will be required. Natural stacked flagstone is the intent of the conditions to match in both pattern and color. See below for a similar historical wall within the area for reference:



12. Question: Per the bid tab 504-08255 Modular Block Gravity Retaining Wall, the quantity called out is 12,460 SF- I've come up with approx. 5% less. Can someone confirm the bid tab quantity?

ANSWER: Upon review, a quantity of 12,047 SF of wall shall be used. A revised electronic bid tab is attached.

13. Question: Per sheet 107, Note 2,
2. THE TOP TWO LAYERS OF BLOCK SHALL BE MECHANICALLY ANCHORED TO EACH OTHER TO PREVENT BLOCK FROM DISLODGING OR DISPLACING. SUBMIT METHOD OF ANCHORING FOR APPROVAL.
Does this apply to all tiers or only the top tier?

ANSWER: Only the top tier (Wall C) needs to have the top two layers of block anchored to each other.

14. Question: Is there a face texture or color anticipated for the Gravity Retaining Wall?

ANSWER: See response to #11 above.

15. Question: Will final stamped engineered shop drawings be required for this project?

ANSWER: Yes, per Modular Block Retaining Wall Note 11 on Sheet 101 and Note 1 on Sheet 107 the Contractor is responsible for providing final signed and sealed calculations.

16. Question: What is the engineer's estimate?

ANSWER: We cannot share the Engineering estimate.

17. Question: Does the designer anticipate temporary shoring?

ANSWER: Temporary shoring is not anticipated.

18. Question: Does a bid bond need to be submitted?

ANSWER: Yes, See Sheet A-4 for bid bond requirements.

19. Question: Please provide the Bid Tab in Excel format.

ANSWER: Excel format is included in Addendum 1, and a revised version is included with this Addendum as well. The wall quantity has been revised, and a Wildlife Biologist (10 hours) and Removal of Nests (10 hours) have been added.

20. Question: Can the PIM be added to the bid tab as its own pay item?

ANSWER: The PIM as described in Section 626 will be included in the overall bid and is not a single line item.

21. Question: Will you provide allowance for F/A Minor Contract revisions and erosion control?

ANSWER: F/A MCR and F/A erosion control are already in the bid tab already.

Submittal Instructions:

Submittals are due at the email box only, listed below, for time and date recording on or before **10:00 a.m. Mountain Time on May 28, 2021.**

Please note that email responses to this solicitation are limited to a maximum of 50MB capacity.

NO ZIP FILES OR LINKS TO EXTERNAL SITES WILL BE ACCEPTED. THIS INCLUDES GOOGLE DOCS AND SIMILAR SITES. ALL SUBMITTALS MUST BE RECEIVED AS AN ATTACHMENT (E.G. PDF, WORD, EXCEL).

Electronic submittals must be received in the email box listed below. Submittals sent to any other box will NOT be forwarded or accepted. This email box is only accessed on the due date of your questions or proposals. Please use the Delivery Receipt option to verify receipt of your email. It is the sole responsibility of the proposer to ensure their documents are received before the deadline specified above. Boulder County does not accept responsibility under any circumstance for delayed or failed email or mailed submittals.

Email purchasing@bouldercounty.org; identified as **BID # 7232-21** in the subject line.

All proposals must be received and time and date recorded at the purchasing email by the above due date and time. Sole responsibility rests with the Offeror to see that their bid is received on time at the stated location(s). Any bid received after due date and time will be returned to the bidder. No exceptions will be made.

The Board of County Commissioners reserve the right to reject any and all bids, to waive any informalities or irregularities therein, and to accept the bid that, in the opinion of the Board, is in the best interest of the Board and of the County of Boulder, State of Colorado.



**RECEIPT OF LETTER
ACKNOWLEDGMENT**

May 21, 2021

Dear Vendor:

This is an acknowledgment of receipt of Addendum #2 for BID #7232-21, Sugarloaf Retaining Walls at SH-119.

In an effort to keep you informed, we would appreciate your acknowledgment of receipt of the preceding addendum. Please sign this acknowledgment and email it back to purchasing@bouldercounty.org as soon as possible. If you have any questions, or problems with transmittal, please call us at 303-441-3525. This is also an acknowledgement that the vendor understands that **due to COVID-19, BIDS will only be accepted electronically by emailing purchasing@bouldercounty.org.**

Thank you for your cooperation in this matter. This information is time and date sensitive; an immediate response is requested.

Sincerely,

Boulder County Purchasing

Signed by: _____ **Date:** _____

Name of Company _____



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

BID TAB

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL UNITS	UNIT COSTS	TOTAL COST
201-00000	CLEARING AND GRUBBING	LS	1	_____	_____
202-00155	REMOVAL OF WALL	LF	701	_____	_____
202-00035	REMOVAL OF PIPE	LF	208	_____	_____
202-00220	REMOVAL OF ASPHALT MAT	SY	5598	_____	_____
202-01130	REMOVAL OF GUARDRAIL (TYPE 3)	LF	1272	_____	_____
202-01170	REMOVAL OF GUARDRAIL (TYPE 7)	LF	381	_____	_____
202-01300	REMOVAL OF END ANCHORAGE	EA	2	_____	_____
203-01594	COMBINATION LOADER	HOUR	24	_____	_____
202-04002	CLEAN CULVERT	EA	4	_____	_____
203-00000	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	1098	_____	_____
203-00400	ROCK EXCAVATION	CY	1434	_____	_____
203-01597	POTHOLING	HR	8	_____	_____
206-00000	STRUCTURE EXCAVATION	CY	1434	_____	_____
206-00065	STRUCTURE BACKFILL (FLOW-FILL)	CY	1875	_____	_____
206-00100	STRUCTURE BACKFILL (CLASS 1)	CY	378	_____	_____
207-00205	TOPSOIL	CY	150	_____	_____
207-99999	STOCKPILE BOULDERS (SPECIAL)	CY	232	_____	_____
208-00023	EROSION LOG TYPE 3 (12 INCH)	LF	2041	_____	_____

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL UNITS	UNIT COSTS	TOTAL COST
208-00035	AGGREGATE BAG	LF	292		
208-00045	CONCRETE WASHOUT STRUCTURE	EA	2		
208-00070	VEHICLE TRACKING PAD	EA	2		
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	120		
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	120		
208-00207	EROSION CONTROL MANAGEMENT	DAY	30		
210-00810	RESET GROUND SIGN	EA	12		
212-00006	SEEDING (NATIVE)	AC	0.3		
213-00003	MULCHING (WEED FREE)	AC	0.3		
213-99999	COBBLE DRAINAGE SWALE (SPECIAL)	SF	9138		
214-00000	LANDSCAPE MAINTENANCE	LS	1		
216-00042	SOIL RETENTION BLANKET (STRAW/ COCONUT) (BIODEGRADABLE CLASS 1)	SY	111		
240-00000	WILDLIFE BIOLOGIST	HR	10		
240-00010	REMOVAL OF NESTS	HR	10		
304-06007	AGGREGATE BASE COURSE (CLASS 6)	CY	1529		
403-33721	HOT MIX ASPHALT GRADING S (75)(PG 58-28)	TN	748		
403-34721	HOT MIX ASPHALT GRADING SX (75)(PG 58-28)	TN	748		
504-08255	MODULAR BLOCK GRAVITY RETAINING WALL	SF	12047		
504-99998	NATURAL STONE WALL FACING	SF	1255		
504-99999	NATURAL STONE WALL FACING (EXISTING)	SF	1255		
506-00209	RIPRAP (9-INCH)	CY	8		
506-00406	SOIL RIPRAP (6-INCH)	CY	209		
601-01000	CONCRETE CLASS B (WALL LEVELING PAD)	CY	510		
601-03000	CONCRETE CLASS D (HEADWALL)	CY	4		

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL UNITS	UNIT COSTS	TOTAL COST
602-00020	REINFORCING STEEL (EPOXY COATED)	LB	9231		
603-01180	18-INCH REINFORCED CONCRETE PIPE	LF	158		
603-01360	36-INCH REINFORCED CONCRETE PIPE	LF	65		
603-10420	42-INCH CORRUGATED STEEL PIPE	LF	58		
604-00305	INLET TYPE C (5 FOOT)	EA	1		
604-13005	INLET TYPE 13 (5 FOOT)	EA	2		
604-30010	MANHOLE SLAB BASE (10 FOOT) (6 FOOT I.D.)	EA	1		
605-00040	4 INCH PERFORATED PIPE UNDERDRAIN	LF	1058		
606-00301	GUARDRAIL TYPE 3 (6-3 POST SPACING)	LF	1500		
606-02003	END ANCHORAGE (NONFLARED)	EA	1		
606-02005	END ANCHORAGE (FLARED)	EA	1		
620-00020	SANITARY FACILITY	EA	2		
625-00000	CONSTRUCTION SURVEYING	LS	1		
626-00000	MOBILIZATION	LS	1		
627-00001	PAVEMENT MARKING PAINT (TEMPORARY)	GAL	52		
627-00008	MODIFIED EPOXY PAVEMENT MARKING	GAL	37		
630-00000	FLAGGING	HR	4200		
630-00007	TRAFFIC CONTROL INSPECTION	DAY	48		
630-00012	TRAFFIC CONTROL MANAGEMENT	DAY	120		
630-80001	FLASHING BEACON (PORTABLE)	EA	6		
630-80341	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EA	17		
630-80342	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EA	8		
630-80344	CONSTRUCTION TRAFFIC SIGN (SPECIAL)	EA	2		
630-80359	PORTABLE MESSAGE SIGN PANEL	DAY	120		

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL UNITS	UNIT COSTS	TOTAL COST
630-80364	DRUM CHANNELIZING DEVICE (W/ LIGHT) (STEADY BURN)	EA	34	_____	_____
630-80370	BARRIER (TEMPORARY)	LF	1150	_____	_____
630-80380	TRAFFIC CONE	EA	100	_____	_____
630-86800	TRAFFIC SIGNAL (TEMPORARY)	LS	1	_____	_____
FORCE ACCOUNT					
700-70010	MINOR CONTRACT REVISIONS	F/A	1	<u>\$450,000.00</u>	<u>\$450,000.00</u>
700-70380	EROSION CONTROL	F/A	1	<u>\$10,000.00</u>	<u>\$10,000.00</u>
TOTAL					_____

Enclosed herewith is the required bid bond in the amount of ten percent (10%) (\$_____) which the bidder agrees to be forfeited to and become the property of the County of Boulder as liquidated damage should this proposal be accepted and a Contract be awarded to him and he fails to enter into a Contract in the form prescribed and to furnish the required bonds and insurance within ten days upon his signing the contract and delivering the approved bonds. In submitting the bid it is understood that the right is reserved by the County of Boulder to reject any and all bids.

**REVISED SECTION 240
PROTECTION OF BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

Section 240 is hereby added to the Standard Specifications for this project as follows:

DESCRIPTION

240.01 This work consists of protecting migratory birds including raptors during construction work on structures.

MATERIALS AND CONSTRUCTION REQUIREMENTS

240.02 The Contractor shall schedule construction activity, including clearing and grubbing operations and work on structures, to avoid taking (pursue, hunt, take, capture, or kill; attempt to take, capture, kill or possess) birds or their nests protected by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA).

If construction activity is to occur between: April 1 and August 31; October 15 and July 31; or November 15 and March 15, then the following specifications must be followed and the Contractor shall retain a qualified wildlife biologist. The qualified biologist will determine if work restrictions need to occur, and where nest removal may occur or will be required during construction. The wildlife biologist shall have a minimum of three years' experience conducting migratory bird surveys and implementing the requirements of the MBTA and BGEPA. The Contractor shall submit documentation of the biologists' education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications. The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records will be submitted to the Engineer.

- (A) *Project Related Activities.* The Contractor shall conduct project activities in a manner that does not result in a taking birds protected by the MBTA or BGEPA. The Contractor shall not conduct project related activities during the bald eagle nesting season (October 15 and July 31) or winter roosting season (November 15 and March 15), unless the Contractor takes the following actions:
1. Prior to start of project, a qualified biologist will conduct surveys to determine if active nest or winter roost sites occur within $\frac{1}{4}$ or $\frac{1}{2}$ mile (respectively) of the project area.
 2. If nest or roost sites occur within the buffer distances, the qualified biologist will determine an appropriate survey protocol to ensure that project activities do not disrupt these activities.
 3. The CPW has recommended buffer zones and seasonal restrictions for the Bald Eagle:
 - a. Nest sites: no surface occupancy within $\frac{1}{4}$ mile radius of an active nest. Seasonal restriction within $\frac{1}{2}$ mile radius of active nest from October 15 through July 31.
 - b. Winter night roosts: no surface occupancy within $\frac{1}{4}$ mile radius of an active winter night roost. Seasonal restrictions within $\frac{1}{2}$ mile radius of an active winter night roost from November 15 through March 15.

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**REVISED SECTION 240
PROTECTION OF BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

(B) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed by the wildlife biologist within 50 feet of the work limits for active migratory bird nests. Contractor personnel shall enter areas outside CDOT right-of-way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows.

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately prior to the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of any tree or shrub removal or trimming.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive. If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management.* Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately prior to ground disturbing activities.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right-of-way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

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**REVISED SECTION 240
PROTECTION OF BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the wildlife biologist. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

(C) *Work on Structures.* The Contractor shall conduct work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not conduct the work on structures during the primary birding season, April 1 through August 31, unless the Contractor takes the following actions:

4. The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.
5. During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.
6. If the birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.
7. Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are $\frac{3}{4}$ inch by $\frac{3}{4}$ inch or less.

If an active nest becomes established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the Contractor's biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged. If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure. The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a bird protected by the MBTA or BGEPA.

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**REVISED SECTION 240
PROTECTION OF BIRDS
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

METHOD OF MEASUREMENT

240.03 Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method).

Clearing and grubbing will be measured and paid for in accordance with Section 201. Mowing will not be measured and paid for separately, but shall be included in the work. Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence needed to protect migratory birds and nests will be measured and paid for in accordance with Section 607.

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

BASIS OF PAYMENT

240.04 The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Pay Item	Pay Unit
Wildlife Biologist	Hour
Removal of Nests	Hour

REVISION OF SECTION 626 PUBLIC INFORMATION SERVICES

Section 626 of the Standard Specifications is hereby revised for this project to include the following:

DESCRIPTION

This work consists of providing Public Information Services throughout the duration of the project. Anticipated communications issues on this project include:

- (1) Detour routing
- (2) Lane closures of ~~US287~~ Sugarloaf Road
- (3) Lane closures of ~~Isabelle Road~~ State Hwy 119

CONSTRUCTION REQUIREMENTS

The Boulder County Public Works Department Public Information Officer (PIO) will coordinate public information regarding the project and provide timely updates regarding construction to the public through a variety of established channels. This includes coordination with the Engineer, ~~Town of Erie~~ Boulder County, City of Boulder, Betasso Water Treatment Plant, Sugarloaf Fire Protection District, and Colorado Department of Transportation's (CDOT) Region Communications Manager (RCM).

- (a) *Public Information Manager (PIM)*. The contractor shall designate a PIM with whom the PIO can confer with as needed to ensure that all pertinent construction-related information is conveyed to the public. Within 10 days following the date of the Notice to Proceed, the Contractor shall submit the name, contact information, and ~~r~~the designate a Backup PIM to the Engineer, county PIO and CDOT RCM. The contractor-designated representative may maintain a direct line of contact with the PIO to assist with answering questions from the public. The county PIO will also conduct any media related activities that may arise over the course of the project. All media inquiries will be directed to the county PIO for follow up. The PIM may be called upon to assist with media related requests for information and photo or video content.
- (b) *Activities of the PIM*. From the Notice to Proceed through the Final Acceptance of the project, the PIM shall be responsible for the following:
 - (1) *Public Meeting*. Prior to commencing construction, the contractor and Boulder County will host a public meeting to provide construction-related information to interested parties and answer questions.

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**REVISION OF SECTION 626
PUBLIC INFORMATION SERVICES**

- (2) *Signing.* It shall be the contractor's responsibility to maintain adequate signage throughout the construction site. The Contractor shall erect construction traffic signs with the dates the Contractor expects to initiate and complete construction and with the Contractor's public information office's or PIO's phone number at each major approach to the project. The signs shall conform to the requirements of Section 630 and shall be erected at least one week prior to the beginning of construction. These signs shall be updated if the project schedule changes, at no cost to the project.
- (3) *Variable Message Board.* The contractor should confer with the County PIO and the County Engineering Project Manager on any messages that will appear on static or variable messaging boards. It will also be up to the contractor to maintain communications with area residents/property owners who will be directly impacted by daily construction activities. The contractor can do this as they so choose (door hangers, site visits, etc.) but they are to inform any resident at least 48-hours prior to work being conducted in front of a property so that they understand the impacts of the work and how they can access their home while work is taking place in their area.
- (4) *Emergency Vehicles.* Access for emergency vehicles must always be provided.

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**REVISION OF SECTION 626
PUBLIC INFORMATION SERVICES**

(c) *Public Information Management Contact Sheet*. The PIM shall complete and update a Public Information Management Contact Sheet with the names and contact information of the individuals pertinent to Public Information. At a minimum the Contact Sheet will include the Engineer, PIO, RCM, PIM, Contractor Superintendent, and Traffic Control Supervisor.

(1) Public Information Services Contact Sheet Owners

Boulder County Public Works

Project Manager (Engineer)
Colton Coughlin
Phone: 303-682-6779
Email: ccoughlin@bouldercounty.org

Public Information Officer (PIO)
Andrew Barth
Phone: 303-441-1032
Email: abarth@bouldercounty.org

(2) Public Information Services Stakeholders

- Boulder County Sheriff Department
- Other Emergency providers servicing this area
- Regional Transportation District: RTD

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Public Information Services will not be measured and paid for separately but be included with the items in under Section 630 Construction Zone Traffic Control.

Biological Resources Evaluation Memorandum

To: Mohammed Said, Project Engineer **Date:** February 17, 2017
Company: Boulder County Transportation **Phone:** 303-757-9929
From: Dan Morta, Ecologist **FEMA PW #:** 1164
Delivery Method: Electronic **Pinyon Project #:** 11364701
Subject: Biological Resources Evaluation- Sugarloaf Retaining Wall, Boulder, Colorado

Table 1 Executive Summary:

Biological Resources Summary						
GCT	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Canada Lynx	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
MSO	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	CBP	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
ULTO	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	PMJM	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Migratory Birds	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Raptors	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Noxious weeds prevalent	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	INWMP Needed	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Consultant Contact Info:		Dan Morta, Pinyon, morta@pinyon-env.com 720-382-1064				
Waters of the U.S., including Wetlands; Senate Bill 40 Summary						
Survey Needed?				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
Impacts to wetlands or open waters?				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
Permanent impacts <0.5 acre to wetlands or open waters?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA
Permanent impacts >0.5 acre or >200 linear feet to wetlands or open waters?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA
Section 401 Permit from CDPHE?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA
Wetland Finding Required?				<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> NA
Work required within or adjacent to stream or river?				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA
Work on banks of stream (perennial or intermittent) or rivers?				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> NA

Notes:

GCT=Greenback Cutthroat Trout (*Oncorhynchus clarkii stomias*)

ULTO=Ute Ladies' Tresses Orchid (*Spiranthes diluvialis*)

CBP=Colorado Butterfly Plant (*Gaura neomexicana* var. *coloradensis*)

CDPHE= Colorado Department of Public Health and Environment

MSO=Mexican Spotted Owl (*Strix occidentalis*)

PMJM=Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*)

INWMP= Integrated Noxious Weed Management Plan

Biological Resources Evaluation

Sugarloaf Retaining Wall Project
Boulder, Colorado

A desktop analysis using aerial imagery, United States Fish and Wildlife Service (USFWS) information, United States Geological Survey maps, and other existing data sources was conducted to identify potential biological resources in the study area, including:

- threatened and endangered species
- raptors and other migratory birds
- noxious weeds
- wetlands and water features
- other general biological resources of note

A site visit was conducted on February 17, 2017. General vegetation and potential habitat for threatened and endangered species was assessed within the Sugarloaf Road ROW. Along the roadside, tree species include Ponderosa pine (*Pinus ponderosa*), cottonwood (*Populus deltoides*), coyote willow (*Salix exigua*), and juniper (*Juniperus osteosperma*). Herbaceous vegetation includes intermediate wheatgrass (*Thinopyrum intermedium*), mullein (*Verbascum thapsus*), cheatgrass (*Bromus tectorum*), gumweed (*Grindelia squarrosa*), orchardgrass (*Dactylis glomerata*), three-awn (*Aristida purpurea*), buffalo grass (*Bouteloua dactyloides*), mustard (*Physaria acutifolia*), pepperweed (*Lepidium perfoliatum*), and fringed sage (*Artemisia frigida*).

Based on a review of the online USFWS IPaC System, there are 12 federally listed species with the potential to occur in, or be impacted by, projects in the study area. Five of the species would only be impacted by activities/use of water in the North Platte, South Platte and Laramie River Basins. The project would not result in depletions to these water bodies and the five downstream species would not be impacted by this project. Potential impacts to fish species would only occur if impacts were occurring in or near waterbodies. There are no anticipated impacts to waterbodies and thus, no impacts to fish. The two federally listed plant species would not be impacted from activities on arid mountainsides with no subsurface water sources.

The habitat and distribution of each of the remaining species was reviewed, and the potential for occurrence for each species was assigned based on the conditions at the study area (Table 2).

Table 2 Federally Listed Species and Their Potential to Occur in the Study Area

Common Name	Species	Federal Status	Habitat	Potential for Occurrence in Study Area
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FT	Mature, old-growth forests that possess complex structural components; canyons, riparian and conifer communities.	None. No mature old-growth forests in study area.
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	FT	Riparian areas with well-developed shrub community.	None. No riparian areas occur in the study area.
Canada Lynx	<i>Lynx canadensis</i>	FT	Uneven-aged stands with relatively open canopies and well-developed understories of coniferous forests. Moist boreal forests with cold, snowy winters and high-density snowshoe hare prey base. Restricted to isolated areas of central portion of Colorado.	None. Suitable habitat does not occur in the study area. Elevations in study area are lower than the species' range (greater than 8,000 feet above mean sea level).
North American wolverine	<i>Gulo luscus gulo</i>	PT	Alpine and arctic tundra, boreal and mountain forests (primarily coniferous). Limited to mountains in the south, especially large wilderness areas. Usually in areas with snow on the ground in winter.	None. Study area is a rural with a nearby highway and not a wilderness area. Snow is not persistent throughout the winter in the study area.
<p>Notes: FT = federally listed as threatened</p>				

The study area does not provide suitable habitat for the four federally listed species that have a potential to occur within the study area: Mexican spotted owl, Canada lynx, wolverine, and Preble's meadow jumping mouse. Therefore, the proposed action occurring in the above-referenced study area will have **no effect** on species listed as threatened, endangered, or proposed for listing or their habitat. No further action is required relating to threatened or endangered species.

Potential habitat for migratory birds and raptors was assessed during the site visit. Mature trees within 0.5 miles of the study area were visually surveyed for raptor nests. The results of the visual survey found no migratory bird nests or raptor nests within the study area. However, large trees within 0.5 miles of the study area could be used by nesting raptors.

Plant species within the study area were referenced with the Colorado State Department of Agriculture list of noxious weeds. No List A or List B species were found to occur within the study area.

Biological Resources Evaluation

Potential Waters of the US were investigated. One ephemeral drainage was observed to have flowing water at the time of the survey. An ephemeral stream is defined as having flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow (US Army Corps of Engineers).

Under Section 404 of the Clean Water Act, the ordinary high water (OHWM) mark defines the lateral extent of the federal jurisdiction in non-tidal waters of the US in the absence of adjacent wetlands. The ordinary high water mark was defined as the “active channel” in guidance for identifying the OHWM in the western mountains. The “active channel” is characterized as having some combination of three primary indicators: a topographic break in slope, a change in sediment characteristics, and a change in vegetation characteristics.

The ephemeral drainage did not show a distinct topographic break in slope that would have been formed by flowing water. The sediment characteristics did not change, rather the bare granite that the water flowed over was replaced by loamy soils immediately cross-gradient of the drainage. Further, the vegetation did not change markedly, as there was no change in abundance or growth form. Several wetland plant species (namely, coyote willow) were present in response to the increased moisture within the drainage but here was not a dominance of wetland vegetation.

As the drainage was ephemeral with its water source from surface runoff and not from groundwater, and as the drainage did not exhibit an OHWM or an active channel and as there were no wetlands within the ephemeral drainage, it was determined that the ephemeral drainage would not be a jurisdictional waters of the US.

Attachments:

IPAC Species List
Photographic Log
Sugarloaf Wetland Datasheet



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
134 UNION BOULEVARD, SUITE 670
LAKEWOOD, CO 80228

PHONE: (303)236-4773 FAX: (303)236-4005

URL: www.fws.gov/coloradoES; www.fws.gov/platteriver

Consultation Code: 06E24000-2017-SLI-0518

February 16, 2017

Event Code: 06E24000-2017-E-01197

Project Name: Sugarloaf

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Official Species List

Provided by:

Colorado Ecological Services Field Office

DENVER FEDERAL CENTER

P.O. BOX 25486

DENVER, CO 80225

(303) 236-4773

<http://www.fws.gov/coloradoES>

<http://www.fws.gov/platteriver>

Consultation Code: 06E24000-2017-SLI-0518

Event Code: 06E24000-2017-E-01197

Project Type: TRANSPORTATION

Project Name: Sugarloaf

Project Description: Road improvement

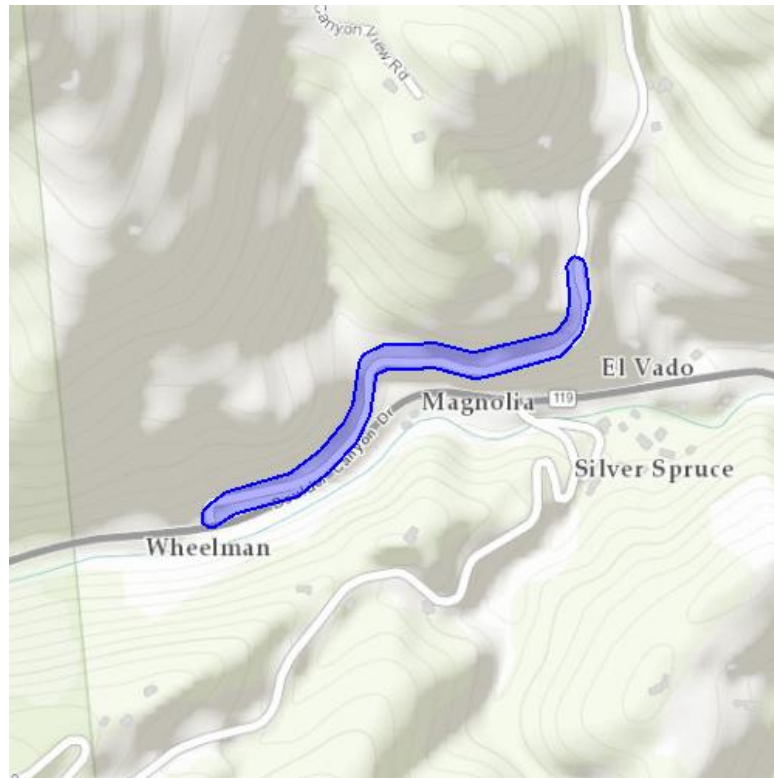
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Boulder, CO



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Endangered Species Act Species List

There are a total of 12 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 5 of these species should be considered only under certain conditions. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Least tern (<i>Sterna antillarum</i>) Population: interior pop.	Endangered		Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.
Mexican Spotted owl (<i>Strix occidentalis lucida</i>) Population: Wherever found	Threatened	Final designated	
Piping Plover (<i>Charadrius melodus</i>) Population: except Great Lakes watershed	Threatened	Final designated	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.
Whooping crane (<i>Grus americana</i>) Population: Wherever found, except where listed as an experimental population	Endangered	Final designated	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Fishes			
Greenback Cutthroat trout (<i>Oncorhynchus clarki stomias</i>) Population: Wherever found	Threatened		
Pallid sturgeon (<i>Scaphirhynchus albus</i>) Population: Wherever found	Endangered		Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.
Flowering Plants			
Colorado Butterfly plant (<i>Gaura neomexicana</i> var. <i>coloradensis</i>) Population: Wherever found	Threatened	Final designated	
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>) Population: Wherever found	Threatened		
Western Prairie Fringed Orchid (<i>Platanthera praeclara</i>) Population: Wherever found	Threatened		Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.
Mammals			
Canada Lynx (<i>Lynx canadensis</i>) Population: Contiguous U.S. DPS	Threatened	Final designated	
North American wolverine (<i>Gulo gulo luscus</i>) Population: Wherever found	Proposed Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Preble's meadow jumping mouse (<i>Zapus hudsonius preblei</i>) Population: wherever found	Threatened	Final designated	
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United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Appendix A: FWS National Wildlife Refuges and Fish Hatcheries

There are no refuges or fish hatcheries within your project area.



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Appendix B: FWS Migratory Birds

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>
<http://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php>

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tools at:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Migratory birds that may be affected by your project:

There are 26 birds on your migratory bird list. The list may include birds occurring outside this FWS office jurisdiction.

Species Name	Bird of Conservation Concern (BCC)	Seasonal Occurrence in Project Area
American bittern (<i>Botaurus lentiginosus</i>)	Yes	Breeding
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Yes	Year-round
Black Rosy-Finch (<i>Leucosticte atrata</i>)	Yes	Year-round
Black Swift (<i>Cypseloides niger</i>)	Yes	Breeding
Brewer's Sparrow (<i>Spizella breweri</i>)	Yes	Breeding
Brown-capped Rosy-Finch (<i>Leucosticte australis</i>)	Yes	Wintering
Burrowing Owl (<i>Athene cunicularia</i>)	Yes	Breeding
Cassin's Finch (<i>Carpodacus cassinii</i>)	Yes	Year-round
Dickcissel (<i>Spiza americana</i>)	Yes	Breeding
Ferruginous hawk (<i>Buteo regalis</i>)	Yes	Year-round
Flammulated owl (<i>Otus flammeolus</i>)	Yes	Breeding
Golden eagle (<i>Aquila chrysaetos</i>)	Yes	Year-round
Lewis's Woodpecker (<i>Melanerpes lewis</i>)	Yes	Breeding
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	Yes	Breeding
Long-Billed curlew (<i>Numenius americanus</i>)	Yes	Breeding
Mountain plover (<i>Charadrius montanus</i>)	Yes	Breeding



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Fish and Wildlife Service

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Peregrine Falcon (<i>Falco peregrinus</i>)	Yes	Breeding
Prairie Falcon (<i>Falco mexicanus</i>)	Yes	Year-round
Sage Thrasher (<i>Oreoscoptes montanus</i>)	Yes	Breeding
Short-eared Owl (<i>Asio flammeus</i>)	Yes	Wintering
Swainson's hawk (<i>Buteo swainsoni</i>)	Yes	Breeding
Veery (<i>Catharus fuscescens</i>)	Yes	Breeding
Virginia's Warbler (<i>Vermivora virginiae</i>)	Yes	Breeding
Western grebe (<i>aechmophorus occidentalis</i>)	Yes	Breeding
Williamson's Sapsucker (<i>Sphyrapicus thyroideus</i>)	Yes	Breeding
Willow Flycatcher (<i>Empidonax traillii</i>)	Yes	Breeding



United States Department of Interior
Fish and Wildlife Service

Project name: Sugarloaf

Appendix C: NWI Wetlands

There are no wetlands within your project area.

Photo 1. Looking west from the east end of the study area.



Photo 2. Looking north at an ephemeral drainage on the north side of Sugarloaf Road.



Photo 3. Looking west at a roadside swale on the north side of Sugarloaf road.



Photo 4. Looking south at a drainage channel on the south side of Sugarloaf Road.



Photo 5. Looking west at the west end of the study area.



Photo 6. Looking east at a storm drain at the west end of the study area.



WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: _____ City/County: _____ Sampling Date: _____
 Applicant/Owner: _____ State: _____ Sampling Point: _____
 Investigator(s): _____ Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No _____	Is the Sampled Area within a Wetland?	
Hydric Soil Present?	Yes _____ No _____		Yes _____ No _____
Wetland Hydrology Present?	Yes _____ No _____		
Remarks:			

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum	(Plot size: <u>15</u>)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum	(Plot size: <u>5</u>)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum	(Plot size: _____)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present?				
Yes _____ No _____				
Remarks:				

INSURANCE REQUIREMENTS FOR CDOT UTILITY AND SPECIAL USE PERMITS

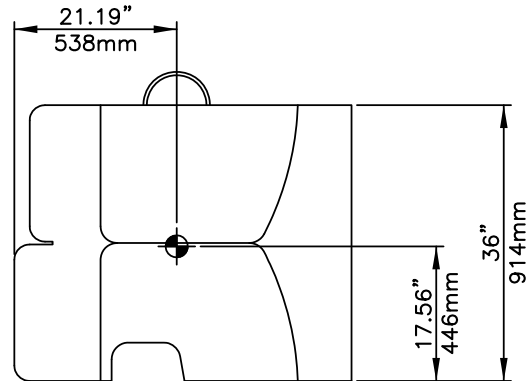
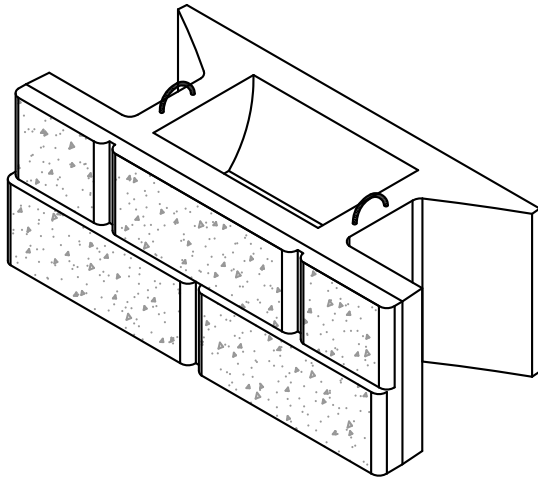
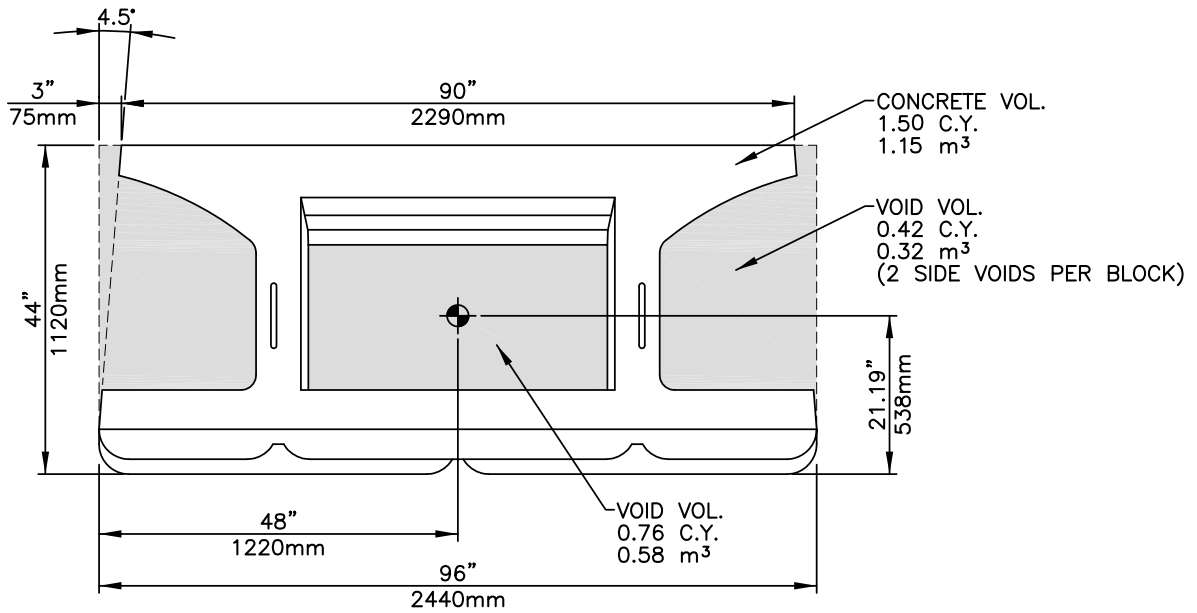
A. The Permittee shall obtain and maintain insurance at all times during the performance of work authorized by the Permit, in the following kinds and amounts. The Permittee shall require any Contractor working for them within the State Highway Right of Way to obtain like coverage. The Permittee shall also require any Contractor or Consultant performing work described in sub-paragraph 4) below, to obtain Professional Liability Insurance.

- 1) Workers' Compensation Insurance as required by state statute and Employer's Liability Insurance covering all employees acting within the course and scope of their employment and work on the activities authorized by the Permit.
- 2) Commercial General Liability Insurance written on ISO occurrence form CG 00 01 10/93 or equivalent, covering premises operations, fire damage, independent Consultants, products and completed operations, blanket contractual liability, personal injury and advertising liability with minimum limits as follows:
 - a. \$1,000,000 each occurrence;
 - b. \$2,000,000 general aggregate;
 - c. \$2,000,000 products and completed operations aggregate; and
 - d. \$50,000 any one fire.
 - e. For any permanent Permittee-owned installations located within the State Highway Right of Way, highway repairs, or site restoration, Completed Operations coverage shall be provided for a minimum period of one year following final acceptance of work.

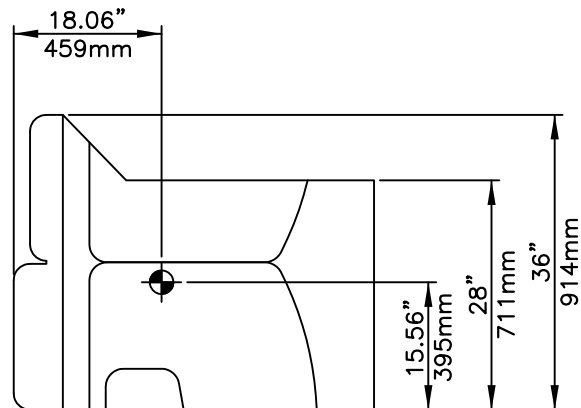
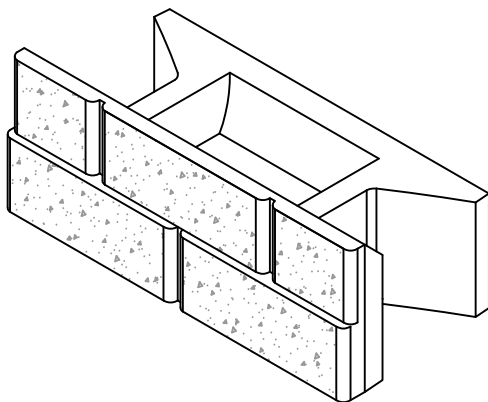
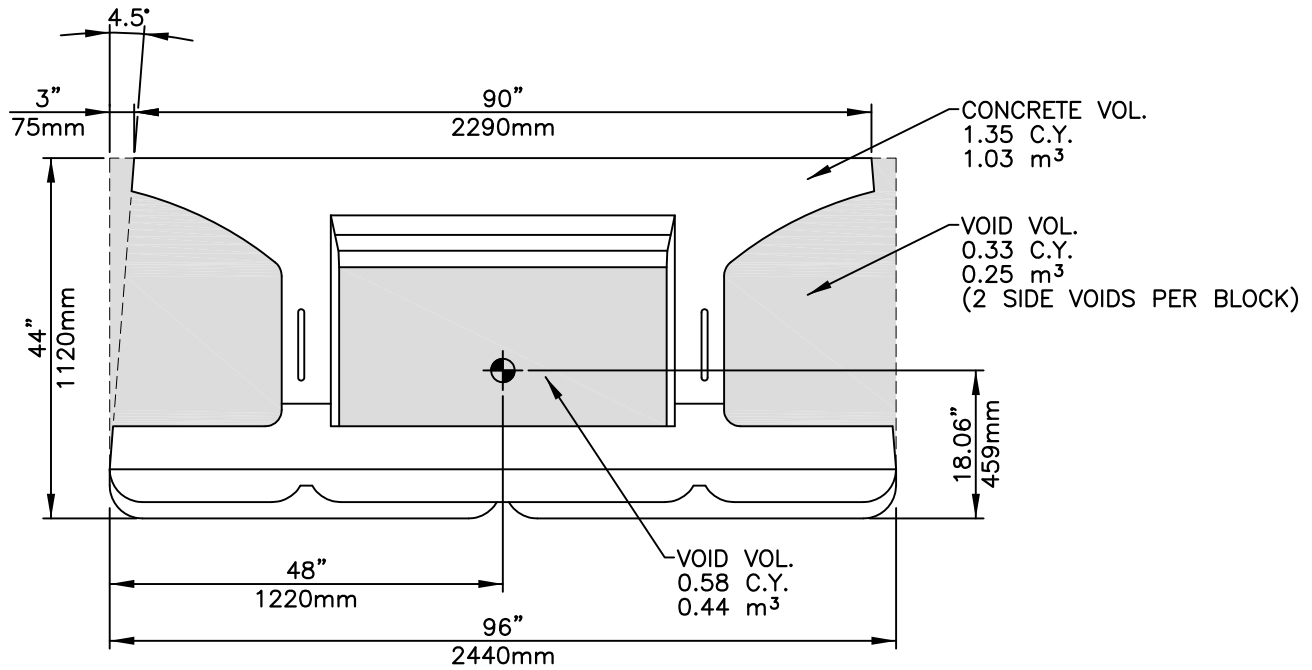
If any aggregate limit is reduced below \$1,000,000 because of claims made or paid, the Permittee, or as applicable - their Contractor shall immediately obtain additional insurance to restore the full aggregate limit and furnish to CDOT a certificate or other document satisfactory to CDOT showing compliance with this provision.

- 3) Automobile Liability Insurance covering any auto (including owned, hired and non-owned autos) with a minimum limit as follows: \$1,000,000 each accident combined single limit.
- 4) For any: a) engineering design; b) construction inspection; or, c) traffic control plans approved by a Traffic Control Supervisor; done in association with the operations or installations authorized by the permit, Professional Liability Insurance with minimum limits of liability of not less than \$1,000,000 Each Claim and \$1,000,000 Annual Aggregate. If the policy is written on a Claims Made Form, the Permittee, or, as applicable - their Consultant or Contractor, shall renew and maintain Professional Liability Insurance for a minimum of two years following final acceptance of the work, or provide a project specific Policy with a two year extended reporting provision.
- 5) Pollution Legal Liability Insurance with minimum limits of liability of \$1,000,000 Each Claim and \$1,000,000 Annual Aggregate. CDOT shall be named as an additional insured to the Pollution Legal Liability policy. If the Policy is a component of the Professional Liability Policy, the Additional Insured requirement is waived, and the Policy shall be written on a Claims Made Form, with an extended reporting period of at least two year following final acceptance of the work.
- 6) Umbrella or Excess Liability Insurance with minimum limits of \$1,000,000. This policy shall become primary (drop down) in the event the primary Liability Policy limits are impaired or exhausted. The Policy shall be written on an Occurrence form and shall be following form of the primary. The following form Excess Liability shall include CDOT and Concessionaire, if applicable as an additional insured.

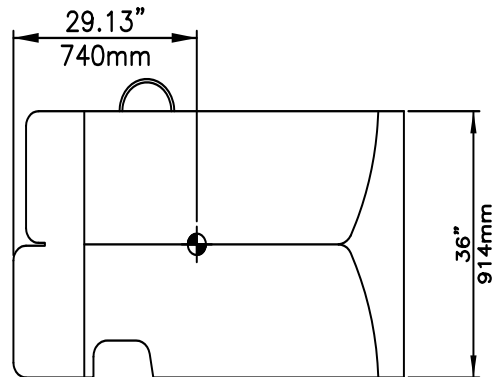
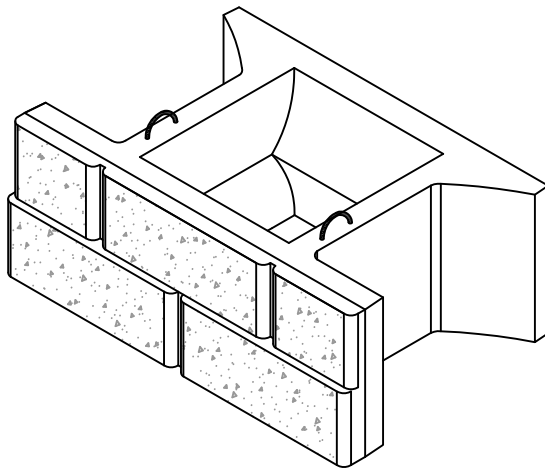
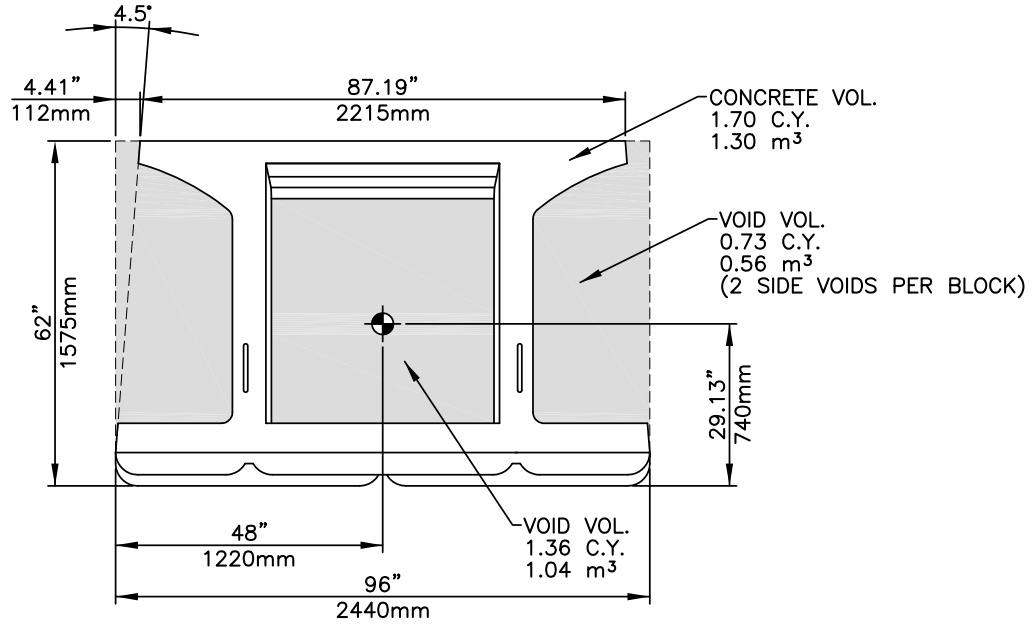
- B. CDOT and Concessionaire, if applicable, shall be named as additional insured on the Commercial General Liability and Automobile Liability insurance policies. Completed operations additional insured coverage shall be on endorsements CG 2010 11/85, CG 2037, or equivalent. Coverage required by the Permit will be primary over any insurance or self- insurance program carried by the State of Colorado.
- C. The Insurance shall include provisions preventing cancellation or non-renewal without at least 30 days prior notice to CDOT, and Concessionaire, if applicable, by certified mail.
- D. The Permittee, or, as applicable – their Contractor or Consultant, will require all insurance policies in any way related to the Permit and secured and maintained by the Permittee, Contractor or Consultant, to include clauses stating that each carrier will waive all rights of recovery, under subrogation or otherwise, against CDOT, its agencies, institutions, organizations, officers, agents, employees and volunteers.
- E. All policies evidencing the insurance coverage required hereunder shall be issued by insurance companies satisfactory to CDOT.
- F. The Permittee, or as applicable - their Contractor or Consultant, shall provide certificates showing insurance coverage required by the Permit to CDOT, and Concessionaire, if applicable, prior to commencing work. No later than 15 days prior to the expiration date of any such coverage, the Permittee, Contractor or Consultant, shall deliver to CDOT, and Concessionaire, as applicable, certificates of insurance evidencing renewals thereof. At any time during the term of this contract, CDOT may request in writing, and the Permittee, Contractor or Consultant, shall thereupon within 10 days supply to CDOT, evidence satisfactory to CDOT of compliance with the provisions of this section.
- G. Notwithstanding subsection A of this section, if the Permittee is a “public entity” within the meaning of the Colorado Governmental Immunity Act CRS 24-10-101, et seq., as amended (“Act”), the Permittee shall at all times during the term of this permit maintain only such liability insurance, by commercial policy or self-insurance, as is necessary to meet its liabilities under the Act. Upon request by CDOT, the Permittee shall show proof of such insurance satisfactory to CDOT. Public entity Permittees are not required to name CDOT as an Additional Insured.
- H. If the Permittee engages a Contractor and/or Consultant to act independently from the Permittee on the permitted work, that Contractor and/or Consultant shall be required to provide an endorsement naming CDOT, and Concessionaire if applicable, as Additional Insured on their Commercial General Liability, Auto Additional Insured on their Commercial General Liability, Auto Liability, Pollution Legal Liability and Umbrella or Excess Liability policies.



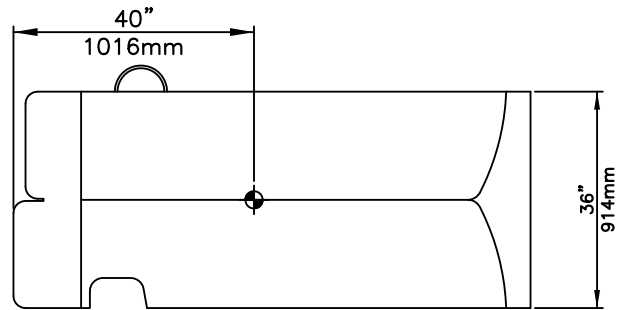
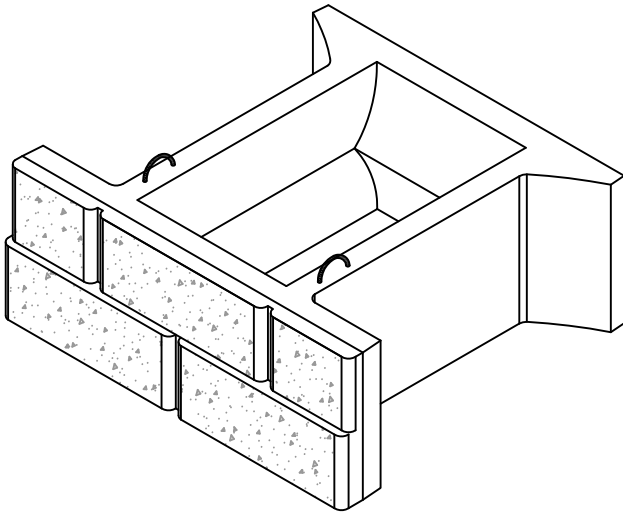
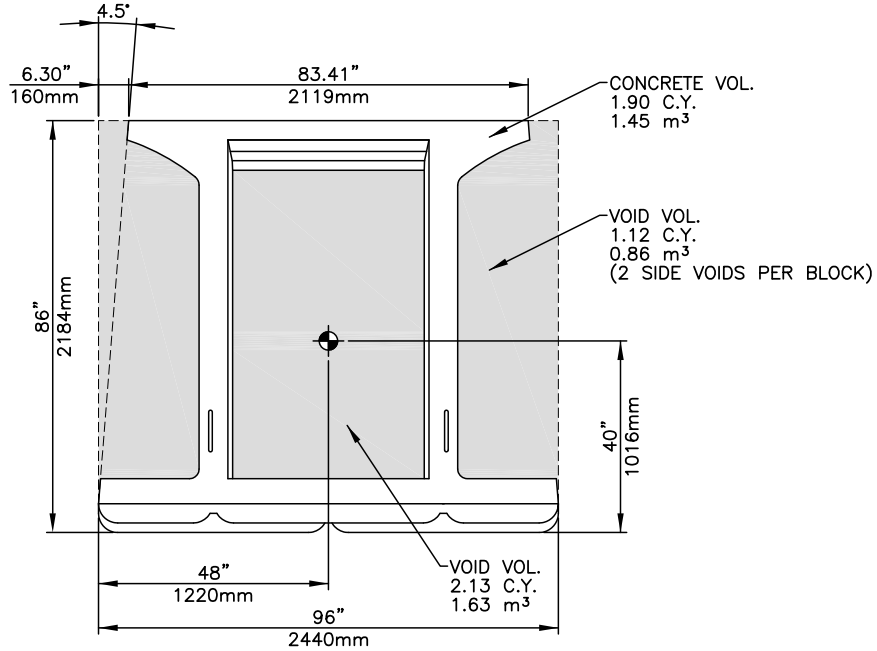
Block Wt.	6,000 lbs	2,720 kg
Form Wt.	4,600 lbs	2,090 kg
Concrete Volume	1.50 CY	1.15 m ³
Aggregate Infill	1.60 CY	1.22 m ³
(per face area)	0.1 tons/sf	1,000 kg/m ²



Block Wt.	5,400 lbs	2,445 kg
Form Wt.	4,930 lbs	2,235 kg
Concrete Volume	1.35 CY	1.03 m ³
Aggregate Infill	1.24 CY	0.94 m ³
(per face area)	0.1 tons/sf	1,000 kg/m ²



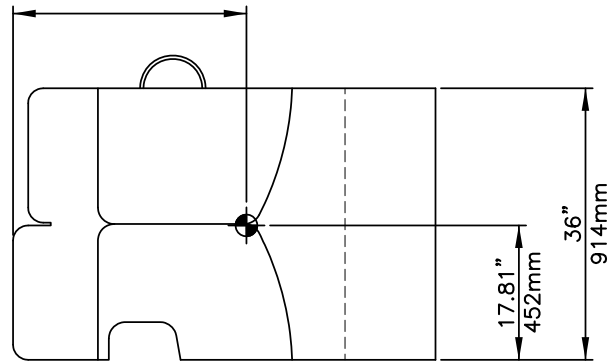
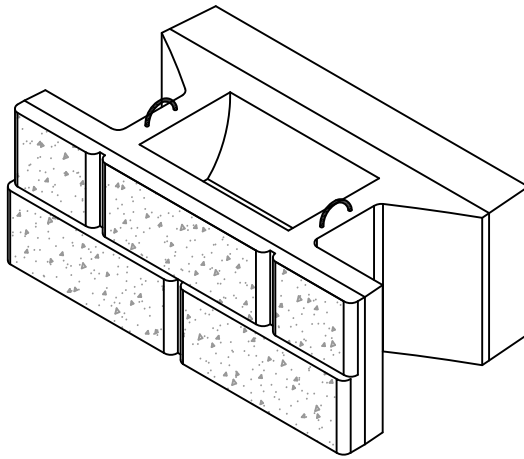
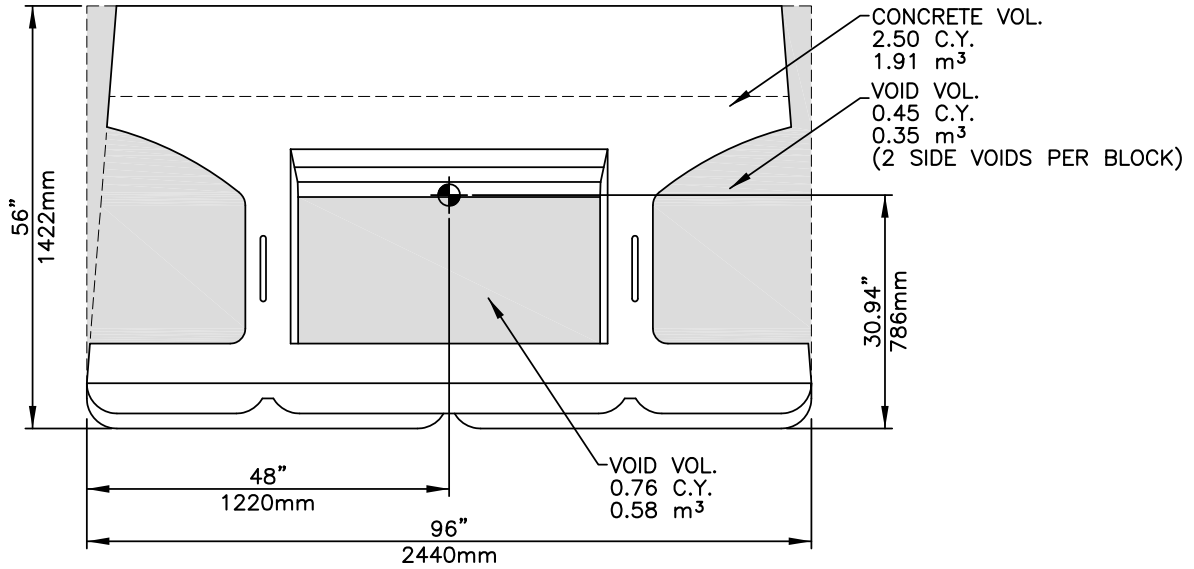
Block Wt.	6,800 lbs	3,080 kg
Form Wt.	6,580 lbs	2,990 kg
Concrete Volume	1.70 CY	1.30 m ³
Aggregate Infill	2.82 CY	2.16 m ³
(per face area)	0.2 tons/sf	2,000 kg/m ²



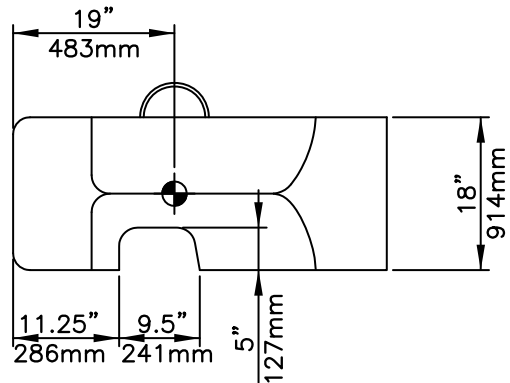
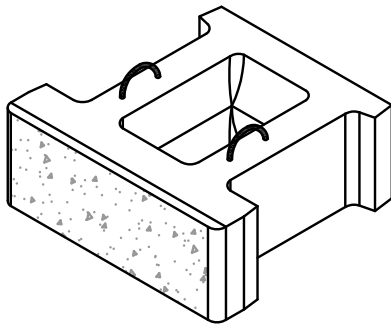
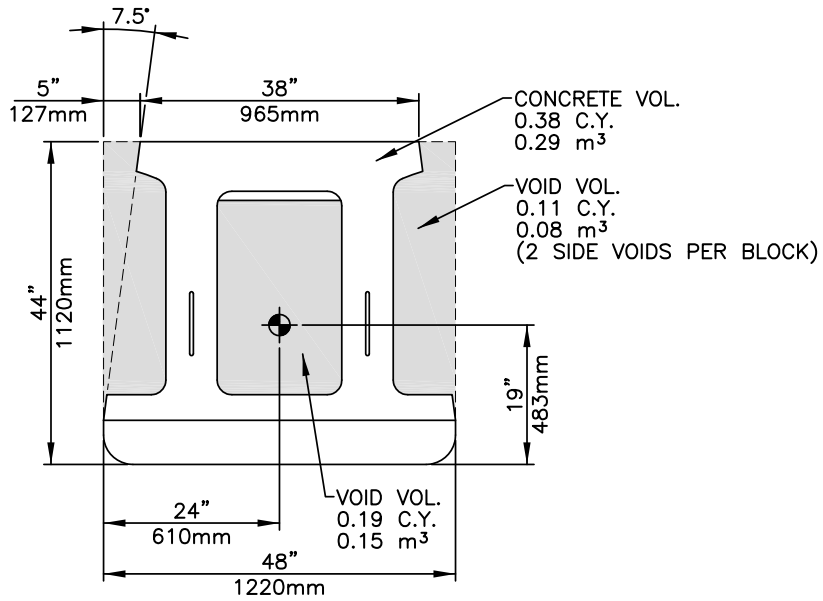
Block Wt.	7,600 lbs	3,445 kg
Form Wt.	7,695 lbs	3,490 kg
Concrete Volume	1.90 CY	1.45 m ³
Aggregate Infill	4.37 CY	3.35 m ³
(per face area)	0.3 tons/sf	3,000 kg/m ²

SYSTEM COMPONENTS

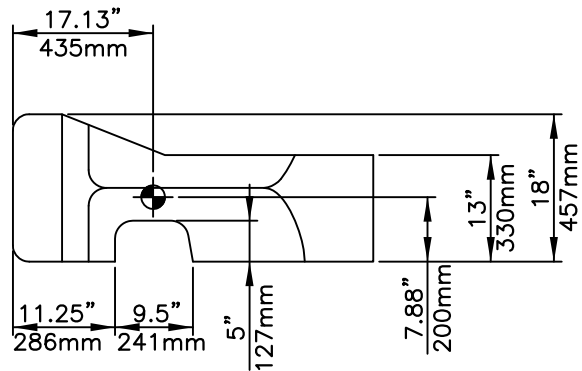
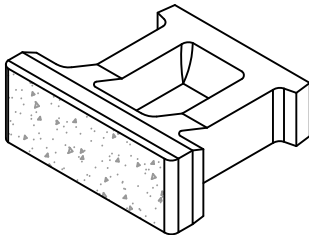
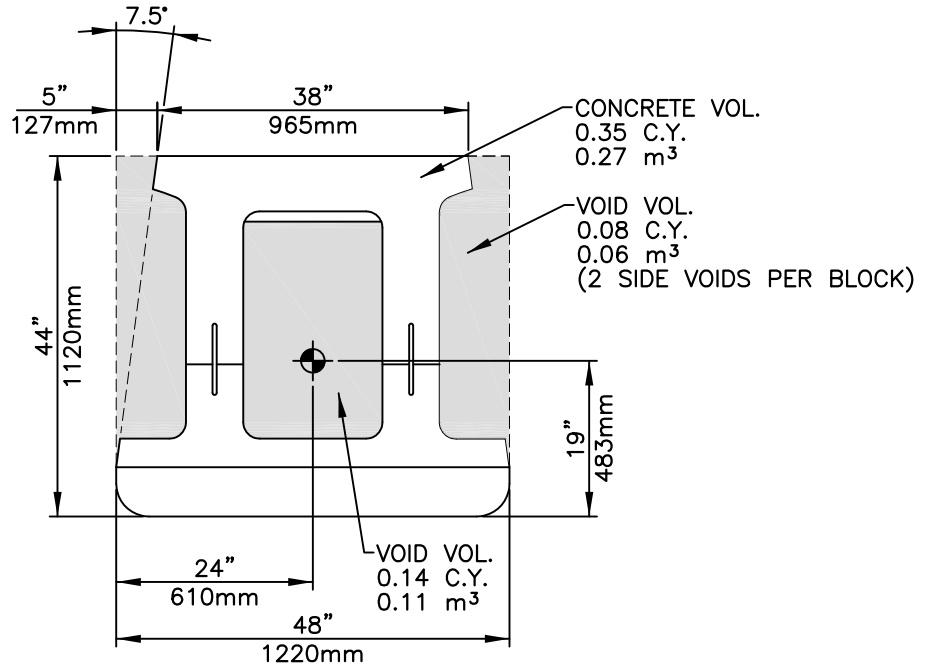
24 SF MASS EXTENDER BLOCK



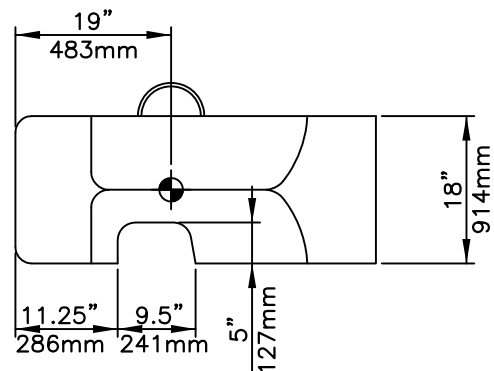
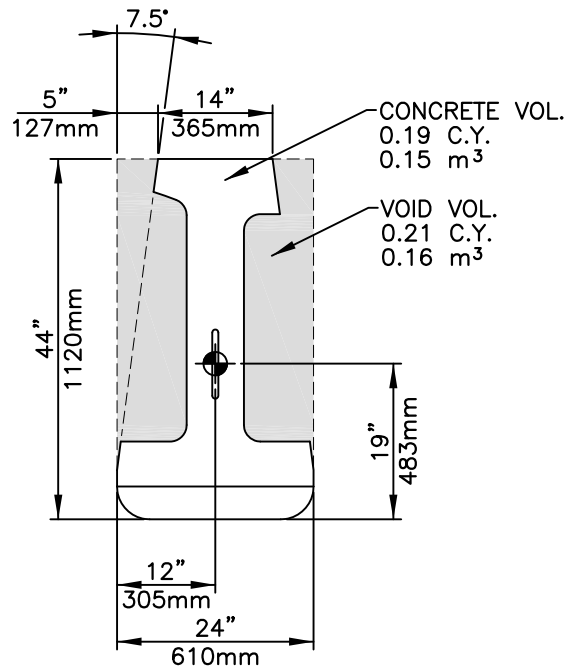
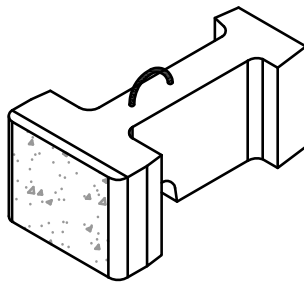
Block Wt.	10,000 lbs	4,585 kg
Form Wt.	5,120 lbs	2,320 kg
Concrete Volume	2.50 CY	1.91 m ³
Aggregate Infill	1.66 CY	1.28 m ³
(per face area)	0.1 tons/sf	1,000 kg/m ²



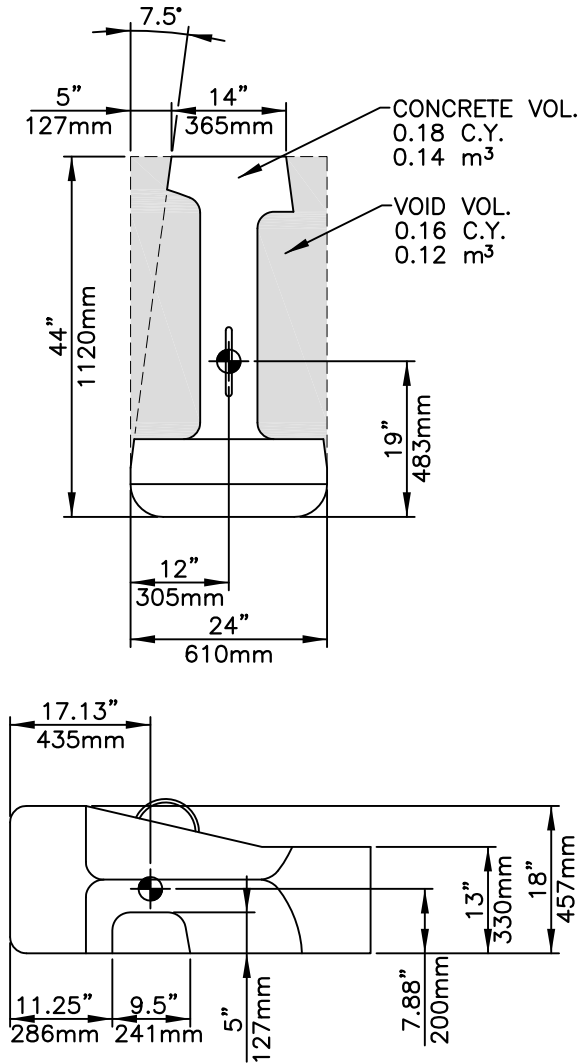
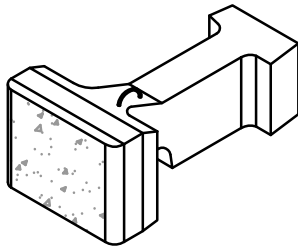
Block Wt.	1,500 lbs	680 kg
Form Wt.	1,800 lbs	815 kg
Concrete Volume	0.38 CY	0.29 m ³
Aggregate Infill	0.41 CY	0.31 m ³
(per face area)	0.1 tons/sf	1,000 kg/m ²



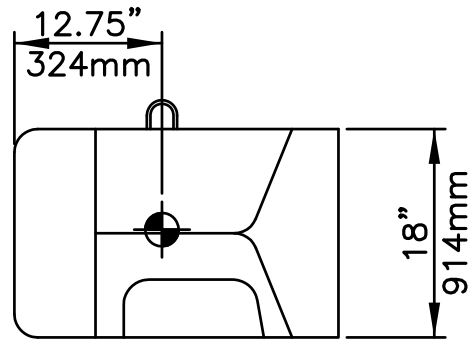
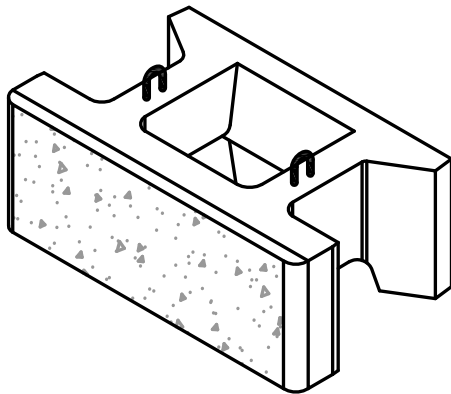
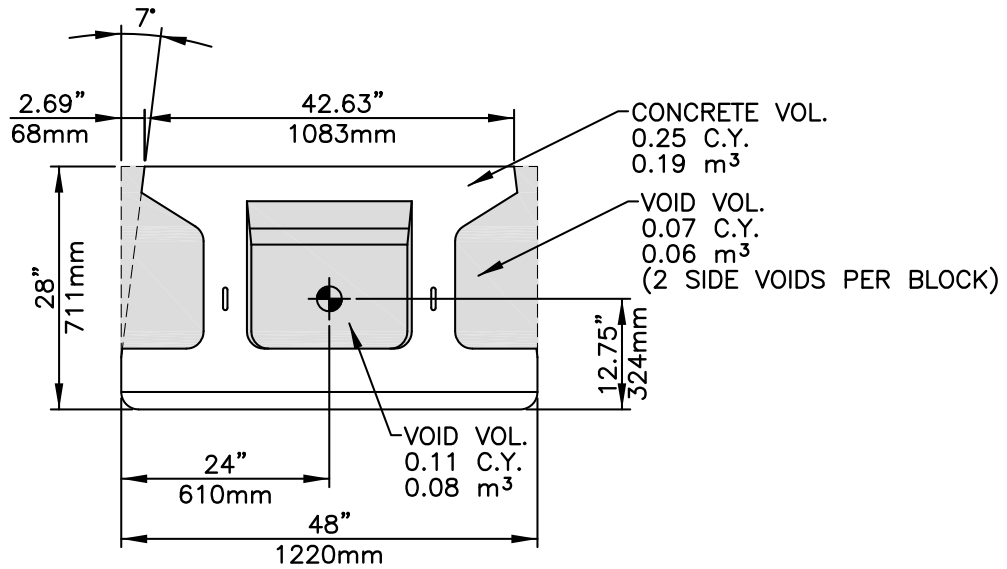
Block Wt.	1,400 lbs	635 kg
Form Wt.	1,955 lbs	885 kg
Concrete Volume	0.5 CY	0.27 m ³
Aggregate Infill (per face area)	0.30 CY 0.1 ton/sf	0.23 m ³ 1,000 kg/ m ²



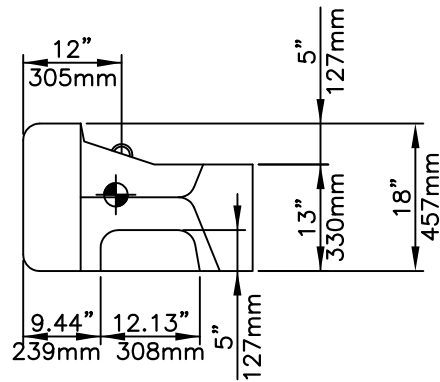
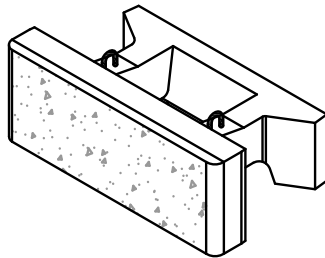
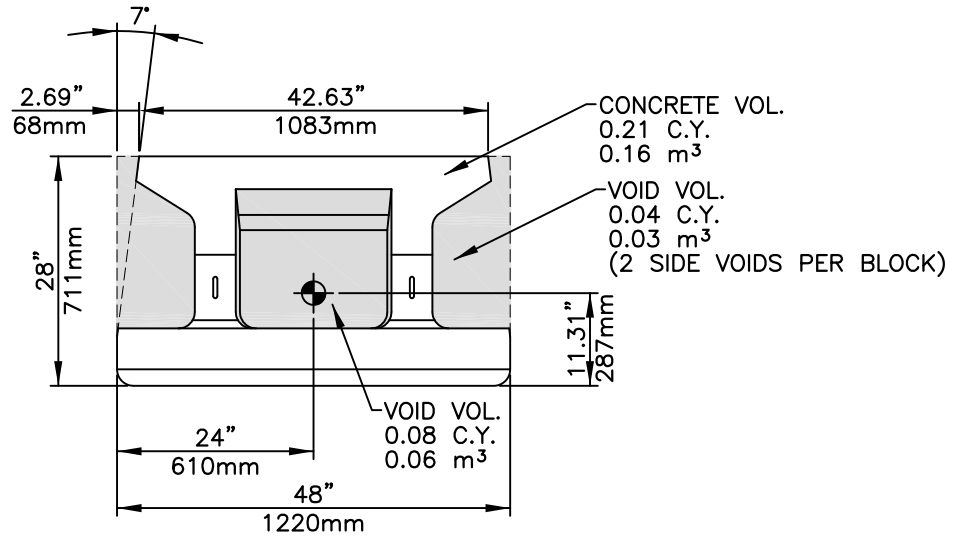
Block Wt.	740 lbs	355 kg
Form Wt.	1,820 lbs	825 kg
Concrete Volume	0.19 CY	0.15 m ³
Aggregate Infill	0.21 CY	0.16 m ³
(per face area)	.01 ton/sf	1,000 kg/m ²



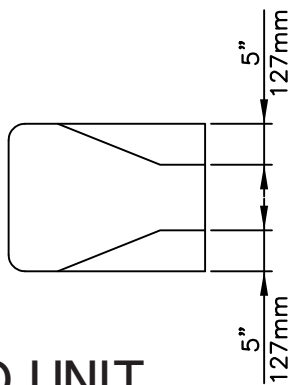
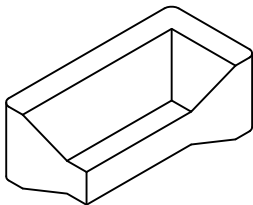
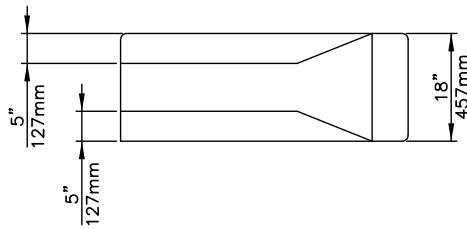
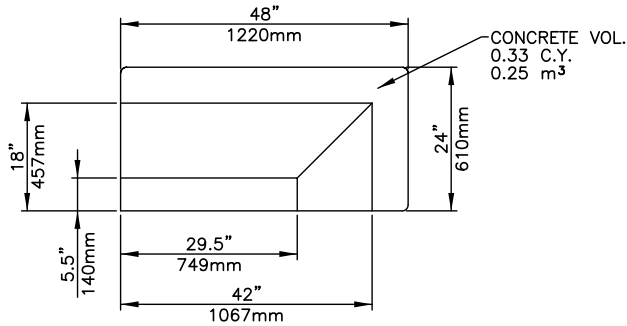
Block Wt.	690 lbs	310 kg
Form Wt.	1,975 lbs	895 kg
Concrete Volume	0.18 CY	0.14 m ³
Aggregate Infill (per face area)	0.16 CY .01 ton/sf	0.12 m ³ 1,000 kg/ m ²



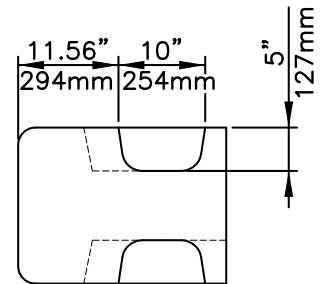
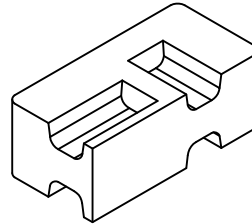
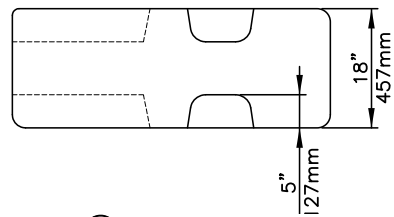
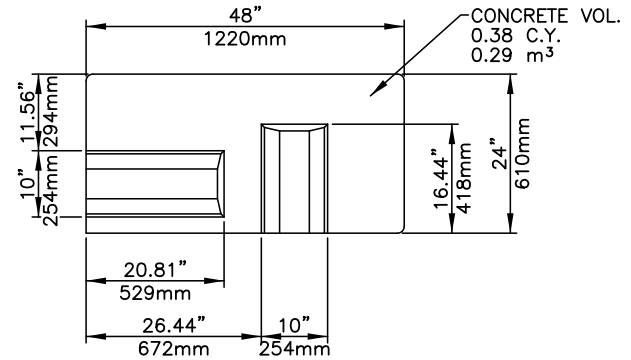
Block Wt.	950 lbs	430 kg
Form Wt.	1,500 lbs	680 kg
Concrete Volume	0.25 CY	0.19 m ³
Aggregate Infill	0.25 CY	0.19 m ³
(per face area)	0.07 tons/sf	700 kg/m ²



Block Wt.	840 lbs	380 kg
Form Wt.	1,580 lbs	715 kg
Concrete Volume	0.21 CY	0.16 m ³
Aggregate Infill (per face area)	0.16 CY 0.07 ton/sf	0.12 m ³ 700 kg/ m ²



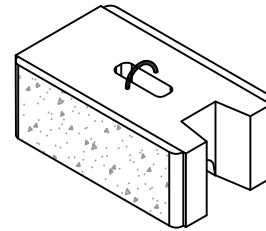
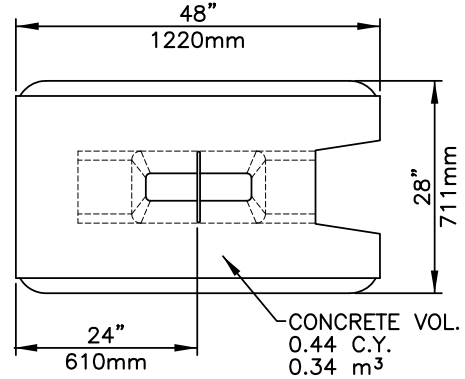
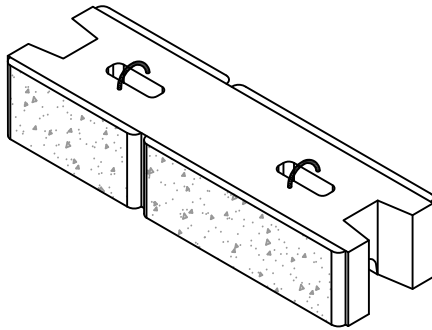
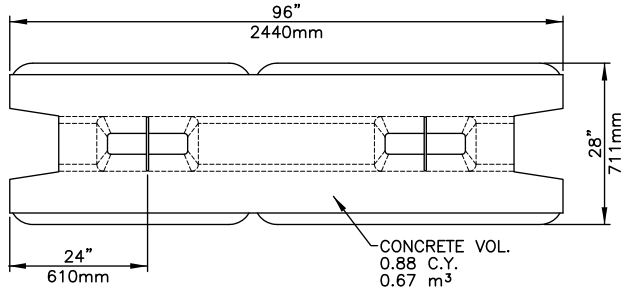
END UNIT



CORNER UNIT

Block Wt.	1,300 lbs	590 kg
Form Wt.	1,650 lbs	750 kg
Concrete Volume	0.33 CY	0.25 m³

Block Wt.	1,500 lbs	680 kg
Form Wt.	1,490 lbs	675 kg
Concrete Volume	0.38 CY	0.29 m³

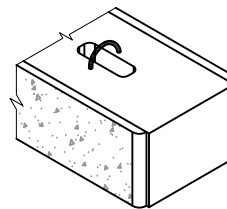
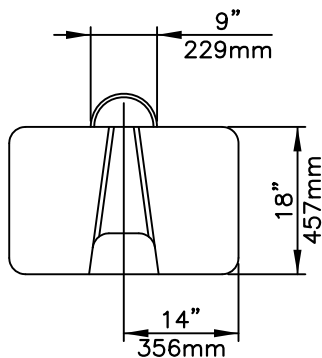


DUAL FACE UNIT

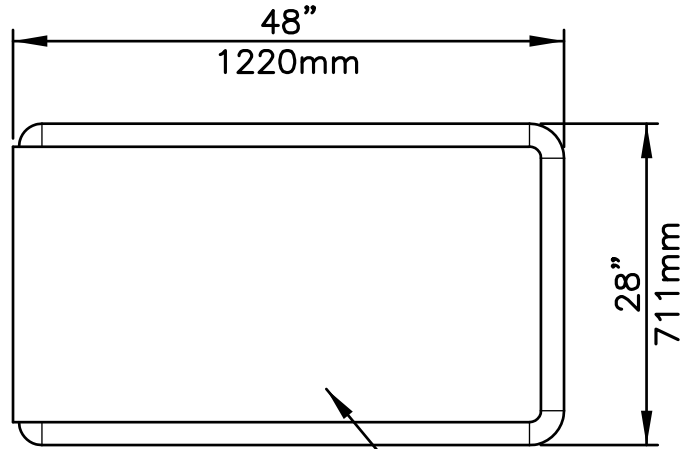
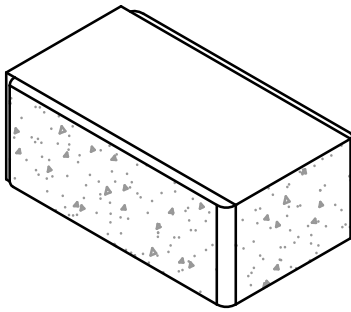
Block Wt.	3,520 lbs	1,595 kg
Form Wt.	2,430 lbs	1,100 kg
Concrete Volume	0.88 CY	0.67 m ³

DUAL FACE HALF UNIT

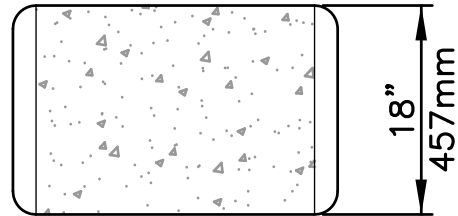
Block Wt.	1,760 lbs	800 kg
Form Wt.	2,430 lbs	1,100 kg
Concrete Volume	0.44 CY	0.34 m ³



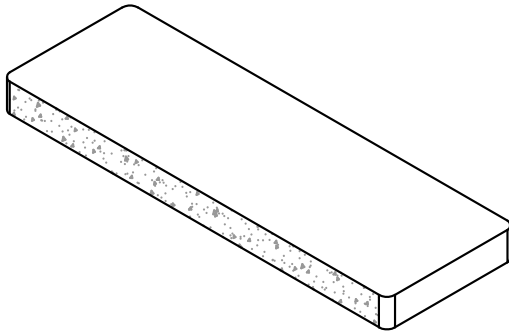
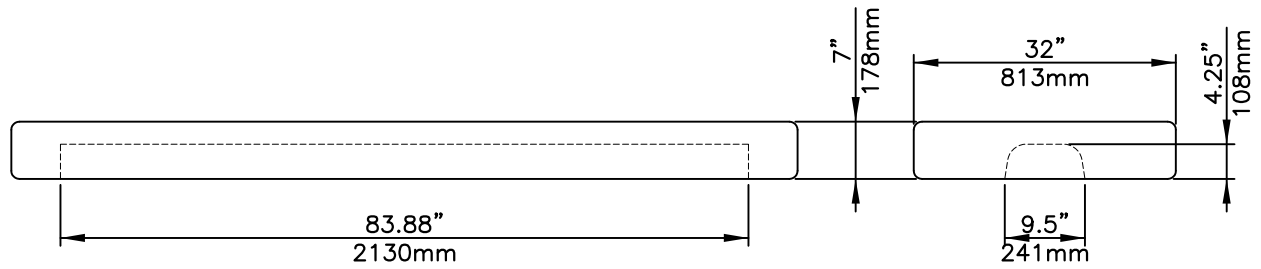
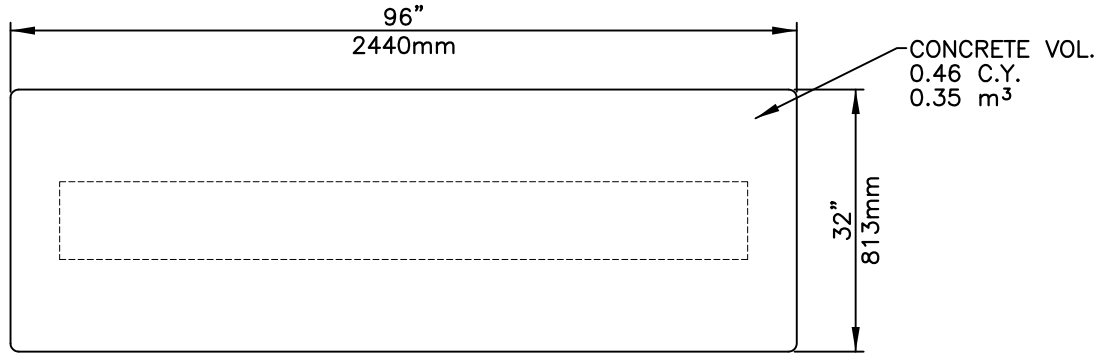
ALTERNATE FINISHED END


TOP VIEW

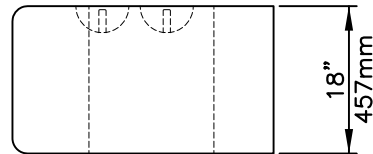
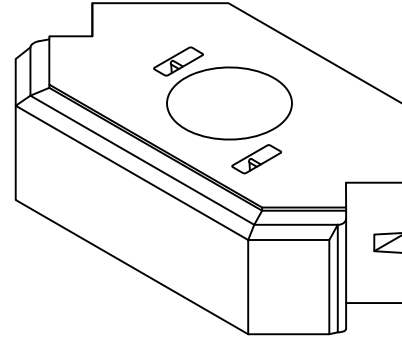
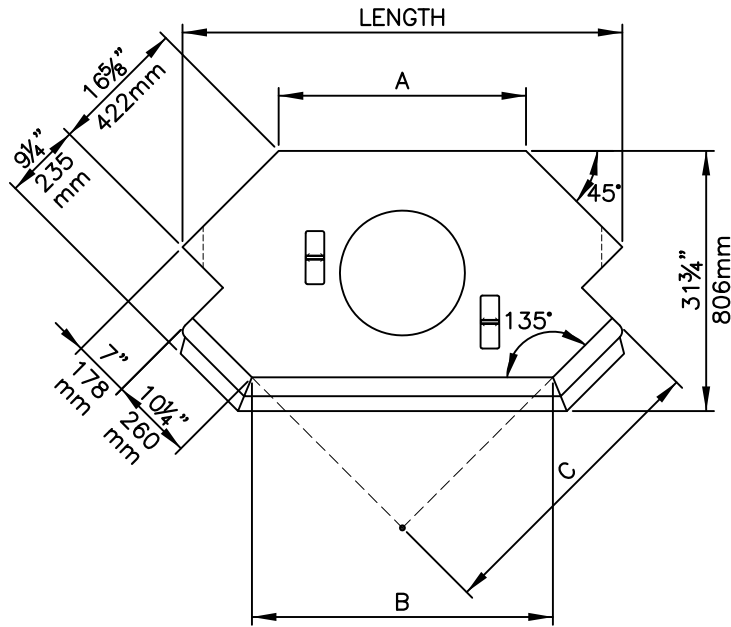
CONCRETE VOL.
0.53 C.Y.
0.41 m³


END VIEW

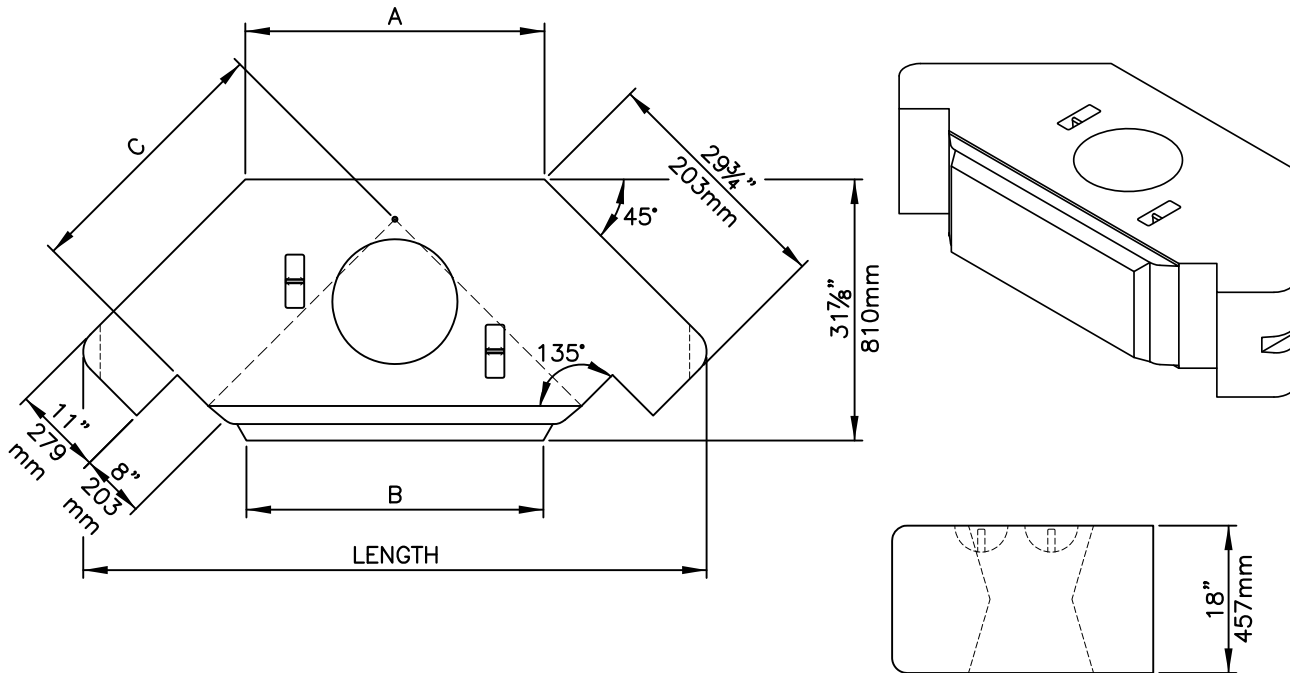
Block Wt.	2,150 lbs	975 kg
Form Wt.	1,889 lbs	857 kg
Concrete Volume	0.53 CY	0.41 m ³



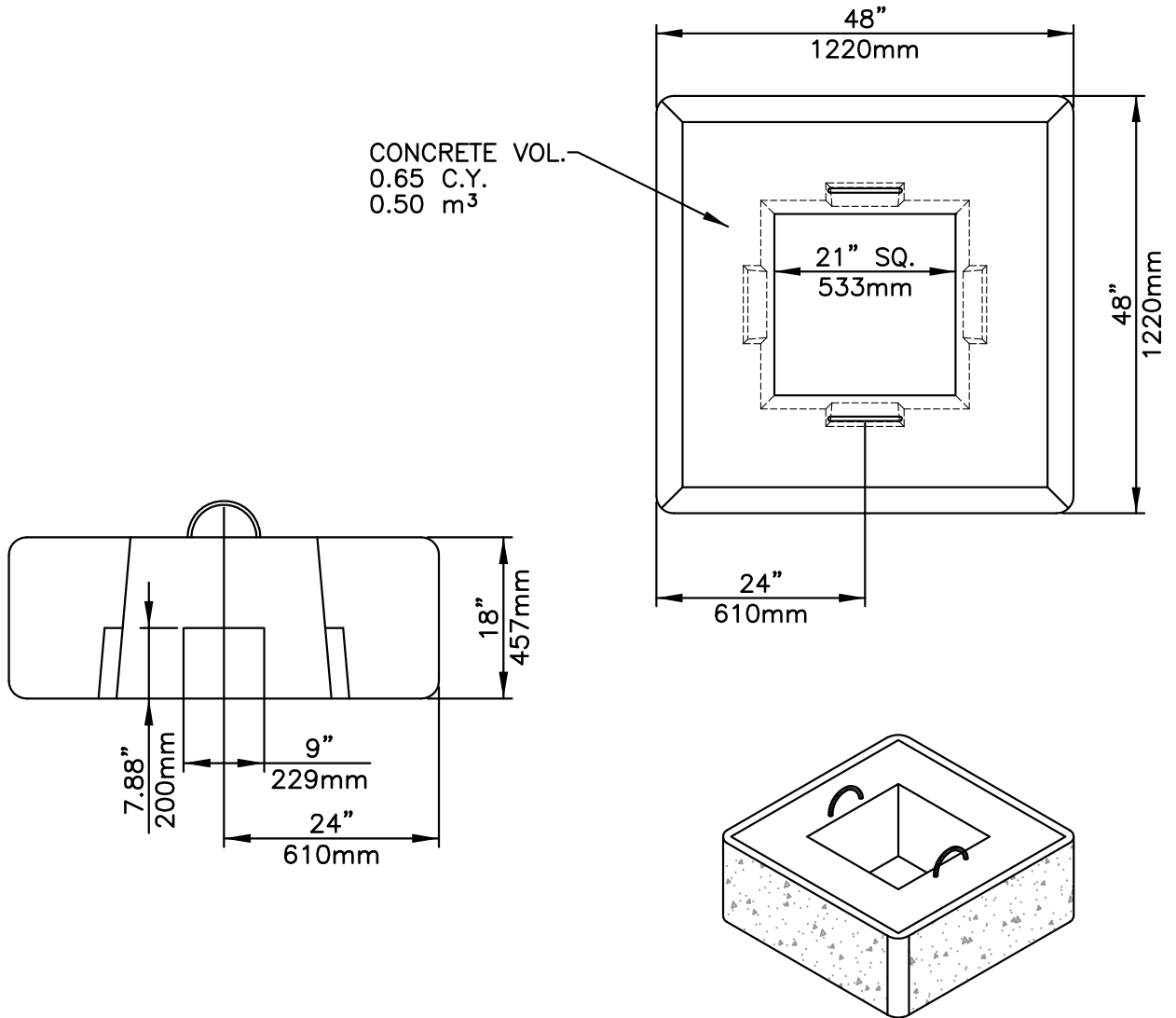
Block Wt.	1,800 lbs	815 kg
Form Wt.	1,425 lbs	645 kg
Concrete Volume	0.46 CY	0.35 m ³



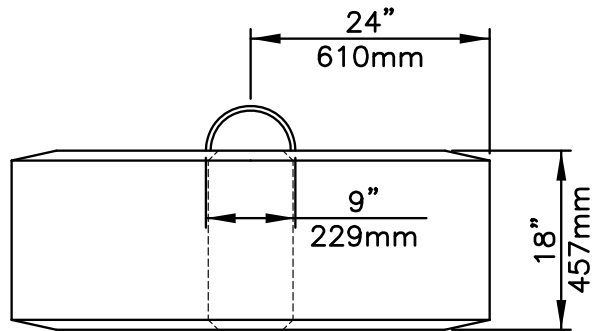
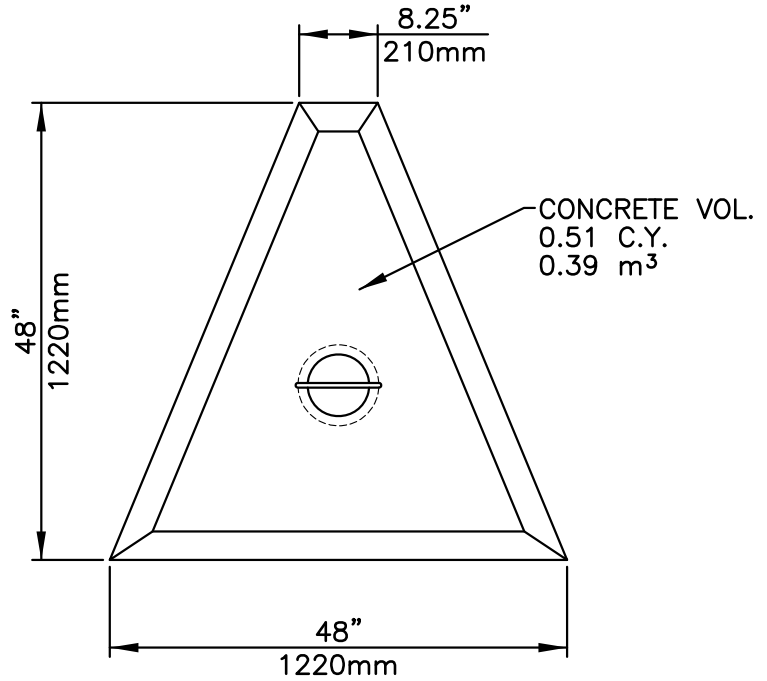
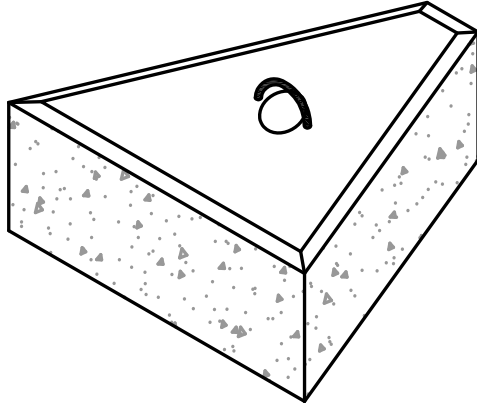
Block #	Length	A	B	C	Block Weight
1	65 in 1652 mm	42 in 1054 mm	48 in 1221 mm	44 in 1124 mm	2600 lbs 1180 kg
2	59 in 1508 mm	36 in 910 mm	42 in 1077 mm	40 in 1022 mm	2330 lbs 1055 kg
3	56 in 1415 mm	30 in 767 mm	37 in 933 mm	36 in 920 mm	2050 lbs 930 kg
4	48 in 1221 mm	25 in 623 mm	31 in 790 mm	32 in 819 mm	1770 lbs 805 kg
5	42 in 1077 mm	19 in 479 mm	25 in 646 mm	28 in 717 mm	1500 lbs 680 kg
6	37 in 933 mm	13 in 336 mm	20 in 502 mm	24 in 616 mm	1220 lbs 555 kg



Block #	Length	A	B	C	Block Weight
1	65 in 1646 mm	25 in 641 mm	25 in 633 mm	19 in 485 mm	2070 lbs 940 kg
2	70 in 1790 mm	31 in 784 mm	31 in 777 mm	23 in 593 mm	2350 lbs 1065 kg
3	76 in 1934 mm	37 in 928 mm	36 in 921 mm	27 in 694 mm	2630 lbs 1195 kg
4	82 in 2077 mm	42 in 1072 mm	42 in 1064 mm	31 in 796 mm	2900 lbs 1315 kg
5	87 in 2221 mm	48 in 1215 mm	48 in 1208 mm	35 in 896 mm	3180 lbs 1445 kg
6	93 in 2365 mm	54 in 1359 mm	53 in 1352 mm	39 in 997 mm	3460 lbs 1570 kg



Block Wt.	2,600 lbs	1,180 kg
Form Wt.	2,455 lbs	1,115 kg
Concrete Volume	0.65 CY	0.50 m ³



Block Wt.	2,040 lbs	925 kg
Form Wt.	3,325 lbs	1,510 kg
Concrete Volume	0.51 CY	0.39 m ³



"The New Image of Stone"



Colored "Ledgestone" Face

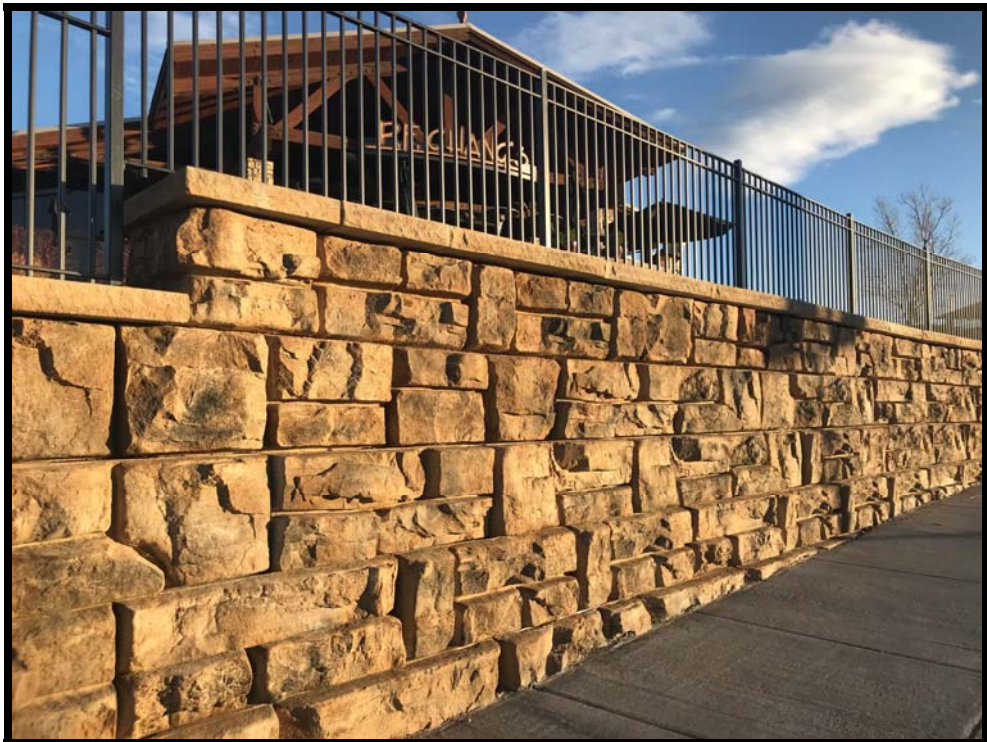
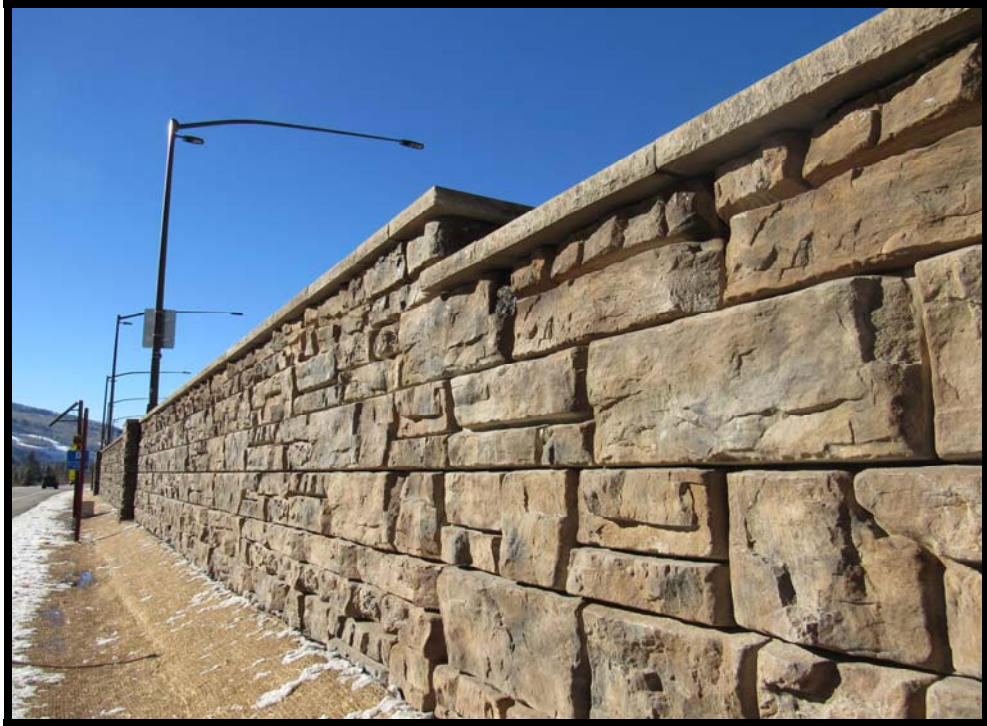




"The New Image of Stone"



Colored "Ledgestone" Face





"The New Image of Stone"



Colored "Ledgestone" Face





"The New Image of Stone"



Colored "Ledgestone" Face



Colored "Cobblestone" Face





"The New Image of Stone"



Colored "Cobblestone" Face

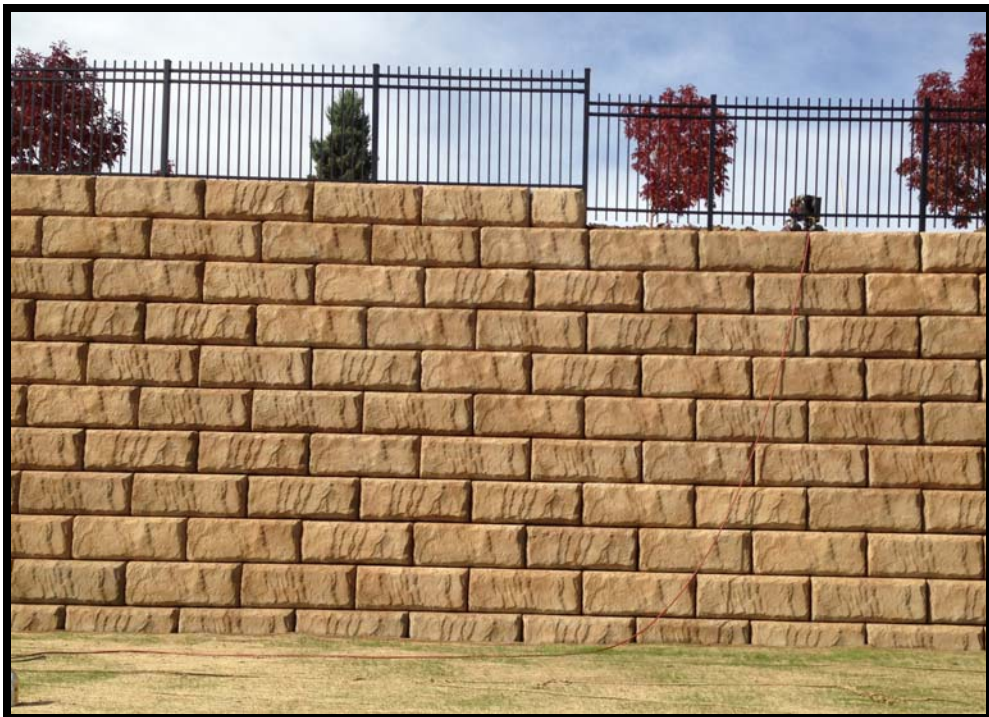




"The New Image of Stone"



Colored "Limestone" Face





"The New Image of Stone"



Colored "Limestone" Face





"The New Image of Stone"



"Limestone" Face without Color

