

Road and Street Standards Exception Request

Project: N116.01

Hard Six Cellars Road Exception-Rev1 DELTA CONSULTING & ENGINEERING OF ST. HELENA



January 8, 2018

Patrick Ryan, PE
Engineering Supervisor
Napa County Public Works
1195 Third Street
Napa, California 94559

Subject: Use Permit Road Exception Request

Hard Six Cellars

1755 S. Fork Diamond Mountain Road

Calistoga, CA 94515 APN: 020-100-014

Patrick,

This letter is to request specific exceptions to the November 22, 2016, Napa County Road and Street Standards (RSS) for an existing driveway from Diamond Mountain Road (South Fork) to serve a proposed winery site on the subject parcel noted above. The parcel is currently accessed by a private driveway that ranges in width from 10-12 feet and serves a single-family residence and vineyards. The proposed winery is located along the existing driveway, approximately 1,050 feet distant along the centerline from its intersection with Diamond Mountain Road. This length of driveway traverses a steep and densely wooded hillside where the uphill and downhill cross slope exceeds 50%. In addition, over an approximately 40 ft foot section of the driveway, the longitudinal slope exceeds 21.5%.

This letter shall be considered a formal request for an exception from the RSS for the access drive based on environmental and/or legal constraints which are described below. Included with this request letter is a set of exhibits from the Revision 2 Use Permit Plan Set titled, "Hard Six Cellars," dated December 18, 2017, which detail the sections of the driveway where it 1) meets the standard, 2) does not meet the standard, 3) areas requiring an exception request, 4) and where mitigation improvements are proposed to allow the drive to meet the same overall practical effects of the RSS.

Road Exception Request Descriptions

Exception #1: Station 0+05 to 0+60

Request for Non-Standard Driveway Apron

Where the driveway meets Diamond Mountain Road (DMR), the existing pavement inside turning radius is approximately six-feet with an inside longitudinal slope of approximately 34%. The limited existing inside turning radius and steep slope are due to a nearly 160-degree turning angle between DMR and the driveway over a narrow driveway apron area. The existing driveway apron width and turning angle are constrained by an approximately 250% uphill cut slope (near vertical) and 80% downhill cross slope. Additionally, the driveway apron is located within a 40-foot wide easement over the adjacent parcel which constrains the extent of improvements available for the initial 170-feet of the driveway.

Improving the driveway to provide a standard 90-degree turning angle with a 20-foot inside turning radius per RSS Detail P-2 would require excessive grading into the 250% cut slope and grading outside of the 40-foot easement boundary. It should further be noted that a Napa County definitional creek is located on the west side of DMR (across DMR from the entrance), and improvements to the driveway apron will require grading within the creek setback. Therefore, due to limited physical space, steep slopes, and easement constraints on both sides of the driveway, installation of a RSS Driveway Apron per Detail P-2 is not feasible.

Proposed Mitigation

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To provide the same overall practical effect as the RSS, Hard Six Cellars (HSC) requests to widen the inside pavement extents by approximately 10-feet and reduce the inside slope to approximately 18% while maintaining the existing inside turning radius of six feet. This will allow for a fully loaded fire apparatus to access the driveway in a single turning movement.

To verify the ability of a fire apparatus to access the site, an analysis was conducted using AutoDesk Autoturn with Napa County Fire Truck Parameters (8.0 ft. wide, 30.56 ft. long) to 'drive' the truck into the site based on the mitigated site improvements. Additionally, the brush and tree limbs will be cleared to improve the line of sight and a new caution sign will be installed on DMR to notify drivers of the upcoming driveway intersection. Please reference sheets UP2.0 and UP2.1 in the Road Exception Exhibit for the proposed mitigation measures and an analysis of the truck movement to the site.

Exception Request #2: Station 0+60 to 4+50

Request for Roadway Width Less Than 22 feet.

In this section, the existing driveway width varies from 10-12 feet of paved surface and has a blind curve (#1) between Stations 3+60 and 4+50. To widen the driveway to 22-feet, extensive grading would have to occur on adjacent cross slopes of greater than 50%, tree removal, and an exception to the Conservation Regulations for grading on slopes in excess of 30%.

Proposed Mitigation

HSC requests to widen the driveway to the Maximum Extent Practical by providing a one-foot shoulder beginning on the outside (left side of drive facing up station) top of slope and pave the remaining width to an asphalt curb on the toe of the uphill cut slope to achieve an overall width ranging from 12-20 feet. Additionally, to mitigate the blind corner (#1), HSC proposes to install a County Standard turnout (#1) from station 3+60 to 4+50 (through the blind turn). Brush and tree limbs will be cleared to improve sight distance along the driveway. A notification sign shall be placed at station 0+90 stating to uphill drivers "Road Narrows: Uphill Traffic has Right-of-Way" and another at 4+95 stating to downhill drivers "Turnout Ahead. Uphill Traffic has Right-of-Way. Use Turnouts". The proposed areas of widening to the existing driveway are hatched for easy identification on sheets UP2.1 and UP2.2 of the attached exhibits.

Exception #3, Stations 4+40 to 7+00

Reguest Roadway Grade of 19.5% without a preceding and ensuing 10% slope

Beginning at station 4+40 and ending at station 7+00, the existing driveway has an average grade of approximately 18.5%; within this section, between station 4+40 and 4+80, the existing roadway has an average centerline grade of approximately 21.5%. The average slope of the 100-feet preceding station 4+40 is approximately 15% and the average slope of the 100-feet ensuing station 7+00 is 15.5%. Either reducing the roadway grade below 18% between stations 4+40 and 7+00 or reducing the roadway grade below 20% between stations 4+40 and 4+80 with a 10% grade for 100-feet preceding and ensuing would require excessive grading into adjacent slopes of greater than 50% requiring an exception to the Conservation Regulations and tree removal. In addition, three trees located immediately at the existing left (facing up-station) edge of pavement between Stations 5+20 and 5+70 are proposed to remain. The trees are: 36" fir, 14" oak, and 16" oak (according to survey). In addition, there is a 60" fir located at the right edge of pavement at approximately Station 6+85 which is also to remain.

Proposed Mitigation

HSC proposes to match the existing road grade of 19.5% at station 4+40, hold that grade to station 4+86, install a 100-foot vertical curve with an ensuing road grade of 17.9%, and hold that grade to station 7+00, where it ties into an existing road grade of 17.9%. The proposed roadway grade profile is provided on sheet UP2.3 of the attached exhibits.

Exception Reguest #4: Station 4+25 to 8+00:

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Request for Roadway Width Less Than 22 feet.

In this section, the existing driveway width varies from 10-12 feet of paved surface and has a blind curve (#2) between Stations 6+30 and 7+10. To widen the common driveway to 22-feet, extensive grading would have to occur on slopes greater than 50% which would require an exception to the Conservation Regulations and tree removal.

Proposed Mitigation

Beginning at the end of the proposed turnout #1 (Station 4+50 as noted in Exception #2 above), widen the driveway to the Maximum Extent Practical (MEP) by providing a one-foot shoulder on the outside/downhill edge and paving the entire width to the toe of the uphill cut slope up to Station 6+52 to provide a width ranging between 14-22 feet. Between Stations 6+25 and 7+10 (blind corner #2), the driveway will be widened to the Maximum Extent Practical to create a non-standard turnout. The widths will range from 19 feet at Station 6+25, to 22 feet at Station 6+50, to approximately 19 feet at Station 6+80. The section between Stations 6+35 – 6+75 will provide approximately 20 feet of width. The turnout is non-standard due to excessive lateral slopes limiting the ability to construct standard tapers and inability to provide the required 22 feet of width at the turnout itself.

From station 6+52 to the end of the exception request area at station 8+00, the driveway daylights to a cut slope on each side. HSC proposes to install curbs on both sides of the driveway and widen to the face of curb to provide a width ranging between 12-22 feet. The proposed areas of widening to the existing driveway are hatched for easy identification on sheets UP2.3 and UP2.4 of the attached exhibits.

A notification sign shall be placed at approximately Station 8+05 stating to the downhill drivers "Road Narrows. Uphill Traffic has Right-of-Way. Use Turnouts".

Beyond Station 8+00, the access drive shall meet the County Standard width and slope requirements for a winery.

Summary

The Applicant proposes to widen the driveway to the Maximum Extent Practical and regrade the centerline slope to a maximum of 19.5% in the areas where the slope exceeds 20% to achieve the same practical effect as if the road met the RSS. Additionally, the applicant proposes to provide a County Standard turnout #1 at the blind curve between stations 3+60 and 4+50, a non-standard turnout #2 between stations 6+25 and 7+10, and install warning traffic signs at stations 0+90, 4+95, and 8+05. All requested exceptions to the RSS are due to avoid the necessity to grade on slopes in excess of 30%, grading adjacent to a creek along Diamond Mountain Road, to preserve the trees in the surrounding environment, and/or due to legal constraints. Other sections of the driveway outside of this road exception request shall meet the Napa County Road and Street Standards dated November 22, 2016.

It is our request that this modification to the Napa County Road and Street Standards be approved with the proposed improvements described above.

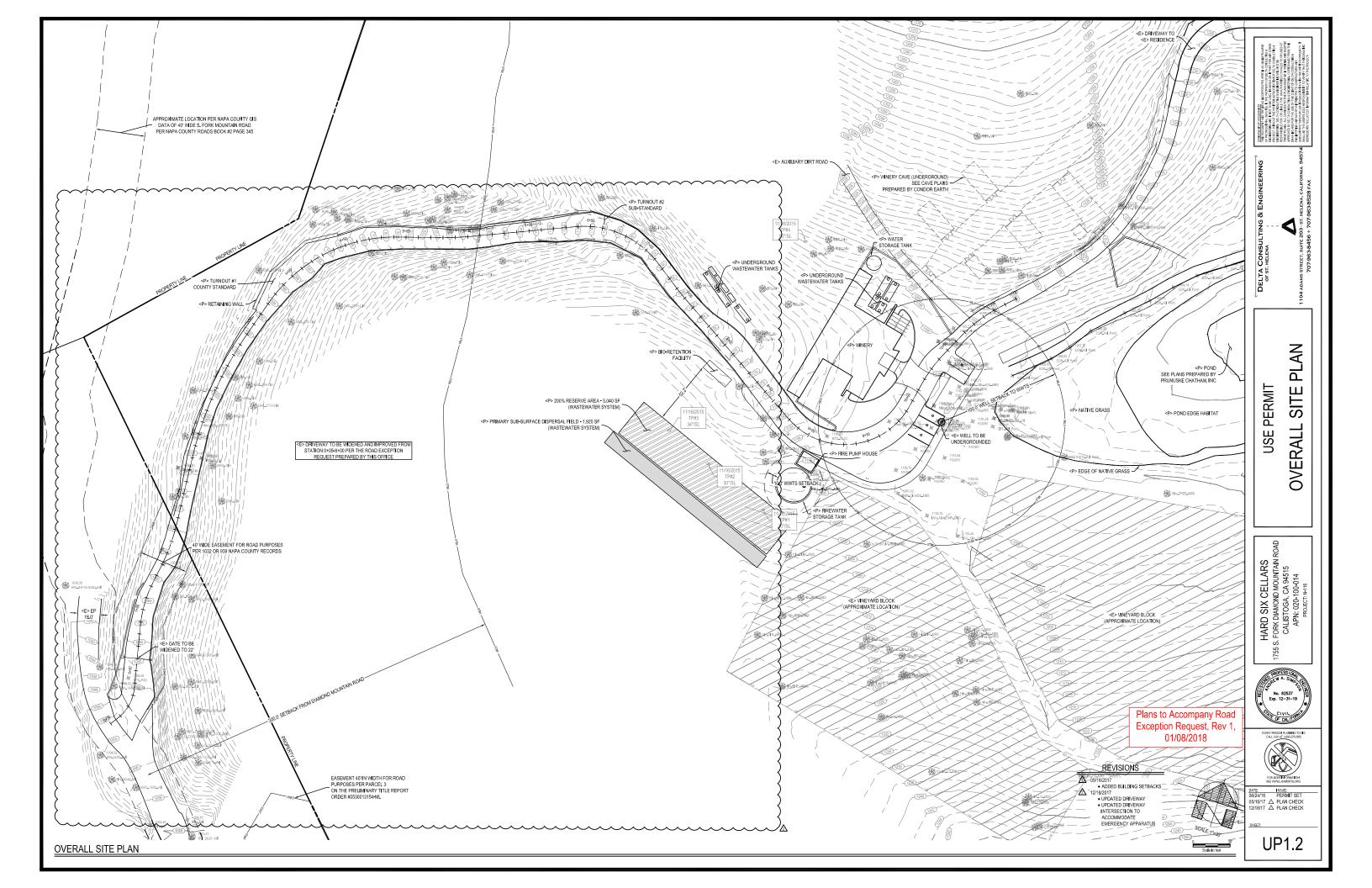
Please feet free to contact me if you have any questions.

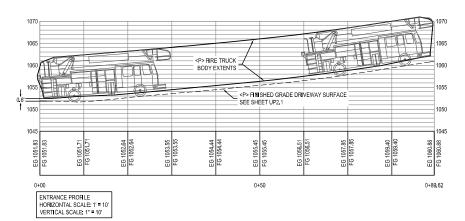
Andrew Simpson Principal

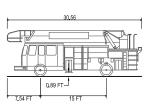
Attachments

Sincerely,

Road Exception Exhibit (11x17 reduced size version of sheets UP2.0 – UP2.6 from Rev2 Use Permit Plan Set)







NAPA COUNTY FIRE APPARATUS

OVERALL LENGTH
OVERALL MDTH
OVERALL BODY HEIGHT
MIN BODY GROUND CLEARANCE
MAX TRACK WIDTH
LOCK-TOLCCK TIME
MAX STEERING ANGLE 30.56 FT 8.00 FT 10.46 FT 0.89 FT 7.18 FT 6.0 S 40.0°

NAPA COUNTY FIRE APPARATUS - VERTICAL CLEARANCE CHECK

REVISIONS

NEW SHEET DEDICATED TO FIRE DEPARTMENT ACCESS

Plans to Accompany Road Exception Request, Rev 1, 01/08/2018

 DATE
 ISSUE

 06/24/16
 PERMIT SET

 05/16/17
 △ PLAN CHECK

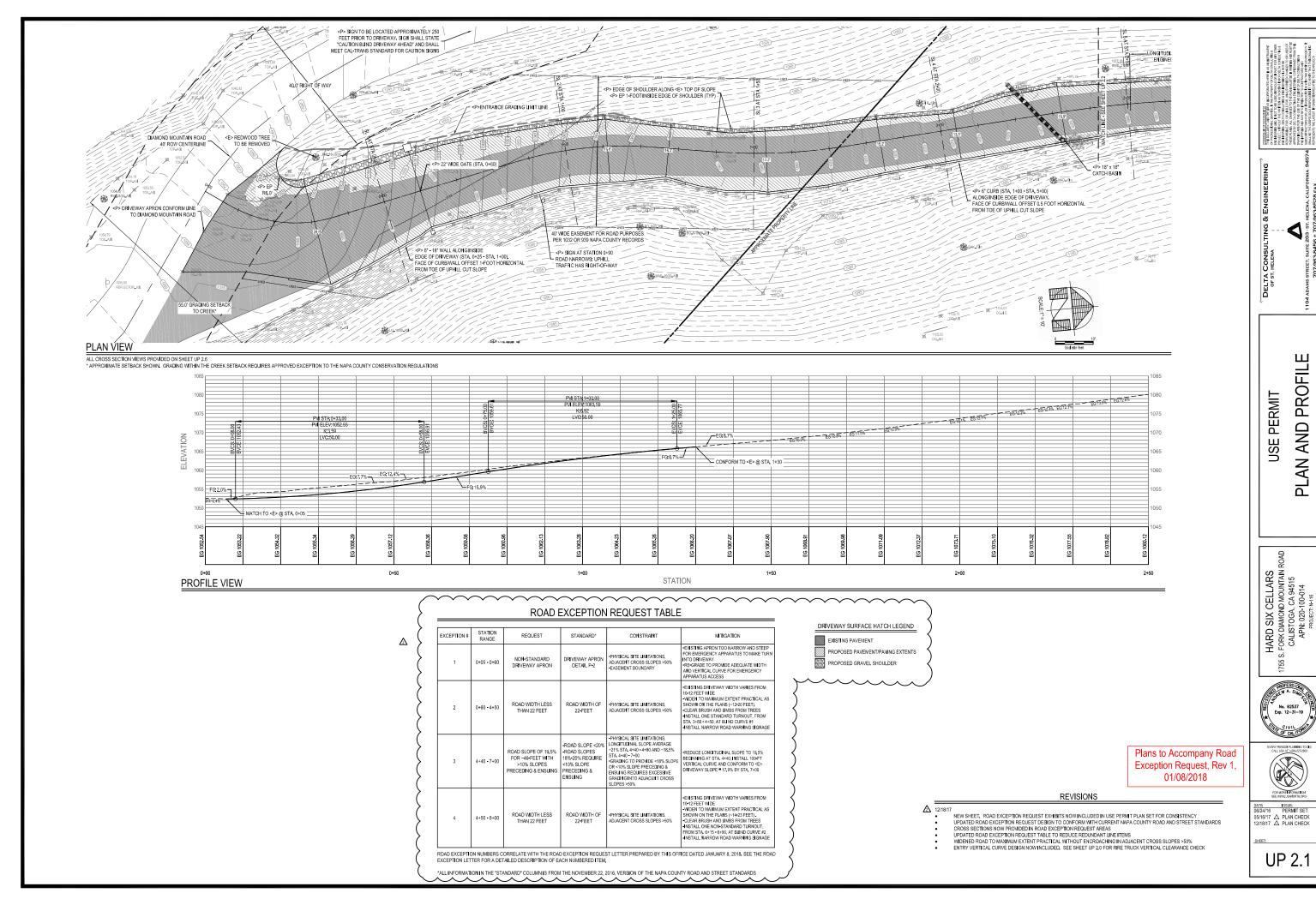
 12/18/17
 △ PLAN CHECK

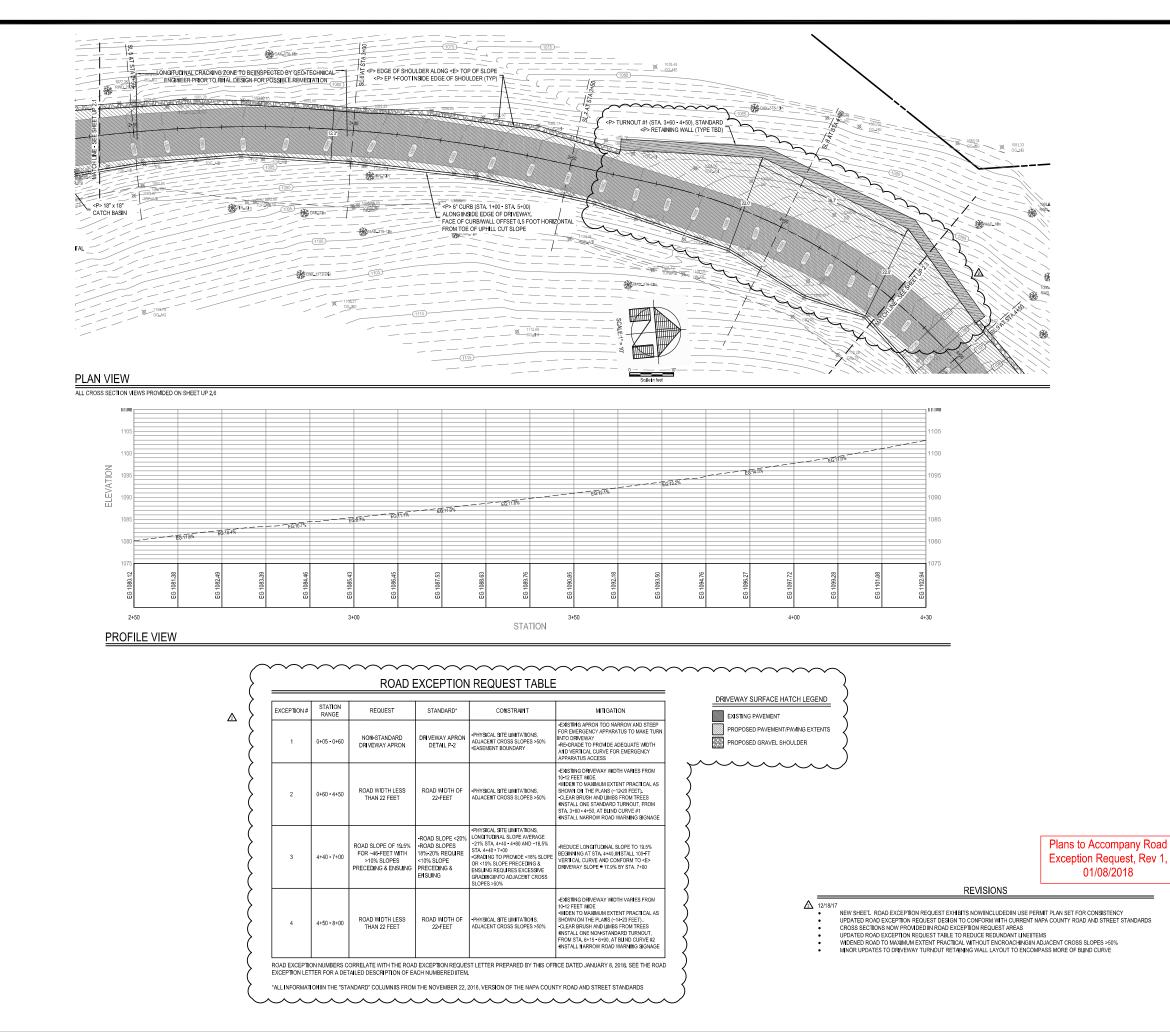
UP 2.0

DELTA CONSULTING & ENGINEER
OF ST. HELENA

ACCESS USE PERMIT **APPARATUS**

FIRE, HARD SIX CELLARS
S. FORK DIAMOND MOUNTAIN RC
CALISTOGA, CA 94515
APN: 020-100-014
PROJECT: N-116





DELTA CONSULTING & ENG

ш PLAN AND PROFIL **USE PERMIT**

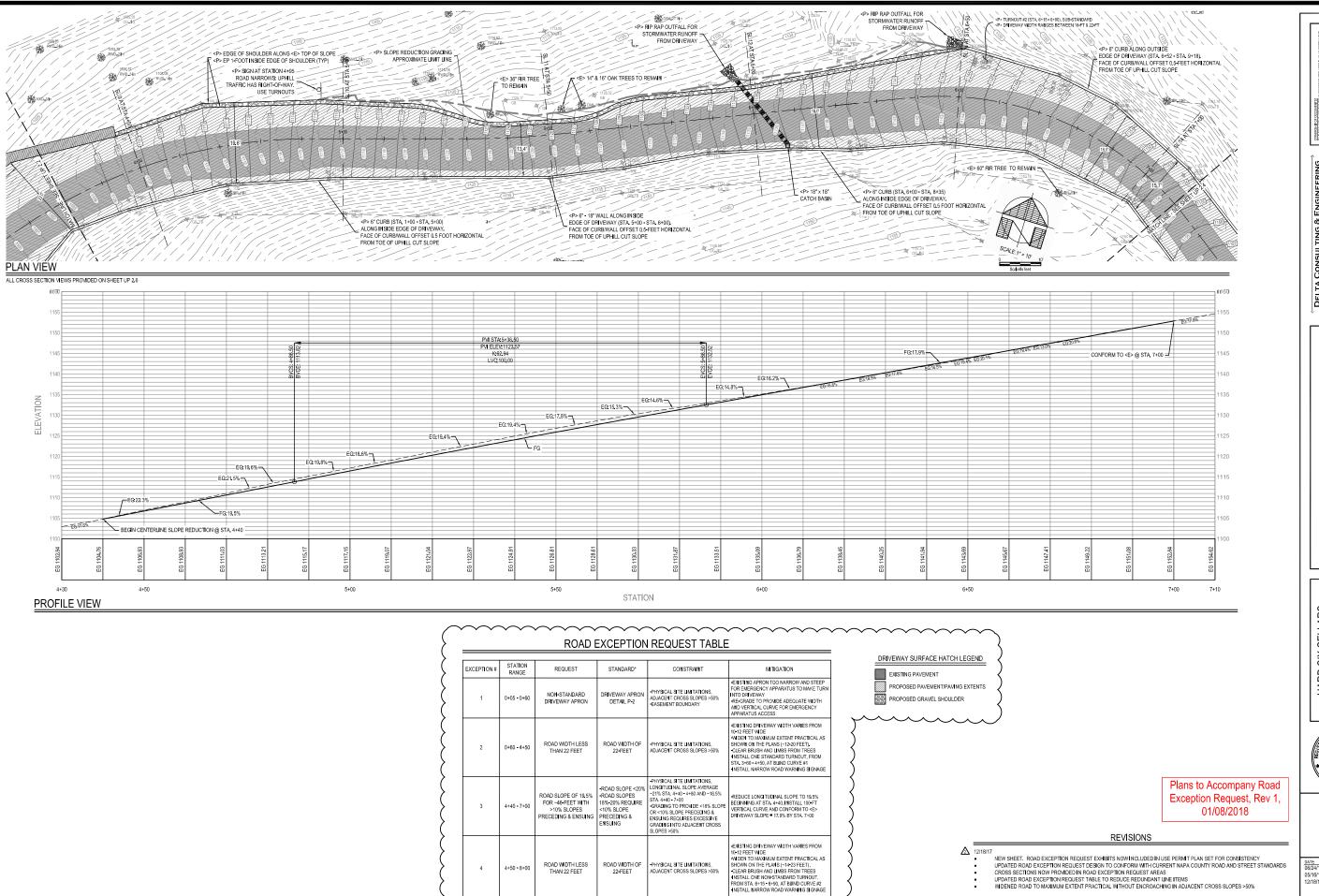
HARD SIX CELLARS
S. FORK DIAMOND MOUNTAIN RC
CALISTOGA, CA 94515
APN: 2020-100-014
PROJECT: N416

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DATE ISSUE: 06/24/16 PERMIT SET

UP 2.2



ROAD EXCEPTION NUMBERS CORRELATE WITH THE ROAD EXCEPTION REQUEST LETTER PREPARED BY THIS OFFICE DATED JANUARY 8, 2018. SEE THE ROAD EXCEPTION LETTER FOR A DETAILED DESCRIPTION OF EACH NUMBERED ITEM.

*ALL INFORMATION IN THE "STANDARD" COLUMN IS FROM THE NOVEMBER 22, 2016, VERSION OF THE NAPA COUNTY ROAD AND STREET STANDARDS

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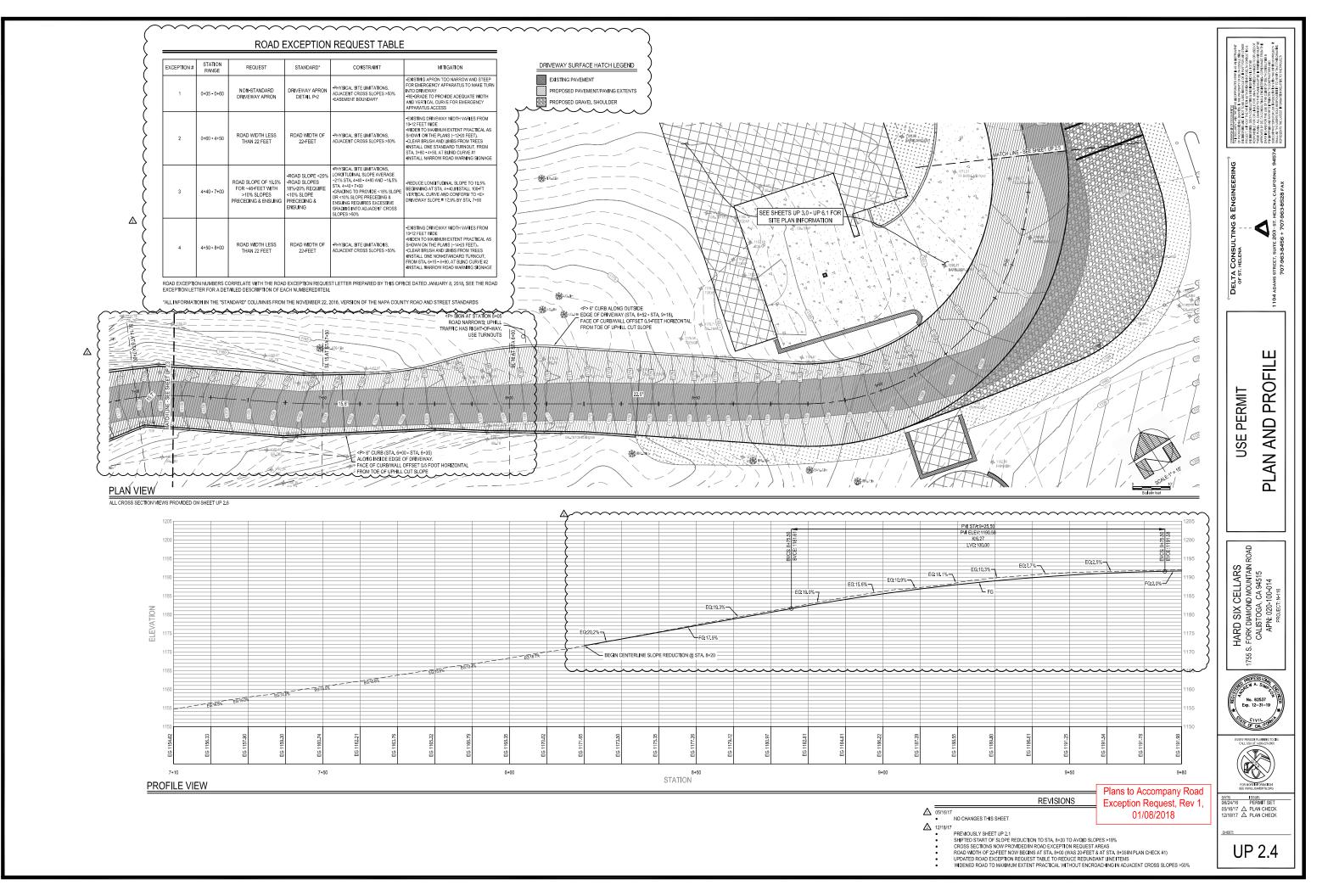
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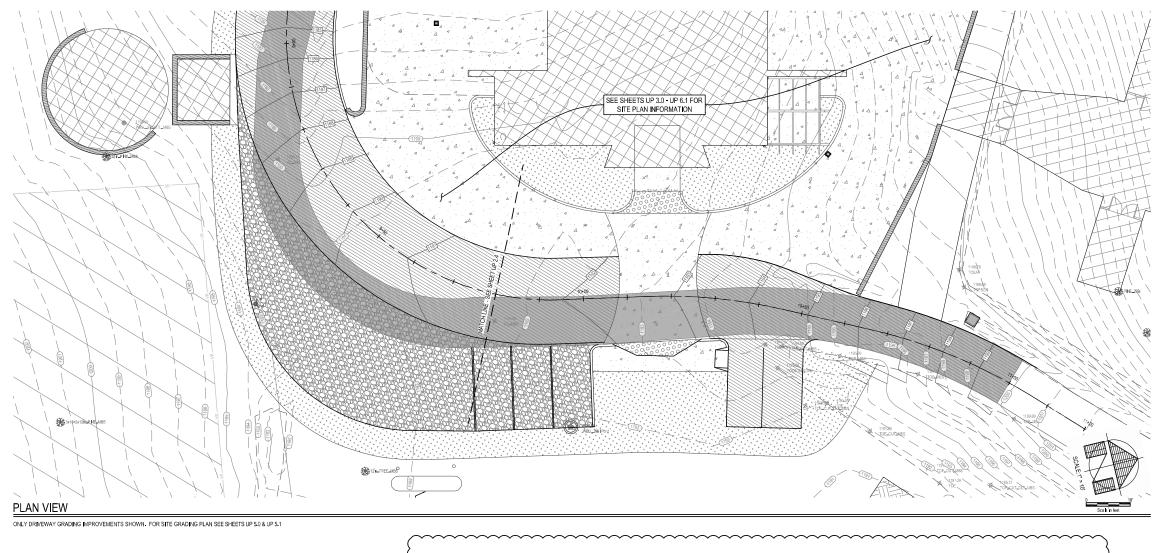
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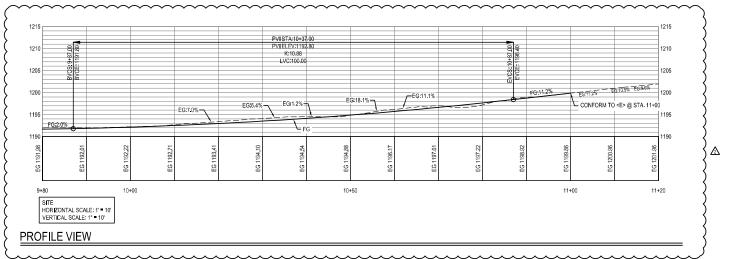
05/16/17 △ PLAN CHECK

12/18/17 △ PLAN CHECK

UP 2.3







DRIVEWAY SURFACE HATCH LEGEND

EXISTING PAVEMENT

PROPOSED PAVEMENT/PAVING EX PROPOSED PAVEMENT/PAVING EXTENTS

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PLAN AND PROFILE USE PERMIT



Plans to Accompany Road Exception Request, Rev 1, 01/08/2018

⚠ 05/16/17

NO CHANGES THIS SHEET

12/18/17

PREVIOUSLY SHEET UP 2.2
REDUCED LENGTH REQUIRED TO CONFORM
TO <E> DRIVEWAY TO RESIDENCE.
PREVIOUSLY STA. 12+35, NOW STA. 11+00

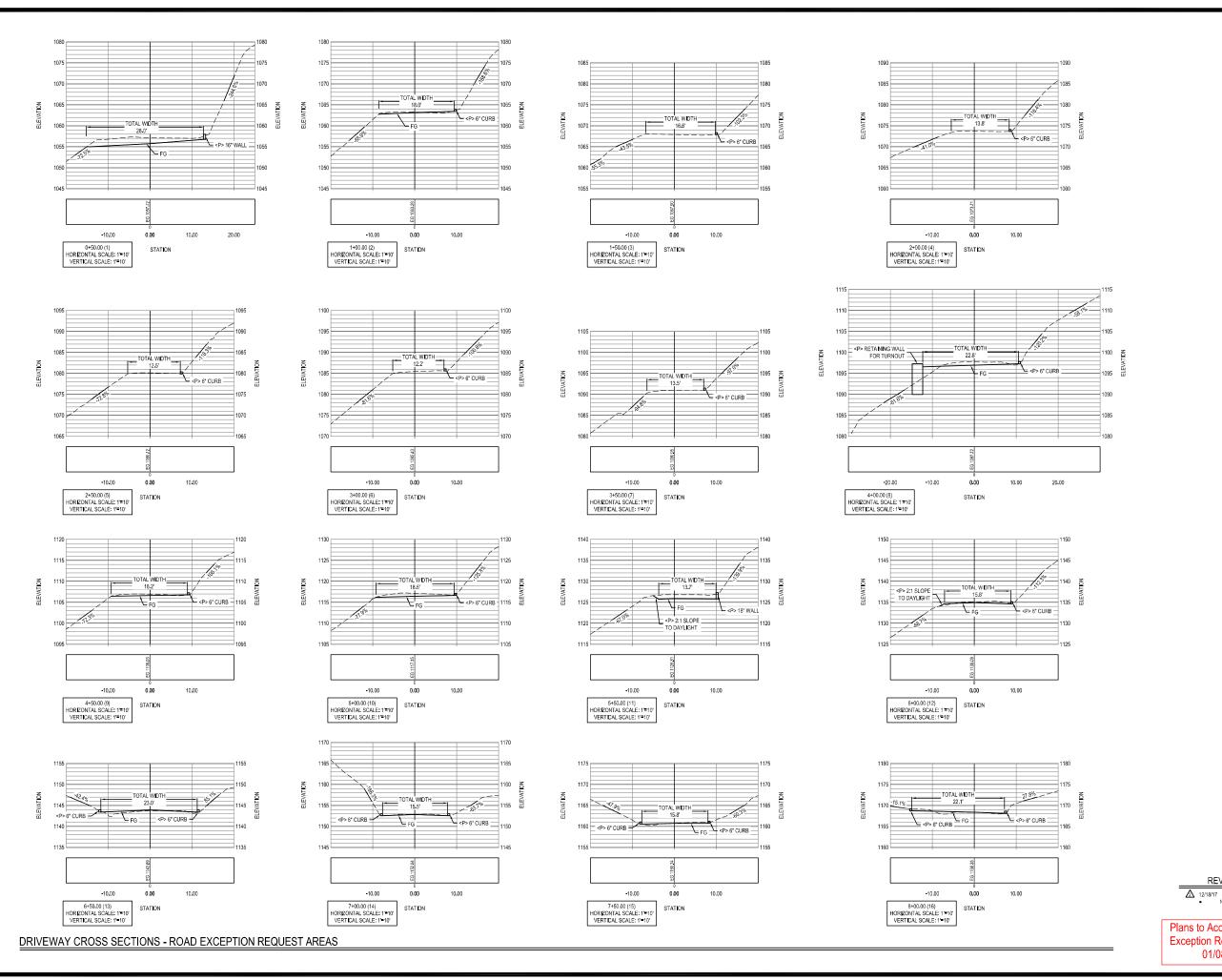
DATE ESUE:

06/24/16 PERMIT SET

05/16/17 △ PLAN CHECK

12/18/17 △ PLAN CHECK

UP 2.5



DELTA CONSULTING & ENGINE OF ST. HELENA

DRIVEWAY CROSS SECTIONS USE PERMIT

HARD SIX CELLARS S. FORK DIAMOND MOUNTAIN RC CALISTOGA, CA 94515 APN: 020-100-014







DATE ESUE:

06/24/16 PERMIT SET

05/16/17 △ PLAN CHECK

12/18/17 △ PLAN CHECK

UP 2.6

Plans to Accompany Road Exception Request, Rev 1 01/08/2018

REVISIONS