ADDENDUM NO. 1

April 23, 2024

Whiteland Community High School Phase 2A
300 E. Main Street
Whiteland, IN 46184

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated April 2, 2024, by Lancer Associates Architecture. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 through ADD 1-2 and attached Specification Sections 01 21 00 – Revised Contract Allowances, Logistics Plan, Guideline Schedule, and Lancer Associates Architecture Addendum No. 1, dated April 23, 2024, consisting of 63 Pages, Specification Sections 11 68 33 – Field Events & Athletic Equipment, 32 18 23 – Track Surfacing Latex System, 32 31 13 – Chain Link Fencing and Gates, 33 14 17 – Site Water Utility Service Laterals, 33 42 00 – Stormwater Conveyance, and Drawings 100, 210, 302, 303, 400, 401, 402, 403, 500, 501, 600, 601, 700, 900, 901, 902, 903, 904, 1004, L101, L102, L201, L202, L402, ES102, ES103, and ES301.

A. SPECIFICATION SECTION 00 20 00 – INFORMATION AVAILABLE TO BIDDERS

Add the following Paragraphs:

E. WCHS Phase 2A Site Logistics plan dated April 23, 2024 is being issued as part of this addendum for reference by all contractors.
F. WCHS Phase 2A Guideline Schedule dated February 7, 2024 is being issued as part of this addendum for reference by all contractors.

B. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

A. Bid Category No. 1 – Site Construction

Add the following Specification Sections:

11 68 33 – Field Events and Athletic Equipment
32 18 23 - Track Surfacing Latex System

C. SPECIFICATION SECTION 01 21 00 – CONTRACT ALLOWANCES

1. Delete this section in its entirety and replace with the attached revised section.

SECTION 01 21 00 – ALLOWANCES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including amended General Conditions and other Division-1 Specification Sections, apply to work of this Section.

1.02 REQUIREMENTS INCLUDED

A. The Specifications contain Allowances for particular items, methods of construction, quantities of materials, labor for certain items and these stated Allowances shall be included in the total lump sum bid price.
   1. Should the final amounts as determined from actual costs vary from these stated Allowances, the Contract price will be adjusted by Change Order as stated in the Conditions of the Contract.
   2. Under no circumstances shall work exceeding the stated Allowance amounts, proceed without a properly executed Change Order.

B. A "Schedule of Allowances" showing amounts included in each prime Contract Sum, is included at the end of this Section.

C. Product/Materials Allowance: At the earliest feasible date after award of Contract, advise the Architect and Construction Manager of scheduled date when final selection and purchase of each product or system described by each Allowance must be accomplished in order to avoid delays in performance of the Work.
   1. As requested by the Architect, obtain and submit proposals for the work of each Allowance for use in making final selection; include recommendations for selection which are relevant to the proper performance of the Work.
   2. Purchase products and systems as specifically selected (in writing) by the Architect.
   3. Submit proposals and recommendations, for purchase of products or systems of Allowances, in form specified for Change Orders.
   4. When requested, submit a substantiated survey of quantities of materials, as shown in the "Schedule of Values", revised where necessary, and corresponding with Change Order quantities.
   5. Amount of Allowance includes:
      a. Net cost of product
      b. Delivery to the site
      c. Applicable taxes
   6. In addition to amount of Allowance, include in Bid, for inclusion in Contract Sum, Contractor's costs for:
      a. Handling at site, including unloading, uncrating and storage
      b. Protection from elements, from damage
      c. Labor, installation and finishing

d. Other expenses (e.g., testing, adjusting and balancing) required to complete installation
e. Overhead and profit

D. Contingency Allowance: Contingency allowance shall be used only as directed for Owner's purposes. Proposal shall be submitted by Contractor for work requested in format similar to that required for Change Orders. Compensation to the Contractor for work requested utilizing this Allowance shall be for only Contractor's costs as defined by Paragraph 7.3.7 of the General Conditions, except no compensation shall be allowed for overhead and profit. At time of Project closeout, unused amounts remaining in contingency allowance shall be credited to Owner by Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 PRODUCT ALLOWANCE

A. Bid category No. 01 SITE CONSTRUCTION - Band Tower (Concrete foundation should be included in the base bid.) $125,000

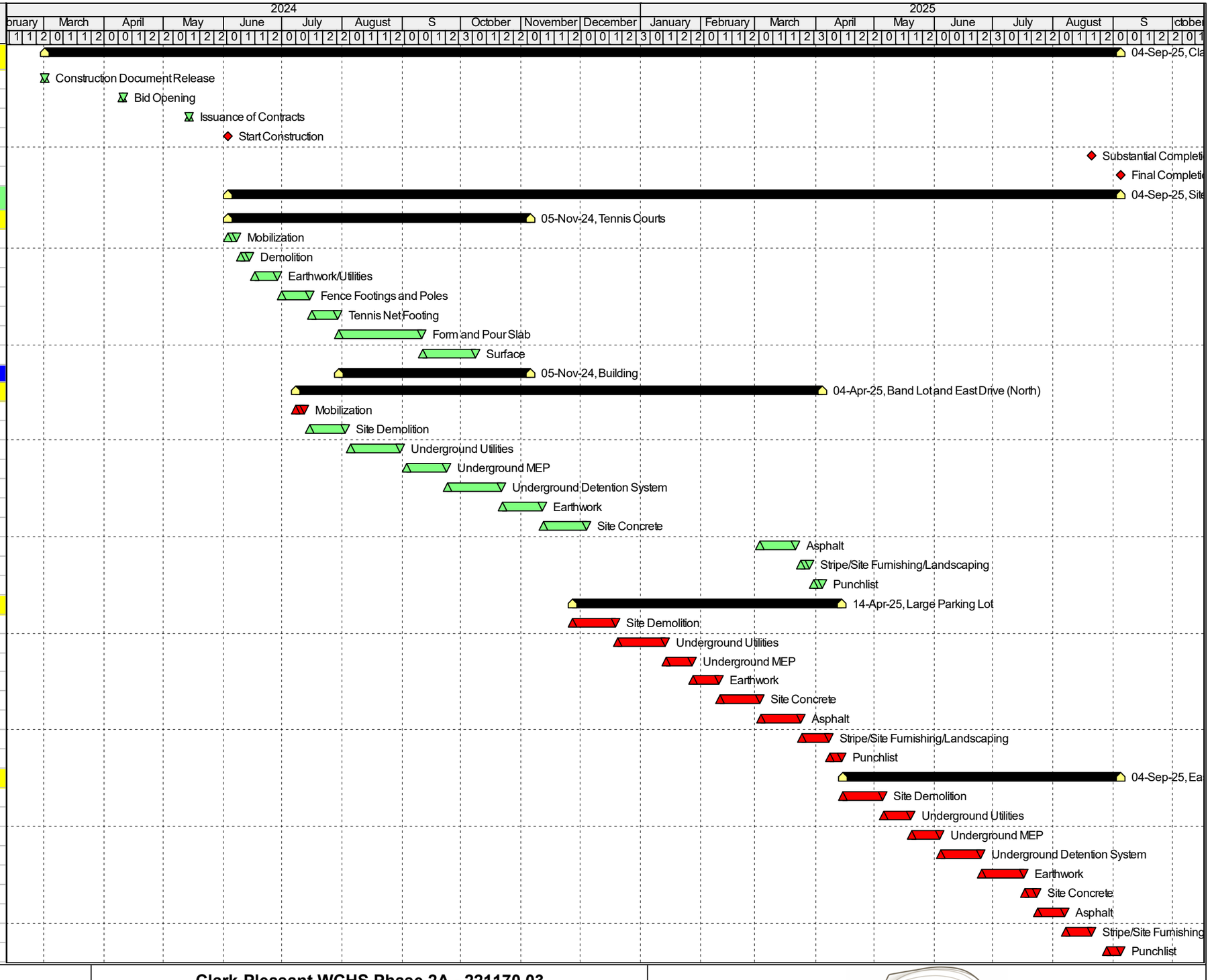
3.02 CONTINGENCY ALLOWANCES

Allow a lump sum additional work required but not indicated on Drawings or reasonably anticipated.

A. Bid Category No. 01 – SITE CONSTRUCTION $150,000
B. Bid Category No. 02 - ELECTRICAL $50,000

END OF SECTION 01 21 00

Activity Name	Original Duration	Start	Finish
Clark-Pleasant WCHS Phase	385	01-Mar-24	04-Sep-25
Construction Document Release	1	01-Mar-24*	01-Mar-24
Bid Opening	1	10-Apr-24	10-Apr-24
Issuance of Contracts	1	14-May-24	14-May-24
Start Construction	0	03-Jun-24	
Substantial Completion	0		20-Aug-25
Final Completion	0		04-Sep-25
Sitework	320	03-Jun-24	04-Sep-25
Tennis Courts	110	03-Jun-24	05-Nov-24
Mobilization	5	03-Jun-24	07-Jun-24
Demolition	5	10-Jun-24	14-Jun-24
Earthwork/Utilities	10	17-Jun-24	28-Jun-24
Fence Footings and Poles	10	01-Jul-24	15-Jul-24
Tennis Net Footing	10	16-Jul-24	29-Jul-24
Form and Pour Slab	30	30-Jul-24	10-Sep-24
Surface	20	11-Sep-24	08-Oct-24
Building	70	30-Jul-24	05-Nov-24
Band Lot and East Drive (North)	190	08-Jul-24	04-Apr-25
Mobilization	5	08-Jul-24*	12-Jul-24
Site Demolition	15	15-Jul-24	02-Aug-24
Underground Utilities	20	05-Aug-24	30-Aug-24
Underground MEP	15	03-Sep-24	23-Sep-24
Underground Detention System	20	24-Sep-24	21-Oct-24
Earthwork	15	22-Oct-24	11-Nov-24
Site Concrete	15	12-Nov-24	04-Dec-24
Asphalt	15	03-Mar-25	21-Mar-25
Stripe/Site Furnishing/Landscaping	5	24-Mar-25	28-Mar-25
Punchlist	5	31-Mar-25	04-Apr-25
Large Parking Lot	95	27-Nov-24	14-Apr-25
Site Demolition	15	27-Nov-24*	19-Dec-24
Underground Utilities	15	20-Dec-24	13-Jan-25
Underground MEP	10	14-Jan-25	27-Jan-25
Earthwork	10	28-Jan-25	10-Feb-25
Site Concrete	15	11-Feb-25	03-Mar-25
Asphalt	15	04-Mar-25*	24-Mar-25
Stripe/Site Furnishing/Landscaping	10	25-Mar-25	07-Apr-25
Punchlist	5	08-Apr-25	14-Apr-25
East Drive (South)	100	15-Apr-25	04-Sep-25
Site Demolition	15	15-Apr-25	05-May-25
Underground Utilities	10	06-May-25	19-May-25
Underground MEP	10	20-May-25	03-Jun-25
Underground Detention System	15	04-Jun-25	24-Jun-25
Earthwork	15	25-Jun-25	16-Jul-25
Site Concrete	5	17-Jul-25	23-Jul-25
Asphalt	10	24-Jul-25*	06-Aug-25
Stripe/Site Furnishing/Landscaping	10	07-Aug-25	20-Aug-25
Punchlist	5	28-Aug-25	04-Sep-25



Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

Clark-Pleasant WCHS Phase 2A - 221170.03

07-Feb-24 Guideline Schedule

SKILLMAN

Logistics Plan 4/23/24

150 0 150 300

SCALE: 1" =150'

Boundary Line Table		
Line #	Direction	Length
L1	S16°51'24"E	86.00'
L2	N87°08'36"E	8.81'
L3	N00°07'39"W	121.99'
L4	S88°58'56"W	99.96'
L5	N00°07'39"W	112.00'
L6	S88°58'16"W	13.76'
L7	N19°16'56"W	106.79'
L8	N42°42'49"E	60.96'
L9	N05°29'15"W	193.57'
L10	N20°48'54"W	30.97'
L11	N16°27'01"W	30.46'
L12	N40°12'44"E	49.65'
L13	N01°07'16"W	34.00'
L14	N67°14'17"W	74.01'
L15	N88°17'44"E	29.87'

SITE DIMENSION NOTES

1. ALL NEW SIGNAGE AND PARKING LOT LIGHTS SHALL MATCH WHITELAND COMMUNITY HIGH SCHOOLS' EXISTING SIGNAGE AND LIGHTING. CONTRACTOR SHALL COORDINATE WITH OWNER, LANDSCAPE ARCHITECT (CONTEXT DESIGN), AND MEP DESIGNER FOR LIGHT STYLES AND LAYOUT.
2. CONTRACTOR SHALL NOTIFY ENGINEER, IF PROOF ROLL OF SUBGRADE FAILS, TO DETERMINE IF LIME STABILIZATION OF SUBGRADE IS NECESSARY.
3. ALL RADII DIMENSIONS ARE TO THE FACE OF PROPOSED CURB.
4. SIGNAGE SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 11 GAUGE FLANGED CHANNEL SIGN POST.
5. REFER TO LANDSCAPE AND ARCHITECTURAL PLANS FOR ADDITIONAL SIGNAGE. VERIFY CONFLICTS WITH OWNER, ARCHITECT, AND LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
7. LANDSCAPING PLAN TO BE PROVIDED BY CONTEXT DESIGN. CONTRACTOR SHALL COORDINATE WITH OWNER AND CONTEXT FOR SPECIFICATIONS.
8. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

6' Temporary Construction Fence Panels.

Temporary Stone (6" of #2 stone capped with 53s)

Utilize existing Band Practice Lot for parking and laydown.

PARKING ANALYSIS - PHASES 1A, 1 AND 2A

PARKING AREA & PHASE	EXISTING # OF SPACES		PROPOSED # OF SPACES		NET CHANGE IN # OF SPACES	
	A.D.A. ACCESSIBLE	STANDARD	A.D.A. ACCESSIBLE	STANDARD	A.D.A. ACCESSIBLE	STANDARD
"A" (PH 1A)	0	21	0	117	0	+96
"B" (PH 1A)	5	83	5	213	0	+130
"C" (PH 1A)	0	16	6	7	+6	−9
PH 1A SUBTOTALS =	5	120	11	337	+6	+217
"D" (PH 1)	5	71	10	59	+5	−12
"E" (PH 1)	7	174	2	66	−5	−108
PH 1 SUBTOTALS =	12	245	12	125	0	−120
"F" (PH 2A)	0	0	0	76	0	+76
"G" (PH 2A)	9	120	9	510	0	+390
PH 2A SUBTOTALS =	9	120	9	586	0	+466
TOTALS =	26	485	32	1,048	+6	+563

NOTES:
1. A TEMPORARY REDUCTION OF 6 A.D.A. ACCESSIBLE AND 25 STANDARD PARKING SPACES WILL BE REALIZED ONSITE DURING CONSTRUCTION OF PHASE 1 DUE TO THE EXISTING PARKING LOTS BEING CLOSED OFF FOR CONSTRUCTION.
2. PARKING ANALYSIS DOES NOT INCLUDE EXISTING OR PROPOSED BAND PRACTICE LOTS WHICH MAY BE USED FOR OVERFLOW PARKING. SAID LOTS ARE THE SAME SIZE; THEREFORE, NO CHANGES TO THE NUMBER OF POTENTIAL TEMPORARY PARKING SPACES ARE ANTICIPATED ONCE CONSTRUCTION OF THE NEW BAND PRACTICE LOT IS COMPLETE.

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

PROPERTY BOUNDARY SHOWN IS PRELIMINARY PENDING COMPLETION OF THE ALTA/NSPS LAND TITLE SURVEY BEING PREPARED BY C.W. CHARLES, L.S. WITH CROSSROAD ENGINEERS, P.C.

INDIANA 811 Know what's below. Call before you dig.

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 300

OVERALL SITE DIMENSION PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	JANUARY 22, 2024	DESIGNED	DMS				

PRELIMINARY NOT FOR CONSTRUCTION

NO.	DATE	REVISIONS	BY	APPR.
1	03.15.24	REVISIONS PER SKILLMAN V.E. REVIEW AND DESIGN COORDINATION DISCUSSIONS	DMS	GJI
2				
3				
4				
5				
6				
7				
8				
9				

SHEET 300

DIRECTORY PATH : R:\Active\Lance-Roeder\Whiteland High School\Design\CAD\Plans\PHASE 2
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LANCER ASSOCIATES ARCHITECTURE

ADDENDUM NO. ONE

PROJECT: **Whiteland Community High School Phase 2a**

PROJECT NUMBER: **22130**

DATE OF ADDENDUM: **April 23, 2024**

THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDENDUM ACKNOWLEDGMENT SECTION OF THE BID FORM.

SPECIFICATIONS

1. Section 33 4200 – Stormwater Conveyance:
   o Revised to include concrete headwall and trash & animal guard specifications per comments received from Johnson Co. Surveyor's Office outside review consultant comments.

2. Section 33 1417 – Site Water Utility Service Laterals:
   o Revised to include domestic service tap, water meter, meter pit, and domestic water service line specifications. Removed specifications for PVC casing conduit.

3. 11 68 33 FIELD EVENTS & ATHLETIC EQUIPMENT

   New section issued.

4. 32 18 23 TRACK SURFACING – LATEX

New section issued.

5. 32 31 13 CHAIN-LINK FENCING AND GATES

   Fence and Gate types updated.

DRAWINGS:

1. Sheet Number: G000
   Sheet Title: Cover
   Change:

   Add Sheet 1004 Miscellaneous Details to the index

2. Title Sheet (sheet 100):
   o Revised plan index to include added Miscellaneous Details (sheet 1004).
   o Added Johnson County Legal Drain Notes

3. Demolition Plan (sheet 210):
   o Revised to denote removal of existing trench drain in parking lot north of football field instead of salvage and reinstallation.

4. Site Dimension Plan (sheet 302):
   o Revised to include warning signs around proposed dry detention basin.
5. Site Dimension Plan (sheet 303):
   o Revised location of proposed shot put throwing area.
   o Revised to include warning signs around proposed dry detention basin.

6. Utility Plan (sheet 400):
   o Revised to include domestic water service tap, meter, meter pit, and water service line for future tennis building.
   o Revised sanitary sewer main and lateral layout so proposed lateral for future tennis building connects to the sewer main instead of the manhole. Revised Sanitary Sewer Structure Table based on revised layout. Remove sanitary lateral cleanout.
   o Revised Storm Culvert Data Table to indicate animal guards are required in the pipe end sections for Str. No. 69.

7. Utility Plan (sheet 401):
   o Revised Storm Culvert Data Table to indicate animals guards are required in the pipe end sections for Str. No. 80.

o Revised Storm Sewer Structure Table to indicate that a concrete headwall with animal guard is required for Str. No. 81 instead of the pipe end section previously shown.

8. Utility Plan (sheet 402):
   o Revised to include 6 LFT of Neenah R-4999-DD trench drain to replace drain removed in the existing parking lot north of the football field.
   o Revised Storm Culvert Data Table to indicate that one (1) concrete pipe end section and one (1) concrete headwall is required for Str. No. 104 instead of two (2) concrete pipe end section as previously shown. Storm Culvert Data Table was also revised to indicate that animal guards are required.
   o Revised Storm Sewer Structure Table to indicate that animal guards are required in the pipe end sections for Str. No. 102, 103, 105, and 106.

9. Utility Plan (sheet 403):
   o Revised Storm Sewer Structure Table to indicate an animal guard is required in the pipe end section for Str. No. 108.
   o Revised Storm Sewer Structure Table to indicate that a concrete headwall with animal guard is required for Str. No. 118 instead of the pipe end section previously shown.

10. Grading Plan (sheet 500):
    o Revised grading along south end of proposed dry detention/north end of discus field.

11. Grading Plan (sheet 50):
    o Revised grading of discus field and new shot-put area.

12. Drainage Plan (sheets 600-601):
    o Added detention pond warning sign detail.

13. Sanitary Plan and Profile (sheet 700):
    o Revised sanitary sewer profiles “SS-A” and “SS-B” to include sanitary lateral connection from tennis building lateral and to show proposed domestic water service crossing.

14. Overall Erosion Control Plan (sheet 900):
    o Revised end section riprap apron dimensions table to match revised Erosion Control Plans.

15. Erosion Control Plan (sheet 901):
    o Revised to include Notice of Intent posting, SWPPP board, dumpster, and port-o-let facilities near the intersection of Tracy Street and St. Charles Way.

o Added silt fence along the east side of the tennis court construction area.

16. Erosion Control Plan (sheet 902):
    o Extended riprap apron length from Str. No. 81 outlet pipe in response to Johnson Co. Surveyor's Office outside review consultant comments.
    o Added silt fence along the north and south sides of the outlet pipe and ditch from the proposed dry detention basin.

17. Erosion Control Plan (sheet 903):
    o Revised mulched seeding and construction limits around new shot-put throwing area.
    o Revised to include Notice of Intent posting, SWPPP board, dumpster, and port-o-let facilities near the proposed temporary construction entrance.
    o Extended riprap apron length from Str. No. 104 outlet pipe in response to Johnson Co. Surveyor's Office review comments.
    o Added silt fence along the north and south sides of the outlet pipe and ditch from the proposed dry detention basin.
    o Added temporary fabric drop inlet protection for existing inlets on the north side of the football field stadium.

18. Erosion Control Plan (sheet 904):
    o Extended riprap apron length from Str. No. 118 outlet pipe in response to Johnson Co. Surveyor's Office review comments.
    o Added silt fence along the north and east sides of the existing drive near the northeast corner of the high school.

19. Miscellaneous Details (sheet 1004):
    o Add sheet to include details for concrete headwall, water service tap, and 1 ½" & 2" commercial water meter pits.

20. <u>L101 SITE MATERIALS PLAN – PHASE 2A</u>

    - Updated to show extents of proposed fencing and gates at Football Stadium.
    - Legend updated to clarify fencing and gates.

21. <u>L102 SITE MATERIALS PLAN – PHASE 2A</u>

    - Updated to clarify fencing and gates around tennis courts.
    - Shot put ring and sector relocated.
    - Legend updated to clarify fencing and gates.

- Plan updated to show asphalt trail by tennis.

22. L201 SITE LAYOUT PLAN – PHASE 2A
    - Updated to show layout of proposed fencing and gates at Football Stadium.
23. L202 SITE LAYOUT PLAN – PHASE 2A
    - Shot put layout revised.
    - Plan updated to show asphalt trail by tennis.
24. L402 SITE PLANTING PLAN – PHASE 2A
    - Lawn extents around shot put revised.
25. Drawing Sheet ES102

    Drawing Sheet Title: Electrical Site Demolition Plan

    a) Drawing #1: Added plan note #7.

    b) Plan notes: Revised Plan notes.

26. Drawing Sheet ES103

    Drawing Sheet Title: Electrical Site Demolition Plan

    a) Drawing #1: Added plan note #5 and #6.

    b) Plan notes: Revised Plan notes.

27. Drawing Sheet ES301

    Drawing Sheet Title: Details and Schedules

    a) Revisions to Exterior Light Fixture Schedule

LANCER ASSOCIATES ARCHITECTURE

Attachments:
Spec Sections: 33 4200, 33 1417, 11 68 33, 32 18 23
Drawings: 100, 210, 302, 303, 400, 401, 402, 403, 500, 501, 600, 601, 700, 900, 901, 902, 903, 904, 1004, L101, L102, L201, L202, L402, ES102. ES103. ES301

End of Addendum 1

SECTION 11 68 33 – FIELD EVENTS & ATHLETIC EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes equipment consisting of the following:
   1. Long Jump Take-off System.
   2. Long Jump Pit System with Sand Catch and Pit Cover.
   3. Discus Ring.
   4. Discus Cage System.
   5. Shot Put Circle and Toeboard.

B. Related Sections include the following:
   1. Division 31 Section "Earth Moving" for excavation and grading work.
   2. Division 32 Section “Synthetic Turf Construction” for equipment intended specifically within the synthetic field area, such as football goals and turf grooming equipment.
   3. Division 32 Section "Crushed Aggregate Surface" for edging system to retain Shot Put fill materials.

1.3 DEFINITIONS

A. HDPE: High-density polyethylene.

B. MDPE: Medium-density polyethylene.

C. PVC: Polyvinyl chloride.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For each type of track equipment, include materials, plans, details, method of field assembly, connections, and installation details.

C. Product Certificates: Signed by manufacturers of equipment and certifying that products furnished comply with all sanctioning body requirements for High School competition.

D. Installer Certificates: Signed by manufacturer certifying that installers comply with requirements.

E. Manufacturer Certificates: Signed by manufacturers certifying that they comply with requirements.

F. Product Test Reports: From a qualified testing agency indicating playground equipment complies with requirements, based on comprehensive testing of current products.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has specialized in installing work similar in material, design, and extent to that indicated for this Project and who is acceptable to manufacturer of equipment.

B. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

1.6 COORDINATION

A. Contractor shall supply all necessary labor and materials to fully install the described track equipment for competitive use based upon NFHS guidelines. All required formwork, bracing, fastening and installation procedures required to implement the equipment shall be included within the base-bid. Sequence work so equipment can be installed concurrently with concrete foundations, platforms, and adjacent resilient surfacing.

PART 2 - PRODUCTS

2.1 PRODUCTS AND MANUFACTURERS

A. Products: Subject to compliance with requirements, provide complete track equipment systems as indicated in the Drawings.

B. Manufacturers: The products identified below are intended as a basis of design, not as a proprietary limitation to competitive bidding. Other manufacturers are encouraged to submit product information to the Landscape Architect to be reviewed for equality during the bidding process. All such requests shall arrive no less than ten (10) days prior to bid opening.

C. Long Jump Take-Off System: Subject to compliance with requirements, provide products from the following manufacturer, or approved equal prior to bidding.
1. #4352S Aluminum High School Take-Off Board Tray System, as manufactured by Gill Athletics, 2808 Gemini Court, Champaign, IL, 61822, Phone 1-800-637-3090.
2. Also provide manufacturer long jump pit covers for the Owner’s use.
3. Install per all manufacturer’s recommendations. Include all accessories for a complete system ready for use, including but not limited to pilot holes, drainage weeps, braces, and forms required for installation and maintenance.

D. Long Jump Pit System with Sand Catch and Pit Cover: Subject to compliance with requirements, provide products from the following manufacturer, or approved equal prior to bidding.

1. Sand Pit Form with Sand Catchers Series and Cover Model Numbers F44026 and F44026C as Manufactured by Gill Athletics, 2808 Gemini Court, Champaign, IL, 61822, Phone 1-800-637-3090.
2. Install per all manufacturer's recommendations. Include all accessories for a complete system ready for use, including but not limited to pilot holes, drainage weeps, braces, and forms required for installation and maintenance.
3. Pre-approved Equals:
   a. JumpForm H.S. Sand Pit Forming System with Covers Model Numbers SP6020 and equivalent Pit Cover Set as manufactured by Sportsfield Specialties Inc. Delhi, NY 13753, Phone 1-888-975-3343.

E. Discus Ring: Subject to compliance with requirements adhering to the latest 34.92 degree throwing sector requirements, provide products from the following manufacturer, or approved equal prior to bidding.
1. #370 Depressed Pad Discus Circle, as manufactured by Gill Athletics, 2808 Gemini Court, Champaign, IL, 61822, Phone 1-800-637-3090.
2. Install per all manufacturer's recommendations. Include all accessories for a complete system ready for use, including but not limited to pilot holes, drainage weeps, braces, and forms required for installation and maintenance.

F. Discus Cage: Subject to compliance with requirements and adhering to the latest 34.92 degree throwing sector requirements, provide products from the following manufacturer, or approved equal prior to bidding.
1. #8020 High School Discus Cage, as manufactured by Gill Athletics, 2808 Gemini Court, Champaign, IL, 61822, Phone 1-800-637-3090.
2. Install per all manufacturer's recommendations. Include all hardware, netting, fasteners sleeves and halyards required for installation and competitive use of a complete system.

G. Shot Put Circle and Toeboard: Subject to compliance with requirements adhering to the latest 34.92 degree throwing sector requirements, provide products from the following manufacturer, or approved equal prior to bidding.
1. #363 and #369 Depressed Pad Shot Put Circle and Toeboard, as manufactured by Gill Athletics, 2808 Gemini Court, Champaign, IL, 61822, Phone 1-800-637-3090.
2. Install per all manufacturer's recommendations. Include all accessories for a complete system ready for use, including but not limited to pilot holes, drainage weeps, braces, and forms required for installation and maintenance.

2.2 GENERAL

A. Colors: As selected by Landscape Architect from manufacturer's standard colors during Shop Drawing and Submittal Review process.

2.3 MATERIALS

A. Opaque Plastic: Color impregnated, UV stabilized, and mold resistant.

B. Hardware and Fasteners: Manufacturer's standard, commercial-quality, corrosion-resistant, stainless steel, or aluminum; secure, vandal-resistant design.

C. Drainage Fill: Washed coarse-aggregate mixture of crushed stone, or crushed or uncrushed gravel, as required to properly install and drain the system.

D. Paint and PVC-Coat Finish: Comply with 16 CFR 1303 for limiting lead in paint.

2.4 CAST-IN-PLACE CONCRETE

A. Concrete Materials and Properties: Comply with requirements in "Cast-in-Place Concrete" to produce normal-weight, air-entrained concrete with a minimum 28-day compressive strength of 3,000 psi (20.7 MPa), 3-inch (75-mm) slump, and 1-inch- (25-mm-) maximum size aggregate.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions for compliance with requirements for site clearing, earthwork, site surface and subgrade drainage, and other conditions affecting performance.
   1. Do not begin installation before final grading required for athletic surfacing is completed, unless otherwise permitted by Landscape Architect.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Verify locations of track equipment to IHSAA and NFHS guidelines. Verify that layout and equipment locations comply with requirements for each type and component of equipment.

3.3 CLEANING

A. After completing equipment installation, inspect components. Remove spots, dirt, and debris. Repair damaged finishes to match original finish or replace component.

END OF SECTION

SECTION 32 18 23 – TRACK SURFACING – LATEX SYSTEM

PART 1 - GENERAL

1.1 DESCRIPTION

A. Furnish and install Plexitrac® Running Track resilient surfacing, or approved equal prior to bidding, over on an accepted pavement profile.

1. Include new track coating for long jump runways.
2. Latex coatings to be Red in color.

1.2 RELATED SECTIONS

A. Division 32 – Asphalt Paving.

B. References
1. National Asphalt Pavement Association (NAPA)
2. USA Track & Field (USATF)
3. National Federation of State High School Associations (NFHS)
4. International Association of Athletics Federation (IAAF)
5. American Sports Builders Association (ASBA)

1.3 QUALITY ASSURANCE

A. Asphalt surface shall comply with the guidelines of the ASBA and NAPA for surface planarity and density.

B. All liquid materials shall be from a single source and manufactured for the purpose of resilient track construction.

C. The contractor shall record the batch number of each product used on the site and maintain it throughout the warranty period.

D. The contractor shall provide the owner with an estimate of the volume of each liquid product and the weight of the rubber granule to be used on site.

E. The installer shall be an Authorized Applicator of the specified surface system.

F. A manufacturer’s representative shall be available to help resolve material issues.

1.4 SUBMITTALS

A. Current material safety data sheets (MSDS) for the liquid components.

B. A certificate from the manufacturer of the binders, adhesives and coatings stating that all materials have been produced specifically for use in sports surfacing construction.

C. A complete list of materials intended to be used in the construction of the running track system. All liquid quantities will be prior to dilution.

D. Reference list from the installer of al least 5 projects of similar scope done in each of the past three years.

E. Product substitution: If other than the product specified, the contractor shall submit at least 7 days prior to the bid date a complete type written list of proposed substitutions with sufficient data, drawings, samples and literature to demonstrate that the proposed substitution is of equal quality and utility to that originally specified. Information must include a QUV test of at least 1,000 hours and IAAF test information for the system to be installed.

F. Alternative Products: Should an alternate bid product be presented by a Vendor for consideration by the Landscape Architect, that system shall comply with all manufacturer recommendations for a high performance, durable system.

1.5 MATERIAL HANDLING AND STORAGE

A. Store material in accordance with manufacturer's specifications and MSDS.

B. Deliver products to the site in original, unopened containers with labels attached.

C. All surfacing materials shall be non-flammable.

1.6 GUARANTEE

A. The installer and the materials manufacturer shall supply a warranty covering labor and materials respectively. The warranty period shall be for three (3) years, including all labor and materials, plus replacement of any striping or furnishings displaced by repairs.

B. All test reports will be contracted directly by the Owner with the testing agency.

1.7 INSTALLER QUALIFICATIONS

A. Installers shall be routinely engaged in the construction and surfacing of running tracks.

B. Installer shall be an authorized applicator of the specified system.

C. Installer shall be a builder member of the ASBA.

D. Provide written proof of bonding capacity for the total amount of the athletic surfacing, if subcontracted, upon the request of the Landscape Architect.

1.8 MANUFACTURER QUALIFICATION

A. Material supplier shall certify that the materials provided are manufactured specifically for construction and surfacing of running tracks.

B. Manufacturer shall be a member of the ASBA.

PART 2 - PRODUCT

2.1 MANUFACTURER

A. Plexitrac Running Track System or Equal System
   1. The identified manufacturer and system has been utilized as a basis for quality and execution of the athletic surfacing requirements. It is NOT intended to limit competition. Other manufacturers and installers are encouraged to submit qualifications and technical data to demonstrate equality of their system.
   2. Subject to compliance with all aspects of this specification, the following Pre-Identified installers may submit equivalent surfacing systems for consideration. Other companies will be reviewed on an as-requested basis up to ten (10) days prior to Bid Opening.
      a. LESLIE COATINGS
      b. REESE SEALCOATING
      c. MIDWEST TRACK BUILDERS

B. Any materials used must be an emulsion/water-based product. Any products which require solvents such as MEK, Butyl Cellusolve or Acetone for clean up or mixing are unacceptable.

C. Materials must have a VOC less than 150g/lt. for binder products. Top coats shall have a VOC of less than 100g/lt. measured by EPA method 24.

D. Materials may not have a flash point of less than 200°F.

2.2 MATERIALS

A. CP-4125: Latex emulsion Primer. SBR emulsion
   1. Percent solids by weight, minimum 50%
   2. Weight, 8.35 lbs./gallon

B. Plexitrac Binder: Shall comply with Specification 10.73 of California Products Corporation
   1. High Viscosity Polyresin Blend
      a. Percent solids by weight, minimum 44.7%
      b. Weight, 8.47 lbs./gallon

C. Plexicolor Pigment: Water-borne dispersed pigment for enhanced color

D. Plexitrac Coating- Shall comply with Specification 10.70 of California Products Corporation
   1. Highly Pigment Polyresin Top Coat
      a. Percent solids by weight, minimum 47.4%
      b. Weight, 8.45 lbs./gallon

E. Rubber Granules: Specifically gradated 3-6, 2-4 & 1-3MM SBR particles for job mixing with the Binder

F. Water: The water to be used in the mixture must be fresh and potable

G. The installer will provide to the Landscape Architect a materials list prior to the installation of the volume of materials to be used on the project. The list will include the following:
   1. Specified thickness 8 MM.
   2. Pounds of Rubber 9.5 lb. sq./y SBR
   3. Gallons of CP-4125 (Undiluted) .05 gal. / sq.yd.
   4. Gallons of Black Binder (Undiluted) .57 gal. per / sq. yd.
   5. Gallons of Black Coating (Undiluted) .1 gal. / sq.y

H. The installer will furnish the Landscape Architect with a proof of delivery that the correct volume of product has been provided. The installer will also verify that a sole manufacturer has supplied all binders and coatings.

PART 3 - EXECUTION

3.1 WEATHER LIMITATIONS

A. Ambient and surface temperatures must be 50°F and rising.

B. Installation should not be conducted during rainfall or when rainfall is imminent.

C. Do not apply when surface temperature is in excess of 140°F.

3.2 SURFACE PREPARATION

A. Provide required asphalt base and surface courses as described and specified in Specification Section 32 12 16.

B. New asphalt shall be allowed to cure for a minimum of 14 days prior to the application of any surfacing materials.

C. The surface must be thoroughly cleaned of all loose dirt and debris prior to resilient coatings.

3.3 RESILIENT SURFACE INSTALLATION

A. After curing and preparation the asphalt shall be primed/tack coated with CP-4125 at the rate of 0.05 gal/sy. by means of an air diaphragm pump. Do not allow material to puddle on the asphalt surface.

B. Apply consecutive layers of dry 3-6mm, 2-4mm & 1-3mm Black SBR granules to the tack coated surface by mechanical spreader or by hand. Avoid leaving dry rubber granules more than one layer thick.

C. Apply Binder at the rate of 0.567 gallon per sq. yd. by means of an air diaphragm pump. Care should be taken to uniformly spray the granules so they are fully encapsulated.

D. Apply coating at the total rate of 0.1 gallon per square yard. Product shall be applied in two applications by an air diaphragm pump spray unit. One application shall be applied clockwise, the other counter-clockwise.

3.4 MARKING AND MEASUREMENTS

A. Restore all existing markings following rebuffing. Markings shall include all events and marks required or recommended by the National Federation of State High Schools, including all updates and rule changes that may be adopted prior to Substantial Completion.

B. Wait 48 hours after surface completion before applying line marking. The installer shall:
   1. Locate and establish all control points and radii via a licensed Surveyor.
   2. Layout all lines and markings to tolerances set forth by ASBA and governing body requirements.
   3. Prepare all necessary drawings.
   4. Provide all computations and measurements in organized form.
   5. Establish all locations on the curves using a Transit or Theodolite capable of reading direct to 20 seconds.
   6. Identify all markings, where appropriate, by painting the identification directly onto the track surface in 4” letters just below or in front of each mark in the right-hand portion of the lane.
   7. Paint all of the large, 3’ high, lane numbers in alternating colors of ‘white’ and ‘yellow’, utilizing shadowed backgrounds. Confirm final paint colors during submittal process.
   8. All lines shall receive sufficient paint to assure complete opacity and uniformity of color. Provide multiple coats until opacity is fully achieved.
   9. Paints shall be used directly from original containers and shall be thinned only when hot temperatures dictate thinning for smooth applications.
   10. Amount of paint used shall be as recommended by the manufacturer.
   11. Line paint shall be 100% acrylic latex. All measurements shall be made by competent, experienced and qualified personnel utilizing accurate transit data.

END OF SECTION

SECTION 32 31 13 - CHAIN LINK FENCING AND GATES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS AND WORK

A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to work of this Section.

1.02 DESCRIPTION OF WORK

A. Furnish and install all sliding gates and barrier gates as indicated in or implied by the Contract Documents. Include all posts, footings, supports, guides, stays, bracing, bearing hanger sheaves, overhead framing and supports, fasteners, hardware, and accessories required for a complete and full system.

B. All fencing, fabric, and accessories in the Base Bid shall be Black vinyl coated, unless otherwise noted.

C. Fencing Applications:

1. 10’ height Black Vinyl Coated Chain Link Fencing
2. 4’ width single swing man-gates (at 7’ height)
3. **6’ height Black Vinyl Coated Chain Link Fencing**
4. **6’ width single swing man gate**
5. **8’ width double swing gate**
6. **10’ width double swing gate**

1.03 QUALITY ASSURANCE

A. Provide chain link fences and gates as complete units controlled by a single source including accessories, fittings, and fastenings.

B. Standards: Chain Link Fence Manufacturers Institute-Product Manual.

C. Erector Qualifications: Successful completion of not less than ten installations of similar size and magnitude to work required in this project.

D. Installation: ANSI/ASTM F567.

1.04 SUBMITTALS

A. Product Data: Submit manufacturer's technical data for metal fencing, fabric, gates and accessories.

B. Shop Drawings: Details of fabrication and installation, including gates, posts, fasteners, bracing, supports, accessories, hardware and footings. The successful Contractor shall participate in refining the design and

structural requirements of fencing systems during the submittal review process. Minor enhancements shall be provided at no additional cost to the Owner.

C. Material Certificates: Provide copies of material certificates signed by material producer and Contractor, certifying that each material item complies with or exceeds the specified requirements.

D. Samples: Black vinyl coating.

PART 2 - PRODUCTS

A. GENERAL

B. Any discrepancy noted between Specifications, Plan drawings, and Details shall default to the greater quantity, material, or structural requirement.

C. Dimensions indicated for pipe sections are outside dimensions, exclusive of coatings.

D. Manufacturer: Subject to compliance with requirements, provide products of one of the following or equal:
1. PVC Coated Galvanized Steel Fencing and Fabric:
   a. American Fence Corp.
   b. Anchor Fence, Inc.
   c. United States Steel.
   d. Colorguard Corp.
2. Aluminized Steel Fencing and Fabric:
   a. Page Fence Div./Page-Wilson Corp.
   b. Cyclone Fence/United States Steel Corp.

2.02 FABRIC

A. Fabric: No. 9 gage (0.148" + 0.005") size steel wires, 1 3/4" mesh, with top and bottom selvages knuckled when 6’ or under fabric and one end twisted (top) for 10’ fabric.
1. Furnish one-piece fabric widths for fencing up to 12' high.
2. Fabric Finish: Minimum 7 mil polyvinyl chloride (PVC) plastic resin finish over galvanized steel wire. Black in color.
3. Comply with ASTM F668, Class 2b, except provide fabric with diameter (gage) of core wire equivalent to fabric diameter specified when measured prior to application of nonmetallic coating.

2.03 FRAMING AND ACCESSORIES

A. Steel Framework, General: SS40 galvanized steel, ASTM F1083 or A1011. Weights shown below are based on Type I SS 40 steel pipe;

B. Fittings, Framework, and Accessories: Provide framework, fittings and accessories in accordance with manufacturer's standard thermally bonded polyvinyl chloride (PVC) plastic resin finish over galvanizing, not less than 10 mils (0.010") thick. Black in color.

C. End, Corner and Pull Posts: Minimum sizes and weights as follows:
1. Up to 4' fabric height, 2.375" OD steel pipe, 3.12 lbs. per lin. ft.
2. Up to 8’ fabric height, 2.875" OD steel pipe, 4.64 lbs. per lin. ft.
3. Up to 10’ Fabric height, 3.50” OD steel pipe, 5.71 lbs. per lin. ft.

D. Line Posts: Shall be evenly spaced at distances not to exceed 8' o.c. maximum.
   1. Up to 4' fabric height, 1.900" OD steel pipe, 2.28 lbs. per lin. ft.
   2. Up to 10’ fabric height, 2.875" OD steel pipe, 4.64 lbs. per lin. ft.

E. Gate Posts: Furnish posts for supporting single gate leaf, or one leaf of a double gate installation, for nominal gate widths as follows:

Leaf Width	Gate Post	Lbs./lin. ft.
Up to 6'	2.875” OD pipe	4.64
Over 6'	3.500" OD pipe	5.71

F. Top Rail: Manufacturer's longest lengths, with expansion type couplings, approximately 6" long, for each joint. Provide means for attaching top rail securely to each gate corner, pull and end post.
   1. No less than .1660” OD pipe, 1.84 lbs. per ft.

G. Center and Bottom Rail: Of the same grade and quality as the top rail. Install in one piece between posts and flush with post on fabric side, using offset fittings where necessary. Refer to drawings for location of center rail

H. Wire Ties: 11 gage galvanized steel to match fabric core material.

I. Post Brace Assembly: Manufacturer's standard adjustable brace at end and gate posts and at both sides of corner and pull posts, with horizontal brace located at mid-height of fabric. Use same materials as top rail for brace, and truss to line posts with 0.375" diameter rod and adjustable tightener.

J. Post Tops: Provide weather tight closure cap with loop to receive tension wire or top rail; one cap for each post.

K. Stretcher Bars: One-piece lengths equal to full height of fabric, with minimum cross-section of 3/16" x 3/4". Provide one stretcher bar for each gate and end post, except where fabric is integrally woven into post.

L. Stretcher Bars Bands: Space not over 15" o.c., to secure stretcher bars to end, corner, pull, and gate posts.

2.04 GATES

A. Fabrication: Fabricate perimeter frames of gates from metal and finish to match fence framework. Assemble gate frames by welding or with special fittings and rivets, for rigid connections, providing security against removal or breakage connections. Provide horizontal and vertical members to ensure proper gate operation and attachment of fabric, hardware and accessories. Space frame members maximum of 8' apart, unless otherwise indicated.
   1. Provide same fabric as for fence, unless otherwise indicated. Install fabric with stretcher bars at vertical edges and at top and bottom edges. Attach stretcher bars to gate frame at not more than 15" o.c.
   2. Install diagonal cross-bracing consisting of 3/8" diameter adjustable length truss rods on gates to ensure frame rigidity without sag or twist.

B. Swing Gates: Fabricate perimeter frames of minimum 1.660" OD, 1.84 lb. per lin. ft., galvanized pipe, PVC coated.

C. Gate Hardware: Provide hardware and accessories for each gate, galvanized per ASTM A 153, and in accordance with the following:
   1. Hinges: Size and material to suit gate size, nonlift-off type, offset to permit 180-degree gate opening. Provide no less than 1-1/2 pair of hinges for each leaf over 6' nominal height.

2. Latch: Forked type or plunger-bar type to permit operation from either side of gate, with padlock eye as integral part of latch.
3. Keeper: Provide keeper for vehicle gates, which automatically engages gate leaf and holds it in open position until manually released.

D. Grounding Accessories: Ground rods shall be 3/4 inch diameter copper clad steel rods, 10 feet long. Connection wire not less than No. 4 AWG stranded copper wire. Provide approved clamp type fittings for rods and fence posts. Provide flexible bond straps for gates and gate posts.

E. Setting: Provide concrete footings consisting of Portland Cement, ASTM C 150, aggregates ASTM C33, and clean water. Mix materials to obtain concrete with a minimum 28-day compressive strength of 3,000 psi using at least 4 sacks of cement per cu. yd., 1" maximum size aggregate, maximum 4" slump, and 5% to 7% entrained air. Meet or exceed minimum footing depths for local frost conditions, unless more restrictive language is called for in Plans or Specifications.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Do not begin installation and erection before final grading is completed, unless otherwise permitted.

B. Verify that asphalt and concrete paving in fence location is completed and without irregularities which would adversely affect installation of fence.

C. Do not commence work until unsatisfactory conditions have been corrected.

D. Excavate hole depths approximately 3" lower than post bottom, with bottom of posts set not less than 42" below finish grade surface. Diameter of holes shall not be less than four times the largest cross section of the post.

E. Check each post for vertical and top alignment and hold in position during placement and finishing operations.

F. Dispose of all debris off-site. Dispose of waste excavated earth as directed by the Construction Manager on-site.

G. Top Rails: Run rail continuously through post caps, bending to radius for curved runs. Provide expansion couplings as recommended by fencing manufacturer.

H. Center and Bottom Rails: Provide bottom rails for all tennis fencing and center rails for all 10’ height applications and associated transitions. Install in one piece between posts and flush with post on fabric side, using special off set fittings where necessary.

I. Brace Assemblies: Install braces so posts are plumb when diagonal rod is under proper tension.

J. Fabric: Leave approximately 1” between finish grade and bottom selvage, unless otherwise indicated. Pull fabric taut and tie to posts, rails, and tension wires (when applicable). Stretch fabric between terminal posts or at intervals of 100 feet maximum whichever is less. Install fabric on security side of fence, and anchor to framework so that fabric remains in tension after pulling force is released.

K. Stretcher Bars: Thread through or clamp to fabric 4" o.c., and secure to posts with metal bands spaced 15" o.c.

L. Gates: Install gates plumb, level, and secure for full opening without interference. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

M. Tie Wires: Use U-shaped wire, conforming to diameter of pipe to which attached, clasping pipe and fabric firmly with ends twisted at least two full turns. Bend ends of wire to minimize hazard to persons or clothing.
1. Tie fabric to line posts, with wire ties spaced 12" o.c. Tie fabric to rails and braces, with wire ties spaced 24" o.c. Tie fabric to tension wires, with hog rings spaced 24" o.c.

N. Fasteners: Install nuts for tension bands and hardware bolts on side of fence opposite fabric side. Peen ends of bolts or score threads to prevent removal of nuts.

3.02 GROUNDING

A. Fence shall be grounded at each side of every gate. Each fence post to be grounded shall be connected to a ground electrode driven not less than 11 feet into the ground with rod located at the fence line or as near the fence line as practicable. Connection of fence post to ground electrode shall be made below grade by approved clamp-type fitting of copper on fence post and electrode. Each gate panel shall be bonded with a flexible bond strap to its gate post.

3.03 ADJUST AND CLEAN

A. Adjust brace rails and tension rods for rigid installation. Tighten hardware, fasteners and accessories. Remove excess and waste materials from project site.

END OF SECTION

SECTION 33 1417 – SITE WATER UTILITY SERVICE LATERALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Installation of domestic water service, including but not limited to, the service tap, stainless steel tapping sleeve, corporation stop, curb stop, valve box, water meter pit, water meter, meter setting, fittings, meter valves, backflow preventer, ductile iron mechanical joint fittings, restraints, and domestic water service line.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Contractor shall submit shop drawings, manufacturer information, details, material descriptions, and dimensions of individual components for the following:

a. SDR-21 PVC pressure pipe

b. Curb stop and valve box

c. Corporation stop

d. Meter pit and lid/cover

1.4 REGULATORY COMPLIANCE

A. The Contractor shall be responsible for ensuring all domestic water service components are installed in accordance with the Town of Whiteland and American Water Works Association (AWWA) requirements.

1.5 PROJECT CONDITIONS

A. The Contractor shall verify size and location of the domestic water service line and water meter with the MEP engineer and Town of Whiteland prior to construction. Contractor shall report discrepancies to the Owner and Engineer immediately.

B. The Contractor shall field verify the location, size, and elevation of other existing utility conveyances including sanitary sewer, storm sewer natural gas, electric, and telecommunication cables/ducts prior to construction and immediately report conflicts or discrepancies to the Owner and Engineer.

C. Material substitutions must be approved in writing by the Engineer.

PART 2 - PRODUCTS

2.1 TRACER WIRE

A. Provide blue colored, 10-gauge solid copper insulated locating (tracer) wire taped to the top of all fire protection distribution piping.

2.2 POLYVINYL CHLORIDE (PVC) PIPE

A. Provide solid wall SDR-21 PVC pressure pipe conforming to ASTM D2241 and NSF-61 with gaskets meeting ASTM F477 and joints complying with ASTM D3139.

B. Provide C900 PVC pipe with a minimum pressure class of 200 PSI (DR21) or greater.

2.3 DUCTILE IRON (DI) FITTINGS AND BENDS

A. All fittings and bends shall be ductile iron (DI) with mechanical joints (MJ) conforming to AWWA C-110, C-111, C-153, and NSF-61.

B. All fittings and bends shall be restrained as required by these specifications.

2.4 RESTRAINTS

A. Meg-A-Lug retainer glands as manufactured by EBBA Iron, Inc. shall be installed on each side of fittings and bends. Additional sets of retainer glands shall be installed at pipe lengths above and below the fittings as indicated in the construction plans (see “Restrained Joints” table on Miscellaneous Details – sheet 1002). Field-Lok gaskets or one bolt restrained fittings may be used in lieu of retainer glands.

2.5 TAPPING SLEEVES AND VALVES

A. Tapping sleeves and valves shall be EJP or Mueller H-615, H-616 or stainless steel sleeves. Tapping valves shall be 2360 series by Muller or AFC 2500.

2.6 CORPORATION STOPS

A. Corporation stops shall be as manufactured by Mueller Company.

2.7 CURB STOP AND BOXES

A. Curb stop shall be B-44-400-44 as manufactured by Ford Manufacturing.

2.8 METER PIT

A. Meter pit shall consist of a 36” diameter reinforced concrete pipe (RCP) or dual wall HPDE pipe (48” minimum height).

PART 3 - EXECUTION

3.1 GENERAL

A. Permits and Codes: The intent of this section of the specifications is that the Contractor's bid on the work covered herein shall be based upon the drawings and specifications but that the work shall comply with all applicable codes and regulations as amended by any waivers. The contractor shall furnish all bonds necessary to get permits for cuts and connections to existing domestic water distribution systems.

B. Contractor shall be responsible for confirming, coordinating, and scheduling all necessary inspections by the Town of Whiteland related to this work.

1. Contractor shall coordinate with the Town of Whiteland Department of Public Works for the Town furnished water meter.

C. Local Standards: The term "local standards" as used herein means the standards of design and construction of the Town of Whiteland Department of Public Works and Town of Whiteland Design Standards and Specifications Manual.

D. Existing Improvements: The Contractor shall maintain in operating condition all active utilities, sewers, and other drains encountered in the sewer installation. The Contractor shall repair to the satisfaction of the Owner any damage to existing active improvements.

E. Utilities: It shall be the responsibility of the Contractor to verity all existing utilities and conditions pertaining to his work. It shall also be the Contractor's responsibility to contact the owners of the various utilities before work is started. The Contractor shall notify in writing the Owner and Engineer of any changes, errors, or omissions found on these plans or in the field before work is started or resumed.

F. Workmanship: This work shall conform to all local, state, and national codes and to be approved by all local and state agencies having jurisdiction.

3.2 TRENCH EXCAVATION

A. Excavate trenches to the widths and depths as indicated on the construction plans and details and in accordance Section 31 20 00 Earthwork.

3.3 PIPE INSTALLATIONS

A. Contractor shall install domestic water service piping in accordance with the applicable sections of the following reference documents:

1. ASTM F1668 – Standard Guide for Construction Procedures for Buried Plastic Pipe
2. AWWA C600 – Installation of Ductile Iron Mains and Appurtenances
3. AWWA Manual M23 – PVC Pipe Design and Installation

B. Excavate trenches in accordance with the details included in the construction plans and Section 31 20 00 Earthwork. Where pipe is to be place in fill sections, a portion of the fill shall be constructed and compacted in accordance with the specifications prior to pipe installation.

C. Sheet and brace trenches as necessary to protect workmen and adjacent structures. All trenching to comply with current Occupational Safety and Health Administration (OSHA) standards. Keep trenches free from water while construction is in progress. Under no circumstances shall pipe or appurtenances be laid in standing water. Conduct the discharge from trench de-watering to appropriately designed and sized dewatering bags or basins prior to discharging into storm sewer drains or natural drainage channels.

D. Install #8 compacted aggregate for bedding of flexible pipe in 6-inch lifts. Compaction shall be accomplished by hand or mechanical tamping or walking the granular material in. PVC pipe shall not be blocked for support. The practice of blocking pipe up to grade with bedding material then backfilling underneath the pipe is prohibited. The entire length of the bed section shall be at the proper grade before installing pipe.

E. Install PVC pipe on a firm, uniform foundation of bedding material under the entire lower quadrant of the barrel. No weight shall be supported by the pipe bell.

F. Where PVC pipe is to be installed below the maximum ground water table, Contractor shall provide adequate weights to prevent floatation of the pipe.

G. Install PVC pipe in accordance with AWWA C605 and AWWA Manual M23. Assemble pipe using the following types of joints:

1. Gasketed bell joint – integral with pipe
2. Restrained mechanical joint
3. Restrained joint

H. Assemble push-on joints in accordance with the pipe manufacturer’s recommendations. Assemble mechanical joints in accordance with the fitting and restrain manufacturer’s recommendations.

I. Do not remove factory installed gaskets. Keep joints free of dirt, sand, grit, grease, or any foreign material. Apply NSF certified lubricant when assembling gasketed joints in accordance with the pipe manufacturer’s requirements.

J. Pipe alignment is essential for proper joint assembly. Align the spigot to the bell and insert the spigot into the bell until it contacts the gasket uniformly in accordance with the

manufacturer's markings. Do not swing or "stab" the joint; that is, do not suspend the pipe and swing it into the bell.

K. Protect pipe from damage when assembling push-on pipe joints. Wood or other suitable (non-metallic) material consistent with the pipe manufacturer's recommendations shall be used as a cushion while pushing home the pipe. Avoid metal to plastic contact.

L. The manufacturer's allowable pipe deflection shall be used to maintain the minimum 18" vertical and 10' horizontal separation required from all existing and proposed sanitary and storm sewers and structure. The fittings shown on the construction plans are the minimum necessary to maintain a horizontal route complying with the horizontal separation requirements. Additional ductile iron (DI) mechanical joint (MJ) fittings may be required in the field to maintain the minimum 18" vertical separation from existing and proposed sanitary and storm sewers.

M. Install all ductile iron (DI) mechanical joints (MJ), restraints, fittings, gate valves, insertion valves, and tapping sleeves in accordance with the manufacturer's recommendations. All gate and insertion valves shall be set on crushed stone and concrete pads so the distribution pipe does not bear the weight of the valve assembly.

N. All pipes which settle, or which are not in alignment, shall be taken up and re-laid at the Contractor's expense.

O. Backfilling: Pipe bedding and backfill shall be placed as shown in the plans. Contractor shall install initial backfill consisting of Class I material such as #8 aggregate a minimum of 12" above the top of PVC pipe. Contractor shall hand tamp or walk-in bedding and initial backfill. Contractor shall install Class II or clean sand granular backfill in 6-inch maximum lifts and mechanical compact to 95% modified proctor density when trenches are within 5 feet of sidewalks, pavement, curbs, or buildings. Compaction operations shall be completed taking care not to disturb the pipe.

3.4 SERVICE TAP AND WATER METER INSTALLATION

A. Contractor shall coordinate with the Town of Whiteland Department of Public Works for the Town furnished water meter and inspection of the service tap. Contractor shall be responsible for providing sufficient notification of the tap inspection and lead time to the Town for ordering of the new meter.

1. Contractor shall verify the water meter and service line sizes with the Town of Whiteland and MEP engineer prior to construction.

B. Contractor shall install all components associated with the water meter including but not limited to the meter, backflow preventor, meter setting, pit, and meter valves in accordance with the Town of Whiteland Constructions Standards and Specifications.

3.5 DEWATERING

A. If necessary due to site conditions or excessive rainfall events, the Contractor shall dewater the site and/or excavations utilizing a system of pumps and re-useable

dewatering bags. The Contractor shall not allow dewatering operations to discharge directly into storm sewers, storm inlets or manholes, ditches, or swales without an appropriately sized and selected dewatering bag. Under no circumstances shall dewatering operations associated with groundwater or precipitation be discharged into a sanitary sewer.

3.6 FIELD QUALITY CONTROL

A. Contractor shall provide red line, record drawings of PVC conduit for domestic water service lateral to the Owner and Engineer within 14 calendar days of installation. Drawings shall document any changes to the location or size of the system components.

END OF SECTION 33 1417

SECTION 33 4200 – STORMWATER CONVEYANCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. INDOT 2022 Standard Specifications – Sections 702, 715, 718 and 720.

1.2 SUMMARY

A. Section Includes:

1. Installation of storm sewer pipes.

2. Installation of storm inlets, storm manholes, stormwater quality treatment units, water quality diversion structures, detention system outlet structures, pipe end sections, concrete headwalls, and trash/animal guards.

1.3 ACTION SUBMITTALS

A. Product Certificates: Contractor shall submit the following certifications and documentation:

1. Producer name, location and source/approval number of the precast reinforced concrete pipe, pipe end section, riser rings and storm structures from the INDOT Certified Precast Concrete Producers list.

2. Manufacturer name, location and source/approval number of the HDPE pipe, PVC pipe and all plastic fittings from the INDOT plastic pipe and pipe liner sources list.

B. Product Data: For each type of product.

1. Contractor shall submit shop drawings, manufacturer information, details, material descriptions, and dimensions of individual components for the following:

a. Precast concrete storm structures and headwalls
b. Storm sewer castings
c. Nyloplast Drain Basins
d. Aqua-Swirl hydrodynamic separators
e. CheckMate UltraFlex inline check valves
f. Trash & animal guards

2. Contractor shall submit concrete mix designs for Class ‘A’ concrete collars and cast-in-place concrete headwalls.

1.4 PROJECT CONDITIONS

A. The Contractor shall field verify location, size, and elevation of the existing storm sewer system where proposed storm sewer systems are to be connected. Contractor shall report discrepancies to the Owner and Engineer immediately.

B. The Contractor shall field verify the location, size, and elevation of other existing utility conveyances including domestic water, sanitary sewer, natural gas, electric, and telecommunication cables/ducts prior to construction and immediately report conflicts with the proposed storm sewer systems to the Owner and Engineer.

C. Storm sewer pipe and structures shall comply with current specifications of the Town of Whiteland Stormwater Department/Utility and Town of Whiteland Design Standards and Specifications Manual and all other responsible agencies in respect to design and quality of construction.

D. If the Contractor elects to use alternate precast structures, casting manufacturers, or stormwater quality unit makes and models, detailed shop drawings shall be submitted to the Engineer for review and written approval prior to construction. Acceptance of alternates shall be at the discretion of the Owner and Engineer.

E. Storm sewer pipe material substitutions must be approved in writing by the Engineer.

PART 2 - PRODUCTS

2.1 REINFORCED CONCRETE PIPE (RCP)

A. Where reinforced concrete pipe (RCP) is shown on the construction plans, it shall be Class III, IV, or V (refer to plans), Wall "B" conforming to ASTM C76, AASHTO M170, and the Indiana Department of Transportation (INDOT) Standard Specifications Section 907.

1. Provide RCP with tongue and groove joints with compression type rubber gasket which conforms to ASTM C443.

2.2 HIGH-DENSITY POLYETHYLENE (HDPE) PIPE

A. Where high-density polyethylene (HDPE) pipe is shown on the construction plans, it shall be dual wall corrugated HDPE pipe and fittings consisting of an annular outer corrugate pipe wall and a smooth inner wall in accordance with ASTM F2648 and the Indiana Department of Transportation (INDOT) Standard Specifications Section 907.

1. Pipe and fitting materials shall be, in accordance with ASTM D3350, either virgin high-density polyethylene or engineering compound of virgin and recycled high density polyethylene with a minimum cell class of 435420C.

2. Furnish HDPE pipe with bell and spigot joints in conformance with ASTM F2648.

3. Gasket material shall conform to ASTM F477.

4. Provide fittings of the same manufacturer for each type of HDPE pipe. Manufactured fittings shall not be accepted substitutes for precast storm structures.

2.3 POLYVINYL CHLORIDE (PVC) PIPE

A. Where polyvinyl chloride (PVC) pipe is shown on the construction plans, it shall be solid wall gravity flow PVC storm sewer pipe and fittings with bell and spigot joints with elastomeric seals and smooth inner walls in accordance with ASTM D3034 (SDR 35, 12 to 15-inch diameter), ASTM F679 (PS 46, 18 to 36-inch diameter), and INDOT Standard Specification Section 907.

1. Minimum cell class shall be in accordance with ASTM D1784 as follows:

   a. Cell class 12364 for 12 to 15-inch diameter pipes.

   b. Cell class 12454 for 18 to 24-inch diameter pipes.

2. Pipe shall have a minimum stiffness of 46 pounds per square inch when tested in accordance with ASTM D2412.

3. Furnish PVC pipe with flexible, gasketed compression type joints so that, when assembled, the gasket inside the bell is compressed radially on the pipe spigot to form a soil-tight seal. Assemble joints in accordance with the pipe manufacturer's recommendations and ASTM D3212. Gaskets shall conform to ASTM F477.

4. Manufactured fittings shall not be accepted substitutes for precast storm structures.

2.4 POLYPROPYLENE (PP) PIPE

A. Where polypropylene (PP) pipe is shown on the construction plans, it shall be double wall PP pipe with a smooth interior and annular exterior corrugations in accordance with ASTM F2736.

1. Polypropylene compound for pipe and fitting production shall be impact modified copolymer meeting the material requirements of ASTM F2736 Section 4, ASTM F2881 Section 5, and AASHTO M330 Section 6.1 for respective diameters.

2. Provide pipe joined with a gasketed integral bell and spigot joint meeting the requirements of ASTM F2736. Joints shall be watertight.

2.5 SLOTTED DRAIN PIPE

A. Slotted drain pipe shall consist of the Duraslot slotted drain pipe system as manufactured by Advanced Drainage Solutions (ADS) Inc.

B. Duraslot system shall utilize a variable height riser and pedestrian grate.

2.6 PRECAST CONCRETE STORM STRUCTURES

A. All storm manholes, catch basins, and inlets shall be precast concrete.

B. Precast concrete and steel for manholes and inlets shall be in accordance with ASTM C-478.

C. Castings shall be as shown on the detail sheet(s) for manufacturer, type, and model numbers.

D. Weir plates and angle iron connectors for outlet control and/or diversion structures shall be galvanized steel of the thickness as specified on the plans. Bolts utilized for connecting the angle iron to the precast structure shall be galvanized steel of sufficient length to attach angle iron to the structure. The weir plates shall extend the full inside width or diameter of the precast storm structure to which it connects. The weir plate heights shall be as shown on the construction plans.

E. Debris screens/trash guards, for outlet control structure orifices, shall be galvanized steel. Each screen shall extend beyond the orifice opening by a minimum of 2 inches on any and all sides.

2.7 NYLOPLAST DRAIN BASINS

A. Nyloplast drain basins, grates, and covers shall be as manufactured by Advanced Drainage Solutions (ADS).

2.8 STORMWATER QUALITY TREATMENT UNITS

A. Aqua-Swirl hydrodynamic separators as manufactured by Aqua-Shield, Inc. shall be installed for stormwater quality treatment as indicated on the construction plans. No substitutions will be allowed without prior written approval by the Engineer.

B. Units shall be handled and stored in accordance with the manufacturer’s specifications to avoid damage.

C. Aqua-Swirl units shall be fabricated from polymer pre-coated steel sheet for corrugated steel pipe and shall comply with ASTM A 760 and ASTM A 742. Units must be installed in offline configurations as shown on the plans.

1. Stub outs and internal components shall be supplied by the manufacturer and MIG welded using accepted welding practices.

2. The manufacturer shall supply direct access to the unit via a riser. The riser shall not be field cut by the contractor.

D. Pipe coupling connections to and from Aqua-Swirl shall be Mar-Mac, Fernco, or Mission style flexible boot with stainless steel tension bands and shear guard. Fabricated HDPE

bends shall be installed as noted on the plans between the hydrodynamic separators and diversion manholes.

E. Bedding Stone: Stable base consisting of at least 6 inches of fine, readily compacted soil or granular fill material. Bedding shall not contain stones retained on a 3-inch ring, frozen lumps, highly plastic clay, organic material, corrosive material, or other deleterious foreign materials.

F. Backfill Stone: Class I or II stone materials, (well graded gravels, gravely sands; contains little or no fines) as defined by ASTM D 2321, Section 5, Materials.

G. Contractor shall install the hydrodynamic separators in accordance with the manufacturer's specifications and details including all traffic rated, reinforced concrete pads around castings for units located in areas subject to traffic loading.

2.9 INLINE CHECK VALVE

A. Inline check valves shall be CheckMate UltraFlex inline check valves as manufactured by Tideflex Technologies.

B. Inline check valves shall be handled, stored, and installed in accordance with the manufacturer's specifications to avoid damage.

2.10 MORTAR

A. Mortar for setting casting frames shall be composed of 1 part cement to 2 parts No. 23 fine aggregate by volume.

2.11 TRASH & ANIMAL GUARDS

A. Trash guard for pipe end sections shall be standard trash guards as manufactured by Haala Industries, Inc. or an approved equal.

1. Trash guards shall consist of solid, galvanized steel bars and shall be mounted to the pipe end sections using hinged connections.

B. Side mounted debris and animal guards for detention outlet control structures shall be angle grates, inlet grates, raised plate grates, or triangle grates as manufactured by Haala Industries, Inc or an approved equal.

1. Side mounted debris and animal guards shall consist of galvanized steel plates or bars with mounting flanges for connections for the precast concrete structure wall.

C. Trash and animal guards shall be handled, stored, and installed in accordance with the manufacturer's specifications to avoid damage.

2.12 CONCRETE HEADWALLS

A. Where concrete headwalls are shown on the construction plans, they shall conform to the Kentucky Department of Highways Standard Drawing No. RDH-020-03 “Slope & Flared Headwalls for 12” to 27” Pipe” in accordance with the Johnson County Surveyor’s Office requirements.

1. Concrete headwalls and toe walls may be precast or cast-in-place concrete.

PART 3 - EXECUTION

3.1 GENERAL

A. Permits and Codes: The intent of this section of the specifications is that the Contractor's bid on the work covered herein shall be based upon the drawings and specifications but that the work shall comply with all applicable codes and regulations as amended by any waivers. The contractor shall furnish all bonds necessary to get permits for cuts and connections to existing sewers.

B. Contractor shall be responsible for confirming, coordinating, and scheduling all necessary inspections by the Town of Whiteland related to the storm sewer system installation.

C. Local Standards: The term "local standards" as used herein means the standards of design and construction of the Town of Whiteland Stormwater Department/Utility and Town of Whiteland Design Standards and Specifications Manual.

D. Existing Improvements: The Contractor shall maintain in operating condition all active utilities, sewers, and other drains encountered in the sewer installation. The Contractor shall repair to the satisfaction of the Owner any damage to existing active improvements.

E. Utilities: It shall be the responsibility of the Contractor to verity all existing utilities and conditions pertaining to his work. It shall also be the Contractor's responsibility to contact the owners of the various utilities before work is started. The Contractor shall notify in writing the Owner and Engineer of any changes, errors, or omissions found on these plans or in the field before work is started or resumed.

F. Workmanship: This work shall conform to all local, state, and national codes and to be approved by all local and state agencies having jurisdiction.

3.2 TRENCH EXCAVATION

A. Excavate storm sewer trenches to the widths and depths as indicated on the construction plans and details and in accordance Section 31 20 00 Earthwork.

3.3 STRUCTURE INSTALLATION

A. Contractor shall install precast concrete storm structures in accordance with Section 720 of the INDOT 2020 Standard Specifications.

B. Contractor shall install and backfill Nyloplast drain basins and Duraslot slotted drain pipe in accordance with the manufacturer's details, specifications, and recommendations.

C. Excavation shall be to the established bottom of the structure foundations and shall result in a firm, smooth surface. If soft or yielding spots are encountered at this elevation, the Contractor shall remove the soft soil and backfill it with suitable granular backfill or crushed limestone aggregate materials tamped into place. If rock is encountered at the bottom elevation, the excavation shall be carried down 6 inches further and backfilled with an approved material tamped to the required elevation.

D. Inlet and outlet pipes shall extend through structure walls a sufficient distance to allow for connections to the outside and concrete/mortar carefully placed around them to prevent leakage around the pipe.

E. Frames for castings and bearing plates for manholes shall be set in full mortar beds and secured. Mortar shall be composed of 1 part cement to 2 parts No. 23 fine aggregate by volume. Castings shall be set to the finished pavement elevations so that subsequent adjustments are not necessary.

F. Where castings are adjacent to or are surrounded by cement concrete construction, each casting shall be entirely separated from the concrete by a preformed joint filler not less than 3/8" thick. Grates shall be places with the maximum dimension of the rectangular opening parallel to the direction of flow.

G. If a manhole is constructed within the pavement area, the total height of the casting specified plus the height of the adjusting rings shall be based on the adjacent pavement section depth.

H. If the completed structure is partially or completely under or at its nearest point is within 5 feet of pavement, sidewalks, curbs, gutters or buildings, the excavated space not occupied by the structure shall be backfilled with granular backfill material.

I. Backfilling Aqua-Swirl Units: contractor shall backfill unit in accordance with ASTM A 798, Section 10, Structural Backfill Placement. The backfill stone shall be placed in 6 to 12 inch lifts and compacted to 90% proctor density. The backfill shall extend at least 18 inches outward from the unit and for the full height of the unit (including risers) extending laterally to undisturbed soils.

J. Manhole Inverts: construct manhole flow channels of concrete sewer pipe or brick, smoothly finished and of semicircular section conforming to the inside diameter of the connecting sewers. Make changes in size or grade gradually and changes indirection by true curves. Provide such channels for all connecting sewers at each manhole.

K. The Contractor shall install galvanized steel weir plates at the elevations as shown on the plans. Weir plates for outlet control structures shall be attached to the precast

structure utilizing galvanized steel angle iron connectors and bolts. Weir plates for diversion structures shall be attached to precast structure utilizing waterproof epoxy.

3.4 PIPE INSTALLATIONS

A. Contractor shall install storm sewer pipe and underdrains in accordance with Sections 715 and 718 of the INDOT 2020 Standard Specifications.

B. Excavate trenches in accordance with the details included in the construction plans and Section 31 20 00 Earthwork. Where pipe is to be place in fill sections, a portion of the fill shall be constructed and compacted in accordance with the specifications prior to pipe installation.

C. Sheet and brace trenches as necessary to protect workmen and adjacent structures. All trenching to comply with current Occupational Safety and Health Administration (OSHA) standards. Keep trenches free from water while construction is in progress. Under no circumstances shall pipe or appurtenances be laid in standing water. Conduct the discharge from trench de-watering to appropriately designed and sized dewatering bags or basins prior to discharging into storm sewer drains or natural drainage channels.

D. Install #8 compacted aggregate for bedding of flexible pipe in 6-inch lifts. Compaction shall be accomplished by hand or mechanical tamping or walking the granular material in.

E. Lay pipe to the lines and grades shown on the construction plans. All pipe shall be laid commencing from the lowest point, proceeding upstream, with the spigot ends pointing towards the direction of the flow. HDPE and PVC pipe shall not be blocked for support. The practice of blocking pipe up to grade with bedding material then backfilling underneath the pipe is prohibited. The entire length of the bed section shall be at the proper grade before installing pipe.

F. Where HDPE and PVC pipe are to be installed below the maximum ground water table, Contractor shall provide adequate weights to prevent floatation of the pipe.

G. Install HDPE and PVC pipe on a firm, uniform foundation of bedding material under the entire lower quadrant of the barrel. No weight shall be supported by the pipe bell.

H. Install reinforced concrete pipe on a firm, uniform foundation of undisturbed soil and cut recesses into the soil to receive any projecting hubs or bells.

I. Pipe shall be carefully inserted into the bell in such that there will be no unevenness of any kind along the bottom half of the pipes and that there is a uniform joint space all around.

J. Contractor shall take special precautions when homing PVC pipe as to not over-seat past the home marks. Field cut pipes shall have the homing marks reestablished to ensure proper seating depths. Field cut pipes shall have the cut ends re-tapered, by grinding or filing, as close as possible, to the original taper provided by the manufacturer. When homing pipe with a spud-bar or other mechanical equipment, other than by hand,

a piece of wood shall be placed between the pipe and tool to prevent damage to the bell end section.

K. All pipes which settle, or which are not in alignment, shall be taken up and re-laid at the Contractor's expense.

L. All storm sewer pipe, except underdrains, shall be video inspected for acceptance a minimum of 30 days after the completion of backfill operations.

M. Backfilling: Pipe bedding and backfill shall be placed as shown in the plans. Contractor shall install initial backfill consisting of Class I material such as #8 aggregate a minimum of 12" above the top of flexible pipe (PVC, HDPE, and PP pipe). Contractor shall hand tamp or walk-in bedding and initial backfill. Contractor shall install Class II or clean sand granular backfill in 6-inch maximum lifts and mechanical compact to 95% modified proctor density when trenches are within 5 feet of sidewalks, pavement, curbs, or buildings. Compaction operations shall be completed taking care not to disturb the pipe.

3.5 INLINE CHECK VALVE INSTALLATION

A. Contractor shall install the inline check valve in accordance with the manufacturer's specifications.

3.6 DEWATERING

A. If necessary due to site conditions or excessive rainfall events, the Contractor shall dewater the site and/or excavations utilizing a system of pumps and re-useable dewatering bags. The Contractor shall not allow dewatering operations to discharge directly into storm sewers, storm inlets or manholes, ditches, or swales without an appropriately sized and selected dewatering bag. Under no circumstances shall dewatering operations associated with groundwater or precipitation be discharged into a sanitary sewer.

3.7 FIELD QUALITY CONTROL

A. Deflection Testing for Flexible (HDPE, PP, PVC) Pipes: Contractor shall be responsible for performing deflection testing in accordance with the following requirements:

1. Performing testing in presence of the Owner's designated representative.

2. Perform testing on all flexible pipes 12-inch diameter and larger after the final backfill has been in place for at least 30 days.

3. Perform deflection testing using a mandrel pulled by hand. The mandrel (go/no-go) devise shall be cylindrical in shape and constructed with nine or ten evenly spaced arms or prongs.

4. No pipe shall exceed a vertical deflection of 5%. Contractor shall uncover, replace, and retest any pipe not passing the deflection test until a satisfactory result is achieved.

B. Television Inspection: Contractor shall be responsible for televising the storm sewer in accordance with the following requirements:

1. Televise all mainline storm sewers (manhole to manhole).

2. Televise all lateral storm sewers (manhole to inlet, inlet to inlet, etc.) exceeding 40 feet in length.

3. Perform television inspection in the presence of the Owner's designated representative.

4. Clean all new storm sewers prior to television inspection so the image is clear and interior condition of the pipe is easily evaluated.

5. Correct all unacceptable conditions found during television inspection and re-televise until no unacceptable conditions are found.

6. Unacceptable conditions are those adversely impacting the ability of the system to function as designed or to be properly maintained including but not limited to the following:

a. Protruding taps

b. Cracked or faulty pipe

c. Misaligned or deformed pipe

d. Debris in line

e. Infiltration/exfiltration

f. Excessive gaps in joints

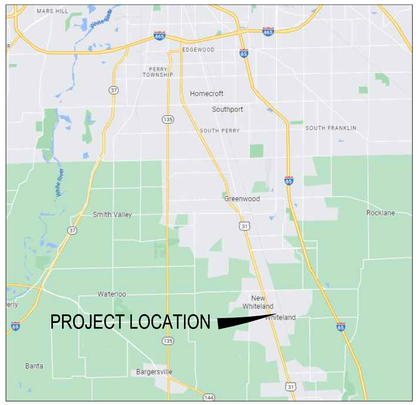
g. Bellies or sags with a depth greater than or equal to 10% of the pipe diameter (maximum of 3 inches) or a length greater than 25 feet.

7. Submit copy of the televising recording (DVD format) to the Owner within 14 calendar days of the inspection.

END OF SECTION 33 4200

FINAL CONSTRUCTION PLANS

WHITELAND COMMUNITY HIGH SCHOOL
PHASE 2A
300 E. MAIN STREET
WHITELAND, INDIANA



VICINITY MAP

NO SCALE

LOCATION MAP

NO SCALE

PLAN INDEX	
SHEET #	SUBJECT
100	TITLE SHEET
200	OVERALL TOPOGRAPHICAL SURVEY
201–206	TOPOGRAPHICAL SURVEY
207	OVERALL DEMOLITION PLAN
208–211	DEMOLITION PLAN
300	OVERALL SITE DIMENSION PLAN
301–304	SITE DIMENSION PLAN
400–403	UTILITY PLAN
500–503	GRADING PLAN
504	CURB RAMP GRADING DETAILS
505	EMERGENCY FLOOD ROUTE
600–603	DRAINAGE PLAN
700	SANITARY PLAN AND PROFILES
800–806	STORM PLAN AND PROFILES
900	OVERALL EROSION CONTROL PLAN
901–904	EROSION CONTROL PLAN
905	STORMWATER POLLUTION PREVENTION PLAN
1000–1004	MISCELLANEOUS DETAILS

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JOHNSON CO. LEGAL DRAIN NOTES

- NO STRUCTURES, OR IMPROVEMENTS SHALL BE PERMITTED WITHIN THE LEGAL DRAIN EASEMENT. ALL UTILITIES, BUILDINGS, STRUCTURES, PLANTINGS, CROPS, TREES, SHRUBS, AND WOODY VEGETATION GROWN WITHIN THE EASEMENT, OR ALONG THE LEGAL DRAIN ARE AT THE RISK OF OWNER AND SUBJECT TO REMOVAL WITH MINIMAL NOTICE, WITHOUT RESTITUTION, AND SUBJECT TO SPECIAL ASSESSMENT (IC 36-9-27-33).
- THIS SITE PLOTS BY SCALE AS BEING WITHIN A REGULATED WATERSHED. ANY AND ALL SITE IMPROVEMENTS WITHIN A REGULATED WATERSHED ARE SUBJECT TO REVIEW BY THE JOHNSON COUNTY DRAINAGE BOARD. ALL TRACTS WITHIN A REGULATED DRAIN WATERSHED ARE SUBJECT TO ASSESSMENTS FOR MAINTENANCE (IC 36-9- 27-44), AND WHEN PRACTICABLE, RECONSTRUCTION (IC 36-9-27-51).
- NO CONSTRUCTION, OR IMPROVEMENTS SHALL IMPAIR OR NEGATIVELY IMPACT ANY PRIVATE DRAIN TILE (IC 36-9-27-2) KNOWN OR UNKNOWN. NO CONSTRUCTION, OR IMPROVEMENTS SHALL IMPAIR, IMPEDE, OR NEGATIVELY IMPACT, A NATURAL SURFACE WATERCOURSE (IC 36-9-27.4-3). WHEN ENCOUNTERED SAID TILE OR WATERCOURSE WILL BE DESIGNED, AND RE-ROUTED SO NOT TO IMPEDE, IMPAIR, OR NEGATIVELY IMPACT SURFACE OR SUBSURFACE WATER FLOW.
- PRIVATE TILES, AND MUTUAL DRAIN CONNECTIONS TO REGULATED DRAIN (IC 36-27-9-17). ALL CONNECTIONS, OR OUT-LETS INTO A REGULATED DRAIN ARE SUBJECT TO APPROVAL BY THE COUNTY SURVEYOR (≤ 10"), OR THE JOHNSON COUNTY DRAINAGE BOARD (> 11"). APPLICATIONS ARE AVAILABLE IN THE COUNTY SURVEYOR'S OFFICE AND SHOULD INCLUDE ALL MAPS, PLANS, SPECIFICATIONS, BONDING, EASEMENT VERBIAGE, APPLICATION FEES AND OWNERS STATEMENT OF WATER QUALITY (IC 36-27-9-23), PRIOR TO APPROVAL.

OWNER

CLARK-PLEASANT COMMUNITY
SCHOOL CORPORATION
50 CENTER STREET
WHITELAND, IN 46184
PHONE: (317) 535-3277
CONTACT: SAM ARNES
EMAIL: sarnes@cpcsc.k12.in.us

ENGINEER

CROSSROAD ENGINEERS, PC
115 N. 17TH AVENUE
BEECH GROVE, IN 46107
PHONE: (317) 780-1555
CONTACT: GREGORY J. ILKO
EMAIL: gilko@crossroadengineers.com

DIRECTORY PATH : R:\Active\Lanco+Beb\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 100 TITLE SHEET PH 2.dwg
DATE/USER : 4/23/2024 10:16 PM / Dsnyder

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 100

TITLE SHEET

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

GREGORY J. ILKO REGISTERED NO. 10300059 STATE OF INDIANA PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
3				
4				
5				
6				
7				
8				
9				

EXISTING LEGEND

POWERPOLE	800	CONTOURS	
POWERPOLE W/RISER		PROPERTY LINE	
POWERPOLE W/LIGHT		SECTION LINE	
LIGHT POLE		RIGHT-OF-WAY	
ELECTRIC METER		EASEMENT	
ELECTRIC BOX		ADJOINER LINE	
YARD LIGHT		PAVEMENT LINE	
GUY WIRE	— □ — □ — □ —	PRIVACY FENCE	
TRANSFORMER		CHAINLINK FENCE	
TELEPHONE MANHOLE	— X — X — X — X —	WIRE FENCE	
TELEPHONE RISER		DITCH	
FIBER OPTIC BOX	— G — G — G — G —	GAS LINE	
WATER VALVE	— T — T — T — T —	TELEPHONE LINE	
FIRE HYDRANT	— W — W —	WATER LINE	
IRRIGATION VALVE	— FIRE — FIRE —	FIRE SUPPRESSION LINE	
WATER METER	— FO — FO — FO — FO —	FIBER OPTIC LINE	
GAS VALVE	— CTV — CTV — CTV — CTV —	CABLE TV LINE	
GAS METER	— E — E — E — E —	ELECTRIC LINE	
CABLE TV RISER	— OHU — OHU — OHU —	OVERHEAD UTILITY LINE	
CLEANOUT		TREE LINE	
SIGN		SANITARY SEWER W/MANHOLE	
MAILBOX			
A/C UNIT		STORM SEWER W/ MANHOLE & END SECTION	
FLAG POLE			
STORM ROUND INLET	STORM CURB INLET	STORM SQUARE INLET	
RIGHT-OF-WAY MARKER	ASPHALT	BUILDING	CONCRETE
TREE, BUSH & STUMP	GRAVEL	REMOVAL/DEMOLISH	
TEMP. BENCHMARK			

BENCHMARK INFORMATION

ORIGINATING BENCHMARK

DESIGNATION – X 13
PID – KA0010
STATE/COUNTY – IN/MORGAN
USGS QUAD – MOORESVILLE EAST (1980)

VERT ORDER – FIRST CLASS II

DESCRIBED BY COAST AND GEODETIC SURVEY 1946
1.2 MI N FROM WAVERLY.
IN JOHNSON COUNTY, 1.2 MILES NORTH ALONG STATE HIGHWAY 37 FROM THE INTERSECTION OF STATE HIGHWAY 144 AT WAVERLY, MORGAN COUNTY, 125 YARDS NORTH OF THE MORGAN–JOHNSON COUNTY LINE, 26 FEET WEST OF THE CENTERLINE OF THE HIGHWAY, IN LINE WITH THE WEST RIGHT–OF–WAY FENCE, 1.5 FEET SOUTH OF A WHITE WOODEN WITNESS POST, AND ABOUT 2 FEET HIGHER THAN THE HIGHWAY. A STANDARD DISK, STAMPED 686,370 X 13 1930 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 7 INCHES ABOVE GROUND.

RECOVERY NOTE BY IN DEPT OF NAT RES 1985
NEW DESC– AT THE INTERSECTION OF NEW STATE ROAD 144 AND OLD STATE ROAD 37, IN THE SOUTHWEST QUARTER OF THE INTERSECTION, WITNESS POST IS GONE RIGHT–OF–WAY FENCE IS GONE, ALL OTHER INFORMATION APPEARS TO BE CORRECT.

ELEVATION = 685.94 (NAVD 88)

TBM #400
RR SPIKE SET IN E FACE OF PP#"P21063" LOCATED ±180' N OF "TRACT NORTH DRIVE" ±40' WEST OF "SAINT CHARLES WAY"
ELEV.=805.77

TBM #401
RR SPIKE SET IN E FACE OF PP#"P21042" LOCATED ±6' W OF "TRACY ST." ±40' S OF N PARKING LOT ENTRANCE @ "CLARK PLEASANT EMPLOYEE HEALTH & WELLNESS CENTER"
ELEV.=805.07

TBM #402
CUT BOX ON TOP OF CONC PEDESTAL FOR UP ON N EDGE OF CONC. LOCATED @ NE MOST CORNER OF PARKING LOT FOR "199 US–31 "BIG SPLASH CAR WASH"
ELEV.=806.18

TBM #403
SE MOST CORNER OF BOTTOM CONC STEP LOCATED @ SE CORNER OF "STUDIO 31 SALON" "43 N. US–31" ON E FACE OF BUILDING.
ELEV.=801.28

TBM #404
NE CORNER OF TOP CONC STEP CONNECTED TO LEAD WALK @ "239 E MAIN ST." LOCATED SE QUAD OF "E MAIN ST." & "TICHENOR LN."
ELEV.=799.80

TBM #405
RR SPIKE SET IN E FACE POWERPOLE, LOCATED ±5' S OF "E MAIN ST." & ±XX W OF DRIVE @ "399 E MAIN ST."
ELEV.=790.98

TBM #406
SW CORNER OF CONC PORCH @ "49 CENTER ST."
ELEV.=797.61

TBM #407
RR SPIKE SET IN S FACE OF PP# "P22C73", LOCATED ±5' E OF "CENTER ST." & ±150' N OF "CLEM ST."
ELEV.=800.07

TBM #408
RR SPIKE SET IN E FACE OF POWER POLE. LOCATED @ SW CORNER OF PROPERTY OF "329 CHRISTINA DR."
ELEV.=800.89

UTILITIES

Note: Listed below are the Indiana Underground Plant Protection Services Contacts; Others not listed may exist.

SANITARY SEWER
TOWN OF WHITELAND
SANITATION DEPARTMENT
549 MAIN STREET
WHITELAND, IN 46184
PHONE: (317) 557–2955
EMAIL: SEWERSUPT@WHITELANDIN.US
CONTACT: JESSE JONES

TOWN OF NEW WHITELAND
SANITATION DEPARTMENT
540 TRACY ROAD, SUITE A
NEW WHITELAND, IN 46184
PHONE: (317) 941–3544
EMAIL: MATT.GILLOCK@NEWWHITELAND.IN.GOV
CONTACT: MATT GILLOCK

STORM SEWER
TOWN OF WHITELAND
DEPARTMENT OF PUBLIC WORKS
549 MAIN STREET
WHITELAND, IN 46184
PHONE: (317) 557–1033
EMAIL: STREETDEPT@WHITELANDIN.US
CONTACT: SHAUN YOUNG

GAS
CENTERPOINT ENERGY
600 INDUSTRIAL DRIVE
FRANKLIN, IN 46131
PHONE: (765) 287–2119
EMAIL: JONATHAN.EASTHAM@CENTERPOINTENERGY.COM
CONTACT: JONATHAN EASTHAM

WATER
TOWN OF WHITELAND
DEPARTMENT OF PUBLIC WORKS
549 MAIN STREET
WHITELAND, IN 46184
PHONE: (317) 557–1033
EMAIL: STREETDEPT@WHITELANDIN.US
CONTACT: SHAUN YOUNG

INDIANA AMERICAN WATER COMPANY
153 N. EMERSON AVENUE
GREENWOOD, IN 46143
PHONE: (317) 209–5837
EMAIL: JONNY.NORRIS@AMWATER.COM
CONTACT: JONNY NORRIS

ELECTRIC
TOWN OF BARGERSVILLE
24 N. MAIN STREET
BARGERSVILLE, IN 46106
PHONE: (317) 422–5117
EMAIL: KKILLINGER@BARGERSVILLE.IN.GOV
CONTACT: KEVIN KILLINGER

JOHNSON COUNTY REMC
750 INTERNATIONAL DRIVE
FRANKLIN, IN 46131
PHONE: (317) 738–7639
EMAIL: JEANS@JCREMC.COM
CONTACT: SCOTT JEAN

TELECOMMUNICATIONS
JOHNSON COUNTY REMC FIBER
750 INTERNATIONAL DRIVE
FRANKLIN, IN 46131
PHONE: (317) 797–9786
EMAIL: BENNETT@JCREMC.COM
CONTACT: ERIC BENNETT

BRIGHTSPEED
50 N. JACKSON STREET
FRANKLIN, IN 46131
PHONE: (980) 376–1445
EMAIL: JAMES.W.ROLLEY@BRIGHTSPEED.COM
CONTACT: JAMES ROLLEY

EVERSTREAM
342 MASSACHUSETTS AVENUE
INDIANAPOLIS, IN 46204
PHONE: (317) 213–3137
EMAIL: MPUGH@EVERSTREAM.NET
CONTACT: MARK PUGH

COMCAST
1600 W. VERNAL PIKE
BLOOMINGTON, IN 47404
PHONE: (812) 360–3090
EMAIL: STEVE_MCARTOR@COMCAST.COM
CONTACT: STEVE MCARTOR

METRONET
3701 COMMUNICATIONS WAY
EVANSVILLE, IN 47715
PHONE: (812) 253–2196
EMAIL: MARK.DECKARD@METRONETINC.COM
CONTACT: MARK DECKARD

NOTE: The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities comprise all such utilities in the area, either in–service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although the surveyor does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

DEMOLITION LEGEND

(J)	FULL DEPTH SAWCUT
(1)	EX. STORM STRUCTURE, REMOVE
(2)	EX. STORM STRUCTURE, TO REMAIN
(3)	EX. STORM SEWER, REMOVE
(4)	EX. STORM SEWER, TO REMAIN
(5)	EX. STORM SEWER, CUT & CAP W/CONCRETE BULKHEAD
(6)	EX. SANITARY STRUCTURE, TO REMAIN
(7)	EX. SANITARY SEWER, TO REMAIN
(8)	EX. FIRE HYDRANT ASSEMBLY, TO REMAIN
(9)	EX. WATER MAIN, TO REMAIN
(10)	EX. LIGHT POLE & FOUNDATION, REMOVE
(11)	EX. LIGHT POLE & FOUNDATION, TO REMAIN
(12)	EX. SIGN & FOUNDATION, REMOVE
(13)	EX. FENCE/BOLLARD, REMOVE
(14)	EX. BUILDING, DEMOLISH
	PAVEMENT/CONCRETE REMOVAL

EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

40 0 40 80
SCALE: 1" = 40'

PROPERTY BOUNDARY SHOWN IS PRELIMINARY PENDING COMPLETION OF THE ALTA/NSPS LAND TITLE SURVEY BEING PREPARED BY G.W. CHARLES, L.S. WITH CROSSROAD ENGINEERS, P.C.

FLOODPLAIN INFORMATION

BY GRAPHIC PLOTTING ONLY, THIS TRACT OF LAND DESCRIBED HEREON LIES WITHIN THE UNSHADED PORTION OF ZONE 'X' (AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), FLOODPLAIN ZONE 'X' (AREAS OF 0.2% ANNUAL CHANCE FLOOD), FLOODPLAIN ZONE 'AE' (AREA OF 1% ANNUAL CHANCE FLOOD WITH ESTABLISHED BASE FLOOD ELEVATIONS), AND FLOODWAY ZONE 'AE' AND IS IN A SPECIAL FLOOD HAZARD AREA AS PLOTTED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP FOR JOHNSON COUNTY, INDIANA, COMMUNITY PANEL NO. 18081C0137D, WHICH BEARS AN EFFECTIVE DATE OF 08/02/2007.

TOPOGRAPHICAL NOTES

1. CONTRACTOR SHALL DISPOSE OF ALL MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
2. UTILITIES ARE GRAPHICAL REPRESENTATION PER SURVEY AND MAPPING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES FOR SERVICE DIS–CONNECTIONS AND/OR RELOCATIONS

INDIANA 811 Know What's Below. Call Before You Dig.

REMOVE EX. BLEACHERS
REMOVE EX. BLEACHERS
TYP.
ZONE "X"
REMOVE EX. FENCING TO THIS POINT
REMOVE EXISTING TRENCH DRAIN
ABANDON EX. STORM SEWER AND MANHOLE IN PLACE. CUT AND CAP EX. STORM SEWERS OUTSIDE MANHOLE AND INSTALL CONCRETE BULKHEAD
CONTRACTOR SHALL COORDINATE WITH JOHNSON CO. REMC FOR ELECTRICAL SERVICE AND TRANSFORMER REMOVAL
CONTRACTOR SHALL COORDINATE WITH JOHNSON CO. REMC FOR ELECTRIC SERVICE POINT LOCATION
REMOVE EX. FENCING TO THIS POINT
EX. FENCE TO REMAIN
EX. DRIVE TO REMAIN IN PLACE UNTIL NEW DRIVE AISLE IS CONSTRUCTED
APPROX. FLOODPLAIN LIMITS
FLOODWAY ZONE 'AE'
BFE 793
BFE 792
EAST LINE, SW 1/4, SEC. 21, T13N, R4E
WEST LINE, SW 1/4, SEC. 22, T13N, R4E
FLOODPLAIN ZONE 'AE'
APPROX. FLOODWAY LIMITS

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 210

DEMOLITION PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS	BY	DMS	APPR.	GJI

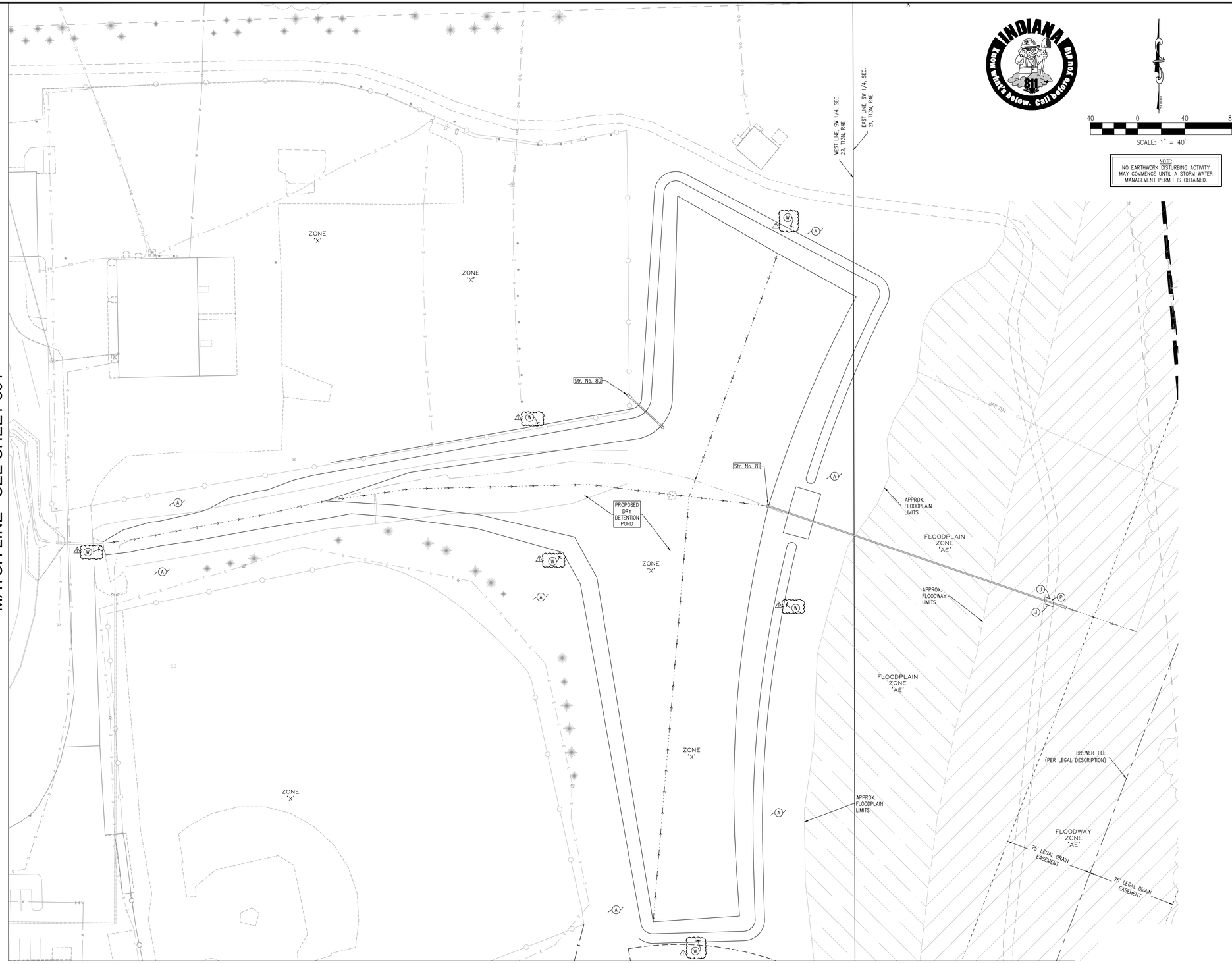
REVISIONS PER ADDENDUM NO. 1

NO.	DATE
1	04.23.24
2	
3	
4	
5	
6	
7	
8	
9	

DEREK M. SNYDER REGISTERED NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

SHEET 210

DIRECTORY PATH : R:\Active\Lennox-Bailey\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 210 DEMOLITION PLAN PH 2.dwg
DATE/USER : 4/23/2024 11:16 AM / KFlagg



40 0 40 80
SCALE: 1" = 40'

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

SITE DIMENSION LEGEND

- (A) MULCH SEEDING/LANDSCAPE AREAS
- (B) STRUCTURE FOUNDATION – PER BUILDING PLANS
- (C) STRAIGHT CONCRETE CURB (SEE DETAIL–SHEET 1000)
- (C1) SLOPED CONCRETE CURB (SEE DETAIL–SHEET 1000)
- (C2) CONCRETE CURB AND GUTTER (SEE DETAIL–SHEET 1000)
- (P01) CONCRETE, TYPE 01 (SEE CONTEXT PLANS)
- (F) A.D.A RAMP (SEE DETAIL–SHEET 1000)
- (J) SAWCUT
- (K) TYPICAL LIGHT DUTY ASPHALT SECTION
  1.5" HMA SURFACE 9.5mm, ON
  3" HMA INTERMEDIATE 19.0mm, ON
  6" COMPACTED AGGREGATE #53, ON
  COMPACTED SUBGRADE (SEE DETAIL–SHEET 1000)
- (K1) TYPICAL LIGHT DUTY ASPHALT SECTION OVER DETENTION SECTION
  1.5" HMA SURFACE 9.5mm, ON
  3" HMA INTERMEDIATE 19.0mm, ON
  VARIABLE DEPTH COMPACTED AGGREGATE #53, ON
  GEOTEXTILE FABRIC OVER UNDERGROUND DETENTION
  (SEE DETAIL–SHEET 1000)
- (K2) HEAVY DUTY ASPHALT SECTION
  1.5" HMA SURFACE 9.5mm, ON
  4" HMA INTERMEDIATE 19.0mm, ON
  8" COMPACTED AGGREGATE #53, ON
  COMPACTED SUBGRADE (SEE DETAIL–SHEET 1000)
- (K3) TYPICAL HEAVY DUTY ASPHALT SECTION OVER DETENTION SECTION
  1.5" HMA SURFACE 9.5mm, ON
  4" HMA INTERMEDIATE 19.0mm, ON
  VARIABLE DEPTH COMPACTED AGGREGATE #53, ON
  GEOTEXTILE FABRIC OVER UNDERGROUND DETENTION
  (SEE DETAIL–SHEET 1000)
- (P) TYPICAL ASPHALT PATH SECTION
  1" HMA SURFACE 9.5mm, ON
  2" HMA INTERMEDIATE 19.0mm, ON
  6" COMPACTED AGGREGATE #53, ON
  COMPACTED SUBGRADE (SEE DETAIL – SHEET 1000)
- (R1) MILL & OVERLAY SECTION
  1.5" HMA SURFACE 9.5mm, ON
  EXISTING PAVEMENT, MILLED 1.5"
  (SEE DETAIL–SHEET 700)
- (T) CONCRETE TURNOUT (SEE DETAIL–SHEET 304)
- (X) PERMANENT FENCING (SEE CONTEXT PLANS)
- (X01) PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- (X02) TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS
- (1) LINE, PAINTED, SOLID WHITE, 4"
- (2) LINE, PAINTED, SOLID BLUE, 4"
- (3) A.D.A. PARKING SYMBOL, PAINTED, SOLID BLUE, 4"
- (4) SIGNAGE (SEE DETAIL–SHEET 301)
- (5) CROSSWALK, PAINTED, SOLID, WHITE, 24"
- (W) WARNING SIGNAGE (SEE DETAIL–SHEET 600)

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA–SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

SITE DIMENSION NOTES

1. ALL NEW SIGNAGE AND PARKING LOT LIGHTS SHALL MATCH WHITELAND COMMUNITY HIGH SCHOOLS' EXISTING SIGNAGE AND LIGHTING. CONTRACTOR SHALL COORDINATE WITH OWNER, LANDSCAPE ARCHITECT (CONTEXT DESIGN), AND MEP DESIGNER FOR LIGHT STYLES AND LAYOUT.
2. CONTRACTOR SHALL NOTIFY ENGINEER, IF PROOF ROLL OF SUBGRADE FAILS, TO DETERMINE IF LIME STABILIZATION OF SUBGRADE IS NECESSARY.
3. ALL RADII DIMENSIONS ARE TO THE FACE OF PROPOSED CURB.
4. SIGNAGE SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 11 GAUGE FLANGED CHANNEL SIGN POST.
5. REFER TO LANDSCAPE AND ARCHITECTURAL PLANS FOR ADDITIONAL SIGNAGE. VERIFY CONFLICTS WITH OWNER, ARCHITECT, AND LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
7. LANDSCAPING PLAN TO BE PROVIDED BY CONTEXT DESIGN. CONTRACTOR SHALL COORDINATE WITH OWNER AND CONTEXT FOR SPECIFICATIONS.
8. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 302

SITE DIMENSION PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	CHECKED	TEN	APPR.	CJI
DRAWN	KLF				
DESIGNED	DMS				
DATE	APRIL 02, 2024				

REVISIONS PER ADDENDUM NO. 1

NO.	DATE	BY	APPR.
1	04.23.24	DMS	CJI
2			
3			
4			
5			
6			
7			
8			
9			

REVISIONS

DEREK M. SNYDER — REGISTERED — NO. 11200008 — STATE OF INDIANA — PROFESSIONAL ENGINEER

SHEET 302

DIRECTORY PATH : R:\Active\Lawson-Riedel\Whiteland High School\Design\CAD\Plans\PHASE 2
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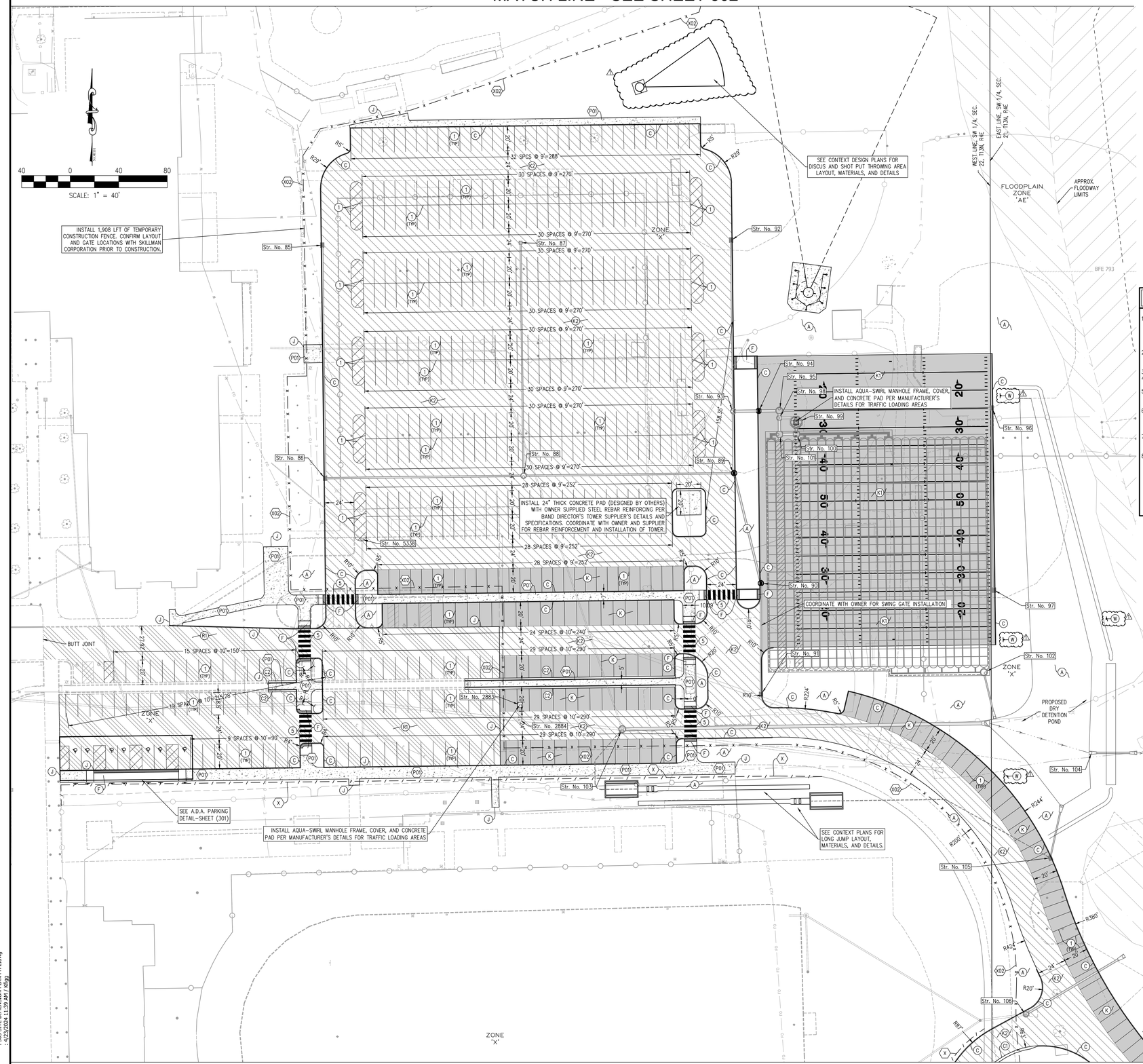
DATE/USER : 4/23/2024 11:39 AM / klfigg

MATCH LINE - SEE SHEET 302



MATCH LINE - SEE SHEET 304

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

SITE DIMENSION NOTES

1. ALL NEW SIGNAGE AND PARKING LOT LIGHTS SHALL MATCH WHITELAND COMMUNITY HIGH SCHOOLS' EXISTING SIGNAGE AND LIGHTING. CONTRACTOR SHALL COORDINATE WITH OWNER, LANDSCAPE ARCHITECT (CONTEXT DESIGN), AND MEP DESIGNER FOR LIGHT STYLES AND LAYOUT.
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4. SIGNAGE SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 11 GAUGE FLANGED CHANNEL SIGN POST.
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SITE DIMENSION LEGEND

- (A) MULCH SEEDING/LANDSCAPE AREAS
- (B) STRUCTURE FOUNDATION – PER BUILDING PLANS
- (C) STRAIGHT CONCRETE CURB (SEE DETAIL–SHEET 1000)
- (C1) SLOPED CONCRETE CURB (SEE DETAIL–SHEET 1000)
- (C2) CONCRETE CURB AND GUTTER (SEE DETAIL–SHEET 1000)
- (P01) CONCRETE, TYPE 01 (SEE CONTEXT PLANS)
- (F) A.D.A RAMP (SEE DETAIL–SHEET 1000)
- (J) SAWCUT
- (K) TYPICAL LIGHT DUTY ASPHALT SECTION
  1.5" HMA SURFACE 9.5mm, ON
  3" HMA INTERMEDIATE 19.0mm, ON
  6" COMPACTED AGGREGATE #53, ON
  COMPACTED SUBGRADE (SEE DETAIL–SHEET 1000)
- (K1) TYPICAL LIGHT DUTY ASPHALT SECTION OVER DETENTION SECTION
  1.5" HMA SURFACE 9.5mm, ON
  3" HMA INTERMEDIATE 19.0mm, ON
  VARIABLE DEPTH COMPACTED AGGREGATE #53, ON GEOTEXTILE FABRIC OVER UNDERGROUND DETENTION
  (SEE DETAIL–SHEET 1000)
- (K2) HEAVY DUTY ASPHALT SECTION
  1.5" HMA SURFACE 9.5mm, ON
  4" HMA INTERMEDIATE 19.0mm, ON
  8" COMPACTED AGGREGATE #53, ON
  COMPACTED SUBGRADE (SEE DETAIL–SHEET 1000)
- (K3) TYPICAL HEAVY DUTY ASPHALT SECTION OVER DETENTION SECTION
  1.5" HMA SURFACE 9.5mm, ON
  4" HMA INTERMEDIATE 19.0mm, ON
  VARIABLE DEPTH COMPACTED AGGREGATE #53, ON GEOTEXTILE FABRIC OVER UNDERGROUND DETENTION
  (SEE DETAIL–SHEET 1000)
- (P) TYPICAL ASPHALT PATH SECTION
  1" HMA SURFACE 9.5mm, ON
  2" HMA INTERMEDIATE 19.0mm, ON
  6" COMPACTED AGGREGATE #53, ON
  COMPACTED SUBGRADE (SEE DETAIL – SHEET 1000)
- (R1) MILL & OVERLAY SECTION
  1.5" HMA SURFACE 9.5mm, ON
  EXISTING PAVEMENT, MILLED 1.5"
  (SEE DETAIL–SHEET 700)
- (T) CONCRETE TURNOUT (SEE DETAIL–SHEET 304)
- (X) PERMANENT FENCING (SEE CONTEXT PLANS)
- (X01) PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- (X02) TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS
- (1) LINE, PAINTED, SOLID WHITE, 4"
- (2) LINE, PAINTED, SOLID BLUE, 4"
- (3) A.D.A. PARKING SYMBOL, PAINTED, SOLID BLUE, 4"
- (4) SIGNAGE (SEE DETAIL–SHEET 301)
- (5) CROSSWALK, PAINTED, SOLID, WHITE, 24"
- (W) WARNING SIGNAGE (SEE DETAIL–SHEET 600)

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 303

SITE DIMENSION PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

REGISTERED ENGINEER
DEREK M. SNYDER
NO. 11200008
STATE OF INDIANA
PROFESSIONAL

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
3				
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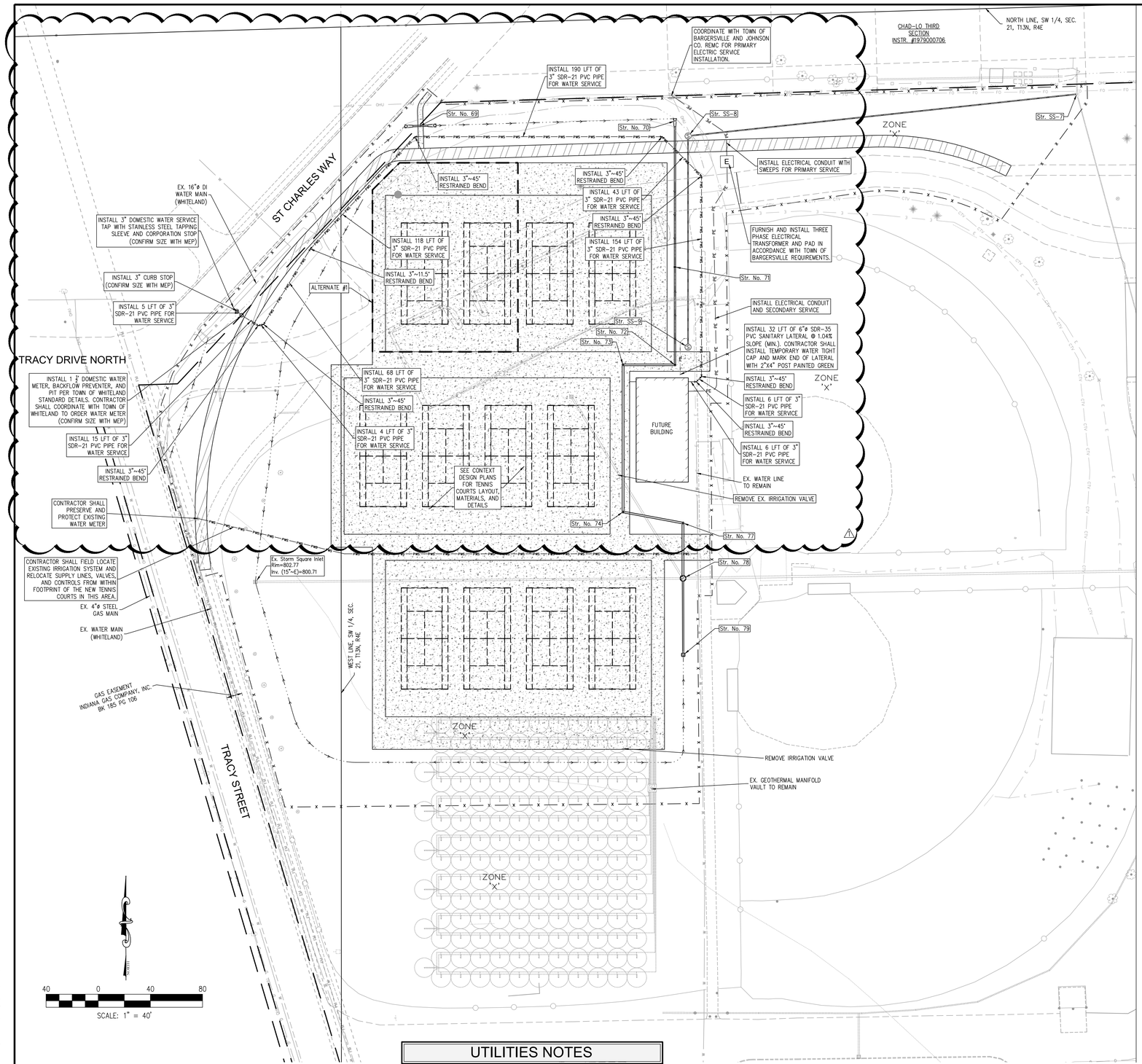
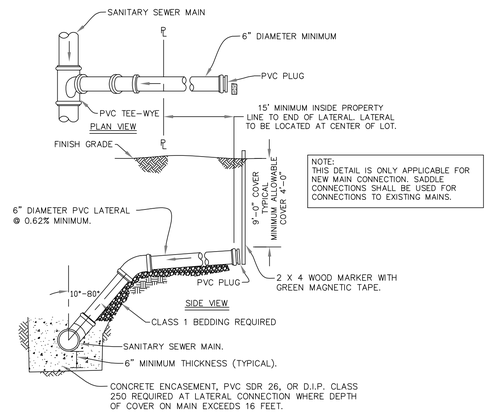
SHEET 303

DIRECTORY PATH : G:\Active\Lance-Rieke\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 303 SITE DIMENSION PLAN PH 2.dwg
DATE/USER : 4/23/2024 11:39 AM / KDigg



SANITARY SEWER MAIN



LATERAL CONNECTION DETAIL

NOT TO SCALE

MATCH LINE - SEE SHEET 401

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

EXISTING LEGEND

- POWERPOLE
- POWERPOLE W/RISER
- POWERPOLE W/LIGHT
- LIGHT POLE
- ELECTRIC METER
- ELECTRIC BOX
- YARD LIGHT
- GUY WIRE
- TRANSFORMER
- TELEPHONE MANHOLE
- TELEPHONE RISER
- FIBER OPTIC BOX
- WATER VALVE
- FIRE HYDRANT
- IRRIGATION VALVE
- WATER METER
- GAS VALVE
- GAS METER
- CABLE TV RISER
- CLEANOUT
- SIGN
- MAILBOX
- A/C UNIT
- FLAG POLE
- STORM ROUND INLET
- RIGHT-OF-WAY MARKER
- TREE, BUSH & STUMP
- TEMP. BENCHMARK
- CONTOURS
- PROPERTY LINE
- SECTION LINE
- RIGHT-OF-WAY
- EASEMENT
- ADJOINER LINE
- PAVEMENT LINE
- PRIVACY FENCE
- CHAINLINK FENCE
- WIRE FENCE
- DITCH
- GAS LINE
- TELEPHONE LINE
- WATER LINE
- FIRE SUPPRESSION LINE
- FIBER OPTIC LINE
- CABLE TV LINE
- ELECTRIC LINE
- OVERHEAD UTILITY LINE
- TREE LINE
- SANITARY SEWER W/MANHOLE
- STORM SEWER W/ MANHOLE & END SECTION
- STORM CURB INLET
- STORM SQUARE INLET
- ASPHALT
- BUILDING
- CONCRETE
- GRAVEL

STORM SEWER STRUCTURE TABLE

STR. DATA
STR. NO. 70 INSTALL ONE (1) CONCRETE PIPE END SECTION WITH ANIMAL GUARD AND 112 LFT OF 12"ø HDPE PIPE @ 0.30% INV OUT (12"~S)=800.90
STR. NO. 71 INSTALL 12" NYLOPLAST DRAIN WITH DOME GRATE AND 75 LFT OF 12"ø HDPE PIPE @ 0.47% RIM=803.66 INV IN (12"~N)=800.56 INV OUT (12"~S)=800.56
STR. NO. 72 INSTALL 18" NYLOPLAST DRAIN WITH PEDESTRIAN GRATE AND 40 LFT OF 15"ø HDPE PIPE @ 0.25% RIM=804.18 INV IN (12"~N)=800.21 INV OUT (15"~W)=800.06
STR. NO. 73 INSTALL 24" NYLOPLAST DRAIN WITH PEDESTRIAN GRATE AND 113 LFT OF 18"ø VARIABLE RISER HEIGHT DURASLOT HDPE PIPE @ 0.20% RIM=804.23 INV IN (15"~E)=799.96 INV OUT (18"~S)=799.96
STR. NO. 74 INSTALL 24" NYLOPLAST DRAIN WITH PEDESTRIAN GRATE AND 47 LFT OF 15"ø HDPE PIPE @ 0.21% RIM=804.23 INV IN (18"~N)=799.73 INV OUT (15"~E)=799.73

NOTE:
STR. NO. 75 AND 76 HAVE BEEN DELETED FROM PHASE 2A AND WILL BE INSTALLED IN FUTURE PHASE.

STORM SEWER STRUCTURE TABLE

STR. DATA
STR. NO. 77 INSTALL 24" NYLOPLAST DRAIN WITH PEDESTRIAN GRATE AND 42 LFT OF 18"ø HDPE PIPE @ 0.38% RIM=803.75 INV IN (15"~W)=799.63 INV IN (12"~NE)=800.15 INV OUT (18"~S)=799.54
STR. NO. 78 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND CONNECT TO EXISTING STORM 4 LFT OF 18"ø RCP @ 0.50% RIM=803.87 INV IN (12"~S)=799.38 INV IN (18"~N)=799.38 INV IN (15"~W)=799.38 INV OUT (18"~E)=799.38
STR. NO. 79 INSTALL TYPE 'E' INLET WITH NEENAH R-4215-C CASTING OR AN APPROVED EQUAL AND 59 LFT OF 12"ø HDPE PIPE @ 0.43% RIM=802.74 INV OUT (12"~N)=799.63

STORM CULVERT DATA TABLE

STR. DATA CULVERT
STR. NO. 69 INSTALL TWO (2) CONCRETE END SECTIONS WITH ANIMAL GUARDS AND 20 LFT OF 12"ø RCP @ 0.50% U.S. EL=802.83 D.S. EL.=802.73

SANITARY SEWER STRUCTURE TABLE

STR. DATA
STR. NO. SS-7 MECHANICALLY CORE EXISTING SANITARY MANHOLE AND CONNECT 8" PVC FROM STR. NO. SS-8 WITH CMA WATERSTOP CONNECTOR RIM=804.18 INV IN (8"~S)=797.58 INV IN (8"~W)=797.68 INV OUT (8"~N)=797.58
STR. NO. SS-8 INSTALL SANITARY MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 300 LFT OF 8"ø PVC @ 0.45% RIM=803.60 INV IN (8"~S)=799.13 INV OUT (8"~E)=799.03
STR. NO. SS-9 INSTALL SANITARY MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 162 LFT OF 8"ø PVC @ 0.45% RIM=804.13 INV OUT (8"~N)=799.86

UTILITIES NOTES

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2. CONTRACTOR SHALL REFER TO THE ELECTRICAL SITE PLAN PREPARED BY PRIMARY ENGINEERING, INC. FOR PARKING LOT LIGHTING AND SPECIFICATIONS.
3. ALL STORM SEWER CASTINGS SHALL BE NPDES PHASE II COMPLIANT. CASTINGS SHALL BE MANUFACTURED WITH A STATEMENT SAYING: "DUMP NO WASTE, DRAINS TO RIVER" IN ½" RAISED LETTERS.
4. ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW STORMWATER FACILITIES.
5. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

INDIANA 811 Know what's below. Call before you dig.

DIRECTORY PATH : I:\Active\Larsen-Reddy\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 400 UTILITY PLAN PH 2.dwg
DATE/USER : 4/23/2024 4:23 PM / dms

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 400

UTILITY PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	CHECKED	TEN		GJI
DRAWN	KLF			APPR.	
DESIGNED	DMS				
DATE	APRIL 02, 2024				

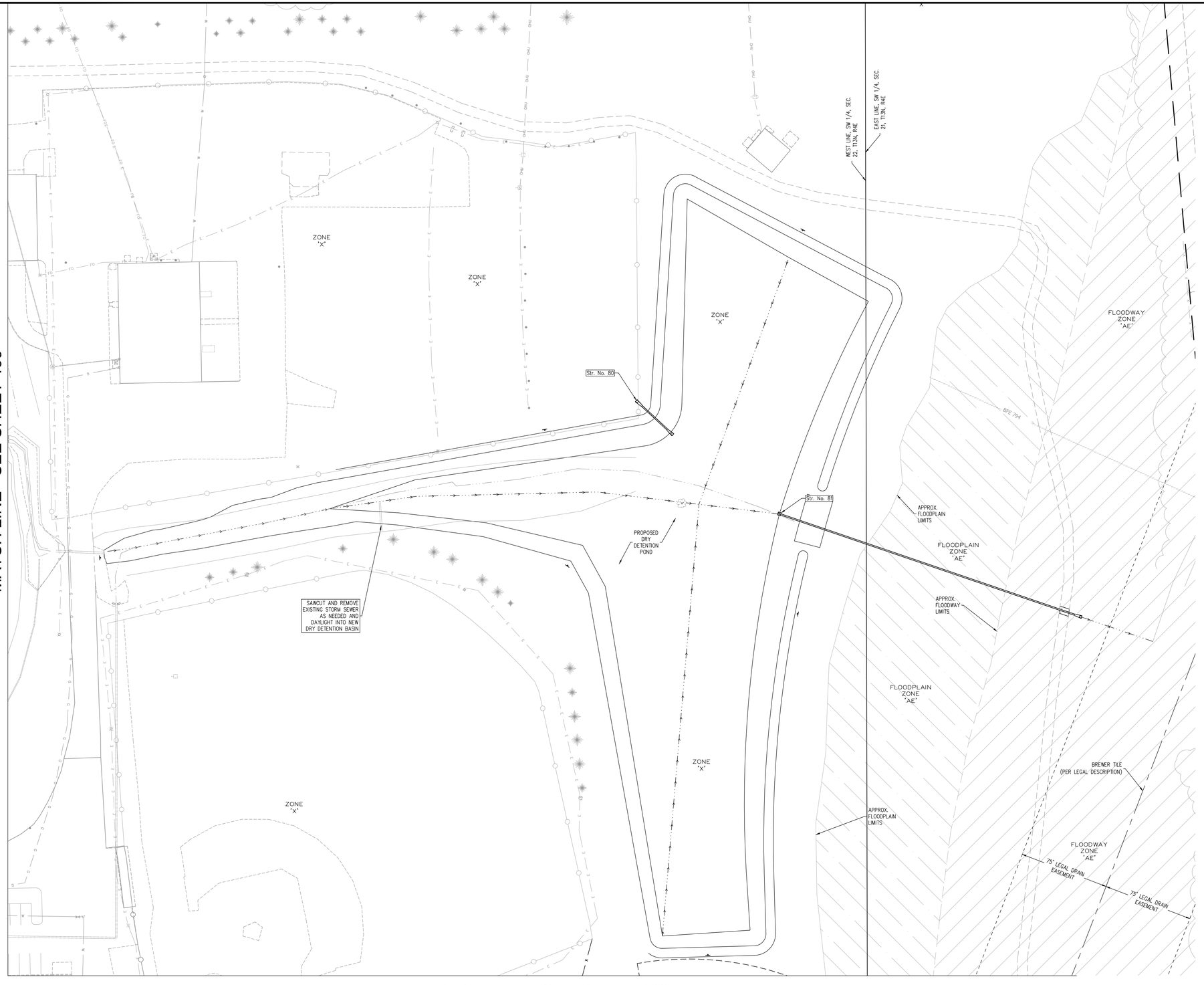
REVISIONS PER ADDENDUM NO. 1

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24		DMS	GJI
2				
3				
4				
5				
6				
7				
8				
9				

DEREK M. SNYDER REGISTERED NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

SHEET 400

MATCH LINE - SEE SHEET 400



MATCH LINE - SEE SHEET 402

NORTH

40 0 40 80

SCALE: 1" = 40'

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

EXISTING LEGEND

- POWERPOLE
- POWERPOLE W/RISER
- POWERPOLE W/LIGHT
- LIGHT POLE
- ELECTRIC METER
- ELECTRIC BOX
- YARD LIGHT
- GUY WIRE
- TRANSFORMER
- TELEPHONE MANHOLE
- TELEPHONE RISER
- FIBER OPTIC BOX
- WATER VALVE
- FIRE HYDRANT
- IRRIGATION VALVE
- WATER METER
- GAS VALVE
- GAS METER
- CABLE TV RISER
- CLEANOUT
- SIGN
- MAILBOX
- A/C UNIT
- FLAG POLE
- STORM ROUND INLET
- RIGHT-OF-WAY MARKER
- TREE, BUSH & STUMP
- TEMP. BENCHMARK
- CONTOURS
- PROPERTY LINE
- SECTION LINE
- RIGHT-OF-WAY
- EASEMENT
- ADJOINER LINE
- PAVEMENT LINE
- PRIVACY FENCE
- CHAINLINK FENCE
- WIRE FENCE
- DITCH
- GAS LINE
- TELEPHONE LINE
- WATER LINE
- FIRE SUPPRESSION LINE
- FIBER OPTIC LINE
- CABLE TV LINE
- ELECTRIC LINE
- OVERHEAD UTILITY LINE
- TREE LINE
- SANITARY SEWER W/MANHOLE & END SECTION
- STORM SEWER W/ MANHOLE & END SECTION
- STORM CURB INLET
- STORM SQUARE INLET
- ASPHALT
- BUILDING
- CONCRETE
- GRAVEL

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STORM CULVERT DATA TABLE
STR. DATA CULVERT
STR. NO. 80
INSTALL TWO (2) CONCRETE END SECTIONS WITH ANIMAL GUARDS AND 38 LFT OF 12"ø HDPE PIPE @ 3.68%
U.S. EL=794.50
D.S. EL.=793.10

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 81
INSTALL MODIFIED TYPE 'E' INLET FOR OUTLET CONTROL STRUCTURE WITH NEENAH R-4215-C CASTING OR AN APPROVED EQUAL, CHECKMATE ULTRAFLEX INLINE CHECK VALVE, AND ONE (1) CONCRETE HEADWALL WITH ANIMAL GUARD AND 265 LFT OF 12"ø CL IV RCP @ 0.35%
RIM=791.49
INV OUT (12"-E)=789.76

DIRECTORY PATH : D:\Active\Larsen+Riedel\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 401 UTILITY PLAN PH 2.dwg
DATE/USER : 4/23/2024 11:52 AM / KStig

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 401

UTILITY PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

DEREK M. SNYDER REGISTERED NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

Derek M. Snyder

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
3				
4				
5				
6				
7				
8				
9				

MATCH LINE - SEE SHEET 401

EXISTING LEGEND

- POWERPOLE
- POWERPOLE W/RISER
- POWERPOLE W/LIGHT
- LIGHT POLE
- ELECTRIC METER
- ELECTRIC BOX
- YARD LIGHT
- GUY WIRE
- TRANSFORMER
- TELEPHONE MANHOLE
- TELEPHONE RISER
- FIBER OPTIC BOX
- WATER VALVE
- FIRE HYDRANT
- IRRIGATION VALVE
- WATER METER
- GAS VALVE
- GAS METER
- CABLE TV RISER
- CLEANOUT
- SIGN
- MAILBOX
- A/C UNIT
- FLAG POLE
- STORM ROUND INLET
- RIGHT-OF-WAY MARKER
- TREE, BUSH & STUMP
- TEMP. BENCHMARK
- 800 CONTOURS
- PROPERTY LINE
- SECTION LINE
- RIGHT-OF-WAY
- EASEMENT
- ADJOINER LINE
- PAVEMENT LINE
- PRIVACY FENCE
- CHAINLINK FENCE
- WIRE FENCE
- DITCH
- GAS LINE
- TELEPHONE LINE
- WATER LINE
- FIRE SUPPRESSION LINE
- FIBER OPTIC LINE
- CABLE TV LINE
- ELECTRIC LINE
- OVERHEAD UTILITY LINE
- TREE LINE
- SANITARY SEWER
- STORM SEWER W/ MANHOLE & END SECTION
- STORM CURB INLET
- STORM SQUARE INLET
- ASPHALT
- BUILDING
- CONCRETE
- GRAVEL

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
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- WATER METER
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- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

Str. No. 85 · Str. No. 87 · Str. No. 92 · Str. No. 94 · Str. No. 95 · Str. No. 98 · Str. No. 99 · Str. No. 100 · Str. No. 101 · Str. No. 93 · Str. No. 89 · Str. No. 86 · Str. No. 88 · Str. No. 82 · Str. No. 90 · Str. No. 96 · Str. No. 97 · Str. No. 102 · Str. No. 84 · Str. No. 103 · Str. No. 83 · Str. No. 104 · Str. No. 105 · Str. No. 106

WEST LINE, SW 1/4, SEC. 22, T13N, R4E

EAST LINE, SW 1/4, SEC. 21, T13N, R4E

BFE 793

40 0 40 80

SCALE: 1" = 40'

ZONE "X"

⚠1 INSTALL 6 LFT OF NEENAH R-4999-D1 TRENCH DRAIN

INSTALL 95 LFT OF 4"ø PERFORATED HDPE UNDERDRAIN WITH FILTER SOCK @ 1.0% FOR LONG JUMP PIT DRAINAGE

INSTALL 208 LFT OF 4"ø PERFORATED HDPE UNDERDRAIN WITH FILTER SOCK @ 2.0% FOR LONG JUMP PIT DRAINAGE

PROPOSED DRY DETENTION POND

BREWER TILE (PER LEGAL DESCRIPTION)

75' LEGAL DRAIN EASEMENT

APPROX. FLOODPLAIN LIMITS

FLOODPLAIN ZONE "AE"

FLOODWAY ZONE "AE"

APPROX. FLOODWAY LIMITS

APPROX. FLOODPLAIN LIMITS

UTILITIES NOTES

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INDIANA 811 Know What's Below. Call Before You Dig.

ZONE "X"

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 85 INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 192 LFT OF 15"ø HDPE PIPE @ 0.35% RIM=801.84 INV OUT (15"~S)=797.99
STR. NO. 86 INSTALL TYPE 'M' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 164 LFT OF 15"ø HDPE PIPE @ 0.89% RIM=801.84 INV IN (15"~N)=797.32 INV OUT (15"~E)=797.32
STR. NO. 87 INSTALL TYPE 'E' INLET WITH NEENAH R-3405-A CASTING OR AN APPROVED EQUAL AND 192 LFT OF 12"ø HDPE PIPE @ 0.75% RIM=801.16 INV OUT (12"~S)=797.56
STR. NO. 88 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3405-A CASTING OR AN APPROVED EQUAL AND 174 LFT OF 15"ø HDPE PIPE @ 1.45% RIM=801.16 INV IN (15"~W)=795.87 INV IN (12"~N)=796.12 INV OUT (15"~E)=795.87
STR. NO. 89 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 51 LFT OF 24"ø HDPE PIPE @ 0.35% RIM=798.62 INV IN (15"~W)=793.35 INV IN (18"~S)=793.10 INV OUT (24"~N)=792.60
STR. NO. 90 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 93 LFT OF 18"ø HDPE PIPE @ 0.51% RIM=797.76 INV IN (15"~S)=793.83 INV OUT (18"~N)=793.58
STR. NO. 91 INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 92 LFT OF 15"ø HDPE PIPE @ 0.34% RIM=798.02 INV OUT (15"~N)=794.14

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 92 INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 141 LFT OF 15"ø HDPE PIPE @ 0.72% RIM=798.62 INV OUT (15"~S)=794.76
STR. NO. 93 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 21 LFT OF 24"ø HDPE PIPE @ 0.43% RIM=798.90 INV IN (15"~N)=793.75 INV IN (24"~S)=792.42 INV OUT (24"~E)=792.42
STR. NO. 94 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 17 LFT OF 24"ø HDPE PIPE @ 0.47% RIM=797.71 INV IN (24"~W)=792.33 INV OUT (24"~E)=792.33
STR. NO. 95 INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 6 LFT OF 24"ø HDPE PIPE @ 0.67% RIM=797.87 INV IN (24"~W)=792.25 INV IN (15"~E)=792.70 INV OUT (24"~S)=792.25
STR. NO. 96 INSTALL TYPE 'M' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 175 LFT OF 15"ø HDPE PIPE @ 0.40% RIM=797.71 INV IN (12"~S)=793.65 INV OUT (15"~W)=793.40
STR. NO. 97 INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 150 LFT OF 12"ø HDPE PIPE @ 0.30% RIM=797.71 INV OUT (12"~N)=794.10
STR. NO. 98 INSTALL MODIFIED TYPE 'C' MANHOLE FOR WATER QUALITY DIVERSION STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 14 LFT OF 24"ø HDPE PIPE @ 1.04% 14 LFT OF 18"ø HDPE PIPE @ 1.40% RIM=797.91 INV IN (24"~N)=792.21 INV OUT (24"~S)=793.44 INV OUT (18"~E)=792.21

STORM CULVERT DATA TABLE
STR. DATA CULVERT
STR. NO. 104 INSTALL ONE (1) CONCRETE END SECTION AND ONE (1) CONCRETE HEADWALL WITH ANIMAL GUARDS AND 35 LFT OF 15"ø HDPE PIPE @ 0.43% WITH CHECKMATE ULTRAFLEX INLINE CHECK VALVE U.S. EL=789.50 D.S. EL=789.35

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 99 INSTALL PCS AQUA-SWIRL AS-9 IN OFFLINE CONFIGURATION AND 10 LFT OF 18"ø HDPE PIPE @ 1.40% RIM=798.07 INV IN (18"~W)=792.07 INV OUT (18"~S)=792.07
STR. NO. 100 INSTALL TYPE 'J' MANHOLE FOR ISOLATOR ROW WQ BYPASS WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 4 LFT OF 24"ø HDPE PIPE @ 0.75% RIM=798.13 INV IN (24"~W)=792.00 INV IN (18"~N)=792.00 INV IN (24"~E)=793.01 INV OUT (24"~S)=792.00
STR. NO. 101 INSTALL TYPE 'J' MANHOLE FOR ISOLATOR ROW WQ BYPASS WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 4 LFT OF 24"ø HDPE PIPE @ 0.75% 14 LFT OF 24"ø HDPE PIPE @ 0.00% RIM=797.99 INV IN (24"~W)=793.30 INV IN (24"~W)=793.01 INV OUT (24"~S)=792.00 INV OUT (24"~E)=792.00
⚠ **STR. NO. 102** INSTALL MODIFIED TYPE 'J' MANHOLE FOR OUTLET CONTROL STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL, CHECKMATE ULTRAFLEX INLINE CHECK VALVE, AND ONE (1) CONCRETE PIPE END SECTION WITH ANIMAL GUARD AND 37 LFT OF 12"ø HDPE PIPE @ 0.35% RIM=798.20 INV IN (12"~W)=791.91 INV IN (12"~N)=791.91 INV IN (6"~SW)=790.30 INV IN (6"~NE)=790.30 INV OUT (12"~S)=790.30
STR. NO. 103 INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND ONE (1) CONCRETE PIPE END SECTION WITH ANIMAL GUARD AND 298 LFT OF 30"ø HDPE PIPE @ 0.40% RIM=800.84 INV IN (4"~SW)=797.00 INV IN (24"~W)=793.98 INV OUT (30"~E)=792.18
STR. NO. 105 INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND ONE (1) CONCRETE PIPE END SECTION WITH ANIMAL GUARD AND 43 LFT OF 12"ø HDPE PIPE @ 2.82% RIM=795.45 INV IN (4"~NW)=792.00 INV OUT (12"~N)=791.30
STR. NO. 106 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND ONE (1) CONCRETE HEADWALL WITH ANIMAL GUARD AND 92 LFT OF 18"ø HDPE PIPE @ 1.33% RIM=797.46 INV IN (18"~W)=792.23 INV OUT (18"~NE)=792.23

NOTE:
STR. NO. 100 AND 101 SHALL HAVE 24" SUMPS AND STR. NO. 102 SHALL HAVE A 12" SUMP.

EXISTING STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 82 EXISTING STORM INLET ADJUST CASTING TO GRADE (EX. RIM=802.00) PROP. RIM=802.79 EX. INV IN (6"~NW)=795.72 EX. INV OUT (12"~S)=795.63
STR. NO. 83 RECONSTRUCT EXISTING STORM MANHOLE TO GRADE (EX. RIM=803.93) PROP. RIM=802.85 EX. INV IN (24"~W)=794.17 EX. INV IN (15"~N)=794.10 EX. INV OUT (24"~E)=794.10 EX. INV OUT (15"~N)=794.17
STR. NO. 84 EXISTING AQUA-SWIRL RECONSTRUCT TO GRADE (EX. RIM=803.37) PROP. RIM=802.99 EX. INV IN (15"~S)=794.13 EX. INV OUT (15"~S)=794.13

MATCH LINE - SEE SHEET 403

DIRECTORY PATH: R:\Active\Lennar-Rexhill\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME: - 402 UTILITY PLAN PH 2.dwg
DATE/USER: - 4/23/2024 6:00 PM / Dsnyder

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 S. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 402

UTILITY PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	CJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

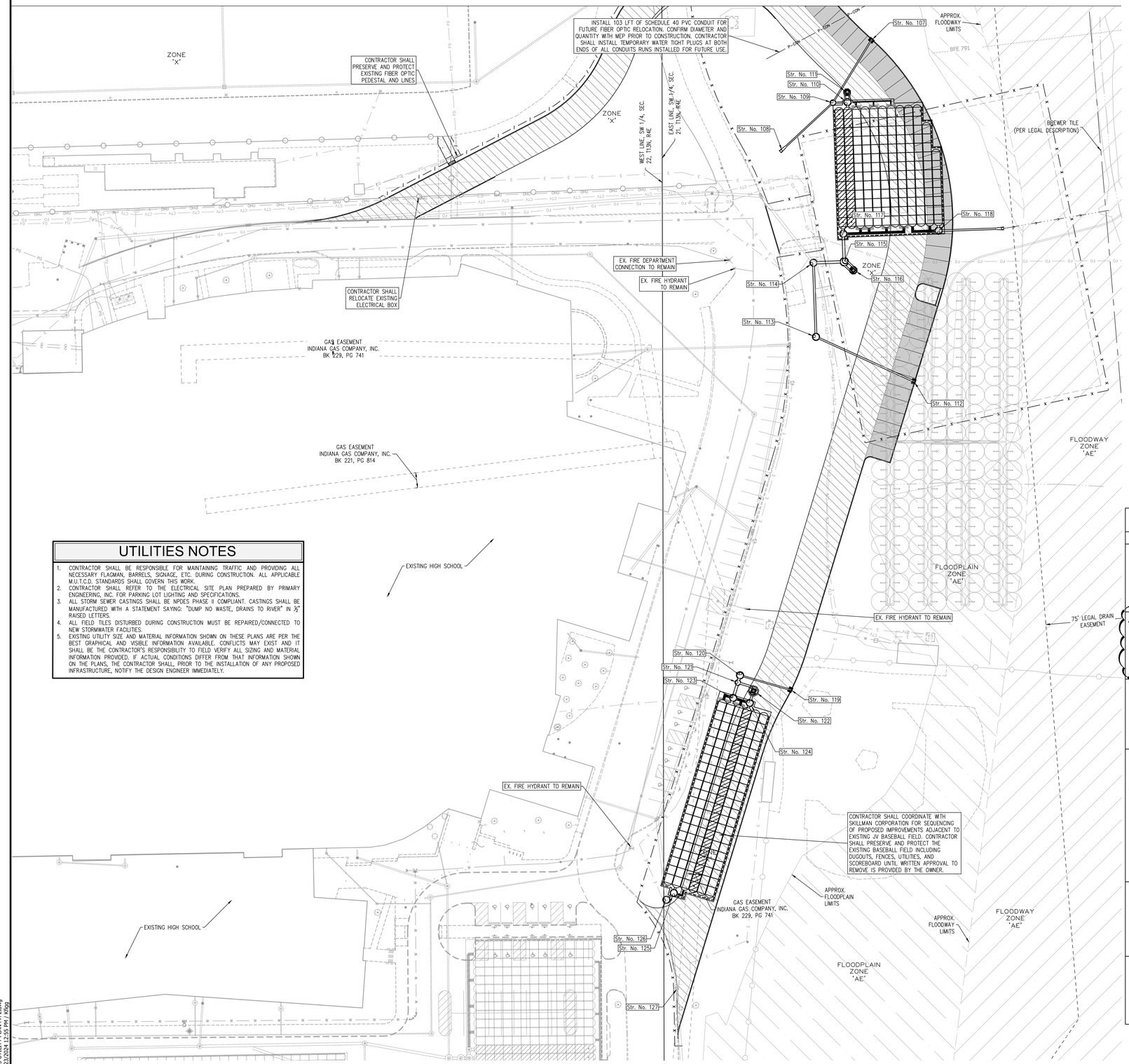
REVISIONS PER ADDENDUM NO. 1

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24		DMS	CJI

DEREK M. SNYDER NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

SHEET 402

MATCH LINE - SEE SHEET 402



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3. ALL STORM SEWER CASTINGS SHALL BE NPDES PHASE II COMPLIANT. CASTINGS SHALL BE MANUFACTURED WITH A STATEMENT SAYING: "DUMP NO WASTE, DRAINS TO RIVER" IN ¾" RAISED LETTERS.
4. ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW STORMWATER FACILITIES.
5. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

EXISTING LEGEND

- POWERPOLE
- POWERPOLE W/RISER
- POWERPOLE W/LIGHT
- LIGHT POLE
- ELECTRIC METER
- ELECTRIC BOX
- YARD LIGHT
- GUY WIRE
- TRANSFORMER
- TELEPHONE MANHOLE
- TELEPHONE RISER
- FIBER OPTIC BOX
- WATER VALVE
- FIRE HYDRANT
- IRRIGATION VALVE
- WATER METER
- GAS VALVE
- GAS METER
- CABLE TV RISER
- CLEANOUT
- SIGN
- MAILBOX
- A/C UNIT
- FLAG POLE
- STORM ROUND INLET
- RIGHT-OF-WAY MARKER
- TREE, BUSH & STUMP
- TEMP. BENCHMARK
- CONTOURS
- PROPERTY LINE
- SECTION LINE
- RIGHT-OF-WAY
- EASEMENT
- ADJOINER LINE
- PAVEMENT LINE
- PRIVACY FENCE
- CHAINLINK FENCE
- WIRE FENCE
- DITCH
- GAS LINE
- TELEPHONE LINE
- WATER LINE
- FIRE SUPPRESSION LINE
- FIBER OPTIC LINE
- CABLE TV LINE
- ELECTRIC LINE
- OVERHEAD UTILITY LINE
- TREE LINE
- SANITARY SEWER W/MANHOLE
- STORM SEWER W/ MANHOLE & END SECTION
- STORM CURB INLET
- STORM SQUARE INLET
- ASPHALT
- BUILDING
- CONCRETE
- GRAVEL

40 0 40 80

SCALE: 1" = 40'

811 INDIANA Dig Rite Know what's below. Call before you

STORM SEWER STRUCTURE TABLE

STR. DATA

STR. NO. 107

INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 59 LFT OF 12"ø HDPE PIPE @ 0.43% RIM=795.20

INV OUT (12"~SW)=791.60

STR. NO. 108

INSTALL TEMPORARY METAL PIPE END SECTION WITH ANIMAL GUARD AND 55 LFT OF 1 PE @ 0.45% RIM=794.69

INV OUT (12"~NE)=793.25

STR. NO. 109

INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND

RIM=797.43

INV IN (12"~E)=790.14

INV IN (12"~SW)=793.00

INV IN (12"~NE)=791.35

STR. NO. 110

INSTALL MODIFIED TYPE 'J' MANHOLE FOR WATER QUALITY DIVERSION STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 4 LFT OF 24"ø HDPE PIPE @ 0.25% 12 LFT OF 12"ø HDPE PIPE @ 0.86% 8 LFT OF 12"ø HDPE PIPE @ 1.00%

RIM=797.00

INV IN (12"~E)=792.00

INV IN (12"~N)=789.98

INV OUT (24"~S)=789.98

INV OUT (12"~W)=790.24

INV OUT (12"~N)=790.14

STR. NO. 111

INSTALL PCS AQUA-SWIRL AS-4 IN OFFLINE HORSESHOE CONFIGURATION AND 8 LFT OF 12"ø HDPE PIPE @ 1.00% RIM=796.44

INV IN (12"~S)=790.06

INV OUT (12"~S)=790.06

STR. NO. 112

INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVE EQUAL AND 86 LFT OF 15"ø HDPE PIPE @ 0.30% RIM=795.65

INV OUT (15"~NW)=791.77

STR. NO. 113

INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 59 LFT OF 18"ø HDPE PIPE @ 0.64% RIM=799.51

INV IN (15"~SE)=791.51

INV OUT (18"~N)=791.26

STR. NO. 114

INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 25 LFT OF 24"ø HDPE PIPE @ 0.77% RIM=800.79

INV IN (18"~S)=790.88

INV IN (24"~W)=790.60

INV OUT (24"~E)=790.50

STR. NO. 115

INSTALL MODIFIED TYPE 'K' MANHOLE FOR WATER QUALITY DIVERSION STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 22 LFT OF 24"ø HDPE PIPE @ 0.81% 10 LFT OF 15"ø HDPE PIPE @ 0.60% RIM=799.30

INV IN (24"~W)=790.31

INV IN (15"~SE)=790.19

INV OUT (24"~N)=790.19

INV OUT (15"~SE)=790.31

STR. NO. 116

INSTALL PCS AQUA-SWIRL AS-5 IN OFFLINE HORSESHOE CONFIGURATION AND 10 LFT OF 15"ø HDPE PIPE @ 0.60% RIM=798.20

INV IN (15"~NW)=790.25

INV OUT (15"~NW)=790.25

STR. NO. 117

INSTALL TYPE 'J' MANHOLE FOR ISOLATOR ROW WQ BYPASS WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 4 LFT OF 24"ø HDPE PIPE @ 1.00% RIM=799.39

INV IN (24"~S)=790.01

INV IN (24"~E)=791.01

INV OUT (24"~N)=790.01

STR. NO. 118

INSTALL MODIFIED TYPE 'J' MANHOLE FOR OUTLET CONTROL STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL, CHECKMATE ULTRAFLEX INLINE CHECK VALVE, AND ONE (1) CONCRETE HEADWALL WITH ANIMAL GUARD AND 50 LFT OF 15"ø HDPE PIPE @ 0.40% RIM=796.68

INV IN (24"~N)=789.97

INV IN (6"~SW)=787.78

INV IN (6"~NE)=787.80

INV IN (24"~W)=789.97

INV OUT (15"~E)=787.80

STR. NO. 119

INSTALL TYPE 'J' INLET WITH NEENAH R-3287-10V CASTING OR AN APPROVED EQUAL AND 42 LFT OF 12"ø HDPE PIPE @ 1.54% RIM=796.83

INV OUT (12"~W)=793.00

STR. NO. 120

INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 6 LFT OF 24"ø HDPE PIPE @ 0.83% RIM=798.57

INV IN (12"~E)=792.36

INV OUT (24"~S)=791.36

STR. NO. 121

INSTALL MODIFIED TYPE 'C' MANHOLE FOR WATER QUALITY DIVERSION STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 13 LFT OF 24"ø HDPE PIPE @ 0.78% 14 LFT OF 18"ø HDPE PIPE @ 0.82% RIM=798.44

INV IN (24"~N)=791.31

INV OUT (24"~S)=792.48

INV OUT (18"~E)=791.31

STR. NO. 122

INSTALL PCS AQUA-SWIRL AS-7 IN OFFLINE CONFIGURATION AND 10 LFT OF 18"ø HDPE PIPE @ 0.83% RIM=798.12

INV IN (18"~W)=791.23

INV OUT (18"~S)=791.20

STR. NO. 123

INSTALL TYPE 'J' MANHOLE FOR ISOLATOR ROW WQ BYPASS WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 4 LFT OF 24"ø HDPE PIPE @ 0.75% RIM=798.20

INV IN (24"~N)=792.38

INV IN (24"~E)=792.16

INV IN (24"~W)=792.16

INV OUT (24"~S)=791.15

STR. NO. 124

INSTALL TYPE 'J' MANHOLE FOR ISOLATOR ROW WQ BYPASS WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND 4 LFT OF 24"ø HDPE PIPE @ 0.75% RIM=797.94

INV IN (18"~N)=791.15

INV IN (24"~W)=792.16

INV OUT (24"~S)=791.15

STR. NO. 125

INSTALL MODIFIED TYPE 'J' MANHOLE FOR OUTLET CONTROL STRUCTURE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL AND CHECKMATE ULTRAFLEX INLINE CHECK VALVE AND 8 LFT OF 12"ø HDPE PIPE @ 0.75% RIM=797.26

INV IN (18"~N)=791.10

INV IN (18"~E)=791.10

INV IN (6"~SE)=789.45

INV IN (6"~NW)=789.45

INV OUT (12"~SW)=789.45

STR. NO. 126

INSTALL DOGHOUSE TYPE 'J' MANHOLE WITH NEENAH R-1772 CASTING OR AN APPROVED EQUAL

RIM=797.02

INV IN (12"~NE)=789.39

INV IN (24"~N)=789.30

INV OUT (24"~S)=789.30

STR. NO. 127

EXISTING STORM MANHOLE REMOVE EXISTING CASTING AND INSTALL NEENAH R-3405-A CASTING OR AN APPROVED EQUAL

RIM=793.70

INV IN (24"~N)=788.94

INV IN (24"~W)=~5.32

INV OUT (24"~S)=788.86

NOTE:
STR. NO. 110, 117, 123 AND 124 SHALL HAVE 24" SUMPS AND STR. NO. 118 AND 125 SHALL HAVE A 12" SUMP.

DIRECTORY PATH : I:\Active\Lance+Bader\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 403 UTILITY PLAN PH 2.dwg
DATE/USER : 4/23/2024 12:55 PM / KRog

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 403

UTILITY PLAN

WHITELAND HIGH SCHOOL PHASE 2A

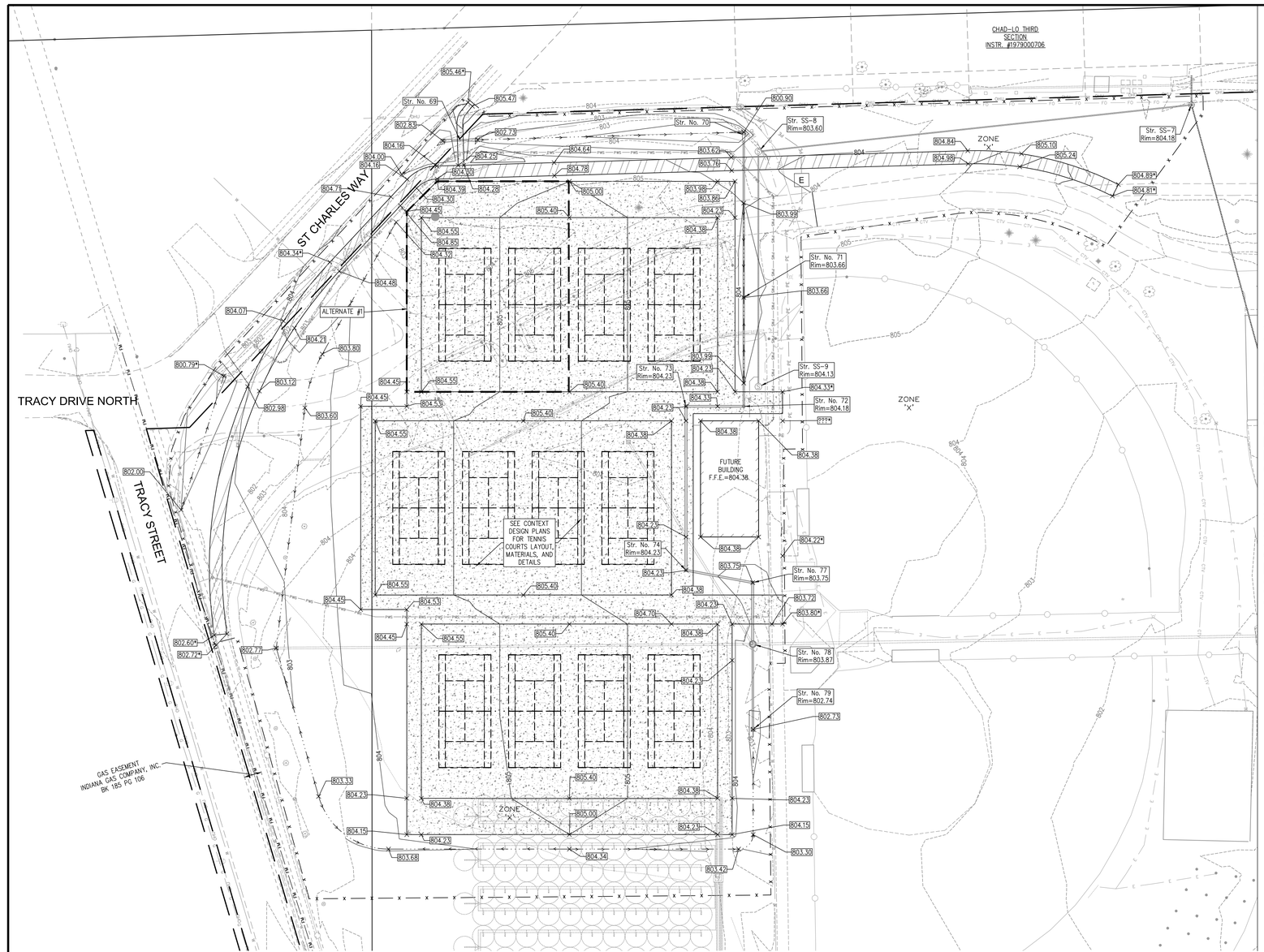
JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	CJI
DATE	APRIL 02, 2024	DESIGNED	DMS			APPR.	CJI

REVISIONS PER ADDENDUM NO. 1

NO.	DATE	BY	APPR.
1	04.23.24	DMS	CJI

DEREK M. SNYDER REGISTERED PROFESSIONAL ENGINEER NO. 11200008 STATE OF INDIANA

SHEET 403



BENCHMARK INFORMATION

ORIGINATING BENCHMARK

DESIGNATION – X 13
PID – KA0010
STATE/COUNTY – IN/MORGAN
USGS QUAD – MOORESVILLE EAST (1980)

VERT ORDER – FIRST CLASS II

DESCRIBED BY COAST AND GEODETIC SURVEY 1946
1.2 MI N FROM WAVERLY.
IN JOHNSON COUNTY, 1.2 MILES NORTH ALONG STATE HIGHWAY 37 FROM THE INTERSECTION OF STATE HIGHWAY 144 AT WAVERLY, MORGAN COUNTY, 125 YARDS NORTH OF THE MORGAN–JOHNSON COUNTY LINE, 26 FEET WEST OF THE CENTERLINE OF THE HIGHWAY, IN LINE WITH THE WEST RIGHT–OF–WAY FENCE, 1.5 FEET SOUTH OF A WHITE WOODEN WITNESS POST, AND ABOUT 2 FEET HIGHER THAN THE HIGHWAY. A STANDARD DISK, STAMPED 686.370 X 13 1930 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 7 INCHES ABOVE GROUND.

RECOVERY NOTE BY IN DEPT OF NAT RES 1985
NEW DESC– AT THE INTERSECTION OF NEW STATE ROAD 144 AND OLD STATE ROAD 37, IN THE SOUTHWEST QUARTER OF THE INTERSECTION, WITNESS POST IS GONE RIGHT–OF–WAY FENCE IS GONE, ALL OTHER INFORMATION APPEARS TO BE CORRECT.

ELEVATION = 685.94 (NAVD 88)

TBM #400
RR SPIKE SET IN E FACE OF PP# "P21063" LOCATED ±180' N OF "TRACT NORTH DRIVE" ±40' WEST OF "SAINT CHARLES WAY"
ELEV.=805.77

TBM #401
RR SPIKE SET IN E FACE OF PP# "P21042" LOCATED ±6' W OF "TRACY ST." ±40' S OF N PARKING LOT ENTRANCE @ "CLARK PLEASANT EMPLOYEE HEALTH & WELLNESS CENTER"
ELEV.=805.07

TBM #402
CUT BOX ON TOP OF CONC PEDESTAL FOR UP ON N EDGE OF CONC. LOCATED @ NE MOST CORNER OF PARKING LOT FOR "199 US–31 "BIG SPLASH CAR WASH"
ELEV.=806.18

TBM #403
SE MOST CORNER OF BOTTOM CONC STEP LOCATED @ SE CORNER OF "STUDIO 31 SALON" "43 N. US–31" ON E FACE OF BUILDING.
ELEV.=801.28

TBM #404
NE CORNER OF TOP CONC STEP CONNECTED TO LEAD WALK @ "239 E MAIN ST." LOCATED SE QUAD OF "E MAIN ST." & "TICHENOR LN."
ELEV.=799.80

TBM #405
RR SPIKE SET IN E FACE POWERPOLE, LOCATED ±5' S OF "E MAIN ST." & ±XX W OF DRIVE @ "399 E MAIN ST."
ELEV.=790.98

TBM #406
SW CORNER OF CONC PORCH @ "49 CENTER ST."
ELEV.=797.61

TBM #407
RR SPIKE SET IN S FACE OF PP# "P22C73". LOCATED ±5' E OF "CENTER ST." & ±150' N OF "CLEM ST."
ELEV.=800.07

TBM #408
RR SPIKE SET IN E FACE OF POWER POLE. LOCATED @ SW CORNER OF PROPERTY OF "329 CHRISTINA DR."
ELEV.=800.89

GRADING NOTES

1. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS IN FINAL GRADING OF SITE. NO INSTANCE SHALL DRAINAGE TOWARDS THE BUILDING FOUNDATION BE ALLOWED.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING PAVEMENT, SIDEWALK, AND CURB ELEVATIONS AT ALL TIE IN LOCATIONS PRIOR TO CONSTRUCTION AND REPORT DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
3. ALL CURB RAMPS SHALL BE A.D.A. COMPLIANT AND THE LONGITUDINAL AND CROSS SLOPES SHALL NOT EXCEED THE MAXIMUM SLOPES IDENTIFIED ON THE MISCELLANEOUS DETAILS (SEE SHEET 1000). CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF FIELDS CONDITIONS PREVENT CURB RAMPS FROM BEING CONSTRUCTED WITHOUT EXCEEDING MAXIMUM SLOPES.

GRADING LEGEND

860.00 TOP OF CURB 859.50 EDGE OF PAVEMENT	PROPOSED ELEVATIONS
860.00 FINISH GRADE	
860.00 * 859.50 *	PROPOSED ELEVATIONS
860.00 *	(TO BE FIELD VERIFIED)
	PROPOSED DRAINAGE SWALE
800	EXISTING CONTOURS
800	PROPOSED CONTOURS
GRADE BREAK	GRADE BREAK
	CURB HEIGHT TO TAPER FROM 0.5' TO 0.0' IN 6 LFT.

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

GRADING PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN
DATE	APRIL 02, 2024	DESIGNED	DMS	APPR.	GJI

SHEET 500

DEREK M. SNYDER
REGISTERED
NO. 11200008
STATE OF INDIANA
PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
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9				

SHEET 500

DIRECTORY PATH : R:\Active\Lawrence-Becker\Whiteland High School\Design\CAD\Plans\PHASE 2
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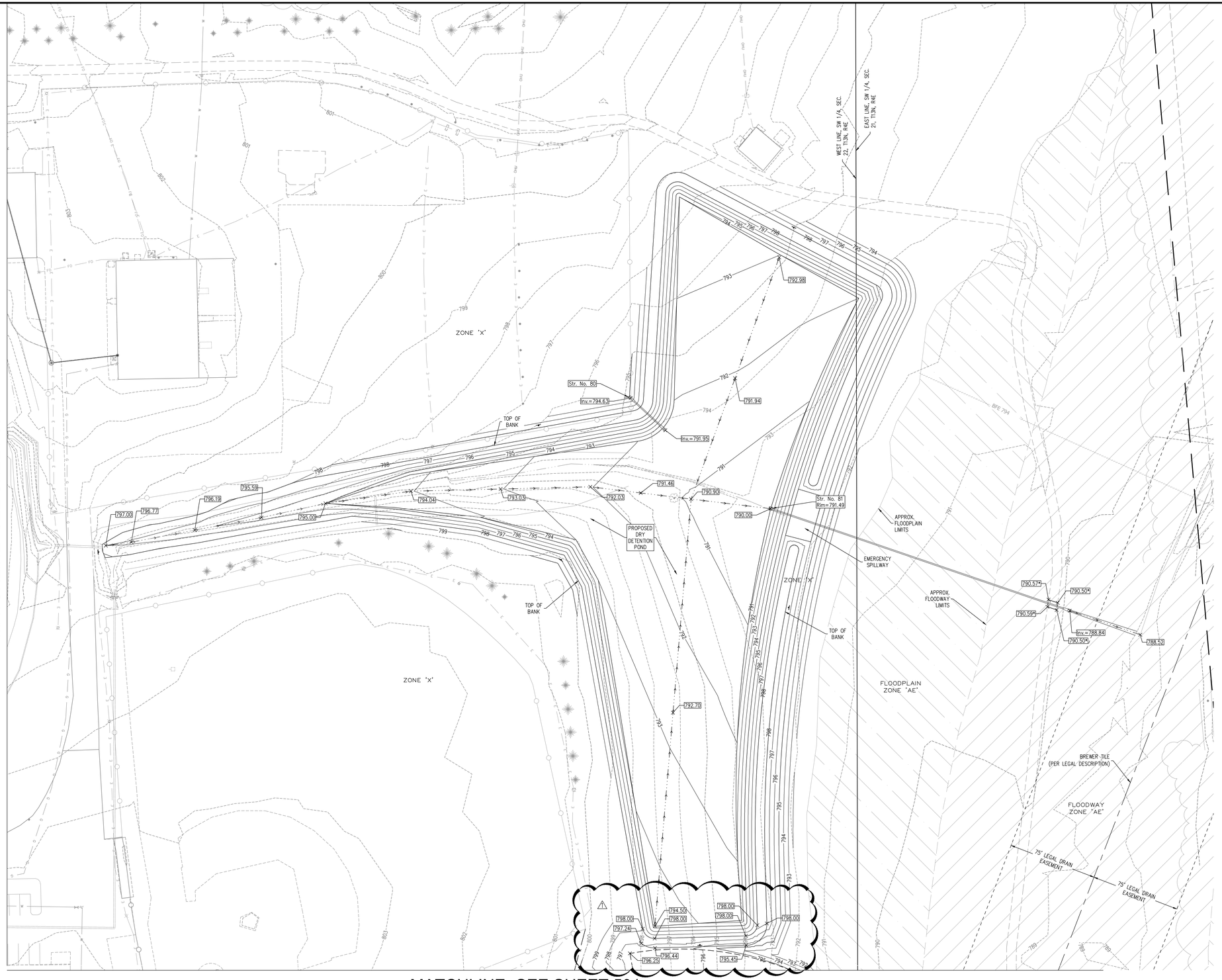
DATE/USER : 3/29/2024 2:10 PM / kfdog

MATCHLINE- SEE SHEET 501



MATCHLINE- SEE SHEET 501

BENCHMARK INFORMATION

ORIGINATING BENCHMARK

DESIGNATION – X 13
PID – KA0010
STATE/COUNTY – IN/MORGAN
USGS QUAD – MOORESVILLE EAST (1980)

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DESCRIBED BY COAST AND GEODETIC SURVEY 1946
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GRADING LEGEND

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860.00 * 859.50 *	PROPOSED ELEVATIONS (TO BE FIELD VERIFIED)
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	PROPOSED DRAINAGE SWALE
800	EXISTING CONTOURS
800	PROPOSED CONTOURS
GRADE BREAK	GRADE BREAK
←6"→	CURB HEIGHT TO TAPER FROM 0.5" TO 0.0" IN 6 LFT.

40 0 40 80
SCALE: 1" = 40'

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 501

GRADING PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS			APPR.	GJI

DEREK M. SNYDER NO. 11200008 STATE OF INDIANA REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
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SHEET 501

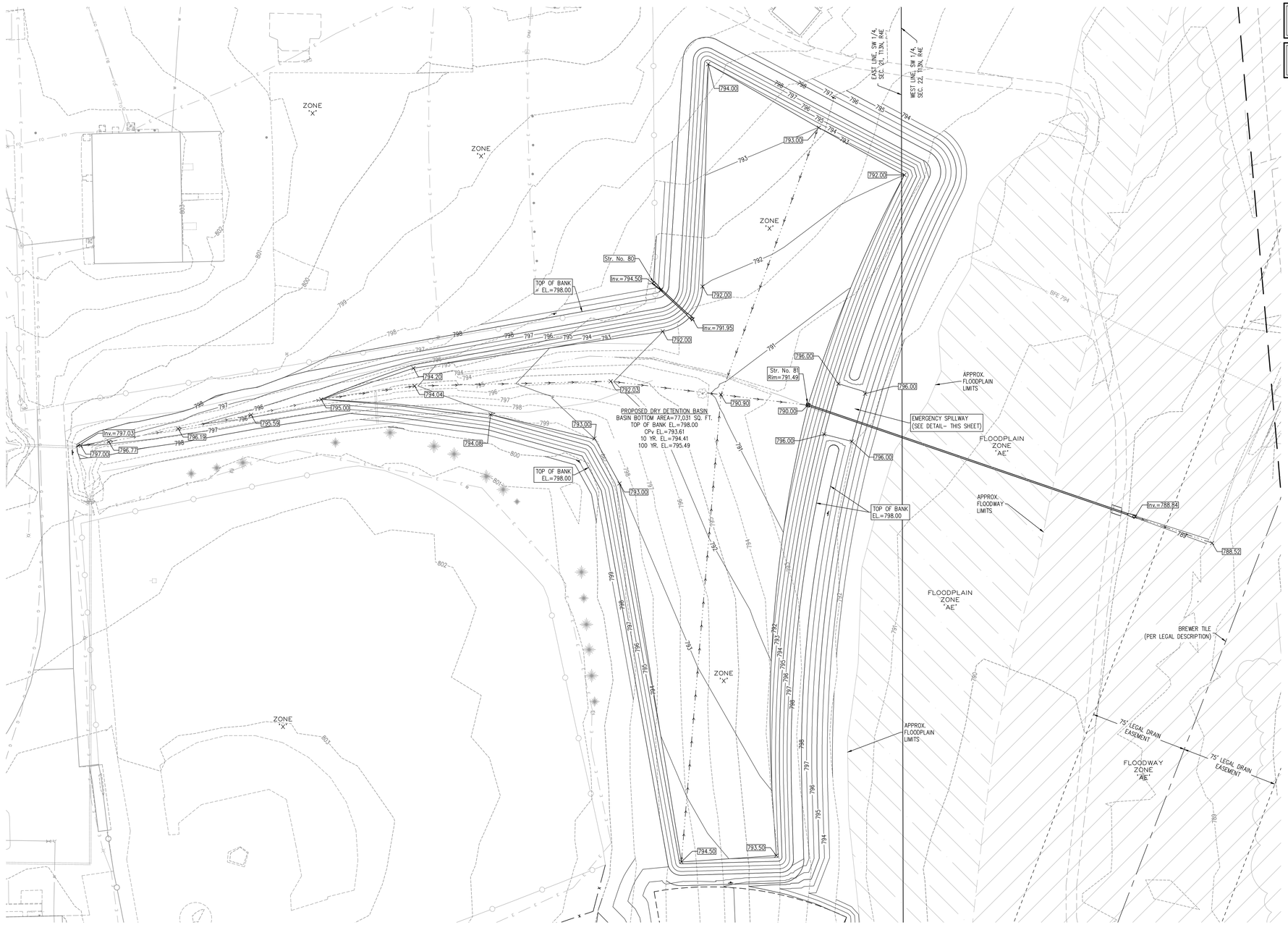
INDIANA 811 Know what's below. Call before you dig.

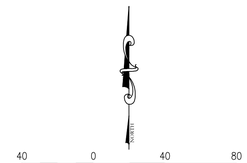
DIRECTORY PATH : R:\Active\Larsen+Riebe\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 501 GRADING PLAN PH 2.dwg
DATE/USER : 4/23/2024 12:23 PM / KRay

ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, CITY OR COUNTY OFFICIALS

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

INDIANA 811 Know what's below. Call before you dig





PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
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- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
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- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

⚠

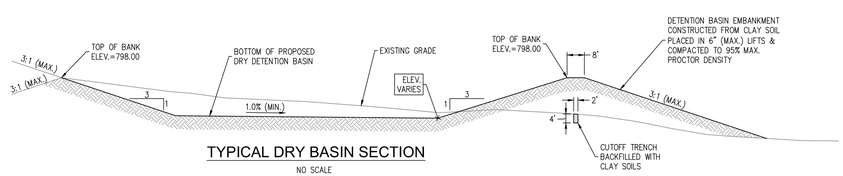
NOTICE

DETENTION POND
NO ACCESS PERMITTED
NO SWIMMING
NO PLAYING
AUTHORIZED
PERSONNEL ONLY

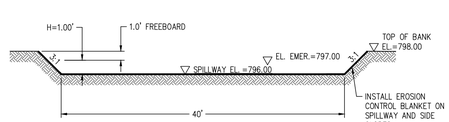
NOTE: SEE SITE DIMENSION PLANS (SHEET 302-303) FOR WARNING SIGN LOCATIONS

WARNING SIGN DETAIL (10"X7" MIN.)
NO SCALE

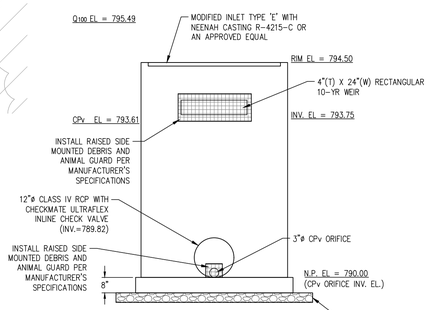
PHASE 2A-NORTH DRY DETENTION BASIN



TYPICAL DRY BASIN SECTION
NO SCALE



EMERGENCY SPILLWAY DETAIL
NO SCALE



STR. NO. 81 - OUTLET STRUCTURE DETAIL
NOT TO SCALE

NOTE: DEBRIS AND ANIMAL GUARDS SHALL BE GALVANIZED STEEL SIDE MOUNTED TRASH RACK AS MANUFACTURED BY J.R. HOE OR AN APPROVED EQUAL. RACKS MAY BE PREFABRICATED OR CUSTOM ORDERED BUT SHALL COMPLETELY COVER ORIFICES SHOWN HEREON.

DIRECTORY PATH : R:\Active\Lennox Baker\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 600 DRAWAGE PLAN PH 2.dwg
DATE/USER : 4/23/2024 1:22 PM / tdog

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

DRAINAGE PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS	APPR.	GJI		

SHEET 600

REGISTERED DEREK M. SNYDER NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
3				
4				
5				
6				
7				
8				
9				

SHEET 600

ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, CITY OR COUNTY OFFICIALS

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

INDIANA 811 Know what's below. Call before you dig.

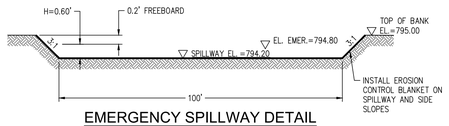
NORTH

30 0 30 60

SCALE: 1" = 30'

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

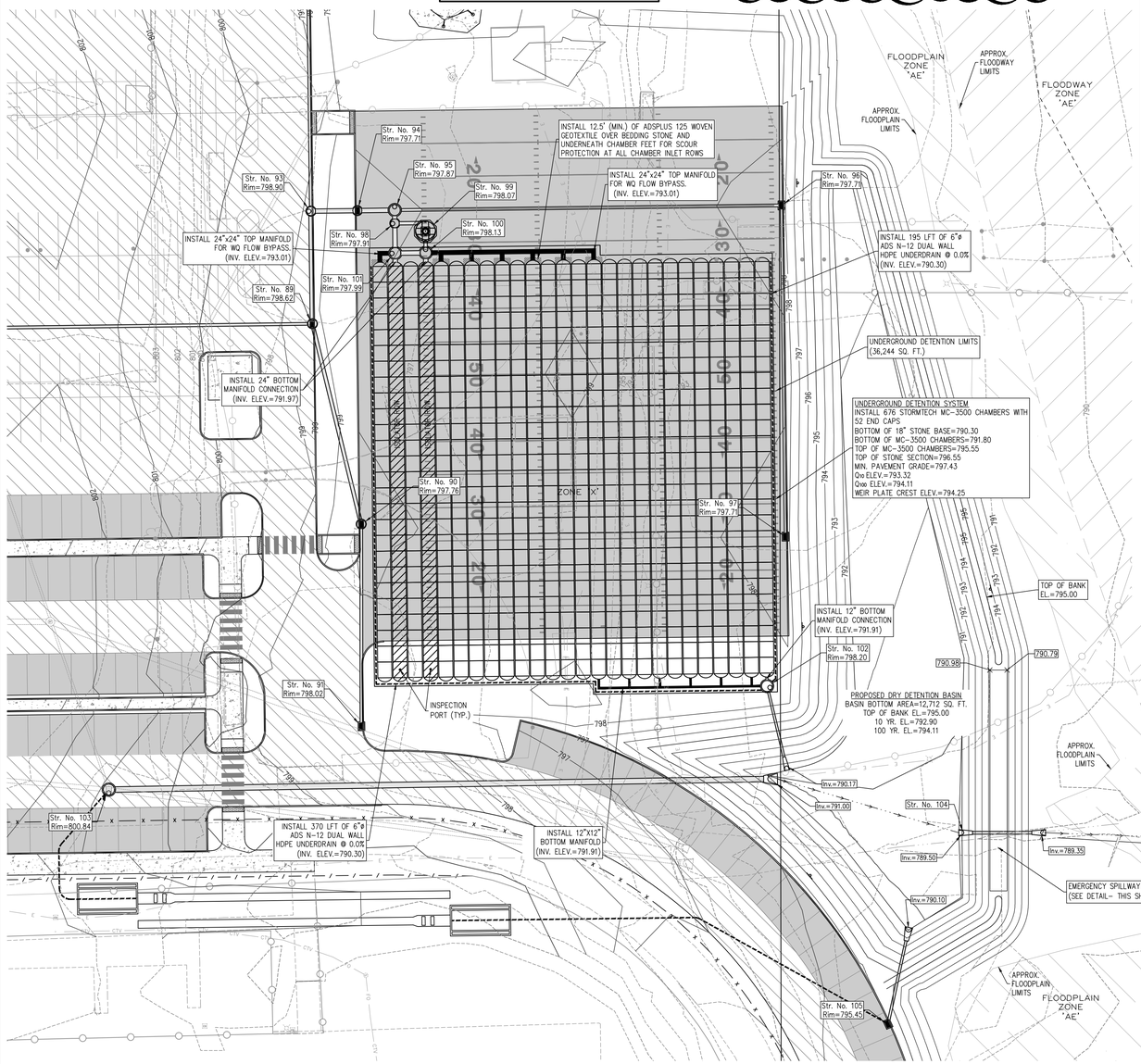


EMERGENCY SPILLWAY DETAIL

NO SCALE

WARNING SIGN DETAIL (10"X7" MIN.)

NO SCALE

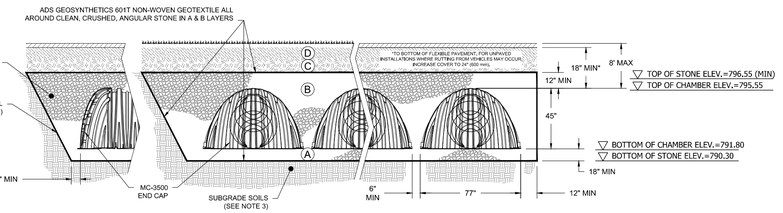


PHASE 2A-NORTH U/G AND SOUTH DRY BASINS

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS, CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS, PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (9" LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

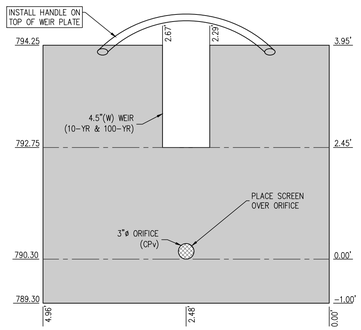
PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



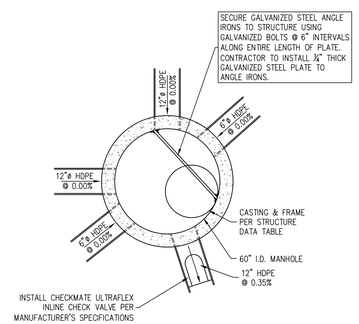
NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT²/%, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

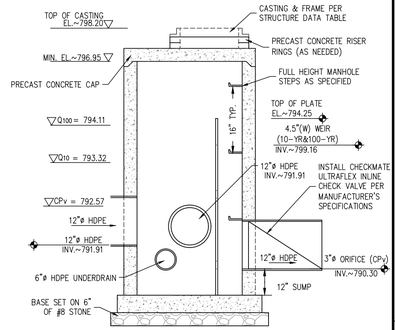
1 MC-3500 CROSS SECTION DETAIL



SHARP CRESTED WEIR DETAIL



PLAN VIEW



ELEVATION VIEW

OUTLET STRUCTURE - STR. NO. 102

DIRECTORY PATH : R:\Active\Lenox-Beals\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 601 DRAINAGE PLAN PH 2.dwg
DATE/USER : 4/23/2024 1:22 PM / KRog

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 601

DRAINAGE PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	CJI
DATE	APRIL 02, 2024	DESIGNED	DMS			APPR.	CJI

REVISIONS PER ADDENDUM NO. 1

NO.	DATE	BY	APPR.
1	04.23.24	DMS	CJI
2			
3			
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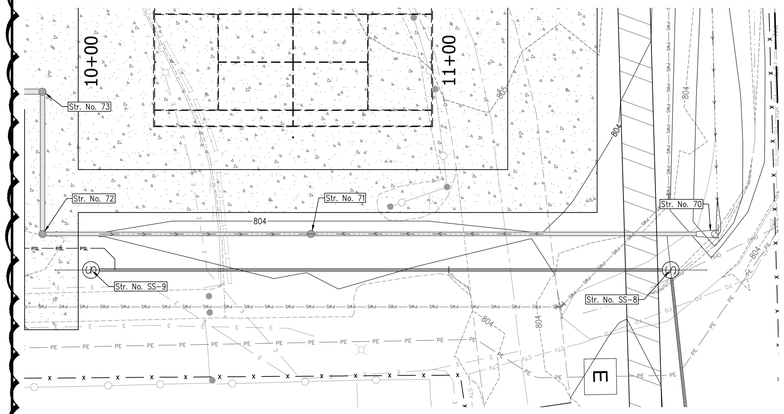
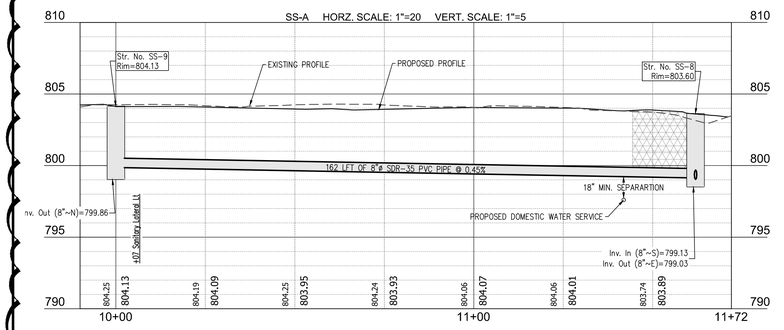
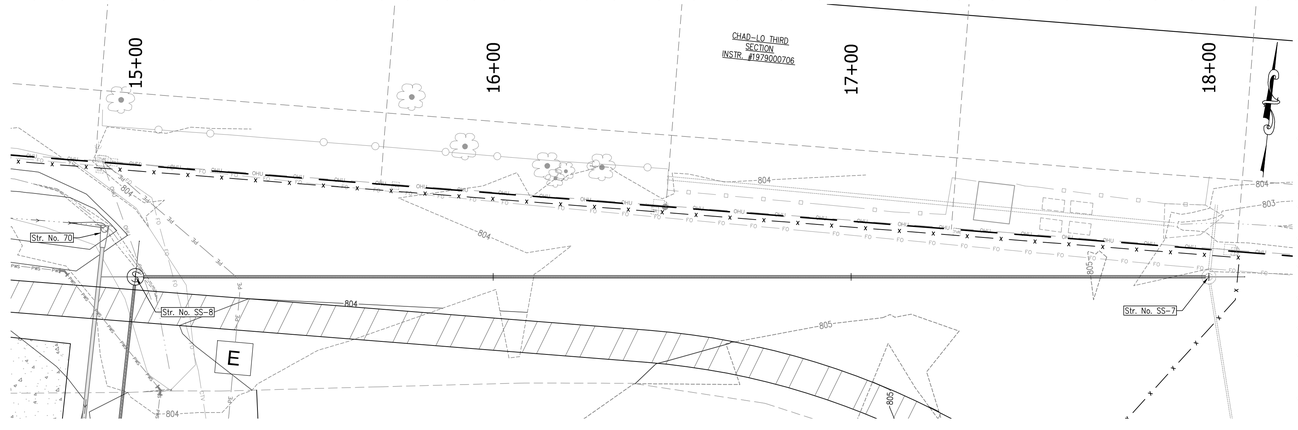
9			

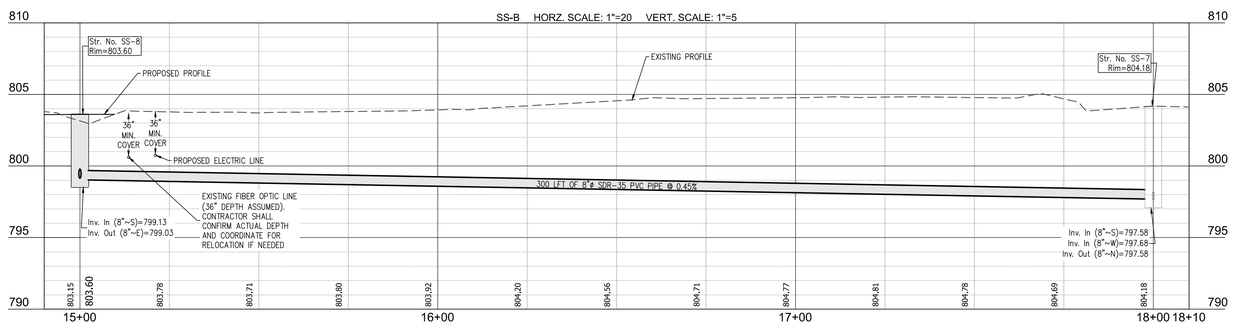
REGISTERED DEREK M. SNYDER NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

SHEET 601









SANITARY PLAN AND PROFILES

WHITELAND HIGH SCHOOL PHASE 2A

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 S. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

SHEET 700

DEREK M. SNYDER
REGISTERED
NO. 11200008
STATE OF INDIANA
PROFESSIONAL ENGINEER

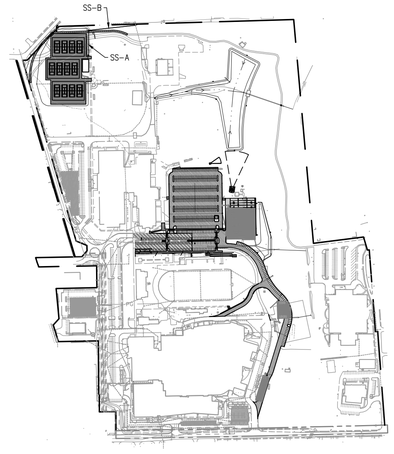
Derek M. Snyder

PROPOSED LEGEND

- EASEMENT LINE
- PERMANENT FENCE LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL WITH CLEANOUT
- STORM SEWER W/MANHOLE & END SECTION
- ELECTRIC LINE
- WATER FIRE LINE
- WATER SERVICE LINE
- FIBER OPTIC CONDUIT
- STORM MANHOLES
- STORM INLETS
- AQUA-SWIRL UNITS
- CURB STOP
- WATER METER
- TAPPING SLEEVE
- 45° BEND
- 22.5° BEND
- 11.25° BEND
- FIRE HYDRANT
- WATER VALVE
- ELECTRIC TRANSFORMER
- HAND HOLE
- PERMANENT CONSTRUCTION FENCE WITH SCREENING ON DRIVEN POSTS
- TEMPORARY CONSTRUCTION FENCE ON STANDS WITH SAND BAGS

20 0 20 40
SCALE: 1" = 20'

DENOTES APPROXIMATE LIMITS OF GRANULAR BACKFILL TO BE COMPACTED TO 95% PROCTOR DENSITY IN 6" MAX LIFTS



KEYMAP
NO SCALE

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

INDIANA 811 DIG RIGHT
Know what's below. Call before you dig.

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI

SHEET 700

DIRECTORY PATH : R:\Active\Larson-Reebok\Whiteland High School\Design\CAD\Plans\PHASE 2
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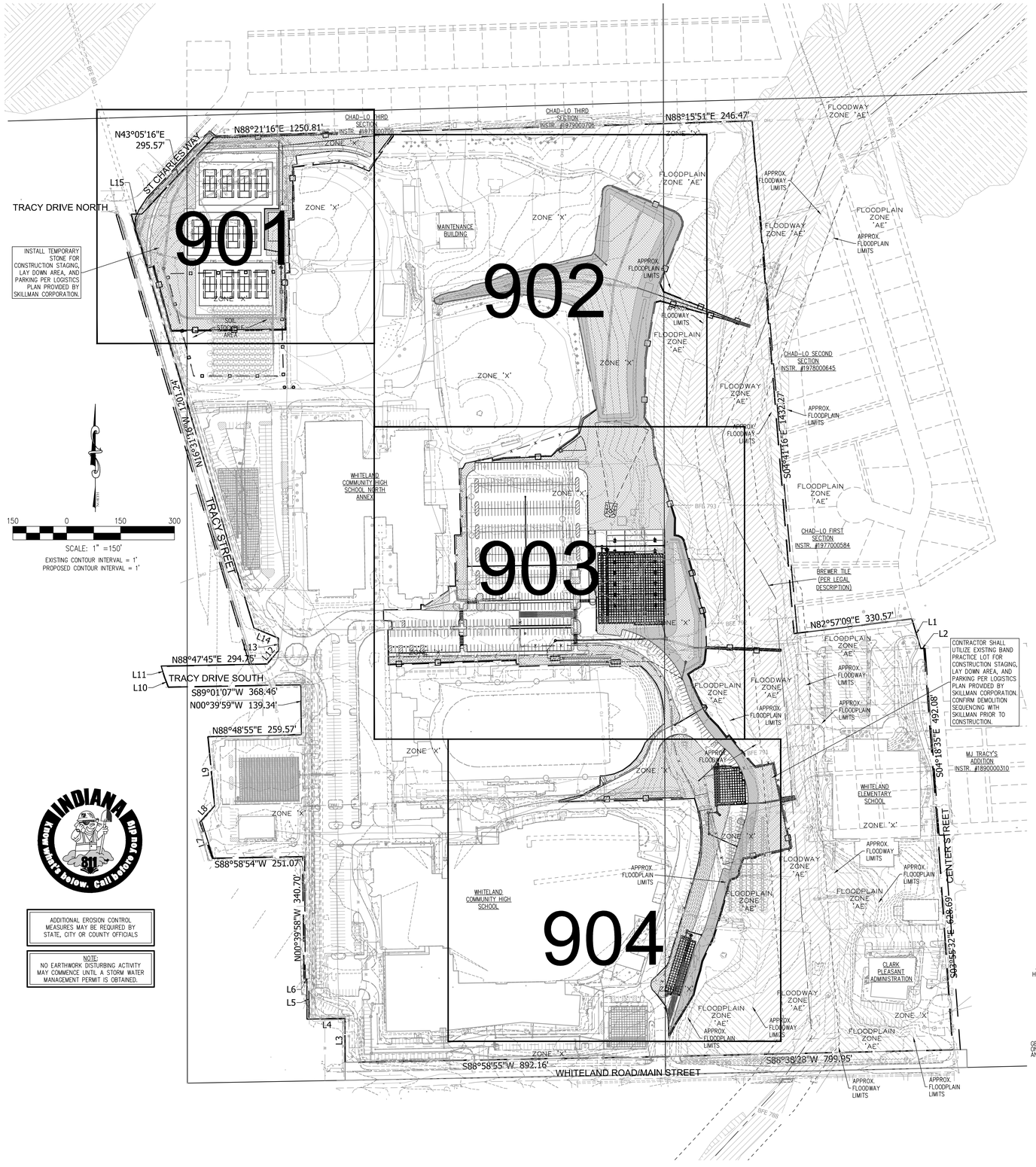
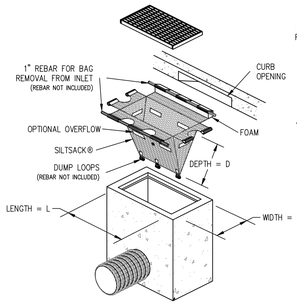
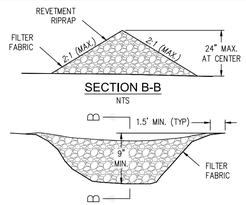


ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, CITY OR COUNTY OFFICIALS

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

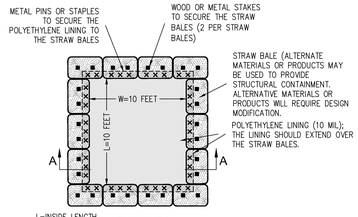


SILTSACK INLET FILTER DETAIL (A)
NOT TO SCALE

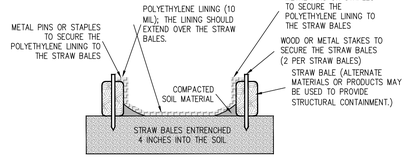


SECTION B-B
NTS

ROCK CHECK DAM DETAIL (D)
NOT TO SCALE



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

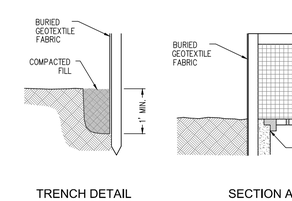
CONCRETE WASHOUT DETAIL (B)
NOT TO SCALE

EROSION CONTROL LEGEND

- MULCHED SEEDING
- TEMPORARY CONSTRUCTION ENTRANCE (SEE DETAIL-SHEET 901)
- 800 EXISTING CONTOURS
- 800 PROPOSED CONTOURS
- SILT FENCE SLOPE CHECK (NJTEC 3 NWS-6 OR APPROVED EQUAL)
- CONSTRUCTION LIMITS
- (A) CURB INLET PROTECTION (SEE DETAIL-SHEET 900)
- (B) CONCRETE WASHOUT AREA (SEE DETAIL-SHEET 900)
- (C) FABRIC DROP INLET PROTECTION (SEE DETAIL-SHEET 900)
- (D) ROCK CHECK DAM (SEE DETAIL-SHEET 900)
- (E) ROCK DONUT INLET PROTECTION (SEE DETAIL-SHEET 900)
- (F) RIPRAP OUTLET PROTECTION (SEE DETAIL-SHEET 900)

EROSION CONTROL NOTES

1. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, COUNTY, OR LOCAL OFFICIALS.
2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.
3. THERE SHALL BE NO DIRT, DEBRIS, OR STORAGE OF MATERIALS WITHIN EXISTING OR PROPOSED PARKING AREAS OR PUBLIC RIGHT-OF-WAY.
4. CONSTRUCTION STAGING AREA (TO BE DETERMINED BY CONTRACTOR) SHALL INCLUDE THE NOI POSTING, PORT-O-LETS, TRASH CONTAINERS, AND FUELING TANKS. CONTRACTOR SHALL NOT LOCATE STAGING AREA WITHIN PROPOSED PARKING LOTS.
5. A TRAINED INDIVIDUAL MUST PERFORM AN INSPECTION ONCE A WEEK AND AFTER EVERY ½" OR MORE RAIN EVENT. A LOG OF THE INSPECTION REPORTS MUST BE KEPT AND MADE AVAILABLE TO THE TOWN INSPECTOR UPON REQUEST.



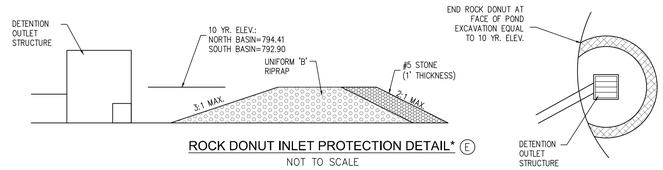
TRENCH DETAIL

SECTION A-A

NOTE:
THE FRAME SHALL BE WRAPPED WITH ONE CONTINUOUS PIECE OF GEOTEXTILE FABRIC AND A 2' OVERLAP SHALL BE PROVIDED.

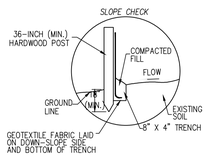
FRAME DETAIL

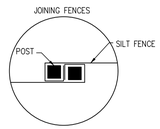
FABRIC DROP INLET PROTECTION DETAIL (C)
NOT TO SCALE



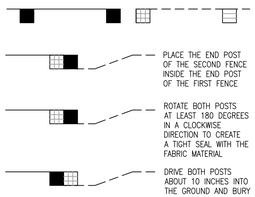
ROCK DONUT INLET PROTECTION DETAIL* (E)
NOT TO SCALE

*ROCK DONUT PROTECTION FOR STR. NO. 11 SHALL CONFORM TO THE DETAIL ABOVE. FOR ALL OTHER USES, THE MINIMUM HEIGHT SHALL BE 2 FT.

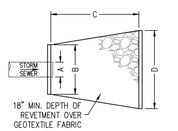




SILT FENCE DETAIL
NOT TO SCALE



ATTACHING TWO SILT FENCES



END SECTION RIPRAP APRON DIMENSIONS
NOT TO SCALE

PIPE OUTLET NO.	A	B	C	D	REVETMENT (TONS)	GEOTEXTILE (SYS)
80	12"	3'	10'	5'	3	5
81	12"	5'	63'	5'	26	35
102/103	12"/30"	8'	14'	10'	11	14
104	15"	4'	202'	6'	101	135
105	12"	3'	10'	5'	3	5
106	18"	5'	12'	7'	6	8
118	12"	3'	85'	5'	36	47

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

OVERALL EROSION CONTROL PLAN
WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN
DATE	APRIL 02, 2024	DESIGNED	DMS	APPR.	CJI

SHEET 900

REVISIONS PER ADDENDUM NO. 1

NO.	DATE	BY	APPR.
1	04.23.24	DMS	CJI

DEREK M. SNYDER NO. 11200008 STATE OF INDIANA REGISTERED PROFESSIONAL ENGINEER

SHEET 900

DIRECTORY PATH : I:\JV\Whit\Layout+Data\Whitehall High School\Design\CAD\Plans\PHASE 2
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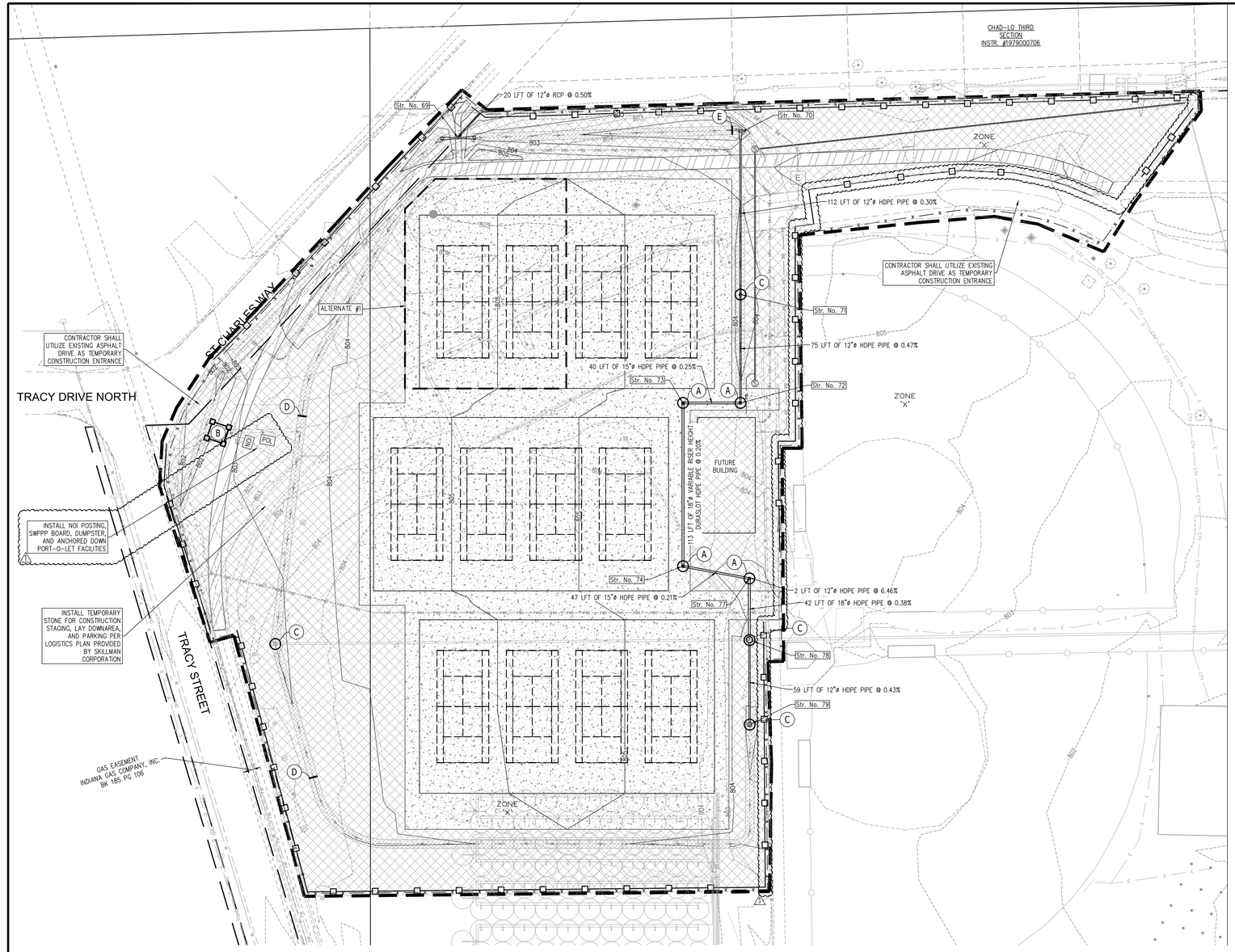

MATCHLINE- SEE SHEET 902

ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, CITY OR COUNTY OFFICIALS

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

INDIANA 811 Know what's below. Call before you dig

NORTH

40 0 40 80

SCALE: 1" = 40'

EXISTING CONTOUR INTERVAL = 1'
PROPOSED CONTOUR INTERVAL = 1'

EROSION CONTROL LEGEND

- MULCHED SEEDING
- TEMPORARY CONSTRUCTION ENTRANCE (SEE DETAIL-SHEET 903)
- 800 EXISTING CONTOURS
- 800 PROPOSED CONTOURS
- SILT FENCE SLOPE CHECK (NUTEC 3 NWS-6 OR APPROVED EQUAL)
- CONSTRUCTION LIMITS
- (A) CURB INLET PROTECTION (SEE DETAIL-SHEET 900)
- (B) CONCRETE WASHOUT AREA (SEE DETAIL-SHEET 900)
- (C) FABRIC DROP INLET PROTECTION (SEE DETAIL-SHEET 900)
- (D) ROCK CHECK DAM (SEE DETAIL-SHEET 900)
- (E) ROCK DONUT INLET PROTECTION (SEE DETAIL-SHEET 900)
- (F) RIPRAP OUTLET PROTECTION (SEE DETAIL-SHEET 900)

EROSION CONTROL NOTES

1. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, COUNTY, OR LOCAL OFFICIALS.
2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.
3. THERE SHALL BE NO DIRT, DEBRIS, OR STORAGE OF MATERIALS WITHIN EXISTING OR PROPOSED PARKING AREAS OR PUBLIC RIGHT-OF-WAY.
4. CONSTRUCTION STAGING AREA (TO BE DETERMINED BY CONTRACTOR) SHALL INCLUDE THE NOI POSTING, PORT-O-LETS, TRASH CONTAINERS, AND FUELING TANKS. CONTRACTOR SHALL NOT LOCATE STAGING AREA WITHIN PROPOSED PARKING LOTS.
5. A TRAINED INDIVIDUAL MUST PERFORM AN INSPECTION ONCE A WEEK AND AFTER EVERY ½" OR MORE RAIN EVENT. A LOG OF THE INSPECTION REPORTS MUST BE KEPT AND MADE AVAILABLE TO THE TOWN INSPECTOR UPON REQUEST.

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 901

EROSION CONTROL PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

DEREK M. SNYDER NO. 11200008 STATE OF INDIANA REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
3				
4				
5				
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7				
8				
9				

SHEET 901

DIRECTORY PATH : I:\Active\Lennox-Rieke\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 901 EROSION CONTROL PLAN PH 2.dwg
DATE/USER : 4/23/2024 2:32 PM / KKigg

MATCHLINE- SEE SHEET 901

ZONE 'X'

ZONE 'X'

CONTRACTOR SHALL UTILIZE EXITING ASPHALT DRIVE AS TEMPORARY CONSTRUCTION ENTRANCE

Str. No. 80

38 LFT OF 12"ø HDPE PIPE @ 3.68%

Str. No. 81

265 LFT OF 12"ø CL IV RCP @ 0.35%

APPROX. FLOODPLAIN LIMITS

FLOODPLAIN ZONE 'AE'

APPROX. FLOODWAY LIMITS

75' LEGAL DRAIN EASEMENT

BREWER TILE (PER LEGAL DESCRIPTION)

ZONE 'X'

ZONE 'X'

ZONE 'X'

APPROX. FLOODPLAIN LIMITS

BFE 794

MATCHLINE- SEE SHEET 903

ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, CITY OR COUNTY OFFICIALS

NOTE:
NO EARTHWORK DISTURBING ACTIVITY MAY COMMENCE UNTIL A STORM WATER MANAGEMENT PERMIT IS OBTAINED.

INDIANA 811 Know what's below. Call before you dig

40 0 40 80

SCALE: 1" = 40'

EXISTING CONTOUR INTERVAL = 1'
PROPOSED CONTOUR INTERVAL = 1'

EROSION CONTROL LEGEND

- MULCHED SEEDING
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC-150 OR EQUAL) AND MULCHED SEEDING
- REVETMENT RIPRAP
- CONSTRUCTION DRIVE (SEE DETAIL-SHEET 903)
- 800 EXISTING CONTOURS
- 800 PROPOSED CONTOURS
- SILT FENCE SLOPE CHECK (NUTEC 3 NWS-6 OR APPROVED EQUAL)
- CONSTRUCTION LIMITS
- (A) CURB INLET PROTECTION (SEE DETAIL-SHEET 900)
- (B) CONCRETE WASHOUT AREA (SEE DETAIL-SHEET 900)
- (C) FABRIC DROP INLET PROTECTION (SEE DETAIL-SHEET 900)
- (D) ROCK CHECK DAM (SEE DETAIL-SHEET 900)
- (E) ROCK DONUT INLET PROTECTION (SEE DETAIL-SHEET 900)
- (F) RIPRAP OUTLET PROTECTION (SEE DETAIL-SHEET 900)

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DIRECTORY PATH : R:\Active\Lawson Roads\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 902 EROSION CONTROL PLAN PH 2.dwg
DATE/USER : 4/23/2024 3:29 PM / KTigg

CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 902

EROSION CONTROL PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS	APPR.	GJI		

REGISTERED DEREK M. SNYDER NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
2				
3				
4				
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9				

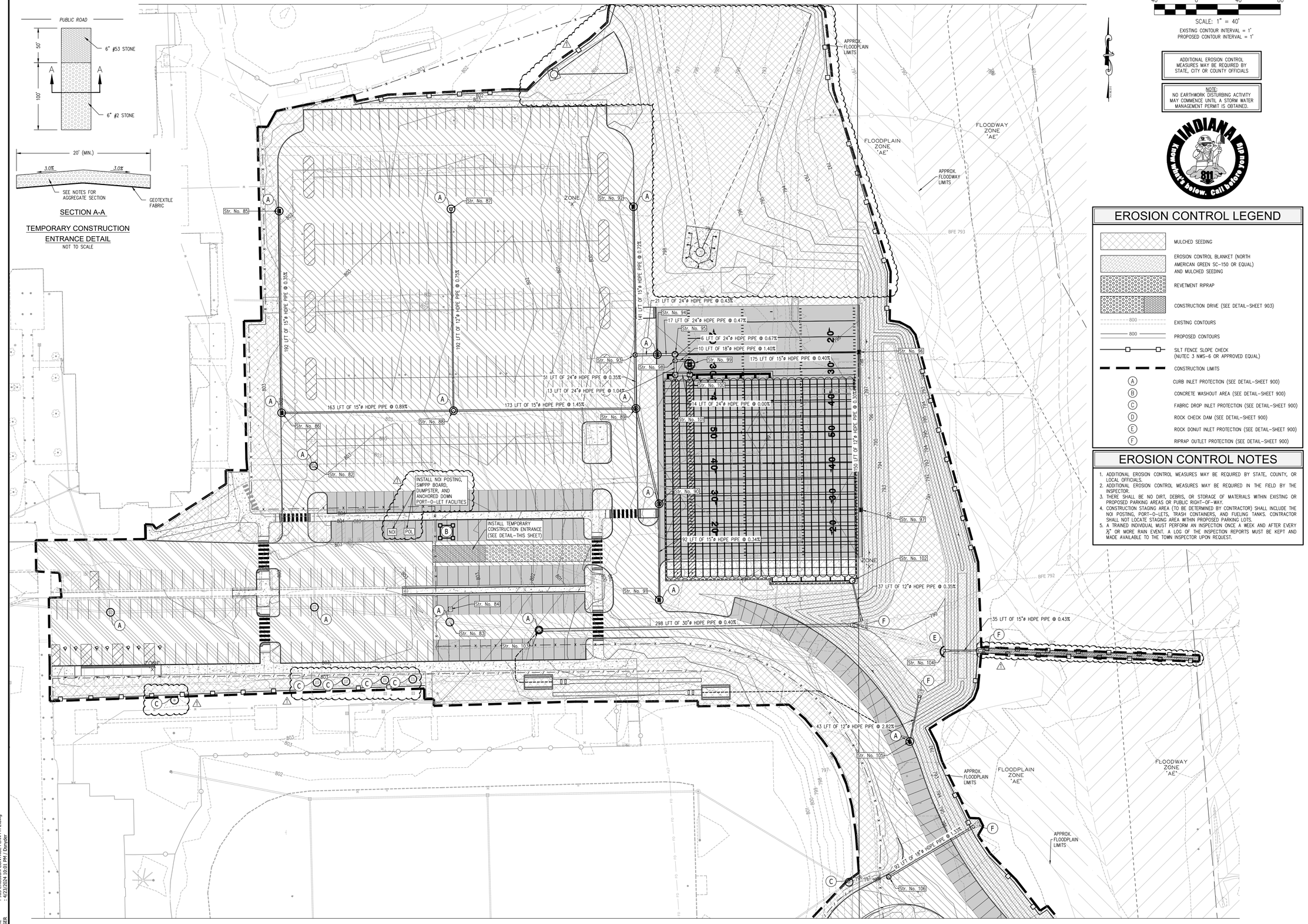
SHEET 902

MATCHLINE- SEE SHEET 902

SECTION A-A

TEMPORARY CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE



MATCHLINE- SEE SHEET 904

40 0 40 80

SCALE: 1" = 40'

EXISTING CONTOUR INTERVAL = 1'
PROPOSED CONTOUR INTERVAL = 1'

ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, CITY OR COUNTY OFFICIALS

NOTE:
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INDIANA 811 Know what's below. Call before you dig.

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- MULCHED SEEDING
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC-150 OR EQUAL) AND MULCHED SEEDING
- REVETMENT RIPRAP
- CONSTRUCTION DRIVE (SEE DETAIL-SHEET 903)
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- (A) CURB INLET PROTECTION (SEE DETAIL-SHEET 900)
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- (C) FABRIC DROP INLET PROTECTION (SEE DETAIL-SHEET 900)
- (D) ROCK CHECK DAM (SEE DETAIL-SHEET 900)
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Transportation & Development Consultants
115 S. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 903

EROSION CONTROL PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	-	DRAWN	KLF	CHECKED	TEN	APPR.	CJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

REGISTERED DEREK M. SNYDER NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	CJI
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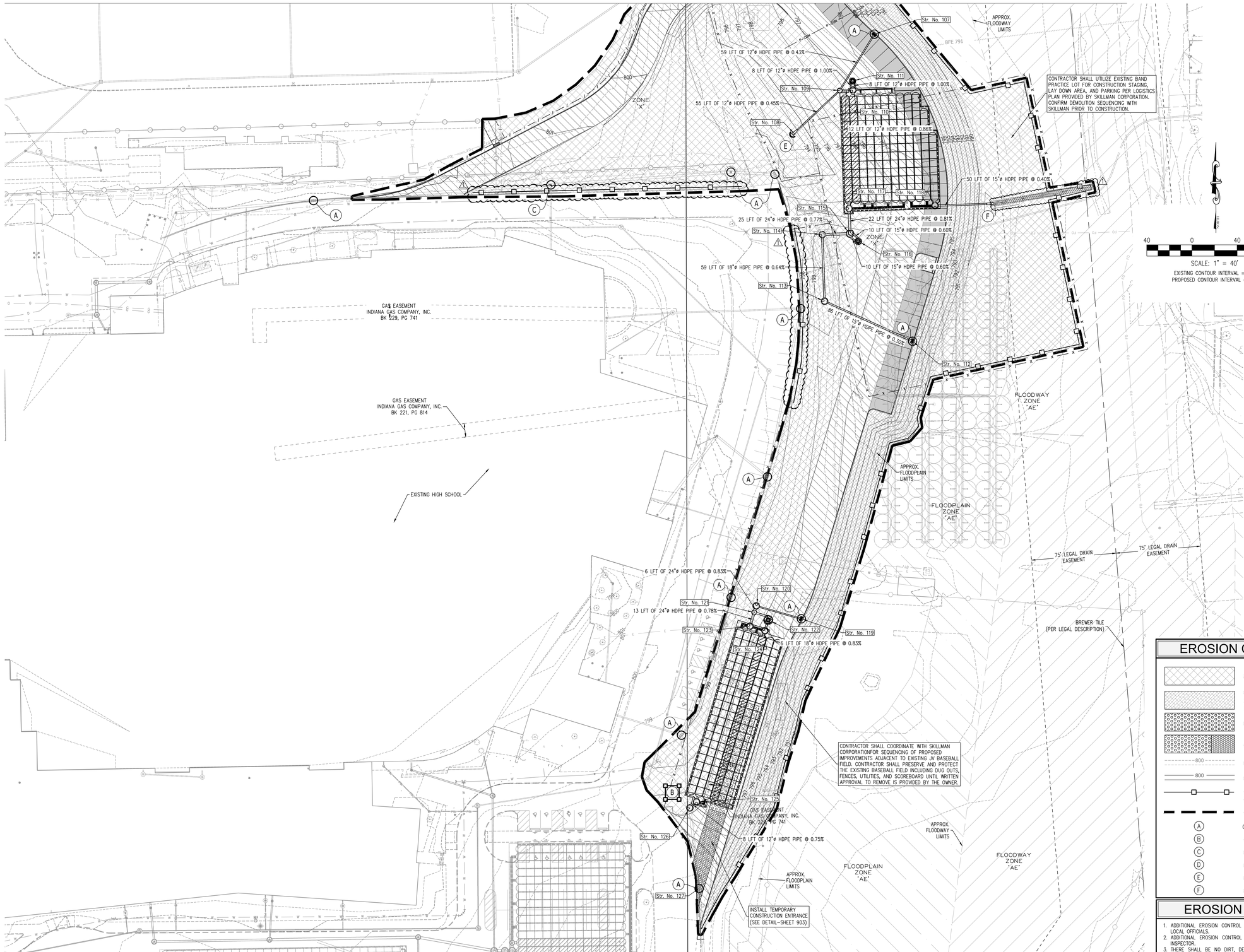
SHEET 903

DIRECTORY PATH : R:\Active\Larson-Reed\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 903 EROSION CONTROL PLAN PH 2.dwg
DATE/USER : 4/23/2024 10:01 PM / Dsnyder

MATCHLINE- SEE SHEET 302



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- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC-150 OR EQUAL) AND MULCHED SEEDING
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- CONSTRUCTION DRIVE (SEE DETAIL-SHEET 903)
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- SILT FENCE SLOPE CHECK (NUTEC 3 NWS-6 OR APPROVED EQUAL)
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CROSSROAD ENGINEERS, PC
Transportation & Development Consultants
115 N. 17th AVENUE, BEECH GROVE, IN 46107 (317) 780-1555

SHEET 904

EROSION CONTROL PLAN

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	CJI
DATE	APRIL 02, 2024	DESIGNED	DMS	APPR.	CJI		

REVISIONS PER ADDENDUM NO. 1

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24		DMS	CJI
2				
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DEREK M. SNYDER REGISTERED NO. 11200008 STATE OF INDIANA PROFESSIONAL ENGINEER

SHEET 904

DIRECTORY PATH : R:\Active\Carson Riedel\Whiteland High School\Design\CAD\Plans\PHASE 2
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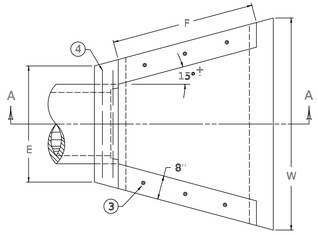
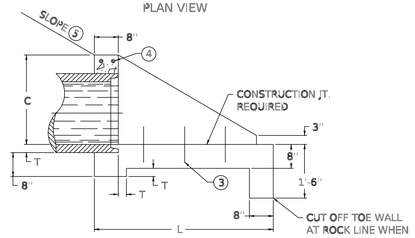
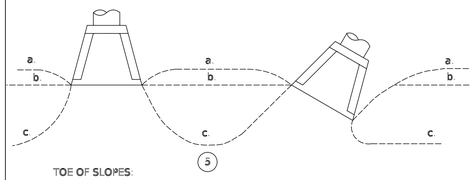
DATE/USER : 4/23/2024 4:31 PM / KTopp



PLAN VIEW



SECTION A-A

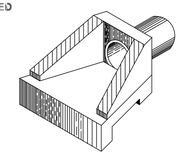


TOE OF SLOPES:
- **a**: STEEPER THAN 2:1
- **b**: 2:1
- **c**: FLATTER THAN 2:1

PIPE DIA. OR EQUIV. DIA.	SHAPE (9)	DIMENSIONS C	E	F	L	W	T	CLASS A CONC C. Y.	REINF STEEL LBS.
12"	◯	1'-9"	2'-6"	2'-3"	3'-6"	4'-0"	2"	0.58	7
15"	◯	2'-0"	2'-9"	2'-9"	4'-0"	4'-9"	2¼"	0.75	
	⌓	1'-9"	3'-0"	2'-6"	3'-6"	4'-9"		0.68	
18"	◯	2'-3"	3'-0"	3'-6"	4'-6"	5'-3"	2½"	0.93	
	⌓	2'-0"	3'-6"	3'-0"	4'-0"	5'-6"	2¾"	0.89	8
	⬭								
21"	◯	2'-6"	3'-3"	4'-0"	5'-0"	6'-0"		1.14	
	⌓	2'-3"	3'-0"	3'-6"	4'-6"	6'-0"		1.07	9
24"	◯	2'-9"	3'-6"	4'-6"	5'-6"	6'-6"	3"	1.35	8
	⌓	2'-6"	4'-0"	4'-0"	5'-0"	6'-9"	3¼"	1.30	9
	⬭								
27"	◯	3'-0"	3'-9"	5'-0"	6'-0"	7'-0"		1.57	
	⬭	2'-9"	4'-6"	4'-3"	5'-3"	7'-3"	3½"	1.51	10

NOTES

1. DIMENSIONS AND QUANTITIES ARE BASED ON CONCRETE PIPE AND WILL VARY INSIGNIFICANTLY FOR CORRUGATED METAL PIPE.
2. REINFORCING STEEL : MINIMUM GRADE 40, BARS EVENLY SPACED.
3. 6 - NO. 4 x 1'-0" DOWEL BARS.
4. 2 - NO. 4 x (E DIMENSION MINUS 4").
5. SLOPES SHALL BE WARPED TO FIT HEADWALL WHEN PIPE IS SKEWED AND/OR NORMAL SLOPE VARIES FROM 2:1.
6. VOLUME DISPLACED BY PIPE COMPUTED USING INSIDE DIAMETER OF PIPE.
7. WING ANGLES AND/OR DIMENSIONS MAY BE ALTERED DURING CONSTRUCTION TO ACCOMMODATE FLOW OF WATER.
8. APRON BETWEEN WINGS SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE. FRONT FACE OF HEADWALL SHALL REMAIN VERTICAL.
9. HEADWALLS ARE FOR CIRCULAR, ARCH, AND HORIZONTAL ELLIPTICAL 12"- 27" EQUIVALENT PIPE SIZES. SEE CURRENT STD. DWG. RDH-016, FOR NON-CIRCULAR PIPE EQUIVALENT SIZES.



ISOMETRIC VIEW

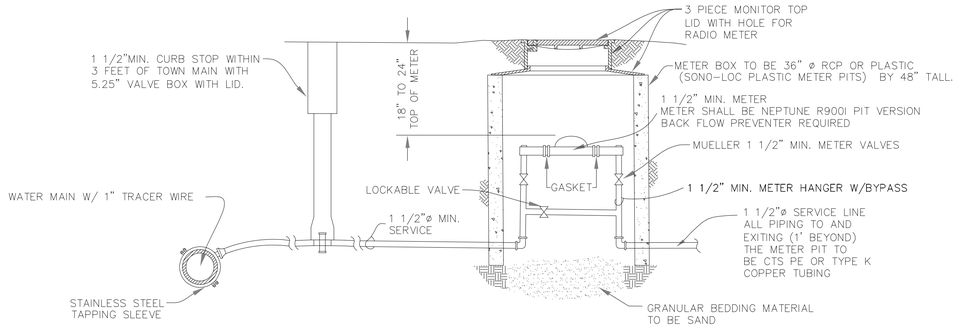
KENTUCKY
DEPARTMENT OF HIGHWAYS

SLOPED & FLARED HEADWALLS FOR 12" TO 27" PIPE

STANDARD DRAWING NO. RDH-020-03

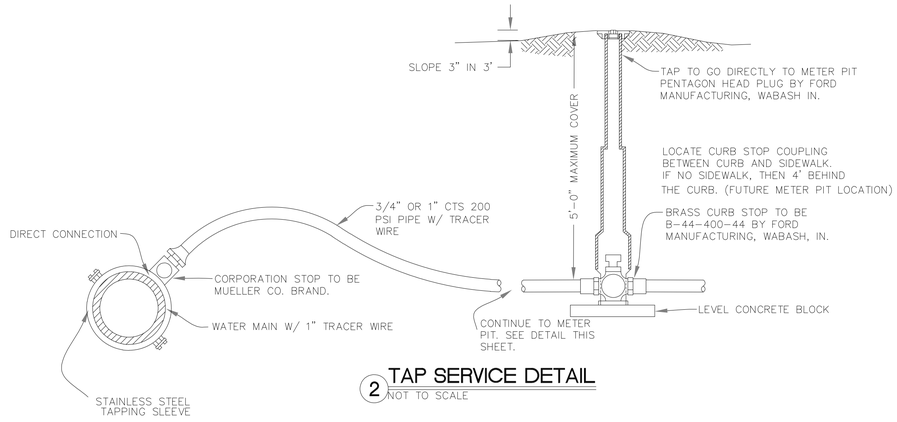
SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE _____

APPROVED _____ STATE HIGHWAY ENGINEER _____ DATE _____



3 WATER METER PIT DETAIL FOR 1 1/2" AND 2" COMMERCIAL METERS

NOT TO SCALE



2 TAP SERVICE DETAIL

NOT TO SCALE

CROSSROAD ENGINEERS, PSC
Transportation & Development Consultants
115 N. 17th AVENUE, SUITE 200C, BOWLING GREEN, KENTUCKY 42101 (270) 796-3000

SHEET 1004

MISCELLANEOUS DETAILS

WHITELAND HIGH SCHOOL PHASE 2A

JOB No.	.	DRAWN	KLF	CHECKED	TEN	APPR.	GJI
DATE	APRIL 02, 2024	DESIGNED	DMS				

REVISIONS

NO.	DATE	REVISIONS	BY	APPR.
1	04.23.24	REVISIONS PER ADDENDUM NO. 1	DMS	GJI
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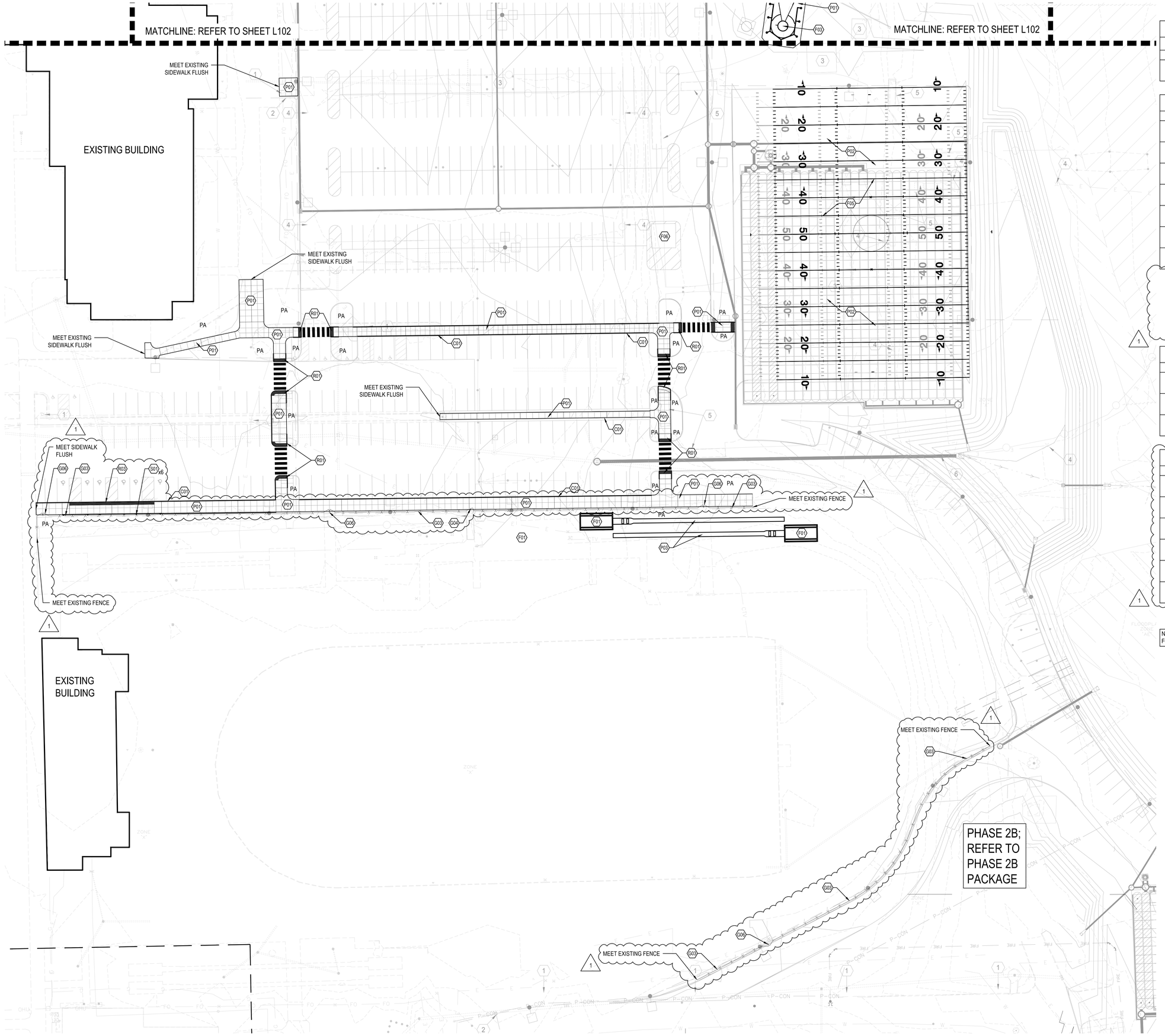
9				

DEREK M. SNYDER
NO. 11200008
STATE OF INDIANA
PROFESSIONAL ENGINEER

Derek M. Snyder

SHEET 1004

DIRECTORY PATH : I:\Active\Larson-Reeb\Whiteland High School\Design\CAD\Plans\PHASE 2
FILENAME : 1000 MISCELLANEOUS DETAILS.dwg
DATE/USER : 4/23/2024 3:54 PM / Dsnyder



	MATERIAL KEYNOTES
	CURBS
KEY	DESCRIPTION / REFERENCE
C01	INTEGRAL CURB AND WALK REFER TO SITE DETAIL 4/L601

	ATHLETICS
KEY	DESCRIPTION / REFERENCE
F01	LONG JUMP REFER TO SITE DETAIL 1/L602
F02	SHOT PUT REFER TO SITE DETAILS 2-3/L602
F03	DISCUS REFER TO SITE DETAIL 4/L602
F04	TENNIS COURT POST TENSION CONCRETE REFER TO SITE DETAIL SHEETS L603 - L605
F05	BAND STRIPING REFER TO SPECIFICATIONS
F06	BAND TOWER LOCATION BY OTHERS
F07	FUTURE TENNIS BUILDING BY OTHERS

	PAVEMENTS
KEY	DESCRIPTION / REFERENCE
P01	CONCRETE, STANDARD REFER TO SITE DETAIL 1-3/L601
P02	POROUS ASPHALT PAVEMENT REFER TO CIVIL DRAWINGS
P03	TRACK PAVEMENT, CONCRETE BASE REFER TO SITE DETAIL 5/L602

	FENCING AND GATES
KEY	DESCRIPTION / REFERENCE
G01	TENNIS FENCING, 10'-0" HT., BLACK VINYL COATED, REFER TO SPECIFICATIONS
G02	4' WIDE TENNIS GATE, SINGLE LEAF, REFER TO SPECIFICATIONS
G03	CHAIN-LINK FENCING, 6'-0" HT., BLACK VINYL COATED, REFER TO SPECIFICATIONS
G04	6' WIDE CHAIN-LINK FENCE GATE, SINGLE LEAF, MATCH ADJACENT FENCING, REFER TO SPECIFICATIONS
G05	8' WIDE CHAIN-LINK FENCE GATE, DOUBLE LEAF, MATCH ADJACENT FENCING, REFER TO SPECIFICATIONS
G06	10' WIDE CHAIN-LINK FENCE GATE, DOUBLE LEAF, MATCH ADJACENT FENCING, REFER TO SPECIFICATIONS

LANCER ASSOCIATES ARCHITECTURE
427 S. COLLEGE AVE
INDIANAPOLIS, IN 46203

context DESIGN
5825 Lawton Loop East Drive | Indianapolis, IN 46216
317-485-6900 | www.context-design.com

CLARK-PLEASANT COMMUNITY SCHOOL CORP.
WHITELAND COMM. HIGH SCHOOL ADDITION
300 E MAIN ST, WHITELAND, IN 46184

FREDDIE J. PRZYZEK II
REGISTERED
No. 2020-0052
STATE OF INDIANA
LANDSCAPE ARCHITECT
EXPIRES 12-31-2025

REVISIONS:

#	Date	Desc.
1	04-23-2024	Addenda 1

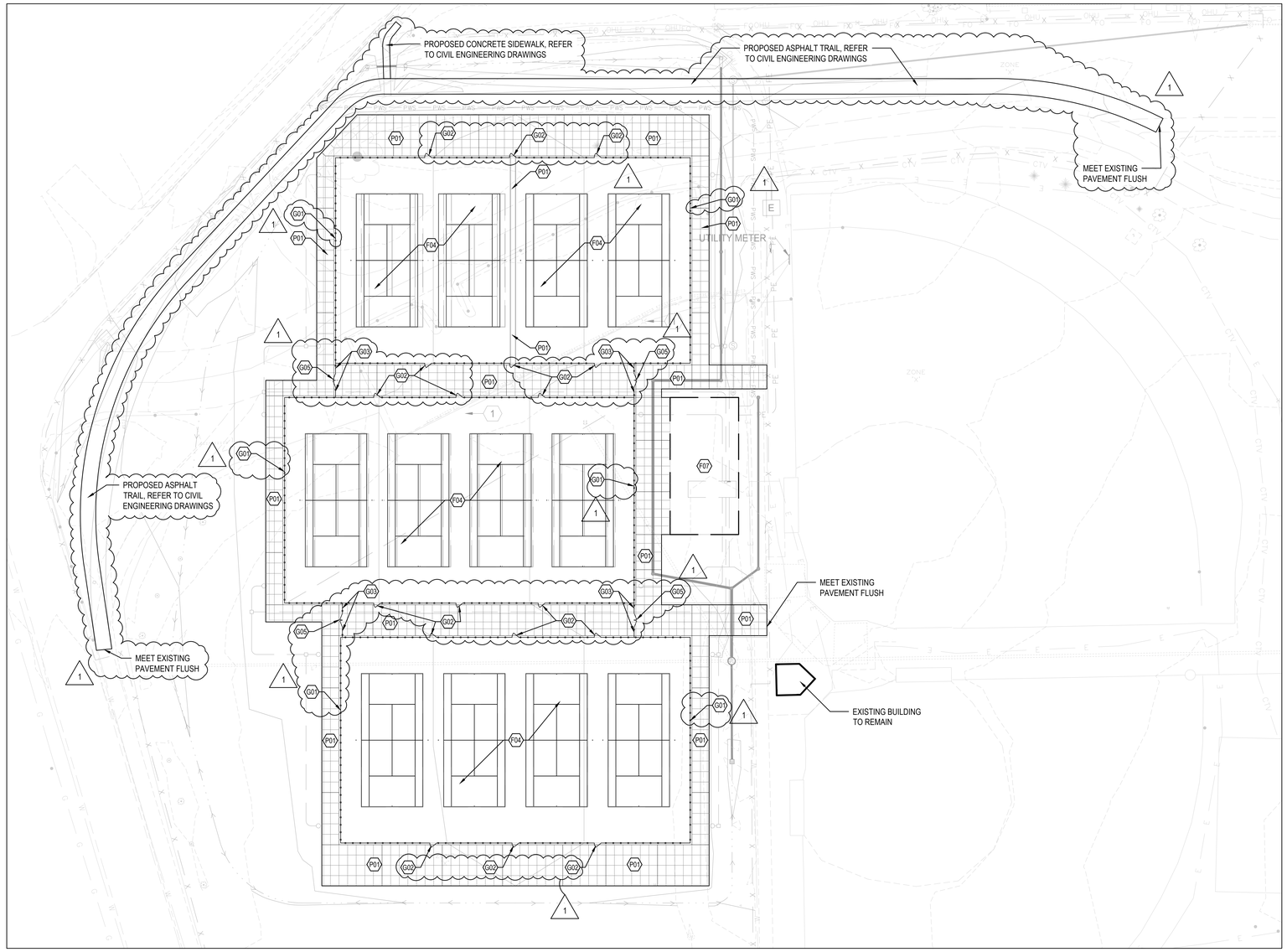
100% DESIGN DEVELOPMENT DOCUMENTS

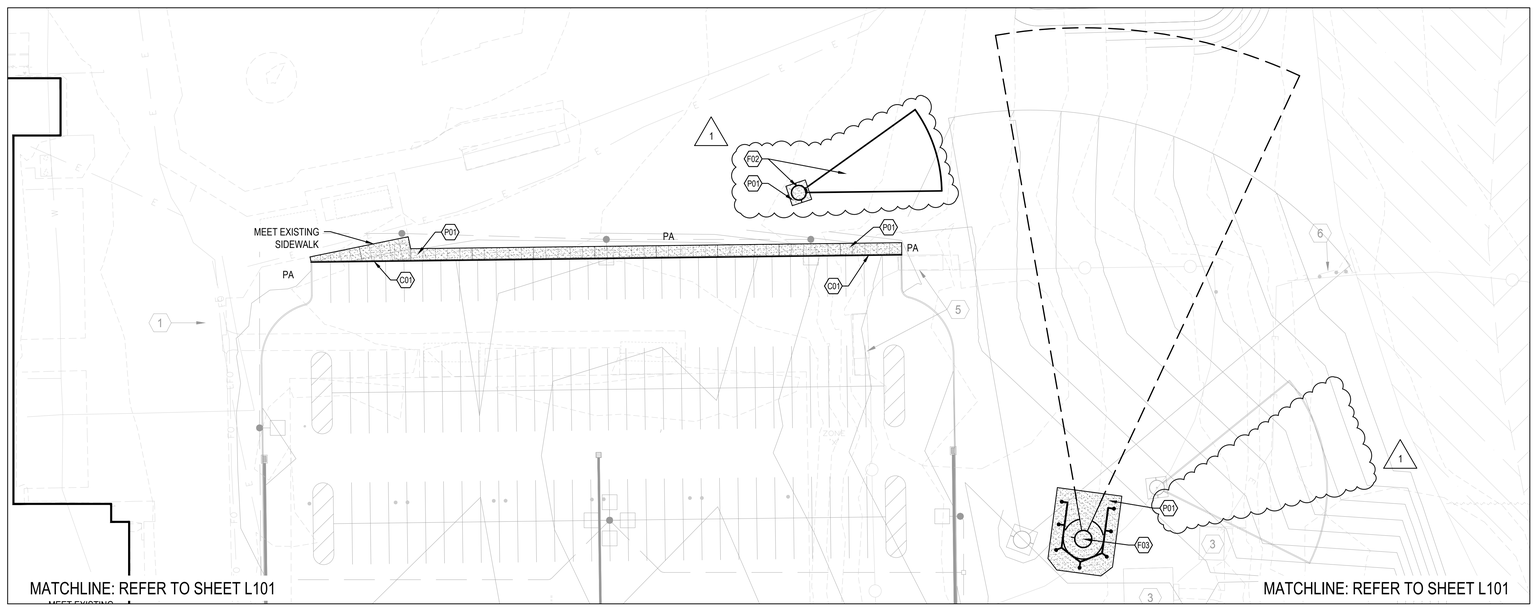
PROJECT:	#22130
DATE:	04-02-2024
DRAWN BY:	AY/CH

SITE MATERIALS PLAN - PHASE 2A

L101

PLOT DATE/TIME





	MATERIAL KEYNOTES
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KEY	DESCRIPTION / REFERENCE
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KEY	DESCRIPTION / REFERENCE
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G05	8' WIDE CHAIN-LINK FENCE GATE, DOUBLE LEAF, MATCH ADJACENT FENCING, REFER TO SPECIFICATIONS
G06	10' WIDE CHAIN-LINK FENCE GATE, DOUBLE LEAF, MATCH ADJACENT FENCING, REFER TO SPECIFICATIONS

NOTE: REFER TO CIVIL ENGINEERING DRAWINGS FOR VEHICULAR PAVEMENTS

North

0 15' 30' 60'

Scale 1" = 30'-0"

LANCER ASSOCIATES ARCHITECTURE
427 S. COLLEGE AVE
INDIANAPOLIS, IN 46203

context DESIGN
5825 Lawton Loop East Drive | Indianapolis, IN 46216
317-485-6900 | www.context-design.com

CLARK-PLEASANT COMMUNITY SCHOOL CORP.
WHITELAND COMM. HIGH SCHOOL ADDITION
300 E MAIN ST, WHITELAND, IN 46184

FREDDIE J. PRAZEAU
REGISTERED
No. 2020-0052
STATE OF INDIANA
LANDSCAPE ARCHITECT
EXPIRES 12-31-2025

REVISIONS:

#	Date	Desc.
1	04-23-2024	Addenda 1

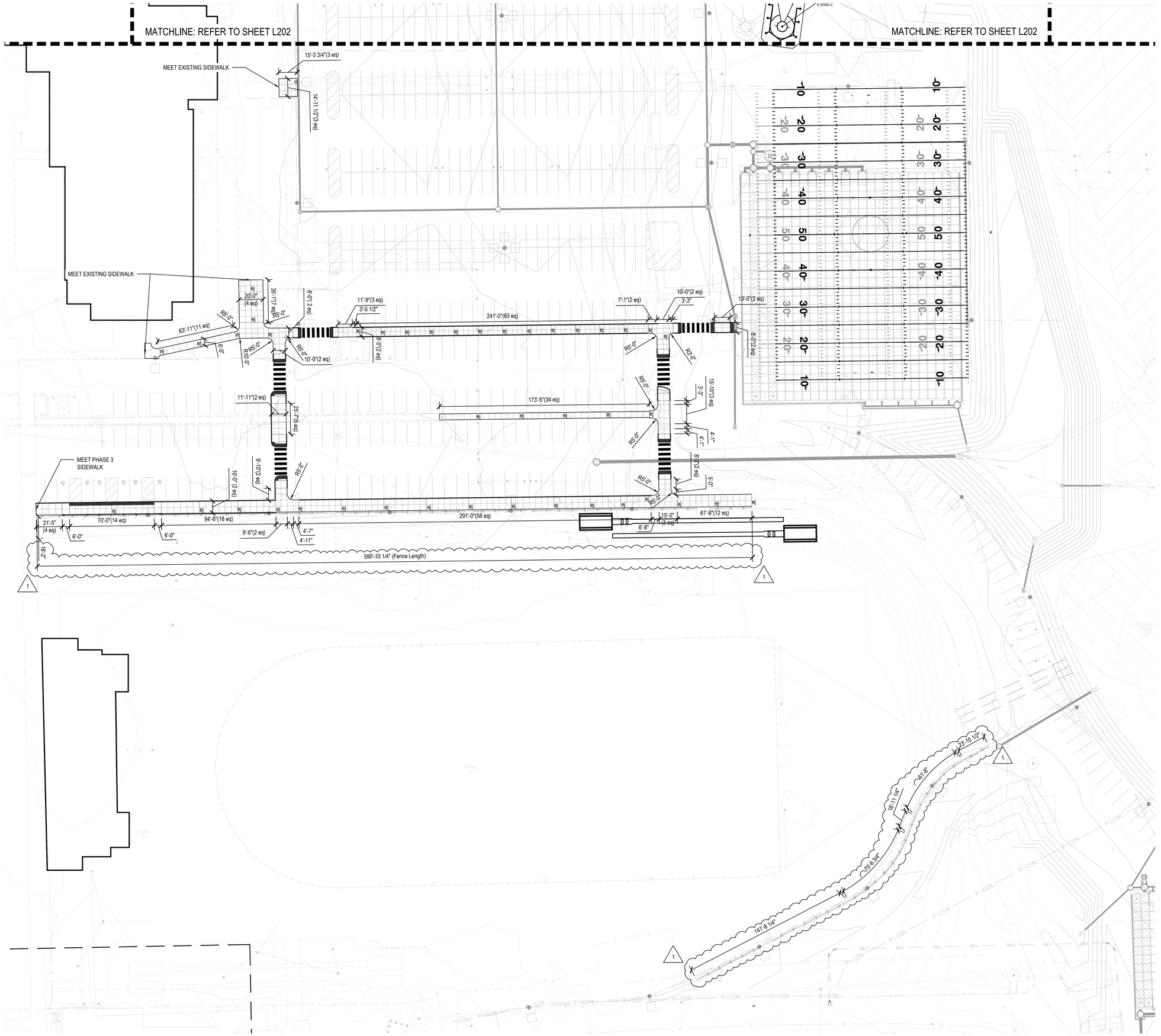
100% DESIGN DEVELOPMENT DOCUMENTS

PROJECT: #22130
DATE: 04-02-2024
DRAWN BY: AY/CH

SITE MATERIALS PLAN - PHASE 2A

L102

PLOT DATE/TIME



LAYOUT NOTES

1. Dimensions are shown to Face of Curb unless otherwise noted.
2. Contractor shall coordinate final joint locations in the field with the Landscape Architect. Align to existing conditions when practical, including at building and wall corners, connections to existing work, and to centerlines of doors.
3. Space control joints evenly between all bands and expansion joints as shown, unless otherwise dimensioned. Space interim joints equally whenever possible.
4. Digital AutoCAD files will be provided to the successful bidder as a courtesy to assist with field layout. The Contractor maintains all responsibility for the use, accuracy, and confirmation of such data.
5. All pavement striping shown shall adhere to Specifications. The Contractor shall include in their bid any miscellaneous copy, striping, or curb painting that may be requested by the Fire Marshal.
6. All disturbed areas not proposed to receive pavements shall be dressed with topsoil and seeded per Specifications.
7. Contractor shall provide and install One (1) Accessible Parking Sign per accessible parking space indicated in plans. Coordinate final location in the field with Landscape Architect.

LANCER ASSOCIATES ARCHITECTURE
427 S. COLLEGE AVE
INDIANAPOLIS, IN 46203

context DESIGN
5825 Lawton Loop East Drive | Indianapolis, IN 46216
317-485-6900 | www.context-design.com

CLARK-PLEASANT COMMUNITY SCHOOL CORP.
WHITELAND COMM. HIGH SCHOOL ADDITION
300 E MAIN ST, WHITELAND, IN 46184

FREDDIE J. PRAZEAU
REGISTERED
No. 2020-0052
STATE OF INDIANA
LANDSCAPE ARCHITECT
EXPIRES 12-31-2025

REVISIONS:		
#	Date	Desc.
1	04-23-2024	Addenda 1

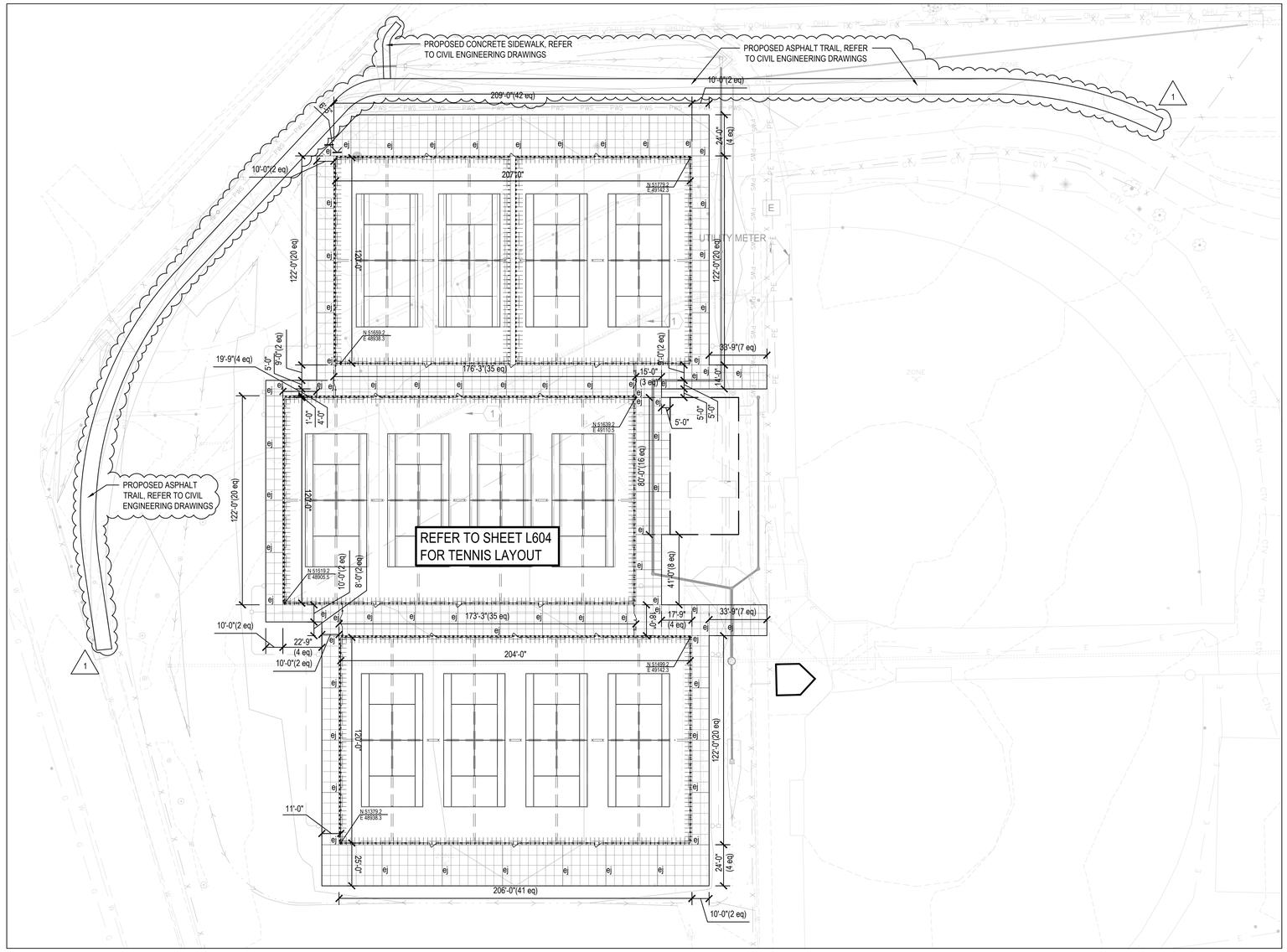
100% DESIGN DEVELOPMENT DOCUMENTS

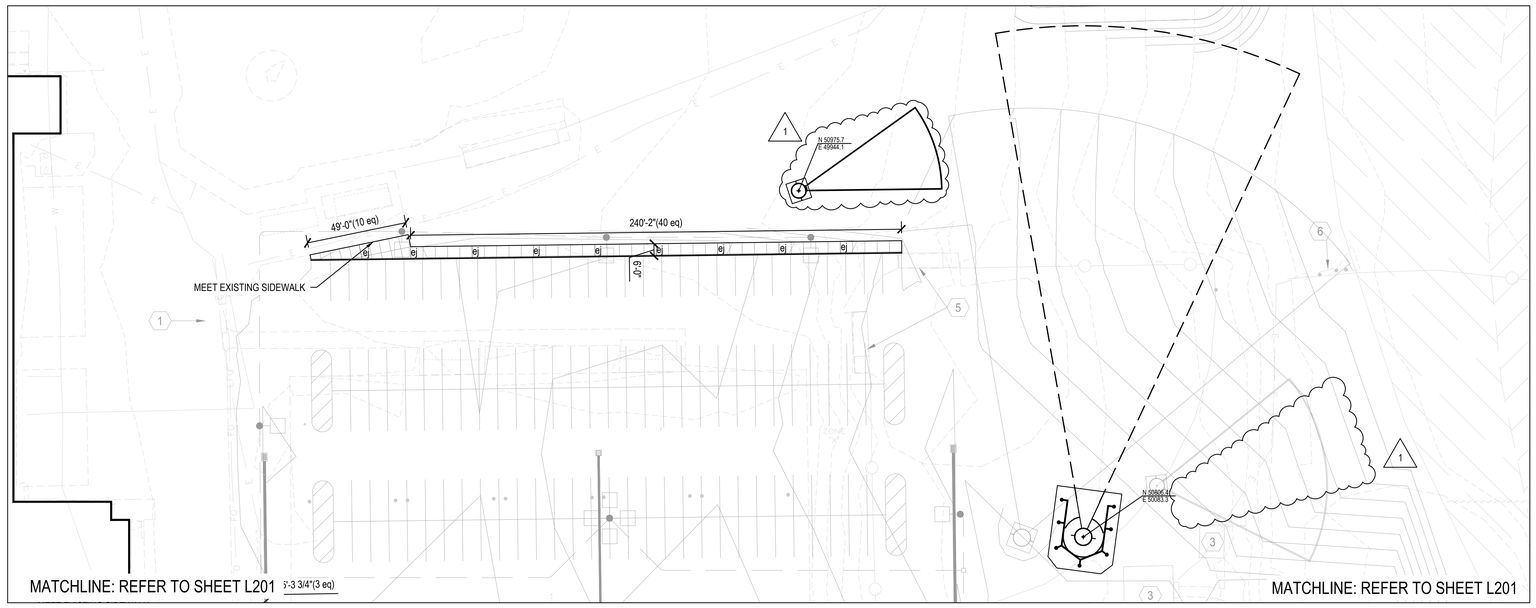
PROJECT: #22130
DATE: 04-02-2024
DRAWN BY: AY/CH

SITE LAYOUT PLAN - PHASE 2A

L201

PLOT DATE/TIME





LAYOUT NOTES

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FREDDIE J. PRZYBYLSKI
REGISTERED
No. 2020-0052
STATE OF INDIANA
LANDSCAPE ARCHITECT
EXPIRES 12-31-2025

REVISIONS:

#	Date	Desc:
1	04-23-2024	Addenda 1

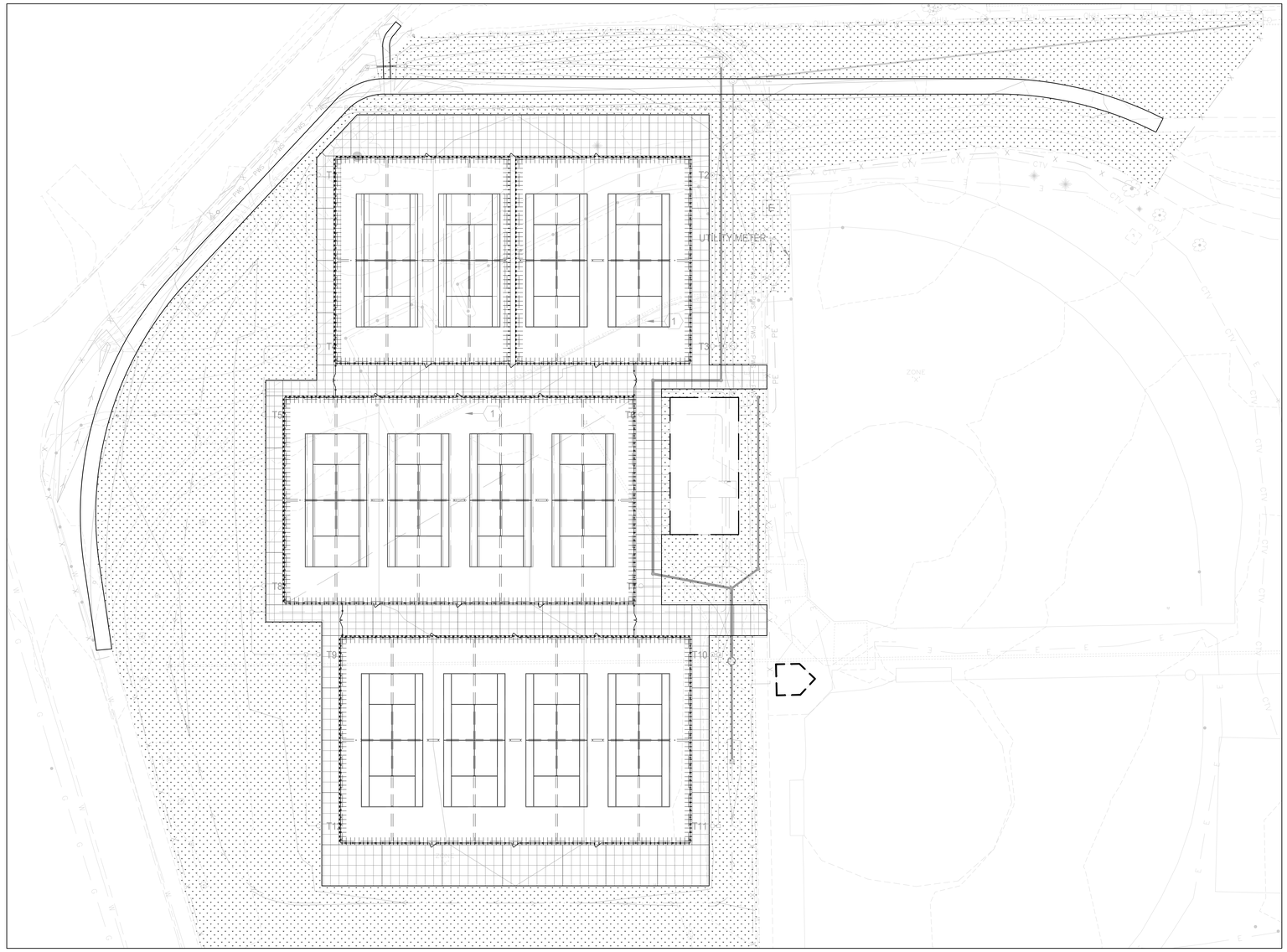
100% DESIGN DEVELOPMENT DOCUMENTS

PROJECT: #22130
DATE: 04-02-2024
DRAWN BY: AY/CH

North
0 15' 30' 60'
Scale 1" = 30'-0"

SITE LAYOUT PLAN - PHASE 2A

L202



GENERAL LANDSCAPE AND PLANTING NOTES

1. Refer to Project Manual for Planting Specifications and Topsoil requirements. Refer to Plant Schedule and Planting Details for additional information.
2. All materials are subject to the approval of the Landscape Architect and Owner at any time. Landscape Architect to inspect all plant locations and plant bed conditions prior to installation. On-site adjustments may be required.
3. Rootballs shall meet or exceed size standards as set forth in 'American Standards for Nursery Stock'. MAIN LEADERS OF ALL TREES SHALL REMAIN INTACT.
4. Remove from the site any plant material that turns brown or defoliates within five (5) days after planting. Replace immediately with approved, specified material.
5. Plant counts indicated on drawings are for Landscape Architect's use only. Contractor shall make own plant quantity takeoffs using drawings, specifications, and plant schedule requirements (i.e., spacing), unless otherwise directed by Landscape Architect. Contractor to verify bed measurements and install appropriate quantities as governed by plant spacing per schedule. Plant material quantities shown on plan are minimum quantities. Additional material may be needed to meet spacing requirements and field conditions.
6. Seed all areas disturbed by construction activities that are not otherwise noted to receive pavement, planting bed, or sod treatment.
7. The Contractor shall install and/or amend topsoil in all proposed bed areas to meet Specifications. Contractor shall coordinate quantity and placement of topsoil. Landscaper shall verify depth of topsoil prior to plant installation. (Refer to specifications for topsoil source and placement requirements)
8. All tree locations shall be marked with 2x2" stakes prior to planting for review and approval by the Landscape Architect. Any plant material installed in an incorrect location, by the judgment of the Landscape Architect, shall be reinstalled at the Contractor's expense.
9. All plant beds shall receive 3" minimum of shredded hardwood bark mulch (unless otherwise noted).
10. Verify all utility locations in the field prior to beginning work. Repair all damaged utilities to Owner's satisfaction at no additional cost.
11. The Contractor shall maintain all plant material and lawns until the project is fully accepted by the Landscape Architect, unless otherwise noted.
12. All workmanship and materials shall be guaranteed by the Contractor for a period of one calendar year after Final Acceptance.
13. Install all plant material in accordance with all local codes and ordinances. Coordinate with the Owner to obtain any required permits necessary to complete work.
14. Contractor shall test all tree pits for drainage. Any tree pit that holds water for more than 24 hours shall be installed using tree pit drainage.
15. Tree Protection Fencing is the responsibility of the Contractor. Minimum protected area shall include the full drip line of the canopy. NO construction activities, material storage, etc. may occur within that area. The Contractor shall ensure that no soil compaction or tree damage occurs in any Protected areas, at any time during the construction process.
16. Trees shall be matched in groups unless otherwise noted.

PLANTING LEGEND

▨	LAWN SEED

North

0 15' 30' 60'
Scale 1" = 30'-0"

LANCER ASSOCIATES ARCHITECTURE
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INDIANAPOLIS, IN 46203

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CLARK-PLEASANT COMMUNITY SCHOOL CORP.
WHITELAND COMM. HIGH SCHOOL ADDITION
300 E MAIN ST, WHITELAND, IN 46184

FREDDIE J. PRAZEAU
No. 2020-0052
EXPIRES 12-31-2025

REVISIONS:

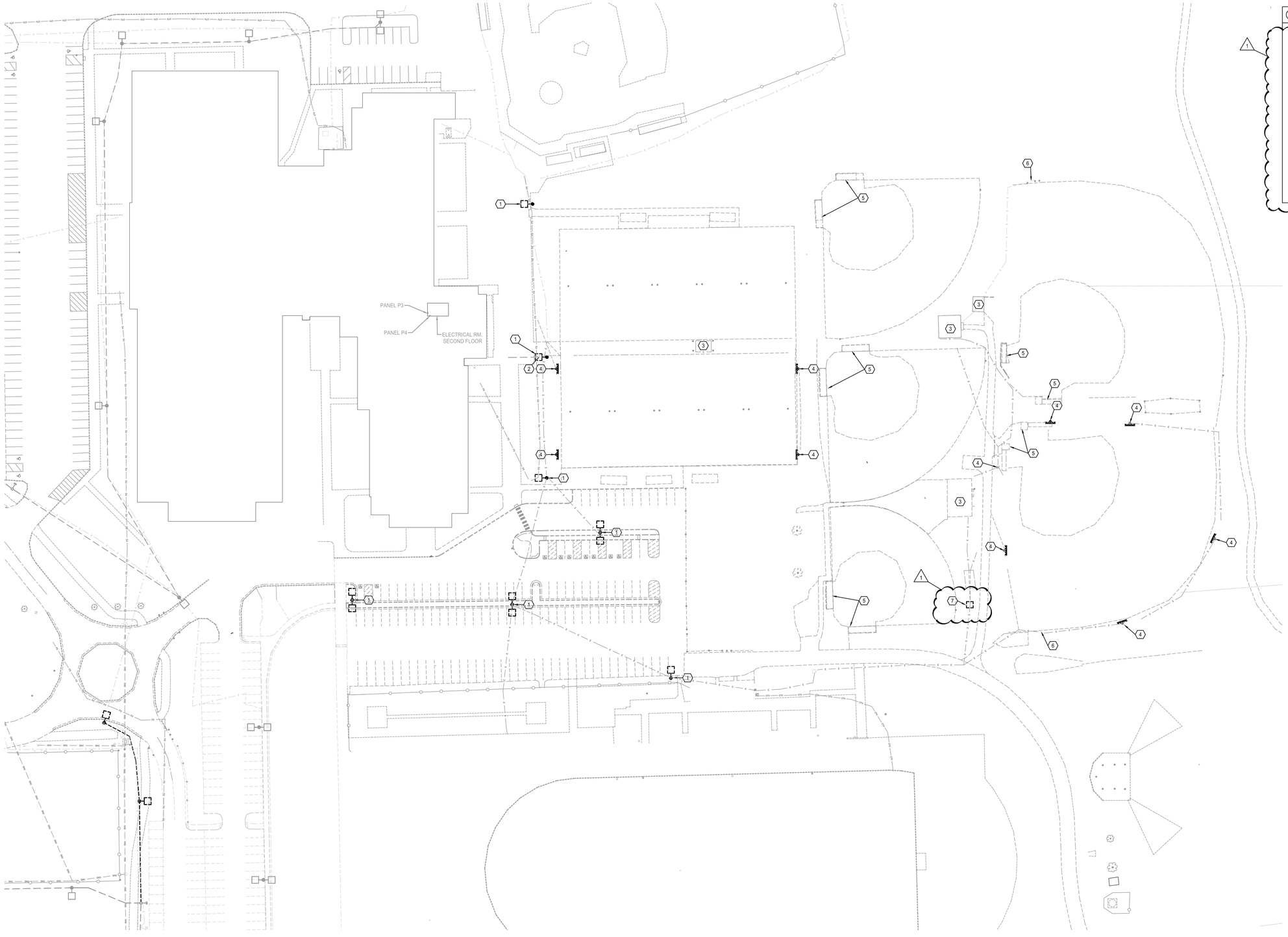
#	Date	Desc.
1	04-23-2024	Addenda 1

100% DESIGN DEVELOPMENT DOCUMENTS

PROJECT: #22130
DATE: 04-02-2024
DRAWN BY: AY/CH

SITE PLANTING PLAN - PHASE 2A

L402



PLAN NOTES

1. REMOVE LIGHT, POLE, CONCRETE BASE, CONDUCTORS AND CONDUIT BACK TO POINT INDICATED.
2. CONDUCTORS TO BE REMOVED BACK TO CONTACTOR/PANEL. CONDUIT ROUTED BELOW GRADE INTO BUILDING SHALL REMAIN AND BE EXTENDED TO NEW IN-GROUND PULL BOX.
3. DISCONNECT BUILDING ELECTRICAL SERVICE. REMOVE CONDUCTORS, CONDUIT AND CABLING BACK TO SOURCE.
4. DISCONNECT AND REMOVE SPORTS FIELD LIGHTING, POLE, CONCRETE BASE, CONDUCTORS AND CONDUIT BACK TO SOURCE.
5. DISCONNECT AND REMOVE ELECTRICAL SERVICE TO DUGOUTS. REMOVE CONDUCTORS, CONDUIT AND CABLING BACK TO SOURCE.
6. REMOVE SCOREBOARD AND ASSOCIATED DISCONNECT, CONDUIT CABLING, AND CONDUCTORS BACK TO SOURCE.
7. UTILITY COMPANY TO REMOVE UTILITY TRANSFORMER. CONTRACTOR SHALL REMOVE PRIMARY CABLING AND CONDUIT BACK TO POLE LINE NORTH OF SCHOOL. COORDINATE WITH LOCAL UTILITY.

1 ELECTRICAL DEMOLITION SITE PLAN
SCALE: 1" = 50'-0"

SCALE: 1" = 10'-0" | SCALE: 1" = 20'-0" | SCALE: 1" = 30'-0" | SCALE: 1" = 40'-0" | SCALE: 1" = 50'-0" | SCALE: 1" = 60'-0" | SCALE: 1" = 70'-0" | SCALE: 1" = 150'-0"

LANCER ASSOCIATES ARCHITECTURE

WHITELAND COMM HIGH SCHOOL PH. 2A
CLARK-PLEASANT COMM SCHOOL CORP
300 EAST MAIN STREET
WHITELAND, IN 46184

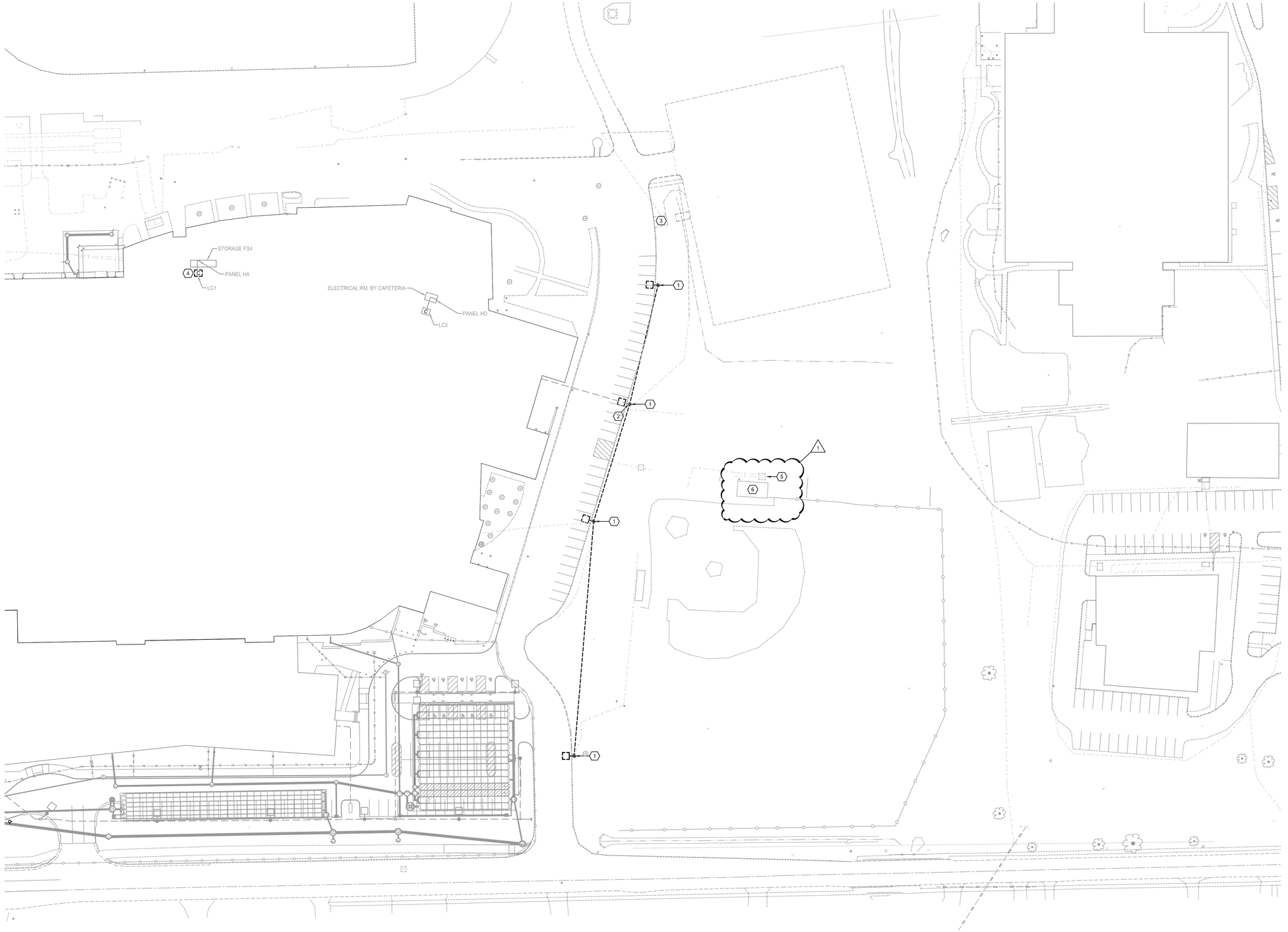
MICHAEL F. LUBBERS REGISTERED No. PE10302397 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT: #23536
DATE: 04.01.24
REV. 1 - ADDENDUM 001

ELECTRICAL SITE DEMOLITION PLAN

ES102

PRIMARY ENGINEERING INC
Indianapolis
9785 Crosspoint Blvd., Suite 103
Indianapolis, Indiana 46256
317.324.1221 ph
info@primary-eng.com
Fort Wayne
www.primary-eng.com



PLAN NOTES

1. REMOVE LIGHT, POLE, CONCRETE BASE, CONDUCTORS AND CONDUIT BACK TO POINT INDICATED.
2. CONDUCTORS TO BE REMOVED BACK TO CONTACTOR/PANEL. CONDUIT ROUTED BELOW GRADE INTO BUILDING SHALL REMAIN AND BE EXTENDED TO NEW IN-GROUND PULL BOX.
3. DISCONNECT AND REMOVE RECEPTACLE IN BAND TOWER BACK TO SOURCE.
4. DISCONNECT AND REMOVE CONTACTOR. EXISTING CONTROL CABLING AND BRANCH CIRCUITRY SHALL REMAIN TO BE RECONNECT TO NEW CONTACTOR.
5. UTILITY COMPANY TO REMOVE UTILITY TRANSFORMER. CONTRACTOR SHALL REMOVE PRIMARY CABLING AND CONDUIT BACK TO POLE LINE NORTH OF SCHOOL. COORDINATE WITH LOCAL UTILITY.
6. DISCONNECT AND REMOVE ELECTRICAL TO DUGOUTS AND ASSOCIATED SCOREBOARD. REMOVE CONDUCTORS, CONDUIT AND CABLING BACK TO SOURCE.

1 *ELECTRICAL DEMOLITION SITE PLAN*
SCALE: 1" = 50'-0"

0 10' 20' 30' — SCALE: 1" = 10'-0"
0 20' 40' 60' — SCALE: 1" = 20'-0"
0 30' 60' 90' — SCALE: 1" = 30'-0"
0 40' 80' 120' — SCALE: 1" = 40'-0"
0 50' 100' 150' — SCALE: 1" = 50'-0"
0 60' 120' 180' — SCALE: 1" = 60'-0"
0 70' 140' 210' — SCALE: 1" = 70'-0"
0 150' 300' 450' — SCALE: 1" = 150'-0"

LANCER ASSOCIATES ARCHITECTURE

WHITELAND COMM HIGH SCHOOL PH. 2A
CLARK-PLEASANT COMM SCHOOL CORP
300 EAST MAIN STREET
WHITELAND, IN 46184

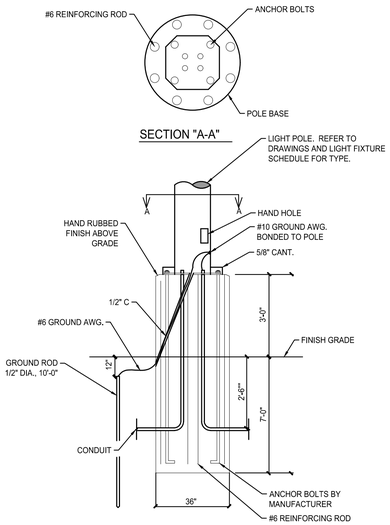
MICHAEL E. LUBBEN — REGISTERED — No. PE10302397 — STATE OF INDIANA

PROJECT: #23536
DATE: 04.01.24
REV. 1 - ADDENDUM 001

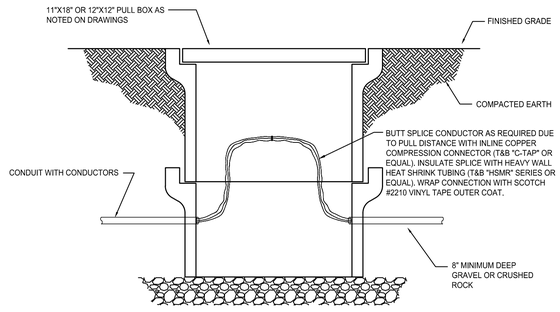
ELECTRICAL SITE DEMOLITION PLAN

ES103

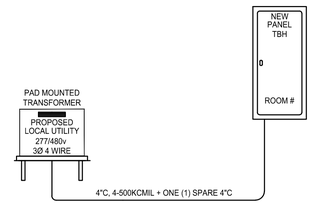
PRIMARY ENGINEERING INC
Indianapolis Fort Wayne
9785 Crosspoint Blvd., Suite 103
Indianapolis, Indiana 46256
317.324.1221 ph
info@primary-eng.com www.primary-eng.com



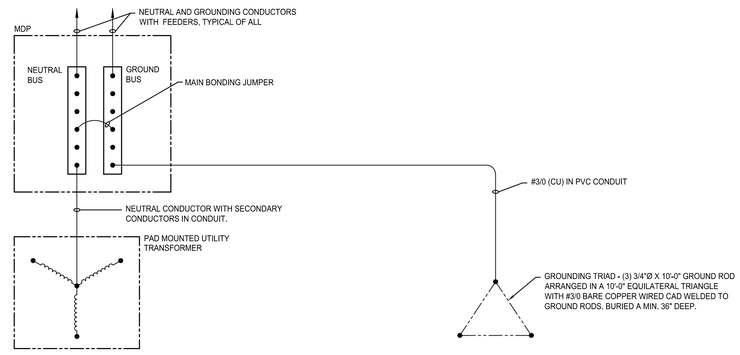
1 *36" RAISED POLE BASE DETAIL*
NOT TO SCALE



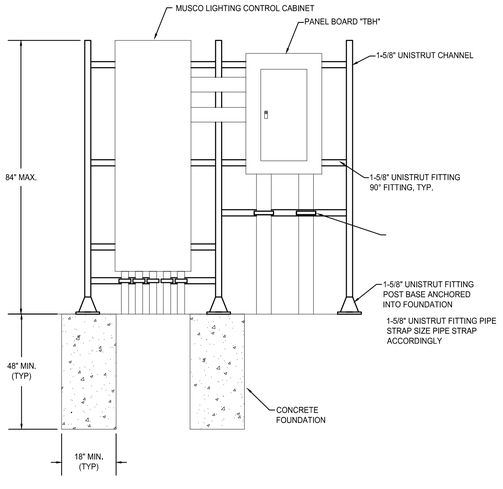
2 *PULL BOX/SPLICE DETAIL*
NOT TO SCALE



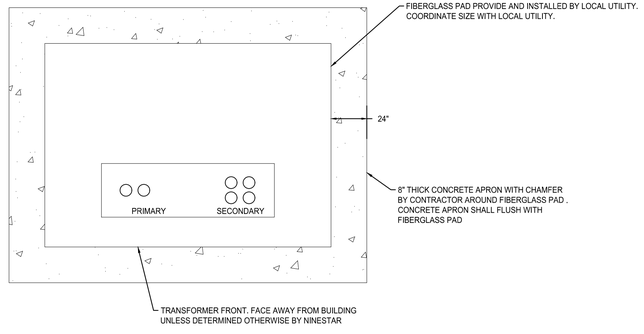
3 *SERVICE ENTRANCE RISER DIAGRAM*
NOT TO SCALE



4 *MAIN GROUNDING DIAGRAM*
NOT TO SCALE



5 *UNISTRUT MOUNTING DETAIL*
NOT TO SCALE



6 *TRANSFORMER PAD DETAIL*
NOT TO SCALE

EXTERIOR LIGHT FIXTURE SCHEDULE - PHASE 2A

TAG	MANUFACTURER'S CATALOG NUMBER	MAX. WATTS	MOUNT	MIN. LUMEN OUTPUT *(D/I)	CCT	CRI	DESCRIPTION	REMARKS
SL1	STREETWORKS #VERD-M-CA3-160-740-HV-T4-A15-XX-MS/DIM-L40 WITH #SSA4T30W-XX-1-FGV	163	POLE	24,394	4000	70	480V, DIE CAST ALUMINUM FIXTURE WITH TYPE IV. POLE MOUNT ARM. MOTION SENSOR WITH STAND-ALONE PASSIVE INFRARED MOTION SENSING. SENOR SHALL HAVE CAPABILITIES TO BE PROGRAMMED THROUGH HAND HELD DEVICE USING INFRARED. POLE SHALL BE 30'-0 TALL, 4" SQUARE ALUMINUM POLE WITH SINGLE HEAD MOUNTING, VIBRATION PAD, GROUND LUG AND VIBRATION DAMPENER	1,2
SL1-HS	STREETWORKS #VERD-M-CA3-160-740-HV-T4-A15-XX-HSS-MS/DIM-L40 WITH #SSA4T30W-XX-1-FGV	163	POLE	24,394	4000	70	480V, DIE CAST ALUMINUM FIXTURE WITH TYPE IV. POLE MOUNT ARM AND HOUSE SIDE SHIELD MOTION SENSOR WITH STAND-ALONE PASSIVE INFRARED MOTION SENSING. SENOR SHALL HAVE CAPABILITIES TO BE PROGRAMMED THROUGH HAND HELD DEVICE USING INFRARED. POLE SHALL BE 30'-0 TALL, 4" SQUARE ALUMINUM POLE WITH SINGLE HEAD MOUNTING, VIBRATION PAD, GROUND LUG AND VIBRATION DAMPENER	1,3
SL2	STREETWORKS #VERD-M-CA3-160-740-HV-T5-A15-XX-MS/DIM-L40 WITH #SSA4T30W-XX-1-FGV	163	POLE	24,011	4000	70	480V, SINGLE HEAD DIE CAST ALUMINUM FIXTURE WITH TYPE V. POLE MOUNT ARM. MOTION SENSOR WITH STAND-ALONE PASSIVE INFRARED MOTION SENSING. SENOR SHALL HAVE CAPABILITIES TO BE PROGRAMMED THROUGH HAND HELD DEVICE USING INFRARED. POLE SHALL BE 30'-0 TALL, 4" SQUARE ALUMINUM POLE WITH SINGLE HEAD MOUNTING, VIBRATION PAD, GROUND LUG AND VIBRATION DAMPENER.	1,2
SL2-2	STREETWORKS #VERD-M-CA3-160-740-HV-T5-A15-XX-MS/DIM-L40 WITH #SSA4T30W-XX-1-FGV	326	POLE	48,022	4000	70	480V, DUAL HEAD DIE CAST ALUMINUM FIXTURE WITH TYPE V. POLE MOUNT ARM. MOTION SENSOR WITH STAND-ALONE PASSIVE INFRARED MOTION SENSING. SENOR SHALL HAVE CAPABILITIES TO BE PROGRAMMED THROUGH HAND HELD DEVICE USING INFRARED. POLE SHALL BE 30'-0 TALL, 4" SQUARE ALUMINUM POLE WITH 2 AT 180 DEGREE HEAD MOUNTING, VIBRATION PAD, GROUND LUG AND VIBRATION DAMPENER.	1,5
SL2-4	STREETWORKS #VERD-M-CA3-160-740-HV-T5-A15-XX-MS/DIM-L40 WITH #SSA4T30W-XX-1-FGV	652	POLE	96,044	4000	70	**480V, QUAD HEAD DIE CAST ALUMINUM FIXTURE WITH TYPE V. POLE MOUNT ARM. MOTION SENSOR WITH STAND-ALONE PASSIVE INFRARED MOTION SENSING. SENOR SHALL HAVE CAPABILITIES TO BE PROGRAMMED THROUGH HAND HELD DEVICE USING INFRARED. POLE SHALL BE 30'-0 TALL, 4" SQUARE ALUMINUM POLE WITH 4 AT 90 DEGREE HEAD MOUNTING, VIBRATION PAD, GROUND LUG AND VIBRATION DAMPENER.**	1,4

GENERAL REMARKS:

1. PROVIDE TWO (2) WIRELESS CONFIGURATIONS TOOLS TO OWNER AFTER COMPLETION OF PROJECT.
2. FIXTURE SHALL WATTSTOPPER #FSP-211 UTILIZING FSIR-100 CONFIGURATION TOOL.

REMARKS:

1. MOTION SENSOR SHALL BE SET UP WITH HIGH SETTING TO BE 100% AND LOW SETTING TO BE 15% .
2. CONTRACTOR SHALL PROVIDE AN ALLOWANCE OF $3,300.00 FOR FIXTURE AND POLE THIS INCLUDES FREIGHT AND SHIPPING COSTS.
3. CONTRACTOR SHALL PROVIDE AN ALLOWANCE OF $3,385.00 FOR FIXTURE AND POLE THIS INCLUDES FREIGHT AND SHIPPING COSTS.
4. **CONTRACTOR SHALL PROVIDE AN ALLOWANCE OF $6,500.00 FOR FIXTURE AND POLE THIS INCLUDES FREIGHT AND SHIPPING COSTS.**
5. CONTRACTOR SHALL PROVIDE AN ALLOWANCE OF $4,950.00 FOR FIXTURE AND POLE THIS INCLUDES FREIGHT AND SHIPPING COSTS.

PANEL: TBH **MCB:** 400 AMPERE **VOLTAGE** 277/480
MOUNTING TYPE: SURFACE **K.A.I.C.:** 35 **PHASE:** 3
PANEL REMARKS: **FED FROM:** SEE RISER **WIRE:** 4+G
HINGED DOOR WITHIN HINGED COVER, COPPER BUS, 100% RATED NEUTRAL BUS, FEED THROUGH LUGS
PROVIDE 125A/3P SUB-FEED CIRCUIT BREAKER. NEMA 3R, SERVICE ENTRNACE RATED.

REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	CKT NO	REMARKS
	1			2880					2	
	3	30A/3P	POLES T1 & T4	2880	2880		POLES T2 & T3	30A/3P	4	
	5				2880	2880			6	
	7			2880					8	
	9	30A/3P	POLES T5 & T8	2526	2880		POLES T6 & T7	30A/3P	10	
	11				2526	2880			12	
	13			2880		2526			14	
	15	30A/3P	POLES T9 & T12	2880	2880		POLES T10 & T11	30A/3P	16	
	17					2880			18	
	19	20A/1P	LIGHTING CONTROL PANEL	0		2880		20A/1P	20	
	21	20A/1P		0	0			20A/1P	22	
	23	20A/1P				0		20A/1P	24	
	25	20A/1P		0		0		20A/1P	26	
	27	20A/1P		0	0			20A/1P	28	
	29	20A/1P				0		20A/1P	30	
	31	20A/1P		0		0		20A/1P	32	
	33	20A/1P		0	0			20A/1P	34	
	35	20A/1P				0		20A/1P	36	
	37	20A/1P		0		0		20A/1P	38	
	39	20A/1P		0	0			20A/1P	40	
	41	20A/1P				0		20A/1P	42	
				16,926	16,926	16,926				

REMARKS

1. PROVIDE AND INSTALL SPARE 20A/1P BREAKER
2. CIRCUIT BREAKER TO BE GFCI TYPE.

LANCER ASSOCIATES ARCHITECTURE

WHITELAND COMM HIGH SCHOOL PH. 2A
CLARK-PLEASANT COMM SCHOOL CORP
300 EAST MAIN STREET
WHITELAND, IN 46184

PROJECT: #23536
DATE: 04.01.24
REV. 1 - ADDENDUM 001

DETAILS AND SCHEDULES

ES301

PRIMARY ENGINEERING INC
Indianapolis Fort Wayne
9785 Crosspoint Blvd., Suite 103
Indianapolis, Indiana 46256
317.324.1221 ph
info@primary-eng.com www.primary-eng.com