

Information for File # MVP-2015-02853-DJM

Applicant: Purfrac Transload

Corps Contact: Dan Munson

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Primary County: Chippewa

Sections: 1 and 12

Township: 31 North

Range: 10 West

Information Complete On: April 29, 2016

Posting Expires On: May 30, 2016

Authorization Type: LOP-06-WI

This application is being reviewed in accordance with current practices for documenting Corps jurisdiction under Section(s) 9 & 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act.

We have made a preliminary determination that the aquatic resources that would be impacted by the proposed project are subject to Corps of Engineers jurisdiction under Section(s) 9 & 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. If an approved jurisdictional determination is completed as part of the review process for this application, a copy will be posted on the St. Paul District web page at the following link:
<http://www.mvp.usace.army.mil/Missions/Regulatory.aspx>.

Project Description and Purpose: Purfrac Transload (Purfrac) has applied for a Department of the Army permit to discharge fill material into approximately 1.467 acres of wetlands adjacent to Duncan Creek in conjunction with the construction of a trans-modal loading facility and associated rail yard. The purpose of the proposed project is to build a trans-modal loading site that could receive a full unit train near the Union Pacific rail line with access to state and/or county highways. The result would make the transfer of frac sand and other future commodities more efficiently and cost effective. Receiving and sending a full unit train would reduce delays and temporary road closures as compared to receiving/sending multiple smaller trains. The project as proposed would include a new crossing at County Trunk Highway (CTH) SS. The trans-modal facility would be designed with a double-track loop to allow trains to enter the facility in one continuous northbound movement from the mainline. Once the entire train is built (approximately 150 cars), the train could exit back to the mainline track in one continuous southbound movement, thus eliminating the need for the train to move back and forth across CTH SS while the train is built.

Name, Area, and Types of Waters (Including Wetlands) Subject to Impact: Approximately 1.467 acres of fresh (wet) meadow wetlands adjacent to Duncan Creek would be permanently

filled as a result of the proposed trans-modal facility and associated rail yard. Currently, the site is surrounded by agricultural areas with some residential homes nearby. Badger State Recovery, a commercial recycling facility is located adjacent to the proposed project site. Land use on the proposed project site includes active and past farming practices. Hay, corn, and soy beans were observed on the site. Compensation for the lost values and functions of wetlands would be offset through the purchase of Wisconsin Department of Natural Resources In-Lieu-Fee credits.

Alternatives Considered: The applicant provided and considered 6 alternatives as described below.

Alternative 1 included a teardrop rail yard design. This alternative would create a track to bring a unit train from the south, loop around on the site and load the rail cars before reconnecting to the spur. The train would then return back onto the mainline. A tear drop rail yard is very efficient for loading and maneuvering a train, however, this alternative requires a longer track length to do so. The tail end of the train must be onto the loop before the lead end of the train leaves the loop. In order to accommodate both a train being loaded and an incoming train, two teardrop loop tracks would be needed.

To build the teardrop design on the proposed site and be able to cross CTH SS in one fell swoop, the track would cross the wetland complex located south and east of the proposed site. The narrowest span of the wetland complex would be traversed, and the CTH SS rail crossing would be sited approximately 0.9 miles south of the proposed location. The total length of track required to construct this alternative would be approximately 18,000 linear feet of track (nearly 1.2 times the length of the proposed layout). Additional land acquisition from at least three landowners would need to occur.

Alternative 2 included a ladder track design. A ladder track yard is a series of parallel short track segments that are “stacked” in an area and connected to an industry-owned spur by several switches. A ladder track creates opportunities in a narrow or tight space, but has limitations for its use because of the inefficiencies in operation. Ladder tracks generally work better in manifest train situations where a few cars are delivered at a time and/or multiple products are being handled.

For the purpose of investigating alternatives, a ladder track design at the Purfrac site that would be capable of receiving a full unit train, and storing it in segments was investigated. (As previously illustrated, a ladder track contained completely on the Purfrac site is not feasible for the operation.) To build the necessary length of track to store a unit train, additional land would be needed from two additional landowners. The track would cross the large wetland complex at the east end of the proposed project site and continue into an agricultural field. A siding would be constructed along the main spur to allow loading activities without totally tying up the spur. The total length of constructed track would be 24,000 linear feet (1.5 times as much as the proposed layout.)

The trains would be broken and moved into parallel spurs for storage. Each re-assembly would create substantial noise for the nearby residents on CTH AA. Lastly, the layout of the ladder track would create approximately 1.7 acres of wetland impact at the large wetland complex. It is anticipated that wetland impacts would total approximately 2.4 acres for the entire project as described in Alternative 2, which is larger than the proposed project with 1.467 acres of wetland impact.

Alternative 3 included the construction of the vehicle site entrance off of CTH AA versus the proposed entrance off of CTH SS, which would eliminate wetland impacts at the road entrance.

However, due to the limited site distance, narrow road widths (20 feet) and degraded road conditions off of CTH AA, that alternative was not selected.

Alternative 4 (preferred) includes the loop track design and the placement of the vehicle entrance off of CTH SS. The loop track is non-circular and asymmetrical and maximizes the length of track in all dimension and all turn radii. The southwest portion of the loop is shifted north to avoid the wetland complex as much as possible. The first undertaking of the project would be to bring trains from the Union Pacific (UP) mainline to the proposed site by crossing CTH SS. In order to avoid as much disruption in the downtown of New Auburn, the train will enter the site northbound from the south. Placement of the rail spur into the site has received much consideration to balance the space requirements for the crossing gates and signals, grade requirements, set back requirements, maximize vehicle site distance, grading costs, and other potential uses of the site.

To create a switch, the spur must begin on a tangent (straight) length of mainline track. The UP mainline is on a curve along most of the west edge of the site, but the tangent section south of the SW corner of the site provides a location for the spur switch that meets rail design criteria. This proposed switch location is also an adequate distance away from a nearby switch that serves an existing sand processing/loading facility on the west side of the UP mainline.

A setback must be maintained at the north property edge from the road right of way, overhead electric wire, and underground telephone cable. Due to the uneven terrain, the project as proposed requires ample room between CTH AA and the loop of the track to create stable loop track back slopes as required by the American Railway Engineering and Maintenance-of-Way Association (AREMA) and the UP standards.

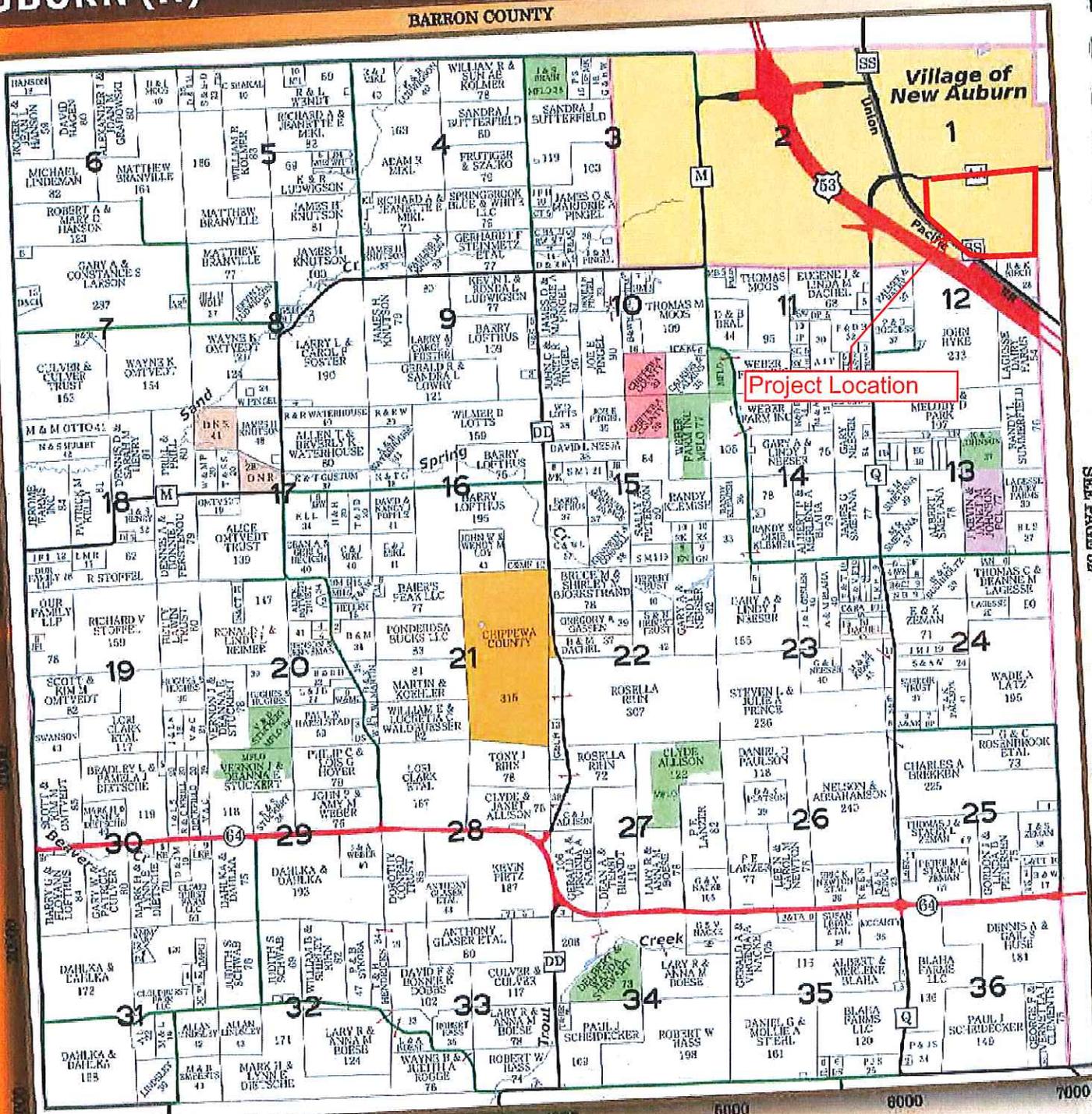
For a vehicle/truck entrance to the proposed site, there was a 1,200 linear foot section from the SW corner of the site angled to the NW along CTH SS to the point of a Dairyland Power substation that was reviewed. The rail crossing and driveway entrance must maintain proper clearances and must provide access to the interior of the rail loop where sand processing activities would take place. Few alternatives existed for interior site access. Two options included a bridge and an underpass. Each were researched to provide access to the interior loop without interrupting the normal operations. Due to the overall cost of the bridge and an unfavorable response from the Chippewa County Highway Department, the bridge alternative was not further researched.

The underpass alternative for interior site access would require two tunnels; one for entrance and one for an exit. This option was less expensive than the bridge and was the selected option for interior site access.

Alternative 5 included the search for offsite options. Other sites were considered, but due to purchase denials, small acreages for sale, number of road crossings, and farther than desired proximity to the existing UP mainline and sand mines, other locations and parcels were not selected.

Alternative 6 included the no-build alternative. This alternative was not selected because the project purpose would be not be met.

Drawings: See attached drawings labeled MVP-2015-02853-DJM, Page 1 of 8, through page 8 of 8



Project Location

SEE PAGE 82

SEE PAGE 38

Please note - All acreages are computed & rounded to the closest acre, roadways are excluded from totals. All mapping is for reference only and is not intended, or to be used for any legal purpose.

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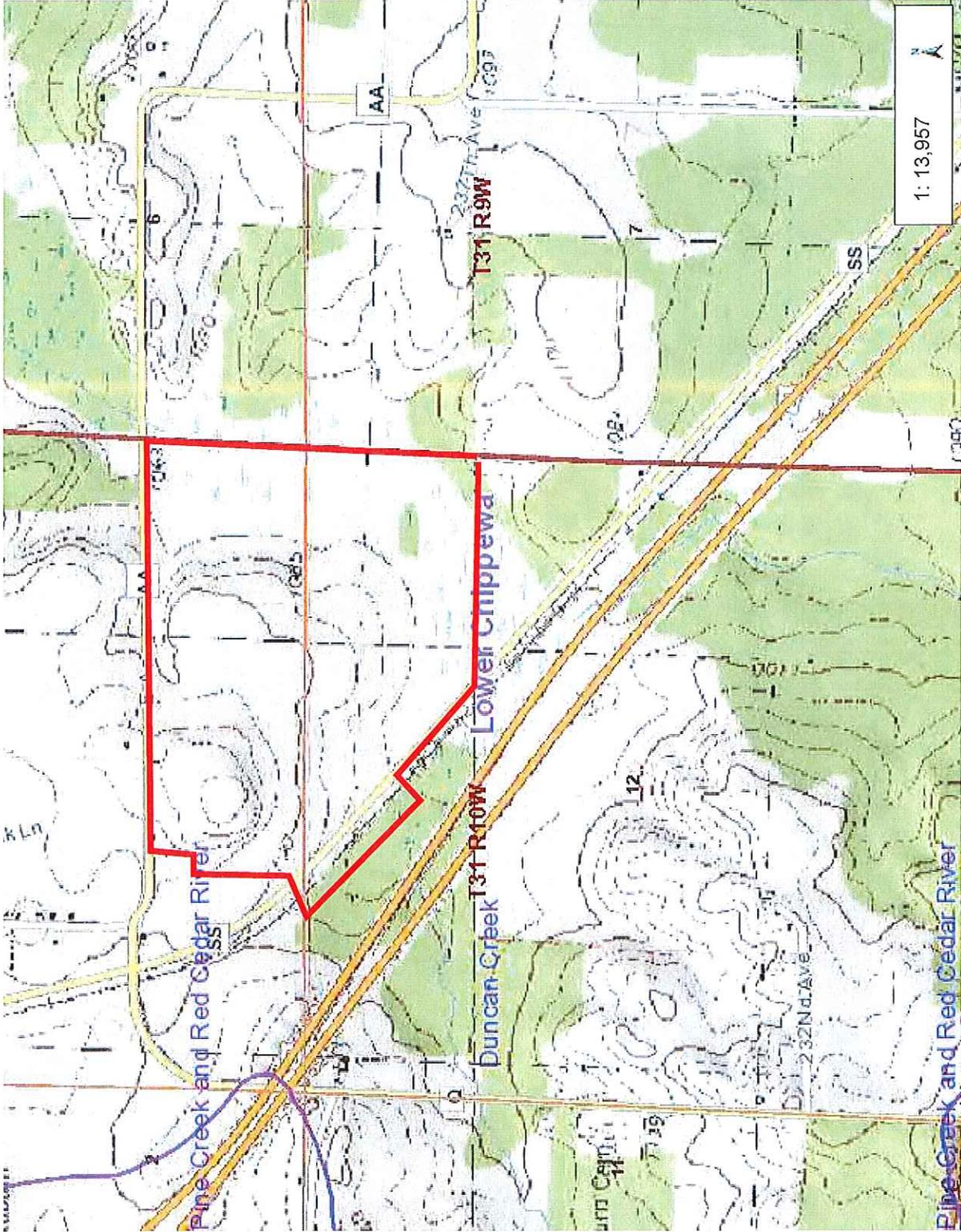
Attachment 2. Plat Map

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Chippewa County Land Records
711 North Bridge Street
Chippewa Falls, WI 54729
715.726.7928

Attachment 3. Topographic Map

Purfrac



- Legend**
- Watersheds
 - DNR Water Management Units
 - Township
 - Section
 - Rivers and Streams
 - Open Water

Notes
New Auburn

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/or/legal/>

0.4 Miles

0.22

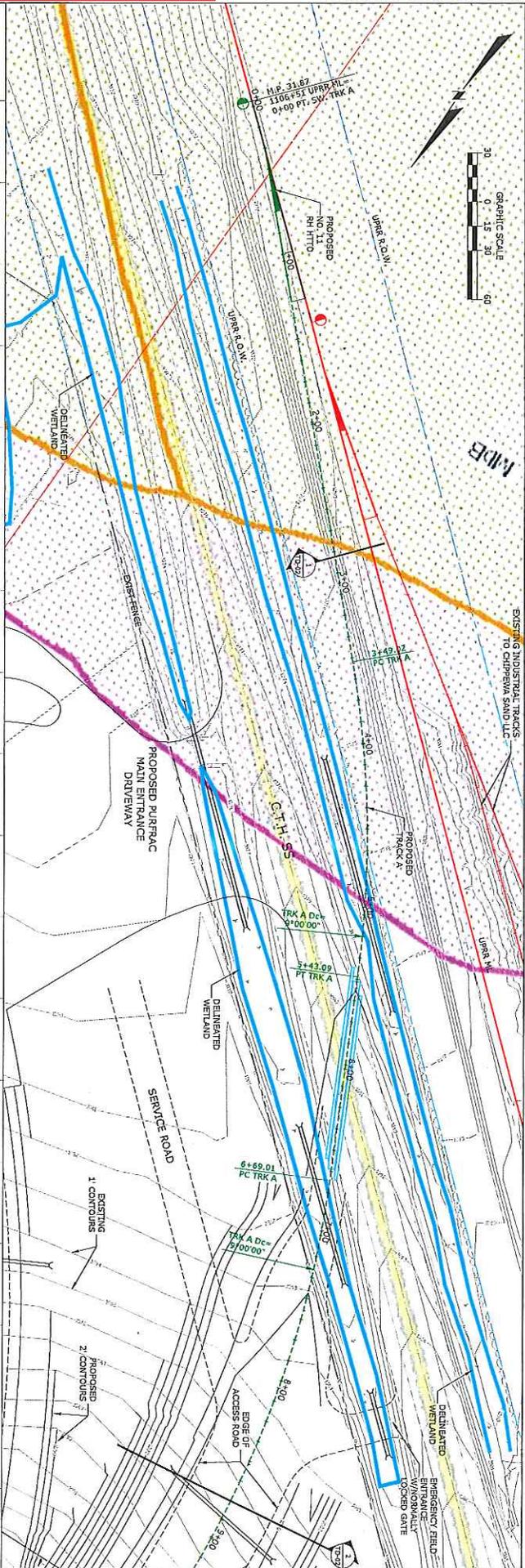
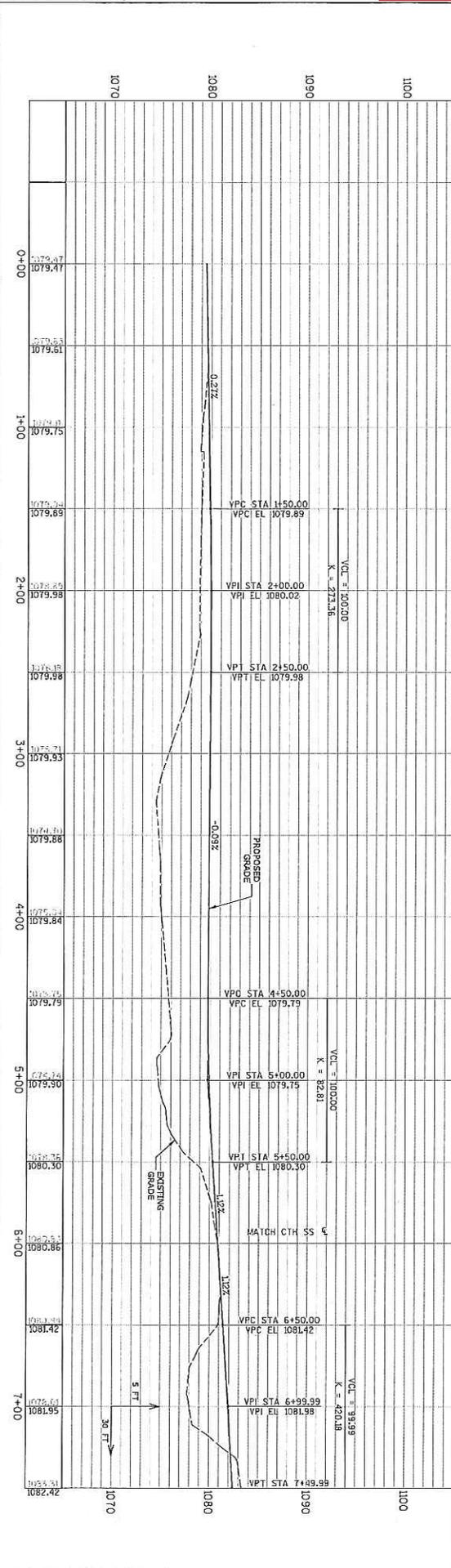
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1: 13,957



NO.	REV.	DATE	REVISIONS	DESIGNED BY	CHECKED BY	ISSUE DATE	APPROVED BY	PROJECT	CLIENT	SHEET
				A. WEISS		3/7/2016		BRAD VOLKER, P.E.	PURFRAC, LLC	NEW AUBURN SITE
										SHEET PP-02

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PLT DATE: 07, 2016 - 03:17 PM