

LINCOLN STATE PARK

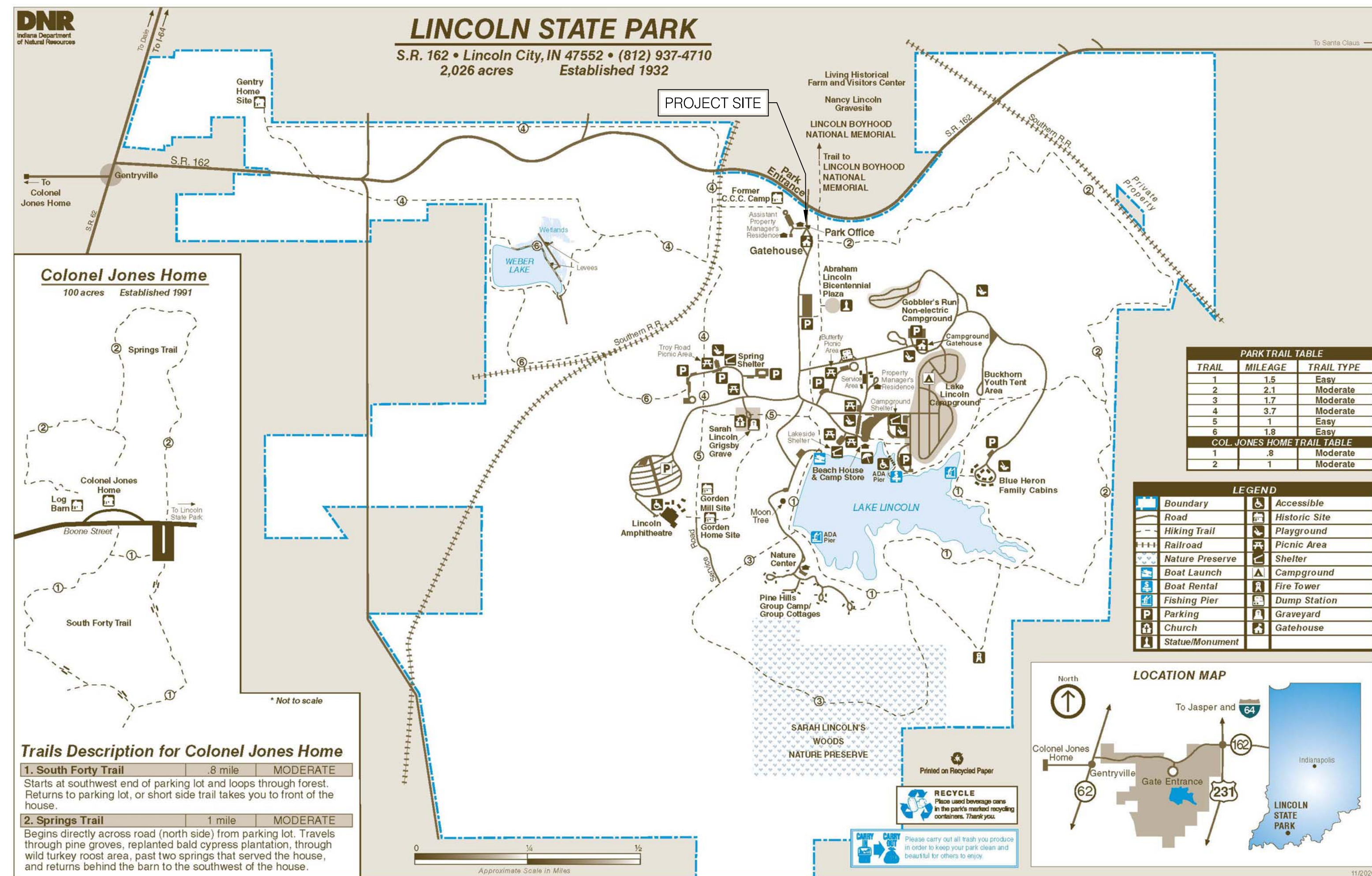
PHASE 5 PARK ENTRY IMPROVEMENTS

INDIANA DEPARTMENT OF NATURAL RESOURCES PROJECT # ENG2303730652

LINCOLN CITY, INDIANA

SHEET SCHEDULE

SHEET NO.	DESCRIPTION
C001	TITLE SHEET
C100	NOT USED
C201	DEMOLITION PLAN - SITE PLAN - BASE BID
C202	DEMOLITION PLAN - SITE PLAN - ALTERNATE BID 1 ADD
C301	GRADING PLAN - BASE BID
C302	GRADING PLAN - ALTERNATE BID 1 ADD
C401	UTILITY PLAN - BASE BID
C402	UTILITY PLAN - ALTERNATE BID 2 ADD
C501	DETAILS - BASE BID

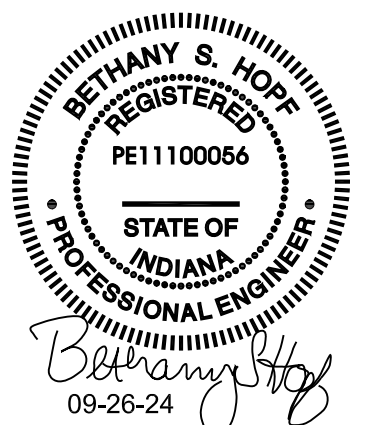


DNR
Indiana Department of
Natural Resources

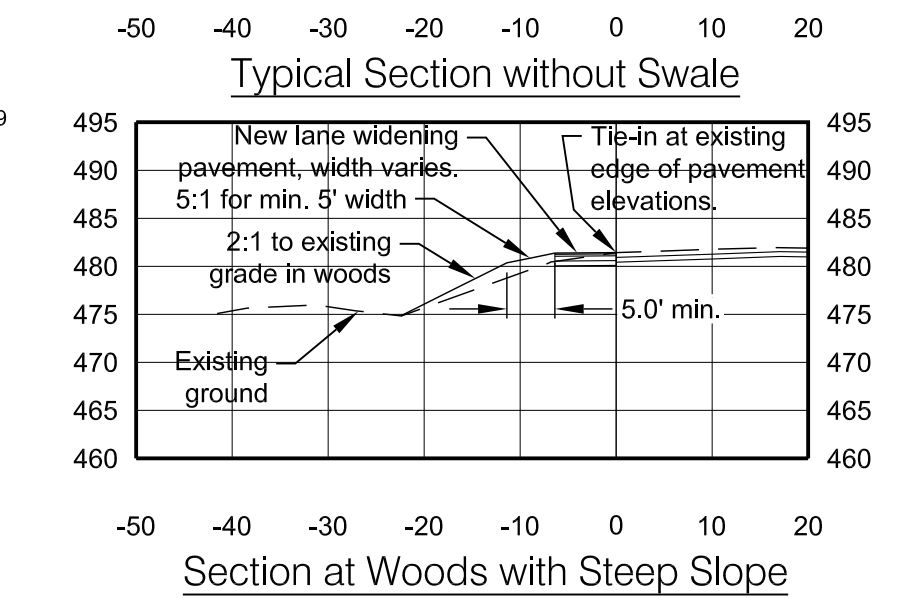
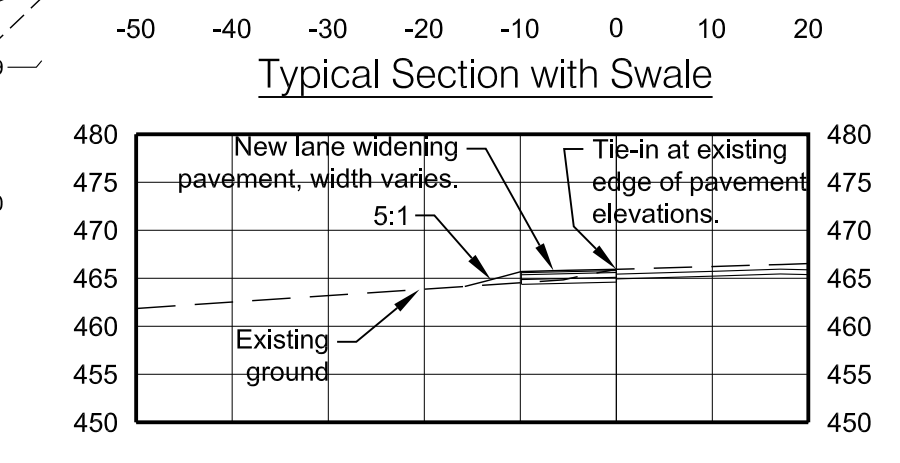
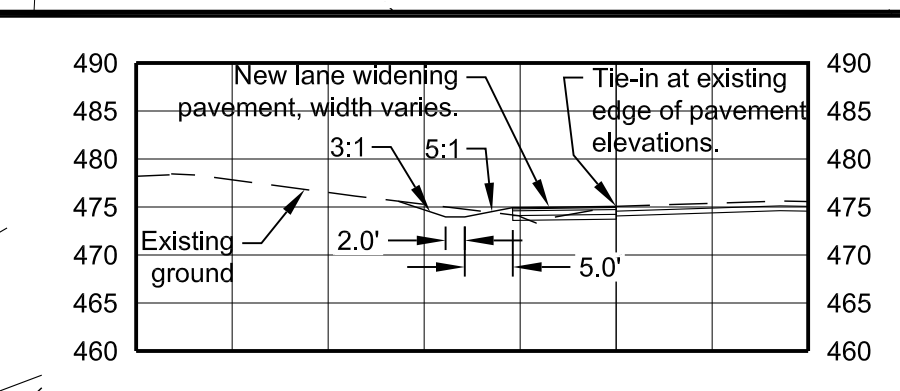
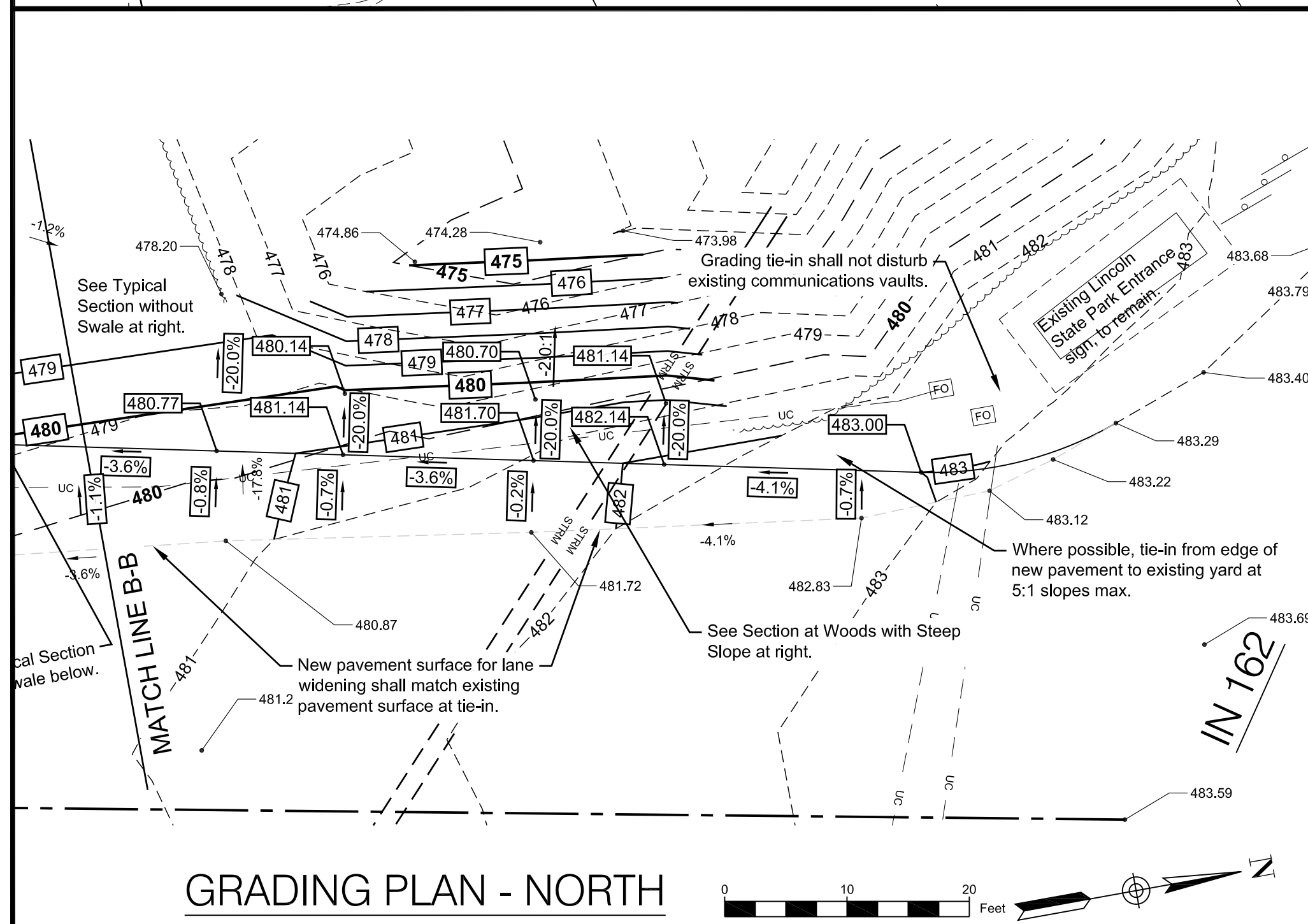
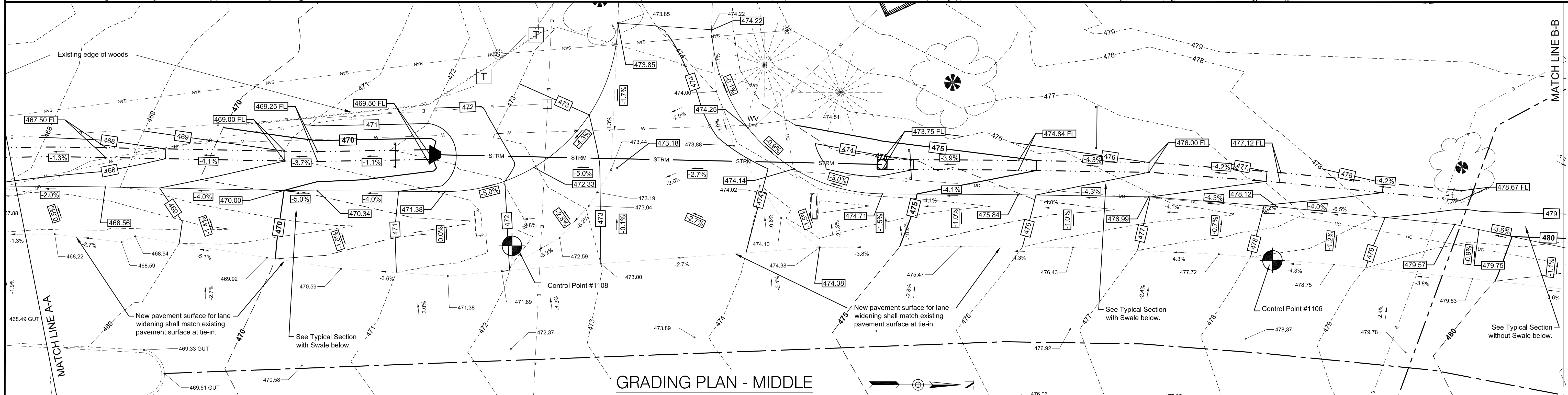
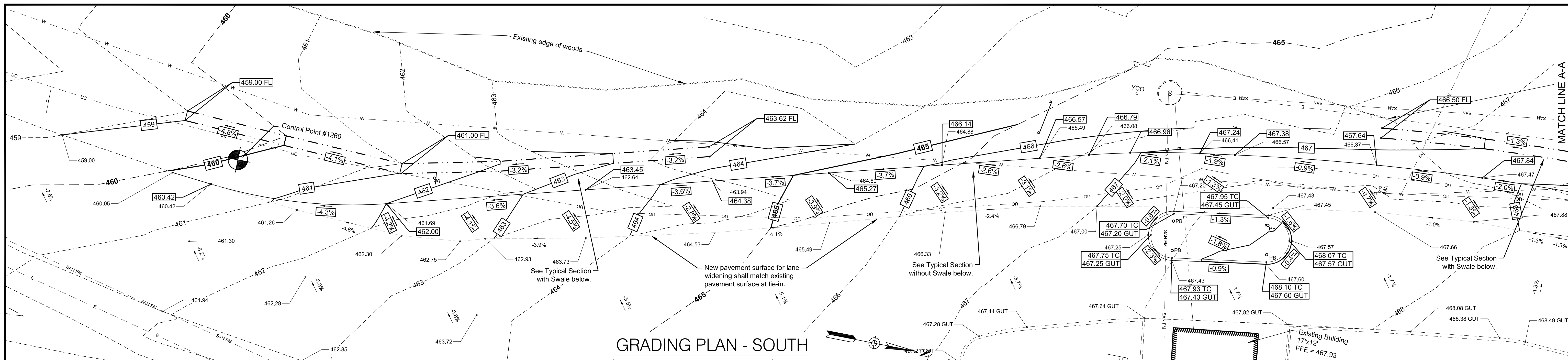
Division Of Engineering
402 W. Washington Street, Rm W299
Indianapolis, IN 46204-2739

Universal
DESIGN
ASSOCIATES, INC.

910 Main Street
P.O. Box 99
Ferdinand, IN 47532



BID DOCUMENTS
09-26-24



Know what's below. Call before you dig.

Existing Legend

- WV Existing Survey Control Point
- Existing Sign
- YCO Existing Water Valve
- Existing Clean Out
- Existing Sanitary Sewer Manhole
- Existing Light Pole
- GV Existing Gas Valve
- FO Existing Fiber Optic Vault
- TP Existing Telephone Pedestal
- Existing Property Boundary
- Existing Easement
- W Existing Water Line
- SAN Existing Sanitary Sewer Main
- SAN FM Existing Sanitary Sewer Force Main
- STRM Existing Storm Sewer Main
- E Existing Underground Electric Line
- GAS Existing Gas Line
- UC Existing Communications Line

NOTE:
See sheet C201 for control point locations and data.

Grading Legend

- 148.27 TC Proposed Top of Curb and Gutter Grades
- 147.77 GUT Proposed Gutter Grade
- 124.35 FL Proposed Flow Line Grade
- 148.27 Proposed General Spot Grade
- 133.22 GUT Existing Gutter Grade
- 132.47 Existing General Spot Grade
- 9.5% Existing Surface Slope and Direction
- 9.5% Proposed Surface Slope and Direction
- 132 Existing Contour
- 132 Proposed Contour

Proposed Legend

- Proposed Sign
- PB Proposed Pipe Bollard
 \blacksquare Proposed Storm Manhole
 \blacktriangle Proposed Flared End Section
 \odot Proposed Light Pole
- TP Proposed Telephone Pedestal
- STRM Proposed Storm Sewer Main
- E Proposed Underground Electric Line
- UC Proposed Communications Line

- GRADING PLAN NOTES**
- All elevations shown are to finished surfaces.
 - During the construction phase and after completion of the project, straw bale barriers or silt fencing at the end of the down slope of disturbed areas shall be utilized to prevent soil from leaving the construction site until all disturbed areas are reseeded and grass growing. Mud run-off is prohibited throughout the project area.
 - All trash and debris shall be removed from site. No open burning will be permitted. Also precautions shall be taken to minimize dust from the construction area and the tracking of dirt onto paved areas is prohibited.
 - Contractor shall remove existing topsoil from cut/fill areas and pavement areas and stockpile on site for use in new grass areas.
 - After topsoil is removed, contractor shall proof-roll the entire site with a moderately loaded dump truck. If yielding occurs, undercut and backfill with suitable soil to a minimum 95% compaction as determined by (ASTM-D-1557).
 - Engineered earth fill shall be compacted to 95% of the Modified Proctor Maximum Dry Density (ASTM-D-1557).
 - Contractor shall place 6" minimum of topsoil at all grass areas and 18" of topsoil at all landscape areas as shown on Site Plan.
 - All finish grading of final surfaces shall provide a smooth surface free of ridges or depressions greater than 2". Finish surfaces shall be paved or seeded and strawed for a dense stand of lawn as noted on site plan.

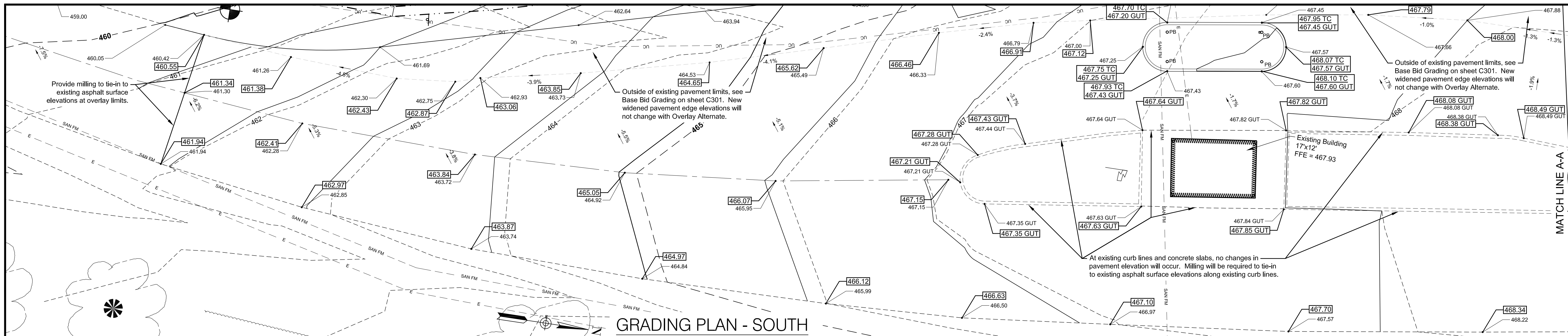
ALL ITEMS SHOWN ON THIS SHEET ARE INCLUDED IN BASE BID



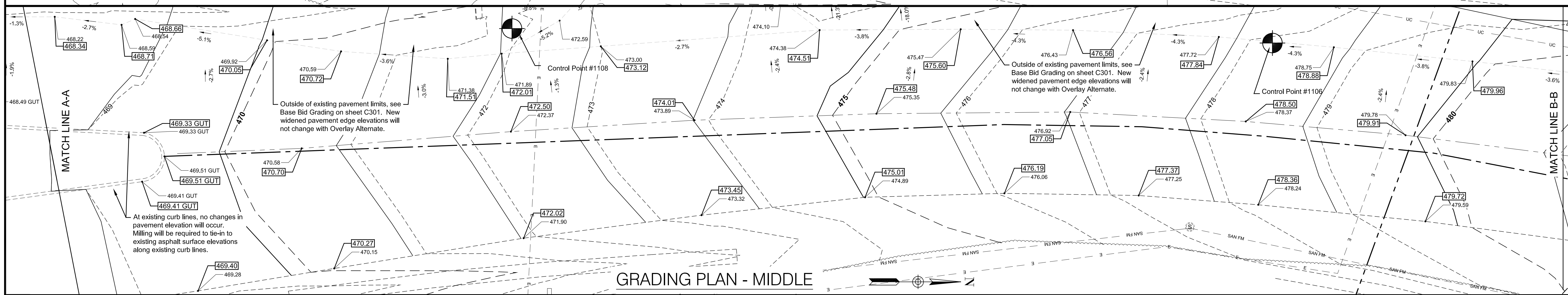
Universal DESIGN ASSOCIATES, INC.
 LINCOLN STATE PARK PHASE 5 PARK ENTRY IMPROVEMENTS LINCOLN CITY, INDIANA
 910 Main Street, Ferdinand, IN 47532
 Phone: 812/267-72831
 design@udassoc.com
 www.udassoc.com

GRADING PLAN BASE BID
 DATE: 09-26-24
 USA PROJECT NO.: LA23102
 CNR PROJECT NO.: ENG2303730652
 SHEET NO.: C301

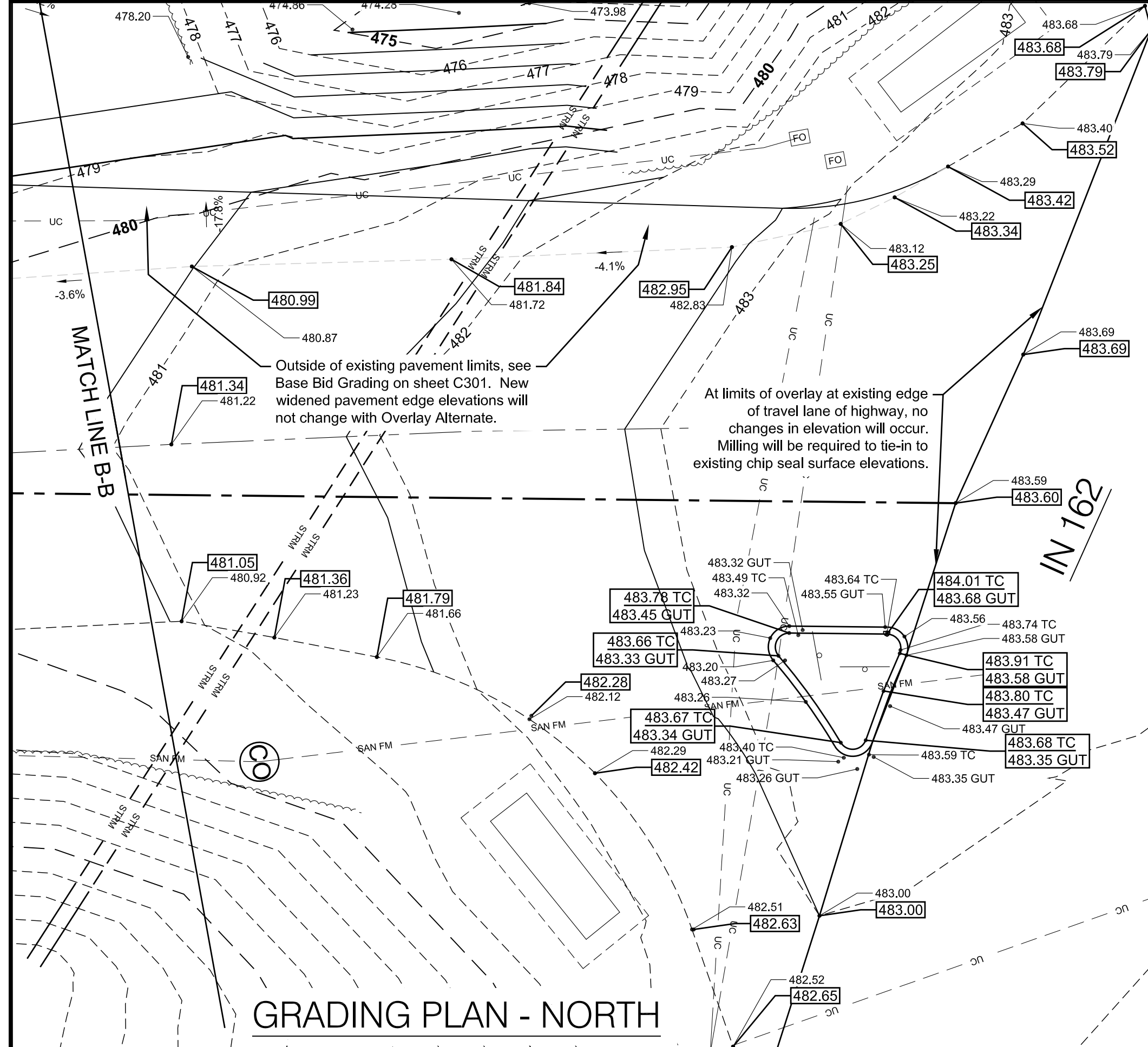
SCALE: 1" = 10'
 DRAWN: BSH
 CHECKED: BSH
 APPROVED: BSH



GRADING PLAN - SOUTH



GRADING PLAN - MIDDLE



GRADING PLAN - NORTH

- GRADING PLAN NOTES**
- All elevations shown are to finished surfaces.
 - During the construction phase and after completion of the project, straw bale barriers or silt fencing at the end of the down slope of disturbed areas shall be utilized to prevent soil from leaving the construction site until all disturbed areas are reseeded and grass growing. Mud run-off is prohibited throughout the project area.
 - All trash and debris shall be removed from site. No open burning will be permitted. Also precautions shall be taken to minimize dust from the construction area and the tracking of dirt onto paved areas is prohibited.
 - Contractor shall remove existing topsoil from cut/fill areas and pavement areas and stockpile on site for use in new grass areas.
 - After topsoil is removed, contractor shall proof-roll the entire site with a moderately loaded dump truck. If yielding occurs, undercut and backfill with suitable soil to a minimum 95% compaction as determined by (ASTM-D-1557).
 - Engineered earth fill shall be compacted to 95% of the Modified Proctor Maximum Dry Density (ASTM-D-1557).
 - Contractor shall place 6" minimum of topsoil at all grass areas as shown on Site Plan.
 - At the end of construction, all disturbed lawn areas and new grass areas shall be loosened up and graded to a uniform slope to elevations shown, ready for seeding and strawing by contractor.
 - All finish grading of final surfaces shall provide a smooth surface free of ridges or depressions greater than 2". Finish surfaces shall be paved or seeded and strawed for a dense stand of lawn as noted on site plan.

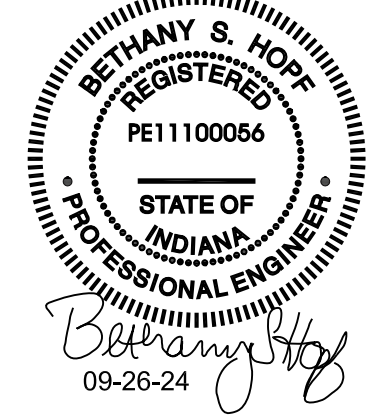


- Existing Legend**
- Existing Survey Control Point
 - Existing Sign
 - WV Existing Water Valve
 - YCO Existing Clean Out
 - Existing Sanitary Sewer Manhole
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 - Existing Gas Valve
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NOTE:
See sheet C201 for control point locations and data.

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ALL ITEMS SHOWN ON THIS SHEET ARE INCLUDED IN ALTERNATE BID 1 ADD ASPHALT OVERLAY.



LINCOLN STATE PARK
 PHASE 5 PARK ENTRY IMPROVEMENTS
 LINCOLN CITY, INDIANA

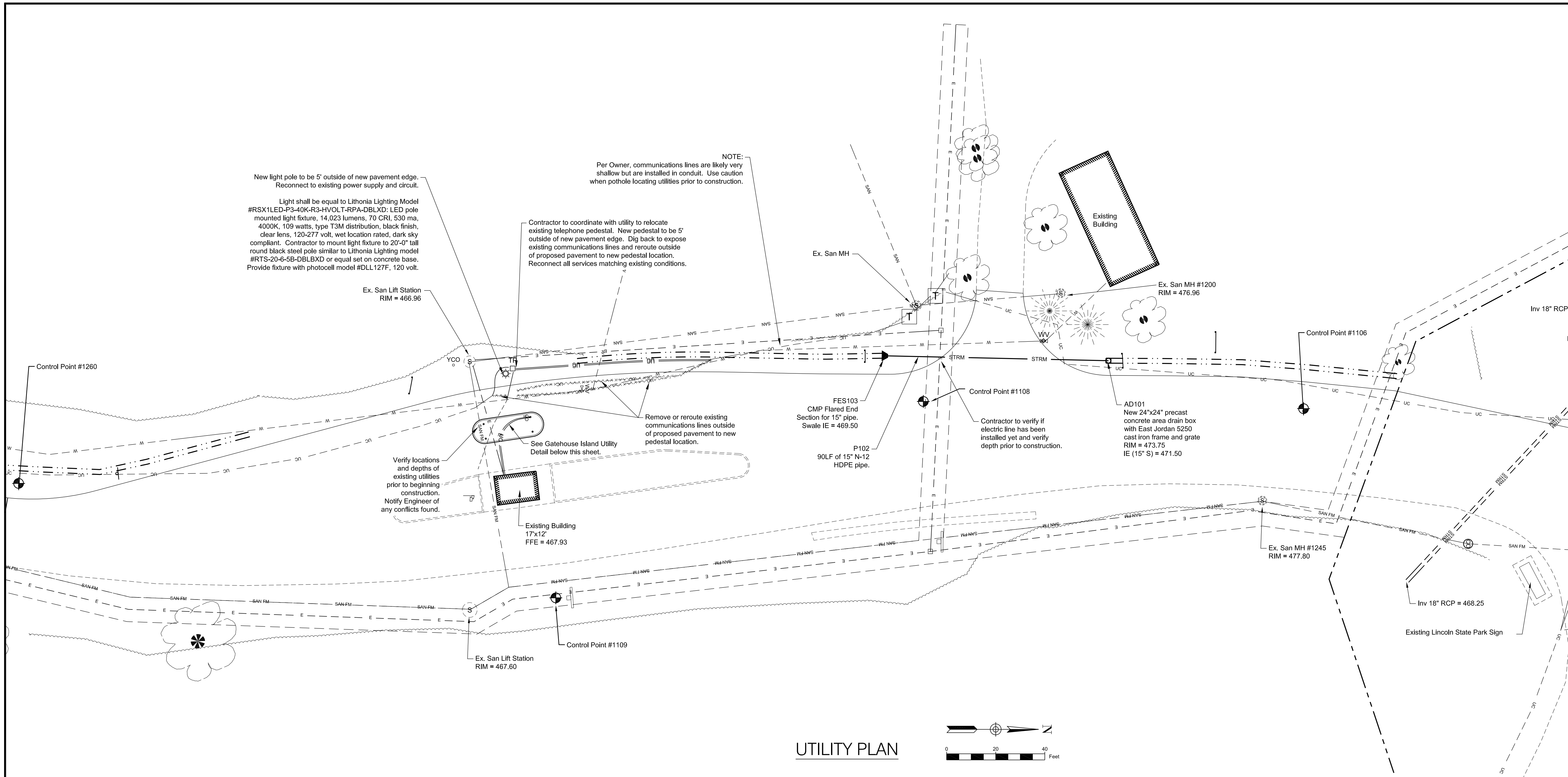
UNIVERSAL DESIGN ASSOCIATES, INC.
 910 Main Street
 Ferdinand, IN 47532
 Phone: 812/267-2831
 design@udassoc.com
 www.udassoc.com

DATE: BY: REMARKS:

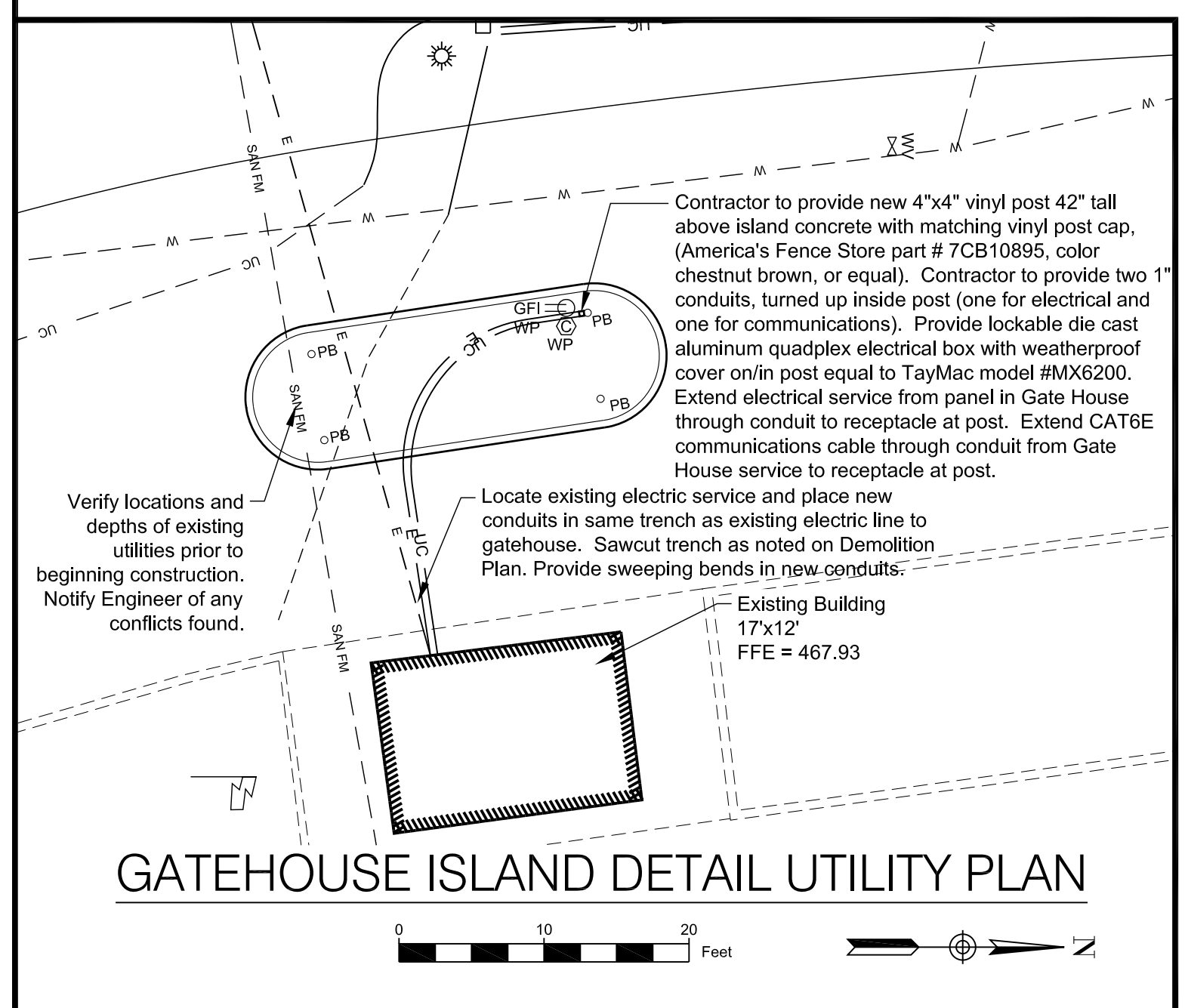
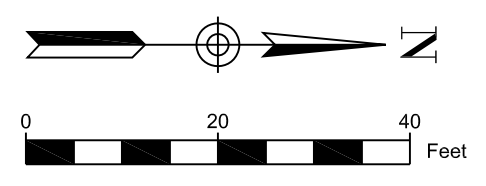
GRADING PLAN ALTERNATE BID 1 ADD
 SHEET NO. C302

SCALE: 1" = 10'

DATE: 09-26-24
 USA PROJECT NO.: LA23102
 CNR PROJECT NO.: ENG2303730652



UTILITY PLAN



Existing Legend		Proposed Legend	
	Existing Survey Control Point		Proposed Sign
	Existing Sign		Proposed Pipe Bollard
	Existing Water Valve		Proposed Storm Manhole
	Existing Clean Out		Proposed Flared End Section
	Existing Sanitary Sewer Manhole		Proposed Light Pole
	Existing Light Pole		Proposed Telephone Pedestal
	Existing Gas Valve		Proposed Storm Sewer Main
	Existing Fiber Optic Vault		Proposed Swale Flow Line
	Existing Telephone Pedestal		Proposed Underground Electric Line
	Existing Property Boundary		Proposed Communications Line
	Existing Easement		
	Existing Water Line		
	Existing Sanitary Sewer Main		
	Existing Sanitary Sewer Force Main		
	Existing Storm Sewer Main		
	Existing Flow Line		
	Existing Underground Electric Line		
	Existing Gas Line		
	Existing Communications Line		

UTILITY LOCATION NOTES

- CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES IN WORK AREAS PRIOR TO BEGINNING CONSTRUCTION.
- UTILITY LOCATIONS SHOWN ON THESE PLANS ARE BASED ON SURVEYED LOCATIONS OF AT GRADE VISIBLE ITEMS AS MUCH AS POSSIBLE. OTHER UNDERGROUND FACILITIES ARE SHOWN BASED ON ORIGINAL CONSTRUCTION PLANS.
- UPON AWARD OF CONTRACT, CONTRACTOR IS REQUIRED TO LOCATE ALL UTILITIES AND SHALL NOTIFY ENGINEER OF ANY CONFLICTS FOUND PRIOR TO BEGINNING CONSTRUCTION.

GENERAL UTILITY PLAN NOTES

- Contractor shall maintain minimum cover depths over existing facilities:
 - Sanitary sewers shall have a minimum of 3' of cover.
 - Water lines shall have a minimum of 42" of cover to provide protection from freezing.
- Contractor shall be responsible for trenching and backfilling property to the original subgrade. All backfill for utility lines under drive areas shall be #53 stone and compacted in lifts of 9" maximum. All backfill for utility line in earth areas shall be earth fill and compacted in lifts of 9" maximum. Settlement shall not be accepted.
- All storm piping shall be HDPE N-12 pipe with smooth inner wall or approved equal.
- Contractor to provide asbuilts of all field verified utilities within the work area. As-builts to include locations, approximate depths, materials, and sizes of lines located or installed.

NOTE:
See sheet C201 for control point locations and data.

ALL ITEMS SHOWN ON THIS SHEET ARE INCLUDED IN BASE BID



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www.udassoc.com

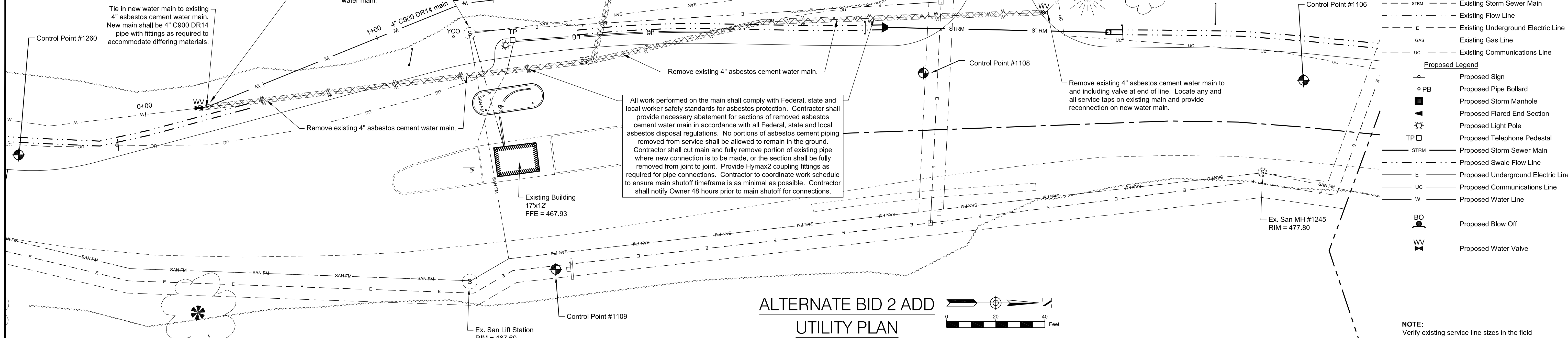
LINCOLN STATE PARK
PHASE 5 PARK ENTRY IMPROVEMENTS
LINCOLN CITY, INDIANA

DATE: 09-26-24
PROJECT NO.: LA23102
SHEET NO.: ENG2303730652
C-401

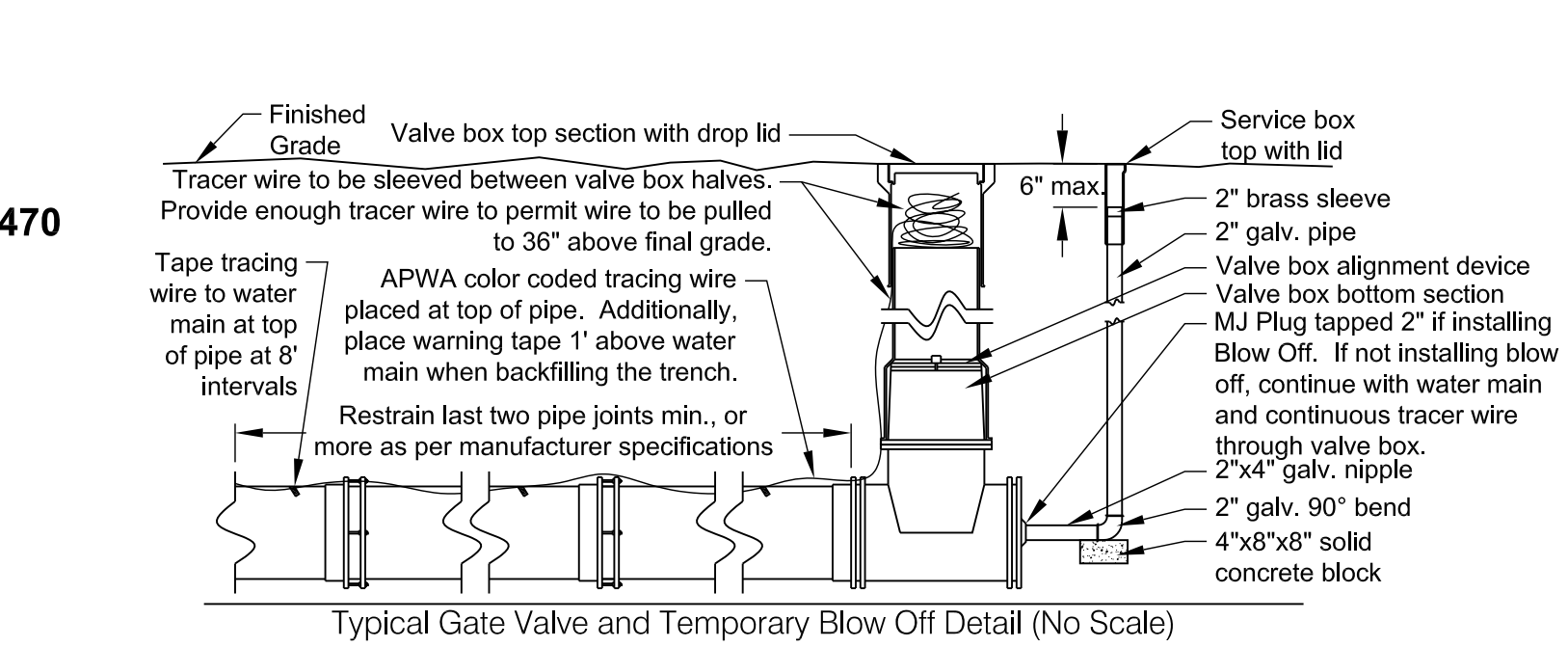
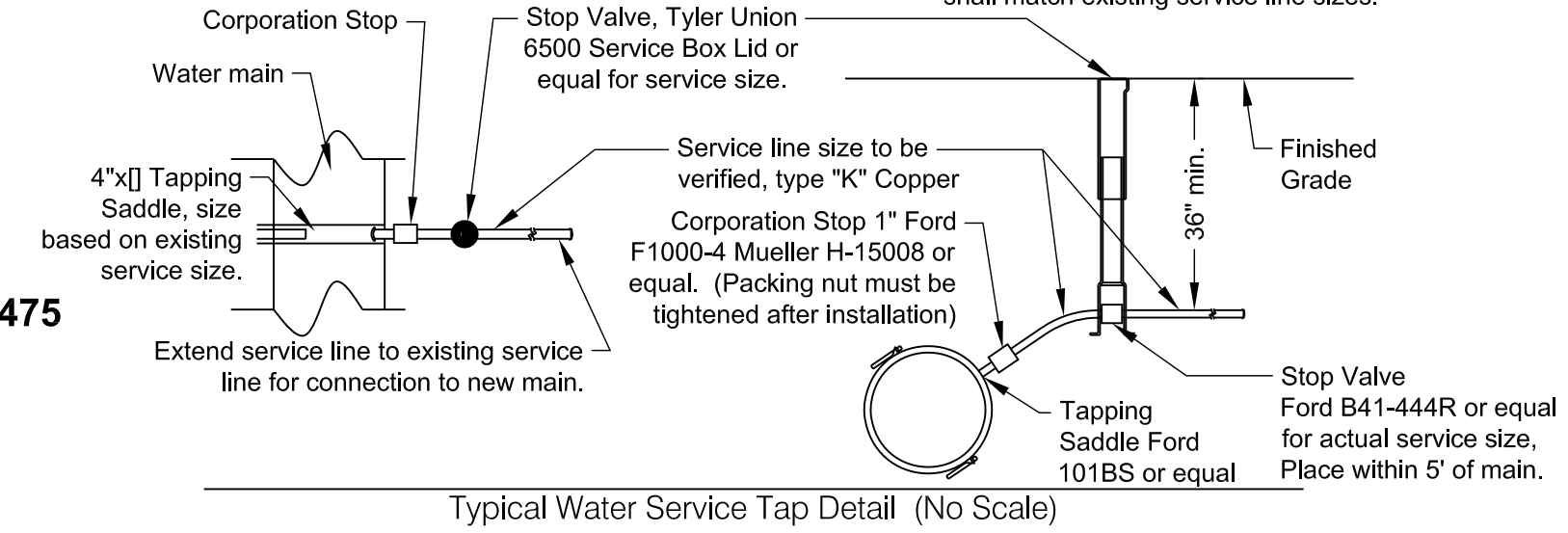
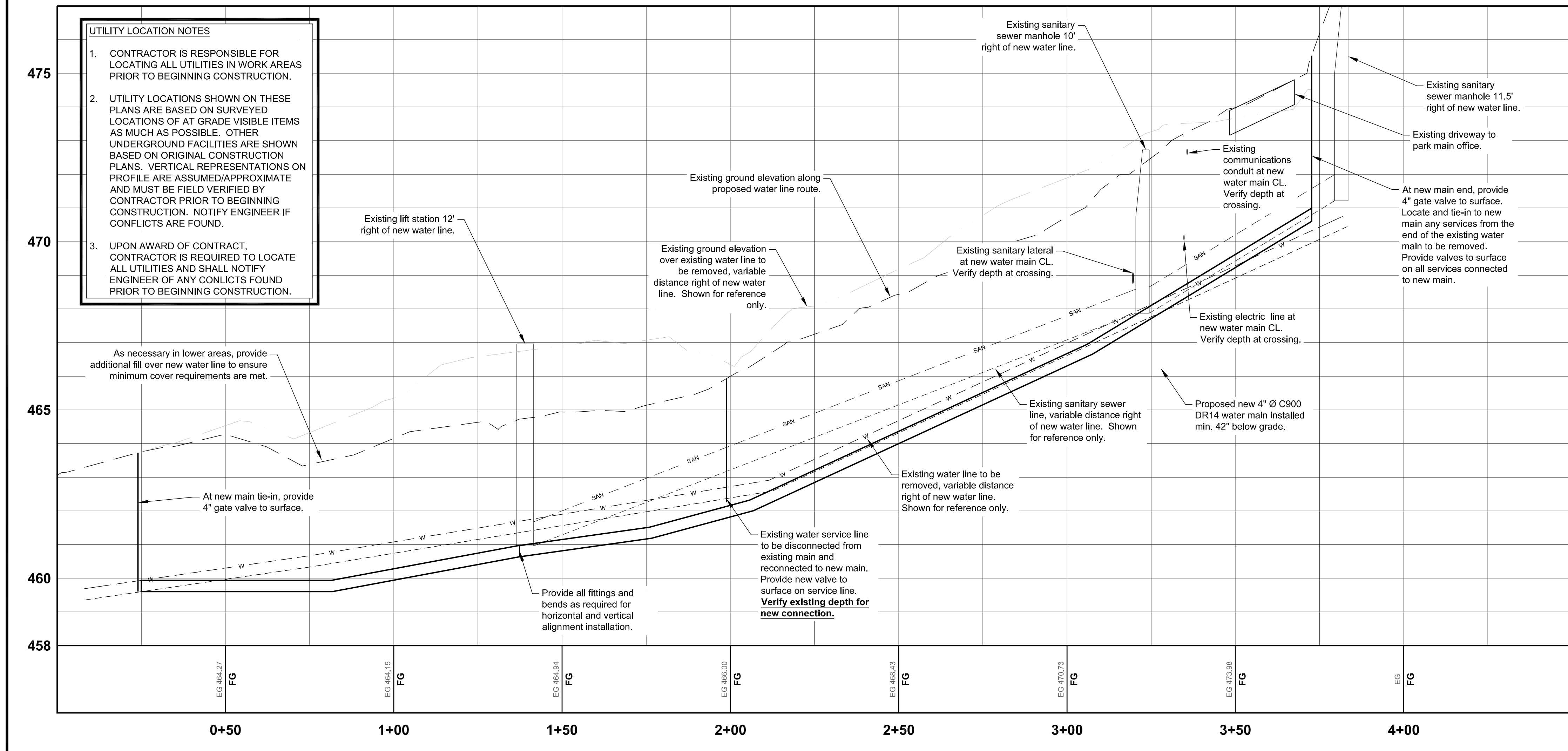
SCALE: 1" = 20'

WATER LINE RELOCATION NOTES

- Contractor shall maintain minimum cover depths over existing facilities:
 - Sanitary sewers shall have a minimum of 3' of cover.
 - Water lines shall have a minimum of 42" of cover to provide protection from freezing.
- Contractor shall be responsible for trenching and backfilling property to the original subgrade. All backfill for utility lines under drive areas shall be #53 stone and compacted in lifts of 9" maximum. All backfill for utility line in earth areas shall be earth fill and compacted in lifts of 9" maximum. Settlement shall not be accepted.
- All storm piping shall be HDPE N-12 pipe with smooth inner wall or approved equal.
- Contractor to provide asbuilts of all field verified utilities within the work area. As-builts to include locations, approximate depths, materials, and sizes of lines located or installed.
- Where water lines and sewers cross and the water line cannot be placed above or below the sewer with a minimum of 18" vertical clearance, the sewer must be constructed of PVC ASTM-D 2241 (SDR21) with gasketed compression type joints or water works grade cast or ductile iron pipe with mechanical joints within ten feet of water lines.
- Where water lines and sewers run parallel and a minimum separation distance of ten feet cannot be maintained, the sewer must be constructed of PVC ASTM-D-2241 (SDR21) with gasketed compression type joints or water works grade cast or ductile iron pipe with mechanical joints.

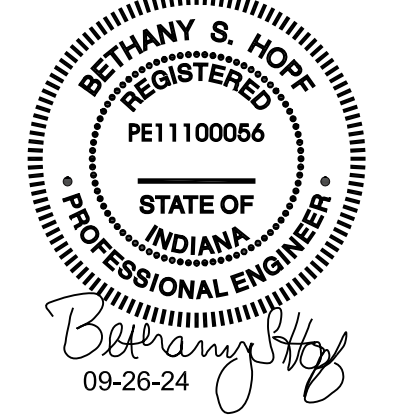


Alignment - Water Main Relocation PROFILE



NOTE:
See sheet C201 for control point locations and data.

ALL ITEMS SHOWN ON THIS SHEET ARE TO BE INCLUDED IN ALTERNATE BID 2 ADD WATER LINE RELOCATION.



- UTILITY LOCATION NOTES**
- CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES IN WORK AREAS PRIOR TO BEGINNING CONSTRUCTION.
 - UTILITY LOCATIONS SHOWN ON THESE PLANS ARE BASED ON SURVEYED LOCATIONS OF AT GRADE VISIBLE ITEMS AS MUCH AS POSSIBLE. OTHER UNDERGROUND FACILITIES ARE SHOWN BASED ON ORIGINAL CONSTRUCTION PLANS. VERTICAL REPRESENTATIONS ON PROFILE ARE ASSUMED/APPROXIMATE AND MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION. NOTIFY ENGINEER IF CONFLICTS ARE FOUND.
 - UPON AWARD OF CONTRACT, CONTRACTOR IS REQUIRED TO LOCATE ALL UTILITIES AND SHALL NOTIFY ENGINEER OF ANY CONFLICTS FOUND PRIOR TO BEGINNING CONSTRUCTION.

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 - Proposed Communications Line
 - Proposed Water Line
 - Proposed Blow Off
 - Proposed Water Valve

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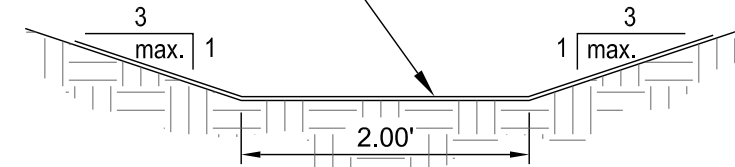
Universal DESIGN
 ASSOCIATES, INC.

LINCOLN STATE PARK
 PHASE 5 PARK ENTRY IMPROVEMENTS
 LINCOLN CITY, INDIANA

DATE: 09-26-24
 USA PROJECT NO.: LA23102
 CNR PROJECT NO.: ENG2303730652
 SHEET NO.: C-402

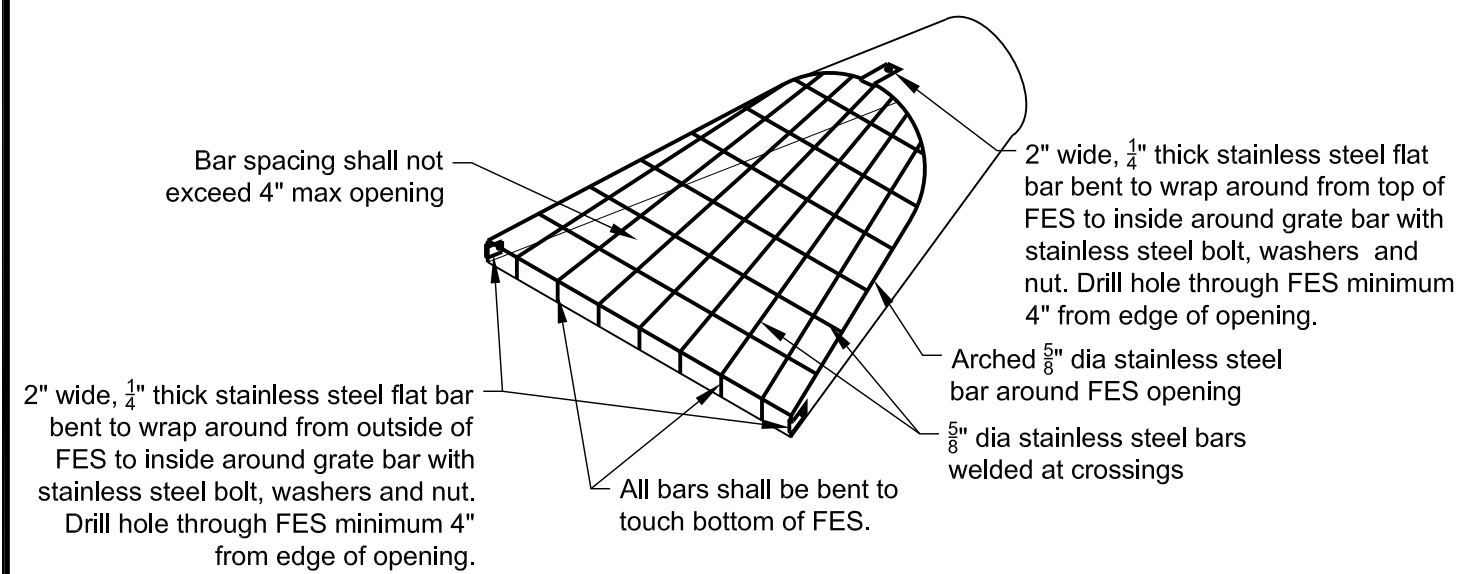
SCALE: 1" = 20'

Provide erosion control blanket over seeding up the side slope to a total water depth of 12".



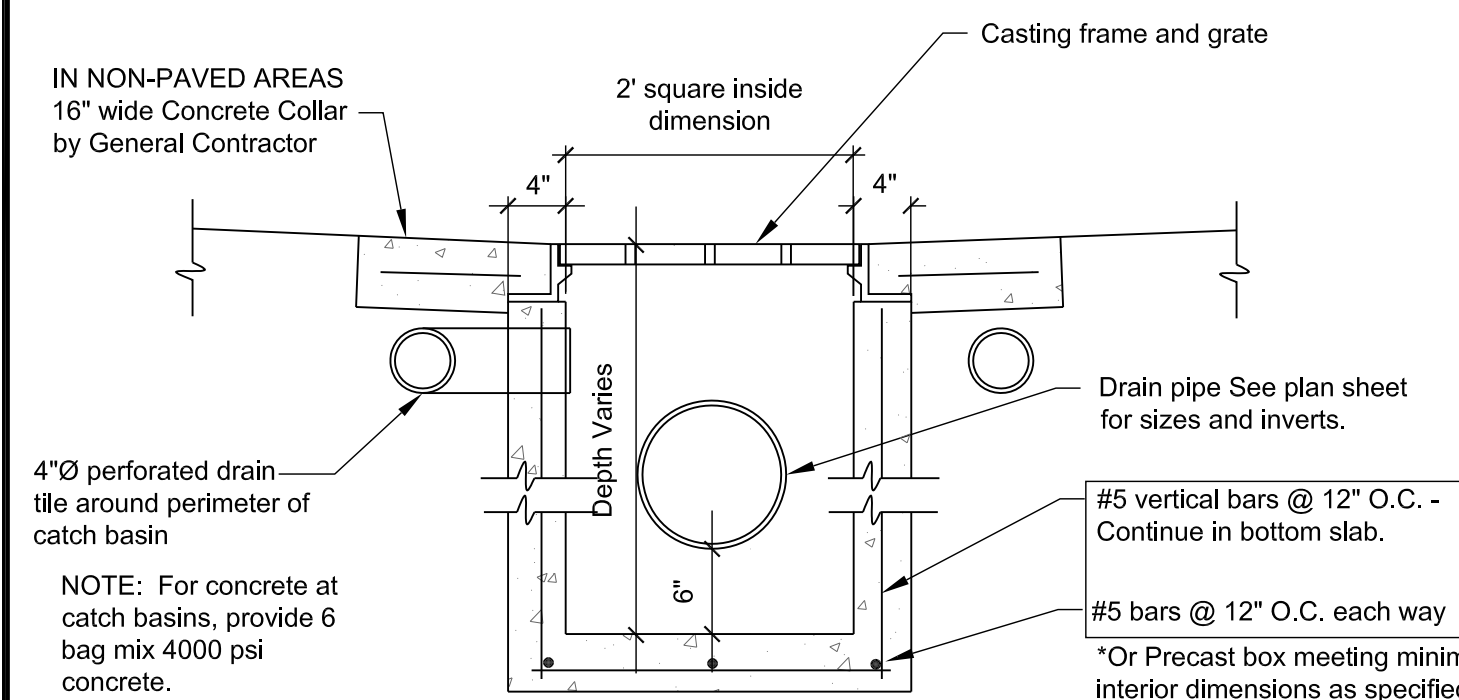
Typical Grassed Swale Section

Scale : 3/4" = 1'-0"



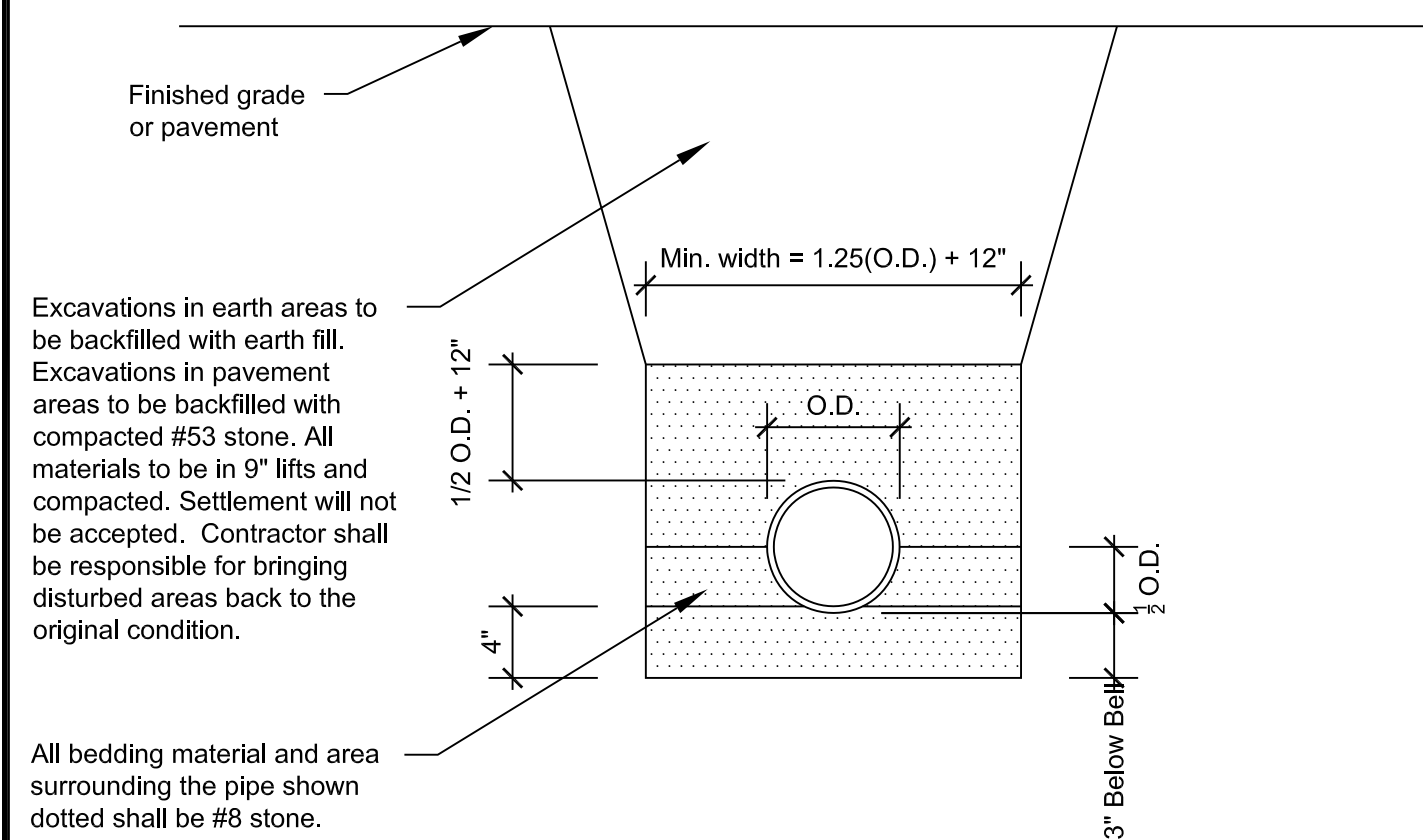
Safety Screen on FES103

No Scale



Catch Basin AD101 Detail

NO SCALE



Typical Pipe Bedding Detail

Not to Scale

Product Details:

BollardGard post sleeves enhance and protect the appearance of steel bollards in all indoor and outdoor applications. BollardGard is constructed from 1/8" thick high density polyethylene (HDPE) and 3M #5100 reflective tape for durability and long service life. Our patented GripperTabs installation is the fastest and easiest way to secure the bollard cover. BollardGard post sleeves are UV stable and **guaranteed against fading and cracking for 5 years.**

BollardGard covers are available in many stock colors, and can be produced in custom colors; PMS color matching to your sample (paint, fabric) is available, as well.

No cutting charges! When measuring the height of steel bollards, we recommend adding 2'-4" to the length of your bollard cover in order to allow for concrete "domes" and any inconsistency in steel bollard height.

We stock, cut, pack and ship from our centrally located Ohio facility. Whether you buy direct from Innoplast, or one of our qualified distributors, you get the same fast service, excellent value and no extra charges.

- Product name: BollardGard Bollard Cover - BC752, BC760 & BC772
- Diameter: 7.1" inside diameter / 7.35" outside diameter
- Length: 52", 60" & 72" outside height, custom lengths available
- Wall thickness: .125" wall thickness
- Material: HDPE
- Accessories: GripperTabs included for installation! foam installation available by request
- Bollard Colors: Black, blue, bright green, brown, gray, light gray, green, orange, red, white, yellow
- Reflective Material: 3M #5100 Scotchlite Film - available in black, blue, green, orange, red, white, yellow
- Warranty: 5-year warranty against cracking & fading

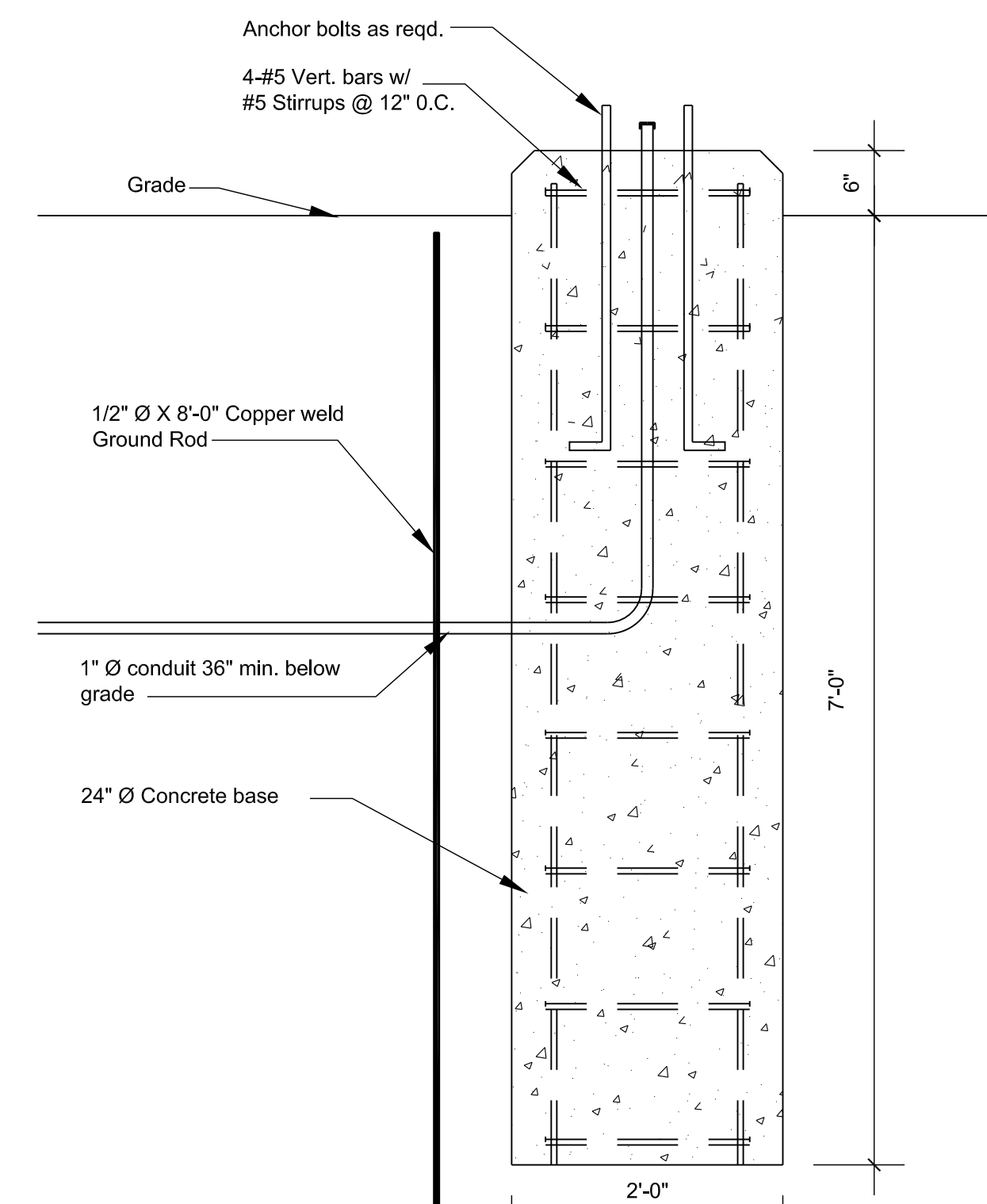
Standard Bollard Covers



5718 Transportation Blvd • Garfield Heights, OH 44125 • 800-516-9287 • www.innoplast.com

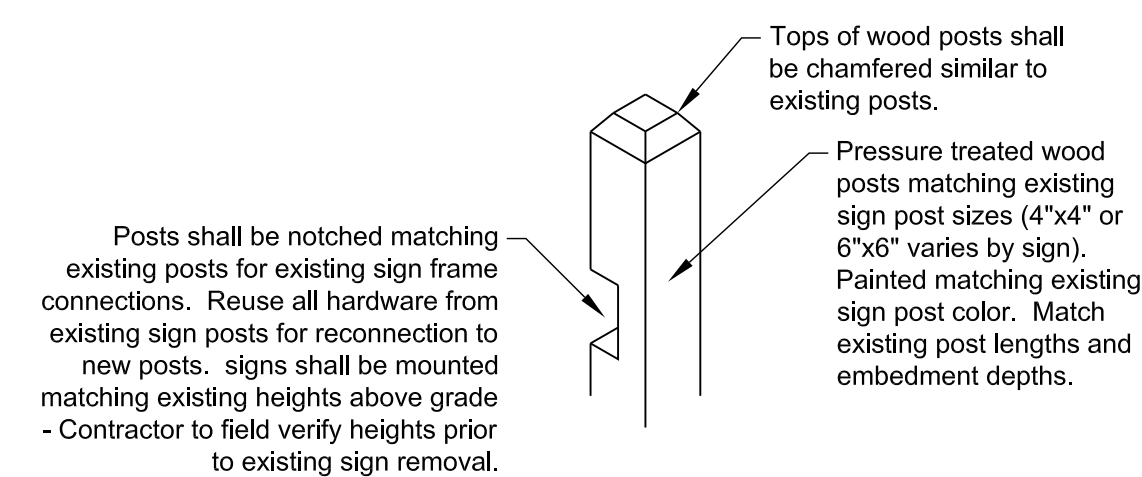
Bollard Sleeve Specification

Innoplast shown for reference or equal
Scale: 3/4" = 1'-0"



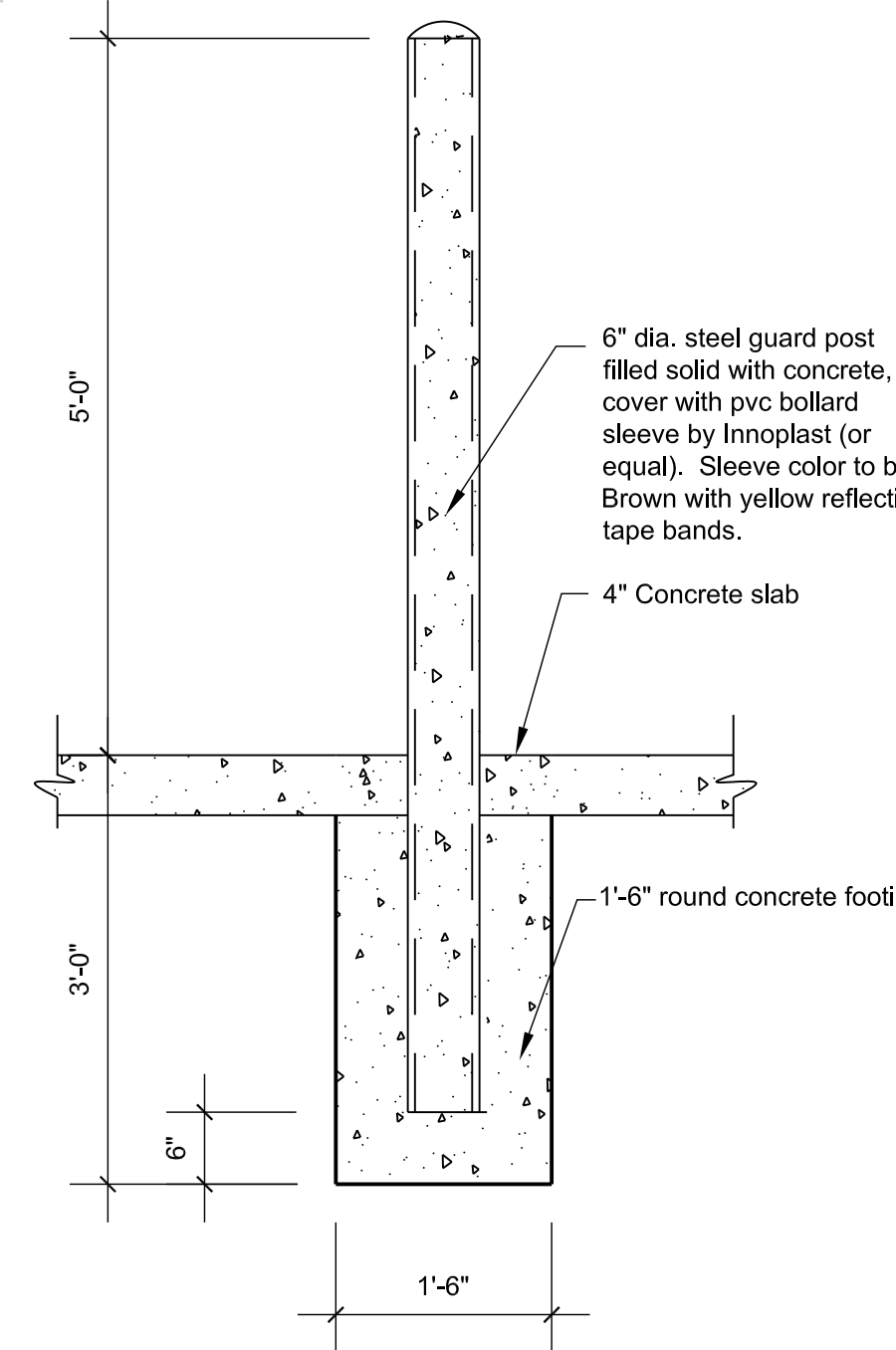
Typical Light Pole Base Detail

SCALE : 3/4" = 1'-0" by Electrical Contractor



Wood Sign Post Detail

Scale: 3/4" = 1'-0"

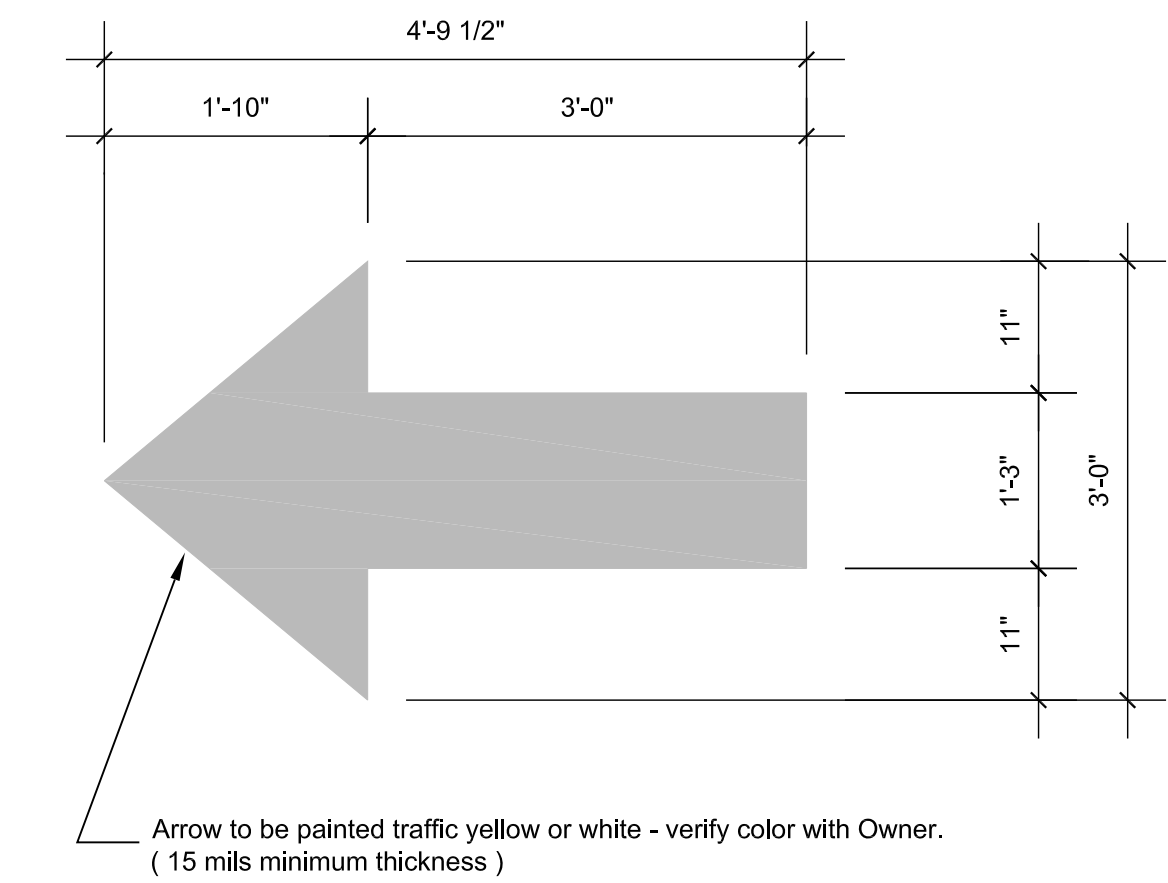


Pipe Bollard Detail

Scale: 3/4" = 1'-0"

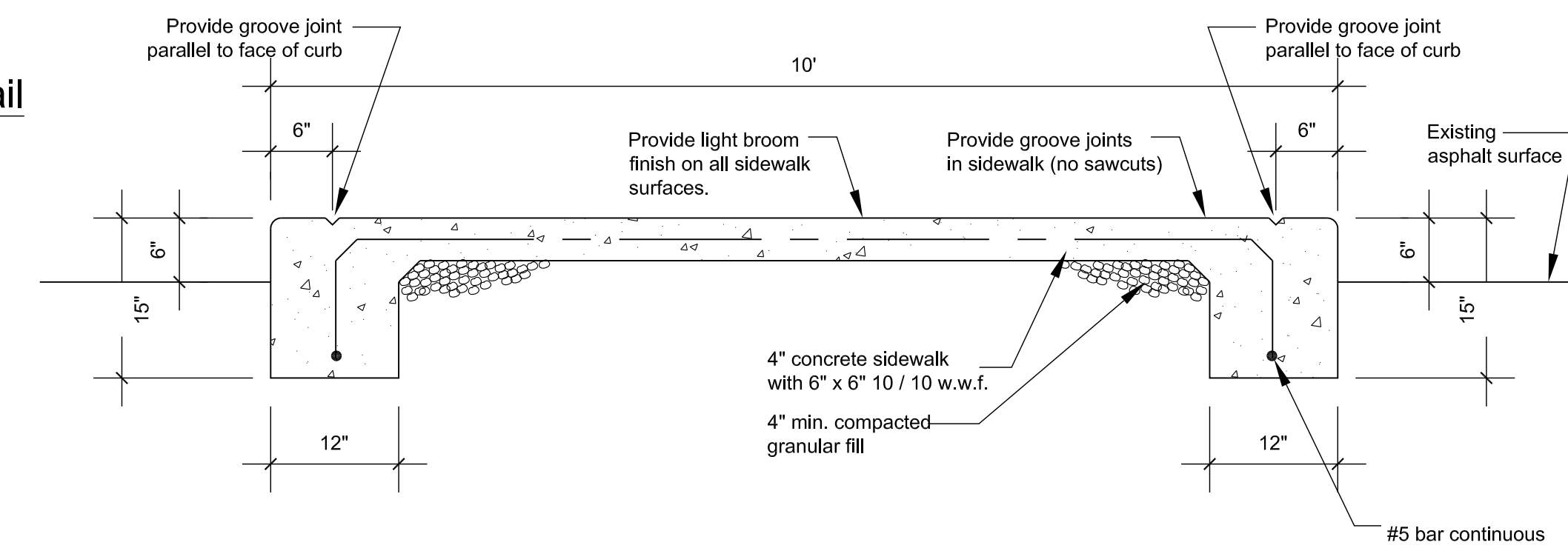
Thermo-Plastic Pavement-Marking Paint Specification:

Alkyd-resin type, lead and chromate free, ready mixed, complying with AASHTO M 248, Type N, colors complying with FS TT-P-1952.
Colors: White or yellow as indicated on the plan and in the details.



Typical Traffic Arrow

Scale : 3/4" = 1'-0"



Gatehouse Island Detail

Scale: 3/4" = 1'-0"

Permanent Seeding Recommendations Lawns and High-Maintenance Areas		
Seed Mixtures	Rate per Acre Pure Live Seed (lbs)	Optimum Soil pH
1. Bluegrass	140	5.5 to 7.0
2. Perennial ryegrass (turf type)	60 90	5.6 to 7.0
3. Tall fescue (turf type) ² - bluegrass	170 30	5.6 to 7.5
Permanent Seeding Recommendations Channels and Areas of Concentrated Flow		
Seed Mixtures	Rate per Acre Pure Live Seed (lbs)	Optimum Soil pH
1. Perennial ryegrass - white clover ¹	150 2	5.5 to 7.0
2. Kentucky bluegrass - smooth bromegrass - switchgrass - timothy - perennial ryegrass - white clover ²	20 10 3 4 10 2	5.5 to 7.5
3. Tall fescue ¹ - white clover ²	150 2	5.5 to 7.5
4. Tall fescue ² - perennial ryegrass - Kentucky bluegrass	150 20 20	5.5 to 7.5

¹ For best results: a) legume seed should be inoculated; b) seeding mixtures containing legumes should preferably be spring-seeded, although the grass may be fall-seeded and the legume frost-seeded (see Dormant Seeding and Frost Seeding); and c) if legumes are fall-seeded, do so in early fall.

² Tall fescue provides little cover for, and may be toxic to some species of wildlife.

Notes:
An oat or wheat companion or nurse crop may be used with any of the above permanent seeding mixtures, at the following rates:

- (a) spring oats - 1/4 to 1/2 bushel per acre
- (b) wheat - no more than 1/2 bushel per acre

A high potential for fertilizer, seed and mulch to wash exists on steep banks, cuts and in channels and areas of concentrated flow.



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LINCOLN STATE PARK
PHASE 5 PARK ENTRY IMPROVEMENTS
LINCOLN CITY, INDIANA

DRAWN: BSH
CHECKED: BSH
APPROVED: BSH

DATE: 09-26-24
SCALE: AS NOTED

STATE OF INDIANA
REGISTERED PROFESSIONAL ENGINEER
PE11100056

USA PROJECT NO.: 09-26-24
LA23102
ENR PROJECT NO.: ENG2303730652
SHEET NO.: C501