

#### CITY OF WHEELING PLANNING COMMISSION

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#### **STAFF REPORT**

PLANNING COMMISSION HEARING DATE: Monday, November 14, 2022

**PROPERTY LOCATION**: 842 National Road [see Exhibit 1]

Parcels 186, 195, and 196 on Tax Map W39 of Tax District

10

**PROPERTY ZONING CLASSIFICATION**: C-2 General Commercial [see Exhibit 2]

NATURE OF REQUEST: Preliminary and Final Site Plan Approval

APPLICANT: Kellbenn, Inc.

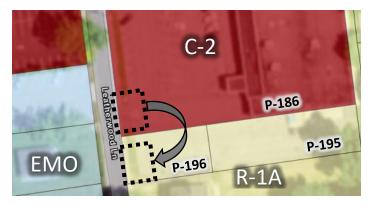
#### **BACKGROUND**

Kellbenn, Inc. seeks simultaneous Preliminary and Final Site Plan approval for the redevelopment of a portion of subject commercial site. The proposed development plan is summarized as follows:

- The development site is composed of Parcel 186, which contains the two (2) existing commercial buildings, and Parcels 195 and 196, which serves as a driveway access from Leatherwood Lane to and the loading berth for the CVS building, unorganized parking, and solid waste storage at the rear of the CVS building.
- The existing CVS building on the east side of the development site will remain. However, the four
   (4) existing driveway accesses from National Road to the site will be combined into one (1)
   driveway access thereby promoting best access management practices within the arterial
   commercial corridor. The developer has prepared and submitted a traffic impact study to and is
   working with West Virginia Division of Highways to secure a Right-of-Way Entry Permit (MM-109)
   for the proposed consolidated driveway access.
- The parking lot layout immediately in front of the CVS building will be reorganized to improve the efficiency and safety of internal vehicular movements.
- The former A.C. Buffet Restaurant building on the west side of the development site will be razed and removed and replaced by an approximate 4,319 square foot two-tenant commercial building. Starbucks is proposed for the larger 2,510 square foot tenant space, which will include a drive-through facility. The smaller 1,809 tenant space will be occupied by an undetermined retail establishment.

#### Page 1 of 5

- The applicant's estimated project construction schedule is to begin construction in March 2023 and complete in August 2023 with opening date projected September 2023.
- The proposed land use classifications of "restaurant without lounge" and "retail business" are permitted in the C-2 District by-right.
- Currently, there are two (2) driveway accesses from the site to Leatherwood Lane. The northern most driveway access will be removed, and the developer seeks to relocate the southernmost driveway access further south from Parcel 186 to Parcel 196. The image to the right generally illustrates the proposed relocation and current zoning classifications of said parcels.



• Parcels 195 and 196 are currently zoned R-1A (Low Density). Article 1355.03(d) of the City's Planning & Zoning Code provides that, "...No access drive or driveway shall be located in any residential zone to provide access to uses other than those permitted in such zone." The developer has submitted a Zoning Map Amendment Petition seeking reclassification of said parcels from R-1A to C-2 General Commercial. Reclassifying said parcels will eliminate the existing nonconforming nonresidential use of the lots in the R-1A District as well as permit the driveway access relocation as desired by the applicant. Site Plan approval, if granted, must be contingent upon City Council's approval to reclassify at least Parcels 195 and 196 from R-1A to C-2.

#### **PLANNING COMMISSION REVIEW**

Article 1373 of the City's Planning and Zoning Code empowers the Planning Commission to review and approve, approve with modifications/conditions, or disapprove site plans for certain development enumerated under Article 1373.03, the following of which pertain to the applicant's Site Plan.

- Article 1373.03(a)(4) Any new structure or addition in a nonresidential district if the lot abuts a residential district.
- Article 1373.03(b)(4) Any new construction or additions that is greater than 4,000 square feet in floor area in the C-2 District.

As provided in Article 1373.05(a) and Article 1373.06(c), City Planning Staff conducted pre-submission and sketch plan conferences with the applicant to identify and explore Planning and Zoning Code compliance and site plan improvements, which are reflected in the preliminary and final site plan development documents submitted by the applicant and included herein under Exhibit 4.

Except for the location, size, color, and illumination of proposed signs, City Planning Staff certifies the applicant has submitted site and development plans meeting all the specific applicable submission requirements.

To reduce design burden at this stage of the development application process and to promote more efficient development review and approval procedures, staff advised the applicant that signage plan

Site Plan Approval Kellbenn, Inc.

submission and review can and should be conducted at the time of building permit application for same, once site development entitlements are obtained (zoning map amendment, site plan, and site development related variances). Accordingly, Staff respectfully requests the Planning Commission to waive submission of the Signage Plan as a part of its Site Plan review and approval as permitted under Article 1373.06(e)(1) and delegate review and approval of signage to City Administration and, if the case may be, the Board of Zoning Appeals (BZA) should variance relief be necessary.

City Planning Staff advises the Planning Commission that the applicant's simultaneous submission of the Preliminary and Final Site Plan, as provided under Article 1373.05(c), and the Planning Commission's simultaneous review and determination of same can and should be acted upon accordingly.

#### **ANALYSIS**

Article 1373.07 of the City's Planning and Zoning Code provides the 18 General Standards as Basis for Review that the Planning Commission is obligated to consider in its review of Site Plan applications. It should be noted that the Planning Commission is not permitted to specify or favor any particular architectural style or design or assist in the design of any of the buildings submitted for site plan approval. Participation by the Planning Commission is restricted to a reasonable, professional review, and, except as otherwise provided under the 18 General Standards, full responsibility for design is retained by the applicant.

Exhibit 3 of this report provides Staff plans review observations under each of the 18 General Standards and is provided as a resource for the Planning Commission in fulfilling its obligation to either approve, approve with modifications/conditions, or disapprove the applicant's Site Plan.

Based on Staff plans review, the following development entitlement approvals/actions are required for the proposed Site Plan:

- Zoning Map Amendment to at least reclassify Parcels 195 and 196 of Tax Map W39 from R-1A to C-2 to (1) eliminate the existing nonconforming nonresidential use of the residentially zoned parcels; and (2) permit the proposed relocation of the southernmost driveway access on Leatherwood Lane to be relocated further south from Parcel 186 to Parcel 196.
- <u>Site Plan</u> for which the Planning Commission is presently considering.
- <u>Lot Consolidation</u> to merge Parcels 186, 195, and 196 under single ownership that compose the subject development site into one (1) parcel for planning and zoning purposes by recording notations placed on the recorded deed to each lot as a covenant running with the land that the lots may not be not be considered to be a separate parcel of real estate for land use, development, conveyance, or transfer of ownership, without having first obtained the expressed approval of the Wheeling City Planning Commission.
- <u>Variance Relief</u> from the following interior parking area landscaping requirements, which are included on the BZA's November 17, 2022 agenda:
  - Variance relief from Article 1355.05(a) to permit the planting of four (4) major deciduous shade trees rather than the requisite 18 new major deciduous shade trees and for the four (4) trees to be planted on the perimeter of the parking area rather than within the interior of the parking area as required; and,

 Variance relief from Article 1355.05(b) and Article 1373.07(d)(7) waiving the requirement to develop interior parking area raised planting islands.

#### STAFF RECOMMENDATION

City Planning Staff respectfully advises the Planning Commission to simultaneously grant Preliminary and Final approval of the developer's Site Plan application with the following conditions:

- 1. That zoning map amendment approval must be granted by City Council to at least reclassify Parcels 195 and 196 from R-1A (Low Density) to C-2 General Commercial.
- 2. That the Board of Zoning Appeals (BZA) must grant variance relief from the following interior parking area landscaping requirements:
  - a. Variance relief from Article 1355.05(a) to permit the planting of four (4) major deciduous shade trees rather than the requisite 18 new major deciduous shade trees and for the four (4) trees to be planted on the perimeter of the parking area rather than within the interior of the parking area as required; and,
  - b. Variance relief from Article 1355.05(b) and Article 1373.07(d)(7) waiving the requirement to develop interior parking area raised planting islands.
- 3. That, prior to the issuance of any development related permits, Parcels 186, 195, and 196 on Tax Map W39 under single ownership composing the subject development site must be consolidated into one (1) parcel for planning and zoning purposes by recording notations placed on the recorded deed to each subject lot as a covenant running with the land that said lots may not be considered to be a separate parcel of real estate for land use, development, conveyance, or transfer of ownership, without having first obtained the expressed approval of the Wheeling City Planning Commission.
- 4. That, prior to the issuance of any development related permits, the developer shall consult with the Wheeling Fire Department (WFD) and clearly demonstrate adequate driveway access ingress, internal site maneuvering, and driveway access egress, based on modeling of turning movements specific to the emergency apparatus WFD reasonably anticipates using when responding to the site. Further, the Planning Commission, in accordance with Article 1373.06(e)(2), hereby waives up to ten (10) percent of the minimum required parking should spaces be eliminated to accommodate WFD's reasonable requirements for site access and internal maneuvering.
- 5. That, unless related variance relief is granted by the Board of Zoning Appeals (BZA), plans submitted at the time of development permit application must include an opaque walled or fenced dumpster coral at least six (6) feet in height, which provides an opaque gate for solid waste and recycling hauler access and service, to create an effective screen as required under Article 1355.06(a) and Article 1355.06(d).
- 6. That the Planning Commission hereby waives the submission of the applicant's Signage Plan as a part of its Site Plan review and determination, as permitted under Article 1373.06(e)(1), and delegates review and approval of the applicant's Signage Plan to City Administration and, if the case may be, the Board of Zoning Appeals (BZA) should variance relief be necessary.

However, should the Planning Commission determine that additional information is necessary for further analysis and exploration, Staff respectfully advises the Planning Commission to refer the subject Site Plan Application to the commission's Zoning Subcommittee with instructions to the subcommittee, staff, and applicant on specific matters of additional information, clarification, etc. that are expected.

#### **ATTACHMENTS**

- Exhibit 1 Site Location
- Exhibit 2 Zoning Classification
- Exhibit 3 General Standards as Basis for Review
- Exhibit 4 Applicant's Submitted Documents

#### **EXHIBIT 1 – SITE LOCATION**



#### **EXHIBIT 1 –SITE LOCATION**

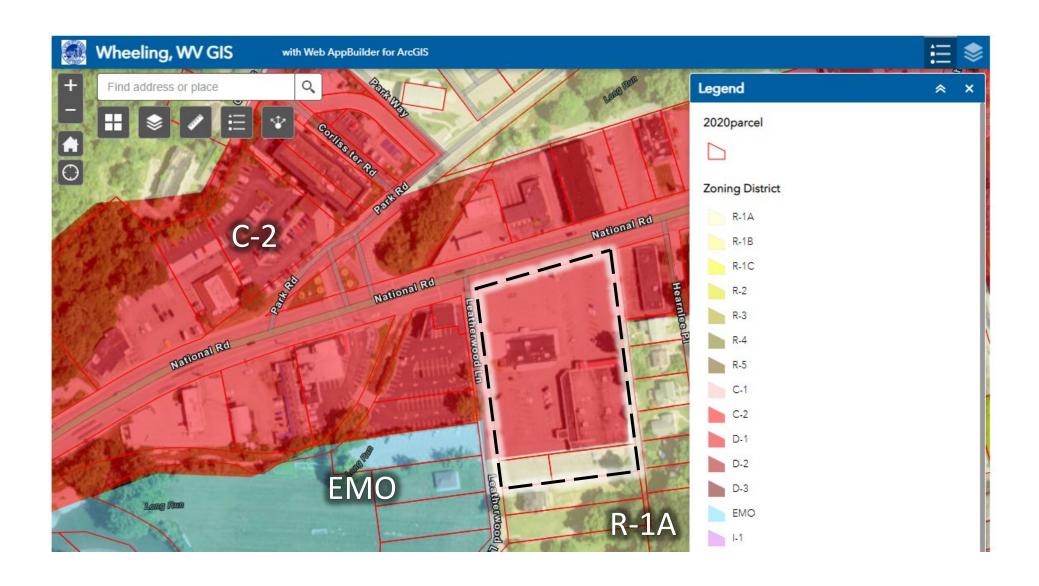


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#### **EXHIBIT 1 –SITE LOCATION**



#### **EXHIBIT 2 – ZONING CLASSIFICATION**



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The following City Staff plans review observations are provided under each of the 18 General Standards as Basis for Review established under Article 1373.07 of the City's Planning and Zoning Code and are intended to serve as a resource for the Planning Commission in fulfilling its obligation to either approve, approve with modifications/conditions, or disapprove the applicant's Site Plan.

### (A) RELATIONSHIP OF PROPOSED DEVELOPMENT TO THE ADOPTED CITY OF WHEELING COMPREHENSIVE PLAN

With the exception of Parcels 195 and 196, which are included in a separate Zoning Map Amendment Petition to reclassify same from R-1A (Low Density) to C-2, the development site is located in the Commercial/Office Future Land Use area identified in the 2014 Envision Wheeling Comprehensive Plan. According to the Comprehensive Plan, the Commercial and Office land use category covers areas of the City that would be appropriate for commercial retail, office, and service uses that cater to both the local and regional market. The areas typically lie along major road corridors or at key intersections where there are high volumes of traffic. General commercial uses are the primary shopping locations for the community and include, but are not limited to, grocery stores, wholesale clubs, large-scale general retail, discount department stores, specialty retail, restaurants, banks, and gas stations. The heavy retail focus of these areas makes them primarily auto oriented. However, the plan strongly encourages development that establishes pedestrian access between nonresidential buildings and surrounding residential development.

It is the opinion of City Planning Staff that the proposed redevelopment of a portion of the subject development site to raze and remove a functionally obsolete commercial building and construct a new multi-tenant building that includes drive-through service is consistent with the City's current Comprehensive Plan, recognizing the existing *CVS* building that will remain also provides drive-through service.

#### (B) RELATIONSHIP OF BUILDINGS TO THE SITE

Although parking is provided between National Road and the proposed building, the location of the building reflects the development pattern common in the National Road automobile oriented commercial district and the existing location of the adjoining *CVS* building. The proposed building location that is further from National Road than the former *A.C. Buffet* building to be razed and removed presents what appears to be a planned development site rather than a *CVS* building to the rear of the former restaurant building. The proposed site design presents a significant improvement over existing conditions through the reduction of pavement and introduction of a substantial landscaping buffer between the sidewalk along National Road and the parking areas along the front of the entire development site. Underground electrical and telecom conduits serving the proposed building are noted on Sheet C-501 Utility Plan and electrical service to proposed parking area light standards will be underground as illustrated on Sheet C-701 Lighting Plan.

#### (C) RELATIONSHIP OF BUILDINGS AND SITE TO ADJOINING AREA

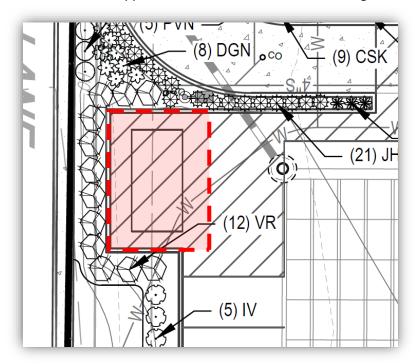
The siting of the proposed building appears to minimize adverse impact upon the vacant single-family detached dwelling located on Parcel 197 of Tax Map W39. The applicant included site design elements

to ensure the proposed relocated driveway access on Leatherwood Lane maintains, through curb radius design, the minimum 10-foot setback. Additionally, Sheet C-702 identifies the planting of 42 Emerald Arborvitae trees/shrubs along boundary of the development site with the vacant single-family detached dwelling located on Parcel 197 of Tax Map W39. Sheet C-701 Lighting Plan illustrates site light intensity of less than one (1) Footcandle at the eastern edge of the *CVS* parking area and at the property boundary with the vacant single-family detached dwelling located on Parcel 197 of Tax Map W39.

#### (D) LANDSCAPE, BUFFERING, AND SITE TREATMENT

Sheet C-702 Landscape Plan illustrates care to provide landscaping, screening of parking areas, and deciduous shade trees along National Road and Leatherwood frontages. The proposed landscaping plan is a significant improvement over existing conditions as the current site is entirely covered by buildings and pavement. Landscaping at the head of parking stalls is setback from and protected by vertical full-depth concrete curbing. The Landscape plan identifies the planting of 42 Emerald Arborvitae trees/shrubs along border of the development site with the vacant single-family detached dwelling located on Parcel 197 of Tax Map W39 to screen the parking and loading areas, the loading berth, and the CVS solid waste management area.

The proposed solid waste storage area that will serve the proposed two-tenant commercial building appears to be appropriately landscaped. However, screening efforts can and should be improved by including a walled or fenced coral with access gate as generally illustrated in the image below. This should be a conditions of Site Plan approval unless related variance relief is granted by the BZA.



The applicant maintains the existing development site is, "far too restricted in size in order to provide multiple raised landscape islands within the proposed parking areas and would negatively impact the following if implemented: total number of parking spaces, drive aisle width, pedestrian vehicle circulation, tenant loading/unloading maneuvering, emergency vehicle maneuvering, site photometrics, and snow removal" [excerpt from variance application].

Accordingly, the applicant has submitted variance relief requests from the following interior parking area landscaping requirements, which are included on the BZA's November 17, 2022 agenda:

- Variance relief from Article 1355.05(a) to permit the planting of four (4) major deciduous shade trees rather than the requisite 18 new major deciduous shade trees and for the four (4) trees to be planted on the perimeter of the parking area rather than within the interior of the parking area as required; and,
- Variance relief from Article 1355.05(b) and Article 1373.07(d)(7) waiving the requirement to develop interior parking area raised planting islands.

#### (E) ECOLOGICAL CONSIDERATIONS

The subject development site is void of any steep slopes, highly erodible soils, stands of mature vegetation or extraordinary wildlife nesting, feeding or breeding grounds, or topographic or known geological features. The site is currently covered by buildings and pavement with very little to no pervious areas. The proposed development plan will result in limited ground disturbance and grading and will introduce landscaping areas to reduce the percentage of site's impervious conditions.

The subject development site is located in a Flood Hazard Area (100-year floodplain) as illustrated in the following image captured from the online <u>WV Flood Tool</u>. Site improvements and the building are being designed accordingly.



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#### (F) SCENIC, HISTORIC, ARCHAEOLOGICAL, AND LANDMARK SITES

As the image to the right from the West Virginia State Historic Preservations Office's online interactive map illustrates, the development site is not located in a Historic District nor are there any historic buildings or landmarks within the development site.

Specifically, the development site is located outside the nearby National Road Corridor Historic District and the Woodsdale-Edgewood Neighborhood Historic District.

There are no known archaeological resources within or known archaeological surveys of the development site.



#### (G) STORM DRAINAGE

The City of Wheeling's Water Pollution Control Division (WPCD) is the jurisdiction having authority for the review, approval, permitting, and inspection of soil erosion and sediment pollution control plans and stormwater management plans. The applicant's stormwater management plans are included, as required, in the Site Plan documents. City Planning Staff defers to the WPCD accordingly.

#### (H) DRIVEWAY CONNECTIONS TO PUBLIC STREETS

The proposed development plan will consolidate four (4) existing driveway accesses on National Road into one (1) driveway access, thereby promoting best access management practices within the arterial corridor. The design solution increases the distance between the proposed driveway access from the traffic light at the National Road and Leatherwood Lane intersection. The design solution also reduces conflict points between vehicles entering/exiting the development site with pedestrians traveling along the National Road sidewalk. National Road is a part of the State Highway System, and the developer has accordingly prepared and submitted a traffic impact study to and is working with West Virginia Division of Highways to secure a Right-of-Way Entry Permit (MM-109) for the proposed National Road driveway access.

The proposed development plan will also consolidate two (2) existing driveway accesses on Leatherwood Lane into one (1) driveway access, which again promotes best access management practices and eliminates one (1) additional conflict point between vehicles entering/exiting the development site with pedestrians traveling along Leatherwood Lane. The proposed relocation of the southernmost driveway access point will be reviewed and approved by the Public Works Director as

a part of building permit review and approval, but is dependent upon City Council's approval of the applicant's Zoning Map Amendment petition to reclassify at least Parcels 195 and 196 from R-1A to C-2.

#### (I) TRAFFIC EFFECTS

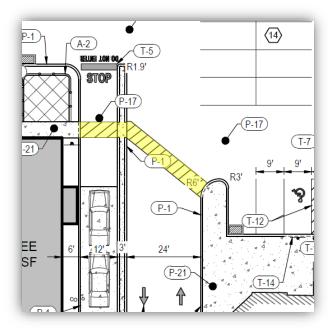
As noted under the previous General Standard (H), the developer has prepared and submitted a traffic impact study to and is working with West Virginia Division of Highways to secure a Right-of-Way Entry Permit (MM-109) for the proposed National Road driveway access. The proposed drive-through facility to serve the *Starbucks* storefront is approximately 540 feet between the proposed National Road driveway access and the *Starbucks* pickup window, which is over five times the minimum 100-foot stacking or queuing lane standard set forth in Article 1355.04(a).

#### (J) PEDESTRIAN SAFETY

As noted under the General Standard (H) above concerning driveway connections to public streets, the proposed development will reduce the number of driveway accesses from six (6) to two (2), which is a significant reduction in potential conflict points between vehicles entering/exiting the development site and pedestrians traveling along National Road and Leatherwood Lane. The new driveway access points will be required to be flanked by accessible ramps meeting related ADA design standards.

Additionally, the developer is proposing a demarcated pedestrian way connecting the CVS building and the proposed two-tenant commercial building. The pedestrian way will include pavement marking and vertical signage alerting vehicle operators within the drivethrough aisle and the parallel two-way drive aisle between the two (2) buildings of the presence of pedestrians and their obligation to yield to pedestrians.

The design solution will also include accessible ramps at the sidewalk connections meeting related ADA design standards. See the image to the right illustrating the location of the proposed pedestrian way.



#### (K) ON-SITE PARKING AND CIRCULATION

Staff concurs with the applicant's minimum parking calculation provided on Sheet C-301 Site Plan (see image to the right).

The location of and dimensional layout for the parking spaces, parking areas, and drive aisles

PARKING REQUIREMENTS				
	MIN REQUIRED	EXISTING	PROPOSED	
PARKING SPACES	RETAIL: 1 SPACE PER 250 SF GFA  = \frac{1}{250} * (1,809 SF + 13,658 SF) = 62 SPACES  DINING: 1 SPACE PER 10 SF GFA  = \frac{1}{100} * (2,510 SF) = 25 SPACES  TOTAL: 87 SPACES	104 SPACES	87 SPACES (INCLUDING 7 ADA SPACES)	
DRIVE-THRU STACKING	100 FT STACKING LANE	N/A	235' (CENTERLINE OF DT LANE)	

appear to meet the Planning and Zoning Code's related development and performance standards. As noted above under the General Standard (D) concerning Landscape, Buffering, and Site Treatment, the applicant has submitted variance relief requests from Articles 1355.05(a), 1355.05(b), and 1373.07(d)(7) as they relate to raised landscape islands to separate parking rows and drive aisles in the parking areas.

The applicant's design team has been advised of staff's observation that the Wheeling Fire Department must be consulted and the development site properly modeled (e.g., AutoTURN, etc.) to ensure safe and adequate access and maneuvering for WFD responding apparatus. Specifically, modeling should be based on WFD's preferred approach, the apparatus they would normally respond with, and show entering the site, maneuvering through the site, and exiting the site. See Staff Recommendation section of this report on Page 4 for related discussion.

#### (L) UTILITY SERVICES

Underground electrical and telecom conduits serving the proposed building are noted on Sheet C-501 Utility Plan and electrical service to proposed parking area light standards will be underground as illustrated on Sheet C-701 Lighting Plan.

#### (M)DISPOSAL OF WASTES

The site appears to incorporate adequate solid waste storage facilities for the proposed commercial uses. The tenants of the new building or the property owner will ultimately be responsible for securing adequate service with the solid waste and recycling hauler (i.e., dumpster size, number of pickups per week, etc.)

#### (N) NOISE

The proposed commercial uses for the new two-tenant building are not anticipated to generate outside noise above normally acceptable levels customary to such uses and within the National Road commercial corridor.

#### (O) ADVERTISING FEATURES AND SIGNS

To reduce design burden at this stage of the development application process and to promote more efficient development review and approval procedures, Staff advised the applicant that signage plan submission and review can and should be conducted at the time of building permit application for same, once site development entitlements are obtained (zoning map amendment, site plan, and site development related variances). See the Planning Commission Review section of this report on Page 2 for additional related discussion and Staff Recommendations.

#### (P) PEDESTRIAN AND BICYCLE CIRCULATION

As noted under General Standard (J) above concerning pedestrian safety, the proposed development significantly reduces conflict points between vehicles and pedestrians traveling sidewalks along National Road and Leatherwood Lane. Accessible routes appear to be properly planned to meet related ADA standards. The applicant has not indicated whether short-term bicycle storage (i.e., bike rack) will be provided for the new two-tenant building, although the site is extremely limited to program space for bicycle storage. An alternate location could be along the front facade of the *CVS* building that might serve the entire development site. However, the provision of short- or long-term bicycle storage is not required under the City's Planning and Zoning Code. It should be noted that there appears to be a fixed bus stop along the development site's frontage served by the Ohio Valley Regional Transit Authority (OVRTA) Elm Grove / Highlands Line. The developer should work with OVRTA to relocate the fixed stop as a result of the consolidated National Road driveway access.

#### (Q) LIGHTING

Sheet C-701 Lighting Plan illustrates compliance with related design and performance standards provided under Article 1331.13 and Article 1355.08. Site light intensity is less than one (1) Footcandle at the eastern edge of the *CVS* parking area and at the property boundary with the vacant single-family detached dwelling located on Parcel 197 of Tax Map W39. Site light intensity is less than four (4) Footcandles at the proposed driveway accesses on National Road and Leatherwood Lane with acceptable spillover into the public right-of-way.

#### (R) BUILDING DESIGN

The proposed building design appears to reflect architectural style and treatments common to similar commercial uses. As noted under the General Standard (F) above concerning scenic, historic, archaeological, and landmark sites, the development site is not located in a Historic District nor are there any historic buildings or landmarks within the development site that warrant historic design considerations. Proposed materials appear to have good architectural character that are in harmony with traditional building materials. Building components appear to have well-designed proportions and relationships to one another. Mechanical equipment will be roof-mounted and appropriately screened from adjacent properties and public view from the public right-of-way.

#### **EXHIBIT 4 – APPLICANT'S SUBMITTED DOCUMENTS**

#### **SEE FOLLOWING PAGES**

Site Plan Approval

Kellbenn, Inc.

842 National Road

Starbucks + Retail

#### Site Plan Review Checklist

#### 1. Legal Data: X property owners within 100' X existing zoning and special district boundaries X boundaries of property, setback lines, existing streets and adjoining lots, reservations, easements, and areas dedicated to public use 2. General Project Site Description: x map showing entire property, adjacent property and streets at convenient scale X approximate location and dimension of all existing and proposed structures on adjacent properties and within 100' of site boundary x name & address of applicant, planners, engineers, architects working on project 3. Preliminary & Final Plans: X location map: show all roads within 200' of the site. existing conditions: X buildings x water bodies & floodplains x wooded area, existing vegetative cover and other significant features development data: \_\_\_X\_\_ title, date, north point, scale X owner information X project engineer X vehicular / pedestrian access and circulation X elevations, building height, floor plans X \_ walkways & fire lanes X location of waterlines, valves, hydrants, sewer lines X location and direction of outdoor lighting within the site and at the boundary if adjacent to residential development. X \_ grading and drainage X landscaping plan x cut and fill of disturbed areas (before and after profiles), E&SC Plan, location of sediment sink / setting pond and interceptor swales X storm water drainage system / computations location, size, color illumination of signage X drains, culverts, walls, and fences X outdoor storage location X detailed breakdown of proposed floor space by use X location and design of energy distribution facilities: electric, gas, solar lines and dimensions of property to be dedicated public \_\_ construction schedule record of application of necessary permits from federal, state or county x copies submitted on media 24" x 36", 11" x 17", and digital copy

#### 4. <u>Additional Submissions</u> (special conditions may require additional information)

#### 5. Amendments

Changes / modifications to the approved plans require review by Planning Administrator to determine if an amended site plan review by the Planning Commission is required.



#### APPLICATION FOR CERTIFICATE OF ZONING COMPLIANCE FOR THE USE, ERECTION, ALTERATION, OR REPAIR OF A BUILDING OR LAND

The undersigned applies for a Certificate of Zoning Compliance for the following, said certificate is to be issued on the basis of the information contained within the application. The applicant hereby certifies that all information and attachments are true and correct.

1. Address of Property:	842 National Rd, Whee	eling, WV 260	03		
2. Name of Property Owner:	Kellbenn, Inc.				
3. Name of Applicant:	Patrick McDerMott  1144 Market St., Suite 101, Wheeling, WV 26003				
4. Address of Applicant:					
5. Applicant Phone:	304-242-3220		Owner Phone:	304-242-3220	
6. Existing Use:	Commercial				
7. Proposed Use:   Same	Other (describe):	CVS to to r	emain same use; Prop	posed uses: Restaurant&Retail	
8. Number of off-street parking s	spaces to be provided:	87			
9. Number of off-street loading I	perths to be provided:	1			
COMPLETE THIS SECTION	ON BELOW FOR THE ER	RECTION, ALT	ERATION, OR ADDITION	ON OF A STRUCTURE	
Type of Improvement:		The second	dential:		
<ul><li>New Building</li></ul>			Number of existing dv	velling units: N/A	
Addition			Number of proposed	dwelling units: N/A	
○ Alteration / Repair				5-1-1	
Existing Lot Dimensions: Width: 2	56 ft. x Deg	pth: 362	ft. = lot area:	92,672 sq. ft.	
Existing Principal Building:					
Dimensions: Width: 120 ft.	x Depth: 63 f	ft. = Total fir	st floor area, including	covered porches: 7,760 sq. ft.	
	Rear: 7.5 ft. Si	ide: <u>117</u>	ft. Other Side: 212	ft. Height/Stories: 1	
Existing Accessory Building: (garage, o	carport, shed, pool, etc	c):			
Dimensions: Width: ft.	x Depth; f	t. = Total fir	st floor area, including	covered porches: sq. ft.	
Setbacks: Front: ft.	Rear: ft. Si	ide:	ft. Other Side:	ft. Height/Stories:	
Proposed Construction:					
Dimensions: Width: 62 ft.	x Depth: 70 f	ft. = Total fi	st floor area, including	covered porches: 4,320 sq. ft.	
	Rear: 19 ft. Si Front	ide: 163	ft. Other Side: 180	ft. Height/Stories: 1	
Applicant Signature:	Segno H		Da	ite: ////22	
Owner Signature:	Harris 1	1	Da	ite: 11/1/22	
Reset Form			Print Form	Rev: 01/27/2015	



#### **CITY OF WHEELING**



#### FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

#### Floodplain Management Program

Date of Application:_	10/21/2022		Permit#
Application Informat			
Kalihan Inc	- Patrick McDermott		1144 Market St. Suite 101
	Patrick McDermott	Mailing Address: Phone: 304-24	1144 Market St, Suite 101
City: Wheeling	State:_VVV	_Phone:_304-24	2-3220
Contractor Informati	on & License Number (if applicable)	_WV License #:	City License#
Name: TBD	r	Mailing Address	
City:	State:	Phone:	
	42 National Rd, Wheeling WV 260		Improvement: TBD
(Provide directions it		COSCOT	(Provide Documentation)
Tune of Structure:	(Check All That Apply)	×	Demolition
Type of Structure.	Residential	×	Commercial/Industrial
x	Excavation/Fill Activities		Garage/Detached Structure
	Manufactured Home		Other (explain)
Description of Work			to the construction of a
Redevelopment	of the existing site includes clearing	g the existing si	te, the construction of a
multi-use structur	e, parking lot, retaining wall, utilitie	es, and landsca	ping necessary to
support the devel	opment. The development will res	sult in decreased	d stormwater runoff
volume and peak	rates while utilizing the existing n	atural drainage	systems.
Signature	2162mott 50-	Ke   ben	n, Inc.

# PRELIMINARY | FINAL LAND DEVELOPMENT PLANS

\_\_\_\_\_ FOR \_\_\_\_\_

KELLBENN, INC

**PROPOSED** 

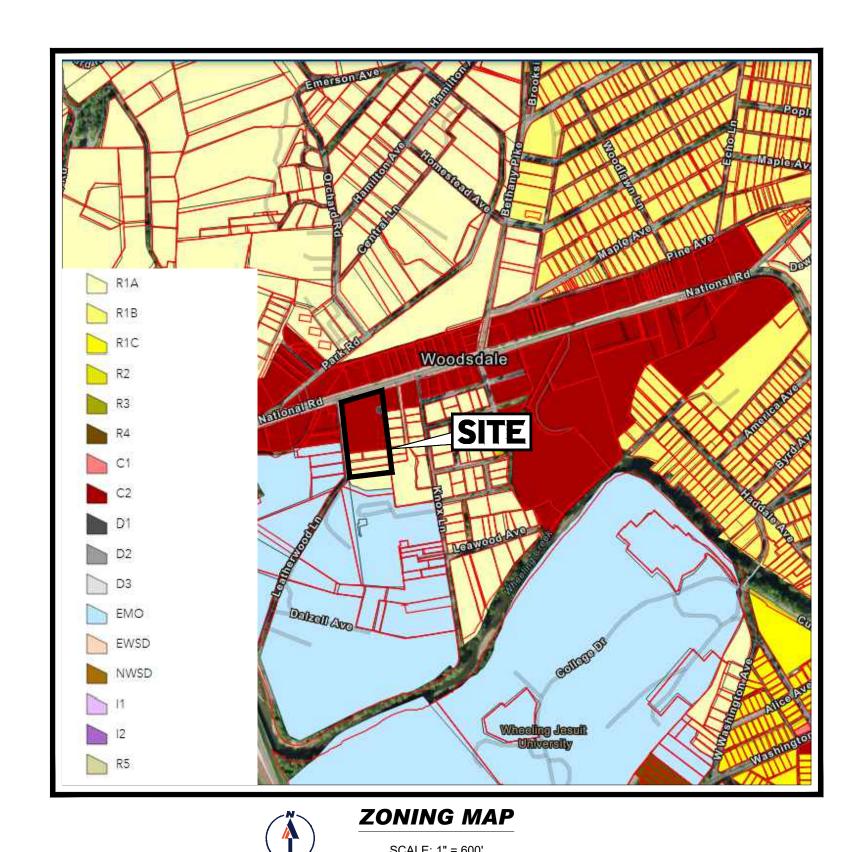
# STARBUCKS WITH DRIVE-THRU & ATTACHED RETAIL

LOCATION OF SITE

842 NATIONAL ROAD

CITY OF WHEELING

OHIO COUNTY, WV 26003



# Northern Panhandle Head Start Hampton Inn Wheeling TJ's Sports Garden VS SpringHill Suites by Marriott Wheeling... STEE The Linsly School Rock Point Rd Coinstar Kiosk of Bitcoin Enabled Coinstar Kiosk of Bitcoin Enabled Rock Point Rd Coinstar Kiosk of Bitcoin Enabled

# SCALE: 1" = 500' SOURCE: GOOGLE MAPS

SOURCE: CITY OF WHEELING, WV

#### PREPARED BY

BOHLER//

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
TRANSPORTATION SERVICES

TRANSPORTATION SERVICES

TRANSPORTATION SERVICES

TRANSPORTATION SERVICES

TRANSPORTATION SERVICES

TRANSPORTATION SERVICES

	REVISIONS				
REV	DATE	COMMENT	DRAWN BY		
		-	CHECKED BY		
		000			



# ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVA

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: PB21404
DRAWN BY: APPLICATION APPLIC

PROJECT:

PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

1 OK \_\_\_\_

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003

# **BOHLER**

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

Phone: (724) 638-8500

www.BohlerEngineering.com



HEET TITLE:

COVER SHEET

SHEET NUMBER

C-101

ORG. DATE - 10/28/2022

SIGNATURE OF AUTHORIZED OFFICIAL

LIST OF REQUESTED VARIANCES

CITY OF WHEELING BOARD OF ZONING APPEALS

ARTICLE 1355.05(a) - AT LEAST ONE MAJOR DECIDUOUS SHADE TREE, NOT LESS THAN TWO AND ONE-HALF INCHES CALIPER MEASURED THREE FEET ABOVE THE

GROUND AT THE TIME OF PLANTING, SHALL BE PROVIDED WITHIN EACH PARKING AREA FOR EVERY 3,000 SQUARE FEET OF PAVED AREA OR EVERY TEN PARKING SPACES, WHICHEVER IS GREATER. THE TREES SHALL BE SPACED EVENLY THROUGHOUT THE LOT INTERIOR TO PROVIDE SHADE AND REDUCE GLARE. IN ALL OFF-STREET PARKING AREAS CONTAINING TWENTY-FIVE OR MORE PARKING

SPACES, AT LEAST TEN PERCENT OF THE INTERIOR OF THE PARKING AREA

SHALL BE CURBED AND LANDSCAPED WITH TREES, SHRUBS, AND OTHER PLANTS

ARTICLE 1355.05(b) - RAISED PLANTING ISLANDS AT LEAST EIGHT FEET IN WIDTH

GROWTH, PEDESTRIAN CIRCULATION, AND VEHICLE OVERHANG. SUCH RAISED

PLANTING ISLANDS AND THE LANDSCAPING WITHIN THEM SHALL BE DESIGNED AND ARRANGED IN SUCH A WAY AS TO DEFINE MAJOR CIRCULATION AISLES,

ENTRANCES, AND EXITS, TO CHANNEL INTERNAL TRAFFIC FLOW, TO PREVENT

INDISCRIMINATE DIAGONAL MOVEMENT OF VEHICLES, AND TO PROVIDE RELIEF FROM THE VISUAL MONOTONY AND SHADELESS EXPANSE OF A LARGE PARKING

FOR DOUBLE LOADED ISLANDS OR SIX FEET FOR SINGLE LOADED ISLANDS SHALL BE PROVIDED TO GUIDE VEHICLE MOVEMENT AND TO SEPARATE OPPOSING ROWS OF PARKING SPACES SO AS TO PROVIDE ADEQUATE SPACE FOR PLANT

DATE

FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT

(Rev. 2/2021) THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER ENGINEERING PENNSYLVANIA, LLC

(HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE ENGINEER OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER, IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.

THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SURCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS. THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THI DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE ENGINEER OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED, NO CONSTRUCTION OR FABRICATION IS TO BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES

THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE

CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL. CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL. ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE), THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND ENGINEER OF RECORD AND BOHLER. IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.

CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS. ELEVATIONS. PRECISE BUILDING DIMENSIONS. AND EXACT BUILDING UTILITY LOCATIONS.

THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY ENGINEER OF RECORD AND BOHLER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REPAIRED DUE TO DIMENSIONS, MEASUREMENTS OR GRADES SHOWN INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING ENGINEER OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) ENGINEER OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH

THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS. FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS, DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS, THE

CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED

WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS: AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF RECORD AND BOHLER. IN WRITING, OF ANY SLICH CONFLICT, DISCREPANCY OR AMBIGUITY BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK IF A GEOTECHNICAL REPORT WAS NOT CREATED. THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL. COUNTY, STATE, AND FEDERAL LAWS AND

2. ENGINEER OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR POLLUTANTS ON, ABOUT OR UNDER THE PROPERTY.

THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPÉRTIES. ALL OF THIS WORK IS TO BE PERFORMED AT CONTRACTOR'S SOLE COST AND EXPENSE

THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT. STRUCTURES, ETC WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROVIDE A SAFE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.

15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE, ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR

16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.

THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL SIGNAL INTERCONNECTION CABLE, WIRING CONDUITS, AND ANY UNDERGROUND ACCESSORY FOUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME, THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION FOLIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES. LAWS. RULES. REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY, IN WRITING, THE OWNER AND THE CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.

THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION OR ANYTHING RELATED TO SAME THE ENGINEER OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO RFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF ENGINEER OF RECORD'S AND BOHLER SERVICES. RELATED TO THE PROJECT. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO IDENTIFY OR REPORT ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.

THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING TO THE ENGINEER OF RECORD AND BOHLER. ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.

THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND CURRENT CODES RULES STATUTES AND THE LIKE IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, RULES, STATUTES, CODES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT ENGINEER AND BOHLER SUFFER AND ANY AND ALL COSTS THAT ENGINEER AND BOHLER INCUR AS RELATED TO SAME.

ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S

COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER, AND ITS PAST, PRESENT AND FUTURE OWNERS OFFICERS DIRECTORS PARTNERS SHAREHOLDERS MEMBERS PRINCIPALS COMMISSIONERS AGENTS SERVANTS EMPLOYEES AFEILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED. WHICHEVER DATE IS LATER IN ADDITION, ALL CONTRACTORS AGREE THAT THEY WILL TO THE FULLEST EXTENT. PERMITTED UNDER THE LAW. INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, INJURIES, CLAIMS, ACTIONS, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT. INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL

THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR COMPLETION OF THE WORK DEPICTED BOTH ON THESE PLANS AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME THE CONTRACTOR IS FULLY AND SOLELY

RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

TERMINATION. SUSPENSION OR CHANGE OF ITS INSURANCE HEREUNDER.

AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE

CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY ENGINEER, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY

NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER. NOR THE PRESENCE OF BOHLER AND/OR ITS PAST, PRESENT AND FUTURE OWNERS OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE (HEREIN "BOHLER PARTIES"). RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM CONSTRUCTION MEANS. METHODS. SEQUENCE. TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY

RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO THEIR WORK AND ANY AND ALL HEALTH AND SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND. PROTECT AND HOLD HARMLESS BOHLER PARTIES FOR AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THIS NOTE, THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE

WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER. BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS. SUCH AS SHOP DRAWINGS. PRODUCT DATA. SAMPLES. AND OTHER DATA. WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT. BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE. MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.

. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS. INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE ENGINEER OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN ENGINEER'S SCOPE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS. ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING HEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE ENGINEER OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.

THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND FLEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE, THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILIT'

OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN: AND. FURTHER. THE ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS. OWNER AGREES TO INDEMNIFY AND HOLD THE ENGINEER OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT ENGINEER OF RECORD

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF

THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (29 U.S.C. 651 FT SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS.

29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. ENGINEER OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.

30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO THEY AGREE TO JOINTLY INDEPENDENTLY SEPARATELY COLLECTIVELY AND SEVERALLY INDEMNIEY DEFEND PROTECT AND HOLD ENGINEER OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT ENGINEER SUFFERS AND COSTS THAT ENGINEER INCURS AS A RESULT OF SAID FAILURE.

31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES. INCLUDING THOSE OF ALL SUBCONTRACTORS. ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES. AS APPROPRIATE AND FURTHER. THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SC

32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE ENGINEER OF RECORD AND BOHLER. THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE ENGINEER OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

33. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE SUBMITTALS PREPARED FOR ANY CONSTRUCTION DETAILED ITEMS AND TO COORDINATE THE SUBMITTALS WITH THE RESPECTIVE GOVERNING AGENCIES OR SERVICE PROVIDERS, WHO SHALL HAVE THE FINAL AUTHORITY IN APPROVING THE

**DEMOLITION NOTES** 

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS'

THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY

3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY. THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.

4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.

WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS. B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE LISED MUST BE IN STRICT ACCORDANCE AND CONFORMANCE WITH ALL STATE FEDERAL LOCAL AND HIRISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE

A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL

THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION. OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.

6. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, COMPLYING WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.

7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF ALL UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.

8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STANDARDS, AND/OR THE SAFETY OF THE CONTRACTOR AND/OR THIRD PARTIES IN PERFORMING THE WORK ON THIS PROJECT ANY SUCH CONCERNS MUST BE CONVEYED TO THE ENGINEER OF RECORD AND BOHLER, IN WRITING AND MUST ADDRESS ALL ISSUES AND ITEMS RESPONDED TO. BY THE ENGINEER OF RECORD AND BY BOHLER. IN WRITING, ALL DEMOLITION ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, RULES, REQUIREMENTS, STATUTES, ORDINANCES AND CODES

9. THE CONTRACTOR MUST BECOME FAMILIAR WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AND/OR DISCONNECTION AS IDENTIFIED OR REQUIRED FOR THE PROJECT. THE CONTRACTOR MUST PROVIDE THE OWNER WITH WRITTEN NOTIFICATION THAT THE EXISTING LITH LITES AND SERVICES HAVE BEEN TERMINATED. REMOVED AND/OR ABANDONED IN ACCORDANCE WITH THE JURISDICTION AND UTILITY COMPANY REQUIREMENTS AND ALL OTHER APPLICABLE REQUIREMENTS. RULES. STATUTES, LAWS, ORDINANCES AND CODES,

10. PRIOR TO COMMENCING ANY DEMOLITION, THE CONTRACTOR MUST:

A. OBTAIN ALL REQUIRED PERMITS AND MAINTAIN THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND ALL PUBLIC AGENCIES WITH JURISDICTION THROUGHOUT THE DURATION OF THE PROJECT. SITE WORK, AND DEMOLITION WORK B. NOTIFY, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL SOIL CONSERVATION JURISDICTION. AT LEAST 72 BUSINESS HOURS PRIOR TO THE COMMENCEMENT OF WORK.

INSTALL THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE, AND MAINTAIN SAID CONTROLS IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR MUST CALL THE STATE ONE-CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT, IN ADVANCE OF ANY EXCAVATION

E. LOCATE AND PROTECT ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR MUST USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL UNDERGROUND UTILITIES. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ANY DEMOLITION

G. ARRANGE FOR AND COORDINATE WITH THE APPLICABLE LITHLITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS REGARDING THE METHODS AND MEANS TO CONSTRUCT SAME. THESE ARE NOT THE ENGINEER OF RECORD'S RESPONSIBILITY. IN THE EVENT OF ABANDONMENT, THE CONTRACTOR MUST PROVIDE THE UTILITY ENGINEER AND OWNER WITH IMMEDIATE WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS

ARRANGE FOR AND COORDINATE WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS NECESSARY OR AS REQUIRED TO MINIMIZE THE IMPACT ON, OF, AND TO THE AFFECTED PARTIES. WORK REQUIRED TO BE PERFORMED "OFF-PEAK" IS TO BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL. THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS.

AND SPECIFICATIONS OR THE CONTRACT WITH THE OWNER/DEVELOPER, THE CONTRACTOR MUST IMMEDIATELY CEASE ALL WORK IN THE AREA OF DISCOVERY, AND IMMEDIATELY NOTIFY, IN WRITING AND VERBALLY, THE OWNER AND ENGINEER OF RECORD AND BOHLER, THE DISCOVERY OF SUCH MATERIALS TO PURSUE PROPER AND COMPLIANT REMOVAL OF SAME. 11. THE CONTRACTOR MUST NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOLINDATION WALLS, FOOTINGS, OR

OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE, UNLESS SAME IS IN STRICT ACCORDANCE AND CONFORMANCE WITH THE PROJECT PLANS. AND SPECIFICATIONS, OR PURSUANT TO THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.

12. DEMOLITION ACTIVITIES AND EQUIPMENT MUST NOT USE OR INCLUDE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE. WITHOUT SPECIFIC WRITTEN PERMISSION AND AUTHORITY OF AND FROM THE OWNER AND ALL GOVERNMENTAL AGENCIES WITH JURISDICTION.

THE CONTRACTOR MUST BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL MUST BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS AND MUST BE SUFFICIENTLY COMPACTED TO SUPPORT ALL NEW IMPROVEMENTS AND MUST BE PERFORMED IN COMPLIANCE WITH THE RECOMMENDATIONS AND GUIDANCE ARTICULATED IN THE GEOTECHNICAL REPORT. BACKFILLING MUST OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES AND MUST BE PERFORMED SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES MUST BE GRADED TO PROMOTE POSITIVE DRAINAGE. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TESTING AND MUST SUBMIT SUCH REPORTS AND RESULTS TO THE ENGINEER OF RECORD AND THE OWNER.

14. EXPLOSIVES MUST NOT BE USED WITHOUT PRIOR WRITTEN CONSENT FROM BOTH THE OWNER AND ALL APPLICABLE. NECESSARY AND REQUIRED GOVERNMENTAL AUTHORITIES. PRIOR TO COMMENCING ANY EXPLOSIVE PROGRAM AND/OR ANY DEMOLITION ACTIVITIES, THE CONTRACTOR MUST ENSURE AND OVERSEE THE INSTALLATION OF ALL OF THE REQUIRED PERMIT AND EXPLOSIVE CONTROL MEASURES THAT THE FEDERAL. STATE. AND LOCAL GOVERNMENTS REQUIRE. THE CONTRACTOR IS ALSO RESPONSIBLE TO CONDUCT AND PERFORM ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES AND THE LIKE.

DUST AND DIRT RISING AND SCATTERING IN THE AIR. AFTER THE DEMOLITION IS COMPLETE, THE CONTRACTOR MUST CLEAN ALL ADJACENT STRUCTURES AND IMPROVEMENTS TO REMOVE ALL DUST AND DEBRIS WHICH THE DEMOLITION OPERATIONS CAUSE. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION AT CONTRACTOR'S SOLE COST. 16. PAVEMENT MUST BE SAW CUT IN STRAIGHT LINES. ALL DEBRIS FROM REMOVAL OPERATIONS MUST BE REMOVED FROM THE SITE AT THE TIME OF

15. IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS, THE CONTRACTOR MUST USE DUST CONTROL MEASURES TO LIMIT AIRBORNE

EXCAVATION. STOCKPILING OF DEBRIS OUTSIDE OF APPROVED AREAS WILL NOT BE PERMITTED, INCLUDING BUT NOT LIMITED TO, THE PUBLIC 17. THE CONTRACTOR MUST MAINTAIN A RECORD SET OF PLANS WHICH INDICATES THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED.

ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE

18. THE CONTRACTOR MUST EMPTY, CLEAN AND REMOVE FROM THE SITE ALL UNDERGROUND STORAGE TANKS, IF ENCOUNTERED, IN ACCORDANCE WITH FEDERAL. STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO CONTINUING CONSTRUCTION IN THE AREA AROUND THE TANK WHICH EMPTYING, CLEANING AND REMOVAL ARE AT THE CONTRACTOR'S SOLE COST.

SITE LAYOUT NOTES (Rev. 1/2020)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN. AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS'

POLLUTION PREVENTION PLAN (SWPPP) MEASURES NECESSARY AS INDICATED ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND IN ACCORDANCE WITH APPLICABLE AND/OR APPROPRIATE AGENCIES' GUIDELINES TO PREVENT SEDIMENT AND/OR LOOSE DEBRIS FROM WASHING ONTO ADJACENT PROPERTIES OR THE RIGHT OF WAY. 3. ALL DIRECTIONAL/TRAFFIC SIGNING AND PAVEMENT STRIPING MUST CONFORM TO THE LATEST STANDARDS OF THE MANUAL ON UNIFORM TRAFFIC

2. PRIOR TO THE COMMENCEMENT OF GENERAL CONSTRUCTION, THE CONTRACTOR MUST INSTALL SOIL EROSION CONTROL AND ANY STORMWATER

CONTROL DEVICES (MUTCD) AND ANY APPLICABLE STATE OR LOCALLY APPROVED SUPPLEMENTS, GUIDELINES, RULES, REGULATIONS, STANDARDS THE LOCATIONS OF PROPOSED UTILITY POLES AND TRAFFIC SIGNS SHOWN ON THE PLANS ARE SCHEMATIC AND PRELIMINARY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD-VERIFYING THEIR LOCATION. THE CONTRACTOR MUST COORDINATE THE RELOCATION OF TRAFFIC SIGNS WITH

THE ENTITY WITH JURISDICTION OVER THE PROJECT.

5. ALL DIMENSIONS SHOWN ARE TO BOTTOM FACE OF CURB. EDGE OF PAVEMENT, OR EDGE OF BUILDING, EXCEPT WHEN DIMENSION IS TO A PROPERTY LINE STAKE OUT OF LOCATIONS OF INLETS LIGHT POLES FTC. MUST BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILS. UNLESS NOTED CLEARLY OTHERWISE

**DRAINAGE AND UTILITY NOTES** 

OMISSIONS IN WRITING. TO THE ENGINEER OF RECORD.

COMPANY REGARDLESS OF WHAT THIS PLAN DEPICTS

PIT TO CONFIRM EXACT DEPTH. PRIOR TO COMMENCEMENT OF CONSTRUCTION.

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN. AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS'

LOCATIONS OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE. AND THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM THOSE LOCATIONS AND SERVICES WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCING ANY CONSTRUCTION OR EXCAVATION. THE CONTRACTOR MUST INDEPENDENTLY VERIFY AND CONFIRM ALL SANITARY CONNECTION POINTS AND ALL OTHER UTILITY SERVICE CONNECTION POINTS IN THE FIELD, PRIOR TO COMMENCING ANY CONSTRUCTION. THE CONTRACTOR MUST REPORT ALL DISCREPANCIES, ERRORS AND

THE CONTRACTOR MUST VERTICALLY AND HORIZONTALLY LOCATE ALL UTILITIES AND SERVICES INCLUDING, BUT NOT LIMITED TO, GAS, WATER, ELECTRIC. SANITARY AND STORM, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE OR WORK SPACE. WHICHEVER IS GREATER. THE CONTRACTOR MUST USE. REFER TO, AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL OF THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO ANY EXISTING UTILITIES WHICH OCCUR DURING CONSTRUCTION, AT NO COST TO THE OWNER AND AT CONTRACTOR'S SOLE COST AND EXPENSE. THE

CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH DAMAGE TO ANY EXISTING UTILITIES WHICH OCCURS DURING CONSTRUCTION. THE CONTRACTOR MUST FIELD VERIFY THE PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES BY USING A TEST

5. STORMWATER ROOF DRAIN LOCATIONS ARE BASED ON ARCHITECTURAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF SAME BASED UPON FINAL ARCHITECTURAL PLANS.

6 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING SITE PLAN DOCUMENTS AND ARCHITECTURAL PLANS FOR EXACT BUILDING LITHLITY CONNECTION LOCATIONS: GREASE TRAP REQUIREMENTS: AND DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE ARCHITECT WILL DETERMINE THE UTILITY SERVICE SIZES. THE CONTRACTOR MUST COORDINATE INSTALLATION OF UTILITY SERVICES WITH THE INDIVIDUAL COMPANIES TO AVOID CONFLICTS AND TO ENSURE THAT PROPER DEPTHS ARE ACHIEVED. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT INSTALLATION OF ALI IMPROVEMENTS COMPLIES WITH ALL UTILITY REQUIREMENTS OF THE APPLICABLE JURISDICTION AND REGULATORY AGENCIES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES AND, FURTHER, IS RESPONSIBLE FOR COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE A CONFLICT(S) EXISTS BETWEEN THESE DOCUMENTS AND THE ARCHITECTURAL PLANS, OR WHERE ARCHITECTURAL PLAN UTILITY CONNECTION POINTS DIFFER, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, AND PRIOR TO CONSTRUCTION, MUST RESOLVE SAME.

ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION MUST BE EXACTLY AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND THE CONTRACTOR MUST COORDINATE SAME WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS. WHEN THE PROJECT DOES NOT HAVE GEOTECHNICAL RECOMMENDATIONS. FILL AND COMPACTION MUST COMPLY WITH APPLICABLE REQUIREMENTS AND SPECIFICATIONS. ENGINEER OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR DESIGN OF TRENCH BACKFILL OR FOR COMPACTION REQUIREMENTS.

DURING THE INSTALLATION OF SANITARY, STORM, AND ALL UTILITIES, THE CONTRACTOR MUST MAINTAIN A CONTEMPORANEOUS AND THOROUGH RECORD OF CONSTRUCTION TO IDENTIFY THE AS-INSTALLED LOCATIONS OF ALL UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR MUST CAREFULLY NOTE ANY INSTALLATIONS THAT DEVIATE IN ANY RESPECT. FROM THE INFORMATION CONTAINED IN THESE PLANS. THIS RECORD MUST BE KEPT ON A CLEAN COPY OF THE APPROPRIATE PLAN(S). WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER IMMEDIATELY UPON THE COMPLETION OF WORK.

9. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS INCLUDING SANITARY, WATER AND STORM SYSTEMS, ARE REPAIRED IN ACCORDANCE WITH REFERENCED MUNICIPAL, COUNTY AND OR STATE DOT DETAILS AS APPLICABLE, THE CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY WITH JURISDICTION OVER SAME 10. FINAL LOCATIONS OF PROPOSED LITHLITY POLES, AND/ OR POLES TO BE RELOCATED ARE AT THE SOLE DISCRETION OF THE RESPECTIVE UTILITY

11 WATER SERVICE MATERIALS BURIAL DEPTH, AND COVER REQUIREMENTS MUST BE SPECIFIED BY THE LOCAL LITHLITY COMPANY. THE CONTRACTOR MUST CONTACT THE APPLICABLE MUNICIPALITY TO CONFIRM THE PROPER WATER METER AND VAULT, PRIOR TO COMMENCING CONSTRUCTION.

12. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT MUST BE ADJUSTED, AS NECESSARY, TO MATCH PROPOSED FINISHED GRADES WITH NO TRIPPING OR SAFETY HAZARD IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, REQUIREMENTS, RULES, STATUTES,

3. THESE PLANS INVOLVE BUILDINGS THAT MAY BE BUILT AT A LATER DATE. THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING, BUT NOT LIMITED TO STORM, SANITARY, TELECOM, GAS, AND ELECTRIC, AND IRRIGATION LINES TO A POINT AT LEAST FIVE FEET (5') BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A STAKE, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF A PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON

14. STORM AND SANITARY PIPE LENGTHS INDICATED IN THE PLANS ARE NOMINAL AND ARE MEASURED FROM THE CENTERS OF INLETS AND MANHOLES 15. UNLESS OTHERWISE NOTED, ALL NEW UTILITIES/SERVICES, INCLUDING BUT NOT LIMITED TO ELECTRIC, TELEPHONE, TELECOM, GAS, ETC. MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDERS'

THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS. MUST BE REPAIRED IN ACCORDANCE WITH THE REFERENCED MUNICIPAL, COUNTY, AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY(IES) HAVING JURISDICTION.

17. VARIOUS ASPECTS OF THE UTILITY DESIGNS DEPICTED ON THE PLANS ARE SCHEMATIC IN ORDER TO PROVIDE PLAN CLARITY OR TO CONVEY A DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY CONFIGURE ALL STRUCTURES IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL SERVICE PROVIDER OR MANUFACTURER REQUIREMENTS IN ORDER TO ACHIEVE PROPER SITING OPERATION CONNECTIONS SEPARATIONS, AND ACCESSES. THE CONTRACTOR SHALL REVIEW THE PLAN SPECIFICATIONS AND PREPARE STRUCTURE DESIGNS THAT INCORPORATE ANY AND ALL INTEGRAL COMPONENTS, SUCH AS TRASH RACKS, GATES, VALVES, INTERNAL OR EXTERNAL LININGS, WATER QUALITY DEVICES, SUMPS, RESTRAINTS, STEPS, FRAMES AND GRATES, PIPE/CONDUIT CONNECTIONS, MATERIALS, ETC. SHOULD DISCREPANCIES OR CONFLICTS ARISE UPON THE DESIGN OF THESE STRUCTURES OR INCORPORATION OF THE VARIOUS ELEMENTS, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD OR BOHLER IN WRITING.

SANITARY SEWER SERVICE SHALL BE PROVIDED BY CITY OF WHEELING WATER DEPARTMENT AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WHEELING WATER DEPARTMENT STANDARD SPECIFICATIONS

19. THE CONTRACTOR MUST NOTIFY, IN WRITING, CITY OF WHEELING WATER DEPARTMENT AT LEAST THREE (3) BUSINESS DAYS PRIOR TO INSTALLATION OF THE SANITARY COMPONENTS. FAILURE TO HAVE SANITARY INSTALLATION AND TESTING OBSERVED BY CITY OF WHEELING WATER DEPARTMENT MAY REQUIRE RE-EXCAVATION OF THE SANITARY LINE(S). AND RE-TESTING, WHICH WILL BE DONE AT THE SOLE EXPENSE OF THE

20 SANITARY SEWERS CROSSING STREAMS SHALL BE CONFIGURED TO BE NEARLY PERPENDICULAR TO THE STREAM AND SHALL BE PROVIDED WITH A ENCASEMENT. IN OTHER WET AREAS, SLICH AS WETLANDS, ELOODPLAINS, OR ALLUVIAL AREAS, ADDITIONAL MEASURES, MAY BE REQUIRED, SLICH AS CONCRETE ENCASEMENTS OR ANTI-SEEP COLLARS, AS SPECIFIED ON THE PLANS OR AS REQUIRED BY CITY OF WHEELING WATER DEPARTMENT

UNLESS OTHERWISE NOTED, SANITARY MAIN SHALL BE SDR 35 PVC FOR NORMAL DEPTHS AND DUCTILE IRON PIPE (DIP) WHERE ANY PORTION OF A SEWER SEGMENT IS 16' IN DEPTH OR GREATER. SANITARY LATERALS SHALL BE SDR 35 PVC UNLESS INDICATED IN WRITING OTHERWISE. 22. ALL SEWER MAINS AND LATERALS SHALL HAVE A MINIMUM COVER OF FOUR FEET (4'), AS MEASURED FROM THE TOP OF THE PIPE TO THE PROPOSED

SURFACE ELEVATION. CLEANOUTS SHALL BE PROVIDED FOR ALL LATERALS LONGER THAN 75' AND REGARDLESS OF LENGTH, SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION. CLEANOUTS SHALL BE THE SAME SIZE AS THE PIPING SERVED BY CLEANOUT, EXCEPT THAT CLEANOUTS FOR PIPING LARGER THAN FOUR INCHES (4") SHALL NOT NEED TO BE LARGER THAN FOUR INCHES (4").

24. SEWERS CONVEYING SANITARY FLOW, COMBINED SANITARY AND STORMWATER FLOW, OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST TEN FEET (10") HORIZONTALLY. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE. THE PIPES MUST BE IN SEPARATE TRENCHES WITH AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN, OR SUCH OTHER SEPARATION AS APPROVED BY THE GOVERNING AGENCY WITH JURISDICTION OVER SAME. WHERE APPROPRIATE SEPARATION IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE OR CONSTRUCTED OF DIP USING MECHANICAL OR SUP-ON JOINTS FOR A DISTANCE OF AT LEAST TEN FEET (10') ON FITHER SIDE OF THE CROSSING IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER MUST BE PROVIDED.

25. NO PLANTINGS SHALL BE LOCATED WITHIN TEN FEET (10') OF SANITARY SEWER MAINS OR LATERALS.

UNLESS INDICATED OTHERWISE, STORM MAINS MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SOIL TIGHT JOINTS. WHEN HIGH DENSITY POLYETHYLENE PIPE (HDPE) IS SPECIFIED, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND BE TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SOIL TIGHT JOINTS. PIPE FOR ROOF DRAINS SHALI BE HDPE, SDR 35 PVC, OR PVC SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS SHALL BE PROVIDED AND CONFORM TO

27. A MINIMUM OF FOUR FEET (4') OF HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN STORM STRUCTURES AND OTHER UTILITIES. A MINIMUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER.

28. UNLESS SPECIFIC MUNICIPAL DETAILS DICTATE OTHERWISE, ALL STORM STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT REVISION OF PENNDOT PUBLICATION 408 - "SPECIFICATIONS", PUBLICATION 72M - "STANDARDS FOR ROADWAY CONSTRUCTION".

30. ALL STORM PIPE CONNECTIONS TO STRUCTURES SHALL BE MADE WATER TIGHT.

29. ALL INLETS SHALL BE PROVIDED WITH BICYCLE SAFE GRATES.

31. WATER SERVICE SHALL BE PROVIDE THE CITY OF WHEELING WATER DEPARTMENT AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WHEELING WATER DEPARTMENT STANDARD SPECIFICATIONS

32. THE WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER AUTHORITY. ABSENT SPECIFIC REQUIREMENTS, WATER MAIN PIPING SHALL BE CEMENT LINED DUCTILE IRON PIPE (DIP) WITH A MINIMUM THICKNESS CLASS 52. ALL PIPE AND APPURTENANCES SHALL COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.

33. ALL WATER MAINS AND SERVICE LINES SHALL HAVE A MINIMUM COVER OF FOUR FEET (4'), AS MEASURED FROM THE TOP OF THE PIPE TO THE

34. WATER MAINS AND LATERALS SHALL BE HORIZONTALLY SEPARATED FROM STORM STRUCTURES BY A MINIMUM OF FOUR FEET (4'). A MINIMUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER.

35. WATER JOINTS SHALL BE MECHANICAL JOINTS WITH THRUST BLOCKING AT ALL CHANGES IN DIRECTION, AND/OR AS DEFINED IN THE

SITE SPECIFIC NOTES

OPERATING REFERENCE STATION) NETWORK

PROPERTY OWNER: KELLBENN, INC 53 WASHINGTON AVE WHEELING, WV 26003-6240

EXISTING PROPERTY INFORMATION: TPN 10-W39-186, 10-W39-196, 10-W39-204, AND 10-W39-195 842 NATIONAL ROAD, WHEELING, WV 26003

APPLICANT/EQUITABLE OWNER: KELLBENN, INC.

MERIDIAN IS REFERENCED TO THE WEST VIRGINIA STATE PLANE COORDINATE SYSTEM, NAD 1983. VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 SYSTEM, NAVD 1988. THE VERTICAL DATUM IS ALSO REFERENCED TO THE NOAA CORS (CONTINUOUISLY

5. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) AS SHOWN ON THE FLOOD INSURANCE RATE MAP 54069C0054D, EFFECTIVE JULY 17, 2006.

6. ALL CURB AND PAVEMENT RADII ARE 5'. UNLESS OTHERWISE NOTED.

7. ALL PROPOSED PINS AND MONUMENTS SHALL BE PLACED AND CERTIFIED BY A LICENSED WEST VIRGINIA PROFESSIONAL SURVEYOR

**GRADING NOTES** 

CONTRACTOR COMMENCING ANY WORK.

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. TH GENERAL NOTES ARE REFERENCED HEREIN. AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES. IN THEIR

SITE GRADING MUST BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AS REFERENCED IN THIS PLAN SET, IF NO GEOTECHNICAL REPORT HAS BEEN REFERENCED. THE CONTRACTOR MUST HAVE A GEOTECHNICAL ENGINEER PROVIDE WRITTEN SPECIFICATIONS AND RECOMMENDATIONS PRIOR TO THE CONTRACTOR COMMENCING THE GRADING WORK. THE CONTRACTOR MUST FOLLOW THE REQUIREMENTS OF ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS, WHICH HAVE

ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS'

THE CONTRACTOR IS REQUIRED TO SECURE ALL NECESSARY AND/OR REQUIRED PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. THE CONTRACTOR MUST SUPPLY A COPY OF APPROVALS TO THE ENGINEER OF RECORD AND THE OWNER PRIOR TO THE

THE CONTRACTOR IS FULLY RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION. SHOULD DISCREPANCIES BETWEEN THE PLANS AND INFORMATION OBTAINED THROUGH FIELD VERIFICATIONS BE IDENTIFIED OR EXIST, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING.

5. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING ALL UNSUITABLE MATERIALS WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR MUST COMPACT ALL EXCAVATED OR FILLED AREAS IN STRICT ACCORDANCE WITH THE GEOTECHNICAL REPORT'S GUIDANCE. MOISTURE CONTENT AT TIME OF PLACEMENT MUST BE SUBMITTED IN A COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED. THIS REPORT MUST VERIFY THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS. SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS RULES STATUTES, LAWS, ORDINANCES AND CODES WHICH ARE IN EFFECT AND WHICH ARE APPLICABLE TO THE PROJECT, SUBBASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT MUST BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBBASE BE DEEMED UNSUITABLE BY OWNER/DEVELOPER, OR OWNER/DEVELOPER'S REPRESENTATIVE, SUBBASE MUST BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS THE GEOTECHNICAL REPORT DIRECTS. EARTHWORK ACTIVITIES INCLUDING, BUT NOT LIMITED TO, EXCAVATION, BACKFILL, AND COMPACTING MUST COMPLY WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND ALL APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES AND CODES, EARTHWORK ACTIVITIES MUST COMPLY WITH THE STANDARD STATE DOT SPECIFICATIONS FOR ROADWAY CONSTRUCTION (LATEST EDITION) AND ANY AMENDMENTS OR REVISIONS THERETO.

6. IN THE EVENT OF A DISCREPANCY(IES) AND/OR A CONFLICT(S) BETWEEN PLANS, OR RELATIVE TO OTHER PLANS, THE GRADING PLAN TAKES PRECEDENCE AND CONTROLS. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCY(IES AND/OR CONFLICT(S).

THE CONTRACTOR IS RESPONSIBLE TO IMPORT FILL OR EXPORT EXCESS MATERIAL AS NECESSARY TO CONFORM TO THE PROPOSED GRADING, AND TO BACKFILL EXCAVATIONS FOR THE INSTALLATION OF UNDERGROUND IMPROVEMENTS.

SITE SPECIFIC

8. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.

THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE IS PROVIDED IN BOTH PAVED AND LAWN AREAS AFTER CONSTRUCTION. THE MINIMU SLOPES FOR IMPROVEMENTS ARE 1% ON ALL CONCRETE SURFACES, 1.5% MINIMUM IN ASPHALT (EXCEPT WHERE ADA LIMITS SLOPE), AND 2% I LAWN AREAS. ANY LOCALIZED DEPRESSIONS MUST BE ELIMINATED.

10. THE CONTRACTOR MUST ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURES. WHERE THE GRADING ALONG AND ADJACENT TO A BUILDING A SCHEMATIC DUE TO A GENERIC BUILDING FOOTPRINT. THE GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE TO MINIMUM REVEAL AS REQUIRED BY THE ARCHITECT AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. ALL GRADING AND MINIMU SLOPES AND SEPARATIONS MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODES AND ALL OTHER APPLICABLE REQUIREMENT RULES, STATUTES, LAWS, ORDINANCES, AND CODES.

11. WHERE SUBGRADE BUILDING AREAS ARE PROVIDED. THE CONTRACTOR MUST DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF TI PROPOSED SUBGRADE BUILDING AREA. WHERE GROUNDWATER IS ENCOUNTERED AT THE ELEVATION OF THE SUBGRADE BUILDING ARE APPROPRIATE CONSTRUCTION METHODS SHALL BE EMPLOYED TO PREVENT GROUNDWATER FROM ENTERING THE STRUCTURE(S). IF AND WHEF SUMP PUMPS ARE PROVIDED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER OR OTHERWISE PROTECTED FROM CAUSING SURFACE

12. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER AND IMPLEMENT RECOMMENDED STABILIZATION MEASURES FO ANY CUT SLOPES IN EXCESS OF 2:1 AND/OR FILL SLOPES IN EXCESS OF 3:1.

13. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATIONS.

14. THE TOP AND BOTTOM OF WALL ELEVATIONS (TW & BW) REPRESENT THE PROPOSED FINISHED GRADE AT THE FACE OF THE WALL AND DO NO REPRESENT THE ELEVATION OF THE PROPOSED WALL, WHICH MAY INCLUDE CAP UNITS AND FOOTINGS. WALL FOOTINGS/FOUNDATION ELEVATION ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR BASED ON FINAL STRUCTURE DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT THE WALLS SHOWN HEREON MUST BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER AND THAT SIGNED AND SEALED SHOP DRAWINGS ARE APPROVED BY THE MUNICIPALITY PRIOR TO THEIR CONSTRUCTION. ADDITIONALLY, THE CONTRACTOR SHALL ENSURE THAT FENCING, GUIDERAIL, UTILITIES, AND OTHER SITE FEATURES IN THE VICINITY OF THE WALL(S), SHALL BE CONSIDERED AND INCORPORATED INTO THE RETAINING WALL DESIGNS (BY OTHERS).

15. ALL DISTURBED TOPSOIL ON THE SITE IS TO BE REDISTRIBUTED ON SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. REMOVAL OF TOPSOIL IS NOT ALLOWED, UNLESS OTHERWISE SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT

**ACCESSIBILITY DESIGN GUIDELINES** 

1. ALL ACCESSIBLE (A.K.A. ADA) COMPONENTS AND ACCESSIBLE ROUTES MUST BE CONSTRUCTED TO MEET, AT A MINIMUM, THE MORE STRINGENT OF (A) THE REQUIREMENTS OF THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE (42 U.S.C. § 12101 ET SEQ. AND 42 U.S.C. § 4151 ET SEQ.); AND (B) ANY APPLICABLE LOCAL AND STATE GUIDELINES, AND ANY AND ALL AMENDMENTS TO BOTH, WHICH ARE IN EFFECT WHEN THESE PLANS WERE

THE CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ACCESSIBLE (ADA) COMPONENTS AND ACCESSIBLE

2. THE CONTRACTOR MUST REVIEW ALL DOCUMENTS REFERENCED IN THESE NOTES FOR ACCURACY, COMPLIANCE AND CONSISTENCY WITH

ROUTES FOR THE SITE. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACES, PUBLIC TRANSPORTATION PEDESTRIAN ACCESS. AND INTER-BUILDING ACCESS. TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EXIT. MUST COMPLY WITH THE ACCESSIBL GUIDELINES AND REQUIREMENTS WHICH INCLUDE. BUT ARE NOT LIMITED TO THE FOLLOWING

A. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SLOPES MUST NOT EXCEED 1:50 (2.0%) IN ANY DIRECTION. B. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE MUST PROVIDE A 36-INCHES MINIMUM WIDTH (48-INCHES PREFERRED), OR AS SPECIFIED BY THE GOVERNING AGENCY LINORSTRUCTED WIDTH OF TRAVEL (CAR OVERHANGS AND/OR HANDRAILS) MUST NOT REDUCE THIS MINIMUM WIDTH. THE SLOPE MUST NOT EXCEED 1:20 (5.0%) IN THE DIRECTION OF TRAVEL AND MUST NOT EXCEED 1:50 (2.0%) IN CROSS SLOPE WHERE ACCESSIBLE PATH OF TRAVEL IS GREATER THAN 1:20 (5.0%), AN ACCESSIBLE RAMP MUST BE PROVIDED. ALONG THE ACCESSIBLE PATH OF TRAVEL DENINGS MUST NOT EXCEED 1/2-INCH IN WIDTH, VERTICAL CHANGES OF UP TO 1/2-INCH ARE PERMITTED ONLY IF THEY INCLUDES A 1/4-INCH

BEVEL AT A SLOPE NOT STEEPER THAN 1:2. NO VERTICAL CHANGES OVER 1/4-INCH ARE PERMITTED. ACCESSIBLE RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%) AND A RISE OF 30-INCHES. LEVEL LANDINGS MUST BE PROVIDED AT EACH END OF ACCESSIBLE RAMPS. LANDING MUST PROVIDE POSITIVÈ DRÁINAGE AWAY FROM STRUCTURES, AND MUST NOT EXCEED 1:50 (2.0%) SLOPE IN ANY DIRECTION. RAMPS THAT CHANGE DIRECTION BETWEEN RUNS AT LANDINGS MUST HAVE A CLEAR LANDING OF A MINIMUM OF 60-INCHES BY

D. ACCESSIBLE CURB RAMPS MUST NOT EXCEED A SLOPE OF 1:12 (8.3%). WHERE FLARED SIDES ARE PROVIDED, THEY MUST NOT EXCEED 1:10 (10%) SLOPE. LEVEL LANDING MUST BE PROVIDED AT RAMPS TOP AT A MINIMUM OF 36-INCHES LONG (48-INCHES PREFERRED). IN ALTERATIONS. WHEN THERE IS NO LANDING AT THE TOP, FLARE SIDES SLOPES MUST NOT EXCEED A SLOPE OF 1:12 (8.3%).

60-INCHES. HAND RAILS ON BOTH SIDES OF THE RAMP MUST BE PROVIDED ON AN ACCESSIBLE RAMP WITH A RISE GREATER THAN 6-INCHES.

. DOORWAY LANDINGS AREAS MUST BE PROVIDED ON THE EXTERIOR SIDE OF ANY DOOR LEADING TO AN ACCESSIBLE PATH OF TRAVEL. THIS LANDING MUST BE SLOPED AWAY FROM THE DOOR NO MORE THAN 1:50 (2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA MUST BE NO FEWER THAN 60-INCHES (5 FEET) LONG. EXCEPT WHERE OTHERWISE CLEARLY PERMITTED BY ACCESSIBLE STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS. (SEE ICC/ANSI A117.1-2009 AND OTHER REFERENCES INCORPORATED BY CODE). F. WHEN THE PROPOSED CONSTRUCTION INVOLVES RECONSTRUCTION, MODIFICATION, REVISION OR EXTENSION OF OR TO ACCESSIBLE

COMPONENTS FROM EXISTING DOORWAYS OR SURFACES, THE CONTRACTOR MUST VERIFY ALL EXISTING ELEVATIONS SHOWN ON THE PLAN

NOTE THAT TABLE 405.2 OF THE DEPARTMENT OF JUSTICE'S ADA STANDARDS FOR ACCESSIBLE DESIGN ALLOWS FOR STEEPER RAMP SLOPES IN RARE CIRCUMSTANCES, THE CONTRACTOR MUST IMMEDIATELY NOTICY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES AND/OR FIELD CONDITIONS THAT DIFFER IN ANY WAY OR IN ANY RESPECT FROM WHAT IS SHOWN ON THE PLANS BEFORE COMMENCING ANY WORK CONSTRUCTED IMPROVEMENTS MUST FALL WITHIN THE MAXIMUM AND MINIMUM LIMITATIONS IMPOSED BY THE BARRIER FREE REGULATIONS AND THE ACCESSIBLE GUIDELINES. G. THE CONTRACTOR MUST VERIFY ALL OF THE SLOPES OF THE CONTRACTOR'S FORMS PRIOR TO POURING CONCRETE. IF ANY

WRITING. PRIOR TO POURING CONCRETE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND/OR REPLACE NON-CONFORMING CONCRETE AND/OR PAVEMENT SURFACES

4. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION TO ENSURE SAME IS CONSISTENT WITH THE

NON-CONFORMANCE EXISTS OR IS OBSERVED OR DISCOVERED. THE CONTRACTOR MUST IMMEDIATELY NOTICY THE ENGINEER OF RECORD. IN

REFERENCES AND CONTACT INFORMATION

PLANS BY KEYSTONE SURVEYING & MAPPING INC. 534 VALLEY BROOK ROAD, VENETIA, PA 15367 ENTITLED: "BOUNDARY & TOPOGRAPHIC SURVEY" FILE NO: BOHLER-842 NATIONAL RD SHEETS 1 OF 1

(Rev. 1/2020)

LOCAL BUILDING CODE PRIOR TO COMMENCING CONSTRUCTION.

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS. BY OTHERS

(Rev. 2/2021)

REVISIONS

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WHETHER IT'S ON PRIVATE OR PUBLIC LAND.

www.wv811.com

PROJECT No.: PB21404 DRAWN BY: CHECKED BY:

PB214045-CNDS-0

CAD I.D.:

PROJECT: PRELIMINARY/ FINAL LAND **DEVELOPMENT** 

KELLBENN, INC.

**PLANS** 

PROPOSED DEVELOPMENT

**842 NATIONAL ROAD** CITY OF WHEELING

**OHIO COUNTY, WV 26003** 

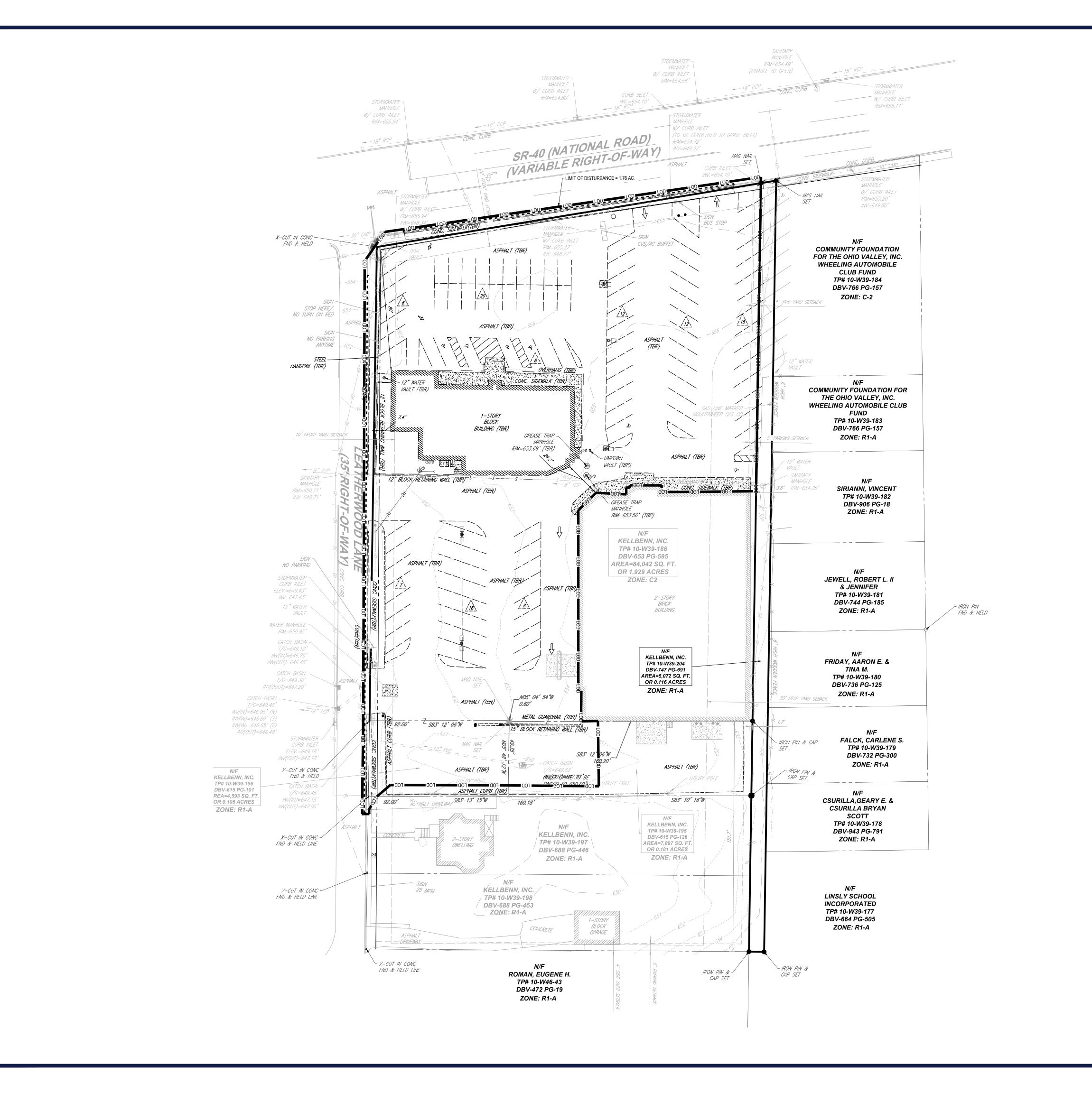
1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

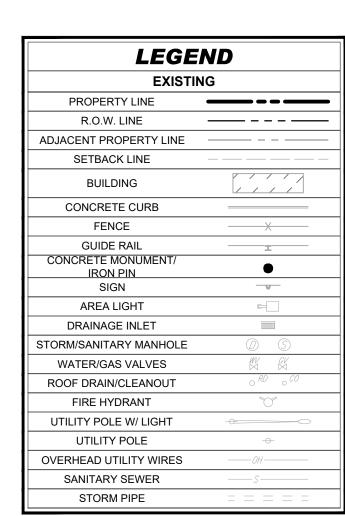
Phone: (724) 638-8500 www.BohlerEngineering.com

M.W. TAKACS GISTERED LANDSCAPE ARCHITEC WEST VIRGINIA LICENSE N

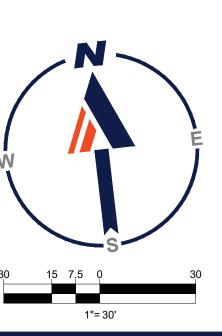
NOTES

SHEET TITLE:





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PROPERTY LINE	
ADJACENT PROPERTY LINE	
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ROOF DRAIN/CLEANOUT	o <sup>RD</sup> o <sup>CO</sup>
UTILITY POLE	<del>-</del>
OVERHEAD UTILITY WIRES	
STORM PIPE	=======





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AGENCY REVIEW & APPROVAL

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PROJECT No.: PB214045

 DRAWN BY:
 APM

 CHECKED BY:
 MWT

 DATE:
 10/28/2022

 CAD I.D.:
 PB214045-LDVP-00

PROJECT:

PRELIMINARY/
FINAL LAND
DEVELOPMENT
PLANS

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003

BOHLER/

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

www.BohlerEngineering.com

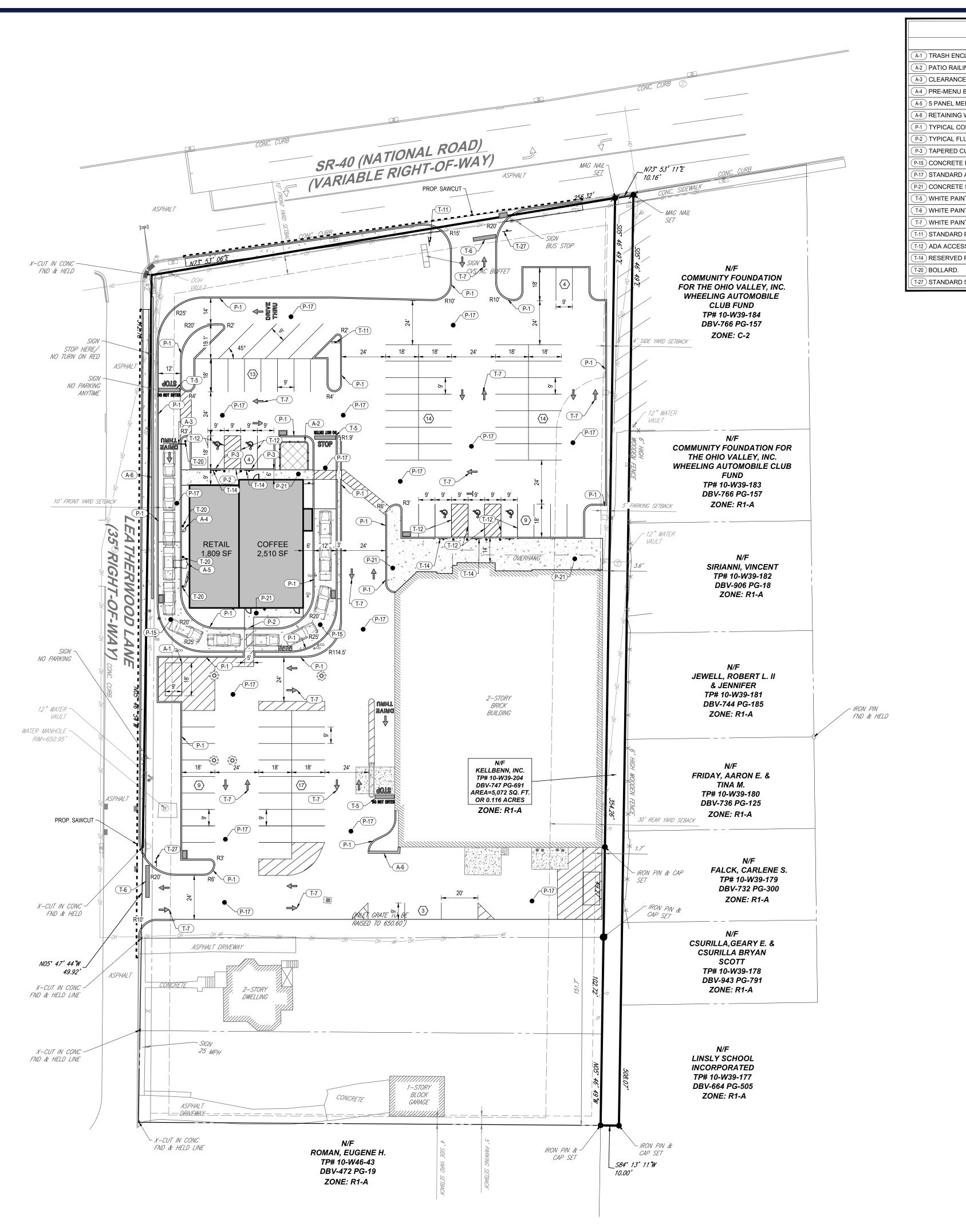
M.W. TAKACS

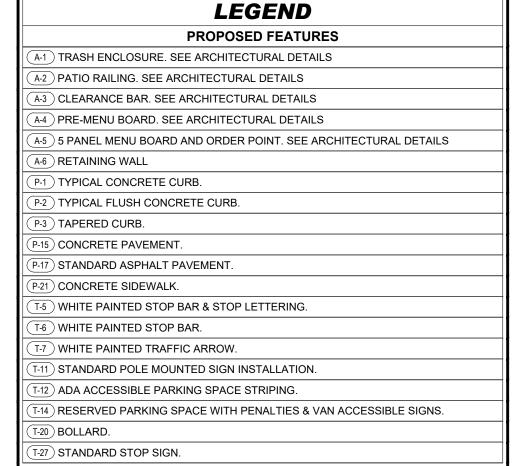
REGISTERED LANDSCAPE ARCHITECT
WEST VIRGINIA LICENSE No.

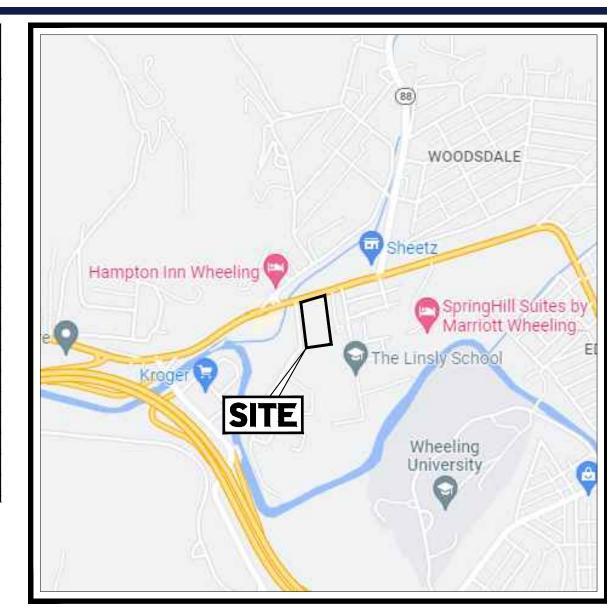
EXISTING
CONDITIONS/
DEMOLITION

PLAN
SHEET NUMBER:

C-201









#### SCALE: 1" = 1,000' SOURCE: GOOGLE MAPS

#### SITE CHARACTERISTICS

EXISTING ZONING: GENERAL COMMERCIAL (C2)
PROPOSED USE: RESTAURANT, RETAIL

RESTAURANT, RETAIL (PERMITTED BY RIGHT WITHIN C2 DISTRICT)

ZONING DISTRICT REQUIREMENTS					
REQUIRED EXISTING PROPOSED					
MIN. LOT AREA	10,000 SF	84,042 SF	122,134 SF		
MIN. LOT FRONTAGE	75 FT	253.4 FT	NO CHANGE		
MN. LOT DEPTH	100 FT	310.4 FT	460.7 FT		
MAX. FLOOR AREA RATIO	1.5	0.28	0.17		
MIN. YARD SETBACKS					
FRONT	10 FT	80.0 FT	114.2 FT		
2 SIDES	10 FT	N/A	N/A		
1 SIDE	4 FT	1.7 FT (ENC)	1.7 FT (ENC)		
SIDE (ABUTTING R1-A)	5 FT	1.7 FT (ENC)	1.7 FT (ENC)		
REAR	15 FT	N/A	N/A		
REAR (ABUTTING R1-A)	30 FT	N/A	N/A		
MAX. HEIGHT	3 STORIES / 45 FT	2 STORIES	2 STORIES		

(ENC) DENOTES AN EXISTING NON-CONFORMITY (V) DENOTES A VARIANCE IS REQUESTED

 PARKING REQUIREMENTS

 MIN REQUIRED
 EXISTING
 PROPOSED

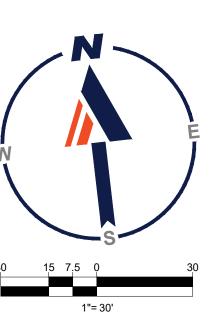
 BETAIL: 1 SPACE PER 250 SF GFA
 = \frac{1}{250} \* (1,809 SF + 13,658 SF) = 62 SPACES
 87 SPACES

 DINING: 1 SPACE PER 10 SF GFA
 104 SPACES
 (INCLUDING 7 ADA SPACES)

 DRIVE-THRU STACKING
 100 FT STACKING LANE
 N/A
 235' (CENTERLINE OF DT LANE)

LEGEND				
EXISTING				
CONCRETE CURB				
FENCE	X			
GUIDE RAIL				
CONCRETE MONUMENT/ IRON PIN	•			
SIGN				
AREA LIGHT	=			
DRAINAGE INLET				
STORM/SANITARY MANHOLE	Ø S			
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ROOF DRAIN/CLEANOUT	o RD o CO			
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UTILITY POLE W/ LIGHT	<del></del>			
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OVERHEAD UTILITY WIRES	——ОН-——			

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BOLLARD	*
PARKING COUNT	(10)
DRAINAGE INLET	





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YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.

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 PROJECT No.:
 PB214045

 DRAWN BY:
 APM

 CHECKED BY:
 MWT

 DATE:
 10/28/2022

 CAD I.D.:
 PB214045-LDVP-0D

OJECT:

PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

\_\_\_\_\_

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003

BOHLER/

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

Phone: (724) 638-8500

www.BohlerEngineering.com

M.W. TAKACS

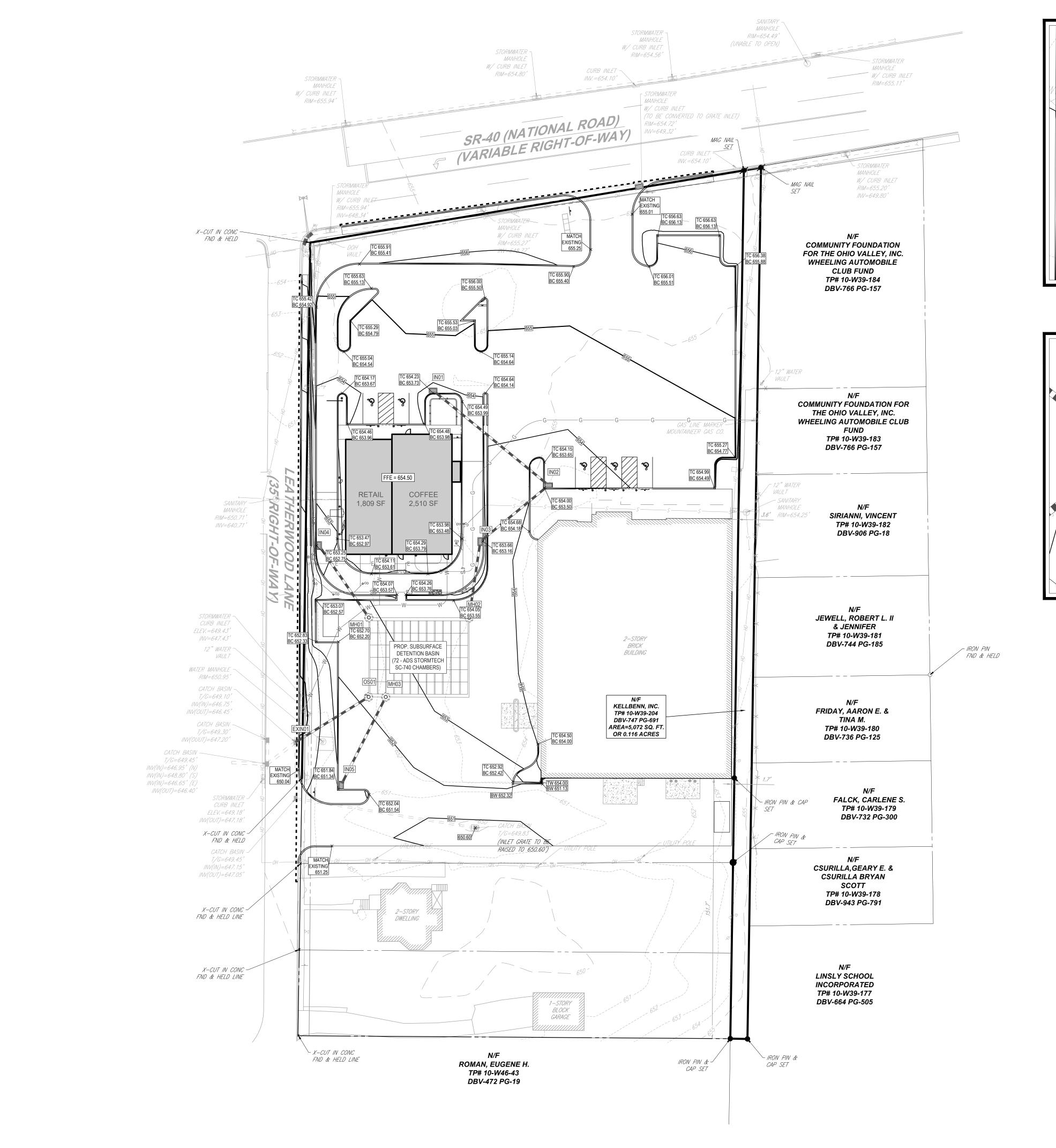
REGISTERED LANDSCAPE ARCHITECT
WEST VIRGINIA LICENSE No.

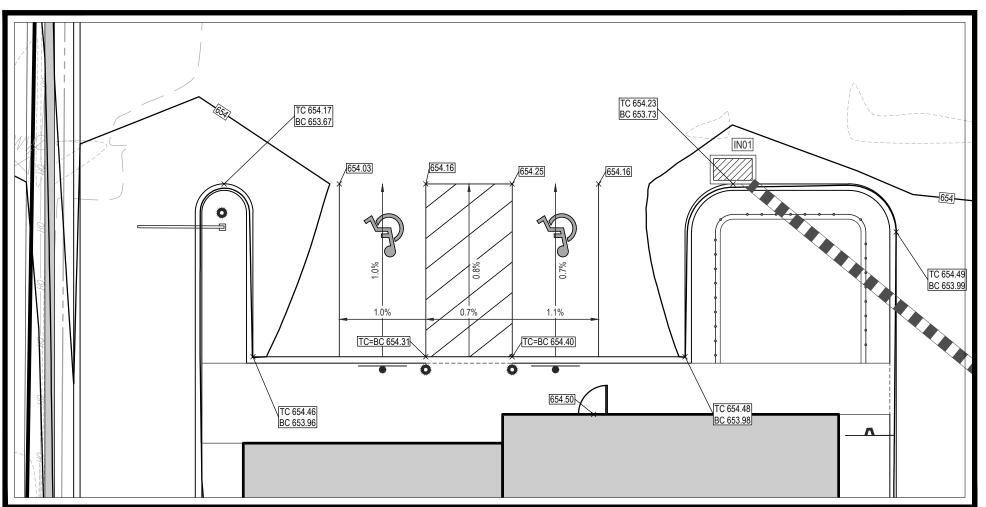
SHEET TITLE:

SITE PLAN

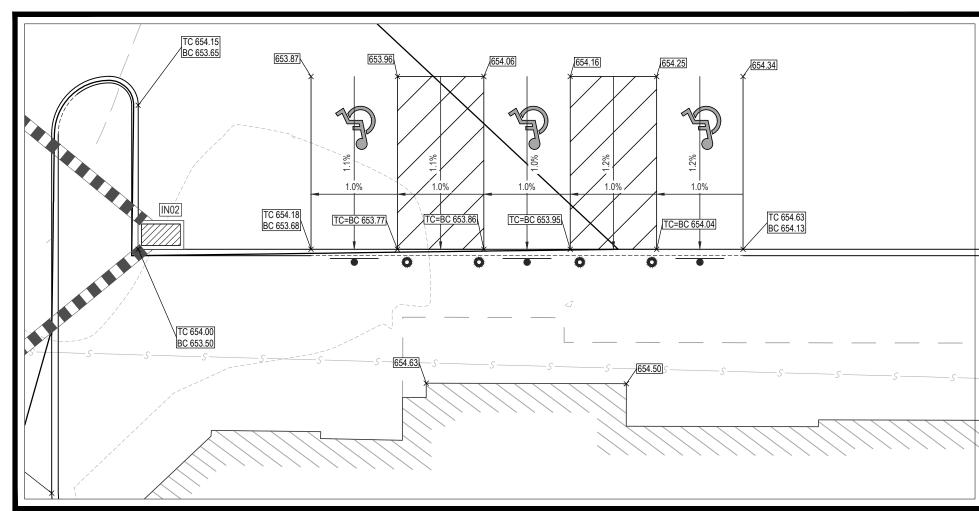
ET NUMBER:

C-301





# ADA ENLARGEMENT AREA #1 SCALE: 1" = 10'



# ADA ENLARGEMENT AREA #2 SCALE: 1" = 10'

LEGEND			
EXISTING	G		
CONCRETE CURB			
FENCE	X		
GUIDE RAIL			
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STORM PIPE	
SPOT ELEVATION	123.00 TC 123.50 BC 123.00





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REV	DATE	COMMENT	DRAWN BY



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PROJECT:

PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003



1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

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REGISTERED LANDSCAPE ARCHITECT
WEST VIRGINIA LICENSE No.

SHEET TITLE:

GRADING PLAN

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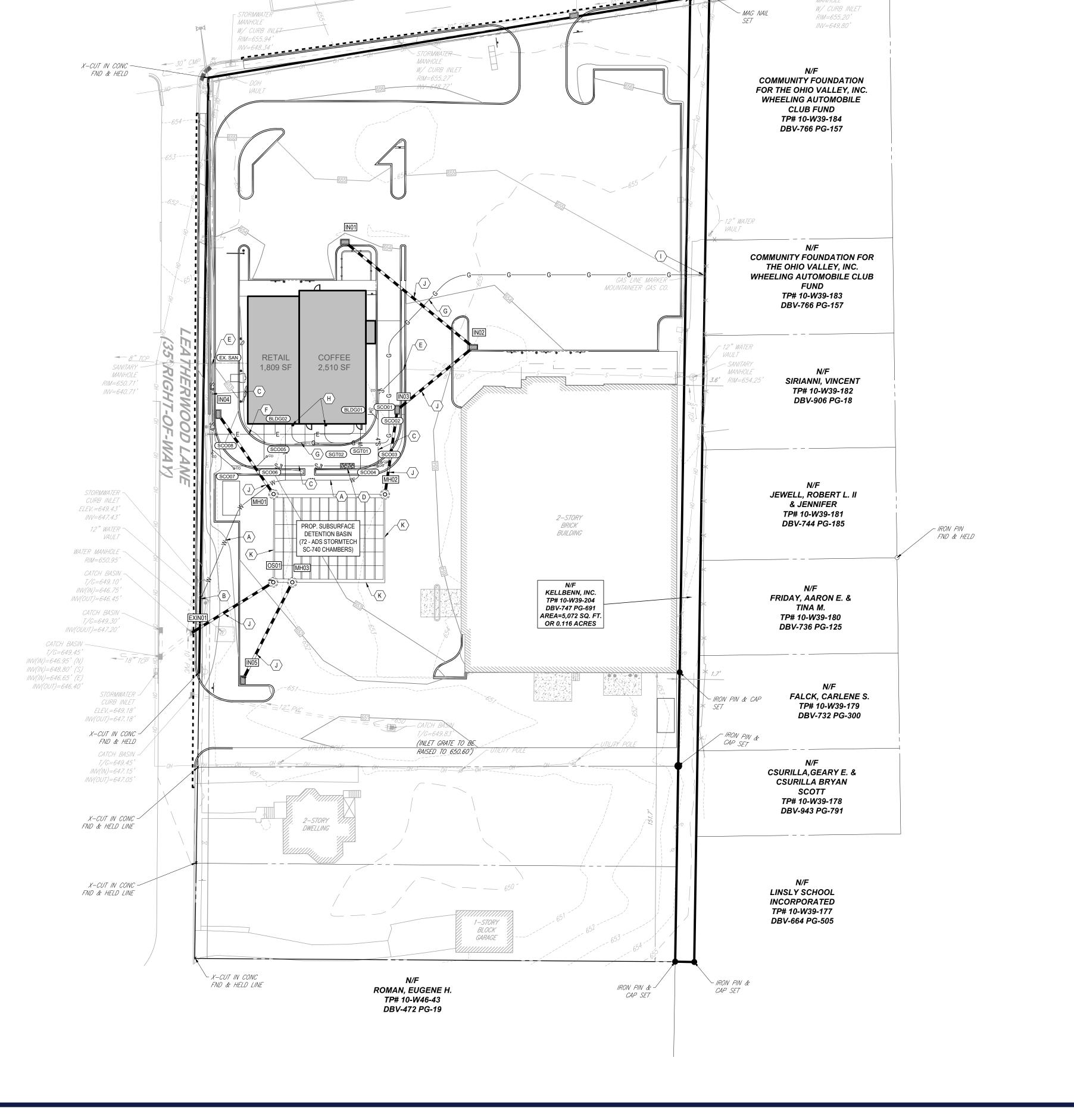
C-401



STORM SEWER PIPE SCHEDULE					
FROM	ТО	SIZE (IN.)	TYPE	LENGTH (FT.)	SLOPE(%)
IN01	IN02	15"	HDPE	87	1.50%
IN02	IN03	15"	HDPE	52	1.50%
IN03	MH02	15"	HDPE	45	1.78%
IN04	MH01	15"	HDPE	51	5.00%
IN05	MH03	15"	HDPE	58	1.00%
OS01	EXIN01	15"	HDPE	50	1.00%

SA	NITARY STRUCT	JRE SCH	EDULE
NAME	TYPE	RIM ELEV. (FT.)	INVERTS
BLDG01	4 INCH CYLINDRICAL STRUCTURE	654.40	INV OUT = 650.50'
BLDG02	4 INCH CYLINDRICAL STRUCTURE	654.50	INV OUT = 647.69'
EX. SAN	NULL STRUCTURE	642.14	INV IN = 641.79'
SCO01	4 INCH CYLINDRICAL STRUCTURE	654.11	INV IN = 650.34' INV OUT = 650.34'
SC002	4 INCH CYLINDRICAL STRUCTURE	653.50	INV IN = 650.15' INV OUT = 650.15'
SC003	4 INCH CYLINDRICAL STRUCTURE	653.94	INV IN = 648.93' INV OUT = 648.93'
SC004	4 INCH CYLINDRICAL STRUCTURE	653.96	INV IN = 648.75' INV OUT = 648.75'
SC005	4 INCH CYLINDRICAL STRUCTURE	653.39	INV IN = 646.08' INV OUT = 646.08'
SC006	4 INCH CYLINDRICAL STRUCTURE	653.30	INV IN = 645.58' INV IN = 645.68' INV OUT = 645.58'
SC007	4 INCH CYLINDRICAL STRUCTURE	653.35	INV IN = 644.87' INV OUT = 644.87'
SCO08	4 INCH CYLINDRICAL STRUCTURE	652.00	INV IN = 644.13' INV OUT = 644.13'
SGT01	4 INCH CYLINDRICAL STRUCTURE	653.56	INV IN = 648.23' INV OUT = 648.23'
SGT02	4 INCH CYLINDRICAL STRUCTURE	653.64	INV IN = 647.85' INV OUT = 647.85'

S	SANITARY PIPE SCHEDULE				
FROM	то	SIZE IN.	TYPE	SLOPE %	LENGTH FT.
BLDG01	SC001	4	PVC	5.57%	2.91
BLDG02	SCO05	4	PVC	8.66%	18.59
SC001	SC002	4	PVC	5.20%	3.54
SCO02	SCO03	4	PVC	5.21%	23.47
SCO03	SCO04	4	PVC	6.80%	2.71
SCO04	SGT01	4	PVC	5.29%	9.82
SCO05	SCO06	4	PVC	8.00%	5.00
SCO06	SC007	4	PVC	5.20%	13.59
SC007	SCO08	4	PVC	5.61%	13.23
SCO08	EX. SAN	4	PVC	5.20%	45.01
SGT01	SGT02	4	PVC	5.08%	7.43
SGT02	SCO06	4	PVC	5.20%	43.66



MANHOLE

W/ CURB INLET

MANHOLE

W/ CURB INLET

RIM=654.49'

STORMWATER

W/ CURB INLET

MANHO! F

W/ CURB INLET

STORMWATER -

MANHOLE W/ CURB INLET RIM=654.80'

RIM=654.56'

MANHOLE

- W/ CURB INLET

CURB INLET =

INV.=654.10°

#### **LEGEND**

#### **PROPOSED UTILITIES**

- PROPOSED 2.5" K-COPPER WATER SERVICE IN ACCORDANCE WITH CITY WATER DEPARTMENT REGULATIONS AND SPECIFICATIONS.
- GC TO CONNECT TO EXISTING WATER MAIN PER AUTHORITY REGULATIONS. GC SHALL VERIFY SIZE, LOCATION AND CONDITION OF EXISTING SERVICE LINE PRIOR TO
- CONNECTION.
- PROPOSED 4" PVC SDR-26 SANITARY LATERAL AT MINIMUM 2.00% SLOPE IN ACCORDANCE WITH SEWER AUTHORITY. REFER TO SANITARY PIPE SCHEDULE.
- $\rangle$  PROPOSED GREASE TRAP.
- GC TO CONNECT TO EXISTING SANITARY SEWER PER WATER AUTHORITY REGULATIONS. GC SHALL VERIFY SIZE, LOCATION AND CONDITION OF EXISTING SERVICE LINE PRIOR TO CONNECTION.
- PROPOSED UNDERGROUND ELECTRICAL AND TELEPHONE CONDUITS IN ACCORDANCE WITH SERVICE PROVIDERS REGULATIONS AND SPECIFICATIONS. GC TO
- COORDINATE WITH SERVICE PROVIDERS PRIOR TO CONSTRUCTION. PROPOSED GAS SERVICE IN ACCORDANCE WITH AUTHORITY REGULATIONS AND
- SPECIFICATIONS.
- PROPOSED GAS ENTRY WITH GAS METER. SEE ARCHITECTURAL PLANS.
- GC TO CONNECT TO EXISTING GAS PER SERVICE PROVIDER REGULATIONS. GC SHALL VERIFY SIZE, LOCATION AND CONDITION OF EXISTING SERVICE LINE PRIOR TO CONNECTION.
- PROPOSED HDPE STORM PIPE. REFER TO STORM SEWER PIPE SCHEDULE.
- PROPOSED ADS STORMTECH SC-740 CHAMBERS.

**LEGEND** 

**EXISTING** 

LEGEND

**PROPOSED** 

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CONCRETE CURB

**FENCE** 

**GUIDE RAIL** CONCRETE MONUMENT

IRON PIN

SIGN

AREA LIGHT

DRAINAGE INLET STORM/SANITARY MANHOLE

WATER/GAS VALVES

ROOF DRAIN/CLEANOUT

FIRE HYDRANT

UTILITY POLE W/ LIGHT

UTILITY POLE

**OVERHEAD UTILITY WIRES** 

SANITARY SEWER STORM PIPE

PROPERTY LINE

BUILDING

RETAINING WALL

CONCRETE CURB

FLUSH CURB

FENCE

ACCESSIBLE SYMBOL

CROSSWALK

SIDEWALK

SIGN

BOLLARD

PARKING COUNT

DRAINAGE INLET CLEANOUT

FIRE HYDRANT

UTILITY POLE

OVERHEAD UTILITY WIRES

ELECTRIC LINE

TELEPHONE LINE

GAS LINE

WATER LINE

SANITARY SEWER STORM PIPE

**REVISIONS** 

REV DATE COMMENT



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PROJECT No.: DRAWN BY:

CHECKED BY: DATE: CAD I.D.: PB214045-LDVP-0E

PROJECT:

PRELIMINARY/ FINAL LAND **DEVELOPMENT PLANS** 

KELLBENN, INC.

PROPOSED DEVELOPMENT

**842 NATIONAL ROAD** CITY OF WHEELING

OHIO COUNTY, WV 26003

**BOHLER** 

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

www.BohlerEngineering.com

Phone: (724) 638-8500

M.W. TAKACS

REGISTERED LANDSCAPE ARCHITECT

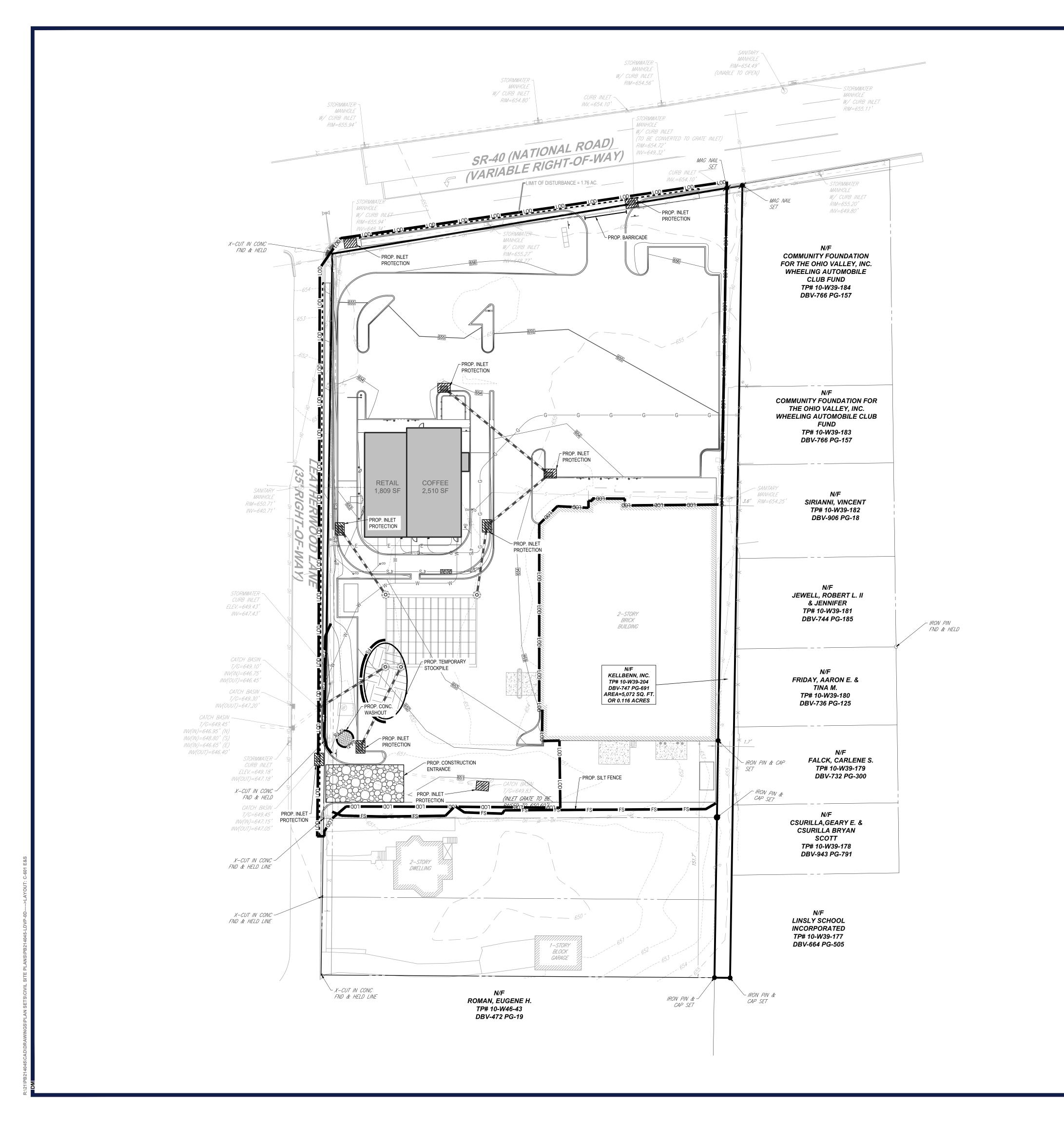
WEST VIRGINIA LICENSE No.

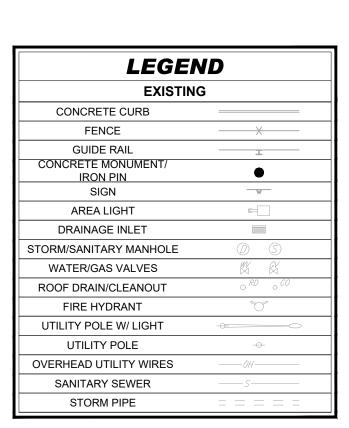
SHEET TITLE:

**UTILITY PLAN** 

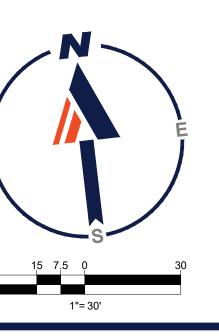
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	LEGE	ND
	PROPO:	SED
	LIMIT OF DISTURBANCE/ NPDES BOUNDARY	■LOD/NPDES■
	COMPOST FILTER SOCK	FS FS
	BARRICADE	Н
	CONCRETE WASHOUT	542 ) 54 ) 54 ) 54 ) 54 ) 54 ) 54 ) 54 ) 54
	TEMPORARY STOCKPILE	
	ROCK CONSTRUCTION ENTRANCE	
	INLET PROTECTION	





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REV	DATE	COMMENT	DRAWN BY
			CHECKED BY
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PROJECT No.: PB214045

 DRAWN BY:
 APM

 CHECKED BY:
 MWT

 DATE:
 10/28/2022

 CAD I.D.:
 PB214045-LDVP-0E

PROJECT:

PRELIMINARY/
FINAL LAND
DEVELOPMENT
PLANS

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003



1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

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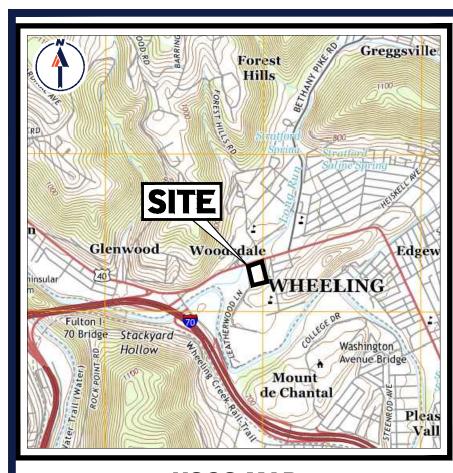
MINI TANAOS

REGISTERED LANDSCAPE ARCHITECT
WEST VIRGINIA LICENSE No.

UEET TITI E:

SOIL EROSION
& SEDIMENT
POLLUTION
CONTROL PLAN

C-601



#### USGS MAP

SCALE: 1" = 2,000' SOURCE: USGS

#### **LOCATION OF ALL SURFACE WATERS**

THE SUBJECT SITE IS LOCATED WITHIN THE HUC 12 LONG RUN - WHEELING CREEK WATERSHED

#### RECYCLING OR DISPOSAL OF MATERIALS

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE:
- CONCRETE CURB AND SIDEWALK

- ASPHALT - E&S BMP - SILT FENCE

- E&S BMP - INLET PROTECTION - E&S BMP - REGULATED FILL MATERIALS

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE WV DEP'S SOLID WASTE MANAGEMENT REGULATIONS. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. BELOW IS A LIST OF METHODS FOR THE PROPER RECYCLING/DISPOSAL OF VARIOUS MATERIALS:

1.) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION.

2.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.

3.) SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL OPERATOR.

4.) WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

5.) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

#### POTENTIAL THERMAL IMPACTS TO SURFACE WATERS

A POTENTIAL FOR THERMAL IMPACTS EXISTS IN INSTANCES WHERE SURFACE RUNOFF IS DIRECTLY CONVEYED TO A RECEIVING STREAM WITHOUT ADEQUATE ATTENUATION OR COOLING. TO AVOID THERMAL IMPACTS, THE FOLLOWING ARE PROPOSED: SILT FENCE SOCKS DURING CONSTRUCTION, LANDSCAPING. ALL OF THOSE MEASURES WILL HELP TO CONTROL RUNOFF VOLUME AND RATE AND THEREBY PROVIDE ADDITIONAL COOLING TIME, THEREBY MINIMIZING THERMAL IMPACTS TO THE RECEIVING STREAM.

#### E&S PLAN PLANNING & DESIGN

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE:

ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE
SEQUENCE CONSTRUCTION ACTIVITIES BY LIMITING DISTURBANCES TO A SPECIFIC TASK SUCH

THAT EACH TASK IS COMPLETED BEFORE THE NEXT TASK IS INITIATED

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:

ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE

THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:

ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCE
USE OF TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING OPERATIONS

GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS

THE FOLLOWING MEASURES ARE TAKEN TO PREVENT OR MINIMIZE GENERATION OF INCREASED STORM

WATER RUNOFF:

• DIRECT RUNOFF TO AN INLERTS AND UNDERGROUND BASIN TO CONTROL RUNOFF RATES

PROVIDE LANDSCAPING TO HELP REDUCE RUNOFF VOLUME

#### EXISTING/PROPOSED RIPARIAN FOREST BUFFERS

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS, NOTE THE FOLLOWING:

• THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.



#### SOIL MAP

SCALE: 1" = 200' SOURCE: WEB SOIL SURVEY

#### TYPES, DEPTH, SLOPE, LOCATIONS, AND LIMITATIONS OF THE SOILS

SOIL DESCRIPTIONS

SOIL

JIL DESCRIPTIONS

DESCRIPTION SOIL GROUP

Ju - URBAN LAND-UDORTHENTS COMPLEX

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT.

N/A

1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH.

RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL.

2. ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.

RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.

3. LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITRPGEN, PHOSPHOROUS, POTASSIUM, SULFER, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTIVE VEGETATIVE SPECIES TOLERANT TO LOW FERTILITY SOIL CONDITIONS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.

4. ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF

RESOLUTIONS: TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE, SELECTING PERMANENT LININGS OTHER THAN GRASSES, AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION CONTROL MANUAL PUBLISHED BY PADEP.

5. WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS, TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS

ON NONCROPLAND PUBLISHED BY THE PENN STATE.

6. DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS, IRRIGATING VEGETATED AREAS AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.

7. SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE LIMITATIONS ON LOCATING RESERVOIR AREAS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND STORMWATER DETENTION BASINS.

RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LINING RESERVOIR AREAS WITH IMPERMEABLE LINNINGS, LIMITING STANDING WATER DEPTHS, LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

8 SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING.

EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

9. SOIL THAT ARE DIFFICULT TO COMPACT, UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS

10. SUSCEPTIBILITY FOR THE DEVELOPMENT OF SINKHOLE WITHIN IDENTIFIED SOILS.

RESOLUTIONS: IN THE EVENT THAT PRESENCE OF A SINKHOLE IS DETECTED DURING THE COURSE OF WORK, CORRECTIVE MEASURES SHALL BE PERFORMED UNDER THE OBSERVATION AND GUIDANCE OF THE OWNER'S GEOTECHNICAL CONSULTANT.

EXCAVATE THE LOOSE, WET SOILS SURROUNDING THE SINKHOLE TO EXPOSE THE SINKHOLE "THROAT" (THE OPENING IN THE ROCK) AND THE ADJACENT STABLE SOILS/ROCK WHERE POSSIBLE, THE EXCAVATION SHALL EXTEND A MINIMUM OF TWO FEET (2') BEYOND THE STABLE SOILS OR TO THE ROCK SURFACE, WHICHEVER IS ENCOUNTERED FIRST.

FILL THE EXPOSED SINKHOLE "THROAT" WITH LEAN CONCRETE TO BLOCK THE MIGRATION OF THE UPPER LAYERS OF SOIL THROUGH THE ROCK OPENING. AFTER CONCRETE HAS CURED OVERNIGHT BACKFILL THE REMAINDER OF THE EXCAVATION WITH CLAYEY SOILS TO PROVIDE A LOW PERMEABILITY BARRIER. THE CLAYEY SOILS SHALL BE PLACED IN 8" LIFTS AND EACH LIFT COMPACTED BY REPEATED PASSES OF THE COMPACTION EQUIPMENT UNTIL STABLE. CARE SHALL BE TAKEN TO ASSURE THAT THE SOIL AT THE EDGES OF THE EXCAVATION ARE WELL COMPACTED.

#### DEFINITION OF CLEAN FILL AND IMPORT/EXPORT MATERIAL NOTES

IF THE SITE WILL NEED TO IMPORT OR EXPORT MATERIAL FROM THE SITE, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF CLEAN FILL WILL REST WITH THE APPLICANT.

1.) CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR

2.) CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE: FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

3.) ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM FP-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.

4.) ENVIRONMENTAL DUE DILIGENCE: THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEPARTMENT'S MUNICIPAL OR RESIDUAL WASTE REGULATIONS.

#### OVERALL SITE CONSTRUCTION SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE OHIO COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE WEST VIRGINIA ONE CALL SYSTEM INC. AT 1-800-245-4848 FOR BURIED UTILITIES LOCATION.

BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE OHIO COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

1. INSTALL CONSTRUCTION ENTRANCE AND STAGING AREAS AS DESIGNATED ON THE PLANS.

2. INSTALL ALL PERIMETER SILT FENCE, TREE PROTECTION FENCING, CONSTRUCTION FENCING, INLET PROTECTION] WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.

3. CONSTRUCT SUBSURFACE DETENTION BASIN. ONLY LIMITED CLEARING AND GRUBBING IS PERMITTED FOR CONSTRUCTION OF ACCESS TO THE SUBSURFACE DETENTION BASIN. CONSTRUCTION OF THE BASIN SHALL INCLUDE THE NECESSARY CLEARING AND GRUBBING, EARTHWORK, INSTALLATION OF THE PERMANENT BASIN OUTFALL SYSTEM AND ALL OTHER BASIN FEATURES AS SHOWN ON THE PLANS AND DETAILS,, AND ANY NECESSARY TEMPORARY STABILIZATION OF ALL DISTURBED AREAS. THE BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER EARTH DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE BASIN RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE OHIO COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER RISER IS INSTALLED AND SEALED, PER PLAN. SEDIMENT BASINS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER TO THE SEDIMENT BASIN SOIL CONSERVATION DISTRICT MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED ON THE SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES FOR ADDITIONAL SEDIMENT BASIN REQUIREMENTS DURING

4. ONCE SUBSURFACE BASIN IS CONSTRUCTED, STABILIZED AND FUNCTIONING PROPERLY, INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS [IMMEDIATELY FOR HQ/EV WATERSHEDS].

5. INITIATE STORM SEWER [AND SUBSURFACE BASIN] INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. [SEE ADDITIONAL INFILTRATION FACILITY SEQUENCING, INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE INFILTRATION BASINS. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF SUBSURFACE BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE BASINS, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT. INLETS DISCHARGING TO SUBSURFACE INFILTRATION BASINS MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASINS. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASINS TO AVOID DAMAGING THE SUBSURFACE BASINS OR OVER-COMPACTING THE SUBSURFACE SOILS.]

6. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE.

INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.
 INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD

AN AREA EXCEEDING 15,000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

9. A SITE INSPECTION AND APPROVAL BY THE CONSERVATION DISTRICT IS REQUIRED PRIOR TO REMOVAL OR CONVERSION OF

SEDIMENT TRAPS AND BASINS. ONCE STONE BASE COURSE HAS BEEN SPREAD IN ALL PAVED AREAS AND ALL LANDSCAPE AREAS HAVE BEEN STABILIZED, BEGIN CONVERTING [SEDIMENT BASIN, SEDIMENT TRAP, BIO-RETENTION FACILITIES, RAINGARDENS, BIO-INFILTRATION FACILITIES] TO FINAL GRADES IN ACCORDANCE WITH BMP SEQUENCE OF CONSTRUCTION. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONVERSION OF [INSERT BMPS]. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF [INSERT BMPS], PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.

10.INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.

11.INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.

12.UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE OHIO COUNTY CONSERVATION DISTRICT, REMOVE EROSION AND SEDIMENT CONTROL FACILITIES INCLUDING [LIST APPROPRIATE E&S CONTROLS]. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE STABILIZED IMMEDIATELY.

13.CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.

15. A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE OHIO COUNTY CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

#### E&S - GENERAL NOTES:

1. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL STRUCTURES. ADDITIONAL FACILITIES OR MEASURES SHALL BE INSTALLED WHERE NECESSARY OR WHERE DIRECTED BY EITHER THE TOWNSHIP OR THE COUNTY CONSERVATION DISTRICT AS CONSTRUCTION PROGRESSES.

2. THE OWNER/CONSTRUCTION MANAGER IS RESPONSIBLE FOR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROLS AND SITE STABILIZATION. THE OWNER SHALL ASSIGN ONE INDIVIDUAL TO BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL FACILITIES AND MEASURES.

3. PROTECTION TO THE EXISTING TREES AND SHRUBS SHALL BE TAKEN BY THE CONTRACTOR TO ELIMINATE UNNECESSARY DAMAGE.

4. ANY DRY FILL HAULED OFFSITE MUST BE TAKEN TO A LOCATION WITH AN EROSION AND SEDIMENTATION CONTROL PLAN WHICH HAS BEEN REVIEWED BY THE COUNTY CONSERVATION DISTRICT FOR ADEQUACY.

5. EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE

WITHIN TRIBUTARY AREAS OF THOSE CONTROLS.

6. STOCKPILES MUST BE STABILIZED IMMEDIATELY.

7. NO CHANGES SHALL BE MADE IN THE CONTOUR OF THE LAND. NO GRADING, EXCAVATING, REMOVAL OR DESTRUCTION OF THE TOPSOIL, TREES OR OTHER VEGETATIVE COVER OF THE LAND SHALL BE COMMENCED WITHIN A PROPOSED SUBDIVISION OR LAND DEVELOPMENT TRACT UNTIL SUCH TIME THAT A PLAN FOR SEDIMENTATION CONTROL AND MINIMIZING EROSION HAS BEEN REVIEWED AND FOUND SATISFACTORY BY THE COUNTY CONSERVATION DISTRICT AND REVIEWED AND APPROVED BY THE TOWNSHIP, OR THERE HAS BEEN A DETERMINATION BY THE TOWNSHIP, UPON RECOMMENDATION BY THE COUNTY CONSERVATION DISTRICT, THAT SUCH PLANS ARE NOT NECESSARY.

8. BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE COUNTY CONSERVATION DISTRICT.

9. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.

10. CONTRACTOR SHALL USE TREADED MACHINERY AND MINIMIZE SOIL COMPACTION WHEREVER POSSIBLE.

#### MAINTENANCE PROGRAM

THE FOLLOWING MAINTENANCE PROGRAM HAS BEEN DEVELOPED TO PROVIDE FOR THE INSPECTION OF BMPs ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RUNOFF EVENT, AND TO INCLUDE THE REPAIR OF THE BMPs TO ENSURE THEIR EFFECTIVE AND EFFICIENT OPERATION:

UNTIL THE SITE IS STABILIZED AND DURING CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

COMPOST FILTER SOCK - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES ½ THE ABOVE GROUND SOCK. THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER SIX (6) MONTHS; PHOTODEGRADABLE SOCKS AFTER ONE (1) YEAR. UPON STABILIZATION OF THE TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

• INLET PROTECTION (FILTER BAGS) - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT.

NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. FILTER BAGS SHOULD BE CLEANED AND/OR

REPLACED AFTER EACH RUNOFF EVENT. THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH

APPLICABLE STATE REGULATIONS. DAMAGED FILTER BAGS SHOULD BE REPLACED.

• SWALES - SWALES SHALL BE INSPECTED FOR EROSION AND/OR SEDIMENT ACCUMULATION ON AN ANNUAL BASIS, AFTER A SIGNIFICANT RUNOFF EVENT OR AS DIRECTED BY THE CONSERVATION DISTRICT AND/OR BOROUGH ENGINEER. NEEDED MAINTENANCE SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. AREAS OF EROSION SHALL BE REGRADED AND STABILIZED, AND SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. ANY REMOVED SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. ALL AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.

• SEDIMENT BASIN - INSPECTIONS SHALL BE CONDUCTED ON A WEEKLY BASIS AND/OR AFTER EACH RUNOFF EVENT. NEEDED REPAIRS SHOULD BE INITIATED IMMEDIATELY AFTER THE INSPECTION. WHEN SEDIMENT HAS ACCUMULATED TO THE CLEAN-OUT ELEVATION INDICATED ON THE STAKE, THE SEDIMENT MUST BE REMOVED TO RESTORE DESIGN CAPACITIES. THE SEDIMENT SHALL BE DISPOSED OF ON SITE AND/OR IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THE CONTRACTOR MAY BE REQUIRED TO TREAT OR DRAIN THE SEDIMENT BASINS AND TRAPS SEVEN (7) DAYS AFTER A STORM EVENT IF DIRECTED BY THE LOCAL COUNTY HEALTH DEPARTMENT IN DEALING WITH WEST NILE VIRUS.

• CONSTRUCTION ENTRANCES - LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED WHERE VEHICLES ENTER AND EXIT. EXITS SHALL BE MAINTAINED OR SUPPLEMENTED AS NECESSARY TO PREVENT THE RELEASE OF SEDIMENT FROM VEHICLES LEAVING THE SITE. ANY SEDIMENT DEPOSITED ON THE ROADWAY SHALL BE SWEPT AS NECESSARY THROUGHOUT THE DAY OR AT THE END OF EVERY DAY AND DISPOSED OF IN AN APPROPRIATE MANNER. SEDIMENT SHALL NOT BE WASHED INTO STORM SEWER SYSTEMS. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEPT INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.

• SEDIMENT BARRIERS AND BASINS/TRAPS MUST BE INSPECTED AND THEY MUST BE CLEANED OUT AT SUCH TIME AS THEIR ORIGINAL CAPACITY HAS BEEN REDUCED BY 50 PERCENT. ALL MATERIAL EXCAVATED FROM BEHIND SEDIMENT BARRIERS OR IN BASINS AND TRAPS SHALL BE INCORPORATED INTO ON-SITE SOILS OR SPREAD OUT ON AN UPLAND PORTION OF THE SITE AND STABILIZED. ADDITIONAL SEDIMENT BARRIERS MUST BE CONSTRUCTED AS NEEDED.

• INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED WITH HYDRO-STRAW IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, IN ORDER TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS.

• GRASSED AREAS SHALL BE INSPECTED TO CONFIRM THAT A HEALTHY STAND OF GRASS IS MAINTAINED. THE SITE HAS ACHIEVED FINAL STABILIZATION ONCE ALL AREAS ARE COVERED WITH BUILDING FOUNDATION OR PAVEMENT, OR HAVE A STAND OF GRASS WITH AT LEAST 70 PERCENT DENSITY OR GREATER IN ACCORDANCE WITH PERMIT REQUIREMENTS. THE VEGETATIVE DENSITY MUST BE MAINTAINED TO BE CONSIDERED STABILIZED. AREAS MUST BE WATERED, FERTILIZED, AND RESEEDED AS NEEDED TO ACHIEVE THIS REQUIREMENT.

ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE OR IMPACTS TO RECEIVING WATERS.

#### E+S - MONITORING, INSPECTION AND REPORTING REQUIREMENTS

VISUAL INSPECTIONS

THE PERMITTEE AND CO-PERMITTEE(S) MUST ENSURE THAT VISUAL SITE INSPECTIONS ARE CONDUCTED WEEKLY, AND WITHIN 24 HOURS AFTER EACH MEASURABLE RAINFALL EVENT THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL THE RECEIPT AND ACKNOWLEDGEMENT OF THE NOT BY THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE VISUAL SITE INSPECTIONS AND REPORTS SHALL BE COMPLETED IN A FORMAT PROVIDED BY THE DEPARTMENT, AND CONDUCTED BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN EROSION AND SEDIMENT CONTROL, TO ASCERTAIN THAT E&S BMPs AND PCSM BMPs ARE PROPERLY CONSTRUCTED AND MAINTAINED TO EFFECTIVELY MINIMIZE POLLUTION TO THE WATERS OF THIS COMMONWEALTH. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT AND INCLUDE AT A MINIMUM:

LL
(1) A SUMMARY OF SITE CONDITIONS, E&S BMP AND PCSM BMP, IMPLEMENTATION AND MAINTENANCE AND COMPLIANCE ACTIONS;

(2) THE DATE, TIME, NAME AND SIGNATURE OF THE PERSON CONDUCTING THE INSPECTION.

NONCOMPLIANCE REPORTING

WHERE E&S, PCSM OR PPC BMPs ARE FOUND TO BE INOPERATIVE OR INEFFECTIVE DURING AN INSPECTION, OR ANY OTHER TIME, THE PERMITTEE AND CO\_PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY THE SUBMISSION OF A WRITTEN REPORT WITHIN 5 DAYS OF THE INITIAL CONTACT. NONCOMPLIANCE REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:

(1) ANY CONDITION ON THE PROJECT SITE WHICH MAY ENDANGER PUBLIC HEALTH, SAFETY, OR THE ENVIRONMENT, OR INVOLVE INCIDENTS WHICH CAUSE OR THREATEN POLLUTION;

(2) THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES AND/OR ANTICIPATED TIME WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE;

(3) STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE; AND

(4) THE DATE OR SCHEDULE OF DATES, AND IDENTIFYING REMEDIES FOR CORRECTING NONCOMPLIANCE CONDITIONS.

REDUCTION, LOSS, OR FAILURE OF THE BMPs
UPON REDUCTION, LOSS, OR FAILURE OF THE BMPs, THE PERMITTEE AND CO\_PERMITTEE SHALL TAKE IMMEDIATE ACTION TO RESTORE THE BMPs OR PROVIDE AN ALTERNATIVE METHOD OF TREATMENT. SUCH RESTORED BMPs OR ALTERNATIVE TREATMENT SHALL BE AT LEAST AS EFFECTIVE AS THE ORIGINAL BMPs.

TERMINATION OF COVERAGE

NOT: UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITIES ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT ARE AUTHORIZED BY THIS PERMIT AND WHEN BMPs IDENTIFIED IN THE PCSM PLAN HAVE BEEN PROPERLY INSTALLED, THE PERMITTEE AND/OR CO\_PERMITTEE OF THE FACILITY MUST SUBMIT A NOT FORM THAT IS SIGNED IN ACCORDANCE WITH PART B, SECTION 1.C, SIGNATORY REQUIREMENTS, OF THIS PERMIT. ALL LETTERS CERTIFYING DISCHARGE TERMINATION ARE TO BE SENT TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT. THE NOT MUST CONTAIN THE FOLLOWING INFORMATION: FACILITY NAME, ADDRESS, AND LOCATION, OPERATOR NAME AND ADDRESS, PERMIT NUMBER, IDENTIFICATION AND PROOF OF ACKNOWLEDGMENT FROM THE PERSON(S) WHO WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, AND THE REASON FOR PERMIT TERMINATION. UNTIL THE PERMITTEE HAS RECEIVED WRITTEN ACKNOWLEDGEMENT OF THE NOT, THE PERMITTEE WILL REMAIN RESPONSIBLE FOR OPERATING AND MAINTAINING ALL E&S BMPs AND PCSM BMPs ON THE PROJECT SITE AND WILL BE RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

COMPLETION CERTIFICATE AND FINAL PLANS
WITHIN 30 DAYS AFTER THE COMPLETION OF

WITHIN 30 DAYS AFTER THE COMPLETION OF EARTH DISTURBANCE ACTIVITIES AUTHORIZED BY THIS PERMIT, INCLUDING THE PERMANENT STABILIZATION OF THE SITE AND PROPER INSTALLATION OF PCSM BMPs IN ACCORDANCE WITH THE APPROVED PCSM PLAN, OR UPON SUBMISSION OF THE NOT IF SOONER, THE PERMITTEE SHALL FILE WITH THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT A STATEMENT SIGNED BY A LICENSED PROFESSIONAL AND BY THE PERMITTEE CERTIFYING THAT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT AND THE APPROVED E&S AND PCSM



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CAD I.D.:

PROJECT:

PRELIMINARY/

FINAL LAND

DEVELOPMENT

**PLANS** 

FOR —

KELLBENN, INC

PROPOSED DEVELOPMENT

842 NATIONAL ROAD
CITY OF WHEELING

**OHIO COUNTY, WV 26003** 

BOHI FR

1 ALLEGHENY SQUARE, SUITE 402

Phone: (724) 638-8500

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REGISTERED LANDSCAPE ARCHITECT

WEST VIRGINIA LICENSE No.

SOIL EROSION & SEDIMENT POLLUTION

**CONTROL NOTES** 

C-602

#### **GENERAL CONSERVATION NOTES AND SPECIFICATIONS**

#### I. GENERAL INFORMATION

THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.

- NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
- DISTURBED AREAS ON WHICH FARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED. IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION.

AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS

ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL FROSION AND SEDIMENT CONTROL AFTER FACH RUNOFF EVENT, AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT.

A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO

- BE REMOVED FROM SITE ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITION STABILIZATION MEASURES BE NECESSARY; IN ACCORDANCE WITH THE NPDES AND/OR SWPPP REQUIREMENTS FOR THE PROJECT.

#### II. STANDARD FOR LAND GRADING

- A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT
- A.1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FULL SLOPES. A.2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
- INSTALLATION REQUIREMENTS B.1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH
- STANDARD FOR DISPOSAL OF MATERIALS. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
- ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING. EROSION OR EXCESS SATURATION.
- ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.

#### III. STANDARD FOR UTILITY TRENCH EXCAVATION

- A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION
- THAT CAN BE COMPLETED IN ONE DAY LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX. OF SIX DAYS FOR CERTAIN CASES
- REQUIRING TESTING OF THE INSTALLED PIPE. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS
- AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF
- CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

#### IV. STANDARD FOR TEMPORARY STABILIZATION

- STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH
- MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
- PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE. A.3. GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
- A 4 PROTECTIVE MATERIALS TO BE USED
- A.4.a. UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS. A.4.b. HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS: APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM) OR PER MANUFACTURER'S SPECIFICATIONS.

#### STANDARD FOR TEMPORARY STABILIZATION WITH SEED

- B.1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
- ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY. B.3. SEEDBED PREPARATION FOR TEMPORARY SEEDING
- B.3.A. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE. B.3.B. APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE
- B.3.C. APPLY 10-10-10 FERTILIZER A RATE OF 500 POUNDS PER ACRE B.3.D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.

#### C. SEEDING: SEE SEEDING SPECIFICATIONS

#### V. STANDARD FOR PERMANENT STABILIZATION

A.2. APPLYING TOPSOIL

- A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER A 1 SITE PREPARATION
- A.1.a. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING AND MAINTENANCE
- A.1.b. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
- A.1.c. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL
- A.2.a. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
- A 2 b ALL DISTURBED TOPSOIL ON-SITE IS TO BE REDISTRIBUTED ON-SITE IN AREAS NOT COVERED BY IMPERVIOUS SURFACES. NO REMOVAL OF TOPSOIL IS ALLOWED UNLESS APPROVED BY THE TOWNSHIP. UNIFORM APPLICATION TO A DEPTH OF 6-8 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE.
- A.3. SEEDBED PREPARATION A.3.a. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
- A.3.b. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
- A.3.c.1. APPLY 10-20-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST A.3.c.2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY
- A.3.d. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED
- A.3.e. REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
- A.3.f. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND
- FIRMED AS ABOVE. A.4. SEEDING: SEE SEEDING SPECIFICATIONS A.5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A.

#### STANDARD FOR PERMANENT STABILIZATION WITH SOD B.1. METHODS AND MATERIALS

- B.1.a. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY B.1.b. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
- B.1.c. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES
- B.1.d. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY

WITH A FIRM GRASP FROM THE UPPER 0% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.

- B.1.e. A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED. B.1.f. ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A
- B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A.
- B.3. SOD PLACEMENT
- B.3.a. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE. LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOIL
- B.3.c. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF

B.3.b. PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.

- B.3.d. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE B.3.e. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN
- B.3.f. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL

FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

#### **SEEDING SPECIFICATIONS**

- A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO LATER THAN OCTOBER 15TH. B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE
- RESPONSIBLE FOR COORDINATING WITH THE WVDEP AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED. (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW).
- TEMPORARY SEEDING A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE CHOSEN
- ACCORDING TO THE TIME OF YEAR THE MIXTURE SHALL BE PLANTED FROM TABLE 3.10.1. B. APPLICATION OF TEMPORARY SEEDING SHALL INCLUDE MULCH. WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES ON FAVORABLE. VERY FLAT SOIL
- CONDITIONS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
- GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
- PROTECTIVE MATERIALS TO BE USED: 4.1. UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 2.0 TONS PER ACRE OR 90 LBS./1,000 SQUARE FEET (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS
  - BY WIND OR WATER. ANCHORING METHODS ARE AS FOLLOWS: 4.1.1 MECHANICAL - A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT LEFT TO A LENGTH OF APPROXIMATELY SIX (6) INCHES.
- 4.1.2 MULCH NETTING NETTING SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES. 4.1.3 SYNTHETIC BINDERS - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET TERRA TRACK, OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

4.1.4 WOOD-CELLULOSE FIBER - WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY

- WEIGHT OF 750 LB./AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB / 100 GALLONS. HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2000 LBS./AC. OR 46 LB./1,000
- 4.3. OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TON/ACRE PERMANENT SEEDING
- A. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS: I. NURSE CROP (SELECT ONE):
- ANNUAL RYEGRASS (25 POUNDS / ACRE PLS)
- OR SPRING OATS (50 POUNDS / ACRE PLS)
- OR WINTER RYE (85 POUNDS / ACRE PLS) (REFERENCE: WV DEP EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION, TABLE 3.11.2) II. PERMANENT SEED MIX (SEE PERMANENT SEEDING TABLE FOR MORE SEEDING MIXTURE OPTIONS):
- RED FESCUE (20 POUNDS / ACRE PLS) KENTUCKY BLUEGRASS (40 POUNDS / ACRE PLS)
- MERION BLUEGRASS (30 POUNDS / ACRE PLS) (REFERENCE: WV DEP EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION, TABLE 3.11.1)
- B PURFLIVE SEED SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
- 2 DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED. MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 ( (%PURE X %GERMINATION) / 100 DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS
- REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
- 1. SUBSOILER, PLOW, OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION. THE SITE SHOULD BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED
- PREPARATION AND SEEDING 3. TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.
- D. SEEDBED PREPARATION: LIME - AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 LB./1,000 SQUARE FEET, OR 2 TONS/ ACRE. FERTILIZER - FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 LB. / 1,000 SQUARE FEET OR 1,000 LB. / ACRE OF A 10-10-10 OR 12-12-12 ANALYSES.
- 3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR. E. SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE -SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF
- CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE F. DORMANT SEEDINGS:
- 1. SEEDINGS SHOULD NOT BE MADE FROM OCTOBER 1 THROUGH NOVEMBER 30. DURING THIS PERIOD. THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER. 2. THE FOLLOWING METHODS ARE USED FOR DORMANT SEEDING:
- 2.1. FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME OR FERTILIZER. THEN MULCH AND ANCHOR. AFTER NOVEMBER 20, AND AND BEFORE MARCH 15, BROADCAST THE SELECTED SEED MIXTURE, INCREASE THE SEEDING RATES BE 50% FOR THIS TYPE OF SEEDING. 2.2. FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZE, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR. INCREASE THE SEEDING RATES BY 50% FOR THIS TYPE OF SEEDING. 2.3. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO-SEEDER
- (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED. 2.4. WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON CONTOUR WHERE FEASIBLE
- APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "WV DEP EROSION AND SEDIMENT CONTROL BMP MANUAL". LATEST EDITION. SEED SHALL BE APPLIED IN A NON-COMPACTED. ROUGHENED TOPSOIL.
- B. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
- 1. DRILL SEEDING 2. BROADCAST SEEDING (TWO DIRECTIONS)
- 3 HYDROSEEDING (TWO DIRECTIONS) C. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED. BELOW IS A LIST OF PROTECTIVE MULCHING MATERIALS TO BE USED:
  - UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 2.0 TONS PER ACRE OR 90 LBS./1,000 SQUARE FEET (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS ARE AS FOLLOWS: 4.1.1 MECHANICAL - A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT LEFT TO A LENGTH OF APPROXIMATELY SIX (6) INCHES. 4.1.2 MULCH NETTING - NETTING SHALL BE USED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATED RUNOFF AND ON CRITICAL SLOPES
- 4.1.3 SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET TERRA TRACK, OR EQUIVALENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. 4.1.4 WOOD-CELLULOSE FIBER - WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB./AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE
- SHALL CONTAIN A MAXIMUM OF 50 LB / 100 GALLONS. HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2000 LBS./AC. OR 46 LB./1,000 1.3. OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO
- MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TON/ACRE D. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED E. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF 1/4" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

#### Table 3.10.1 Temporary seed chart

PLANT NAMES			APPLICATION	
COMMON	SCIENTIFIC	PLANTING DATES	RATE LBS/ACRE	
Annual Ryegrass	Lolium multiflorum	2/16 - 5/15 8/1 - 11/1	40	
Field Bromegrass	Bromus ciliatus	3/1 - 6/15 8/1 - 9/15	40	
Spring Oats	Avena sativa	3/1 -6/15	100	
Winter Rye	Secale cereale	8/15 -2/28	170	
Winter Wheat	Triticum aestivum	8/15 – 2/28	180	
Japanese Millet	Echinochloa crusgalli	5/15 - 8/15	30	
Redtop	Agrostis alba	3/1 - 6/15	10	
Annual Ryegrass and Spring Oats	Lolium multiflorum Avena sativa	3/1 - 6/15	30 70	
German/Foxtail Millet	Setaria italica	5/1 - 8/1	40	
Hairy Vetch	Vicia villosa	8/15 - 4/1	60	

\*Inoculation is required. If a hydroseeder is utilized, the application rate is 5 times the recommended rate

#### Table 3.11.2 Nurse crops

PLANT NAMES			APPLICATION RATE LBS/ACRE	
COMMON SCIENTIFIC		PLANTING DATES		
Annual Ryegrass Lolium multiflorum		2/16 - 5/15 8/1 - 11/1		
Field Bromegrass Bromus ciliatus		3/1 - 6/15 8/1 - 9/15	20	
Spring Oats	Spring Oats Avena sativa		50	
Winter Rye	Secale cereale	8/15 -2/28	85	
Winter Wheat	Triticum aestivum	8/15 – 2/28	90	
Japanese Millet	Echinochloa crusgalli	5/15 - 8/15	15	
Redtop Agrostis alba		3/1 - 6/15	10	
Annual Ryegrass and Spring Oats	Lolium multiflorum Avena sativa	3/1 - 6/15	15 35	
German/Foxtail Millet	Setaria italica	5/1 – 8/1	25	
Hairy Vetch*	Vicia villosa	8/15 - 4/1	30	

\* Inoculation is required. If a hydroseeder is utilized, the application rate is five times the

recommended rate.

#### Table 3.11.1 Permanent seeding

SEED	PL	APPLICATION	
MIX	COMMON	SCIENTIFIC	RATE LBS/ACRE
A	Kentucky 31 Fescue	Festuca arundinacea	65
	Red Fescue	Festuca rubra	20
	Birdsfoot Trefoil	Lotus corniculatus	5
В	Switchgrass	Panicum virgatum	15
	Perennial Ryegrass	Lolium perenne	20
	Redtop	Agrostis alba	5
	Birdsfoot Trefoil	Lotus corniculatus	15
С	Red Fescue	Festuca rubra	20
	Kentucky Bluegrass	Poa pratensis	40
	Merion Bluegrass	Poa pratensis	30
D	Kentucky 31 Fescue	Festuca arundinacea	45
	Red Fescue	Festuca rubra	20
	Kentucky Bluegrass	Poa pratensis	25
	White Dutch Clover	Trifolium repens	5
E	Perennial Ryegrass	Lolium perenne	30
	Switchgrass	Panicum virgatum	15
	Crownvetch or	Coronilla varia	20
	Perennial Pea	Lathyrus latifolius	30
F	Orchardgrass	Dactylis glomerata	20
	Ladino Clover	Trifolium repens	5
	Redtop	Agrostis alba	5
G	Birdsfoot Trefoil	Lotus corniculatus	15
	Weeping Lovegrass	Eragrostis curvula	45
	Perennial Ryegrass	Lolium perenne	10
Н	Crownvetch	Coronilla varia	25
	Orchardgrass	Dactylis glomerata	40
I	Crownvetch	Coronilla varia	25
	Perennial Ryegrass	Lolium perenne	30
J	Perennial Pea	Lathyrus latifolius	30
	Orchardgrass	Dactylis glomerata	30
K	Deertongue	Panicum clandestinum	30
	Birdsfoot Trefoil	Lotus corniculatus	15
	Weeping Lovegrass	Eragrostis curvula	5
L	Orchardgrass	Dactylis glomerata	30
	Serecia Lespedeza	Lespedeza cunata	40
	Ladino Clover	Trifolium repens	5
М	Perennial Ryegrass Ladino	Lolium perenne	50
	Clover	Trifolium repens	5
	Redtop	Agrostis alba	5
N	Crownvetch	Coronilla varia	15
	Orchardgrass	Dactylis glomerata	30
	Redtop	Agrostis alba	5
0	Perennial Ryegrass	Lolium perenne	40
	Birdsfoot Trefoil	Lotus corniculatus	15
	Redtop	Agrostis alba	5

<sup>3</sup> Use south and west of I-64 and I-79.

Е	Perennial Ryegrass Switchgrass Crownvetch or Perennial Pea	Lolium perenne Panicum virgatum Coronilla varia Lathyrus latifolius	30 15 20 30
F	Orchardgrass	Dactylis glomerata	20
	Ladino Clover	Trifolium repens	5
	Redtop	Agrostis alba	5
G	Birdsfoot Trefoil	Lotus corniculatus	15
	Weeping Lovegrass	Eragrostis curvula	45
	Perennial Ryegrass	Lolium perenne	10
Н	Crownvetch	Coronilla varia	25
	Orchardgrass	Dactylis glomerata	40
Ī	Crownvetch	Coronilla varia	25
	Perennial Ryegrass	Lolium perenne	30
J	Perennial Pea	Lathyrus latifolius	30
	Orchardgrass	Dactylis glomerata	30
K	Deertongue	Panicum clandestinum	30
	Birdsfoot Trefoil	Lotus corniculatus	15
	Weeping Lovegrass	Eragrostis curvula	5
L	Orchardgrass	Dactylis glomerata	30
	Serecia Lespedeza	Lespedeza cunata	40
	Ladino Clover	Trifolium repens	5
М	Perennial Ryegrass Ladino	Lolium perenne	50
	Clover	Trifolium repens	5
	Redtop	Agrostis alba	5
N	Crownvetch	Coronilla varia	15
	Orchardgrass	Dactylis glomerata	30
	Redtop	Agrostis alba	5
О	Perennial Ryegrass	Lolium perenne	40
	Birdsfoot Trefoil	Lotus corniculatus	15
	Redtop	Agrostis alba	5
P	Serecia Lespedeza	Lespedeza cunata	40
	Orchardgrass	Dactylis glomerata	30
	Redtop	Agrostis alba	5
Q	Orchardgrass	Dactylis glomerata	25
	Reed Canarygrass <sup>1</sup>	Phalaris arundinacea	30
	Redtop	Agrostis alba	5
	Ladino Clover	Trifolium repens	5
R	Kentucky Bluegrass	Poa pratensis	30
	Redtop	Agrostis alba	5
	White Clover or	Trifolium repens	5
	Birdsfoot Trefoil	Lotus corniculatus	15
S	Reed Canarygrass <sup>1</sup>	Phalaris arundinacea	40
	Weeping Lovegrass	Eragrostis curvula	5
Т	Perennial Ryegrass	Lolium perenne	30
	Reed Canarygrass <sup>1</sup>	Phalaris arundinacea	15
	Birdsfoot Trefoil	Lotus corniculatus	5
U	Timothy	Phluem pratense	10
	Alfalfa	Medicago sativa	18
v	Timothy	Phluem pratense	10
	Birdsfoot Trefoil	Lotus corniculatus	15
W	Redtop	Agrostis alba	5
	Perennial Ryegrass	Lolium perenne	30
	Orchardgrass	Dactylis glomerata	25
X	Reed Canarygrass <sup>1</sup>	Phalaris arundinacea	30
	Birdsfoot Trefoil	Lotus corniculatus	20
	Redtop	Agrostis alba	5
Y	Switchgrass	Panicum virgatum	30
	Birdsfoot Trefoil	Lotus corniculatus	20
Z	Switchgrass	Panicum virgatum	15
	Serecia Lespedeza	Lespedeza cunata	30
A-1	Orchardgrass	Dactylis glomerata	30
	Red Clover	Trifolium pratense	10
A-2	Switchgrass Big Bluestem Indiangrass Little Bluestem Sideoats Grama <sup>2</sup>	Panicum virgatum Andropogon gerardi Sorghastrum nutans Andropogon scoparius Bouteloua curtipendula	15 5 5 5 5 5
A-3	Switchgrass	Panicum virgatum	20
	Eastern Gamagrass <sup>3</sup>	Tripsacum dactyloides	15

REVISIONS COMMENT REV DATE



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**PROJECT No.:** DRAWN BY: **CHECKED BY:** 

PB214045-CNDS-0I

CAD I.D.:

PRELIMINARY! FINAL LAND DEVELOPMENT **PLANS** 

KELLBENN, INC.

PROPOSED DEVELOPMENT

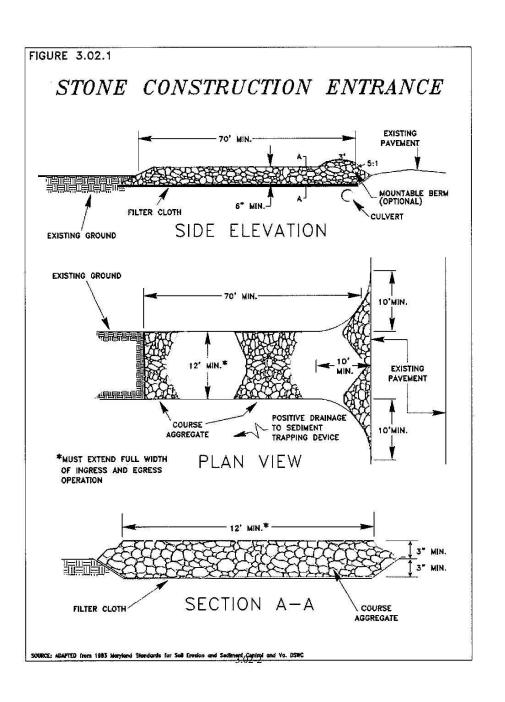
842 NATIONAL ROAD CITY OF WHEELING **OHIO COUNTY, WV 26003** 

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

Phone: (724) 638-8500 www.BohlerEngineering.com

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**SOIL EROSION & SEDIMENT POLLUTION** CONTROL DETAILS



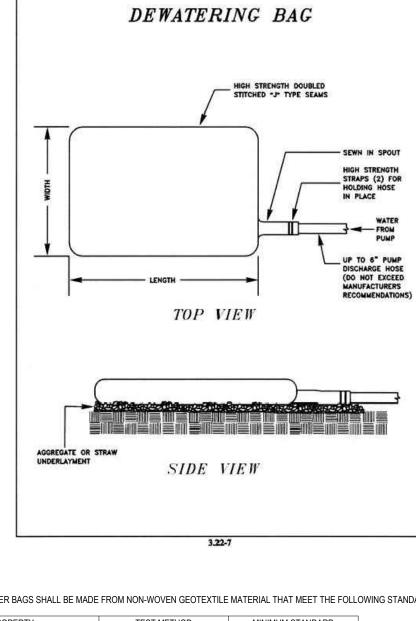
USE 2-4 INCH STONE FOR LOW VOLUME ENTRANCES AND LARGER STONE (4-6 INCH) FOR HEAVY USE OR MATERIAL DELIVERY ENTRANCES. LENGTH IS AS REQUIRED, BUT NOT LESS THAN 70 FEET. THICKNESS SHOULD NOT BE LESS THAN 6 INCHES. THE WIDTH SHALL BE A MINIMUM OF 10 FEET, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

GEOTEXTILE FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACING OF STONE. ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF A CULVERT IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE USED. IF NECESSARY, DIVERT ANY WATER RUNNING DOWN ACROSS ROAD TO A SEDIMENT TRAP LOCATED ON EITHER SIDE OF THE STABILIZED CONSTRUCTION ENTRANCE.

MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURED USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. WHEELS OF ALL VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. IF WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO APPROVED SEDIMENT TRAPPING DEVICE. IF THE STREET IS WASHED, PRECAUTIONS MUST BE TAKEN TO PREVENT MUDDY WATER FROM RUNNING INTO WATERWAYS OR STORM SEWERS. INSPECTION AND NEEDED MAINTENANCE SHOULD BE PROVIDED DAILY BUT AT A MINIMUM EVERY SEVEN DAYS AND AFTER EVERY RAIN OF 0.5 INCH OR GREATER.

#### **ROCK CONSTRUCTION ENTRANCE**

NOT TO SCALE



LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
GRAB TENSILE	ASTM D-4632	250 LB
PUNCTURE	ASTM D-4833	165 LB
FLOW RATE	ASTM D-4491	70 GAL / MIN / SQ FT
MULLEN BURST	ASTM D-3786	550 LB / SQ IN
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	100%

BE NO GREATER THAN 1000 GPM.

FIGURE 3.22-3

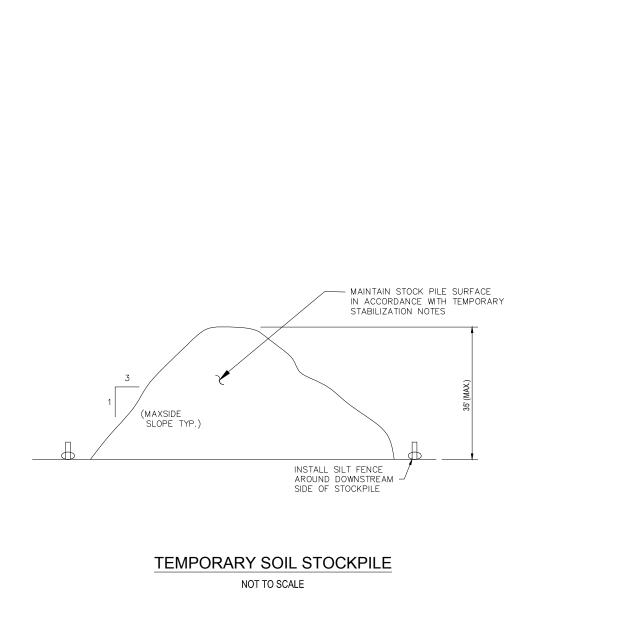
A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS.THE PUMPING RATE SHALL

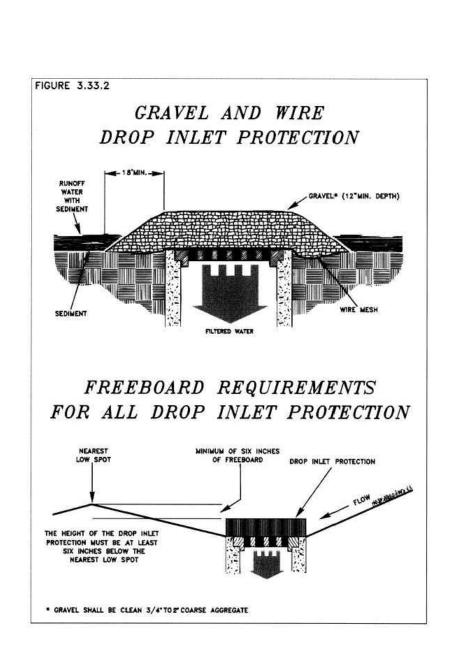
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

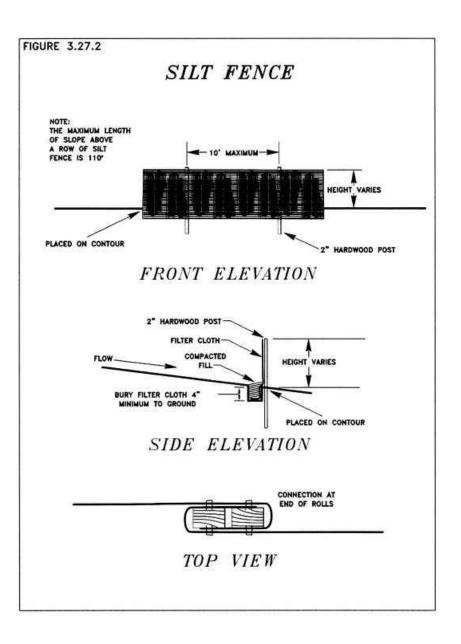
FILTER BAGS SHALL BE INSPECTED FREQUENTLY DURING PUMPING OPERATIONS. REPAIRS AND REPLACEMENTS ARE TO OCCUR ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF

#### PUMPED WATER FILTER BAG

NOT TO SCALE







THE SILT FENCE MUST BE ENTRENCHED AT LEAST 4 INCHES. THE FENCE MUST BE PLACED ON THE CONTOUR PERPENDICULAR TO THE FLOW OF WATER. IT IS NOT TO BE INSTALLED IN AREAS OF CONCENTRATED FLOWS OR IN AREAS THAT WOULD REQUIRE IT TO CONTAIN SEDIMENT FROM TOO LARGE OF AN AREA.

SILT FENCE WILL NOT BE USED IN AREAS WHERE ROCK OR SOME OTHER HARD SURFACE PREVENTS THE FULL AND UNIFORM ANCHORING OF THE BARRIER. SILT FENCE SHOULD NEVER BE INSTALLED IN STREAMS OR SWALES OR IN ANY AREA WHERE THERE IS A REASONABLE CHANCE OF CONCENTRATED FLOW. IN AREAS WHERE CONCENTRATED FLOWS CAN BE EXPECTED, USE DIVERSIONS AND SEDIMENT TRAPS AND /OR SEDIMENT BASINS. IN DITCHES OR SWALES ROCK CHECK DAMS SHOULD BE USED IN PLACE OF SILT FENCE.

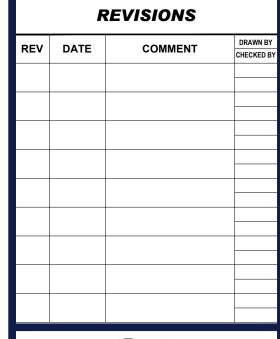
AN EFFORT SHOULD BE MADE TO LOCATE SILT FENCE AT LEAST 5 FEET TO 10 FEET BEYOND THE TOE OF SLOPE. SILT FENCE SHOULD BE LIMITED TO SITUATIONS IN WHICH ONLY SHEET IS EXPECTED. SILT FENCE SHOULD BE INSTALLED PRIOR TO MAJOR SOIL DISTURBANCE. SILT FENCE SHOULD BE PLACED ACROSS THE BOTTOM OF A SLOPE ALONG A LINE OF UNIFORM ELEVATION (ALWAYS PERPENDICULAR TO THE DIRECTION OF FLOW). ANY TIME A SECTION OF SILT FENCE IS KNOCKED DOWN BY CONCENTRATED FLOWS THE SILT FENCE WILL BE REPLACED WITH A DIVERSION AND SEDIMENT TRAP OR SUPER SILT FENCE.

SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL OF 0.5 INCH OR GREATER AND AT LEAST DAILY DURING PROLONGED RAINFALL OR ONCE A WEEK. ANY REQUIRED REPAIRS OR MAINTENANCE SHALL BE MADE IMMEDIATELY. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING. IF THE FENCE IS NOT INSTALLED ON THE CONTOUR (PERPENDICULAR TO THE FLOW OF THE WATER) BOTH OF THESE CONDITIONS CAN OCCUR. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. IF ANY SECTION OF SILT FENCE IS KNOCKED DOWN DURING A RAIN EVENT (BECAUSE IT WAS INSTALLED IN AN AREA OF CONCENTRATED FLOW) THEN OTHER MEASURES SUCH AS A SEDIMENT TRAP AND DIVERSION OR SUPER SILT FENCE MUST BE INSTALLED.

SILT FENCE

NOT TO SCALE







YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND. 1-800-245-4848 www.wv811.com

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PROJECT No.: DRAWN BY: CHECKED BY: DATE: CAD I.D.: PB214045-CNDS-0E

PROJECT:

PRELIMINARY/ FINAL LAND DEVELOPMENT **PLANS** 

KELLBENN, INC.

PROPOSED DEVELOPMENT

**842 NATIONAL ROAD** CITY OF WHEELING OHIO COUNTY, WV 26003



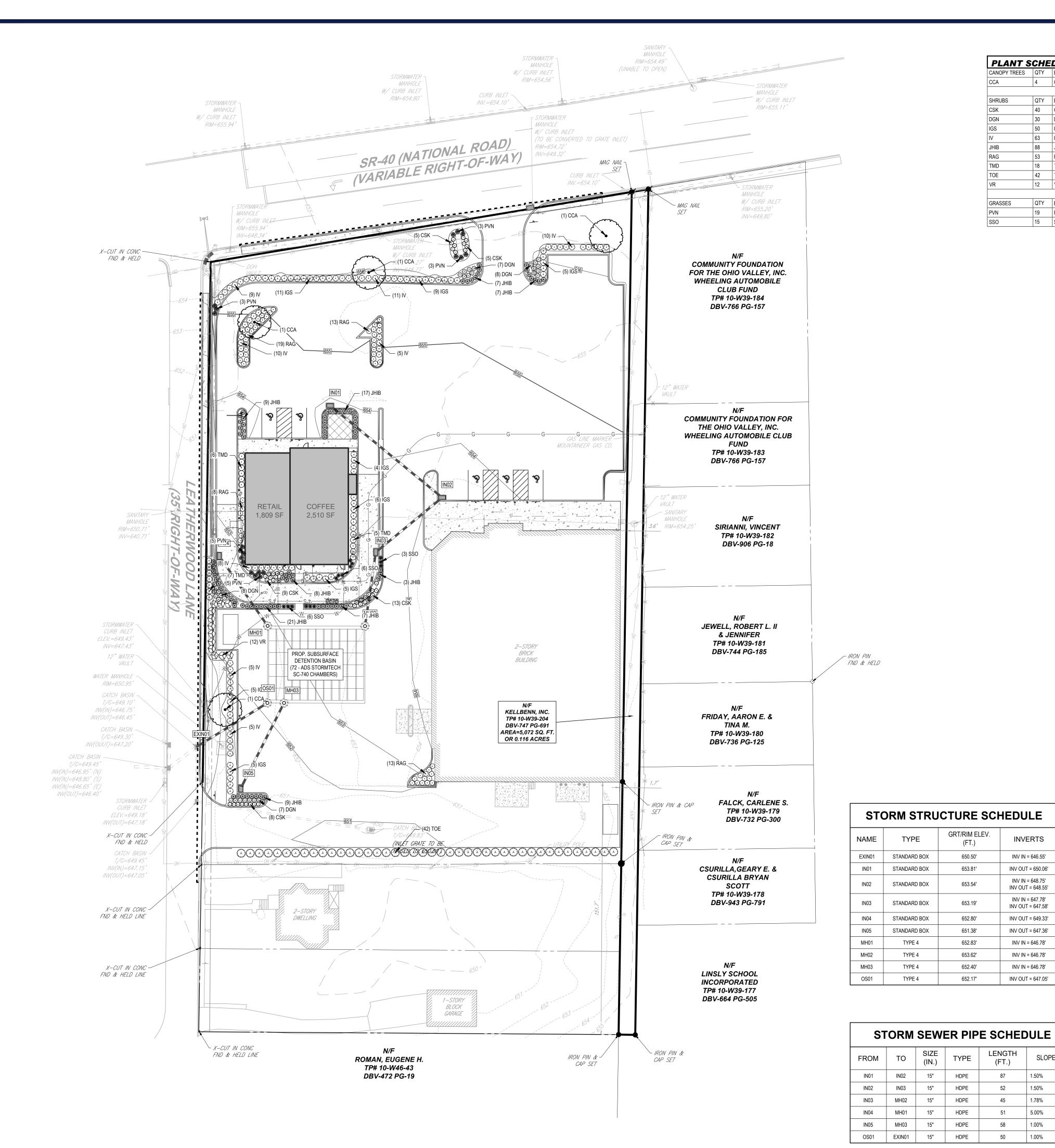
1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

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**SOIL EROSION &** SEDIMENT **POLLUTION CONTROL DETAILS** 

C-604



CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CCA	4	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3" CAL.	B&B
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CSK	40	CORNUS SERICEA 'KELSEYI'	KELSEYI DOGWOOD	15-18"	CONTAINER
DGN	30	DEUTZIA GRACILIS 'NIKKO'	SLENDER DEUTZIA	18-24"	CONTAINER
IGS	50	ILEX GLABRA `SHAMROCK`	SHAMROCK INKBERRY	24-30"	CONTAINER
IV	63	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	24-30"	CONTAINER
JHIB	88	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER
RAG	53	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	15-18"	CONTAINER
TMD	18	TAXUS X MEDIA `DENSIFORMIS`	DENSE YEW	24-30"	B&B
TOE	42	THUJA OCCIDENTALIS 'EMERALD'	EMERALD ARBORVITAE	5-6`	B&B
VR	12	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4`	B&B
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
PVN	19	PANICUM VIRGATUM 'NORTH WIND'	NORTHWIND SWITCH GRASS	1 GAL.	CONTAINER
SSO	15	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	STANDING OVATION LITTLE BLUESTEM GRASS	1 GAL.	CONTAINER

LEGEI	ND
EXISTIN	G
CONCRETE CURB	
FENCE	X
GUIDE RAIL	
CONCRETE MONUMENT/ IRON PIN	•
SIGN	
AREA LIGHT	
DRAINAGE INLET	
STORM/SANITARY MANHOLE	Ø (S)
WATER/GAS VALVES	₩V GV
ROOF DRAIN/CLEANOUT	○ <sup>RD</sup> ○ <sup>CO</sup>
FIRE HYDRANT	~
UTILITY POLE W/ LIGHT	-
UTILITY POLE	<del></del>
OVERHEAD UTILITY WIRES	OH
SANITARY SEWER	——-S———
STORM PIPE	= = = =

GRT/RIM ELEV.

653.19'

652.17'

SIZE

15"

15"

HDPE

HDPE

HDPE

**INVERTS** 

INV IN = 646.55'

INV OUT = 650.06'

INV IN = 648.75'

INV OUT = 648.55'

INV IN = 647.78'

INV OUT = 647.58'

INV OUT = 649.33'

INV OUT = 647.36'

INV IN = 646.78'

INV IN = 646.78'

INV IN = 646.78'

INV OUT = 647.05'

SLOPE(%)

1.50%

5.00%

1.00%

1.00%

LENGTH

(FT.)

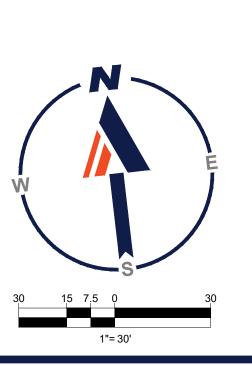
87

52 45

58

50

LEGEI	ND
PROPOS	ED
PROPERTY LINE	
BUILDING	
RETAINING WALL	
CONCRETE CURB	
FLUSH CURB	=
FENCE	
ACCESSIBLE SYMBOL	&.
CROSSWALK	
SIDEWALK	
SIGN	<del>-</del> V-
BOLLARD	*
PARKING COUNT	(10)
DRAINAGE INLET	
CLEANOUT	o <sub>CO</sub>
FIRE HYDRANT	•
UTILITY POLE	ø
OVERHEAD UTILITY WIRES	—— ОН——
ELECTRIC LINE	——Е——
TELEPHONE LINE	——т—
GAS LINE	——————————————————————————————————————
WATER LINE	W
SANITARY SEWER	s
STORM PIPE	





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PROJECT No.: DRAWN BY: CHECKED BY: DATE: CAD I.D.: PB214045-LDVP-0E PROJECT:

PRELIMINARY/ FINAL LAND

**DEVELOPMENT PLANS** 

KELLBENN, INC.

PROPOSED DEVELOPMENT **842 NATIONAL ROAD** CITY OF WHEELING

OHIO COUNTY, WV 26003

**BOHLER** 

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

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M.W. TAKACS

REGISTERED LANDSCAPE ARCHITECT WEST VIRGINIA LICENSE No.

SHEET TITLE: POST

CONSTRUCTION STORMWATER **MANAGEMENT** PLAN

C-605

#### **OVERALL SITE CONSTRUCTION SEQUENCE**

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED IN COMPLIANCE WITH THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR (4) DAYS. OR ANY STAGE THEREOF. THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING, BUT NOT LIMITED TO: THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS AND A REPRESENTATIVE OF THE OHIO COUNTY CONSERVATION DISTRICT FOR AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE WEST VIRGINIA ONE CALL SYSTEM INC. AT 1-800-245-4848 FOR BURIED UTILITIES LOCATION.

BEFORE INITIATING ANY REVISION TO THE APPROVED FROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE FEFECTIVENESS OF THE APPROVED E&S CONTROL PLAN THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE OHIO COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED FROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR

- 1. INSTALL CONSTRUCTION ENTRANCE AND STAGING AREAS AS DESIGNATED ON THE PLANS.
- 2. INSTALL ALL PERIMETER SILT FENCE, TREE PROTECTION FENCING, CONSTRUCTION FENCING, INLET PROTECTION] WITHIN THE DESIGNATED LIMIT OF DISTURBANCE AS INDICATED ON THE PLANS. ONLY LIMITED CLEARING AND GRUBBING NECESSARY TO INSTALL THE PERIMETER EROSION AND SEDIMENT POLLUTION CONTROLS IS PERMITTED.
- 3. CONSTRUCT SUBSURFACE DETENTION BASIN. ONLY LIMITED CLEARING AND GRUBBING IS PERMITTED FOR CONSTRUCTION OF ACCESS TO THE SUBSURFACE DETENTION BASIN. CONSTRUCTION OF THE BASIN SHALL INCLUDE THE NECESSARY CLEARING AND GRUBBING, EARTHWORK, INSTALLATION OF THE PERMANENT BASIN OUTFALL SYSTEM AND ALL OTHER BASIN FEATURES AS SHOWN ON THE PLANS AND DETAILS.. AND ANY NECESSARY TEMPORARY STABILIZATION OF ALL DISTURBED AREAS. THE BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER FARTH DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE BASIN RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE OHIO COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER RISER IS INSTALLED AND SEALED. PER PLAN. SEDIMENT BASINS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. REFER TO THE SEDIMENT BASIN SOIL CONSERVATION DISTRICT MONITORING, INSPECTION AND REPORTING REQUIREMENTS PROVIDED ON THE SOIL EROSION AND SEDIMENT POLLUTION CONTROL NOTES FOR ADDITIONAL SEDIMENT BASIN REQUIREMENTS DURING
- 4. ONCE SUBSURFACE BASIN IS CONSTRUCTED. STABILIZED AND FUNCTIONING PROPERLY, INITIATE THE NECESSARY EARTHWORK TO REACH THE GRADES INDICATED ON THE PLANS. BUILDING CONSTRUCTION MAY COMMENCE UPON ACCEPTANCE OF BUILDING PAD BY OWNER. THE CONCRETE WASHOUT MUST BE INSTALLED BEFORE ANY CONCRETE CAN BE POURED ON-SITE. CONTRACTOR MUST PERFORM BULK OF EARTHWORK TO BALANCE CUTS AND FILLS TO THE GREATEST EXTENT POSSIBLE. ALL AREAS DISTURBED DURING THE EARTHWORK PHASE OF CONSTRUCTION MUST BE TEMPORARILY SEEDED AND STABILIZED IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS AND SEEDING SPECIFICATIONS IF PERMANENT STABILIZATION CANNOT BE ACHIEVED WITHIN FOUR (4) DAYS (IMMEDIATELY FOR HO/EV WATERSHEDS).
- 5. INITIATE STORM SEWER [AND SUBSURFACE BASIN] INSTALLATIONS FOR THE FEATURES SHOWN ON THE PLANS STARTING AT THE FURTHEST DOWNSTREAM STRUCTURE. ISEE ADDITIONAL INFILTRATION FACILITY SEQUENCING. INSTALLATION AND MAINTENANCE & INSPECTION NOTES PROVIDED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR CONSTRUCTION OF THE SUBSURFACE INFILTRATION BASINS. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONSTRUCTION OF SUBSURFACE BASIN. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF SUBSURFACE BASINS. PREFERABLY THE DESIGN ENGINEER. SHALL CONDUCT THE OVERSIGHT. INLETS DISCHARGING TO SUBSURFACE INFILTRATION BASINS MUST BE BLOCKED IMMEDIATELY AFTER INSTALLATION AND REMAIN BLOCKED UNTIL SITE IS FULLY STABILIZED TO PREVENT SEDIMENT FROM ENTERING THE SUBSURFACE DETENTION BASINS. NO CONSTRUCTION EQUIPMENT, SUCH AS CRANES DURING BUILDING CONSTRUCTION, SHALL BE PARKED ON TOP OF THE SUBSURFACE BASINS TO AVOID DAMAGING THE SUBSURFACE BASINS OR OVER-COMPACTING THE SUBSURFACE SOILS.I
- 6. CONTINUE WITH THE BALANCE OF EARTHWORK INCLUDING UTILITY INSTALLATION (SANITARY, ELECTRIC, TELEPHONE, CABLE AND GAS) WHERE APPLICABLE.
- 7. INSTALL ALL CURBING SHOWN IN THIS PHASE AND INSTALL STONE BASE COURSE IN THE DRIVEWAY AND PARKING AREAS.
- 8. INITIATE FINAL GRADING AND PLACEMENT OF TOPSOIL IN ALL LANDSCAPE AREAS. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADE. THEY MUST BE STABILIZED. ALL LANDSCAPE AREAS MUST BE STABILIZED AND PERMANENT SEEDING OR PLACEMENT OF SOD MUST BE APPLIED. WHEN FINAL GRADE IS ACHIEVED DURING NON-GERMINATING MONTHS, THE AREA SHOULD BE MULCHED UNTIL THE BEGINNING OF THE NEXT PLANTING SEASON. HOWEVER, THE AREA WILL NOT BE CONSIDERED STABILIZED UNTIL A MINIMUM UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED. AS DISTURBED AREAS WITHIN A PROJECT APPROACH FINAL GRADE, PREPARATIONS SHOULD BE MADE FOR SEEDING AND MULCHING TO BEGIN (I.E. ANTICIPATE THE COMPLETION DATE AND SCHEDULE THE SEEDER). IN NO CASE SHOULD AN AREA EXCEEDING 15.000 SQUARE FEET, WHICH IS TO BE STABILIZED BY VEGETATION, REACH FINAL GRADE WITHOUT BEING SEEDED AND MULCHED. WAITING UNTIL EARTHMOVING IS COMPLETED BEFORE MAKING PREPARATIONS FOR SEEDING AND MULCHING IS NOT ACCEPTABLE. SEEDING AND MULCHING REQUIREMENTS ARE SPECIFIED IN THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
- 9. A SITE INSPECTION AND APPROVAL BY THE CONSERVATION DISTRICT IS REQUIRED PRIOR TO REMOVAL OR CONVERSION OF SEDIMENT TRAPS AND BASINS. ONCE STONE BASE COURSE HAS BEEN SPREAD IN ALL PAVED AREAS AND ALL LANDSCAPE AREAS HAVE BEEN STABILIZED, BEGIN CONVERTING [SEDIMENT BASIN, SEDIMENT TRAP, BIO-RETENTION FACILITIES, RAINGARDENS, BIO-INFILTRATION FACILITIES] TO FINAL GRADES IN ACCORDANCE WITH BMP SEQUENCE OF CONSTRUCTION. THE PERMITTEE SHALL PROVIDE ENGINEERING OVERSIGHT FOR THE CONVERSION OF [INSERT BMPS]. A LICENSED PROFESSIONAL OR DESIGNEE KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF [INSERT BMPS], PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT
- 10.INSTALL BITUMINOUS PAVEMENT AND CONCRETE INCLUDING SIDEWALKS.
- 11. INSTALL FINAL VEGETATION AND LANDSCAPING SPECIFIED ON THE LANDSCAPE PLAN.
- 12. UPON SITE STABILIZATION (UNIFORM COVERAGE OR DENSITY OF 70% ACROSS ALL DISTURBED AREAS) AND NOTIFICATION OF THE OHIO COUNTY CONSERVATION DISTRICT. REMOVE EROSION AND SEDIMENT CONTROL FACILITIES INCLUDING ILIST APPROPRIATE E&S CONTROLS]. ANY AREA DISTURBED DURING THE REMOVAL OF EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE
- 13.CLEAR SITE OF DEBRIS AND ALL UNWANTED MATERIALS. OPERATOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP OR DISCHARGE ANY BUILDING MATERIAL OR WASTE AT THIS SITE.
- 15.A NOTICE OF TERMINATION FORM SHOULD BE SUBMITTED TO THE OHIO COUNTY CONSERVATION DISTRICT UPON STABILIZATION AND FINAL COMPLETION OF THIS PROJECT.

#### LOCATION OF ALL SURFACE WATERS

THE SUBJECT SITE IS LOCATED WITHIN THE HUC 12 LONG RUN - WHEELING CREEK WATERSHED.

#### GENERAL PCSM PLANNING AND DESIGN

- THE FOLLOWING MEASURES WERE TAKEN TO PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL, AND CHEMICAL
- QUALITIES OF THE RECEIVING STREAM
- DIRECT RUNOFF FROM IMPERVIOUS SURFACES TO BMPS • THE USE OF NATIVE SPECIES REQUIRES LESS FERTILIZATION AND CHEMICAL
- THE FOLLOWING MEASURES WERE TAKEN TO PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF
- MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL
- THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE ANY INCREASE IN STORMWATER RUNOFF VOLUME:
- PROVIDE SUBSURFACE DETENTION BASIN TO HELP REDUCE RUNOFF VOLUME • PROVIDE LANDSCAPING TO HELP REDUCE RUNOFF VOLUME
- RE-VEGETATE DISTURBED AREAS TO HELP REDUCE RUNOFF VOLUME

#### MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL MEASURES WERE TAKEN TO MINIMIZE IMPERVIOUS AREAS.

APPLICATION THAN NONNATIVE SPECIES.

THE FOLLOWING MEASURES ARE TAKEN TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION:

ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCES

THE FOLLOWING MEASURES WERE TAKEN TO MINIMIZE LAND CLEARING AND GRADING: GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS

- THE FOLLOWING MEASURES ARE TAKEN TO MINIMIZE SOIL COMPACTION:
- ACCESS THE SITE THRU DESIGNATED CONSTRUCTION ENTRANCES • USE OF TREADED MACHINERY WHERE PRACTICAL DURING EARTHMOVING
- OPERATIONS GRADE SITE TO MINIMIZE EXTENT OF CUTS/FILLS

THE FOLLOWING MEASURES WERE TAKEN TO UTILIZE OTHER STRUCTURAL OR

- NONSTRUCTURAL BMPS THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF: • DIRECT RUNOFF TO SUBSURFACE DETENTION BASIN TO HELP REDUCE RUNOFF

MINIMIZE IMPERVIOUS AREAS WHERE PRACTICAL

• PROVIDE LANDSCAPING TO HELP REDUCE RUNOFF VOLUME RE-VEGETATE DISTURBED AREAS TO HELP REDUCE RUNOFF VOLUME

#### **RECYCLING OR DISPOSAL OF MATERIALS**

THE FOLLOWING IS A LIST THAT INCLUDES, BUT THAT IS NOT LIMITED TO, THE POTENTIAL CONSTRUCTION WASTES THAT MAY EXIST ON-SITE: - CONCRETE CURB AND SIDEWALK

- ASPHALT - E&S BMP - SILT FENCE

- E&S BMP - INLET PROTECTION

- E&S BMP - REGULATED FILL MATERIALS

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE WV DEP'S SOLID WASTE MANAGEMENT REGULATIONS. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE. BELOW IS A LIST OF METHODS FOR THE PROPER RECYCLING/DISPOSAL OF VARIOUS MATERIALS:

1.) DUST CONTROL - CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION ENTRANCE. THE PURPOSE IS TO TRAP DUST AND MUD THAT WOULD OTHERWISE BE CARRIED OFF-SITE BY CONSTRUCTION TRAFFIC. WATER TRUCKS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS ACCEPTABLE TO THE LOCAL CONSERVATION DISTRICT. AFTER CONSTRUCTION, THE SITE WILL BE STABILIZED, WHICH WILL REDUCE THE POTENTIAL FOR DUST GENERATION

2.) SOLID WASTE DISPOSAL - NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BÉ DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES. MUST BE COLLECTED AND PLACED. IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE.

3) SANITARY FACILITIES - ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A LICENSED COMMERCIAL

4.) WATER SOURCE - NON-STORMWATER COMPONENTS OF SITE DISCHARGE MUST BE CLEAN WATER. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE.

5.) CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS - DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND/OR WASH WATER AND STORMWATER THAT WILL BE DISCHARGED FROM THE SITE.

#### **CRITICAL STAGES**

INSTALLATION OF SUBSURFACE DETENTION BASIN

#### **GEOLOGIC FORMATIONS OR SOIL CONDITIONS**

THERE ARE NO GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT COULD CAUSE CONTAMINANT POLLUTION DURING EARTH DISTURBANCE ACTIVITIES.

BELOW ARE INSTRUCTIONS FOR THE PROPER HANDLING AND/OR DISPOSAL OF ALL MATERIALS THAT COULD CAUSE POLLUTION:

1. ANY HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIAL THAT IS BROUGHT ONTO THE CONSTRUCTION SITE SHALL BE HANDLED PROPERLY TO REDUCE THE POTENTIAL FOR STORMWATER POLLUTION. ALL MATERIALS USED ON THIS CONSTRUCTION SITE SHALL BE PROPERLY STORED, HANDLED, DISPENSED AND DISPOSED OF FOLLOWING ALL APPLICABLE LABEL DIRECTIONS. FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE STORED AND HANDLED ACCORDING TO APPLICABLE REGULATIONS. AND, AT A MINIMUM, ACCORDING TO 29 CFR 1926.152. ONLY APPROVED CONTAINERS AND PORTABLE TANKS SHALL BE USED FOR STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

2. MATERIAL SAFETY DATA SHEETS (MSDS) INFORMATION SHALL BE KEPT ON SITE FOR ANY AND ALL APPLICABLE MATERIALS. HOWEVER, MSDS MAY ALSO BE ACCESSED VIA TELEPHONE OR OTHER

3. IN THE EVENT OF AN ACCIDENTAL SPILL, IMMEDIATE ACTION SHALL BE TAKEN BY THE GC TO CONTAIN AND REMOVE THE SPILLED MATERIAL. THE SPILL SHALL BE REPORTED TO THE APPROPRIATE AGENCIES IN THE REQUIRED TIME FRAMES. AS REQUIRED UNDER THE PROVISIONS OF THE CLEAN WATER ACT, ANY SPILL OR DISCHARGE ENTERING WATERS OF THE UNITED STATES SHALL BE PROPERLY REPORTED.

4. ALL HAZARDOUS MATERIALS, INCLUDING CONTAMINATED SOIL AND LIQUID CONCRETE WASTE, SHALL BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY FEDERAL, STATE AND LOCAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS.

5. THE GC SHALL PREPARE A WRITTEN RECORD OF ANY SPILL AND ASSOCIATED CLEAN-UP ACTIVITIES OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF 1 GALLON OR REPORTABLE QUANTITIES, WHICHEVER IS LESS, ON THE DAY OF THE SPILL. THE GC SHALL PROVIDE NOTICE TO OWNER, VIA THE ONLINE CRITICAL INCIDENT REPORT, IMMEDIATELY UPON IDENTIFICATION OF ANY SPILL SPILL REPORT FORMS ARE AVAILABLE IN THE ONLINE SWPPP REPORTING SYSTEM PROVIDED BY THE OWNER. COPIES OF SPILL CRITICAL INCIDENT REPORTS SHALL BE PRINTED AND MAINTAINED IN THE

6. ANY SPILLS OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF REPORTABLE QUANTITIES AS DEFINED BY EPA OR THE STATE OR LOCAL AGENCY REGULATIONS, SHALL BE IMMEDIATELY REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) AND THE COUNTY CONSERVATION DISTRICT (\_\_\_\_

7. AS PER THE PA GENERAL PERMIT, ANY TIME THE PERMITTEE OR CO-PERMITTEE BECOMES AWARE OF ANY INCIDENT CAUSING OR THREATENING POLLUTION AS DESCRIBED IN 25. PA CODE SECTION 91.33. AS REQUIRED BY 25. PA CODE SECTION 92A.41(B), THE PERMITTEE AND CO-PERMITTEE(S) SHALL, WITHIN 24 HOURS, CONTACT THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT, BY PHONE OR PERSONAL CONTACT, FOLLOWED BY SUBMISSION OF A WRITTEN REPORT WITHIN FIVE (5) DAYS OF THE

8. TO MINIMIZE THE POTENTIAL FOR A SPILL OF PETROLEUM PRODUCT OR HAZARDOUS MATERIALS TO COME IN CONTACT WITH STORMWATER. THE FOLLOWING STEPS SHALL BE IMPLEMENTED:

SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CONCRETE, CURING COMPOUNDS AND ADDITIVES, ETC., SHALL BE STORED IN A SECURE LOCATION, UNDER COVER AND IN APPROPRIATE, TIGHTLY SEALED CONTAINERS WHEN NOT IN USE.

(1) ALL MATERIALS WITH HAZARDOUS PROPERTIES, SUCH AS PESTICIDES, PETROLEUM PRODUCTS

FÉRTILIZERS, SOAPS, DETERGENTS, CONSTRUCTION CHEMICALS, ACIDS, BASES, PAINTS, PAINT

(2) THE MINIMUM PRACTICAL QUANTITY OF ALL SUCH MATERIALS SHALL BE KEPT ON THE JOB SITE AND SCHEDULED FOR DELIVERY AS CLOSE TO TIME OF USE AS PRACTICAL.

(3) A SPILL CONTROL AND CONTAINMENT KIT (CONTAINING FOR EXAMPLE, ABSORBENT MATERIAL SUCH AS KITTY LITTER OR SAWDUST, ACID, BASE, NEUTRALIZING AGENT, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, PLASTIC AND METAL TRASH CONTAINERS, ETC.) SHALL BE PROVIDED AT THE CONSTRUCTION SITE AND ITS LOCATION(S) SHALL BE IDENTIFIED WITH LEGIBLE SIGNAGE AND SHOWN ON SITE MAPS.

a. THE SPILL CONTROL AND CONTAINMENT KIT SUPPLIES SHALL BE OF SUFFICIENT QUANTITIES AND APPROPRIATE CONTENT TO CONTAIN A SPILL FROM THE LARGEST ANTICIPATED PIECE OF EQUIPMENT AND FROM THE LARGEST ANTICIPATED QUANTITIES OF PRODUCTS STORED ON THE SITE AT ANY GIVEN TIME.

b. CONTENTS SHALL BE INSPECTED DAILY DURING THE DAILY STORMWATER INSPECTION.

(4) ALL PRODUCTS SHALL BE STORED IN AND USED FROM THE ORIGINAL CONTAINER WITH THE ORIGINAL PRODUCT LABEL. CONTAINERS MUST BE STORED IN A MANNER TO PROTECT THEM FROM THE ELEMENTS AND INCIDENTAL DAMAGE.

(5) ALL PRODUCTS SHALL BE USED IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT

(6) THE DISPOSAL OF EXCESS OR USED PRODUCTS SHALL BE IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL AND REGULATIONS.

#### RIPARIAN FOREST BUFFER MANAGEMENT PLAN

REGARDING EXISTING OR PROPOSED RIPARIAN FOREST BUFFERS. NOTE THE FOLLOWING • THERE ARE NO EXISTING/PROPOSED RIPARIAN FOREST BUFFERS LOCATED WITHIN OR OUTSIDE THE LIMITS OF DISTURBANCE FOR THIS PROJECT.

#### **PCSM - GENERAL BMP NOTES**

1. A SITE INSPECTION AND APPROVAL BY THE COUNTY CONSERVATION DISTRICT IS REQUIRED PRIOR TO THE REMOVAL OR CONVERSION OF SEDIMENT BASINS AND TRAPS.

2. BOHLER ENGINEERING SHALL BE NOTIFIED OF PRE-CONSTRUCTION MEETING DATE AND BMP CONSTRUCTION SCHEDULE

3. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO LIMIT THE COMPACTION IN THE

4. REFER TO THE BMP CONSTRUCTION DETAILS FOR THE CONSTRUCTION OF ALL PROPOSED STORMWATER MANAGEMENT BMPs.

5. REFER TO THE PCSWM PLAN AND DETAILS FOR SPECIFIC BMP CONSTRUCTION GUIDELINES.

6. AS-BUILT PLANS OF THE STORMWATER BMPs FOR EACH PROJECT PHASE SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE. THE AS-BUILT PLANS SHALL BE SIGNED AND SEALED BY A PA REGISTERED PROFESSIONAL SURVEYOR.

7. A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS. PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION TO ENSURE SITE

STABILIZATION AND VERIFY ADEQUATE INSTALLATION AND FUNCTION OF STORMWATER BMPs.

- 1. UNTIL THE SITE IS STABILIZED AND DURING THE CONSTRUCTION ACTIVITIES, ALL BMPs MUST BE MAINTAINED PROPERLY BY CONTRACTOR. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL BMPs AS SPECIFIED. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY AND IN ACCORDANCE WITH THESE PROCEDURES, PLANS, AND DETAILS. ANY AREAS DISTURBED DURING MAINTENANCE MUST BE STABILIZED IMMEDIATELY IN ACCORDANCE WITH THE GENERAL CONSERVATION NOTES AND SPECIFICATIONS.
- 2. ALL SITE INSPECTIONS MUST BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE INDICATING THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- 3. SHOULD ON-SITE EROSION OCCUR FROM THE LANDSCAPED AREAS. THE SOURCE OF EROSION SHALL BE IMMEDIATELY STABILIZED AND THE INLETS AND STORMWATER PIPING SHALL BE CHECKED FOR ACCUMULATION AND CLEARED IF ACCUMULATION OF SEDIMENT EXISTS.
- 6. REMOVE ACCUMULATED SEDIMENT FROM THE FACILITIES AS REQUIRED. RESTORE ORIGINAL CROSS-SECTION IF NECESSARY. PROPERLY DISPOSE OF SEDIMENT AS SPECIFIED. FOR ABOVE-GROUND INFILTRATION FACILITIES, REMOVE AND REPLACE SAND/STONE LAYER AS

IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT BMPs AS DESCRIBED HEREIN.



# **USGS MAP**

SCALE: 1" = 2,000' SOURCE: USGS



**SOIL MAP** 

SCALE: 1" = 200' SOURCE: WEB SOIL SURVEY

#### TYPES. DEPTH. SLOPE. LOCATIONS. AND LIMITATIONS OF THE SOILS

SOIL DESCRIPTIONS

DESCRIPTION

CONTROL MANUAL PUBLISHED BY PADEP.

SOIL GROUP

- URBAN LAND-UDORTHENTS COMPLEX

SOIL USE LIMITATIONS AND THEIR RESOLUTIONS PROVIDED

CONTRACTOR SHALL CONSULT WITH GEOTECHNICAL ENGINEER TO DETERMINE SOIL LIMITATIONS AND RESOLUTIONS SPECIFIC TO THIS PROJECT

1. SOIL TYPES POORLY SUITED AS SOURCES OF TOPSOIL RESTRICT OR PLACE CONDITIONS ON PLANNING VEGETATIVE STABILIZATION. ACIDIC, LOW FERTILITY, EXCESSIVE DRYNESS AND EXCESSIVE WETNESS LIMIT PLANT GROWTH.

RESOLUTIONS: IDENTIFYING AND RESOLVING CHARACTERISTICS, THAT RENDER THE SOIL TYPES POORLY, SUITED AS TOPSOIL.

2. ACIDIC SOIL TYPES EXHIBITING PH REACTION VALUES LOWER THAN ABOUT 5.5, LIMIT VEGETATIVE STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC PH REACTION.

RESOLUTIONS: APPLYING LIME CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTING VEGETATIVE SPECIES TOLERANT TO ACIDIC SOIL CONDITIONS; AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE

3. LOW FERTILITY SOIL TYPES LACKING IN SUFFICIENT AMOUNTS OF ESSENTIAL PLANT NUTRIENTS SUCH AS: NITRPGEN, PHOSPHOROUS, POTASSIUM, SULFER, MAGNESIUM, CALCIUM, IRON, MANGANESE, BORON, CHLORINE, ZINC, COPPER AND MOLYBDENUM, LIMIT VEGETATION STABILIZATION. SOIL TESTS MIGHT BE NECESSARY TO DETERMINE SITE SPECIFIC SOIL FERTILITY.

LOW FERTILITY SOIL CONDITIONS. AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE 4. ERODIBLE SOIL TYPES EXHIBITING K VALUES GREATER THAN 0.36 OR PLASTICITY INDEX VALUES LOWER THAN 10, LIMIT VEGETATIVE STABILIZATION OF

RESOLUTIONS: INCORPORATING SOIL NUTRIENTS CONSISTENT WITH RATES DETERMINED BY SOIL TESTING; SELECTIVE VEGETATIVE SPECIES TOLERANT TO

RESOLUTIONS: TEMPORARY CHANNEL LINING, PROVIDING PERMANENT CHANNEL LINING, DECREASING CHANNEL GRADE, INCREASING CHANNEL WIDTH, SELECTING VEGETATIVE WITH GREATER RETARDANCE. SELECTING PERMANENT LININGS OTHER THAN GRASSES. AND IMPLEMENTING COMBINATION OF THESE AND/OR METHODS. VEGETATIVE RETARDANCE INFORMATION IS PROVIDED IN TABLES 6 AND 7 OF THE EROSION AND SEDIMENT POLLUTION

5. WET SOIL TYPES HAVE EXCESSIVE ROOT ZONE AND SOIL MOISTURES. SOME SOIL SURVEYS INDICATE WETNESS, HIGH WATER TABLE AND FLOODING. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO WET CONDITIONS, TILING VEGETATIVE AREAS, AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY THE PENN STATE.

6. DRY SOIL TYPES LACK SUFFICIENT ROOT ZONE SOIL MOISTURES. THIS INDICATOR IS AFFECTED BY SOIL DISTURBANCE.

EMBANKMENTS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS.

RESOLUTIONS: SELECTING VEGETATIVE SPECIES TOLERANT TO DRY CONDITIONS, IRRIGATING VEGETATED AREAS AND IMPLEMENTING COMBINATION OF THESE AND/OR OTHER METHODS. SPECIFIC TOLERANCE INFORMATION IS PROVIDED IN TABLE 1 OF THE EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND PUBLISHED BY PENN STATE.

7. SOIL TYPES SUSCEPTIBLE TO SINKHOLE AND SOLUTION CHANNEL/CHAMBER FORMATION POSE LIMITATIONS ON LOCATING RESERVOIR AREAS OF SEDIMENT BASINS, SEDIMENT TRAPS, STORMWATER RETENTION BASINS, AND STORMWATER DETENTION BASINS.

RESOLUTIONS: LOCATING THOSE FACILITIES ON OTHER SOIL TYPES. LINING RESERVOIR AREAS WITH IMPERMEABLE LINNINGS. LIMITING STANDING WATER DEPTHS. LIMITING RETENTION TIMES AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS 8. SOIL TYPES THAT EXHIBIT INSTABILITY IN POND EMBANKMENTS OR SUSCEPTIBILITY TO PIPING AND SEEPING POSE LIMITATIONS ON PLANNING

RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, LIMITING EMBANKMENT SLOPE STEEPNESS AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS.

EMBANKMENTS OF SEDIMENT BASINS. SEDIMENT TRAPS. STORMWATER RETENTION BASINS AND STORMWATER DETENTION BASINS. RESOLUTIONS: IMPORTING OTHER SOIL FOR EMBANKMENT OF THOSE FACILITIES, LOCATING THOSE FACILITIES ON OTHER SOIL TYPES, NOT CONSTRUCTING EMBANKMENTS DURING PERIODS PRONE TO FROST AND IMPLEMENTING COMBINATIONS OF THESE AND/OR OTHER METHODS

9. SOIL THAT ARE DIFFICULT TO COMPACT, UNSUITABLE FOR WINTER GRADING, OR SUSCEPTIBLE TO FROST ACTION POSE LIMITATIONS ON PLANNING

10. SUSCEPTIBILITY FOR THE DEVELOPMENT OF SINKHOLE WITHIN IDENTIFIED SOILS.

RESOLUTIONS: IN THE EVENT THAT PRESENCE OF A SINKHOLE IS DETECTED DURING THE COURSE OF WORK, CORRECTIVE MEASURES SHALL BE PERFORMED UNDER THE OBSERVATION AND GUIDANCE OF THE OWNER'S GEOTECHNICAL CONSULTANT. EXCAVATE THE LOOSE WET SOILS SURROUNDING THE SINKHOLE TO EXPOSE THE SINKHOLE "THROAT" (THE OPENING IN THE ROCK) AND THE ADJACENT STABLE SOILS/ROCK WHERE POSSIBLE, THE EXCAVATION SHALL EXTEND A MINIMUM OF TWO FEET (2') BEYOND THE STABLE SOILS OR TO THE ROCK SURFACE. WHICHEVER IS ENCOUNTERED FIRST.

FILL THE EXPOSED SINKHOLE "THROAT" WITH LEAN CONCRETE TO BLOCK THE MIGRATION OF THE UPPER LAYERS OF SOIL THROUGH THE ROCK OPENING. AFTER CONCRETE HAS CURED OVERNIGHT BACKFILL THE REMAINDER OF THE EXCAVATION WITH CLAYEY SOILS TO PROVIDE A LOW PERMEABILITY BARRIER. THE CLAYEY SOILS SHALL BE PLACED IN 8" LIFTS AND EACH LIFT COMPACTED BY REPEATED PASSES OF THE COMPACTION EQUIPMENT UNTIL STABLE. CARE SHALL BE TAKEN TO ASSURE THAT THE SOIL AT THE EDGES OF THE EXCAVATION ARE WELL COMPACTED.



REVISIONS

REV DATE

COMMENT



YOU MUST CALL 811 BEFORE ANY EXCAVATION WHETHER IT'S ON PRIVATE OR PUBLIC LAND.

www.wv811.com

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**AGENCY REVIEW & APPROVAL** 

EVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUC DOCUMENT UNLESS INDICATED OTHERWISE.

PB214045-CNDS-0

**PROJECT No.:** DRAWN BY: **CHECKED BY:** 

CAD I.D.:

PROJECT: PRELIMINARY! FINAL LAND **DEVELOPMENT** 

**PLANS** 

KELLBENN, INC

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING **OHIO COUNTY, WV 26003** 



1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

www.BohlerEngineering.com

M.W. TAKACS REGISTERED LANDSCAPE ARCHITEC WEST VIRGINIA LICENSE N

SHEET TITLE: POST CONSTRUCTION STORMWATER

**MANAGEMENT** 

NOTES

ORG. DATE - 10/28/2022

# LONG-TERM OPERATION AND MAINTENANCE SCHEDULE

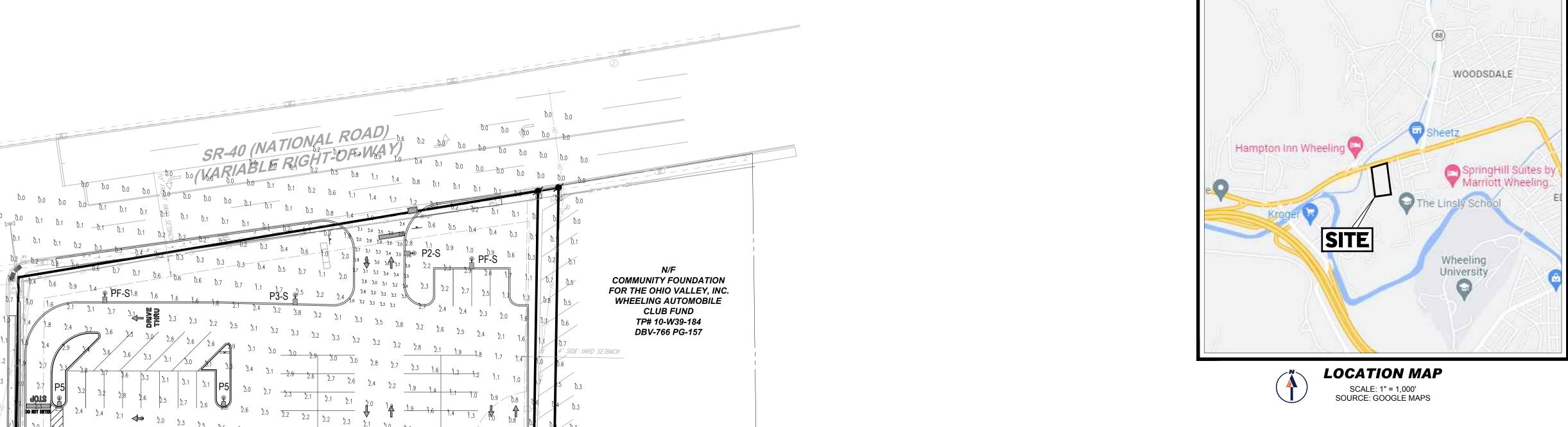
4. HEAVY CONSTRUCTION VEHICLES SHALL NOT BE PARKED ON OR DRIVEN OVER BMP FACILITIES AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY EQUIPMENT, INCLUDING MOWERS. 5. INSPECT INFILTRATION FACILITIES AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SIGNS OF

NECESSARY IF FACILITY DEWATERING TIME EXCEEDS 72 HOURS.

BMP NO.	DESCRIPTION	SCHEDULE	INSPECTION TASK	MAINTENANCE	FAILURE INDICATORS
STORM DRAINAGE SYSTEM	INLETS, MANHOLES, AND STORMWATER PIPING.	EVERY 3 MONTHS		CLEAR SEDIMENT AND DEBRIS FROM ALL ON-SITE INLETS, MANHOLES, AND STORMWATER PIPING.	EXCESSIVE PONDING AROUND THE INLET GRATES COULD INDICATE THAT THERE MAY BE SEDIMENT/DEBRIS BUILDUP.

#### **GENERAL LIGHTING NOTES**

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN. AND THE ELECTRICAL CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE ELECTRICAL CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
- 2. THE ELECTRICAL CONTRACTOR MUST COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE PLANS, INCLUDING BUT NOT LIMITED TO GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY. AND ALL AGENCY AND GOVERNMENTAL REGULATIONS.
- 3. THE LIGHTING PLAN DEPICTS PROPOSED, SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER, ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
- 4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT GROUND LEVEL UNLESS OTHERWISE NOTED. ILLUMINATION LEVELS ARE SHOWN IN FOOT-CANDLES (FC).
- 5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES AND RE-LAMPING ACCORDING T MANUFACTURER RECOMMENDATIONS. FAILURE FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
- 6. THE LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES. POWER SYSTEM, CONDUITS, WIRING AND OTHER ELECTRICAL COMPONENTS ARE SOLELY THE ARCHITECT'S, MECHANICAL ENGINEER'S AND/OR ELECTRICAL CONTRACTOR'S RESPONSIBILITY, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR MUST COORDINATE WITH THE PROJECT ARCHITECT AND/OR ELECTRICAL ENGINEER REGARDING ANY AND ALL POWER SOURCES AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES.
- 7. THE ELECTRICAL CONTRACTOR MUST BRING IMMEDIATELY. IN WRITING, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE. UTILITIES. OR OTHER STRUCTURE(S) TO THE ENGINEER OF RECORD'S ATTENTION, PRIOR TO THE START
- 8. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY
- 9. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.
- 10. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
- 11. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE PROJECT ENGINEER (BOHLER) FOR REVIEW AND APPROVAL. SUBSTITUTION REQUESTS MUST BE ACCOMPANIED BY A HORIZONTAL PHOTOMETRIC STUDY DEMONSTRATING THAT THE LUMINAIRE(S) IN QUESTION WILL MEET THE DESIGN INTENT OF THIS PLAN. SUBSTITUTION REQUESTS WITHOUT A PHOTOMETRIC STUDY WILL BE REJECTED.





#### LIGHTING COMPLIANCE

1331.13 GENERAL PERFORMANCE AND MAINTANENCE STANDARDS GLARE AND HEAT. NO UNREASONABLE GLARE OR HEAT SHALL BE PRODUCED THAT IS PERCEPTIBLE BEYOND THE BOUNDARIES OF THE LOT ON WHICH A USE IS SITUATED. SPECIAL EFFORTS SHALL BE REQUIRED, SUCH AS THE PLANTING OF VEGETATION AND THE INSTALLATION OF LIGHT SHIELDS, TO ALLEVIATE THE IMPACT OF OBJECTIONABLE OR OFFENSIVE LIGHT AND GLARE PRODUCED BY EXTERIOR SOURCES ON NEIGHBORING RESIDENTIAL PROPERTIES OR PUBLIC THOROUGHFARES. IN PARTICULAR, NO USE SHALL PRODUCE GLARE SO AS TO CAUSE ILLUMINATION BEYOND THE PROPERTY ON WHICH IT IS LOCATED IN EXCESS OF FIVE-TENTHS (0.5) FOOTCANDLE.

#### 1355.08 EXTERIOR LIGHTING

A. ALL EXTERIOR LIGHTING IN ALL DISTRICTS EXCEPT FOR R-1A, R-1B, R-1C, AND R-2 AND IN CONNECTION WITH ALL NONRESIDENTIAL USES AND MULTI-FAMILY USES IN ALL OTHER RESIDENTIAL DISTRICTS SHALL BE OF SUCH A TYPE AND LOCATION AND SHALL HAVE SUCH SHIELDING AS WILL DIRECT THE LIGHT DOWNWARD AND WILL PREVENT THE SOURCE OF LIGHT FROM BEING VISIBLE FROM ANY ADJACENT RESIDENTIAL PROPERTY OR STREET. "SOURCE OF LIGHT" SHALL BE DEEMED TO INCLUDE ANY TRANSPARENT OR TRANSLUCENT LIGHTING WHICH IS AN INTEGRAL PART OF THE LIGHTING FIXTURE(S). SITE ILLUMINATION FOR UNCOVERED AREAS SHALL BE EVENLY DISTRIBUTED.

B. LIGHT SOURCES SHALL COMPLY WITH THE FOLLOWING: 1. THE NUMBER AND SPACING OF REQUIRED LIGHT POLE STANDARDS IN A PARKING LOT SHALL BE DETERMINED BASED ON THE TYPE OF FIXTURE. HEIGHT OF POLE. NUMBER OF FIXTURES ON THE POLE, AND THE DESIRED LIGHTING LEVEL. UNLESS THE APPLICANT CAN DEMONSTRATE A REASONABLE ALTERNATIVE, LIGHTING SHALL BE CONSIDERED EVENLY DISTRIBUTED IF THE LIGHT FIXTURES ARE PLACED AT INTERVALS THAT EQUAL FOUR TIMES THE MOUNTING HEIGHT.

2. POLE PLACEMENT, MOUNTING HEIGHT, AND FIXTURE DESIGN SHALL SERVE TO ARRANGED SO AS TO REFLECT AWAY FROM ADJACENT PROPERTIES. ALL LIGHT SOURCES SHALL BE SHIELDED OR POSITIONED SO AS TO PREVENT GLARE FROM BECOMING A HAZARD OR A NUISANCE, OR HAVING A NEGATIVE IMPACT ON SITE USERS. ADJACENT PROPERTIES. OR THE TRAVELING PUBLIC. EXCESSIVE SPILLOVER OF LIGHT TO NEARBY PROPERTIES SHALL BE AVOIDED. GLARE SHALL BE MINIMIZED TO DRIVERS ON ADJACENT STREETS.

3. POLES SHALL BE RUSTPROOF METAL, CAST IRON, FIBERGLASS, FINISHED WOOD OR SIMILAR STRUCTURAL MATERIAL, WITH A DECORATIVE SURFACE OR FINISH.

4. POLES IN PEDESTRIAN AREAS SHALL NOT BE GREATER THAN 15 FEET IN HEIGHT AND SHALL UTILIZE UNDERGROUND WIRING.

5. POLES IN ALL OTHER AREAS SHALL NOT EXCEED 25 FEET IN HEIGHT, AND SHALL UTILIZE UNDERGROUND WIRING.

6. LIGHT SOURCES ON STRUCTURES SHALL NOT EXCEED 25 FEET, OR THE HEIGHT OF THE STRUCTURE, WHICHEVER IS LESS. 7. SAFE POLE LOCATIONS: BREAKAWAY POLES SHALL NOT BE USED IN PARKING LOTS.

POLES SHALL NOT BE ERECTED ALONG THE OUTSIDE OF ROADWAY AND RAMP CURVES OR WHERE VEHICLES MUST MAKE SHARP TURNS POLES SHALL NOT BE LOCATED WHERE THEY MIGHT BE SUSCEPTIBLE TO COLLISION STRIKES. POLES LOCATED BEHIND LONGITUDINAL TRAFFIC BARRIERS SHALL BE OFFSET SUFFICIENTLY TO ALLOW FOR BARRIER DEFLECTION UNDER IMPACT.

8. POLE LOCATION IN PARKING LOTS: POLE LOCATIONS SHALL BE COORDINATED WITH STALL AND AISLE LAYOUTS. WHERE PRACTICAL, POLES SHALL BE NEAR THE END OF PARKING ROWS OR AROUND THE PERIMETER OF THE LOT. WHEN LOCATED AT PARKING STALL BOUNDARIES, LIGHT POLES SHALL BE MOUNTED ON CONCRETE PEDESTALS. WHERE RAISED MEDIANS OR ISLANDS ARE USED TO SEPARATE ADJACENT STALLS, LIGHT POLES SHALL BE PLACED IN THESE AREAS UNLESS PEDESTRIAN TRAFFIC WILL BE INCONVENIENCED. WHERE LIGHT POLES ARE PLACED BETWEEN PARKING ROWS IN THE INTERIOR OF THE LOT. THE POLES SHALL BE

LOCATED ON THE CENTER LINE OF DOUBLE ROWS OF PARKING STALLS AND ON THE

CENTER LINE OF TWO OPPOSING STALLS AND SHALL NOT BE PLACED ON THE STALL

LINE BETWEEN CARS WHERE FENDER DAMAGE MIGHT OCCUR.

#### [COMPLIES]

#### **CALCULATION SUMMARY**

NOTES:

1. THIS DETAIL IS FOR BID AND BUDGETARY PURPOSES ONLY. CONTRACTOR SHALL ENSURE DESIGN IS PREPARED BY A QUALIFIED STRUCTURAL ENGINEER CONSIDERING LIGHTING MANUFACTURER REQUIREMENTS, LOCAL WIND

A. SOME SITE LOCATIONS AND/OR CONDITIONS MAY REQUIRE VIBRATION DAMPENING MEASURES AS DETERMINED

**LIGHT POLE FOUNDATION DETAIL** 

NOT TO SCALE

B. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF THE INTENT TO MOUNT ANYTHING ASIDE FROM THE LIGHT FIXTURE INCLUDING (BUT NOT LIMITED TO) CAMERAS, BANNERS, FLAGS, SIGNAGE, ETC. AS IT WILL IMPACT

2. ALL REBAR SHALL HAVE A YIELD STRENGTH OF 60ksi, AND MAINTAIN A 3" MIN. CLEARANCE FROM SURFACES.

REMOVE PAINT & SECURELY-

POLE TO POLE BODY, OR

" STRANDED BARE COPPER WIRE,

ATTACH TO LUG AND CLAMP

COPPER GROUND CLAMP-

ATTACHED TO CONDUIT

WHEN POLES ARE EQUIPPED W/~

BASE PLATE COVER, THE COVERS

TO HAVE FINISH TO MATCH POLE

1-2" CHAMFER ON TOP EDGE-

ANCHOR BOLTS PER POLE-

RIGID CONDUIT (SIZED AS-

NEEDED) 24" MIN. BELOW

**I-3** 

FINISHED GRADE

REINFORCEMENT AS NECESSARY-

BY A STRUCTURAL ENGINEER.

THE POLE AND FOUNDATION DESIGN.

OF CONCRETE

FASTENERS)

ATTACH COPPER GROUND LUG WITH 3/16" STOVE BOLT INSIDE

HANDHOLE REINFORCING RING (DO NOT GROUND TO COVER

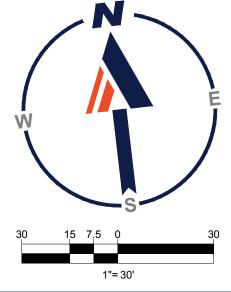
LABEL	CALCTYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
ALL POINTS	ILLUMINANCE	Fc	1.50	21.5	0.0	N.A.	N.A.
COFFEE - PATIO	ILLUMINANCE	Fc	5.24	16.2	1.7	3.08	9.53
COFFEE - SERVICE DOOR	ILLUMINANCE	Fc	13.64	25.0	5.0	2.73	5.00
COFFEE - DRIVE THRU	ILLUMINANCE	Fc	4.77	12.4	1.6	2.98	7.75
COFFEE - SIDEWALK	ILLUMINANCE	Fc	13.04	25.0	2.2	5.93	11.36
SITE ENTRY - NORTH	ILLUMINANCE	Fc	3.08	3.9	2.1	1.47	1.86
SITE ENTRY - SOUTH	ILLUMINANCE	Fc	3.02	3.9	1.9	1.59	2.05
PARKING - NORTHEAST	ILLUMINANCE	Fc	2.04	3.8	0.6	3.40	6.33
PARKING - NORTHWEST	ILLUMINANCE	Fc	2.48	3.8	1.2	2.07	3.17
PARKING - SOUTH	ILLUMINANCE	Fc	1.98	4.4	1.1	1.80	4.00
DRIVE THRU - CVS	ILLUMINANCE	Fc	1.87	4.1	1.0	1.87	4.10

-HANDHOLE W/ COVER

-LEVELING NUTS

HEAD-IN PARKING

LABEL	QTY	MOUNTING HT.	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	POLE
P2-S	2	22'-6" AFG	SINGLE	12,547	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 2M, ZERO UP-LIGHT (DSX1-LED-P3-40K-T2M-x-RPA-HS)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM19AS)
P3-S	1	22'-6" AFG	SINGLE	9,898	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 3M, ZERO UP-LIGHT (DSX1-LED-P3-40K-T3M-x-RPA-HS)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM19AS)
P3-D	1	22'-6" AFG	BACK-BACK	12,214	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 3M, ZERO UP-LIGHT (DSX1-LED-P3-40K-T3M-x-RPA)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM28AS)
P4	2	22'-6" AFG	SINGLE	13,053	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 4M, ZERO UP-LIGHT (DSX1-LED-P3-40K-T4M-x-RPA)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM19AS)
P5	4	22'-6" AFG	SINGLE	12,308	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE 5M, ZERO UP-LIGHT (DSX1-LED-P3-40K-T5M-x-RPA)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM19AS)
PF	1	22'-6" AFG	SINGLE	12,574	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE TFTM, ZERO UP-LIGHT (DSX1-LED-P3-40K-TFTM-x-RPA)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM19AS)
F-S	2	22'-6" AFG	SINGLE	9,818	0.920	LITHONIA LIGHTING, D-SERIES SIZE 1 LED AREA LUMINAIRE, TYPE TFTM, ZERO UP-LIGHT (DSX1-LED-P3-40K-TFTM-x-RPA-HS)	LITHONIA LIGHTING, ROUND STRAIGHT STEEL POLE, 20' LENGTH, (RSS-20-4-5B-DM19AS)
)*	9		SINGLE	184	0.900	TECH LIGHTING, WINDFALL LED OUTDOOR WALL SCONCE (7000WWND-B)	
)*	10	12'-0" AFF	SINGLE	3276	0.900	LITHONIA LIGHTING, WST LED ARCHITECTURAL WALL SCONCE (WST-LED-P2-30K-VW-x-BBW-DBLXD)	
*	3		SINGLE	1160	0.900	ALPHABET LIGHTING, ECO NU3" RECESSED LED DOWNLIGHT (ECO NU3-RAPH-SW-16LM-27K-90CRI-D50, DIM10Z-NC-BK)	





**REVISIONS** 

COMMENT

REV DATE



**ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL** 

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PB214045-LLGT-0

PROJECT No.: DRAWN BY: **CHECKED BY:** 

PROJECT:

CAD I.D.:

PRELIMINARY/ FINAL LAND **DEVELOPMENT PLANS** 

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

Phone: (724) 638-8500 www.BohlerEngineering.com

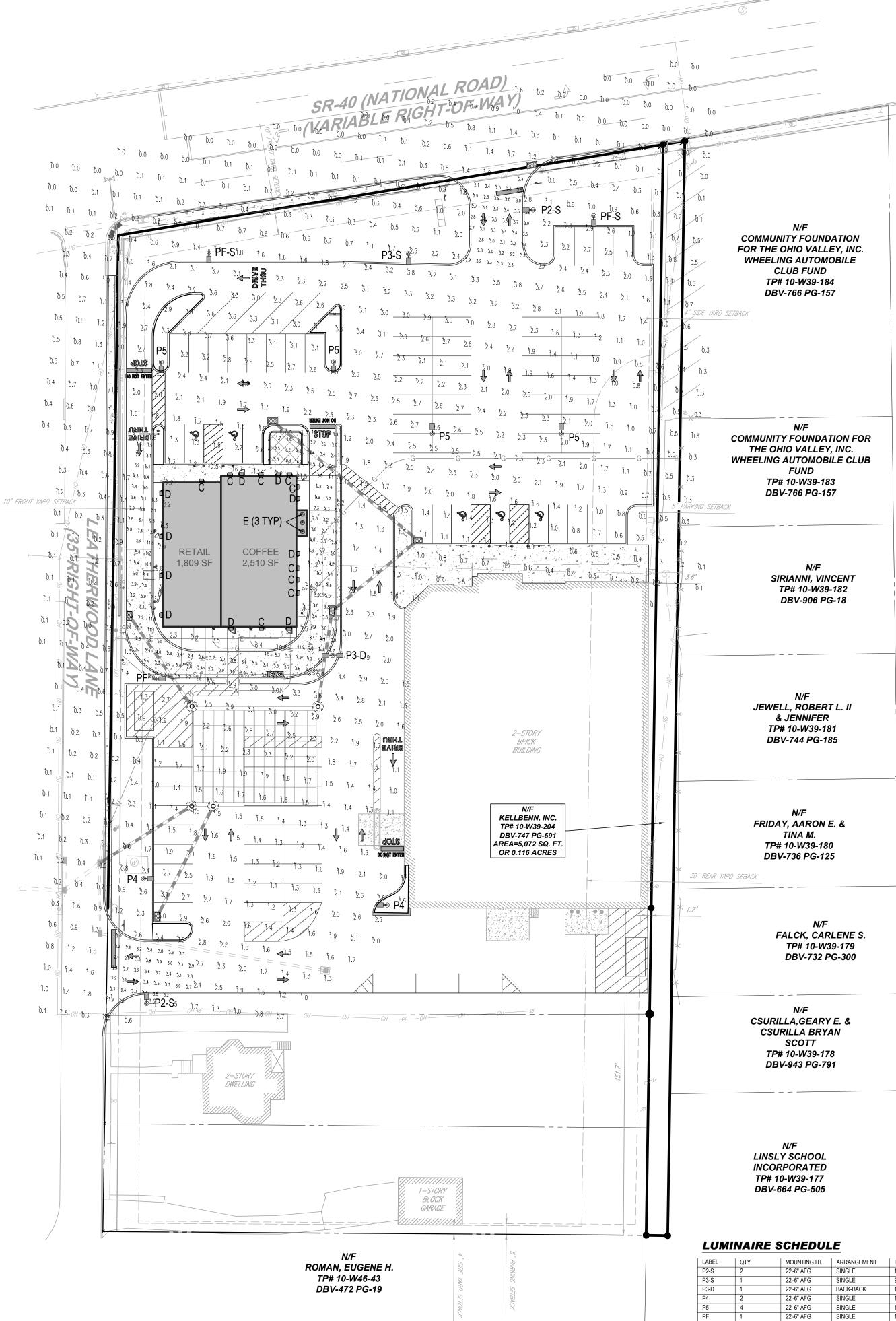
M.W. TAKACS

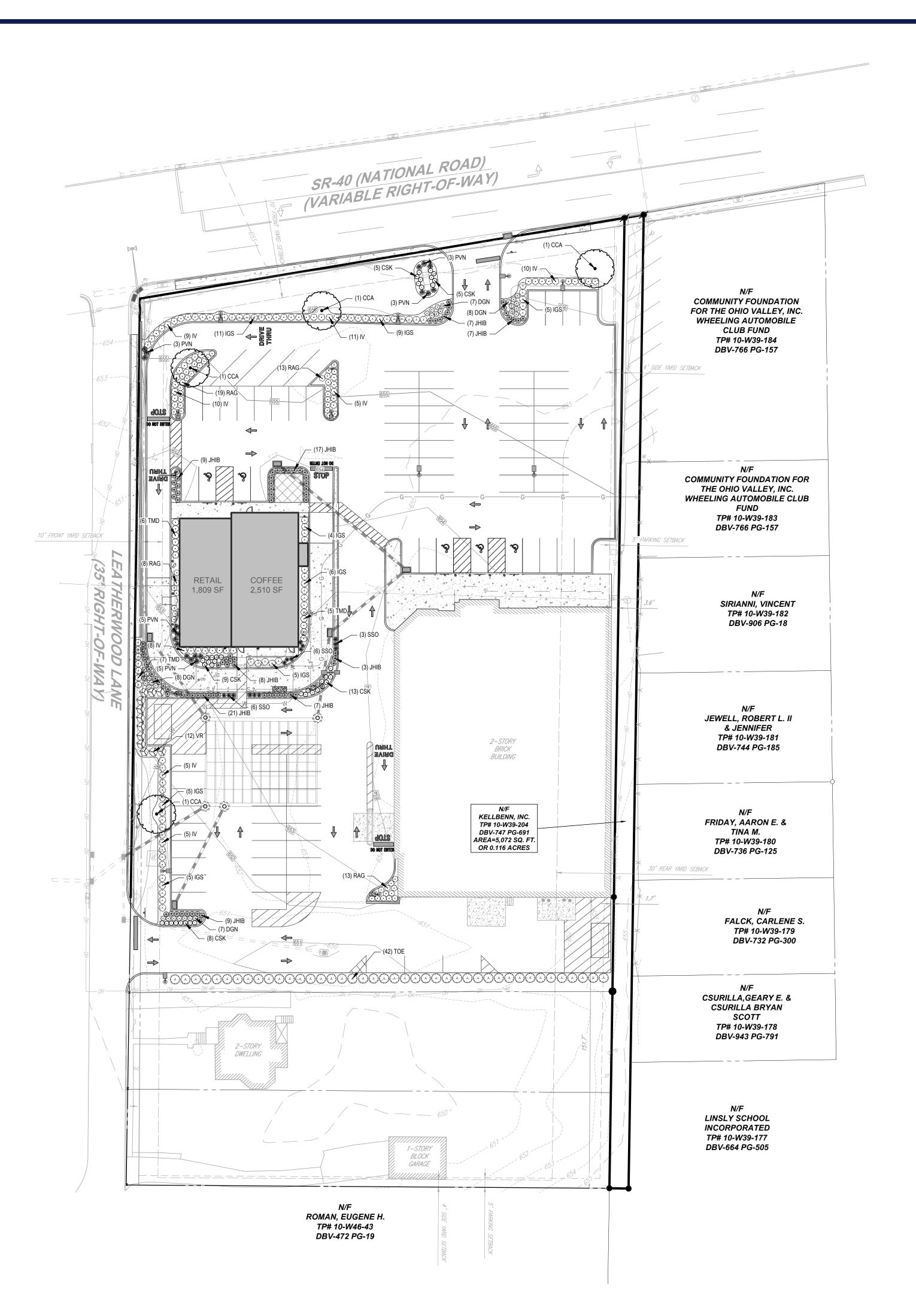
REGISTERED LANDSCAPE ARCHITECT WEST VIRGINIA LICENSE No.

SHEET TITLE:

**LIGHTING PLAN** 

C-701





#### **GENERAL NOTES:**

- 1. THIS PLAN IS TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY.
- ALL DISTURBED UNPAVED AREAS, EXCLUDING PLANTING BEDS, ARE
  TO BE INSTALLED AS LAWN IN ACCORDANCE WITH LANDSCAPE
  SPECIFICATION #2.C., UNLESS OTHERWISE STATED ON THIS PLAN.
- 3. SHRUBS PLANTED ALONG HEAD-IN PARKING STALLS SHALL BE INSTALLED TO ALLOW A CLEARANCE OF TWO FEET FROM FACE OF CURB TO ALLOW FOR BUMPER OVERHANG.
- 4. IF IRRIGATION IS REQUIRED BY THE OWNER OR APPROVING MUNICIPALITY, THE CONTRACTOR SHALL PROVIDE AN IRRIGATION SYSTEM MEETING THE SPECIFICATIONS OF THE CHOSEN PRODUCT'S MANUFACTURER. THE IRRIGATION DESIGN SHALL ACCOMMODATE LAWN AND BED AREAS EACH UNDER SEPARATE ZONES TO MAXIMIZE WATER EFFICIENCY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE INSTALLATION OF AN IRRIGATION SYSTEM.
- 5. PLANT MATERIAL SUBSTITUTIONS MUST BE FORMALLY SUBMITTED TO BOHLER ENGINEERING AND THE MUNICIPAL ENGINEER AND LANDSCAPE CONSULTANTS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. ANY PLANT MATERIAL THAT ARE TO BE INSTALLED WITHIN STORMWATER BMP FEATURES MUST BE NATIVE SPECIES.
- 6. WITHOUT EXCEPTION, WEED BARRIER FABRIC SHALL NOT BE INSTALLED WITHIN ANY BMP FACILITY. BMP FACILITIES INCLUDE RAINGARDENS, INFILTRATION TRENCHES, VEGETATIVE SWALES AND STORMWATER BASINS.

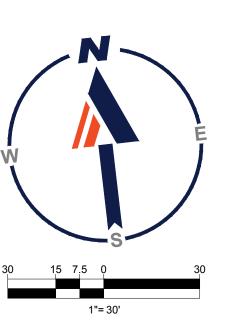




#### COMPLIANCE CHART

SECTION	REQUIREMENT	CALCULATIONS (REQUIRED / PROVIDED)	COMPLIANCE
ZONING: 1355.05 REQUIRED LANDSCAPING IN ALL DISTRICTS EXCEPT R-1A, R-1B, R-1C AND R-2	A. AT LEAST ONE MAJOR DECIDUOUS SHADE TREE, NOT LESS THAN TWO AND ONE-HALF INCHES CALIPER MEASURED THREE FEET ABOVE THE GROUND AT THE TIME OF PLANTING, SHALL BE PROVIDED WITHIN EACH PARKING AREA FOR EVERY 3,000 SQUARE FEET OF PAVED AREA OR EVERY TEN PARKING SPACES, WHICHEVER IS GREATER. THE TREES SHALL BE SPACED EVENLY THROUGHOUT THE LOT	TOTAL PARKING AREA: 51,537 ± SF REQUIRED: 51,537 / 3,000 = 17.2 OR 18 TREES PROVIDED: 4 CCA (4 TREES)	VARIANCE
K IO/III K Z	INTERIOR TO PROVIDE SHADE AND REDUCE GLARE. IN ALL OFF-STREET PARKING AREAS CONTAINING TWENTY-FIVE OR MORE PARKING SPACES, AT LEAST TEN PERCENT OF THE INTERIOR OF THE PARKING AREA SHALL BE CURBED AND LANDSCAPED WITH TREES, SHRUBS, AND OTHER PLANTS.	TOTAL PARKING AREA: 51,727 ± SF REQUIRED (10%): 5,173 SF LANDSCAPE AREA PROVIDED: 1027.8 ± SF LANDSCAPE AREA (1.98%)	VARIANCE
	D. ALL ISLANDS AND SCREENS (SEE SECTION 1355.06) SHALL BE LANDSCAPED WITH TREES, SHRUBS, GRASSES, AND/OR GROUND COVERS. THE MATERIALS SELECTED FOR THE LANDSCAPED OVERHANG AREA MUST BE OF SUITABLE HEIGHT AND HARDINESS FOR THE SIZE AND USE OF THE AREA. SPECIES SELECTED SHALL BE TOLERANT OF URBAN CONDITIONS AND DEICING AGENTS. ALL NEW PLANT MATERIALS SHALL BE CONSISTENT AND COMPATIBLE WITH THE EXISTING VEGETATION OF THE SITE AND THE SURROUNDING AREA. PLANT MATERIALS JUDGED TO BE INAPPROPRIATE BY THE PLANNING ADMINISTRATOR OR PLANNING COMMISSION WILL NOT BE APPROVED.	ALL ISLANDS HAVE BEEN LANDSCAPED TO MEET THE INTENT OF THIS REQUIREMENT.	COMPLIES
1355.06 REQUIRED SCREENING IN ALL DISTRICTS EXCEPT R-1A, R-1B, R-1C AND R-2	A. ALL OFF STREET PARKING AREAS, OFF STREET LOADING AREAS, OUTDOOR STORAGE AREAS, REFUSE AND RECYCLING AREAS, AND UTILITY IMPROVEMENTS SUCH AS TRANSFORMER(S), EXTERNAL HEATING AND COOLING EQUIPMENT SHALL BE EFFECTIVELY SCREENED.  C. THE SCREENING SHALL BE ALONG THE LOT LINES THAT ADJOIN, ABUT, OR ARE ADJACENT TO OR FACE PREMISES SITUATED IN ANY RESIDENTIAL ZONE OR INSTITUTIONAL BUILDINGS. IT SHALL BE OF EVERGREEN PLANTING OF SUCH TYPE, HEIGHT, AND SPACING, AS IN THE JUDGMENT OF THE PLANNING ADMINISTRATOR OR PLANNING COMMISSION, WILL EFFECTIVELY SCREEN THE ACTIVITIES ON THE LOT FROM THE VIEW OF PERSONS STANDING ON ADJOINING PROPERTIES. THE PLAN AND SPECIFICATIONS FOR SUCH PLANTING SHALL BE FILED WITH THE APPROVED PLAN FOR THE USE OF THE LOT.  D. A WALL OR FENCE, OF LOCATION, HEIGHT, AND DESIGN APPROVED BY THE PLANNING ADMINISTRATOR OR PLANNING COMMISSION, MAY BE SUBSTITUTED FOR THE REQUIRED PLANTING.	SCREENING HAS BEEN PROVIDED WHERE FEASIBLE	EXISTING NON-CONFORMITY

CANOPY TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CCA	4	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3" CAL.	B&B
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CSK	40	CORNUS SERICEA 'KELSEYI'	KELSEYI DOGWOOD	15-18"	CONTAINER
DGN	30	DEUTZIA GRACILIS 'NIKKO'	SLENDER DEUTZIA	18-24"	CONTAINER
IGS	50	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERRY	24-30"	CONTAINER
IV	63	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	24-30"	CONTAINER
JHIB	88	JUNIPERUS HORIZONTALIS 'MONBER'	ICEE BLUE JUNIPER	15-18" SPRD	CONTAINER
RAG	53	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	15-18"	CONTAINER
TMD	18	TAXUS X MEDIA 'DENSIFORMIS'	DENSE YEW	24-30"	B&B
TOE	42	THUJA OCCIDENTALIS 'EMERALD'	EMERALD ARBORVITAE	5-6`	B&B
VR	12	VIBURNUM RHYTIDOPHYLLUM	LEATHERLEAF VIBURNUM	3-4`	B&B
GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
PVN	19	PANICUM VIRGATUM 'NORTH WIND'	NORTHWIND SWITCH GRASS	1 GAL.	CONTAINER
SSO	15	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	STANDING OVATION LITTLE BLUESTEM GRASS	1 GAL.	CONTAINER





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 PROJECT No.:
 PB214045

 DRAWN BY:
 APM

 CHECKED BY:
 MWT

 DATE:
 10/28/2022

 CAD I.D.:
 PB214045-LLGT-OD

PROJECT:

PRELIMINARY/ FINAL LAND DEVELOPMENT PLANS

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003

BOHLER/

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

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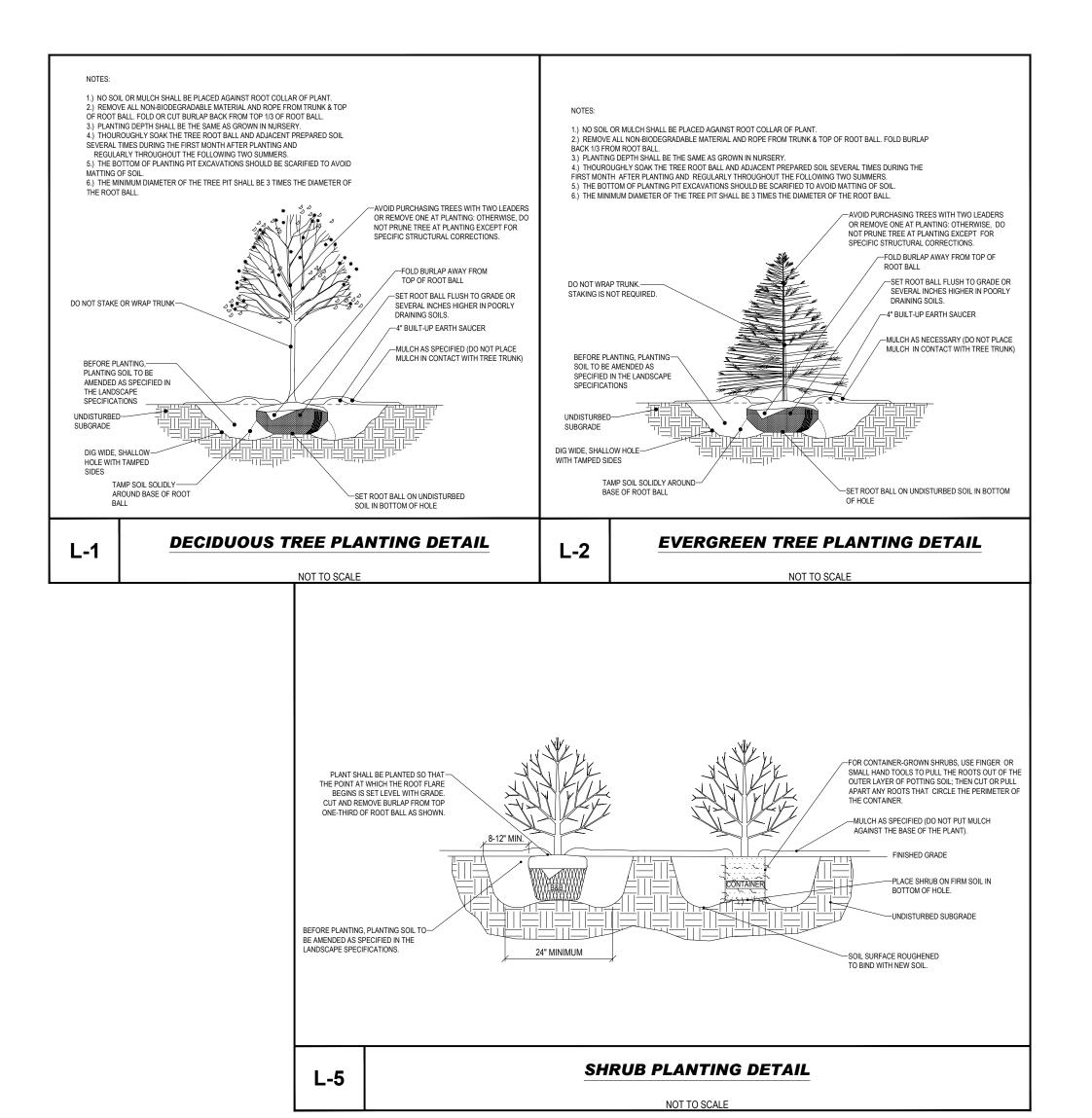
REGISTERED LANDSCAPE ARCHITECT
WEST VIRGINIA LICENSE No.

SHEET TITLE:

LANDSCAPE PLAN

SHEET NUMBI

C-702



1. SCOPE OF WORK:
THE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS

A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE

BETWEEN 5.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE

C. LAWN - LAWN AREAS SHALL BE SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. FOR SOIL BED PREPARATIONS, REFER TO ITEM 8 BELOW. I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.

D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

I. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT II. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

II. SOD SHALL BE STRONGLY ROOTED. WEED AND DISEASE/PEST FREE WITH A UNIFORM

THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO

I. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI 260.1), LATEST EDITION, AS PUBLISHED BY AMERICAN HORT (FORMERLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION). II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL. III. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION. IV. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 11/4", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. V. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL

SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE. VI. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE. VII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH. VIII. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE

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A. CONTRACTOR TO THE PROPERTOR OF THE PROPERTOR CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS

A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN. B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

PREVENT SHOCK OR DECLINE.

 NEE PROTECTION
 A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF UCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED. B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY 'VISI-FENCE', OR

APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL. C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE CONTRACTOR AND MAINTAINED UNTIL ALL

CONSTRUCTION ACTIVITY HAS BEEN COMPLETED D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT

3. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY. B. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH

OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE CONTRACTOR DEPENDING ON SITE CONDITIONS. C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.

I. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL

ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH II. TO INCREASE DRAINAGE. MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM.
COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.

III. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR 7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF

TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE. B. CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±). C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH. EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AND LAWN AREAS. TOPSOIL SHOULD BE SPREAD OVER A

B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION. C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

#### **LANDSCAPE SPECIFICATIONS:**

D. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY [SEE SPECIFICATION 6.A.]): I. 20 POUNDS 'GRO-POWER' OR APPROVED EQUAL SOIL CONDITIONER/FERTILIZER

II. 20 POUNDS 'NITRO-FORM' (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN /EATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED. D. ALL PLANTING CONTAINERS. BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE OUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.

E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED. F. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING I. PLANTS: MARCH 15TH TO DECEMBER 15TH

II. LAWN AND SEED MIXES: MARCH 1ST TO MAY 15TH OR BETWEEN AUGUST 15TH AND OCTOBER 15TH PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

G. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON: ACER RUBRUM PLATANUS X ACERIFOLIA
BETULA VARIETIES POPULUS VARIETIES

CARPINUS VARIETIES PRUNUS VARIETIES ATAEGUS VARIETIES PYRUS VARIETIES KOELREUTERIA QUERCUS VARIETIES LIQUIDAMBAR STYRACIFLUA TILIA TOMENTOSA LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES

H. PLANTING PITS SHALL BE DUG WITH LEVEL OR CONVEX BOTTOMS, WITH THE WIDTH THREE TIMES THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL REST ON UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOIL MIXED THOROUGHLY: I. 1 PART PEAT MOSS

II. 1 PART COMPOSTED COW MANURE BY VOLUME
III. 3 PARTS TOPSOIL BY VOLUME IV. 21 GRAMS 'AGRIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:

WATERING SPECIFICATIONS AS LISTED HEREIN.

A) 2 TABLETS PER 1 GALLON PLANT B) 3 TABLETS PER 5 GALLON PLANT ) 4 TABLETS PER 15 GALLON PLANT

D) LARGER PLANTS: 2 TABLETS PER ½" CALIPER OF TRUNK I. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND

J. ALL PLANTS SHALL BE PLANTED SO THAT THE TOP OF THE ROOT BALL, THE POINT AT WHICH THE ROOT FLARE BEGINS, IS SET AT GROUND LEVEL AND IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF

K. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED

O A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE. NO PRUNING SHALL BE CONDUCTED WITHIN THE FIRST

M. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM

.. GROUND COVER AREAS SHALL RECEIVE A 1/4" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

N. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SAUCER. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB. O. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE

). TRANSPLANTING (WHEN REQUIRED) LALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT. (SEE

B. IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.

C. PLANTS SHALL NOT BE DUG FOR TRANSPLANTING BETWEEN APRIL 10TH AND JUNE 30TH.  $\hbox{D. UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.}\\$ E. TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN. F IF TRANSPLANTS DIE. SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES

11. WATERING

A. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE

B. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE IN SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED

FOR ALL NEWLY PLANTED TREES. C. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE. IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

12. GUARANTEE

A. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM APPROVAL OF A. THE CONTRACT FOR SHALL SUBMINITE ALL PLANTS FOR A FERRIDO OF ONE (1) THE ATTEMPT THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

B. ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANT MATERIAL SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION. A PLANT SHALL BE CONSIDERED "DEAD OR DYING"

IF MORE THAN 30% OF ITS BRANCHES ARE DEAD. C. TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND UNTIL TURNOVER TO THE OWNER/OPERATOR. CHILTIVATION WEEDING WATERING AND THE PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.

D. LAWNS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND UNTIL TURNOVER TO THE OWNER/OPERATOR THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS

SUCH AS ROLLING, REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN,

FREE OF ERODED OR BARE AREAS. A. UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE

CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED. B. THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER

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PROJECT: PRELIMINARY/ FINAL LAND **DEVELOPMENT PLANS** 

KELLBENN, INC.

PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003



1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212

Phone: (724) 638-8500 www.BohlerEngineering.com

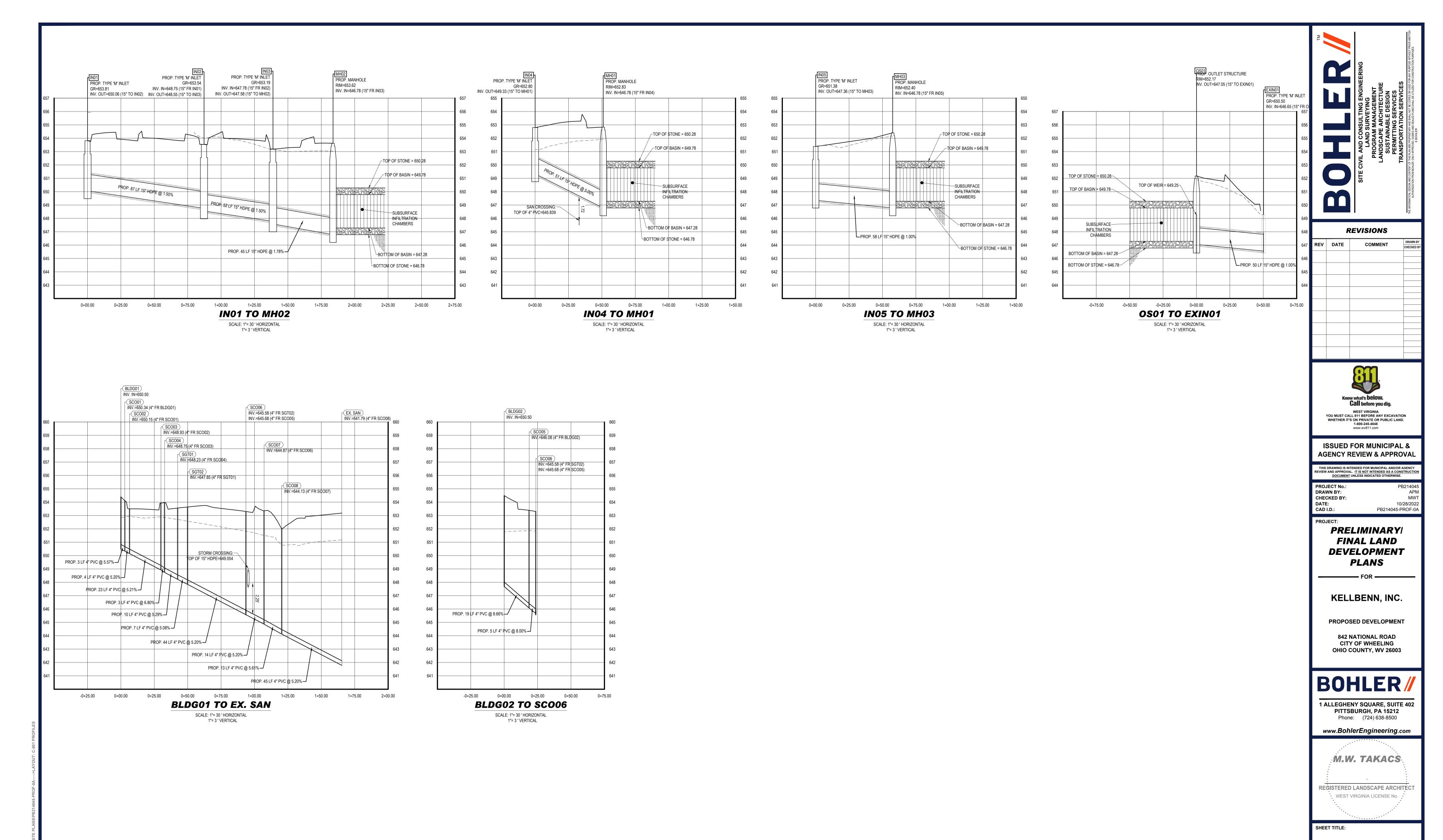
M.W. TAKACS REGISTERED LANDSCAPE ARCHITECT

WEST VIRGINIA LICENSE No.

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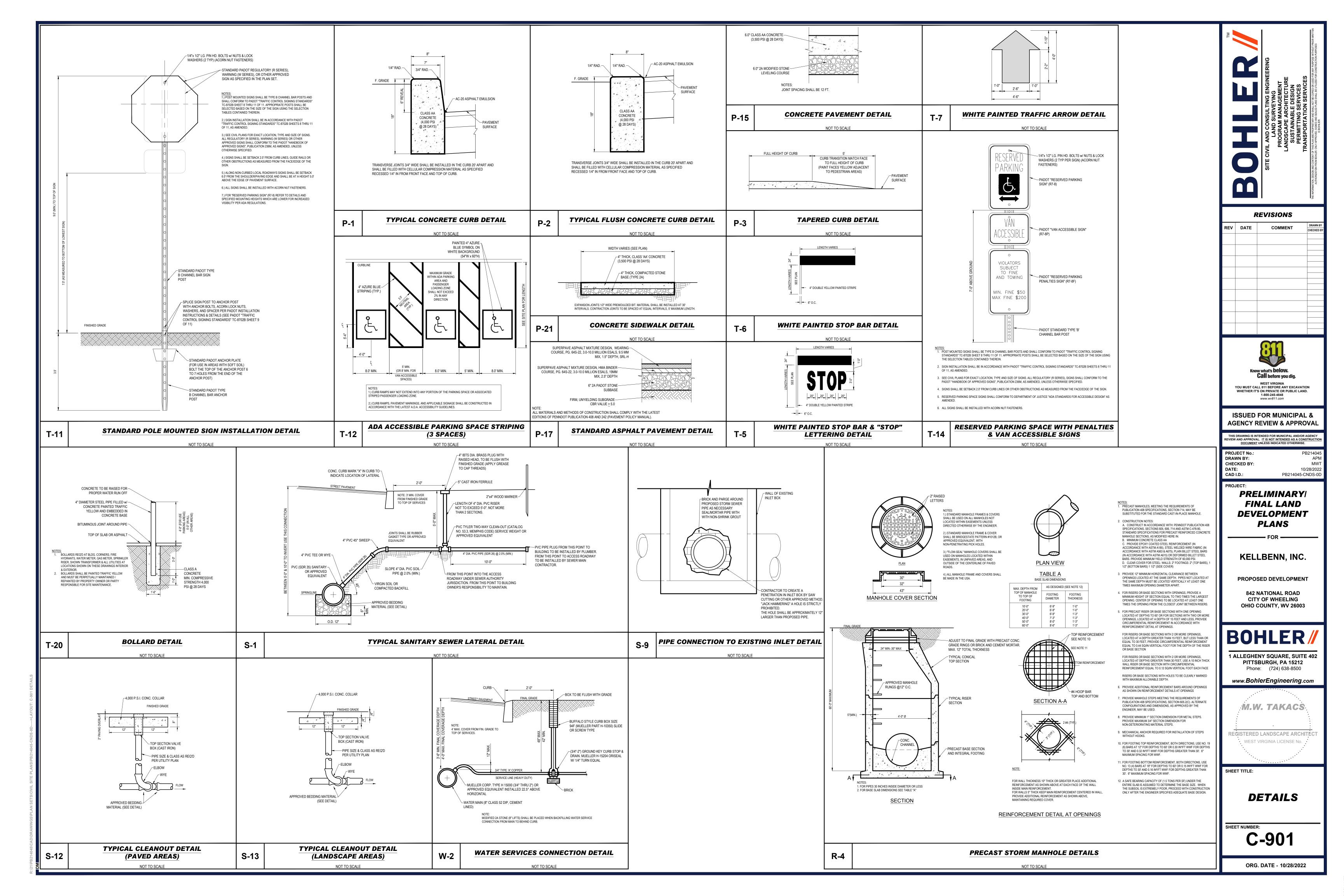
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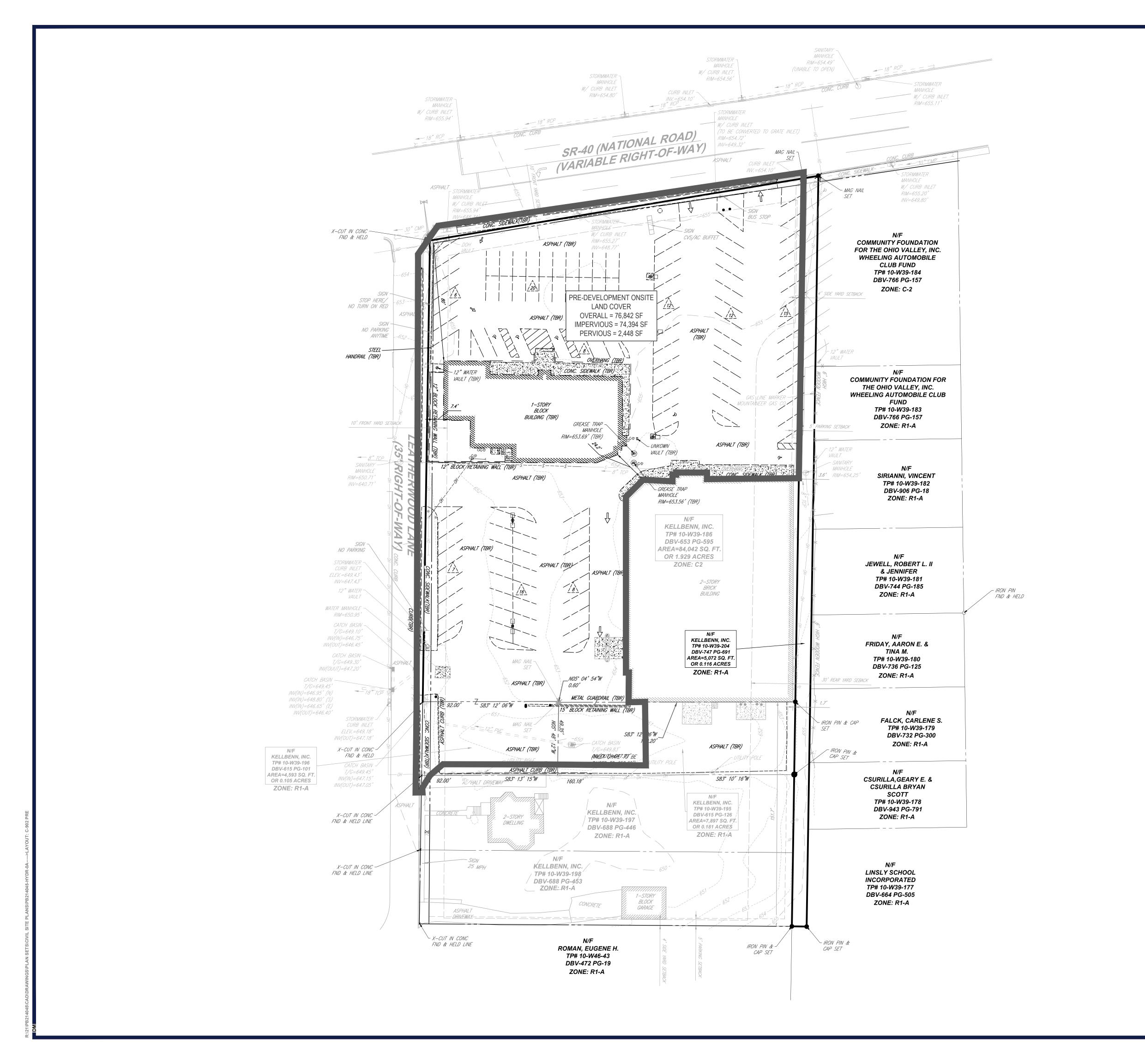
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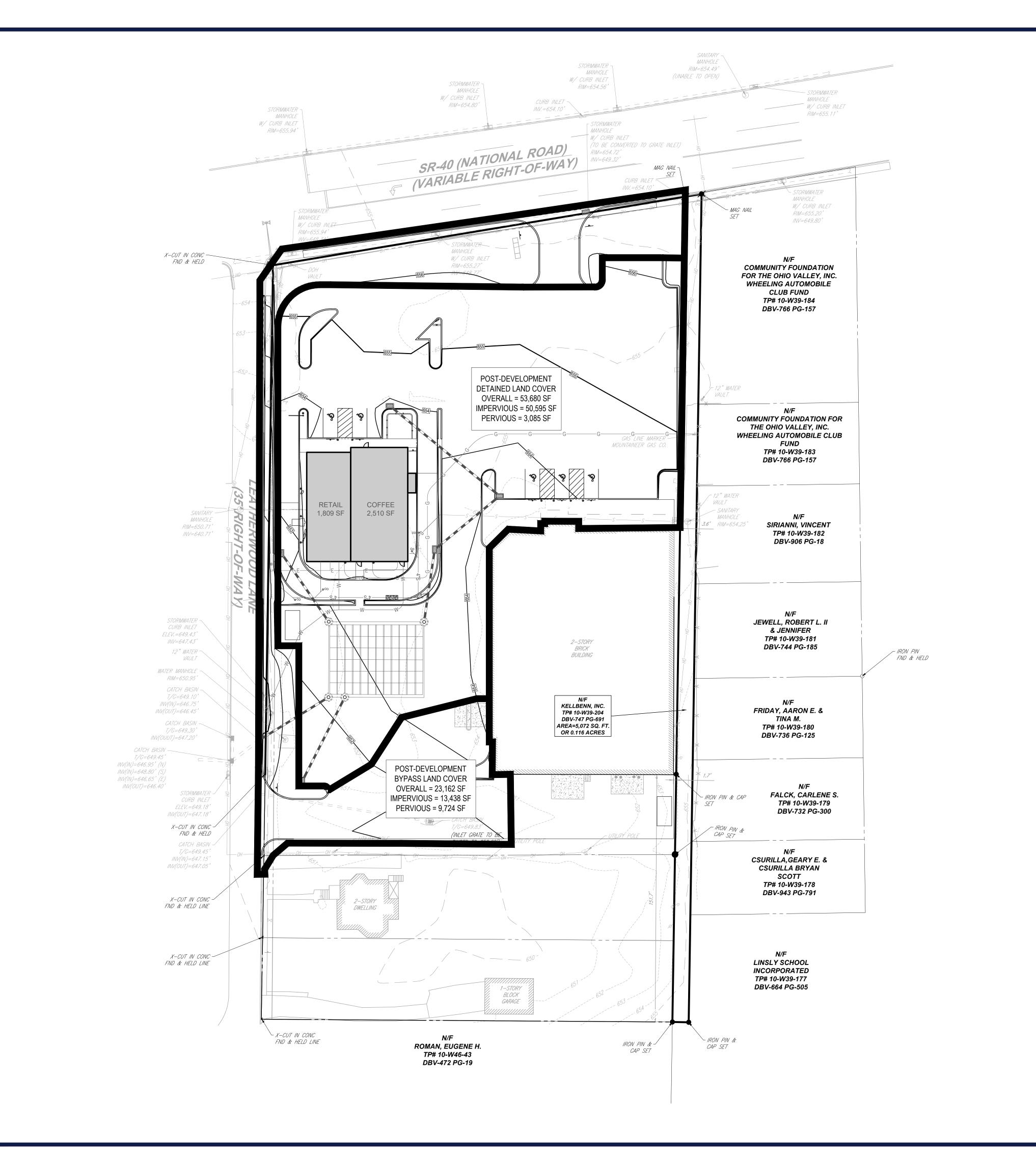
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PROPOSED DEVELOPMENT

842 NATIONAL ROAD CITY OF WHEELING OHIO COUNTY, WV 26003

BOHLER/

1 ALLEGHENY SQUARE, SUITE 402 PITTSBURGH, PA 15212 Phone: (724) 638-8500

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