Reserve Street Lots

Preliminary Engineering Report

905 & 911 South Reserve Street

Missoula, Montana

Prepared for: Montana DNRC, Southwestern Land Office

November 2014

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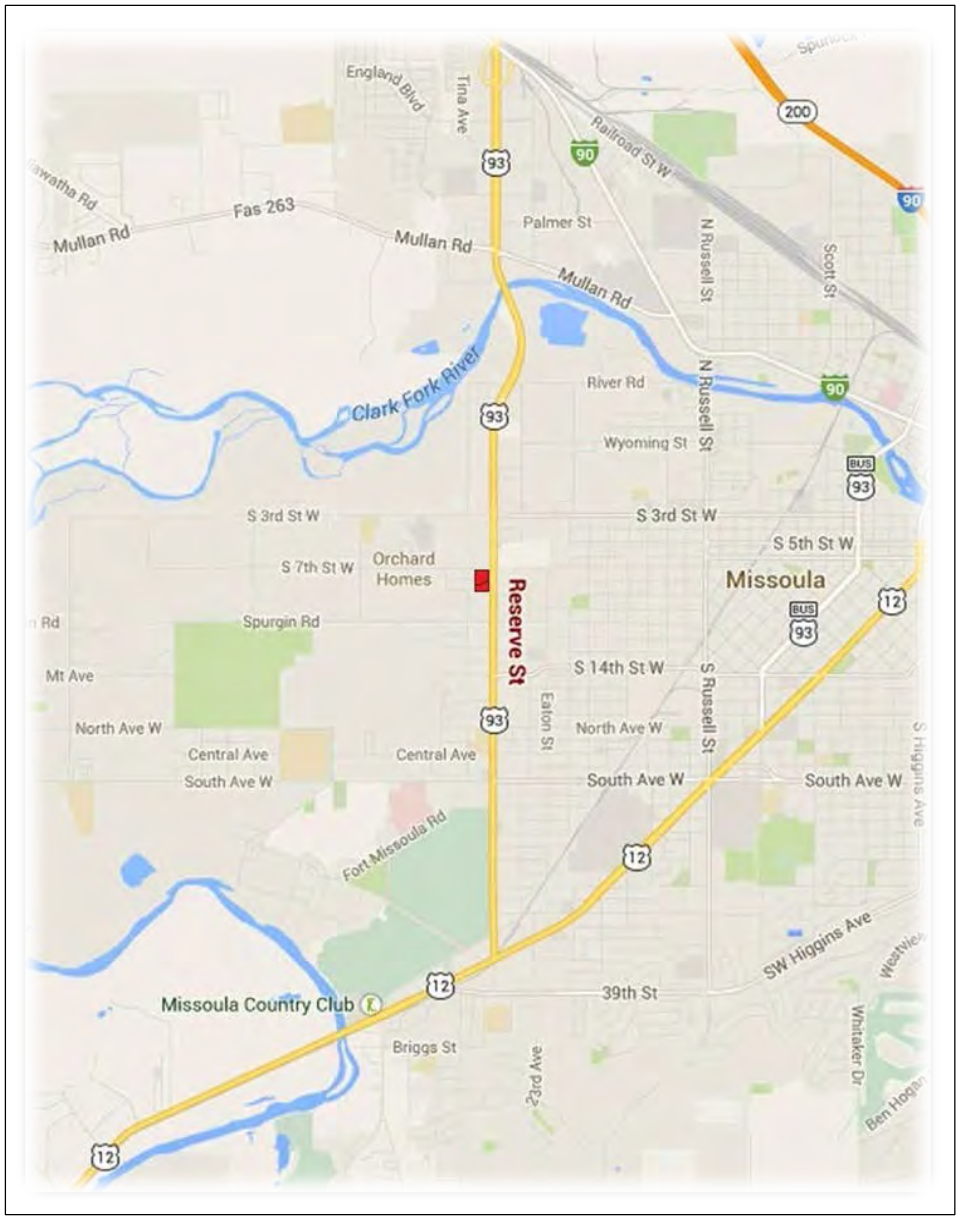
Introduction

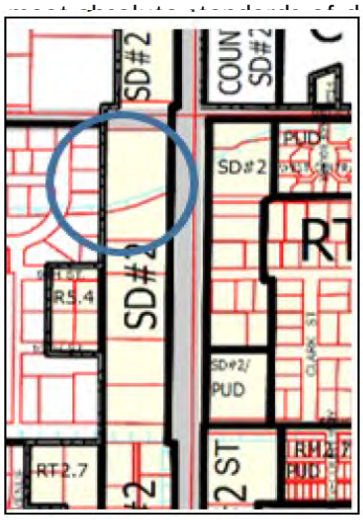
The following preliminary engineering report and market analysis was prepared for the Montana Department of Natural Resources for two adjacent commercial lots located in the Reserve Street Corridor within the Missoula City Limits. The Reserve Street Corridor was designated for commercial development in 1975 when the 1975 Urban Comprehensive Plan was written. In order to preserve the character of surrounding residential developments, Special Zoning District #2 was adopted to guide the development of the parcels fronting Reserve Street. Since Reserve Street was widened to a total of five lanes including a center turn lane with no median, development of offices, retail space, schools and health care facilities has flourished. The two DNRC parcels at the intersection of 7th Street and Reserve Street are some of the few remaining vacant parcels in this primary corridor that connect the Bitterroot Valley through Missoula to the Interstate 90 corridor. The following report summarizes the suitability of the site for development through research of market conditions, traffic counts, location, the availability of utilities, zoning and setback requirements, soils analysis, population demographics and existing patterns of development.

Figure 1 - Vicinity Map



Corridor and Zoning -

Parcels A and B are currently vacant and are situated in a performance-based zoning district, meaning that more intense land use is permitted via the application of a point system. For example, a single-family development at a maximum density of 16 dwelling units per acre is a permitted use that must meet absolute standards of density, property line setbacks, landscaping and parking. A conditional use allows business and professional offices, health and personal care services and storage warehouses via the application of a point system. Point criteria are related to minimizing the effect of vehicular traffic, creating interior pedestrian connections, applying joint parking to multiple uses, offering space for outdoor recreation and applying noise abatement strategies to aid the transition between commercial use and adjacent residences.



Attaining the highest and best use of the parcels may require the application of several design strategies to reach an allowable point designation for a commercial use. Intense commercial uses such as drive-through eateries, hotels, motels, bars and casinos are prohibited uses in this district. Specific requirements of Special District #2 can be found at the following location:
http://www.ci.missoula.mt.us/DocumentCenter/View/22109

Figure 2 - Zoning Map

Existing Site Characteristics

Reserve Street frontage is being developed with attractive financial, service, commercial, medical and offices buildings. A review of the development pattern along the corridor leads to the conclusion that there are many suitable uses for Parcels A and B. The size and dimensions of the parcels are shown in **Table 1**, and the dimensions and orientation of the parcels are represented in **Figure 3.** Recent improvements along the corridor incorporate site designs that are appealing, lending an impression of vitality and an indication of investment in the region. Residential developments adjacent to the Reserve Street frontage are well designed, and if asked how the neighborhood will look five years from now, the response would have to be positive.

Table 1 - Property Information

Property Information – Parcels A and B		
	Parcel A	**Parcel B**
Parcel Size	1.90 acres	0.91 acres
Reserve Street Frontage	261.92	204.96
Parcel Depth	262.31	262.36
Address	905 Reserve Street	911 Reserve Street
Geocode	04-2200-30-1-31-00-0000	04-2200-30-1-31-08-0000

Parcel A is similar in size to the Jehovah's Witness Church approximately 1 block south. The corner lot location has excellent visibility from both South Reserve Street and South 7th Street West. With high visibility and some of the highest traffic counts in the City, comes the opportunity for a signature building that captures attention from pass-through traffic. Other similarly sized parcels nearby include single-family residences, an office building with dental and pharmacy services, a title and escrow office and a mini-storage site. A bank is proposed as the optimum use for this parcel. Typical banking hours of

operation are compatible with the zoning restrictions and access is suitable for a shared use building that could include government office space and medical offices, or a spa and wellness/fitness center. Cross-easements for access between Parcels A and B could be incorporated to facilitate vehicular circulation. The topographic variation on the north side of the lot and the irrigation ditch on the south present both challenges and opportunities; elevation variations and quiet, riparian buffers are provided, as well as a wide, landscaped buffer on the north adjacent to the likely location of a graded driveway accessing the building.

Parcel B is similar in size to the Ponderosa Dental site at 3rd and Reserve Street and the Children's Dentistry of the Rockies site immediately south of Parcel B. Other similarly sized and smaller parcels nearby include a hearing aid center, an insurance office, a real estate office and the Sherwin Williams' paint store. This location would be amenable to a financial establishment or a small, specialized retail trade and service business. Medical offices that would provide complementary services to the neighborhood such as an orthodontist' office or other specialized dental service would benefit from the proximity to Children's Dentistry of the Rockies. This smaller parcel may take advantage of the more intense uses allowed in Special District #2, such as a neighborhood eatery.

Figure 3 - Aerial View of Existing Site

Marketability of the Site

In analyzing this site for its marketability, it is first important to understand the economic nature of Montana and the expectation for growth in the region in the near future. Research and reporting by local economist, Larry Swanson of the O'Connor Center for the Rocky Mountain West (OCRMW) at the University of Montana identifies many principles related to how job growth in Montana, and more particularly in Montana's urban areas may influence future developments[1]. As one of the commercial centers for a largely rural state Missoula has a concentration of natural resource driven industries that Mr. Swanson indicates are languishing. He suggests that Montana's future economy will be largely influenced by the following factors:

> An increased concentration of the State's income and employment moving from rural areas to urban areas, including Missoula
>
> A dampening effect on Montana's economy generally, related to the effect of the aging population and their needs for alternative forms of housing
>
> An increase in the need for health care services, practitioners and technicians
>
> An increase in the need for business, management and financial services

Missoula is already a key player in the management, health and financial services industries, and further development of businesses and services in these sectors will likely be reflected in future development of the Reserve Street corridor. As an urban center, Missoula already provides services to southern communities in the Bitterroot corridor, rural areas along the Interstate 90 corridor, and to the north portion of Missoula County extending along Highway 200 to the Seeley Lake region.

Demographics

When assessing potential locations for development, each developer reviews the demographic characteristics in the trade area[2]. These can include the number of households, median household income, home ownership, average household size, and population age groups.

Households and Population

According to the 2010 Census there are 4,853 households within a one-mile radius of Parcels A and B **Figure 4**, and the median age is 33.1. Population age groups are important for a developer in assessing the suitability of a site for its prospective use. **Figure 5** shows the strength of the 25-34 age group. This is a group that marketers often overlook but it is characterized by the *Marketing Executive Digest* as "happier, and more confident, secure and gravitate toward premium, understated and often luxurious brands and experiences to affirm their identity."[3]

[1] Larry Swanson, "Future Job Growth in Montana", OCRMW-MT AFL-CIO, 2012

[2] Trade areas can vary widely but for the type of use currently found on the South Reserve Street corridor that trade area is often one to two miles.

[3] http://www.marketing-execs.com/

Figure 4 - Aerial View Showing One Mile Radius

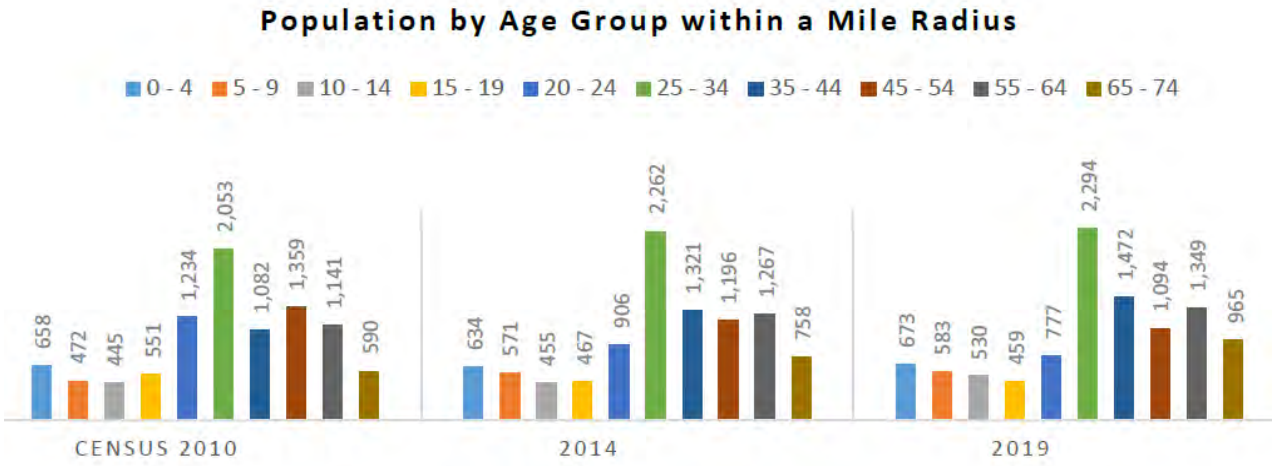


Figure 5 - Population by Age Group

Household Size

Average household size is related to the population profile. Within a mile of Parcels A and B the average household size in 2010 was 2.11; only 21.9% of the households included children. These results discourage many child-related uses for Parcels A and B. For comparison, the statewide household size was 2.37 and nationally it was 2.6 for the same period.

Per Capita and Household Income

Income levels are important measures for developers, and the income levels targeted vary widely between prospective uses for the site. Within a mile radius of Parcels A and B, 2014 per capita income is $20,766. Median household income is estimated to be $35,651 in 2014 and projected to be $39,520 in 2019.[4] This figure is considerably lower than the state's[5] recent (2008-2012) median household income estimate of $45,456 or the U.S. estimate of $53,046 for the same time period. This may indicate that the future uses considered for the site should rely on traffic generated from well beyond the immediate area.

Home Ownership

Typically, homeowners invest in home remodeling/maintenance, DIY or contractors. A home purchase triggers a series of additional spending on appliances, furnishings, and remodeling activities that exceed typical spending levels of non-moving owners and persist for two years after moving. One analysis shows that during the first two years after closing on a house the typical buyer of a new single-family detached home tends to spend on average $7,400 more than a similar home owner who does not move, including $4,900 in the first year after purchase. Likewise, a buyer of an existing single-family detached home tends to spend about $4,000 more than a similar non-moving home owner, including $3,600 during the first year. Homeownership within a mile of Parcels A and B is significantly less than the 64 percent average for the United States, as shown in **Table 2**, indicating that this location is not optimum for home-focused retail operations.

Table 2 – Home Ownership

Home Ownership within a mile of Parcels A and B		
	Number of Units	% of all units within a mile
Owner-Occupied	2,413	52.1%
Owned with a Mortgage	1,662	35.9%
Owned Free & Clear	751	16.2%
Renter Occupied	2,221	47.9%
Median Home Value	$202,122	

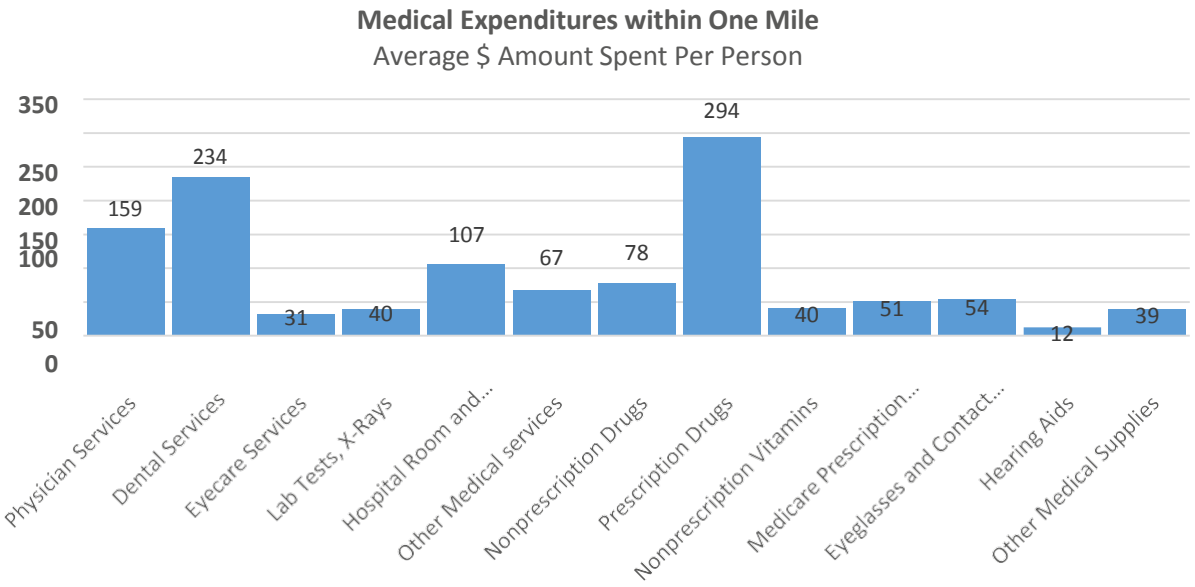
Average Household Budget

The Environmental Systems Research Institute (ESRI) characterizes market segments within a community (or neighborhood within it) based on its socioeconomic and demographic composition. The homeownership, age and income characteristics from the 2010 Census, mentioned above, are reflected in this information. This characterization provides a developer with additional marketing data and information about specific geographic areas which can be used to find the best location for new stores or offices. Nationally and in Montana, job growth in healthcare and social assistance is projected to surpass all other service-producing industries by 2020. Medical expenses are often significant elements of a household budget and can indicate market needs for those services. Those living in close proximity to Parcels A and B typically spend less than the US average for their health care; however, **Figure 6** shows that what they do spend on health care is focused on prescription drugs and dental services followed by physician services and hospital services.

[4] Source: U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2014 and 2019.

[5] U.S. Census Quick Facts http://quickfacts.census.gov/qfd/states/30000.html

Figure 6 - Medical Expenditures



Note: The $ amounts for Medical Equipment for General Use and for Convalescent or Nursing Home Care which were less than $10 per person have not been shown

Existing Business Composition

According to Montana's Office of Economic Development, there are a total of 3,492 businesses within two miles of Parcels A and B. Of these, 765 are within a one-mile radius (Reserve Street from the Clark Fork River to South Avenue). The sixty-five businesses along this two-mile segment of Reserve Street include the following:

- two churches
- two pharmacies
- 14 medical-related or dental offices
- six realtors/developers
- 10 financial/insurance agencies
- two banks
- 12 small retail operations and the Sherwin Williams paint store
- nine organizations' offices
- eight other uses

The site's location less than 1½ miles from Community Medical Center could be a draw for additional medical-related business. "To preserve on-campus space for critical functions, medical centers and especially regional health care systems also have developed off-site locations for administrative functions, regional laboratories, information-technology, research and warehousing. These typically are located in commercial or light industrial zones."[6] Some of these uses and medical offices could find Parcel A and/or Parcel B attractive. It should be noted that medical offices require, and usually need, twice as many parking spaces as other office uses.

[6] "Determinants Of Medical Center Development Patterns", a white paper developed for the Portland Bureau of Planning and Sustainability

Physical Site Characteristics

A summary of the physical site characteristics for Parcels A and B follows. Data was compiled from documentation provided by Northwestern Energy, Mountain Water Company, the Montana Department of Transportation (MDT), the Missoula Irrigation District, Missoula County and the City of Missoula Engineering and Development Services departments. A geotechnical investigation was conducted which is included in the Appendix. **Figure 7** is an exhibit prepared to show the existing layout of the site and the availability of existing utilities to Parcels A and B. Although the report does not include a site survey, the general slope and aspect is shown from contours provided by Missoula County Public Works Department, based on a 2012 light detection mapping (LIDAR) survey of the region.

Irrigation Ditch

Ray Tipp, an attorney with the law firm of Tipp & Buley in Missoula is the administrator of the Missoula Irrigation District whose ditch crosses the property and separates Parcel A from Parcel B. Mr. Tipp indicated that the ditch should remain open with road crossings rather than placing the entire ditch in a pipe across the property. The ditch is situated in a 20 foot wide prescriptive easement according to Mr. Tipp. Irrigation water rights may exist for each parcel, but the availability of adequate water from the ditch is not known at this time. An easement on the irrigation ditch that sits next to Reserve Street is also shown on the Reserve Street construction drawings although it is unknown whether this easement has been filed in the public record. The irrigation ditch is surrounded by healthy riparian vegetation that provides desirable bird habitat and could easily be incorporated into a low maintenance landscape feature for each parcel.

Power and Natural Gas

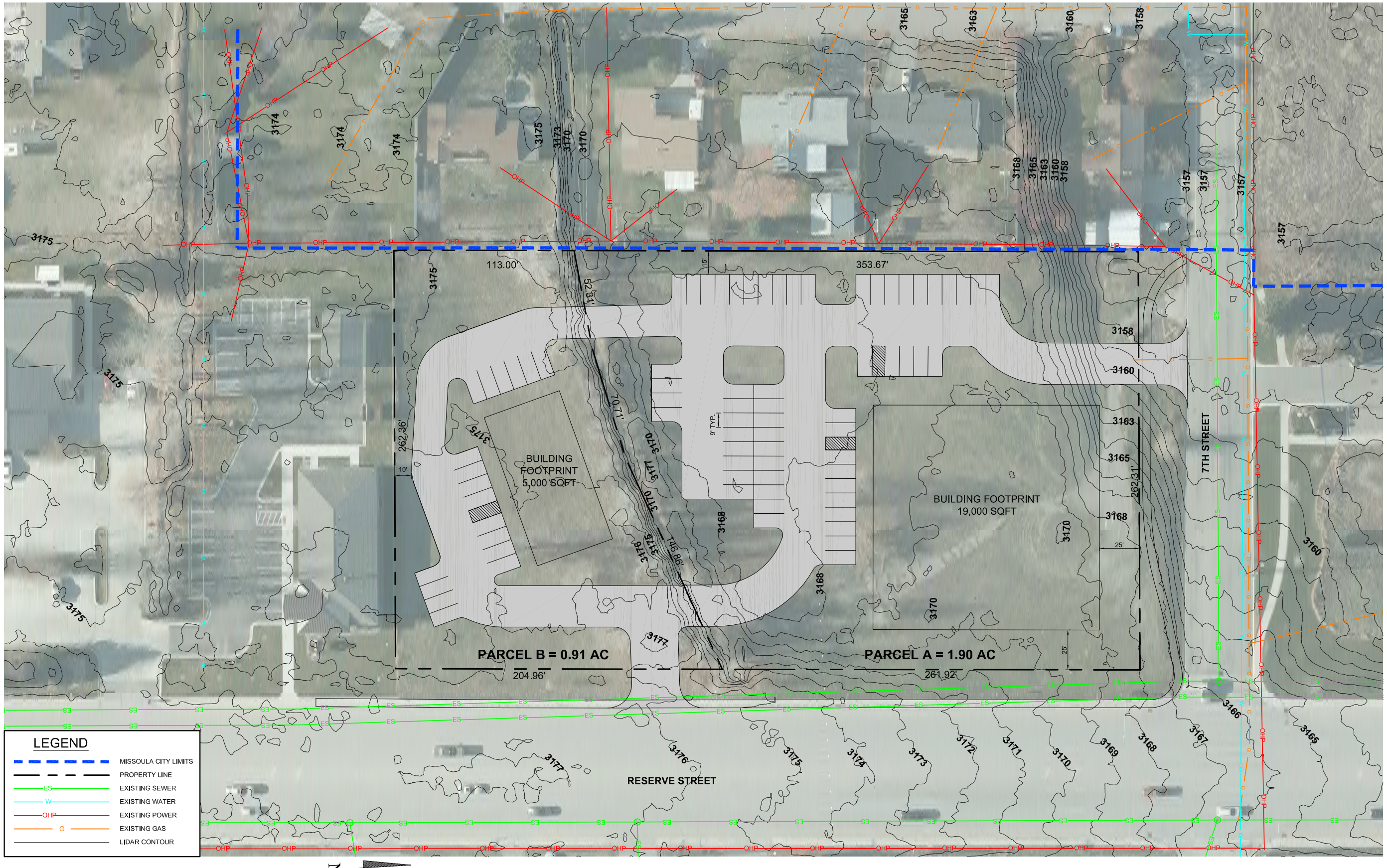
Northwestern Energy provided schematic drawings for power and natural gas distribution lines in the project area. An overhead power line runs north and south near the western property boundary and East/West along the north side of 7th Street. There is an overhead power transformer located about midline of the west boundary of Parcel A. Natural gas is located on the north side of 7th Street, and there is an old, capped ¾" steel gas residential service to Parcel A. Power and natural gas service to Parcels A and B will likely come from distribution lines in 7th Street.

Access and Traffic

The Montana Department of Transportation provided a record construction drawing of this portion of Reserve Street. The drawing clarifies the location of the high point of the street profile to allow design placement of the driveway approach into Parcel B with proper site distance for entry onto Reserve Street as shown on **Figure 7.** The profile drawing provided by the MDT is included in the Appendix.

In a meeting with the MDT on July 30th, a discussion of Reserve Street access, site distance and signalization was held. The MDT indicated that they will allow a three-quarter movement from Parcel B onto Reserve Street. That is, all traffic movements will be allowed for access to Parcel B except a left turn from the parcel to head north on Reserve Street. This may be a benefit to the site design of the parcel, as it eliminates the need for a vehicle reservoir on Parcel B for drivers waiting for clear entry onto Reserve Street northbound. The sidewalk crossing at this location will need to be thickened and reinforced per City of Missoula standards for commercial driveways. MDT has requested that the approach to Parcel B be illuminated.

The daily vehicle count on Reserve Street was reported to be 30,000 and the peak pm count on July 29, 2014 was 3,484 vehicles. No signalization at 7th street is planned at this time. **Table 3** is a summary of traffic counts taken during the peak afternoon period on July 29, 2014.



*BOUNDARIES, UTILITY LOCATIONS, AND TOPOGRAPHY ARE FOR CONCEPTUAL USE ONLY AND ARE NOT BASED ON A SITE SURVEY

PRELIMINARY - NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1		
2		
3		

DRAFTED: PTJ
REVIEWED: JMT
PROJECT NUMBER: 12414103
ISSUE DATE: 10/2014

RESERVE STREET LOTS PER
MONTANA DEPARTMENT OF NATURAL RESOURCES
MISSOULA, MONTANA

FIGURE 7: CONCEPTUAL SITE LAYOUT

SHEET
FIG 7

Oct 29, 2014 - 2:30pm - Z:\City\MT\Missoula\12414103\04CADD\PER - FIGURE 7.dwg

Table 3 – Traffic Counts

PM Traffic Counts: Reserve Street/7th Street													
	Reserve Street			7th Street			Reserve Street			7th Street			
	From North			From East			From South			From West			
Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Total
4:30	8	449	10	18	0	0	3	343	6	3	1	0	841
4:45	6	438	9	12	1	1	4	384	17	6	0	0	878
5:00	9	449	10	10	0	0	6	373	16	17	0	5	895
5:15	12	428	7	8	0	2	3	386	6	16	1	1	870
Total	35	1764	36	48	1	3	16	1486	45	42	2	6	3484

The City of Missoula Public Works Department reviewed the aerial exhibit of the existing parcels and requested that the approach from 7th Street be located no farther east than the existing driveway approach to the dental surgery center on the north side of 7th Street. The City also requested two crossings of the irrigation ditch to connect Parcels A and B in order that emergency vehicles and utility trucks be easily able to maneuver between the parcels. The City will require a boulevard sidewalk along 7th Street to mirror the sidewalk on the north side of 7th Street. A transition between the existing curbside sidewalk along Reserve Street and the proposed boulevard sidewalk on 7th street must meet standards set by the City and the Montana Department of Transportation.

Water

Mountain Water Company owns and maintains water distribution mains near Parcels A and B. A 10" ductile iron water main was installed in 2011 to serve the dental office located due south and adjacent to Parcel B. The main appears to extend just beyond the property line into the Reserve Street right of way and terminates at a fire hydrant and blow off valve. North of the Parcel A, a 6" steel distribution main extends from east of Reserve Street west to 26th Avenue. This main was installed in 1969. Due to the anticipated need for a fire hydrant to serve Parcel A, the cost estimate for developing each lot is based on extending the 10" ductile iron main from Children's Dentistry of the Rockies north approximately 440 feet.

Sewer

The City of Missoula owns a network of sewer mains serving the area. They advised that connection from each of the parcels be via individual Septic Tank Effluent Pump (STEP) systems into the STEP main that approximately parallels the eastern boundary of the parcels.

Landscape and Parking

Landscape and parking requirements were reviewed with the City of Missoula, Development Services Department. Landscape requirements for the area encourage the use of native species to provide shade, buffering and screening for pedestrians and adjacent properties. A fifteen percent minimum of the total developable property area is required to be landscaped. Parking requirements generally range between 1 space per 200 and 1 space per 400 square feet of gross leasable floor area, depending on the use selected for the parcels. As stated earlier, parking requirements will be greater for medical offices, and a parking analysis will be a key factor in site plan design and development. **Figure 7 depicts** a possible arrangement of buildings and parking for the site.

Storm Drainage

Due to the highly permeable nature of the subsurface soils in Missoula, the City's requirement is to provide one infiltration sump per 10,000 square feet of paved and impermeable surface added to a site. Coupled with landscape requirements, the site lends itself to a possible combination of soil infiltration and filtering of storm water in drainage swales. The subsurface soil investigation conducted on July 11, 2014 did not reveal the presence of groundwater in any of the test pits, and piezometers installed in each pit remained dry during the period of high river flow in the region. Beneath the topsoil, poorly graded sand and gravel typical of this portion of the Missoula Valley was observed. Storm drainage and infiltration using sumps was assumed suitable for this site and is reflected in the cost estimate developed for each parcel. The Geotechnical Report is included as Appendix B.

Conclusions and Site Development Costs

The location of Parcels A and B on the busy Reserve Street Corridor allows the presentation of a signature building and a possible site layout similar to that shown in the enclosed figures and discussed earlier in this report. In order to provide a planning level cost estimate to develop each parcel, **Figure 8** depicts possible building sizes, landscaping, entrance and parking arrangements that meet the setback requirements of Special District #2. It cannot be anticipated what the exact arrangement may be, or what the final use may be for each lot. It is possible that a developer would choose to develop both lots as part of a combined scenario. Since the irrigation ditch forms a natural division of the site, two separate cost estimates have been prepared as presented in **Table 4** and **Table 5**. These planning level estimates do not include the cost of the buildings as those costs are highly variable depending on the uses selected for each parcel.

Zoning for the parcels allow anything from a set of storage units, to multi-family housing to commercial offices and health related services. A height restriction of 30 feet applies in this district, but this could possibly be changed by negotiation with the City's Board of Adjustment. The development standards for this district require that a residential building be set back 100 feet from Reserve Street, whereas the requirement for a non-residential structure is 25 feet from the property line and 45 feet from the back of curb which is essentially coincident at this location. For the purposes of providing planning level site development costs, commercial use was assumed for each parcel. The convenient location and the presence of the natural riparian amenity and associated wildlife also provides an ideal location for the alternative housing needs for our aging population discussed earlier in this report.

City Limits

Property Line

Existing Vegetation Preserved

5,000 SF

19,000 SF

7th Street

Entry Signage & Landscape Treatment, Typ.

Reserve Street

N

30 0 30 60
SCALE FEET

NO.	DATE	DESCRIPTION
1		
2		
3		

DRAFTED MJB
REVIEWED JMT
PROJECT NUMBER 12414103
ISSUE DATE 11/2014

RESERVE STREET LOTS PER
MONTANA DEPARTMENT OF NATURAL RESOURCES
MISSOULA, MONTANA

FIGURE 8:CONCEPTUAL LANDSCAPE PLAN

SHEET FIG 8

Nov 21, 2014 - 10:42am - Z:\City\MT\Missoula\12414103\04CADD\PER - FIGURE 8.dwg

PRELIMINARY - NOT FOR CONSTRUCTION

Table 4 - Planning-level Site Development Cost Estimate for Parcel A

Engineer's Opinion of Probable Site Construction Cost NOT BASED ON A DESIGN
Project - Conceptual Plan Reserve Street Parcel A
Project Location - 905 South Reserve Street, Missoula, MT

Item	Quantity	Unit	Unit Cost	Cost
Parking Lot Improvements				
Excavation above Subgrade	1	Lsum	$ 60,000.00	$ 60,000
Topsoil stripping	6570	SY	$ 2.50	$ 16,425
Storm Drain Inlets	5	Each	$ 1,200.00	$ 6,000
Storm Drain Sumps	5	Each	$ 2,800.00	$ 14,000
3" Thick Hot Plant Mix Asphalt Concrete, Type B	27500	SF	$ 1.50	$ 41,250
4" Thick 3/4" minus Crushed Base	3355	SY	$ 5.00	$ 16,775
8" Thick, 2" minus Crushed Sub-Base course	3470	CY	$ 25.00	$ 86,750
8" Thick Concrete Commercial Driveway Approach	885	SF	$ 10.00	$ 8,850
Seventh Street Approach - Sawcut asphalt	1	Lsum	$ 1,000.00	$ 1,000
Signing and Striping	1	Lsum	$ 3,500.00	$ 3,500
Concrete Curb and Gutter	1345	LF	$ 15.00	$ 20,175
5' Wide Concrete Sidewalk, 4" thick	1325	SF	$ 6.50	$ 8,613
5' Wide Concrete Sidewalk, 6" thick	150	SF	$ 8.00	$ 1,200
Irrigation Ditch Crossing	1	Each	$ 5,000.00	$ 5,000
Water Improvements				
10" DIP, Cl 350 Water Main (incl. bends, valves, blowoffs, bedding & backfill)	210	LF	$ 60.00	$ 12,600
Fire Hydrant Assembly (incl. tee, fittings, lead pipe and gate valve)	1	Each	$ 6,000.00	$ 6,000
Water shutdown and connection to existing	1	Lsum	$ 1,000.00	$ 1,000
2" DIP, water service	20	LF	$ 20.00	$ 400
Water Connection 2" tap fee	1	Lsum	$ 500.00	$ 500
Mountain Water Co., buy-in	1	Lsum	$ 24,725.00	$ 24,725

Sewer Improvements						
STEP sewer connection (2000 gal STEP tank, pumps, valves, cleanouts and connection to main)	1	Each	$	30,000.00	$	30,000
Sewer Development Fee	1	Lsum	$	7,000.00	$	7,0
Landscape and Lighting						
4" thick topsoil and sod	4084	SY	$	12.00	$	49,008
Trees	26	Each	$	500.00	$	13,000
Entrance Treatment and Illumination	2	LSum	$	5,000.00	$	10,000
Irrigation System	1	Lsum	$	10,000.00	$	10,000
Dry Utilities						
Northwestern Energy Electrical	1	Lsum	$	15,000.00	$	15,000
Northwestern Energy Natural Gas	1	Lsum	$	8,000.00	$	8,000
Permits						
Permits (zoning compliance, right- of-way, signage, paving, access and excavation)	1	Lsum	$	8,000.00	$	8,000
Stormwater Pollution Prevention Measures	1	Lsum	$	5,000.00	$	5,000
Estimated Construction Cost					$	489,771
Pre-Design Contingency	20	%			$	97,954
Total Construction Cost					$	587,725
Engineering Design Services	8	%			$	47,018
Performance & Payment Bonds	2	%			$	11,754
Construction Engineering	10	%			$	58,77
	Estimated Total Project Cost				**$**	**705,269**

In providing estimates of probable construction cost, the client understands that the consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the contractor's method of pricing and that the consultant's estimates of probable construction costs are made on the basis of the consultant's professional judgment and experience. The consultant makes no warranty, express or implied, that the bids or the negotiated cost of the work will not vary from the consultant's estimate of probable construction cost. The client assumes all liability if using this Probable Construction Cost for determining project feasibility or securing project funding/financing.

Table 5 - Planning-level Site Development Cost Estimate for Parcel B

Engineer's Opinion of Probable Site Construction Cost NOT BASED ON A DESIGN
Project - Conceptual Plan Reserve Street Parcel B
Project Location - 911 South Reserve Street, Missoula, MT

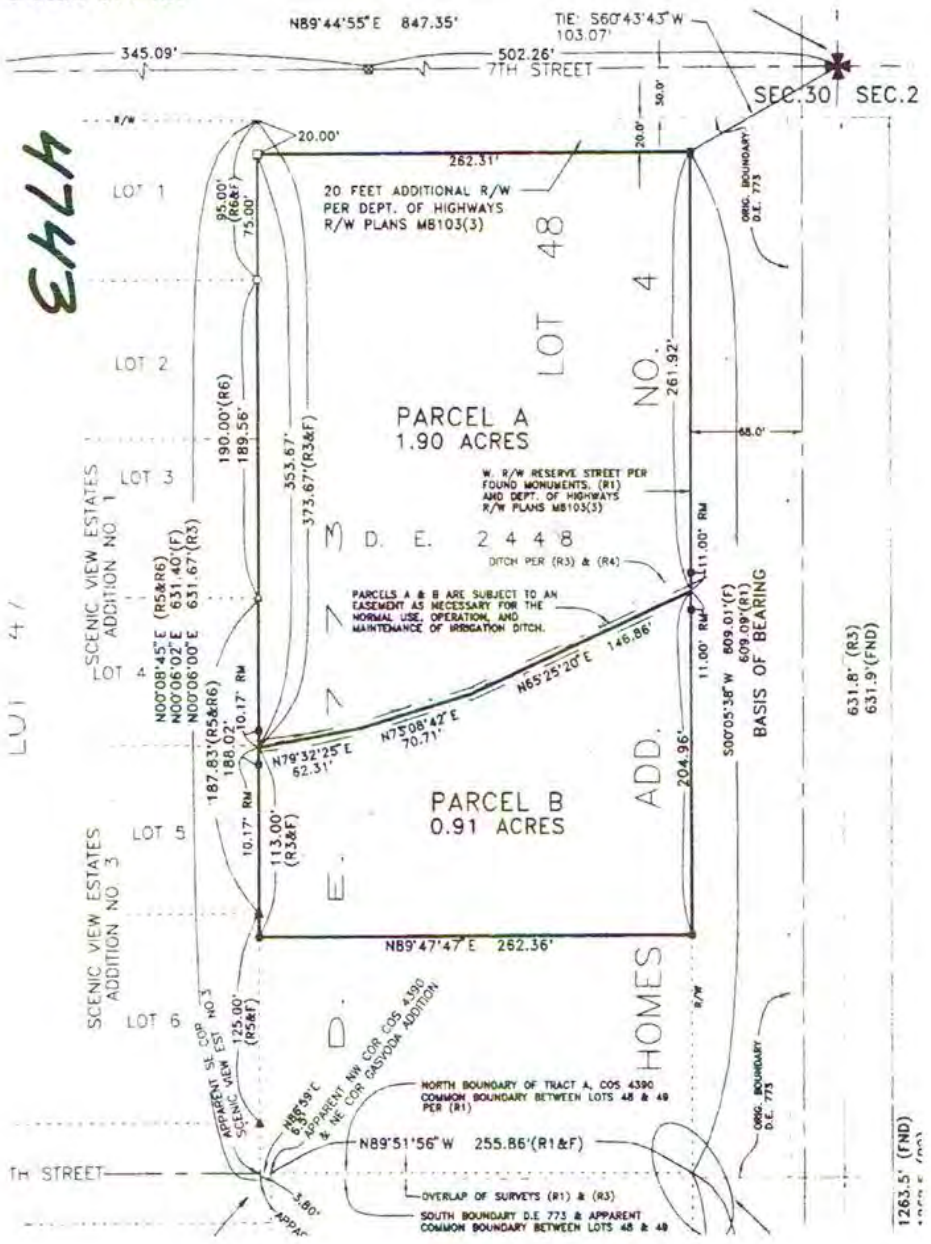
Item	Quantity	Unit	Unit Cost	Cost
Parking Lot Improvements				
Excavation above Subgrade	1	Lsum	$ 18,000.00	$ 18,000
Topsoil stripping	4050	SY	$ 2.50	$ 10,125
Remove & Dispose of existing construction debris	1	LSum	$ 5,000.00	5,000
Storm Drain Inlets	2	Each	$ 1,200.00	$ 2,400
Storm Drain Sumps	2	Each	$ 2,800.00	$ 5,600
3" Thick Hot Plant Mix Asphalt Concrete, Type B	14100	SF	$ 1.50	$ 21,150
4" Thick 3/4" minus Crushed Base Course	1760	SY	$ 5.00	$ 8,800
8" Thick, 2" minus Crushed Sub-Base course	350	CY	$ 25.00	$ 8,750
8" Thick Concrete Commercial Approach to Reserve Street, apron, sidewalk and cove gutter	435	SF	$ 10.00	$ 4,350
Reserve Street Approach - Sawcut asphalt and sidewalk	1	Lsum	$ 1,000.00	$ 1,000
Signing and Striping	1	Lsum	$ 2,000.00	$ 2,000
Concrete Curb and Gutter	900	LF	$ 15.00	$ 13,500
5' Wide Concrete Sidewalk, 4" thick	850	SF	$ 6.50	$ 5,525
Irrigation Ditch Crossing	1	Each	$ 5,000.00	$ 5,000
Water Improvements				
10" DIP, Cl 350 Water Main (incl. bends, valves, blowoffs, bedding & backfill)	230	LF	$ 60.00	$ 13,800
Water shutdown and connection to existing	1	Lsum	$ 2,000.00	$ 2,000
2" DIP, water service	60	LF	$ 20.00	$ 1,200
Water Connection 2" tap fee	1	Lsum	$ 500.00	$ 500
Mountain Water Co., buy-in	1	Lsum	$ 24,725.00	$ 24,725

Sewer Improvements					
STEP sewer connection (1000 gallon tank, pumps, valves, cleanouts and connection to main)	1	Each	$ 17,000.00	$	17,000
Sewer Connection Fee	1	Lsum	$ 7,000.00	$	7,000
Landscape and Lighting					
4" thick topsoil and sod	1400	SY	$ 12.00	$	16,800
Trees	15	Each	$ 500.00	$	7,500
Entrance Treatment and Illumination	1	LSum	$ 5,000.00	$	5,000
Irrigation System	1	Lsum	$ 5,000.00	$	5,000
Dry Utilities					
Northwestern Energy Electrical	1	Lsum	$ 8,000.00	$	8,000
Northwestern Energy Natural Gas	1	Lsum	$ 5,000.00	$	5,000
Permits					
Permits (zoning compliance, right- of-way, signage, paving, access and excavation)	1	Lsum	$ 7,000.00	$	7,000
Storm Water Pollution Prevention Measures	1	Lsum	$ 2,500.00	$	2,500
Estimated Construction Cost				$	234,225
Pre-Design Contingency	20	%		$	46,845
Total Construction Cost				$	281,070
Engineering Design Services	8	%		$	22,486
Performance & Payment Bonds	2	%		$	5,621
Construction Engineering	10	%		$	28,107
Estimated Total Project Cost					**337,284**

In providing estimates of probable construction cost, the client understands that the consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the contractor's method of pricing and that the consultant's estimates of probable construction costs are made on the basis of the consultant's professional judgment and experience. The consultant makes no warranty, express or implied, that the bids or the negotiated cost of the work will not vary from the consultant's estimate of probable construction cost. The Client assumes all liability if using this Probable Construction Cost for determining project feasibility or securing project funding/financing.

APPENDICES

Detail of Plat



Appendix B: Geotechnical Report

PIONEER
TECHNICAL SERVICES, INC.

August 21, 2014

Ms. Julie Titchbourne, P.E.
KLJ
800 Kensington Avenue, Suite 202
Missoula, MT 59801

RE: DNRC Reserve Street Lots Geotechnical Site Investigation

Dear Julie;

This letter report represents Pioneer Technical Services' subsurface investigation conducted on July 11, 2014 for the vacant property located off the southwest corner of Reserve Street and 7th Street West in Missoula, Montana.

Site Description

The vacant property has an irrigation canal flowing to the southwest and divides the property into a northern two-thirds portion and a southern one-third portion. Curb and gutter extends along the property's entire length on Reserve Street and forms the property's east boundary. A driveway apron approach is located on 7th Street West near the property's west end. Curb and gutter are in place along 7th Street West on either side of the driveway and is the property's north boundary. A total of five residences line the property's western boundary and a dental office makes up the southern boundary.

The topography of the site is such that the ground rises from the driveway apron on an approximate 10 percent grade to the east and to the south for about 50 feet, before flattening to a more gradual slope. The grade continues to rise to the south. The area is vegetated with grasses and a few trees. The irrigation canal is tree-lined along its banks. Some vestiges of sidewalk, asphalt, and foundations do exist on the site.

Subsurface Investigation

Three test pits (TP) were excavated using a Caterpillar 304C mini-excavator owned and operated by Grant Creek Excavating of Missoula. Figure 1 presents the test pit locations. Each of the three test pits were similar, yet were also unique. TP-01 and TP-02 were excavated within the northern portion and TP-03 was excavated within the southern portion. Test pit elevations were measured using a hand level and a survey rod. Their horizontal coordinates were obtained using a Garmin eTrex Vista HCx GPS.

TP-01 was the lowest elevation of the three test pits. Its elevation was arbitrarily set at 100.0 and was excavated near the driveway approach apron off 7th Street West. It was excavated to a depth of 9.1 feet. The upper 4 feet were characterized as poorly graded gravel with sand (GP) and occasional cobbles. The gravel grades to clayey sand with gravel (SC) and to sandy lean clay (CL) at the bottom of the test pit. The test pit trench sides remained vertical as the excavation progressed.

TP-02 was excavated approximately 50 feet north of the irrigation canal near the north-south centerline of the property. Its elevation was measured at 107.4 feet and was excavated to a depth of 8.8 feet. The upper 1.5 feet was characterized as sandy silt (ML) topsoil overlying 1.5 feet of poorly graded gravel with sand (GP) and occasional cobbles. The gravel grades to poorly graded sand with gravel (SP). The sand had a gradation similar to 'beach sand' and classifies as an A-3(0) soil by American Association of State Highway and Transportation Officials (AASHTO) standards. The test pit trench sides sloughed as the excavation progressed. The moisture condition appeared to become wetter at the 8-foot depth.

TP-03 was excavated near the center of the southern portion to a depth of 9.5 feet. Its elevation was measured at 115.1 feet. Underlying the upper 6 inches of topsoil was garbage debris. The debris extended down to a depth of 6.5 feet and contained plastics, pipe, and wood in a sandy gravel matrix. Poorly graded gravel with sand (GP) and frequent cobbles extends beneath the debris layer. The test pit trench sides tended to remain vertical but did experience some minor sloughing below the debris layer as the excavation progressed.

A 2-inch diameter PVC pipe was vertically installed in each of the test pits to act as a piezometer. To date, no groundwater level has reached the piezometers. The test pit logs are attached. Photographs of the excavations are also attached.

Preliminary Geotechnical Discussion and Recommendations

The poorly graded gravel with sand (GP) soils are favorable materials to build upon and will provide allowable bearing capacities of 3000 pounds per square foot. 'Poorly graded' is a gradation where the majority of the particles are similarly sized. A collection of basketballs or BB's would be an example of a poorly graded material.

The poorly graded sand with gravel (SP) soils in general, offer a good bearing surface on which to construct building foundations. The A-3 AASHTO classification indicates however, that there may be little lateral support. This was evident in TP-02 as the poorly-graded sand sloughed into the bottom of the test pit. The SP soils at this site will provide an allowable bearing capacity of 2000 psf.

The clayey sand with gravel (SC) and sandy lean clay (CL) soils encountered in the lower portion of TP-01 can be designed for an allowable bearing capacity of 1750 psf.

The Missoula area is within the Northern Intermountain Seismic Belt. For seismic design considerations, Pioneer recommends using Site Class D. Within the 2012 International Building Code, which uses the 2008 USGS hazard data, the 5 percent damped design spectral response accelerations at short periods, S_{DS}, and at 1 second periods, S_{D1}, are used to determine the seismic design base shear. These parameters are a function of the site's seismicity and soil. These parameters are for a Risk Category I/II/III and are a function of the site's seismicity and soil; they are presented in Table 1.

Table 1: Seismic Coefficients

IBC 2012 – SEISMIC COEFFICIENTS	
Site Class Definition	D
Mapped Spectral Response Acceleration Parameter, S_S for 0.2 second	0.469g
Mapped Spectral Response Acceleration Parameter, S_1 for 1.0 second	0.142g
Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter, S_{MS}	0.668g
Adjusted Maximum Considered Earthquake Spectral Response Acceleration Parameter, S_{M1}	0.317g
Design Spectral Response Acceleration Parameter, S_{DS}	0.445g
Design Spectral Response Acceleration Parameter, S_{D1}	0.211g

For any underground utility trenching and for excavations these soils are classified by OSHA as Type C soils and are to include excavation slopes no steeper than 1.5 Horizontal to 1 Vertical (1.5H:1V).

In summary, it is Pioneer's opinion that in general, these soils will offer good bearing surfaces for commercial buildings. The buried debris encountered in TP-03 or elsewhere on the site will need to be removed prior to constructing foundations. It does not appear that groundwater will be a problem for basement construction.

If you have any questions concerning this letter report, please contact Todd Lorenzen at 406-490-1523.

Sincerely,
PIONEER TECHNICAL SERVICES, INC.

Todd Lorenzen, P.E.
Sr. Geotechnical Project Manager

Figure 1: Test Pit Locations

201 E Broadway STE C
Helena, MT 59602
Phone: 406-457-8252
Fax: 406-442-1158

LOG OF BORING

PIONEER TECHNICAL SERVICES, INC.

Project Name: DNRC 7th Street and Reserve St			Project Number:
Borehole Location: North Portion - near driveway off 7th St W		Borehole Number: TP-01	Sheet 1 of 1
Drilling Equipment: 304C CAT Mini Excavator	Hammer: Type:	Driller: Grant Creek Exc.	Logger: Lorenzen
Drilling Fluid:	Borehole Diameter (in):	Date Started: 7-11-14	Date Finished: 7-11-14

Elevation and Datum: Ground: 100.00 Casing:

Notes: Coordinates were collected with a handheld Garmin GPS. Elevations were measured with a hand level and a survey rod.

DEPTH (feet)	DRILL: OPERATION	DRILL: PRESSURE (psi)	DRILL: RATE (fph)	CORE PERCENT RECOVERY	ROCK QUALITY DESIGNATION (RQD)	SAMPLE	RECOVERY (%)	STANDARD PENETRATION TEST: SPT	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT: LL	PLASTIC LIMIT: PL	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (feet)	REMARKS
														TOPSOIL, Sandy Silt with Gravel, (ML), Organics; dry to damp.	0.5	2" Dia. Slotted PVC Piezometer Installed. Slotted from 5' - 10'. Blank from 0' - 5'. Backfilled with spoils.
														Well-Graded GRAVEL with Sand and Clay (GW-GC) and occasional Cobbles; subrounded; damp; light yellowish brown matrix (10YR 6/4) with caliche coatings.		
2																
4															4.0	
										14				Clayey SAND with Gravel (SC); damp to moist; dark grey (10YR 4/1); minus No. 40 sieve materials have a low plasticity. Gravels are subrounded.		No sloughing of test pit walls.
											31	21				
6															6.0	
										18				Sandy Lean CLAY (CL); moist; dark greyish brown (10 YR 4/2); medium plastic.		
											35	24				
8																
										19					9.1	

BOH ELEV = 90.9

Operation Types: Auger; Casing Advancer; Core Barrel; Drive Casing

Sampler Types: Split Spoon; Shelby; Bulk Sample; Grab Sample; Penetrometer; Vane Shear; Special Samplers; Testpit

WATER LEVEL OBSERVATIONS

While Drilling ▽ ft	Upon Completion of Drilling ▽ ft			
Time After Drilling	3 days	14 days		
Depth To Water (feet)	Dry	Dry		▼

Remarks: Groundwater table not encountered during test pitting.

MT_DOT DNRC TEST PIT LOGS 7-25-14.GPJ PIONEER.GDT 8/21/14

201 E Broadway STE C
Helena, MT 59602
Phone: 406-457-8252
Fax: 406-442-1158

LOG OF BORING

PIONEER TECHNICAL SERVICES, INC.

Project Name: DNRC 7th Street and Reserve St			Project Number:
Borehole Location: North Portion - south of irrigation canal		Borehole Number: TP-02	Sheet 1 of 1
Drilling Equipment: 304C CAT Mini Excavator	Hammer: Type:	Driller: Grant Creek Exc.	Logger: Lorenzen
Drilling Fluid:	Borehole Diameter (in):	Date Started: 7-11-14	Date Finished: 7-11-14

Elevation and Datum: Ground: 107.40 Casing:

Notes: Coordinates were collected with a handheld Garmin GPS. Elevations were measured with a hand level and a survey rod.

DEPTH (feet)	DRILL: OPERATION	DRILL: PRESSURE (psi)	DRILL: RATE (fph)	CORE PERCENT RECOVERY	ROCK QUALITY DESIGNATION (RQD)	SAMPLE	RECOVERY (%)	STANDARD PENETRATION TEST: SPT	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT: LL	PLASTIC LIMIT: PL	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (feet)	REMARKS
														TOPSOIL, Sandy Silt (ML); dry to damp; dark grey (10YR 4/1).		2" DIA Slotted PVC Piezometer Installed. Slotted from 5' - 10'. Blank from 0' - 5'. Backfilled with spoils.
															1.5	
2														Poorly Graded GRAVEL with Sand (GP); subrounded; damp; dark greyish brown matrix (10 YR 4/2) with caliche coatings.		
															3.5	
4														Poorly Graded SAND with Gravel (SP); damp to moist; brown (10YR 5/3). Gravels are subrounded.		Trench walls sloughed below 3.5 feet. Sands are like beach sand.
										4	NP	NP				
6																
8										3						
										3					8.8	

BOH ELEV = 98.9

Operation Types: Auger; Casing Advancer; Core Barrel; Drive Casing

Sampler Types: Split Spoon; Shelby; Bulk Sample; Grab Sample; Penetrometer; Vane Shear; Special Samplers; Testpit

WATER LEVEL OBSERVATIONS

While Drilling ▽ ft			Upon Completion of Drilling ▽ ft	
Time After Drilling	3 days	14 days		
Depth To Water (feet)	Dry	Dry		▼

Remarks: Groundwater table not encountered during test pitting.

MT_DOT_DNRC TEST PIT LOGS 7-25-14.GPJ PIONEER.GDT 8/21/14

201 E Broadway STE C
Helena, MT 59602
Phone: 406-457-8252
Fax: 406-442-1158

LOG OF BORING

PIONEER TECHNICAL SERVICES, INC.

Project Name: DNRC 7th Street and Reserve St			Project Number:
Borehole Location: South Portion - near center of property		Borehole Number: TP-03	Sheet 1 of 1
Drilling Equipment: 304C CAT Mini Excavator	Hammer: Type:	Driller: Grant Creek Exc.	Logger: Lorenzen
Drilling Fluid:	Borehole Diameter (in):	Date Started: 7-11-14	Date Finished: 7-11-14

Elevation and Datum: Ground: 115.10 Casing:

Notes: Coordinates were collected with a handheld Garmin GPS. Elevations were measured with a hand level and a survey rod.

DEPTH (feet)	DRILL: OPERATION	DRILL: PRESSURE (psi)	DRILL: RATE (fph)	CORE PERCENT RECOVERY	ROCK QUALITY DESIGNATION (RQD)	SAMPLE	RECOVERY (%)	STANDARD PENETRATION TEST: SPT	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	LIQUID LIMIT: LL	PLASTIC LIMIT: PL	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (feet)	REMARKS
														TOPSOIL, Sandy Silt (ML); dry to damp; dark grey (10YR 4/1).	0.5	2" DIA Slotted PVC Piezometer Installed. Slotted from 5' - 10'. Blank from 0' - 5'. Backfilled with spoils.
2														FILL, Garbage - miscellaneous plastics, pipe, wood, metal in a Sand and Gravel matrix; dry to damp.		
4																
6															6.0	
8										1				Poorly Graded GRAVEL with Sand (GP), frequent Cobbles; subrounded; dry; brown matrix (10 YR 5/2) with caliche coatings.	9.1	

BOH ELEV = 106.1

Operation Types: Auger; Casing Advancer; Core Barrel; Drive Casing

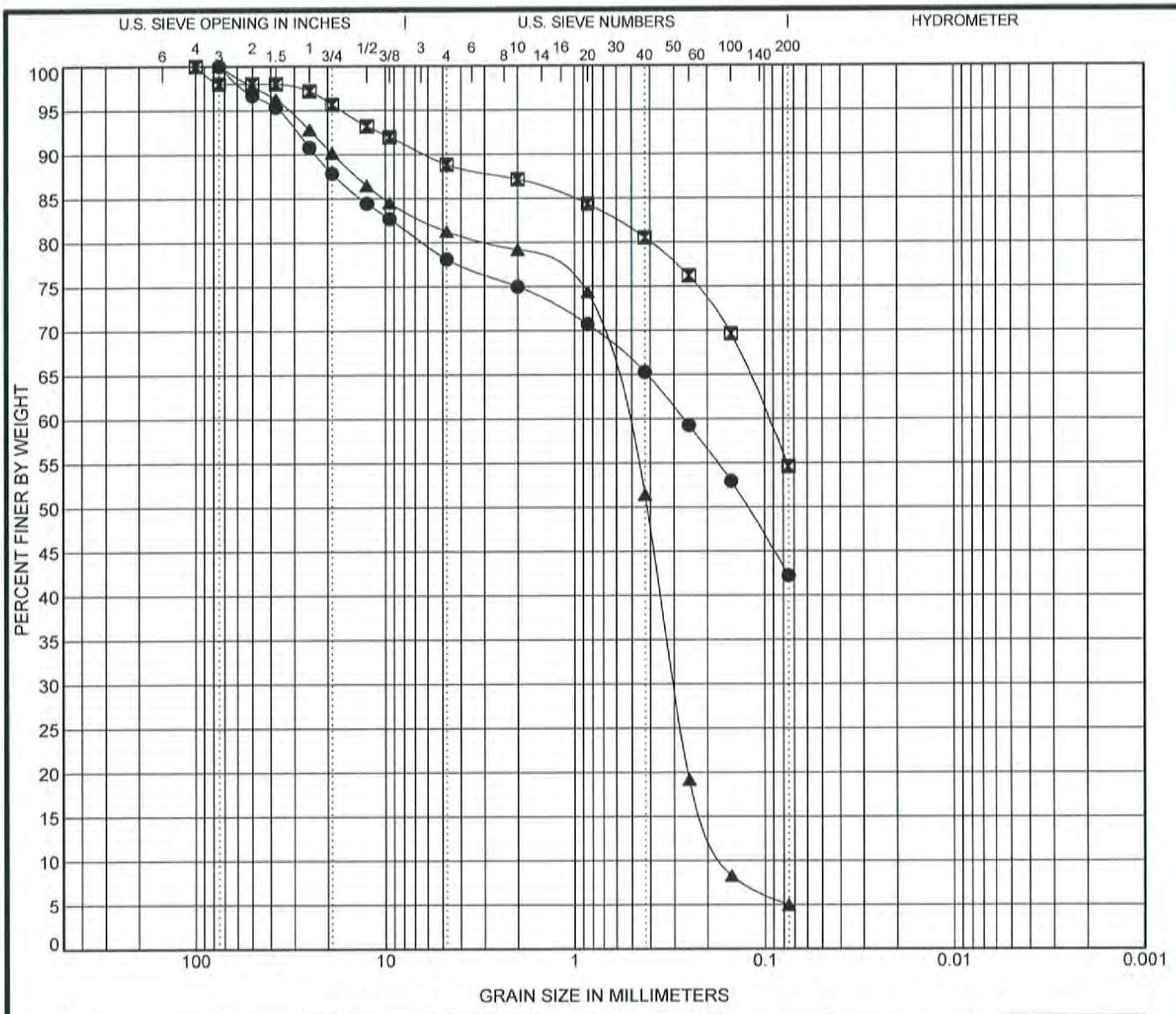
Sampler Types: Split Spoon; Shelby; Bulk Sample; Grab Sample; Penetrometer; Vane Shear; Special Samplers; Testpit

WATER LEVEL OBSERVATIONS

While Drilling ▽ ft	Upon Completion of Drilling ▽ ft			
Time After Drilling	3 days	14 days		
Depth To Water (feet)	Dry	Dry		▽

Remarks: Groundwater table not encountered during test pitting.

MT_DOT DNRC TEST PIT LOGS 7-25-14.GPJ PIONEER.GDT 8/21/14



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	LL	PL	PI	Cc	Cu
●	TP-01	4.5	CLAYEY SAND with GRAVEL(SC)	31	21	10		
⊠	TP-01	6.5	SANDY LEAN CLAY(CL)	35	24	11		
▲	TP-02	5.0	POORLY GRADED SAND with GRAVEL(SP)	NP	NP	NP	1.00	3.39

	Specimen Identification		D100	D50	D15	D10	%Gravel	%Sand	%Silt	%Clay
●	TP-01	4.5	75	0.124			21.9	35.9	42.2	
⊠	TP-01	6.5	100				9.2	34.2	54.6	
▲	TP-02	5.0	75	0.415	0.205	0.163	18.7	76.3	5.0	

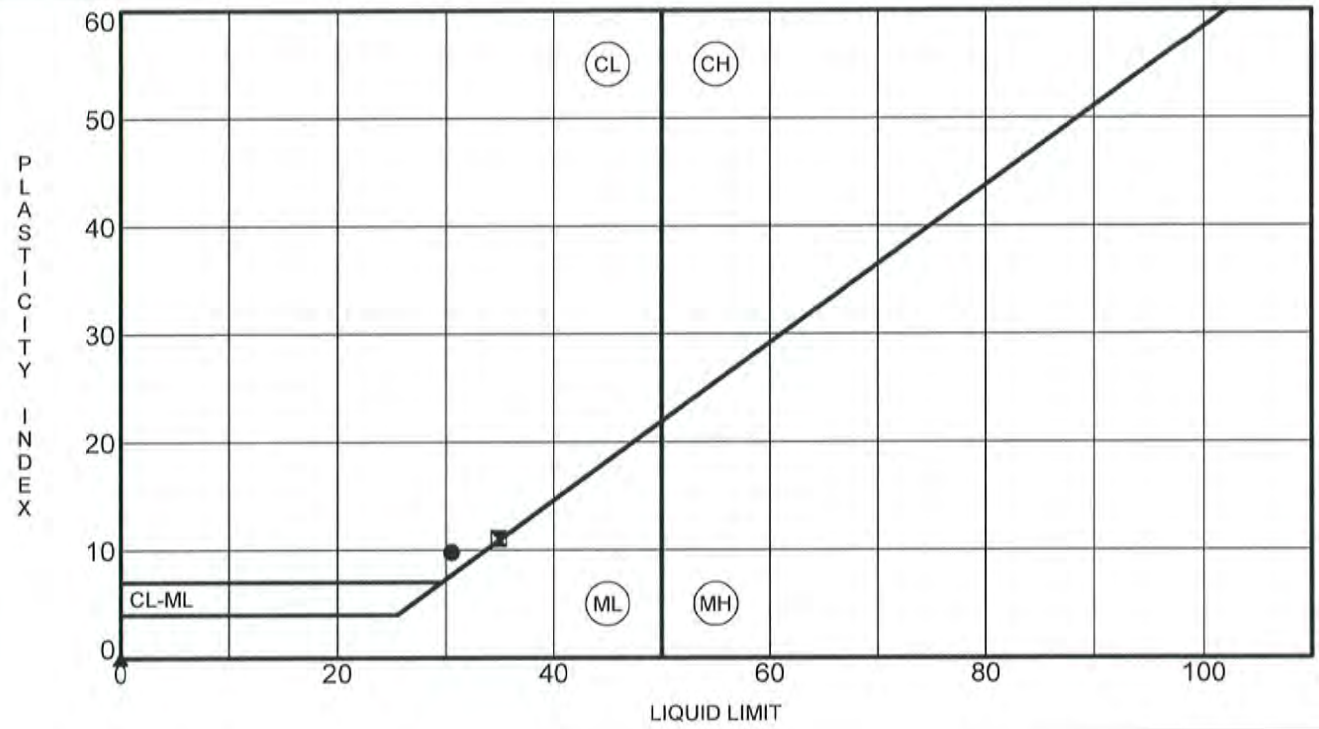
PIONEER TECHNICAL SERVICES, INC.

GRAIN SIZE DISTRIBUTION

Project: DNRC 7th Street and Reserve St

Number:

US GRAIN SIZE ASTM DNRC TEST PIT LOGS 7-25-14.GPJ PIONEER.GDT 8/21/14



	Specimen	Depth	LL	PL	PI	Fines	Classification
●	TP-01	4.5	31	21	10	42	CLAYEY SAND with GRAVEL(SC)
⊠	TP-01	6.5	35	24	11	55	SANDY LEAN CLAY(CL)
▲	TP-02	5.0	NP	NP	NP	5	POORLY GRADED SAND with GRAVEL(SP)

PIONEER TECHNICAL SERVICES, INC.

ATTERBERG LIMITS' RESULTS

Project: DNRC 7th Street and Reserve St

Number:

US ATTERBERG LIMITS DNRC TEST PIT LOGS 7-25-14.GPJ PIONEER.GDT 8/21/14

Picture #:	Description: TP-01 location – view is to the east.

Picture #:	Description: Spoils pile from TP-01 – view is to the north.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-01 vertical trench walls are stable. Piezometer installed.

Picture #:	Description: TP-02 location – view is to the east.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-02 – 1.5 feet of topsoil overlying poorly graded gravel.

Picture #:	Description: TP-02 – poorly graded sand (beach sand) underlying poorly graded gravel.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-02 – poorly graded sand with gravel from 8-ft depth.

Picture #:	Description: TP-02 – sloughing of test pit walls in the poorly graded sand.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-02 spoils pile – view is to the west.

Picture #:	Description: TP-02 piezometer – view is to the east.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-03 location – view is to the northeast.

Picture #:	Description: TP-03 – Garbage debris begins below topsoil layer.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-03 – plastics, pipe, metal debris.

Picture #:	Description: TP-03 spoils pile with some wood – view is to the south.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-03 trench walls holding stable.

Picture #:	Description: TP-03 – view is to the east.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-03 spoils pile with large cobbles. View is to the south.

Picture #:	Description: TP-03 walls remaining stable.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Picture #:	Description: TP-03 piezometer – view is to the north.

Picture #:	Description: TP-03 piezometer – view is to the east.
PIONEER TECHNICAL SERVICES, INC.	Project: DNRC Reserve and 7th Street West

Appendix C: Montana Department of Transportation Profile Sheet

STATE	PROJECT NO.	SHEET NO.
MONTANA	M-STPU-8103(6)	47

PLAN — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, BY

PROFILE — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, BY, ALIGNMENT CHECKED, PT. OF VERT. CURVES CHECKED, STRUCTURE NOTATIONS CHKD

NEW SAN. SEWER M.H./STUBOUT (SEE DETAILS)

MANHOLES & SEEPAGE PITS IN PL - ADJUST TO GRADE
82+93 - SEWER - RT./STUB
85+81 - SEWER - RT.
89+49 - SEWER - RT.
91+26 - SEWER - RT.
93+80 - SEWER - RT.

82+94 ⅜" NAT. GAS LINE X-ING ℄ DEPTH =

83+11.4-1 WIRE TEL. LINE X-ING ℄ CLEAR - 14'

83+24 ± - PWR. LINE X-ING ℄ CLEAR - 30'

85+80 - PWR. LINE X-ING - CLEAR - 30'

86+04 - 3 WIRE PWR. LINE X-ING ℄ CLEAR - 30'

88+00 - TEL. LINE X-ING ℄ CLEAR - 25'

88+85 - PWR LINE X-ING ℄ CLEAR - 25'

87+77 ¾" NAT. GAS LINE X-ING ℄ DEPTH =

88+72 - 3'x7'x32' BOX CULVERT IN PL - SKEW

89+19 - 3 WIRE PWR. LINE X-ING ℄ CLEAR - 25'

91+39 ~ 2" NAT. GAS LINE X-ING ℄ DEPTH =

91+52 - TEL. LINE X-ING ℄ CLEAR. = 21'

91+52 - PWR. LINE X-ING ℄ CLEAR. = 35'

91+44 ~ 6" WATER LINE X-ING ℄ DEPTH = 6.6' FROM CONST. PMT. 80' FROM R/W LINE

93+58 - TEL. LINE X-ING ℄ CLEAR = 19'

93+60 - ¾" NAT. GAS LINE X-ING ℄ DEPTH =

94+80 ~ ¾" NAT. GAS LINE X-ING ℄ DEPTH =

T11N R19W

DINSMORES ORCHARD HOMES NO. 4

RANGITSH ADDITION

DAVIS ADD.

GEESEY ADD.

EIGHTH ST. (GRAVEL)

TENTH ST. (CLOSED)

NINTH ST.

SEVENTH ST.

SEC. 30

SEC. 19

PROJECTED 22.8' LT. & PARALLEL

N.0°06'10"E. STK'D & PROJ.

PROJECTED 22' LT. & PARALLEL

N.0°01'10"E. STK'D & PROJ.

MONUMENT BOXES
84+45.4 - NINTH ST. ~ 22' RT.
91+27.0 - 30. SEVENTH ST. ~ 22' RT.

91+26.87 RESERVE ST. = 14.78 SO. SEVENTH

BRASS CAP 40.52' FROM SECT. CORNER (DO NOT DISTURB)

4" MAIN

12" MAIN

21" ASBESTOS CEMENT TRANSITE PIPE

2-MAILBOXES

RETAINING WALL 2' HIGH DRIVEWAY

DO NOT DISTRB RETAINING WALL, LAWN & TREES INSIDE CONST. PMT.

CURB OPENINGS
82+20 RT. - 20'
84+50 LT. - 20'
85+70 RT. - 20'
86+05 RT. - 20'
86+75 RT. - 20'
87+60 RT. - 24'
88+35 RT. - 24'
94+48 RT. - 20'

WHEELCHAIR RAMPS
84+17.0 — RT.
84+53.0 — RT.
90+95.0 — LT.
90+95.0 — RT.
91+59.0 — RT.
91+59.0 — LT.

NEW CONCRETE SIDEWALK LT. INCLUDES 1-20' PARTIAL RADII
NEW CONCRETE CURB & GUTTER LT. INCLUDES 1-20' RADIUS W/ 26.8' EXT.

NEW CONCRETE SIDEWALK RT. INCLUDES 1-20' PARTIAL RADII
NEW CONCRETE CURB & GUTTER RT. INCLUDES 1-20' RADII

NEW CONCRETE SIDEWALK LT. INCLUDES 1-20' PARTIAL RADIUS
NEW CONCRETE CURB & GUTTER LT. INCLUDES 1-20' RADIUS W/ 26.8' EXTENSION

NEW CONCRETE SIDEWALK RT. INCLUDES 1-20' PARTIAL RADIUS
NEW CONCRETE CURB & GUTTER RT. INCLUDES 1-20' RADIUS

84+47.4 A & NINTH ST. APP. RT. 35.0' F.F.

91+27.0 & 30. SEVENTH ST. APP. LT. 44.0' F.F.

91+27.0 & 30. SEVENTH ST. APP. RT. 44.0' F.F.