

ADDENDUM

Addendum No: 002

Bid Package No: 1 – Civil and Sitework

Project: Citywalk on the Nickel Plate

Project No: 22024 Date: March 20, 2024, By: Dan Moriarity

This Addendum is issued in accordance with the provisions of “The General Conditions of the Contract for Construction,” Article 1, “Contract Documents” and becomes a part of the Contract Documents as provided therein. This Addendum includes:

Addendum Pages: ADD 002-1 thru ADD 002-58

Specification Sections: na

Drawings: Drawings published to correct for upload scale of original bid set PDF. No changes have been made to the content of any sheet. Sheets issued in Addendum 001 are not included in Addendum 002. There are no specification changes in this addendum. Revised drawings are listed below.

PART ONE – BIDDING AND CONTRACT DOCUMENTS

1.01 List of Drawings Revised

SHEET TITLE	DRAWING NO.
GENERAL NOTES	C001
PRIMARY PLAT	PLAT-1
PRIMARY PLAT	PLAT-2
BOUNDARY RETRACEMENT SURVEY	SV-1
TOPOGRAPHIC SURVEY	SV-2
TOPOGRAPHIC SURVEY	SV-3
SITE PLAN	C202
SITE PLAN	C203
OVERALL GRADING PLAN	C300
GRADING PLAN	C301
GRADING PLAN	C302
GRADING PLAN	C303

STORM PROFILES	C404
STORM PROFILES	C405
STORM PROFILES	C406
SANITARY MAIN PROFILES	C504
MAINTENANCE OF TRAFFIC PLAN	C600
SITE DETAILS	C800
SITE DETAILS	C801
SITE DETAILS	C803
WATER DETAILS	C804
INITIAL CONTROLS STORMWATER POLLUTION PREVENTION PLAN	C900
TEMPORARY STORMWATER POLLUTION PREVENTION PLAN	C901
PERMANENT STORMWATER POLLUTION PREVENTION PLAN	C902
STORMWATER POLLUTION PREVENTION NOTES	C903
STORMWATER POLLUTION PREVENTION DETAILS	C904
STORMWATER POLLUTION PREVENTION DETAILS	C905
CITY OF FISHERS STANDARD CONSTRUCTION DETAILS	

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GENERAL EROSION CONTROL NOTES

1. CONTRACTOR SHALL INSTALL ALL REQUIRED SILT FENCES, SILT TRAPS, TREE PROTECTION AND INLET PROTECTION FOR EXISTING INLETS PRIOR TO THE START OF ANY EARTH MOVING OR STRIPPING.
2. CONTRACTOR SHALL INSTALL A STONE CONSTRUCTION ENTRANCE OR SOME OTHER DEVICE PRIOR TO THE START OF EARTHWORK AS NECESSARY TO PREVENT SOIL FROM BEING TRACKED OR WASHED INTO EXISTING ROADWAYS.
3. LAND ALTERATIONS WHICH STRIP THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED. AS GRADING IS DONE, INSTALL SILT TRAPS, SILT FENCES, SLOPE DRAINS, TEMPORARY DIVERSIONS AND OTHER RUNOFF CONTROL MEASURES AT APPROPRIATE LOCATIONS TO KEEP SEDIMENT CONTAINED ON SITE.
4. ALL DISTURBED AREAS SHALL BE SEEDED AND STRAW MULCHED AS SHOWN ON THE PLANS IMMEDIATELY AFTER COMPLETION OF GROUND ACTIVITY. FOR LARGE PROJECTS, THIS SEEDING SHOULD BE COMPLETED IN PHASES AS THE DIFFERENT AREAS OF THE SITE ARE COMPLETED.
5. PERMANENT AND FINAL VEGETATION OR STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS SOON AS PRACTICAL UNDER THE CIRCUMSTANCES.
6. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM DEPENDING UPON THE WEATHER. IF CONSTRUCTION ACTIVITY IS TO CEASE FOR MORE THAN TWO WEEKS, THE DISTURBED AREAS SHALL BE TEMPORARILY SEEDED.
7. ALL STORM SEWER INLET PROTECTION DEVICES SHALL BE PUT IN PLACE AT THE TIME EACH INLET IS CONSTRUCTED.
8. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES AND DEVICES DURING CONSTRUCTION AND UNTIL SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR.
9. ONCE ONSITE EROSION AND SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY EROSION CONTROL DEVICES.
10. THESE GENERAL PROCEDURES MAY NOT COVER ALL SITUATIONS. REFER TO EROSION CONTROL PLANS FOR SPECIFIC NOTES AND ADDITIONAL DETAILS
11. EROSION CONTROL SHALL COMPLY WITH INDIANA CONSTRUCTION STORMWATER GENERAL PERMIT CRITERIA AND THE INDIANA STORMWATER QUALITY HANDBOOK. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN TH FIELD BY THE INSPECTOR.
12. ALL PROPOSED EROSION AND SEDIMENT CONTROL SHALL BE IN CONFORMANCE WITH THE CITY OF FISHERS STORMWATER SPECIFICATIONS MANUAL, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE MANUAL SHALL NOT ALLEVATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE MANUAL.
13. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY IDEM, MCSW, AND/OR THE CITY INSPECTOR.
14. PUBLIC AND PRIVATE ROADWAYS SHALL BE KEPT CLEARED OF ACCUMULATED SEDIMENT. BULK CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING THE AREA WITH WATER. PROJECTS SUBJECT TO IDEM'S CSDP SHALL REMOVE SEDIMENT FROM PUBLIC RIGHTS-OF-WAY NOT EXCLUSIVE OF CONSTRUCTION TRAFFIC AT THE END OF EACH DAY PER CSDP REQUIREMENTS
15. STABILIZATION SHALL BE INITIATED BY THE END OF THE SEVENTH (7TH) DAY THE AREA WAS LEFT IDLE. STABILIZATION MUST BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER INITIATION.

GENERAL UTILITY NOTES:

1. THE UTILITIES INDICATED ON THESE PLANS AND ON THE SURVEY MAY NOT BE A COMPLETE INVENTORY OF ALL THE EXISTING UTILITIES PRESENT ON AND AROUND THE SITE. THE LOCATION AND SIZE OF THESE UTILITIES MAY BE APPROXIMATE. THE ENGINEER SHALL NOT BE HELD LIABLE FOR ANY INACCURATE UTILITY INFORMATION INDICATED, IMPLIED, OR NOT INDICATED ON THESE PLANS.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND MAINTAIN IN SERVICE ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED IN THE DRAWINGS. ANY PIPING WHICH CAN BE REMOVED DURING CONSTRUCTION WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR, AT HIS EXPENSE WITH THE PERMISSION OF THE OWNER.
3. BEFORE WORKING WITH OR AROUND EXISTING UTILITIES, THE APPLICABLE UTILITY COMPANY SHALL BE CONTACTED BY THE CONTRACTOR.
4. WHEN CONNECTIONS ARE TO BE MADE TO EXISTING PIPING AND STRUCTURES OR WHERE CONSTRUCTION IS IN THE VICINITY OF EXISTING PIPING THE LOCATION AND ELEVATION OF THE EXISTING PIPING SHALL BE FIELD VERIFIED AND NOTIFICATION GIVEN TO THE OWNER IF THE EXISTING PIPING IS FOUND TO BE DIFFERENT THAN THAT SHOWN ON THE DRAWINGS.
5. FOR CLARITY OF THESE DRAWINGS, PIPES MAY NOT BE DRAWN TO SCALE OR EXACTLY LOCATED.
6. ALL NEW WATER LINES SHALL HAVE A MINIMUM OF 54 INCHES OF COVER.
7. MINIMUM OF 18 INCHES OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN NEW WATER AND SANITARY SEWER LINES. IF 18 INCHES OF CLEARANCE IS NOT PROVIDED THEN THE SEWER MUST BE CONSTRUCTED OF WATER WORKS GRADE DUCTILE IRON PIPE WITH MECHANICAL JOINTS WITHIN TEN FEET OF THE WATER LINE.
8. NEW 6" AND 8" SANITARY LATERALS SHALL BE SDR-35, SCHEDULE 80 OR SCHEDULE 40 PVC PIPE CONFORMING TO ASTM D2241, AND SHALL MEET THE DEFLECTION STANDARDS OF ASTM D-3303.
9. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR CONTRACTORS TO OBTAIN ALL FEDERAL, STATE, COUNTY, CITY OR LOCAL PERMITS FOR ANY AND ALL WORK REQUIRED UNLESS OTHERWISE NOTED. THE CONTRACTOR OR CONTRACTORS ARE RESPONSIBLE TO PAY FOR ALL REQUIRED PERMITS BY ANY OR ALL AGENCIES MENTIONED ABOVE UNLESS OTHERWISE NOTED IN THE CONTRACT OR SPECIFICATIONS. ALL ASSOCIATED BONDING REQUIREMENTS AND COSTS ARE INCIDENTAL TO THE CONTRACT.
10. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE ENGINEERING PLANS FROM ACTUAL FIELD DIMENSIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
11. ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.

12. CONTRACTOR IS RESPONSIBLE FOR ELECTRIC, TELEPHONE, AND CABLE CONDUITS AND TRENCHING. COORDINATE WITH THE LOCAL UTILITY PROVIDERS AND MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR SIZES AND QUANTITIES.
13. WATER AND FIRE SERVICE SIZES AND CONNECTION LOCATIONS SHALL BE COORDINATED WITH THE MECHANICAL, ELECTRICAL AND PLUMBING PLANS.
14. CONTRACTOR TO PROVIDE OSHA COMPLIANT TRENCH IN ROADWAY FOR CITIZENS ENERGY GROUP. CITIZENS ENERGY WILL PROVIDE AND INSTALL TAPPING SLEEVE AND VALVE. CONTRACTOR IS RESPONSIBLE TO CONNECT WATER SERVICE TO VALVE AND INSTALL SERVICE TO BUILDING.

GENERAL GRADING NOTES:

1. CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION CONTROL MEASURES PREPARED FOR THIS PROJECT.
2. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
3. CONTRACTOR TO REFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. PLACE TOPSOIL OVER THE SUBGRADE OF UNPAVED, DISTURBED AREAS TO A DEPTH INDICATED ON THE LANDSCAPE PLANS (6" MINIMUM). PAVEMENT SLOPES ACROSS ACCESSIBLE PARKING STALLS AND ADJOINING ACCESS AISLES SHALL BE MAXIMUM 2%.
5. ALL SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
6. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION CONTROL PLAN, UNLESS NOTED OTHERWISE.
7. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
8. DRAINAGE SYSTEMS SHALL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR. WITHIN 30 DAYS AFTER COMPLETION OF ON AND OFF-SITE DRAINAGE FACILITIES, THE REGISTERED PROFESSIONAL SHALL CERTIFY IN WRITING THE COMPLIANCE OF THE DRAINAGE FACILITIES PER LOCAL REQUIREMENTS.
9. CONTRACTOR SHALL PERPETUATE ALL DRAINS AND TILES ENCOUNTERED DURING CONSTRUCTION. COORDINATE WITH ENGINEER OF RECORD REGARDING THE CONNECTION TO THE PROPOSED STORM SEWER SYSTEM.
10. STORM STRUCTURES RECEIVING SUB-SURFACE DRAINS (SSD) SHALL HAVE BOTH CONNECTIONS CORE DRILLED. T OR Y BLIND CONNECTIONS ARE NOT ALLOWED.
11. ALL STORM SEWERS LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE OWNED AND MAINTAINED BY THE CITY OF FISHERS AND WILL REMAIN PUBLIC.
12. ALL STORM SEWERS LOCATED OUTSIDE THE PUBLIC RIGHT OF WAY SHALL BE PRIVATE.

GENERAL DRAINAGE NOTES:

1. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
3. ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
4. ANY WORK PERFORMED IN THE LOCAL OR STATE RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL OR STATE REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
5. ALL PROPOSED STORM SEWER AND DRAINAGE APPURTENANCES SHALL BE IN CONFORMANCE WITH THE CITY OF FISHERS STORMWATER TECHNICAL STANDARDS MANUAL, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE MANUAL SHALL NOT ALLEVATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE MANUAL.

DEMOLITION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OFF-SITE OF ALL ITEMS SHOWN ON THE DEMOLITION PLAN INCLUDING ITEMS ENCOUNTERED DURING EXCAVATION OF BUILDING FOUNDATIONS AND UTILITY PLACEMENT.
2. PRIOR TO STARTING DEMOLITION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES.
3. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY COMPANIES FOR THE DISCONNECTION AND REMOVAL OF SERVICES TO EXISTING STRUCTURES.
4. ITEMS SHOWN ON THE DEMOLITION PLAN TO BE SALVAGED SHALL BE TRANSPORTED TO LOCATION SPECIFIED BY THE OWNER OR HIS/HER REPRESENTATIVE.
5. THE CONTRACTOR MAY NOT USE EXPLOSIVES OR BURN DEBRIS ON SITE.
6. CONDUCT DEMOLITION OPERATIONS TO ENSURE MINIMAL INTERFERENCE WITH ROADS, SIDEWALKS AND ANY OTHER ADJACENT OCCUPIED FACILITIES.
7. DO NOT CLOSE OR OBSTRUCT ROADS, SIDEWALKS OR ANY OTHER OCCUPIED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITY HAVING JURISDICTION AND/OR PROPERTY OWNERS.
8. CONSTRUCTION SITE SHOULD BE SECURED TO PREVENT PEOPLE FROM WALKING THOUGH THE AREA.
9. THE CONTRACTOR SHALL PROTECT FROM DAMAGE, SURROUNDING STRUCTURES, UTILITIES AND OTHER FACILITIES DURING DEMOLITION AND REMOVAL OPERATIONS.
10. UTILITIES SHALL BE REMOVED AND BACKFILLED WITH APPROVED BACKFILL MATERIAL. BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM EIGHT INCH LIFTS AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT OR A MINIMUM OF 95% OF STANDARD PROCTOR.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE CONSTRUCTION SITE AND SURROUNDING AREAS ARE FREE OF ACCUMULATED DEBRIS.

GENERAL SITE NOTES:

1. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
2. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
5. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
6. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
7. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL CHECK EXISTING GRADES, DIMENSIONS, AND INVERTS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
9. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES, INCLUDING IRRIGATION LINES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN, RELOCATE EXISTING UTILITIES AS INDICATED, OR AS NECESSARY FOR CONSTRUCTION.
10. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY. INSTALL ALL UTILITIES, INCLUDING IRRIGATION SLEEVING, PRIOR TO INSTALLATION OF PAVED SURFACES.
11. SITE WORK CONCRETE WALKS AND PADS SHALL HAVE A BROOM FINISH TO ALL SURFACES. SITE WORK CONCRETE SHALL BE CLASS A (4,000 PSI @ 28 DAYS) UNLESS OTHERWISE NOTED.
12. ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
13. SITE DIMENSIONS SHOWN ARE TO THE FACE OF CURB, OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
14. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT / RECORD DRAWINGS ON THE JOB SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNER'S REPRESENTATIVE UPON COMPLETION.
15. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS OF UTILITY SERVICE ENTRY LOCATIONS AND PRECISE BUILDING DIMENSIONS.
16. THIS SITE LAYOUT IS SPECIFIC TO THE APPROVALS NECESSARY FOR THE CONSTRUCTION IN ACCORDANCE WITH THE LOCAL AUTHORITY. NO CHANGES TO THE SITE LAYOUT ARE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. CHANGES MADE TO THE SITE LAYOUT WITHOUT APPROVAL IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. CHANGES INCLUDE BUT ARE NOT LIMITED TO, INCREASED IMPERVIOUS PAVEMENT, ADDITION / DELETION OF PARKING SPACES, MOVEMENT OF CURB LINES, CHANGES TO DRAINAGE STRUCTURES AND PATTERNS, LANDSCAPING, ETC.

BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD83). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

BM#1: CUT "X" ON THE NORTH BONNET BOLT OF A HYDRANT LOCATED ON THE SOUTH SIDE OF TECHNOLOGY DRIVE APPROXIMATELY 330 FEET EAST OF THE NICKEL PLATE TRAIL. ELEV. = 820.56

BM#2: CUT "X" ON THE NORTH BOLT OF A PEDESTRIAN CROSSING SIGNAL IN THE NORTH QUADRANT OF THE INTERSECTION OF LANTERN ROAD AND THE NICKEL PLATE TRAIL. ELEV. = 824.88

BM#3: CUT SQUARE ON THE CONCRETE RIM OF A BEEHIVE STORM INLET LOCATED ON THE WEST SIDE OF LANTERN ROAD ACROSS FROM THE NORTHWEST CORNER OF 12002 LANTERN ROAD. ELEV. = 811.83

UTILITY 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. INDIANA 811 ONE-CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 2206093294, 2206093523, 2206093581, 2206093662, 2206093677, 2206093702, 2206093728, 2206093742, 2206093759, 2206093775, 2206093800, 2206093817, 2206093828, 2206093839, 2206093851, 2206093908, AND 2206093938 WERE ISSUED FOR THIS SITE.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

FLOOD NOTE:

THE PARCEL DESCRIBED AND SHOWN HEREIN LIES WITHIN ZONE "X" (UN-SPECIFIED) AS SHOWN ON MAP NUMBER 1805700234G (DATED NOVEMBER 19, 2014) OF THE FLOOD INSURANCE RATE MAPS FOR THE UNINCORPORATED AREAS AND THE TOWN OF FISHERS, HAMILTON COUNTY, INDIANA. THE ACCURACY OF THIS FLOOD HAZARD STATEMENT IS SUBJECT TO THE SCALE UNDERTAKEN FROM INFORMATION AVAILABLE. IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP.

CITY OF FISHERS NOTES:

1. THE DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE CURRENT CITY OF FISHERS SPECIFICATIONS AND STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.
2. DESIGN AND CONSTRUCTION SHALL COMPLY WITH ADA REQUIREMENTS.
3. THE CONTRACTOR SHALL SCHEDULE A SITE PRE-CONSTRUCTION MEETING WITH THE CITY OF FISHERS DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY CONSTRUCTION ON THE SITE BEING STARTED.
4. THE FINAL SITE INSPECTION WILL NOT BE PERFORMED BY THE CITY OF FISHERS DEPARTMENT OF ENGINEERING INSPECTOR UNTIL ALL SITE AND RIGHT-OF-WAY WORK IS COMPLETED.
5. THE DESIGN AND CONSTRUCTION SHALL COMPLY WITH THE CURRENT CITY OF FISHERS SPECIFICATIONS AND STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS. THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT.
6. SITE RECORD DRAWINGS ARE REQUIRED TO BE SUBMITTED IN THE FISHERS STANDARD FORMAT PRIOR TO ENGINEERING DEPT. RELEASE OF THE COMPLETED SITE.
7. A CITY OF FISHERS RIGHT-OF-WAY ACTIVITY PERMIT IS REQUIRED FOR UTILITY WORK CROSSING EXISTING PUBLIC RIGHT-OF-WAY.
8. UTILITY WORK WITHIN THE EXISTING PUBLIC RIGHT-OF-WAY OR WITHIN 5' OF EXISTING PUBLIC RIGHT-OF-WAY PAVEMENT REQUIRES REMOVABLE FLOWABLE FILL.
9. ALL ROADS MUST BE BROUGHT BACK TO ORIGINAL OR BETTER CONDITION, INCLUDING BUT NOT LIMITED TO PAVEMENT MARKINGS, CURB/STONE SHOULDERS, SIGNAGE, ETC. REPAIRS SHALL COINCIDE WITH THE ADJOINING ROAD.
10. UTILITY CONFLICTS (INCLUDING UTILITY POLES/PEDESTALS) MUST BE COMPLETELY RESOLVED PRIOR TO THE CONSTRUCTION OF ACCELERATION/DECELERATION, PASSING BLISTER LANES AND/OR LEFT TURN LANES. CONSTRUCTION OF THESE LANES INCLUDES BUT IS NOT LIMITED TO EXCAVATION, EMBANKMENT, PAVING, AND SUBGRADE PREPARATION, ETC.



DRAFT

GENERAL NOTES

DATE: FEB. 23, 2024 | DRAWN BY: BEB
DWG SCALE: AS NOTED | CHECKED BY: KPG
PROJECT NO: 323-947
APPROVED BY: DRAFT

STUDIO M ARCHITECTS
CITYWALK ON THE NICKEL PLATE TRAIL
LANTERN ROAD AND CIRCLE DRIVE
FISHERS, INDIANA 46038



Civil & Environmental
Consultants, Inc.

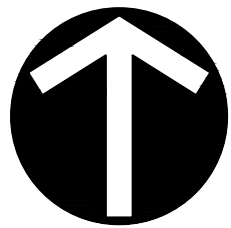
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REVISION RECORD

NO.	DATE	DESCRIPTION

DRAWING NO.:

C001



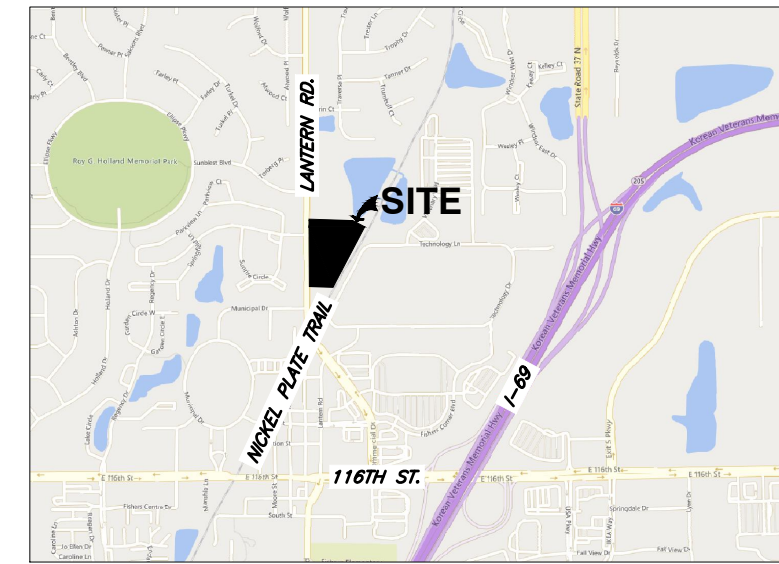
INDIANA STATE PLANE
EAST ZONE BEARINGS

PRIMARY PLAT OF CITYWALK ON NICKEL PLATE TRAIL

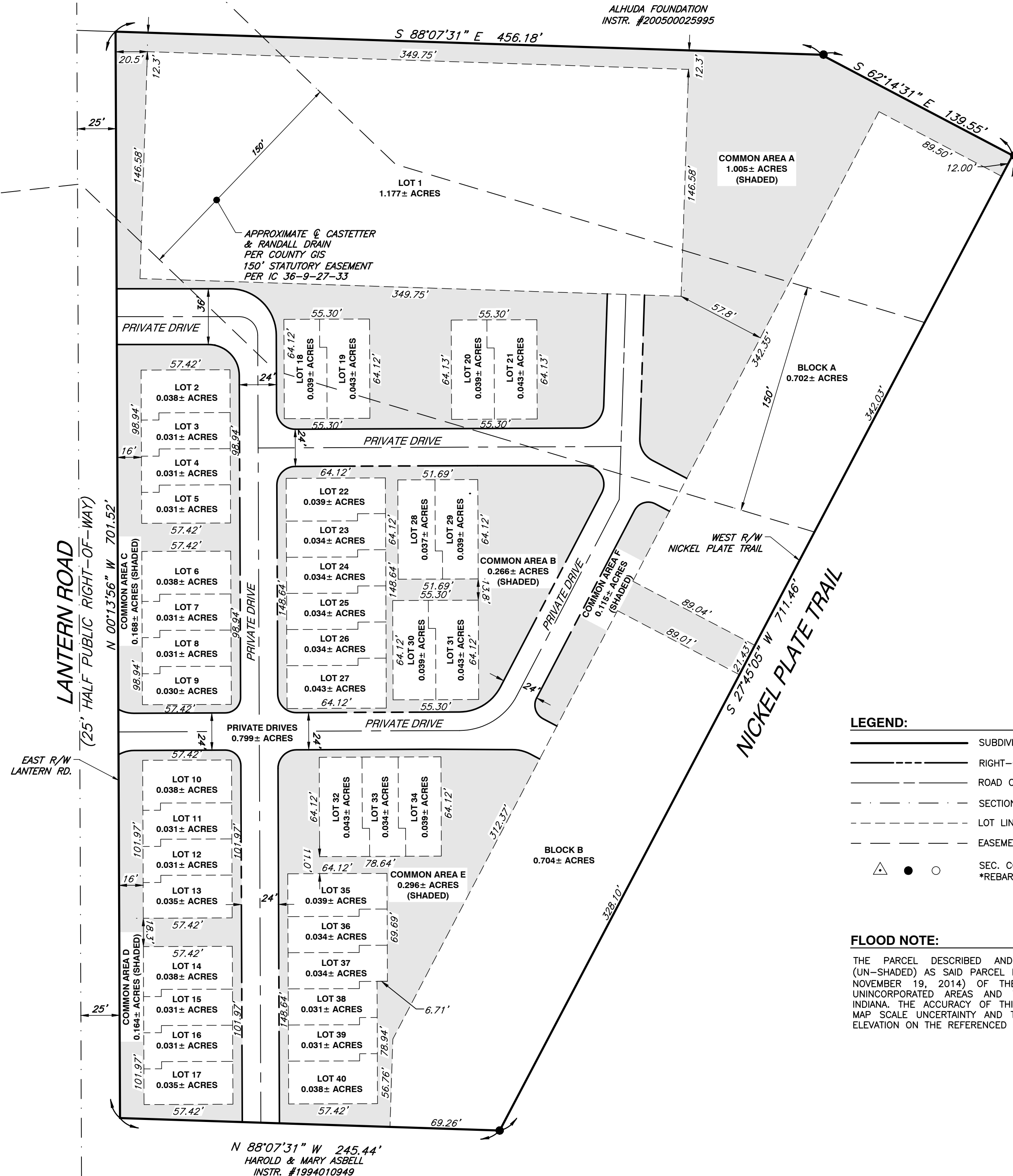
A REPLAT OF CIRCLE HEIGHTS ADDITION, 1ST SECTION AS PER THE PLAT THEREOF
RECORDED IN PLAT BOOK 2, PAGE 201 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA
BEING A PART OF THE WEST HALF OF SECTION 31, TOWNSHIP 18 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN,
CITY OF FISHERS, DELAWARE TOWNSHIP OF HAMILTON COUNTY, INDIANA.

PP-23-3

ALHUDA FOUNDATION
INSTR. #200500025995



VICINITY MAP
NOT TO SCALE

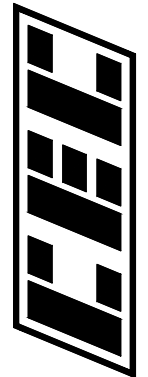


LEGEND:

- SUBDIVISION BOUNDARY LINE
- RIGHT-OF-WAY LINE
- ROAD CENTERLINE
- SECTION LINE
- LOT LINE
- EASEMENT LINE
- SEC. COR., MONUMENT FD., MON. SET*
*REBAR/CAP OR NAIL/WASHER STAMPED "CEC INC FIRM #0122"

FLOOD NOTE:

THE PARCEL DESCRIBED AND SHOWN HEREIN LIES WITHIN ZONE "X" (UN-SHADED) AS SAID PARCEL PLOTS ON MAP NUMBER 18057C0234G (DATED NOVEMBER 19, 2014) OF THE FLOOD INSURANCE RATE MAPS FOR THE UNINCORPORATED AREAS AND THE TOWN OF FISHERS, HAMILTON COUNTY, INDIANA. THE ACCURACY OF THIS FLOOD HAZARD STATEMENT IS SUBJECT TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OR ELEVATION ON THE REFERENCED FLOOD INSURANCE RATE MAP.



Civil & Environmental Consultants, Inc.
530 E. Ohio Street · Suite G · Indianapolis, IN 46204
317-655-7777 · 877-746-0749
www.cecinc.com

STUDIO M
ARCHITECTURE & PLANNING, LLC
LANTERN ROAD
FISHERS, INDIANA

CITYWALK ON NICKEL PLATE TRAIL
A SUBDIVISION IN FISHERS, INDIANA

DATE:	AUGUST 21, 2023	DRAWN BY:	TJT
DWG SCALE:	1"=50'	CHECKED BY:	ABS
PROJECT NO:	323-947	APPROVED BY:	ABS

DRAWING NO.:

PLAT

SHEET 1 OF 2

H

G

F

E

D

C

B

A

87654321

PRIMARY PLAT OF CITYWALK ON NICKEL PLATE TRAIL
A REPLAT OF CIRCLE HEIGHTS ADDITION, 1ST SECTION AS PER THE PLAT THEREOF
RECORDED IN PLAT BOOK 2, PAGE 201 IN THE OFFICE OF THE RECORDER OF HAMILTON COUNTY, INDIANA
BEING A PART OF THE WEST HALF OF SECTION 31, TOWNSHIP 18 NORTH, RANGE 5 EAST OF THE SECOND PRINCIPAL MERIDIAN,
CITY OF FISHERS, DELAWARE TOWNSHIP OF HAMILTON COUNTY, INDIANA.
PP-23-3

OWNER'S CERTIFICATE OF PLATTING
STATEMENT OF DEDICATION AND DECLARATION OF COVENANTS

The undersigned, _____, the owner of record of the real estate described hereon, does hereby certify that it has laid off, platted and subdivided and does hereby lay off, plat and subdivide said real estate as shown hereon in accordance with this plat.

This subdivision consists of 40 Lots numbered 1 through 40, 2 Blocks named A and B, 6 Common Areas, and 1 Private Drive Area and shall be known as Citywalk on Nickel Plate Trail, an Addition to the City of Fishers, Hamilton County, Indiana.

All streets shown on the within Plat not heretofore dedicated to the public are hereby dedicated to the City of Fishers for public use and maintenance, save and except for those streets specifically identified as private on the plat. The owner/developer expressly covenants and warrants on behalf of itself and all future owners of lots within this subdivision that because the streets are private that all maintenance, repairs and replacement now and forever shall be undertaken at the expense of the lot owners in accordance with the terms and conditions set forth in the owners association bylaws and articles. No governmental entity has any duty or responsibility to maintain, repair or replace any private streets.

There are strips of land, the widths as shown on the plat, and labeled as Access Easement, Utility Easement and Drainage Easement, either separately or in combination, which are reserved for use by the Developer, Public Utility Companies (not including transportation companies) and Governmental Agencies for the installation, operation and maintenance of improvements and facilities as follows:

Access Easements are hereby created for ingress and egress over and across said easements for the exclusive use of the path to the designated location.

Utility Easements (U.E.) are reserved for use by the Developer, public utility companies and governmental agencies for the installation, operation and maintenance of sanitary sewer mains and structures, poles, lines, wires, ducts, transformers, riser pedestals, gas mains, water mains, and appurtenances.

Drainage Easements (DE.) are reserved for use by the Developer and governmental agencies, for the installation, operation and maintenance of storm water drainage pipes and structures, subsurface drainage tiles, lakes, ponds, drainage retention and/or detention areas, and surface drainage courses.

There shall be no buildings or other improvements erected or allowed to remain within said easements except for private driveways, parking areas and facilities expressly permitted above. The owners of lots and blocks within the subdivision shall not alter, disturb, obstruct or impede the improvements in, or the use of said easements.

The size of the lots are shown in feet and decimal feet.

In testimony whereof, witness the signature

this ____ day of ____, 2023

Owners –

Owner Representative Signature:

Title:

Printed Name:

State of Indiana)
) SS:
County of)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared

_____, a duly authorized representative of_____and acknowledged the execution of this Instrument as his/her voluntary act and deed and affixed his/her signature thereof.

Witness my hand and Notarial Seal

this ____ day of ____, 2023.

Notary Public _____

Printed Name _____

My Commission Expires: _____

County of Residence: _____

LLEGAL DESCRIPTION

Lots 1 through 17 and the right-of–ways of East 121st Street and Circle Drive, all in the Plat of Circle Heights Addition, 1st Section as recorded in Plat Book 2, page 201 in the Office of the Recorder of Hamilton County, Indiana.

SOURCE OF TITLE

Owner: The Village Holding Group, LLC
Owner Address: 11205 Governors Lane, Fishers, IN 46037
Reference: Boundary Retracement Survey by Civil & Environmental Consultants, Inc.
Dated: August 19, 2022 as Project No. 323–947

SURVEYOR’S CERTIFICATE

I hereby state that the within plat is true and correct to the best of my knowledge and belief and represents a survey completed under my direct supervision. There have been no changes from the matters of survey revealed by the above cross–referenced survey, or any prior subdivision plats contained therein, on any lines that are common with this subdivision plat. Monuments have been or will be set at all lot corners as required by IAC 865 and the subdivision control ordinance.

Witness my seal and signature this 21st day of August, 2023

Tyler J. Thompson
Registered Land Surveyor No. LS21400006
tthompson@cecinc.com
prepared by Tyler J. Thompson

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law. Tyler J. Thompson

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
530 E. Ohio Street · Suite G · Indianapolis, IN 46204
317-655-7777 · 877-746-0749
www.cecinc.com

STUDIO M ARCHITECTURE & PLANNING, LLC
LANTERN ROAD
FISHERS, INDIANA

CITYWALK ON NICKEL PLATE TRAIL
A SUBDIVISION IN FISHERS, INDIANA

DRAWING NO.:
PLAT
SHEET 2 OF 2

DATE: AUGUST 21, 2023 DRAWN BY: TJT
DWG SCALE: ABS CHECKED BY:
PROJECT NO: 323-947 APPROVED BY: ABS

The undersigned, _____, the owner of record of the real estate described hereon, does hereby certify that it has laid off, platted and subdivided and does hereby lay off, plat and subdivide said real estate as shown hereon in accordance with this plat.

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The size of the lots are shown in feet and decimal feet.

In testimony whereof, witness the signature

this _____ day of _____, 2023

Owners —

Owner Representative Signature:

Title:

Printed Name:

State of Indiana)
) SS:
County of)

Before me, the undersigned, a Notary Public in and for said County and State, personally appeared

_____, a duly authorized representative of _____ and acknowledged the execution of this Instrument as his/her voluntary act and deed and affixed his/her signature thereof.

Witness my hand and Notarial Seal

this _____ day of _____, 2023.

Notary Public _____

Printed Name _____

My Commission Expires: _____

County of Residence: _____

LEGAL DESCRIPTION

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Tyler J. Thompson
Registered Land Surveyor No. LS21400006
tthompson@cecinc.com
prepared by Tyler J. Thompson

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law. Tyler J. Thompson

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**STUDIO M
ARCHITECTURE & PLANNING, LLC
LANTERN ROAD
FISHERS, INDIANA**

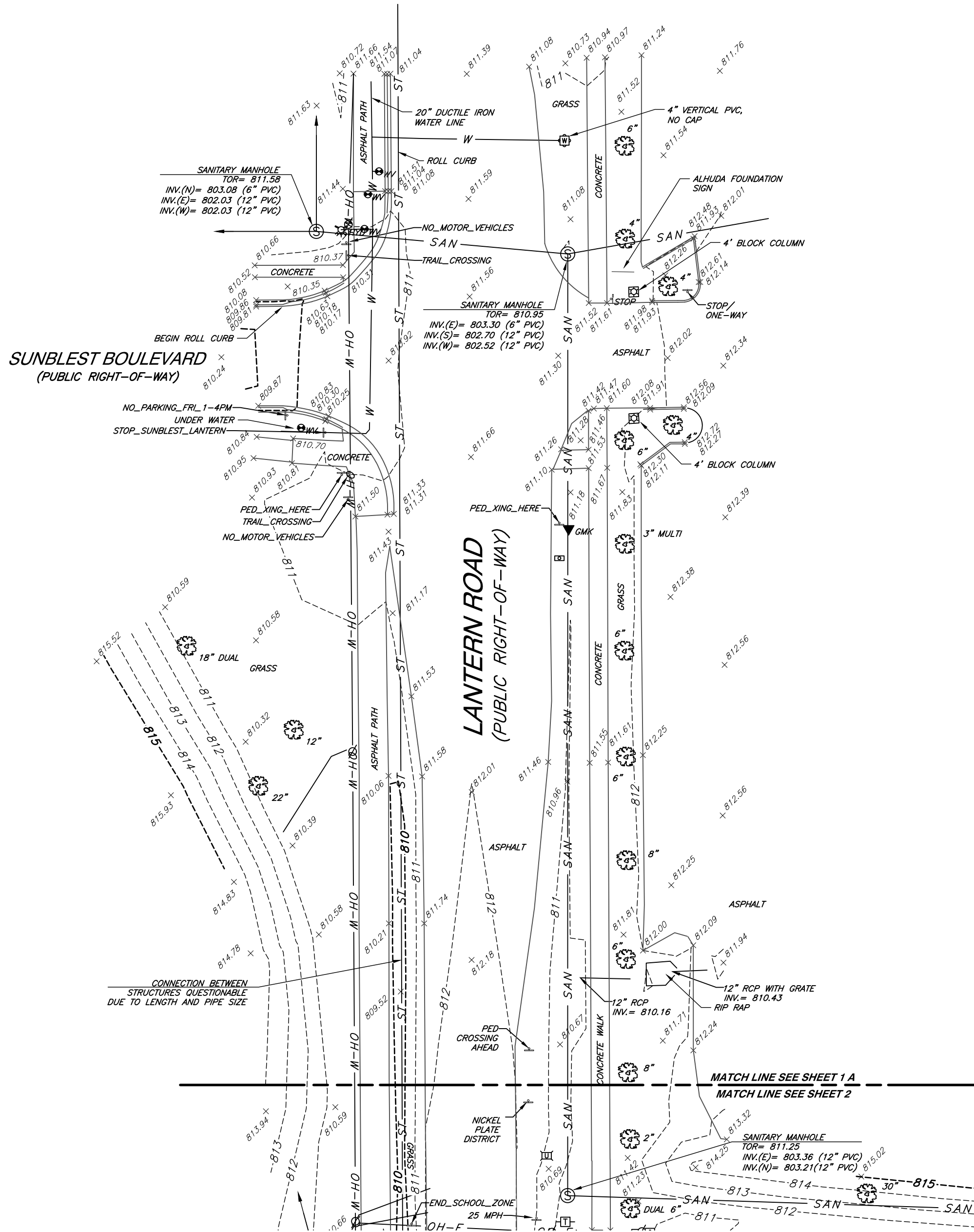
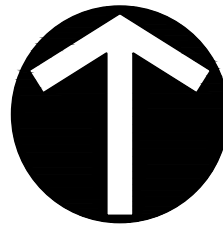
CITYWALK ON NICKEL PLATE TRAIL A SUBDIVISION IN FISHERS, INDIANA

DATE:	AUGUST 21, 2023	DRAWN BY:	TJT
DWG SCALE:		CHECKED BY:	ABS
PROJECT NO:			
APPROVED BY:	323-947		
	ABS		

DRAWING NO.

PLAT

SHEET 2 OF 2



LEGEND:

—	EXISTING PROPERTY LINE	☆	ELEC. LIGHT POLE, PULL BOX, POWER POLE, UTILITY POLE, GUY WIRE, ELEC. TRANSFORMER
---870---	EXISTING INDEX CONTOUR	⊕	GAS VALVE, GAS METER, GAS LINE MARKER
---871---	EXISTING INTERMEDIATE CONTOUR	⊕	WATER WELL, WATER MANHOLE, IRRIGATION CONTROL BOX, WATER TAP
—o—o—o—	EXISTING CHAINLINK FENCE LINE	⊕	WATER METER, FIRE HYDRANT, FIV VALVE, FIRE DEPT. CONNECTION, WATER VALVE
—/—/—/—	EXISTING WOOD FENCE LINE	⊕	ELECTRIC MANHOLE, TELEPHONE PEDESTAL, CABLE PEDESTAL, FIBER OPTIC PULL BOX
—x—x—x—	EXISTING FENCE LINE	⊕	BEEHIVE INLET, CURB INLET, RECESSED CURB INLET, DOWNSPOUT, SQUARE STORM INLET, CIRCULAR STORM INLET, DRAINAGE MANHOLE
—W—W—W—	EXISTING GAUDDRAIL	⊕	UNKNOWN MANHOLE, CLEANOUT, SANITARY MANHOLE, COMBINATION MANHOLE
—T—T—T—	EXISTING UNDERGROUND TELEPHONE	⊕	MAIL BOX, SIGN, AIR COND., ADA SYMBOL, BOLLARD
—FO—	EXISTING FIBER OPTIC LINE	⊕	PARKING METER, TRAFFIC POLE, TRAFFIC MANHOLE,
—UG-E—	EXISTING UNDERGROUND ELECTRIC	⊕	DECIDUOUS TREE, CONIFEROUS TREE, BUSH
—OH-W—	EXISTING OVERHEAD LINES	⊕	EXISTING SPOT ELEVATION
—SAN—	EXISTING SANITARY SEWER LINE		
—CS—	EXISTING COMBO SEWER LINE		
—ST—	EXISTING STORM SEWER LINE		
—G—	EXISTING GAS LINE		
~~~~~	EXISTING TREE LINE		

UTILITY 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. INDIANA 811 ONE-CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 2206093294, 2206093523, 2206093581, 2206093662, 2206093677, 2206093702, 2206093728, 2206093742, 2206093759, 2206093775, 2206093800, 2206093817, 2206093828, 2206093839, 2206093851, 2206093909, 2206093938, 2401084050, 2401084074, AND 2401084147 WERE ISSUED FOR THIS SITE.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

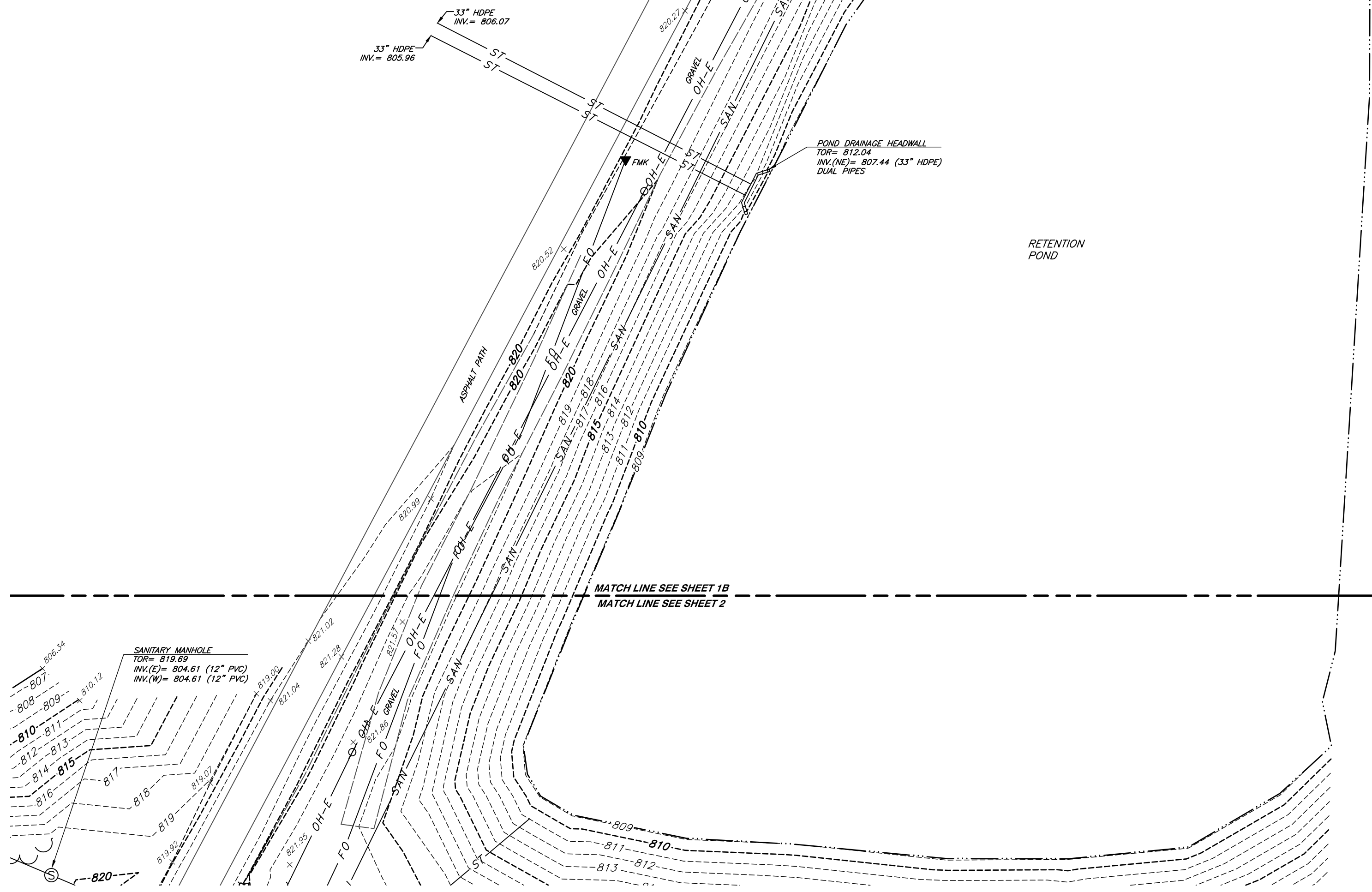
BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

TBM#1: CUT "X" ON THE NORTH BONNET BOLT OF A HYDRANT LOCATED ON THE SOUTH SIDE OF TECHNOLOGY DRIVE APPROXIMATELY 330 FEET EAST OF THE NICKEL PLATE TRAIL.  
ELEV. = 820.56

TBM#2: CUT "X" ON THE NORTH BOLT OF A PEDESTRIAN CROSSING SIGNAL IN THE NORTH QUADRANT OF THE INTERSECTION OF LANTERN ROAD AND THE NICKEL PLATE TRAIL.  
ELEV. = 824.88

TBM#3: CUT SQUARE ON THE CONCRETE RIM OF A BEEHIVE STORM INLET LOCATED ON THE WEST SIDE OF LANTERN ROAD ACROSS FROM THE NORTHWEST CORNER OF 12002 LANTERN ROAD.  
ELEV. = 811.83



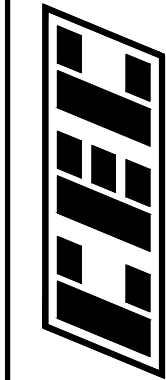
SCALE IN FEET  
0 30 60



TOPOGRAPHIC SURVEY

DATE:	FEBRUARY 5, 2024	DRAWN BY:	CJ/ELH
DWG SCALE:	1"=30'	CHECKED BY:	TJT
PROJECT NO:	323-947	APPROVED BY:	ABS

STUDIO M ARCHITECTURE  
& PLANNING, LLC  
REKAZ MIXED USE AT NICKEL PLATE  
LANTERN ROAD FISHERS, INDIANA



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530 E. Ohio Street - Suite G - Indianapolis, IN 46204  
317-655-7777 - 877-746-0749  
www.ceeinc.com

REVISION RECORD

NO.	DATE	DESCRIPTION







A:\300-0001\323-9471-CADD\Drawings\0102 Construction\Drawings\323947-0102-C202.dwg (2/23/2024) LS(2/23/2024) - (barm) - LP: 2/28/2024 6:57 AM



REFERENCES:

1. BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
2. AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
3. FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. <https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS>
4. OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. <https://gis1.hamiltoncounty.in.gov/portal/home/>
5. SEE SHEET C001 FOR GENERAL NOTES AND SHEET SPECIFIC NOTES.
6. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.

SITE LEGEND:

	PROPOSED LIGHT DUTY ASPHALT PAVEMENT
	PROPOSED HEAVY DUTY ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	PROPOSED RIGHT-OF-WAY ASPHALT PAVEMENT
	PROPOSED RIGHT-OF-WAY ASPHALT PAVEMENT

SITE KEY NOTES:

- 'FSCD' = FISHERS STANDARD CONSTRUCTION DETAILS
- (A) HMA COMMERCIAL DRIVEWAY; SEE DETAIL ON FSCD SHEET 5.
  - (B) HMA PVM. FOR COLLECTOR RDWY.; SEE DETAIL ON FSCD SHEET 2.
  - (C) LIGHT DUTY ASPHALT PVM.; SEE DETAIL 201 ON SHEET C800.
  - (D) HEAVY DUTY ASPHALT PAVEMENT; SEE DETAIL ON 202 ON SHEET C800.
  - (E) CONCRETE PAVEMENT; SEE DETAIL 203 ON SHEET C800.
  - (F) CONCRETE BARRIER CURB; SEE DETAIL ON FSCD SHEET 4.
  - (G) CONCRETE SIDEWALK ADJ. TO CURB; SEE DETAIL ON FSCD SHEET 6.
  - (H) CONCRETE SIDEWALK; SEE DETAIL ON FSCD SHEET 6.
  - (I) MULTI-USE HMA PATH; SEE DETAIL ON FSCD SHEET 6.
  - (J) 1-1/2" MILL & RESURFACE OF EXISTING ROADWAY BETWEEN PROPOSED ENTRANCES PER FISHERS STDS.
  - (K) LAWN / LANDSCAPE AREA. REFER TO PLANTING PLANS.
  - (L) 24" WIDE "PIANO KEY" THERMOPLASTIC CROSSWALK; COLOR-WHITE
  - (M) 4" WIDE PAINTED STRIPE; COLOR-WHITE.
  - (N) 4" WIDE THERMOPLASTIC PAVEMENT MARKING STRIPE; COLOR-WHITE.
  - (O) DIRECTIONAL ARROW PAVEMENT MARKINGS; SEE DETAIL ON SHEET C800
  - (P) SPEED LIMIT SIGN, 35 MPH, PER MUTCD STANDARDS
  - (Q) BUS STOP
  - (R) FIRE PIT GATHERING AREA
  - (S) ADA ACCESSIBLE PARKING SPACE; SEE DETAIL ON SHEET C800.
  - (T) ADA PARKING SIGNAGE; SEE DETAIL ON SHEET C800.
  - (U) 4" WIDE PAINTED STRIPE; ADA COLOR-BLUE.
  - (V) RETAINING WALL
  - (W) CURB TAPER
  - (X) RAISED PAVEMENT MARKERS FOR HYDRANTS. SEE DETAIL ON FSCD SHEET 28.
  - (Y) INDOT DEPRESSED CORNER CURB RAMP; SEE DETAIL ON SHEET C801.
  - (Z) INDOT ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP WITH BUFFER; SEE DETAIL ON SHEET C801.
  - (AA) STOP SIGN;
  - (BB) STOP BAR;
  - (CC) STREET SIGN PER FISHERS STANDARDS.



DRAFT

SITE PLAN

STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
www.cecinc.com



REVISION RECORD

NO. DATE DESCRIPTION

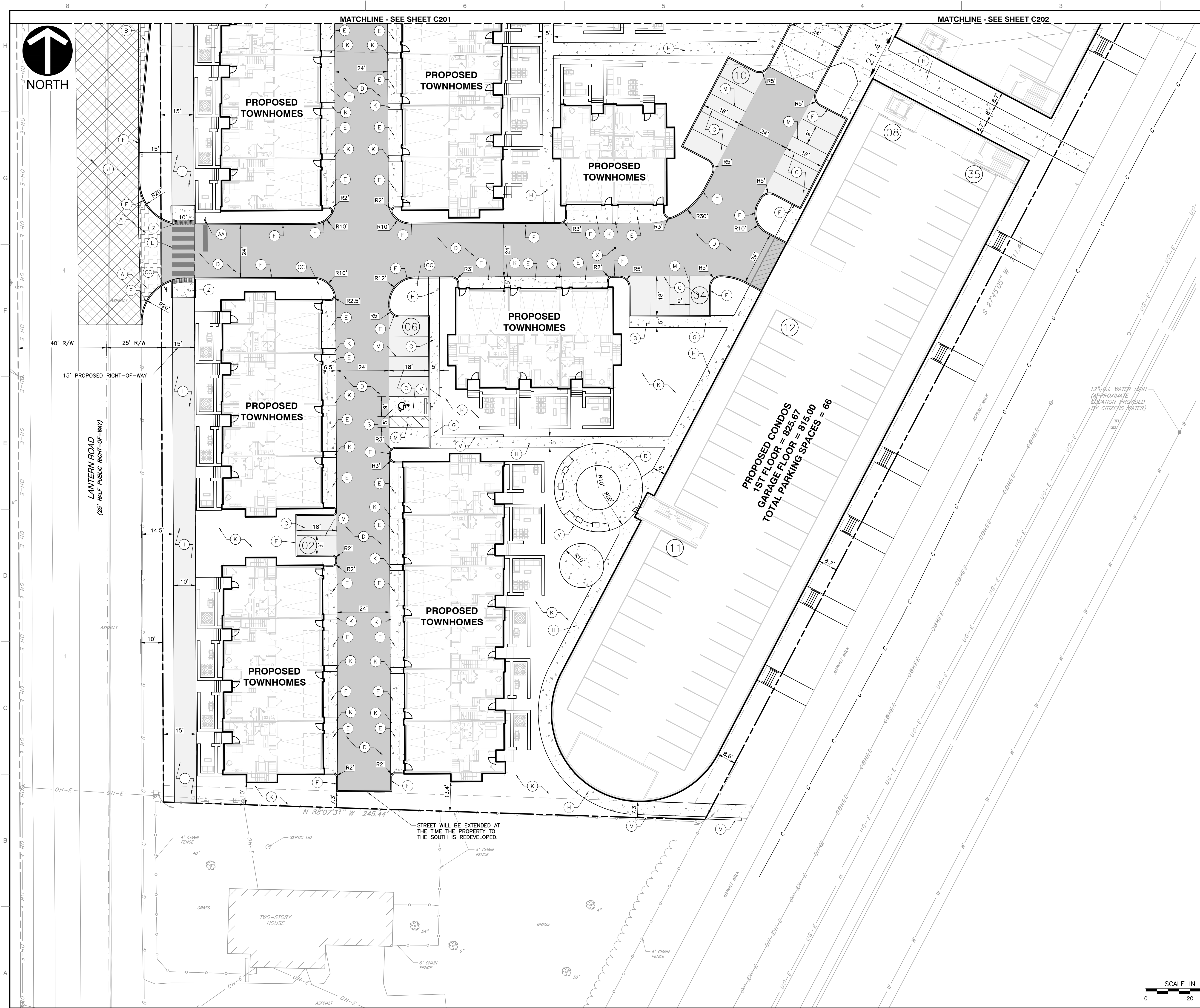
DRAWING NO.

C202

DATE: FEB. 23, 2024 | DRAWN BY: BEB  
DWG SCALE: 1" = 20' | CHECKED BY: KPG  
PROJECT NO: 323-947  
APPROVED BY: DRAFT



A:\320-0001\323-9471-C000\Draw\C203 Construction Plans\323947-C002-C203.dwg (C203) LS:12/23/2024 - (bawm) - LP: 2/28/2024 6:58 AM



- REFERENCES:**
- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
  - AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
  - FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. <https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS>
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- PROPOSED LIGHT DUTY ASPHALT PAVEMENT
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  - PROPOSED CONCRETE PAVEMENT
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- SITE KEY NOTES:**
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  - (B) HMA P.V.M.T. FOR COLLECTOR RDWY.; SEE DETAIL ON FSCD SHEET 2.
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  - (Y) INDOT DEPRESSED CORNER CURB RAMP; SEE DETAIL ON SHEET C801.
  - (Z) INDOT ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP WITH BUFFER; SEE DETAIL ON SHEET C801.
  - (AA) STOP SIGN;
  - (BB) STOP BAR;
  - (CC) STREET SIGN PER FISHERS STANDARDS.

SCALE IN FEET  
0 20 40



**DRAFT**

REVISION RECORD	
NO.	DATE

SITE PLAN	
DATE: FEB. 23, 2024	DRAWN BY: BEB
DWG SCALE: 1" = 20'	CHECKED BY: KPG
PROJECT NO: 323-947	APPROVED BY: DRAFT

**STUDIO M ARCHITECTS**  
**CITYWALK ON THE NICKEL PLATE TRAIL**  
**LANTERN ROAD AND CIRCLE DRIVE**  
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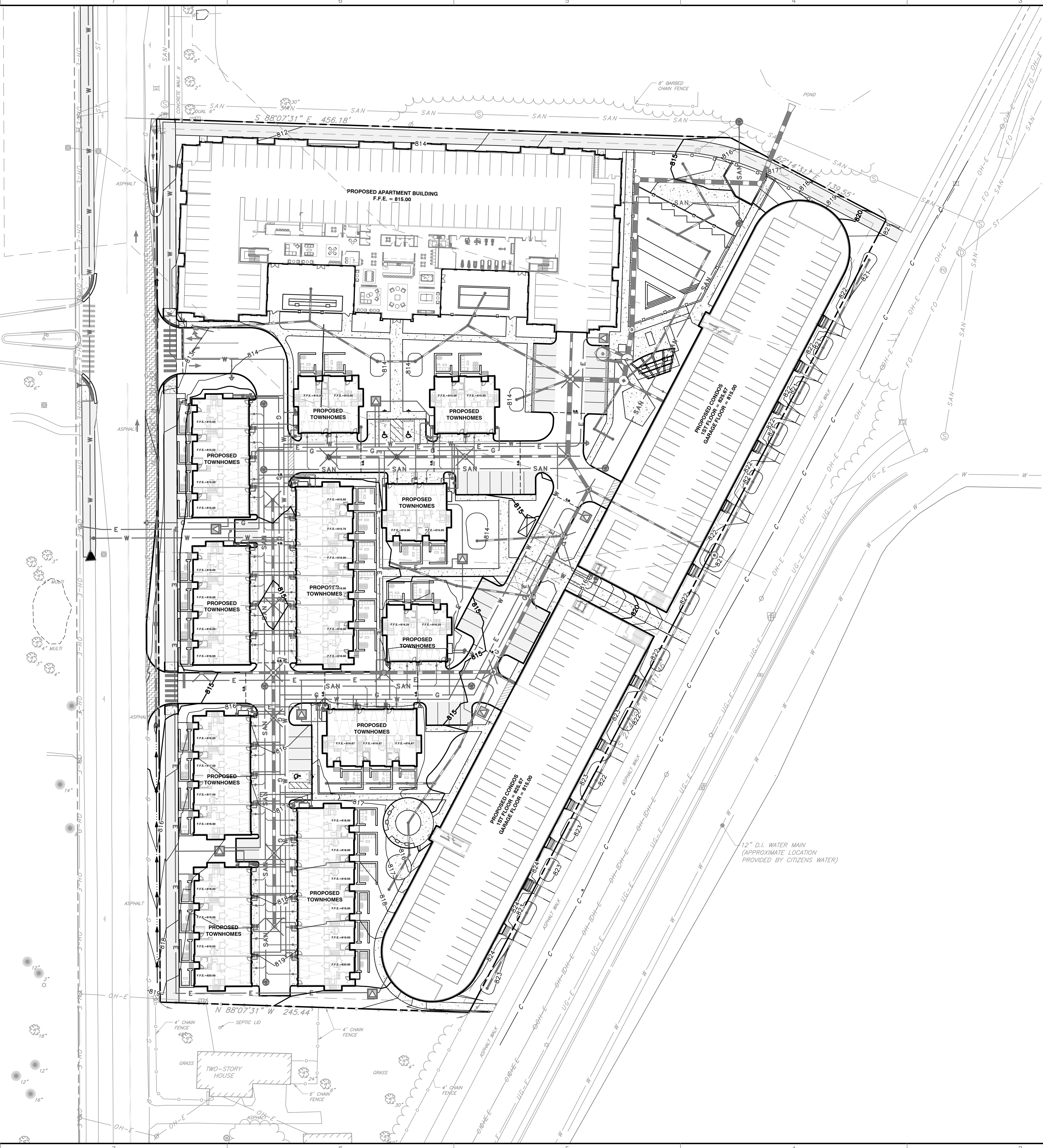
**DRAFT**

DRAWING NO: **C203**





NORTH



1. BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
2. AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
3. FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022.  
<https://www.fishersnj.us/360/DESIGN-STANDARDS-SPECS>
4. OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. <https://gis1.hamiltoncountynj.gov/portal/home/>
5. SEE SHEET C001 FOR GENERAL NOTES AND SHEET SPECIFIC NOTES.
6. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.

Diagram illustrating the proposed street layout and elevations for the intersection of 800 and 798:

- 800** (Proposed Index Contour)
- 798** (Proposed Intermediate Contour)
- Proposed Drainage Swale**
- Proposed Grade Break**
- Proposed Storm Sewer Line**
- Proposed Underdrain**
- Proposed Spot Elevation**
- Proposed Curb Spot Elevation; Top of Curb on Top, Gutter Elevation on Bottom**

Elevations shown:

- 766.90
- 798.50
- 798.00

**ABBREVIATIONS:**  
TC = TOP OF CURB  
BC = BOTTOM OF CURB  
TW = TOP OF WALL  
BW = BOTTOM OF WALL  
TR = TOP OF RAMP  
BR = BOTTOM OF RAMP  
ME = MATCH EXISTING

DESCRIPTION
-------------

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
[www.cecinc.com](http://www.cecinc.com)



**Civil & Environmental  
Consultants, Inc.**

**STUDIO M ARCHITECTS**  
**CITYWALK ON THE NICKEL PLATE TRAIL**  
**LANTERN ROAD AND CIRCLE DRIVE**  
**FISHERS, INDIANA 46038**

## OVERALL GRADING PLAN

DATE:	FEB. 23, 2024	DRAWN BY:	BED
DWG SCALE:	1" = 40'	CHECKED BY:	KPG
PROJECT NO:			323-947
APPROVED BY:			DRAFT

FIG NO.:  
**C300**



**DRAFT**

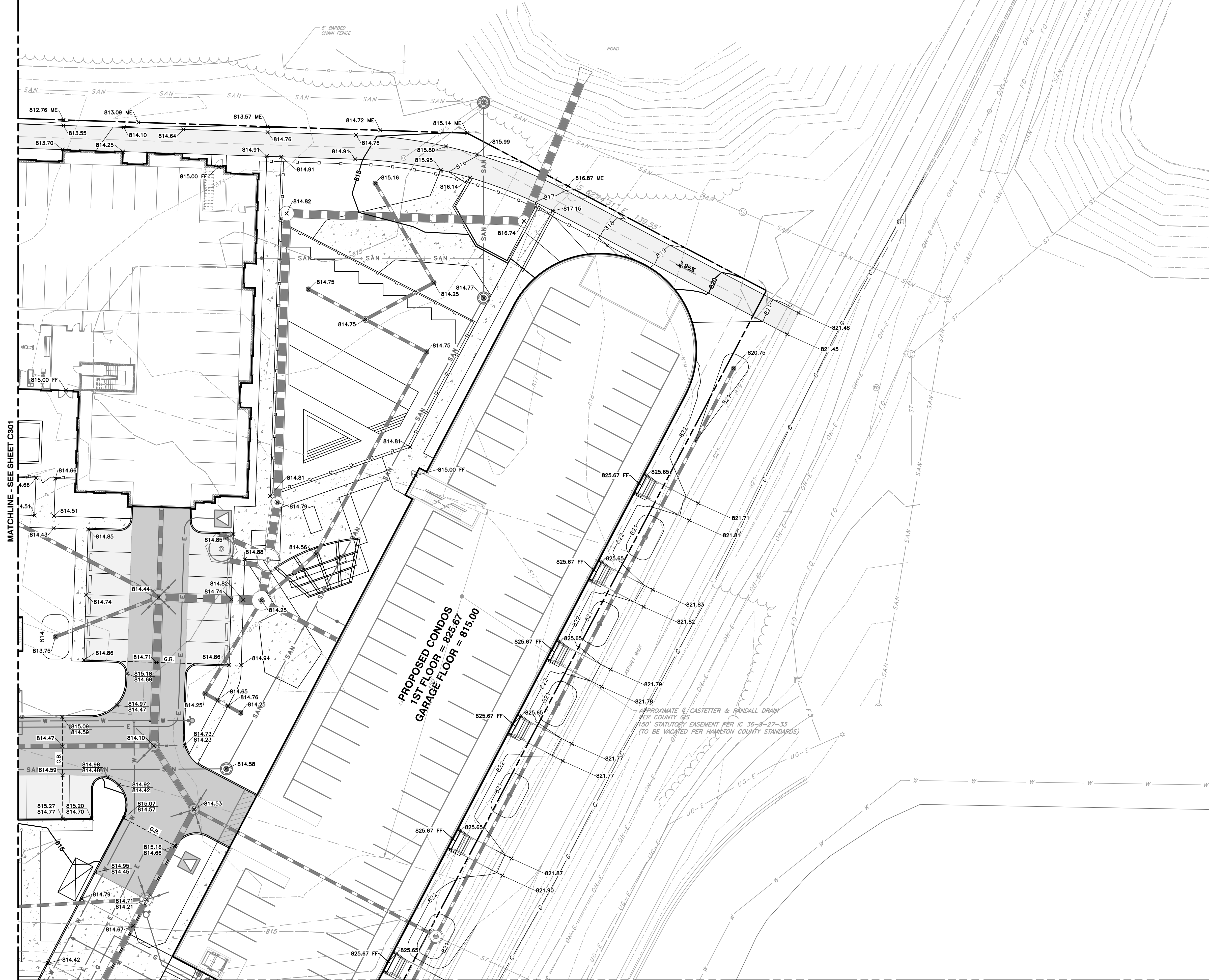








A:\300-0001\302-9471-CAD\DWG\0102 Construction Plans\302947-0102-C302.dwg(C302) LS(12/21/2024 - beam) - LP 2/23/2024 3:15 PM



REFERENCES:

- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1" CONTOUR INTERVAL.
- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. <https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS>
- OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. <https://gis1.hamiltoncounty.in.gov/portal/home/>
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GRADING LEGEND:

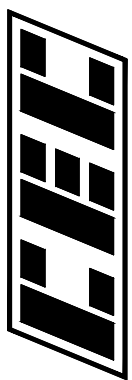
- 800 PROPOSED INDEX CONTOUR
- 798 PROPOSED INTERMEDIATE CONTOUR
- PROPOSED DRAINAGE SWALE
- PROPOSED GRADE BREAK
- PROPOSED STORM SEWER LINE
- PROPOSED UNDERDRAIN
- PROPOSED SPOT ELEVATION
- PROPOSED CURB SPOT ELEVATION; TOP OF CURB ON TOP, GUTTER ELEVATION ON BOTTOM

ABBREVIATIONS:  
TC = TOP OF CURB  
BC = BOTTOM OF CURB  
TW = TOP OF WALL  
BW = BOTTOM OF WALL  
TR = TOP OF RAMP  
BR = BOTTOM OF RAMP  
ME = MATCH EXISTING

REVISION RECORD

NO.	DATE	DESCRIPTION

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Ph: 317.655.7777  
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Civil & Environmental  
Consultants, Inc.

STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE PLATE DRIVE  
FISHERS, INDIANA 46038

GRADING PLAN

DATE:	FEB 23, 2024	DRAWN BY:	BEB
DWG SCALE:	1" = 20'	CHECKED BY:	KPG
PROJECT NO:	323-947	APPROVED BY:	DRAFT



DRAFT

DRAWING NO:  
**C302**

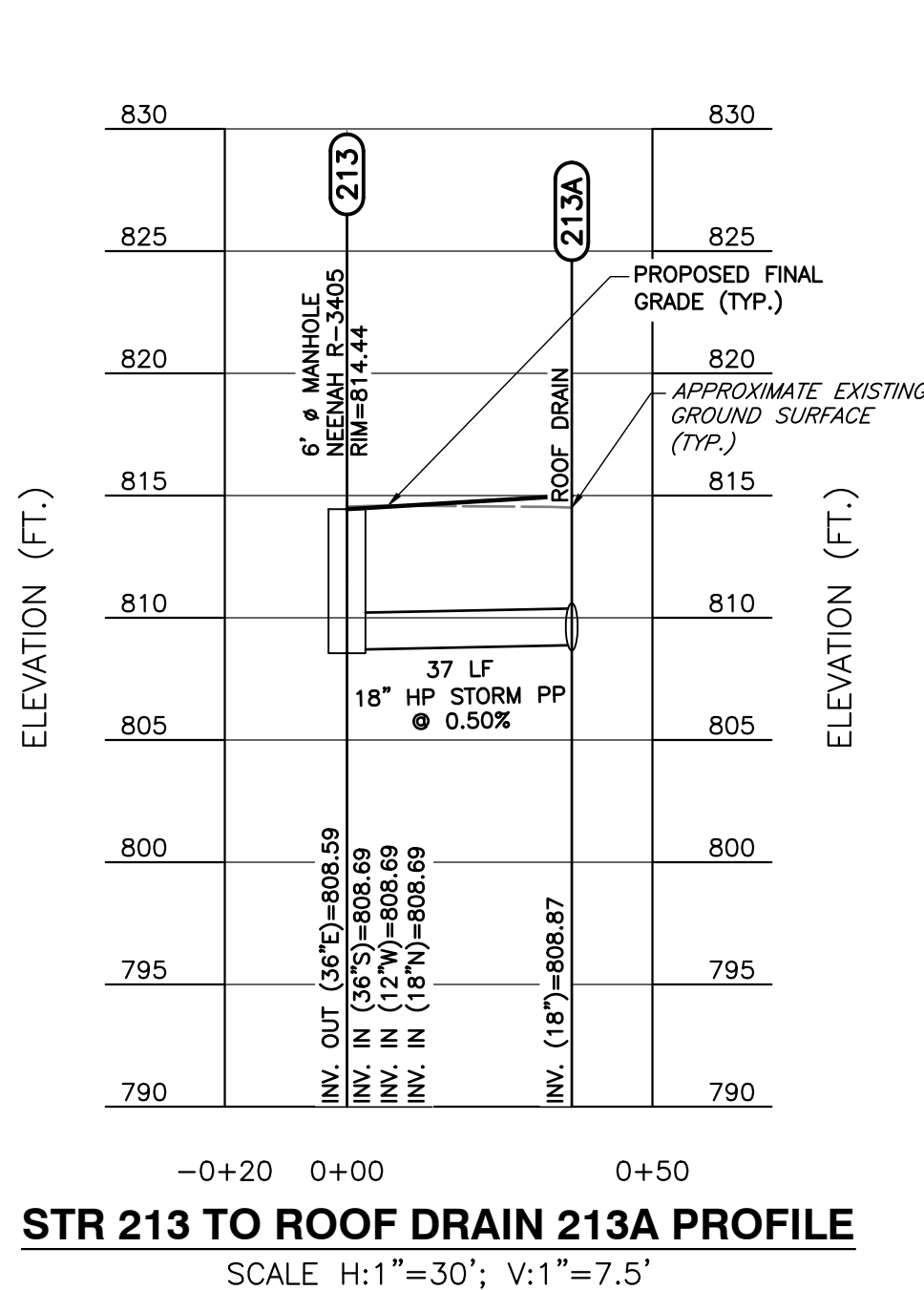
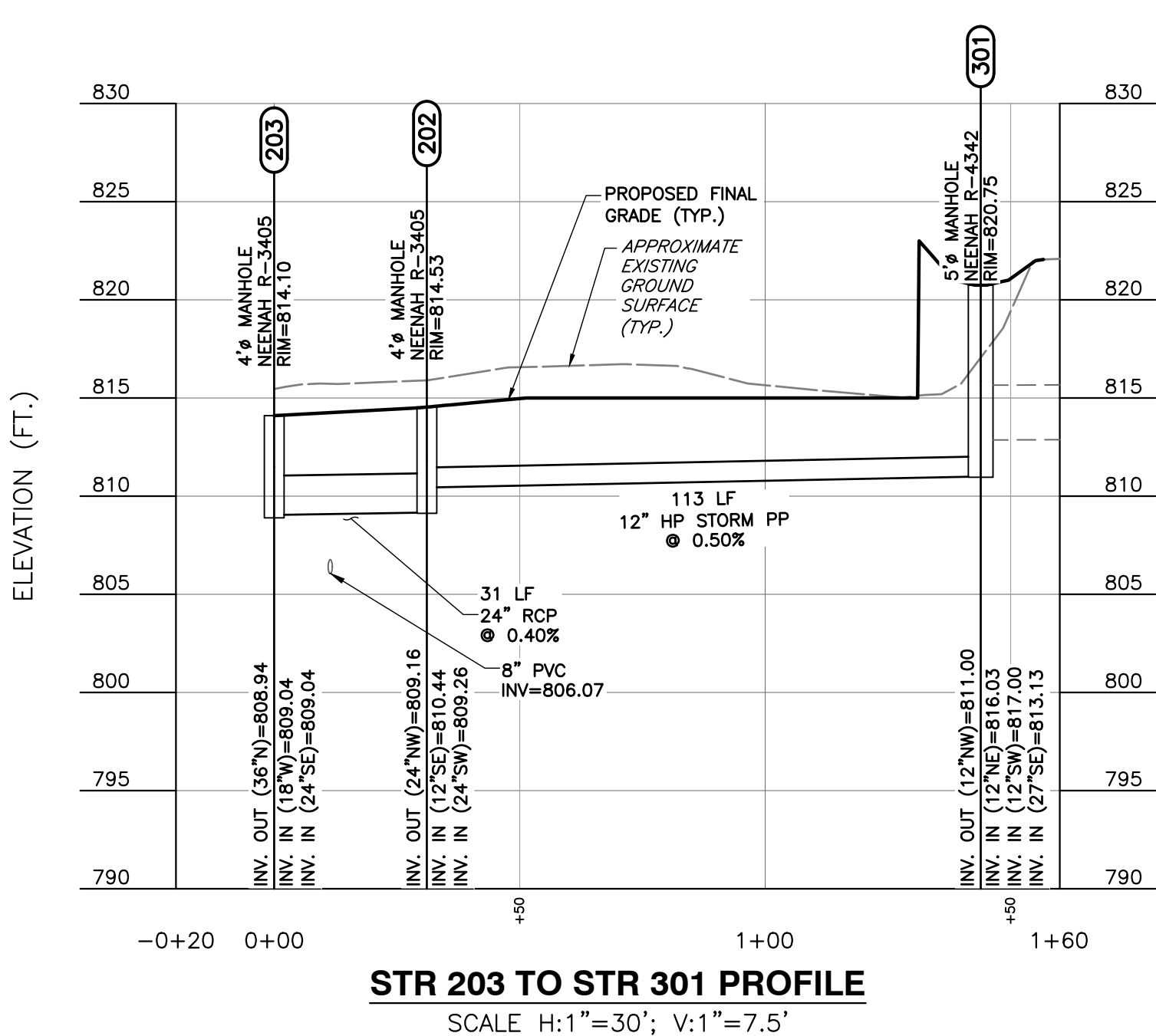
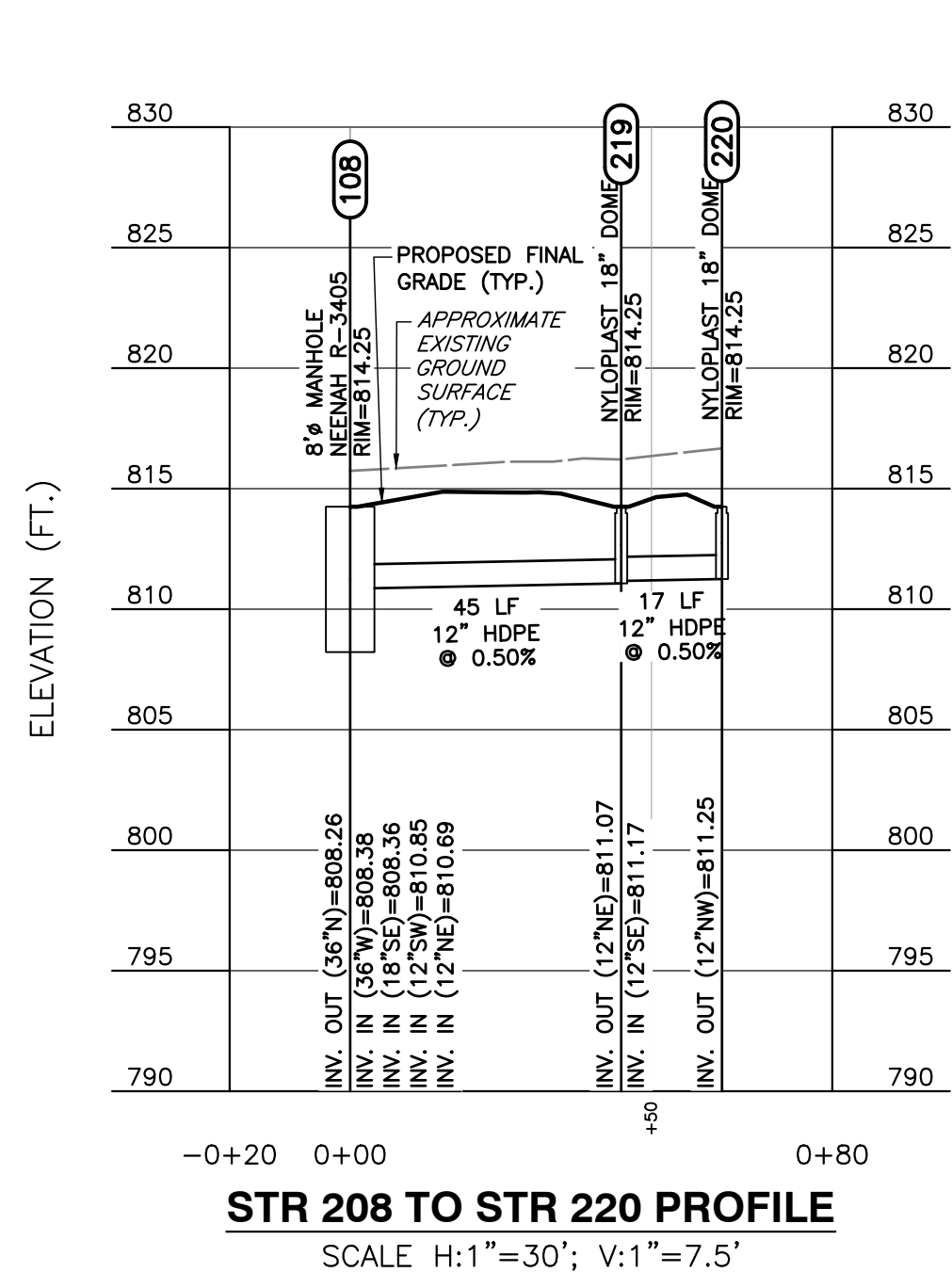
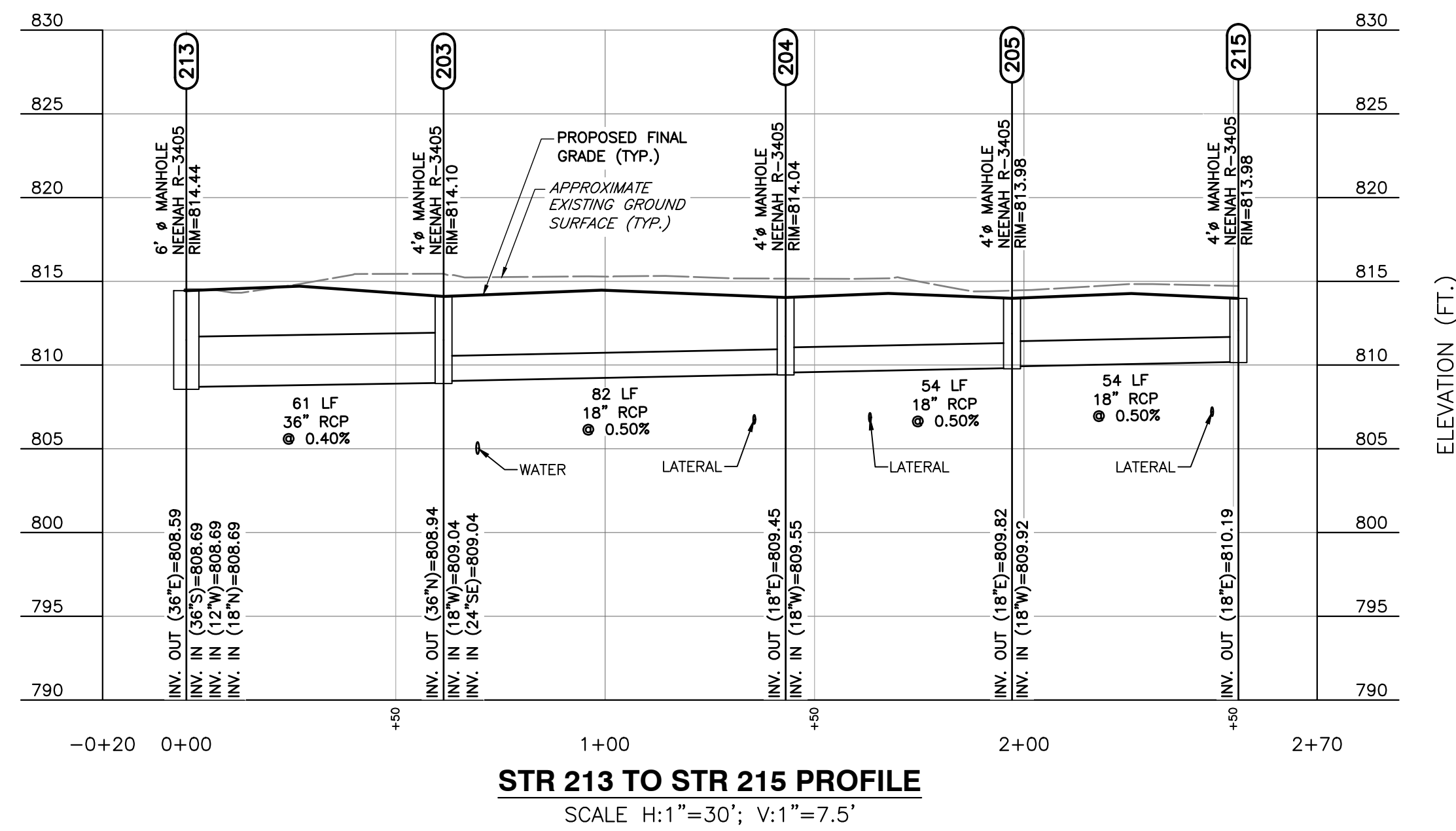
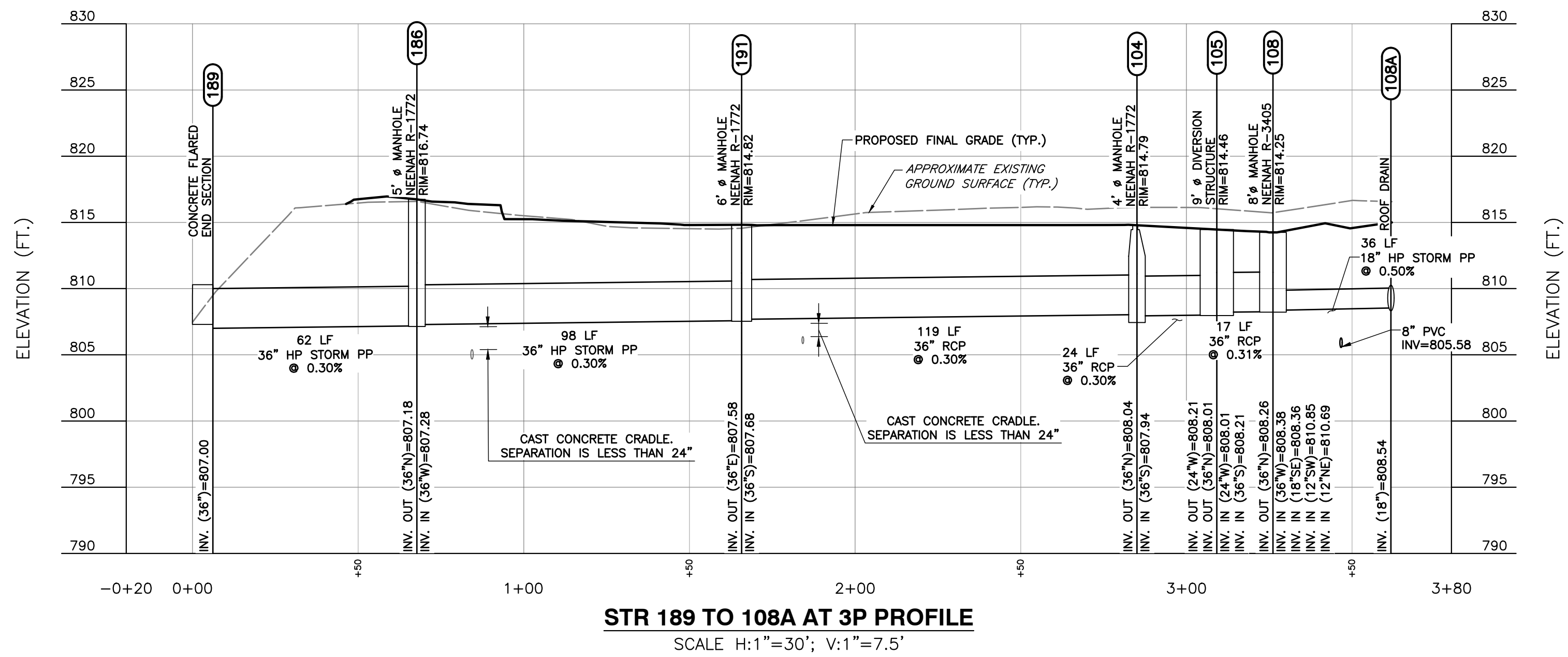
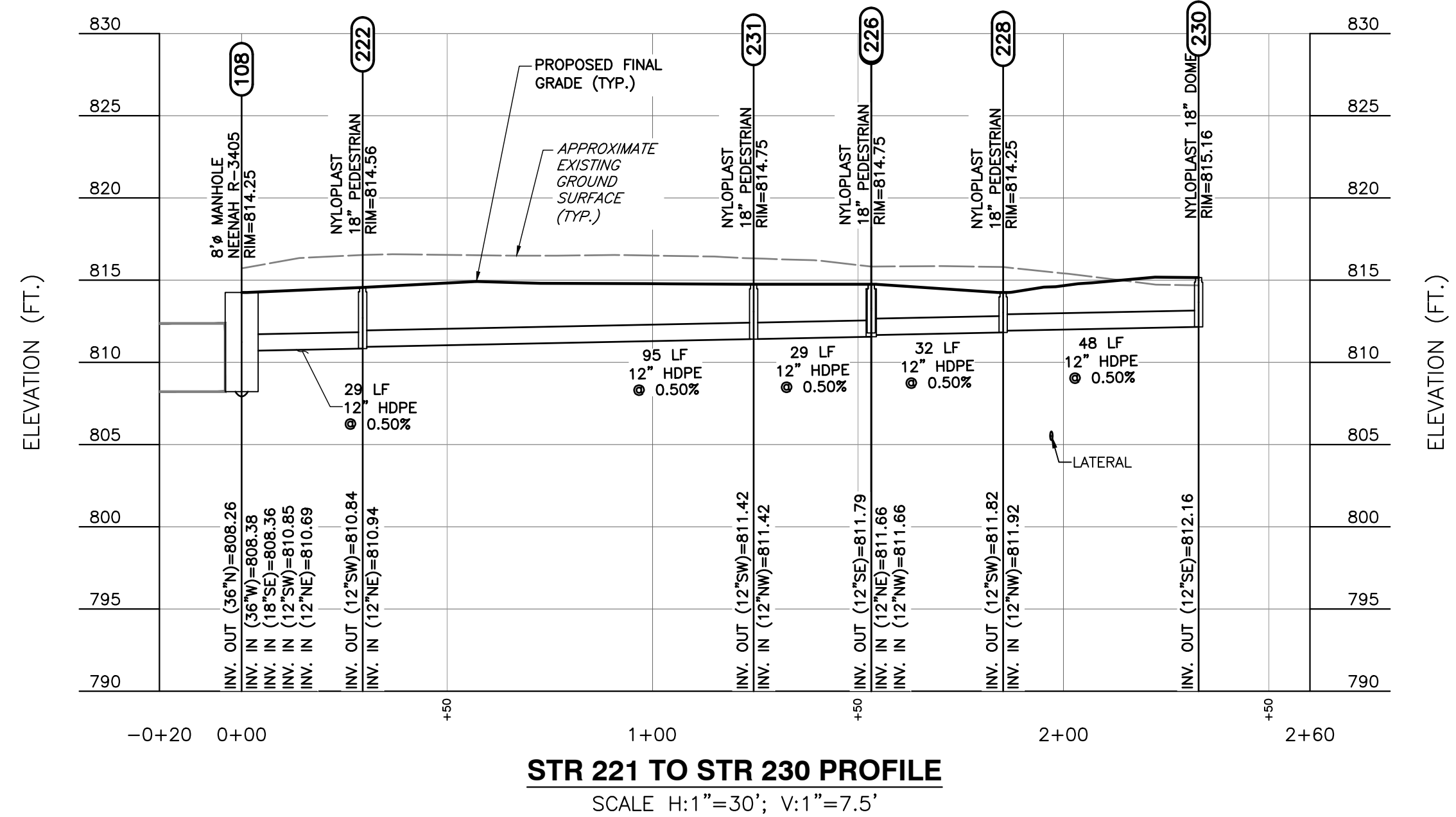
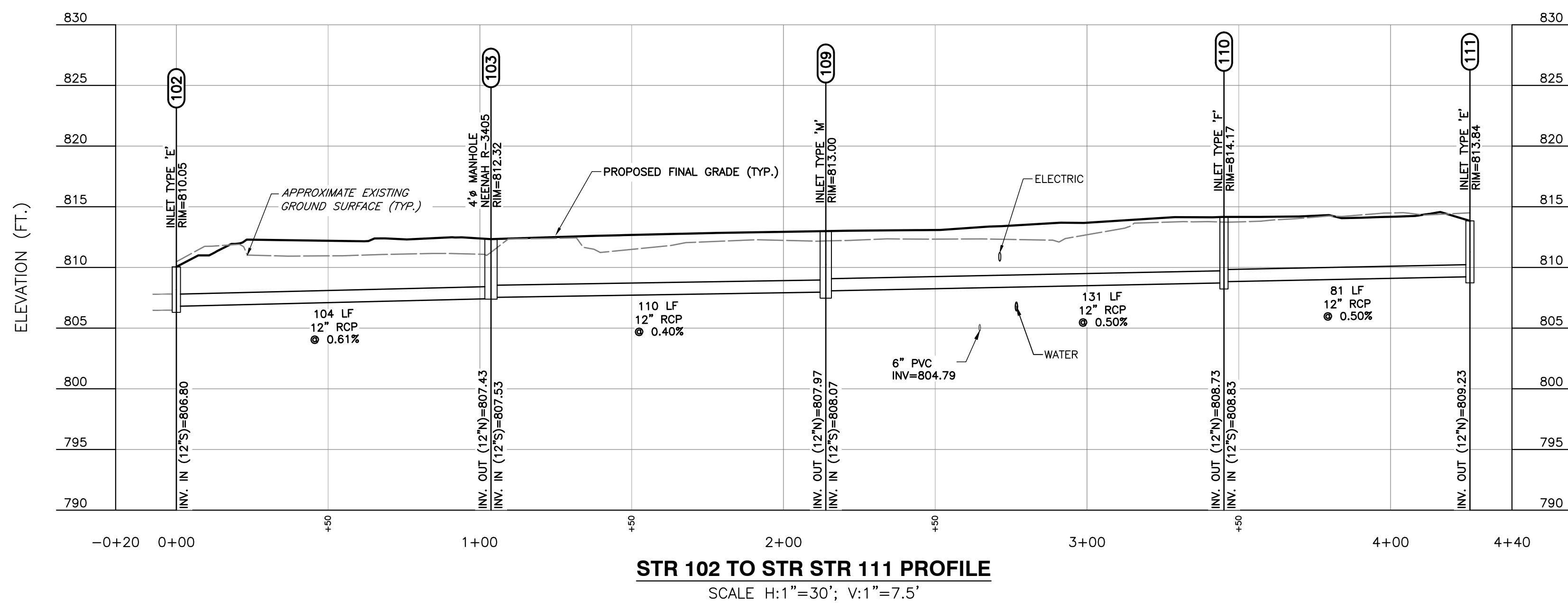
SCALE IN FEET  
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A:\300-0001\3001-9471-C400\DWG\0102 Construction Plans\3001-9471-C400-Storm.dwg(04/15/2023/2024 - ewj) - LP: 02/23/2024 3:30 PM



A RIGHT-OF-WAY ACTIVITY PERMIT IS REQUIRED FOR THE STORM SEWER CROSSING ON LANTERN RD.

PROPOSED WATER SERVICE AND GAS SERVICE LINES TO BE ROUTED AS NECESSARY TO AVOID ANY CROSSING CONFLICTS

MAINTAIN MINIMUM OF 24 INCH VERTICAL SEPARATION BETWEEN WET UTILITIES (MEASURED FROM OUTSIDE EDGE OF PIPES). PROVIDE CONCRETE CRADLE (PER FSCD SHEET 21) IF 24 INCHES CANNOT BE ACHIEVED OR PROVIDE SDR-21 PVC SEWER PIPE.

STRUCTURAL BACKFILL PER CITY OF FISHERS STANDARDS REQUIRED WITHIN 5' OF ALL PAVED SURFACES.

#### REFERENCES AND NOTES:

- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. <https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS>
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- REFER TO SHEETS C400, C401, C402, AND C403 FOR ADDITIONAL DRAINAGE PLAN NOTES.



**DRAFT**

DRAWING NO.:

**C404**

#### STORM PROFILES

**STUDIO M ARCHITECTS**  
**CITYWALK ON THE NICKEL PLATE TRAIL**  
**LANTERN ROAD AND CIRCLE PLATE DRIVE**  
**FISHERS, INDIANA 46038**

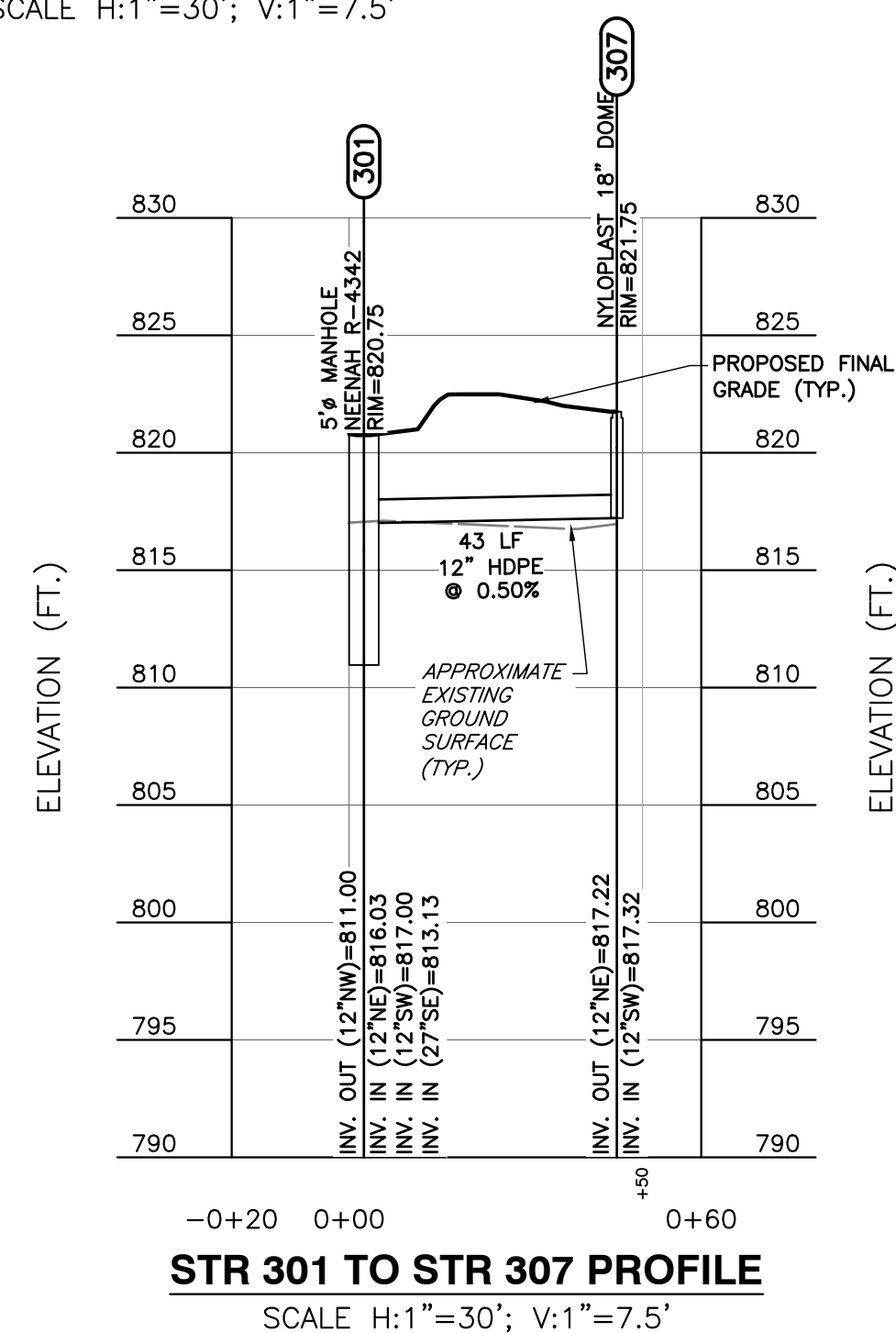
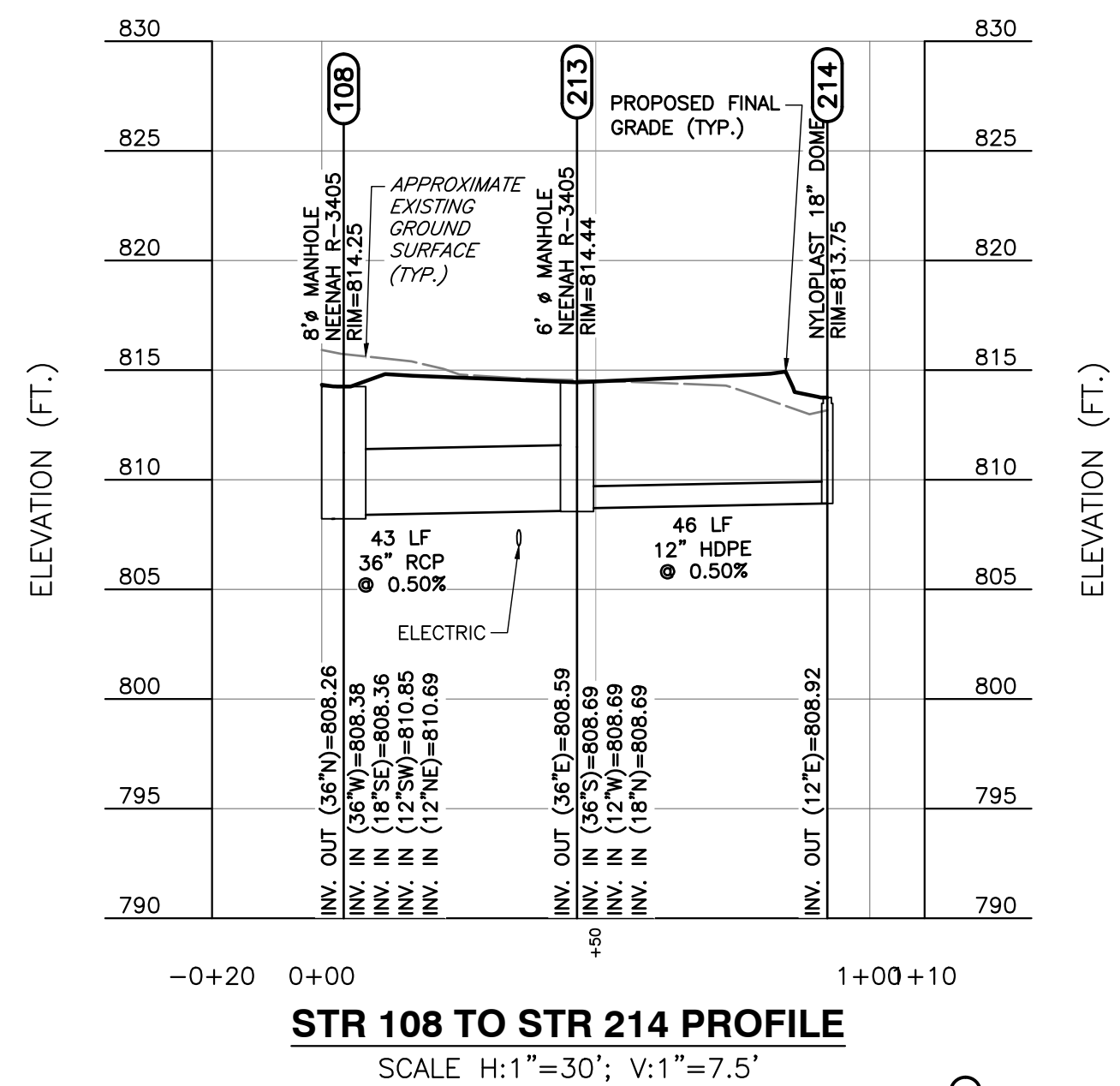


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#### REVISION RECORD

NO.	DATE	DESCRIPTION





- SCALE IN FEET (HORIZONTAL)
- 0 30' 60'
- SCALE IN FEET (VERTICAL)
- 0 8' 16'

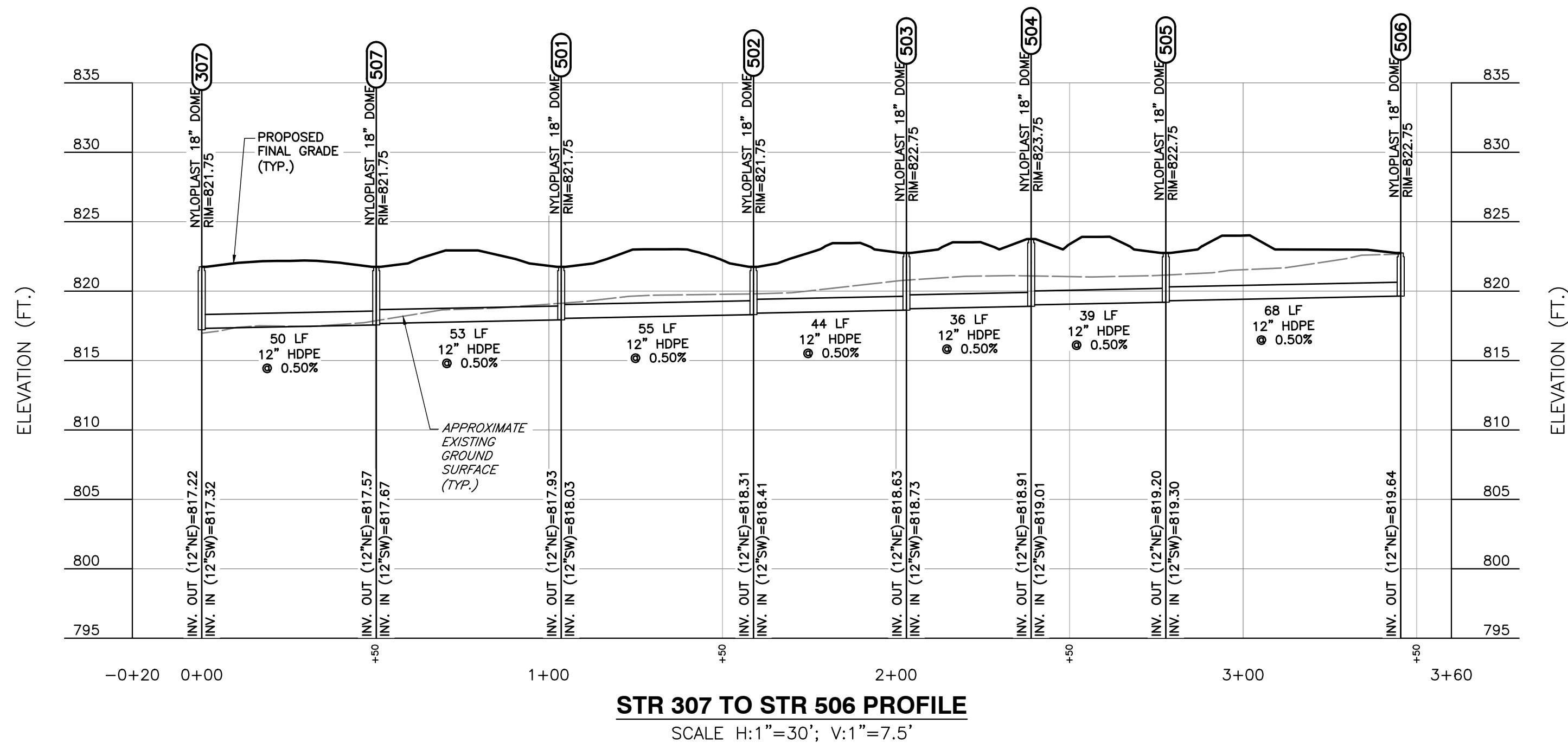
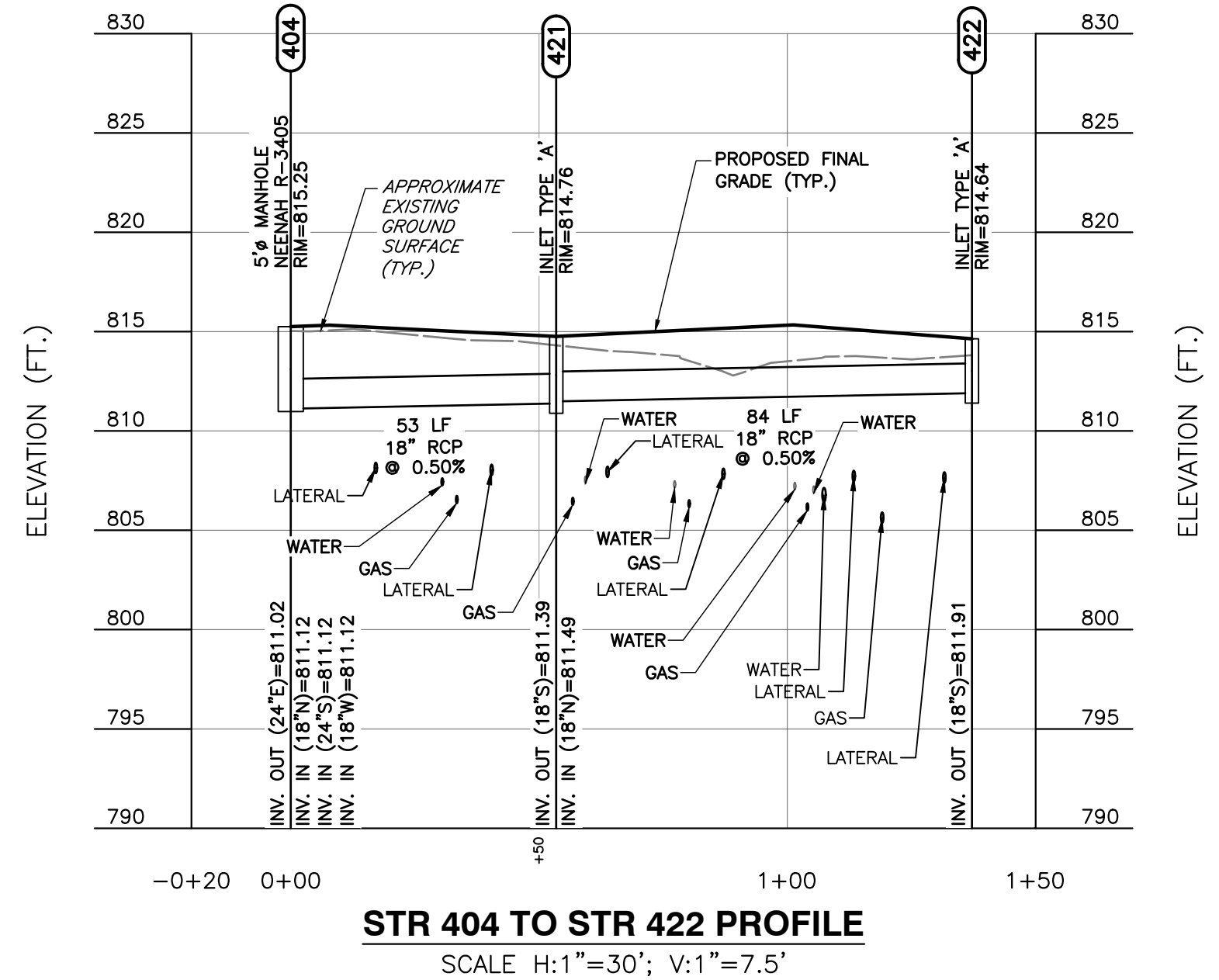
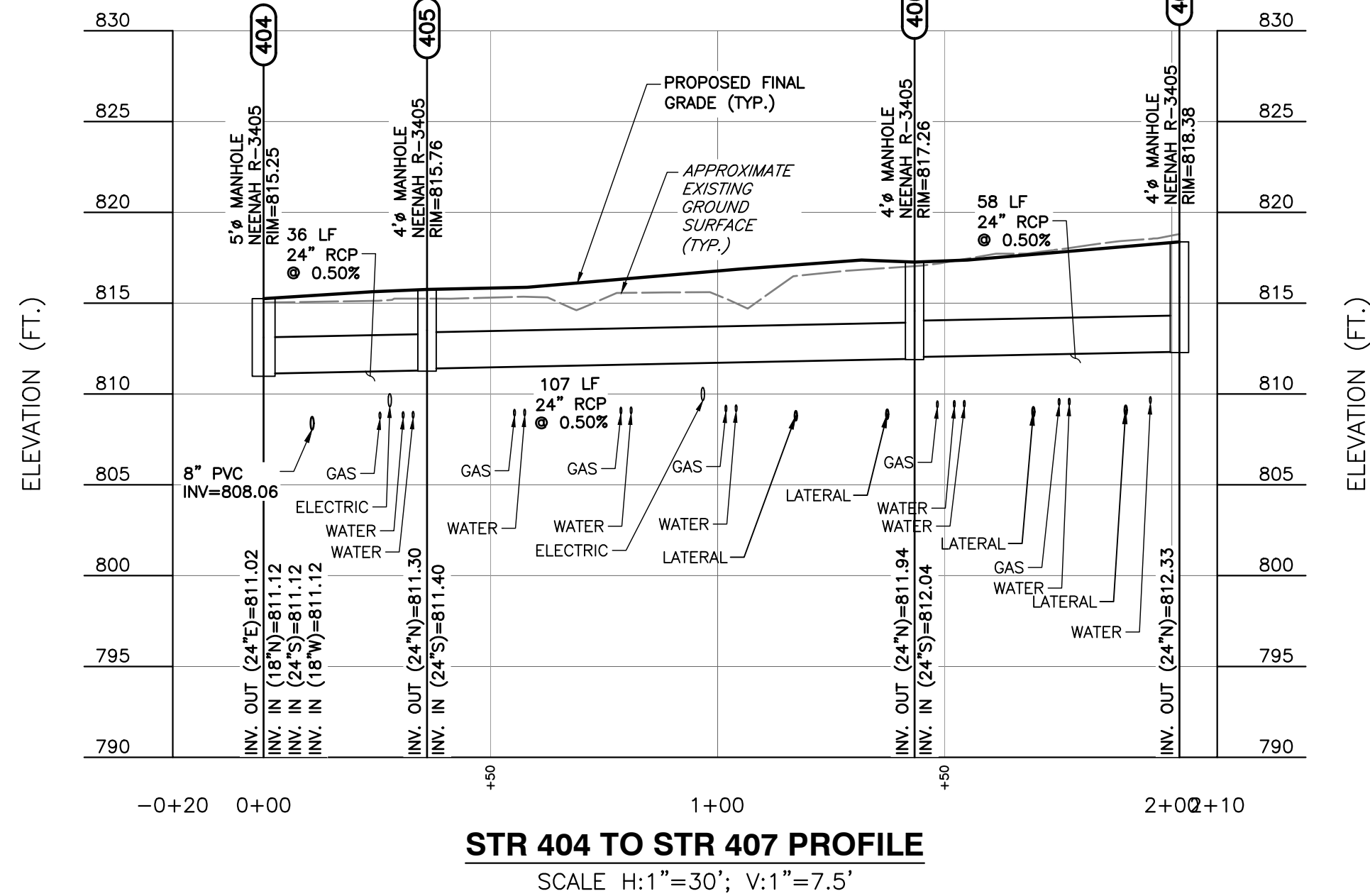
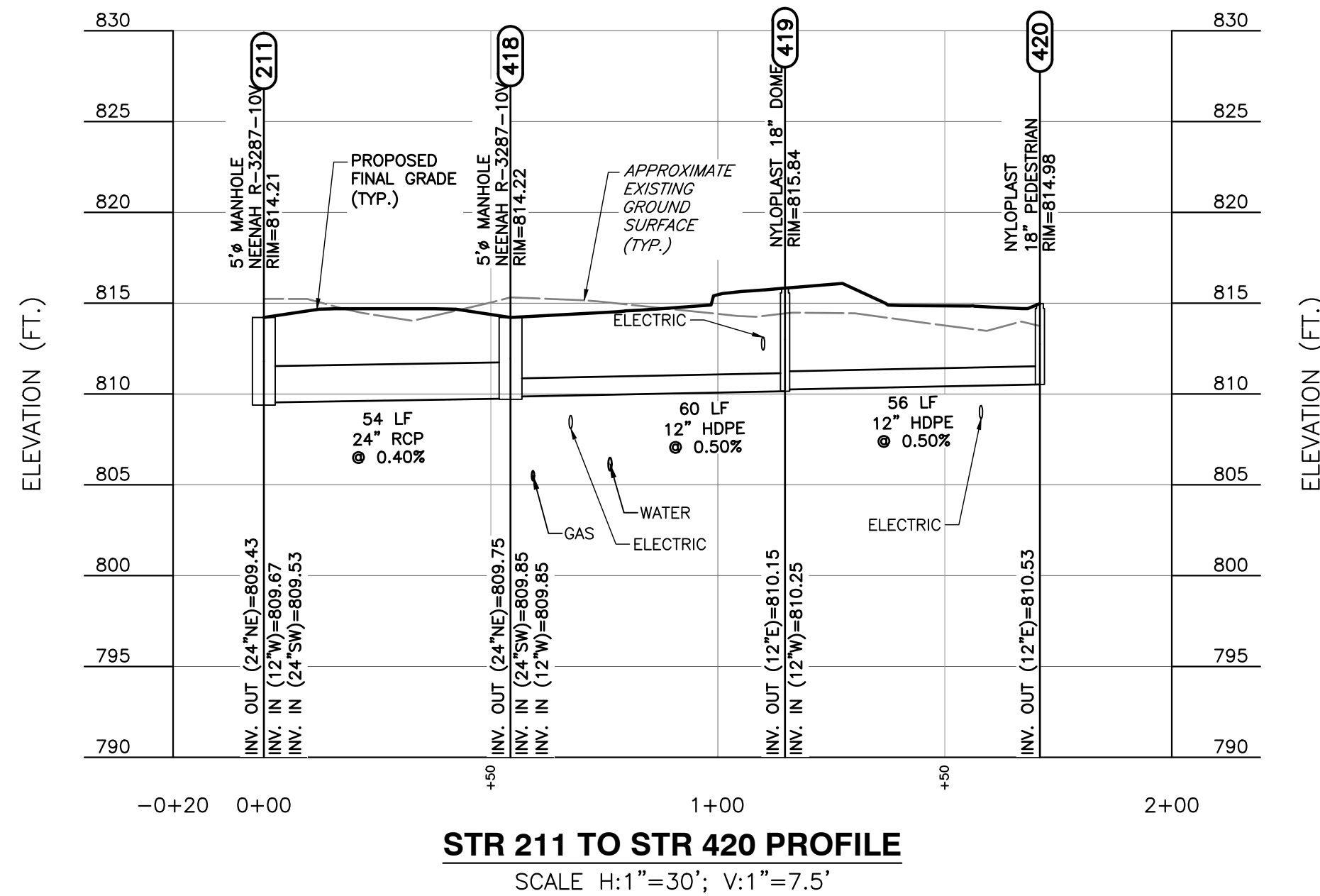
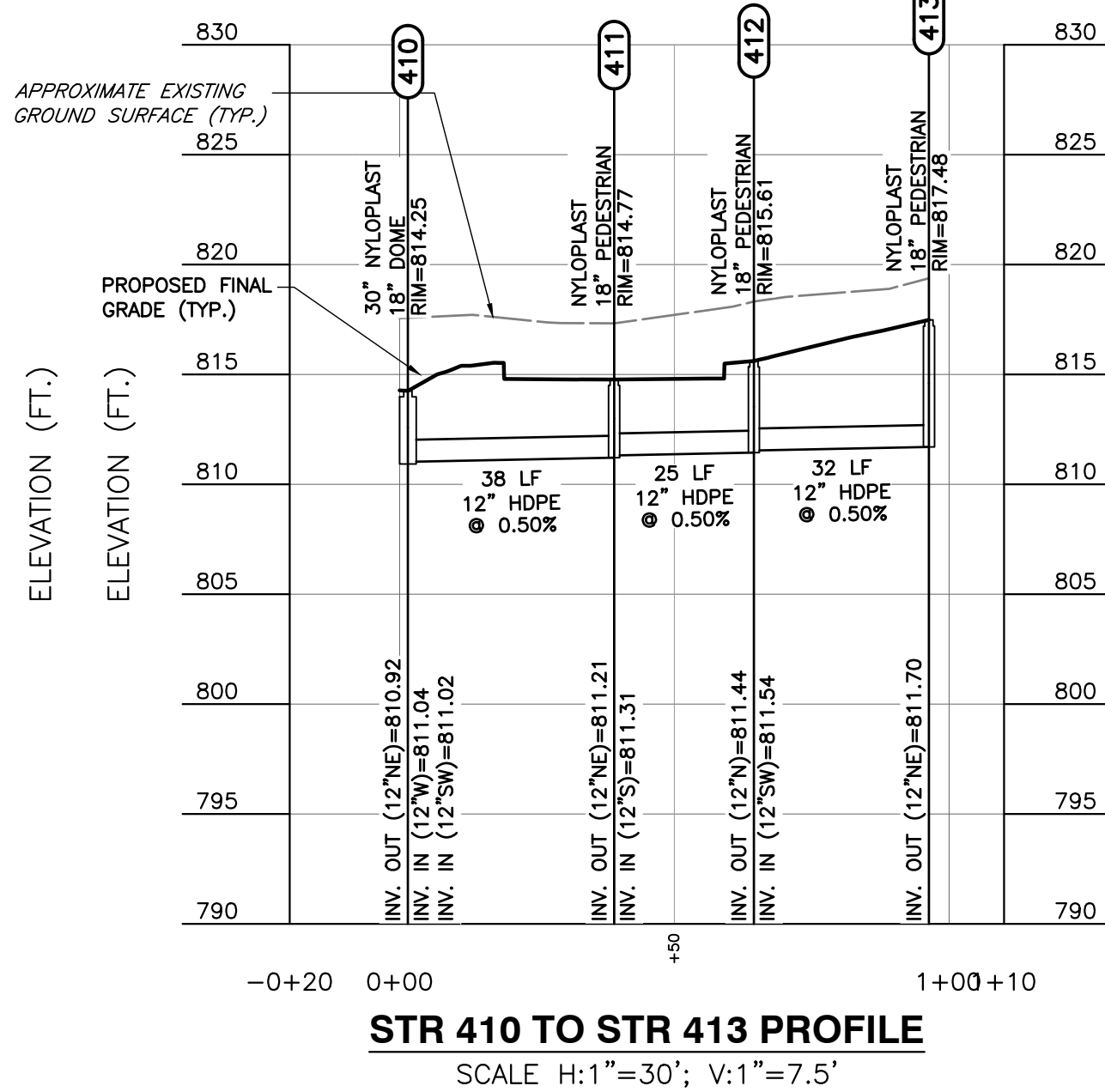
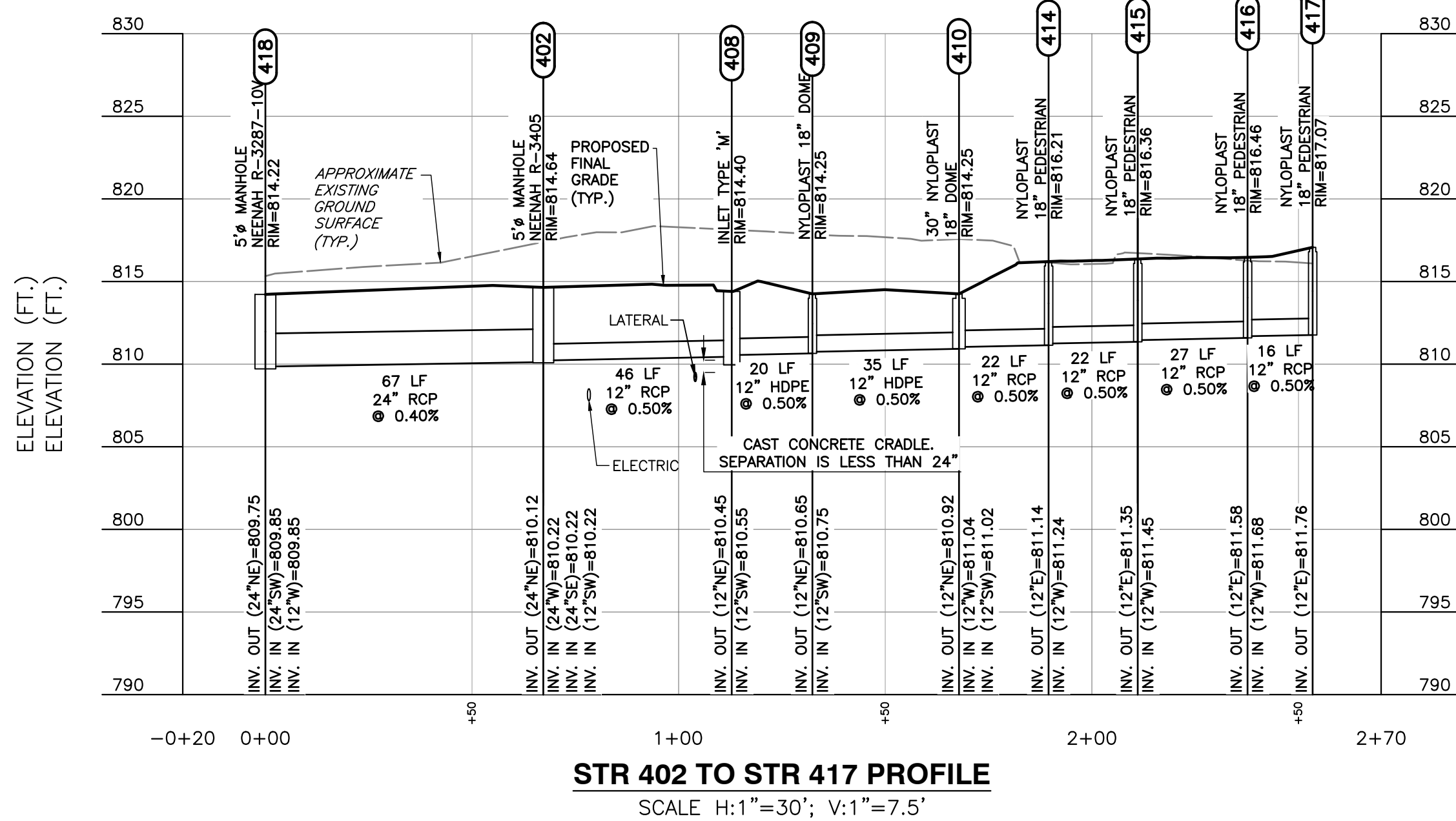
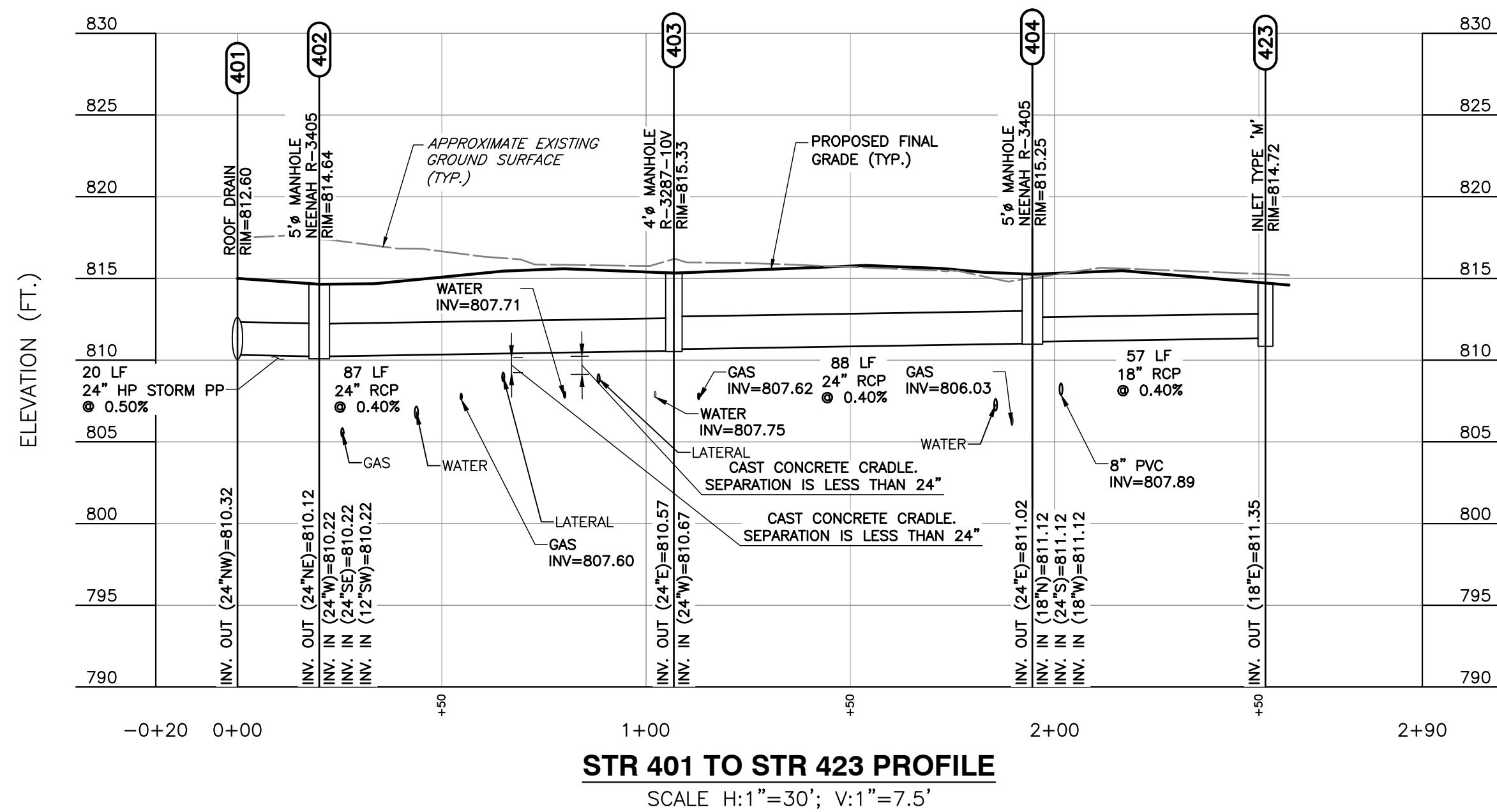


**DRAFT**

DRAWING NO. <b>C405</b>		<b>STORM PROFILES</b>		<b>STUDIO M ARCHITECTS</b> <b>CITYWALK ON THE NICKEL PLATE TRAIL</b> <b>LANTERN ROAD AND CIRCLE DRIVE</b> <b>FISHERS, INDIANA 46038</b>		 <b>Civil &amp; Environmental</b> <b>Consultants, Inc.</b>		530 E. Ohio Street Suite G Indianapolis, IN 46204 Ph: 317.655.7777 <a href="http://www.cecinc.com">www.cecinc.com</a>		<b>REVISION RECORD</b>	
DATE: FEB. 23, 2024		DRAWN BY: BEB						NO		DATE	
DWG SCALE: KPG		AS NOTED		CHECKED BY: 323-947							
PROJECT NO: DRAFT											
APPROVED BY:											



A:\320-0001\321-9471-C400\DWG\C400-Storm.dwg(04/08/15/02/23/2024 - mwp) - LP: 02/23/2024 3:30 PM



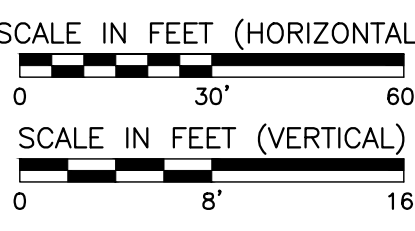
A RIGHT-OF-WAY ACTIVITY PERMIT IS REQUIRED FOR THE STORM SEWER CROSSING ON LANTERN RD.

PROPOSED WATER SERVICE AND GAS SERVICE LINES TO BE ROUTED AS NECESSARY TO AVOID ANY CROSSING CONFLICTS

MAINTAIN MINIMUM OF 18 INCH VERTICAL SEPARATION BETWEEN WET UTILITIES (MEASURED FROM OUTSIDE EDGE OF PIPES). PROVIDE CONCRETE CRADLE (PER FSCD SHEET 21) IF 18 INCHES CANNOT BE ACHIEVED OR PROVIDE SDR-21 PVC SEWER PIPE.

STRUCTURAL BACKFILL PER CITY OF FISHERS STANDARDS REQUIRED WITHIN 5' OF ALL PAVED SURFACES.

- REFERENCES AND NOTES:**
- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
  - AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
  - FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. <https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS>
  - OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. <https://gis1.hamiltoncounty.in.gov/PORTAL/HOME/>
  - SEE SHEET C001 FOR GENERAL NOTES AND SHEET SPECIFIC NOTES.
  - CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
  - REFER TO SHEETS C400, C401, C402, AND C403 FOR ADDITIONAL DRAINAGE PLAN NOTES.



**DRAFT**

STORM PROFILES		REVISION RECORD	
DATE:	DESCRIPTION:	NO.	DATE
FEB. 23, 2024	DRAWN BY: BEB		
DWG SCALE: AS NOTED	CHECKED BY: KPG		
PROJECT NO: 323-947			
APPROVED BY:			

**STUDIO M ARCHITECTS**  
**CITYWALK ON THE NICKEL PLATE TRAIL**  
**LANTERN ROAD AND CIRCLE DRIVE**  
**FISHERS, INDIANA 46038**

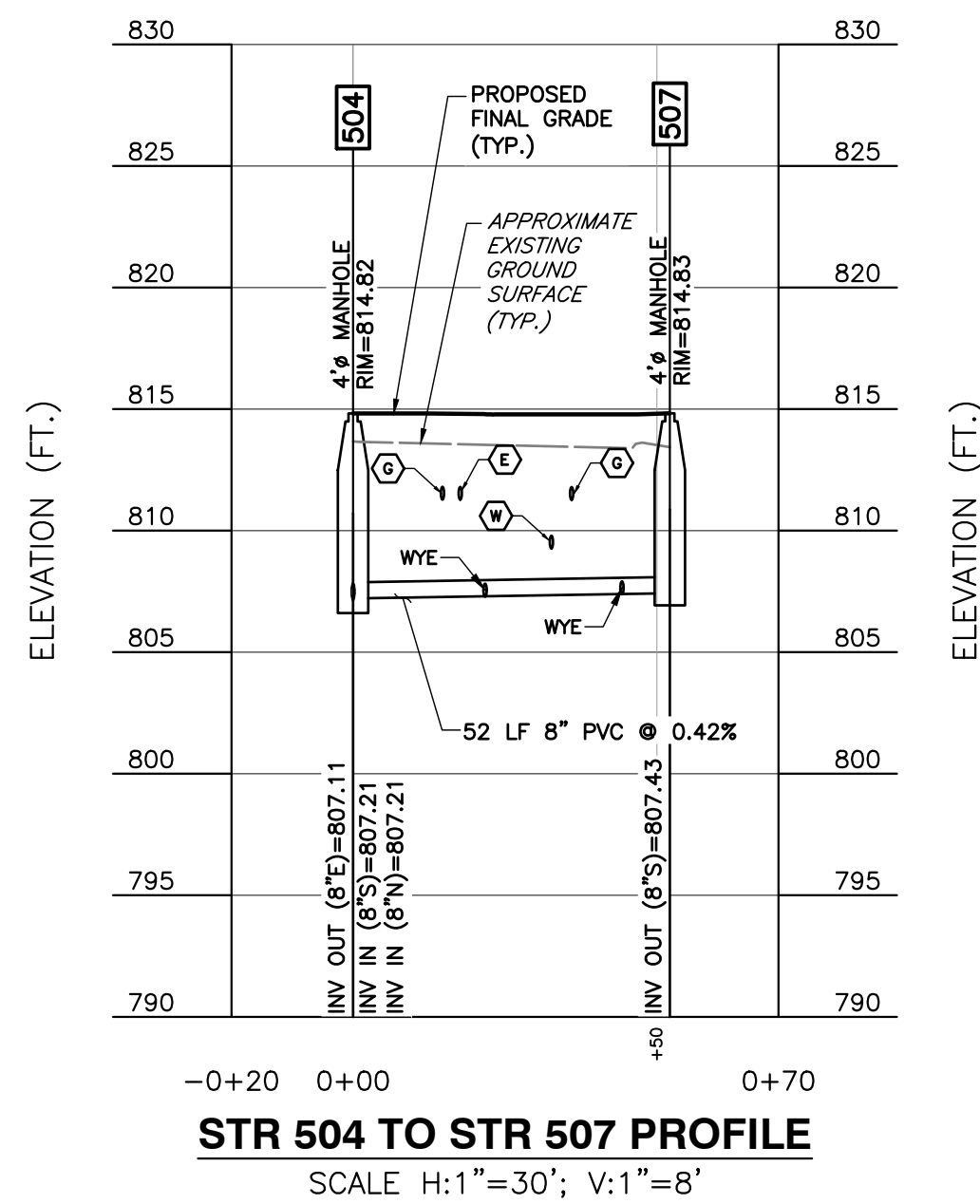
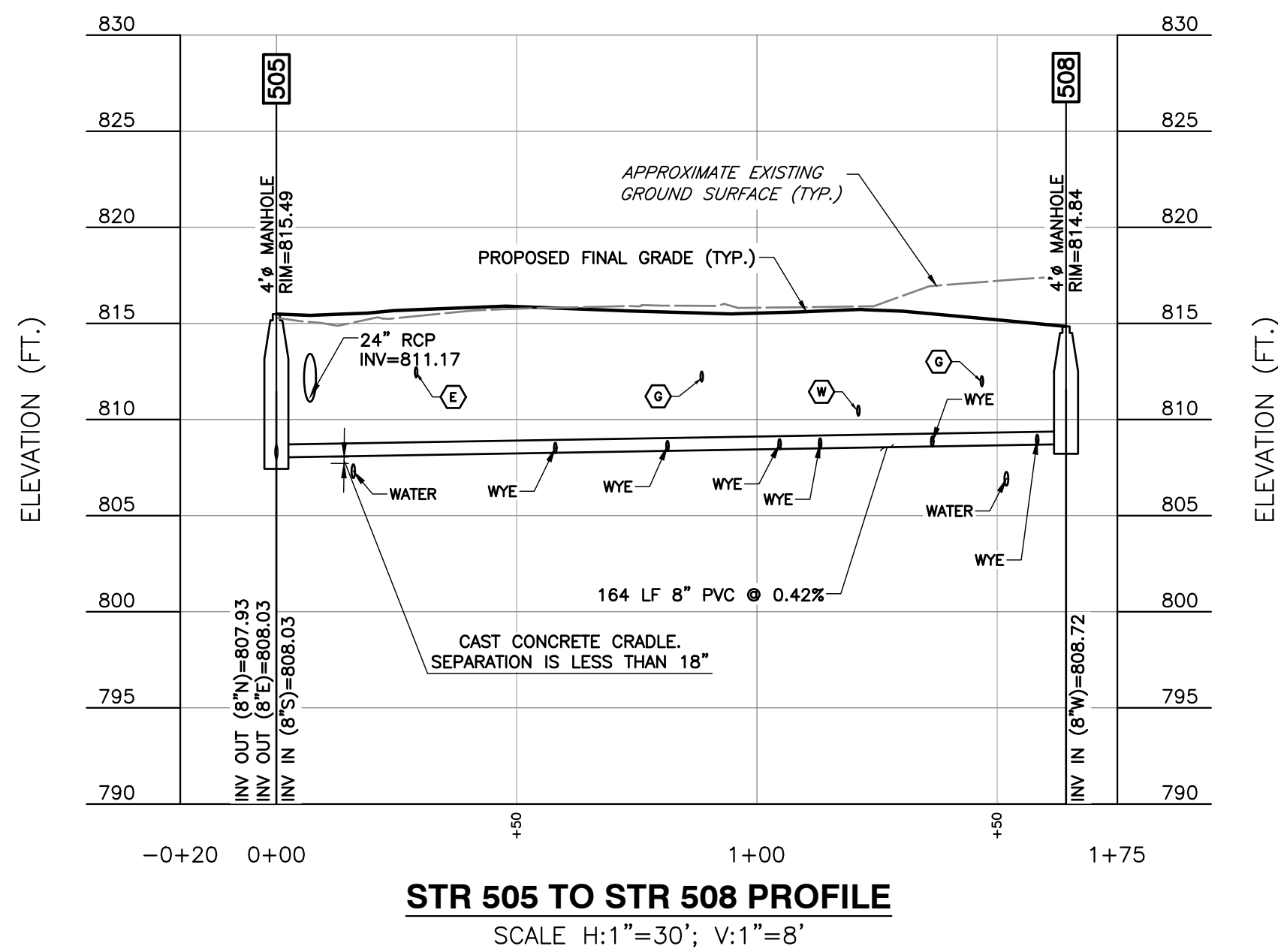
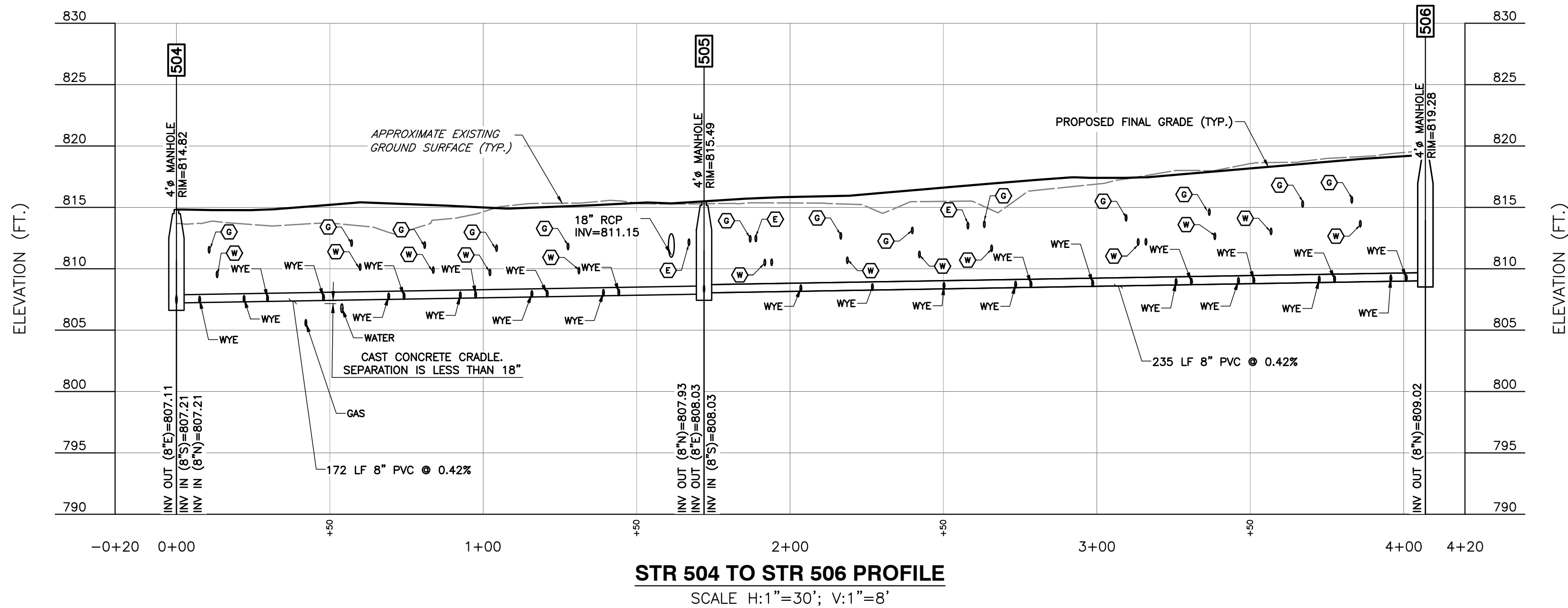
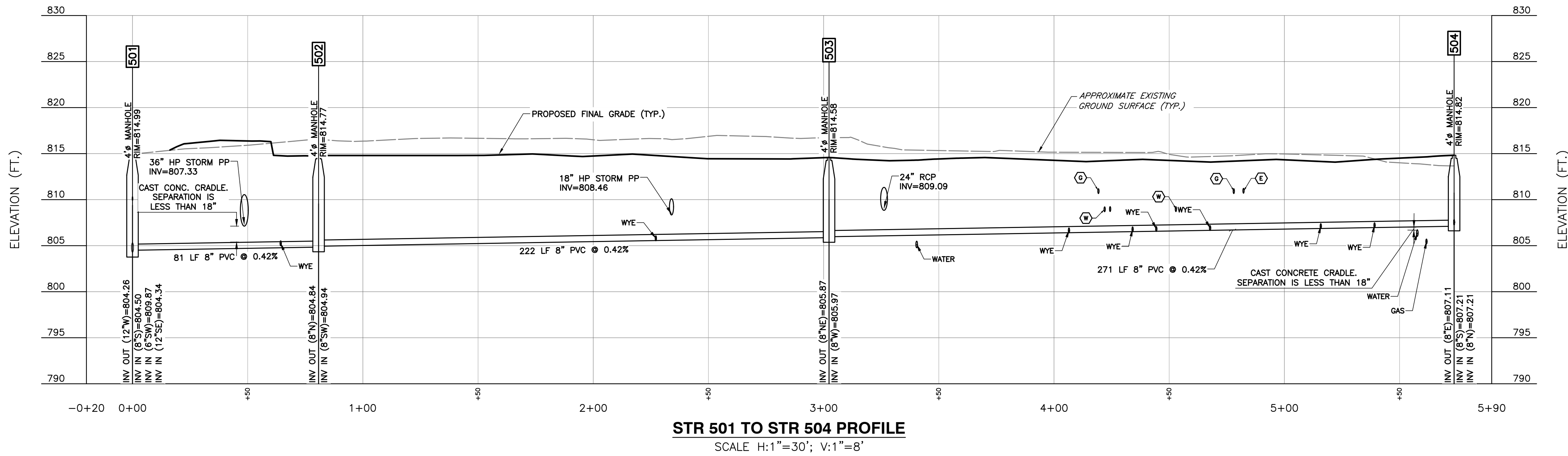
530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
www.cecinc.com

**Civil & Environmental Consultants, Inc.**

DRAWING NO: **C406**



A:\300-0001\3001-9471-CADD\DWG\DWG\0102 Construction Draw\3001-9471-CADD-0500-Profile.dwg(15/02/2024 - mhw) - LP: 02/23/2024 3:24 PM



A RIGHT-OF-WAY ACTIVITY PERMIT IS REQUIRED FOR ALL UTILITY CROSSINGS OR OPEN CUTS OF ASPHALT ON LANTERN RD.

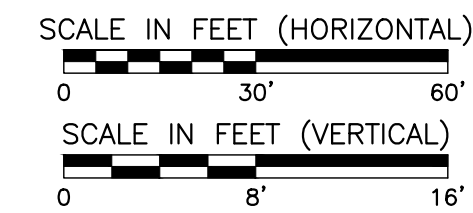
UTILITY KEY NOTES:

- (E) ELECTRIC SERVICE
- (G) GAS SERVICE
- (W) WATER SERVICE LINE

PROPOSED WATER SERVICE AND GAS SERVICE LINES TO BE ROUTED AS NECESSARY TO AVOID ANY CROSSING CONFLICTS

MAINTAIN MINIMUM OF 18 INCH VERTICAL SEPARATION BETWEEN WET UTILITIES (MEASURED FROM OUTSIDE EDGE OF PIPES). PROVIDE CONCRETE CRADLE (PER FSCD SHEET 21) IF 18 INCHES CANNOT BE ACHIEVED OR PROVIDE SDR-21 PVC SEWER PIPE.

STRUCTURAL BACKFILL PER CITY OF FISHERS STANDARDS REQUIRED WITHIN 5' OF ALL PAVED SURFACES.



REFERENCES AND NOTES:

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- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. [HTTPS://WWW.FISHERS.IN.US/390/DESIGN-STANDARDS-SPECS](https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS)
- OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. [HTTPS://GIS1.HAMILTONCOUNTY.IN.GOV/PORTAL/HOME/](https://gis1.hamiltoncounty.in.gov/portal/home/)
- SEE SHEET C001 FOR GENERAL NOTES AND SHEET SPECIFIC NOTES.
- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
- ALL WATER MAIN EXTENSION, VALVES, TEES, SERVICE LINES, AND WATER METERS TO BE INSTALLED PER CITIZENS ENERGY GROUP STANDARDS.
- CONSTRUCTION OF SANITARY SEWER TO BE PER CITY OF FISHERS MOST UP-TO-DATE DETAIL AND SPECIFICATIONS.
- REFER TO SHEETS C500, C501, C502, AND C503 FOR ADDITIONAL UTILITY PLAN NOTES.

REVISION RECORD

NO.	DATE	DESCRIPTION

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STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

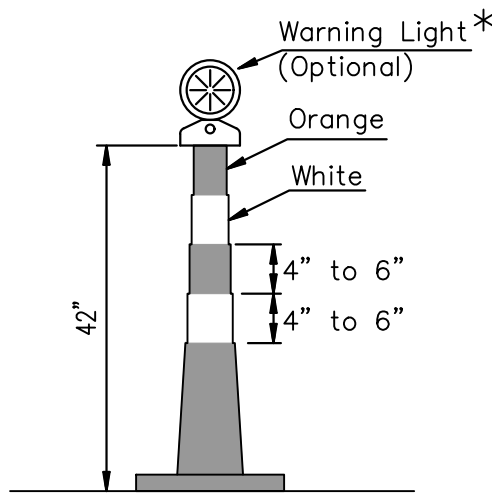
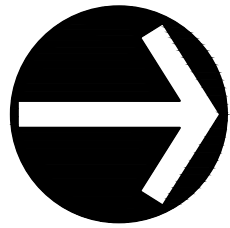
SANITARY MAIN PROFILES

DATE:	FEB. 23, 2024	DRAWN BY:	BEB
DWG SCALE:	AS NOTED	CHECKED BY:	KPG
PROJECT NO:	323-947	APPROVED BY:	DRAFT

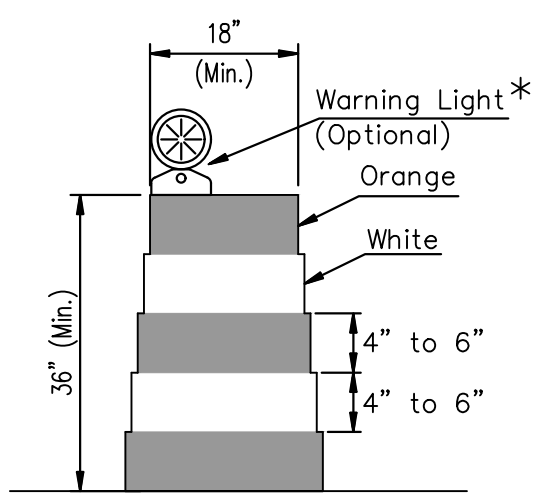
DRAWING NO.:  
**C504**

**DRAFT**

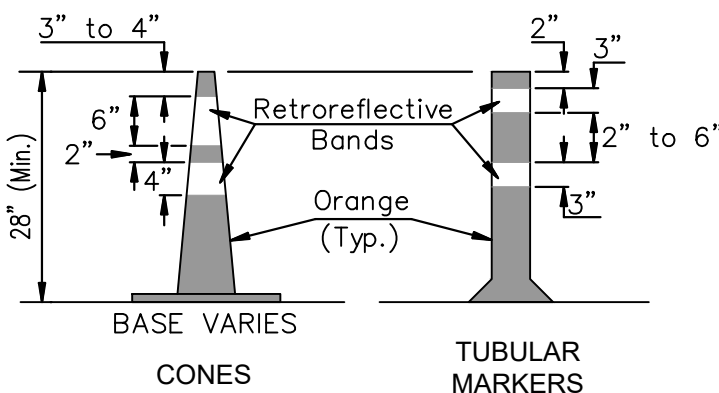




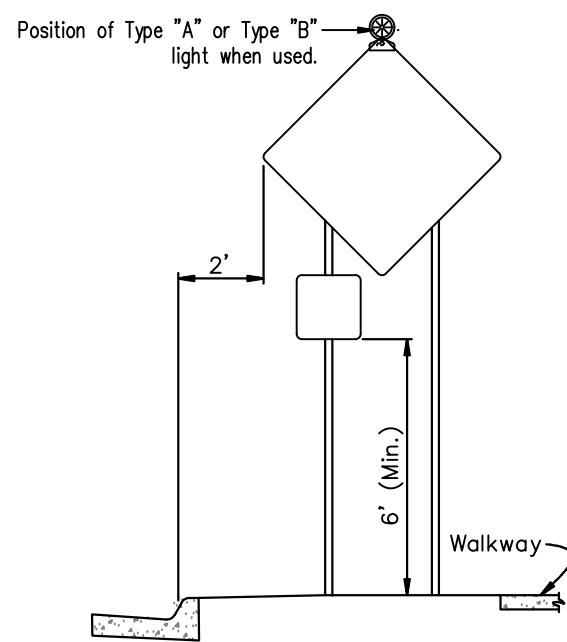
SLIMLINE CHANNELIZER



NON-METALLIC REFLECTORIZED DRUM WITH LIGHT



CONES  
TUBULAR MARKERS



SIGN MOUNTING LOCATIONS

REFERENCES:

- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1" CONTOUR INTERVAL.
- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. [HTTPS://WWW.FISHERS.IN.US/390/DESIGN-STANDARDS-SPECS](https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS)
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SITE LEGEND:

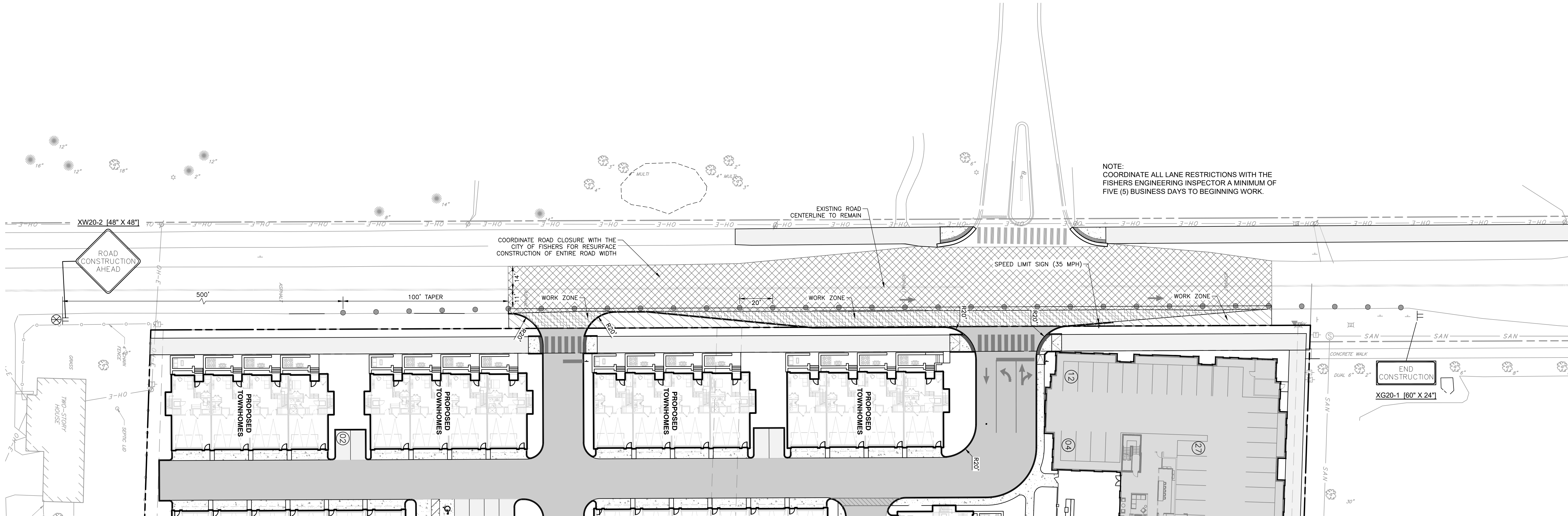
	PROPOSED LIGHT DUTY ASPHALT PAVEMENT
	PROPOSED HEAVY DUTY ASPHALT PAVEMENT
	PROPOSED CONCRETE PAVEMENT
	PROPOSED RIGHT-OF-WAY ASPHALT PAVEMENT
	PROPOSED RIGHT-OF-WAY ASPHALT PAVEMENT

NOTES:

- ALL SIGNS AND BARRICADES TO BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- SEE TECHNICAL SPECIFICATIONS FOR MAINTAINING TRAFFIC FOR PROJECT.
- NO CONSTRUCTION SHALL COMMENCE UNTIL CONSTRUCTION TRAFFIC PLAN IS APPROVED BY ENGINEER AND DEPARTMENT OF ENGINEERING.
- CONTRACTOR SHALL MAINTAIN TWO OPEN LANES OF TWO-WAY TRAFFIC AT ALL TIMES UNLESS OTHERWISE APPROVED BY DEPARTMENT OF ENGINEERING.
- CONTRACTOR SHALL MAINTAIN ADA ACCESSIBLE PEDESTRIAN ROUTE AT ALL TIMES.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY SIGNAGE FOR PEDESTRIAN TRAFFIC INCLUDING SIDEWALK CLOSED AHEAD, CROSS HERE AND ALTERNATE ROUTE SIGNS.
- PLAN SHOWN IS FOR GENERAL PURPOSES AND IS NOT A COMPLETE MAINTENANCE OF TRAFFIC PLAN.
- ADDITIONAL SIGNAGE, BARRICADES AND TRAFFIC CONTROL DEVICES, OTHER THAN SHOWN, WILL BE REQUIRED AND SHOULD BE INCLUDED IN BID.
- COORDINATE ALL LANE RESTRICTIONS WITH THE FISHERS ENGINEERING INSPECTOR A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO BEGINNING WORK.

TRAFFIC LEGEND:

	STANDARD SIGN
	TYPE "A" CONSTRUCTION WARNING LIGHT
	AAROW BOARD
	CONSTRUCTION DRUMS, CHANNELIZING DEVICES
	WORK AREA



NOTE:  
COORDINATE ALL LANE RESTRICTIONS WITH THE FISHERS ENGINEERING INSPECTOR A MINIMUM OF FIVE (5) BUSINESS DAYS TO BEGINNING WORK.

SCALE IN FEET  
0 30 60



DRAFT

MAINTENANCE OF TRAFFIC PLAN

STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
www.cecinc.com



REVISION RECORD

DESCRIPTION

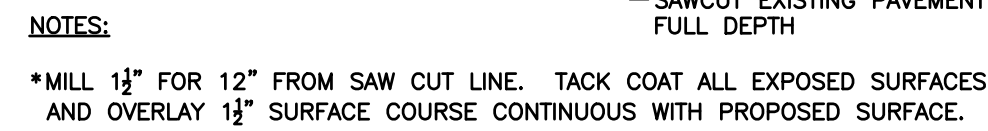
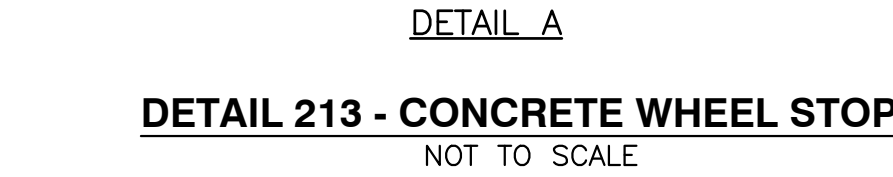
NO. DATE

DRAWING NO.:

C600

DATE: FEB. 23, 2024  
DRAWN BY: KPB  
PROJECT NO.: 323-947  
CHECKED BY: KPG  
APPROVED BY: DRAFT

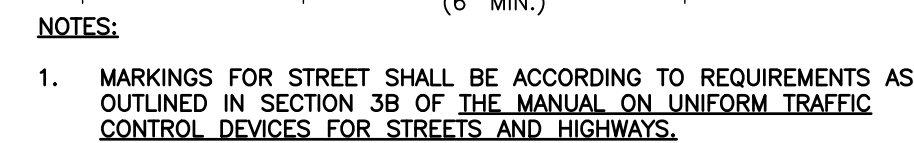




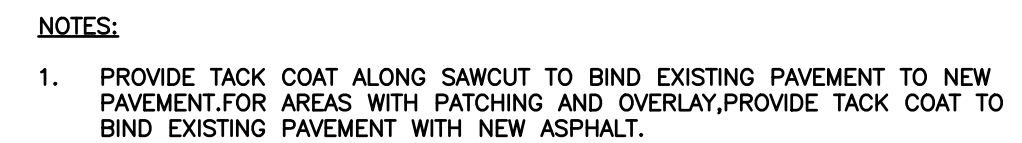
**DETAIL 205 - LAP JOINT DETAIL**  
NOT TO SCALE



### DETAIL 206 - PAINTED DIRECTIONAL SYMBOLS



### DETAIL 207 - PAINTED DIRECTIONAL SYMBOLS



**DETAIL 204 - PAVEMENT SAWCUT**  
NOT TO SCALE

**DRAFT**

[illegible]

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
[www.cecinc.com](http://www.cecinc.com)

Civil & Environmental  
Consultants, Inc.

**STUDIO M ARCHITECTS**  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

## SITE DETAILS

DRAWN BY:		KPG	
FEB. 23, 2024		1 st = 40'	
CHECKED BY:		323-947	
		DRAFT	

DRAWING NO.:  
**C800**

cp: 320-000|323-947|-CAD0|Dwg|C102 Construction Docs|323947-C102-C800.dwg(C800) LS:(2/23/2024 - b6am1s) - LP: 2/23/2024 3:26 PM

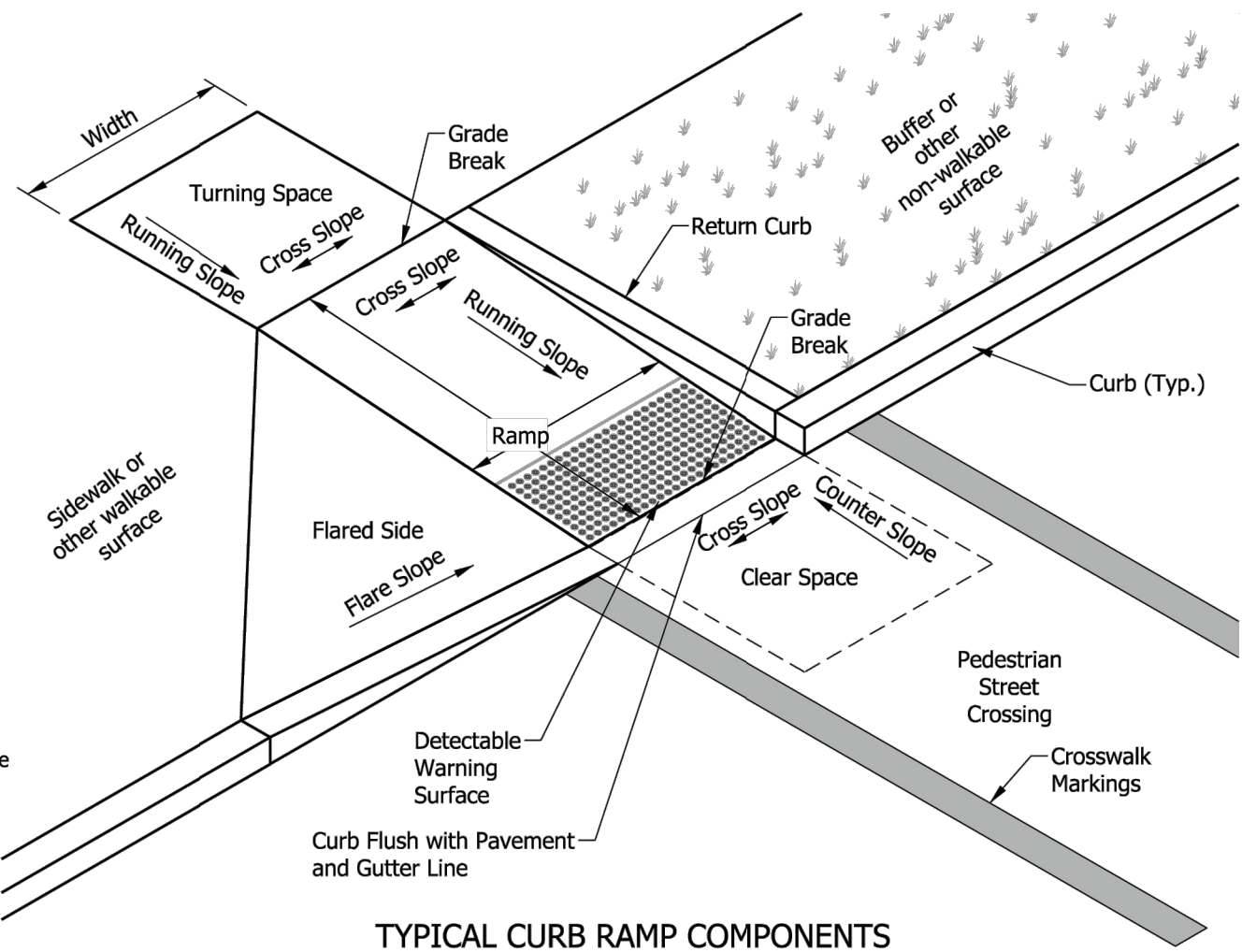


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INDEX	
SHEET NO.	SUBJECT
1	Curb Ramp Drawing Index and General Notes
2-3	Perpendicular Curb Ramp Typical Placement
4	Perpendicular Curb Ramp Component Details
5	One-Way-Directional Perpendicular Curb Ramp Typical Placement
6	One-Way-Directional Perpendicular Curb Ramp Component Details
7	Parallel Curb Ramps Typical Placement
8	Parallel Curb Ramp Component Details
9	Blended Transition Curb Ramp, Depressed Curb Ramp and Diagonal Curb Ramp Typical Placement
10	Blended Transition Curb Ramp Component Details
11	Median Cut-Through and Median Perpendicular Curb Ramp Typical Placement
12-13	Detectable Warning Surface Placement and Configuration
14	Detectable Warning Surface Details

#### GENERAL NOTES:

- All slopes are absolute rather than relative to the sidewalk or roadway grade. Slopes at least 0.50% less than the maximum are preferred.
- Ramp or Blended Transition. A ramp or blended transition shall be used to lower or raise the sidewalk to connect with the street or highway.
- Turning Space. A turning space shall be provided at the top of a perpendicular ramp, bottom of a parallel ramp, or where the pedestrian travel requires a change in direction. A common turning space may be shared by adjacent ramps. The turning space shall have a minimum clear dimension of 4 ft x 4 ft. Where the turning space is constrained at the back of the sidewalk by a curb, retaining wall, building, or feature over 2 inches in height, the minimum clear dimension shall be 4 ft x 5 ft, with the 5-ft dimension in the direction of the ramp running slope.
- Flared Side. A flared side shall be used adjacent to a walkable surface. A flared side may be used adjacent to a non-walkable surface. A flared side shall have a maximum slope of 10.00% measured parallel to the back of the curb.
- Return Curb. A return curb is placed perpendicular to the roadway curb. A return curb may be used adjacent to a non-walkable surface. A return curb shall not be used adjacent to a walkable surface. The return curb may be omitted where the non-walkable surface is flared and the curb adjacent the roadway is tapered to meet the flush curb at the bottom of the ramp.
- Clear Space. A clear space shall be provided beyond the bottom grade break of a curb ramp wholly contained within the crosswalk and wholly outside the parallel vehicular travel path. The clear space shall have a minimum clear dimension of 4 ft x 4 ft.
- Detectable Warning Surface. A detectable warning surface shall consist of truncated domes and be placed at each street, highway, or railroad crossing. The detectable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and be placed the entire width of a ramp, blended transition, or turning space.
- Running Slope. The running slope of a ramp, blended transition, or turning space shall be measured parallel to the direction of pedestrian travel.
  - A running slope of 2.00% or less is considered level.
  - A ramp shall have a maximum running slope of 8.33% but shall not require a ramp length to exceed 15 ft.
  - A blended transition shall have a maximum running slope of 5.00%.
  - A turning space shall have a maximum running slope of 2.00%.
- Width. Unless otherwise noted, minimum width of a ramp, blended transition, or turning space, excluding flared sides or return curb, shall be 4 ft.
- Grade Break. A grade break at the top and bottom of a ramp, blended transition, or turning space shall be perpendicular to the running slope. Grade breaks shall not be within the ramp, blended transition, turning space, or detectable warning surface. Grade breaks shall be flush. Vertical discontinuities shall not be greater than 1/2 in. Where a discontinuity is greater than 1/4 in, the surface shall be beveled with a slope not steeper than 1V/2H.
- Cross Slope Exceptions. The cross slope of a ramp, blended transition, or turning space shall be measured perpendicular to the direction of pedestrian travel.
  - The maximum cross slope at a pedestrian street crossing without posted yield or stop control shall be 5.00%.
  - The maximum cross slope at a pedestrian street crossing with posted yield or stop control shall be 2.00%.
  - The maximum cross slope at a midblock crossing shall be the established grade of the adjacent roadway.
- Counter Slope. A counter slope is the cross slope of the gutter or street adjacent the running slope of the ramp, blended transition, or turning space. See Standard Drawing E 604-SWCR-14 for counter slope details.
- Objects such as a utility cover, vault frame, and grating shall be placed outside the curb ramp.
- Curb ramps shall be placed within the marked crosswalk area.
- Drainage inlets should be located uphill from a curb ramp to prevent ponding in the path of pedestrian travel.



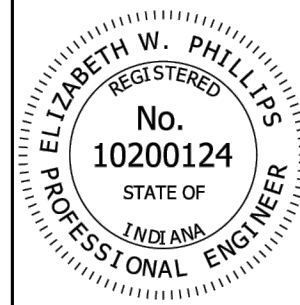
TYPICAL CURB RAMP COMPONENTS

#### INDIANA DEPARTMENT OF TRANSPORTATION

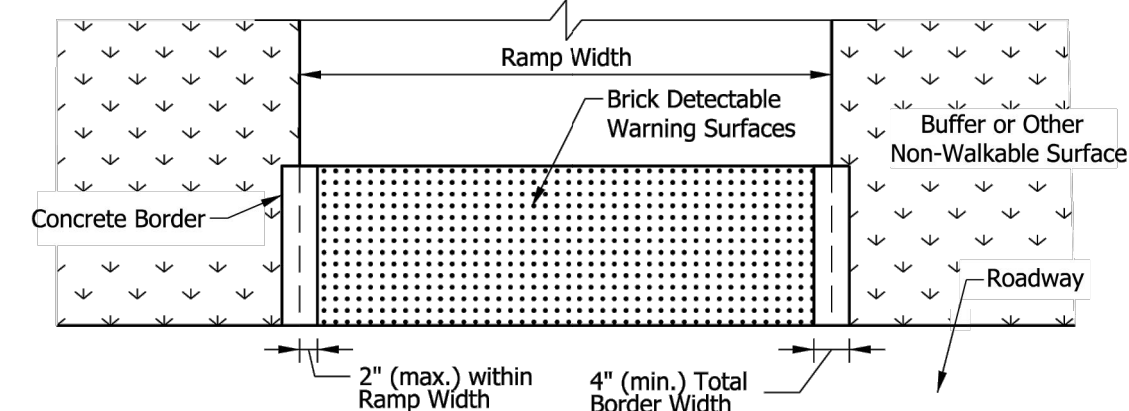
##### CURB RAMP DRAWING INDEX AND GENERAL NOTES

SEPTEMBER 2018

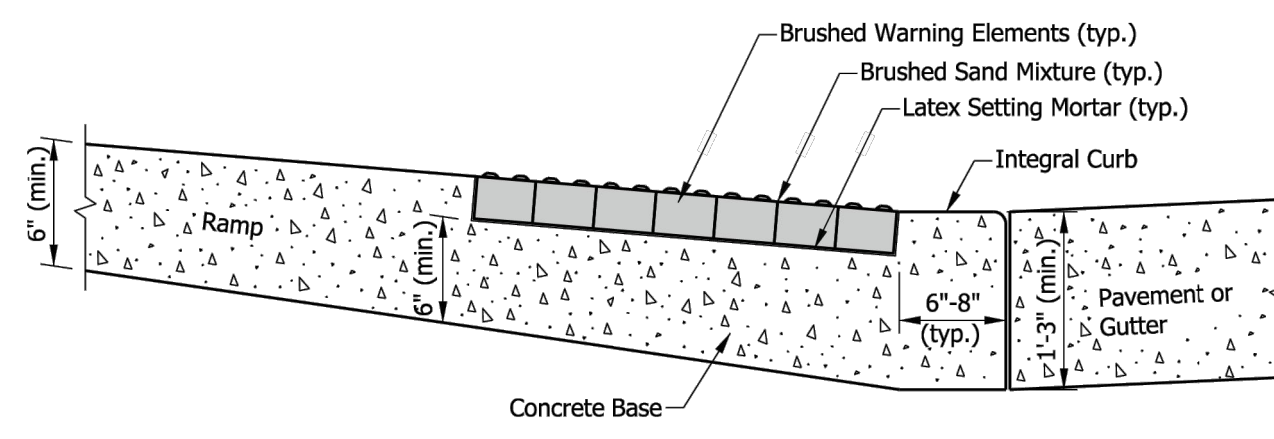
STANDARD DRAWING NO. E 604-SWCR-01



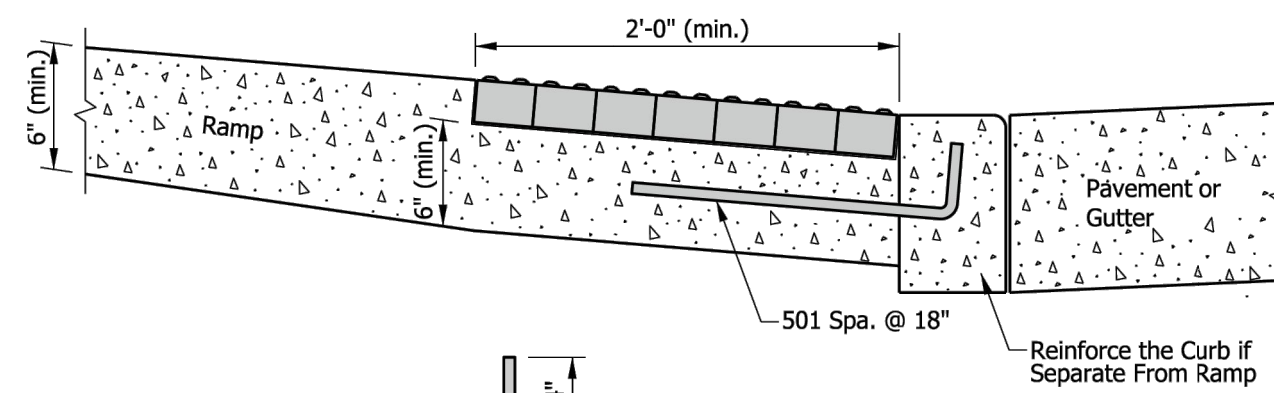
/s/ Elizabeth W. Phillips 03/20/18  
DESIGN STANDARDS ENGINEER DATE  
/s/ John Leckie 04/25/18  
CHIEF ENGINEER DATE



BRICK DETECTABLE WARNING SURFACE WITH CONCRETE BORDER ⑥ ⑦

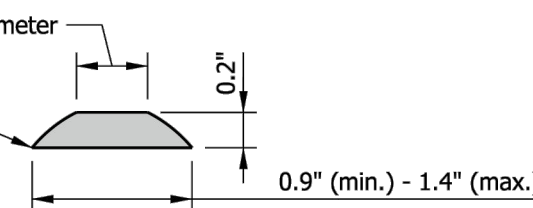


TYPICAL RAMP AND BRICK SURFACE CONSTRUCTION DETAIL

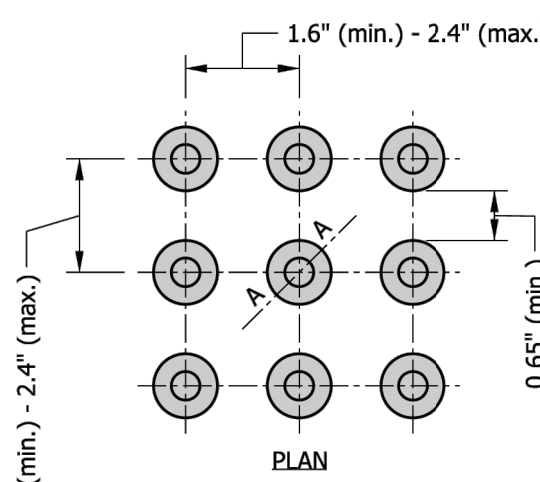


ALTERNATE CURB CONSTRUCTION

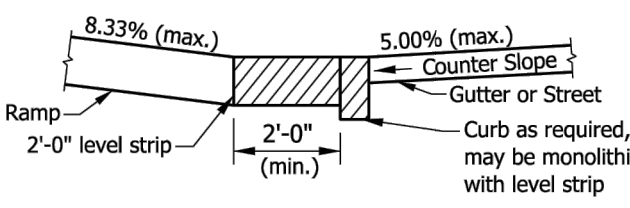
501 x 1'-10"



SECTION A-A



TRUNCATED DOMES



CHANGE OF GRADE > 11% ⑤

#### NOTES:

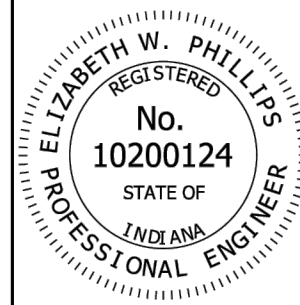
- Detectable warning surface shall consist of truncated domes. Domes shall be aligned in a square or radial grid pattern with diameter and center-to-center spacing within the ranges specified.
- The detectable warning surface may be field cut. Truncated dome spacing between adjacent panels shall be within the ranges specified.
- The detectable warning surface shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.
- The detectable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and extend the full width as shown. The detectable warning surface shall not be placed across a grade break.
- The maximum counter slope of the gutter or street at the bottom of the ramp shall be 5.00%. Where the algebraic difference between the running slope and the counter slope exceeds 11%, a 2-ft minimum level strip should be provided at the bottom of the ramp.
- Where a concrete border is used for forming, the border shall be cast monolithically with the curb ramp concrete. The concrete border shall not reduce the ramp width by more than 2 in. on each side.
- Where forming other than a concrete border is used, the edge restraint shall not encroach upon the ramp width.

#### INDIANA DEPARTMENT OF TRANSPORTATION

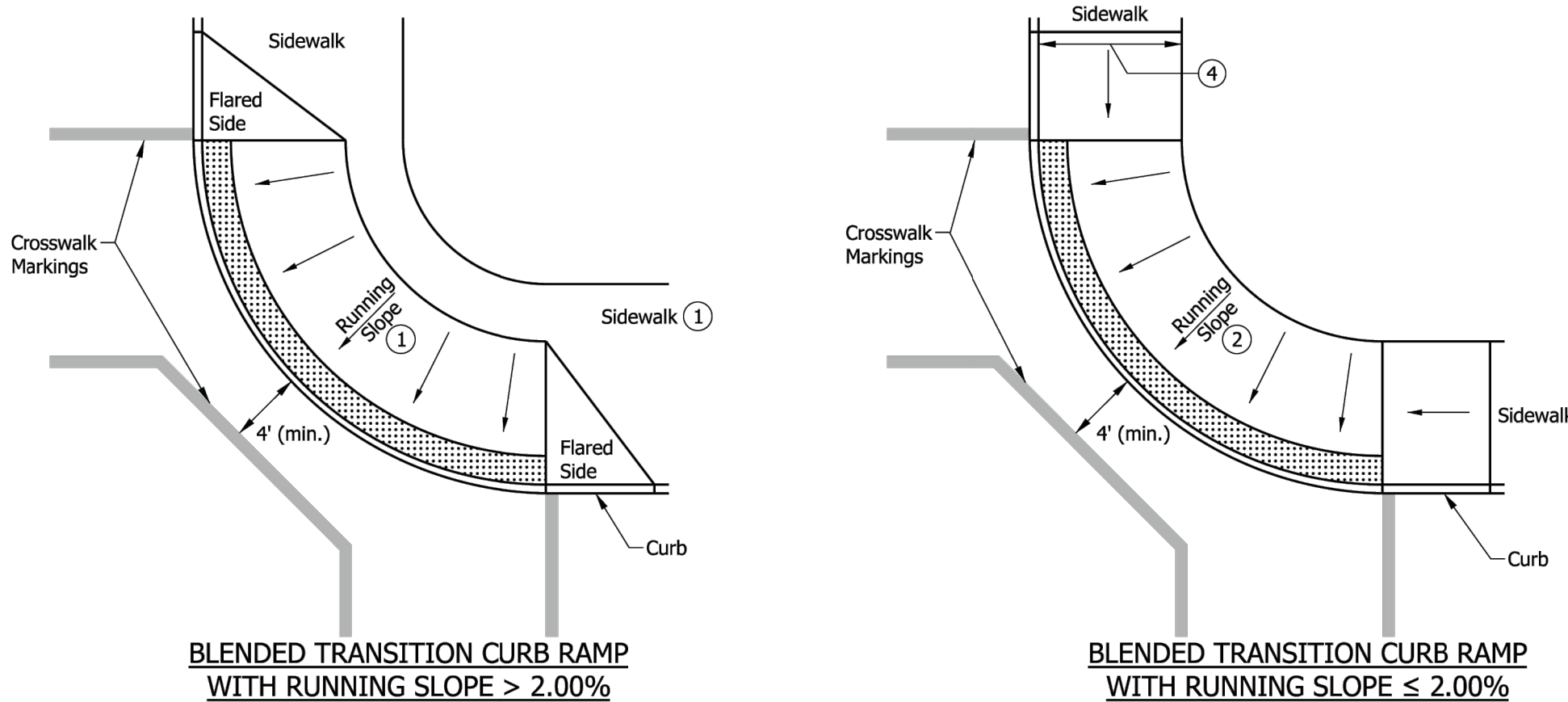
##### DETECTABLE WARNING SURFACE DETAILS

SEPTEMBER 2018

STANDARD DRAWING NO. E 604-SWCR-14

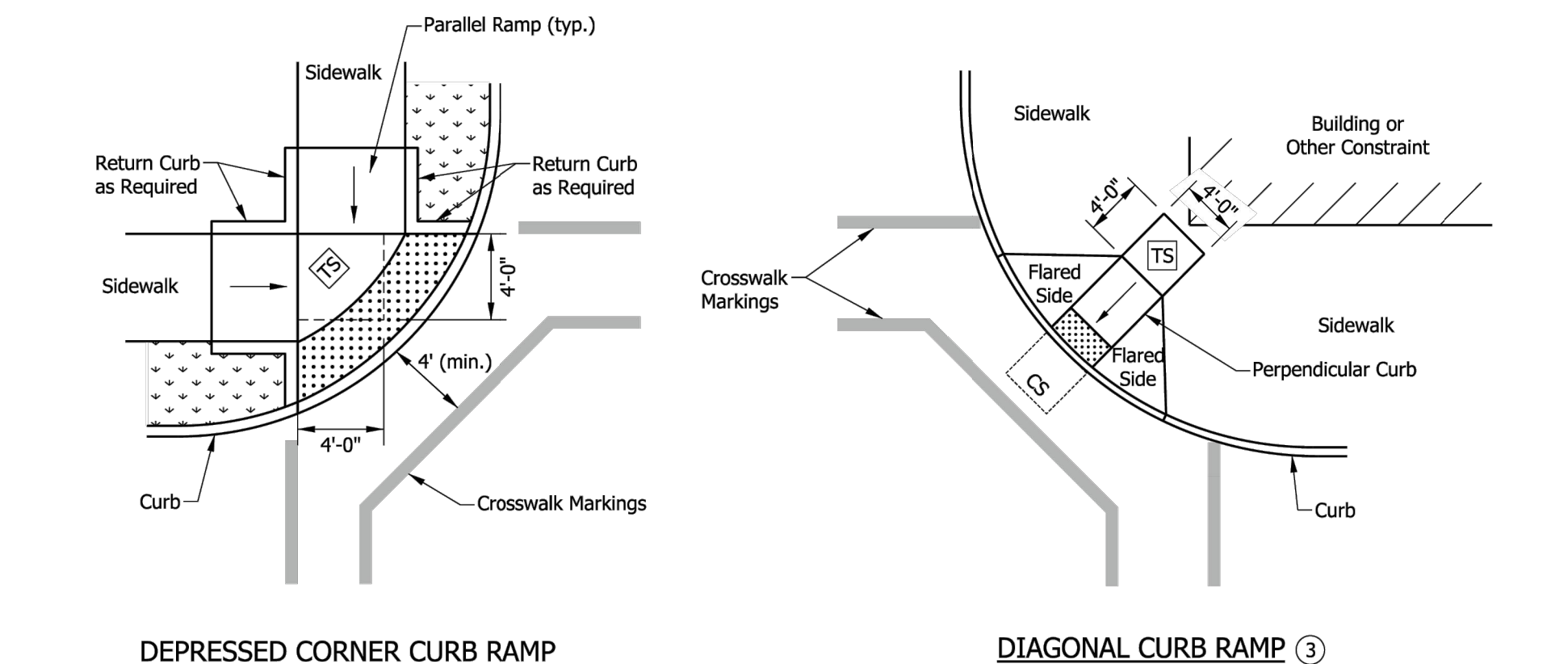


/s/ Elizabeth W. Phillips 03/29/18  
DESIGN STANDARDS ENGINEER DATE  
/s/ John Leckie 04/25/18  
CHIEF ENGINEER DATE



BLENDED TRANSITION CURB RAMP WITH RUNNING SLOPE > 2.00%

BLENDED TRANSITION CURB RAMP WITH RUNNING SLOPE ≤ 2.00%



DEPRESSED CORNER CURB RAMP

DIAGONAL CURB RAMP ③

#### NOTES:

- A turning space is not required at the top of the ramp for a one-way directional perpendicular curb ramp.
- Where there is no buffer between the sidewalk and curb the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SDWK for sidewalk details.

#### LEGEND:

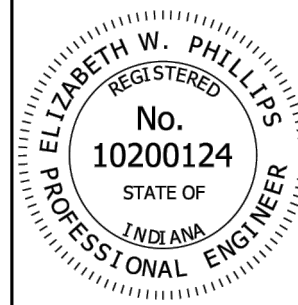
- Buffer or Other Non-Walkable Surface
- Ramp
- Detectable Warning Surface

#### INDIANA DEPARTMENT OF TRANSPORTATION

##### ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP TYPICAL PLACEMENT

SEPTEMBER 2016

STANDARD DRAWING NO. E 604-SWCR-05



/s/ Elizabeth W. Phillips 03/15/16  
DESIGN STANDARDS ENGINEER DATE  
/s/ Mark A. Miller 03/18/16  
CHIEF ENGINEER DATE

#### NOTES:

- Where the running slope is greater than 2.00%, a 4-ft minimum sidewalk shall continue behind the blended transition. The running slope shall not exceed 5.00%.
- Where the running slope is less than or equal to 2.00% a 4-ft minimum sidewalk is not required behind the blended transition.
- A diagonal curb ramp shall not be used for new construction. For an alteration project, a diagonal curb ramp shall be used only where existing physical conditions prevent paired curb ramps, a blended transition curb ramp, or a depressed corner curb ramp from being provided.
- Where there is no buffer between the sidewalk and curb the preferred minimum sidewalk width is 6 ft. Where a buffer is placed between the sidewalk and curb, the preferred minimum sidewalk width is 5 ft. See Standard Drawing Series E 604-SDWK for sidewalk details.

#### LEGEND:

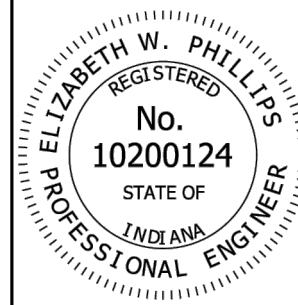
- Buffer or Other Non-Walkable Surface
- Ramp
- Detectable Warning Surface
- Turning Space
- Clear Space

#### INDIANA DEPARTMENT OF TRANSPORTATION

##### BLENDED TRANSITION CURB RAMP, DEPRESSED CURB RAMP AND DIAGONAL CURB RAMP TYPICAL PLACEMENT

SEPTEMBER 2018

STANDARD DRAWING NO. E 604-SWCR-09



/s/ Elizabeth W. Phillips 03/29/18  
DESIGN STANDARDS ENGINEER DATE  
/s/ John Leckie 04/25/18  
CHIEF ENGINEER DATE

DRAFT

#### SITE DETAILS

STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

DATE:	FEB. 23, 2024	DRAWN BY:	BEB
DWG SCALE:	1" = 40'	CHECKED BY:	KPG
PROJECT NO.:		APPROVED BY:	323-947
			DRAFT

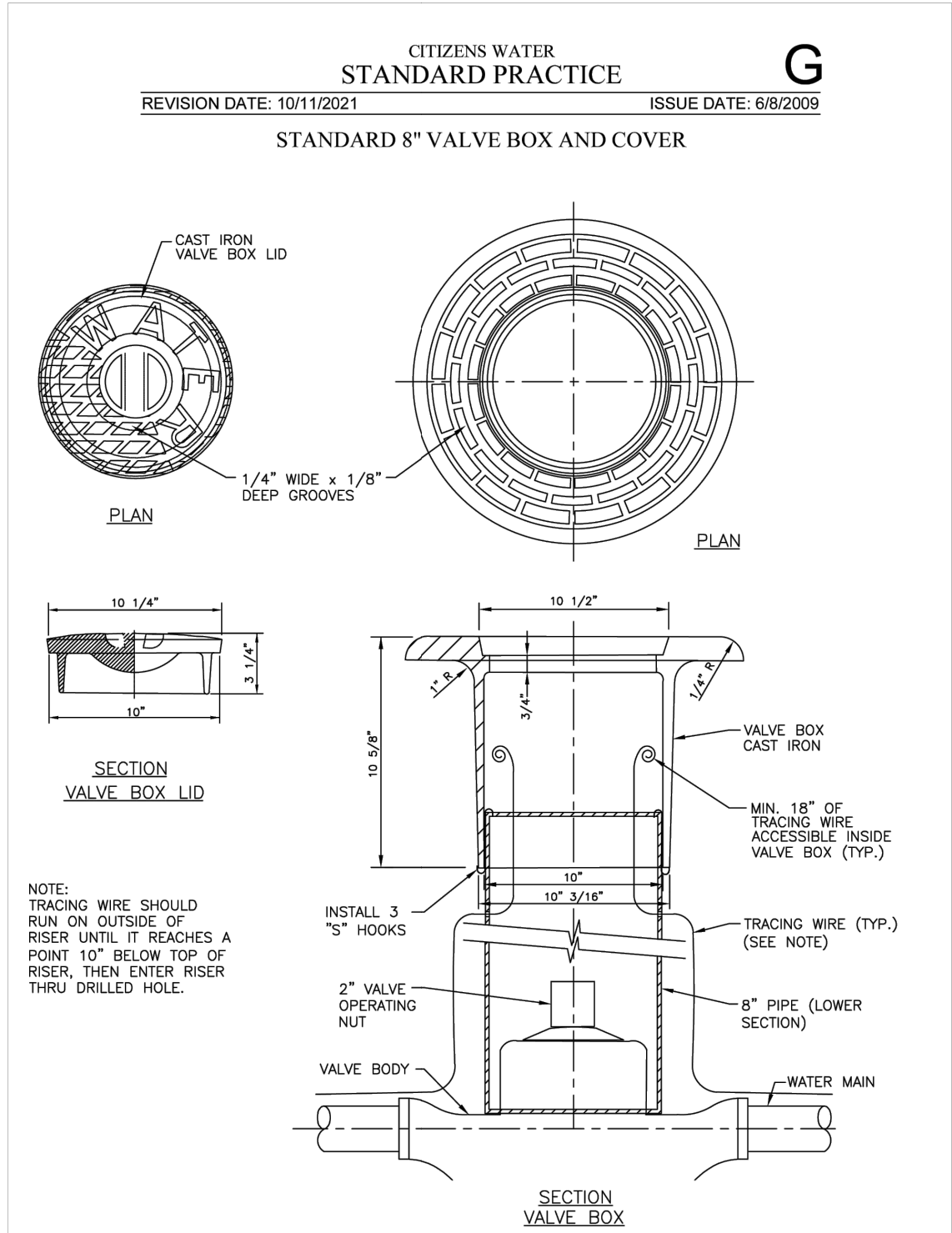
DRAWING NO. C801

530 E. Ohio Street  
Suite G  
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www.cecinc.com  
Civil & Environmental  
Consultants, Inc.

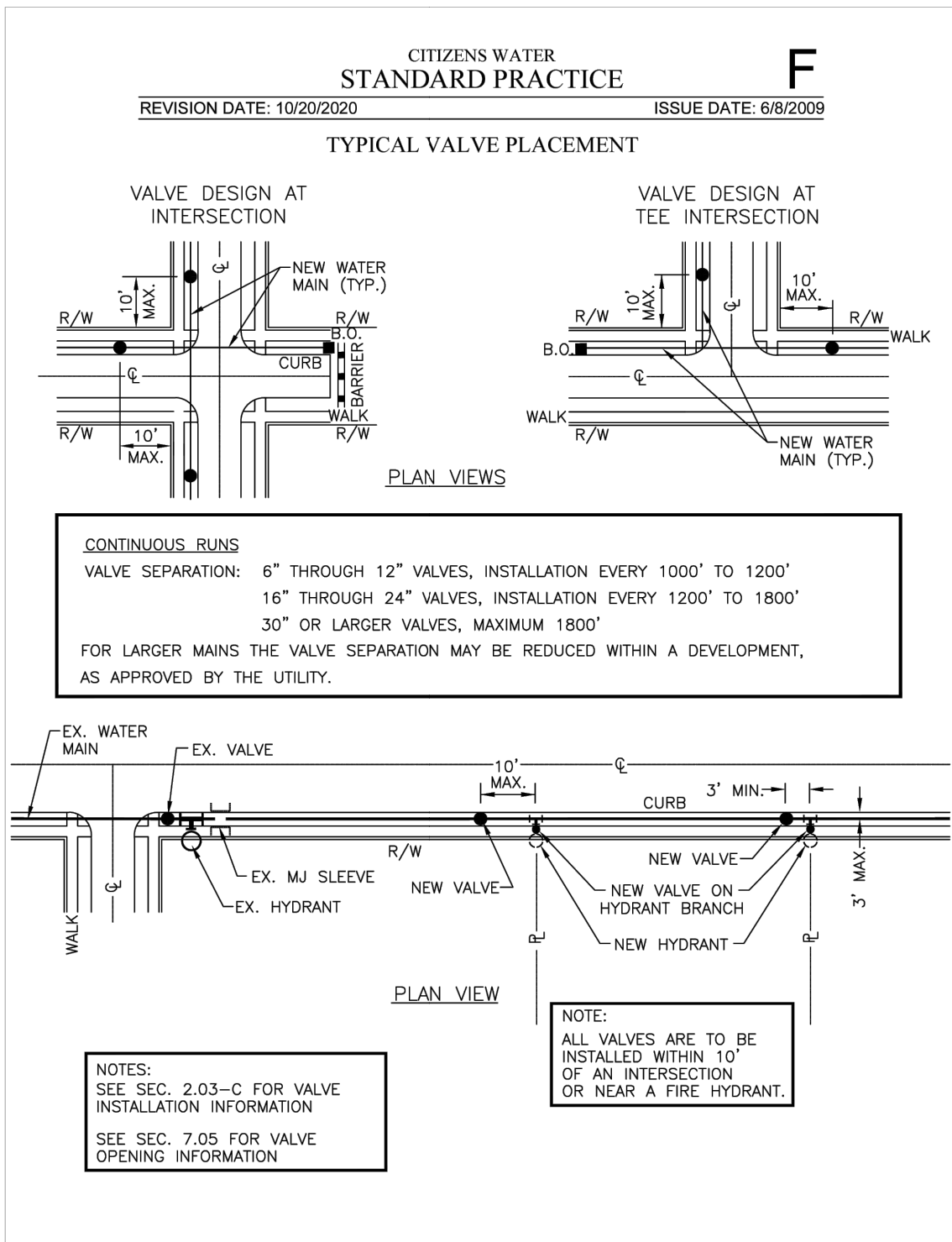




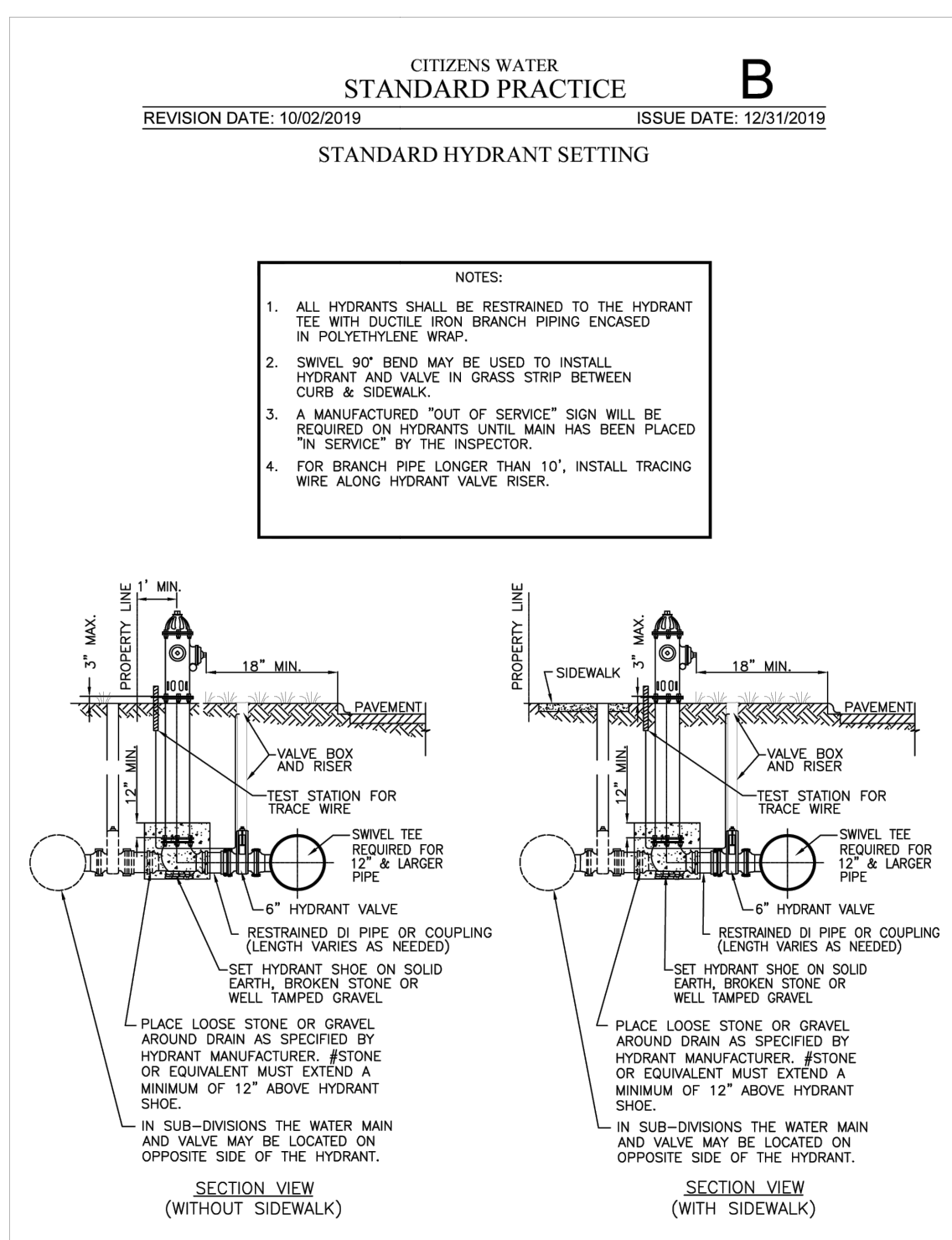




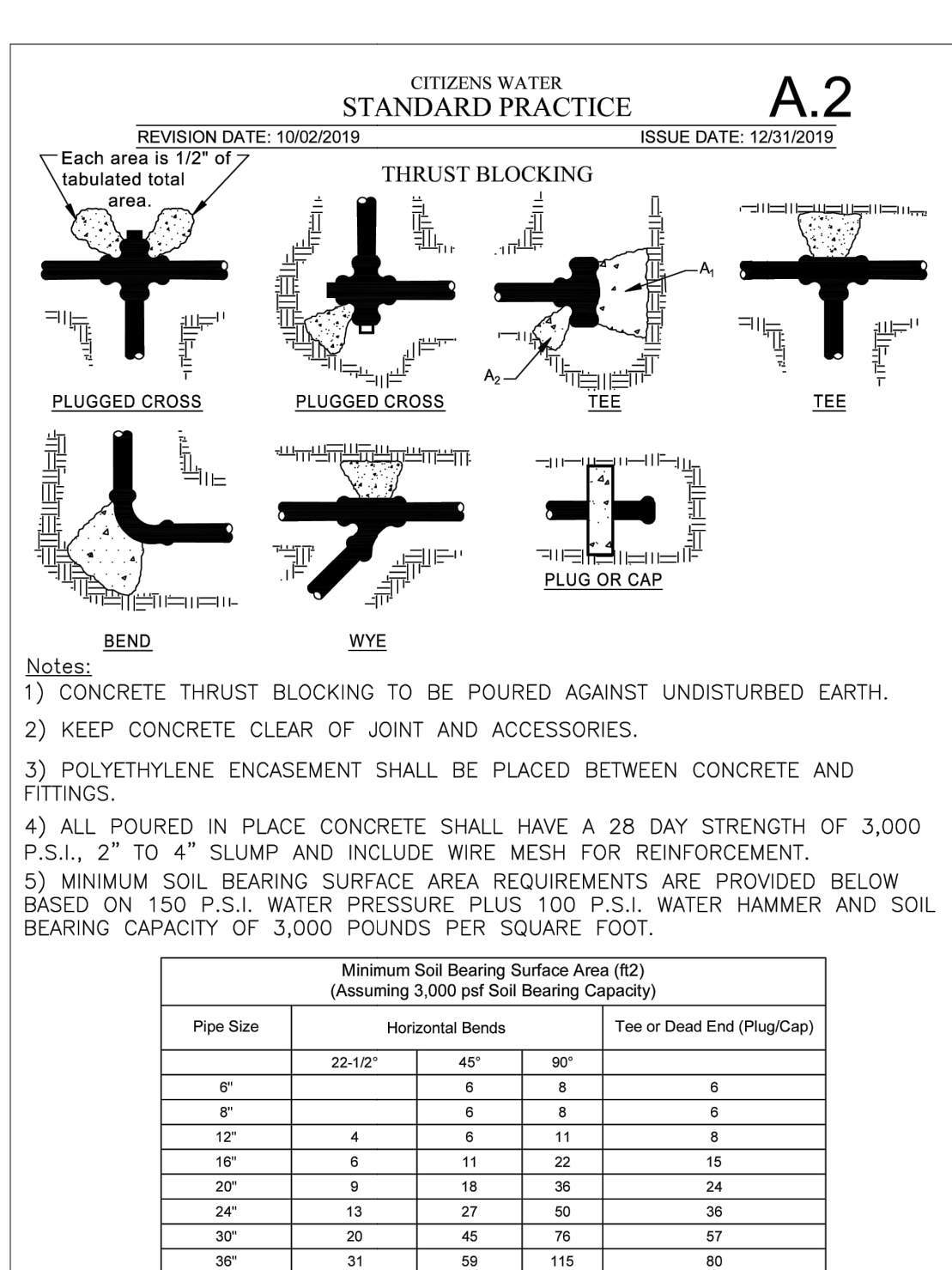
**DETAIL 516 - STANDARD 8" VALVE BOX AND COVER**  
NOT TO SCALE



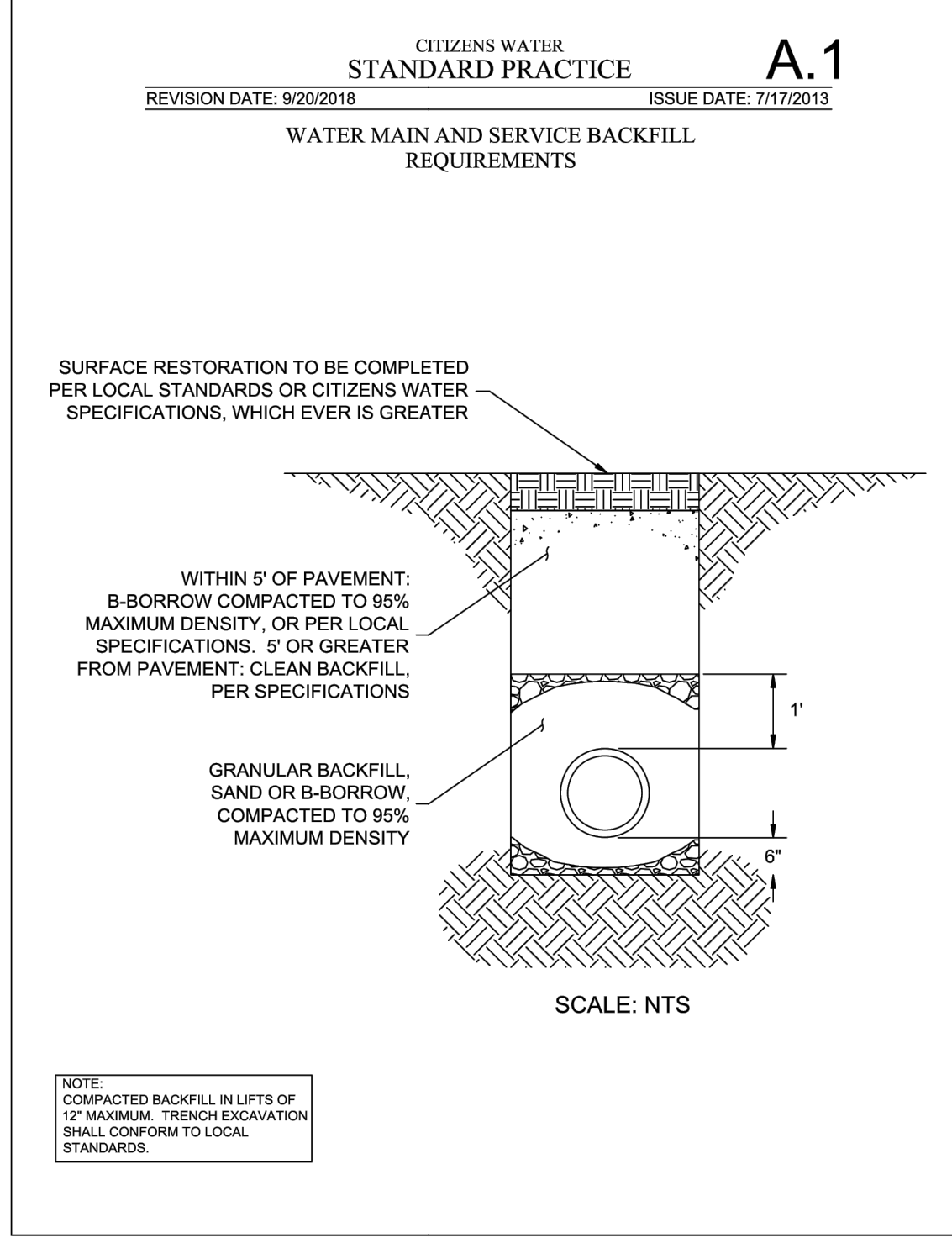
**DETAIL 514 - TYPICAL VALVE PLACEMENT**  
NOT TO SCALE



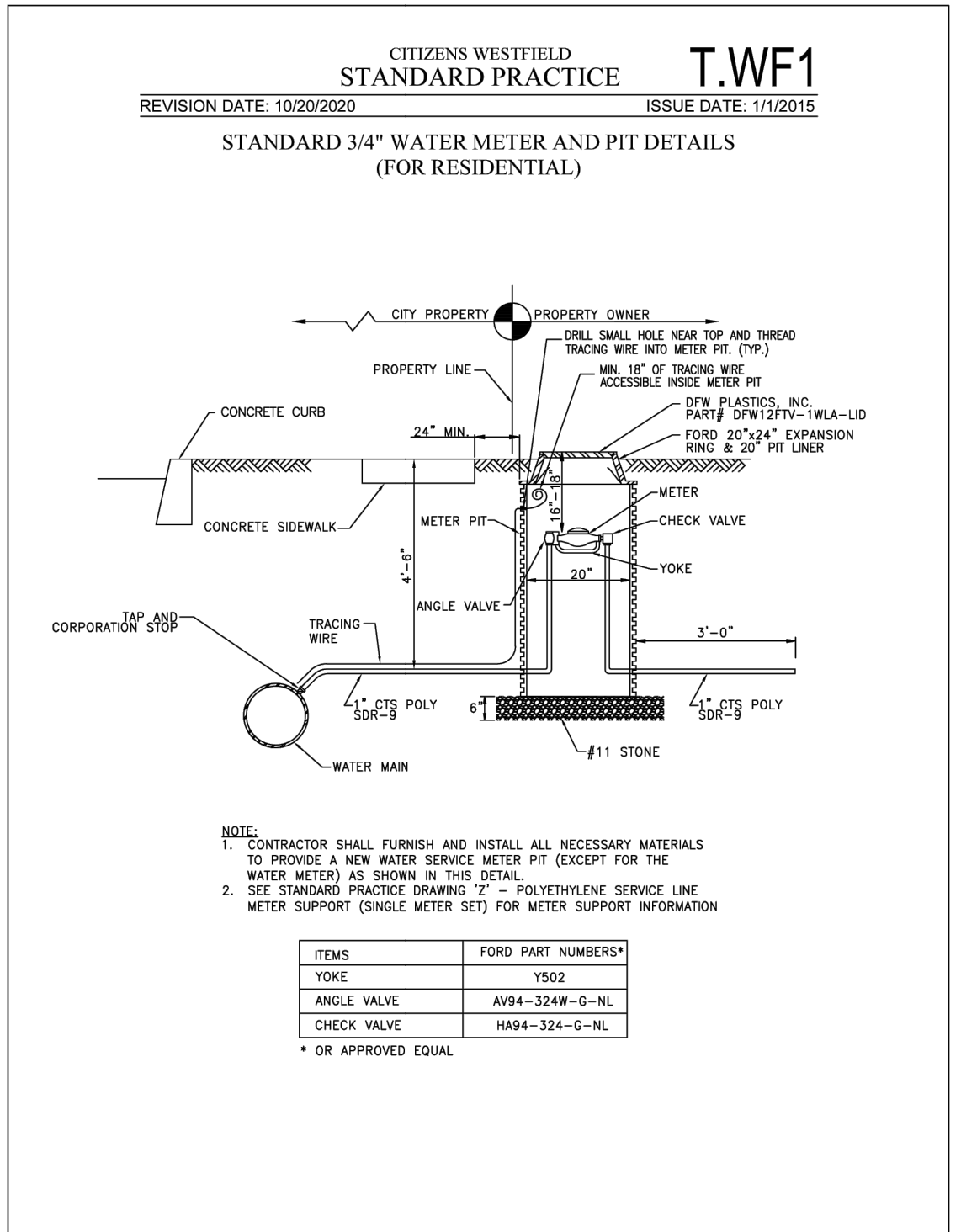
**DETAIL 512 - STANDARD HYDRANT SETTING**  
NOT TO SCALE



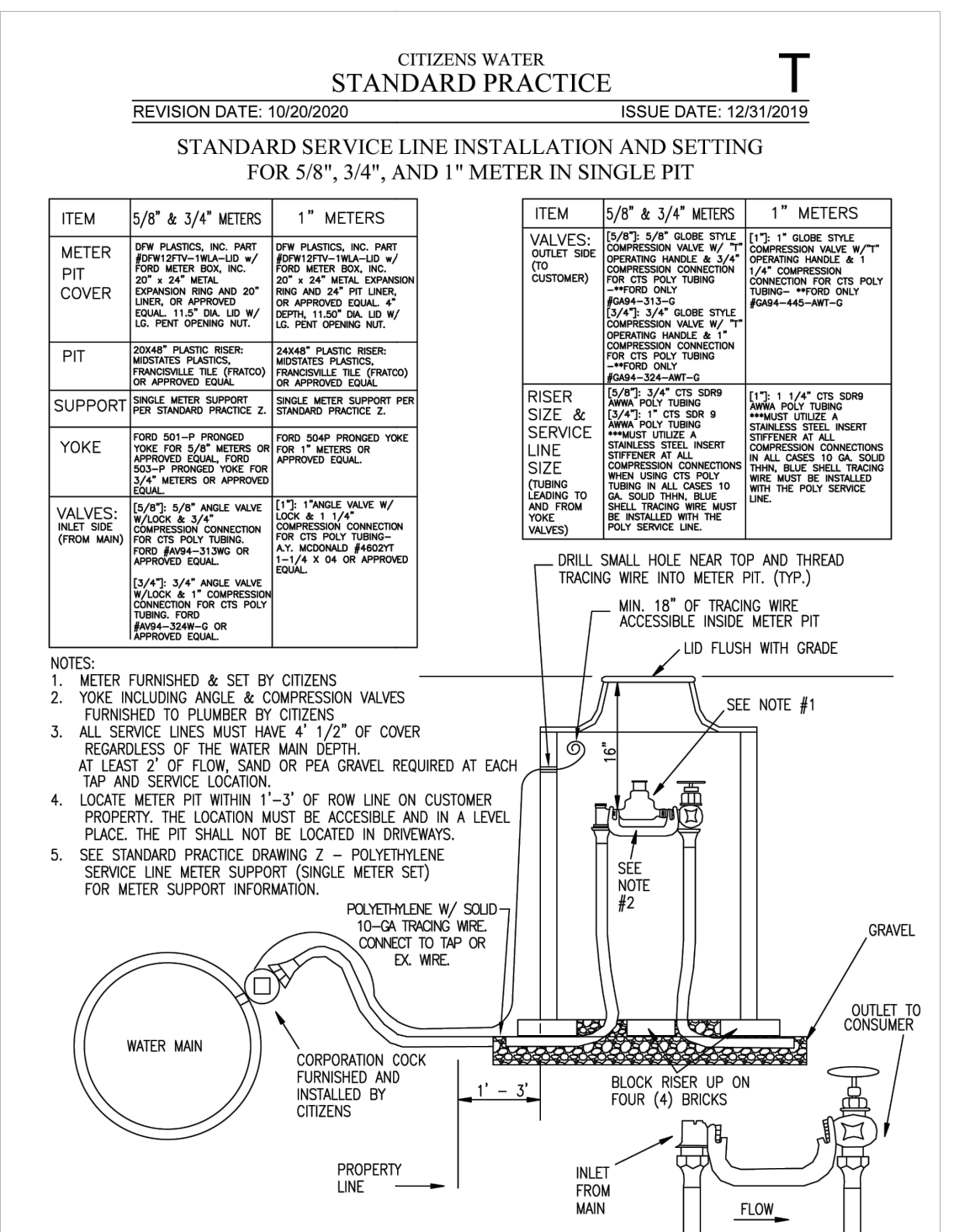
**DETAIL 510 - THRUST BLOCKING**  
NOT TO SCALE



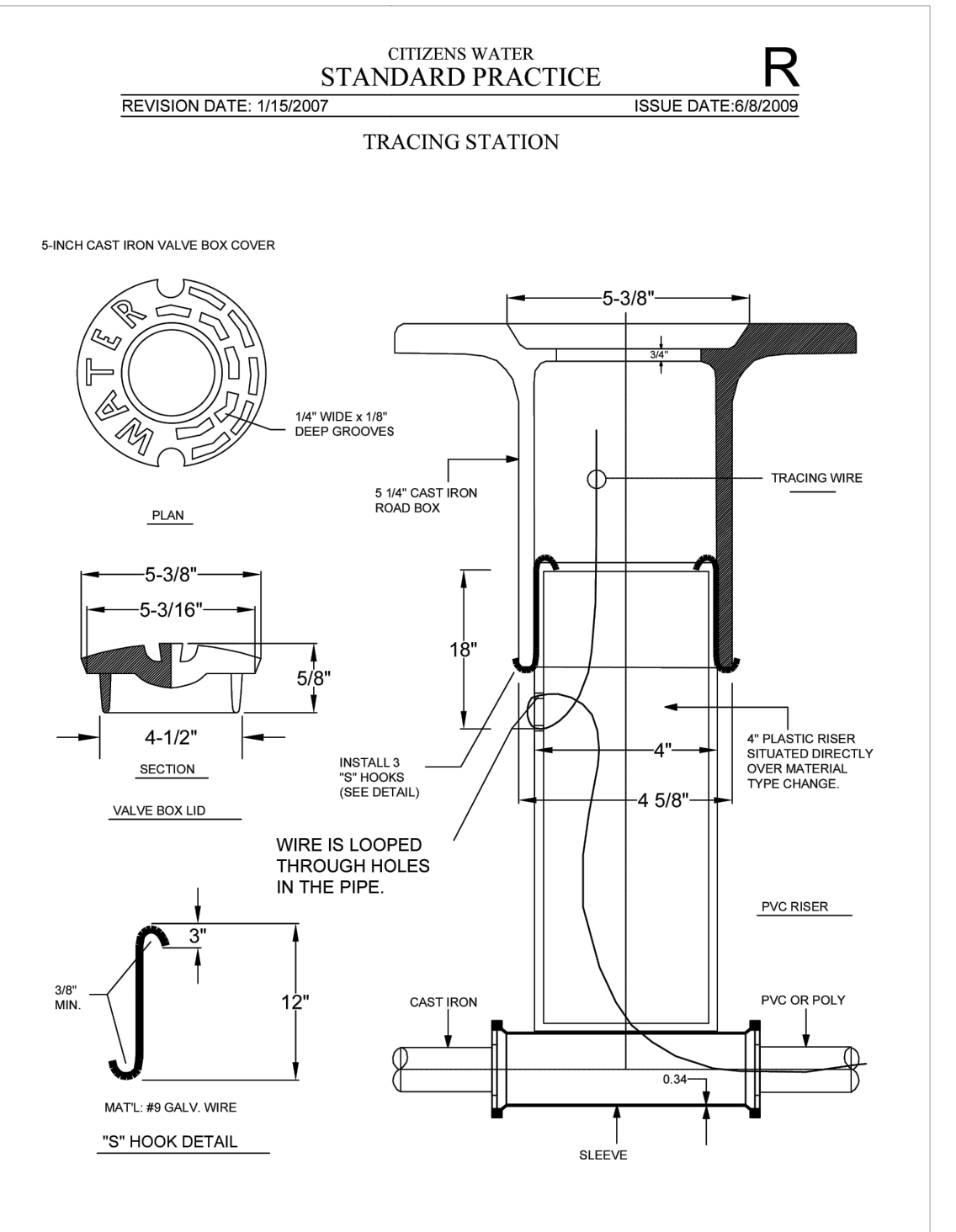
**DETAIL 508 - WATER MAIN AND SERVICE BACKFILL REQUIREMENTS**  
NOT TO SCALE



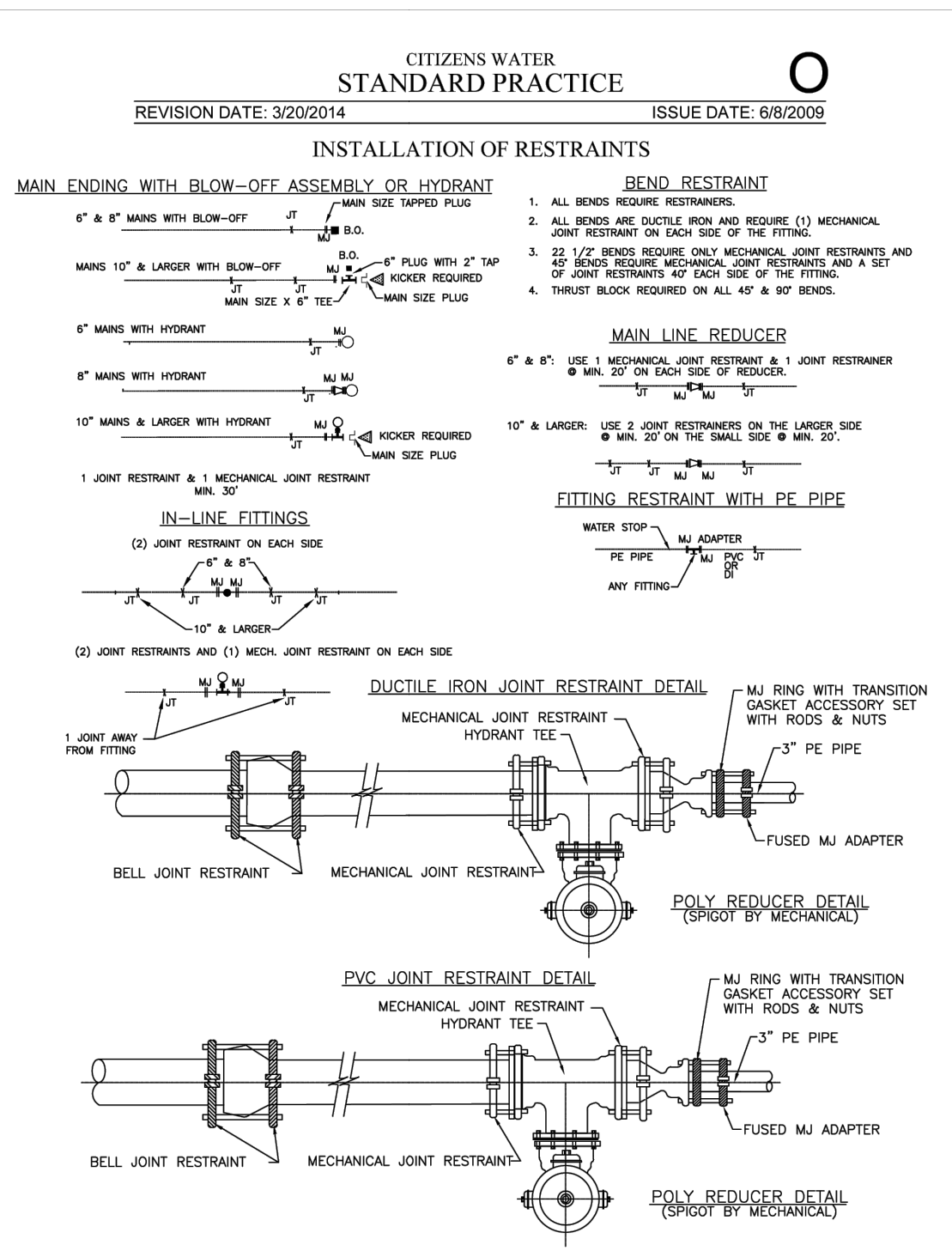
**DETAIL 517 - STANDARD 3/4" WATER METER AND PIT DETAILS (FOR RESIDENTIAL)**  
NOT TO SCALE



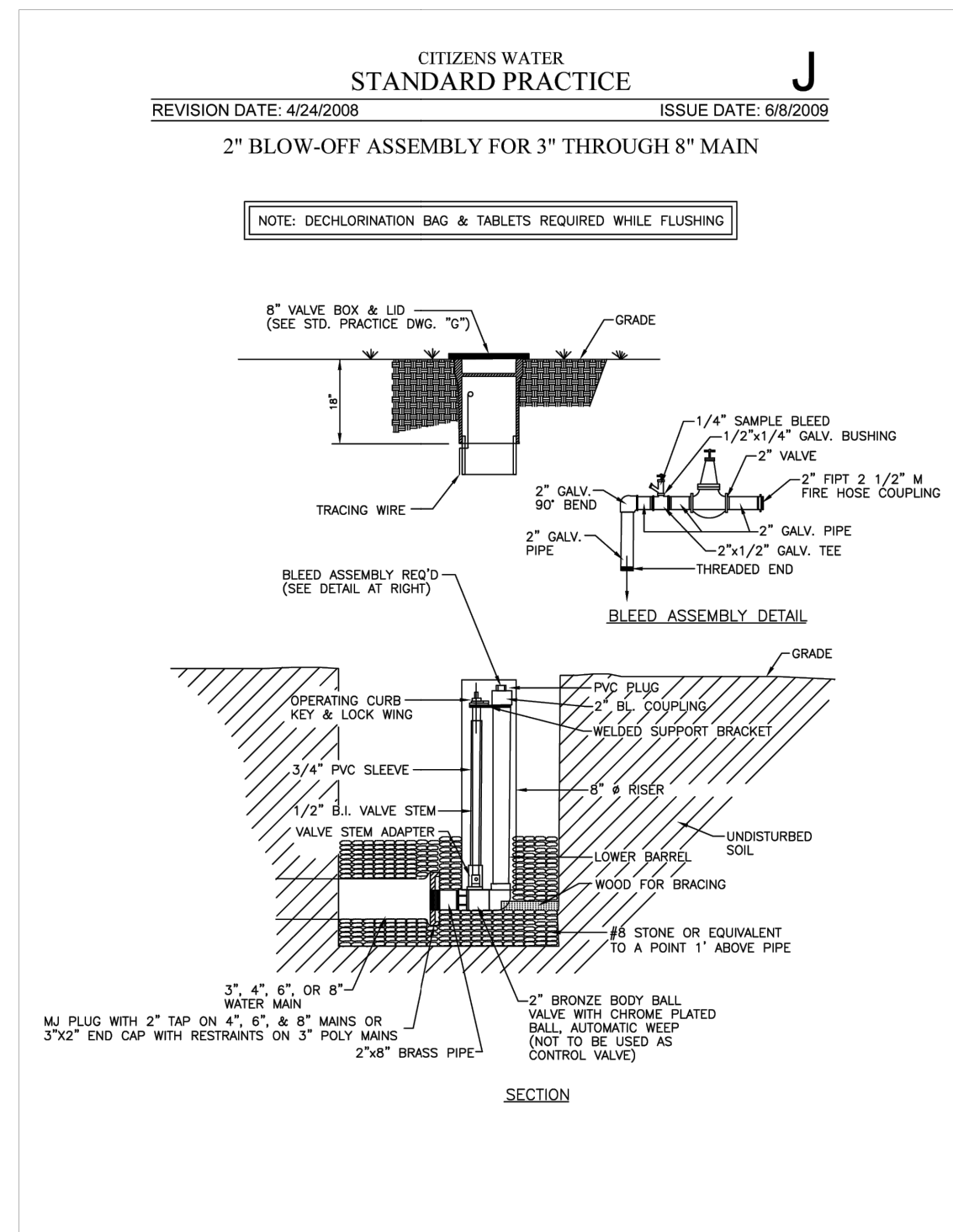
**DETAIL 515 - STANDARD SERVICE LINE INSTALLATION AND SETTING FOR 5/8", 3/4", AND 1" METER IN SINGLE PIT**  
NOT TO SCALE



**DETAIL 513 - TRACING STATION**  
NOT TO SCALE



**DETAIL 511 - INSTALLATION OF RESTRAINTS**  
NOT TO SCALE



**DETAIL 509 - 2" BLOW-OFF ASSEMBLY FOR 3" THROUGH 8" MAIN**  
NOT TO SCALE

REVISION RECORD		NO	DATE	DESCRIPTION

**STUDIO M ARCHITECTS**  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE PLATE DRIVE  
FISHERS, INDIANA 46038

**530 E. Ohio Street**  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
www.ccecinc.com

**Civil & Environmental Consultants, Inc.**

**DRAFT**

DATE	DRAWN BY	KPB
FEB 23, 2024	AS NOTED	KPG

PROJECT NO.	323-947
APPROVED BY:	DRAFT

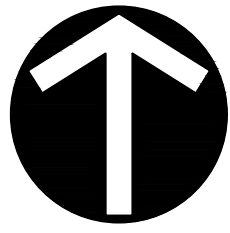
**DRAFT**

DRAWING NO: **C804**

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APPROXIMATE @ CASTETTER & RANDALL DRAIN  
PER COUNTY GIS  
150' STATUTORY EASEMENT PER IC 36-9-27-33  
(TO BE VACATED PER HAMILTON COUNTY STANDARDS)

8" STEEL GAS MAIN  
(APPROXIMATE LOCATION  
PER 09/18/23 SITE VISIT)

CONSTRUCTION  
STAGING AREA  
DURING  
CONSTRUCTION

APPROXIMATE @ CASTETTER & RANDALL DRAIN  
PER COUNTY GIS  
150' STATUTORY EASEMENT PER IC 36-9-27-33  
(TO BE VACATED PER HAMILTON COUNTY STANDARDS)

12" D.I. WATER MAIN  
(APPROXIMATE LOCATION  
PROVIDED BY CITIZENS WATER)

#### REFERENCES:

- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. [HTTPS://WWW.FISHERS.IN.US/390/DESIGN-STANDARDS-SPECS](https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS)
- OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. [HTTPS://GIS1.HAMILTONCOUNTY.IN.GOV/PORTAL/HOME/](https://gis1.hamiltoncounty.in.gov/portal/home/)
- SEE SHEET C001 FOR GENERAL NOTES AND SHEET SPECIFIC NOTES.
- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.

#### PROPOSED LEGEND:

- PROPOSED GRAVEL CONSTRUCTION ENTRANCE
- PERMANENT/ TEMPORARY SEEDING AREAS
- GRAVEL STAGING AREA
- EROSION CONTROL BLANKET W/ GRASS SEED
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED FILTER SOCK
- PROPOSED INLET PROTECTION
- PROPOSED CONCRETE WASHOUT
- MAJOR STORMWATER DISCHARGE POINT

#### KEY NOTES:

- TEMPORARY CONSTRUCTION ENTRANCE; SEE CITY OF FISHERS STANDARD CONSTRUCTION DETAILS SHEET 24
- TEMPORARY CONCRETE WASHOUT; SEE DETAIL ON SHEET C902
- SILT FENCE; SEE DETAIL ON SHEET C902
- FILTER SOCK; SEE DETAIL ON SHEET C902
- BASKET INLET PROTECTION; SEE CITY OF FISHERS STANDARD CONSTRUCTION DETAILS SHEET 24
- TEMPORARY OR PERMANENT SEEDING FOR LARGE UNPROTECTED AREAS MUST BE INITIATED WITHIN 7 DAYS OF EXPOSURE AND MUST BE COMPLETE BY DAY 14 OF EXPOSURE
- RIPRAP APRON; SEE DETAIL ON SHEET C902

SCALE IN FEET  
0 40 80



DRAFT

INITIAL CONTROLS STORMWATER  
POLLUTION PREVENTION PLAN

STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038



530 E. Ohio Street  
Suite G  
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Ph: 317.655.7777  
[www.cecinc.com](http://www.cecinc.com)

DRAWING NO.:

C900

DATE: FEB. 23, 2024 | DRAWN BY: RT  
DWG SCALE: 1" = 40' | CHECKED BY: KPG  
PROJECT NO: 323-947  
APPROVED BY: DRAFT

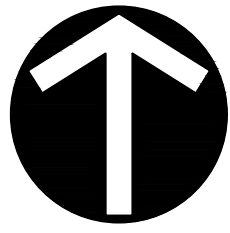
REVISION RECORD

DESCRIPTION

NO. DATE



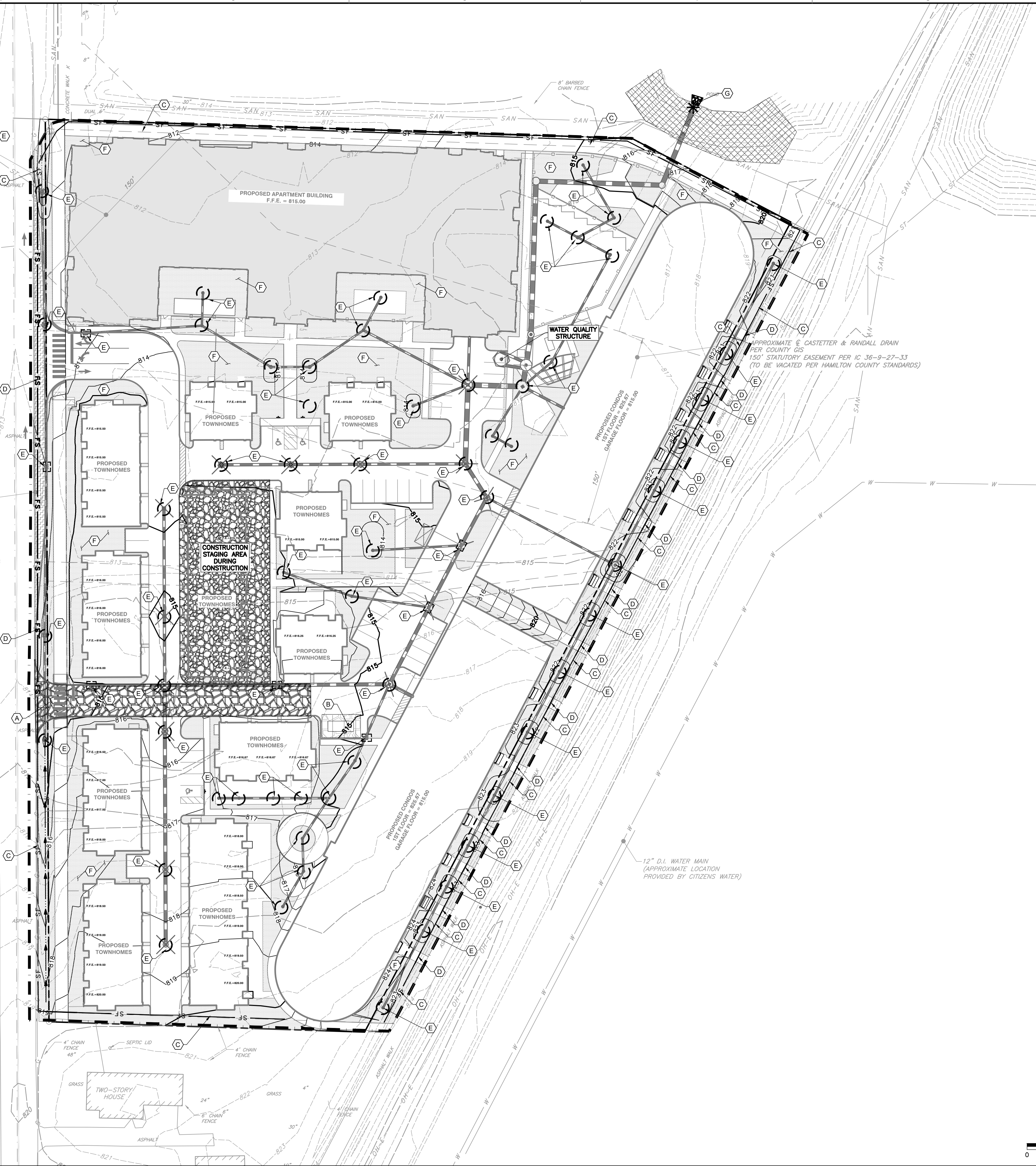
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NORTH

APPROXIMATE @ CASTETTER & RANDALL DRAIN  
PER COUNTY GIS  
150' STATUTORY EASEMENT PER IC 36-9-27-33  
(TO BE VACATED PER HAMILTON COUNTY STANDARDS)

8" STEEL GAS MAIN  
(APPROXIMATE LOCATION  
PER 09/18/23 SITE VISIT)



REFERENCES:

- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1" CONTOUR INTERVAL.
- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. <https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS>
- OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. <https://gis1.hamiltoncounty.in.gov/portal/home/>
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- TEMPORARY STABILIZATION TO BE INSTALLED IF SITE IS INACTIVE FOR MORE THAN 7 DAYS PER CONSTRUCTION STORMWATER GENERAL PERMIT REQUIREMENTS (CSGP)

PROPOSED LEGEND:

- PROPOSED GRAVEL CONSTRUCTION ENTRANCE
- PERMANENT/ TEMPORARY SEEDING AREAS
- GRAVEL STAGING AREA
- EROSION CONTROL BLANKET W/ GRASS SEED
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED FILTER SOCK
- PROPOSED INLET PROTECTION
- PROPOSED CONCRETE WASHOUT
- MAJOR STORMWATER DISCHARGE POINT

KEY NOTES:

- TEMPORARY CONSTRUCTION ENTRANCE; SEE CITY OF FISHERS STANDARD CONSTRUCTION DETAILS SHEET 24
- TEMPORARY CONCRETE WASHOUT; SEE DETAIL ON SHEET C902
- SILT FENCE; SEE DETAIL ON SHEET C902
- FILTER SOCK; SEE DETAIL ON SHEET C902
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- RIPRAP APRON; SEE DETAIL ON SHEET C902

SCALE IN FEET  
0 40 80



DRAFT

TEMPORARY STORMWATER  
POLLUTION PREVENTION PLAN

DRAWING NO.:

C901

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
[www.cecinc.com](http://www.cecinc.com)



STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

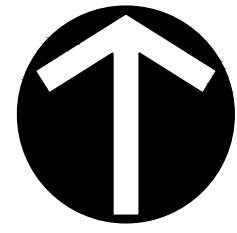
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DESCRIPTION

NO. DATE

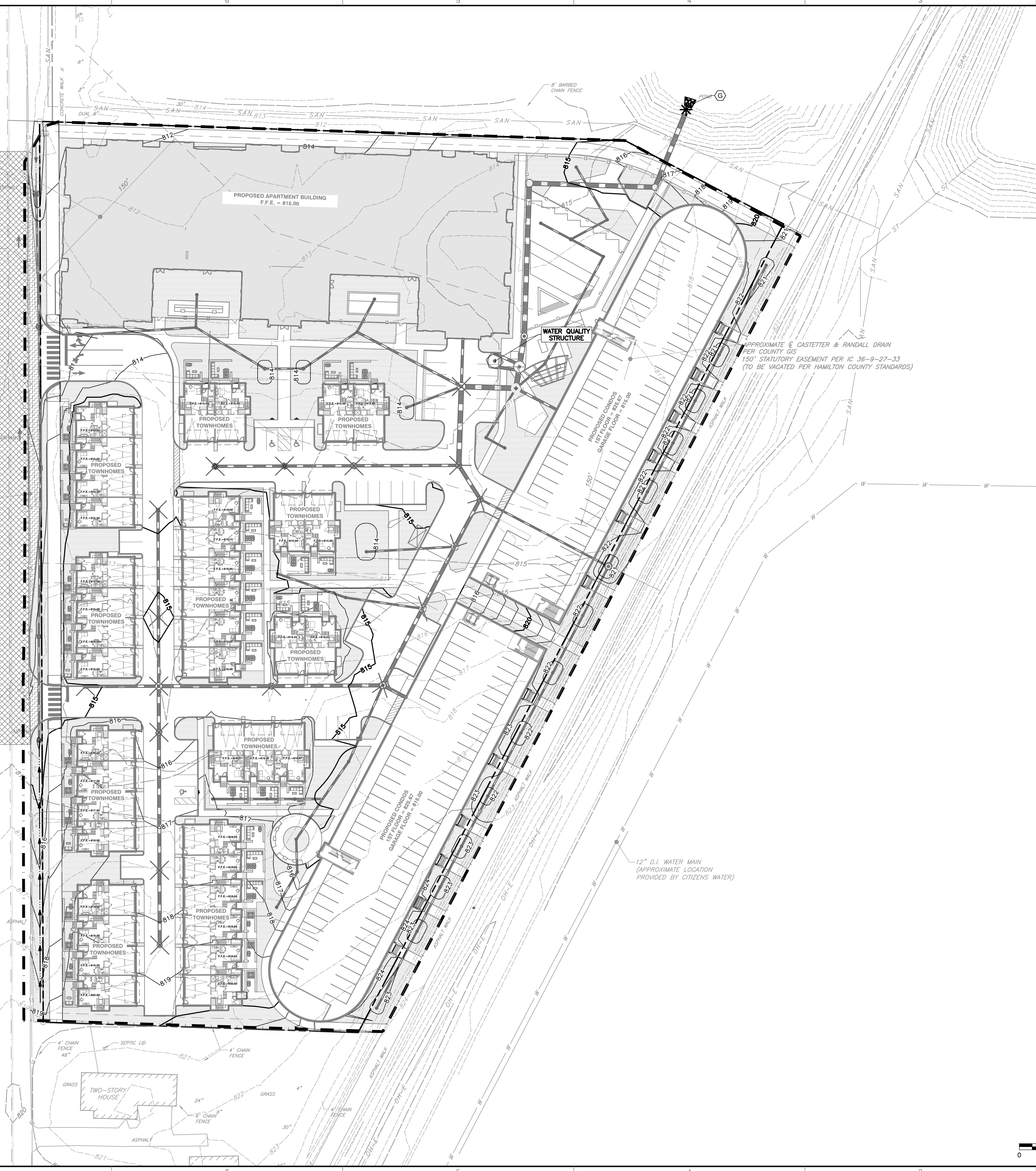


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(APPROXIMATE LOCATION  
PER 09/18/23 SITE VISIT)



REFERENCES:

- BOUNDARY RETRACEMENT AND TOPOGRAPHIC SURVEY PROVIDED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. SURVEY DATED 08/19/2022, PROJECT NO. 323-947. 1' CONTOUR INTERVAL.
- AERIAL IMAGERY SHOWN ON PLANS GENERATED FROM GOOGLE EARTH.
- FISHERS STANDARD CONSTRUCTION DETAILS AMENDED JANUARY 2022. [HTTPS://WWW.FISHERS.IN.US/390/DESIGN-STANDARDS-SPECS](https://www.fishers.in.us/390/DESIGN-STANDARDS-SPECS)
- OFFSITE TOPOGRAPHY AND SURFACE INFORMATION REFERENCED FROM HAMILTON COUNTY GIS DATA PORTAL. [HTTPS://GIS1.HAMILTONCOUNTY.IN.GOV/PORTAL/HOME/](https://gis1.hamiltoncounty.in.gov/portal/home/)
- SEE SHEET C001 FOR GENERAL NOTES AND SHEET SPECIFIC NOTES.
- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.

PROPOSED LEGEND:

- PROPOSED GRAVEL CONSTRUCTION ENTRANCE
- PERMANENT/ TEMPORARY SEEDING AREAS
- GRAVEL STAGING AREA
- EROSION CONTROL BLANKET W/ GRASS SEED
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED FILTER SOCK
- PROPOSED INLET PROTECTION
- PROPOSED CONCRETE WASHOUT
- MAJOR STORMWATER DISCHARGE POINT

KEY NOTES:

- TEMPORARY CONSTRUCTION ENTRANCE; SEE CITY OF FISHERS STANDARD CONSTRUCTION DETAILS SHEET 24
- TEMPORARY CONCRETE WASHOUT; SEE DETAIL ON SHEET C902
- SILT FENCE; SEE DETAIL ON SHEET C902
- FILTER SOCK; SEE DETAIL ON SHEET C902
- BASKET INLET PROTECTION; SEE CITY OF FISHERS STANDARD CONSTRUCTION DETAILS SHEET 24
- TEMPORARY OR PERMANENT SEEDING FOR LARGE UNPROTECTED AREAS MUST BE INITIATED WITHIN 7 DAYS OF EXPOSURE AND MUST BE COMPLETE BY DAY 14 OF EXPOSURE
- RIPRAP APRON; SEE DETAIL ON SHEET C902

SCALE IN FEET  
0 40 80



DRAFT

PERMANENT STORMWATER  
POLLUTION PREVENTION PLAN

STUDIO M ARCHITECTS  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038



530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
[www.cecinc.com](http://www.cecinc.com)

REVISION RECORD

NO.	DATE	DESCRIPTION

DRAWING NO.:

C902

DATE: FEB. 23, 2024  
DWG SCALE: 1" = 40'  
PROJECT NO: 323-947  
APPROVED BY: DRAFT



ASSESSMENT OF CONSTRUCTION PLAN ELEMENTS (SECTION A)

(A1) INDEX OF THE LOCATION OF THE REQUIRED PLAN ELEMENTS IN THE CONSTRUCTION PLAN

THE PROPOSED EROSION CONTROL MEASURES CAN BE FOUND ON SHEET C900. THE CORRESPONDING EROSION CONTROL DETAILS ARE SHOWN ON C902. THE REQUIRED EROSION CONTROL CHECKLIST ITEMS ARE LISTED ON THIS SHEET.

(A2) A VICINITY MAP DEPICTING THE PROJECTS SITE LOCATION

THE VICINITY MAP SHOWING THE PROJECT LOCATION CAN BE SEEN ON COVER SHEET.

(A3) NARRATIVE OF THE NATURE AND PURPOSE OF THE PROJECT

THIS PROJECT CONSISTS OF DEMOLITION OF EXISTING RESIDENTIAL STRUCTURES AND CONSTRUCTION FOR FUTURE APARTMENT COMPLEXES. THE PROJECT IS LOCATED BETWEEN LANTERN RD AND NICKEL PLATE TRAIL.

(A4) LATITUDE AND LONGITUDE TO THE NEAREST FIFTEEN (15) SECONDS

LONGITUDE: 86°00'47.7"W                      LATITUDE: 39°57'44.2"N

(A5) LEGAL DESCRIPTION

A LEGAL DESCRIPTION IS SHOWN ON SURVEY SHEET SV02 INCLUDED WITH THIS CONSTRUCTION SET.

(A6) 11X17-INCH PLAT SHOWING BUILDING LOT NUMBERS/BOUNDARIES AND ROAD LAYOUT/NAMES

PLEASE REFER TO SHEET C200, SITE LAYOUT PLAN INCLUDED WITH THE SUBMITTAL.

(A7) BOUNDARIS OF THE ONE HUNDRED (100) YEAR FLOODPLAINS, FLOODWAY FRINGES, AND FLOODWAYS

THE PROJECT DOES NOT LIE WITHIN A 100 YEAR FLOODPLAIN AND/ OR THE FLOODWAY AREA.

(A8) LAND USE OF ALL ADJACENT PROPERTIES

THE EXISTING LAND USES ADJACENT TO THE SITE ARE AS FOLLOWS:

NORTH: WORSHIP CENTER AND COMMERCIAL CENTER  
WEST: SCHOOL, SINGLE FAMILY RESIDENTIAL  
SOUTH: COMMERCIAL AND PUBLIC BUILDINGS  
EAST: COMMERCIAL BUILDINGS

(A9) IDENTIFICATION OF A U.S. EPA APPROVED OR ESTABLISHED TMDL (TOTAL MAXIMUM DAILY LOAD)

TMDL: N/A

(A10) NAME(S) OF THE RECEIVING WATER(S)

DISCHARGES INTO EXISTING STORM SEWER SYSTEM, ULTIMATELY DISCHARGING INTO THE CASTETTER AND RANDALL LEGAL DRAIN

(A11) IDENTIFICATION OF DISCHARGES TO A WATER ON THE CURRENT 303(d) LIST OF IMPARED WATERS AND THE POLLUTANT(S) FOR WHICH IT IS IMPARED

WATERS CURRENTLY ON THE 303(d) LIST OF IMPARED WATERS THAT ARE RECEIVING DIRECT DISCHARGES FROM THIS SITE INCLUDE: N/A

(A12) SOIL MAP OF THE PREDOMINATE SOIL TYPES



SOIL TYPE LEGEND

UbaA – URBAN LAND–BROOKSTON COMPLEX, 0 to 2 PERCENT SLOPES  
W – WATER  
YcA – CROSBY SILT LOAM, FINE–LOAMY SUBSOIL–URBAN LAND COMPLEX, 0 to 2 PERCENT SLOPES  
YmB2 – MIAMI SILT LOAM–URBAN LAND COMPLEX, 2 to 6 PERCENT SLOPES, ERODED

(A13) IDENTIFICATION AND LOCATION OF ALL KNOWN WETLANDS, LAKES, AND WATER COURSES ON OR ADJACENT TO THE PROJECT SITE (CONSTRUCTION PLAN, EXISTING SITE LAYOUT)

THERE ARE NO WETLANDS ON OR ADJACENT TO THE IMMEDIATE PROJECT BOUNDARY. HIGH DITCH CROSSES THE PROJECT SITE.

(A14) IDENTIFICATION OF ANY OTHER STATE OR FEDERAL WATER QUALITY PERMITS OR AUTHORIZATIONS THAT ARE REQUIRED FOR CONSTRUCTION ACTIVITIES

AN IDEM CONSTRUCTION STORMWATER GENERAL PERMIT (CSGP) NOTICE OF INTENT (NOI) PERMIT WILL BE REQUIRED FOR THIS PROJECT.

(A15) IDENTIFICATION AND DELINEATION OF EXISTING COVER, INCLUDING NATURAL BUFFERS

THE EXISTING SITE IS CURRENTLY COVERED BY: RESIDENTIAL STRUCTURES AND PAVEMENTS, GRASSES AND CROPS

(A16) EXISTING SITE TOPOGRAPHY AT AN INTERVAL APPROPRIATE TO INDICATE DRAINAGE PATTERNS

REFER TO EXISTING TOPOGRAPHY SHEETS.

(A17) LOCATION(S) WHERE RUN-OFF ENTERS THE PROJECT SITE

REFER TO SHEET C900

(A18) LOCATION(S) WHERE RUN-OFF DISCHARGES FROM THE PROJECT SITE PRIOR TO LAND DISTURBANCE

REFER TO SHEET C900

(A19) LOCATION OF ALL EXISTING STRUCTURES ON THE PROJECT SITE

REFER TO EXISTING TOPOGRAPHY SHEETS

(A20) EXISTING PERMANENT RETENTION OR DETENTION FACILITIES, INCLUDING MANMADE WETLANDS, DESIGNED FOR THE PURPOSE OF STORMWATER MANAGEMENT

N/A

(A21) LOCATIONS WHERE STORMWATER MAY BE DIRECTLY DISCHARGED INTO GROUND WATER, SUCH AS ABANDONED WELLS, SINKHOLES, OR KARST FEATURES

THERE ARE NO SINKHOLES OR UNCAPPED ABANDONED WELLS LOCATED ON THE PROJECT SITE OR DOWNSTREAM OF THE PROJECT SITE.

(A22) SIZE OF THE PROJECT AREA EXPRESSED IN ACRES

REFER TO SHEET C900

(A23) TOTAL EXPECTED LAND DISTURBANCE EXPRESSED IN ACRES

THE OVERALL DISTURBED AREA IS APPROXIMATELY (5.54) ACRES. REFER TO SHEET C900

(A24) PROPOSED FINAL TOPOGRAPHY

REFER TO EXISTING TOPOGRAPHY SHEETS AND GRADING PLAN SHEETS.

(A25) LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS

REFER TO SHEETS C900

(A26) LOCATIONS, SIZE, AND DIMENTIONS OF ALL STORMWATER DRAINAGE SYSTEMS SUCH AS CULVERTS, STORMWATER SEWER, AND CONVEYANCE CHANNELS

REFER TO SITE DEVELOPMENT PLAN SHEET C400.

(A27) LOCATIONS OF SPECIFIC POINTS WHERE STORMWATER AND NON-STORMWATER DISCHARGES WILL LEAVE THE PROJECT SITE

DISCHARGES INTO PROPOSED STORM SEWER SYSTEM THEN INTO THE EXISTING STORM WATER SEWER SYSTEM. THEN ULTIMATELY DISCHARGES INTO CASTETTER AND RANDALL LEGAL DRAIN

(A28) LOCATION OF ALL PROPOSED SITE IMPROVEMENTS, INCLUDING ROADS, UTILITIES, LOT DELINEATION AND IDENTIFICATION, PROPOSED STRUCTURES, AND COMMON AREAS

THE PROJECT BOUNDARIES CAN BE SEEN ON EXISTING TOPOGRAPHIC SURVEY SHEETS

(A29) LOCATION OF ALL ON-SITE AND OFF-SITE SOIL STOCKPILES AND BORROW AREAS

NO PERMANENT SOIL STOCKPILES ARE PLANNED FOR THIS DEVELOPMENT. IF TEMPORARY STOCKPILE OR BORROW AREAS ARE UTILIZED DURING CONSTRUCTION THAN THE PERIMETER OF THE STOCKPILE AREA SHALL BE ENCOMPASSED WITH SILT FENCE.

(A30) CONSTRUCTION SUPPORT ACTIVITIES THAT ARE EXPECTED TO BE PART OF THE PROJECT

NO OFFSITE CONSTRUCTION SUPPORT ACTIVITIES WILL BE USED.

(A31) LOCATION OF ANY IN-STREAM ACTIVITIES THAT ARE PLANNED FOR THE PROJECT INCLUDING, BUT NOT LIMITED TO, STREAM CROSSING AND PUMP AROUNDS

STREAM CROSSING WILL NEED TO OCCUR AT THE STREAM HIGH DITCH.

ASSESSMENT OF STORMWATER POLLUTION PREVENTION PLAN CONSTRUCTION COMPONENT (SECTION B)

(B1) DESCRIPTION OF THE POTENTIAL POLLUTANT GENERATING SOURCES AND POLLUTANTS, INCLUDING ALL POTENTIAL NON-STORMWATER DISCHARGES

POTENTIAL POLLUTANTS SOURCES RELATIVE TO A CONSTRUCTION SITE MAY INCLUDE, BUT ARE NOT LIMITED TO MATERIAL AND FUEL STORAGE AREAS, FUELING LOCATIONS, EXPOSED SOILS AND LEAKING VEHICLE/EQUIPMENT. POTENTIAL POLLUTANTS THAT MAY APPEAR AT THE SITE DUE TO CONSTRUCTION ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO DIESEL FUEL, GASOLINE, CONCRETE AND CONCRETE WASHOUT, SOLID WASTE, SEDIMENT, PAINT AND SOLVENTS, EQUIPMENT REPAIR PRODUCTS, ANTI-FREEZE AND FERTILIZER.

(B2) STABLE CONSTRUCTION ENTRANCE LOCATIONS AND SPECIFICATIONS

THE LOCATION OF THE CONSTRUCTION ENTRANCE IS ON SHEET C900.

(B3) SPECIFICATIONS FOR TEMPORARY AND PERMANENT STABILIZATION

TEMPORARY SEEDING AND EROSION CONTROL MATTING WILL BE USED AS TEMPORARY SURFACE STABILIZATION MEASURES. DUE TO THE ACCELERATED CONSTRUCTION TIMELINE OF THIS PROJECT, TEMPORARY SEEDING SHOULD NOT BE NECESSARY. REFER TO SHEETS C900 FOR SEEDING AREAS.

APPLY SEED UNIFORMLY.

INSPECT 24 HOURS AFTER EACH RAIN EVENT AND OR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. USE PHOSPHOROUS FREE FERTILIZER (12-0-12) UNLESS SOIL TESTING SHOWS A NEED.

PERMANENT SEEDING WILL BE USED AS PERMANENT SURFACE STABILIZATION MEASURES. REFER TO SHEETS C900 FOR SEEDING AREAS. CONTRACTOR TO SEED ALL DISTURBED AREAS.

INSPECT 24 HOURS AFTER EACH RAIN EVENT AND OR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS. USE PHOSPHOROUS FREE FERTILIZER (12-0-12) UNLESS SOIL TESTING SHOWS A NEED.

(B4) SEDIMENT CONTROL MEASURES FOR CONCENTRATED FLOW AREAS

EROSION CONTROL BLANKET, RIP RAP APRONS AND ROCK CHECK DAMS WILL BE USED AS EROSION CONTROL MEASURES FOR CONCENTRATED FLOWS. THE LOCATION, DETAILS, AND SPECIFICATIONS FOR EACH STATED CONCENTRATED FLOW MEASURE IS ON SHEETS C900

(B5) SEDIMENT CONTROL MEASURES FOR SHEET FLOW AREAS

SILT FENCE, TEMPORARY SEEDING AND EROSION CONTROL INLET PROTECTION WILL BE USED AS EROSION CONTROL MEASURES FOR SHEET FLOWS. THE LOCATION, DETAILS, AND SPECIFICATIONS FOR EACH STATED SEDIMENT CONTROL MEASURE IS ON SHEETS C900, C901, & C902.

(B6) RUNOFF CONTROL MEASURES

N/A

(B7) STORMWATER OUTLET PROTECTION LOCATION AND SPECIFICATIONS

REFER TO PLANS FOR THE LOCATION, DETAILS, AND SPECIFICATIONS FOR OUTLET PROTECTION– SHEETS C900.

(B8) GRADE STABILIZATION STRUCTURE LOCATIONS AND SPECIFICATIONS

EROSION CONTROL BLANKETS WILL BE USED IN THIS PHASE ON GRADES GREATER THAN 3:1 AND/ OR EXPOSED TO CONCENTRATED FLOW. REFER TO CONSTRUCTION PLANS FOR LOCATIONS.

IF LIME STABILIZATION MEASURES ARE NEEDED DURING CONSTRUCTION TO OBTAIN COMPACTION. THE CONTRACTOR SHALL CONTAIN LIME FROM ENTERING EXISTING STORM SEWER SYSTEM BY ADEQUATELY CONTROLLING RUNOFF. CONTACT ENGINEER FOR SPECIFIC PLANS BASED ON THE AREA OF WORK.

(B9) DEWATERING APPLICATIONS AND MANAGEMENT METHODS

DOWATERING NOT APPLICABLE TO SITE.

(B10) MEASURES UTILIZED FOR WORK WITHIN WATERBODIES

NO WORK WILL BE OCCURRING WITHIN WATERBODIES.

(B11) MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY SEQUENCE

EROSION CONTROL MEASURE	MAINTENANCE	INSTALLATION SEQUENCE
STONE ENTRANCE	AS NEEDED	PRIOR TO CLEARING AND GRADING
SILT FENCE	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
ROCK CHECK DAMS	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	ALONG WITH ROUGH GRADING
PERMANENT SEEDING	WATER AS NEEDED	AFTER FINISH GRADING
EROSION CONTROL BLANKET	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING
SEED, SOIL & LANDSCAPE AROUND	WATER AS NEEDED	ALONG WITH ALL EARTHWORK ACTIVITIES
DUST CONTROL	AS NEEDED	ALONG WITH ALL EARTHWORK ACTIVITIES
CONCRETE WASHOUT	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO START OF ANY CONCRETE WORK
REMOVAL OF INLET PROTECTION	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF SILT FENCE	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF ROCK CHECK DAMS	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED

SEE CHART FOR MAINTENANCE REQUIREMENTS

EROSION CONTROL MEASURES MAINTENANCE REQUIREMENTS

SILT FENCE MAINTENANCE REQUIREMENTS:

1. INSPECT THE SILT FENCE PERIODICALLY AND AFTER EACH STORM EVENT  
2. IF FENCE TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.  
3. REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF OF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.  
4. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.  
5. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FABRIC AND SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.

CONCRETE WASHOUT MAINTENANCE REQUIREMENTS:

1. INSPECT EACH CONCRETE WASHOUT AREAS DAILY AND AFTER STORM EVENTS OR HEAVY USE.  
2. INSPECT THE INTEGRITY OF THE OVERLAY STRUCTURE, CHECK FOR LEAKS, SPILLS OR TRACKING OF SOIL BY EQUIPMENT.  
3. REMOVE EXCESS CONCRETE WHEN WASHOUT SYSTEM REACHES 50% OF THE DESIGN CAPACITY. UPON REMOVAL, INSPECT STRUCTURE, REPAIR AS NEEDED.  
4. DISPOSE OF ALL CONCRETE IN A LEGAL MANNER.  
5. REPLACE PLASTIC LINER AFTER EVERY CLEANING. ENLARGE AS NECESSARY TO MAINTAIN CAPACITY.

ROCK CHECK DAM MAINTENANCE REQUIREMENTS:

1. INSPECT CHECK DAMS AND THE CHANNEL AFTER EACH STORM EVENT, AND REPAIR ANY DAMAGE IMMEDIATELY. IF SIGNIFICANT EROSION OCCURS BETWEEN DAMS, INSTALL A RIP RAP LINER IN THAT PORTION OF THE CHANNEL.  
2. REMOVE SEDIMENT ACCUMULATED BETWEEN EACH DAM AS NEEDED TO MAINTAIN CHANNEL CAPACITY, TO ALLOW DRAINAGE THROUGH THE DAM, AND TO PREVENT LARGE FLOWS FROM DISPLACING SEDIMENT.  
3. ADD AGGREGATE TO THE DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.  
4. WHEN THE DAMS ARE NO LONGER NEEDED, REMOVE THE AGGREGATE AND STABILIZE CHANNEL USING EROSION RESISTANT LINING IF NECESSARY.

INLET PROTECTION MAINTENANCE REQUIREMENTS:

1. INSPECT EACH INLET PROTECTION MEASURE WEEKLY AND AFTER STORM OR HEAVY USE  
2. INSPECT STORM INLET BASKET OR GEOTEXTILE FABRIC AND MAKE REPAIRS.  
3. REMOVE ANY SEDIMENT, AVOID DAMAGING OR UNDERCUTTING FABRIC.

(B12) STORMWATER QUALITY SEQUENCE

PRE-CONSTRUCTION ACTIVITIES:  
SCHEDULE A PRE-CONSTRUCTION MEETING WITH CITY OF (CITY AND COUNTY) SOIL & WATER.  
DESIGNATE A PERSON TO BE RESPONSIBLE FOR THE SITE INSPECTIONS AFTER EACH 1/2" RAIN AND A MINIMUM OF ONCE EACH WEEK.  
CALL THE INDIANA UNDERGROUND PLANT PROTECTION SYSTEMS, INC. (HOLEY MOLEY) AT 1-800-382-5544 TO CHECK LOCATIONS OF ANY EXISTING UTILITIES-- MIN. 2 DAYS PRIOR BEFORE CONSTRUCTION ACTIVITY.  
ESTABLISH ONSITE LOCATION FOR OWNER/OPERATOR/CONTRACTOR PLACEMENT OF APPROVED PLANS AND CSGP NOI AND CSGP INSPECTION DOCUMENTATION.  
INSTALL SILT FENCE AND OTHER EROSION CONTROL MEASURES AS INDICATED ON DRAWINGS.  
INSTALL GRAVEL CONSTRUCTION ENTRANCE AS INDICATED ON DRAWINGS-- ADD ADDITIONAL STONE AS NEEDED.  
ESTABLISH CONSTRUCTION STAGING AREA FOR EQUIPMENT AND VEHICLES.  
CONSTRUCTION ACTIVITY PHASING:  
AFTER EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE, BEGIN LAND CLEARING FOLLOWED IMMEDIATELY BY ROUGH GRADING. EROSION CONTROL FOR LARGE UNPROTECTED AREAS MUST BE INITIATED WITHIN 7 DAYS OF EXPOSURE, AND MUST BE COMPLETE BY DAY 14 OF EXPOSURE. CONSTRUCT CONCRETE WASH STATION BEFORE CONCRETE WORK IS TO COMMENCE ON SITE. REFER TO PLAN FOR LOCATION.  
INSTALL SEWERS, ALL UTILITIES AND UNDERDRAINS. ADD INLET PROTECTION MEASURES AS INDICATED ON PLANS.  
AFTER COMPLETION OF MASS GRADING AND FINAL GRADING: SEED ALL DISTURBED AREAS, COMMON AREAS AND SWALES IMMEDIATELY AFTER GRADING IS COMPLETED.  
PLACE TOPSOIL IN ALL TURF AND LANDSCAPE AREAS.  
INSTALL PAVEMENT AND FINAL GRADE AREA.  
INSTALL LANDSCAPING AND FINAL SEEDING.  
REMOVE ALL SEDIMENT CONTROL PRACTICES ONCE THE SITE IS STABILIZED.  
NOTE: INSTALL TEMPORARY SEEDING AFTER A SPECIFIC STAGE OF CONSTRUCTION HAS BEEN COMPLETED (TEMPORARY OR FINAL) WHERE AREAS WILL BE IDLE OF CONSTRUCTION ACTIVITIES FOR A PERIOD OF 7 DAYS OR MORE.  
(B13) PROVISIONS FOR EROSION AND SEDIMENT CONTROL ON INDIVIDUAL RESIDENTIAL BUILDING LOTS REGULATED UNDER THE PROPOSED PROJECT  
NO ADDITIONAL EROSION CONTROL SPECIFICATIONS ARE NEEDED FOR THIS PHASE.  
(B14) MATERIAL HANDLING AND SPILL PREVENTION AND SPILL RESPONSE PLAN MEETING  
THE REQUIREMENTS IN 327 IAC 2-6.1  
EXPECTED MATERIALS THAT MAY APPEAR AT THE SITE DUE TO CONSTRUCTION ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO PETROLEUM PRODUCTS, FERTILIZERS, PAINT AND SOLVENTS, AND CONCRETE. MATERIALS SHALL BE STORED IN THE DESIGNATED MATERIAL STORAGE AREA.  
SPILL PREVENTION FOR VEHICLE AND EQUIPMENT FUELING SHALL CONFORM TO THE FOLLOWING PRACTICES: VEHICLE EQUIPMENT FUELING PROCEDURES AND PRACTICES ARE TO BE USED TO PREVENT FUEL SPILLS AND LEAKS, AND REDUCE OR ELIMINATE CONTAMINATION OF STORMWATER. THIS CAN BE ACCOMPLISHED BY USING OFFSITE FACILITIES, FUELING IN DESIGNATED AREAS ONLY, ENCLOSING OR COVERING STORED FUEL, IMPLEMENTING SPILL CONTROLS, AND TRAINING EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING PROCEDURES. LIMITATIONS: ONSITE VEHICLE FUELING AND EQUIPMENT FUELING SHOULD NEVER BE USED TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR FUELING. SENDING VEHICLES AND EQUIPMENT OFFSITE SHOULD BE DONE IN CONJUNCTION WITH A STABILIZED CONSTRUCTION ENTRANCE/EXIT. IMPLEMENTATION: USE OFFSITE FUELING STATIONS AS MUCH AS POSSIBLE. DISCOURAGE "TOPPING-OFF" OF FUEL TANKS. ABSORBENT SPILL CLEANUP MATERIALS AND SPILL KITS SHOULD BE AVAILABLE IN FUELING AREAS AND ON FUELING TRUCKS, AND SHOULD BE DISPOSED OF PROPERLY AFTER USE. DRAIN PANS OR ABSORBENT PADS SHOULD BE USED DURING VEHICLE AND EQUIPMENT FUELING, UNLESS THE FUELING IS PERFORMED OVER AN IMPERMEABLE SURFACE IN A DEDICATED FUELING AREA. USE ABSORBENT MATERIALS ON SMALL SPILLS. DO NOT HOSE DOWN OR BURY THE SPILL. REMOVE THE ABSORBENT MATERIALS PROMPTLY AND DISPOSE OF PROPERLY. AVOID MOBILE FUELING OF MOBILE CONSTRUCTION EQUIPMENT AROUND THE SITE; RATHER, TRANSPORT THE EQUIPMENT TO DESIGNATED FUELING AREAS. TRAIN EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING AND CLEANUP PROCEDURES. DEDICATED FUELING AREAS SHOULD BE PROTECTED FROM STORMWATER RUNON AND RUNOFF, AND SHOULD BE LOCATED AT LEAST 50 FT AWAY FROM DOWNSTREAM DRAINAGE FACILITIES AND WATERCOURSES. FUELING MUST BE PERFORMED ON LEVEL--GRADE AREA. PROTECT FUELING AREAS WITH BERMS AND DIKES TO PREVENT RUNON, RUNOFF, AND TO CONTAIN SPILLS. NOZZLES USED IN VEHICLE AND EQUIPMENT FUELING SHOULD BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO CONTROL DRIPS. FUELING OPERATIONS SHOULD NOT BE LEFT UNATTENDED. FEDERAL, STATE, AND LOCAL REQUIREMENTS SHOULD BE OBSERVED FOR ANY STATIONARY ABOVE GROUND STORAGE TANKS.  
VEHICLES AND EQUIPMENT SHOULD BE USED DAILY OF USE FOR LEAKS. LEAKS SHOULD BE REPAIRED IMMEDIATELY OR PROBLEM VEHICLES OR EQUIPMENT SHOULD BE REMOVED FROM THE PROJECT SITE. KEEP AMULE SUPPLIES OF SPILL CLEANUP MATERIALS ONSITE. IMMEDIATELY CLEAN UP SPILLS AND PROPERLY DISPOSE OF CONTAMINATED SOILS.  
SPILL PREVENTION FOR SOLID WASTE SHALL CONFORM TO THE FOLLOWING PRACTICES: SOLID WASTE MANAGEMENT PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM SOLID OR CONSTRUCTION WASTE BY PROVIDING DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS, ARRANGING FOR REGULAR DISPOSAL, AND TRAINING EMPLOYEES AND SUBCONTRACTORS. SOLID WASTE GENERATED FROM TREES AND SHRUBS REMOVED DURING LAND CLEARING, DEMOLITION OF EXISTING STRUCTURES, AND BUILDING CONSTRUCTION. PACKAGING MATERIALS INCLUDING WOOD, PAPER, AND PLASTIC. SCRAP OR SURPLUS BUILDING MATERIALS INCLUDING SCRAP METALS, RUBBER, PLASTIC, GLASS PIECES AND MASONRY PRODUCTS. DOMESTIC WASTES INCLUDING FOOD CONTAINERS SUCH AS BEVERAGE CANS, SOFT DRINK CUPS, PAPER BAGS, PLASTIC WRAPPERS, AND COCAINETTES. CONSTRUCTION WASTES INCLUDING BRICK, MORTAR, TIMBER, STEEL AND METAL SCRAP, PIPE AND ELECTRICAL CUTTINGS, NON-HAZARDOUS EQUIPMENT PARTS, STYROFOAM AND OTHER PACKAGE CONSTRUCTION MATERIALS. SELECT DESIGNATED WASTE COLLECTION AREAS ONSITE. INFORM TRASH-HAULING CONTRACTORS THAT YOU WILL ACCEPT ONLY WATERTIGHT DUMPSTERS FOR ONSITE USE. INSPECT DUMPSTERS FOR LEAKS AND REPAIR ANY DUMPSITER THAT IS NOT WATERTIGHT. PROVIDE AN ADEQUATE NUMBER OF CONTAINERS WITH LIDS OR COVERS THAT CAN BE PLACED OVER THE CONTAINER TO KEEP RAIN OUT OR TO PREVENT LOSS OF WASTES WHEN IT IS WINDY. PLAN FOR ADDITIONAL CONTAINERS AND MORE FREQUENT PICKUP DURING THE DEMOLITION PHASE OF CONSTRUCTION. COLLECT SITE TRASH DAILY, ESPECIALLY DURING RAINY AND WINDY CONDITIONS. REMOVE THIS SOLID WASTE PROMPTLY SINCE EROSION AND SEDIMENT CONTROL DEVICES TEND TO COLLECT LITTER. MAKE SURE THAT TOXIC LIQUID WASTES (USED OILS, SOLVENTS AND PAINTS) AND CHEMICALS (ACIDS, PESTICIDES, ADDITIVES, CURING COMPOUNDS) ARE NOT DISPOSED OF IN DUMPSTERS DESIGNED FOR CONSTRUCTION DEBRIS. DO NOT HOSE OUT DUMPSTERS ON THE CONSTRUCTION SITE. LEAVE DUMPSITER CLEANING TO THE TRASH HAULING CONTRACTOR. ARRANGE FOR REGULAR WASTE COLLECTION BEFORE CONTAINERS OVERFLOW. CLEAN UP IMMEDIATELY IF A CONTAINER DOES SPILL. MAKE SURE THAT CONSTRUCTION WASTE IS COLLECTED, REMOVED, AND DISPOSED OF ONLY AT AUTHORIZED DISPOSAL AREAS. SOLID WASTE STORAGE AREAS SHOULD BE LOCATED AT LEAST 50 FT FROM DRAINAGE FACILITIES AND WATERCOURSES AND SHOULD NOT BE LOCATED IN AREAS PRONE TO FLOODING OR PONDING. INSPECT CONSTRUCTION WASTE AREA REGULARLY. ARRANGE FOR REGULAR WASTE COLLECTION.  
SPILL PREVENTION FOR CONCRETE WASHOUT SHALL CONFORM TO THE FOLLOWING PRACTICES: STORE DRY AND WET MATERIALS UNDER COVER, AWAY FROM DRAINAGE AREAS. AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE. PERFORM WASHOUT OF CONCRETE TRUCKS OFFSITE OR IN DESIGNATED AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. DO NOT ALLOW EXCESS CONCRETE TO ENTER INTO THE DOWNSTREAM STORMWATER SYSTEM. ALL MAINTENANCE REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER. THE OWNER SHALL FOLLOW THE OPERATION AND MAINTENANCE SCHEDULE AS DEFINED IN THE PROJECT O&M MANUAL. INSPECTIONS SHALL OCCUR AS DEFINED IN THE PROJECT O&M MANUAL.  
THE CLEANUP PARAMETERS SHALL CONFORM TO THE FOLLOWING PRACTICES: THE DEVELOPER SHALL BE CONTINUALLY KEPT INFORMED, MAINTAIN LISTS OF QUALIFIED CONTRACTORS AND AVAILABLE VAC-TRUCKS, TANK PUMPS AND OTHER EQUIPMENT READILY ACCESSIBLE FOR CLEANUP OPERATIONS. IN ADDITION, A CONTINUALLY UPDATED LIST OF AVAILABLE ABSORBENT MATERIALS AND CLEANUP SUPPLIES SHOULD BE KEPT ON SITE. ALL MAINTENANCE PERSONNEL WILL BE MADE AWARE OF TECHNIQUES FOR PREVENTION OF SPILLS. THEY WILL BE INFORMED OF THE REQUIREMENTS AND PROCEDURES OUTLINED IN THIS PLAN. THEY WILL BE KEPT AWARE OF CURRENT DEVELOPMENTS OR NEW INFORMATION ON THE PREVENTION OF SPILLS AND / OR NECESSARY ALTERATION TO THIS PLAN. WHEN SPILLS OCCUR WHICH COULD ENDANGER HUMAN LIFE AND THIS BECOMES PRIMARY CONCERN, THE DISCHARGE OF THE LIFE SAVING PROTECTION FUNCTION WILL BE CARRIED OUT BY THE LOCAL POLICE AND THE STATE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT. FLUSHING OF SPILLED MATERIAL WITH WATER WILL NOT BE PERMITTED UNLESS SO AUTHORIZED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT.  
SPILL PREVENTION FOR VEHICLE AND EQUIPMENT MAINTENANCE SHALL CONFORM TO THE FOLLOWING PRACTICES: PREVENT OR REDUCE THE CONTAMINATION OF STORMWATER RESULTING FROM VEHICLE AND EQUIPMENT MAINTENANCE BY RUNNING A "DRY AND CLEAN SITE". THE BEST OPTION WOULD BE TO PERFORM MAINTENANCE ACTIVITIES AT AN OFFSITE FACILITY. IF THIS OPTION IS NOT AVAILABLE THEN WORK SHOULD BE PERFORMED IN DESIGNATED AREAS ONLY, WHILE PROVIDING COVER FOR MATERIALS STORED OUTSIDE. CHECKING FOR LEAKS AND LIDS, AND CONTAINING AND CLEANING UP SPILLS IMMEDIATELY. THESE PROCEDURES ARE SUITABLE ON ALL CONSTRUCTION PROJECTS WHERE AN ONSITE YARD AREA IS NECESSARY FOR STORAGE AND MAINTENANCE OF HEAVY EQUIPMENT AND VEHICLES. ONSITE VEHICLE AND EQUIPMENT MAINTENANCE SHOULD ONLY BE USED WHERE IT IS IMPRACTICAL TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR MAINTENANCE AND REPAIR. SENDING VEHICLES / EQUIPMENT OFFSITE SHOULD BY DONE IN CONJUNCTION WITH A STABILIZED CONSTRUCTION ENTRANCE / EXIT. OUT DOOR VEHICLE OR EQUIPMENT MAINTENANCE IS A POTENTIALLY SIGNIFICANT SOURCE OF STORMWATER POLLUTION. ACTIVITIES THAT CAN CONTAMINATE STORMWATER INCLUDE ENGINE REPAIR AND SERVICE, CHANGING OR REPLACEMENT OF FLUIDS, AND OUTDOOR EQUIPMENT STORAGE AND PARKING (ENGINE FLUID LEAKS). IF MAINTENANCE MUST OCCUR ONSITE, USE DESIGNATED AREAS, LOCATED AWAY FROM DRAINAGE COURSES. DEDICATED MAINTENANCE AREAS SHOULD BE PROTECTED FROM STORMWATER RUNON AND RUNOFF, AND SHOULD BE LOCATED AT LEAST 50 FT FROM DOWNSTREAM DRAINAGE FACILITIES AND WATER COURSES. DRIP PANS OR ABSORBENT PADS SHOULD BE USED DURING VEHICLE AND EQUIPMENT MAINTENANCE WORK THAT INVOLVES FLUIDS, UNLESS THE MAINTENANCE WORK IS PERFORMED OVER AND IMPERMEABLE SURFACE IN A DEDICATED MAINTENANCE AREA. PLACE A STOCKPILE OF SPILL CLEANUP MATERIALS WHERE IT WILL BE READILY ACCESSIBLE. ALL FUELING TRUCKS AND FUELING AREAS ARE REQUIRED TO HAVE SPILL KITS AND/OR USE ABSORBENT MATERIALS ON SMALL SPILLS. REMOVE THE ABSORBENT MATERIALS PROMPTLY AND DISPOSE OF PROPERLY. INSPECT ONSITE VEHICLES AND EQUIPMENT DAILY AT STARTUP FOR LEAKS, AND REPAIR IMMEDIATELY. KEEP VEHICLES AND EQUIPMENT CLEAN; DO NOT ALLOW EXCESSIVE BUILDUP OF OIL AND GREASE. SEGREGATE AND RECYCLE WASTES, SUCH AS USED OILS, FLUIDS, LUBRICANTS, CLEANING SOLUTIONS, AUTOMOTIVE BATTERIES, HYDRAULIC AND TRANSMISSION FLUIDS. PROVIDE SECONDARY CONTAINMENT AND COVERS FOR THESE MATERIALS. STORED ONSITE. TRAIN EMPLOYEES AND SUBCONTRACTORS IN PROPER MAINTENANCE AND SPILL CLEANUP PROCEDURES. DRIP PANS OR PLASTIC SHEETING SHOULD BY PLACED UNDER ALL VEHICLES AND EQUIPMENT PLACED ON DOCKS, BARGES, OTHER STRUCTURES OVER WATER BODIES WHEN THE VEHICLE OR EQUIPMENT IS PLANNED TO BE IDLE FOR MORE THAN 1 HOUR. PROPERLY DISPOSE OF USED OILS, FLUIDS, LUBRICANTS, AND SPILL CLEANUP MATERIALS. PROPERLY DISPOSE OF OR RECYCLE USED BATTERIES. DO NOT PLACE USED OIL IN A DUMPSITER OR POUR INTO A STORM DRAIN OR WATER COURSE. PROPERLY DISPOSE OF USED OILS, FLUIDS, LUBRICANTS, AND SPILL CLEANUP MATERIALS. DON NOT BURY TIRES. REPAIR LEAKS OF FLUIDS AND OIL IMMEDIATELY.  
SPILL PREVENTION FOR FERTILIZERS SHALL CONFORM TO THE FOLLOWING PRACTICES: FERTILIZER'S USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER, ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.  
SPILL PREVENTION FOR PAINT AND SOLVENTS SHALL CONFORM TO THE FOLLOWING PRACTICES: ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE OR LOCAL REGULATIONS.  
SPILL PREVENTION FOR PORTABLE TOILETS SHALL CONFORM TO THE FOLLOWING PRACTICE: ALL PORTABLE TOILETS MUST BE ANCHORED TO PREVENT SPILLS.  
SPILL PREVENTION AND CLEANUP SHALL CONFORM TO IDEM FORM 327 IAC 2-6 AND THE (CITY) FIRE DEPARTMENT SHALL BE CONTACTED IN THE CASE OF A MATERIAL SPILL OCCURRING.  
IDEM EMERGENCY SPILL REPORTING:  
FISHERS FIRE DEPARTMENT (317) 233-7745 OR (888) 233-7745  
FISHERS POLICE DEPARTMENT (317) 595-3200  
FISHERS POLICE DEPARTMENT (317) 595-3300  
HAMILTON COUNTY SOIL & WATER CONSERVATION (317) 773-2181

ASSESSMENT OF STORMWATER POLLUTION PREVENTION PLAN COMPONENT (SECTION C)

(C1) DESCRIPTION OF POLLUTATNTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE

POTENTIAL POLLUTANT SOURCES THAT MAY APPEAR AT THE SITE DUE TO PROPOSED LAND USE ACTIVITIES, BUT ARE NOT LIMITED TO, VEHICLES, EXPOSED SOILS, AND FRESH, POTENTIAL POLLUTANTS INCLUDE, BUT ARE NOT LIMITED TO OIL, GREASE, DIESEL FUEL, GASOLINE, ANTI-FREEZE, AUTO SOAP AND FERTILIZER.

(C2) DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER MEASURES

POST CONSTRUCTION STORMWATER QUALITY MEASURES TO AID IN REDUCING THE AMOUNT OF POLLUTANTS:  
1. POST CONSTRUCTION STORMWATER QUALITY MEASURES WILL CONSIST OF VEGETATIVE COVER ON THE PERMANENT GRASS AREAS AND EROSION CONTROL BLANKETS IN SPECIFIED AREAS. BOTH THE VEGETATIVE COVER AND EROSION CONTROL BLANKETS ARE INTENDED TO STABILIZE THE DISTURBED AREAS AND TO SERVE AS A SEDIMENT TRAP FOR FINE PARTICLES WITHIN THE STORM SEWER SYSTEM.  
2. THE USE OF INLETS WITHIN THE STORM SEWER SYSTEM HAS BEEN UTILIZED. MAINTENANCE OF THE INLETS WILL BE THE RESPONSIBILITY OF THE OWNER AND/OR AGENCY TAKING JURISDICTION OVER THE STORM SEWER INFRASTRUCTURE IMPROVEMENTS.  
3. ENERGY DISSIPATION MEASURES HAVE BEEN INCLUDED AT ALL END SECTIONS LOCATIONS FOR THE OUTLET POINTS OF THE STORM SEWER SYSTEM AND WILL NEED TO BE MAINTAINED TO INSURE PROPER SLOPE BANK STABILITY.  
4. A WET POND AREA IS PROPOSED TO BOTH DETAIN STORMWATER RUNOFF AND PROVIDE A WATER QUALITY IMPROVEMENTS.  
5. ALTHOUGH NOT CURRENTLY A PART OF THE PROPOSED SYSTEM, THE OWNER SHOULD BE AWARE THAT IF AN EXCESS OF POLLUTANTS IS DETERMINED TO BE FOUND LEAVING THE SITE, ADDITIONAL MEASURES SUCH AS INLET DROP IN FILTERS MAY BE REQUIRED IN THE FUTURE TO FURTHER REDUCE THE AMOUNT OF FINES AND PETROLEUM PRODUCTS ENTERING THE STORM SEWER SYSTEM FROM THE ROADWAY SYSTEM.  
6. A MECHANICAL BMP DIVERSION STRUCTURE IS PROPOSED FOR THIS PROJECT. THE OWNER SHALL FOLLOW THE OPERATION AND MAINTENANCE SCHEDULE AS DEFINED IN THE PROJECT O&M MANUAL. INSPECTIONS SHALL OCCUR AS DEFINED IN THE PROJECT O&M MANUAL.  
(C3) PLAN DETAILS FOR EACH STORMWATER MEASURE  
THE STORMWATER QUALITY MEASURES FOR POST CONSTRUCTION ACTIVITIES ARE INDICATED WITHIN THESE CONSTRUCTION DOCUMENTS. REFER TO SHEETS C900 FOR EROSION CONTROL MEASURES TO BE IMPLEMENTED WITHIN THE PROJECT SITE, REFER TO SHEET C300 FOR STORM SEWER IMPROVEMENTS, DRY DETENTION, AND MECHANICAL BMP ARE INTENDED TO SERVE THE DISTURBED AREAS. SPECIFICATIONS AND CONSTRUCTION DETAILS FOR THESE STORMWATER QUALITY MEASURES ARE INCLUDED WITHIN THE AFOREMENTIONED SERIES OF CONSTRUCTION DOCUMENTS.  
(C4) SEQUENCE DESCRIBING STORMWATER MEASURE IMPLEMENTATION  
THE STORMWATER QUALITY MEASURE IMPLEMENTATION SHALL BE BEGIN AFTER SUBSTANTIAL COMPLETION OF THE CONSTRUCTION ACTIVITIES FOR THE PROPOSED PROJECT. ADDITIONAL STORMWATER QUALITY MEASURES WILL BE IMPLEMENTED AT THE DEVELOPMENT OF SUBSEQUENT CONSTRUCTION PHASES. FOLLOWING CONSTRUCTION, ALL EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED UNTIL ALL PERMANENT MEASURES, WATER QUALITY PLANTINGS AND VEGETATION HAS BEEN ESTABLISHED AND CONSTRUCTION, INCLUDING LANDSCAPING, IS COMPLETE.  
INDIVIDUAL EROSION CONTROL MEASURES MAY BE REMOVED FROM INLET PROTECTION STATUS FOLLOWING SEEDING AND AFTER SUFFICIENT VEGETATION HAS BEEN ESTABLISHED IN AN AREA TO PREVENT SILT AND SOIL EROSION INTO THE STORM SEWER SYSTEM.  
INSPECTION AND MAINTENANCE OF ALL COMMON AREAS, LANDSCAPE AREAS AND INFRASTRUCTURE IMPROVEMENTS, MECHANICAL BMP UNIT, AND DETENTION POND ARE THE RESPONSIBILITY OF THE DEVELOPER/OWNER AND OR LOCAL AGENCIES TAKING JURISDICTION OVER THE INFRASTRUCTURE IMPROVEMENTS.  
(C5) MAINTENANCE GUIDELINES FOR POST-CONSTRUCTION STORMWATER MEASURES  
OWNER WILL PROVIDE MAINTENANCE ACTIVITIES FOR THE POST CONSTRUCTION WATER QUALITY MEASURES. MAINTENANCE ACTIVITIES WILL BE COMPLETED AS DESCRIBED BELOW.  
1. ALL INLET CASTINGS WILL BE INSPECTED MONTHLY. DEBRIS AND TRASH AROUND OR OBSTRUCTING INLETS WILL BE REMOVED AND DISPOSED PROPERLY.  
2. END SECTIONS WILL BE INSPECTED QUARTERLY. TRASH, STICKS, DEBRIS, AND SEDIMENT WILL BE REMOVED TO ENSURE PROPER PERFORMANCE OF THE END SECTION. RESET RIPRAP IF DISPLACED BY A LARGE RAIN EVENT. ADD ADDITIONAL RIPRAP IF NECESSARY.  
3. GRASS AREAS SURROUNDING INLETS WILL BE MAINTAINED ON A REGULAR MOWING CYCLE. TRASH AND DEBRIS WILL BE REMOVED FROM SEEDED AND PAVED AREAS.  
4. DAMAGE TO INLET CASTINGS, INLET STRUCTURES, STORM STRUCTURES, OR CATCH BASINS SHOULD BE REPAIRED AS SOON AS POSSIBLE.  
5. A MECHANICAL BMP DIVERSION STRUCTURE IS PROPOSED FOR THIS PROJECT. THE OWNER SHALL INSPECT THE SYSTEM ON AT LEAST A MONTHLY BASIS. MORE FREQUENT INSPECTIONS MAY NEED TO TAKE PLACE DURING PERIODS OF HEAVY RAINFALL. THE BMP SHOULD BE INSPECTED FOR FLOATABLE DEBRIS AND FROM ACCUMULATED SEDIMENT, ANY EXCESS SEDIMENT SHOULD BE COLLECTED TO BE REMOVED OF IN A PROPER LOCATION SO THAT THE NEIGHBOR DOES NOT ENTER INTO THE DOWNSTREAM STORMWATER SYSTEM. ALL MAINTENANCE REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER. THE OWNER SHALL FOLLOW THE OPERATION AND MAINTENANCE SCHEDULE AS DEFINED IN THE PROJECT O&M MANUAL. INSPECTIONS SHALL OCCUR AS DEFINED IN THE PROJECT O&M MANUAL.  
6. DETENTION AREA SHALL BE MAINTAINED. DEBRIS AND SILT ACCUMULATION SHALL BE REMOVED.  
7. THE OWNER SHALL FOLLOW THE OPERATION AND MAINTENANCE SCHEDULE AS DEFINED IN THE PROJECT O&M MANUAL. INSPECTIONS SHALL OCCUR AS DEFINED IN THE PROJECT O&M MANUAL.  
(C6) ENTITY THAT WILL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE POST-CONSTRUCTION STORMWATER MEASURES  
EROSION CONTROL RESPONSIBLE PERSON  
THE PERSON RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE EROSION CONTROL IS LISTED BELOW.  
SAM WANAS  
REKAZ / WANAS CONSTRUCTION GROUP  
11205 GOVERNORS LANE  
FISHERS, IN 46033  
PH: (317)-978-9797  
EMAIL: info@rekhazhome.com

STORMWATER POLLUTION PREVENTION NOTES

DATE: FEB. 23, 2024  
DRAWN BY: BEB  
DWG SCALE: KPG  
PROJECT NO: 323-947  
NONE CHECKED BY:  
APPROVED BY: DRAFT

INDIANA 811

Know what's below.  
Call before you dig.

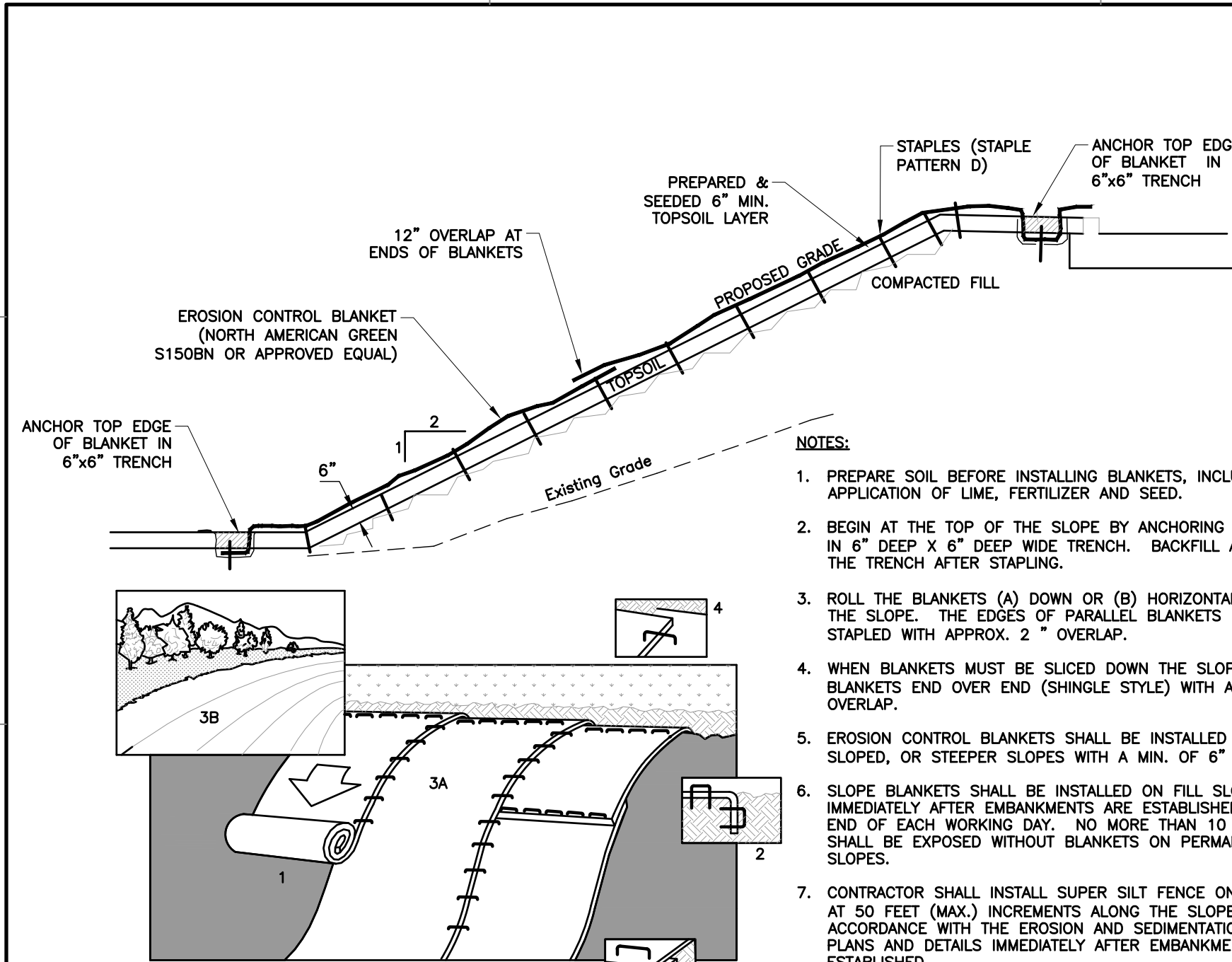
DRAFT

DRAWING NO: C903

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A:\130-000\1301-9471-C904\DWG\1301-9471-C904.dwg Construction Date 1/23/2024 - 13:23:20 PM - 1/23/2024 1:39 PM



DETAIL 907 - SLOPE BLANKET INSTALLATION  
NOT TO SCALE

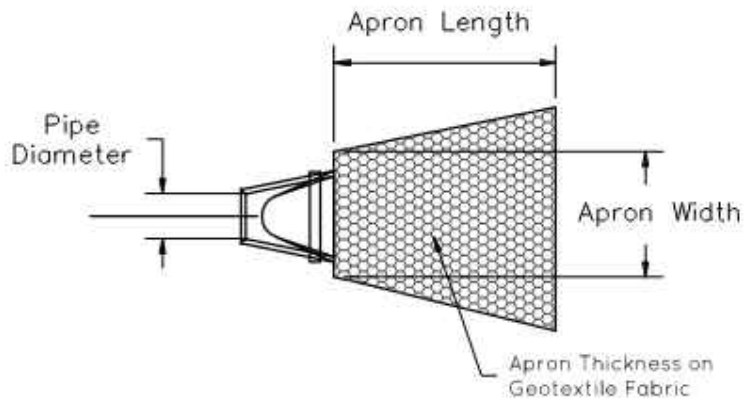
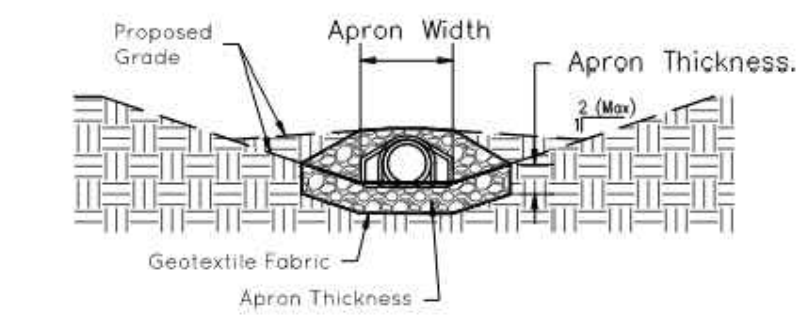
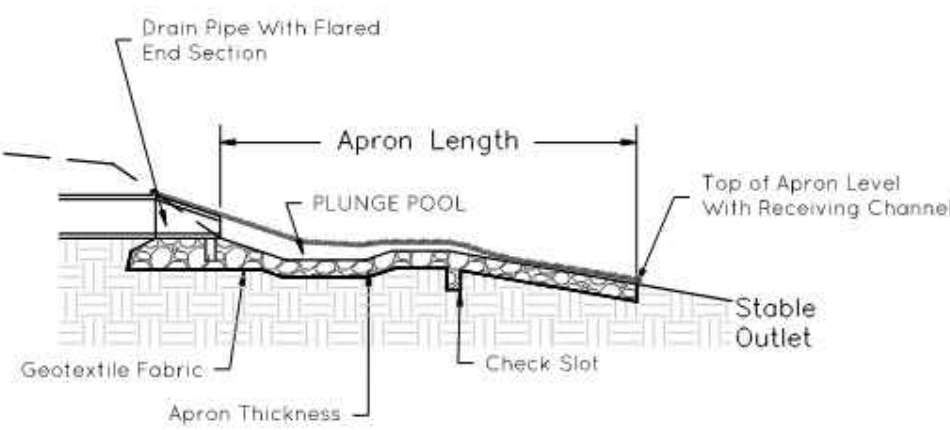


Table 1. Sizing for Flow Dissipaters at end Sections¹

PIPE SIZE	AVG. RIPRAP DIAMETER	APRON ² WIDTH	APRON ³ LENGTH
8 in.	3 in.	2 to 3 ft.	5 to 7 ft.
12 in.	5 in.	3 to 4 ft.	6 to 12 ft.
18 in.	8 in.	4 to 6 ft.	8 to 18 ft.
24 in.	10 in.	6 to 8 ft.	12 to 22 ft.
30 in.	12 in.	8 to 10 ft.	14 to 28 ft.
36 in.	14 in.	10 to 12 ft.	16 to 32 ft.

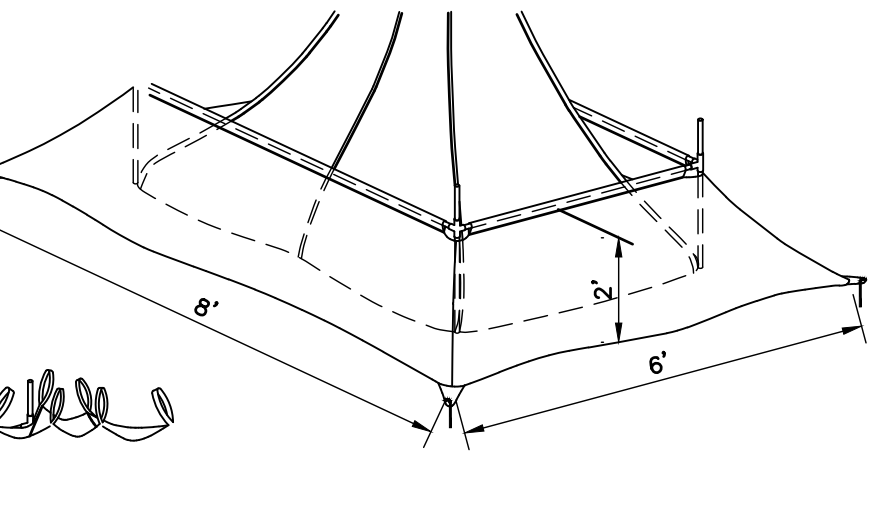
1-For Larger or Higher Flows Consult a Registered Engineer  
2-Apron Width at the Narrow End of Apron (Pipe or Channel Outlet)  
3-Select Length Taking Into Consideration the Low Flow (Nor Pressure Head) or High Flow (Pressure Head) Conditions of the Culvert Pipe.

DETAIL 908 - ENERGY DISSIPATER (OUTLET PROTECTION)  
NOT TO SCALE

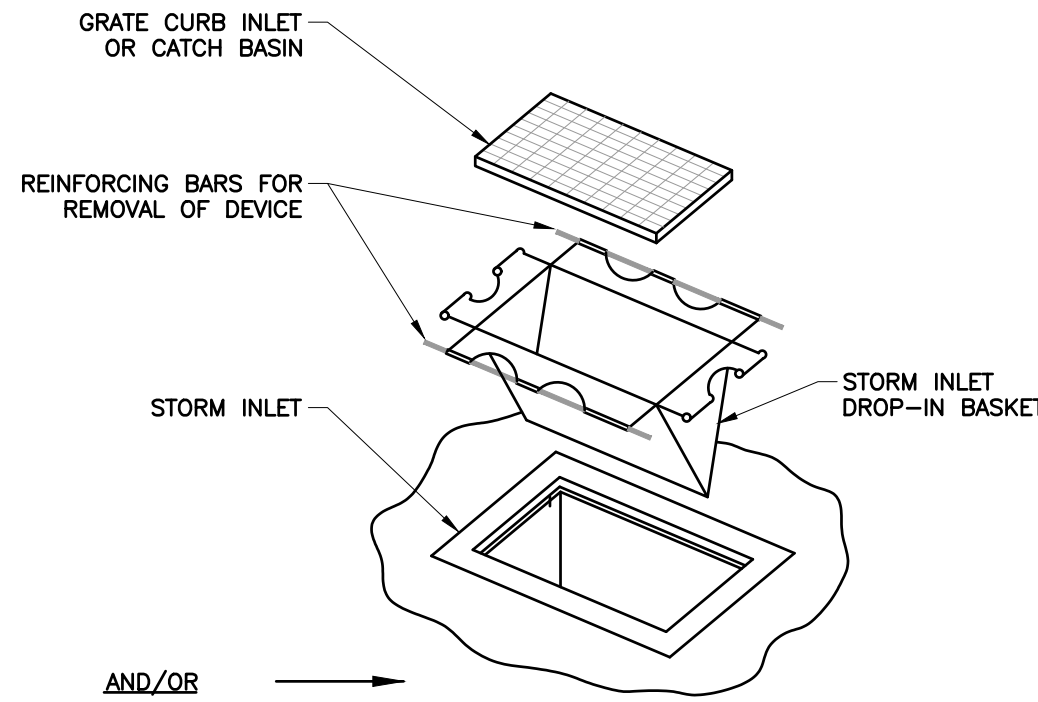


Apron Thickness = 12 Times the Max Stone Diameter for a D50 Stone Size of 15 Inches or Larger  
Apron Thickness = 1.5 Times the Max Stone Diameter for a D50 Stone Size of 15 Inches or Less

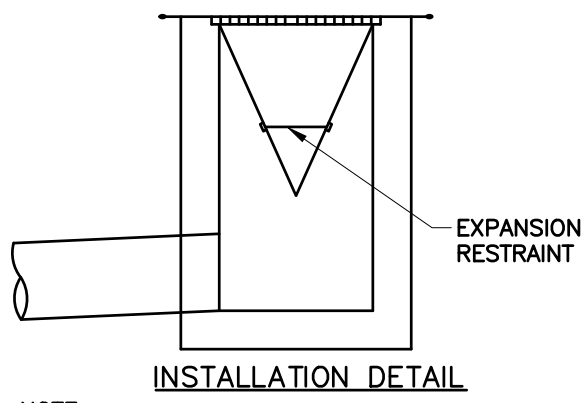
ENERGY DISSIPATER (OUTLET PROTECTION)  
Not to Scale



DETAIL 904 - 6'X8'X2' PORTABLE CONCRETE WASHOUT CONTAINER VINYL-CON™ DETAIL  
A:2  
NOT TO SCALE

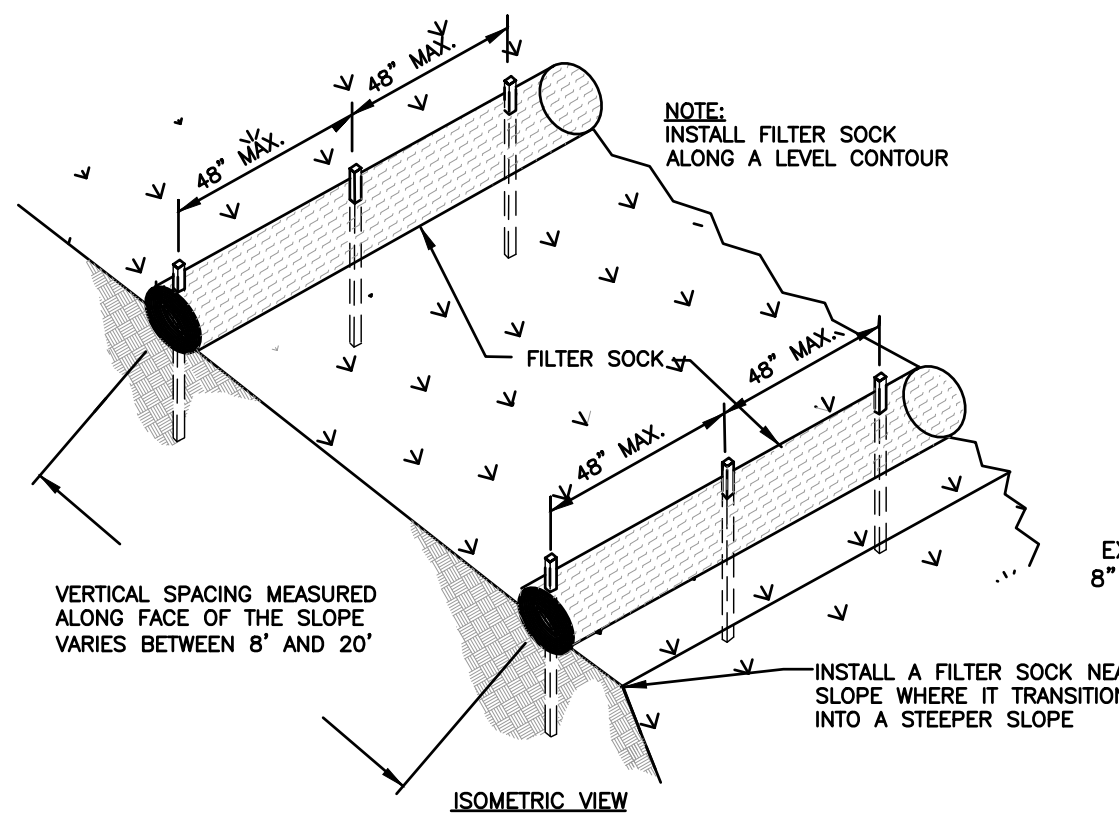


AND/OR



NOTE:  
AS AN ALTERNATIVE, THE CONTRACTOR MAY SUBSTITUTE A COMMERCIAL GEOTEXTILE FILTER OR AN APPROVED EQUAL.

DETAIL 905 - EROSION CONTROL INLET PROTECTION FOR CURB INLET AND CATCH BASINS  
NOT TO SCALE



DETAIL 906 - FILTER SOCK INSTALLATION  
NOT TO SCALE

TEMPORARY SEEDING DATES											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
NON-IRRIGATED*											
IRRIGATED											
DORMANT SEEDING **											

IRRIGATION NEEDED DURING THIS PERIOD, TO CONTROL EROSION AT TIMES OTHER THAN IN THE SHADED AREAS. USE MULCH.

* LATE SUMMER SEEDING DATES MAY BE EXTENDED 5 DAYS IF MULCH IS APPLIED.

** INCREASE SEEDING APPLICATION BY 50%.

SEEDBED PREPARATION

1. APPLY LIME TO RAISE THE pH TO THE LEVEL AS NEEDED FOR SPECIES BEING SEEDED.
2. APPLY 23 POUNDS OF PHOSPHOROUS FREE FERTILIZER: 12-0-12 ANALYSIS (OR EQUIVALENT) PER 1000 SQ. FT. (APPROXIMATELY 1000 POUNDS PER ACRE) OR FERTILIZE ACCORDING TO TEST. APPLICATION OF 150 LBS. OF AMMONIUM NITRATE ON AREAS LOW IN ORGANIC MATTER AND FERTILITY WILL GREATLY ENHANCE VEGETATIVE GROWTH.
3. WORK THE FERTILIZER AND LIME INTO THE SOIL TO A DEPTH OF 2-4 INCHES WITH A HARROW, DISK OR RAKE OPERATED ACROSS THE SLOPE AS MUCH AS POSSIBLE.

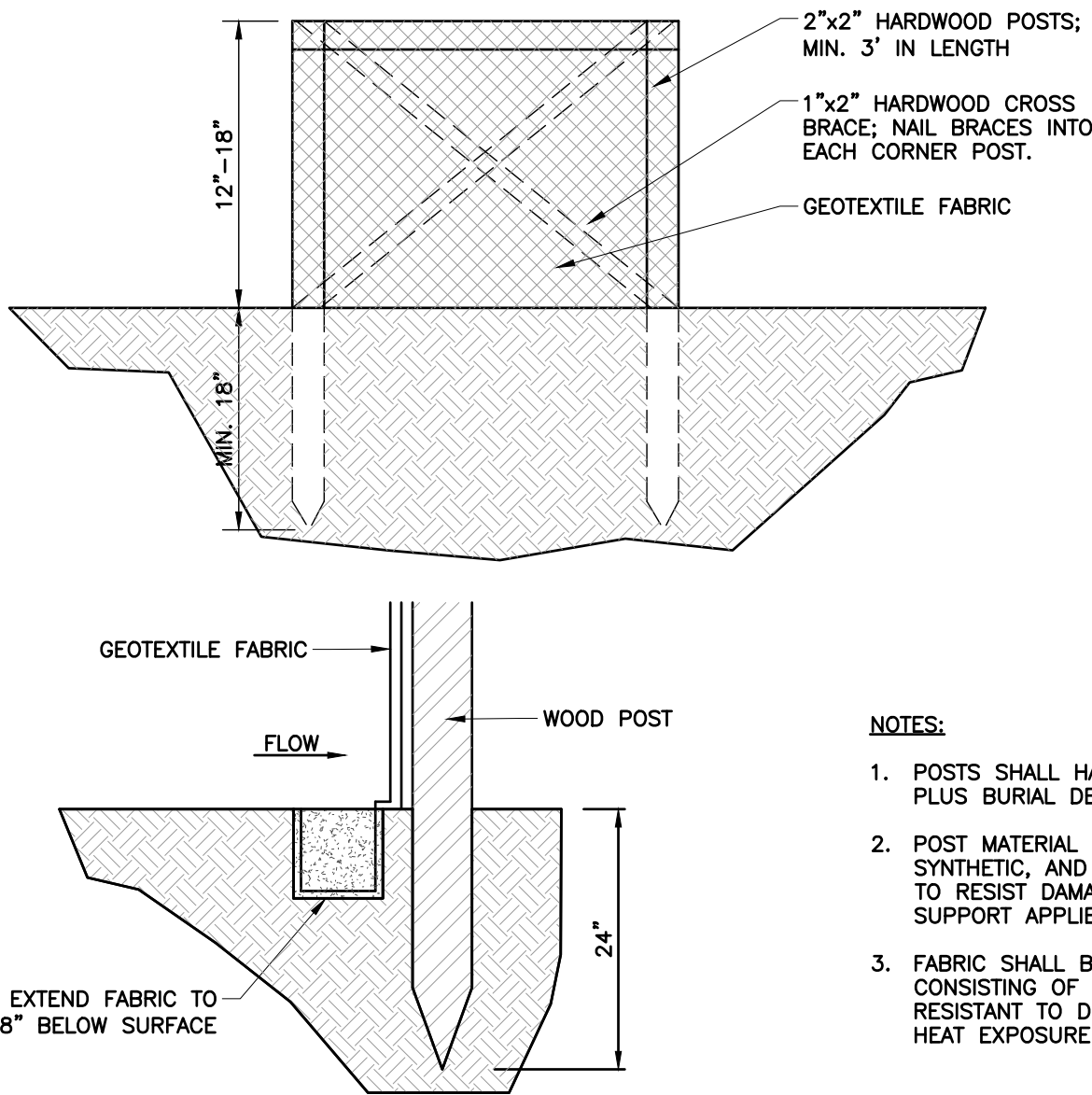
SEEDING

SELECT A SEED MIXTURE BASED ON PROJECTED USE OF THE AREA (SEE PERMANENT SEED MIXTURE CHART), WHILE CONSIDERING BEST SEEDING DATES. IF PERMANENT SEEDING IS NOT PERMITTED USE TEMPORARY SEEDING UNTIL PERMANENT SEEDING CAN BE APPLIED. IF TOLERANCES ARE A PROBLEM, SUCH AS SALT TOLERANCE OF SEEDINGS ADJACENT TO STREETS AND HIGHWAYS, SEE SEED TOLERANCE CHART.

TEMPORARY SEEDING		
TYPE OF SEED	1000 SQ. FT. ACRE	REMARKS
WHEAT OR RYE	3.5 LBS. 2 BU.	COVER SEED 1" TO 1 1/2" DEEP
SPRING OATS	2.3 LBS. 3 BU.	COVER SEED 1" DEEP
ANNUAL RYEGRASS	1 LB. 40 LB.	COVER SEED 1/4" DEEP

* NOT NECESSARY WHERE MULCH IS APPLIED.

DETAIL 901 - SEEDING CHARTS  
NOT TO SCALE



DETAIL 903 - NON-PAVED AREA CATCH BASIN INLET PROTECTION DETAIL  
NOT TO SCALE

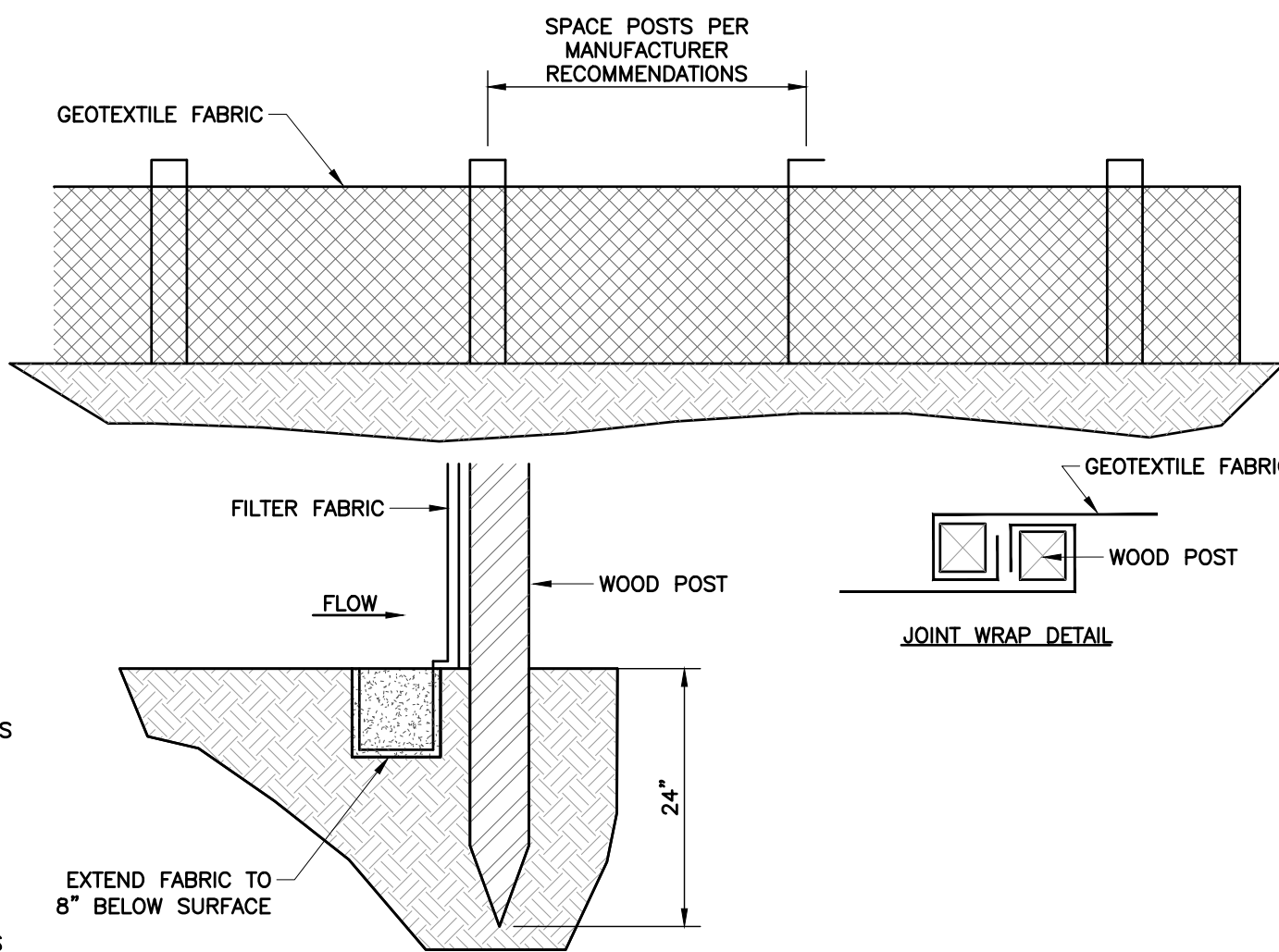
PERMANENT SEEDING						
SPECIES	SEEDING RATE		SUITABLE pH	SITE SUITABILITY *		
	LBS/ACRE	LBS/1000 SQ. FT.		DROUGHTY	WELL DRAINED	WET
LEVEL AND SLOPING, OPEN AREAS						
1. TALL FESCUE	35	.8	5.5-8.3	2	1	2
2. TALL FESCUE	25	.6	5.5-8.3	1		
3. RED CLOVER	5	.12	5.8-7.5	2	1	
3. KENTUCKY BLUEGRASS	15	.4	5.8-7.5	2	1	
3. CREEPING RED FESCUE	15	.4				
STEEP BANKS AND CUTS						
4. TALL FESCUE	15	.4	5.8-7.5	2	1	2
4. KENTUCKY BLUEGRASS	25	.6				
5. TALL FESCUE	35	.8	5.5-8.3	2	1	
LAWNS AND HIGH MAINTENANCE AREAS						
6. KENTUCKY BLUEGRASS	40	.9	5.8-7.5	2	1	
6. CREEPING RED FESCUE	40	.9	5.0-7.5	2	1	
7. PERENNIAL RYEGRASS (TURF TYPE)	170	4.0	5.0-7.5	1		
8. TALL FESCUE	170	4.0	5.5-8.3	2	1	2

PERMANENT SEEDING DATES											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
WHEAT OR RYE											
OATS											
ANNUAL RYEGRASS											

	SOIL CONDITION			SHADE TOLERANCE TO 1/2 INCHES	TRAMPING TOLERANCE	FLOODING TOLERANCE (DAYS)	WATER HARDNESS TOLERANCE (DAYS)	MATURE HEIGHT (INCHES)	EMERGENCE TIME (DAYS)	SOIL TOLERANCE	
	WET	NORM	DRY							GEN.	SPRAY
CREEPING RED FESCUE	2	1	2	1	1	1	MED.	1	20-25	12-18	7-21
FESTUCA RUBRA	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
KENTUCKY BLUEGRASS	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
POA PROTENSIS	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
TALL FESCUE	2	1	2	1	1	1	LOW	1	24-35	24-36	5-14
FESTUCA L. ARUNDINACEA	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
PERENNIAL RYEGRASS	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
LOLLUM PERENNE	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
RED CLOVER	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20
TRIFOLIUM PROTENSE	2	1	2	1	1	1	MED.	1	20-35	12-18	10-20

RANKING:  
1 GOOD  
2 MEDIUM  
- NOT TOLERANT

SALT TOLERANCE (TO BOTH SOIL, SALTS & SPRAY)  
T TOLERANCE  
MT MEDIUM TOLERANCE  
S SLIGHT TOLERANCE



DETAIL 902 - SILT FENCE  
NOT TO SCALE



DRAFT

REVISION RECORD

NO.	DATE	DESCRIPTION

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
www.cecinc.com

**STUDIO M ARCHITECTS**  
CITYWALK ON THE NICKEL PLATE TRAIL  
LANTERN ROAD AND CIRCLE DRIVE  
FISHERS, INDIANA 46038

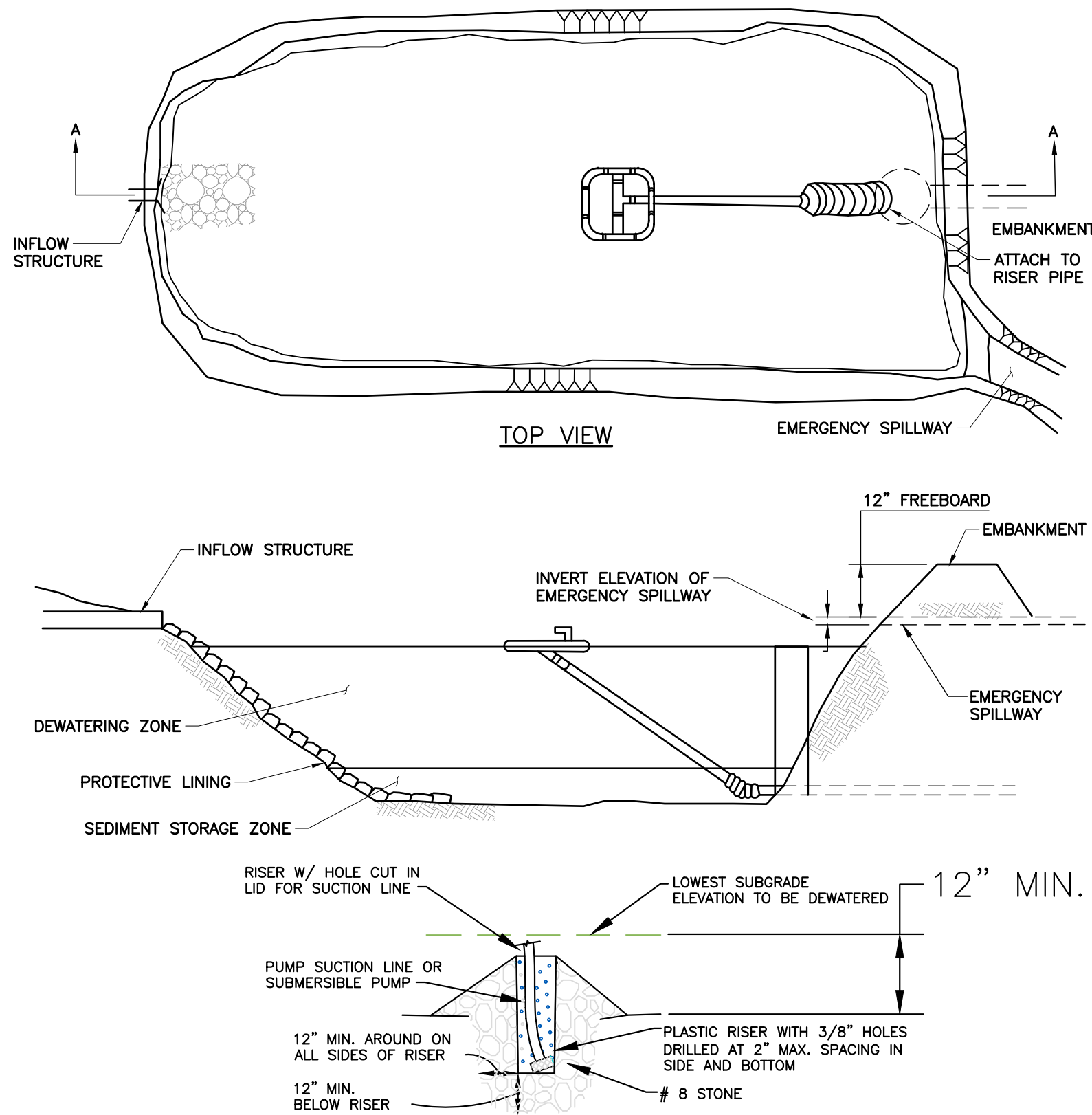
STORMWATER POLLUTION PREVENTION DETAILS

DATE:	FEB 23, 2024	DRAWN BY:	KPG
DWG SCALE:	AS NOTED	CHECKED BY:	323-947
PROJECT NO:		APPROVED BY:	DRAFT

DRAWING NO. C904



A:\130-000\130-947-947-0400\dwg\0102 Construction\Draw\130947-0102-0900.dwg(0901) LS(12/23/2024 - rev) - LP: 12/23/2024 3:39 PM



**DEWATERING INSTALLATION NOTES**

1. THE CONTRACTOR SHALL PROVIDE, OPERATE, AND MAINTAIN DEWATERING SYSTEMS OF SUFFICIENT SIZE AND CAPACITY TO PERMIT EXCAVATION AND SUBSEQUENT CONSTRUCTION IN DRY CONDITIONS AND TO LOWER AND MAINTAIN THE GROUNDWATER LEVEL A MINIMUM OF 2- FEET BELOW THE LOWEST POINT OF EXCAVATION AND CONTINUOUSLY MAINTAIN EXCAVATIONS FREE OF WATER UNTIL BACKFILLED TO FINAL GRADE.
2. DEWATERING OPERATIONS SHALL USE ONE OR MORE OF THE DEWATERING SUMPS SHOWN ABOVE AND SHALL PROVIDE A TEMPORARY FILTER BAG FOR SETTLING PUMPED DISCHARGES PRIOR TO RELEASE OFF SITE OR TO A RECEIVING WATER.
3. A 14'X 21' MIN. RIPRAP PAD SHALL BE PLACED AT DISCHARGE POINT.
4. THE DISCHARGE END OF THE LINE SHALL BE STAKED IN PLACES TO PREVENT MOVEMENT OF RIPRAP PAD.

**DEWATERING MAINTENANCE NOTES**

1. THE CONTRACTOR SHALL INSPECT DEWATERING SYSTEMS AND PERFORM ANY NECESSARY REPAIRS OR MAINTENANCE ON A HOURLY BASIS.
2. TEMPORARY FILTER BAGS AND STONE SHALL BE REMOVED WHEN NO LONGER NEEDED FOR DEWATERING OPERATIONS. ANY DISTURBED AREA SHALL BE RE-SEEDING AND MULCHED.

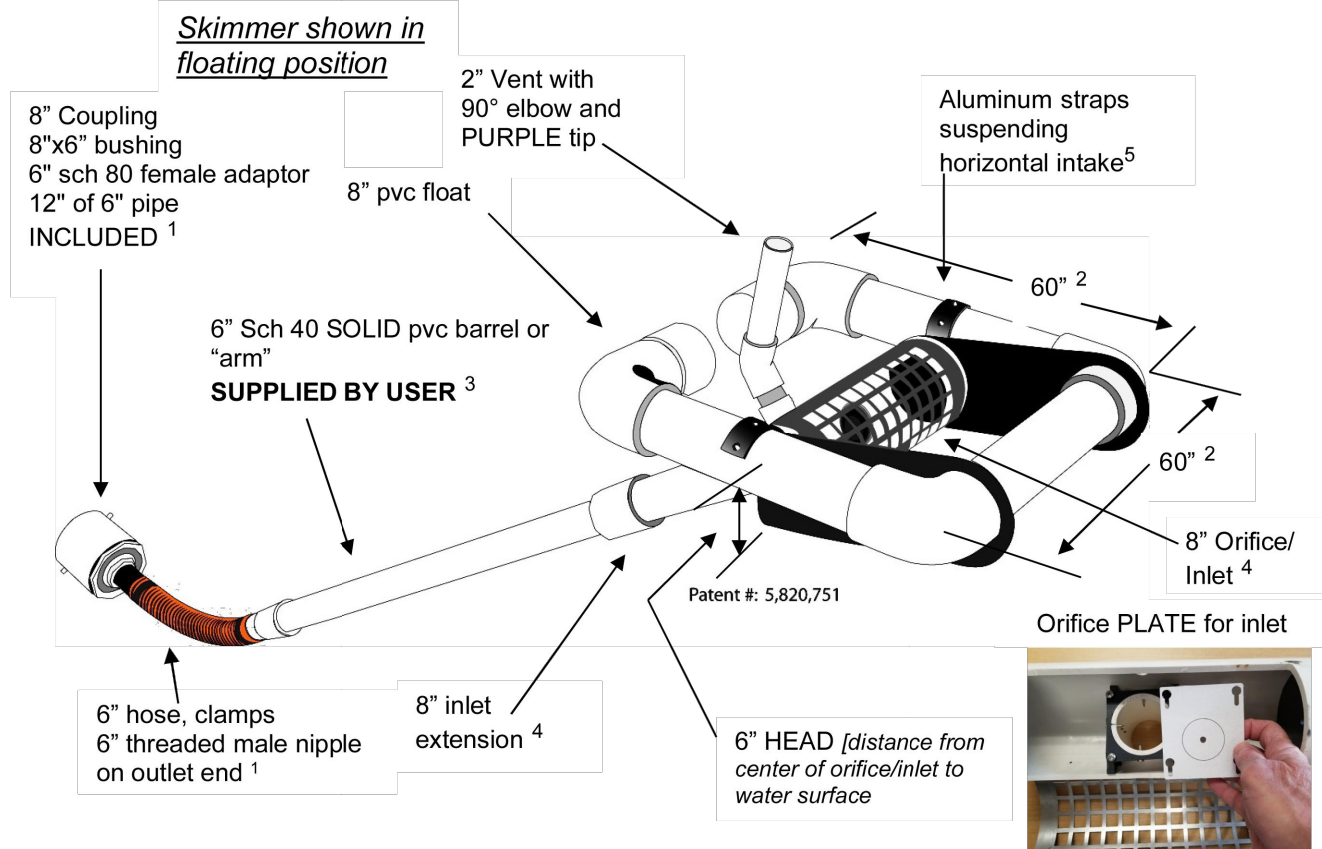
* USE DEWATERING WITHIN SITE LOCATION BOUNDARY IF REQUIRED PER SEASONAL WATER TABLE FLUCTUATION.

**DETAIL 909 - SEDIMENT BASIN AND SKIMMER**

NOT TO SCALE

**8" Faircloth Skimmer® Cut Sheet**

J. W. Faircloth & Son, Inc.  
[www.FairclothSkimmer.com](http://www.FairclothSkimmer.com)



1. Hose can be attached to outlet using the threaded 6" nipple. Typical methods used: a) a metal structure with a steel stub cut welded on the side at the bottom with a 6" threaded coupling or reducer(s); b) a concrete structure with a hole or orifice at the bottom - use a steel plate with a hole and coupling welded to it that will fit over the hole in the concrete and bolted to the structure with sealant.
2. Dimensions are approximate, not intended as plans for construction.
3. Barrel (solid, not foam core pipe) should be 1.4 times the depth of water with a minimum length of 8' so the inlet can be pulled to the side for maintenance. If more than 12' long, weight may have to be added to inlet to counter the increased buoyancy.
4. Orifice/Inlet tapers down from 8" maximum inlet to a 6" barrel and hose. Barrel is smaller to reduce buoyancy and tendency to lift inlet but is sufficient for flow through inlet because of slope. The orifice/inlet can be reduced using the plate and cutter provided to control the outflow rate – see #6.
5. Horizontal intake is 12" pipe between the straps with slots cut in the inlet and aluminum screen door (smaller than shown in illustration) for access to the inlet and orifice inside.
6. Ships assembled. User glues inlet extension and barrel, installs vent, cuts orifice in plate and attaches to outlet pipe or structure. Includes float, flexible hose, rope, orifice plate and cutter. Does NOT include 6" Sch 40 SOLID pvc barrel or "arm" **SUPPLIED BY USER**.
7. **Capacity:** 97,978 cubic feet per day maximum with 8" inlet and 6" head. Inlet can be reduced by installing a smaller orifice using the plate and cutter provided to adjust flow rate for the particular drawdown time required. Please use the sizing template at [www.fairclothskimmer.com](http://www.fairclothskimmer.com).
8. Shipped in cardboard box on pallet. Shipping weight approximately 365 lbs, dimension 61"x44"x57".

8inchCut 5-1-19

© J. W. Faircloth & Son, Inc. 2019



**DRAFT**

**STORMWATER POLLUTION  
PREVENTION DETAILS**

**STUDIO M ARCHITECTS**  
**CITYWALK ON THE NICKEL PLATE TRAIL**  
**LANTERN ROAD AND CIRCLE PLATE DRIVE**  
**FISHERS, INDIANA 46038**

530 E. Ohio Street  
Suite G  
Indianapolis, IN 46204  
Ph: 317.655.7777  
[www.cecinc.com](http://www.cecinc.com)  
**Civil & Environmental  
Consultants, Inc.**

**REVISION RECORD**

NO	DATE	DESCRIPTION

DRAWING NO.

**C905**

DATE:	FEB 23, 2024	DRAWN BY:	RT
DWG SCALE:	AS NOTED	CHECKED BY:	KPG
PROJECT NO:	323-947	APPROVED BY:	DRAFT



CITY STANDARDS APPLY TO  
PUBLIC PROPERTY & PRIVATE  
PROPERTY



# STANDARD CONSTRUCTION DETAILS

AMENDED JANUARY 2022

## DIRECTIONS FOR USE

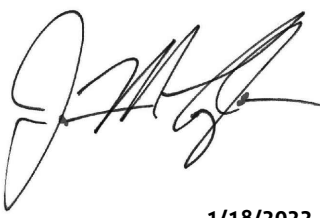
- 1) Applicable sheets from the City Standards shall be attached to the construction drawings and shall be considered part thereto. Individual City Standards that do not apply may be crossed out by design engineer by placing a single large X over the detail. Minor reference notations may be placed adjacent to individual standard titles for coordination. However, the standards themselves shall not be modified in any way.
- 2) Details prepared by outside sources shall not be included in the construction drawings when said details are covered by City Standards.
- 3) Details prepared by outside sources covering work which is not covered by City Standards are the sole responsibility of the design engineer and shall be placed on sheets other than the City Standard sheets.
- 4) Failure to properly execute the above directions for use will not affect the applicability nor the enforcement of the City Standards.
- 5) City of Fishers shall be contacted when required by calling the Director of Engineering.
- 6) City Standards shall be used in conjunction with the Transportation Plan and Construction Specifications.
- 7) The use of INDOT refers to Indiana Department of Transportation Standard Drawings and Specifications (Current Version).

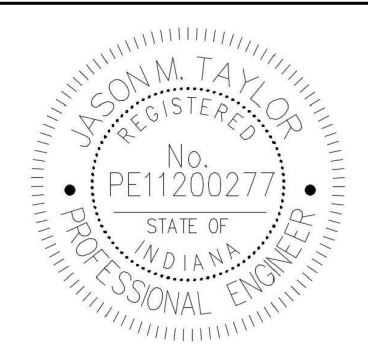
## NOTES

- 1) A City of Fishers Right-of-Way Activity Permit is required for utilities crossing existing public right-of-way or encroaching into right-of-way pavement.
- 2) Utility work within existing public right-of-way or within 5 feet of existing right-of-way pavement requires removable flowable fill as backfill.

## INDEX

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ROUNDBOUT DESIGN DETAILS	7
HANDRAIL AND FENCE DETAILS	8
TIMBER GUARDRAIL DETAILS	9-12
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1/18/2022



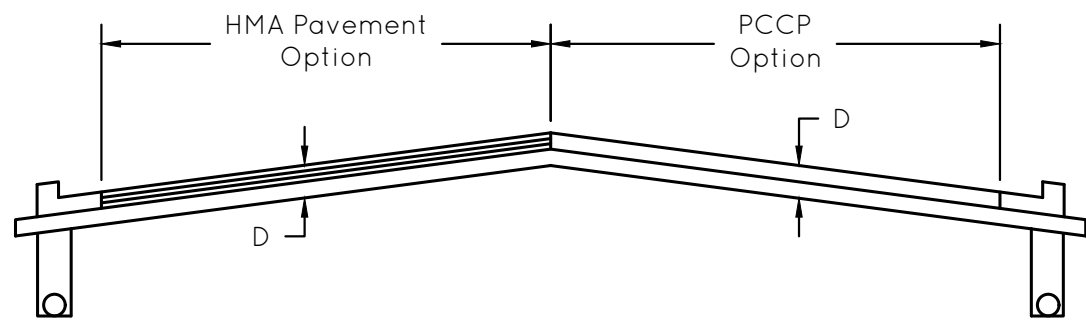
CITY OF FISHERS STANDARD CONSTRUCTION DETAILS
TITLE SHEET

<b>R011822A</b>	<b>SHEET</b>
RESOLUTION NO.	
<b>1/18/2022</b>	<b>1</b>
DATE OF ADOPTION	<b>of</b>
	<b>29</b>









- Notes:
- 1) Asphalt pavement shall be in accordance with the most current INDOT Standard Specifications Section 401. For all local (non-Federal Aid) projects, all HMA acceptance and testing requirements shall be in accordance with Section 402. Patching and Widening shall be in accordance with Section 304.
  - 2) PCCP pavement shall be in accordance with the most current INDOT Standard Specifications Section 502.
  - 3) Any other pavement design will need Director of Engineering approval

### LOCAL STREET

#### HMA Pavement Option

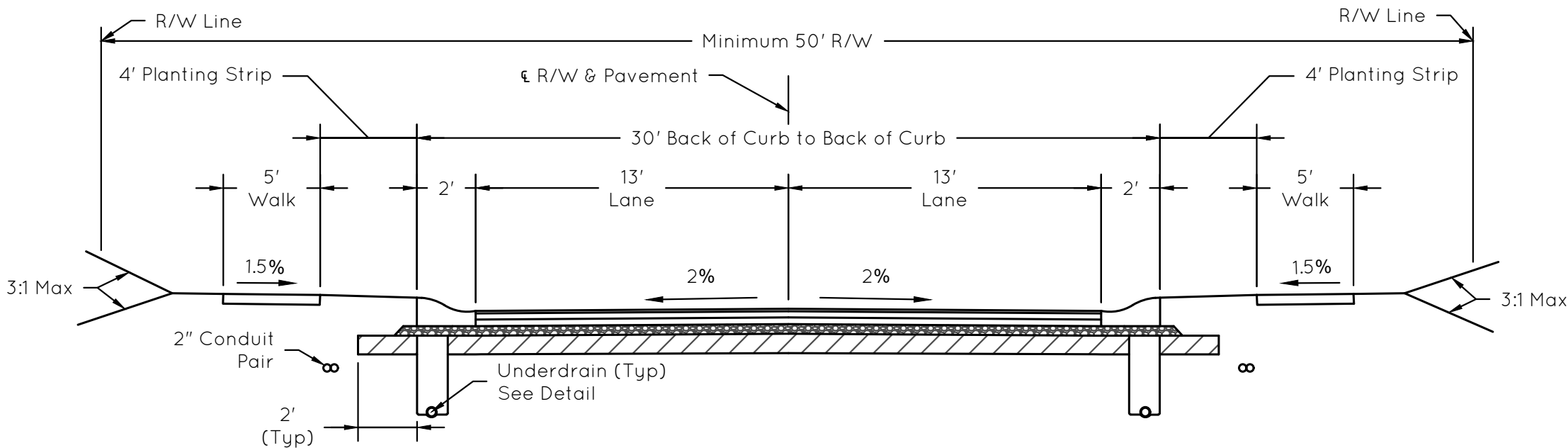
D = 1.5" - 165lb/syd QC/QA-HMA, 2, 64, Surface, 9.5mm, on  
 2.5" - 275lb/syd QC/QA-HMA, 2, 64, Intermediate, 19.0 mm, on  
 3.75" - 413lb/syd QC/QA-HMA, 2, 64, Base, 19.0mm, on  
 6" - Compacted Aggregate, No. 53, on  
 14" - INDOT Subgrade Treatment, Type IBC

#### Minor Subdivision

D = 1.5" - 165lb/syd QC/QA-HMA, 2, 64, Surface, 9.5mm, on  
 3.5" - 385lb/syd QC/QA-HMA, 2, 64, Intermediate, 19.0 mm, on  
 12" - Compacted Aggregate, No. 53, on  
 14" - INDOT Subgrade Treatment, Type IBC

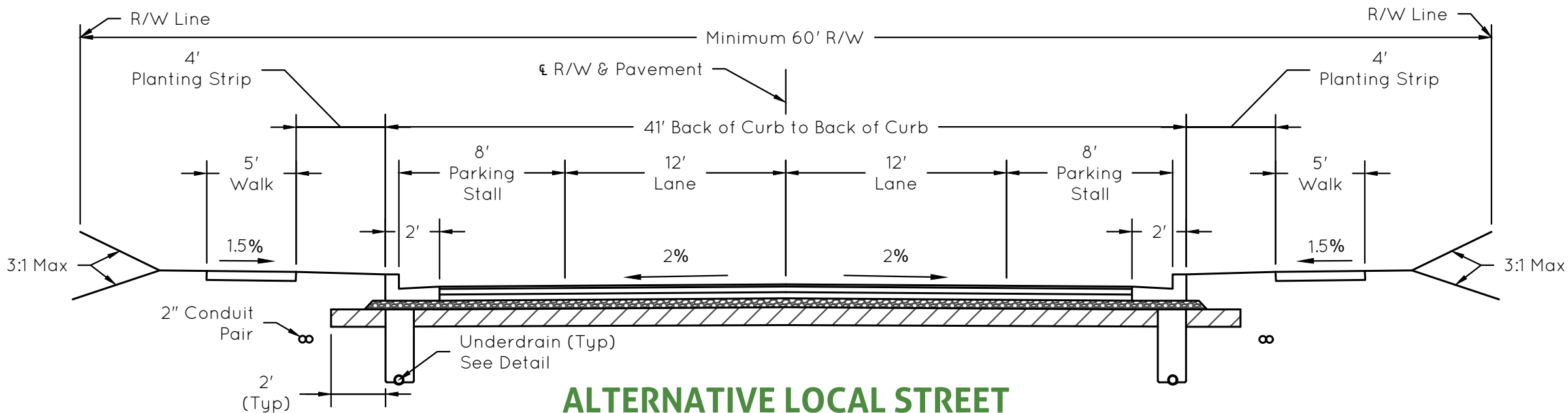
#### PCCP Option (Requires Engineering Approval)

D = 13" - PCCP, on  
 3" - Compacted Aggregate, No. 8, on  
 3" - Compacted Aggregate, No. 53, on  
 14" - INDOT Subgrade Treatment, Type IBC



### LOCAL STREET

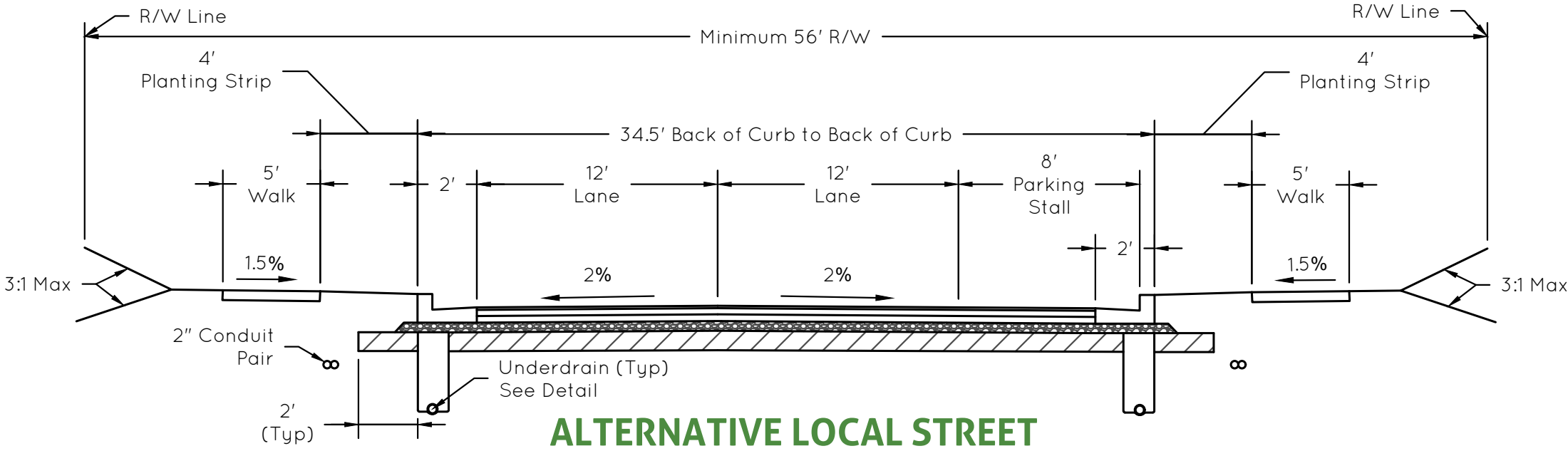
Not to Scale



### ALTERNATIVE LOCAL STREET

#### TRADITIONAL SECTION WITH 2 PARKING LANES

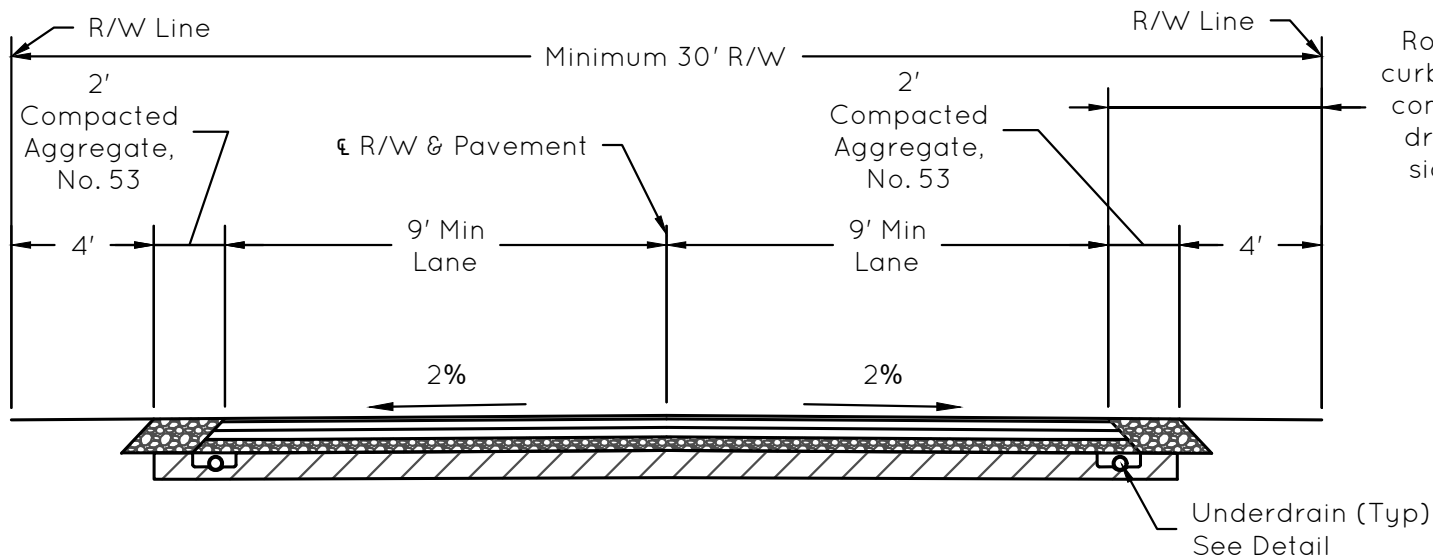
Not to Scale



### ALTERNATIVE LOCAL STREET

#### TRADITIONAL SECTION WITH 1 PARKING LANE

Not to Scale



### ALTERNATIVE LOCAL STREET

#### MINOR SUBDIVISION

Not to Scale

**MODIFICATIONS TO THESE SECTIONS  
MUST BE APPROVED BY  
THE DIRECTOR OF ENGINEERING**

Road sections without  
curb shall require special  
consideration for storm  
drainage, underdrain,  
side ditch depth, etc.

*J. M. Taylor*

1/18/2022



**CITY OF FISHERS  
STANDARD CONSTRUCTION DETAILS**

LOCAL STREET  
TYPICAL PAVEMENT AND  
ROADWAY SECTIONS

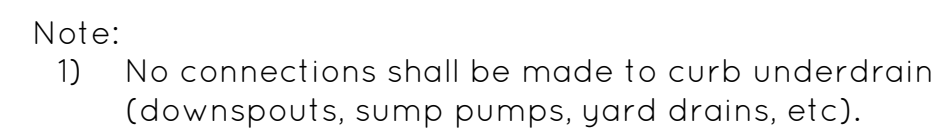
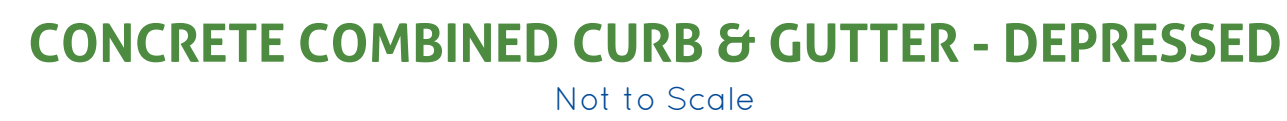
SHEET

**3  
of  
29**





### CONCRETE COMBINED CURB & GUTTER



**CURB UNDERDRAIN**  
Not to Scale



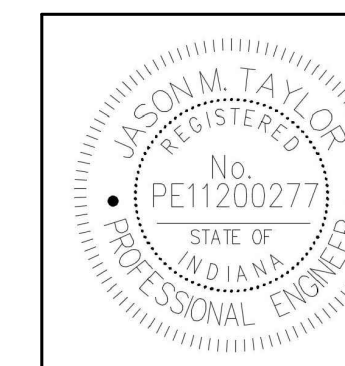
Note:

- 1) Contraction joints for concrete curbs shall be sawed at 10-ft spacing. Spacing shall be 5-ft on curves.

## CONTRACTION JOINTS - CONCRETE CURB



**TRENCH DRAIN DETAIL W/ SIDEWALK OR MULTI-USE PATH**  
Not to Scale

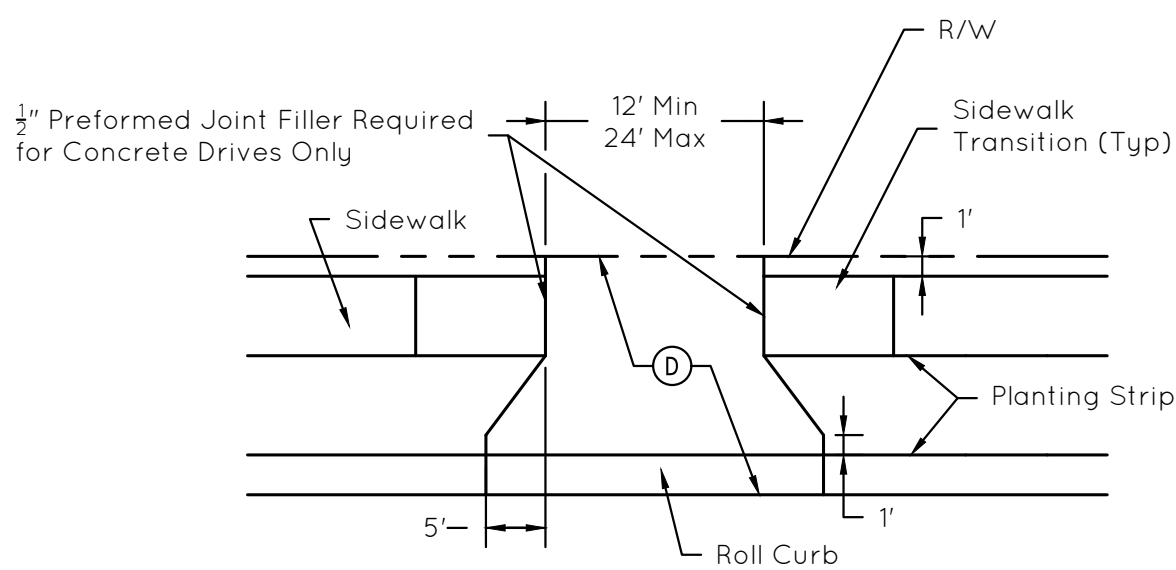


CITY OF FISHERS	
STANDARD CONSTRUCTION DETAILS	
CURB AND UNDERDRAIN DETAILS	

HEET

4  
of  
29



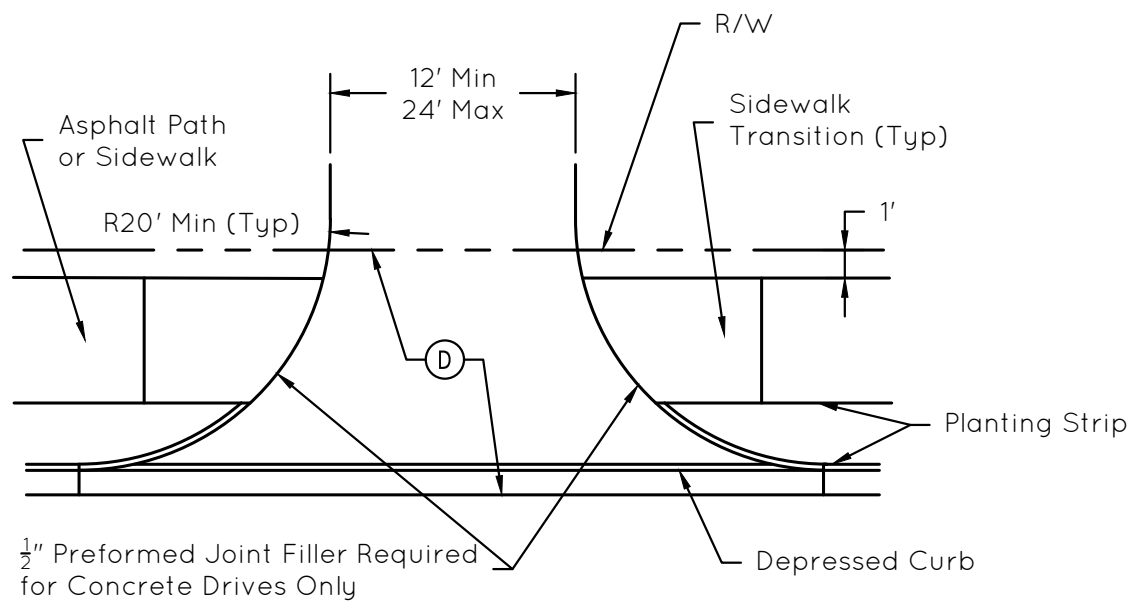


Residential Driveway on Local Road

PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on 6" - INDOT Subgrade Treatment, Type II

or

HMA for Approaches, Type B 1.5" - 165lb/syd HMA Surface, Type B on 2.5" - 275lb/syd HMA Intermediate, Type B on 6" - Compacted Aggregate, No. 53, on 6" - INDOT Subgrade Treatment, Type II

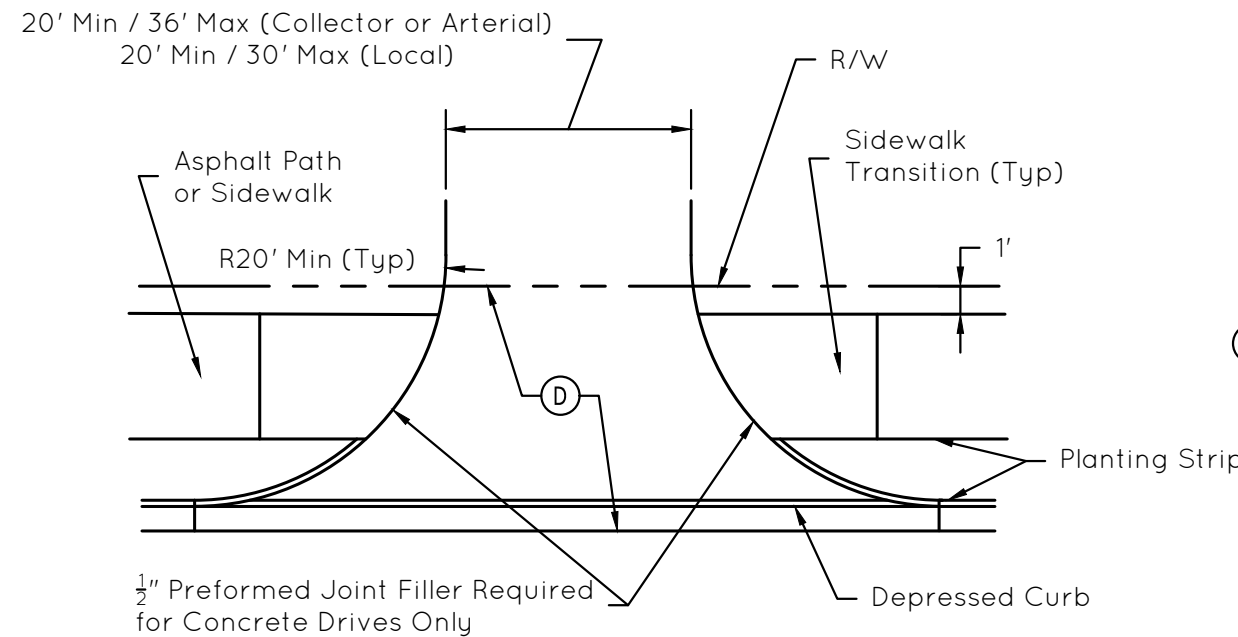


Residential Driveway on Collector, Secondary, or Primary Arterial

PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on 6" - INDOT Subgrade Treatment, Type II

or

HMA for Approaches, Type B 1.5" - 165lb/syd HMA Surface, Type B on 2.5" - 275lb/syd HMA Intermediate, Type B on 6" - Compacted Aggregate, No. 53, on 6" - INDOT Subgrade Treatment, Type II



Commercial Driveway

PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid, Type 1B, on 6" - INDOT Subgrade Treatment, Type II

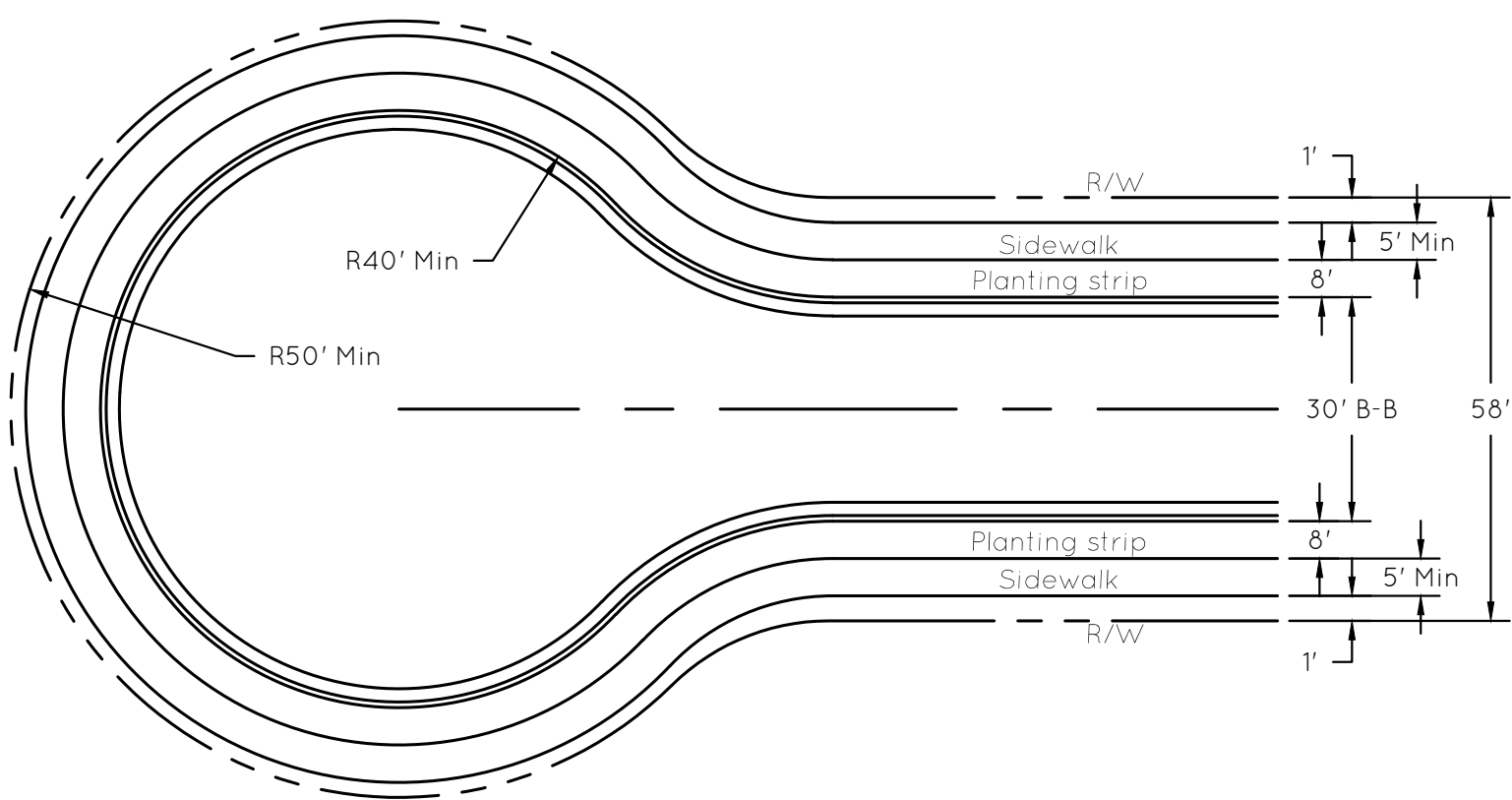
or

HMA for Approaches, Type B 1.5" - 165lb/syd HMA Surface, Type B on 2.5" - 275lb/syd HMA Intermediate, Type B on 6" - 660lb/syd HMA Base, Type B on 6" - INDOT Subgrade Treatment, Type II on Geogrid, Type 1B

- Notes:
- 1) Details do not reflect additional road improvements (i.e., turn lanes and tapers).
  - 2) Decorative driveway aprons are not allowed except as approved by the Director of Engineering.
  - 3) Maximum driveway slope outside of right-of-way shall be 12% for minimum 10 feet beyond R/W line.
  - 4) Adjoining asphalt shall have perpendicular edges.
  - 5) Asphalt shall not be used for residential driveways on Collector, Secondary, or Primary Arterials.
  - 6) Asphalt must match adjacent mainline cross section for commercial approaches.

## DRIVEWAY DETAILS

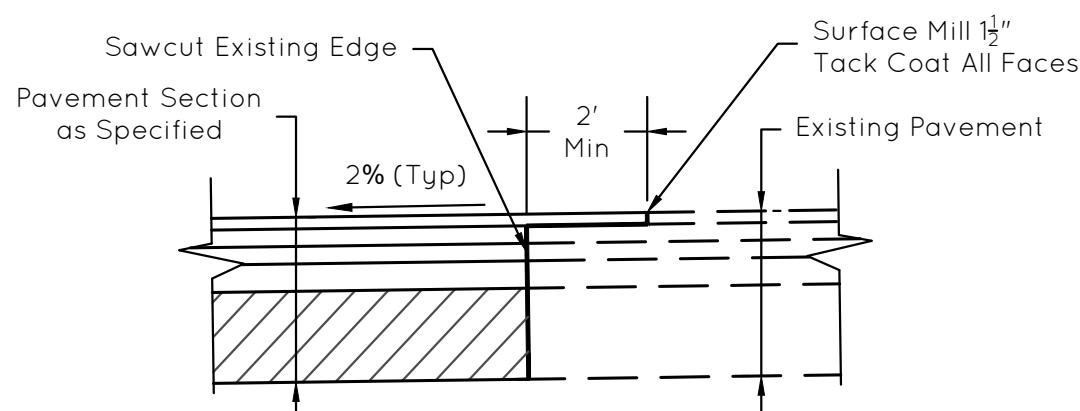
Not to Scale



- Note:
- 1) 'Eyebrows' are not allowed

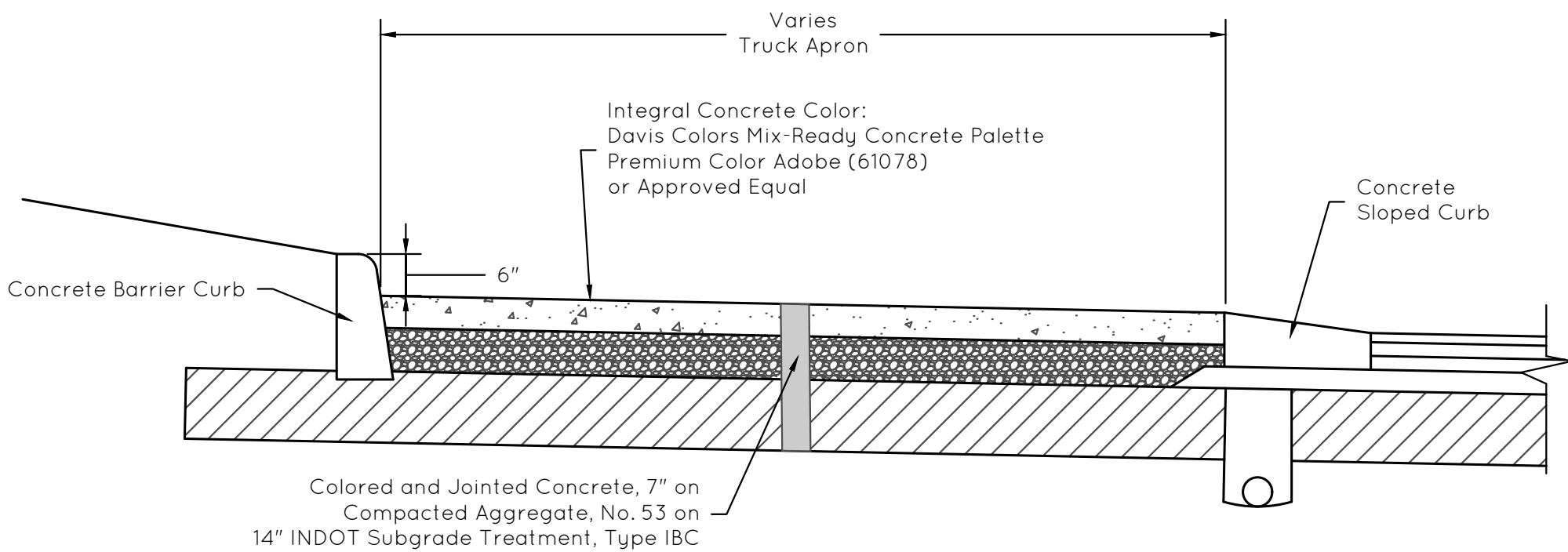
## CUL-DE-SAC

Not to Scale



## LONGITUDINAL PAVEMENT TIE-IN SECTION

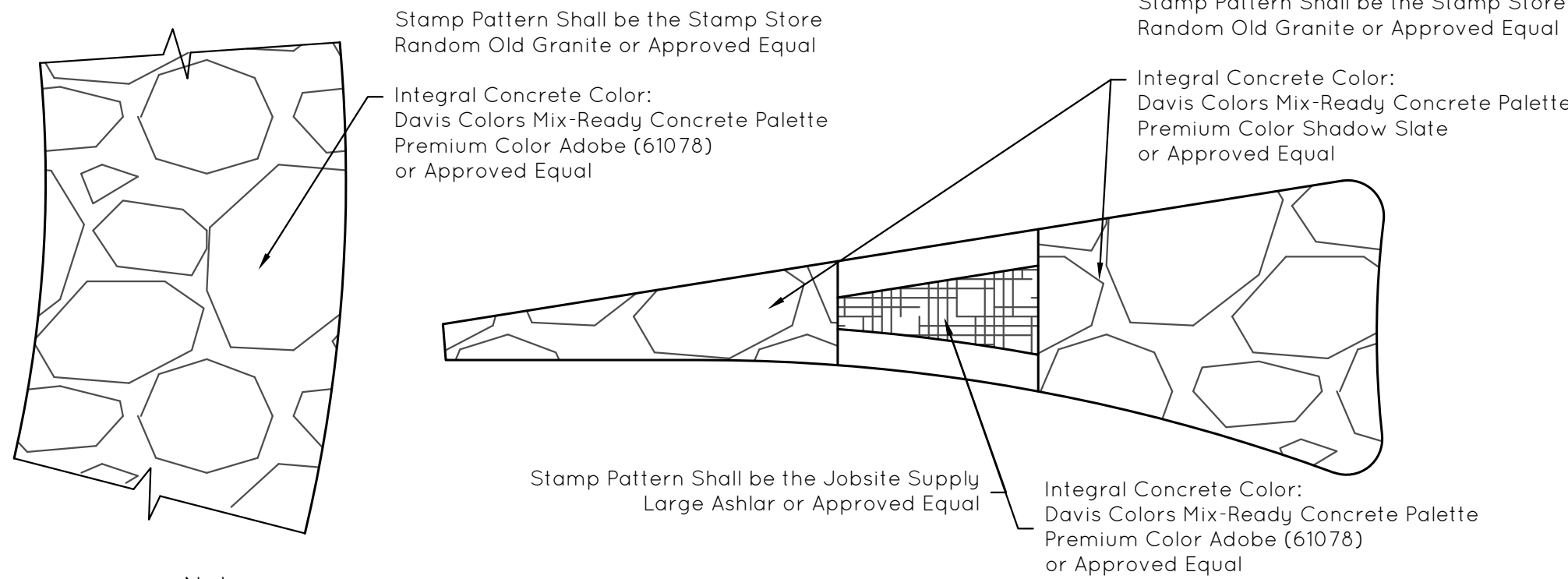
Not to Scale



- Note:
- 1) Type D-1 Contraction Joints not required unless otherwise directed by Dept. of Engineering.

## CONCRETE TRUCK APRON DETAIL

Not to Scale

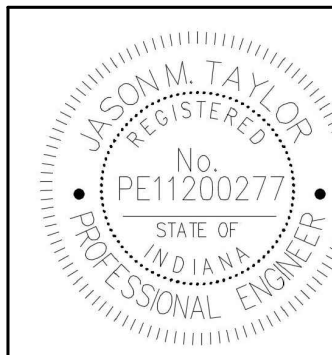


- Notes:
- 1) Pattern shall be submitted to ENGINEER prior to construction.
  - 2) A 4' x 4' mock-up is required for ENGINEER approval.
  - 3) Concrete shall cure for a minimum of four days prior to applying sealant.

## ROUNDBOUT TRUCK APRON AND SPLITTER ISLAND STAMP DETAIL

Not to Scale

1/18/2022



## CITY OF FISHERS STANDARD CONSTRUCTION DETAILS

DRIVEWAY, CUL-DE-SAC, AND  
MISC. TRANSPORTATION DETAILS

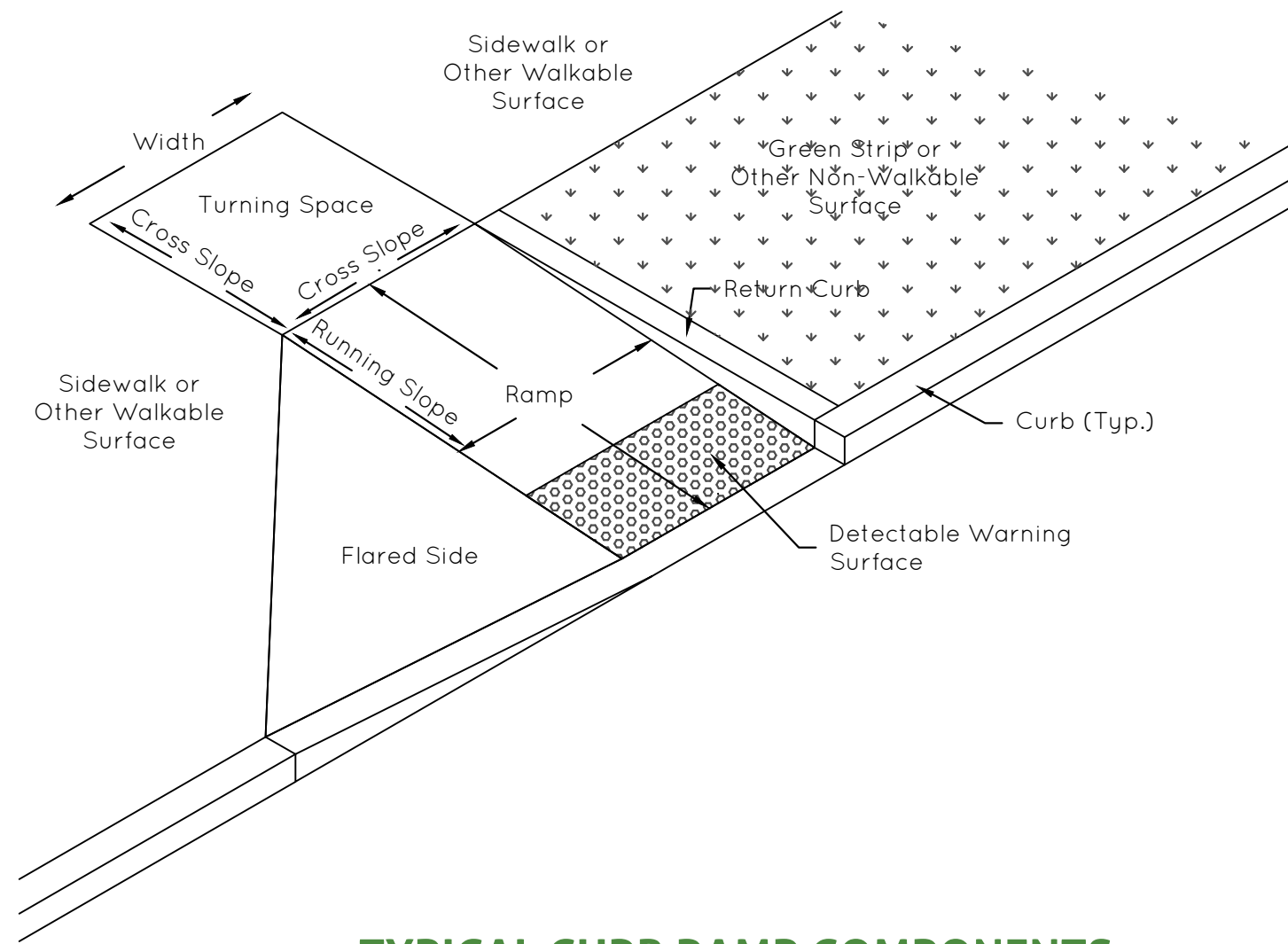
SHEET

5  
of  
29

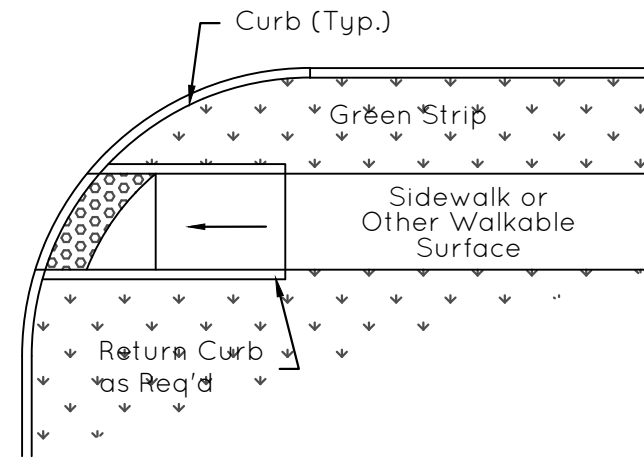


NOTES

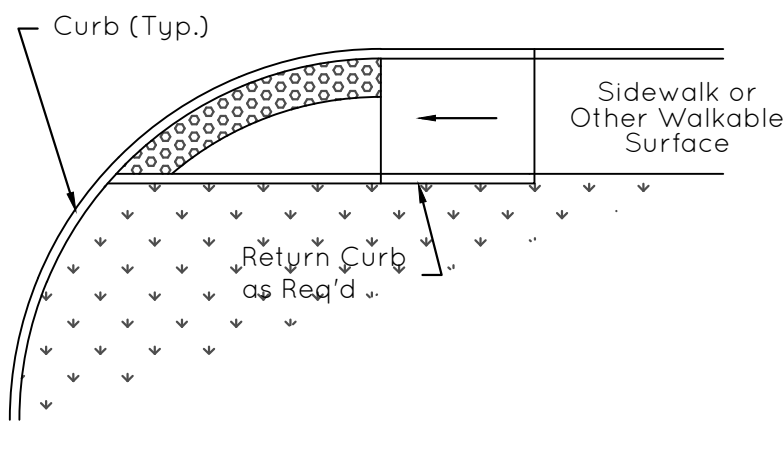
- 1) Curb ramps and sidewalks shall be constructed in accordance with INDOT Standard Specifications, Section 604.
- 2) All sidewalks and curb ramps within Fishers Right-of-Way shall be ADA compliant.
- 3) Detectable Warning Surfaces shall be cast iron type and shall be powder coated black.
- 4) Detectable Warning Surfaces shall not be installed at commercial or private driveways unless traffic warrants or approved by City Engineer.
- 5) Transverse joints shall be cut with a jointer having a radius of 1/2-inch of spacing.
- 6) Decorative sidewalks are not permitted unless prior approval has been given by the Director of Engineering.
- 7) When sidewalk is built in conjunction with concrete pavement, expansion and contraction joints should be placed at the same location as the pavement slab. The curb and gutter shall be tied to the pavement by 1/2-in round preformed epoxy coated bars at approximate 3-foot intervals. If concrete pavement is not being built at the same time the curb is constructed, expansion joints should be placed at the ends of all returns and at intervals not to exceed 100 feet. Contraction joints should be installed at 20-foot intervals.
- 8) Curb inlets shall not be allowed within 2 feet of curb ramps or at the apex of corner radii.



TYPICAL CURB RAMP COMPONENTS  
Not to Scale



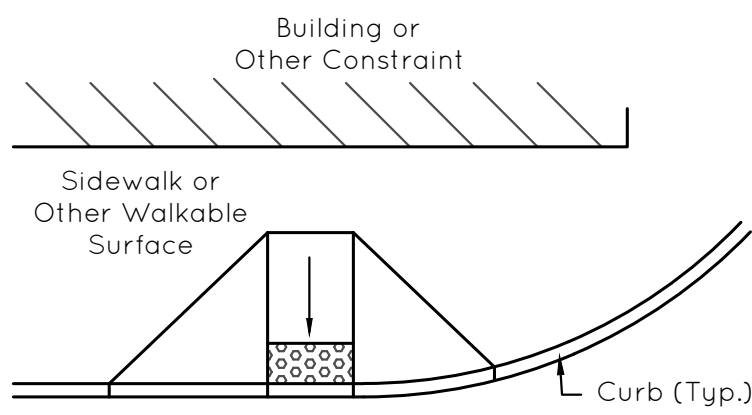
Ramp with Buffer



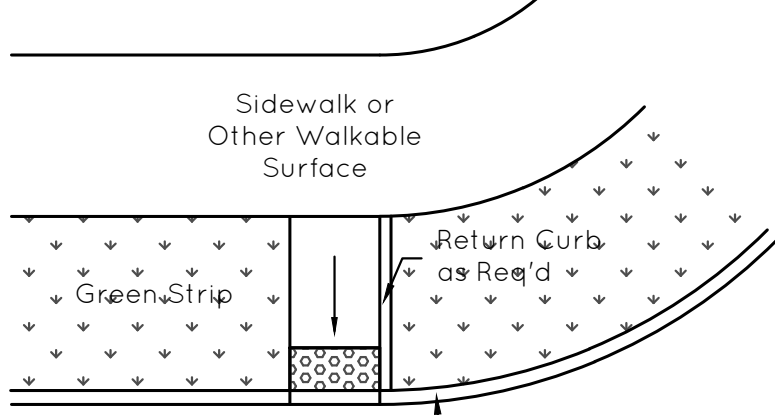
Ramp Adjacent to Curb

ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP EXAMPLES

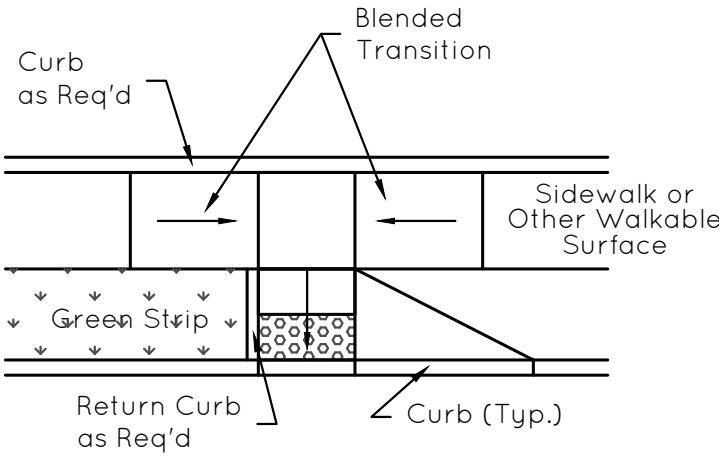
Not to Scale



Ramp Adjacent to Walkable Surface



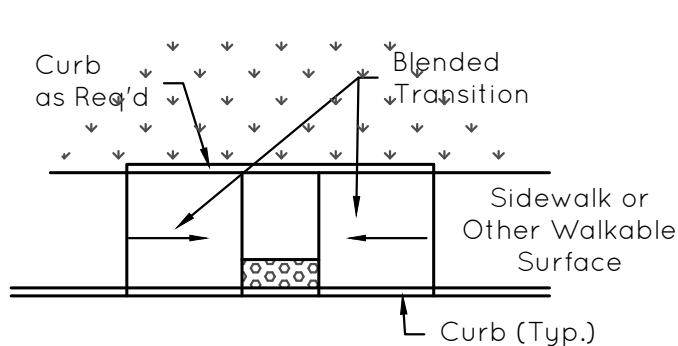
Ramp Adjacent to Non-Walkable Surface



Ramp with Grade Tiering

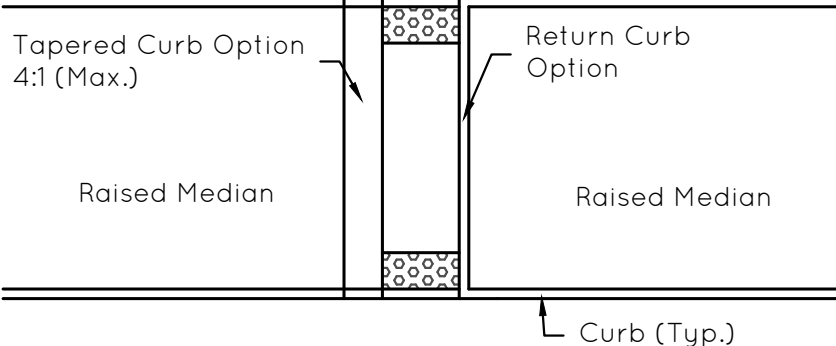
PERPENDICULAR CURB RAMP EXAMPLES

Not to Scale



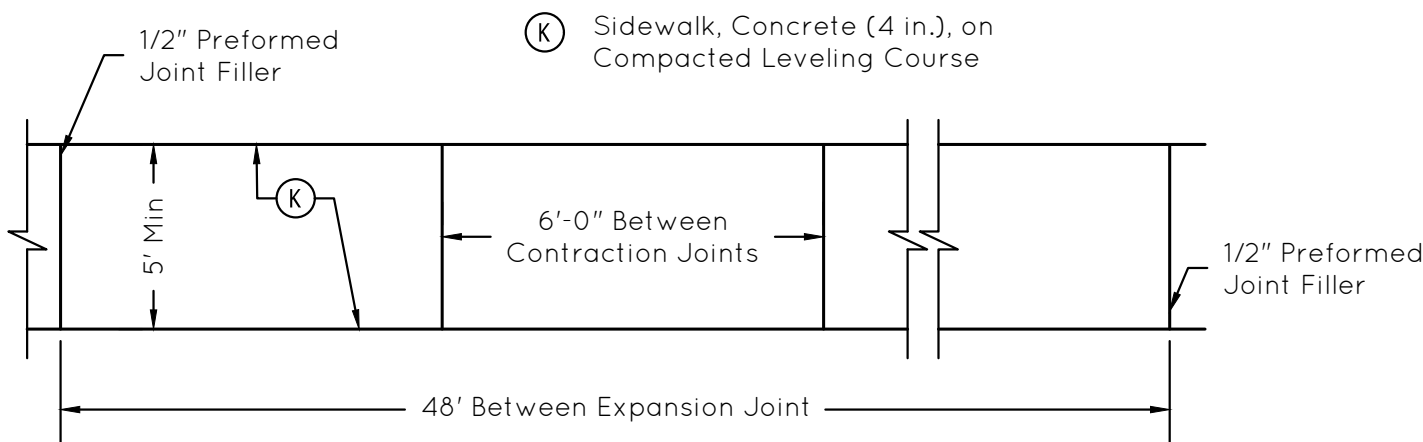
PARALLEL CURB RAMP EXAMPLE

Not to Scale



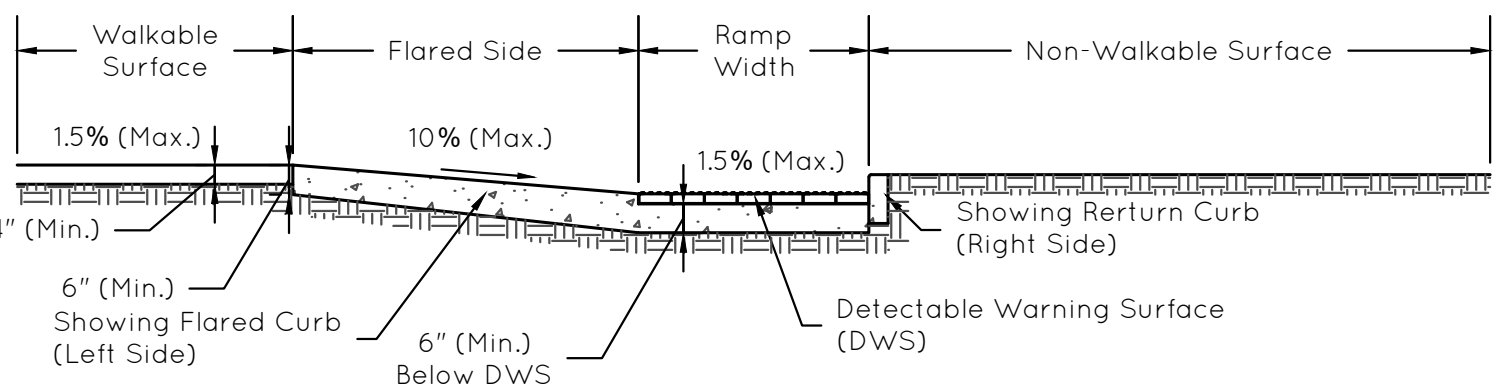
MEDIAN CURB RAMP EXAMPLE

Not to Scale



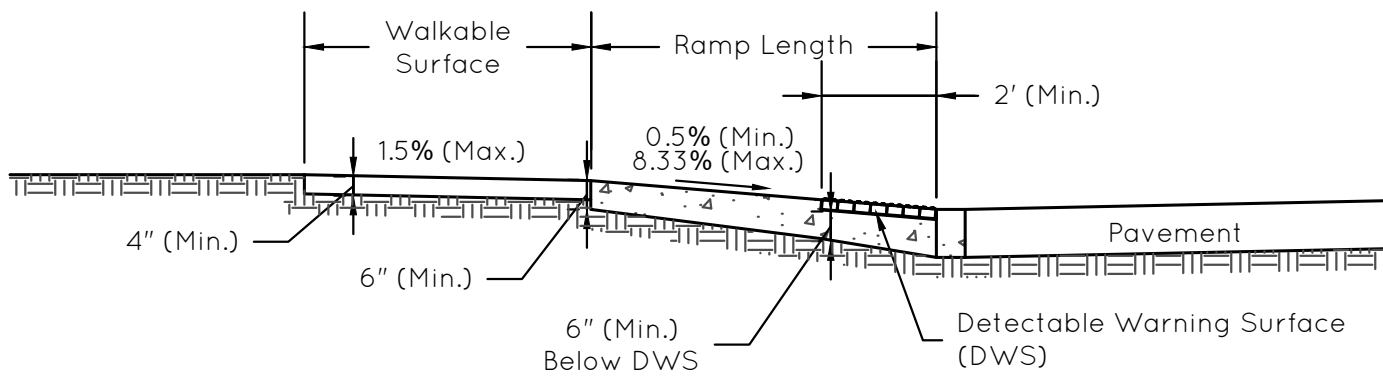
SIDEWALK DETAIL

Not to Scale



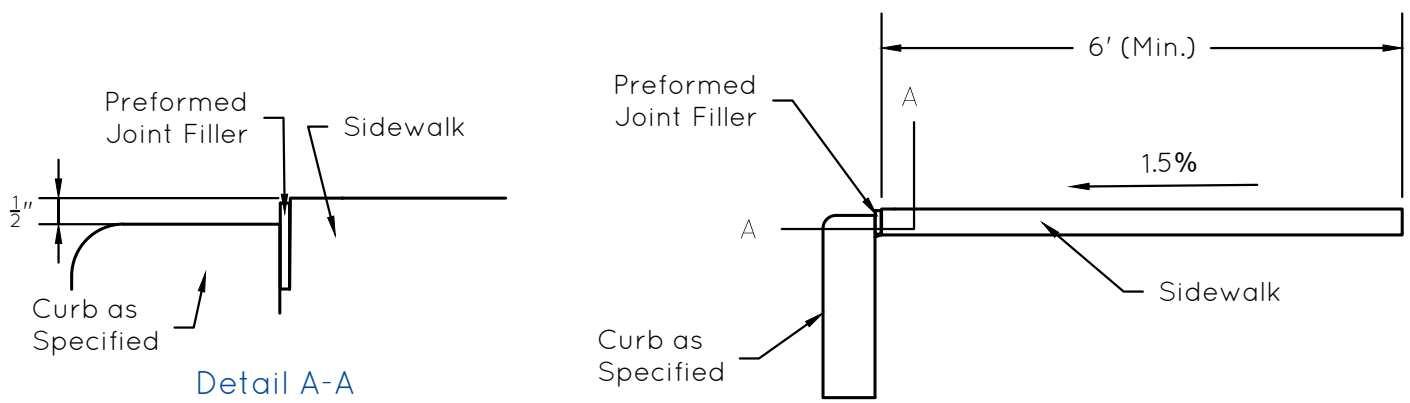
TYPICAL CURB RAMP CROSS SLOPE SECTION

Not to Scale



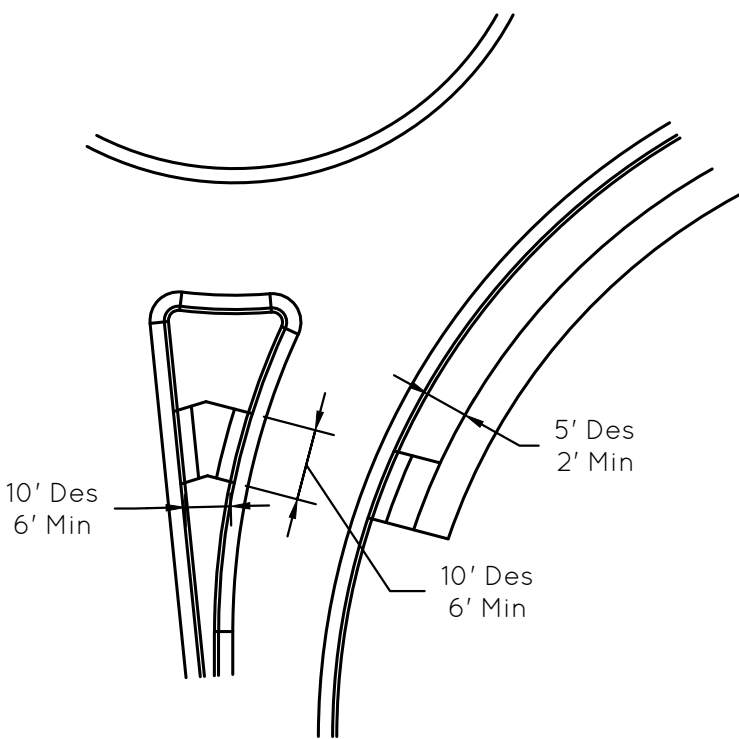
TYPICAL CURB RAMP RUNNING SLOPE SECTION

Not to Scale



SIDEWALK ADJACENT TO CURB

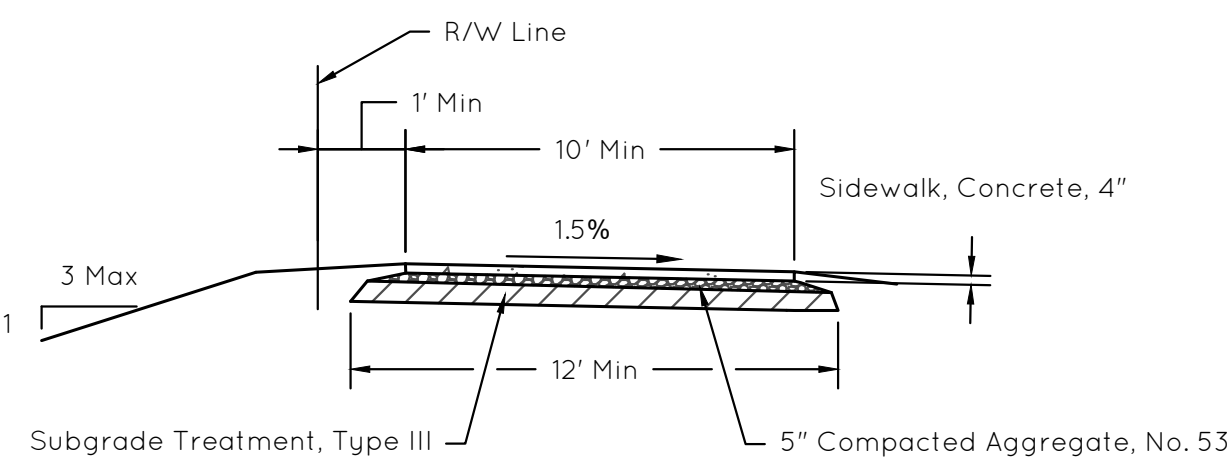
Not to Scale



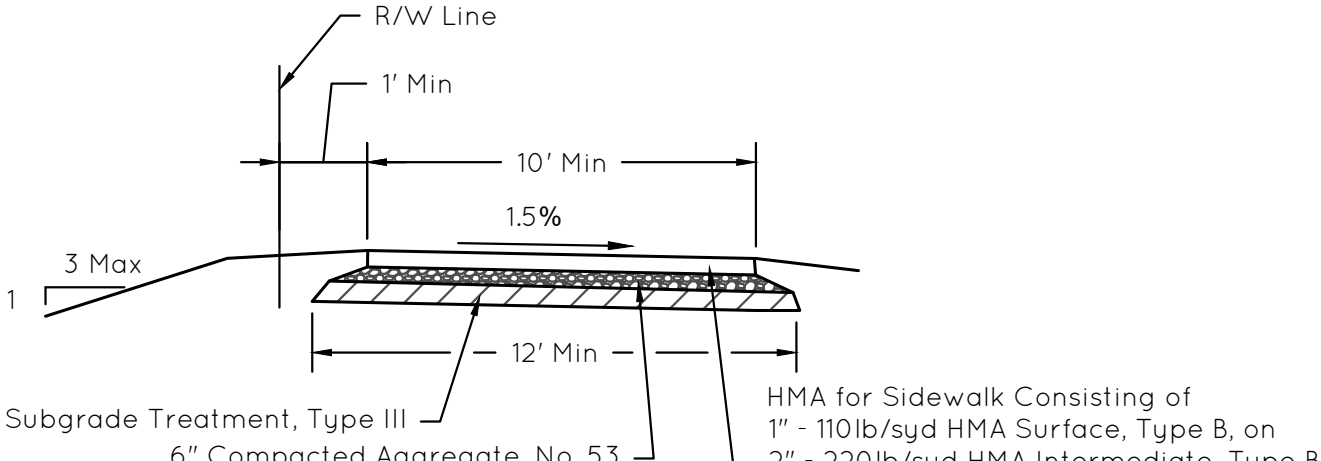
Note:  
1) If 6' minimum cannot be achieved at the splitter island, crosswalk shall be of passthrough type without angular deflection.

ROUNDBOUT SIDEWALK AND CURB RAMP PLACEMENT

Not to Scale



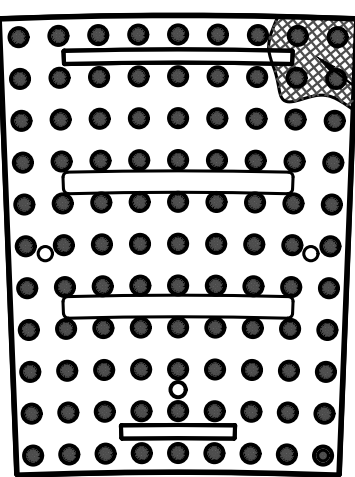
Concrete Section (Requires Engineering Approval)



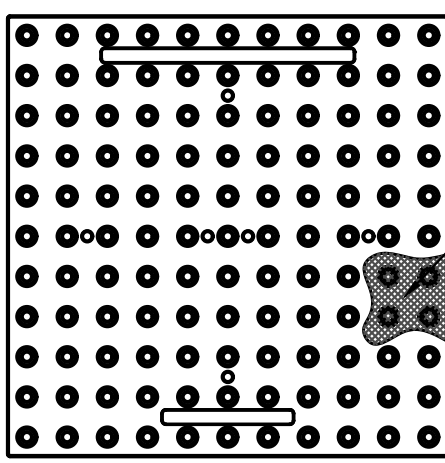
Asphalt Section

PERIMETER PATH

Not to Scale



Curved Panel



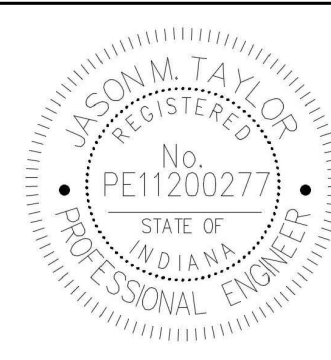
Square Panel

- Note:
- 1) Detectable warning surfaces by East Jordan Iron Works, Neenah, or approved equal shall be cast iron, have a heavy duty load rating, and be powder coated black.
  - 2) Detectable warning surfaces shall be ADA compliant.

DETECTABLE WARNING SURFACE

Not to Scale

1/18/2022



CITY OF FISHERS STANDARD CONSTRUCTION DETAILS		SHEET
SIDEWALK, CURB RAMP, AND PERIMETER PATH DETAILS		6 of 29



PRINCIPLES AND OBJECTIVES

Several overarching principles should guide the development of all roundabout designs. Achieving these principles should be the goal of any roundabout design:

- Provide slow entry speeds and consistent speeds through the roundabout by using deflection.
- Provide the appropriate number of lanes and lane assignment to achieve adequate capacity, lane volume balance, and lane continuity.
- Provide smooth channelization that is intuitive to drivers and results in vehicles naturally using the intended lanes.
- Provide adequate accommodation for the design vehicles.
- Design to meet the needs of pedestrians and cyclists.
- Provide appropriate sight distance and visibility for driver recognition of the intersection and conflicting users.

Note that some features of multi-lane roundabout design are significantly different from single-lane roundabout design, and some techniques used in single-lane roundabout design may not directly transfer to multi-lane design. Each of the principles described above affects the safety and operations of the roundabout. When developing a design, the trade-offs of safety, capacity, cost, and so on must be recognized and assessed throughout the design process.

DESIGN GUIDELINES

Submittals

All roundabout designs shall be submitted for review at the following stages of development:

- 1) Conceptual
  - 1)1) Preliminary layout
  - 1)2) Planned roundabout capacity analysis for construction year, 10-year, and 20-year traffic review
- 2) Stage 1 or 25% plans
  - 2)1) Refined geometrics
  - 2)2) Turning movement and design vehicle selection review
  - 2)3) Striping review
- 3) Stage 2 or 50% plans
  - 3)1) Drainage and grade review
  - 3)2) Roundabout sight distance review
- 4) Stage 3 or 75% plans
  - 4)1) Landscaping review
  - 4)2) Lighting review
  - 4)3) Signage review

Speed Management

The maximum allowable fastest path entry speeds shall be as indicated below unless prior approval has been given by the Department.

- 1) Single-lane roundabouts - 25 mph
- 2) Multi-lane roundabouts - 30 mph

Design Vehicle Selection

- 1) The WB-62 shall be the minimum design vehicle for sizing the roundabout unless prior approval has been given by the Department.
  - 1)1) At multi-lane approaches it shall be assumed that the WB-62 will straddle the lane line to make a through and right-turn movement.
- 2) At a minimum, the WB-62 shall be able to travel through a roundabout without over-tracking any curb with the exception of the truck apron roll curb unless prior approval has been given by the Department.
- 3) The circulatory roadway and all lanes within a multi-lane roundabout shall accommodate a city-bus, fire truck, and school bus unless prior approval has been given by the Department.

Inscribed Circle Diameter (ICD)

Unless prior approval is given by the Department, the smallest ICD used for design shall be 110 ft.

Entry Geometry and Path Alignment

- 1) If horizontal deflection is utilized on an approach to a roundabout it should be a 6 ft offset minimum and, ideally, 10 to 12 ft to ensure drive path is influenced.
- 2) Entries shall be designed such that path overlap is eliminated.

Profiles and Grades

Vertical profiles and roundabout grading should take into consideration low clearance vehicles especially on heavy truck routes.

Splitter Islands

- 1) Splitter islands for single-lane roundabouts should be 50 feet or greater in length and 100 feet or greater in length for multi-lane roundabouts measured from the circulatory roadway.
- 2) On high speed approaches (design speed of approaching roadways above 45 mph) consideration should be given for the splitter island length to be the SSD of that design speed.

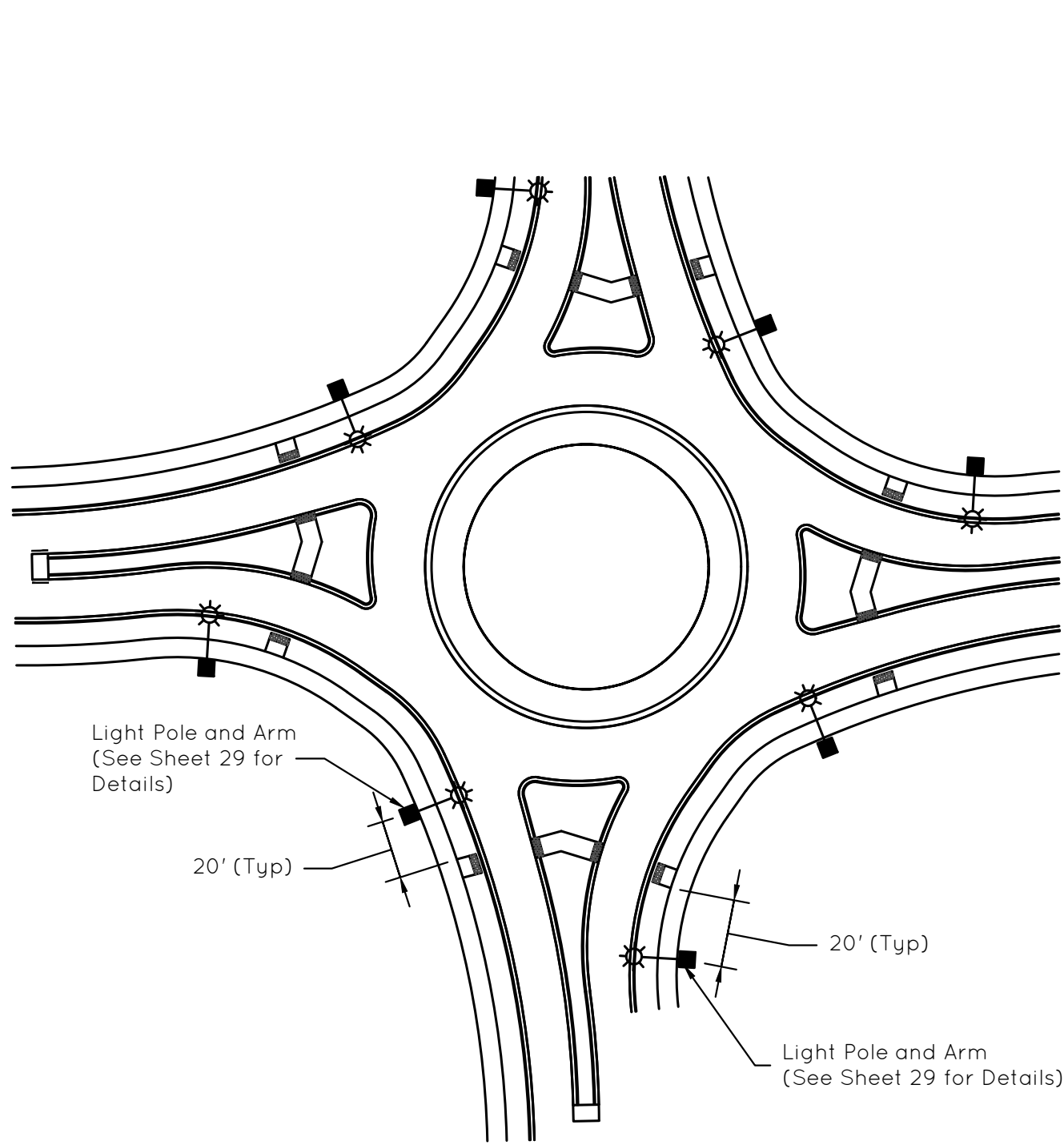
Drainage

No drainage structures shall be located within the circulatory roadway unless prior approval has been given by the Department.

Landscape

Any landscaping or object located within the center island shall be approved by the City of Fishers.

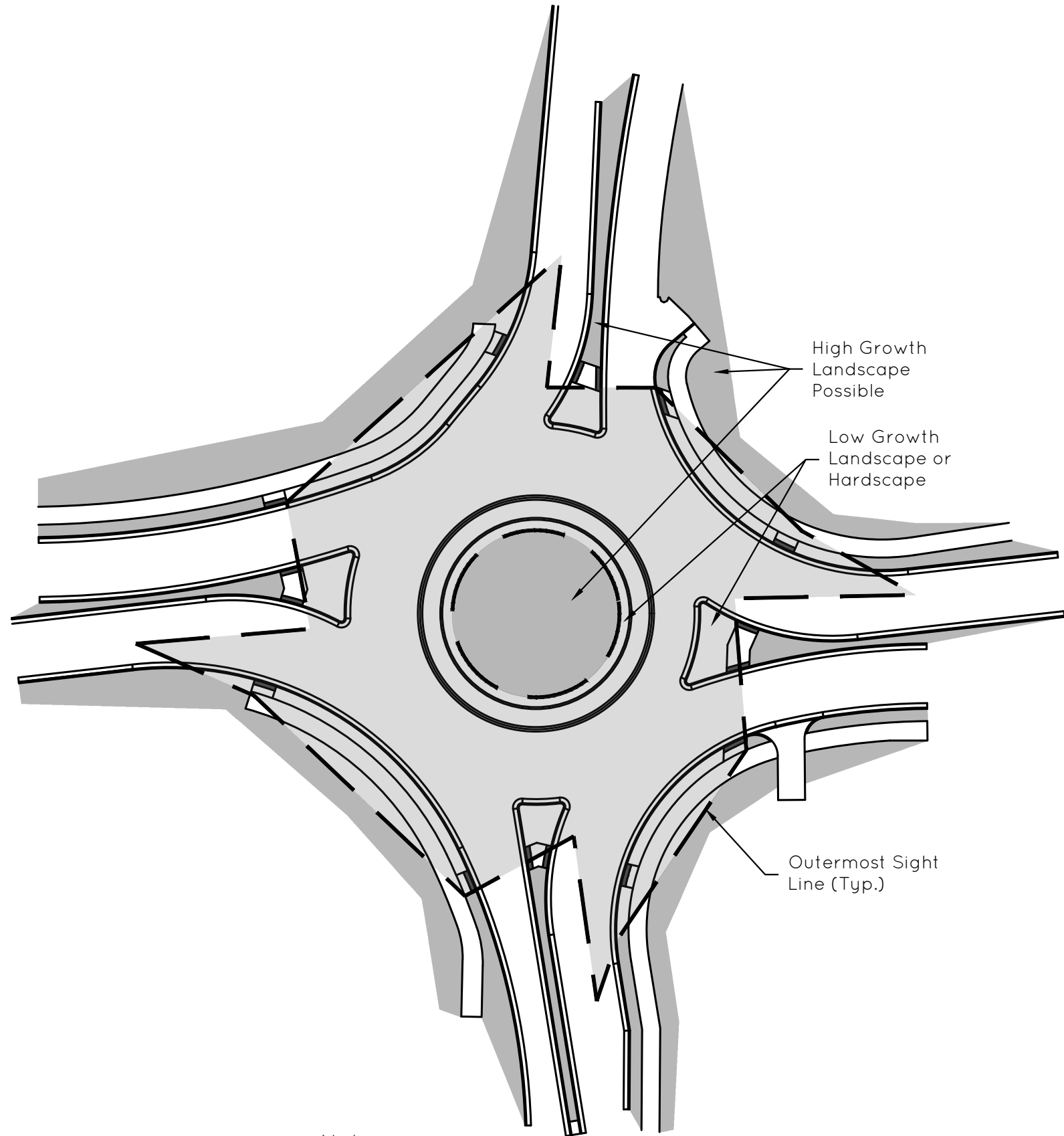
- 1) If no landscaping is proposed in the center island, fill should be placed at a 6:1 slope in order to provide a sight obstruction mound.
- 2) All splitter islands less than 8 ft in width and between the pedestrian crosswalk and circulatory roadway shall not be landscaped and shall be in stamped concrete unless prior approval has been given by the Department.
- 3) The minimum median width shall be 52 inches. If 52 inches cannot be achieved, then median must be stamped concrete or landscaped with typical Fishers narrow median landscape plan as provided by City during plan review.



- Notes:
- 1) Lighting design shall be in conformance with the IES Design Guide (IES DG-19-08) and City of Fishers standards.
  - 2) Luminaire, pole, and placement shall be coordinated for installation by Duke Energy.
  - 3) Do not backlight pedestrians.
  - 4) The full length of splitter islands shall be illuminated unless prior approval has been given by the Department.
  - 5) Additional poles should be provided as required to meet appropriate photometric results for complex geometry.

TYPICAL LIGHTING PLACEMENT

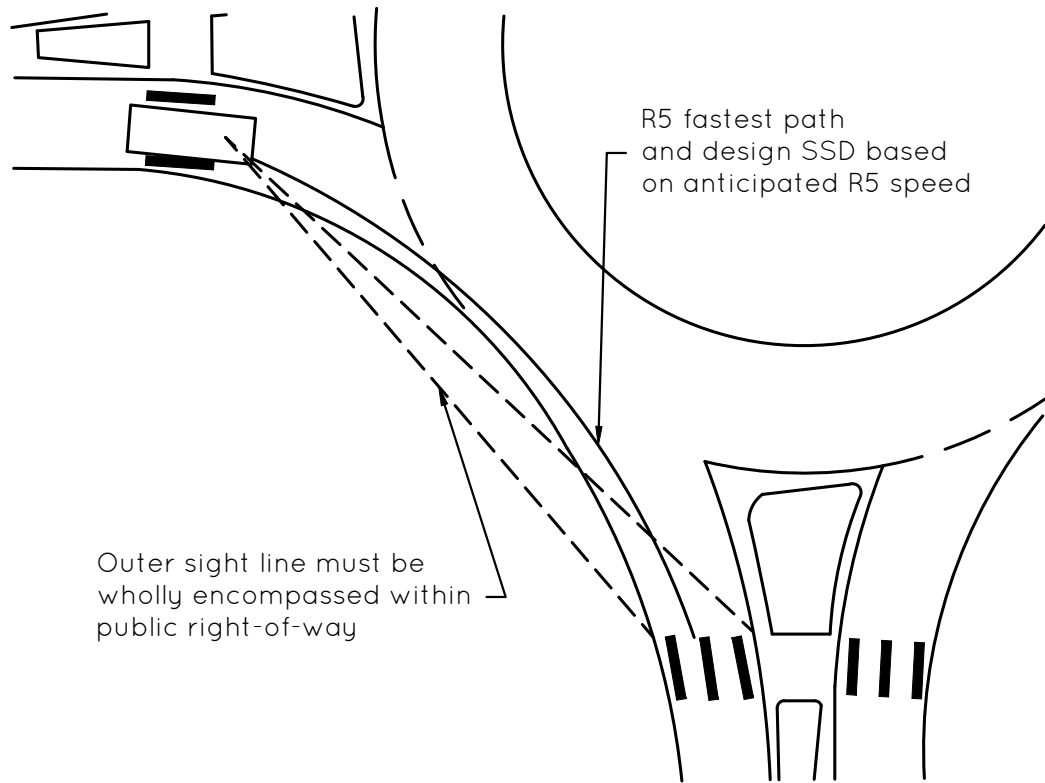
Not to Scale



- Note:
- 1) A scalable plan sheet and CAD file shall be provided to the Dept. of Engineering upon completion of final plans.

EXAMPLE LANDSCAPE AREAS DIAGRAM

Not to Scale



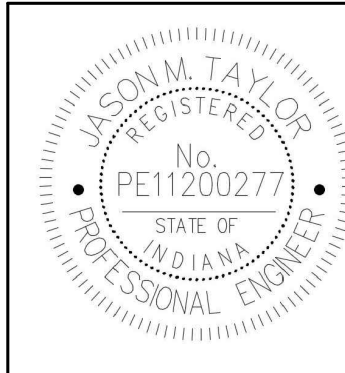
- Notes:
- 1) This detail is to provide additional guidance to designers. Designer shall not arbitrarily place vehicle at yield line or circulatory roadway edge line to check visibility.
  - 2) All roundabout sight lines shall be checked in accordance with NCHRP 672.

STOPPING SIGHT DISTANCE (SSD) TO CROSSWALK

Not to Scale

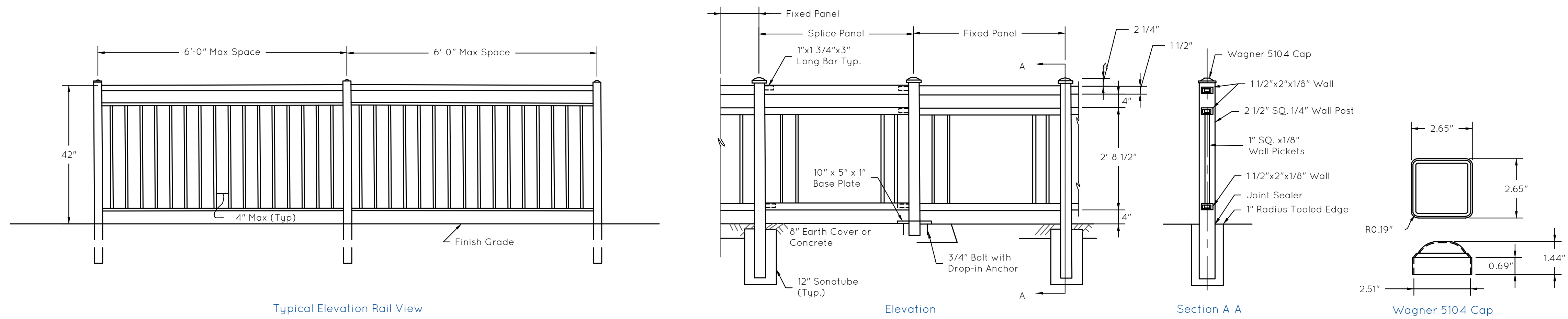
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1/18/2022



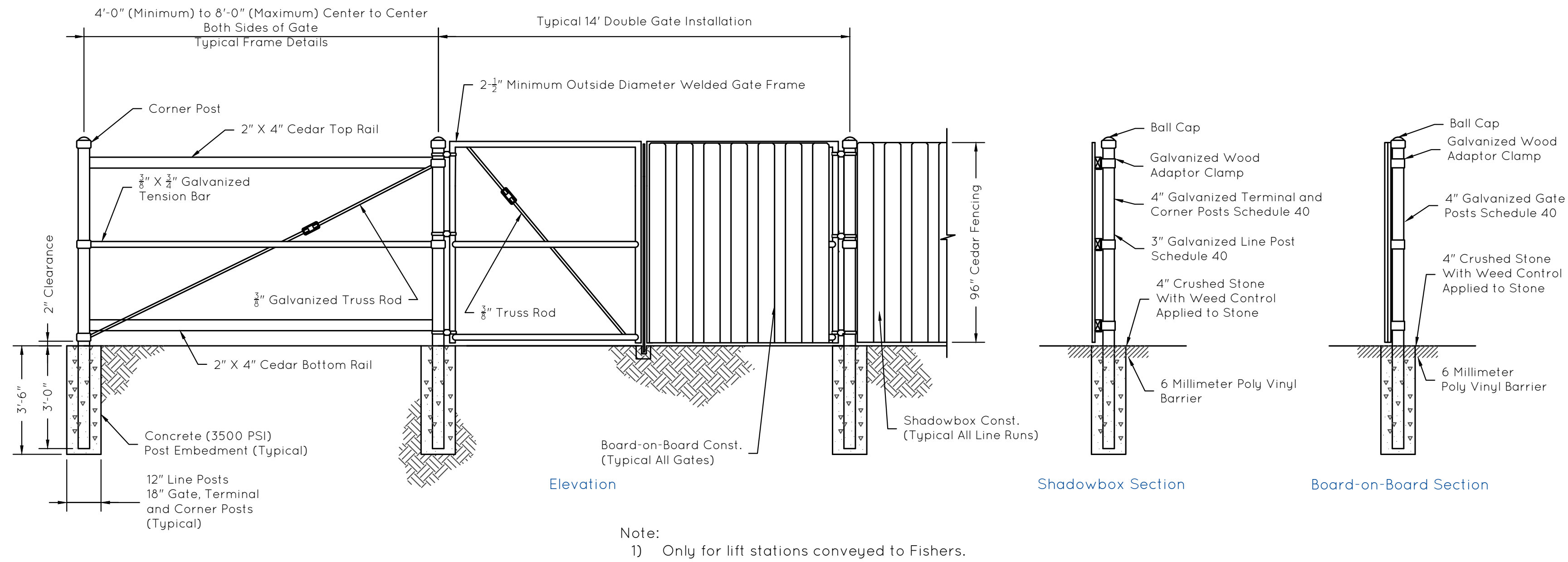
CITY OF FISHERS STANDARD CONSTRUCTION DETAILS		SHEET
ROUNDAABOUT DESIGN STANDARDS		7 of 29





- Notes:
- 1) All extrusions aluminum 6061-T6 or 6063-T6.
  - 2) Pedestrian handrail shall be powder coated in accordance with ASTM D7803 and D3359. Powder coating color shall be Fishers Green (RAL 6004).
  - 3) Fixed panel sections will consist of two to three 6' maximum post pace sections welded as an assembly.
  - 4) Splice panel sections will consist of a loose top rail section and a welded pick panel section field assembled onto the 1" x 1 3/4" x 3" long bar supports.
  - 5) Railing connections shall be designed per AASHTO LRFD Bridge Design Specifications (Latest Edition).
  - 6) Footing and post embedment to be designed by the manufacturer. All concrete shall be Class "A" (3500 PSI). Posts may be anchored to precast concrete headwalls.
  - 7) Handrail to be used in conjunction with combined walk and retaining wall detail.

**PEDESTRIAN HANDRAIL**  
Not to Scale

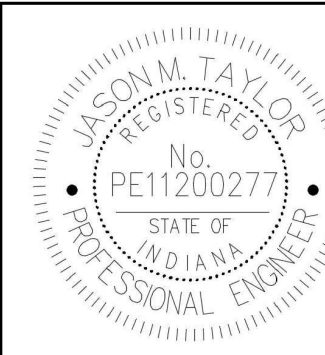


- Note:
- 1) Only for lift stations conveyed to Fishers.

**CEDAR FENCE**  
Not to Scale

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1/18/2022

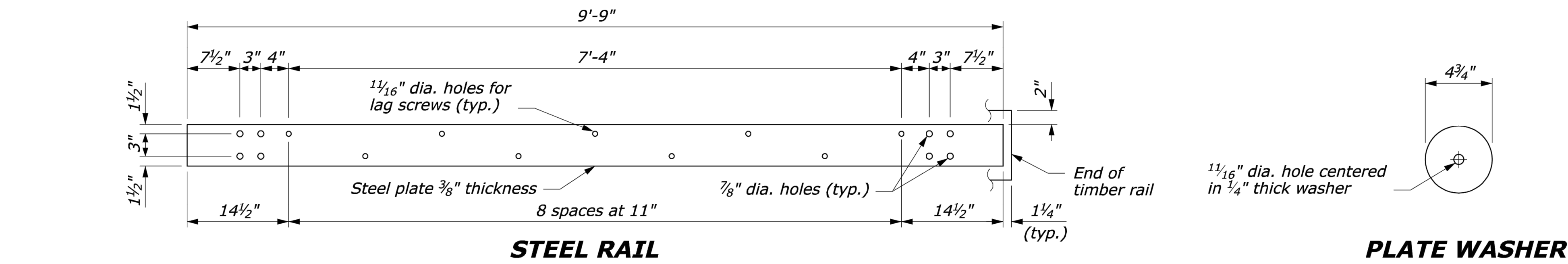


CITY OF FISHERS STANDARD CONSTRUCTION DETAILS	
CEDAR FENCE AND PEDESTIRAN HANDRAIL DETAILS	

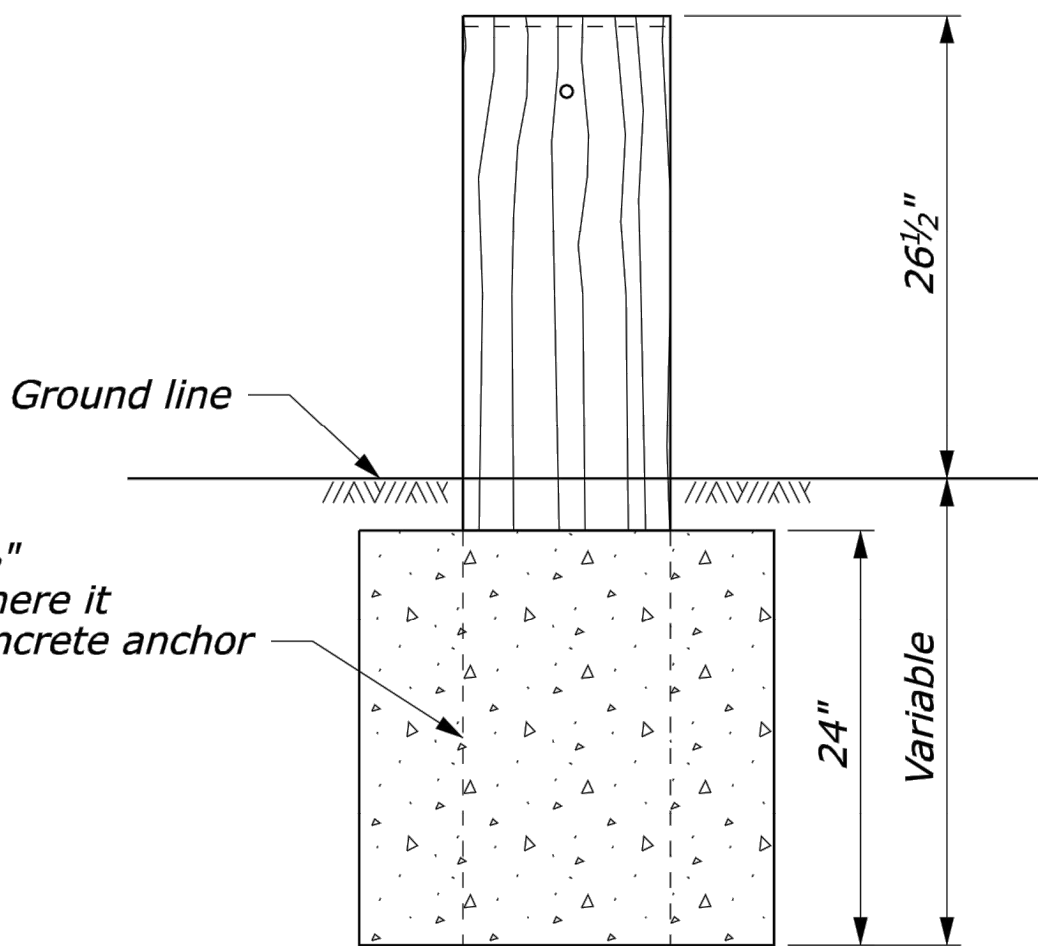
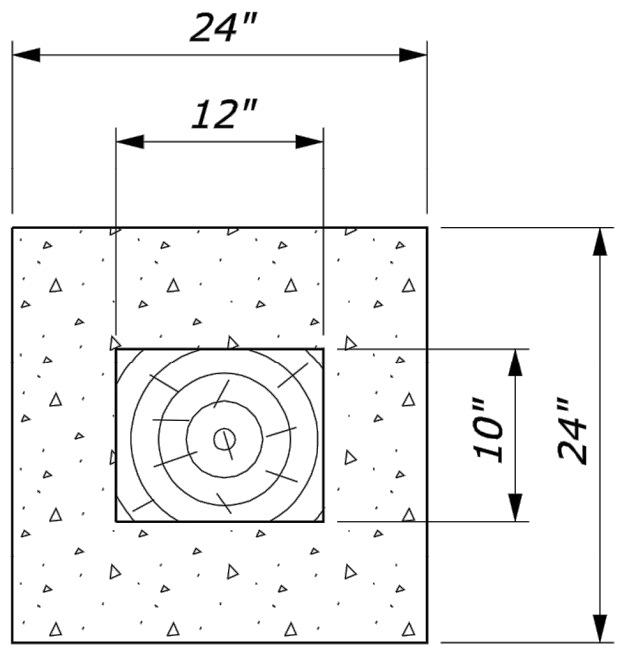
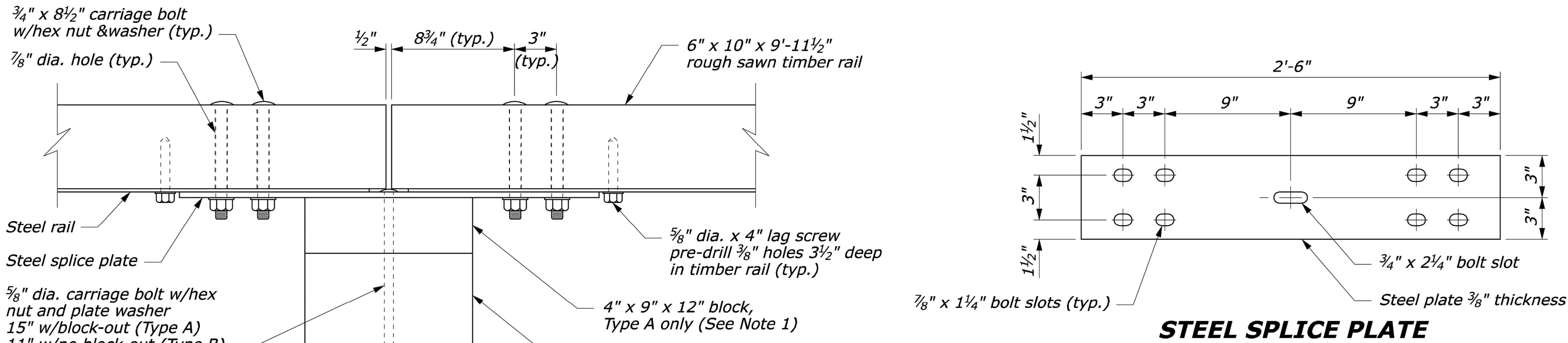
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STATE	PROJECT	SHEET NUMBER

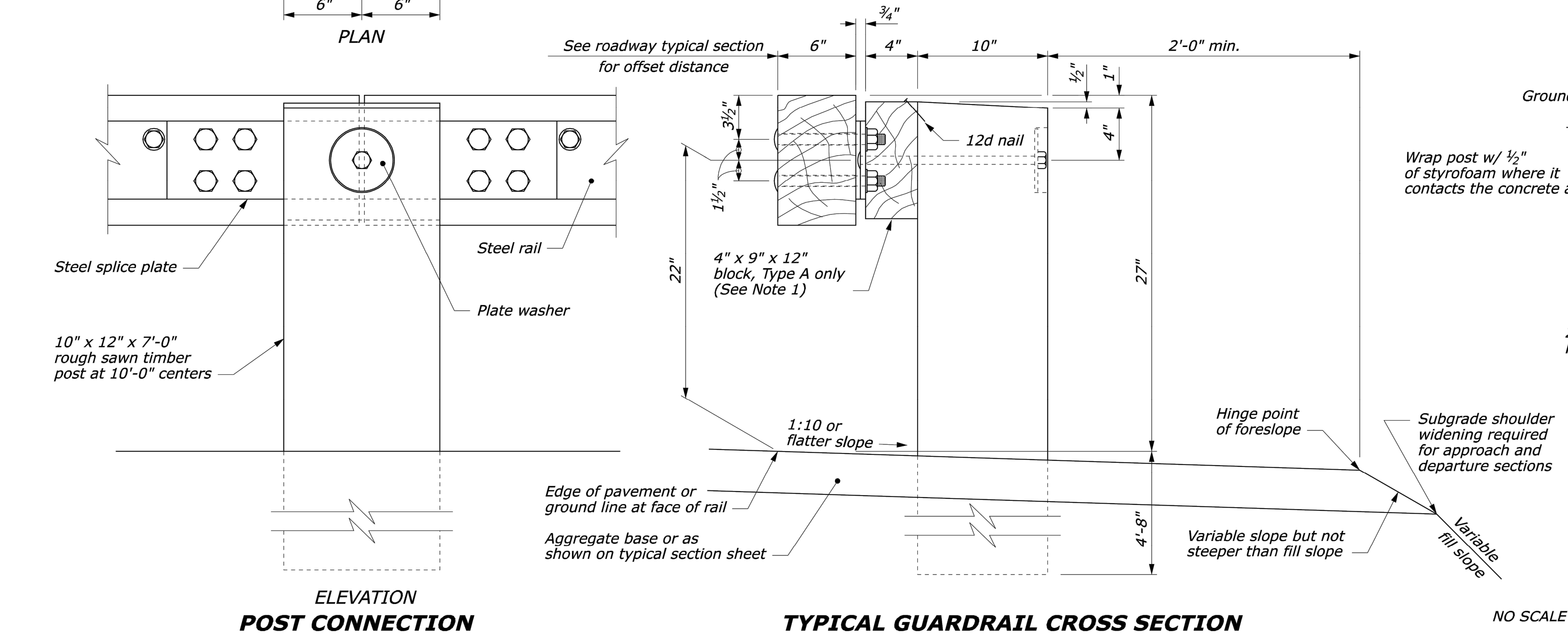


- NOTE:**
1. Use the Type A, blocked-out, system or the Type B, non-blocked-out, system as specified in the plans.
  2. Use weathering steel for all structural steel and fastener hardware as specified.
  3. Place a terminal section (See Standards 617-61 and 617-62) on both approach and trailing ends of barrier installations.



24" dia. round anchor is an acceptable alternative. Reduced size acceptable in solid rock.

### CONCRETE ANCHOR FOR SHORT GUARDRAIL POST



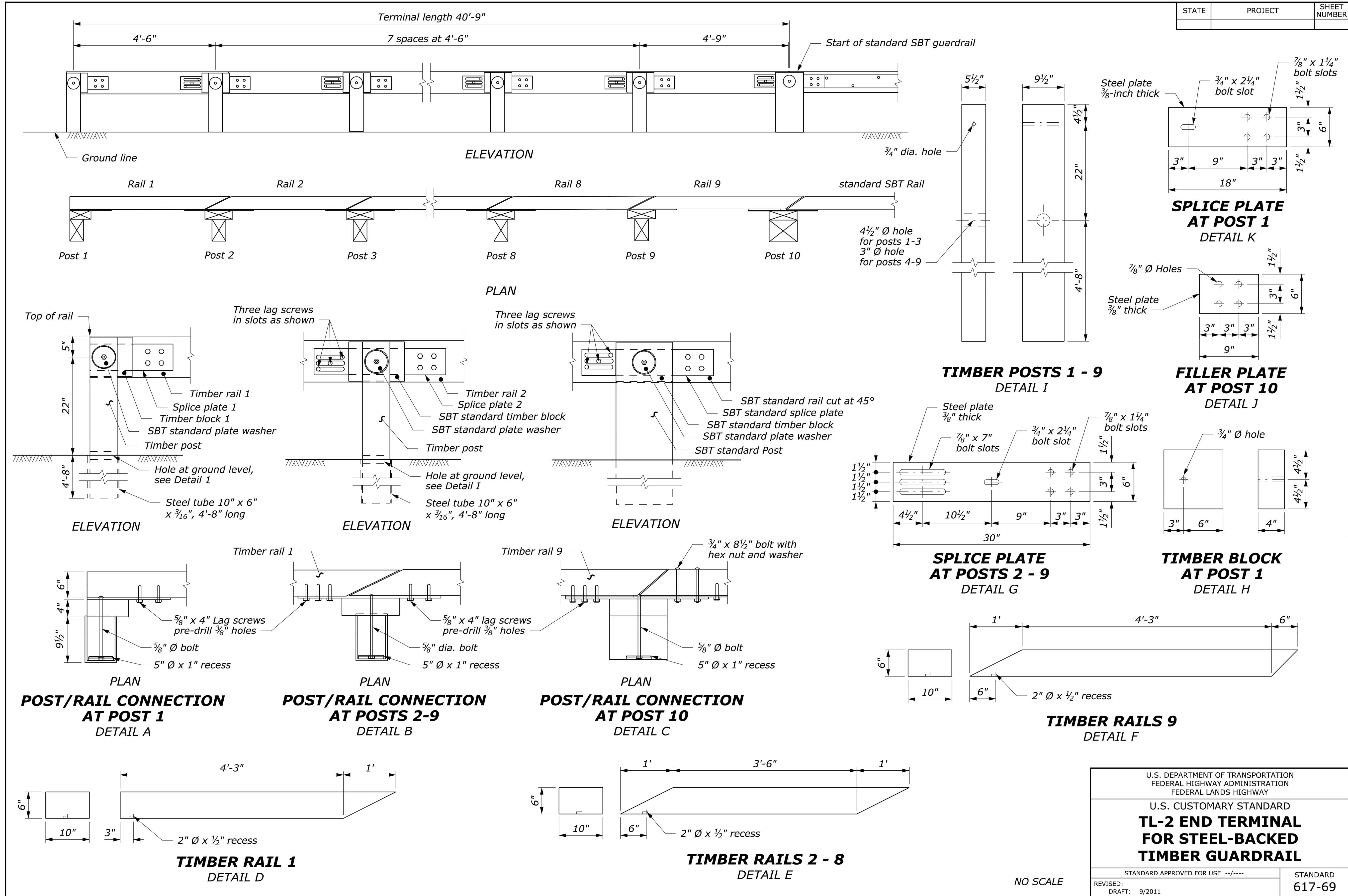
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
<b>STEEL-BACKED TIMBER GUARDRAIL TYPE A &amp; TYPE B</b>	
STANDARD APPROVED FOR USE 3/1990 REVISED: 4/1994 6/2005	STANDARD 617-60



**CITY OF FISHERS**  
**STANDARD CONSTRUCTION DETAILS**  
FHWA TIMBER GUARDRAIL DETAILS

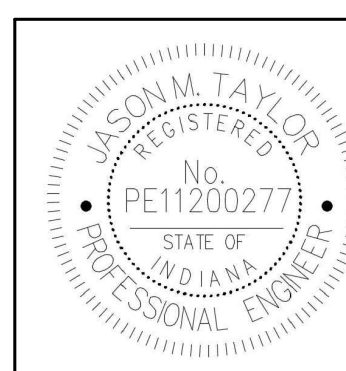
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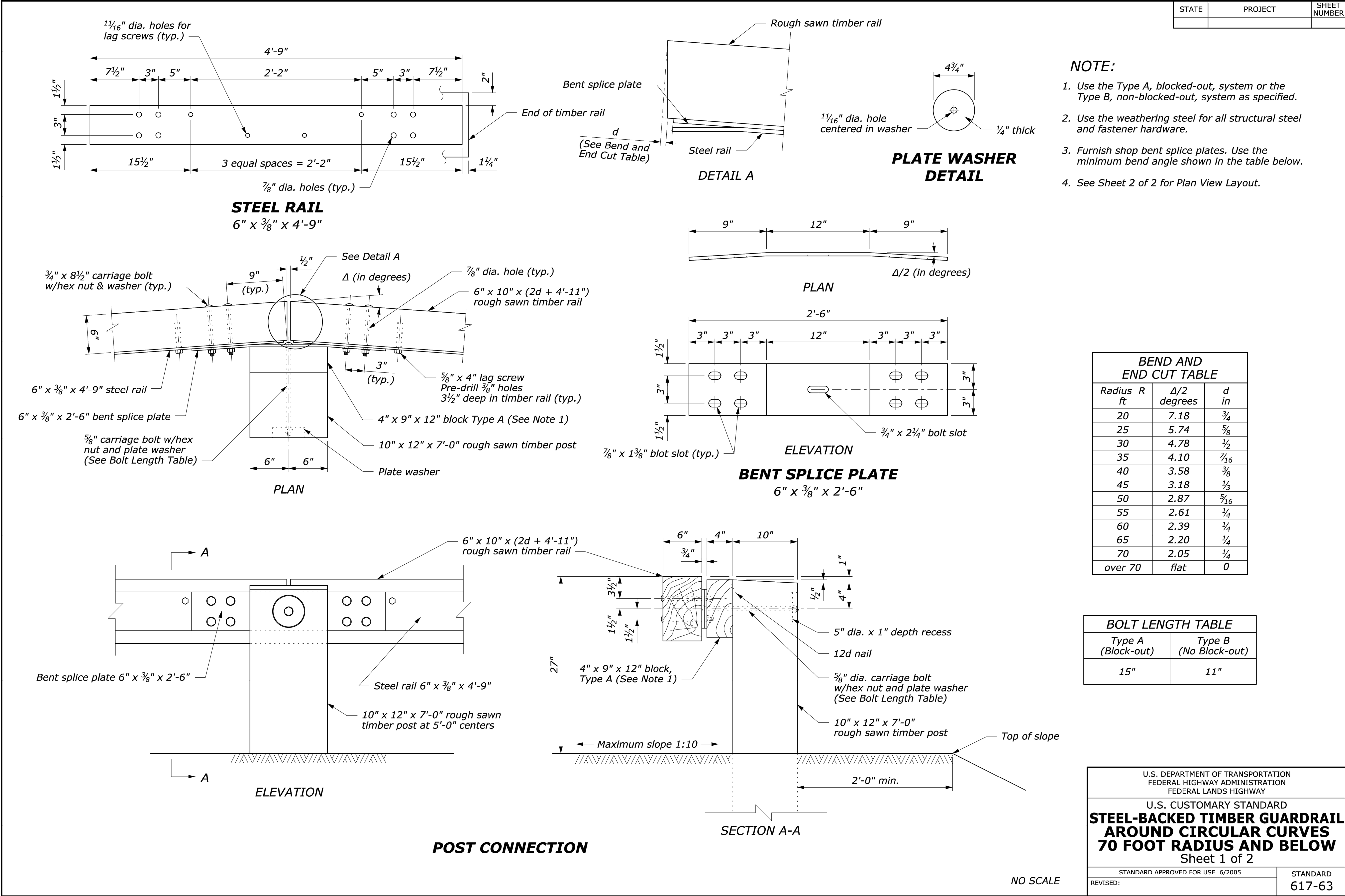


CITY OF FISHERS	
STANDARD CONSTRUCTION DETAILS	
FHWA TIMBER GUARDRAIL DETAILS	

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STATE	PROJECT	SHEET NUMBER



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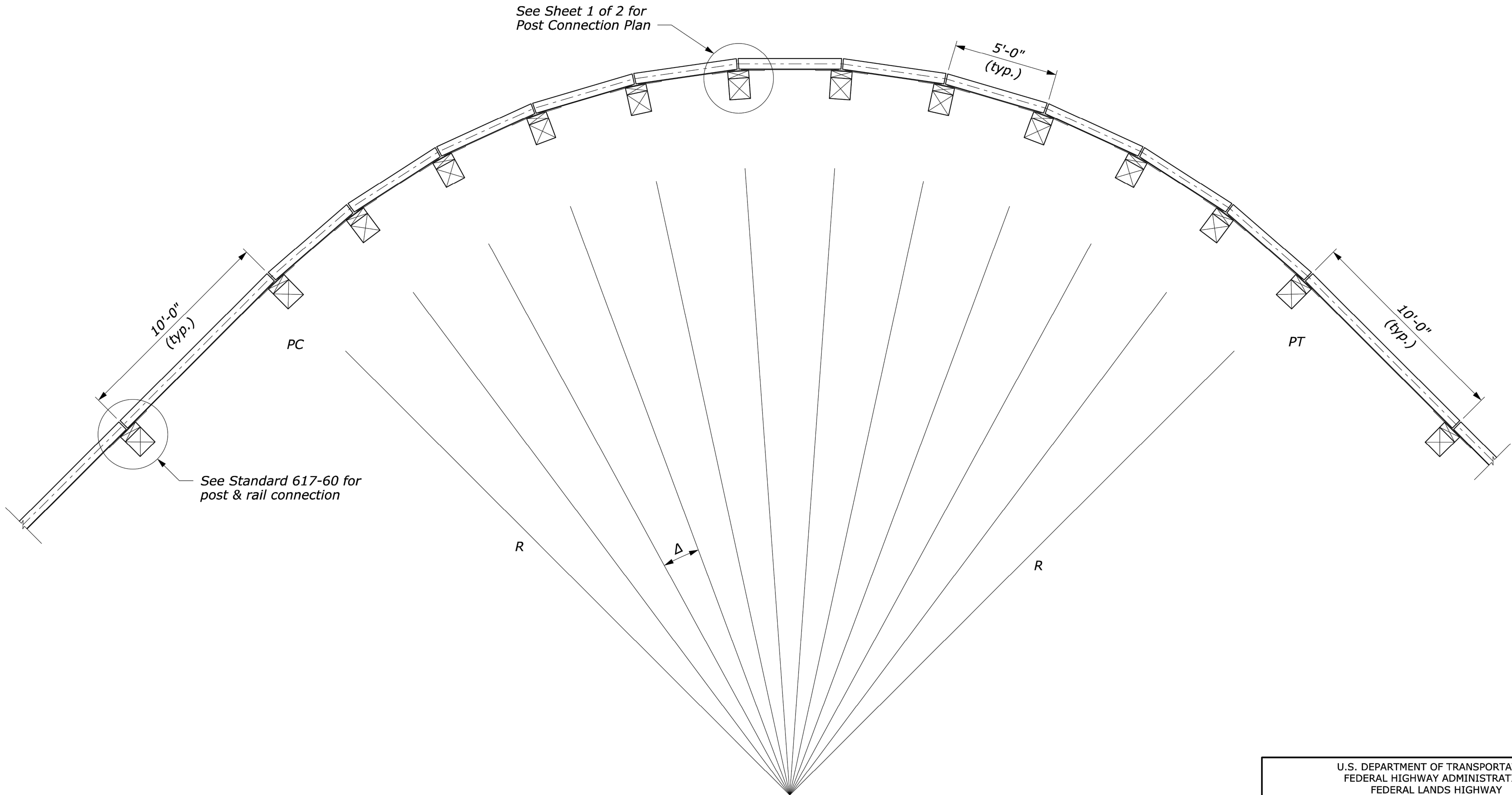


CITY OF FISHERS STANDARD CONSTRUCTION DETAILS		SHEET
FHWA TIMBER GUARDRAIL DETAILS		11 of 29



STATE	PROJECT	SHEET NUMBER

- NOTE:**
- $\Delta$  is the central angle which subtends a 5'-0" chord.
  - $R$  is measured from the center of the circle to the back surface of the rough sawn timber rail.

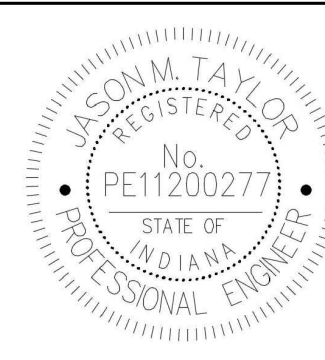


PLAN VIEW LAYOUT

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD <b>STEEL-BACKED TIMBER GUARDRAIL AROUND CIRCULAR CURVES 70 FOOT RADIUS AND BELOW</b> Sheet 2 of 2	
STANDARD APPROVED FOR USE 6/2005 REVISED:	STANDARD 617-63

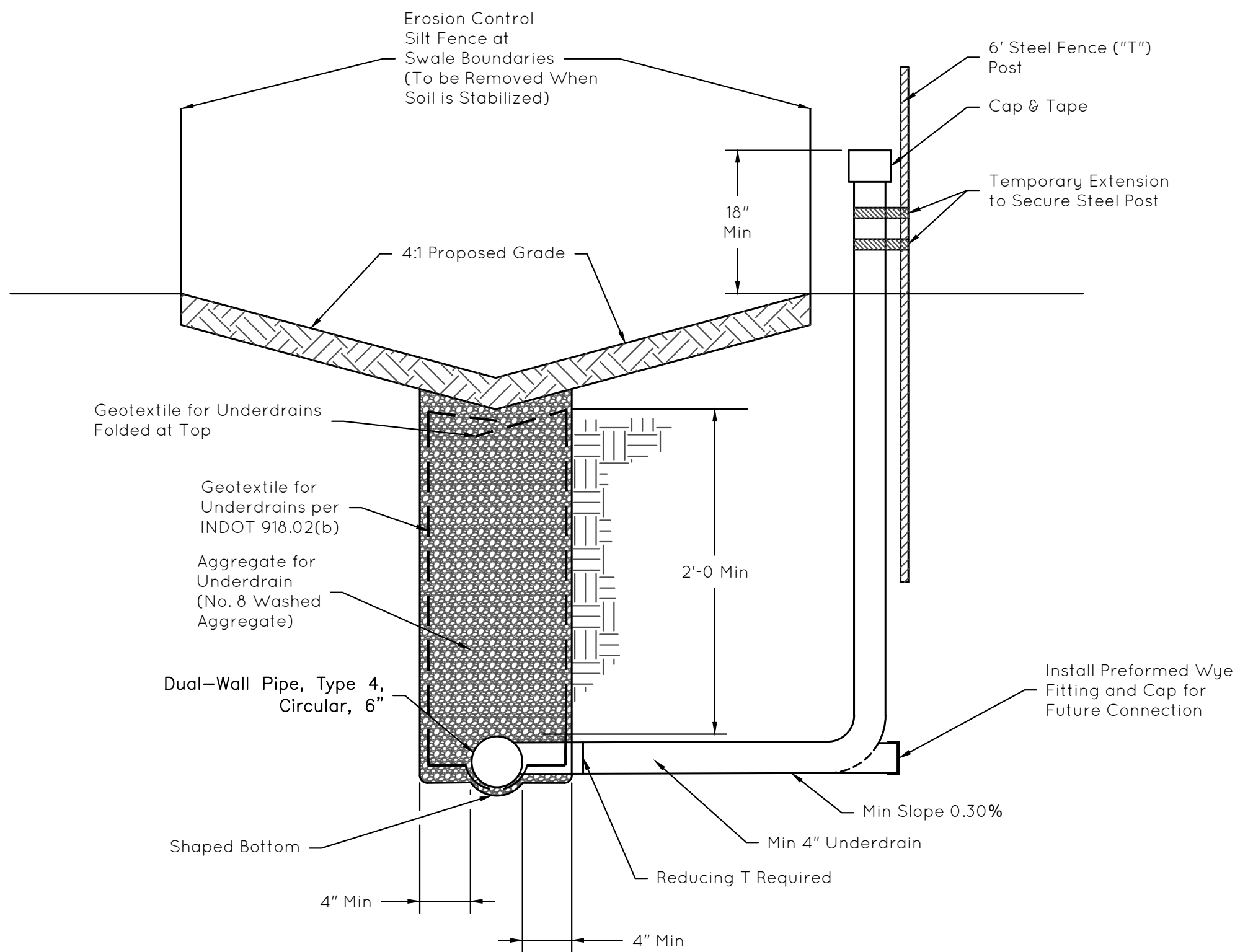
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CITY OF FISHERS STANDARD CONSTRUCTION DETAILS	
FHWA TIMBER GUARDRAIL DETAILS	

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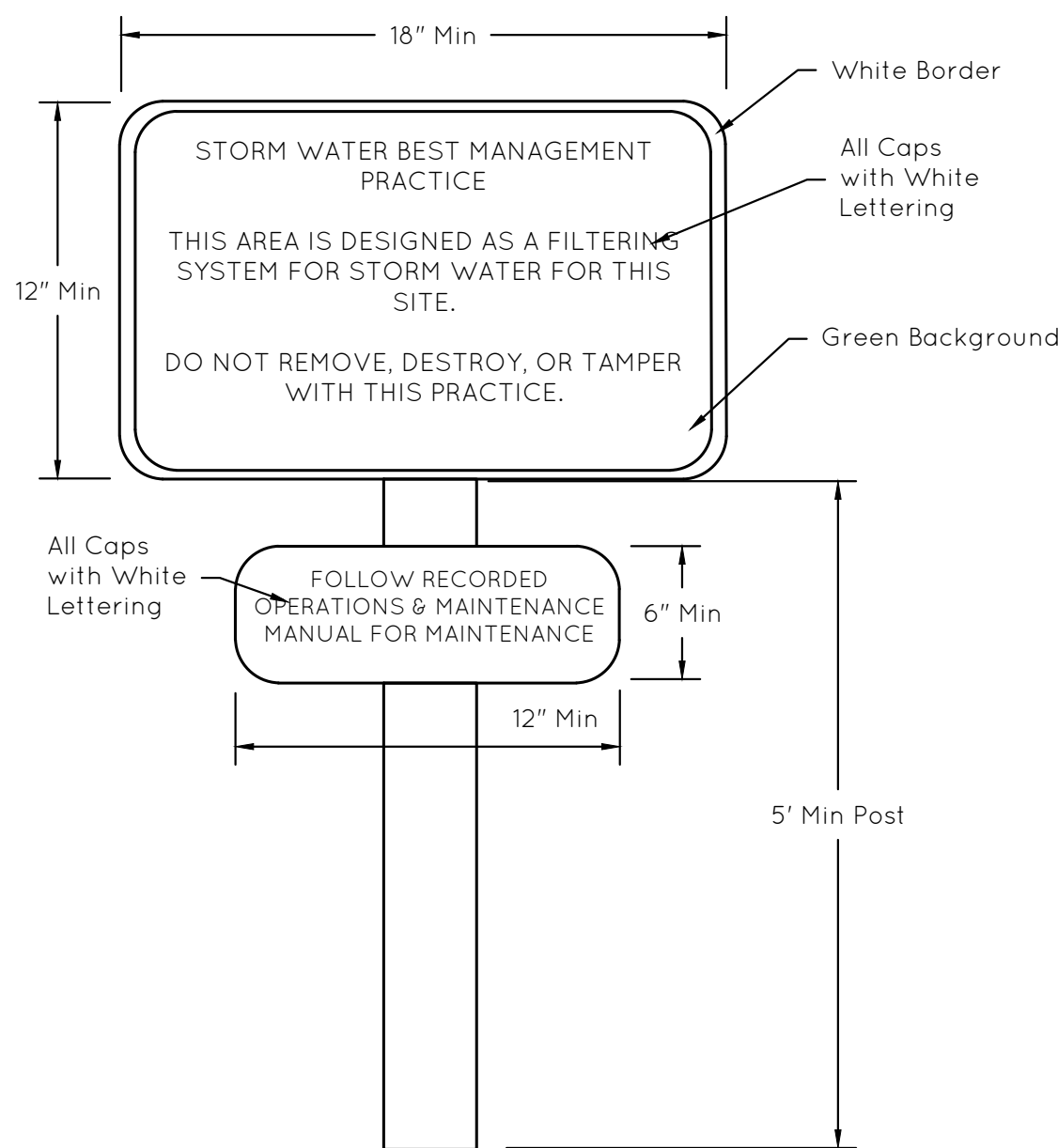




- Notes:
- 1) Temporary extension above ground to be removed upon connection to house. If extension is not utilized, it shall be capped below ground level.
  - 2) Location of structures shall be shown on as-built plans.
  - 3) Must connect sump pumps to underdrain.
  - 4) Required for all rear yard drainage swales unless waived in writing by the Director of Engineering.

### REAR YARD UNDERDRAIN

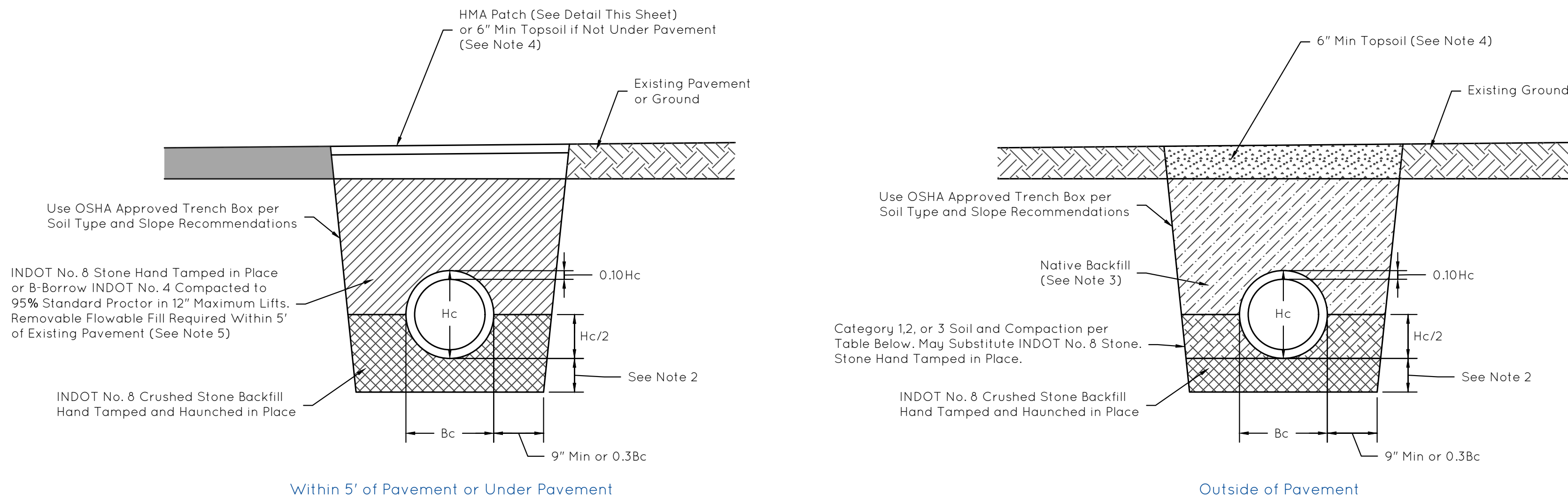
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- Notes:
- 1) BMP signs should be placed immediately adjacent or within the practice.
  - 2) Signs should be aluminum and meet minimum IMUTCD standards.
  - 3) Total number of signs required for each BMP is subject to plan review.

### BMP SIGN

Not to Scale



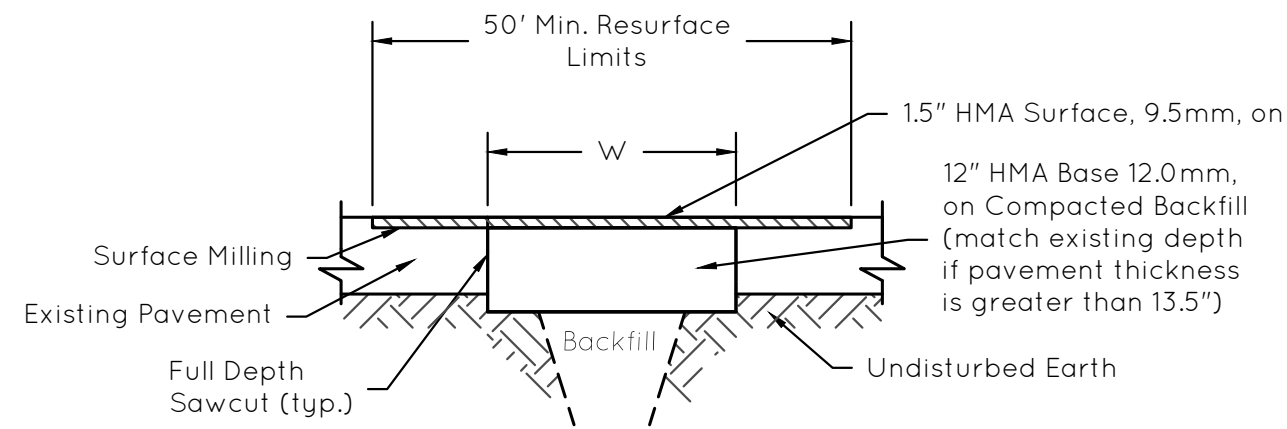
SOIL CATEGORY	SOIL NAME	USCS SOIL TYPE	AASHTO SOIL TYPE	STANDARD PROCTOR	MODIFIED PROCTOR
CATEGORY 1	CLEAN GRAVEL OR SAND	SW, SP, GW, GP	A1, A3	85	80
CATEGORY 2	SILTY GRAVEL OR SAND	GM, SM, ML & GC/SC W/LESS THAN 20% PASSING #200 SIEVE	A2, A4	90	85
CATEGORY 3	SILTY CLAY	CL, MH, GC, SC	A5, A6	95	85

Reference: American Concrete Pipe Association Standard Installation Manual

- Notes:
- 1) For backfill purposes, paved shoulders and curbs are considered pavement. If paving is to occur within 30 days of placement of INDOT No.#4 B-Borrow, contractor shall provide City of Fishers with Professional Engineer certified compaction results.
  - 2) Depth of bedding material below pipe shall be minimum of 3" or hc/24, whichever is greater.
  - 3) Native backfill material must be free of aggregate greater than 6" diameter.
  - 4) Topsoil material shall be mounded to accommodate settlement.
  - 5) Removable flowable backfill shall be required for all open cuts across existing pavement and will also be allowed as a substitute for other backfill requirements.
  - 6) Pipe and fittings used in storm sewer construction shall be RCP (AASHTO M170) and meet the fill height and load requirements according to the latest fill height tables of INDOT. Refer to Chapter 4.J of the City of Fishers Stormwater Technical Standards Manual for other approved pipe materials that may be used in commercial parking lots or private, non-paved areas. Any alternative pipe materials shall be in accordance with the requirements of Chapter 4.J, and shall be installed in accordance with manufacturer's specifications.
  - 7) A minimum of Class III RCP (D-load 1350 lb/ft/ft) is required for all pipe within the City of Fishers Right-of-Way, or areas subject to loading. An alternate pipe class (Class IV or V) may be required by the design engineer or Director of Engineering for special pavement loading circumstances.
  - 8) For pavement bores, alternative materials will be considered.
  - 9) For elliptical or arch pipe installations, see installation specifications from the American Concrete Pipe Association.
  - 10) For all excavation work, OSHA approved safety standards shall be followed.

### TRENCH BACKFILL DETAILS

Not to Scale



- Notes:
- 1) Sawcuts shall provide a vertical, neat, and uniform edge.
  - 2) All materials shall comply with specifications as required by the City of Fishers.
  - 3) Contractor shall surface mill (1.5") existing pavement 25 ft. in each direction from trench centerline from face-of-curb to face-of-curb or edge-of-roadway, replace with 1.5" HMA Surface, 9.5mm, and appropriate pavement markings.
  - 4) The existing milled surface and HMA Base layer is to be tack coated prior to the placement of new asphalt. The new surface pavement grade shall match the existing surface pavement grade.
  - 5) A two (2) inch wide band of crack sealant is to be applied along the joint between the existing and new asphalt surface. Sealant is to be applied in accordance with INDOT Standard Specifications, Section 305.
  - 6) Refer to Pavement Restoration Table for W.

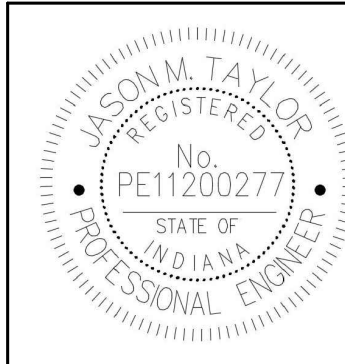
### HMA PATCH DETAIL

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PAVEMENT RESTORATION TABLE	
UTILITY DEPTH RANGE (FEET)	MAXIMUM TRENCH WIDTH AT FINISHED GRADE, W (FEET)
0 to 5	I.D. +5
5 to 8	I.D. +8
8 to 10	I.D. +10
10 to 12	I.D. +12
12 to 14	I.D. +14
14 to 16	I.D. +16
16 to 18	I.D. +18
18 to 20	I.D. +20

I.D. = Pipe or Conduit Inside Diameter

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CITY OF FISHERS  
STANDARD CONSTRUCTION DETAILS  
STORM SEWER BACKFILL, SWALE  
UNDERDRAIN, EXCAVATION  
DETAILS AND NOTES

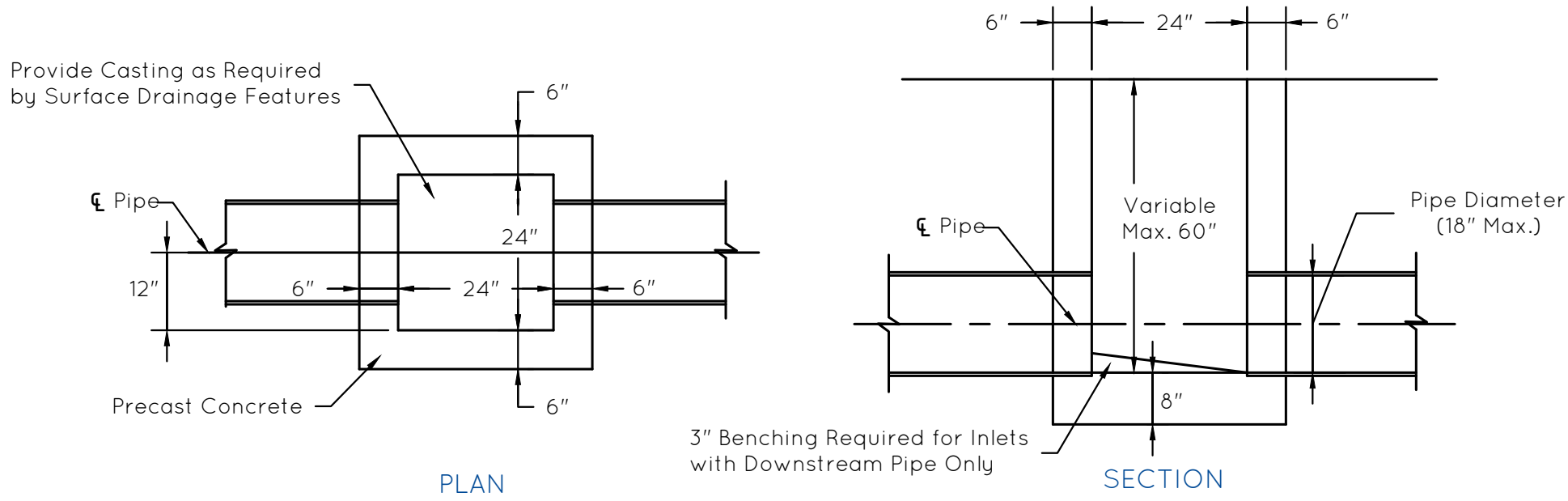
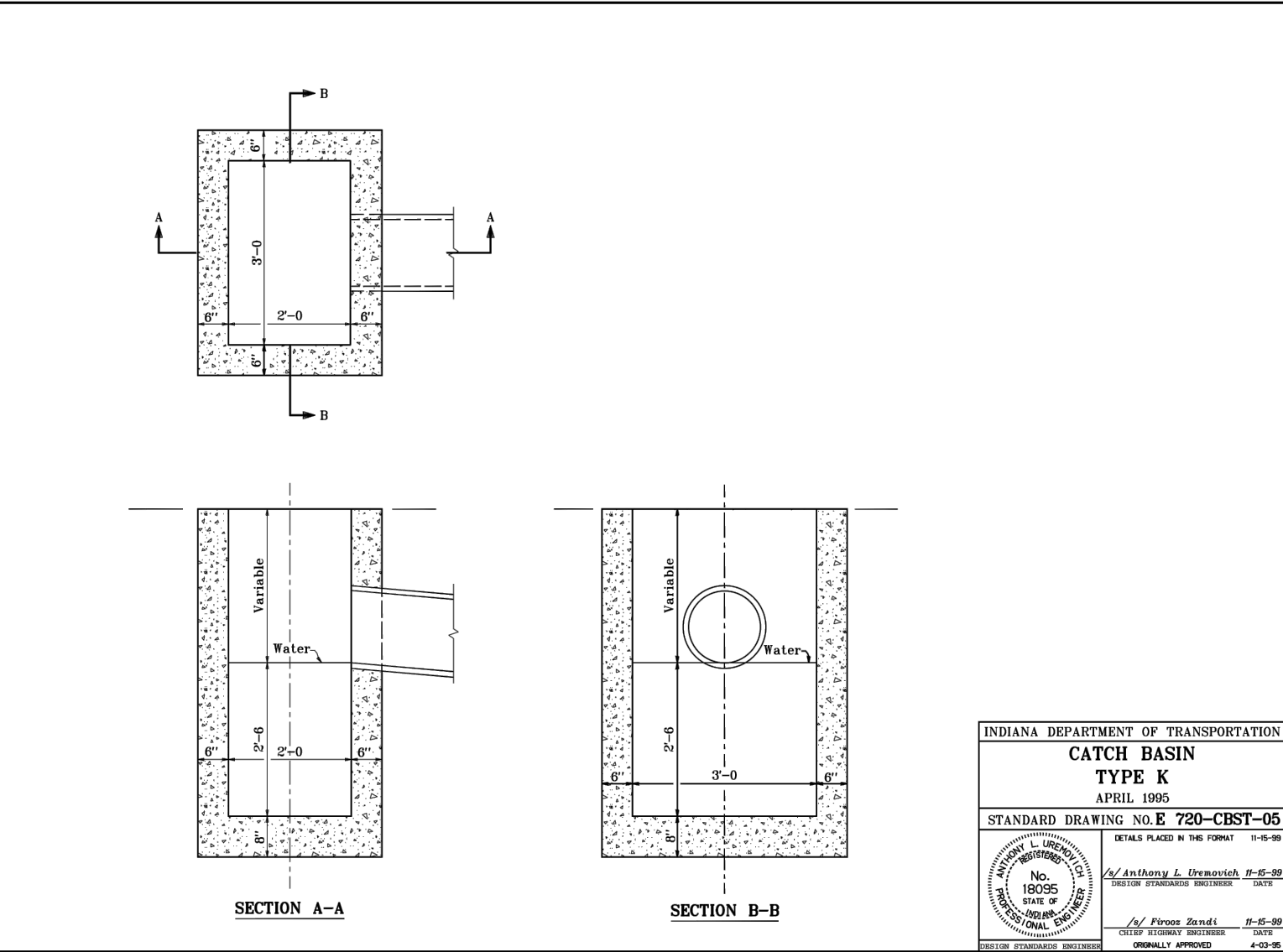
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of  
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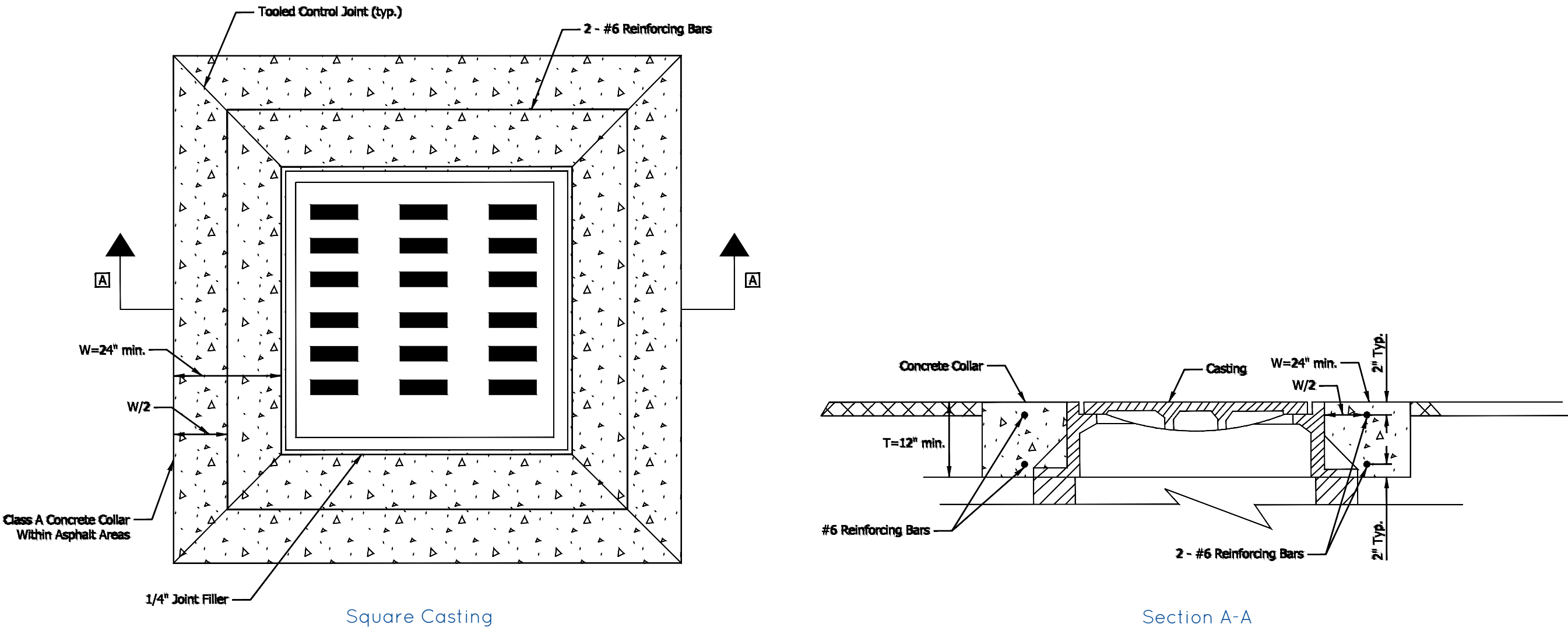
NOTES

- 1) Inlet boxes shall not extend into the pavement section beyond the width of the wall thickness which shall be a maximum of 6 inches. Square or rectangular structures shall be utilized for all pipe connections along the curb line. The maximum inlet box size shall be limited to 24"x36". Mainline pipe shall be defined as all pipe greater than 15" in diameter. No mainline pipe shall be allowed in direct connection to the inlet box. Details and manufacturer shop drawings shall be provided for all pipe connections less than 90 degrees to the box edge. Field changes to structures shall be cut or cored. Round structures shall only be allowed for areas outside of the curb line and outside of road section pavement.
- 2) 24"x24" inlet boxes shall be limited to depths of 5 feet. Inlet boxes greater than 5 feet in depth shall be 24"x36" (inside dimensions), or greater, and include steps.
- 3) The downstream most structure that collects runoff from within the Right-of-Way shall be sumped (2 feet) prior to the detention basin and is required to be placed within 15 feet of the curb, where practical, and equipped with a snout to catch floatables.
- 4) The contractor shall use precast inlets or catch basins, unless otherwise approved by the Director of Engineering, that are in accordance with INDOT Standard Specifications.
- 5) A 6" cushion of INDOT No. 8 crushed stone shall be required when the precast bottom section is used.
- 6) If a precast inlet, catch basin, or manhole is used and the adjoining pipes are field connected directly to the precast unit, the connection shall be made using a Class "A" concrete collar of 6" minimum longitudinal and radial thickness. Brick should be used as a filler for concrete patching for inlets that are not precast.
- 7) Waterproofing material shall conform to AASHTO M115 and INDOT Standard Specifications.
- 8) All curb inlets and catch basins shall be equipped for underdrains.
- 9) All structures receiving sub-surface drain (SSD) shall have both ports core drilled. T or Y blind connections are not allowed.
- 10) Expansion joints are required around castings for all structures located within PCCP, PCC sidewalk, PCC multi-use paths, or concrete curb and/or gutter.
- 11) All castings shall be checked to meet inlet design and ensure compatibility with curb specified, swales, ponds, etc. All castings shall be in accordance with the Compatibility of Inlet Structures and Castings Table, this sheet, unless otherwise approved by the Director of Engineering.
- 12) All inlet castings shall contain a "NO DUMPING, DRAINS TO WATERWAY" or equivalent clean water message to educate and warn against illegal dumping. Casting openings should be grated or otherwise designed to limit floatables and debris from entering the inlet box.
- 13) No inlet castings shall be installed within wheel paths, unless otherwise approved by the Director of Engineering.

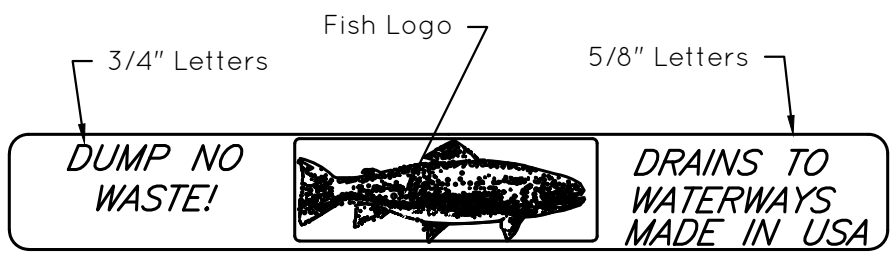
INLET TYPE	INDOT CASTING TYPES					NEENAH CASTING TYPES					EAST JORDAN IRON WORKS CASTING TYPES					
	2	3	7	8	10	R-3287-10V	R-3405-A	R-3501-TR	R-3501-TL	R-4215-C	5250	6610	7030 w/ M2 Grate & T1 Back	7495M1	7495M2	7495M4
A	X	X		X			X				X					
E			X							X		X				
F			X							X		X				
J					X	X		X	X				X	X	X	X
M					X	X		X	X				X	X	X	X



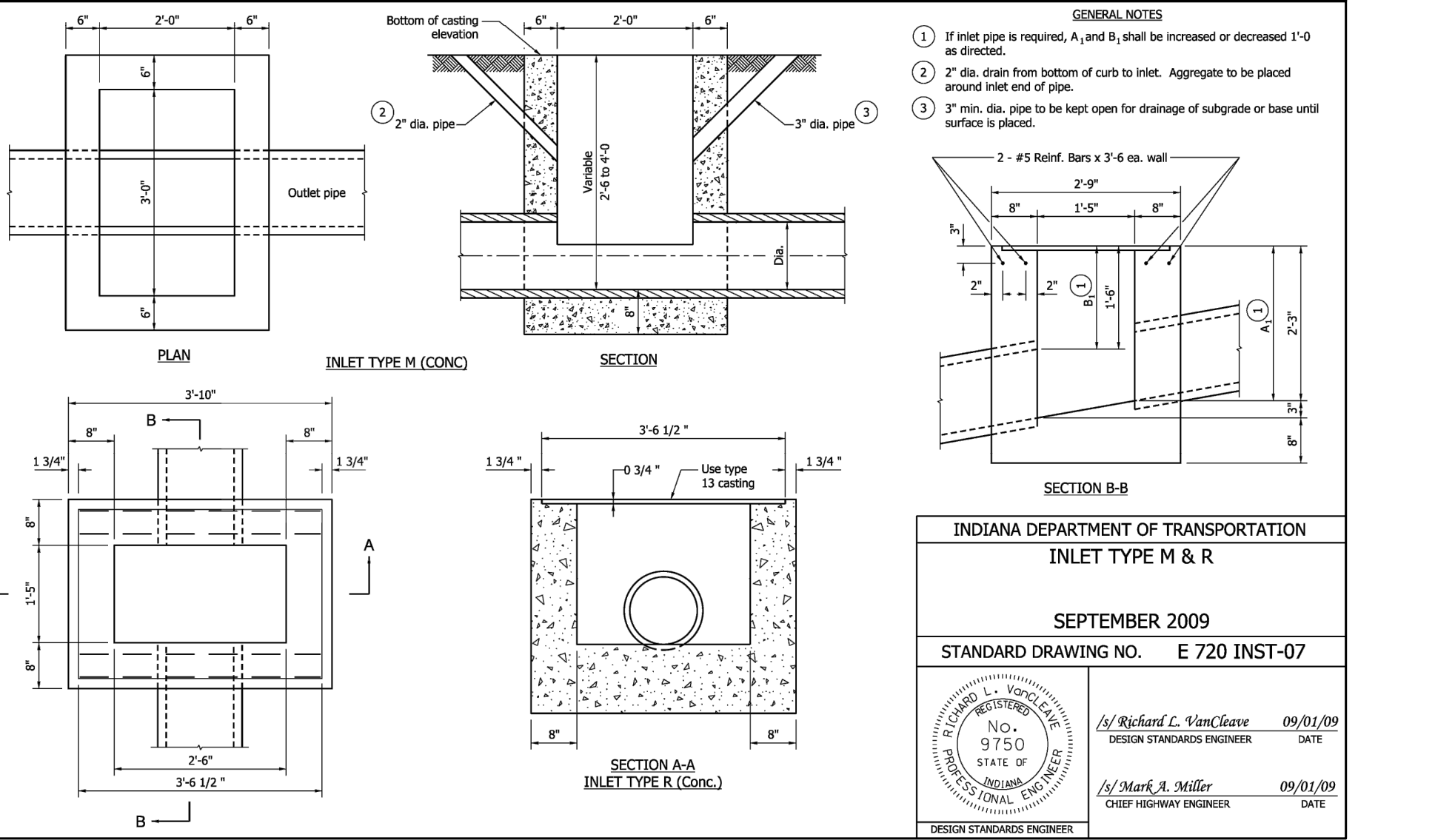
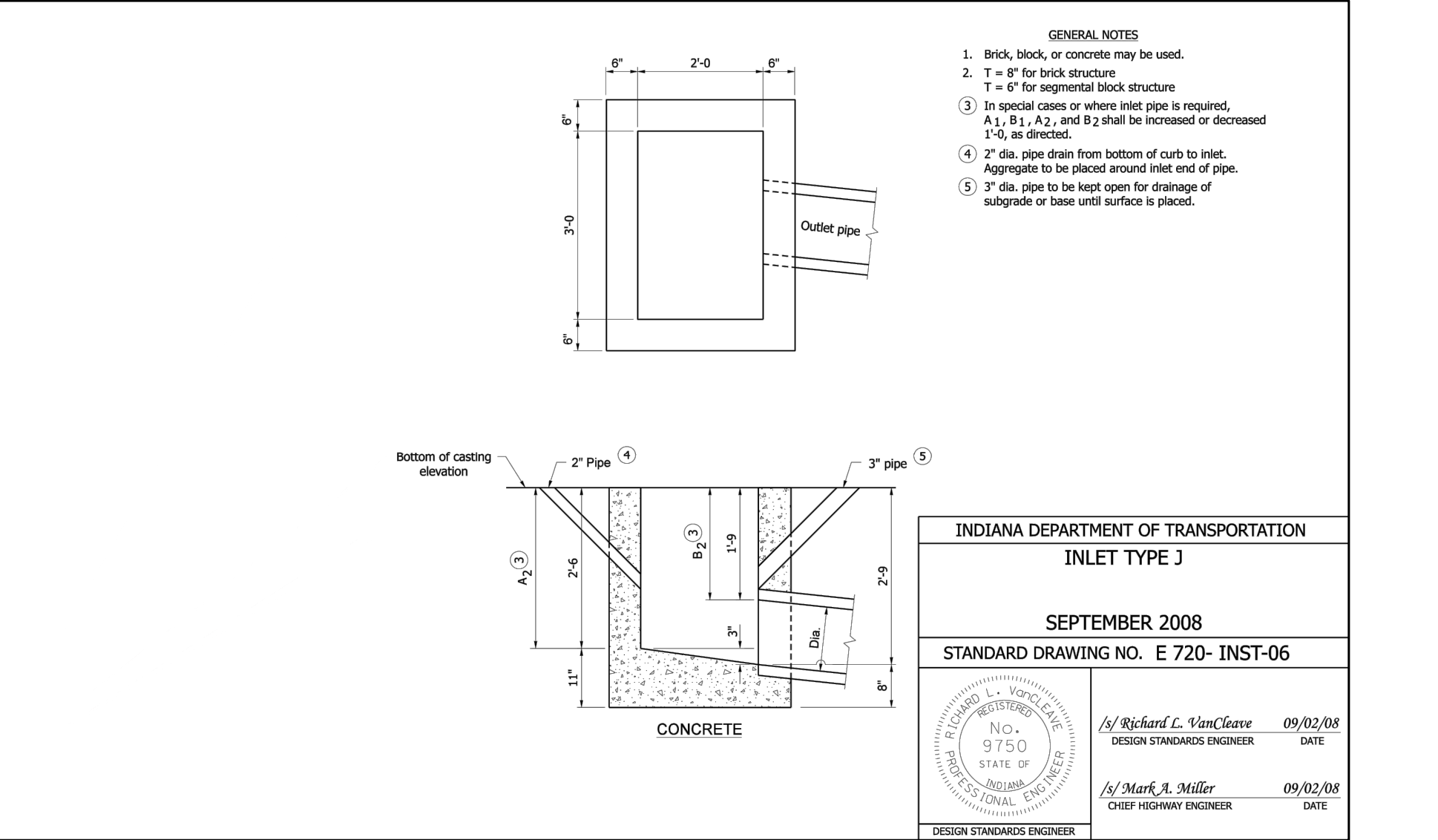
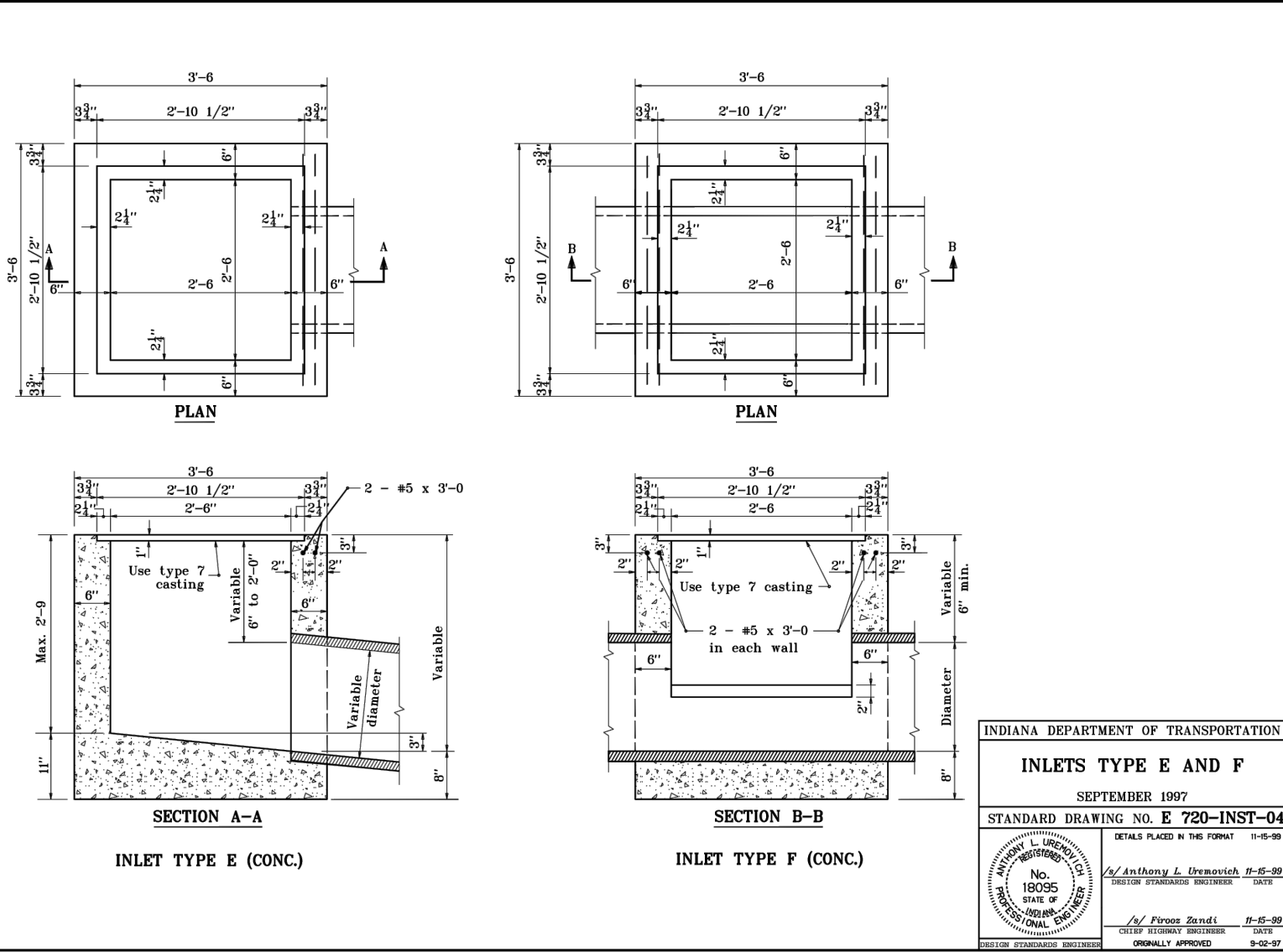
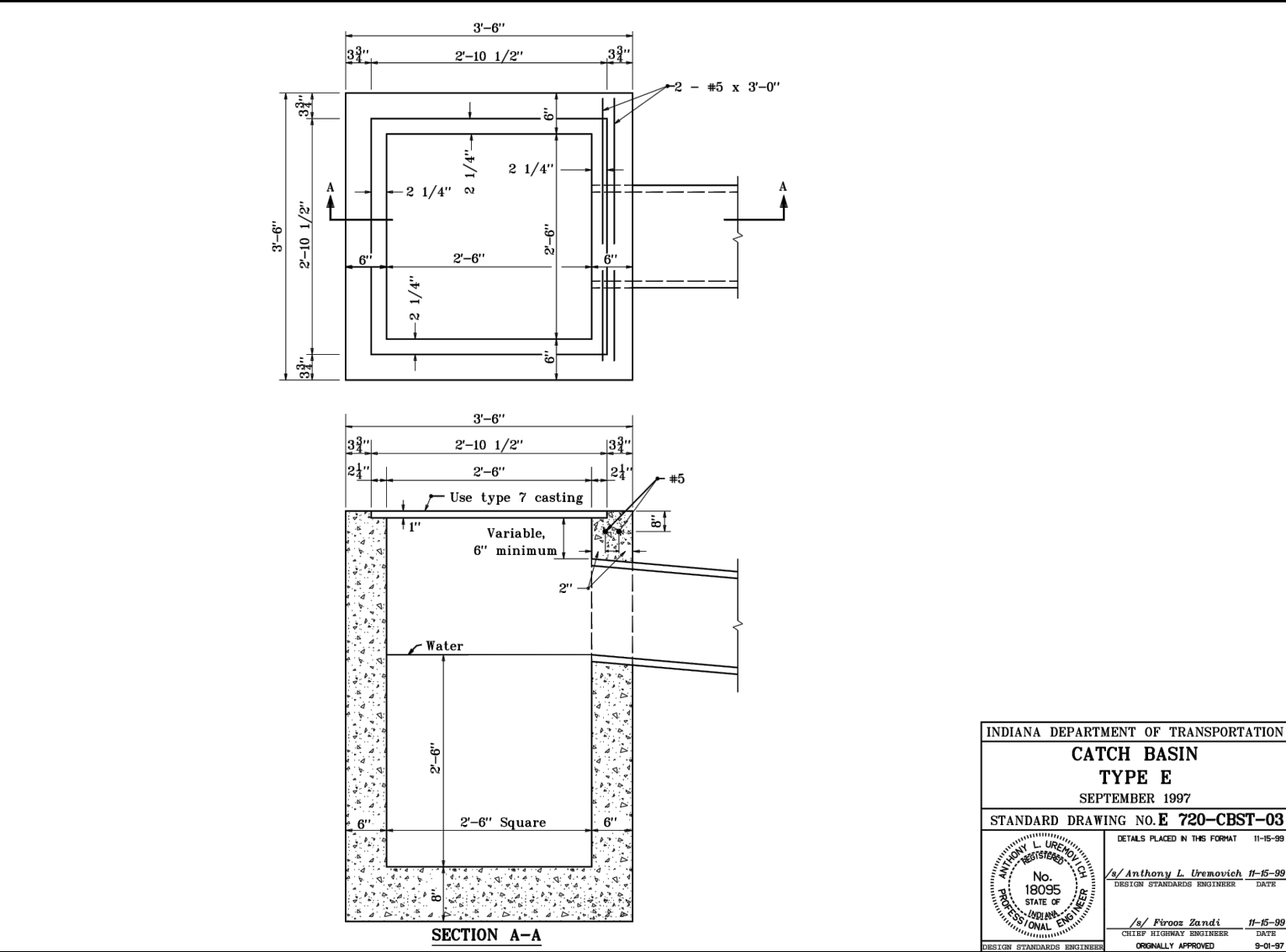
INLET, TYPE A  
Not to Scale



CONCRETE COLLAR FOR SQUARE CASTINGS DETAIL  
Not to Scale



INLET LID CASTING DETAIL  
Not to Scale



1/18/2022



- 1) All precast manhole materials shall conform to ASTM C-478 and INDOT Standard Specifications (min. sq. in. of reinforcing steel per lineal foot of barrel shall be 0.12).
- 2) A 6" cushion of INDOT No. 8 crushed stone shall be required when the precast bottom section is used.
- 3) Joints between sections of precast manholes shall be in accordance with ASTM C-443.
- 4) If the contractor uses a precast manhole and the adjoining pipes are field connected directly to the precast unit, the connection shall be made using a Class "A" concrete collar of 6" minimum longitudinal and radial thickness. Brick should be used as a filler for concrete patching for manholes that are not precast.
- 5) Drop pipe may be used with Manhole, Type D, E, F, or G and referred to as Drop Manhole, Type D, E, F, or G as approved by the Director of Engineering.
- 6) Bottom shall be constructed of precast bottom section or Class "A" concrete formed in place.
- 7) Benchwalls shall be Class "A" concrete.
- 8) Waterproofing material shall conform to AASHTO M115 and INDOT Standard Specifications.
- 9) Flat precast covers shall be used where headroom is limited.
- 10) The downstream most structure that collects runoff from within the Right-of-Way shall be sumped (2 feet) prior to the detention basin and is required to be placed within 15 feet of the curb, where practical, and equipped with a snout to catch floatables.
- 11) All structures receiving sub-surface drain (SSD) shall have both ports core drilled. T or Y blind connections are not allowed.
- 12) Expansion joints around castings are required at all structures located within PCCP, PCC sidewalk, PCC multi-use paths, or concrete curb and/or gutter.
- 13) All manhole castings shall be checked to meet inlet grate design and ensure compatibility with curb specified, swales, ponds, etc. In accordance with the Compatibility of Manhole Structures and Castings Table, this sheet, unless otherwise approved by the Director of Engineering.
- 14) All manhole castings shall contain a "NO DUMPING, DRAINS TO WATERWAY" or equivalent clean water message to educate and warn against illegal dumping. Casting openings should be grated or otherwise designed to limit floatables and debris from entering the manhole.
- 15) All manhole steps shall conform to INDOT Standard Drawing 720-MHST-09.
- 16) No manhole castings shall be installed within wheel paths, unless otherwise approved by the Director of Engineering.



**MANHOLE TYPE C**

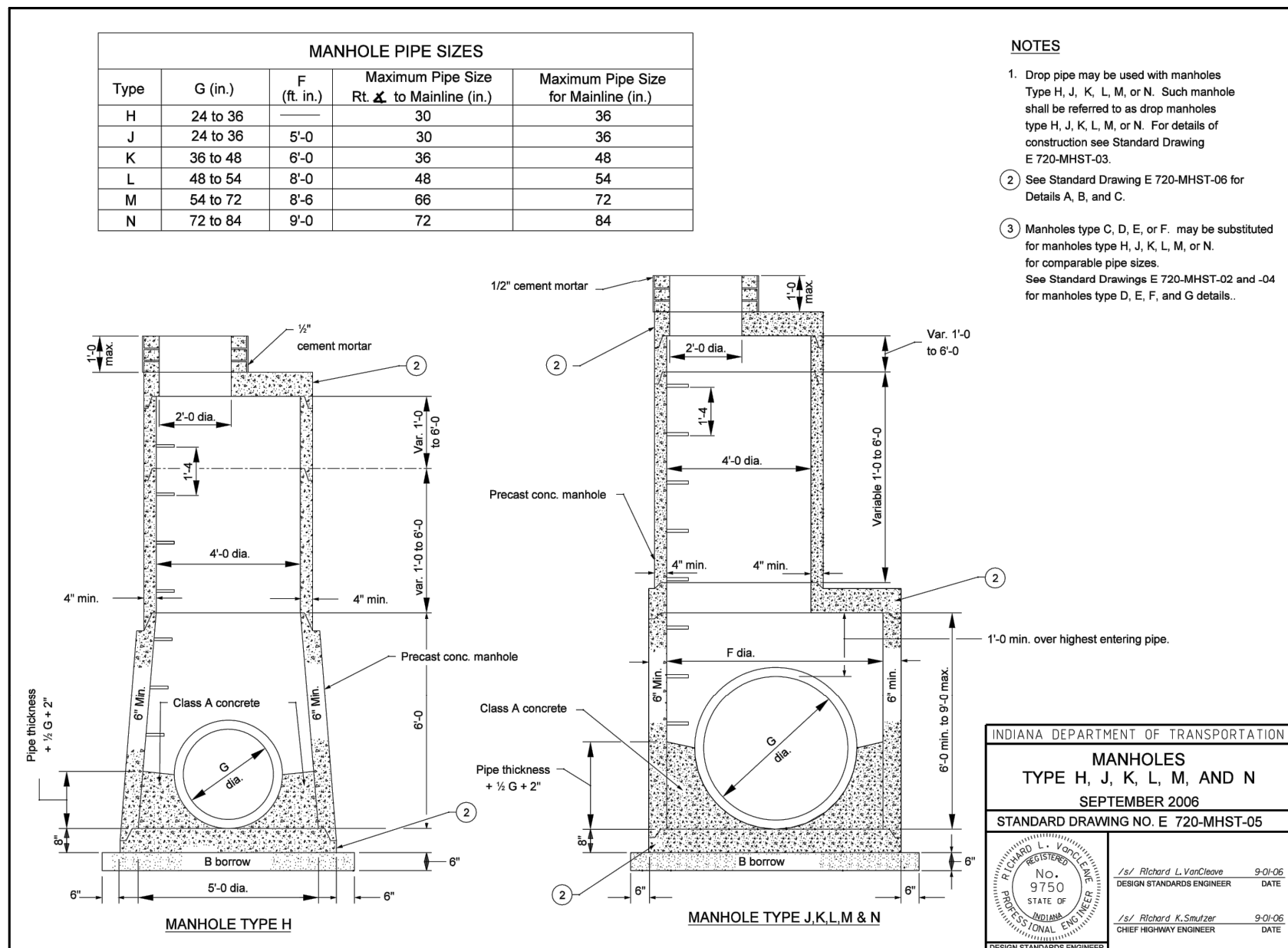
The drawing includes three main views:

- PLAN VIEW:** Shows a circular manhole with an outer diameter of 6'-0". It features concentric circles representing the pipe and the cover area.
- SECTION A-A:** A vertical cross-section showing the internal structure. Key components include:
  - Precast manhole section (Class A concrete).
  - Cast iron manhole steps (4' min. height).
  - Cement mortar (1/2" thick).
  - Eccentric cone, concentric cone, or precast cover at the top.
  - Pipe thickness (1/2" to 1/4").
  - Lift hook at the bottom.
  - 6" B borrow (for precast bottom only).
  - 3" min. cover over the lift hook.
  - Class A concrete base.
- MANHOLE DIMENSIONS:** A table specifying dimensions for different pipe sizes.
 

TYPE	A-1 PIPE SIZE DIA. (in)	B AND D
B	27 to 42	4'-6"
E	48 to 60	5'-6"
F	66 to 84	8'-10"
G	90 to 108	11'-2"

**NOTES:**

- Manhole type H, J, K, L, M, or N may be substituted for manhole type C, D, E, or F for comparable pipe sizes. See Standard Drawing E 720-MHST-05 for manholes type H, J, K, L, M, and N details.
- For eccentric and concentric cone heights see Cone Heights Table on Standard Drawing 720-MHST-08.
- See Standard Drawing 720-MHST-10 for Reinforcing Steel for Manholes table.



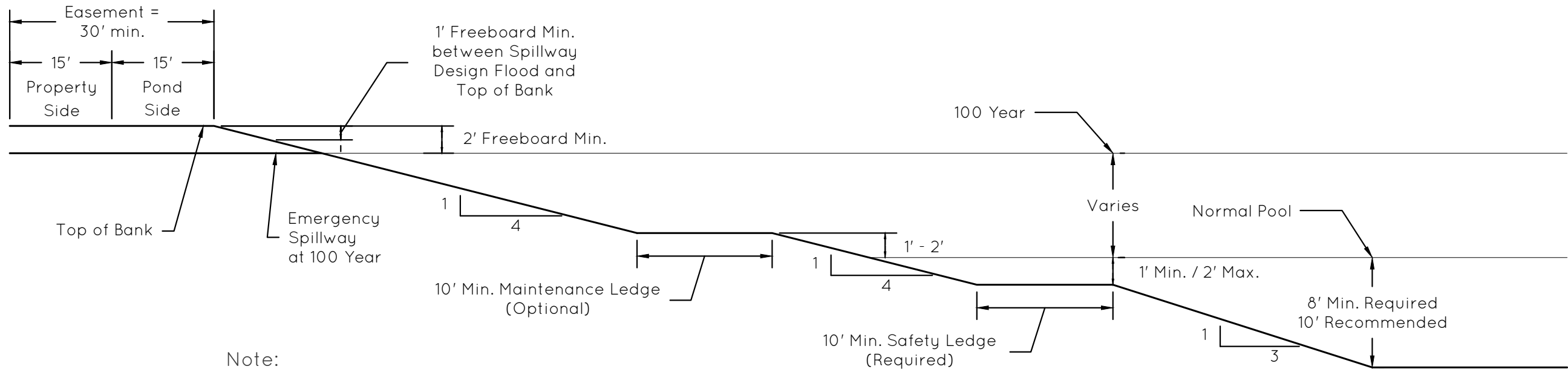


GENERAL WET-BOTTOM DETENTION BASIN NOTES

- 1) All detention basins shall be designed in accordance with Chapters 3, 6 and 8 of the City of Fishers Stormwater Technical Standards Manual (STSM).
- 2) Per Section 6.C.4 of the STSM, all detention facilities shall be separated from edge of pavement of parking lots by a minimum of 50 feet and a minimum of 150 feet from a roadway, unless structural measures, such as guardrails, berms, or other physical barriers are provided that prevent passage of a vehicle. See Guardrail Details, Sheets 9 - 12.
- 3) Regardless of physical barriers, minimum separation of all stormwater detention facilities shall be according to the Minimum Detention Pond Setbacks in Table 1.
- 4) The design of all wet-bottom detention facilities should include methods to prevent pond stagnation, including but not limited to, surface or sub-surface aeration (diffusers) or destratification facilities.

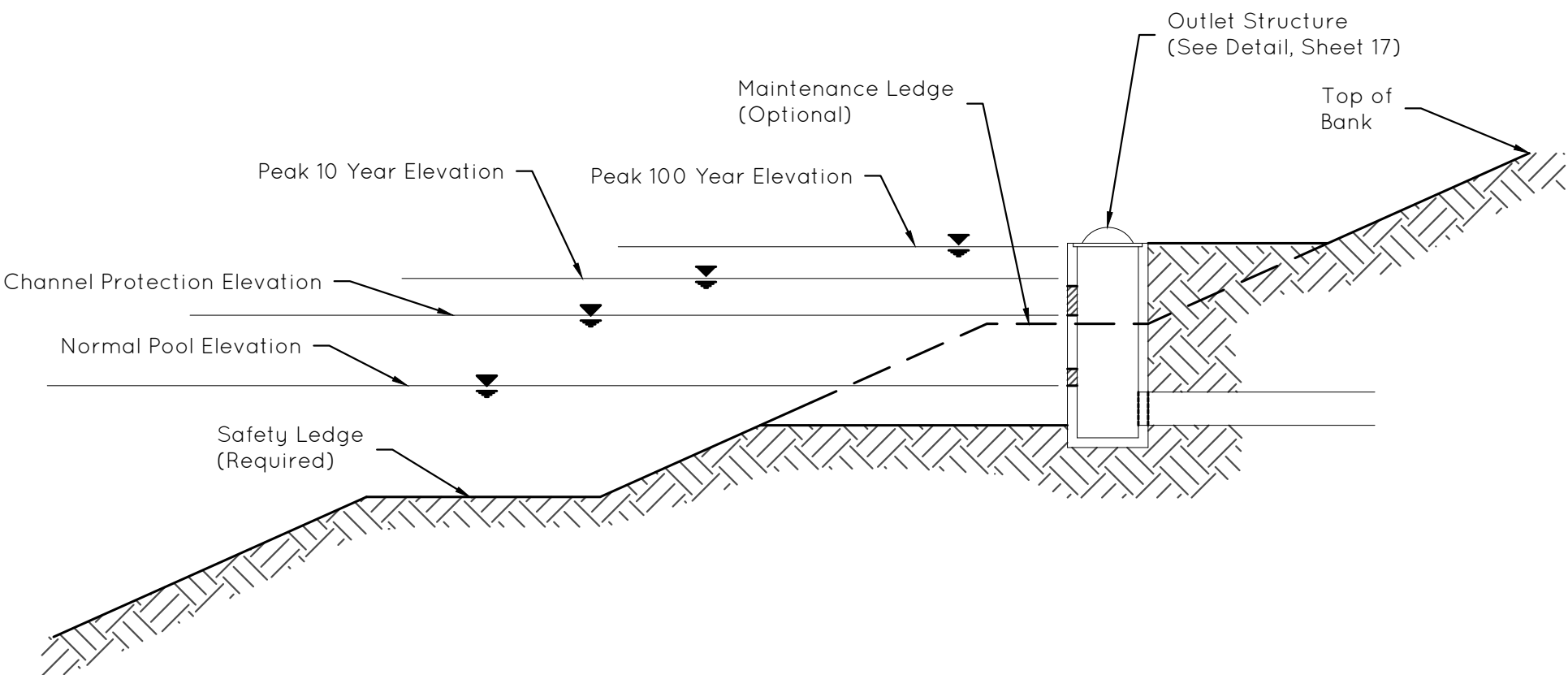
Table 1. Detention Facility Minimum Separations

FUNCTIONAL CLASSIFICATION OF ROADWAY	MINIMUM DETENTION POND SETBACK
Principal Arterial	50 Ft. From Right-of-Way to the Top of Bank -Or- 50 Ft. From Right-Of-Way to Maximum 100-Year Elevation, Whichever is Greater.
Minor Arterial	
Rural Major Collector	
Rural Minor Collector	
Urban Collector	
Local	
Private Roadways	80 Ft. From Centerline of Roadway to the Top of Bank -Or- 80 Ft. From Centerline of Roadway to Maximum 100-Year Elevation, Whichever is Greater.

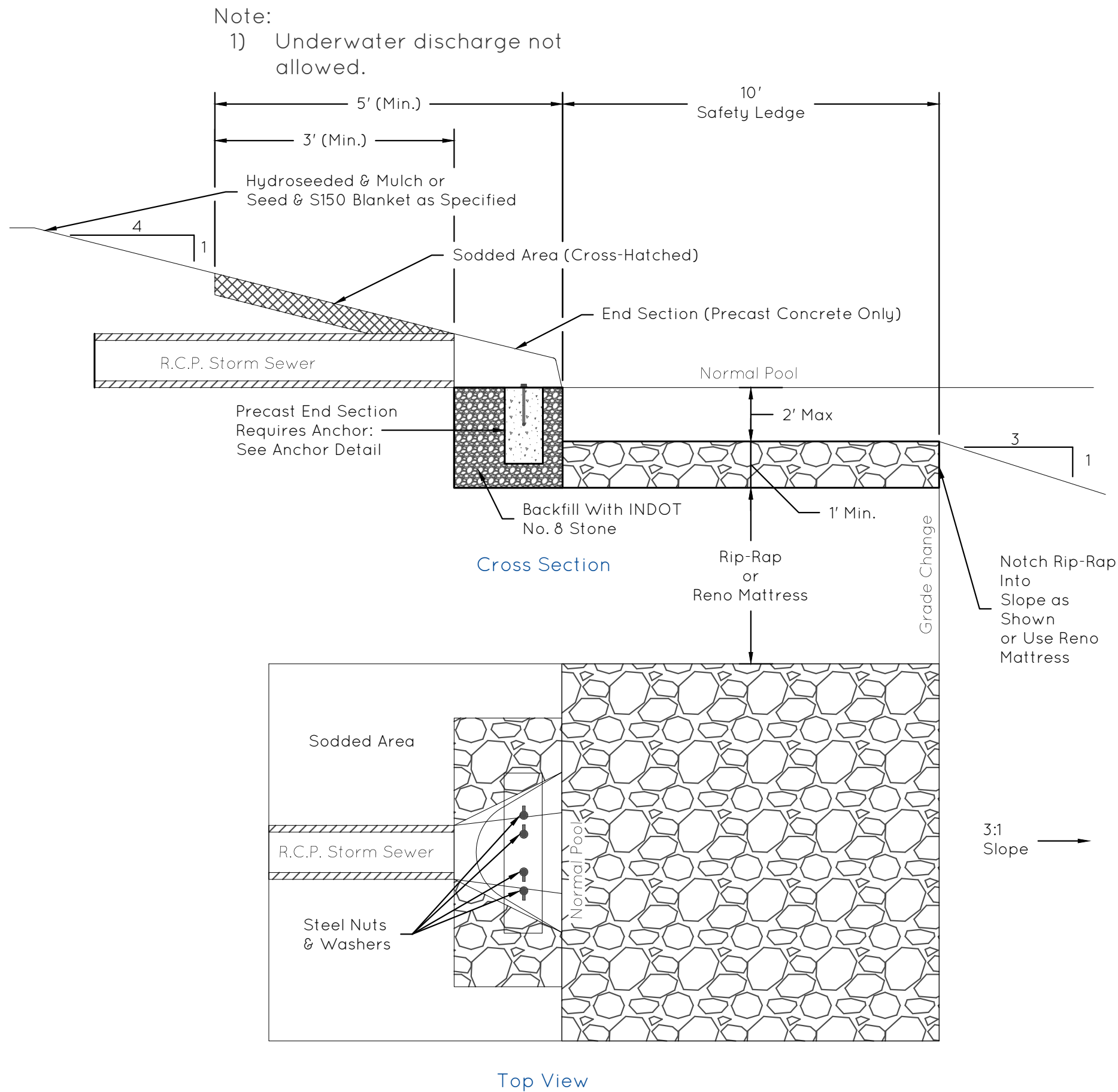


Note:  
1) If a Safety Fence is Provided, Pond Slopes Above the Safety Ledge May be Changed to 3:1 Versus 4:1.

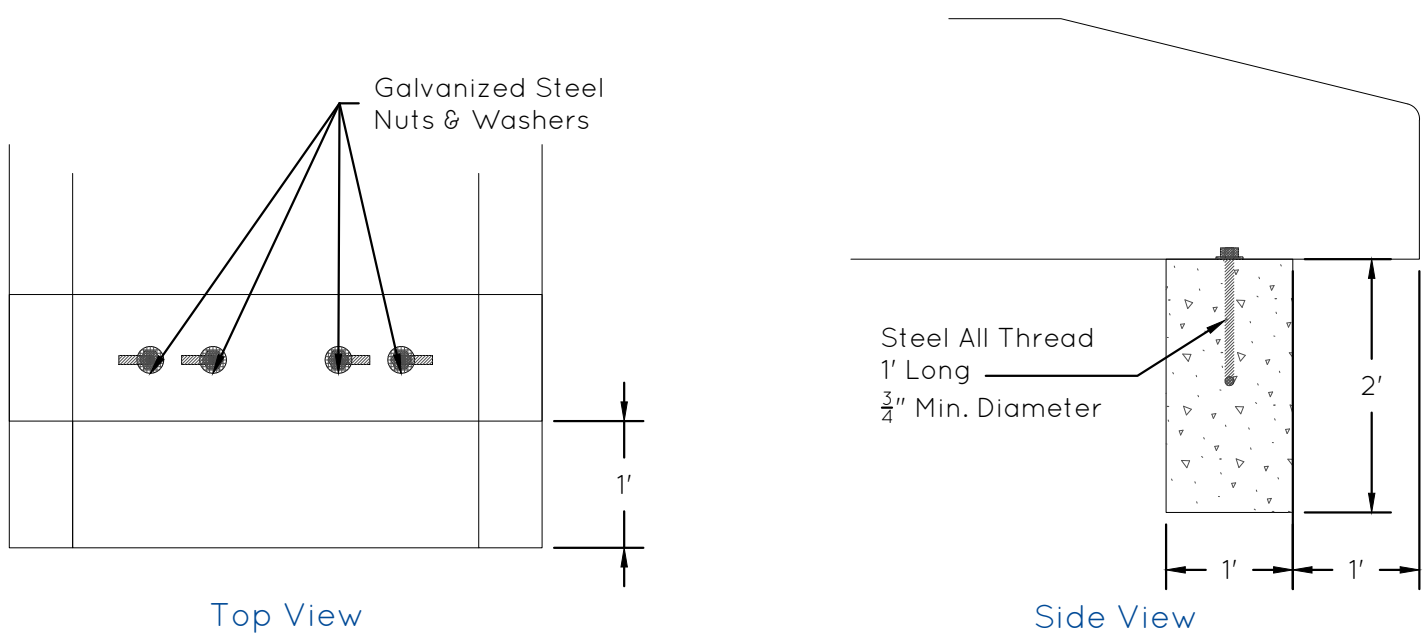
DETENTION BASIN CROSS-SECTION  
Not to Scale



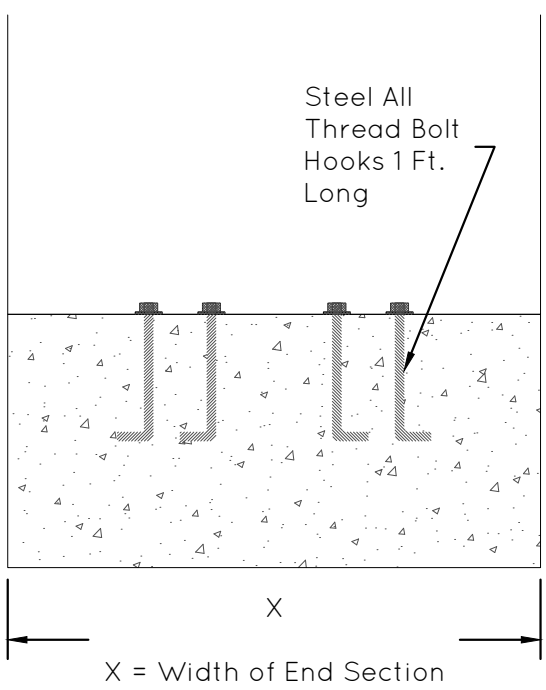
TYPICAL OUTLET STRUCTURE PLACEMENT  
Not to Scale



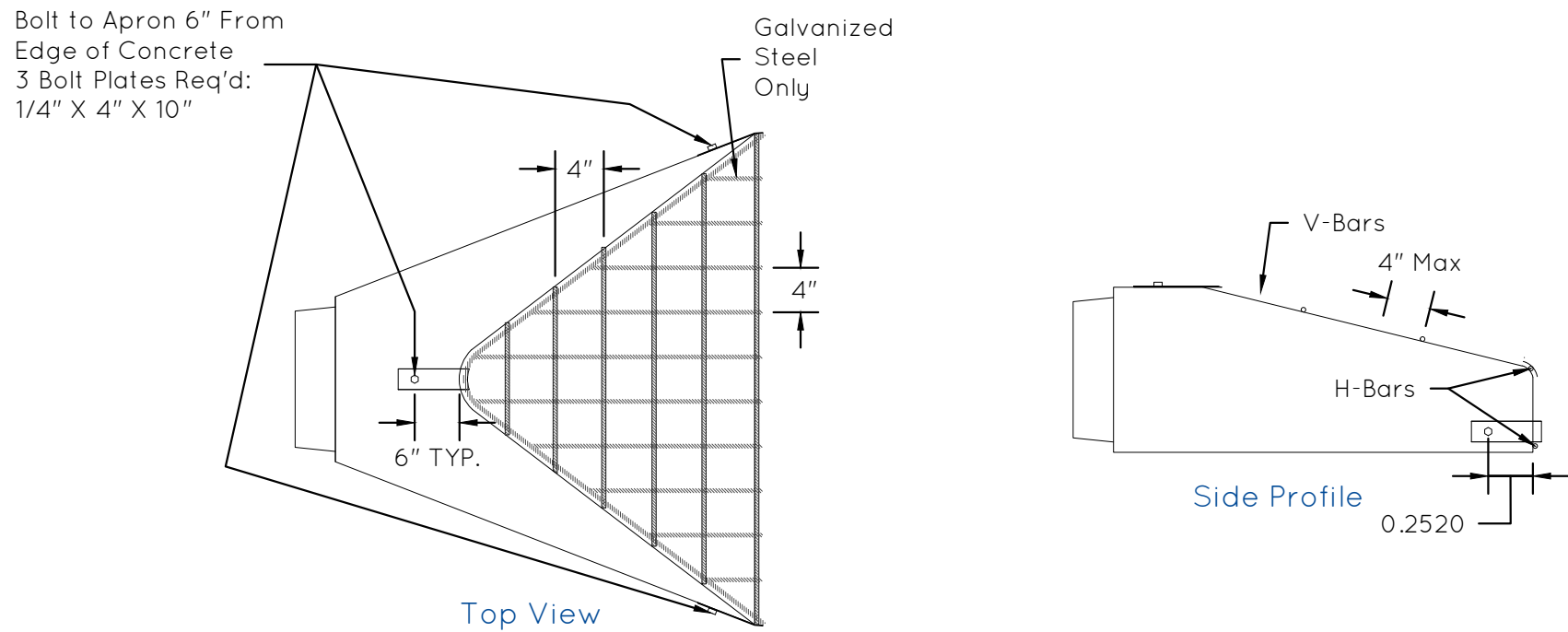
OUTLET TO DETENTION BASIN  
Not to Scale



Top View  
All Thread Spacing to be Two Per Foot  
EX: 12" End Section = 2 All Thread  
24" End Section = 4 All Thread



END SECTION ANCHOR  
Not to Scale

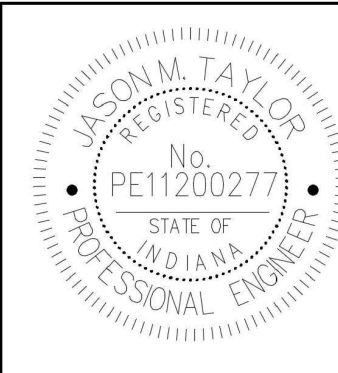


Notes:  
1) Trash guards should be galvanized steel only.  
2) To be placed on upstream end of detention basin outlet pipe only.

TRASH/DEBRIS GUARD  
Not to Scale

*[Signature]*

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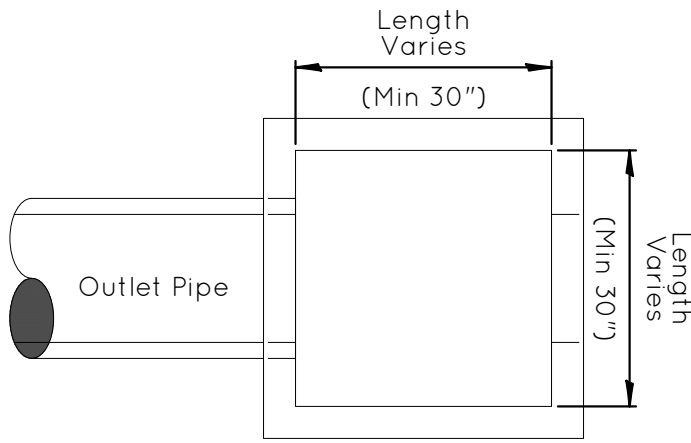


CITY OF FISHERS STANDARD CONSTRUCTION DETAILS		SHEET
DETENTION BASIN & END SECTION DETAILS		16 of 29



GENERAL OUTLET STRUCTURE NOTES

- 1) Use of a circular or rectangular orifice is at the discretion of the designer. The minimum opening height or diameter shall be 6", unless written approval of a smaller opening is provided during the stormwater review process. Openings shall be consolidated as much as is practicable while meeting the remaining requirements to reduce the potential for clogging. The minimum 6" dimension requirement does not apply to CPv or WQ orifice sizing. Coordinate with City of Fishers for minimum CPv / WQ orifice sizing.
- 2) If an overland emergency flow route cannot be created, the structure shall be sized to allow the open casting and outlet pipe to serve as a drop-inlet capable of carrying 125% of the peak inflow to the detention pond.
- 3) The maximum opening size for trash racks shall be 3" for outlets less than 24" in diameter or smaller than a 24" x 24" rectangle. Larger outlets shall have a 6" opening size.



Outlet Structure Top View

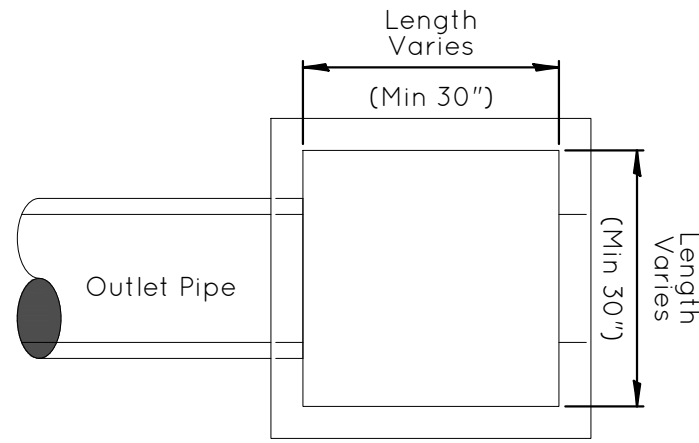
DESCRIPTION OF OUTLETS

Outlet 1: Extended Detention / Channel Protection Outlet  
The purpose of this outlet is to detain the flow and provide for settlement of suspended solids and to attenuate the outflow from the detention basin to meet the water quality or channel protection requirements of Ch. 8 of the STSM.

Outlet 2: Peak Flow Control Orifice (10-year)  
The purpose of this outlet is to restrict the flow leaving the detention pond when the volume of runoff exceeds the water quality or channel protection volume. This outlet is typically used to control the release of runoff for events between the 2-year and 10-year events to meet peak flow control requirements. This outlet has an invert elevation at the elevation of when the water quality or channel protection is fully stored assuming no outflow from Outlet 1.

Outlet 3: Peak Flow Control Orifice (100-year)  
The purpose of this outlet is to supplement Outlet 2 when the 100-year peak flow control requirements cannot be met using a single peak flow control orifice. This outlet typically has an invert elevation above the 10-year maximum water surface elevation.

Outlet 4: Emergency Overflow  
The purpose of this outlet is to allow the outlet to convey flow downstream even if the peak flow control orifice(s) are completely blocked. It may also serve as a part of the emergency flood route in special circumstances.



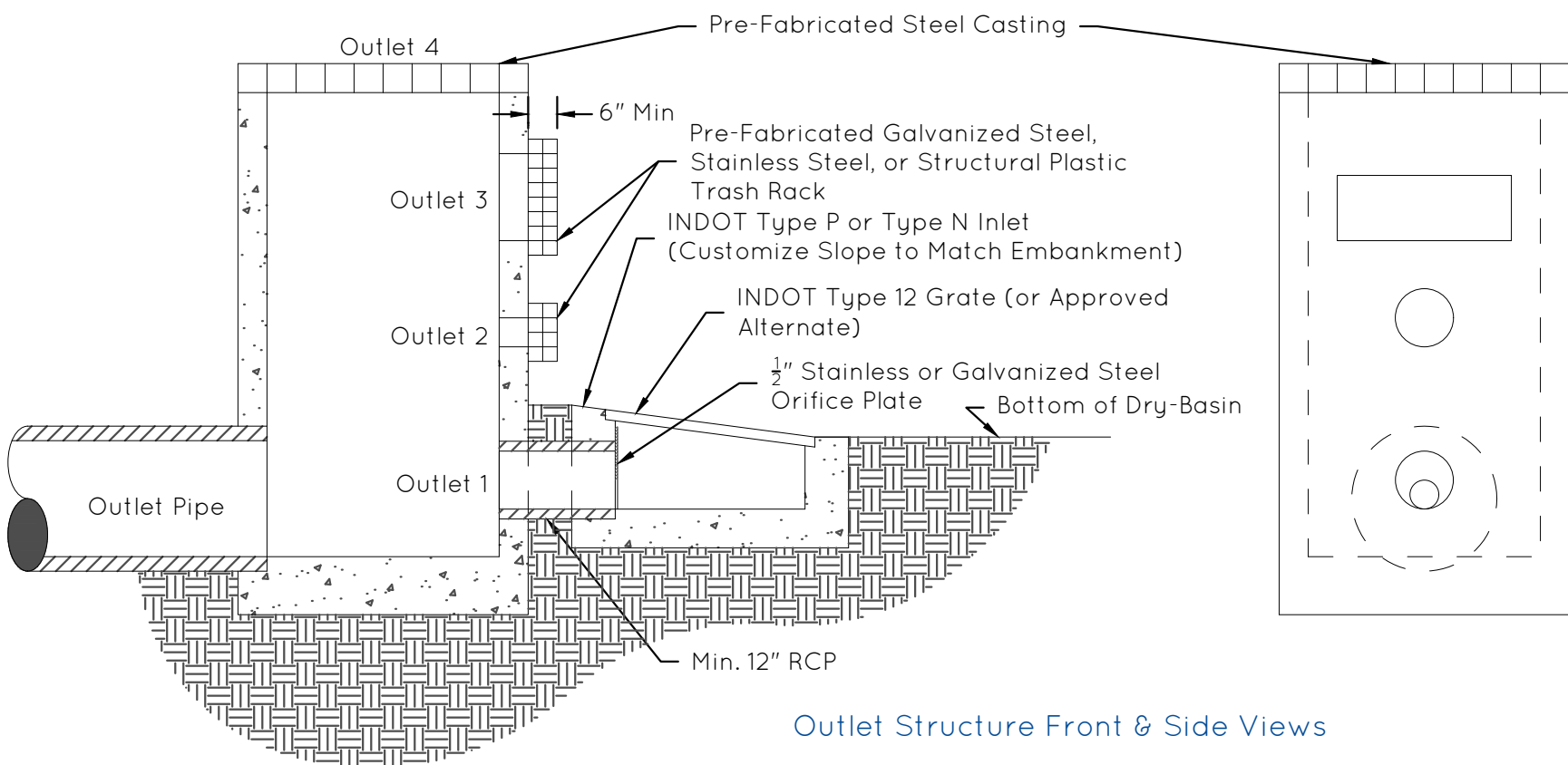
Outlet Structure Top View

DESCRIPTION OF OUTLETS

Outlet 1: Peak Flow Control Orifice (10-year)  
The purpose of this outlet is to control the release of runoff for events between the 2-year and 10-year storm events to meet peak flow control requirements per Ch. 3 and 6 of the STSM. This outlet has an invert elevation at the normal pool of a wet pond or below the bottom of a dry-bottom facility.

Outlet 2: Peak Flow Control Orifice (100-year)  
The purpose of this outlet is to supplement Outlet 1 when the 100-year peak flow control requirements cannot be met using a single peak flow control orifice. This outlet typically has an invert elevation above the 10-year maximum water surface elevation.

Outlet 3: Emergency Overflow  
The purpose of this outlet is to allow the outlet to convey flow downstream even if the peak flow control orifice(s) are completely blocked. It may also serve as a part of the emergency flood route in special circumstances.



Outlet Structure Front & Side Views

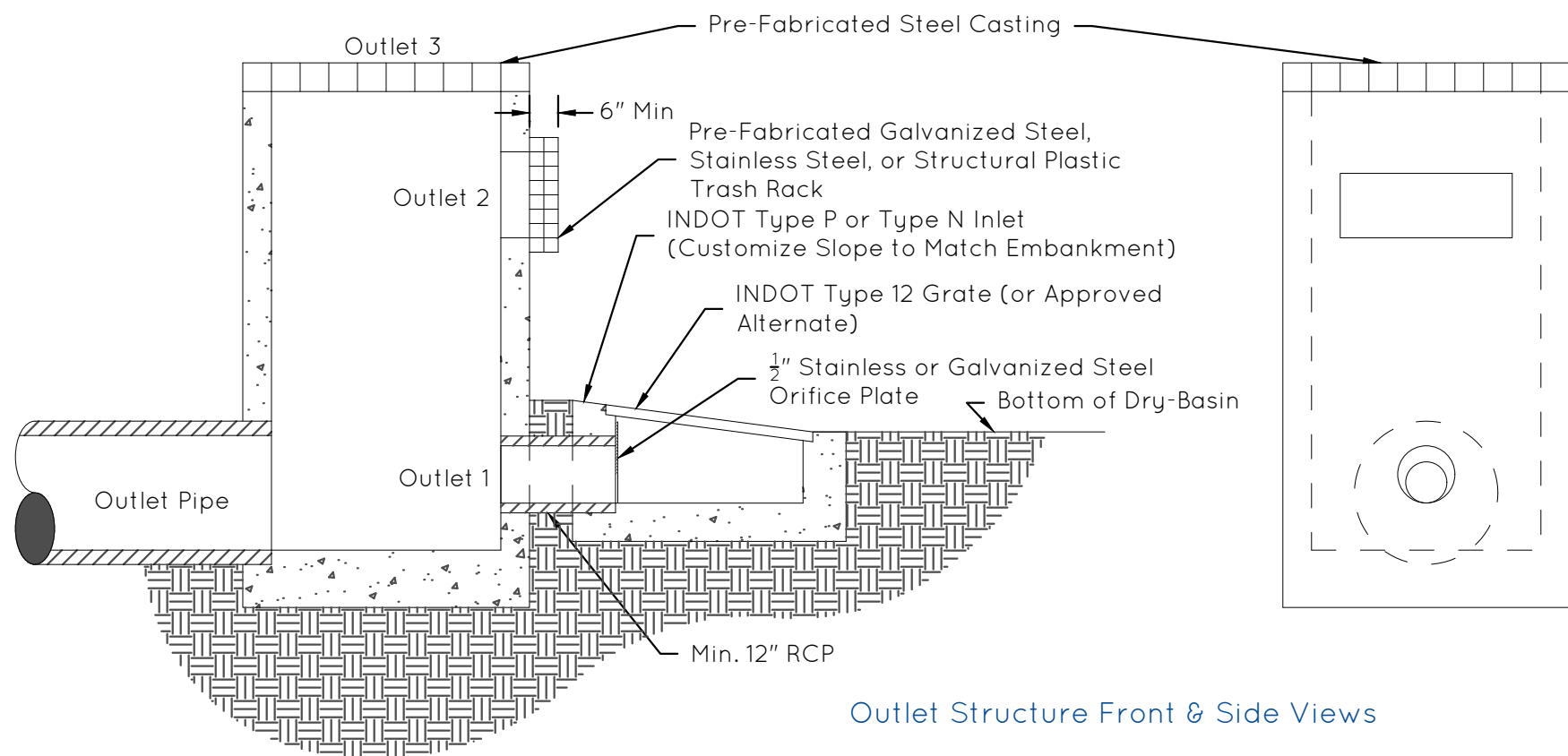
—Crest Elevation (Outlet 4) = ____  
The rim crest elevation is established by the maximum water surface elevation of the 100-year storm event when the peak flow control requirements are met.

—100-year Invert Elevation (Outlet 3) = ____  
The elevation of the 100-year orifice is established by the maximum water surface elevation of the peak 10-year storm event. The orifice size is established in conjunction with Outlet 2 to meet peak flow control rates and available storage requirements.

—10-year Invert Elevation (Outlet 2) = ____  
The elevation of the 10-year orifice is established when the calculated Channel Protection or Water Quality Volume is fully stored in the detention basin, assuming no outflow from the Extended Detention Outlet (Outlet 1).

—CPv / WQ Invert Elevation (Outlet 1) = ____  
This elevation is established below the bottom of the dry-bottom pond. Orifice size determined to drain CPv / WQ (if providing CPv or WQ) by storing between the inverts of Outlet 1 and Outlet 2 within 48 HRS after T_{PEAK}.

Note: Design data shall be filled-in for the indicated blanks (____) on the construction plans.



Outlet Structure Front & Side Views

—Crest Elevation (Outlet 3) = ____  
The rim crest elevation is established by the maximum water surface elevation of the 100-year storm event when the peak flow control requirements are met.

—100-year Invert Elevation (Outlet 2) = ____  
The elevation of the 100-year orifice is established by the maximum water surface elevation of the peak 10-year storm event. The orifice size is established in conjunction with Outlet 1 to meet peak flow control rates and available storage requirements.

—10-year Invert Elevation (Outlet 1) = ____  
This elevation is established below the bottom of the dry-bottom pond. Orifice size is established to meet the peak flow control requirements of the 10-year storm event.

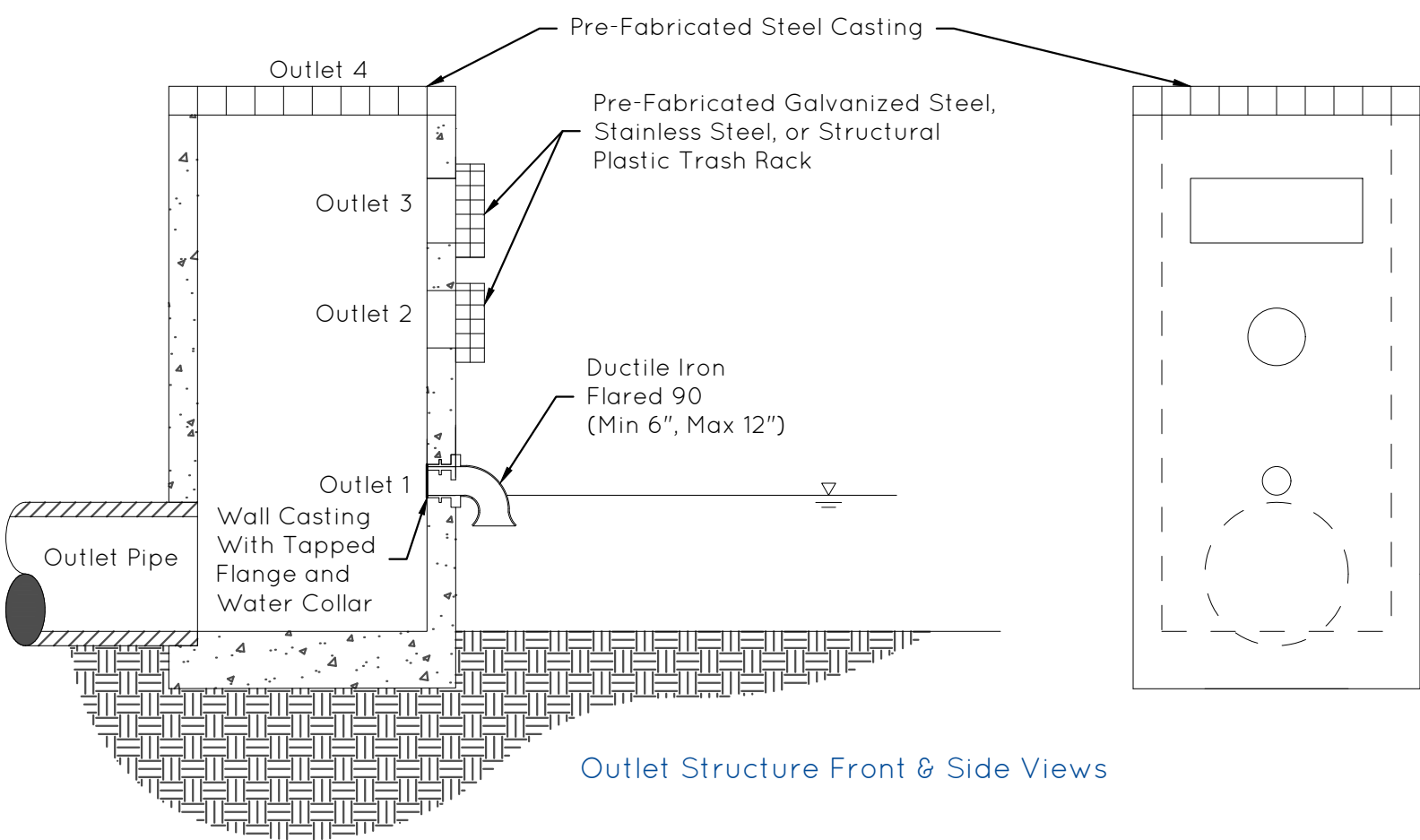
Note: Design data shall be filled-in for the indicated blanks (____) on the construction plans.

DRY-BOTTOM DETENTION BASIN OUTLET DETAILS - COMBINED PEAK FLOW AND CHANNEL PROTECTION / WATER QUALITY BASIN

Not to Scale

DRY-BOTTOM DETENTION BASIN OUTLET DETAILS - PEAK FLOW CONTROL FACILITY (SINGLE USE)

Not to Scale



Outlet Structure Front & Side Views

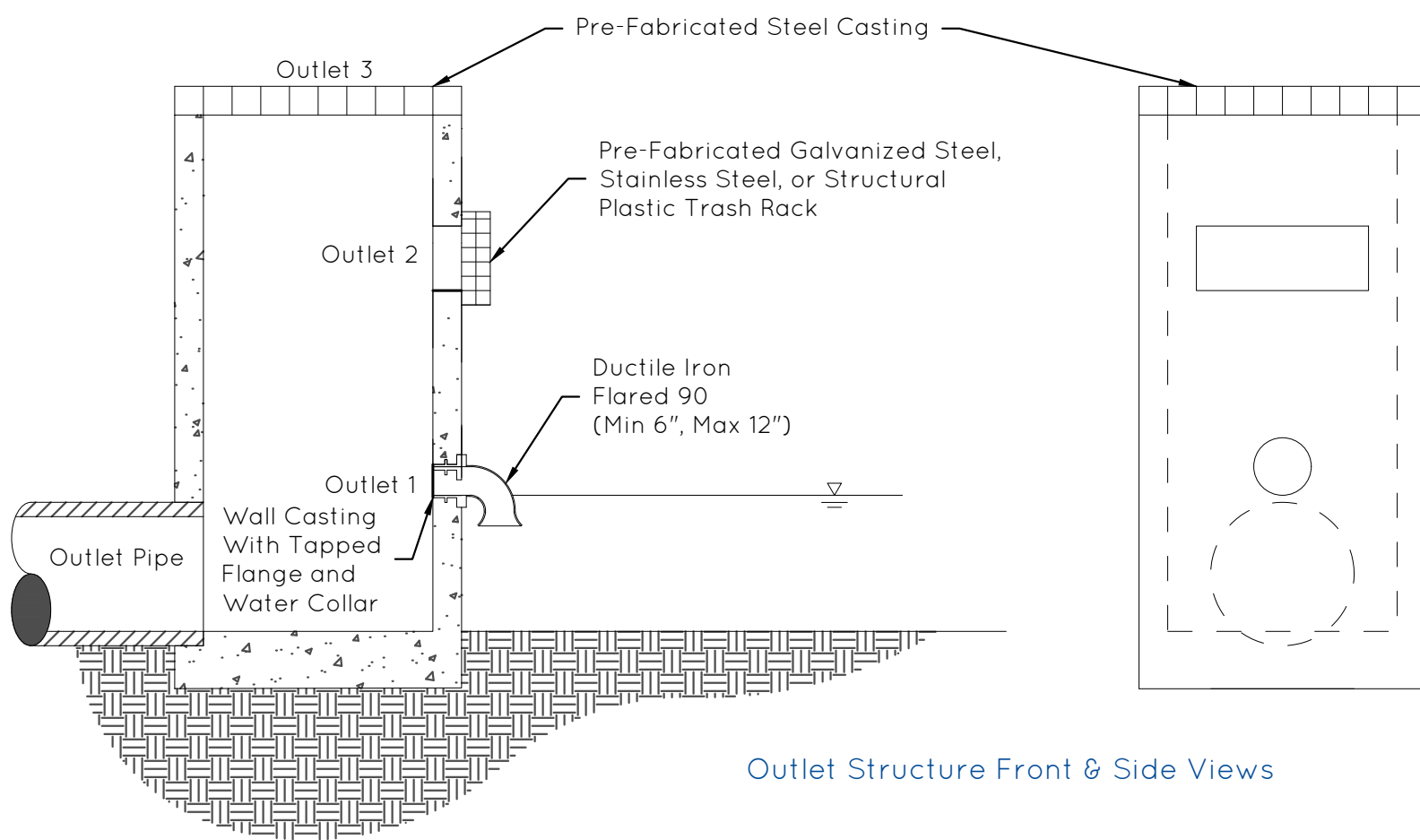
—Crest Elevation (Outlet 4) = ____  
The rim crest elevation is established by the maximum water surface elevation of the 100-year storm event when the peak flow control requirements are met.

—100-year Invert Elevation (Outlet 3) = ____  
The elevation of the 100-year orifice is established by the maximum water surface elevation of the peak 10-year storm event. The orifice size is established in conjunction with Outlet 2 to meet peak flow control rates and available storage requirements.

—10-year Invert Elevation (Outlet 2) = ____  
The elevation of the 10-year orifice is established when the calculated Channel Protection or Water Quality Volume is fully stored in the detention basin, assuming no outflow from the Extended Detention Outlet (Outlet 1).

—CPv / WQ Invert Elevation (Outlet 1) = ____  
Normal pool elevation of wet pond. Orifice size determined to Drain CPv / WQ (if providing CPv or WQ) by storing between the inverts of Outlet 1 and Outlet 2 within 48 HRS after T_{PEAK}.

Note: Design data shall be filled-in for the indicated blanks (____) on the construction plans.



Outlet Structure Front & Side Views

—Crest Elevation (Outlet 3) = ____  
The rim crest elevation is established by the maximum water surface elevation of the 100-year storm event when the peak flow control requirements are met.

—100-year Invert Elevation (Outlet 2) = ____  
The elevation of the 100-year orifice is established by the maximum water surface elevation of the peak 10-year storm event. The orifice size is established in conjunction with Outlet 1 to meet peak flow control rates and available storage requirements.

—10-year Invert Elevation (Outlet 1) = ____  
Normal pool elevation of the wet pond. Orifice size is established to meet the peak flow control requirements of the 10-year storm event.

Note: Design data shall be filled-in for the indicated blanks (____) on the construction plans.

WET-BOTTOM DETENTION BASIN OUTLET DETAILS - COMBINED PEAK FLOW AND CHANNEL PROTECTION / WATER QUALITY BASIN

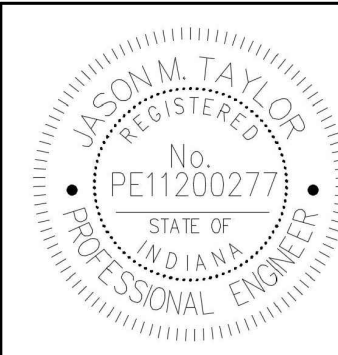
Not to Scale

WET-BOTTOM DETENTION BASIN OUTLET DETAILS - PEAK FLOW CONTROL FACILITY (SINGLE USE)

Not to Scale

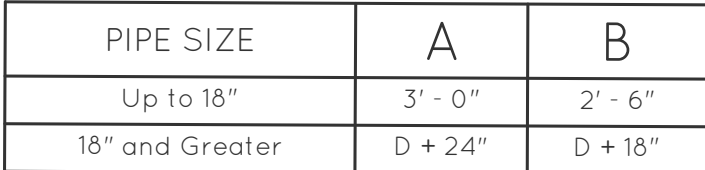
*[Signature]*

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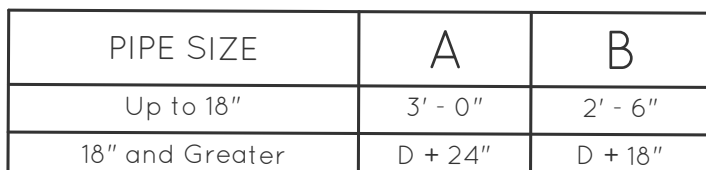


CITY OF FISHERS		SHEET
STANDARD CONSTRUCTION DETAILS		
DETENTION BASIN - OUTLET CONTROL STRUCTURE DETAILS		17 of 29





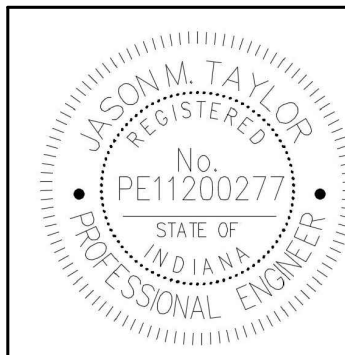
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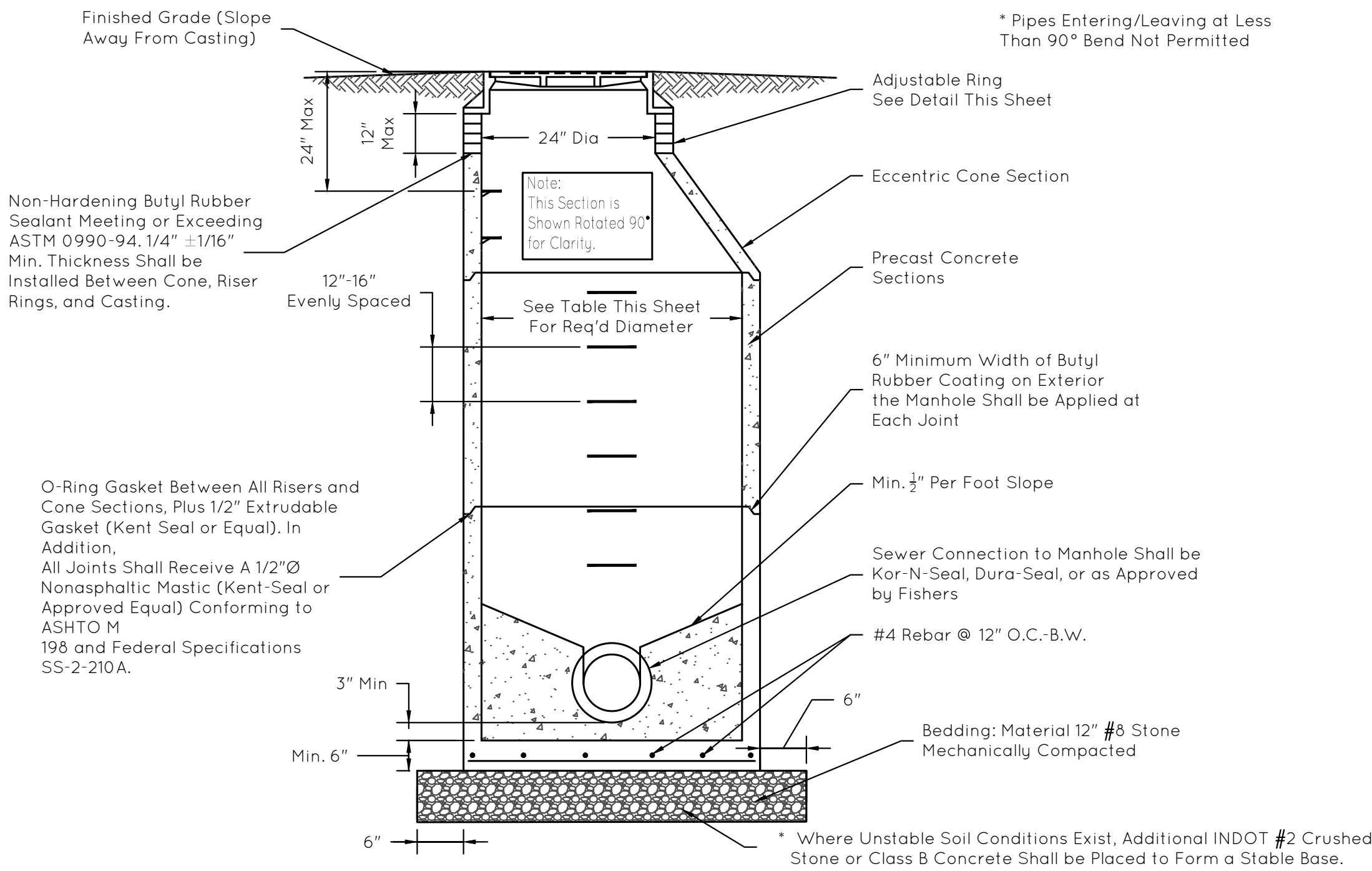
1/18/2022



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of  
29

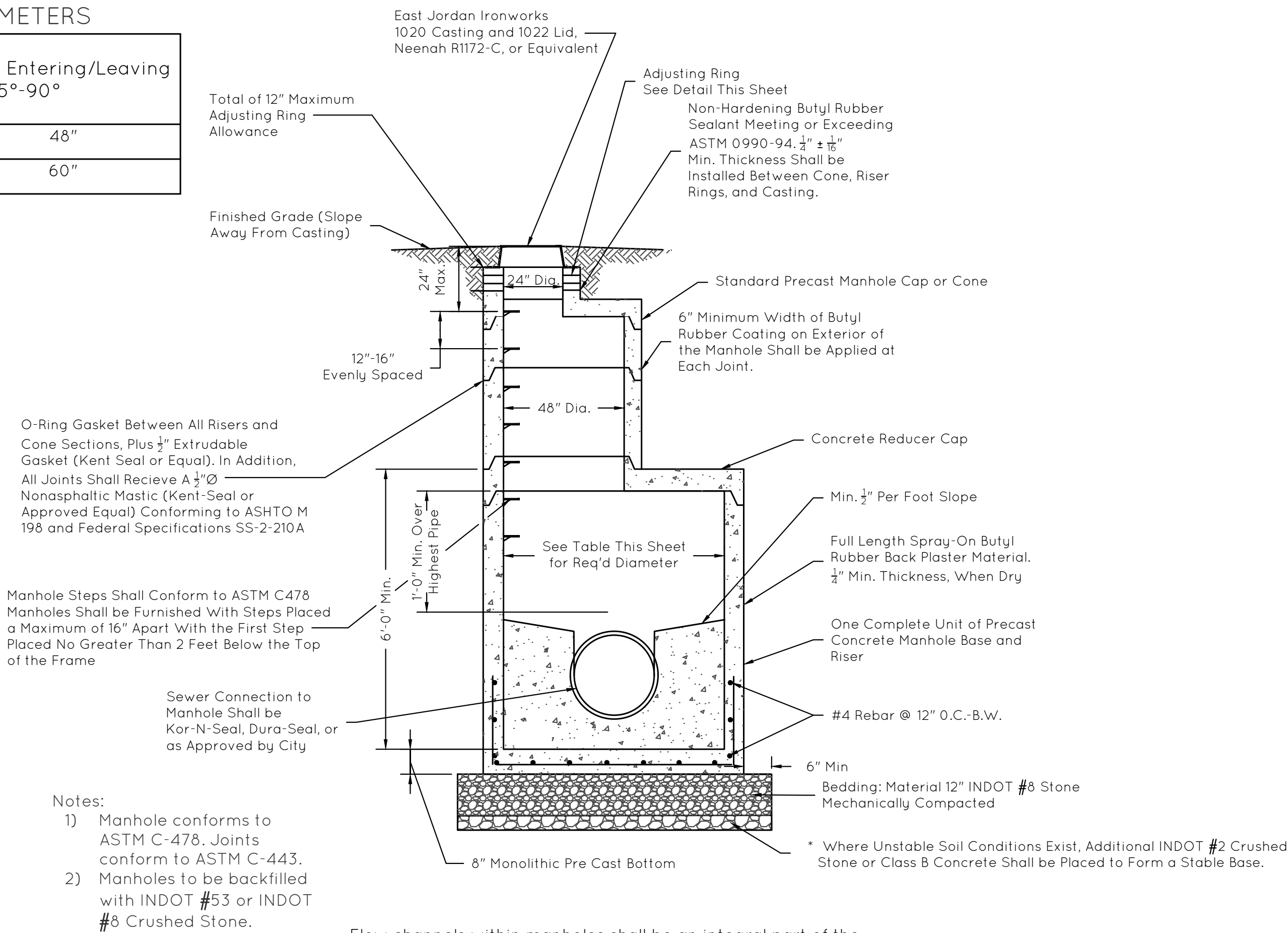


MANHOLE DIAMETERS	
Pipe Size	Pipes Entering/Leaving at *45°-90°
8"-24"	48"
27"-30"	60"



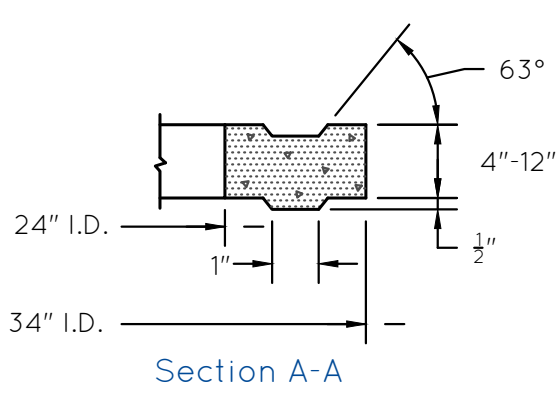
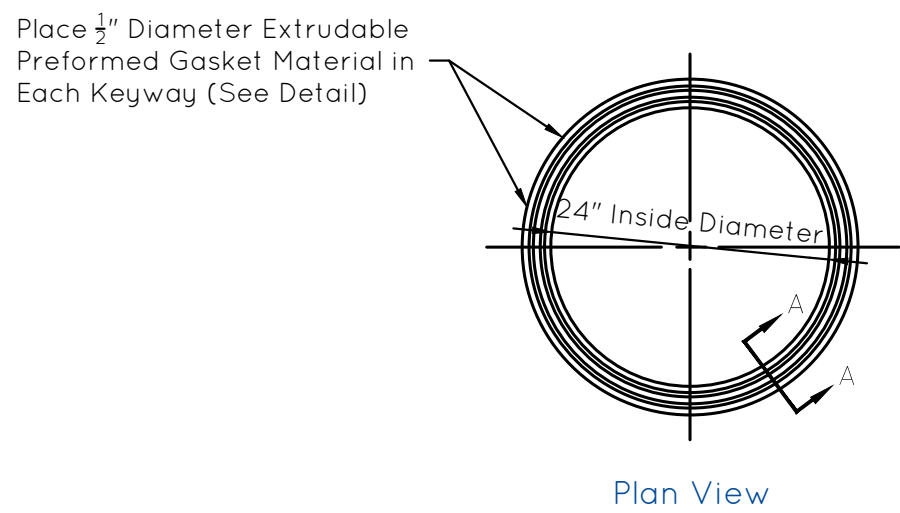
STANDARD MANHOLE FOR PIPE SIZES 8" THRU 24"

Not to Scale



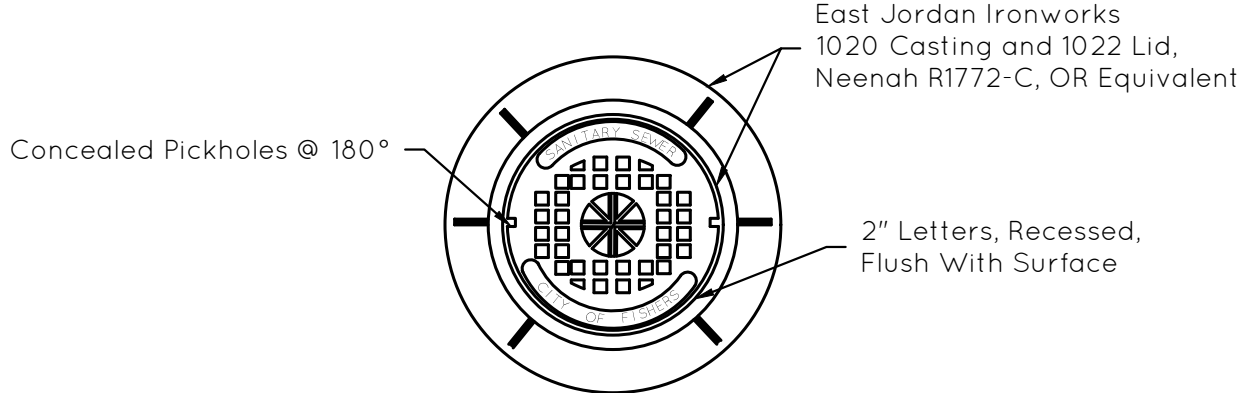
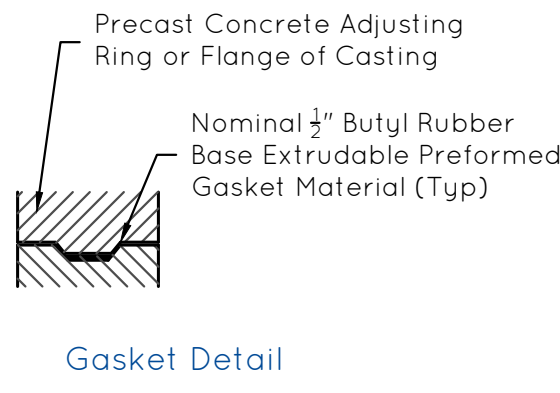
STANDARD MANHOLE FOR PIPE SIZES 27" THRU "30"

Not to Scale



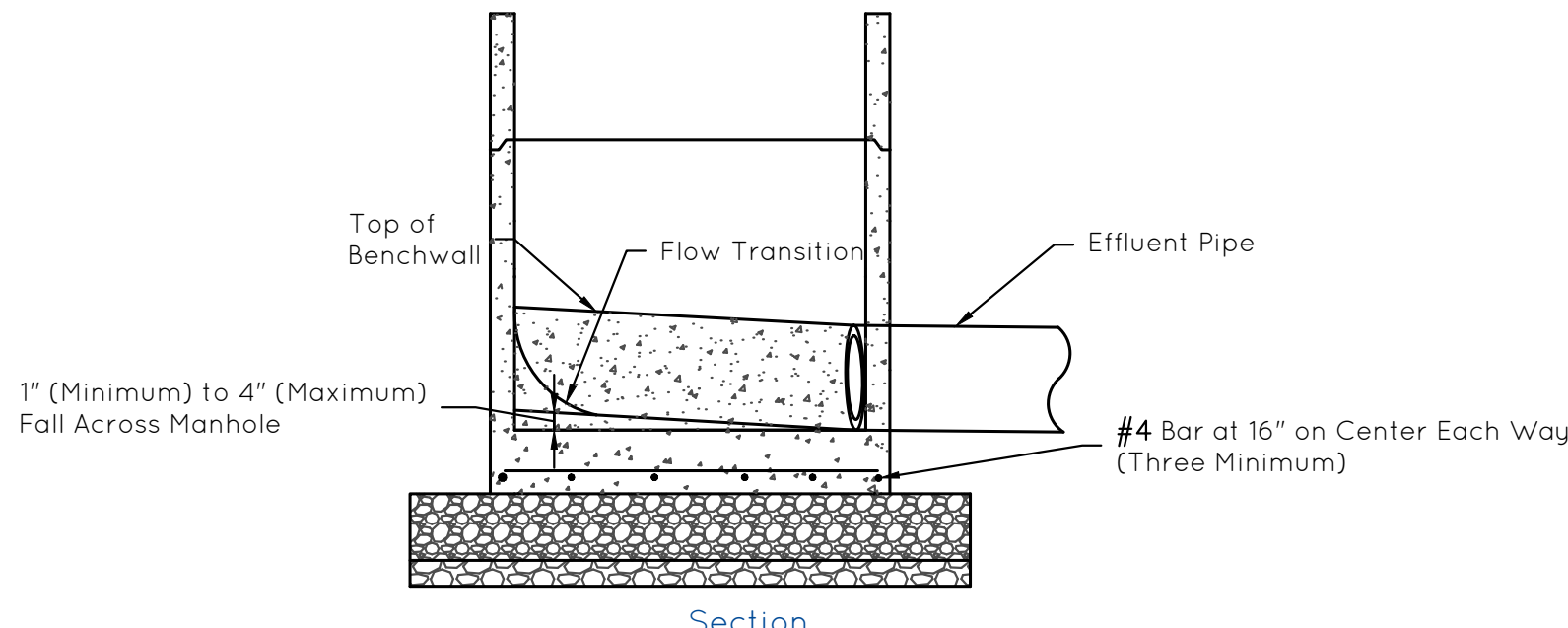
ADJUSTING RING

Not to Scale



FRAME AND COVER

Not to Scale

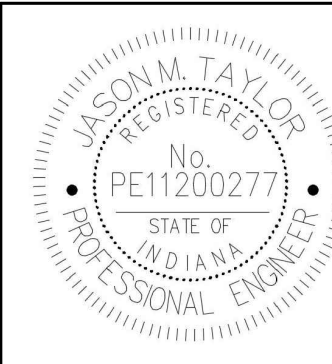


TERMINATION MANHOLE

Not to Scale

THESE SANITARY SEWER DETAILS AND FISHERS SANITARY SEWER SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER.

1/18/2022

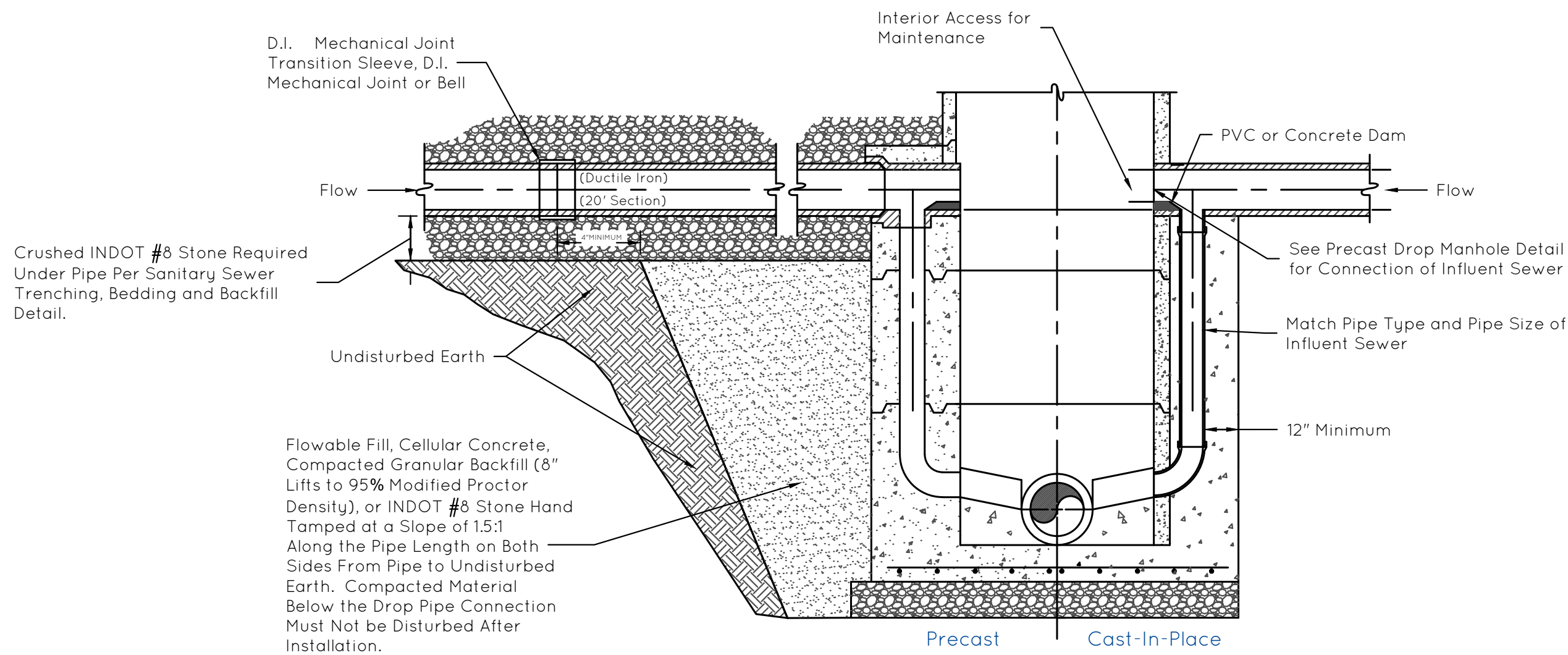


CITY OF FISHERS  
STANDARD CONSTRUCTION DETAILS  
SANITARY SEWER STRUCTURE  
DETAILS

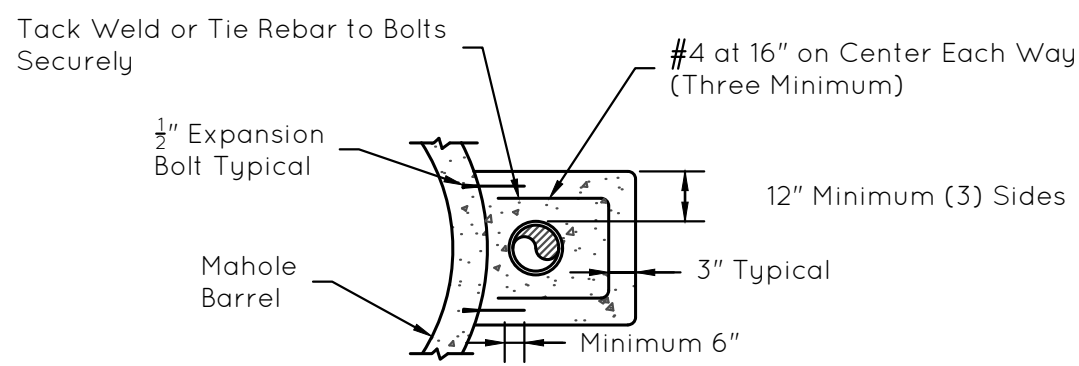
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THESE SANITARY SEWER DETAILS AND FISHERS SANITARY SEWER SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER.



TYPICAL EXTERIOR DROP MANHOLE  
Not to Scale

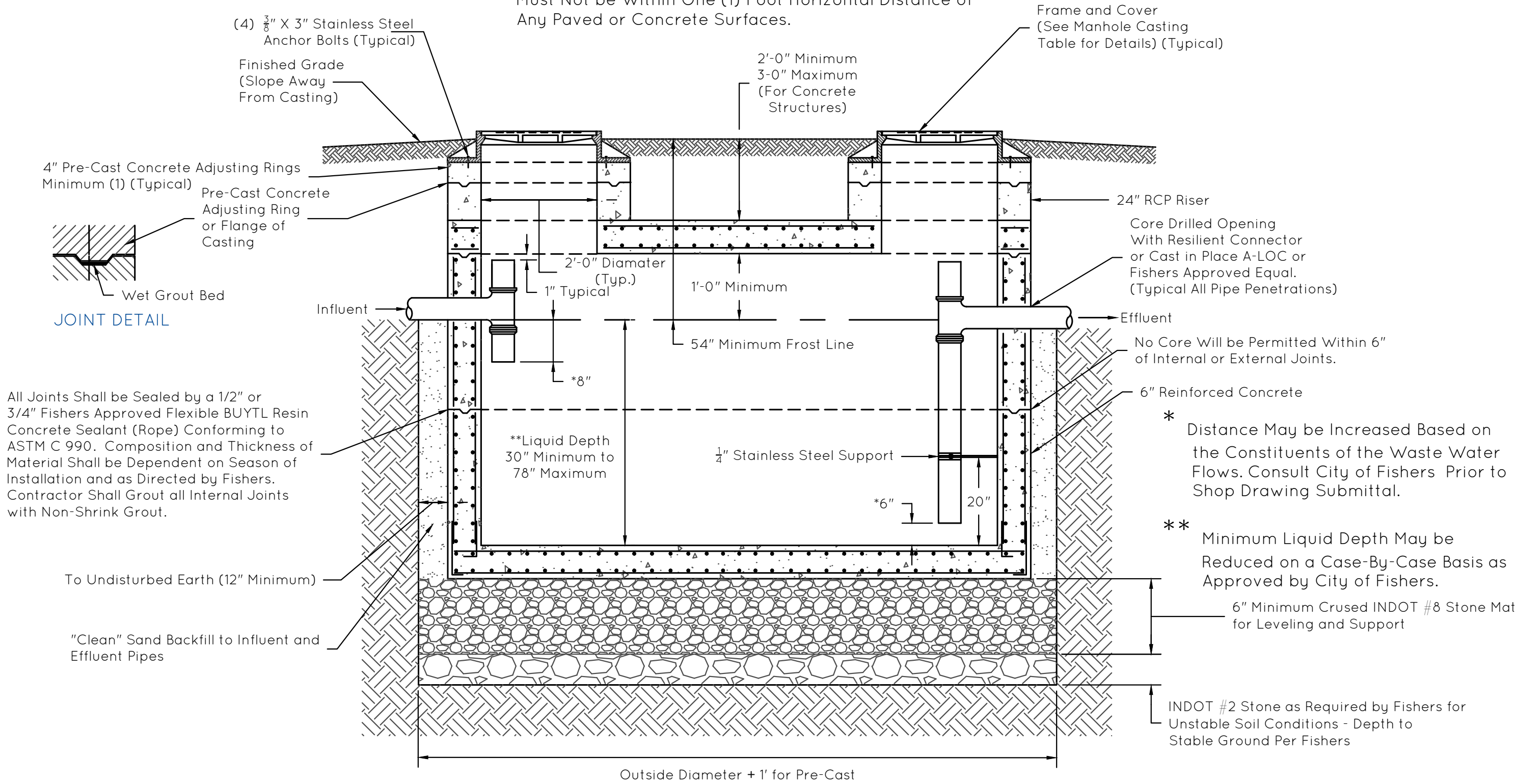


DROP SECTION  
Not to Scale

MANHOLE CASTING TABLE		
LOCATION	MODEL	COVER
18" Inches or More Above 100 Year Flood Elevation of All Waterway	East Jordan 1060-Z1 or Neenah R-1712-B OR Equivalent	Heavy Duty Solid
Less Than 18" Above 100 Year Flood Elevation of All Waterways	East Jordan 1050-Z1WT OR Neenah R-1916-E OR Equivalent	Heavy Duty Solid
LID		
OWNERSHIP	LETTERING	
Private or Fishers	"Sanitary Sewer"	

All Castings to be Supplied With Four (4) Anchor Bolt Holes

Note:  
Top of Casting Shall Extend 0.20 Feet Minimum Above Finished Grade. Unless Approved by Fishers, Castings Must Not be Within One (1) Foot Horizontal Distance of Any Paved or Concrete Surfaces.

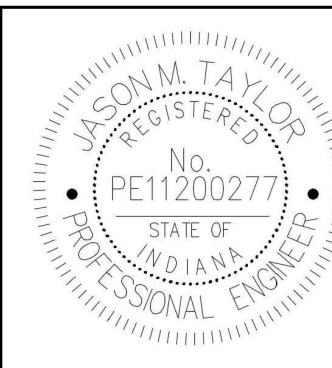


- Notes:
- 1) Exterior grease traps must be sized according to the Indiana State Department of Health, Environmental Public Health Division Rule 410 IAC 6-10.1, "Commercial On-Site Sewage Systems" and per local requirements and codes. The sizing method for all structures must be approved by City of Fishers.
  - 2) Top of casting shall extend 0.20 feet minimum above finished grade. Unless approved by City of Fishers, castings must not be within one (1) foot horizontal distance of any paved or concrete surfaces.
  - 3) Shop drawings must be submitted to City of Fishers for review and approval.
  - 4) Alternate equivalent must be approved by Director of Public Works.

EXTERIOR GREASE INTERCEPTOR  
Not to Scale

- Notes:
- 1) Grease Trap Shall Conform to ASTM C 478 Utilizing 4,000 PSI Concrete. Contractor May Supply Grease Trap as Manufactured by ZURN Series Z-1170 or Jay R. Smith Manufacturing Company Series 8000.
  - 2) Exterior Installation Must be Concrete or Cast Iron. Steel Grease Traps Shall Only be Installed Inside a Building.

*[Signature]*  
1/18/2022



CITY OF FISHERS  
STANDARD CONSTRUCTION DETAILS  
SANITARY SEWER STRUCTURE  
DETAILS

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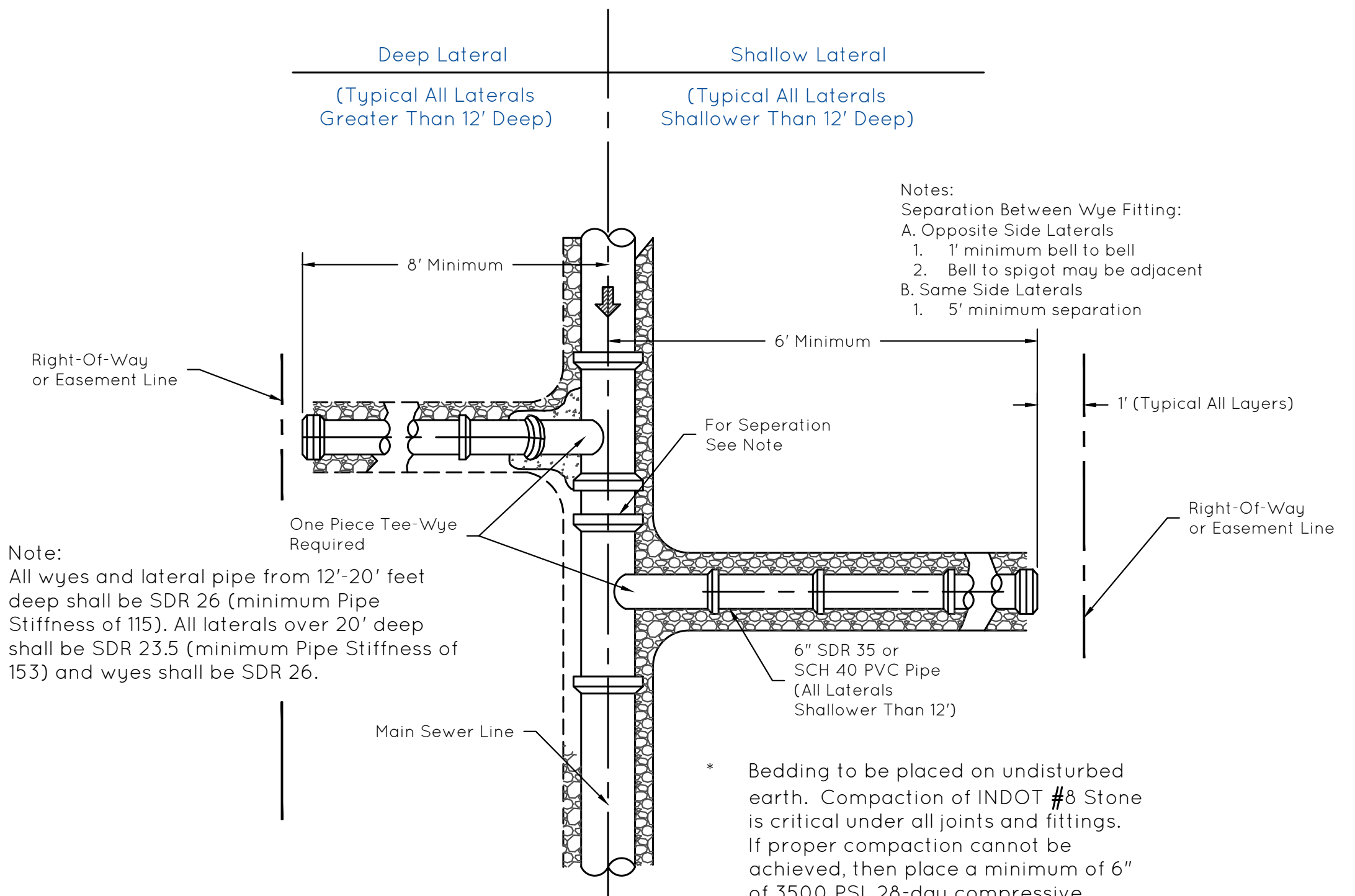




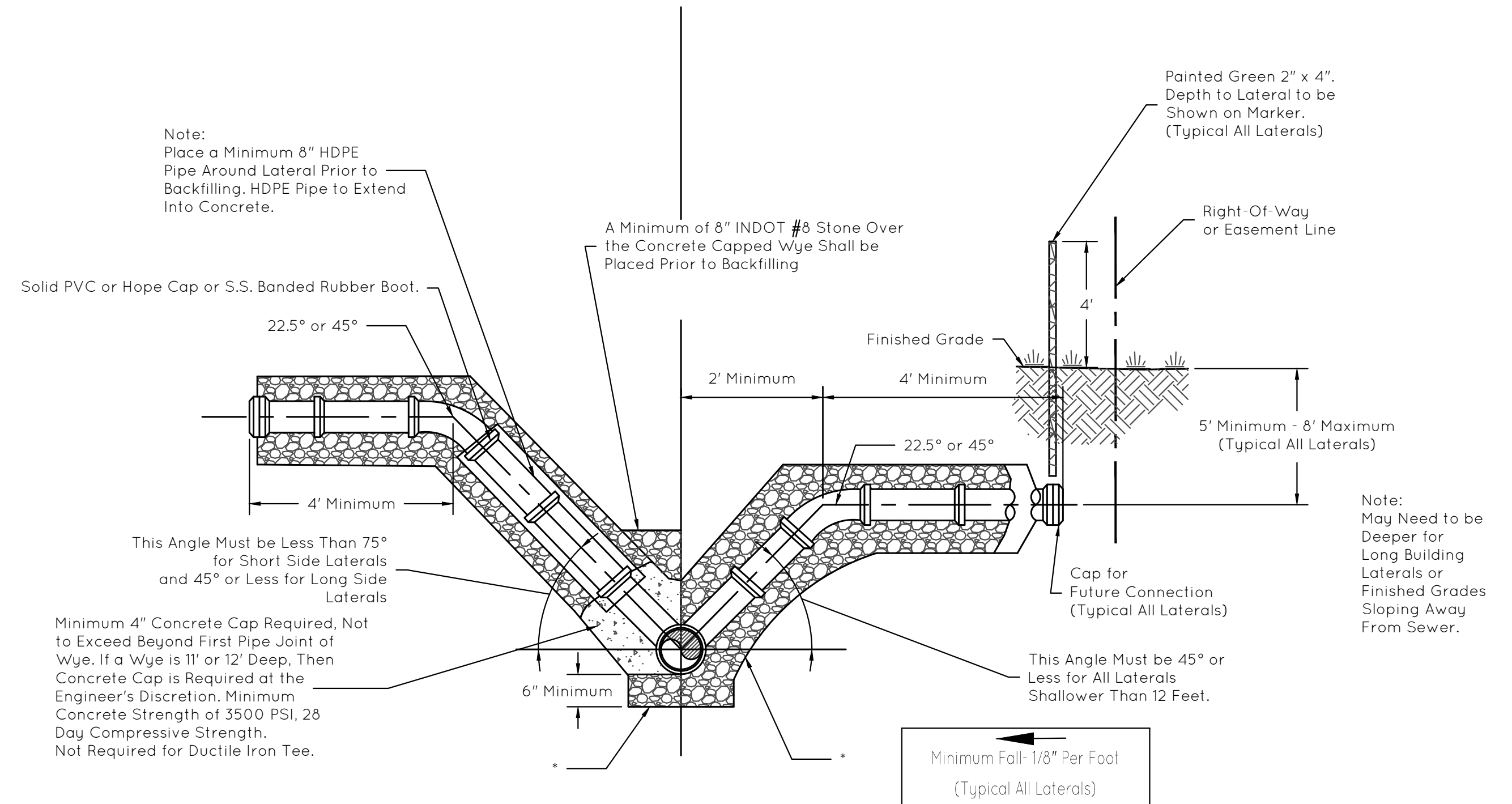
- Notes:
- 1) Top of casting or cleanout cap shall extend 0.20 feet minimum above finished grade unless constructed within pedestrian or vehicular traffic way. Unless approved by Engineer, sanitary sewer castings or cleanouts must not be within one (1) foot horizontal distance of any paved or concrete surfaces.
  - 2) All cleanout pipes and fittings to be PVC Schedule 40 or SDR 35 when shallower than twelve (12) feet. At depths greater than twelve (12) feet, material of construction will be determined by Engineer.

## TYPICAL CLEANOUTS

Not to Scale



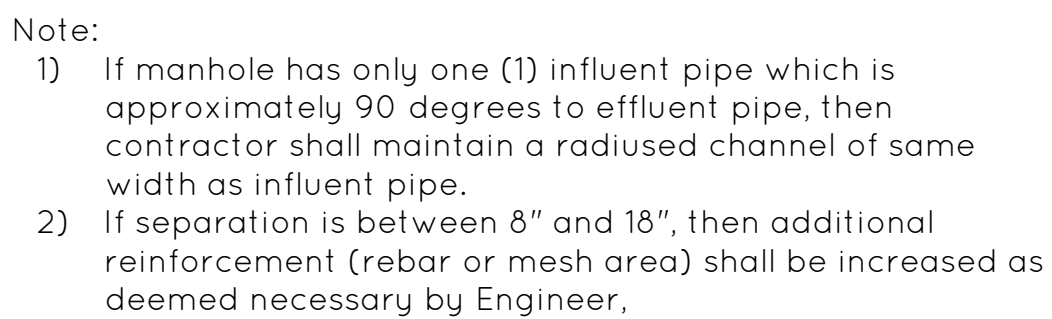
## PLAN VIEW



- Notes:
- 1) Depth of service lateral shall be measured from finished grade to the top of main sewer line.
  - 2) All piping from wye to 45°/22.5° fitting at 5'-8' below grade shall be SDR 26 to 20' deep or SDR 23.5 greater than 20' deep.
  - 3) All lateral bedding shall be against undisturbed trench.

## SERVICE LATERAL

Not to Scale



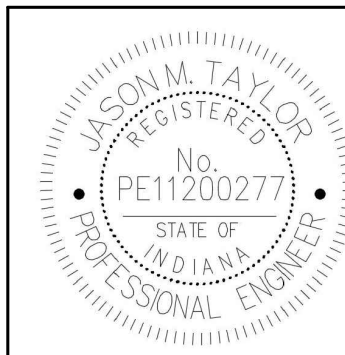
## FLOW CHANNEL

Not to Scale

THESE SANITARY SEWER DETAILS AND FISHERS SANITARY SEWER SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER.



1/18/2022

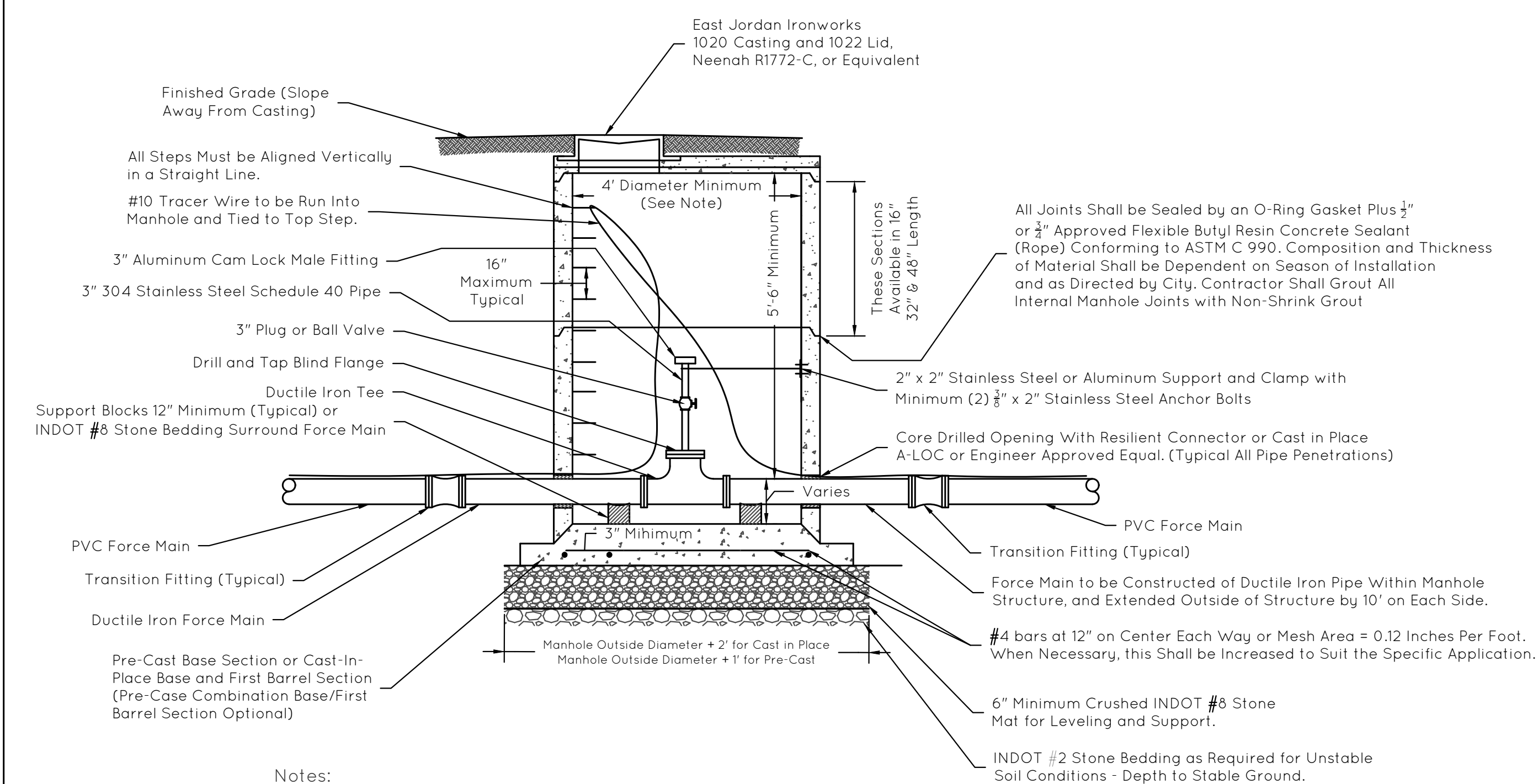


<b>CITY OF FISHERS</b>  <b>STANDARD CONSTRUCTION DETAILS</b>	
SANITARY LATERAL CONNECTION,          CLEAN OUT, &amp; MISC. DETAILS	

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of  
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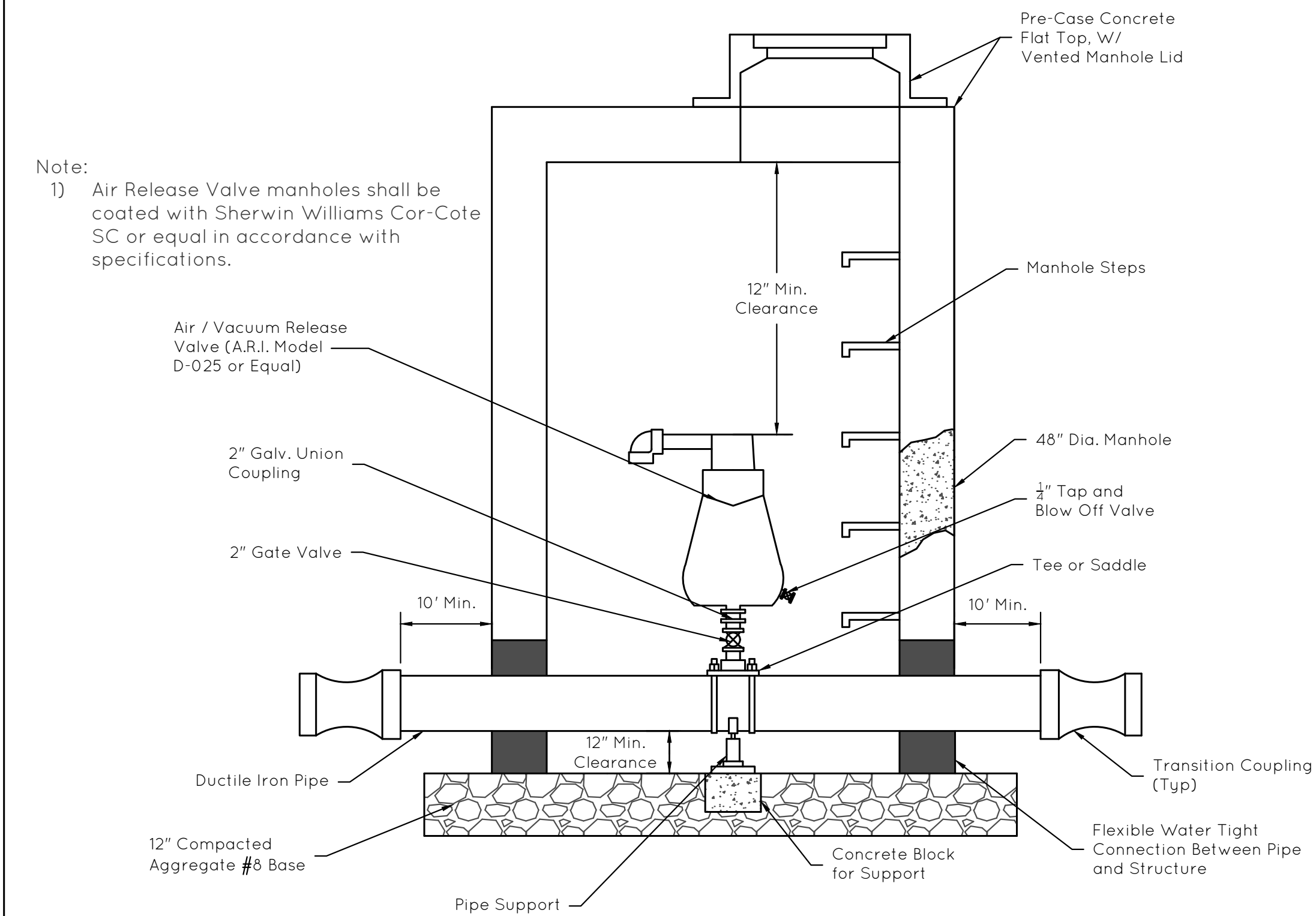




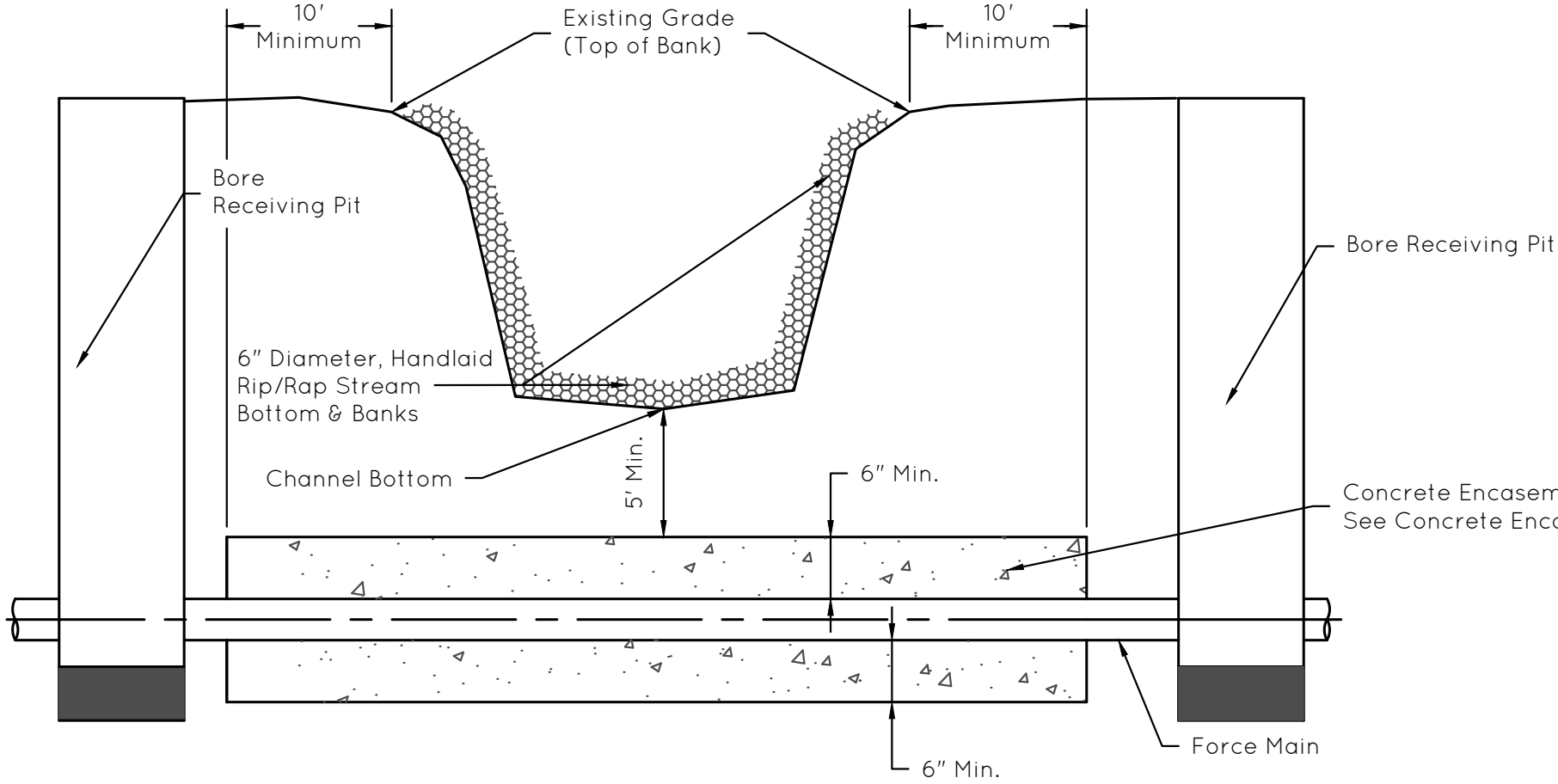
Notes:

- Manhole sections shall conform to ASTM C 478 utilizing 4,000 psi concrete. Joints shall conform to ASTM C 443. Four (4) feet diameter manhole for 6" force main or smaller, or five (5) feet diameter manhole for 8" force main or larger.
- Top of casting shall extend 0.20 feet minimum above finished grade.

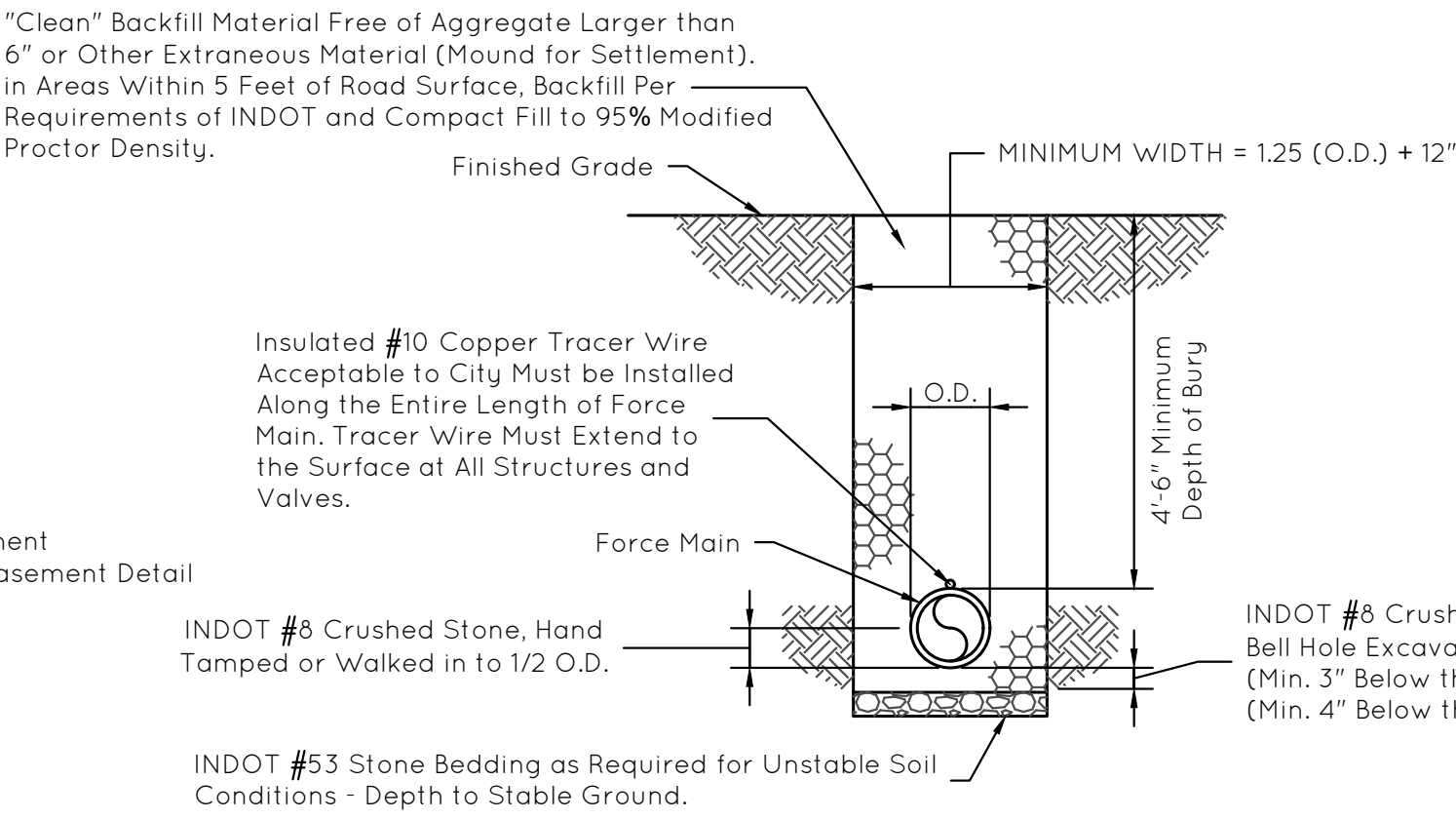
**FORCE MAIN CLEAN-OUT MANHOLE**  
Not to Scale



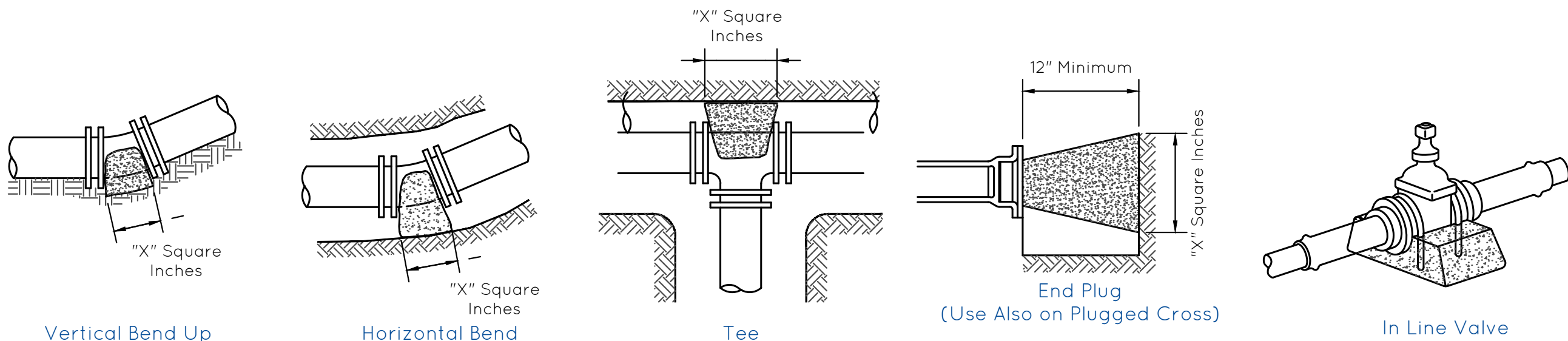
**TYPICAL AIR RELEASE VALVE WITH CONNECTION**  
Not to Scale



**STREAM CROSSING -FORCE MAIN**  
(Refer to Hamilton County Surveyors Detail)  
Not to Scale



**FORCE MAIN TRENCH**  
Not to Scale



Notes:

- Blocks designed for 100 psi pressure, for higher pressures contact City of Fishers.
- Vertical bends downwards (3" and greater) shall be individually designed using flanged or restrained joints.
- Concrete for thrust blocks to be 3750 psi laid to undisturbed bearing wall of the trench in the form of a wedge with the wide end against the trench wall.
- Thrust blocking is required for all force main locations where the main changes direction by 11.25° or more.

**FORCE MAIN THRUST BLOCKING**  
Not to Scale

SIZE OF THRUST BLOCK IN SQUARE INCHES																					
Type of Soil	$\frac{1}{32}$ (11- $\frac{1}{4}$ " ) & $\frac{1}{16}$ (22- $\frac{1}{2}$ ") Bend					$\frac{1}{8}$ (45°) Bend					$\frac{1}{4}$ (90°) Bend					Tee & End Plug					In Line Valve
	1.5"	2"	2.5"	3"	4"	1.5"	2"	2.5"	3"	4"	1.5"	2"	2.5"	3"	4"	1.5"	2"	2.5"	3"	4"	Coordinate With Engineer
Loose Sand & Gravel, Soft Clay	20	30	40	60	100	40	60	80	110	190	70	100	140	210	340	50	70	100	150	240	
Compacted Sand & Gravel, Dense Silt, Firm Till & Stiff Clay	10	20	20	30	50	20	30	40	60	100	40	50	70	110	170	30	40	50	80	120	
Very Stiff Clay, Dense Till, Shale or Rock	10	10	20	20	40	20	20	30	40	70	30	40	50	70	120	20	30	40	50	80	

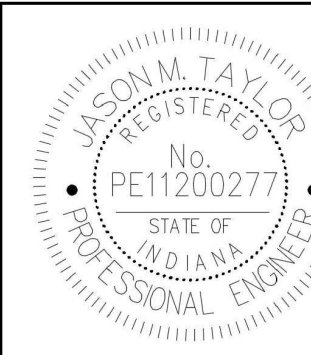
DUCTILE IRON PIPE SIZE	DEPTH OF COVER(INVERT TO FINAL GRADE)	THICKNESS CLASS
6" - 8"	Up to 20 Feet Over 20 Feet Contact Engineer	Class 50
10" - 12"	Up to 20 Feet Over 20 Feet Contact Engineer	Class 51
14" - 16"	Up to 20 Feet Over 20 Feet Contact Engineer	Class 52
18" - 20"	Up to 20 Feet Over 20 Feet Contact Engineer	Class 54
24"	Up to 20 Feet Over 20 Feet Contact Engineer	Class 55
Greater Than 24" Diameter	Greater Than 20 Feet Deep	Contact Engineer (Either Case)
NOTE: No Pressure Rated Pipe Will be Permitted		

Note:

- Manhole sections shall  
conform to ASTM C 478  
utilizing 4,000 psi concrete.  
Joints shall conform to ASTM  
C 443. Four (4) feet diameter  
manhole for 6" force main or  
smaller, or five (5) feet  
diameter manhole for 8" force  
main or larger.

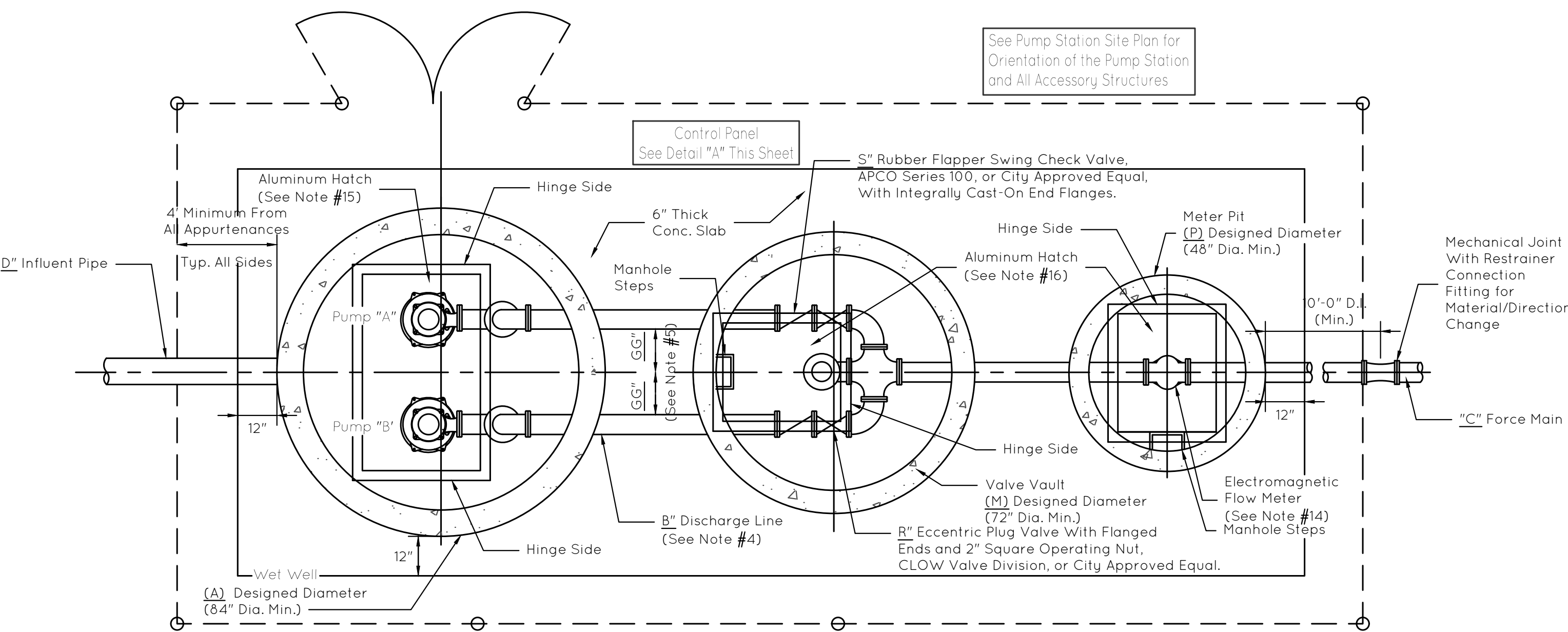
THESE SANITARY SEWER DETAILS AND FISHERS SANITARY SEWER  
SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE  
INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER.

*[Signature]*  
1/18/2022

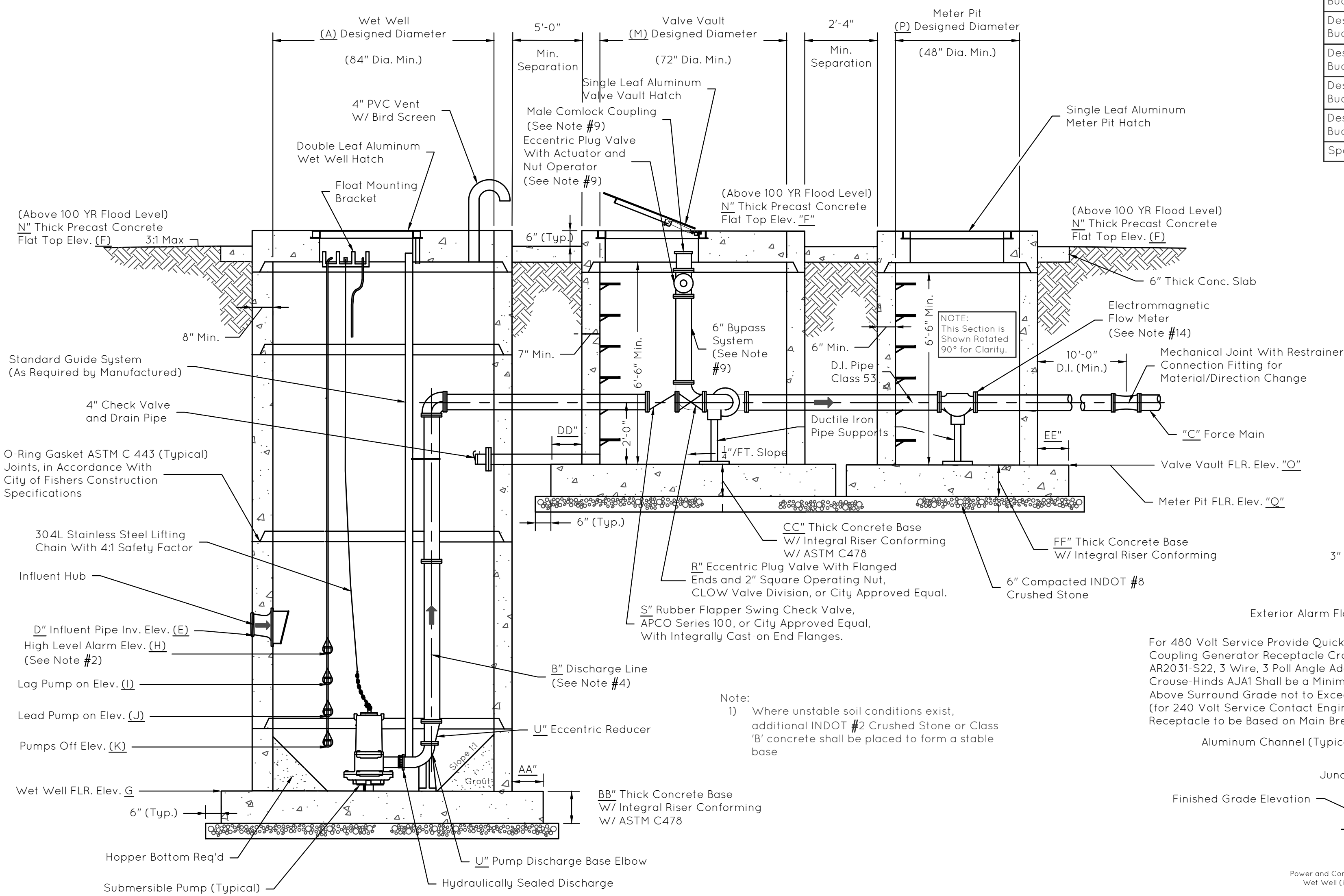




NOTE: *ONLY FOR LIFT STATIONS COVEYED TO FISHERS*



PLAN VIEW  
Not to Scale

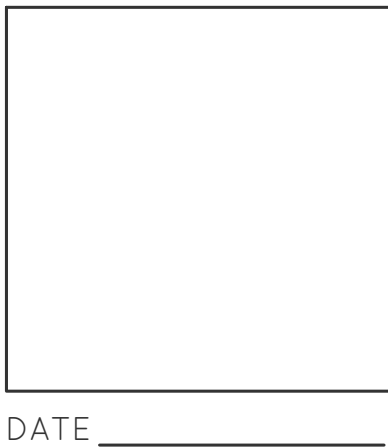


SECTION VIEW  
Not to Scale

THESE SANITARY SEWER DETAILS AND FISHERS SANITARY SEWER SPECIFICATIONS ARE COMPLEMENTARY IN NATURE AND SHOULD NOT BE INTERPRETED INDIVIDUALLY WITHOUT REFERENCE TO THE OTHER.

SUBMERSIBLE PUMP STATION SCHEDULE			
DESCRIPTION	SYMBOL	DATA (1)	ADDITIONAL INFORMATION
Pump Model Number			
Pump Capacity - GPM Each			
Total Dynamic Head - FT.			
Pump Discharge Size Ø			
Motor H.P.			
Motor RPM			
Wet Well Diameter	A		
Discharge Pipe Diameter	B		
Force Main Diameter	C		
Gravity Influent Pipe Diameter	D		
Gravity Influent Inv. EL. - FT.	E		
Wet Well, Valve Vault, & Meter Pit Top of Str. EL.	F		
Wet Well Floor EL.	G		
High Water Alarm EL. Level	H		
Lag Pump Start EL. Level	I		
Lead Pump Start EL. Level	J		
Pumps Off EL. Level	K		
(Not Used)	L		
Valve Vault Diameter	M		
Precast Concrete Flat Top (Min. 12")	N		
Valve Vault Floor EL.	O		
Meter Pit Diameter	P		
Meter Pit Floor EL.	Q		
Plug Valve	R		
Check Valve	S		
(Not Used)	T		
Eccentric Reducer	U		
Discharge Elbow Size	V		
Design Engineer to Set Dimension, Supported by Buoyancy Calculations	AA		
Design Engineer to Set Dimension, Supported by Buoyancy Calculations	BB		
Design Engineer to Set Dimension, Supported by Buoyancy Calculations	CC		
Design Engineer to Set Dimension, Supported by Buoyancy Calculations	DD		
Design Engineer to Set Dimension, Supported by Buoyancy Calculations	EE		
Design Engineer to Set Dimension, Supported by Buoyancy Calculations	FF		
Spacing Between Discharge Piping	GG		

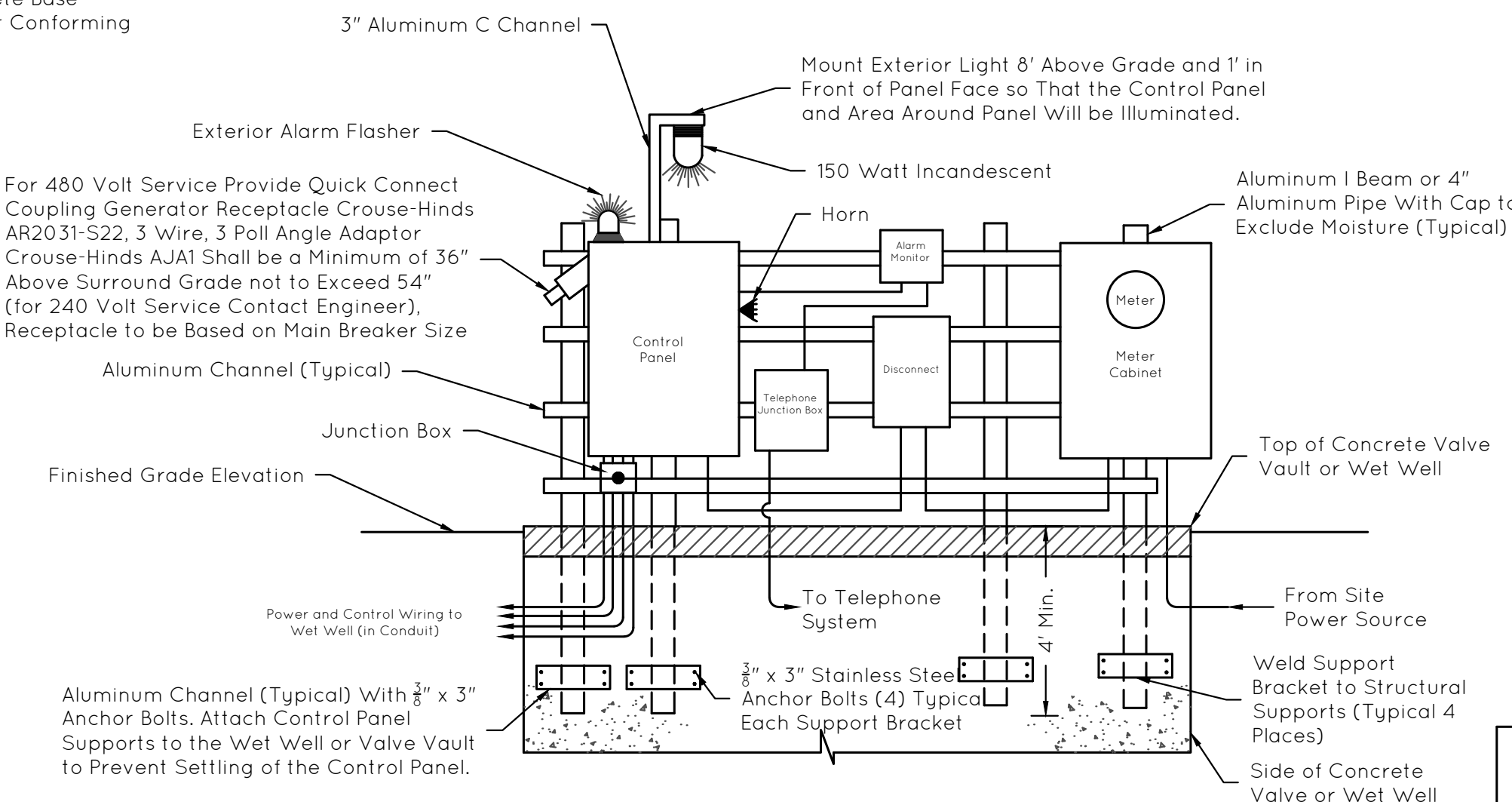
Design Engineers Certification of Actual Pump Station Dimensions, Control Settings, & Pump Selection as Indicated on Pump Station Schedule.



Notice: This certification is limited to those standards and guidelines per this sheet, and does not include information written into Pump Station Schedule. Construction is subject to construction drawings, shop drawings, and Design Engineer's design data written into Pump Station Schedule, and its certification thereof.

Reminder - For Pump Station Site Plan Data Project Engineer Shall Provide:

- 1) Wet Well and Valve Vault Orientation
- 2) Control Panel Location
- 3) Fencing and Gate Locations
- 4) Asphalt Access Drive from Public Right-of-Way
- 5) Parking Stops
- 6) Grading and Drainage Arrows
- 7) Boundary of Pump Station Parcel to be Granted to Fishers'
- 8) Area for Emergency Generator
- 9) All Other Information That Will Allow for a Detailed Review of the Site Plan

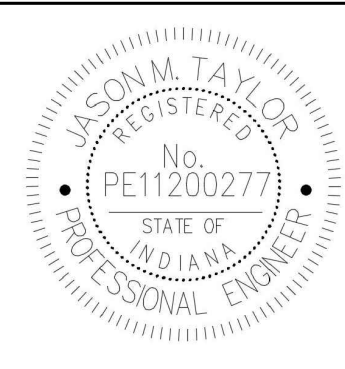


CONTROL PANEL DETAIL "A"  
Not to Scale

STANDARD PUMP STATION NOTES

- 1) Actual pump station dimensions, control settings, and pump selection to be as indicated by the design engineer's certification of the data written into the Submersible Pump Station Schedule, this sheet.
- 2) High level alarm elevation shall be set at least 6" below the lowest incoming gravity pipe.
- 3) Glycerin-filled pressure gauges shall be provided as manufactured by Ashcroft, or equal. The gauges shall have an operating range appropriate for the system pressure and shall display in both feet and psi. Each gauge shall be provided with an in-line snubber and a shut-off valve. The pipe shall be drilled and tapped wherever possible.
- 4) Piping in and within the zone of influence of the excavation of the wet well, valve vault, and meter pit structure, shall be Class 53 flanged D.I. pipe or Class 50 D.I. pipe for direct bury. The minimum dimension for D.I. pipe outside of a structure is ten (10) feet. All fasteners within pump station structures, shall be 316 S.S.
- 5) Design engineer shall space discharge piping in accordance with pump and piping dimensions and pump manufacturer's recommendations.
- 6) Piping and fittings in wet well, valve vault, and meter pit shall be in accordance with City of Fishers construction specifications.
- 7) Butyl rubber shall be applied to all exterior structure joints that are below grade. The Butyl rubber shall extend six (6) inches above and below the joint.
- 8) Pump Station wet well, valve vault, and meter pit manholes shall be pre-cast concrete in accordance with ASTM C-478, with rubber gaskets, in accordance with the City of Fishers Construction Specifications.
- 9) Comlock coupling and eccentric plug valve on by-pass line shall be 6 inch diameter with transition to force main size occurring with concentric reducer placed on the top of base elbow. The plug valve's operating nut shall be directly accessible with a standard tee wrench. Show location on the structure layout sketch required in Note 15.
- 10) Sewer connections and force main penetrations of wet well, valve vault, and meter pit structure shall be KOR-N-SEAL, A-LOK, or Dura-Seal, in accordance with the City of Fishers Construction Specifications. Portland cement grout may be used to seal penetrations on non-sewer connections.
- 11) Generator receptacle, with factory sealed switch, shall match to receive of the City of Fishers' portable generator set.
- 12) Provide an Allen Bradley or "Engineer Approved" SCADA System that incorporates: 1 spare input/output, 1 input for flowmeter 4-20mA signal, 5 outputs to control being lead remote on, lead remote off, lag remote on, lag remote off and remote alarm acknowledge, and 10 inputs from control being hatch(es) open alarm, panel(s) open alarm, Pump "A" on, Pump "B" on, Pump "A" fail, Pump "B" fail, phase fail alarm, power fail alarm, high water alarm and pump(s) seal failure, remote lead pump override and remote lag pump override.
- 13) Electromagnetic Flowmeter shall be a Siemens series 5100W or "Engineer Approved", flanged, with remote transmitter and accidental submergence kit. Interconnecting cable for power to transmitter shall be provided of appropriate length for application. Flowmeter transmitter shall be integral mounted and shall produce a 4-20mA signal for use by the SCADA System. Flowmeter size shall be based upon the projected flow through the force main, the force main size, and per the manufacturer's recommendation for highest accuracy over the operational range of the lift station.
- 14) Provide an aluminum double-door access hatch and frame assembly with safety man catches for pump station wet well to be installed in concrete top. Pump manufacturer shall size door opening in order to facilitate ease in removing pumps from wet well. Contractor and pump manufacturer shall coordinate to match size and location of opening in concrete top to dimensions of hatch provided by pump manufacturer.
- 15) Provide an aluminum single-door access hatch and frame assembly with safety man catches for valve vault and meter pit, respectively, to be installed in concrete top. The contractor and pump manufacturer shall provide a dimensionally accurate sketch of the valve vault and meter pit showing all valves, piping, and equipment to confirm the proper location and size of the access hatch for the structure.

- Notes:
- 1) See Fishers' Pump Station and Force Main Specifications Sheet for details of equipment.
  - 2) This plan is for design purposes only.
  - 3) Access drive from nearest public Right-of-Way to pump station must be provided.
  - 4) The access drive must have a minimum of 14 feet of clearance from all utility or power poles.
  - 5) All station piping must be Ductile Iron.
  - 6) A "live" yard hydrant shall be installed inside fence area (if possible) and close to fence, to provide water service for pump station maintenance purposes. Backflow preventer as required by water company



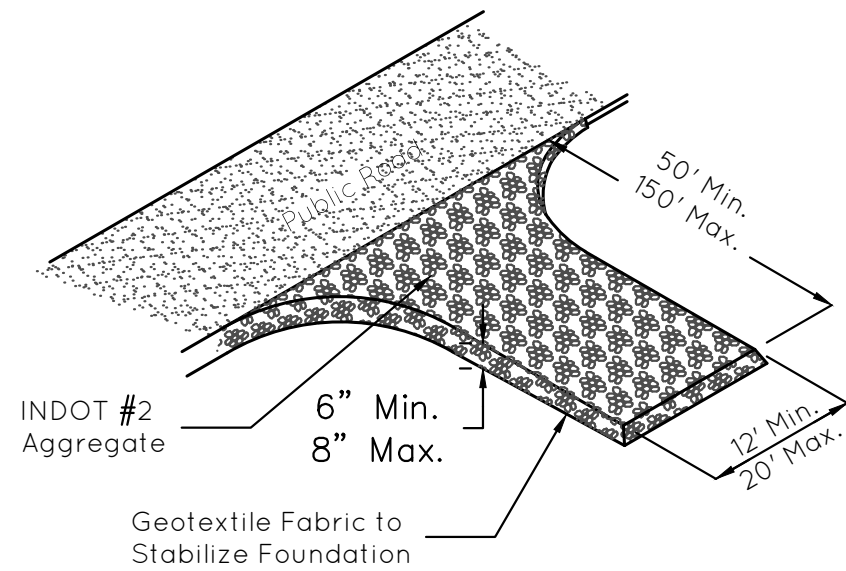


GENERAL SWWP NOTES FOR INDIVIDUAL LOTS

- 1) All storm water quality measures, including erosion and sediment control, necessary to comply with the requirements for 327 IAC 15-5, Rule 5, City of Fishers, and/or general construction practices must be implemented in accordance with the plan and sufficient to satisfy Chapter 7 of the City of Fishers STSM.
- 2) Provisions for erosion and sediment control on individual building lots regulated under the original permit of a project site owner must include the following requirements:
- 2)1) The individual lot operator, whether owning the property or acting as the agent of the property owner, shall be responsible for erosion and sediment control requirements associated with activities on individual lots.
- 2)2) Installation and maintenance of a stable construction site access.
- 2)3) Installation and maintenance of appropriate perimeter erosion and sediment control measures prior to land disturbance.
- 2)4) Sediment discharge and tracking from each lot must be minimized throughout the land disturbing activities on the lot until permanent stabilization has been achieved.
- 2)5) Clean-up of sediment must be redistributed or disposed of in a manner that is in compliance with all applicable statutes and rules.
- 2)6) Adjacent lots disturbed by an individual lot operator must be repaired and stabilized with temporary or permanent surface stabilization.
- 3) In accordance with Chapter 7 of the City of Fishers STSM, final stabilization of an individual lot project site is achieved when:
- 3)1) All land disturbing activities have been completed
- 3)2) The establishment, at a uniform density of seventy percent (70%) across one-hundred percent (100%) of the disturbed area, of vegetative cover or permanent non-erosive material that will ensure the resistance of the soil to erosion, sliding, or other movement.

CONSTRUCTION SEQUENCE FOR INDIVIDUAL LOTS

- 1) Clearly delineate areas of trees, shrubs, and vegetation that are to be undisturbed. To prevent root damage, the areas delineated for tree protection should be at least the same diameter as the crown.
- 2) Install perimeter silt fence at construction limits. Position the fence to intercept runoff prior to entering drainage swales.
- 3) Avoid disturbing drainage swales if vegetation is established. If drainage swales are bare, install erosion control blankets or sod to immediately stabilize.
- 4) Install appropriate inlet protection for all inlets on the property.
- 5) Install curb inlet protection, on both sides of the road, for all inlets along the property frontage and along the frontage of adjacent lots, or install temporary catch basin inserts in each inlet and frequently clean.
- 6) Install gravel construction entrance flush with the back of existing curb, extending from the street to the building pad.
- 7) Perform primary grading operations.
- 8) Contain erosion from any soil stockpiles created on-site with silt fence around the base.
- 9) Establish temporary seeding and straw mulch on disturbed areas.
- 10) Construct the home and install utilities.
- 11) Install downspout extenders once the roof and gutters have been constructed. Extenders should outlet to a stabilized area.
- 12) Re-seed any areas disturbed by construction and utilities installation with temporary seed mix that will be left inactive for seven (7) days.
- 13) Grade the site to final elevations. Add topsoil as needed to minimize erosion of underlying soil and to quickly establish grass.
- 14) Install permanent seeding or sod.

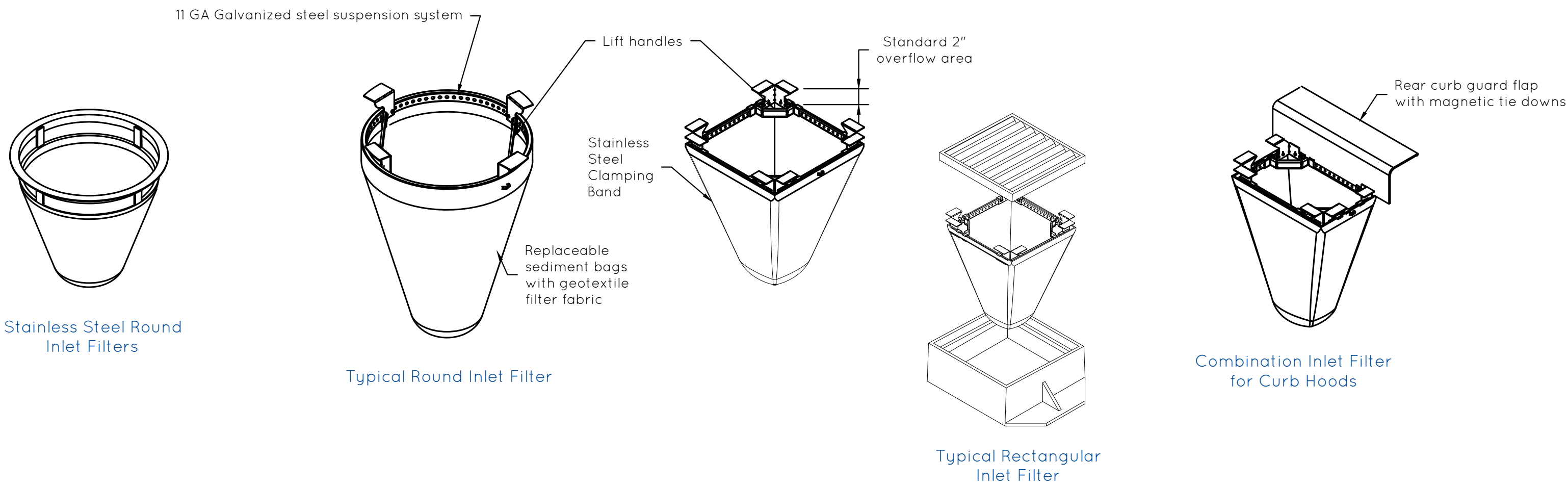


- Notes:
1. Must keep top of stone at road elevation.
2. Width to be adjusted to match wider entrance, if required.

Site Size	Entrance Width	Entrance Length	Stone Depth
Less than 2 acres	12' min	50' min	6" min
2 acres or more	20' min	150' min	8" min

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

Not to Scale



- Note:
- 1) Measures to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations

BASKET INLET PROTECTION

Not to Scale

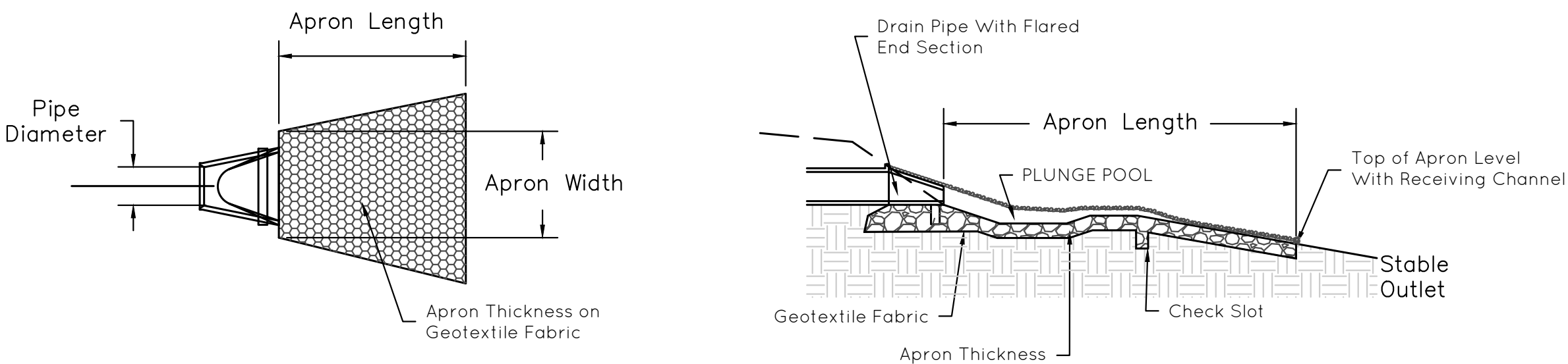
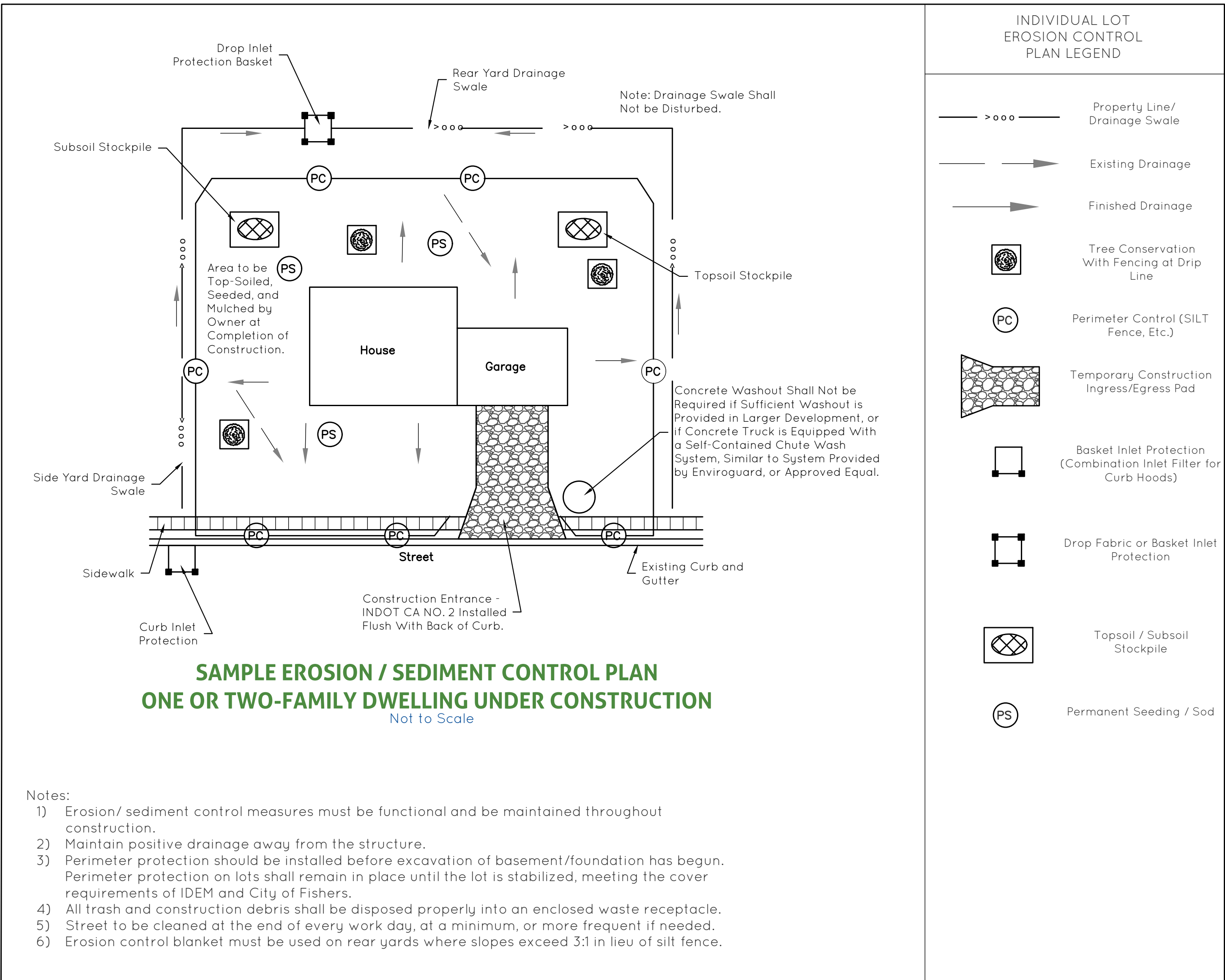
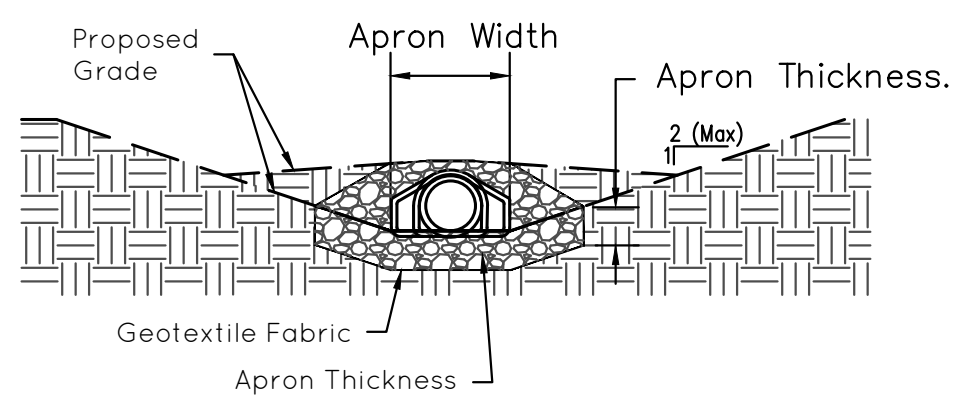


Table 1. Sizing for Flow Dissipaters at end Sections¹

PIPE SIZE	AVG. RIPRAP DIAMETER	APRON ² WIDTH	APRON ³ LENGTH
8 in.	3 in.	2 to 3 ft.	5 to 7 ft.
12 in.	5 in.	3 to 4 ft.	6 to 12 ft.
18 in.	8 in.	4 to 6 ft.	8 to 18 ft.
24 in.	10 in.	6 to 8 ft.	12 to 22 ft.
30 in.	12 in.	8 to 10 ft.	14 to 28 ft.
36 in.	14 in.	10 to 12 ft.	16 to 32 ft.

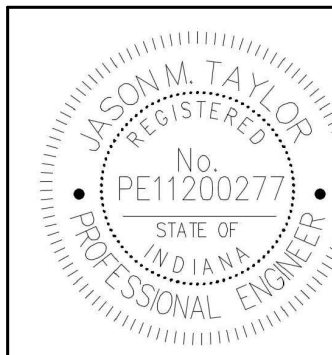
- 1-For Larger or Higher Flows Consult a Registered Engineer
- 2-Apron Width at the Narrow End of Apron (Pipe or Channel Outlet)
- 3-Select Length Taking Into Consideration the Low Flow (Nor Pressure Head) or High Flow (Pressure Head) Conditions of the Culvert Pipe.



ENERGY DISSIPATER (OUTLET PROTECTION)

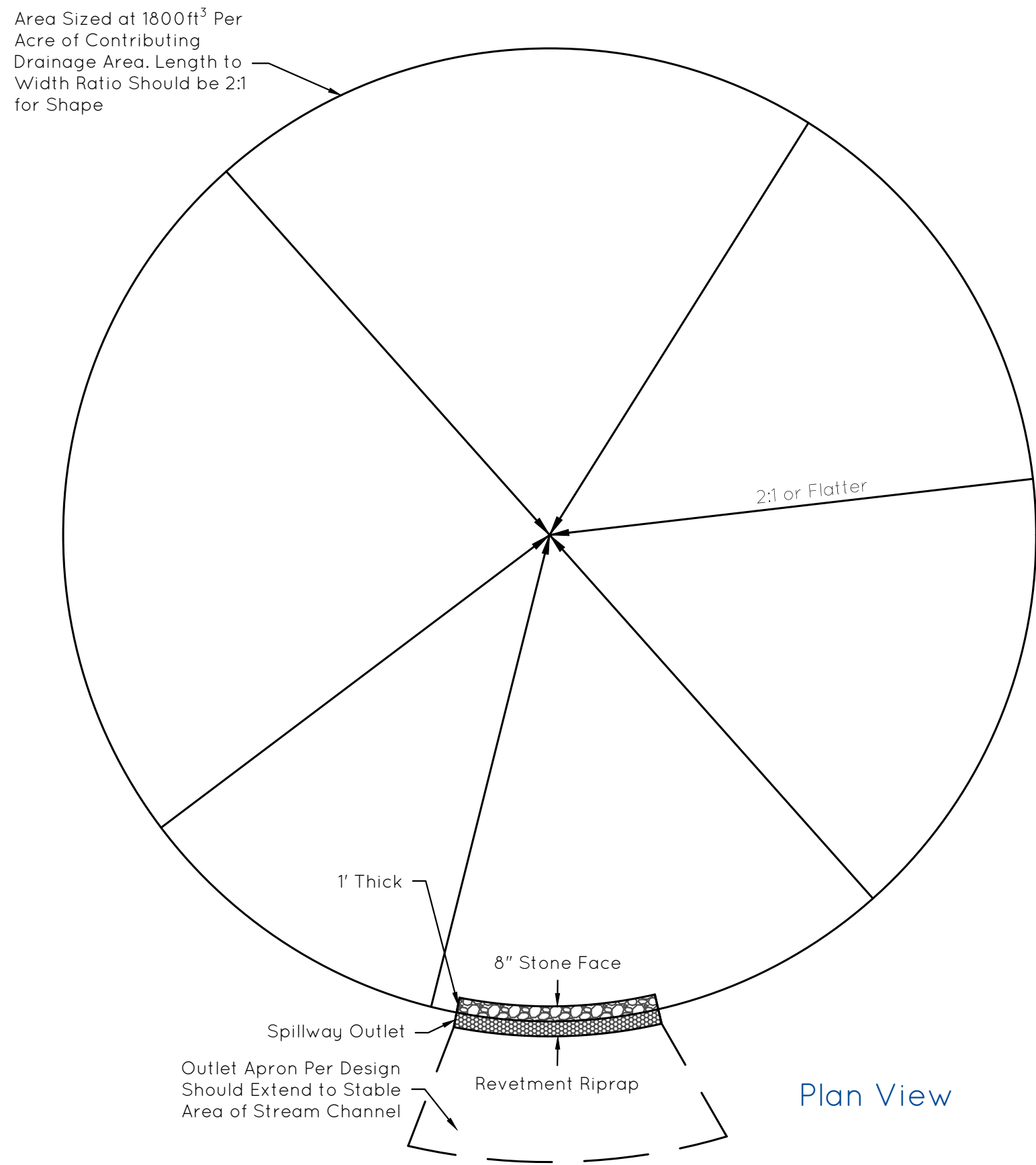
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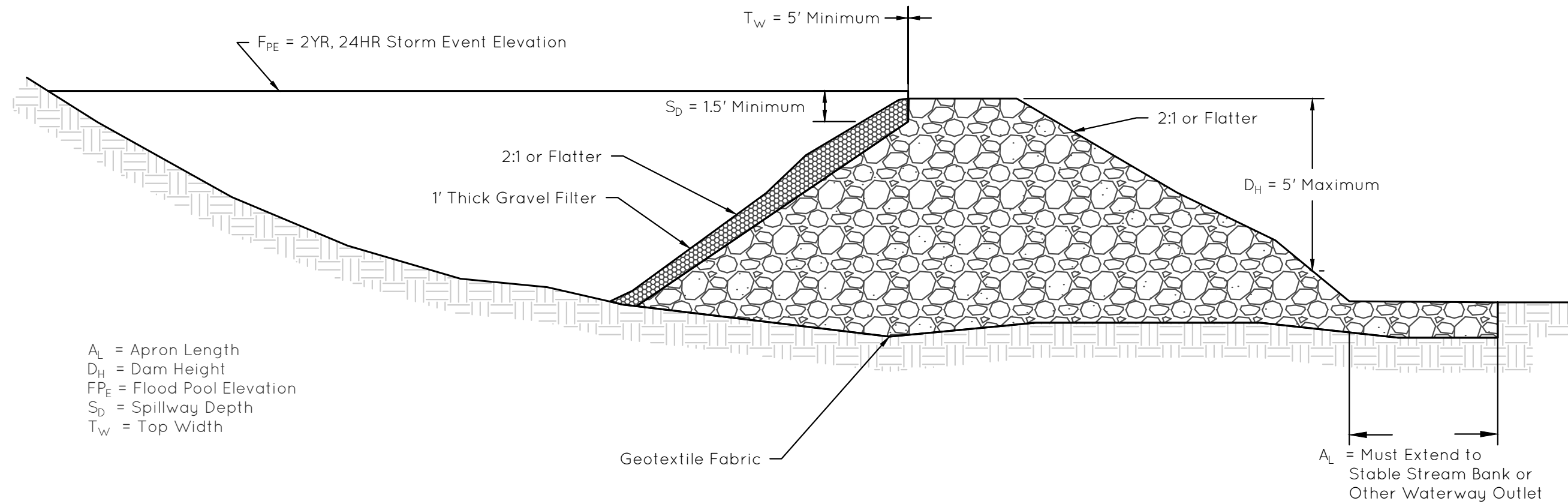


CITY OF FISHERS STANDARD CONSTRUCTION DETAILS	SHEET
EROSION CONTROL DETAILS	24 of 29

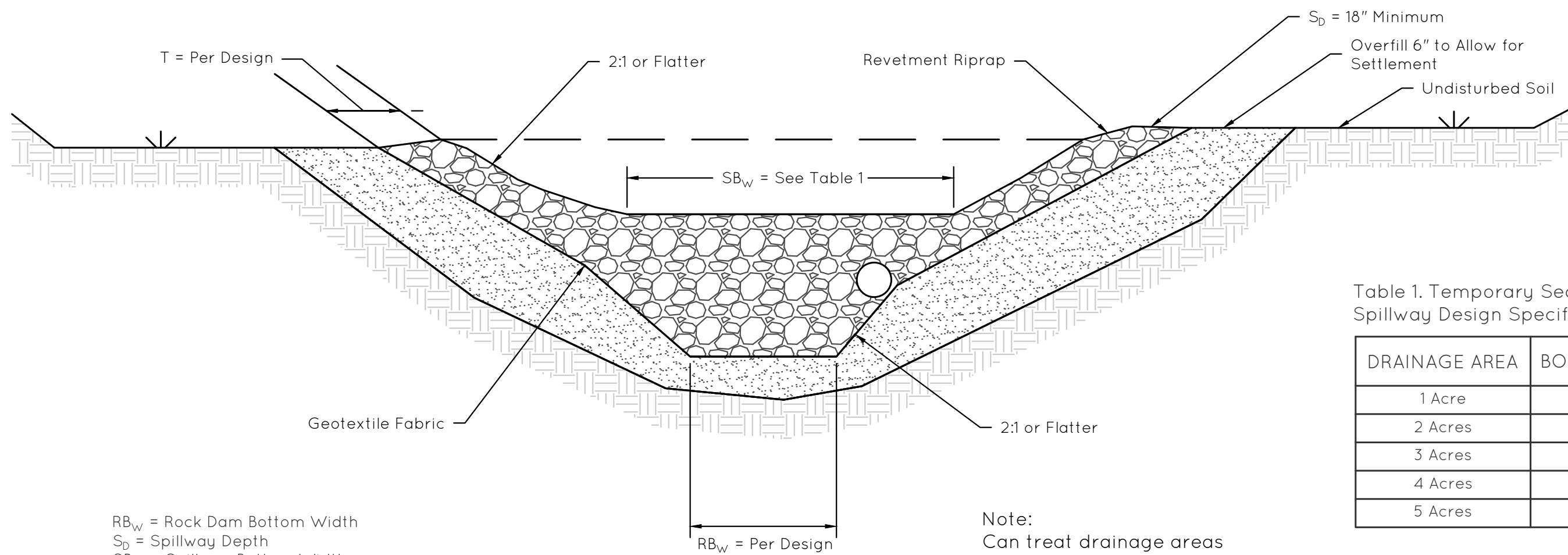




Plan View



Profile View



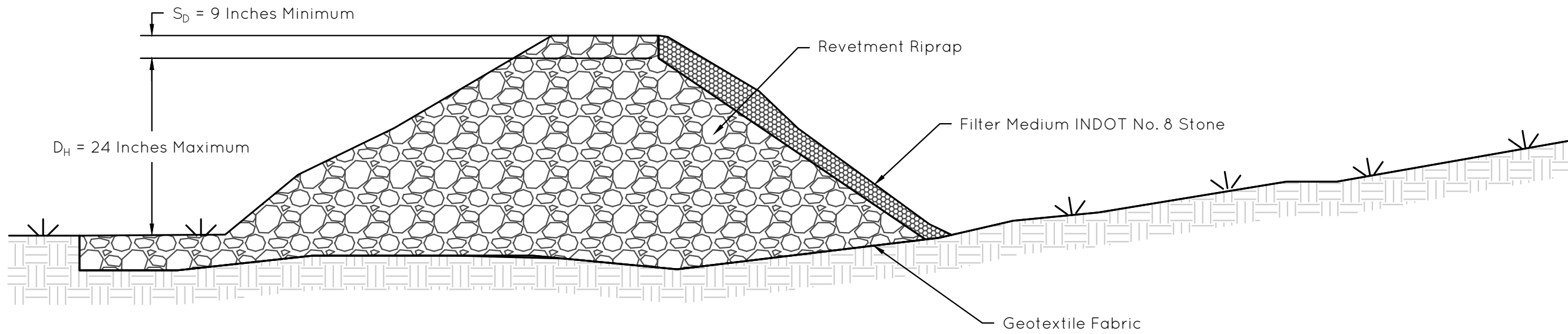
Cross-Section View

**TEMPORARY SEDIMENT TRAP**  
Not to Scale

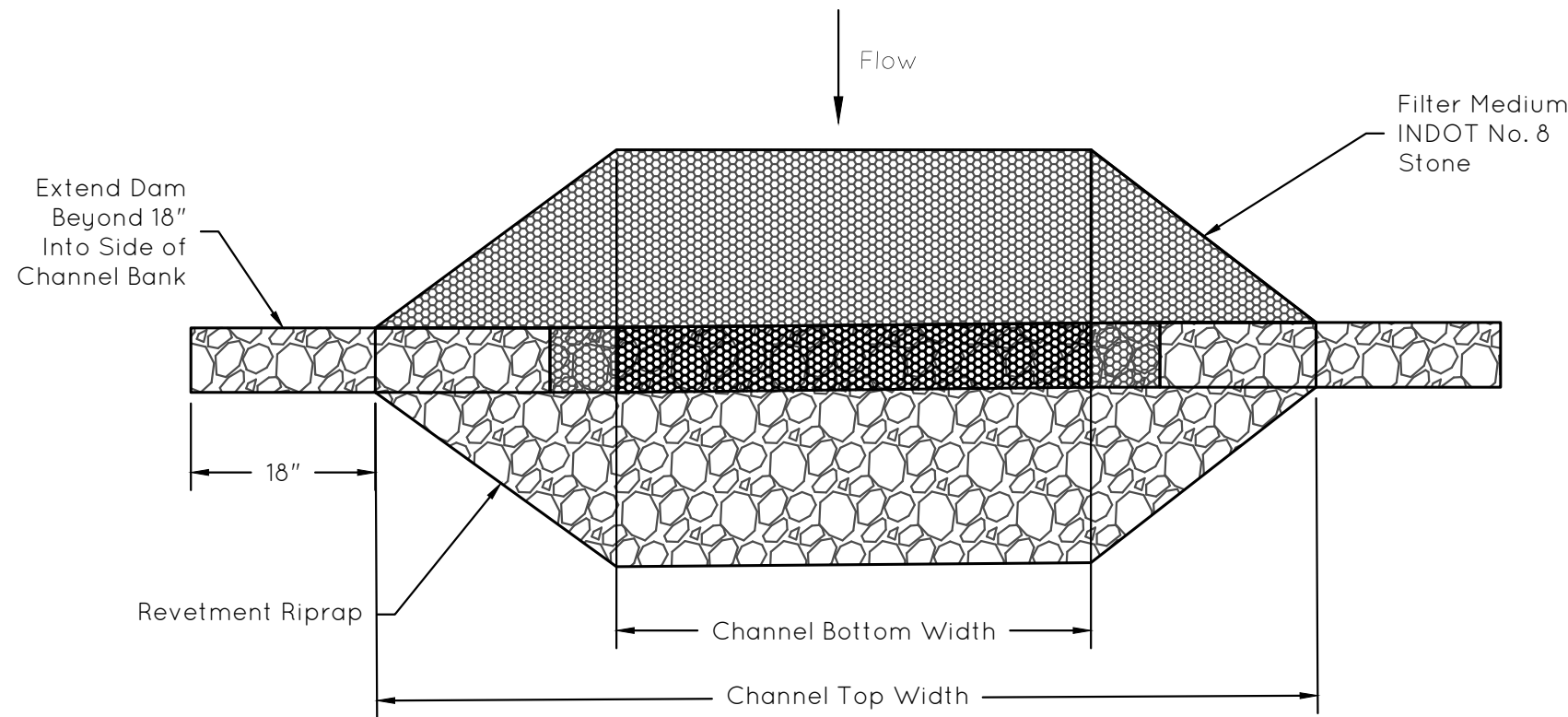
Table 1. Temporary Sediment Trap Spillway Design Specifications

DRAINAGE AREA	BOTTOM WIDTH
1 Acre	4 Feet
2 Acres	6 Feet
3 Acres	8 Feet
4 Acres	10 Feet
5 Acres	12 Feet

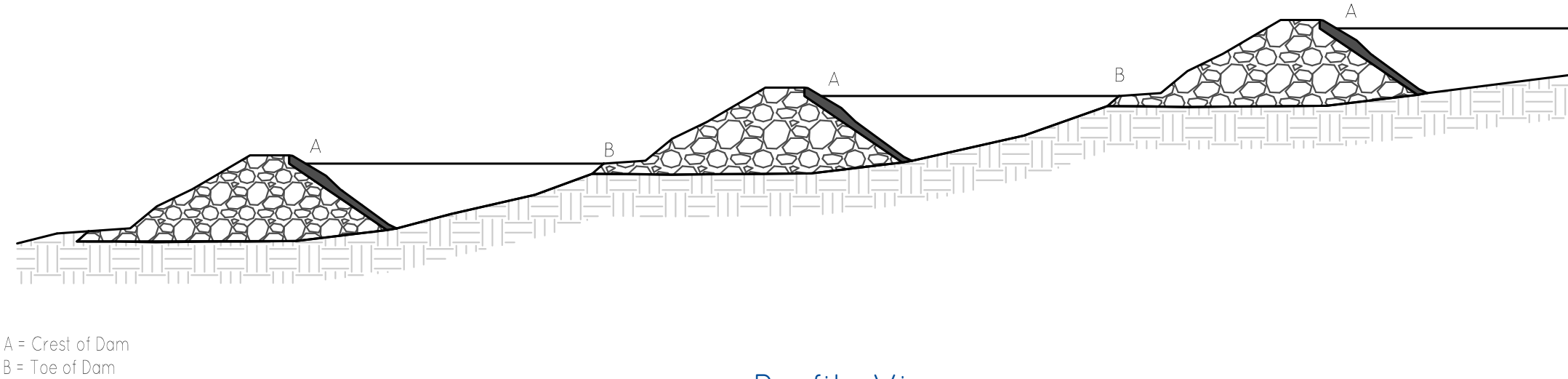
Note:  
Can treat drainage areas  
up to five (5) acres



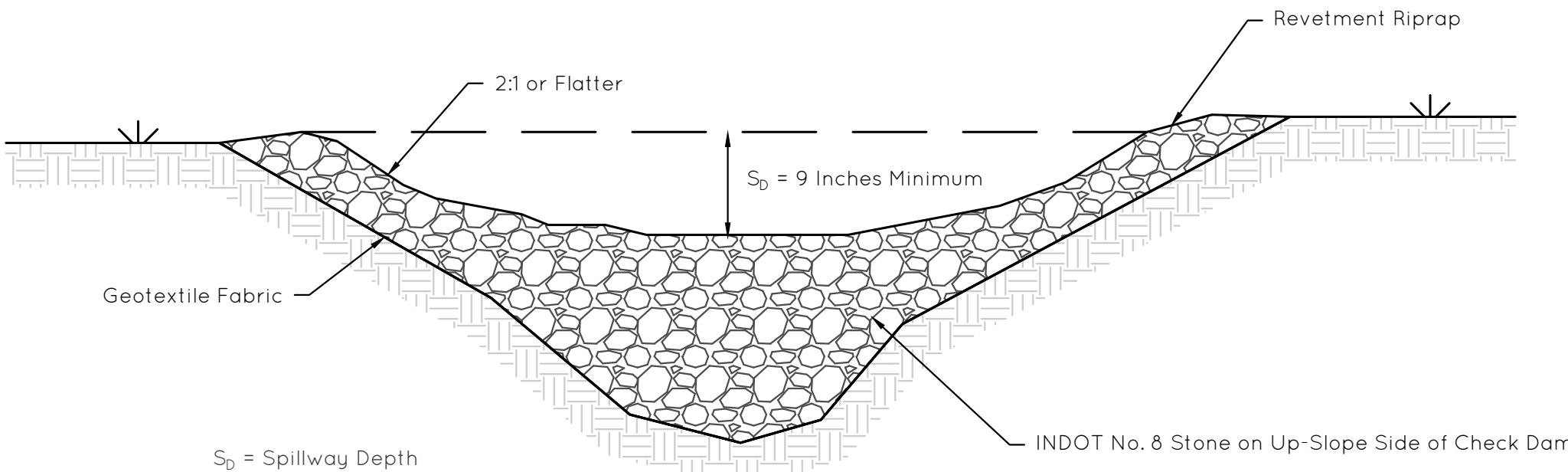
Profile View



Plan View



Profile View

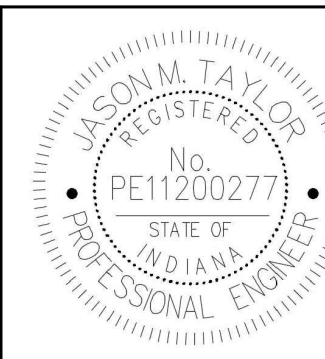


Cross Section View

**TEMPORARY ROCK CHECK DAM**  
Not to Scale

*[Signature]*

1/18/2022



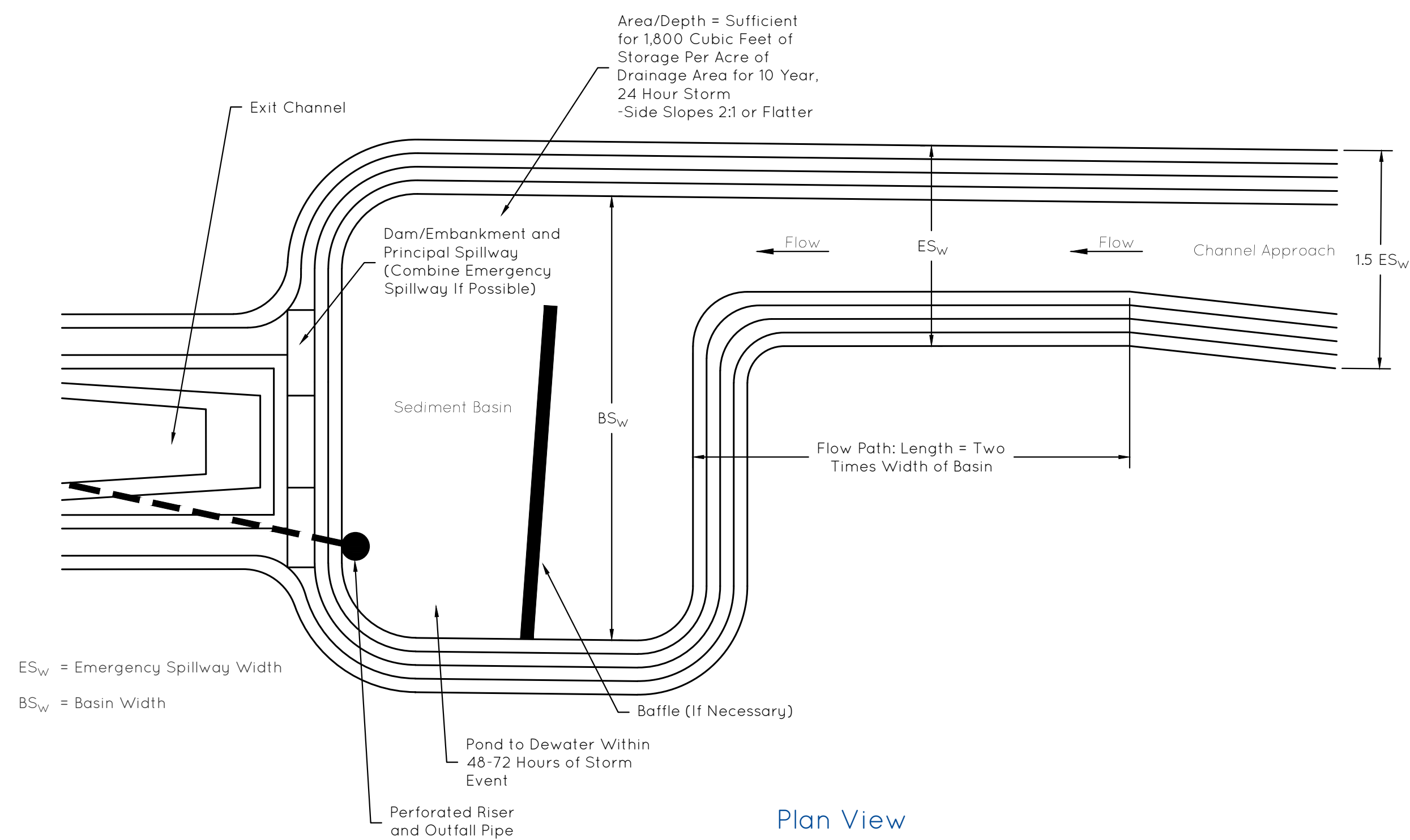
**CITY OF FISHERS**  
**STANDARD CONSTRUCTION DETAILS**

EROSION CONTROL DETAILS

SHEET

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of  
29**

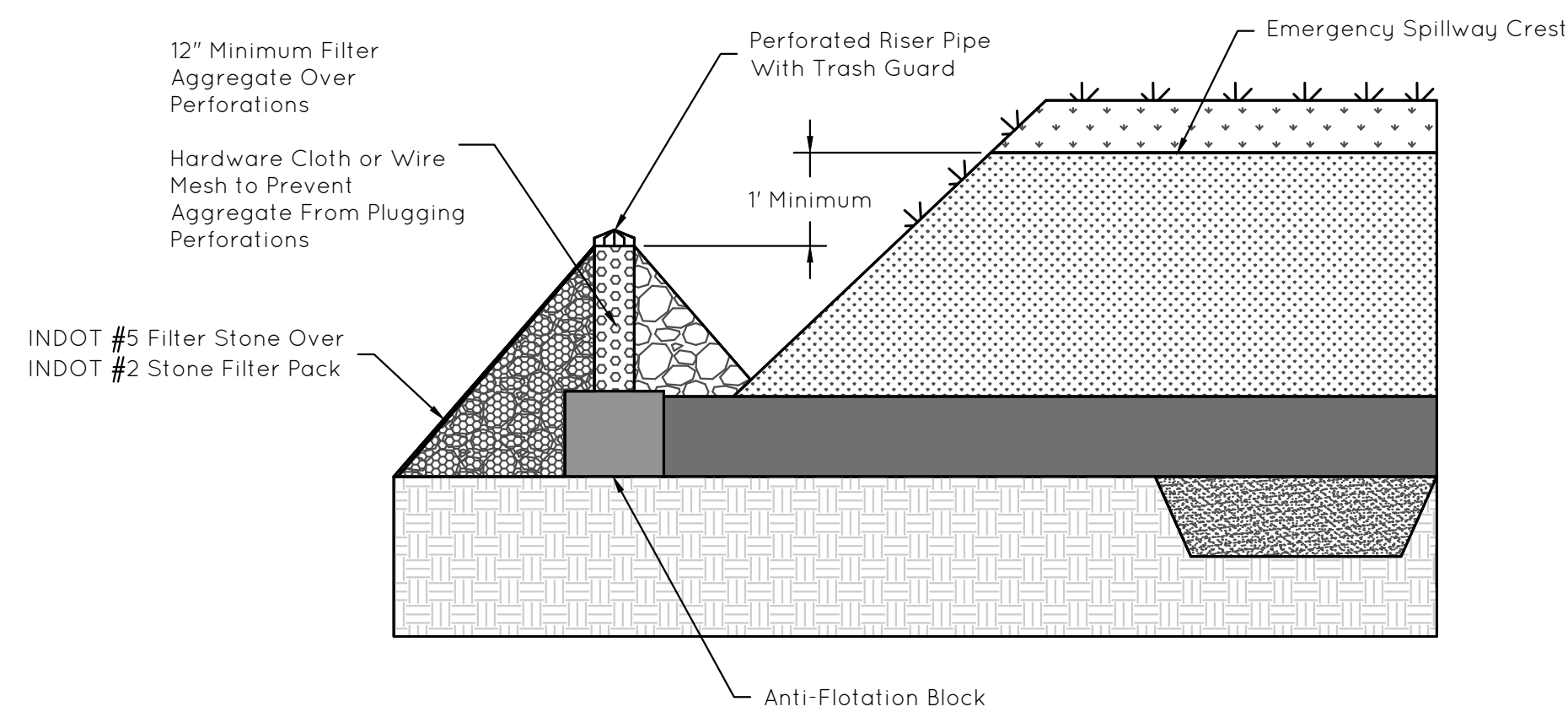




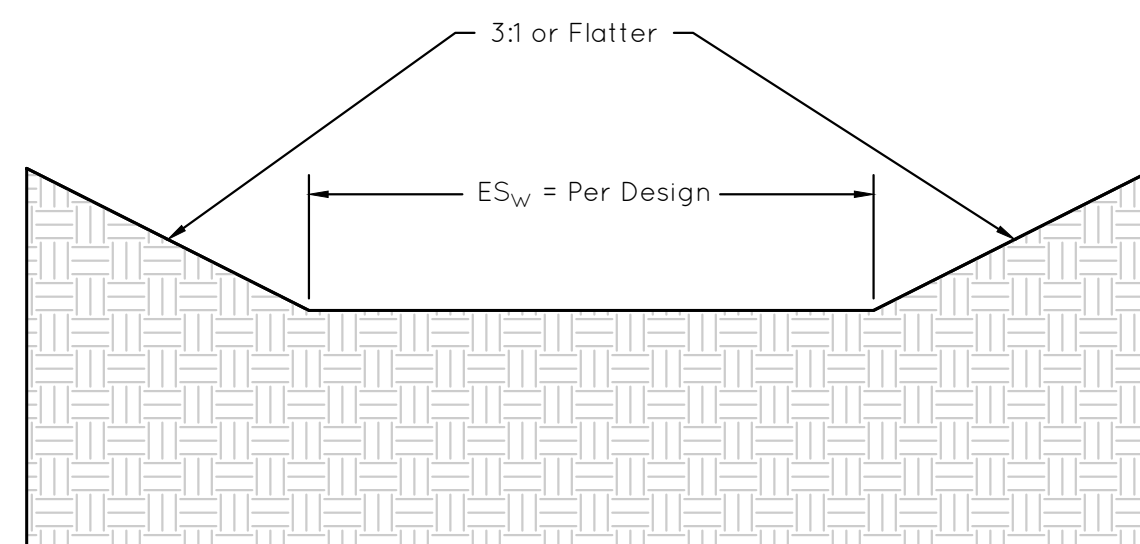
Plan View

### TEMPORARY SEDIMENT BASIN

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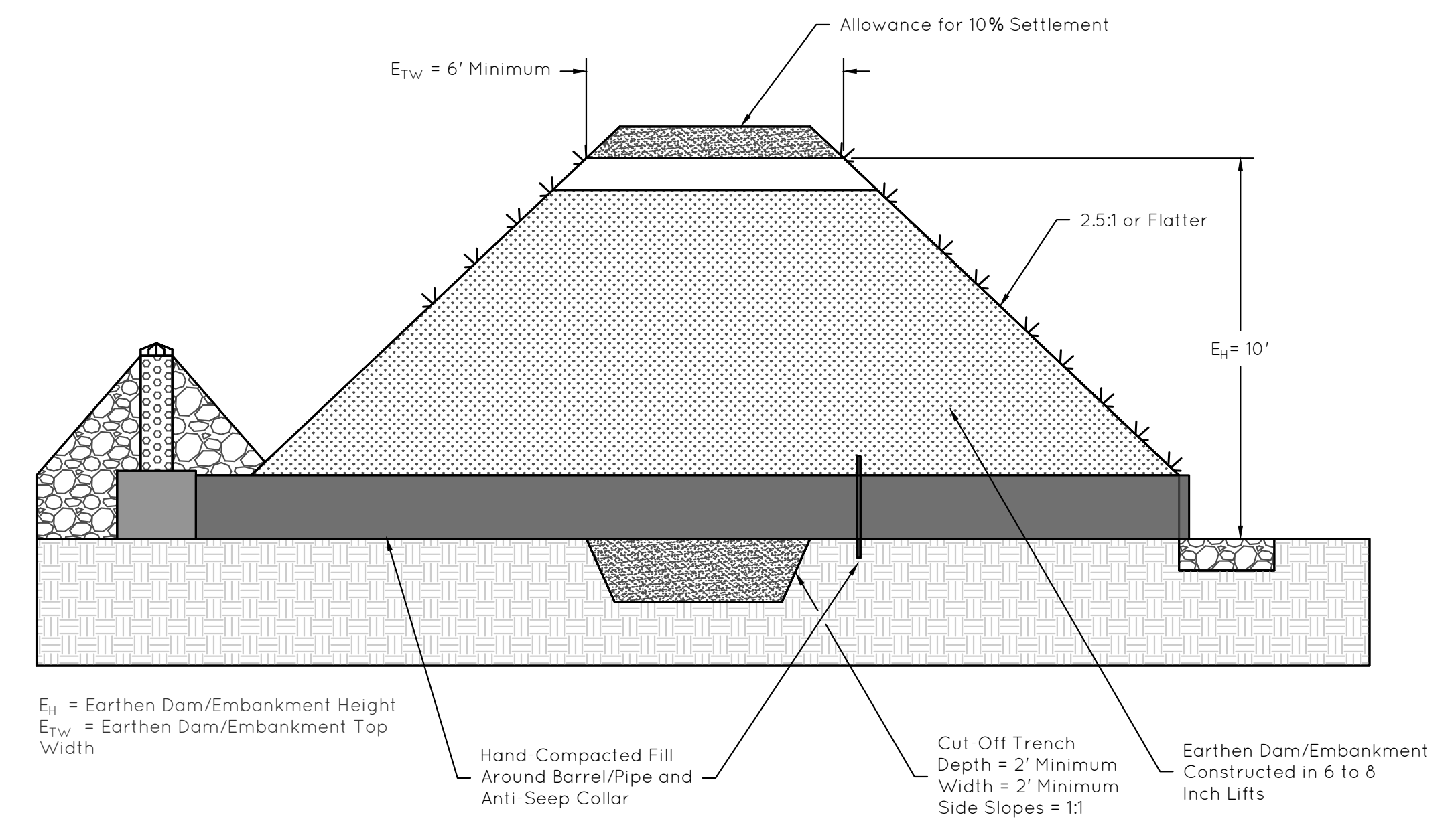


Riser Pipe Profile View

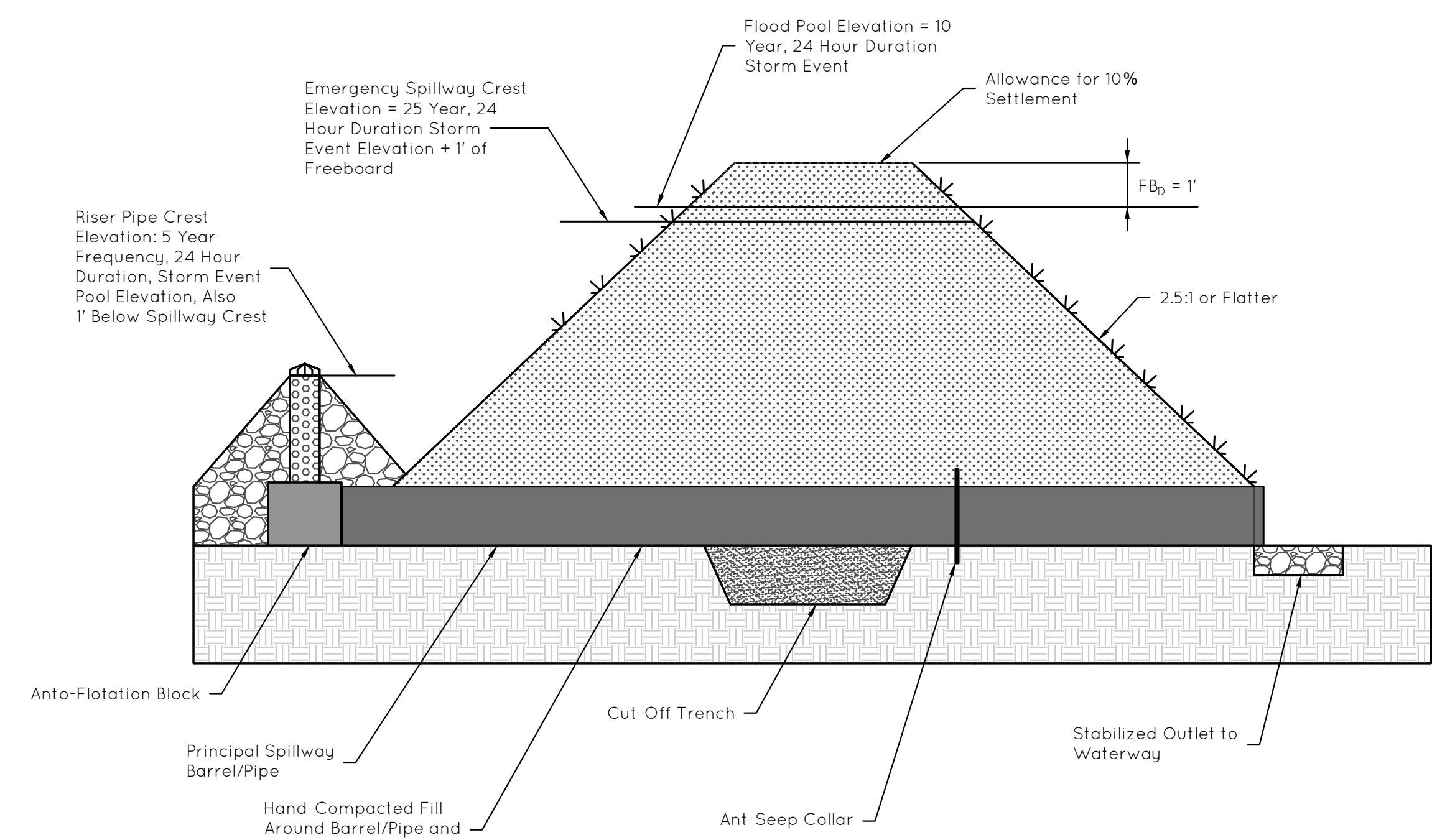


ES_w = Emergency Spillway Width  
FB₀ = Free Board Depth

Spillway Cross Section View



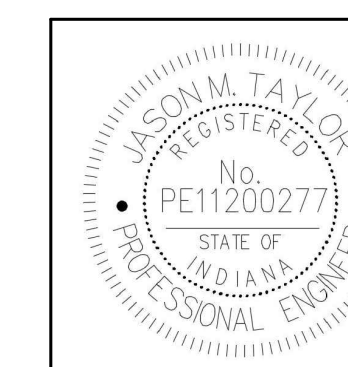
Earthen Dam/Embankment Profile View



Spillway Profile View

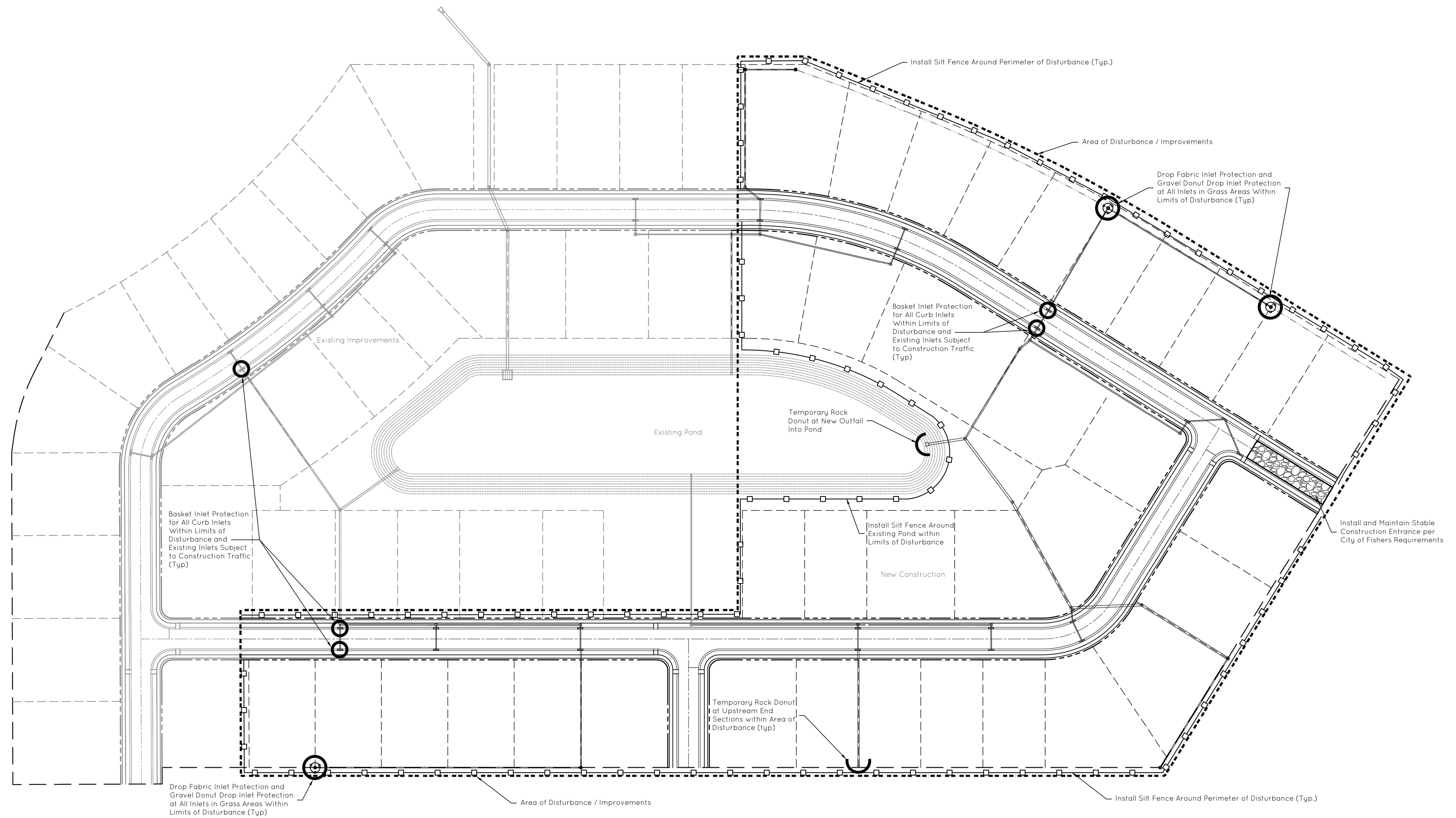
*J. M. Taylor*

1/18/2022



CITY OF FISHERS	
STANDARD CONSTRUCTION DETAILS	
EROSION CONTROL DETAILS	





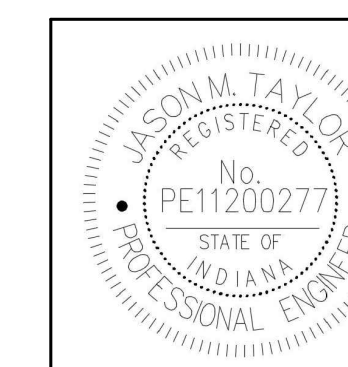
- Notes:
- 1) Individual lot erosion control measures to be installed per details on Sheet 24, and in accordance with Indiana Stormwater Quality Manual.
  - 2) Measures to be used in accordance with manufacturer's stated installation and maintenance specifications, and limitations.
  - 3) Temporary and permanent stabilization to be installed as soon as possible. Re-seed any areas disturbed by construction and utilities installation that will be left inactive for seven (7) days with temporary seed mix.
  - 4) Pond protection measures shown are example only. Additional measures may be required. Site specific SWPPP to be prepared and approved by the City of Fishers.

# PROTECTION OF EXISTING DETENTION POND - EXAMPLE MEASURES

Not to Scale

*J. Taylor*

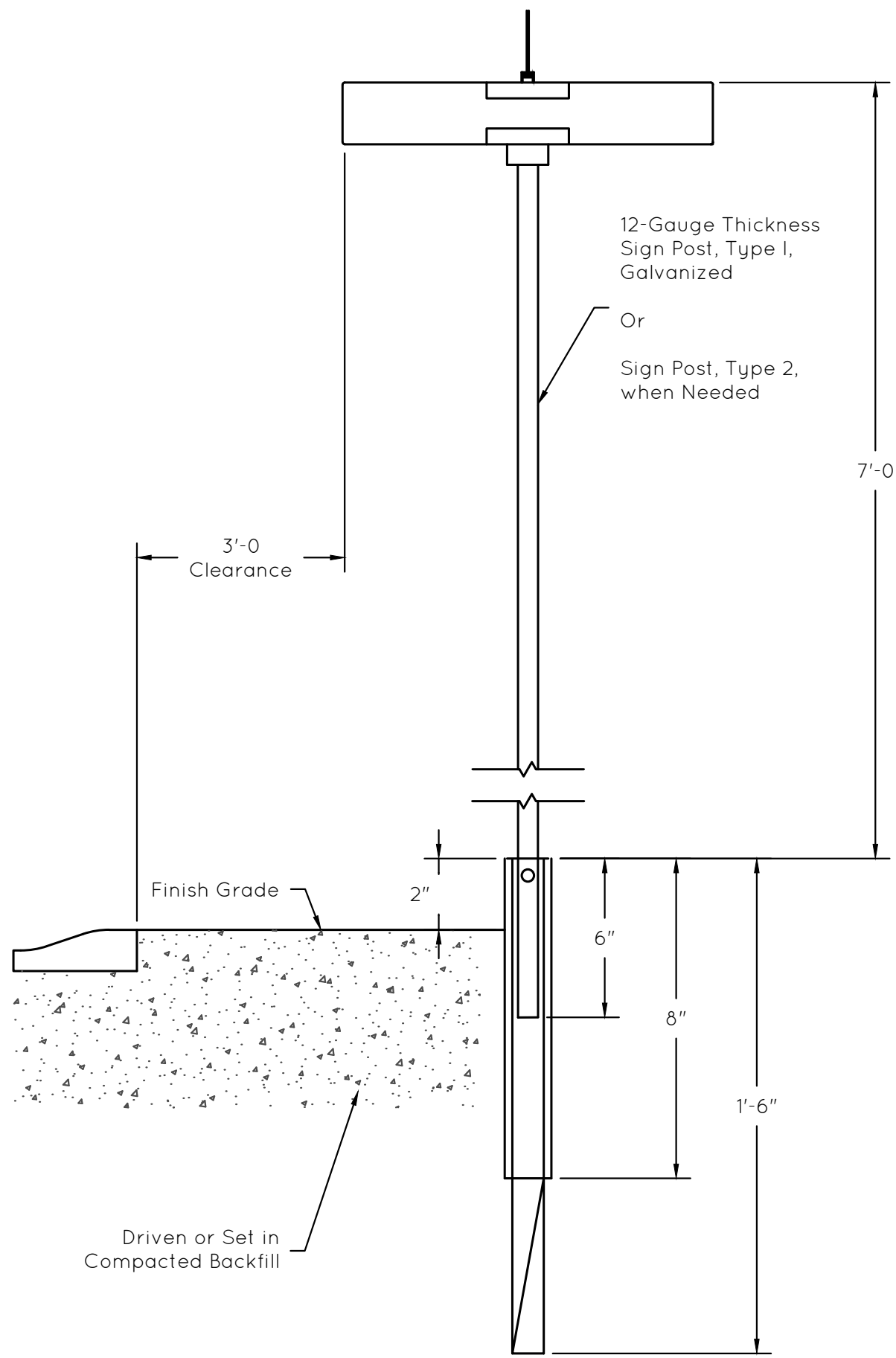
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CITY OF FISHERS	
STANDARD CONSTRUCTION DETAILS	
EROSION CONTROL DETAILS	

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- Notes:
- Streets shall be signed per latest approved edition of IMUTCD.
  - Street name signs shall be 8" tall 0.1 gauge extruded aluminum sign blanks. The sign face material shall be Diamond grade retroreflective green background with white letters and shall be mix-cased in accordance with the IMUTCD.
  - All public regulatory street signs shall be diamond grade retroreflective background, including letters and border where appropriate.
  - Font and letter height shall be in accordance with IMUTCD and FHWA Standard Highway Signs.
  - Street signs shall have rounded corners and be tall enough to accommodate the above noted minimum letter heights.
  - Supr-lok cap shall be model #91UX-NU180 or equal. Supr-lok cross shall be model #990X or equal.
  - Street name signs shall be mounted on Type 1 or 2 12-gauge steel galvanized post. Whichever is required according to INDOT Standard Drawings.
  - Street name signs on roundabouts shall be on decorative 2 3/8" round post with finial, with Fishers Green finish, and with Z238 aluminum interlocking bracket set by Hall Signs or approved equal.
  - Private streets must include a vertical "PVT" symbol in 3" white lettering to the left of the street name.
  - Public street signs must include City of Fishers logo (does not have to be multi-colored) to the left of the street name.
  - Optional white privately owned/maintained signs on public roads:
    - White retroreflective background with black font may be used for street name signs, however, a maintenance agreement must be signed and submitted as these are considered privately owned and maintained signs. These signs will not be maintained by the City.
    - The City of Fishers logo is still required to the left of the street name.
    - No other logo or picture is permitted
  - Optional black/green or decorative post/poles on public roads:
    - Any painted or coated street name or regulatory sign post/pole is permitted; however, a maintenance agreement must be signed and submitted as these are considered privately owned and maintained posts/poles. These posts/poles will not be maintained by the City.

### STREET NAME AND PUBLIC STREET SIGNS

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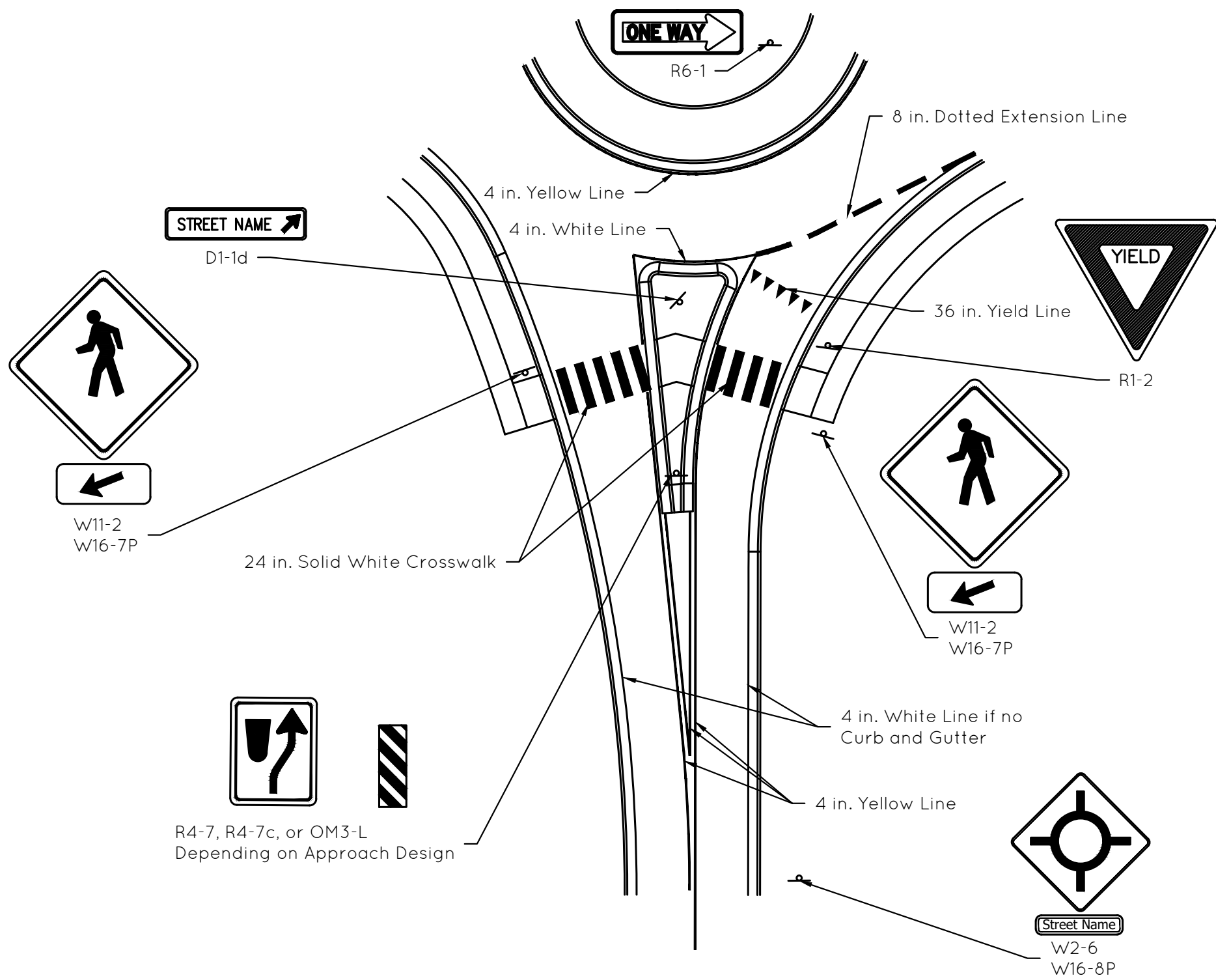


Public street signs must include City of Fishers logo (white lettering and green background) to the left of the street name. The logo size should be based on the following table:

Sign Lettering Height	Max Logo Dimension
12"	10"X10"
9"	7"X7"
8"	6"X6"
6"	4"X4"
4"	3"X3"

### CITY LOGO FOR STREET SIGNS

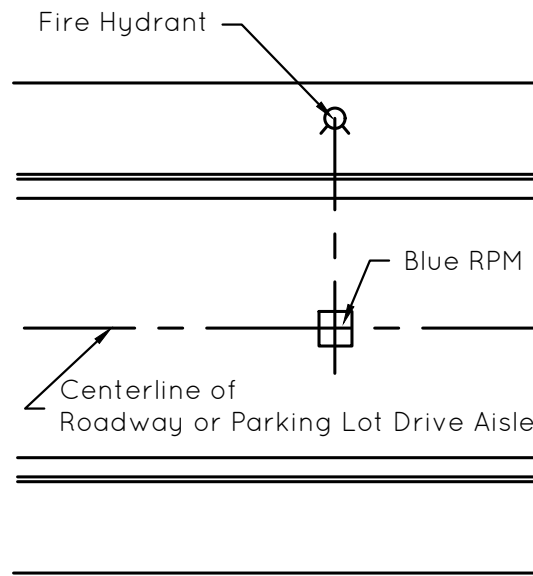
Not to Scale



- Notes:
- Signs and striping shown for only one leg of single-lane roundabout.
  - Striping and signs indicated may be optional per the latest IMUTCD, but shall be required for all roundabouts designed in the City of Fishers unless prior approval has been given by the Dept. of Engineering.
  - All striping shall be thermoplastic on asphalt pavement and multi-component on concrete pavement.
  - All white striping on concrete pavement shall have black contrast border.
  - Sign post heights and lateral offsets shall be in accordance with latest IMUTCD guidance. R6-4a signs shall not exceed 4 feet from bottom of sign to edge of circulatory roadway traveled way.
  - Lighting adjacent to roundabouts shall be per the "LAMP POSTS AND LUMINAIRES ADJACENT TO ROUNDABOUTS" detail on next sheet.

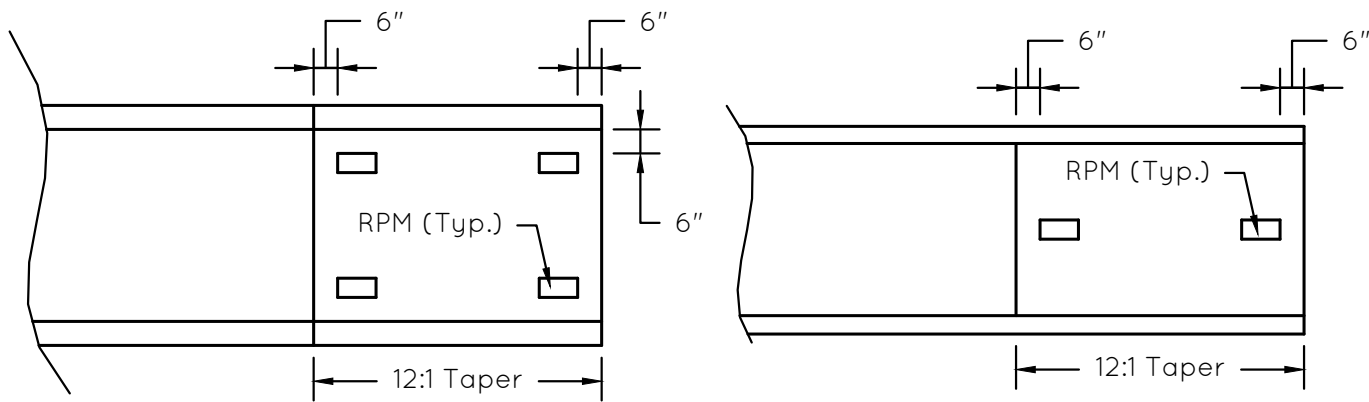
### SINGLE-LANE ROUNDABOUT STRIPING EXAMPLE

Not to Scale



### RAISED PAVEMENT MARKERS FOR HYDRANTS

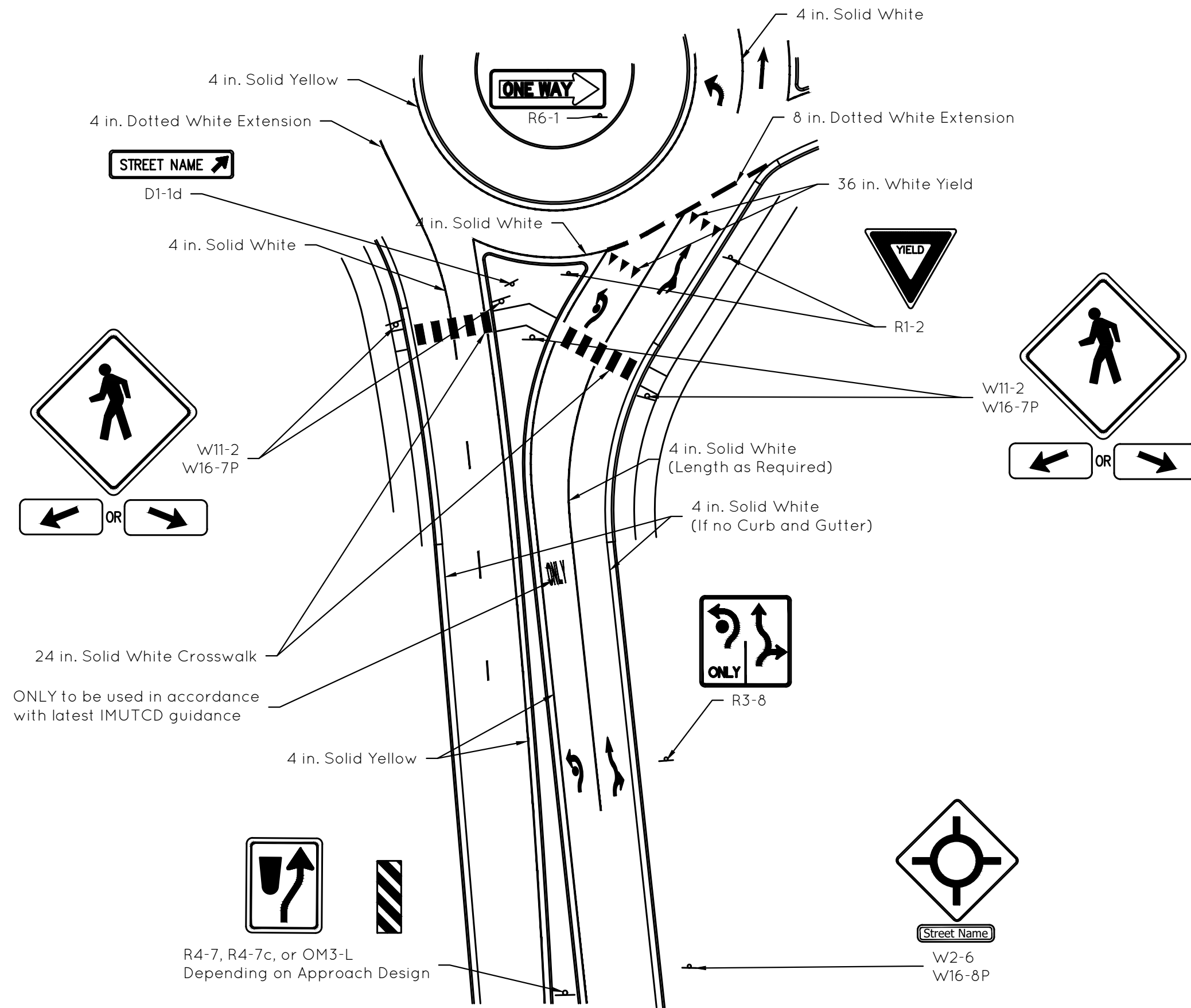
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- Notes:
- Width greater than 3 feet requires 4 RPMs per Detail 1. Width less than 3 feet requires 2 RPMs per Detail 2 centered on width of median.
  - RPMs shall be yellow and Ennis Flint model 101LP or approved equal.
  - RPMs on top of concrete shall be epoxied and RPMs in pavement shall be grooved and epoxied according to manufacturer specifications.

### RAISED PAVEMENT MARKERS

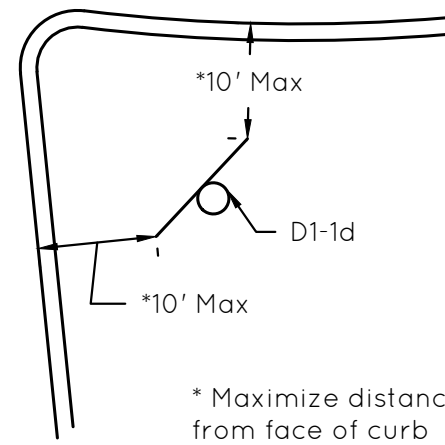
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- Notes:
- Signs and striping shown for only one leg of multi-lane roundabouts.
  - Striping and signs indicated may be optional per the latest IMUTCD, but shall be required for all roundabouts designed in the City of Fishers unless prior approval has been given by the Dept. of Engineering.
  - Lane Indication Arrows and circulatory roadway striping are for example. Actual lane configurations may vary.
  - All striping shall be thermoplastic on asphalt pavement and multi-component on concrete pavement.
  - All white striping on concrete pavement shall have black contrast border.
  - Sign post heights and lateral offsets shall be in accordance with latest IMUTCD guidance. R6-4a signs shall not exceed 4 feet from bottom of sign to edge of circulatory roadway traveled way.
  - Lighting adjacent to roundabouts shall be per the "LAMP POSTS AND LUMINAIRES ADJACENT TO ROUNDABOUTS" detail on next sheet.

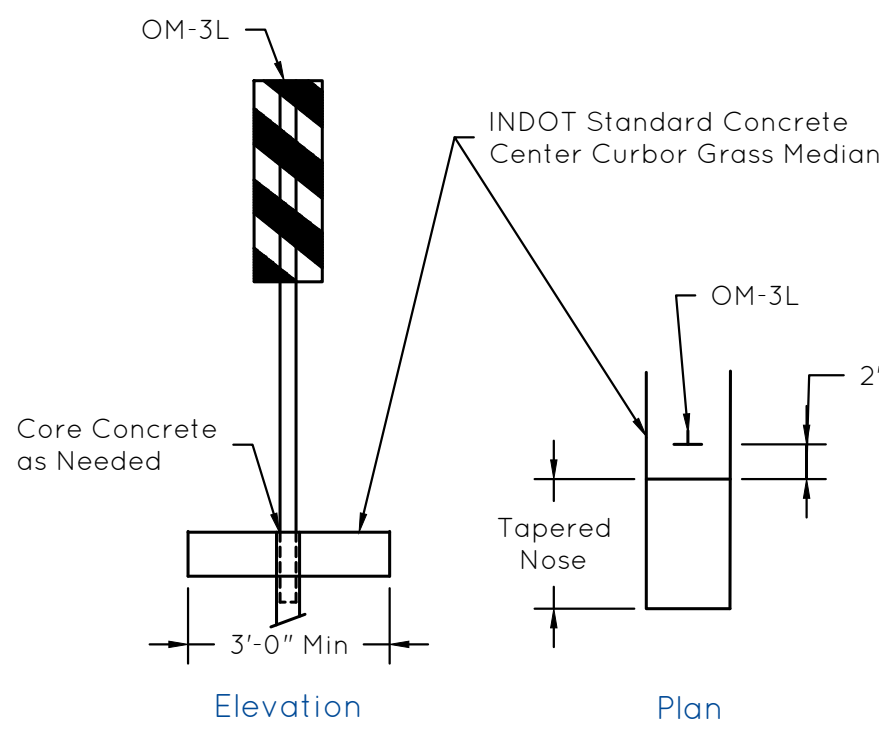
### TWO-LANE ROUNDABOUT STRIPING EXAMPLE

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### ROUNDABOUT D1-1d SPLITTER ISLAND PLACEMENT

Not to Scale

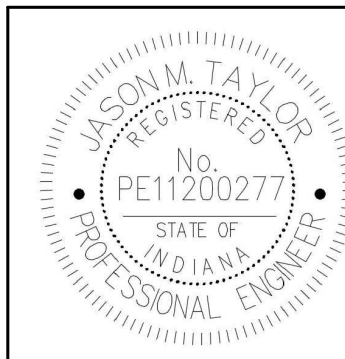


- Notes:
- All medians shall have an end treatment.
  - Medians greater than four feet in width may contain approved landscaping or grass.

### MEDIAN END TREATMENT

Not to Scale

1/18/2022



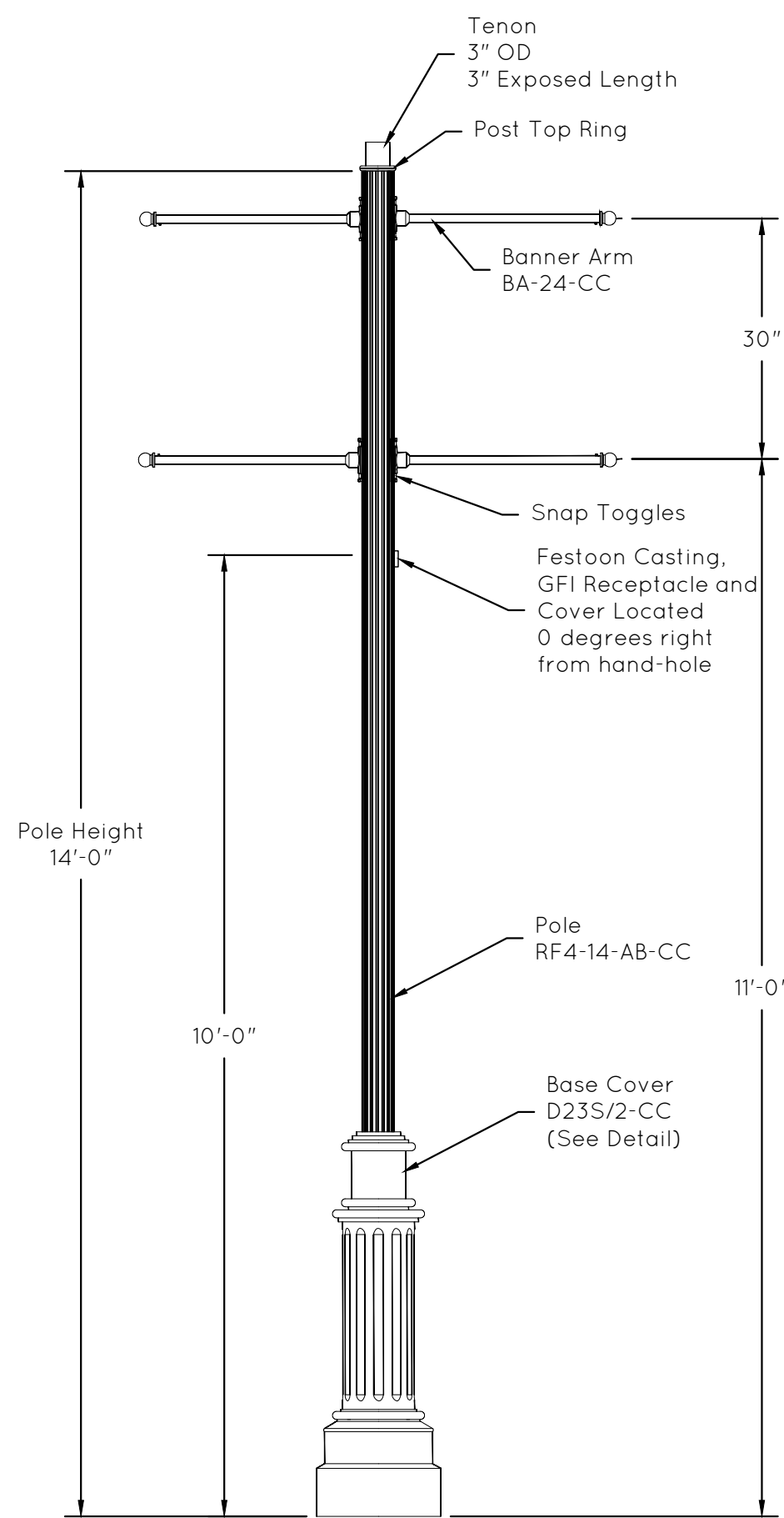
### CITY OF FISHERS STANDARD CONSTRUCTION DETAILS

SIGN, PAVEMENT MARKING AND  
RPM DETAILS

SHEET

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of  
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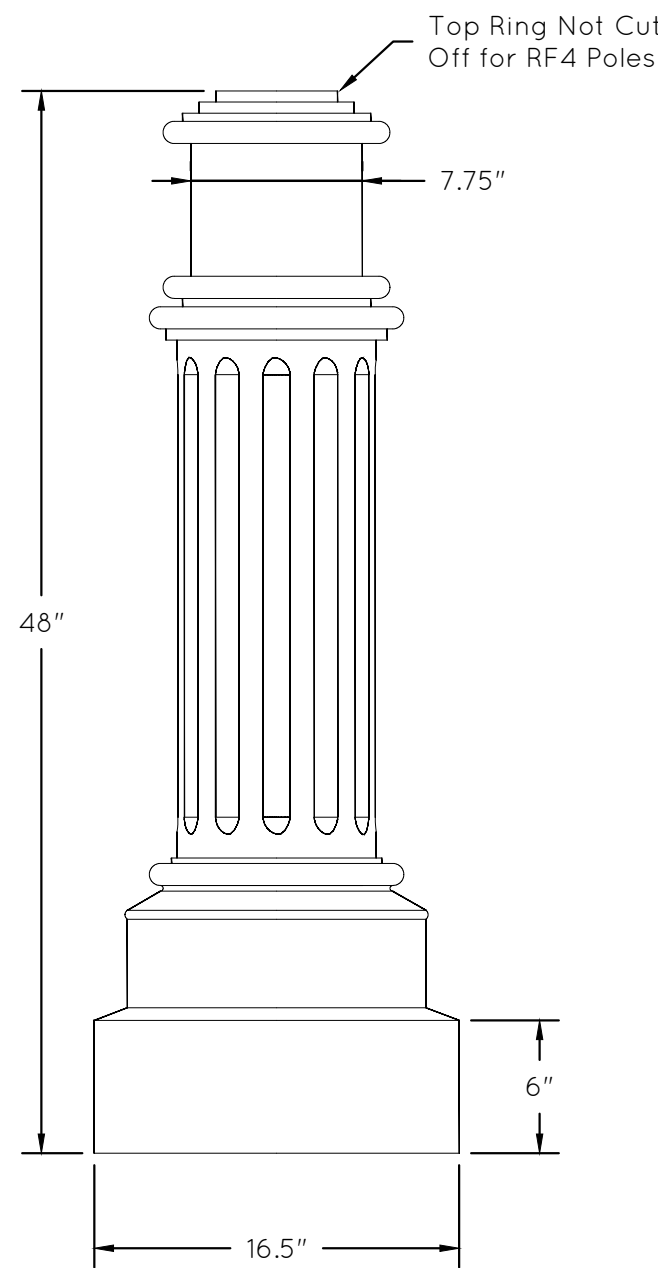
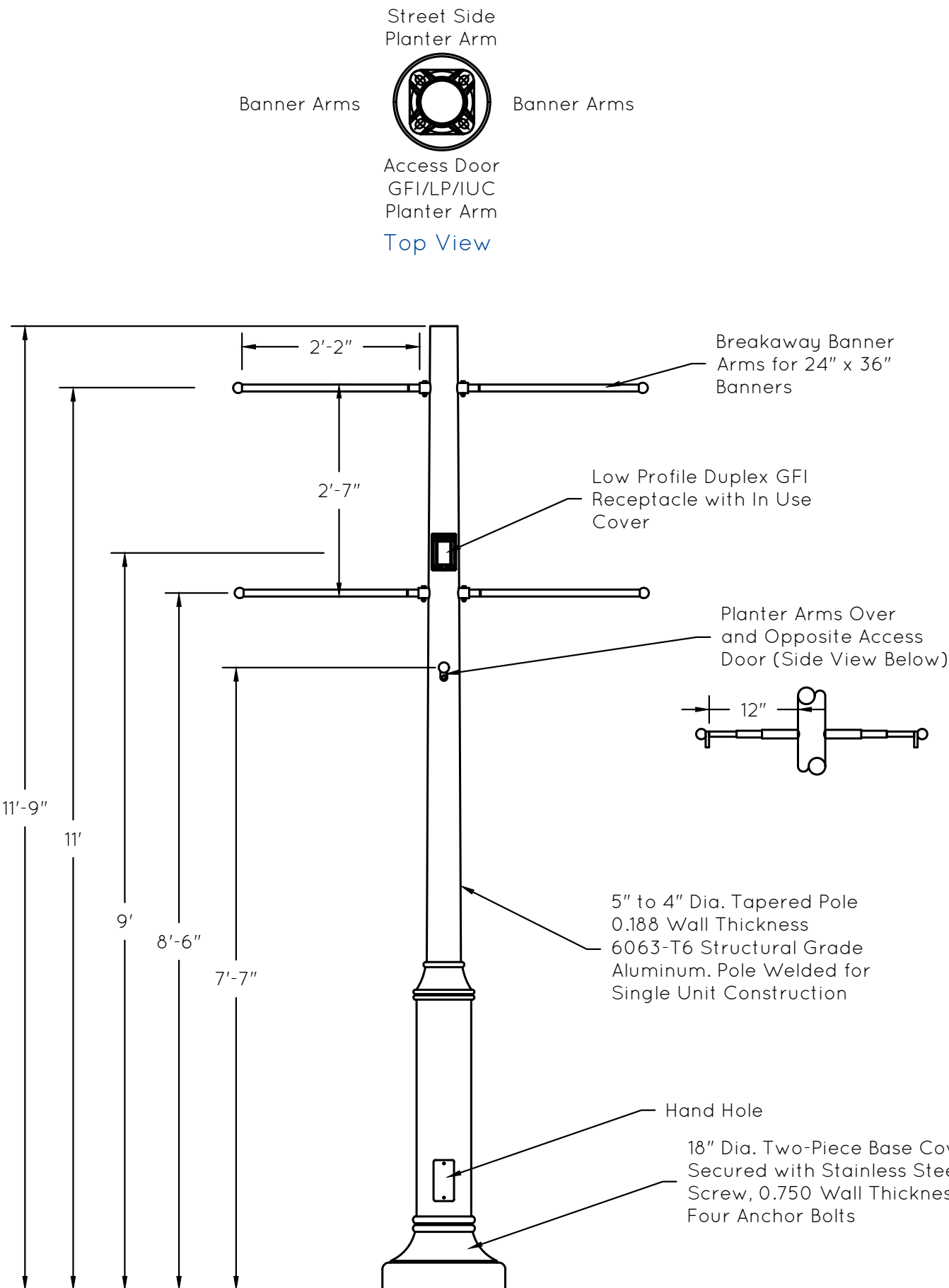


**POLE**  
Model: FR4  
Top Dia: 4"  
Taper: None  
Construction: Pultruded fiberglass reinforced isophthalic polyester resin utilizing longitudinal glass roving, continuous strand mat and off-axis fibers.  
Anchor Base: Custom Top Hat Plate-ASTM A36  
Tenon: 3" OD 3" Exposed 6061-T6 Alum  
Post Top Ring: Cast Alum  
Bolt Circle: 11 1/2"  
Hand Hole: 5"x6" in anchor base.  
Cover to match  
Paint: UV&Cleaning chemical resistant  
Color: CC-Fishers Green  
MAX Attachment Weight: 100 lbs  
MAX Attachment EPA: 15.2  
Pole Weight: 72 lbs approx

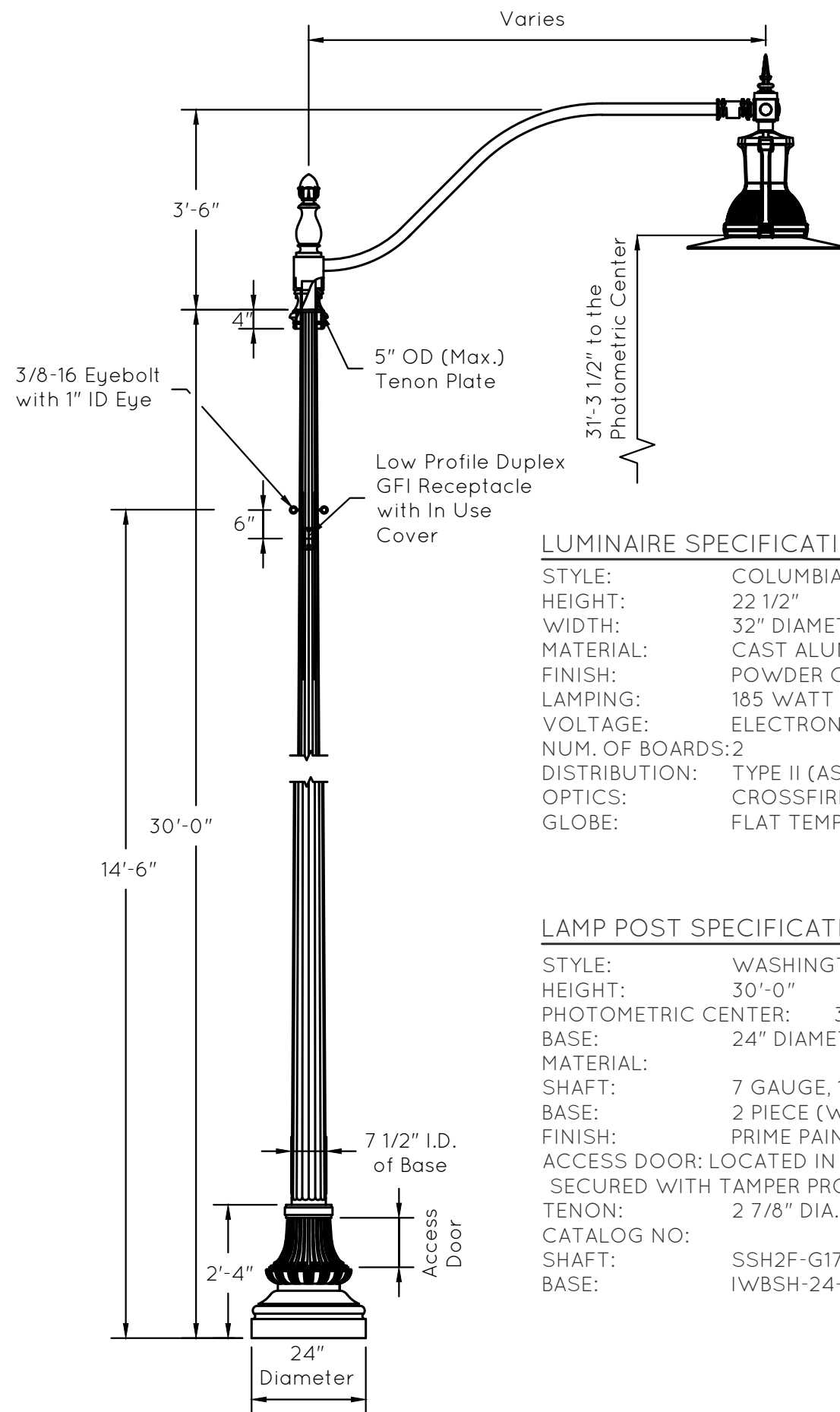
**BASE COVER**  
Model: D23S/2  
Style: 2-Piece Clamshell  
Material: Elastomeric Urethane  
Color: CC-Fishers Green  
Height: 48"  
Width: 16.38"  
Weight: 52 lbs approx

- Notes:
- 1) All poles to be Fishers Green RAL 6004
  - 2) Outlet wiring on lamp posts shall be such that the top outlet to be on only when lights are on. Bottom outlet shall remain on continuously

**LAMP POSTS**  
Not to Scale



**BASE COVER**  
Not to Scale



**LUMINAIRE SPECIFICATIONS**  
STYLE: COLUMBIA WITH EDGEWATER FINIAL  
HEIGHT: 22 1/2"  
WIDTH: 32" DIAMETER  
MATERIAL: CAST ALUMINUM ALLOY ANSI 356, PER A.S.T.M. B26-95  
FINISH: POWDER COAT - CUSTOM BLUE GREEN RAL # 6004  
LAMPING: 185 WATT LED  
VOLTAGE: ELECTRONIC WIRED AT 120-277 VOLTS  
NUM. OF BOARDS: 2  
DISTRIBUTION: TYPE II (ASYMMETRIC DISTRIBUTION)  
OPTICS: CROSSFIRE REFRACTIVE  
GLOBE: FLAT TEMPERED GLASS

**LAMP POST SPECIFICATIONS**  
STYLE: WASHINGTON STEEL  
HEIGHT: 30'-0"  
PHOTOMETRIC CENTER: 31'-3 3/4"  
BASE: 24" DIAMETER WRAP BASE  
MATERIAL: 7 GAUGE, 12 FLAT FLUTE, STEEL MONOTUBE CONSTRUCTION  
SHAFT: 2 PIECE (WRAP AROUND) CAST IRON PER A.S.T.M. A48-83 CLASS 30  
BASE: PRIME PAINT THEN FINISH CUSTOM BLUE GREEN RAL # 6004  
ACCESS DOOR: LOCATED IN BASE, TO COINCIDE WITH HAND HOLE IN STEEL SHAFT, SECURED WITH TAMPER PROOF HEX SOCKET SECURITY MACHINE SCREWS  
TENON: 2 7/8" DIA. X 6" HIGH (TO ACCEPT CROSS ARM)  
CATALOG NO: SSH2F-G17-07.60-30.00-TN2.88/6.00-GFWN-(2)EB-CB  
SHAFT: 1WB5H-24-CB  
BASE:

- Note:
- 1) Outlet wiring on lamp posts shall be such that the top outlet to be on only when lights are on while the bottom outlet shall remain on continuously.

**LAMP POSTS AND LUMINAIRES ADJACENT TO ROUNDABOUTS**  
Not to Scale

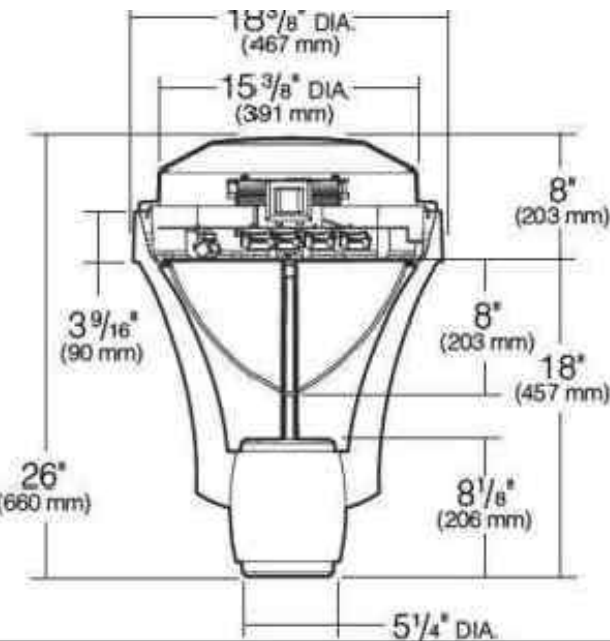
**POLE**  
MODEL: RF4  
TOP: DIA: 4"  
TAPER: NONE  
CONSTRUCTION: Pultruded fiberglass reinforced isophthalic polyester resin utilizing longitudinal glass roving, continuous strand mat and off-axis fibers.  
ANCHOR BASE: Custom Top Hat Plate-ASTM A36  
TENON: 3" OD 3" Exposed 6061-T6 Alum  
POST TOP RING: Cast Alum  
BOLT CIRCLE: 11 1/2"  
HAND HOLE: 5"x6" in Anchor Base; Cover to Match  
PAINT: UV & Cleaning chemical resistant  
COLOR: CC-Fishers Green  
MAX ATTACHMENT WEIGHT: 100 LBS  
MAX ATTACHMENT EPA: 15.2  
POLE WEIGHT: 72 LBS approx

**BASE COVER**  
MODEL: D23S/2  
STYLE: 2-Piece Clamshell  
MATERIAL: Elastomeric Urethane  
COLOR: CC-Fishers Green  
HEIGHT: 48"  
WIDTH: 16.38"  
WEIGHT: 52 LBS approx

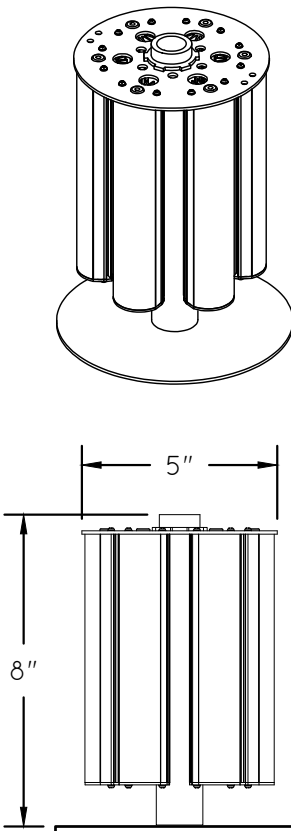
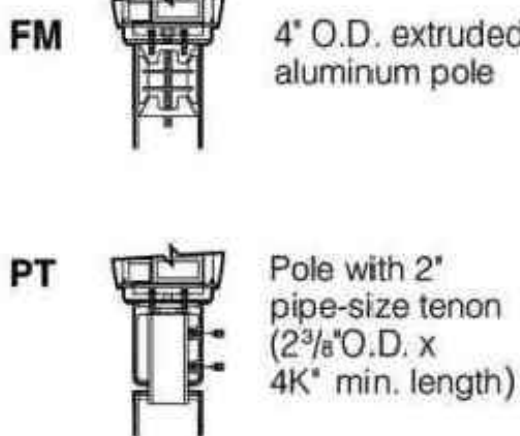
**SPECIFICATIONS**



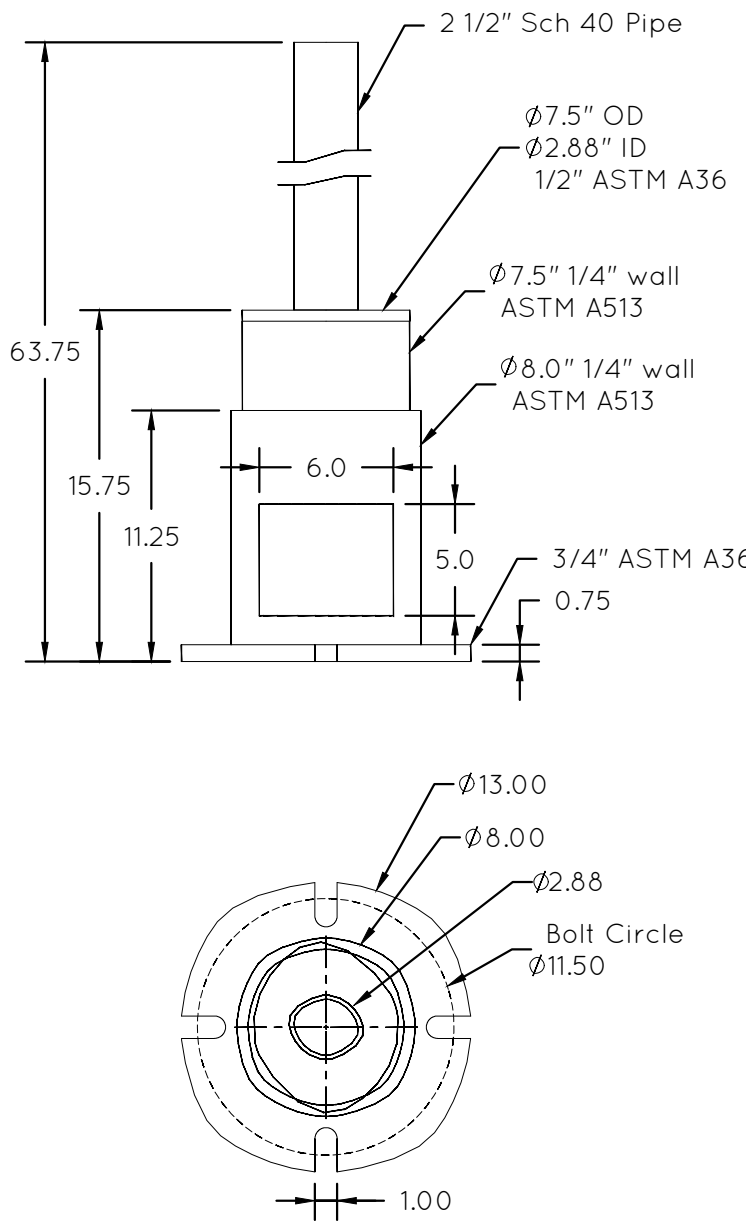
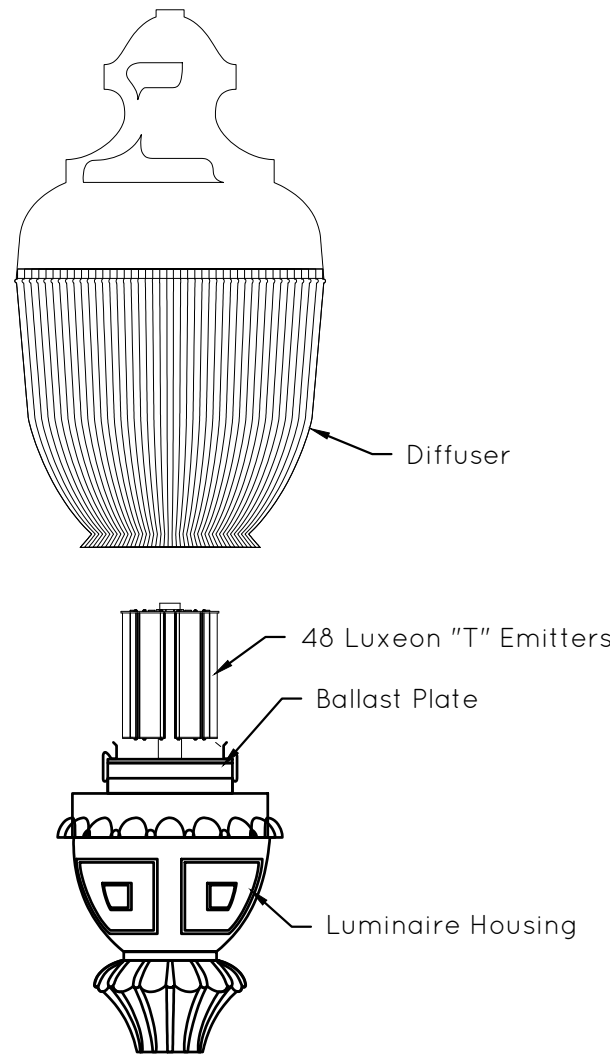
Approx. Weight = 45 lbs EPA 2.5 for 15A  
See Configuration for Additional EPAs.



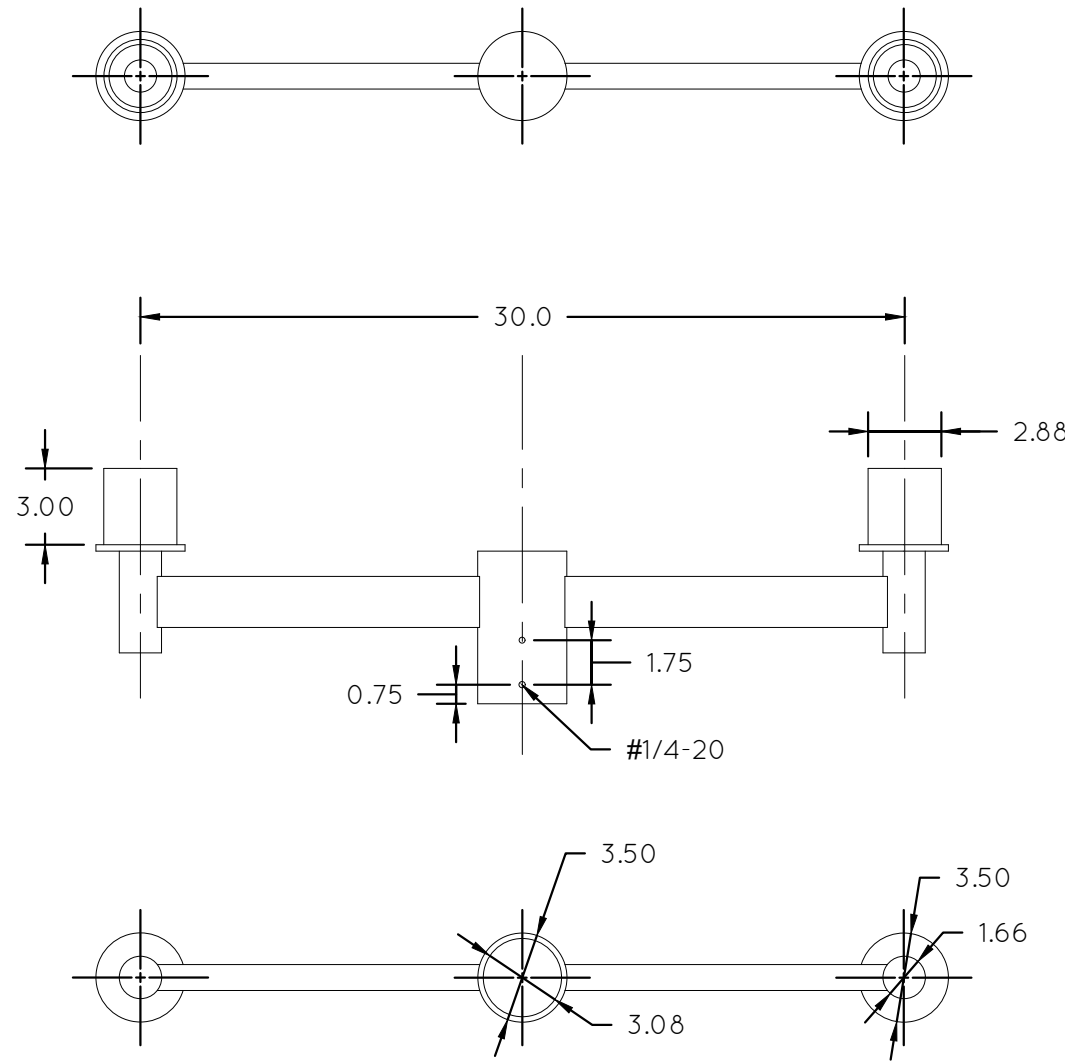
**KIM LIGHTING-SOLITAIRE**  
Not to Scale



**LED FIXTURES**  
Not to Scale

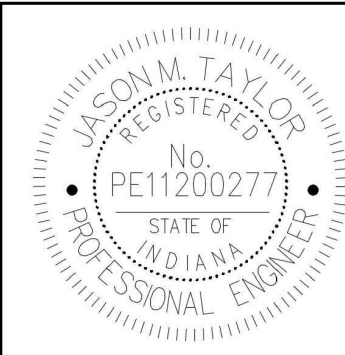


**CUSTOM HAT BASE ASSEMBLY**  
Not to Scale



**CROSS ARM**  
Not to Scale

1/18/2022



CITY OF FISHERS STANDARD CONSTRUCTION DETAILS		SHEET
LAMP POST & LED FIXTURE DETAILS		29 of 29