Development Services Department
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DEVIATION REVIEW AND DECISION FORM

Procedure # R-FM-051-07
Issue Date: 12/31/07
Revision Issued: 00/00/00
DSD FILE NO.:

General Property Information:

Address of Subject Property (Street Number/Name): N/A

Tax Schedule ID(s) #: 52280-00-019, 52270-00-003, 5270-00-004

Legal Description of Property: SEE ATTACHED LEGAL Provide

Subdivision or Project Name:
RETREAT AT TIMBERRIDGE FILING NO. 1

Section of ECM from Which Deviation is Sought: DCM 6.4.2

Specific Criteria from Which a Deviation is Sought:: BOX CULVERT CLASSIFIED AS BRIDGE (100 YR. FLOW GREATER THAN 1500 CFS) SHALL HAVE MINIMUM 2.0' FREEBOARD PROVIDED FOR PASSAGE OF DEBRIS

Proposed Nature and Extent of Deviation: THE DESIGNED BOX CULVERT CROSSING AT POCO ROAD WILL TWO MULTI-PLATE STEEL SINGLE RADIUS ARCH CULVERTS (26' X 8'-6") PROVIDE ADEQUTE CAPACITY TO PASS THE FEMA 100 YR. FLOW OF 2600 CFS WITHOUT 2.0' FREEBOARD GIVEN THE ANTICIPATED CLOMR/LOMR PROCESSING EFFORT CURRENTLY UNDERWAY TO FORMALLY REDUCE FEMA FLOWS CLOSER TO RECENTLY APPROVED STERLING RANCH MDDP FLOWS OF 1523 CFS

Applicant Information:

Applicant: TIMBERRIDGE DEVELOPMENT GROUP, LLC Email Address: LORENM@CLASSICHOMES.COM

Applicant is: X Owner Consultant Contractor

Mailing Address: 6385 CORPORATE DR., SUITE 200 COLO. SPGS. State: CO Postal Code: 80919

Telephone Number: 719-592-9333 Fax Number: 719-457-0123

Engineer Information:

Engineer: MARC A. WHORTON, P.E. Email Address: *MWHORTON@CLASSICCONSULTING.NET*

Company Name: CLASSIC CONSULTING

Mailing Address: 619 N. CASCADE AVE, SUITE 200 COLO. SPGS. State: CO Postal Code: 80903

Registration Number: 37155 State of Registration: CO

Telephone Number: 719-785-2802 Fax Number: 719-785-0799

Explanation of Request (Attached diagrams, figures and other documentation to clarify request):

Section of ECM from Which Deviation is Sought: DCM 6.4.2

Specific Criteria from Which a Deviation is Sought:: BOX CULVERT CLASSIFIED AS BRIDGE (100 YR. FLOW GREATER THAN 1500 CFS) SHALL HAVE MINIMUM 2.0' FREEBOARD PROVIDED FOR PASSAGE OF DEBRIS

Proposed Nature and Extent of Deviation: THE DESIGNED BOX CULVERT CROSSING AT POCO ROAD WILL TWO MULTI-PLATE STEEL SINGLE RADIUS ARCH CULVERTS (26' X 8'-6") ADEQUATELY PASS THE FEMA 100 YR. FLOWS (2600 CFS) BUT WILL NOT PROVIDE FOR 2.0' FREEBOARD WITHIN THE STRUCTURE GIVEN THE FACT THAT OF THE CLOMR/LOMR EFFORT FOR THIS REACH OF SAND CREEK IS ANTICIPATED TO REDUCE THE FEMA FLOWS CLOSER TO THE RECENTLY APPROVED STERLING RANCH MDDP FLOWS OF 1523 CFS. THE PROPOSED BOX CULVERT CROSSING USING TWO MULTI-PLATE STEEL SINGLE RADIUS ARCH CULVERTS (26' X 8'-6") THESE

LOWER MORE REASONABLE FLOWS WILL THEN PROVIDE FOR THE REQUIRED 2.0' FREEBOARD.

Reason for the Requested Deviation: CLOMR/LOMR PROCESSING IS ANTICIPATED TO SIGNIFICANTLY REDUCE THE FEMA 100 YR. FLOWS CLOSER TO THE RECENTLY APPROVED STERLING RANCH MDDP FLOWS. IN ESSENCE WE ARE ASKING FOR THE DEVIATION DURING THIS INTERIM CONDITION PRIOR THE ACCEPTANCE OF THE CLOMR/LOMR

is this right?

Comparison of Proposed Deviation to ECM Standard: DEVIATION REQUESTS NO FREEBOARD WITHIN THE STRUCTURE AND DCM 6.4.2 REQUIRES 2.0 FREEBOARD WITHIN STRUCTURE. HOWEVER, UPON ANTICIPATED ACCEPTANCE OF CLOMR/LOMR PROCESSING THAT REDUCES THE 100 YR. FLOWS, STRUCTURE WILL THEN MEET THE DCM 6.4.2 CRITERIA OF 2.0' FREEBOARD.

Applicable Regional or National Standards used as Basis: N/A

Application Consideration:

CHECK IF APPLICATION MEETS CRITERIA FOR CONSIDERATION	**JUSTIFICATION**
☐ The ECM standard is inapplicable to a particular situation.	
☐ Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.	
■ A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.	WITH THE ACCEPTANCE OF THE MORE RECENT STERLING RANCH 100 YR. FLOWS AS PROVIDED BY THE CLOMR/LOMR PROCESSING, THE PROPOSED STRUCTRE WILL MEET DCM 6.4.2 REQUIREMENT. IN THE INTERIM, THE STRUCTURE CONTINUES TO ALLOW ADEQUATE CAPACITY TO PASS THE FEMA 100 YR. FLOWS OF 2600 CFS WITHOUT OVERTOPPING.

If at least one of the criteria listed above is not met, this application for deviation cannot be considered.

Criteria for Approval:

PLEASE EXPLAIN HOW EACH OF THE FOLLOWING CRITERIA HAVE BEEN SATISFIED BY THIS REQUEST

The request for a deviation is not based exclusively on financial considerations.	THE REQUEST IS TO ALOW FOR THE APPROVAL AND CONSTRUCTION OF A SMALLER, RESONABLE SIZED STRUCTURE THAT CONTINUES TO ALLOW ADEQUATE CAPACITY TO PASS THE LARGER FEMA FLOWS IN THE INTERIM CONDITION AND WILL ULTIMATELY BE OWNED AND MAINTAINED BY EL PASO COUNTY
The deviation will achieve the intended result with a comparable or superior design and quality of improvement.	THE PROPOSED STRUCTURE WILL CONTINUE TO ALLOW FOR THE ADEQUATE PASSAGE OF THE LARGER FEMA FLOWS WHILE KEEPING A NATURAL CHANNEL BOTTOM. TWO MULTI-PLATE STEEL SINGLE RADIUS ARCH CULVERTS (26' X 8'-6")

The deviation will not adversely affect safety or operations.	THE PROPOSED STRUCTUE WILL CONTINUE TO SAFELY PASS THE LARGER FEMA FLOWS IN THE INTERIM AND THEN THE MDDP FLOWS MEETING ALL CRITERIA UPON ACCEPTANCE OF THE CLOMR/LOMR PROCESSING.
The deviation will not adversely affect maintenance and its associated cost.	THE ANTICIPATED MAINTENANCE COSTS SHOULD ACTUALLY BE LESS GIVEN THE SMALLER STRUCTURE
The deviation will not adversely affect aesthetic appearance.	NO SIGNIFICANT DIFFERNECE IN AESTHETIC APPEARANCE

Owner, Applicant and Engineer Declaration:
To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

V.P. 8/22/19

Signature of owner (or authorized representative) Date

Signature of applicant (if different from owner) Date

8/22/19

Signature of Engineer Date

Engineer's Seal

COLORADO REGISTERED GREG ALAN WHORTON PROFESSIONAL ENGINEER 8/22/19

El Paso County Procedures Manual
Procedure # R-FM-051-07
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DSD File No.

Review and Recommendation:
APPROVED by the ECM Administrator

Date

This request has been determined to have met the criteria for approval. A deviation from Section of ECM is hereby granted based on the justification provided. Comments:

APPLICANT OR OTHERS SHALL RECEIVE APPROVAL OF A LETTER OF MAP REVSION FROM FEMA REFLECTING THE RECALCULATED 100-YR FLOW PRIOR TO FINAL COUNTY ACCEPTANCE OF POCO ROAD AND THE CULVERT STRUCTURE

Additional comments or information are attached.

DENIED by the ECM Administrator

Date

This request has been determined not to have met criteria for approval. A deviation from Section of ECM is hereby denied. Comments:

Additional comments or information are attached.

Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Jul 30 2019

Two Cell Multi-plate Steel Single Arch Culverts (26'x8.6' equiv.) Flows FEMA Flows

Invert Elev Dn (ft)	=	7172.00
Pipe Length (ft)	=	130.00
Slope (%)	=	3.08
Invert Elev Up (ft)	=	7176.00
Rise (in)	=	122.0
Shape	=	Arch
Span (in)	=	244.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Arch Corrugated Metal
Culvert Entrance	=	90D headwall (A)
Coeff. K,M,c,Y,k	=	0.0083, 2, 0.0379, 0.69, 0.5

Embankment

Top Elevation (ft)	=	7192.00
Top Width (ft)	=	100.00
Crest Width (ft)	=	140.00

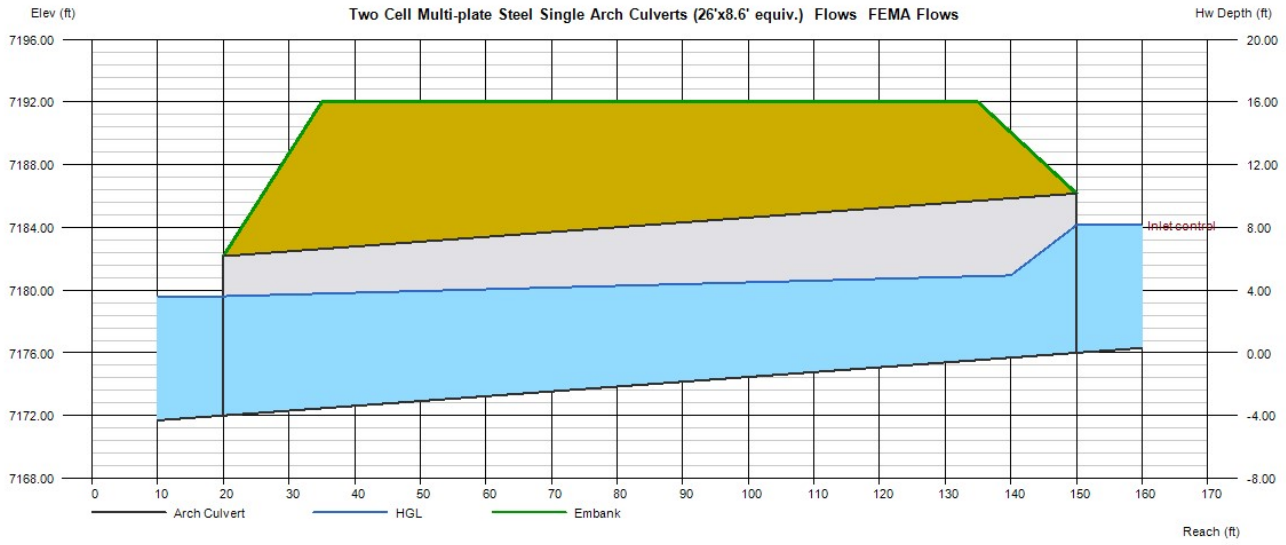
Calculations

Qmin (cfs)	=	2600.00
Qmax (cfs)	=	2600.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	2600.00
Qpipe (cfs)	=	2600.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	9.37
Veloc Up (ft/s)	=	13.22
HGL Dn (ft)	=	7179.61
HGL Up (ft)	=	7181.05
Hw Elev (ft)	=	7184.15
Hw/D (ft)	=	0.80
Flow Regime	=	Inlet Control

Is this correct? See comment letter regarding material.



Culvert Report

Two Cell Multi-plate Steel Single Arch Culverts (26'x8.6' equiv.) DBPS Flows

Invert Elev Dn (ft)	=	7172.00
Pipe Length (ft)	=	130.00
Slope (%)	=	3.08
Invert Elev Up (ft)	=	7176.00
Rise (in)	=	122.0
Shape	=	Arch
Span (in)	=	244.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Arch Corrugated Metal
Culvert Entrance	=	90D headwall (A)
Coeff. K,M,c,Y,k	=	0.0083, 2, 0.0379, 0.69, 0.5

Embankment

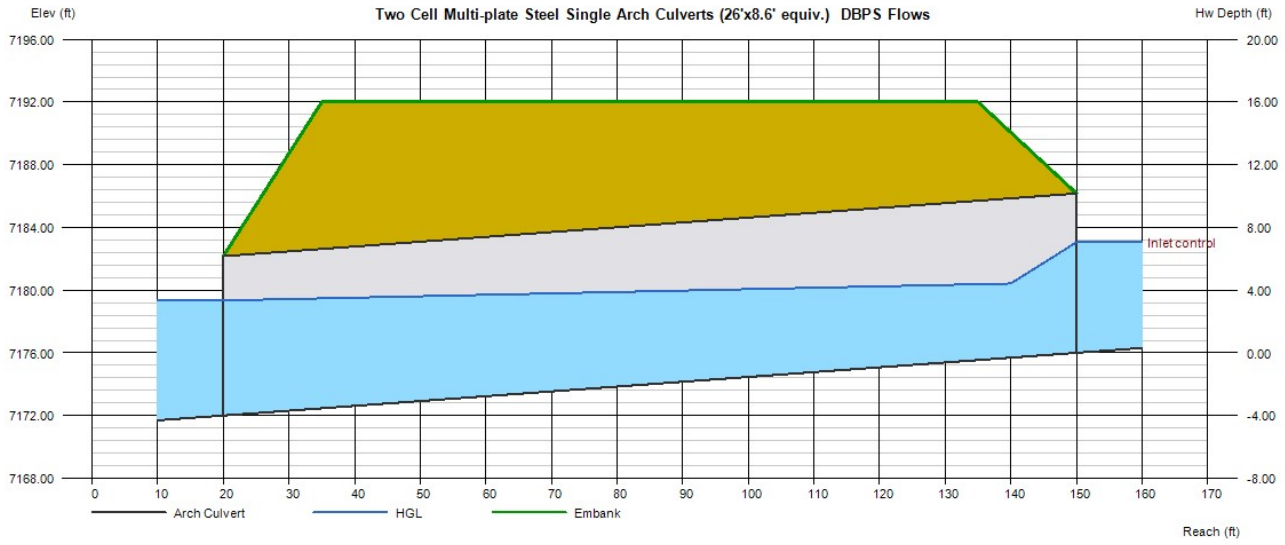
Top Elevation (ft)	=	7192.00
Top Width (ft)	=	100.00
Crest Width (ft)	=	140.00

Calculations

Qmin (cfs)	=	2170.00
Qmax (cfs)	=	2170.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	2170.00
Qpipe (cfs)	=	2170.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	8.04
Veloc Up (ft/s)	=	12.24
HGL Dn (ft)	=	7179.34
HGL Up (ft)	=	7180.51
Hw Elev (ft)	=	7183.06
Hw/D (ft)	=	0.69
Flow Regime	=	Inlet Control



Culvert Report

Two Cell Multi-plate Steel Single Arch Culverts (26'x8.6' equiv.) MDDP Flows

Invert Elev Dn (ft)	=	7172.00
Pipe Length (ft)	=	130.00
Slope (%)	=	3.08
Invert Elev Up (ft)	=	7176.00
Rise (in)	=	122.0
Shape	=	Arch
Span (in)	=	244.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Arch Corrugated Metal
Culvert Entrance	=	90D headwall (A)
Coeff. K,M,c,Y,k	=	0.0083, 2, 0.0379, 0.69, 0.5

Embankment

Top Elevation (ft)	=	7192.00
Top Width (ft)	=	100.00
Crest Width (ft)	=	140.00

Calculations

Qmin (cfs)	=	1523.00
Qmax (cfs)	=	1523.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	1523.00
Qpipe (cfs)	=	1523.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.94
Veloc Up (ft/s)	=	10.68
HGL Dn (ft)	=	7178.87
HGL Up (ft)	=	7179.58
Hw Elev (ft)	=	7181.38
Hw/D (ft)	=	0.53
Flow Regime	=	Inlet Control