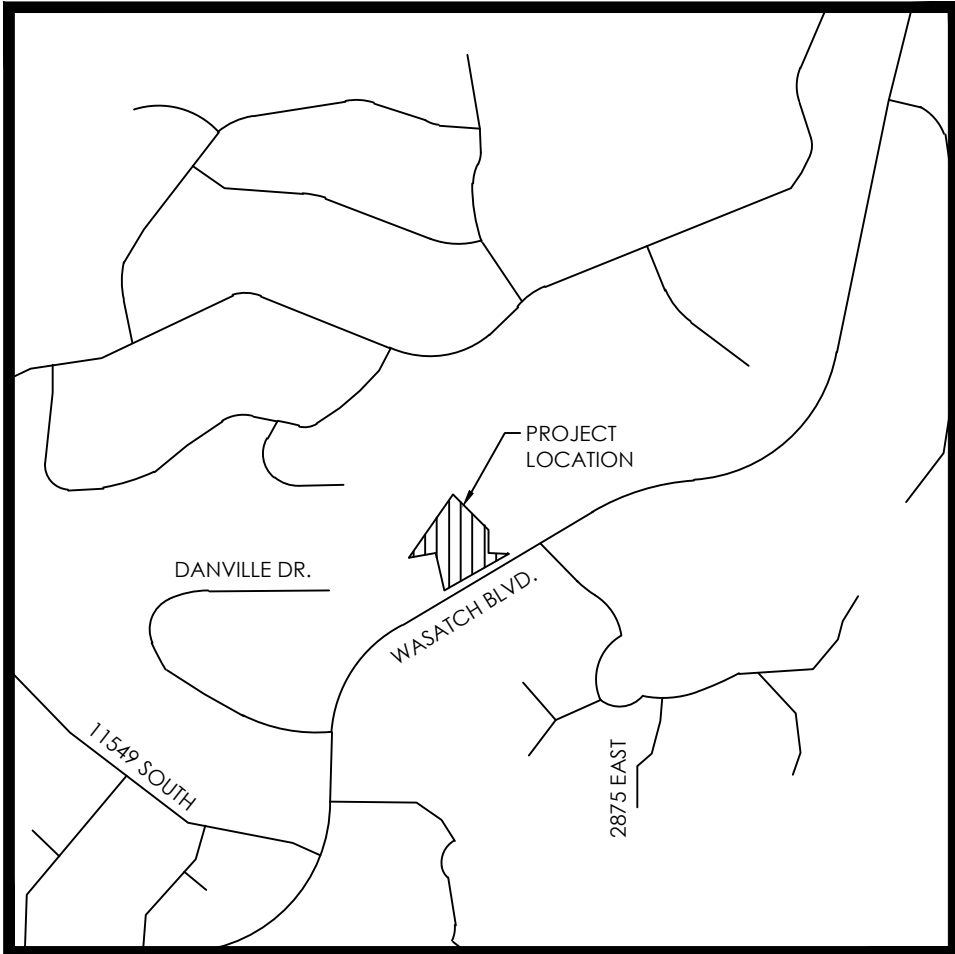
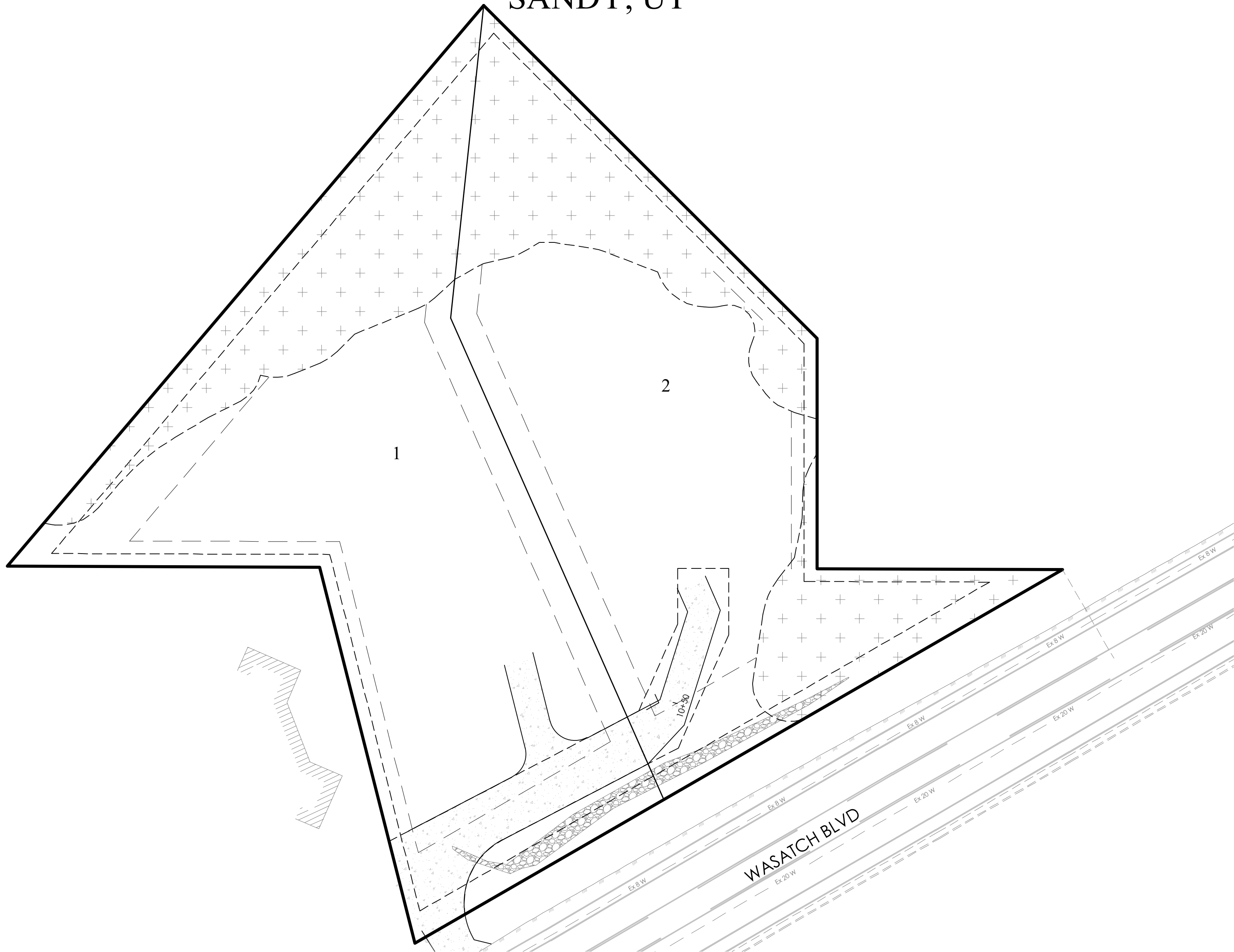


FALLS CREEK ESTATES

PREPARED FOR:
IVORY HOMES
LOCATED IN:
SANDY, UT



VICINITY MAP
NTS



SITE MAP

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
C1	COVER
C2	PRELIMINARY PLAT
C3	SITE AND UTILITY PLAN
C4	GRADING AND DRAINAGE PLAN

GENERAL NOTES

- CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- ANY AND ALL DISCREPANCIES IN THESE PLANS ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- ALL CONSTRUCTION SHALL ADHERE TO SANDY CITY STANDARD PLANS AND SPECIFICATIONS.
- ALL UTILITIES AND ROAD IMPROVEMENTS SHOWN ON THE PLANS HEREIN SHALL BE CONSTRUCTED USING REFERENCE TO SURVEY CONSTRUCTION STAKES PLACED UNDER THE SUPERVISION OF A PROFESSIONAL LICENSED SURVEYOR WITH A CURRENT LICENSE ISSUED BY THE STATE OF UTAH. ANY IMPROVEMENTS INSTALLED BY ANY OTHER VERTICAL OR HORIZONTAL REFERENCE WILL NOT BE ACCEPTED OR CERTIFIED BY THE ENGINEER OF RECORD.
- THIS DRAWING SET IS SCALED TO BE PRINTED ON A 24" X 36" SIZE OF PAPER (ARCH D). IF PRINTED ON A SMALLER PAPER SIZE, THE DRAWING WILL NOT BE TO SCALE AND SHOULD NOT BE USED TO SCALE MEASUREMENTS FROM THE PAPER DRAWING. ALSO USE CAUTION, AS THERE MAY BE TEXT OR DETAIL THAT MAY BE OVERLOOKED DUE TO THE SMALL SIZE OF THE DRAWING.

NOTICE

BEFORE PROCEEDING WITH THIS WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ALL CONDITIONS, QUANTITIES, DIMENSIONS, AND GRADE ELEVATIONS, AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER.

ENGINEER'S NOTES TO CONTRACTOR

- THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS, TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. IF UTILITY LINES ARE ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT IDENTIFIED BY THESE PLANS, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
- CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
- ALL CONTOUR LINES SHOWN ON THE PLANS ARE AN INTERPRETATION BY CAD SOFTWARE OF FIELD SURVEY WORK PERFORMED BY A LICENSED SURVEYOR. DUE TO THE POTENTIAL DIFFERENCES IN INTERPRETATION OF CONTOURS BY VARIOUS TYPES OF GRADING SOFTWARE BY OTHER ENGINEERS OR CONTRACTORS, FOCUS DOES NOT GUARANTEE OR WARRANTY THE ACCURACY OF SUCH LINEWORK. FOR THIS REASON, FOCUS WILL NOT PROVIDE ANY GRADING CONTOURS IN CAD FOR ANY TYPE OF USE BY THE CONTRACTOR. SPOT ELEVATIONS AND PROFILE ELEVATIONS SHOWN IN THE DESIGN DRAWINGS GOVERN ALL DESIGN INFORMATION ILLUSTRATED ON THE APPROVED CONSTRUCTION SET. CONSTRUCTION EXPERTISE AND JUDGMENT BY THE CONTRACTOR IS ANTICIPATED BY THE ENGINEER TO COMPLETE BUILD-OUT OF THE INTENDED IMPROVEMENTS.

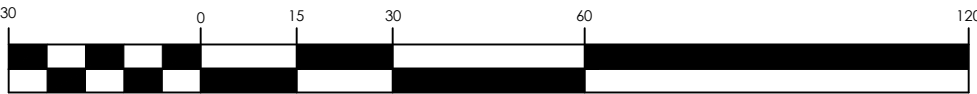
CONTACTS

ENGINEER & SURVEYOR
FOCUS ENGINEERING & SURVEYING, LLC
6949 S. HIGH TECH DRIVE SUITE 200
MIDVALE, UTAH 84047
(801) 352-0075
PROJECT MANAGER: MAT WANGSGAARD, PE
SURVEY MANAGER: JUSTIN LUNDBERG, PLS

OWNER/DEVELOPER
IVORY DEVELOPMENT
978 WOODOAK LANE
SALT LAKE CITY, UTAH 84117
(385) 522-4859
CONTACT: GREG TIMOTHY



GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.



FALLS CREEK ESTATES

SANDY, UT
COVER

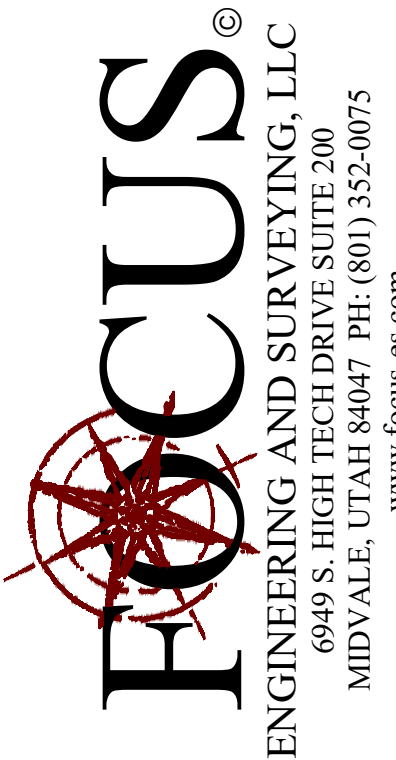
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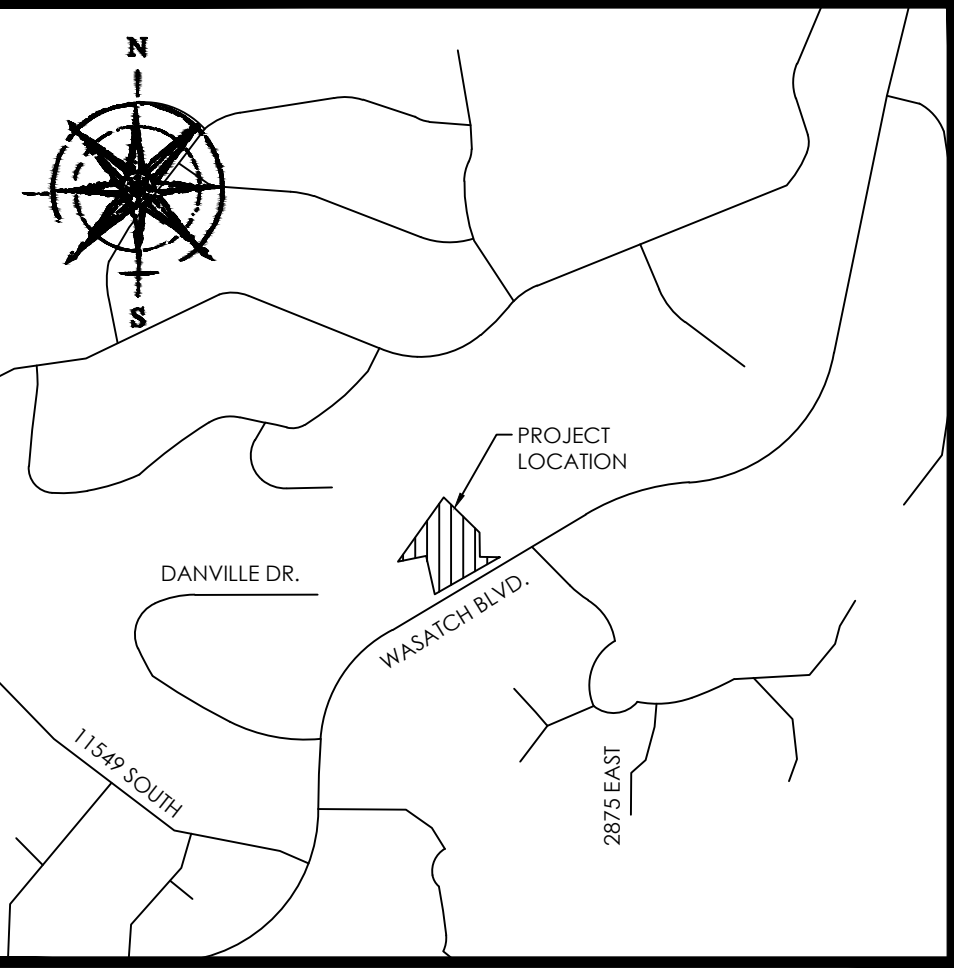
COVER

Scale: 1"=30'
Date: 11/05/25
Sheet:

Drawn: BMD
Job #: 18-299

C1





VICINITY MAP

N.T.S

LEGEND

	BOUNDARY
	SECTION LINE
	EASEMENT
	RIGHT-OF-WAY LINE
	BUILDING SETBACK
	EXISTING PROPERTY LINE
	SECTION MONUMENT (FOUND)
	BOUNDARY MARKER
	30% SLOPE (NO BUILD AREA)

NOTES:

- #5 x 24" REBAR & CAP (FOCUS ENG) TO BE SET AT ALL LOT CORNERS, NAILS OR PLUGS TO BE SET IN TOP BACK OF CURB AT EXTENSION OF SIDE LOT LINES.
- NO DRIVEWAY SHALL BE CONSTRUCTED TO CONVEY STORM WATER RUNOFF TOWARD ANY BUILDING.
- EACH RESIDENTIAL LOT IS REQUIRED TO RETAIN STORM WATER ON SITE, EXCEPT FOR THE PORTION OF THE LOT THAT DRAINS TOWARD THE STREET AND/OR TO SUBDIVISION STORM WATER FLOW CONTROL FEATURE(S) AS LONG AS THE DOWNSTREAM STORM WATER SYSTEM CAN ACCOMMODATE THE FLOWS, DURING AND AFTER CONSTRUCTION. THIS CAN BE ACCOMPLISHED BY USE OF SWALES, RETENTION AREAS, BERMS, PLANTER BEDS, UNDERGROUND INFILTRATION, ETC.
- PROPERTIES ARE TO BE GRADED SUCH THAT STORM WATER RUNOFF WILL DRAIN AWAY FROM STRUCTURES AND TOWARDS PROPERTY BOUNDARIES. HOWEVER, NEW DEVELOPMENT OR REDEVELOPMENT SHALL NOT INCREASE THE BURDEN OF STORM WATER ON NEIGHBORING AND/OR DOWNSTREAM PROPERTIES. STORM WATER RUNOFF SHALL, BY ENTIRELY CONTROLLED WITHIN THE LIMITS OF PROJECT SITE. PERPETRATING PROPERTY OWNERS MAY BE LIABLE FOR DAMAGES IN CIVIL COURTS DUE TO DAMAGES CAUSE TO ADJACENT PROPERTIES FROM RUNOFF (INCLUDING FLOWS THAT EXISTED BEFORE THE NEW DEVELOPMENT OR REDEVELOPMENT OCCURRED). ANY CONCENTRATED FLOWS LEAVING A SITE SHALL HAVE AN AGREEMENT/EASEMENT WITH THE AFFECTED PROPERTY OWNERS.
- NO DWELLINGS OR ACCESSORY STRUCTURES SHALL BE CONSTRUCTED WITHIN AN AVERAGE OF 20 FEET (NO POINT BEING CLOSER THAN TEN FEET) OF A CONTINUOUS HILLSIDE SLOPE (UPSLOPE OR DOWNSLOPE) OF 30 PERCENT OR GREATER.

30% Slope Area Curve Table					
CURVE	RADIUS	DELTA	LENGTH	CHORD DIRECTION	CHORD LENGTH
(C1)	20.00	18°58'46"	6.63	N46°40'08"W	6.59
(C2)	15.00	62°53'58"	16.47	N05°43'46"W	15.65
(C3)	10.00	131°09'42"	22.89	N39°51'38"W	18.21
(C4)	15.00	17°29'51"	4.58	S83°18'26"W	4.56
(C5)	20.00	69°39'56"	24.32	N53°06'40"W	22.85
(C6)	20.00	18°23'55"	6.42	S68°18'08"W	6.39
(C7)	20.00	20°52'51"	7.29	S57°36'00"W	7.25
(C8)	20.00	22°41'18"	7.92	S56°03'37"W	7.87
(C9)	20.00	39°00'07"	13.61	S86°54'19"W	13.35
(C10)	15.00	49°47'38"	13.04	S37°51'21"W	12.63
(C11)	90.00	17°57'16"	28.20	S50°17'49"W	28.09
(C12)	20.00	9°11'54"	3.21	N80°05'30"W	3.21
(C13)	20.00	53°59'22"	18.85	S68°18'52"W	18.16
(C14)	20.00	26°06'34"	9.11	N14°50'34"E	9.04
(C15)	30.00	29°24'57"	15.40	N23°18'55"E	15.23
(C16)	15.00	106°29'18"	27.88	N54°01'40"W	24.04

W1/4 CORNER OF
SECTION 23, T3S, R1E, SLB&M
(FOUND 2" BRASS DOME)
SALT LAKE COUNTY MONUMENT

BASIS OF BEARING: S89°49'13"E MEASURED: 2,653.51
842.15

POINT OF
BEGINNING

LOT 1
28-23-301-019
MASON, KIRK AND
TIFFANEY

LOT 2
28-23-301-014
MALLON, JOHN E. AND
MCDONALD, KELLI L.

DRIGGS
SUBDIVISION
BK-93-10
PG-284

COMMON DRIVEWAY
EASEMENT PER DRIGGS
SUBDIVISION PLAT

LOT 1043
28-23-153-013
LEWIS, JULIE

LOT 1042
28-23-153-012
EVANS, REID G.

PEPPERWOOD
PHASE 10B
BK: 2002P
PG: 97

LOT 2
28-23-177-004
CHAPMAN, DAVID

PEPPERWOOD
TERRACE #1
BK: 84-9
PG:140

LOT 1
28-23-153-017
ELSHOLZ, JOHN F. AND
JOCELYN

2877 E WASATCH BLVD

2873 E WASATCH BLVD

UTILITY EASEMENT

ACCESS EASEMENT RECORDED
AS ENTRY #1440207
(S89°25'51"W 7.34')

(R=28.00')
(A=71°19'51")
(L=34.86')
(CH=S26°45'25"W 32.65')

ENBRIDGE GAS UTAH

Questar Gas Company, dba Enbridge Gas Utah ("Enbridge"), approves this plat solely to confirm that the plat contains public utility easements. This approval does not (a) affect any right Enbridge has under Title 54, Chapter 8a, a recorded easement or right-of-way, prescriptive rights, or any provision of law; (b) constitute acceptance of any terms contained in any portion of the plat; and (c) guarantee any terms or waive Enbridge's right to require additional easements for gas service.

QUESTAR GAS COMPANY
dba ENBRIDGE GAS UTAH

Approved this ____ DAY OF _____ A.D. 20 ____

By: _____

Title: _____

30% Slope Area Line Table		
LINE	DIRECTION	LENGTH
(L1)	N74°10'46"W	9.22
(L2)	N66°04'52"W	6.96
(L3)	N37°10'45"W	6.01
(L4)	N87°56'38"W	2.55
(L5)	N69°07'42"W	24.50
(L6)	N80°58'35"W	17.63
(L7)	S89°47'38"W	5.90
(L8)	S59°06'11"W	7.04
(L9)	S77°30'06"W	9.98
(L10)	S60°54'20"W	12.84
(L11)	S47°09'34"W	10.84
(L12)	S68°02'26"W	27.04
(L13)	S44°42'58"W	9.63
(L14)	S67°24'16"W	10.85
(L15)	S62°45'10"W	14.23
(L16)	S59°16'27"W	15.18
(L17)	S41°19'11"W	12.66
(L18)	N84°41'27"W	1.21
(L19)	N08°36'27"E	27.47
(L20)	N38°01'23"E	10.22
(L21)	N10°59'10"E	15.63
(L22)	N01°47'17"E	10.82
(L23)	N27°53'51"E	6.67

SURVEYOR'S CERTIFICATE

I, Evan J. Wood, do hereby certify that I am a Professional Land Surveyor, and that I hold License No. 183395 in accordance with Title 58, Chapter 22 of Utah State Code. I further certify by authority of the owners(s) that I have completed a Survey of the property described on this Plat in accordance with Section 17-23-17 of said Code, and have subdivided said tract of land into lots, streets, and easements, and the same has, or will be correctly surveyed, staked and monumented on the ground as shown on this Plat, and that this Plat is true and correct.

FOR REVIEW ONLY

EVAN J. WOOD
PROFESSIONAL LAND SURVEYOR
LICENSE NO. 183395

DATE

BOUNDARY DESCRIPTION

The entire tract contained in a Special Warranty Deed, recorded as Entry #12557183 in Book 10568, Page 3109, in the Salt Lake County Recorder's Office, comprised of all of two (2) parcels identified by Salt Lake County Tax Id. Numbers 28-23-153-015 & 28-23-301-015. Situate in the NW1/4 and the SW1/4 of Section 23, Township 3 South, Range 1 East, Salt Lake Base and Meridian, said boundary line being more particularly described as follows:

Beginning at the southerly corner of Lot 1042, Pepperwood Phase 10B Subdivision, recorded as Entry #8218208 in Book 2002P, Page 97, in the Salt Lake County Recorder's Office, said point being S89°49'13"E 842.27 feet along the quarter section line from the West Quarter Corner of Section 23, Township 3 South, Range 1 East, Salt Lake Base and Meridian; and running thence along the southeasterly line of said Pepperwood Phase 10B Subdivision N40°20'00"E 287.42 feet to the westerly corner of Lot 2 of Pepperwood Terrace #1 Subdivision recorded as Entry #3997929 in Book 84-9, Page 140, in the Salt Lake County Recorder's Office; thence along said Pepperwood Terrace #1 Subdivision following the following three (3) courses, (1) S45°00'00"E 184.00 feet; thence (2) South 89.98 feet; thence (3) S89°49'13"E 95.90 feet to the easterly corner of Lot 3, Driggs Subdivision, recorded as Entry #5630864 in Book 93-10, Page 284, in the Salt Lake County Recorder's Office; thence along said Driggs Subdivision following the following two (2) courses, (1) S60°00'00"W 292.07 feet; thence (2) N14°09'23"W 151.55 feet to the quarter section line; thence along said quarter section line N89°49'13"W 122.02 feet to the point of beginning.

Contains: 61,868 square feet or 1.42 acres +/-
2 LOTS

OWNER'S DEDICATION

KNOWN ALL BY THESE PRESENT THAT THE UNDERSIGNED IS/ARE THE OWNER(S) (HEREAFTER, "THE UNDERSIGNED OWNERS") OF THE ABOVE-DESCRIBED TRACT OF LAND AND THAT THE UNDERSIGNED OWNERS DO HEREBY ESTABLISHED, WITHIN SAID TRACT OF LAND, EASEMENTS, AS SET FORTH, SAID TRACT OF LAND TO BE HEREAFTER KNOWN AS

FALLS CREEK ESTATES SUBDIVISION

AND THAT THE UNDERSIGNED OWNERS DO HEREBY CONVEY TO ANY AND ALL PUBLIC UTILITY COMPANIES A PERPETUAL, NON-EXCLUSIVE PUBLIC UTILITY EASEMENT AS SHOWN ON THIS PLAT, THE SAME TO BE USED FOR THE INSTALLATION, MAINTENANCE AND OPERATION OF PUBLIC UTILITY LINES AND FACILITIES. THE UNDERSIGNED OWNERS ALSO DO HEREBY CONVEY A WATERLINE AND STREETLIGHT EASEMENT TO SANDY CITY, AND ANY OTHER EASEMENT, AS SHOWN ON THIS PLAT, TO THE PARTIES INDICATED BY THOSE EASEMENTS, THE SAME TO BE USED FOR THE INSTALLATION, MAINTENANCE AND OPERATION OF THE FACILITIES, OR FOR OTHER TYPICAL PURPOSES, INDICATED BY THOSE EASEMENTS, AS SHOWN HEREON.

IN WITNESS WHEREOF, I/WE HAVE HEREUNTO SET MY/OUR HANDS THIS ____ DAY OF _____ A.D. 20 ____

NOTARY PUBLIC ACKNOWLEDGMENT

STATE OF UTAH
S.S.
COUNTY OF SALT LAKE

ON THE ____ DAY OF _____, 2025 PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, _____, WHO, BEING BY ME DULY SWORN, DID SAY THAT HE/SHE IS THE _____ OF _____ L.L.C., A LIMITED LIABILITY COMPANY, AND THAT THE FOREGOING OWNER'S DEDICATION WAS SIGNED FOR, AND IN BEHALF OF, SAID LIMITED LIABILITY COMPANY, AND HE/SHE ACKNOWLEDGED TO ME THAT SAID LIMITED LIABILITY COMPANY EXECUTED THE SAME.

MY COMMISSION EXPIRES: _____ A NOTARY PUBLIC COMMISSIONED IN UTAH RESIDING IN _____ COUNTY

MY COMMISSION No. _____ PRINTED FULL NAME OF NOTARY _____

FALLS CREEK ESTATES

AMENDING AND EXTENDING LOT 3, DRIGGS SUBDIVISION

LOCATED IN THE NW 1/4 & SW 1/4 OF SECTION 23, T3S, R1E,
SALT LAKE BASE & MERIDIAN
SANDY CITY, SALT LAKE COUNTY, UTAH

EASEMENT APPROVAL

CENTURY LINK DATE _____

ROCKY MOUNTAIN POWER DATE _____

ENBRIDGE GAS DATE _____

COMCAST DATE _____

SANDY CITY MAYOR

PRESENTED TO THE SANDY CITY MAYOR THIS ____ DAY OF _____, A.D. 20 ____ AT WHICH TIME THE SUBDIVISION WAS APPROVED AND ACCEPTED.

MAYOR _____

ATTEST: SANDY CITY RECORDER _____ SEAL

CONDITIONS OF APPROVAL:

- THAT ALL LOTS COMPLY WITH ALL REQUIREMENTS OF THE PUD(2) ZONE. THAT THE REQUIREMENTS OF THE R-1-10 ZONE BE APPLIED.
- THAT ALL LOTS COMPLY WITH ALL STANDARDS OF THE SENSITIVE AREA OVERLAY ZONE.
- THAT DWELLINGS BE PROHIBITED WITHIN AN AVERAGE OF 20 FEET (NO POINT BEING CLOSER THAN 10 FEET) OF A CONTINUOUS HILLSIDE SLOPE (UPSLOPE OR DOWNSLOPE) OF 30% OR GREATER.
- THAT ANY AREA EQUAL TO OR IN EXCESS OF 30% SLOPE BE INDICATED (CROSS-HATCHED) ON THE FINAL PLAT, AND THAT PROSPECTIVE BUILDERS AND HOMEBUYERS BE APPRAISED OF THE RESTRICTIVE NATURE OF THE HILLSIDE LOTS.
- THAT NO GRADING, CURBS, FILLS, TERRACING OR VEGETATION REMOVAL BE ALLOWED ON A CONTINUOUS HILLSIDE CREST (UPSLOPE OR DOWNSLOPE) OR A SLOPE OF 30% OR GREATER UNLESS OTHERWISE DETERMINED BY THE PLANNING COMMISSION UPON RECOMMENDATION OF THE ENGINEERING DEPARTMENT.

SANDY CITY PARKS AND REC.

APPROVED THIS ____ DAY OF _____, A.D. 20 ____

DIRECTOR

PUBLIC UTILITIES DEPARTMENT

APPROVED THIS ____ DAY OF _____, A.D. 20 ____

ENGINEERING MANAGER

SALT LAKE COUNTY HEALTH DEPT.

APPROVED THIS ____ DAY OF _____, A.D. 20 ____

REPRESENTATIVE

APPROVAL AS TO FORM

APPROVED THIS ____ DAY OF _____, A.D. 20 ____

CITY ATTORNEY

PLANNING COMMISSION

APPROVED THIS ____ DAY OF _____, A.D. 20 ____, BY THE SANDY CITY PLANNING COMMISSION.

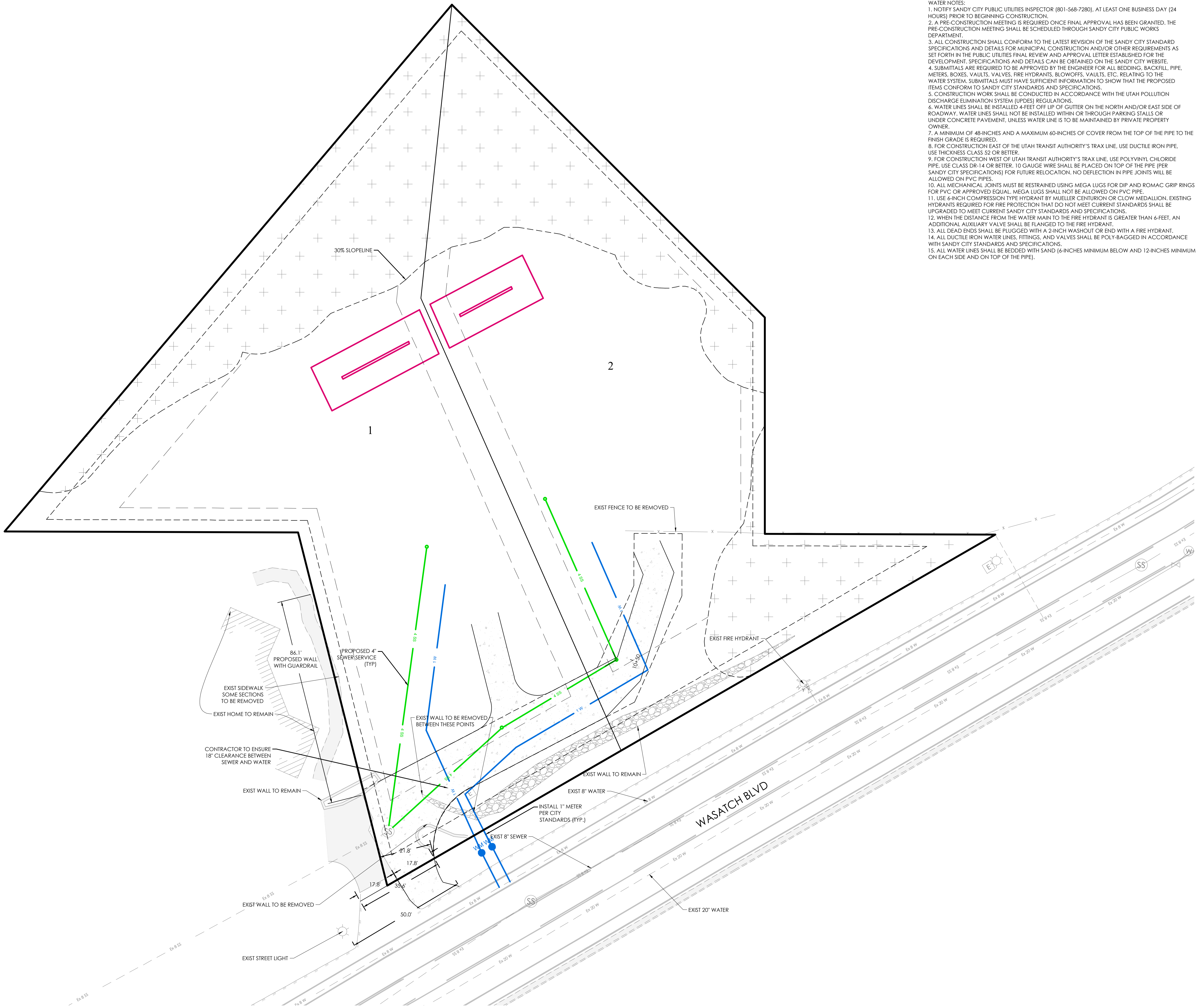
REPRESENTATIVE

SANDY CITY ENGINEER

APPROVED THIS ____ DAY OF _____, A.D. 20 ____

CITY ENGINEER

NOT TO BE RECORDED

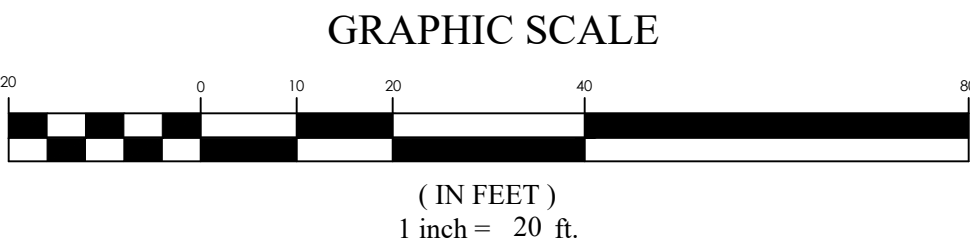


- WATER NOTES:
1. NOTIFY SANDY CITY PUBLIC UTILITIES INSPECTOR (801-568-7280), AT LEAST ONE BUSINESS DAY (24 HOURS) PRIOR TO BEGINNING CONSTRUCTION.
 2. A PRE-CONSTRUCTION MEETING IS REQUIRED ONCE FINAL APPROVAL HAS BEEN GRANTED. THE PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED THROUGH SANDY CITY PUBLIC WORKS DEPARTMENT.
 3. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REVISION OF THE SANDY CITY STANDARD SPECIFICATIONS AND DETAILS FOR MUNICIPAL CONSTRUCTION AND/OR OTHER REQUIREMENTS AS SET FORTH IN THE PUBLIC UTILITIES FINAL REVIEW AND APPROVAL LETTER ESTABLISHED FOR THE DEVELOPMENT. SPECIFICATIONS AND DETAILS CAN BE OBTAINED ON THE SANDY CITY WEBSITE.
 4. SUBMITTALS ARE REQUIRED TO BE APPROVED BY THE ENGINEER FOR ALL BEDDING, BACKFILL, PIPE, METERS, BOXES, VAULTS, VALVES, FIRE HYDRANTS, BLOWOFFS, VAULTS, ETC., RELATING TO THE WATER SYSTEM. SUBMITTALS MUST HAVE SUFFICIENT INFORMATION TO SHOW THAT THE PROPOSED ITEMS CONFORM TO SANDY CITY STANDARDS AND SPECIFICATIONS.
 5. CONSTRUCTION WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM (UPDES) REGULATIONS.
 6. WATER LINES SHALL BE INSTALLED 4-FEET OFF UP OF GUTTER ON THE NORTH AND/OR EAST SIDE OF ROADWAY. WATER LINES SHALL NOT BE INSTALLED WITHIN OR THROUGH PARKING STALLS OR UNDER CONCRETE PAVEMENT, UNLESS WATER LINE IS TO BE MAINTAINED BY PRIVATE PROPERTY OWNER.
 7. A MINIMUM OF 48-INCHES AND A MAXIMUM 60-INCHES OF COVER FROM THE TOP OF THE PIPE TO THE FINISH GRADE IS REQUIRED.
 8. FOR CONSTRUCTION EAST OF THE UTAH TRANSIT AUTHORITY'S TRAX LINE, USE DUCTILE IRON PIPE, USE THICKNESS CLASS S2 OR BETTER.
 9. FOR CONSTRUCTION WEST OF UTAH TRANSIT AUTHORITY'S TRAX LINE, USE POLYVINYL CHLORIDE PIPE, USE CLASS DR-14 OR BETTER. 10 GAUGE WIRE SHALL BE PLACED ON TOP OF THE PIPE (PER SANDY CITY SPECIFICATIONS) FOR FUTURE RELOCATION. NO DEFLECTION IN PIPE JOINTS WILL BE ALLOWED ON PVC PIPES.
 10. ALL MECHANICAL JOINTS MUST BE RESTRAINED USING MEGA LUGS FOR DIP AND ROMAC GRIP RINGS FOR PVC OR APPROVED EQUAL. MEGA LUGS SHALL NOT BE ALLOWED ON PVC PIPE.
 11. USE 4-INCH COMPRESSION TYPE HYDRANT BY MUELLER CENTURION OR CLOW MEDALLION. EXISTING HYDRANTS REQUIRED FOR FIRE PROTECTION THAT DO NOT MEET CURRENT STANDARDS SHALL BE UPGRADED TO MEET CURRENT SANDY CITY STANDARDS AND SPECIFICATIONS.
 12. WHEN THE DISTANCE FROM THE WATER MAIN TO THE FIRE HYDRANT IS GREATER THAN 6-FEET, AN ADDITIONAL AUXILIARY VALVE SHALL BE FLANGED TO THE FIRE HYDRANT.
 13. ALL DEAD ENDS SHALL BE PLUGGED WITH A 2-INCH WASHOUT OR END WITH A FIRE HYDRANT.
 14. ALL DUCTILE IRON WATER LINES, FITTINGS, AND VALVES SHALL BE POLY-BAGGED IN ACCORDANCE WITH SANDY CITY STANDARDS AND SPECIFICATIONS.
 15. ALL WATER LINES SHALL BE BEDDED WITH SAND (6-INCHES MINIMUM BELOW AND 12-INCHES MINIMUM ON EACH SIDE AND ON TOP OF THE PIPE).

LEGEND	
	BOUNDARY
	ROW
	CENTERLINE
	LOT LINE
	EASEMENT
	15" STORM DRAIN
	8" SANITARY SEWER
	8" CULINARY WATER
	8" SECONDARY WATER
	CONTOUR MAJOR
	CONTOUR MINOR
	EXIST. STORM DRAIN
	EXIST. SANITARY SEWER
	EXIST. CULINARY WATER
	EXIST. FENCE
	EXIST. CONTOUR MAJOR
	EXIST. CONTOUR MINOR
	SIGN
	STREET LIGHT
	SD MIL INLET, AND COMBO
	SEWER MANHOLE
	VALVE, TEE & BEND
	WATER BLOW-OFF
	FIRE HYDRANT
	STREET MONUMENT (TO BE SET)
	EXIST. SD INLET & MH
	EXIST. SEWER MH
	EXIST. VALVE, TEE, & BEND
	EXIST. FIRE HYDRANT
	SPOT ELEVATION
	10' SLOPE OFFSET
	30% SLOPE (NO BUILD AREA)

NOTES:

1. 21-15-4(A)(1)A. SINGLE-FAMILY STRUCTURES SHALL BE LOCATED ONLY UPON AREAS CONSTITUTING USABLE LAND, WHICH AREA SHALL BE FULLY CONTIGUOUS. BE AT LEAST 5,000 SQUARE FEET IN SIZE AND HAVE A MINIMUM DIMENSION, BOTH LENGTH AND WIDTH, OF 50 FEET.



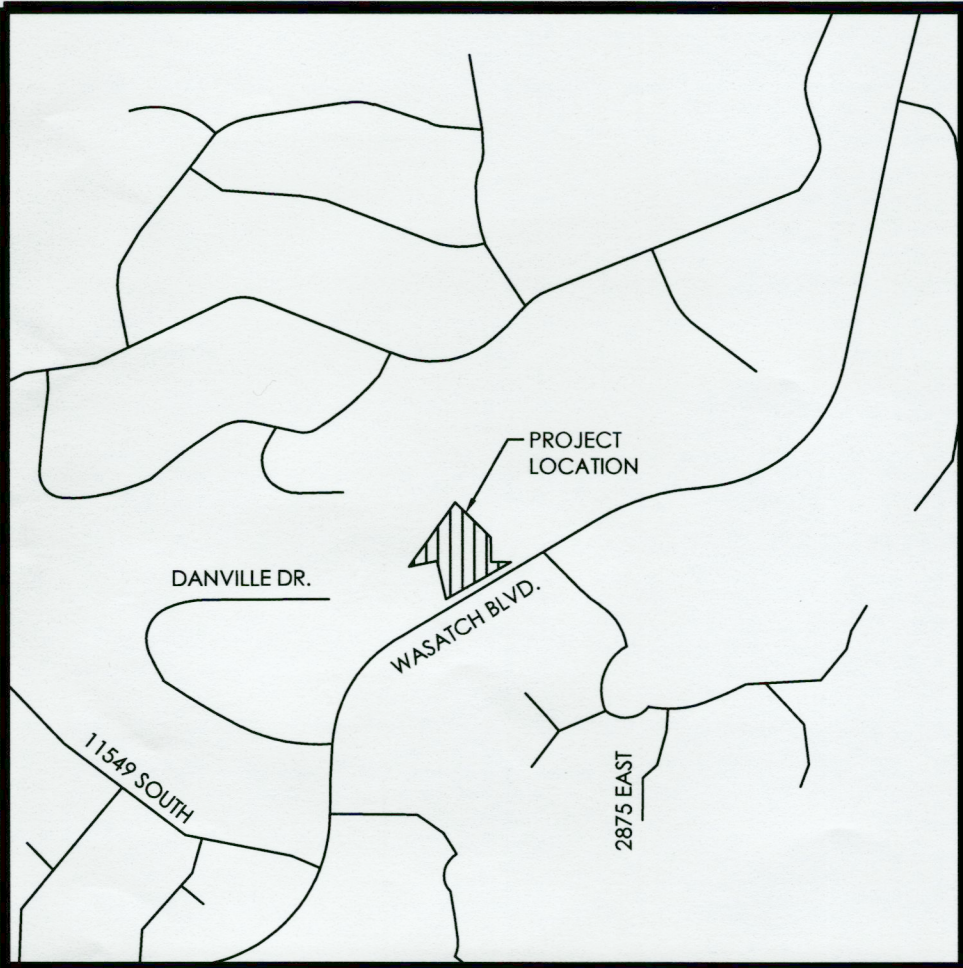
FALLS CREEK ESTATES

SANDY, UT

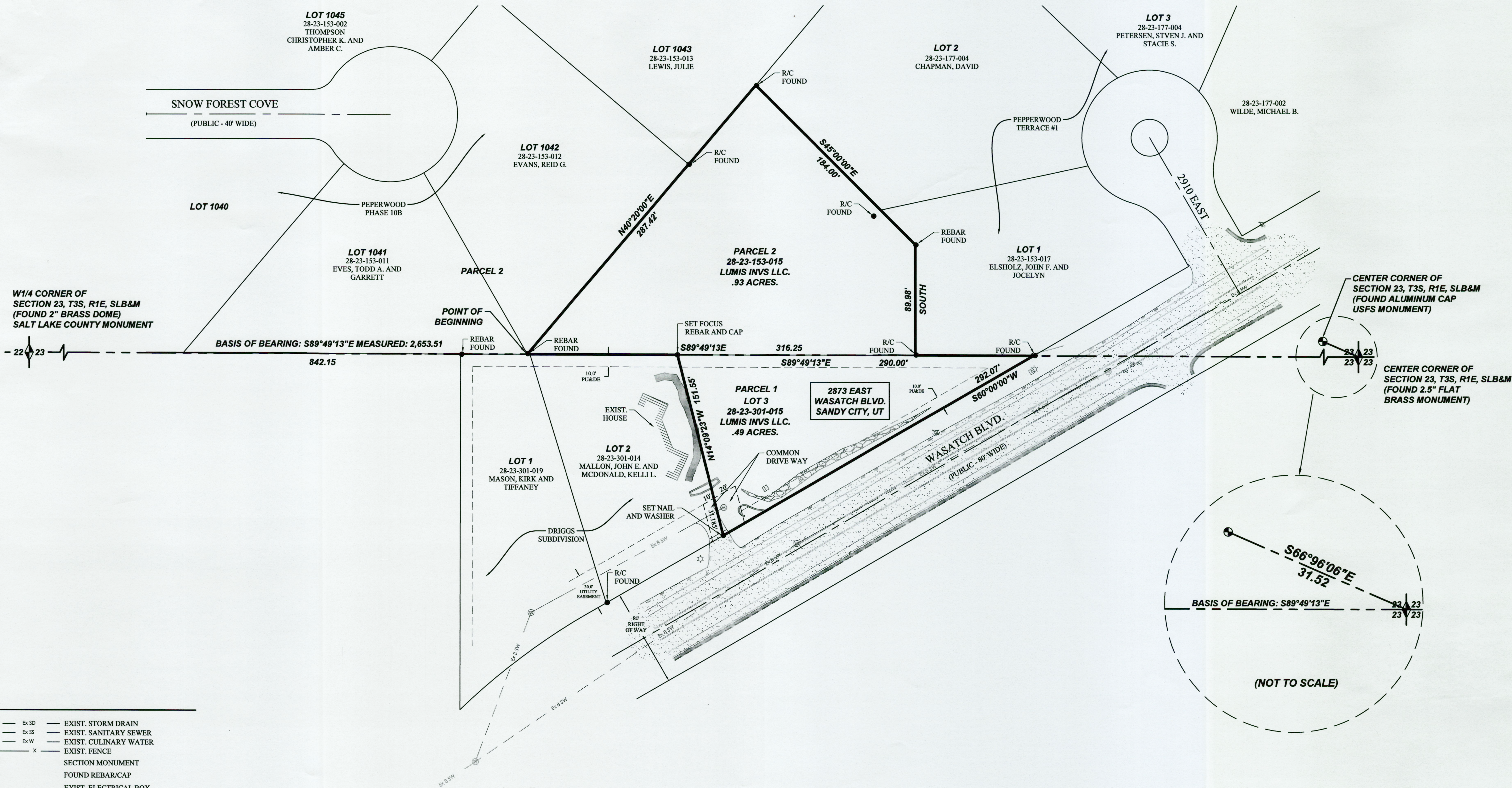
SITE AND UTILITY PLAN

REVISION BLOCK	
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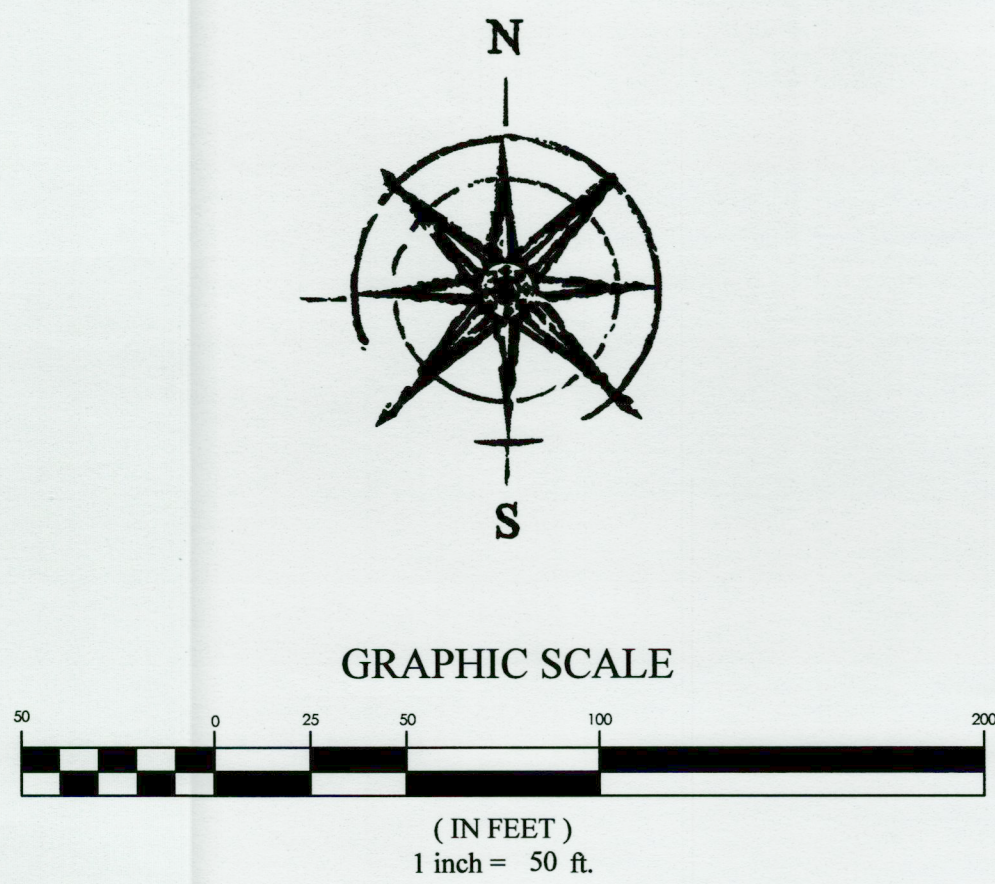
SITE AND UTILITY PLAN	
Scale: 1"=20'	Drawn: BMD
Date: 11/05/25	Job #: 18-299
Sheet:	C3



VICINITY MAP
N.T.S.



LEGEND	
---	EXIST. STORM DRAIN
---	EXIST. SANITARY SEWER
---	EXIST. CULINARY WATER
---	EXIST. FENCE
●	SECTION MONUMENT
○	FOUND REBAR/CAP
□	EXIST. ELECTRICAL BOX
⊗	EXIST. WATER MANHOLE
⊕	EXIST. SD INLET, MANHOLE & COMBO BOX
⊙	EXIST. SEWER MANHOLE
⊗	EXIST. WATER VALVE & WATER METER
⊕	EXIST. FIRE HYDRANT
☆	EXIST. STREET LIGHT
XX:XXX:XXXX	SALT LAKE COUNTY PARCEL No.
▨	LIMITS OF ASPHALT PAVEMENT
▩	LIMITS OF CONCRETE
▧	EXIST BUILDING



- NOTES**
- The purpose of this Survey is to provide a Boundary Survey on two (2) parcels identified by Tax ID numbers 28-23-301-015 & 28-23-153-015 as shown hereon.
 - Current deeds and subdivision plats on record at the Salt Lake County Recorder's Office were utilized in the preparation of this Survey. Focus Engineering & Surveying, LLC is entitled to rely on the accuracy of these documents, and is not liable for errors and omissions based on their reliance thereof. Unless noted otherwise, all record parcels and title exceptions noted on this Survey are referenced from said documents.
 - The Basis of Bearing for this Survey is S. 89°49'13" E. along the Section line between the West Quarter Corner and the Center Corner of Section 23, Township 3 South, Range 1 East, Salt Lake Base & Meridian. All deeds and plats of record have been rotated to match the aforementioned basis of bearing, or to other Sectional/monument lines relative to said basis of bearing per measured lines as shown hereon.
 - Vertical data (contour lines and/or spot elevations, etc.) is based on the NAVD 88 elevation published by the Salt Lake County Surveyor on the West Quarter Corner of Section 23, with 5002.87 being the benchmark elevation.
 - #5 rebar & cap (FOCUS ENG) to be set at all boundary corners unless noted otherwise.
 - This drawing, its design, and invention thereof, is the property of Focus Engineering & Surveying, LLC, and is submitted to, and is for the exclusive use of the client referenced on the Survey. Only copies authorized in writing and individually signed and sealed by the Surveyor, or certified copies obtained from the Office of the County Surveyor may be used as the official work of the Surveyor.
 - Except as specifically stated or shown on this drawing, no attempt has been made as a part of this Survey to obtain or show data concerning existence, size, depth, condition, capacity, or location of any utility or municipal/public service facility. For information regarding these utilities or facilities, contact the appropriate agency.
 - Except as specifically stated or shown on this drawing, this Survey does not purport to reflect any of the following which may be applicable to the properties shown hereon: easements, encumbrances, building setback lines, restrictive covenants, subdivision restriction, zoning, or other land use restrictions. Underground utilities have been shown hereon based on observed evidence. Additional utilities, including, but not limited to: power, phone, cable TV, water, sewer, storm drainage, etc. may exist within the boundaries of this Survey and Blue Stakes should be contacted prior to digging. Engineers, Contractors, and others that rely on this information should be cautioned that the locations of the existing utilities may not be relied upon as being exact or complete. Additional exploration, verification and relocation of existing utilities will be the sole responsibility of any contractor prior to, or during construction of any additional improvements.
 - The following documents were reviewed and/or utilized in the preparation of this Survey:
 - Driggs Subdivision, recorded as Entry #5630864 in Book 93-10 Page 284, recorded 10-15-93.
 - Pepperwood Terrace #1 Subdivision, recorded as Entry #3997929 in Book 84-9 Page 140, recorded 9-26-84.
 - Pepperwood Phase 10B Subdivision, recorded as Entry #8218208 in Book 2002P Page 97, recorded 4-29-02.
 - The following filed Surveys per Salt Lake County Surveyor:
 - Survey Number S00-01-0040 prepared by Hubble Engineering, signed 12-23-99.
 - Survey Number S2005-06-0385 prepared by Contract Surveyors, signed 6-03-05.
 - Survey Number S2015-05-0205 prepared by Sandy City Surveyor, signed 4-01-15.
 - As we conducted the survey we recovered existing rebars and caps as noted on the survey. One of the corners recovered appears to be marking the corner of the adjoining property corners for Lots 1 & 2 for Pepperwood Terrace #1. The corner lands almost 6 feet into Parcel 2, as no record of survey was found on file at the Salt Lake County Surveyors office it is not known if this is an original corner or not. The other corners marking the southerly line of said Pepperwood Terrace #1 were within acceptable tolerance and accepted.

LEGAL DESCRIPTIONS
(FROM SPECIAL WARRANTY DEED: Entry #12557183)

PARCEL 1:
Lot 3, Driggs Subdivision, according to the official plat thereof as recorded in the office of the Salt Lake County Recorder.

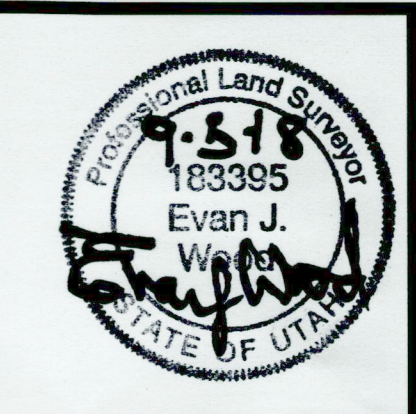
PARCEL 2:
Beginning South 89°49'12" East 842.15 feet from the west ¼ Corner Section 23, Township 3 South, Range 1 East, Salt Lake Base and Meridian; thence north 40°20' East 287.42 feet; thence South 45° East 184.00 feet; thence South 89.98 feet; thence North 89°49'12" West 316.25 feet to beginning.

Tax Parcel No. 28-23-301-015, 28-23-153-015

SURVEYOR'S CERTIFICATE
"I, Evan J. Wood, do hereby certify that I am a Professional Land Surveyor, and that I hold Certificate No. 183395 in accordance with Title 58, Chapter 22 of Utah State Code. I further certify by authority of the owners(s) that I have made a Survey of the lands shown on this Plan and that it correctly represents the existing conditions as shown. This Plan does not represent a certification to the title or ownership of the lands shown hereon."

Evan J. Wood
Professional Land Surveyor
Certificate No. 183395

SEPT. 5, 2018
Date



BOUNDARY SURVEY
LOCATION: W1/2 SECTION 23, T3S, R1E, SLB&M
2873 EAST, WASATCH BLVD.
SANDY CITY, UTAH
PREPARED FOR: DAVE EVANS

REVISION BLOCK	#	DATE	DESCRIPTION
	1	9/05/18	LABELLED COMMON DRIVEWAY
	2		
	3		
	4		
	5		
	6		

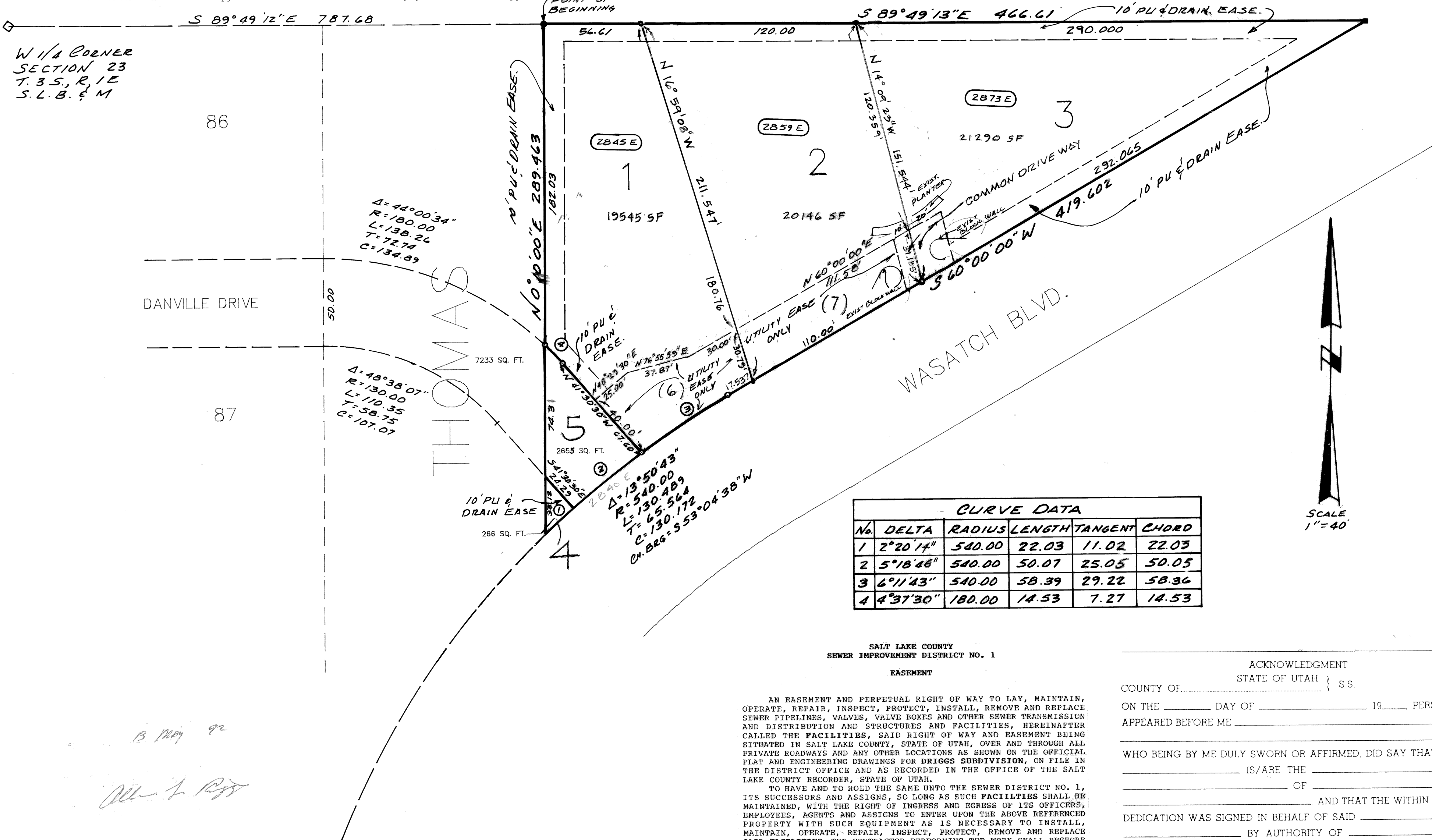
Scale: 1"=50'	Drawn: DJC
Date: 07/18/2018	Job #: 18-299
Sheet:	1 OF 1

CONDITIONS OF APPROVAL

- That street dedications and improvements be carried out according to plan and profiles stamped and approved by the Sandy City Engineer, and specifically:
 - That the private road be paved to City standards with a 20-foot width and the radius approved by the Fire Marshall.
 - That for safety reasons there only be a 3% grade allowed for 25 feet at either end of the private road.
- That the developer comply with the Sandy City Water Policy, i.e., water line extensions, water rights, fire protection.
- That all lots comply with all requirements of the PUD(2) zone. That the requirements of the R-1-10 zone be applied.
- That in lieu of a residential street lighting system that a \$100 street light fee be paid with building permits.
- That as many trees as possible be saved during site preparation.
- That a home placement plan be submitted for lot 3 prior to building permits.
- That all lots comply with all standards of the Sensitive Area Overlay Zone.
- That dwellings be prohibited within an average of 20 feet (no point being closer than 10 feet) of a continuous hillside slope (upslope or downslope) of 30% or greater.
- That any area equal to or in excess of 30% slope be indicated (cross-hatched) on the final plat, and that prospective builders and homebuyers be appraised of the restrictive nature of the hillside lots.
- That all restrictive hillside requirements be included in the restrictive covenants and that a copy be made available to the City prior to final approval.

- That no grading, cuts, fills, terracing or vegetation removal be allowed on a continuous hillside crest (upslope or downslope) or a slope of 30% or greater unless otherwise determined by the Planning Commission upon recommendation of the Engineering Department.
- That fencing be prohibited from the 30% slope area.
- That the fault be labeled on the plat and a disclosure be signed for fault rupture and debris flow.
- That if a fence is constructed in the front setback areas of these lots, it needs to match the Rockhampton fence and be included in the restrictive covenants.
- That the triangular lot remnant in the southwest corner of the property be quit claimed to the Thomas property.

ON 10/15/93 APPROVED BY SANDY CITY ENGINEER
WASATCH
NOTARY
MY COMMISSION EXPIRES 2-28-94

SALT LAKE COUNTY
SEWER IMPROVEMENT DISTRICT NO. 1
EASEMENT

AN EASEMENT AND PERPETUAL RIGHT OF WAY TO LAY, MAINTAIN, OPERATE, REPAIR, INSPECT, PROTECT, INSTALL, REMOVE AND REPLACE SEWER PIPELINES, VALVES, VALVE BOXES AND OTHER SEWER TRANSMISSION AND DISTRIBUTION STRUCTURES AND FACILITIES, HEREINAFTER CALLED THE FACILITIES, SAID RIGHT OF WAY AND EASEMENT BEING SITUATED IN SALT LAKE COUNTY, STATE OF UTAH, OVER AND THROUGH ALL PRIVATE ROADWAYS AND ANY OTHER LOCATIONS AS SHOWN ON THE OFFICIAL PLAT AND ENGINEERING DRAWINGS FOR DRIGGS SUBDIVISION, ON FILE IN THE DISTRICT OFFICE AND AS RECORDED IN THE OFFICE OF THE SALT LAKE COUNTY RECORDER, STATE OF UTAH.

TO HAVE AND TO HOLD THE SAME UNTO THE SEWER DISTRICT NO. 1, ITS SUCCESSORS AND ASSIGNS, SO LONG AS SUCH FACILITIES SHALL BE MAINTAINED, WITH THE RIGHT OF INGRESS AND EGRESS OF ITS OFFICERS, EMPLOYEES, AGENTS AND ASSIGNS TO ENTER UPON THE ABOVE REFERENCED PROPERTY WITH SUCH EQUIPMENT AS IS NECESSARY TO INSTALL, MAINTAIN, OPERATE, REPAIR, INSPECT, PROTECT, REMOVE AND REPLACE SAID FACILITIES, THE CONTRACTOR PERFORMING THE WORK SHALL RESTORE ALL PROPERTY, THROUGH WHICH THE WORK TRAVERSES, TO AS NEAR ITS ORIGINAL CONDITION AS IS REASONABLY POSSIBLE. THE OWNER SHALL HAVE THE RIGHT TO USE SAID PREMISES EXCEPT FOR THE PURPOSE FOR WHICH THIS RIGHT OF WAY AND EASEMENT IS GRANTED, PROVIDED SUCH USE SHALL NOT INTERFERE WITH THE FACILITIES OR WITH THE DISCHARGE AND CONVEYANCE OF SEWAGE THROUGH SAID FACILITIES, OR ANY OTHER RIGHTS GRANTED HEREUNDER.

THE OWNER SHALL NOT BUILD OR CONSTRUCT OR PERMIT TO BE BUILT OR CONSTRUCTED ANY BUILDING OR OTHER IMPROVEMENT OVER OR ACROSS SAID RIGHT OF WAY OR EASEMENT NOR CHANGE THE CONTOUR THEREOF WITHOUT THE WRITTEN CONSENT OF THE DISTRICT NO. 1.

THIS RIGHT OF WAY AND EASEMENT GRANT SHALL BE BINDING UPON AND INURE TO THE BENEFIT OF THE SUCCESSORS AND ASSIGNS OF THE GRANTOR AND THE SUCCESSORS AND ASSIGNS OF THE GRANTEE, AND MAY BE ASSIGNED IN WHOLE OR IN PART BY GRANTEE.

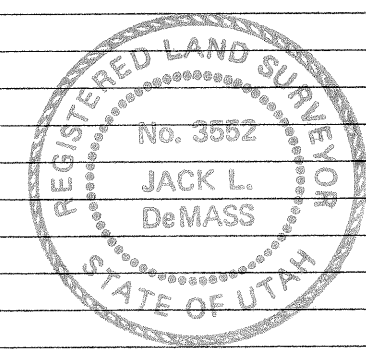
ACKNOWLEDGMENT
STATE OF UTAH } SS
COUNTY OF _____
ON THE _____ DAY OF _____, 19____ PERSONALLY
APPEARED BEFORE ME _____
WHO BEING BY ME DULY SWORN OR AFFIRMED, DID SAY THAT _____
IS/ARE THE _____
OF _____
AND THAT THE WITHIN OWNER'S
DEDICATION WAS SIGNED IN BEHALF OF SAID _____
BY AUTHORITY OF _____
AND THE SAID _____
ACKNOWLEDGED TO ME THAT SAID _____
EXECUTED THE SAME.
MY COMMISSION EXPIRES _____ NOTARY PUBLIC
RESIDING IN _____

SURVEYOR'S CERTIFICATE

I, Jack L. De Mass, do hereby certify that I am a Registered Civil Engineer, and or Land Surveyor, and that I hold certificate No. 3552, as prescribed under the laws of the State of Utah. I further certify that by authority of the Owners, I have made a survey of the tract of land shown on this plat and described below, and have subdivided said tract of land into lots and streets, hereafter to be known as Driggs Subdivision and that same has been correctly surveyed and staked on the ground as shown on this plat.

BOUNDARY DESCRIPTION

BEGINNING AT A POINT WHICH IS S89°49'12"E, 787.68 FEET FROM THE WEST QUARTER CORNER OF SECTION 23, TOWNSHIP 3 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN; AND RUNNING THENCE S89°49'13"E, 466.61 FEET TO THE WESTERLY RIGHT-OF-WAY LINE OF WASATCH BOULEVARD; THENCE S60°00'00"W, 419.602 FEET ALONG SAID WESTERLY RIGHT-OF-WAY LINE OF WASATCH BOULEVARD; THENCE SOUTHWESTERLY, 130.489 FEET ALONG THE ARC OF A 540.00 FOOT RADIUS CURVE TO THE LEFT, (CHORD BEARS S53°04'38"W, 130.172 FEET); THENCE N00°10'00"E, 289.463 FEET TO THE POINT OF BEGINNING.
CONTAINS 1.467 ACRES



JANUARY 4, 1990
DATE

OWNER'S DEDICATION

Know all men by these presents that we, the S undersigned owner (S) of the above described tract of land, having caused same to be subdivided into lots and streets to be hereafter known as the

DRIGGS SUBDIVISION

do hereby dedicate for perpetual use of the public all parcels of land shown on this plat as intended for Public use.

In witness whereof we have hereunto set our hands this 25th day of June A.D., 1993.

Paul Driggs PAUL DRIGGS
W.H. Swasey, Jr. W.H. SWASEY, JR.
David A. Thacker DAVID A. THACKER
Kelly Thacker KELLY THACKER
Quentin J. Erickson QUENTIN J. ERICKSON
James V. Hughes JAMES V. HUGHES

ACKNOWLEDGMENT

STATE OF UTAH } SS.
County of Salt Lake }

On the 25th day of June A.D., 1993, personally appeared before me, the undersigned Notary Public, in and for said County of Salt Lake in said State of Utah, the signer(s) of the above Owner's dedication, S in number, who duly acknowledged to me that they signed it freely and voluntarily and for the uses and purposes therein mentioned.

MY COMMISSION EXPIRES: 9-8-94 Sandra L. Forster NOTARY PUBLIC
RESIDING IN SALT LAKE COUNTY

DRIGGS SUBDIVISION

A SUBDIVISION LOCATED IN THE SW 1/4 OF SECTION 23
T. 3 S., R. 1 E., S. L. B. & M.

RECORDED # 5630864

STATE OF UTAH, COUNTY OF SALT LAKE, RECORDED AND FILED AT THE REQUEST OF

PAUL DRIGGS
DATE 10-15-93 TIME 11:51 A.M. BOOK 93-10 PAGE 284

\$3500 FEE \$
DEPUTY SALT LAKE COUNTY RECORDER

93-10-284

SEWER DISTRICT NO. 1
APPROVED THIS 12th DAY OF
Aug A.D. 1991
Mark A. Hansen
DIRECTOR, S. L. CO. SEWER DIST. NO. 1

PLANNING COMMISSION
APPROVED THIS 2 DAY OF
July A.D. 1992 BY THE SANDY
CITY PLANNING COMMISSION
Kelly Thacker
CHAIRMAN, SANDY CITY PLANNING COMM.

BOARD OF HEALTH
APPROVED THIS 31st DAY
OF May A.D. 1991
Mark A. Hansen
DIRECTOR S. L. CO. BOARD OF HEALTH

FLOOD CONTROL DEPT.
APPROVED THIS 7th DAY OF
July A.D. 1992
Mark A. Hansen
FLOOD CONTROL COORDINATOR

ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS OFFICE HAS
EXAMINED THIS PLAT AND IT IS CORRECT IN
ACCORDANCE WITH INFORMATION ON FILE
IN THIS OFFICE.
7/7/92 Mark A. Hansen
DATE SANDY CITY ENGINEER

APPROVAL AS TO FORM
APPROVED AS TO FORM THIS 2nd
DAY OF July A.D. 1993
Mark A. Hansen
SANDY CITY ATTORNEY

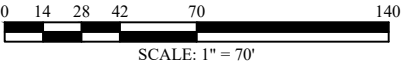
MAYOR'S CABINET
PRESENTED TO THE SANDY CITY MAYOR'S CABINET
THIS 7th DAY OF July 1993
AT WHICH TIME THIS SUBDIVISION WAS APPROVED
AND ACCEPTED.
Mark A. Hansen James V. Hughes
ATTEST: SANDY CITY CLERK MAYOR, SANDY CITY

ROCKERY DESIGN PACKAGE
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH



NOTE: THIS PLAN SET HAS BEEN PREPARED WITH COLOR LINE-TYPES TO MAKE SOME DETAILS AND SPECIFICATIONS MORE CLEAR. ANY COPIES OF THESE PLANS SHOULD BE MADE IN COLOR.

PROJECT AERIAL VIEW
REFERENCE AERIAL IMAGE FROM GOOGLE EARTH PRO,
IMAGE TAKEN JUNE 26, 2025.



REV	REVISION DESCRIPTION	DATE	BY	CHK
	REVISIONS			



12429 SOUTH 300 EAST
DRAPER, UTAH 84020
(801) 748-4044

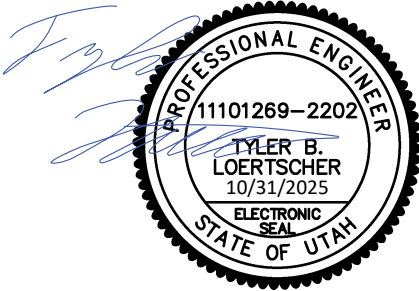
ROCKERY
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH
COVER SHEET

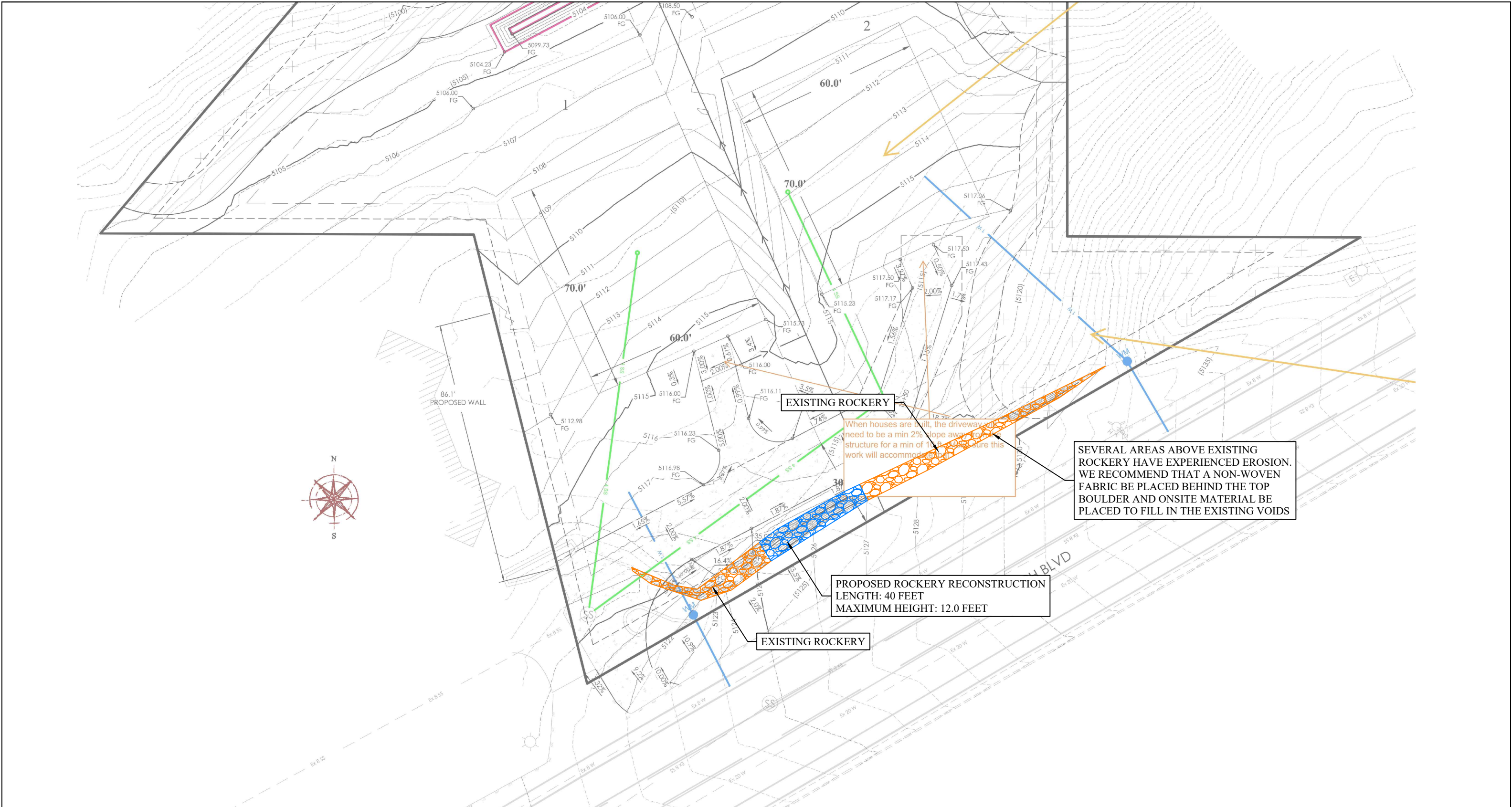
DESIGNED BY: TBL	10-30-2025	PLOT SCALE
DRAWN BY: TBL	10-30-2025	1=1
CHECKED BY: BMJ	10-31-2025	DWG SCALE
APPROVED BY: TBL	10-31-2025	1"=70'
IGES PROJECT NO: 00114-152	SHEET NO: 1	REV N/A

DESIGN PACKAGE CONTENTS		
	SHEET NO.	DESCRIPTION
SHOP DRAWINGS	1	COVER SHEET
	2	PLAN VIEW
	3	TYPICAL SECTION VIEW
	4	CONSTRUCTION SPECIFICATIONS & NOTES
	5	DRAINAGE ROCK DETAILS
	6	DESIGN CRITERIA
	7	SITE PHOTOS
DESIGN CALCULATION PACKAGE	SECTION 2	STABILITY CALCULATIONS
	SECTION 3	GLOBAL STABILITY RESULTS

PREPARED FOR:
IVORY HOMES
978 WOODOAK LANE
SALT LAKE CITY, UTAH 84117
ATTN: GREG TIMOTHY

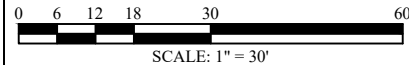
PREPARED BY: TYLER B. LOERTSCHER, P.E.





PLAN VIEW

REFERENCE IMAGE FROM FOCUS ENGINEERING, FALLS CREEK ESTATES, GRADING AND DRAINAGE PLAN, SHEET C4, SHEET DATED SEPTEMBER 5, 2025.



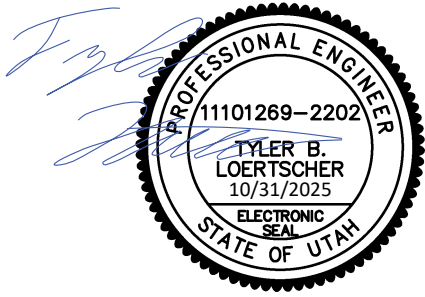
REV	REVISION DESCRIPTION	DATE	BY	CHK
	REVISIONS			



12429 SOUTH 300 EAST
DRAPER, UTAH 84020
(801) 748-4044

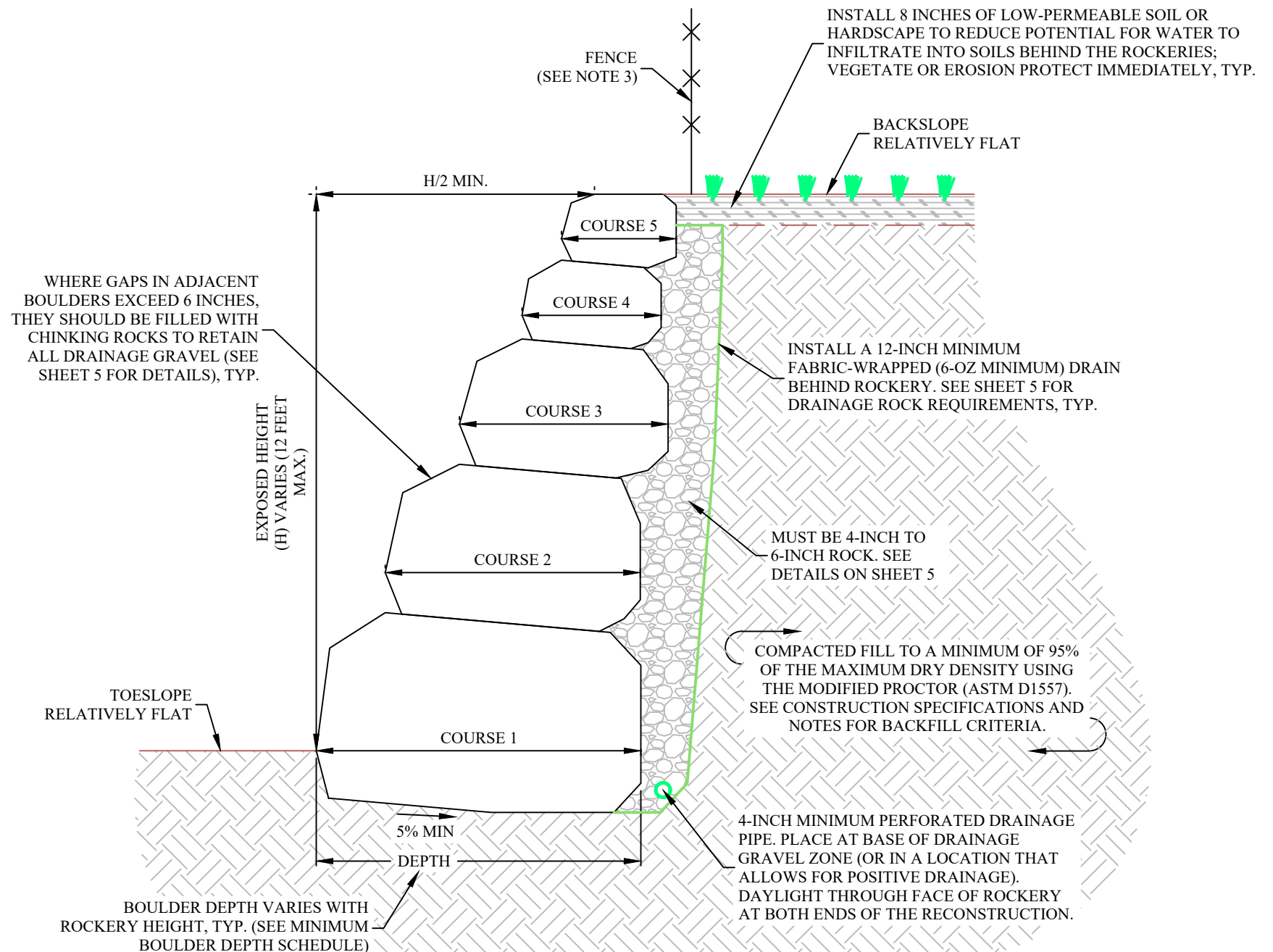
ROCKERY
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH
PLAN VIEW

DESIGNED BY: TBL	10-30-2025	PLOT SCALE
DRAWN BY: TBL	10-30-2025	1=1
CHECKED BY: BMJ	10-31-2025	DWG SCALE
APPROVED BY: TBL	10-31-2025	1"=30'
IGES PROJECT NO: 00114-152	SHEET NO: 2	REV N/A

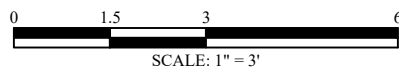


1. SOIL CUT SHOULD BE BENCHMARKED AS NEEDED TO PROTECT WORKERS AND TO COMPLY WITH OSHA REQUIREMENTS.
2. ROCKERIES ARE VULNERABLE TO EROSION AND HYDROSTATIC PRESSURES IMMEDIATELY AFTER INSTALLATION BUT PRIOR TO THE PLACEMENT OF LANDSCAPING/FINISHING ELEMENTS (E.G. LANDSCAPING, HARDSCAPE, ETC.). TO MINIMIZE THE RISK OF DAMAGE TO THE ROCKERIES DURING ADDITIONAL SITE WORK, ALL SURFACE DRAINAGE SHOULD BE DIRECTED AWAY FROM THE ROCKERIES. EXCESS WATER DURING HEAVY PRECIPITATION EVENTS, IF NOT DRAINED PROPERLY, CAN CAUSE WASHOUTS AT ROCKERY ENDS AND 'BLOWOUTS' OF INTERIOR SECTIONS. THESE PRECAUTIONS SHOULD BE TAKEN DURING AND AFTER ROCKERY CONSTRUCTION, UNTIL THE FINAL SITE DRAINAGE AND LANDSCAPING ARE COMPLETE.
3. WE RECOMMEND THAT AN APPROPRIATE SAFETY FENCE/BARRICADE BE CONSIDERED BY THE OWNER ABOVE THE ROCKERIES. DESIGN OF THE FENCE/BARRICADE IS SPECIFICALLY EXCLUDED FROM THIS ENGINEERING. IF THE FENCE POST WILL BE PLACED WITHIN 3 FEET OF THE BACK OF THE BOULDERS, COMPLY WITH THE FOLLOWING RECOMMENDATIONS:
 - 3.1. IF CHAIN LINK FENCE OR RAILING, EXTEND POST A MINIMUM DEPTH OF 36 INCHES.
 - 3.2. IF VINYL, WOOD, PRECAST (OR SIMILAR), WE RECOMMEND THAT ONCE THE FENCING SYSTEM IS DETERMINED THAT IGES, INC. BE CONTACTED TO ACCESS THE IMPACT OF THE FENCE ON THE ROCKERIES.

MINIMUM BOULDER DEPTH SCHEDULE					
COURSE	BOULDER SIZE (DEPTH) FOR EACH COURSE (COURSE 1 IS BOTTOM COURSE) FOR VARIOUS EXPOSED WALL HEIGHTS (H) [ADD 1-FOOT MINIMUM EMBEDMENT FOR ALL ROCKERY SECTIONS]				
	12-FOOT ROCKERY	10-FOOT ROCKERY	8-FOOT ROCKERY	6-FOOT ROCKERY	4 FOOT ROCKERY OR LESS
5	2.0 FEET	2.0 FEET	-	-	-
4	3.0 FEET	2.5 FEET	2.0 FEET	2.0 FEET	-
3	4.5 FEET	4.0 FEET	3.0 FEET	2.0 FEET	2.0 FEET
2	5.5 FEET	4.5 FEET	4.0 FEET	3.0 FEET	2.0 FEET
1	7.0 FEET	5.5 FEET	4.5 FEET	3.5 FEET	3.0 FEET



APPROXIMATE GRAPHICAL SCALE: 1 INCH = 3 FEET (11x17 ONLY)



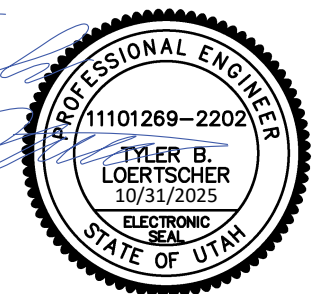
REV	REVISION DESCRIPTION	DATE	BY	CHK
	REVISIONS			



12429 SOUTH 300 EAST
DRAPER, UTAH 84020
(801) 748-4044

ROCKERY
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH
TYPICAL SECTION VIEW

DESIGNED BY: TBL	10-30-2025	PLOT SCALE 1=1 DWG SCALE 1"=3'	
DRAWN BY: TBL	10-30-2025		
CHECKED BY: BMJ	10-31-2025		
APPROVED BY: TBL	10-31-2025		
IGES PROJECT NO: 00114-152	SHEET NO:	3	REV N/A



ROCKERY CONSTRUCTION SPECIFICATIONS: 1. GENERAL 1.1. DESIGN AND CONSTRUCTION INFORMATION IS BASED ON SITE GEOMETRY, THE REFERENCED CONSTRUCTION PLAN AND THE ENGINEERING ANALYSIS PERFORMED AS PART OF THE SCOPE OF WORK FOR THIS PROJECT. 1.2. LOCATE AND FULLY RESOLVE ALL CONFLICTS WITH EXISTING AND/OR PROPOSED UTILITIES PRIOR TO ROCKERY CONSTRUCTION. 1.3. COMPLY WITH ALL ASPECTS OF OSHA 1926 SUBPART P APP B, SLOPING AND BENCHING FOR ALL EXCAVATED SLOPES. 1.4. IMPLEMENT THE FOLLOWING MEASURES TO REDUCE THE POTENTIAL FOR HYDROSTATIC PRESSURES TO BUILDUP BEHIND THE ROCKERY: 1.4.1. ESTABLISH HARDSCAPE OR LOW-PERMEABLE SOIL ABOVE ROCKERY AS SHOWN ON TYPICAL SECTION VIEW. BEFORE FINAL LANDSCAPING ELEMENTS ARE COMPLETED AT THE SITE, VEGETATION OR EROSION CONTROL MEASURES MUST BE INSTALLED ABOVE AND BELOW THE ROCKERY IMMEDIATELY FOLLOWING CONSTRUCTION. 1.4.2. INSTALL 6-OZ (MINIMUM) NON-WOVEN GEOTEXTILE FABRIC AS SHOWN IN THE TYPICAL SECTION VIEWS TO REDUCE POTENTIAL FOR EROSION AND DRAINAGE CHANNELS TO FORM. 1.5. CONDITIONS SUCH AS LEAKY OR BROKEN IRRIGATION LINES AND/OR UNCONTROLLED RUNOFF FROM IMPROPER SITE GRADING CAN LEAD TO UNDERMINING OR HYDROSTATIC PRESSURES BUILDING UP BEHIND THE ROCKERY, WHICH CAN LEAD TO SLOPE OR BOULDER MOVEMENT. 1.5.1. HYDROSTATIC PRESSURES WERE NOT CONSIDERED IN THE ANALYSIS OF THE ROCKERY AND MUST BE AVOIDED. 1.5.2. ROCKERIES ARE VULNERABLE TO EROSION AND HYDROSTATIC PRESSURES IMMEDIATELY AFTER INSTALLATION BUT PRIOR TO THE PLACEMENT OF THE FINISHING LANDSCAPING ELEMENTS (E.G., LOW-PERMEABLE SOIL OR HARDSCAPE). AS THESE ELEMENTS ARE CRITICAL TO THE OVERALL STABILITY OF THE ROCKERY, THE ROCKERY IS NOT CONSIDERED COMPLETE UNTIL THEY ARE IN PLACE. 1.5.3. THE OWNER SHALL BE AWARE OF THE RISKS IF THESE OR OTHER CONDITIONS OCCUR THAT COULD SATURATE OR ERODE THE SOIL BEHIND THE ROCKERY OR IF THE FINISHING/LANDSCAPING ELEMENTS ARE NOT INSTALLED IMMEDIATELY FOLLOWING THE INSTALLATION OF THE ROCKERY. 2. MATERIALS 2.1. REINFORCED BACKFILL SOILS 2.1.1. APPROVED IMPORTED GRANULAR BACKFILL BORROW OR APPROVED NATIVE SOILS THAT HAVE BEEN SCREENED AND PROCESSED COMPLYING WITH THE FOLLOWING CRITERIA: 2.1.1.1. GRANULAR MATERIALS CONTAINING LESS THEN 25% FINES 2.1.1.2. MAXIMUM NOMINAL PARTICLE SIZE OF 4 INCHES 2.1.1.3. PI OF 6 OR LESS, pH GREATER THAN 3 BUT LESS THAN 9 2.1.1.4. REASONABLY FREE FROM ORGANIC OR OTHER DELETERIOUS MATERIALS 2.1.1.5. MINIMUM EFFECTIVE FRICTION ANGLE OF 34 DEGREES 2.2. USE DURABLE ANGULAR BOULDERS WITH A MINIMUM NOMINAL DIAMETER OF 24 INCHES. MEET ALL MINIMUM DIAMETERS IN ACCORDANCE WITH DESIGN DRAWINGS. ROCKS SHOULD FOLLOW FHWA GUIDELINES: 2.2.1. USE ROCKS THAT ARE HARD, ANGULAR, DURABLE, AND ABLE TO RESIST PHYSICAL, CLIMATIC, AND CHEMICAL DECOMPOSITION. 2.2.2. USE ROCKS THAT ARE ROUGHLY RECTANGULAR, TABULAR, OR CUBIC IN SHAPE; ROUNDED ROCKS AND COBBLES SHOULD NOT BE USED. 2.2.3. ROCKS SHOULD CONSIST OF INTACT BLOCKS WITHOUT OPEN FRACTURES, FOLIATION, OR OTHER PLANES OF WEAKNESS 2.3. GEOTEXTILE FABRIC 2.3.1. 6-OZ. MINIMUM NON-WOVEN 2.4. DRAINAGE ROCK 2.4.1. IF DRAINAGE ROCK WILL ONLY HAVE GEOTEXTILE PLACED BETWEEN SOIL CUT AND DRAINAGE ROCK, USE A 4-INCH TO 6-INCH ROCK COMPLYING WITH THE FOLLOWING CRITERIA: (% PASSING 6" SIEVE: 100; % PASSING 4" SIEVE: 0-25; % PASSING THE ¾" SIEVE: 0-15; % PASSING THE NO.4 SIEVE: 0-5; % PASSING THE NO.200 SIEVE: 0-2) 3. INSTALLATION 3.1. ROCKS SHOULD BE STACKED IN GENERAL ACCORDANCE WITH THE ASSOCIATED ROCKERY CONTRACTORS (ARC) AND FHWA ROCKERY CONSTRUCTION GUIDELINES. ARC GUIDELINES ARE GIVEN ON THIS SHEET (SEE GUIDELINES TO THE RIGHT). FHWA GUIDELINES ARE SUMMARIZED AS FOLLOWS: 3.1.1. EACH ROCK SHOULD BEAR ON AT LEAST TWO OTHER ROCKS 3.1.2. EACH ROCK SHOULD HAVE AT LEAST THREE BEARING POINTS - TWO IN FRONT AND ONE IN BACK 3.1.3. THE FRONT-MOST BEARING POINTS FOR EACH ROCK SHOULD BE WITHIN 6 INCHES OF THE AVERAGE FACE OF THE ROCKERY 3.1.4. THE REAR OF THE ROCKS SHOULD BE ALIGNED ALONG AN IMAGINARY VERTICAL PLANE. IF ROCKS LARGER THAN THE MINIMUM SPECIFIED DIAMETERS ARE USED, THEY CAN EXTEND BEYOND THIS IMAGINARY PLANE PROVIDED THEY DO NOT INTERFERE WITH ROCKERY DRAINAGE 3.1.5. THE TOPS OF EACH ROCK SHOULD BE SLOPED BACK AT LEAST 5% TOWARDS THE BACK OF THE ROCKERY 3.1.6. ROCK FACING SHOULD BE STACKED AT A MAXIMUM STEEPNESS OF 1 HORIZONTAL TO 2 VERTICAL 3.1.7. THE BOTTOM ROW OF ROCKS SHOULD BE BURIED (EMBEDDED) A MINIMUM DEPTH OF 12 INCHES FOR ALL ROCKERIES. 3.2. PLACE ROCKERY BACKFILL MATERIAL IN 12-INCH MAXIMUM LOOSE LIFTS AND COMPACT TO A MINIMUM OF 95 PERCENT OF ASTM D1557 (MODIFIED PROCTOR) IN STRUCTURAL AREAS AND 90 PERCENT IN LANDSCAPE AREAS. THINNER LIFTS MAY BE NECESSARY TO ACHIEVE REQUIRED COMPACTION. 3.2.1. PERFORM DENSITY TESTING OF THE BACKFILL SOILS AT 50-FOOT INTERVALS ON EVERY LIFT. 3.2.2. USE ONLY SMALL, WALK-BEHIND TYPE COMPACTION EQUIPMENT WITHIN 3 FEET OF THE BACK OF THE ROCKERY BOULDERS. 3.2.3. IF ANY LOCATIONS EXIST WHERE THE ROCKERY WILL NOT BE PLACED UPON NATIVE SOILS, COMPACT THE FILL TO A MINIMUM OF 95 PERCENT OF ASTM D1557. 3.3. INSTALL 6-OZ NON-WOVEN GEOTEXTILE FABRIC BEHIND THE UPPER BOULDER AS SHOWN ON THE TYPICAL SECTION VIEW SHEET.					4. CONSTRUCTION OBSERVATION 4.1. TO FULFILL ANY APPLICABLE CITY, COUNTY AND/OR STATE AGENCY REQUIREMENTS, AND TO PROTECT THE CONTRACTOR AND DESIGN ENGINEER, IGES, INC., MUST PERFORM PERIODIC CONSTRUCTION OBSERVATIONS. 4.1.1. IF IGES, INC. DOES NOT OBSERVE THE ROCKERY DURING CONSTRUCTION, A FINAL LETTER REGARDING COMPLIANCE OF THE ROCKERY CONSTRUCTION WITH THE DESIGN CRITERIA AND RECOMMENDATIONS CANNOT BE PROVIDED. IF IGES, INC., DOES NOT PERFORM THE PERIODIC CONSTRUCTION OBSERVATIONS OUTLINED ON THIS SHEET, THE ROCKERY CONTRACTOR/OWNER ASSUMES ALL RESPONSIBILITY FOR THE ROCKERY. 4.2. ROCKERY OBSERVATION SCHEDULE: 4.2.1. OBSERVE AND ASSESS THE SUITABILITY OF THE OF THE FOUNDATION BEARING SOILS. 4.2.2. ASSESS THE MINIMUM EMBEDMENT REQUIREMENTS ARE MET. 4.2.3. OBSERVE THE SIZE, POSITION, BATTER, AND PLACEMENT FOR EACH COURSE OF BOULDERS. 4.2.4. OBSERVE THE PLACEMENT OF RETAINED FILL SOILS. OBSERVE THE COMPACTION OF THE RETAINED FILL AND ASSESS WHETHER MINIMUM COMPACTION REQUIREMENTS ARE MET. 4.2.5. OBSERVE THE COMPLETED ROCKERY TO ASSESS FINISHED ROCKERY WALL HEIGHTS, BATTER, BACKSLOPE AND TOESLOPE GRADING CONDITIONS, AND THE SUITABILITY OF EROSION CONTROL MEASURES INSTALLED ABOVE AND BELOW THE ROCKERY. 4.2.6. ALL BACKFILL SOILS CONSISTING OF FREE DRAINING GRANULAR SOILS. 4.2.7. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THE CONSTRUCTION OBSERVATIONS AND QUALITY CONTROL.
					ROCK STACKING CONSTRUCTION GUIDELINES: ROCKS SHOULD BE STACKED IN GENERAL ACCORDANCE WITH FHWA AND THE ASSOCIATED ROCKERY CONTRACTORS (ARC) ROCKERY CONSTRUCTION GUIDELINES, SUMMARIZED AS FOLLOWS: NO YES DETAIL A NO YES DETAIL B
					11101269-2202 TYLER B. LOERTSCHER 10/31/2025 ELECTRONIC SEAL STATE OF UTAH DESIGNED BY: TBL 10-30-2025 PLOT SCALE DRAWN BY: TBL 10-30-2025 1=1 CHECKED BY: BMJ 10-31-2025 DWG SCALE APPROVED BY: TBL 10-31-2025 NTS IGES PROJECT NO: 00114-152 SHEET NO: 4 REV N/A
					IGES EST. 1998 12429 SOUTH 300 EAST DRAPER, UTAH 84020 (801) 748-4044 ROCKERY FALLS CREEK ESTATES LOT 3 2873 & 2877 EAST WASATCH BOULEVARD SANDY, UTAH CONSTRUCTION SPECIFICATIONS & NOTES

DRAINAGE NOTES (FROM FHWA-CFL/ED-06-006 ROCKERY DESIGN AND CONSTRUCTION GUIDELINES):

1. CHINKING ROCKS (PAGE 103): "BECAUSE OF THE IRREGULAR NATURE OF THE ROCKS, IT IS DIFFICULT TO ENSURE THAT EVERY ROCK CONFORMS TO THE SHAPE OF ALL ADJACENT ROCKS. AS A RESULT, GAPS WILL OCCUR BETWEEN ROCKS. WHERE THESE GAPS EXCEED 150 MM (6 IN), THEY SHOULD BE FILLED WITH CHINKING ROCKS CONSISTING OF SPALLS FROM THE PARENT (FACING) ROCK. THE PURPOSE OF THE CHINKING ROCKS IS TO IMPROVE AESTHETICS AND PREVENT THE SCREENED BACKDRAIN MATERIAL FROM FALLING OUT THROUGH THE FACE OF THE ROCKERY. CHINKING ROCKS SHOULD NOT BE MOVABLE BY HAND, AND CAN BE GROUTED IN PLACE IF NECESSARY. IN ADDITION, CHINKING ROCKS ARE NOT TO PROVIDE PRIMARY SUPPORT FOR OVERLYING ROCKS."
2. DRAINAGE ROCK (PAGE 97): "DURING PLACEMENT OF THE CRUSHED ROCK BEHIND THE PARTIALLY COMPLETED ROCKERY, CARE SHOULD BE TAKEN THAT THE CRUSHED ROCK DOES NOT SPILL OVER THE TOP OF THE ADJACENT FACING ROCKS. IF THE CRUSHED ROCK IS PLACED BETWEEN THE TOP OF ONE FACING ROCK AND THE BASE OF THE SUBSEQUENT FACING ROCK, IT COULD FORM A PLACE OF WEAKNESS OR PREVENT THE FACING ROCKS FROM COMING INTO PROPER CONTACT. LIKE CHINKING ROCKS, THE CRUSHED ROCK SHOULD NOT PROVIDE PRIMARY BEARING BETWEEN ROCKS. IT IS ACCEPTABLE, HOWEVER, FOR THE CRUSHED ROCK TO FILL A PORTION OF THE LATERAL VOID BETWEEN ADJACENT FACING ROCKS, PROVIDED THE ROCKS ARE IN DIRECTLY IN CONTACT IN AT LEAST TWO POINTS."

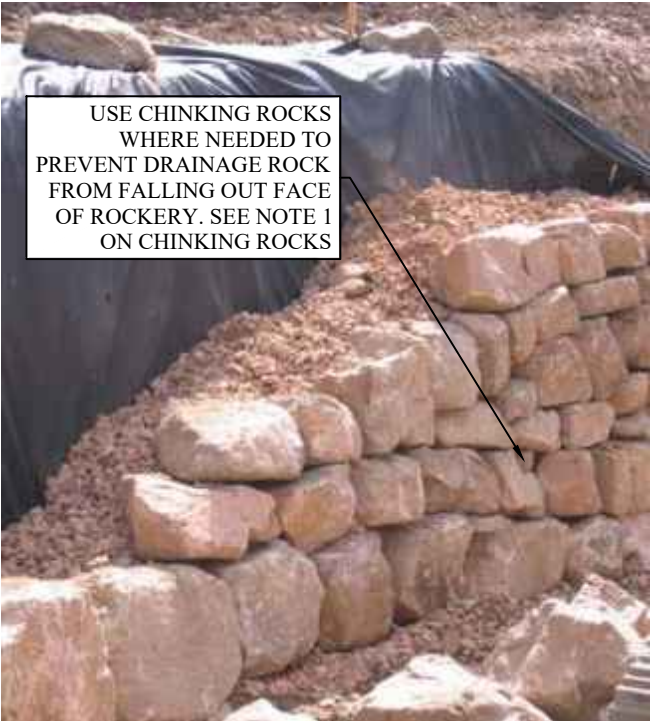
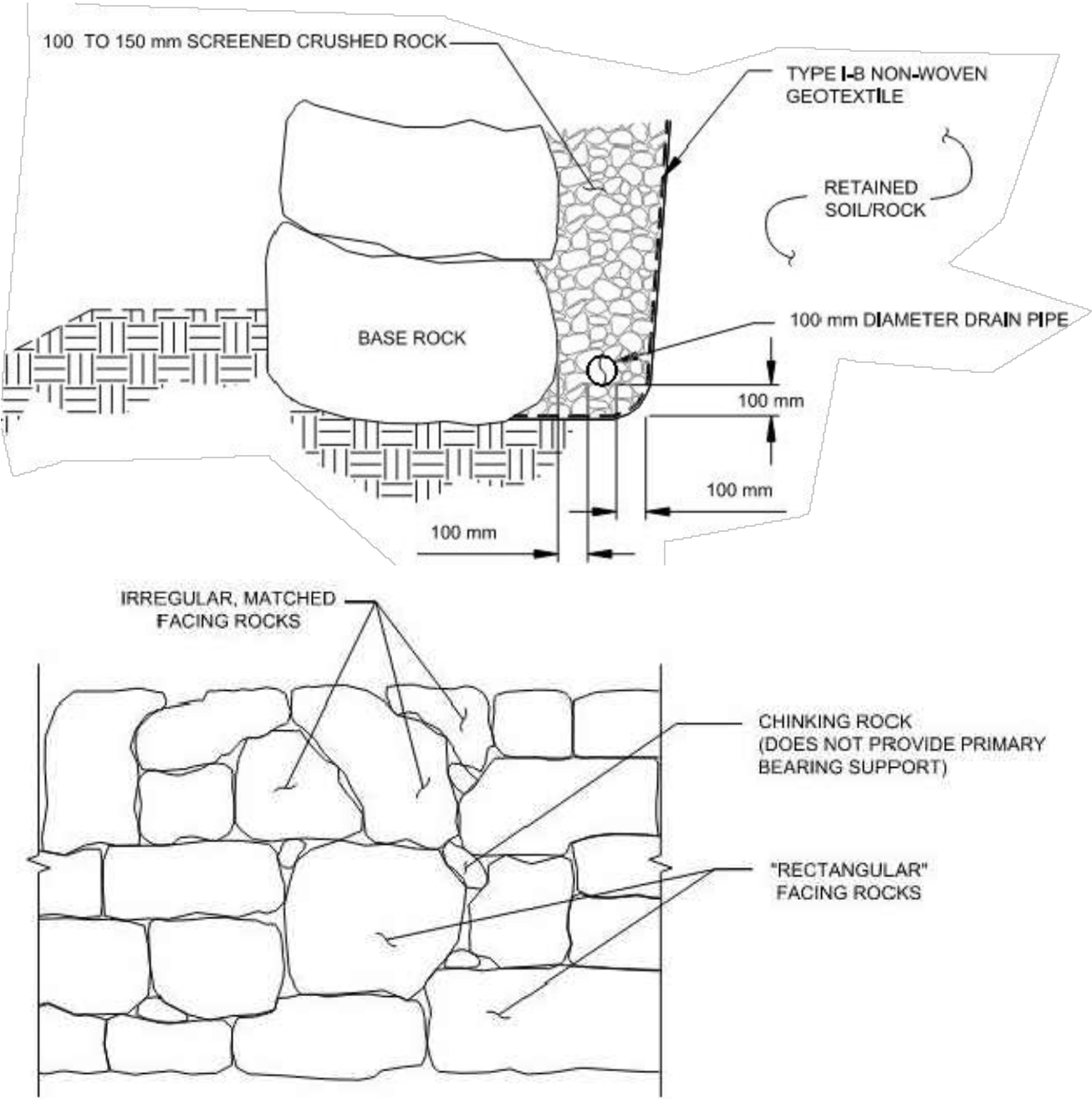


Table 9. Gradation Requirements for crushed rock backdrain.

Sieve Size	Percent by Mass Passing Designated Sieve (AASHTO T 27 & T 11)
150 mm (6 in.)	100
100 mm (4 in.)	0.0 – 25
19.0 mm (3/4 in.)	0.0 – 15
4.75 mm (No. 4)	0.0 – 5.0
75 µm (No. 200)	0.0 – 2.0

DETAILS, TABLES, AND IMAGES FROM FHWA-CFL/TD-06-006 ROCKERY DESIGN AND CONSTRUCTION GUIDELINES.

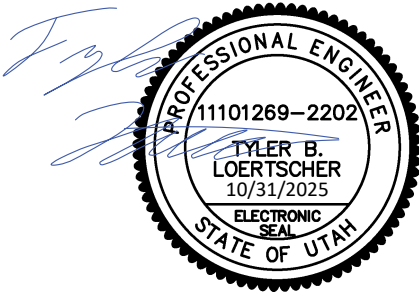
REV	REVISION DESCRIPTION	DATE	BY	CHK
	REVISIONS			



12429 SOUTH 300 EAST
DRAPER, UTAH 84020
(801) 748-4044

ROCKERY
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH
DRAINAGE ROCK DETAILS

DESIGNED BY: TBL	10-30-2025	PLOT SCALE
DRAWN BY: TBL	10-30-2025	1=1
CHECKED BY: BMJ	10-31-2025	DWG SCALE
APPROVED BY: TBL	10-31-2025	NTS
IGES PROJECT NO: 00114-152	SHEET NO: 5	REV N/A



RETAINING WALL GEOMETRY AND LOADING CONDITIONS			
LENGTH (FT)	MAXIMUM HEIGHT (FT)	BACKSLOPE CONDITIONS	SURCHARGE LOADING
~40	12.0	RELATIVELY FLAT	250 PSF (ROADWAY)

SOIL CONDITIONS USED IN DESIGN (ASSUMED)			
EARTH MATERIALS	FRICTION ANGLE	COHESION	UNIT WEIGHT
RETAINED SOIL	34°	50 PSF	135 PCF
FOUNDATION SOIL	34°	50 PSF	135 PCF

- SOURCES & NOTES:
- IGES, 2025, SITE OBSERVATION MADE OF ONSITE MATERIALS ON OCTOBER 16, 2025.
 - COHESION USED ONLY DURING GLOBAL STABILITY ANALYSIS.

GENERAL NOTES:

- THE ENGINEERING PRESENTED IN THIS DESIGN PACKAGE IS BASED ON SPECIFIC PRODUCTS (E.G. COMPETENT/DURABLE BOULDERS, SOIL STRENGTHS GIVEN ABOVE, ETC.). ANY SUBSTITUTION OF THE SPECIFIED PRODUCTS WILL INVALIDATE THIS ENGINEERING. ANY CHANGES IN WALL LOCATION, ELEVATIONS OF LEVELING PAD, GRADES AT THE TOE OR TOP OF THE WALL, AND SOIL PARAMETERS AT THE SITE WILL ALSO INVALIDATE THE ENGINEERING. FIELD ADJUSTMENTS/CHANGES MAY BE NEEDED TO MEET ACTUAL CONDITIONS ONCE CONSTRUCTION COMMENCES. IGES SHOULD BE CONSULTED WHERE FIELD CHANGES ARE REQUIRED.
- THESE DOCUMENTS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN THE INTELLECTUAL PROPERTY OF IGES, INC. THE DESIGN PACKAGE HAS BEEN FURNISHED FOR THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT NO USE OR RE-USE OF THESE DOCUMENTS (EITHER IN WHOLE OR IN PART) SHALL BE PERMITTED UNLESS EXPRESSLY AUTHORIZED IN WRITING BY IGES, INC.
- RETAINING WALLS ARE VULNERABLE TO EROSION AND HYDROSTATIC PRESSURES IMMEDIATELY AFTER INSTALLATION BUT PRIOR TO THE PLACEMENT OF LANDSCAPING/FINISHING ELEMENTS AT THE SITE (E.G. LANDSCAPING, HARDSCAPE, CURB & GUTTER, PAVEMENT, ETC.). TO PREVENT DAMAGE TO THE WALLS DURING ADDITIONAL SITE WORK, ALL SURFACE DRAINAGE SHOULD BE DIRECTED AWAY FROM THE WALLS. EXCESS WATER DURING HEAVY RAIN EVENTS, IF NOT DRAINED PROPERLY, CAN CAUSE WASHOUTS AT WALL ENDS AND 'BLOWOUTS' OF INTERIOR SECTIONS. THESE PRECAUTIONS SHOULD BE TAKEN DURING WALL CONSTRUCTION, AND AFTER, UNTIL THE FINAL SITE DRAINAGE, LANDSCAPING AND PAVING ARE COMPLETE.

ENGINEERING ANALYSIS USED IN DESIGN	
ANALYSIS	DESIGN REFERENCES/SOFTWARE
EXTERNAL STABILITY	MACK, D.A., SANDERS, S.H. MILLHONE, W.L., FIPPIN, R.L., AND KENNEDY, D.G., 2006, ROCKERY DESIGN AND CONSTRUCTION GUIDLINES, SANDERS & ASSOCIATES GEOSTRUCTURAL ENGINEERING, INC., REPORT NO. FHEW-CFL/TD-06-006, REPORT DATED NOVEMBER, 2006
GLOBAL STABILITY	SLIDE 2 MODELER: ROCSCIENCE, INC., 1998-2024, VERSION 9.036; BUILD DATE OCTOBER 17, 2024

SEISMIC PARAMETERS USED IN DESIGN		
SEISMIC CRITERIA	EXTERNAL & GLOBAL STABILITY	
	DESIGN PGA (As)	k _h
7% IN 75 YEARS	0.453g	0.155g (EXTERNAL) 0.227g (GLOBAL)

- SOURCES & NOTES:
- U.S. GEOLOGICAL SURVEY, U.S. SEISMIC DESIGNMAPS WEB APPLICATION, SITE: <http://earthquake.usgs.gov/ws/designmaps>, ACCESSED 10-30-2025.
 - SITE CLASS D WAS ASSUMED FOR THE ONSITE SOILS USING 2009 AASHTO GUIDE SPECIFICATIONS. AASHTO SPECIFICATIONS WERE USED AS RECOMMENDED IN THE FHWA ROCKERY DESIGN MANUAL.
 - RICHARDS AND ELMS METHODOLOGY USED TO REDUCE THE HORIZONTAL SEISMIC ACCELERATION COEFFICIENT IN ACCORDANCE WITH FHWA-CFL/TD-06-006 REPORT.
 - ONE-HALF OF THE DESIGN PGA (As) WAS USED TO MODEL THE HORIZONTAL SEISMIC ACCELERATION FOR GLOBAL STABILITY ANALYSES (k_h = 0.227g).

REV	REVISION DESCRIPTION	DATE	BY	CHK
	REVISIONS			

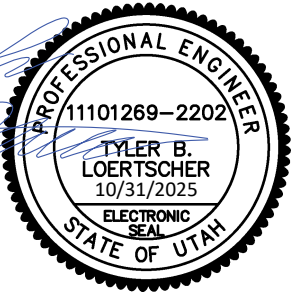


12429 SOUTH 300 EAST
DRAPER, UTAH 84020
(801) 748-4044

ROCKERY
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH

DESIGN CRITERIA

DESIGNED BY: TBL	10-30-2025	PLOT SCALE
DRAWN BY: TBL	10-30-2025	1=1
CHECKED BY: BMJ	10-31-2025	DWG SCALE
APPROVED BY: TBL	10-31-2025	NTS
IGES PROJECT NO: 00114-152	SHEET NO: 6	REV N/A





PHOTOS FROM SITE VISIT ON OCTOBER 16, 2025.

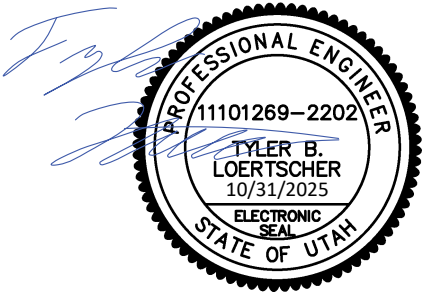
REV	REVISION DESCRIPTION	DATE	BY	CHK
	REVISIONS			



12429 SOUTH 300 EAST
DRAPER, UTAH 84020
(801) 748-4044

ROCKERY
FALLS CREEK ESTATES LOT 3
2873 & 2877 EAST WASATCH BOULEVARD
SANDY, UTAH
SITE PHOTOS

DESIGNED BY: TBL	10-30-2025	PLOT SCALE
DRAWN BY: TBL	10-30-2025	1=1
CHECKED BY: BMJ	10-31-2025	DWG SCALE
APPROVED BY: TBL	10-31-2025	NTS
IGES PROJECT NO:	SHEET NO:	REV
00114-152	7	N/A





PROJECT: Falls Creek
PROJECT NO.: 00114-152
DATE: 10/30/2025

SECTION: 12-foot Exposed Rockery
SURCHARGE: Roadway

Rockery Geometry & Soil Data:

$H_{\text{total}} =$	13	ft	Total Height of Rockery	Slope Geometry:	Backslope:	5.0	H	0.0	V
$H_R =$	12	ft	Exposed Height of Rockery	Backslope:	$\beta_{\text{eq}} =$	0.0	deg	Eq. Backslope Angle	
$\phi_s =$	34	deg	Soil Friction Angle - Effective	Soil Cut Angle:	$\alpha =$	82.9	deg	Soil Cut Angle	
$c_s =$	0	psf	Cohesion Intercept of soil	Rockery Face Slope:	1	H	2	V	
$\gamma_s =$	135	pcf	Unit weight of the soil	Seismic Earth Pressure Coefficient:					
$\gamma_R =$	150	pcf	Unit weight of the rock	(Mack et al., 2006)					
$\delta =$	34.0	deg	Interface Friction Angle	$A_S =$	0.453	Peak Ground Acceleration (7% in 75 years)			
$\psi =$	7.1	deg	Back Cut Inclination	$\Delta =$	4.53	in (10*A _S)			
$\mu =$	0.70		Frictional Component	$k_h =$	0.155	(Using Richards & Elms Approach)			
$\mu_{\text{rock}} =$	0.55		Rock-to-Rock Friction	$k_v =$	0				
$K_A =$	0.207		Active Earth Pressure Coefficient	$\theta =$	8.79				
$v =$	63.4	deg	Rockery Face Angle	$K_{\text{AE}} =$	0.313				

Broken Back Slope: N			
Backslope Rise: 0 ft			
Failure Mechanism	FS Required	FS Obtained	OK
External Sliding	1.5	3.0	OK
External Overturning	2.0	5.5	OK
Individual Rock Overturning	2.0	6.9	OK
Individual Rock Sliding	1.5	2.6	OK
Bearing Capacity	2.0	7.9	OK
Seismic Overturning	1.5	2.2	OK
Seismic Sliding	1.1	1.5	OK
Seismic Bearing Capacity	1.5	7.9	OK
Seismic Wall Movement	1.1	1.1	OK

(Since FS (seismic wall movement) > 1.1, there is a 90% probability that the rockery displacement will not exceed Δ)

Surcharge:

Uniform:	Uniform Applied Surcharge			Strip:	Strip Load Surcharge		
$q_s =$	0	psf		$q_s =$	250	psf	
$F_s =$	0	lb/ft	(Horizontal Surcharge Load)	$x_s =$	2	ft	(Distance from soil cut)
$y_s =$	6.5	ft	(Surcharge load centroid)	$W_s =$	22	ft	(Width of Strip Load)

$F_s =$ 388 lb/ft (Horizontal Surcharge Load)
 $y_s =$ 5.5 ft

Factor of Safety against Bearing Capacity:

$e_{\text{max}} =$	1.167	$q_{\text{max}} =$	1,841	psf	$e_{s,s} =$	0.546	$\text{FS}_{\text{BC}} =$	9.90	Eccentricity Check (static): OK
$e_s =$	-0.269	$q_{\text{ult}} =$	18,208	psf	$q_{\text{max},s} =$	2,310	$\text{FS}_{\text{BC},s} =$	7.90	Eccentricity Check (seismic): OK

Rocks = 5 (R* - Boulder Height to Width Ratio)

Boulder	B' (ft)	R*	H_R (ft)	H-H' (ft)	ΣW_i	$\Sigma W_i * x_i$	F_H	$F_{H,s}$	F_u	$F_{u,s}$	M_o	$M_{o,s}$	M_r	$M_{r,s}$	FS_{SL}	FS_{OT}	$\text{FS}_{\text{SL},s}$	$\text{FS}_{\text{OT},s}$
1	7.0	0.58	4.1	13.0	9,402	47,075	2,482	5,249	7,324	7,781	10,104	27,746	55,073	60,280	3.0	5.5	1.5	2.2
2	5.5	0.58	3.2	8.9	5,291	19,944	1,237	2,663	3,185	3,354	3,358	9,610	22,878	24,777	2.6	6.9	1.3	2.6
3	4.5	0.60	2.7	5.7	2,779	7,441	535	1,215	1,641	1,711	892	2,767	8,415	9,039	3.1	9.5	1.5	3.3
4	3.0	0.60	1.8	3.0	1,058	1,807	148	381	613	632	122	466	1,985	2,098	4.2	>10	1.7	4.5
5	2.0	0.60	1.2	1.2	315	315	18	78	178	181	7	44	334	345	10.0	>10	2.4	7.8
6	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

13.0 Total Estimated Height of Rockery

(See Mack, et. al [2006], Rockery Design and Construction Guidelines, Report No. FHWA-CFL/TD-06-006, Report Dated November 2006 - for term definitions and equations)



PROJECT: Falls Creek
PROJECT NO.: 00114-152
DATE: 10/30/2025

SECTION: 10-foot Exposed Rockery
SURCHARGE: Roadway

Rockery Geometry & Soil Data:

$H_{\text{total}} = 11$ ft Total Height of Rockery
 $H_R = 10$ ft Exposed Height of Rockery
 $\phi_s = 34$ deg Soil Friction Angle - Effective
 $c_s = 0$ psf Cohesion Intercept of soil
 $\gamma_s = 135$ pcf Unit weight of the soil
 $\gamma_R = 150$ pcf Unit weight of the rock
 $\delta = 34.0$ deg Interface Friction Angle
 $\psi = 7.1$ deg Back Cut Inclination
 $\mu = 0.70$ Frictional Component
 $\mu_{\text{rock}} = 0.55$ Rock-to-Rock Friction
 $K_A = 0.207$ Active Earth Pressure Coefficient
 $v = 63.4$ deg Rockery Face Angle

Slope Geometry: Backslope: **5.0** H **0.0** V
Bedslope: $\beta_{\text{eq}} = 0.0$ deg Eq. Backslope Angle
Soil Cut Angle: $\alpha = 82.9$ deg Soil Cut Angle
Rockery Face Slope: **1** H **2** V

Seismic Earth Pressure Coefficient: (Mack et al., 2006)
 $A_S = 0.453$ Peak Ground Acceleration (7% in 75 years)
 $\Delta = 4.53$ in (10*A_S)
 $k_h = 0.155$ (Using Richards & Elms Approach)
 $k_v = 0$
 $\theta = 8.79$
 $K_{\text{AE}} = 0.313$

Broken Back Slope: **N**
Bedslope Rise: **0** ft

Failure Mechanism	FS Required	FS Obtained	OK
External Sliding	1.5	2.8	OK
External Overturning	2.0	5.1	OK
Individual Rock Overturning	2.0	6.5	OK
Individual Rock Sliding	1.5	2.5	OK
Bearing Capacity	2.0	7.7	OK
Seismic Overturning	1.5	2.1	OK
Seismic Sliding	1.1	1.5	OK
Seismic Bearing Capacity	1.5	7.7	OK
Seismic Wall Movement	1.1	1.1	OK

(Since FS (seismic wall movement) > 1.1, there is a 90% probability that the rockery displacement will not exceed Δ)

$F_s = 319$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 4.5$ ft

Surcharge:

Uniform: Uniform Applied Surcharge

$q_s = 0$ psf
 $F_s = 0$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 5.5$ ft (Surcharge load centroid)

Strip: Strip Load Surcharge

$q_s = 250$ psf
 $x_s = 2$ ft (Distance from soil cut)
 $W_s = 18$ ft (Width of Strip Load)

Factor of Safety against Bearing Capacity:

$e_{\text{max}} = 0.917$ $q_{\text{max}} = 1,682$ psf $e_{s,s} = 0.410$ **FS_{BC} 9.00**
 $e_s = -0.266$ $q_{\text{ult}} = 15,125$ psf $q_{\text{max},s} = 1,989$ **FS_{BC,s} 7.70**

Eccentricity Check (static): **OK**
Eccentricity Check (seismic): **OK**

Rocks = **5** (R* - Boulder Height to Width Ratio)

Boulder	B' (ft)	R*	H _R (ft)	H-H' (ft)	ΣW_i	$\Sigma W_i * x_i$	F _H	F _{H,s}	F _u	F _{u,s}	M _o	M _{o,s}	M _r	M _{r,s}	FS _{SL}	FS _{OT}	FS _{SL,s}	FS _{OT,s}
1	5.5	0.58	3.2	11.0	6,405	27,047	1,826	3,750	5,018	5,347	6,240	16,885	31,598	34,574	2.8	5.1	1.5	2.1
2	4.5	0.60	2.7	7.8	3,893	12,768	958	2,028	2,353	2,483	2,263	6,435	14,625	15,830	2.5	6.5	1.3	2.5
3	4.0	0.60	2.4	5.1	2,171	5,154	437	973	1,285	1,340	639	1,967	5,847	6,291	3.0	9.2	1.4	3.2
4	2.5	0.60	1.5	2.7	821	1,279	117	300	477	493	87	338	1,399	1,476	4.1	>10	1.7	4.4
5	2.0	0.60	1.2	1.2	315	315	18	78	178	181	7	44	334	345	10.0	>10	2.4	7.8
6	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

11.0 Total Estimated Height of Rockery

(See Mack, et. al [2006], Rockery Design and Construction Guidelines, Report No. FHWA-CFL/TD-06-006, Report Dated November 2006 - for term definitions and equations)



PROJECT: Falls Creek
PROJECT NO.: 00114-152
DATE: 10/30/2025

SECTION: 8-foot Exposed Rockery
SURCHARGE: Roadway

Rockery Geometry & Soil Data:

$H_{\text{total}} = 9$ ft Total Height of Rockery
 $H_R = 8$ ft Exposed Height of Rockery
 $\phi_s = 34$ deg Soil Friction Angle - Effective
 $c_s = 0$ psf Cohesion Intercept of soil
 $\gamma_s = 135$ pcf Unit weight of the soil
 $\gamma_R = 150$ pcf Unit weight of the rock
 $\delta = 34.0$ deg Interface Friction Angle
 $\psi = 7.1$ deg Back Cut Inclination
 $\mu = 0.70$ Frictional Component
 $\mu_{\text{rock}} = 0.55$ Rock-to-Rock Friction
 $K_A = 0.207$ Active Earth Pressure Coefficient
 $v = 63.4$ deg Rockery Face Angle

Slope Geometry: Backslope: **5.0** H **0.0** V
Bedslope: $\beta_{\text{eq}} = 0.0$ deg Eq. Backslope Angle
Soil Cut Angle: $\alpha = 82.9$ deg Soil Cut Angle
Rockery Face Slope: **1** H **2** V

Seismic Earth Pressure Coefficient: (Mack et al., 2006)
 $A_S = 0.453$ Peak Ground Acceleration (7% in 75 years)
 $\Delta = 4.53$ in (10*A_S)
 $k_h = 0.155$ (Using Richards & Elms Approach)
 $k_v = 0$
 $\theta = 8.79$
 $K_{\text{AE}} = 0.313$

Broken Back Slope: **N**
Bedslope Rise: **0** ft

Failure Mechanism	FS Required	FS Obtained	OK
External Sliding	1.5	2.9	OK
External Overturning	2.0	5.5	OK
Individual Rock Overturning	2.0	8.1	OK
Individual Rock Sliding	1.5	2.8	OK
Bearing Capacity	2.0	8.1	OK
Seismic Overturning	1.5	2.2	OK
Seismic Sliding	1.1	1.5	OK
Seismic Bearing Capacity	1.5	8.3	OK
Seismic Wall Movement	1.1	1.2	OK

(Since FS (seismic wall movement) > 1.1, there is a 90% probability that the rockery displacement will not exceed Δ)

$F_s = 233$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 3.5$ ft

Surcharge:

Uniform: Uniform Applied Surcharge

$q_s = 0$ psf
 $F_s = 0$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 4.5$ ft (Surcharge load centroid)

Strip: Strip Load Surcharge

$q_s = 250$ psf
 $x_s = 2$ ft (Distance from soil cut)
 $W_s = 14$ ft (Width of Strip Load)

Factor of Safety against Bearing Capacity:

$e_{\text{max}} = 0.750$ $q_{\text{max}} = 1,604$ psf $e_{s,s} = 0.222$ **FS_{BC} 8.10**
 $e_s = -0.306$ $q_{\text{ult}} = 12,843$ psf $q_{\text{max},s} = 1,552$ **FS_{BC,s} 8.30**

Eccentricity Check (static): **OK**
Eccentricity Check (seismic): **OK**

Rocks = **4** (R* - Boulder Height to Width Ratio)

Boulder	B' (ft)	R*	H _R (ft)	H-H' (ft)	ΣW_i	$\Sigma W_i * x_i$	F _H	F _{H,s}	F _u	F _{u,s}	M _o	M _{o,s}	M _r	M _{r,s}	FS _{SL}	FS _{OT}	FS _{SL,s}	FS _{OT,s}
1	4.5	0.70	3.2	9.0	4,616	16,375	1,244	2,581	3,590	3,811	3,441	9,577	18,872	20,505	2.9	5.5	1.5	2.2
2	4.0	0.65	2.6	5.9	2,608	6,798	559	1,226	1,554	1,627	960	2,897	7,717	8,308	2.8	8.1	1.4	2.9
3	3.0	0.65	2.0	3.3	1,146	1,991	173	431	667	689	156	572	2,201	2,334	3.9	>10	1.6	4.1
4	2.0	0.65	1.3	1.3	341	341	21	87	194	197	9	54	363	377	9.2	>10	2.3	7.1
5	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

9.0 Total Estimated Height of Rockery

(See Mack, et. al [2006], Rockery Design and Construction Guidelines, Report No. FHWA-CFL/TD-06-006, Report Dated November 2006 - for term definitions and equations)



PROJECT: Falls Creek
PROJECT NO.: 00114-152
DATE: 10/30/2025

SECTION: 6-foot Exposed Rockery
SURCHARGE: Roadway

Rockery Geometry & Soil Data:

$H_{\text{total}} = 7$ ft Total Height of Rockery
 $H_R = 6$ ft Exposed Height of Rockery
 $\phi_s = 34$ deg Soil Friction Angle - Effective
 $c_s = 0$ psf Cohesion Intercept of soil
 $\gamma_s = 135$ pcf Unit weight of the soil
 $\gamma_R = 150$ pcf Unit weight of the rock
 $\delta = 34.0$ deg Interface Friction Angle
 $\psi = 7.1$ deg Back Cut Inclination
 $\mu = 0.70$ Frictional Component
 $\mu_{\text{rock}} = 0.55$ Rock-to-Rock Friction
 $K_A = 0.207$ Active Earth Pressure Coefficient
 $v = 63.4$ deg Rockery Face Angle

Slope Geometry: Backslope: **5.0** H **0.0** V
Bedslope: $\beta_{\text{eq}} = 0.0$ deg Eq. Backslope Angle
Soil Cut Angle: $\alpha = 82.9$ deg Soil Cut Angle
Rockery Face Slope: **1** H **2** V

Seismic Earth Pressure Coefficient: (Mack et al., 2006)
 $A_S = 0.453$ Peak Ground Acceleration (7% in 75 years)
 $\Delta = 4.53$ in (10*A_S)
 $k_h = 0.155$ (Using Richards & Elms Approach)
 $k_v = 0$
 $\theta = 8.79$
 $K_{AE} = 0.313$

Broken Back Slope: **N**
Bedslope Rise: **0** ft

Failure Mechanism	FS Required	FS Obtained	OK
External Sliding	1.5	2.8	OK
External Overturning	2.0	5.3	OK
Individual Rock Overturning	2.0	7.8	OK
Individual Rock Sliding	1.5	2.7	OK
Bearing Capacity	2.0	9.2	OK
Seismic Overturning	1.5	2.1	OK
Seismic Sliding	1.1	1.5	OK
Seismic Bearing Capacity	1.5	9.2	OK
Seismic Wall Movement	1.1	1.1	OK

(Since FS (seismic wall movement) > 1.1, there is a 90% probability that the rockery displacement will not exceed Δ)

$F_s = 156$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 2.5$ ft

Surcharge:

Uniform: Uniform Applied Surcharge

$q_s = 0$ psf
 $F_s = 0$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 3.5$ ft (Surcharge load centroid)

Strip: Strip Load Surcharge

$q_s = 250$ psf
 $x_s = 2$ ft (Distance from soil cut)
 $W_s = 10$ ft (Width of Strip Load)

Factor of Safety against Bearing Capacity:

$e_{\text{max}} = 0.583$ $q_{\text{max}} = 1,041$ psf $e_{s,s} = 0.230$ **FS_{BC} 11.10**
 $e_s = -0.127$ $q_{\text{ult}} = 11,503$ psf $q_{\text{max},s} = 1,254$ **FS_{BC,s} 9.20**

Eccentricity Check (static): **OK**
Eccentricity Check (seismic): **OK**

Rocks = **4** (R* - Boulder Height to Width Ratio)

Boulder	B' (ft)	R*	H _R (ft)	H-H' (ft)	ΣW_i	$\Sigma W_i * x_i$	F _H	F _{H,s}	F _u	F _{u,s}	M _o	M _{o,s}	M _r	M _{r,s}	FS _{SL}	FS _{OT}	FS _{SL,s}	FS _{OT,s}
1	3.5	0.70	2.5	7.0	2,681	7,302	767	1,559	2,094	2,227	1,622	4,458	8,477	9,245	2.8	5.3	1.5	2.1
2	3.0	0.65	2.0	4.6	1,487	2,998	339	728	890	934	443	1,342	3,416	3,685	2.7	7.8	1.3	2.8
3	2.0	0.65	1.3	2.6	683	1,015	102	260	399	413	76	294	1,105	1,163	3.9	>10	1.6	4.0
4	2.0	0.65	1.3	1.3	341	341	21	87	194	197	9	54	363	377	9.2	>10	2.3	7.1
5	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7.0 Total Estimated Height of Rockery

(See Mack, et. al [2006], Rockery Design and Construction Guidelines, Report No. FHWA-CFL/TD-06-006, Report Dated November 2006 - for term definitions and equations)



PROJECT: Falls Creek
PROJECT NO.: 00114-152
DATE: 10/30/2025

SECTION: 4-foot Exposed Rockery
SURCHARGE: Roadway

Rockery Geometry & Soil Data:

$H_{\text{total}} = 5$ ft Total Height of Rockery
 $H_R = 4$ ft Exposed Height of Rockery
 $\phi_s = 34$ deg Soil Friction Angle - Effective
 $c_s = 0$ psf Cohesion Intercept of soil
 $\gamma_s = 135$ pcf Unit weight of the soil
 $\gamma_R = 150$ pcf Unit weight of the rock
 $\delta = 34.0$ deg Interface Friction Angle
 $\psi = 7.1$ deg Back Cut Inclination
 $\mu = 0.70$ Frictional Component
 $\mu_{\text{rock}} = 0.55$ Rock-to-Rock Friction
 $K_A = 0.207$ Active Earth Pressure Coefficient
 $v = 63.4$ deg Rockery Face Angle

Slope Geometry: Backslope: **5.0** H **0.0** V
Bedslope: $\beta_{\text{eq}} = 0.0$ deg Eq. Backslope Angle
Soil Cut Angle: $\alpha = 82.9$ deg Soil Cut Angle
Rockery Face Slope: **1** H **2** V

Seismic Earth Pressure Coefficient: (Mack et al., 2006)
 $A_S = 0.453$ Peak Ground Acceleration (7% in 75 years)
 $\Delta = 4.53$ in ($10 \cdot A_S$)
 $k_h = 0.155$ (Using Richards & Elms Approach)
 $k_v = 0$
 $\theta = 8.79$
 $K_{AE} = 0.313$

Broken Back Slope: **N**
Bedslope Rise: **0** ft

Failure Mechanism	FS Required	FS Obtained	OK
External Sliding	1.5	3.3	OK
External Overturning	2.0	6.8	OK
Individual Rock Overturning	2.0	>10	OK
Individual Rock Sliding	1.5	3.7	OK
Bearing Capacity	2.0	>10	OK
Seismic Overturning	1.5	2.5	OK
Seismic Sliding	1.1	1.6	OK
Seismic Bearing Capacity	1.5	13.0	OK
Seismic Wall Movement	1.1	1.4	OK

(Since FS (seismic wall movement) > 1.1, there is a 90% probability that the rockery displacement will not exceed Δ)

$F_s = 81$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 1.5$ ft

Surcharge:

Uniform: Uniform Applied Surcharge

$q_s = 0$ psf
 $F_s = 0$ lbf/ft (Horizontal Surcharge Load)
 $y_s = 2.5$ ft (Surcharge load centroid)

Strip: Strip Load Surcharge

$q_s = 250$ psf
 $x_s = 2$ ft (Distance from soil cut)
 $W_s = 6$ ft (Width of Strip Load)

Factor of Safety against Bearing Capacity:

$e_{\text{max}} = 0.500$ $q_{\text{max}} = 699$ psf $e_{s,s} = 0.154$ **FS_{BC} 15.30**
 $e_s = -0.080$ $q_{\text{ult}} = 10,670$ psf $q_{\text{max},s} = 824$ **FS_{BC,s} 13.00**

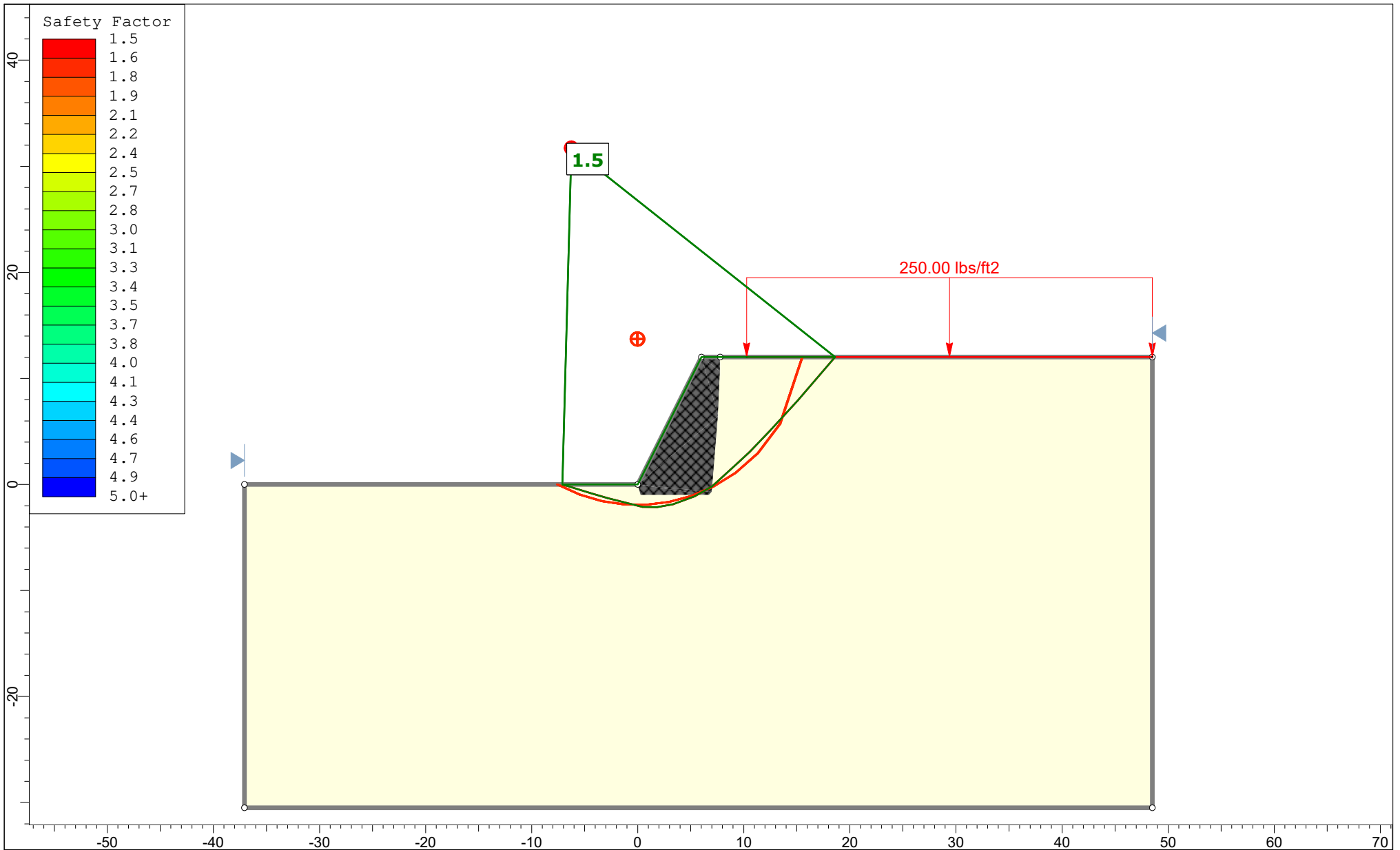
Eccentricity Check (static): **OK**
Eccentricity Check (seismic): **OK**

Rocks = **3** (R* - Boulder Height to Width Ratio)

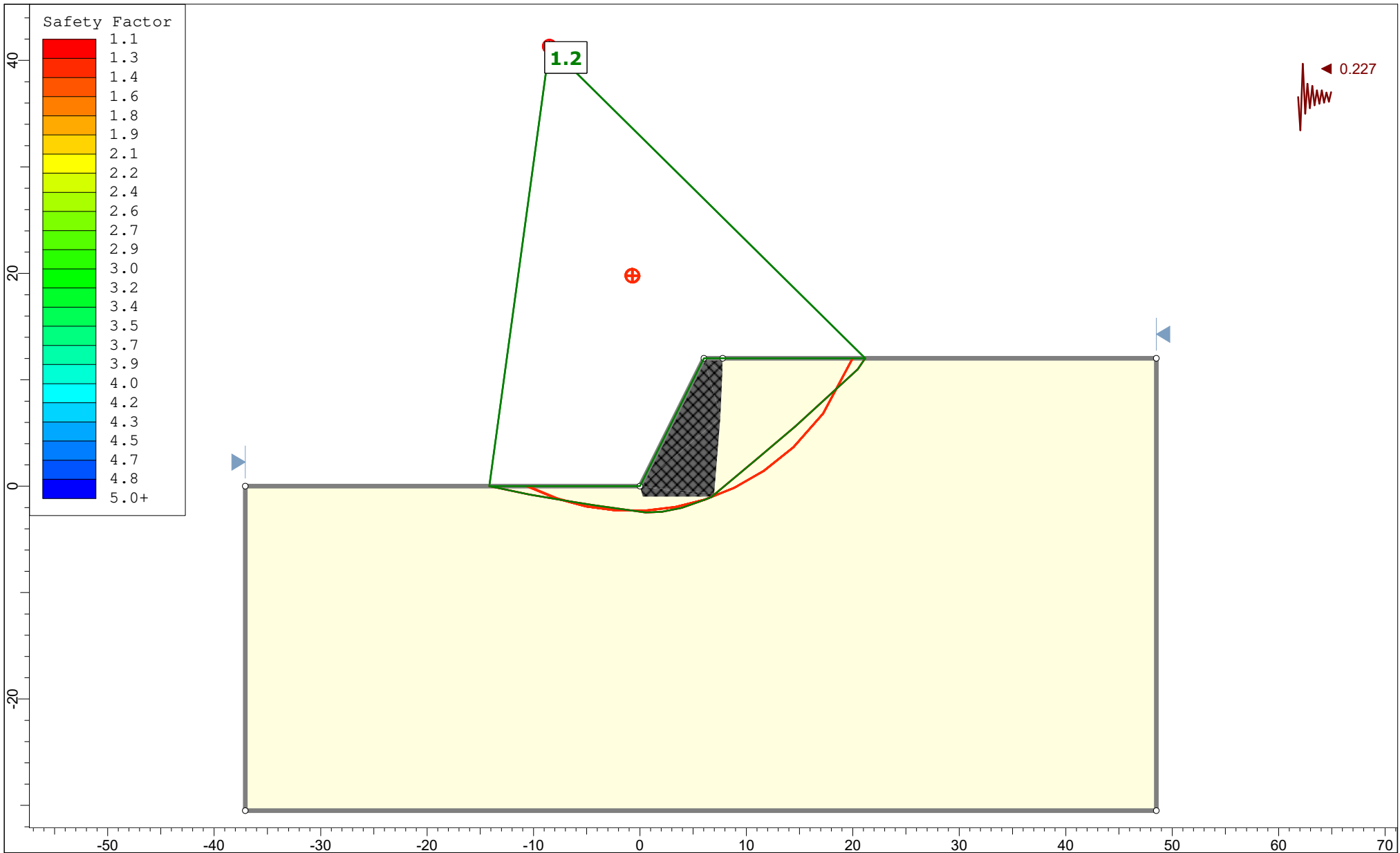
Boulder	B' (ft)	R*	H _R (ft)	H-H' (ft)	ΣW_i	$\Sigma W_i \cdot x_i$	F _H	F _{H,s}	F _u	F _{u,s}	M _o	M _{o,s}	M _r	M _{r,s}	FS _{SL}	FS _{OT}	FS _{SL,s}	FS _{OT,s}
1	3.0	0.74	2.2	5.0	1,651	3,439	395	841	1,267	1,336	587	1,739	3,951	4,282	3.3	6.8	1.6	2.5
2	2.0	0.70	1.4	2.8	735	1,121	118	292	432	448	95	356	1,226	1,293	3.7	>10	1.6	3.7
3	2.0	0.70	1.4	1.4	368	368	24	96	209	213	11	64	393	409	8.6	>10	2.3	6.5
4	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8	0.0	0.00	0.0	N/A	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

5.0 Total Estimated Height of Rockery

(See Mack, et. al [2006], Rockery Design and Construction Guidelines, Report No. FHWA-CFL/TD-06-006, Report Dated November 2006 - for term definitions and equations)



Project			
Falls Creek - Rockery Design Package			
Analysis Description			
Global Stability Analysis - Static			
Drawn By	Tyler Loertscher	Scale	1:150
Date		Company	IGES, Inc.
10/30/2025		File Name	00114-152.slmd



Project			
Falls Creek - Rockery Design Package			
Analysis Description			
Global Stability Analysis - Seismic			
Drawn By	Tyler Loertscher	Scale	1:150
Date		Company	IGES, Inc.
10/30/2025		File Name	00114-152.slmd

Slide2 Analysis Information

00114-152

Project Summary

File Name:	00114-152.slmd
Slide2 Modeler Version:	9.036
Project Title:	Falls Creek - Rockery Design Package
Analysis:	Global Stability Analysis
Author:	Tyler Loertscher
Company:	IGES, Inc.
Date Created:	10/30/2025

Currently Open Scenarios

Group Name	Scenario Name	Global Minimum	Compute Time
Maximum Section 	Static	Spencer: 1.548310	00h:00m:02.69s
	Seismic	Spencer: 1.229590	00h:00m:02.72s

Seismic Loading

Maximum Section - Static

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No

Maximum Section - Seismic

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No
Seismic Load Coefficient (Horizontal):	0.227

Loading

Maximum Section - Static

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Normal to boundary

Materials

Native

Color	
Strength Type	Mohr-Coulomb
Unit Weight	135 lbs/ft3
Cohesion	50 psf
Phi	34 °
Water Surface	Assigned per scenario
Ru Value	0

Rockery

Color	
Strength Type	Anisotropic Strength
Unit Weight	150 lbs/ft3
Cohesion 1	0 psf
Phi 1	45 °
Cohesion 2	2000 psf
Phi 2	0 °
Angle (ccw to 1)	-10 °
Water Surface	Assigned per scenario
Ru Value	0

Materials In Use

	Material		Static		Seismic
Native		✓		✓	
Rockery		✓		✓	

Global Minimums**◆ Maximum Section - Static**

Method: spencer

	FS	1.548310
Axis Location:	-6.253, 31.709	
Left Slip Surface Endpoint:	-7.107, 0.000	
Right Slip Surface Endpoint:	18.602, 12.000	
Resisting Moment:	548924 lb-ft	
Driving Moment:	354531 lb-ft	
Resisting Horizontal Force:	13833.2 lb	
Driving Horizontal Force:	8934.41 lb	
Total Slice Area:	140.884 ft2	
Surface Horizontal Width:	25.7086 ft	
Surface Average Height:	5.48004 ft	

◆ Maximum Section - Seismic

Method: spencer

	FS	1.229590
Axis Location:	-8.501, 41.306	
Left Slip Surface Endpoint:	-14.154, 0.000	
Right Slip Surface Endpoint:	21.152, 12.000	
Resisting Moment:	749196 lb-ft	
Driving Moment:	609304 lb-ft	
Resisting Horizontal Force:	15436.1 lb	
Driving Horizontal Force:	12553.8 lb	
Total Slice Area:	175.312 ft2	
Surface Horizontal Width:	35.3057 ft	
Surface Average Height:	4.96555 ft	