

**Society Turn Parcel - Preliminary Plan  
Engineer's Summary Report  
June 30, 2022**

This report summarizes the proposed infrastructure improvements for the phased development of the Society Turn Parcel as presented in the Preliminary Plan application.

**Utility Systems - San Miguel County Land Use Code, Sections 4-302 F, 5-607 A, 5-605 & 5-606**

**Water Source - Sections 4-302 G, 5-502AA**

The domestic water for the Society Turn Parcel planning areas will be provided by the Town of Telluride water system. A proposed new 8" Ductile Iron Pipe (DIP) water line will be installed and will connect to the existing Town's 10" DIP water main located in the State Highway 145 right-of-way. The proposed new 8" water main will serve Planning Areas 1, 2, 3, 4 and 5 and will be installed in Road B per Town of Telluride construction standards. The proposed new water service lines will be installed in phases as the PUD develops. The existing 6" water line to the Wastewater Treatment Plant will be reconnected to the new proposed 8" water line in Road B.

Five (5) new proposed fire hydrants will be installed along Roads B and D. Fire hydrants will have a maximum spacing of 300 feet between hydrants.

**Sanitary Sewer - Sections 4-302 G, 5-502AA**

Sanitary sewer collection for the site will connect to the existing Town of Telluride sewer system. Currently existing 10" and 12" sewer mains runs through the property and the new proposed 8" PVC sewer line will connect to it which will provide service to Planning Areas 1, 2 and 3. As the site gets developed, an additional new 8" PVC sewer main will be installed and connect to the existing Town's 24" PVC sewer line (just north of the river) which will service Planning Areas 4 and 5. The proposed sewer service lines will be installed in phases as the subdivision develops.

Proposed new dry utilities (telephone, fiber optics, cable tv, electric) and natural gas will all be installed in Road B and shall be coordinated with the appropriate utility companies.

Preliminary water and sanitary sewer infrastructure elements have been designed to comply with with the Town of Telluride standards and specifications for those public utilities.

**Drainage Plan - Sections 4-302 G, 5-502AA**

The drainage plan for Society Turn Parcel addresses the proposed site development stormwater runoff, flow patterns and detention methods. Each drainage basin has been analyzed and detention volumes have been calculated based on proposed land use, using Mile High Flood District (MHFD, formerly Urban Drainage and Flood Control District)) methods and software. All drainage design elements meet CDPHE and San Miguel County regulations for stormwater controls. Prior to site development, site specific Stormwater Management Plans will be developed for each of the planning areas or phases of construction.

There are two types of drainage detention devices proposed for this site; underground drainage structures and detention basins. The underground drainage structures are a manufactured stormwater

detention pipe system which is designed to be used under parking lots, thus maximizing land usage. The detention basins or ponds will detain stormwater on the surface and be released by outlet pipe or structure. All outlet culverts will require a riprap outlet apron to prevent scour and erosion.

Low impact Development (LID) - Using landscape features such as lawns, gardens and planters, stormwater can be intercepted and filtered naturally prior to release to the San Miguel River. Low Impact Development (LID) is a desirable goal in stormwater management design and that, where practical, it should be included in the design of future landscape areas surrounding buildings within the development. Use of LID in those areas will reduce the quantity of stormwater volume in the ADS and traditional detention basins, which will result in lower storm flows to the San Miguel River outfall points. Both the ADS and landscaped detention basins shown on the sketch plan will provide water quality improvements and while additional pollutants may occur in the detention outfalls, there are opportunities to identify those pollutants for mitigation prior to impacting the discharge into the San Miguel River from the Telluride Regional Wastewater Treatment Plant (TRWWTP). By sampling upstream of the plant's discharge point and determining what, if any, additional pollutants are present in the Society Turn parcel discharge, mitigation measures can be implemented to reduce those impacts. The point discharges are a necessity to capture storm flows that would otherwise sheet flow across the site and onto Town and SMPA property to the south of the Society Turn parcel.

As required by the Colorado Department of Public Health and Environment (CDPHE), prior to construction, a Stormwater Management Plan (SWMP) will be prepared by a qualified stormwater manager that outlines the potential sources of pollution during construction and the recommended control measures (also known as Best Management Practices (BMP's)) to prevent contamination of state waters. Prior to construction, the contractor and owner will file an application for a stormwater discharge permit with CDPHE that includes providing that SWMP and maintaining it on site. SWMP's are dynamic documents that change as construction changes. Common BMP's include vehicle tracking pads to limit sediment from being tracked offsite, silt fencing, straw bales or wattles and earth berms to control stormwater flow and provide water quality improvement and dedicated lined concrete washout basins to prevent concrete wash water from contaminating the site.

The drainage components have been designed to comply with the San Miguel County Land Use Code, Section 5-502 AA.

### **Roads Design – Sections 5-501 and 5-502**

There are two roads proposed for the site: currently identified as Road A and Road B. For Phase 1, Road A will be constructed, and Road B will be constructed only as a gravel field road, which will be gated to the west, near the intersection of Road B with Road A, and be used for emergency access to the existing access on the east side of the site. Staff at Region 5 of the Colorado Department of Transportation (CDOT) have indicated that they will not allow a through access to the site from State Highway 145 on the east side. Therefore, as described above, Road B will be gated off for emergency access only to comply with that requirement. In addition to Roads A and B, there are three proposed driveways: Road C, Road D and SMPA / Gas Access. All three access driveways will be constructed in Phase 1 of the development.

The proposed new roads comply with the San Miguel Land Use Code, Section 5-502 Road Design Standards with a variance regarding sidewalks. Land Use Code, Section 5-502 I requires 8' wide sidewalks in non-residential uses, and Society Turn Parcel is proposing 6' wide sidewalks in some areas.

A variance to the required 8-foot sidewalk is being requested since the 6-foot paved path is a significant improvement to the existing single-track trail for pedestrians as well as cyclists. In addition to the external regional 6-foot wide trail extension from the SH 145 spur commuter trail to the existing Remine Creek single-track trail, the development proposes to construct internal 6-foot wide sidewalks to accommodate pedestrians within the development. A reconsideration to the standard 8-foot sidewalk is being requested since the preliminary plans include two dedicated pedestrian corridors, namely the sidewalk in question as well as the installation of the paved commuter trail connecting to the "bike" trail that extends along the spur into Telluride. The 6-foot paved commuter trail is a significant improvement to the existing single-track trail and would be a great alternative for pedestrians as well as cyclists accessing the subdivision. The Society Turn HOA intends to provide winter maintenance on the portion of the commuter trail from the highway underpass to the Telluride Regional Medical Center. The Society Turn HOA will use equipment such as a Bob Cat for snow removal which is suitable for maintaining a 6-foot wide trail, whereas the County uses a conventional vehicular mounted snowplow to maintain an 8-foot wide trail. The internal road is also an option for bicyclists as the speed limit would be 15 MPH, similar to roads in Telluride, which become a desirable alternative for bicyclists

Roads A and B are classified as Collector Roads, and Roads C and D and SMPA/Gas Access are classified as driveways.

Road A width varies. On the north end of Road A there is a 60' right-of-way, 44' wide road way, 41' pavement and then the road tapers to a 40' right-of-way, 24' wide road way with 21' pavement. Road A has a 2' concrete curb/gutter on both sides of the street with 6' wide sidewalk on the west side. The road then transitions to a cul-de-sac with a 53' right-of-way radius, 45' pavement radius, 2' curb/gutter and 6' sidewalk. The cul-de-sac right-of-way stops midway and the continues with a bus stop easement. The intent is to have a complete turn-around for Phase 1 and then be able to transform to a "T" intersection once Road B is constructed. At the southern end of the cul-de-sac is a proposed new covered public bus stop. The cul-de-sac design complies with the Land Use Code, Section 5-502F and Telluride Fire Protection District standards for fire apparatus access standards. During Phase 2 development, the cul-de-sac will be converted to a "T" intersection and fire apparatus access will be provided by temporary and permanent driveways as shown on Sheet C-4 of the site plan prepared by Buckhorn Engineering.

Road B also has varying right-of-way widths, the roadway is 24' with 21' pavement width and 2' curb/gutter on most of the south side of the road. There is perpendicular parking in the right-of-way with 8' sidewalks in a dedicated easement. The 8' sidewalk accommodates a 2' vehicle overhang, which provides a 6' clearance for pedestrians. Road B also has a proposed new public and School bus stop on the south side of the roadway near the intersection of the Road C access driveway to the WWTP. To allow for phased development of the site, Road B has been designed to provide turn-arounds or driveways that are in compliance with Telluride Fire Protection District standards outlined in Resolution No. 04-2008. The site plans that accompany the sketch plan application detail fire access elements for each of the three (3) proposed phase of development (refer to Sheets C-3 through C-5 for details).

Roads C and D are the Wastewater Treatment plant driveways and will remain open during construction of the new driveways so that access to the plant is maintained. Roads C and D each have a 40' right-of-way, 24' pavement width and 4' gravel shoulder.

### **Fire Protection – San Miguel County Land Use Code, Section 5-608**

Site improvements meet the fire protection standards of the Telluride Fire Protection District (TFPD). Fire hydrants are spaced at 300' maximum. The proposed building structures will contain sprinkler systems. During Phase 1, the field access Road B will have gates that will be equipped with Knox key boxes for fire



department and emergency vehicle access. In Phase 2, the large parking lots will have designated fire truck turn-around areas. Sketch plan review by Jim Boeckel of TFPD indicates general conformance to TFPD fire protection standards as outlined by the National Fire Protection Association (NFPA).

**Conclusions**

The public improvements and infrastructure proposed in the Society Turn Parcel site development plan have been designed to comply with all applicable, laws, standards and regulations and to accommodate the proposed site development elements as presented.

Respectfully submitted,  
Buckhorn Engineering

A handwritten signature in blue ink, appearing to read "Daniel C. Quigley".

Daniel C. Quigley, P.E.  
Project Engineer

