TAB 6

KIMLEY-HORN & ASSOCIATES
500 EAST 96TH STREET, SUITE 300
INDIANAPOLIS, IN 46240
CONTACT: JOHNATHAN MCWHORTER
PHONE: (317) 912-4123
EMAIL: JOHN.MCWHORTER@KIMLEY-HORN.COM

DEVELOPMENT STANDARDS: SEE FISCHER PD ORDINANCE

UTILITY AND GOVERNING AGENCY CONTACTS SERVICE / COMPANY / DEPT. PHONE NUMBER CONTACT **JURISDICTION** CITY OF NOBLESVILLE 197 WEST WASHINGTON STREET 317-776-6353 SANITARY SEWER JONATHAN MIRGEAUX NOBLESVILLE, IN 46060 DEPARTMENT 15227 HERRIMAN BLVD WATER 317-900-4975 JOSHUA COX WATER COMPANY INC. NOBLESVILLE. IN 46060 CITY OF NOBLESVILLE 16 SOUTH 10TH STREET, SUITE 317-776-6330 JIM HELLMANN STREETS DEPARTMENT OF 155 NOBLESVILLE, IN 46060 **ENGINEERING** CITY OF NOBLESVILLE 16 SOUTH 10TH STREET, SUITE 317-776-6330 **DRAINAGE** DEPARTMENT OF JIM HELLMANN 155 NOBLESVILLE, IN 46060 **ENGINEERING** 100 SOUTH MILL CREEK ROAD **ELECTRICITY DUKE ENERGY INDIANA** 317-776-5365 MARC DILLER NOBLESVILLE, INDIANA 46062 16000 ALLISONVILLE ROAD NATURAL GAS VECTREN ENERGY 317-776-5537 CATHY MIESSEN NOBLESVILLE, INDIANA 46060 240 N. MERIDIAN STREET, 2ND TELEPHONE / AT&T - ENGINEERING FLOOR, ROOM 280 INDIANAPOLIS, 317-252-4267 BRIAN PETERS COMMUNICATIONS 6400 C STREET SW P.O. BOX 3177 FIBER OPTICS MCLEOD USA CEDAR RAPIDS, IA 52406

PROJECT TEAM					
ROLE	COMPANY	ADDRESS	PHONE NUMBER	EMAIL	CONTACT
DEVELOPER/OWNER	GRAND COMMUNITIES, LLC	6602 E. 75TH STREET, STE 400 INDIANAPOLIS, IN 46250	513-213-7890	rhayes@fischerhomes.com	ROBERT HAYES
CIVIL ENGINEER	KIMLEY-HORN & ASSOCIATES, INC.	500 E. 96TH ST., STE 300, INDIANAPOLIS, IN 46240	317-912-4129	john.mcwhorter@kimley-horn.com	JOHN MCWHORTER

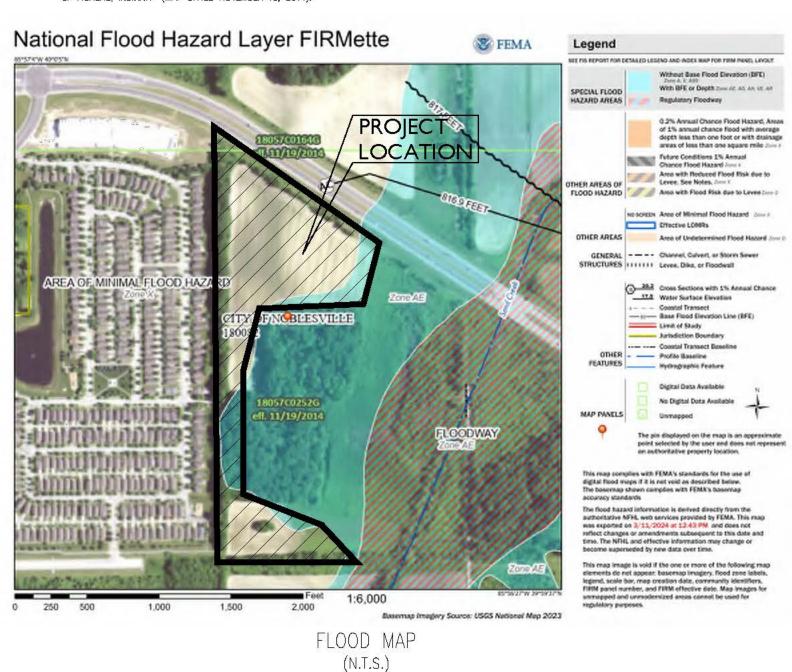
AFTER HAVING GIVEN PUBLIC NOTICE OF THE TIME, PLACE, AND NATURE OF HEARING ON AN APPLICATION PENDING BEFORE THE NOBLESVILLE PLAN COMMISSION AND UNDER THE AUTHORITY PROVIDED BY STATE STATUE AND ALL ACTS AMENDATORY THEREOF, AND UPON FINDING THAT THIS SUBDIVISION PLAT IS IN CONFORMANCE WITH THE SUBDIVISION REGULATIONS AS SET FORTH IN THE UNIFIED DEVELOPMENT ORDINANCE FOR THE CITY OF NOBLESVILLE, THIS PLAT WAS GRANTED APPROVAL BY A MAJORITY OF THE MEMBERS OF THE NOBLESVILLE PLAN COMMISSION AT THE MEETING HELD ON ______ DAY OF

PLAN COMMISSION

PRESIDENT - MALINDA WILCOX

SECRETARY - STEVEN R. HUNTLEY

FLOOD STATEMENT: THIS SITE LIES PARTIALLY WITHIN FLOOD HAZARD ZONE X (UNSHADED) AND ALSO PARTIALLY WITHIN FLOOD HAZARD ZONE AE AS SAID ZONE PLOTS BY SCALE ON MAP NUMBER 18057C0252G OF THE FLOOD INSURANCE RATE MAPS FOR THE CITY OF FISHERS, INDIANA (MAP DATED NOVEMBER 19, 2014).



PROJECT LOCATION

Why Sole: 1 A(SD) printed or Apprint (SD" + 12") shout.

No project years with Project or Apprint (SD" + 12") shout.

No project years with Project or Apprint (SD" + 12") shout.

SOILS MAP

N.T.S.

Custom Soll Resource Report

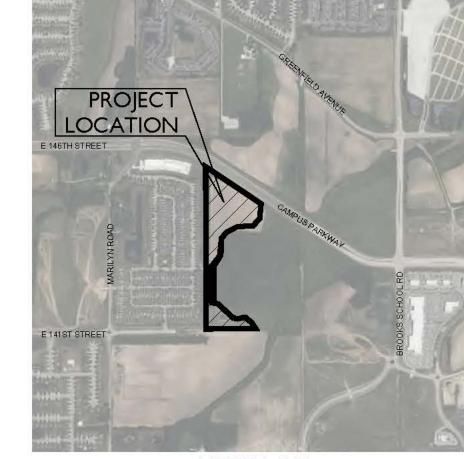
Custam Soil Resource Report MAP LEGEND MAP INFORMATION The soil surveys that comprise your ADI were mapped at Slany Spot Very Stany Spol Warning: Soil Map may not be valid at this scale. Wel Spet Soil Map Unit Lines rgement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contracting soils that could have been shown at a more detailed Soil Map Unit Points ess Blowout Streams and Canals Borrow Plt Please rely on the bar scale on each map sheet for map Clay Spot Oksed Dapresslan Interstate Highwaya Source of Map: Natural Resources Conservation Services Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) US Roules Gravelly Spot Major Roads Lecal Roads Maps from the Web Soil Survey are based on the Web Mercato projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. Leve Flow Marsh or swamp Mine or Querry This product is generated from the USDA-NRCS cartified data as of the version date(s) listed below. Miszallamana Water Perennial Water Rack Outerap Saline Spot Sandy Spot Soil map units are labeled (as apace allows) for map acales 1:50,000 or larger. Severely Eroded Spot Date(s) aerial images were photographed: Jun 15, 2022—Jun 21, 2022 Sodic Spot

NAME LENGTH (LF±) STREET A 2221 STREET B 618 ALLEY A (PRIVATE) 307 ALLEY B (PRIVATE) 327 TOTAL 3473

OASIS AT HYDE PARK

NOBLESVILLE, INDIANA PRELIMINARY DEVELOPMENT PLAN DOCKET #LEGP 0075-2024





VICINITY MAP (n.t.s.)

Sheet Li	st Table
Sheet Number	Sheet Title
C100	COVER SHEET
P100	PRIMARY PLAT
P101	PRIMARY PLAT
C200	SITE DEVELOPMENT PLAN
C201	SITE DEVELOPMENT PLAN
C300	EMERGENCY FLOOD ROUTING
C301	EMERGENCY FLOOD ROUTING
C400	EROSION CONTROL PLAN
C401	EROSION CONTROL PLAN
C402	EROSION CONTROL DETAILS
C403	EROSION CONTROL DETAILS
C404	EROSION CONTROL DETAILS
C500	SIGNAGE AND LIGHTING PLAN
C600	LINE OF SIGHT PLAN
C700	MAILBOX PLAN
C701	MAILBOX DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE PLAN ENLARGEMENT
L102	LANDSCAPE DETAILS

PROJECT INFORMATION				
TOTAL AREA	17.08 AC			
TOTALLOTS	71			
DESIGN SPEED LIMIT	25 MPH			
TOTAL C.A. (OPEN SPACE)	8.65 AC± (50.6%)			
TOTAL R.O.W.	4.3 AC±			
DEVELOPABLE AREA	9.9 AC±			
DENSITY	7.2 UNITS/AC			
TOTAL LAKE AREA	0.57 AC			

OASIS AT HYDE PARK

PART OF THE NORTHEAST QUARTER OF SECTION 22, TOWNSHIP 18 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN, HAMILTON COUNTY, INDIANA, DESCRIBED AS FOLLOWS:

PARCEL 1

COMMENCING AT A STONE AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE ALONG THE WEST LINE THEREOF SOUTH OO DEGREES 13 MINUTES 37 SECONDS EAST (BASIS OF BEARINGS) 415.19 FEET TO THE SOUTH LINE OF THE CITY OF NOBLESVILLE PER INSTRUMENT NUMBER 200600017144 EXHIBIT C-1 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA AND THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID WEST LINE SOUTH 00 DEGREES 13 MINUTES 37 SECONDS EAST 1485.69 FEET TO THE WEST LINE OF THE LAND OF NOBLESVILLE PER SAID INSTRUMENT NUMBER 200600017144 EXHIBIT A-2; THENCE THE FOLLOWING TWENTY TWO (22) COURSES ALONG THE WESTERLY AND SOUTHERLY LINES OF LAST SAID INSTRUMENT EXHIBITS A-2 AND C-1; (1) NORTH 15 DEGREES 45 MINUTES 34 SECONDS EAST 28.24 FEET; (2) NORTH 29 DEGREES 29 MINUTES 35 SECONDS EAST 115.65 FEET; (3) NORTH 38 DEGREES 19 MINUTES 52 SECONDS EAST 120.34 FEET; (4) NORTH 34 DEGREES 39 MINUTES 09 SECONDS EAST 38.27 FEET; (5) NORTH 18 DEGREES 16 MINUTES 54 SECONDS EAST 38.27 FEET; (6) NORTH 11 DEGREES 16 MINUTES 41 SECONDS EAST 78.43 FEET; (7) NORTH 09 DEGREES 02 MINUTES 28 SECONDS EAST 47.07 FEET; (8) NORTH 02 DEGREES 12 MINUTES 14 SECONDS EAST 47.07 FEET; (9) NORTH 08 DEGREES 24 MINUTES 29 SECONDS EAST 64.63 FEET; (10) NORTH 26 DEGREES 28 MINUTES 14 SECONDS EAST 56.74 FEET; (11) NORTH 44 DEGREES 13 MINUTES 49 SECONDS EAST 62.61 FEET; (12) NORTH 63 DEGREES 30 MINUTES 53 SECONDS EAST 72.75 FEET; (13) NORTH 75 DEGREES 30 MINUTES 30 SECONDS EAST 103.50 FEET; (14) NORTH 86 DEGREES 04 MINUTES 39 SECONDS EAST 104.27 FEET; (15) NORTH 83 DEGREES 05 MINUTES 48 SECONDS EAST 62.21 FEET; (16) NORTH 65 DEGREES 44 MINUTES 51 SECONDS EAST 62.67 FEET; (17) NORTH 42 DEGREES 21 MINUTES 48 SECONDS EAST 59.79 FEET; (18) NORTH 21 DEGREES 25 MINUTES 00 SECONDS EAST 69.58 FEET; (19) NORTH 12 DEGREES 38 MINUTES 35 SECONDS EAST 88.13 FEET; (20) NORTH 04 DEGREES 08 MINUTES 52 SECONDS EAST 77.20 FEET; (21) NORTH 56 DEGREES 33 MINUTES 09 SECONDS WEST 778.31 FEET TO A POINT ON A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 1332.39 FEET AND A CHORD BEARING NORTH 59 DEGREES 20 MINUTES 04 SECONDS WEST 129.34 FEET; (22) NORTHWESTERLY ALONG SAID CURVE 129.39 FEET TO THE POINT OF BEGINNING, CONTAINING 12.09 ACRES, MORE OR LESS.

TOGETHER WITH:

PARCEL 2

PART OF THE NORTHEAST QUARTER OF SECTION 22, TOWNSHIP 18 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN, HAMILTON COUNTY, INDIANA, DESCRIBED AS FOLLOWS:

HAMILTON COUNTY, INDIANA, DESCRIBED AS FOLLOWS: COMMENCING AT A STONE AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE ALONG THE WEST LINE THEREOF SOUTH 00 DEGREES 13 MINUTES 37 SECONDS EAST (BASIS OF BEARINGS) 1924.72 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID WEST LINE SOUTH OO DEGREES 13 MINUTES 37 SECONDS EAST 697.84 FEET TO THE NORTH LINE OF THE CITY OF NOBLESVILLE PER INSTRUMENT NUMBER 200600017144 EXHIBIT A-5 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA; THENCE THE FOLLOWING THIRTY TWO (32) COURSES ALONG THE NORTHERLY AND WESTERLY LINES OF LAST SAID INSTRUMENT EXHIBITS A-5 AND A-2; (1) NORTH 89 DEGREES 15 MINUTES 34 SECONDS EAST 670.73 FEET; (2) NORTH 01 DEGREES 24 MINUTES 10 SECONDS WEST 3.92 FEET; (3) NORTH 14 DEGREES 40 MINUTES 12 SECONDS WEST 12.89 FEET; (4) NORTH 25 DEGREES 37 MINUTES 50 SECONDS WEST 7.79 FEET; (5) NORTH 34 DEGREES 49 MINUTES 51 SECONDS WEST 9.58 FEET; (6) NORTH 41 DEGREES 09 MINUTES 52 SECONDS WEST 61.63 FEET; (7) NORTH 44 DEGREES 03 MINUTES 03 SECONDS WEST 38.64 FEET; (8) NORTH 49 DEGREES 49 MINUTES 23 SECONDS WEST 38.84 FEET; (9) NORTH 57 DEGREES 49 MINUTES 58 SECONDS WEST 15.67 FEET; (10) NORTH 58 DEGREES 15 MINUTES 10 SECONDS WEST 16.20 FEET; (11) NORTH 79 DEGREES 48 MINUTES 36 SECONDS WEST 19.14 FEET; (12) SOUTH 89 DEGREES 20 MINUTES 21 SECONDS WEST 14.04 FEET; (13) SOUTH 80 DEGREES 25 MINUTES 50 SECONDS WEST 13.21 FEET; (14) SOUTH 71 DEGREES 19 MINUTES 04 SECONDS WEST 40.77 FEET; (15) SOUTH 77 DEGREES 28 MINUTES 43 SECONDS WEST 20.23 FEET; (16) SOUTH 88 DEGREES 36 MINUTES 55 SECONDS WEST 17.30 FEET; (17) NORTH 80 DEGREES 03 MINUTES 33 SECONDS WEST 18.19 FEET; (18) NORTH 69 DEGREES 20 MINUTES 25 SECONDS WEST 15.40 FEET; (19) NORTH 57 DEGREES 31 MINUTES 52 SECONDS WEST 21.59 FEET; (20) NORTH 48 DEGREES 03 MINUTES 02 SECONDS WEST 113.51 FEET; (21) NORTH 44 DEGREES 05 MINUTES 35 SECONDS WEST 107.67 FEET; (22) NORTH 47 DEGREES 21 MINUTES 23 SECONDS WEST 23.44 FEET; (23) NORTH 58 DEGREES 36 MINUTES 33 SECONDS WEST 27.01 FEET; (24) NORTH 70 DEGREES 39 MINUTES 32 SECONDS WEST 27.00 FEET; (25) NORTH 78 DEGREES 38 MINUTES 38 SECONDS WEST 70.29 FEET; (26) NORTH 70 DEGREES 52 MINUTES 01 SECONDS WEST 14.87 FEET; (27) NORTH 53 DEGREES 22 MINUTES 55 SECONDS WEST 16.81 FEET; (28) NORTH 35 DEGREES 14 MINUTES 14 SECONDS WEST 18.06 FEET; (29) NORTH 21 DEGREES 22 MINUTES 32 SECONDS WEST 9.08 FEET; (30) NORTH 10 DEGREES 45 MINUTES 32 SECONDS WEST 112.46 FEET; (31) NORTH 00 DEGREES 23 MINUTES 31 SECONDS EAST 93.64 FEET; (32) NORTH 05 DEGREES 53 MINUTES 54 SECONDS WEST 90.77 FEET TO THE POINT OF BEGINNING, CONTAINING 3.45 ACRES, MORE OR LESS.

	4	REV. PER NOBLESVILLE COMMENTS	7/31/2024
TES, INC	3	REVISIONS PER TAC COMMENTS	7/25/2024
Š	2	REVISIONS PER TAC COMMENTS	6/19/2024
	1	REVISIONS PER TAC COMMENTS	4/25/2024
mo	No.	REVISIONS	DATE

DESIGNED BY: JSW

DESIGNED BY: JSW

DRAWN BY: GMS

DRAWN BY: GMS

SOO EAST 96TH STRE
INDIANAPOLIS, IN 462
CONTACT: BRETT HUR
CHECKED BY: BAH
PHONE: 317-912-413

APPROVAL PENDING

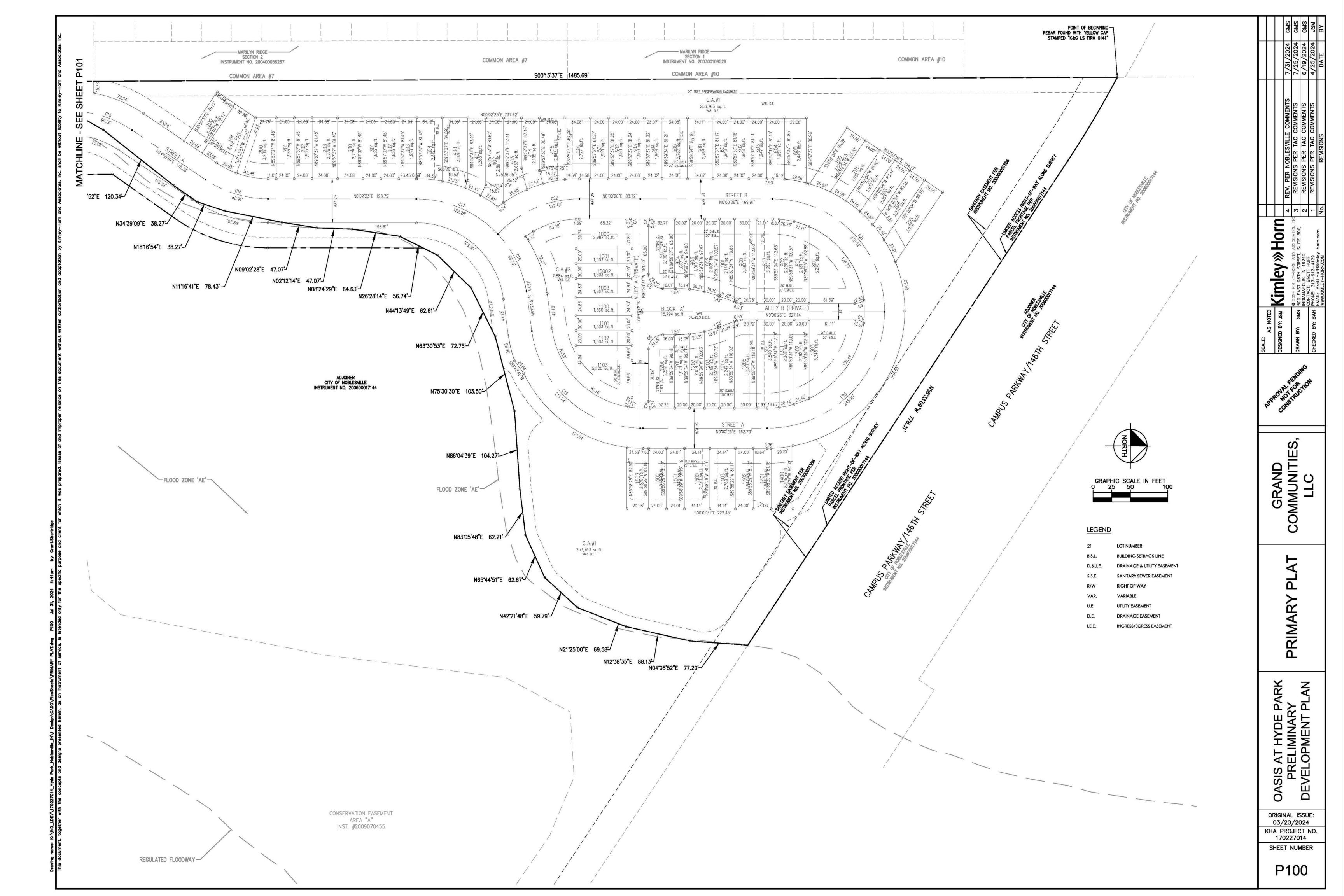
GRAND OMMUNITIE! LLC

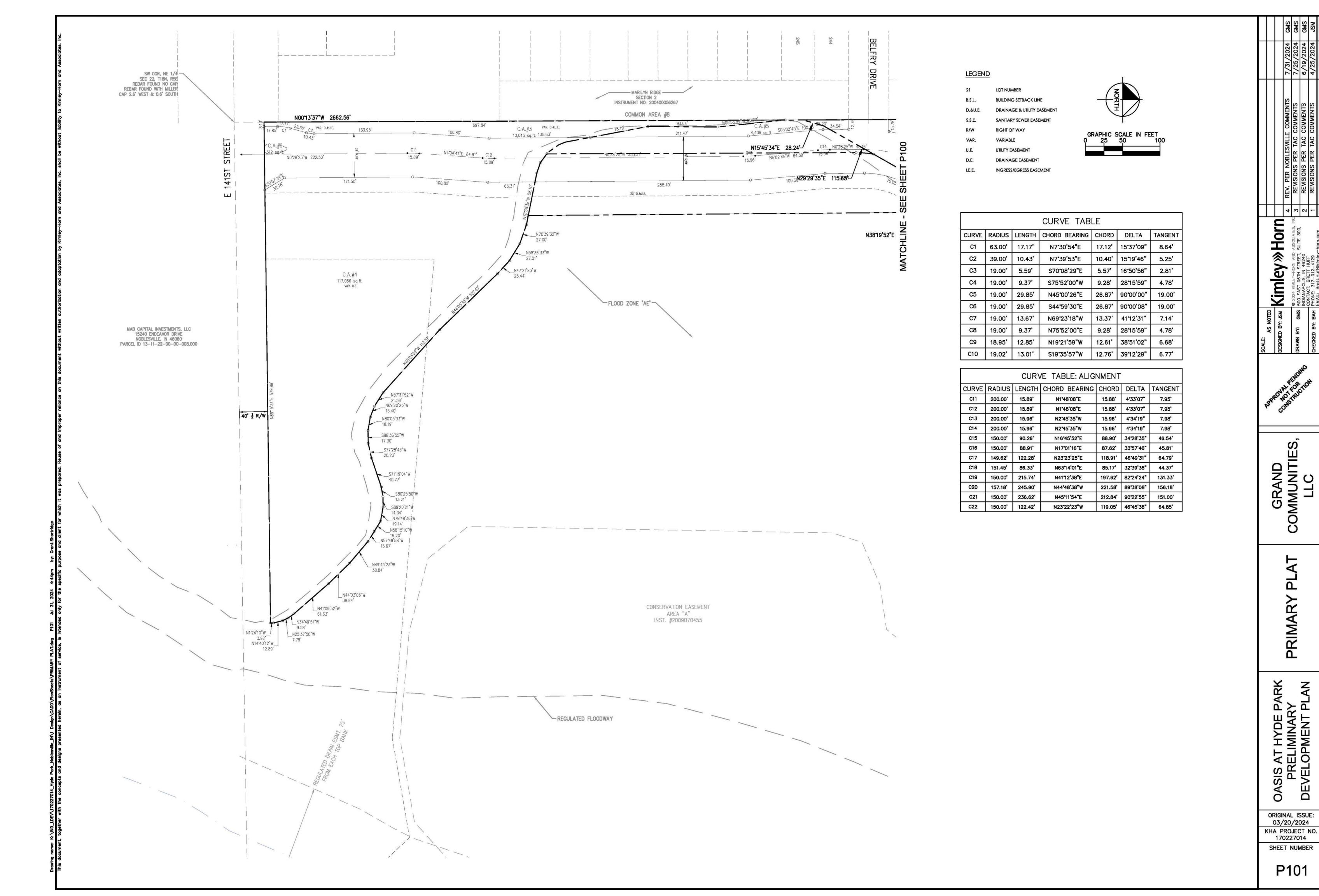
VER SHEET

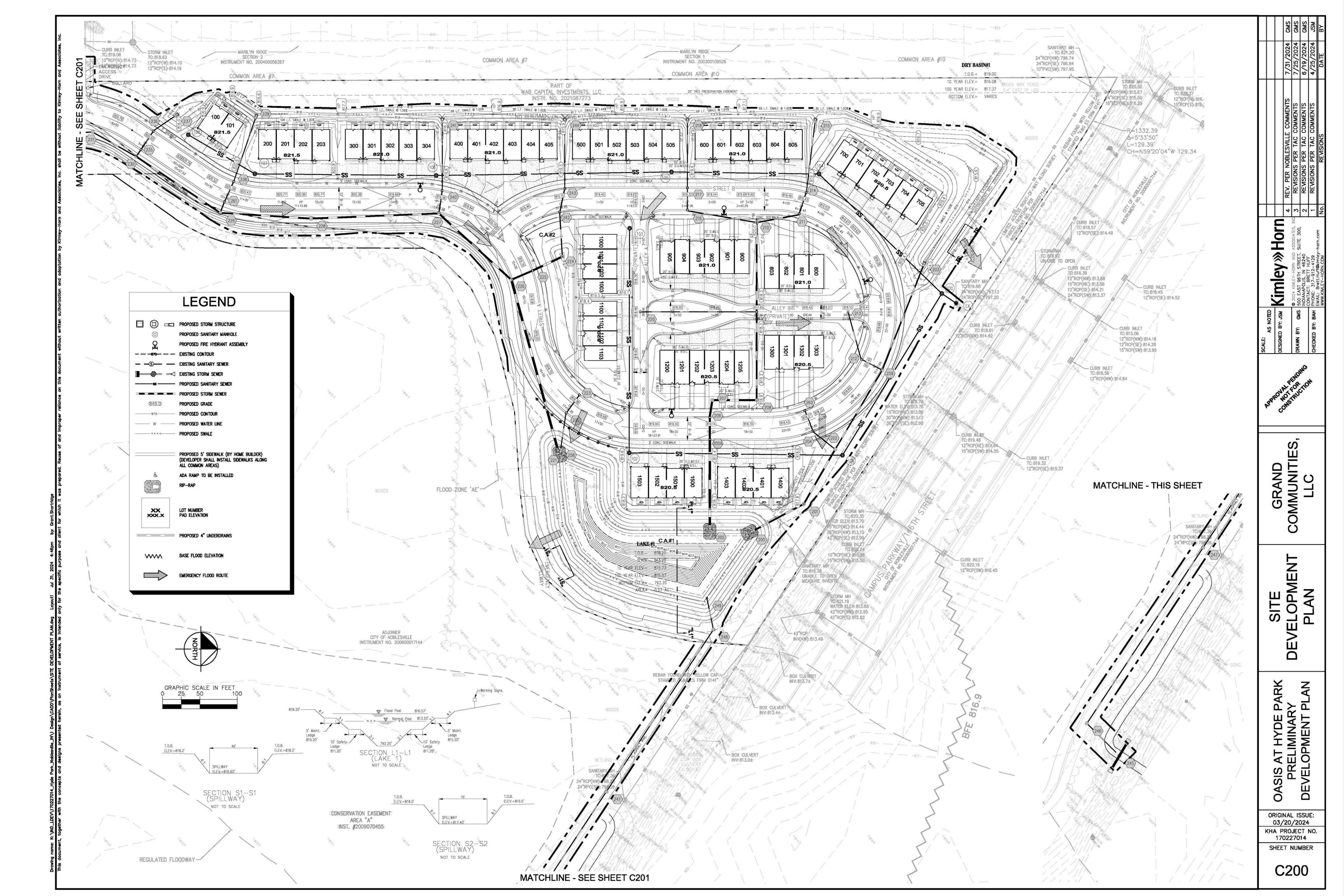
ASIS AT HYDE PAR PRELIMINARY VEVELOPMENT PLA

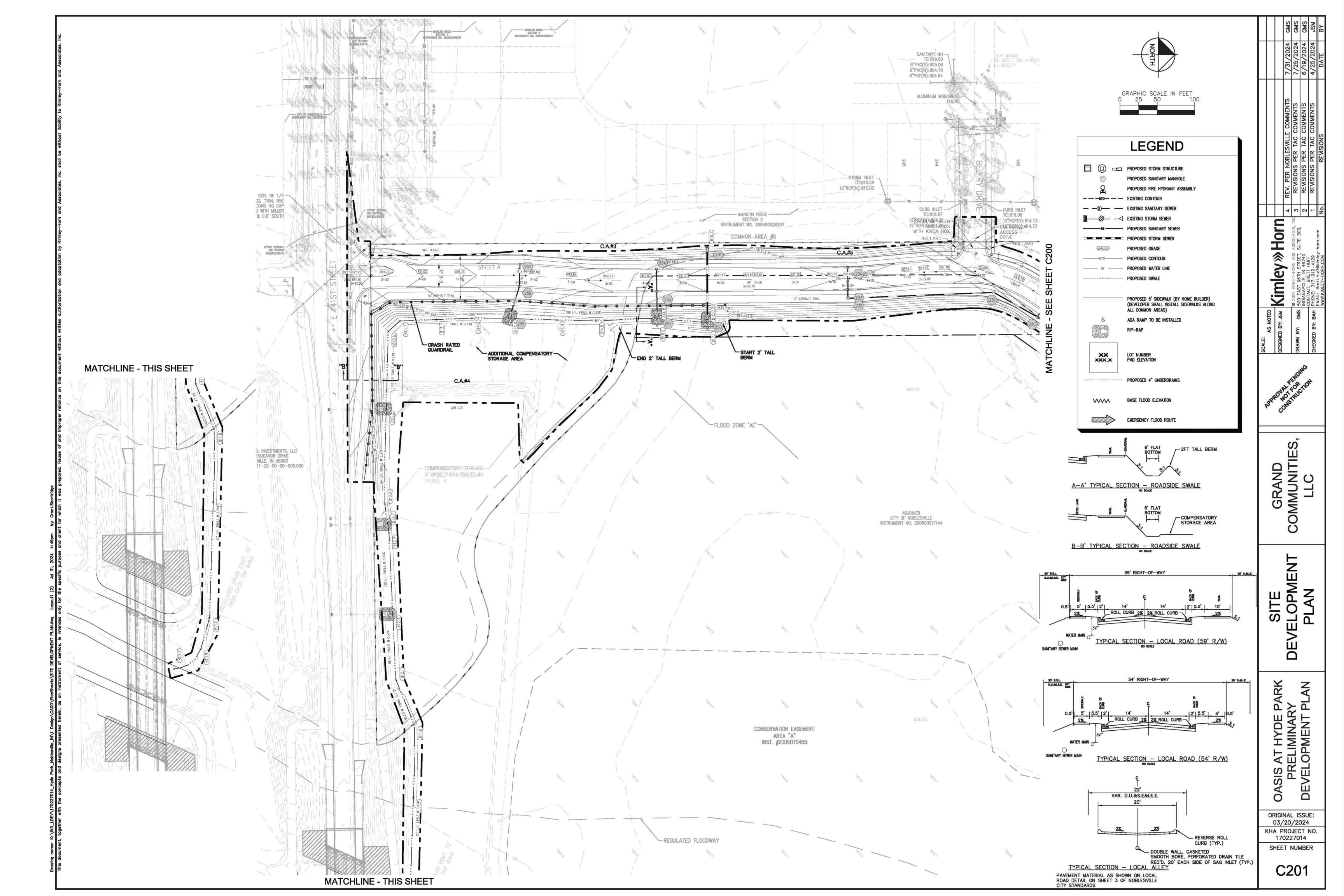
ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014

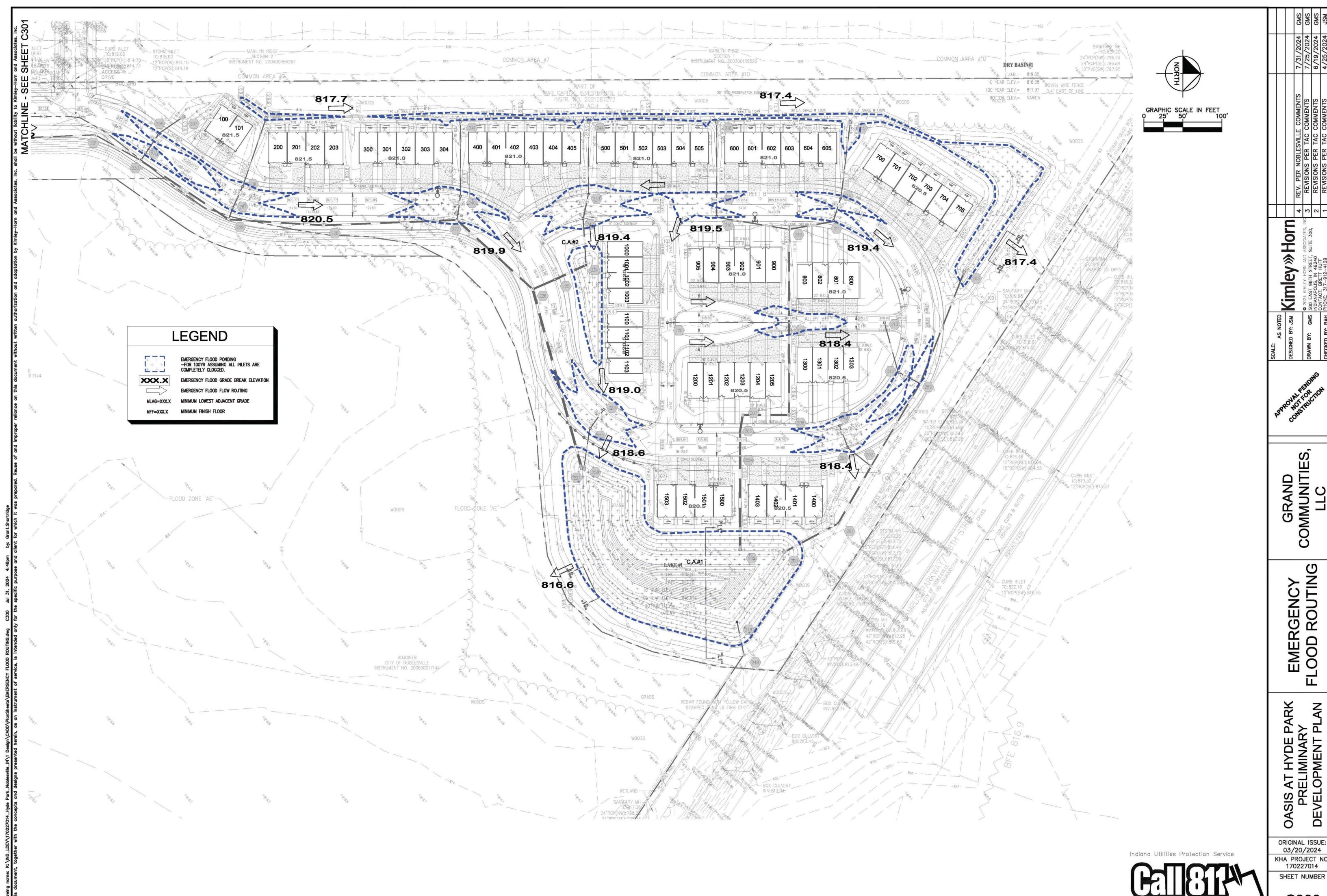
SHEET NUMBER













GRAND COMMUNITIES, LLC

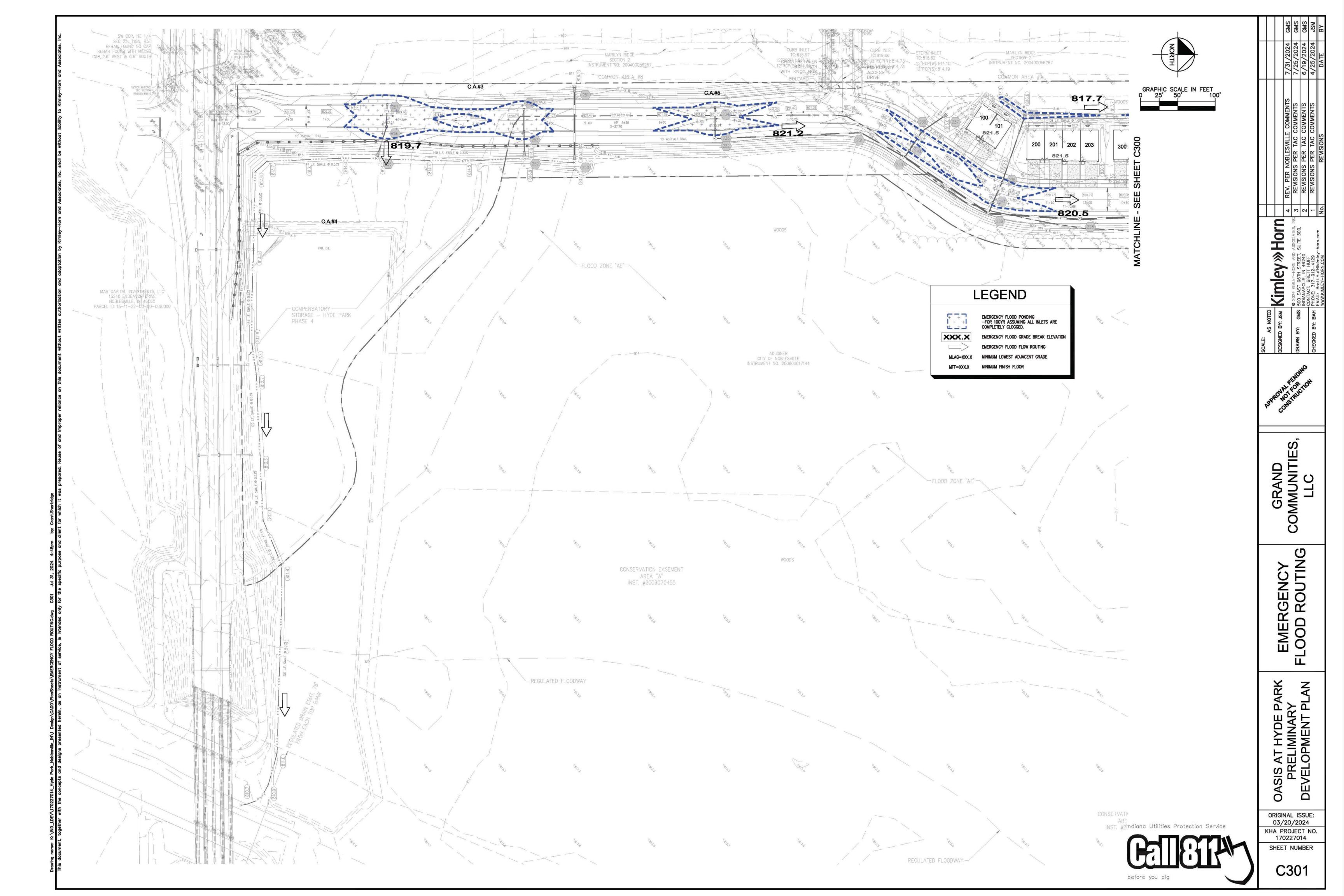
EMERGENCY FLOOD ROUTING

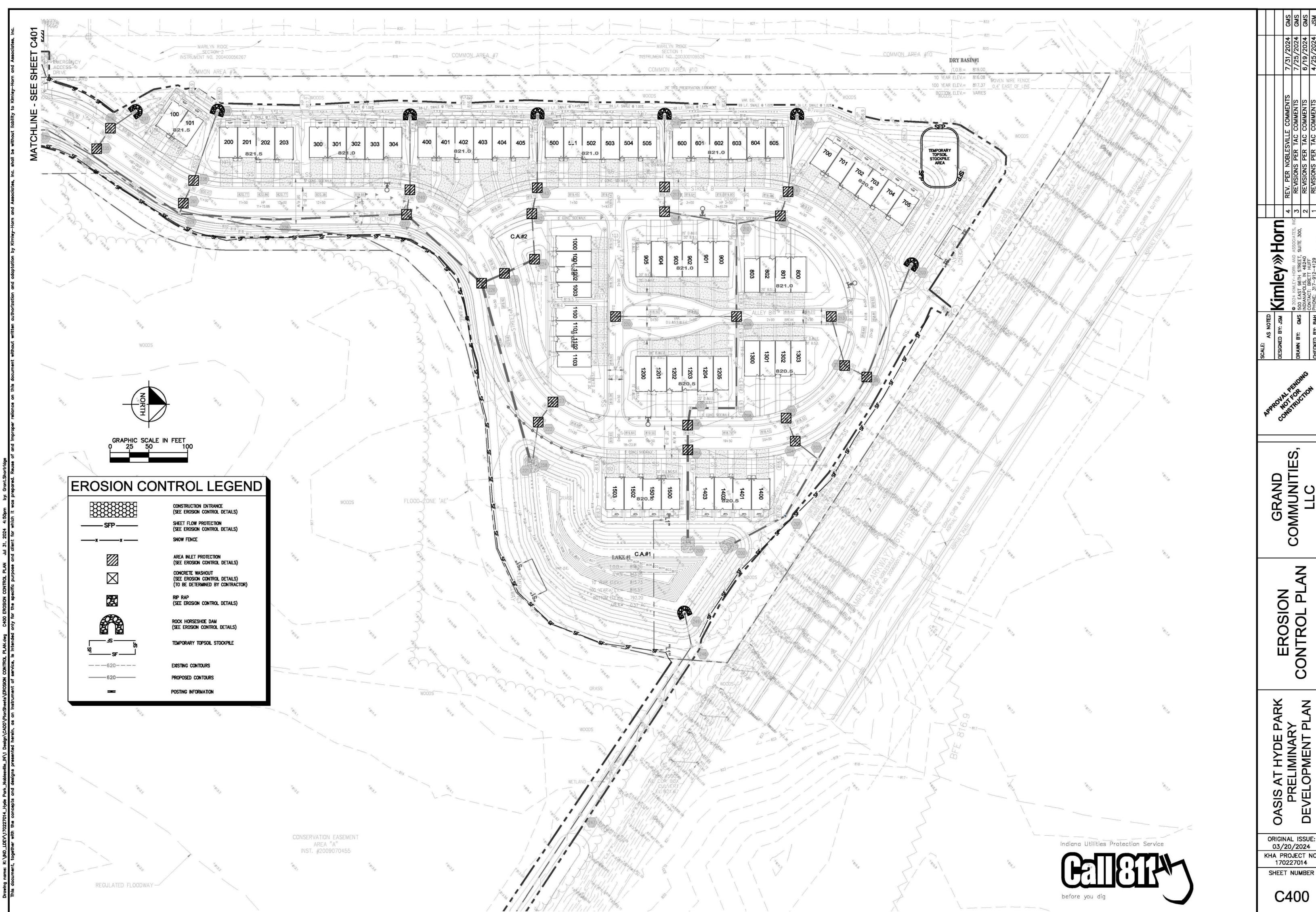
OASIS AT HYDE PARK PRELIMINARY DEVELOPMENT PLAN

ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014

C300

before you dig



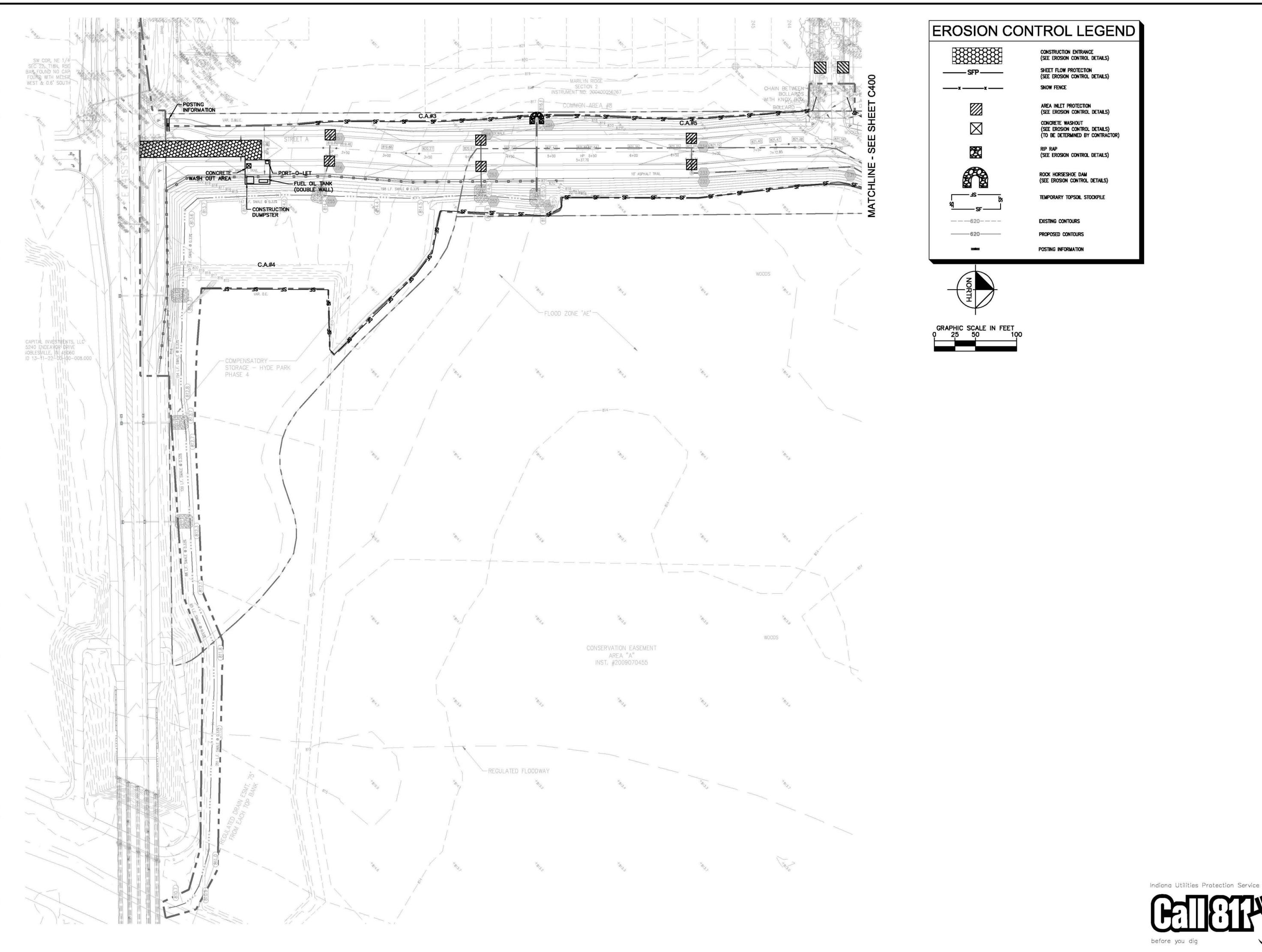


GRAND COMMUNITI LLC

EROSION CONTROL PL

OASIS AT HYDE PARK PRELIMINARY DEVELOPMENT PLAN

ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014



Kimley»Horn

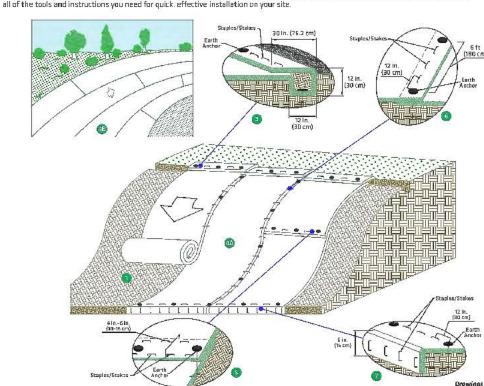


GRAND COMMUNITII

ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014 SHEET NUMBER

Slope and Levee Installation Detail

 $\textbf{Choosing the right solution is half the battle against costly erosion. The other half is proper installation. North American Green ``provides' and ``provides' are the right solution in the battle against costly erosion. The other half is proper installation. North American Green ``provides' are the right solution in the battle against costly erosion. The other half is proper installation. North American Green ``provides' are the right solution in the battle against costly erosion. The other half is proper installation. North American Green ``provides' are the right solution in the battle against costly erosion. The other half is proper installation. North American Green ``provides' are the right solution in the battle against costly erosion. The other half is proper installation. North American Green ``provides' are the right solution in the battle against costly erosion. The other half is proper installation. The proper installation is the right solution in the proper installation in the right solution is the right solution in the righ$



area, approximately 12 in. (30 cm) apart across entire HPTRM width.

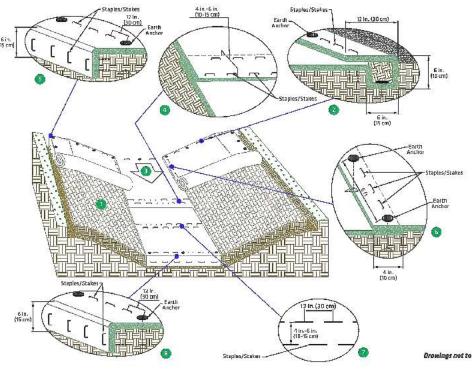
and fastened using staples/stakes every 12 in. (30 cm) between

GENERAL INSTALLATION

anchoring detail.

- 1. Prepare soil before installing the High-Performance Turf Reinforcement 5. Place consecutive HPTRMs end over end (shingle style) with a Mat (HPTRM), including any necessary application of soil amendments 4 in.-6 in. (10 cm-15 cm) overlap. Staple/stake through overlapped such as lime or fertilizer.
- 2. See Seeding and Vegetating section for details regarding preseeding, 6. Adjacent HPTRMs must be overlapped approximately 4 in. (10 cm) overseeding, or use with sod.
- earth anchors. For curved sections, adjust the overlap edges 3. Begin at the top of the slope by anchoring the HPTRM in 12 in. (30 cm) accordingly to accommodate transitional segments. deep x 12 in. (30 cm) wide trench with approximately 30 in. (76.2 cm) of HPTRM extended beyond the up-slope portion of the trench. 7. The terminal end of the HPTRM must be anchored with a row Anchor the HPTRM with a row of anchors/staples approximately 12 in. of staples/stakes approximately 12 in. (30 cm) apart in a 6 in (15 cm) deep x 6 in. (15 cm) wide trench. Backfill and compact (30 cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Compact soil and fold remaining 30 in. (76.2 cm) portion of HPTRM back over compacted soil. Secure HPTRM over soil with a row of staples/stakes spaced approximately 12 in. (30 cm)
- across the width of the HPTRMs. 4. Roll the HPTRM (4A) down or (4B) horizontally across the slope. HPTRM will unroll with appropriate side against the soil surface All HPTRM must be securely fastened to soil surface by placing anchors/staples/stakes in appropriate locations as shown in the

Channel Installation Detail



GENERAL INSTALLATION

- 1. Prepare soil before installing the HPTRM, including any necessary application of soil amendments such as lime or fertilizer. See seeding and vegetating section for details regarding preseeding, overseeding or use with sod.
 - 2. Begin at the top of the channel by anchoring the HPTRM in a 6 in. (15 cm) deep x 6 in. (15 cm) wide trench with approximately 12 in. (30 cm) of HPTRM extended beyond the upslope portion of the trench. Anchor the HPTRM with a row of anchors/staples/ stakes spaced approximately 12 in. (30 cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Compact soil and fold remaining 12 in.(30 cm) portion of HPTRM back over compacted soil. Secure HPTRM over soil with a row of anchors/staples/stakes spaced approximately 12 in. (30 cm)

4. Place consecutive HPTRMs and over and (shingle style) with a 4 in. x 6 in. (10 cm-15 cm) overlap. Use a double row of staples/ stakes staggered 1Z in. (30 cm) apart and 12 in. (30 cm) on center 5. Full length edge of HPTRMs at top of side slopes must be anchored

with a row of staples/stakes approximately 12 in. (3D cm) apart in a

6 in. (15 cm) deep x 6 in. (15 cm) wide trench. Backfill and compact

5. Adjacent HPTRMs must be overlapped approximately 4 in. (10 cm)

recommended at 30 ft to 40 ft (9 m-12 m) intervals. Use a double

row of staples/stakes staggered 4 in. (10 cm) apart and 12 in.

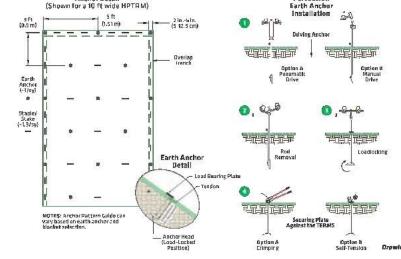
7. In high flow channel applications, a staple/stake check slot is

(30 cm) on center over entire width of the channel.

the trench after stapling.

- across the width of the HPTRM. 8. The terminal end of the HPTRMs must be anchored with a row of 3. Roll center HPTRM in direction of water flow in bottom of channel. staples/stakes approximately 12 in. (30 cm) apart in a 6 in. (15 rm) HPTRMs will unroll with appropriate side against the soil surface. deep x 6 in. (15 cm) wide trench. Backfill and compact the trench All HPTRMs must be securely fastened to soil surface by placing anchors/staples/stakes in appropriate locations as shown in the

Anchoring Detail



secure. If using a self-tensioning end-piece (grip or wedge

grip) set by simply tightening the end-piece against the

faceplate. If desired, cut the remaining cable assembly,

When using a Composite Turf Reinforcement Mat (C-TRM)

1. Pre-seed prepared soils prior to the installation of the C-TRM.

or a top dressing of seed. Overseeding may be done as a

2. Sod may be installed in place of seeding on top of the C-TRM.

conditions. Sodded areas should be irrigated until rooting

Additional staking of sod is recommended in high-flow

1. Install the HPTRM as directed prior to seed and soil filling.

2. Place seed into the installed HPTRM. After seeding, spread

a layer of fine soil into the mat. Using the flat side of a rake,

broom or other tool, completely fill the vaids. Smooth sail-fill

in order to just expose the top of the HPTRM matrix. Do not

3. Additional seed, hydraulic mulching of the use of a temporary

and soil-fill as outlined above. Place sod directly onto the

in high-flow conditions. Sodded areas should be irrigated

until rooting through the mat and into subgrade occurs.

5. Consult with a manufacturer's technical representative

for installation assistance if unique conditions apply.

soll-filled HPTRM. Additional staking of sod is recommended

Frasion Control Blanket (FEB) can be applied over the

4. Sod may be installed in place of seeding. Install HPTRM,

through the mat and into subgrade occurs.

place excessive soil above the mat.

soil-filled mat for increased protection.

Install matting as directed. C-TRM does not require soil infill

above end-piece, to desired length.

SEEDING AND VEGETATING

secondary form of seeding.

When using a woven HPTRM:

with fiber components:

ANCHORING DETAIL

The performance of ground anchoring devices is highly dependent on numerous site/project specific variables. It is the sole responsibility of the project engineer and/or contractor to select the appropriate anchor type and length. Anchoring shall be selected to hold the mat in intimate contact with the soil subgrade and resist pullout in accordance with the project's

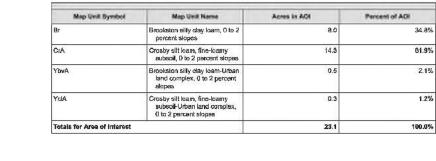
- 1. Staples and/or stakes should be at least 6 in. (15 cm) in length and with sufficient ground penetration to resist pullout. Longer staples and/or stakes may be needed in
- 2. The percussion earth anchor assembly consists of an anchor head, a tendon, a faceplate, and an end-plece device. See

North American Green® Earth Anchor specification for detailed information on assembly components and associated pull-out strength. PERCUSSION EARTH ANCHOR INSTALLATION

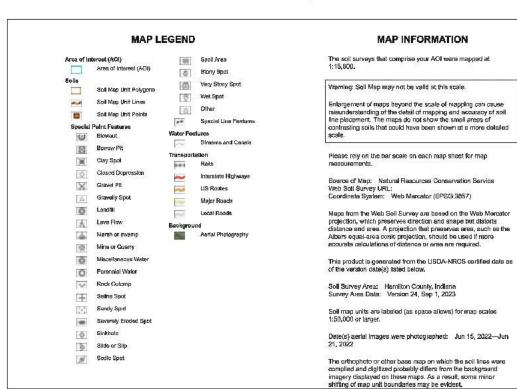
- 1. Insert the drive rod into the assembly's anchor head then use either a sledge hammer or vibratory hammer to drive the anchor to their desired depth.
- 2. After the desired anchor depth is achieved, retract the 3. Lock the anchor assembly by swiftly pulling the cable
- upwards until the anthor head rotates as signaled by sudden resistance to pulling. A hooked setting tool may be used to aid in this step.
- NOTE: Larger anchors may require more force to set the anchor. This can be archieved through using simple mechanical equipment for greater leverage, such as a fulcrum, manual or hydraulic jack, winch, or post puller. 4. Secure the faceplate to the High-performance Turf Reinforcement Mat (HPTRM) surface by locking the end-piece. If using a copper or aluminum stop, crimp the ferrule to

Custom Soil Resource Report

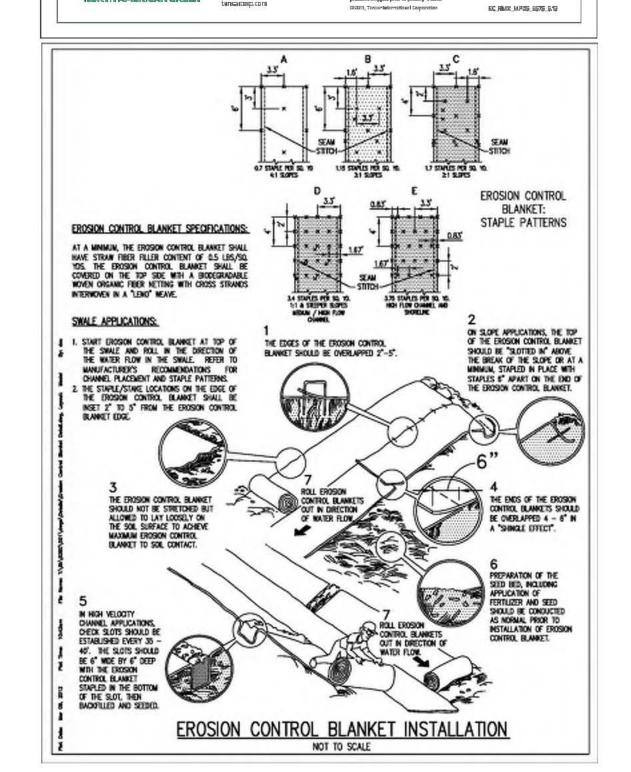


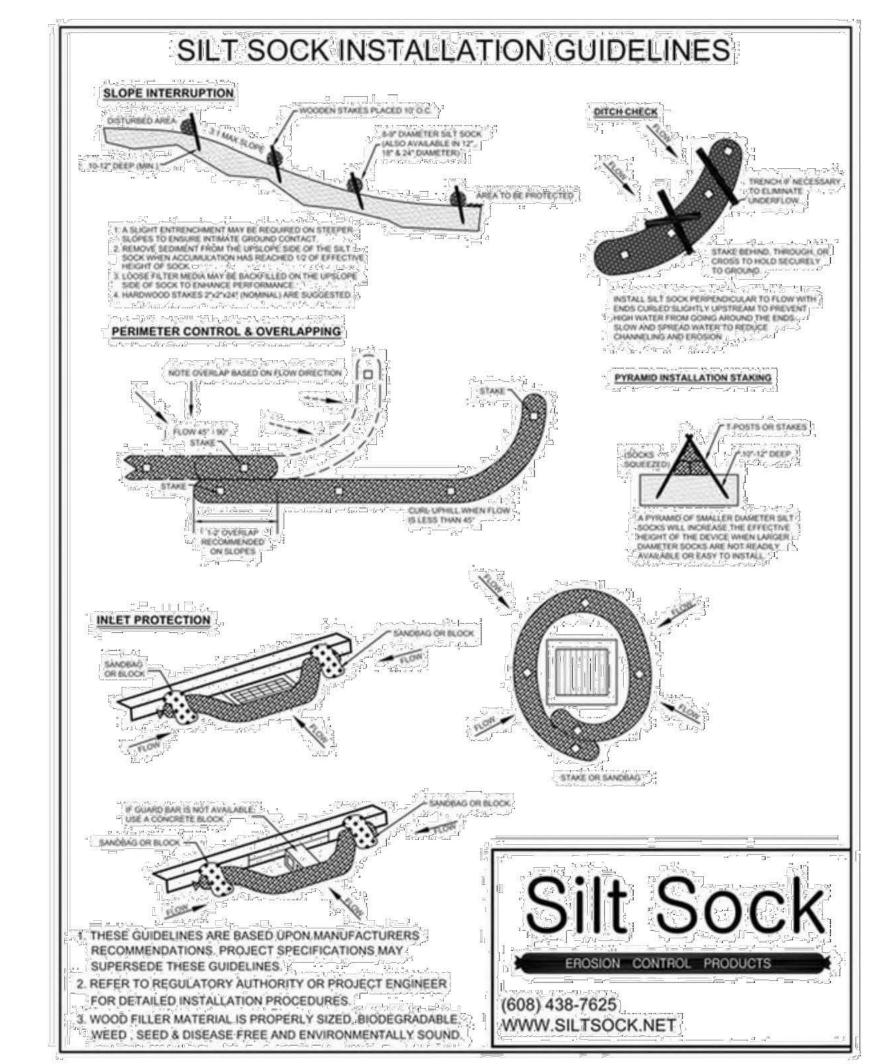


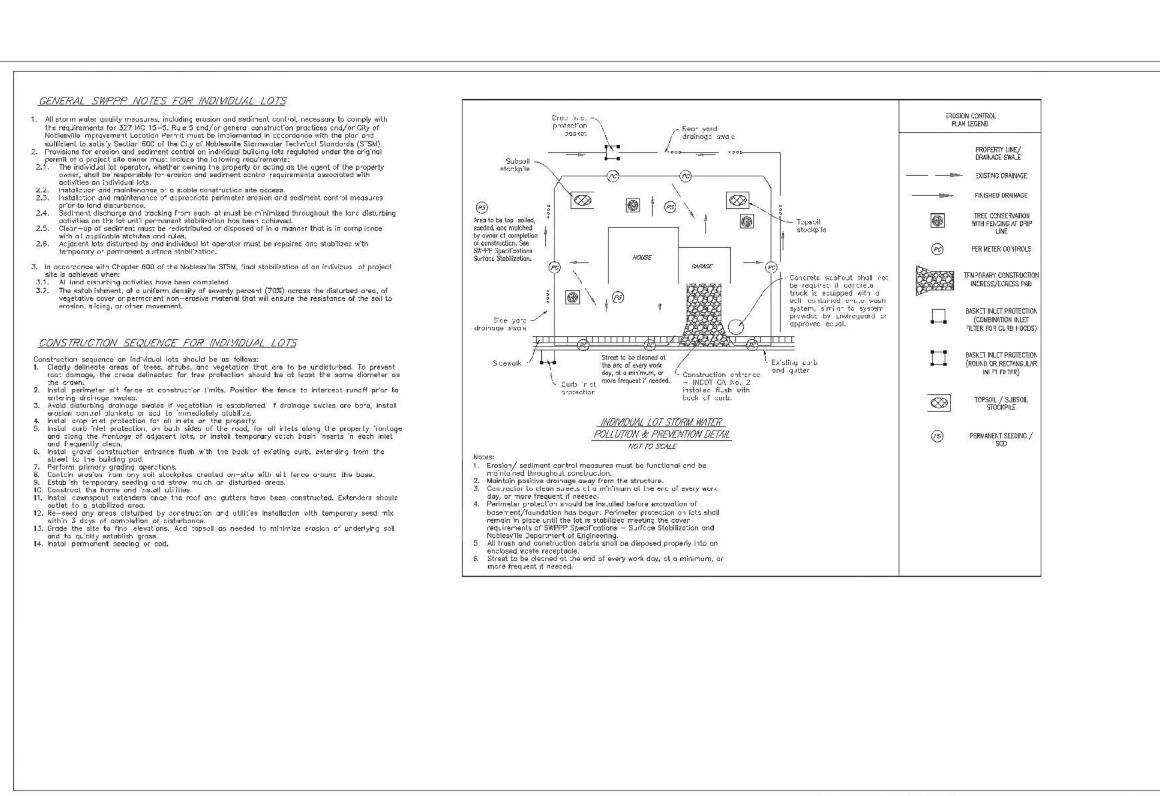
Custom Soil Resource Report



Specification Sheet - EroNet" S75° Erosion Control Blanket The short-term single net erosion control blanket shall be a mathine-ASTM DESIS produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional langevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be ECTC Exidelines 15% covered on the top side with a lightweight photodegradable polypropylene netting having an approximate 0.50 x 0.50 in. (1.27 x 1.27 cm) mesh. The blanket shall be seven together on 1.50 inch (3.81 ASTM DISSE 6-31 sz-in cm) centers with degradable thread. The blanket shall be manufac-ASTIM DESET tured with a colored thread sticched along both outer edges (approxi-ASTM DISENS mately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for (1.81 kN/m) ASTM DEETE The 575 shall meet Type 2.C specification requirements established by ASTM DGBNB [1.17 kN/hn0 the Erosion Control Technology Council (ECTC) and Federal Highway ASTM DERIR Administration's (FHWA) FP-03 Section 713.17 Unvegetated Shear Stress 1.5 lb/1000 sq.ft 5.00 fps (1.52 m/s): 31-21 121 6.67 ft (2.03 m) 8.0 ft (2.4 m) 16 ft (4.87 m) ≤ 20 ft (6 m) 105 ft (12.52 m) 112 ft (34.34 m) 106 ft (32.52 m) Weight a 10% 40 lbs (18.14 kg) 50 lbs (22.68 kg) 56 lbs (43.54 kg) ≥ 50 ft (15.2 m) 0.19 N/A N/A 80 sq yd (66.9 sm) (83.61 sm) (165.5 sm) ≤ 0.50 ft (0.15 m) 0.055 0.50 - 2.0 ft 0.055-0.021 ≥ 2.0 ft (0.60 m) 0.021 Tensar. Suite 500 Alpheretta, CA 30 008 800-TENSAR-1 tensarcorp.com NORTH AMERICAN GREEN"







CITY OF NOBLESVILLE SHEET SWPPP Details OF 29

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EROSION CONTROL DETAILS

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ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014 SHEET NUMBER



Insert (Basket) Curb Inlet Protection



To minimize sediment from entering the storm sewer system while allowing runoff to enter the storm sewer system in the event of excessive storm events. This measure traps sediment associated with small storm events below the grade of the paved area. This measure does not place an obstruction in the street to trap sediment and is especially conducive to stages of construction when the public has access to the project site.

Note: This measure should be used in conjunction with other sediment control measures.

Specifications

Contributing Drainage Area:

Capacity

One-quarter aere maximum.

Runoff from a two-year frequency, 24-hour storm event entering a storm drain without bypass flow.

October 2007 Chapter 7 NOTE: "NO CURED/RUBBLE CONCRETE ALLOWED"

SITE MANAGEMENT MEASURES

Concrete Washout



Concrete washout areas are designated locations within a construction site that are either a prefabricated unit or a designed measure that is constructed to contain ncrete washout. Concrete washout systems are typically used to contain washout water when chutes and hoppers are rinsed following

Concrete washout systems are implemented to reduce the discharge of pollutants that are associated with concrete washout waste through consolidation of solids and retention of liquids. Uncured concrete and associated liquids are highly alkaline which may leach into the soil and contaminate ground water or discharge to a waterbody or wetland which can elevate the pH and be harmful to aquatic life. Performing concrete washout in designated areas and into specifically designed systems reduces the impact concrete washout will have on the environment.

Specifications

- Site Management
- Complete construction/installation of the system and have washout locations operational prior to concrete delivery.
- Do not wash out concrete trucks or equipment into storm drains, wetlands, streams, rivers, creeks, ditches, or streets.
- · Never wash out into a storm sewer drainage system. These systems are typically connected to a natural conveyance system.
- Where necessary, provide stable ingress and egress (see Temporary Con-
- struction Ingress/Egress Pad on page 17).
- It is recommended that washout systems be restricted to washing concrete from mixer and pump trucks and not used to dispose of excess concrete or

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CONCRETE WASHOUT

- Inspect daily and after each storm event.
- Inspect the integrity of the overall structure including, where applicable, the
- · Inspect the system for leaks, spills, and tracking of soil by equipment.
- Inspect the polyethylene lining for failure, including tears and punctures. Once concrete wastes harden, remove and dispose of the material.
- Excess concrete should be removed when the washout system reaches 50 percent of the design capacity. Use of the system should be discontinued until appropriate measures can be initiated to clean the structure. Prefabricated systems should also utilize this criterion, unless the manufacturer has alternate specifications.
- Upon removal of the solids, inspect the structure. Repair the structure as needed or construct a new system
- Dispose of all concrete in a legal manner. Reuse the material on site, recycle, or haul the material to an approved construction/demolition landfill site. Recycling of material is encouraged. The waste material can be used for multiple applications including but not limited to roadbeds and building. The availability for recycling should be checked locally.
- The plastic liner should be replaced after every cleaning; the removal of material will usually damage the lining.
- The concrete washout system should be repaired or enlarged as necessary to maintain capacity for concrete waste.
- · Concrete washout systems are designed to promote evaporation. However, if the liquids do not evaporate and the system is near capacity it may be necessary to vacuum or remove the liquids and dispose of them in an acceptable method. Disposal may be allowed at the local sanitary sewer authority provided their National Pollutant Discharge Elimination System permits allow for acceptance of this material. Another option would be to utilize a secondary containment system or basin for further dewatering.
- Prefabricated units are often pumped and the company supplying the unit
- · Inspect construction activities on a regular basis to ensure suppliers, contractors, and others are utilizing designated washout areas. If concrete waste is being disposed of improperly, identify the violators and take appropriate

INSERT (BASKET) CURB INLET PROTECTION

- At curb inlets on paved roads and parking lots.
- Down grade from construction activities (e.g., individual home sites).
- Metal frame or basket with a top width and length such that the frame fits into the inlet. (The frame is supported by the structural integrity of the storm
- The metal frame or geotextile should be designed with a bypass to allow storm
- water to flow into the storm sewer system during excessive storm events. The system should be designed for ease of maintenance.
- Geotextile fabrie.

Table 1. Geotextile Fabric Specifications

Physical Property	Woven	Non-Woven
Filtering Efficiency	85%	85%
UV Resistance (Inhibitors and stabilizers to ensure six month minimum life at temperatures of 0° F to 120° F)	70%	85%
Tensile Strength at 20% Elongation: Standard Strength Extra Strength	30 lbs./linear inch 50 lbs./linear inch	50 lbs./linear inch 70 lbs./linear inch
Slurry Flow Rate	0.3 gal./min./sq. ft.	4.5 gal./min./sq. ft.
Water Flow Rate	15 gal./min./sq. ft.	220 gal./min./sq. ft

Installation

- 1. Remove the storm sewer grate and place the frame into the grate opening.
- 3. Replace the storm sewer grate.

Inspect daily.

INSERT (BASKET) CURB INLET PROTECTION

Replace or clean geotextile fabric as needed.

· Remove accumulated sediment and debris after each storm event. Deposit

When the contributing drainage area has been stabilized, remove inlet pro-

sediment in an area where it will not re-enter the paved area or storm drains.

2. Place geotextile fabric into the frame and secure according to the manufacturer's recommendations.

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CONCRETE WASHOUT

residual loads due to potential to exceed the design capacity of the washout system. Small amounts of excess or residual concrete (not washout water) may be disposed of in areas that will not result in flow to an area that is to be

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- Install systems at strategic locations that are convenient and in close proximity to work areas and in sufficient number to accommodate the demand for
- Install signage identifying the location of concrete washout systems.

Location

- Locate concrete washout systems at least 50 feet from any creeks, wetlands, ditches, karst features, or storm drains/manmade conveyance systems.
- To the extent practical, locate concrete washout systems in relatively flat areas that have established vegetative cover and do not receive runoff from adjacent land areas.
- Locate in areas that provide easy access for concrete trucks and other construction equipment.
- Locate away from other construction traffic to reduce the potential for damage to the system.

General Design Considerations

- The structure or system shall be designed to contain the anticipated washout
- water associated with construction activities. • The system shall be designed, to the extent practical, to eliminate runoff
- from entering the washout system.
- Runoff from a rainstorm or snowmelt should not carry wastes away from the washout location.
- · Washout will not impact future land uses (i.e., open spaces, landscaped areas, home sites, parks).
- Washout systems/containment measures may also be utilized on smaller individual building sites. The design and size of the system can be adjusted to accommodate the expected capacity.

Prefabricated Washout Systems/Containers

 Self-contained sturdy containment systems that are delivered to a site and located at strategic locations for concrete disposal.

CONCRETE WASHOUT

- . When concrete washout systems are no longer required, the concrete washout systems shall be closed. Dispose of all hardened concrete and other materials used to construct the system.
- Holes, depressions and other land disturbances associated with the system should be backfilled, graded, and stabilized.

CONCRETE WASHOUT

- · These systems are manufactured to resist damage from construction equipment and protect against leaks or spills.
- Manufacturer or supplier provides the containers. The project site manager maintains the system or the supplier provides complete service that includes maintenance and disposal.
- Units are often available with or without ramps. Units with ramps lend themselves to accommodate pump trucks.
- Maintain according to the manufacturer's recommendations.

Designed and Installed Units

- These units are designed and installed on site. They tend to be less reliable than prefabricated systems and are often prone to failure. Concrete washout systems can be constructed above or below grade. It is not uncommon to have a system that is partly below grade with an additional containment structure above grade.
- Washout systems shall utilize a pit or bermed area designed and maintained at a capacity to contain all liquid and concrete waste generated by washout
- The volume of the system must also be designed to contain runoff that drains to the system and rainfall that enters the system for a two-year frequency, 24-hour storm event.

Below Grade System

- A washout system installed below grade should be a minimum of ten feet wide by ten feet long, but sized to contain all liquid and waste that is expected to be generated between scheduled cleanout periods. The size of the pit may be limited by the size of polyethylene available. The polyethylene lining should be of adequate size to
- extend over the entire excavation. • Include a minimum 12-inch freeboard to reasonably ensure that the
- structure will not overtop during a rain event.
- Line the pit with ten millimeter polyethylene lining to control seepage. The bottom of excavated pit should be above the seasonal high water

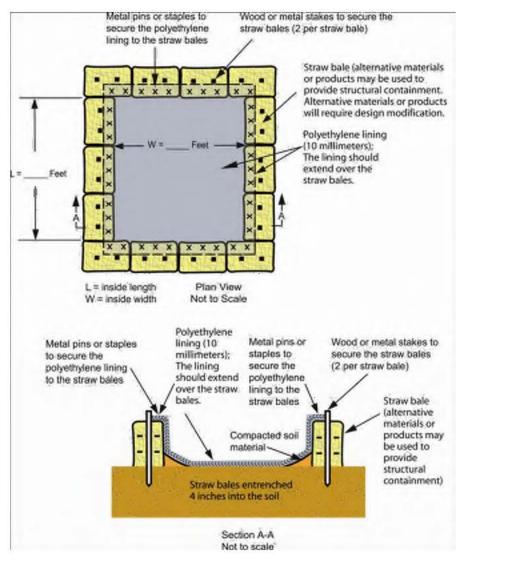
Above Grade System

◆ A system designed and built above grade should be a minimum of ten feet wide by ten feet long, but sized to contain all liquid and waste that is expected to be generated between scheduled cleanout periods. The size of the containment system may be limited by the size of

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CONCRETE WASHOUT

Concrete Washout (Above Grade System) Worksheet



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-BLACK LETTER 6" HEIGHT CONCRETE -0,5" LAG SCREWS -WOOD POST 3"x3"x8" CONCRETE WASHOUT SIGN

3/8" TREATED PLYWOOD

- polyethylene available. The polyethylene lining should be of adequate size to extend over the berm or containment system.
- The system design may utilize an earthen benn, straw bales, sandbags, or other acceptable barriers that will maintain its shape and integrity and support the polyethylene lining.
- Include a minimum four-inch freeboard as part of the design.

Washout Procedures

CONCRETE WASHOUT

- Do not leave excess mud in the chutes or hopper after the pour. Every effort should be made to empty the chutes and hopper at the pour. The less material left in the chutes and hopper, the quicker and easier the cleanout. Small amounts of excess concrete (not washout water) may be disposed of in areas that will not result in flow to an area that is to be protected.
- At the washout location, scrape as much material from the chutes as possible before washing them. Use non-water cleaning methods to minimize the chance for waste to flow off site.
- Remove as much mud as possible when washing out.
- Stop washing out in an area if you observe water running off the designated area or if the containment system is leaking or overflowing and ineffective.
- Do not back flush equipment at the project site. Back flushing should be restricted to the plant as it generates large volumes of waste that more than likely will exceed the capacity of most washout systems. If an emergency manager for the project.
- Do not use additives with wash water. Do not use solvents or acids that may be used at the target plant.

Materials

- . Minimum of ten millimeter polyethylene sheeting that is free of holes, tears, and other defects. The sheeting selected should be of an appropriate size to fit the washout system without seams or overlap of the lining (designed and
- Signage.

installed systems).

- Orange safety fencing or equivalent.
- Straw bales, sandbags (bags should be ultraviolet-stabilized geotextile fabrie), soil material, or other appropriate materials that can be used to construct a containment system (above grade systems).

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CONCRETE WASHOUT

- Metal pins or staples at a minimum of six inches in length, sandbags, or alternative fastener to secure polyethylene lining to the containment system.
- Non-collapsing and non-water holding cover for use during rain events

Installation

Prefabricated Washout Systems/Containers

- Install and locate according to the manufacturer's recommendations.
- Designed and Installed Systems • Utilize and follow the design in the storm water pollution prevention plan to

install the system.

- Dependent upon the type of system, either exeavate the pit or install the containment system.
- A base shall be constructed and prepared that is free of rocks and other debris that may cause tears or punctures in the polyethylene lining.
- Install the polyethylene lining. For excavated systems, the lining should extend over the entire excavation. The lining for benned systems should be installed over the pooling area with enough material to extend the lining over the berm or containment system. The lining should be secured with pins, staples, or other fasteners.
- Place flags, safety fencing, or equivalent to provide a barrier to construction equipment and other traffic.
- Place a non-collapsing, non-water holding cover over the washout facility prior to a predicted rainfall event to prevent accumulation of water and possible overflow of the system (optional).
- Install signage that identifies concrete washout areas.
- Post signs directing contractors and suppliers to designated locations.
- Where necessary, provide stable ingress and egress (see Temporary Construction Ingress/Egress Pad on page 17) or alternative approach pad for concrete washout systems.

SIGNAGE TO STATE: "NO CURED/RUBBLE CONCRETE ALLOWED"

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temporary construction ngress/egress pad is a nediment control measure consisting of a stabilized aggregate pad with geotextile underlayment that is used at any point where construction traffic will be traversing between a large construction site and adjoining public right-of-way, street, alley, sidewalk, or parking areas.

To provide ingress/egress to a construction site and minimize tracking of mud and sediment onto public roadways.

Specifications

Location

Avoid locating on steep slopes or at curves in public roads.

Dimensions

- Width 20 feet minimum or full width of entrance/exit roadway, whichever
- Length 150 feet minimum (length can be shorter for small sites). Thickness – eight inches minimum,

Washing Facility (optional)

- . Level area with three inch, or larger, washed aggregate or install a commer-
- Divert waste water to a sediment trap or basin.

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SEDIMENT BARRIERS & FILTERS

Silt Fence



A silt fence is a temporary barrier of entrenched geotextile fabric stretched across and attached to supporting posts and installed on the contour to intercept and treat sediment-laden storm water runoff from small, unvegetated drainage areas.

To trap sediment from small, disturbed areas by reducing the velocity of sheet flow. Silt fences capture sediment by ponding water to allow deposition, not by

Note: Silt fence is not recommended for use as a diversion and should not be used across a stream, channel, ditch, swale, or anywhere that concentrated flow is anticipated.

Specifications

Drainage Area

- Limited to one-quarter acre per 100 linear feet of fence. Further restricted by slope steepness (see Table 1).

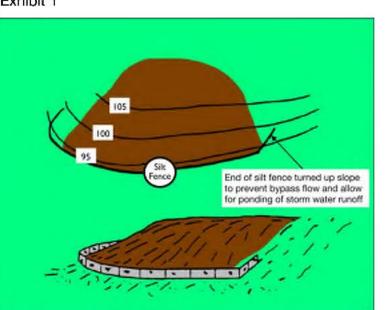
Effective Life Six months (maximum).

Location

- Installed parallel to the slope contour.
- Minimum of 10 feet beyond the toe of the slope to provide a broad, shallow sediment pool.
- Accessible for maintenance (removal of sediment and silt fence repair).

Exhibit 1

SILT FENCE



Source: Adapted from Commonwealth of Pennsylvania Erosion and Sediment Pollution Control Manual, 1990

Inspect daily. Reshape pad as needed for drainage and runoff control. Top dress with clean aggregate as needed. Immediately remove mud and sediment tracked or washed onto public roads. Flushing should only be used if the water can be conveyed into a sediment trap or basin. Chapter 7

ingress/egress pad to a sediment trap or basin.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD

One to two and one-half inch diameter washed aggregate [Indiana Depart-

One-half to one and one-half inch diameter washed aggregate [INDOT CA]

Geotextile fabric underlayment (see Appendix C) (used as a separation layer)

1. Remove all vegetation and other objectionable material from the foundation

construction entrance is toward a public road and exceeds two percent, construct an eight inch high diversion ridge with a ratio of 3-to-1 side slopes across the foundation area about 15 feet from the entrance to divert runoff away from the road (see Temporary Construction Ingress/Egress Pad Cross-

3. Install a culvert pipe under the pad if needed to maintain proper public road

4. If wet conditions are anticipated, place geotextile fabric on the graded

5. Place aggregate (INDOT CA No. 2) to the dimensions and grade shown in

6. Top-dress the first 50 feet adjacent to the public roadway with two to three inches of washed aggregate (INDOT CA No. 53) [optional, used primarily

7. Where possible, divert all storm water runoff and drainage from the

the construction plans, leaving the surface smooth and sloped for drainage.

where the purpose of the pad is to keep soil from adhering to vehicle tires].

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2. Grade foundation and crown for positive drainage. If the slope of the

to prevent intermixing of aggregate and the underlying soil material and to

provide greater bearing strength when encountering wet conditions or soils

ment of Transportation Course Aggregate No. 2 (see Appendix D)].

(LARGE SITES—TWO ACRES OR LARGER)

No. 53 (see Appendix D)].

Section View Worksheet).

foundation to improve stability.

Installation

drainage.

with a seasonal high water table limitation).

SILT FENCE

able 1.	Slope Steepness	Restriction

Percent Slope		Maximum Distance	
< 2%	< 50:1	100 feet	
2% - 5%	50:1 to 20:1	75 feet	
5% - 10%1	20:1 to 10:1	50 feet	
10% - 20%1	10:1 to 5:1	25 feet	
> 20%1	> 5:1	15 feet	

Note: Multiple rows of silt fence are not recommended on the same slope.

- Depth eight inches minimum.
- Width four inches minimum. · After installing fence, backfill with soil material and compact (to bury and

Note: An alternative to trenching is to use mechanical equipment to plow in the silt fence.

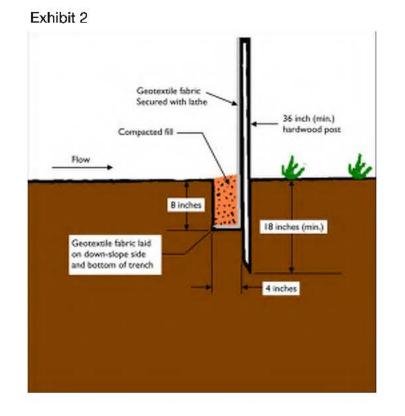
Materials and Silt Fence Specifications

anchor the lower portion of the fence fabric).

• Fabric – woven or non-woven geotextile fabric meeting specified minimums outlined in Table 2.

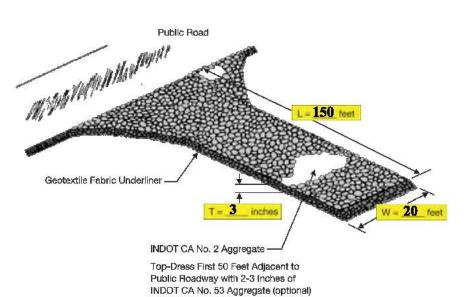
October 2007

SILT FENCE



TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD (LARGE SITES—TWO ACRES OR LARGER)

Temporary Construction Ingress/Egress Pad Plan View Worksheet (large sites—two acres or larger)



L = Ingress/Egress Pad Length W = Ingress/Egress Pad Width T = Aggregate Thickness

(Note: For minimum dimensions, see the "Specifications" section of this measure.)

Source: Adapted from North Carolina Erosion and Sediment Control Planning and Design Manual, 1993

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SILT FENCE

Table 2. Geotextile Fabric Specifications for Silt Fence (minimum)

Physical Property	Woven Geotextile Fabric	Non-Woven Geotextile Fabric	
Filtering efficiency	85%	85%	
Textile strength at 20% elongation Standard strength Extra strength	30 lbs. per linear inch 50 lbs. per linear inch	50 lbs. per linear inch 70 lbs. per linear inch	
Slurry flow rate	0.3 gal./min./square feet	4.5 gal./min./square feet	
Water flow rate	15 gal./min./square feet	220 gal./min./square fee	
UV resistance	70%	85%	
Post spacing	7 feet	5 feet	

- Height a minimum of 18 inches above ground level (30 inches maximum).
- Reinforcement fabric securely fastened to posts with wood lathe.
- Support Posts
- 2 x 2 inch hardwood posts. Steel fence posts may be substituted for hardwood posts (steel posts should have projections for fastening fabric).
- Spacing Eight feet maximum if fence is supported by wire mesh fencing.
- Six feet maximum for extra-strength fabric without wire backing.

Prefabricated silt fence (see Exhibits 1, 2, and 3)

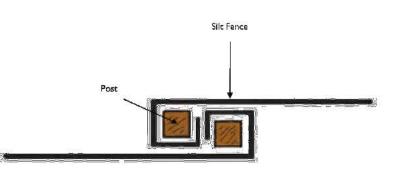
- 1. Lay out the location of the fence so that it is parallel to the contour of the slope and at least 10 feet beyond the toe of the slope to provide a sediment storage area. Turn the ends of the fence up slope such that the point of contact between the ground and the bottom of the fence end terminates at a higher elevation than the top of the fence at its lowest point (see Exhibit 1).
- 2. Excavate an eight-inch deep by four-inch wide trench along the entire length of the fence line (see Exhibit 2). Installation by plowing is also acceptable.
- 3. Install the silt fence with the filter fabric located on the up-slope side of the

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excavated trench and the support posts on the down-slope side of the trench.

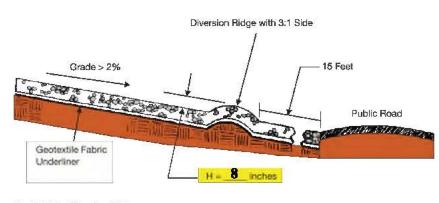
SILT FENCE

Exhibit 3



TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD (LARGE SITES—TWO ACRES OR LARGER)

Temporary Construction Ingress/Egress Pad Cross-Section View Worksheet (large sites two acres or larger)



H = Height of Diversion Ridge (Note: 8 inches minimum)

Source: Adapted from North Carolina Erosion and Sediment Control Planning and Dasign Manual, 1993

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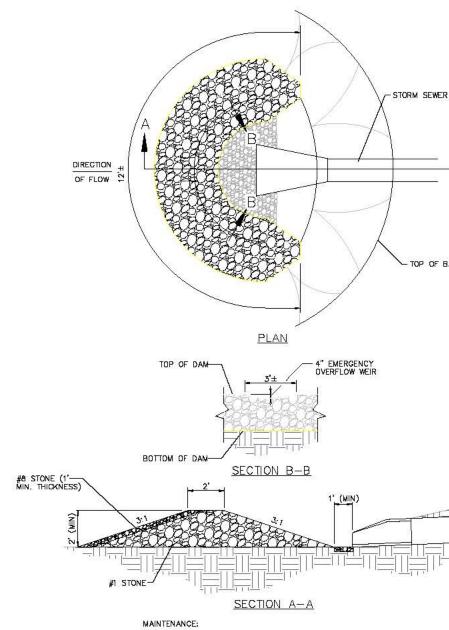
SILT FENCE

- 4. Drive the support posts at least 18 inches into the ground, tightly stretching the fabric between the posts as each is driven into the soil. A minimum of 12 inches of the filter fabric should extend into the trench. (If it is necessary to join the ends of two fences, use the wrap joint method shown in Exhibit 3.) 5. Lay the lower four inches of filter fabric on the bottom of the trench and
- extend it toward the up-slope side of the trench.
- 6. Backfill the trench with soil material and compact it in place.
- Note: If the silt fence is being constructed on-site, attach the filter fabric to the support posts (refer to Tables 1 and 2 for spacing and geotextile specifications) and attach wooden lathe to secure the fabric to the posts. Allow for at least 12 lnches of fabric below ground level. Complete the silt fence installation, following steps 1 through 6 above.

- Inspect within 24 hours of a rain event and at least once every seven calendar
- If fence fabric tears, starts to decompose, or in any way becomes ineffective, replace the affected portion immediately. Note: All repairs should meet specifications as outlined within this measure.

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· Remove deposited sediment when it is causing the filter fabric to bulge or when it reaches one-half the height of the fence at its lowest point. When contributing drainage area has been stabilized, remove the fence and sediment deposits, grade the site to blend with the surrounding area, and



ROCK HORSESHOE DETAIL NOT TO SCALE

STORM SEWER PIPE

GRAND

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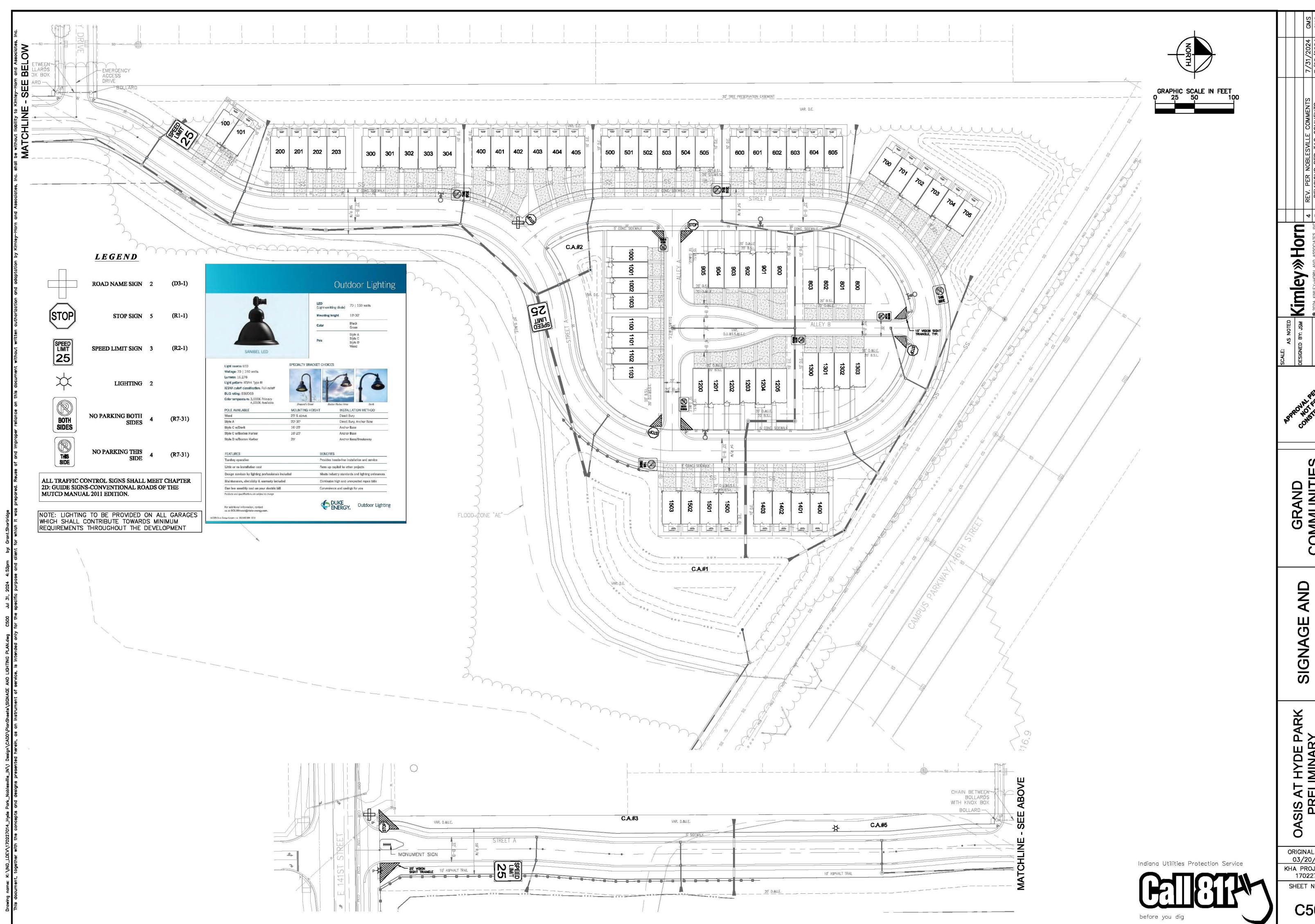
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ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014

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SHEET NUMBER

October 2007 Chapter 7 October 2007 October 2007



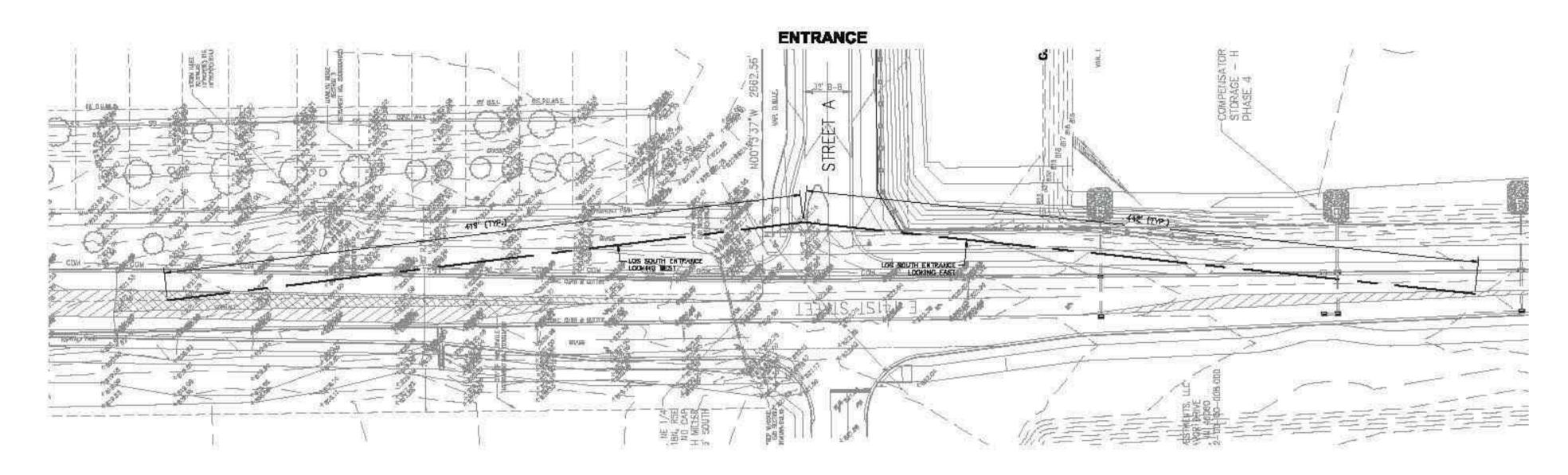
GRAND COMMUNITIES, LLC

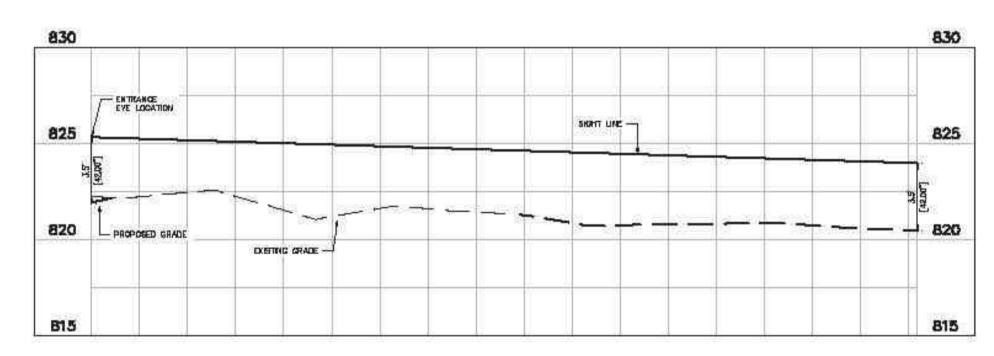
AND

OASIS AT HYDE PARK PRELIMINARY DEVELOPMENT PLAN

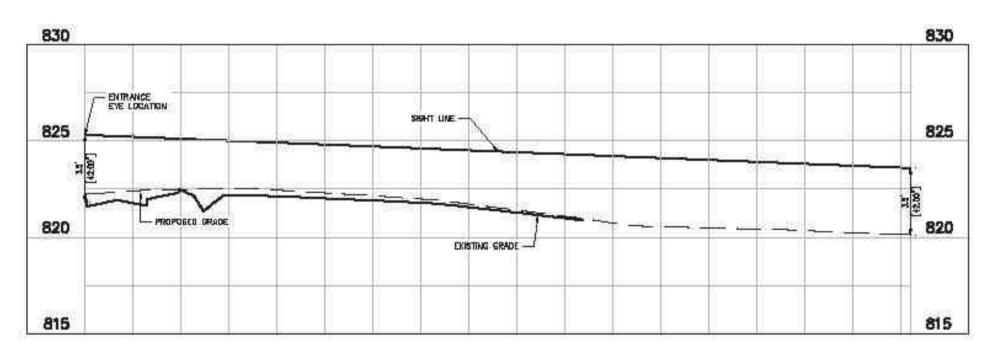
ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014

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ENTRANCE LOOKING WEST
H: 1"=50; V: 1"=5



ENTRANCE LOOKING EAST
H: 1"=50; V: 1"=5

	Intersection S For Passe		
Design Speed (mph)	Calculated (ft)	Design (ft)	
15	143.3	145	
20	191.1	195	
25	238.9	240	
30	286.7	290	
35	334.4	335	
40	382.2	385	
45	430.0	430	
50	477.8	480	
55	525.5	530	
60	573.3	575	
65	621.1	625	
70	668.9	670	

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or cross a two-lane highway with no median and grades of 3% or flatter. For other conditions, the time gap should be adjusted and the required sight distance recalculated.

INTERSECTION SIGHT DISTANCE FOR PASSENGER CAR TO TURN RIGHT FROM A STOP OR TO MAKE A CROSSING MANEUVER

Figure 46-10H

Kimley >>> Horn

• 2024 KIMLEY-HORN AND ASSOCIATES, INC.

500 EAST 96TH STREET, SUITE 300, IN 46246
CONTACT: BRETT HUFF

GRAND COMMUNITIES, LLC

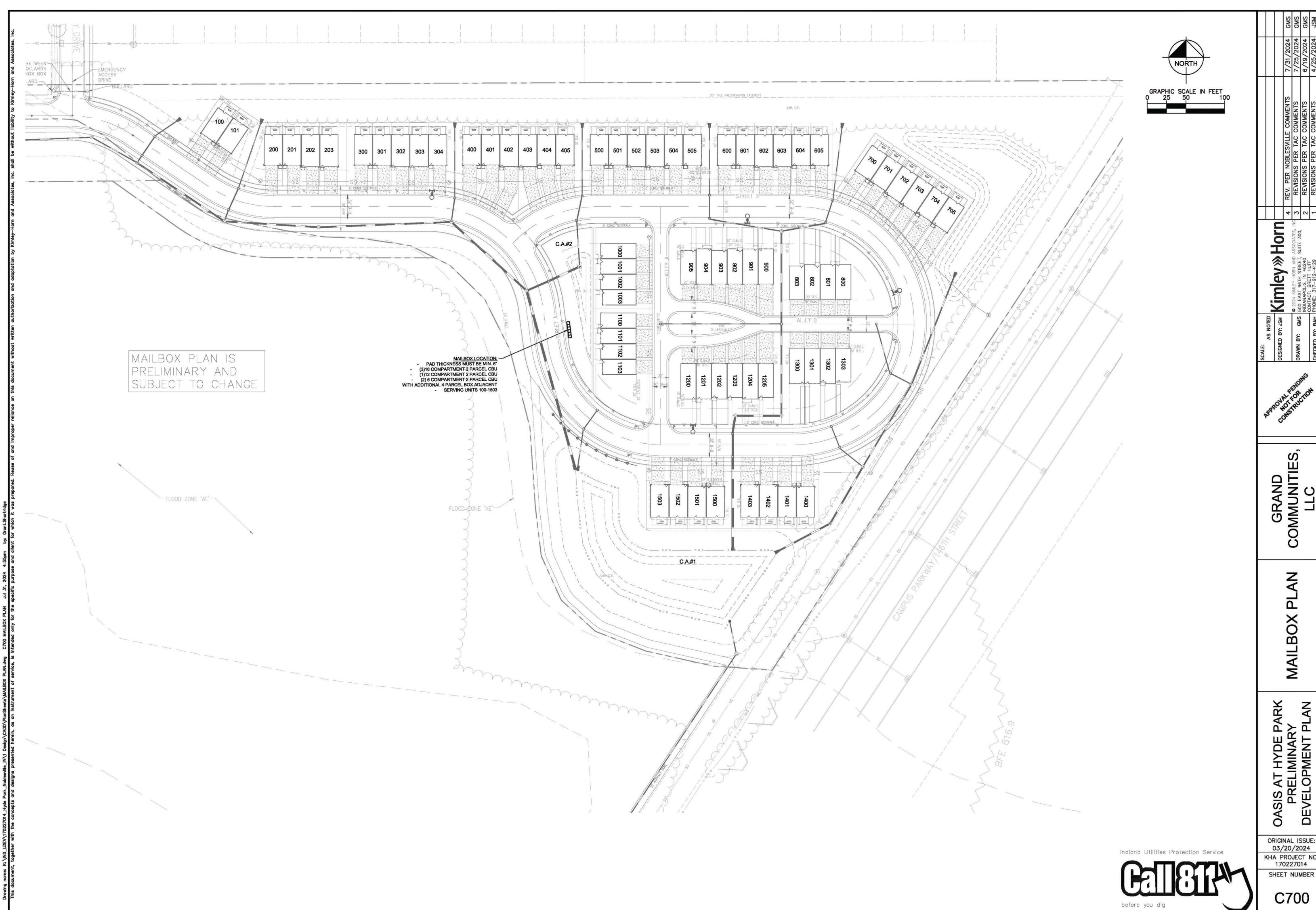
IE OF SIGHT PLAN

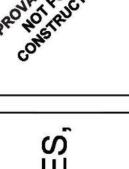
ASIS AT HYDE PARK
PRELIMINARY

ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 17D227014

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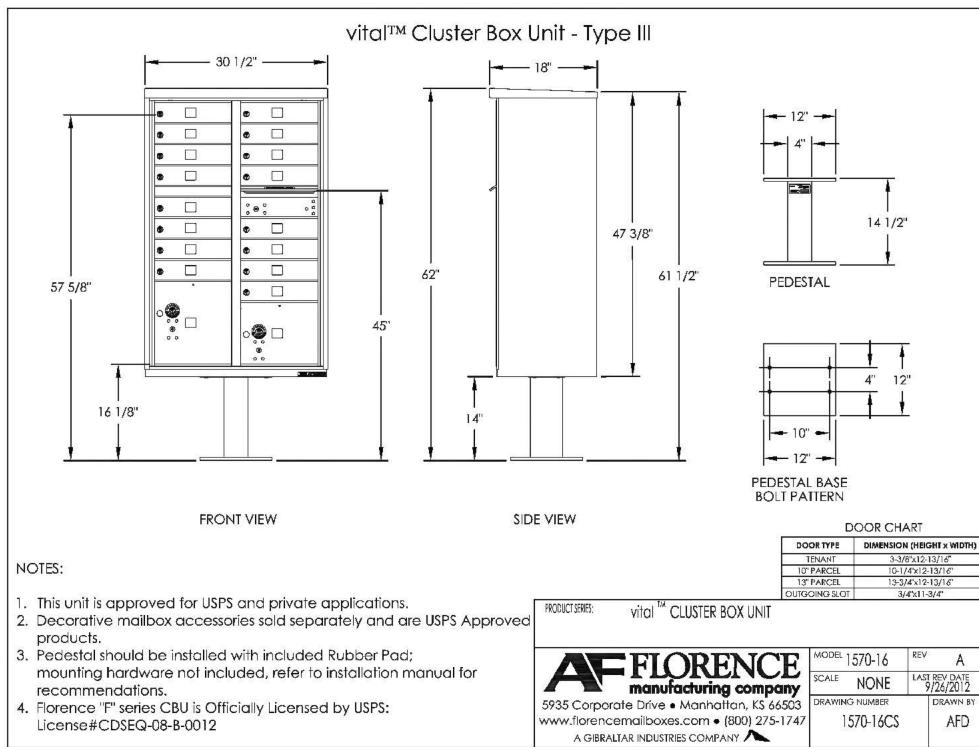


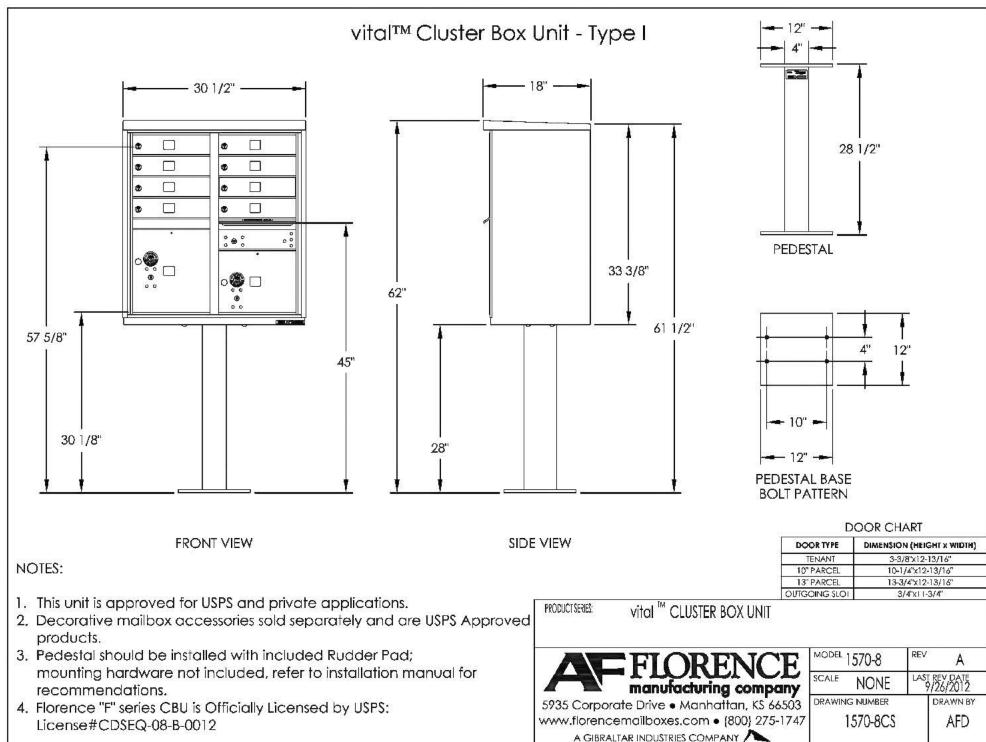
GRAND COMMUNITIES, LLC

PLAN

OASIS AT HYDE PARK PRELIMINARY DEVELOPMENT PLAN

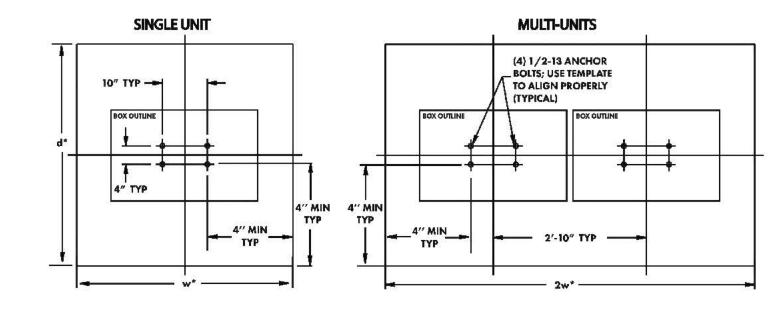
ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014

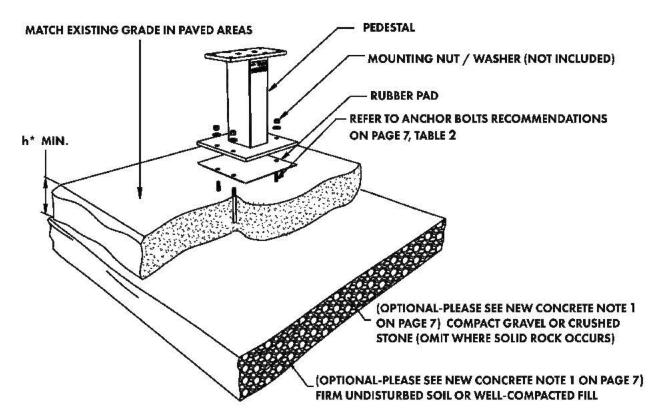




CONCRETE FOUNDATION PREPARATION

vital™ cluster box unit - 1570 "F" Series





*Pad recommendations for "h/d/w" outlined on page 7, Table 1

FIORENCE PROPERTY

CONCRETE FOUNDATION PREPARATION

vital™ cluster box unit - 1570 "F" Series

NEW CONCRETE BASE:

- 1) Depending on climatic and soil conditions in the area of installation, optional foundation material may be necessary as shown. Consult local building codes for recommendations.
- 2) Refer to Table 1 for thickness (h), width (w), and depth (d) of the concrete pad alternatives.
- 3) Concrete shall have a compressive strength of 3000 psi @ 28 days, contain 4% min ~ 6% max air entrapment and be placed with a 3.50~4.50 slump in accordance to 301.
- 4) Use wire mesh as per (Standard) or fiber reinforced concrete as per (Standard).

EXISTING CONCRETE BASE:

1) Existing concrete pad must be at least 48" wide.

2) Concrete base and anchor bolts may be reused if:

- a. existing $\frac{1}{2}$ " diameter expansion anchor bolts are firmly embedded in the concrete and not damaged or corroded;
- b. concrete foundation is not damaged; and
- c. bolt hole pattern of the new unit matches the installed anchor bolts.

3) Additional considerations include:

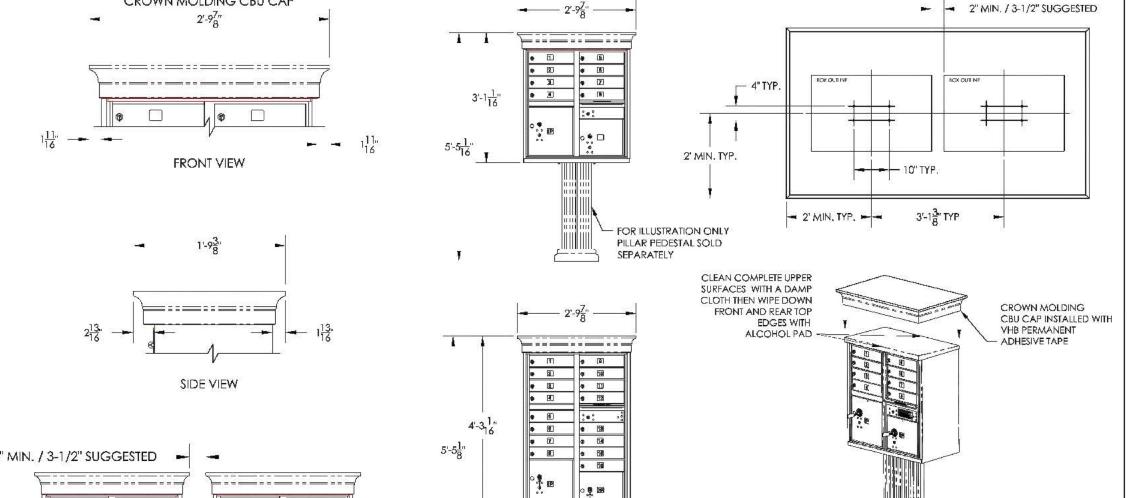
- a. if concrete is only 4" thick, then option 'b' in Table 2 below cannot be used
- b. any unused, existing anchor bolts must be cut flush to the level of the concrete surface c. if concrete is damaged, replacement of foundation pad is required

ABLE 1: Pad Rec	ommendations		TABLE 2	
h (Thickness)	w (Width) min	d (Depth) min	Expansion Anchor Bolt Recommendations	
4"	47"	47"	(or equivalent)	
5"	44"	44"	a. Hilti Kwik Bolt II (www.hilti.com)	
6"	42"	42"	- 1/2 inch diameter x 5 1/2 inches overall length - Galvanized	
7"	40"	40"	- KB II 12-512, Stainless Steel	
8"	39"	39"	Minimum embedment in concrete must be at leas 3 1/2 inches	
			b. ITW Ramset Redhead Turbolt (www.hilti.com) - 1/2 inch diameter x 7 inches overall length - Galvanized Minimum embedment in concrete must be at leas 4 1/8 inches	
			c. Rawl Stud (www.rawl.com) - 1/2 inch diameter x 5 1/2 inches overall length - Galvanized Minimum embedment in concrete must be at least	

4 inches

FIORENCE manufacturing company

Page 7 of 16



CBU'S WITH CROWN MOLDING CAP COLOR: BLACK

Indiana Utilities Protection Service

MULTI-UNITS PAD SPECIFICATION 1570 CBU SERIES VIEW WITH INSTALLED ACCESSORIES CROWN MOLDING CBU CAP 2" MIN. / 3-1/2" SUGGESTED -

FOR BOLT PATTERN AND SPACING 1. CROWN MOLDING CAP DESIGN REQUIRES ADDITIONAL SPACE BETWEEN CBUS

IMPORTANT CLEARANCE SPEC SEE MULTI UNIT PAD SPECIFICATION

FOR MULTIPLE CBU INSTALLATIONS, SEE IMPORTANT CLEARANCE SPEC ABOVE. , CAP AND PEDESTAL COVER SOLD SEPARATELY.

3. CROWN MOLDING CAP AVAILABLE IN ALL STANDARD CBU POWDER COAT FINISHES. 4. CAP INSTALLED USING PERMANENT VHB ADHESIVE TAPE, NO HARDWARE NECESSARY, 5. CROWN MOLDING CAP DESIGNED TO FIT OVER FLORENCE 1570 SERIES CBU.

PRODUCT SERIES: VOGUE™CBU ACCESSORIES

- FOR ILLUSTRATION ONLY

PILLAR PEDESTAL SOLD SEPARATELY

> 5935 Corporate Drive • Manhattan, KS 66503 www.auth-florence.com*(800) 275-1747

MODEL CROWN MOLDING CAP REV NONE DRAWING NUMBER VOGUECTOS AFD TOFT

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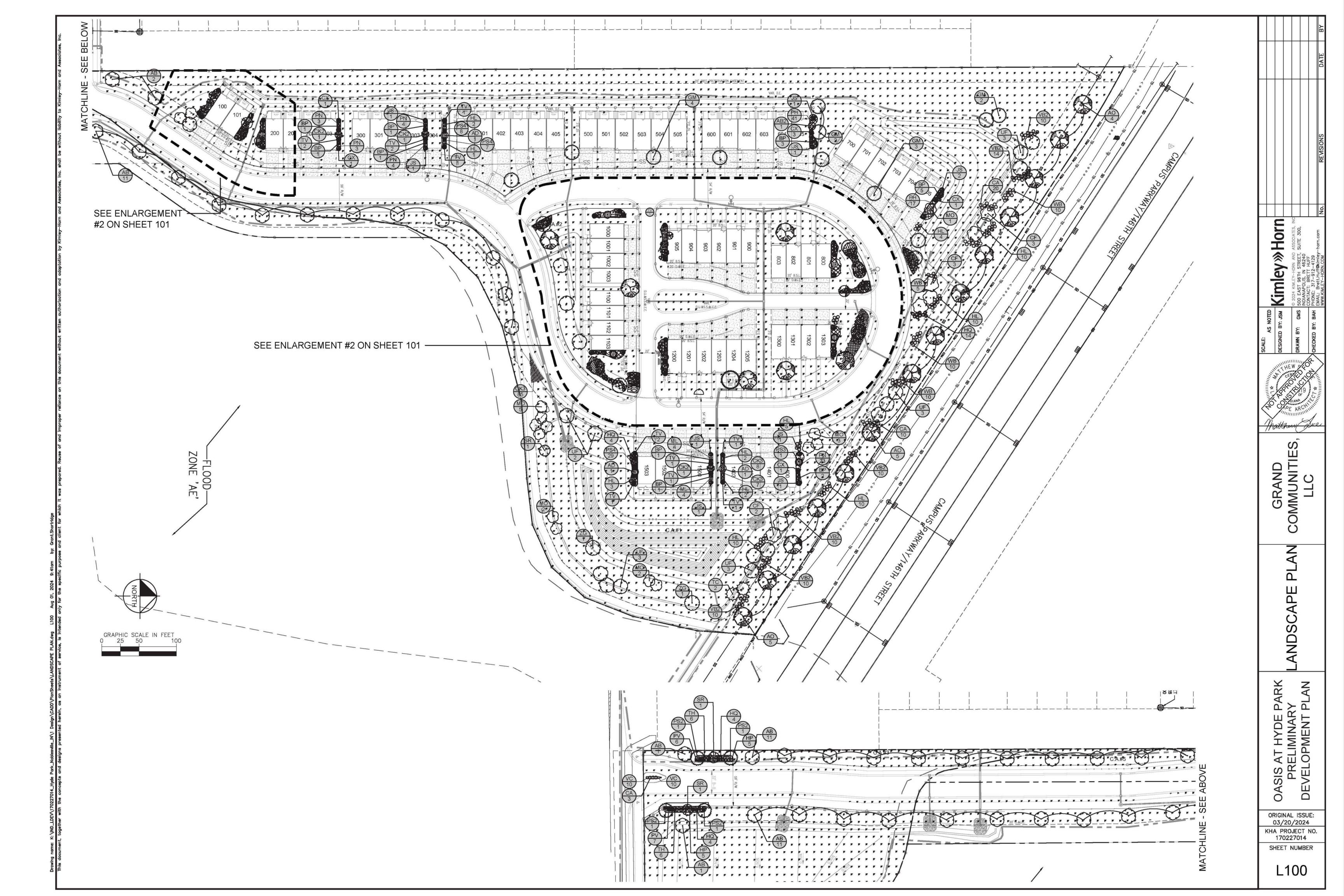
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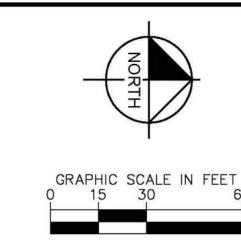
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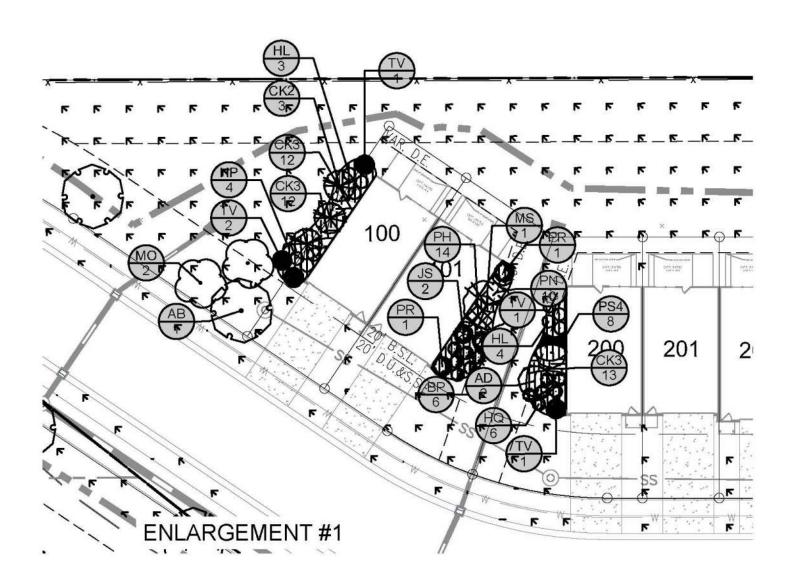
GRAND COMMUNITI LLC

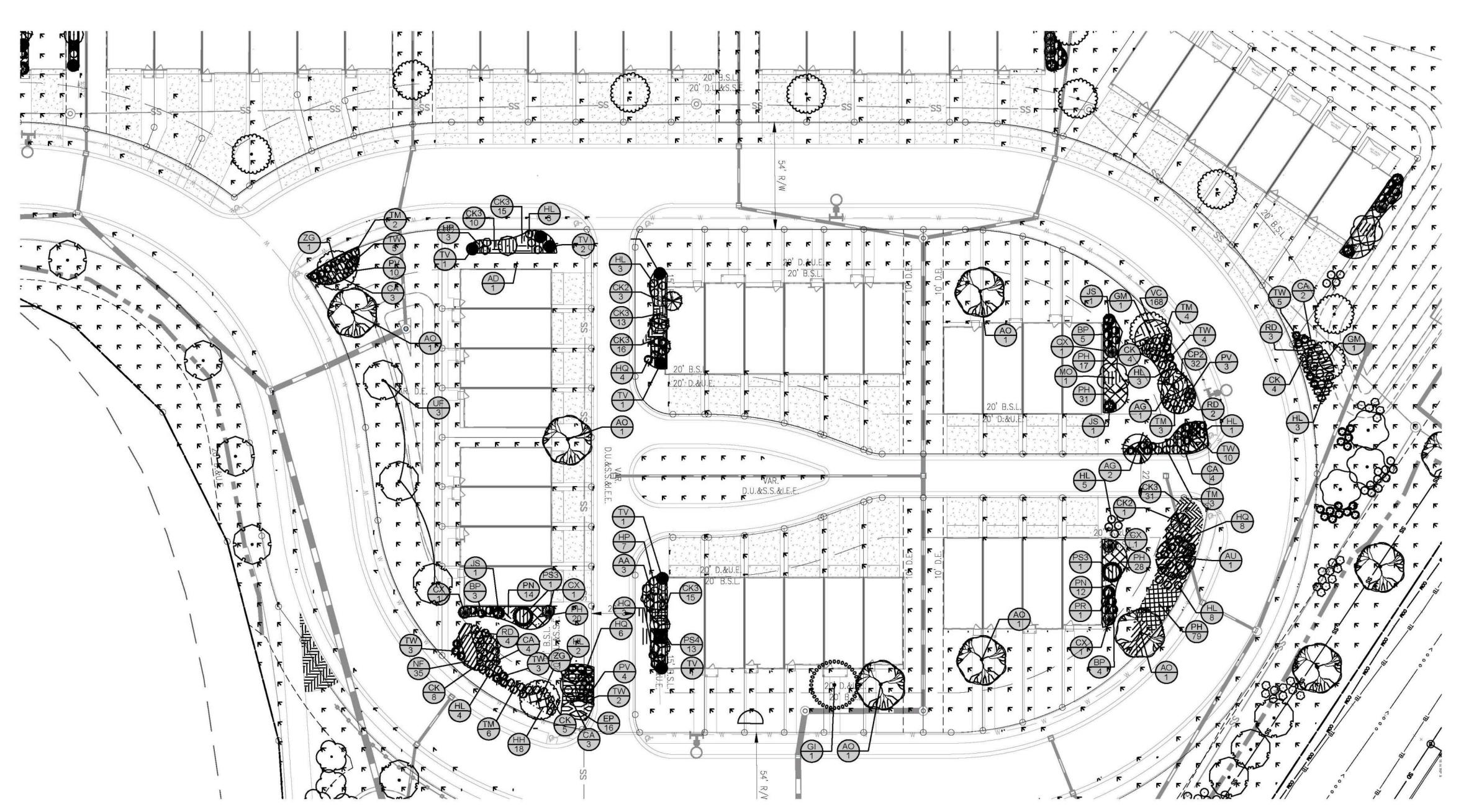
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ENLARGEMENT #2

OASIS AT HY PRELIMI DEVELOPMI

GRAND COMMUNITIES, LLC

> ANDSCAPE PLAN ENLARGEMENT

ORIGINAL ISSUE: 03/20/2024 KHA PROJECT NO. 170227014 SHEET NUMBER

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LANDSCAPE NOTES

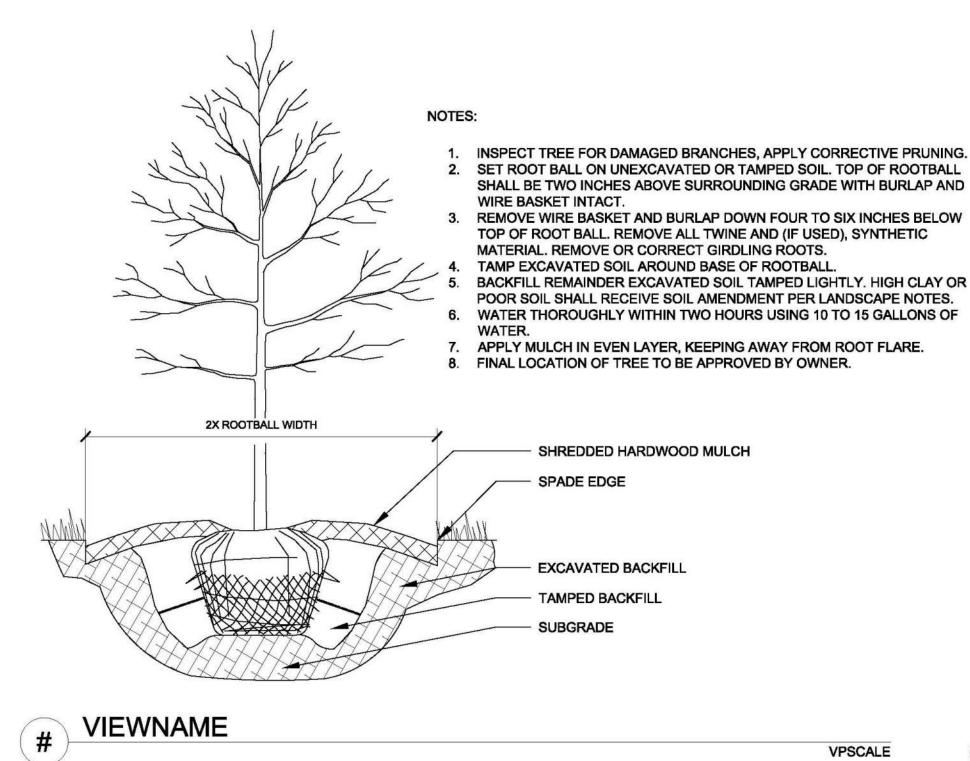
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION AND PLANTING.
- 2. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
- 4. ALL NURSERY STOCK SHALL BE WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. DECIDUOUS TREES SHALL BE FREE OF FRESH SCARS. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS A PART OF THIS
- 5. ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL
- 6. PLANTING AREA SOIL SHALL BE TOPSOIL FOR ALL TREE, SHRUB, ORNAMENTAL GRASS, PERENNIAL, AND ANNUAL BEDS. AMENDED SOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO A 6" DEPTH BELOW FINISHED GRADE IN TURF AREAS AND A 12" DEPTH IN PLANTING AREAS.
- PLANTING AREA TOPSOIL SHALL BE AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 65% PULVERIZED SOIL, AMENDED TURF AREA SOIL SHALL BE STANDARD TOPSOIL. TOPSOIL SHALL CONFORM TO TECHNICAL SPECIFICATIONS FREE OF HEAVY CLAY, ROCKS, AND DIRT CLODS OVER 1 INCH IN DIAMETER, AS WELL AS CONTAIN 3%-5% OF ORGANIC MATTER.
- 8. SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.

- CONTRACTOR SHALL STAKE INDIVIDUAL TREE AND SHRUB LOCATIONS AND OUTLINE HERBACEOUS PLANTING AREAS, SHALL ADJUST LOCATIONS WHEN REQUESTED, AND SHALL OBTAIN PROJECT LANDSCAPE ARCHITECT'S ACCEPTANCE PRIOR TO PLANTING.
- 10. ALL PLANT ID TAGS SHALL BE REMOVED AFTER INSTALLATION.
- 11. CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUNDCOVER AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH. A SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
- 12. WEED FABRIC SHALL BE REQUIRED UNDER MULCH.
- 13. MULCH SHALL NOT BE HELD IN PLACE BY PLASTIC NET, OR SPRAYING OF ANY BINDER MATERIAL OR ASPHALT EMULSION.
- 14. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
- 15. PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
- 16. THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
- 17. WEEDING, LANDSCAPE MAINTENANCE, AND WATERING TO BE THE CONTRACTOR'S RESPONSIBILITY DURING CONSTRUCTION. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED BY LANDSCAPE CONTRACTOR DURING WARRANTY PERIOD IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE. PLANTING AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES.
- 18. THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING AFTER WARRANTY PERIOD EXPIRES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED.

LANDSCAPE SCHEDULE

	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	<u>HT</u>		
DECIDUOUS TREES									
AB 39 ACER SACCHARUM 'BAILSTA' FALL FIESTA® SUGAR MAPLE B & B 2.5" CAL MIN									
	AO	20	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	B & B	2.5" CAL MIN			
	AU	1	ACER TRUNCATUM X PLATANOIDES 'JFS-KW187'	URBAN SUNSET® MAPLE	B&B	2.5" CAL MIN			
	CF	8	CARPINUS BETULUS 'FASTIGIATA'	PYRAMIDAL EUROPEAN HORNBEAN	B&B	2.5" CAL MIN			
	GI	1	GLEDITSIA TRIACANTHOS INERMIS 'SKYCOLE'	SKYLINE® HONEY LOCUST	B&B	2.5" CAL MIN			
	GM	13	GINKGO BILOBA 'MAGYAR'	MAGYAR MAIDENHAIR TREE	B&B	2.5" CAL MIN	(1 4-14)		
	UF	17	ULMUS X 'FRONTIER'	FRONTIER ELM	B&B	2.5" CAL MIN			
	ZG	5	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE JAPANESE ZELKOVA	B&B	2.5" CAL MIN			
EVERGRE		S							
	CX	12	CUPRESSUS X LEYLANDII	LEYLAND CYPRESS	B&B	(100000)	6, HL WIN		
	JS	15	JUNIPERUS EXCELSA 'STRICTA'	UPRIGHT SPINY GREEK JUNIPER	B&B		6' HT MIN		
	PR	3	PRUNUS CAMPANULATA	CHERRY LAUREL	B&B	A TOTAL A	6, HT WIN		
	PS2 TC	4 2	PINUS STROBUS TSUGA CANADENSIS	WHITE PINE EASTERN HEMLOCK	B & B B & B		6' HT MIN		
	TH	12	THUJA OCCIDENTALIS 'THIN MAN'	THIN MAN AMERICAN ARBORVITAE	B&B		6, HT WIN		
	TV	25	THUJA OCCIDENTALIS 'EMERA'	EMERALD GREEN ARBORVITAE	B&B	_	6, HT WIN		
	£0. X 0	20	THOUT COOLETT ALIC LINE TO	LINE TO LES STEELT ALBORYTALE			o min		
ORNAMENTAL TREES									
	AA	3	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	B&B	1.5" CAL MIN	8' HT MIN		
	AB2	1	ACER PALMATUM 'BLOODGOOD'	BLOODGOOD JAPANESE MAPLE	B&B	1.5" CAL MIN	8' HT MIN		
	AD	6	ACER PALMATUM 'DISSECTUM ATROPURPUREUM'	PURPLE THREADLEAF JAPANESE MAPLE	B&B	1.5" CAL MIN	8' HT MIN		
	AG	4	ACER GRISEUM	PAPERBARK MAPLE	B&B	1.5" CAL MIN	8' HT MIN		
	CK2	10	CORNUS KOUSA	KOUSA DOGWOOD	B&B	1.5" CAL MIN	8' HT MIN		
	MO	16 1	MALUS X 'SHOTIZAM' MALUS X 'SHOTIZAM'	SHOWTIME™ CRABAPPLE SHOWTIME™ CRABAPPLE	B&B	1.5" CAL MIN 1.5" CAL MIN	8' HT MIN 8' HT MIN		
	MS PS3	3	PRUNUS X 'SNOWFOZAM'	SNOW FOUNTAINS® WEEPING CHERRY	B & B B & B	1.5" CAL MIN	8, HT WIN		
	SR	3	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	B&B	1.5" CAL MIN	8' HT MIN		
	OIX.	J	STAINGARE HOUSEANA WORT OLEK	TVORT OLEROAL ANESE TREE EIEAG	Dab	1.5 OAL MIN	O III WIII		
	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE		
DECIDUO									
	BP	34	BERBERIS THUNBERGII 'PYRUZAM'	PYGMY RUBY™ JAPANESE BARBERRY	1 GAL	24" OC	24" HT MIN		
	CA	49	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	1 GAL	24" OC	18" HT MIN		
	HL	98	HYDRANGEA ARBORESCENS 'LIME RICKY'	LIME RICKY HYDRANGEA	1 GAL	24" OC	18" HT MIN		
	HP	24	HYDRANGEA PANICULATA 'BOBO'	BOBO HYDRANGEA	1 GAL	24" OC	18" HT MIN		
	HQ RD	53 9	HYDRANGEA QUERCIFOLIA ROSA X 'RADTKO'	OAKLEAF HYDRANGEA DOUBLE KNOCK OUT® RED ROSE	1 GAL 1 GAL	24" OC 24" OC	24" HT MIN 18" HT MIN		
	VB2	64	VIBURNUM X 'BURKWOODII'	BURKWOOD VIBURNUM	5 GAL	24 00	24" HT MIN		
	WB	35	WEIGELA FLORIBUNDA 'BOKRASPIWI	SPILLED WINE WEIGLEA	1 GAL	24" OC	18" HT MIN.		
EVERGREEN SHRUBS									
	TM	23	TAXUS X 'DENSIFORMIS'	YEW	1 GAL	24" OC	24" HT MIN		
	TW	32	THUJA PLICATA 'SUGAR AND SPICE'	SUGAR AND SPICE WESTERN RED CEDAR	1 GAL	24" OC	24" HT MIN		
GRASSES	i i								
J. 1.00L0	СК	21	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS		36" OC	24" HT MIN		
	PV	30	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS		36" OC	24" HT MIN		
	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING			
SHRUB AF	REAS								
OT INOU AL	CK3	237	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	B.R.				
	ML	8	MISCANTHUS SINENSIS 'LITTLE ZEBRA'	LITTLE ZEBRA EULALIA GRASS	B.R.				
	PH	278	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	B.R.				
	PN	73	PANICUM VIRGATUM 'NORTHWIND'	NORTHWIND SWITCH GRASS	B.R.				
	PS4	65	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	B.R.				
FLOWERIN	PARTITION OF THE PARTY OF THE P			DOMANOW WILL DEED V COVER OF THE	4.041	2611.00			
	EP	14	ECHINACEA X 'POWWOW WILD BERRY'	POWWOW WILD BERRY CONEFLOWER	1 GAL	36" OC			
	HH	18 45	HEMEROCALLIS X 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL	24" OC			
	NF	45	NEPETA X FAASSENII 'WALKERS LOW'	WALKERS LOW CATMINT	1 GAL	24" OC			
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT			SPACING	
-								(A)	
GROUND	COVERS								
	CP2	32	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	2" PLUG			24" o.c.	
	LC	6	LIRIOPE SPICATA 'VARIAGATA'	CREEPING LILYTURF	1 GAL			24" o.c.	
	vc	245	VINCA MINOR	COMMON PERIWINKLE	2" PLUG			12" o.c.	
	10	270	THOTHINOIT	SOMMON I ENTITIVE	2 1 100			12 0.0.	

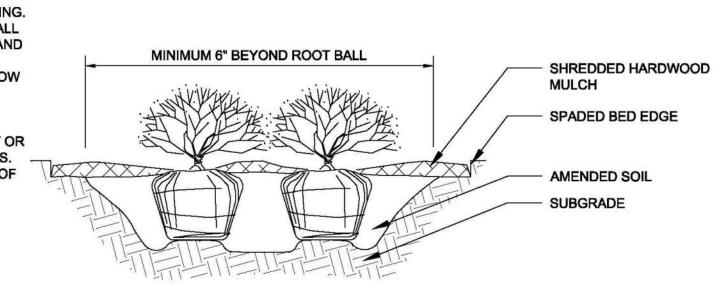
	ORDINANCE CHART			
REQUIREMENT	REQUIRED	PROVIDED		
BUILDING BASE PLANTINGS - Section 6 Ta	ble 12.0.6.			
 Buildings across from parking area, public road or residential use/zone district must inlcude 3 understory trees per 100 LF and 33 shrubs per 100 LF 	 North buildings (4) adjacent to 146th Street: 224 LF/100 = 2.24 2.24 * 3 = 7 understory trees 2.24 * 33 = 74 shrubs 	7 understory trees74 shrubs		
LANDSCAPE BUFFER YARDS - Section 7 Ta	ble 12.0.7.E.			
Within planned developments there must include 3 staggered canopy or evergreen trees and 33 staggered shrubs per 100 LF within a 50 FT. landscape width.	 West Perimeter: Existing Trees Preserved South Perimeter: 114 LF 114/100 = 1.14 1.14*3 = 3 canopy trees 1.14*33 = 38 shrubs East Perimeter: Existing Trees Preserved North Perimeter: 875 total LF (315 LF of perimeter to preserve existing trees) 560/100 = 5.6 5.6*3 = 17 canopy trees 5.6*33 = 184 shrubs 	West Perimeter: Existing Trees Preserved South Perimeter: 3 canopy trees 38 shrubs East Perimeter: Existing Trees Preserved North Perimeter: 17 canopy trees 184 shrubs		
SCREENING OF TRASH ENCLOSURES - Arti	cle 12 Section 8			
 Trash enclosures shall be screened by understory evergreens spaced 3' o.c. 	N/A	N/A		
STREET TREES - Article 6 Part M				
• 1 canopy tree/60 LF	Internal • Entry Road: 1340 LF 1340/60 = 22 canopy trees • Townhome Loop Road: 1390 LF 1390/60 = 23 canopy trees External • Campus Parkway: 875 LF 875/60 = 15 canopy trees • 141st Street: 114 LF 114/60 = 2 canopy trees	 Internal Entry Road: 22 canopy trees Townhome Loop Road: 22 canopy trees (dispersed around townhomes to fit between driveways) External Campus Parkway: 15 canopy trees 141st Street: 2 canopy trees 		
Open space - Article 12 Section 8	- Commence of the Commence of	I		
Common open space areas to consist of 15% of the site	Total area: 17.07 acres 17.07*.15 = 2.56 acres open space	• 2.56 acres open space		
DETENTION/RETENTION PONDS - Article	12 Section 4			
Detention/Retention Pponds shall be landscaped. Such landscaping should include shade and ornamental trees, evergreens, shrubs, hedges, turf, groundcover, and other plant materials.	 Such landscaping should include shade and ornamental trees, evergreens, shrubs, hedges, turf, groundcover, and other plant materials 	• 18 shade trees, 7 ornamental trees, 7 evergreen trees		



SEEDING LEGEND

A RATE OF 350 LBS/ACRE (8LBS/1000 SQFT)

AMERITURF FRONTRUNNER BLEND TALL FESCUE; APPLY AT



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GRAND COMMUNITI LLC

ORIGINAL ISSUE: 03/20/2024

KHA PROJECT NO. 170227014 SHEET NUMBER

NOTES:

- APPLY CORRECTIVE PRUNING.
- 2. SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
- REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (IF USED) SYNTHETIC MATERIAL SHALL BE REMOVED FROM PLANTING BED. FOR CONTAINER GROWN SHRUBS, REMOVE CONTAINER AND LOOSEN ROOTS PRIOR TO INSTALLATION.
- REMOVE OR CORRECT GIRDLING ROOTS. 5. PLUMB AND BACKFILL WITH AMENDED SOIL PER LANDSCAPE NOTES. WATER THOROUGHLY WITHIN
- 6. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR SHRUBS EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.

SHRUB PLANTING

NG LEGEND HARDWOOD SHREDDED MULCH,

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	IV.	Λι.	Ш	.UI	٦II

NATURAL BROWN COLOR