



City of San Luis

Development Services

December 22, 2015

Steve Gerber
Nicklaus Engineering, Inc.
1851 W. 24th Street
Yuma, AZ 85364

Re: Subdivision Case No. 2015-0482F/ San Luis Port Subdivision, Phase 1

City staff have reviewed the plans for the San Luis Port Subdivision Phase 1 and have the following comments:

Development Services:

1. Subdivision Regulations require that Commercial and Industrial Streets have 80 foot right-of-ways with 54 feet pavement width.
2. Full improvement of streets next to development is required.
3. Temporary turn-around will be required to be paved.
4. Sidewalks are require in commercial areas
5. Street lights are required, provide design.

City Engineer:

Cover and Index Sheet – No Comments.

Plat – Phase 1

1. Provide reference for existing 33' right-of-way along County 24th Street. If right-of-way is in the form of an easement, the limits of the subdivision should extend to the centerline of Co. 24th Street.
2. Provide 1' Non-Access Easements along Avenue E and County 24th Street.
3. Need a copy of the title report for the property.
4. Possible needed a 15' drainage easement needed along County 24th Street/Lots 1 and 7 for drainage from County 24th Street. (Need to see new proposed improvements)

T101 and T102 – No comments.

P101 and P102

1. Provide drainage report/drainage calculations. Ensure that the finished grade elevations of the lots are sufficiently below the adjacent roadways. (Shadle Street has to many 161.60)
2. Provide cross-sections of the street improvements.

3. Provide signing and striping plans as needed. Show turn lanes.
4. How is stormwater drainage from County 24th Street proposed to be handled?
5. Note 13, calling out for existing utilities to be relocated by others, includes the City's traffic signal conduits and junction box at the corner of Avenue E and County 24th Street. This work needs to be done by the developer's contractor. Provide a detail for how the conduits will be extended.
6. Provide grades for new curb and gutter at the County 24th and Avenue E intersection.
7. Avenue E improvements are required. Traffic Impact Study is required and possible traffic signal contribution.

WS-01 through WS-06

1. Submit ADEQ Approvals to Construct for water lines and sewer lines.
2. All water and sewer details shall be per City of Yuma standard details (Details shown on the plans are derived from the City of Yuma details – if there are any difference, please specifically note them.)
3. All C900 water mains shall be Class 235 (DR-18.)
4. All manholes shall be constructed of polymer concrete, Armorock or approved equal.
5. All sewer services shall have a cleanout at the property line – reference City of Yuma Std. 5-021.

LS-01 and LS-02

1. (Comment 4 of the Plat - Question – is there a better location for the Sewer Force Main easement than across the back of Lot 7? It will not be accessible and will be subject to improvements constructed on top of it. It would be better to place in the street r/w's even if the force main is slightly longer.)
2. Submit ADEQ Approvals to Construct for sewer lift station. Submit Engineer's Design Report.
3. Provide profile of sewer force main, especially at crossing of County 24th Street and existing water line. Provide detail for connection of new sewer force main to existing sewer force main (Note 14 calls out Detail E/D02 but this detail is simply a trench detail.) Provide sewer force main cleanouts as needed.
4. Provide electrical plans for the sewer lift station.
5. Provide details for construction of the shade structure at the sewer lift station.
6. Fencing along Richards Road is called out as Steel Tube Fencing but Detail A/D05 is for Chain Link Fencing.
7. Lift Station wet well shall be constructed of polymer concrete, Armorock or approved equal.
8. Controls for lift station shall include a float switch backup for high level alarm.
9. RTU/SCADA requirements shall meet City of San Luis requirements.
10. Lift station site plan shows wrong grade for retention basin (higher than adjacent ABC paving.)
11. Provide paved driveway from Richards Road to lift station gate.

Section 8.0 – Total Dynamic Head (Phase I)

- Calculation of the total dynamic head needs to consider the pressures that will exist in the existing 10-inch force main. These pressures should be calculated based on the overall hydraulics of the force main with the existing Co. 24th Street lift station pumps running plus any other planned or future discharges to the force main. Pump size needs to be revised accordingly.

Public Works Department:

1. A traffic impact study should be provided as part of the development plan.
2. Participation in a fund for a future traffic signal at 24th Street and Avenue E will be required.
3. More analysis of sewer force main system will be needed. This new lift station would be the third set of pumps on the same force main. Is lift station sized properly to take the additional phases of this subdivision?
4. Improvements on Avenue E and Co, 24th need to meet or exceed the minimum required in our subdivision regulations and our zoning ordinance.

Fire Department:

The City of San Luis Fire Department has reviewed the submitted set of plans for the proposed San Luis Port Subdivision, and a second means of ingress/egress with "Fire Department Access Road" signs, are required, for firefighting operations, per NFPA 1-2003 (18.2.2.4) (18.2.2.5.7). The City of San Luis Fire Department would require assurances of completion of the roadway to be able to withstand the loads imposed by fire apparatus, prior to any structures going vertical, above foundations (*refer to included handout "Pre-Construction Fire Code Requirements"*).

Additionally, we need to review the placement locations of fire hydrants prior to the final submittal of the site plans. All fire hydrants need to be on a continuous water supply loop, no dead-end fire hydrants. These fire hydrant locations, in our initial preliminary review, are as follows; the proposed fire hydrant located on the Southeast corner of Border Health Blvd. & Richards Rd. needs to be moved across Border Health Blvd, to the Northwest, parallel with the North side of Richards Rd. The proposed fire hydrant located on the Southeast corner of Border Health Blvd. & Packard Pkwy. needs to be moved across Border Health Blvd., to the Northwest, parallel with the North side of Packard Pkwy.

The proposed fire hydrant located on the Southwest corner of Border Health Blvd. & Shadle St. needs to be moved across Shadle St. to the Northwest corner of Shadle St. & Border Health Blvd., which is acceptable on later submittals, but must be approved prior to installation.

If you have any questions on these comments, please contact John Starkey, Zoning Administrator at 928-341-8563 or Eulogio Vera, Public Works Director at 928-341-8577.

Thank you,


John Starkey
Zoning Administrator



Nicklaus Engineering, Inc.

8(a) ~ DBE ~ WOSB ~ SBE

• Civil • Survey • Architecture
• Environmental • Geotechnical

RECEIVED
R.P.
2016 OCT 11 PM 4:44
DEPT OF PLANNING & ZONING
CITY OF SAN LUIS, AZ

October 11, 2016

City of San Luis
Development Services
1090 E Union Street
San Luis, AZ 85349

Attn: Mr. John Starkey

Re: San Luis Port Subdivision, Phase 1
Subdivision Case No. 2015-0482F

Dear Mr. Starkey,

I have received your 12/22/2015 review comments for the above referenced project and have responded to them accordingly. Please refer to the itemized responses listed below:

Development Services:

1. Subdivision Regulations require that Commercial and Industrial Streets have 80 foot rights-of-way with 54 feet pavement width.

RE: The street rights-of-way within the subdivision have been revised to 80 feet. Also, the pavement width has been revised to 54 feet.

2. Full improvement of streets next to development is required.

RE: Avenue E and Co. 24th Street have been revised to full improvements; including vertical curb, gutter and sidewalks.

3. Temporary turn-around will be required to be paved.

RE: It is requested the temporary turn-arounds remain ABC. The new AC pavement will have to be removed and replaced with the construction of future phases of the subdivision.

4. Sidewalks are required in commercial areas.

RE: Vertical curb, gutter and sidewalks have added to the streets adjacent to Commercial lots.

5. Street lights are required, provide design.

RE: Street lights have been added to the plans.

City Engineer:

Plat-Phase 1

1. Provide reference for existing 33' right-of-way along County 24th Street. If right-of-way is in the form of an easement, the limits of the subdivision should extend to the centerline of Co. 24th

RE: The existing 33' right-of-way for Co. 24th Street and Avenue E is now referenced on the plat. The existing right-of-way was Quit-Claimed to Yuma County and is not a part of the subdivision.

2. Provide 1' Non-Access Easements along Avenue E and County 24th Street.

RE: An existing 1' Non-Access Easement along Avenue E is now referenced on the plat. A new 1' Non-Access Easement along Co. 24th Street has been added to the plat.

3. Need a copy of the title report for the property.

RE: Please find attached a copy of the title report for the property.

4. Possible needed a 15' drainage easement needed along Co. 24th Street/Lots 1 and 7 for drainage from Co. 24th Street. (Need to see new proposed improvements)

RE: New 6' wide Roadway Drainage Easements have been added to the lots adjacent to the north side of Co. 24th Street and the east side of Avenue E. Please refer to the attached Drainage Report and plans.

T101 and T102 – No comments.

P101 and P102

1. Provide drainage report/drainage calculations. Ensure that the finished grade elevations of the lots are sufficiently below the adjacent roadways. (Shadle Street has to many 161.60)

RE: The finished lot grades have been revised. Please refer to the attached Drainage Report and plans.

2. Provide cross-sections of the street improvements.

RE: Cross-section for the street improvements have been added to the plans.

3. Provide signing and striping plans as needed. Show turn lanes.

RE: Stop/street signs have been added to the plans and a striping plan for Co. 24th Street has been added to the set of plans.

4. How is stormwater drainage from Co. 24th Street proposed to be handled?

RE: New 6' wide Roadway Drainage Easements and retention basins have been added adjacent to the north side of Co. 24th Street.

5. Note 13, calling out for existing utilities to be relocated by others, includes the City's traffic signal conduits and junction box at the corner of Avenue E and Co. 24th Street. This work needs to be done by the developer's contractor. Provide a detail for how the conduits will be extended.

RE: Existing traffic signal conduits and junction box shall be relocated per City of Yuma Standards and Details. The Utility companies have been contacted concerning existing and new utilities.

6. Provide grades for new curb and gutter at the Co. 24th Street and Avenue E intersection.

RE: Grades for new curb and gutter along Co. 24th Street and Avenue E have been added to the plans.

7. Avenue E improvements are required. Traffic Impact Study is required and possible traffic signal contribution.

RE: Full improvements for Avenue E have been added to the plans.

WS-01 through WS-06

1. Submit ADEQ Approvals to Construct for water lines and sewer lines.

RE: Please find attached copies of the ADEQ Approvals to Construct for the water lines, sewer lines and lift station.

2. All water and sewer details shall be per City of Yuma standard details (Details shown on the plans are derived from the City of Yuma details – if there are any differences, please specifically note them.)

RE: The standard detail numbers have been added to the details and noted if they are modified.

3. All C900 water mains shall be Class 235 (DR-18).

RE: All water mains are now shown as Class 235 (DR-18).

4. All manholes shall be constructed of polymer concrete, Armorock or approved equal.

RE: The manhole details have been modified to reference polymer concrete, Armorock or approved equal.

5. All sewer services shall have a cleanout at the property line – reference City of Yuma Std. 5-021.

RE: Plans have been revised to include the reference standard.

LS-01 and LS-02

1. (Comment 4 of the Plat – Question – is there a better location for the Sewer Force Main easement than across the back of Lot 7? It will not be accessible and will be subject to improvements constructed on top of it. It would be better to place in the street r/w's even if the force main s slightly longer.)

RE: The sewer force main easement has been removed from the east side of Lot 7 and the force main has been relocated to the street rights-of-way.

2. Submit ADEQ Approvals to Construct for sewer lift station. Submit Engineer's Design Report.

RE: Please find attached a copy of the ADEQ Approval to Construct for the lift station. A final Engineer's Design Report can be submitted upon receipt of the following information.

- a. **East Mesa Lift Station – flow meter reading and pressure gauge reading with one pump running and two pumps running.**
- b. **Lift Station 3 – (Co. 25th St. & Ave. D) – same as above.**
- c. **Lift Station 3a – (Port of Entry) – same as above.**

3. Provide profile of sewer force main, especially at crossing of Co. 24th Street and existing water line. Provide detail for connection of new sewer force main to existing sewer force main (Note 14 calls out Detail E/D02 but this detail is simply a trench detail.) Provide sewer force main cleanouts as needed.

RE: The new force main has been profiled at Co. 24th Street crossing. And force main cleanouts have been added.

4. Provide electrical plans for the sewer lift station.

RE: Electrical plans for the new lift station have been added to the plans.

5. Provide details for construction of the shade structure at the sewer lift station.

RE: Details for the new shade structure have been added to the plans.

6. Fencing along Richards Road is called out as Steel Tube Fencing but Detail A/D05 is for Chain Link Fencing.

RE: Detail A/D05 has been revised to Steel Tube Fencing.

7. Lift Station wet well shall be constructed of polymer concrete, Armorock or approved equal.

RE: Note 35 has been added to LS02 referencing polymer concrete, Armorock or approved equal.

8. Controls for lift station shall include a float switch backup for high level alarm.

RE: Note 36 has been added to LS02 referencing high level alarm floats.

9. RTU/SCADA requirements shall meet City of San Luis requirements.

RE: Note 21 has been added to LS02 stating RTU/SCADA requirements shall meet City of San Luis requirements.

10. Lift station site plan shows wrong grade for retention basin (higher than adjacent ABC paving.)

RE: The bottom elevation of the retention has been revised.

11. Provide paved driveway from Richards Road to lift station gate.

RE: A new paved driveway has been added to the plans.

12. Section 8.0 – Total Dynamic Head (Phase 1)

Calculation of the total dynamic head needs to consider the pressure that will exist in the existing 10-inch force main. These pressures should be calculated based on the overall hydraulics of the force main with the existing Co. 24th Street lift station pumps running plus any other planned or future discharges to the force main. Pump size needs to be revised accordingly.

RE: A final Engineer's Design Report can be submitted upon receipt of the following information.

- a. **East Mesa Lift Station – flow meter reading and pressure gauge reading with one pump running and two pumps running.**
- b. **Lift Station 3 – (Co. 25th St. & Ave. D) – same as above.**
- c. **Lift Station 3a – (Port of Entry) – same as above.**

Public Works Department:

1. A traffic impact study should be provided as a part of the development plan.

RE: The plans have been revised to show full improvements on Avenue E and Co. 24th Street. Will this eliminate the requirement for a traffic impact study?

2. Participation in a fund for a future traffic signal at 24th Street and Avenue E will be required.

RE: Per our previous conversations, please advise if this is still required.

3. More analysis of sewer force main system will be needed. This new lift station would be the third set of pumps on the same force main. Is lift station sized properly to take the additional phases of this subdivision?

RE: A final Engineer's Design Report can be submitted upon receipt of the following information.

- a. **East Mesa Lift Station – flow meter reading and pressure gauge reading with one pump running and two pumps running.**
- b. **Lift Station 3 – (Co. 25th St. & Ave. D) – same as above.**
- c. **Lift Station 3a – (Port of Entry) – same as above.**

4. Improvements on Avenue E and Co. 24th need to meet or exceed the minimum required in our subdivision regulations and our zoning ordinance.

RE: Avenue E, Co. 24th Street and all interior streets of the subdivision have been revised.

Fire Department:

The City of San Luis Fire Department has reviewed the submitted set of plans for the proposed San Luis Port Subdivision, and a second means of ingress/egress with "Fire Department Access Road" signs, are required, for firefighting operations, per NFPA 1-2003 (18.2.2.4)(18.2.2.5.7). The City of San Luis Fire Department would require assurances of completion of the roadway to

be able to withstand the loads imposed by fire apparatus, prior to any structures going vertical, above foundations, (refer to included handout "Pre-Construction Fire Code Requirements").


Additionally, we need to review the placement locations of fire hydrants prior to the final submittal of the site plans. All fire hydrants need to be on a continuous water supply loop, no dead-end fire hydrants. These fire hydrant locations, in our initial preliminary review, are as follows; the proposed fire hydrant located on the Southeast corner of Border Health Blvd. & Richards Rd. needs to be moved across Border Health Blvd, to the Northwest, parallel with the North side of Richards Rd. The proposed fire hydrant located on the Southeast corner of Border Health Blvd. & Richards Pkwy. Needs to be moved across Border Health Blvd., to the Northwest, parallel with the North side of Packard Pkwy. The proposed fire hydrant located on the South West corner of Border Health Blvd. & Shadle St. needs to be moved across Shadle St. to the Northwest corner of Shadle St. & Border Health Blvd., which is acceptable on later submittals, but must be approved prior to installation.

RE: An emergency access road with signs has been added to the plans.

The fire hydrant locations have been revised as requested.

If you have any questions or require further information, please contact me at your convenience.

Sincerely,
NICKLAUS ENGINEERING, INC.



Steve Gerber



City of San Luis

Development Services

December 8, 2016

Steve Gerber
Nicklaus Engineering, Inc.
1851 W. 24th St., Suite 101
Yuma, AZ 85364

Re: Subdivision Case No. 2015-0482/ San Luis Port Subdivision, Phase 1

City staff has reviewed the plans for San Luis Port Subdivision Phase 1 and have the following comments:

Planning and Zoning Department:

- 1- Please provide landscape plans for Avenue E and County 24th Street as required by Section 18.3-A of the City of San Luis Zoning Ordinance.

City Engineer:

Plat – Phase 1

4. 6' wide drainage easement along Co. 24th Street and along Avenue E is acceptable. See also comments on P101, P102 and the drainage report below.

P101 and P102

1. Lot grades/Drainage Report. Yuma County Public Works Standard Volume II, Section 3.7.2 says 'limit the maximum design depth of stormwater storage to 9-inches below top of curb or edge of pavement where no curb exists.' In other words, the high water elevation of onsite storage is to be 9-inches below the adjacent curb (and in this case where there are curb openings for drainage, these openings govern the elevation) – such is desirable to prevent stormwater from seeping into the adjacent pavement section. Lots 1, 7, and 8 do not meet this criteria, with the max. water ponding depth (about 0.5 feet per the report) being almost at the same elevation as the elevation of the spillways.
2. Provide Street Cross Sections. These have been added. Please extend Section C/D-06 to the roadway drainage easement and add proposed slopes and dimensions to the roadside retention basins shown in Section C/D-06 and D/D06.
4. Retention basins along 24th (and Avenue E). The retention basins along Avenue E and along County 24th Street will be public retention basin and need to be provided

storage that is the greater of either 25% additional basin capacity or 1 foot of freeboard per YCPW Standards Volume III, 3.61 and 3.62. Revise drainage report and plans accordingly.

6. The curb grades along the Avenue E and along County 24th Street show positive and negative road slopes, with grade breaks inserted to assist with roadway drainage. Eliminate the grade breaks and grade the roadways as close as possible to parallel to the existing roadway slopes, maintaining minimum slopes. The scuppers will still intercept stormwater flows but need to be calculated as the equivalent of catch basins on grade, rather than in sag conditions, to ensure they are adequate (additional scuppers may be necessary.)
7. Traffic Impact Study and Traffic Signal Contribution. Perimeter street improvements have been added in lieu of a traffic study, which is acceptable.

New Comments

8. Provide landscaping plan for retention basins.
9. The 6' drainage easement along Avenue E and along County 24th Street can be modified in width depending on final retention basin configuration and construction details of adjacent wall.

WS-01 through WS-06

1. ADEQ Approvals. Construction Authorization for Sewage Collection (gravity lines) and Certificate of Approval to Construct for water lines have been received. ADEQ Construction Authorization for Lift Station and Force Main is outstanding. It is understood that this authorization will be issued directly from ADEQ.

New Comment

6. For the sewer force main, and for sewer lift station, specify that all ductile iron fittings and components shall be epoxy lined and rated for sewer service.
7. Sewer Schedule of Work – Item 8 Connect New 6" Force Main to Existing 10" Force Main references Detail E/D02 but E/D02 is only the trench backfill detail. Provide detail for connection. Also, delete air relief valve at connection to existing force main (air relief provided in existing force main is sufficient.)
8. As previously discussed, install 12-inch water main in the Avenue E right-of-way adjacent to the subdivision for perimeter street improvements and for looping of water service for future phases of the subdivision.

LS-01 and LS-02

2. ADEQ Approval to Construct and Engineers Design Report. See comment 1 above under water and sewer plans – Construction Authorization for lift station and force main is needed. The information requested for the existing pump stations will be provided by the City, as will the pump curves if available (or if not available from the City, they should be available from JCH, the Flygt Pump representative in Phoenix.) With the additional force main pumping into the system, the pressures for all lift stations will increase and will need to be accounted for in the pump selection.
4. Lift Station Electrical Plans – see comments below.

12. Engineer's Design Report – Section 8, Total Dynamic Head. Information requested will be provided (see comment 2 above.) Note that revised design report may require revised pump sizes and corresponding revisions to the electrical plans.

New Comments

13. VAPEX (Or Approved Equal) odor control unit required may be required as future units of the subdivision are developed. The need for such will be evaluated during future phases.

Sheet S-1.1

1. Provide final sealed plans.

Sheet E01 – E05

1. Provide final sealed plans.
2. Provide street lighting on Avenue E. (Subdivision Regulations, Section 3.17.5.)
3. Street light luminaires to be LED (Light Emitting Diode), sized appropriately.
4. Electrical plans and generator sizing may need to be revised depending upon size of final pumps selected for the lift station. Note that one-line diagram currently calls out one 3 HP pump and one 20 HP pump and that load summary is based on 3 HP pumps.
5. Provide a fluorescent light fixture under the shade structure.

Public Works Department:

P01 and P02 show 3" ac/8" abc for Ave. E paving. Verify its adequate for the truck loading. Avenue E was recently widened with 5 ½" ac/8" abc and development across the street used 3" ac/12" abc.

WS07 does not show termination of either water or sewer lines extending north beyond limits shown on WS06. Please incorporate into either sheet.

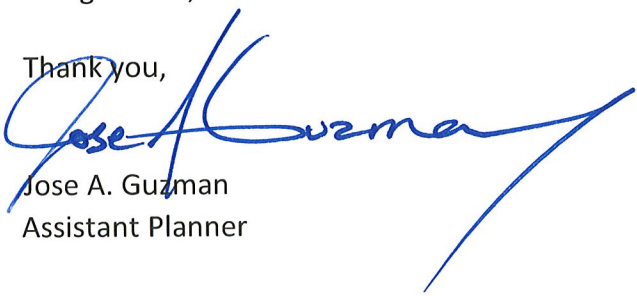
Might not be an issue but keep all slopes 3:1 or flatter.

LS02

- Provide half ton hoist and crane for lift station pump install and retrieval.
- Provide conduit connecting air release valve discharge to the wet well.
- Show installation of flashing beacon on top of site light.

Assure all previous review comments get addressed. If you have any questions on these comments, please contact John Starkey, Planning and Zoning Director at 928-341-8563 or Eulogio Vera, Public Works Director at 928-341-8577.

Thank you,


Jose A. Guzman
Assistant Planner



Nicklaus Engineering, Inc.

B(a) ~ DBE ~ WOSE ~ SBE

• Civil • Survey • Architecture
• Environmental • Geotechnical

September 05, 2017

City of San Luis
Development Services
1090 E Union Street
San Luis, AZ 85349

Attn: Mr. Jose Guzman
Assistant Planner

Re: San Luis Port Subdivision, Phase 1
Subdivision Case No. 2015-0482F

Dear Mr. Guzman,

I have received your 12/08/2016 review comments for the above referenced project and have responded to them accordingly. Please refer to the itemized responses listed below:

Planning and Zoning Department:

1. Please provided landscape plans for Avenue E and County 24th Street as required by Section 18.3-A of the City of San Luis Zoning Ordinance.

RE: Landscape and irrigation plans for retention basins along Avenue E and County 24th Street have been prepared.

City Engineer:

Plat-Phase 1

4. 6' wide drainage easement along Co. 24th Street and along Avenue E is acceptable. See also comments on P101, P102 and drainage report below.

RE: The drainage easement has been revised to 10' on both Co. 24th Street and Avenue E. The plat, plans and drainage report has been revised.

P101 and P102

1. Lot grades/Drainage Report. Yuma County Public Works Standard Volume II, Section 3.7.2 says "limit the maximum design depth of storm water storage to 9-inches below top of curb or edge of pavement where no curb exists." In other words, the high-water

elevation of onsite storage is to be 9-inches below the adjacent curb (and in this case where there are curb openings for drainage, these openings govern the elevation) – such is desirable to prevent storm water from seeping into the adjacent pavement section. Lots 1, 7, and 8 do not meet this criteria, with the max. water ponding depth (about 0.5 feet per the report) being almost at the same elevation as the elevation of the spillways.

RE: The minimum difference between adjacent outfall elevation and the high-water elevation has been revised to 0.26'.

2. Provide Street Cross Sections. These have been added. Please extend Section C/D-06 to the roadway drainage easement and add proposed slopes and dimensions to the roadside retention basins shown in Section C/D-06 and D/D-06.

RE: The roadway drainage easements and roadside retention basins have been added to Sections C/D-06 and D/D-06.

4. Retention basins along 24th (and Avenue E). The retention basins along Avenue E and along County 24th Street will be public retention basin and need to be provided storage that is the greater of either 25% additional basin capacity or 1 foot of freeboard per YCPW Standards Volume III, 3.61 and 3.62. Revise drainage report and plans accordingly.

RE: The plans and drainage report have been revised so that the retention basins along Co. 24th Street and Avenue E include a 25% safety factor.

6. The curb grades along the Avenue E and along County 24th Street show positive and negative road slopes, with grade breaks inserted to assist with roadway drainage. Eliminate the grade breaks and grade the roadways as close as possible to parallel to the existing roadway slopes, maintaining minimum slopes. The scuppers will still intercept storm water flows but need to be calculated as the equivalent of catch basins on grade, rather than in sag conditions, to ensure they are adequate (additional scuppers may be necessary.)

RE: The existing grades on County 24th Street and Avenue E have been reviewed and they do not allow for the placement of new spillway on grade.

7. Traffic Impact Study and Traffic Signal Contribution. Perimeter street improvements have been added in lieu of a traffic study, which is acceptable.

New Comments

8. Provide landscaping plan for retention basins.

RE: Landscape and irrigation plans have been prepared for the retention basins along Avenue E and County 24th Street.

9. The 6' drainage easement along Avenue E and along County 24th Street can be modified in width depending on final retention basin configuration and construction details of adjacent wall.

RE: The plans and design report have been revised to show a new 10' drainage easement along Avenue E and County 24th Street.

WS-01 through WS-06

1. ADEQ Approvals. Construction Authorization for Sewage Collection (gravity lines) and Certificate of Approval to Construct for water lines haven received. ADEQ Construction Authorization for Lift Station and Force Main is outstanding. It is understood that this authorization will be issued directly from ADEQ.

RE: Per my telephone conversation with George Amaya of Yuma County; this lift station and force main have been approved through their agreement and they will process the Certificate of Completion, but future Approvals to Construct will have to be submitted directly to ADEQ.

New Comments

6. For the sewer force main, and for sewer lift station, specify that all ductile iron fittings and components shall be epoxy lined and rated for sewer service.

RE: Note 12 has been added to the Sewer notes on Sheet LS02.

7. Sewer Schedule of Work – Item 8 Connect New 6" Force Main to Existing 10" Force Main references Detail E/D02 but E/D02 is only the trench backfill detail. Provide detail for connection. Also, delete air relief valve at connection to existing force main (air relief provided in existing force main is sufficient.)

RE: The air relief valve has been removed. Detail J/D06 has been added to show connection to existing force main.

8. As previously discussed, install 12" inch water main in the Avenue E right-of-way adjacent to the subdivision for perimeter street improvements and for looping of water service for future phases of the subdivision.

RE: Sheets WS07 – WS09 have been added to the plans showing a new 12" water line in Avenue E.

LS-01 and LS-02

2. ADEQ Approval to Construct and Engineers Design Report. See comment 1 above under water and sewer plans – Construction Authorization for lift station and force main is needed. The information requested for the existing pump stations will be provided by the City, as will the pump curves if available (or if not available from the City, they should be

available from JCH, the Flygt Pump representative in Phoenix.) With the additional force main pumping into the system the pressures for all lift stations will increase and will need to be accounted for in the pump selection.

RE: Please refer to the response for comment 1 for ADEQ Approval to Construct. The design report has been revised to include the pump curves from the existing lift stations and a new pump selection has been made.

4. Lift Station Electrical Plans – see comments below.

12. Engineer's Design Report – Section 8, Total dynamic Head. Information requested will be provided (see comment 2 above.) Note that revised design report may require revised pump sizes and corresponding revisions to the electrical plans.

RE: The plans and design report have been revised.

New Comments

13. VAPEX (Or Approved Equal) odor control unit required may be required as future units of the subdivision are developed. The need for such will be evaluated during future phases.

RE: A VAPEX odor control unit has been added to the plans as "future phase".

Sheet S-1.1

1. Provide final sealed plans.

RE: Final sealed structural plans are now included with the plan set.

Sheet E01 – E05

1. Provide final sealed plans.

RE: Completed.

2. Provide street lighting on Avenue E. (Subdivision Regulations, Section 3.17.5.)

RE: Completed.

3. Street light luminaires to be LED (light Emitting Diode), sized appropriately.

RE: Completed.

4. Electrical plans and generator sizing may need to be revised depending upon size of final pumps selected for the lift station. Note that one-line diagram currently calls out one 3 HP pump and one 20 HP pump and that load summary is based on 3 HP pumps.

RE: Completed. Pumps have been upgraded to 2 x 10hp and the generator was increased from 30kw to 50kw.

5. Provide a fluorescent light fixture under the shade structure.

RE: Completed.

Public Works Department:

P01 and P02 show 3" ac/8" abc for Ave. E paving. Verify its adequate for the truck loading. Avenue E was recently widened with 5½"/8" abc and development across the street used 3" ac/12" abc.

RE: The new pavement section for Avenue E has been revised to 3" ac over 12" abc.

WS07 does not show termination of either water or sewer lines extending north beyond limits shown on WS06. Please incorporate into either sheet.

RE: Terminations of the water and sewer lines are now shown on Sheets WS03 and WS06.

Might not be an issue but keep all slopes 3:1 or flatter.

RE: Slopes are shown on plans as 3:1 maximum.

LS02:

- Provide half ton hoist and crane for lift station pump install and retrieval.

RE: A half ton hoist and crane has been added to the plans. Please refer to Sheets LS01 and D07.

- Provide conduit connecting air release valve discharge to the wet well.

RE: Materials List for Lift Station, note 18 has been revised to include discharge line.

- Show installation of flashing beacon on top of site light.

RE: Lift Station Schedule of Work, note 5 has been revised to include an alarm light mounted on top of the new light pole.

If you have any questions or require further information, please contact me at your convenience.

Sincerely,
NICKLAUS ENGINEERING, INC.

A handwritten signature in black ink, appearing to read "Steve Gerber", written over a horizontal line.

Steve Gerber



City of San Luis

Development Services

September 22, 2017

Steve Gerber
Nicklaus Engineering, Inc.
1851 W. 24th St., Suite 101
Yuma, AZ 85364

Re: Subdivision Case No. 2015-0482/ San Luis Port Subdivision, Phase 1

City staff has reviewed the plans for San Luis Port Subdivision Phase 1 and have the following comments:

Planning and Zoning Department:

1. Subdivision development plan is required when the subdivision is developed in phases as per Subdivision Regulations §4.4(1)
2. If necessary, applicant must sign the Improvement Districts petitions required for a subdivision. Improvement Districts must be recorded prior to the recordation of the plat.
3. As per Subdivision Regulations §5.3(2), names, without abbreviations, of all existing and proposed streets are required.
4. Subdivision Regulations §3.3(1)- Boulevard and Parkway are not appropriate thoroughfare designations. Avenues run north- south, Streets run west-east.

City Engineer:

Plat – Phase 1

No Comments.

Improvement Plans

General –

1. Since the last review the City has adopted and put into practice the use of the new City of San Luis Construction Standards. Add a general note that “all construction is to be in accordance with City of San Luis Standards, including the adopted City of

Yuma Construction Standard Detail Drawings, the MAG Uniform Standard Specifications and the City of San Luis Supplement to the City of Yuma Standards and the MAG Specification, unless otherwise specifically noted on these plans." The Standards are available on the City of San Luis website.

2. Replace any reference to standards or details that refer to Yuma County or other standards that conflict with the adopted City of San Luis Standards. It is noted that it will primarily be the roadway details that need to be revised, while the water and sewer details shown on the plans are already City of Yuma details, which were for the most part adopted without revisions – though note in particular that MAG Section 742 and Standard Details 5-029 and 5-030 were revised to require the use of polymer manholes instead of t-lock lined manholes. If details are shown on the plans clearly note any modifications to or deviations from City Standards.

P101 and P102

1. The emergency access road shall be gated on both ends to prevent its public use.

WS-01 through WS-06

1. Sheet WS-01 – Is there a conflict with the water and fire line services to lots 1 and 2 and the area called out for APS transformer pads?
2. Sheet WS-01 – Move check valve to approximately station 10+75 and add a valve on each side. Also incorporate an access manhole for maintenance.
3. Sheets WS-07 to WS-09 – Add one 12-inch valve at about the midpoint of the water line.

LS-01 and LS-02

1. Sheet LS-01 – Item 8, Hose Bibb is called out for installation during a future phase. Please install with the current phase.
2. Sheet LS-02 – Provide the dimensions of the concrete slab to be installed under the shade structure. Slab should be large enough to allow for City personnel to stand on the while operating and maintaining electrical equipment.
3. The Engineer's Design Report, Section 12.0 – Design Summary states that a flow monitor will shut off pumps at the lift station when other pump stations on the force main are in operation. This flow monitor/shut off could not be located on the plans. Also, discuss the operation of this flow monitor/shut-off with the City to further describe its operation and to ensure the proposed control operation will work for the City.
4. The Engineer's Design Report shows the pumps in the lift station will only discharge about 230 gpm when all lift stations on the force main are in operation vs. a future buildout peak flow of about 449 gpm. While the current phase peak flow is only 74 gpm and it appears that the selected pumps will be more than adequate for this flow, it also appears that when future phases are constructed that the pumps will need to be increased in size to be able to pump the peak flow under all

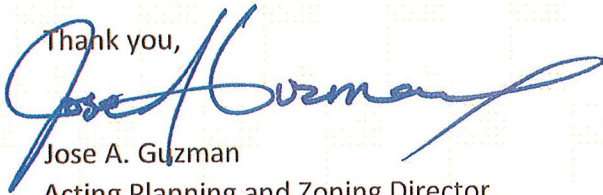
conditions. Please confirm that the electrical system (SES, MCC, generator, etc.) can accommodate larger horsepower pumps that may be needed in the future.

Sheet E01 – E05

1. See Comment 4 under LS-01 and LS-02 above regarding confirmation that the electrical system can accommodate larger horsepower pumps in the future.

Assure all previous review comments get addressed. Please be advised that the comments made here are tentative in nature. Until all documentation, information, and drawings are submitted and approved in final form, and all permits for construction are approved and issued, the City of San Luis reserves the right to make further comment or require further information or submissions. Any construction which occurs prior to issuance of proper permits is occurring in contravention of the ordinances of the City, and is occurring at the risk of the Developer.

Thank you,



Jose A. Guzman

Acting Planning and Zoning Director



Nicklaus Engineering, Inc.

8(a) ~ DBE ~ WOSB ~ SBE

• Civil • Survey • Architecture

• Environmental • Geotechnical

RECEIVED

RP

2017 OCT 10 AM 7:27

DEPT OF PLANNING & ZONING
CITY OF SAN LUIS, AZ

October 9, 2017

City of San Luis
Development Services
1090 E Union Street
San Luis, AZ 85349

Attn: Mr. Jose Guzman
Assistant Planner

Re: San Luis Port Subdivision, Phase 1
Subdivision Case No. 2015-0482F

Dear Mr. Guzman,

I have received your 09/22/2017 review comments for the above referenced project and have responded to them accordingly. Please refer to the itemized responses listed below:

Planning and Zoning Department:

1. Subdivision development plan is required when the subdivision is developed in phases as per Subdivision Regulations §4.4(1).

RE: Please find attached a revised copy of the phasing map showing current Phase 1 and future Phase 2 along with the rest of the proposed development.

2. If necessary, applicant must sign the Improvement District petitions required for a subdivision. Improvement Districts must be recorded prior to the recordation of the plat.

RE: Comment acknowledged.

3. As per Subdivision Regulation §5.3(2), names, without abbreviations, of all existing and proposed streets are required.

RE: The plat has been revised.

4. As per Subdivision Regulation §3.3(1) – Boulevard and Parkway are not appropriate thoroughfare designations. Avenues run north-south, Streets run west-east.

RE: The plat has been revised.

City Engineer:

Plat-Phase 1

No Comments.

Improvement Plans

General -

1. Since the last review the City has adopted and put into practice the use of the new City of San Luis Construction Standards. Add a general note that "all construction is to be in accordance with City of San Luis Standards, including the adopted City of Yuma Construction Standard Detail Drawings, the MAG Uniform Standard Specifications and the City of San Luis Supplement to the City of Yuma Standards and the MAG Specification, unless otherwise specifically noted on these plans". The Standards are available on the City of San Luis website.

RE: Please refer to General Note 1 shown on sheet D07.

2. Replace any reference to standards or details that refer to Yuma County or other standards that conflict with the adopted City of San Luis Standards. It is noted that it will primarily be the roadway details that need to be revised, while the water and sewer details shown on the plans are already City of Yuma details, which were for the most part adopted without revisions – through note that in particular MAG Section 742 and Standard Details 5-029 and 5-030 were revised to require the use of polymer manholes instead of t-lock lined manholes. If details are shown on the plans clearly note any modifications to or deviations from City Standards.

RE: Yuma County Details have been revised to City of Yuma details except for special details and border curb which the City of Yuma does not have.

City of Yuma details 5-029 and 5-030 have been revised to call for polymer manholes.

P01 and P02

1. The emergency access road shall be gated on both ends to prevent its public use.

RE: Sheets P01, P04 and D07 have been revised to show a gate at both ends of the new access road.

WS-01 through WS-06

1. Sheet WS-01: Is there a conflict with the water and fire line services to lots 1 and 2 and the area called out for APS transformer pads?

RE: Sheet WS-01 has been revised to relocate the water and fire service lines.

2. Sheet WS-01: Move check valve to approximately station 10+75 and add a valve on each side. Also incorporate an access manhole for maintenance.

RE: Sheet WS-01 has been revised to relocate the check valve and add an access manhole.

3. Sheet WS-07 to WS-09: Add one 12-inch valve at about the midpoint of the water line.

RE: A 12-inch valve has been added to Sheet WS-08.

LS-01 and LS-02

1. Sheet LS-01: Item 8, hose bibb is called out for installation during a future phase. Please install with the current phase.

RE: Sheet LS-01 now calls for the installation of the hose bibb with the current phase.

2. Sheet LS-02: Provide the dimensions of the concrete slab to be installed under the shade structure. Slab should be large enough to allow for City personnel to stand on while operating and maintaining electrical equipment.

RE: Sheets LS-01 and LS-02 have been revised to show the concrete slab under the shade structure the same size as the shade structure.

3. The Engineer's Design Report, Section 12.0 – Design Summary states that a flow monitor will shut off pumps at the lift station when other pump stations on the force main are in operation. This flow monitor/shut off could not be located on the plans. Also, discuss the operation of this flow monitor/shut-off with the City to further describe its operation and to ensure the proposed control operation will work for the City.

RE: Notes 21 and 22 on Sheet LS-02 have been added to address this issue.

4. The engineer's Design Report shows the pumps in the lift station will only discharge about 230 gpm when all lift stations on the force main are in operation vs. a future buildout peak flow of about 449 gpm. While the current phase peak flow is only 74 gpm and it appears that the selected pumps will be more than adequate for this flow, it also appears that when future phases are constructed that the pumps will need to be increased in size to be able to pump the peak flow under all conditions. Please confirm that the electrical system (SES, MCC, generator, etc.) can accommodate larger horsepower pumps that may be needed in the future.

RE: Preliminary calculation for a worse case condition of ultimate buildout with all three lift stations pumping would require a pump capable of providing 495 GPM at 92 TDH. A preliminary pump selection is Flygt model NP-3153-274. This pump has a 23hp motor that requires 480 volts and 26 amps. The current electrical plans have been reviewed by the Electrical Engineer for concurrence with these requirements. Please refer to his response shown below.

Sheet E01 – E05


1. See Comment 4 under LS-01 and LS-02 above regarding confirmation that the electrical system can accommodate larger horsepower pumps in the future.

RE: The Electrical Engineer's response is as follows: "The base electrical equipment, including the SES, ATS, & distribution section, are of sufficient size to handle future upgrades up to and including the future 23hp, 26-amp replacement pumps. Although this 100-amp system is adequate for this, anything larger than the two 23hp, 26-amp pumps would require a larger (200 amp) system. The City may desire to spend a little more for the extra capacity to allow for any unplanned future additions beyond this lift station. This would be a City of San Luis decision to expend the additional design fees, APS utility costs, and construction costs to go with a larger system.

Note that the pump control panel components and the generator are coordinated to the existing planned 2 x 10hp pumps installation and would need to be upgraded at the time of any pump upgrades. These have to be coordinated to what is planned and not necessarily oversized to allow for future. If they were absolutely sure this would need to be upgraded in the near future, they could possibly go with an oversized generator for the short term."

If you have any questions or require further information, please contact me at your convenience.

Sincerely,
NICKLAUS ENGINEERING, INC.


Steve Gerber



City of San Luis

Development Services

November 13, 2017

Steve Gerber
Nicklaus Engineering, Inc.
1851 W. 24th St., Suite 101
Yuma, AZ 85364

Re: Subdivision Case No. 2015-0482/ San Luis Port Subdivision, Phase 1

City staff has reviewed the plans for San Luis Port Subdivision Phase 1 and have the following comments:

Planning and Zoning Department:

1. Street suffixes must match throughout the set of plans.
2. Landscaping plans are under review by the Parks and Recreation Department; any comments can be addressed during construction.

City Engineer:

1. Sheet WS-01 – Previous comment was to relocate check valve and add an access manhole. This comment was adequately addressed. It is noted that the check valve to be used shall be rated for sewer service and the type and model of the check valve shall be subject to approval of the City.
2. Sheets LS-02 – Notes 21 and 22 have been added to sheet LS-02 to address previous comments about operation of the sewer lift station. These notes call for a controls to regulate the pump station flows when the existing Co. 24th Street lift station is running. It is not clear whether such controls are needed or if as described is the best means of providing such control. The developer shall work with the City staff during construction of the lift station to modify the proposed controls as needed to fit the City's operating requirements.
3. Sheets E01-E05 – Previous comment was on sizing electrical components to be adequate to serve future pump sizes. Per the comment response, the pump control components and emergency generator will need to be upgraded when larger pumps are

installed in the future. This comment was discussed with Steve Gerber of Nicklaus Engineering and Nicklaus and the subdivision developer understand that such future upgrades will be at the expense of the developer when required. As it may be quite a few year before future phases of the subdivision are developed, at the present time they wish to only provide controls and generator adequate for the current pumps.

Public Works:

1. PW does not have any further comments other than to assure all previous comments get addressed.

Assure all previous review comments get addressed. Please be advised that the comments made here are tentative in nature. Until all documentation, information, and drawings are submitted and approved in final form, and all permits for construction are approved and issued, the City of San Luis reserves the right to make further comment or require further information or submissions. Any construction which occurs prior to issuance of proper permits is occurring in contravention of the ordinances of the City, and is occurring at the risk of the Developer.

Thank you,



Jose A. Guzman
Acting Planning and Zoning Director