

CITY OF WEST LAFAYETTE, INDIANA

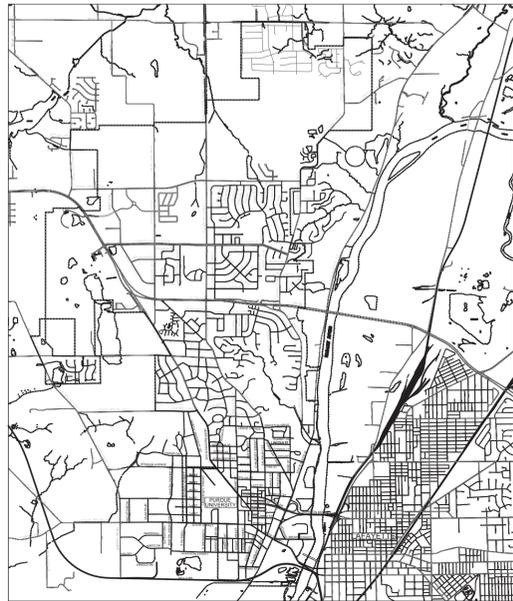
TYPICAL CONSTRUCTION GUIDELINES AND DETAILS

EFFECTIVE FOR ALL PUBLIC WORK ON OR AFTER JULY 1, 2013

City Officials
 John R. Dennis Mayor
 Judith C. Rhodes City Clerk-Treasurer
 Eric H. Burns City Attorney
 David M. Buck, P.E. Public Works Director

Board Of Public Works And Safety
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City Council
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 Vicki Burch District 4
 Gerry Keen District 5
 Gerald Thomas At-Large
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CITY OF WEST LAFAYETTE
 City Hall, 609 West Navajo
 West Lafayette, IN 47906

RECOMMENDED FOR APPROVAL: *Debra B. Baker* 07/01/13
 CITY ENGINEER DATE

Date: JULY 1, 2013 Sheet 1 of 18

Haley Moley (800) 382-5544
 City Engineer (765) 775-5100
 Public Works Department (765) 775-5145
 Development Department (765) 775-5160
 Fire Department (765) 775-5175
 Police Department (765) 775-5200

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General Notes:

- Contractor shall verify the exact location of all underground utilities at least 24 hours prior to any construction or excavation. During construction, all utilities shall be adequately supported to minimize damage.
- All permits and easements will be obtained by the owner with any required insurance or bonds to be provided by the contractor prior to the start of work on the project.
- All vertical control shall be on an American Vertical Datum (NAVD 1988). Horizontal control shall be on real state plane coordinates (NAD83).
- When temporary equipment is specified, "or approved equal" or "or approved equivalent" shall be substituted for the specified item in the City Engineer's office.
- All areas disturbed by the construction process shall be fertilized and seeded. Adequate mulching shall be placed after seeding and fertilizing. It shall be the contractor's responsibility to see that adequate grass is established. Seeding will be required as shown on the plans.
- Trenches under paved areas (excluding sidewalks) shall be backfilled with granular material per INDOT Standard Specifications, unless noted. All trench walls shall be supported to prevent settlement. Trenches shall be backfilled with granular material to the bottom of the trench. Flowable mortar per INDOT Standard Specifications, latest edition, may be used in lieu of granular material with prior approval of the City Engineer's office.
- Installation of all manholes, the installation of all underground utilities, including service laterals, to be placed under the pavement shall be established prior to the construction of the pavement.
- Contractor shall contact the City if any damage to city utilities (Storm Drainage to City's sewers by INDOT Standard Specifications, latest edition) will be caused by the contractor unless otherwise directed by the City. Other damaged utilities shall be repaired in accordance with the affected utility's repair policy.
- 1"4" vertical separation and 10"0" horizontal separation is to be maintained between stormwater, sanitary and sewers (storm and sanitary).
- The contractor is responsible for maintaining a safe work area and for the safety of all workers and the public. The contractor will provide all traffic control required on public right-of-way during the project.
- The contractor will notify the appropriate governmental agencies of any work that may affect the utility of any agency.
- The contractor will provide safe access to the construction site for all inspectors and will provide material samples for testing.
- Information required for preparing "As-Built" drawings must be recorded prior to the beginning of any underground utility.
- Top of manhole frames to be set at proposed grade or sidewalk grade when located in front yard area of lot or right-of-way.
- All signs, markings and other traffic control devices shall comply with INDOT standards and the Indiana MUTCD.
- For utility placement for other than single family residences, contact City Engineer's office for requirements.
- Sidewalk width shall be 5' minimum for new construction, and match existing width for road reconstruction. For reconstruction of long distances of sidewalk, a 5' minimum width is required unless prohibited by right-of-way constraints.
- Sidewalk placement shall be referenced from the right-of-way.
- Requests for any alteration or deviation from the guidelines outlined in this manual shall be submitted to the City of West Lafayette, Indiana, in writing to the City Engineer. The City Engineer will review the request and either approve or disapprove.

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Concrete Construction Notes:

- Installation of all or portions for the installation of all underground utilities, including service laterals, to be placed under pavement shall be established prior to the construction of the pavement.
- All pavement, curbs, sidewalks, ramps, etc. shall be constructed in accordance with the specifications and in close conformance with the lines, grades, thicknesses and typical cross sections shown on the plans, materials and workmanship shall be in accordance with designated sections of the INDOT Standard Specifications, latest edition.
- Subbase and subgrade fill material shall be compacted to a minimum 95% of the maximum dry density in accordance with ASTM D698.
- Whenever rigid pavement is to be used the contractor shall submit a detailed paving plan to the City Engineer. The paving plan shall show the location and type of joints to be used in the construction. The location of any joint shall be in accordance with the City standards and guidelines.
- Whenever subgrade stabilization is to be used the contractor shall submit a written plan detailing the application method. The plan must comply with the State of Indiana environmental regulations and standards and be approved by the City Engineer.
- Reinforced concrete may be used as #33 aggregate base on a curb or base curb upon prior written approval of the City.
- Whenever proprietary equipment is specified, "or approved equal" is implied. All proposed substitutions shall be submitted to the City Engineer prior to use.

Quality Control Requirements:

- All testing shall be in accordance with the latest INDOT standard specifications where practicable, all tests shall be witnessed by the City. Contractor shall maintain testing records with the City Engineer's office. All test results shall be submitted to the City Engineer's office within 48 hours of the completion of each test and prior to placing any material on the subgrade/subgrade. The frequency of testing where shown is a minimum. Additional testing may be required at the discretion of the City Engineer.
- The developer/contractor shall retain an independent testing firm (unless otherwise noted) to perform the following testing:
 - Subgrade:
 - Compaction (90 sections) - 1 test per 100 sq ft of single lane with 2' depth.
 - Subgrade strength - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt concrete:
 - Asphalt content - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt strength - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt density - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt moisture - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt temperature - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt voids - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt stability - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt segregation - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt bleed-through - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface texture - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface friction - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface roughness - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface porosity - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface permeability - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface reflectance - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface color - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface texture - 1 test per 1000 sq ft of single lane with 1' depth.
 - Asphalt surface friction - 1 test per 1000 sq ft of single lane with 1' depth.
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Concrete Joint Layout:

All joints shall intersect curb radii at 90° angle.

Joint Details:

Note: Joint sealing compound to be applied in gaps (NOT Mortar, Inc.) not applied. Single component, polyurethane joint sealing compound (ASTM D3485, or approved equal).

Traffic Control And Sign Notes:

- The contractor/engineer shall provide and install all street name and road sign per current INDOT standards and specifications and details. All traffic control devices shall comply with the current Indiana MUTCD. Final sign locations shall be checked and approved by the City prior to installation.
- Materials shall be free of burrs, pits and blemishes and shall present a smooth, clean surface.
- Sign blanks shall meet INDOT specifications unless otherwise specified.
- All street name signs shall have green background with white letters/numbers on reflective aluminum blanks.
- Street name text shall be highway series c or e, engineer grade 5" blanks with 6" letters/numbers.
- Sign blanks (6" x 12") shall be 30% recycled high intensity.
- Sign blanks to be per INDOT specifications. Blanks are to be blank spot.
- Speed limit signs shall be 24" x 30" high intensity or engineer grade.
- Sign post shall be set into the ground. All excavation shall be done to place signs.
- Speed name signs to be located at all streets.

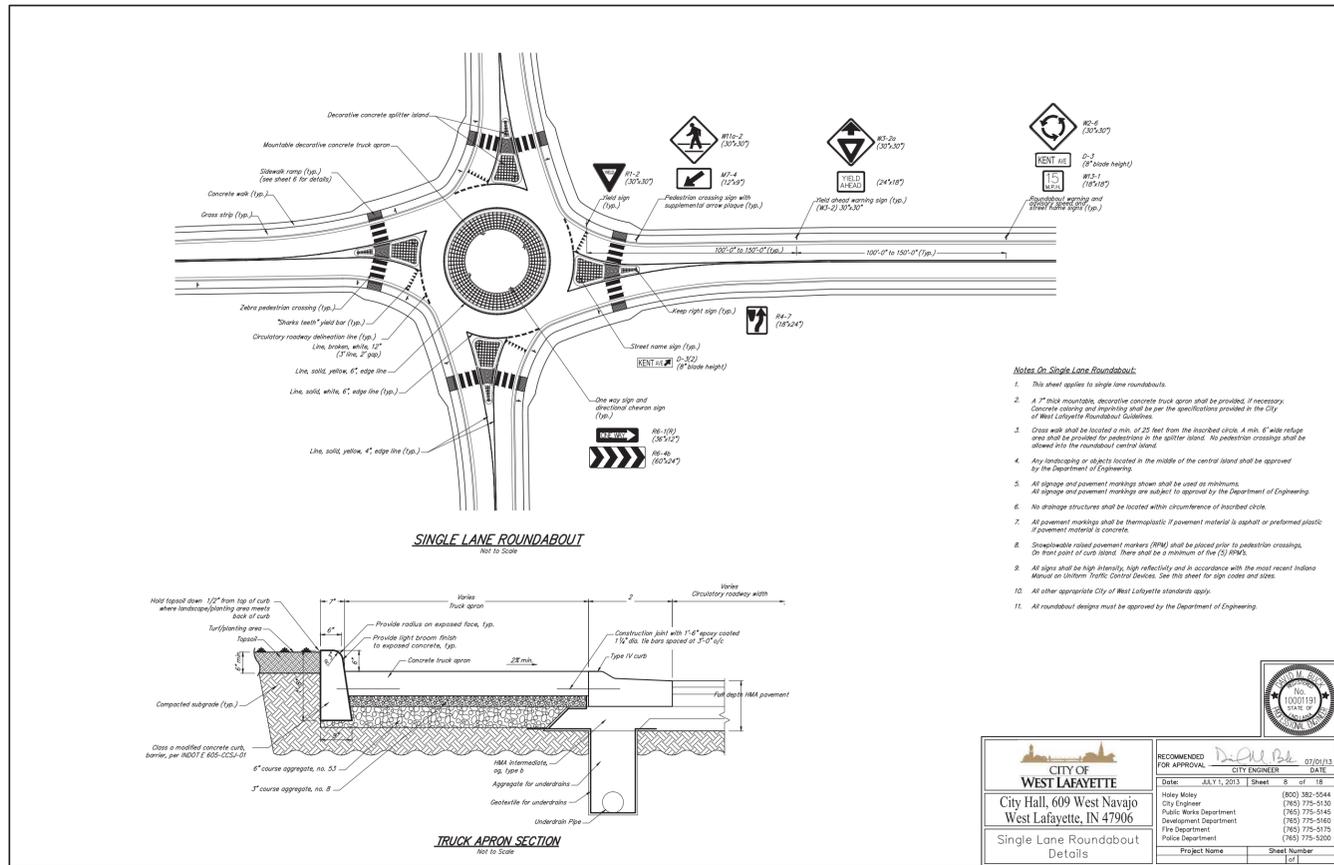
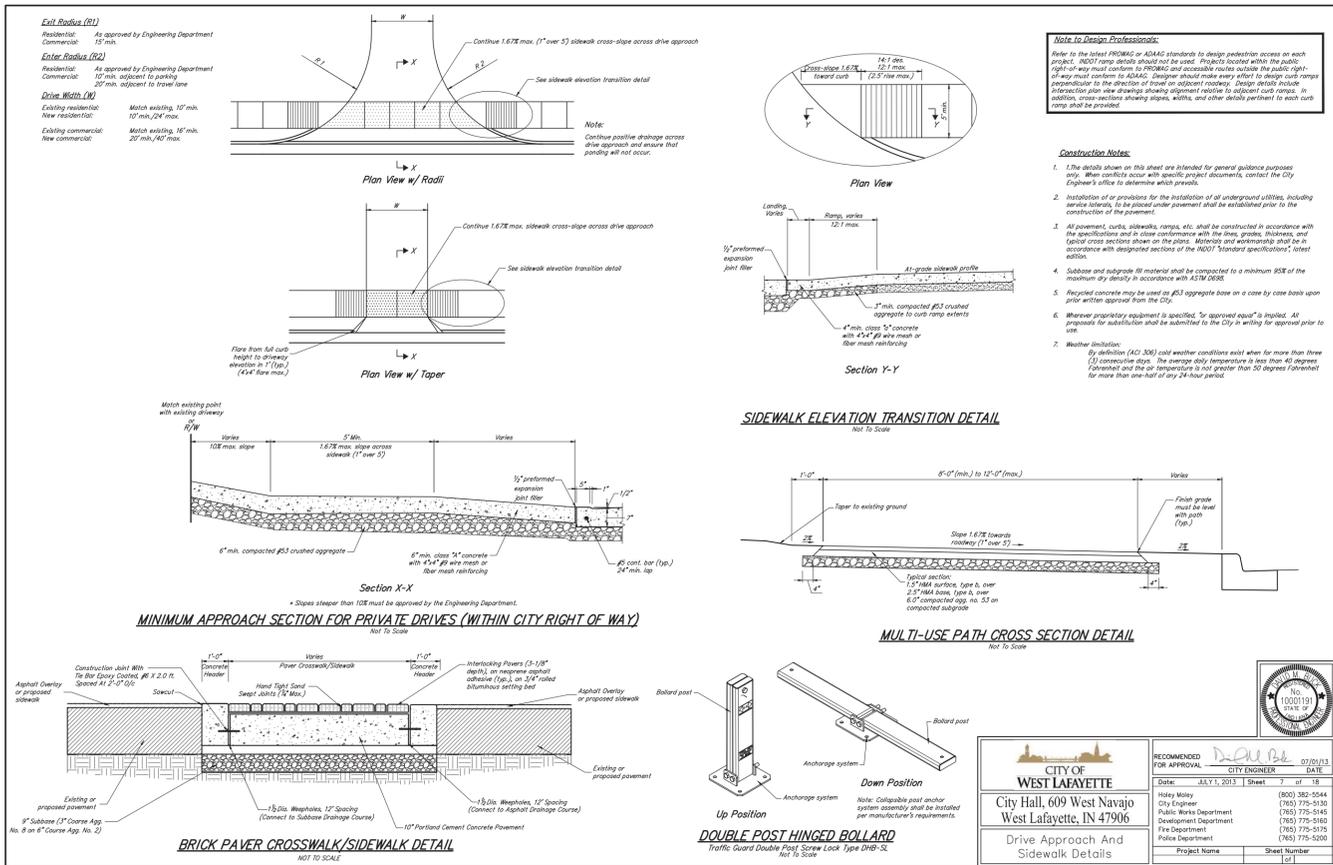
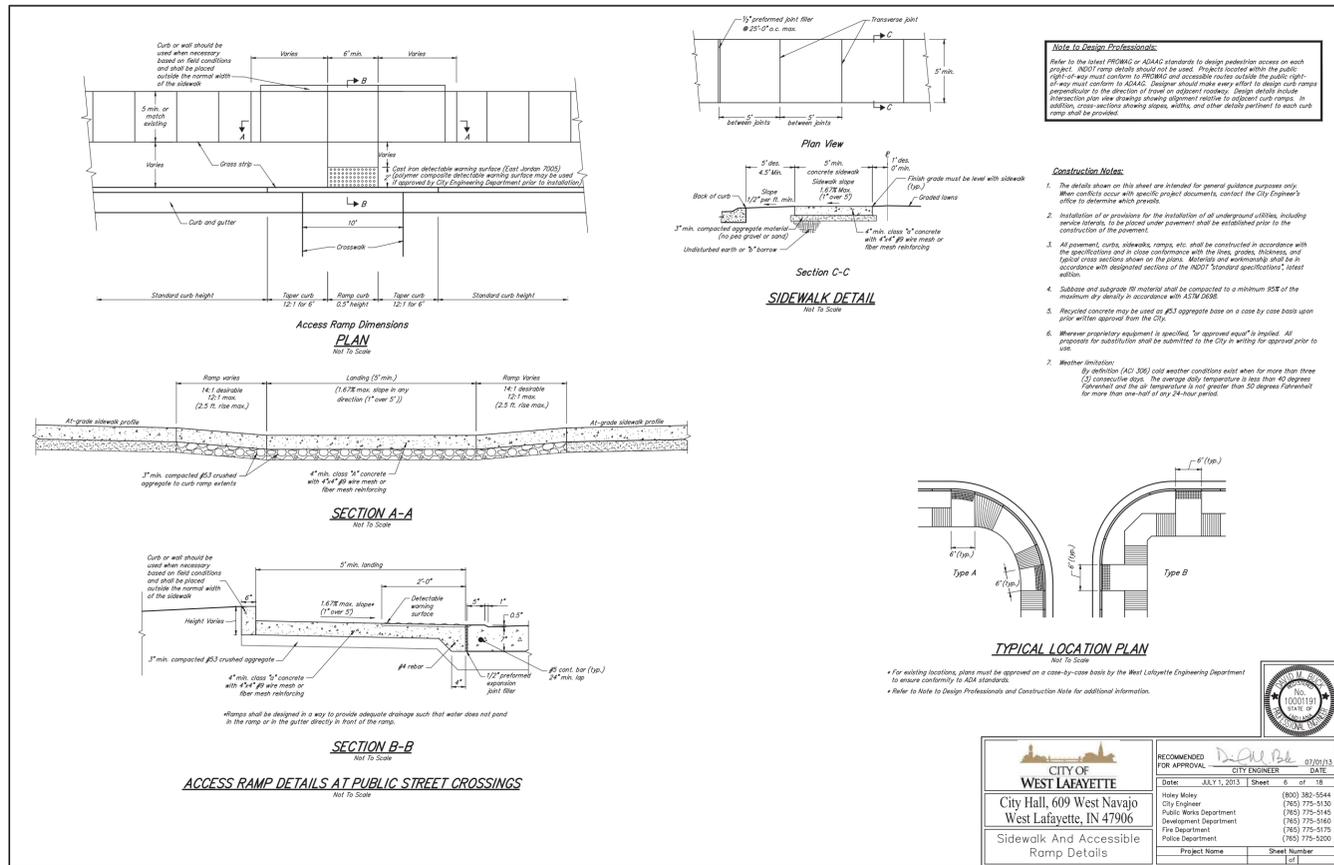
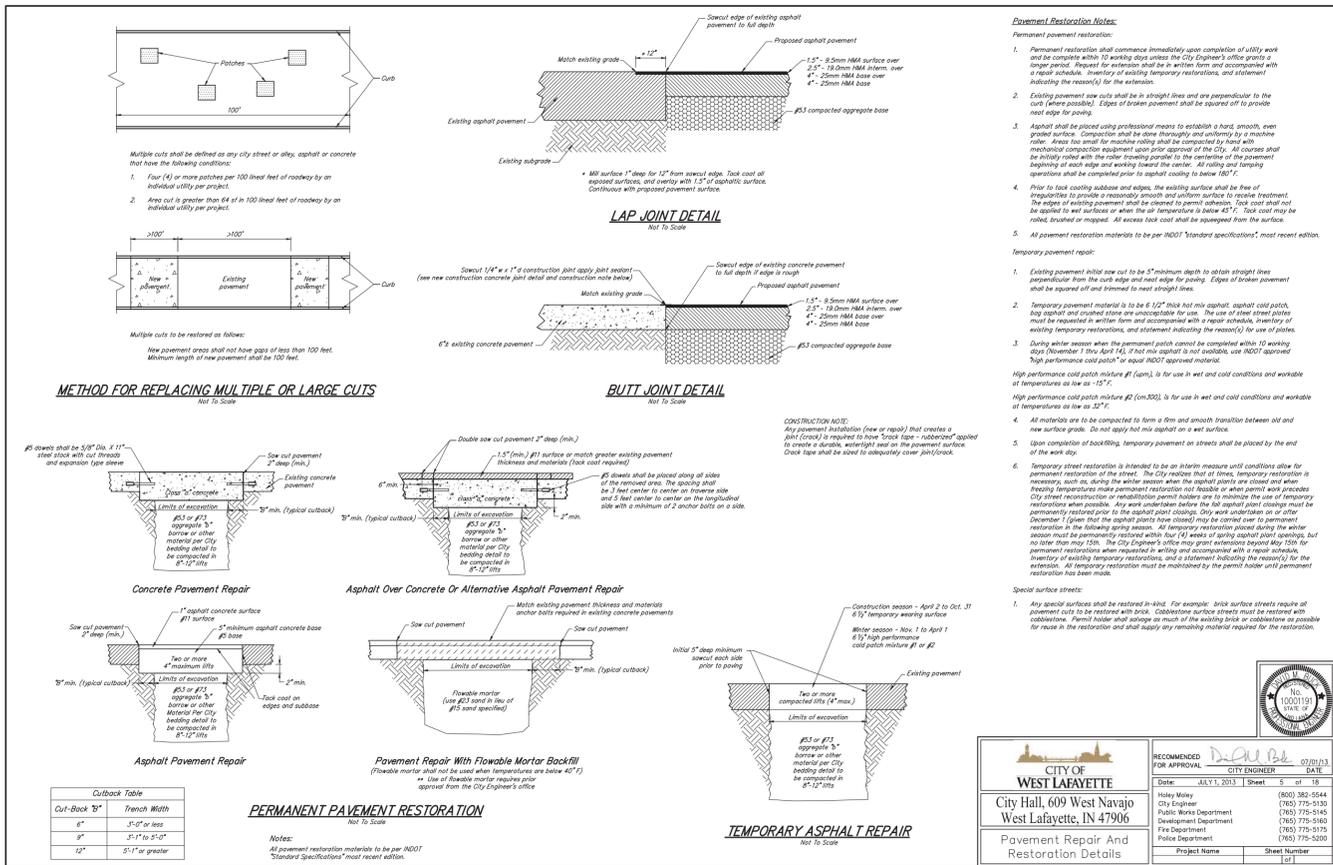
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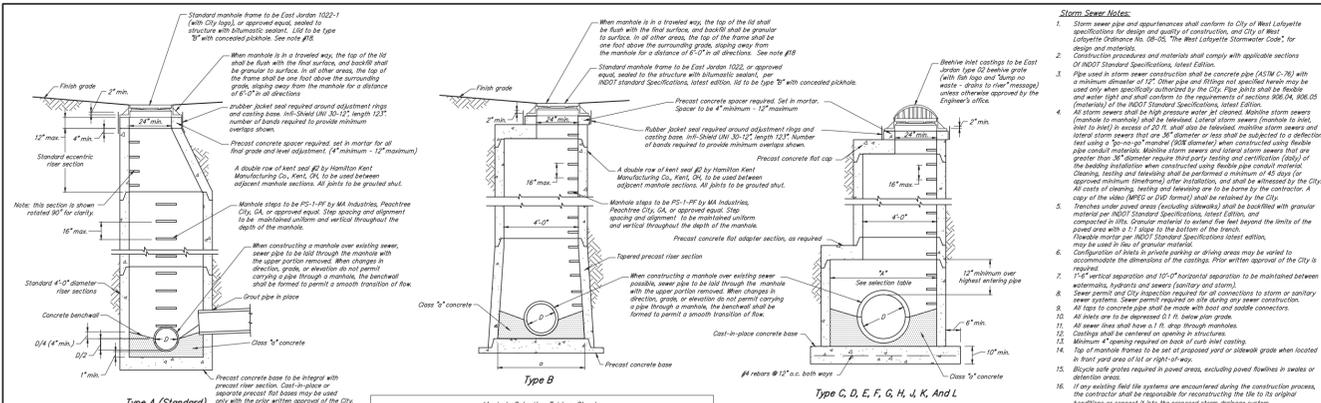
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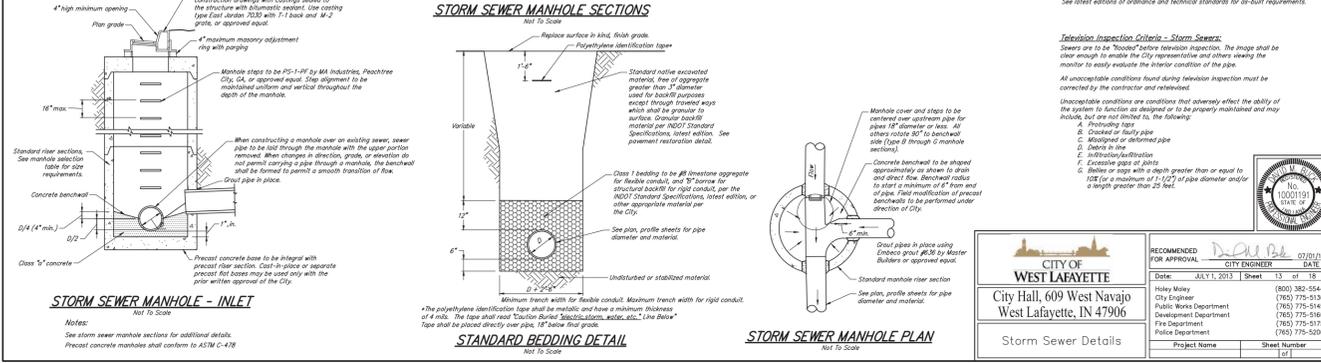


Manhole Selection Table - Circular

Type	Pipe Diameter (in)	Riser Diameter (in)	Maximum pipe size (in)	Maximum pipe size (ft)
A	18"	24"	24"	24"
B	24"	30"	30"	30"
C	30"	36"	36"	36"
D	36"	42"	42"	42"
E	42"	48"	48"	48"
F	48"	54"	54"	54"
G	54"	60"	60"	60"
H	60"	66"	66"	66"

Manhole Selection Table Rectangular

Type	Pipe Diameter (in)	Manhole Width (in)	Manhole Depth (in)
A	18"	24"	48"
B	24"	30"	60"
C	30"	36"	72"
D	36"	42"	84"
E	42"	48"	96"
F	48"	54"	108"
G	54"	60"	120"



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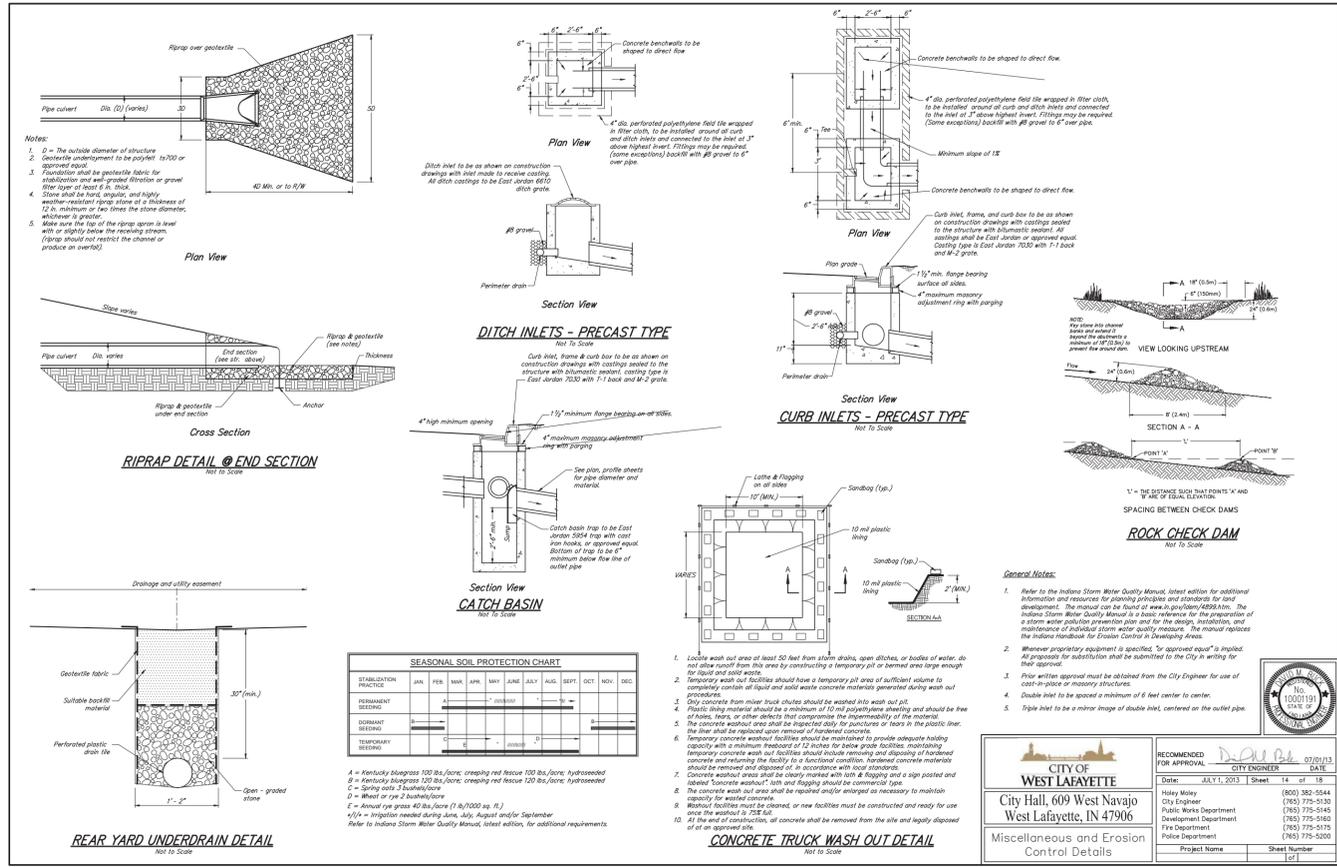
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Storm Sewer Details

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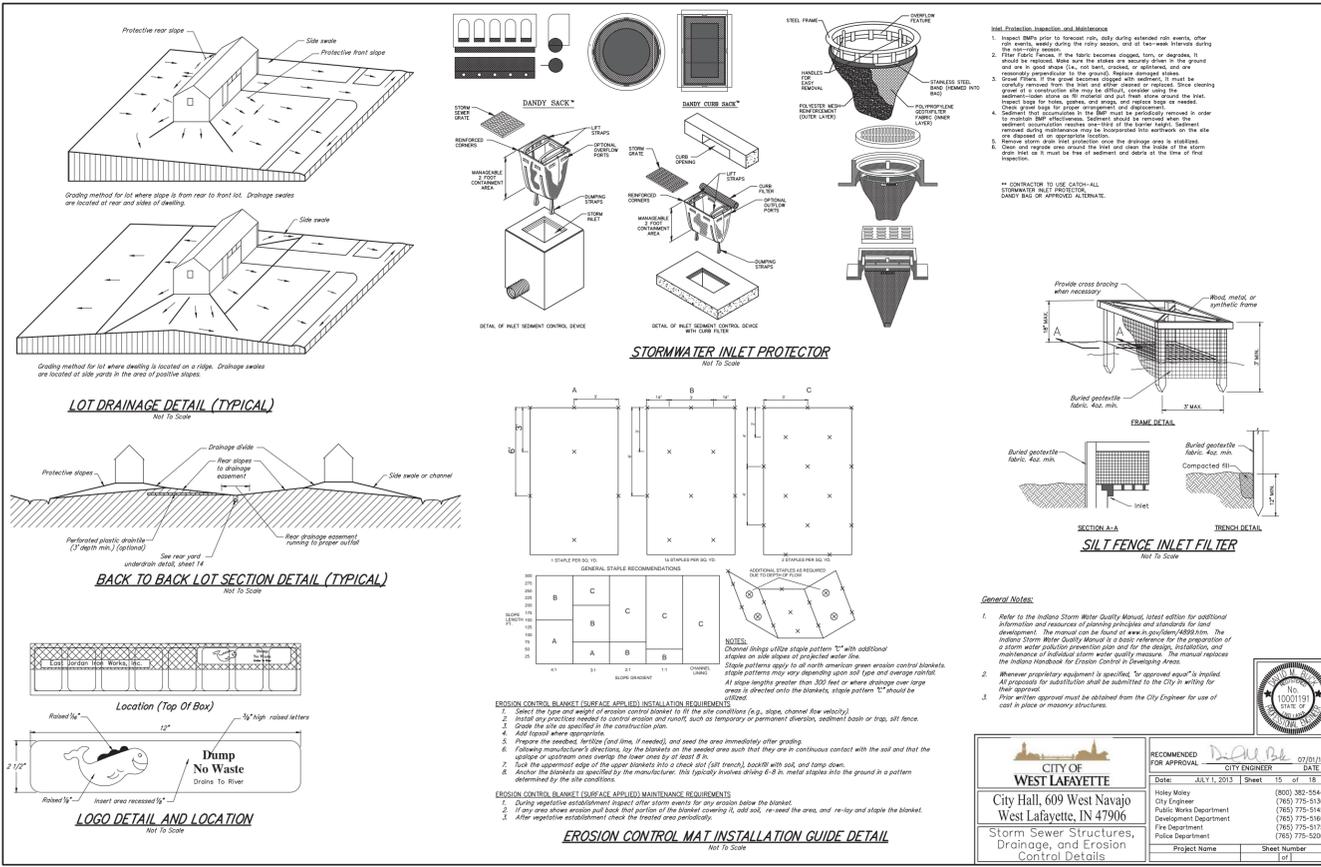
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Storm Sewer Details

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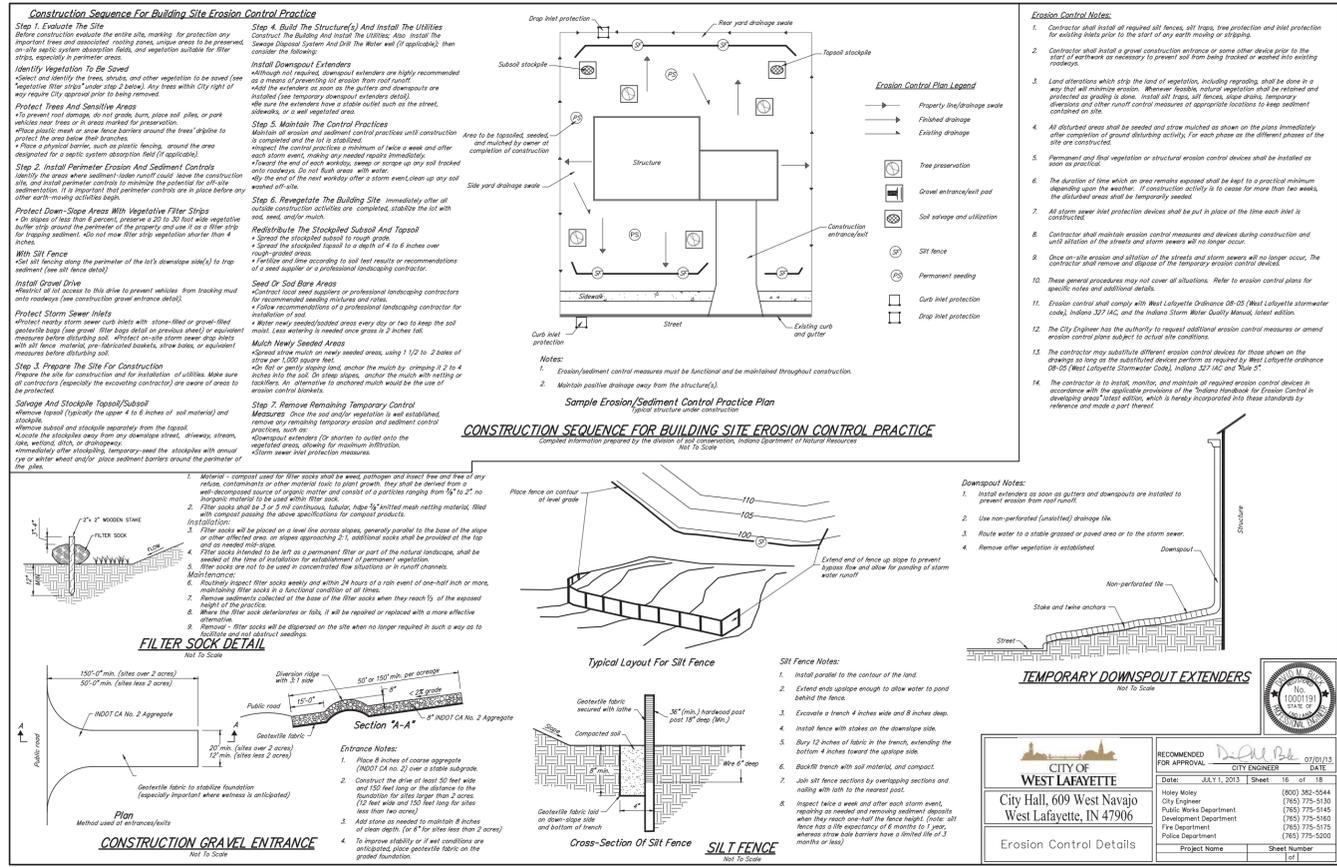
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Storm Sewer Structures, Drainage, and Erosion Control Details

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Erosion Control Details

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