

Henry Flats Cluster Subdivision Improvement Plan

1st Plan Check Comments

2/16/2016

Blane W. Frandsen PE Plan Checker

Sheet 1:

1. Please in Parenthesis under the corner parcel labeled Open Space add (Possible Wetland-potential presence of Hydric Soils) add the same note on the Master Grading Plan with bolded **Special Notation**.
2. Show and label the Easement and Irrigation pipeline/channel that runs along the SW Border of the subdivision.
3. Put street station notations at the intersection of: 4300 West/400 South, 400 South / Street Name A, Street Name A & Street Name B. Other survey information recommended.

Sheet 2:

1. Under Utility notes provide a list of the utility companies with telephone contact information. This could be placed on sheet one if more convenient.
2. Change the title of Erosion Control General Notes to **Stormwater Pollution Prevention Plan (SWPPP) General Notes:**
3. Add as the first note: THE CONTRACTOR SHALL COMPLETE ALL PAPERWORK, TEXT AND APPLICATIONS FOR THE SWPPP INCLUDING THE OBTAINING OF A NOTICE OF INTENT (NOI) FROM THE UTAH STATE DEPARTMENT OF WATER QUALITY
4. Add as the second note: THE CONTRACTOR SHALL SUBMIT THE COMPLETED SWPPP WITH APPLICATION FOR A STORM WATER CONSTRUCTION ACTIVITY PERMIT FROM THE WEBER COUNTY ENGINEERING DEPARTMENT
5. Consider changing the note reading “When Grading Operations are Completed...” from furrowing to something more substantial to allow the issuance of a Notice of Termination (NOT). In the notes for Exposed Slopes you consider using a tackifier via hydroseeding , possibly consider using the tackifier, straw, or other erosion control BMP on any lots after final grading to allow for the Issuance of the Notice of Termination (NOT) or an amending of the SWPPP for transfer of responsibility to the actual builder or new owner if the lot is sold without a completed structure.
6. Under maintenance 1st note: delete words “project close out” and replace with “issuance of NOT by the Utah Department of Water Quality.
7. In the street cross section show the location of the control wiring for the irrigation basin float valve.

Sheet 3

1. Provide an access maintenance gate and driveway (APWA Plan #216) for the Detention Basin for maintenance. Try to align with Street B.
2. I'd like to see the last 5 feet of the street pavement deepened to 6 inches to help retard pavement break off. Consider this for sheets 5 and 6 as well.

Sheet 3 continued.

3. Provide for reflective chevron “end of street” signing or barricading either mounted on the Jersey barriers or on fixed or buried posts behind the Jersey barriers. I’d prefer to have the Jersey barriers go from the centerline of the street to the curb face (two std. 20 foot long barriers and have the reflective chevron “end of street signing” extend across both the street and the two sidewalk ends. Same for sheets 5 and just chevron barriers for sheet 6. Check the MUTCD for other end of street advance warning signage and install per recommendation.
4. Specify the Curb Gutter and Sidewalk Standards: recommend APWA Std. Plans # 205 Type A with # 206 Curb and Gutter Connection doweling at the temporary street endings of all c & g’s and wherever else doweling is needed. Sidewalk per APWA Std. # 231 and corner assembly per #235 Examples C, D or E as appropriate. Detectable Warning surfaces per APWA 238.
5. Put one #236 Midblock curb cut assemblies on NE side of street aligned with one of the two corner assemblies of street B. Detectable Warning surfaces per APWA #238.
6. Use a 4ft wide Waterway at the intersection of A&B streets per APWA #211 with Transition Structure #213.
7. Specify Flared Driveway Approaches per APWA #221 with locations determined in the field to be coordinated with the building plans. Provide for cutting of curbs, gutters and sidewalks and doweling for type #221 Driveway Aprons where such lags behind the street construction. (No #222’s except by permission of the County Engineer)
8. Install a 1-1/2 inch diameter sleeve for irrigation lines under the sidewalk near each secondary water service and mark the sidewalk at each location.
9. Catch basin sizing still to be determined. Use APWA Catch Basin Plan #315 for either single or double grate. Use louvered grates for double grate basins (align each grate per the direction of flow. For a single grate basin use Type 310 Grate and Frame.
10. Provide a typical cross section of street and parkway sidewalk and grading behind the sidewalk to provide typical sheet flow from fronting property or provide an under-sidewalk drain if yard flow is concentrated from a single flow line from the lot.
11. Correct construction notes all sheets typical referencing both County Standard plans and specifications or APWA Plans and Specification and when in conflict seek clarification from the Weber County Engineering Department

Sheet 4

1. Provide a typical cross section of street and parkway sidewalk and grading behind the sidewalk to provide typical sheet flow from fronting property or provide an under-sidewalk drain if yard flow is concentrated from a single flow line from the lot.
2. The plan-profile section shows a fairly deep fill slope needed behind sidewalk if so show the toe of slope and slope designation symbols.
3. Provide for street name sign, Stop Sign and Dead End signage. Follow the MUTCD regarding sign placement and sizing.
4. If there is a fill slope behind the sidewalk at the corner of 400 South and A then consider a curb wall behind the walk as shown on APWA #235 Example C or E.

5. Provide survey monument Intersection of 400 South and A, and at the PI of the horizontal curve C1

Sheet 5

1. Provide a typical cross section of street and parkway sidewalk and grading behind the sidewalk to provide typical sheet flow from fronting property or provide an under-sidewalk drain if yard flow is concentrated from a single flow line from the lot.
2. The plan-profile section shows a very deep fill slope needed behind the sidewalk show the toe of slope and slope designation symbols.
3. Lengthen the vertical curve to 100 feet in length.
4. The County's old Std. Drawings does allow a minimum 15" diameter storm drain. There is plenty of cover for this drain, I'd prefer an 18" diameter pipe for maintenance purposes, please consider upsizing. Provide hydraulic and D loading calculations for the storm drain system.

Sheet 6

1. Provide typical cross section of street, parkway, sidewalk and grading behind the sidewalk.
2. The plans indicate less than desirable cross slopes along 400 South ranging from a negative 1.33 % on the west end of the roadway to 0.0% to .5% back to .3% and finally 1%. Please see if a more consistent cross slope could be obtained I'm concerned with bird baths in the pavements.
3. There is cross hatching over much of the plan view with no legend as to the meaning. It may be required to remove and replace some of the existing street pavement along 400 South to accommodate the placement of the new curbs and gutters to maintain adequate cross slope for the street.
4. Where the curb and gutter ends at the Tonks property, drainage from the new street improvements outlets at the Tonks property with no provision of how to conduct such easterly across the Tonks frontage to 4300 West. Please evaluate and develop a plan for handling such runoff.
5. Please put in a break line on the plan centerline of street so that the station of 400 South 4300 West can be shown and then add the station of the center of the intersection of the New Street A shown in reference to 4300 West.
6. Going westerly from Street A show a painted transition stripe directing traffic back to the existing 2 lane roadway configuration. Attach reflectorized traffic delineators to the pavement behind the transition stripe spacing such in accordance with the MUTCD guidelines. Add such traffic signing to 400 South to give advance warning of the narrowing of the street pavements.
7. Dash in the location of the irrigation line that crosses under 400 south.
8. Put in a vertical curve to eliminate the grade break to Station 9+13.17 in the profile of the new curb and gutter.
9. Consider putting in a 50 foot long pavement transition gong easterly from station 10+03.66
10. At the west end of the new street improvements the curb and gutter would appear to end in mid air. Adjust the grades or show local fill placement to complete the match up.

Sheet 7

1. Please label the Irrigation Pipe and easement along the Westerly side of the plan.
2. The 4 inch diameter drain line from the detention basin seems very small. I'd like to see it enlarged to a 6 inch diameter. Place a valve box over the drain valve and place a marker post and sign to identify its' location.
3. What is the purpose of the 10 inch diameter line leading from the detention pond?
4. Extend the rip rap below the overflow to the bottom of the slope to prevent any potential scour at the toe of the embankment.
5. A maintenance agreement needs to be developed for the long term perpetual maintenance of the basin.
6. The Irrigation boxes occurring within the paved areas of the street shall be fit with traffic bearing covers. Please provide the manufacturers information regarding such to the County for approval. Also provide for the adjustment to grade of the boxes after the placement of the street pavements.
7. Please consider doing a separate grading plan for the detention basin by itself.

Sheet 8

1. Please add cross sections around the boundaries of the project showing the grading match ups all around the boundaries of the tract.
2. Please note the special note regarding the probable presence of hydric soils with its reference to the County's General Plan.
3. Label the Irrigation Pipeline and easement along the Westerly side of the development.
4. Add a table of the proposed grading quantities of cut and fill. Identify any required borrow or spoil in the event of a grading unbalance. Identify location of any borrow supply and or location where any spoils are to be taken.
5. Just east of the boundary of lots 3 & 4 a flow arrow is shown with a note to match existing elevation. Is this a drainage outlet?
6. Flow arrows converge at the corners of lots 4 & 5 with no outlet! Where does this drainage go?
7. Please compute the drainage to each catch basin separately and show the Q into each basin and show sizing for each basin and show the specifications for each CB and specifications for any associated grating.
8. I see the existing contour lines but no finished surface contours or pad elevations.
9. Again what happens at the SE corner of the tract at the Tonks property to prevent new concentrated draining to their property?
10. Again how is the detention basin going to be accessed for maintenance?

Sheet 9

1. Please add a general note requiring the contractor to complete the associated paperwork and application and submittal of the SWPPP to the County for a Storm Water Construction Activity Permit with the follow-up application to the Utah State Division of Water Quality (DWQ) for obtaining an NOI.

2. Please note that the Current Construction General Permits requires Erosion Prevention, Sediment Containment, Inlet Protection, Good Housekeeping and Post Construction Stabilization.
3. It is unclear how the surface runoff will be routed to the detention basin during the grading operation and once graded how the building lots and or pads will be stabilized to prevent erosion runoff. Some mention of using a tackifier is found on sheet 2. Please take a second look at how such will be addressed and clarify.
4. Please consider widening the gravel at the construction entrance from curb to curb to prevent people from driving around such and also put in a note requiring the contractor to maintain such to prevent track out and back up support for street sweeping.
5. Some consideration is needed regarding post construction BMP's to allow for the issuance of a Notice of Termination or transfer of responsibility if these lots are sold off individually.

Sheet 10

1. Note 2 Please add a note that all dumpsters or trash containers shall be covered and no fluids shall be placed therein.
2. Note 4a. Add a note that no liquid waste shall be poured out onto the ground or to any drain but disposed of in a proper legal manor.
3. Note 4b. Remove and dispose of any contaminated soils resulting from fuel spillage in the legal and proper manor.
4. Note 4c. Please strike the note regarding phosphate free biodegradable soap and replace with a note saying "No discharge of wash water containing soaps, detergents or solvents shall be allowed onsite."
5. Note 5a. Please correct 6th line last sentence, Which says, "Dig up property..." To read "Dig up and *properly* ..."
6. Note 7 change to read SWPPP Plan Notes or add SWPPP in parentheses with the title.
7. Note 7c. Amend the last sentence to read "If deemed necessary erosion control *shall* be reestablished before *the* work *recommences*."
8. Note 7g. Strike the last words of this entry "~~of the governing agency.~~"
9. Note 7j. Add wording at the end of the sentence " ...using a SWPPP amendment."
10. Add a Note 9. *Portable toilets shall be set back a minimum 10 feet from the back of any curb line and / or 10 feet from any storm drain Inlet. All portable toilets shall be properly staked to prevent tip over or spillage.*
11. Add to the concrete washout note "*Washouts must be emptied when reaching 75% of being filled.*"
12. Add a detail for onsite SWPPP signage and designate a location visible from the street near the site entrance.

Sheet 11

1. Please add a sheet 12 showing the basin grading with entry gate and driveway access. Locate control features etc.
2. Sheet 6 mentions a float control valve with valve shutoff wiring to the irrigation ditch shown on sheet 6. Please add location and detailing.

3. Consider slope protection around the basin slopes.
4. Please address maintenance of the basin during construction to clean and remove silt before it reaches the foot valve of the irrigation pump.