



PLANNING COMMISSION REGULAR MEETING
Zoom Webinar and Town Council Chamber
3 S. Timber Ridge Parkway, Severance, CO 80550

AGENDA
PLANNING COMMISSION REGULAR MEETING
Wednesday, February 15, 2023, at 6:00 PM

A. CALL TO ORDER

- 1. Roll Call**
- 2. Pledge of Allegiance**
- 3. Approval of Agenda**
- 4. Public Comment**

The purpose of the Public Comment is for members of the public to speak to the Planning Commission on any subject not scheduled on the agenda. To accomplish scheduled agenda items, comments should be limited to three minute for those attending in person or an appropriate time as deemed by the Chair. The Planning Commission shall make no decisions or take action on comments, but may choose to schedule the matter for a decision later. Those addressing the Planning Commission, please state your name and address. and sign-in.

- 5. Approval of 11.16.22 Minutes**

B. REGULAR MEETING

- 1. Swearing in of Terrence Hennessy & Brittany Vandermark**
 - Legislative
 - Staff Presentation: Nicholas Wharton, Town Manager
- 2. Density Requirements: Land Use Code**
 - Legislative
 - Staff Presentation: Abdul Barzak, Town Planner
- 3. Application Processing: Land Use Code**
 - Legislative
 - Staff Presentation: Abdul Barzak, Town Planner
- 4. Buffering/Open Space/Trails Requirements: Land Use Code**
 - Legislative
 - Staff Presentation: Abdul Barzak, Town Planner

5. Variance Request: BHS Solar UAR & Site Plan

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

6. Resolution PC-2023-01R: BHS Solar UAR & Site Plan

- Quasi-Judicial
- Staff Presentation: Abdul Barzak, Town Planner

C. COMMUNICATIONS

Commission approval may be sought for administrative actions in association with staff reports.

1. Town Staff
2. Town Management
3. Commission Members
4. Chair

D. ADJOURN

Planning Commission MEETING

Wednesday, February 15, 2023, 6:00 PM (MDT)

Registration URL

https://us02web.zoom.us/webinar/register/WN_OCx-DpESRiaIWl915_tEgg

The Town of Severance does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in the provision of services. For disabled persons needing reasonable accommodation to attend or participate in a town service, program, public meeting, or activity, call 970-686-1218 at least 72 hours in advance. Disabled access is available from the front entrance of the Town Hall.



PLANNING COMMISSION REGULAR MEETING
Zoom Webinar and Town Council Chamber
3 S. Timber Ridge Parkway, Severance, CO 80550

MINUTES
REGULAR MEETING 2022-09
Wednesday, November 16, 2022, at 6:00 PM

Present:

Chair:

Julie Stout

Vice-Chair:

Derek Grimes

Commissioners:

Zach Goodell

David Rau

Joe Pirrone

Terence Hennessy (alt)

Absent: Zach Goodell and Terence
Hennessy

Audience:

Staff:

Nicholas Wharton, Town Manager

Abdul Barzak, Town Planner

Leah Vanarsdall, Town Clerk

A. CALL TO ORDER

1. Roll Call

2. Pledge of Allegiance

3. Approval of Agenda

MOTION WAS MADE BY Planning Commission Pirrone , seconded by Planning
Commission Grimes to Approve the Agenda. All Commission Members present voting Yes,
MOTION PASSED

4. **Public Comment**

NONE

5. **Approval of 10.19.22 Minutes**

MOTION WAS MADE BY Commissioner Pirrone , seconded by Commissioner Rau to Approve the 10.19.22 Minutes. All Commission Members present voting Yes,

MOTION PASSED

B. REGULAR MEETING

1. **Density and Subdivision Requirements to set aside for Commercial/Community Spaces Land Use Code**

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

MOTION WAS MADE BY Commissioner Rau, seconded by Commissioner Grimes for Staff to prepare a Memo as a draft of all recommendations from Planning Commission and to be reviewed, seconded by Commissioner Grimes, All Commission Members present voting Yes,

MOTION PASSED

2. **PUBLIC HEARING**

PC-2022-02R A Resolution for Moody Comprehensive Plan Amendment

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

No Public Comment

MOTION WAS MADE BY Commissioner Rau, seconded by Commissioner Chair Stout to Approve Resolution **PC-2022-02R** A Resolution for Moody Comprehensive Plan Amendment and to forward to Town Council for approval. All Commission Members present voting Yes,

MOTION PASSED

Open: 6:16 pm **Closed:** 6:38 pm

3. **PUBLIC HEARING**

PC-2022-03R A Resolution for the Moody Annexation Zoning

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

No Public Comment

MOTION WAS MADE BY Commissioner Grimes, seconded by Commissioner Rau to Approve **PC-2022-03R** A Resolution for the Moody Annexation Zoning and forward the recommendation for approval to Town Council. All Commission Members present voting Yes,

MOTION PASSED

Open: 6:41 pm **Closed:** 6:51 pm

4. **PC-2022-04R A Resolution of the Moody Annexation Concept Plan**

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

Public Comment: Christine McDaniel-825 Cliffrose Way

MOTION WAS MADE BY Commissioner Rau, seconded by Commissioner Pirrone to Approve **PC-2022-04R**: A Resolution of the Moody Annexation Concept Plan

YEAS: Pirrone, Rau
NAYS: Stout, Grimes

2
2

MOTION FAILED

MOTION WAS MADE BY Commissioner Grimes, seconded by Commissioner Pirrone to deny approval for **PC-2022-04R** A Resolution of the Moody Annexation Concept Plan.

YEAS: Grimes, Stout
NAYS: Rau, Pirrone

2
2

MOTION FAILED

5. PUBLIC HEARING

PC-2022-05R A Resolution for the Greenway Corridor Comprehensive Plan Amendment

- Legislative
- Staff Presentation: Abdul Barzak, Town Planner

MOTION WAS MADE BY Commissioner Pirrone , seconded by Commissioner Grimes to Approve **PC-2022-05R** A Resolution for the Greenway Corridor Comprehensive Plan Amendment . All Commission Members present voting Yes,

MOTION PASSED

Open: 8:06 pm **Closed:** 8:11 pm

C. COMMUNICATIONS

1. Town Attorney
2. Town Staff
3. Town Management
4. Commission Members
5. Chair

D. ADJOURN

8:16 pm



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Density Requirements: Land Use Code	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner
ACTION REQUESTED		
Community and Economic Development and Management ask that the Planning Commission review, discuss, and forward a recommendation to the Town Council on Density Requirements within the Land Use Code. Actions that may be taken: 1. Forward a recommendation of approval to the Town Council for Land Use Code changes regarding Density Requirements within the Land Use Code. 2. Take No Action.		<u>Report</u> <u>Action Requested</u>
BRIEF SUMMARY		
On October 5th, 2022 and November 2nd, 2022, the Land Use Advisory Committee (LUAC) reviewed, discussed, and directed Town staff with recommendations on Density Requirements within the Land Use Code. On November 16th, 2022, the Planning Commission reviewed those recommendations and asked staff to bring back a memo providing further clarity regarding Density Requirements. Tonight those recommendations are now before the Planning Commission. Town staff asks that the Planning Commission review, discuss, and forward a recommendation to the Town Council for Density Requirements within the Land Use Code.		
PUBLIC SUPPORT/CONCERN		
Some residents have requested "less density" as the Town grows and to increase requirements.		
ANALYSIS AND RECOMMENDATION		
Town staff is asking for the Planning Commission to review, discuss, and forward a recommendation of approval to the Town Council for Land Use Code changes regarding Density Requirements within the Land Use Code.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Density Memo 2. Density Code Comparison Table 3. Density Graphic Comparison		

MEMORANDUM

To: Town of Severance Planning Commission

From: Josh Olhava, AICP, PCCP, Senior Community Planner and Project Manager

Date: February 15, 2023

Re: Code Review Second Look – Density Criteria

Background

On November 16, 2022, the Planning Commission reviewed staff's research and analysis, and the Land Use Advisory Committee's (LUAC) recommendations for the Town's Density Criteria. The effort began with an initial code comparison between 'like' communities in the region, assessing Density Criteria from seven (7) jurisdictions: Evans, Firestone, Frederick, Johnstown, Timnath, Wellington and Windsor.

- **Density Criteria** determines how many residential units are permitted within a certain acreage. Density is generally regulated through a combination of minimum/maximum lot sizes and/or number of units per acre.
- **Net Density** is calculated by taking the minimum number of planned housing units and dividing by the net acreage. The net acreage excludes required infrastructure and critical areas such as streets, sidewalks, and open space areas.
- **Gross Density** is calculated by taking the minimum number of planned housing units and dividing by the gross acreage. The gross acreage includes the entire property areas, including required infrastructure and critical areas as noted above.

Summary

The research and analysis conducted by staff of comparable communities showed areas where the Town could adjust or establish minimum lot sizes and density criteria to align closer with these communities and best practices. For our efforts and the recommendations, we use Net Density. The recommendations provided by LUAC (*Attachment 1*) are in-line with this research and findings presented by staff. Due to the Town's Zoning District framework, staff and LUAC recommend incorporating transitional language that creates the opportunity for developments adjacent to another zone district to adjust their lot design and densities to create appropriate transitions between neighborhood areas.

- For example, a residential project in the Suburban Perimeter zone district with lots adjacent to an identified Mixed-Use Development Node may increase their density and product types adjacent to the Development Node zone district boundary to create a transition between traditional single-family detached housing found in the Suburban Perimeter area to that of the potential townhomes or multi-family housing within the Development Node area.

In addition to establishing overall district lot size and density criteria under the current framework, staff presented examples from other communities that determine density or lot sizes based on use (*i.e. single-family detached vs. single-family attached vs. townhomes, etc.*). This approach was well received by LUAC and PC; however, the recommendations between LUAC and PC are drastically different.

To compliment the review and discussion around density, our team prepared an analysis of current estimated revenue and expenditures for residential development in Severance. This analysis is based upon the current development patterns of the community and overall make-up as a predominately

residential community. Based on data from the Weld County Assessor's office for the Town, the average assessed value of a residence is **\$28,882.00**, or about \$365 per year in property tax revenue to the Town. This represents a single-family home of just over \$400,000 in Severance. Further, the Census data suggest the average household size is three people. Using this data to extrapolate the costs to the town yield the following:

Average Household Cost/Expenditure	
Revenue	
Average Property Tax Revenue	\$365
Sales Tax per Capita X average household size (3 x \$181)	\$543
Subtotal Revenue/Per Household	\$908
Expenditures	
Expenditure per Capita X average household size (3 X \$562)	\$1,686
Subtotal Expenditure/Per Household	\$1,686
Cost per Household	\$778

For the average household, Severance spends roughly **\$778 more than it receives through combined sales and property tax revenue. With a community of around 2,500 households, this amounts to roughly **\$1.9 million** in costs to the Town.

The data suggests there is a need to balance the growth in single-family residential by introducing or seeking to identify additional housing product diversity beyond large lot single-family detached units. As a primarily residential community, the Town is operating on a structural deficit, where new growth in single-family detached residential development exclusively does not pay for itself over time. This is not uncommon or unique to Severance. Residential development presents a net cost to a community in the long-term with lower density developments costing more than higher density developments per household.

Incorporating additional housing product types of varying densities can create greater efficiencies in service delivery (*cost of services per linear foot and distance*). Density does not have to mean high rise buildings. There is a growing interest and need in "missing middle" housing types that provide for greater density within a single-family housing context. This includes duplexes and tri-plexes, cottage housing and other medium density housing product types, as seen below.



Attachments:

- Attachment 1 – Density Recommendations Comparison (1 page)
- Attachment 2 – Levels of Density Graphic (2 pages)

Density Criteria

CODE REVIEW (DENSITY CRITERIA)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Rural Residential Gross Acreage: 2.5 acres per dwelling unit - Suburban Perimeter Gross Min Density: 2 dwelling unit per acre - Town Core: Cannot exceed 15 units per acre. - Development Nodes: Encourages at least 8 units per acre	- consider minimum 5,000 for SF detached as you get closer to Commercial / MF or other SF attached product type - allow variety of housing product types - incorporate minimum language - overall size of RR kept as is to accommodate septic limitations	- Pirrone - RR should be 2.5 acres minimum vs average per unit; SP 2 max not 2 min; TC 8 max not 15; DN 4 max not 8 - Rau - agree w/ Pirrone - Grimes - TC should be 8 units/acre, DN 4 units/acre - Stout - Town Core should be same as Suburban Perimeter at 7 units per acre for SF homes; and MF section 10-15/acre; add commercial unit to Town Core language		- Establish minimums based on product type - Example product types include Single Family Detached, Single Family Attached, Townhomes, Multifamily - Incorporate transition language that requires all residential lots within a certain distance from and adjacent to lower intensity residential area to have larger minimum lot sizes to aid in transition - (established lot frontage ratio (i.e. 3:1), appropriate buffers, lot/home type and architecture, etc.) - Encourage clustered development design in Rural Residential Conservation Sub-Zoning
Severance - Corridor Plan	"Overall,the density of the Old Town area should increase, by constructing upper floor additions on existing structures and developing new buildings of primarily twoand threestories with residential uses in the upper floors."				
Evans					
Firestone	- Rural Residential: Max 1 unit per acre - Low-Density Residential: Max 5 units per acre - Medium-Density Residential: Max 10 units per acre - High-Density Residential: Max 20 units per acre - Old Town Residential: single family max 5 units per acre, multi-family max 10 units per acre				
Frederick	<u>Max Net Density:</u> - Estate District: 0.2 units per acre - Residential Low Density: 5 units per acre - Residential Medium Density: 10 units per acre - Residential High Density: 20 units per acre for townhomes, 60 units per acre for multi-family - Manufactured Home District 1: 50 units per acre - Manufactured Home District 2: 50 units per acre <u>Estate District:</u> "The maximum density is no more than one (1) single-family dwelling per five (5) acres, except that if the Town approves a conservation density bonus, the maximum density allowed shall be no more than one (1) single-family dwelling per two (2) acres." <u>Method.</u> In single-family residential development, the density is established by the minimum required lot size. In multifamily residential development, the determination of the number of allowable dwelling units on a given property being developed shall be made by dividing the net area of the parcel to be developed by the number of square feet required per dwelling unit."				
Johnstown					
Timnath	- Estate Residential: Max 1 Unit per Acre - Old Town Residential: N/A - Single Family: Max 4 dwelling units / acre - Mixed Residential: Max 8 dwelling units / acre - Multi-Family: Max 24 dwelling units / acre - Residential Mixed Use: Max 16 dwelling units / acre - Commercial Mixed Use: Max 16 dwelling units / acre				
Wellington	<u>Max Net Density:</u> - Single Family Rural Density: Max 1 unit / acre - Single Family Medium Density: Max 4 units / acre - Single Family Senior Housing: Max 7 units / acre - Multi-Family: 12 units / acre - Mobile Home Park: 7 units / acre				
Windsor	Mobile Home District: 8 units / acre				

LEVELS OF DENSITY



Location:
Cullison Ridge and Soaring Eagle - Severance, CO



Density:
0.50 Units per



Unit Type:
Detached Single Family

Location:
Audubon and Gore Range - Severance, CO



Density:
6.50 Units Per Acre



Unit Type:
Detached Single Family

Location:
County RD 68 1/2 and 17th Street - Windsor,



Density:
9.50 Units Per Acre



Unit Type:
Detached Single Family; Townhome

LEVELS OF DENSITY



Location:

Summerwood and Briarwood - Johnstown, CO



Density:

12.00 Units per Acre



Unit Type:

Detached Single Family

Location:

Summer Park Condos - Greeley, CO



Density:

15.50 Units Per Acre

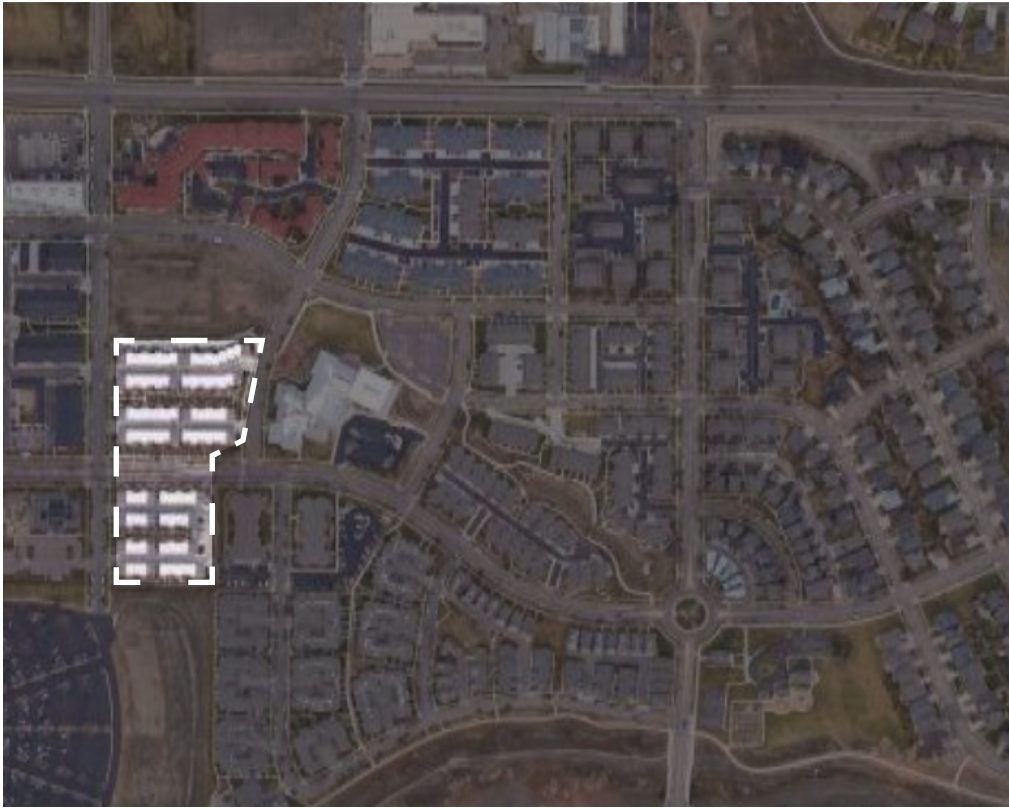


Unit Type:

Townhomes/Condos

Location:

Enclave Rigden Farms - Fort Collins, CO



Density:

25.50 Units Per Acres



Unit Type:

Townhomes/Apartments



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Application Processing: Land Use Code	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner
ACTION REQUESTED		
Community and Economic Development and Management ask that the Planning Commission review, discuss, and forward a recommendation to the Town Council on Provisions and Procedures within the Land Use Code. Actions that may be taken: 1. Forward a recommendation of approval to the Town Council for Land Use Code changes regarding Provisions and Procedures within the Land Use Code. 2. Take No Action.		<u>Action Requested Report</u>
BRIEF SUMMARY		
On September 7th, 2022, and January 4th, 2023, the Land Use Advisory Committee (LUAC) reviewed, discussed, and directed Town staff with recommendations on Provisions and Procedures within the Land Use Code. Tonight those recommendations are now before the Planning Commission. Town staff asks that the Planning Commission review, discuss, and forward a recommendation to the Town Council for Provisions and Procedures within the Land Use Code.		
PUBLIC SUPPORT/CONCERN		
None at this time		
ANALYSIS AND RECOMMENDATION		
Town staff is asking for the Planning Commission to review, discuss, and forward a recommendation of approval to the Town Council for Land Use Code changes regarding Provisions and Procedures in the Land Use Code.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Provisions and Procedures Memo 2. Provisions and Procedures Code Language 3. Draft Provisions and Procedures Summary Table		

MEMORANDUM

To: Town of Severance – Planning Commission

From: Josh Olhava, AICP, PCCP, Senior Community Planner and Project Manager

Date: February 15, 2023

Re: PC Review – Provisions and Procedures Code Language draft (excerpt)

Background

During the September 2022 LUAC meeting, committee members reviewed the project team's initial findings and recommendations to the Town's general provisions and procedures sections of the land use code. In January 2023, the LUAC reviewed preliminary redlines and formatting for the new sections. Overall, the LUAC supported the reorganization, formatting, and approach. There were a few items the LUAC members asked for further clarification on and to incorporate minor adjustments to the redlines moving forward.

As with the other code sections, we reviewed and compared the Town's code language and criteria against the seven (7) comparison jurisdictions: Evans, Firestone, Frederick, Johnstown, Timnath, Wellington and Windsor; as well as industry best practices and the goals of the community. Due to the nature of the code language found within these sections, a comparison table was not a viable way to share the comparison and research.

Overall code structure / organization was one of the more prominent observations and areas identified for improvement within the current code structure. The following summary list includes the six (6) recommendations presented to and supported by the LUAC during their September and January meetings:

1. Reorganize and update Article I – General Provisions to remove redundancies and dated information, and to establish clear expectations on how to use, interpret, and administer the land use code.
2. Develop a new article: Procedures, that will contain the Town's development application criteria and requirements. Create a user-friendly table that clearly illustrates the Town's development applications, reviewing bodies, and general notification requirements.
3. Create new code sections for the Development Agreement and Construction Requirements criteria, moving them out from within the Subdivision platting regulations.
4. Shift the development application criteria to be located within new subsections under a new article, Procedures. Remove unnecessary information from code, such as application submittal requirements, that can be more easily managed by the Town within the application forms and checklists managed by the Town.
5. Reorganize and clean-up specific sections of code such as vesting and non-conforming criteria that are currently found in non-relevant sections of code and incorporate this language within the land use code sections being updated and referenced here.
6. Work with staff to review and formalize internal processes and develop application checklists and workflows that provide clarity to applicants and residents regarding the development review processes.

Current Review

Over the past couple of months, the project team has worked to reorganize code sections and incorporate new code criteria consistent with the recommendations presented and supported by LUAC. The attached draft excerpts are provided to show the Planning Commission the general approach and initial draft language under consideration to specific General Provisions and Procedures code sections. Please note there are specific code sections and development application criteria not included with the excerpt as those sections are currently being drafted by the project team. The approach and structure of those sections will be consistent with the attached language. Track changes are used on the attached draft code language document to show existing code language being repurposed into the new structure (black font), proposed deletions (red font), and proposed additions (blue font). Existing code language that was relocated from one section to another is also shown (green font), where applicable.

The project team are asking for guidance and input from the PC members considering the attached draft procedures summary table and the draft code language approach. To aid in the discussion, the project team has prepared the following questions for consideration.

1. Are there any general comments or questions regarding the approach and attachments provided?
2. Are there concerns or comments with the proposed draft code restructuring, or does the Planning Commission generally support these changes?
3. Are there any concerns or comments with the proposed Review Procedures Summary Table?
 - a. As presented, the recommendation includes shifting some decision-making authority from Town Council to the Planning Commission (public hearing) and Town Staff (administrative). This is consistent with the direction many communities in the region are moving towards based on having strong review criteria and development standards. The efforts by the Town to update and incorporate clear development standards and review criteria provide more structure and certainty to development proposals.
4. Concept Reviews are being shifted to an administrative process as part of the pre-application conference step in the process. This step allows applicants to submit their conceptual plan to staff for preliminary feedback and direction. This step is consistent with other communities in the region.

The project team will continue to work closely with Town Staff and the Town Attorney to finalize the language and review procedures prior to review by the Town Council.

Attachments:

- Draft Provisions and Procedures language - excerpt (*51 pages*)
- Draft Review Procedures Summary Table (*1 page*)

Article 1 - General Provisions

Commented [OJ1]: Memo early March

Overview

(a) Title. This Code chapter 16 is known as the Severance Land Use Code. References to "this Code," "the Development Code," or "these regulations" shall be considered a reference to the Severance Land Use Code. This Code establishes the regulations and standards governing the use and development of land within the Town. Included are provisions for the annexation, subdivision and zoning of land, as well as the administrative procedures governing the submission of applications, administrative and public reviews and appeals. Also included are Town standards for site and building design, landscaping, parking and public infrastructure.

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Short Title

This Code shall be known and may be cited as the Severance Land Use Code. Within this Code, the Severance Land Use Code shall be referred to as "this Code." Reference herein to the comprehensive Plan, formally known as "Severance: HomeTown Vision," shall be referred to as "Comprehensive Plan."

(a)(b) Authority. This Code is adopted pursuant to the purposes and authority contained in the Colorado Revised Statutes (CRS) and the Colorado Constitution, Article XX, ~~Section 6 and the Severance Charter, independent of and in addition to the CRS, Title 31, Article 23. This title also supersedes any state legislative enactments which are, by their terms, subject to being superseded by adopted home rule charters or ordinances.~~ Local governments are provided broad authority to Plan for and regulate the use of land within their jurisdictions, as authorized in Title 29, Article 20, et seq., and Title 31, Article 23, et seq., CRS. Additional statutory authority may also exist for specific types of land use regulation. Whenever a section of the CRS cited in this Code is later amended or superseded, this Code shall be deemed amended to refer to the amended section or sections that most nearly corresponds to the superseded section. Additional statutory authority may exist for specific types of land use regulations.

(b)(c) Jurisdiction. This Code shall ~~be effective~~ apply to all structures and land throughout within the Town's corporate boundaries, as depicted on the official zoning map, and other maps accompanying the Town's adopted plans and policies, including the Town's Comprehensive Plan. The Town's Planning jurisdiction includes all land within the ~~Town corporate limits~~ and, where applicable, the lands within the Growth Management Area (GMA) as defined in the adopted Comprehensive Plan, per Section 31-12-105(c)(1), CRS. Maps showing these and other regulatory boundaries shall be available for public inspection in the Town offices. For purposes of zoning and subdivision, this Code only applies to lands within the Town's corporate boundaries. It shall be unlawful to conduct any development or use of land until all specified development review processes have been followed, all applicable standards have been fulfilled, and all required approvals, permits or other authorizations have been issued.

~~A map showing the boundaries of the Town and the area within the GMA (as defined in the Comprehensive Plan) Planning jurisdiction shall be available for public inspection in the Town offices.~~

(c)(d) Purpose. ~~The purpose of t~~This Code is adopted to promote the public health, safety, and general welfare for the Town and its' citizens and businesses. The regulations have the following purposes: to create a vital, cohesive, well-designed community in order to enhance the Town's character and further the citizens' vision, goals and objectives as identified in the Comprehensive Plan.

1. Create a vital, cohesive, well-designed community to enhance the Town's character and further the citizen's vision, goals, and objectives.
2. Encourage the most appropriate use of land throughout the Town.

3. Implement adopted plans, policies, and programs, including the current Comprehensive Plan.
4. Promote the physical, social, and economic well-being of the Town and its' citizens and businesses.
5. Invest public funds effectively and efficiently, and in a manner that creates lasting value for the community.
6. Promote innovative, quality community planning and design that creates distinct places and unique elements that enhance the character of the community.
7. Provide parks, trails, and civic spaces that help organize development around systems of connected open spaces.
8. Promote the proper arrangement and design of streets to shape efficient neighborhood development patterns
9. Coordinate with existing and planned streets to improve access and circulation patterns that support abutting land uses.
10. Divide the community into zoning districts that promote the character and development patterns of distinct places identified in the Comprehensive Plan.
11. Regulate the development and use of structures and land within each zoning district to create compatible development patterns.
12. Promote appropriate transitions to adjacent properties.
13. Provide a variety of housing opportunities for all citizens.
14. Facilitate the adequate and efficient provision of public and private infrastructure to support the Town's adopted vision and values.
15. Direct new development into areas with adequate public and private infrastructure and to areas that conserve environmentally sensitive lands and protect citizens from environmental hazards and dangers.
16. Facilitate clear and consistent development procedures for all citizens and businesses.

Interpretation

The provisions of this Code shall be interpreted and applied as the minimum requirements for the promotion of public health, safety, and welfare. Whenever the requirements of this Code are at variance with the requirements of any other lawfully adopted rules, regulations, or sections, the more restrictive or that imposing the higher standard shall govern.

(a) General Rules. The following rules shall apply to the application and interpretation of these regulations, unless otherwise stated within this Code:

1. As used in this Code, words in the singular includes the plural, and words in the plural include the singular.
2. The words "must," "shall," and "will" are mandatory; whereas the words "may," "can," "should" and "might" are permissive but recommended as a way to best meet the standard or achieve the intent of the standard.
3. The word "lot" shall include the words "building site," "site," "plot," or "tract."
4. A building or structure includes any part thereof.
5. Words in the present tense includes the future tense and the future tense includes the present tense.
6. Lists of examples prefaced by "including the following," "such as," or other similar clauses shall not be construed as exclusive or exhaustive and shall not preclude an interpretation of the list to include other similar and non-mentioned examples.
7. The conjunctive "and" in a list means that all apply; the conjunctives "or" and "and/or" mean the provisions may apply singly or in any combination; and the conjunctive "either ... or" means the provisions apply individually but not in combinations.

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8. When calculations to determine a requirement results in a fraction that cannot be divided (i.e., parking spaces, trees, dwelling units, etc.) it shall be rounded up to the nearest whole number.
 9. Any references to "Town Manager," "Manager," or any other official may also include any other designee of the Town Manager.
 10. Any reference to other official local, state, or federal government rules or regulations shall include the most current versions of those rules or regulations.
 11. References to a person shall include the individual, a partnership, association, agency, corporation, or other legal entity and their associated representatives.
- (b) Interpretation of the Zoning Map. Where uncertainty exists with respect to any boundary on the official zoning map, the following rules shall apply:
1. Property Lines. Zoning district boundaries shall be interpreted as following platted or official legal property lines unless these lines have been substantially altered.
 2. City Limits. Zoning district boundaries shall be interpreted as following the official Town limits.
 3. Other Features. Zoning district boundaries shall be interpreted as following the centerline of streets, rights-of-way, rivers, or other similar features.
- (c) Non-regulatory Provisions.
- (d) Resources, Guides, and Industry Standards.
- (a)(e) Official Interpretations.

Applicability of chapter

- (a) ~~The provisions of this Code shall apply to any and all development of land within the municipal boundaries of the Town unless expressly and specifically exempted or provided otherwise in this Code. No development shall be undertaken without prior and proper approval or authorization pursuant to the terms of this Code. All land use shall comply with the applicable terms, conditions, requirements, standards and procedures established in this Code.~~
- (b) ~~Whenever both the provisions of this Code and the provisions of any other law cover the same subject matter, whichever is more restrictive shall govern.~~
- (c) ~~This Code establishes procedural and substantive rules for obtaining the necessary approval to develop land and construct buildings and structures. Development applications will be reviewed for compliance with the Comprehensive Plan and with adopted regulations, policies and other guidelines.~~

Commented [OJ2]: Removed - this is integrated elsewhere now.

Relationship to existing regulations and adopted plans ~~sections and resolutions~~

- (a) All existing ordinances, resolutions, or motions of the Town Council in conflict with this Code are, to the extent of such conflict, hereby superseded and repealed, provided that no such repeal shall repeal the clauses of such section, resolution, or motion, nor revive any section, resolution, or motion thereby. The adoption of this Code shall not adversely affect the Town's right to seek remedies for any violation of previous sections that occurred while those sections were in effect.

Relationship to Comprehensive Plan

- (b) Comprehensive Plan and Advisory Documents. It is the intent of the Town that this Code implements the Planning policies adopted in the Comprehensive Plan, its' and its GMA, and all other adopted Advisory Documents. While this relationship is reaffirmed, it is the intent of the Town that neither this Code nor any amendment to it may be challenged on the basis of any alleged nonconformity with the Comprehensive Plan and/or adopted Advisory Documents, nor may any action taken in conformity with this Code be challenged on the basis of claimed inconsistency with the Comprehensive Plan and/or adopted Advisory Documents.

- (c) Requirement for Comprehensive Plan amendment. Where a development proposal is not in conformance with the Comprehensive Plan, an amendment to the Comprehensive Plan will be required prior to any zoning or subdivision approvals. Conformance exists when a development proposal matches the designations of the land use sections within the Comprehensive Plan.
- (d) Criteria for evaluating amendment proposals. Amendments to the Comprehensive Plan resulting from development proposals under this Code shall be evaluated according to the criteria and procedure outlined in the Comprehensive Plan.

Severability

If any part, section, subsection, sentence, clause or phrase of this Code is for any reason held to be invalid, such invalidity shall not affect the validity of the remaining sections of this Code. The Town Council hereby declares that it would have passed this Code, including each part, section, subsection, sentence, clause or phrase thereof, regardless of the fact that one (1) or more parts, sections, subsections, sentences, clauses or phrases was declared invalid.

Commented [OJ3]: Town Attorney will review and wordsmith new language.

Administration

- (a) Administrative Authority on Certain Land Use Applications. Notwithstanding any other provision of this ~~Land Use~~ Code and subject to any limitations established by state statute, the Town Manager or such official's designee may act administratively, without resort to the ~~Town~~ Town Council or the Planning Commission with respect to any land use action that has insignificant impact on the public or adjoining landowners, does not change overall project ~~density-dimension criteria~~ by more than ~~five-ten~~ percent (5/10%), and does not require any change of zoning or variance ~~from these regulations~~. By way of illustration and not limitation, such actions shall be appropriate for:
 1. Lot line adjustments ~~or minor subdivision plats~~.
 2. Adjustments to lot boundaries on an approved plat that do not impair or diminish public parks or infrastructure.
 3. Modification of ~~an approved S~~site Plan ~~for~~ landscaping or fencing requirements that are consistent with the requirements of this Code.
- (b) Town Manager. The Town Manager (Manager) may delegate their authority to a department or staff position (designee) to administer and interpret certain or all aspects of this Code. Other department heads and staff may serve in an advisory role under this Code. In addition to the authority granted by the Charter and local ordinances, the Manager shall have specific review responsibilities and final administrative decisions referred to the Manager under the procedures and standards of these regulations.
- (c) Community Development Department and Community Development Director. The Community Development Department and Director (Director) may assume the role as the administrator, the principal interpretation and enforcement official of these regulations, as the Manager's designee. The Community Development Department and Director may consult with any other department staff or relevant outside agencies to coordinate any plans, policies, and programs that impact these regulations or adopted plans and policies. The Community Development Department and Director shall specifically:
 1. Prepare and provide development application forms and administer the requirements and review of submittals.
 2. Oversee the application, review, and administration processes and prepare presentations and reports for review bodies.
 3. Issue official interpretations and approve the use of other resources, guides, and industry standards used in administering this Code, as designated by the Manager.
 4. Make final interpretations and final administrative decision referred to the Department or Director under the procedures and standards of these regulations.

- (d) Planning Commission. The Planning Commission is the appointed body responsible for long-range and comprehensive planning. The Planning Commission is established according to the Town Charter. In addition to all other general planning authority granted by the Charter, statutes, local ordinances, the Planning Commission shall have the specific review responsibilities and final authority referred to the Planning Commission under the procedures and standards of these regulations, as appointed by the Town Council.
- (e) Town Council. The Town Council is the elected and governing body responsible for all legislative decisions that affect implementation of adopted plans, regulations, and policies. In addition to other general authority granted by law, the Town Council shall have the final decision authority as outlined under the procedures and standards of these regulations.
- (f) Board of Adjustments. The Board of Adjustments shall act in accordance with the same rules and procedures that govern the Planning Commission and Town Council and shall consider any matters referred to it under this Code.

Enforcement

- (a) *Responsible enforcement entity.* The Town Council shall be responsible for enforcing the provisions of this article. Any criminal enforcement shall be by the issuance of a complaint and summons to municipal court by a peace officer.
- (b) *Authorization for inspections.* The Town may enter any building, structure, real property or premises to ensure compliance with the provisions of this Code. Such inspections shall be carried out during normal business hours unless the Town Manager, zoning enforcement officer or Code enforcement officer determines that there is an emergency.
- (c) Violations and enforcement procedures.
1. Violations. It shall be unlawful to violate any provision of this Code.
 2. Specific activities violating this Code. It shall be a violation of this Code to undertake any of the following activities:
 - a. Activities inconsistent with Code. Erecting, constructing, reconstructing, remodeling, altering, maintaining, expanding, demolishing, moving or using any building, structure or sign, or engaging in development or subdivision of any land in contravention of any zoning, subdivision, sign or other regulation of this Code, including terms and conditions of all required approvals.
 - b. Land-disturbing activities inconsistent with Code. Excavating, grading, cutting, clearing or undertaking any other land disturbance activity contrary to the provisions of this Code or without first obtaining all requisite land use approvals required by this Code or other applicable regulations.
 - c. Nonconforming uses or structures inconsistent with Code. Creating, expanding, replacing or changing a nonconforming use, structure, lot or sign, except in compliance with this Code.
 - d. Making lots or setbacks nonconforming. Reducing or diminishing the lot area, setbacks or open space below the minimum required by this Code.
 - e. Increasing intensity of use. Increasing the intensity of use of any land or structure, except in accordance with the procedural and substantive standards of this Code.
 - f. Activities inconsistent with permit. Engaging in any development, use, construction, remodeling or other activity of any nature in any way inconsistent with the terms and conditions of any permit, approval or other form of authorization required to engage in such activity.

Commented [OJ4]: Relocated from Article 9 - Supplemental Regulations

- I
- g. Activities inconsistent with conditions of approval. Failing to comply with any terms, conditions or limitations placed by the Town upon any final development Plan, subdivision plat, permit or other form of approval by the Town.
 - h. Agreements to convey. Making any agreement to convey or conveyance of any lot or undivided parcel of land, contrary to the provisions of this Code or prior to approval of a final plat by the Town; it shall be a separate violation for each lot or parcel of land sold or agreed to be sold.
 - i. Activities inconsistent with order of Town. Failing to comply with any stop work order, abatement order or any other order issued by the Town pursuant to this Code.
 - 3. Separate violations. Any person who violates or causes the violation of any of the provisions of this Code shall be guilty of a separate offense for every day or portion thereof during which a violation is committed, permitted or continues.
 - 4. Remedies and enforcement powers. Violations of this Code may be enforced in the municipal court or any other court with jurisdiction by any appropriate equitable action, by abatement, by issuance of stop work orders, by injunction and restraining order, by revoking any permits or approvals issued and by assessing any amounts due or delinquent fines as taxes. Any one (1), all or any combination of the foregoing penalties and remedies may be used to enforce this Code. In addition, the Town shall have the following civil remedies and powers to enforce this Code:
 - a. Notice of violation and corrective action order.
 - 1) Nonemergency violations. In the case of violations of this Code that do not constitute an emergency or require immediate attention, written notice of the nature of the violation and required corrective action to be taken shall be given by the Town to the owner, occupant, applicant for any relevant permit, person in charge of construction or other work on the property or any other person in possession of or involved in the illegal activity on the property. Notice shall be given in person, by certified U.S. mail, return receipt requested, or by posting notice on the premises. The notice shall specify the Code provisions allegedly in violation and shall state that the individual has a period of thirty (30) days from the date of the receipt of the notice in which to correct the alleged violations before further enforcement action shall be taken.
 - 2) Emergency violations. In the case of violations of this Code that constitute an emergency as a result of safety or public concerns or violations that will create increased problems or costs if not remedied immediately, the Town may use the enforcement powers available under this Code without prior notice, but shall attempt to give notice simultaneously with beginning enforcement action or as soon thereafter as practicable. Notice may be provided to the property owner, agent, occupant or the applicant for any relevant permit. In addition, the Town may proceed to abate the danger and assess the costs therefor as a lien on the property and certified to the county treasurer, to be collected with the taxes on the property.
 - 3) Extension of time for correction. The Town Council may grant an extension of the time to cure an alleged violation, up to a total of ninety (90) days, if the Town Council finds that, due to the nature of the alleged violation, it reasonably appears that it cannot be corrected within thirty (30) days.

- b. Deny/withhold approvals or permits. The Town may deny and withhold all approvals, permits, certificates or other authorization to use or develop any land, structure or improvements thereon until the alleged violation related to such property, use or development is corrected. This provision shall apply whether or not the current owner or applicant for the permit is responsible for the violation.

Where a property owner, agent or other person has a record of an outstanding violation of this Code, the Town shall be authorized to deny or withhold all permits, certificates of occupancy or other forms of authorization for any use or development activity undertaken by such person until all outstanding violations are corrected. This provision shall apply whether or not the property for which the permit or other approval is sought is the property in violation.

The denial or withholding of a permit by the Town may be appealed to the BOA in accordance with **Section 16.9.50** of this Article.

- c. Revocation of permits.
- 1) Public hearing required. The Town Council may revoke any development permit, building permit, certificate or other authorization after notice and a public hearing, for violation of this Code.
 - 2) Reconsideration of revocation. The applicant may request a public hearing for reconsideration of the Town's revocation.
 - 3) Notice of public hearing. The public hearing on the reconsideration of revocation shall be conducted during a regular or special meeting of the Town Council not less than seven (7) days nor more than twenty-one (21) days from the date the notice of the hearing is given. Notice of hearing shall be deemed given to the owner, the owner's agent or other person to whom the development permit was issued, upon deposit of said notice in the U.S. mail, by certified mail, return receipt requested, addressed to the last known address of said person. Additional methods of service may also be utilized to give notice of the public hearing.
 - 4) Findings. Following the public hearing, the Town Council shall reinstate the permit revoked unless it finds any of the following:
 - a) There is a departure from the approved Plans, specifications or conditions of approval;
 - b) There is a violation of any provision of this Code;
 - c) The development permit was obtained by false representation; or
 - d) The development permit was issued in error.
 - 5) Notice of revocation. Written notice of the findings shall be served upon the owner, the owner's agent, applicant or other person to whom the permit was issued by certified mail, return receipt requested, or such notice may be posted in a prominent location at the place of the violation. No work, construction or use of the property shall proceed after service of the findings.
- d. Stop work order.
- 1) Issuance of stop work order. The Town may issue a written order to stop work on any property on which there is an uncorrected violation of either a provision of this Code or a provision of a land use approval or development permit, building permit or other form of authorization. The

stop work order shall specify the Code provisions allegedly in violation. Service of the order shall be given in person, by certified U.S. mail, return receipt requested, or by posting notice on the premises. After any such order has been served, no work shall proceed on any building, other structure or tract of land covered by such order except to correct such violation or comply with the order. The notice shall also state any appeal and/or variance procedures available pursuant to this Code.

- 2) Timing/notice. The stop work order may be issued in conjunction with a notice of violation or subsequent to such notice. The stop work order may also specify a shorter time for correction of the violation if the Town determines that a shorter time is necessary to protect the health, welfare or safety of people or property in the Town. It shall be unlawful to violate the terms of a stop work order.
- e. Abatement or injunctive relief. In addition to any other remedy, the Town Council may initiate injunction or abatement proceedings or other appropriate legal action in the municipal court or other court of competent jurisdiction to abate, remove or enjoin such violation and to recover damages, costs and reasonable attorney's fees incurred in the abatement and removal of such violation.
5. Persons responsible. The owner, tenant or occupant of any building or land or part thereof, as well as any architect, builder, contractor, agent or other person who participates in, assists, directs, creates or maintains any situation that is contrary to the requirements of this Code, may be held responsible for the violation and suffer the penalties and be subject to the remedies herein provided.
6. Remedies cumulative. The remedies provided for violations of this Code, whether civil or criminal, shall be cumulative and in addition to any other remedy provided by law or equity and may be exercised in any order. Each twenty-four (24)-hour period or portion thereof is considered a separate violation under this Code.
7. Continuation of prior enforcement actions. Nothing in this Code shall prohibit the continuation of previous enforcement actions undertaken by the Town pursuant to previous regulations.
8. Appeals of enforcement actions. Appeals of any order, requirement, decision or determination made by an administrative official in the enforcement of this Code shall be made to the BOA in accordance with this Code.
9. Liability of Town. This Code shall not be construed to hold the Town responsible for any damages to persons or property by reason of the inspection or reinspection or failure to inspect or reinspect, by reason of issuing a building permit or by reason of pursuing or failing to pursue an action for injunctive relief.
10. Violations. Violations of this Code may be enforced in the municipal court or any other court with jurisdiction, by any appropriate equitable action, by abatement, by issuance of stop work orders, by injunction and restraining order, by revoking any permits or approvals issued and by assessing any amounts due or delinquent fines as taxes. Any one (1) or any combination of the foregoing penalties and remedies may be used to enforce this Code.
11. Penalty. Failure to comply with all of the provisions of this Code shall constitute a misdemeanor and, upon conviction, is punishable by a fine of three hundred dollars (\$300.00) or imprisonment for a period of not more than ninety (90) days, or both. Each day that such violation continues to exist shall be considered a separate offense.
12. Costs and attorney's fees for enforcement for abatement to be paid to the Town. Costs and attorney's fees associated with said abatement shall be charged to the owner of the

property on which said violation has occurred and any other person responsible for the violation, as defined in this Code. The cost of abating a violation of this Code shall include all direct and indirect costs of such abatement plus the costs of collection and interest at the rate of one percent (1%) per month. Notice of the bill for abatement of the violation shall be mailed to the last known address of said property owner by certified mail and shall be payable within thirty (30) calendar days from the receipt thereof. If all of such costs are not paid within thirty (30) days of the notice, such costs may be made a lien on the property and certified to the county treasurer and collected with the taxes on the property.

Lapse of Approvals.

(b) Effective date

The provisions of this Code were adopted on January 5, 2021, and are effective in accordance with Ordinance May 28, 2021.

Application fees

Application fees for all annexation, zoning and development applications will be paid per a published Town fee schedule. The fee schedule may be revised and adopted annually by resolution of the Town Council and is available in the office of the Town Clerk.

Commented [OJ5]: Include approval timeframes as approved by LUAC.

Commented [OJ6]: Relocated fees under the next Article (Procedures)

Development review deposit and reimbursement of town costs

- (a) Fees sufficient to cover the costs of administration, inspection, publication of notice and similar matters will be charged to applicants for permits, plat approvals, zoning or zoning amendments, site Plans, annexations, Plan approvals, sign permits, variances and other administrative relief. In addition to the standard fees, the applicant and the owner of the property that is the subject of the application shall be required to pay any actual costs and fees incurred by the Town for review of the application by consultants and Staff, including but not limited to engineering, surveying, legal and Planning. Such fees shall include the hourly cost for any contracted professionals engaged by the Town for review of the application. The Town may require a deposit from applicants to offset the Town's costs for review prior to consideration of any application submittal pursuant to this Code. Subsequent deposits may be required when the initial deposits are eighty-five percent (85%) depleted. These deposits may exceed the total amount of fees collected using the standard schedule of fees. The Town shall not continue the processing of any application for which the applicant or the property owner has refused to deposit the funds to cover the Town's cost of review.
- (b) Any funds deposited in excess of the standard fees remaining after paying the actual costs incurred by the Town shall be refunded to the applicant. The Town may certify to the county treasurer any amount due pursuant to this section as a lien on the property for which the application is submitted, to be due and payable with the real estate taxes for the Town if the applicant or the property owner does not pay such amount within thirty (30) days of written request by the Town.

Severability

If any part, section, subsection, sentence, clause or phrase of this Code is for any reason held to be invalid, such invalidity shall not affect the validity of the remaining sections of this Code. The Town Council hereby declares that it would have passed this Code, including each part, section, subsection, sentence, clause or phrase thereof, regardless of the fact that one (1) or more parts, sections, subsections, sentences, clauses or phrases was declared invalid.

Computation of time

- (a) In computing a period of days, the first day is excluded and the last day is included.
- (b) If the last day of any period is a Saturday, Sunday or legal holiday, the period is extended to include the next day that is not a Saturday, Sunday or legal holiday.
- (c) If a number of months is to be computed by counting the months from a particular day, the period ends on the same numerical day in the concluding month as the day of the month from which the computation is begun, unless there are not that many days in the concluding month, in which case the period ends on the last day of that month.

Grammatical interpretation

- (a) As used in this Code, words in the singular include the plural, and words in the plural include the singular.
- (b) The words *must*, *shall* and *will* are mandatory; *may*, *can*, *should* and *might* are permissive.
- (c) The word *lot* shall include the words *building site*, *site*, *plot* or *tract*.
- (d) A *building or structure* includes any part thereof.
- (e) Words in the present tense include the future tense.

Note: Public Hearing and Notice Provisions moved under Procedures Article

Administrative authority for certain land use actions

- (a) Notwithstanding any other provision of this Land Use Code and subject to any limitations established by state statute, the Town Manager or such official's designee may act administratively, without resort to the Town Council or the Planning Commission with respect to any land use action that has insignificant impact on the public or adjoining landowners, does not change overall project density by more than five percent (5%), and does not require any change of zoning or variance. By way of illustration and not limitation, such actions shall be appropriate for:
 - (1) Lot line adjustments.
 - (2) Adjustments to lot boundaries on an approved plat that do not impair or diminish public parks or infrastructure.
 - (3) Modification of site Plan landscaping or fencing requirements that are consistent with the requirements of this Code.
- (b) Notice to the public and adjoining landowners shall be made in such instances in the same manner as for site Plan approval, except that the notice shall state that the Town Manager may act without further notice on the requested action and that any objections or concerns should be submitted in writing to the administrator by the end of the notice period. The Town Manager may decline to exercise the authority provided by this section in any instance, in which case all other processes established by this Code shall apply. Any decision of the administrator may be appealed to the Town Board of Adjustment (BOA) by an appeal notice filed within fifteen (15) days of the announcement of his or her decision.

Commented [OJ7]: Relocated and reworded to General Provisions Article.

Article 2 – Procedures

Procedures summary

Applications and land use procedures shall be processed in accordance with Table x.x.x and this Article.

[summary procedures table]

General criteria – all applications

(a) Eligible Applicants. Table x.x.x indicates applicants eligible for each application type found under this Code.

- (1) Owner. The property owner of record for the subject property(s) of the application or the owner's authorized agent by written permission of the owner.
- (2) Planning Commission. The Planning Commission, acting on its' own initiative or through recommendations brought to it by staff, and according to its' bylaws and procedures.
- (3) Town Council. The Town Council acting on its' own initiative or through recommendations brought to it by staff or the Planning Commission, and according to its' bylaws and procedures.

(b) Application Forms. Applications required under this Code shall be submitted to the Community Development Department in a form and format specified by the Department. The Department and Director are authorized to establish submittal requirements and procedures to ensure all applications can be evaluated for conformance with this Code.

(1) Modification. The Director may waive or modify certain requirements for specific information at the time of application due to the routine nature of the application or due to the context of the application making the information inapplicable for review against the standards and criteria of this Code.

(2) Supplement. The Director may require further submittals or information, provided the request is reasonably required to evaluate compliance with this Code and/or adopted plans.

(c) Application Fees.

(1) ~~Application fees for all annexation, zoning and development applications will~~ shall be paid per a published Town fee schedule. The fee schedule may be revised and adopted annually by resolution of the Town Council and is available ~~in the office of the Town Clerk~~ for review at the Town.

(2) ~~Applicant's shall submit Development review deposit and reimbursement of town costs~~ Fees sufficient to cover the costs of administration, inspection, publication of notice and similar matters. ~~These development review deposit fees~~ will be charged to applicants for permits, plat approvals, zoning or zoning amendments, site ~~Plans~~ plans, annexations, ~~Plan-plan~~ approvals, sign permits, variances and other administrative ~~relief~~ functions. In addition to the standard fees, the applicant and the owner of the property that is the subject of the application shall be required to pay any actual costs and fees incurred by the Town for review of the application by consultants and ~~Staff~~ staff, including but not limited to engineering, surveying, legal and ~~Planning~~ planning. Such fees shall include the hourly cost for any contracted professionals engaged by the Town for review of the application.

- a. The Town may require a deposit from applicants to offset the Town's costs for review prior to consideration of any application submittal pursuant to this Code. Subsequent deposits may be required when the initial deposits are eighty-five percent (85%) depleted. These deposits may exceed the total amount of fees collected using the standard schedule of fees. The Town shall not continue the processing of any application for which the applicant or the property owner has refused to deposit the funds to cover the Town's cost of review.
- b. Any funds deposited in excess of the standard fees remaining after paying the actual costs incurred by the Town shall be refunded to the applicant. The Town may certify to the county treasurer any amount due pursuant to this section as a lien on the property for which the application is submitted, to be due and payable with the real estate taxes for the Town if the applicant or the property owner does not pay such amount within thirty (30) days of written request by the Town.

(d) Concurrent Applications. When a project requires approvals under more than one type of application, the Director may determine that each application may run concurrently based on the similarity of information needed and interrelationship between the applications.

(e) Withdrawal of an Application.

(1) The applicant may request to withdraw their, such request shall be in writing, either digital or print. Annexation applications with an approved resolution initiating annexation proceedings may only be withdrawn subject to approval by the Town Council.

(2) After withdrawal, the Town will take no further action on the application.

- (3) The applicant may resubmit an application which shall be treated as a new application for purposes of review, scheduling, and payment of the application fees.
- (4) A request for withdrawal of an application from a noticed agenda is subject to the discretion of the decision-making body.
- (f) Inactive Application. If the applicant fails to submit requested additional or revised application materials within one hundred eighty (180) days of the request, the Director may declare the application withdrawn.

Neighborhood meeting, public hearing and notification requirements.

- (a) Neighborhood Meetings. A neighborhood meeting shall be required prior to the formal public meeting as indicated in Table x-x-x and as directed by the Director or Manager.
 - (1) Director Determination. During the pre-application conference or as part of the review of an application, the Director may waive a neighborhood meeting requirement for a project based on the following circumstances:
 - a. The project does not present a significant change and impact on properties in the vicinity of the proposal; and
 - b. The project meets the code criteria contained herein.
 - (2) Applicant Option. An applicant may decide to host a neighborhood meeting prior to submitting their formal application to the Town.
 - (3) Meeting Notices. The applicant shall provide notice of the neighborhood meeting consistent with the requirements for a public hearing, including mailed, posted, and published notifications as specified in Sec. x-x-x and Table x-x-x of this Article.
 - (4) Meeting Format.
 - a. The applicant is responsible for all content of the meeting and for preparing meeting minutes to provide to the Town as part of the official project record.
 - b. The applicant shall work with the Town to coordinate meeting logistics, such as the date, time, venue, and notice requirements.

(a)(b) Public Hearing(s). Public hearings (hearings) are open meetings conducted by local Boards to gather information from the public and to survey public opinion as part of the local ~~rule~~decision-making process. ~~Public h~~Public hearings are required by either the State or the Town and will be conducted before the Planning Commission, the Town Council or the ~~Town Council acting as the~~ Board of Adjustment, as appropriate. ~~Public h~~Public hearings will be conducted under the following general conditions:

- (1) ~~Before reviewing an application for a permit that requires a public hearing, said~~ A hearing shall be scheduled within a reasonable time as allowed by the schedules of the Town officials and Staff. The Town Manager or Staff, as delegated, are responsible for the scheduling of all public hearings.
- (2) Subject to Paragraph 3 that follows, the hearing shall be open to the public and all persons interested in the outcome of the appeal or application shall be given an opportunity to present evidence and arguments.
- (3) The Town Council, Planning Commission or Board of Adjustment conducting the hearing may place reasonable and equitable limitations on the presentation of evidence, arguments, and the cross-examination of witnesses.
- (4) A hearing for which proper notice was given may be continued to a later date without again requiring notice, provided the specific date, time, and place of the continued hearing is announced at the original hearing.
- (3)(5) Record. An audio recording shall be made of all hearings, and transcripts of such hearings may be requested within thirty (30) days of the close of the hearing. Transcripts

shall be provided within a reasonable time after deposit of the cost of the preparation of the transcript with the Town.

~~(4)(6)~~ Modification of application at hearing.

- a. In response to questions or comments by persons appearing at the hearing or to suggestions or recommendations by the Town Council, Planning Commission or Board of Adjustment (BOA), the applicant may agree to modify his or her application, including the Plans and specifications submitted.
- b. Unless such modifications are so substantial or extensive so as to materially change the Plans, the hearing body may approve the application with the stipulation that the permit will not be issued until Plans reflecting the agreed-upon changes are submitted to the Town for review and approval as an administrative act.

~~(b)(c)~~ Public notice requirements. The Town shall give notice of any public hearing required as provided in the following list. Notice shall be provided for each application as indicated in Table x-x-x and Table x-x-x below. The applicant shall be responsible for all costs of such notices.

(1) Annexations. Annexation notifications shall be completed in accordance with Colorado statute, see C.R.S. 31-12-101 et seq.

(2) Mailed Notice Requirements. Where mailed notice is required under this Code, the following requirements shall be met:

- a. Content. The mailed notice shall include a description of the proposal; the location of the meeting or hearing; the date, time, and location of the meeting or hearing; and information regarding public comment.
- b. Mailing List. Where required by statute or this chapter, the mailed notice shall be sent to the following groups:

1) All record landowners within one thousand (1,000) feet of the proposal boundaries no later than fifteen (15) days before the hearing (unless otherwise specified by state statute). Where required by statute or this chapter to give notice to surrounding property owners, written notice shall be sent by mail not later than fifteen (15) days before the hearing (unless otherwise specified by state statute) to those persons who have listed for taxation any real property located within one thousand (1,000) feet of the lot, parcel or property area that is the subject of the application or appeal.

2) Where required by statute or this chapter to give notice to other interested property owners, such as mineral interest owners of record, mineral and oil and gas lessees for the property and appropriate ditch companies no later than fifteen (15) days before the hearing (unless otherwise specified by state statute), written notice shall be sent by mail not later than fifteen (15) days before the hearing (unless otherwise specified by state statute).

3) Where required by statute or this chapter to give notice to other parties of interest or referral agencies, written notice shall be sent by mail not later than fifteen (15) days before the hearing (unless otherwise specified by state statute).

b-c. Affidavit of Compliance. An affidavit of the applicant's compliance with the mailed notice requirements shall be provided to the Director prior to the meeting or public hearing to which the notice relates. Failure to provide the affidavit for a public hearing shall result in continuation of the public hearing.

e.d. Surface Development Notification. Notices shall be mailed to the mineral estate owner no later than required by state statute, see C.R.S. 24-65.5-103.

d.e. Where required by statute or this chapter to give notice of annexation hearings to special districts, school districts and Weld County Commissioners and the Weld County Attorney, written notice shall be sent by certified mail not later than thirty (30) days before the hearing.

~~(1)~~(3) Posted Notice Requirements. If notice by posting of the property is required by statute or this chapter, such notice shall occur by prominently posting signs on the property that is the subject of the proposed action. Such signs shall be posted no less than fifteen (15) days prior to the hearing (unless otherwise specified by state statute) and shall be easily legible from the nearest public streets. The sign shall be in the format available from the Town. ~~Posting shall be required for all properties seeking annexation, zoning, rezoning or subdivision approvals and any amendments such as variances and appeals to such approvals.~~

a. Affidavit of Compliance. If posting was done by the applicant, the applicant shall provide (prior to the hearing) an affidavit showing that the property was posted within the specified time.

~~(2)~~(4) Published Notice Requirements. The Town Clerk shall give notice of any public hearing required as follows:

a. Notice shall be given to potentially interested persons by publishing a notice one (1) time in a newspaper of general circulation in the area not less than fifteen (15) days prior to the hearing (unless otherwise specified by state statute).

b. This notice shall state the date, time, and place of the hearing, reasonably identify the lot, parcel or property that is the subject of the application or appeal and give a brief description of the action requested or proposed. Proof of publication shall be made part of the record at the time of the public hearing.

keep Town Hearing and Notification Requirements Table here -- minor updates

(a) ~~Hearing and notification requirements. Listed in Table 1.1 are the notification requirements in the Town. Abbreviations used include CRS and Hearing (Public Hearing). Hearings will be noticed per the Town in most instances but notice requirements for annexation must follow the provisions of the CRS. The mailed notices identified in the following table would normally include notice of both the Planning Commission and Town Council meeting/hearings as appropriate.~~

(b)(a) ~~Modification of application at hearing.~~

(1) ~~In response to questions or comments by persons appearing at the hearing or to suggestions or recommendations by the Town Council, Planning Commission or Board of Adjustment (BOA), the applicant may agree to modify his or her application, including the Plans and specifications submitted.~~

(2)(1) ~~Unless such modifications are so substantial or extensive so as to materially change the Plans, the hearing body may approve the application with the stipulation that the permit will not be issued until Plans reflecting the agreed upon changes are submitted to the Town for review and approval as an administrative act.~~

(c) ~~Hearing continuations. The Town Council, Planning Commission or BOA may continue the hearing to a subsequent meeting at a certain date and time or may close the hearing and continue the meeting to deliberate the issues until a final decision is made. If a hearing is continued to a certain date and time, no further notice of a continued hearing or meeting need be published.~~

(d)(a) ~~Record. An audio recording shall be made of all hearings, and transcripts of such hearings may be requested within thirty (30) days of the close of the hearing. Transcripts shall be provided within a reasonable time after deposit of the cost of the preparation of the transcript with the Town.~~

Application steps

This section is intended to outline typical development review steps administered by the Community Development Department for both administrative review and public hearing review applications, as identified in [Table x.x](#) under Procedures Summary. This information is not intended to reflect review timeframes or unique aspects of every application, including but not limited to the number of reviews required, situations beyond the Town's control, or individual approval requirements.

Figure x.x: Public Hearing Applications

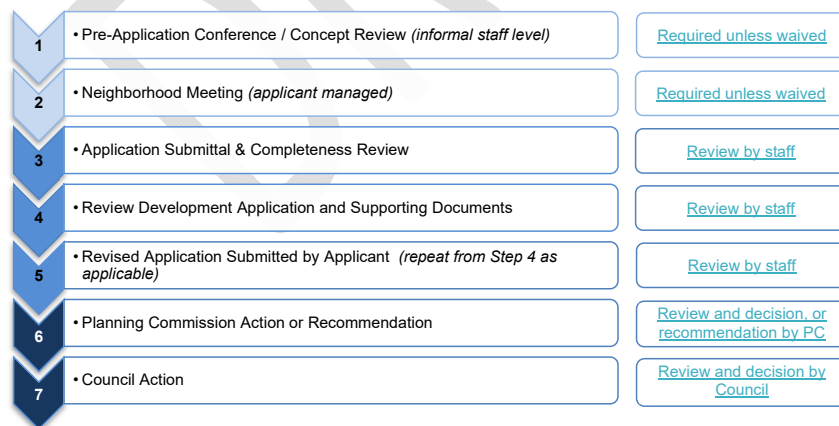
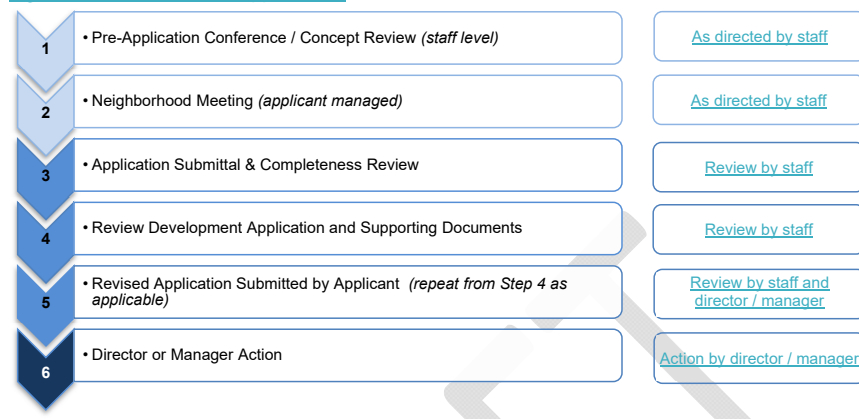


Figure x.x: Administrative Applications



(a) Step 1: Pre-Application Conference. This step (also referred to as a concept review meeting) provides an opportunity for an applicant to discuss their development plans with the Town. This step is required for most application types and may be waived by the Director or Manager depending on the unique characteristics of the development proposal. When required, the applicant shall submit the information required in accordance with the application and submittal requirements maintained by the Town.

(1) The applicant shall submit a request on a form or in a manner approved by the Town. Staff will coordinate a meeting with the applicant once all requested items have been submitted for the discussion.

(2) The meeting is an informal discussion of the preliminary development proposal with Town staff. The application shall submit the required information to facilitate discussion on the following topics:

- a. How the proposal meets the goals of the Comprehensive Plan, or other adopted plans or policies related to the application.
- b. The proposed use(s), general site layout, conceptual or anticipated design of the building(s), and how the project relates to surrounding sites and public spaces.
- c. How the project will contribute to the area and further the intent of the existing or proposed zoning district.
- d. The development review processes and review criteria.
- e. Impacts to infrastructure planning including timing, phasing, or the need for any technical studies or outside agency coordination and review.
- f. Necessary public improvements as part of the proposal including but not limited to public and private utilities, sidewalks and/or trails, road improvements, parks, landscaping, or other improvements warranted by the development.
- g. Opportunities to improve designs, layout, and overall function to meet Town goals and policies.

(b) Step 2: Neighborhood meeting. A neighborhood meeting may be required as indicated in [Table XXX](#) under Procedures Summary and are the responsibility of the applicant in working with Town staff. These meetings should occur prior to the formal application submittal so that input or

concerns may be considered in the initial application. Notices shall be in accordance with the Notification Requirements found in Sec. x.x.x of this Code. At the concept review meeting or during the review of an application, the Director or Manager may require a neighborhood meeting where:

- (1) The characteristics of the project are complex and present the potential for significant changes and unanticipated impacts on nearby or adjacent property.
- (2) The proposal is likely to raise questions or concerns from adjacent property owners, beyond the typical allowances under the zoning district and/or the adopted plans or policies.

(c) Steps 3, 4, and 5: Application Submittal and Review. Upon receipt of a complete application and payment of the required fee, the Town shall take the following steps:

(1) Completeness Review. The Town shall determine if an application is complete. An application shall be considered complete if it is submitted in the required form, includes all submittal information specified by the Director or Manager, and is accompanied by the applicable application fee(s).

- a. If an application is deemed complete, it shall be processed for formal review.
- b. If an application is determined to be incomplete, the Town shall notify the applicant of the deficiencies. No further processing or review of the application will occur until the deficiencies are corrected as requested.

(2) Referral. As part of the process, referral agencies may be notified and provided the opportunity to comment on an application. Referral agencies included but are not limited to adjacent or other local governments; state agencies; public and private utility providers; ditch companies; school districts; and other special districts such as the fire district.

(3) Staff Review and Comments. The Town shall coordinate a staff review and may provide the applicant the following information in writing:

- a. Comments or recommended change(s) based on the review of referral agencies, staff, and comments from any neighborhood meeting(s).
- b. Supplemental information required to support the application, address comments or the recommended changes.

If the applicant chooses not to address any specific comment(s) or recommended change(s), a written explanation shall be included with the resubmittal that demonstrates a good faith effort to address the issue or justify why the comment was not addressed. Failure to address any comment or recommended change without explanation may be grounds for rejection of the revised application.

(d) Step 6 (administrative): Director Action. For administrative applications, the Director shall make a final determination regarding a proposal. This determination shall be based on the technical review of the application by staff and the review criteria associated with the specific application type as identified in this Code.

(e) Step 6 (public hearing): Planning Commission Recommendation or Action. For public hearing applications, the Planning Commission may serve in the following two capacities:

- (1) As a recommending body that review the proposal against the criteria of this Code, adopted plans and policies, and the recommendation of professional staff, and provide a recommendation to the Town Council of approval, denial, or approval with conditions.
- (2) As a deciding body that reviews the proposal against the criteria of this Code, adopted plans and policies, and the recommendation of professional staff, and make a final decision on a proposal to either approve, deny, or approve with conditions.

(f) Step 7: Town Council Action. For public hearing applications, the Town Council serves as the decision body for certain applications, as specified on Table x-x-x. Following review of the

proposal against the criteria of this Code, adopted plans and policies, and the recommendation of the Planning Commission and professional staff, the Town Council may approve, deny, approve with conditions, or refer the application back to the Planning Commission for further review.

Annexation

(a) Purpose. The purpose of this ~~article~~-Section is to establish a procedure to bring land under the jurisdiction of the Town in compliance with the Colorado Municipal Annexation Act of 1965 (hereafter referred to as "Act"), as amended. This article, in part, provides supplemental requirements for annexation pursuant to the Act and is not to be construed as altering, modifying, eliminating, or replacing any requirement set forth in that Act or any requirements set forth in other portions of this Code. In the event of a conflict between the Act, the provisions of this ~~article~~ Section or any requirements set forth in other portions of this Code, it is the expressed intent of the Town Council that the more stringent provision shall control.

(b) Review Criteria.

(1) General Eligibility. The Town may consider an annexation petition for land that satisfies the eligibility requirements of the state statutes as follows:

- a. The area proposed for annexation has not less than one-sixth of its perimeter contiguous with the Town's municipal boundaries.
- b. A community of interest exists between the area proposed for annexation and the Town and the area is integrated with or is capable of being integrated with the Town.
- c. The full width of all public rights-of-way adjacent to a proposed annexation shall be included in the annexation.
- d. The responsibility to apply for exclusion from any applicable special districts shall be upon the applicant of the annexation.
- e. Annexations of enclaves may be initiated by the Town when such enclaves have been surrounded by property within the Town's municipal limits for a period of at least three years.

(2) Specific Criteria. The Town shall evaluate annexations according to the following criteria:

- a. The annexation complies with the Municipal Annexation Act of 1965, as amended (C.R.S. 31-12-101 et seq.);
- b. The proposed annexation complies with the Comprehensive Plan goals and objectives, other adopted plans and policies, and the regulations of this Code;
- c. The proposed annexation promotes geographical balance of the Town's land use pattern;
- d. Adequate facilities and services are or will become available to support the current or future development within the annexation area. Certain public facilities and amenities are necessary and must be constructed as part of any territory annexed to the Town in order for the public needs to be served by such facilities ~~(including. These facilities may include but are not limited to streets, bridges, public parks and recreation areas, water and sanitary sewer facilities, school sites, fire and police station sites and storm drainage facilities).~~
- ~~a-e.~~ The annexation of lands to the Town shall be shown not to create any additional cost or burden on the then-existing residents of the Town to provide such public facilities in any newly annexed area.
- f. The applicant has demonstrated that the proposed annexation follows all pertinent intergovernmental agreements to which the Town is a party.

- g. The proposed annexation is needed to accommodate future land use requirements.
- h. The proposed zoning complies with the Rezoning Review Criteria in **Sec. x-x-x**.
- i. The property being annexed is located within the Town's Growth Management Area.
- j. Unless otherwise agreed to, the landowner has waived in writing any preexisting vested property rights as a condition of annexation.
- k. Annexed areas will not divide tracts of land to prevent further annexation of adjoining parcels (for example, leaving a "gap" or a "strip" of land between property to be annexed and the adjoining property.)
- l. To the extent allowed by law or possessed by landowner, all subsurface (non-tributary) water rights shall be deeded to the Town at the time of annexation.
- m. Town-initiated annexations shall conform to C.R.S. 31-12-106 and the annexation ordinance shall include an annexation map meeting the requirements of C.R.S. 31-12-107(1)(d).

(c) Review Procedures. In addition to the specific review procedures required by state statutes at the time of annexation, and in accordance with the general procedures section of this Code, the following specific procedures apply to annexations:

- (3) A petition for annexation shall be signed by more than fifty (50) percent of the landowners in the area and owning more than fifty (50) percent of the land are of the proposed annexation.
- (4) An application form, related fees, and supporting documents includes plans, reports, and studies shall be provided by the applicant consistent with the application checklist requirements available through the Town.
- (5) The annexation assessment report is necessary for the Town to evaluate the feasibility and impacts of the proposed annexation on the Town's infrastructure, including but not limited to the ability to serve with streets, water, sanitary sewer, storm sewer, parks and recreation, schools, police, and fire protection; compliance with the Comprehensive Plan; sources of revenue from the property; the Town's costs to serve the proposed development and other related matters.
- (6) The applicant shall submit concurrently with their annexation application a request to establish zoning in accordance with the rezoning criteria found in **Sec. x-x-x**.
- (7) An annexation agreement shall be required for all annexation requests into the Town. See the annexation agreement criteria in Subsection x-x-x.
- (8) The Town Council shall review the annexation request to determine whether to proceed with annexation of the property by resolution, which shall include the public hearing dates.
- (9) The Planning Commission shall hold a public hearing on the annexation and consider the review criteria in this section when making a recommendation.
- (10) The Town Council shall hold a public hearing on the annexation and consider the review criteria in this section, the recommendations from staff and the Planning Commission, and determine if the annexation petition complies with the Municipal Annexation Act of 1965 when deciding on the annexation request.

(d) Effect of Decision. In the annexation is approved, the Town shall have the signed annexation plat recorded with the County. Annexed areas shall be included in the Town's zoning ordinance and map within ninety (90) days after the effective date of the annexation ordinance.

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Policy and review criteria:

It shall be the general policy of the Town, with respect to annexations, the annexation application and the consideration of annexation petitions, that:

- (1) Annexation is a discretionary act. Unless otherwise required by Colorado Statute, the Town Council shall have sole discretion in whether to annex property into the Town.
- (2) The land to be annexed and the uses proposed for the land shall conform to the goals, policies and strategies of the Comprehensive Plan and to the land uses depicted on the Future Land Use Map, as amended.
- (3)(1) ~~Certain public facilities and amenities are necessary and must be constructed as part of any territory annexed to the Town in order for the public needs to be served by such facilities. These facilities may include but are not limited to streets, bridges, public parks and recreation areas, water and sanitary sewer facilities, school sites, fire and police station sites and storm drainage facilities. The annexation of lands to the Town shall be shown not to create any additional cost or burden on the then-existing residents of the Town to provide such public facilities in any newly annexed area.~~
- (4) ~~The petitioner for annexation shall be responsible for paying application fees and the Town's full cost for processing the annexation applications and petition; from initial discussion with Town Staff before submittal of the petition, through the approval and recording of the final annexation documents.~~
- (5)(1) ~~Annexed areas will not divide tracts of land to prevent further annexation of adjoining parcels (for example, leaving a "gap" or a "strip" of land between property to be annexed and the adjoining property.)~~
- (6)(1) ~~To the extent allowed by law or possessed by landowner, all subsurface (non-tributary) water rights shall be deeded to the Town at the time of annexation.~~

Annexation Process:

(a) Annexation applications shall be processed and considered as follows:

- (1) Annexation pre-application conference. The application process begins with a pre-application conference with the Town Planner to determine the feasibility of the annexation request. Following this meeting, the applicant may submit a letter of intent requesting the annexation, the annexation application and petition as described in this section, the completed annexation application form, maps and supporting documents as determined at the pre-application conference. The Town Planner shall provide all applicants with a checklist identifying the form and number of copies for each submittal.
- (2) Annexation application. An annexation application is necessary for the Town to evaluate the impacts on the Town of annexing the property identified in the application and to negotiate an annexation agreement.
- (3) Town evaluation of annexation application. Town Staff shall analyze the feasibility of annexing the proposed property, including but not limited to the ability to serve with streets, water, sanitary sewer, storm sewer, parks and recreation, schools and police and fire protection; compliance with the Comprehensive Plan; sources of revenue from the property; the Town's costs to serve the proposed development and other related matters.

(b) Annexation petitions shall be processed and considered as follows:

- (1) Annexation petition certification and completion. The petition for annexation and all other documents submitted shall be reviewed by Town Staff for completeness and compliance with the provisions of the Act and this Code. The applicant shall be notified within five (5) working days of any deficiencies or inadequacies in the materials submitted. An

incomplete submission shall not be processed nor referred to the Town Council for a determination of substantial compliance.

- (2) Annexation petition referral to Town Council. Upon the Town Staff's determination that the petition and supporting documentation are complete and in compliance with provisions of the Act and this Code, the Town Staff shall refer the petition to the Town Council.
- (3) Town Council determination of substantial compliance. The Town Council shall take the appropriate steps to determine if the petition is in substantial compliance with the Act.
 - a. If the petition is found to be in substantial compliance with the Act, the Town Council may, by the adoption of a resolution of substantial compliance, set the annexation and zoning for public hearing on a specified date, time and place, not less than thirty (30) days nor more than sixty (60) days from the effective date of the resolution, subject to compliance with Section 31-12-108, CRS.
 - b. If the petition is found not to comply with the Act, no further action shall be taken, except that the determination shall be made by resolution of the Town Council.
 - c. If the Town Council, at its sole discretion, finds that the annexation is not in the best interest of the Town, it may deny the petition by resolution.
- (4) Annexation impact report. An annexation impact report conforming to Section 31-12-108.5, CRS, is required for areas of ten (10) or more acres and will be completed by Town Staff.
- (5) Planning Commission review and recommendations.
 - a. The Planning Commission shall review, as a public hearing, the annexation application at a regular or special meeting to be held prior to the date of the public hearing before the Town Council. The Planning Commission will make a recommendation by motion to the Town Council regarding the overall annexation of the property to the Town. The Planning Commission motion may be to recommend approval, approval with conditions or denial of the annexation.
 - b. At this same hearing, the Planning Commission may review the requested zoning of the property. Notice of the Planning Commission review of zoning shall be given in accordance with the requirements for an amendment to the zoning map. The Planning Commission shall recommend to the Town Council approval with or without conditions or recommend denial of the requested zoning.
- (6) Town Council public hearing and action on the annexation.
 - a. The Town Council shall hold the public hearing on the petition for annexation (and zoning, if requested in conjunction with the annexation). The petitioners shall present evidence in support of the petition and zoning, if applicable. The Town Staff shall testify as to the elements required by statute to be present for annexation and any comments received from governmental entities affected by the annexation. Any person may appear at the hearing and present evidence on any matter related to the annexation petition as determined by the Town Council. The Town Council may continue the hearing to another date without additional notice as provided by applicable law. At the conclusion of the public hearing, the Town Council shall adopt a resolution containing the findings of fact and conclusions, including:
 1. Whether the requirements of Sections 31-12-104 and 31-12-105, CRS and this section have been met.
 2. Whether additional terms and conditions are to be imposed.
 3. Whether an election is required, either as a result of a petition for election or the imposition of additional terms and conditions.

- b. ~~If the Town Council finds that the area proposed for annexation does not comply with the requirements of Sections 31-12-104 and 31-12-105 CRS, the annexation proceeding will be terminated.~~
- c. ~~If the Town Council finds the following, then the Town Council may annex the land by ordinance without election and approve any annexation agreement. The zoning of the property, if requested with annexation, shall be approved by separate ordinance:~~
 - 1. ~~The annexation complies with the requirements of Sections 31-12-104 and 31-12-105, CRS and the provisions of section 30 of Article II of the Colorado Constitution."~~
 - 2. ~~An election is not required under Section 31-12-107(2), CRS or Section 30(1)(a) of article II of the Colorado Constitution.~~
 - 3. ~~1. No additional terms and conditions are to be imposed.~~

Annexation application:

An annexation application is necessary for the Town to evaluate the impacts on the Town of annexing the property identified in the application and negotiating an annexation agreement. The annexation application shall include the following information:

- (1) ~~Letter of intent. The applicant shall provide a letter of intent addressed to the Town Council to serve as a cover letter to the formal petition, introducing the applicant to the Town Council, requesting annexation of the petitioner's property and describing the development Plans for the property if it is annexed.~~
- (2) ~~Land use application form. The Town's land use application form shall be completed, signed and dated. The applicant shall provide application fee and deposit as provided by the adopted fee schedule at the time of the project submittal.~~
- (3) ~~Annexation petition. The applicant shall submit a petition for annexation that complies with the requirements of Section 31-12-107, CRS. The Town will provide the applicant with the standard form of this petition. One (1) original and one (1) electronic copy of the annexation petition shall be submitted to the Town.~~
- (4) ~~Cost reimbursement agreement for payment of development review expenses. The application shall be accompanied by a signed standard agreement for the payment of development review expenses incurred by the Town and the appropriate deposit of funds.~~
- (5) ~~Annexation map. Paper copies of the annexation map at twenty-four (24) by thirty-six (36) inches and reductions sized at eleven (11) by seventeen (17) inches are to be provided with the initial submittal. The annexation maps shall comply with the technical drawing requirements contained in Section 16.2.80 of this article. The map shall be accompanied by a written legal description of the property, including an electronic version in Word format. The Town Planner shall determine the number of copies needed.~~
- (6) ~~Title commitment. The applicant shall submit proof of ownership in the form of a current title commitment issued by a title insurance company licensed by the State, whose effective date shall be less than thirty (30) days prior to the date of submittal of the annexation petition. Ownership must match the ownership listed in the petition. If the legal description of the area to be annexed as shown on the annexation map does not match the legal description of the property owned because of road rights-of-way or other reasons, then the title policy must certify that the property owned is wholly contained within the described area on the annexation map. If the applicant is not the owner, there shall be provided, in addition to the title commitment naming the owner as the insured, a notarized affidavit by the owner stating that the applicant is authorized by the owner to~~

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make application for annexation. The applicant is to provide a word-processing file of the legal description contained in the title commitment.

- (7) Property tax statement. The applicant shall provide a copy of the prior year's property tax statement and paid receipt for all property to be annexed.
- (8) Mailing labels for Weld County, special districts, school districts, irrigation companies, mineral interest owners and adjacent property owners. The applicant is to provide mailing address labels and the appropriate number of stamped envelopes as required by this Code.
- (9) Zoning of property to be annexed. If zoning is requested simultaneously with annexation, the petitioner must submit a completed zoning application form, including a zoning map, for the property. If zoning is approved, the applicant must amend the official zoning map and pay all application, mapping and recording fees. If zoning is not requested simultaneously with annexation, the property is required by statute to be brought under compliance with this Code and the zoning map within ninety (90) days of the completion of the annexation process.
- (10) Annexation assessment report. The application is to be accompanied by a narrative report assessing the effect of the proposed annexation upon the community and existing service and facilities. It shall detail the need for any expansion of those services and facilities to accommodate the development proposed for the property being annexed. The narratives shall be one (1) or more paragraphs in length and shall be adequate to fully explain the needs, concepts and proposed solutions for each of the following:
 - a. The economic impact to the municipality of the proposed annexation.
 - b. The impact on schools, including an estimate of the number of students to be generated by development of the property.
 - c. The anticipated sources of water, sanitary sewer and other utilities to be used to serve the property and the impact on the water and sanitary sewer systems anticipated to serve the property.
 - d. The impact on the existing transportation system.
 - e. The compatibility of the proposed development with the Comprehensive Plan and any Plan amendments that may be necessary for the proposed development.
 - f. A review of existing and adjacent land uses, areas of compatibility or conflict and possible mitigation measures that may be required for the proposed development.

Post-approval actions:

- a. After final passage of the annexation ordinance, the applicant shall file with the Town final versions of all applicable documents, including one (1) Mylar and one (1) paper copy of the annexation maps. Applicant will submit digital copies of all files.
- b. In the event that zoning was requested with the annexation, zoning shall be granted by ordinance, and the official zoning map shall be amended accordingly. In the event that zoning was not requested with annexation, the Town shall bring the area annexed under the zoning ordinance and map within ninety (90) days after the effective date of the annexation ordinance in the manner provided by this Code.

(e) Annexation Public hearing notices.

- (1) Notice of the public hearing for annexation set by the resolution of substantial compliance shall be published and given to the county and to any special district or school district having territory within the area to be annexed in accordance with State law.

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(2) A copy of the published notice, together with the letter of intent provided with the application and the annexation maps, shall be sent by the Town by U.S. mail to the owners of real property within one thousand (1,000) feet of the boundaries of the proposed annexation, irrigation ditch companies whose rights-of-way traverse the property to be annexed and to the mineral estate owners and their lessees of the property to be annexed, as outlined in Section 16.1.160 of this Code. Notice provided by the Town to the owners of the mineral estate and their lessees shall not relieve the petitioners of the responsibility to provide notice as required by Section 24-65.5-101, et seq., CRS. In the case of a "flagpole" annexation, the Town shall also provide notice to abutting property owners as specified in Section 31-12-105, CRS.

(3) Petitioner's responsibilities—mailing labels, notice to mineral estate owners and lessees. Upon notice of complete application by Town Staff:

- a. The petitioner shall provide the Town with a set of standard mailing labels (matching Avery 8160) for the owners of real property within one thousand (1,000) feet of the property to be annexed, the mineral interest owners and lessees for the property to be annexed, the irrigation ditch companies whose rights-of-way traverse the property to be annexed and the special districts encompassing the property to be annexed. The petitioner shall also certify that the required address list of owners of real property is complete. The petitioner will provide adequate envelopes and postage for all of the referenced mailings with submittal package.
- b. The petitioner shall provide a set of standard mailing labels (matching Avery 8160) for all special districts encompassing the property to be annexed, the Board of County Commissioners and the county attorney, special districts and school districts with territory within the property to be annexed, and referral agencies of the Town, as directed by the Town. The petitioner shall also provide a sufficient number of labels to mail notice to the owners of real property and mineral interest owners and lessees identified in the mailing list.
- c. The petitioner shall be responsible for providing notice of each public hearing (Planning Commission and/or Town Council) to the owners of the mineral estate on the property to be annexed and to their lessees, as required by Section 24-65.5-101, et seq., CRS. The petitioner shall certify to the Town Clerk the petitioner's conformance with this notice requirement, not less than fifteen (15) days prior to the date of the public hearings.

~~(a)(f) **Annexation agreement.** An annexation agreement is required for all annexation applications, unless waived by the Manager. The Town will provide the applicant with a draft agreement to review and finalize as part of the development review process. The annexation agreement must be executed by the applicant prior to scheduling the Planning Commission and Town Council public hearings on the annexation proceedings. The annexation application is reviewed and considered by Town Council as part of the overall annexation request. Should special circumstances warrant with historical use or special future use of the property, an annexation agreement can be requested either by the petitioner, Town Staff or an appointed or elected official of the Town. Should applicants wish to create an annexation agreement, they must contact the Town Attorney.~~

Annexation map technical standards.

~~The annexation map shall be prepared by or under the supervision of a registered professional land surveyor licensed with the State. The annexation map shall conform to the following drafting~~

standards and shall contain the following information. It shall be a neat, clear, permanent, legible and reproducible document. Inaccurate, incomplete or poorly drawn maps shall be rejected.

- (1) The annexation map shall be an original drawing on twenty-four (24) inch by thirty-six (36) inch flat, spliceless, tapeless and creaseless sheets of double matte Mylar film with a uniform thickness of not less than three one-thousandths (0.003) of an inch, using only mobile black ink that will adhere to drafting films or an acceptable "fix-line" photographic reproduction (emulsion down) or a computer-generated reproduction of the original drawing. A margin line shall be drawn completely around each sheet, leaving a margin at least one-half (1/2) inch on three (3) sides and a margin at least two (2) inches on the left (short) side, entirely blank. Unless otherwise specified, text and numbers are to be large enough to be clearly legible at the scale drawn.
- (2) The annexation map shall be drafted at a scale that best conveys the detailed survey and confines the drafting error to less than one percent (1%). Acceptable scales are 1" = 50' or 1" = 100'. For annexations exceeding one hundred (100) acres, an acceptable scale is 1" = 200'. In special instances, a different scale may be used if approved by the Town. When an annexation requires multiple sheets, an index shall be provided that delineates the boundaries and identifies each sheet number. The scale of a composite map may be different from the individual sheets, as approved by the Town. A "title sheet" containing the certifications and signature blocks shall be provided in the event that the annexation map sheet is too crowded.
- (3) The title shall be centered at the top of the sheet, along the long dimension of each sheet and shall include the name of the proposed annexation. A general legal description stating the section, Township, range, ___th P.M., Town of Severance, Weld County, Colorado, shall be included under the name. The total acreage shall be included on the title sheet (Sheet #1) under the general legal description. Annexation names may not duplicate existing annexation names.

Example:

NEW ANNEXATION

TO THE TOWN OF SEVERANCE, COLORADO

A part of the xx of Section xx Township ___ North,
Range ___ West, ___th P.M., Town of Severance,
Weld County, Colorado
xx.xx Acres

- (4) There shall be a title block in the lower right-hand corner or along the right-hand margin that contains the name, address and telephone number of the land owner, the developer and the engineer or surveyor preparing the drawing, an appropriate title for the drawing, the preparation date, sheet number, the preparer's project identification numbers, revision dates, draftsman's initials and the electronic drawing file name (matching the AutoCAD™ drawing file provided to the Town).
- (5) Adjacent to the title block in the lower right-hand corner, there shall be a legend block that includes a description of lines, points and symbols, a double-headed north arrow designated as true north and a written and graphic scale.
- (6) Adjacent to the right margin or in a column to the right of the center of the title page if the page is crowded, there shall be the Town's standard statement of ownership containing a

written metes and bounds legal description of the land to be annexed (including the full width of abutting roadways not already within the Town), followed by the owner's signature blocks and notary blocks, one (1) for each owner or mortgagee.

(7) Immediately following the ownership certificate, there shall be the Town's standard surveyor's certificate, signed, dated and sealed by a licensed surveyor or engineer.

(8) Immediately following the surveyor's certificate, there shall be the Town's standard certificate block for the Town Council.

(9) Immediately following the Town Council's approval certificate, there shall be the Town's standard recording certificate block for the County Clerk and Recorder.

(10) A vicinity map that depicts the area to be annexed and the area that surrounds the proposed annexation within a two (2) mile radius superimposed on a current United States Geological Survey (USGS) topographical map and maintaining the same scale shall be placed on the left side of the annexation map, outside the boundary of the area being annexed or on the left side of the title sheet.

(11) The annexation map drawing shall:

- a. Show the outline of area to be annexed with boldest line.
- b. Show book, page, map number, etc. for all references and place where publicly recorded.
- c. Show all recorded and apparent right-of-way lines of roads, both within and without the periphery of land to be annexed; these roads are those that are adjacent, adjoining, contiguous and/or coincident with boundary. Also provide all road names, right-of-way widths at each leg of an intersection, at the point of curve and point of tangent, at dead ends and angle points, and right-of-way lines with accurate bearings and dimensions, including chord length and bearings, central angles and radii of all curves. Whenever the centerline of a road has been established or recorded, the date and recording information shall be shown on the annexation map.
- d. Show on the annexation map, next to the boundary of the area proposed to be annexed, a drawing of the contiguous boundary of the Town and the contiguous boundary of any other municipality abutting the area proposed to be annexed. A hatched boundary line shall be used to depict the boundary contiguous to the Town (example: ///////////////).
- e. Show section, quarter section and other monument corners. Display ties to section corners and to the state grid, if available, that show dimensions of all primary boundary survey control points with complete monument and location descriptions, all parcel lines showing dimensions with lengths, bearings and curve data, including chord lengths and bearings, basis of bearings and relation to true meridian and similar data. Only circular curves shall be used. No spirals, parabolas, etc., shall be used. All dimensions are to be shown to the nearest one one-hundredth (0.01) of a foot or, in the case of degrees, to the nearest second. An accuracy of 1:50,000 (second order) minimum for linear and angular (bearing) closure shall be required for the boundary. All internal lots, tracts or parcels shall have a closure accuracy of one one-hundredth (0.01) of a foot.
- f. Provide a description of all monuments, both found and set, that mark the boundaries of the property and all control monuments used in conducting the survey.
- g. Show the location of each ownership tract in unplatted land and, if part or all of the area is platted, the boundaries and plat numbers of plots or lots and blocks.

- h.— Show the names and locations of all abutting subdivisions. The locations of all abutting unplatted parcels and public lands shall be depicted and designated as such.
- i.— Designate the ownership identity of all mineral rights.
- j.— Show the purpose, widths, location (with fine dashed lines) and ownership of all easements and all abutting easements, including but not limited to utility, oil and gas gathering and transmission lines, and irrigation ditches (fee or prescriptive). If any easement already of record cannot be definitely located, a statement of its existence, the nature thereof and its recorded reference must appear on the title sheet. The widths of all easements and sufficient data to definitively locate the same with respect to the parcel to be annexed must be shown. All easements must be clearly labeled and identified. If an easement shown on the annexation map is of record, its recorded reference must be given.
- k.— Depict all lines, names and descriptions on the annexation map that do not constitute a part of the annexation in dashed or screened lines. Any area enclosed by the annexation but not a part thereof shall be labeled "Not a Part of This Annexation."
- l.— Accurately locate one hundred-year (100-year) floodplains, all existing watercourses, streams, lakes or inlets on the affected property.
- m.— Show clearly the length and bearing of all lines described in the written description.
- n.— Show section numbers, quarter-section quadrants, Township and range lines, and label each.
- o.— Show all lines, calls, arcs, etc. described in written description.
- p.— Circle or place an ellipse around each location where a detail drawing will be provided, and provide designation for each detail, such as "See Detail A."
- q.— Show "Point of Beginning" in bold letters with an arrow.
- r.— Show "True Point of Beginning" with bold letters and arrow, when appropriate.
- s.— Indicate with a map note the total perimeter of the annexation boundary, the contiguous length to the existing Town boundary and the length representing one-sixth (1/6) of the total annexation boundary perimeter.

(12) An AutoCAD TM drawing file (release 2010 or higher) of the annexation maps and title sheets; all fonts used shall be provided electronically. If multiple maps are used, one (1) drawing file must combine all the parts into one (1) map showing the entire annexation. AutoCAD TM drawing files of each revision to the annexation map shall be provided at the time the revision is submitted to the Town.

(13) A word processing file of the legal description for the annexation and all submittal narratives shall be provided electronically as a Word document.

Findings.

When the Town Council conducts a hearing on an annexation petition, as contemplated by the Colorado Statutes, the Town Council shall determine whether the annexation petition complies with the Municipal Annexation Act of 1965 and all provisions pertaining to annexation contemplated by this Land Use Code.

Zoning

General provisions.

In their interpretation and application, the provisions of these zoning regulations shall be held to be minimum requirements adopted for the promotion of the public health, safety, convenience, comfort, prosperity and general welfare of the community.

- (1) Uniformity of regulations. The regulations established within each zone by this article shall apply uniformly to each class or type of structure or land. Unless exceptions are specified in this Code, the following interpretations shall apply:
 - a. No building, structure or land shall be used or occupied, and no building or structure or part thereof shall be erected, changed, constructed, moved, demolished, or structurally altered, unless in conformance with all of the regulations herein specified for the zone in which it is located.
 - b. No part of a yard, other open space, off-street parking or loading space around or in connection with any building that is in compliance with this Code shall be combined with part of a yard, open space, off-street parking or loading space that has not been zoned unless it is considered a specific exception as stated in this article.
 - c. No yard or lot existing or approved at the time of adoption or any amendment to this Code shall be reduced in dimension or area below the minimum requirements set forth herein as a result of such adoption or amendment.
 - d. Any use not permitted in a zone, either specifically or by interpretation by the Town Council as provided in this Code, is hereby specifically prohibited from that zone.
- (2) Conflict with other provisions of law. Whenever the requirements of this article are inconsistent with the requirements of any other lawfully adopted rules, regulations or ordinances, the more restrictive standards shall govern.
- (3) Conflict with private covenants or deeds. In case of a conflict between this Code and any private restrictions, the provisions of this Code shall control for purposes of enforcement by the Town. The Town shall have no responsibility to enforce private covenants or deed provisions.
- ~~(4)~~(1) Zoning of annexed territory.
 - a. ~~Zoning of land during annexation may be done in accordance with the procedure and notice requirements of this article. The proposed zoning ordinance shall not be passed before the date when the annexation ordinance is passed.~~
 - b. a. Any area annexed shall be brought under the provisions of this article and the zoning map within ninety (90) days from the effective date of the annexation ordinance, despite any legal review that may be made challenging the annexation. During such ninety-day (90-day) period, or such portion thereof as is required to zone the territory, the Town shall not issue a building permit for any portion or all of the newly annexed area.

Commented [OJ12]: Relocate and reword under Article 6 - Zoning Districts

Purpose.

The purpose of this article is to create a vital, cohesive, well-designed community in order to enhance the Town's small-Town character and further the citizens' goals as identified in the Comprehensive Plan. These zoning regulations are designed to:

- (1) Encourage the most appropriate use of land throughout the Town and ensure logical growth of the various physical elements of the Town

- (2) Regulate and restrict the location and use of buildings, structures and land for residence, business, trade, industry or other purposes
- (3) Regulate and determine the size of building lots, yards and other spaces
- (4) Prevent the overcrowding of land, promote quality development, ensure efficiency in land use, lessen congestion, increase safety in travel and transportation and encourage development that supports the long-term stability and livability of the Town
- (5) Promote the health, safety and general welfare of Town residents

Zoning districts and boundaries.

In order to carry out the provisions of this Code and the Comprehensive Plan, the Town is divided into the following zoning districts, which are further defined in Article 6 of this Code:

- Rural Residential
- Rural Residential Conservation
- Rural Residential Agricultural
- Suburban Perimeter
- Town Core
- Development Nodes
- Development Node Industrial

Official zoning map.

The boundaries and classifications of established districts are as depicted on the "Town of Severance Official Zoning Map," which may from time to time be revised, updated or redrafted. The zoning map adopted and to be used for reference shall be that map bearing the most recent date of publication, which has been signed by the chair of the Planning Commission and the Mayor.

- (1) Interpretation of zoning district boundaries. In the event that uncertainty exists on the zoning map, district boundaries shall be on section lines, lot lines, the centerlines of highways, streets, alleys, railroad rights-of-way or such lines extended; municipal corporation lines; natural boundary lines such as streams or other lines to be determined by the use of scales shown on the map.
- (2) Amendment upon zoning or modification. Upon enactment of any ordinance annexing and establishing zoning or modifying existing zoning for any property and upon final passage thereof, the Town shall amend the prior existing zoning map to include the annexed area with the proper zoning classification or show the amended classification. Such updated official map shall contain, in table form, the date and number of the ordinance amending it, the title of the change, the date the map was amended to reflect each amendment and the initials of the person who checked and approved the change to the map.
- (3) Cost for amending zoning. Any person who proposes zoning for property being annexed or proposes modifying existing zoning shall bear the entire cost of amending the zoning map, including all notification costs. The Town shall provide applicants with a copy of the current fee schedule and a fee agreement form upon request.
- (4) Public inspection; storage of original. A copy of the zoning map shall be available and on display at Community Development during normal business hours. In addition, one (1) copy of the current zoning map and all prior zoning maps that have been adopted shall be held in a secure place by the Town Clerk, who shall act as custodian thereof, and the map shall not be amended, changed, updated or otherwise modified or let out of direct control of the Town Clerk for any reason whatsoever. The secured map is to be released for inspection only upon authorization of the Town Clerk.

Principal and conditional uses permitted by zoning district.

(a) General application of uses.

- (1) Uses designated as "uses by right" are allowed in a zone district as a matter of right but shall be required to conform to all requirements of this Code. If Code requirements are not met the Town reserves the right to deny a project based on non-compliance. Uses classified as "encouraged uses" are uses that are generally compatible and encouraged in a zoning district, but not allowed as a matter of right. These uses will be approved based on compliance with the Code as well as compatibility with adjacent land uses. Uses classified as "uses requiring additional review" are not allowed as a matter of right but may be approved by the Town Council with certain justification above and beyond the requirements of this Code. All uses must meet the requirements of this Code or be allowed as a legal non-conforming use with approval by the Town Council, otherwise they are not permitted.
- (2) Land uses not otherwise identified in this Code may be proposed. In order to allow such uses, the new or unlisted land use must be determined to be similar to either an encouraged use or use requiring additional review listed within that zone district. The term "similar" shall mean that the use can be reasonably interpreted to fit into a similar use category as identified in this Code. Town Staff will make a written determination regarding any request for a land use not listed in this Code. If a determination is made that the proposed use is similar to either a listed encouraged use or a use requiring additional review, it will be processed as a use requiring additional review under the provisions of this Code.

(b) Requirements of zone districts. Uses and requirements of zone districts are defined in Article 4 of this Code.

Commented [OJ13]: Relocate and reword under Article 6 - Zoning Districts

Amendments.

(a) Initiation of amendments to text or official zoning map. The Town Council may, from time to time, amend, supplement, change or repeal the regulations and provisions of this Code. The Town Council, Town Staff or Planning Commission may initiate amendments to the text of this Code. Amendments to the zoning district map may be initiated by the Town Council, Town Staff, Planning Commission or a real property owner in the area to be included within the proposed amendment.

(b)(a) General rezoning of the Town. Whenever the zoning district map is in any way to be changed or amended incidental to or as part of a general revision of the zoning Code, whether such revision is made by repeal of the existing zoning Code and enactment of a new zoning Code or otherwise, the requirement of an accurate survey map or other sufficient legal description thereof, and the notice to and listing of names and addresses of owners of real property in the area of the proposed change, shall be waived. However, the proposed zoning map shall be available for public inspection in the Town hall during regular business hours for fifteen (15) days prior to the public hearing on such amendments.

Commented [OJ14]: Integrated into new "Text amendment" section

(c) Zoning amendment application process.

- (a) Optional pre-application conference. The applicant may attend a pre-application conference with a representative from the Town. The purpose of the hearing is to discuss the zoning amendment, submittal requirements and review process.
- (b) Zoning amendment application submittal. The applicant shall submit two (2) hard copies and a digital file of the complete zoning amendment application package to the Town and shall request that the Planning Commission and Town Council review the application.

Note: In the case of text amendments, only subparagraphs a. and b. that follow are required.

- a. Completed land use application form, zoning amendment, application fee and fee agreement
- b. Written description of the proposed change to the text of this article, including the citation of the portion of the article to be changed and the wording of the proposed change. The description must provide the rationale for the proposed change, citing specific difficulties with the existing text and similar provisions in zoning Codes of other jurisdictions that support the rationale of the proposed change.
- c. Legal description for all property to be considered for rezoning.
- d. Current proof of ownership in the form of a title commitment issued within thirty (30) days of submission of the application (for zoning map amendments only).
- e. Zoning amendment map of the area included in the proposed change, twenty-four (24) inches high by thirty-six (36) inches wide, with the following information:
 1. North arrow, scale (1" = 100' or 1" = 200') and date of preparation.
 2. Subdivision or block and lot name of the area to be zoned (if applicable) at the top of each sheet.
 3. Legal description of area to be zoned (entire area and individual zoning districts). In unsubdivided property, zone boundaries shall be determined by a metes and bounds description.
 4. Location and boundaries, including dimensions, of the properties proposed for rezoning. (Note: Zone boundaries are to be the centerlines of physical streets, roads, highways, alleys, railroad rights-of-way and channelized waterways or such lines extended).
 5. Acreage or square footage contained within the property proposed for rezoning.
 6. All existing land uses in the proposed rezoning area.
 7. Zoning and existing land uses on all lands adjacent to the proposed rezoning.
 8. Location and dimensions for all existing public rights-of-way, including streets, and centerlines of watercourses within and adjacent to the rezoning.
 9. Names of all adjoining subdivisions with lines of abutting lots and departing property lines of adjoining properties not subdivided.
 10. Certificate blocks for surveyor, Planning Commission, Town Council and Weld County Clerk and Recorder.
 11. AutoCAD™ drawing (release 2010 or higher) of the zoning amendment map on acceptable electronic transfer.

Rezoning

(a) Purpose. The rezoning process provides review of changes to the boundary of zoning districts that may be necessary to:

- (1) Establish zoning with an annexation application;
- (2) Correct a manifest error in an ordinance;
- (3) Implement the Comprehensive Plan goals and policies;
- (4) To account for changed conditions in the general area; and/or
- (5) To reflect a change in policies with respect to future development.

(b) Review Criteria.

- (a) The proposal is consistent with the Comprehensive Plan, other adopted plans and/or policies, and the criteria of this Code.
- (b) The proposal serves a community need or amenity that was not considered at the time of the initial zoning of the property.
- (c) Any anticipated negative impacts or burdens on the area, public infrastructure, or adjacent properties are either mitigated by sound planning, design, and engineering practices, or are outweighed by broader public benefits to the surrounding community.
- (d) The proposed zoning will further development in the area that is in character with existing or future development when considering the design, pattern, scale and compatibility with surrounding uses and developments.
- (e) The recommendations of technical and professional staff or advisory review bodies.

(c) Review Procedures. In addition to the general procedures found in Section x-x-x and Table x-x-x, the following requirements are specific to rezoning applications:

- (1) The application shall include a written statement describing the proposal and addressing the following points:
 - a. Rationale for the proposed rezoning.
 - b. Present and future impacts on the existing adjacent zone districts, uses and physical character of the surrounding area.
 - c. Impact of the proposed zone on area accesses and traffic patterns.
 - d. Availability of utilities for any potential development.
 - e. Present and future impacts on public facilities and services, including but not limited to fire, police, water, sanitation, roadways, parks, schools and transit.
 - f. The relationship between the proposal and the Comprehensive Plan.
 - g. Public benefits arising from the proposal.
 - h. ~~Surrounding and interested property ownership mailing labels. The applicant shall provide the Town with two (2) current sets of mailing labels not more than thirty (30) days old of the names and addresses of the surrounding property owners (within one thousand [1,000] feet of the property), mineral interest owners of record, mineral and oil and gas lessees for the property, and appropriate ditch companies. The applicant shall certify that the report is complete and accurate.~~
- ~~(2) Zoning amendment application certification of completion. Within a reasonable period of time, Town Staff shall either certify that the application is complete and in compliance with all submittal requirements or reject it as incomplete and notify the applicant of any deficiencies. The applicant shall then correct any deficiencies in the application package, if necessary, and submit the required number of copies of the application to the Town. The original application and all documents requiring a signature shall be signed in blue ink.~~
- (2) Applications for rezoning may run concurrently with related applications at the direction of the Director or Manager.
- (3) Following review by staff and referral agencies, and any necessary resubmittal(s), the Director or Manager shall schedule review of the rezoning request by the Planning Commission during a public hearing.
- (4) The Planning Commission shall hold a public hearing and make a recommendation to the Town Council.
- (5) Town Council shall hold a public hearing and make a final decision on the rezoning application by ordinance.

(c) ~~Set zoning amendment public hearing and complete public notification process. No less than thirty (30) days prior to the scheduled public hearing, the Town shall send notice of public hearings to the applicant, all property owners of record within one thousand (1,000) feet of the property in question, all mineral interest owners, oil and gas lessees of record and the appropriate referral agencies. The Town shall also publish notice in a newspaper of general circulation. For zoning map amendments, the Town shall prepare a public hearing notification sign to be posted on the property within thirty (30) days as well. If the zoning amendment request is accompanying another application that is scheduled for public hearings before the Planning Commission and Town Council, one (1) public hearing may be held on both applications. Such notice shall not be required for text amendments.~~

(d) ~~Planning Commission public hearing and motion and Town Council ratification on the zoning amendment. The Planning Commission shall hold a public hearing to review the zoning amendment. The Planning Commission shall then make a motion to approve, conditionally approve, or deny the application that the Town Council will ratify.~~

~~Town Council public hearing and action on the zoning amendment. The Town Council shall, after receiving the report and recommendations from the Planning Commission, hold a public hearing and act upon the proposed amendment. The public hearing should be held at the first available Town Council hearing following the Planning Commission hearing. Following the required hearing, the Town Council shall consider the comments and evidence presented at the hearing, evaluate the application in accordance with the following criteria and approve, approve with conditions or deny the application, in whole or in part.~~

(b)(d) Effect of Decision ~~Post-approval actions.~~ Upon approval of an amendment a rezoning request to the official zoning map by the Town Council, the Town shall cause an appropriate revision of the official zoning map to be prepared. ~~In the event an interested party~~ If the applicant initiated the rezoning amendment request, the petitioner shall pay the Town's cost for the preparation of the revision to the official zoning map. The Town shall record a copy of the official zoning map amendment with the County.

~~Upon approval of an ordinance amending, changing or repealing part of the text of this Code, the Town shall certify a copy of the ordinance and place it in the official records of the Town and make appropriate supplements to this Code.~~

(1) ~~The applicant initiating the official zoning map amendment shall have thirty (30) days after approval of the amendment by the Town Council to submit to the Town two (2) original drawings of the approved zoning amendment map for recording, along with the recording fees and all other costs billed by the Town relative to the zoning amendment.~~

(2) ~~A licensed surveyor or engineer shall prepare the zoning amendment map. Inaccurate, incomplete or poorly drawn Plans shall be rejected. In addition, the petitioner shall submit one (1) reduction of the zoning amendment map sized eleven (11) inches by seventeen (17) inches and an AutoCAD™ drawing file (release 10 or higher).~~

(3) ~~Within thirty (30) days of receipt of an applicant-initiated zoning amendment map, the Town shall review the documents for compliance with the Town Council approval, obtain the Town officials' signatures and submit the approved zoning amendment map and the ordinance amending the official zoning map to the Weld County Clerk and Recorder for recordation.~~

(c) ~~Criteria for amendments to the official zoning map. For the purpose of establishing and maintaining sound, stable and desirable development within the Town, the zoning map shall not be amended except:~~

(d) ~~To correct a manifest error in an ordinance establishing the zoning for a specific property.~~

- (e) To rezone an area or extend the boundary of an existing district because of changed or changing conditions in a particular area or in the Town generally.
- (f) When the land to be rezoned was zoned in error and as presently zoned is inconsistent with the policies and goals of the Comprehensive Plan.
- (g) When the proposed rezoning is necessary to provide land for a community-related use that was not anticipated at the time of the adoption of the Comprehensive Plan, and the rezoning will be consistent with the policies and goals of the Comprehensive Plan.
- (h) When the area requested for rezoning has changed or is changing to such a degree that it is in the public interest to encourage development or redevelopment of the area.

This declaration of criteria for zoning map amendments shall not control an amendment that occurs incidentally to a general revision of the zoning map.

- (i) Criteria for text amendments to the zoning Code. For the purpose of establishing and maintaining sound, stable and desirable development within the Town, the text of this article shall not be amended except to:
 - (j) Correct a manifest error in the text of this Article.
 - (k) Provide for changes in administrative practices as may be necessary to accommodate changing needs of the community and the Town Staff.
 - (l) Accommodate innovations in land use and development practices that were not contemplated at the adoption of this Article.
 - (m) Further the implementation of the goals and objectives of the Comprehensive Plan.
 - (n) Map amendment upon zoning establishment or modification. Upon enactment of any ordinance annexing and establishing zoning or modifying existing zoning for any property and upon final passage thereof, the Town shall amend the prior existing official maps to include the annexed area with the proper zoning classification or show the amended classification, as the case may be. Such updated zoning map shall contain, in table form, the date and number of the ordinance amending it, the date the map was amended to reflect each amendment and the initials of the person who checked and approved the change to the map.

(e)(e) General rezoning of the Town. Whenever the zoning district map is in any way to be changed or amended incidental to or as part of a general revision of the zoning Code, whether such revision is made by repeal of the existing zoning Code and enactment of a new zoning Code or otherwise, the requirement of an accurate survey map or other sufficient legal description thereof, and the notice to and listing of names and addresses of owners of real property in the area of the proposed change, shall be waived. However, the proposed zoning map shall be available for public inspection in the Town hall during regular business hours for fifteen (15) days prior to the public hearing on such amendments.

(p)(f) Zoning of annexed territory.

- (1) Zoning of land during annexation may be done in accordance with the procedure and notice requirements of this aArticle. The proposed zoning ordinance shall not be passed before the date when the annexation ordinance is passed.
- (2) Any area annexed shall be brought under the provisions of this aArticle and the zoning map within ninety (90) days from the effective date of the annexation ordinance, despite any legal review that may be made challenging the annexation. During such ninety-day (90-day) day period, or such portion thereof as is required to zone the territory, the Town shall not issue a building permit for any portion or all of the newly annexed area.

Text amendment

- (a) Purpose. The Town Council, Planning Commission, or Town Staff may initiate amendments to the text of these regulations. Whenever the zoning district map is in any way to be changed or amended incidental to or as part of a general revision of the zoning Code, whether such revision is made by repeal of the existing zoning Code and enactment of a new zoning Code or otherwise, the requirement of an accurate survey map or other sufficient legal description thereof, and the notice to and listing of names and addresses of owners of real property in the area of the proposed change, shall be waived. However, the proposed zoning map shall be available for public inspection in the Town hall during regular business hours for fifteen (15) days prior to the public hearing on such amendments.
- (b) Review Criteria.
- (1) The amendment furthers the purposes of the Code
 - (2) The amendment improves the efficiency and effectiveness of administering the Code.
 - (3) The amendment is consistent with the Comprehensive Plan and other adopted plans and policies.
 - (4) The amendment incorporates innovations in land use and development practices that were not envisioned at the time the Code was written.
 - (5) The amendment promotes the public health, safety, and welfare of the Town's residents.
- (c) Review Procedures. In addition to the general procedures found in Section x-x-x and Table x-x-x, the following requirements are specific to text amendment applications:
- (1) Applications may run concurrently with a related Comprehensive Plan or other adopted plan amendment, as long as the amendment or plan has met the legal and policy requirements for approvals independently of the proposed code amendment.
 - (2) Amendments require the recommendation of the Planning Commission prior to consideration by Town Council.
 - (3) Town Council may recommend the application be returned to Planning Commission for further review or request additional information prior to taking action on the application.
- (d) Effect of Decision. Amendments to the text of these regulations shall be approved by the Town Council as an ordinance and be effective after the date specified in the ordinance. The Town shall incorporate the approved amendments into this Code.

Use by special review

- (a) Purpose. A use by special review provides flexibility for consideration of different uses which are unique in nature or character and, except as otherwise specifically provided for in this Code, allows the potential for additional uses subject to specific conditions and a case-specific review. These uses may require specific design, operational limitations, or additional mitigation to ensure the use is appropriate in a specific location of Town.
- (b) Review Criteria.
- (1) The proposal is consistent with the Comprehensive Plan, all other adopted plans or policies, and the criteria of this Code.
 - (2) The proposal furthers the intent of the underlying zoning district and does not conflict with the intent of any abutting districts.
 - (3) All associated site development or construction is consistent with the requirements of this Code, including any unique requirements identified for the particular use.

- (4) The proposal is compatible with adjacent uses in terms of operating characteristics such as hours of operation, visible and audible impacts, traffic patterns, intensity of use, and other potential impacts on adjacent property.
 - (5) The site is physically suitable for the proposal.
 - (6) The proposal does not result in undue or unnecessary burdens on the existing public infrastructure, or arrangements are made to mitigate such impacts.
 - (7) If a limited approval period for the use is reasonably necessary to either limit the duration of the use, assess the use against changing conditions in the area, or ensure periodic reporting and ongoing enforcement of any approvals.
 - (8) The recommendations of professional staff or other technical reviews associated with the request.
- (c) Review Procedure. In addition to the general procedures found in Section x-x-x and Table x-x-x, the following requirements are specific to use by special review applications:
 - (1) A complete application shall include the following minimum requirements:
 - a. A written request with justification for the use by special review.
 - b. A conceptual site plan with necessary information to review conformance of any construction with standards of this Code, and to review any performance criteria for the proposal.

A use by special review application may be processed concurrently with a site plan application, if required.
 - (2) Following review of the request by staff and referral agencies, and any necessary resubmittal(s), the Director or Manager shall schedule review and final action of the request by the Planning Commission.
 - (3) The Planning Commission shall hold a public hearing and make a final decision on the use by special review request.
 - (4) The Planning Commission may include conditions on the approval to mitigate concerns with the physical development, operations, or maintenance.
 - (5) The decision of the Planning Commission may be appealed by the applicant to the Town Council.
- (d) Effect of Decision. Approval of a use by special review allows the applicant to apply for a site plan, as applicable, a building permit, and other applicable permits.
 - (1) A use by special review shall expire within one year if the applicant has not submitted for an application for a building permit or other permits, licenses, or approvals necessary to establish the use. The Director or Manager may grant a one-year extension to this period. This period is distinct from any duration limits, periodic reviews, or renewal periods once the use is established, which may be a condition of approval by the Planning Commission.
 - (2) The approval shall expire if the use is no longer active or in operation after a one-year period.
 - (3) Minor changes may be approved by the Director or Manager upon meeting each of the following criteria:
 - a. The change expands the floor area, height, or other dimensional standards of the original approval by less than ten percent;
 - b. There is not a change of use or significant increase in the intensity of the use that could adversely impact adjacent properties;
 - c. The change does not exceed the limits or violate any specific conditions of the original approval; and
 - d. The change complies with all other provisions of this Code.

Any other proposed changes to the use shall require an amendment to the use by special review through the same procedures and criteria as the original application.

(4) A use by special review may be revoked by the Planning Commission through the same procedures granting the use, upon a finding that the conditions of approval have not been met, or that the use has otherwise violated the provisions of this Code.

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Dedication and vacation of easements.

- (a) Purpose. The dedication and vacation of easements is the process to officially record or eliminate easements that grant specific access and property interests stated on the recorded document, typically a plat or separate easement dedication document.
- (b) Eligibility. Easements may be dedicated or vacated in association with a minor or major subdivision process, or by this Section of the Code.
 - (1) Eligible applicants for the dedication of an easement(s) include any person or entity with a property interest in the abutting and underlying land. The owner of the underlying land must be involved in the dedication process.
 - (2) Eligible applicants for the vacation of an easement(s) shall be the easement holder or underlying property owner.
- (c) Review Criteria.
 - (1) The legal requirements for recording or eliminating the easement(s) have been established, and all forms and fees required by the Town have been submitted.
 - (2) The applicant has provided proof of ownership and provided notice to all other ownership interests in the easement or affected property.
 - (3) The request will not be detrimental to any adjacent property owner.
 - (4) No owner or entity with a property interest in the easement has objected.
 - (5) All parties with interest in or potentially impacted by the request have received notice and have had time to comment, including public and private utility providers.
 - (6) For a vacation, there is no current or future public purpose for the easement when considering the Comprehensive Plan and other adopted plans or policies.
 - (7) For a dedication, there are no conflicts with existing or planned easements and/or infrastructure.
 - (8) The application meets all other procedures and requirements of the Colorado Statutes, the Colorado Constitution, and the Municipal Code.
- (d) Review Procedures. In addition to the general procedures in Section x-x-x and Table x-x-x, the following requirements are specific to dedicating or vacating easements within the Town:
 - (1) The applicant shall submit an application, a plat or other legal document showing the proposed vacation or dedication, the affect to adjacent or abutting properties, and a legal description as warranted based on the request.
 - (2) The Town shall evaluate the application for completeness and coordinate review of the application per Section x-x-x. The review shall include a request for comments from all referral agencies who may have facilities or other interest in the easement.
 - (3) The Town may require the applicant complete a consent form from the applicant for all applicable public and private utility providers.
 - (4) The Director or Manager shall make a final decision following review and analysis by staff and referral agencies.
- (e) Effect of Decision. After approval of an easement dedication or vacation, the Town shall record the plat or other legal document with the County. A denial of a vacation or dedication application may be appealed to the Planning Commission.

Dedication and vacation of rights-of-way.

- (a) Purpose. The dedication and vacation of rights-of-way (ROW) is the process to officially record or eliminate ROW granting specific access and property interests stated in the recorded document, which are not associated with a major subdivision process.

(b) Eligibility. ROW may be dedicated or vacated in association with a major subdivision process, or by this Section of the Code.

(1) Eligible applicants for a dedication or a vacation include the Town or any person or entity with a property interest in the abutting and underlying land. For ROW abutting multiple property owners, the Town may require all owners to be part of the application.

(c) Review Criteria.

(1) The legal requirements for recording or eliminating the easement(s) have been established, and all forms and fees required by the Town have been submitted.

(2) The applicant has provided proof of ownership of property abutting or underlying the ROW. Where multiple properties are involved, each owner shall be included on the application.

(3) The request will not be detrimental to any adjacent property owner

(4) No owner or entity with a property interest in the ROW has objected.

(5) All parties with interest in or potentially impacted by the request have received notice and have had time to comment, including public and private utility providers.

(6) For a vacation, there is no current or future public purpose for the ROW when considering the Comprehensive Plan and other adopted plans or policies.

(7) For a dedication, the ROW will serve a public purpose and the dedication is sufficient to meet the design standards and specifications adopted by the Town for streets, sidewalks, trails, or other ROW.

(8) The application meets all other procedures and requirements of the Colorado Statutes, the Colorado Constitution, and the Municipal Code.

(d) Review Procedures. In addition to the general procedures in requirements in Section x-x-x and Table x-x-x, the following requirements are specific to dedicating or vacating rights-of-way (ROW) in the Town:

(1) The applicant shall submit an application, a plat or other legal document showing the proposed vacation or dedication, the affect to adjacent or abutting property, and a legal description as warranted based on the request.

(2) The Town shall evaluate the application for completeness and coordinate review of the application per Section x-x-x. The review shall include a request for comments from all referral agencies who may have facilities or other interest in the ROW.

(3) The Town may require the applicant complete a consent form for all applicable public and private utility providers.

(4) Following review and analysis by staff and referral agencies, the Director or Manager shall schedule review by the Planning Commission.

(5) The Planning Commission shall consider the application subject to the review criteria and make a recommendation to the Town Council.

(6) Upon receipt of a recommendation from the Planning Commission, the Town Council shall make a final decision, and may condition a decision to vacate ROW on reserving any interest it determines necessary to serve a public purpose or the interests of the affected property.

(e) Effect of Decision. After approval of a right-of-way dedication or vacation, the Town shall record a copy of the scale drawing or illustration and legal description with the County.

Article 3 – Development Agreements and Security

Agreements and improvements Development agreement provisions and processes.

- (a) Purpose. The applicant shall enter into ~~a~~^A development agreement (also referred to as an improvement agreement or subdivision agreement) with the Town to guarantee construction of ~~stating that the applicant agrees to construct any~~^{all} required public improvements shown in the final ~~plat documents~~^{development plan(s)}, together with security in a form approved by the Town Attorney, ~~is required.~~ The development agreement, as applicable, shall be fully executed by the applicant prior to final review and action on the development plan by the Town, or the Town may postpone final action on the development plan. ~~No subdivision plat shall be signed by the Town or recorded at the office of the county clerk and no building permit shall be issued for development until a development agreement between the Town and the applicant has been executed.~~ Such agreement shall include a list of all agreed-upon public improvements and landscaping, an estimate of the cost of such improvements (split out by phase as applicable), the form of guarantee for the improvements, and any other provisions or conditions deemed necessary by the Town ~~Council~~ to ensure ~~that~~^{all} improvements will be completed in a timely, quality, and cost-effective manner. Such public improvements may include but are not limited to the construction of streets, curbs and gutters, driveways, sidewalks, storm drainage systems, public water and sewer infrastructure, fire hydrants, floodway and irrigation ditch improvements, streetlights, sidewalks, trails, traffic control devices, required off-site improvements, and signage.
- (1) Other agreements or contracts setting forth the ~~Plan~~^{plan}, ~~method~~^{method}, and parties responsible for the construction of any required public improvements shown in the final ~~plat~~^{development plan} documents may also be required.
- (b) ~~As required by this Code and all applicable laws, rules and regulations, the applicant shall apply to the Town for inspection of improvements.~~
- (c) ~~The following improvements shall typically be constructed as determined by the Town Engineer:~~
- ~~(1) Road grading and surfacing.~~
 - ~~(2) Curbs.~~
 - ~~(3) Streetlights.~~
 - ~~(4) Sidewalks.~~
 - ~~(5) Sanitary sewer collection system.~~
 - ~~(6) Storm sewers or storm drainage system, as required.~~
 - ~~(7) Potable water distribution.~~
 - ~~(8) Non-potable water distribution.~~
 - ~~(9) Fire hydrants.~~
 - ~~(10) Utility distribution system for public parks and open space.~~
 - ~~(11) Street signs at all street intersections.~~
 - ~~(12) Permanent reference monuments and monument boxes.~~
 - ~~(13) Underground telephone, electricity and gas lines.~~
Three (3) SDR11 smooth conduit lines, one and one quarter (1 ¼)" inch in diameter, shall be placed at horizontal and vertical locations approved by the Town Engineer within the municipal utility easement with a capped junction at each buildable lot. In addition, when crossing a public street, a High Definition Poly Ethylene (HDPE) four (4) inch schedule 40 PVC sleeve conduit will be placed around each of the three (3) SDR 11 smooth conduit lines for the full width of the Right of Way (ROW). Once installed and accepted by the Town, the conduit shall become the property of the Town of Severance, and its use shall be subject to license or franchise by the Town.
 - ~~(14) Berm or fence along major arterial and collector streets.~~

(15)Required landscaping, open space and park improvements.

(16)Tree lawns.

(17)Under drains.

(18)Trails.

(19)Required floodway improvements.

(20)Required irrigation ditch improvements.

(21)Required off-site improvements.

(b) Time frame for completion. Commencement of construction of all or a portion of the approved ~~final plat~~ development plan shall occur within three (3) years from the date of recordation of said ~~final plat~~ development plan. The required time frame for the completion of all required improvements for all or a portion of ~~said final plat~~ the development plan shall be three (3) years from the Town's issuance of a grading or other permit to commence construction. However, the Town ~~Council~~ may, for good cause shown, extend such time for commencement or completion of the required improvements upon request from the applicant to the Manager.

(c) Process. The following steps outline the process for creating, reviewing, approving, and administering the Town's development agreement process through final acceptance of all required improvements.

(1) Step 1: The Town provides a draft copy of the development agreement to the applicant during the development review process to review and comment on.

(2) Step 2: The applicant returns the draft agreement with proposed revisions for final review and consideration by the Town.

(3) Step 3: The Town sends the applicant a final signature ready version of the agreement to execute prior to final review and action on the development proposal. The signed agreement accompanies the final development plan for review by the decision body, as outlined in this Code under Article 2 – Procedures.

(4) Step 4: If the development plan is approved by the Town, the Town will execute the final development application and send the applicant a signed copy.

(5) Step 5: The applicant shall post security, in a form approved by the Town Attorney and outlined in the executed development agreement, to cover the construction and warranty period of the necessary improvements outlined in the agreement.

(6) Step 6: Following installation of the required improvements, the applicant shall apply to the Town for inspection of improvements, as required by this Code and all applicable laws, rules, and regulations.

(7) Step 7: The Town shall complete inspection(s) of all required improvements and determine if the project has received initial acceptance and can move into the warranty phase.

a. If incomplete, the Town will issue the applicant a letter and list of defects or items that require additional attention prior to the Town issuing initial acceptance. Once the applicant has addressed the Town's comments, they shall apply for reinspection of the outstanding improvements, see Step 6.

b. If complete, proceed to Step 8.

(8) Step 8: If deemed complete, the Town will issue initial acceptance of the required improvements and reduce the applicant's posted security to cover the two-year warranty period.

(9) Step 9: Following the two-year warranty period, the applicant shall apply to the Town for final acceptance and release of the remaining security.

(10) Step 10: The Town shall complete final acceptance warranty inspection(s) of all required improvements and determine if the project requires warranty work or if the Town can issue final acceptance.

a. If warranty work is needed, the Town will issue the applicant a letter and list of defects or items that require additional attention prior to the Town issuing final acceptance. Once the applicant has addressed the Town's comments, they shall apply for reinspection of the warranty items, see Step 9.

b. If no warranty work is identified, proceed to Step 11.

(11)Step 11: If no warranty work is necessary, the Town will issue final acceptance of the required improvements and return the remaining warranty security held by the Town. At this point, all remaining obligations of the applicant should have been met, subject to the requirements of the final development agreement.

(d) Amendments. In the event the agreement needs to be amended, the applicant or Manager may initiate the amendment process, which includes review of the proposed changes by both parties and a determination by the Manager on whether the proposed changes require Town Council review or if the proposed changes can be updated administratively. Administrative changes may include but are not limited to agreement deadline extensions, reassignment of the agreement requirements due to applicant or ownership changes, updates to the list of improvements based on administrative changes to the final development plans, or adjustments to the estimate of the cost of improvements based on market conditions.

General regulations to the security for required improvements.

(a) Purpose. For each development agreement or similar agreement executed by the Town, the applicant shall post security in the form of a letter of credit, cash, or similar security instrument in a form approved by the Town Attorney and drawn in favor of the Town in an amount equal to one hundred percent (100%) of the estimated cost of the construction of the required improvements. Security may be provided for one hundred percent (100%) of the total development or by approved phase, as shown on the development plans and in the executed development agreement. For purposes of this Section, "required improvements" shall mean, at a minimum:

(1) All improvements intended for dedication to the Town;

(2) All streets, sidewalks, and trails, regardless of whether they are intended for dedication to the Town;

(3) All storm drainage improvements, regardless of whether they are intended for dedication to the Town; and

(4) All landscaping improvements intended for dedication to the Town or to an approved association or district.

(a)(b) Initial Acceptance and Partial Release of Security. Upon completion of such improvements within the required time and approval thereof by the Town, the Town shall cause the ~~cash or letter of credit~~ security, excluding the retainage for warranty security, to be released ~~within thirty (30) days of~~ following the Town's initial acceptance of such improvements and receipt of the required as-built drawings; however, the Town will retain ten (10)-percent security of the original security until final acceptance at the end of the two (2)-year warranty period. When such improvements are not completed within the required time, the Town may cause the proceeds of the ~~cash or letter of credit~~ security to be used to close or complete the required improvements in accordance with the terms and provisions of the development agreement.

(d)(e) Partial release of security. During construction of required improvements, the applicant may from time to time request the release by the Town of a portion of the security for improvements that have been inspected and approved by the Town Engineer, as shown on approved phasing plans as part of the approved development plan. The required warranty period shall commence upon completion and initial approval of all required improvements and landscaping in accordance with the terms and provisions of the development agreement. Full and

complete acceptance of the project will occur at the termination of the warranty period after final inspection.

- (e)(f) Warranty. All workmanship and materials for all required improvements shall be warranted for a minimum period of two (2) years by the applicant as specified in the development agreement and this Code.

Article 4 – Construction Requirements

Reserved.

Location for reference to Construction/Engineering Standards and Specifications

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Installing underground conduit.

- (a) Purpose. To provide for the installation of public and private utilities after completion of streets, sidewalks, trails, or similar improvements. Three (3) SDR11 smooth conduit lines, one and one-quarter (1 1/4)" inch in diameter, shall be placed at horizontal and vertical locations approved by the Town Engineer within the municipal utility easement with a capped junction at each buildable lot. In addition, when crossing a public street, a High Definition Poly Ethylene (HDPE) four (4)-inch schedule 40 PVC sleeve conduit will be placed around each of the three (3) SDR 11 smooth conduit lines for the full width of the Right of Way (ROW).

Ownership. Once installed and accepted by the Town, the conduit shall become the property of the Town of Severance, and its use shall be subject to license or franchise by the Town.

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Article 5 – Vested Property Rights

Purpose.

This article specifies procedures necessary to implement Article 68 of Title 24, CRS, which establishes a vested property right to undertake and complete development of real property under the terms and conditions of an approved site-specific development Plan. No vested rights shall be created within the Town except through a site-specific development Plan.

General provisions.

- (a) Request for site-specific development Plan approval. Landowners wishing the creation of vested property rights pursuant to Article 68 of Title 24, CRS shall request that approval in writing at least thirty (30) days prior to the date that the approval is to be considered. Failure of the landowner to request such an approval renders the Plan not a "site-specific development Plan" and no vested property rights shall be deemed to have been created.
- (b) Notice and hearing. No site-specific development Plan shall be approved until notice of such hearing has been published by the Town at least fifteen (15) days before the hearing and after a public hearing called for that purpose. Such notice may, at the Town's option, be combined with any other required notice. At such hearing, all interested persons shall have an opportunity to be heard.
- (c) Approval, conditional approval, effective date, amendments, referendum and review.
- (1) A site-specific development Plan shall be deemed approved upon the effective date of the Town action granting final approval of the Plan. For purposes of this Code, a site-specific development Plan shall be limited to the following: final plat, site Plan and/or a development agreement that creates a vested property right and is adopted as a legislative act of the Town. Zoning and annexation shall not result in the creation

of vested property rights, other than as accompanied by the approval of a site-specific development Plan. The vested property right shall attach to and run with the applicable property and shall confer upon the landowner the right to undertake and complete the development and use of said property under the terms and conditions of the site-specific development Plan, including any amendments thereto.

- (2) The Town Council may approve a site-specific development Plan with terms and conditions as may reasonably be necessary to protect the public health, safety and welfare. Such conditional approval will result in a vested property right, although failure to abide by all such terms and conditions shall result in a forfeiture of the vested property right.
 - (3) In the event amendments to a site-specific development Plan are approved, the effective date of such amendments, for purposes of duration of a vested property right, shall be the date of the approval of the original site-specific development Plan unless the Town Council specifically finds to the contrary and incorporates such findings in its approval of the amendment.
 - (4) The approval of vested property rights shall be subject to all rights of referendum and judicial review.
 - (5) The approval of vested property rights shall be subject to all rights of referendum and judicial review, except that the period of time permitted by law for the exercise of such rights shall not begin to run until the date of publication of a notice to the general public of the site-specific development Plan and creation of vested property rights.
- (d) Notice of approval.
- (1) Each plat or site Plan constituting a site-specific development Plan by this Code shall contain the following notice:
"This Plan constitutes a site-specific development Plan as defined in Article 68 of Title 24, CRS and Article 1 of the Severance Land Use Code available at the Severance Town Hall, 231 West Fourth Street, Severance, Colorado 80546."
Failure to contain this statement shall invalidate the creation of the vested property right.
 - (2) The Town shall publish a notice describing generally the type and intensity of the approved use, the specific parcel or parcels of property affected, the terms and conditions of any approval and a statement that a vested property right has been created. The notice shall be published once, not more than fourteen (14) days after approval of the site-specific development Plan, in the newspaper of general circulation in the Town chosen for publishing public notices. Failure of the developer to publish the notice constitutes a waiver of the vested right by the developer.
- (e) Duration of vested property right. A property right that has been vested as provided herein shall, upon compliance with the terms and conditions of the approval thereof, remain vested for a period of two (2) years, except that the Town Council may, in its sole discretion, grant vested property rights for a longer period within a final plat, site Plan and/or development agreement when warranted in light of all relevant circumstances, including but not limited to the size and phasing of the development, economic cycles and market conditions. The vesting period shall not be extended by any amendments to a site-specific development Plan unless expressly authorized by the Town Council in an ordinance approving such amendments. For purposes of this Code, completion of a development shall include installation of all engineered improvements (water, wastewater, streets, curb, gutter, sidewalks, fire hydrants and storm drainage improvements) in accordance with the Town rules and regulations.
- (f) Extensions. A vested property right may be extended for periods of one (1) year by the Town Council. The property owner must request an extension in writing not later than thirty (30) days prior to the date of expiration of the vested right. Prior to the expiration of the

original vesting timeframe or the extension timeframe, an applicant may formally request an additional extension if substantial progress has been made on installation of public improvements. In considering whether to grant an extension, the Town Council shall apply the following criteria:

- (1) That there is no conflict with this Code or that any conflict with the Code can be corrected by an amendment to the Plan, which shall be presented with the request for extension.
 - (2) That the applicant has demonstrated that the Plan continues to be compatible with adjacent properties and the surrounding areas or that compatibility may be established by an amendment to the Plan, which shall be presented with the request for an extension.
 - (3) That the applicant has demonstrated that the Plan is consistent with the Town's Comprehensive Plan.
- (g) Other provisions unaffected. Approval of a site-specific development Plan shall not constitute an exemption or waiver of any other provisions or requirements of this Code or the Town pertaining to the development or use of property, adopted or applicable before or after the approval of the site-specific development Plan.
- (h) Payment of costs. In addition to any and all other fees and charges imposed by this Code, the applicant for approval of a site-specific development Plan shall pay all costs incurred by the Town related to such application, including but not limited to publication of notices, public hearing costs, county recording fees and third-party review costs.
- (i) Limitations. This article is enacted pursuant to the provisions of Article 68 of Title 24, CRS. In the event of the repeal of said Article or a judicial determination that said Article is invalid or unconstitutional, this Article shall be deemed to be repealed and the provisions hereof no longer effective.
- (j) Disclosure of previously granted vested property rights and hazards.
- (1) Any petition for annexation to the Town shall describe all vested property rights approved by any local government in effect at the time of the petition, if any, and shall be accompanied by all site-specific development Plans approved by any local government. Failure to so identify any previously approved vested property right and to provide all approved site-specific development Plans shall constitute a waiver of the vested rights created by any other local government upon annexation to the Town, unless specifically provided otherwise in the ordinance of annexation adopted by the Town.
 - (2) The applicant shall be required to include with any Plan submitted for approval as a site-specific development Plan notice of any natural or human-made hazards on or in the immediate vicinity of the subject property that are known to the applicant or could reasonably be discovered at the time of submission of the Plan. Should a hazard on or in the immediate vicinity of the property be discovered subsequent to the approval of a site-specific development Plan, which would impose a serious threat to the public health, safety and welfare and is not corrected by the applicant, the vested property right created by such site-specific development Plan shall be forfeited by the applicant.

Article 6 - Nonconforming Structures and Uses

General Provisions.

Commented [OJ21]: Language from Town Attorney.

- (a) Purpose. The purpose of this Article is to regulate and limit the development and continued existence of zoned legal uses, structures, lots, signs, and use characteristics such as parking and landscaping, established prior to the adoption of this Code, or the adoption of future amendments to this Code, that no longer conform to the requirements of this Code. All such situations are collectively referred to in this Article as "nonconformities." While nonconformities may continue, the provisions of this Article are designed to curtail substantial investment in nonconformities to bring about their eventual elimination in order to preserve the integrity of this Code and the character of the Town.
- (b) Authority to Continue.
- (1) Generally. Any nonconformity that lawfully existed as of the adoption of this Code and that remains nonconforming, and any nonconformity that is created as a result of any subsequent rezoning or amendment to the text of this Code, may be continued or maintained as a nonconformity only in accordance with the terms of this Article.
 - (2) Exception Due to Variances or Minor Modifications. Notwithstanding Subsection 16.18.10.B.1 above, this Article shall not apply to any development standard or feature that is the subject of a variance or minor modification granted under this Code. Where a variance or minor modification has been granted that results in a development standard or feature that does not otherwise conform to the requirements of this Code, that development standard or feature shall be deemed conforming.
- (c) Determination of Nonconformity Status. In all cases, the burden of establishing the existence of a legal nonconformity shall be solely upon the owner of the nonconformity, not the Town.
- (d) Nonconformities Created Through Government Action. If a structure, use of land, use of structure, or characteristic of use does not comply with the requirements of this Code solely as a result of an acquisition of land or other action by a government agency for a public purpose, then such structure, use of land, use of structure, or characteristic of use on land not acquired by the government shall be deemed conforming. For purposes of this Section the word "land" means fee simple interest in real estate.
- (e) Change of Ownership or Tenancy. Changes of ownership, tenancy, or management of property with an existing nonconformity are permitted but such nonconformities shall continue to be subject to the provisions of this Article.
- (f) Damage or Destruction.
- (1) If a nonconformity is damaged or destroyed by any means to an extent greater than fifty percent (50%) of its floor area or its actual value at the time of damage or destruction (as determined by the Weld County Assessor), then such nonconformity shall not be re-established or restored to its original condition unless it is made to conform to the requirements of this Code.
 - (2) Where a nonconforming building is damaged less than fifty percent (50%) of its floor area or its actual value at the time of damage or destruction (as determined by the Weld County Assessor), it may be repaired or restored, provided any such repair or restoration is started within six (6) months and is completed within eighteen (18) months from the date of partial destruction.
- (g) Maintenance and Minor Repair.
- (1) Minor repairs or maintenance of nonconformities that are required to keep structures or sites in a safe condition are permitted, provided that the minor repair or maintenance does not increase the extent or degree of the nonconformity. For purposes of this Section, "maintenance or minor repair" shall mean:

- a. Repairs that are necessary to maintain and to correct any damage or deterioration to the structural soundness or interior appearance of a building or structure without expanding or altering the building or structure;
- b. Maintenance of land areas to protect against health and environmental hazards and promote the safety of surrounding land uses; and
- c. Repairs that are required to remedy unsafe conditions that cause a threat to public safety.

(h) *Improvements Triggering Upgrades in Nonconforming Characteristics.* If an application is filed for a building permit or for reconstruction, remodeling, expansion, or other improvements of a multi-family, commercial, industrial, or mixed-use structure, and (b) the value of the proposed improvements total more than twenty-five (25) percent of its replacement cost of the primary structure(s) on the property, the applicant shall be required to address the following nonconformities prior to, or as part of the improvements authorized by, such land use permit or building permit, unless the town determines that such nonconformities have no significant adverse impact on surrounding properties:

- (1) Screening of mechanical equipment;
- (2) Screening walls or fences (for parking areas or storage areas);
- (3) Driveway surfacing;
- (4) Landscaping;
- (5) Parking; and
- (6) Lighting.

Nonconforming uses of land.

- (a) *Limitations on Continuation of Nonconforming Uses of Land.* Nonconforming uses of land or structures may continue, subject to the general provisions of Section 16.18.10 and the following limitations:
 - (1) No nonconforming use of land shall be expanded, enlarged or increased. An expansion of a nonconforming use shall include, but is not limited to, any change that results in any of the following: (a) an increase in usable floor area or an increase in percentage of the use of the parcel or lot, of a non-residential use; (b) the addition of a dwelling unit to a residential use. Any nonconforming use on a lot or portion thereof may be altered to decrease its nonconformity.
 - (2) No nonconforming use of land shall be moved in whole or in part to any portion of the lot or parcel other than that occupied by such use at the effective date of adoption or amendment of the regulations that make the use nonconforming.
 - (3) Any nonconforming use may be extended throughout any parts of a building that were manifestly arranged or designed for such use at the time of adoption or amendment of the applicable regulations, but no such use shall be extended to occupy any land outside such buildings.
 - (4) No additional structure not conforming to the requirements of this Code shall be erected in connection with the nonconforming use of land or structure.
- (b) *Change of Use.* A nonconforming use permitted under this Code shall not be changed or replaced to a different nonconforming use.
- (c) *Abandonment or Cessation of Use.* If a nonconforming use ceases for any reason, except when government action impedes access to the premises, on a lot or any portion of a lot for a period of more than six (6) consecutive months, the nonconforming use shall be considered abandoned. Once abandoned, the prior legal nonconforming status of the use shall be considered terminated and re-establishment of the use shall be prohibited. Any subsequent use of the property shall comply with all applicable provisions of this Code.

Nonconforming structures.

(a) Continuation of Nonconforming Structures Generally. Nonconforming structures may continue, subject to the general provisions of Section 16.18.10 and the following limitations:

- (1) No nonconforming structure may be enlarged or altered in a way that increases its nonconformity, including but not limited to any new construction in violation of required setbacks or building height in the applicable zone district; but any structure or portion thereof may be altered to decrease its nonconformity. This Subsection shall not be construed to allow the expansion of a nonconforming use of structure.
- (2) Should a nonconforming structure be moved for any reason for any distance whatever, it shall thereafter conform to the regulations for the zoning district in which it is located after it is moved.
- (3) Structural changes to a nonconforming building that have the effect of increasing the life of the nonconforming building shall not be permitted, unless the building official determines that such change is necessary to rectify a hazardous condition or safety concern.

Nonconforming lots of record.

- (a) Unless otherwise provided in this Code, single-family residences and customary accessory buildings may be erected on any legally created single lot of record existing at the time of adoption of this Code. Such lot must have been in separate ownership and not of continuous frontage with other lots under the same ownership. This provision shall apply even though such lot fails to meet the requirements of the district in which it is located for area, width or both area and width; provided however, that the minimum setback requirements of the district shall be met unless a variance has been granted as provided herein.
- (b) If two (2) or more lots or combinations of lots and portions of lots with continuous frontage in single ownership are of record at the time of adoption of this Code, and part or all of said lots do not meet the requirements of the zone district in which they are located as to minimum area or width, or both minimum area and width, for the purpose of this Article, the lands shall be considered to be an undivided parcel, and no portion of said parcel shall be sold or used in a manner which diminishes compliance with the lot area and width requirements established in this Code.

Nonconforming signs.

(a) Termination of Legal, Nonconforming signs.

- (1) The purpose of amortization is not only to provide a reasonable grace period during which the owner is permitted to continue a legal, nonconforming sign, and to recover its economic investment, but also to assure that the district in which the nonconforming sign exists will eventually benefit from a substantial uniformity of permanent and conforming signs.
- (2) A nonconforming sign shall be removed and brought into compliance with this Code upon verification that any of the following conditions have been met:
 - a. The use to which such non-conforming sign refers has been abandoned for a continuous period of 180 days;
 - b. Such sign is damaged or destroyed, and the cost to repair, restore or replace the sign exceeds fifty percent (50%) of the cost of a new sign; or
 - c. The regulation or amendment to the Code that made the sign nonconforming has been in effect for ten years or more.

(b) Extension of Time to Comply. The time for a sign to be brought into compliance with the requirements of this Code may be extended at the request of the sign owner or lessee. In evaluating the extension of time for a nonconforming sign, the town shall consider the following factors to determine whether the owner of the sign has had a reasonable amount of time to recoup the initial investment:

- (1) The value of the sign at the time of construction and the length of time the sign has been in place;
- (2) The life expectancy of the physical structure and its salvage value, if any;
- (3) The amount of depreciation and/or amortization of the sign already claimed for tax or accounting purposes;
- (4) The length of the current tenant lease or expected occupancy compared to the date the sign is to be brought into compliance;
- (5) The extent to which the sign is not in compliance with this article;
- (6) The degree to which the town determines that the sign is consistent with this Code and its purposes; and
- (7) Whether the sign has historical or landmark significance and should, therefore, be exempt from amortization.

(c) Maintenance, Alteration, Reconstruction or Replacement of Nonconforming Signs. All legal, nonconforming signs shall be maintained in good condition, and shall not be:

- (1) Changed to another nonconforming sign
- (2) Structurally altered;
- (3) Altered so as to increase the degree of nonconformity of the sign;
- (4) Expanded;
- (5) Re-established after discontinuance for 90 consecutive days of the use to which the sign pertained;
- (6) Continued after a change of the use or activity to which the sign pertains; or
- (7) Re-established after damage or destruction if the estimated cost of reconstruction exceeds fifty percent (50%) of the cost of replacement.

Except as provided in this article, the lawful use of any buildings or land existing at the time of enactment of this Code or any amendments to this Code may be continued even though such use does not conform to the requirements of this Code. Nonconforming uses and buildings include signs, lots, uses, buildings, landscaping or activities that do not comply with the current requirements of this Code:

a. General provisions.

1. Whenever a nonconforming use or building has been discontinued for a period of one hundred eighty (180) days, such use shall not thereafter be reestablished, and any future use shall be in conformance with the provisions of this article.
2. Any building or structure for which a building permit has been issued prior to the date of enactment of this Code may be completed and used in accordance with the Plans, specifications and permits on which said building permit was granted if construction is commenced within sixty (60) days after the issuance of said permit and diligently pursued to completion.
3. No nonconforming use or building shall be altered, extended or restored so as to displace any conforming use.
4. Ordinary repairs and maintenance of a nonconforming building shall not be deemed an expansion of such nonconforming building and shall be permitted.
5. A nonconforming building that has been damaged by fire or other causes may be restored to its original condition, provided that such work is commenced within one hundred eighty (180) days of such calamity.

6. Any nonconforming building or portion thereof declared unsafe by the building inspector may be replaced, strengthened or restored to a safe condition.

DRAFT

Table x.x – Review Procedures Summary

Procedure	Eligible Applicants			Neighborhood Meeting	Pre-Application Conference	Review Body				Notification Requirements (see Sec. x.x.x)		
	Owner	PC	TC			Staff	PC	TC	BOA	Mailed Notice	Posted Sign	Publication
Annexation	☒		☒	☒	☒	R	<R>	<D>		☒	☒	☒
Comprehensive Plan Amendment	☒			☐	☒	R	<D>	<A>		☒	☒	☐
Major Subdivision – Preliminary Plat	☒			☒	☒	R	<R>	<D>		☒	☒	☒
Major Subdivision – Final Plat	☒				☒	R	<D>	C		☒	☒	☒
Minor Subdivision Plat	☒				☒	D	<A>	<A>		☐	☐	
Rezoning	☒	☒	☒	☒	☒	R	<R>	<D>		☒	☒	☒
Site Plan	☒			☐	☒	R	R	D		☐	☐	
Text Amendment		☒	☒			R	<R>	<D>				☒
Use By Special Review	☒			☒	☒	R	<D>	<A>		☒	☒	☒
Variance - Minor	☒				☒	D		A	<A>	☐	☐	☐
Variance - Major	☒				☒	R			<D>	☒	☒	☒
Alternative Compliance	☒			☐	☒	R	R	D		☐		
Appeals	☒	☒	☒					A	<D>	☒		
Easement Vacation / Dedication	☒				☐	D	A	A		☐		
ROW Vacation / Dedication	☒				☐	R	R	C		☒		☒

PC = Planning Commission

TC = Town Council

BOA = Board of Adjustments

☒ = Required☐ = At the Direction of the Town

< > = Public Hearing

R = Review and Recommending Authority

D = Decision Making Authority

C = Consent Agenda Item

A = Appeal of Decision



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Buffering/Open Space/Trails Requirements: Land Use Code	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner
ACTION REQUESTED		
Community and Economic Development and Management ask that the Planning Commission review, discuss, and forward a recommendation to the Town Council on Buffering/Open Space/Trails Requirements within the Land Use Code. Actions that may be taken: 1. Forward a recommendation of approval to the Town Council for Land Use Code changes regarding Buffering/Open Space/Trails Requirements within the Land Use Code. 2. Take No Action.		<u>Report</u> <u>Action Requested</u>
BRIEF SUMMARY		
On November 2nd, 2022, and January 4th, 2023 the Land Use Advisory Committee (LUAC) reviewed, discussed, and directed Town staff with recommendations on Buffering/Open Space/Trails Requirements within the Land Use Code. Tonight those recommendations are now before the Planning Commission. Town staff asks that the Planning Commission review, discuss, and forward a recommendation to the Town Council for Buffering/Open Space/Trails Requirements within the Land Use Code.		
PUBLIC SUPPORT/CONCERN		
Residents have requested more Buffering/Open Space/Trails Requirements be added to the Land Use Code.		
ANALYSIS AND RECOMMENDATION		
Town staff is asking for the Planning Commission to review, discuss, and forward a recommendation of approval to the Town Council for Land Use Code changes regarding Buffering/Open Space/Trails Requirements within the Land Use Code.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Buffering, Open Space, and Trails Memo 2. Buffering Code Comparison Table 3. Open Space Code Comparison Table 4. Trails Code Comparison Table		

MEMORANDUM

To: Town of Severance – Planning Commission

From: Josh Olhava, AICP, PCCP, Senior Community Planner and Project Manager
Logan Graves, AICP, Community Planner
Lily Sider, Planning Intern

Date: February 15, 2023

Re: PC Review – Buffering, Open Space, and Trails Requirements

Background

During the November 2022 and January 2023 LUAC meetings, committee members reviewed the research and recommendations to the Town's open space, buffering, and trails sections of the land use code. The project team reviewed and compared the Town's current code language and criteria against seven (7) comparison jurisdictions: Evans, Firestone, Frederick, Johnstown, Timnath, Wellington and Windsor; as well as industry best practices and the goals of the community. The following summary list includes the recommendations supported by the LUAC.

Open Space applies to parks, plazas, fields, and other plots of land that do not primarily house buildings. Stricter requirements for these areas equate to more robust public spaces and a mix of compatible uses from site to site.

- Recognize the importance of different types of open spaces in different contexts and translate this concept into specific standards for different types of spaces. Specify that ponds/lakes can count as open space, but only if active (allows at least non-motorized boats). In general, open spaces need to be maintained and usable to county towards the requirement, and landscaping requirements should be specified.
- Increase the active open space requirement and decrease the passive open space requirement. Landscaping requirements should be specified for active vs passive spaces. Detention ponds can be counted as active open space if certain performance criteria are met such as, types of grasses, minimum size, etc. Additionally, the point system should be calibrated to prevent developers from only creating detention ponds as open space.
- Develop an open space point system. The point system should be developed to favor amenities that aren't common in Severance already. Pocket parks should be discouraged.
- Open space areas that count towards the minimum criteria must be publicly accessible.

Buffering is the open space required between developments. These typically take shape in long thin strips of open land that can house paths and landscaping but primarily prevent nuisance from abutting developments and uses.

- Establish clear and high-quality buffer requirements for all residential zones where quality is prioritized above width. Provisions to include are year-round buffering, water-conscious materials, berming, and fencing.
- Require berming for commercial and residential developments.
- Require berming or dense landscape strips along roadways.

- Allow for a diversity of plant materials and trees in the suburban perimeter and rural residential zone districts.
- Prohibit vinyl fencing along roadways and specify what site features are allowed in the buffer area and what are not allowed.
- Develop a buffer table categorized into zoning districts and individual uses which would determine the level of buffer required. See example below.

Table xx.xx - Bufferyard Requirements													
	Lowest Intensity to Highest Intensity												
	RR	SP-R	TC-R	DN-R	SP-P	TC-P	DN-P	SP-C	TC-C	DN-C	TC-I	DN-I	
DN-I	4	3	3	3	3	3	3	2	2	2			
TC-I	4	3	3	3	3	3	3	2	2	2			
DN-C	4	3	3	2	2	2	2	1	1		2	2	
TC-C	4	3	2	2	2	1	1	1		1	2	2	
SP-C	3	2	2	2	1	1	1		1	1	2	2	
DN-P	3	1	1	1				1	1	2	3	3	
TC-P	3	1	1	1				1	1	2	3	3	
SP-P	2	1	1	1				1	2	2	3	3	
DN-R	1				1	1	1	2	2	2	3	3	
TC-R	1				1	1	1	2	2	3	3	3	
SP-R	1				1	1	1	2	3	3	3	3	
RR		1	1	1	2	3	3	3	4	4	4	4	

Zoning

RR = Rural Residential
 SP = Suburban Perimeter
 TC = Town Core
 DN = Development Node

Use

R = Residential
 P = Public
 C = Commercial
 I = Industrial

Type 1 – Minimal screening for developments with similar intensities. May include a row of shade trees, shrubs, or grasses for increased visual interest. Exact requirements determined by Tree Board. Minimum 10 feet wide.

Type 2 – Partly screened buffering between uses with different but compatible intensities. Should include trees and shrubs of different heights that screen year-round. Minimum 15 feet wide.

Type 3 – Fully screened buffering between incompatible uses. Berming is required, as well as complete screening utilizing different trees, shrubs, and grasses for year-round screening. Minimum 20 feet wide.

Type 4 – Fully screened buffering between Rural Residential uses when adjacent industrial and commercial uses zoned Town Core or Development Node. Berming is required, as well as complete screening utilizing a variety of trees, shrubs, and grasses for year-round screening. Buffer width is required to be greater than 20 feet.

Buffering Table and Criteria Notes:

- Uses without a number are held to the minimum residential buffering standards.
- Additional buffering materials or requirements may be required based on the unique site context within the community as determined through the review process.
- Buffering along public roadways and open space areas should be undulating and varying in width while meeting the minimum requirements of the buffer table.
- Where required, berms must be a minimum height of 3 feet.
- The Tree Board may develop and maintain approved planting lists and specifications that will be used when reviewing a project proposal.
- Definitions will be established for partially screened and fully screened buffers. Partially screened buffers provide visual interest along a property line or corridor. Structure, vehicles, and other site elements are often visible through the screening, although the buffer may mature to provide more year-round screening. Fully screened buffers are meant to provide visual barriers to site elements and are not intended to create the presence of a wall or replace a solid fence.

Trails relate directly to the connectivity of the Town and ease of access to a variety of locations. Paths and trails are ideally multi-modal to accommodate different travel types and must be widely established to yield best results.

- Clarify the developer is responsible for trail and easement maintenance unless the trail is a regional trail. All interior trails are the developer's responsibility.
- Add maintenance standards such as snow clearing, etc.
- Specify all trails must be concrete.
- Specify minimum trail widths by type. 10 feet is the minimum width requirement for most trails.
- Require bike accommodations and amenities within the code
- Require a trails plan that would designate trail locations prior to development, which ensures a fully connected and pedestrian-scale network.
- Incorporate pedestrian scale lighting on trails near amenities, structures, and/or tie ins to public sidewalks and streets.

Conclusion

The criteria tables were updated with the feedback provided by the LUAC members at the November and January meetings. Following review by the Planning Commission, the project team will prepare draft code language for review by the Town Council.

Attachments

- Buffering Criteria (4 pages)
- Open Space Criteria (8 pages)
- Trails Criteria (6 pages)

Buffering Criteria

CODE REVIEW (BUFFERING BETWEEN SITES)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Rural Residential: "Each subdivision must contain a 20-foot minimum perimeter landscape buffer with a minimum 6-foot-wide community pathway." - Suburban Perimeter, Town Core, Development Node: Buffer along right-of-way/road only.	- refer back to recommended plant lists - evergreen shields more than shade trees - diversity of plants and trees in suburban perimeter and rural residential (Move up in intensity through each zone) - Tree board reviews during development review process - compares against adopted recommended plant list - specify concrete paths			
Severance - Corridor Plan					
Evans	"Any development or redevelopment of a site which abuts a residentially zoned and/or residentially developed property shall install a landscaped bufferyard along the property line shared with the residential property" Includes Bufferyard width table for differing uses.				
Firestone					
Frederick					
Johnstown					
Timnath	Table 5.5: Buffer Yard Requirements, establishes buffer width and landscaping quality between differing uses.				
Wellington	"Buffering shall be provided between uses and by new users, with special consideration given to adjacent land uses of different intensities. Uses shall be required to ensure that the transition from one use to another is attractive, functional and minimizes conflicts between the current and planned uses."				
Windsor	See Table 15-3-30(b)(8)(C) Zone Boundary Bufferyard Standards, establishes buffer width and landscaping quality between differing uses.				

Buffering Criteria

CODE REVIEW (BUFFERING BETWEEN USES)

Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	Development Node Industrial Sub-Zoning: "For uses that do not already have specific setback requirements (such as oil and gas or solar), a boundary with a dissimilar land use is required at a minimum to incorporate a landscaped setback of 20 feet. Setback design will be dependent on-site constraints and proposed use intensity."	- refer back to recommended plant lists - evergreen shields more than shade trees - diversity of plants and trees in suburban perimeter and rural residential (Move up in intensity through each zone) - like the Bufferyards Requirements matrix, add a category 4 to capture more intensive uses adjacent to Rural Residential areas that is greater than 20 feet			- Incorporate a buffer table for abutting differing uses. Timnath and Windsor have best examples. - Buffer table should be split by both zones and uses. Potential uses include single family, multi-family, public use, commercial, industrial, etc. - Establish buffer levels with specific width and landscaping criteria. More intense uses next to less intense uses would require a higher buffer level. - Buffer levels could also include more than one width and landscaping requirement. If a buffer width is larger, less strict landscaping is required, or vice versa. This helps account for multiple contexts that may fall under the same buffer level but need to be treated differently. - Wider buffers have an opportunity to promote more active uses, which can be included in buffer level requirements.
Severance - Corridor Plan					
Evans	"In order to lessen the impact of nonresidential development upon residential areas, buffer and transitional areas shall be installed between residential and nonresidential areas. Transitional and buffer areas can take the form of wall dividers, height transitions, landscaping and other creative design opportunities or devices. Proper transition between uses shall be reviewed when applications for development occurs."				
Firestone					
Frederick	"Special consideration shall be given to adjacent land uses of different intensities. It shall be the responsibility of the developer of the more intensive use to ensure that the transition from one use to another is attractive, functional, and minimizes conflicts between the current and planned uses." "When a property is developed with multiple land uses, buffer areas must be provided between residential and non-residential zones. The minimum allowable buffer area is 15 feet."				
Johnstown	"Buffer yards shall be required to separate different uses in order to eliminate or minimize potential interference and nuisances on adjacent properties."				
Timnath	"Buffering of up to 100 feet of non-buildable area may be required between any development and adjacent natural or environmentally sensitive areas or different uses. The actual amount of any buffer area will be determined on a case by case basis and approved by Town Council" - See Table 5.5: Buffer Yard Requirements, establishes buffer width and landscaping quality between differing uses.				
Wellington	"Buffering shall be provided between uses and by new users, with special consideration given to adjacent land uses of different intensities. Uses shall be required to ensure that the transition from one use to another is attractive, functional and minimizes conflicts between the current and planned uses."				
Windsor	See Table 15-3-30(b)(8)(C) Zone Boundary Bufferyard Standards, establishes buffer width and landscaping quality between differing uses.				

Buffering Criteria

CODE REVIEW (BUFFER QUALITY)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Rural Residential: "The landscape should be complementary to the rural character of the surrounding area. The use of shade trees is encouraged along greenbelt community pathways." - Suburban Perimeter: "A meandering community pathway that is a minimum of 10 feet wide shall be located within the buffer. The use of shade trees is encouraged along greenbelt community pathways." - Town Core and Development Nodes: "Edges of commercial developments shall have high-quality landscaping. Berms, meandering walks, a mix of irrigated turf, shrub beds, ornamental trees, evergreen trees and shade trees are encouraged... Parking lots shall be buffered from view from the public right-of-way with practical landscaping. Entryways and areas visible from public streets shall have some type of landscape component. Examples could include window boxes, hanging baskets, large pots and Planting beds."	- refer back to recommended plant lists - evergreen shields more than shade trees - diversity of plants and trees in suburban perimeter and rural residential (Move up in intensity through each zone) - support staff recommendations and prefer quality over quantity when looking at other corridors and bufferyards. Maximize the use of the bufferyards and open space areas to include active features where possible			- Remove parking lot landscaping requirements from this section, as this was approved under the new parking section. - Better to have good quality 10' buffers than empty 20' buffers. Specific landscaping criteria should be included, incorporating year-round plantings, water-conscious materials, berming, and fencing. - If a table format is adopted, landscaping requirements should be included in the descriptions of the different buffer levels.
Severance - Corridor Plan Guidelines					
Evans	"Bufferyards shall include 1 tree and 5 shrubs for every 500 square feet of bufferyard area, plus groundcover over the entire bufferyard area."				
Firestone					
Frederick	"Screening and buffering shall be achieved through walls, architectural features, and landscaping; and shall be visually impervious. Recesses in the building or depressed access ramps may be used."				
Johnstown					
Timnath	See Table 5.5: Buffer Yard Requirements, establishes buffer width and landscaping quality between differing uses.				
Wellington					
Windsor	See Table 15-3-30(b)(8)(C) Zone Boundary Bufferyard Standards, establishes buffer width and landscaping quality between differing uses.				

Buffering Criteria

CODE REVIEW (BUFFER CRITERIA)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Rural Residential: "A developer-installed fence should be placed inside the property line within an easement on each lot or tract." - Suburban Perimeter: "A meandering community pathway that is a minimum of 10 feet wide shall be located within the buffer." - Town Core and Development Nodes: "Privacy fencing, if located adjacent to the public right-of-way, shall be separated from the public right-of-way by a landscaped buffer."	- Allow for a diversity of plant materials - prohibit vinyl fencing along roadways and specify what uses are allowed or not allowed within buffer areas			- Opportunity to adopt language regarding uses either required or not allowed in buffers. This could include specific materials, fencing, signs, etc. Current path language works well. - Ensure streetscape, buffering, and open space are all separate requirement sections. Frequent overlap opens up room for inconsistencies.
Severance - Corridor Plan	"In suburban residential zone districts, the area between the street and property line should include a tree lawn area next to the street that is at least 8’ wide and beyond that, a sidewalk at least 5’ wide. There may also be a buffer between the sidewalk and the right-of-way line"				
Evans	"Bufferyards shall not include any paved area, except for pedestrian sidewalks or paths, or vehicular access drives which may intersect a bufferyard at a point which is perpendicular to the bufferyard and which shall be the minimum width necessary to provide vehicular or pedestrian access, as determined by the Community Development Director. Bufferyards shall not be used for storage or display of any goods at any time. Bufferyards shall not be located on any portion of an existing or dedicated public right-of-way, unless approved by the Director of Public Works. Fences may also be required in order to screen the property, as determined by the Director of Public Works."				
Firestone					
Frederick	"Under no circumstances shall a fence be the only screening material used as a buffer between land uses."				
Johnstown					
Timnath					
Wellington	"Under no circumstances shall a fence be the only screening material used as a buffer between land uses."				
Windsor					

Open Space Criteria

CODE REVIEW (OPEN SPACE REQUIREMENTS)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Single Family: A minimum of 25% as overall open space - Multi-Family: A minimum of 25% of the gross land being subdivided as functional open space - Commercial and Industrial: A minimum of 10% of the gross land being subdivided as open space unless granted a waiver	- specify that ponds/lakes count as open space but only if active (allows at least non-motorized boats) has to remain active - open space has to be maintained and usable, maybe specify landscaping - must be publicly accessible to count towards open space minimum criteria and visible to the public (no hidden parks or open areas tucked into a neighborhood behind homes)			- Current requirements are in line with surrounding municipalities. - Include specific language regarding land dedication requirements which may apply to trail corridors, neighborhood park sites, and broader-serving open spaces.
Severance - Corridor Plan Guidelines					
Evans	- Agriculture, Commercial, Single Family Estate, Single Family: No min. requirement - Two-family, Multi-family, Residential Commercial: Minimum 45% dedicated to open space required				
Firestone	- "The amount of open space to be dedicated shall not be less than fourteen (14) acres of open space land per one thousand (1,000) ultimate residents of the development." - Required: "A minimum of 10 contiguous acres; parcel that is no less than 300 feet at the narrowest width, unless the Town approves a lesser amount for a trail.				
Frederick	- "All residential developments shall dedicate a minimum of 20% of the gross land area for public parks, trails, open space or other similar purposes at the time of subdivision." - Estate Zone: Minimum 20% - Single Family: Minimum 20% - Multi-Family: Minimum 25%, - Commercial and Industrial: Minimum 12% - PUDs: Minimum 25% - Single Family, Multi-Family, and PUD requirements: "1 centrally located pocket park for every 200 residential units. The land for 1 neighborhood park within a 1/4 mile radius of the proposed homes; or a fair-share, cash-in-lieu contribution for the neighborhood park that will serve the development."				

Open Space Criteria

CODE REVIEW (OPEN SPACE REQUIREMENTS)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Single Family: A minimum of 25% as overall open space - Multi-Family: A minimum of 25% of the gross land being subdivided as functional open space - Commercial and Industrial: A minimum of 10% of the gross land being subdivided as open space unless granted a waiver	- specify that ponds/lakes count as open space but only if active (allows at least non-motorized boats) has to remain active - open space has to be maintained and usable, maybe specify landscaping - must be publicly accessible to count towards open space minimum criteria and visible to the public (no hidden parks or open areas tucked into a neighborhood behind homes)			- Current requirements are in line with surrounding municipalities. - Include specific language regarding land dedication requirements which may apply to trail corridors, neighborhood park sites, and broader-serving open spaces.
Severance - Corridor Plan Guidelines					
Johnstown	- Single Family: Minimum livable open space per dwelling unit is 3,000 sqft - Single Family Attached: Minimum livable open space per dwelling unit is 2,000 sqft - Multi-Family: Minimum livable open space per dwelling unit is 900 sqft - Business District: No minimum despite amount of dwelling units - Neighborhood Commercial & PUDs: Minimum 20% of site area must be dedicated to open space				
Timnath	- Single Family: Minimum 20% of site; "Pocket parks of at least 0.5 acres for every 100 Dwelling Unit"; "6 acres or more for neighborhood parks for every 300 dwelling units or portion thereof which shall be constructed in the subdivision within one-quarter mile radius of the proposed homes" - Multi-Family: Minimum 25% of site, with 50% being usable; "Pocket parks of at least 0.5 acres for every 100 Dwelling Units" - Regional Commercial: Minimum 25% of site - Neighborhood Commercial: Minimum 15% of site - Downtown Commercial: Minimum 5% of site				
Wellington	- Single Family: Minimum 20% of site - Multi-Family: Minimum 25% of site - Commercial and Industrial: Minimum 12% of site - Single and Multi-Family required: One centrally located pocket park for every 200 residential units; land for 1 neighborhood park within ¼ mile radius of the proposed homes				
Windsor	- Residential Mixed Use 1 & Single Family Detached: Minimum 15% of site - Residential Mixed Use 2, Single Family Attached & Multifamily: Minimum 20% of site				

Open Space Criteria

CODE REVIEW (ACTIVE VS PASSIVE OPEN SPACE)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- Single Family and Multi-Family Residential : 10-20% passive, 5-10% active - Commercial and Industrial: No requirements	- increase active and decrease passive - require certain landscaping for active and passive spaces, don't allow just weeds to grow - use some of Frederick's language for defining active - detention ponds could be considered an active use if there are certain types of grasses, is a certain size, etc. Make sure point system prevents developers from only creating passive/sod detention ponds			- Increase active requirement to around 15-20% - Include clarifying language that states active and passive requirements apply to total open space set aside, not the total area of the subdivision. - Include clear definitions for active and passive recreation, including some examples of each. Cross-reference definitions to buffer landscaping if active or passive language is used.
Severance - Corridor Plan Guidelines					
Evans					
Firestone					
Frederick	"Features shall be included for passive and active recreation, including but not limited to, ball fields, play structures, fitness parks, educational centers, structured and unstructured opportunities for learning and recreation, etc."				
Johnstown					
Timnath					
Wellington	Pocket Park requirement: "one (1) of the following: playground equipment, contemplative garden areas or other active or passive recreation opportunities for the neighborhood."				
Windsor					

Open Space Criteria

CODE REVIEW (OPEN SPACE AMENITIES)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	Requirements under definitions: - Parks: "Buildings providing recreational amenities such as community centers, pools, and indoor sports facilities. Formal outdoor parks spaces providing usable amenities such as playgrounds, great lawns or other uses defined by Staff." - Plazas: "Plazas may range from having very active places with adjacent complementary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art. Developers are responsible for developing and providing the appropriate amenities for each plaza." - Squares: "Like plazas, squares may range from having very active places with adjacent complementary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art."	- pocket parks are discouraged - point system, look at MF criteria. Make point system favor amenities that are not common already			- Incorporate point system similar to requirements in Multi-family design section. Better amenities equal more points, and amount of points required depends on number of units in subdivision. Evans provides a good example of this system. - Types of amenities must also be practical for the use they are in, especially in highest and lowest density areas (i.e. no large open fields in a dense commercial area, no commercial plazas in a rural residential subdivision.) - Point system preference to amenities that are not common within the same neighborhood or a certain distance
Severance - Corridor Plan Guidelines					
Evans	"Identity features may include, but are not limited to, a school (as approved by the appropriate school district), pocket park, trail system, pedestrian plaza or courtyard, community building, community garden, artwork such as a sculpture, water feature or fountain, picnic/barbeque area, or playground." Features that count towards subdivision requirements: - "A water feature, fountain or artwork such as a sculpture, shall each count as ½ identity feature. Playgrounds with commercial-grade equipment, picnic/barbeque areas with commercial-grade equipment, or court games (tennis, volleyball or basketball) at least 1,000 square feet in area shall each count as 1 identity feature. Such features shall be reviewed and approved by the Parks and Recreation Director. Plazas, courtyards or community gardens with irrigation systems and collars to define garden edges, which cover at least 1,000 square feet in area, shall each count as 1 identity feature. A community building at least 2,000 square feet in area shall count as 2 identity features. An in-the-ground swimming pool site or splash park site at least 2,000 square feet in area shall count as 2 identity features."				
Firestone	- "Pocket parks shall be located within ¼ mile of the residences they are intended to serve and may include lawn areas, picnic shelters and tables, play equipment, artwork or other amenities that are appropriate for the demographics and types of activities that the neighborhood may desire." - "Neighborhood parks may include multi-use lawn areas, picnic areas, playground equipment, small court games, community gardens and playing fields and facilities as appropriate."				

Open Space Criteria

CODE REVIEW (OPEN SPACE AMENITIES)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	Requirements under definitions: - Parks: "Buildings providing recreational amenities such as community centers, pools, and indoor sports facilities. Formal outdoor parks spaces providing usable amenities such as playgrounds, great lawns or other uses defined by Staff." - Plazas: "Plazas may range from having very active places with adjacent complementary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art. Developers are responsible for developing and providing the appropriate amenities for each plaza." - Squares: "Like plazas, squares may range from having very active places with adjacent complementary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art."	- pocket parks are discouraged - point system, look at MF criteria. Make point system favor amenities that are not common already			- Incorporate point system similar to requirements in Multi-family design section. Better amenities equal more points, and amount of points required depends on number of units in subdivision. Evans provides a good example of this system. - Types of amenities must also be practical for the use they are in, especially in highest and lowest density areas (i.e. no large open fields in a dense commercial area, no commercial plazas in a rural residential subdivision.) - Point system preference to amenities that are not common within the same neighborhood or a certain distance
Severance - Corridor Plan Guidelines					
Frederick					
Johnstown	"Usability of required open space. To be considered usable, livability open space shall be readily accessible and of a size and shape which can be reasonably considered to provide for amenities and the necessities of light, air, play space, yard area, garden, etc., but shall not include parking area and drives."				
Timnath	"Natural habitat areas must include amenities for passive recreation such as trails or piers to be determined usable." - "Plazas may range from very active places with adjacent complimentary uses such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art. Developers are responsible for developing and providing the appropriate amenities for each plaza and for their maintenance." - "A pocket park shall be at least one-half acre and include playground equipment and irrigated landscaping and be maintained by a homeowners association or district" - "A neighborhood park shall be at least five acres and include active play areas and irrigated landscaping" - "A community park shall be at least 20 acres and include an active play area, ballfields, and irrigated landscaping." Harmony Corridor Amenities: "Standard Amenities– seating boulders, level and set at least 18” high, 18” seating wall or seat furnishings such as benches. Large Amenities - Play equipment, shade structures / sails, planting beds or other items that enhance the user experience of the plaza space"				

Open Space Criteria

CODE REVIEW (OPEN SPACE AMENITIES)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	Requirements under definitions: - Parks: "Buildings providing recreational amenities such as community centers, pools, and indoor sports facilities. Formal outdoor parks spaces providing usable amenities such as playgrounds, great lawns or other uses defined by Staff." - Plazas: "Plazas may range from having very active places with adjacent complementary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art. Developers are responsible for developing and providing the appropriate amenities for each plaza." - Squares: "Like plazas, squares may range from having very active places with adjacent complementary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities such as fountains or public art."	- pocket parks are discouraged - point system, look at MF criteria. Make point system favor amenities that are not common already			- Incorporate point system similar to requirements in Multi-family design section. Better amenities equal more points, and amount of points required depends on number of units in subdivision. Evans provides a good example of this system. - Types of amenities must also be practical for the use they are in, especially in highest and lowest density areas (i.e. no large open fields in a dense commercial area, no commercial plazas in a rural residential subdivision.) - Point system preference to amenities that are not common within the same neighborhood or a certain distance
Severance - Corridor Plan Guidelines					
Wellington	"may include pocket parks, plazas, trails, recreational amenities, homeowner association owned landscaped areas (excluding parking lots), natural areas and amenities for residents or other civic purposes" - "Plazas may range from very active places with adjacent complimentary uses, such as restaurants and cafes, to quiet areas with only seating, formal landscape plantings and amenities, such as fountains or public art. Developers are responsible for developing and providing the appropriate amenities for each plaza." - "At a minimum, a pocket park shall include sodded areas or other live grass ground cover approved by the Board of Trustees, trees and irrigation plus 1 of the following: playground equipment, contemplative garden areas or other active or passive recreation opportunities for the neighborhood." - Neighborhood Parks "can include multiple-use lawn areas, picnic areas, playground equipment, court game facilities and community gardens."				
Windsor	- "Pocket parks shall generally include some combination of lawn area, natural or planted areas, and structured play areas (athletic courts, playgrounds, etc.) and shall include seating areas." - "Greenbelts may include amenities such as seating and shade structures." - "Recreation Amenities. Land occupied by active recreational uses such as pools, playgrounds, tennis courts, trails, and clubhouses used primarily for recreational purposes and open to all subdivision residents"				

Open Space Criteria

CODE REVIEW (OPEN SPACE WITHIN DEVELOPMENT)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	Rural Residential: - "To the greatest extent practicable, land should be designated as a single block with logical boundaries, avoiding thin strips of conservation land unless necessary to protect or connect other significant areas and should connect with existing or potential adjoining conservation areas" Single-Family and Multi-Family requirements: - "A minimum of 1 centrally located park. Location and extent of park will be determined through platting process and approved by the Town Council on a case-by-case basis. The land for 1 community park or a fair-share, cash-in-lieu contribution for the park that will serve the development. An internal trail system and trails designated on the Town's Parks and Trails Map."	- have to do cash-in-lieu and 1 park - cash-in-lieu at the current market value - Use Frederick language			- Implement a wide range of open space types to support distinct contexts. Create design standards for specific types of open spaces dependent on the context, function or character of distinct areas (i.e. avoid treating all open space the same or measuring it simply based on the amount of space). This could be accomplished though a table. - cash-in-lieu based on market rate per acre; also consider minimum costs to provide water
Severance - Corridor Plan Guidelines	Mixed-Use Development: "Open spaces should be planned to encourage pedestrian activities. They should be linked to key activity centers and pedestrian routes. Uses and building designs surrounding open spaces should help energize them."				
Evans	Each neighborhood development plan must include: - "General park and open space network that complies with these design standards, the Evans' subdivision regulations, as amended, and the parks, recreation and trails master plan." - "Neighborhood identity features shall be provided within all eligible single-family, two-family, multifamily and mixed use residential developments as shown in the Neighborhood Identity Feature Table below. Identity features may include, but are not limited to, a school (as approved by the appropriate school district), pocket park, trail system, pedestrian plaza or courtyard, community building, community garden, artwork such as a sculpture, water feature or fountain, picnic/barbeque area, or playground. Fencing, signage and/or other aspects of a required perimeter treatment shall not be counted as an identity feature.				
Firestone					
Frederick	"Lands for parks and open space are dedicated at time of subdivision, or re-subdivision as applicable, and installed as part of the development infrastructure."				
Johnstown	- "No building used in whole or in part for residential purposes shall be hereafter erected, structurally altered or relocated on a lot as to reduce the usable livability open space of such lot to less than that hereinafter specified by the regulations of the district in which such building is located." - "To be considered usable, livability open space shall be readily accessible and of a size and shape which can be reasonably considered to provide for amenities and the necessities of light, air, play space, yard area, garden, etc., but shall not include parking area and drives."				

Open Space Criteria

CODE REVIEW (OPEN SPACE WITHIN DEVELOPMENT)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	Rural Residential: - "To the greatest extent practicable, land should be designated as a single block with logical boundaries, avoiding thin strips of conservation land unless necessary to protect or connect other significant areas and should connect with existing or potential adjoining conservation areas" Single-Family and Multi-Family requirements: - "A minimum of 1 centrally located park. Location and extent of park will be determined through platting process and approved by the Town Council on a case-by-case basis. The land for 1 community park or a fair-share, cash-in-lieu contribution for the park that will serve the development. An internal trail system and trails designated on the Town's Parks and Trails Map."	- have to do cash-in-lieu and 1 park - cash-in-lieu at the current market value - Use Frederick language			- Implement a wide range of open space types to support distinct contexts. Create design standards for specific types of open spaces dependent on the context, function or character of distinct areas (i.e. avoid treating all open space the same or measuring it simply based on the amount of space). This could be accomplished though a table. - cash-in-lieu based on market rate per acre; also consider minimum costs to provide water
Severance - Corridor Plan Guidelines	Mixed-Use Development: "Open spaces should be planned to encourage pedestrian activities. They should be linked to key activity centers and pedestrian routes. Uses and building designs surrounding open spaces should help energize them."				
Timnath	- "Open space should serve as the neighborhood focus. Open space, such as the Town drainage ways and developed parks and plazas, shall be used to organize and focus lot, block and circulation patterns and to enhance surrounding development. Street, block, lot and building patterns shall respond to the views, landscape and recreational opportunities provided by the open space" - "Pocket parks and plazas shall be integrated into the neighborhood design and be accessible to pedestrians and bicyclists."				
Wellington	"Pocket parks and plazas shall be integrated into the neighborhood design and be accessible to pedestrians and bicyclists."				
Windsor	- "In order to provide recreational facilities at the neighborhood scale, pocket parks are required for residential subdivisions that are master planned to have 100 or more units and multifamily development with 100 or more units" "Pocket parks are not required when at least 75 of the dwelling units in a proposed development are within a one-third mile radius of an existing or planned public park or pocket park open to residents." - "Pocket Parks shall be centrally located within the development with pedestrian access to the lots and dwellings they are intended to serve. Large developments shall provide multiple Pocket Parks, generally spaced so that all units are within approximately 1/3 mile of a park." - "To the maximum extent practicable, open space in each subdivision shall be open and accessible to, and visible to, all residents of the development, and if possible, to other residents of the Town using public streets, trails, and open spaces."				

Trails Criteria

CODE REVIEW (TRAIL SIZE)

Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- "The developer shall dedicate a public right-of-way for trails, with the eight (8)-foot trail maintained by the Town and the remainder maintained by an owners' association." - "the Town shall hold trail easements, generally twenty (20) feet wide" - Rural Residential, Suburban Perimeter: "Each subdivision must contain a 20-foot minimum perimeter landscape buffer with a minimum 6-foot-wide community pathway. Where a subdivision either borders or includes portions of the Great Western Trail the developer will be required to pave the trail with a minimum 10-foot concrete cross section for the entirety of the trail within or adjacent to the property. Sidewalks adjacent to all school sites and parks require a minimum width of 5 feet or wider." - Town Core: "Where a subdivision either borders or includes portions of the Great Western Trail the developer will be required to pave the trail with a minimum 10 foot concrete cross section for the entirety of the trail within or adjacent to the property."	- developer is responsible for maintenance unless it is a regional trail, then the City takes care of it. Interior trails are their responsibility - maintenance standards could be added (snow clearing) - internal path needs to be 6-8 foot - semi regional look at 8-10 - great western trail should be 10-12 - "and adhere to Town of Severance construction and maintenance standards"			- clarify who is responsible for trail and easement maintenance in subdivisions, privately owned would fall to HOA or Metro District and result in additional homeowner expense - evaluate what happens if HOA dissolves and if the Town has to take over ownership - regional trails should be in-line with what adjacent sections are (size, material, general design features)
Severance - Corridor Plan					
Evans	"Trails shall be designed and constructed using 1 of the following designs appropriate for the location as determined by the Public Works Director and Parks and Recreation Director or designee: Ten-foot-wide concrete, concrete paver or brick, multi-modal trail; Ten-foot-wide crusher fines trail with collared edges intended for the preservation of wetland and natural riparian areas."				
Firestone	"Trail corridors outside of open space areas shall have a minimum corridor width of thirty (30) feet."				
Frederick	"Trails shall be a minimum of 8 feet in width and shall be of concrete construction. A trail may be flanked on 1 side by a soft surface path a minimum of 4 feet in width. The soft surface path shall be constructed with a minimum depth of 8 inches of compressed gravel, crowned, and compacted with edging to contain trail material."				
Johnstown					

Trails Criteria

CODE REVIEW (TRAIL SIZE)

Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	- "The developer shall dedicate a public right-of-way for trails, with the eight (8)-foot trail maintained by the Town and the remainder maintained by an owners' association." - "the Town shall hold trail easements, generally twenty (20) feet wide" - Rural Residential, Suburban Perimeter: "Each subdivision must contain a 20-foot minimum perimeter landscape buffer with a minimum 6-foot-wide community pathway. Where a subdivision either borders or includes portions of the Great Western Trail the developer will be required to pave the trail with a minimum 10-foot concrete cross section for the entirety of the trail within or adjacent to the property. Sidewalks adjacent to all school sites and parks require a minimum width of 5 feet or wider." - Town Core: "Where a subdivision either borders or includes portions of the Great Western Trail the developer will be required to pave the trail with a minimum 10 foot concrete cross section for the entirety of the trail within or adjacent to the property."	- developer is responsible for maintenance unless it is a regional trail, then the City takes care of it. Interior trails are their responsibility - maintenance standards could be added (snow clearing) - internal path needs to be 6-8 foot - semi reigonal look at 8-10 - great western trail should be 10-12 - "and adhere to Town of Severance construction and maintenance standards"			- clarify who is responsible for trail and easement maintenance in subdivisions, privately owned would fall to HOA or Metro District and result in additional homeowner expense - evaluate what happens if HOA dissolves and if the Town has to take over ownership - regional trails should be in-line with what adjacent sections are (size, material, general design features)
Severance - Corridor Plan					
Timnath	- "Neighborhood trails shall be a minimum of 8 feet in width and Regional/Community trails shall be a minimum of 10 feet in width. A trail may be flanked on one side, or both, by a soft surface path a minimum of 2 feet in width." - Connections from Development to Exterior Circulation: - "Each development is responsible for continuing the Harmony Roadside Trail fronting Harmony Road and within the Harmony setback and Right of Way. This trail will be a meandering trail at a minimum of 10' wide" - "Pedestrian connections, from the Harmony Roadside Trail, shall be at least 8' wide" - Multi-modal spine: "Distinct bike and pedestrian path that is 10' minimum in width in a 20' corridor"				
Wellington	- "Trails shall be a minimum of eight (8) feet in width" - "trails shall be flanked on 1 side by a soft surface path a minimum of 4 feet in width. The soft surface path shall be constructed with a minimum depth of 8 inches of compressed gravel."				
Windsor	- "10' generally. Additional width may be required when immediately adjacent to a retaining wall, hand rail, or roadway." - "Neighborhood Trails shall be 10 feet in width paved with six-inch thick concrete. Trails surfaced with crusher fines and less than 10 feet in width may supplement paved trails but shall not be used in-lieu of paved trails. Trails shall use a 25-foot minimum radius when feasible."				

Trails Criteria

CODE REVIEW (MULTI-MODAL REQUIREMENTS)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance		- like Evans language, Do not include sidewalks that are required - requirie concrete - include bike infrastructure in paths - use some Frederick language -internal and regional have different amenities			- Consider including language from Corridor plan in the code, requiring accommodations for bikes and multi-use trails - Where sidewalks meet designated trails, widen into multi-use path - Consider maximum block sizes and how it relates to connectivity of all modes of transportation
Severance - Corridor Plan	"Continue to connect sidewalks, bicycle paths, and regional trails from new and, in some cases, existing development to the GreatWestern Trail" "there should be a grid comprised of a combination of trails, bike lanes, and shared lanes that occur on at least a quarter-mile spacing, that converges on the Great Western Trail and Greenway spline."				
Evans	- "Multi-modal trail means a trail intended for use by different types or modes of transportation, such as pedestrians, bicyclists and/or equestrians." - A system of trails, other than required public sidewalks, throughout the entire development shall count as 1 identity feature. Trails should be designed to provide interesting and distinct areas for walking, bicycling and/or horseback riding in areas separate from and in addition to traditional sidewalks. Trails shall be designed and constructed using 1 of the following designs appropriate for the location as determined by the Public Works Director and Parks and Recreation Director or designee: Ten-foot-wide concrete, concrete paver or brick, multi-modal trail; or Ten-foot-wide crusher fines trail with collared edges intended for the preservation of wetland and natural riparian areas.				
Firestone	"Within all developments, to the maximum extent reasonably practicable, pedestrian ways, crosswalks, or multi-purpose trails no less than 5 feet in width, located within a tract or easement a minimum of 35 feet in width, shall be constructed near the center and entirely through any block that is 800 feet or more in length."				
Frederick	"Multi-use pathways shall be provided to link internal open space areas with peripheral open space areas and shall connect to multi-use pathway routes throughout the community. Multi-use pathway routes shall be designated between residential areas and commercial and employment centers and schools. (1) Multi-use pathways on local streets may be delineated by painted "bicycle only" lanes. (2) Sidewalks that may be used as a multi-use pathway are required on arterial and collector streets. All other multi-use pathways shall be a minimum of 8 feet wide and shall be of concrete construction or, where approved by the Board of Trustees, compressed gravel. Asphalt paving is prohibited. (3) Bicycle parking shall be provided at the entry to internal and peripheral open space areas.				

Trails Criteria

CODE REVIEW (MULTI-MODAL REQUIREMENTS)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance		- like Evans language, Do not include sidewalks that are required - requirie concrete - include bike infrastructure in paths - use some Frederick language -internal and regional have different amenities			- Consider including language from Corridor plan in the code, requiring accommodations for bikes and multi-use trails - Where sidewalks meet designated trails, widen into multi-use path - Consider maximum block sizes and how it relates to connectivity of all modes of transportation
Severance - Corridor Plan	"Continue to connect sidewalks, bicycle paths, and regional trails from new and, in some cases, existing development to the GreatWestern Trail" "there should be a grid comprised of a combination of trails, bike lanes, and shared lanes that occur on at least a quarter-mile spacing, that converges on the Great Western Trail and Greenway spline."				
Johnstown					
Timnath	"D. Bike Connections: There shall be a clear connection for bike access between existing public bike lanes and bike parking areas in each development. E. Multi Modal Spine: 1 per development. Distinct bike and pedestrian path that is 10' minimum in width in a 20' corridor. Parking overhang and door swing areas prohibited" - "Bike traffic patterns must be clearly identified and have direct routes to public Right of Ways. Bike parking areas must be located within 60' of the front entry and centrally located so that there is a clear pedestrian path to front entry from parking areas. Bike parking areas must have a clear and direct access to the public Right of Way or the Harmony Roadside Trail." - "Multipurpose trails must be provided within the subdivision where identified on the Parks, Recreation, Open Space and Trails Master Plan (PROST Plan). Trails must be taken to the edge of the property up to the property line for future connection" - "Multi-use pathways shall be provided to link internal open space areas with peripheral open space areas and shall connect to multi-use pathway routes throughout the community. Multi-use pathway routes shall be designated between residential areas and commercial and employment centers and schools. Multi-use pathways on local streets may be delineated by painted "bicycle only" lanes. Sidewalks that may be used as a multi-use pathway are required on arterial and collector streets. All other multi-use pathways shall be a minimum of 8 feet wide and shall be of concrete construction or where approved by the Town, compressed gravel (crusher fines)."				
Wellington					
Windsor					

Trails Criteria

CODE REVIEW (TRAIL REQUIREMENTS)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	"Developers must provide trails in the vicinity of all areas designated "Parks and Trails" on the Town's Parks and Trails Map, as well as connections to the Town's trail system and destinations within the neighborhood. The developer shall dedicate a public right-of-way for trails, with the 8-foot trail maintained by the Town and the remainder maintained by an owners' association. All trail connections, where feasible, will connect to the Severance Greenway. Any project adjacent to the Great Western Trail/Severance Greenway will be required to pave their adjoining portion to the standard of the trail at that time. Trails are not included in the land dedication requirements."	- Frederick language delineating different trail uses - support staff recommendation on lighting			- Need for a Trails Master Plan to reach connectivity level that the town is looking for. - Consider trail lighting requirements near buildings, amenities, or roadways (could be integrated with the building or street lights as well)
Severance - Corridor Plan Guidelines	- GW Trail: Incorporate trail designs that mimic the natural, historic, and cultural environment along the trail; well-maintained primary trail within the rail ROW; safe, well maintained, and easy access within the Great Western Trail ROW for a range of users of all ages and abilities; opportunities for disabled access at all access points; emergency access points for visitor safety; wild-land fire management; accommodate motorized use where appropriate to provide maintenance and emergency access; consider visitor facilities at major points of access and other designated points along the trail.				
Evans					
Firestone	"All open space and trails should be located, designed, and maintained to minimize environmental impacts."				
Frederick	- "Multi-use pathways on local streets may be delineated by painted "bicycle only" lanes. Sidewalks that may be used as a multi-use pathway are required on arterial and collector streets. All other multi-use pathways shall be a minimum of 8 feet wide and shall be of concrete construction or, where approved by the Board of Trustees, compressed gravel. Asphalt paving is prohibited. Bicycle parking shall be provided at the entry to internal and peripheral open space areas." - "Pedestrian trail lighting. Pedestrian lighting is required for all pedestrian trails and trail connections that are not adjacent to and illuminated by roadway lighting." - "Trails are permitted in all zones. The trail system shall link neighborhoods, parks, schools, open spaces, employment centers, community facilities and neighboring communities and thus provide important transportation connections, as well as recreational opportunities and access."				
Johnstown					

Trails Criteria

CODE REVIEW (TRAIL REQUIREMENTS)					
Communities	Code Language	LUAC	Planning Commission	Town Council	Staff Analysis
Severance	"Developers must provide trails in the vicinity of all areas designated "Parks and Trails" on the Town's Parks and Trails Map, as well as connections to the Town's trail system and destinations within the neighborhood. The developer shall dedicate a public right-of-way for trails, with the 8-foot trail maintained by the Town and the remainder maintained by an owners' association. All trail connections, where feasible, will connect to the Severance Greenway. Any project adjacent to the Great Western Trail/Severance Greenway will be required to pave their adjoining portion to the standard of the trail at that time. Trails are not included in the land dedication requirements."	- Frederick language delineating different trail uses - support staff recommendation on lighting			- Need for a Trails Master Plan to reach connectivity level that the town is looking for. - Consider trail lighting requirements near buildings, amenities, or roadways (could be integrated with the building or street lights as well)
Severance - Corridor Plan Guidelines	- GW Trail: Incorporate trail designs that mimic the natural, historic, and cultural environment along the trail; well-maintained primary trail within the rail ROW; safe, well maintained, and easy access within the Great Western Trail ROW for a range of users of all ages and abilities; opportunities for disabled access at all access points; emergency access points for visitor safety; wild-land fire management; accommodate motorized use where appropriate to provide maintenance and emergency access; consider visitor facilities at major points of access and other designated points along the trail.				
Timnath	"A trail system shall link neighborhoods, parks, schools, open spaces, employment centers, community facilities and neighboring communities. Developers must provide trails in all areas designated on the Town Parks, Recreation, Open Space and Trails Plan Map as well as connections to any portion of the Town's trail system and other destinations within neighborhoods."				
Wellington	"The trail system shall link neighborhoods, parks, schools, open spaces, employment centers, community facilities and neighboring communities and thus provide important transportation connections as well as recreational opportunities and access. Developers must provide trails in all areas designated "Parks and Trails" on the Comprehensive Public Facilities Map or the Park Plan, as well as connections to the Town's trail system and destinations within the neighborhood."				
Windsor	"Neighborhood Trials shall be open to all members of the public. Restrictions on types of uses are allowed (e.g. prohibition of motorized uses). Trails shall be located off-street and within a Greenbelt. When physical constraints make the use of a Greenbelt impractical, the decision maker may approve trails outside of a Greenbelt. In such cases, trails may be located adjacent to but detached from a street." -- See Table 17-1-20: Trail Design Standards Table for specific construction information.				



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Variance Request: BHS Solar UAR & Site Plan	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner
ACTION REQUESTED		
Community and Economic Development and Town Management ask that the Severance Planning Commission review, discuss, and forward a recommendation to the Town Council on the Variance Request for the BHS Solar Use by Additional Review (UAR) and Site Plan. Actions that may be taken: 1. Forward a recommendation of approval to the Town Council for the Variance Request for the BHS Solar UAR and Site Plan. 2. Take No Action.		<u>Action Requested</u>
BRIEF SUMMARY		
This proposed Variance Application seeks to request a variance from certain Code requirements for the BHS Solar UAR and Site Plan Project. Section 16.11.160 of the Severance Municipal Code sets forth the regulations governing the development of solar facilities. The applicant is requesting two variances with this application. The variances requested are from the code sections listed below: 1. Section 16.11.160 (d)(3) - Maximum Height 2. Section 16.11.160 (f)(3) - Setbacks Please see the packet materials for additional information, including Variance Application and Tables.		
PUBLIC SUPPORT/CONCERN		
None at this time.		
ANALYSIS AND RECOMMENDATION		
Town staff is asking for the Planning Commission to review, discuss, and forward a recommendation to the Town Council on the proposed Variance Request for the BHS Solar Use by Additional Review (UAR) and Site Plan.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Variance Application & Tables (Applicant Submitted) 2. Supplemental Variance Information (Height) 3. Supplemental Variance Information (Setbacks)		

December 22, 2022

Town of Severance
3 South Timber Ridge Parkway
Severance, CO 80550

Attention: Abdul Barzak, Town Planner
Cc: Nick Wharton, Town Administrator

Dear Mr. Barzak,

We, BHS Solar, LLC (BHS Solar), a wholly owned indirect subsidiary of Hanwha Energy USA Holding Corporation, d.b.a. 174 Power Global, appreciate partnering with the Town of Severance (Town) in developing a large scale solar facility referred to as the BHS Solar Project (Project). The Project real property was unanimously annexed into the Town's municipal boundary on November 2, 2021 and November 8, 2022 and zoned as Rural Residential Agricultural. The proposed zoning district and the Project conforms with the Severance Comprehensive Plan adopted January 2021, as demonstrated in *Section 2.3 Project Description and Consistency with the Comprehensive Plan* of the 2022 BHS Site Plan Application.

Section 16.11.160 of the Severance Municipal Code Chapter 16, Land Use Code (Code) sets forth the regulations governing the development of solar facilities. Rural Residential – Agricultural Zoning District allows for the development of solar facilities through the site plan process under Section 16.11.160 of the Code. This 2022 Variance Application seeks to request variance from certain Code requirements for the Project. The variances, if granted by the Town Council, fulfill the intent of the Code and will not change the character of the zoning district. Further, the variances, if granted, will not adversely affect the proposed development or use of adjacent property or the neighborhood, nor the health, safety or welfare of the citizens of the Town. Our request is for the minimum variance that will afford relief with the least modification possible to the requirements of the Code. Please see the below Variance Request Table, which includes the relevant Code provisions and the rationale for the variance request.

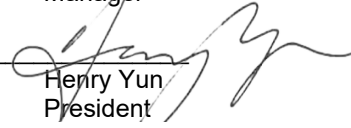
The concurrent Site Plan application includes the real property subject to the 2021 BHS Solar Annexation and 2022 BHS Solar Annexation. In ongoing siting efforts and consultation with the Town, Weld County, Colorado Parks and Wildlife, Platte River Power Authority, the U.S. Fish and Wildlife Service, and various landowners and neighbors, the Project team has identified the optimal locations for the Project's photovoltaic solar panels, access points, substation, and battery energy storage system, as well as Platte River Power Authority's switchyard and transmission interconnection. The optimal design and variances address the Town's questions raised through pre-application meetings, ongoing public meetings and neighbor outreach.

BHS Solar respectfully requests your consideration and approval of these variance requests. Please advise us as soon as possible whether the Variance Application is complete or if more information will be required. We look forward to continuing our work with the Town's leadership, stakeholders, and neighbors and the greater Severance community to bring this important Project to fruition.

Respectfully,

BHS Solar, LLC

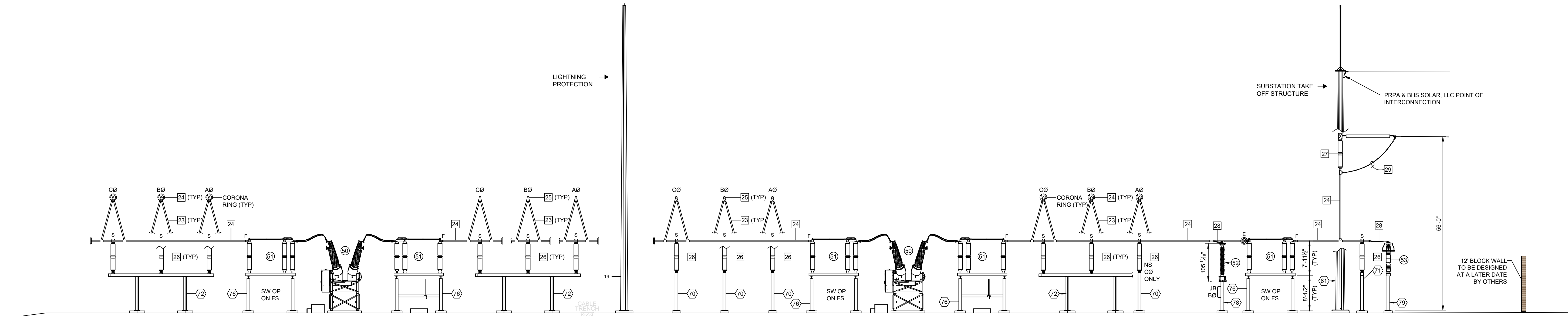
By: Hanwha Energy USA Holdings Corporation
Its: Manager

By: 
Its: Henry Yun
President

2022 BHS Solar Site Plan Variance Application

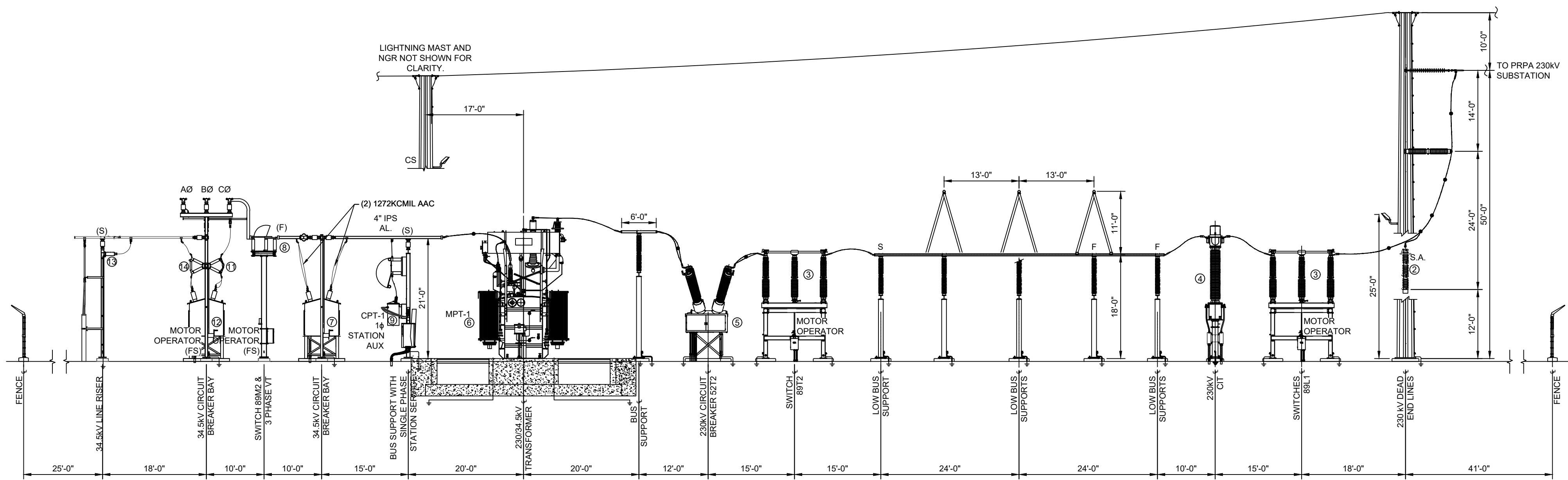
Table 1. Variance Request Table

Code Section	Code Requirement	Requested Variance and Justification									
Sec. 16.11.160. - Solar facility. (d) Requirements (3) Maximum height	(3) Maximum height: The height shall be measured from the highest grade below each solar panel. Ground-mounted solar energy systems shall not exceed twenty (20) feet in height.	Sec. 16.11.160 defines the following terms applicable to this requirement: <i>Solar energy facility</i>: Any device or structural design feature with the primary purpose of providing for the collection, storage or distribution of solar energy for space heating, space cooling, electricity generation or water heating. <i>Ground-mounted solar energy facility</i>: A solar energy system that is structurally mounted to the ground and is not roof-mounted. Ground-mounted systems include parking lot or parking canopy solar. The intent of the Code focuses on the height of a ground-mounted solar panel. BHS Solar commits that solar panels and other typical panel facilities (inverters, cabling, etc) will not exceed twenty (20) feet in height. The Site Plan Application includes "Interconnection Facilities": a BHS Solar substation, the Platte River Power Authority (PRPA) switchyard and approximately 0.5 miles of PRPA's high voltage transmission line. These <i>Interconnection Facilities</i> are not contemplated in the Code. Certain Interconnection Facilities will exceed 20'. These are shown on the Site Plan. BHS Solar commits that Interconnection Facilities will not exceed 130 feet in height.									
Sec. 16.11.160. - Solar facility. (f) Setbacks (3) Large Scale	(f) Setbacks. Additional setbacks may be required to mitigate noise and visual impacts or to provide for designated road or utility corridors, as identified through the review process. As provided in 16.11.160(d)(2), setbacks shall be measured from the edge of the solar panels and equipment. Where appropriate landscaped berms may be used to reduced setback requirements with Board approval. (3) Large Scale - Front: fifty (50) feet. - Side: ten (10) feet or one (1) foot per two (2) feet height, whichever is greater. - Side corner: fifty (50) feet. - Rear: twenty (20) feet. - Arterial or state highway - 100 feet - Local or collector: fifty (50) feet	The Project meets the setback requirements for large scale solar facilities under Code Section 16.11.160(f)(3), except across certain lot lines (a) of lots that are owned by the same landowner and (b) do not have public roads or public road rights-of-way (reservations), as noted below in the table. The setback between and among the following lots would be 0 feet where the property owner: <table border="1"> <thead> <tr> <th>Property Owner</th><th>Weld County Assessor Parcel Numbers (APN #)</th><th>Lot Lines in T8N R67W 6th Meridian Weld County, Colorado that will not have any setback</th></tr> </thead> <tbody> <tr> <td>SPABS LLC</td><td>APN #055527000017 (Section 27), APN #055526000002 (NW4 Section 26)</td><td>Section line between NE4 Section 27 and NW4 Section 26</td></tr> <tr> <td>BERRADO HOLDINGS LLC</td><td>APN #055535000001 (NW4 Section 35), APN #055535000014 (NE4 Section 35), APN#055535000002 (S2 Section 35)</td><td>Parcel lines among these three parcels that comprise Section 35.</td></tr> </tbody> </table>	Property Owner	Weld County Assessor Parcel Numbers (APN #)	Lot Lines in T8N R67W 6 th Meridian Weld County, Colorado that will not have any setback	SPABS LLC	APN #055527000017 (Section 27), APN #055526000002 (NW4 Section 26)	Section line between NE4 Section 27 and NW4 Section 26	BERRADO HOLDINGS LLC	APN #055535000001 (NW4 Section 35), APN #055535000014 (NE4 Section 35), APN#055535000002 (S2 Section 35)	Parcel lines among these three parcels that comprise Section 35.
Property Owner	Weld County Assessor Parcel Numbers (APN #)	Lot Lines in T8N R67W 6 th Meridian Weld County, Colorado that will not have any setback									
SPABS LLC	APN #055527000017 (Section 27), APN #055526000002 (NW4 Section 26)	Section line between NE4 Section 27 and NW4 Section 26									
BERRADO HOLDINGS LLC	APN #055535000001 (NW4 Section 35), APN #055535000014 (NE4 Section 35), APN#055535000002 (S2 Section 35)	Parcel lines among these three parcels that comprise Section 35.									



SAMPLE SECTION
PRPA 230 KV SWITCHYARD SAMPLE STRUCTURES EQUIPMENT ELEVATIONS
NOT TO SCALE

13



LEGEND:
(EX) EXPANSION
(S) SLIP
(F) FIXED
FS FAR SIDE
CS CLOSE SIDE

REFERENCE DRAWING:
SK-GA GENERAL ARRANGEMENT
SK-ML MAJOR EQUIPMENT LIST - AIS

NOTES:

- ALL WORK DONE BY CONTRACTOR/INSTALLER PURSUANT TO THIS DRAWING SHALL: (A) CONFORM TO THE GOVERNING CONTRACT DOCUMENTS; (B) BE PERFORMED EXCLUSIVELY BY TRAINED, COMPETENT PERSONNEL OR, WHERE PERMITTED, THAT OF ITS SUBCONTRACTOR(S); AND (C) COMPLY WITH ALL APPLICABLE SAFETY LAWS, REGULATIONS, PROGRAMS AND PRACTICES TO ENSURE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING THE CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUBCONTRACTOR(S)) PERFORMING THE WORK.
- UNDERGROUND OR EMBEDDED UTILITIES (MAY) EXIST WITHIN THE AREA OF AND ADJACENT TO THE LIMITS OF THE WORK. THE LOCATION OR IDENTIFICATION OF SUCH UTILITIES HAS NOT BEEN VERIFIED BY OWNER OR BY WESTWOOD. CONTRACTOR/INSTALLER IS RESPONSIBLE FOR FIELD LOCATING AND IDENTIFICATION UNDERGROUND OR EMBEDDED UTILITIES AND ANY OTHER UNDERGROUND OR EMBEDDED UTILITIES DIMENSIONS.
- REFERENCES USED HAVE BEEN IDENTIFIED ON EXCAVATION/FOUNDATION/DEMOLITION DRAWINGS AND HAVE BEEN PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATION OF EXISTING UTILITIES AND OTHER POTENTIAL UNDERGROUND OR EMBEDDED INTERFERENCES. THESE REFERENCES ONLY SHOW THE APPROXIMATE LOCATION OF POTENTIAL UNDERGROUND OR EMBEDDED UTILITIES AND MAY NOT INDICATE OR REFLECT ALL EXISTING UNDERGROUND OR EMBEDDED UTILITIES OR THEIR ACTUAL LOCATIONS.
- REFERENCES IDENTIFIED SHALL NOT SUBSTITUTE FOR THE CONTRACTOR'S/INSTALLER'S OBLIGATION TO FIELD LOCATE ANY UNDERGROUND OR EMBEDDED UTILITIES OR INTERFERENCES THAT MAY AFFECT THE WORK.
- DUE CAUTION SHALL BE TAKEN DURING ANY EXCAVATION/FOUNDATION/DEMOLITION WORK WITHIN THE AREA OF AND ADJACENT TO THE LIMITS OF THE WORK DUE TO POSSIBLE INTERFERENCES THAT MAY NOT BE REFLECTED ON THE REFERENCES IDENTIFIED.
- ALL EQUIPMENT SHOWN IS PRELIMINARY FOR CONCEPTUAL DESIGN. EPC CONTRACTOR TO VERIFY IN DETAILED DESIGN.
- FOR REACTOR, CAP BANK AND CONNECTIONS, EXACT LOCATION AND CONFIGURATION TO BE DETERMINED WHEN FINAL REACTIVE DESIGN IS COMPLETE.
- PRECAST CONCRETE CABLE TRAY SHALL BE HEAVY TRAFFIC, HS-20 RATED AT ALL ROAD CROSSINGS, AS MANUFACTURED BY TRENWA.
- PHASING TO BE VERIFIED BY ENGINEER OF RECORD.

BHS SOLAR, LLC SUBSTATION 230-34.5 KV SUBSTATION BUS ELEVATIONS
NOT TO SCALE

14

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED	APPROVED
2	12/21/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV	MED
1	09/14/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV	MED
0	06/07/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV	MED

BHS SOLAR ENERGY FACILITY
SOLAR PV DEVELOPMENT
SEVERANCE, COLORADO 80546

ELECTRICAL SUBSTATION
ELEVATION DETAILS

CLIENT:
BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE,
SUITE 1020
IRVINE, CALIFORNIA 92618

SEAL:

DESIGNED BY: OAC
CHECKED BY: APV
PROJECT NUMBER: 3652220356
DRAWING NUMBER: S-501
SHEET NUMBER: 25 OF 27

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION



PROJECT:	BHS SOLAR ENERGY FACILITY SOLAR PV DEVELOPMENT SEVERANCE, COLORADO 80546
TITLE:	PROPOSED SETBACK PLAN

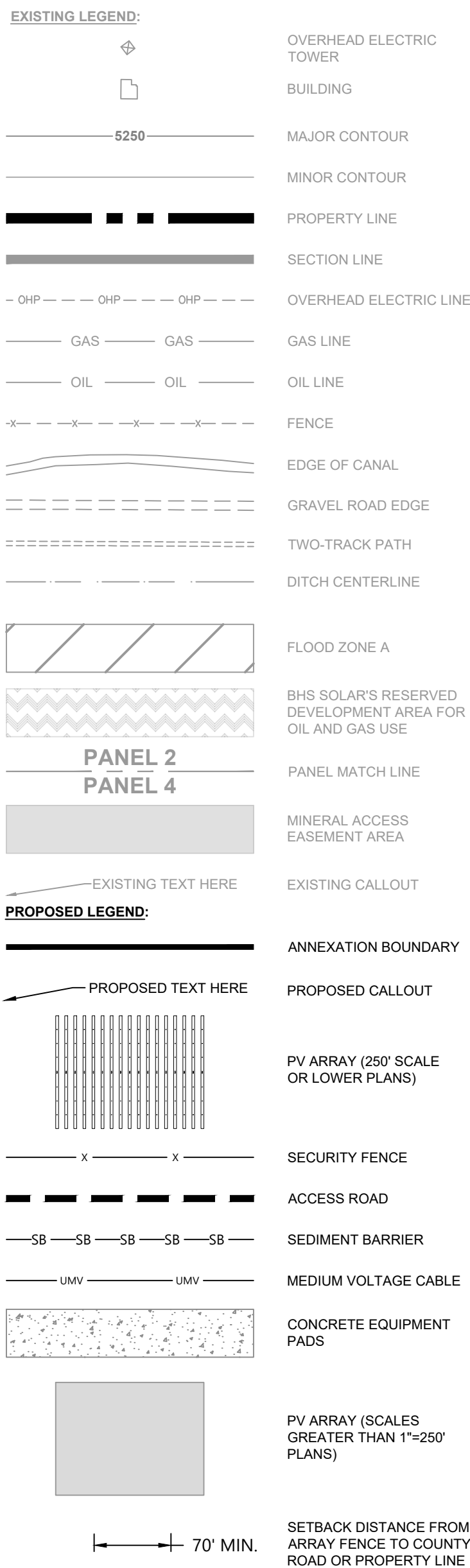
CLIENT:

BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE,
SUITE 1020
IRVINE, CALIFORNIA 92618

The logo for 174 POWER GLOBAL features the number '174' in a large, bold, blue font. To the right of '174' is the word 'POWER' in a smaller, blue, sans-serif font. To the right of 'POWER' is the word 'GLOBAL' in a smaller, blue, sans-serif font. A green line starts from the top of the '174' and extends to the right, ending above the 'GLOBAL' text.SEAL:

DRAFT

DESIGNED BY: OAC	DRAWN BY: OAC/MPs
CHECKED BY: APV	SCALE: AS SHOWN
PROJECT NUMBER: 3652220356	
DRAWING NUMBER: C-112	
SHEET NUMBER: 21 OF 27	



SOLAR FACILITY SETBACKS - LARGE SCALE*	
LOCATION	DISTANCE (FT.)
FRONT	50 FT.
SIDE	10 FT. OR 1 FT. PER 2 FT. HEIGHT
SIDE CORNER	50 FT.
REAR	20 FT.
ARTERIAL OR STATE HIGHWAY	100 FT.
LOCAL OR COLLECTOR	50 FT.

* THE SETBACK CODE IS WRITTEN INFERRING THAT A PARCEL HAS FRONT, SIDES, AND REAR YARDS OR PROPERTY LINES, WHICH IS NOT THE CASE FOR THIS PROJECT. ADDITIONALLY, CERTAIN SETBACKS FROM PROPERTY BOUNDARIES ARE MATERIALLY LARGER TO CREATE VISUAL BUFFERS AND ACROSS COMMON PROPERTY OWNER BOUNDARIES.



AGENDA ITEM SUMMARY

AGENDA ITEM	SUBMITTED BY	PRESENTED BY
Resolution PC-2023-01R: BHS Solar UAR & Site Plan	Abdul Barzak, Town Planner	Abdul Barzak, Town Planner
ACTION REQUESTED		
Community and Economic Development and Town Management ask that the Severance Planning Commission review, discuss, and take action on Resolution PC-2023-01R and forward a recommendation to the Town Council on the BHS Solar Use by Additional Review (UAR) and Site Plan. Actions that may be taken: 1. Approve PC-2023-01R and forward a recommendation of approval to the Town Council for the BHS Solar UAR and Site Plan subject to the conditions listed therein. 2. Take No Action.		<u>Resolution</u> <u>Action Requested</u> <u>Attorney Approved</u>
BRIEF SUMMARY		
BHS Solar, LLC, on behalf of the owners of certain real property generally known as the 2021 BHS Solar Annexation Property and 2022 BHS Solar Annexation Property, has submitted an application for Use by Additional Review (UAR) to construct and operate a large-scale solar facility on the property. The applicant has also submitted a site plan, together with a proposed draft development agreement, relating to such use by additional review.		
PUBLIC SUPPORT/CONCERN		
Please see the packet for all received comments.		
ANALYSIS AND RECOMMENDATION		
Town staff is asking for the Planning Commission to review, discuss, and take action on PC-2023-01R and forward a recommendation of approval to the Town Council for the BHS Solar UAR and Site Plan subject to the conditions listed therein.		
MATERIALS SUBMITTED		
The following materials were submitted and included in this packet: 1. Town Review Form (Generated by Town Staff) 2. Engineering Memo (Staff Generated) 3. Letter of Intent (Applicant Submitted) 4. Site Plan (Applicant Submitted, Staff Reviewed) 5. BHS Solar Traffic Study (Applicant Submitted, Staff Reviewed) 6. Management Plan (Applicant Submitted, Staff Reviewed) 7. Landscape and Open Space Plan (Applicant Submitted, Staff Reviewed) 8. Lighting Plan (Applicant Submitted, Staff Reviewed) 9. Sound Mitigation Plan (Applicant Submitted, Staff Reviewed) 10. Vicinity Map (Applicant Submitted, Staff Reviewed) 11. Combined Referral Responses		

- | | |
|-----|--|
| 12. | Resolution PC-2023-01R (Town Attorney Generated) |
| 13. | BHS_SitePlanPresentation_PC |



Town of Severance Review Comments

Date: 6.9.22 - Submittal Date Revised: 10.19.2022, 12.22.2022

Project Name/Contact: BHS Solar Site Plan/ Jeremy Call

Project Address: North of SH 14 East of WCR 19

Customer/Project Number: 265 – Black Hollow Solar

Review Number: 5th Submittal (2nd Site Plan)

Project Coordinator: Abdul Barzak, Town Planner

Recipients:

- ☒ MANAGEMENT
- ☒ PLANNING
- ☒ ENGINEERING
- ☒ TRAFFIC
- ☒ TOWN ATTORNEY
- ☒ PUBLIC WORKS
- ☒ POLICE
- ☒ BUILDING
- ☐ OTHER

Project Coordinator – Abdul Barzak, Town Planner, Town of Severance

Item 1	Applicant to address Staff Redlines and Comments	Resolved?
Notes	Applicant to address all Staff comments and redlines. - Planning - Civil - Legal	☐ YES ☒ NO ☐ SEE ATTACHED
Applicant Response		
Notes		
Item 2	Traffic & Weld County Road 90 Maintenance	Resolved?
Notes	Applicant will need to continue to coordinate with Town Staff regarding the Traffic Study and Comments received from stakeholders. See Civil Engineering Item #2 and Town Legal Item #1 below. Additionally, applicant will need continue to work with Town Staff and Weld County Staff regarding the maintenance of Weld County Road 90, this will be handled in the Development Agreement or by separate document.	☐ YES ☒ NO ☐ SEE ATTACHED
Applicant Response		
Notes		
Item 3	Development Agreement	

Notes	See Town Legal comment Item #1 below , Development Agreement must be finalized prior to Town Council.	Resolved? ☐ YES ☒ NO ☐ SEE ATTACHED
Applicant Response		
Notes		
Item 4	Variance Requests	Resolved? ☐ YES ☒ NO ☐ SEE ATTACHED
Notes	All variances must be approved by Town Council. See Town Legal comment Items #3 below.	
Applicant Response		
Notes		Resolved? ☐ YES ☒ NO ☐ SEE ATTACHED
Item 5	Referral Comments	
Notes	Applicant to provide response to all received referral/stakeholder comments. Remaining outstanding comments -Town of Pierce - Colorado Park and Wildlife - Ault Pierce Fire - Windsor Severance Fire Rescue - Weld County	
Applicant Response		
Notes		

Town Management – Nick Wharton & Lindsay Radcliff-Coombes, Town Management , Town of Severance

Item 1	No Comment	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Notes	No additional comments at this time.	
Applicant Response	Noted.	

Planning – Josh Olhava & Logan Graves, Community Planner, Ayres Associates

Item 1	Site Plan – Cover Sheet	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Notes	The signature blocks need to be on the cover sheet of the plan. Also, updated sheet numbering. The Cover Sheet is always Sheet 1 as it is part of the overall plan set. Update page numbers throughout.	
Applicant Response	Signature blocks added to cover sheet for Town and Land Owners.	
Notes	No further comment.	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Item 2	Site Plan – Cover Sheet	
Notes	Is there a reason for including both the vicinity map and the State map on the cover sheet? Vicinity map is most important for the community and site plan drawing set. In addition, the Vicinity map is barely legible at 100% zoom and not legible at	

	50% zoom. Previous comments requested all labels to be legible at 50% zoom (applicant noted updates were made). Update accordingly and include appropriate street labels on the Vicinity Map.	
Applicant Response	State map has been removed. Drawing set is D size 24" x 36" and should be legible at print and zoom.	
Notes	No further comment.	
Item 3	Site Plan – Cover Sheet (Signature Blocks)	Resolved?
Notes	There are four (4) property owner groups identified on the table. There needs to be Owner signature blocks for each ownership group. Type out the owner name and their role under the signature line for legibility.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	Owner signature blocks have been implemented on the cover page. Property owner contact information located in table on cover page.	
Notes	No further comment.	
Item 4	Site Plan – All Sheets	Resolved?
Notes	As noted about the labels on the vicinity map, most of the text on the drawing sheets is too small and not legible. Prior comments requested all text and labels to be legible at 50% zoom. Response to comments noted this was addressed, but this is not the case. The Variance table is another example where the text is not legible at 50% zoom.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	Drawing set is D size 24" x 36" and should be legible at zoom.	
Notes	No further comment.	
Item 5	Site Plan – Sheet 2 (Variances Table)	Resolved?
Notes	Text is too small. You are not re-writing zoning code under the Requested Variance column. Here you are noting what your variance request is. For example, your first request would note to exclude the subject project from the criteria of Sec. 16.6.10.15(8)b. and 16.6.10.15(9)b. Another example is under Sec. 16.11.160(c)(3)a. - Solar facility; you would note to exclude the project from the criteria that requires a landscape/irrigation plan. (typical approach for all rows) Also, your Code column and SMC Requirement column for the first variance ask needs to remove the (a) from the first part of the code reference as this is inaccurate. Double check all references for accuracy.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	BHS Solar has prepared a Variance Application and revised table per our call with Keith Martin on 12/9/22 and follow up call with Abdul on 12/15. The Variance Application is included in this resubmittal along with a Zoning Letter to document interpretations that are not formal variances. Only two variances are requested, as shown in the Variance Application and Site Plan Sheet G-001.	
Notes	Will defer to Abdul on interpretations and inclusion of landscape/irrigation requirements in the variance request. (Staff will bring all variance requests to Council- AKB)	
Item 6	Site Plan – Sheet 2 (Variances Table)	

Notes	Justification for the first variance request needs additional information. And it does not address both references in the requested variance column. Most of the other justifications provide good rationale. Review and ensure all justifications relate to the specific code section and language that is being requested to deviate from. Include your setback numbers in this variances table to show what exists (current code) and what is proposed.	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	Addressed, see Variance Application and Site Plan Sheet G-001.	
Notes	No further comment.	
Item 7	Sheet 3 – Panel Plan	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Notes	Legibility. Very difficult to read and understand. Shouldn't this sheet be referenced as Existing Conditions Plan, similar to the zoomed in cut sheets? The Proposed Panel Plan and associated sheets begin 7 sheets down. It is not clear what portions of the site are found on the zoomed in sheets as referenced in the callouts. Property boundary line should be the most prominent, followed by the dashed line for the panel match line. This should be clear at 50% zoom.	
Applicant Response	Text has been updated to larger than US CAD standards for legibility. Site plan is also designed at D Size drawing.	
Notes	No further comment.	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Item 8	Proposed Panel Plan/Proposed Site Plan Sheets	
Notes	Keep page naming consistent (typical all sections of the overall plan set). Using two different references can be confusing. The solar array line weight should be reduced in half. It is currently very heavy on the sheets and makes it difficult to read. Future scanning and printing will cause issues, similar to heavy hatching on a site plan.	
Applicant Response	Page naming has been updated to be consistent and solar array line weight has been reduced for legibility.	Resolved? ☐ YES ☒ NO ☒ SEE ATTACHED
Notes	No further comment.	
Item 9	Proposed Panel Plan/Proposed Site Plan Sheets	
Notes	There are some labels on the zoomed in sheets that are cutoff and need to be adjusted on the sheet to include the full label and callout. Consider where the match lines are placed to avoid this issue. Double check that all labels and leader lines are clearly visible and legible with the resubmittal. (good example is Panel 3 – Section 27 sheet)	Resolved? ☐ YES ☒ NO ☒ SEE ATTACHED
Applicant Response	Labels and Callouts have been updated and corrected and increased legibility.	
Notes	Proposed Conditions Plan (Panel 6 – Section 2) and Proposed Site Plan (Panel 3 – Section 27) have a label on the sheet that is cut off. Sheets, Panel – Section 27 and Proposed Site Plan (Panel 3 – Section 27) have several arrows pointing at features not located on the sheet that should be adjusted so they are clearly visible or removed.	
Item 10	Proposed Lighting Plan Sheets	

Notes	Ensure the fixtures and details meet recently adopted lighting regulations, including maximum lighting levels and light temperature. These regulations are not found on municode, but can be obtained from the Town.	Resolved? ☐ YES ☒ NO ☒ SEE ATTACHED
Applicant Response	BHS Solar reviewed Ordinance 2022-30 and Article 16.16 (dated December 6, 2022). While our application was submitted ahead of these recently adopted regulations, we believe the Site Plan sheet C-110 conforms to these requirements. The facility would only have motion-activated lighting with LED fixtures that are shielded downward and within property lines. The proposed locations (at gates and substation/switchyard) and fixtures are adequate for facility safety and security; promote efficient and cost-effective lighting to conserve energy; and reduce light pollution, glare and offensive light sources.	
Notes	Please include a note on the Proposed Lighting Plan Sheet that says lighting will conform to the recently adopted lighting regulations (Ordinance 2022-30 and Article 16.16).	
Item 11	Proposed Setback Plan Sheet	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Notes	This sheet should occur much earlier in the plan set, prior to the overall site plan and panel plan sheets. Setback callouts need to be included on the panel plan/site plan sheets. The setback criteria needs to be included on the same sheet as the variances table. Either include the new setback details in the variances table, or include the setbacks table on the same sheet with a reference in the variances table.	
Applicant Response	Setbacks have been included in the variance table on the same sheet (G-001). Setbacks are called out on the panel plan (Sheet C-112)	
Notes	No further comment.	Resolved? ☐ YES ☒ NO ☐ SEE ATTACHED
Item 12	Additional Structural Details Sheet	
Notes	The light fixture specification called out on the building elevations are not consistent with the light fixtures shown on Lighting Plan sheet. This needs to be consistent and the same criteria applies as noted above.	
Applicant Response	Lighting will be consistent with what is on the lighting plan sheet.	Resolved? ☐ YES ☒ NO ☐ SEE ATTACHED
Notes	Repeat Comment. Revise the label on the building elevations.	

Civil Engineering – Brad Curtis P.E , Northern Engineering

Item 1	See Attached Letter	Resolved? ☒ YES ☐ NO ☐ SEE ATTACHED
Notes	See attached Letter regarding General Comments	
Applicant Response	See responses to comments in that letter.	
Notes	No further comment	Resolved? ☐ YES
Item 2	See Attached Letter	
Notes	See attached Letter regarding Traffic Study [New Comments]	

Applicant Response	See responses to comments in that letter.	☒ NO ☒ SEE ATTACHED
Notes	See attached letter - Appears WCR90/Rowe in Pierce went from a haul route to a passenger vehicle route. Yet, it appears the exact same traffic volumes are projected to be used between the two traffic studies? For example, Figure 9 is the same. What facilitated the analysis of passenger vehicles using WCR90/Rowe as a focused route?	
Item 3	See Attached Letter	Resolved? ☐ YES ☒ NO ☒ SEE ATTACHED
Notes	See attached letter for Site Plan Map. Most comments are repeat comments not addressed or responded to.	
Applicant Response	Comments addressed on Northern Engineering form and completed.	
Notes	See attached letter - V105, C105 [REPEAT COMMENT] : Is there an existing easement south of WCR90, or is that a platted right of way? It appears the proposed security fence and proposed access road is within said easement/right of way limits. (Section 26)	Resolved? ☐ YES ☒ NO ☒ SEE ATTACHED
Item 4	See Attached Letter	
Notes	See attached letter for Conceptual/preliminary Drainage Report.	
Applicant Response	Addressed per new conceptual drainage study using City of Greeley conceptual drainage standards.	
Notes	See attached letter - a. Page 2: Please elaborate on what you mean by "...to at least 50% of Level 1 as described in the USDCM, Volume 3..." The curves shown in Section 4.1 of the USDCM are only for planning purposes. More detailed calculations will be required as the design progresses. During Preliminary Plan, please elaborate on how DCIA's will provide LID and water quality treatment for this project. The substation and equipment pad area will require water quality treatment per the City of Greeley DCCS. Include any necessary calculations in the Preliminary Drainage Report. b. D103- Provide general assumed site drainage for flows getting into the detention pond.	

Traffic Engineering – Eli Farney, P.E, PTOE, JR Engineering, LLC

Item 1	Construction routes in Town limits	Resolved?
Notes	This TIS discussed five possible vehicle routes to and from the site. Per the TIS, "It is believed that at various times other routes will be used, for example the proposed substation construction within the southern portion of the project site area will likely utilize Route D along WCR-23 from SH-14." The Town should monitor the use of other routes during construction, like Route D.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	The BHS Solar Traffic Impact Study (revised December 19, 2022) prepared by Kimley-Horn, the "TIS", identifies three (3) routes A, B and C to the Project. See below extracted from the foregoing study: "The preferred regional and heavy access to BHS Solar is via Interstate 25 (I-25), which is identified herein as Route A. The anticipated vehicle route for Route A to the site from I-25 is to travel north on the I-25 Frontage Road to Laramie County Road 52 (LCR-52), then east onto LCR-52 to Weld County Road 13 (WCR-13), then north on WCR-13 to WCR-90, and east along WCR-90 to the project site. This route was chosen for the majority of the construction traffic to provide the least amount of impact to adjacent residents. Route A would also be the primary access for project operations and maintenance. Route B would be utilized only by local (i.e., points to the east of the site) resident workers in passenger vehicles to travel to the site from US Highway 85 (US-85) then west along Rowe Avenue (WCR-90) to the site. Route C would be used only for the delivery of equipment and construction and maintenance of the project substation. The route would leave I-25 and then travel east along State Highway 14 (SH-14) turning north onto WCR-25, then west on WCR-84. Route C then turns north (right) onto WCR-23 to enter the site." A condition of the Project's construction contracts will require compliance with the foregoing routes for personal and deliveries.	
Notes	No further comment	
Item 2	Site access points	Resolved?
Notes	The TIS should include discussion on site access points and compliance with Town of Severance criteria.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	The TIS identifies two (2) site access points and describes the studied impacts on routes A, B, and C to this site access points. See below from the TIS describing the access points: "The project site would be accessed by two points. Access 1 would be for the majority of the construction traffic and would be located on WCR-90 to a	

	driveway in an easement on private land. Access 2 would be only for work on the project substation and would be located at the intersection of WCR-23 and WCR-84 1/2. The Project team reviewed the following sections of Severance Municipal Code in regard to the note above "...and compliance with Town of Severance criteria...." and found the following: 1. CHAPTER 8 - Vehicles and Traffic. This section did not contain any references to site access. However, Section 8-1-30 (6) (4) states "Vehicles traveling on County roads annexed by the Town shall be exempt from the requirements of this Section (i.e. Part 5 Section 508 as amended) 2. CHAPTER 11 - Streets, Sidewalks and Public Property. Chapter 11 is not applicable to the TIS. 3. CHAPTER 16 - Land Use Code. Chapter 16 is applicable to the Site Plan application and Municipal Code. However, the scope of the TIS does not address Chapter 16 because the Site Plan application, which includes the TIS, serves this purpose. Certain applicable sections of Chapter 16 are listed below with the response a. "Sec. 16.6.10.15. - Rural residential agriculture sub-zoning. The rural residential agricultural sub-zoning is intended to allow private property owners to annex existing agricultural operations into the Town and continue operations. The process for receiving the rural residential agricultural sub-zoning is the same as any other zoning request and may either come through the annexation process or a rezoning of an existing annexed property. The following are characteristics of the Ag residential design option: (3)Joint access points to and from county roads to reduce driveways where practical. (Existing agricultural accesses permitted in Weld County may be maintained if no further subdivision is taking place" Response: Both access points 1 and 2 are at an existing agricultural access and no further subdivision is taking place, consequently the access points 1 and 2 meets the Town of Severance criteria. Nonetheless, since via access points 1 and 2 Weld County easements -- without roads and NOT annexed into Severance -- will be crossed, the Project is adhering to Weld County Code Article XIV Road Access Policy which describes a requirement	
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	for an Access Permit and if required the foregoing permit will be obtained prior to the start of the Project's construction.	
Notes	No further comment	

Town Attorney – Keith Martin, Attorney, Hayashi & Macsalka, LLC

Item 1	Use by Additional Review - Issues	Resolved?
Notes	Solar energy generation use requires "use by additional review" approval, which is akin to a conditional use permit or special review use, together with accompanying site plan for proposed large scale solar energy facility. In other words, UAR = Site Plan. The UAR implicates two issues: (1) who will be the designated fire protection agency because of property being within multiple fire protection jurisdictions; and (2) maintenance of WCR 90. <u>Fire</u> With respect to fire protection and emergency services to the proposed use for the life of the Project, I see a few outcomes: (1) Applicant goes through the exclusion/inclusion processes and accomplishes both; (2) WSFPD and Town mutually agree to waive reciprocal exclusion/inclusion and service obligations under IGA and permit multiple FPDs to serve the Project; or (3) IGA between WSFPD/AFP/NFPD providing for a designated agency (or sharing of) fire protection services to the Property after effective date of annexation and continuing through decommissioning of solar facility. All three outcomes are possible, but TAO is not in a position to opine as to the probabilities of any particular outcome being observed and by when--i.e., prior to start of construction or final inspection. Nonetheless, the approving action can indicate approval of UAR conditioned upon any of the possible outcomes occurring plus a timing component. <u>WCR 90 Maintenance</u> 2 possible outcomes: (1) Weld Co maintains status quo in exchange for Town swapping maintenance on another stretch of WCR road, and Applicant reimburses Town for costs incurred; or (2) Town and Weld Co agree that Town will assume maintenance, and Applicant reimburses Town for costs incurred. Both outcomes are possible, but again TAO is not in a position to opine as to the probabilities of any particular outcome being observed and by when. Nonetheless, the approving	☐ YES ☒ NO ☐ SEE ATTACHED

	action can indicate approval of UAR conditioned upon DA containing a provision that addresses applicant's contribution to Town for WCR 90 maintenance costs.	
Applicant Response		
Notes		
Item 2	Variances	Resolved?
Notes	Applicant has submitted a variance request seeking (1) exemption of interconnection facilities from 20' height limitation applicable to ground-mounted solar energy facilities per Sec. 16.11.160; and (2) to allow zero-foot (0') setback between and among certain lots. Town Attorney's Office has not identified any legal issues with respect to the variance request at this time.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response		
Notes		
Item 3	Site Plan – Variance Request Table	Resolved?
Notes	Add an "Approval" column. The purpose of the column is to indicate approval status. In the row for each requested variance, include a citation to the relevant resolution—e.g., Per Resolution No. 2023-__R, certain interconnection facilities may be constructed up to a maximum height of [insert]. Variances as shown in the Variance Application and Sheet G-001.	☐ YES ☒ NO ☐ SEE ATTACHED
Applicant Response		
Notes		
Item 4	Site Plan Development Agreement	Resolved?
Notes	TAO is reviewing and revising draft development agreement following discussion with BHS Solar in early January. TAO plans to provide a revised draft agreement shortly.	☐ YES ☒ NO ☐ SEE ATTACHED
Applicant Response		
Notes		
Item 5	Reservation	Resolved?
Notes	Town Attorney's Office reserves the right to make new or additional comments after re-submittal or based upon other referral agency comments.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response		
Notes		

Public Works – John Zacklene, Public Works Director, Town of Severance

Item 1	No Comment	Resolved?
Notes	No Comments at this time	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	Noted.	

Police – Chief Gerdeman, Chief of Police, Severance Police

Item 1	No Comment	Resolved?
Notes	No issue from PD.	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	Noted.	

Building Department– Russ Weber, Chief Building Official, SAFEbuilt

Item 1	No Comment	Resolved?
Notes	No Comments at this time	☒ YES ☐ NO ☐ SEE ATTACHED
Applicant Response	Noted.	

Please revise the plans accordingly and respond to all of the above action items in the **Applicant Response** boxes provided at your earliest convenience.

Once the project is resubmitted it will be referred out as necessary and any outstanding issues will be addressed with a comment response.

If you should have any questions, please contact me at 970-692-1556, or email.

Thank you,



Abdul Barzak

Town Planner

abarzak@townofseverance.org

Town of Severance

3 South Timber Ridge Parkway

PO BOX 339

Severance, CO 80546

970-692-1556



January 24, 2023

VIA EMAIL

Mr. Abdul Barzak, Severance Town Planner
Town of Severance
209 1st Street
Severance, CO 80546

RE: BHS SOLAR SITE PLAN DEVELOPMENT SUBMITTAL 2
NE PROJECT NO. 1136-001-DR002 SEVERANCE ID # 265

Dear Abdul:

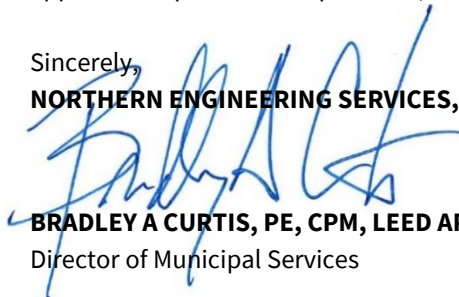
On December 27, 2022, we received the Site Plan Development submittal regarding the BHS Solar property, located between Weld County Road 88 and Highway 14, and between Weld County Roads 19 and 23. This review is intended for a Site Development Plan review. Said submittal was limited to an updated narrative, Drainage Report, Traffic Study, and Site Plan documents.

Upon review of the information provided, we have the following comments/questions as it relates to the Site Development Plan application:

- A. Site Plan Map Documents:
 - a. V105, C105 [REPEAT COMMENT]: Is there an existing easement south of WCR90, or is that a platted right of way? It appears the proposed security fence and proposed access road is within said easement/right of way limits. (Section 26)
- B. Traffic Study:
 - a. In general, the traffic study is being reviewed by other Town staff/consultants. However, there are specific items referenced within these comments that should be addressed.
 - b. Appears WCR90/Rowe in Pierce went from a haul route to a passenger vehicle route. Yet, it appears the exact same traffic volumes are projected to be used between the two traffic studies? For example, Figure 9 is the same. What facilitated the analysis of passenger vehicles using WCR90/Rowe as a focused route?
- C. Conceptual/Preliminary Drainage Report:
 - a. Page 2: Please elaborate on what you mean by "*..to at least 50% of Level 1 as described in the USDCM, Volume 3...*" The curves shown in Section 4.1 of the USDCM are only for planning purposes. More detailed calculations will be required as the design progresses. During Preliminary Plan, please elaborate on how DCIA's will provide LID and water quality treatment for this project. The substation and equipment pad area will require water quality treatment per the City of Greeley DCCS. Include any necessary calculations in the Preliminary Drainage Report.
 - b. D103- Provide general assumed site drainage for flows getting into the detention pond.

If you have any questions or concerns regarding our review of the materials, please do not hesitate to contact me directly at 970.488.1119 or bcurtis@northernengineering.com. We request that in future submittals, the applicant respond to our questions/comments in writing.

Sincerely,
NORTHERN ENGINEERING SERVICES, INC.


BRADLEY A CURTIS, PE, CPM, LEED AP
Director of Municipal Services

LETTER OF INTENT

June 7, 2022

Town of Severance
3 South Timber Ridge Parkway
Severance, CO 80550

Attention: Abdul Barzak, Town Planner
Cc: Nick Wharton, Town Administrator

Dear Mr. Barzak,

We, BHS Solar, LLC (BHS Solar), a wholly owned indirect subsidiary of Hanwha Energy USA Holding Corporation, d.b.a. 174 Power Global (174PG), appreciate partnering with the Town of Severance (Town) in developing the BHS Solar Project (Project).

The annexation into the Town's municipal boundary of most of the Project area was submitted under the 2021 BHS Solar Annexation application, which was previously unanimously approved by both the Planning Commission and Town Council (November 2, 2021). This 2022 BHS Solar Annexation application petitions the annexation of certain additional real property owned by SPABS LLC (Parcel #055526000002, approximately 159 acres) and Terry Ramsey and Jennifer Berg-Ramsey (Parcel #070502100001, approximately 20 acres). A map of the 2021 BHS Solar Annexation and 2022 BHS Solar Annexation areas is shown on Figure 1. The approximate 20 acres of Terry Ramsey and Jennifer Berg-Ramsey are included to relocate the Project transmission interconnection further from Black Hollow Reservoir recreation uses and residences.

The proposed zoning district is Rural Residential – Agricultural Zoning District, which allows photovoltaic solar through the Site Plan process. The proposed zoning district is consistent with the Comprehensive Plan.

The application includes a Site Plan for the Project that utilizes portions of the 2021 BHS Solar Annexation and 2022 BHS Solar Annexation areas. In ongoing siting efforts and consultation with the Town, Weld County, Colorado Parks and Wildlife, Platte River Power Authority, the U.S. Fish and Wildlife Service, and various landowners and neighbors, the Project team has identified the optimal locations for the Project's photovoltaic solar panels, access points, substation, and battery energy storage system as well as Platte River Power Authority's switchyard and transmission interconnection. The optimal design addresses the Town's questions raised through pre-application meetings, a neighborhood meeting on May 25, 2021, a virtual public meeting on May 27, 2021, and ongoing neighbor outreach. We have addressed land use, infrastructure, and environmental issues that have been identified to date. To proactively provide additional information, our application includes companion studies and plans to inform the review process. Please advise us as soon as possible whether the application is complete or if more information will be required to fulfill the application requirements.

Notable features of the proposal include:

- The Project offers direct and indirect economic benefits for up to 40 years including Town property tax revenue, permit fees, school and fire district payments, landowner payments, a local construction and operations workforce, and local construction purchases of supplies and services, ranging from lodging and food to equipment.

- The Project will be environmentally and socially responsible – avoiding sensitive areas, free from air and water pollution, setback from residential areas, and not resulting in hazardous waste.
- The Project's renewable energy will help strengthen the diverse energy supply portfolio and leadership in Weld County. Platte River relies on Weld County's natural gas industry for combustion energy generation and supports businesses and job creation in the county.
- The Project supports Town and regional interest in deploying more renewable energy and helps achieve Colorado's energy goals.
- The cost of solar power is now seen as cost-neutral or cheaper than other forms of power generation. The scale of the Project allows for additional cost savings that amount to more than half the cost of systems typically used in residential homes and businesses.
- The Battery Energy Storage System is a unique reliability asset to the region, supporting both peak loads (during periods of high demand) and backup power (during unexpected outages).
- The Project supports private landowners' stewardship of their property and supplements their income while allowing them to continue their current land uses.
- The Project would improve regional air quality by decreasing the overall emissions of Platte River.
- Unlike all other future land uses anticipated in the Comprehensive Plan, the Project brings significant benefits without requiring municipal water.

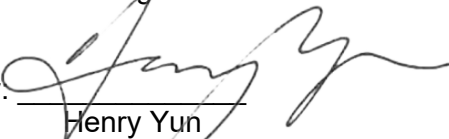
We look forward to continuing our work with the Town's leadership, stakeholders, neighbors, and the Severance community to bring this important Project to fruition.

Respectfully,

BHS Solar, LLC

By: Hanwha Energy USA Holdings Corporation

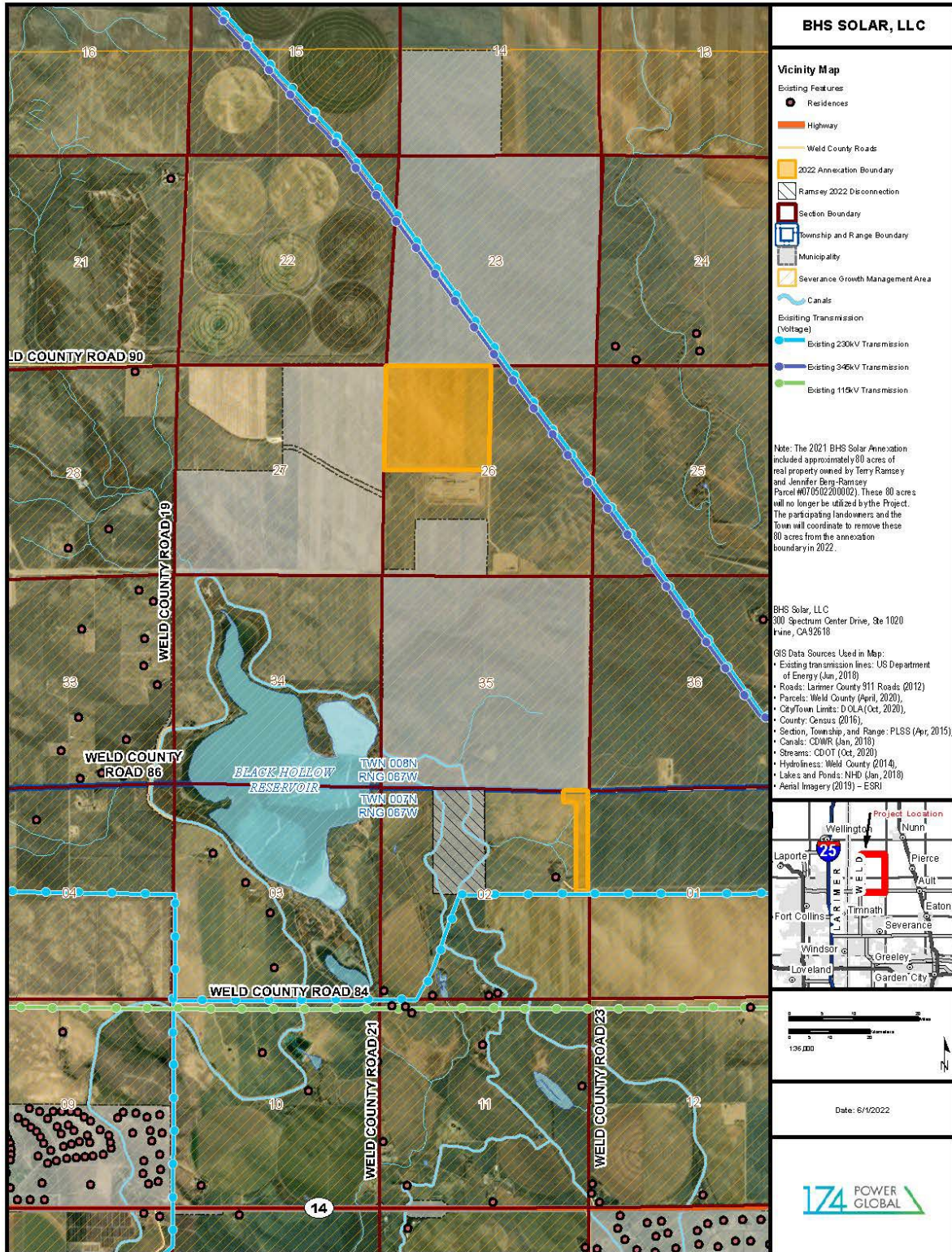
Its: Manager

By: 

Henry Yun

Its: President

Figure 1: Project Area and Vicinity Map



BHS SOLAR ENERGY FACILITY

SW1/4 Section 14, T8N, R67W, 6TH P.M.

PORTIONS OF SECTIONS 23, 26, 27 & 35, T8N, R67W, 6TH P.M.

A PORTION OF THE E1/2 NE1/4, SECTION 2, T7N, R67W, 6TH P.M.

TOWN OF SEVERANCE, WELD COUNTY, COLORADO

REVISED DECEMBER 21, 2022

DRAWING INDEX

SHEET NUMBER	DRAWING TITLE	DRAWING NUMBER
1	COVER SHEET	G-000
2	VARIANCE TABLE AND SIGNATURE BLOCKS	G-001
3	EXISTING CONDITIONS PANEL PLAN	V-101
4	EXISTING CONDITIONS PLAN (PANEL 1 - SECTION 14)	V-102
5	EXISTING CONDITIONS PLAN (PANEL 2 - SECTION 23)	V-103
6	EXISTING CONDITIONS PLAN (PANEL 3 - SECTION 27)	V-104
7	EXISTING CONDITIONS PLAN (PANEL 4 - SECTION 26)	V-105
8	EXISTING CONDITIONS PLAN (PANEL 5 - SECTION 35)	V-106
9	EXISTING CONDITIONS PLAN (PANEL 6 - SECTION 2)	V-107
10	PROPOSED CONDITIONS PANEL PLAN	C-101
11	PROPOSED SITE PLAN (PANEL 1 - SECTION 14)	C-102
12	PROPOSED SITE PLAN (PANEL 2 - SECTION 23)	C-103
13	PROPOSED SITE PLAN (PANEL 3 - SECTION 27)	C-104
14	PROPOSED SITE PLAN (PANEL 4 - SECTION 26)	C-105
15	PROPOSED SITE PLAN (PANEL 5 - SECTION 35)	C-106
16	PROPOSED SITE PLAN (PANEL 6 - SECTION 2)	C-107
17	SUBSTATION PLAN AND DETAILS	C-108
18	PROPOSED GRADING AND DRAINAGE PLAN	C-109
19	PROPOSED LIGHTING PLAN	C-110
20	PROPOSED CROSSING PLAN	C-111
21	PROPOSED SETBACK PLAN	C-112
22	CONSTRUCTION, EROSION, AND SEDIMENTATION CONTROL DETAILS	C-501
23	GRADING AND DRAINAGE DETAILS	C-502
24	CONSTRUCTION, EROSION, AND SEDIMENTATION CONTROL NOTES	C-503
25	SUBSTATION ELECTRICAL DETAIL ELEVATIONS	S-501
26	TRANSMISSION STRUCTURE DETAILS	S-502
27	ADDITIONAL STRUCTURAL DETAILS	S-503

PROPERTY OWNERS

PROPERTY	CONTACT	PHONE / EMAIL	SOLAR ARRAY AREA
SPABS, LLC	JAKE SCHROEDER	(303) 984-9800	948.4 ACRES
ENERPLUS RESOURCES (USA) CORPORATION	MARI GILLMAN	(720) 279-5571	40.9 ACRES
BERRADO HOLDINGS, LLC	WAYNE HOWARD	(970) 590-5982	406.9 ACRES*
TERRY W. RAMSEY AND JENNIFER L. BERG-RAMSEY AS JOINT TENANTS	JENNIFER RAMSEY	(970) 689-1140	20.8 ACRES

* INCLUDES PROPOSED DRILL SITE

DEVELOPED BY

BHS SOLAR, LLC



300 SPECTRUM CENTER DRIVE, SUITE 1020
IRVINE, CALIFORNIA 92618

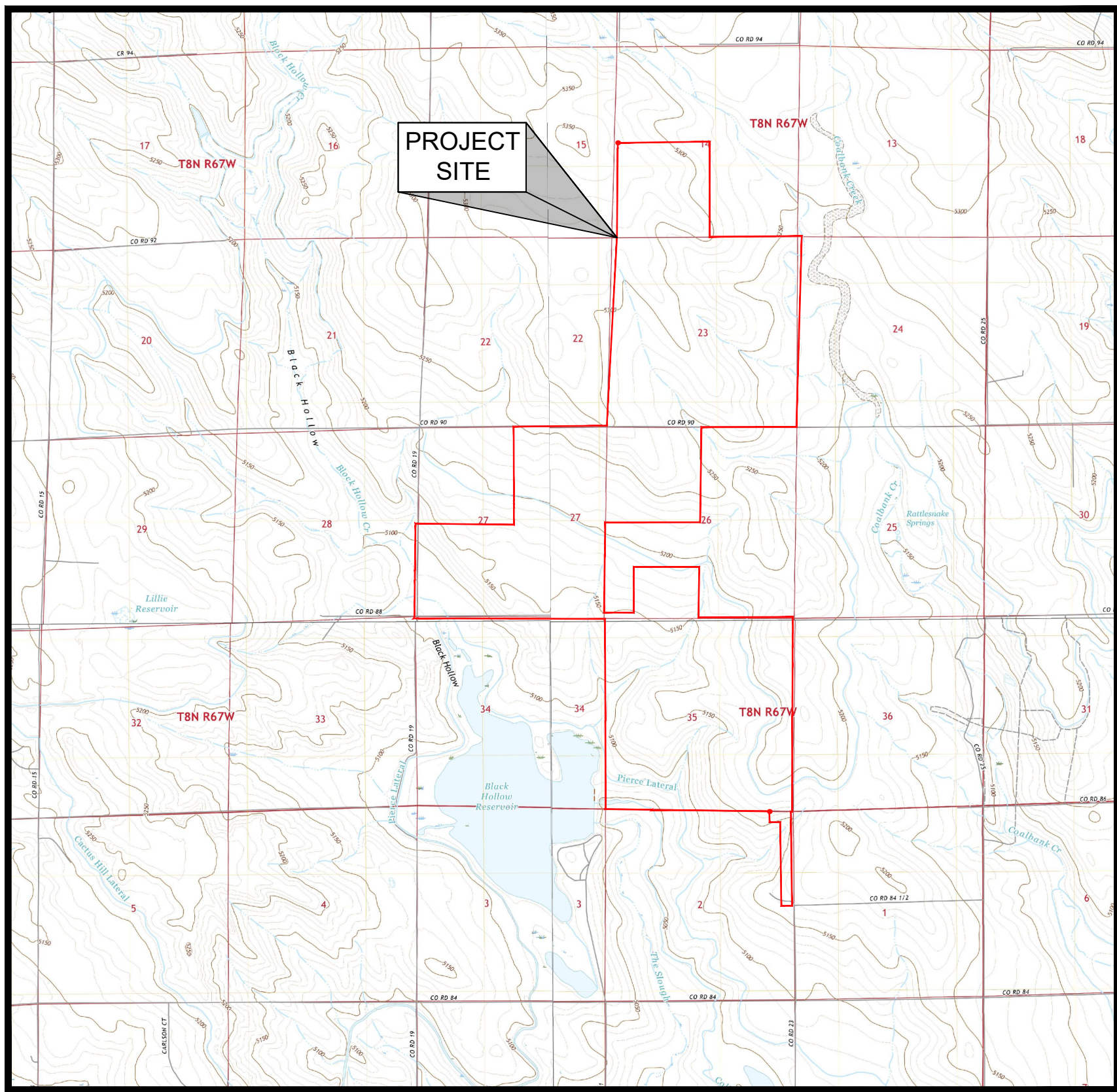
PREPARED BY



WSP USA ENVIRONMENT &
INFRASTRUCTURE, INC.

100 APOLLO DRIVE, SUITE 302, CHELMSFORD, MASSACHUSETTS 01824

DRAFT



LOCUS MAP

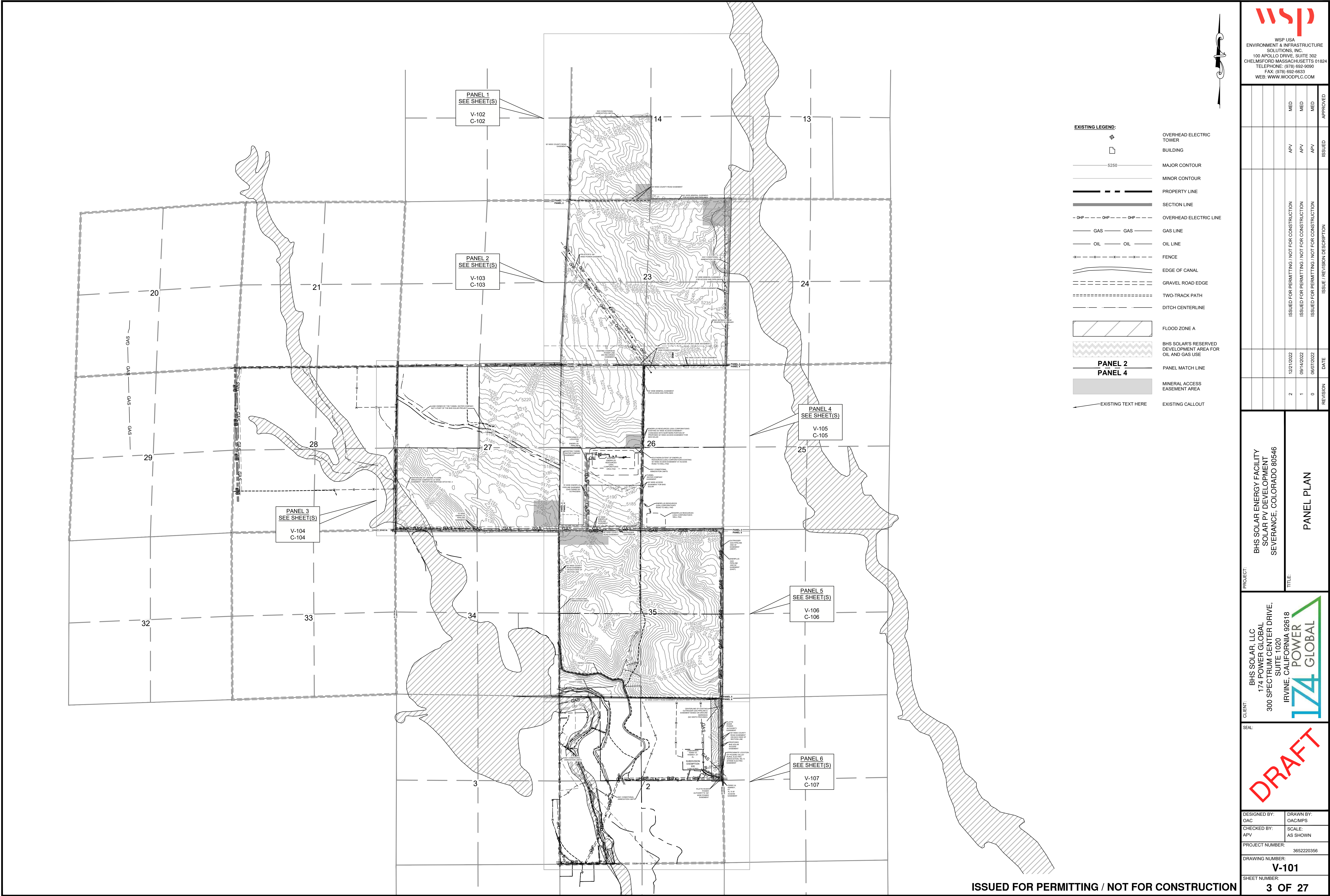
1" = 3500'

SITE INFORMATION

TOTAL ACREAGE	2,163 ACRES
TOTAL MILES OF ACCESS ROAD	14.33 MILES
ACREAGE ENCLOSED BY SOLAR ARRAY FENCING	1,353 ACRES
ELECTRICAL COLLECTION ROUTING LENGTH	36.79 MILES
SWITCHYARD ACREAGE	7.49 ACRES
SUBSTATION ACREAGE	2.33 ACRES

CONTACT INFORMATION

AGENCY	FIRST NAME	LAST NAME	MAIN CONTACT EMAIL
TOWN OF SEVERANCE, PLANNER	ABDUL	BARZAK	ABARZAK@TOWNOFSEVERANCE.ORG
TOWN OF PIERCE, TOWN CLERK	TINA	DURAN	KDURAN@TOWNOFPIERCE.ORG
CITY OF FORT COLLINS, STREETS DIVISION	LISA	DEATON	STREETS@FCGOV.COM
WELD COUNTY PUBLIC WORKS	JAY	MCDONALD	JMCDONALD@WELDGOV.COM
LARIMER COUNTY PUBLIC WORKS	TRACI	SHAMBO	ENG-PERMITS@COLLARIMER.CO.US
COLORADO DEPARTMENT OF TRANSPORTATION (ROCKSOL CONSULTING)	GLORIA	HICE-IDLER	GLORIA.HICE-IDLER@STATE.CO.US
WINDSOR-SEVERANCE FIRE PROTECTION DISTRICT/FIRE CHIEF	KRIS	KAZIAN	KKAZIAN@WSFR.US
PLATTE RIVER POWER AUTHORITY	PAT	CONNORS	CONNORS@PRPA.ORG
POUDRE VALLE RURAL ELECTRIC ASSOCIATION	JAY	MENDOZA	JMENDOXA@PVREA.COOP



ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION



WSP USA
ENVIRONMENT & INFRASTRUCTURE
SOLUTIONS, INC.
100 APOLLO DRIVE, SUITE 302
CHELMSFORD MASSACHUSETTS 01824
TELEPHONE: (978) 692-9090
FAX: (978) 692-6633
WEB: WWW.WOODPLC.COM

REVISION	DATE	ISSUE / REVISION DESCRIPTION	APPROVED
2	12/21/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV
1	09/14/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV
0	06/07/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV

PROJECT:
BHS SOLAR ENERGY FACILITY
SOLAR PV DEVELOPMENT
SEVERANCE, COLORADO 80546

TITLE:
PANEL PLAN

CLIENT:
BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE,
SUITE 1020
IRVINE, CALIFORNIA 92618



DESIGNED BY:
OAC

CHECKED BY:
APV

PROJECT NUMBER:
3652220356

DRAWING NUMBER:
V-101

SHEET NUMBER:
3 OF 27

DESIGNED BY:
OAC

CHECKED BY:
APV

SCALE:
AS SHOWN

SEAL:

DRAFT

[illegible]

**BHS SOLAR ENERGY FACILITY
SOLAR PV DEVELOPMENT
SEVERANCE, COLORADO 80546**

EXISTING CONDITIONS PLAN
(PANEL 1 - SECTION 14)

74 POWER GLOBAL
BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE
SUITE 1020
IRVINE, CALIFORNIA 92618

DRAFT

SIGNED BY: C	DRAWN BY: OAC/MPS
CHECKED BY: r	SCALE: AS SHOWN

PROJECT NUMBER: 3652220356

V-102

4 OF 27

EXISTING LEGEND:

OVERHEAD ELECTRIC
TOWER

BUILDING

5250

MAJOR CONTOUR

MINOR CONTOUR

PROPERTY LINE

SECTION LINE

OVERHEAD ELECTRIC LINE

CAS LINE

CRAVEL ROAD E

TWO-TRACK PAT

DITCH CENTERLINE

FLOOD ZONE A

BHS SOLAR'S RESERVED
DEVELOPMENT AREA FOR
OIL AND GAS USE

PANEL MATCH LINE

MINERAL ACCES

EXISTING CALLOUT

14

2021 CONDITIONAL ANNEXATION LIMITS

30' WIDE COUNTY ROAD
EASEMENT

SEC 14
SPABS LLC

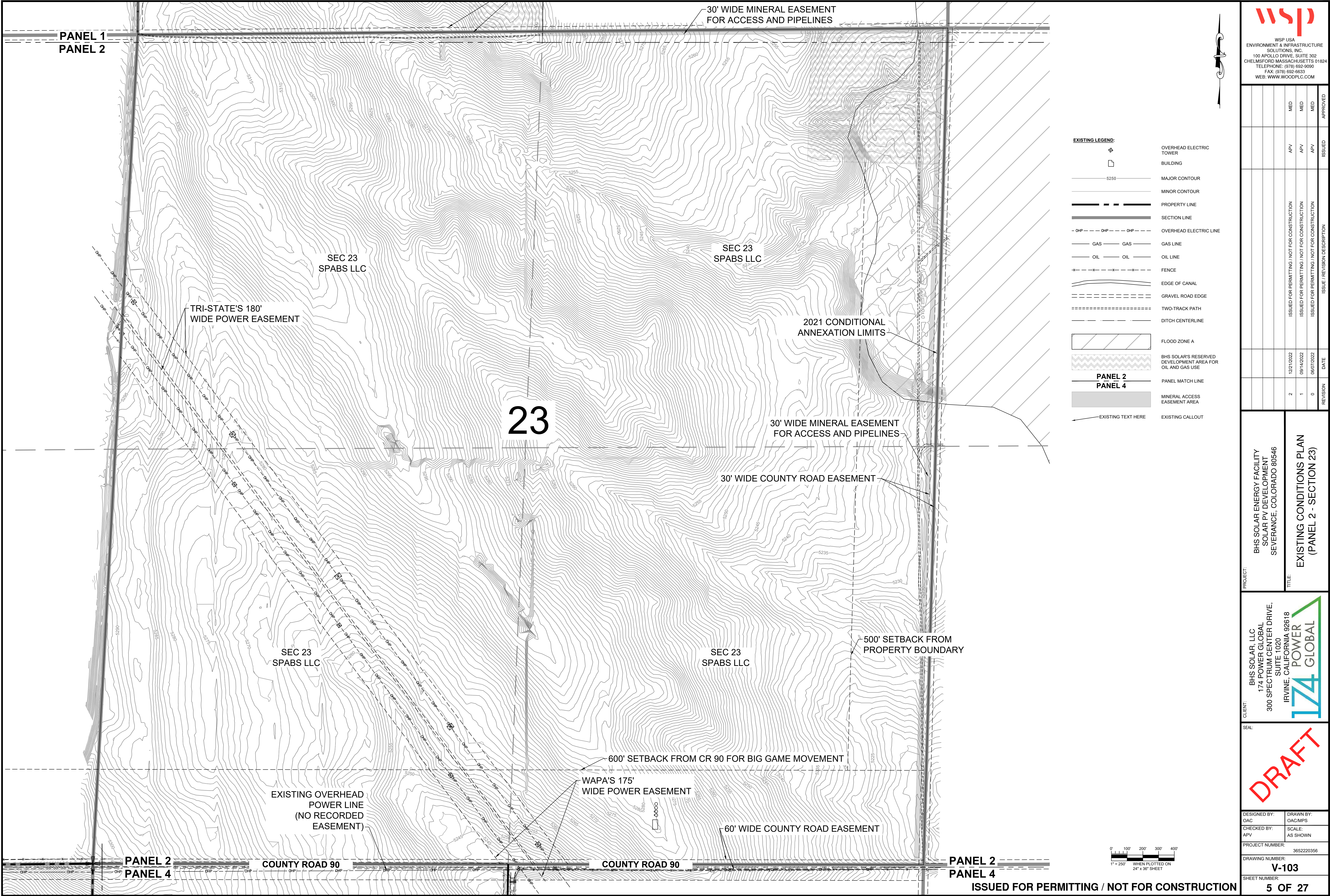
30' WIDE COUNTY ROAD EASEMENT

30' WIDE MINERAL EASEMENT
FOR ACCESS AND PIPELINES

PANEL 1
PANEL 2

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION

UNLESS OTHERWISE AGREED IN A WRITTEN CONTRACT BETWEEN WOOD ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC. AND ITS CLIENT: (I) THIS DOCUMENT CONTAINS INFORMATION, DATA AND DESIGN THAT IS CONFIDENTIAL AND MAY NOT BE COPIED OR DISCLOSED; AND (II) THIS DOCUMENT MAY ONLY BE USED BY THE CLIENT IN THE CONTEXT AND FOR THE EXPRESS PURPOSE FOR WHICH IT HAS BEEN DELIVERED. ANY OTHER USE OR RELIANCE ON THIS DOCUMENT BY ANY THIRD PARTY IS AT THAT PARTY'S SOLE RISK AND RESPONSIBILITY.



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SOLUTIONS, INC.
100 APOLLO DRIVE, SUITE 302
CHELMSFORD MASSACHUSETTS 01824
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WEB: WWW.WOODPLC.COM

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION		ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION		ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	
DATE	REVISION	DATE	REVISION	DATE	REVISION
12/21/2022	2	09/14/2022	1	06/07/2022	0

PROJECT:
BHS SOLAR ENERGY FACILITY
SOLAR PV DEVELOPMENT
SEVERANCE, COLORADO 80546

TITLE:
EXISTING CONDITIONS PLAN
(PANEL 2 - SECTION 23)

CLIENT:
BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE,
SUITE 1020
IRVINE, CALIFORNIA 92618

SEAL:

DESIGNED BY:
OAC

CHECKED BY:
APV

PROJECT NUMBER:
3652220356

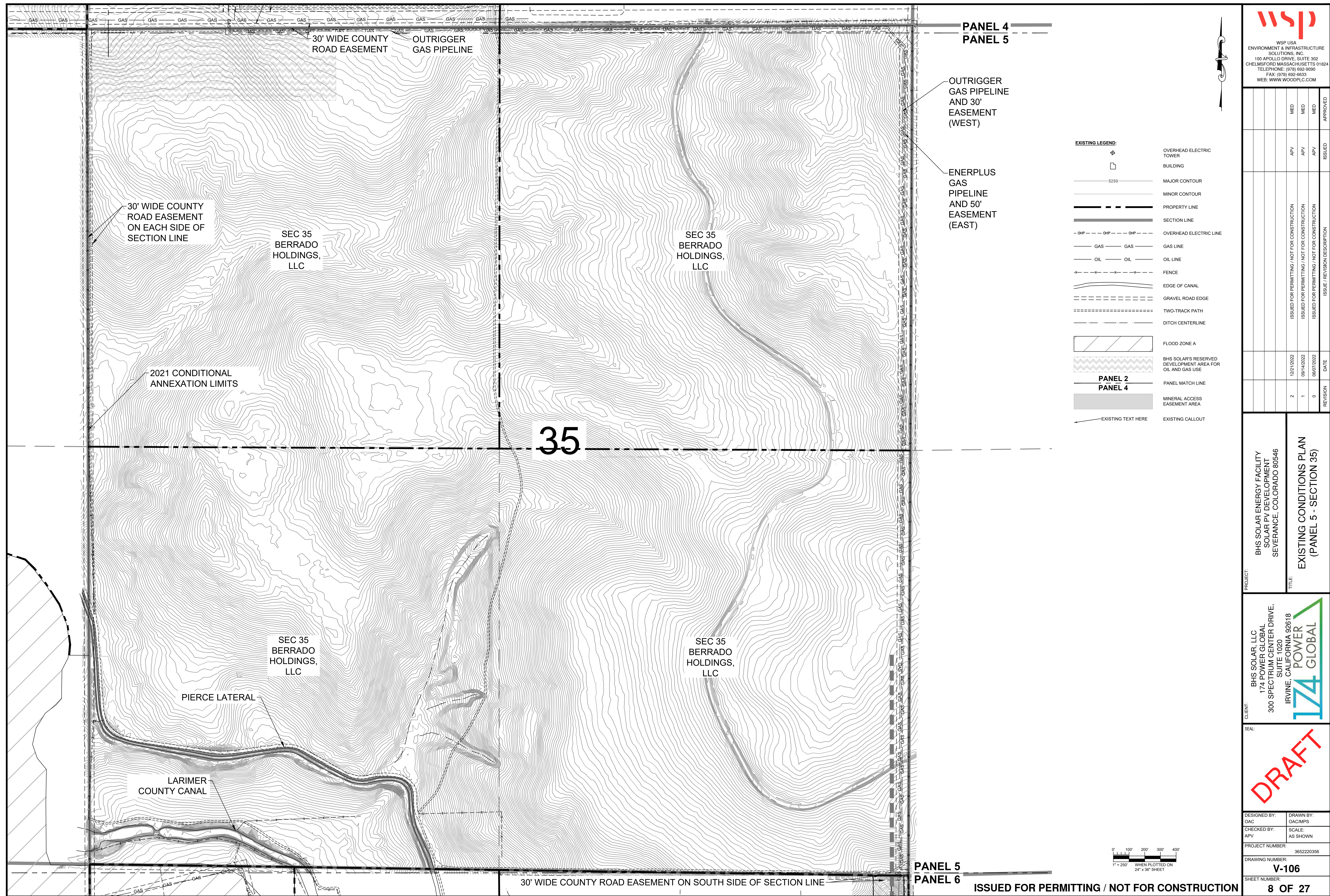
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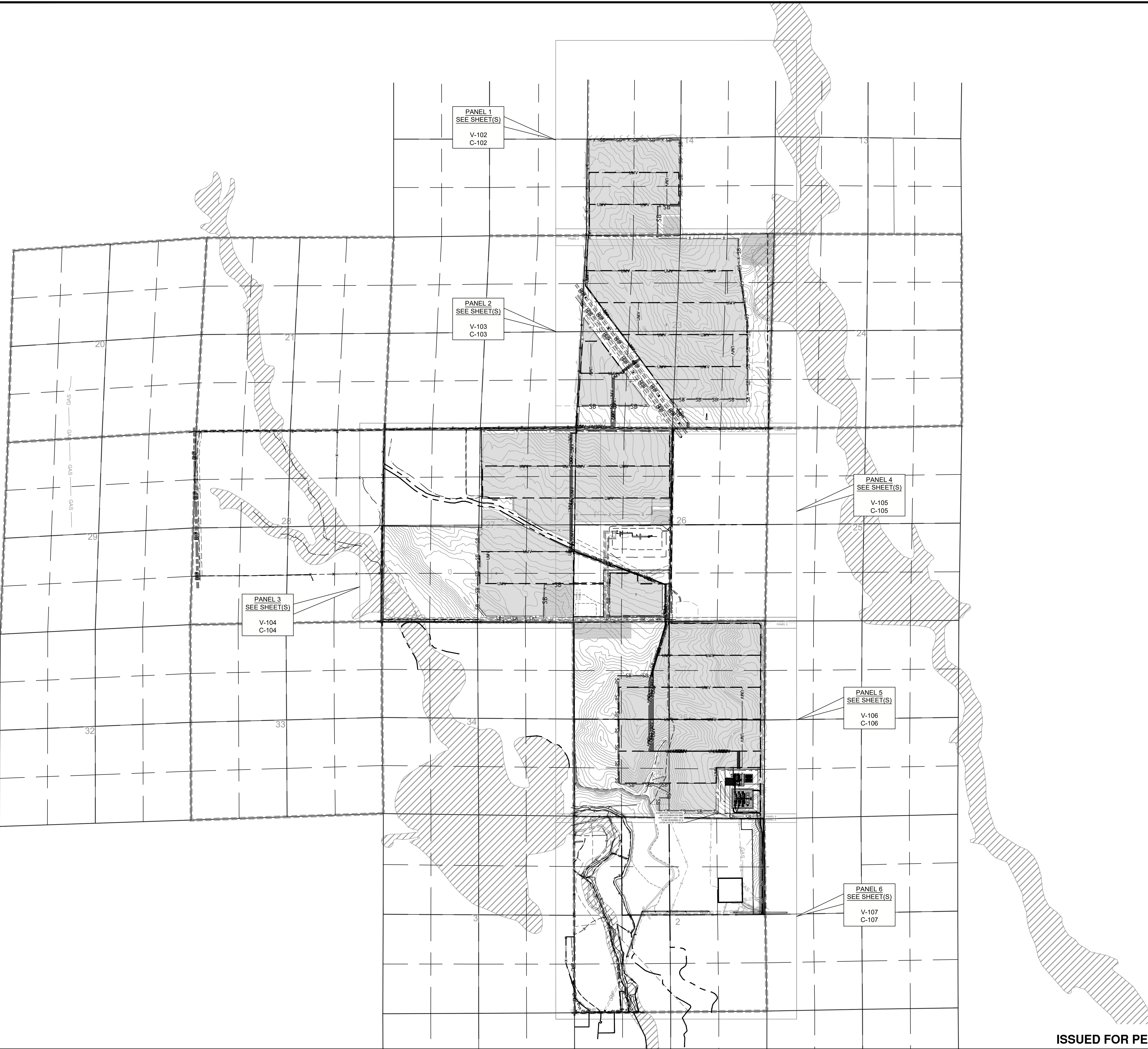
SHEET NUMBER:
5 OF 27

174 GLOBAL POWER

DRAFT







- EXISTING LEGEND:**
- OVERHEAD ELECTRIC TOWER
 - BUILDING
 - MAJOR CONTOUR
 - MINOR CONTOUR
 - PROPERTY LINE
 - SECTION LINE
 - OVERHEAD ELECTRIC LINE
 - GAS LINE
 - OIL LINE
 - FENCE
 - EDGE OF CANAL
 - GRAVEL ROAD EDGE
 - TWO-TRACK PATH
 - DITCH CENTERLINE
 - FLOOD ZONE A
 - BHS SOLAR'S RESERVED DEVELOPMENT AREA FOR OIL AND GAS USE
 - PANEL MATCH LINE
 - MINERAL ACCESS EASEMENT AREA
 - EXISTING CALLOUT
 - EXISTING TEXT HERE
- PROPOSED LEGEND:**
- ANNEXATION BOUNDARY
 - PROPOSED CALLOUT
 - PV ARRAY (250' SCALE OR LOWER PLANS)
 - SECURITY FENCE
 - ACCESS ROAD
 - SEDIMENT BARRIER
 - MEDIUM VOLTAGE CABLE
 - CONCRETE EQUIPMENT PADS
 - PV ARRAY (SCALES GREATER THAN 1"=250' PLANS)

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION



WSP USA
ENVIRONMENT & INFRASTRUCTURE
SOLUTIONS, INC.
100 APOLLO DRIVE, SUITE 302
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ISSUE / REVISION DESCRIPTION		DATE	REVISION
	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	12/21/2022	2
	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	09/14/2022	1
	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	06/07/2022	0

PROJECT:
BHS SOLAR ENERGY FACILITY
SOLAR PV DEVELOPMENT
SEVERANCE, COLORADO 80546

TITLE:
PROPOSED PANEL PLAN

CLIENT:
BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE,
SUITE 1020
IRVINE, CALIFORNIA 92618

SEAL:


DESIGNED BY:
OAC

CHECKED BY:
APV

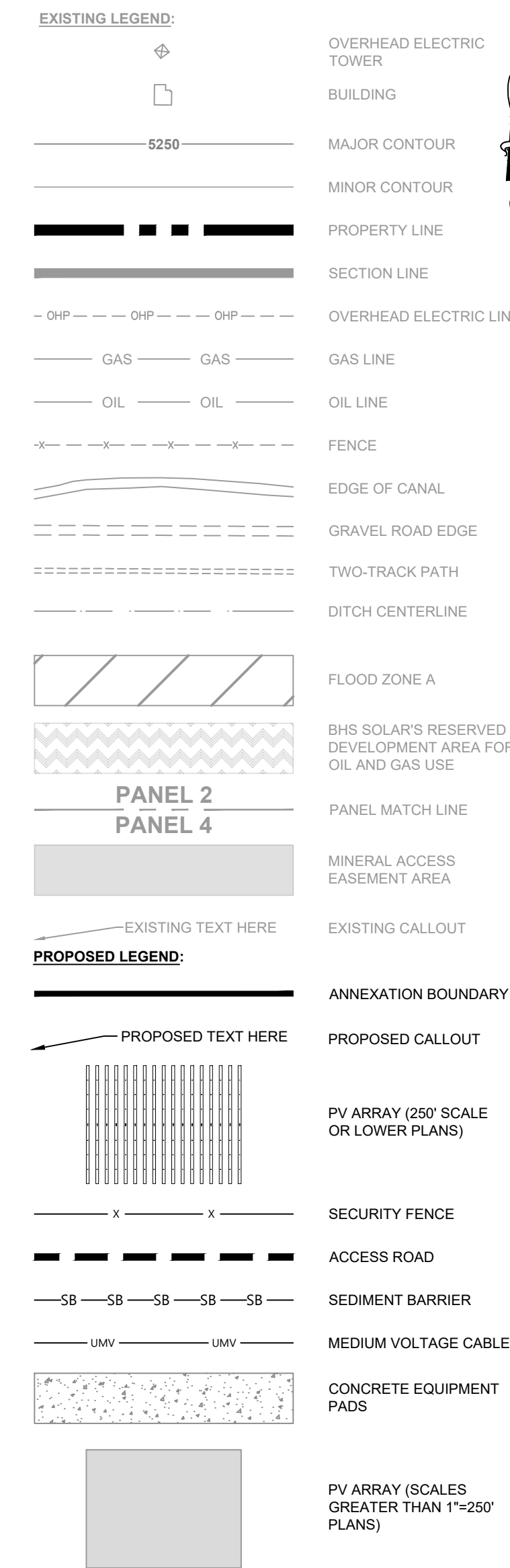
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DRAWING NUMBER:
C-101

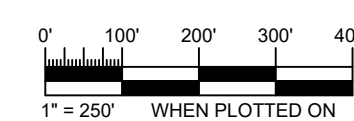
SHEET NUMBER:
10 OF 27

DRAFT





PV MODULE	RISEN SOLAR TECHNOLOGY
	RSM120-8-600BMDG
	600W
	527,488
	32
	16,484
	316.492 MW-DC
	1500 V
DESIGN TEMPERATURES	ASHRAE COOLING DB 2% DB 29.2 DEG C
	ASHRAE HEATING DB 99.6% -20.4 DEG C
PV/ESS INVERTER	SMA SOLAR TECHNOLOGY
	SC 4200 UP-US
INVERTER NOMINAL OUTPUT POWER	35 DEG C @ 50 DEG C 4200 KVA / 3780 KVA
	65
	AC SYSTEM OUTPUT NOMINAL @ UNITY PF 273.000 MW-AC
	250.000 MW-AC
RACKING	NEXTRACKER
	31.0% / 29.4%
	23.0 FT / 24.2 FT
	PILE DRIVEN POSTS
	1-PORTRAIT
	0 DEG
	TBD



ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION

CLIENT:

BHS SOLAR, LLC
 174 POWER GLOBAL
 300 SPECTRUM CENTER DRIVE,
 SUITE 1020
 IRVINE, CALIFORNIA 92618

PROJECT:

BHS SOLAR ENERGY FACILITY
 SOLAR PV DEVELOPMENT
 SEVERANCE, COLORADO 80546

SEAL:

174 POWER

GLOBAL

TITLE:

PROPOSED SITE PLAN
 (PANEL 2 - SECTION 23)

DESIGNED BY: OAC

CHECKED BY: APV

PROJECT NUMBER:

DRAWN BY: OAC/MPMS

SCALE: AS SHOWN

3652220356

DRAWING NUMBER:

C-103

SHEET NUMBER:

12 OF 27

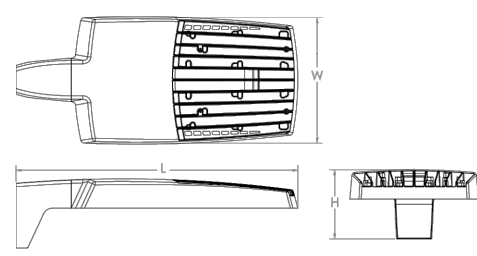


RSX2 LED Area Luminaire



Specifications

EPA (ft²/80°): 0.69 ft² (0.06 m²)
Length: 29.3" (74.4 cm) (SPA mount)
Width: 13.4" (34.0 cm)
Height: 3.0" (7.6 cm) Main Body
7.2" (18.3 cm) Arm
Weight: 30.0 lbs (13.6 kg) (SPA mount)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX2 delivers 11,000 to 31,000 lumens allowing it to replace 250W to 1000W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

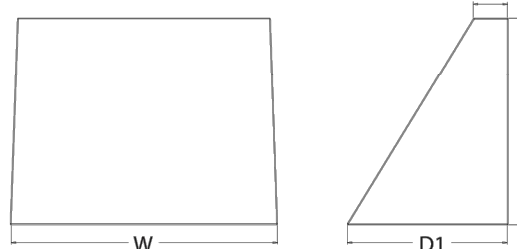


WDGE2 LED Architectural Wall Sconce Precision Refractive Optic



Specifications

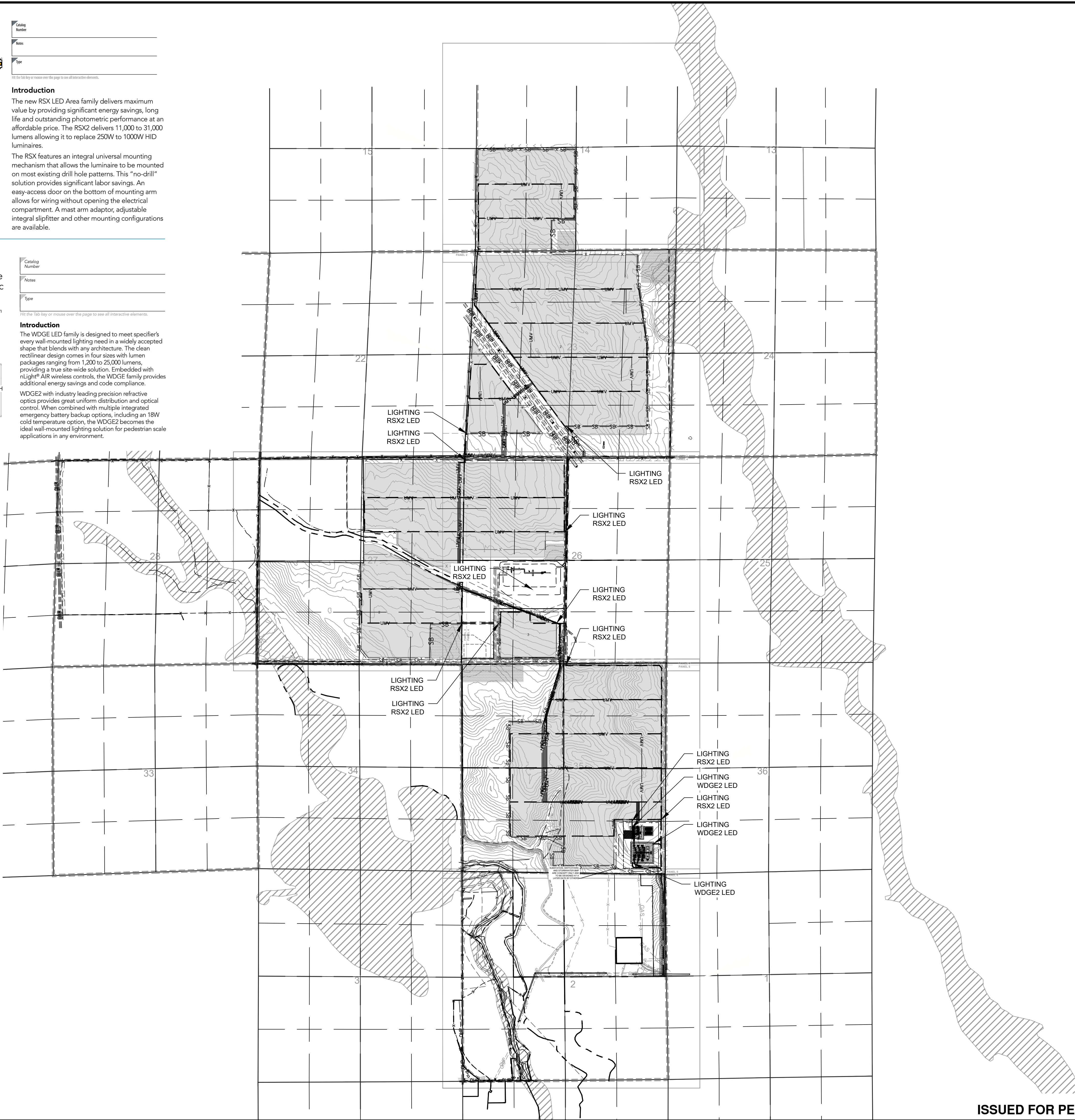
Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: 13.5 lbs (without options)



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WDGE family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.



EXISTING LEGEND:

- OVERHEAD ELECTRIC TOWER
- BUILDING
- MAJOR CONTOUR
- MINOR CONTOUR
- PROPERTY LINE
- SECTION LINE
- OVERHEAD ELECTRIC LINE
- GAS LINE
- OIL LINE
- FENCE
- EDGE OF CANAL
- GRAVEL ROAD EDGE
- TWO-TRACK PATH
- DITCH CENTERLINE



FLOOD ZONE A

BHS SOLAR'S RESERVED DEVELOPMENT AREA FOR OIL AND GAS USE

PANEL 2
PANEL 4

PANEL MATCH LINE

MINERAL ACCESS EASEMENT AREA

EXISTING CALLOUT

EXISTING TEXT HERE

PROPOSED LEGEND:

ANNEXATION BOUNDARY

PROPOSED CALLOUT

PROPOSED TEXT HERE

PV ARRAY (250' SCALE OR LOWER PLANS)

SECURITY FENCE

ACCESS ROAD

SEDIMENT BARRIER

MEDIUM VOLTAGE CABLE

CONCRETE EQUIPMENT PADS

PV ARRAY (SCALES GREATER THAN 1"=250' PLANS)

REVISION	DATE	ISSUE / REVISION DESCRIPTION	APPROVED
2	12/21/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV
1	09/14/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV
0	06/07/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV

PROJECT:	BHS SOLAR ENERGY FACILITY SOLAR PV DEVELOPMENT SEVERANCE, COLORADO 80546
TITLE:	PROPOSED LIGHTING PLAN

CLIENT:	BHS SOLAR, LLC 174 POWER GLOBAL SPECTRUM CENTER DRIVE, SUITE 1020 IRVINE, CALIFORNIA 92618
SEAL:	

DESIGNED BY:	OAC	DRAWN BY:	OACMPS
CHECKED BY:	APV	SCALE:	AS SHOWN
PROJECT NUMBER:	3652220356	DRAWING NUMBER:	C-110
SHEET NUMBER:	19 OF 27		

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION



* ALL CROSSINGS ARE PURSUANT TO FINAL CROSSING AGREEMENTS



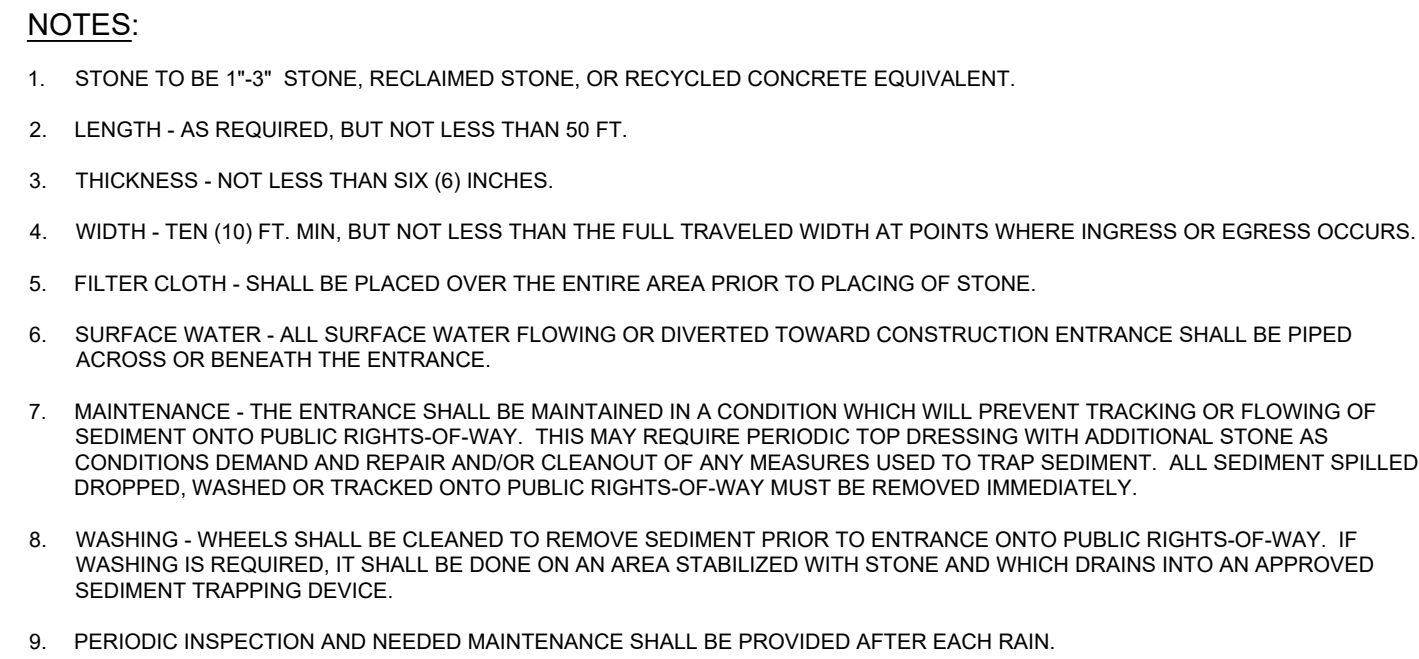
SEAL:

DRAFT

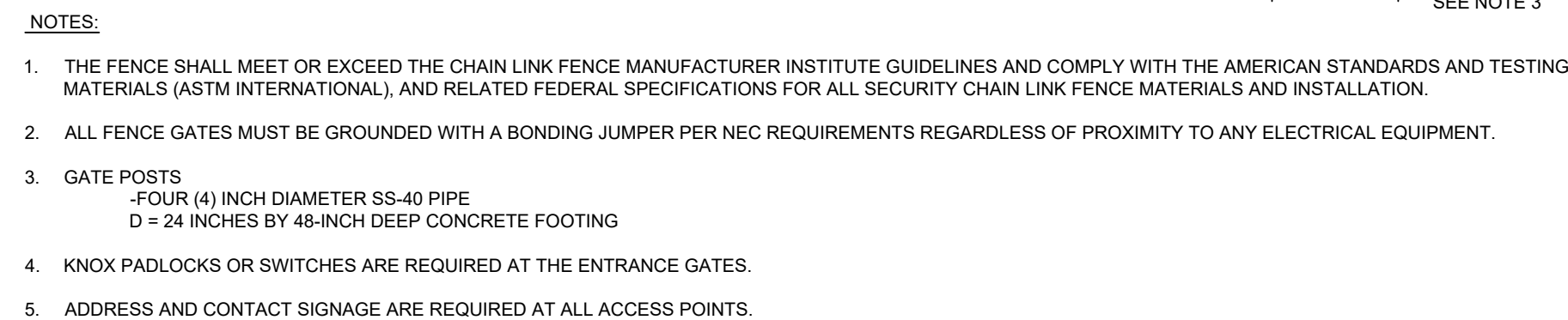
* THE SETBACK CODE IS WRITTEN INFERRING THAT A PARCEL HAS FRONT, SIDES, AND REAR YARDS OR PROPERTY LINES, WHICH IS NOT THE CASE FOR THIS PROJECT. ADDITIONALLY, CERTAIN SETBACKS FROM PROPERTY BOUNDARIES ARE MATERIALLY LARGER TO CREATE VISUAL BUFFERS AND ACROSS COMMON PROPERTY OWNER BOUNDARIES.



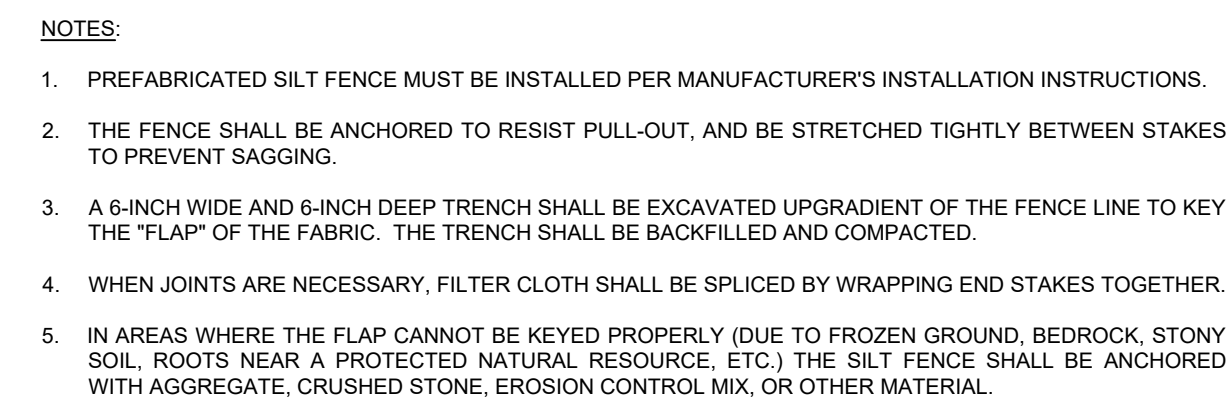
U:\-CAD Projects\174 Power Global\Black Hollow - CO\7.0 CAD\7.1 Design - Permitting\Sheets\21 - 3652220356 - C-112.dwg - Layout1 - Dec. 22 2022 3:40pm - peter.garland



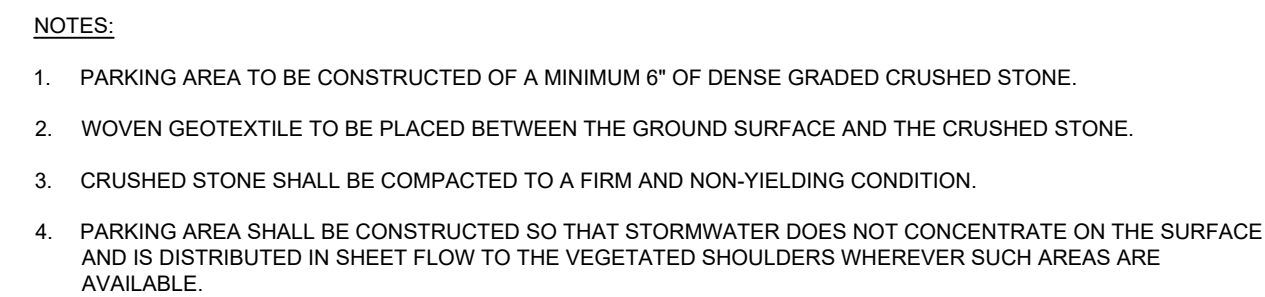
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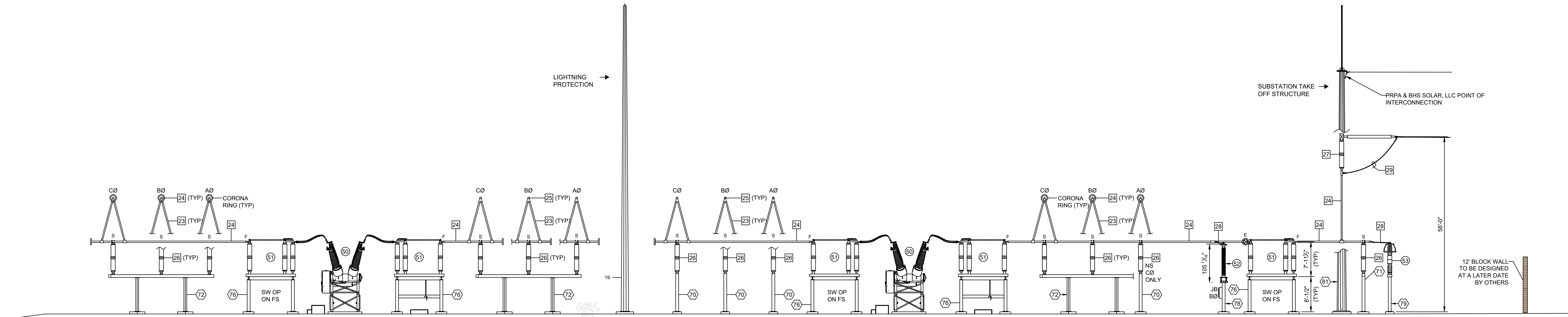


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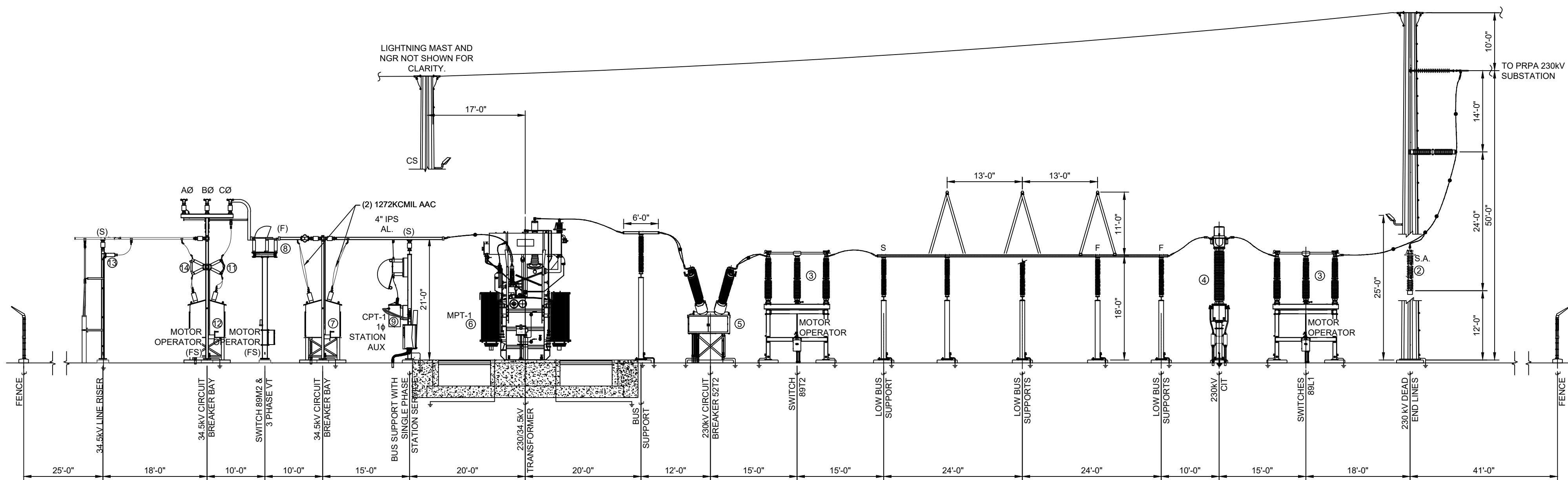


DESIGNED BY: OAC		DRAWN BY: OAC/MPS	
CHECKED BY: APV		SCALE AS SHOWN	
PROJECT NUMBER:		3652220356	
DRAWING NUMBER: C-502			
SHEET NUMBER: 23 OF 27			



SAMPLE SECTION
PRPA 230 KV SWITCHYARD SAMPLE STRUCTURES EQUIPMENT ELEVATIONS
NOT TO SCALE

13



LEGEND:
(EX) EXPANSION
(S) SLIP
(F) FIXED
FS FAR SIDE
CS CLOSE SIDE

REFERENCE DRAWING:
SK-GA GENERAL ARRANGEMENT
SK-ML MAJOR EQUIPMENT LIST - AIS

NOTES:

- ALL WORK DONE BY CONTRACTOR/INSTALLER PURSUANT TO THIS DRAWING SHALL: (A) CONFORM TO THE GOVERNING CONTRACT DOCUMENTS; (B) BE PERFORMED EXCLUSIVELY BY TRAINED, COMPETENT PERSONNEL OR, WHERE PERMITTED, THAT OF ITS SUBCONTRACTOR(S); AND (C) COMPLY WITH ALL APPLICABLE SAFETY LAWS, REGULATIONS, PROGRAMS AND PRACTICES TO ENSURE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING THE CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUBCONTRACTOR(S)) PERFORMING THE WORK.
- UNDERGROUND OR EMBEDDED UTILITIES (MAY) EXIST WITHIN THE AREA OF AND ADJACENT TO THE LIMITS OF THE WORK. THE LOCATION OR IDENTIFICATION OF SUCH UTILITIES HAS NOT BEEN VERIFIED BY OWNER OR BY WESTWOOD. CONTRACTOR/INSTALLER IS RESPONSIBLE FOR FIELD LOCATING AND IDENTIFICATION UNDERGROUND OR EMBEDDED UTILITIES AND ANY OTHER UNDERGROUND OR EMBEDDED UTILITIES DIMENSIONS.
- REFERENCES USED HAVE BEEN IDENTIFIED ON EXCAVATION/FOUNDATION/DEMOLITION DRAWINGS AND HAVE BEEN PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATION OF EXISTING UTILITIES AND OTHER POTENTIAL UNDERGROUND OR EMBEDDED INTERFERENCES. THESE REFERENCES ONLY SHOW THE APPROXIMATE LOCATION OF POTENTIAL UNDERGROUND OR EMBEDDED UTILITIES AND MAY NOT INDICATE OR REFLECT ALL EXISTING UNDERGROUND OR EMBEDDED UTILITIES OR THEIR ACTUAL LOCATIONS.
- REFERENCES IDENTIFIED SHALL NOT SUBSTITUTE FOR THE CONTRACTOR'S/INSTALLER'S OBLIGATION TO FIELD LOCATE ANY UNDERGROUND OR EMBEDDED UTILITIES OR INTERFERENCES THAT MAY AFFECT THE WORK.
- DUE CAUTION SHALL BE TAKEN DURING ANY EXCAVATION/FOUNDATION/DEMOLITION WORK WITHIN THE AREA OF AND ADJACENT TO THE LIMITS OF THE WORK DUE TO POSSIBLE INTERFERENCES THAT MAY NOT BE REFLECTED ON THE REFERENCES IDENTIFIED.
- ALL EQUIPMENT SHOWN IS PRELIMINARY FOR CONCEPTUAL DESIGN. EPC CONTRACTOR TO VERIFY IN DETAILED DESIGN.
- FOR REACTOR, CAP BANK AND CONNECTIONS, EXACT LOCATION AND CONFIGURATION TO BE DETERMINED WHEN FINAL REACTIVE DESIGN IS COMPLETE.
- PRECAST CONCRETE CABLE TRAY SHALL BE HEAVY TRAFFIC, HS-20 RATED AT ALL ROAD CROSSINGS, AS MANUFACTURED BY TRENWA.
- PHASING TO BE VERIFIED BY ENGINEER OF RECORD.

BHS SOLAR, LLC SUBSTATION 230-34.5 KV SUBSTATION BUS ELEVATIONS
NOT TO SCALE

14

REVISION	DATE	ISSUE / REVISION DESCRIPTION	ISSUED	APPROVED
2	12/21/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV	MED
1	09/14/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV	MED
0	06/07/2022	ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION	APV	MED

PROJECT:
BHS SOLAR ENERGY FACILITY
SOLAR PV DEVELOPMENT
SEVERANCE, COLORADO 80546

TITLE:
ELECTRICAL SUBSTATION
ELEVATION DETAILS

CLIENT:
BHS SOLAR, LLC
174 POWER GLOBAL
300 SPECTRUM CENTER DRIVE,
SUITE 1020
IRVINE, CALIFORNIA 92618

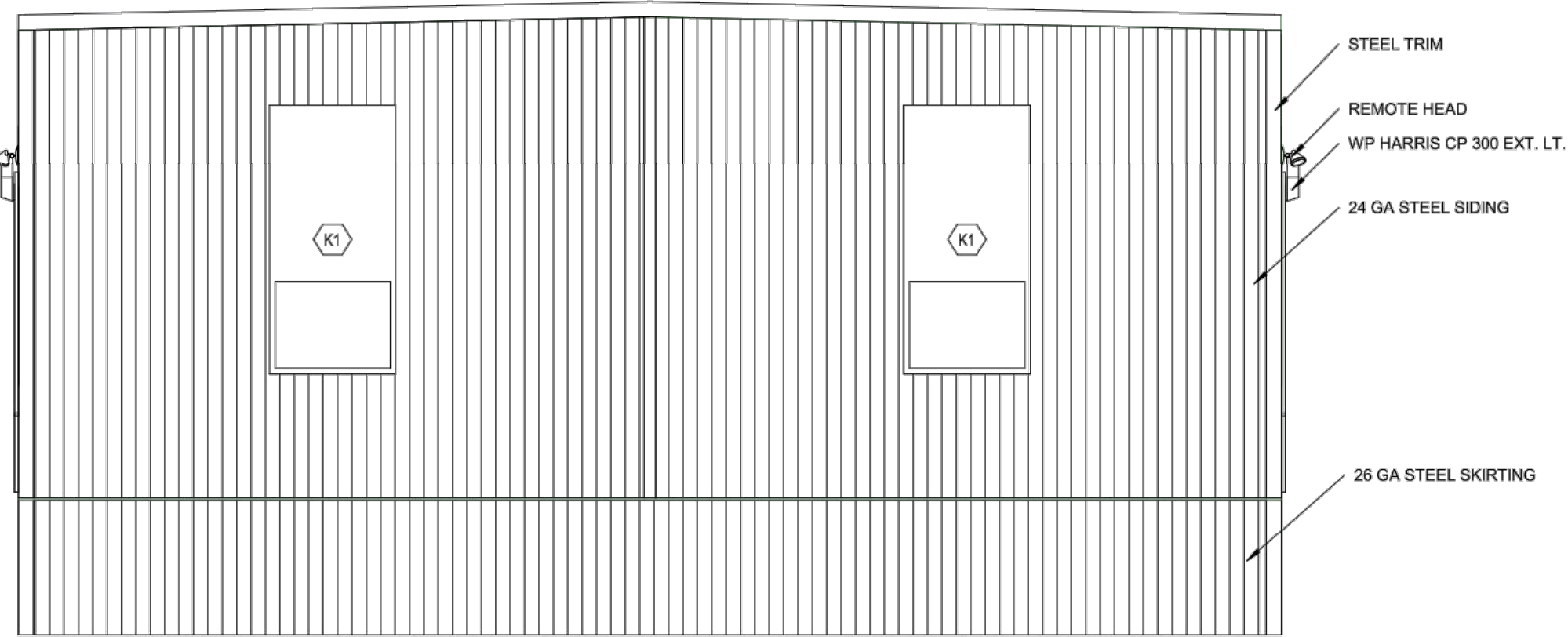
174 GLOBAL
POWER

SEAL:
DRAFT

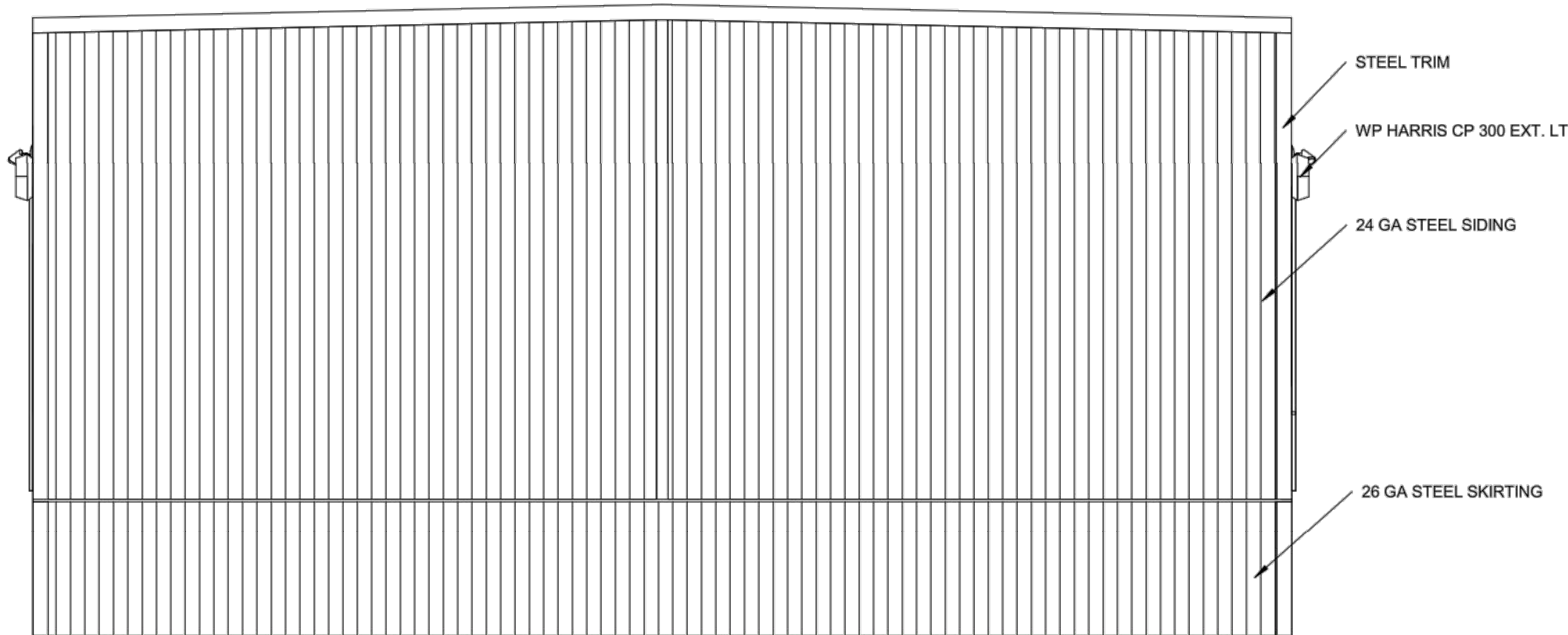
DESIGNED BY: OAC	DRAWN BY: OAC/MS
CHECKED BY: APV	SCALE: AS SHOWN
PROJECT NUMBER: 3652220356	
DRAWING NUMBER: S-501	
SHEET NUMBER: 25 OF 27	

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION

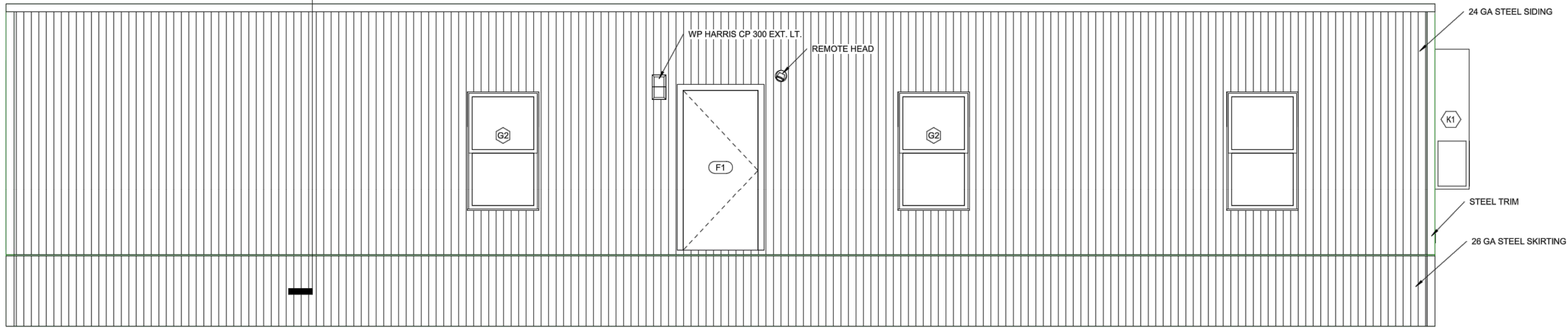




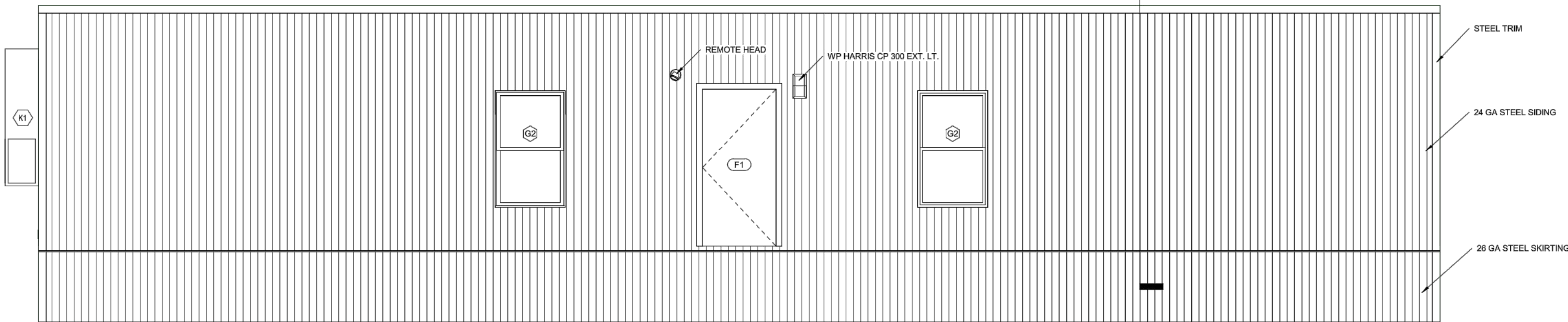
1 East Elevation
3/8" = 1'-0"



4 West Elevation
3/8" = 1'-0"



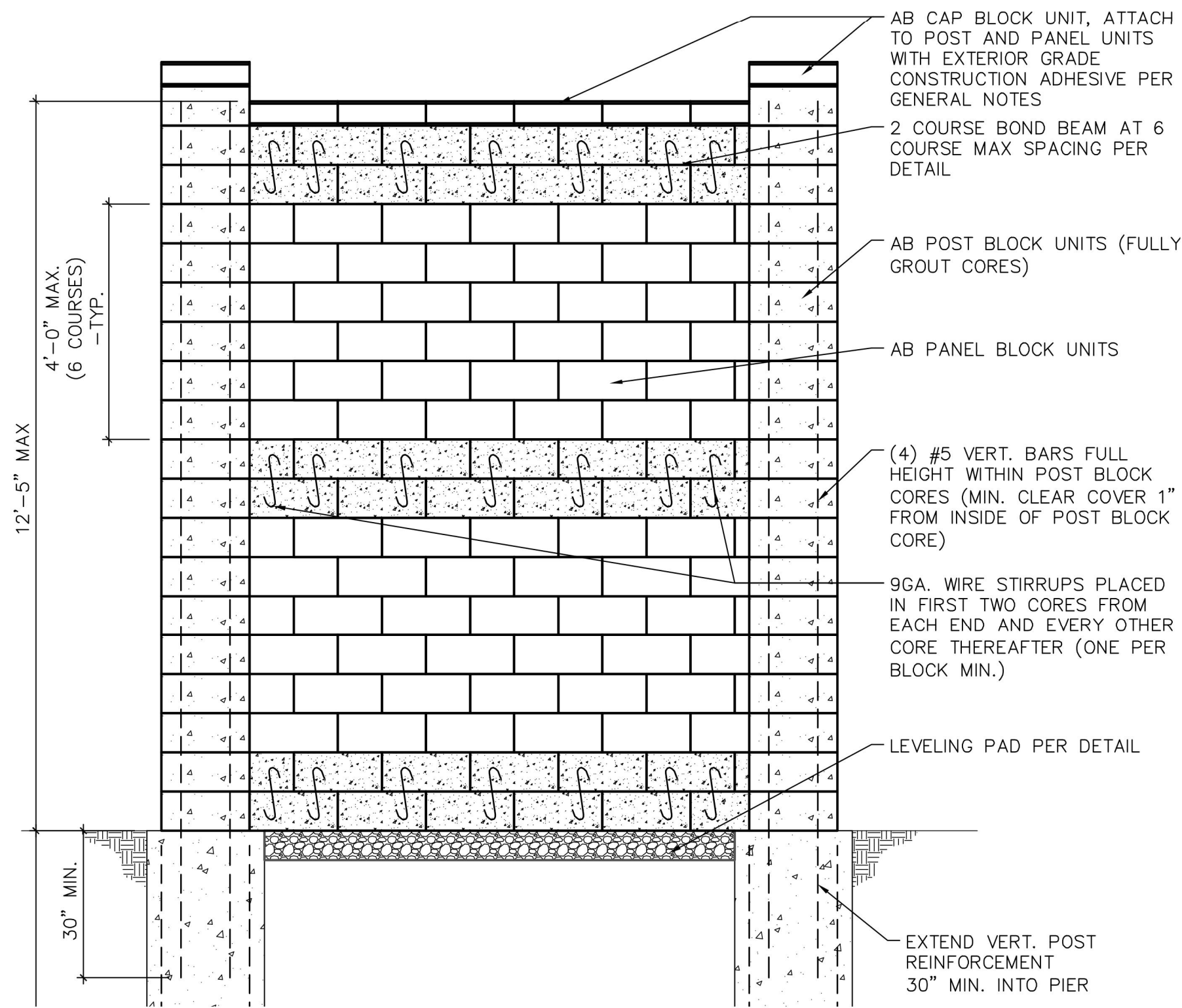
3 South Elevation
3/8" = 1'-0"



2 North Elevation
3/8" = 1'-0"

O&M BUILDING ELEVATIONS
NOT TO SCALE

16



12' BLOCK WALL CONCEPT ONLY - TO BE DESIGNED BY OTHERS AT A LATER DATE
NOT TO SCALE

17

ISSUED FOR PERMITTING / NOT FOR CONSTRUCTION

REVISION	DATE	ISSUED	APPROVED
2	12/21/2022	APV	MED
1	09/14/2022	APV	MED
0	06/07/2022	APV	MED

BHS SOLAR ENERGY FACILITY SOLAR PV DEVELOPMENT SEVERANCE, COLORADO 80546	ADDITIONAL STRUCTURAL DETAILS
--	----------------------------------

BHS SOLAR, LLC 174 POWER GLOBAL 300 SPECTRUM CENTER DRIVE, SUITE 1020 IRVINE, CALIFORNIA 92618	174 GLOBAL POWER
--	---------------------

DESIGNED BY: OAC	DRAWN BY: OACMPS
CHECKED BY: APV	SCALE: AS SHOWN
PROJECT NUMBER: 3652220356	DRAWING NUMBER: S-503
SHEET NUMBER: 27 OF 27	



December 19, 2022

Ms. Stephanie Lauer
BHS Solar, LLC
300 Spectrum Center Drive
Irvine, CA 92618

Re: BHS Solar - Traffic Impact Study
Weld County, Colorado

Dear Ms. Lauer:

This letter documents the results of a traffic study including trip generation, trip distribution, traffic assignment, and intersection analysis for the proposed BHS Solar project to be constructed along the south side of County Road 90 (CR-90), east of County Road 15 (CR-15) in Weld County, Colorado. The project is located within the western portion of Weld County, north and east of BHS Reservoir and northwest of the Western Area Power Authority (WAPA) Ault Substation. The solar field project will be located approximately 3 miles east of the CR-90 and CR-13 intersection, a vicinity map is attached in **Figure 1**.

The project will consist of approximately 800,000 photovoltaic solar panels and associated inverters, access roads, fencing, one new substation, and supporting infrastructure with an improved area of approximately 1,400 acres. Interconnection facilities are planned to an existing 230kV transmission line at the southern end of the project area. This study presents the results of a traffic analysis for increased traffic generated with the construction of the Black Hollow Solar project.

Duration of construction activity to assemble the entire solar facility is anticipated to commence Quarter 2 of 2023. The construction activities each month may vary based on phasing and the size of the phase. This traffic study was prepared analyzing the peak construction traffic during the highest months of activity. Construction will generally follow these steps:

- Mobilization
- Civil/site preparation
- Cable plow/foundations construction
- Post install
- Racking install
- Substation construction
- Set major equipment
- Module installation
- Testing, commissioning, and energization
- Demobilization

In conjunction with consultation with Weld County, local municipalities, and local residents, three routes to the project site have been identified. The preferred regional and heavy access to BHS Solar is via Interstate 25 (I-25), which is identified herein as Route A. The anticipated vehicle route for Route A to the site from I-25 is to travel north on the I-25 Frontage Road to Laramie County Road 52 (LCR-52), then east onto LCR-52 to Weld County Road 13 (WCR-13), then north on WCR-13 to WCR-90, and east along WCR-90 to the project site. This route was chosen for the majority of the construction traffic to provide the least amount of impact to adjacent residents. Route A would also be the primary access for project operations and maintenance.

Route B would be utilized only by local (i.e., points to the east of the site) resident works in passenger vehicles to travel to the site from US Highway 85 (US-85) then west along Rowe Avenue (WCR-90) to the site. Route C would be used only for the delivery of equipment and construction and maintenance of the project substation. The route would leave I-25 and then travel east along State Highway 14 (SH-14) turning north onto WCR-25, then west on WCR-84. Route C then turns north (right) onto WCR-23 to enter the site.

The project site would be accessed by two points. Access 1 would be for the majority of the construction traffic and would be located on WCR-90 to a driveway in an easement on private land. Access 2 would be only for work on the project substation and would be located at the intersection of WCR-23 and WCR-84 1/2. Additionally, as a condition of the development agreement between BHS Solar, LLC and the Town of Severance, during construction only local traffic would be allowed on WCR-19 between WDR-14 and WCR-90; construction traffic would not be allowed. **Figure 2** illustrates the three vehicle routes to and from the site, the two site access points, and the two intersection management points.

Existing Roadway Network

Route A Access

The intersection of LCR-50 and I-25 Southbound (SB) Ramp operates under stop control on the southbound approach of I-25 SB Off Ramp. The eastbound LCR-50 approach provides a through lane and a right turn lane while the westbound LCR-50 approach provides a left turn lane and a through lane. The southbound I-25 southbound offramp approach provides a single lane for shared movements. An aerial photo that illustrates the existing intersection configuration is below (north is up).



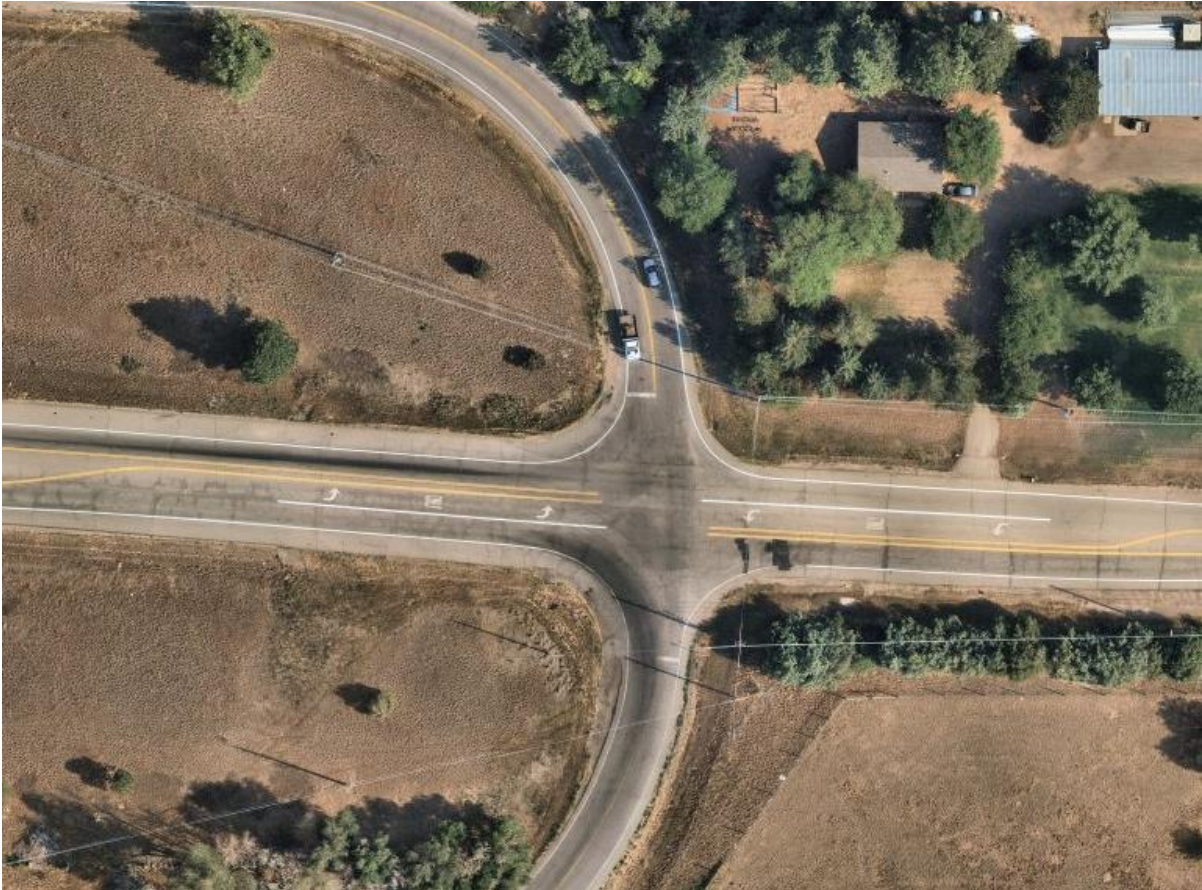
LCR-50 and I-25 SB Ramp

The LCR-50 and I-25 Northbound (NB) Ramp intersection operates under stop control on the northbound I-25 NB Off Ramp approach. The eastbound LCR-50 approach provides a left turn lane and a through lane while the westbound LCR-50 approach provides a shared through/right turn lane. The I-25 northbound offramp approach provides a single lane for shared movements. An aerial photo that illustrates the existing intersection configuration is as follows (north is up).



LCR-50 and I-25 NB Ramp

The intersection of LCR-50 and I-25 Frontage Road operates under stop control on the northbound and southbound approaches of I-25 Frontage Road. The northbound and southbound approaches provide a single lane for shared movements. The eastbound and westbound approaches of LCR-50 provide a left turn lane and a shared through/right turn lane. An aerial photo that illustrates the existing intersection configuration is below (north is up).



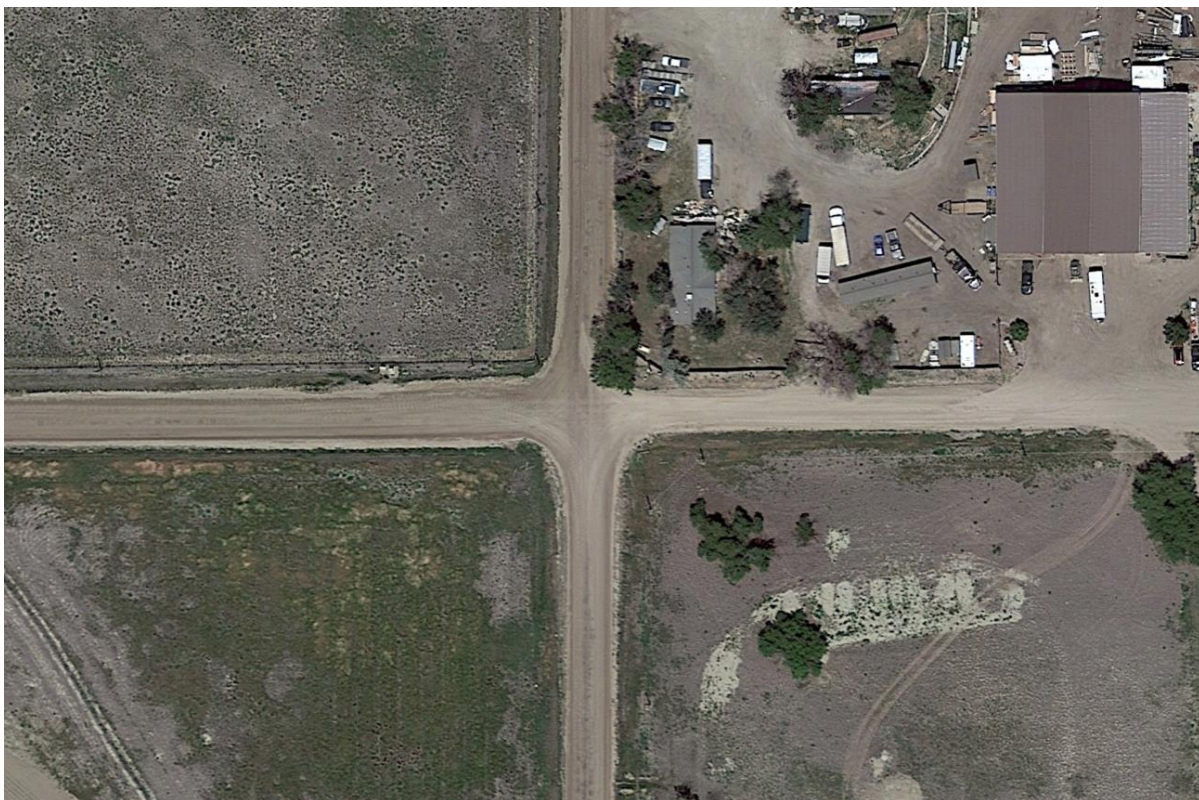
LCR-50 and I-25 Frontage Road

Due to LCR-52 being grade separated over the I-25 Frontage Road, the LCR-52 and I-25 Frontage Road connection includes a spur access roadway that connects to the I-25 Frontage Road south of LCR-52 and connects to LCR-52 east of the I-25 Frontage Road. Both intersections operate with stop control on the spur access roadway. All approaches operate with single lanes for shared movements. An aerial photo that illustrates the existing grade separated condition and intersections configuration is below (north is up).



LCR-52 and I-25 Frontage Road

The intersection of LCR-52 and WCR-13 operates under stop control on the eastbound and westbound approaches of LCR-52. Both roadways are currently unpaved. All four approaches provide a width to provide a single lane for shared movements. An aerial photo that illustrates the existing intersection configuration is below (north is up).



LCR-52 and WCR-13

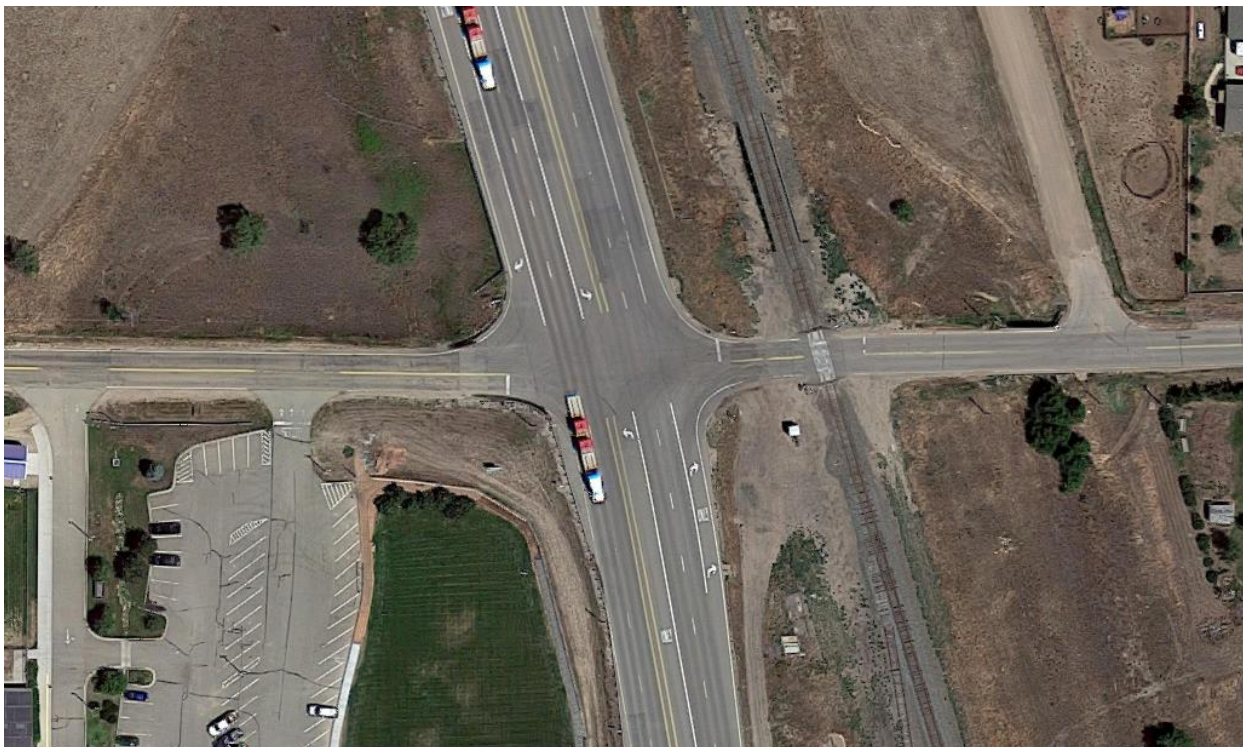
The intersection of WCR-90 and WCR-13 operates under stop control on the eastbound and westbound approaches of WCR-90. Both roadways are currently unpaved. All four approaches provide a width to provide a single lane for shared movements. An aerial photo that illustrates the existing intersection configuration is below (north is up).



WCR-90 and WCR-13

Route B Access

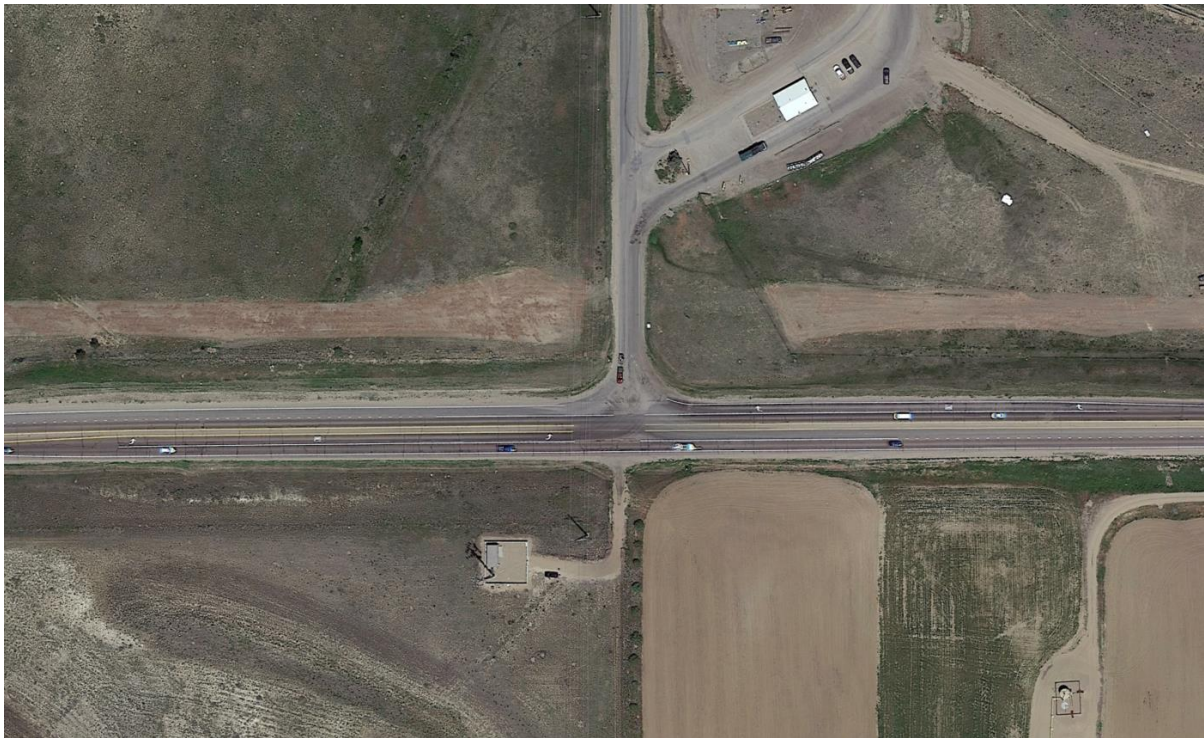
The intersection of Rowe Avenue (WCR-90) and US-85 operates under stop control on the eastbound and westbound approaches of Rowe Avenue (WCR-90). The northbound and southbound approaches of US-85 provide a left turn lane, two through lanes, and a right turn lane. The eastbound and westbound approaches of Rowe Avenue (WCR-90) provide a single lane for shared movements. There is an acceleration lane along northbound US-85 for the westbound right turn movement.



Rowe Avenue (WCR-90) and US-85

Route C Access

The SH-14 and WCR-25 intersection operates under stop control on the southbound WCR-25 approach. The eastbound SH-14 approach provides a left turn lane and a through lane while the westbound SH-14 approach provides a through lane and a separate right turn lane. The southbound WCR-25 approach provides a single lane for shared left turn and right turn movements. A westbound acceleration lane along SH-14 from the southbound right turn and an eastbound acceleration lane along SH-14 from the southbound right turn are also present. An aerial photo that illustrates the existing intersection configuration is as follows (north is up).



SH-14 and WCR-25

The intersection lane configuration and control for the identified study area intersections for operational evaluation are shown in **Figure 3**.

Existing and Future Traffic Volumes

Existing morning and afternoon peak hour counts were conducted at the key intersections on Wednesday, March 31, 2021 and Wednesday, June 16, 2021. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. The existing intersection traffic volumes are shown in **Figure 4**.

From the Larimer Transportation Master Plan, this area was not identified to experience much traffic volume growth within the next couple of years. Likewise, traffic volume growth was compared to information published by Weld County for the area and CDOT along US-85 at the WCR-90 intersection. The projected twenty-year growth factor at this intersection was found to be 1.26, which equates to an annual growth rate of 1.16 percent. Therefore, this is believed to be consistent, and a one (1%) percent annual growth rate was applied to the existing counts to calculate 2023 future morning and afternoon peak hour volumes with the peak construction of the solar facility in the entire project study area. **Figure 5** illustrates the 2023 background volumes at the study intersections.

Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. The number of trips for the BHS Solar facility was based on anticipated construction activity and operations. In order to study the effect of construction traffic created by the solar facility, the expected trips during the peak period of construction were used as the basis for this study. The peak construction traffic activity is anticipated to occur in 2023 and 2024.

Construction Traffic Generation

The typical construction peak season workday will see workers arriving during a four-hour window between 6:00 am and 10:00 am and departing during a three-hour window between 1:00 pm and 4:00 pm. The standard construction hours are anticipated to be 6:30 am to 3:30 pm. The highest proportion of workers will arrive to the site between 6:00 and 7:00 am (half) and depart between 3:00 pm to 4:00 pm (one-third), although the volume will be fairly uniform during the arrival and departure hours. It is anticipated that construction of the facility will include an average of 300 construction workers. At construction peak, there may be up to 450 workers, although the peak hour traffic volumes will remain the same as projected with the traffic spread out further over the arrival and departure peak hours. It is important to note the truck trip generation also includes the volume adjusted for the three (3) passenger car equivalents (PCE) per truck. The following **Table 1** identifies the peak construction activity trip generation for the construction of BHS Solar facility.

Table 1 - BHS Solar – Peak Construction Activity Traffic Generation

User	Weekday Vehicles Trips							
	Daily Round Trips	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Delivery Trucks (15)	15	30	3	0	3	0	2	2
Water Trucks (15)	15	30	2	0	2	0	2	2
Total Trucks (30)	30	60	5	0	5	0	4	4
PCE Trips	90	180	15	0	15	0	12	12
Passenger Vehicles (300 construction workers)	300	600	150	0	150	0	100	100
Total Vehicles	330	660	155	0	155	0	104	104
Total PCE	390	780	165	0	165	0	112	112

As shown in the table, BHS Solar is expected to generate approximately 330 daily round trips (660 daily trips) with 155 of these trips occurring during the morning peak hour and 104 of these trips occurring during the afternoon peak hour during the peak construction activities. This volume of daily traffic of 660 trips is expected to be the highest volume generated during solar facility construction.

Of note, when construction of the Substation and Switchyard are being completed, the Route C access will be utilized which will include traffic through the SH-14 and WCR-25 intersection (eastbound left turns and southbound right turns). Passenger car traffic will be approximately 20 vehicles per day for a period of five (5) months. Delivery trucks will be approximately 12 per day for a period of one (1) month and two (2) per day for a period of three (3) months. For switchyard construction, an average 15 passenger car trips per day for three months and five (5) delivery vehicles per day for one (1) month and two (2) delivery vehicles per day for an additional month.

Solar Facility Operational Phase Traffic Generation

After the BHS Solar project has been constructed, the number of trips generated by the solar plant is expected to be significantly less than during the construction period. The project will be a manned facility with two to five technicians onsite (including contractors) during operational hours Monday to

Friday, and as needed on weekends. Therefore, traffic impacts related to the operation of the solar plant facility will be negligible and insignificant.

Trip Distribution and Traffic Assignment

Trip distribution is based on the anticipated arrival location of employees along with the delivery route to be used for truck traffic. It is anticipated that truck traffic will utilize the I-25 interchange with LCR-50 and use the I-25 Frontage Road to LCR-52 and head east to WCR-13 and travel north along WCR-13 to WCR-90 to head east to the site. Construction worker trips will be based on the arrival location from place of residence (permanent or temporary). The distribution for construction worker trips was derived based on distances to nearby cities and populations. The City of Fort Collins is located approximately 10 miles southwest of the site and the Town of Wellington is located approximately 10 miles north of the project site. Further south, over approximately 20 miles southwest of the site is the City of Loveland. The City of Greeley is located approximately 20 miles southeast of the site. The City of Denver metro area is approximately 60 miles to the south. Based on these factors, it is anticipated that 70 percent of the traffic will be to and from the south, 10 percent of the traffic will be to and from the west, and 20 percent of the traffic will be to and from the north. This traffic was factored for the amount expected to arrive from I-25 (70 percent) versus US-85 (30 percent) areas. Attached **Figure 6** illustrates the anticipated trip distribution, shown in the overall direction of arrival and departure at the study intersections along Route A for truck traffic. **Figure 7** illustrates the anticipated trip distribution for the passenger vehicles to contain the construction workers of the facility. The project traffic assignment for vehicles is shown in attached **Figure 8**. The 2023 total traffic volumes are shown in **Figure 9**.

Traffic Operations Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways, standard traffic engineering practice recommends LOS D as the minimum threshold for acceptable operations for intersections and LOS E for movements. **Table 2** below shows the definition of level of service for unsignalized intersections.

Table 2 - Level of Service Definitions

Level of Service	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

The study intersections were analyzed based on average total delay analysis for unsignalized intersections. Under the unsignalized analysis, the level of service (LOS) for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service for a two-way stop-controlled intersection is not defined for the intersection as a whole.

Calculations for the level of service at the key intersections identified for the study are attached. The traffic analysis is based on the lane geometry and intersection control shown in **Figure 2**. The peak hour factor and percent heavy vehicles were used as determined by the existing turning movement

counts. Synchro traffic analysis software was used to analyze the study area intersections and access drives for level of service. The Synchro Highway Capacity Manual (HCM) methodology reports were used to analyze intersection delay and level of service.

Route A Access

LCR-50 and I-25 SB Ramp

The unsignalized intersection of LCR-50 and I-25 SB Ramp operates with stop-control on the southbound I-25 SB Off Ramp approach. The movements at this intersection currently operate at LOS B or better during the morning and afternoon peak hours. With the addition of project traffic in 2023, the movements at this intersection will operate acceptably at LOS C or better. Therefore, no improvements or modifications are anticipated to be needed based on the addition of construction traffic for BHS Solar. **Table 3** provides the results of the level of service at this intersection.

Table 3 – LCR-50 & I-25 SB Ramp LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Westbound Left	9.4	A	8.6	A
Southbound Approach	10.8	B	13.2	B
2023 Background				
Westbound Left	9.5	A	8.6	A
Southbound Approach	10.9	B	13.3	B
2023 Background Plus Project				
Westbound Left	9.5	A	8.8	A
Southbound Approach	16.9	C	14.4	B

LCR-50 and I-25 NB Ramp

This LCR-50/I-25 NB Ramp intersection operates with stop-control on the I-25 NB Off Ramp approach. The movements at this intersection currently operate at LOS C or better during the morning and afternoon peak hours. With the addition of solar construction traffic in 2023, the movements at this intersection will operate acceptably at LOS D or better. Therefore, no improvements are anticipated to be needed based on the addition of construction traffic for BHS Solar. **Table 4** provides the results of the level of service at this intersection.

Table 4 – LCR-50 & I-25 NB Ramp LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Northbound Approach	14.2	B	23.5	C
Eastbound Left	8.1	A	7.7	A
2023 Background				
Northbound Approach	14.5	B	25.1	D
Eastbound Left	8.1	A	7.8	A
2023 Background Plus Project				
Northbound Approach	16.7	C	31.5	D
Eastbound Left	8.1	A	8.0	A

LCR-50 and I-25 Frontage Road

The unsignalized LCR-50 and I-25 Frontage Road intersection operates with stop-control on the northbound and southbound approaches of the I-25 Frontage Road. The movements at this intersection currently operate at LOS D or better during the morning and afternoon peak hours. With the addition of project traffic in 2023, all movements at this intersection will operate acceptably at LOS D or better with exception of the northbound approach of this intersection which is projected to operate at LOS E with the addition of BHS Solar construction traffic during the afternoon peak hour. The delay level is only 1.8 seconds beyond the threshold from LOS D to E, and no project traffic is added to this approach. Therefore, no improvements or modifications are anticipated to be needed based on the addition of construction traffic for BHS Solar. As the traffic volumes evaluated in this traffic study are conservative without applying any reductions for ridesharing, it is anticipated that the intersection will operate better than predicted. **Table 5** provides the results of the level of service at this intersection.

Table 5 – LCR-50 & I-25 Frontage Road LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Northbound Approach	14.6	B	29.7	D
Eastbound Left	7.5	A	7.8	A
Westbound Left	0.0	A	7.4	A
Southbound Approach	10.9	B	12.3	B
2023 Background				
Northbound Approach	14.9	B	31.3	D
Eastbound Left	7.5	A	7.8	A
Westbound Left	0.0	A	7.4	A
Southbound Approach	11.0	B	12.5	B
2023 Background Plus Project				
Northbound Approach	24.2	C	36.8	E
Eastbound Left	7.8	A	7.8	A
Westbound Left	0.0	A	7.4	A
Southbound Approach	12.7	B	12.2	B

WCR-90 and WCR-13

The WCR-90 and WCR-13 intersection operates with stop control on the eastbound and westbound WCR-90 approaches. The movements at this intersection currently operate at LOS A during the morning and afternoon peak hours. With the addition of project traffic in 2023, all movements at this intersection will operate acceptably at LOS A. Therefore, no improvements or modifications are anticipated to be needed. **Table 6** provides the results of the level of service at this intersection.

Table 6 – WCR-90 & WCR-13 LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Northbound Left	7.3	A	7.2	A
Eastbound Approach	8.5	A	8.4	A
Westbound Approach	8.9	A	8.6	A
Southbound Left	7.3	A	7.3	A
2023 Background				
Northbound Left	7.3	A	7.2	A
Eastbound Approach	8.5	A	8.4	A
Westbound Approach	8.9	A	8.6	A
Southbound Left	7.3	A	7.3	A
2023 Background Plus Project				
Northbound Left	7.3	A	7.2	A
Eastbound Approach	8.5	A	8.4	A
Westbound Approach	9.5	A	9.4	A
Southbound Left	7.7	A	7.3	A

By these demonstrated results, the intersections of the spur road connecting LCR-52 and I-25 Frontage Road as well as the LCR-52 and WCR-13 intersection will have all movements operating with acceptable traffic levels. These intersections have lower traffic volumes than studied at these intersections, so all movements at the intersections along Route A Access.

Route B Access

Rowe Avenue (WCR-90) and US-85

The intersection of Rowe Avenue (WCR-90) and US-85 operates under stop control on the eastbound and westbound approaches of Rowe Avenue (WCR-90). The movements at this intersection currently operate at LOS A or better during the morning and afternoon peak hours. With the addition of project traffic in 2023, all movements at this intersection will operate acceptably at LOS A or better. Therefore, no improvements or modifications are anticipated to be needed based on the addition of construction traffic for BHS Solar based on this operational analysis. However, as identified in Turn Bay Length Analysis section of this report, an acceleration lane along southbound US-85 is warranted at this intersection based on CDOT guidelines and existing traffic. **Table 7** provides the results of the level of service at this intersection.

Table 7 – Rowe Avenue (WCR-90) & US-85 LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing				
Northbound Left	7.9	A	7.9	A
Eastbound Approach	11.8	B	11.9	B
Southbound Left	8.1	A	7.9	A
2023 Background				
Northbound Left	8.0	A	7.9	A
Eastbound Approach	11.9	B	12.0	B
Southbound Left	8.1	A	7.9	A
2023 Background Plus Project				
Northbound Left	8.1	A	7.9	A
Eastbound Approach	12.6	B	11.4	B
Southbound Left	8.1	A	7.9	A

Route C Access

As discussed previously, Route C will only be used for substation deliveries and construction. This access will have a short duration and a low traffic volume. As turn lanes exist in all directions along SH-14, an operational analysis was not performed as traffic to and from the west along SH-14 to WCR-25 is anticipated to operate acceptably.

Vehicle Queueing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths as shown in the following **Table 8** with calculations provided within the level of service operational sheets.

Table 8 – Left Turn Lane Queueing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2023 Calculated Queue (feet)	2023 Recommended Length (feet)
LCR-50 & I-25 SB Ramp Westbound Left	175'	25'	175'
LCR-50 & I-25 NB Ramp Eastbound Left	200'	25'	200'
LCR-50 & I-25 Frontage Road Eastbound Left Westbound Left	200' 175'	25' 25'	200' 175'
WCR-90 & US-85 Northbound Left Southbound Left	200' 450'	25' 25'	200' 450'

As shown in the table representing the queueing results, none of the queues are projected to extend past the provided storage bays with the addition of project traffic. Therefore, no modifications to left turn lane deceleration lengths are anticipated to be needed.

Turn Bay Length Analysis

The threshold for requiring an access permit along CDOT roadways occurs when project traffic is anticipated to increase the existing access traffic volumes by more than 20 percent. Based on traffic projections, the addition of project traffic on the west leg of WCR-90 and US-85 is anticipated to increase existing access traffic volumes by more than 20 percent. Project traffic is anticipated to increase existing traffic volumes by 52 percent (46 project/88 existing) during the morning peak hour. Therefore, an access permit may be required by CDOT for this intersection in association with construction of BHS Solar.

The turn lane requirements follow the CDOT State Highway Access Code (SHAC). CDOT categorizes the segment of US-85 through the study area as E-X: Expressway. According to the State Highway Access Code for category E-X roadways, the following thresholds apply:

- A left turn deceleration lane is required for any access with a projected average daily left turn ingress volume greater than 10 with the transition taper included within the required deceleration length. If the projected peak hour left ingress turning volume is greater than 10 vehicles per hour (vph), a left turn deceleration, storage, and taper lane is required for any access.
- A right turn deceleration lane and taper is required for any access with a projected peak hour right ingress turning volume greater than 10 vph.
- A right turn acceleration lane and taper is required for any access with a project peak hour right turning volume greater than 10 vph.

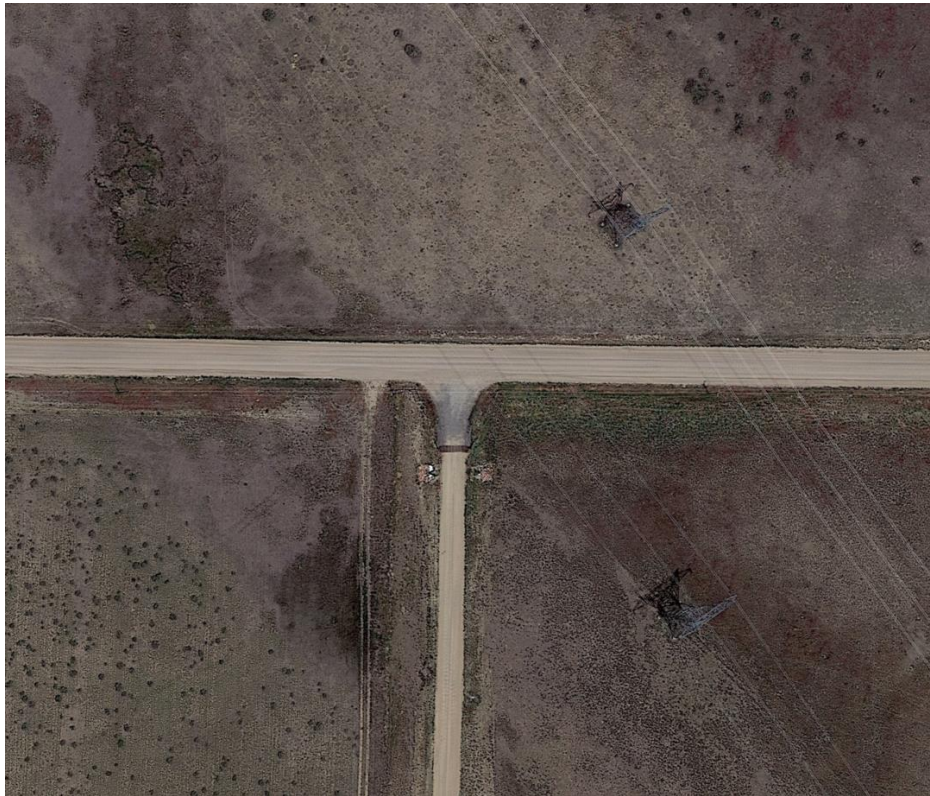
Based on traffic projections and the above thresholds, auxiliary turn lanes requirements at the WCR-90 and US-85 intersection for a speed limit of 40 miles per hour along US-85 are as follows:

- A northbound left turn deceleration is warranted based on the projected 2023 background plus project traffic being 69 northbound left turns during the peak hour and the threshold being 10 vehicles per day. This northbound left turn lane exists today. The existing turn lane length is 275 feet with a 100-foot taper. The left turn deceleration lane per SHAC requirements is 70 feet of storage (one foot per vehicle during the peak hour) plus 370 feet of deceleration length plus a 145-foot taper (12:1 ratio). Therefore, to meet current CDOT standards, the northbound left turn lane should provide 440 feet of length plus a 145-foot taper to meet CDOT SHAC requirements. However, due to existing back-to-back left turn lanes along US-85 between the WCR-90 and Grain Elevator and Park Avenue intersections, the northbound left turn lane cannot be extended without shortening the southbound left turn lane. Therefore, no modification to the northbound left turn lane is recommended.
- A southbound right turn deceleration lane is warranted based on the projected 2023 background plus project traffic being 13 southbound right turns during the peak hour and the threshold being 10 vph. This southbound right turn lane exists today with a length of 425 feet with a 175-foot taper. To meet current CDOT SHAC requirements, this right turn lane should provide a length of 370 feet plus a 145-foot taper (12:1 ratio) based on the 40-mph posted speed limit at the beginning of the right turn lane. Therefore, no modifications to this existing southbound right turn deceleration lane are anticipated to be needed.
- An acceleration lane along southbound US-85 for the eastbound right turn is warranted today based on existing traffic of 15 vph and projected 2023 background plus project traffic being 36 vph and the threshold being 10 vph. However, this acceleration lane does not exist today. The acceleration lane length per SHAC requirements is 380 feet plus a 145-foot taper (12:1 ratio). A southbound right turn deceleration lane exists approximately 380 feet south of WCR-90 for the Park Avenue intersection to the south. Therefore, this acceleration lane should be constructed as a continuous auxiliary lane between WCR-90 and Park Avenue along southbound US-85. Recommendations are illustrated in **Figure 10** which show this acceleration length.

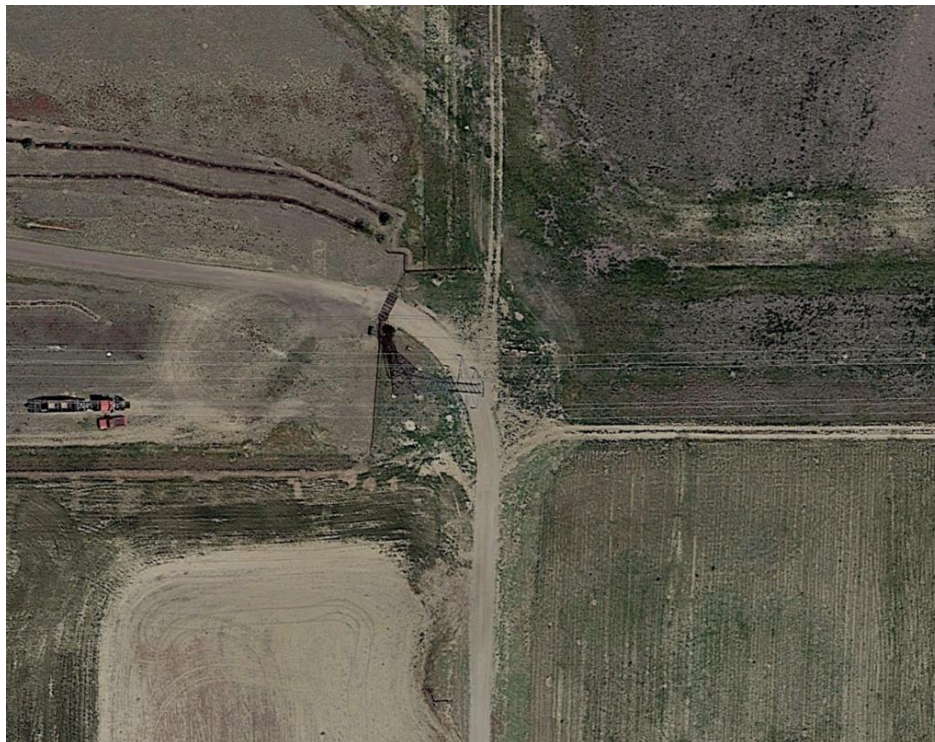
Access Discussion

As noted previously, access is proposed at two locations for BHS Solar. One access is located along WCR-90 at an existing location as shown following. This access is located underneath overhead power lines, 1.5 miles east of WCR-19 and 1.5 miles west of WCR-25. WCR-90 and the Access are unpaved roadways at this intersection. A north leg will be constructed at this access location to serve the northern solar field development area.

The other access will be located as the north leg of the WCR-84 ½ and WCR-23 intersection, as also shown on the following page. There is an existing residence access at this intersection which will be maintained with the proposed access for BHS Solar. WCR-23 in this area is unpaved with a single lane width provided in each direction. WCR-84 ½ is a field access roadway with a width to provide only one-way travel in each direction at this intersection and over to WCR-25 to the east.



WCR-90 Access (Routes A and B)



WCR-23 Access (Route C)

WCR-90 Roadway Analysis for Dust Mitigation

Daily traffic volumes were collected on Wednesday, June 16, 2021 along WCR-90 east of WCR-13 and west of WCR-29. It is understood that the County will request dust mitigation along WCR-90 between WCR-13 and WCR-29 (approximately eight miles) when WCR-90 exceeds 200 vehicles per day (vpd) daily volume. The existing daily traffic volume along WCR-90 adjacent to the site is 70 vpd. Based on the peak daily trip generation being 660 vpd and the existing traffic volume being 70 vpd, dust mitigation is anticipated to be required during the peak construction period, east and west of the project site along WCR-90 as follows:

- Dust mitigation is anticipated to be needed along WCR-90 between WCR-13 and the project access when the daily traffic volume generation of the solar facility is greater than 185 trips per day (130 vpd / 0.70 distribution to and from the west).
- Dust mitigation is anticipated to be needed along WCR-90 between the project access and WCR-27 when the daily traffic volume generation is anticipated to be greater than 430 trips per day (130 vpd / 0.30 distribution to and from the east). Of note, dust mitigation was found to already be required along WCR-90 east of WCR-27 with the daily traffic volume in this section being greater than 200 vpd today.

Pedestrian, Bicycles, and Transit

There are no pedestrian or bicycle connections, nor transit availability in the project area. Construction of the solar facility will not change or increase the need for such facilities in the future. Of note, Rowe Avenue (WCR-90) within the Town of Pierce is adjacent to Highland Elementary School, directly on the southwest corner of the Rowe Avenue (WCR-90) and US-85 intersection. No pedestrian facilities exist along the roadway, but there is pedestrian and bus traffic generated by the school.

Conclusions and Recommendations

Based on the traffic analysis presented in this report, Kimley-Horn and Associates, Inc. believes construction traffic for BHS Solar project will be incorporated into the existing roadway network. The following provide the traffic study report conclusions and recommendations:

- A CDOT Access Permit is anticipated to be needed at the WCR-90 and US-85 intersection with the addition of the solar facility construction traffic. It was found that an acceleration lane along southbound US-85 for the eastbound right turn from WCR-90 is warranted today based on existing traffic volumes. If this lane were to be constructed, it would need to provide a length of 380 feet to meet CDOT SHAC turn lane requirements. This acceleration lane would need to tie into the existing southbound right turn deceleration lane that exists for Park Avenue, with its full lane width southbound right turn lane beginning 380 feet south of WCR-90.
- A Colorado State Patrol or CDOT Temporary Access Permit may be needed at the SH-14 and WCR-25 intersection for the duration of the substation construction.
- Dust mitigation was found to be needed along WCR-90 between WCR-13 and the solar facility access when the daily traffic volume generation is anticipated to be greater than 185 trips per day.
- Dust mitigation was found to be needed along WCR-90 between the project access and WCR-27 to the east when the daily traffic volume generation is greater than 430 trips per day.
- Dust mitigation was found to be needed today along WCR-90 between WCR-27 and WCR-29 based on existing traffic volumes.

Please call if you have any questions or require anything further.

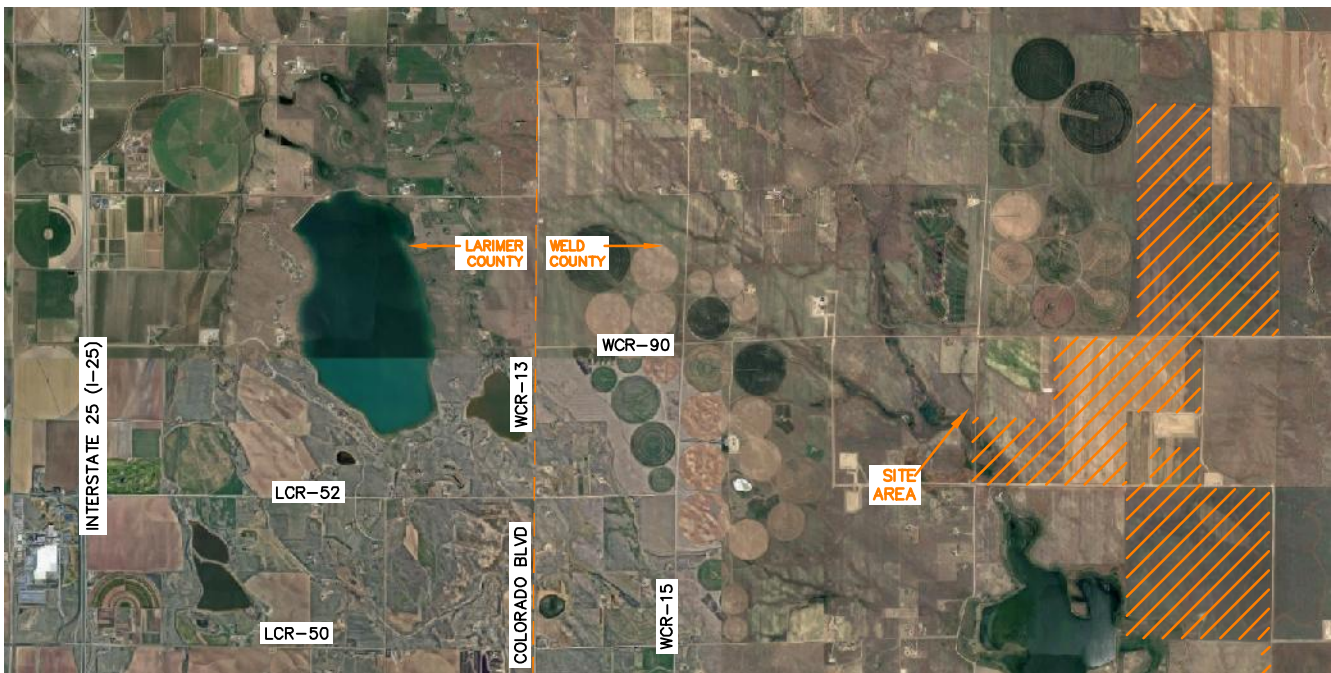
Sincerely,
KIMLEY-HORN AND ASSOCIATES, INC.



Curtis D. Rowe, P.E., PTOE
Vice President

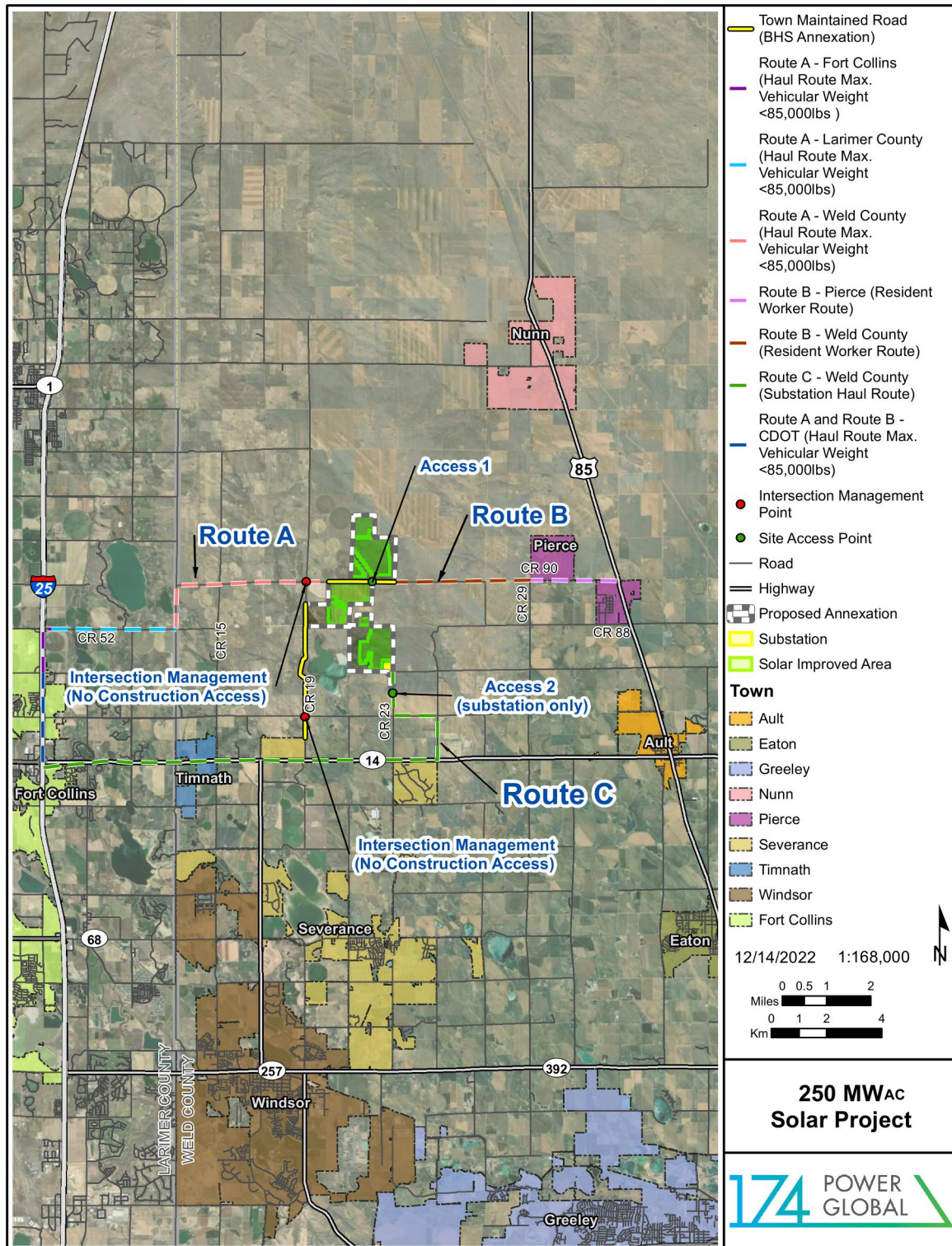


Figures



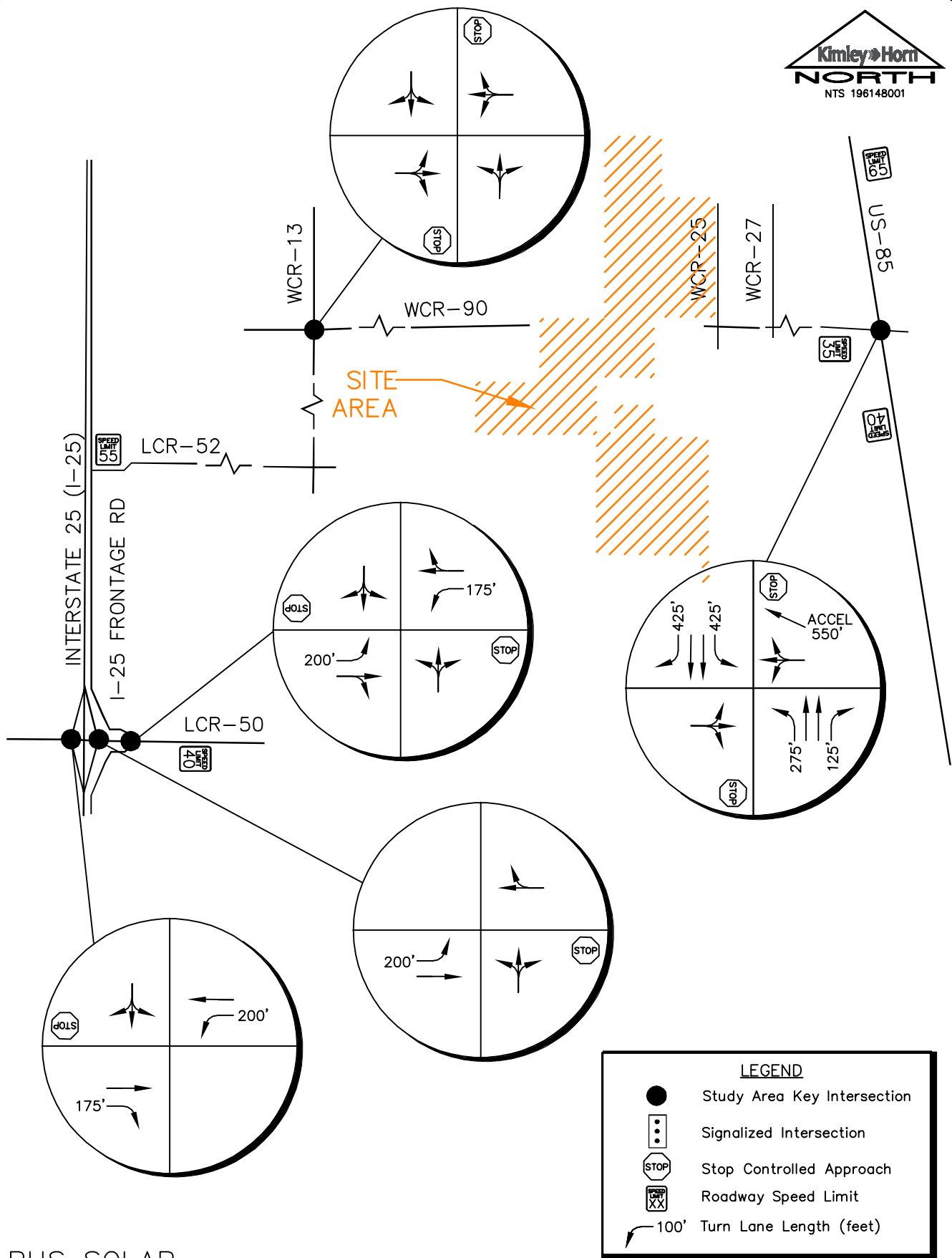
BHS SOLAR
WELD COUNTY, COLORADO
VICINITY MAP

FIGURE 1



BHS SOLAR
 WELD COUNTY, COLORADO
 TRUCK ROUTE

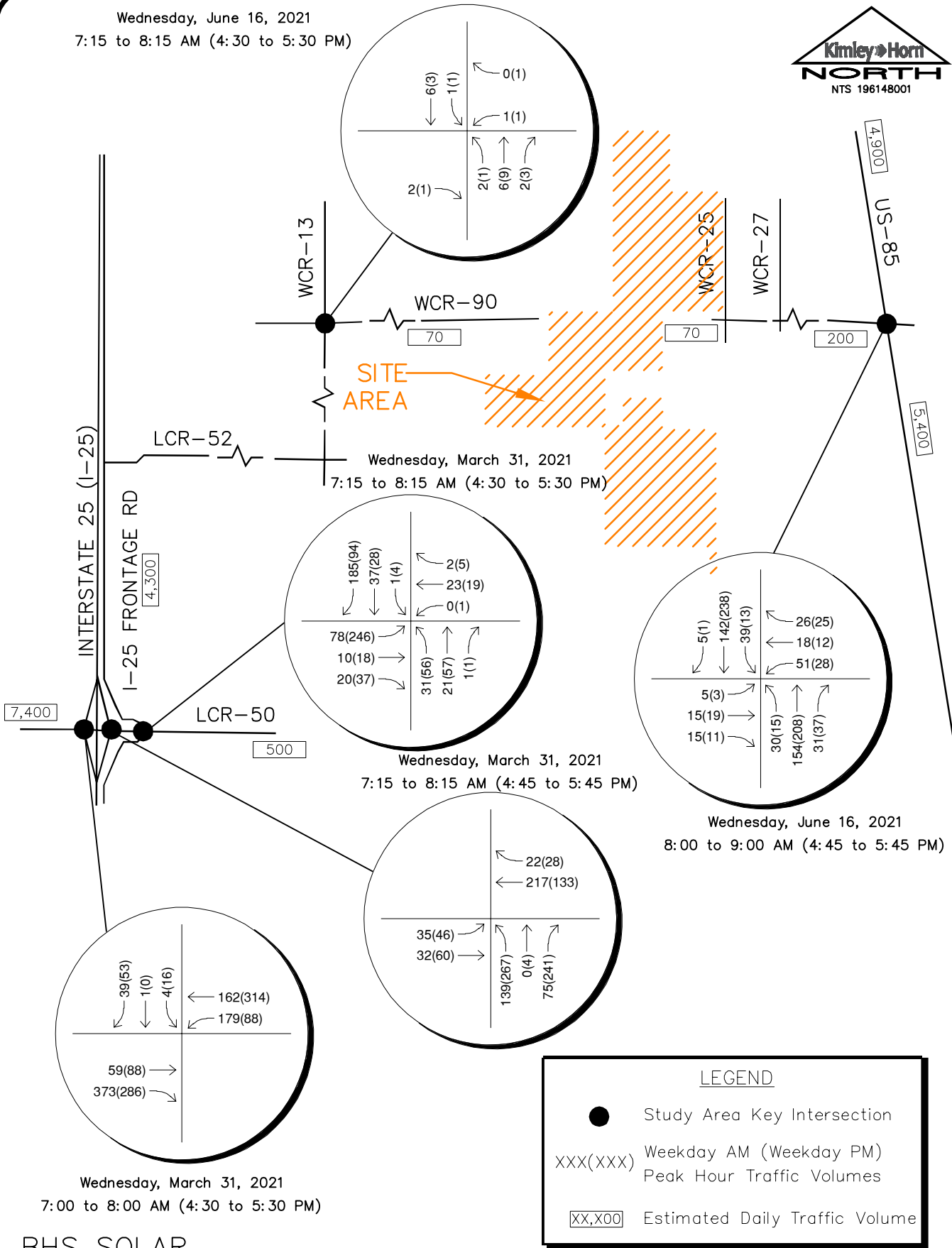
FIGURE 2



BHS SOLAR
WELD COUNTY, COLORADO
EXISTING LANE CONFIGURATIONS

FIGURE 3

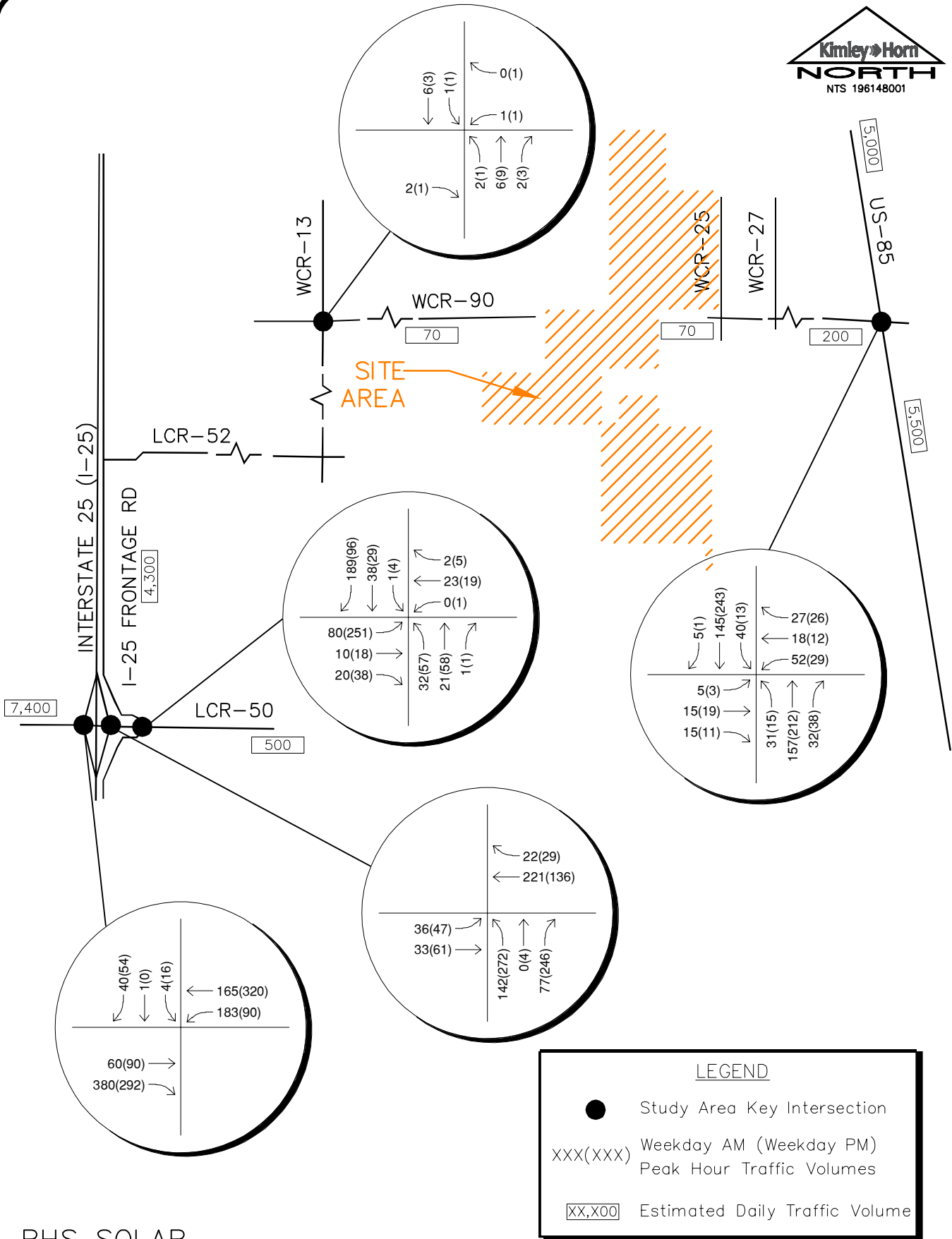
Wednesday, June 16, 2021
7:15 to 8:15 AM (4:30 to 5:30 PM)



BHS SOLAR
WELD COUNTY, COLORADO
2021 EXISTING TRAFFIC VOLUMES

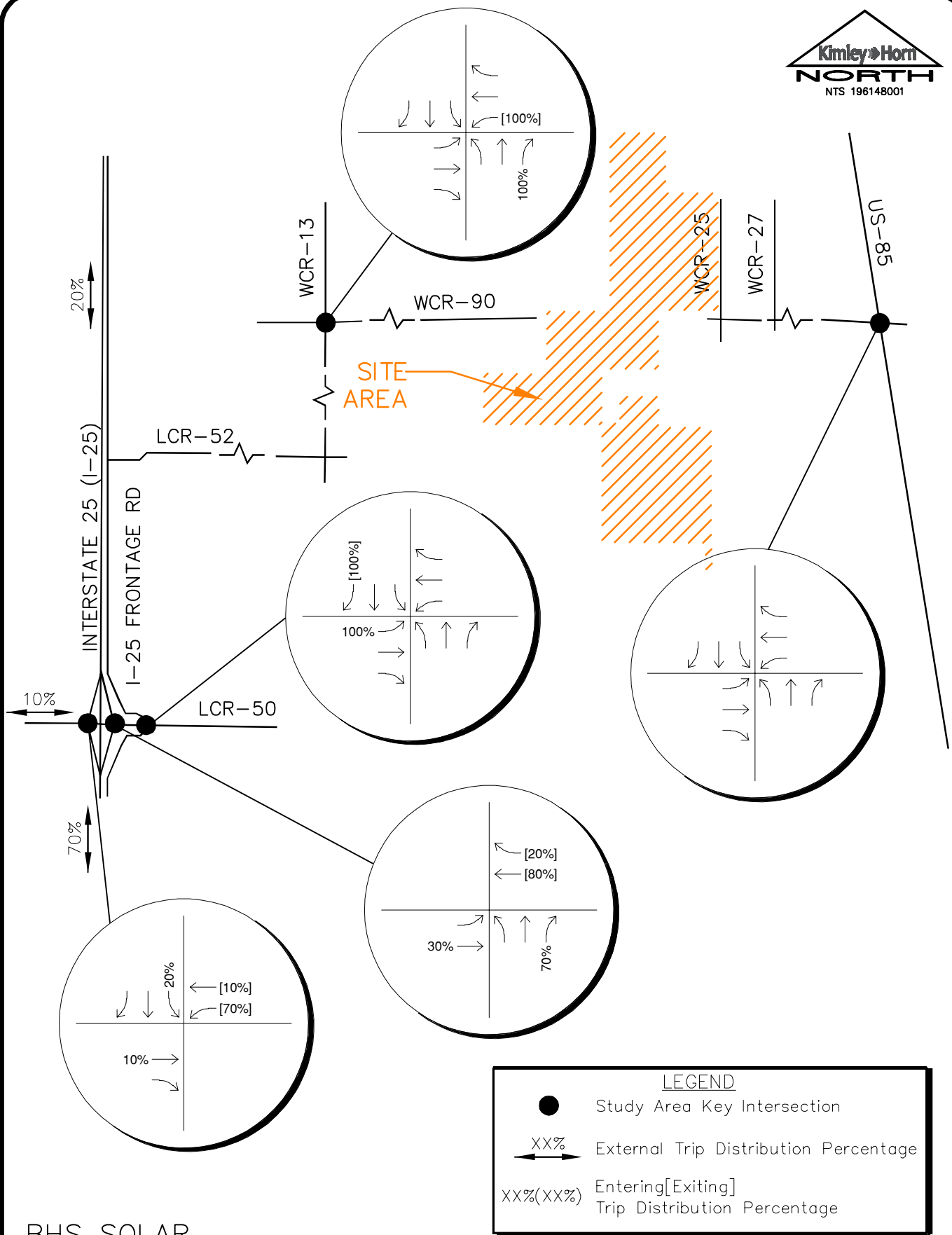
FIGURE 4A





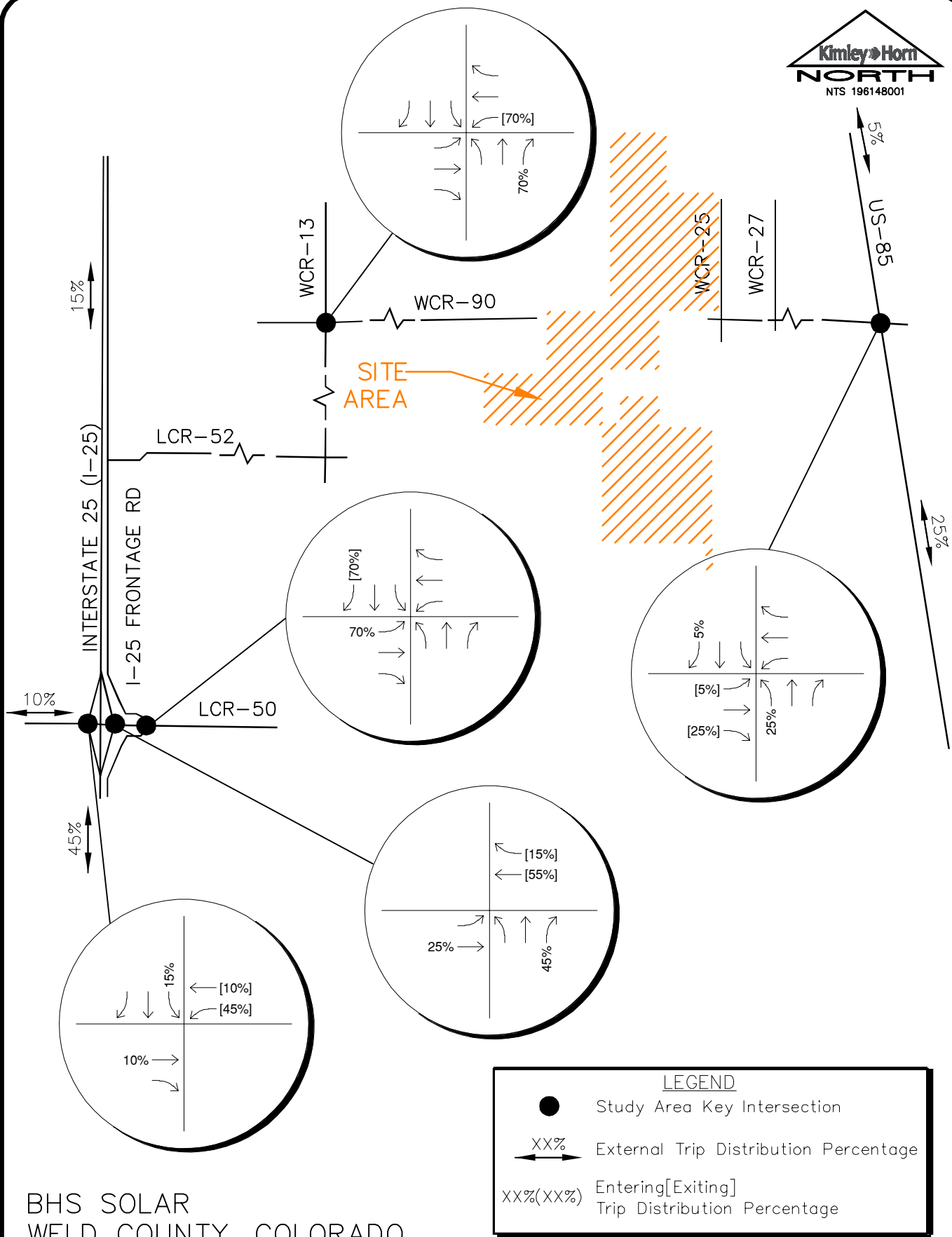
BHS SOLAR
WELD COUNTY, COLORADO
2023 BACKGROUND VOLUMES

FIGURE 5



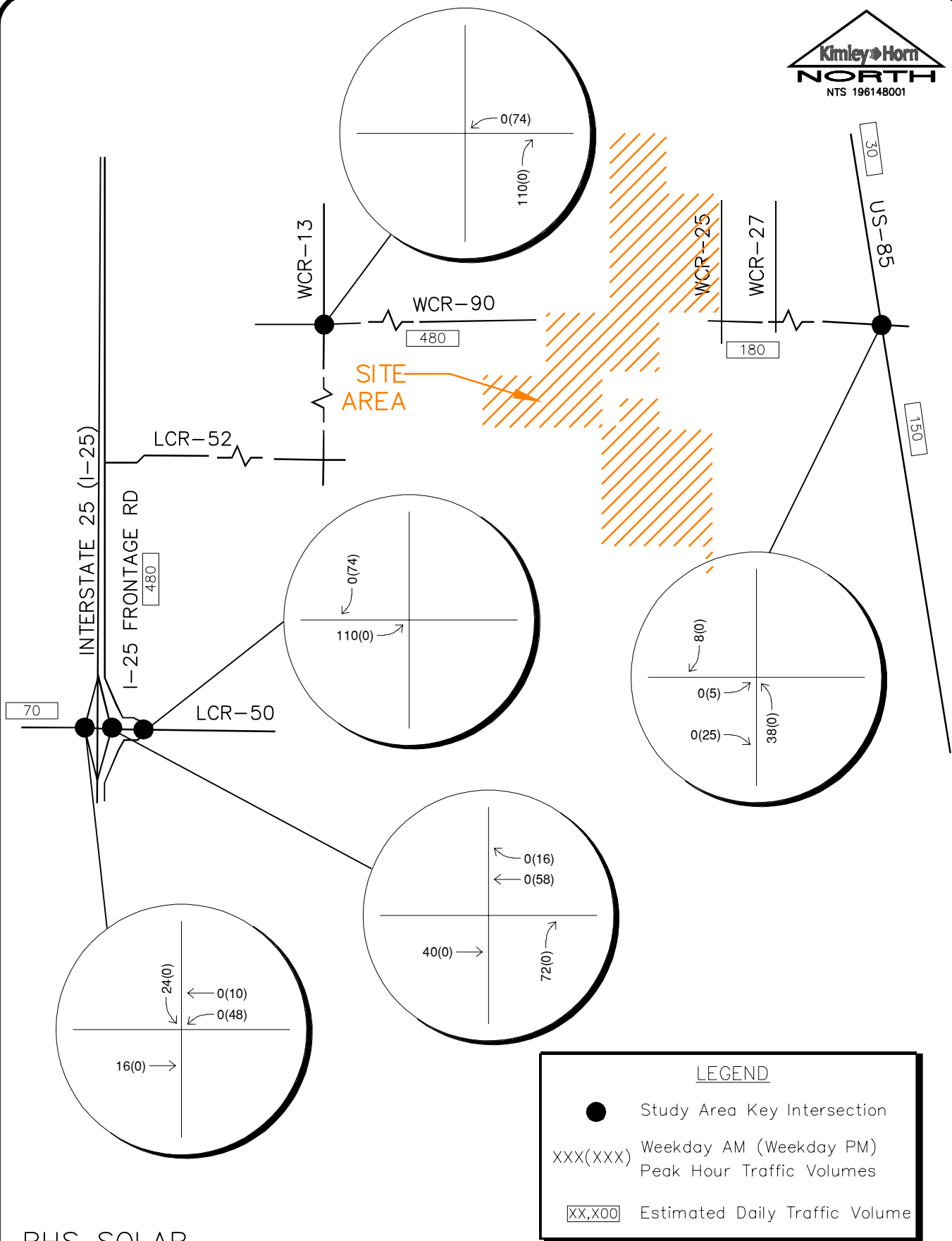
BHS SOLAR
WELD COUNTY, COLORADO
PROJECT TRIP DISTRIBUTION (TRUCK)

FIGURE 6



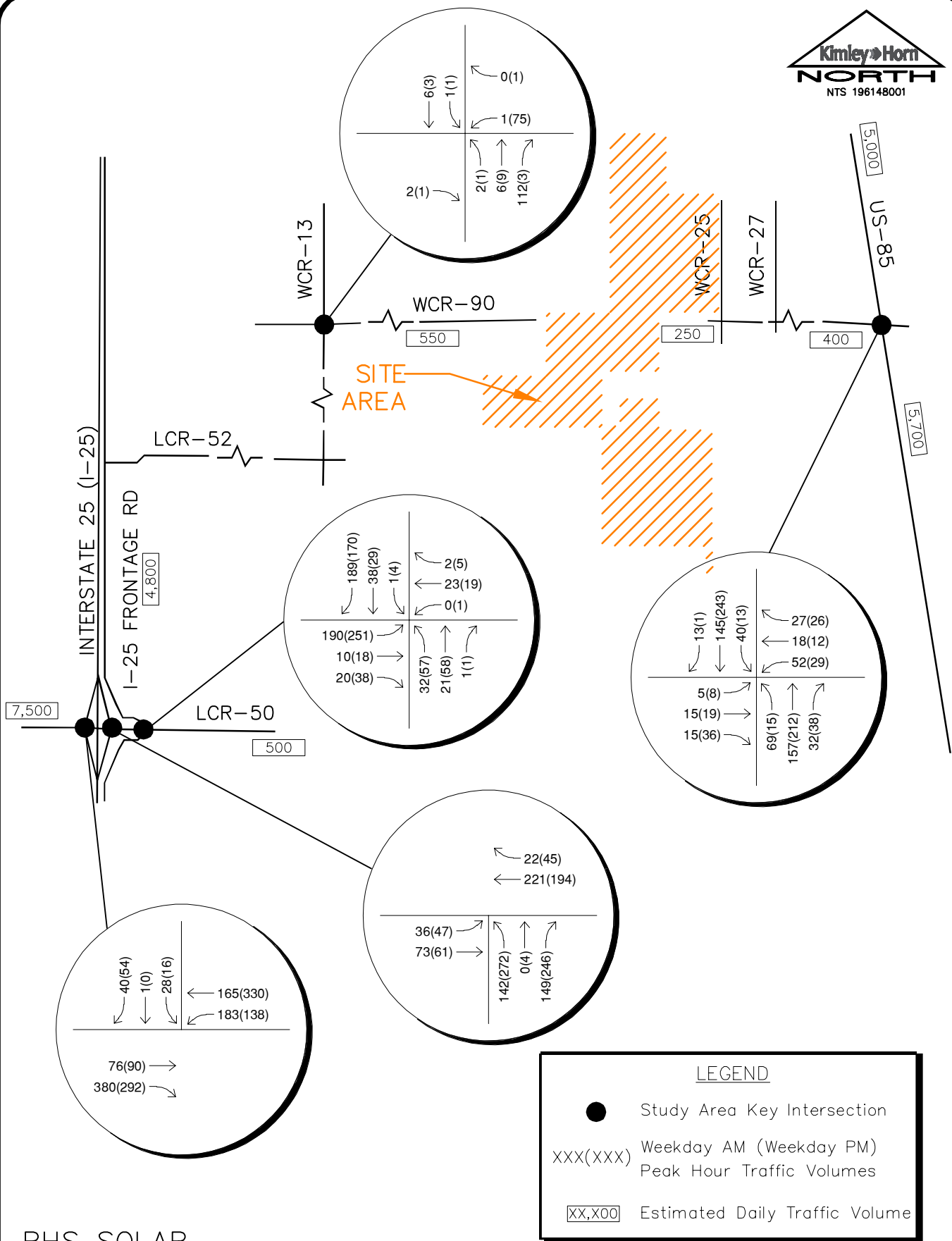
BHS SOLAR
WELD COUNTY, COLORADO
PROJECT TRIP DISTRIBUTION
(PASSENGER VEHICLES)

FIGURE 7



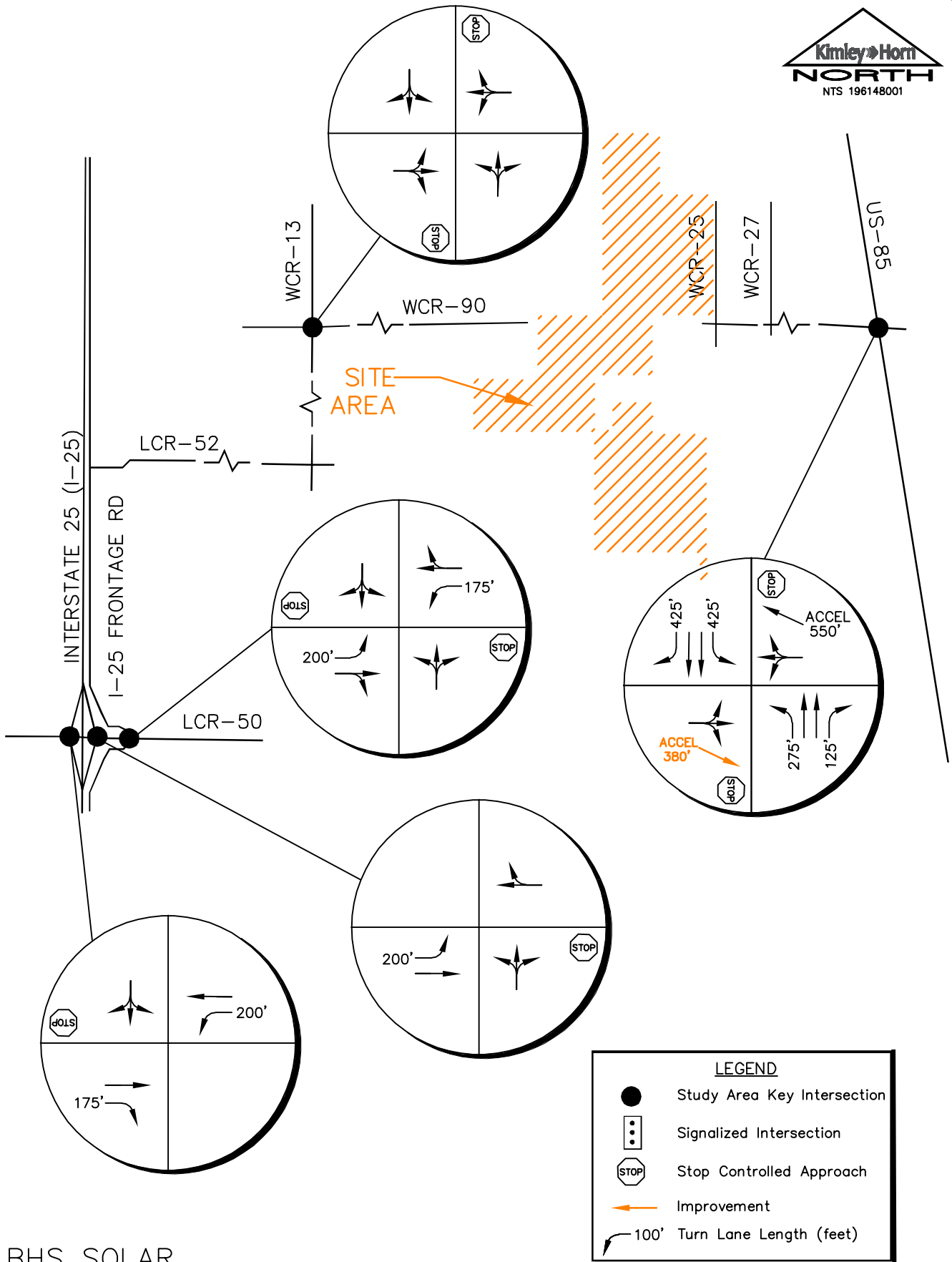
BHS SOLAR
WELD COUNTY, COLORADO
PROJECT TRAFFIC ASSIGNMENT

FIGURE 8



BHS SOLAR
WELD COUNTY, COLORADO
2023 TOTAL TRAFFIC VOLUMES

FIGURE 9

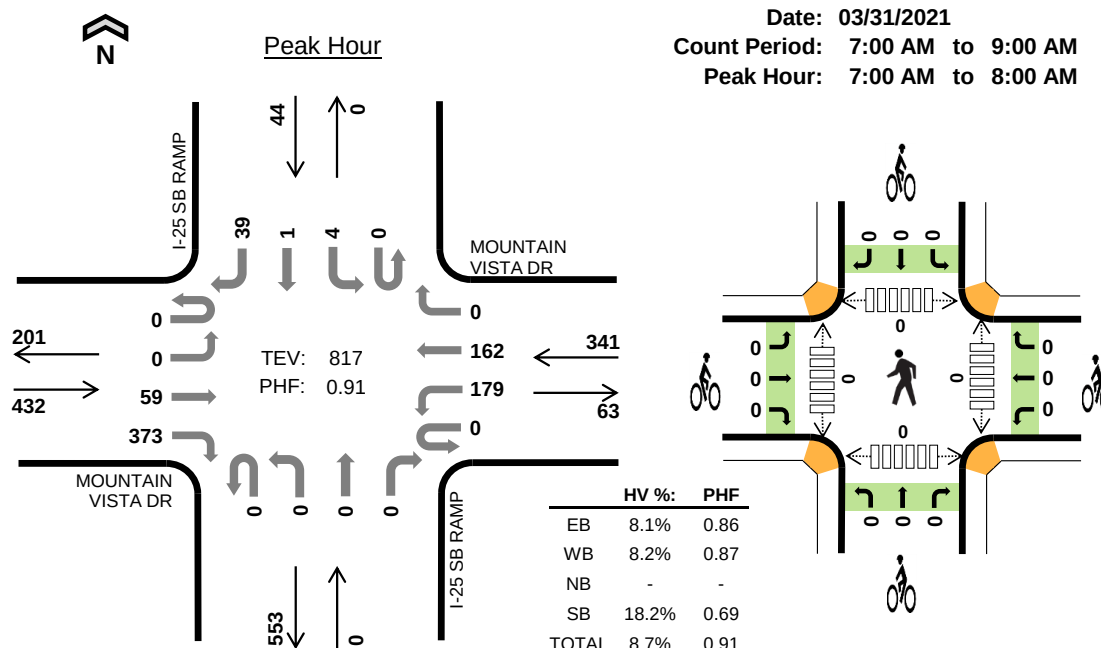


BHS SOLAR
WELD COUNTY, COLORADO
RECOMMENDED LANE CONFIGURATIONS

FIGURE 10

Turning Movement Counts

I-25 SB RAMP MOUNTAIN VISTA DR



Two-Hour Count Summaries

Interval Start		MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 SB RAMP				I-25 SB RAMP				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	14	98	0	32	36	0	0	0	0	0	0	0	0	6	186	0
7:15 AM		0	0	13	80	0	56	42	0	0	0	0	0	0	2	1	8	202	0
7:30 AM		0	0	20	106	0	46	37	0	0	0	0	0	0	1	0	15	225	0
7:45 AM		0	0	12	89	0	45	47	0	0	0	0	0	0	1	0	10	204	817
8:00 AM		0	0	13	62	0	32	51	0	0	0	0	0	0	4	0	12	174	805
8:15 AM		0	0	18	57	0	42	50	0	0	0	0	0	0	3	0	8	178	781
8:30 AM		0	0	13	75	0	25	49	0	0	0	0	0	0	1	0	8	171	727
8:45 AM		0	0	11	70	0	26	39	0	0	0	0	0	0	2	0	6	154	677
Count Total		0	0	114	637	0	304	351	0	0	0	0	0	0	14	1	73	1,494	0
Peak Hour	All	0	0	59	373	0	179	162	0	0	0	0	0	0	4	1	39	817	0
	HV	0	0	12	23	0	3	25	0	0	0	0	0	0	1	1	6	71	0
	HV%	-	-	20%	6%	-	2%	15%	-	-	-	-	-	-	25%	100%	15%	9%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	6	0	1	12	0	0	0	0	0	0	0	0	0	0
7:15 AM	4	7	0	2	13	0	0	0	0	0	0	0	0	0	0
7:30 AM	16	4	0	5	25	0	0	0	0	0	0	0	0	0	0
7:45 AM	10	11	0	0	21	0	0	0	0	0	0	0	0	0	0
8:00 AM	5	7	0	4	16	0	0	0	0	0	0	0	0	0	0
8:15 AM	13	14	0	1	28	0	0	0	0	0	0	0	0	0	0
8:30 AM	8	9	0	0	17	0	0	0	0	0	0	0	0	0	0
8:45 AM	11	10	0	1	22	0	0	0	0	0	0	0	0	0	0
Count Total	72	68	0	14	154	0	0	0	0	0	0	0	0	0	0
Peak Hour	35	28	0	8	71	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 SB RAMP				I-25 SB RAMP				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	5	0	1	5	0	0	0	0	0	0	0	0	1	12	0
7:15 AM	0	0	3	1	0	0	7	0	0	0	0	0	0	0	0	1	13	0
7:30 AM	0	0	5	11	0	0	4	0	0	0	0	0	0	0	1	0	25	0
7:45 AM	0	0	4	6	0	2	9	0	0	0	0	0	0	0	0	0	21	71
8:00 AM	0	0	2	3	0	1	6	0	0	0	0	0	0	0	2	0	16	75
8:15 AM	0	0	7	6	0	4	10	0	0	0	0	0	0	0	0	1	28	90
8:30 AM	0	0	3	5	0	1	8	0	0	0	0	0	0	0	0	0	17	82
8:45 AM	0	0	2	9	0	1	9	0	0	0	0	0	0	0	0	1	22	83
Count Total	0	0	26	46	0	10	58	0	0	0	0	0	0	3	1	10	154	0
Peak Hour	0	0	12	23	0	3	25	0	0	0	0	0	0	1	1	6	71	0

Two-Hour Count Summaries - Bikes																	
Interval Start	MOUNTAIN VISTA DR			MOUNTAIN VISTA DR			I-25 SB RAMP			I-25 SB RAMP			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

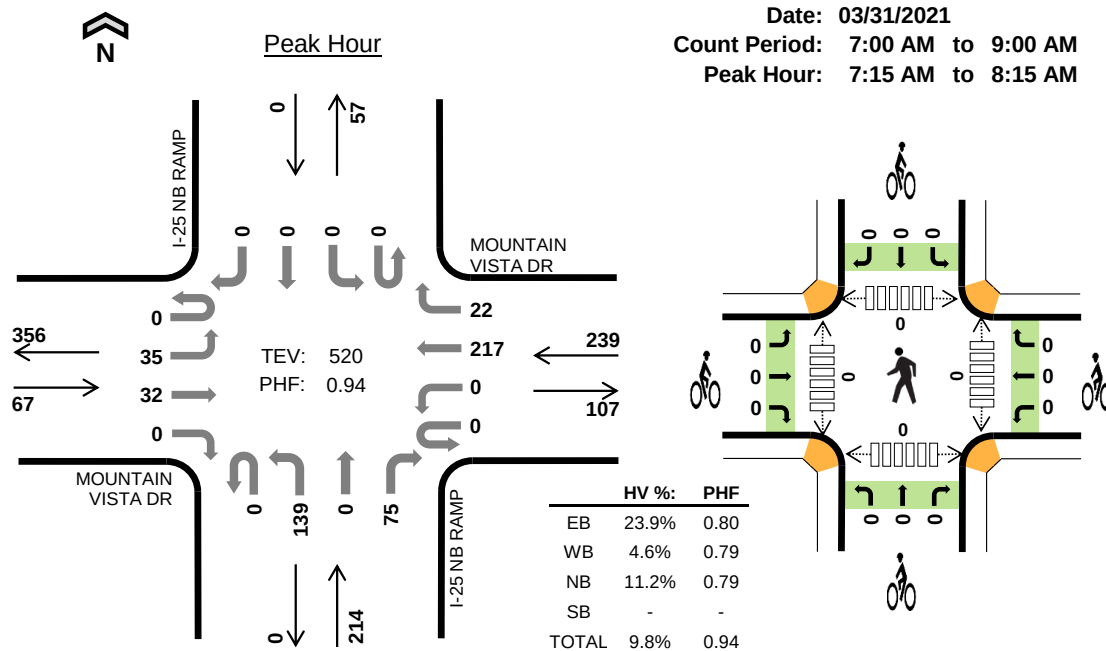
[illegible]

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 SB RAMP				I-25 SB RAMP				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	6	0	2	9	0	0	0	0	0	0	0	0	4	22	0
4:15 PM	0	0	3	5	0	1	4	0	0	0	0	0	0	0	1	0	14	0
4:30 PM	0	0	2	2	0	0	8	0	0	0	0	0	0	0	0	0	12	0
4:45 PM	0	0	6	14	0	0	2	0	0	0	0	0	0	0	0	0	22	70
5:00 PM	0	0	3	7	0	2	5	0	0	0	0	0	0	0	0	0	17	65
5:15 PM	0	0	5	9	0	1	1	0	0	0	0	0	0	0	1	0	19	70
5:30 PM	0	0	2	4	0	1	8	0	0	0	0	0	0	0	1	0	17	75
5:45 PM	0	0	5	7	0	0	3	0	0	0	0	0	0	0	0	1	16	69
Count Total	0	0	27	54	0	7	40	0	0	0	0	0	0	0	3	1	139	0
Peak Hour	0	0	16	32	0	3	16	0	0	0	0	0	0	0	1	0	70	0

Two-Hour Count Summaries - Bikes																		
Interval Start	MOUNTAIN VISTA DR			MOUNTAIN VISTA DR			I-25 SB RAMP			I-25 SB RAMP			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

I-25 NB RAMP MOUNTAIN VISTA DR



Two-Hour Count Summaries

Interval Start		MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NB RAMP				I-25 NB RAMP				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
	7:00 AM	0	8	6	0	0	0	37	5	0	31	0	14	0	0	0	0	101	0
	7:15 AM	0	9	6	0	0	0	68	8	0	30	0	18	0	0	0	0	139	0
	7:30 AM	0	15	6	0	0	0	55	8	0	28	0	13	0	0	0	0	125	0
	7:45 AM	0	5	8	0	0	0	52	2	0	40	0	28	0	0	0	0	135	500
	8:00 AM	0	6	12	0	0	0	42	4	0	41	0	16	0	0	0	0	121	520
	8:15 AM	0	10	10	0	0	0	49	6	0	43	0	14	0	0	0	0	132	513
	8:30 AM	0	10	5	0	0	0	38	5	0	37	0	22	0	0	0	0	117	505
	8:45 AM	0	4	8	0	0	0	31	5	0	33	0	20	0	0	0	0	101	471
Count Total		0	67	61	0	0	0	372	43	0	283	0	145	0	0	0	0	971	0
Peak Hour	All	0	35	32	0	0	0	217	22	0	139	0	75	0	0	0	0	520	0
	HV	0	7	9	0	0	0	6	5	0	22	0	2	0	0	0	0	51	0
	HV%	-	20%	28%	-	-	-	3%	23%	-	16%	-	3%	-	-	-	-	10%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	2	5	0	8	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	2	7	0	12	0	0	0	0	0	0	0	0	0	0
7:30 AM	6	2	3	0	11	0	0	0	0	0	0	0	0	0	0
7:45 AM	3	5	8	0	16	0	0	0	0	0	0	0	0	0	0
8:00 AM	4	2	6	0	12	0	0	0	0	0	0	0	0	0	0
8:15 AM	6	4	13	0	23	0	0	0	0	0	0	0	0	0	0
8:30 AM	4	2	8	0	14	0	0	0	0	0	0	0	0	0	0
8:45 AM	2	5	8	0	15	0	0	0	0	0	0	0	0	0	0
Count Total	29	24	58	0	111	0	0	0	0	0	0	0	0	0	0
Peak Hour	16	11	24	0	51	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NB RAMP				I-25 NB RAMP				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	2	0	0	4	0	1	0	0	0	0	8	0
7:15 AM	0	1	2	0	0	0	0	2	0	7	0	0	0	0	0	0	12	0
7:30 AM	0	4	2	0	0	0	1	1	0	3	0	0	0	0	0	0	11	0
7:45 AM	0	1	2	0	0	0	4	1	0	7	0	1	0	0	0	0	16	47
8:00 AM	0	1	3	0	0	0	1	1	0	5	0	1	0	0	0	0	12	51
8:15 AM	0	3	3	0	0	0	3	1	0	11	0	2	0	0	0	0	23	62
8:30 AM	0	4	0	0	0	0	2	0	0	8	0	0	0	0	0	0	14	65
8:45 AM	0	0	2	0	0	0	3	2	0	7	0	1	0	0	0	0	15	64
Count Total	0	14	15	0	0	0	16	8	0	52	0	6	0	0	0	0	111	0
Peak Hour	0	7	9	0	0	0	6	5	0	22	0	2	0	0	0	0	51	0

Two-Hour Count Summaries - Bikes																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NB RAMP				I-25 NB RAMP				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
7:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
7:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
7:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
7:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
8:00 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
8:15 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
8:30 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
8:45 AM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Count Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

[illegible]

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NB RAMP				I-25 NB RAMP				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	2	0	0	9	1	1	0	0	0	0	14	0
4:15 PM	0	2	2	0	0	0	1	1	0	4	1	0	0	0	0	0	11	0
4:30 PM	0	0	2	0	0	0	1	1	0	7	0	1	0	0	0	0	12	0
4:45 PM	0	4	2	0	0	0	0	0	0	2	0	1	0	0	0	0	9	46
5:00 PM	0	3	1	0	0	0	4	1	0	4	1	1	0	0	0	0	15	47
5:15 PM	0	2	2	0	0	0	1	0	0	1	0	1	0	0	0	0	7	43
5:30 PM	0	3	1	0	0	0	0	0	0	8	0	0	0	0	0	0	12	43
5:45 PM	0	4	1	0	0	0	0	0	0	3	0	1	0	0	0	0	9	43
Count Total	0	18	12	0	0	0	9	3	0	38	3	6	0	0	0	0	89	0
Peak Hour	0	12	6	0	0	0	5	1	0	15	1	3	0	0	0	0	43	0

Two-Hour Count Summaries - Bikes																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NB RAMP				I-25 NB RAMP				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	LT	TH	RT		LT	TH	RT		LT	TH	RT		LT	TH	RT			
4:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
4:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:00 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:15 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:30 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
5:45 PM	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Count Total	0	0	0		0	0	0		0	0	0		0	0	0		0	0
Peak Hour	0	0	0		0	0	0		0	0	0		0	0	0		0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

I-25 NE FRONTAGE RD MOUNTAIN VISTA DR

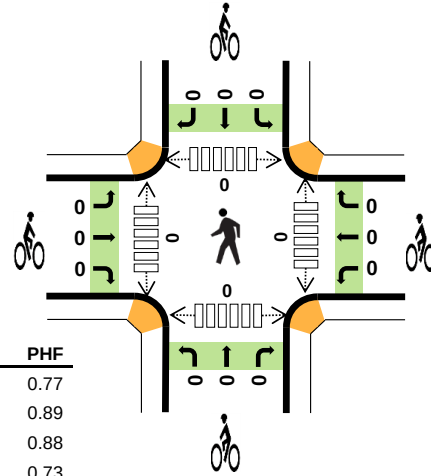
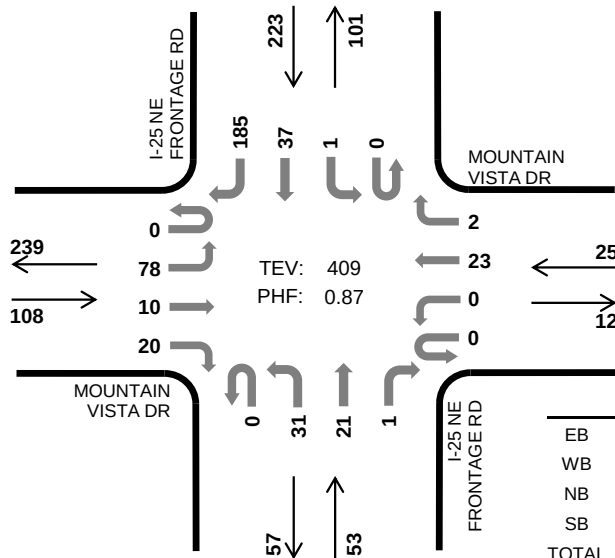


Peak Hour

Date: 03/31/2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:15 AM to 8:15 AM



	HV %:	PHF
EB	13.0%	0.77
WB	8.0%	0.89
NB	24.5%	0.88
SB	2.7%	0.73
TOTAL	8.6%	0.87

Two-Hour Count Summaries

Interval Start		MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NE FRONTAGE RD				I-25 NE FRONTAGE RD				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	14	4	2	0	0	3	0	0	6	4	0	0	0	14	33	80	0
7:15 AM		0	19	3	2	0	0	5	0	0	10	3	0	0	0	12	64	118	0
7:30 AM		0	13	1	5	0	0	7	0	0	7	7	0	0	0	10	46	96	0
7:45 AM		0	25	5	5	0	0	5	2	0	7	4	0	0	1	7	42	103	397
8:00 AM		0	21	1	8	0	0	6	0	0	7	7	1	0	0	8	33	92	409
8:15 AM		0	14	3	7	0	0	2	0	0	7	8	0	0	0	9	44	94	385
8:30 AM		0	22	2	2	0	0	3	0	0	8	8	2	0	1	5	34	87	376
8:45 AM		0	20	2	6	0	0	3	1	0	6	4	0	0	1	8	27	78	351
Count Total		0	148	21	37	0	0	34	3	0	58	45	3	0	3	73	323	748	0
Peak Hour	All	0	78	10	20	0	0	23	2	0	31	21	1	0	1	37	185	409	0
	HV	0	7	3	4	0	0	2	0	0	7	6	0	0	0	2	4	35	0
	HV%	-	9%	30%	20%	-	-	9%	0%	-	23%	29%	0%	-	0%	5%	2%	9%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	0	2	1	4	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	0	3	1	7	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	1	4	1	8	0	0	0	0	0	0	0	0	0	0
7:45 AM	3	1	2	2	8	0	0	0	0	0	0	0	0	0	0
8:00 AM	6	0	4	2	12	0	0	0	0	0	0	0	0	0	0
8:15 AM	3	0	2	5	10	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0
8:45 AM	3	0	3	4	10	0	0	0	0	0	0	0	0	0	0
Count Total	21	2	21	18	62	0	0	0	0	0	0	0	0	0	0
Peak Hour	14	2	13	6	35	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NE FRONTAGE RD				I-25 NE FRONTAGE RD				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	4	0
7:15 AM	0	2	1	0	0	0	0	0	0	1	2	0	0	0	0	1	7	0
7:30 AM	0	1	1	0	0	0	1	0	0	2	2	0	0	0	1	0	8	0
7:45 AM	0	2	0	1	0	0	1	0	0	2	0	0	0	0	0	2	8	27
8:00 AM	0	2	1	3	0	0	0	0	0	2	2	0	0	0	1	1	12	35
8:15 AM	0	0	0	3	0	0	0	0	0	1	1	0	0	0	3	2	10	38
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	3	33
8:45 AM	0	1	0	2	0	0	0	0	0	2	1	0	0	0	1	3	10	35
Count Total	0	9	3	9	0	0	2	0	0	12	9	0	0	1	7	10	62	0
Peak Hour	0	7	3	4	0	0	2	0	0	7	6	0	0	0	2	4	35	0

Two-Hour Count Summaries - Bikes																	
Interval Start	MOUNTAIN VISTA DR			MOUNTAIN VISTA DR			I-25 NE FRONTAGE RD			I-25 NE FRONTAGE RD			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

I-25 NE FRONTAGE RD MOUNTAIN VISTA DR

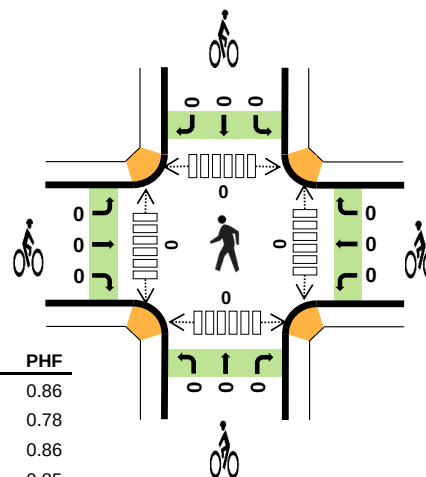
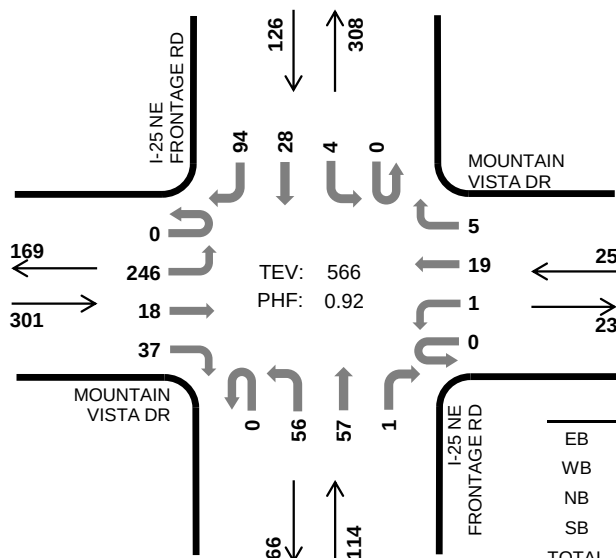


Peak Hour

Date: 03/31/2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	3.3%	0.86
WB	12.0%	0.78
NB	5.3%	0.86
SB	5.6%	0.85
TOTAL	4.6%	0.92

Two-Hour Count Summaries

Interval Start		MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NE FRONTAGE RD				I-25 NE FRONTAGE RD				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	59	4	3	0	0	8	1	0	4	10	1	0	1	4	21	116	0
4:15 PM		0	61	6	6	0	0	1	0	0	6	6	1	0	1	11	27	126	0
4:30 PM		0	56	4	11	0	1	5	2	0	14	18	1	0	0	7	24	143	0
4:45 PM		0	63	5	8	0	0	4	0	0	10	21	0	0	1	3	20	135	520
5:00 PM		0	54	5	7	0	0	5	3	0	16	11	0	0	3	9	22	135	539
5:15 PM		0	73	4	11	0	0	5	0	0	16	7	0	0	0	9	28	153	566
5:30 PM		0	56	4	10	0	0	3	1	0	6	14	0	0	0	5	27	126	549
5:45 PM		0	48	3	5	0	0	2	2	0	5	10	0	0	2	7	29	113	527
Count Total		0	470	35	61	0	1	33	9	0	77	97	3	0	8	55	198	1,047	0
Peak Hour	All	0	246	18	37	0	1	19	5	0	56	57	1	0	4	28	94	566	0
	HV	0	4	0	6	0	0	2	1	0	3	3	0	0	1	4	2	26	0
	HV%	-	2%	0%	16%	-	0%	11%	20%	-	5%	5%	0%	-	25%	14%	2%	5%	0

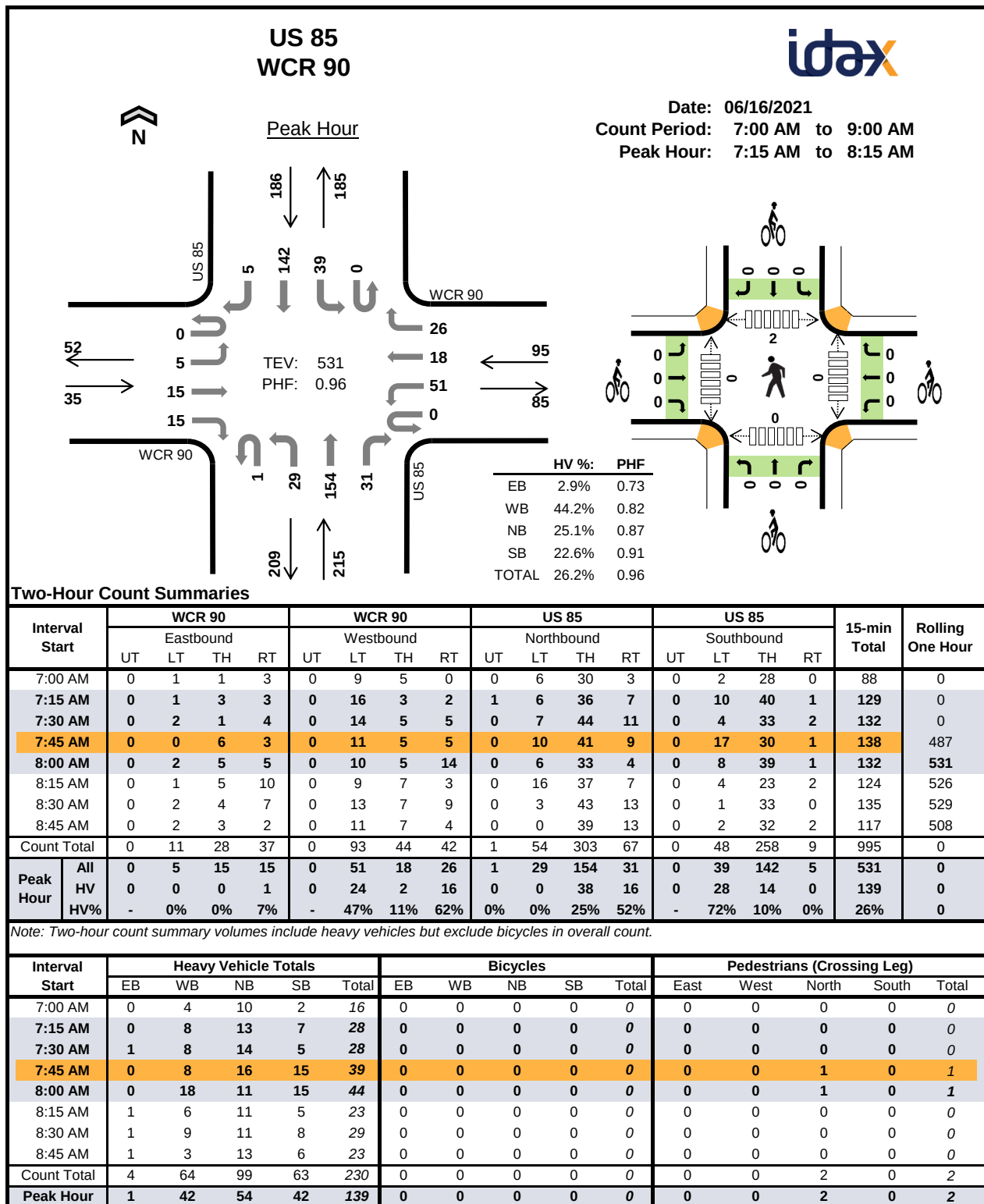
Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	0	1	1	4	0	0	0	0	0	0	0	0	0	0
4:15 PM	2	0	2	1	5	0	0	0	0	0	0	0	0	0	0
4:30 PM	3	1	2	0	6	0	0	0	0	0	0	0	0	0	0
4:45 PM	3	0	1	1	5	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	2	2	4	9	0	0	0	0	0	0	0	0	0	0
5:15 PM	3	0	1	2	6	0	0	0	0	0	0	0	0	0	0
5:30 PM	2	0	1	1	4	0	0	0	0	0	0	0	0	0	0
5:45 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	18	3	10	10	41	0	0	0	0	0	0	0	0	0	0
Peak Hour	10	3	6	7	26	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	MOUNTAIN VISTA DR				MOUNTAIN VISTA DR				I-25 NE FRONTAGE RD				I-25 NE FRONTAGE RD				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	4	0
4:15 PM	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	1	5	0
4:30 PM	0	1	0	2	0	0	1	0	0	1	1	0	0	0	0	0	0	6	0
4:45 PM	0	1	0	2	0	0	0	0	0	0	1	0	0	0	1	0	0	5	20
5:00 PM	0	1	0	0	0	0	1	1	0	1	1	0	0	1	1	2	0	9	25
5:15 PM	0	1	0	2	0	0	0	0	0	1	0	0	0	0	2	0	0	6	26
5:30 PM	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	4	24
5:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	21
Count Total	0	8	1	9	0	0	2	1	0	5	5	0	0	1	4	5	0	41	0
Peak Hour	0	4	0	6	0	0	2	1	0	3	3	0	0	1	4	2	0	26	0

Two-Hour Count Summaries - Bikes																	
Interval Start	MOUNTAIN VISTA DR			MOUNTAIN VISTA DR			I-25 NE FRONTAGE RD			I-25 NE FRONTAGE RD			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



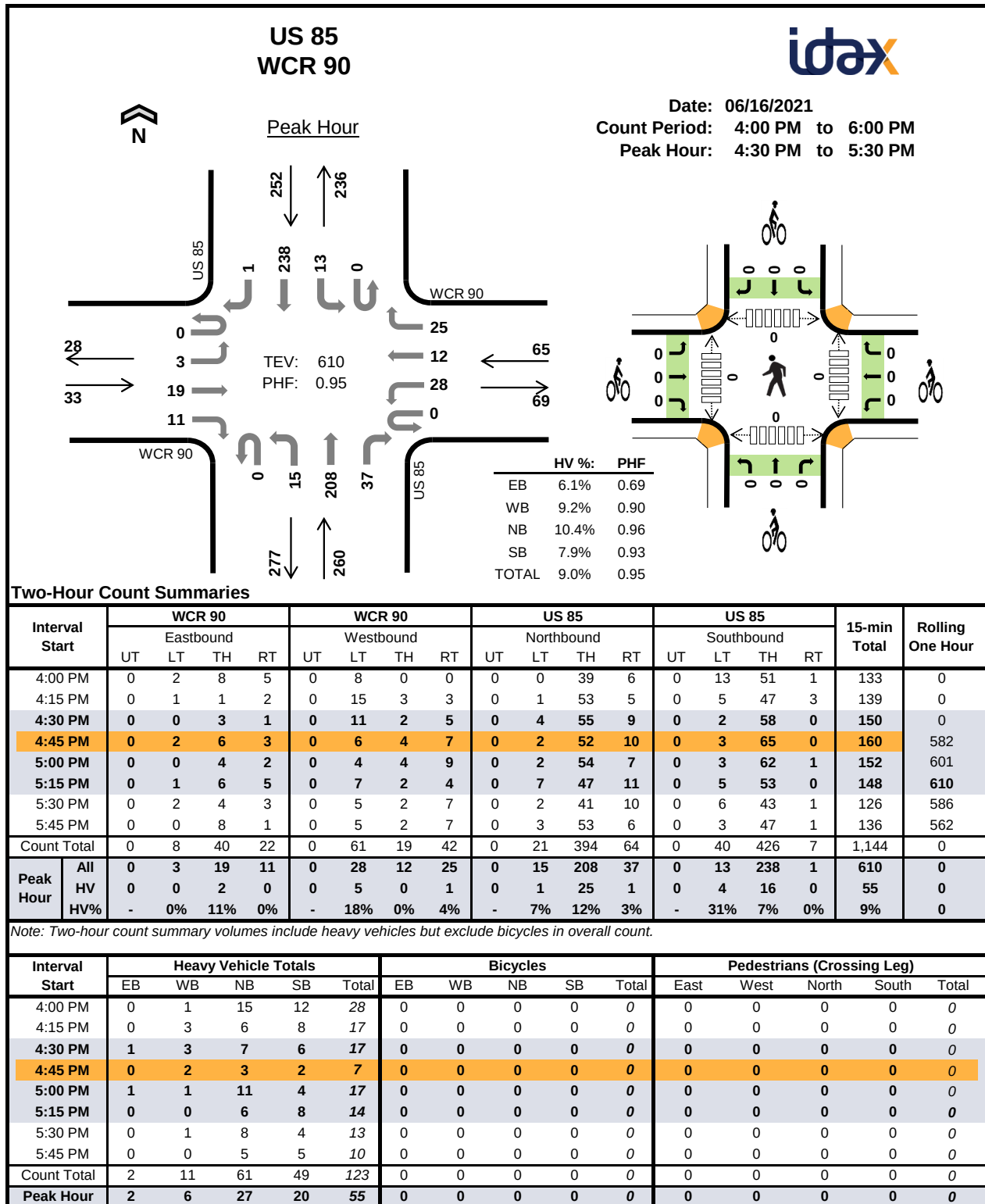
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	WCR 90				WCR 90				US 85				US 85				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	2	2	0	0	0	8	2	0	0	0	2	0	16	0
7:15 AM	0	0	0	0	0	8	0	0	0	0	8	5	0	0	5	2	0	28	0
7:30 AM	0	0	0	1	0	6	0	2	0	0	9	5	0	0	2	3	0	28	0
7:45 AM	0	0	0	0	0	4	2	2	0	0	10	6	0	0	13	2	0	39	111
8:00 AM	0	0	0	0	0	6	0	12	0	0	11	0	0	0	8	7	0	44	139
8:15 AM	0	0	0	1	0	3	0	3	0	0	10	1	0	0	3	2	0	23	134
8:30 AM	0	0	0	1	0	2	0	7	0	0	7	4	0	0	1	7	0	29	135
8:45 AM	0	0	0	1	0	1	1	1	0	0	6	7	0	0	0	6	0	23	119
Count Total	0	0	0	4	0	32	5	27	0	0	69	30	0	0	32	31	0	230	0
Peak Hour	0	0	0	1	0	24	2	16	0	0	38	16	0	0	28	14	0	139	0

Two-Hour Count Summaries - Bikes

Interval Start	WCR 90			WCR 90			US 85			US 85			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



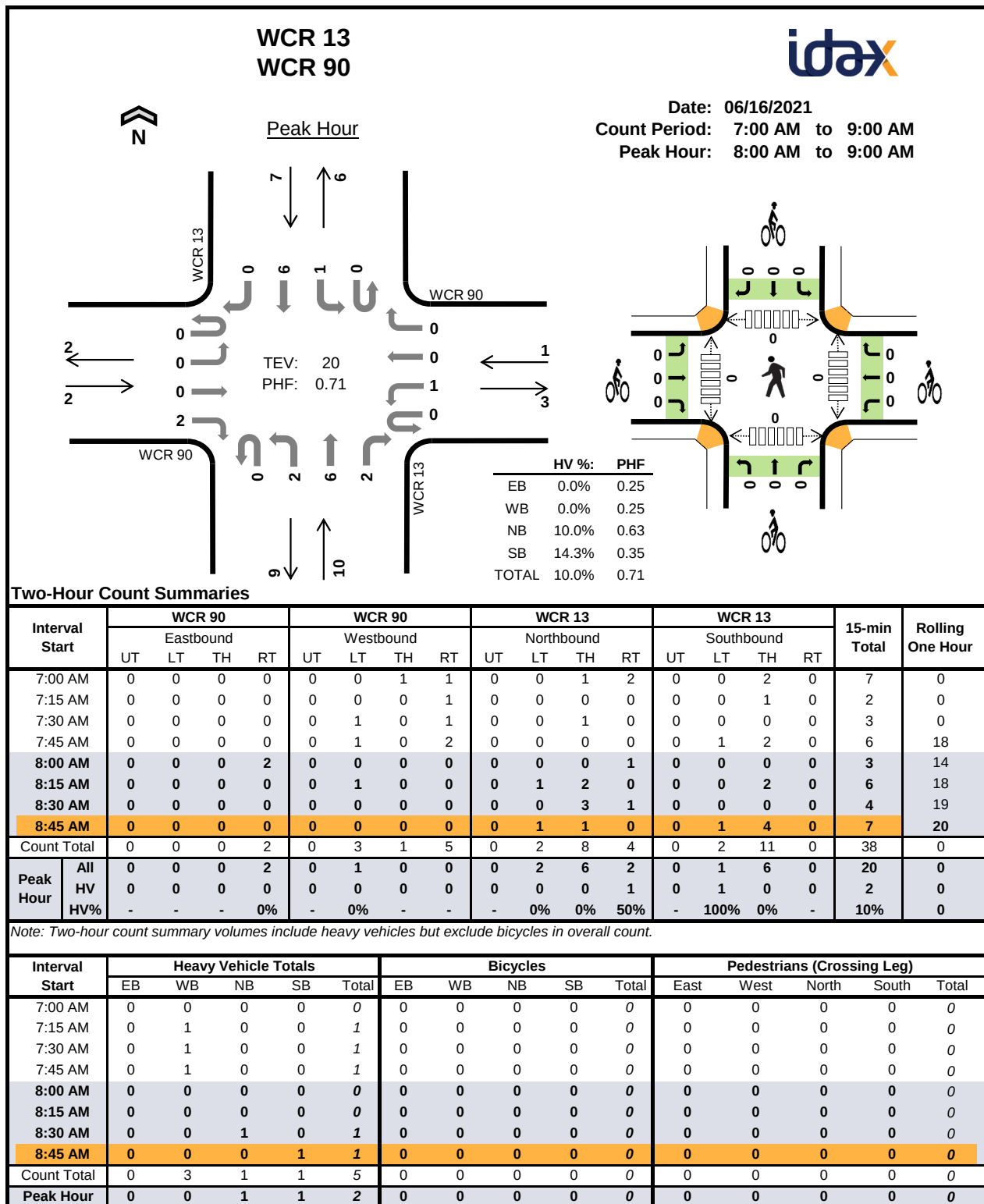
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	WCR 90				WCR 90				US 85				US 85				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	10	5	0	6	6	0	28	0
4:15 PM	0	0	0	0	0	3	0	0	0	0	5	1	0	2	6	0	17	0
4:30 PM	0	0	1	0	0	3	0	0	0	0	7	0	0	1	5	0	17	0
4:45 PM	0	0	0	0	0	1	0	1	0	0	3	0	0	0	2	0	7	69
5:00 PM	0	0	1	0	0	1	0	0	0	0	10	1	0	1	3	0	17	58
5:15 PM	0	0	0	0	0	0	0	0	0	1	5	0	0	2	6	0	14	55
5:30 PM	0	0	0	0	0	0	0	1	0	0	8	0	0	1	3	0	13	51
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	5	0	10	54
Count Total	0	0	2	0	0	9	0	2	0	1	52	8	0	13	36	0	123	0
Peak Hour	0	0	2	0	0	5	0	1	0	1	25	1	0	4	16	0	55	0

Two-Hour Count Summaries - Bikes

Interval Start	WCR 90			WCR 90			US 85			US 85			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



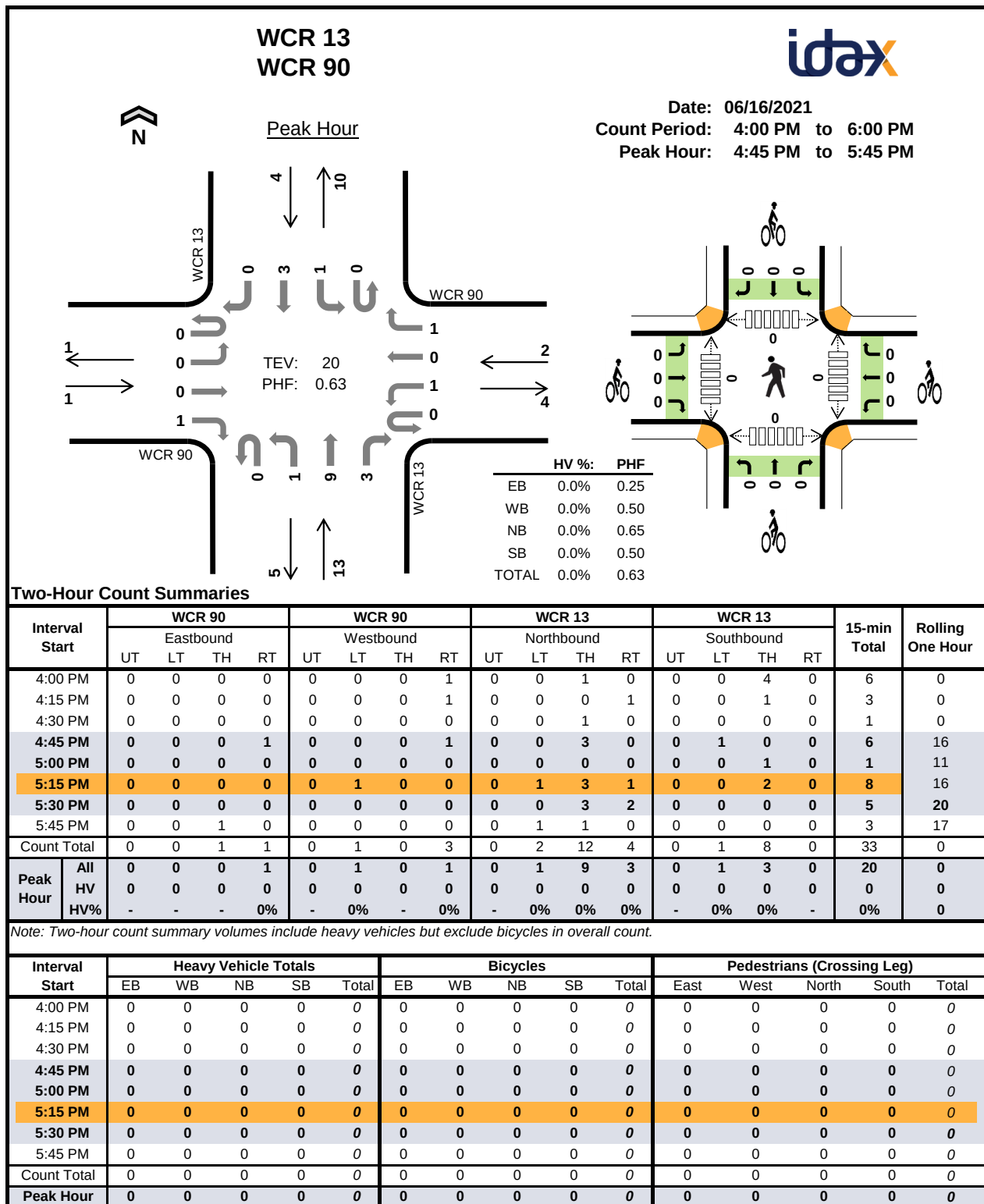
Two-Hour Count Summaries - Heavy Vehicles

Interval Start	WCR 90				WCR 90				WCR 13				WCR 13				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Count Total	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	1	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0

Two-Hour Count Summaries - Bikes

Interval Start	WCR 90			WCR 90			WCR 13			WCR 13			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries - Heavy Vehicles

Interval Start	WCR 90				WCR 90				WCR 13				WCR 13				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Bikes

Interval Start	WCR 90			WCR 90			WCR 13			WCR 13			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	WCR 84				WCR 84				WCR 23				WCR 23				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes																		
Interval Start	WCR 84			WCR 84			WCR 23			WCR 23			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Location: WCR 90 E/O WCR 13
 Date Range: 6/16/2021 - 6/22/2021
 Site Code: 01

Time	Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Tuesday			Mid-Week Average			
	6/16/2021			6/17/2021			6/18/2021			6/19/2021			6/20/2021			6/21/2021			6/22/2021						
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	
12:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
1:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
2:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
3:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
4:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
5:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
6:00 AM	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
7:00 AM	2	8	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	8	10
8:00 AM	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4
9:00 AM	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4
10:00 AM	1	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	5	6
11:00 AM	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5
12:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
1:00 PM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
2:00 PM	1	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	6	7
3:00 PM	2	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	6
4:00 PM	2	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5
5:00 PM	4	2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	6
6:00 PM	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
7:00 PM	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3
8:00 PM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
9:00 PM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
10:00 PM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
11:00 PM	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	1
Total	26	41	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	41	67
Percent	39%	61%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39%	61%	-

1. Mid-week average includes data between Tuesday and Thursday.

Location: WCR 90 W/O WCR 29
 Date Range: 6/16/2021 - 6/22/2021
 Site Code: 02

Time	Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Tuesday			Mid-Week Average		
	6/16/2021			6/17/2021			6/18/2021			6/19/2021			6/20/2021			6/21/2021			6/22/2021					
	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
1:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
2:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
3:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
4:00 AM	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0
5:00 AM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
6:00 AM	3	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	5
7:00 AM	6	8	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	8	14
8:00 AM	6	9	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	9	15
9:00 AM	4	6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6	10
10:00 AM	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10
11:00 AM	9	11	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	11	20
12:00 PM	9	4	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	4	13
1:00 PM	12	9	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	9	21
2:00 PM	8	9	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	9	17
3:00 PM	11	11	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	11	22
4:00 PM	10	10	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	20
5:00 PM	4	9	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	9	13
6:00 PM	4	7	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	7	11
7:00 PM	3	5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8
8:00 PM	1	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	5
9:00 PM	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	4
10:00 PM	0	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	1
11:00 PM	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	2
Total	98	114	212	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	114	212
Percent	46%	54%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46%	54%	-

1. Mid-week average includes data between Tuesday and Thursday.

CDOT OTIS Growth Rate: Black Hollow Solar

ROUTE	REFPT	ENDREFPT	LENGTH	AADT	AADTYR	YR20FACTOR	Growth Rate	DHV	DD	LOCATION
085L	283.61	283.889	0.323	4800	2019	1.26	1.16%	11	57	ON SH 85 NW/O MAIN AVE PIERCE

Intersection Operational Analysis

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↕	
Traffic Vol, veh/h	0	59	373	179	162	0	0	0	0	4	1	39
Future Vol, veh/h	0	59	373	179	162	0	0	0	0	4	1	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	87	87	87	92	92	92	69	69	69
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	69	434	206	186	0	0	0	0	6	1	57
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	503	0	0				884	1101	186
Stage 1	-	-	-	-	-	-				598	598	-
Stage 2	-	-	-	-	-	-				286	503	-
Critical Hdwy	-	-	-	4.19	-	-				6.49	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-				5.49	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.49	5.59	-
Follow-up Hdwy	-	-	-	2.281	-	-				3.581	4.081	3.381
Pot Cap-1 Maneuver	0	-	-	1026	-	0				307	206	838
Stage 1	0	-	-	-	-	0				536	480	-
Stage 2	0	-	-	-	-	0				747	530	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1026	-	-				245	0	838
Mov Cap-2 Maneuver	-	-	-	-	-	-				245	0	-
Stage 1	-	-	-	-	-	-				536	0	-
Stage 2	-	-	-	-	-	-				597	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			4.9			10.8					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1							
Capacity (veh/h)	-	-	1026	-	684							
HCM Lane V/C Ratio	-	-	0.201	-	0.093							
HCM Control Delay (s)	-	-	9.4	-	10.8							
HCM Lane LOS	-	-	A	-	B							
HCM 95th %tile Q(veh)	-	-	0.7	-	0.3							

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↕	
Traffic Vol, veh/h	0	88	286	88	314	0	0	0	0	16	0	53
Future Vol, veh/h	0	88	286	88	314	0	0	0	0	16	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	87	87	87	92	92	92	82	82	82
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	99	321	101	361	0	0	0	0	20	0	65
Major/Minor	Major1		Major2				Minor2					
Conflicting Flow All	-	0	0	420	0	0				823	983	361
Stage 1	-	-	-	-	-	-				563	563	-
Stage 2	-	-	-	-	-	-				260	420	-
Critical Hdwy	-	-	-	4.18	-	-				6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-				5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.48	5.58	-
Follow-up Hdwy	-	-	-	2.272	-	-				3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	1108	-	0				335	243	670
Stage 1	0	-	-	-	-	0				558	499	-
Stage 2	0	-	-	-	-	0				770	579	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1108	-	-				305	0	670
Mov Cap-2 Maneuver	-	-	-	-	-	-				305	0	-
Stage 1	-	-	-	-	-	-				558	0	-
Stage 2	-	-	-	-	-	-				700	0	-
Approach	EB		WB				SB					
HCM Control Delay, s	0		1.9				13.2					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1							
Capacity (veh/h)	-	-	1108	-	524							
HCM Lane V/C Ratio	-	-	0.091	-	0.161							
HCM Control Delay (s)	-	-	8.6	-	13.2							
HCM Lane LOS	-	-	A	-	B							
HCM 95th %tile Q(veh)	-	-	0.3	-	0.6							

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↕	
Traffic Vol, veh/h	0	60	380	183	165	0	0	0	0	4	1	40
Future Vol, veh/h	0	60	380	183	165	0	0	0	0	4	1	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	87	87	87	92	92	92	69	69	69
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	70	442	210	190	0	0	0	0	6	1	58
Major/Minor	Major1		Major2				Minor2					
Conflicting Flow All	-	0	0	512	0	0				901	1122	190
Stage 1	-	-	-	-	-	-				610	610	-
Stage 2	-	-	-	-	-	-				291	512	-
Critical Hdwy	-	-	-	4.19	-	-				6.49	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-				5.49	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.49	5.59	-
Follow-up Hdwy	-	-	-	2.281	-	-				3.581	4.081	3.381
Pot Cap-1 Maneuver	0	-	-	1018	-	0				300	200	834
Stage 1	0	-	-	-	-	0				529	474	-
Stage 2	0	-	-	-	-	0				743	525	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1018	-	-				238	0	834
Mov Cap-2 Maneuver	-	-	-	-	-	-				238	0	-
Stage 1	-	-	-	-	-	-				529	0	-
Stage 2	-	-	-	-	-	-				590	0	-
Approach	EB		WB				SB					
HCM Control Delay, s	0		5				10.9					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1							
Capacity (veh/h)	-	-	1018	-	679							
HCM Lane V/C Ratio	-	-	0.207	-	0.096							
HCM Control Delay (s)	-	-	9.5	-	10.9							
HCM Lane LOS	-	-	A	-	B							
HCM 95th %tile Q(veh)	-	-	0.8	-	0.3							

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↕	
Traffic Vol, veh/h	0	90	292	90	320	0	0	0	0	16	0	54
Future Vol, veh/h	0	90	292	90	320	0	0	0	0	16	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	87	87	87	92	92	92	82	82	82
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	101	328	103	368	0	0	0	0	20	0	66
Major/Minor	Major1		Major2				Minor2					
Conflicting Flow All	-	0	0	429	0	0				839	1003	368
Stage 1	-	-	-	-	-	-				574	574	-
Stage 2	-	-	-	-	-	-				265	429	-
Critical Hdwy	-	-	-	4.18	-	-				6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-				5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.48	5.58	-
Follow-up Hdwy	-	-	-	2.272	-	-				3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	1099	-	0				328	236	664
Stage 1	0	-	-	-	-	0				552	494	-
Stage 2	0	-	-	-	-	0				766	574	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1099	-	-				297	0	664
Mov Cap-2 Maneuver	-	-	-	-	-	-				297	0	-
Stage 1	-	-	-	-	-	-				552	0	-
Stage 2	-	-	-	-	-	-				694	0	-
Approach	EB		WB				SB					
HCM Control Delay, s	0		1.9				13.3					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1							
Capacity (veh/h)	-	-	1099	-	518							
HCM Lane V/C Ratio	-	-	0.094	-	0.165							
HCM Control Delay (s)	-	-	8.6	-	13.3							
HCM Lane LOS	-	-	A	-	B							
HCM 95th %tile Q(veh)	-	-	0.3	-	0.6							

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↕	
Traffic Vol, veh/h	0	76	380	183	165	0	0	0	0	28	1	40
Future Vol, veh/h	0	76	380	183	165	0	0	0	0	28	1	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	87	87	87	92	92	92	69	69	69
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	0	88	442	210	190	0	0	0	0	41	1	58
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	530	0	0				919	1140	190
Stage 1	-	-	-	-	-	-				610	610	-
Stage 2	-	-	-	-	-	-				309	530	-
Critical Hdwy	-	-	-	4.19	-	-				6.49	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-				5.49	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.49	5.59	-
Follow-up Hdwy	-	-	-	2.281	-	-				3.581	4.081	3.381
Pot Cap-1 Maneuver	0	-	-	1003	-	0				293	195	834
Stage 1	0	-	-	-	-	0				529	474	-
Stage 2	0	-	-	-	-	0				729	515	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1003	-	-				232	0	834
Mov Cap-2 Maneuver	-	-	-	-	-	-				232	0	-
Stage 1	-	-	-	-	-	-				529	0	-
Stage 2	-	-	-	-	-	-				577	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			5			16.9					
HCM LOS							C					
Minor Lane/Major Mvmt		EBT	EBR	WBL	WBT	SBLn1						
Capacity (veh/h)		-	-	1003	-	403						
HCM Lane V/C Ratio		-	-	0.21	-	0.248						
HCM Control Delay (s)		-	-	9.5	-	16.9						
HCM Lane LOS		-	-	A	-	C						
HCM 95th %tile Q(veh)		-	-	0.8	-	1						

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑						↕	
Traffic Vol, veh/h	0	90	292	138	330	0	0	0	0	16	0	54
Future Vol, veh/h	0	90	292	138	330	0	0	0	0	16	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	200	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	87	87	87	92	92	92	82	82	82
Heavy Vehicles, %	8	8	8	8	8	8	8	8	8	8	8	8
Mvmt Flow	0	101	328	159	379	0	0	0	0	20	0	66
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	429	0	0				962	1126	379
Stage 1	-	-	-	-	-	-				697	697	-
Stage 2	-	-	-	-	-	-				265	429	-
Critical Hdwy	-	-	-	4.18	-	-				6.48	6.58	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-				5.48	5.58	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.48	5.58	-
Follow-up Hdwy	-	-	-	2.272	-	-				3.572	4.072	3.372
Pot Cap-1 Maneuver	0	-	-	1099	-	0				277	200	655
Stage 1	0	-	-	-	-	0				483	434	-
Stage 2	0	-	-	-	-	0				766	574	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1099	-	-				237	0	655
Mov Cap-2 Maneuver	-	-	-	-	-	-				237	0	-
Stage 1	-	-	-	-	-	-				483	0	-
Stage 2	-	-	-	-	-	-				655	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			2.6			14.4					
HCM LOS							B					
Minor Lane/Major Mvmt		EBT	EBR	WBL	WBT	SBLn1						
Capacity (veh/h)		-	-	1099	-	467						
HCM Lane V/C Ratio		-	-	0.144	-	0.183						
HCM Control Delay (s)		-	-	8.8	-	14.4						
HCM Lane LOS		-	-	A	-	B						
HCM 95th %tile Q(veh)		-	-	0.5	-	0.7						

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	32	0	0	217	22	139	0	75	0	0	0
Future Vol, veh/h	35	32	0	0	217	22	139	0	75	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	79	79	79	79	79	79	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	44	40	0	0	275	28	176	0	95	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	303	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.2	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.29	-	-
Pot Cap-1 Maneuver	1214	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1214	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	4.2	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	660	1214	-	-	-
HCM Lane V/C Ratio	0.41	0.036	-	-	-
HCM Control Delay (s)	14.2	8.1	-	-	-
HCM Lane LOS	B	A	-	-	-
HCM 95th %tile Q(veh)	2	0.1	-	-	-

Intersection												
Int Delay, s/veh	15.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	60	0	0	133	28	267	4	241	0	0	0
Future Vol, veh/h	46	60	0	0	133	28	267	4	241	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	84	84	84	89	89	89	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	52	68	0	0	158	33	300	4	271	0	0	0
Major/Minor	Major1			Major2			Minor1					
Conflicting Flow All	191	0	-	-	-	-	0	347	363	68		
Stage 1	-	-	-	-	-	-	-	172	172	-		
Stage 2	-	-	-	-	-	-	-	175	191	-		
Critical Hdwy	4.15	-	-	-	-	-	-	6.45	6.55	6.25		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.45	5.55	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.45	5.55	-		
Follow-up Hdwy	2.245	-	-	-	-	-	-	3.545	4.045	3.345		
Pot Cap-1 Maneuver	1365	-	0	0	-	-	-	644	560	987		
Stage 1	-	-	0	0	-	-	-	851	751	-		
Stage 2	-	-	0	0	-	-	-	848	737	-		
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-		
Mov Cap-1 Maneuver	1365	-	-	-	-	-	-	620	0	987		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	620	0	-		
Stage 1	-	-	-	-	-	-	-	819	0	-		
Stage 2	-	-	-	-	-	-	-	848	0	-		
Approach	EB			WB			NB					
HCM Control Delay, s	3.4			0			23.5					
HCM LOS							C					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR							
Capacity (veh/h)	753	1365	-	-	-							
HCM Lane V/C Ratio	0.764	0.038	-	-	-							
HCM Control Delay (s)	23.5	7.7	-	-	-							
HCM Lane LOS	C	A	-	-	-							
HCM 95th %tile Q(veh)	7.3	0.1	-	-	-							

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	33	0	0	221	22	142	0	77	0	0	0
Future Vol, veh/h	36	33	0	0	221	22	142	0	77	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	79	79	79	79	79	79	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	45	41	0	0	280	28	180	0	97	0	0	0
Major/Minor	Major1			Major2			Minor1					
Conflicting Flow All	308	0	-	-	-	0	425	439	41			
Stage 1	-	-	-	-	-	-	131	131	-			
Stage 2	-	-	-	-	-	-	294	308	-			
Critical Hdwy	4.2	-	-	-	-	-	6.5	6.6	6.3			
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.6	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	5.5	5.6	-			
Follow-up Hdwy	2.29	-	-	-	-	-	3.59	4.09	3.39			
Pot Cap-1 Maneuver	1209	-	0	0	-	-	571	500	1008			
Stage 1	-	-	0	0	-	-	876	773	-			
Stage 2	-	-	0	0	-	-	738	646	-			
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1209	-	-	-	-	-	550	0	1008			
Mov Cap-2 Maneuver	-	-	-	-	-	-	550	0	-			
Stage 1	-	-	-	-	-	-	844	0	-			
Stage 2	-	-	-	-	-	-	738	0	-			
Approach	EB			WB			NB					
HCM Control Delay, s	4.2			0			14.5					
HCM LOS							B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR							
Capacity (veh/h)	655	1209	-	-	-							
HCM Lane V/C Ratio	0.423	0.037	-	-	-							
HCM Control Delay (s)	14.5	8.1	-	-	-							
HCM Lane LOS	B	A	-	-	-							
HCM 95th %tile Q(veh)	2.1	0.1	-	-	-							

Intersection												
Int Delay, s/veh	16.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	47	61	0	0	136	29	272	4	246	0	0	0
Future Vol, veh/h	47	61	0	0	136	29	272	4	246	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	84	84	84	89	89	89	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	53	69	0	0	162	35	306	4	276	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	197	0	- - - 0 355 372 69
Stage 1	-	-	- - - 175 175 -
Stage 2	-	-	- - - 180 197 -
Critical Hdwy	4.15	-	- - - 6.45 6.55 6.25
Critical Hdwy Stg 1	-	-	- - - 5.45 5.55 -
Critical Hdwy Stg 2	-	-	- - - 5.45 5.55 -
Follow-up Hdwy	2.245	-	- - - 3.545 4.045 3.345
Pot Cap-1 Maneuver	1358	- 0 0	- - 637 553 986
Stage 1	-	- 0 0	- - 848 749 -
Stage 2	-	- 0 0	- - 844 732 -
Platoon blocked, %	-	-	- -
Mov Cap-1 Maneuver	1358	- - -	- - 612 0 986
Mov Cap-2 Maneuver	-	- - -	- - 612 0 -
Stage 1	-	- - -	- - 815 0 -
Stage 2	-	- - -	- - 844 0 -

Approach	EB	WB	NB
HCM Control Delay, s	3.4	0	25.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	746	1358	-	-	-
HCM Lane V/C Ratio	0.786	0.039	-	-	-
HCM Control Delay (s)	25.1	7.8	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	7.9	0.1	-	-	-

Intersection												
Int Delay, s/veh	8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	73	0	0	221	22	142	0	149	0	0	0
Future Vol, veh/h	36	73	0	0	221	22	142	0	149	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	79	79	79	79	79	79	92	92	92
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	45	91	0	0	280	28	180	0	189	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	308	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.2	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.29	-	-
Pot Cap-1 Maneuver	1209	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1209	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	2.7	0	16.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	671	1209	-	-	-
HCM Lane V/C Ratio	0.549	0.037	-	-	-
HCM Control Delay (s)	16.7	8.1	-	-	-
HCM Lane LOS	C	A	-	-	-
HCM 95th %tile Q(veh)	3.4	0.1	-	-	-

Intersection												
Int Delay, s/veh	19											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑			↱			↱				
Traffic Vol, veh/h	47	61	0	0	194	45	272	4	246	0	0	0
Future Vol, veh/h	47	61	0	0	194	45	272	4	246	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	84	84	84	89	89	89	92	92	92
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	53	69	0	0	231	54	306	4	276	0	0	0

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	285	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.15	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.245	-	-
Pot Cap-1 Maneuver	1260	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1260	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	3.5	0	31.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR
Capacity (veh/h)	696	1260	-	-	-
HCM Lane V/C Ratio	0.843	0.042	-	-	-
HCM Control Delay (s)	31.5	8	-	-	-
HCM Lane LOS	D	A	-	-	-
HCM 95th %tile Q(veh)	9.5	0.1	-	-	-

Intersection												
Int Delay, s/veh	9.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	10	20	0	23	2	31	21	1	1	37	185
Future Vol, veh/h	78	10	20	0	23	2	31	21	1	1	37	185
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	89	89	89	88	88	88	73	73	73
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	101	13	26	0	26	2	35	24	1	1	51	253
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	39	0	0	407	256	26	268	268	27
Stage 1	-	-	-	-	-	-	228	228	-	27	27	-
Stage 2	-	-	-	-	-	-	179	28	-	241	241	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1541	-	-	1527	-	-	542	636	1030	671	626	1029
Stage 1	-	-	-	-	-	-	759	703	-	973	859	-
Stage 2	-	-	-	-	-	-	807	858	-	747	693	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1541	-	-	1527	-	-	363	594	1030	617	585	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	363	594	-	617	585	-
Stage 1	-	-	-	-	-	-	709	657	-	909	859	-
Stage 2	-	-	-	-	-	-	572	858	-	672	647	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.4			0			14.6			10.9		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	435	1541	-	-	1527	-	-	911				
HCM Lane V/C Ratio	0.138	0.066	-	-	-	-	-	0.335				
HCM Control Delay (s)	14.6	7.5	-	-	0	-	-	10.9				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0	-	-	1.5				

Intersection												
Int Delay, s/veh	12.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	246	18	37	1	19	5	56	57	1	4	28	94
Future Vol, veh/h	246	18	37	1	19	5	56	57	1	4	28	94
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	78	78	78	86	86	86	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	286	21	43	1	24	6	65	66	1	5	33	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	30	0	0	64	0	0	716	647	43	677	665	27
Stage 1	-	-	-	-	-	-	615	615	-	29	29	-
Stage 2	-	-	-	-	-	-	101	32	-	648	636	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1564	-	-	1519	-	-	341	386	1019	363	377	1040
Stage 1	-	-	-	-	-	-	473	478	-	980	865	-
Stage 2	-	-	-	-	-	-	898	862	-	454	467	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1564	-	-	1519	-	-	241	315	1019	262	308	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	241	315	-	262	308	-
Stage 1	-	-	-	-	-	-	386	391	-	801	864	-
Stage 2	-	-	-	-	-	-	771	861	-	308	382	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	6.4			0.3			29.7			12.3		
HCM LOS							D			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	275	1564	-	-	1519	-	-	641
HCM Lane V/C Ratio	0.482	0.183	-	-	0.001	-	-	0.231
HCM Control Delay (s)	29.7	7.8	-	-	7.4	-	-	12.3
HCM Lane LOS	D	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	2.5	0.7	-	-	0	-	-	0.9

Intersection												
Int Delay, s/veh	9.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	10	20	0	23	2	32	21	1	1	38	189
Future Vol, veh/h	80	10	20	0	23	2	32	21	1	1	38	189
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	89	89	89	88	88	88	73	73	73
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	104	13	26	0	26	2	36	24	1	1	52	259
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	39	0	0	417	262	26	274	274	27
Stage 1	-	-	-	-	-	-	234	234	-	27	27	-
Stage 2	-	-	-	-	-	-	183	28	-	247	247	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1541	-	-	1527	-	-	534	631	1030	664	621	1029
Stage 1	-	-	-	-	-	-	754	698	-	973	859	-
Stage 2	-	-	-	-	-	-	803	858	-	742	689	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1541	-	-	1527	-	-	353	589	1030	610	579	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	353	589	-	610	579	-
Stage 1	-	-	-	-	-	-	703	651	-	908	859	-
Stage 2	-	-	-	-	-	-	565	858	-	666	643	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	5.5			0			14.9			11		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	424	1541	-	-	1527	-	-	909				
HCM Lane V/C Ratio	0.145	0.067	-	-	-	-	-	0.344				
HCM Control Delay (s)	14.9	7.5	-	-	0	-	-	11				
HCM Lane LOS	B	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0	-	-	1.5				

Intersection												
Int Delay, s/veh	12.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	251	18	38	1	19	5	57	58	1	4	29	96
Future Vol, veh/h	251	18	38	1	19	5	57	58	1	4	29	96
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	78	78	78	86	86	86	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	292	21	44	1	24	6	66	67	1	5	34	113
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	30	0	0	65	0	0	730	659	43	690	678	27
Stage 1	-	-	-	-	-	-	627	627	-	29	29	-
Stage 2	-	-	-	-	-	-	103	32	-	661	649	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1564	-	-	1518	-	-	334	380	1019	355	370	1040
Stage 1	-	-	-	-	-	-	466	472	-	980	865	-
Stage 2	-	-	-	-	-	-	896	862	-	447	461	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1564	-	-	1518	-	-	233	309	1019	254	300	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	309	-	254	300	-
Stage 1	-	-	-	-	-	-	379	384	-	797	864	-
Stage 2	-	-	-	-	-	-	767	861	-	299	375	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	6.4			0.3			31.3			12.5		
HCM LOS							D			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	268	1564	-	-	1518	-	-	630				
HCM Lane V/C Ratio	0.503	0.187	-	-	0.001	-	-	0.241				
HCM Control Delay (s)	31.3	7.8	-	-	7.4	-	-	12.5				
HCM Lane LOS	D	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	2.6	0.7	-	-	0	-	-	0.9				

Intersection												
Int Delay, s/veh	10.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	190	10	20	0	23	2	32	21	1	1	38	189
Future Vol, veh/h	190	10	20	0	23	2	32	21	1	1	38	189
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	89	89	89	88	88	88	73	73	73
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	247	13	26	0	26	2	36	24	1	1	52	259
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	28	0	0	39	0	0	703	548	26	560	560	27
Stage 1	-	-	-	-	-	-	520	520	-	27	27	-
Stage 2	-	-	-	-	-	-	183	28	-	533	533	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.19	6.59	6.29	7.19	6.59	6.29
Critical Hdwy Stg 1	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.19	5.59	-	6.19	5.59	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.581	4.081	3.381	3.581	4.081	3.381
Pot Cap-1 Maneuver	1541	-	-	1527	-	-	343	434	1030	428	427	1029
Stage 1	-	-	-	-	-	-	527	521	-	973	859	-
Stage 2	-	-	-	-	-	-	803	858	-	518	514	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1541	-	-	1527	-	-	201	365	1030	357	359	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	201	365	-	357	359	-
Stage 1	-	-	-	-	-	-	443	438	-	817	859	-
Stage 2	-	-	-	-	-	-	565	858	-	411	432	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	6.7			0			24.2			12.7		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	248	1541	-	-	1527	-	-	780				
HCM Lane V/C Ratio	0.247	0.16	-	-	-	-	-	0.4				
HCM Control Delay (s)	24.2	7.8	-	-	0	-	-	12.7				
HCM Lane LOS	C	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	0.9	0.6	-	-	0	-	-	1.9				

Intersection												
Int Delay, s/veh	13.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	251	18	38	1	19	5	57	58	1	4	29	170
Future Vol, veh/h	251	18	38	1	19	5	57	58	1	4	29	170
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	175	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	78	78	78	86	86	86	85	85	85
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	292	21	44	1	24	6	66	67	1	5	34	200
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	30	0	0	65	0	0	773	659	43	690	678	27
Stage 1	-	-	-	-	-	-	627	627	-	29	29	-
Stage 2	-	-	-	-	-	-	146	32	-	661	649	-
Critical Hdwy	4.15	-	-	4.15	-	-	7.15	6.55	6.25	7.15	6.55	6.25
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.15	5.55	-
Follow-up Hdwy	2.245	-	-	2.245	-	-	3.545	4.045	3.345	3.545	4.045	3.345
Pot Cap-1 Maneuver	1564	-	-	1518	-	-	312	380	1019	355	370	1040
Stage 1	-	-	-	-	-	-	466	472	-	980	865	-
Stage 2	-	-	-	-	-	-	850	862	-	447	461	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1564	-	-	1518	-	-	197	309	1019	254	300	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	309	-	254	300	-
Stage 1	-	-	-	-	-	-	379	384	-	797	864	-
Stage 2	-	-	-	-	-	-	659	861	-	299	375	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	6.4			0.3			36.8			12.2		
HCM LOS							E			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	243	1564	-	-	1518	-	-	736				
HCM Lane V/C Ratio	0.555	0.187	-	-	0.001	-	-	0.324				
HCM Control Delay (s)	36.8	7.8	-	-	7.4	-	-	12.2				
HCM Lane LOS	E	A	-	-	A	-	-	B				
HCM 95th %tile Q(veh)	3.1	0.7	-	-	0	-	-	1.4				

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	1	0	0	2	6	2	1	6	0
Future Vol, veh/h	0	0	2	1	0	0	2	6	2	1	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	25	25	25	63	63	63	35	35	35
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	8	4	0	0	3	10	3	3	17	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	41	42	17	45	41	12	17	0	0	13	0	0
Stage 1	23	23	-	18	18	-	-	-	-	-	-	-
Stage 2	18	19	-	27	23	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	943	835	1039	937	836	1046	1550	-	-	1555	-	-
Stage 1	975	860	-	981	865	-	-	-	-	-	-	-
Stage 2	981	864	-	970	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	940	832	1039	927	833	1046	1550	-	-	1555	-	-
Mov Cap-2 Maneuver	940	832	-	927	833	-	-	-	-	-	-	-
Stage 1	973	858	-	979	863	-	-	-	-	-	-	-
Stage 2	979	862	-	961	858	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.5		8.9		1.5		1					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1550	-	-	1039	927	1555	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.008	0.004	0.002	-	-				
HCM Control Delay (s)	7.3	0	-	8.5	8.9	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	1	0	1	1	9	3	1	3	0
Future Vol, veh/h	0	0	1	1	0	1	1	9	3	1	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	50	50	50	65	65	65	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	2	0	2	2	14	5	2	6	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	32	33	6	33	31	17	6	0	0	19	0	0
Stage 1	10	10	-	21	21	-	-	-	-	-	-	-
Stage 2	22	23	-	12	10	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	860	1077	974	862	1062	1615	-	-	1597	-	-
Stage 1	1011	887	-	998	878	-	-	-	-	-	-	-
Stage 2	996	876	-	1009	887	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	973	858	1077	969	860	1062	1615	-	-	1597	-	-
Mov Cap-2 Maneuver	973	858	-	969	860	-	-	-	-	-	-	-
Stage 1	1010	886	-	997	877	-	-	-	-	-	-	-
Stage 2	993	875	-	1004	886	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.4		8.6		0.6		1.8					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1615	-	-	1077	1013	1597	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.004	0.004	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	8.4	8.6	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	1	0	0	2	6	2	1	6	0
Future Vol, veh/h	0	0	2	1	0	0	2	6	2	1	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	25	25	25	63	63	63	35	35	35
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	8	4	0	0	3	10	3	3	17	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	41	42	17	45	41	12	17	0	0	13	0	0
Stage 1	23	23	-	18	18	-	-	-	-	-	-	-
Stage 2	18	19	-	27	23	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	943	835	1039	937	836	1046	1550	-	-	1555	-	-
Stage 1	975	860	-	981	865	-	-	-	-	-	-	-
Stage 2	981	864	-	970	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	940	832	1039	927	833	1046	1550	-	-	1555	-	-
Mov Cap-2 Maneuver	940	832	-	927	833	-	-	-	-	-	-	-
Stage 1	973	858	-	979	863	-	-	-	-	-	-	-
Stage 2	979	862	-	961	858	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.5		8.9		1.5		1					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1550	-	-	1039	927	1555	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.008	0.004	0.002	-	-				
HCM Control Delay (s)	7.3	0	-	8.5	8.9	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	1	0	1	1	9	3	1	3	0
Future Vol, veh/h	0	0	1	1	0	1	1	9	3	1	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	50	50	50	65	65	65	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	2	0	2	2	14	5	2	6	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	32	33	6	33	31	17	6	0	0	19	0	0
Stage 1	10	10	-	21	21	-	-	-	-	-	-	-
Stage 2	22	23	-	12	10	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	860	1077	974	862	1062	1615	-	-	1597	-	-
Stage 1	1011	887	-	998	878	-	-	-	-	-	-	-
Stage 2	996	876	-	1009	887	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	973	858	1077	969	860	1062	1615	-	-	1597	-	-
Mov Cap-2 Maneuver	973	858	-	969	860	-	-	-	-	-	-	-
Stage 1	1010	886	-	997	877	-	-	-	-	-	-	-
Stage 2	993	875	-	1004	886	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.4		8.6		0.6		1.8					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1615	-	-	1077	1013	1597	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.004	0.004	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	8.4	8.6	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	2	1	0	0	2	6	112	1	6	0
Future Vol, veh/h	0	0	2	1	0	0	2	6	112	1	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	25	25	25	63	63	63	35	35	35
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	0	0	8	4	0	0	3	10	178	3	17	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	128	217	17	132	128	99	17	0	0	188	0	0
Stage 1	23	23	-	105	105	-	-	-	-	-	-	-
Stage 2	105	194	-	27	23	-	-	-	-	-	-	-
Critical Hdwy	7.2	6.6	6.3	7.2	6.6	6.3	4.2	-	-	4.2	-	-
Critical Hdwy Stg 1	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.2	5.6	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	3.39	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	827	667	1039	822	748	935	1550	-	-	1339	-	-
Stage 1	975	860	-	881	793	-	-	-	-	-	-	-
Stage 2	881	725	-	970	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	825	664	1039	813	745	935	1550	-	-	1339	-	-
Mov Cap-2 Maneuver	825	664	-	813	745	-	-	-	-	-	-	-
Stage 1	973	858	-	879	791	-	-	-	-	-	-	-
Stage 2	879	724	-	961	858	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.5		9.5		0.1		1.1					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1550	-	-	1039	813	1339	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.008	0.005	0.002	-	-				
HCM Control Delay (s)	7.3	0	-	8.5	9.5	7.7	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	75	0	1	1	9	3	1	3	0
Future Vol, veh/h	0	0	1	75	0	1	1	9	3	1	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	50	50	50	65	65	65	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	150	0	2	2	14	5	2	6	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	32	33	6	33	31	17	6	0	0	19	0	0
Stage 1	10	10	-	21	21	-	-	-	-	-	-	-
Stage 2	22	23	-	12	10	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	976	860	1077	974	862	1062	1615	-	-	1597	-	-
Stage 1	1011	887	-	998	878	-	-	-	-	-	-	-
Stage 2	996	876	-	1009	887	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	973	858	1077	969	860	1062	1615	-	-	1597	-	-
Mov Cap-2 Maneuver	973	858	-	969	860	-	-	-	-	-	-	-
Stage 1	1010	886	-	997	877	-	-	-	-	-	-	-
Stage 2	993	875	-	1004	886	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.4		9.4			0.6			1.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1615	-	-	1077	970	1597	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.004	0.157	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	8.4	9.4	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0.6	0	-	-				

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	15	15	51	18	26	30	154	31	39	142	5
Future Vol, veh/h	5	15	15	51	18	26	30	154	31	39	142	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	125	450	-	450
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	82	82	82	87	87	87	91	91	91
Heavy Vehicles, %	26	26	26	26	26	26	26	26	26	26	26	26
Mvmt Flow	7	21	21	62	22	32	34	177	36	43	156	5
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	410	523	78	420	492	-	161	0	0	213	0	0
Stage 1	242	242	-	245	245	-	-	-	-	-	-	-
Stage 2	168	281	-	175	247	-	-	-	-	-	-	-
Critical Hdwy	8.02	7.02	7.42	8.02	7.02	-	4.62	-	-	4.62	-	-
Critical Hdwy Stg 1	7.02	6.02	-	7.02	6.02	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.02	6.02	-	7.02	6.02	-	-	-	-	-	-	-
Follow-up Hdwy	3.76	4.26	3.56	3.76	4.26	-	2.46	-	-	2.46	-	-
Pot Cap-1 Maneuver	472	409	895	464	427	0	1257	-	-	1196	-	-
Stage 1	676	648	-	673	646	0	-	-	-	-	-	-
Stage 2	752	621	-	745	645	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	433	384	895	417	401	-	1257	-	-	1196	-	-
Mov Cap-2 Maneuver	499	444	-	487	460	-	-	-	-	-	-	-
Stage 1	658	625	-	655	629	-	-	-	-	-	-	-
Stage 2	706	604	-	679	622	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	11.8					1.1			1.7			
HCM LOS	B		-									
Minor Lane/Major Mvmt	NBL		NBT	NBR EBLn1WBLn1		SBL	SBT	SBR				
Capacity (veh/h)	1257		-	-	578	-	1196	-	-			
HCM Lane V/C Ratio	0.027		-	-	0.083	-	0.036	-	-			
HCM Control Delay (s)	7.9		-	-	11.8	-	8.1	-	-			
HCM Lane LOS	A		-	-	B	-	A	-	-			
HCM 95th %tile Q(veh)	0.1		-	-	0.3	-	0.1	-	-			

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	19	11	28	12	25	15	208	37	13	238	1
Future Vol, veh/h	3	19	11	28	12	25	15	208	37	13	238	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	125	450	-	450
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	90	90	90	96	96	96	93	93	93
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	4	28	16	31	13	28	16	217	39	14	256	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	431	572	128	419	534	-	257	0	0	256	0	0
Stage 1	284	284	-	249	249	-	-	-	-	-	-	-
Stage 2	147	288	-	170	285	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.68	7.08	7.68	6.68	-	4.28	-	-	4.28	-	-
Critical Hdwy Stg 1	6.68	5.68	-	6.68	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.68	-	6.68	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	-	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	492	414	876	502	436	0	1255	-	-	1257	-	-
Stage 1	680	658	-	713	682	0	-	-	-	-	-	-
Stage 2	821	655	-	795	657	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	473	404	876	463	426	-	1255	-	-	1257	-	-
Mov Cap-2 Maneuver	542	477	-	537	492	-	-	-	-	-	-	-
Stage 1	671	651	-	704	673	-	-	-	-	-	-	-
Stage 2	794	646	-	739	650	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	11.9					0.5			0.4			
HCM LOS	B		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1255	-	-	570	-	1257	-	-				
HCM Lane V/C Ratio	0.012	-	-	0.084	-	0.011	-	-				
HCM Control Delay (s)	7.9	-	-	11.9	-	7.9	-	-				
HCM Lane LOS	A	-	-	B	-	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	-	0	-	-				

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	15	15	52	18	27	31	157	32	40	145	5
Future Vol, veh/h	5	15	15	52	18	27	31	157	32	40	145	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	125	450	-	450
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	82	82	82	87	87	87	91	91	91
Heavy Vehicles, %	26	26	26	26	26	26	26	26	26	26	26	26
Mvmt Flow	7	21	21	63	22	33	36	180	37	44	159	5
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	420	536	80	430	504	-	164	0	0	217	0	0
Stage 1	247	247	-	252	252	-	-	-	-	-	-	-
Stage 2	173	289	-	178	252	-	-	-	-	-	-	-
Critical Hdwy	8.02	7.02	7.42	8.02	7.02	-	4.62	-	-	4.62	-	-
Critical Hdwy Stg 1	7.02	6.02	-	7.02	6.02	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.02	6.02	-	7.02	6.02	-	-	-	-	-	-	-
Follow-up Hdwy	3.76	4.26	3.56	3.76	4.26	-	2.46	-	-	2.46	-	-
Pot Cap-1 Maneuver	464	401	892	456	420	0	1253	-	-	1192	-	-
Stage 1	671	645	-	666	641	0	-	-	-	-	-	-
Stage 2	747	615	-	742	641	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	425	375	892	409	393	-	1253	-	-	1192	-	-
Mov Cap-2 Maneuver	492	437	-	480	453	-	-	-	-	-	-	-
Stage 1	652	621	-	647	622	-	-	-	-	-	-	-
Stage 2	700	597	-	675	617	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.9				1.1		1.7					
HCM LOS	B		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1253	-	-	571	-	1192	-	-				
HCM Lane V/C Ratio	0.028	-	-	0.084	-	0.037	-	-				
HCM Control Delay (s)	8	-	-	11.9	-	8.1	-	-				
HCM Lane LOS	A	-	-	B	-	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0.1	-	-				

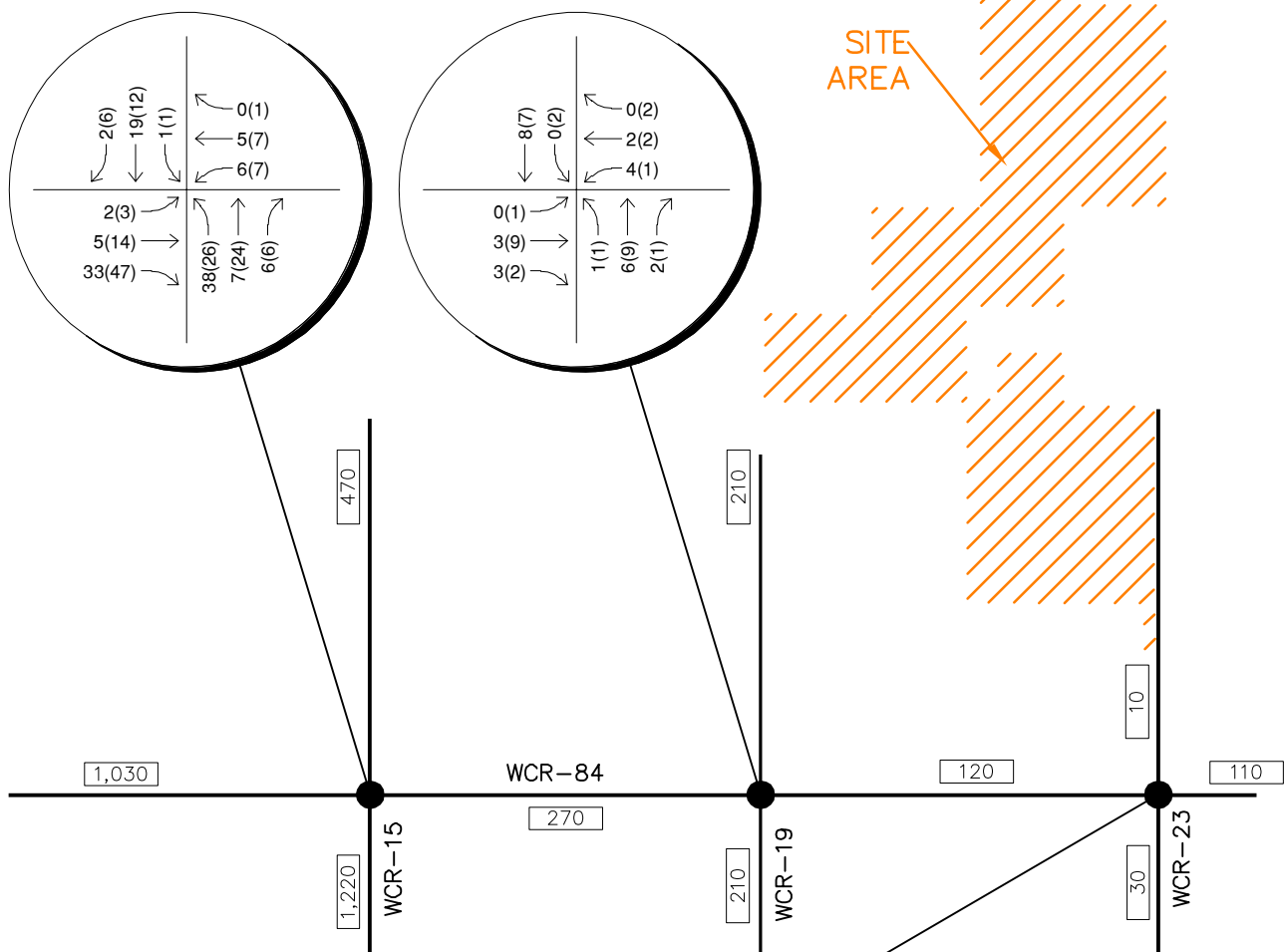
Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	19	11	29	12	26	15	212	38	13	243	1
Future Vol, veh/h	3	19	11	29	12	26	15	212	38	13	243	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	125	450	-	450
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	90	90	90	96	96	96	93	93	93
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	4	28	16	32	13	29	16	221	40	14	261	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	438	582	131	426	543	-	262	0	0	261	0	0
Stage 1	289	289	-	253	253	-	-	-	-	-	-	-
Stage 2	149	293	-	173	290	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.68	7.08	7.68	6.68	-	4.28	-	-	4.28	-	-
Critical Hdwy Stg 1	6.68	5.68	-	6.68	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.68	-	6.68	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	-	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	486	409	872	496	431	0	1250	-	-	1251	-	-
Stage 1	675	654	-	710	679	0	-	-	-	-	-	-
Stage 2	818	652	-	792	654	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	467	399	872	457	421	-	1250	-	-	1251	-	-
Mov Cap-2 Maneuver	537	473	-	533	488	-	-	-	-	-	-	-
Stage 1	666	647	-	701	670	-	-	-	-	-	-	-
Stage 2	791	644	-	736	647	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	12					0.4			0.4			
HCM LOS	B		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1250	-	-	565	-	1251	-	-				
HCM Lane V/C Ratio	0.013	-	-	0.085	-	0.011	-	-				
HCM Control Delay (s)	7.9	-	-	12	-	7.9	-	-				
HCM Lane LOS	A	-	-	B	-	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	-	0	-	-				

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	15	15	52	18	27	69	157	32	40	145	13
Future Vol, veh/h	5	15	15	52	18	27	69	157	32	40	145	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	125	450	-	450
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	82	82	82	87	87	87	91	91	91
Heavy Vehicles, %	26	26	26	26	26	26	26	26	26	26	26	26
Mvmt Flow	7	21	21	63	22	33	79	180	37	44	159	14
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	506	622	80	516	599	-	173	0	0	217	0	0
Stage 1	247	247	-	338	338	-	-	-	-	-	-	-
Stage 2	259	375	-	178	261	-	-	-	-	-	-	-
Critical Hdwy	8.02	7.02	7.42	8.02	7.02	-	4.62	-	-	4.62	-	-
Critical Hdwy Stg 1	7.02	6.02	-	7.02	6.02	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.02	6.02	-	7.02	6.02	-	-	-	-	-	-	-
Follow-up Hdwy	3.76	4.26	3.56	3.76	4.26	-	2.46	-	-	2.46	-	-
Pot Cap-1 Maneuver	399	355	892	392	367	0	1243	-	-	1192	-	-
Stage 1	671	645	-	588	583	0	-	-	-	-	-	-
Stage 2	659	559	-	742	635	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	354	320	892	340	331	-	1243	-	-	1192	-	-
Mov Cap-2 Maneuver	427	387	-	416	397	-	-	-	-	-	-	-
Stage 1	628	621	-	550	546	-	-	-	-	-	-	-
Stage 2	592	523	-	675	612	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	12.6					2.2			1.6			
HCM LOS	B		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1243	-	-	520	-	1192	-	-				
HCM Lane V/C Ratio	0.064	-	-	0.092	-	0.037	-	-				
HCM Control Delay (s)	8.1	-	-	12.6	-	8.1	-	-				
HCM Lane LOS	A	-	-	B	-	A	-	-				
HCM 95th %tile Q(veh)	0.2	-	-	0.3	-	0.1	-	-				

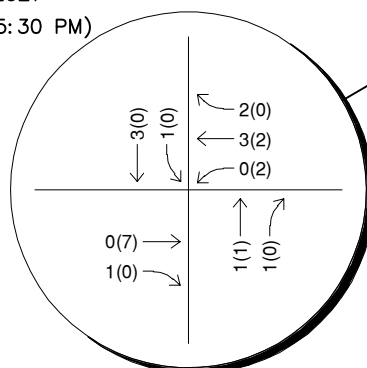
Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	19	36	29	12	26	15	212	38	13	243	1
Future Vol, veh/h	8	19	36	29	12	26	15	212	38	13	243	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	125	450	-	450
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	90	90	90	96	96	96	93	93	93
Heavy Vehicles, %	9	9	9	9	9	9	9	9	9	9	9	9
Mvmt Flow	12	28	52	32	13	29	16	221	40	14	261	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	438	582	131	426	543	-	262	0	0	261	0	0
Stage 1	289	289	-	253	253	-	-	-	-	-	-	-
Stage 2	149	293	-	173	290	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.68	7.08	7.68	6.68	-	4.28	-	-	4.28	-	-
Critical Hdwy Stg 1	6.68	5.68	-	6.68	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.68	-	6.68	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4.09	3.39	3.59	4.09	-	2.29	-	-	2.29	-	-
Pot Cap-1 Maneuver	486	409	872	496	431	0	1250	-	-	1251	-	-
Stage 1	675	654	-	710	679	0	-	-	-	-	-	-
Stage 2	818	652	-	792	654	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	467	399	872	437	421	-	1250	-	-	1251	-	-
Mov Cap-2 Maneuver	537	473	-	517	488	-	-	-	-	-	-	-
Stage 1	666	647	-	701	670	-	-	-	-	-	-	-
Stage 2	791	644	-	705	647	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	11.4					0.4			0.4			
HCM LOS	B		-									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1250	-	-	654	-	1251	-	-				
HCM Lane V/C Ratio	0.013	-	-	0.14	-	0.011	-	-				
HCM Control Delay (s)	7.9	-	-	11.4	-	7.9	-	-				
HCM Lane LOS	A	-	-	B	-	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.5	-	0	-	-				

WCR 84 Data

Thursday, October 21, 2021 7:00 to 8:00 AM (4:30 to 5:30 PM) Thursday, October 21, 2021 7:00 to 8:00 AM (4:30 to 5:30 PM)



Thursday, October 21, 2021
7:00 to 8:00 AM (4:30 to 5:30 PM)

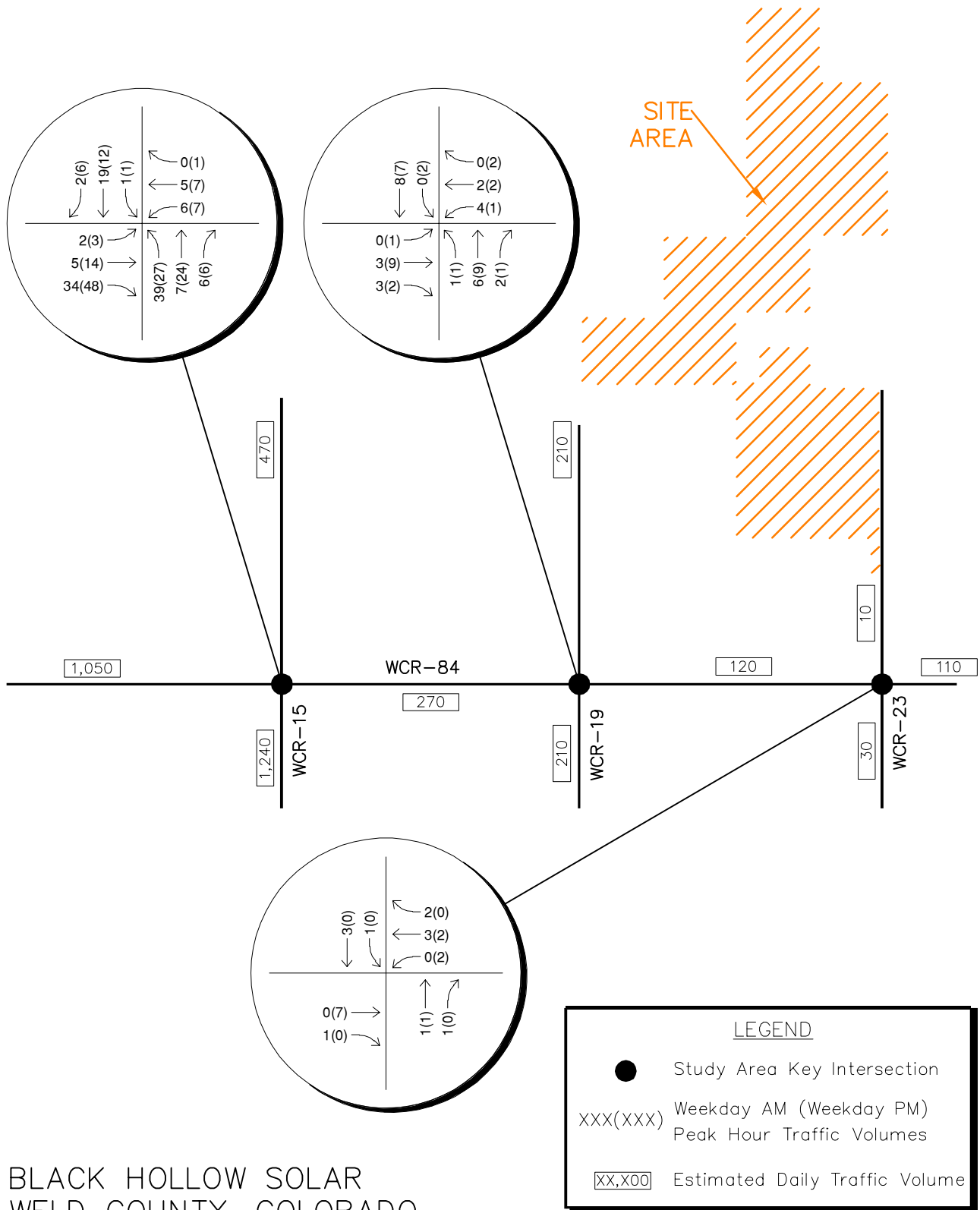


LEGEND

- Study Area Key Intersection
- xxx(xxx) Weekday AM (Weekday PM) Peak Hour Traffic Volumes
- xx,x00 Estimated Daily Traffic Volume

BLACK HOLLOW SOLAR
WELD COUNTY, COLORADO
2021 EXISTING TRAFFIC VOLUMES
ALONG WCR-84

FIGURE 4B



BLACK HOLLOW SOLAR
 WELD COUNTY, COLORADO
 2023 BACKGROUND TRAFFIC VOLUMES
 ALONG WCR-84

FIGURE 5B

WCR 15 WCR 84

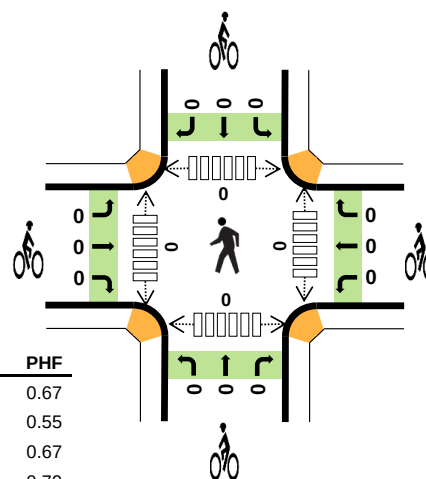
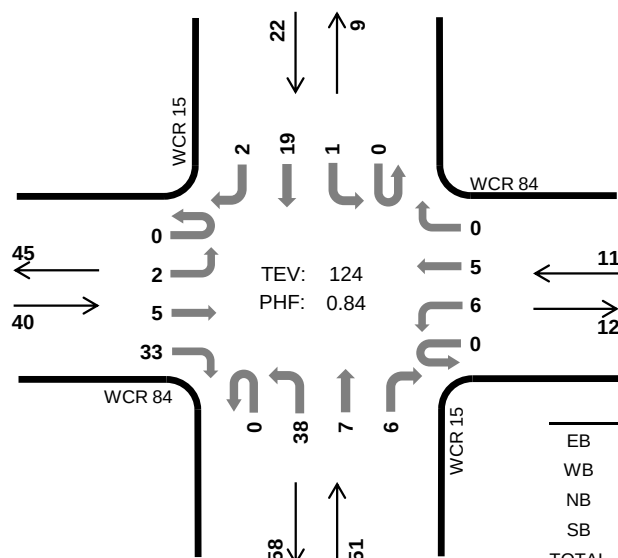


Peak Hour

Date: 10/21/2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %	PHF
EB	12.5%	0.67
WB	9.1%	0.55
NB	3.9%	0.67
SB	4.5%	0.79
TOTAL	7.3%	0.84

Two-Hour Count Summaries

Interval Start		WCR 84				WCR 84				WCR 15				WCR 15				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	1	0	8	0	4	1	0	0	7	1	4	0	1	5	0	32	0
7:15 AM		0	1	3	11	0	0	0	0	0	6	2	2	0	0	4	0	29	0
7:30 AM		0	0	1	8	0	2	0	0	0	10	0	0	0	0	5	0	26	0
7:45 AM		0	0	1	6	0	0	4	0	0	15	4	0	0	0	5	2	37	124
8:00 AM		0	2	0	4	0	0	1	0	0	8	2	1	0	0	6	0	24	116
8:15 AM		0	1	1	1	0	1	0	0	0	8	4	2	0	0	6	0	24	111
8:30 AM		0	1	0	3	0	1	1	0	0	3	3	0	0	0	5	1	18	103
8:45 AM		0	1	1	8	0	2	3	0	0	6	2	1	0	0	4	1	29	95
Count Total		0	7	7	49	0	10	10	0	0	63	18	10	0	1	40	4	219	0
Peak Hour	All	0	2	5	33	0	6	5	0	0	38	7	6	0	1	19	2	124	0
	HV	0	0	2	3	0	0	1	0	0	2	0	0	0	0	1	0	9	0
	HV%	-	0%	40%	9%	-	0%	20%	-	-	5%	0%	0%	-	0%	5%	0%	7%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0
7:30 AM	3	0	1	0	4	0	0	0	0	0	0	0	0	0	0
7:45 AM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0
Count Total	6	3	6	1	16	0	0	0	0	0	0	0	0	0	0
Peak Hour	5	1	2	1	9	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	WCR 84				WCR 84				WCR 15				WCR 15				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:15 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0
7:30 AM	0	0	1	2	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0
7:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	9
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	9
8:15 AM	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	3	10
8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7
8:45 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	7
Count Total	0	0	2	4	0	1	2	0	0	4	1	1	0	0	0	1	0	16	0
Peak Hour	0	0	2	3	0	0	1	0	0	2	0	0	0	0	0	1	0	9	0

Two-Hour Count Summaries - Bikes																	
Interval Start	WCR 84			WCR 84			WCR 15			WCR 15			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

WCR 15 WCR 84

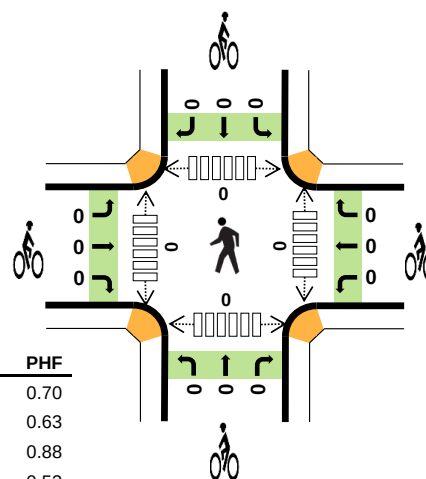
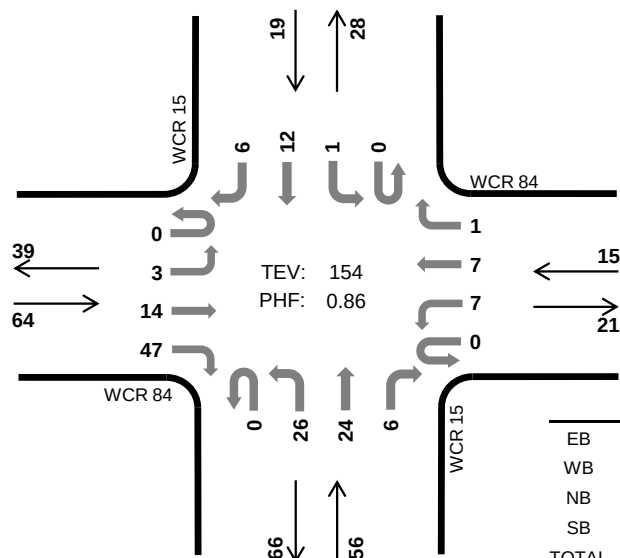


Peak Hour

Date: 10/21/2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	3.1%	0.70
WB	0.0%	0.63
NB	1.8%	0.88
SB	5.3%	0.53
TOTAL	2.6%	0.86

Two-Hour Count Summaries

Interval Start		WCR 84				WCR 84				WCR 15				WCR 15				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	3	2	9	0	1	1	0	0	12	4	4	0	1	2	2	41	0
4:15 PM		0	2	2	6	0	1	1	0	0	3	11	2	0	0	2	1	31	0
4:30 PM		0	0	5	5	0	2	2	0	0	6	5	1	0	0	4	5	35	0
4:45 PM		0	0	3	20	0	2	2	0	0	10	3	0	0	0	5	0	45	152
5:00 PM		0	1	2	8	0	2	3	1	0	5	10	1	0	1	2	1	37	148
5:15 PM		0	2	4	14	0	1	0	0	0	5	6	4	0	0	1	0	37	154
5:30 PM		0	0	2	8	0	2	2	0	0	7	1	0	0	0	4	1	27	146
5:45 PM		0	1	1	9	0	0	1	0	0	3	3	3	0	0	1	0	22	123
Count Total		0	9	21	79	0	11	12	1	0	51	43	15	0	2	21	10	275	0
Peak Hour	All	0	3	14	47	0	7	7	1	0	26	24	6	0	1	12	6	154	0
	HV	0	0	1	1	0	0	0	0	0	1	0	0	0	0	0	1	4	0
	HV%	-	0%	7%	2%	-	0%	0%	0%	-	4%	0%	0%	-	0%	0%	17%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
4:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	1	1	3	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	3	0	1	2	6	0	0	0	1	1	0	0	0	0	0
Peak Hour	2	0	1	1	4	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	WCR 84				WCR 84				WCR 15				WCR 15				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	2	0	0	0	0	0	0	1	0	0	0	0	1	1	6	0
Peak Hour	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1	4	0

Two-Hour Count Summaries - Bikes																	
Interval Start	WCR 84			WCR 84			WCR 15			WCR 15			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	1	1	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

WCR 19 WCR 84

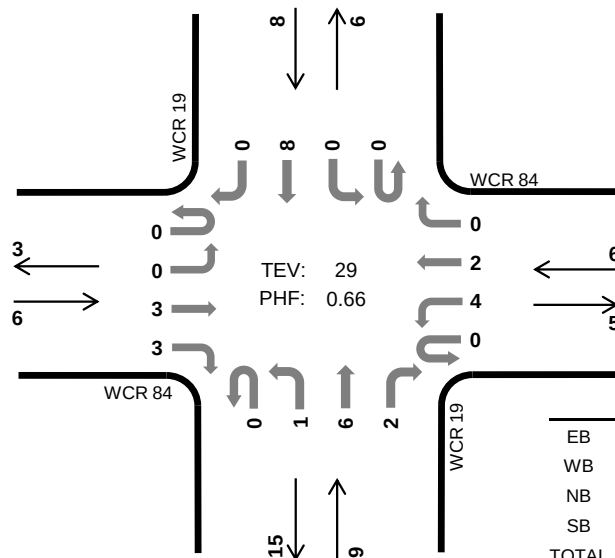


Peak Hour

Date: 10/21/2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	16.7%	0.50
WB	16.7%	0.75
NB	22.2%	0.45
SB	37.5%	0.67
TOTAL	24.1%	0.66

Two-Hour Count Summaries

Interval Start	WCR 84 Eastbound				WCR 84 Westbound				WCR 19 Northbound				WCR 19 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	1	0	0	0	1	0	0	0	1	0	0	0	2	0	5	0
7:15 AM	0	0	0	1	0	1	0	0	0	0	3	0	0	0	2	0	7	0
7:30 AM	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3	0	6	0
7:45 AM	0	0	1	2	0	1	1	0	0	1	2	2	0	0	1	0	11	29
8:00 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	1	0	4	28
8:15 AM	0	0	0	0	0	1	1	0	0	1	0	0	0	0	1	0	4	25
8:30 AM	0	0	0	1	0	1	0	1	0	0	2	0	0	0	1	0	6	25
8:45 AM	0	0	1	0	0	1	1	0	0	0	1	0	0	0	1	0	5	19
Count Total	0	0	4	5	0	7	4	1	0	2	11	2	0	0	12	0	48	0
Peak Hour	All	0	0	3	3	0	4	2	0	0	1	6	2	0	0	8	29	0
	HV	0	0	0	1	0	1	0	0	0	1	1	0	0	3	0	7	0
	HV%	-	-	0%	33%	-	25%	0%	-	-	0%	17%	50%	-	-	38%	24%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0
Count Total	1	3	3	4	11	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	1	2	3	7	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	WCR 84				WCR 84				WCR 19				WCR 19				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2	
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	3	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	
Count Total	0	0	0	1	0	3	0	0	0	0	2	1	0	0	4	0	11	
Peak Hour	0	0	0	1	0	1	0	0	0	0	1	1	0	0	3	0	7	

Two-Hour Count Summaries - Bikes																	
Interval Start	WCR 84			WCR 84			WCR 19			WCR 19			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

WCR 19 WCR 84

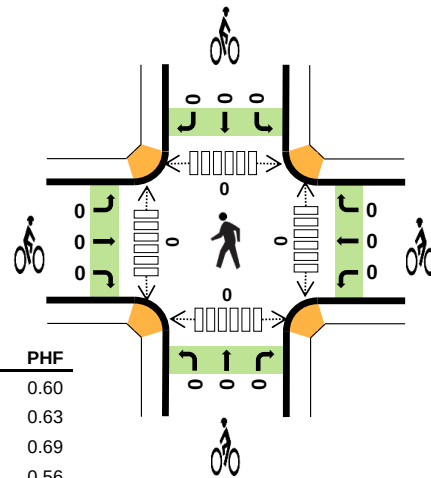
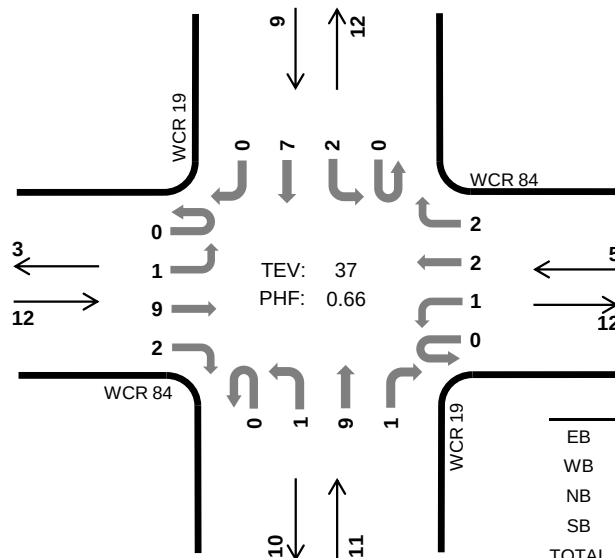


Peak Hour

Date: 10/21/2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	8.3%	0.60
WB	0.0%	0.63
NB	0.0%	0.69
SB	0.0%	0.56
TOTAL	2.7%	0.66

Two-Hour Count Summaries

Interval Start		WCR 84				WCR 84				WCR 19				WCR 19				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	0	2	0	0	0	2	1	0	0	1	0	6	0
4:15 PM		0	0	1	0	0	0	1	0	0	0	2	0	0	0	1	0	5	0
4:30 PM		0	0	5	0	0	0	0	2	0	0	3	0	0	2	2	0	14	0
4:45 PM		0	1	1	0	0	0	1	0	0	0	1	0	0	0	2	0	6	31
5:00 PM		0	0	1	2	0	1	1	0	0	1	2	1	0	0	1	0	10	35
5:15 PM		0	0	2	0	0	0	0	0	0	0	3	0	0	0	2	0	7	37
5:30 PM		0	0	2	1	0	1	1	0	0	0	2	3	0	0	1	0	11	34
5:45 PM		0	0	0	0	0	0	1	0	0	0	3	1	0	0	2	0	7	35
Count Total		0	1	12	3	0	2	7	2	0	1	18	6	0	2	12	0	66	0
Peak Hour	All	0	1	9	2	0	1	2	2	0	1	9	1	0	2	7	0	37	0
	HV	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	0%	11%	0%	-	0%	0%	0%	-	0%	0%	0%	-	0%	0%	-	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Peak Hour	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	WCR 84				WCR 84				WCR 19				WCR 19				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

Two-Hour Count Summaries - Bikes																		
Interval Start	WCR 84			WCR 84			WCR 19			WCR 19			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

WCR 23 WCR 84

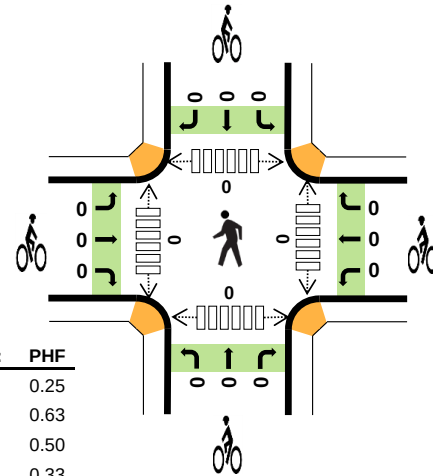
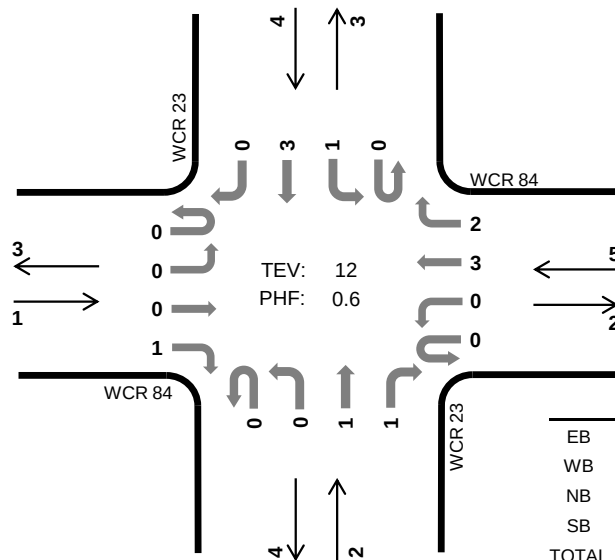


Peak Hour

Date: 10/21/2021

Count Period: 7:00 AM to 9:00 AM

Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	0.0%	0.25
WB	0.0%	0.63
NB	0.0%	0.50
SB	0.0%	0.33
TOTAL	0.0%	0.60

Two-Hour Count Summaries

Interval Start		WCR 84				WCR 84				WCR 23				WCR 23				15-min Total	Rolling One Hour
		Eastbound				Westbound				Northbound				Southbound					
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:15 AM		0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	4	0
7:30 AM		0	0	0	1	0	0	0	1	0	0	0	0	0	1	2	0	5	0
7:45 AM		0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	12
8:00 AM		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12
8:15 AM		0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	10
8:30 AM		0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	6
8:45 AM		0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	2	6
Count Total		0	0	1	1	0	0	7	2	0	0	1	2	0	1	3	0	18	0
Peak Hour	All	0	0	0	1	0	0	3	2	0	0	1	1	0	1	3	0	12	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	-	-	-	0%	-	-	0%	0%	-	-	0%	0%	-	0%	0%	-	0%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	WCR 84				WCR 84				WCR 23				WCR 23				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Two-Hour Count Summaries - Bikes																	
Interval Start	WCR 84			WCR 84			WCR 23			WCR 23			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

WCR 23 WCR 84

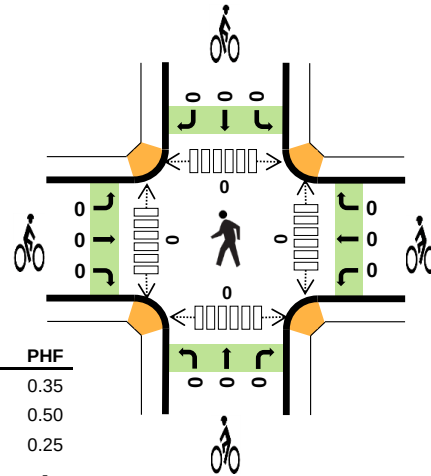
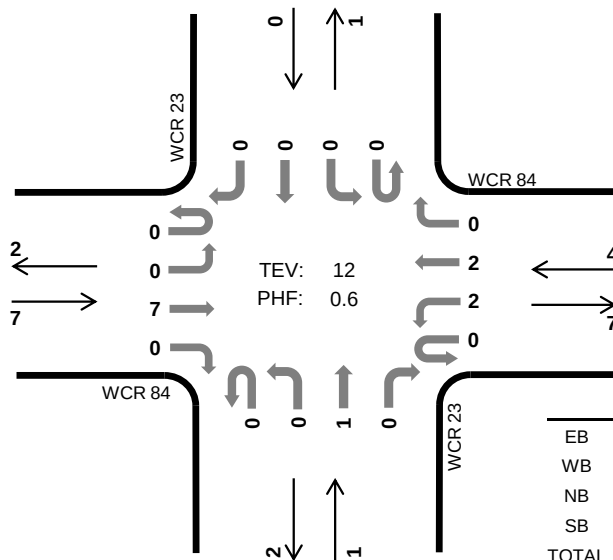


Peak Hour

Date: 10/21/2021

Count Period: 4:00 PM to 6:00 PM

Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.0%	0.35
WB	25.0%	0.50
NB	0.0%	0.25
SB	-	-
TOTAL	8.3%	0.60

Two-Hour Count Summaries

Interval Start	WCR 84 Eastbound				WCR 84 Westbound				WCR 23 Northbound				WCR 23 Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0
4:15 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	3	0
4:30 PM	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	11
5:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	11
5:15 PM	0	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	4	12
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8
Count Total	0	1	9	0	0	3	3	0	0	0	1	0	0	0	1	1	19	0
Peak Hour	All	0	0	7	0	0	2	2	0	0	0	1	0	0	0	0	12	0
	HV	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
	HV%	-	-	0%	-	-	50%	0%	-	-	-	0%	-	-	-	-	8%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0

**Property Management Plan
for the
BHS Solar Project**

Prepared For:

BHS SOLAR, LLC

300 Spectrum Center Dr., Suite 1020
Irvine, CA 92618

Prepared By:



L O G A N S I M P S O N

April 2022

Contents

1.0	Introduction	1
2.0	Project Description	1
3.0	Vegetation Maintenance, Revegetation, and Monitoring	1
	Wildfire Prevention	1
	Revegetation	4
4.0	Weed Management and Monitoring	7
	Treatment Methodology	8
	Noxious Weed Management on the Project Site.....	9
	Physical / Mechanical Methods.....	9
	Chemical Methods.....	9
	Monitoring.....	9
	Post Construction	10
	Ongoing Monitoring.....	10
5.0	Wildlife Monitoring.....	10
	Entrapment.....	10
	Mortality	10
	Black-tailed Prairie Dog Colonies	10
7.0	Conclusion	10
8.0	References.....	12

List of Tables

Table 3-1. Operations and Maintenance Tasks and Schedule.....	2
Table 3-2. Common and Scientific Names for Plant Species.....	6
Table 3-3. Vegetation Management Tasks and Schedule	7
Table 4-1. List B Noxious Weed Species with Potential to Occur in the Project Area ^{1,2}	7

1.0 Introduction

The BHS Solar Project (Project) would consist of photovoltaic (PV) solar panels, inverters, electric collector lines, a Project substation, operations and maintenance building, Battery Energy Storage System (BESS), a short section of transmission line (0.5-mile-long), access roads, fencing, and other appurtenant equipment on private land north and east of Black Hollow Reservoir. Platte River Power Authority (Platte River) would construct and own a switchyard into which the Project substation would interconnect, an access road, and a transmission line to interconnect its switchyard into its existing 230kV transmission line.

BHS Solar, LLC (BHS Solar), the Project developer and owner, would be responsible for maintenance of the Project for its life through decommissioning.

The sections below provide draft general guidance relative to operation, maintenance, and monitoring activities to support the Site Plan application to the Town of Severance. A final plan would be prepared concurrent with a Stormwater Management Plan and/or Erosion Control Plan prior to construction.

A detailed Decommissioning Plan is included with the 2022 BHS Solar Annexation and Site Plan Application as Section 3.14. This Decommissioning Plan describes the process and responsibilities for removal and proper disposal of Project facilities and equipment at the end of the Project's life.

2.0 Project Description

The Project facilities would be located on private land in western Weld County. This area would be surrounded by wildlife and security fencing with gates at strategic locations (e.g., access roads, substation) and select corners to facilitate removal of potentially entrapped wildlife. The Project facilities would be separately fenced within the Project area.

BHS Solar would employ Best Management Practices (BMPs) and standard operating procedures for developing and maintaining all Project components, including implementation of environmental conservation measures (Section 3.8 of this 2022 BHS Solar Annexation and Site Plan application) to protect resources within the Project area.

3.0 Vegetation Maintenance, Revegetation, and Monitoring

Vegetation management for the Project area would include noxious weed control; compliance with wildfire prevention regulations and implementation of best management practices; and compliance with lease and permit obligations. Only BHS Solar personnel or subcontractors would perform vegetation management of the Project area.

Wildfire Prevention

International Fire Code (International Code Council 2018) states that "A clear, brush-free area of 10 feet (3,048 mm) shall be required for ground-mounted photovoltaic (PV) arrays." Brush refers to low-height woody vegetation. A 20-foot brush-free buffer would be maintained around the perimeter of the facility, within the perimeter fence. Brush, grasses, and herbaceous vegetation within the arrays would be necessary for erosion control, dust control, and wildlife habitat but would be managed to be short enough to not interfere with equipment function or pose a fire hazard. BHS Solar would coordinate with the Windsor-Severance Fire District regarding compliance with the current Fire Code and incorporation of future code revisions, as appropriate.

Table 3-1 provides implementation tasks and timeframes to guide wildfire prevention strategies.

Table 3-1. Operations and Maintenance Tasks and Schedule

Task	Frequency
Inspect the facility and Project area as necessary for the following conditions: a. Document and resolve all blown fuses, corrosion, heat distortion, moisture entry, electrical termination torque, pest issues (including but not limited to insects and rodents), and exterior damage on all electrical enclosures and equipment (including but not limited to disconnect switches, circuit breakers, metal-clad switchgear, protective relaying, battery systems, transformers, exposed bus work and containing structures), in accordance with applicable NETA MTS standards (Standard for Maintenance Testing Specifications for Electrical Power Equipment and Systems); b. Document and resolve all broken or missing modules, damage, unexpected wear, loose racking hardware, unsecured wiring, chafing of electrical conductor insulation and evidence of corrosion on modules, racking, tracker equipment, and wiring; c. Document and resolve all loose or corroded grounding connections at module frames and module racking/support structures; d. Document and resolve all loose connections, missing sealant, corrosion, moisture intrusion in accessible wiring runs, elbows, weather heads, piping, conduits and wireway; e. Remove all debris and trash from arrays; f. Perform a ground continuity test to validate the integrity of the equipment grounding system; g. Inspect and test all safety equipment as required by the manufacturer, and recharge fire extinguishers; h. Inspect tracker systems and document and resolve any evidence of wear, moisture intrusion, loss of lubrication, damage in all motor drive/gearbox assemblies, bushings/bearings, linkage and torque tubes; and i. Inspect any common facilities (including, but not limited to spare parts storage facility, utility connections, etc.) and document and resolve any moisture intrusion, roof damage, exterior damage, and corrosion.	a. As needed in ongoing maintenance. Full inspection annually b. Annually c. Annually d. Annually e. As necessary f. Once per year g. Annually or as required by the jurisdiction h. Annually i. Annually
Maintain and test medium, high voltage, and auxiliary electrical power distribution and interconnection equipment and systems.	As required by manufacturer's instructions, Project documents, PRPA guidelines, and applicable laws

Table 3-1. Operations and Maintenance Tasks and Schedule

Task	Frequency
Identify and resolve module-level operating issues; perform and document string testing, including string level open circuit voltage and direct current (DC) operating current tests, as required to ensure modules are operating within manufacturer's specifications and per the terms of module warranties.	Ongoing monitoring and evaluation of module operating status. String testing as necessary and as may be required to document and resolve non-conformance
Test switches, disconnects, wiring connections, battery backup systems for meteorological systems, and Supervisory Control and Data Acquisition (SCADA) system equipment, and other equipment as required per maintenance schedules.	A minimum of once per year and as required by manufacturer's instructions, Project documents, PRPA guidance, and applicable laws
Maintain facility communications equipment, facility data monitoring equipment, and SCADA system in good working order.	Ongoing
Perform functional tests of all communications, data monitoring platform, and SCADA system equipment. Such functional tests shall include verification of any loss of communication alarms, testing of battery back-up systems, validation that monitored data points appear correctly on the data monitoring platform, and testing of alarm conditions to verify the alarm condition is recognized by the data monitoring platform.	A minimum of once per year and as required by manufacturer's instructions, Project documents, PRPA guidance, and applicable laws
Perform infrared scans on all combiner and re-combiner boxes. Document and resolve all loose connections, provide report of issues and resolution.	Once per year
Recalibration and realignment of irradiance sensors.	A minimum of once per year to meet the requirements of the manufacturer's specifications and Project documents
Inverter and switchgear preventative maintenance, including, but not limited to: a. Cleaning of cabinet air vents b. Cleaning and changing of air filters c. Cleaning and removing dust from heat sinks d. Checking torque marks and re-tightening appropriate wiring connections to design specification torque force (per manufacturer's instructions) e. Checking and resolving coolant level f. Checking and resolving door seals and moisture intrusion	Ongoing and as necessary to meet the requirements of manufacturer's specifications and applicable laws

Table 3-1. Operations and Maintenance Tasks and Schedule

Task	Frequency
g. Clean out debris	

Revegetation

The goal of revegetation is to maintain a desired non-woody vegetation community that maximizes ecosystem services while minimizing erosion and the risk of wildland fire. The Ecological Site Descriptions (described in this section), local ecological conditions, best management practices, and relevant authorities such as the Native Plant Revegetation Guide for Colorado, Volume III: Upland Communities, Plains Grasslands (Colorado Natural Areas Program, Colorado State Parks, and Colorado Department of Natural Resources (1998) would serve to guide revegetation efforts. A desired seed mix would be agreed upon with the landowners and approved by the Fire District as part of the Building Permit to revegetate areas disturbed by construction and not occupied by Project facilities. Methods to control the establishment and spread of invasive, non-native plants (weeds) are described in Section 4.0. This plan would establish a vegetation management approach that maintains a buffer around access points and electrical equipment that would remain void of vegetation (defensible spaces). A Landscape and Open Space Plan has been prepared and is included as Section 3.6 of this 2022 BHS Solar Annexation and Site Plan application.

The Project area is within Major Land Resource Area (MLRA) 067B – Central High Plains, Southern Part. Vegetation in MLRA 067B is characterized by shallow to deep, loamy or clayey soils with a mesic soil temperature regime and arid soil moisture regime. Much of this area supports short prairie grasses; however, cottonwood is common along major streams. Most of the land within this MLRA is in farms or ranches, much of which is converted to urban use that has contributed to loss of prime farmland and cropland of statewide importance, a major soil resource concern. Invasion of invasive, non-native species is a concern, especially in areas that have been overgrazed and ground cover has deteriorated (NRCS 2006).

Vegetation observed in the Project area consists of a mix of previously grazed warm-season shortgrass and cool-season midgrass prairie species with associated shrubs and forbs. Common native species in the Project area include buffalograss and blue grama, which form a short-grass prairie cover type. The Project area has a history of agricultural or ranching use, consistent with description for MLRA 067B Central High Plains, Southern Part (NRCS 2006).

Ecological Sites within the Project area include:

- R067BY002CO (Loamy Plains) – “The Loamy Plains ecological site occurs in an upland position on nearly level to gently sloping plains. It is a warm-season and cool-season co-dominant, mixed-grass prairie (short- and mid-grasses) with a minor component of forbs and shrubs. ... The major grasses in the Reference Plant Community include western wheatgrass, green needlegrass, and blue grama. Western wheatgrass is a major cool-season grass in this plant community and is a valuable forage plant in late spring and/or early summer. Sub-dominant grasses include needle-and-thread grass, buffalograss, and sand dropseed. Major forbs include American vetch, upright prairie coneflower, scarlet globemallow, and dotted blazingstar (dotted gayfeather). A minor amount of shrubs such as fourwing saltbush and winterfat may also occur” (NRCS, JER, and NMSU 2021).

- R067BY008CO (Loamy Slopes) – “This site occurs on gently sloping to steep slopes in an upland position on plains. It is co-dominated by warm season shortgrass and cool-season mid-grasses, along with a minor component of forbs and shrubs. ... The potential vegetation is a mixed grass prairie consisting of approximately 85 percent grasses and grass-like plants, 10 percent forbs, and 5 percent shrubs. Blue grama, western wheatgrass, and sideoats grama are the primary grasses in this community. Secondary species include green needlegrass, needle-and-thread grass, big bluestem, buffalograss, switchgrass, threadleaf, and sun sedge. Big bluestem and switchgrass are most likely to be located in a lower position on the landform which receives more water. Little bluestem occurs in minor amounts. This community has a diverse forb population, most of which occur in small amounts. A minor component of shrubs includes winterfat, fourwing saltbush, Arkansas rose, fringed sagebrush, prickly pear, and yucca” (NRCS, JER, and NMSU 2021).
- R067BY024CO (Sandy Plains) – “The Sandy Plains ecological site is a mixed grass prairie site dominated by warm-season tallgrasses with an understory of warm-season shortgrass. Cool-season mid-grasses are secondary. A variety of forbs and shrubs occur on the site. The site occurs in upland positions on plains. ... The dominant tall warm season grasses are prairie sandreed, sand bluestem and switchgrass. Blue grama dominates the understory. Important cool season grasses and grass-likes are needle-and-thread grass and sun sedge. Key forbs and shrubs are American vetch, pacific peavine (manystem pea), purple prairie clover, and spreading buckwheat” (NRCS, JER, and NMSU 2021)
- R067BY035CO (Salt Meadow) – “This site occurs on nearly level floodplains. Primary grasses are warm-season mid/tall bunchgrass and cool-season mid-rhizomatous grass with secondary warm-season tall rhizomatous grass and grasslike plants. Forbs and shrubs are a minor component. ... The community is dominated by tall and mid warm and cool-season grasses. Major grasses include alkali sacaton, switchgrass, prairie cordgrass and western wheatgrass. Other grasses and grass-likes occurring on the community include big bluestem, little bluestem, alkali cordgrass, Nebraska sedge, and Baltic rush. Key forbs and shrubs include American licorice, prairie gentian, rag sumpweed, and fourwing saltbush” (NRCS, JER, and NMSU 2021).
- R067BY036CO (Overflow) – “The Overflow ESD occurs on floodplains, terraces, and drainageways on Plains. It is a primarily a cool-season mid-rhizomatous and bunchgrass site with warm-season tall bunchgrasses being secondary. Forbs and shrubs also occupy this site. ... Major grasses include western wheatgrass, green needlegrass, big bluestem and switchgrass. Other grasses occurring on this community include blue grama, buffalograss, Canada wildrye and Indiangrass. Major forbs and shrubs include American vetch, upright prairie coneflower, fourwing saltbush and winterfat” (NRCS, JER, and NMSU 2021)
- R067BY042CO (Clayey Plains) – “The Clayey Plains ecological site occurs in an upland position on nearly level to gently sloping plains. It is a warm season shortgrass and cool-season midgrass co-dominant, mixed-grass prairie with a minor component of forbs and shrubs. ... The plant community consists of 70-90% grasses and grass-likes, 5-15% forbs, and 5-15% shrubs. Dominant grasses include western wheatgrass, green needlegrass, and blue grama. Other grasses and grass-like plants that occur in minor amounts are buffalograss, sideoats grama, and sun sedge. Significant forbs are American vetch, purple prairie clover, and scarlet globemallow. Dominant shrubs that

occupy this community are fourwing saltbush and winterfat” (NRCS, JER, and NMSU 2021)

- R067BY063CO (Gravel Breaks) – “This site occurs on moderately sloping to steep hills on dissected plains or canyonlands. Primary production is warm-season mid-bunchgrasses, with secondary warm-season short bunchgrass, and warm-season tall bunchgrass. A diverse component of forbs and shrubs is also present. ...The principal mid-grasses are little bluestem and sideoats grama. Secondary grasses include blue grama, big bluestem, prairie sandreed, switchgrass, needle-and-thread grass, hairy grama, and western wheatgrass. Threadleaf and sun sedge are common. Dominant forbs are purple prairie clover, dotted blazing star (dotted gayfeather) and upright prairie coneflower. Winterfat, skunkbush sumac and golden currant are some of the major shrubs found on this plant community” (NRCS, JER, and NMSU 2021)

Non-native species, including kochia, field bindweed, and smooth brome were observed during previous site visits; however, there is potential for other species identified on the Colorado Noxious Weeds List to occur (CDA 2020). No threatened, endangered, or sensitive plant species are known to inhabit the Project area.

Restoration and revegetation efforts at the Project area would begin within weeks of completing soil disturbing activities. For locations that may be disturbed again during the construction phase, temporary soil covering, erosion control, and weed monitoring would occur until more permanent revegetation efforts could be applied. Stockpiled or salvaged subsoil would be used to restore pre-project contours to the site. In accordance with the Town of Severance guidelines, salvaged topsoil would be replaced. In instances when salvaged topsoil and its associated seed bank are not in sufficient supply, the approved seed mix would be used. The seed mix would be certified weed free, obtained from local suppliers, and preferentially be of native varieties that originate from within 1,000 feet elevation of the Project site (locally adapted).

The use of stockpiled topsoil may not be appropriate or possible in all areas proposed for disturbance. In areas that stockpiled topsoil is not used during restoration and revegetation, the following practices would be implemented:

- Disturbed soil would be scarified, harrowed, or disked, in order to prepare a seed bed;
- Non-invasive, native and/or naturalized seeds would be broadcast;
- Sowed seeds would be protected with a layer of weed-free mulch or straw;
- Seed contact with soil would be improved by disking or rolling; and
- Reseeded areas would be appropriately watered.

All restoration and revegetation efforts would be implemented soon after disturbance of a site has concluded and prior to the typical spring rainy season. This would minimize the potential for soil loss and establishment of noxious weeds, as well as maximize success of revegetation efforts. Revegetation would be achieved by implementing BMPs and environmental conservation measures (Section 3.8 of this 2022 BHS Solar Annexation and Site Plan application, Environmental Conservation Measures). If satisfactory revegetation is challenging, BHS Solar would coordinate with the landowner and the Town of Severance to improve success.

Table 3-2 provides implementation tasks and timeframes to guide vegetation management strategies.

Table 3-2. Vegetation Management Tasks and Schedule

Task	Frequency
Perform site and landscape maintenance to ensure safe operation of the facility. Appropriately consider, address, and mitigate any potential for adverse impact to the intended use and ongoing operation of the facility, including, but not limited to pest management, vegetation monitoring, vegetation management, and refuse disposal.	Ongoing per prudent industry standards and as necessary to satisfy the requirements set forth in the Project documents
Maintain a clear, brush (non-woody)-free area of 10 feet (3048 mm) around ground-mounted photovoltaic (PV) arrays. This can be accomplished through chemical, mechanical, and biological means, as appropriate	Ongoing

4.0 Weed Management and Monitoring

Noxious weed species with potential to occur in the Project area are listed in Table 4-1. To determine all noxious weed species that are present and the extent of these occurrences in the Project area, a survey would be conducted prior to surface disturbing activities by qualified botanists/biologists, including all construction areas and areas adjacent to the Project area. This survey would focus on identifying and mapping populations of noxious weed species, as listed in the Colorado Revised Statutes, Article 5.5 of the Colorado Noxious Weed Act.

The weed survey would identify infested areas within and adjacent to the Project area. The weed survey would entail qualified botanists/biologists walking parallel transects to identify all noxious weeds on both sides of each transect. Identified weed occurrences would be described to species or further taxonomic level as required (i.e., subspecies, variety) and assigned an estimate for ground cover. When possible, individual plants would be counted or estimated. The location of identified weed occurrences would be recorded using a hand-held global positioning system (GPS) unit and all recorded occurrences would be mapped using geographic information system (GIS) software. All identified weed occurrences would be treated using the methods provided below (Noxious Weed Management Methods) prior to ground-disturbing activities to reduce the likelihood of spreading to other areas or remaining viable in the soil.

Table 4-1. List B Noxious Weed Species with Potential to Occur in the Project Area^{1,2}

Common Name	Scientific Name
Absinth wormwood	<i>Artemisia absinthium</i>
Bouncingbet	<i>Saponaria officinalis</i>
Bull thistle	<i>Cirsium vulgare</i>
Canada thistle	<i>Cirsium arvense</i>
Common tansy	<i>Tanacetum vulgare</i>
Common and cutleaf teasel	<i>Dipsacus fullonum</i> & <i>Dipsacus laciniatus</i>
Dalmatian toadflax	<i>Linaria dalmatica</i>
Dames rocket	<i>Hesperis matronalis</i>

2022 BHS Solar Annexation and Site Plan Application

Common Name	Scientific Name
Diffuse knapweed	<i>Centaurea diffusa</i>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Hoary cress	<i>Lepidium draba</i>
Houndstongue	<i>Cynoglossum officinale</i>
Jointed goatgrass	<i>Aegilops cylindrica</i>
Leafy spurge	<i>Euphorbia esula</i>
Moth mullein	<i>Verbascum blattaria</i>
Musk thistle	<i>Carduus nutans</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Russian knapweed	<i>Rhaponticum repens</i>
Russian olive	<i>Elaeagnus angustifolia</i>
Salt cedar	<i>Tamarix spp.</i>
Scotch thistle	<i>Onopordum acanthium</i>
Spotted knapweed	<i>Centaurea stoebe</i>
Sulfur cinquefoil	<i>Potentilla recta</i>
Wild caraway	<i>Carum carvi</i>
Yellow nutsedge	<i>Cyperus esculentus</i>
Yellow toadflax	<i>Linaria vulgaris</i>

¹ Species identified in the 2017 Weld County List B Management Plan (Colorado Department of Agriculture [CDA] 2017). Those species with known occurrence within Weld County (i.e., "Infested Acres" are greater than 0) are presented in this table.

² If additional noxious weeds not presented in this table are identified within the Project area, they would be treated using appropriate methods, as identified in this plan.

Treatment Methodology

Noxious weeds can be treated with a variety of methods including mechanical removal, prescribed fire, chemical / herbicide, and biocontrol. Due to the relatively small extent of the Project area and low concentration of existing noxious weed populations, mechanical mowing and selective herbicide application (spot treatment) are recommended. Post-construction monitoring would occur annually and if noxious weeds are observed, they would be treated per the recommendation for each species. Additional non-native weed species identified in the Project area that are not on the noxious weed list may also be evaluated for treatment using field observations and professional judgment. All vegetation in the Project area, including weed species not required to be treated under the Colorado Noxious Weed Act, would be treated with mechanical control methods (mower or string trimmer) periodically throughout the summer to maintain a height less than or equal to 2 feet to mitigate fuels and reduce fire hazards.

Noxious Weed Management on the Project Site

Treatment methods are necessary to control and eradicate known occurrences of noxious weeds. This integrated weed management approach uses multiple techniques, such as preventative, mechanical, and chemical controls. The most appropriate and effective weed treatment measures would be determined following the assessment of existing weed populations on the Project site. It is anticipated that mechanical and chemical control would be sufficient to maintain the maximum vegetation height of 2 feet on the site and eradicate any noxious weed populations identified. In addition to the measures provided below, the Project would generally adhere to the BMPs provided by the Colorado Department of Agriculture (2016). Preventative Methods

The prevention of weed establishment is the most effective weed management practice. Preventing or reducing the potential for weed establishment reduces additional effort, cost, and time invested in subsequent weed control or eradication measures. Several measures, such as ensuring construction equipment is clear of vegetative material to the extent practical prior to entering the Project area; using certified weed-free materials for site stabilization and revegetation; and restricting vehicle travel to established routes have proven to be effective toward preventing the spread and establishment of weeds and would be implemented during surface disturbing activities.

Physical / Mechanical Methods

Physical and mechanical treatments include the use of physical means to remove plants, reproductive parts, or propagules. Mechanical treatments include manual methods (pulling weed plants from the soil), use of hand tools and hand-held power tools, mowing, and other aggressive efforts that involve removing above and below ground plant structures. The designation of the appropriate mechanical treatment would depend on variables, including season, weed species, size and population of each occurrence. Mechanical methods would be used in conjunction with chemical applications to eradicate noxious weeds on the site. Mowing would be used for all vegetation to maintain a maximum height of 2 feet on the site.

Chemical Methods

Chemical treatments involve the use and application of herbicides. The use of herbicides is highly regulated and involves a variety of specific protocols, safety measures, and precautions for eliminating, reducing, and mitigating for uncontrolled releases.

Monitoring

Monitoring is the repeated collection and assessment of information toward evaluating the resource management objective. If management objectives are not being met, noxious weed control measures would be scrutinized and modified to improve their effectiveness. Effective monitoring would increase the likelihood of timely detection and control of weed occurrences in the Project area.

Noxious weed monitoring would be conducted by qualified biologists or appropriately trained personnel. All areas in the Project area that are proposed for surface disturbance would be monitored for noxious weeds. Monitoring would occur when noxious weed species are most likely to be detected and could be easily identified. New or previously unidentified noxious weed populations identified during monitoring would be recorded using a hand-held GPS unit and reported to the appropriate Project personnel.

Post Construction

Noxious weed monitoring would begin immediately following surface disturbance at all disturbed sites at least once a year for three consecutive years after the Project's completion. Identified noxious weed occurrences would be noted and recorded in the same manner as was described for the noxious weed pre-construction inventory effort.

Ongoing Monitoring

Noxious weed monitoring would occur on an ongoing basis during operation of the Project. Qualified and appropriately trained personnel would use the results of the initial noxious weed inventory to monitor known occurrences (or populations) and would observe activity areas for new occurrences.

5.0 Wildlife Monitoring

Entrapment

Every effort would be made to prevent big game species and other large mammals (e.g., coyotes, foxes) from entering and being entrapped within the security fencing around the Project area. Periodic monitoring of the Project area and fencing would be conducted by Project staff. BHS Solar would coordinate with Colorado Parks and Wildlife (CPW) if entrapped wildlife is located and requires release.

Mortality

BHS Solar would document and report observations of dead or injured wildlife within the Project area during regular monitoring. There is potential for wildlife to be killed in vehicle collisions or incidental collisions with other equipment (e.g., bird strikes). Transmission structures and lines would be designed to avoid avian collision and electrocution according to Avian Power Line Interaction Committee (APLIC) guidelines (APLIC 2006, Suggested Practices for Avian Protection on Power Lines and APLIC 2012, Reducing Avian Collisions with Power Lines). Regular monitoring under transmission lines and around other equipment would be conducted to locate injured or dead birds.

Black-tailed Prairie Dog Colonies

The Project area includes active and inactive black-tailed prairie dog colonies. Prairie dog colonies provide habitat for a variety of other grassland species, including burrowing owl. Prairie dogs also serve as prey for raptor and mammalian predators. The Project has been designed to avoid prairie dog colonies to the extent practicable. Colonies expand, contract, and shift in location in response to many factors including disease, weather conditions, and changes in vegetation communities. Regular monitoring would be conducted to document locations of prairie dog colonies and activity within them.

7.0 Conclusion

BHS Solar would remain in compliance with applicable permit conditions and regulations. Effective regular monitoring of ecological conditions would allow for adaptive management to achieve optimum revegetation results and avoidance of impacts to wildlife species to the extent practicable. Coordination with CPW and the Town of Severance would be conducted, as appropriate. The Decommissioning Plan describes final site conditions for the Project area.

Successful weed management can be evaluated through development and implementation of a monitoring program, adaptive management that is responsive to the monitoring program, and consistent management and implementation of BMPs.

8.0 References

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Landscape and Open Space Plan

Section 16.11.160 Solar Facility states “As no single landscaping Plan can be prescribed for all developments due to differing land features, solar access, topography, and soils, these guidelines encourage flexible and creative landscape designs. Landscaping/screening shall include, at a minimum, decorative fencing, berming, and/or vegetation such that the facility is aesthetically pleasing as viewed from adjacent properties and rights-of-way. Native grasses and wildflower mixes are encouraged.”

BHS will comply Section 16.11.160.c.3 Landscape / Irrigation Plan with the following clarifications:

- As distance increases, visual change decreases. Hence setbacks are more effective than ornamental landscaping, berming, or decorative fencing.
- The Project exceeds the setback requirements in Section 16.11.160.f.3. The Project has been set back over 1,000 feet from the nearest residence and is over 0.5 mile from the next closest residence. Except for CR 90, development areas are more than 0.5 mile from public roads.
- The rolling topography makes berming and ornamental vegetation ineffective on aesthetic observations when the Project is viewed from adjacent properties or rights-of-way. Wildlife movement corridors and solar array configurations also break up the uniformity of the Project.
- The vernacular rural character of the Black Hollow Reservoir is rolling rangeland, native grasses, and riparian trees. Ornamental landscaping at the scale of the Project would appear unnatural, and the irrigation requirements would be unsustainable.
- The landscape will rely on non-irrigated native grasses, wildflowers and pollinators, habitat enhancement, wildlife movement corridors, setbacks, and fencing.

Landscaping within the Project Fence

Revegetation of the site would integrate a variety of restoration techniques, including protection of the existing native seedbed and rootstock (through mowing and grubbing), spot grading (see Section 3.4, Grading Plan), reseeding in disturbed or denuded areas, decompacting, transplanting of larger woody species, and more. A seed mix would be developed to reflect a combination of existing conditions and ecological site descriptions (as presented in the Property Management Plan, Section 3.11). The mix would feature native short- and mixed-grass species (such as blue grama and western wheatgrass), as well as native, ecotypic forbs (such as dotted blazing star and prairie coneflower) that support pollinators.

If it is determined that one seed mix is not suitable for the entire site (due to variable ecological site descriptions and habitats known to occur), the seed mix would be modified, as needed, to support successful re-establishment of appropriate vegetation species.

To improve the likelihood of success for revegetation of the site, noxious weeds would be managed according to the Property Management Plan (Section 3.11). Noxious weeds are identified and managed by the Colorado Department of Agriculture and the Weld County Weed Division. Prevention is the most effective management practice; however, where noxious weeds do occur post-construction, an integrated weed management approach that incorporates mechanical and chemical control methods would be used.

Lighting Plan

The Town of Severance Land Use Application Form Checklist requests a Lighting Plan for the Project area that answers the question: “How is exterior lighting being addressed?”.

The Project would include lighting during operation at the substation, gates, BESS, O&M building, and switchyard. Lighting at the facilities and gates would be for security purposes only and would be motion activated and shielded downward (dark sky lighting). Lights planned for use include the RSX2 LED Area Luminaire and the WDGE2 LED Architectural Wall Sconce Precision Refractive Optic. No other lighting would be required during Project operation.

Page 17, sheet C-110 of the Project Site Plan (Section 3.1) shows lighting fixtures and specifications. General locations are also shown on the Site Plan at the Project substation, PRPA switchyard, O&M building, and BESS. These areas would be illuminated as described. Gates providing access to the Project area would be located on access roads and are also provided on the Site Plan.

Sound Mitigation Plan

The Town of Severance Land Use Application Form Checklist requests a Sound Mitigation Plan for the Project area that answers the question: "If noise or smells are associated with the development, what are the plans for mitigation?".

During construction noise from construction would be managed to meet the Town of Severance Ordinance 2022-12 (an amendment to the Municipal Code pertaining to noise). Section 7-7-30 of that ordinance states:

"The prohibitions set forth in subsection 7-7-20(a) shall not apply to sound from:

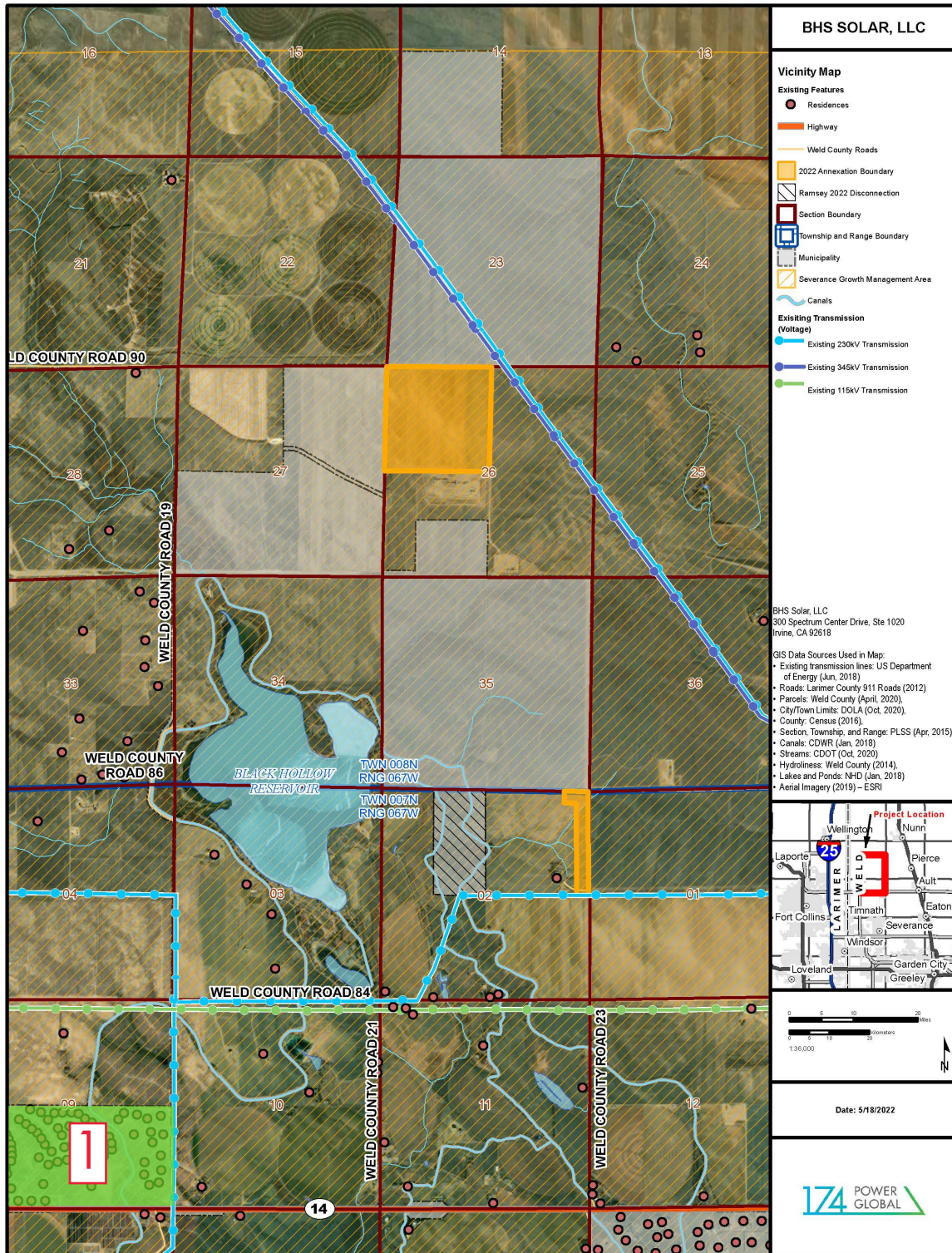
(6) Any lawful construction, maintenance, or repair activities conducted between 7:00 a.m. and 7:00 p.m. or dusk, whichever comes first, Monday through Friday, and between 9:00 a.m. and 5:00 p.m. on Saturday and Sunday."

During operation the Project will not generate noise that is generally audible at least twenty-five feet from the property line. Further there are no adjacent neighborhoods to the Project. All photovoltaic panels would be setback over 1,100 feet from the closest neighboring residence and over 1,300 feet from Black Hollow Reservoir.

As a good neighbor BHS Solar commits to the following mitigation found in the Environmental Conservation Measures

- The Project would ensure that all construction equipment would have sound-control devices no less effective than those provided on the original equipment. All construction equipment used would be adequately muffled and maintained.
- The Project would ensure that all stationary construction equipment (i.e., compressors and generators) would be located as far as practicable from nearby residences.
- The Project would notify nearby residents in advance if noisy activities are required during the construction period.

Figure 1. Project Area and Vicinity



From: [Heather S Alderman](#)
To: [Abdul Barzak](#)
Subject: RE: BHS Solar Site Plan (REVISED) (Town of Severance Planning Referral)
Date: Friday, October 21, 2022 5:47:31 AM
Attachments: [image005.png](#)
[image007.png](#)

We do not have comments.

Thanks,
Heather

Heather S. Alderman
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From: [Adam Ferrell](#)
To: [Abdul Barzak](#)
Subject: RE: BHS Solar Site Plan (REVISED) (Town of Severance Planning Referral)
Date: Thursday, October 20, 2022 2:00:45 PM
Attachments: [image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image009.png](#)

Thank you for the update. Please note that the Ault Fire Protection District is not in favor of this project.

Any questions please let me know.

Adam Ferrell, Captain

Ault – Pierce Fire Department
O: 970-834-2848|F: 970-834-2088
16680 Highway 14
Ault, CO 80610
www.aultpiercefirer.org



We protect lives and property through fire suppression, emergency medical response, fire prevention and public education.



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From: [tduran](#)
To: [Abdul Barzak](#)
Cc: [Heather Rospierski](#); [Mike Lester](#)
Subject: Town of Pierce
Date: Tuesday, January 24, 2023 12:54:15 PM
Attachments: [image001.png](#)

Caution: This is an external email and may have a suspicious subject or content. Please take care when clicking links or opening attachments. When in doubt, contact your OnixIT at support@onixit.com or (970) 223-0300.

Mr. Barzak:

Thank you for reaching out to the Town of Pierce regarding the BHSolar project and its potential impacts on our community. Based on the most recent December 27, 2022, Site Plan Submittal from BHSolar, we have the following comments/questions through discussions with staff and the Town's contracted consultants:

1. There is a significant change between the most recent traffic study and the prior issued drafts. In particular, the route has changed from a haul route to just a route for "workers" using passenger vehicles? Clarify why Pierce is singled out as a community where significant passenger vehicles will occur. How is BHSolar anticipating regulating/managing this route?
2. Based on the most recent traffic study, it appears capacity/offsite improvements are required in conjunction with CDOT. The Town anticipates these improvements to be installed as warranted. This is not contemplated in the draft maintenance agreement provided by BHSolar to the Town. As such, based on the most recent traffic study, a capacity/offsite improvement agreement will need to be prepared in conjunction with Weld County and CDOT.
3. It is unclear how a maintenance agreement will be prepared and enforced for what is assumed to be only passenger vehicles. Is this in conjunction with a capacity/offsite improvements agreement? Will BHSolar put down traffic counters for the duration of the project to track additional use?

Regards.

Kristina Duran

Kristina Duran, CMC

Town Clerk

Town of Pierce



From: [Christine Lutz](#)
To: [Abdul Barzak](#)
Cc: [Kimberly Lambrecht](#); [Mark Price](#)
Subject: RE: BHS Solar Site Plan (Town of Severance Planning Referral)
Date: Friday, January 20, 2023 4:09:02 PM
Attachments: [image001.png](#)

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Hello Abdul,

The Town of Windsor has reviewed the application materials provided for the BHS Solar Site Plan. The subject property is outside the Town's Growth Management and Community Influence areas, therefore we have no comment.

Thank you for the opportunity to review the project.

Hope you have an amazing weekend,

Chrissy

Christine Lutz

Planning Technician

Windsor Town Hall | Community Development Dept.
301 Walnut St. | Windsor, CO 80550

Dir: 970-674-2439 | www.windsorgov.com
planningtechs@windsorgov.com

Your patience is appreciated while we are experiencing a high volume of incoming work being processed. You may find some of your answers by going to the website and referring to the [Planning](#) page and [FAQ's](#) or the [Municipal Code](#).

Applicant Responses

From: [Sandi Friedrichsen](#)
To: [Abdul Barzak](#)
Subject: RE: BHS Solar Site Plan (REVISED) (Town of Severance Planning Referral)
Date: Tuesday, November 29, 2022 4:29:48 PM
Attachments: [image002.png](#)
[image003.png](#)

Caution: This is an external email and may have a suspicious subject or content. Please take care when clicking links or opening attachments. When in doubt, contact your OnixIT at support@onixit.com or (970) 223-0300.

-  Knox padlocks or switches will be required at the entrance gates depending on what type of gate it is.
-  2. Address and contact signage will be required at all access points
-  3. Will there be an emergency shut-off on the property or just a remote one?
-  4. What is the square footage of the building that is being built? Fire extinguishers are required for any building on site.
-  5. Access is required around the arrays using the B40 turning template so that we are able to get around them.
-  6. What is the address of this property going to be? I assume it will be 1 address for the entire property?

Sandra Friedrichsen
Fire Marshal
Windsor Severance Fire Rescue
100 7th Street - Windsor, CO 80550
Office Hours Monday - Thursday 0700-1700
Main - (970) 686-2626
Email – firemarshal@wsfr.us
www.wsfr.us

From: [Sandi Friedrichsen](#)
To: [Abdul Barzak](#)
Subject: RE: BHS Solar Site Plan (REVISED) (Town of Severance Planning Referral)
Date: Monday, January 9, 2023 1:21:45 PM
Attachments: [image002.png](#)
[image003.png](#)

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These comments look satisfactory to me. One address is awesome! Thank you Abdul!!

Sandra Friedrichsen
Fire Marshal
Windsor Severance Fire Rescue
100 7th Street - Windsor, CO 80550
Office Hours Monday - Thursday 0700-1700
Main - (970) 686-2626
Email – firemarshal@wsfr.us
www.wsfr.us

Loup Reservoir Company

c/o Weld RE-4 School District
180 North 8th Street
Windsor, CO 80550

Email: LoupReservoirCompany@gmail.com
Phone: 970-302-2668

October 21, 2022

Abdul Barzak
Assistant Town Planner
Town of Severance
PO Box 339
Severance, CO 80546

Re: BHS Solar Annexation & Zoning (REVISED)

The Loup Reservoir Company ("Ditch Company") has received a referral from the Town of Severance ("Town") for the above-referenced application for annexation.

The Ditch Company owns and operates a ditch and reservoir system with decreed water rights for drainage flows captured by the system. The proposed project appears to be located on property from which, at least in part, water historically drains into the Ditch Company's system.

As such, the Company received notice of the proposed project and, at this time and upon its review, the Company has not identified an issue upon which to comment.

We request the Town of Severance keep us on the referral list for the proposed project in case it evolves in such a way as to change the Company's assessment. The Town or developer may contact me with any questions or concerns.

Sincerely,



Julie Rothe, General Manager
Executive Board Member
Loup Reservoir Company



COLORADO

Parks and Wildlife

Department of Natural Resources

Northeast Regional Office

6060 Broadway

Denver, CO 80216

P 303.291.7227

September 13, 2022

Mr. Abdul Barzak

Town Planner at the Town of Severance

3 South Timber Ridge Parkway

Severance, CO 80550

abarzak@townofseverance.org

RE: CPW's Comments on the 2022 Black Hollow Solar Site Plan Application (T8N, R67W, S35)

Dear Mr. Barzak,

Thank you for the opportunity for Colorado Parks and Wildlife (CPW) to comment on the proposed Black Hollow Solar Project (Project) located within the Town of Severance (Town). It is our understanding that this Project's Site Plan (developed by 174 Power Global and Logan Simpson = Applicants) consists of an approximately 1,362-acre (roughly 250 megawatts) solar facility across 2,163 acres located north to east of Black Hollow Reservoir. This Project will include photovoltaic solar arrays, an electric collection system, a new substation and switchyard, a short segment of transmission line, a Battery Energy Storage System, and other appurtenant equipment that will begin construction Q2 2023 with a Q4 2024 commercial operation date. We recognize renewable energy development is important to meeting the State's greenhouse gas reduction goals and improves our climate resiliency.

CPW appreciates that the Applicants have consulted with CPW over the last two years. This consultation can lead to a responsibly-developed project that works toward achieving State of Colorado solar goals¹, while protecting sensitive wildlife species, habitats, and time frames. Our discussions have focused on specific ways to avoid, minimize and mitigate the impacts on the wildlife species in the vicinity of this Project, specifically to develop strategies to minimize impacts to raptors, big game winter habitat and movement corridors, and black-tailed prairie dog colonies in the area. CPW also appreciates that the Applicants modified the original design to allow for four wildlife movement corridors at least 300 feet wide, and the substation is located farther away (east) from Black Hollow Reservoir.

The mission of CPW is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado's natural resources. CPW has a statutory responsibility to manage all wildlife species

¹ <https://energyoffice.colorado.gov/climate-energy/ghg-pollution-reduction-roadmap>



in Colorado, and to promote a variety of recreational opportunities throughout Colorado. One way we achieve this goal is by responding to referral comment requests, as is the case for this project. CPW encourages developers to afford the highest level of protection to Colorado's High Priority Habitats (HPHs). HPHs are defined as sensitive wildlife habitats where CPW has sound spatial data² and scientifically-backed best management practice recommendations to help developers with the siting process to minimize any impacts.

This 1,362-acre solar facility is located within the following CPW-mapped HPHs:

- Mule Deer Severe Winter Range (350.86 Project acres; 25.76%) and Pronghorn Winter Concentration Area (938.52 Project acres; 68.91%) polygons (as shown in Appendix A).

We recommend the following for the Applicant's consideration to reduce impacts to wildlife:

- CPW recommends that construction activity occurs between May 1 and November 30, avoiding the big game severe winter range dates of December 1 to April 30.
 - If construction must take place during the winter range time frame, we recommend that construction activities take place between the hours of 7 a.m. and 5 p.m. to reduce disturbance to wintering big game.
- CPW is aware that the Project area will include security fencing. For specific wildlife exclusion fencing specifications, CPW recommends that any installed fencing should be eight feet in height, have round-capped posts (e.g., so wildlife aren't impaled), smooth top wire to the fence (e.g., no top barbed wire) (or if two top strands are needed, ensure they are at least six inches apart). The bottom wire can be barbed but should be four inches or less from the ground.
- CPW recommends that other non-security fencing is kept to a minimum. Where such fencing is required, please use wildlife-friendly fencing specifications as described in CPW's document entitled "Fencing with Wildlife in Mind".
- CPW recommends that the solar facility is checked weekly (or escape structures are installed inside the fenced area) to allow deer and pronghorn to escape if one becomes trapped within the facility.
- CPW requests that security lighting is kept to a minimum and ideally motion sensor lights are installed. It is important to avoid lighting the riparian corridors along the sides of the project.
- If construction is slated from March 15 to July 15, please complete pre-construction nesting surveys for songbirds, Burrowing Owls, and ground- or tree-nesting raptors³ within the Project area or in the immediate vicinity (e.g., their buffers may extend into the Project area).
- Install bird diverters on the new collector lines constructed east of Black Hollow Reservoir.

CPW appreciates the opportunity to review this project and provide comments and recommendations to avoid and minimize impacts to wildlife resources. If the timing or scope

² <https://www.arcgis.com/home/item.html?id=190573c5aba643a0bc058e6f7f0510b7>

³ <https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/Raptor-Buffer-Guidelines.pdf>

of this project changes and/or if you have any questions, please contact Brandon Marette (Northeast Region Energy Liaison) at 303-291-7327 or brandon.marette@state.co.us.

Sincerely,

Mark Leslie

Mark Leslie
Northeast Regional Manager

cc:

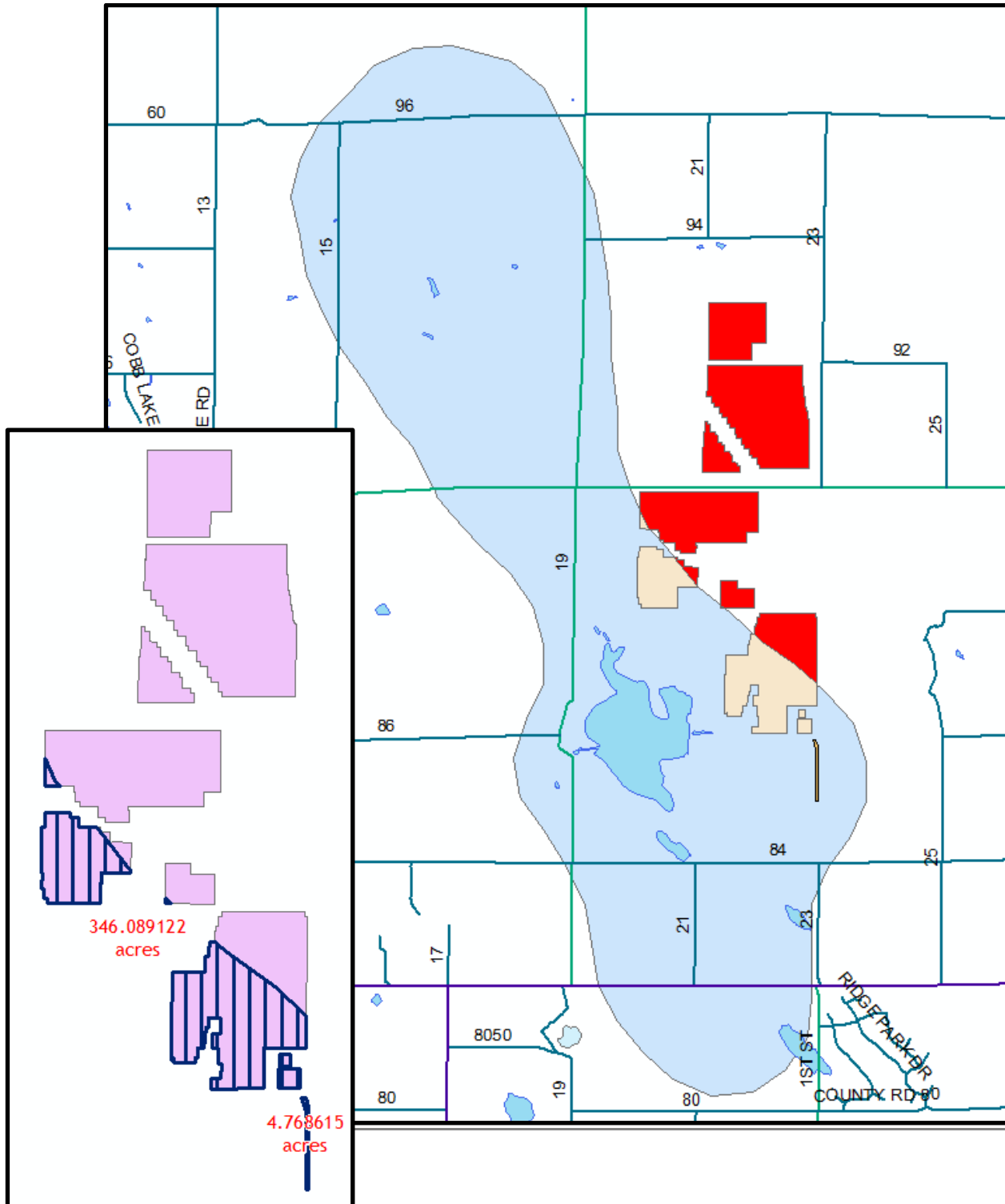
- Town of Severance
 - Abdul Barzak (Town Planner)
- 174 Power Global
 - Stephanie Lauer (Environmental Permitting Manager)
 - Ben Sturgeon (Director, Project Development)
- Logan Simpson
 - Jeremy Call (Principal)
 - Julie Capp (Senior Wildlife Biologist & Environmental Planner)

Attachment:

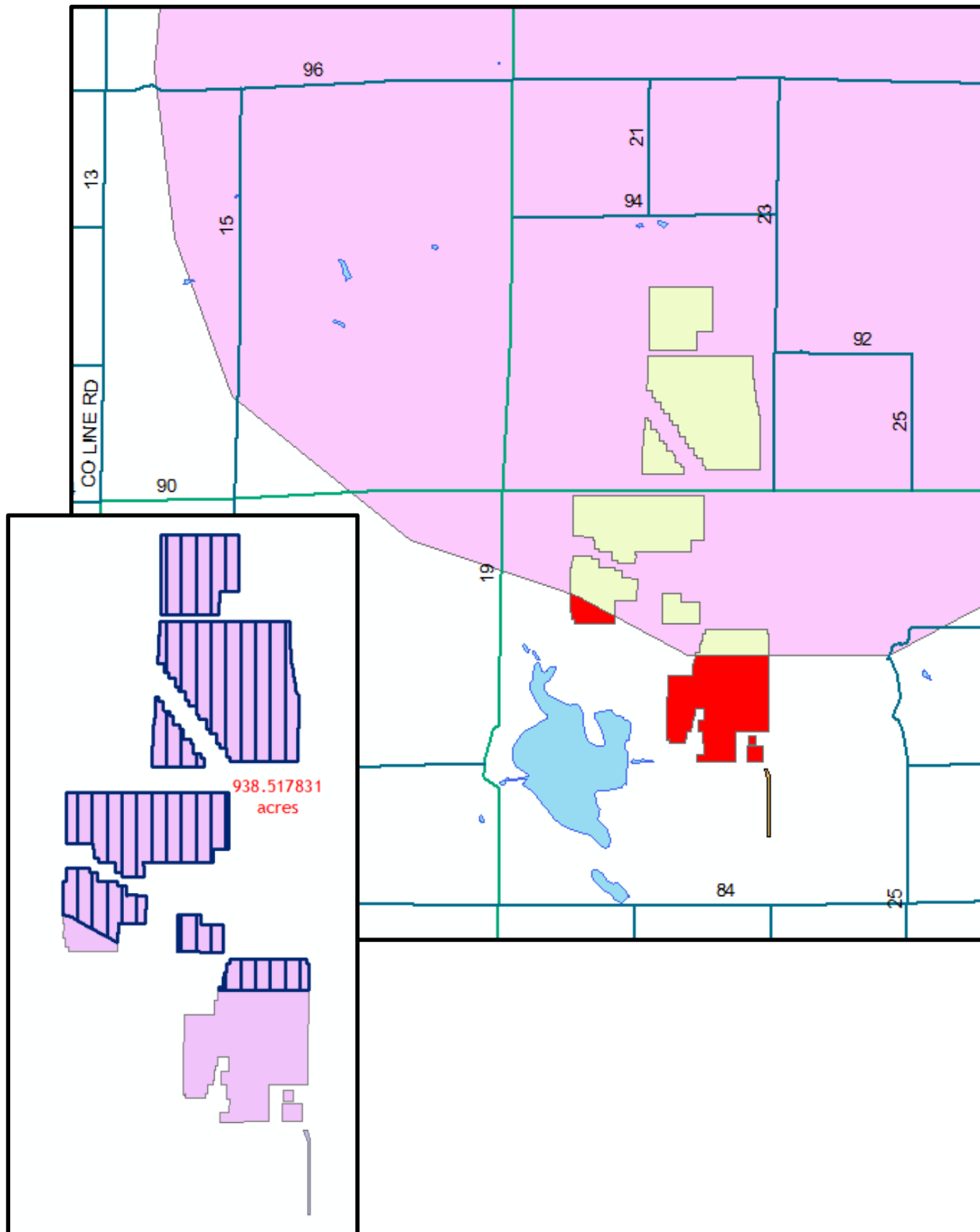
- Appendix A - HPH maps for mule deer and pronghorn winter concentration areas.

Appendix A

Mule Deer Winter Concentration Area (purple-hatched polygon) encompasses 25.76% of the Project Area (red polygons)



Pronghorn Winter Concentration Areas (blue-hatched polygon) encompasses 68.91% of the Project Area (red polygons)



SEVERANCE PLANNING COMMISSION

RESOLUTION NO. PC-2023-01R

A RESOLUTION OF THE SEVERANCE PLANNING COMMISSION RECOMMENDING APPROVAL WITH CONDITIONS OF A USE BY ADDITIONAL REVIEW APPLICATION TO OPERATE A LARGE- SCALE SOLAR FACILITY ON CERTAIN REAL PROPERTY LOCATED WITHIN PORTIONS OF SECTION 2, T7N, R67 WE, 6TH P.M., AND SECTIONS 14, 23, 26, 27, AND 35, T8N, R67W, 6TH P.M., WELD COUNTY, COLORADO

WHEREAS, BHS Solar, LLC, (“Applicant”), on behalf of the owners of certain real property generally known as the 2021 BHS Solar Annexation Property and 2022 BHS Solar Annexation Property, and as legally described in Exhibit A (“Property”), has submitted an application for Use by Additional Review to construct and operate a large-scale solar facility on the Property (the “Application”); and

WHEREAS, Applicant has also submitted a site plan, together with a proposed draft, development agreement, relating to such use by additional review; and

WHEREAS, the Severance Planning Commission has conducted a public hearing on the Application, and has considered all the evidence presented at the public hearing, the relevant standards and special use review criteria set forth in the Severance Municipal Code (“Code”); and

WHEREAS, the Severance Planning Commission wishes to make a recommendation to the Town Council regarding the Application.

NOW, THEREFORE, BE IT RESOLVED BY THE SEVERANCE PLANNING COMMISSION:

1. That the Severance Planning Commission recommends approval of the Application, including the site plan and development agreement, with the following conditions:

- a. All remaining technical corrections to the Site Plan and Construction Drawings requested by Town staff shall be made to the Town staff’s satisfaction.
- b. Final Construction Documents shall be approved by the Town Engineer prior to the start of construction activities.
- c. Approval of the use by additional review by the town shall lapse and be considered null and void if the use itself, or if permanent construction on any portion of the Property subject to the Application in conjunction with such use, has not commenced within one year of the approving action.
- d. Failure to use any portion of the Property subject to the Application as a large-scale solar facility for a period of 12 consecutive months shall terminate the right to use the Property for the specified large-scale solar facility use.

PASSED AND ADOPTED this ____ day of _____, 2023.

Chairperson

ATTEST:

Leah Vanarsdall, MMC, Town Clerk

Exhibit A
2021 BHS Solar Annexation Property

Legal Description Annexation Boundary 1

COMMENCING AT A SOUTHEAST CORNER OF SECTION 9, T7N, R67W OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, WITH A NORTHING OF 1455254.24' AND AN EASTING OF 3169802.61'; THENCE N00°16'01"W 2620.59' ALONG THE EAST LINE OF THE SE 1/4 OF SAID SECTION 9 TO THE EAST 1/4 CORNER OF SAID SECTION 9; THENCE N89°50'46"W 30.00' ALONG THE NORTH LINE OF THE SE 1/4 OF SAID SECTION 9 TO A POINT ON THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 AND THE POINT OF BEGINNING.

THENCE N11°20'07"E 149.95' TO A POINT ON THE EAST LINE OF THE NE 1/4 OF SAID SECTION 9; THENCE S11°44'23"E 150.03' TO A POINT AT THE INTERSECTION OF THE NORTH LINE OF THE SW 1/4 OF SECTION 10, T7N, R67W, WITH THE EAST RIGHT-OF-WAY OF WELD COUNTY ROAD 19; THENCE S89°35'49"W 30.00' ALONG THE NORTH LINE OF THE SW 1/4 OF SAID SECTION 10 TO THE WEST 1/4 CORNER OF SAID SECTION 10; THENCE N89°50'46"W 30.00' ALONG THE NORTH LINE OF THE SE 1/4 OF SAID SECTION 9 TO THE POINT OF BEGINNING.

CONTAINS 0.101 ACRES MORE OR LESS. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE BASED ON COLORADO COORDINATE SYSTEM OF 1983, NORTH ZONE, U.S. SURVEY FEET.

Legal Description Annexation Boundary 2

COMMENCING AT A SOUTHEAST CORNER OF SECTION 9, T7N, R67W OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, WITH A NORTHING OF 1455254.24' AND AN EASTING OF 3169802.61'; THENCE N00°16'01"W 2620.59' ALONG THE EAST LINE OF THE SE 1/4 OF SAID SECTION 9 TO THE EAST 1/4 CORNER OF SAID SECTION 9; THENCE N89°50'46"W 30.00' ALONG THE NORTH LINE OF THE SE 1/4 OF SAID SECTION 9 TO A POINT ON THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 AND THE POINT OF BEGINNING.

THENCE N02°05'15"E 749.78' TO A POINT ON THE EAST LINE OF THE NE 1/4 OF SAID SECTION 9; THENCE S02°29'54"E 749.87' TO A POINT AT THE INTERSECTION OF THE NORTH LINE OF THE SW 1/4 OF SECTION 10, T7N, R67W, WITH THE EAST RIGHT-OF-WAY OF WELD COUNTY ROAD 19; THENCE N11°44'23"W 150.03' TO A POINT ON THE WEST LINE OF THE NW 1/4 OF SAID SECTION 10; THENCE S11°20'07"W 149.95' TO THE POINT OF BEGINNING.

CONTAINS 0.415 ACRES MORE OR LESS. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE BASED ON COLORADO COORDINATE SYSTEM OF 1983, NORTH ZONE, U.S. SURVEY FEET.

Legal Description Annexation Boundary 3

COMMENCING AT A SOUTHEAST CORNER OF SECTION 9, T7N, R67W OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, WITH A NORTHING OF 1455254.24' AND AN EASTING OF 3169802.61'; THENCE N00°16'01"W 2620.59' ALONG THE EAST LINE OF THE SE 1/4 OF SAID SECTION 9 TO THE EAST 1/4 CORNER OF SAID SECTION 9; THENCE N89°50'46"W 30.00' ALONG THE NORTH LINE OF THE SE 1/4 OF SAID SECTION 9 TO A POINT ON THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 AND THE POINT OF BEGINNING.

THENCE N00°15'11"E 2653.23' TO A POINT ON THE NORTH LINE OF THE NE 1/4 OF SAID SECTION 9; THENCE N00°40'43"E 1095.87' TO A POINT ON THE EAST LINE OF THE SE 1/4 OF SECTION 4, T7N, R67W; THENCE S00°14'18"E 1095.75' TO A POINT ON THE SOUTH LINE OF THE SW 1/4 OF SECTION 3, T7N, R67W; THENCE S00°39'50"E 2653.30' TO A POINT AT THE INTERSECTION OF THE NORTH LINE OF THE SW 1/4 OF SECTION 10, T7N, R67W, WITH THE EAST RIGHT-OF-WAY OF WELD COUNTY ROAD 19; THENCE N02°29'54"W 749.87' TO A POINT ON THE WEST LINE OF THE NW 1/4 OF SAID SECTION 10; THENCE S02°05'15"W 749.78' TO THE POINT OF BEGINNING.

CONTAINS 2.066 ACRES MORE OR LESS. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE BASED ON COLORADO COORDINATE SYSTEM OF 1983, NORTH ZONE, U.S. SURVEY FEET.

Legal Description Annexation Boundary 4

COMMENCING AT A SOUTHEAST CORNER OF SECTION 9, T7N, R67W OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, WITH A NORTHING OF 1455254.24' AND AN EASTING OF 3169802.61'; THENCE N00°16'01"W 2620.59' ALONG THE EAST LINE OF THE SE 1/4 OF SAID SECTION 9 TO THE EAST 1/4 CORNER OF SAID SECTION 9; THENCE N89°50'46"W 30.00' ALONG THE NORTH LINE OF THE SE 1/4 OF SAID SECTION 9 TO A POINT ON THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 AND THE POINT OF BEGINNING.

THENCE N00°01'25"E 2653.23' TO A POINT ON THE NORTH LINE OF THE NE 1/4 OF SAID SECTION 9; THENCE N00°23'24"E 2725.66' TO A POINT ON THE NORTH LINE OF THE SE 1/4 OF SECTION 4, T7N, R67W; THENCE N00°17'43"E 1814.03'; THENCE IN A NORTHWESTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 698.89', HAVING A CHORD BEARING OF N65°57'24"W AND A CHORD DISTANCE OF 356.34', HAVING A CENTRAL ANGLE OF 29°32'20" AND AN ARC LENGTH OF 360.31'; THENCE N51°11'14"W 275.50'; THENCE IN A NORTHWESTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 326.88', HAVING A CHORD BEARING OF N21°38'20"W AND A CHORD DISTANCE OF 308.11', HAVING A CENTRAL ANGLE OF 56°14'11" AND AN ARC LENGTH OF 320.84'; THENCE N06°28'46"E 323.32' TO A POINT ON THE NORTH LINE OF LOT 1 OF SAID SECTION 4; THENCE N12°08'28"E 1126.72'; THENCE IN A NORTHEASTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 805.01', HAVING A CHORD BEARING OF N26°21'03"E AND A CHORD DISTANCE OF 380.24', HAVING A CENTRAL ANGLE OF 27°19'18" AND AN ARC LENGTH OF 383.87'; THENCE IN A NORTHERLY DIRECTION WITH A REVERSE TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 795.01', HAVING A CHORD BEARING OF N19°44'26"E AND A CHORD DISTANCE OF 550.88', HAVING A CENTRAL ANGLE OF 40°32'32" AND AN ARC LENGTH OF 562.55'; THENCE N00°47'51"W 694.78' TO A POINT ON THE NORTH LINE OF THE SE 1/4 OF SECTION 33, T8N, R67W; THENCE N00°06'35"W 2635.05' TO A POINT ON THE NORTH LINE OF THE NE 1/4 OF SAID SECTION 33; THENCE N89°01'47"E 5.00' ALONG THE NORTH LINE OF THE NE 1/4 OF SAID SECTION 33 TO THE NE CORNER OF SAID SECTION 33; THENCE S89°49'13"E 5.00' ALONG THE NORTH LINE OF THE NW 1/4 OF SECTION 34, T8N, R67W; THENCE S00°06'35"E 2635.03' TO A POINT ON THE SOUTH LINE OF THE NW 1/4 OF SAID SECTION 34; THENCE S00°47'51"E 694.75'; THENCE IN A SOUTHERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 805.01', HAVING A CHORD BEARING OF S02°31'57"W AND A CHORD DISTANCE OF 86.08', HAVING A CENTRAL ANGLE OF 06°07'46" AND AN ARC LENGTH OF 86.12' TO A POINT ON THE WEST LINE OF THE SW 1/4 OF SAID SECTION 34; THENCE IN A SOUTHWESTERLY DIRECTION WITH A COMPOUND TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 805.01', HAVING A CHORD BEARING OF S22°48'16"W AND A CHORD DISTANCE OF 476.29', HAVING A CENTRAL ANGLE OF 34°24'52" AND AN ARC LENGTH OF 483.53'; THENCE IN A SOUTHWESTERLY DIRECTION WITH A REVERSE TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 795.01', HAVING A CHORD BEARING OF S26°21'10"W AND A CHORD DISTANCE OF 375.48', HAVING A CENTRAL ANGLE OF 27°19'06" AND AN ARC LENGTH OF 379.06'; THENCE S12°08'46"W 1124.19' TO A POINT ON THE SOUTH LINE OF THE SE 1/4 OF SAID SECTION 33; THENCE S06°29'49"W 324.82'; THENCE IN A SOUTHEASTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 316.88', HAVING A

CHORD BEARING OF S21°37'39"E AND A CHORD DISTANCE OF 298.58', HAVING A CENTRAL ANGLE OF 56°12'50" AND AN ARC LENGTH OF 310.90'; THENCE S51°11'14"E 275.38'; THENCE IN A SOUTHEASTERLY DIRECTION WITH A TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 688.89', HAVING A CHORD BEARING OF S66°06'02"E AND A CHORD DISTANCE OF 354.58', HAVING A CENTRAL ANGLE OF 29°49'35" AND AN ARC LENGTH OF 358.61' TO A POINT ON THE EAST LINE OF LOT 1 OF SAID SECTION 4; THENCE IN A EASTERLY DIRECTION WITH A COMPOUND TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 688.89', HAVING A CHORD BEARING OF S81°13'24"E AND A CHORD DISTANCE OF 5.04', HAVING A CENTRAL ANGLE OF 00°25'08" AND AN ARC LENGTH OF 5.04'; THENCE S00°06'11"E 1822.47' TO A POINT ON THE SOUTH LINE OF THE NW 1/4 OF SECTION 3, T7N, R67W; THENCE S00°03'02"W 2725.63' TO A POINT ON THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION 3; THENCE S00°26'05"E 2653.24' TO A POINT AT THE INTERSECTION OF THE NORTH LINE OF THE SW 1/4 OF SECTION 10, T7N, R67W, WITH THE EAST RIGHT-OF-WAY OF WELD COUNTY ROAD 19; THENCE N00°39'50"W 2653.30' TO A POINT ON THE NORTH LINE OF THE NW 1/4 OF SAID SECTION 10; THENCE N00°14'18"W 1095.75' TO A POINT ON THE WEST LINE OF THE SW 1/4 OF SAID SECTION 3; THENCE S00°40'43"W 1095.87' TO A POINT ON THE SOUTH LINE OF THE SE 1/4 OF SAID SECTION 4; THENCE S00°15'11"W 2653.23' TO THE POINT OF BEGINNING.

CONTAINS 4.560 ACRES MORE OR LESS. ALL BEARINGS, DISTANCES, COORDINATES AND AREAS ARE BASED ON COLORADO COORDINATE SYSTEM OF 1983, NORTH ZONE, U.S. SURVEY FEET.

Legal description of Annexation Boundary 5

COMMENCING AT A SOUTHEAST CORNER OF SECTION 9, T7N, R67W OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, WITH A NORTHING OF 1455254.24' AND AN EASTING OF 3169802.61'; THENCE N00°16'01"W 2620.59' ALONG THE EAST LINE OF THE SE1/4 OF SAID SECTION 9 TO THE E1/4 CORNER OF SAID SECTION 9; THENCE N89°50'46"W 30.00' ALONG THE NORTH LINE OF THE SE1/4 OF SAID SECTION 9 TO A POINT ON THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 AND THE TRUE POINT OF BEGINNING.

THENCE ALONG THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 THE FOLLOWING THIRTEEN COURSES (13):

- 1) N00°12'20"W 2653.28' PARALLEL AND 30' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 9 TO A POINT ON THE NORTH LINE OF THE NE1/4 OF SAID SECTION 9;
- 2) N00°13'13"E 2725.82' PARALLEL AND 30' WEST OF THE EAST LINE OF THE SE1/4 OF SECTION 4, T7N, R67W TO A POINT ON THE NORTH LINE OF THE SW1/4 OF SAID SECTION 4;
- 3) N00°05'46"E 1793.22' PARALLEL AND 30' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 4;
- 4) ALONG A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 642.82', HAVING A CHORD BEARING OF N65°07'44"W AND A CHORD DISTANCE OF 349.21 HAVING A CENTRAL ANGLE OF 31°31'18" AND AN ARC LENGTH OF 353.65';
- 5) N51°11'14"W 274.08';
- 6) ALONG A TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 338.20', HAVING A CHORD BEARING OF N21°40'03"W AND A CHORD DISTANCE OF 333.28', HAVING A CENTRAL ANGLE OF 59°02'23" AND AN ARC LENGTH OF 348.49';
- 7) N06°28'46"E 318.88' TO A POINT ON THE NORTH LINE OF LOT 1 OF SAID SECTION 4;
- 8) S88°04'38"W 32.42' ALONG THE NORTH LINE OF LOT 1 OF SAID SECTION 4;
- 9) N12°41'30"E 1141.25';
- 10) ALONG A TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 850.00', HAVING A CHORD BEARING OF N26°21'07"E AND A CHORD DISTANCE OF 401.48', HAVING A CENTRAL ANGLE OF 27°19'13" AND AN ARC LENGTH OF 405.30';
- 11) ALONG A REVERSE TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 750.00', HAVING A CHORD BEARING OF N19°36'26"E AND A CHORD DISTANCE OF 522.97', HAVING A CENTRAL ANGLE OF 40°48'34" AND AN ARC LENGTH OF 534.19' TO A POINT 50' WEST OF THE EAST LINE OF THE SE1/4 OF SECTION 33, T8N, R67W;
- 12) N00°47'53"W 691.44' PARALLEL AND 50' WEST OF THE EAST LINE OF THE SE1/4 OF SAID SECTION 33 TO A POINT ON THE NORTH LINE OF THE SE1/4 OF SAID SECTION 33;
- 13) N00°05'30"W 2664.57' PARALLEL AND 50' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 33 TO A POINT ON THE NORTH RIGHT-OF-WAY OF WELD COUNTY ROAD 88 IN SECTION 28, T8N, R67W;

THENCE N89°01'47"E 19.52' ALONG THE NORTH RIGHT-OF-WAY OF WELD COUNTY ROAD 88 TO THE INTERSECTION WITH THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19; THENCE N00°34'21"E 2599.57' ALONG THE WEST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 TO A POINT ON THE NORTH LINE OF THE SE1/4 OF SAID SECTION 28; THENCE N89°14'15"E 30.01' ALONG THE NORTH LINE OF THE SE1/4 OF SAID SECTION 28 TO THE E1/4 CORNER OF SAID SECTION 28; THENCE N89°49'52"E 2634.84' ALONG THE NORTH LINE OF THE SW1/4 OF SECTION 27, T8N, R67W TO THE C1/4 CORNER OF SAID SECTION 27; THENCE N00°48'46"E 526.03' ALONG THE WEST LINE OF THE NE1/4 OF SAID SECTION 27; THENCE S77°30'53"E 112.53'; THENCE N86°29'07"E 120.20'; THENCE S84°30'53"E 106.52'; THENCE S74°30'53"E 105.99'; THENCE S64°30'53"E 108.62'; THENCE S59°30'53"E 930.00'; THENCE S60°50'49"E 398.50'; THENCE S64°50'49"E 1018.49' TO A POINT ON THE EAST LINE OF THE SE1/4 OF SAID SECTION 27; THENCE N00°49'49"E 109.74' ALONG THE EAST LINE OF THE SE1/4 OF SAID SECTION 27; THENCE N64°50'49"W 969.80'; THENCE N60°50'49"W 393.85'; THENCE N59°30'53"W 933.21'; THENCE N64°30'53"W 121.74'; THENCE N74°30'53"W 123.49'; THENCE N84°30'53"W 123.14'; THENCE S86°29'07"W 114.02'; THENCE N77°30'53"W 108.20'; THENCE N69°53'35"W 11.34' TO A POINT ON THE WEST LINE OF THE NE1/4 OF SAID SECTION 27; THENCE N00°48'46"E 2015.62' ALONG THE WEST LINE OF THE NE1/4 OF SAID SECTION 27 TO THE N1/4 CORNER OF SAID SECTION 27; THENCE N02°45'10"E 30.18' ALONG THE WEST LINE OF THE SE1/4 OF SECTION 22, T8N, R67W TO A POINT ON THE NORTH RIGHT-OF-WAY OF WELD COUNTY ROAD 90; THENCE N89°28'38"E 2626.46' ALONG THE NORTH RIGHT-OF-WAY OF WELD COUNTY ROAD 90 TO A POINT ON THE WEST LINE OF THE SW1/4 OF SECTION 23, T8N, R67W; THENCE N03°05'46"E 2609.79' ALONG THE WEST LINE OF THE SW1/4 OF SAID SECTION 23 TO THE W1/4 CORNER OF SAID SECTION 23; THENCE N03°05'46"E 2639.85' ALONG THE WEST LINE OF THE NW1/4 OF SAID SECTION 23 TO THE NORTHWEST CORNER OF SAID SECTION 23; THENCE N00°30'47"E 2640.21' ALONG THE WEST LINE OF THE SW1/4 OF SECTION 14, T8N, R67W TO THE W1/4 CORNER OF SAID SECTION 14; THENCE N89°16'54"E 2565.55' ALONG THE NORTH LINE OF THE SW1/4 OF SAID SECTION 14 TO THE C1/4 CORNER OF SAID SECTION 14; THENCE S00°17'03"W 2650.69' ALONG THE EAST LINE OF THE SW1/4 OF SAID SECTION 14 TO THE S1/4 CORNER OF SAID SECTION 14; THENCE N89°31'39"E 2546.15' ALONG THE NORTH LINE OF THE NE1/4 OF SAID SECTION 23 TO A POINT ON THE WEST RIGHT-OF-WAY OF A ROAD EASEMENT, BEING 30' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 23; THENCE S01°39'50"W 2661.86' PARALLEL AND 30' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 23 TO A POINT ON THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 23, BEING 30' WEST OF THE EAST 1/4 CORNER OF SAID SECTION 23; THENCE S01°39'47"W 2661.83' PARALLEL AND 30' WEST OF THE EAST LINE OF THE SE1/4 OF SAID SECTION 23 TO A POINT ON THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 23, BEING 30' WEST OF THE SOUTHEAST CORNER OF SAID SECTION 23; THENCE S01°02'23"W 30.00' TO A POINT IN THE NE1/4 OF SECTION 26, T8N, R67W AND ON THE SOUTH RIGHT-OF-WAY OF WELD COUNTY ROAD 90; THENCE N89°55'35"W 2611.34' PARALLEL AND 30' SOUTH OF THE NORTH LINE OF THE NE1/4 OF SAID SECTION 26 TO A POINT ON THE WEST LINE OF THE NE1/4 OF SAID SECTION 26,

BEING 30' SOUTH OF THE N1/4 CORNER OF SAID SECTION 26; THENCE N89°55'28"W 2641.07' PARALLEL AND 30' SOUTH OF THE THE NORTH LINE OF THE NW1/4 OF SAID SECTION 26 TO A POINT ON THE WEST LINE OF THE NW1/4 OF SAID SECTION 26; THENCE S00°50'14"W 2631.66' ALONG THE WEST LINE OF THE NW1/4 OF SAID SECTION 26 TO THE W1/4 CORNER OF SAID SECTION 26; THENCE S00°49'48"W 2556.42' ALONG THE WEST LINE OF THE SW1/4 OF SAID SECTION 26; THENCE N89°43'52"E 971.37'; THENCE N00°14'56"W 1260.00'; THENCE N89°43'52"E 1686.18' TO A POINT ON THE EAST LINE OF THE SW1/4 OF SAID SECTION 26; THENCE S00°56'36"W 1365.30' ALONG THE EAST LINE OF THE SW1/4 OF SAID SECTION 26 TO THE S1/4 CORNER OF SAID SECTION 26; THENCE N89°45'05"E 2631.62' ALONG THE NORTH LINE OF THE NE1/4 OF SECTION 35, T8N, R67W TO THE NORTHEAST CORNER OF SAID SECTION 35; THENCE S00°16'24"W 2711.14' ALONG THE EAST LINE OF THE NE1/4 OF SAID SECTION 35 TO THE E1/4 CORNER OF SAID SECTION 35; THENCE S00°16'17"W 2711.26' ALONG THE EAST LINE OF THE SE1/4 OF SAID SECTION 35 TO THE SOUTHEAST CORNER OF SAID SECTION 35; THENCE N89°11'40"W 2609.91' ALONG THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 35 TO THE S1/4 CORNER OF SAID SECTION 35; THENCE N89°09'50"W 1304.93' ALONG THE SOUTH LINE OF THE SE1/4SW1/4 OF SAID SECTION 35 TO THE W1/16 CORNER OF SAID SECTION 35; THENCE N89°13'11"W 1274.83' ALONG THE SOUTH LINE OF THE SW1/4SW1/4 OF SAID SECTION 35 TO A POINT ON THE EAST RIGHT-OF-WAY OF A COUNTY ROAD EASEMENT, BEING 30' EAST OF THE SOUTHWEST CORNER OF SAID SECTION 35; THENCE N00°11'37"W 2662.60' PARALLEL AND 30' EAST OF THE WEST LINE OF THE SW 1/4 OF SAID SECTION 35 TO A POINT ON THE NORTH LINE OF THE SW1/4 OF SAID SECTION 35, BEING 30' EAST OF THE W1/4 CORNER OF SAID SECTION 35; THENCE N00°11'18"W 2663.01' PARALLEL AND 30' EAST OF THE WEST LINE OF THE NW1/4 OF SAID SECTION 35 TO A POINT ON THE NORTH LINE OF THE NW1/4 OF SAID SECTION 35; THENCE S89°48'42"W 30.00' ALONG THE NORTH LINE OF THE NW1/4 OF SAID SECTION 35 TO THE NORTHWEST CORNER OF SAID SECTION 35; THENCE N89°49'25"W 2623.77' ALONG THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 27 TO THE S1/4 CORNER OF SAID SECTION 27; THENCE N89°49'13"W 2593.58' ALONG THE SOUTH LINE OF THE SW1/4 OF SAID SECTION 27 TO A POINT ON THE EAST RIGHT-OF-WAY LINE OF WELD COUNTY ROAD 19, BEING 30' EAST OF THE SOUTHWEST CORNER OF SAID SECTION 27; THENCE ALONG THE EAST RIGHT-OF-WAY OF WELD COUNTY ROAD 19 THE FOLLOWING SIXTEEN COURSES (16):

- 1) S00°06'35"E 2635.16' PARALLEL AND 30 EAST OF THE WEST LINE OF THE NW1/4 OF SAID SECTION 34 TO A POINT ON THE SOUTH LINE OF THE NW1/4 OF SAID SECTION 34;
- 2) S00°47'51"E 977.73' PARALLEL AND 30 EAST OF THE WEST LINE OF THE SW1/4 OF SAID SECTION 34;
- 3) S89°12'09"W 30.00' TO A POINT ON THE WEST LINE OF THE SW1/4 OF SAID SECTION 34;
- 4) ALONG A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 850.00', HAVING A CHORD BEARING OF S29°28'59"W AND A CHORD DISTANCE OF 310.64', HAVING A CENTRAL ANGLE OF 21°03'28" AND AN ARC LENGTH OF 312.40';

- 5) ALONG A REVERSE TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 750.00', HAVING A CHORD BEARING OF S26°21'07"W AND A CHORD DISTANCE OF 354.24', HAVING A CENTRAL ANGLE OF 27°19'13" AND AN ARC LENGTH OF 357.62';
- 6) S12°41'30"W 1115.17' TO A POINT ON THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 33;
- 7) S88°04'38"W 10.27' ALONG THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 33;
- 8) S06°28'46"W 328.49';
- 9) ALONG A NON-TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 278.20', HAVING A CHORD BEARING OF S21°35'49"E AND A CHORD DISTANCE OF 274.75', HAVING A CENTRAL ANGLE OF 59°10'50" AND AN ARC LENGTH OF 287.35';
- 10) S51°11'14"E 275.05';
- 11) ALONG A NON-TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 582.82', HAVING A CHORD BEARING OF S64°36'53"E AND A CHORD DISTANCE OF 308.33', HAVING A CENTRAL ANGLE OF 30°40'34" AND AN ARC LENGTH OF 312.04';
- 12) S89°54'14"E 30.00' TO A POINT ON THE EAST LINE OF LOT 1 OF SAID SECTION 4;
- 13) S89°54'14"E 30.00';
- 14) S00°05'46"W 1854.20' TO A POINT ON THE SOUTH LINE OF THE NW1/4 OF SECTION 3, T7N, R67W;
- 15) S00°13'13"W 2725.50' TO A POINT ON THE SOUTH LINE OF THE SW1/4 OF SAID SECTION 3;
- 16) S00°12'20"E 2653.22' TO A POINT OF THE SOUTH LINE OF THE NW1/4 OF SECTION 10, T7N, R67W;

THENCE N00°26'05"W 2653.24' TO A POINT ON THE NORTH LINE OF THE NW1/4 OF SAID SECTION 10; THENCE N00°03'02"E 2725.63' TO A POINT ON THE NORTH LINE OF THE SW1/4 OF SAID SECTION 3; THENCE N00°06'11"W 1822.47'; THENCE N81°13'24"W 5.04' TO A POINT ON THE WEST LINE OF THE NW1/4 OF SAID SECTION 3; THENCE IN A NORTHWESTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 688.89', HAVING A CHORD BEARING OF N66°06'02"W AND A CHORD DISTANCE OF 354.58', HAVING A CENTRAL ANGLE OF 29°49'35" AND AN ARC LENGTH OF 358.61'; THENCE N51°11'14"W 275.38'; THENCE IN A NORTHWESTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 316.88', HAVING A CHORD BEARING OF N21°37'39"W AND A CHORD DISTANCE OF 298.58', HAVING A CENTRAL ANGLE OF 56°12'50" AND AN ARC LENGTH OF 310.90'; THENCE N06°29'49"E 324.82' TO A POINT ON THE NORTH LINE OF LOT 1 OF SAID SECTION 4; THENCE N12°08'46"E 1124.19'; THENCE IN A NORTHEASTERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 795.01', HAVING A CHORD BEARING OF N26°21'10"E AND A CHORD DISTANCE OF 375.48', HAVING A CENTRAL ANGLE OF 27°19'06" AND AN ARC LENGTH OF 379.06'; THENCE IN A NORTHEASTERLY DIRECTION WITH A REVERSE TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 805.01', HAVING A CHORD BEARING OF N22°48'16"E AND A CHORD DISTANCE OF 476.29', HAVING A CENTRAL ANGLE OF 34°24'52" AND AN ARC LENGTH OF 483.53' TO A POINT ON THE EAST LINE OF THE SE1/4 OF SAID SECTION 33; THENCE IN A NORTHERLY DIRECTION WITH A COMPOUND TANGENT CURVE

TURNING TO THE LEFT WITH A RADIUS OF 805.01', HAVING A CHORD BEARING OF N02°31'57"E AND A CHORD DISTANCE OF 86.08', HAVING A CENTRAL ANGLE OF 06°07'46" AND AN ARC LENGTH OF 86.12'; THENCE N00°47'51"W 694.75' TO A POINT ON THE NORTH LINE OF THE SW1/4 OF SAID SECTION 34; THENCE N00°06'35"W 2635.03' TO A POINT ON THE NORTH LINE OF THE NW1/4 OF SAID SECTION 34; THENCE N89°49'13"W 5.00' ALONG THE NORTH LINE OF THE NW1/4 OF SAID SECTION 34 TO THE NORTHWEST CORNER OF SAID SECTION 34; THENCE S89°01'47"W 5.00' ALONG THE NORTH LINE OF THE NE1/4 OF SAID SECTION 33; THENCE S00°06'35"E 2635.05' TO A POINT ON THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 33; THENCE S00°47'51"E 687.38'; THENCE IN A SOUTHERLY DIRECTION WITH A NON-TANGENT CURVE TURNING TO THE RIGHT WITH A RADIUS OF 795.01', HAVING A CHORD BEARING OF S19°28'26"W AND A CHORD DISTANCE OF 557.83', HAVING A CENTRAL ANGLE OF 41°04'34" AND AN ARC LENGTH OF 569.95'; THENCE IN A SOUTHWESTERLY DIRECTION WITH A REVERSE TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 805.01', HAVING A CHORD BEARING OF S26°21'03"W AND A CHORD DISTANCE OF 380.24', HAVING A CENTRAL ANGLE OF 27°19'18" AND AN ARC LENGTH OF 383.87'; THENCE S12°08'28"W 1126.72' TO A POINT ON THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 33; THENCE S06°28'46"W 323.32'; THENCE IN A SOUTHEASTERLY DIRECTION WITH A TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 326.88', HAVING A CHORD BEARING OF S21°38'20"E AND A CHORD DISTANCE OF 308.11', HAVING A CENTRAL ANGLE OF 56°14'11" AND AN ARC LENGTH OF 320.84'; THENCE S51°11'14"E 275.50'; THENCE IN A SOUTHEASTERLY DIRECTION WITH A TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 698.89', HAVING A CHORD BEARING OF S65°57'24"E AND A CHORD DISTANCE OF 356.34', HAVING A CENTRAL ANGLE OF 29°32'20" AND AN ARC LENGTH OF 360.31'; THENCE S00°17'43"W 1814.03' TO A POINT ON THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 4; THENCE S00°23'24"W 2725.66' TO A POINT ON THE SOUTH LINE OF THE SE1/4 OF SAID SECTION 4; THENCE S00°01'25"W 2653.23' TO THE TRUE POINT OF BEGINNING.

CONTAINS 1979.298 ACRES MORE OR LESS.

BASIS OF BEARINGS: EAST LINE OF THE SE1/4 OF SECTION 9, T7N, R67W BEARS N00°16'01"W AS SHOWN HEREON (GPS OBSERVATION).

CONTIGUITY = 27,765'

PERIMETER = 132,573'

RATIO 1:4.8

2022 BHS Solar Annexation Property

2022 BHS SOLAR ANNEXATION BOUNDARY 1 (Landowner: Terry Ramsey and Jennifer Berg-Ramsey)

COMMENCING AT THE NORTHEAST CORNER OF SECTION 2, TOWNSHIP 7 NORTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, FROM WHICH THE NORTH 1/4 CORNER OF SAID SECTION 2 BEARS N89°11'40"W; THENCE N89°11'40"W 30.01' ALONG THE NORTH LINE OF LOT 1 OF SAID SECTION 2 TO A POINT ON THE WEST RIGHT-OF-WAY OF COUNTY ROAD 23 AND THE **TRUE POINT OF BEGINNING**.

THENCE S12°20'33"W 750.25'; THENCE N10°43'53"W 750.25' TO A POINT ON THE NORTH LINE OF LOT 1 OF SAID SECTION 2; THENCE S89°11'40"E 300.10' ALONG THE NORTH LINE OF LOT 1 OF SAID SECTION 2 TO THE **TRUE POINT OF BEGINNING**.

CONTAINS 2.532 ACRES MORE OR LESS.

BASIS OF BEARINGS: NORTH LINE OF THE NE1/4 OF SECTION 2, T7N, R67W BEARS N89°11'40"W.

2022 BHS SOLAR ANNEXATION BOUNDARY 2A (Landowner: Terry Ramsey and Jennifer Berg-Ramsey)

COMMENCING AT THE NORTHEAST CORNER OF SECTION 2, TOWNSHIP 7 NORTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, FROM WHICH THE NORTH 1/4 CORNER OF SAID SECTION 2 BEARS N89°11'40"W; THENCE N89°11'40"W 30.01' ALONG THE NORTH LINE OF LOT 1 OF SAID SECTION 2 TO A POINT ON THE WEST RIGHT-OF-WAY OF COUNTY ROAD 23 AND THE **TRUE POINT OF BEGINNING**.

THENCE S00°39'07"E 2623.05' ALONG THE WEST RIGHT-OF-WAY OF COUNTY ROAD 23 PARALLEL AND 30' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 2 TO A POINT ON THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 2; THENCE S89°45'45"W 300.01' ALONG THE SOUTH LINE OF THE NE1/4 OF SAID SECTION 2; THENCE N00°39'07"W 2328.51' PARALLEL AND 330' WEST OF THE EAST LINE OF THE NE1/4 OF SAID SECTION 2; THENCE N89°11'40"W 300.00'; THENCE N00°39'07"W 300.00' TO A POINT ON THE NORTH LINE OF LOT 1 OF SAID SECTION 2; THENCE S89°11'40"E 300.00' ALONG THE NORTH LINE OF LOT 1 OF SAID SECTION 2; THENCE S10°43'53"E 750.25'; THENCE N12°20'33"E 750.25' TO A POINT ON THE NORTH LINE OF LOT 1 OF SAID SECTION 2 AND THE **TRUE POINT OF BEGINNING**.

CONTAINS 17.617 ACRES MORE OR LESS.

BASIS OF BEARINGS: NORTH LINE OF THE NE1/4 OF SECTION 2, T7N, R67W BEARS N89°11'40"W.

TOGETHER WITH

2022 BHS SOLAR ANNEXATION BOUNDARY 2B (Landowner: SPABS LLC)

COMMENCING AT THE NORTHWEST CORNER OF SECTION 26, TOWNSHIP 8 NORTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF WELD, STATE OF COLORADO, FROM WHICH THE WEST 1/4 CORNER OF SAID SECTION 26 BEARS S00°50'14"W; THENCE S00°50'14"W 30.00' ALONG THE WEST LINE OF THE NW1/4 OF SAID SECTION 26 TO A POINT ON THE SOUTH RIGHT-OF-WAY OF COUNTY ROAD 90 AND THE **TRUE POINT OF BEGINNING**.

THENCE S89°55'28"E 2641.07' ALONG THE SOUTH RIGHT-OF-WAY OF COUNTY ROAD 90 PARALLEL AND 30' SOUTH OF THE NORTH LINE OF THE NW1/4 OF SAID SECTION 26 TO A POINT ON THE EAST LINE OF THE NW1/4 OF SAID SECTION 26; THENCE S00°56'44"W 2624.09' ALONG THE EAST LINE OF THE NW1/4 OF SAID SECTION 26 TO THE C 1/4 CORNER OF SAID SECTION 26; THENCE S89°54'34"W

2636.23' ALONG THE SOUTH LINE OF THE NW 1/4 OF SAID SECTION 26 TO THE WEST 1/4 CORNER OF SAID SECTION 26; THENCE N00°50'14"E 2631.66' ALONG THE WEST LINE OF THE NW1/4 OF SAID SECTION 26 TO THE **TRUE POINT OF BEGINNING**.

CONTAINS 159.164 ACRES MORE OR LESS.

BASIS OF BEARINGS: WEST LINE OF THE NW1/4 OF SECTION 26, T8N, R67W BEARS S00°50'14"W.

2022 BHS SOLAR ANNEXATION BOUNDARIES 2A AND 2B TOGETHER CONTAIN 176.781 ACRES MORE OR LESS.

A close-up, angled view of several rows of dark blue solar panels with silver grid lines, set against a bright blue background.

BHS SOLAR SITE PLAN

Planning Commission Meeting
February 15, 2023

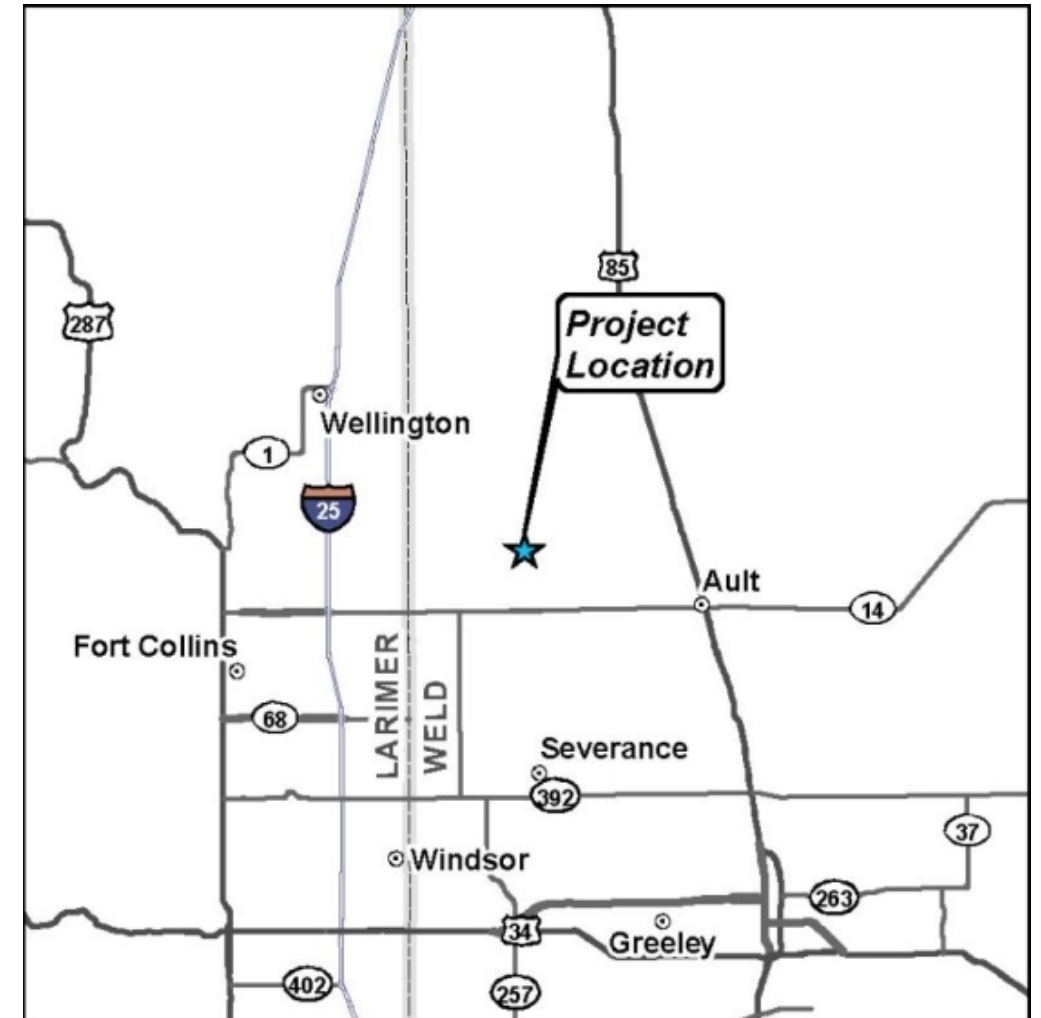
Introductions

Presenter

- Stephanie Lauer, Permitting Manager, BHS Solar, LLC/174 Power Global

Agenda

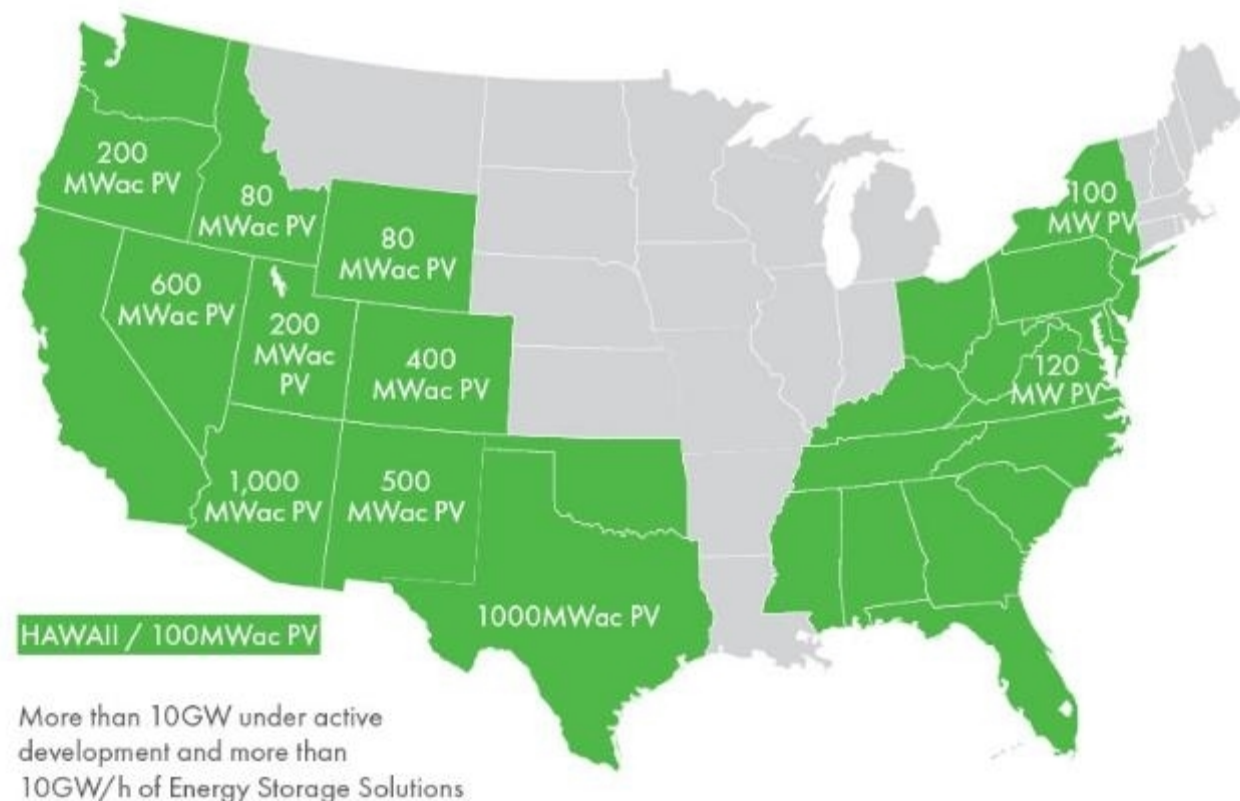
- Introductions
- Site Plan Overview
- Public Outreach Efforts
- Questions and Comments



About 174 Power Global

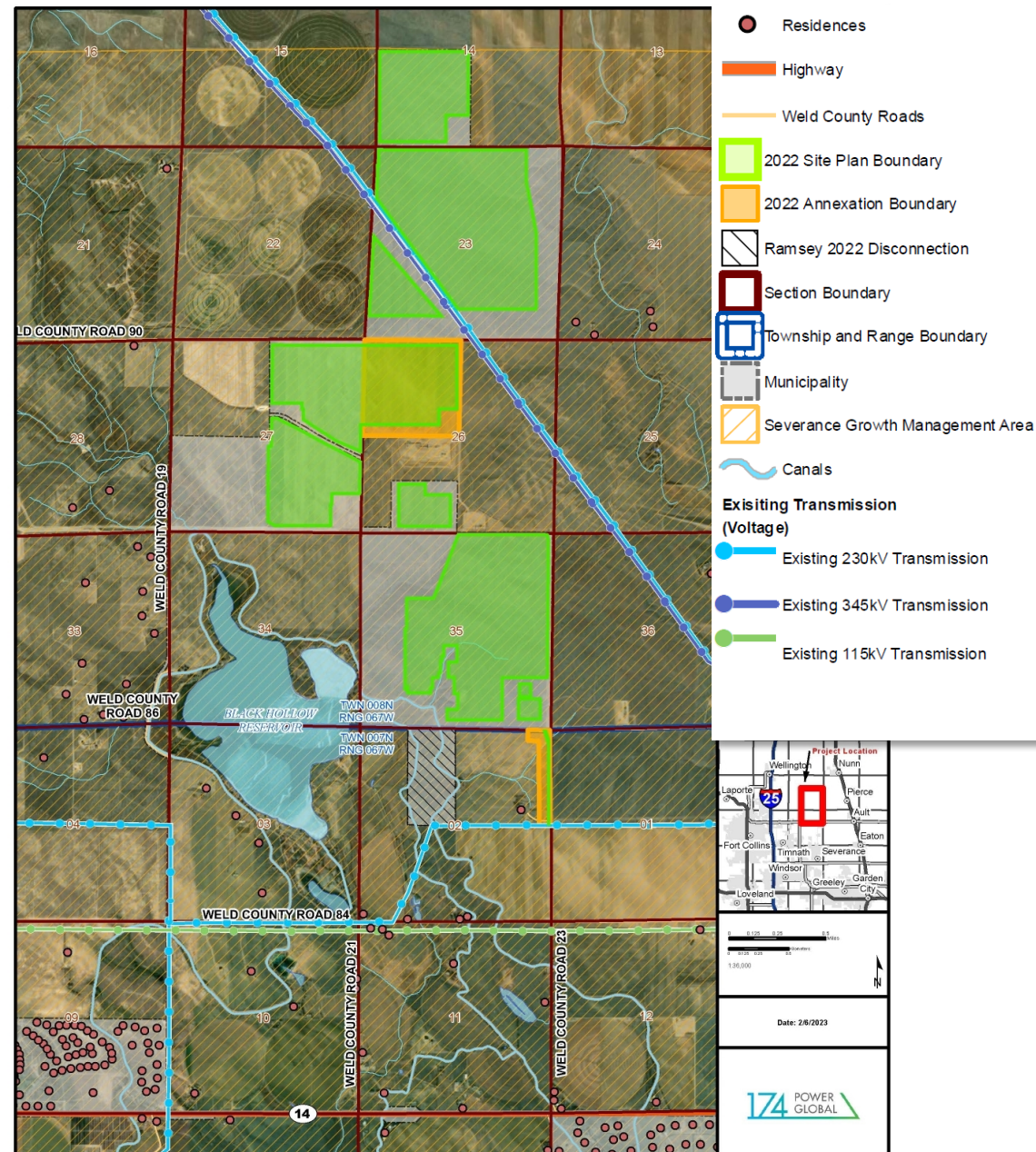
- BHS Solar, LLC, a subsidiary of 174 Power Global
- Among the world's top solar energy solutions providers
- Developer, owner and operator with a portfolio of approximately 10 gigawatts (GW) of solar PV projects
- 7 gigawatt hours (GWh) of battery energy storage systems and 1.5+ GW of projects that are currently in operation
- Supported by Colorado-based Outshine Energy, Io Development, and Logan Simpson

Our operations

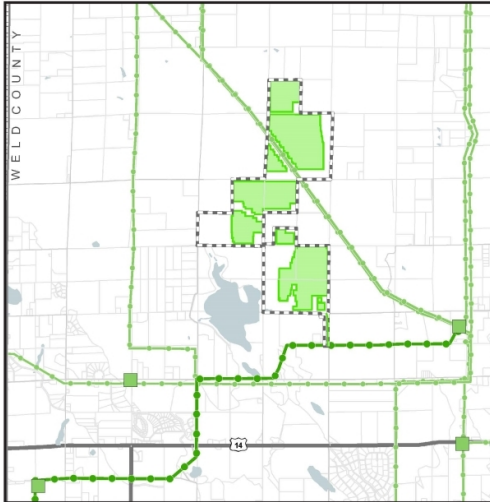


Actions

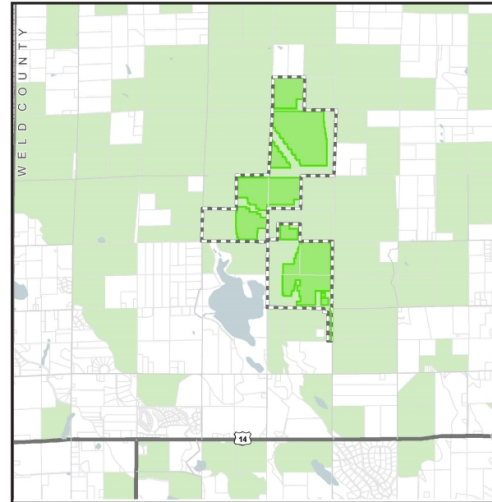
- 2021 – the Town annexed the properties in grey (2,067 acres) within its Growth Management Area.
- 2022 – the Town annexed the remaining parcels (179 acres) in orange.
- 2023 – the 250MWac Site Plan Application focuses on the Site Plan Boundary in green, which will be constructed in two phases.



Siting Considerations



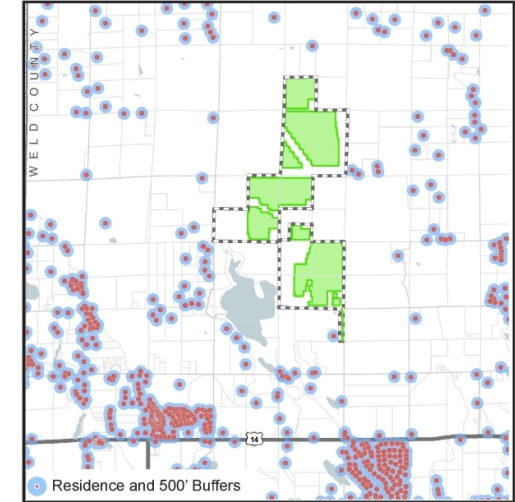
Transmission and Substations



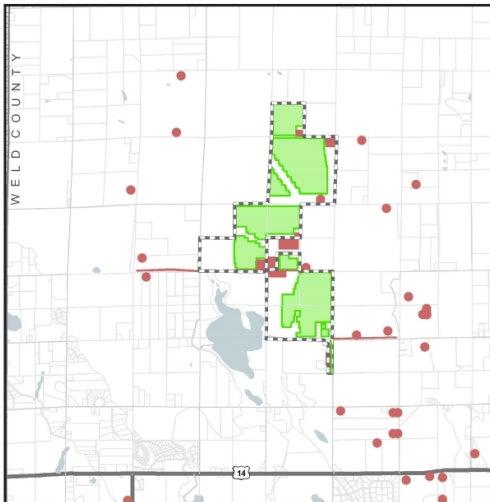
Parcels > 150 Acres



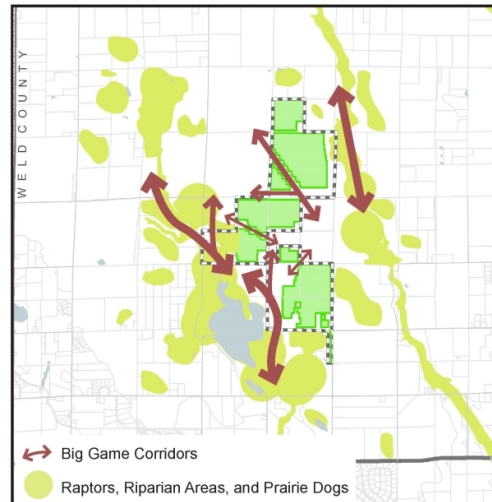
Agriculture & Rangeland



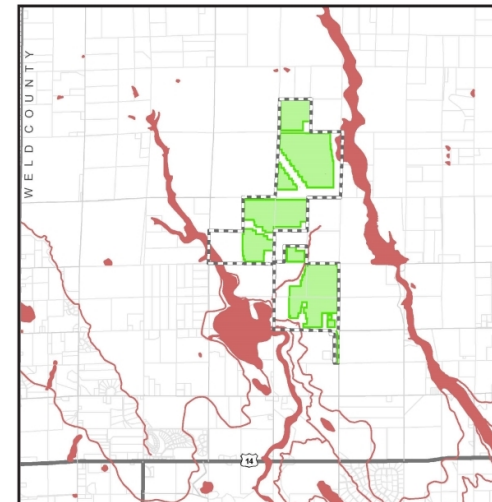
Residential



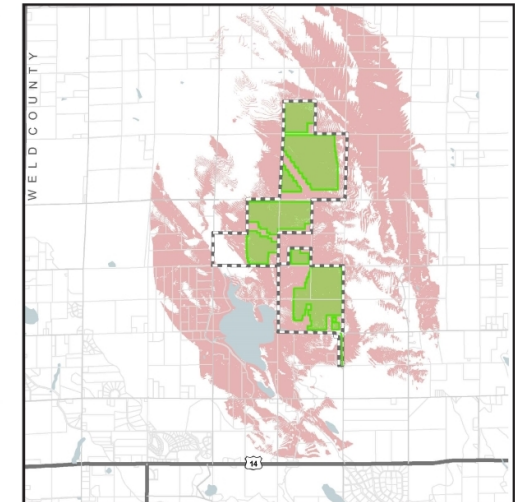
Oil & Gas Infrastructure / Agreements



Wildlife



Wetlands, Canals, and Floodplain



Solar Facility Viewshed

Alignment with Town Goals

- Consistent with Rural Residential-Agriculture Zoning and Town's planned growth
- Annexed lands without solar facilities remain in ag use
 - PV solar is compatible with adjacent agricultural uses
 - Construction methods meet Town noise ordinance
 - Operations are quiet and clean, keeping a low profile during and after construction
- Not require Town water, sewer, or stormwater
 - Portable water holding tank would serve the O&M building
 - Water will be delivered from a local vendor as required to meet onsite usage
 - Generates revenue for the Town and School Districts without adding to school overcrowding
- Once decommissioned, owners can return to agricultural use or transition to longer-term developed uses

Town Benefits

- Greater Town influence over the project
- Helps achieve long-term growth planning envisioned by Comprehensive Plan
- Helps to fulfills Economic Development Plan
- Increases tax base (mill levy) without adding burdens to Town water, infrastructure, services or schools
- Increases local electrical reliability

Severance Tax Revenue Assumptions for 250MWac Project	
One-time Use Tax	\$3,626,400
One-time Contribution for Road Grader and Garage	\$400,000
Annual Property Tax	\$153,761
Annual Project Contribution for Maintenance of Annexed County Roads	\$35,000

Economic Benefits

The Economic and Fiscal Impacts of the BHS Solar Project Report was provided to the Town

Construction Benefits

- Average of **320 full-time employees**
- **\$16.5 million** in total direct and indirect spending during construction

Operations Benefits

- **\$9.1 million** in total direct and indirect spending annually
- **10 employees**
- Direct and indirect benefits include payments to school and fire districts, participating landowners, workforce, and local supplies and services
- In total, **\$838,000** property tax revenue each year to the schools, libraries, conservation district, Town, and other special districts for 40+ years (longer if the term is extended), of which **\$417,000** would go to schools annually without adding students

Other Agreements and Permits

The following agreements are complete or in progress:

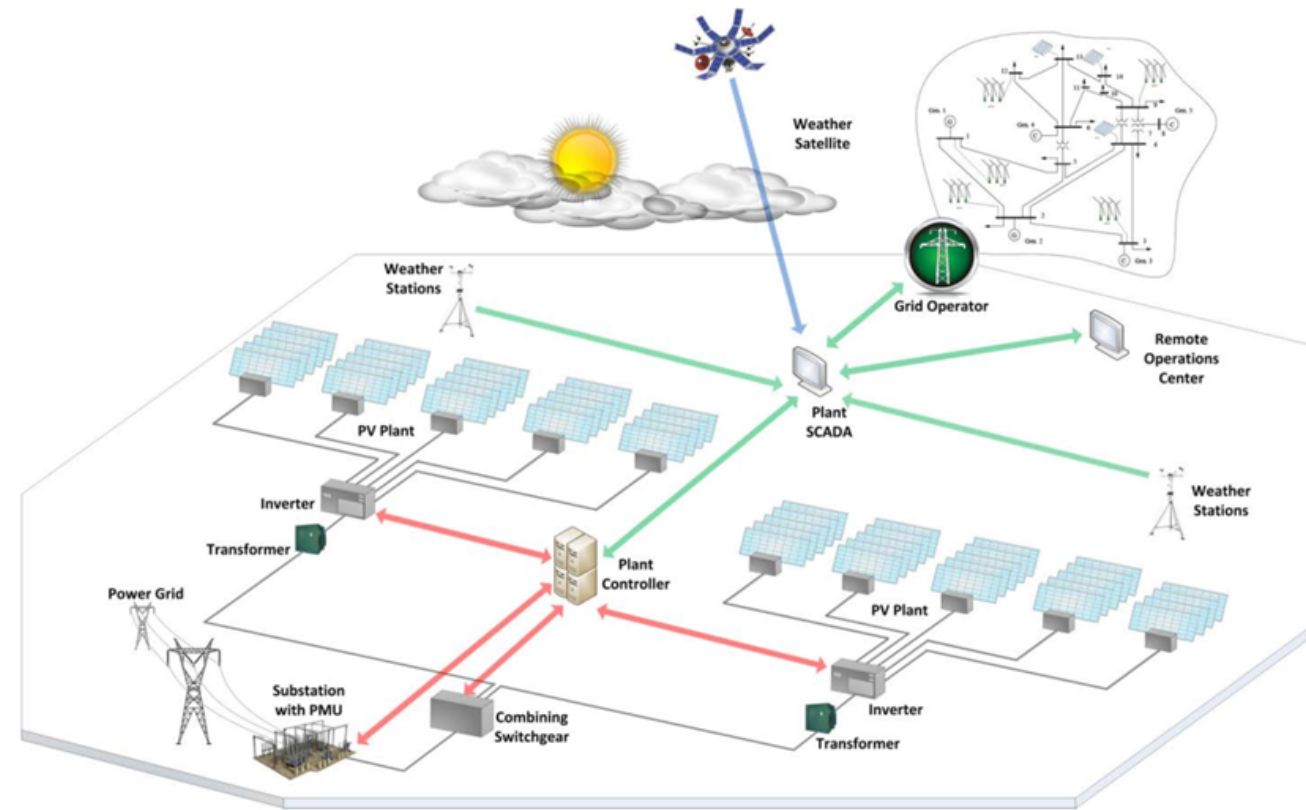
- Development Agreement with Town of Severance
- Road Maintenance Agreement with Weld County
- Inclusion/exclusion petitions with three affected Fire Protection Districts



Project Components

The Project includes:

- Bifacial PV modules and arrays
- Single axis tracker system
- Low voltage collection system and Inverters
- Medium voltage transformers and collection system
- Project substation, switchyard, and connection to the transmission grid
- Relaying and telecommunications equipment (SCADA)
- Battery Energy Storage System (BESS)



Project Components



SOLAR PANELS

convert sunlight into electricity.

RACKING SYSTEM

adjusts angle of the panels to track the sun.



INVERTERS

convert direct current (DC) power to alternating current (AC) power.

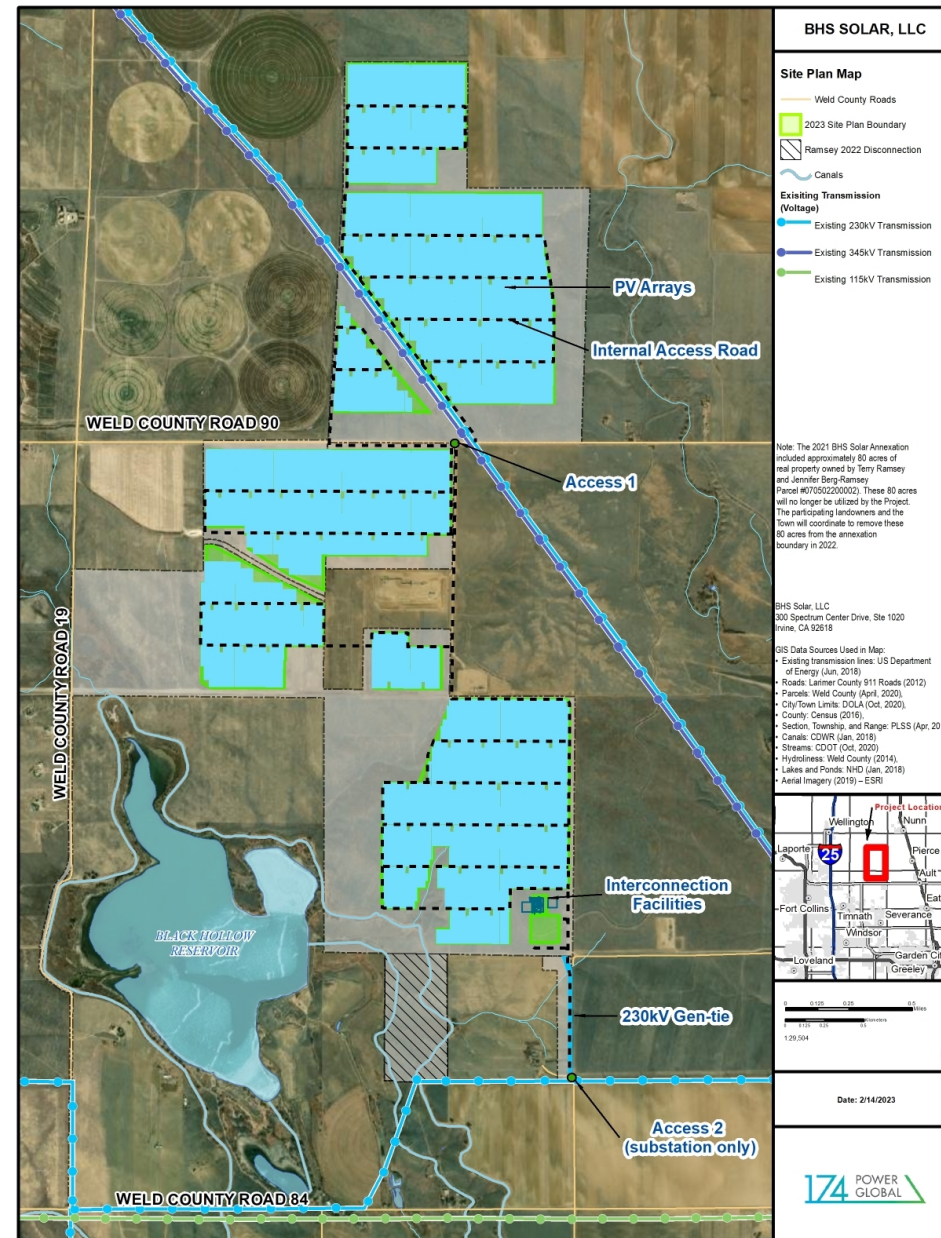


SUBSTATIONS

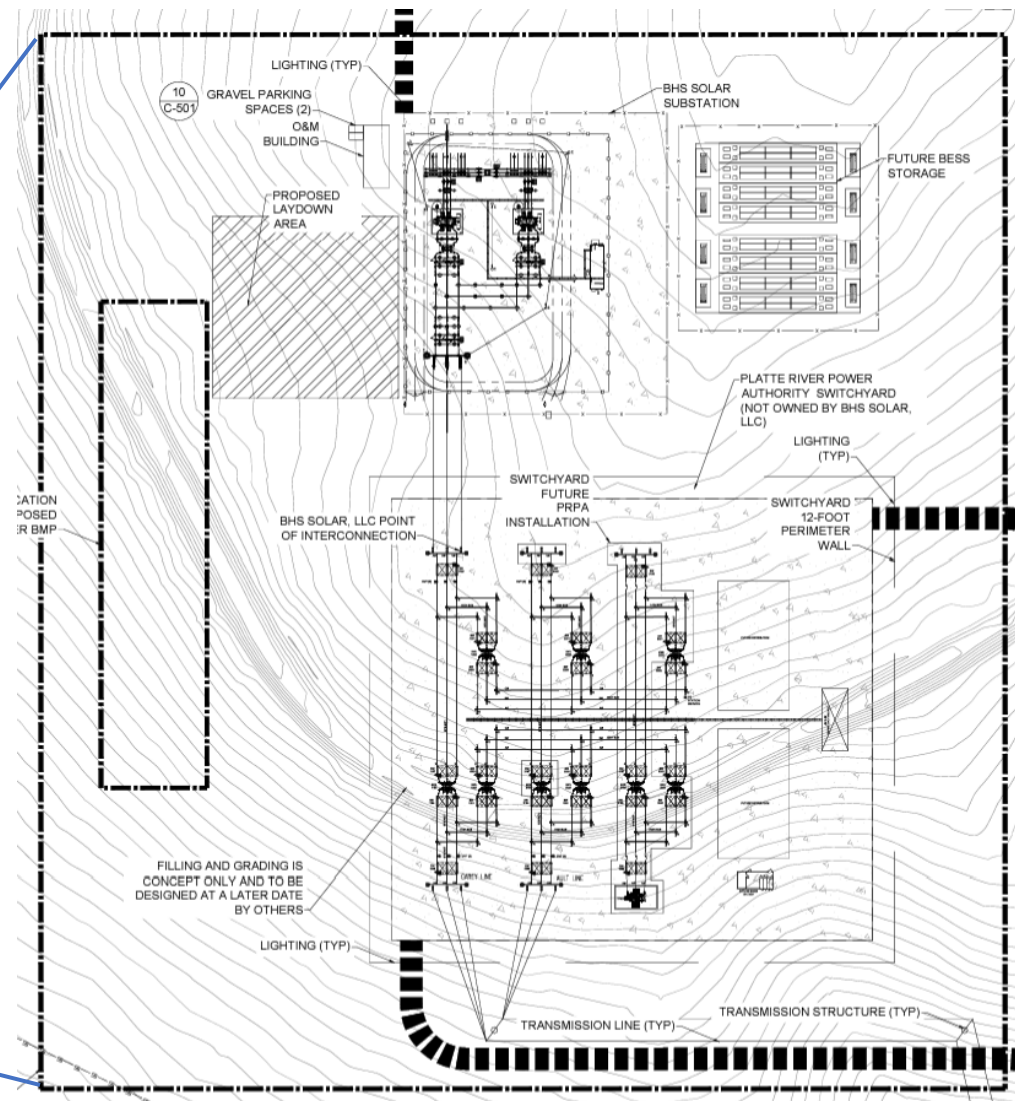
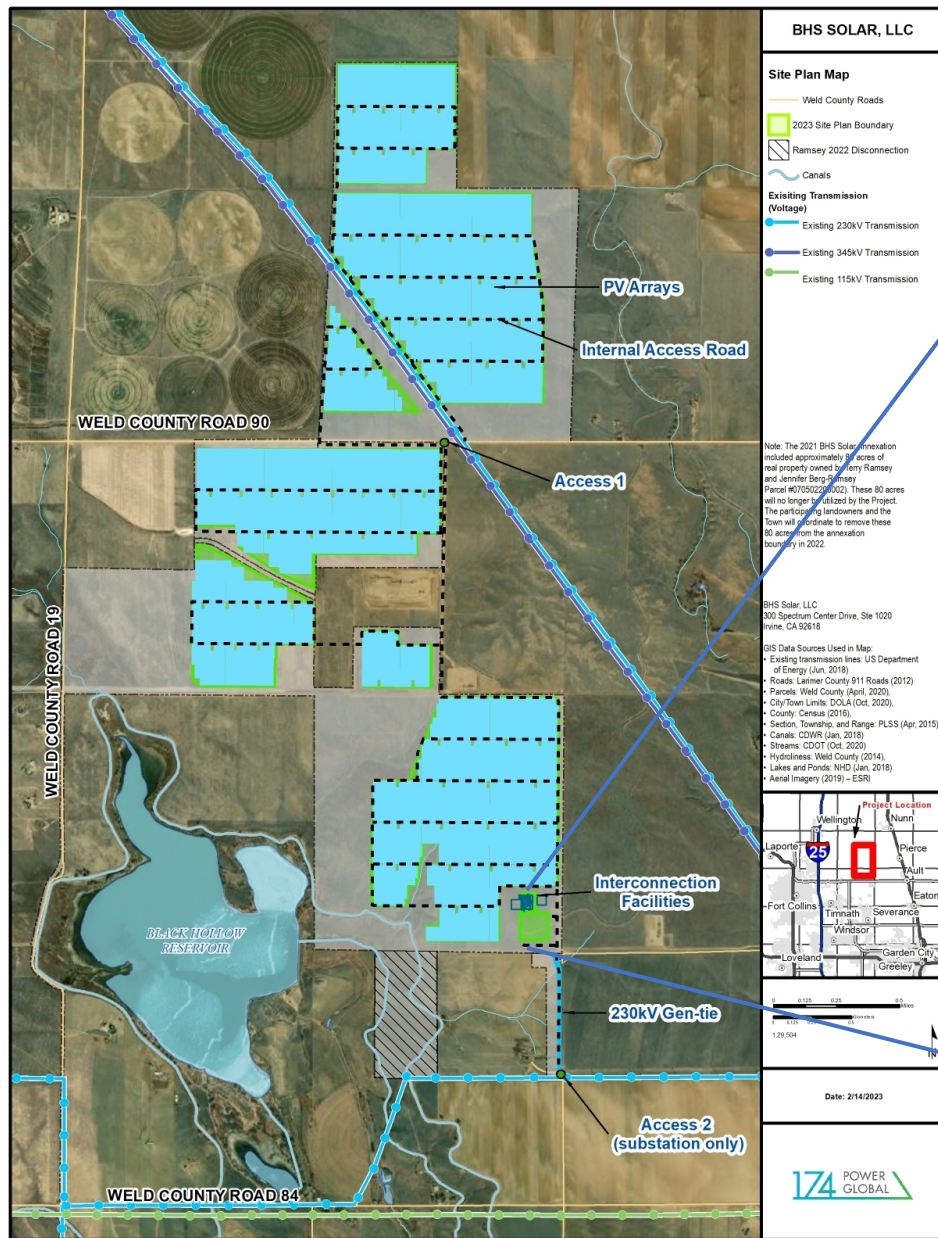
link between the solar power plant to the electric grid



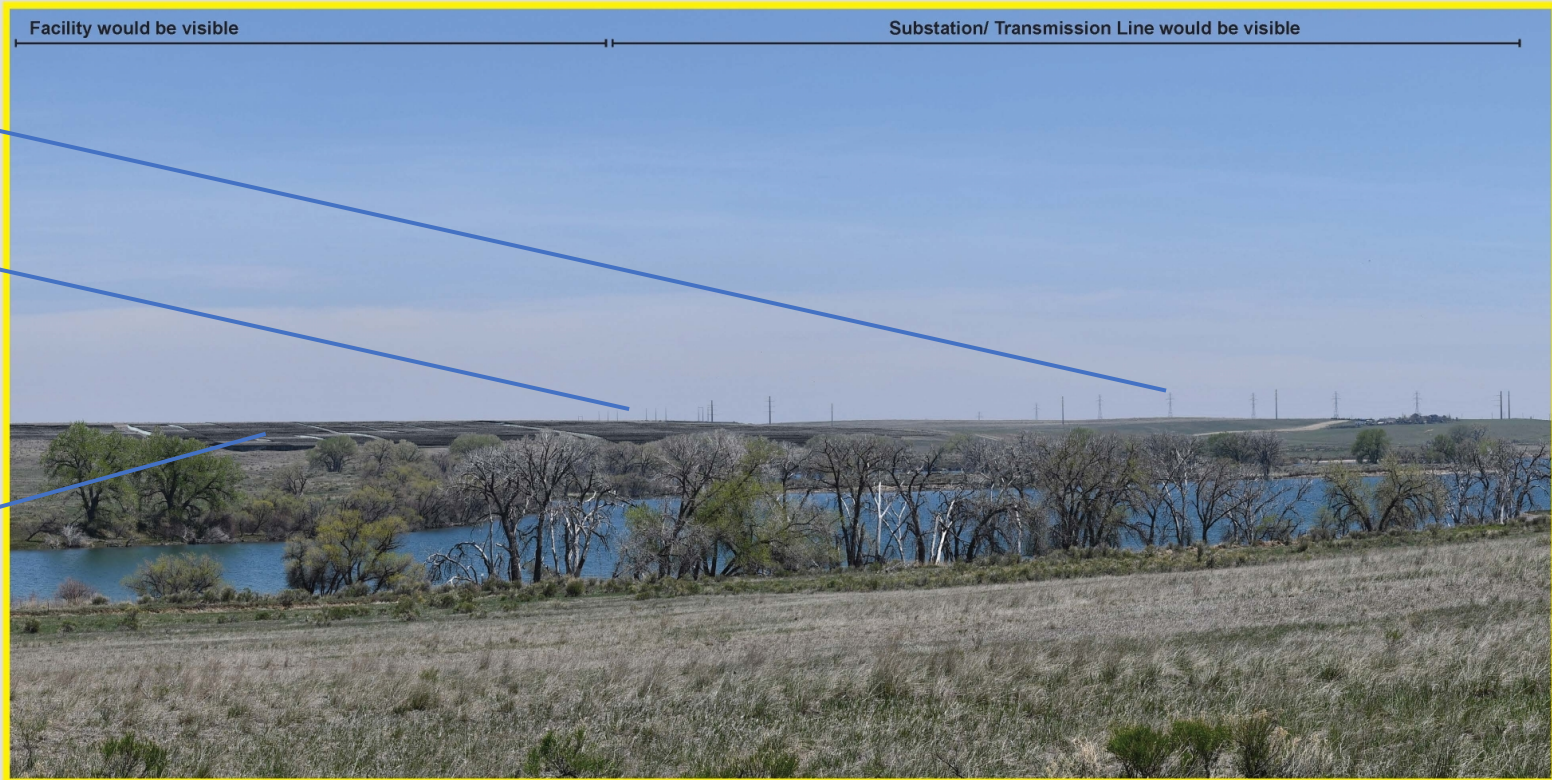
Project Components



Interconnection Components



Simulation - Detail



Transmission Interconnection - ½ mile

Substation - most substation equipment would be less than 30 feet tall. BESS would be 10 feet tall

Panels - Grey-blue in color, non-reflective surface, stand 12 feet tall at full tilt

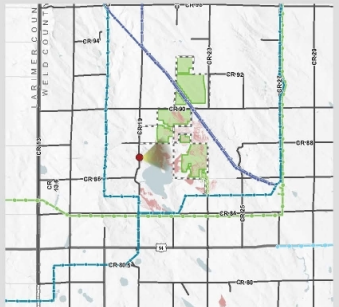
Photograph Information

Time: 12:23 pm
Date: 5/18/2020
Weather: Clear
View Direction: Northeast
Latitude: 40.621316
Longitude: -104.8886947
Camera: Nikon D7500
Lens: 50mm
Nearest Panel: 1.2 miles
Solar Site Plan Version Date: 4/8/2021

True to Life Scale

The image at left is intended to be viewed 38 inches from viewer's eyes when printed on 11x17 inch paper. The photograph below has not been cropped to show a wide angle of view.

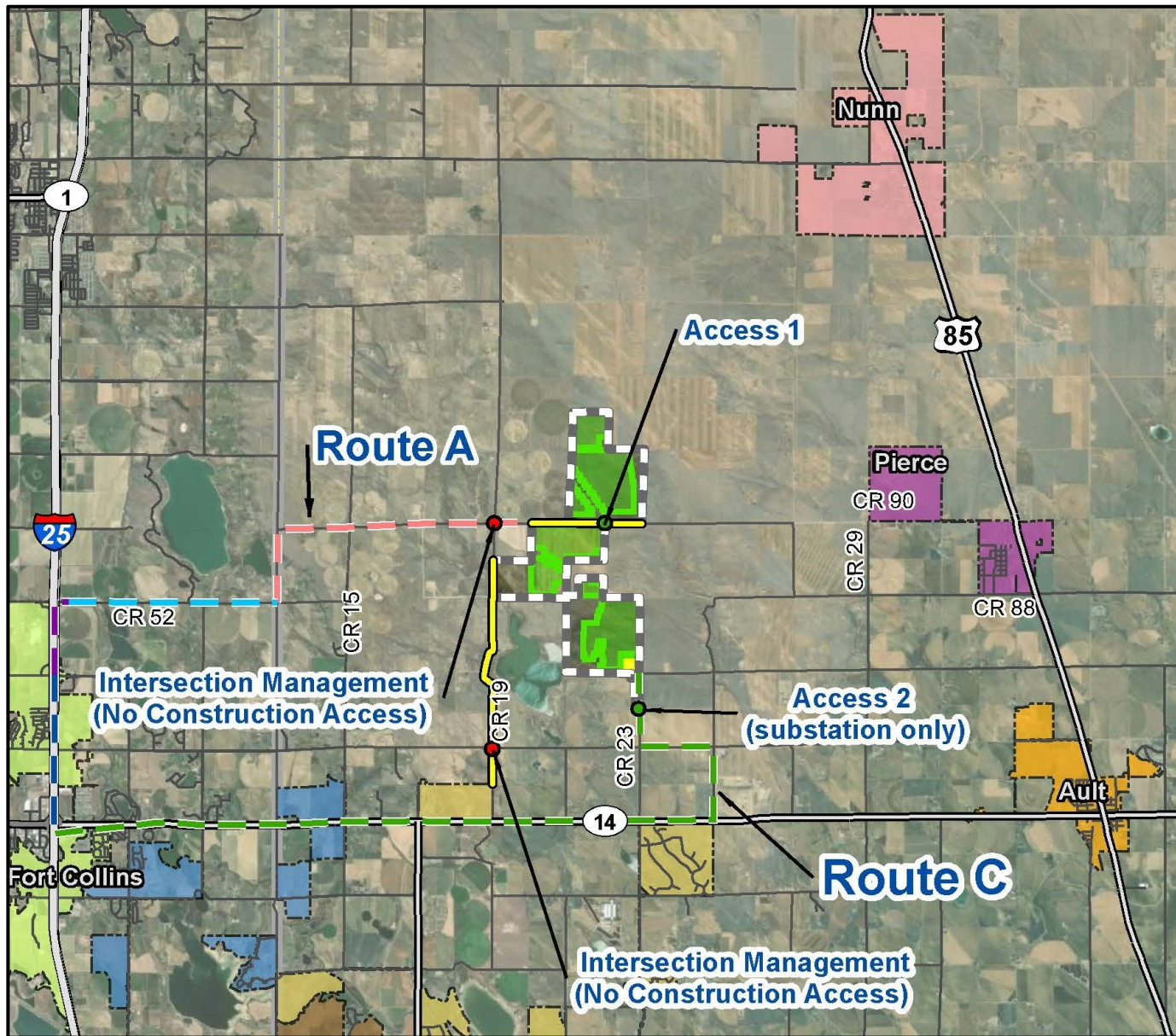
Visibility From KOP



Visible area not accounting for vegetation

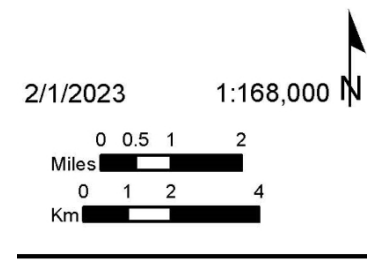
Simulated Conditions - Panorama





- Town Maintained Road (BHS Annexation)
- Route A - Fort Collins (Haul Route Max. Vehicular Weight <85,000lbs)
- Route A - Larimer County (Haul Route Max. Vehicular Weight <85,000lbs)
- Route A - Weld County (Haul Route Max. Vehicular Weight <85,000lbs)
- Route C - Weld County (Substation Haul Route)
- Route A and Route B - CDOT (Haul Route Max. Vehicular Weight <85,000lbs)

- Intersection Management Point
 - Site Access
 - Road
 - = Highway
 - Proposed
 - Substation
 - Solar Improved
- Town**
- Ault
 - Eaton
 - Greeley
 - Nunn
 - Pierce
 - Severance
 - Windsor
 - Fort Collins



250 MW_{AC}
Solar Project

Project Timeline



First Phase (150MWac)

- Construction Permits and Begin Construction: Q4 2023
- Commercial Date of Operation: Q4 2024

Second Phase (100MWac)

- Initial design work completed and contracting efforts started

Decommissioning

- The Development Agreement between the Town and BHS Solar, LLC sets forth the requirements of the decommissioning plan, security and obligations.
- The Project site will be restored at the end of the Project's useful life and the land restoration costs are the responsibility of BHS Solar, LLC

Front Porch Neighbor Meetings since January 2020

In-Person Neighbor Meeting - May 25, 2021

Virtual Public Meeting - May 27, 2021

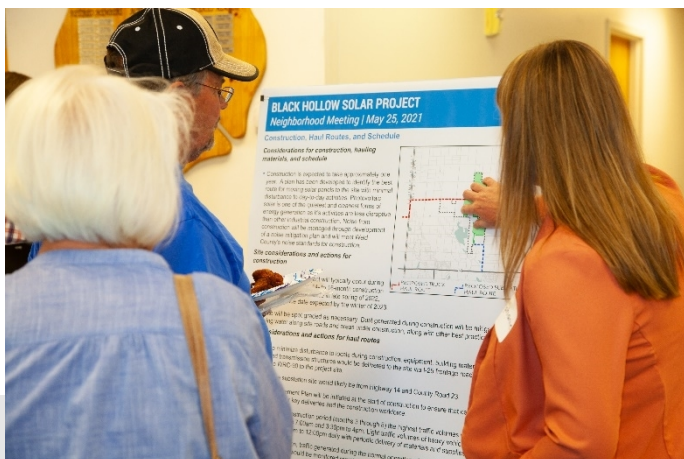
Ault Fall Festival + Severance Days - Aug 6-8, 2021

Town Neighbor Meeting - October 7, 2021

Severance Summer Concert Series Sponsorship - Summer 2022

Town Neighbor Meeting – October 10, 2022 – no attendees

Proactive Engagement with Referral Agencies



Coloradoan.

NEWS

Platte River Power Authority shares plans for its biggest-ever solar project

Jacy Mammaduke Fort Collins Coloradoan
Published 3:08 p.m. MT May 4, 2021

<https://blackhollow.174powerglobal.com>

Questions & Comments

<https://blackhollow.174powerglobal.com>

BlackHollowSolar@174powerglobal.com

Thank you

